

AVX **Board to Board** Connector Solutions



Version 18.4

AVX[®]
A KYOCERA GROUP COMPANY

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2 PIECE

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Horizontal Plug: BTB 10-9159



The 9159 series of Board-to-Board interconnect system allows two PCB's to be mated end-to-end creating strips of LED lighting. Designed specifically for the unique Solid State Lighting (SSL) market requiring coplanar (horizontal-to-horizontal) PCB mating with a 5 Amp current rating in the smallest package available. These single sided SMT connectors are perfect for both FR4 and metal boards where you need to butt the boards up together to minimize separation. Availability of both white and black insulation colors make them perfect for lighting as well as industrial applications. With sizes from 2p-6p, these high reliability connectors boast gold plated beryllium copper receptacle contacts for harsh environments.

APPLICATIONS

- Coplanar PCB mating in SSL products
- LED linear lighting strips
- Application Notes: refer to 201-01-123

FEATURES AND BENEFITS

- Single sided SMT: supports FR4 and metal PCB's
- 5 Amp current rating: exceeds general market needs
- 5.5mm mated width: minimizes PCB space to decrease LED pitch
- Gold plated BeCu spring contacts: reliability for harsh environments
- Optional retaining clip: provides positive connector mating during vibration
- Available in white: supports SSL market preferences

ELECTRICAL

- Current Rating: 5 Amps / Contact
- Voltage Rating: 125 VAC

ENVIRONMENTAL

- Operating Temperature: -40°C to +125°C

MECHANICAL

- Insulator Material: Nylon: VL94VO
- Contact Material: BeCu / Phos Bronze
- Plating: Gold / Tin over Nickel
- Durability: 10 Cycles

HOW TO ORDER

10 **9159**
Plug Series

00X

Number of Ways		
Code	No of Ways	Details
002	2	Page 3
003	3	Page 4
004	4	Page 5
005	5	Page 6
006	6	Page 7

Optional Retaining Clip
Page 8

1 **2 Part
PCB Strip
Connector**

01
Connector
Pitch
01 = 3mm

Color/Approva		
Code	Color	Approval
9	White	UL Approved

Plating Option		
Code	Contact	Bracket
16	Gold in Contact Area Tin on Solder Tail	Tin all over



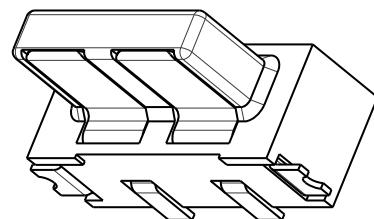
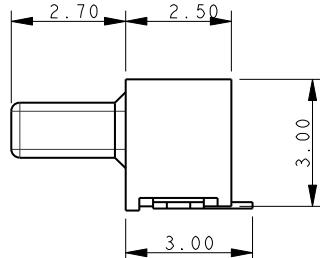
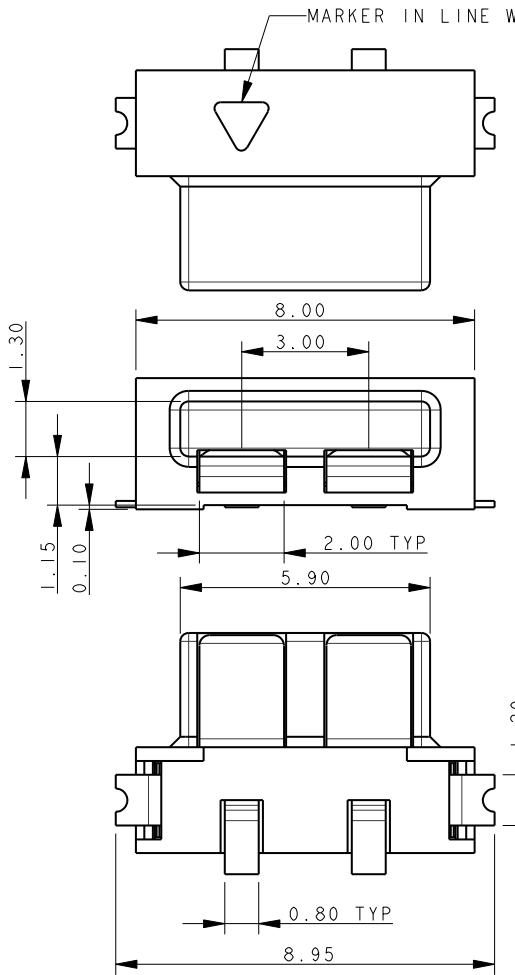
Certification: UL File #E90723

Horizontal Plug: BTB

10-9159

AVX INTERCONNECT
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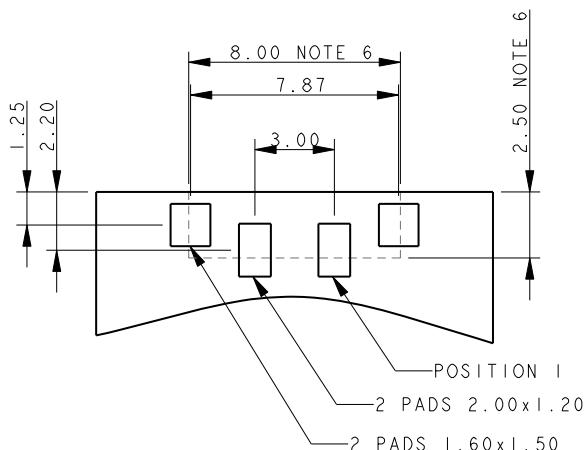
PLUG 2 WAY 2 PART PCB STRIP CONNECTOR



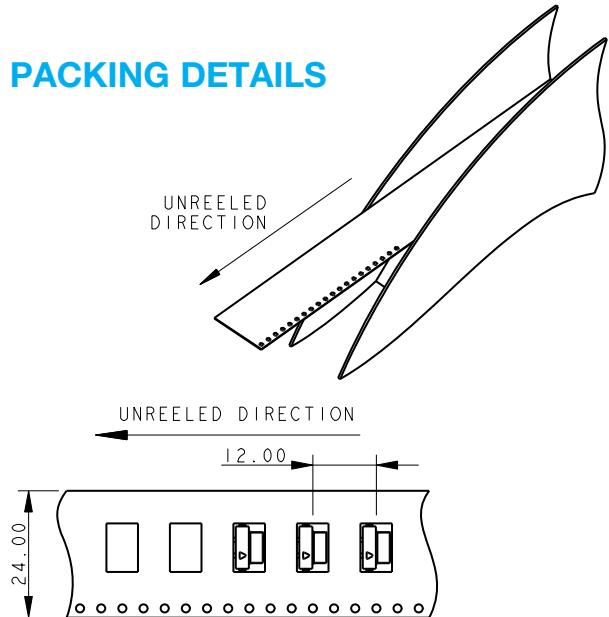
NOTES:

1. FOR MORE INFORMATION REFER TO PRODUCT SPEC 201-01-119.
2. DIMENSIONS ARE REFERENCE DIMENSIONS UNLESS TOLERANCES.
3. INSULATOR MATERIAL: NYLON 46.
4. CONTACT MATERIAL: COPPER ALLOY, SELECTIVE GOLD OVER NICKEL TIN PLATED ON TAILS.
5. BRACKETS: COPPER ALLOY, TIN PLATED.
6. OUTLINE OF CONNECTOR.
7. PACKING TAPE AND REEL, QUANTITY 1400 PER REEL.
8. OPTIONAL RETAINING CLIP, SEE PAGE 8.

2 WAY PCB BOARD LAYOUT



PACKING DETAILS



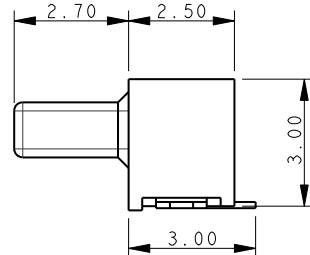
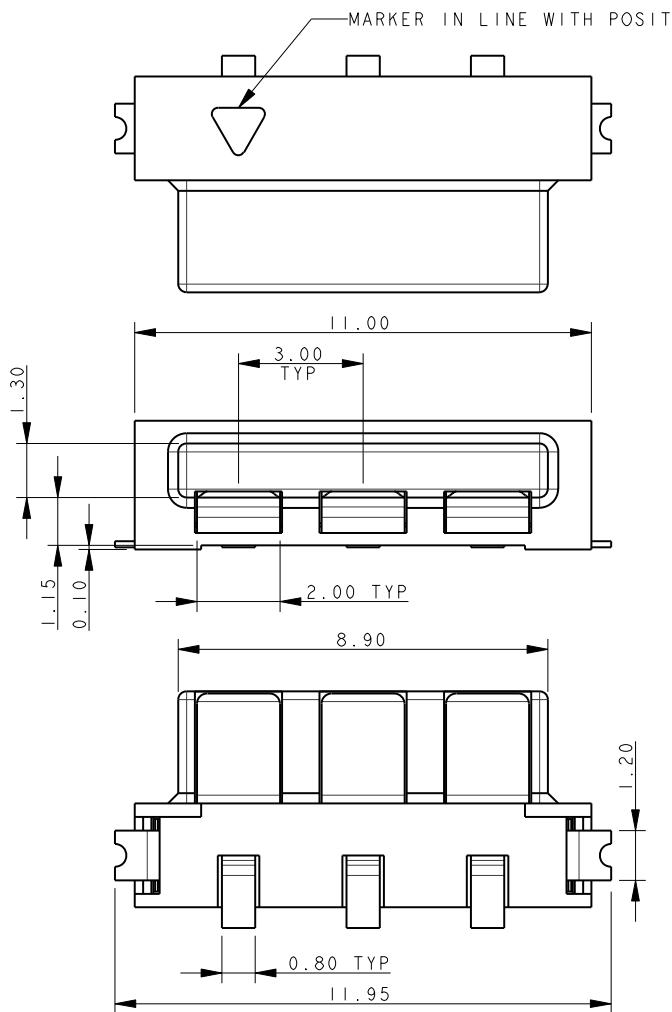
AVX

Horizontal Plug: BTB

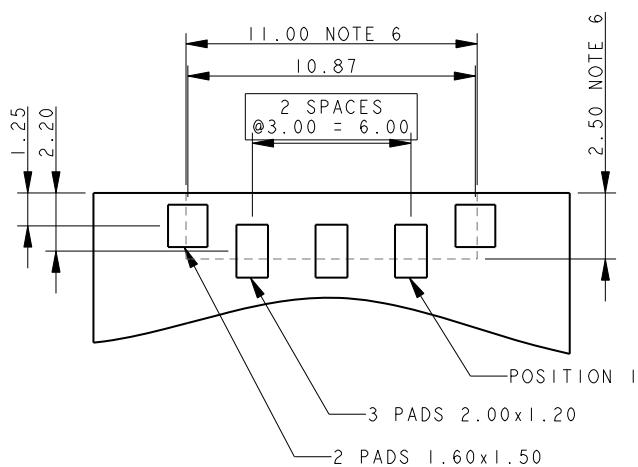
10-9159

AVX INTERCONNECT
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PLUG 3 WAY 2 PART PCB STRIP CONNECTOR



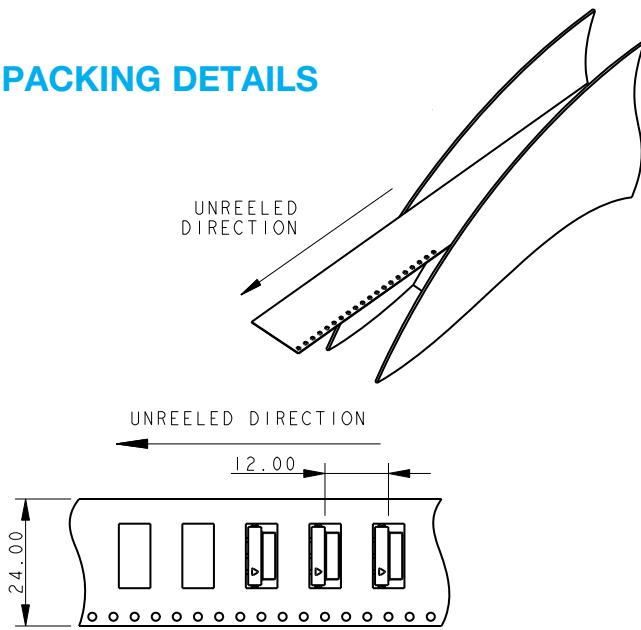
3 WAY PCB BOARD LAYOUT



NOTES:

1. FOR MORE INFORMATION REFER TO PRODUCT SPEC 201-01-119.
2. DIMENSIONS ARE REFERENCE DIMENSIONS UNLESS TOLERANCES.
3. INSULATOR MATERIAL: NYLON 46.
4. CONTACT MATERIAL: COPPER ALLOY, SELECTIVE GOLD OVER NICKEL TIN PLATED ON TAILS.
5. BRACKETS: COPPER ALLOY, TIN PLATED.
6. OUTLINE OF CONNECTOR.
7. PACKING TAPE AND REEL, QUANTITY 1400 PER REEL.
8. OPTIONAL RETAINING CLIP, SEE PAGE 8.

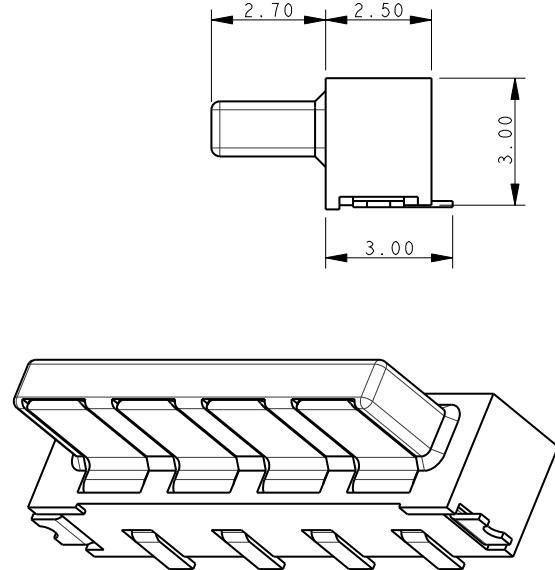
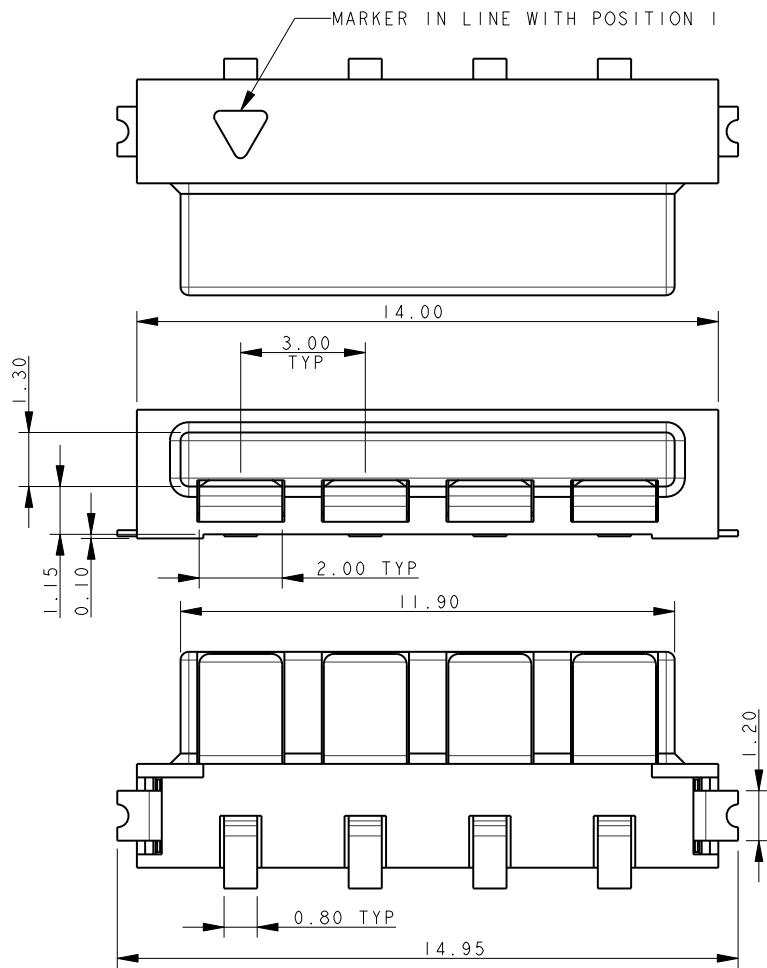
PACKING DETAILS



Horizontal Plug: BTB

10-9159

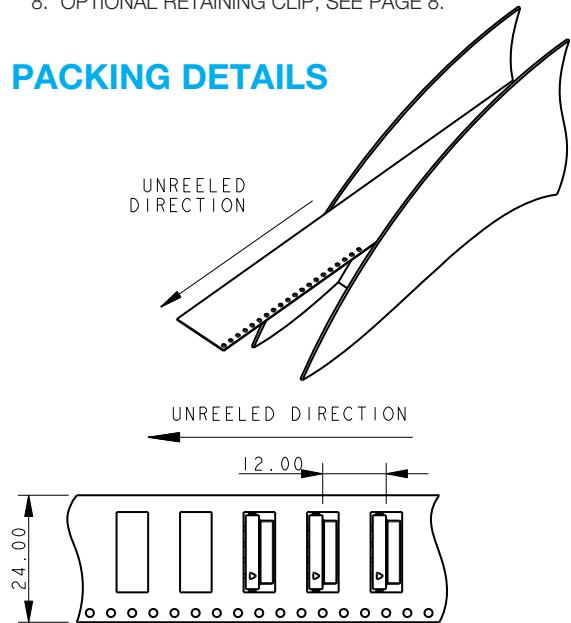
PLUG 4 WAY 2 PART PCB STRIP CONNECTOR



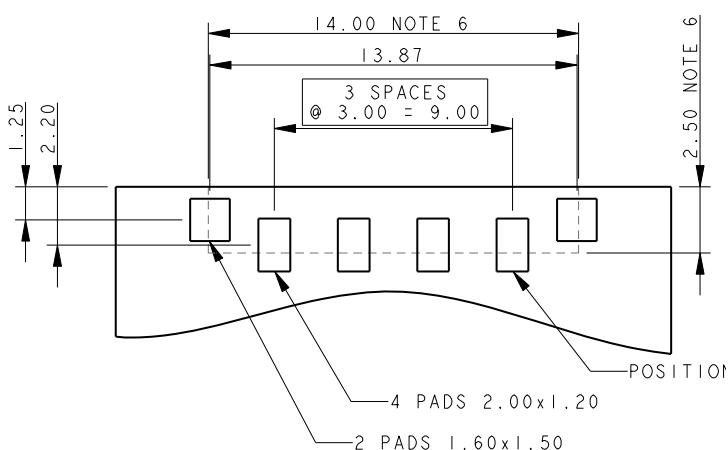
NOTES:

1. FOR MORE INFORMATION REFER TO PRODUCT SPEC 201-01-119.
2. DIMENSIONS ARE REFERENCE DIMENSIONS UNLESS TOLERANCES.
3. INSULATOR MATERIAL: NYLON 46.
4. CONTACT MATERIAL: COPPER ALLOY, SELECTIVE GOLD OVER NICKEL TIN PLATED ON TAILS.
5. BRACKETS: COPPER ALLOY, TIN PLATED.
6. OUTLINE OF CONNECTOR.
7. PACKING TAPE AND REEL, QUANTITY 1400 PER REEL.
8. OPTIONAL RETAINING CLIP, SEE PAGE 8.

PACKING DETAILS



4 WAY PCB BOARD LAYOUT

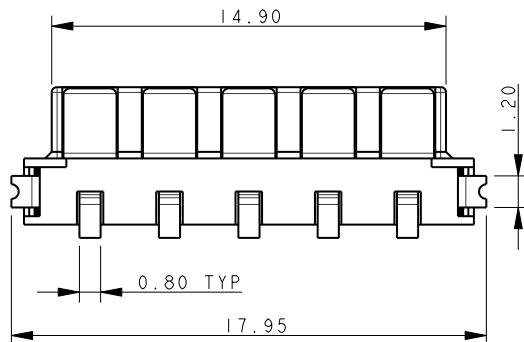
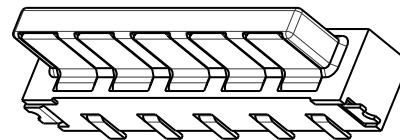
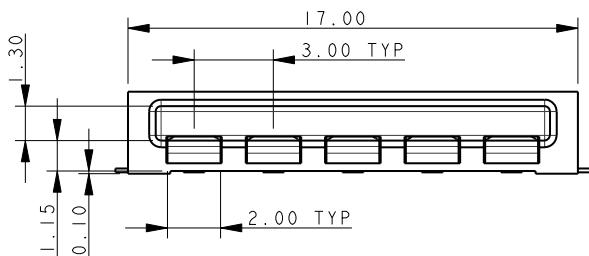
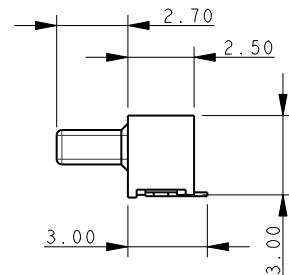
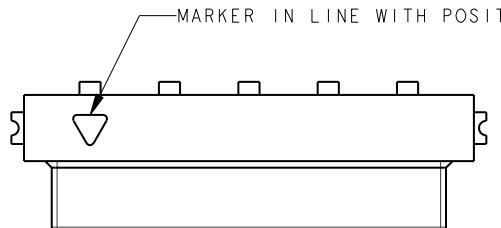


Horizontal Plug: BTB

10-9159

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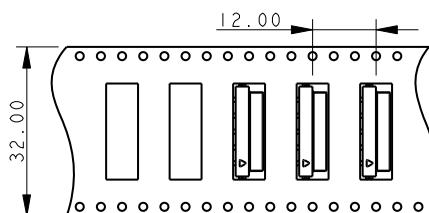
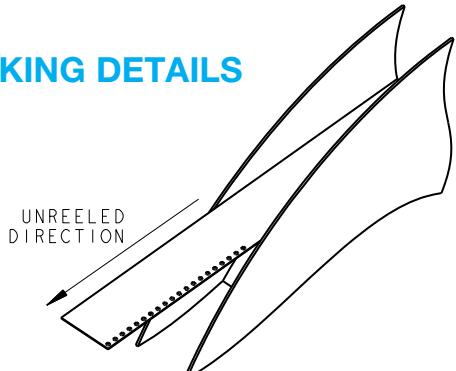
PLUG 5 WAY 2 PART PCB STRIP CONNECTOR



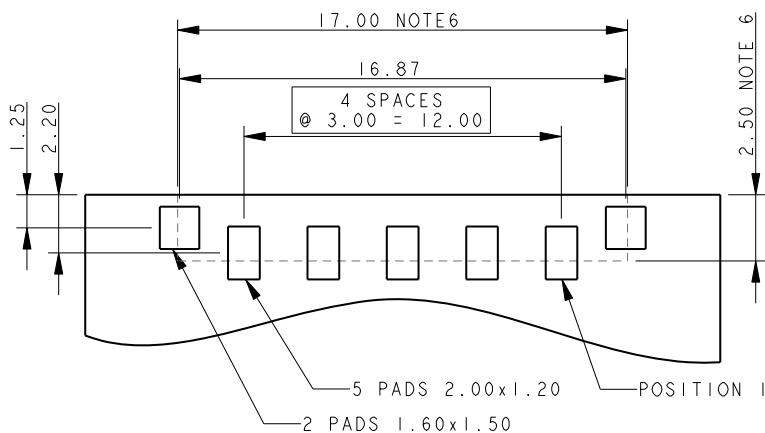
NOTES:

1. FOR MORE INFORMATION REFER TO PRODUCT SPEC 201-01-119.
2. DIMENSIONS ARE REFERENCE DIMENSIONS UNLESS TOLERANCES.
3. INSULATOR MATERIAL: NYLON 46.
4. CONTACT MATERIAL: COPPER ALLOY, SELECTIVE GOLD OVER NICKEL TIN PLATED ON TAILS.
5. BRACKETS: COPPER ALLOY, TIN PLATED.
6. OUTLINE OF CONNECTOR.
7. PACKING TAPE AND REEL, QUANTITY 1400 PER REEL.
8. OPTIONAL RETAINING CLIP, SEE PAGE 8.

PACKING DETAILS



5 WAY PCB BOARD LAYOUT

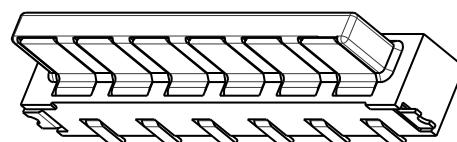
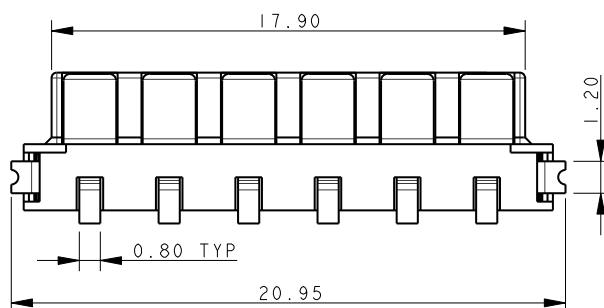
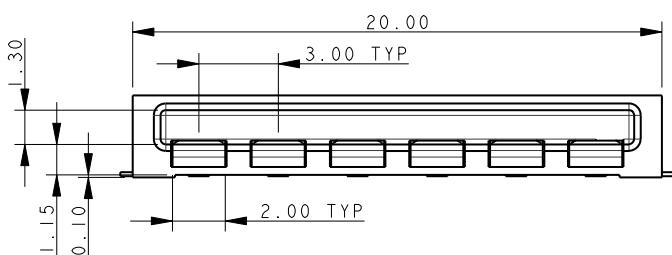
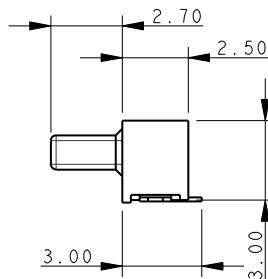
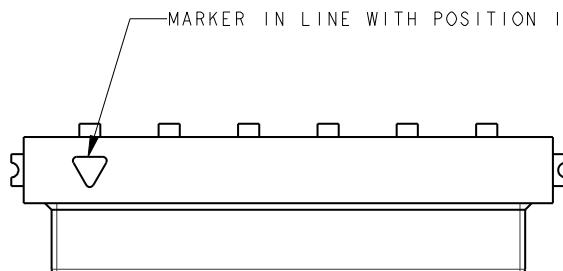


Horizontal Plug: BTB

10-9159

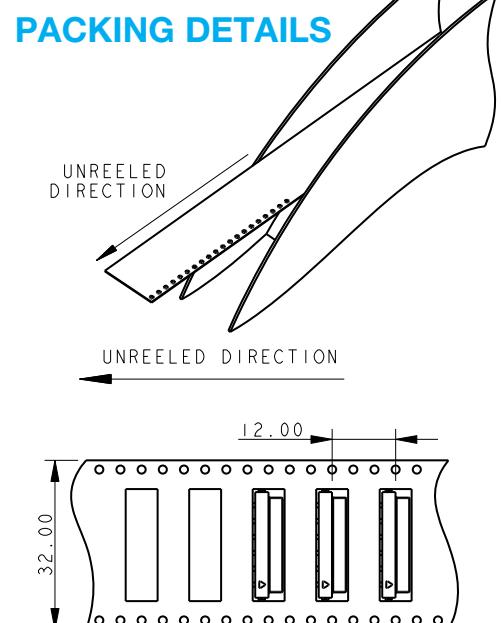
AVX INTERCONNECT
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PLUG 6 WAY 2 PART PCB STRIP CONNECTOR

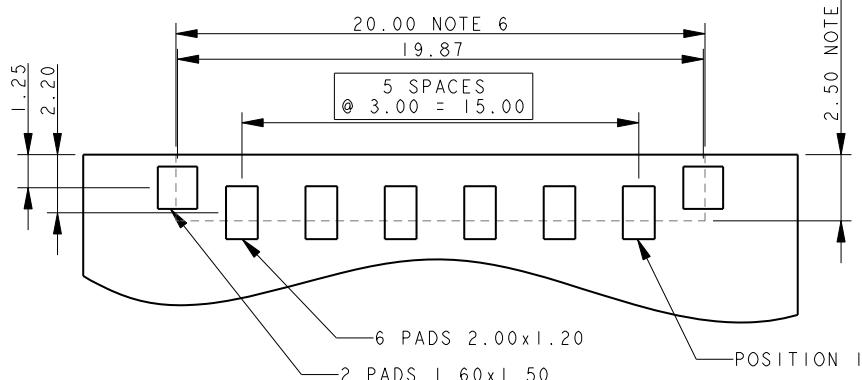


NOTES:

1. FOR MORE INFORMATION REFER TO PRODUCT SPEC 201-01-119.
2. DIMENSIONS ARE REFERENCE DIMENSIONS UNLESS TOLERANCES.
3. INSULATOR MATERIAL: NYLON 46.
4. CONTACT MATERIAL: COPPER ALLOY, SELECTIVE GOLD OVER NICKEL TIN PLATED ON TAILS.
5. BRACKETS: COPPER ALLOY, TIN PLATED.
6. OUTLINE OF CONNECTOR.
7. PACKING TAPE AND REEL, QUANTITY 1400 PER REEL.
8. OPTIONAL RETAINING CLIP, SEE PAGE 8.



6 WAY PCB BOARD LAYOUT



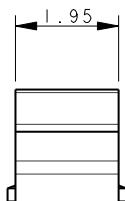
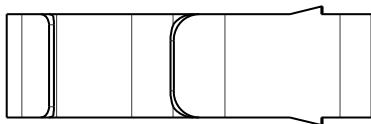
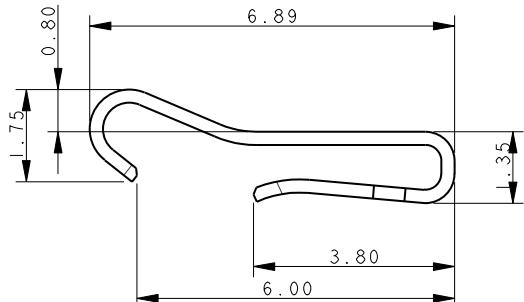
AVX

Horizontal Plug: BTB

10-9159

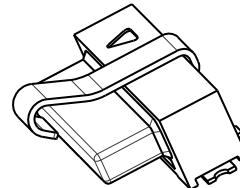
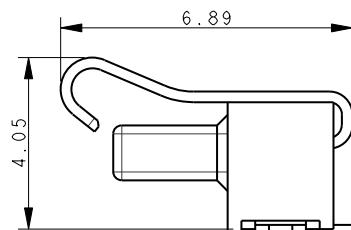
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80-9159-4200-00-000 ACCESSORY RETAINING CLIP



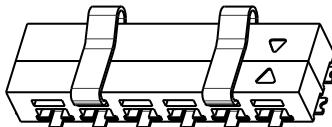
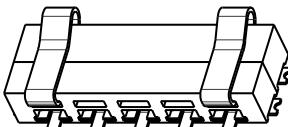
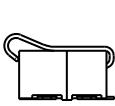
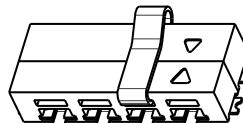
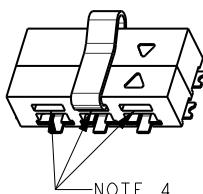
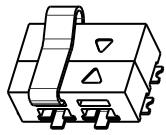
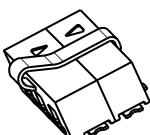
PLUG ASSEMBLY FOR REFERENCE ONLY

CLIP INSERTED INTO
10-9159-00X-101-X06



MATED ASSEMBLY - FOR REFERENCE ONLY

10-9159-00X-101-X06 MATED WITH 20-9159-00X-X06



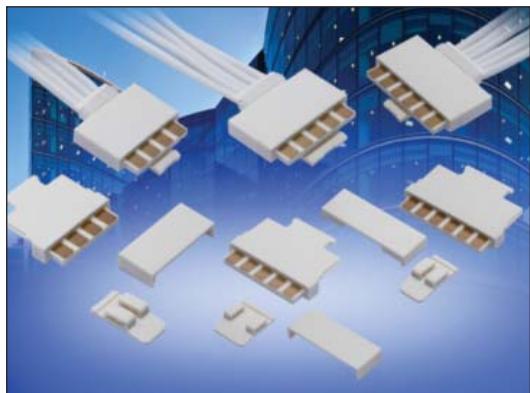
NOTE 4

Description	# of Positions	Part Number	UL File #
Horizontal Plug w/pre-installed locking clip	2	58 9159 002 000 015	E90723
Horizontal Plug w/pre-installed locking clip	3	58 9159 003 000 015	E90723
Horizontal Plug w/pre-installed locking clip	4	58 9159 004 000 015	E90723
Horizontal Plug w/pre-installed locking clips	5	58 9159 005 000 015	E90723
Horizontal Plug w/pre-installed locking clips	6	58 9159 006 000 015	E90723

NOTES:

1. CLIP TO RETAIN MATED PAIR PLUG AND SOCKET.
2. MATERIAL: STAINLESS STEEL.
4. TAIL INSERTED INTO SLOT OF 9159 2 PART PLUG (10-9159-00X-101-006). LEADING EDGE CLIPS OVER SOCKET.
5. ALL DIMENSIONS SHOWN ARE REFERENCE DIMENSIONS.
6. RECOMMENDED 1 CLIP IN 2, 3 AND 4 WAY. 2 CLIPS IN 5 AND 6 WAY. POSITIONS AT CUSTOMER DISCRETION.

Solder Cup Plug: WTB 11-9159



The 9159 series of Board-to-Board interconnect system allows two PCB's to be mated end-to-end creating strips of LED lighting. Designed specifically for the unique Solid State Lighting (SSL) market requiring coplanar (horizontal-to-horizontal) PCB mating with a 5 Amp current rating in the smallest package available. The cabled plug was developed to bring power and signals onto the PCB's while keeping the same board level interface. This allows the designer to build a single PCB with a receptacle on one end and a plug on the other end to minimize cost and inventory. Regardless of where the PCB is used in the system, the cabled plug connector will then create the connection to the outside world. The optional latch can be inserted into the plug housing to assure positive attachment to the PCB in harsh environments without having to change the PCB connector.

APPLICATIONS

- Provided Wire-to-Board capabilities to standard 9159 2-Piece connector system
- Application Notes: refer to 201-01-123

FEATURES AND BENEFITS

- Mates with standard horizontal socket: no need to change any connectors
- 5 Amp current rating: exceeds general market needs
- Wires are soldered into connector with tie wrap strain relief: simplicity
- Optional latch: provides positive attachment to PCB connector

ELECTRICAL

- Current Rating: 5 Amps / Contact
- Voltage Rating: 125 VAC

ENVIRONMENTAL

- Operating Temperature: -40°C to +125°C

MECHANICAL

- Insulator Material: Nylon: VL94VO
- Contact Material: BeCu / Phos Bronze
- Plating: Gold / Tin over Nickel
- Durability: 10 Cycles

HOW TO ORDER

11
Prefix
Wire Plug
Soldered
Termination
s

9159
Series

00X

Number of Ways		
Code	No of Ways	Details
002	2	Page 10
003	3	Page 11
004	4	Page 12
005	5	Page 13
006	6	Page 14

Optional Cover

See page 15 for ordering code

Optional Latch

See page 16 for ordering code

1
2 Part
PCB Strip
Connector

01
Connector
Pitch
01 = 3mm

Color/Approva		
Code	Color	Approval
9	White	UL Approved

Plating Option	
Code	Contact
16	Gold in Contact Area Tin on Solder Tail

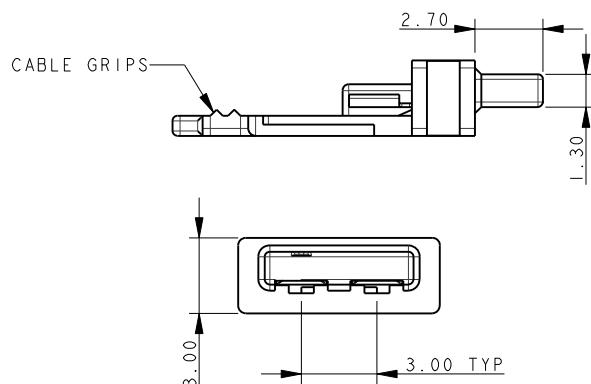
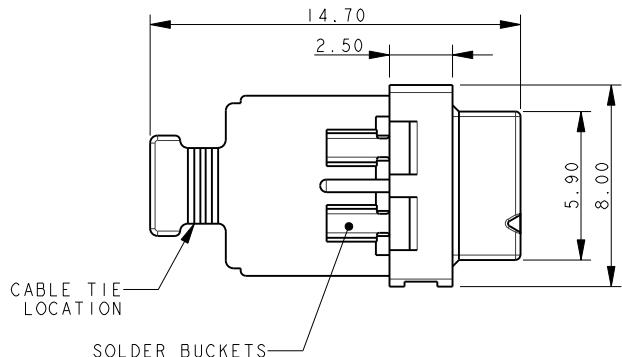


NOTES: Connectors are supplied with cable ties (see page 17).

Covers/Latches are sold separately (see pages 15-16 for ordering codes).

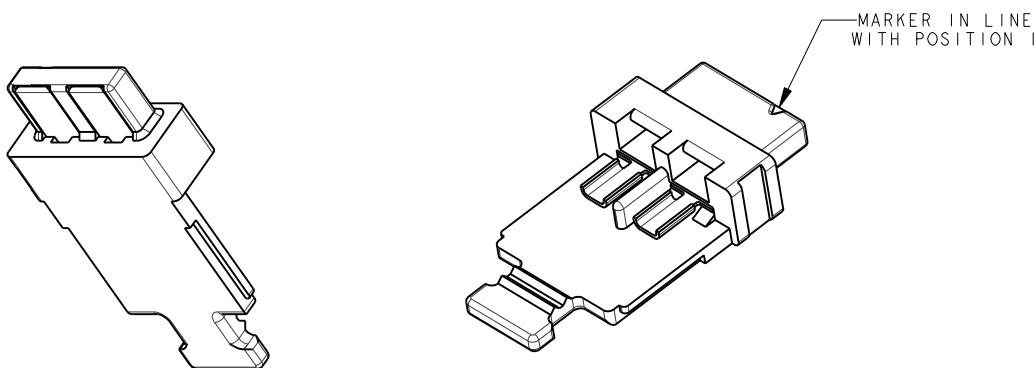
Certification: UL File #E90723

PLUG WIRED 2 WAY 2 PART 9159 LIGHTING CONNECTOR

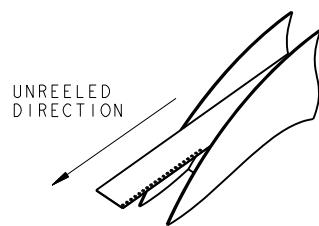
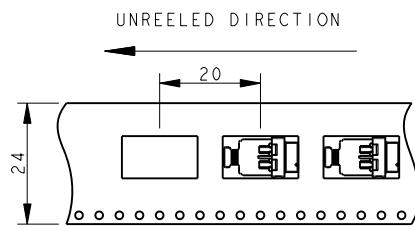


NOTES:

1. FOR MORE INFORMATION REFER TO PRODUCT SPEC 201-01-119.
2. CABLE TIE SUPPLIED FOR WIRE RETENTION, ATTACHED TO EACH REEL. SPARES CAN BE ORDERED, REFER TO PAGE 17.
3. DIMENSIONS ARE REFERENCE DIMENSIONS UNLESS TOLERANCED.
4. INSULATOR MATERIAL: NYLON 46. COLOR REFER TO PAGE 9.
5. CONTACT MATERIAL: COPPER ALLOY, SELECTIVE GOLD OVER NICKEL TIN PLATED ON TAILS.
6. PACKING IN TAPE AND REEL, QUANTITY PER REEL 700.
7. FOR ACCESSORY COVERS AND LATCHES REFER TO PAGES 15 AND 16.



PACKING DETAILS CABLE TIES SUPPLIED WITH EACH REEL

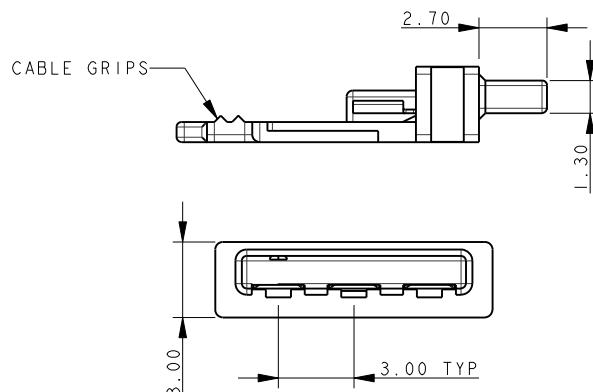
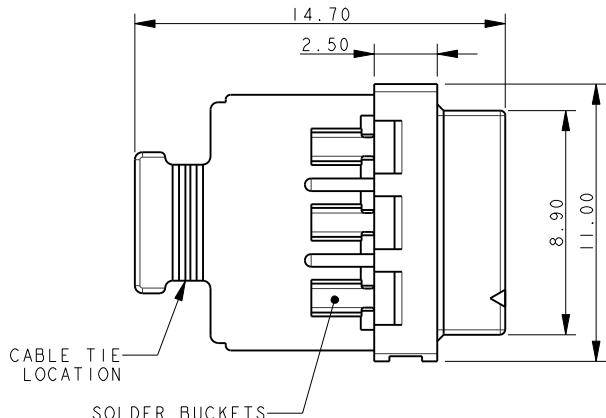


Solder Cup Plug: WTB

11-9159

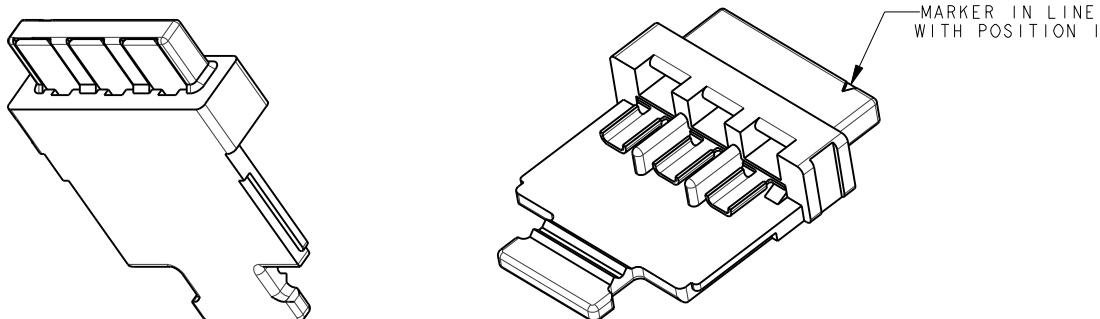
AVX INTERCONNECT
A KYOCERA GROUP COMPANY

PLUG WIRED 3 WAY 2 PART 9159 LIGHTING CONNECTOR

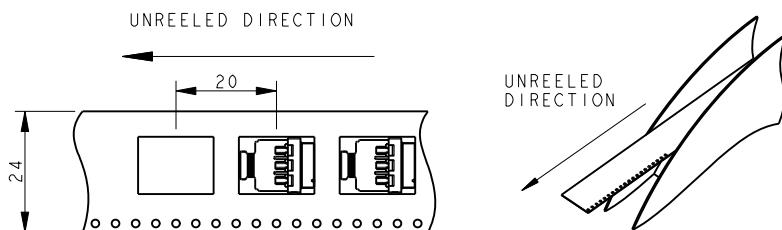


NOTES:

1. FOR MORE INFORMATION REFER TO PRODUCT SPEC 201-01-119.
2. CABLE TIE SUPPLIED FOR WIRE RETENTION, ATTACHED TO EACH REEL. SPARES CAN BE ORDERED, REFER TO PAGE 17.
3. DIMENSIONS ARE REFERENCE DIMENSIONS UNLESS TOLERANCED.
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PACKING DETAILS CABLE TIES SUPPLIED WITH EACH REEL



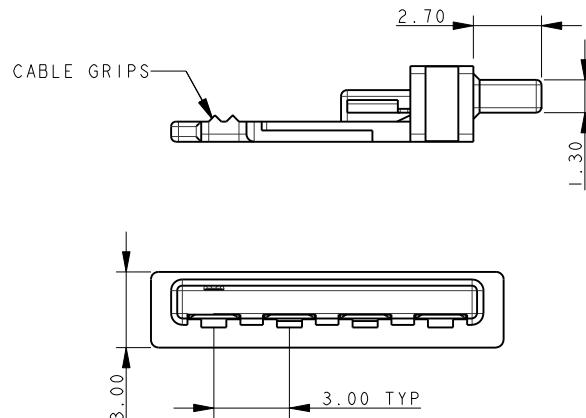
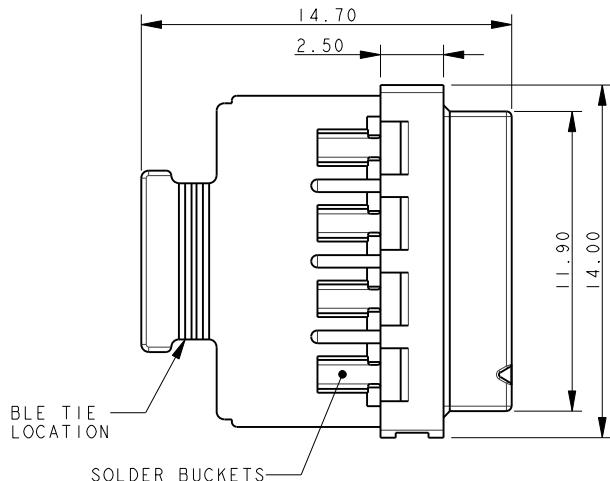
AVX

Solder Cup Plug: WTB

11-9159

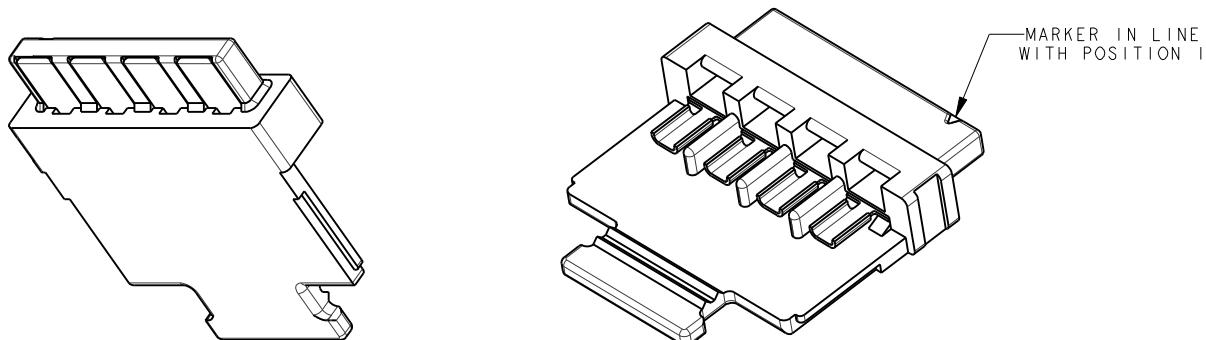
AVX INTERCONNECT
A KYOCERA GROUP COMPANY

PLUG WIRED 4 WAY 2 PART 9159 LIGHTING CONNECTOR

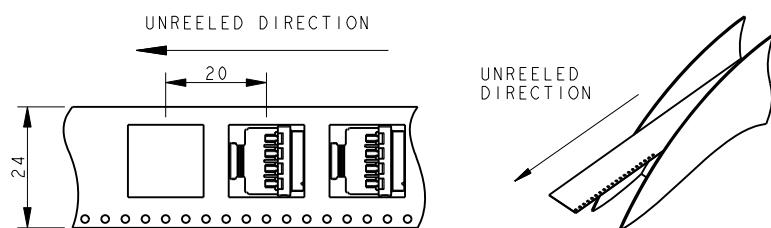


NOTES:

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2. CABLE TIE SUPPLIED FOR WIRE RETENTION, ATTACHED TO EACH REEL. SPARES CAN BE ORDERED, REFER TO PAGE 17.
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7. FOR ACCESSORY COVERS AND LATCHES REFER TO PAGES 15 AND 16.



PACKING DETAILS CABLE TIES SUPPLIED WITH EACH REEL

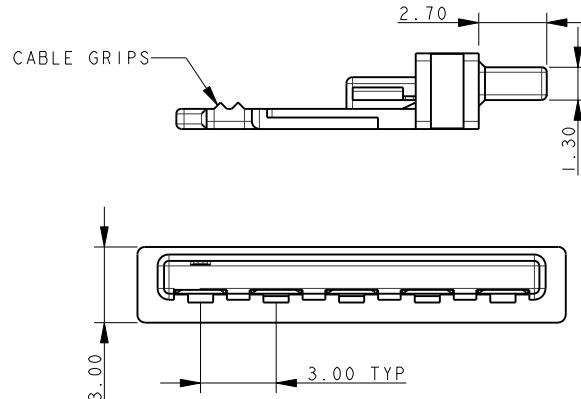
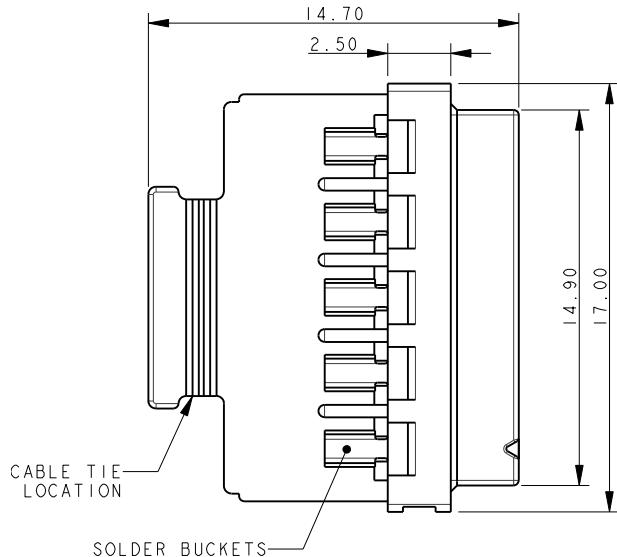


Solder Cup Plug: WTB

11-9159

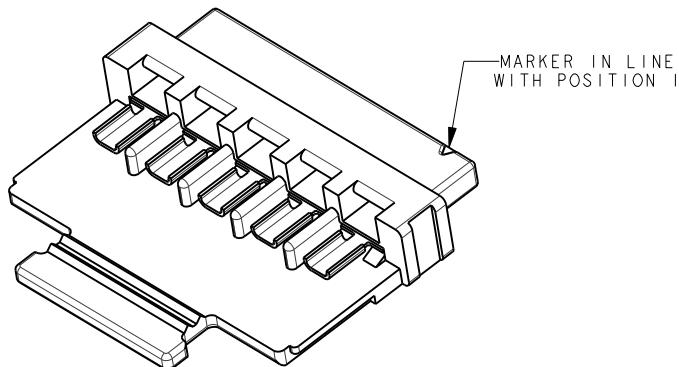
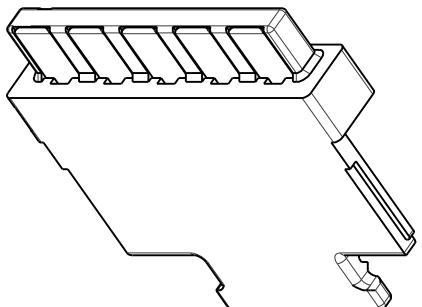
AVX INTERCONNECT
A KYOCERA GROUP COMPANY

PLUG WIRED 5 WAY 2 PART 9159 LIGHTING CONNECTOR

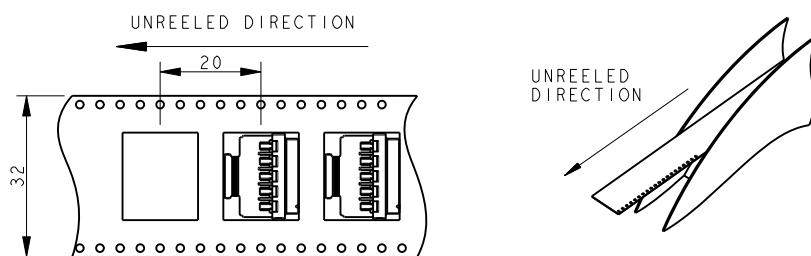


NOTES:

1. FOR MORE INFORMATION REFER TO PRODUCT SPEC 201-01-119.
2. CABLE TIE SUPPLIED FOR WIRE RETENTION, ATTACHED TO EACH REEL. SPARES CAN BE ORDERED, REFER TO PAGE 17.
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6. PACKING IN TAPE AND REEL, QUANTITY PER REEL 700.
7. FOR ACCESSORY COVERS AND LATCHES REFER TO PAGES 15 AND 16.



PACKING DETAILS CABLE TIES SUPPLIED WITH EACH REEL



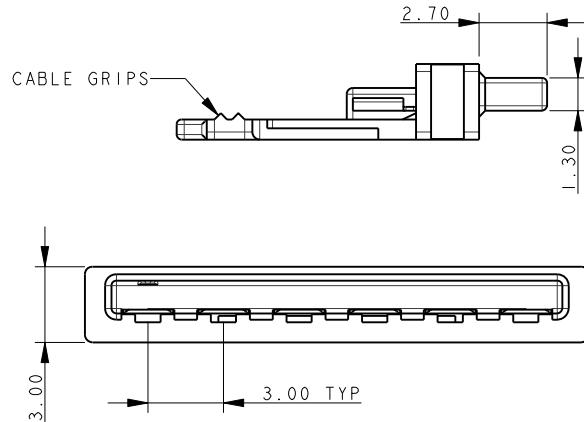
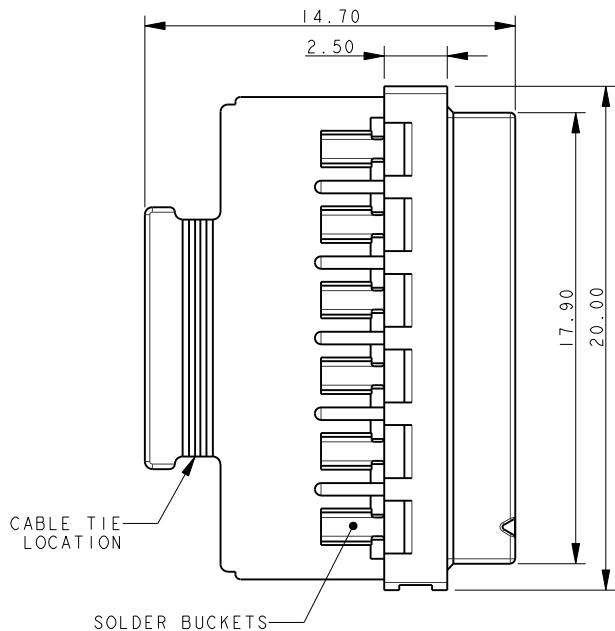
AVX

Solder Cup Plug: WTB

11-9159

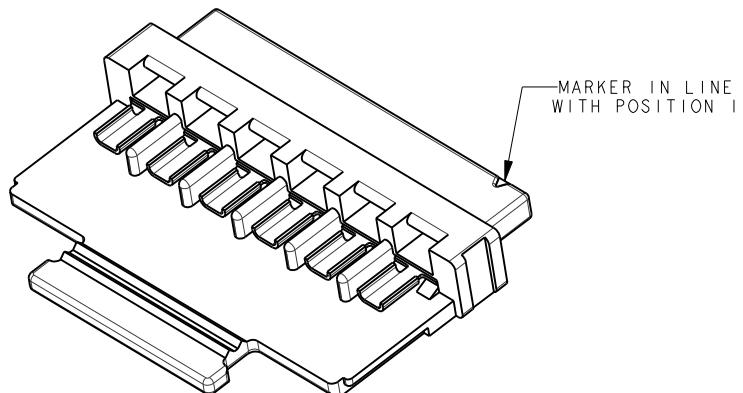
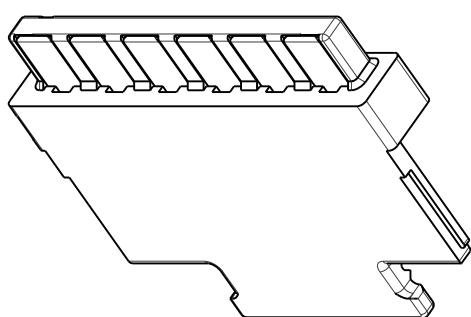
AVX INTERCONNECT
A KYOCERA GROUP COMPANY

PLUG WIRED 6 WAY 2 PART 9159 LIGHTING CONNECTOR

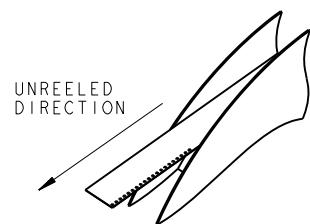
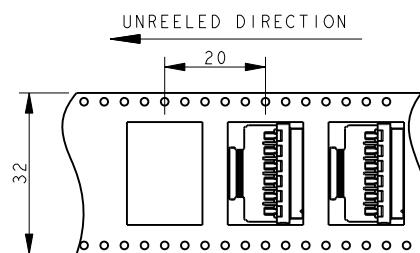


NOTES:

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7. FOR ACCESSORY COVERS AND LATCHES REFER TO PAGES 15 AND 16.



PACKING DETAILS CABLE TIES SUPPLIED WITH EACH REEL



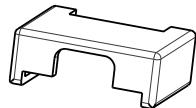
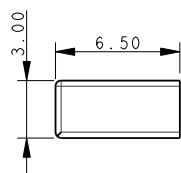
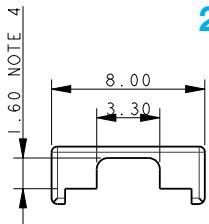
Solder Cup Plug: WTB

11-9159

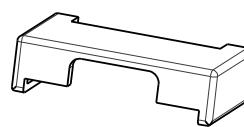
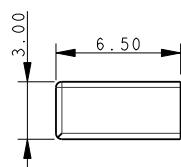
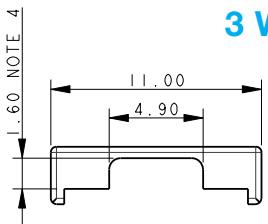
AVX INTERCONNECT
A KYOCERA GROUP COMPANY

PLUG WIRED COVERS ACCESSORY NOT SUPPLIED WITH CONNECTOR ASSEMBLY

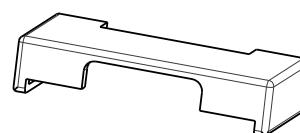
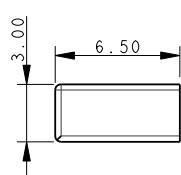
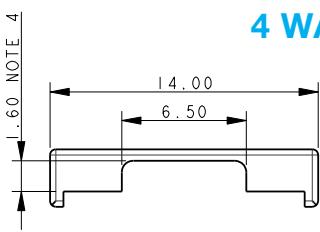
2 WAY COVER 60-9159-3302-0X-000



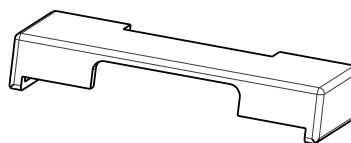
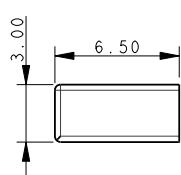
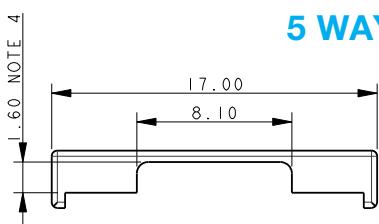
3 WAY COVER 60-9159-3303-0X-000



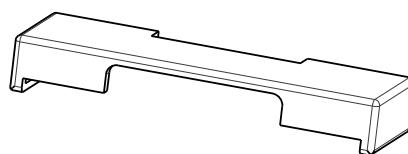
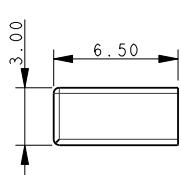
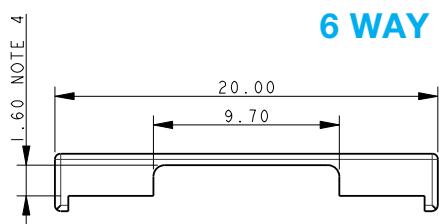
4 WAY COVER 60-9159-3304-0X-000



5 WAY COVER 60-9159-3305-0X-000



6 WAY COVER 60-9159-3306-0X-000



NOTES:

1. COVER (SLIDE ON) AVAILABLE TO PROTECT CABLE ENTRY.
2. OPTION COMPONENT. ORDER SEPARATELY.
3. PACKED IN BAGS, 1400 PIECES PER BAG.
4. MAXIMUM OUTER WIRE SIZE, 1.6MM DIAMETER INSULATION.
5. MATERIAL: GLASS FILLED NYLON 46. COLOR REFER TO PAGE 9.
6. COLOR OPTIONS SEE PAGE 9.
7. ALL DIMENSIONS ARE REFERENCED DIMENSIONS.
8. TO BE ASSEMBLED BEFORE CABLE TIE.

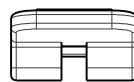
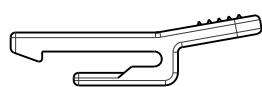
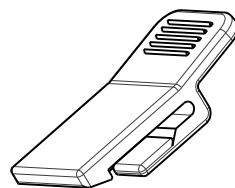
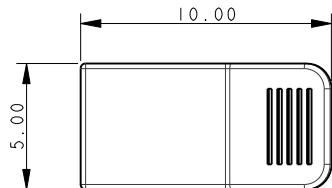
Solder Cup Plug: WTB

11-9159

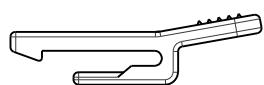
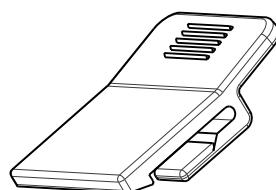
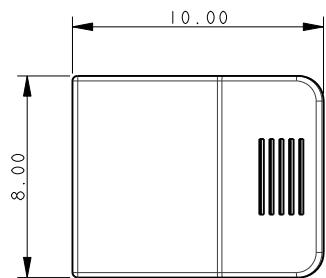
AVX INTERCONNECT
A KYOCERA GROUP COMPANY

PLUG WIRED LATCHES ACCESSORY NOT SUPPLIED WITH CONNECTOR ASSEMBLY

**LATCH 60-9159-3402-0X-000
USED ON 2, 4 AND 6 WAY ASSEMBLIES**



**LATCH 60-9159-3403-0X-000
USED ON 3 AND 5 WAY ASSEMBLIES**



NOTES:

1. LATCH AVAILABLE TO RETAIN MATED PLUG.
2. OPTIONAL COMPONENT, ORDER SEPARATELY. SEE PAGE 17.
3. PACKAGED IN BAGS, 1400 PIECES PER BAG.
4. MATERIAL: GLASS FILLED NYLON 46. COLOR REFER TO PAGE 9.
5. ALL DIMENSIONS ARE REFERENCED DIMENSIONS.
6. TO BE ASSEMBLED BEFORE COVER.

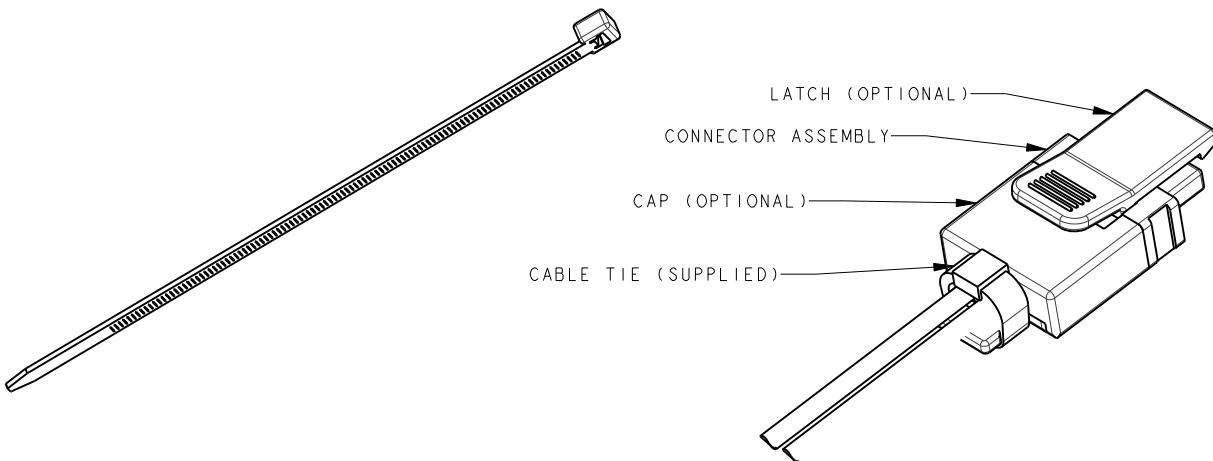
Solder Cup Plug: WTB 11-9159

PLUG WIRED ACCESSORY ORDERING CODES

Connector Assembly	Optional Components	
Part Number	Cover (see page 15)	Latch (see page 16)
11-9159-002-101-916	60-9159-3302-09-000	60-9159-3402-09-000
11-9159-003-101-916	60-9159-3303-09-000	60-9159-3403-09-000
11-9159-004-101-916	60-9159-3304-09-000	60-9159-3402-09-000
11-9159-005-101-916	60-9159-3305-09-000	60-9159-3403-09-000
11-9159-006-101-916	60-9159-3306-09-000	60-9159-3402-09-000

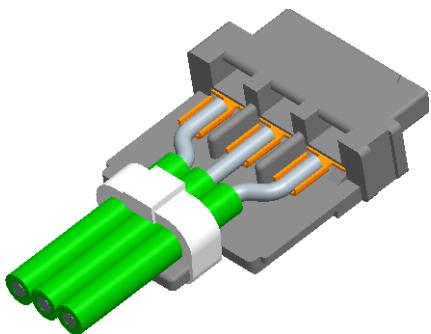
CABLE TIE

Supplied in bags with each reel of connector assemblies. Color White.
For additional ties order code 90-2211-7092-00-000. Packed in bags, 700 pieces per bag.

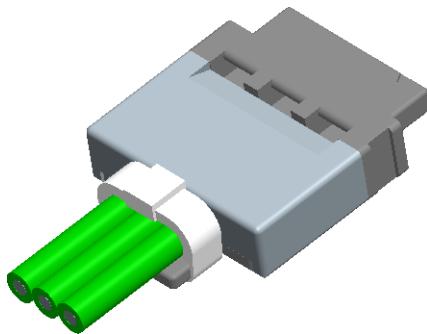


PLUG WIRED 3 ASSEMBLY OPTIONS

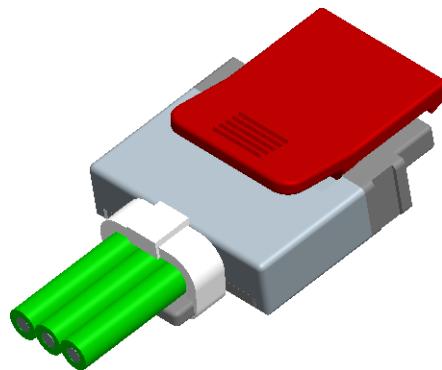
PLUG ASSEMBLY



PLUG ASSEMBLY
WITH COVER



PLUG ASSEMBLY
WITH COVER AND LATCH



Vertical Plug: BTB

13-9159

AVX INTERCONNECT
A KYOCERA GROUP COMPANY



AVX developed the 9159 Series of SMT connectors for co-planar PCB mating for the challenging Solid State Lighting (SSL) market. These connectors needed to be small, low in height, carry up to 5 Amps/contact and then function up to 125C for extended periods. This application has been very unique to the SSL market where PCB's are stacked end-to-end to create linear strip lighting in everything from office to transportation applications where products are exposed to harsh mechanical and environmental environments.

This vertical plug connector opens up the spectrum to include all commercial, industrial and transportation applications requiring perpendicular PCB mating and latching Wire-to-Board cabled sockets with an already proven connector system. With sizes from 2p-6p, these gold plated contacts mate with high spring force beryllium copper receptacle connectors.

APPLICATIONS

- Allows assembly of PCB's at right angles
- Accepts 24-9159 IDC wired/cabled socket
- Reference application notes 201-01-123
- Reference Product Specification 201-01-119

FEATURES AND BENEFITS

- Single sided SMT RoHS solder attachment
- Centrally located pick & place cap for easy placement
- Gold plated BeCu contact system for high reliability in harsh environments
- Available in white: supports SSL market preferences

ELECTRICAL

- Current Rating: 5 Amps / Contact
- Voltage Rating: 125 VAC

ENVIRONMENTAL

- Operating Temperature: -40°C to +125°C

MECHANICAL

- Insulator Material: Nylon: UL94VO
- Contact Material: BeCu / Phos Bronze
- Plating: Gold / Tin over Nickel
- Durability: 10 Cycles

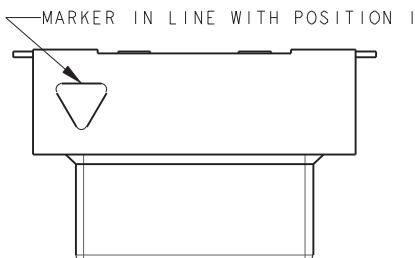
HOW TO ORDER

13	9159	00X	1	01	9	16																																	
Prefix Plug - Vertical Mount	Series	Number of Ways	2 Part PCB Strip Connector	Connector Pitch 01 = 3mm	Color/Approva	Plating Option																																	
		<table><thead><tr><th>Code</th><th>No of Ways</th><th>Details</th></tr></thead><tbody><tr><td>002</td><td>2</td><td>Page 19</td></tr><tr><td>003</td><td>3</td><td>Page 20</td></tr><tr><td>004</td><td>4</td><td>Page 21</td></tr><tr><td>005</td><td>5</td><td>Page 22</td></tr><tr><td>006</td><td>6</td><td>Page 23</td></tr></tbody></table>	Code	No of Ways	Details	002	2	Page 19	003	3	Page 20	004	4	Page 21	005	5	Page 22	006	6	Page 23		<table><thead><tr><th>Code</th><th>Color</th><th>Approval</th></tr></thead><tbody><tr><td>9</td><td>White</td><td>UL Approved</td></tr></tbody></table>	Code	Color	Approval	9	White	UL Approved	<table><thead><tr><th>Code</th><th>Contact</th></tr></thead><tbody><tr><td>16</td><td>Gold in Contact Area</td></tr><tr><td></td><td>Tin on Solder Tail</td></tr><tr><td></td><td>Bracket</td></tr><tr><td></td><td>Tin All Over</td></tr></tbody></table>	Code	Contact	16	Gold in Contact Area		Tin on Solder Tail		Bracket		Tin All Over
Code	No of Ways	Details																																					
002	2	Page 19																																					
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Certification: UL File #E90723

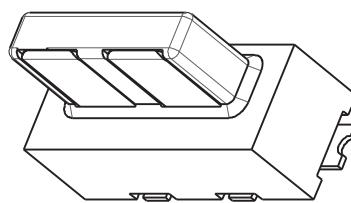
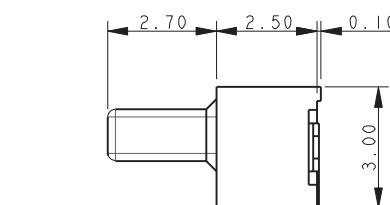
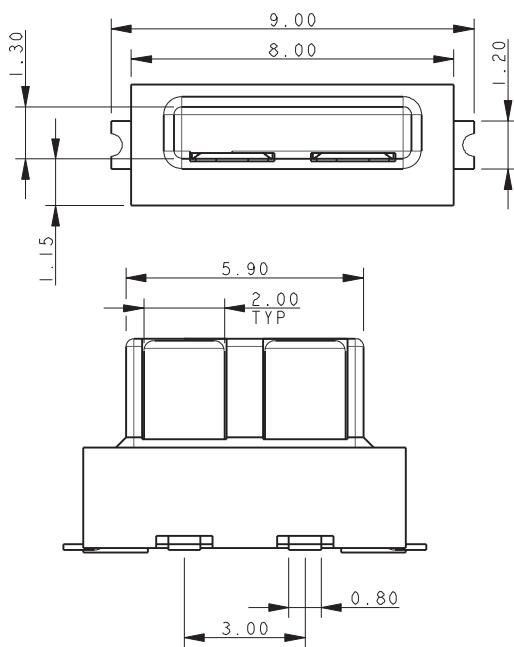


PLUG – VERTICAL MOUNT 2 WAY 2 PART PCB STRIP CONNECTOR

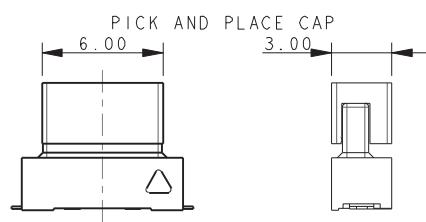


NOTES:

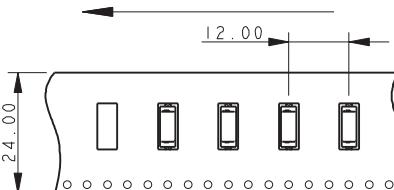
1. FOR FULL PRODUCT SPECIFICATION STANDARD CONNECTORS REFER TO ELCO SPEC 201-01-119, UL COMPONENTS REFER TO ELCO SPEC 201-01-119UL. FOR APPLICATION NOTES REFER TO 201-01-123.
2. GENERAL TOLERANCE ± 0.20 UNLESS TOLERANCED.
3. INSULATOR MATERIAL: NYLON 46, UL94 V-0, COLOR REFER TO PAGE 18.
4. CONTACT MATERIAL: COPPER ALLOY, SELECTIVE GOLD OVER NICKEL, TIN PLATE ON TAILS.
5. BRACKETS: COPPER ALLOY, TIN PLATED.
6. OUTLINE OF CONNECTOR.
7. PACKING IN TAPE AND REEL, QUANTITY PER REEL 700.
8. PICK AND PLACE CAP TO BE REMOVED AFTER USE.
9. OPTIONAL SLOT: ONLY REQUIRED WHEN SOCKET HAS A LATCH, RADIUS ON ENDS OPTIONAL.



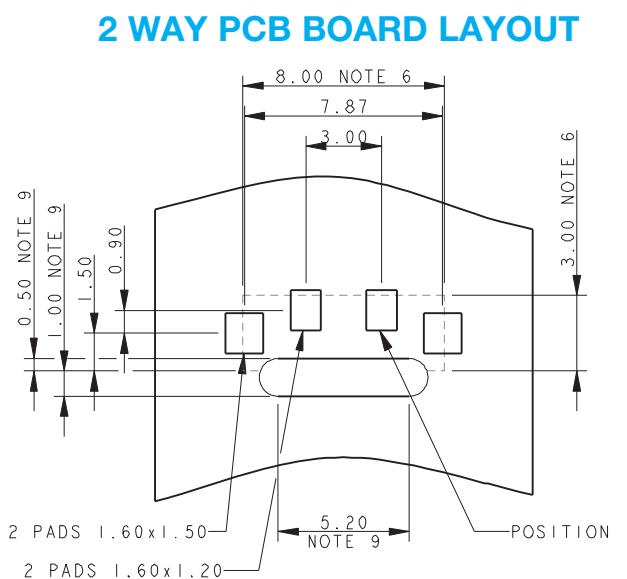
PACKING DETAILS



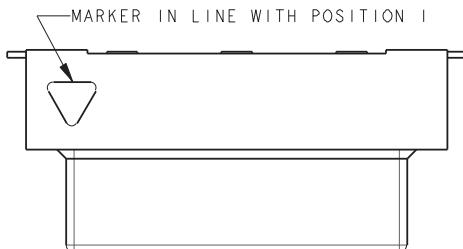
UNREELED DIRECTION



UNREELED DIRECTION

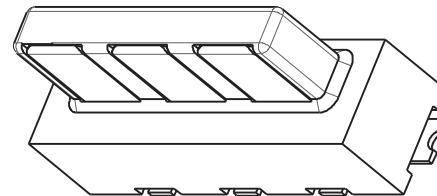
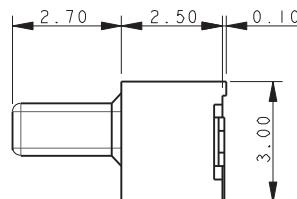
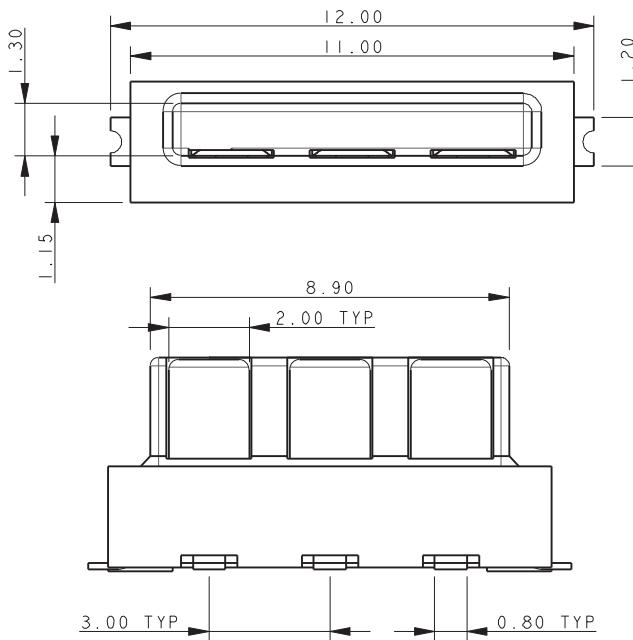


PLUG – VERTICAL MOUNT 3 WAY 2 PART PCB STRIP CONNECTOR



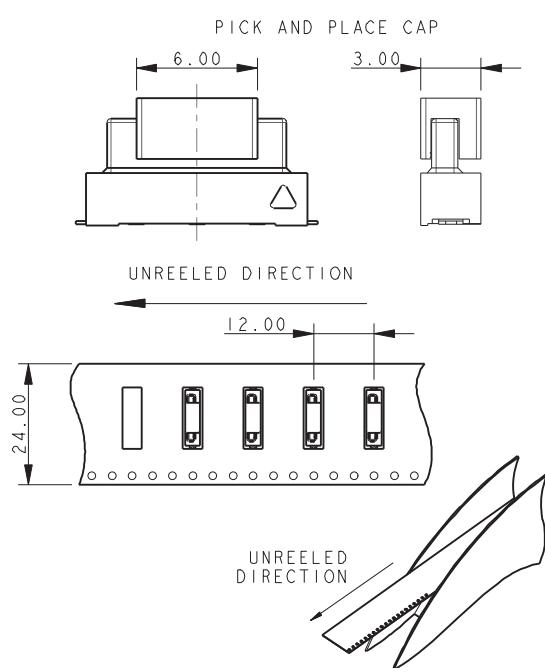
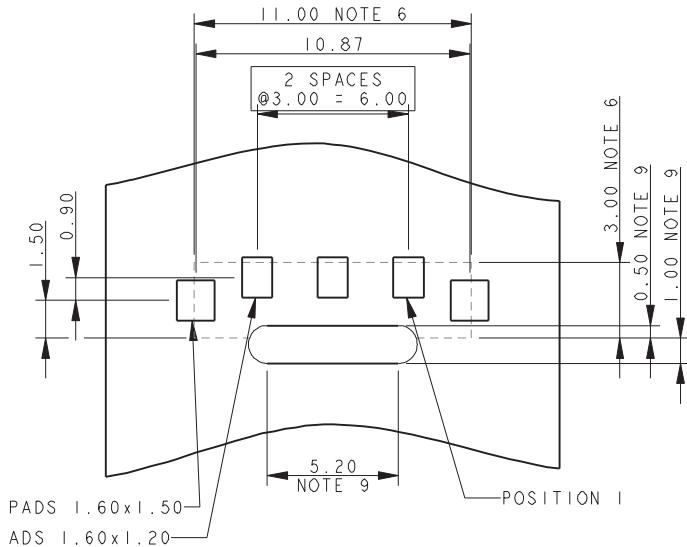
NOTES:

1. FOR FULL PRODUCT SPECIFICATION STANDARD CONNECTORS REFER TO ELCO SPEC 201-01-119, UL COMPONENTS REFER TO ELCO SPEC 201-01-119UL. FOR APPLICATION NOTES REFER TO 201-01-123.
2. GENERAL TOLERANCE ± 0.20 UNLESS TOLERANCED.
3. INSULATOR MATERIAL: NYLON 46, UL94 V-0, COLOR REFER TO PAGE 18.
4. CONTACT MATERIAL: COPPER ALLOY, SELECTIVE GOLD OVER NICKEL, TIN PLATE ON TAILS.
5. BRACKETS: COPPER ALLOY, TIN PLATED.
6. OUTLINE OF CONNECTOR.
7. PACKING IN TAPE AND REEL, QUANTITY PER REEL 700.
8. PICK AND PLACE CAP TO BE REMOVED AFTER USE.
9. OPTIONAL SLOT: ONLY REQUIRED WHEN SOCKET HAS A LATCH, RADIUS ON ENDS OPTIONAL.



PACKING DETAILS

3 WAY PCB BOARD LAYOUT

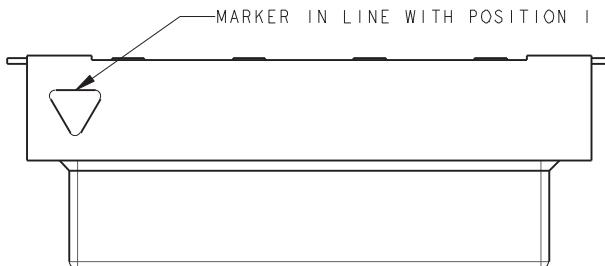


Vertical Plug: BTB

13-9159

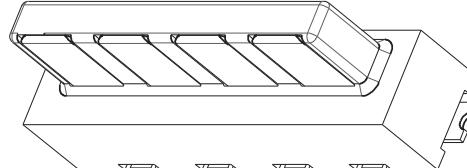
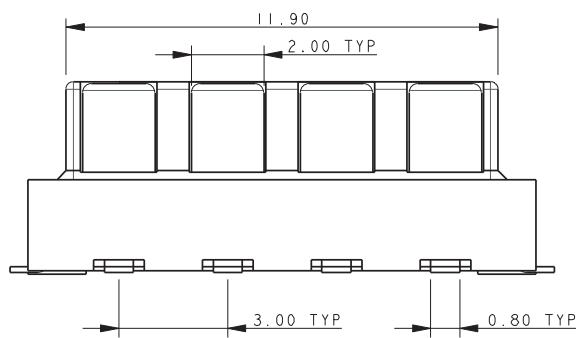
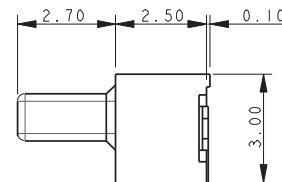
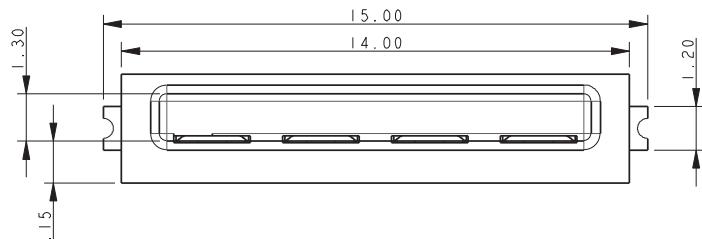
AVX INTERCONNECT
A KYOCERA GROUP COMPANY

PLUG – VERTICAL MOUNT 4 WAY 2 PART PCB STRIP CONNECTOR

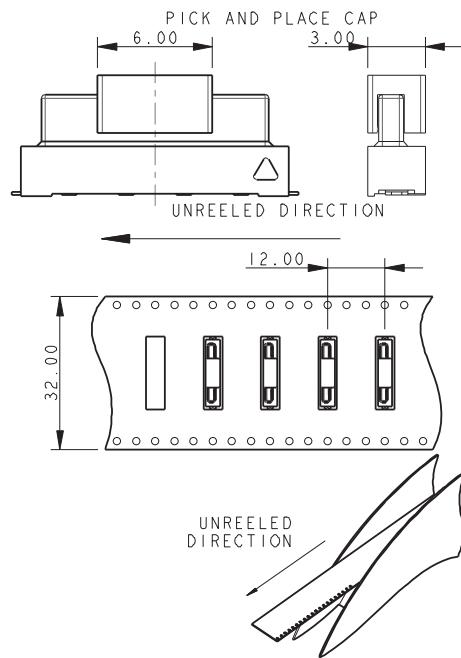


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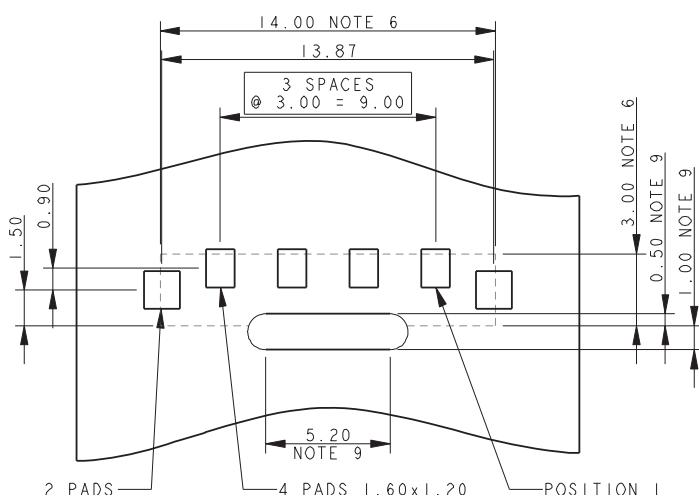
1. FOR FULL PRODUCT SPECIFICATION STANDARD CONNECTORS REFER TO ELCO SPEC 201-01-119, UL COMPONENTS REFER TO ELCO SPEC 201-01-119UL. FOR APPLICATION NOTES REFER TO 201-01-123.
2. GENERAL TOLERANCE ± 0.20 UNLESS TOLERANCED.
3. INSULATOR MATERIAL: NYLON 46, UL94 V-0, COLOR REFER TO PAGE 18.
4. CONTACT MATERIAL: COPPER ALLOY, SELECTIVE GOLD OVER NICKEL, TIN PLATE ON TAILS.
5. BRACKETS: COPPER ALLOY, TIN PLATED.
6. OUTLINE OF CONNECTOR.
7. PACKING IN TAPE AND REEL, QUANTITY PER REEL 700.
8. PICK AND PLACE CAP TO BE REMOVED AFTER USE.
9. OPTIONAL SLOT: ONLY REQUIRED WHEN SOCKET HAS A LATCH, RADIUS ON ENDS OPTIONAL.



PACKING DETAILS

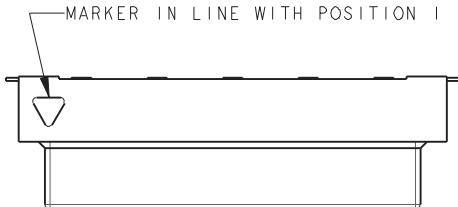


4 WAY PCB BOARD LAYOUT



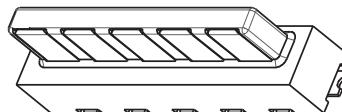
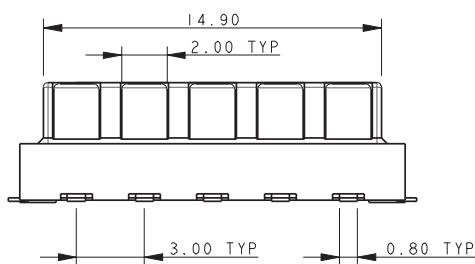
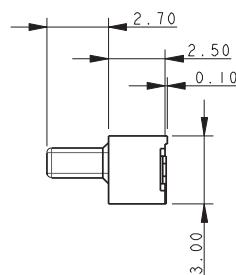
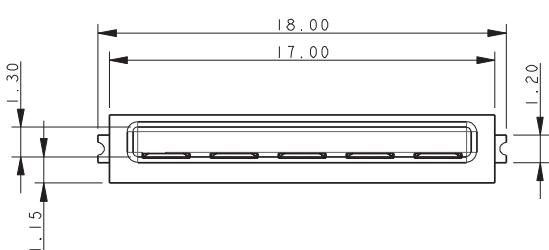
AVX

PLUG – VERTICAL MOUNT 5 WAY 2 PART PCB STRIP CONNECTOR

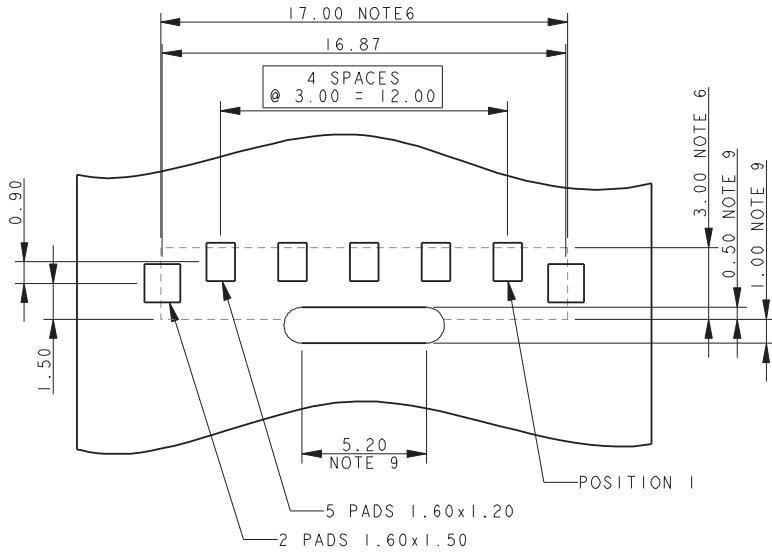


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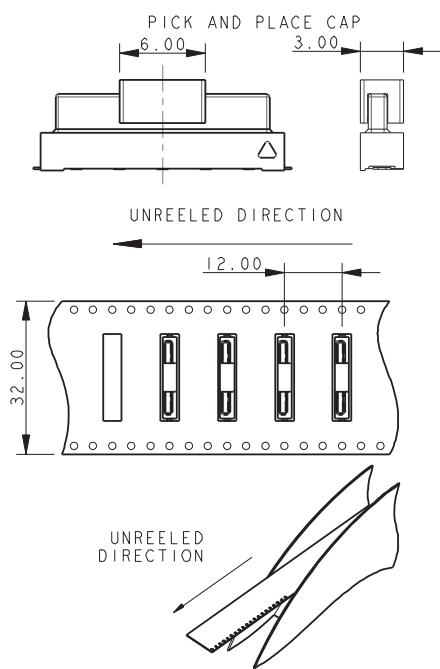
1. FOR FULL PRODUCT SPECIFICATION STANDARD CONNECTORS REFER TO ELCO SPEC 201-01-119, UL COMPONENTS REFER TO ELCO SPEC 201-01-119UL. FOR APPLICATION NOTES REFER TO 201-01-123.
2. GENERAL TOLERANCE ± 0.20 UNLESS TOLERANCED.
3. INSULATOR MATERIAL: NYLON 46, UL94 V-0, COLOR REFER TO PAGE 18.
4. CONTACT MATERIAL: COPPER ALLOY, SELECTIVE GOLD OVER NICKEL, TIN PLATE ON TAILS.
5. BRACKETS: COPPER ALLOY, TIN PLATED.
6. OUTLINE OF CONNECTOR.
7. PACKING IN TAPE AND REEL, QUANTITY PER REEL 700.
8. PICK AND PLACE CAP TO BE REMOVED AFTER USE.
9. OPTIONAL SLOT: ONLY REQUIRED WHEN SOCKET HAS A LATCH, RADIUS ON ENDS OPTIONAL.



5 WAY PCB BOARD LAYOUT



PACKING DETAILS

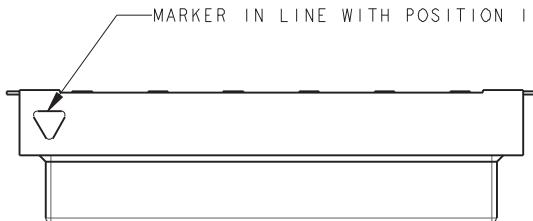


Vertical Plug: BTB

13-9159

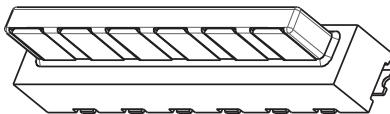
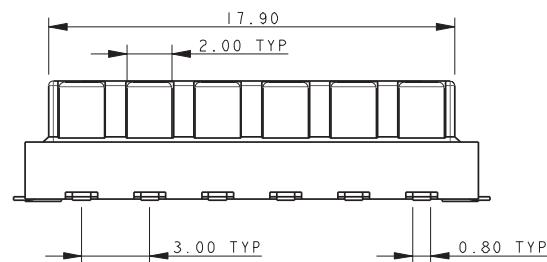
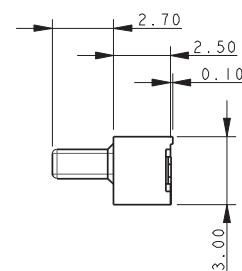
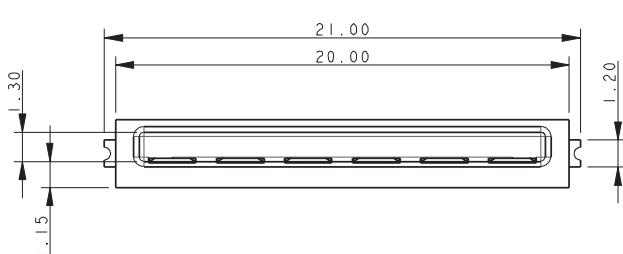
AVX INTERCONNECT
A KYOCERA GROUP COMPANY

PLUG – VERTICAL MOUNT 6 WAY 2 PART PCB STRIP CONNECTOR

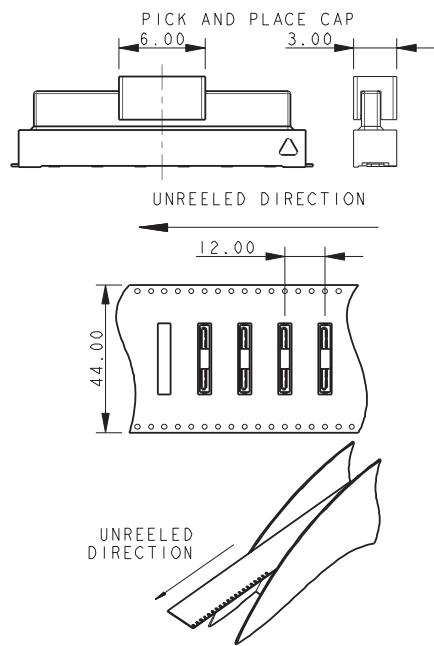


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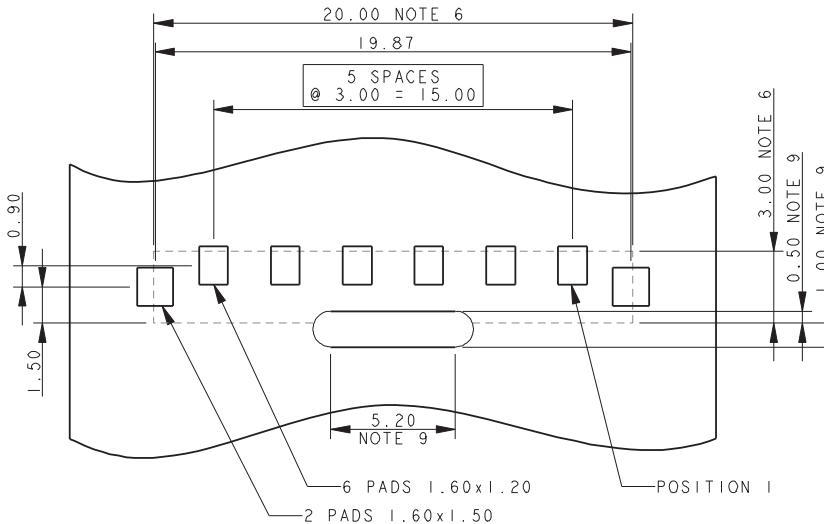
1. FOR FULL PRODUCT SPECIFICATION STANDARD CONNECTORS REFER TO ELCO SPEC 201-01-119, UL COMPONENTS REFER TO ELCO SPEC 201-01-119UL. FOR APPLICATION NOTES REFER TO 201-01-123.
2. GENERAL TOLERANCE ± 0.20 UNLESS TOLERANCED.
3. INSULATOR MATERIAL: NYLON 46, UL94 V-0, COLOR REFER TO PAGE 18.
4. CONTACT MATERIAL: COPPER ALLOY, SELECTIVE GOLD OVER NICKEL, TIN PLATE ON TAILS.
5. BRACKETS: COPPER ALLOY, TIN PLATED.
6. OUTLINE OF CONNECTOR.
7. PACKING IN TAPE AND REEL, QUANTITY PER REEL 700.
8. PICK AND PLACE CAP TO BE REMOVED AFTER USE.
9. OPTIONAL SLOT: ONLY REQUIRED WHEN SOCKET HAS A LATCH, RADIUS ON ENDS OPTIONAL.



PACKING DETAILS



6 WAY PCB BOARD LAYOUT



AVX

IDC Plug: WTB

14-9159



AVAX INTERCONNECT
A KYOCERA GROUP COMPANY



AVX developed the 9159 Series of SMT connectors for co-planar PCB mating for the challenging Solid State Lighting (SSL) market. These connectors needed to be small, low in height, carry up to 5 Amps/contact and then function up to 125C for extended periods. This application has been very unique to the SSL market where PCB's are stacked end-to-end to create linear strip lighting in everything from office to transportation applications where products are exposed to harsh mechanical and environmental environments.

The IDC cable plug connector allows for 22-24AWG discrete or cabled wires to be easily and reliably terminated into a 9159 standard interface socket connector. This will allow power and signals to be connectors onto a PCB socket connector while providing positive latching. The wire assembly support block allows for 2 through 6 wires to be terminated all in one step with any standard bench top press. IDC covers provide both through (daisy chain applications) and wire stop termination options.

APPLICATIONS

- Provides Wire-to-Board capabilities to standard 9159 2-Piece connector system
- In conjunction with the IDC socket WTB connector (24-9159), these connectors provide maximum flexibility to bring power and signal wires onto or off of any board level 9159 connector
- Reference application notes 201-01-123
- Reference Product Specification 201-01-119

FEATURES AND BENEFITS

- Mates with standard 9159 horizontal socket, keeping same BTB connector system
- Economical and reliable IDC wire termination
- Gold plated BeCu contact system for high reliability in harsh environments
- Integrally molded latch offers positive latching after mating

ELECTRICAL

- Current Rating: 5 Amps / Contact
- Voltage Rating: 125 VAC

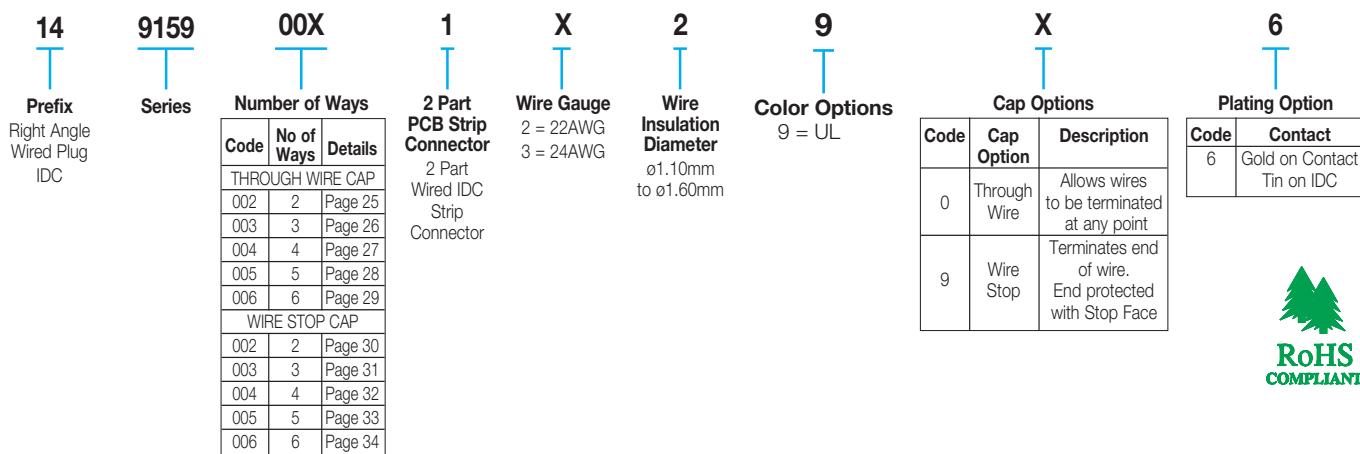
ENVIRONMENTAL

- Operating Temperature:
-40°C to +125°C

MECHANICAL

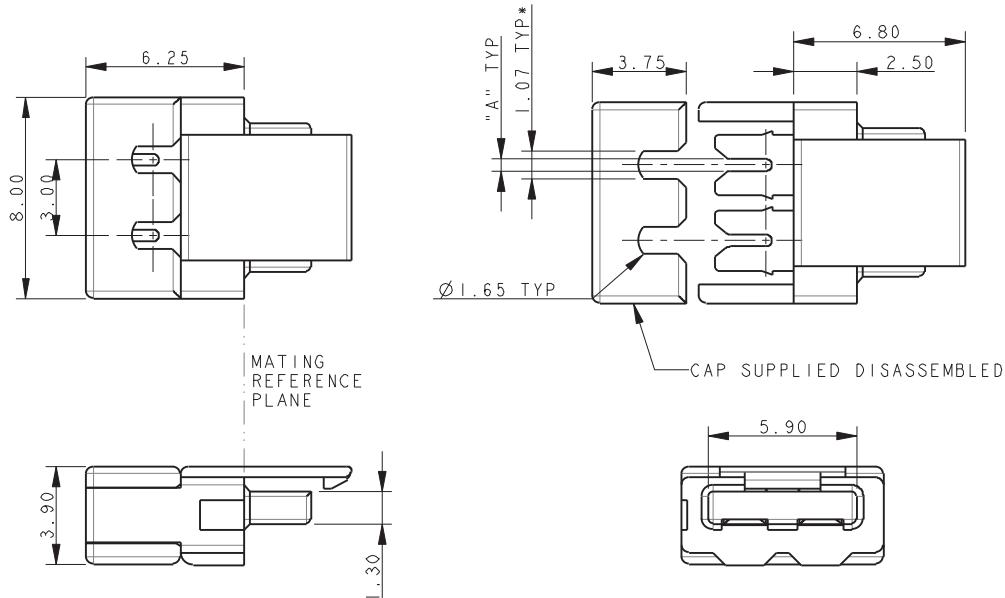
- Insulator Material: Nylon: UL94VO
- Contact Material: Phosphor Bronze
- Plating: Gold / Tin over Nickel
- Durability: 10 Cycles

HOW TO ORDER



Certification: UL File #E90723

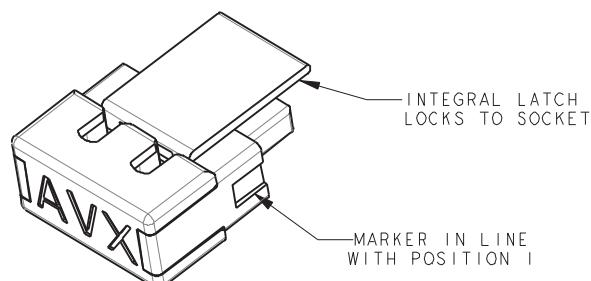
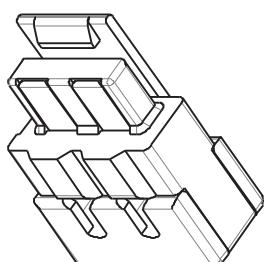
PLUG-WIRED – 2 WAY THROUGH WIRE CAP



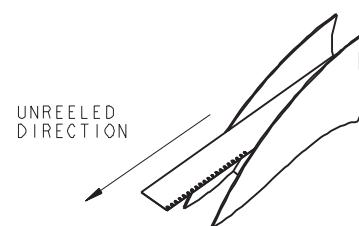
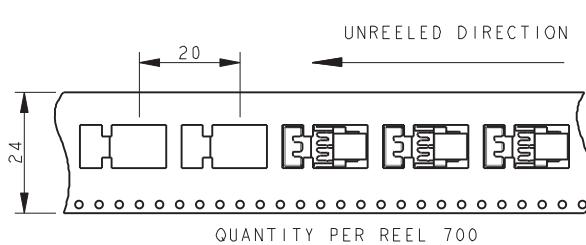
NOTES:

1. FOR MORE INFORMATION REFER TO PRODUCT SPEC 201-01-119.
FOR WIRE ASSEMBLY REFER TO APPLICATION NOTES 201-01-123.
2. THROUGH WIRE CAP, FOR TERMINATION OF WIRE IN ANY POSITION.
3. CAP ACTS AS WIRE ASSEMBLY TOOL. WIRE PREFIT TO CAP, NARROW SLOT TO GRIP WIRE, PERMANENT ASSEMBLY.
4. GENERAL TOLERANCE ± 0.20 UNLESS SPECIFIED.
5. INSULATOR MATERIAL: NYLON 46, GLASS FILLED, UL94 V-0. COLOR REFER TO PAGE 24.
6. CONTACT MATERIAL: COPPER ALLOY, PLATING NICKEL BASE ALL OVER, GOLD ON CONTACT, TIN ON IDC.
7. PACKING IN TAPE AND REEL. QTY PER REEL 700, POCKET CONTAINS 1 CONNECTOR AND 1 CAP.
8. WIRE GAUGE OPTIONS, SEE TABLE.
9. ASSEMBLY AIDS, REFER TO PAGE 35.

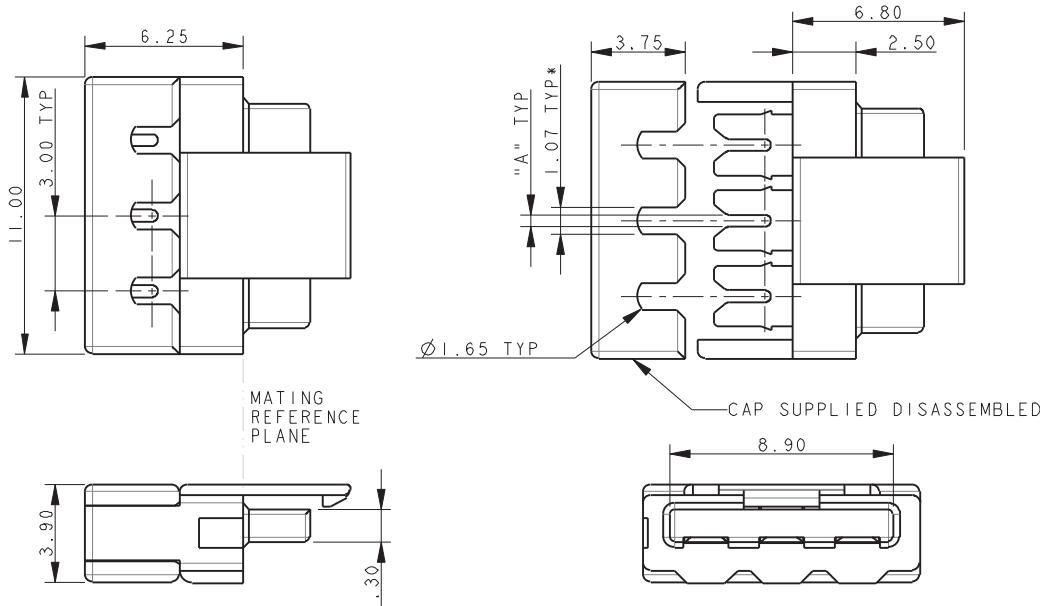
Wire Gauge	Code (Page 24)	Dimension A	Wire Insulation Diameter
22AWG (Stranded Wire)	122	0.47	1.10 to 1.60
24AWG (Stranded Wire)	132	0.37	1.10 to 1.60



PACKING DETAILS CAP AND CONNECTOR SUPPLIED TOGETHER (2 PARTS)



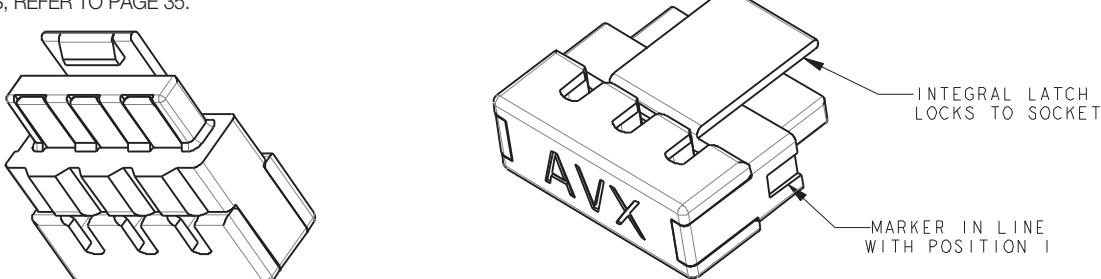
PLUG-WIRED – 3 WAY THROUGH WIRE CAP



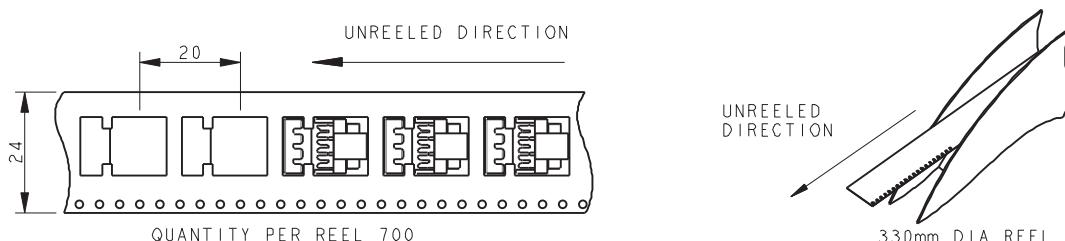
NOTES:

1. FOR MORE INFORMATION REFER TO PRODUCT SPEC 201-01-119.
FOR WIRE ASSEMBLY REFER TO APPLICATION NOTES 201-01-123.
2. THROUGH WIRE CAP, FOR TERMINATION OF WIRE IN ANY POSITION.
3. CAP ACTS AS WIRE ASSEMBLY TOOL. WIRE PREFIT TO CAP, NARROW SLOT TO GRIP WIRE, PERMANENT ASSEMBLY.
4. GENERAL TOLERANCE ± 0.20 UNLESS SPECIFIED.
5. INSULATOR MATERIAL: NYLON 46, GLASS FILLED, UL94 V-0. COLOR REFER TO PAGE 24.
6. CONTACT MATERIAL: COPPER ALLOY, PLATING NICKEL BASE ALL OVER, GOLD ON CONTACT, TIN ON IDC.
7. PACKING IN TAPE AND REEL. QTY PER REEL 700, POCKET CONTAINS 1 CONNECTOR AND 1 CAP.
8. WIRE GAUGE OPTIONS, SEE TABLE.
9. ASSEMBLY AIDS, REFER TO PAGE 35.

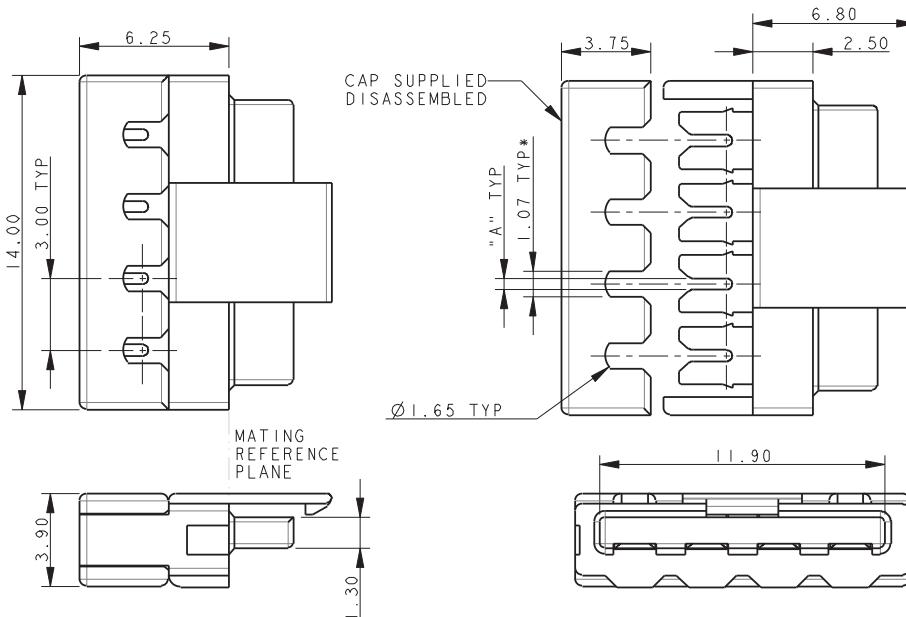
Wire Gauge	Code (Page 24)	Dimension A	Wire Insulation Diameter
22AWG (Stranded Wire)	122	0.47	1.10 to 1.60
24AWG (Stranded Wire)	132	0.37	1.10 to 1.60



PACKING DETAILS CAP AND CONNECTOR SUPPLIED TOGETHER (2 PARTS)



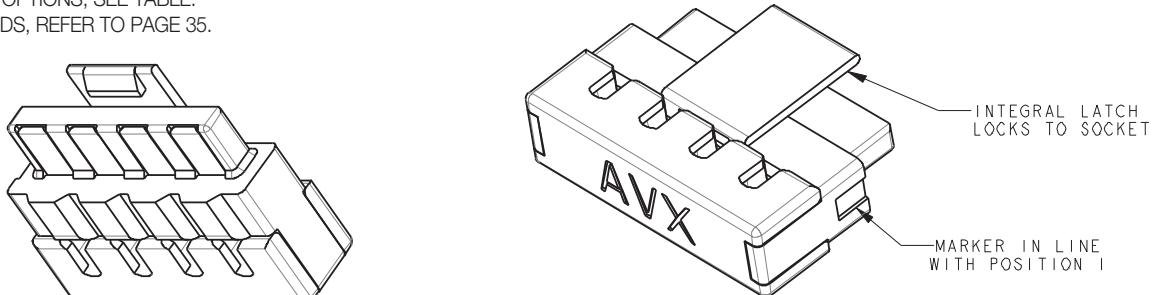
PLUG-WIRED – 4 WAY THROUGH WIRE CAP



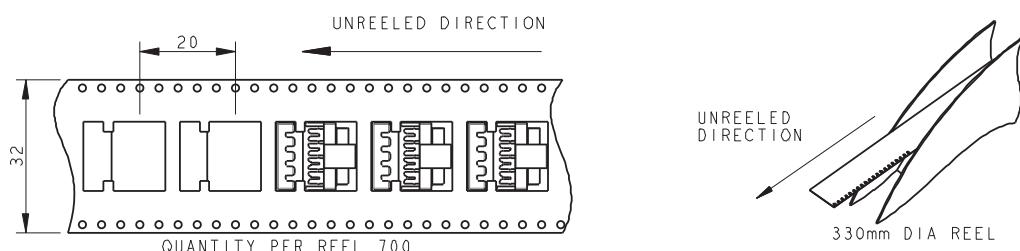
NOTES:

1. FOR MORE INFORMATION REFER TO PRODUCT SPEC 201-01-119.
FOR WIRE ASSEMBLY REFER TO APPLICATION NOTES 201-01-123.
2. THROUGH WIRE CAP, FOR TERMINATION OF WIRE IN ANY POSITION.
3. CAP ACTS AS WIRE ASSEMBLY TOOL. WIRE PREFIT TO CAP, NARROW SLOT TO GRIP WIRE, PERMANENT ASSEMBLY.
4. GENERAL TOLERANCE ± 0.20 UNLESS SPECIFIED.
5. INSULATOR MATERIAL: NYLON 46, GLASS FILLED, UL94 V-0. COLOR REFER TO PAGE 24.
6. CONTACT MATERIAL: COPPER ALLOY, PLATING NICKEL BASE ALL OVER, GOLD ON CONTACT, TIN ON IDC.
7. PACKING IN TAPE AND REEL. QTY PER REEL 700, POCKET CONTAINS 1 CONNECTOR AND 1 CAP.
8. WIRE GAUGE OPTIONS, SEE TABLE.
9. ASSEMBLY AIDS, REFER TO PAGE 35.

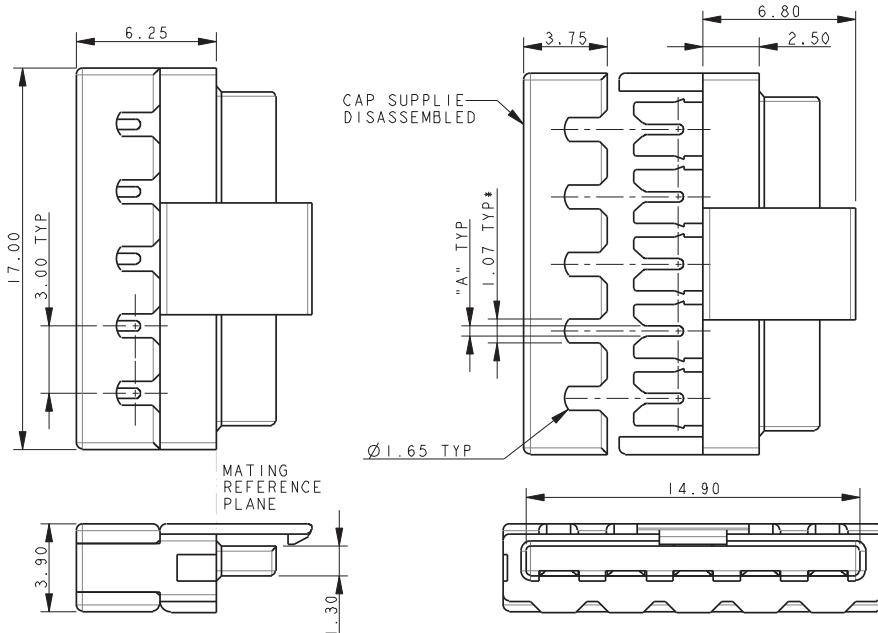
Wire Gauge	Code (Page 24)	Dimension A	Wire Insulation Diameter
22AWG (Stranded Wire)	122	0.47	1.10 to 1.60
24AWG (Stranded Wire)	132	0.37	1.10 to 1.60



PACKING DETAILS CAP AND CONNECTOR SUPPLIED TOGETHER (2 PARTS)



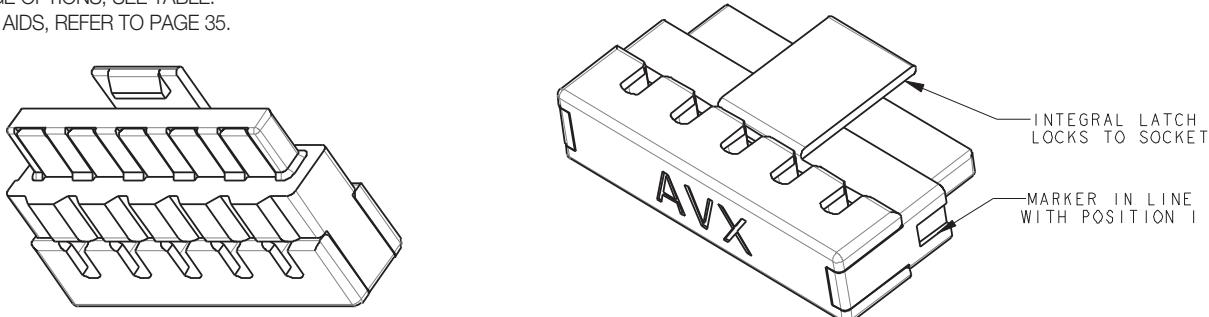
PLUG-WIRED – 5 WAY THROUGH WIRE CAP



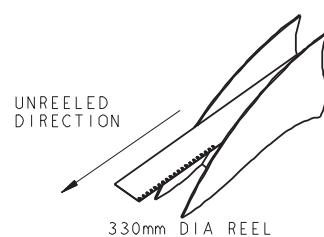
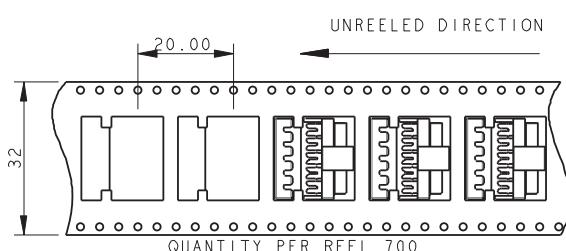
NOTES:

1. FOR MORE INFORMATION REFER TO PRODUCT SPEC 201-01-119.
FOR WIRE ASSEMBLY REFER TO APPLICATION NOTES 201-01-123.
2. THROUGH WIRE CAP, FOR TERMINATION OF WIRE IN ANY POSITION.
3. CAP ACTS AS WIRE ASSEMBLY TOOL. WIRE PREFIT TO CAP, NARROW SLOT TO GRIP WIRE, PERMANENT ASSEMBLY.
4. GENERAL TOLERANCE ± 0.20 UNLESS SPECIFIED.
5. INSULATOR MATERIAL: NYLON 46, GLASS FILLED, UL94 V-0. COLOR REFER TO PAGE 24.
6. CONTACT MATERIAL: COPPER ALLOY, PLATING NICKEL BASE ALL OVER, GOLD ON CONTACT, TIN ON IDC.
7. PACKING IN TAPE AND REEL. QTY PER REEL 700, POCKET CONTAINS 1 CONNECTOR AND 1 CAP.
8. WIRE GAUGE OPTIONS, SEE TABLE.
9. ASSEMBLY AIDS, REFER TO PAGE 35.

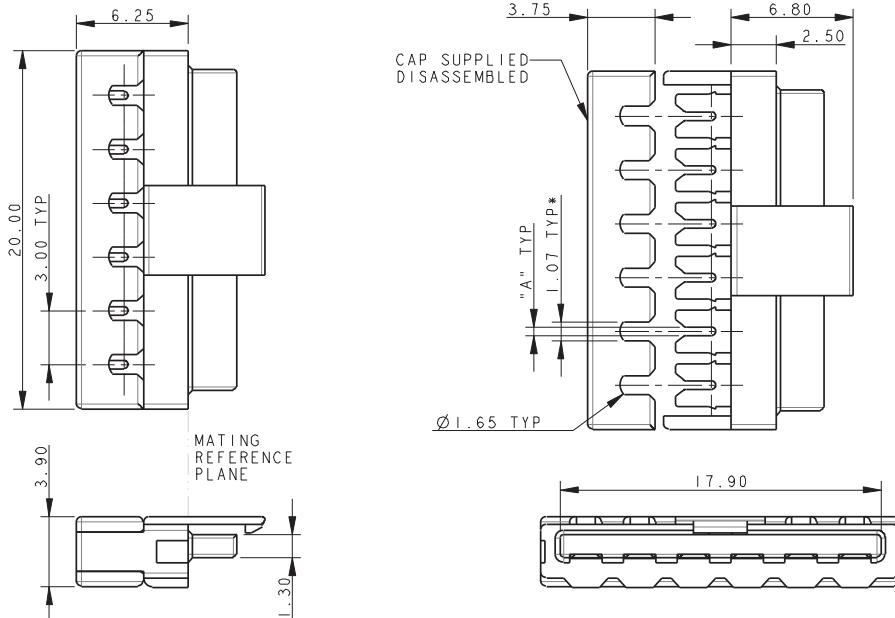
Wire Gauge	Code (Page 24)	Dimension A	Wire Insulation Diameter
22AWG (Stranded Wire)	122	0.47	1.10 to 1.60
24AWG (Stranded Wire)	132	0.37	1.10 to 1.60



PACKING DETAILS CAP AND CONNECTOR SUPPLIED TOGETHER (2 PARTS)



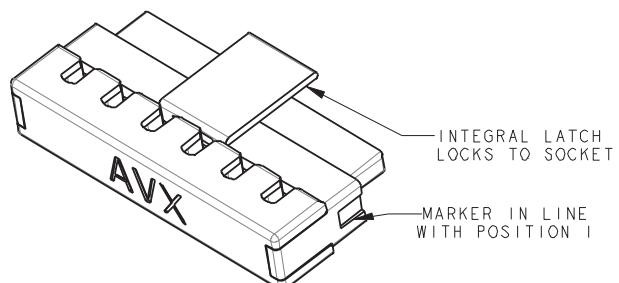
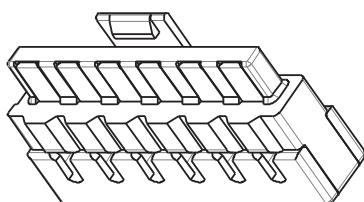
PLUG-WIRED – 6 WAY THROUGH WIRE CAP



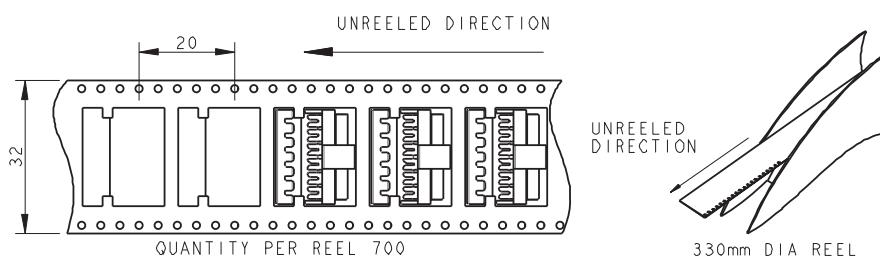
NOTES:

1. FOR MORE INFORMATION REFER TO PRODUCT SPEC 201-01-119.
FOR WIRE ASSEMBLY REFER TO APPLICATION NOTES 201-01-123.
2. THROUGH WIRE CAP, FOR TERMINATION OF WIRE IN ANY POSITION.
3. CAP ACTS AS WIRE ASSEMBLY TOOL. WIRE PREFIT TO CAP, NARROW SLOT TO GRIP WIRE, PERMANENT ASSEMBLY.
4. GENERAL TOLERANCE ± 0.20 UNLESS SPECIFIED.
5. INSULATOR MATERIAL: NYLON 46, GLASS FILLED, UL94 V-0. COLOR REFER TO PAGE 24.
6. CONTACT MATERIAL: COPPER ALLOY, PLATING NICKEL BASE ALL OVER, GOLD ON CONTACT, TIN ON IDC.
7. PACKING IN TAPE AND REEL. QTY PER REEL 700, POCKET CONTAINS 1 CONNECTOR AND 1 CAP.
8. WIRE GAUGE OPTIONS, SEE TABLE.
9. ASSEMBLY AIDS, REFER TO PAGE 35.

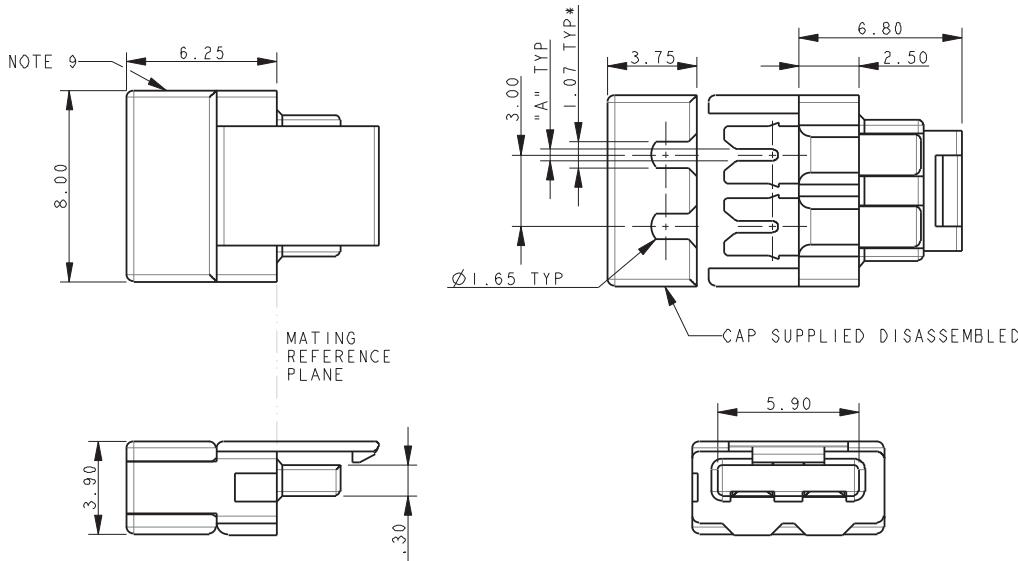
Wire Gauge	Code (Page 24)	Dimension A	Wire Insulation Diameter
22AWG (Stranded Wire)	122	0.47	1.10 to 1.60
24AWG (Stranded Wire)	132	0.37	1.10 to 1.60



PACKING DETAILS CAP AND CONNECTOR SUPPLIED TOGETHER (2 PARTS)



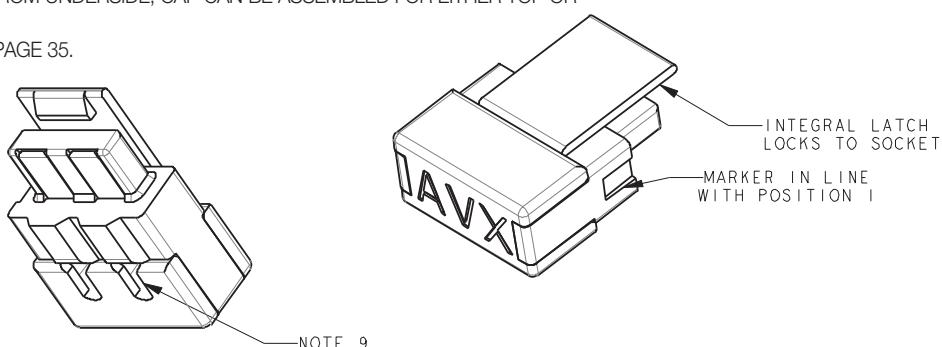
PLUG WIRED – 2 WAY WIRE STOP CAP



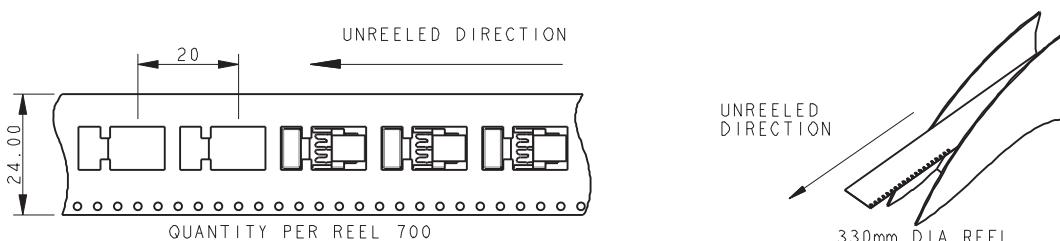
NOTES:

1. FOR MORE INFORMATION REFER TO PRODUCT SPEC 201-01-119.
FOR WIRE ASSEMBLY REFER TO APPLICATION NOTES 201-01-123.
2. WIRE STOP CAP, WITH STOP FACE ON ONE SIDE TO PROTECT END OF WIRE.
3. CAP ACTS AS WIRE ASSEMBLY TOOL. WIRE PREFIT TO CAP, NARROW SLOT TO GRIP WIRE, PERMANENT ASSEMBLY.
4. GENERAL TOLERANCE ± 0.20 UNLESS SPECIFIED.
5. INSULATOR MATERIAL: NYLON 46, GLASS FILLED, UL94 V-0. COLOR REFER TO PAGE 24.
6. CONTACT MATERIAL: COPPER ALLOY, PLATING NICKEL BASE ALL OVER, GOLD ON CONTACT, TIN ON IDC.
7. PACKING IN TAPE AND REEL. QTY PER REEL 700, POCKET CONTAINS 1 CONNECTOR AND 1 CAP.
8. WIRE GAUGE OPTIONS, SEE TABLE.
9. SHOWN WITH WIRE ENTRY FROM UNDERSIDE, CAP CAN BE ASSEMBLED FOR EITHER TOP OR UNDERSIDE WIRE ENTRY.
10. ASSEMBLY AIDS, REFER TO PAGE 35.

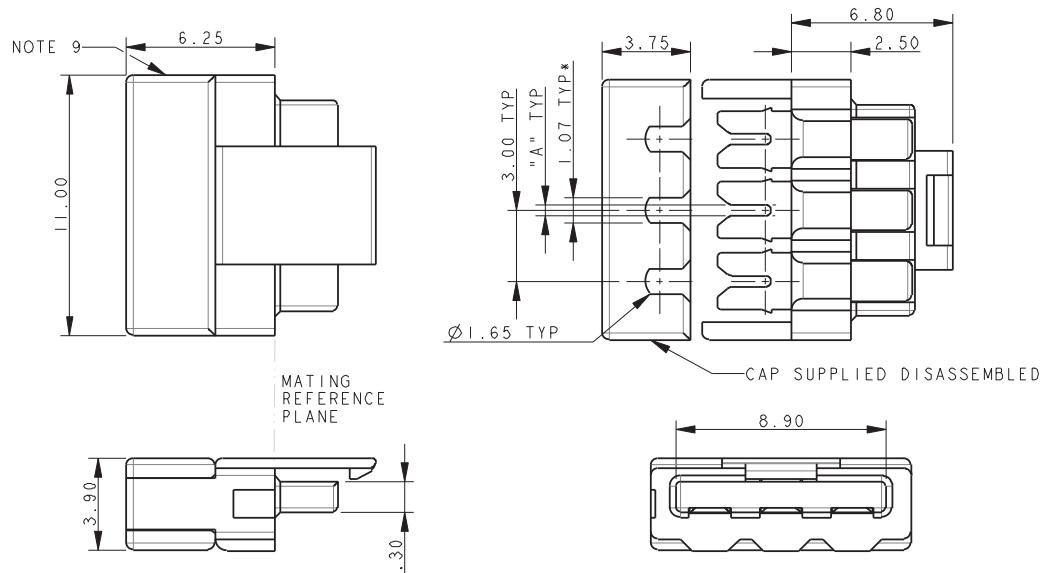
Wire Gauge	Code (Page 24)	Dimension A	Wire Insulation Diameter
22AWG (Stranded Wire)	122	0.47	1.10 to 1.60
24AWG (Stranded Wire)	132	0.37	1.10 to 1.60



PACKING DETAILS CAP AND CONNECTOR SUPPLIED TOGETHER (2 PARTS)



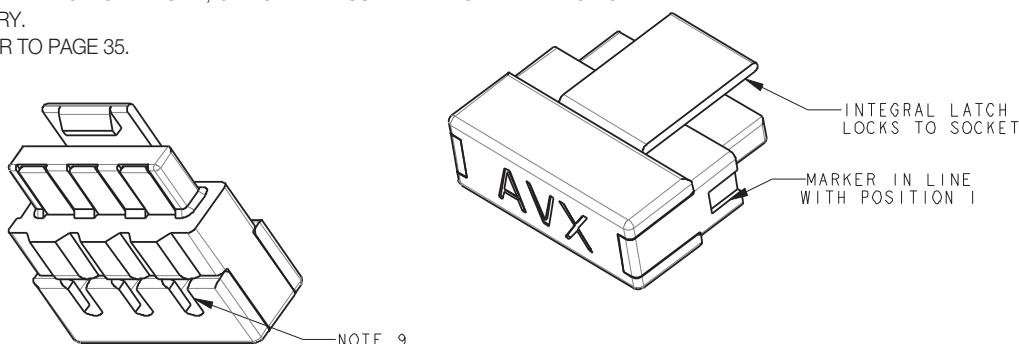
PLUG-WIRED – 3 WAY WIRE STOP CAP



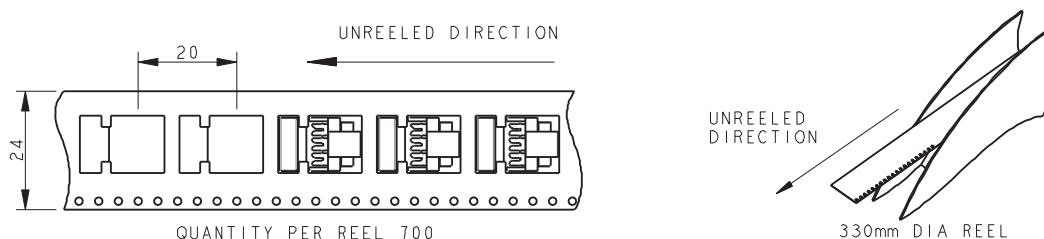
NOTES:

1. FOR MORE INFORMATION REFER TO PRODUCT SPEC 201-01-119.
FOR WIRE ASSEMBLY REFER TO APPLICATION NOTES 201-01-123.
2. WIRE STOP CAP, WITH STOP FACE ON ONE SIDE TO PROTECT END OF WIRE.
3. CAP ACTS AS WIRE ASSEMBLY TOOL. WIRE PREFIT TO CAP, NARROW SLOT TO GRIP WIRE, PERMANENT ASSEMBLY.
4. GENERAL TOLERANCE ± 0.20 UNLESS SPECIFIED.
5. INSULATOR MATERIAL: NYLON 46, GLASS FILLED, UL94 V-0. COLOR REFER TO PAGE 24.
6. CONTACT MATERIAL: COPPER ALLOY, PLATING NICKEL BASE ALL OVER, GOLD ON CONTACT, TIN ON IDC.
7. PACKING IN TAPE AND REEL. QTY PER REEL 700, POCKET CONTAINS 1 CONNECTOR AND 1 CAP.
8. WIRE GAUGE OPTIONS, SEE TABLE.
9. SHOWN WITH WIRE ENTRY FROM UNDERSIDE, CAP CAN BE ASSEMBLED FOR EITHER TOP OR UNDERSIDE WIRE ENTRY.
10. ASSEMBLY AIDS, REFER TO PAGE 35.

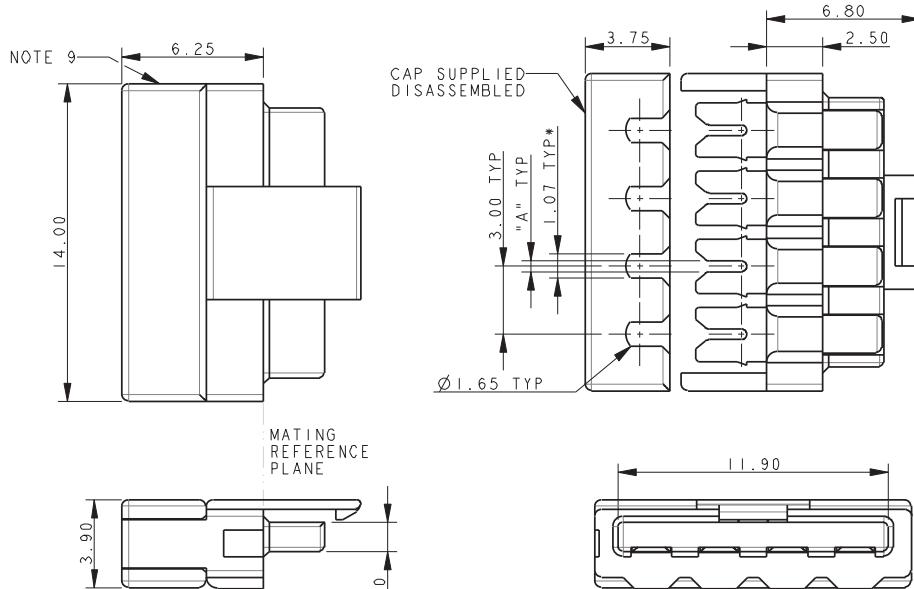
Wire Gauge	Code (Page 24)	Dimension A	Wire Insulation Diameter
22AWG (Stranded Wire)	122	0.47	1.10 to 1.60
24AWG (Stranded Wire)	132	0.37	1.10 to 1.60



PACKING DETAILS CAP AND CONNECTOR SUPPLIED TOGETHER (2 PARTS)



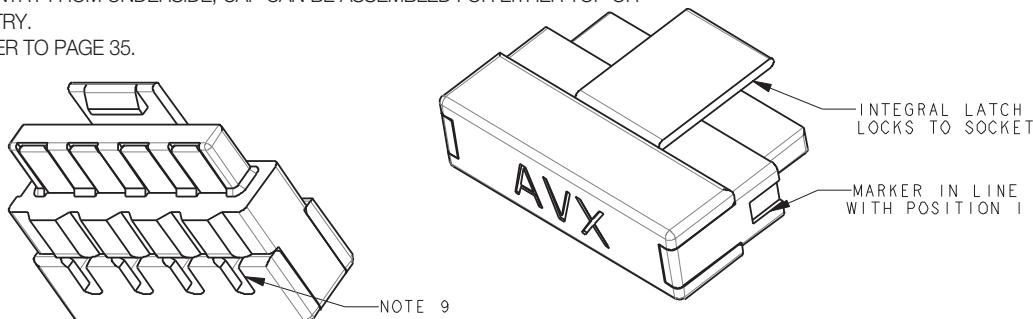
PLUG WIRED – 4 WAY WIRE STOP CAP



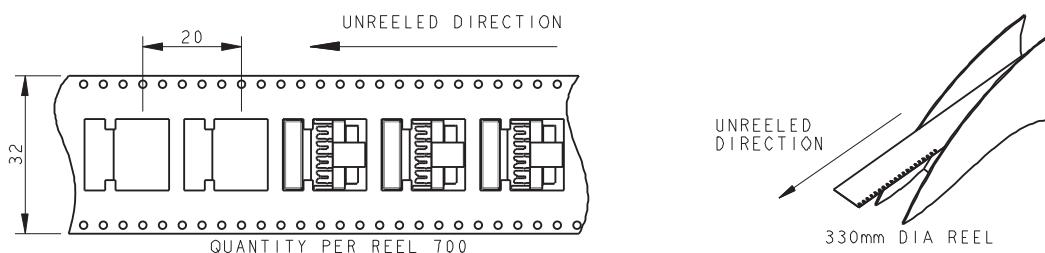
NOTES:

1. FOR MORE INFORMATION REFER TO PRODUCT SPEC 201-01-119.
FOR WIRE ASSEMBLY REFER TO APPLICATION NOTES 201-01-123.
2. WIRE STOP CAP, WITH STOP FACE ON ONE SIDE TO PROTECT END OF WIRE.
3. CAP ACTS AS WIRE ASSEMBLY TOOL. WIRE PREFIT TO CAP, NARROW SLOT TO GRIP WIRE, PERMANENT ASSEMBLY.
4. GENERAL TOLERANCE ± 0.20 UNLESS SPECIFIED.
5. INSULATOR MATERIAL: NYLON 46, GLASS FILLED, UL94 V-0. COLOR REFER TO PAGE 24.
6. CONTACT MATERIAL: COPPER ALLOY, PLATING NICKEL BASE ALL OVER, GOLD ON CONTACT, TIN ON IDC.
7. PACKING IN TAPE AND REEL. QTY PER REEL 700, POCKET CONTAINS 1 CONNECTOR AND 1 CAP.
8. WIRE GAUGE OPTIONS, SEE TABLE.
9. SHOWN WITH WIRE ENTRY FROM UNDERSIDE, CAP CAN BE ASSEMBLED FOR EITHER TOP OR UNDERSIDE WIRE ENTRY.
10. ASSEMBLY AIDS, REFER TO PAGE 35.

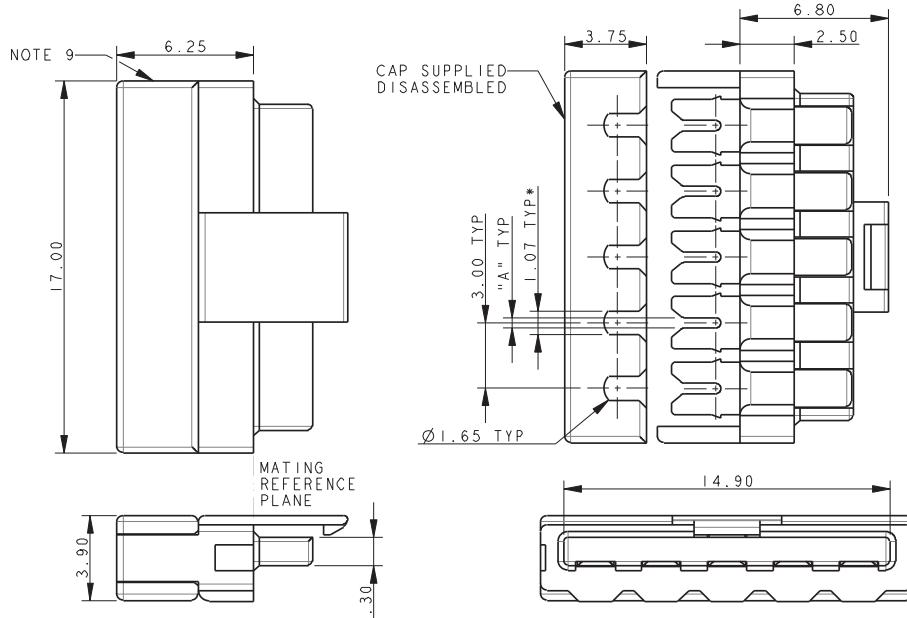
Wire Gauge	Code (Page 24)	Dimension A	Wire Insulation Diameter
22AWG (Stranded Wire)	122	0.47	1.10 to 1.60
24AWG (Stranded Wire)	132	0.37	1.10 to 1.60



PACKING DETAILS CAP AND CONNECTOR SUPPLIED TOGETHER (2 PARTS)



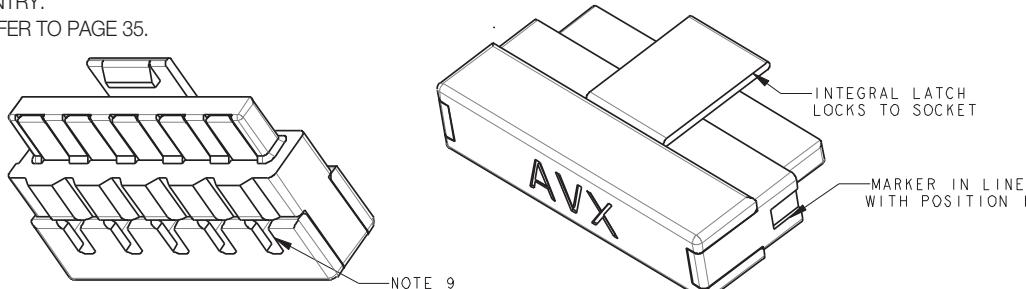
PLUG WIRED – 5 WAY WIRE STOP CAP



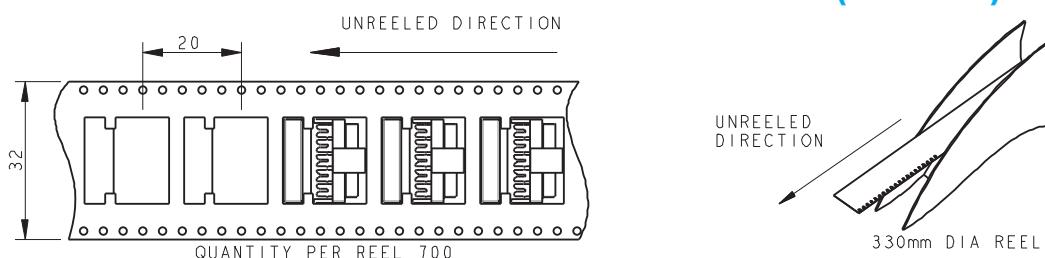
NOTES:

1. FOR MORE INFORMATION REFER TO PRODUCT SPEC 201-01-119.
FOR WIRE ASSEMBLY REFER TO APPLICATION NOTES 201-01-123.
2. WIRE STOP CAP, WITH STOP FACE ON ONE SIDE TO PROTECT END OF WIRE.
3. CAP ACTS AS WIRE ASSEMBLY TOOL. WIRE PREFIT TO CAP, NARROW SLOT TO GRIP WIRE, PERMANENT ASSEMBLY.
4. GENERAL TOLERANCE ± 0.20 UNLESS SPECIFIED.
5. INSULATOR MATERIAL: NYLON 46, GLASS FILLED, UL94 V-0. COLOR REFER TO PAGE 24.
6. CONTACT MATERIAL: COPPER ALLOY, PLATING NICKEL BASE ALL OVER, GOLD ON CONTACT, TIN ON IDC.
7. PACKING IN TAPE AND REEL. QTY PER REEL 700, POCKET CONTAINS 1 CONNECTOR AND 1 CAP.
8. WIRE GAUGE OPTIONS, SEE TABLE.
9. SHOWN WITH WIRE ENTRY FROM UNDERSIDE, CAP CAN BE ASSEMBLED FOR EITHER TOP OR UNDERSIDE WIRE ENTRY.
10. ASSEMBLY AIDS, REFER TO PAGE 35.

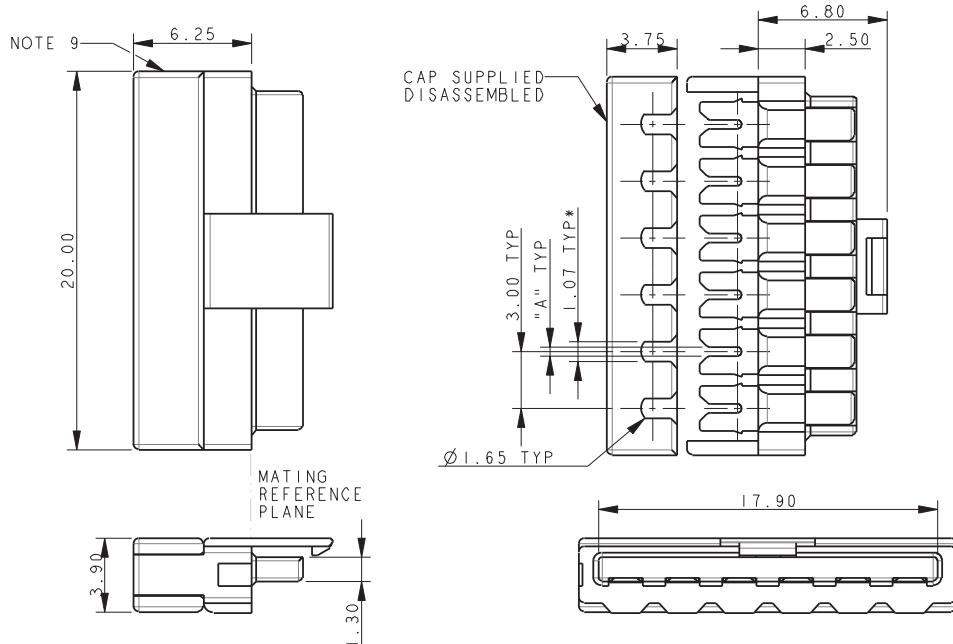
Wire Gauge	Code (Page 24)	Dimension A	Wire Insulation Diameter
22AWG (Stranded Wire)	122	0.47	1.10 to 1.60
24AWG (Stranded Wire)	132	0.37	1.10 to 1.60



PACKING DETAILS CAP AND CONNECTOR SUPPLIED TOGETHER (2 PARTS)



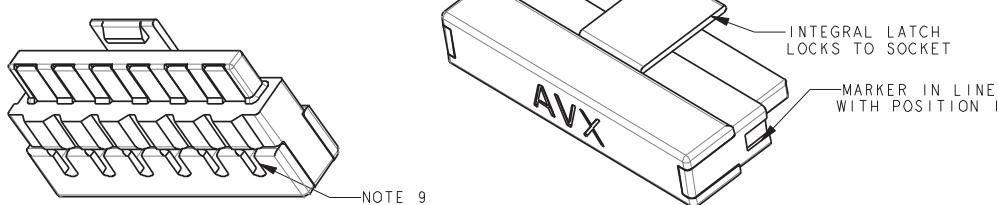
PLUG WIRED – 6 WAY WIRE STOP CAP



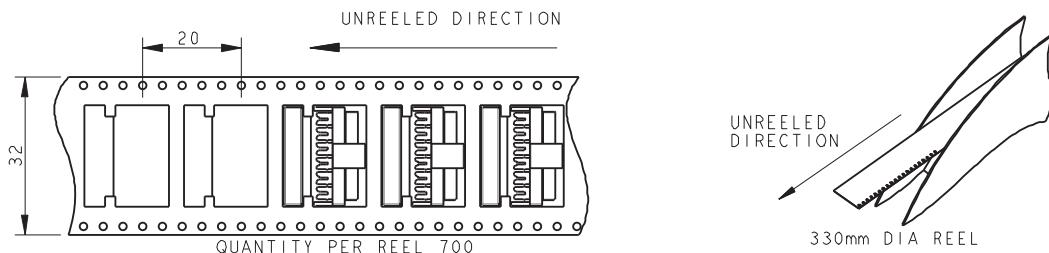
NOTES:

1. FOR MORE INFORMATION REFER TO PRODUCT SPEC 201-01-119.
FOR WIRE ASSEMBLY REFER TO APPLICATION NOTES 201-01-123.
2. WIRE STOP CAP, WITH STOP FACE ON ONE SIDE TO PROTECT END OF WIRE.
3. CAP ACTS AS WIRE ASSEMBLY TOOL. WIRE PREFIT TO CAP, NARROW SLOT TO GRIP WIRE, PERMANENT ASSEMBLY.
4. GENERAL TOLERANCE ± 0.20 UNLESS SPECIFIED.
5. INSULATOR MATERIAL: NYLON 46, GLASS FILLED, UL94 V-0. COLOR REFER TO PAGE 24.
6. CONTACT MATERIAL: COPPER ALLOY, PLATING NICKEL BASE ALL OVER, GOLD ON CONTACT, TIN ON IDC.
7. PACKING IN TAPE AND REEL. QTY PER REEL 700, POCKET CONTAINS 1 CONNECTOR AND 1 CAP.
8. WIRE GAUGE OPTIONS, SEE TABLE.
9. SHOWN WITH WIRE ENTRY FROM UNDERSIDE, CAP CAN BE ASSEMBLED FOR EITHER TOP OR UNDERSIDE WIRE ENTRY.
10. ASSEMBLY AIDS, REFER TO PAGE 35.

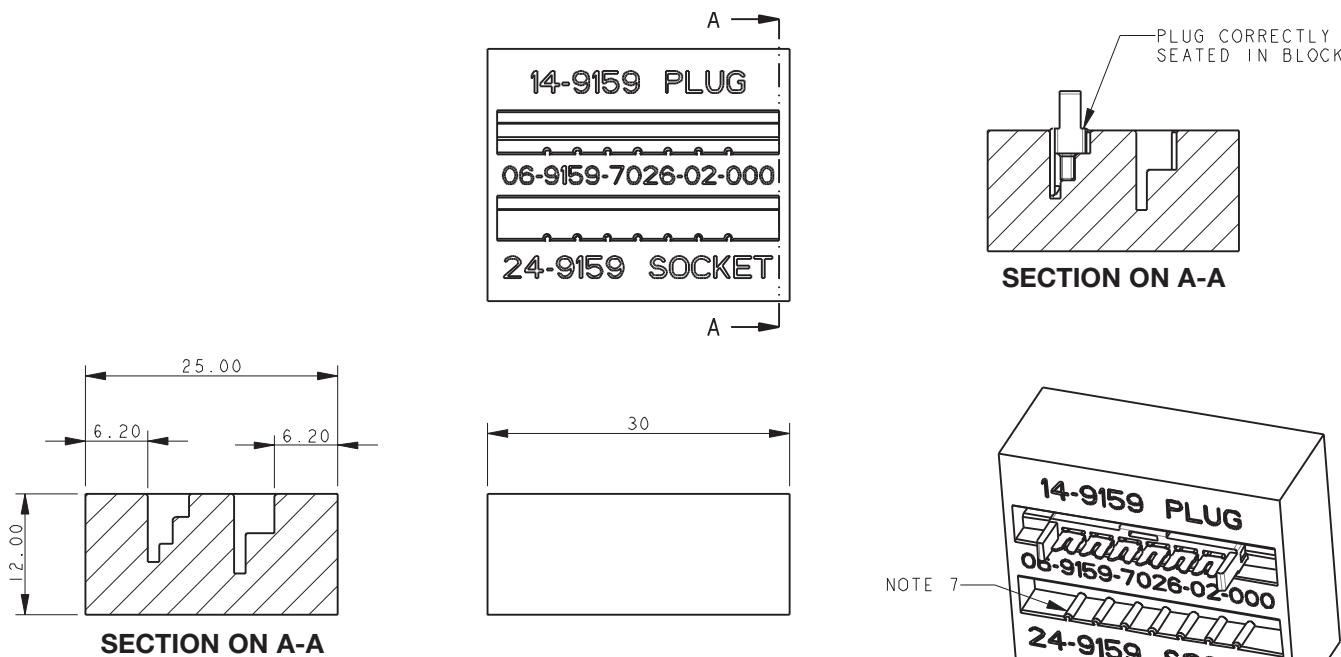
Wire Gauge	Code (Page 24)	Dimension A	Wire Insulation Diameter
22AWG (Stranded Wire)	122	0.47	1.10 to 1.60
24AWG (Stranded Wire)	132	0.37	1.10 to 1.60



PACKING DETAILS CAP AND CONNECTOR SUPPLIED TOGETHER (2 PARTS)



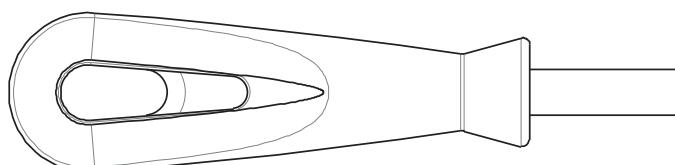
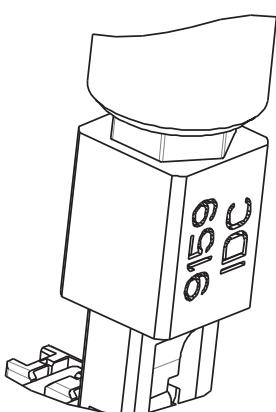
PLUG-WIRED – ASSEMBLY SUPPORT BLOCK



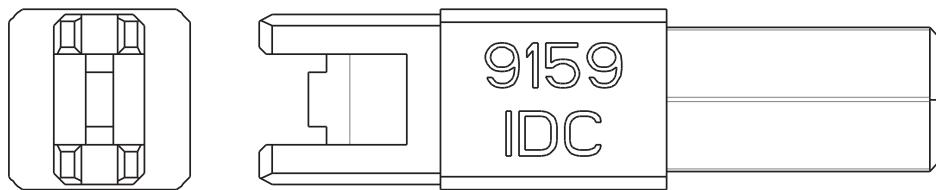
NOTES:

1. BLOCK TO SUPPORT 9159 IDC WIRED CONNECTORS DURING ASSEMBLY OF CAP/WIRE.
2. PART NUMBER 06-9159-7026-01-000, MATERIAL ALUMINUM.
3. PART NUMBER 06-9159-7026-02-000, MATERIAL NYLON 46.
4. CAN BE USED WITH EITHER THE PLUG OR SOCKET CONNECTORS, USE THE CORRECT SLOT AS IDENTIFIED.
5. FOR FULL WIRE ASSEMBLY DETAILS REFER TO APPLICATION NOTES 201-01-123.
6. ONLY A SIMPLE FLAT BOTTOMED TOOL REQUIRED TO PUSH THE CAP DOWN (NOT SUPPLIED.)
7. ALL DIMENSIONS ± 0.20 UNLESS TOLERANCED.
7. 06-9159-7026-02-000 HAS RIBS TO HELP LOCATE CONTACT/INSULATOR SUB-ASSEMBLY.

PLUG-WIRED – WIRE INSERTION TOOL



UNIVERSAL HANDLE 06-7000-7730-01-000

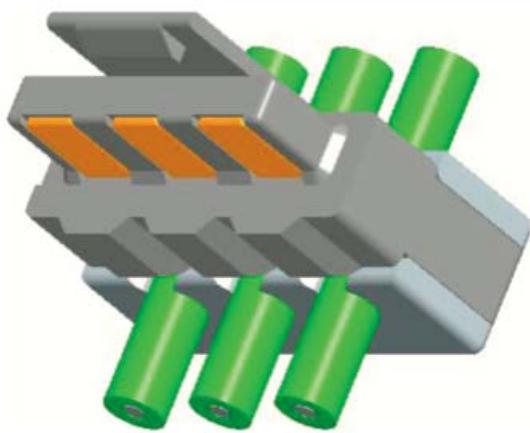


WIRE INSERTION TOOL 06-9159-7027-01-000

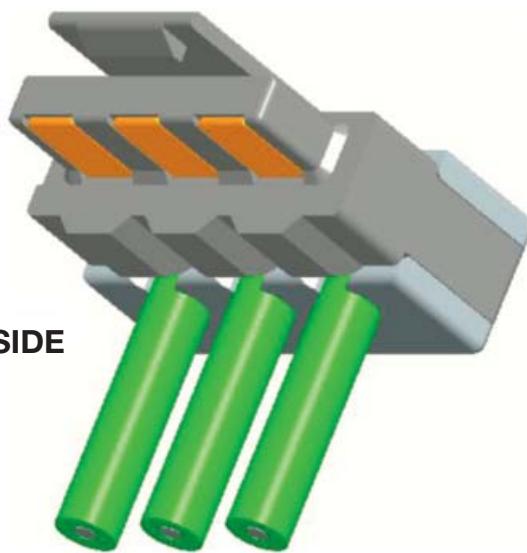
NOTES:

1. TOOL 06-9159-7027-01-000 TO INSERT WIRES INTO CAP.
2. FOR USE WITH UNIVERSAL HANDLE 06-7000-7720-01-000.
3. CAN BE USED WITH BOTH THROUGH WIRE AND WIRE STOP CAPS.
4. REFER TO APPLICATION NOTES 201-01-123 FOR FURTHER DETAILS.

PLUG-WIRED – ASSEMBLY



THROUGH WIRE



WIRED STOP
WIRE ENTRY UNDERSIDE



WIRED STOP
WIRE ENTRY TOP

Horizontal Socket: BTB

20-9159

AVX INTERCONNECT
A KYOCERA GROUP COMPANY



The 9159 series of Board-to-Board interconnect system allows two PCB's to be mated end-to-end creating strips of LED lighting. Designed specifically for the unique Solid State Lighting (SSL) market requiring coplanar (horizontal-to-horizontal) PCB mating with a 5 Amp current rating in the smallest package available. These single sided SMT connectors are perfect for both FR4 and metal boards where you need to butt the boards up together to minimize separation. Available of both white and black insulation colors make them perfect for lighting as well as industrial applications. With sizes from 2p-6p, these high reliability connectors boast gold plated beryllium copper receptacle contacts for harsh environments.

APPLICATIONS

- Coplanar PCB mating in SSL products
- LED linear lighting strips
- Application Notes: refer to 201-01-123

FEATURES AND BENEFITS

- Single sided SMT: supports FR4 and metal PCB's
- 5 Amp current rating: exceeds general market needs
- 5.5mm mated width: minimizes PCB space to decrease LED pitch
- Gold plated BeCu spring contacts: reliability for harsh environments
- Optional retaining clip: provides positive connector mating during vibration
- Available in white: supports SSL market preferences

ELECTRICAL

- Current Rating: 5 Amps / Contact
- Voltage Rating: 125 VAC

ENVIRONMENTAL

- Operating Temperature: -40°C to +125°C

MECHANICAL

- Insulator Material: Nylon: VL94VO
- Contact Material: BeCu / Phos Bronze
- Plating: Gold / Tin over Nickel
- Durability: 10 Cycles

HOW TO ORDER

20
Prefix
Socket

9159
Series

00X

Code	No of Ways	Details
002	2	Page 38
003	3	Page 39
004	4	Page 40
005	5	Page 41
006	6	Page 42

1
2 Part
PCB Strip
Connector

01
Connector
Pitch
01 = 3mm

9

Code	Color	Approval
9	White	UL Approved

16

Code	Contact	Bracket
16	Gold in Contact Area Gold on Solder Tail	Tin all over

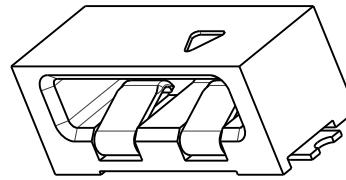
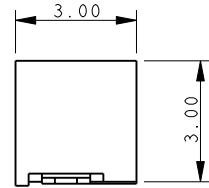
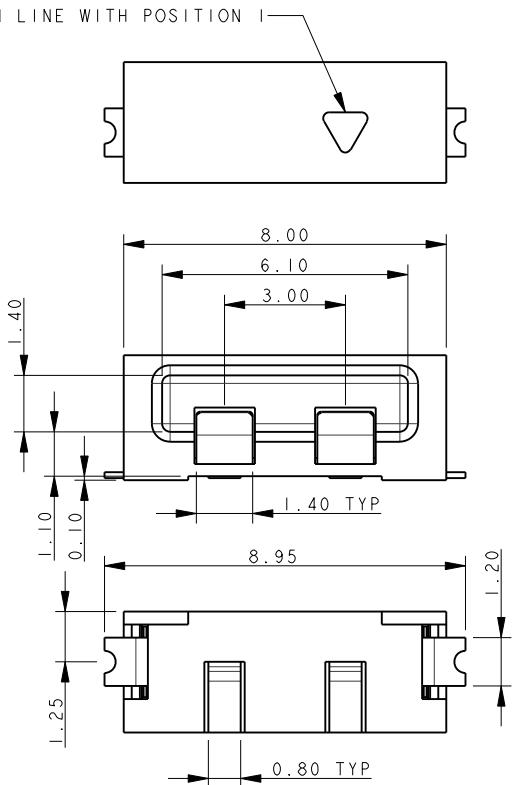
Certification: UL File #E90723



AVX

SOCKET 2 WAY 2 PART PCB STRIP CONNECTOR

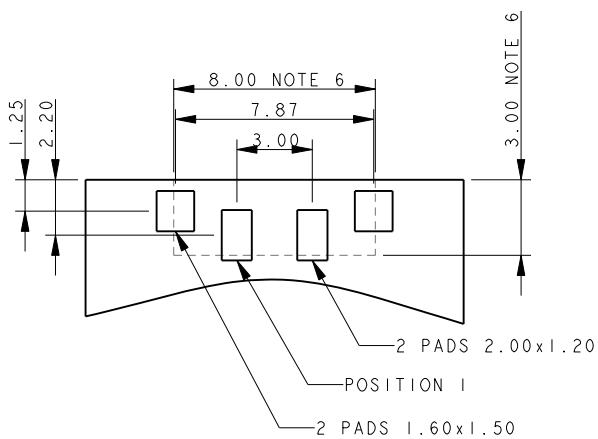
MARKER IN LINE WITH POSITION I



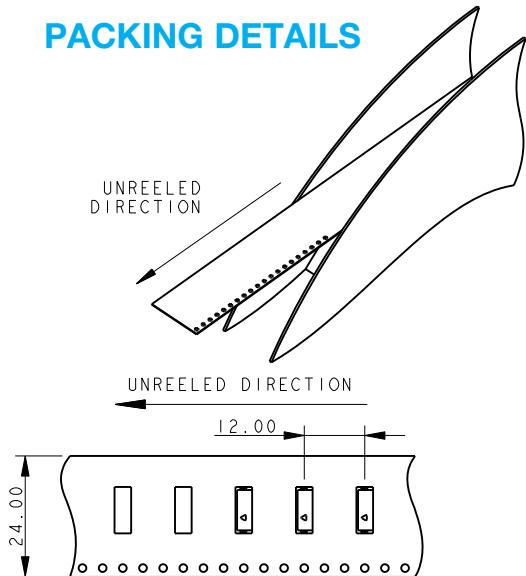
NOTES:

1. FOR MORE INFORMATION REFER TO PRODUCT SPEC 201-01-119.
2. DIMENSIONS ARE REFERENCE DIMENSIONS UNLESS TOLERANCES.
3. INSULATOR MATERIAL: NYLON 46. COLOR REFER TO PAGE 37.
4. CONTACT MATERIAL: COPPER ALLOY, GOLD OVER NICKEL.
5. BRACKETS: COPPER ALLOY, TIN PLATED.
6. OUTLINE OF CONNECTOR.
7. PACKING TAPE AND REEL, QUANTITY 1400 PER REEL.

2 WAY PCB BOARD LAYOUT



PACKING DETAILS

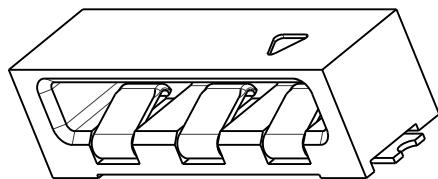
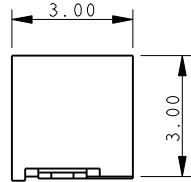
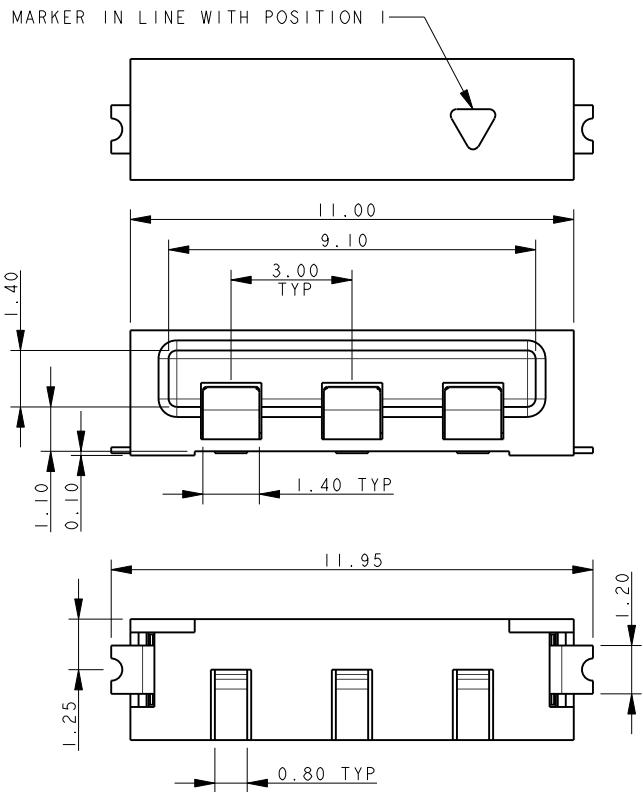


Horizontal Socket: BTB

20-9159

AVX INTERCONNECT
A KYOCERA GROUP COMPANY

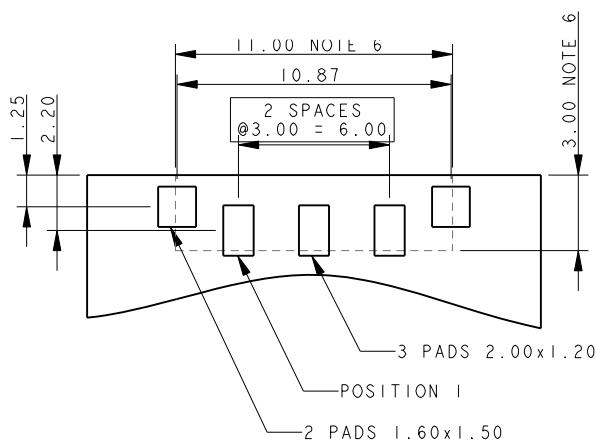
SOCKET 3 WAY 2 PART PCB STRIP CONNECTOR



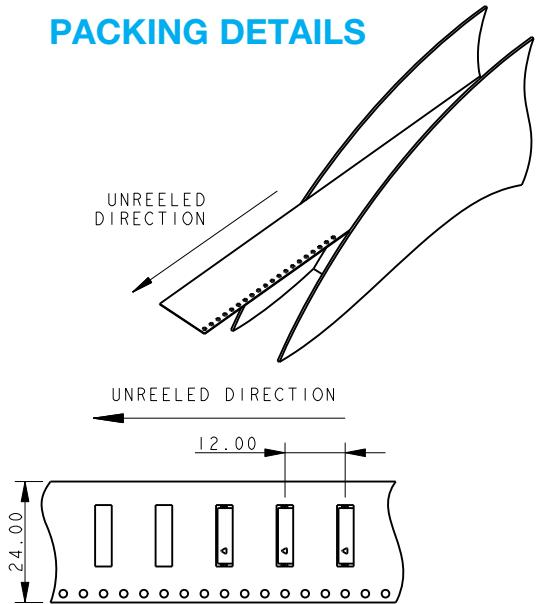
NOTES:

1. FOR MORE INFORMATION REFER TO PRODUCT SPEC 201-01-119.
2. DIMENSIONS ARE REFERENCE DIMENSIONS UNLESS TOLERANCES.
3. INSULATOR MATERIAL: NYLON 46. COLOR REFER TO PAGE 37.
4. CONTACT MATERIAL: COPPER ALLOY, GOLD OVER NICKEL.
5. BRACKETS: COPPER ALLOY, TIN PLATED.
6. OUTLINE OF CONNECTOR.
7. PACKING TAPE AND REEL, QUANTITY 1400 PER REEL.

3 WAY PCB BOARD LAYOUT



PACKING DETAILS



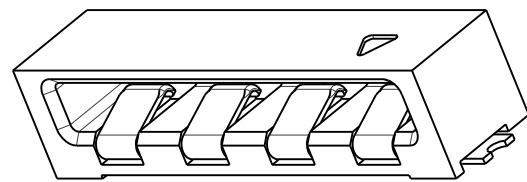
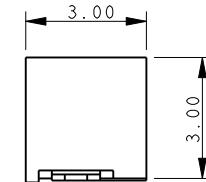
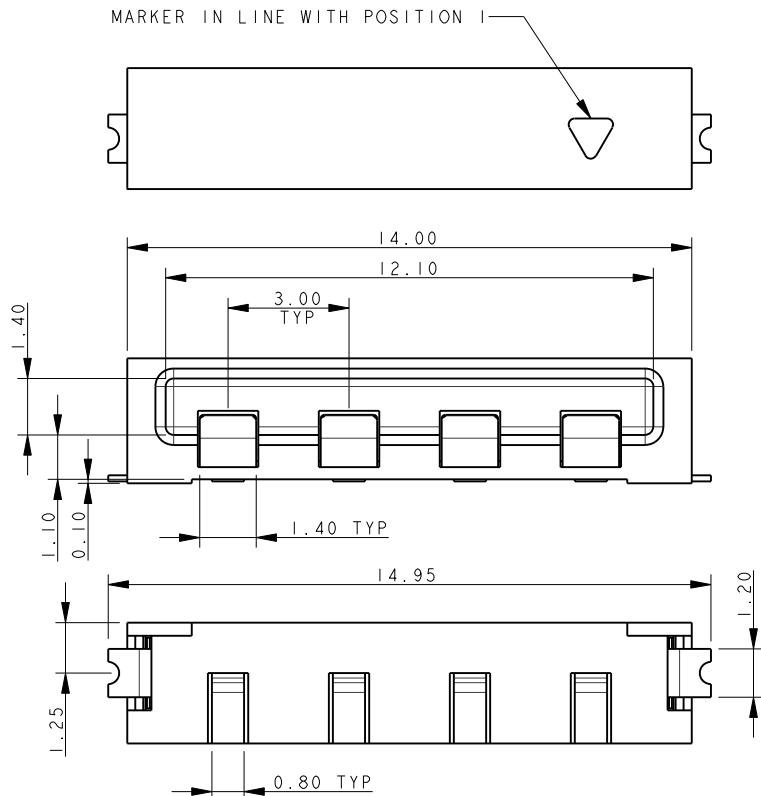
AVX

Horizontal Socket: BTB

20-9159

AVX INTERCONNECT
A KYOCERA GROUP COMPANY

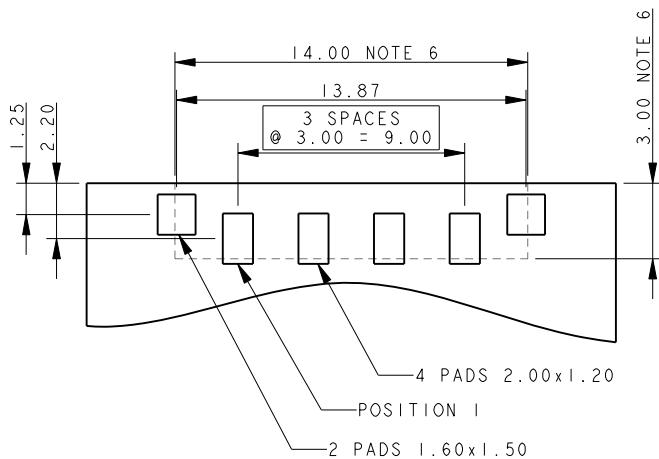
SOCKET 4 WAY 2 PART PCB STRIP CONNECTOR



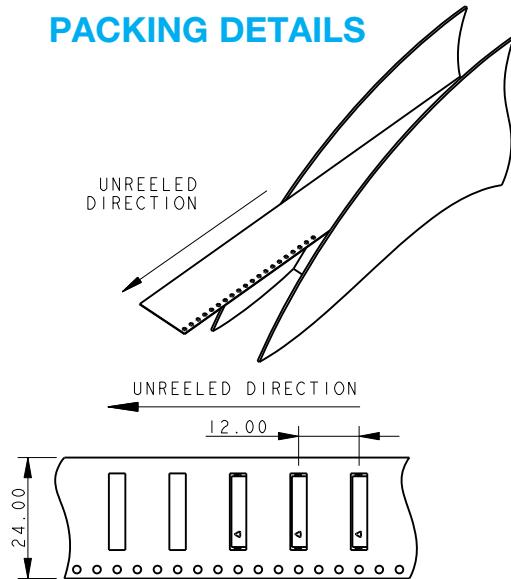
NOTES:

1. FOR MORE INFORMATION REFER TO PRODUCT SPEC 201-01-119.
2. DIMENSIONS ARE REFERENCE DIMENSIONS UNLESS TOLERANCES.
3. INSULATOR MATERIAL: NYLON 46. COLOR REFER TO PAGE 37.
4. CONTACT MATERIAL: COPPER ALLOY, GOLD OVER NICKEL.
5. BRACKETS: COPPER ALLOY, TIN PLATED.
6. OUTLINE OF CONNECTOR.
7. PACKING TAPE AND REEL, QUANTITY 1400 PER REEL.

4 WAY PCB BOARD LAYOUT



PACKING DETAILS

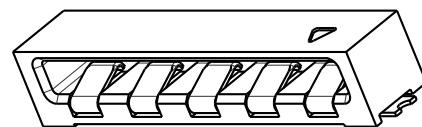
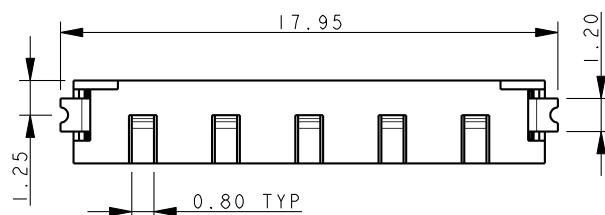
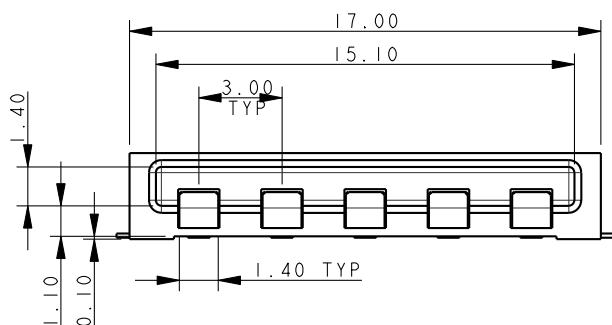
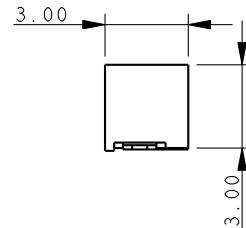
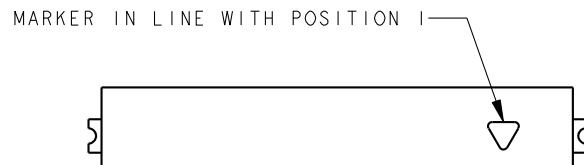


Horizontal Socket: BTB

20-9159

AVX INTERCONNECT
A KYOCERA GROUP COMPANY

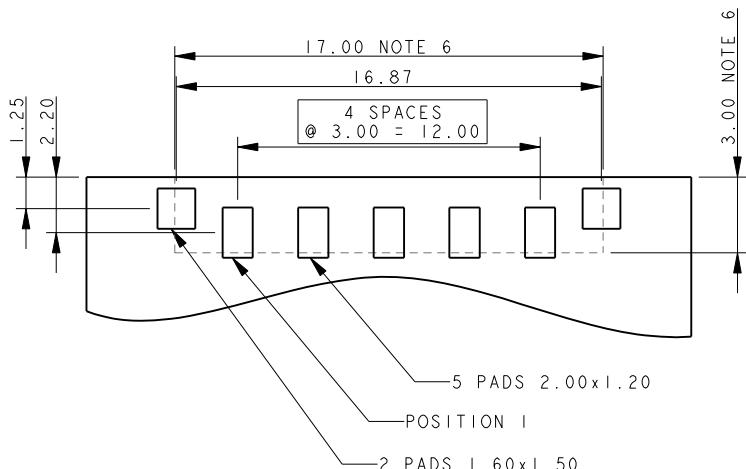
SOCKET 5 WAY 2 PART PCB STRIP CONNECTOR



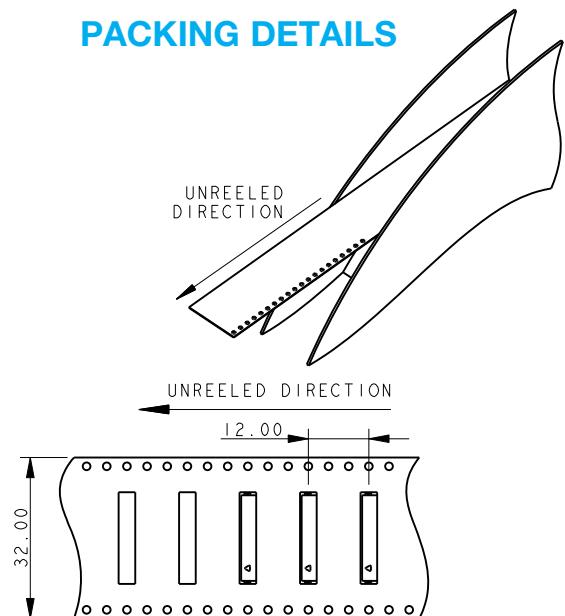
NOTES:

1. FOR MORE INFORMATION REFER TO PRODUCT SPEC 201-01-119.
2. DIMENSIONS ARE REFERENCE DIMENSIONS UNLESS TOLERANCES.
3. INSULATOR MATERIAL: NYLON 46. COLOR REFER TO PAGE 37.
4. CONTACT MATERIAL: COPPER ALLOY, GOLD OVER NICKEL.
5. BRACKETS: COPPER ALLOY, TIN PLATED.
6. OUTLINE OF CONNECTOR.
7. PACKING TAPE AND REEL, QUANTITY 1400 PER REEL.

5 WAY PCB BOARD LAYOUT



PACKING DETAILS



AVX

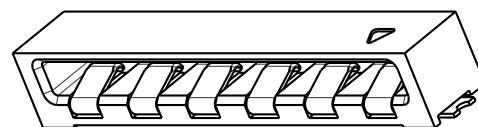
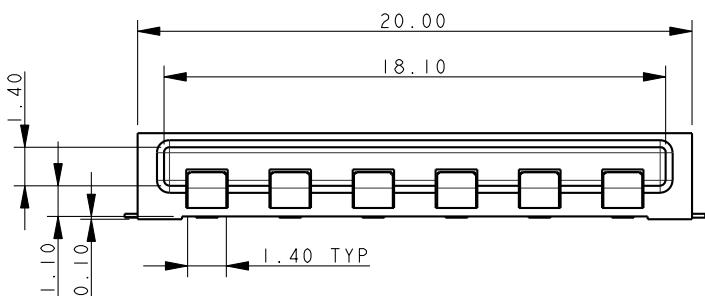
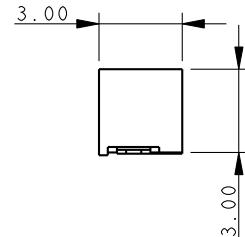
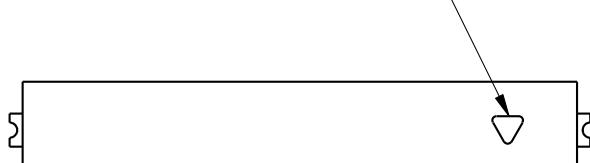
Horizontal Socket: BTB

20-9159

AVX INTERCONNECT
A KYOCERA GROUP COMPANY

SOCKET 6 WAY 2 PART PCB STRIP CONNECTOR

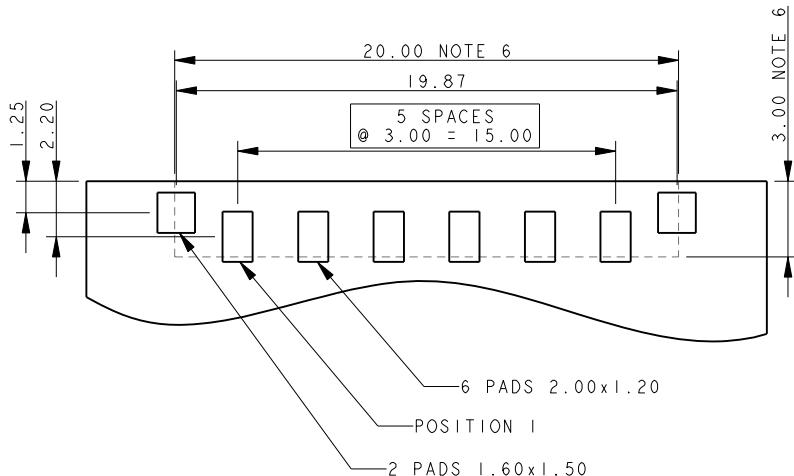
MARKER IN LINE WITH POSITION I



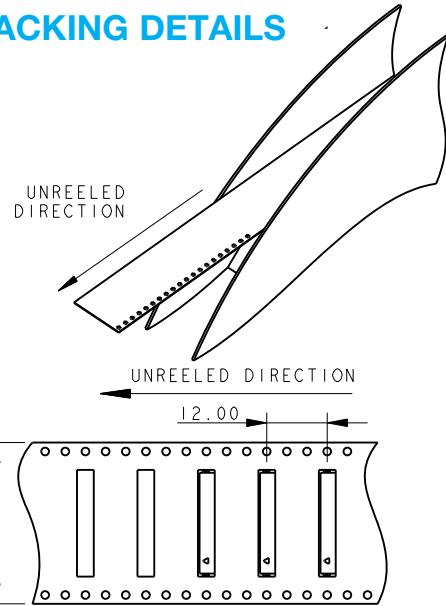
NOTES:

1. FOR MORE INFORMATION REFER TO PRODUCT SPEC 201-01-119.
2. DIMENSIONS ARE REFERENCE DIMENSIONS UNLESS TOLERANCES.
3. INSULATOR MATERIAL: NYLON 46. COLOR REFER TO PAGE 37.
4. CONTACT MATERIAL: COPPER ALLOY, GOLD OVER NICKEL.
5. BRACKETS: COPPER ALLOY, TIN PLATED.
6. OUTLINE OF CONNECTOR.
7. PACKING TAPE AND REEL, QUANTITY 1400 PER REEL.

6 WAY PCB BOARD LAYOUT



PACKING DETAILS



Top Load Socket: BTB

22-9159



The 9159 series of Board-to-Board interconnect system allows two PCB's to be mated end-to-end creating strips of LED lighting. Designed specifically for the unique Solid State Lighting (SSL) market requiring coplanar (horizontal-to-horizontal) PCB mating with a 5 Amp current rating in the smallest package available. The top loading socket allows complete PCB's to be replaced in the field without having to disassemble the entire strip of boards. The connector has a two part insulator whereby the top of the connector will slide open allowing the plug connector to be pulled out either vertically or at a slight angle. Once the PCB is replaced, the cover is slid back like a Zero Insertion Force (ZIF) connector to the closed position. The PCB layout is identical to the standard horizontal socket to maintain family commonality at the PCB level.

APPLICATIONS

- Coplanar PCB mating in SSL products
- LED linear lighting strips
- Application Notes: refer to 201-01-123

FEATURES AND BENEFITS

- Slide open top: allows field reparability at the light fixture level
- Mates with standard horizontal or cabled plug: no need to change any connectors
- 5 Amp current rating: exceeds general market needs
- Gold plated BeCu spring contacts: reliability for harsh environments
- Available in white: supports SSL market preferences

ELECTRICAL

- Current Rating: 5 Amps / Contact
- Voltage Rating: 125 VAC

ENVIRONMENTAL

- Operating Temperature:
-40°C to +125°C

MECHANICAL

- Insulator Material: Nylon: VL94VO
- Contact Material: BeCu / Phos Bronze
- Plating: Gold / Tin over Nickel
- Durability: 10 Cycles

HOW TO ORDER

22
T
Prefix
Socket
Top Loading

9159
T
Series

00X
T
Number of V

Number of Ways		
Code	No of Ways	Details
002	2	Page 44
003	3	Page 45
004	4	Page 46
005	5	Page 47
006	6	Page 48

1 T 2 Part PCB Strip Connector

01

T

Connector Pitch

01 = 3mm

9
T
Color/Approva

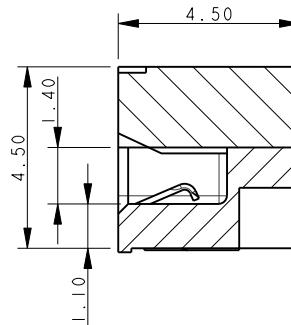
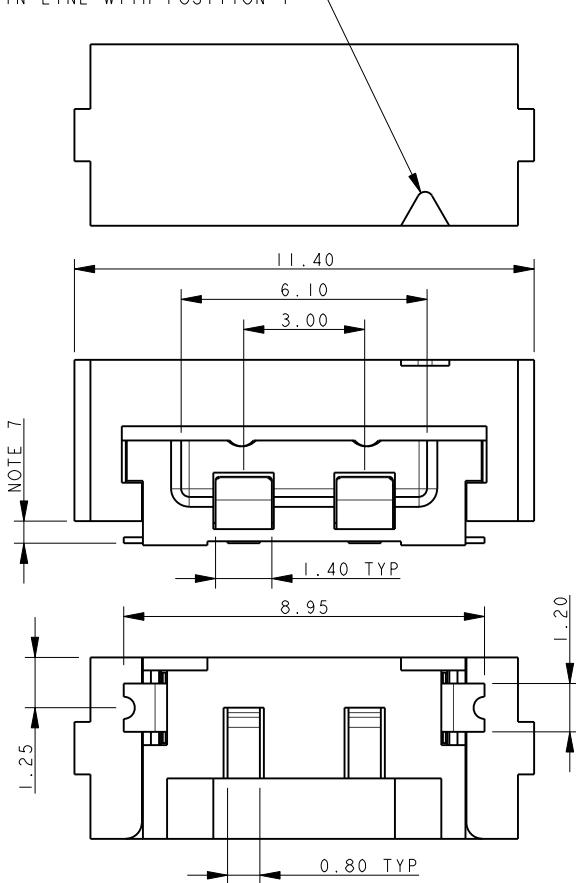
16
T
Plating Option



Certification: UL File #E90723

SOCKET TOP LOADING 2 WAY 2 PART PCB STRIP CONNECTOR

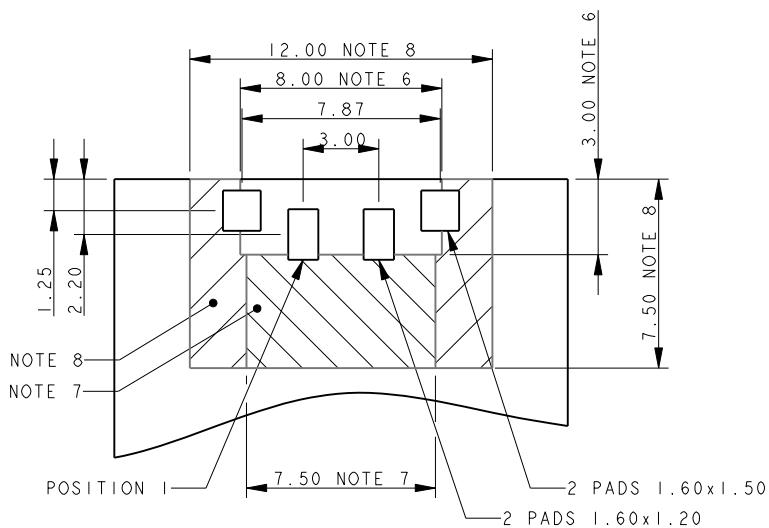
MARKER IN LINE WITH POSITION I



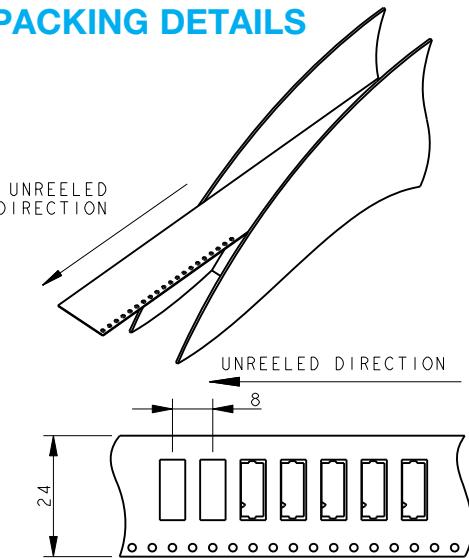
NOTES:

1. FOR MORE INFORMATION REFER TO PRODUCT SPEC 201-01-119.
2. DIMENSIONS ARE REFERENCE DIMENSIONS UNLESS TOLERANCES.
3. INSULATOR MATERIAL: NYLON 46. COLOR REFER TO PAGE 43.
4. CONTACT MATERIAL: COPPER ALLOY, GOLD OVER NICKEL.
5. BRACKETS: COPPER ALLOY, TIN PLATED.
6. OUTLINE OF CONNECTOR.
7. RESTRICTED COMPONENT HEIGHT UNDER CATCH, 2.20MM MAXIMUM.
8. RESTRICTED COMPONENT HEIGHT UNDER CATCH, 0.40MM MAXIMUM.
9. PACKING TAPE AND REEL, QUANTITY 1400 PER REEL.

2 WAY PCB BOARD LAYOUT



PACKING DETAILS



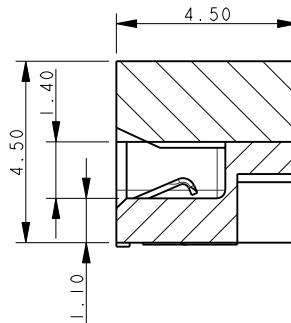
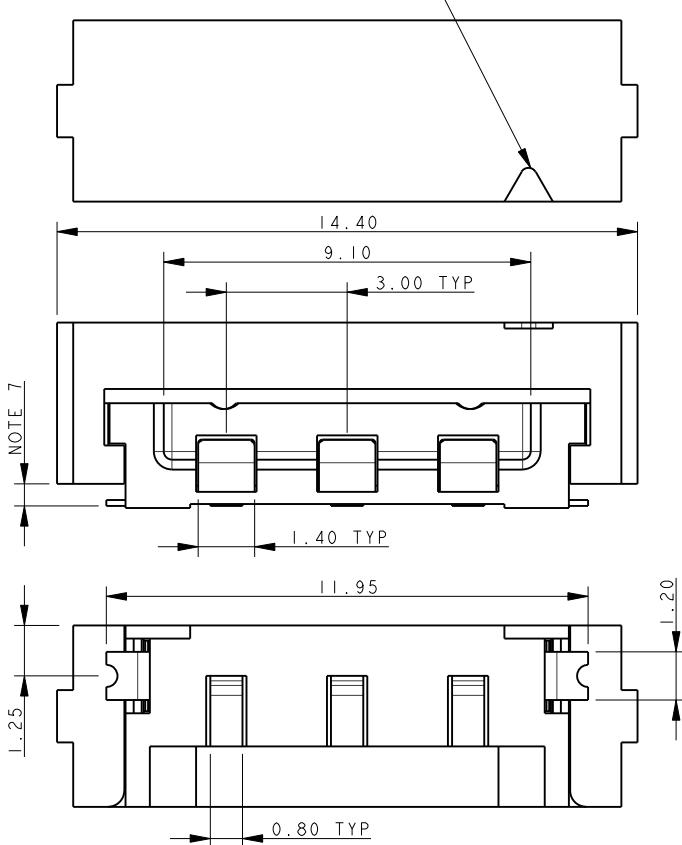
Top Load Socket: BTB

22-9159

AVX INTERCONNECT
A KYOCERA GROUP COMPANY

SOCKET TOP LOADING 3 WAY 2 PART PCB STRIP CONNECTOR

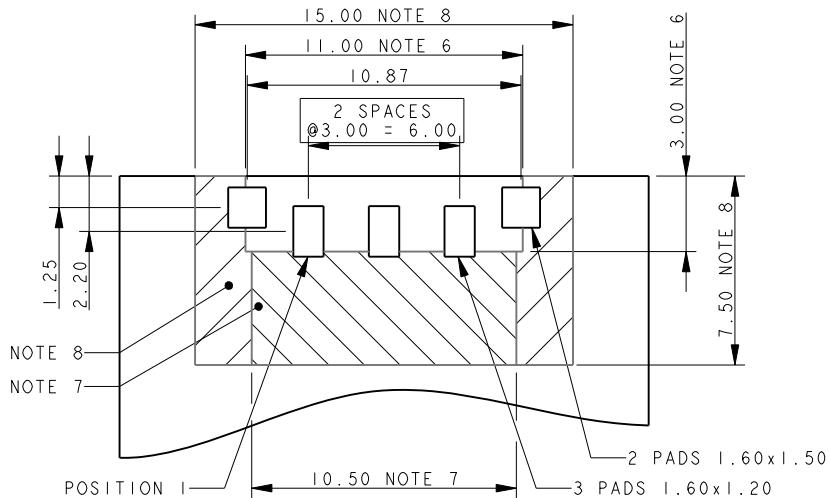
MARKER IN LINE WITH POSITION I—



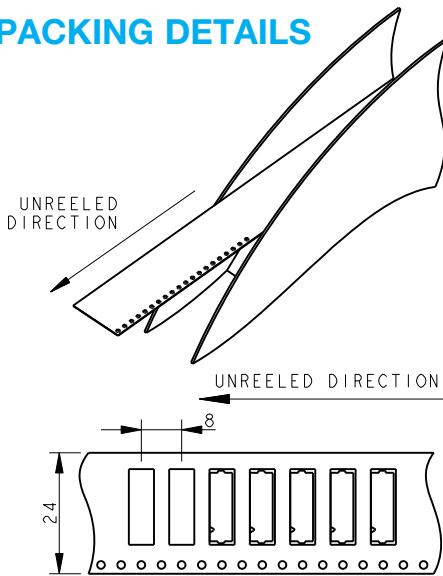
NOTES:

1. FOR MORE INFORMATION REFER TO PRODUCT SPEC 201-01-119.
2. DIMENSIONS ARE REFERENCE DIMENSIONS UNLESS TOLERANCES.
3. INSULATOR MATERIAL: NYLON 46. COLOR REFER TO PAGE 43.
4. CONTACT MATERIAL: COPPER ALLOY, GOLD OVER NICKEL.
5. BRACKETS: COPPER ALLOY, TIN PLATED.
6. OUTLINE OF CONNECTOR.
7. RESTRICTED COMPONENT HEIGHT UNDER CATCH,
2.20MM MAXIMUM.
8. RESTRICTED COMPONENT HEIGHT UNDER CATCH,
0.40MM MAXIMUM.
9. PACKING TAPE AND REEL, QUANTITY 1400 PER REEL.

3 WAY PCB BOARD LAYOUT



PACKING DETAILS

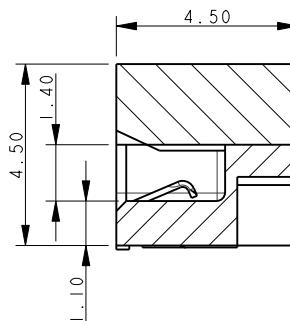
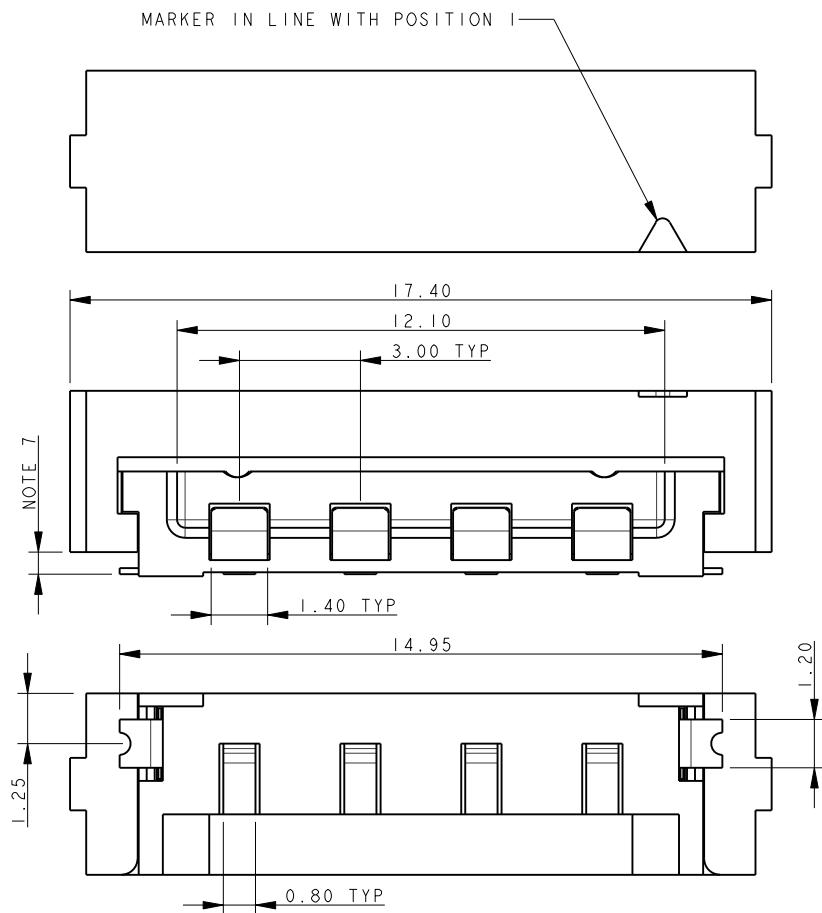


Top Load Socket: BTB

22-9159

AVX INTERCONNECT
A KYOCERA GROUP COMPANY

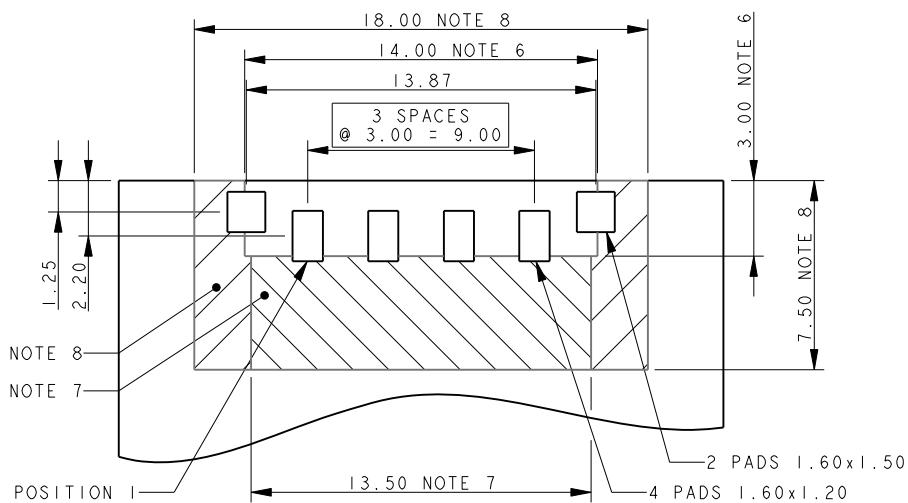
SOCKET TOP LOADING 4 WAY 2 PART PCB STRIP CONNECTOR



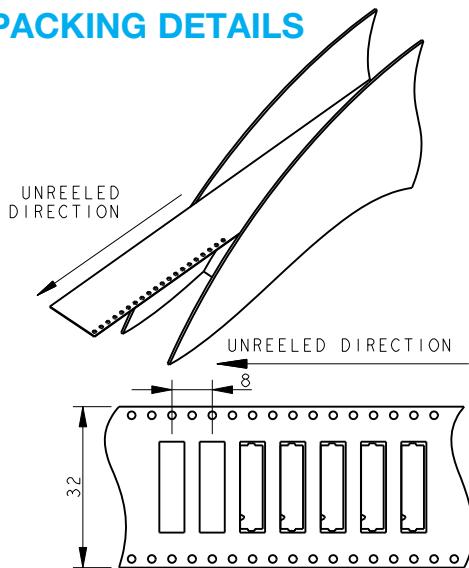
NOTES:

1. FOR MORE INFORMATION REFER TO PRODUCT SPEC 201-01-119.
2. DIMENSIONS ARE REFERENCE DIMENSIONS UNLESS TOLERANCES.
3. INSULATOR MATERIAL: NYLON 46. COLOR REFER TO PAGE 43.
4. CONTACT MATERIAL: COPPER ALLOY, GOLD OVER NICKEL.
5. BRACKETS: COPPER ALLOY, TIN PLATED.
6. OUTLINE OF CONNECTOR.
7. RESTRICTED COMPONENT HEIGHT UNDER CATCH, 2.20MM MAXIMUM.
8. RESTRICTED COMPONENT HEIGHT UNDER CATCH, 0.40MM MAXIMUM.
9. PACKING TAPE AND REEL, QUANTITY 1400 PER REEL.

4 WAY PCB BOARD LAYOUT



PACKING DETAILS

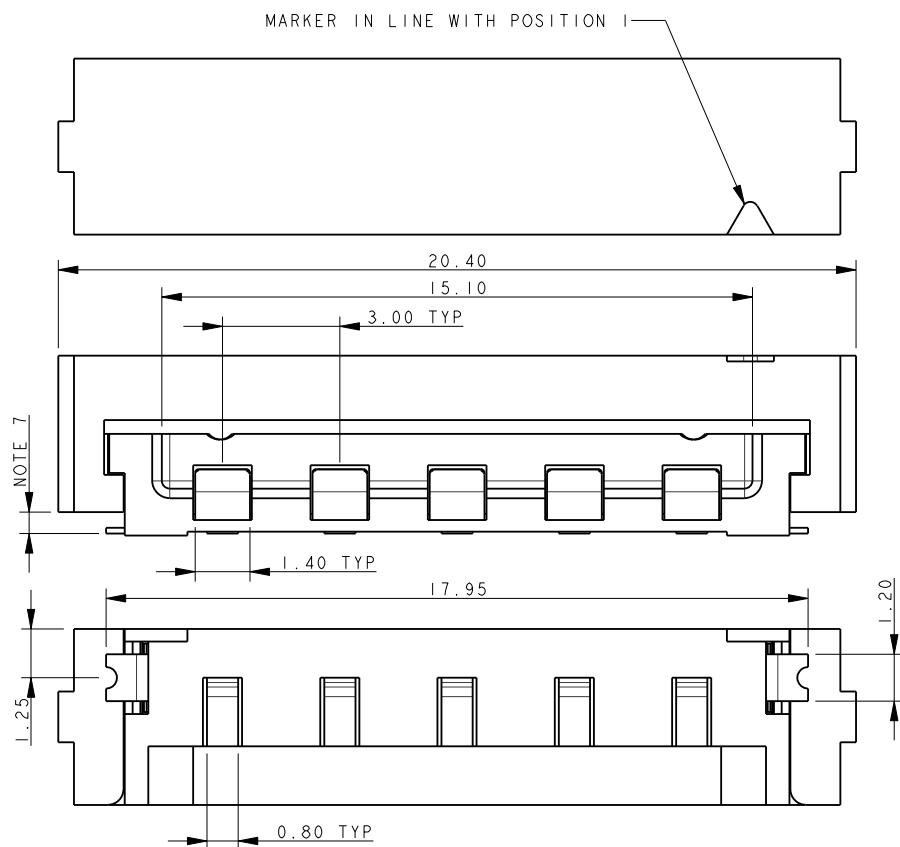


Top Load Socket: BTB

22-9159

AVX INTERCONNECT
A KYOCERA GROUP COMPANY

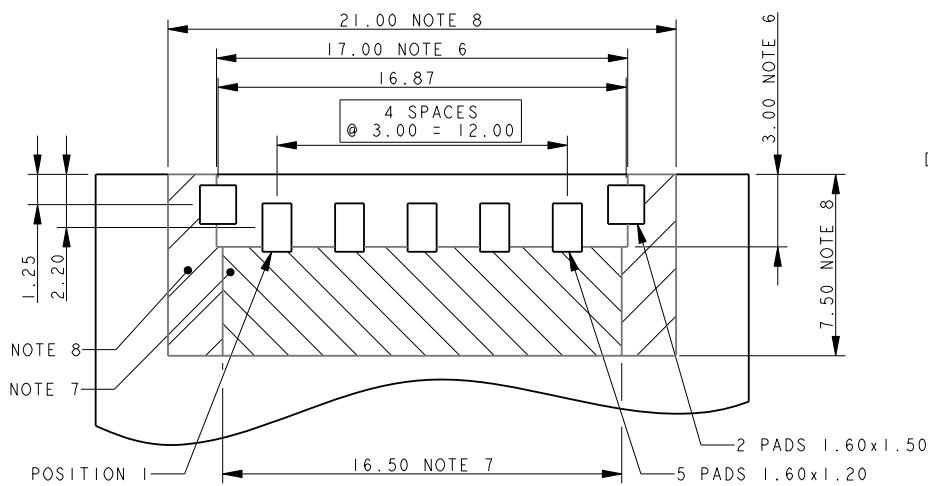
SOCKET TOP LOADING 5 WAY 2 PART PCB STRIP CONNECTOR



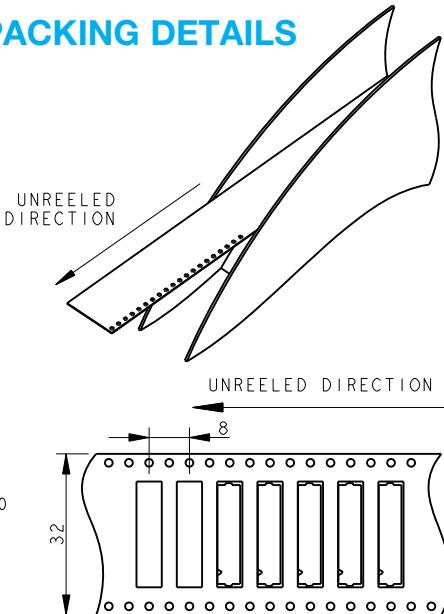
NOTES:

1. FOR MORE INFORMATION REFER TO PRODUCT SPEC 201-01-119.
2. DIMENSIONS ARE REFERENCE DIMENSIONS UNLESS TOLERANCES.
3. INSULATOR MATERIAL: NYLON 46. COLOR REFER TO PAGE 43.
4. CONTACT MATERIAL: COPPER ALLOY, GOLD OVER NICKEL.
5. BRACKETS: COPPER ALLOY, TIN PLATED.
6. OUTLINE OF CONNECTOR.
7. RESTRICTED COMPONENT HEIGHT UNDER CATCH, 2.20MM MAXIMUM.
8. RESTRICTED COMPONENT HEIGHT UNDER CATCH, 0.40MM MAXIMUM.
9. PACKING TAPE AND REEL, QUANTITY 1400 PER REEL.

5 WAY PCB BOARD LAYOUT



PACKING DETAILS



AVX

Top Load Socket: BTB

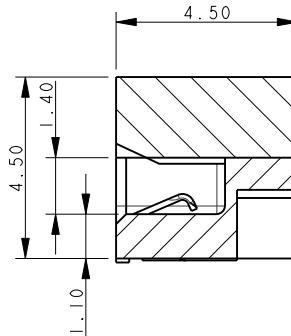
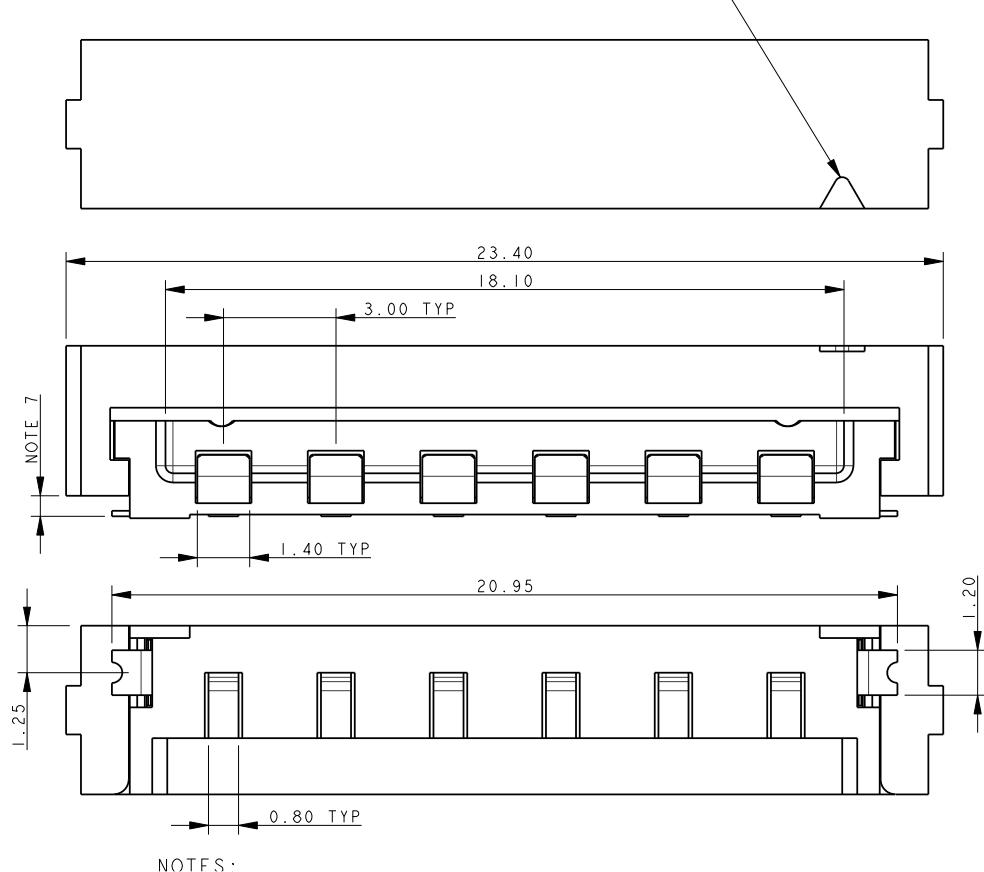
22-9159



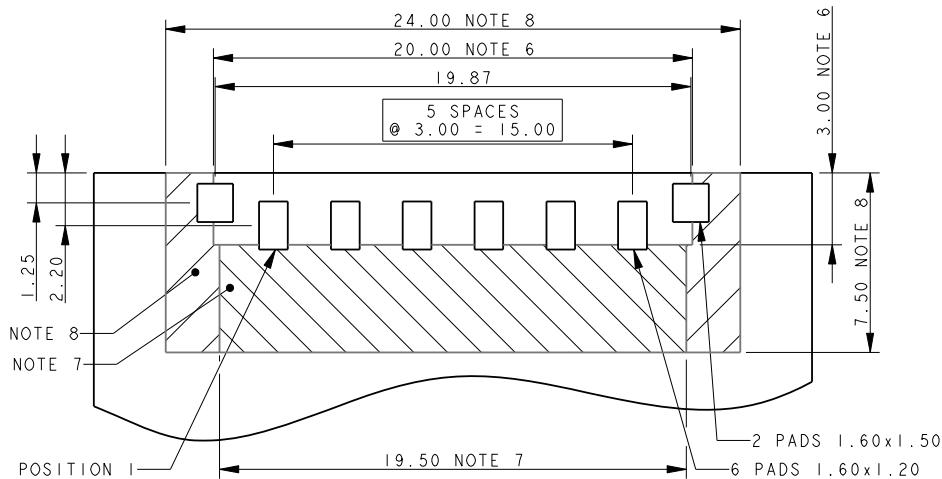
AVAX INTERCONNECT
A KYOCERA GROUP COMPANY

SOCKET TOP LOADING 6 WAY 2 PART PCB STRIP CONNECTOR

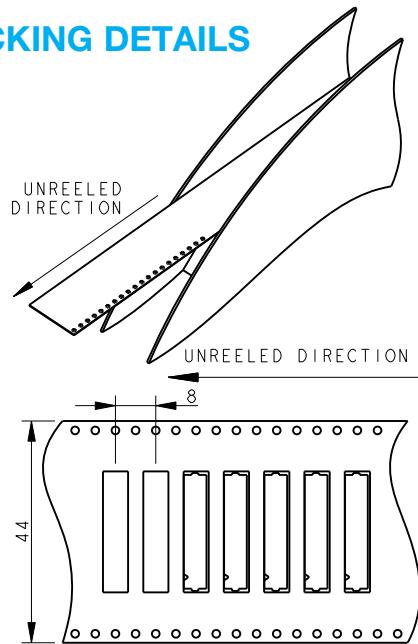
MARKER IN LINE WITH POSITION I



6 WAY PCB BOARD LAYOUT



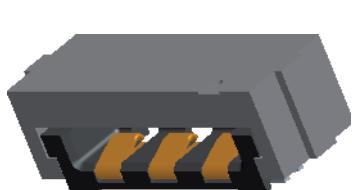
PACKING DETAILS



Top Load Socket: BTB

22-9159

CONNECTOR ASSEMBLY



COVER FORWARD (LOCKED)



COVER SLID BACK



SLIDE TOP COVER BACK

SLIDE TOP COVER BACK

DROP PCB ASSEMBLY ONTO MATING CONNECTORS



SLIDE TOP COVER FORWARD

SLIDE TOP COVER FORWARD

IDC Socket: WTB

24-9159



AVX developed the 9159 Series of SMT connectors for co-planar PCB mating for the challenging Solid State Lighting (SSL) market. These connectors needed to be small, low in height, carry up to 5 Amps/contact and then function up to 125C for extended periods. This application has been very unique to the SSL market where PCB's are stacked end-to-end to create linear strip lighting in everything from office to transportation applications where products are exposed to harsh mechanical and environmental environments.

The IDC cable socket connector allows for 22-24AWG discrete or cabled wires to be easily and reliably terminated into a 9159 standard interface plug connector. This will allow power and signals to be connectors onto a PCB socket connector while providing positive latching. The wire assembly support block allows for 2 through 6 wires to be terminated all in one step with any standard bench top press. IDC covers provide both through (daisy chain applications) and wire stop termination options.

APPLICATIONS

- Provides Wire-to-Board capabilities to standard 9159 2-Piece connector system
- In conjunction with the IDC plug WTB connector (14-9159), these connectors provide maximum flexibility to bring power and signal wires onto or off of any board level 9159 connector
- Reference application notes 201-01-123
- Reference Product Specification 201-01-119

FEATURES AND BENEFITS

- Mates with standard 9159 horizontal plug, keeping same BTB connector system
- Economical and reliable IDC wire termination
- Gold plated BeCu contact system for high reliability in harsh environments
- Integrally molded latch offers positive latching after mating

ELECTRICAL

- Current Rating: 5 Amps / Contact
- Voltage Rating: 125 VAC

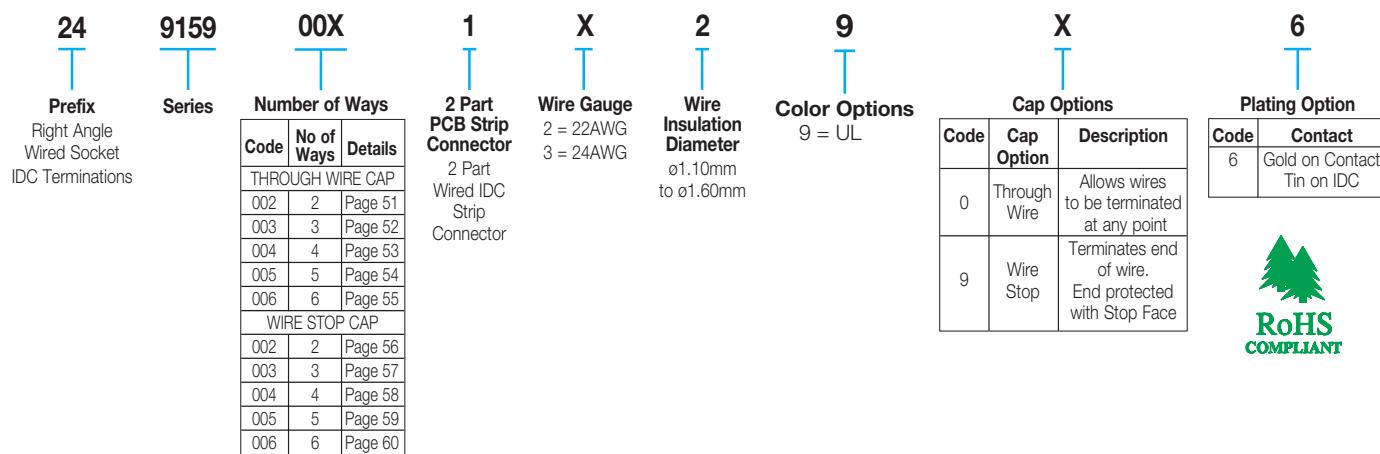
ENVIRONMENTAL

- Operating Temperature:
-40°C to +125°C

MECHANICAL

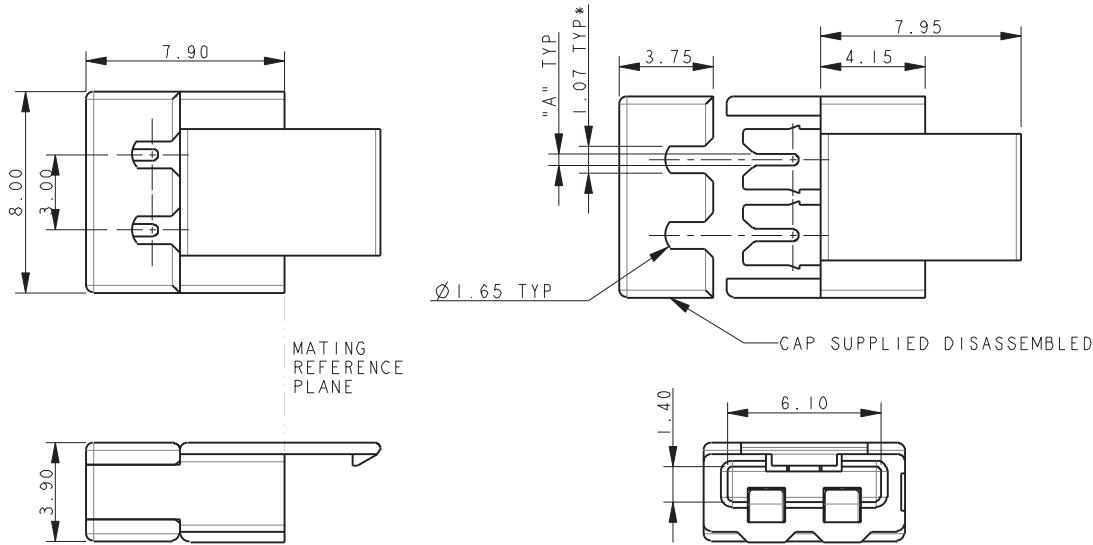
- Insulator Material: Nylon: UL94VO
- Contact Material: Phosphor Bronze
- Plating: Gold / Tin over Nickel
- Durability: 10 Cycles

HOW TO ORDER



Certification: UL File #E90723

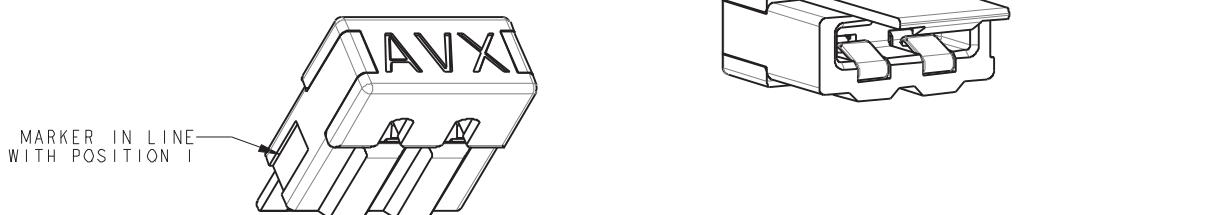
SOCKET WIRED – 2 WAY THROUGH WIRE CAP



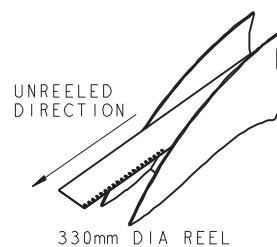
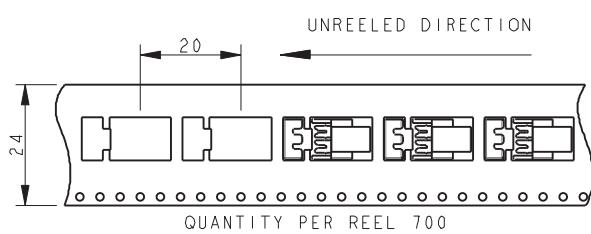
NOTES:

1. FOR MORE INFORMATION REFER TO PRODUCT SPEC 201-01-119.
FOR WIRE ASSEMBLY REFER TO APPLICATION NOTES 201-01-123.
2. THROUGH WIRE CAP, FOR TERMINATION OF WIRE IN ANY POSITION.
3. CAP ACTS AS WIRE ASSEMBLY TOOL. WIRE PREFIT TO CAP, NARROW SLOT TO GRIP WIRE, PERMANENT ASSEMBLY.
4. GENERAL TOLERANCE ± 0.20 UNLESS SPECIFIED.
5. INSULATOR MATERIAL: NYLON 46, GLASS FILLED, UL94 V-0. COLOR REFER TO PAGE 50.
6. CONTACT MATERIAL: COPPER ALLOY, PLATING NICKEL BASE ALL OVER, GOLD ON CONTACT, TIN ON IDC.
7. PACKING IN TAPE AND REEL. QTY PER REEL 700, POCKET CONTAINS 1 CONNECTOR AND 1 CAP.
8. WIRE GAUGE OPTIONS, SEE TABLE.
9. ASSEMBLY AIDS, REFER TO PAGE 61.

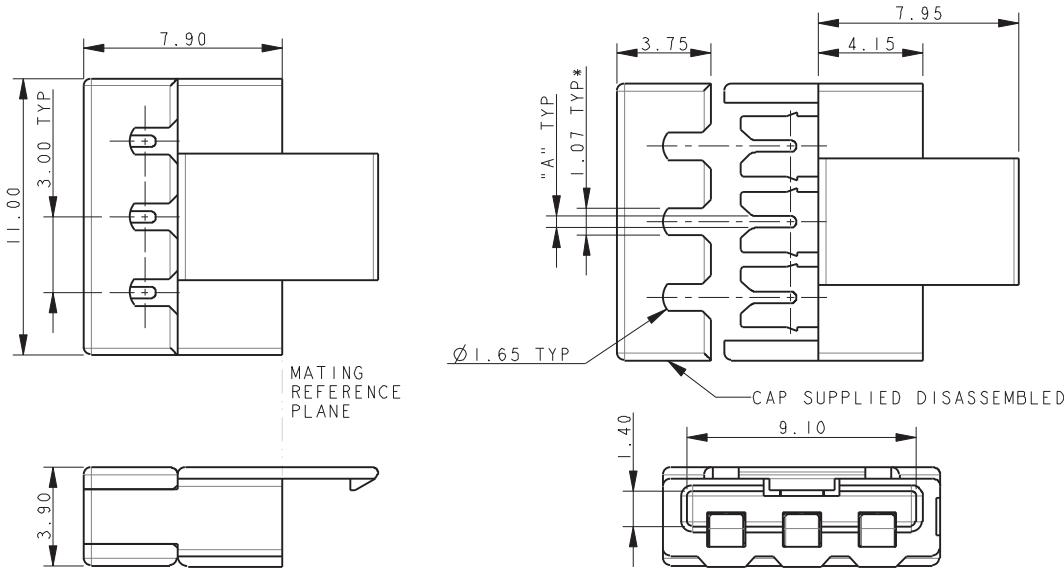
Wire Gauge	Code (Page 50)	Dimension A	Wire Insulation Diameter
22AWG (Stranded Wire)	122	0.47	1.10 to 1.60
24AWG (Stranded Wire)	132	0.37	1.10 to 1.60



PACKING DETAILS CAP AND CONNECTOR SUPPLIED TOGETHER (2 PARTS)



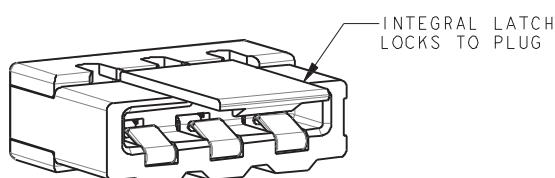
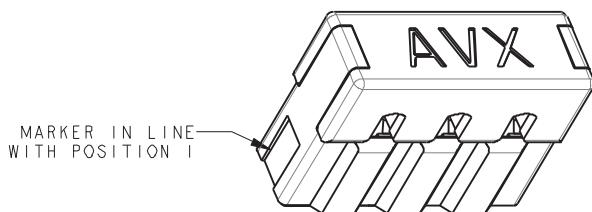
SOCKET WIRED – 3 WAY THROUGH WIRE CAP



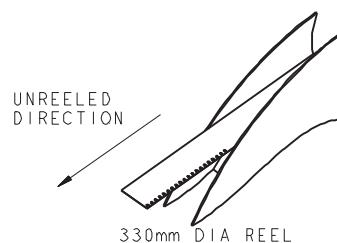
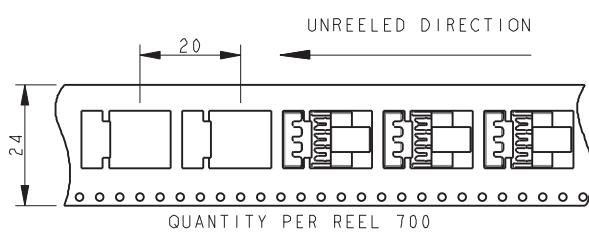
NOTES:

1. FOR MORE INFORMATION REFER TO PRODUCT SPEC 201-01-119.
FOR WIRE ASSEMBLY REFER TO APPLICATION NOTES 201-01-123.
2. THROUGH WIRE CAP, FOR TERMINATION OF WIRE IN ANY POSITION.
3. CAP ACTS AS WIRE ASSEMBLY TOOL. WIRE PREFIT TO CAP, NARROW SLOT TO GRIP WIRE, PERMANENT ASSEMBLY.
4. GENERAL TOLERANCE ± 0.20 UNLESS SPECIFIED.
5. INSULATOR MATERIAL: NYLON 46, GLASS FILLED, UL94 V-0. COLOR REFER TO PAGE 50.
6. CONTACT MATERIAL: COPPER ALLOY, PLATING NICKEL BASE ALL OVER, GOLD ON CONTACT, TIN ON IDC.
7. PACKING IN TAPE AND REEL. QTY PER REEL 700, POCKET CONTAINS 1 CONNECTOR AND 1 CAP.
8. WIRE GAUGE OPTIONS, SEE TABLE.
9. ASSEMBLY AIDS, REFER TO PAGE 61.

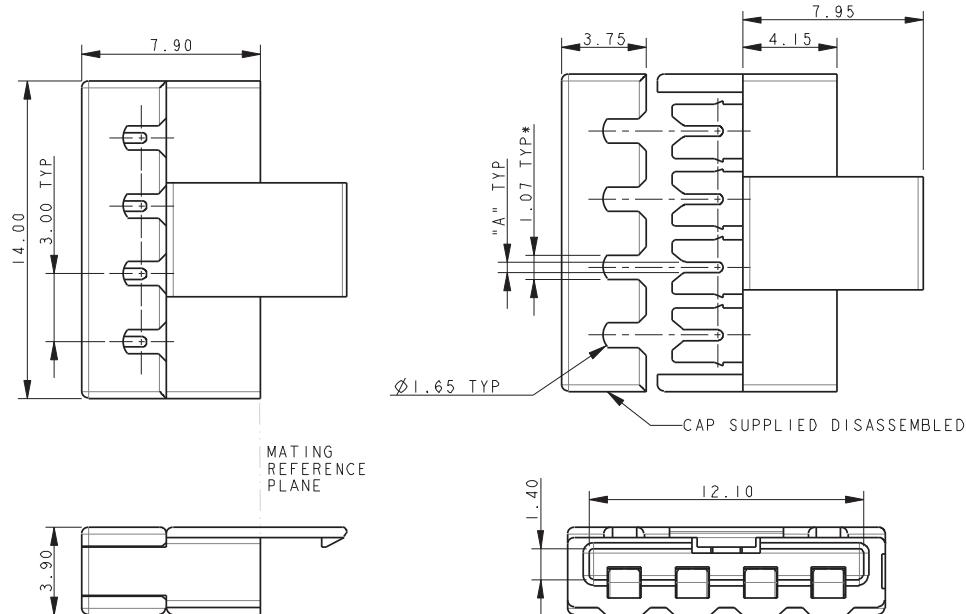
Wire Gauge	Code (Page 50)	Dimension A	Wire Insulation Diameter
22AWG (Stranded Wire)	122	0.47	1.10 to 1.60
24AWG (Stranded Wire)	132	0.37	1.10 to 1.60



PACKING DETAILS CAP AND CONNECTOR SUPPLIED TOGETHER (2 PARTS)



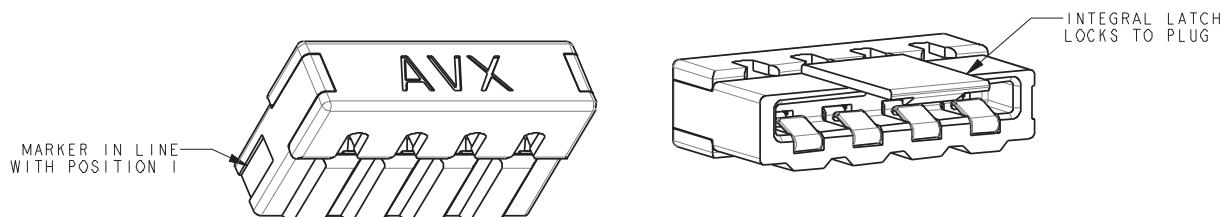
SOCKET WIRED – 4 WAY THROUGH WIRE CAP



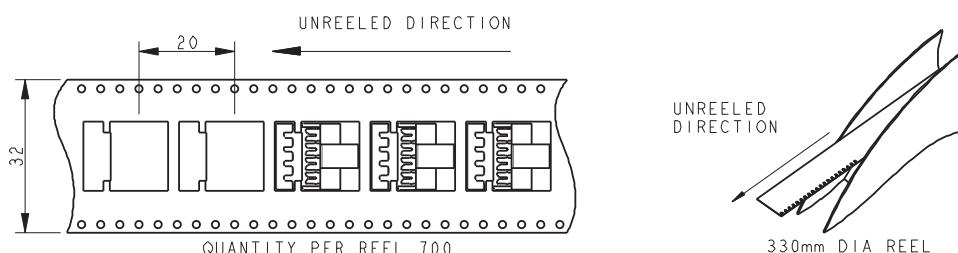
NOTES:

1. FOR MORE INFORMATION REFER TO PRODUCT SPEC 201-01-119.
FOR WIRE ASSEMBLY REFER TO APPLICATION NOTES 201-01-123.
2. THROUGH WIRE CAP, FOR TERMINATION OF WIRE IN ANY POSITION.
3. CAP ACTS AS WIRE ASSEMBLY TOOL. WIRE PREFIT TO CAP, NARROW SLOT TO GRIP WIRE, PERMANENT ASSEMBLY.
4. GENERAL TOLERANCE ± 0.20 UNLESS SPECIFIED.
5. INSULATOR MATERIAL: NYLON 46, GLASS FILLED, UL94 V-0. COLOR REFER TO PAGE 50.
6. CONTACT MATERIAL: COPPER ALLOY, PLATING NICKEL BASE ALL OVER, GOLD ON CONTACT, TIN ON IDC.
7. PACKING IN TAPE AND REEL. QTY PER REEL 700, POCKET CONTAINS 1 CONNECTOR AND 1 CAP.
8. WIRE GAUGE OPTIONS, SEE TABLE.
9. ASSEMBLY AIDS, REFER TO PAGE 61.

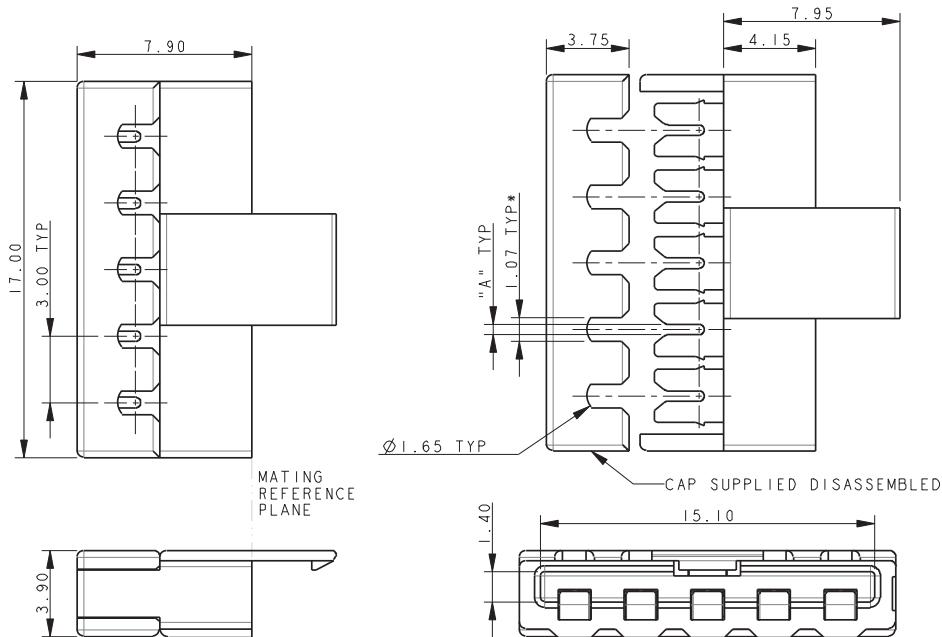
Wire Gauge	Code (Page 50)	Dimension A	Wire Insulation Diameter
22AWG (Stranded Wire)	122	0.47	1.10 to 1.60
24AWG (Stranded Wire)	132	0.37	1.10 to 1.60



PACKING DETAILS CAP AND CONNECTOR SUPPLIED TOGETHER (2 PARTS)



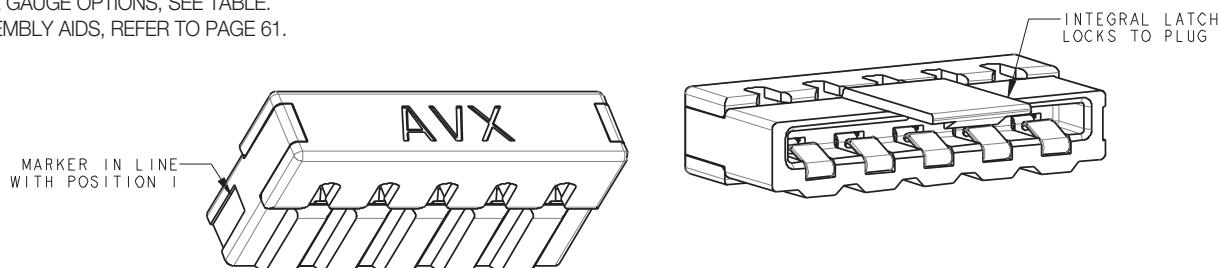
SOCKET WIRED – 5 WAY THROUGH WIRE CAP



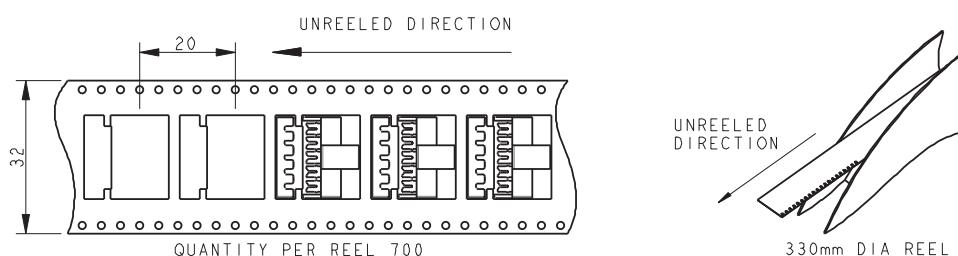
NOTES:

1. FOR MORE INFORMATION REFER TO PRODUCT SPEC 201-01-119.
FOR WIRE ASSEMBLY REFER TO APPLICATION NOTES 201-01-123.
2. THROUGH WIRE CAP, FOR TERMINATION OF WIRE IN ANY POSITION.
3. CAP ACTS AS WIRE ASSEMBLY TOOL. WIRE PREFIT TO CAP, NARROW SLOT TO GRIP WIRE, PERMANENT ASSEMBLY.
4. GENERAL TOLERANCE ± 0.20 UNLESS SPECIFIED.
5. INSULATOR MATERIAL: NYLON 46, GLASS FILLED, UL94 V-0. COLOR REFER TO PAGE 50.
6. CONTACT MATERIAL: COPPER ALLOY, PLATING NICKEL BASE ALL OVER, GOLD ON CONTACT, TIN ON IDC.
7. PACKING IN TAPE AND REEL. QTY PER REEL 700, POCKET CONTAINS 1 CONNECTOR AND 1 CAP.
8. WIRE GAUGE OPTIONS, SEE TABLE.
9. ASSEMBLY AIDS, REFER TO PAGE 61.

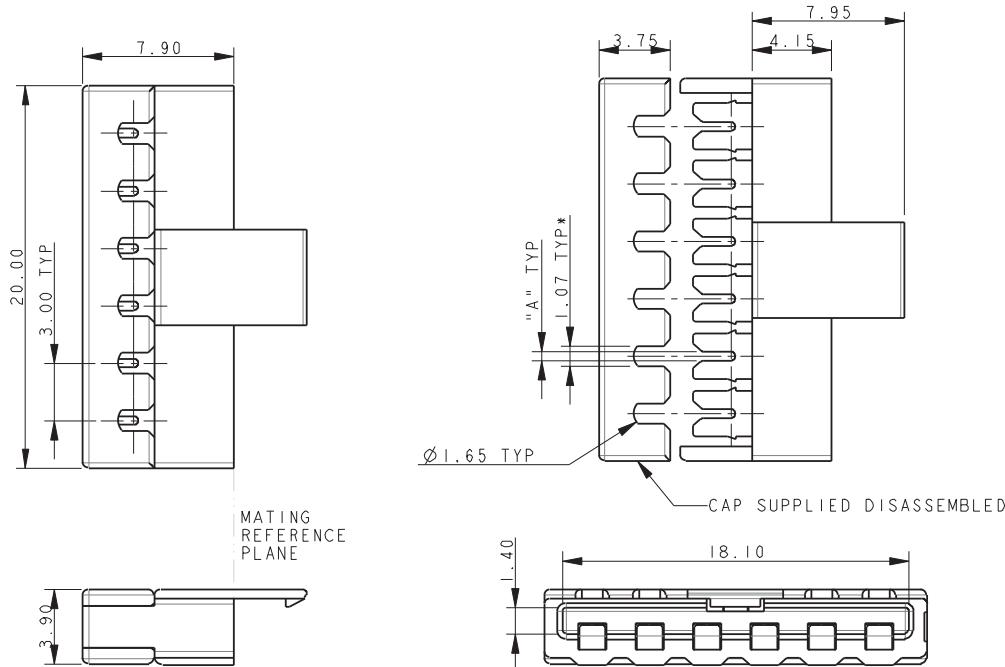
Wire Gauge	Code (Page 50)	Dimension A	Wire Insulation Diameter
22AWG (Stranded Wire)	122	0.47	1.10 to 1.60
24AWG (Stranded Wire)	132	0.37	1.10 to 1.60



PACKING DETAILS CAP AND CONNECTOR SUPPLIED TOGETHER (2 PARTS)



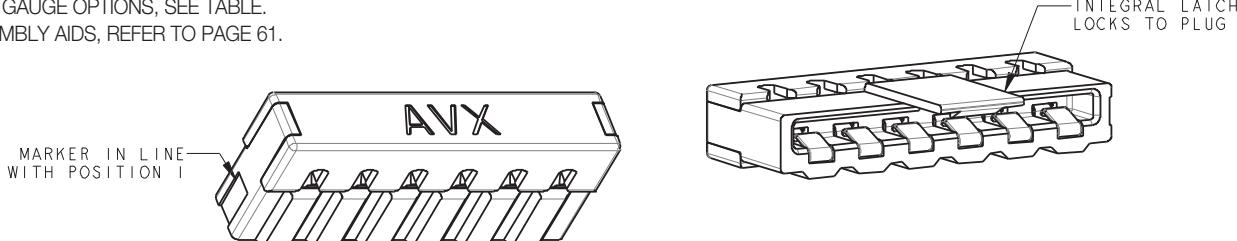
SOCKET WIRED – 6 WAY THROUGH WIRE CAP



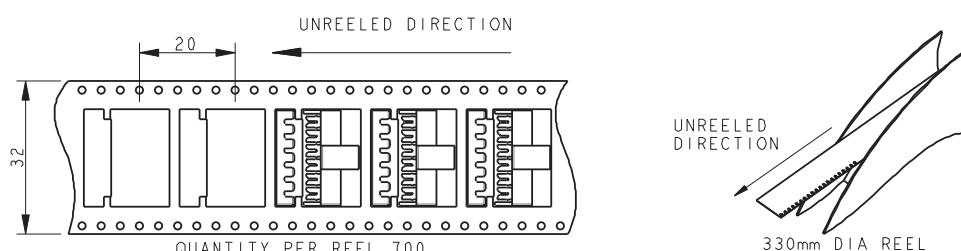
NOTES:

1. FOR MORE INFORMATION REFER TO PRODUCT SPEC 201-01-119.
FOR WIRE ASSEMBLY REFER TO APPLICATION NOTES 201-01-123.
2. THROUGH WIRE CAP, FOR TERMINATION OF WIRE IN ANY POSITION.
3. CAP ACTS AS WIRE ASSEMBLY TOOL. WIRE PREFIT TO CAP, NARROW SLOT TO GRIP WIRE, PERMANENT ASSEMBLY.
4. GENERAL TOLERANCE ± 0.20 UNLESS SPECIFIED.
5. INSULATOR MATERIAL: NYLON 46, GLASS FILLED, UL94 V-0. COLOR REFER TO PAGE 50.
6. CONTACT MATERIAL: COPPER ALLOY, PLATING NICKEL BASE ALL OVER, GOLD ON CONTACT, TIN ON IDC.
7. PACKING IN TAPE AND REEL. QTY PER REEL 700, POCKET CONTAINS 1 CONNECTOR AND 1 CAP.
8. WIRE GAUGE OPTIONS, SEE TABLE.
9. ASSEMBLY AIDS, REFER TO PAGE 61.

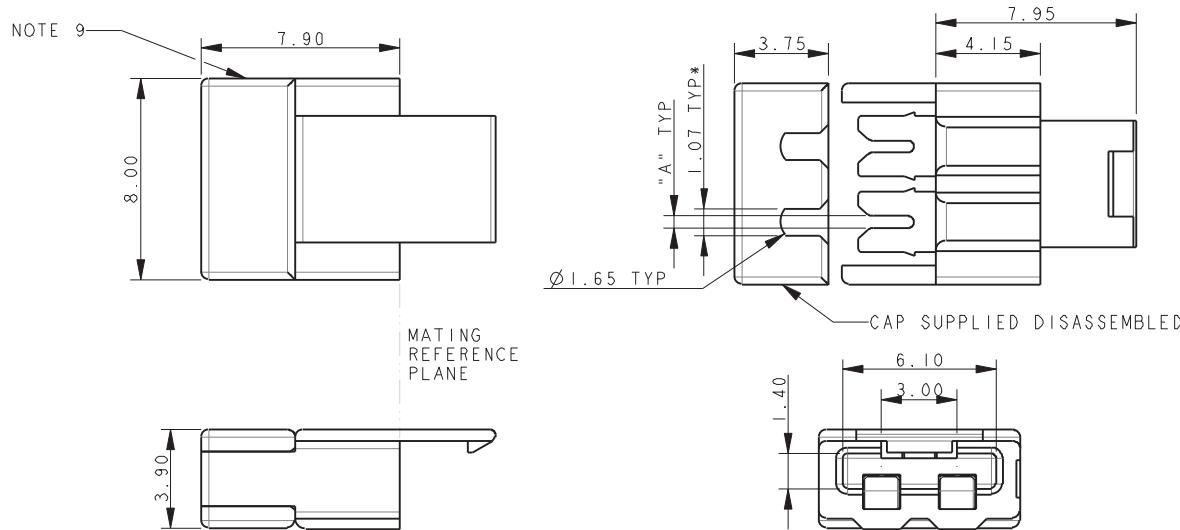
Wire Gauge	Code (Page 50)	Dimension A	Wire Insulation Diameter
22AWG (Stranded Wire)	122	0.47	1.10 to 1.60
24AWG (Stranded Wire)	132	0.37	1.10 to 1.60



PACKING DETAILS CAP AND CONNECTOR SUPPLIED TOGETHER (2 PARTS)



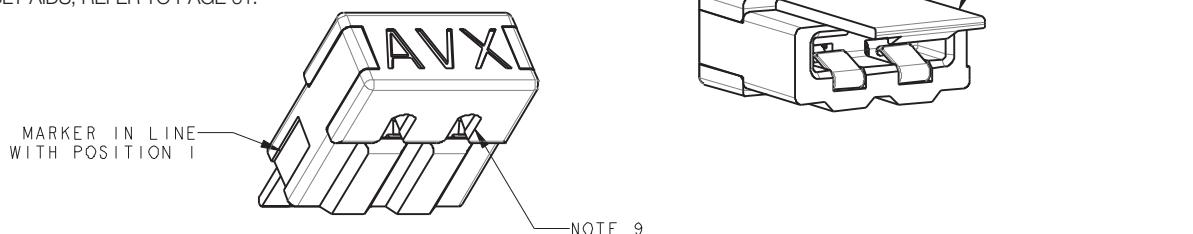
SOCKET-WIRED – 2 WAY WIRE STOP CAP



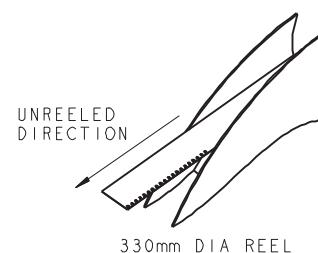
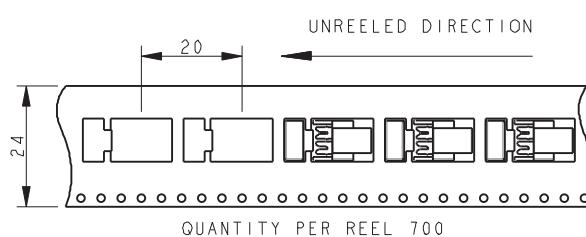
NOTES:

1. FOR MORE INFORMATION REFER TO PRODUCT SPEC 201-01-119.
FOR WIRE ASSEMBLY REFER TO APPLICATION NOTES 201-01-123.
2. WIRE STOP CAP, WITH STOP FACE ON ONE SIDE TO PROTECT END OF WIRE.
3. CAP ACTS AS WIRE ASSEMBLY TOOL. WIRE PREFIT TO CAP, NARROW SLOT TO GRIP WIRE, PERMANENT ASSEMBLY.
4. GENERAL TOLERANCE ± 0.20 UNLESS SPECIFIED.
5. INSULATOR MATERIAL: NYLON 46, GLASS FILLED, UL94 V-0. COLOR REFER TO PAGE 50.
6. CONTACT MATERIAL: COPPER ALLOY, PLATING NICKEL BASE ALL OVER, GOLD ON CONTACT, TIN ON IDC.
7. PACKING IN TAPE AND REEL. QTY PER REEL 700, POCKET CONTAINS 1 CONNECTOR AND 1 CAP.
8. WIRE GAUGE OPTIONS, SEE TABLE.
9. SHOWN WITH WIRE ENTRY FROM UNDERSIDE, CAP CAN BE ASSEMBLED FOR EITHER TOP OR UNDERSIDE WIRE ENTRY.
10. ASSEMBLY AIDS, REFER TO PAGE 61.

Wire Gauge	Code (Page 50)	Dimension A	Wire Insulation Diameter
22AWG (Stranded Wire)	122	0.47	1.10 to 1.60
24AWG (Stranded Wire)	132	0.37	1.10 to 1.60



PACKING DETAILS CAP AND CONNECTOR SUPPLIED TOGETHER (2 PARTS)

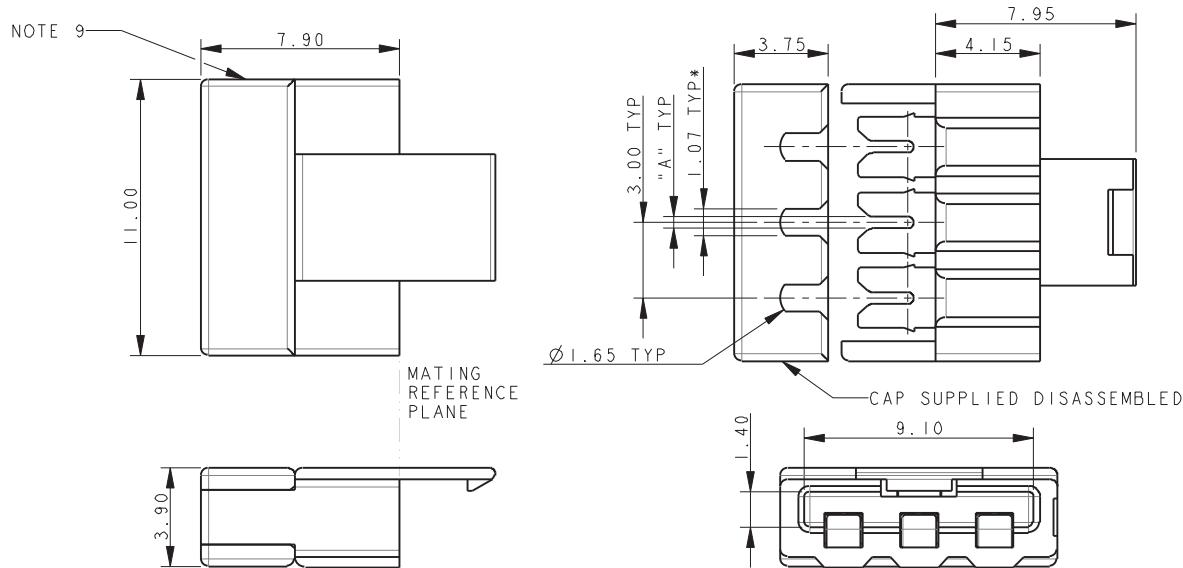


IDC Socket: WTB

24-9159

AVX INTERCONNECT
A KYOCERA GROUP COMPANY

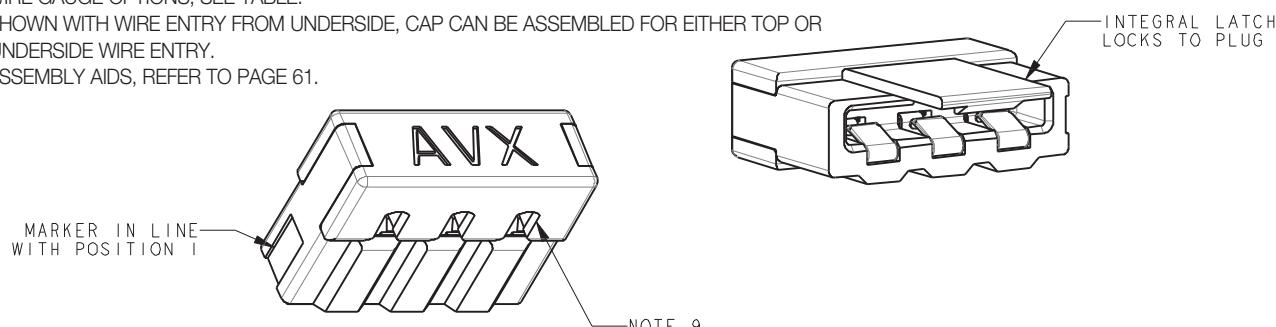
SOCKET-WIRED – 3 WAY WIRE STOP CAP



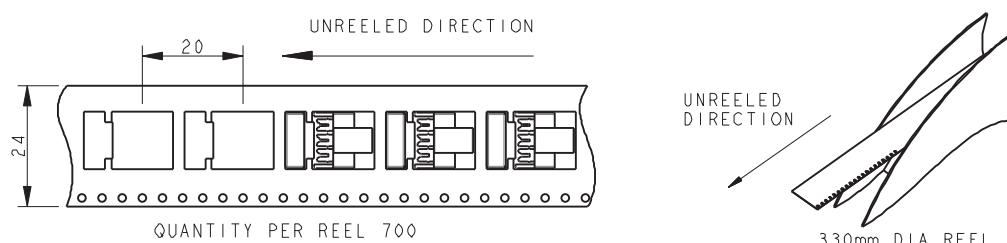
NOTES:

1. FOR MORE INFORMATION REFER TO PRODUCT SPEC 201-01-119.
FOR WIRE ASSEMBLY REFER TO APPLICATION NOTES 201-01-123.
2. WIRE STOP CAP, WITH STOP FACE ON ONE SIDE TO PROTECT END OF WIRE.
3. CAP ACTS AS WIRE ASSEMBLY TOOL. WIRE PREFIT TO CAP, NARROW SLOT TO GRIP WIRE, PERMANENT ASSEMBLY.
4. GENERAL TOLERANCE ± 0.20 UNLESS SPECIFIED.
5. INSULATOR MATERIAL: NYLON 46, GLASS FILLED, UL94 V-0. COLOR REFER TO PAGE 50.
6. CONTACT MATERIAL: COPPER ALLOY, PLATING NICKEL BASE ALL OVER, GOLD ON CONTACT, TIN ON IDC.
7. PACKING IN TAPE AND REEL. QTY PER REEL 700, POCKET CONTAINS 1 CONNECTOR AND 1 CAP.
8. WIRE GAUGE OPTIONS, SEE TABLE.
9. SHOWN WITH WIRE ENTRY FROM UNDERSIDE, CAP CAN BE ASSEMBLED FOR EITHER TOP OR UNDERSIDE WIRE ENTRY.
10. ASSEMBLY AIDS, REFER TO PAGE 61.

Wire Gauge	Code (Page 50)	Dimension A	Wire Insulation Diameter
22AWG (Stranded Wire)	122	0.47	1.10 to 1.60
24AWG (Stranded Wire)	132	0.37	1.10 to 1.60

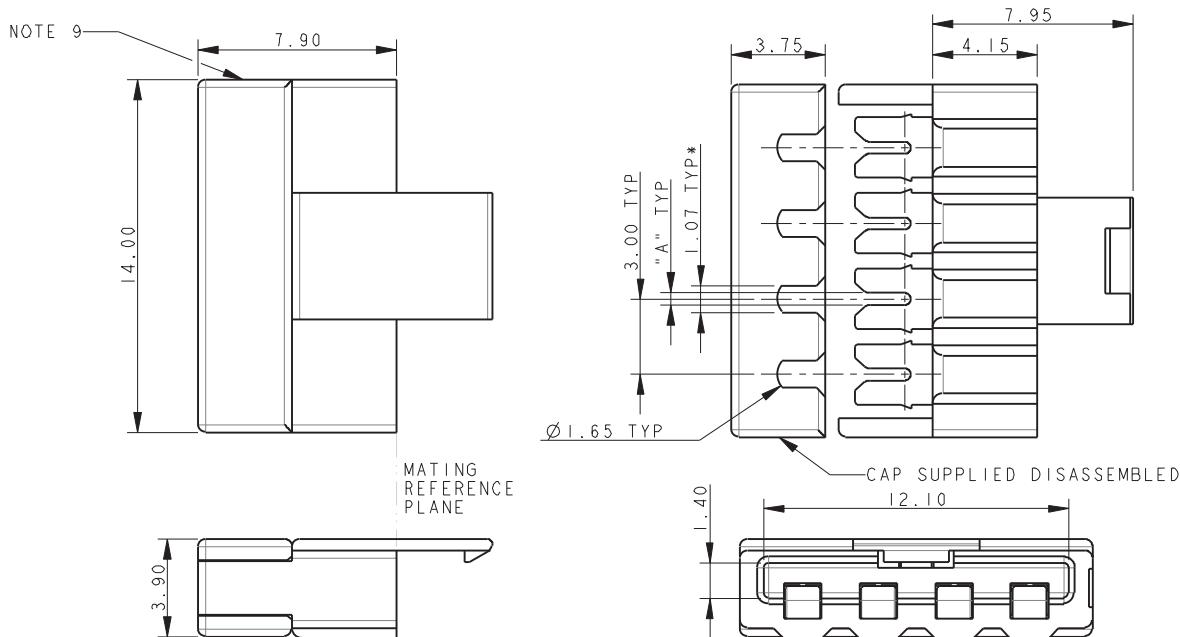


PACKING DETAILS CAP AND CONNECTOR SUPPLIED TOGETHER (2 PARTS)



AVX

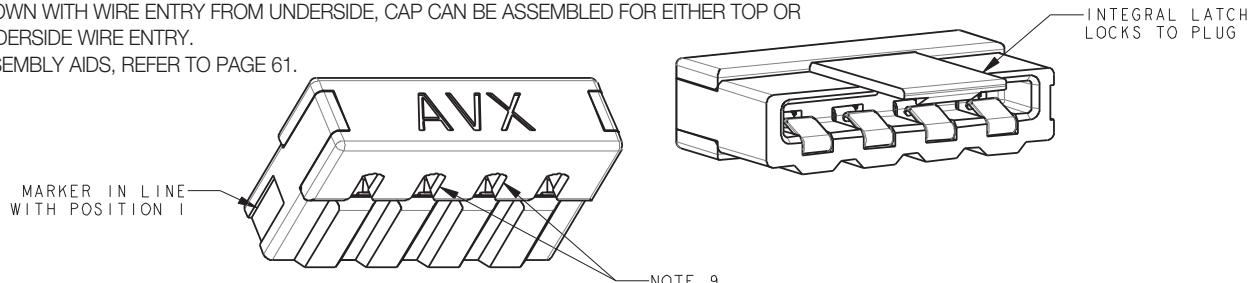
SOCKET-WIRED – 4 WAY WIRE STOP CAP



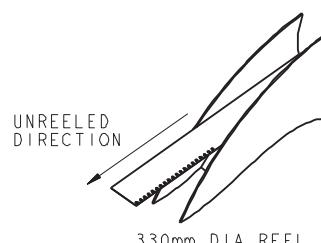
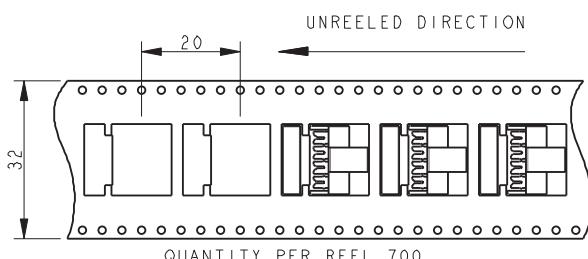
NOTES:

1. FOR MORE INFORMATION REFER TO PRODUCT SPEC 201-01-119.
FOR WIRE ASSEMBLY REFER TO APPLICATION NOTES 201-01-123.
2. WIRE STOP CAP, WITH STOP FACE ON ONE SIDE TO PROTECT END OF WIRE.
3. CAP ACTS AS WIRE ASSEMBLY TOOL. WIRE PREFIT TO CAP, NARROW SLOT TO GRIP WIRE, PERMANENT ASSEMBLY.
4. GENERAL TOLERANCE ± 0.20 UNLESS SPECIFIED.
5. INSULATOR MATERIAL: NYLON 46, GLASS FILLED, UL94 V-0. COLOR REFER TO PAGE 50.
6. CONTACT MATERIAL: COPPER ALLOY, PLATING NICKEL BASE ALL OVER, GOLD ON CONTACT, TIN ON IDC.
7. PACKING IN TAPE AND REEL. QTY PER REEL 700, POCKET CONTAINS 1 CONNECTOR AND 1 CAP.
8. WIRE GAUGE OPTIONS, SEE TABLE.
9. SHOWN WITH WIRE ENTRY FROM UNDERSIDE, CAP CAN BE ASSEMBLED FOR EITHER TOP OR UNDERSIDE WIRE ENTRY.
10. ASSEMBLY AIDS, REFER TO PAGE 61.

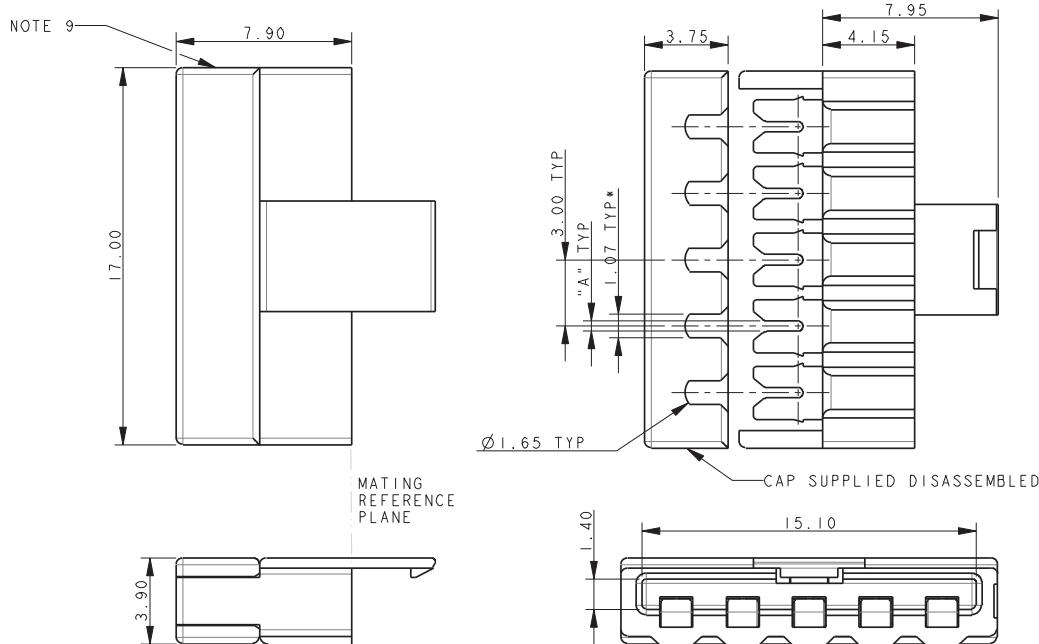
Wire Gauge	Code (Page 50)	Dimension A	Wire Insulation Diameter
22AWG (Stranded Wire)	122	0.47	1.10 to 1.60
24AWG (Stranded Wire)	132	0.37	1.10 to 1.60



PACKING DETAILS CAP AND CONNECTOR SUPPLIED TOGETHER (2 PARTS)



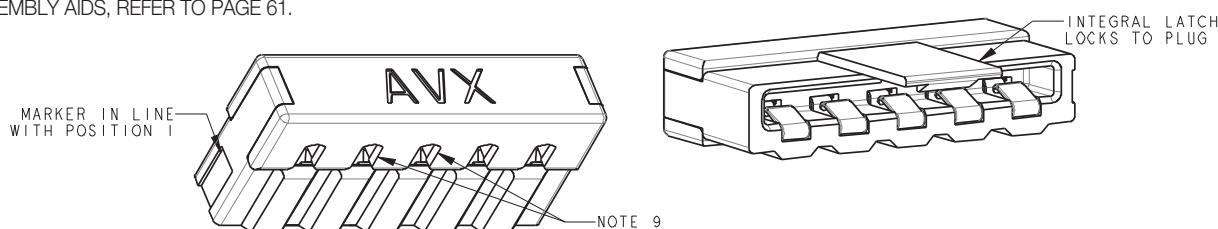
SOCKET WIRED – 5 WAY WIRE STOP CAP



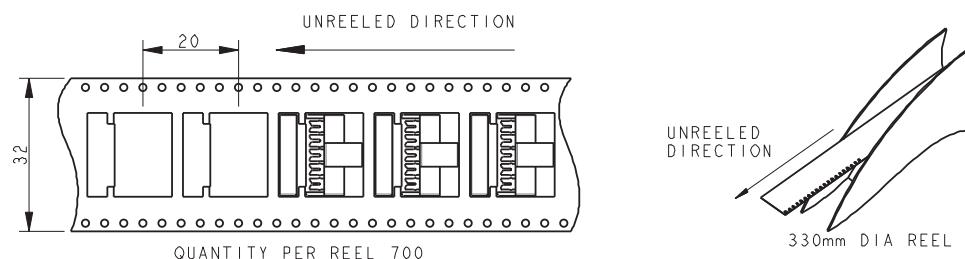
NOTES:

1. FOR MORE INFORMATION REFER TO PRODUCT SPEC 201-01-119.
FOR WIRE ASSEMBLY REFER TO APPLICATION NOTES 201-01-123.
2. WIRE STOP CAP, WITH STOP FACE ON ONE SIDE TO PROTECT END OF WIRE.
3. CAP ACTS AS WIRE ASSEMBLY TOOL. WIRE PREFIT TO CAP, NARROW SLOT TO GRIP WIRE, PERMANENT ASSEMBLY.
4. GENERAL TOLERANCE ± 0.20 UNLESS SPECIFIED.
5. INSULATOR MATERIAL: NYLON 46, GLASS FILLED, UL94 V-0. COLOR REFER TO PAGE 50.
6. CONTACT MATERIAL: COPPER ALLOY, PLATING NICKEL BASE ALL OVER, GOLD ON CONTACT, TIN ON IDC.
7. PACKING IN TAPE AND REEL. QTY PER REEL 700, POCKET CONTAINS 1 CONNECTOR AND 1 CAP.
8. WIRE GAUGE OPTIONS, SEE TABLE.
9. SHOWN WITH WIRE ENTRY FROM UNDERSIDE, CAP CAN BE ASSEMBLED FOR EITHER TOP OR UNDERSIDE WIRE ENTRY.
10. ASSEMBLY AIDS, REFER TO PAGE 61.

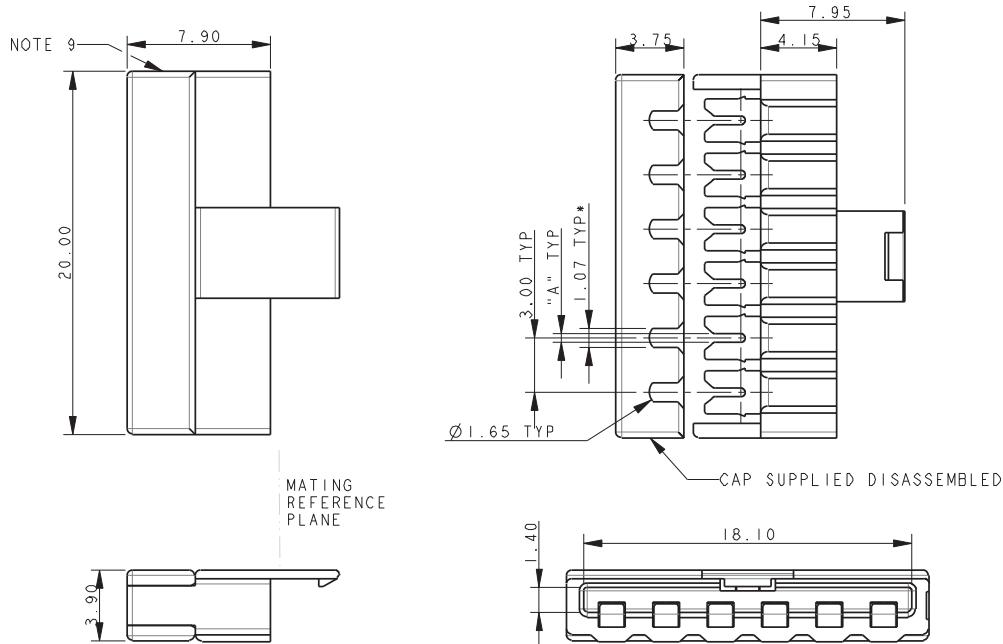
Wire Gauge	Code (Page 50)	Dimension A	Wire Insulation Diameter
22AWG (Stranded Wire)	122	0.47	1.10 to 1.60
24AWG (Stranded Wire)	132	0.37	1.10 to 1.60



PACKING DETAILS CAP AND CONNECTOR SUPPLIED TOGETHER (2 PARTS)



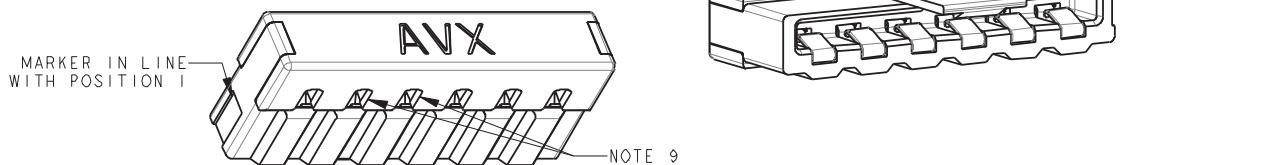
SOCKET-WIRED – 6 WAY WIRE STOP CAP



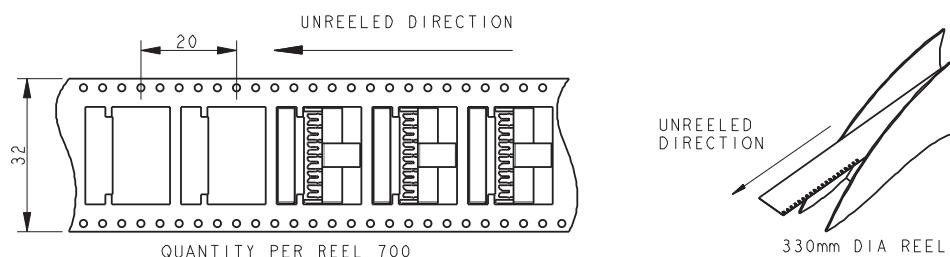
NOTES:

1. FOR MORE INFORMATION REFER TO PRODUCT SPEC 201-01-119.
FOR WIRE ASSEMBLY REFER TO APPLICATION NOTES 201-01-123.
2. WIRE STOP CAP, WITH STOP FACE ON ONE SIDE TO PROTECT END OF WIRE.
3. CAP ACTS AS WIRE ASSEMBLY TOOL. WIRE PREFIT TO CAP, NARROW SLOT TO GRIP WIRE, PERMANENT ASSEMBLY.
4. GENERAL TOLERANCE ± 0.20 UNLESS SPECIFIED.
5. INSULATOR MATERIAL: NYLON 46, GLASS FILLED, UL94 V-0. COLOR REFER TO PAGE 50.
6. CONTACT MATERIAL: COPPER ALLOY, PLATING NICKEL BASE ALL OVER, GOLD ON CONTACT, TIN ON IDC.
7. PACKING IN TAPE AND REEL. QTY PER REEL 700, POCKET CONTAINS 1 CONNECTOR AND 1 CAP.
8. WIRE GAUGE OPTIONS, SEE TABLE.
9. SHOWN WITH WIRE ENTRY FROM UNDERSIDE, CAP CAN BE ASSEMBLED FOR EITHER TOP OR UNDERSIDE WIRE ENTRY.
10. ASSEMBLY AIDS, REFER TO PAGE 61.

Wire Gauge	Code (Page 50)	Dimension A	Wire Insulation Diameter
22AWG (Stranded Wire)	122	0.47	1.10 to 1.60
24AWG (Stranded Wire)	132	0.37	1.10 to 1.60



PACKING DETAILS CAP AND CONNECTOR SUPPLIED TOGETHER (2 PARTS)

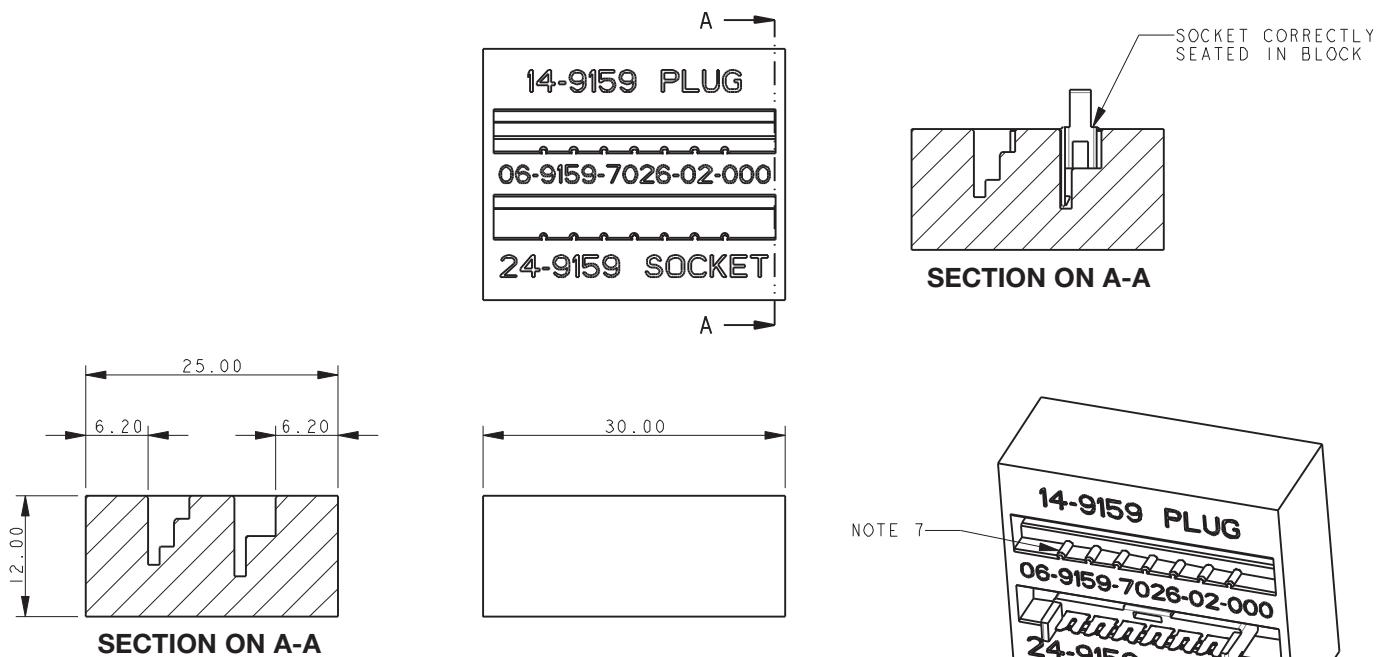


IDC Socket: WTB

24-9159

AVX INTERCONNECT
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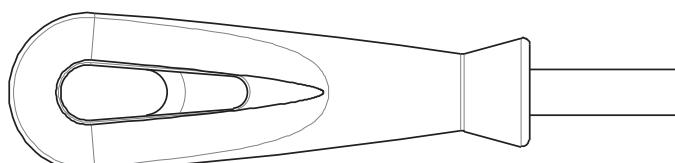
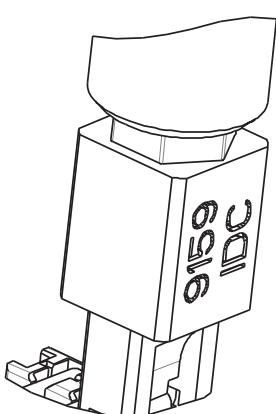
SOCKET-WIRED – ASSEMBLY SUPPORT BLOCK



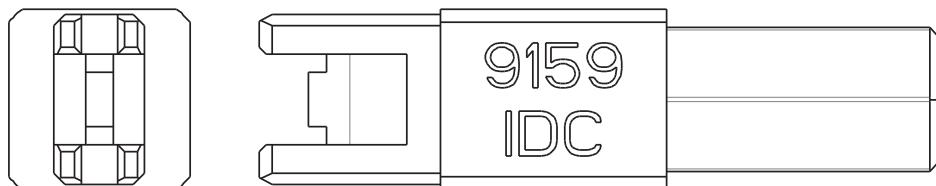
NOTES:

1. BLOCK TO SUPPORT 9159 IDC WIRED CONNECTORS DURING ASSEMBLY OF CAP/WIRE.
2. PART NUMBER 06-9159-7026-01-000, MATERIAL ALUMINUM.
3. PART NUMBER 06-9159-7026-02-000, MATERIAL NYLON 46.
4. CAN BE USED WITH EITHER THE PLUG OR SOCKET CONNECTORS, USE THE CORRECT SLOT AS IDENTIFIED.
5. FOR FULL WIRE ASSEMBLY DETAILS REFER TO APPLICATION NOTES 201-01-123.
6. ONLY A SIMPLE FLAT BOTTOMED TOOL REQUIRED TO PUSH THE CAP DOWN (NOT SUPPLIED).
7. ALL DIMENSIONS ± 0.20 UNLESS TOLERANCED.
7. 06-9159-7026-02-000 HAS RIBS TO HELP LOCATE CONTACT/INSULATOR SUB-ASSEMBLY.

SOCKET-WIRED – WIRE INSERTION TOOL



UNIVERSAL HANDLE 06-7000-7730-01-000



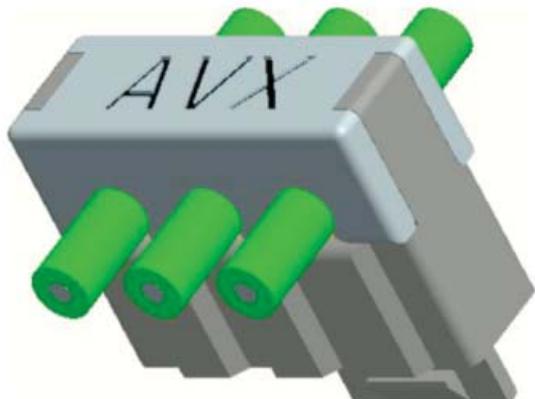
WIRE INSERTION TOOL 06-9159-7027-01-000

NOTES:

1. TOOL 06-9159-7027-01-000 TO INSERT WIRES INTO CAP.
2. FOR USE WITH UNIVERSAL HANDLE 06-7000-7720-01-000.
3. CAN BE USED WITH BOTH THROUGH WIRE AND WIRE STOP CAPS.
4. REFER TO APPLICATION NOTES 201-01-123 FOR FURTHER DETAILS.

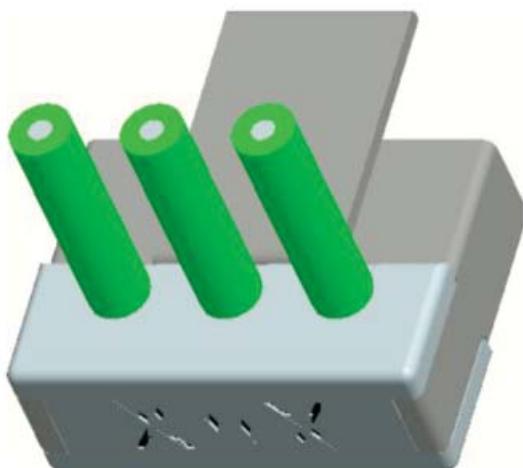
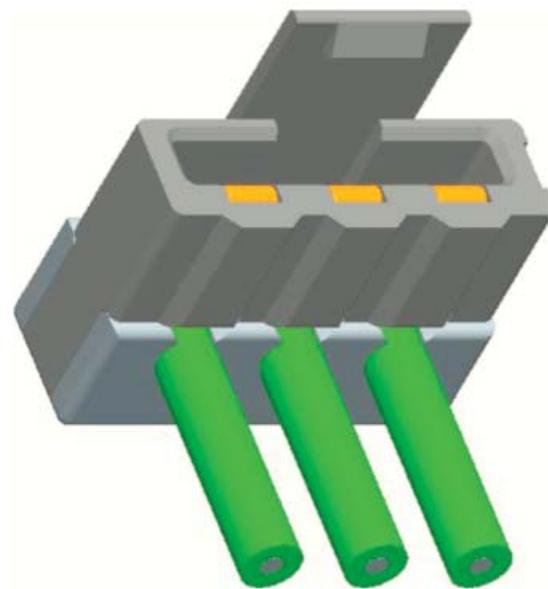
AVX

SOCKET WIRED – ASSEMBLY



THROUGH WIRE

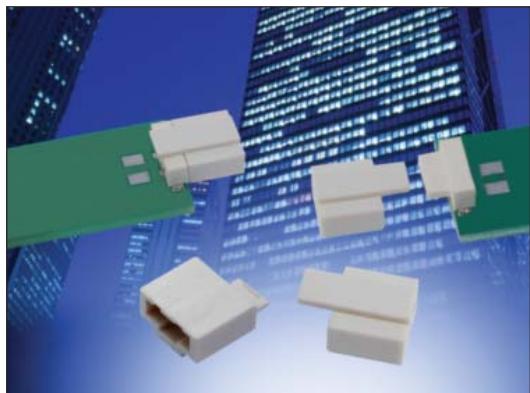
WIRED STOP
WIRE ENTRY UNDERSIDE



WIRED STOP
WIRE ENTRY TOP

Shorting Socket: BTB

58-9159



The 9159 series of Board-to-Board interconnect system allows two PCB's to be mated end-to-end creating strips of LED lighting. Designed specifically for the unique Solid State Lighting (SSL) market requiring coplanar (horizontal-to-horizontal) PCB mating with a 5 Amp current rating in the smallest package available. The 2 position shorting socket was designed to plug onto the last PCB in the lighting strip to short the two contacts together, closing the electrical loop. Just as the cabled plug brings power and signals onto the light strip, the shorting socket completes the circuit while maintaining a single board design.

APPLICATIONS

- Coplanar PCB mating in SSL products
- LED linear lighting strips
- Application Notes: refer to 201-01-123

FEATURES AND BENEFITS

- Mates to the standard plug connector: does not require a new connector
- Integral latching mechanism: Provides positive attachment to the plug
- Gold plated BeCu spring contacts: reliability for harsh environments
- Available in white: supports SSL market preferences

ELECTRICAL

- Current Rating: 5 Amps / Contact
- Voltage Rating: 125 VAC

ENVIRONMENTAL

- Operating Temperature: -40°C to +125°C

MECHANICAL

- Insulator Material: Nylon: VL94VO
- Contact Material: BeCu / Phos Bronze
- Plating: Gold / Tin over Nickel
- Durability: 10 Cycles

HOW TO ORDER

58 9159 002 000 006

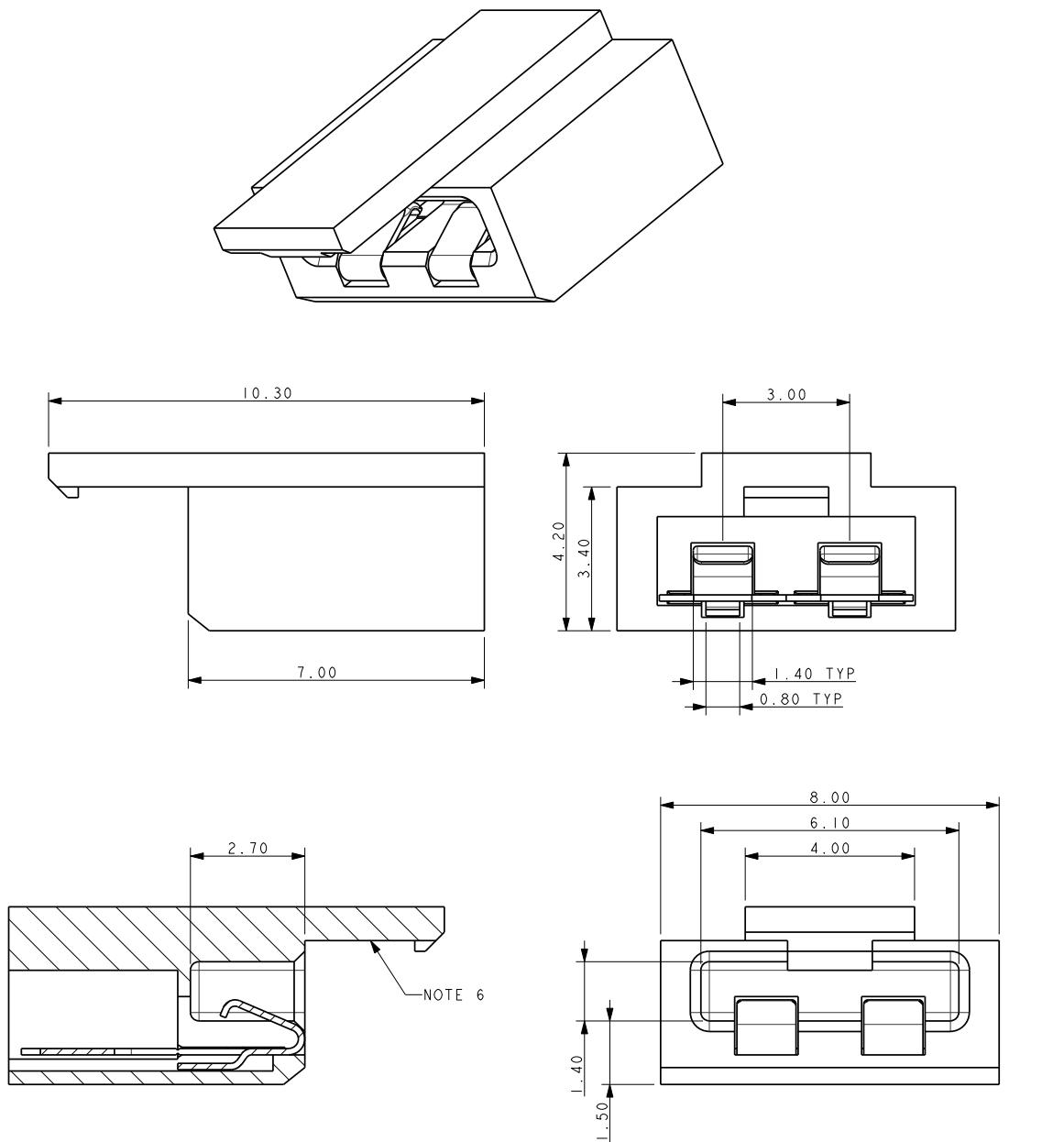
Certification: UL File #E90723



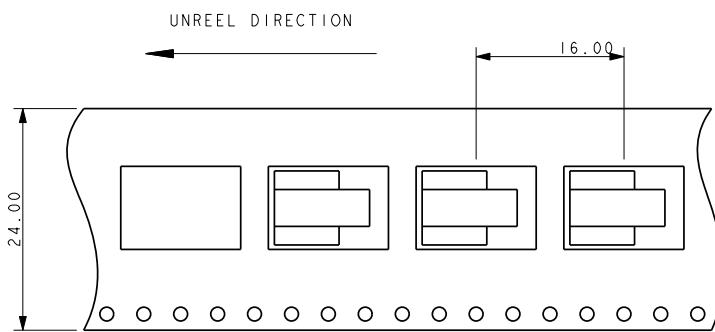
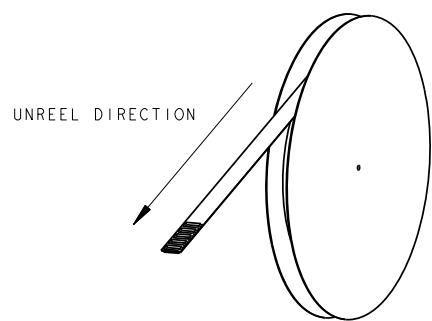
Shorting Socket: BTB

58-9159

AVX INTERCONNECT
A KYOCERA GROUP COMPANY



PACKING DETAILS



AVX

Single 2 Piece Contacts: BTB

70-9159

AVX INTERCONNECT
A KYOCERA GROUP COMPANY



Dissecting linear LED lighting from a connector standpoint looks very simple from far away, but up close there is no magical solution. Even though there have been new connectors developed in recent years specifically for this application, the specific requirements in challenging new designs continue to push for something better, different and more cost competitive. AVX has been one of the companies developing new connector systems for this specific application. The 2-Piece 9159 series offers the smallest profile while still supporting full 5 Amp capability. The 1-Piece version offers the best cost advantage for a connectorized solution, yet has limitations in LED pitch densities.

AVX's latest approach is to not even have a connector! LED's run down the center of the board looking to minimize pitch densities to maximize light output. Connectors interrupt this requirement at each Board-to-Board interface. By design and construction, providing a single contact connector is not economical. However, removing the cost of the connector without removing the functionality provides both a technical and cost effective solution. By removing the insulator and allowing contacts to be placed individually, the PCB can be designed with the LED's in the center of the PCB and the contacts on the outer edges. This optimizes the design for functionality and assembly at the best cost possible. More specifically, the contacts are packaged in T&R for automatic placement, absorb significant x and y assembly tolerances and provide a reliable gold-to-gold active contact interface. Application notes are available to outline all of the contact configurations to support both BTB and WTB applications.

APPLICATIONS

- Linear LED strip lighting
- Commercial/Industrial co-planar or extended card applications
- Reference Product Specification 201-01-149

FEATURES AND BENEFITS

- Gold plated horizontal contact system maximizes lateral PCB alignment and mating tolerances with a proven 2-pc connector solution
- Contact height has been minimized to 1.2mm above the PCB to prevent any shadowing effect
- Contacts can be individually spaced to support any voltage rating with a full 5 Amp current rating
- Individual contacts can support BTB and WTB applications

ELECTRICAL

- Current Rating: 5.0 Amps
- Voltage Rating: UL 300V
- Based on placement distance

ENVIRONMENTAL

- Operating Temperature: -40°C to +125°C

MECHANICAL

- Contact Material: Copper Alloy
- Plug Plating: Gold in mating area, tin on tails
- Socket Contact: Gold all over
- Durability 5 Cycles

HOW TO ORDER

70 9159 001
Prefix Series Number of Ways
001 = 1

4XX

Contact Description
401 = Plug - SMT
402 = Socket - SMT
411 = Plug - SMT - Locking

006

Packaging Options
006 = Gold in Contact Area



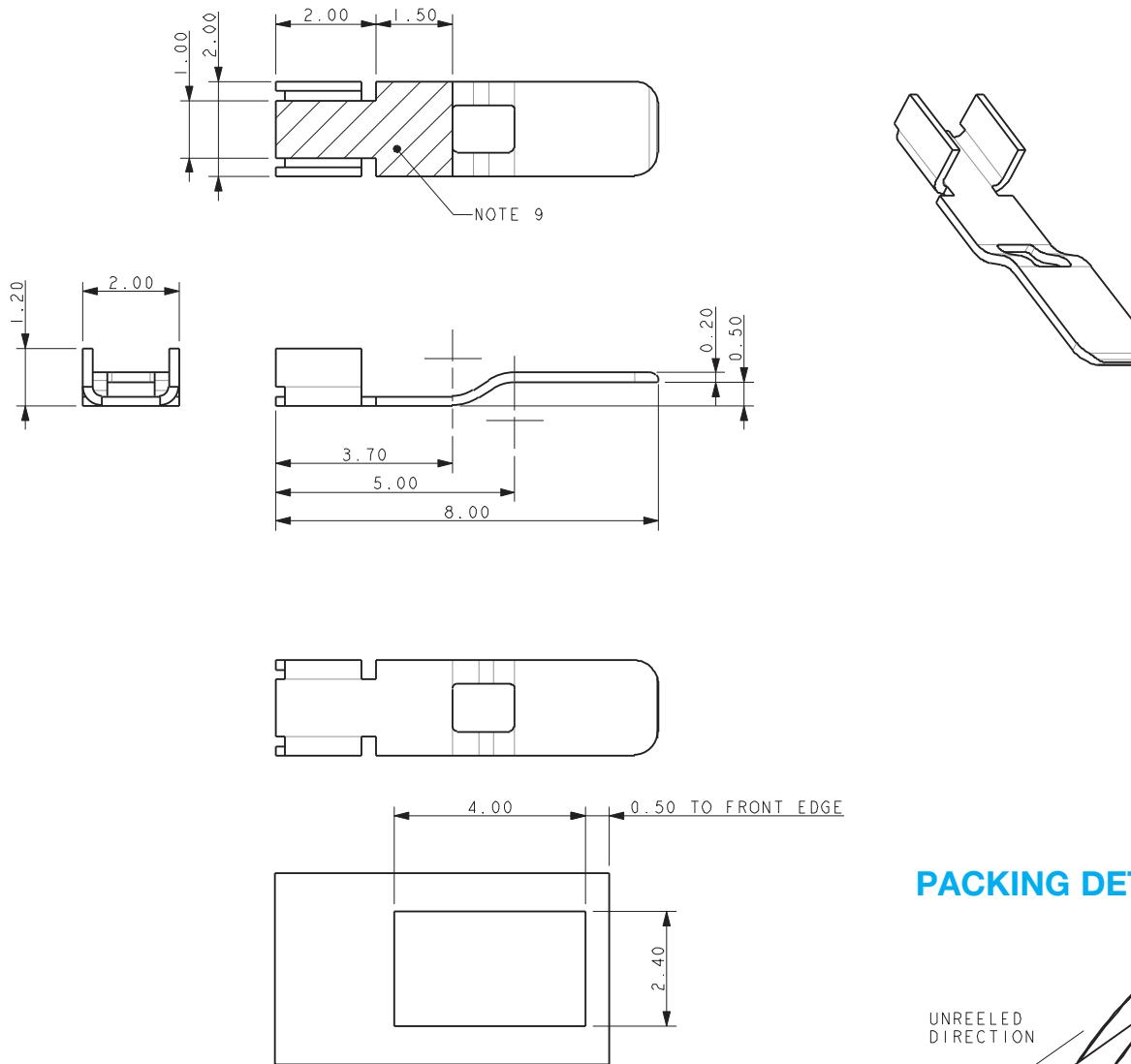
Certification: UL File #E90723

Single 2 Piece Contacts: BTB

70-9159

AVX INTERCONNECT
A KYOCERA GROUP COMPANY

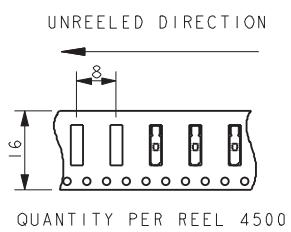
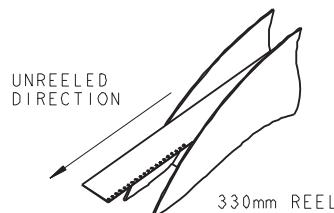
70-9159-001-401-006



SUGGESTED PCB LAYOUT

NOTES:

1. 9159 SINGLE CONTACT, SMT MOUNT, PLUG CONTACT.
2. TO MATE WITH 70-9159-001-402-006 SOCKET CONTACT, REFER TO PAGE 67.
3. TYPICAL APPLICATIONS SEE PAGES 69 AND 70.
4. FOR FURTHER INFORMATION REFER TO SPECIFICATION 201-01-148 AND APPLICATION NOTES 201-01-149.
5. COPPER ALLOY, NICKEL UNDERCOAT, GOLD IN CONTACT AREA.
TIN ON SOLDER TAIL.
6. GENERAL TOLERANCE ± 0.20 UNLESS SPECIFIED.
7. PACKAGING IN TAPE AND REEL, QUANTITY PER REEL 4500.
8. UL REFERENCE E90723 (US AND CANADA).
9. AREA AVAILABLE FOR PICK AND PLACE.

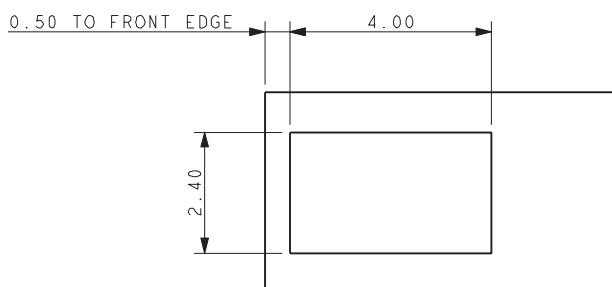
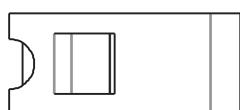
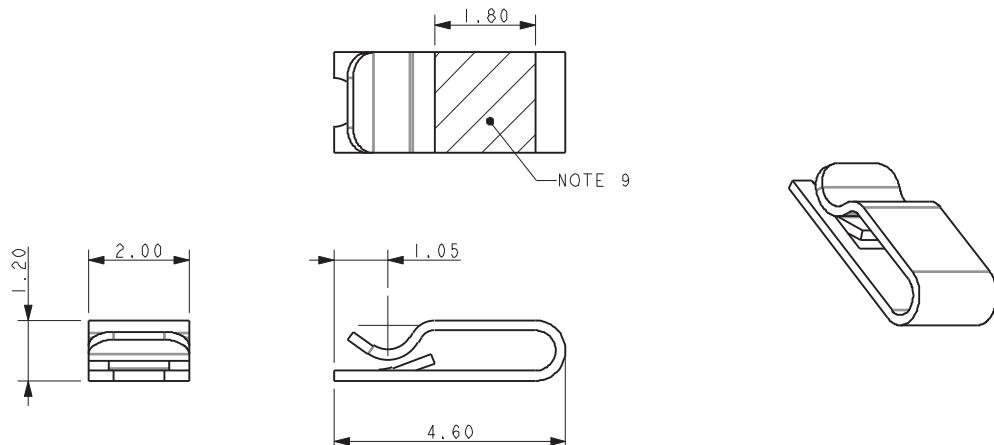


Single 2 Piece Contacts: BTB

70-9159

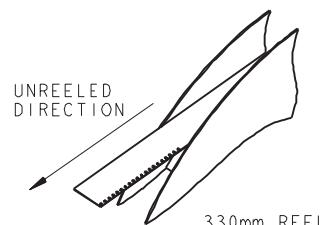
AVX INTERCONNECT
A KYOCERA GROUP COMPANY

70-9159-001-402-006



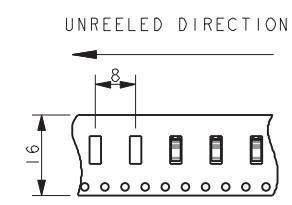
SUGGESTED PCB LAYOUT

PACKING DETAILS



NOTES:

1. 9159 SINGLE CONTACT, SMT MOUNT, SOCKET CONTACT.
2. TO MATE WITH 70-9159-001-401-006 PLUG CONTACT, REFER TO PAGE 66 AND LOCAKING PLUG CONTACT 70-9159-001-411-006 PAGE 68.
3. TYPICAL APPLICATIONS SEE PAGES 69 AND 70.
4. FOR FURTHER INFORMATION REFER TO SPECIFICATION 201-01-148 AND APPLICATION NOTES 201-01-149.
5. COPPER ALLOY, NICKEL UNDERCOAT, GOLD PLATED.
6. GENERAL TOLERANCE ± 0.20 UNLESS SPECIFIED.
7. PACKAGING IN TAPE AND REEL, QUANTITY PER REEL 4500.
8. UL REFERENCE E90723 (US AND CANADA).
9. AREA AVAILABLE FOR PICK AND PLACE.



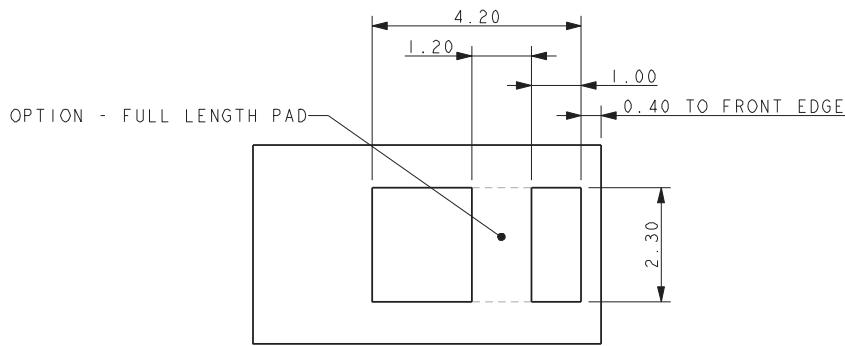
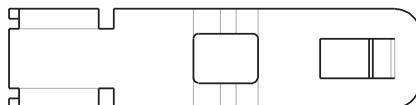
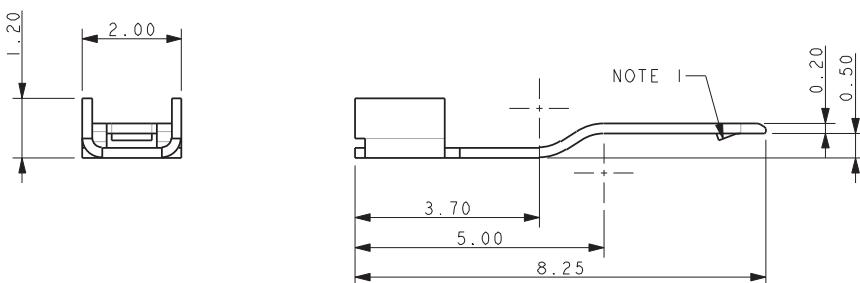
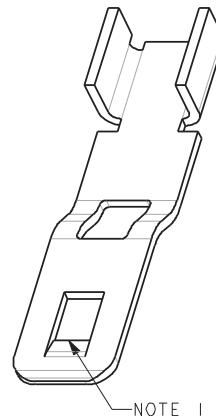
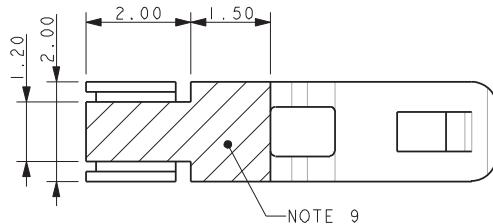
QUANTITY PER REEL 4500

Single 2 Piece Contacts: BTB

70-9159

AVX INTERCONNECT
A KYOCERA GROUP COMPANY

70-9159-001-411-006 LOCKING PLUG CONTACT

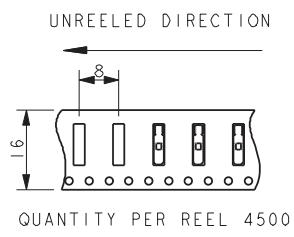
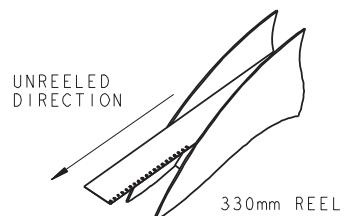


SUGGESTED PCB LAYOUT

NOTES:

1. 9159 SINGLE CONTACT, SMT MOUNT, PLUG CONTACT. LOCKING FEATURE WILL ASSIST IN MAINTAINING THE POSITION.
2. TO MATE WITH 70-9159-001-402-006 SOCKET CONTACT, REFER TO PAGE 67.
3. TYPICAL APPLICATIONS SEE PAGES 69 AND 70.
4. FOR FURTHER INFORMATION REFER TO SPECIFICATION 201-01-148 AND APPLICATION NOTES 201-01-149.
5. COPPER ALLOY, NICKEL UNDERCOAT, GOLD IN CONTACT AREA. TIN ON SOLDER TAIL.
6. GENERAL TOLERANCE ± 0.20 UNLESS SPECIFIED.
7. PACKAGING IN TAPE AND REEL, QUANTITY PER REEL 4500.
8. UL REFERENCE E90723 (US AND CANADA).
9. AREA AVAILABLE FOR PICK AND PLACE.

PACKING DETAILS



Single 2 Piece Contacts: BTB

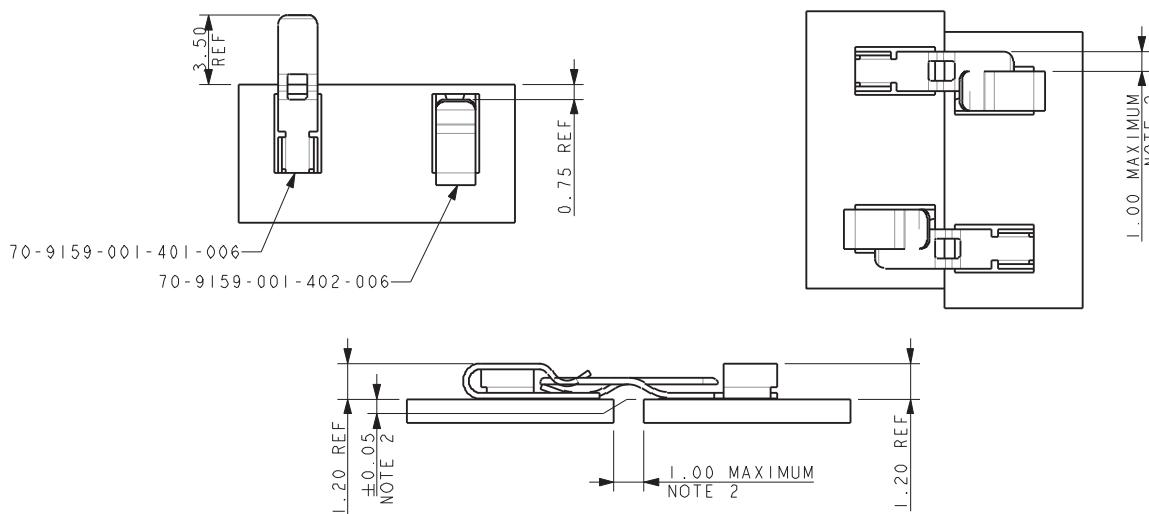
70-9159

AVX INTERCONNECT
A KYOCERA GROUP COMPANY

70-9159-001-4XX-006 – CONTACT SOLDER TOLERANCE

STANDARD CONTACT

70-9159-001-401-006 Plus 70-9159-001-402-006

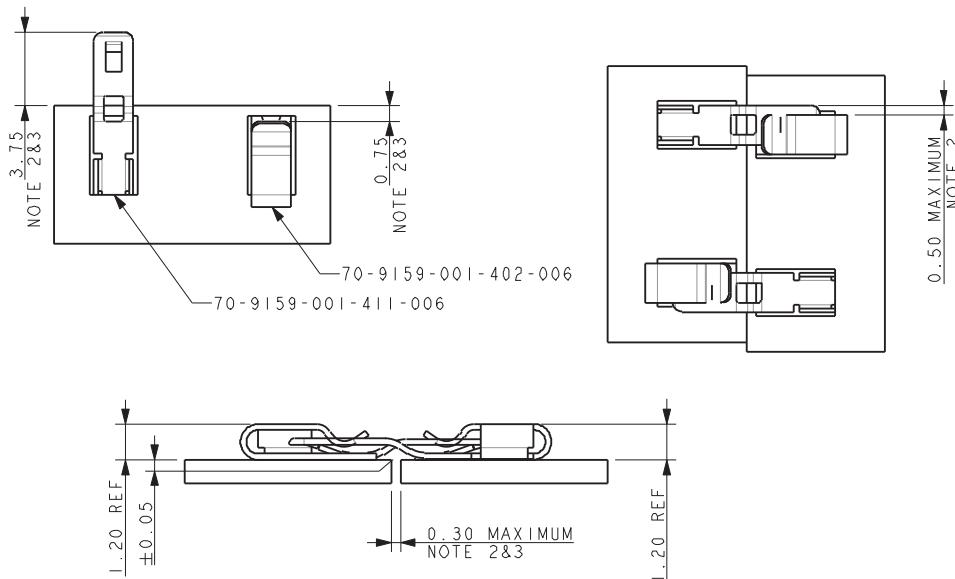


NOTES:

1. SIMPLE BOARD TO BOARD ASSEMBLY.
2. CONTACTS (70-9159-001-401-006) WILL COPE WITH A GAP BETWEEN BOARDS UP TO 1.00MM AND/OR A SIDEWAY MISALIGNMENT OF UP TO 1.00MM WITHOUT LOSS OF PERFORMANCE. VERTICAL MISALIGNMENT MUST HOWEVER BE KEPT TO WITHIN ± 0.05 .

LOCKING CONTACT

70-9159-001-411-006 Plus 70-9159-001-402-006



NOTES:

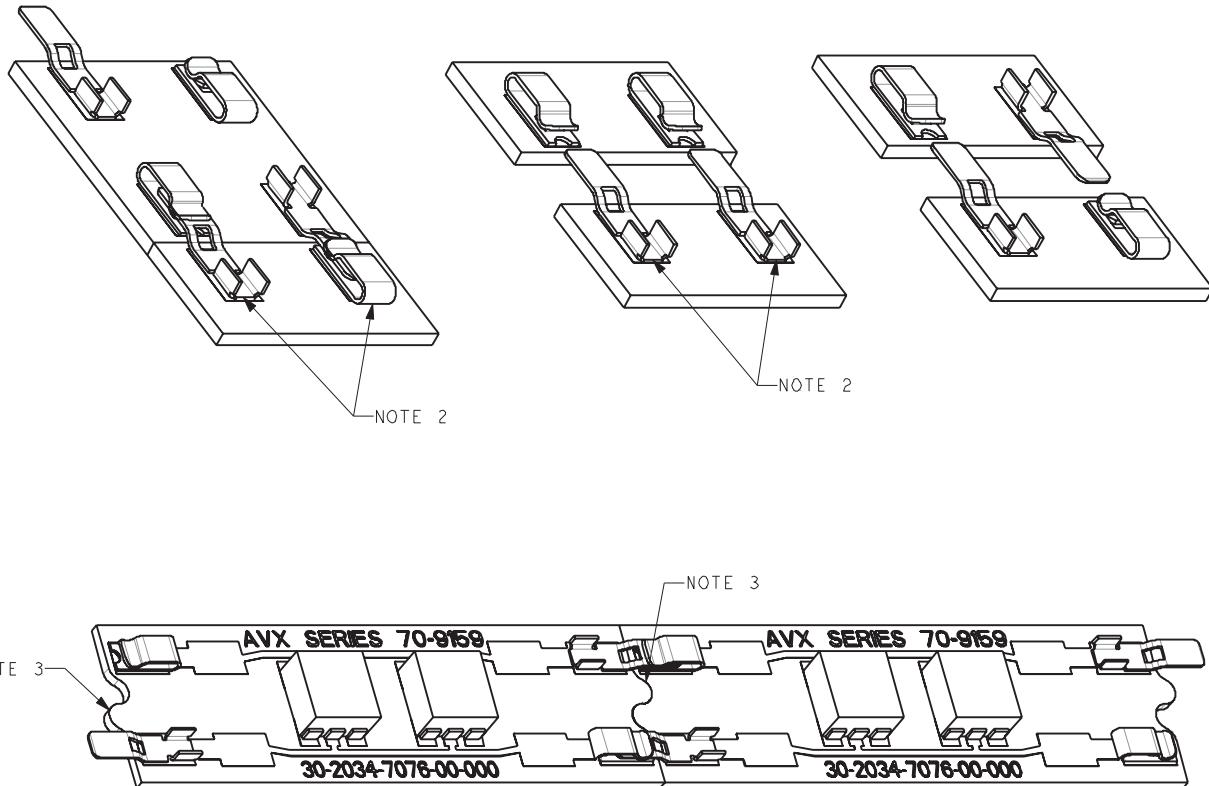
1. LOCKING BOARD TO BOARD ASSEMBLY.
2. CONTACT LOCKING (70-9159-001-411-006) WILL COPE WITH A GAP BETWEEN BOARDS UP TO 0.30MM WITH THE CONTACTS SOLDERED IN POSITIONS SHOWN THE SIDEWAYS MISALIGNMENT CAN BE UP TO 0.50MM WITHOUT LOSS OF PERFORMANCE. VERTICAL MISALIGNMENT MUST HOWEVER BE KEPT TO WITHIN ± 0.05 .
3. IF FOR EXAMPLE THE CONTACT PORTIONS ARE CHANGED TO 3.60MM AND 0.90MM RESPECTIVELY.

Single 2 Piece Contacts: BTB

70-9159

AVX INTERCONNECT
A KYOCERA GROUP COMPANY

70-9159-001-40X-006
BOARD TO BOARD ASSEMBLY



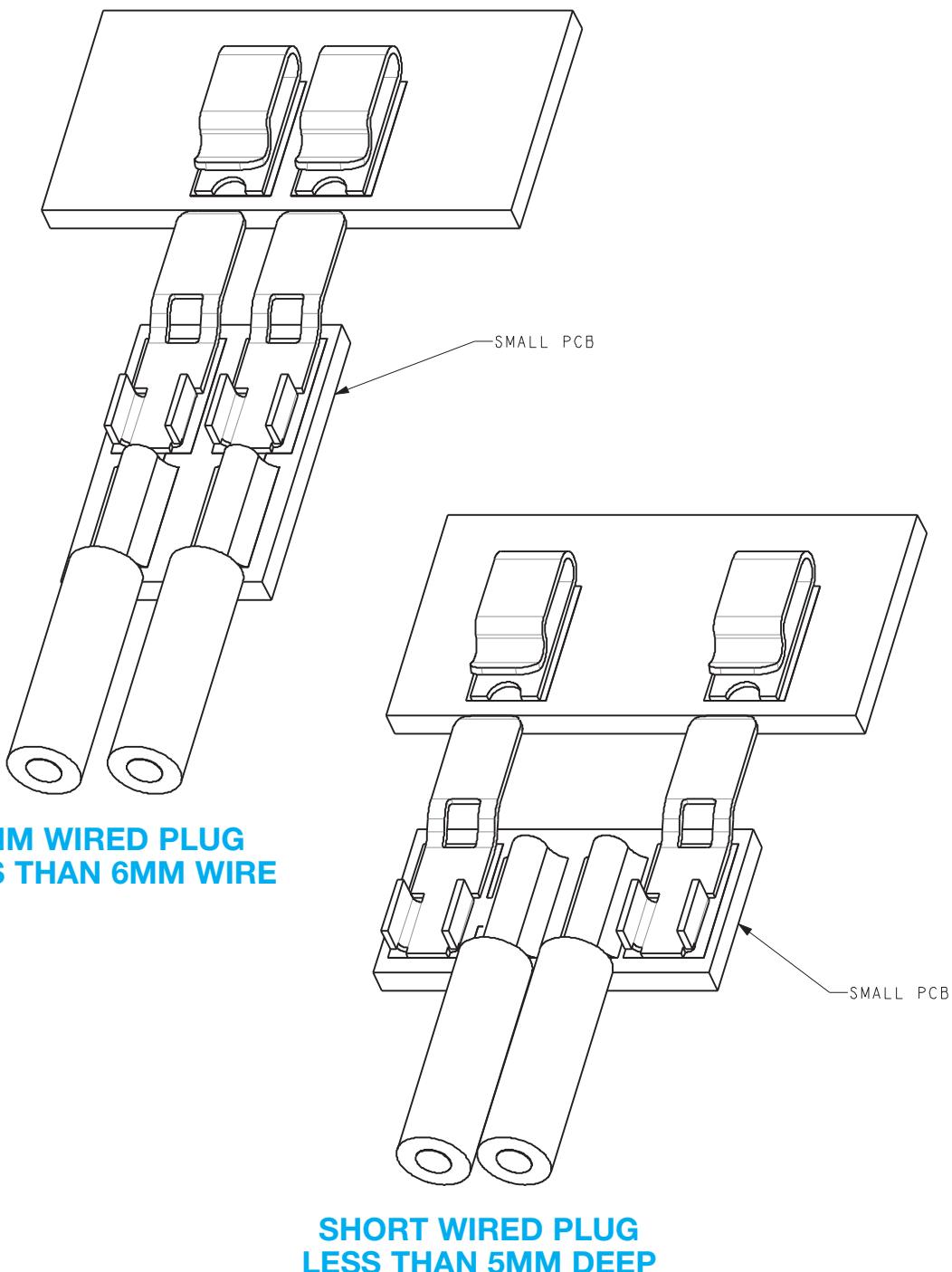
NOTES:

1. SIMPLE BOARD TO BOARD LINK.
2. ALL MATING COMBINATIONS PERMISSIBLE. FOR EXAMPLE BY USING ONE PLUG AND ONE SOCKET CONTACT THE BOARD ENDS ARE REVEALABLE.
3. FEATURES CAN BE ADDED TO BOARD ENDS TO RESIST SIDEWAYS MOVEMENT.

Single 2 Piece Contacts: BTB

70-9159

70-9159-001-40X-006
SIMPLE COMPACT WIRED PLUG ASSEMBLIES



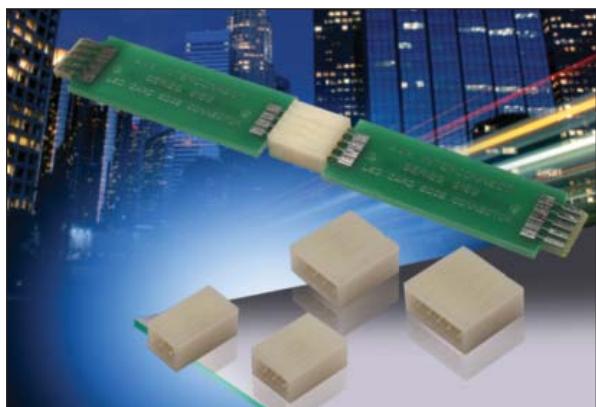
NOTES:

1. SIMPLE BUILT UP ASSEMBLY
2. CONTACTS CAN BE USED WITH A SUITABLE PCB DESIGN FOR CUSTOMER BUILT SMALL CABLE ASSEMBLIES.
3. TWO WAY PLUG CONNECTIONS SHOWN BUT ANY COMBINATION POSSIBLE.

Standard Card Edge: BTB

00-9159

AVX INTERCONNECT
A KYOCERA GROUP COMPANY



The 9159 series of Board-to-Board interconnect system allows two PCB's to be mated end-to-end creating strips of LED lighting. Designed specifically for the unique Solid State Lighting (SSL) market requiring coplanar (horizontal-to-horizontal) PCB mating. The 1-Piece Card Edge connector was developed to provide a reliable, low cost and simple means of connecting multiple PCB's together. The single stamped contact has dual contact beams to guarantee a high contact force on standard 1.6mm PCB's. These connectors are available in 2 through 5 positions and are on 2.0mm pitch centers to provide a 3 amp continuous rating.

APPLICATIONS

- Coplanar PCB mating in SSL products
- LED linear lighting strips

FEATURES AND BENEFITS

- Dual contacts provide positive contact force for enhanced reliability
- Mates with standard 1.6 ± 0.15 mm PCB on 2.0mm pad pitch
- 3 amp current rating for high current applications
- Available in white: supports SSL market preferences

ELECTRICAL

- Current Rating: 3 Amps / Contact
- Voltage Rating: 300 VAC

ENVIRONMENTAL

- Operating Temperature:
-40°C to +125°C

MECHANICAL

- Insulator Material: Nylon 46: UL94HB
- Contact Material: Phosphor Bronze
- Plating: Tin over Nickel
- Durability: 5 Cycles

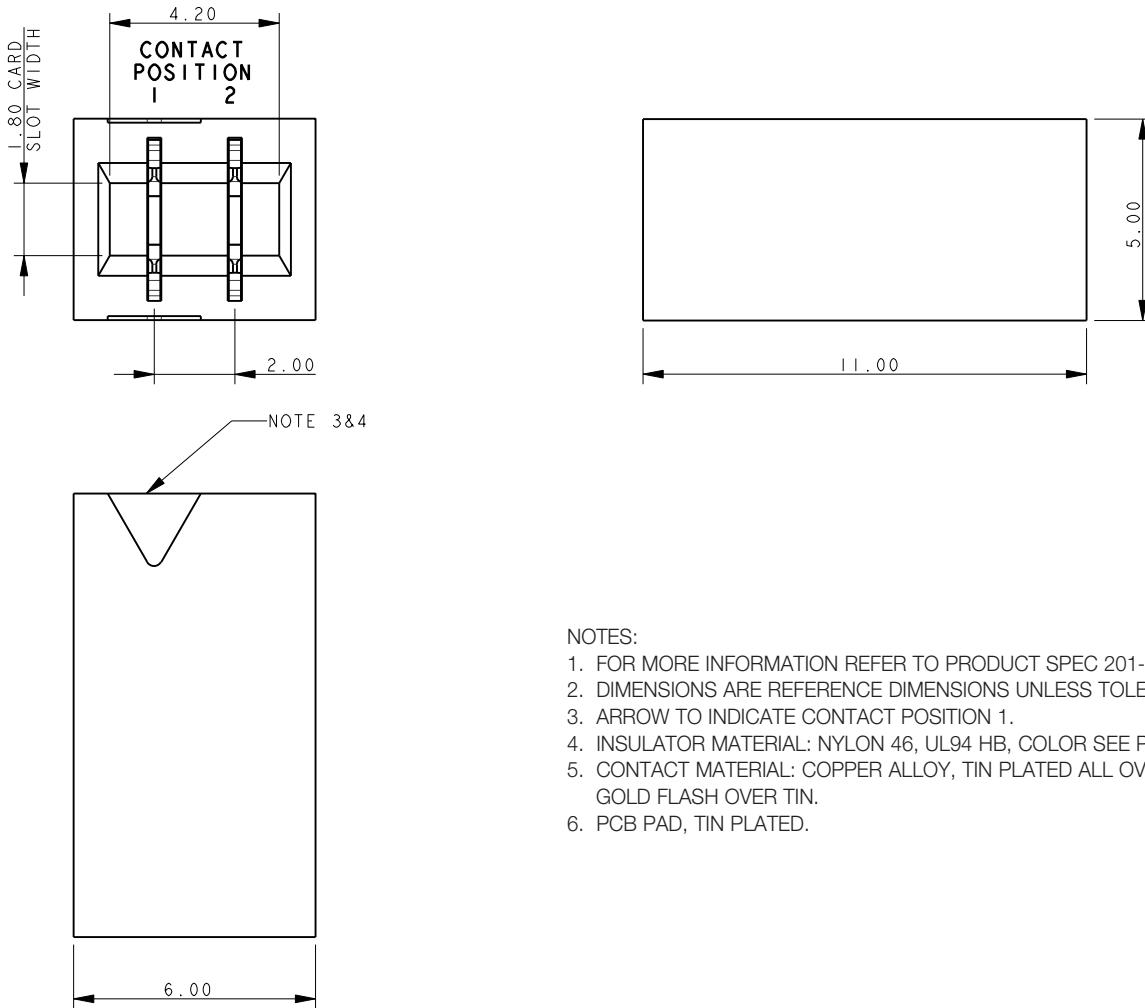
HOW TO ORDER

00	9159	00X	0	01	9	1	X															
Prefix	Series	Number of Ways	Single Part PCB Strip Connector	PCB Thickness 01 = 1.60 ± 0.15	Color Options 9 = UL	Packaging Options 1 = Bag (std)	Plating Option 6 = Pure Tin all over 1 = Gold Flash															
		<table border="1"><thead><tr><th>Code</th><th>No of Ways</th><th>Details</th></tr></thead><tbody><tr><td>002</td><td>2</td><td>Page 73</td></tr><tr><td>003</td><td>3</td><td>Page 74</td></tr><tr><td>004</td><td>4</td><td>Page 75</td></tr><tr><td>005</td><td>5</td><td>Page 76</td></tr></tbody></table>	Code	No of Ways	Details	002	2	Page 73	003	3	Page 74	004	4	Page 75	005	5	Page 76					
Code	No of Ways	Details																				
002	2	Page 73																				
003	3	Page 74																				
004	4	Page 75																				
005	5	Page 76																				

Certification: UL File #E90723



2 WAY SINGLE PART PCB STRIP CONNECTOR

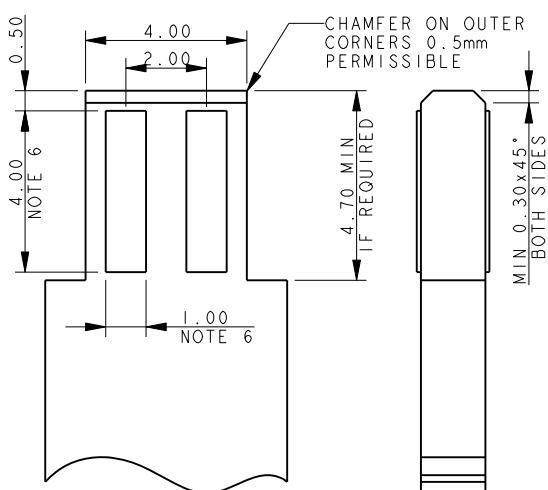


NOTES:

1. FOR MORE INFORMATION REFER TO PRODUCT SPEC 201-01-118.
2. DIMENSIONS ARE REFERENCE DIMENSIONS UNLESS TOLERANCED.
3. ARROW TO INDICATE CONTACT POSITION 1.
4. INSULATOR MATERIAL: NYLON 46, UL94 HB, COLOR SEE PAGE 72.
5. CONTACT MATERIAL: COPPER ALLOY, TIN PLATED ALL OVER, OR GOLD FLASH OVER TIN.
6. PCB PAD, TIN PLATED.

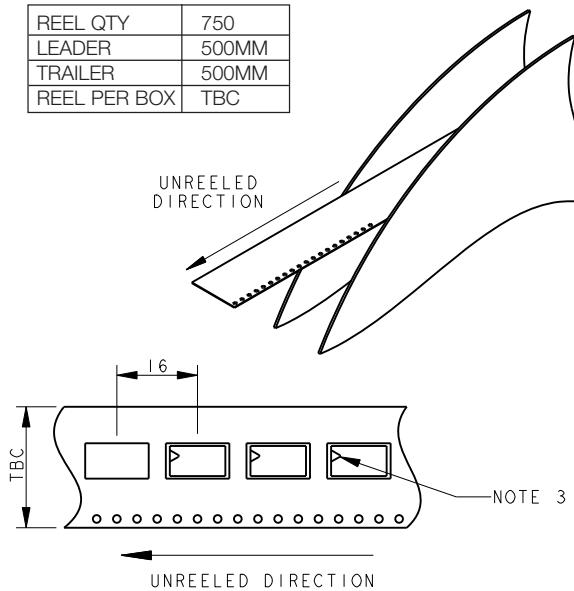
2 WAY PCB BOARD LAYOUT

THICKNESS 1.60 ± 0.15

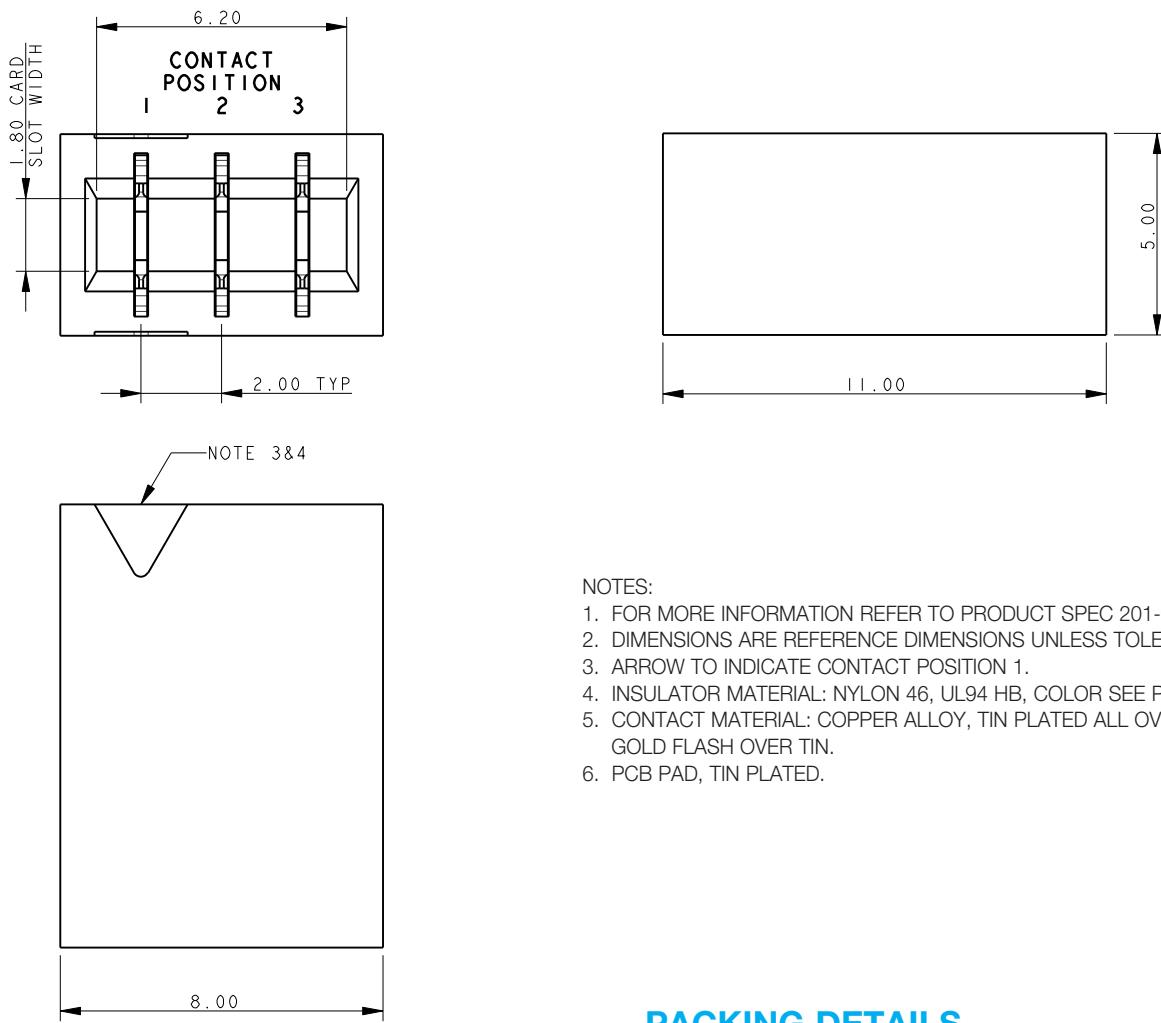


PACKING DETAILS

REEL QTY	750
LEADER	500MM
TRAILER	500MM
REEL PER BOX	TBC



3 WAY SINGLE PART PCB STRIP CONNECTOR

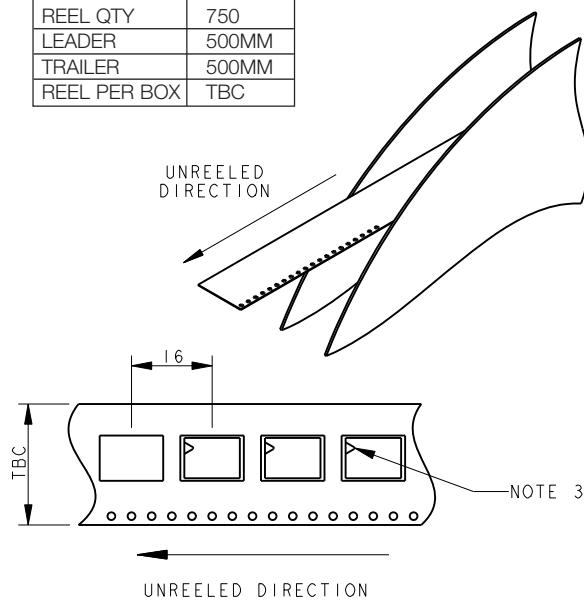


NOTES:

1. FOR MORE INFORMATION REFER TO PRODUCT SPEC 201-01-118.
2. DIMENSIONS ARE REFERENCE DIMENSIONS UNLESS TOLERANCED.
3. ARROW TO INDICATE CONTACT POSITION 1.
4. INSULATOR MATERIAL: NYLON 46, UL94 HB, COLOR SEE PAGE 72.
5. CONTACT MATERIAL: COPPER ALLOY, TIN PLATED ALL OVER, OR GOLD FLASH OVER TIN.
6. PCB PAD, TIN PLATED.

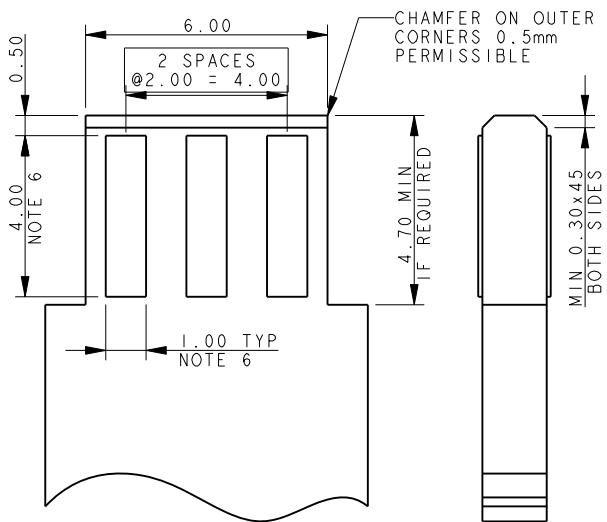
PACKING DETAILS

REEL QTY	750
LEADER	500MM
TRAILER	500MM
REEL PER BOX	TBC



3 WAY PCB BOARD LAYOUT

THICKNESS 1.60 ± 0.15

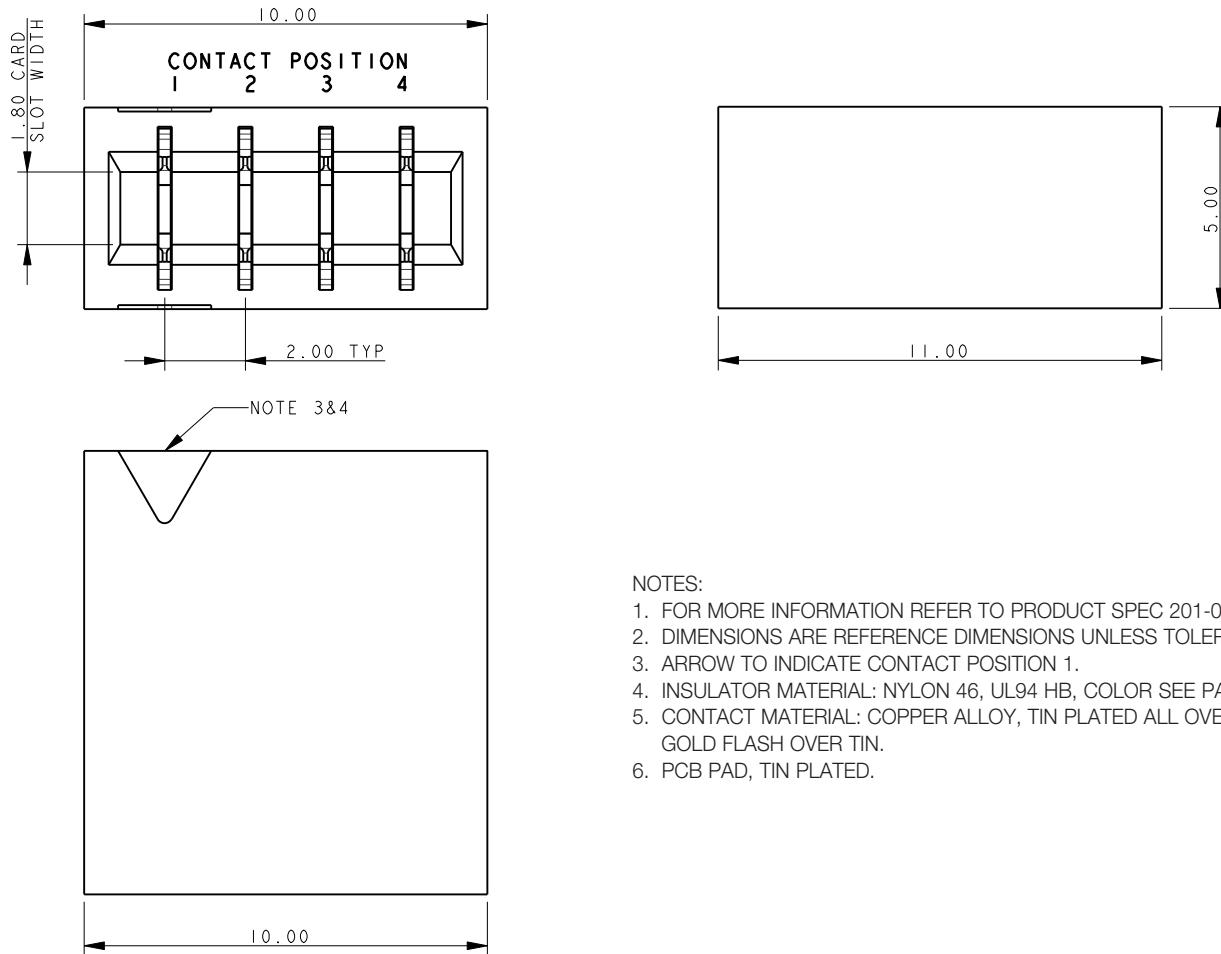


Standard Card Edge: BTB

00-9159

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4 WAY SINGLE PART PCB STRIP CONNECTOR



NOTES:

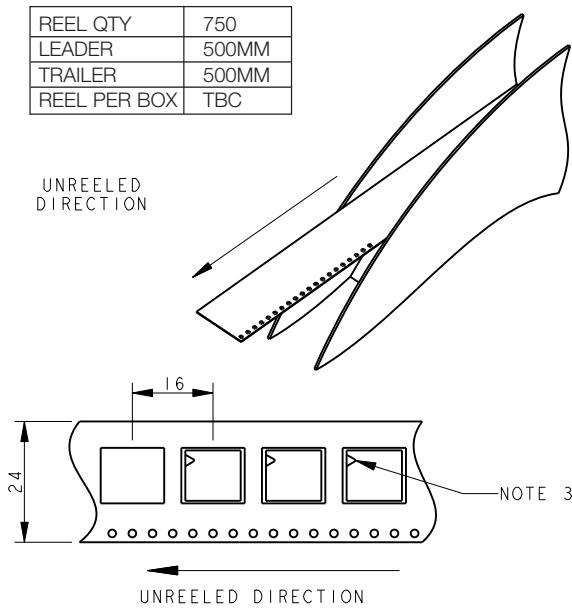
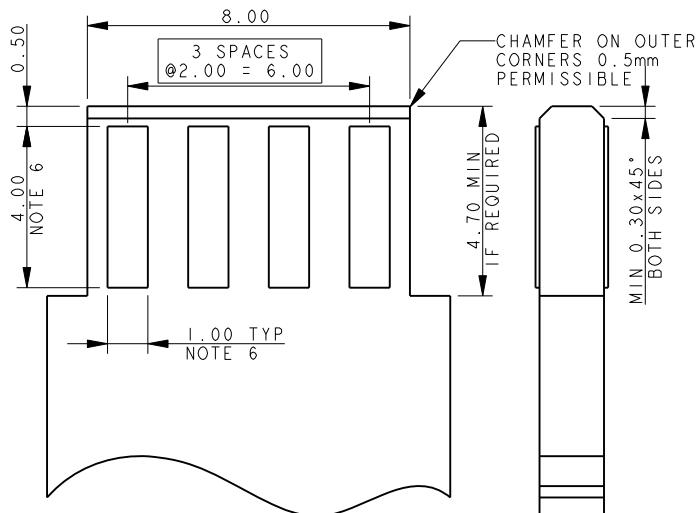
1. FOR MORE INFORMATION REFER TO PRODUCT SPEC 201-01-118.
2. DIMENSIONS ARE REFERENCE DIMENSIONS UNLESS TOLERANCED.
3. ARROW TO INDICATE CONTACT POSITION 1.
4. INSULATOR MATERIAL: NYLON 46, UL94 HB, COLOR SEE PAGE 72.
5. CONTACT MATERIAL: COPPER ALLOY, TIN PLATED ALL OVER, OR GOLD FLASH OVER TIN.
6. PCB PAD, TIN PLATED.

PACKING DETAILS

REEL QTY	750
LEADER	500MM
TRAILER	500MM
REEL PER BOX	TBC

4 WAY PCB BOARD LAYOUT

THICKNESS 1.60 ± 0.15



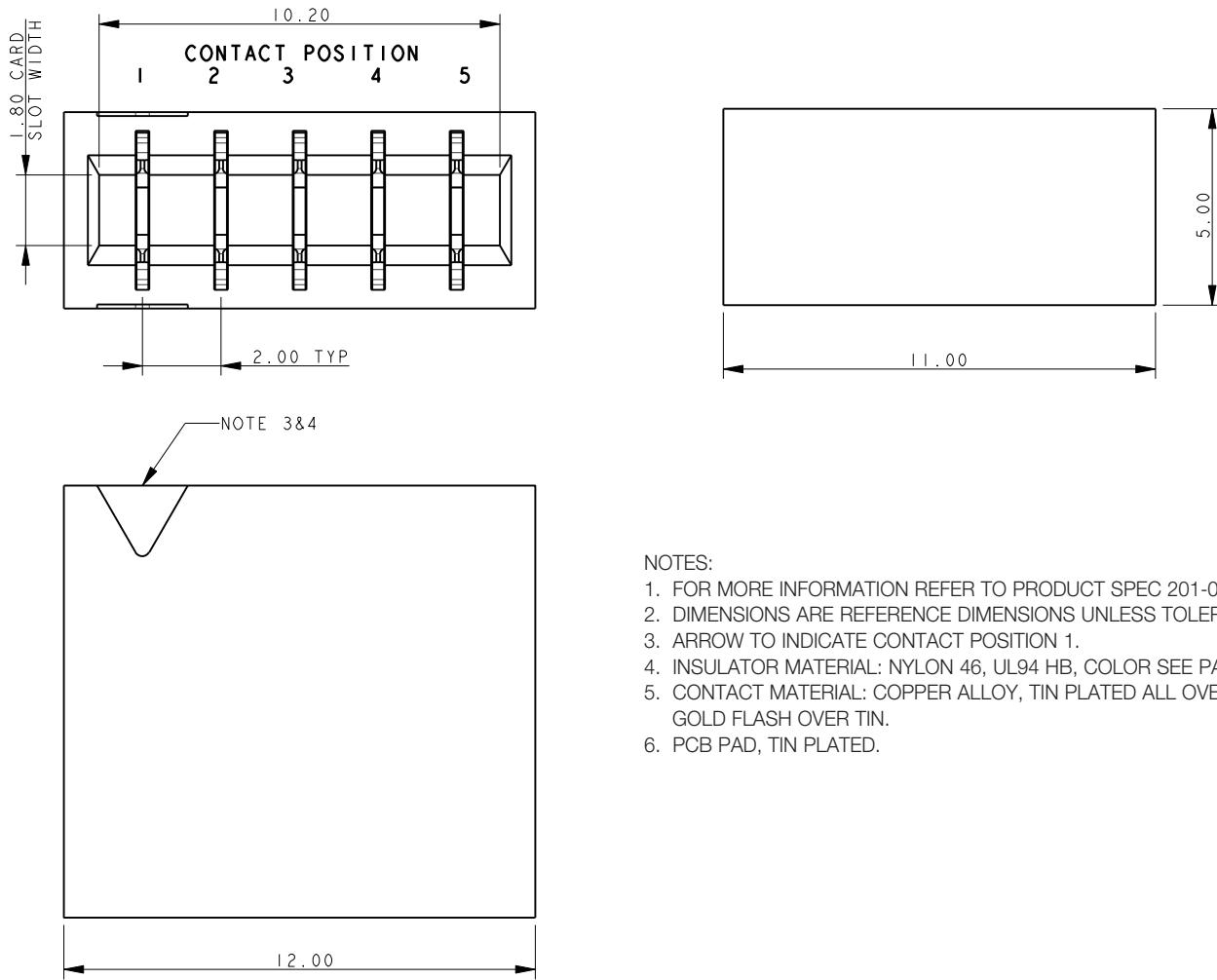
AVX

Standard Card Edge: BTB

00-9159

AVX INTERCONNECT
A KYOCERA GROUP COMPANY

5 WAY SINGLE PART PCB STRIP CONNECTOR

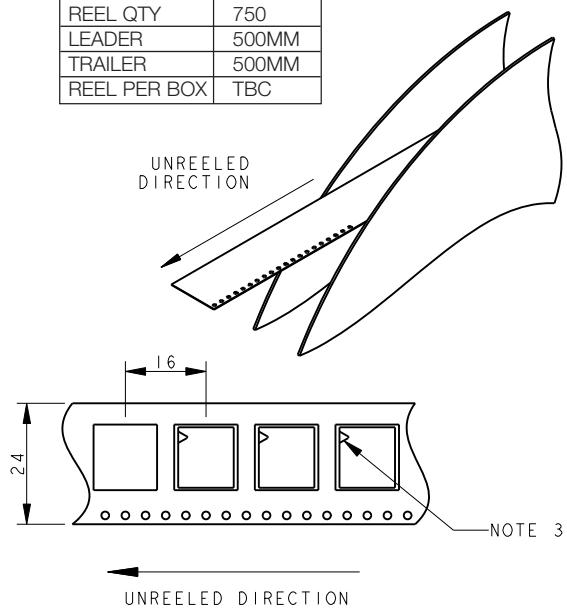
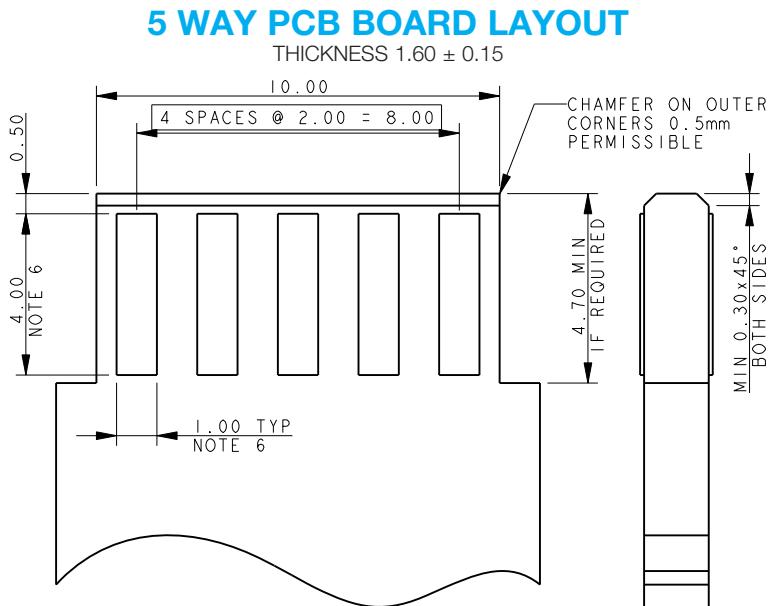


NOTES:

1. FOR MORE INFORMATION REFER TO PRODUCT SPEC 201-01-118.
2. DIMENSIONS ARE REFERENCE DIMENSIONS UNLESS TOLERANCED.
3. ARROW TO INDICATE CONTACT POSITION 1.
4. INSULATOR MATERIAL: NYLON 46, UL94 HB, COLOR SEE PAGE 72.
5. CONTACT MATERIAL: COPPER ALLOY, TIN PLATED ALL OVER, OR GOLD FLASH OVER TIN.
6. PCB PAD, TIN PLATED.

PACKING DETAILS

REEL QTY	750
LEADER	500MM
TRAILER	500MM
REEL PER BOX	TBC



Open Ended Card Edge: BTB

00-9159

AVX INTERCONNECT
A KYOCERA GROUP COMPANY



AVX was challenged with increasing the pin count density as well as minimizing the size of the existing coplanar BTB card edge connector for linear strip lighting. The current product is a 2.0mm with single contacts that straddle the PCB to make electrical connection on both the top and bottom side of the board. By simply changing the contacts to a double sided configuration (separate contacts for both the top and bottom of the PCB), AVX was able to double the pin count in the same 2.0mm pitch with minimal to no impact on the electrical performance of the connector. Reducing the size of the connector required a complete new design as the target was a 4p connector with a total length of 4.0mm. To achieve this, AVX removed the end walls and then added a center support/keying rib to pre-align the PCB during mating. This rib then holds the PCB in the proper functional location.

The new family of connectors is available with contact sizes of 4, 6, 8 and 10 positions, doubling the current products range. The current rating will be 3A for the 4p and 6p, and then drop to 2.5A for the 8p and 10p connector. The connector supports the standard 1.6mm PCB thickness.

This new connector provides the highest density to reliably connect two in-line PCB's together in the most cost effective assembled solution. More importantly, the increased pin count allows for more flexibility in mixing and matching power and signal lines.

APPLICATIONS

- Linear LED strip lighting
- Commercial/Industrial co-planar or extended card applications
- Reference Product Specification 201-01-144

FEATURES AND BENEFITS

- Miniaturized size, achieves 1.0mm in length for each number of contacts (4p =4.0mm)
- Double Ended/Double Sided contacts for increased pin count density on standard 1.6mm thick PCB's
- Central polarizing/location rib assures proper mating and PCB location
- High current capabilities: 3A; 4p/6p and 2.5A; 8p/10p
- Economical high force Tin-to-Tin contact interface

ELECTRICAL

- Current Rating: 3.0 amps 4p/6p and 2.5 amps 8p/10p
- Voltage Rating: 300 VAC

ENVIRONMENTAL

- Operating Temperature: -40°C to +125°C

MECHANICAL

- Insulator Material: Nylon 46: UL94VO
- Contact Material: Phosphor Bronze
- Plating: Tin over Nickel
- Durability: 5 Cycles

HOW TO ORDER

00 9159
Prefix Series

00X

Number of Ways		
Code	No of Ways	Details
004	4	Page 78
006	6	Page 79
008	8	Page 80
010	10	Page 81

0
Single Part PCB Strip Connector

61
PCB Thickness
61 = Open Ended
PCB Thickness
1.6±0.10

Insulator Color		
Code	Color	Application
8	Black	Special Order
9	White	Standard

1
Packaging Options
1 = Bag

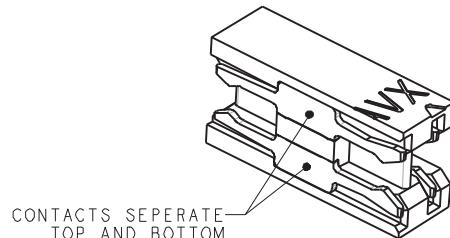
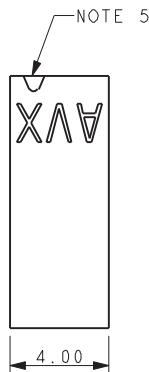
X
Plating Option
6 = Pure Tin all over
1 = Gold Flash

Certification: UL File #E90723



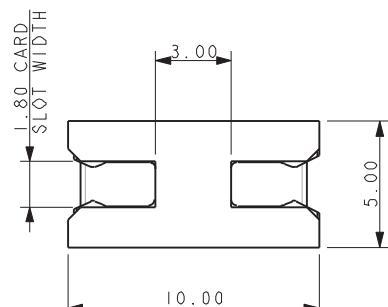
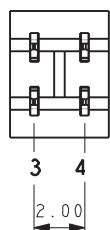
AVX

4 WAY SINGLE PART PCB STRIP CONNECTOR – OPEN ENDED



SECTION VIEW THROUGH CONTACT

POSITION
1 2

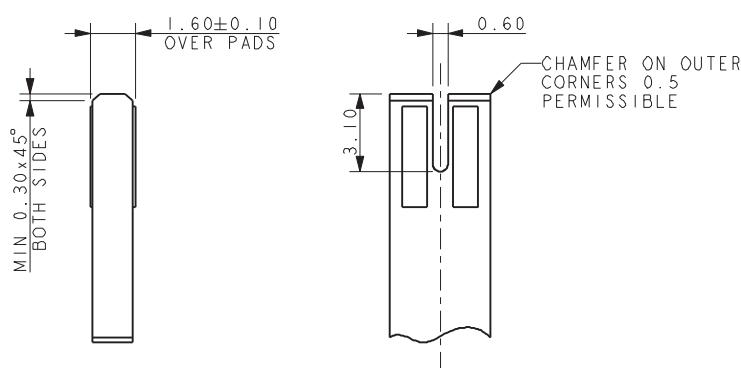
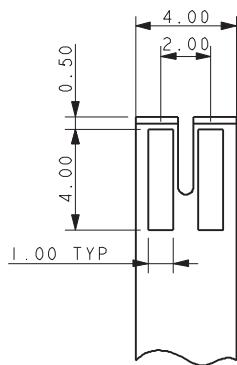


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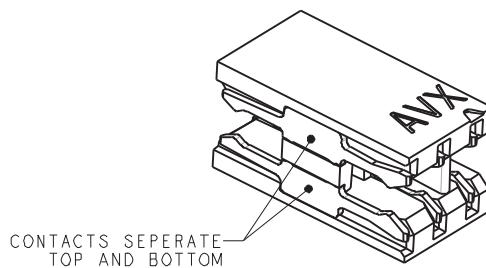
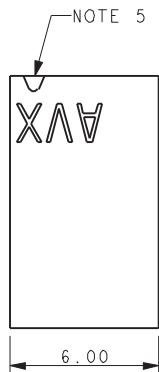
1. INSULATOR MATERIAL NYLON 46, UL94 V-0.
COLOR REFER TO PAGE 77.
2. CONTACT MATERIAL COPPER ALLOY, TIN PLATED
3. PARTS TO BE SUPPLIED IN BAGS, 1000 PIECES PER BAG.
4. GENERAL TOLERANCE $\pm 0.20\text{MM}$ UNLESS STATED.
5. ARROW ADJACENT TO CONTACT POSITION 1.
6. PCB PAD, TIN PLATED OR TIN PLATED WITH GOLD FLASH.
7. FURTHER DETAILS REFER TO ELCO SPECIFICATION 201-01-144.

SUGGESTED PCB LAYOUT

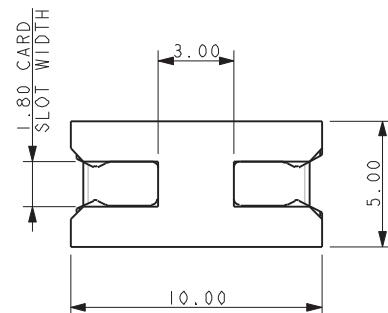
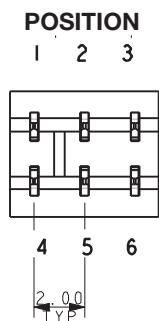
PADS THE SAME UPPER AND LOWER FACES
PCB THICKNESS $1.60 \pm 0.10\text{MM}$ (OVER PADS)



6 WAY SINGLE PART PCB STRIP CONNECTOR – OPEN ENDED



SECTION VIEW THROUGH CONTACT

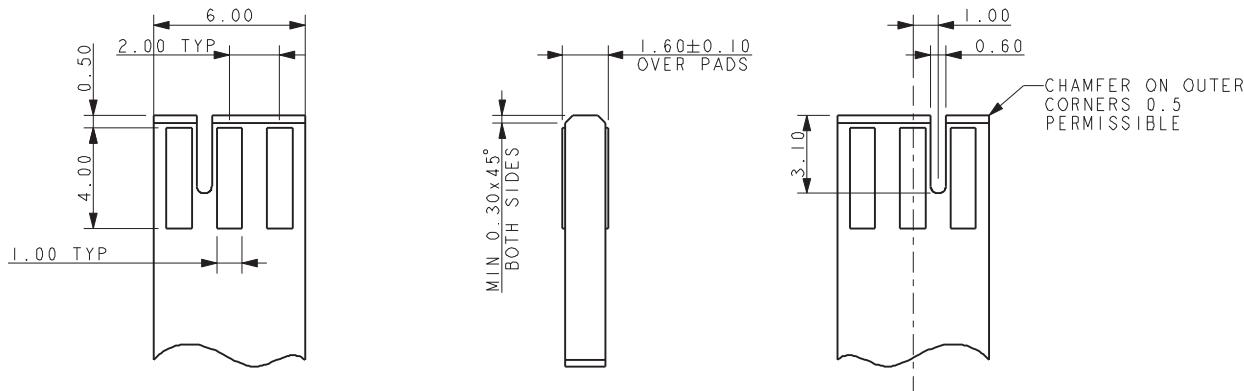


NOTES:

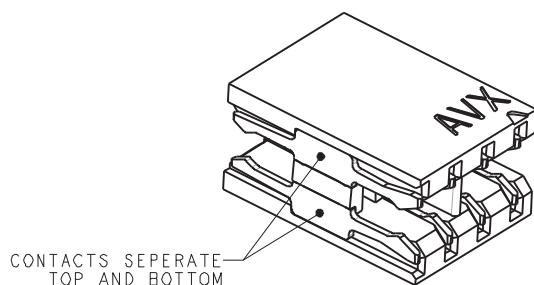
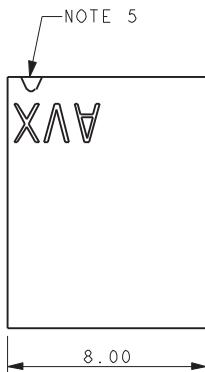
1. INSULATOR MATERIAL NYLON 46, UL94 V-0.
COLOR REFER TO PAGE 77.
2. CONTACT MATERIAL COPPER ALLOY, TIN PLATED
3. PARTS TO BE SUPPLIED IN BAGS, 1000 PIECES PER BAG.
4. GENERAL TOLERANCE $\pm 0.20\text{MM}$ UNLESS STATED.
5. ARROW ADJACENT TO CONTACT POSITION 1.
6. PCB PAD, TIN PLATED OR TIN PLATED WITH GOLD FLASH.
7. FURTHER DETAILS REFER TO ELCO SPECIFICATION 201-01-144.

SUGGESTED PCB LAYOUT

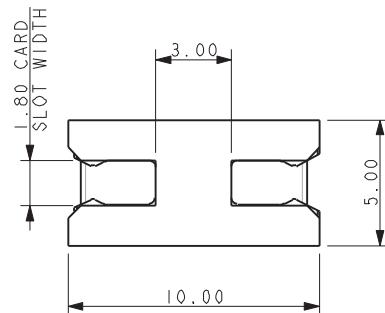
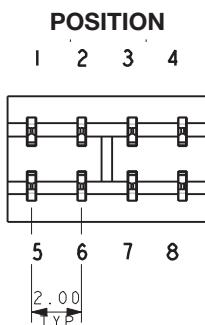
PADS THE SAME UPPER AND LOWER FACES
PCB THICKNESS $1.60 \pm 0.10\text{MM}$ (OVER PADS)



8 WAY SINGLE PART PCB STRIP CONNECTOR – OPEN ENDED



SECTION VIEW THROUGH CONTACT

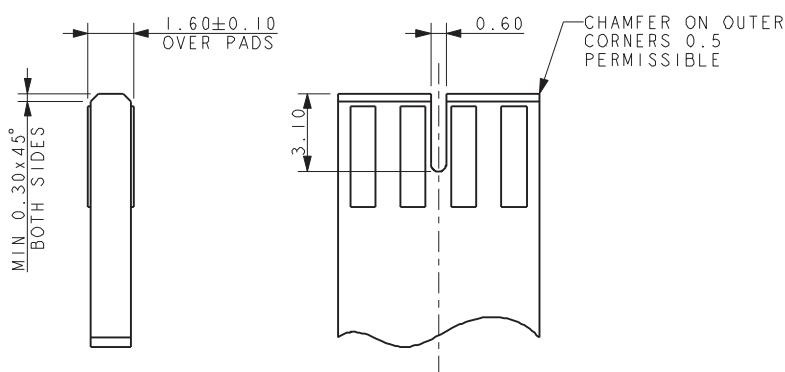
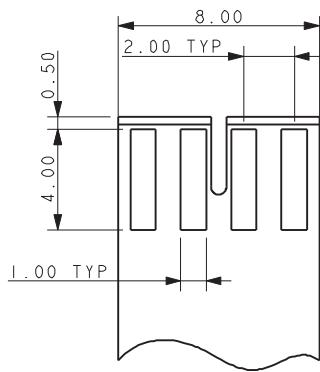


NOTES:

1. INSULATOR MATERIAL NYLON 46, UL94 V-0.
COLOR REFER TO PAGE 77.
2. CONTACT MATERIAL COPPER ALLOY, TIN PLATED
3. PARTS TO BE SUPPLIED IN BAGS, 1000 PIECES PER BAG.
4. GENERAL TOLERANCE $\pm 0.20\text{MM}$ UNLESS STATED.
5. ARROW ADJACENT TO CONTACT POSITION 1.
6. PCB PAD, TIN PLATED OR TIN PLATED WITH GOLD FLASH.
7. FURTHER DETAILS REFER TO ELCO SPECIFICATION 201-01-144.

SUGGESTED PCB LAYOUT

PADS THE SAME UPPER AND LOWER FACES
PCB THICKNESS $1.60 \pm 0.10\text{MM}$ (OVER PADS)

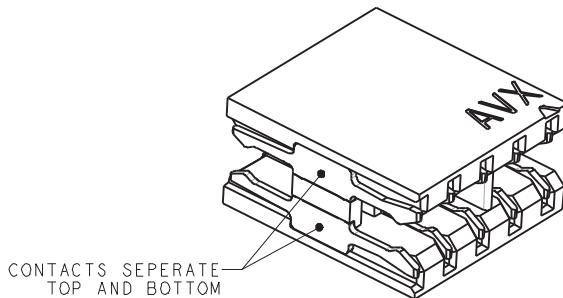
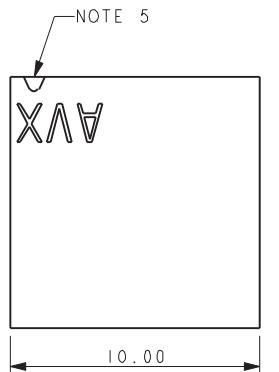


Open Ended Card Edge: BTB

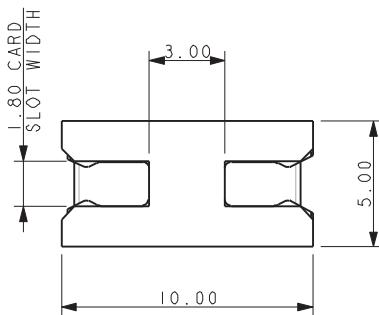
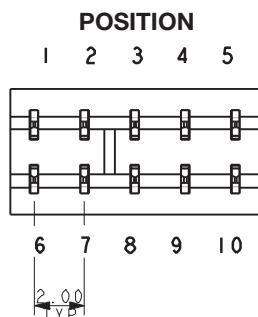
00-9159

AVX INTERCONNECT
A KYOCERA GROUP COMPANY

10 WAY SINGLE PART PCB STRIP CONNECTOR – OPEN ENDED



SECTION VIEW THROUGH CONTACT

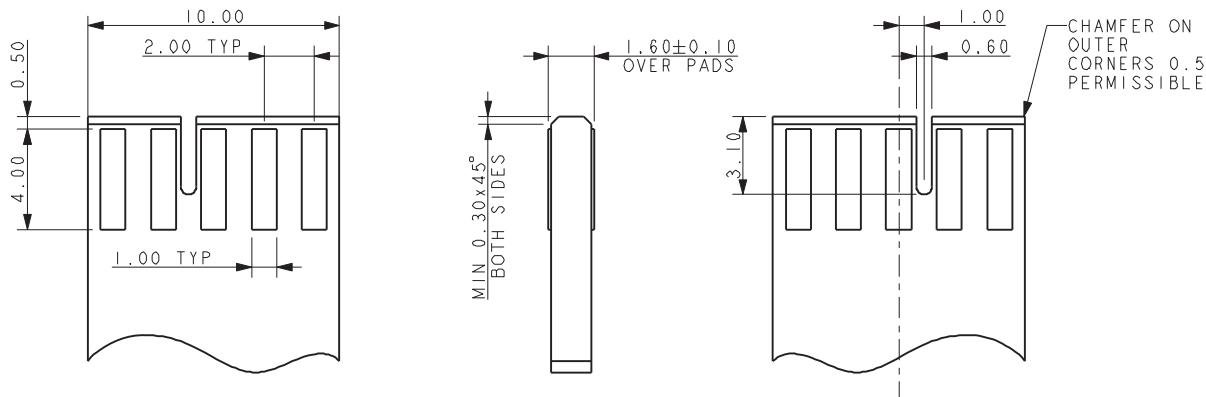


NOTES:

1. INSULATOR MATERIAL NYLON 46, UL94 V-0.
COLOR REFER TO PAGE 77.
2. CONTACT MATERIAL COPPER ALLOY, TIN PLATED
3. PARTS TO BE SUPPLIED IN BAGS, 1000 PIECES PER BAG.
4. GENERAL TOLERANCE ± 0.20 MM UNLESS STATED.
5. ARROW ADJACENT TO CONTACT POSITION 1.
6. PCB PAD, TIN PLATED OR TIN PLATED WITH GOLD FLASH.
7. FURTHER DETAILS REFER TO ELCO SPECIFICATION 201-01-144.

SUGGESTED PCB LAYOUT

PADS THE SAME UPPER AND LOWER FACES
PCB THICKNESS 1.60 ± 0.10 MM (OVER PADS)



Inverted Thru Board Card Edge: BTB

AVX INTERCONNECT
A KYOCERA GROUP COMPANY

00-9159



AVX has developed the 1-Piece bottom entry card edge connector to allow a perpendicular PCB to be mated to a top mounted main FR4 or metal core PCB from the bottom side. The most popular application on the market is in the LED bulb market where the FR4 driver card needs to mate to the top pads on a metal core LED board. A unique design feature of the AVX connector is that it allows for both a 1.6mm and 0.8mm mating PCB thickness, giving designers flexibility in their PCB layout and selection. The additional "Anti-Touch" cap can be ordered pre-assembled onto the connector or separately. This component protects an individual from electrical contact if the lens comes off or the bulb is broken. This is a UL mandated safety requirement.

The connectors offer a range of 2 positions to 6 positions in order to add additional functionality in the application design such as color control or specific control lines. The connector is UL rated with halogen free material and capable of operating temperatures up to 120°C.

APPLICATIONS

- Provides perpendicular, bottom entry PCB mating to a top mounted card edge contact based connector
- Reference application notes 201-01-137
- Reference Product Specification 201-01-132UL

FEATURES AND BENEFITS

- Available 2p-6p for added design functionality and color control in bulb applications
- Low profile top mounted design does not interfere with LED's
- Gold plated BeCu contact system for high reliability in harsh environments
- Accepts both 0.8mm and 1.6mm PCB's for added design options

ELECTRICAL

- Current Rating: 2 Amps / Contact
- Voltage Rating: 300 VAC

ENVIRONMENTAL

- Operating Temperature: -40°C to +120°C

MECHANICAL

- Insulator Material: Halogen Free Nylon UL94VO
- Contact Material: Beryllium Copper
- Plating: Gold / Tin over Nickel
- Durability 10 Cycles

HOW TO ORDER

00
Prefix

9159
Series

00X

Number of Ways

Code	No of Ways	Details
002	2	Page 83
003	3	Page 84
004	4	Page 85
005	5	Page 86
006	6	Page 87

50X

T

Single Part PCB Strip Connector
501 = Through The Board, Edge Card, No Cap
502 = Through The Board, Edge Card, Cap Fitted

9

T

Insulator Color

Code	Color	Application
9	White	UL Approved Standard

06

T

Plating Option

06 = Gold Plating on Nose with Tin on Tails



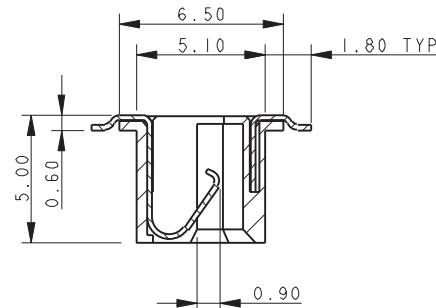
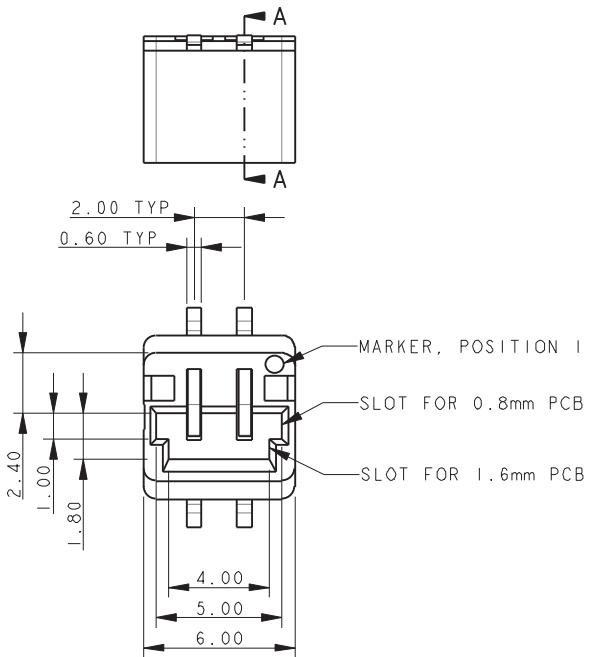
Certification: UL File #E90723

Inverted Thru Board Card Edge: BTB

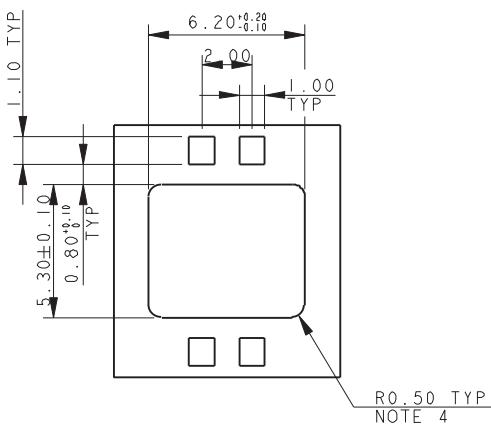
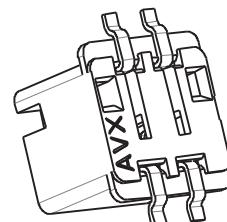
AVX INTERCONNECT
A KYOCERA GROUP COMPANY

00-9159

2 WAY THROUGH THE BOARD MATING EDGE CARD CONNECTOR

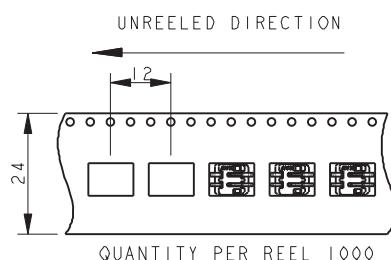
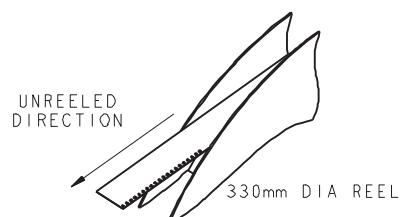


SECTION A-A



MOUNTING PCB
(TOP SIDE)

PACKING DETAILS



NOTES:

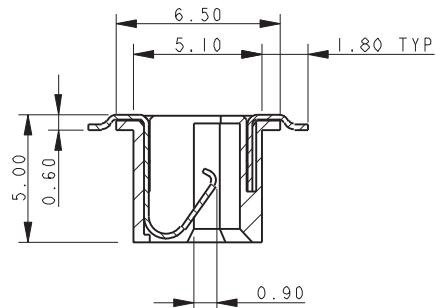
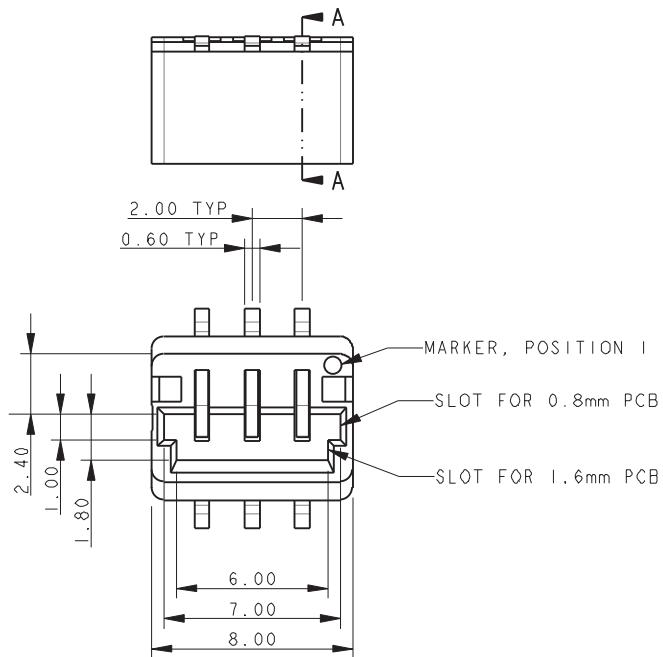
1. THROUGH THE BOARD 2 WAY EDGE CARD CONNECTOR. FOR FURTHER DETAILS REFER TO PRODUCT SPECIFICATION 201-01-136.
2. FOR MATING PCB EITHER 0.8MM OR 1.6MM THICK. REFER TO PAGE 88 FOR MATING PCB DETAILS.
3. CONNECTOR TOP MOUNTING ON PCB.
4. UP TO 0.5MM RAD TO MATCH CONNECTOR PROFILE.
5. ALL DIMENSIONS ± 0.20 UNLESS TOLERANCE SPECIFIED.
6. INSULATOR: PAR4T, GLASS FILLED, HALOGEN FREE, UL94 V-0, COLOR SEE PAGE 82.
7. CONTACT: COPPER ALLOW, NICKEL PLATED WITH GOLD FLASH ON NOSE AND TIN ON TAILS.
8. BRACKET: COPPER ALLOY, PLATING TIN OVER NICKEL.
9. PACKING IN TAPE AND REEL, 1000 PIECES PER REEL.
10. CONTACT TAILS COPLANARITY WITHIN 0.10.
11. REFER TO PAGE 91 FOR MATCHING PROTECTING CAP.
12. UL REFERENCE E90723.

Inverted Thru Board Card Edge: BTB

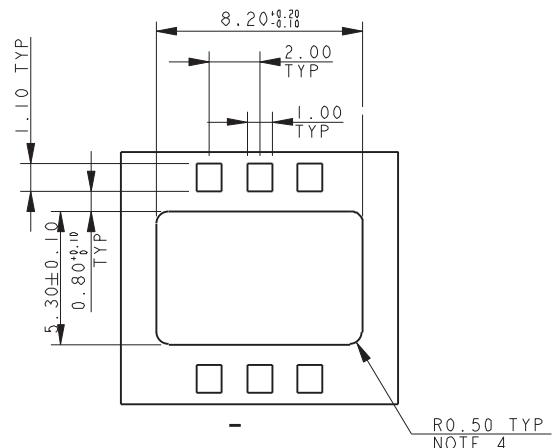
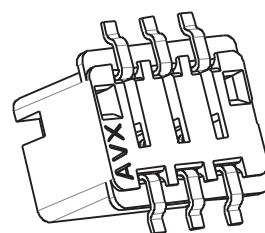
AVX INTERCONNECT
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00-9159

3 WAY THROUGH THE BOARD MATING EDGE CARD CONNECTOR



SECTION A-A

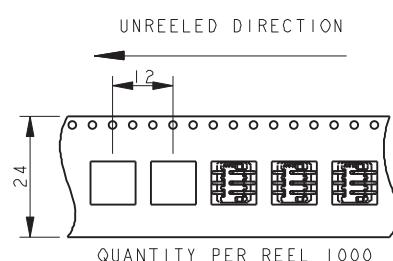
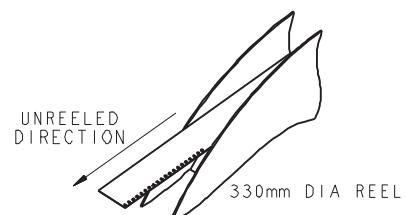


MOUNTING PCB
(TOP SIDE)

NOTES:

1. THROUGH THE BOARD 3 WAY EDGE CARD CONNECTOR. FOR FURTHER DETAILS REFER TO PRODUCT SPECIFICATION 201-01-136.
2. FOR MATING PCB EITHER 0.8MM OR 1.6MM THICK. REFER TO PAGE 88 FOR MATING PCB DETAILS.
3. CONNECTOR TOP MOUNTING ON PCB.
4. UP TO 0.5MM RAD TO MATCH CONNECTOR PROFILE.
5. ALL DIMENSIONS ± 0.20 UNLESS TOLERANCE SPECIFIED.
6. INSULATOR: PAR4T, GLASS FILLED, HALOGEN FREE, UL94 V-0, COLOR SEE PAGE 82.
7. CONTACT: COPPER ALLOW, NICKEL PLATED WITH GOLD FLASH ON NOSE AND TIN ON TAILS.
8. BRACKET: COPPER ALLOY, PLATING TIN OVER NICKEL.
9. PACKING IN TAPE AND REEL, 1000 PIECES PER REEL.
10. CONTACT TAILS COPLANARITY WITHIN 0.10.
11. REFER TO PAGE 91 FOR MATCHING PROTECTING CAP.
12. UL REFERENCE E90723.

PACKING DETAILS

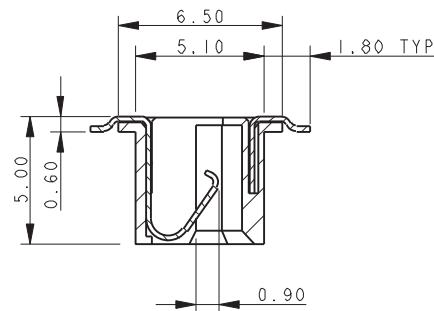
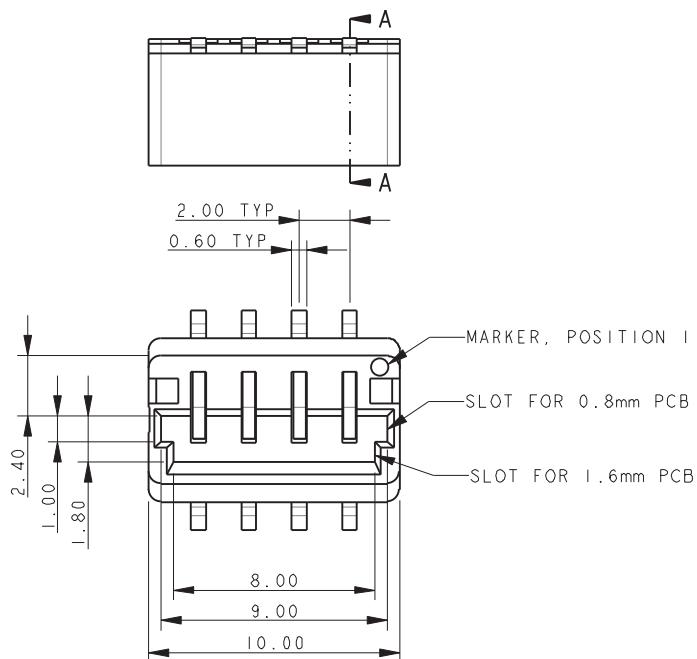


Inverted Thru Board Card Edge: BTB

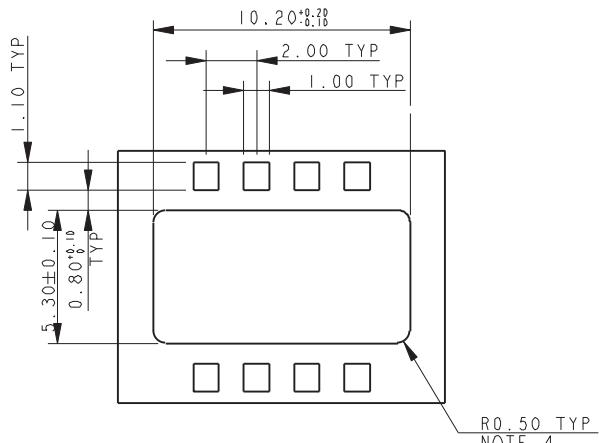
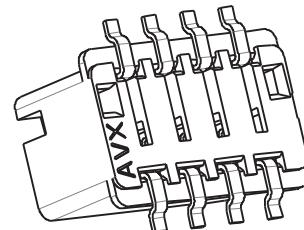
AVX INTERCONNECT
A KYOCERA GROUP COMPANY

00-9159

4 WAY THROUGH THE BOARD MATING EDGE CARD CONNECTOR

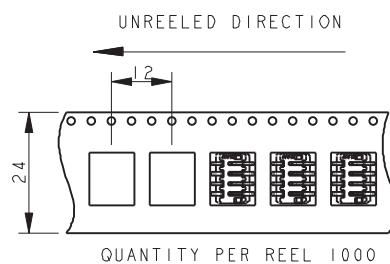
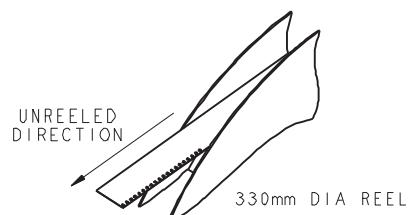


SECTION A-A



MOUNTING PCB
(TOP SIDE)

PACKING DETAILS



NOTES:

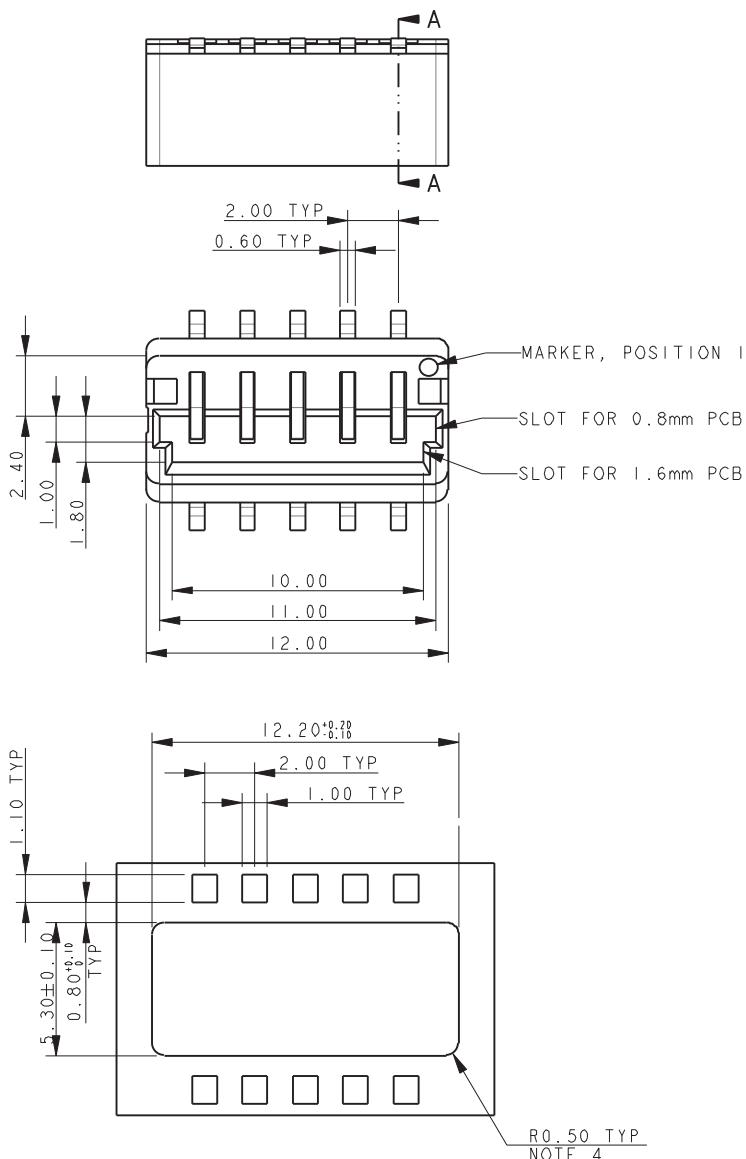
1. THROUGH THE BOARD 4 WAY EDGE CARD CONNECTOR. FOR FURTHER DETAILS REFER TO PRODUCT SPECIFICATION 201-01-136.
2. FOR MATING PCB EITHER 0.8MM OR 1.6MM THICK. REFER TO PAGE 88 FOR MATING PCB DETAILS.
3. CONNECTOR TOP MOUNTING ON PCB.
4. UP TO 0.5MM RAD TO MATCH CONNECTOR PROFILE.
5. ALL DIMENSIONS ± 0.20 UNLESS TOLERANCE SPECIFIED.
6. INSULATOR: PAR4T, GLASS FILLED, HALOGEN FREE, UL94 V-0, COLOR SEE PAGE 82.
7. CONTACT: COPPER ALLOW, NICKEL PLATED WITH GOLD FLASH ON NOSE AND TIN ON TAILS.
8. BRACKET: COPPER ALLOY, PLATING TIN OVER NICKEL.
9. PACKING IN TAPE AND REEL, 1000 PIECES PER REEL.
10. CONTACT TAILS COPLANARITY WITHIN 0.10.
11. REFER TO PAGE 91 FOR MATCHING PROTECTING CAP.
12. UL REFERENCE E90723.

Inverted Thru Board Card Edge: BTB

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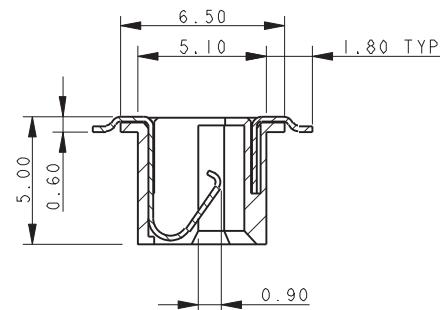
5 WAY THROUGH THE BOARD MATING EDGE CARD CONNECTOR



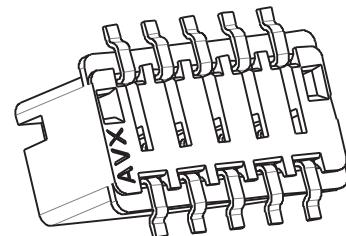
**MOUNTING PCB
(TOP SIDE)**

NOTES:

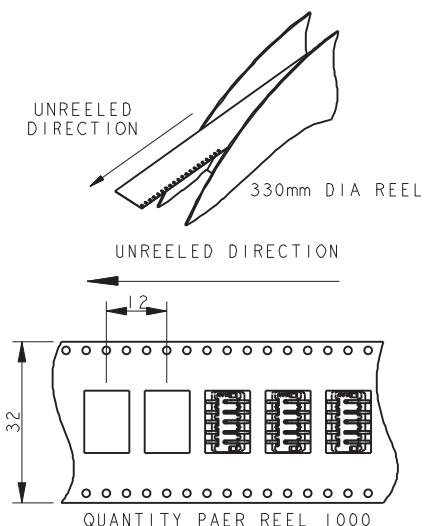
1. THROUGH THE BOARD 5 WAY EDGE CARD CONNECTOR. FOR FURTHER DETAILS REFER TO PRODUCT SPECIFICATION 201-01-136.
2. FOR MATING PCB EITHER 0.8MM OR 1.6MM THICK. REFER TO PAGE 88 FOR MATING PCB DETAILS.
3. CONNECTOR TOP MOUNTING ON PCB.
4. UP TO 0.5MM RAD TO MATCH CONNECTOR PROFILE.
5. ALL DIMENSIONS ± 0.20 UNLESS TOLERANCE SPECIFIED.
6. INSULATOR: PAR4T, GLASS FILLED, HALOGEN FREE, UL94 V-0, COLOR SEE PAGE 82.
7. CONTACT: COPPER ALLOW, NICKEL PLATED WITH GOLD FLASH ON NOSE AND TIN ON TAILS.
8. BRACKET: COPPER ALLOY, PLATING TIN OVER NICKEL.
9. PACKING IN TAPE AND REEL, 1000 PIECES PER REEL.
10. CONTACT TAILS COPLANARITY WITHIN 0.10.
11. REFER TO PAGE 91 FOR MATCHING PROTECTING CAP.
12. UL REFERENCE E90723.



SECTION A-A



PACKING DETAILS

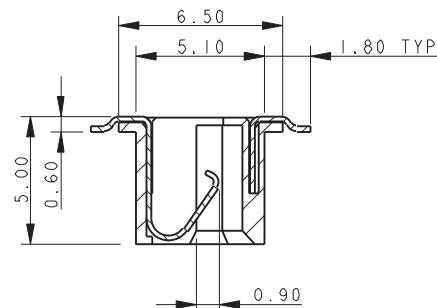
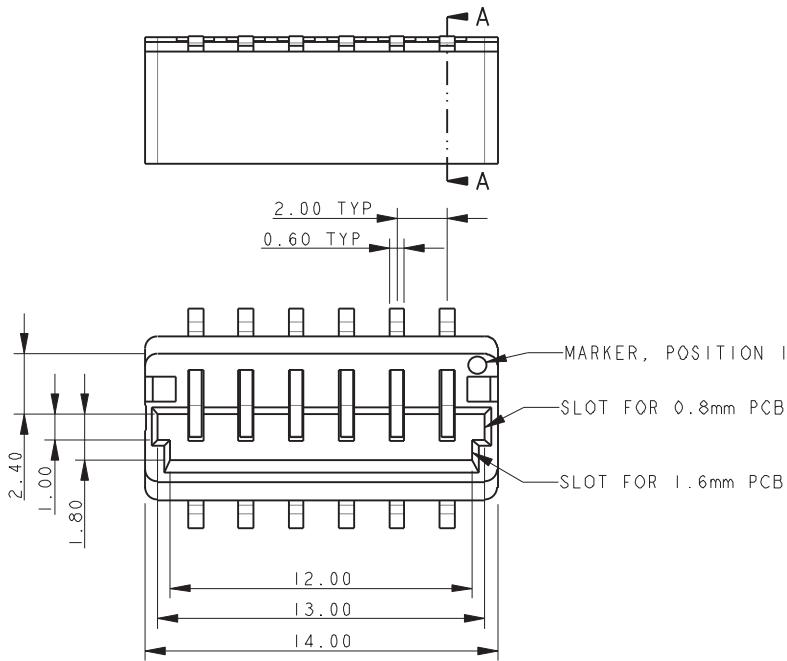


Inverted Thru Board Card Edge: BTB

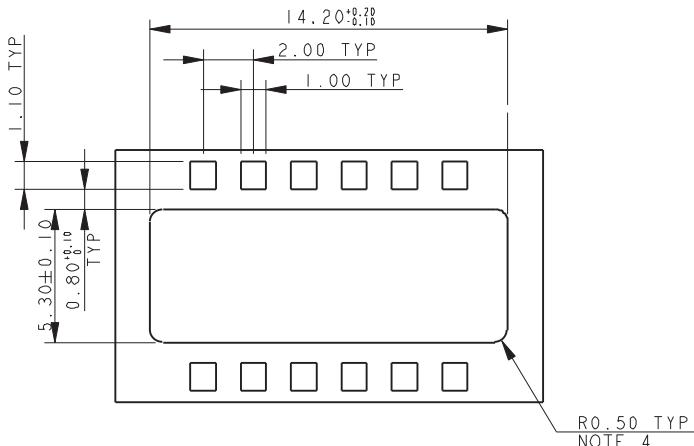
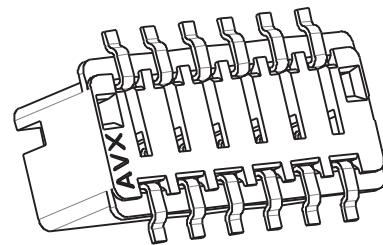
AVX INTERCONNECT
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6 WAY THROUGH THE BOARD MATING EDGE CARD CONNECTOR



SECTION A-A

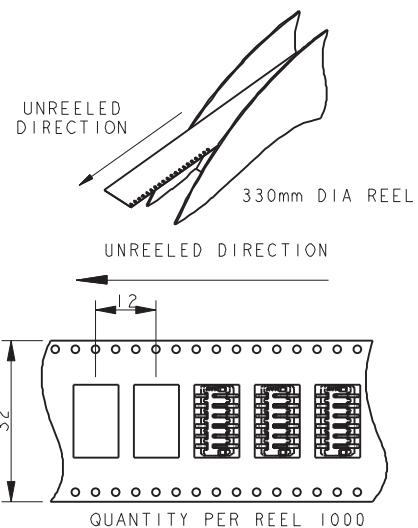


MOUNTING PCB
(TOP SIDE)

NOTES:

1. THROUGH THE BOARD 6 WAY EDGE CARD CONNECTOR. FOR FURTHER DETAILS REFER TO PRODUCT SPECIFICATION 201-01-136.
2. FOR MATING PCB EITHER 0.8MM OR 1.6MM THICK. REFER TO PAGE 88 FOR MATING PCB DETAILS.
3. CONNECTOR TOP MOUNTING ON PCB.
4. UP TO 0.5MM RAD TO MATCH CONNECTOR PROFILE.
5. ALL DIMENSIONS ± 0.20 UNLESS TOLERANCE SPECIFIED.
6. INSULATOR: PAR4T, GLASS FILLED, HALOGEN FREE, UL94 V-0, COLOR SEE PAGE 82.
7. CONTACT: COPPER ALLOW, NICKEL PLATED WITH GOLD FLASH ON NOSE AND TIN ON TAILS.
8. BRACKET: COPPER ALLOY, PLATING TIN OVER NICKEL.
9. PACKING IN TAPE AND REEL, 1000 PIECES PER REEL.
10. CONTACT TAILS COPLANARITY WITHIN 0.10.
11. REFER TO PAGE 91 FOR MATCHING PROTECTING CAP.
12. UL REFERENCE E90723.

PACKING DETAILS



AVX

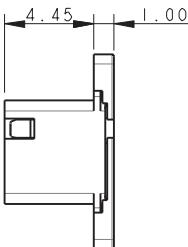
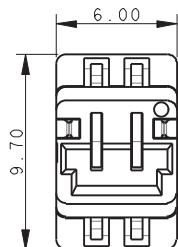
Inverted Thru Board Card Edge: BTB

AVX INTERCONNECT
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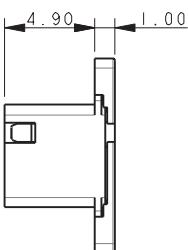
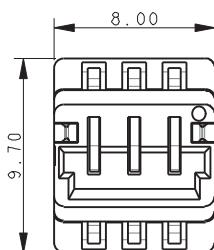
00-9159

THROUGH THE BOARD MATING EDGE CARD CONNECTOR – WITH CAP

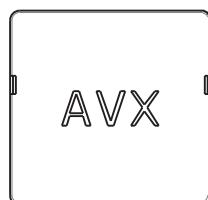
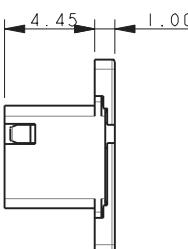
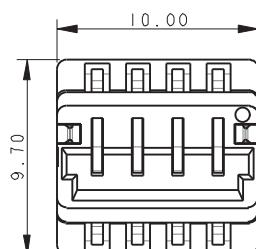
00-9159-00X-502-X06



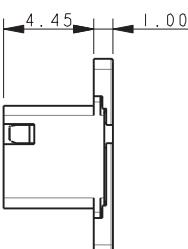
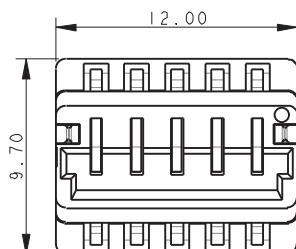
00-9159-002-502-906



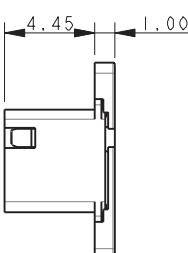
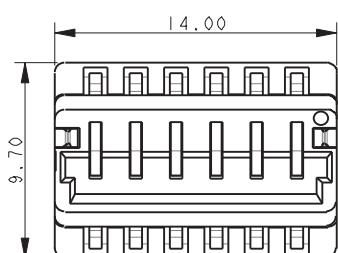
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00-9159-004-502-906



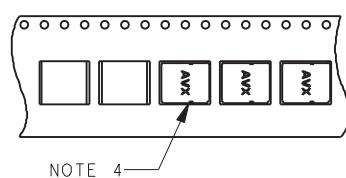
00-9159-005-502-906



00-9159-006-502-906

NOTES:

1. 00-9159-00X-501-X06 WITH CAP SUPPLIED FITTED.
2. DRAWINGS SHOW OUTLINE DIMENSIONS OF THE 00-9159-00X-502-X06 ASSEMBLIES.
ALL OTHER DETAILS ARE AS 00-9159-00X-501-X06 ON PAGES 83-87.
3. GENERAL TOLERANCE ± 0.20 .
4. PACKING ORIENTATION.
5. UL REFERENCE E90723.



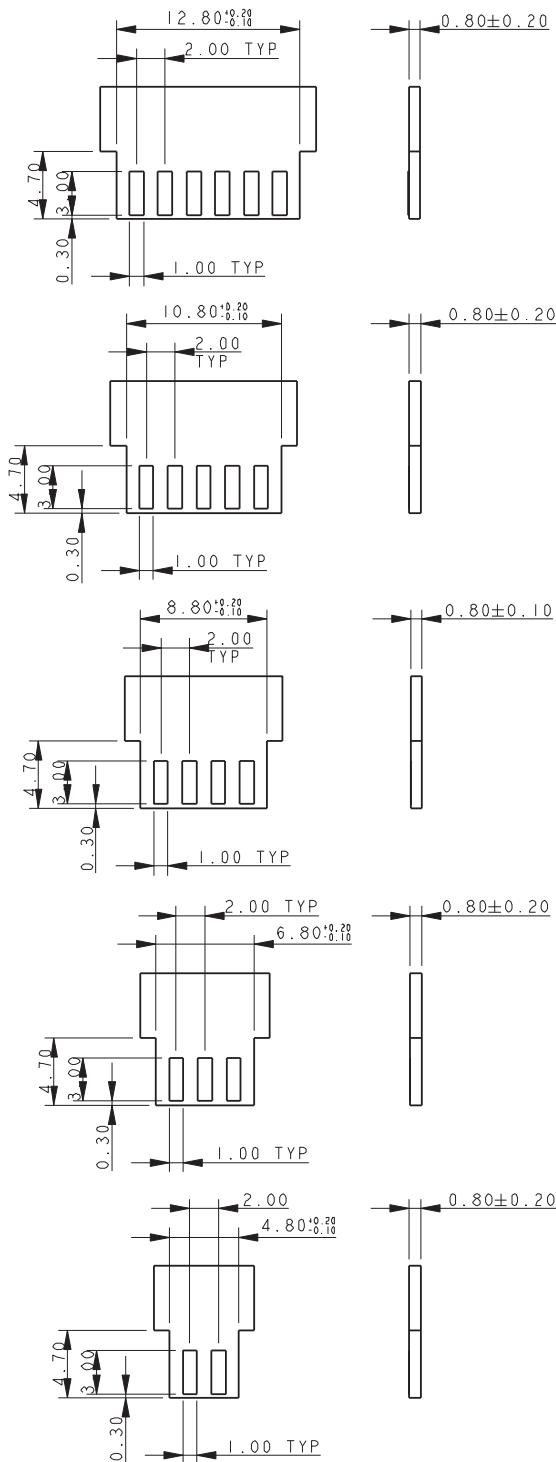
Inverted Thru Board Card Edge: BTB

AVX INTERCONNECT
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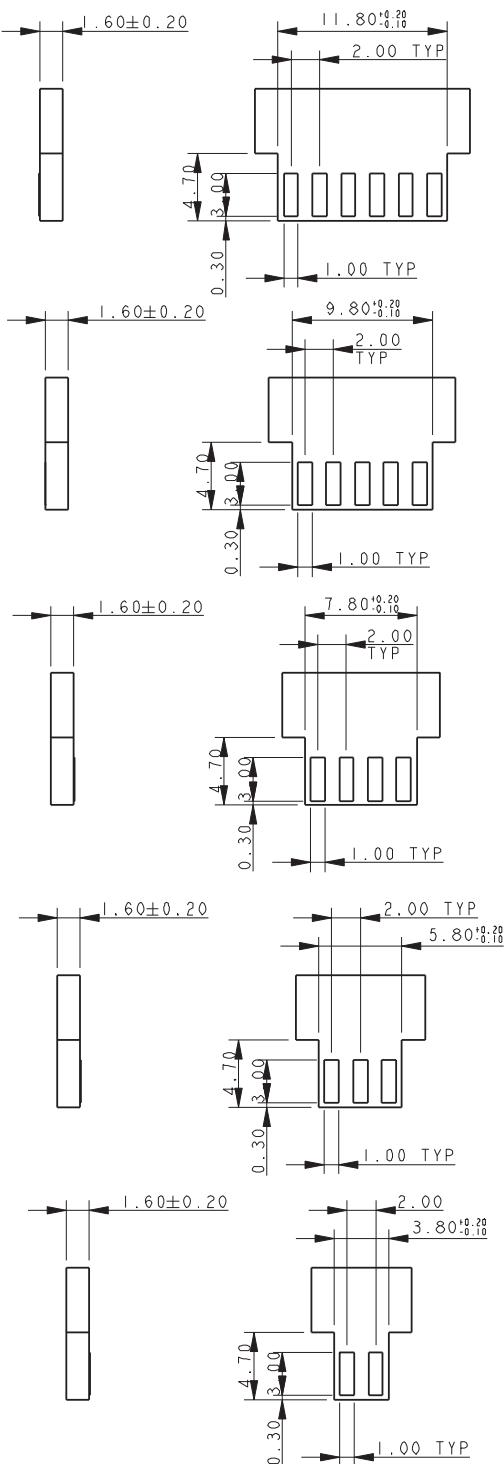
00-9159

THROUGH THE BOARD MATING EDGE CARD CONNECTOR – MATING PCB

MATING PCB – 0.8MM PCB



MATING PCB – 1.6MM PCB

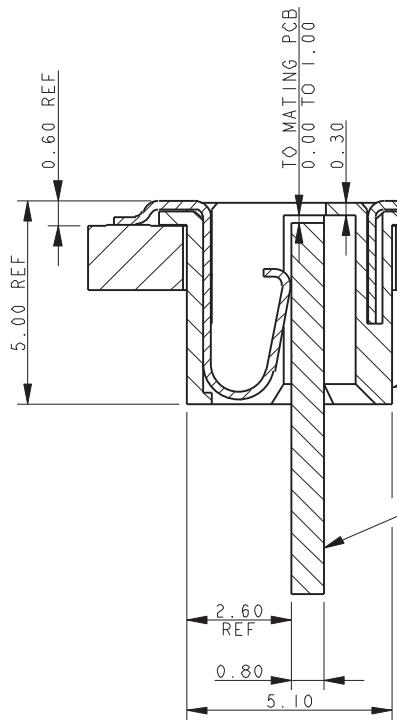


NOTES:

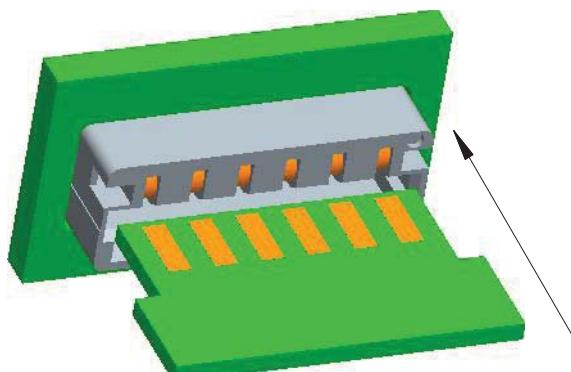
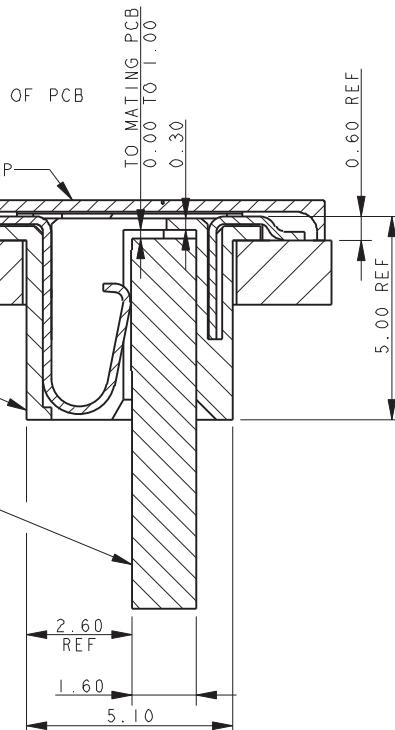
1. CORRECT DIMENSIONS FOR EITHER 0.80MM OR F1.60MM PCB THICKNESS MUST BE USED.
2. THICKNESS OF PCB INCLUDES ALL LAYERS INCLUDING COPPER AND PLATING.
3. PADS TO BE PLATED GOLD OVER NICKEL UNDERCOAT.
4. GENERAL TOLERANCE ± 0.10 UNLESS STATED.

THROUGH THE BOARD MATING EDGE CARD CONNECTOR

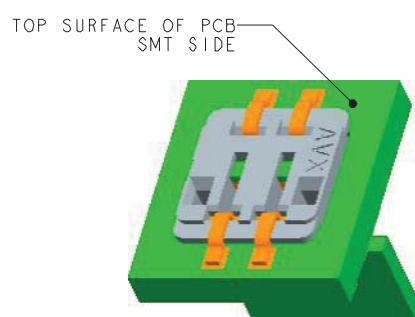
**CONNECTOR/PCB ASSEMBLY
0.8MM MATING PCB
NO CAP**



**CONNECTOR/PCB ASSEMBLY
1.6MM MATING PCB
WITH CAP**



BOARD INSERTED



NOTES:

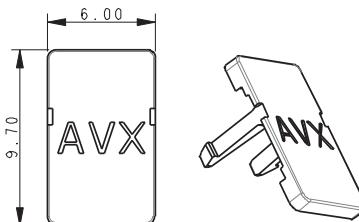
1. THROUGH THE BOARD EDGE CARD CONNECTOR.
2. FOR MATING PCB EITHER 0.8MM OR 1.6MM THICK. REFER TO PAGE 88 FOR MATING PCB DETAILS.
3. CONNECTOR TOP MOUNTING ON PCB.
4. PAD DETAILS ON THE MATING PCB ALLOW CONTACT TO BE MADE IN ANY POSITION FROM THE STOP FACE UP TO 1MM FROM THE STOP FACE.
5. GENERAL TOLERANCE ± 0.20 UNLESS STATED.

Inverted Thru Board Card Edge: BTB

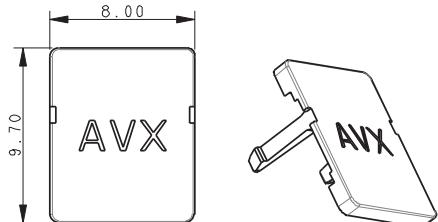
AVX INTERCONNECT
A KYOCERA GROUP COMPANY

00-9159

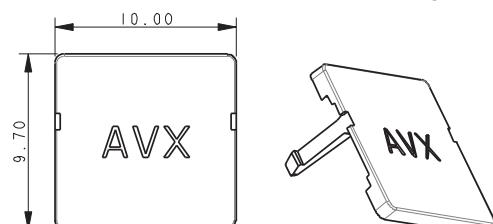
ACCESSORY – PROTECTING CAP



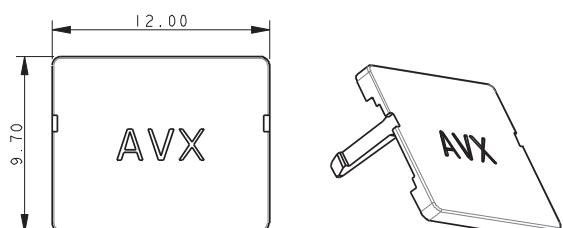
2 WAY
60-9159-3502-09-000



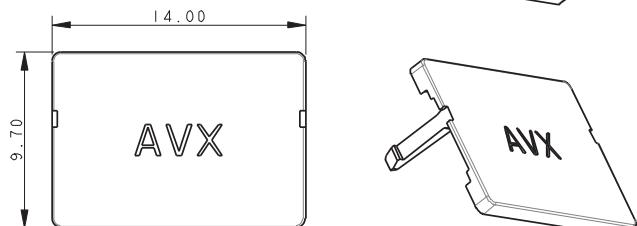
3 WAY
60-9159-3503-09-000



4 WAY
60-9159-3504-09-000



5 WAY
60-9159-3505-09-000

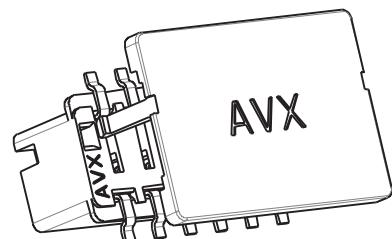
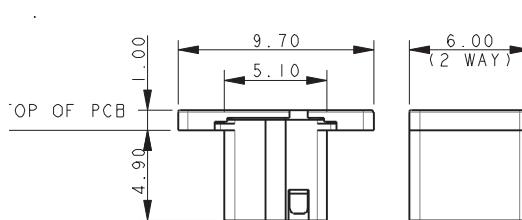


6 WAY
60-9159-3506-09-000

NOTES:

1. PROTECTING CAP, ACCESSORY, NOT SUPPLIED WITH CONNECTOR.
2. CLIPS TO TOP OF CONNECTOR TO COVE ALL METAL COMPONENTS.
3. MATERIAL: PA4T, GLASS FILLED, HALOGEN FREE, UL94 V-0.
COLOR CODE REFER TO PAGE 82, "X" IN PART NUMBER.
4. SUPPLIED IN BAGS OF 100 PIECES.
5. GENERAL TOLERANCE ± 0.20 .
6. UL REFERENCE E90723.

ASSEMBLED CAP

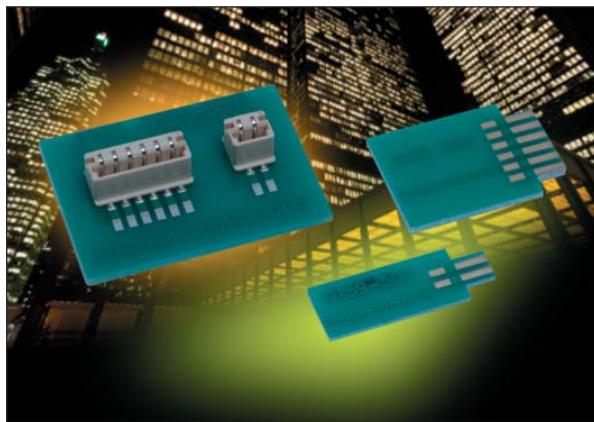


AVX

Vertical Top Entry Card Edge: BTB

AVX INTERCONNECT
A KYOCERA GROUP COMPANY

00-9159



AVX continues to develop unique connectors to fill the gap in the industrial market, specifically as it relates to low pin count requirements. The newest addition to AVX's broadening line of one piece card edge connectors is the 2p-6p top entry version which complements the bottom entry version released last year. This new configuration will allow small perpendicular daughter cards to be plugged in from the top side of the main board. The single connector option offers an alternative to the more traditional and costly two piece solution.

This small connector is packed with several key features that provide significant functionality in a broad range of robust industrial applications. The contact system is gold plated for enhanced reliability, signal integrity and full 2A/contact current rating. The PCB board opening is dual slotted to accept either a 0.8mm or 1.6mm thick daughter card within the same connector body.

APPLICATIONS

- Provides a one piece connector solution for low pin count perpendicular PCB mating in industrial applications
- Facilitates easy plug ability for small module/programming cards

FEATURES AND BENEFITS

- 2 Amp per contact current rating meets robust industrial application requirements
- Removable pick and place cap supports robotic placement and SMT termination
- Gold plated BeCu contact system for high reliability in harsh environments
- Accepts both 0.8mm and 1.6mm PCB's for added design options

ELECTRICAL

- Current Rating: 2 Amps / Contact
- Voltage Rating: 300 VAC

ENVIRONMENTAL

- Operating Temperature: -40°C to +120°C

MECHANICAL

- Insulator Material: Nylon UL94VO
- Contact Material: Beryllium Copper
- Plating: Gold / Tin over Nickel
- Durability 10 Cycles

HOW TO ORDER

00
T
Prefix

9159
T
Series

00X

Code	No of Ways	Details
002	2	Page 93
003	3	Page 94
004	4	Page 95
005	5	Page 96
006	6	Page 97

551

Single Part PCB Strip Connector
551 = Top Mounting on Board Edge Card

9

Code	Color	Application
9	White	UL Approved Standard

06

Plating Option
06 = Gold Plating on Nose with Tin on Tails



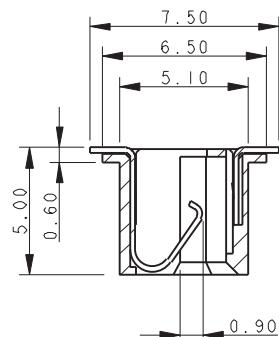
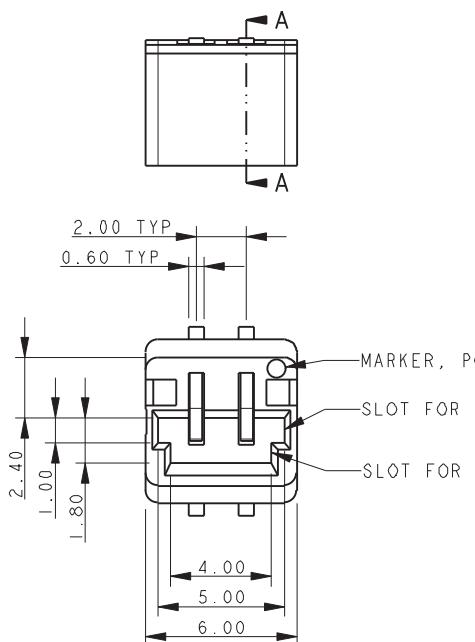
Certification: UL File #E90723

Vertical Top Entry Card Edge: BTB

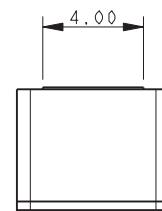
00-9159

AVX INTERCONNECT
A KYOCERA GROUP COMPANY

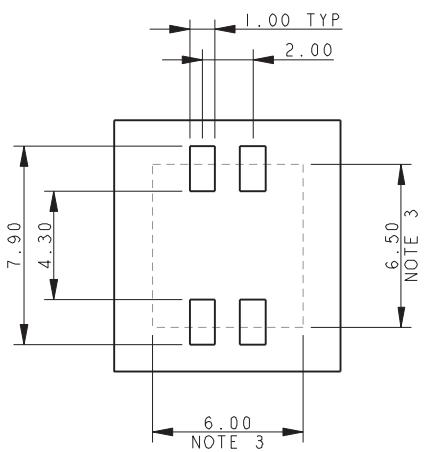
2 WAY TOP MOUNTING EDGE CARD CONNECTOR



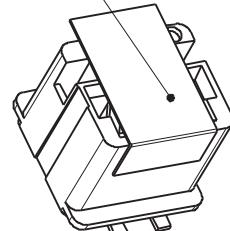
SECTION A-A



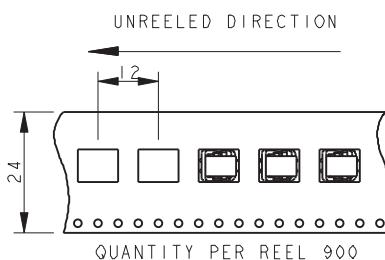
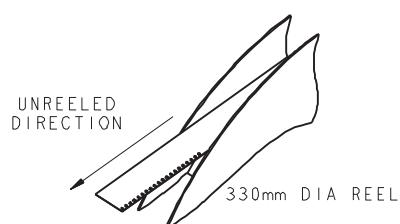
SUGGESTED PCB LAYOUT



PICK AND PLACE TAPE
REMOVE AFTER SOLDERING



PACKING DETAILS



NOTES:

1. 5159-500 SERIES TOP MOUNTING EDGE CARD CONNECTOR, 2 WAY. FOR FURTHER DETAILS REFER TO PRODUCT SPECIFICATION 201-01-136 AND APPLICATION NOTES 201-01-137.
2. FOR MATING PCB EITHER 0.8MM OR 1.6MM THICK PCB. (DETAILS SAME AS 9159-500), REFER TO PAGE 98.
3. CONNECTOR OUTLINE.
4. ALL DIMENSIONS ± 0.20 UNLESS TOLERANCE SPECIFIED.
5. INSULATOR: PA4T, GLASS FILLED, HALOGEN FREE, UL94 V-0, COLOR REFER TO PAGE 92.
6. CONTACT: COPPER ALLOY, NICKEL PLATED WITH GOLD FLASH ON NOSE AND TIN ON TAILS.
7. BRACKET: COPPER ALLOY, PLATING, TIN OVER NICKEL.
8. PACKING IN TAPE AND REEL, 900 PIECES PER REEL.
9. CONTACT TAILS COPOLARITY WITHIN 0.10.
10. UL PRODUCT REFERENCE E90723 (US AND CANADA).

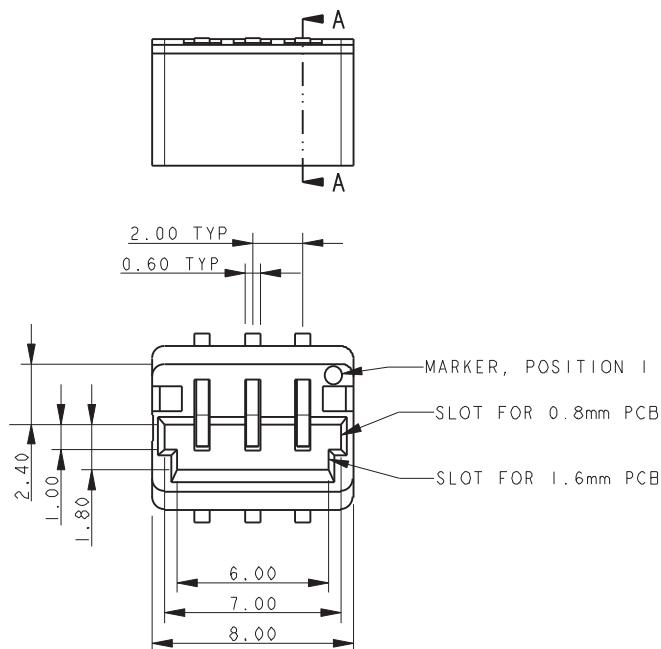
AVX

Vertical Top Entry Card Edge: BTB

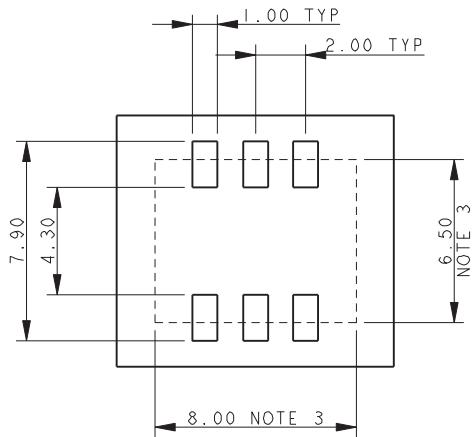
00-9159

AVX INTERCONNECT
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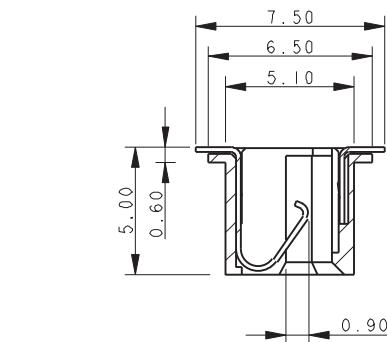
3 WAY TOP MOUNTING EDGE CARD CONNECTOR



SUGGESTED PCB LAYOUT

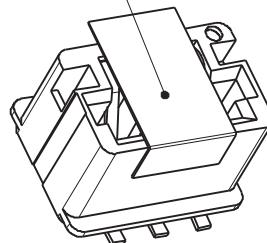


1. 5159-500 SERIES TOP MOUNTING EDGE CARD CONNECTOR, 3 WAY. FOR FURTHER DETAILS REFER TO PRODUCT SPECIFICATION 201-01-136 AND APPLICATION NOTES 201-01-137.
2. FOR MATING PCB EITHER 0.8MM OR 1.6MM THICK PCB. (DETAILS SAME AS 9159-500), REFER TO PAGE 98.
3. CONNECTOR OUTLINE.
4. ALL DIMENSIONS ± 0.20 UNLESS TOLERANCE SPECIFIED.
5. INSULATOR: PA4T, GLASS FILLED, HALOGEN FREE, UL94 V-0, COLOR REFER TO PAGE 92.
6. CONTACT: COPPER ALLOY, NICKEL PLATED WITH GOLD FLASH ON NOSE AND TIN ON TAILS.
7. BRACKET: COPPER ALLOY, PLATING, TIN OVER NICKEL.
8. PACKING IN TAPE AND REEL, 900 PIECES PER REEL.
9. CONTACT TAILS COPLANARITY WITHIN 0.10.
10. UL PRODUCT REFERENCE E90723 (US AND CANADA).

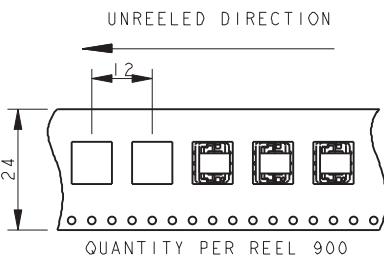
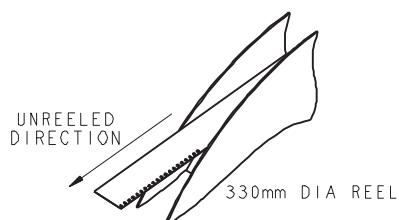


SECTION A-A

PICK AND PLACE TAPE
REMOVE AFTER SOLDERING



PACKING DETAILS

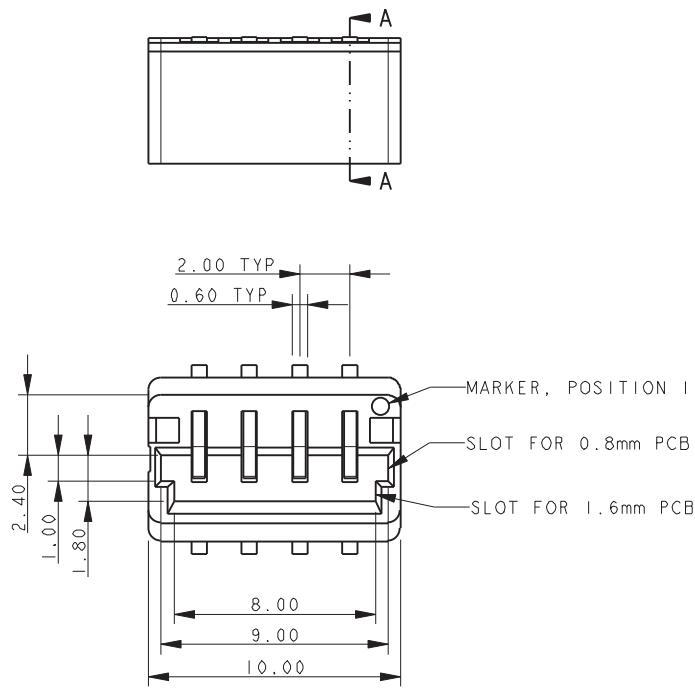


Vertical Top Entry Card Edge: BTB

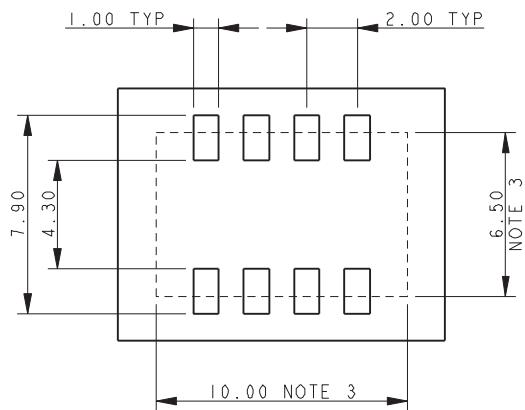
00-9159

AVX INTERCONNECT
A KYOCERA GROUP COMPANY

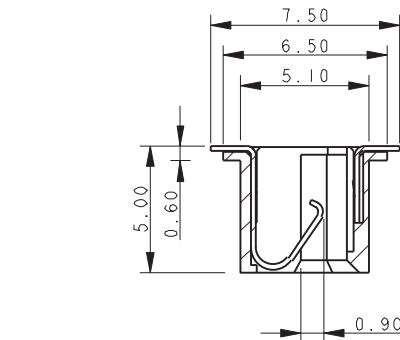
4 WAY TOP MOUNTING EDGE CARD CONNECTOR



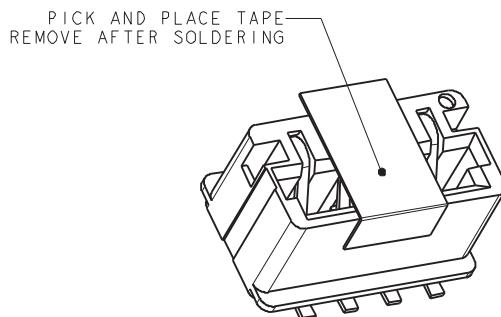
SUGGESTED PCB LAYOUT



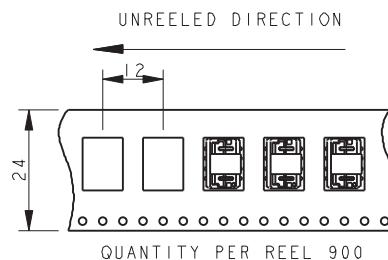
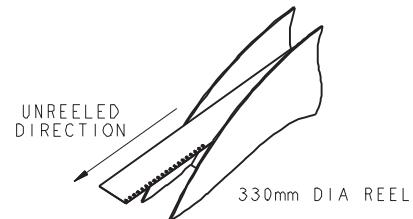
1. 5159-500 SERIES TOP MOUNTING EDGE CARD CONNECTOR, 4 WAY. FOR FURTHER DETAILS REFER TO PRODUCT SPECIFICATION 201-01-136 AND APPLICATION NOTES 201-01-137.
2. FOR MATING PCB EITHER 0.8MM OR 1.6MM THICK PCB. (DETAILS SAME AS 9159-500), REFER TO PAGE 98.
3. CONNECTOR OUTLINE.
4. ALL DIMENSIONS ± 0.20 UNLESS TOLERANCE SPECIFIED.
5. INSULATOR: PA4T, GLASS FILLED, HALOGEN FREE, UL94 V-0, COLOR REFER TO PAGE 92.
6. CONTACT: COPPER ALLOY, NICKEL PLATED WITH GOLD FLASH ON NOSE AND TIN ON TAILS.
7. BRACKET: COPPER ALLOY, PLATING, TIN OVER NICKEL.
8. PACKING IN TAPE AND REEL, 900 PIECES PER REEL.
9. CONTACT TAILS COPLANARITY WITHIN 0.10.
10. UL PRODUCT REFERENCE E90723 (US AND CANADA).



SECTION A-A



PACKING DETAILS



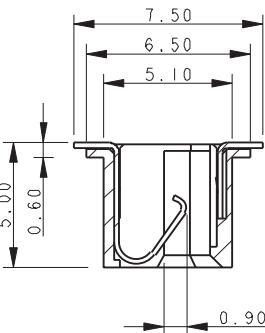
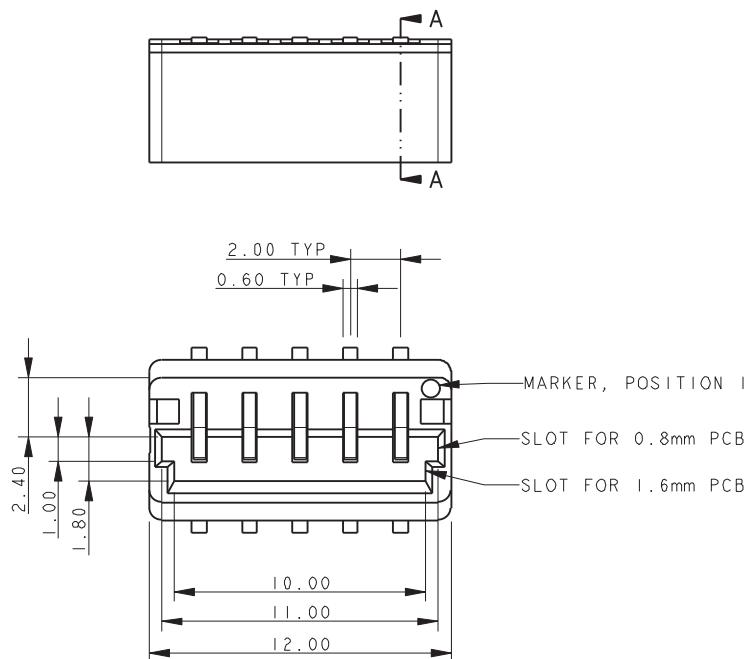
AVX

Vertical Top Entry Card Edge: BTB

00-9159

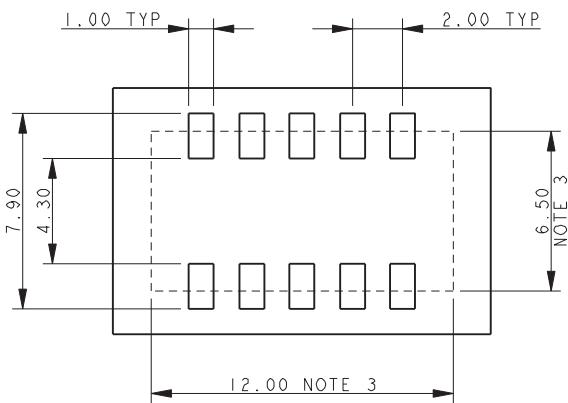
AVX INTERCONNECT
A KYOCERA GROUP COMPANY

5 WAY TOP MOUNTING EDGE CARD CONNECTOR

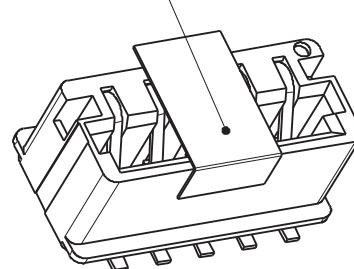


SECTION A-A

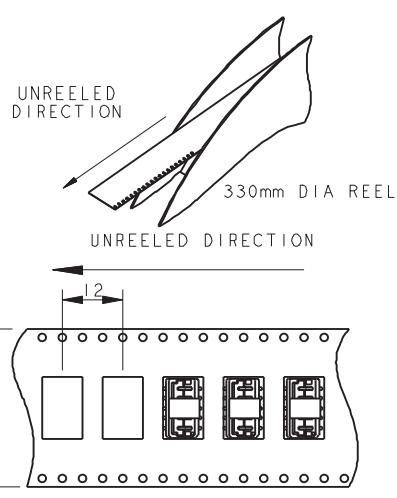
SUGGESTED PCB LAYOUT



PICK AND PLACE TAPE
REMOVE AFTER SOLDERING



PACKING DETAILS



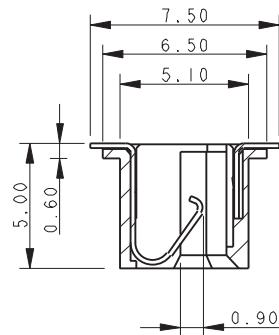
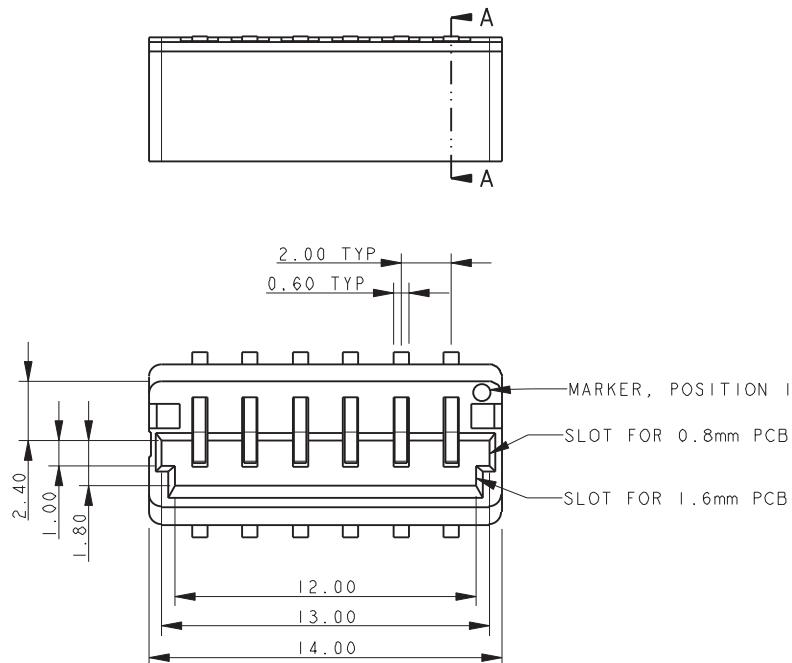
1. 5159-500 SERIES TOP MOUNTING EDGE CARD CONNECTOR, 5 WAY. FOR FURTHER DETAILS REFER TO PRODUCT SPECIFICATION 201-01-136 AND APPLICATION NOTES 201-01-137.
2. FOR MATING PCB EITHER 0.8MM OR 1.6MM THICK PCB. (DETAILS SAME AS 9159-500), REFER TO PAGE 98.
3. CONNECTOR OUTLINE.
4. ALL DIMENSIONS ± 0.20 UNLESS TOLERANCE SPECIFIED.
5. INSULATOR: PA4T, GLASS FILLED, HALOGEN FREE, UL94 V-0, COLOR REFER TO PAGE 92.
6. CONTACT: COPPER ALLOY, NICKEL PLATED WITH GOLD FLASH ON NOSE AND TIN ON TAILS.
7. BRACKET: COPPER ALLOY, PLATING, TIN OVER NICKEL.
8. PACKING IN TAPE AND REEL, 900 PIECES PER REEL.
9. CONTACT TAILS COPOLARITY WITHIN 0.10.
10. UL PRODUCT REFERENCE E90723 (US AND CANADA).

Vertical Top Entry Card Edge: BTB

00-9159

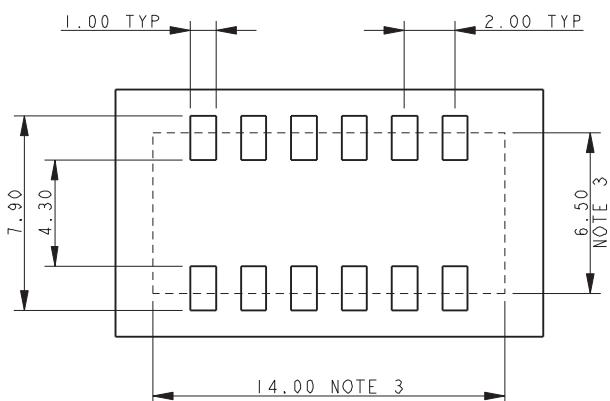
AVX INTERCONNECT
A KYOCERA GROUP COMPANY

6 WAY TOP MOUNTING EDGE CARD CONNECTOR

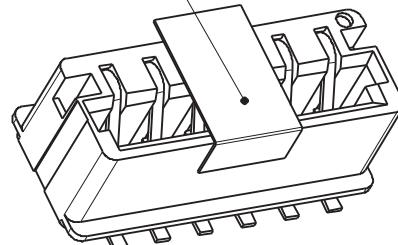


SECTION A-A

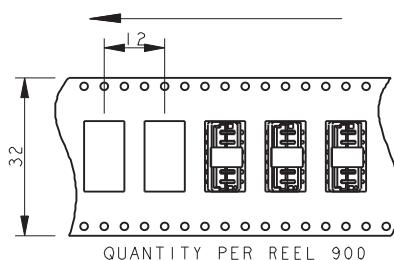
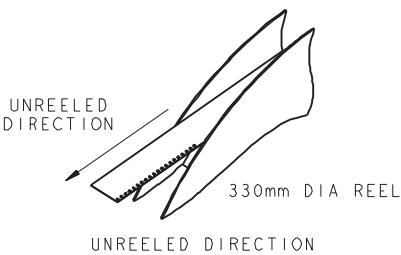
SUGGESTED PCB LAYOUT



PICK AND PLACE TAPE
REMOVE AFTER SOLDERING



PACKING DETAILS



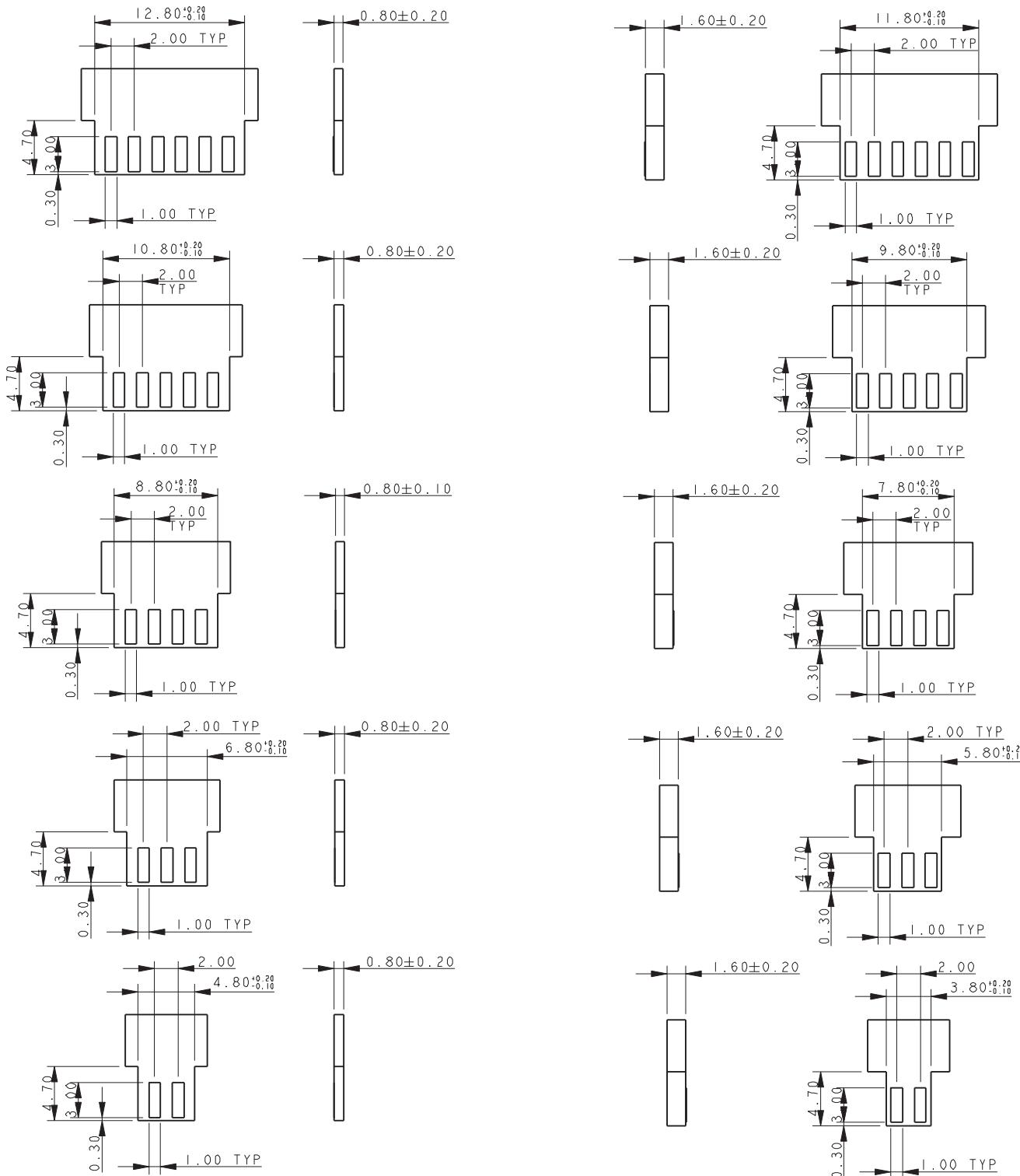
1. 5159-500 SERIES TOP MOUNTING EDGE CARD CONNECTOR, 6 WAY. FOR FURTHER DETAILS REFER TO PRODUCT SPECIFICATION 201-01-136 AND APPLICATION NOTES 201-01-137.
2. FOR MATING PCB EITHER 0.8MM OR 1.6MM THICK PCB. (DETAILS SAME AS 9159-500), REFER TO PAGE 98.
3. CONNECTOR OUTLINE.
4. ALL DIMENSIONS ± 0.20 UNLESS TOLERANCE SPECIFIED.
5. INSULATOR: PA4T, GLASS FILLED, HALOGEN FREE, UL94 V-0, COLOR REFER TO PAGE 92.
6. CONTACT: COPPER ALLOY, NICKEL PLATED WITH GOLD FLASH ON NOSE AND TIN ON TAILS.
7. BRACKET: COPPER ALLOY, PLATING, TIN OVER NICKEL.
8. PACKING IN TAPE AND REEL, 900 PIECES PER REEL.
9. CONTACT TAILS COPOLARITY WITHIN 0.10.
10. UL PRODUCT REFERENCE E90723 (US AND CANADA).

Vertical Top Entry Card Edge: BTB

AVX INTERCONNECT
A KYOCERA GROUP COMPANY

00-9159

TOP MOUNTING EDGE CARD CONNECTOR – MATING PCB



NOTES:

1. CORRECT DIMENSION FOR EITHER 0.80MM OR 1.60MM PCB THICKNESS MUST BE USED.
2. THICKNESS OF PCB INCLUDES ALL LAYERS INCLUDING COPPER AND PLATING.
3. PADS TO BE PLATED GOLD OVER NICKEL UNDERCOAT.
4. GENERAL TOLERANCE ± 0.10 UNLESS STATED.

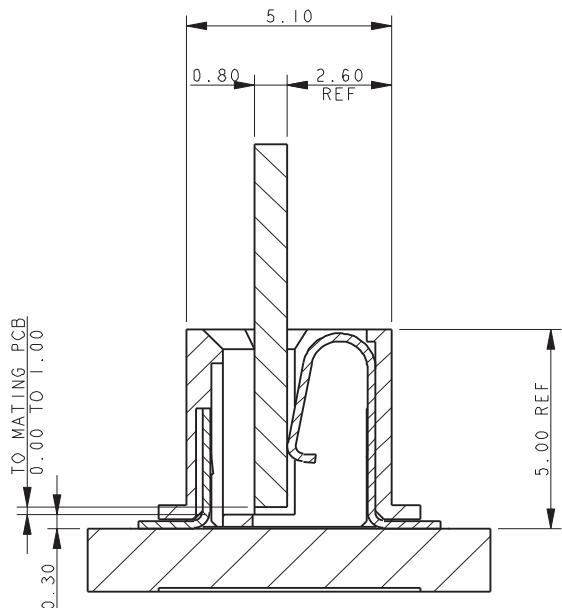
Vertical Top Entry Card Edge: BTB

AVX INTERCONNECT
A KYOCERA GROUP COMPANY

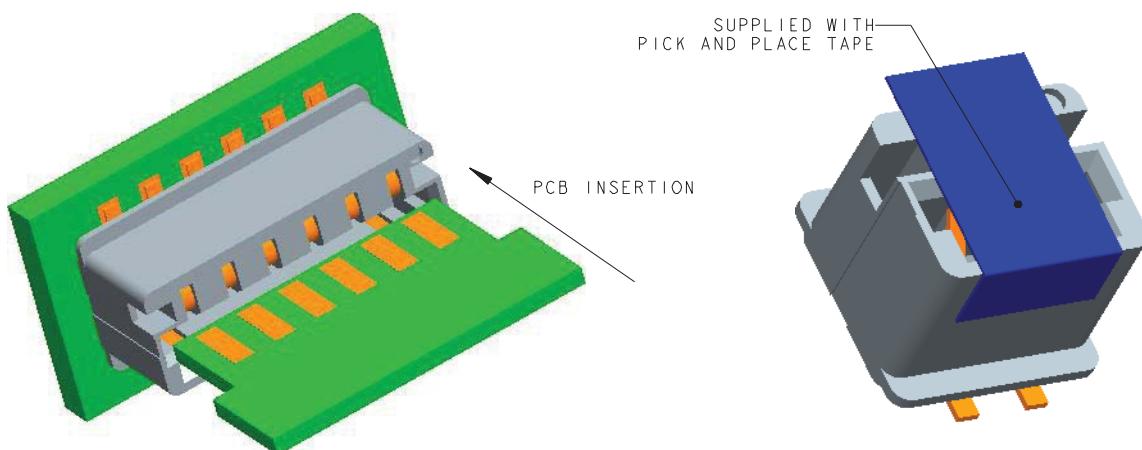
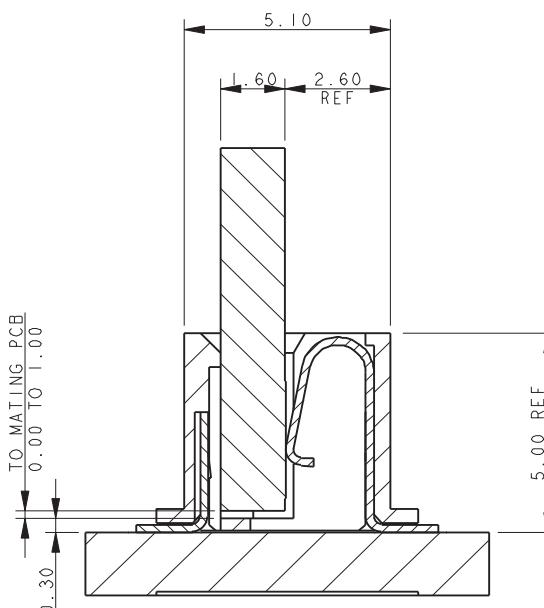
00-9159

TOP MOUNTING EDGE CARD CONNECTOR ASSEMBLY

CONNECTOR/PCB ASSEMBLY 0.8mm MATING PCB



CONNECTOR/PCB ASSEMBLY



NOTES:

1. 9159-500 SERIES TOP MOUNTING EDGE CARD CONNECTOR.
2. FOR MATING PCB EITHER 0.8MM OR 1.6MM THICK. REFER TO PAGE 98 FOR MATING PCB DETAILS.
3. CONNECTOR SURFACE MOUNTING ON PCB.
4. PAD DETAILS ON THE MATING PCB ALLOW CONTACT TO BE MADE IN ANY POSITION FORM THE STOP FACE UP TO 1MM FROM THE STOP FACE.
5. GENERAL TOLERANCE ± 0.20 UNLESS STATED.

Ultra-Low Profile 2.5mm Pitch Battery

9155-100

AVX INTERCONNECT
A KYOCERA GROUP COMPANY



AVX has been leading the industry with reliable Board-to-Board (BTB) compression connectors for commercial, medical and harsh industrial applications, obtaining the very first contact patent in the early 1990's. The broad range of connectors offers both signal contacts which support 1 Amp/contact up to 40 position as well as low pin count (LPC) power contacts up to 3 Amps/contact.

The newest addition is the Ultra Low Profile (ULP) power connector that supports a 1.3mm compressed height, the lowest on the market. Gold plated Beryllium Copper (BeCu) contacts offers the most reliable and resilient contact performance in this miniature package. The sweeping contact design offers 0.7mm deflection range, long contact wipe and in excess of 40 grams of contact force at minimum operating deflection. All combined, this connector is rated at an unbelievable 5000 mating cycles for mechanical endurance.

APPLICATIONS

- Low profile power, signal, ground or shielding requirements
- Repeatable/Pluggable module or battery pack requirements
- Low profile flex circuit to PCB applications
- Portable devices

FEATURES AND BENEFITS

- High Reliability / High Cycle Life BeCu contacts for maximum system performance
- ULP 1.3mm minimum operating height with 0.7mm "Z" axis compression/tolerance range
- Gold plating supports a broad range applications based on reliability and environments
- 3 Amp contact rating over a -40°C to +105°C operating range supports a broad application spectrum

ELECTRICAL

- Current Rating: 3 Amps/Contact
- Voltage Rating: 125VAC

ENVIRONMENTAL

- Operating Temperature: -40°C to +105°C

MECHANICAL

- Insulator Material: Glass-Filled Nylon 46; UL94 V-O
- Contact Material: Beryllium Copper
- Plating: Gold over Nickel
- Durability: 5000 Cycles

HOW TO ORDER

00 9155 00X
Prefix Series No. of Ways
2 = 002
3 = 003

10X		
Low Profile Battery Connector		
Code	Description	Operating Height
100	Low Profile Battery Connector No Stop	1.30 (0.051)
101	Low Profile Battery Connector Stop	1.30 (0.051)

00X	
Plating Option	
Code	Description
006	0.4µm Selective Gold, Standard
008	0.8µm Selective Gold, Special Order

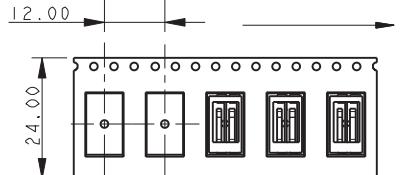
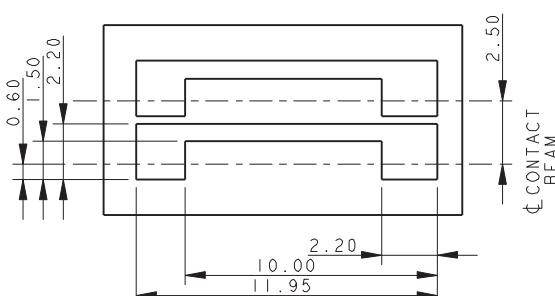
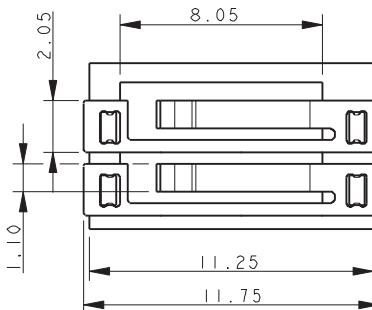
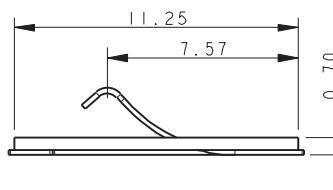
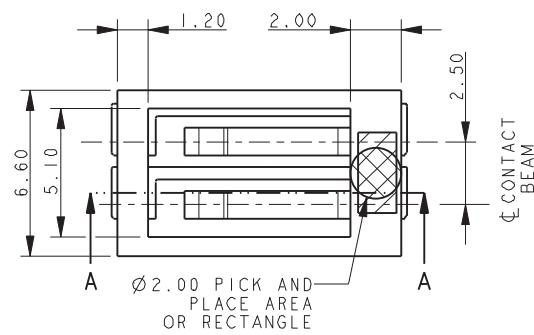
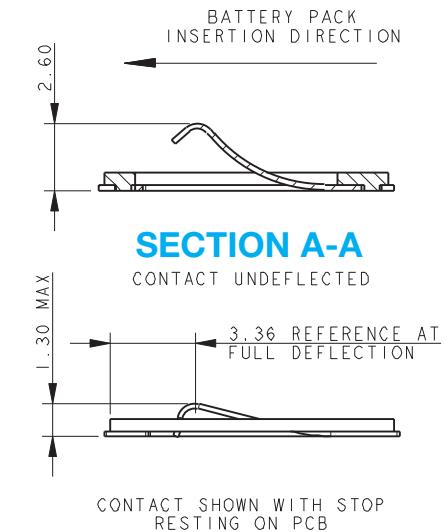


Ultra-Low Profile 2.5mm Pitch Battery

9155-100

AVX INTERCONNECT
A KYOCERA GROUP COMPANY

2 WAY LOW PROFILE CONNECTOR NO STOP



PACKING DETAILS

REEL QTY	1500
LEADER	500MM
TRAILER	500MM

NOTES:

1. FOR FULL PRODUCT SPECIFICATION REFER TO ELC0 SPECIFICATION 201-01-094.
2. MATERIALS: CONTACT - COPPER ALLOY, INSULATOR - GLASS FILLED NYLON. COLOR: BLACK.
3. TOLERANCE ± 0.20 UNLESS SPECIFIED.
4. PACKING DETAILS SEE TABLE.
5. FOR MATING PAD DETAILS REFER TO PAGE 105.

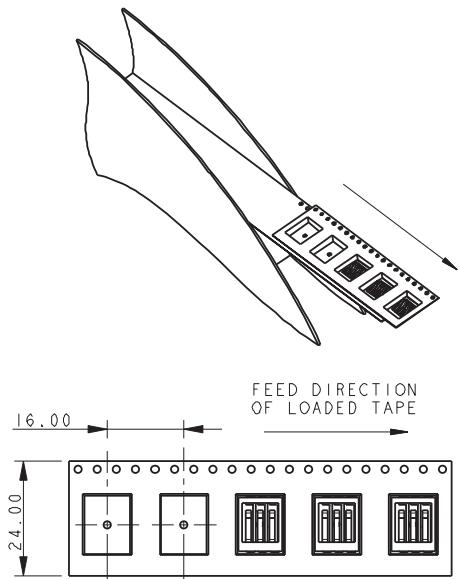
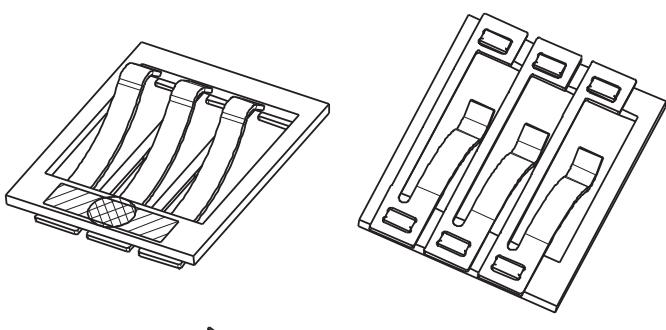
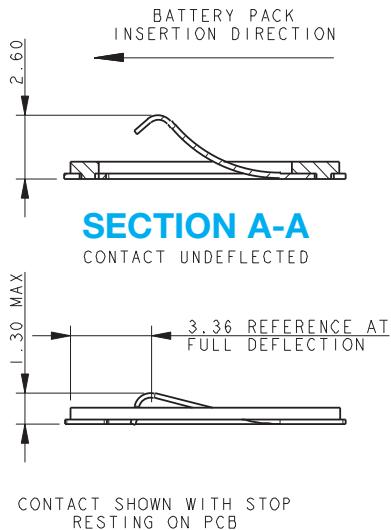
AVX

Ultra-Low Profile 2.5mm Pitch Battery

9155-100

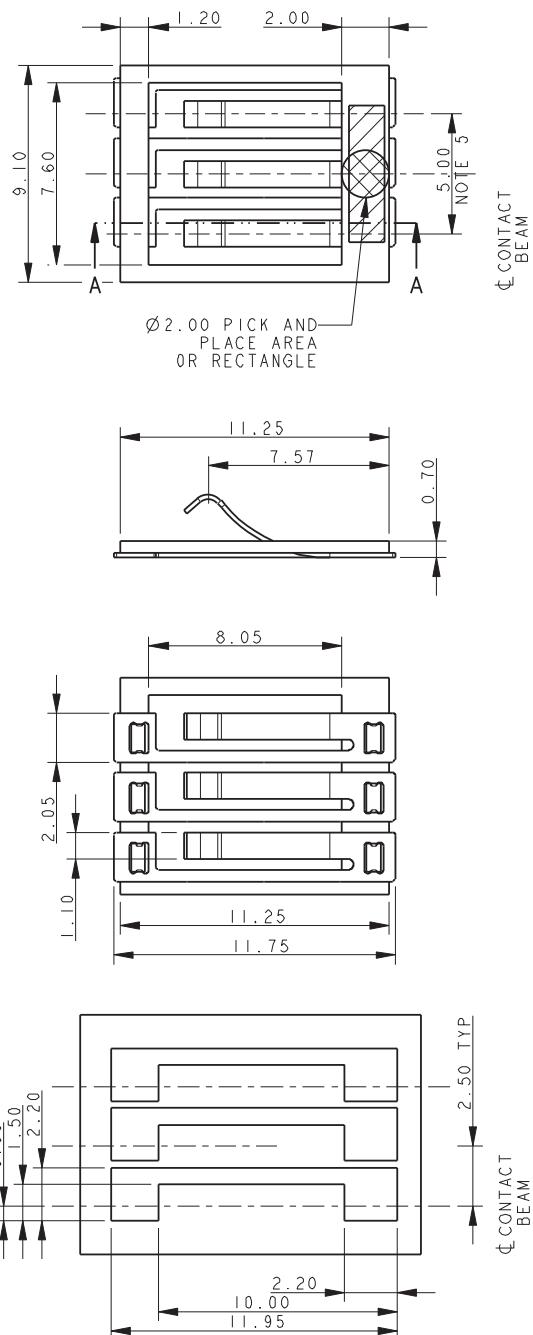
AVX INTERCONNECT
A KYOCERA GROUP COMPANY

3 WAY LOW PROFILE CONNECTOR NO STOP



PACKING DETAILS

REEL QTY	1200
LEADER	500MM
TRAILER	500MM



SUGGESTED PCB LAYOUT

NOTES:

1. FOR FULL PRODUCT SPECIFICATION REFER TO ELCO SPECIFICATION 201-01-094.
2. MATERIALS: CONTACT - COPPER ALLOY, INSULATOR - GLASS FILLED NYLON. COLOR: BLACK.
3. TOLERANCE ± 0.20 UNLESS SPECIFIED.
4. PACKING DETAILS SEE TABLE.
5. 2 EQUAL PITCHES @ 2.50 = 5.00.
6. FOR MATING PAD DETAILS REFER TO PAGE 105.

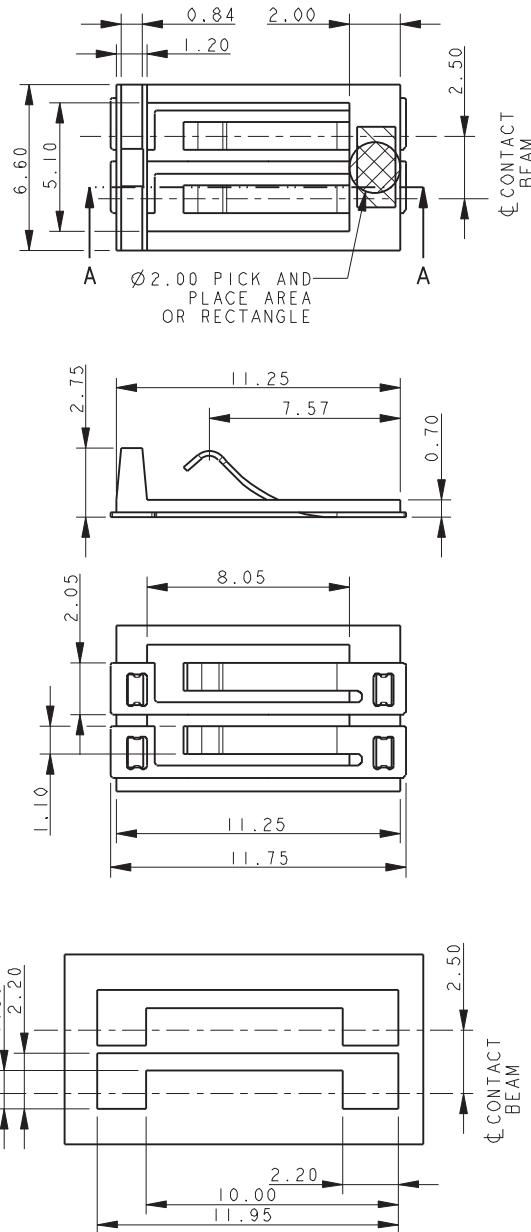
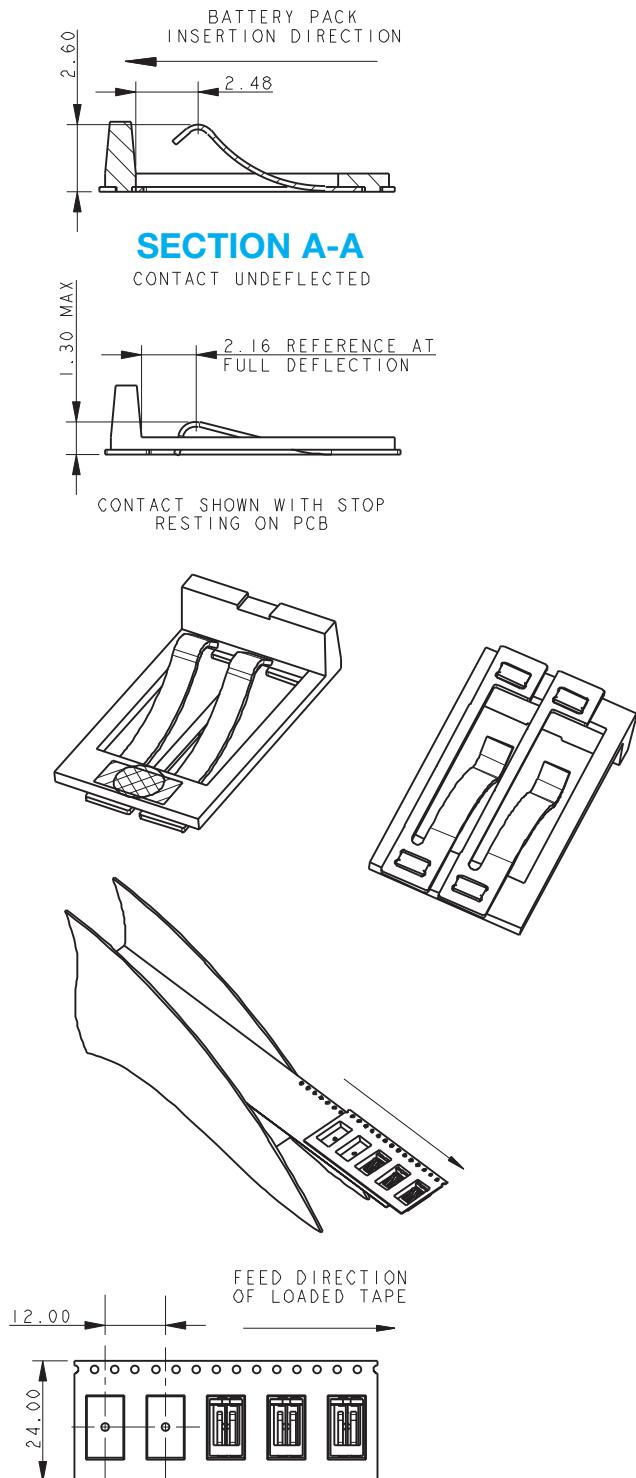
AVX

Ultra-Low Profile 2.5mm Pitch Battery

9155-100

AVX INTERCONNECT
A KYOCERA GROUP COMPANY

2 WAY LOW PROFILE CONNECTOR WITH STOP



NOTES:

1. FOR FULL PRODUCT SPECIFICATION REFER TO ELC0 SPECIFICATION 201-01-094.
2. MATERIALS: CONTACT - COPPER ALLOY, INSULATOR - GLASS FILLED NYLON. COLOR: BLACK.
3. TOLERANCE ± 0.20 UNLESS SPECIFIED.
4. PACKING DETAILS SEE TABLE.
5. FOR MATING PAD DETAILS REFER TO PAGE 105.

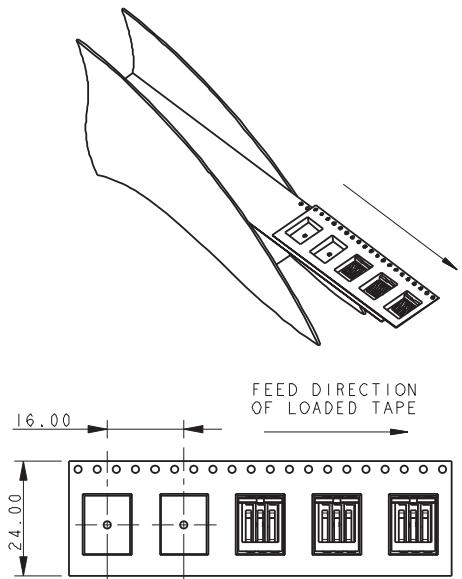
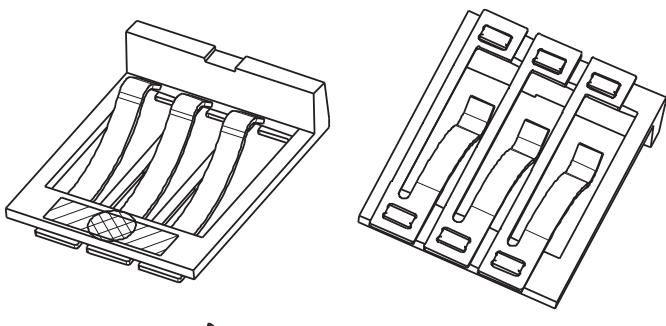
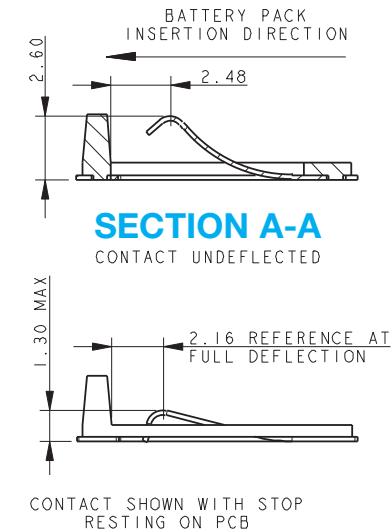
AVX

Ultra-Low Profile 2.5mm Pitch Battery

9155-100

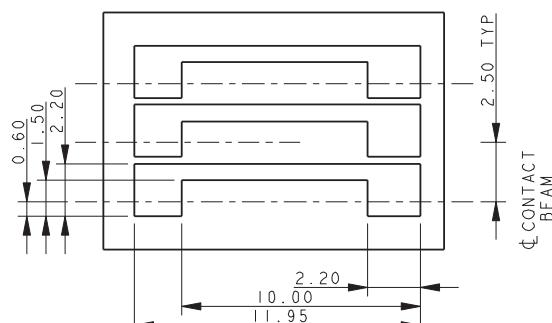
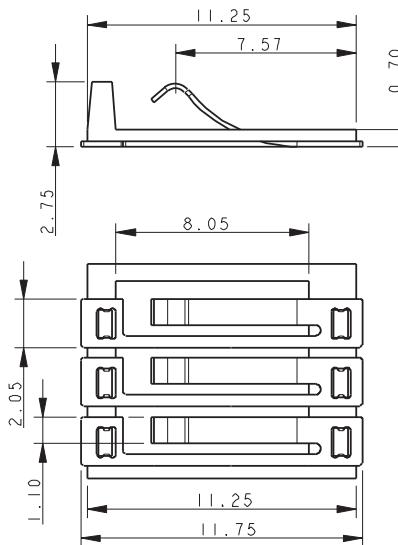
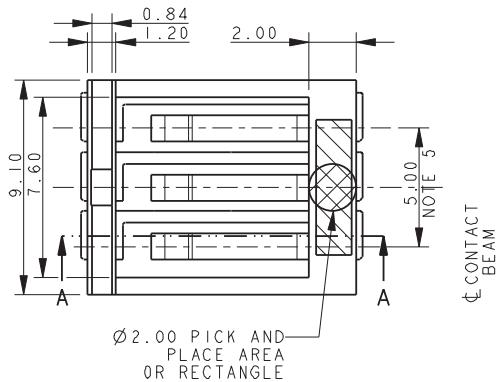
AVX INTERCONNECT
A KYOCERA GROUP COMPANY

3 WAY LOW PROFILE CONNECTOR WITH STOP



PACKING DETAILS

REEL QTY	1200
LEADER	500MM
TRAILER	500MM



SUGGESTED PCB LAYOUT

NOTES:

1. FOR FULL PRODUCT SPECIFICATION REFER TO ELCO SPECIFICATION 201-01-094.
2. MATERIALS: CONTACT - COPPER ALLOY, INSULATOR - GLASS FILLED NYLON. COLOR: BLACK.
3. TOLERANCE ± 0.20 UNLESS SPECIFIED.
4. PACKING DETAILS SEE TABLE.
5. 2 EQUAL PITCHES @ 2.50 = 5.00.
6. FOR MATING PAD DETAILS REFER TO PAGE 105.

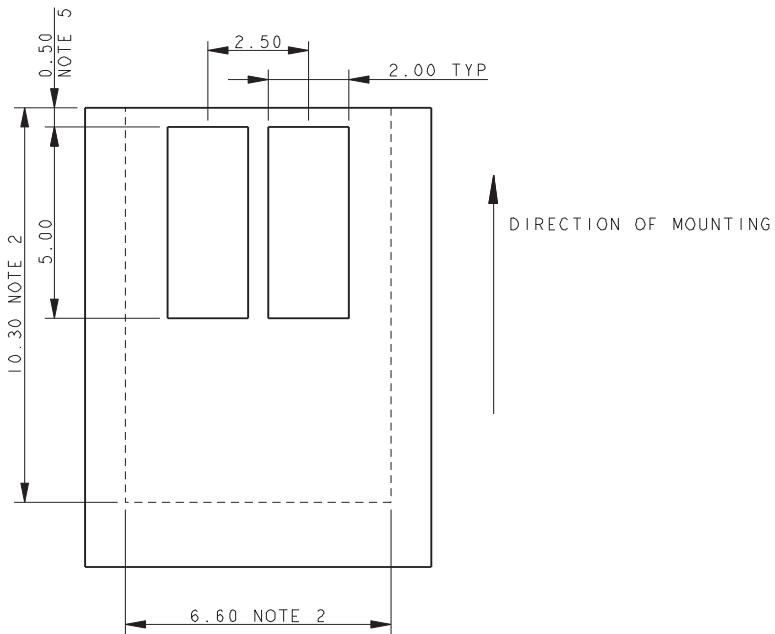
AVX

Ultra-Low Profile 2.5mm Pitch Battery

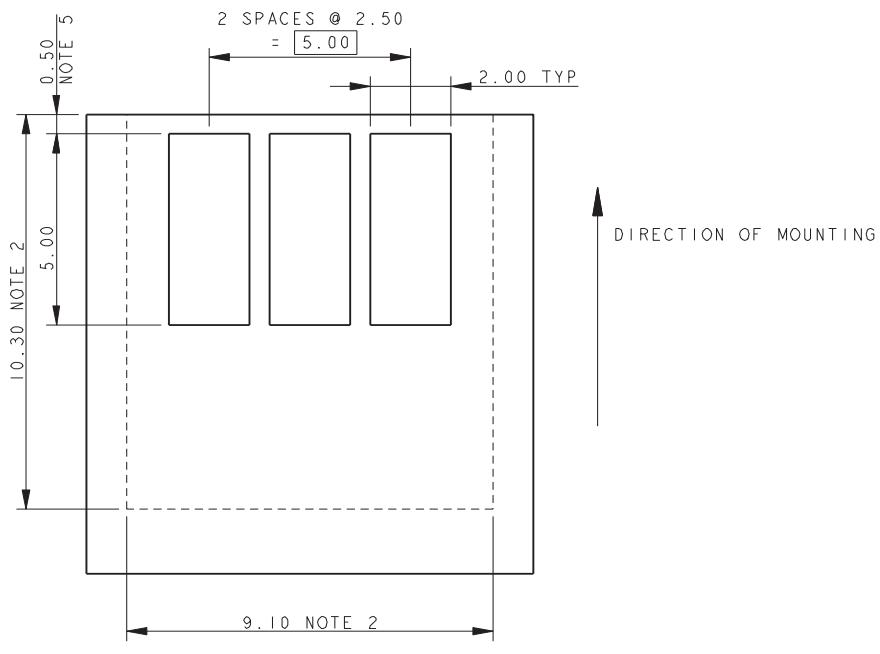
9155-100

AVX INTERCONNECT
A KYOCERA GROUP COMPANY

LOW PROFILE MATING PADS



2 WAY MATING PADS



3 WAY MATING PADS

NOTES:

1. SUGGESTED MATING PADS FOR LOW PROFILE BATTERY CONNECTORS.
2. OUTLINE OF CONNECTOR.
3. PREFERRED PLATING ON PADS GOLD OVER NICKEL.
4. REFERENCE DIMENSIONS.
5. DIMENSION TO EDGE OF BOARD FOR CONNECTORS WITH STOP.

AVX

Low Profile Single Contact

70-9155

AVX INTERCONNECT
A KYOCERA GROUP COMPANY



Designers for ruggedized connectors to meet harsh environments continue to look for new products which will reduce size and cost without jeopardizing performance. The new Ultra-Low Profile (ULP) compression contact from AVX surface mounts to a PCB and provides a reliable compression connection to the mating board, even under extreme shock and vibration applications. With over 20 years of 1-Piece compression contact experience, this innovative contact offers full connector performance functionality at the individual contact level. Thus, allowing single contacts to be placed in any location or position on a PCB.

The high force beryllium copper contact is gold plated to maximize reliability and signal integrity. The current offering has two contacts with nominal heights of 1.0mm and 1.5mm. Add in the "Z" axis tolerance range and the compressed height covers 0.75mm up to 1.75mm. The contacts are supplied in tape and reel for easy SMT placement.

APPLICATIONS

- Industrial/Ruggedized handheld or portable devices
- BTB connection for any traditional power or signal application
- Ground connections between PCB's or housings

FEATURES AND BENEFITS

- Reliable gold plated Beryllium Copper contacts for high cycle life and signal integrity up to 1000 cycles
- Tape and reel packaged for automated SMT placement
- Sweeping beam design for pluggable/module applications
- Three gold plating options to match end product environmental or expected life requirements

ELECTRICAL

- Current Rating: 3 Amps
- Voltage Rating: UL 300V
Based on placement distance

ENVIRONMENTAL

- Operating Temperature:
-40°C to +125°C

MECHANICAL

- Contact Material: Beryllium Copper
- Contact Plating: Gold over Nickel
- Durability: 50, 500 and 1000 cycles

HOW TO ORDER

70 9155 001
Prefix Series Number of Ways

61X

Contact Description

Code	Nominal Operating Height	Contact Operating Height Range
610	1.00mm	0.75mm to 1.25mm
615	1.50mm	1.25mm to 1.75mm

00X

Contact Description

Code	Gold Thickness	Description	Availability
004	0.1µm	Nickel under Plate, Gold on Nose Tin on Remainder	Standard
006	0.4µm	Nickel under Plate, Gold on Nose Tin on Remainder	Special Order
008	0.8µm	Nickel under Plate, Gold on Nose Tin on Remainder	Special Order

Certification: UL File #E90723

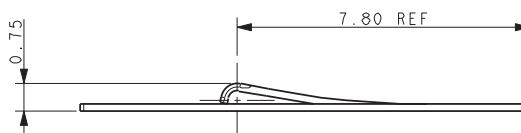
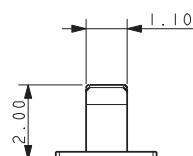
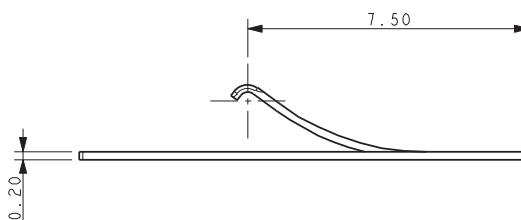
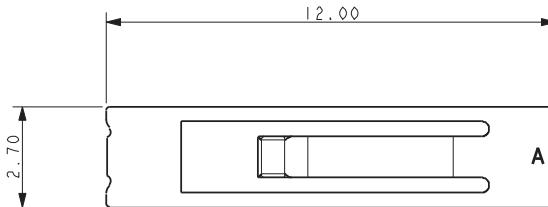


Low Profile Single Contact

70-9155

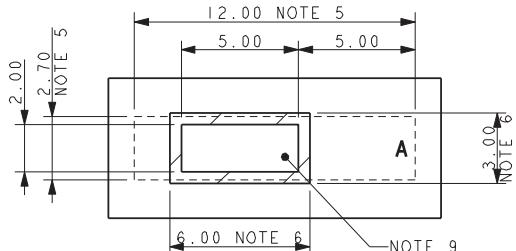
AVX INTERCONNECT
A KYOCERA GROUP COMPANY

70-9155-001-610-006
NOMINAL WORKING HEIGHT 1.00MM



FULLY DEFLECTED CONTACT

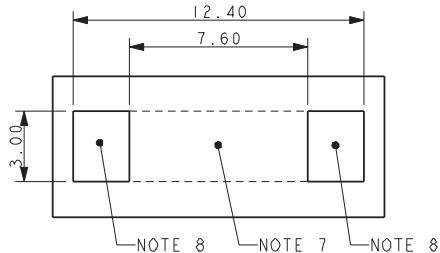
SUGGESTED MATING PCB LAYOUT



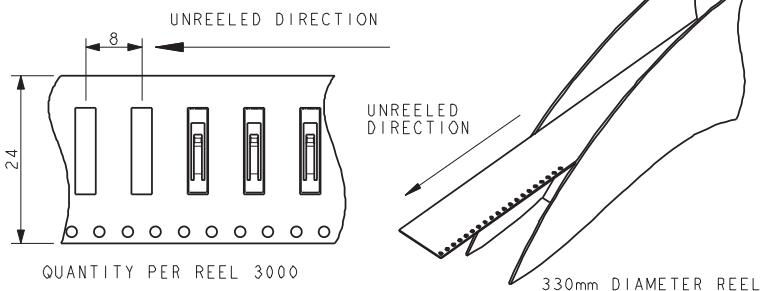
NOTES:

1. 9155 LOW PROFILE CONTACT, WORKING HEIGHT 0.75MM TO 1.25MM.
2. FOR FULL DETAILS REFER TO PRODUCT SPECIFICATION 201-01-153 AND APPLICATIONS NOTES 201-01-154.
3. MATERIAL: COPPER ALLOY 0.2MM THICK.
4. PLATING: NICKEL ALL OVER WITH GOLD ON CONTACT NOSE AND TIN ON THE REMAINDER. PARTS TO BE PACKED IN TAPE AND REEL. QTY PER REEL 3000.
5. OUTLINE OF CONNECTOR, ORIENTATION END "A".
6. AREA TO KEPT FREE OF SOLDER RESIST, FURTHER INFORMATION IN APPLICATION NOTES.
7. AREA BETWEEN PADS TO BE KEPT CLEAR OF TRACKS AND COMPONENTS.
8. SMT PADS PLATED TIN.
9. MATING PAD PLATED GOLD OVER NICKEL.

SUGGESTED SMT PCB LAYOUT



PACKING DETAILS



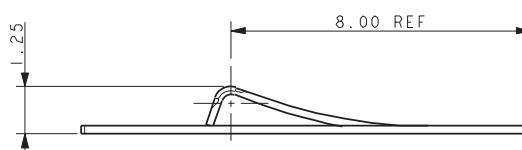
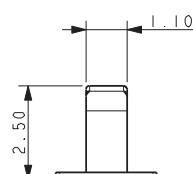
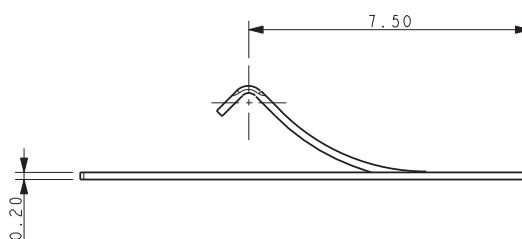
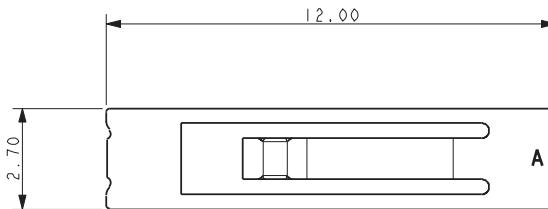
AVX

Low Profile Single Contact

70-9155

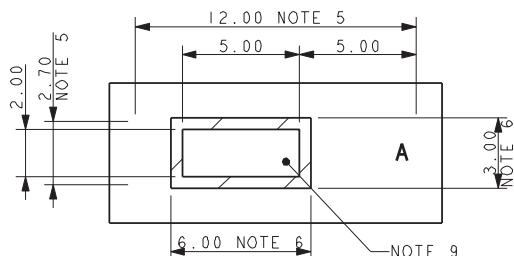
AVX INTERCONNECT
A KYOCERA GROUP COMPANY

70-9155-001-610-006
NOMINAL WORKING HEIGHT 1.50MM



**FULLY DEFLECTED
CONTACT**

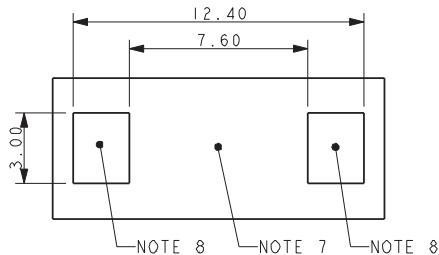
SUGGESTED MATING PCB LAYOUT



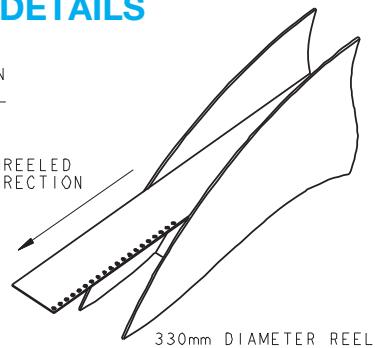
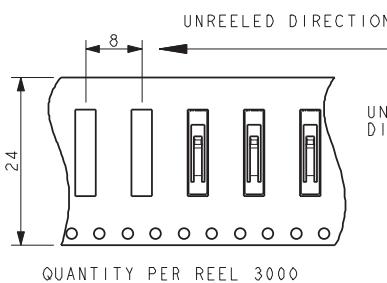
NOTES:

1. 9155 LOW PROFILE CONTACT, WORKING HEIGHT 0.75MM TO 1.25MM.
2. FOR FULL DETAILS REFER TO PRODUCT SPECIFICATION 201-01-153 AND APPLICATIONS NOTES 201-01-154.
3. MATERIAL: COPPER ALLOY 0.2MM THICK.
4. PLATING: NICKEL ALL OVER WITH GOLD ON CONTACT NOSE AND TIN ON THE REMAINDER. PARTS TO BE PACKED IN TAPE AND REEL. QTY PER REEL 3000.
5. OUTLINE OF CONNECTOR, ORIENTATION END "A".
6. AREA TO KEPT FREE OF SOLDER RESIST, FURTHER INFORMATION IN APPLICATION NOTES.
7. AREA BETWEEN PADS TO BE KEPT CLEAR OF TRACKS AND COMPONENTS.
8. SMT PADS PLATED TIN.
9. MATING PAD PLATED GOLD OVER NICKEL.

SUGGESTED SMT PCB LAYOUT

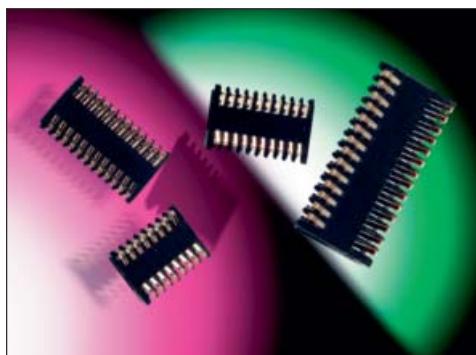


PACKING DETAILS



Dual Row Stacker: BTB 00-9158

AVX INTERCONNECT
A KYOCERA GROUP COMPANY



The MOBO® series 9158 is a one-piece connector used to connect two PCBs within mobile phones, pagers, PDAs, security, handheld scanners, etc. in a cost-effective manner.

A standard range is available with 16, 20, 24 and 28 contacts to suit stack heights of 1.90mm to 3.30mm. Other contact variants are also available up to 5.10mm, in custom housings. The SOLO STACKER can allow a spacing tolerance of up to ± 0.30 mm and still provide reliable connections between the PCBs, even if they are not parallel.

SOLO STACKER is designed for PCB surface mounting and is supplied in tape and reel packaging. Gold plated pads on the mating PCB or suitable flex circuits provide connection between the boards.

Whatever your requirements this SOLO STACKER can also be customized to suit your applications.

APPLICATIONS

- Mobile Phones
- PDA
- Medical
- PMR
- Industrial
- Security
- Handheld Scanner

FEATURES AND BENEFITS

- Reduced assembly time.
- Only one part to purchase and stock.
- Due to the unique contact design, the mating device does not have to be parallel.
- Extremely robust when subjected to shock and vibration.
- Cost effective.
- Helps reduce tolerance accumulation within system.

ELECTRICAL

- Current Rating: 1 Amp/Contact
- Voltage Rating: 125V

Based on placement distance

ENVIRONMENTAL

- Operating Temperature: -55°C to +125°C

MECHANICAL

- Insulator Material: High Temperature Plastic; UL94 HB
- Contact Material: Beryllium Copper
- Plating: Gold over Nickel
- Durability: 50 Cycles

HOW TO ORDER

00 9158 0XX
Prefix Series Number of Ways

016 = 16
020 = 20
024 = 24
028 = 28

0XX

Stack Height

020 = 1.9mm to 2.1mm
025 = 2.1mm to 2.7mm
030 = 2.8mm to 3.3mm

06

Plating Variation

06 = Selective Gold 0.25µm
Gold Plated Contact
Nose Pure Tin Tail

X

PCB Location Bosses

1 = With PCB Location Bosses
2 = Without PCB Location Bosses

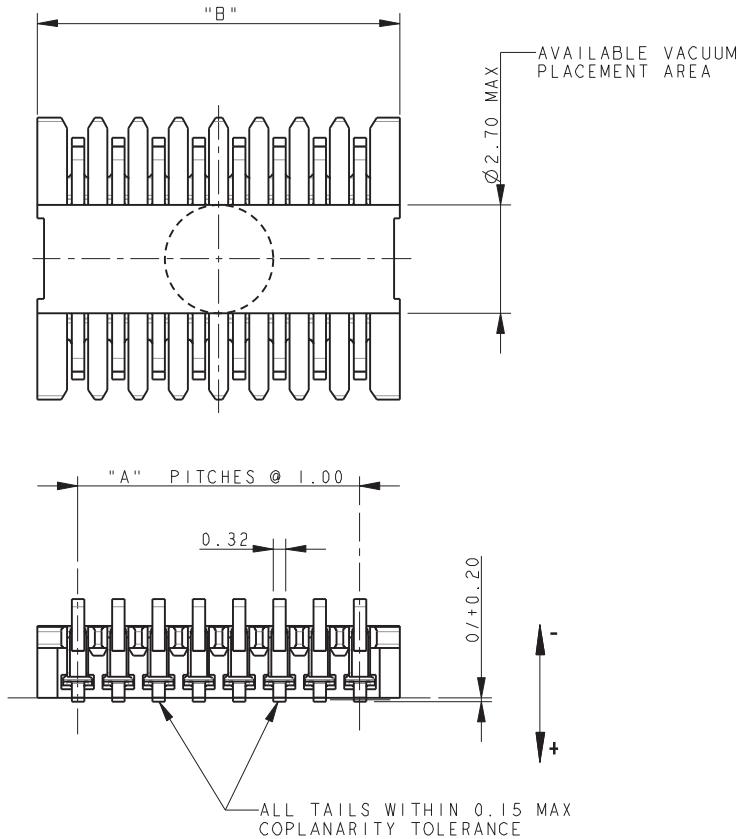


Dual Row Stacker: BTB

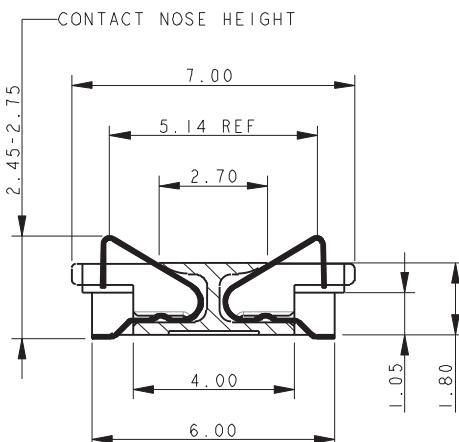
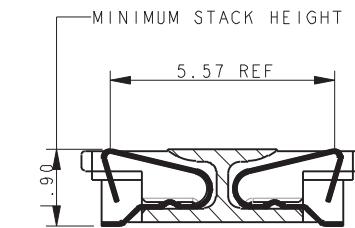
00-9158

AVX INTERCONNECT
A KYOCERA GROUP COMPANY

2.0MM DUAL ROW STACKER WITHOUT BOSSES

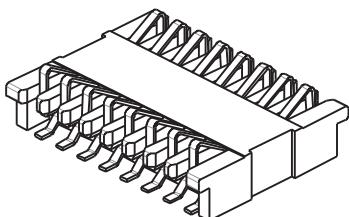


MATING CONDITION

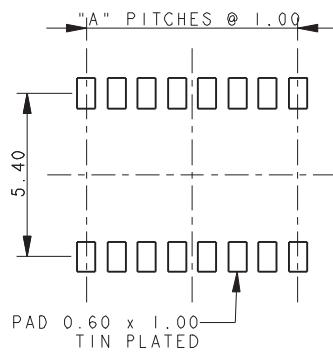


NOTES:

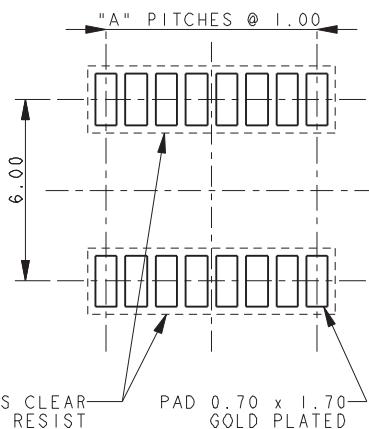
1. LAYOUT FOR MULTI-WAY DUAL ROW STACKING CONNECTOR (ELCO SERIES 9158).
2. FOR FULL PRODUCT SPECIFICATION REFER TO ELCO SPEC 201-01-073.
3. PART TO BE PACKED IN TAPE AND REEL. REFER TO PAGE 116 FOR DETAILS.
4. STACKER DESIGN TO ACCOMMODATE A PCB STACKING HEIGHT OF 1.90MM TO 2.10MM.
5. NO ALLOWANCE HAS BEEN MADE FOR SOLDER PASTE THICKNESS IN PCB STACKING HEIGHT.
6. GENERAL TOLERANCE ± 0.20 UNLESS OTHERWISE STATED.



SMT PCB FOOTPRINT



MATING PCB FOOTPRINT



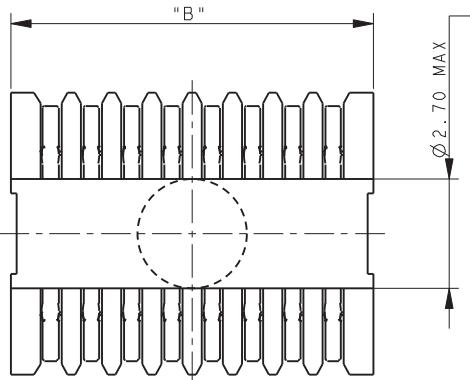
No of Positions	Part Number	A	B
16	00-9158-016-020-062	7	9.00
20	00-9158-020-020-062	9	11.00
24	00-9158-024-020-062	11	13.00
28	00-9158-028-020-062	13	15.00

Dual Row Stacker: BTB

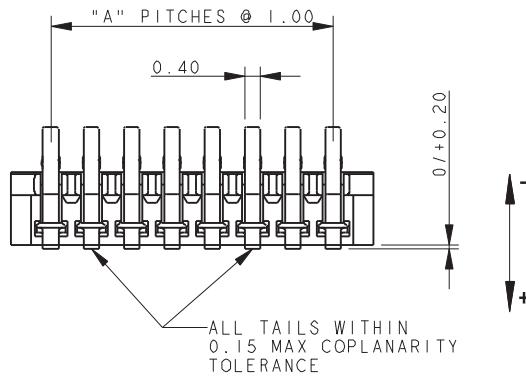
00-9158

AVX INTERCONNECT
A KYOCERA GROUP COMPANY

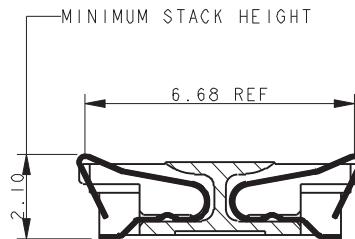
2.5MM DUAL ROW STACKER WITHOUT BOSSES



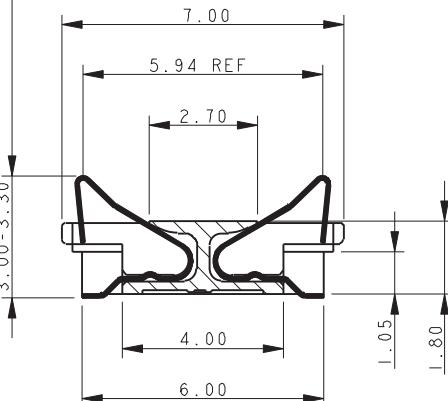
AVAILABLE VACUUM
PLACEMENT AREA



MATING CONDITION

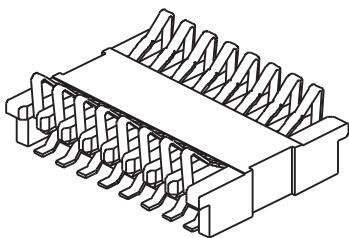


CONTACT NOSE HEIGHT

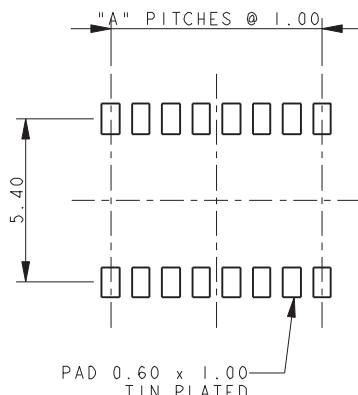


NOTES:

1. LAYOUT FOR MULTI-WAY DUAL ROW STACKING CONNECTOR (ELCO SERIES 9158).
2. FOR FULL PRODUCT SPECIFICATION REFER TO ELCO SPEC 201-01-073.
3. PART TO BE PACKED IN TAPE AND REEL. REFER TO PAGE 116 FOR DETAILS.
4. STACKER DESIGN TO ACCOMMODATE A PCB STACKING HEIGHT OF 2.10MM TO 2.70MM.
5. NO ALLOWANCE HAS BEEN MADE FOR SOLDER PASTE THICKNESS IN PCB STACKING HEIGHT.
6. GENERAL TOLERANCE ± 0.20 UNLESS OTHERWISE STATED.

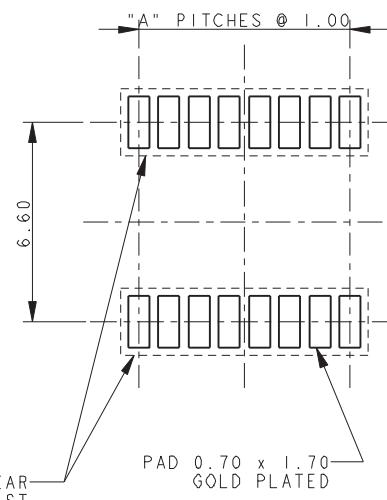


SMT PCB FOOTPRINT



No of Positions	Part Number	A	B
16	00-9158-016-020-062	7	9.00
20	00-9158-020-020-062	9	11.00
24	00-9158-024-020-062	11	13.00
28	00-9158-028-020-062	13	15.00

MATING PCB FOOTPRINT



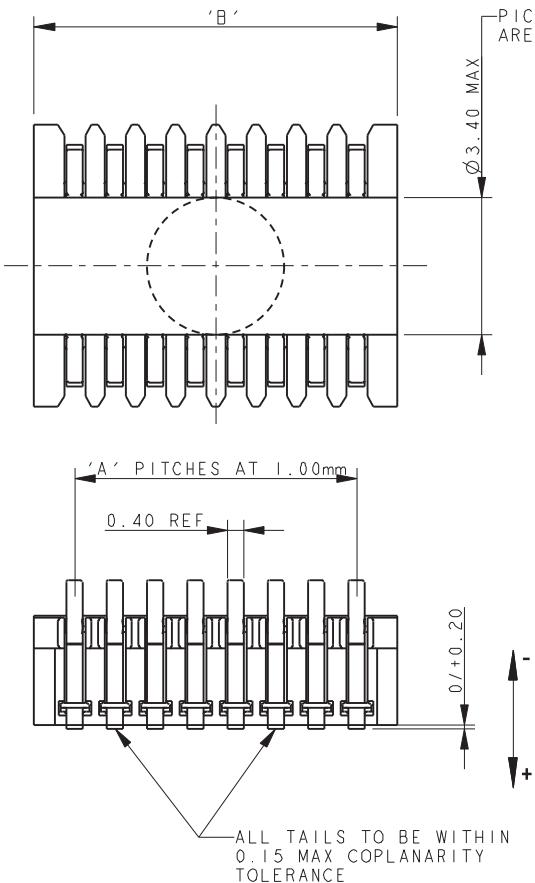
AVX

Dual Row Stacker: BTB

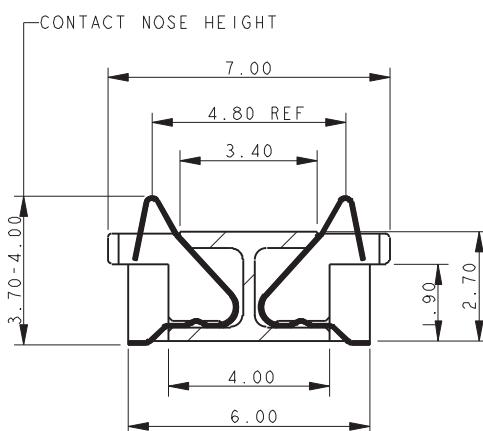
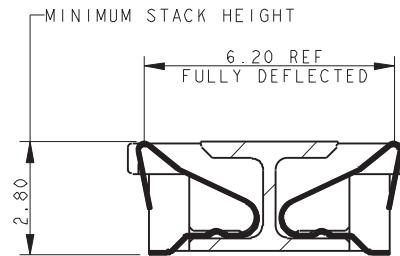
00-9158

AVX INTERCONNECT
A KYOCERA GROUP COMPANY

3.0MM DUAL ROW STACKER WITHOUT BOSSES

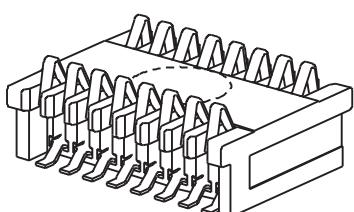


MATING CONDITION



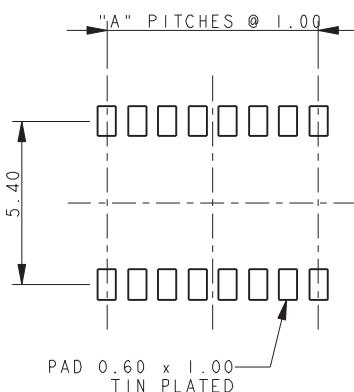
NOTES:

1. LAYOUT FOR MULTI-WAY DUAL ROW STACKING CONNECTOR (ELCO SERIES 9158).
2. FOR FULL PRODUCT SPECIFICATION REFER TO ELCO SPEC 201-01-073.
3. PART TO BE PACKED IN TAPE AND REEL. REFER TO PAGE 116 FOR DETAILS.
4. STACKER DESIGN TO ACCOMMODATE A PCB STACKING HEIGHT OF 2.80MM TO 3.30MM.
5. NO ALLOWANCE HAS BEEN MADE FOR SOLDER PASTE THICKNESS IN PCB STACKING HEIGHT.
6. GENERAL TOLERANCE ± 0.20 UNLESS OTHERWISE STATED.

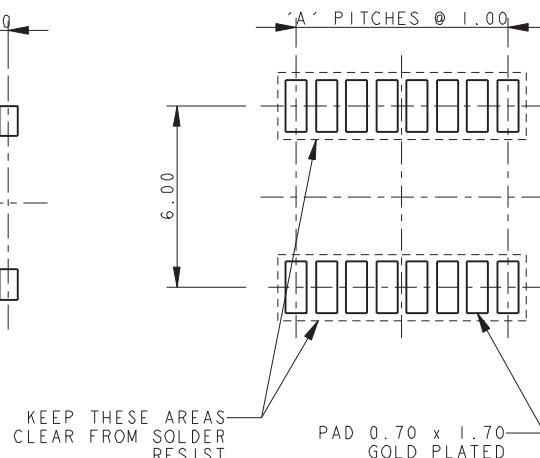


No of Positions	Part Number	A	B
16	00-9158-016-020-062	7	9.00
20	00-9158-020-020-062	9	11.00
24	00-9158-024-020-062	11	13.00
28	00-9158-028-020-062	13	15.00

SMT PCB FOOTPRINT



MATING PCB FOOTPRINT

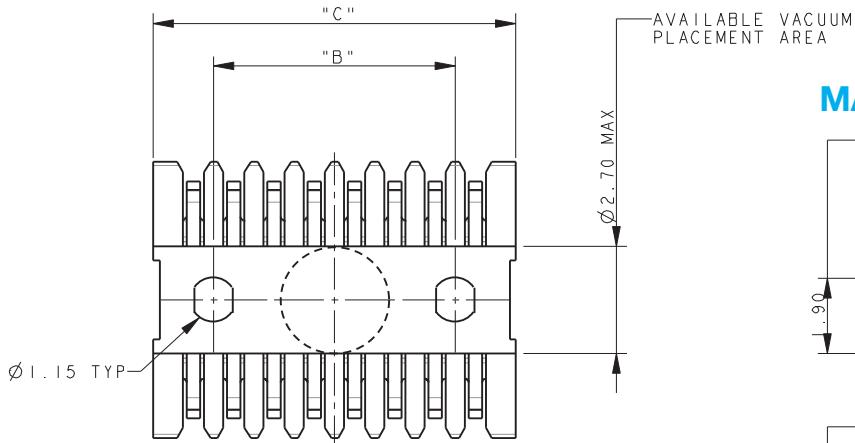


Dual Row Stacker: BTB

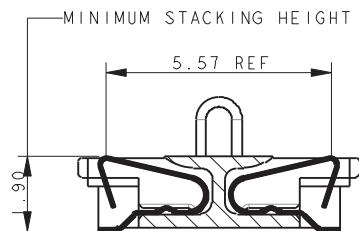
00-9158

AVX INTERCONNECT
A KYOCERA GROUP COMPANY

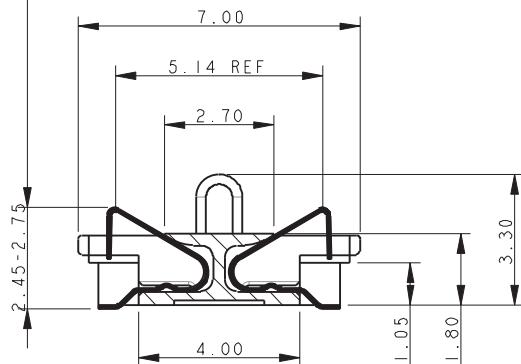
2.0MM DUAL ROW STACKER WITH BOSSES



MATING CONDITION

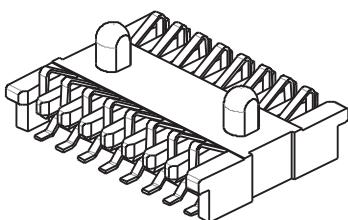


CONTACT NOSE HEIGHT



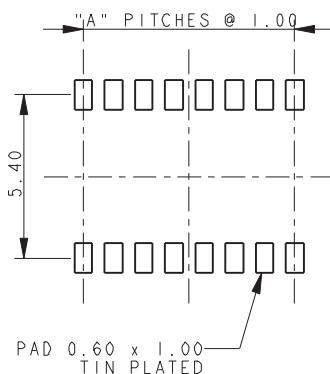
NOTES:

1. LAYOUT FOR MULTI-WAY DUAL ROW STACKING CONNECTOR (ELCO SERIES 9158).
2. FOR FULL PRODUCT SPECIFICATION REFER TO ELCO SPEC 201-01-073.
3. PART TO BE PACKED IN TAPE AND REEL. REFER TO PAGE 116 FOR DETAILS.
4. STACKER DESIGN TO ACCOMMODATE A PCB STACKING HEIGHT OF 1.90MM TO 2.10MM.
5. NO ALLOWANCE HAS BEEN MADE FOR SOLDER PASTE THICKNESS IN PCB STACKING HEIGHT.
6. GENERAL TOLERANCE ± 0.20 UNLESS OTHERWISE STATED.

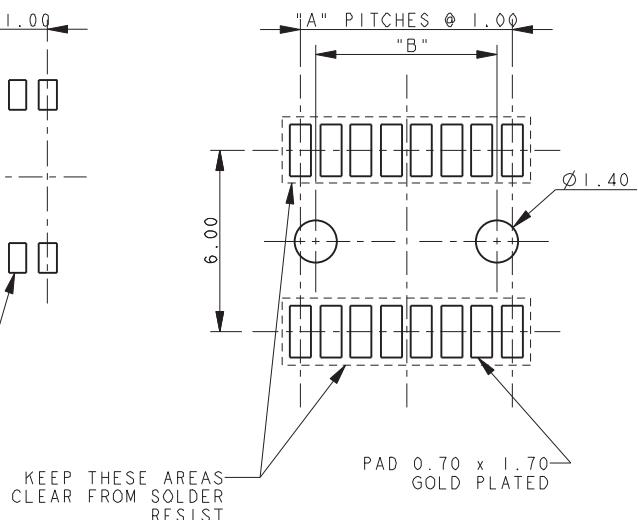


No of Positions	Part Number	A	B
16	00-9158-016-020-062	7	9.00
20	00-9158-020-020-062	9	11.00
24	00-9158-024-020-062	11	13.00
28	00-9158-028-020-062	13	15.00

SMT PCB FOOTPRINT



MATING PCB FOOTPRINT



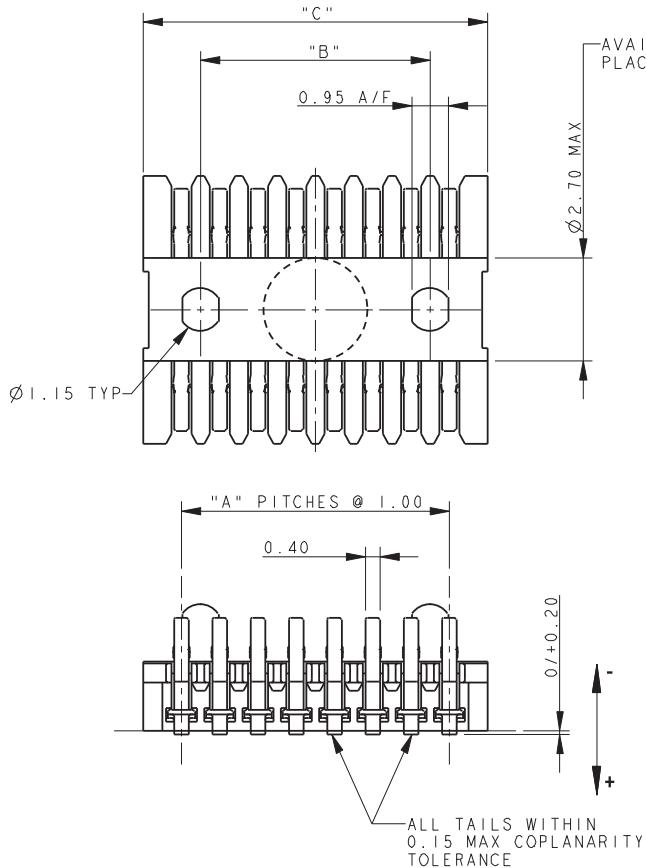
AVX

Dual Row Stacker: BTB

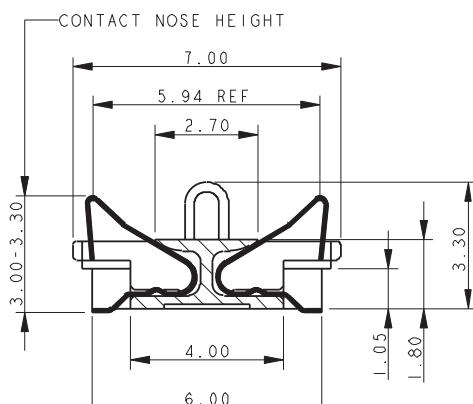
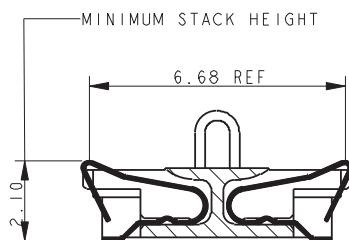
00-9158

AVX INTERCONNECT
A KYOCERA GROUP COMPANY

2.5MM DUAL ROW STACKER WITH BOSSES

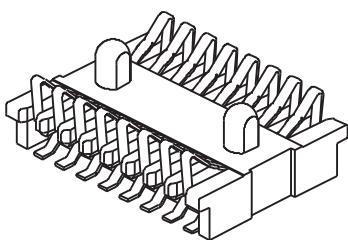


MATING CONDITION

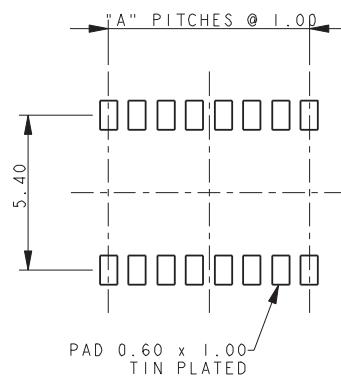


NOTES:

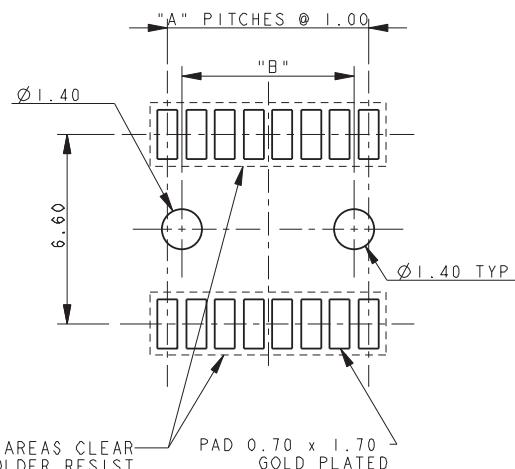
1. LAYOUT FOR MULTI-WAY DUAL ROW STACKING CONNECTOR (ELCO SERIES 9158).
2. FOR FULL PRODUCT SPECIFICATION REFER TO ELCO SPEC 201-01-073.
3. PART TO BE PACKED IN TAPE AND REEL. REFER TO PAGE 116 FOR DETAILS.
4. STACKER DESIGN TO ACCOMMODATE A PCB STACKING HEIGHT OF 2.10MM TO 2.70MM.
5. NO ALLOWANCE HAS BEEN MADE FOR SOLDER PASTE THICKNESS IN PCB STACKING HEIGHT.
6. GENERAL TOLERANCE ± 0.20 UNLESS OTHERWISE STATED.



SMT PCB FOOTPRINT



MATING PCB FOOTPRINT



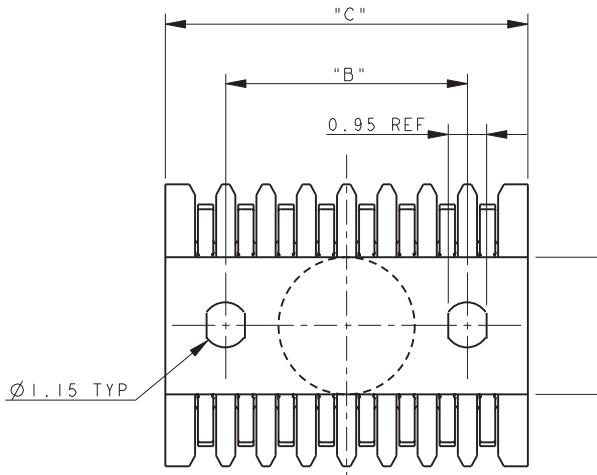
No of Positions	Part Number	A	B
16	00-9158-016-020-062	7	9.00
20	00-9158-020-020-062	9	11.00
24	00-9158-024-020-062	11	13.00
28	00-9158-028-020-062	13	15.00

Dual Row Stacker: BTB

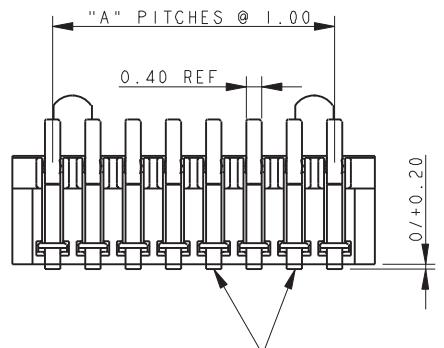
00-9158

AVX INTERCONNECT
A KYOCERA GROUP COMPANY

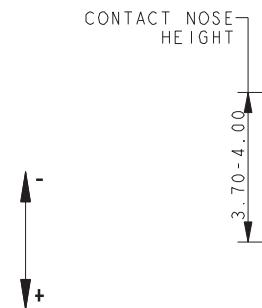
3.0MM DUAL ROW STACKER WITH BOSSES



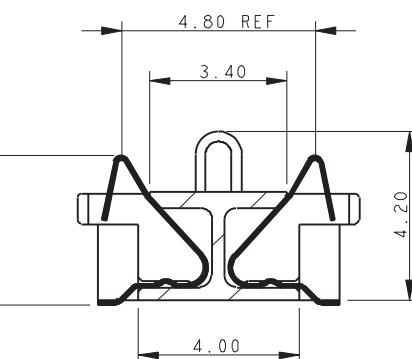
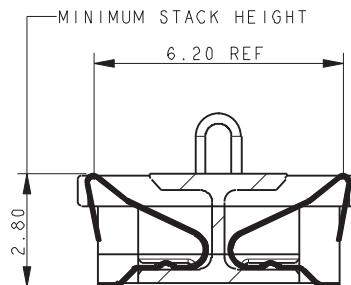
AVAILABLE VACUUM
PLACEMENT AREA



ALL TAILS TO BE WITHIN
0.15 MAX COPLANARITY
TOLERANCE

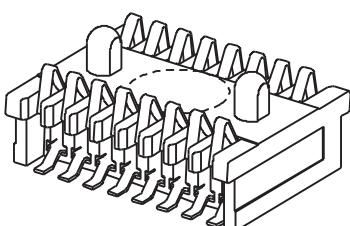


MATING CONDITION



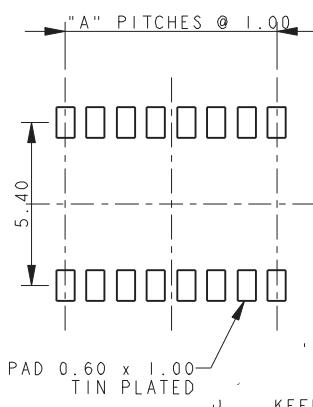
NOTES:

1. LAYOUT FOR MULTI-WAY DUAL ROW STACKING CONNECTOR (ELCO SERIES 9158).
2. FOR FULL PRODUCT SPECIFICATION REFER TO ELCO SPEC 201-01-073.
3. PART TO BE PACKED IN TAPE AND REEL. REFER TO PAGE 116 FOR DETAILS.
4. STACKER DESIGN TO ACCOMMODATE A PCB STACKING HEIGHT OF 2.80MM TO 3.30MM.
5. NO ALLOWANCE HAS BEEN MADE FOR SOLDER PASTE THICKNESS IN PCB STACKING HEIGHT.
6. GENERAL TOLERANCE ± 0.20 UNLESS OTHERWISE STATED.



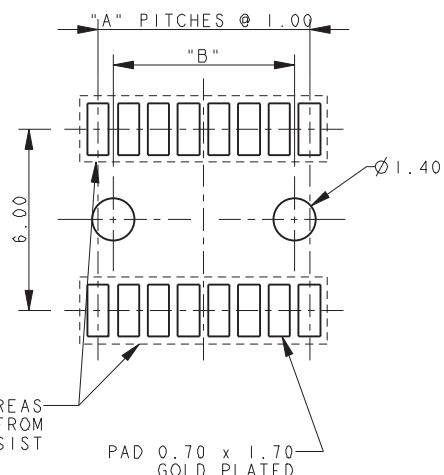
No of Positions	Part Number	A	B
16	00-9158-016-020-062	7	9.00
20	00-9158-020-020-062	9	11.00
24	00-9158-024-020-062	11	13.00
28	00-9158-028-020-062	13	15.00

SMT PCB FOOTPRINT



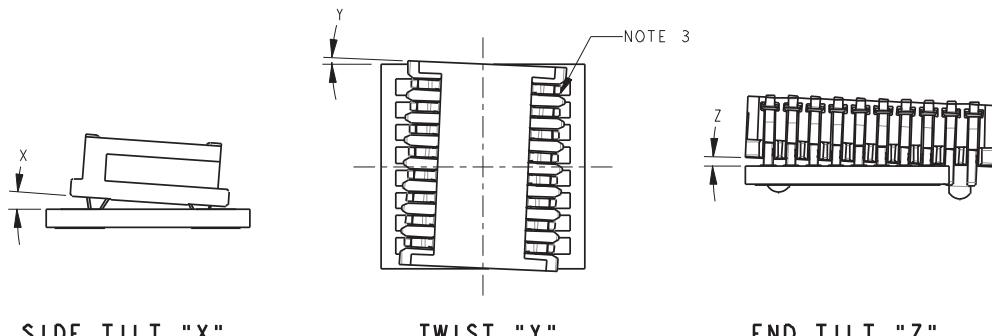
KEEP THESE AREAS
FREE FROM
SOLDER RESIST

MATING PCB FOOTPRINT



AVX

LIMITS TO PCB MISALIGNMENT



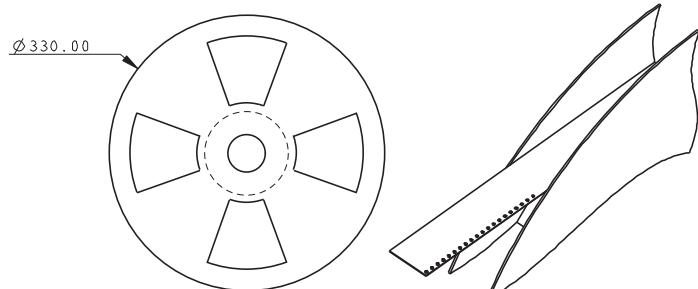
Code (See page 107)	Stack Height (Note 1)	Max Angle Degrees on Axis (Note 4)	Number of Ways			
			16	20	24	28
020	1.9mm to 2.1mm	X	2.0	2.0	2.0	2.0
		Y	3.5	3.5	3.5	3.5
		Z	2.0	1.5	1.0	1.0
025	2.1mm to 2.7mm	X	4.0	4.0	4.0	4.0
		Y	2.5	2.5	2.5	2.5
		Z	4.0	3.0	2.5	2.0
030	2.7mm to 3.3mm	X	4.0	4.0	4.0	4.0
		Y	2.5	2.5	2.5	2.5
		Z	3.5	2.5	2.0	2.0

NOTES:

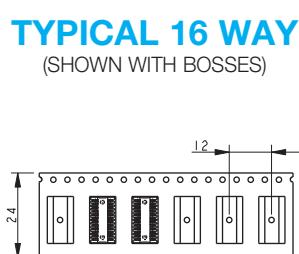
1. PCB STACK HEIGHT (REF PAGE 109). THIS IS THE CONTROLLING LIMIT ON THE GAP BETWEEN THE TWO PCB FACES AT ANY POINT WHEN IN THE FINAL MATED POSITION.
2. NO ALLOWANCE HAS BEEN MADE FOR SOLDER PASTE THICKNESS IN PCB STACKING HEIGHT.
3. IT IS CRITICAL THAT ON ASSEMBLY THE CONTACT NOSES DO NOT STRAY OUTSIDE OF THE MATING PAD AREA IN THE FINAL MATED POSITION.
4. THE MAXIMUM MISALIGNMENT ABOUT ANY ONE AXIS IN DEGREES. SEE NOTES 1 AND 3.

PACKING DETAILS 9158 SOLO STACKER CONNECTORS

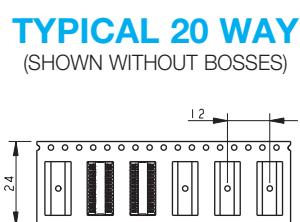
No of Positions	Stack Height	Bosses	Part Number	Tape Width	Reel Qty.
16	2.0	Yes	00-9158-016-020-0X1	16	1250
16	2.0	No	00-9158-016-020-0X2	16	1500
16	2.5	Yes	00-9158-016-025-0X1	16	1250
16	2.5	No	00-9158-016-025-0X2	16	1250
16	3.0	Yes	00-9158-016-030-0X1	16	1100
16	3.0	No	00-9158-016-030-0X2	16	1100
20	2.0	Yes	00-9158-020-020-0X1	24	1250
20	2.0	No	00-9158-020-020-0X2	24	1500
20	2.5	Yes	00-9158-020-025-0X1	24	1250
20	2.5	No	00-9158-020-025-0X2	24	1250
20	3.0	Yes	00-9158-020-030-0X1	24	1100
20	3.0	No	00-9158-020-030-0X2	24	1100
24	2.0	Yes	00-9158-024-020-0X1	24	1250
24	2.0	No	00-9158-024-020-0X2	24	1500
24	2.5	Yes	00-9158-024-025-0X1	24	1250
24	2.5	No	00-9158-024-025-0X2	24	1250
24	3.0	Yes	00-9158-024-030-0X1	24	1100
24	3.0	No	00-9158-024-030-0X2	24	1100
28	2.0	Yes	00-9158-028-020-0X1	24	1250
28	2.0	No	00-9158-028-020-0X2	24	1500
28	2.5	Yes	00-9158-028-025-0X1	24	1250
28	2.5	No	00-9158-028-025-0X2	24	1250
28	3.0	Yes	00-9158-028-030-0X1	24	1100
28	3.0	No	00-9158-028-030-0X2	24	1100



TYPICAL 16 WAY
(SHOWN WITH BOSSES)



TYPICAL 20 WAY
(SHOWN WITHOUT BOSSES)

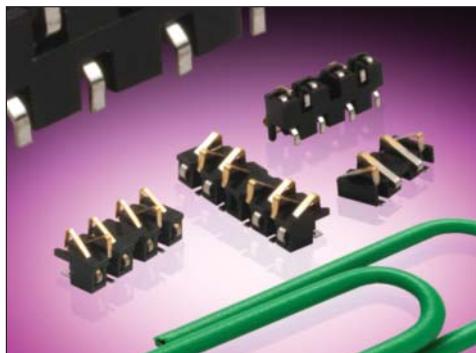


TYPICAL 24 WAY
(SHOWN WITH BOSSES)

TYPICAL 28 WAY
(SHOWN WITHOUT BOSSES)

Staggered Stacker: BTB 00-9188

AVX INTERCONNECT
A KYOCERA GROUP COMPANY



The SOLO series 9188 is a one-piece connector used to connect two PCBs in a cost effective manner.

A standard range is available with 4, 6, 8 staggered contacts to suit stack heights of 1.1mm to 2.1mm (see table below).

SOLO Stacker is designed for PCB surface mounting and is supplied in tape and reel packaging. Gold plated pads on the mating PCB or suitable flex circuits provide connection between the two boards.

APPLICATIONS

- Phones
- Scanners
- Radios
- Medical Diagnostic
- Security Devices

FEATURES AND BENEFITS

Single piece connector – no mating half required to connect two boards together which means:

- Reduced assembly time
- Only one part to purchase and stock
- Due to the unique contact design, the mating device does not have to be parallel
- Helps reduce tolerance accumulation within system

ELECTRICAL

- Current Rating: 1 Amp/Contact
- Voltage Rating: 125V

Based on placement distance

ENVIRONMENTAL

- Operating Temperature: -55°C to +125°C

MECHANICAL

- Insulator Material: High Temperature Plastic; UL94 HB
- Contact Material: Beryllium Copper
- Plating: Gold over Nickel
- Durability: 50 Cycles

HOW TO ORDER

00 **9188**

Prefix Series

00X

Number of Ways

004 = 4
006 = 6
008 = 8

0XX

Stack Height

Code	Height	No. of Ways
012	1.1mm to 1.3mm	4 only
020	1.9mm to 2.1mm	4, 6, & 8

062



Plating Variation

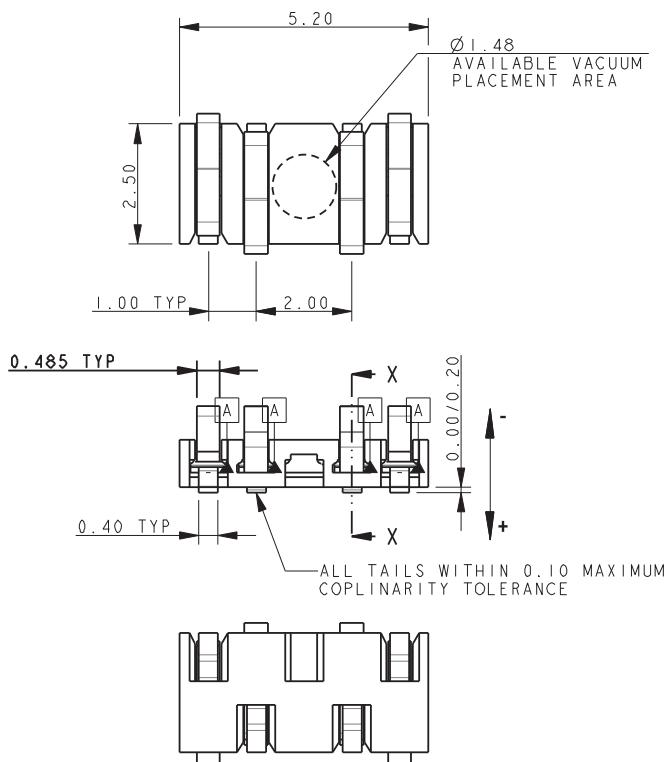
062 = Selective Gold
0.25µm Gold Plated
Contact Nose Pure
Tin Tail

Staggered Stacker: BTB

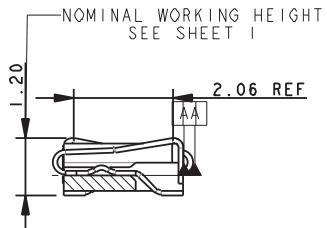
00-9188

AVX INTERCONNECT
A KYOCERA GROUP COMPANY

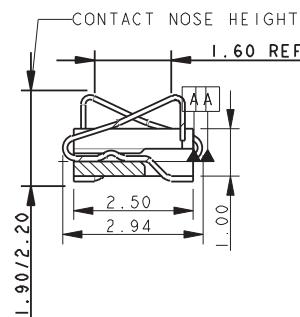
4 WAY STAGGERED STACKER – 1.2MM HEIGHT



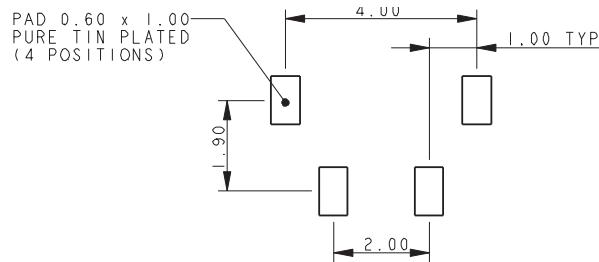
MATING CONDITION



SECTION ON X-X



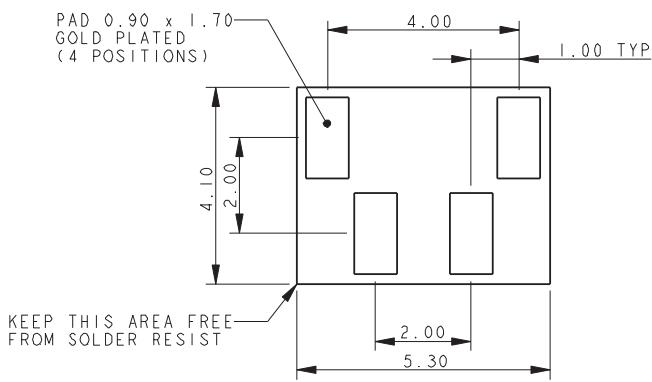
SMT PCB FOOTPRINT



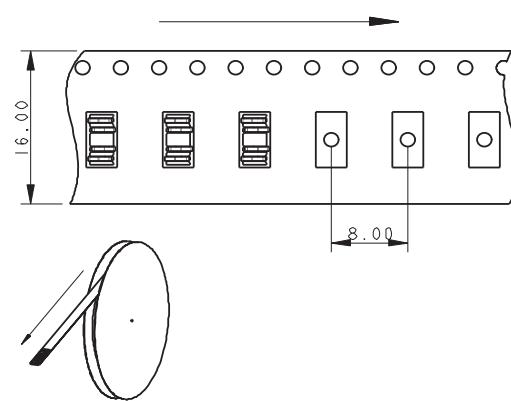
NOTES:

1. GENERAL TOLERANCE ± 0.20 UNLESS SPECIFIED.
2. FOR FULL PRODUCT SPECIFICATION REFER TO ELC0 SPECIFICATION 201-01-121.
3. INSULATOR MATERIAL: HIGH TEMPERATURE PLASTIC UL94 HB. COLOR BLACK.
4. CONTACT MATERIAL: COPPER ALLOY.
5. CONTACT PLATING: 1.0 M NICKEL UNDERPLATED. SELECTIVE 0.25 M GOLD ON NOSE. 2.0 TO 4.0 M PURE TIN ON TAILS.
6. PACKING 2000 PIECES ON A 330MM REEL.

MATING PCB FOOTPRINT



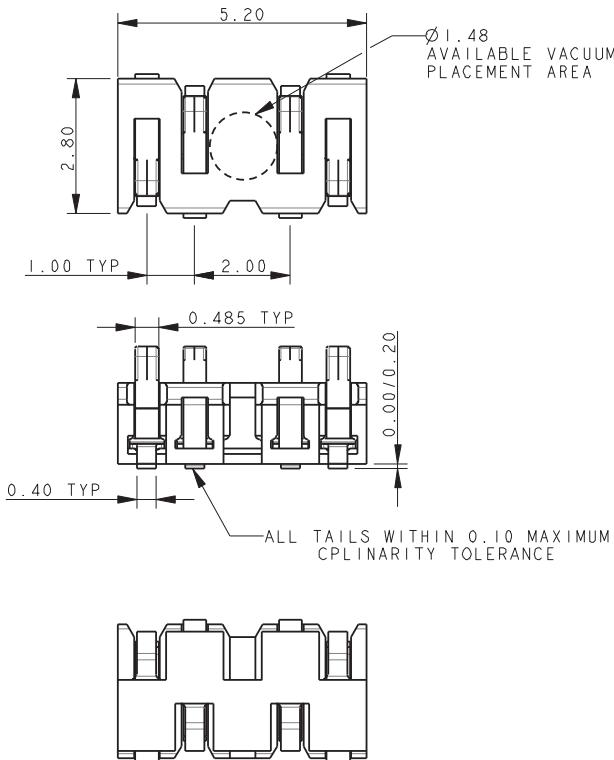
PACKING DETAILS



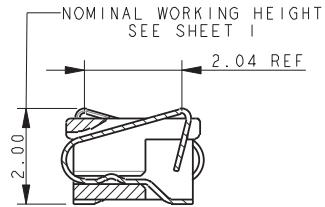
Staggered Stacker: BTB

00-9188

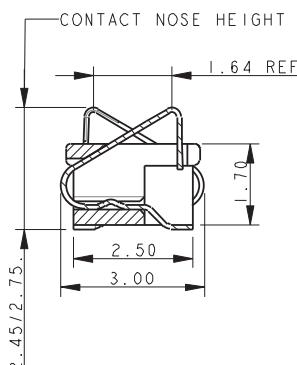
4 WAY STAGGERED STACKER – 2.0MM HEIGHT



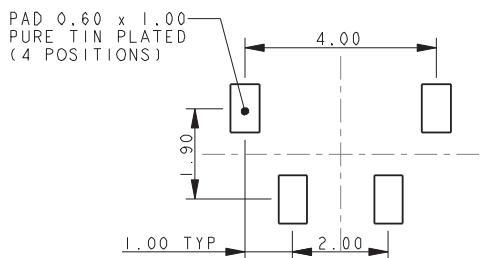
MATING CONDITION



SECTION ON X-X



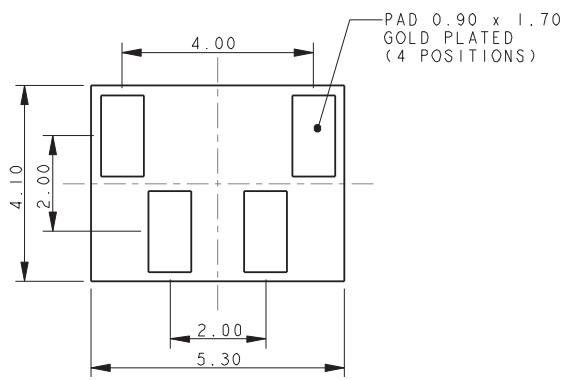
SMT PCB FOOTPRINT



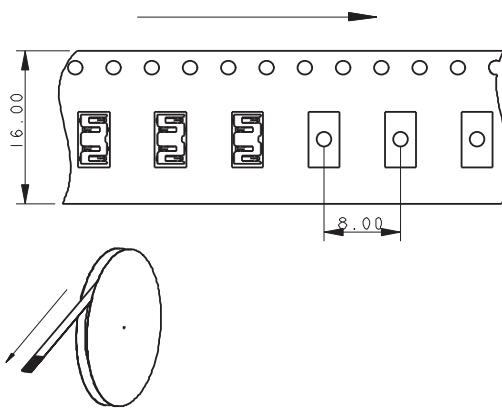
NOTES:

1. GENERAL TOLERANCE ± 0.20 UNLESS SPECIFIED.
2. FOR FULL PRODUCT SPECIFICATION REFER TO ELCO SPECIFICATION 201-01-121.
3. INSULATOR MATERIAL: HIGH TEMPERATURE PLASTIC UL94 HB. COLOR BLACK.
4. CONTACT MATERIAL: COPPER ALLOY.
5. CONTACT PLATING: 1.0 M NICKEL UNDERPLATED. SELECTIVE 0.25 M GOLD ON NOSE. 2.0 TO 4.0 M PURE TIN ON TAILS.
6. PACKING 2000 PIECES ON A 330MM REEL.

MATING PCB FOOTPRINT



PACKING DETAILS

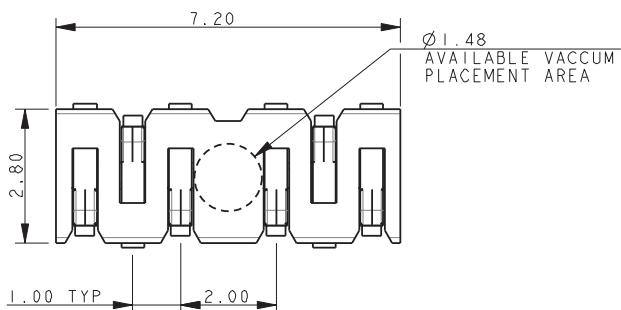


Staggered Stacker: BTB

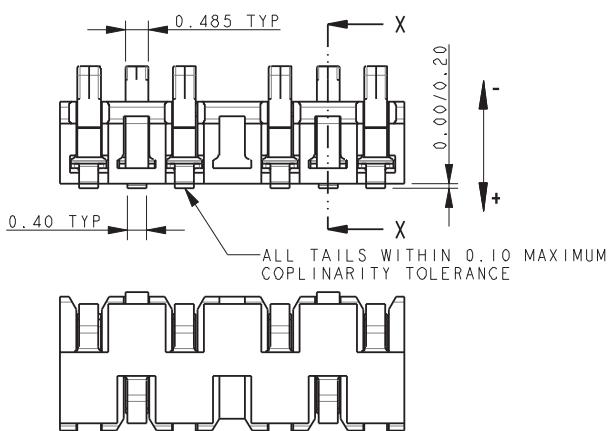
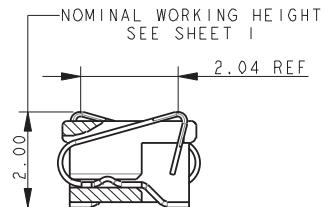
00-9188

AVX INTERCONNECT
A KYOCERA GROUP COMPANY

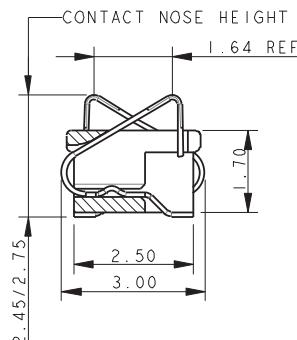
6 WAY STAGGERED STACKER – 2.0MM HEIGHT



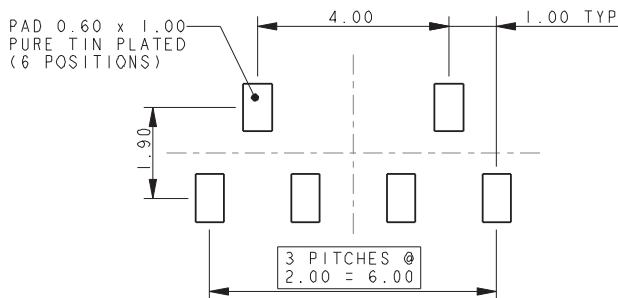
MATING CONDITION



SECTION ON X-X



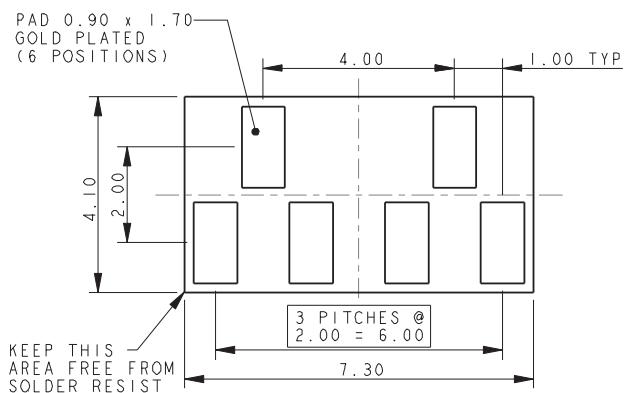
SMT PCB FOOTPRINT



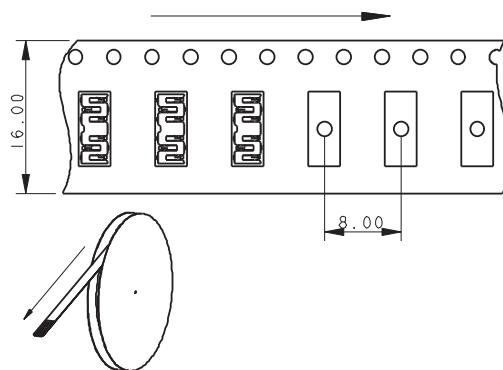
NOTES:

1. GENERAL TOLERANCE ± 0.20 UNLESS SPECIFIED.
2. FOR FULL PRODUCT SPECIFICATION REFER TO ELC0 SPECIFICATION 201-01-121.
3. INSULATOR MATERIAL: HIGH TEMPERATURE PLASTIC UL94 HB. COLOR BLACK.
4. CONTACT MATERIAL: COPPER ALLOY.
5. CONTACT PLATING: 1.0 M NICKEL UNDERPLATED. SELECTIVE 0.25 M GOLD ON NOSE. 2.0 TO 4.0 M PURE TIN ON TAILS.
6. PACKING 2000 PIECES ON A 330MM REEL.

MATING PCB FOOTPRINT



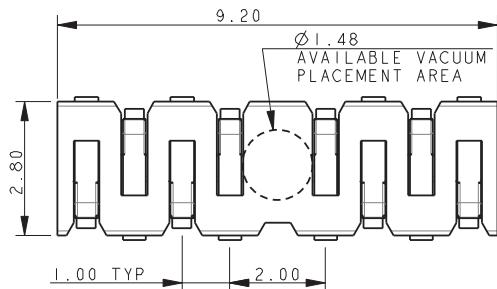
PACKING DETAILS



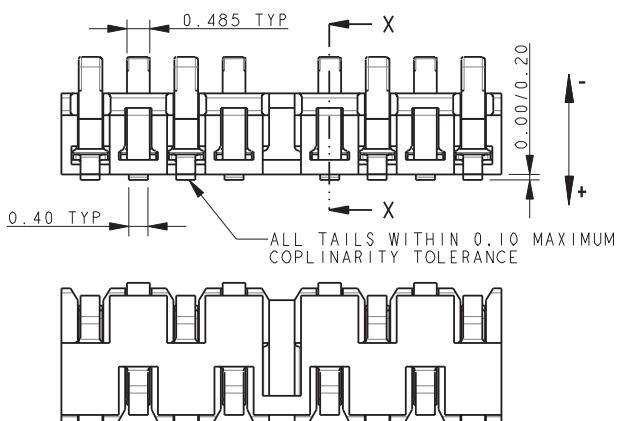
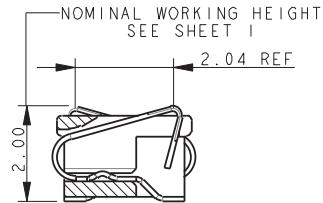
Staggered Stacker: BTB

00-9188

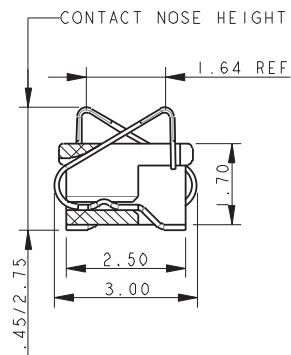
8 WAY STAGGERED STACKER – 2.0MM HEIGHT



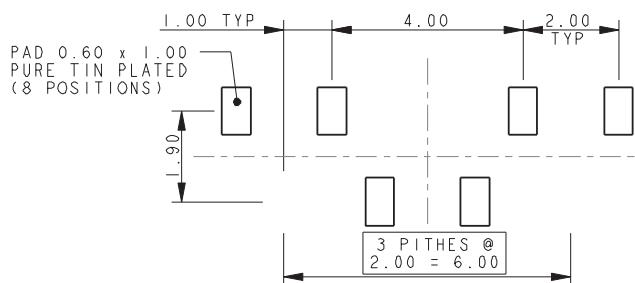
MATING CONDITION



SECTION ON X-X



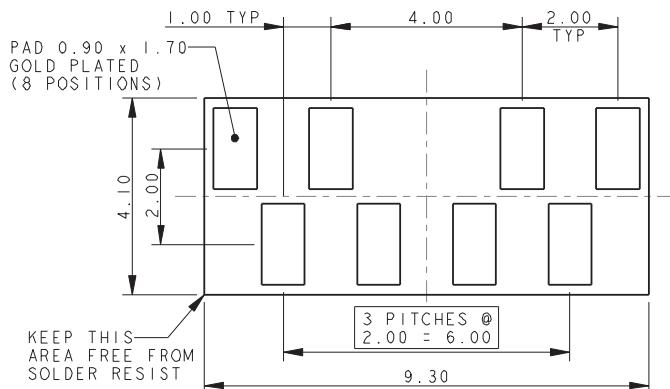
SMT PCB FOOTPRINT



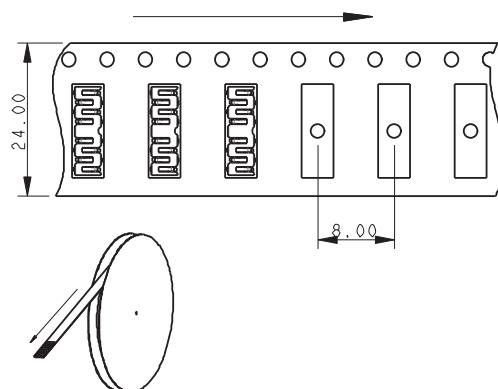
NOTES:

1. GENERAL TOLERANCE ± 0.20 UNLESS SPECIFIED.
2. FOR FULL PRODUCT SPECIFICATION REFER TO ELC0 SPECIFICATION 201-01-121.
3. INSULATOR MATERIAL: HIGH TEMPERATURE PLASTIC UL94 HB. COLOR BLACK.
4. CONTACT MATERIAL: COPPER ALLOY.
5. CONTACT PLATING: 1.0 M NICKEL UNDERPLATED. SELECTIVE 0.25 M GOLD ON NOSE. 2.0 TO 4.0 M PURE TIN ON TAILS.
6. PACKING 2000 PIECES ON A 330MM REEL.

MATING PCB FOOTPRINT



PACKING DETAILS



Ultra Low Profile Stacker: BTB

00-9258

AVX INTERCONNECT
A KYOCERA GROUP COMPANY



The SOLO series 9258 is a one-piece connector used to connect two PCBs in a cost effective manner.

This connector is a 1.0mm pitch available in an 8 position with stack heights of 0.40mm and 0.80mm. It is available with or without location bosses.

This connector is designed for PCB surface mounting and is supplied in tape and reel packaging. Gold plated pads on the mating PCB or suitable flex circuits provide connection between the boards.

APPLICATIONS

- Mobile phones
- Handheld scanners
- Portable medical devices
- Display interface

FEATURES AND BENEFITS

Single piece connector – no mating half connector required to connect two boards together which means:

- Reduced assembly time
- Only one part to purchase and stock
- Due to the unique contact design, the mating device does not have to be parallel
- Extremely robust when it comes to shock and vibration

ELECTRICAL

- Current Rating: 1 Amp/Contact
- Voltage Rating: 125V

Based on placement distance

ENVIRONMENTAL

- Operating Temperature: -55°C to +125°C

MECHANICAL

- Insulator Material: High Temperature Plastic; UL94 V-0
- Contact Material: Beryllium Copper
- Plating: Gold over Nickel
- Durability: 50 Cycles

HOW TO ORDER

00 9258 008
Prefix Series Number of Ways

00X			
Connector Height			
Code	Stack Height	Contact Height	Qty
004	0.40mm	1.00-1.30	No. of Ways
008	0.80mm	1.40-1.70	

06
Plating Variation
06 = Selective Gold
0.25µm Gold Plated
Contact Nose Pure
Tin Tail

X
PCB Location Bosses

1 = With PCB Location Bosses (top side)
2 = Without PCB Location Bosses
3 = With SMT PCB Location Bosses (bottom side)
4 = With SMT and Mating PCB Location Bosses (top and bottom side)

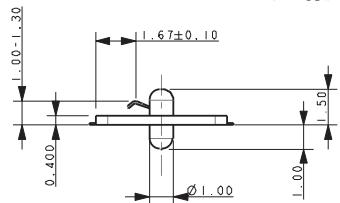
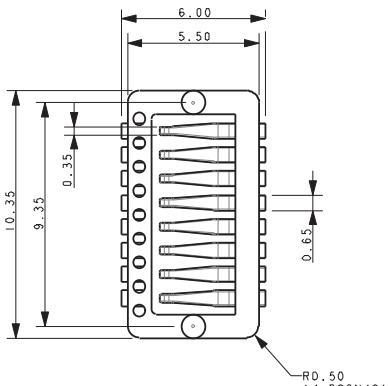


Ultra Low Profile Stacker: BTB

00-9258

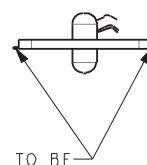
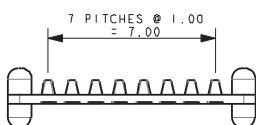
AVX INTERCONNECT
A KYOCERA GROUP COMPANY

0.4MM ULTRA LOW PROFILE STACKER



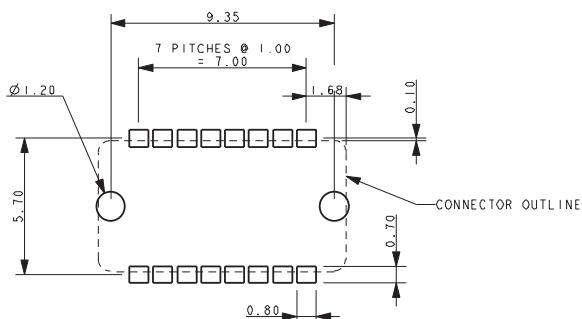
NOTES:

1. 8 WAY ULTRA LOW PROFILE STACKER IN 0.8MM STACK HEIGHT.
2. INSULATOR MATERIAL: NYLON 46 HF5040, 40% GLASS FILLED UL94 V-0. COLOR BLACK.
3. CONTACT MATERIAL: 0.10MM THICK BeCu.
4. CONTACT PLATING: NICKEL UNDERPLATE, SELECTIVE GOLD PLATED CONTACT NOSES PURE TIN PLATED CONTACT TAILS.
5. PARTS TO BE PACKED IN TAPE AND REEL, QTY: 1200.
6. ALL DIMENSIONS FOR REFERENCE UNLESS TOLERANCED.
7. FOR FURTHER INFORMATION REFER TO SPECIFICATION 201-01-115.



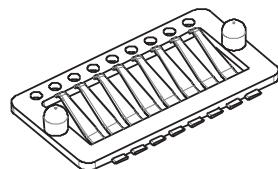
PROPOSED SMT PCB LAYOUT

ALL PADS PURE TIN PLATE



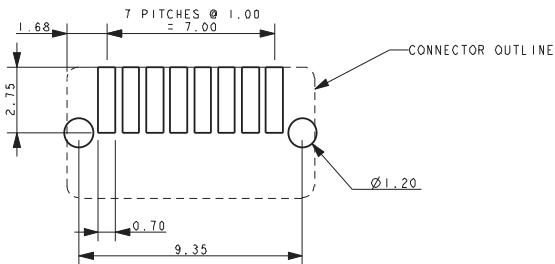
WITH MATING PCB LOCATION BOSSES

(TOP SIDE)

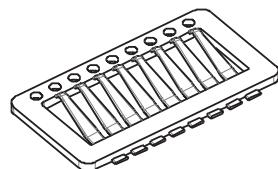


PROPOSED MATING PCB LAYOUT

ALL PADS GOLD PLATE

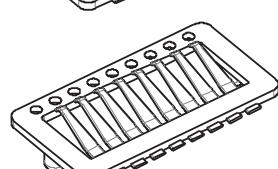


WITHOUT PCB LOCATION BOSSES

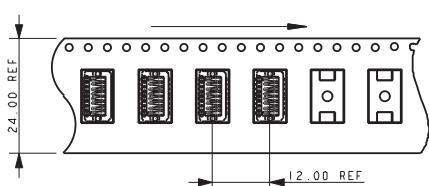


WITH SMT PCB LOCATION BOSSES

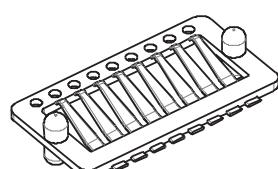
(BOTTOM SIDE)



PACKING TAPE DETAILS



WITH PCB AND SMT LOCATION BOSSES



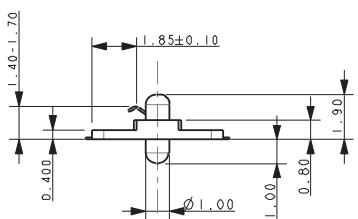
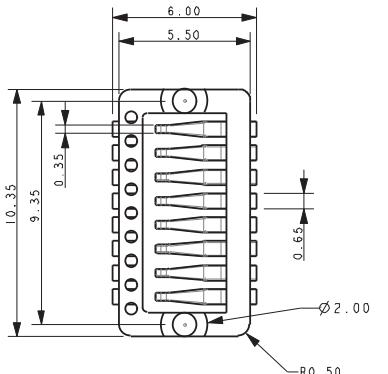
AVX

Ultra Low Profile Stacker: BTB

00-9258

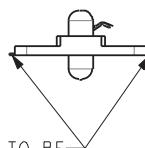
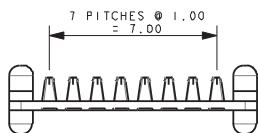
AVX INTERCONNECT
A KYOCERA GROUP COMPANY

0.8MM ULTRA LOW PROFILE STACKER



NOTES:

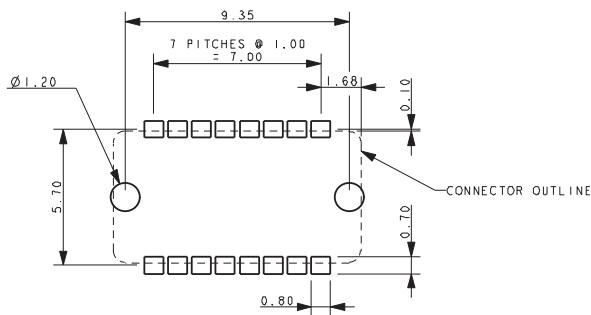
1. 8 WAY ULTRA LOW PROFILE STACKER IN 0.4MM STACK HEIGHT.
2. INSULATOR MATERIAL: NYLON 46 HF5040, 40% GLASS FILLED UL94 V-0. COLOR BLACK.
3. CONTACT MATERIAL: 0.10MM THICK BeCu.
4. CONTACT PLATING: NICKEL UNDERPLATE, SELECTIVE GOLD PLATED CONTACT NOSES PURE TIN PLATED CONTACT TAILS.
5. PARTS TO BE PACKED IN TAPE AND REEL, QTY: 1400.
6. ALL DIMENSIONS FOR REFERENCE UNLESS TOLERANCED.
7. FOR FURTHER INFORMATION REFER TO SPECIFICATION 201-01-115.



ALL TAILS TO BE
WITHIN 0.10 MAX
COPLANARITY
TOLERANCE

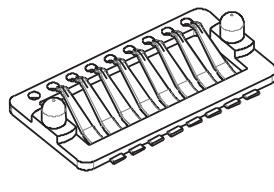
PROPOSED SMT PCB LAYOUT

ALL PADS PURE TIN PLATE



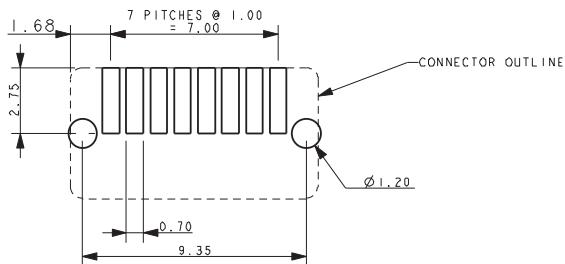
WITH MATING PCB LOCATION BOSSES

(TOP SIDE)

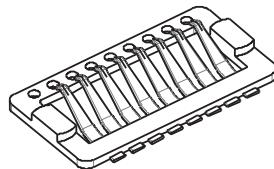


PROPOSED MATING PCB LAYOUT

ALL PADS GOLD PLATE

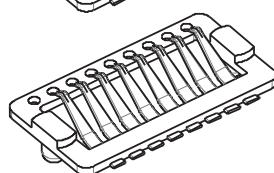


WITHOUT PCB LOCATION BOSSES

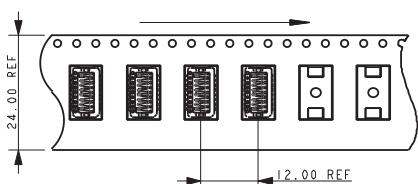


WITH SMT PCB LOCATION BOSSES

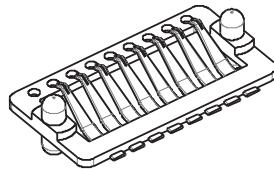
(BOTTOM SIDE)



PACKING TAPE DETAILS



WITH PCB AND SMT LOCATION BOSSES



Pogo Pin Single Contact: BTB 70-9150

AVX INTERCONNECT
A KYOCERA GROUP COMPANY



Single Pogo Pin contacts provide high cycle life in industrial and medical applications where reliability and robustness is critical. Pogo Pins provide 10,000 mating cycles and are ideal in pluggable module applications where the end customer has to handle a product daily. Pogo Pins are designed to mate with gold plated PCB pads or flat contacts in docking/cradle applications to function as the charging, data transfer or programming interface to a portable device.

The standard range single contacts from AVX provides the maximum flexibility in pin count, placement location and broad compressed stacking heights ranging from 2.0mm up to 5.5mm. The contacts are provided in standard tape and reel packaging for automatic in-line SMT placement. A disposable plastic cap facilitates vacuum pick-up and then is removed after reflow soldering prior to product mating. Contacts are gold plated and incorporate high force stainless steel springs for durability and signal integrity.

APPLICATIONS

- Base/Docking stations for portable electronic devices to recharge batteries or download data
- Testing and programming of electronic modules
- Interface to disposable medical or measurement components

FEATURES AND BENEFITS

- Contacts range from 2.0mm to 5.5mm providing off-the-shelf availability for almost any application
- Each contact height provides the maximum working range and compressed height tolerance possible
- Gold plated contacts provide high reliability and signal integrity over 10,000 cycles
- Removable pick-up cap facilitates automatic placement for SMT reflow

ELECTRICAL

- Current Rating: 1 Amp
- Voltage Rating:
Based on placement distance

ENVIRONMENTAL

- Operating Temperature:
-40°C to +125°C

MECHANICAL

- Contact Material: Brass
- Contact Plating: Gold over Nickel
- Spring Material: SUS304
- Durability: 10k Cycles

HOW TO ORDER

70
Prefix
70 = Contact

9150
Series

001
Number of Ways
001 = 1

0XX
Contact Operating Range
020 = 1.90 to 2.30
025 = 2.40 to 2.80
030 = 2.90 to 3.40
040 = 3.90 to 4.50
050 = 4.90 to 5.50

0
Sleeve Diameter
0 = 1.50

0
Packing Option
0 = Tape & Reel

6
Plating Option
6 = Gold over Nickel

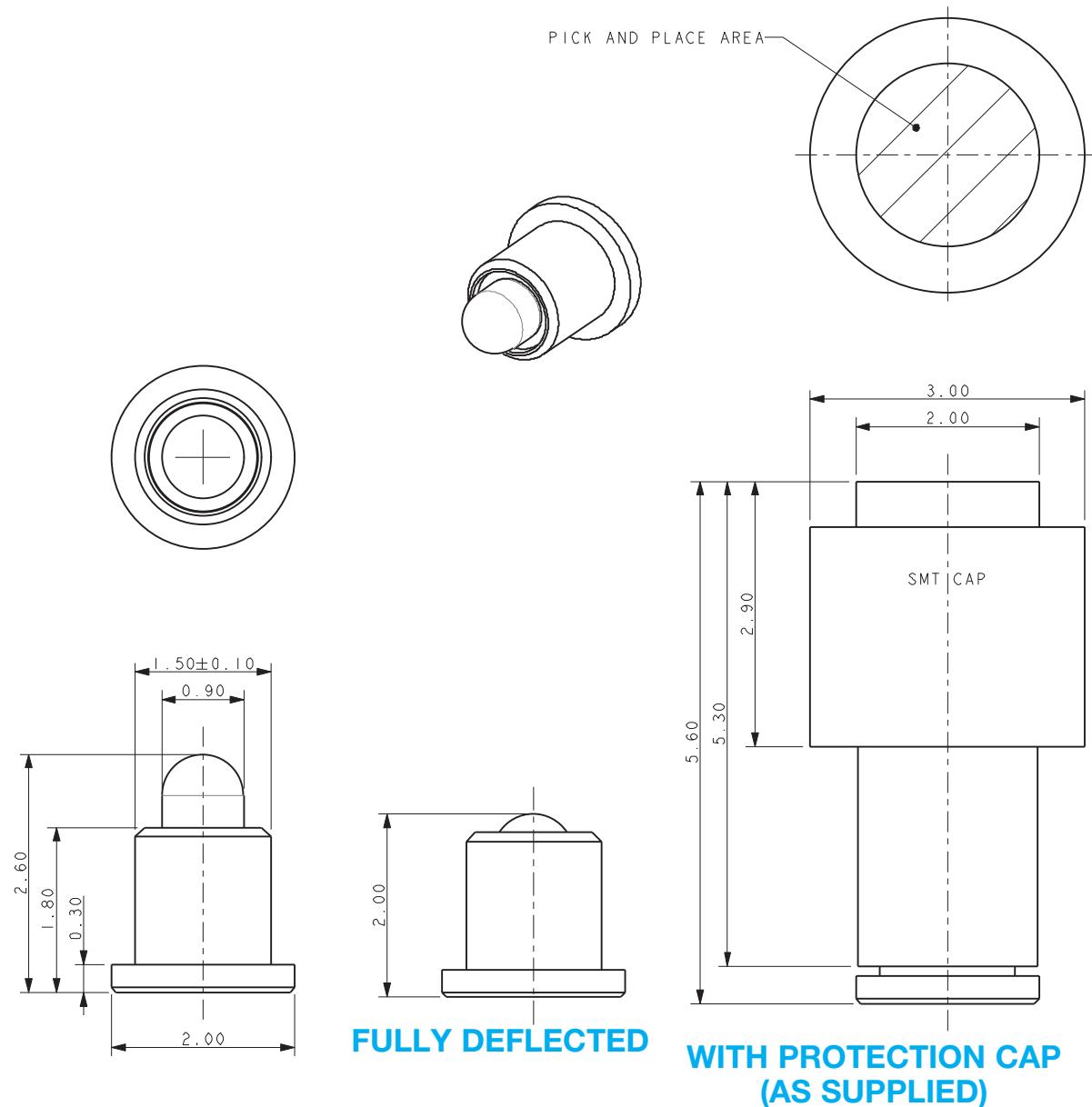


Pogo Pin Single Contact: BTB

70-9150

AVX INTERCONNECT
A KYOCERA GROUP COMPANY

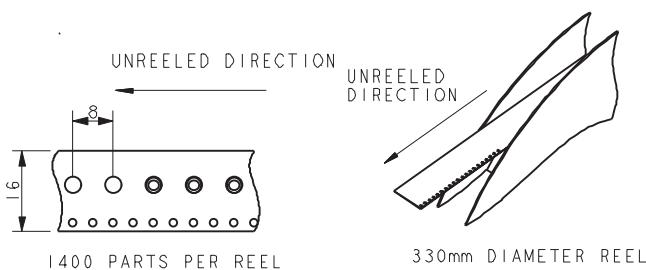
1.50MM DIAMETER 2MM HIGH POGO PIN



NOTES:

1. SERIES 9150 POGO PIN, WORKING HEIGHT 2MM TO 2.3MM.
2. MATERIAL: PIN AND SLEEVE, COPPER ALLOW PLATED GOLD OVER NICKEL. SPRING STAINLESS STEEL.
3. SUPPLIED WITH A PROTECTION CAP IN PA9T. SUITABLE FOR PICK AND PLACE AND RE-FLOW.
4. PACKING IN TAPE AND REEL, QUANTITY PER REEL 1400.
5. DURABILITY 10,000 OPERATIONS FOR OTHER PRODUCT DETAILS REFER TO SPECIFICATION 201-01-158.
6. GENERAL TOLERANCE ± 0.20 UNLESS STATED.
7. PCB DETAILS ON PAGE 131.

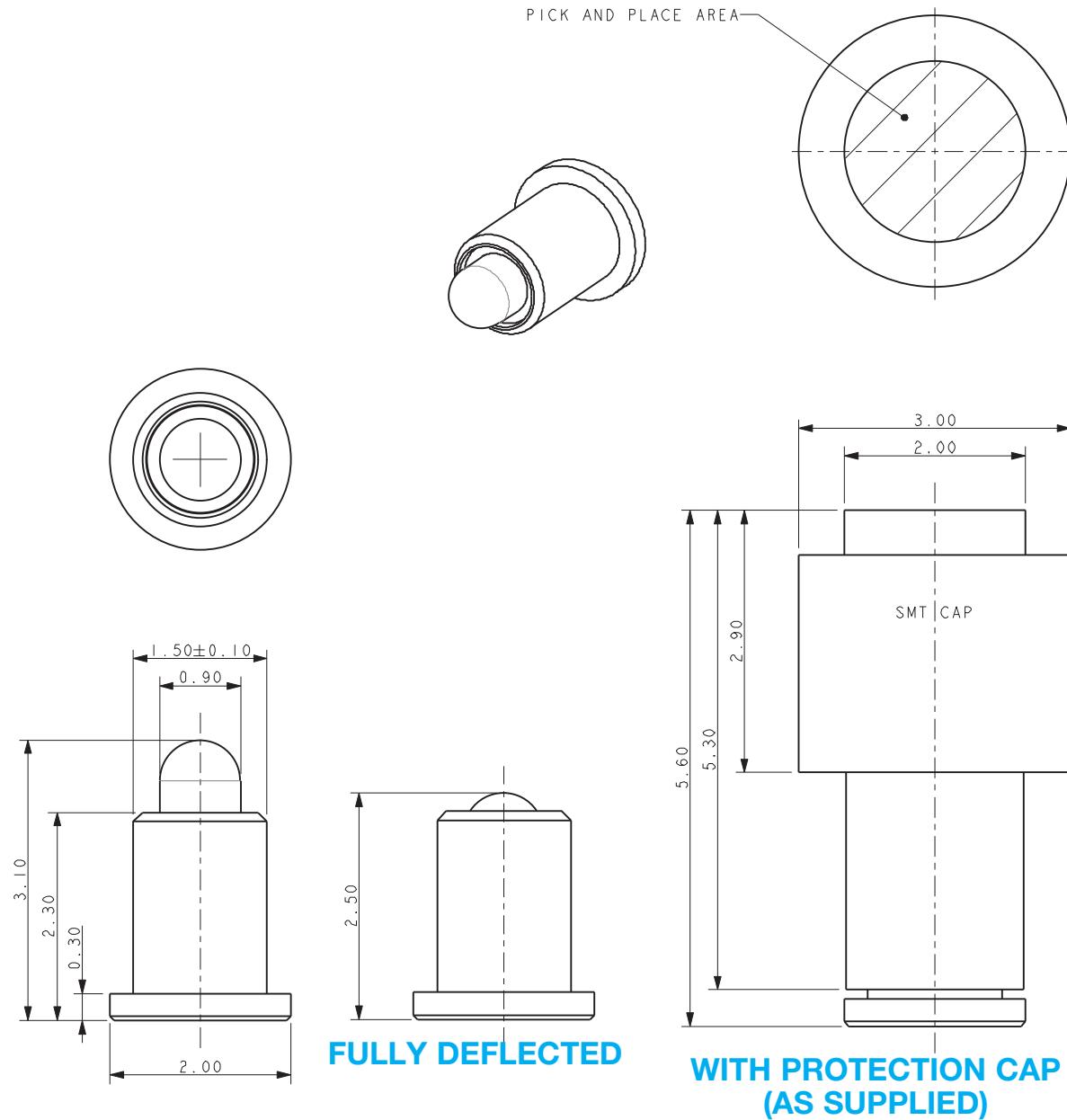
PACKING DETAILS



Pogo Pin Single Contact: BTB 70-9150

AVX INTERCONNECT
A KYOCERA GROUP COMPANY

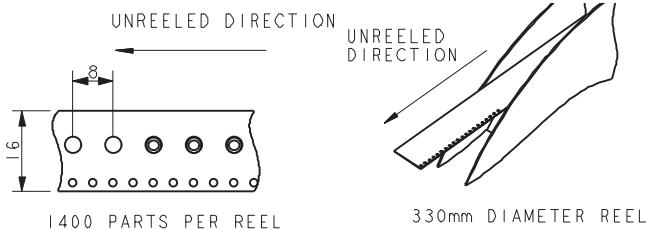
1.50MM DIAMETER 2.5MM HIGH POGO PIN



NOTES:

1. SERIES 9150 POGO PIN, WORKING HEIGHT 2.5MM TO 2.8MM.
2. MATERIAL: PIN AND SLEEVE, COPPER ALLOW PLATED GOLD OVER NICKEL. SPRING STAINLESS STEEL.
3. SUPPLIED WITH A PROTECTION CAP IN PA9T. SUITABLE FOR PICK AND PLACE AND RE-FLOW.
4. PACKING IN TAPE AND REEL, QUANTITY PER REEL 1400.
5. DURABILITY 10,000 OPERATIONS FOR OTHER PRODUCT DETAILS REFER TO SPECIFICATION 201-01-158.
6. GENERAL TOLERANCE ± 0.20 UNLESS STATED.
7. PCB DETAILS ON PAGE 131.

PACKING DETAILS

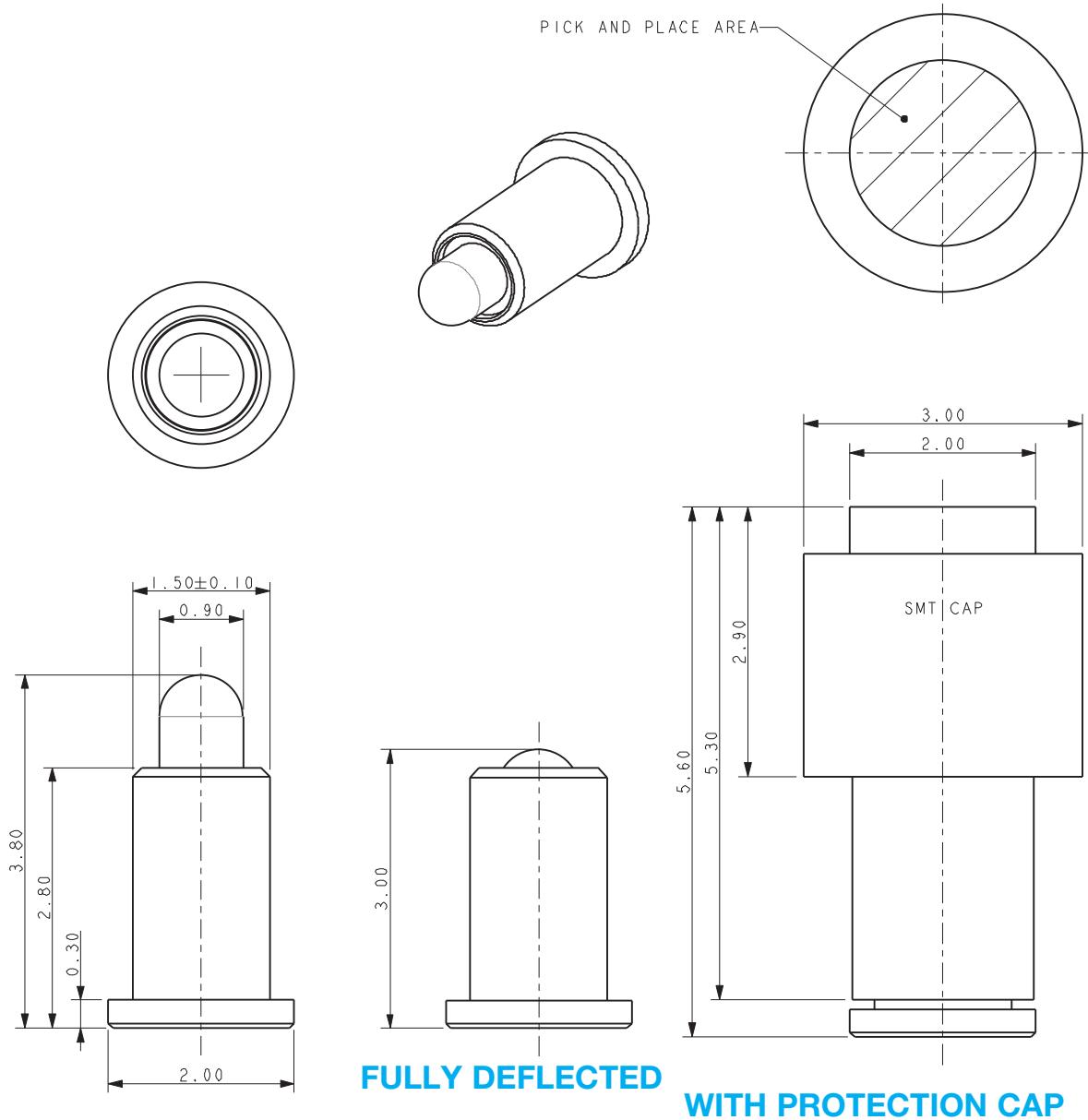


AVX

Pogo Pin Single Contact: BTB 70-9150

AVX INTERCONNECT
A KYOCERA GROUP COMPANY

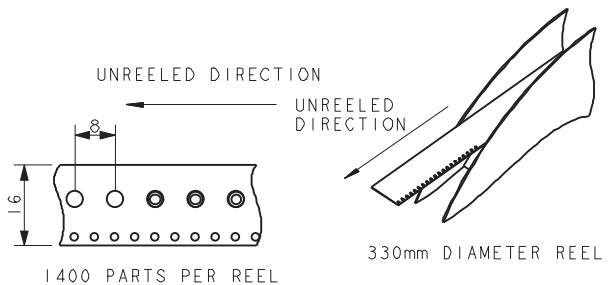
1.50MM DIAMETER 3MM HIGH POGO PIN



NOTES:

1. SERIES 9150 POGO PIN, WORKING HEIGHT 3MM TO 3.4MM.
2. MATERIAL: PIN AND SLEEVE, COPPER ALLOW PLATED GOLD OVER NICKEL. SPRING STAINLESS STEEL.
3. SUPPLIED WITH A PROTECTION CAP IN PA9T. SUITABLE FOR PICK AND PLACE AND RE-FLOW.
4. PACKING IN TAPE AND REEL, QUANTITY PER REEL 1400.
5. DURABILITY 10,000 OPERATIONS FOR OTHER PRODUCT DETAILS REFER TO SPECIFICATION 201-01-158.
6. GENERAL TOLERANCE ± 0.20 UNLESS STATED.
7. PCB DETAILS ON PAGE 131.

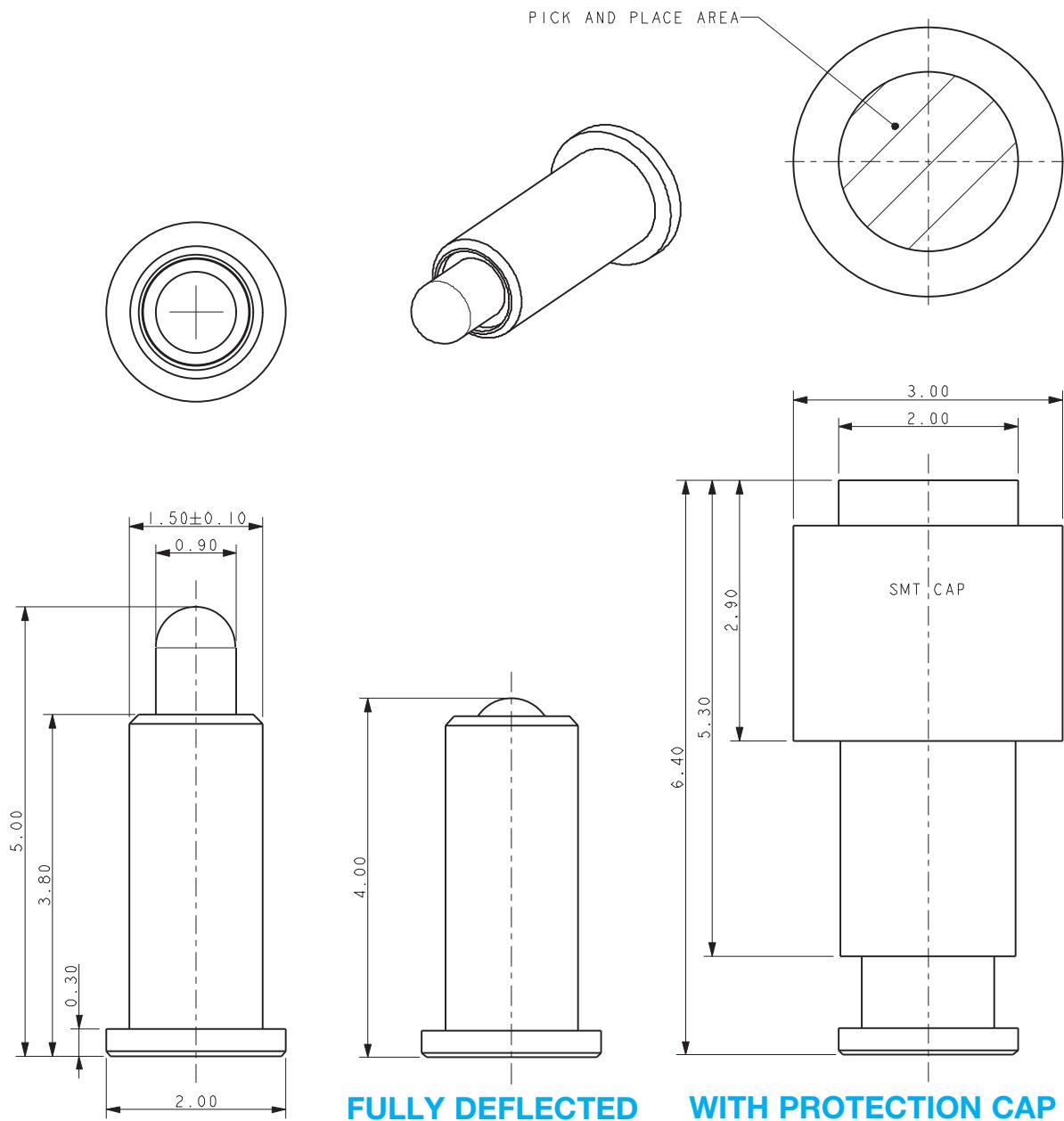
PACKING DETAILS



Pogo Pin Single Contact: BTB 70-9150

AVX INTERCONNECT
A KYOCERA GROUP COMPANY

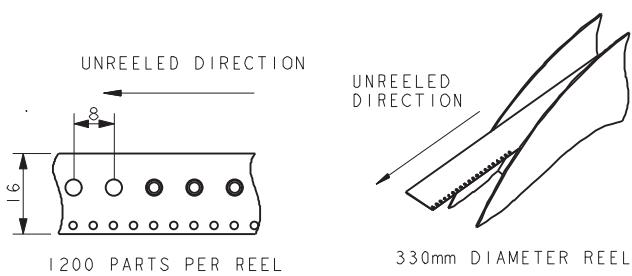
1.50MM DIAMETER 4MM HIGH POGO PIN



NOTES:

1. SERIES 9150 POGO PIN, WORKING HEIGHT 4MM TO 4.5MM.
2. MATERIAL: PIN AND SLEEVE, COPPER ALLOW PLATED GOLD OVER NICKEL. SPRING STAINLESS STEEL.
3. SUPPLIED WITH A PROTECTION CAP IN PA9T. SUITABLE FOR PICK AND PLACE AND RE-FLOW.
4. PACKING IN TAPE AND REEL, QUANTITY PER REEL 1400.
5. DURABILITY 10,000 OPERATIONS FOR OTHER PRODUCT DETAILS REFER TO SPECIFICATION 201-01-158.
6. GENERAL TOLERANCE ± 0.20 UNLESS STATED.
7. PCB DETAILS ON PAGE 131.

PACKING DETAILS

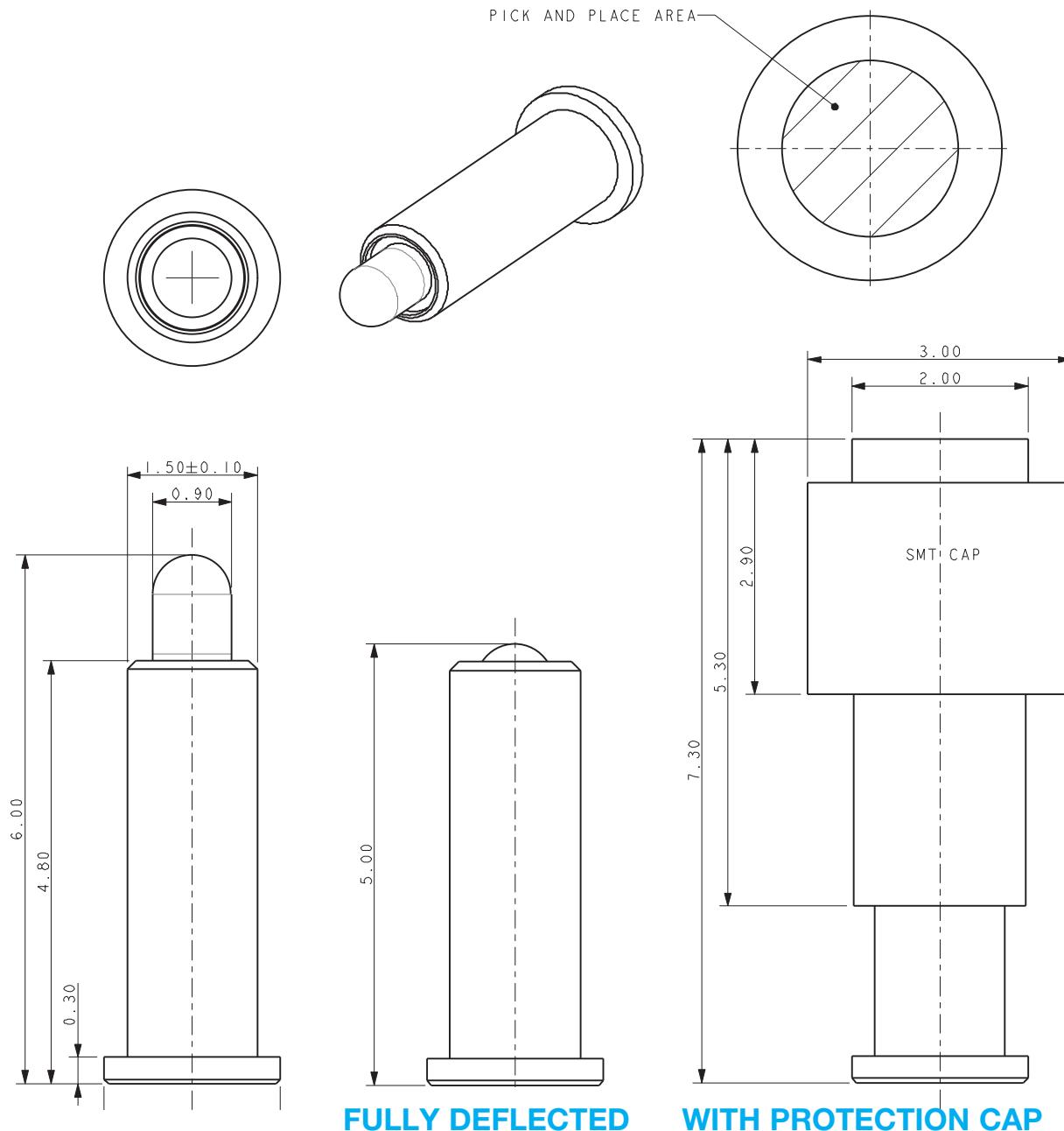


AVX

Pogo Pin Single Contact: BTB 70-9150

AVX INTERCONNECT
A KYOCERA GROUP COMPANY

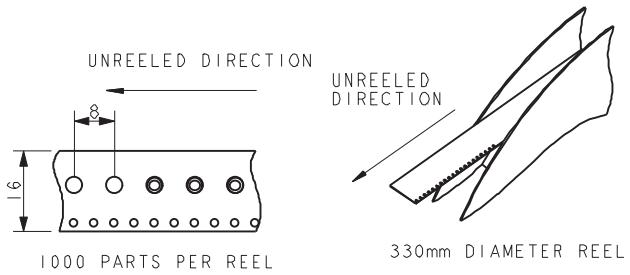
1.50MM DIAMETER 5MM HIGH POGO PIN



NOTES:

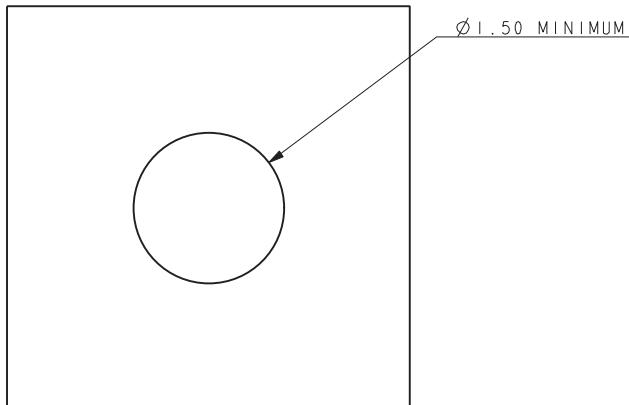
1. SERIES 9150 POGO PIN, WORKING HEIGHT 5MM TO 5.5MM.
2. MATERIAL: PIN AND SLEEVE, COPPER ALLOW PLATED GOLD OVER NICKEL. SPRING STAINLESS STEEL.
3. SUPPLIED WITH A PROTECTION CAP IN PA9T. SUITABLE FOR PICK AND PLACE AND RE-FLOW.
4. PACKING IN TAPE AND REEL, QUANTITY PER REEL 1400.
5. DURABILITY 10,000 OPERATIONS FOR OTHER PRODUCT DETAILS REFER TO SPECIFICATION 201-01-158.
6. GENERAL TOLERANCE ± 0.20 UNLESS STATED.
7. PCB DETAILS ON PAGE 131.

PACKING DETAILS

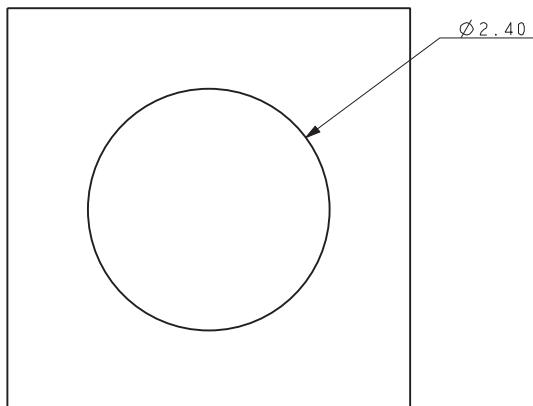


Pogo Pin Single Contact: BTB 70-9150

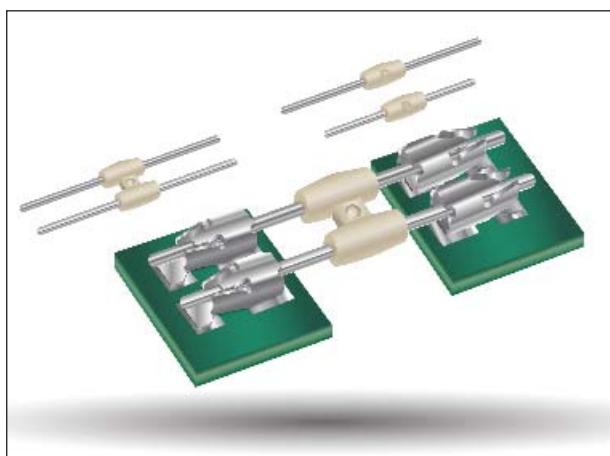
PCB DETAILS



**SUGGESTED MATING PCB
PAD TO BE PLATED GOLD OVER NICKEL**



SUGGESTED MOUNTING PCB



Developed in conjunction with the 2.5mm STRIPT™ contact from AVX, this new system provides additional mating tolerance absorption over traditional connector systems in linear or coplanar applications. By designing the 709296001025016 contact without a wire stop, the pin header is allowed to pass straight thru the contacts until the final seating/mating dimension is achieved. Allowing for internal pin clearance, boards and modules can be plugged together without worrying about potentially critical tolerance stack-up issues.



APPLICATIONS

- Designed to mate with 709296001025016 horizontal PCB contact
- Single and dual pin connections between linear PCB's
- 38mm pin allows for modules to be connected where the PCB is recessed within the plastic housing.

FEATURES AND BENEFITS

- Absorption of PCB and module mating tolerances by allowing the unrestricted pin to pass through the contact by eliminating the traditional wire stop
- Two different pin lengths to accommodate board-to-board and module-to-module connections
- The unique geometry of the insulator lends itself to water tightness when matched with a corresponding housing cavity

ELECTRICAL

- Current Rating: 9 Amps
- Voltage Rating: 300V
(based on contact spacing)

ENVIRONMENTAL

- Operating Temperature:
-40°C to +105°C

MECHANICAL

- Insulator Material: Glass-Filled Nylon PA-66; UL94V0
- Contact Material: Brass
- Plating: Lead-Free Tin Over Nickel
- Durability: 3 Cycles

HOW TO ORDER

10
Prefix
10 = Plug

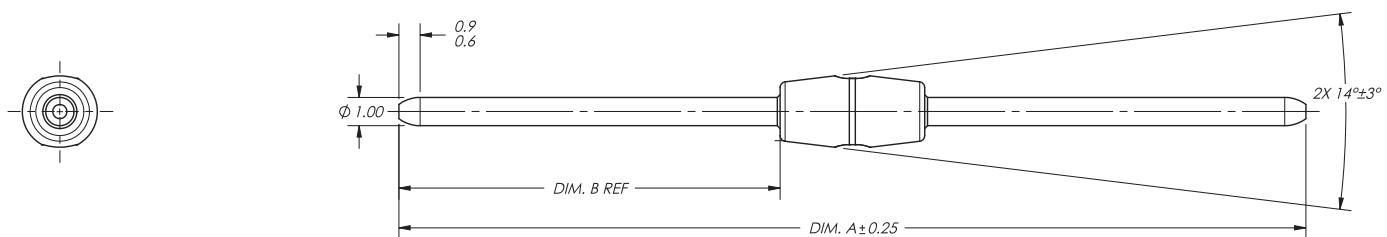
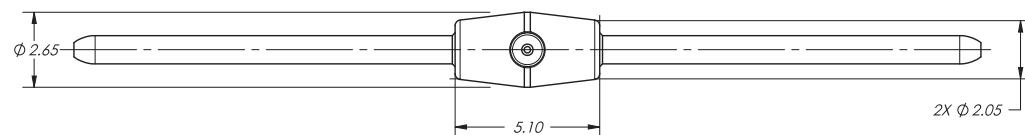
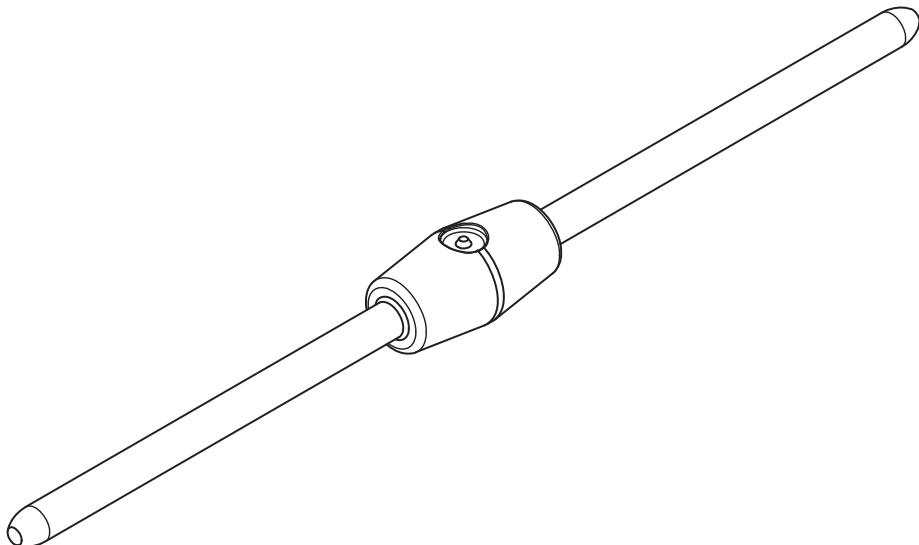
9296
Series

00X
Number of Ways
001 = 1 Way
002 = 2 Way

XXX
Pin Length
260 = 26mm
381 = 38mm

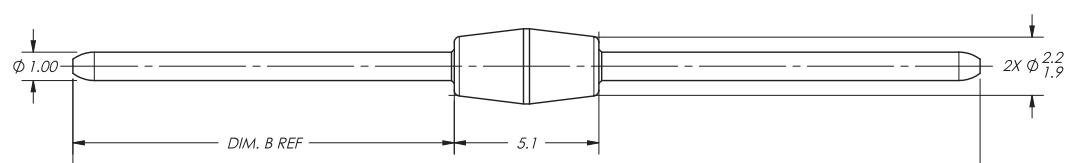
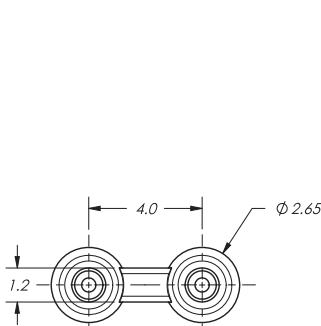
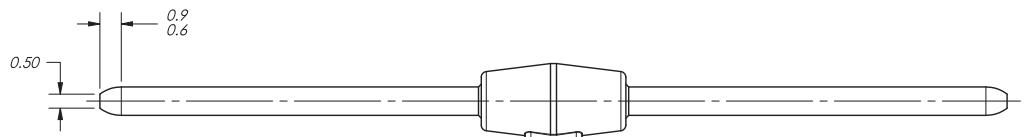
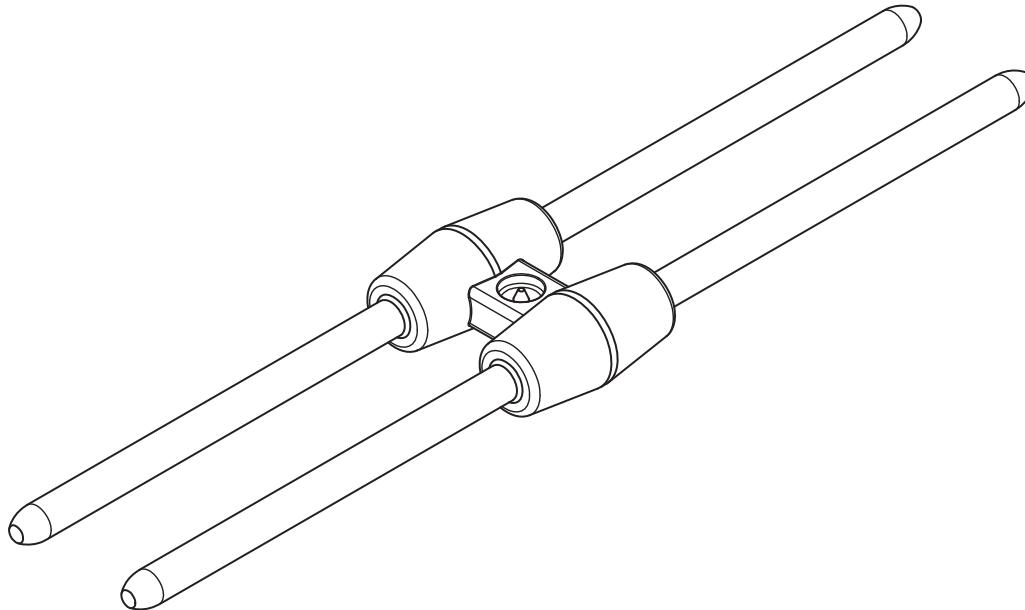
9
Color
9 = Black
0 = White
6 = Blue
Plating Option
06 = Pure Tin

1 PIN JUMPER HEADER FOR SERIES 9296



Part Number	Dim. A	Dim. B
10-9296-001-260-906	26.0	10.45
10-9296-001-381-906	38.15	16.525

2 PIN JUMPER HEADER FOR SERIES 9296



Part Number	Dim. A	Dim. B
10-9296-001-260-906	26.0	10.45
10-9296-001-381-906	38.15	16.525

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