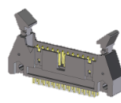


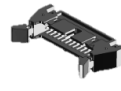
NEW



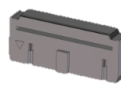
HIF3M*W Series Products



Pin Header (Straight)
See page 7 for details



Pin Header (Right Angle)
See page 8 for details



Socket
See page 6 for details

MIL Compliant Product

MIL-C-83503

- MIL (MIL-C-83503) compliant product
- Suited for wide range of applications (both internal and external connections)
- Mating compatible with HIF 3 series

UL Certified

- UL certified connector

Wide Variations

See page 2 for details

- All MIL-specified positions (10, 14, 16, 20, 26, 30, 34, 40, 50, 60, 64) are available
- Mating compatible with HRS original pin headers

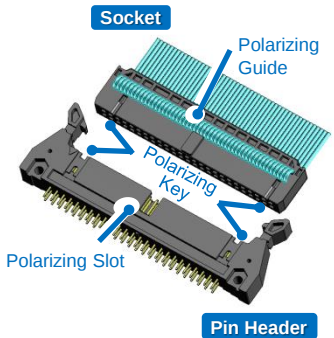
Mis-Insertion Prevention Mechanism

- Dual guide systems prevent mis-insertion:
 - MIL-compliant guide key (polarizing key) system
A guide system by matching the convex on the pin header (polarizing key attached) with the concave on the socket (polarizing key cavity).
 - Polarizing guide/slot system
A guide system by matching the polarizing slot on the pin header with polarizing guide (mis-insertion prevention guide) on the socket.

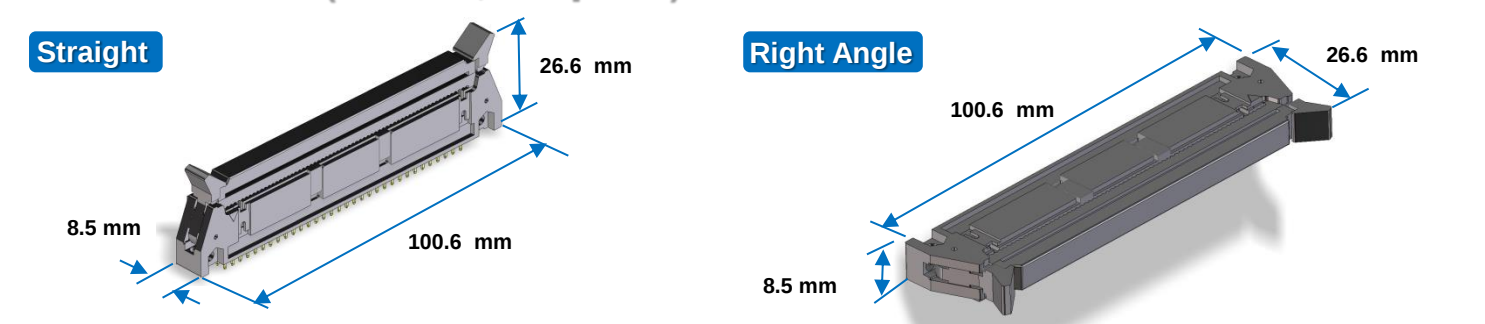
Superior Usability

See page 3 for details

- Easy to mate/unmate
- IDC termination of the cable is easy



Dimensions (Mated, 64 pins)



Part Number Conventions

Pin Header (Straight)

HIF3M*W- * *PA-2.54DSA

1

2

3

4

5

6

7

Pin Header (Right Angle)

HIF3M*W- * *PA-2.54DS

1

2

3

4

5

6

7

Socket

HIF3M*W- * *D-2.54R

1

2

3

4

5

6

7

1	Series Name	HIF
2	Series No.	3
3	Contact Alignment*1	Pin Header: MAW, MBW, MDW Socket: MAW, MBW
4	Number of Positions	10, 14, 16, 20, 26, 30, 34, 40, 50, 60, 64
5	Contact Style	P: Pin header A: Selective gold plated D: Double
6	Contact Pitch	2.54 mm Pitch
7	Connection Type	DSA: Straight DS: Right Angle R: IDC

*1 Different alphabet (A, B, or D) is assigned depending on the number of polarizing keys and polarizing slots/guides.

See page 2 for details

Variations (Number of Positions)

All positions specified in MIL is available

10, 14, 16, 20, 26, 30, 34, 40, 50, 60, 64

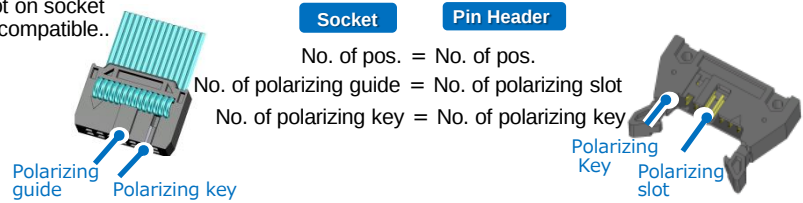
Mating Compatibility

See page 4 and 5 for HIF 3 series mating compatibility

In principle, if the number of positions, polarizing key, polarizing guide/slot on socket and pin header matches respectively, socket and pin header are mating compatible..

note

Among 10 pos. and 50 to 64 pos. connectors, there are mating incompatible combinations where "the number of polarizing guide" on socket does not match with "the number of polarizing slot" on pin header. For 10 pos. connector only, there is a mating combination where the number of polarizing key on socket does not match with that on pin header. For details, see "Note 1" on page 5.



Socket

Pin Header

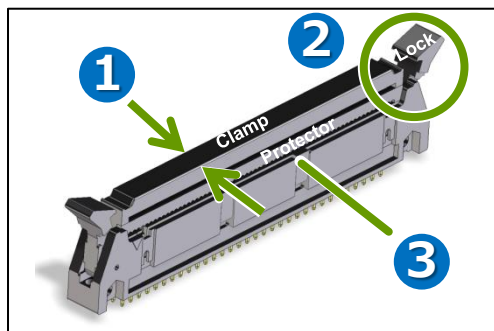
Socket Part Number	Polarizing Guide (pcs)	Polarizing Key (pcs)	Socket Appearance	Number of Positions	Pin Header Appearance	Polarizing Slot (pcs)	Polarizing Key (pcs)	Pin Header Part Number
● HIF3MAW-10D-2.54R	0	1		10		0	1	<u>Straight</u> ● HIF3MAW-10PA-2.54DSA <u>Right Angle</u> ● HIF3MAW-10PA-2.54DS
HIF3MAW-10D-2.54R ^{*1}	1	1				1	0	<u>Straight</u> HIF3MDW-10PA-2.54DSA <u>Right Angle</u> HIF3MDW-10PA-2.54DS
● HIF3MAW-14D-2.54R	1	1		14		1	1	<u>Straight</u> ● HIF3MAW-14PA-2.54DSA <u>Right Angle</u> ● HIF3MAW-14PA-2.54DS
● HIF3MAW-16D-2.54R ● HIF3MAW-20D-2.54R ● HIF3MAW-26D-2.54R ● HIF3MAW-30D-2.54R ● HIF3MAW-34D-2.54R ● HIF3MAW-40D-2.54R	1	2		16 40		1	2	<u>Straight</u> ● HIF3MAW-16PA-2.54DSA ● HIF3MAW-20PA-2.54DSA ● HIF3MAW-26PA-2.54DSA ● HIF3MAW-30PA-2.54DSA ● HIF3MAW-34PA-2.54DSA ● HIF3MAW-40PA-2.54DSA <u>Right Angle</u> ● HIF3MAW-16PA-2.54DS ● HIF3MAW-20PA-2.54DS ● HIF3MAW-26PA-2.54DS ● HIF3MAW-30PA-2.54DS ● HIF3MAW-34PA-2.54DS ● HIF3MAW-40PA-2.54DS
● HIF3MBW-50D-2.54R ● HIF3MBW-60D-2.54R ● HIF3MBW-64D-2.54R	1	2		50 64		1	2	<u>Straight</u> ● HIF3MBW-50PA-2.54DSA ● HIF3MBW-60PA-2.54DSA ● HIF3MBW-64PA-2.54DSA <u>Right Angle</u> ● HIF3MBW-50PA-2.54DS ● HIF3MBW-60PA-2.54DS ● HIF3MBW-64PA-2.54DS
● HIF3MAW-50D-2.54R ● HIF3MAW-60D-2.54R ● HIF3MAW-64D-2.54R	2	2				2	2	<u>Straight</u> ● HIF3MAW-50PA-2.54DSA ● HIF3MAW-60PA-2.54DSA ● HIF3MAW-64PA-2.54DSA <u>Right Angle</u> ● HIF3MAW-50PA-2.54DS ● HIF3MAW-60PA-2.54DS ● HIF3MAW-64PA-2.54DS

^{*1} 10 pos. socket "HIF3MAW-10D-2.54R" can be mated with "HIF3MDW-10PA-2.54DSA" and "HIF3MDW-10PA-2.54DS" only.

Note that 10 pos. socket has "1 pc" of polarizing key whereas its mating counterpart (pin header) has "0 pc". For the rest of the products, the number of polarizing keys on socket matches with that on pin header.

● indicates MIL (MIL-C-83503) compliant product.

Superior Usability Largely improved

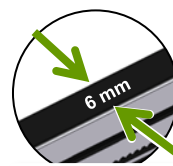


1 Easy to mate

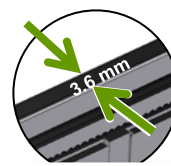
Wide depth of the socket's clamp allows you to easily press the clamp and mate the connector.

Compared to existing product

Twice as much depth



HIF3M*W Series



Existing Product

2 Easy to unmate

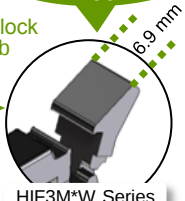
Wide and smooth lock surface allows you to easily release the lock and unmate the connector.

Compared to existing product

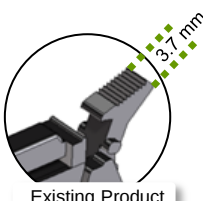
Twice as much width

Unlike competitor's lock with excessive rib

Smooth Surface



HIF3M*W Series



Existing Product

Smooth and wide surface prevents finger damage.



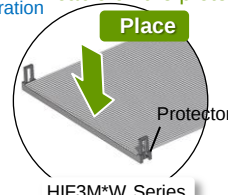
3 IDC termination is much easier

The body and the protector of the socket can be detached, which makes IDC (Insulation-Displacement Connector) termination much easier.

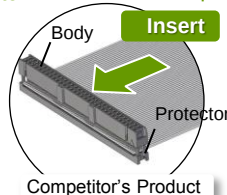
Step 1
Preparation

Simply place the cable on the protector

Need to insert the cable into the narrow opening



HIF3M*W Series



Competitor's Product

Step 2
Termination



Productivity Enhancement

[Ribbon Cable Connection] Step 1. IDC Termination

Applicable termination tools required for connecting the socket body and the cable.

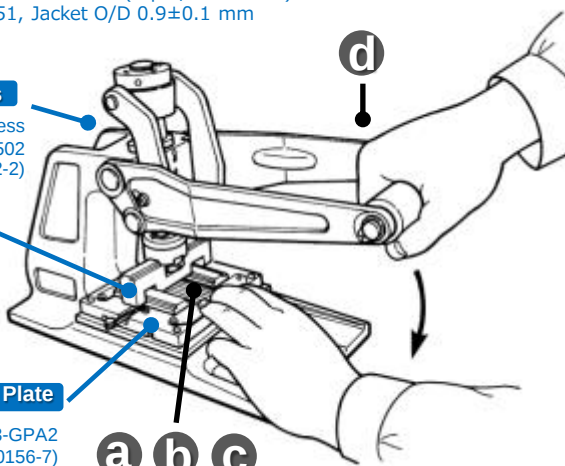
note For details on cable connection and applicable termination tools, see "HIF Series Ribbon Cable Connection Instruction Manual."

Applicable Cable: 28 AWG Flat Cable (7 pcs/0.127 mm)
UL2651, Jacket O/D 0.9±0.1 mm

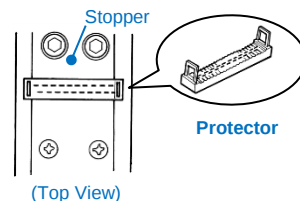
Connection Press
HIFLEX Connection Press
HHP502
(CL550-0082-2)

Pressure Block
HIF1 Pressure Block
A-01
(CL550-0133-1)

Guide Plate
HIF3-GPA2
(CL550-0156-7)

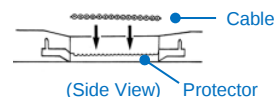


a Place the protector on the guide plate.



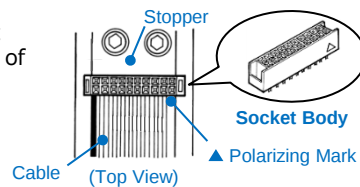
(Top View)

b Place the cable on the top of the protector.



(Side View)

c Place the socket body on the top of the cable.

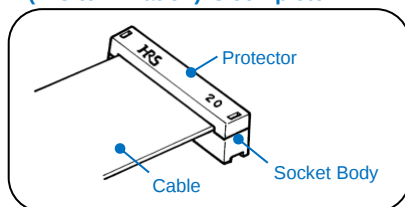


(Top View)

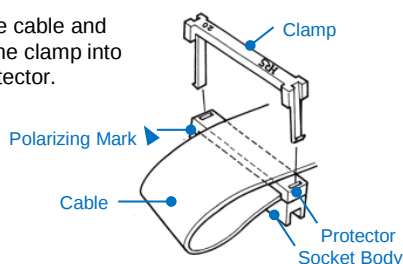
d Depress the handle to terminate the socket body and the cable.

[Ribbon Cable Connection] Step 2. Clamp Attachment and Finish

State of the assembly after step 1 (IDC termination) is complete



a Fold the cable and press the clamp into the protector.



b Pull the cable to straighten out.



HIF3 Series Mating Compatibility: Board to Cable Type

* Number of Pos.
MIL MIL Compliant

Receptacle, Socket

Pin Header

IDC Type

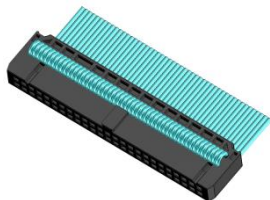
HIF3M*W Series

MIL

Ribbon Cable Socket (1-point contact)

HIF3MAW-*D-2.54R
HIF3MBW-*D-2.54R

Note 1



IDC Type

HIF3B Series

MIL

Ribbon Cable Socket (1-point contact)

HIF3B-*D-2.54R
HIF3BA-*D-2.54R

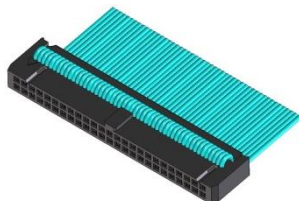
Note 2

HIF3A Series

Ribbon Cable Socket (2-point contact)

HIF3A-*D-2.54R

Note 3

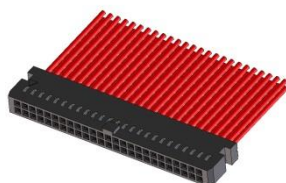


Crimping Type

HIF3B Series

Crimping Socket

HIF3BA-*D-2.54C



HIF3M*W Series

MIL Type Pin Header

MIL



- Straight type with lock
HIF3MAW-*PA-2.54DSA
HIF3MBW-*PA-2.54DSA
HIF3MDW-*PA-2.54DSA



- Right angle type with lock
HIF3MAW-*PA-2.54DS
HIF3MBW-*PA-2.54DS
HIF3MDW-*PA-2.54DS

HIF3B Series

MIL Type Pin Header

MIL



- Straight type with lock
HIF3BA-*PA-2.54DSA
HIF3BB-*PA-2.54DSA
HIF3BD-*PA-2.54DSA



- Right angle type with lock
HIF3BA-*PA-2.54DS
HIF3BB-*PA-2.54DS
HIF3BD-*PA-2.54DS

HIF3B*F Series

F Type with Lock
Pin Header *1

MIL



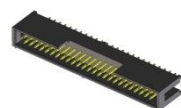
- Straight type with lock
HIF3BAF-*PA-2.54DSA



- Right angle type with lock
HIF3BAF-*PA-2.54DS

HIF3F Series

Box Type Pin Header



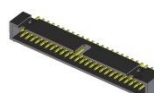
- Straight type
HIF3F-*PA-2.54DSA



- Right angle type
HIF3F-*PA-2.54DS

HIF3FB(C) Series

Box Type Pin Header



- Straight type
HIF3FB-*PA-2.54DSA
HIF3FC-*PA-2.54DSA



- Right angle type
HIF3FB-*PA-2.54DS
HIF3FC-*PA-2.54DS

HIF3E Series

Original Type Pin Header



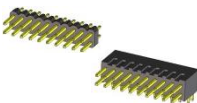
- Straight type
HIF3E-*PA-2.54DSA



- Right angle type
HIF3E-*PA-2.54DS

A1 Series

Original Type Pin Header



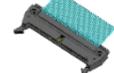
- Straight type
A1-*PA-2.54DSA



- Right angle type
A1-*PA-2.54DS

HIF3B In-line Type

In-line Type
Ribbon Cable Plug



HIF3BA-*PD-2.54R-MC

*1 As range of lock/unlock movement is narrower than that of conventional "with lock" pin headers, the mounting space can be reduced.

Note 1 Among HIF3M*W series' 10 pos. and 50 to 64 pos. connectors, there are mating incompatible combinations where "the number of polarizing guide" on socket does not match with "the number of polarizing slot" on pin header.

	Mating Compatible Combination		
10 pos.	(Socket) HIF3MAW-10D-2.54R	↔	(Pin Header) HIF3MDW-10PA-2.54DS(A) Polarizing Guide 1 = Polarizing Slot 1
50 to 64 pos.	(Socket) HIF3MAW-**-D-2.54R	↔	(Pin Header) HIF3MAW- ** PA-2.54DS(A) Polarizing Guide 2 = Polarizing Slot 2
50 to 64 pos.	(Socket) HIF3MBW-**-D-2.54R	↔	(Pin Header) HIF3MBW- ** PA-2.54DS(A) Polarizing Guide 1 = Polarizing Slot 1

	Mating Incompatible Combination		
10 pos.	(Socket) HIF3MAW-10D-2.54R		(Pin Header) HIF3MAW-10PA-2.54DS(A) Polarizing Guide 1 ≠ Polarizing Slot 0
50 to 64 pos.	(Socket) HIF3MAW-**-D-2.54R		(Pin Header) HIF3MBW- ** PA-2.54DS(A) Polarizing Guide 2 ≠ Polarizing Slot 1
50 to 64 pos.	(Socket) HIF3MBW-**-D-2.54R		(Pin Header) HIF3MAW- ** PA-2.54DS(A) Polarizing Guide 1 ≠ Polarizing Slot 2

Note 2 Among HIF3B series' 10 pos. and 50 to 64 pos. connectors, there are mating incompatible combination (socket and pin headers) as well. For more details, see HIF3B series product catalogue.

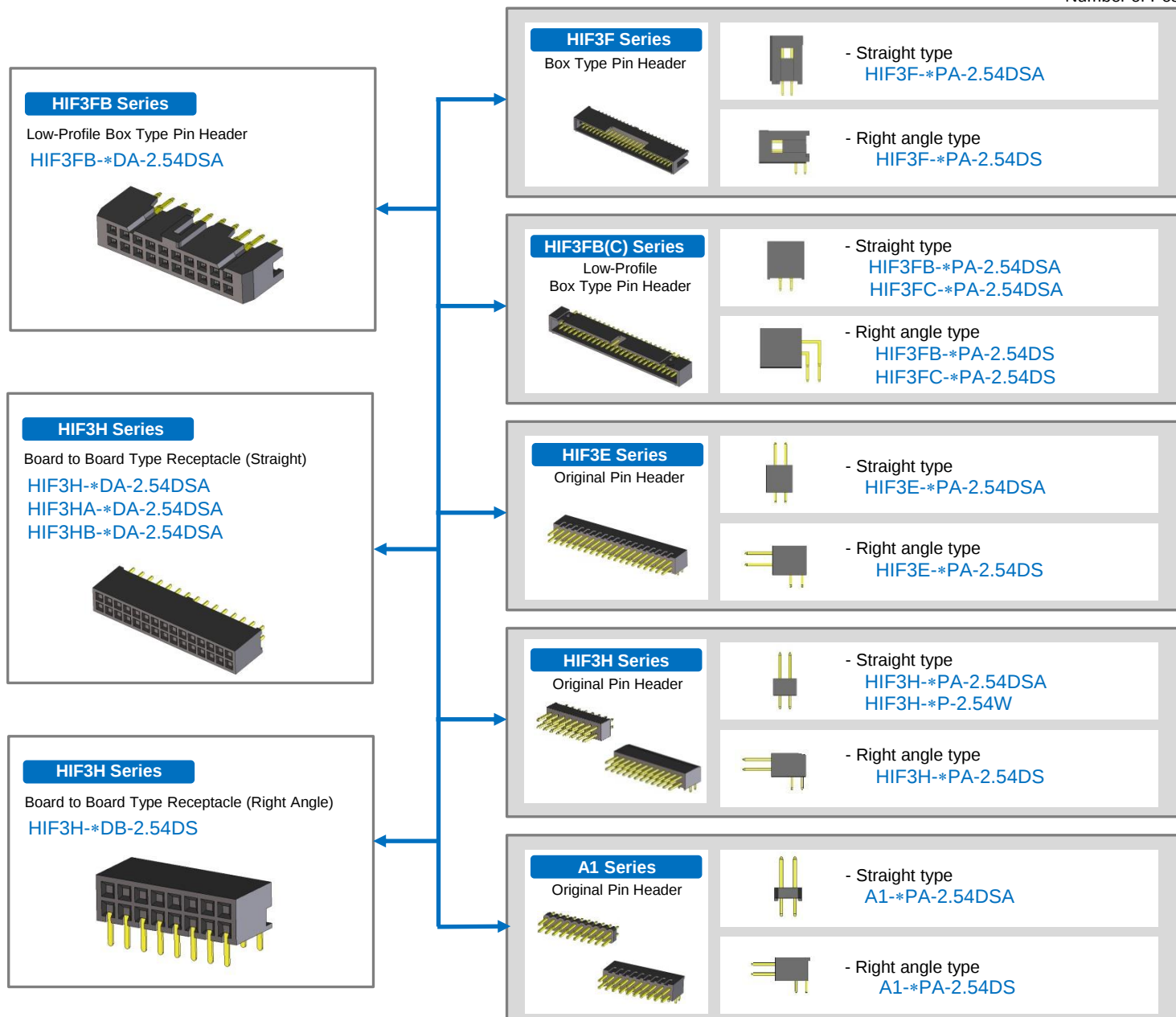
Note 3 MIL type pin header with which HIF3A series' 60 pos. socket "HIF3A-60D-2.54R" can be mated is "HIF3BAE-60PA-2.54DS (A)" only.

HIF3 Series Mating Compatibility: Board to Board Type

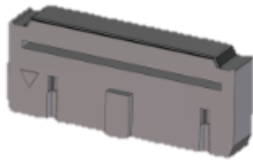
Receptacle, Socket

Pin Header

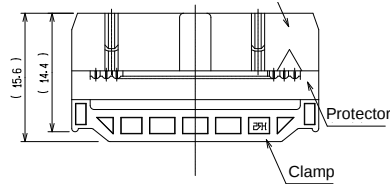
* Number of Pos.



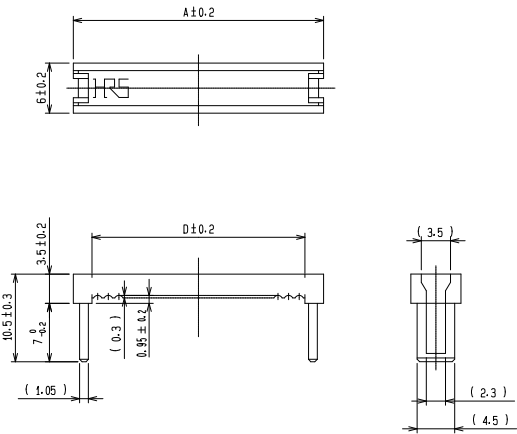
HIF3M*W Series: Socket Drawing



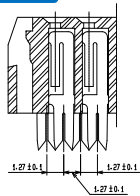
Combination Pattern



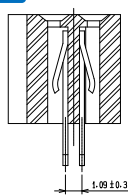
Protector



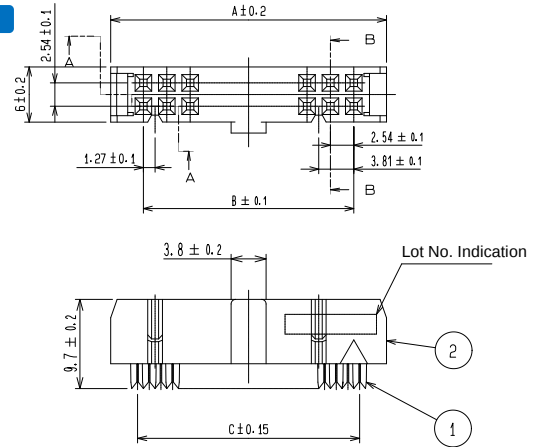
Section A to A'



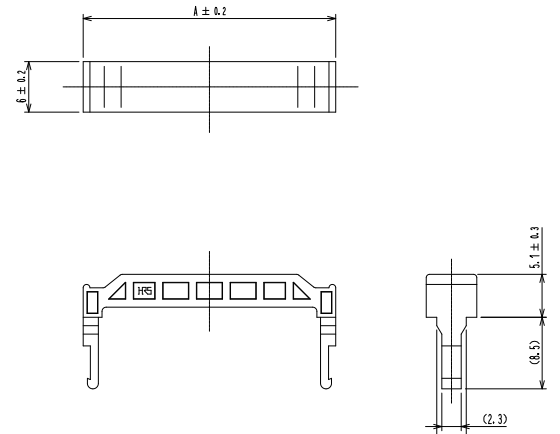
Section B to B'



Body



Clamp



COMPONENT	MATERIAL	FINISH, NOTE
① Housing	PBT	Black, UL94V-0
② IDC Contact	Corson alloy	Contact area: Gold plating 0.15 μm MIN. IDC area: Nickel plating 2.5 μm MIN.

note The number of polarizing guides and keys vary from 1 to 2.

Unit: mm

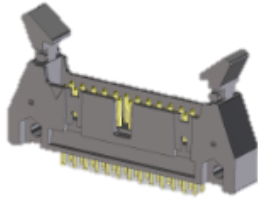
	Part Number	HRS No.	Pos.	A	B	C	D	Polarizing Guide	Polarizing Key	RoHS	
●	HIF3MW-10D-2.54R	CL610-0014-0	10	17.27	10.16	11.43	12.8	0	1	Yes	
	HIF3MAW-10D-2.54R	CL610-3002-9							1		
●	HIF3MAW-14D-2.54R	CL610-3003-1	14	22.35	15.24	16.51	17.88	1			
●	HIF3MAW-16D-2.54R	CL610-3004-4	16	24.89	17.78	19.05	20.42				
●	HIF3MAW-20D-2.54R	CL610-2097-0	20	29.97	22.86	24.13	25.5				
●	HIF3MAW-26D-2.54R	CL610-3005-7	26	37.59	30.48	31.75	33.12				
●	HIF3MAW-30D-2.54R	CL610-2098-2	30	42.67	35.56	36.83	38.2				
●	HIF3MAW-34D-2.54R	CL610-2099-5	34	47.75	40.64	41.91	43.28				2
●	HIF3MAW-40D-2.54R	CL610-2100-2	40	55.37	48.26	49.53	50.9				
●	HIF3MAW-50D-2.54R	CL610-2101-5	50	68.07	60.96	62.23	63.6	2 *1			
●	HIF3MBW-50D-2.54R	CL610-2114-7						1			
●	HIF3MAW-60D-2.54R	CL610-2102-8	60	80.77	73.66	74.93	76.3	2 *1			
●	HIF3MBW-60D-2.54R	CL610-2115-0						1			
●	HIF3MAW-64D-2.54R	CL610-3006-0	64	85.85	78.74	80.01	81.38	2 *1			
●	HIF3MBW-64D-2.54R	CL610-0013-0						1			

● Applicable IDC (Insulated-Displacement Connector) Termination Tool
Termination Press: HIFLEX Connection HHP502 (CL550-0082-2)
Guide Plate: HIF3-GPA2 (CL550-0156-7)
Pressure Block: HIF1 Pressure Block A-01 (CL550-0133-1)

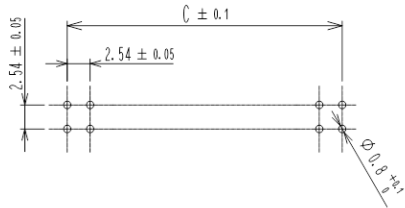
● Applicable Cable
28 AWG Flat Cable (7 pcs./0.127 mm)
- UL2651
- Jacket O/D 0.9±0.1 mm

*1 Pitch of polarizing guide is 22.86 mm.
● indicates MIL-C-83503 compliant product.

HIF3M*W Series: Pin Header (Straight) Drawing

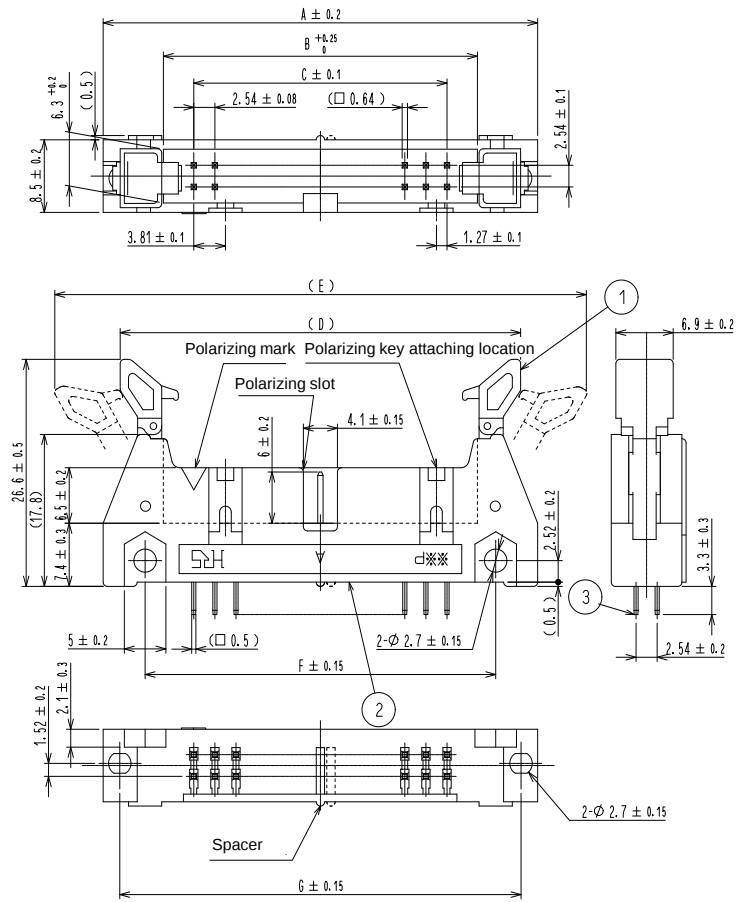


Recommended PCB Layout



COMPONENT	MATERIAL	FINISH, NOTE
① Lock	PBT	Black, UL94V-0
② Housing		
③ Contact	Brass	Contact area: Gold plating 0.15 μm MIN. DIP area: Pure tin plating 2 μm MIN.

- note**
- The number of polarizing slots and keys vary from 0 to 2.
 - The spacer moves to the right according to the number of positions.

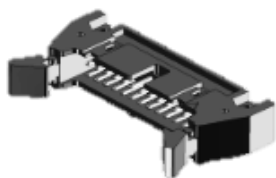


Unit: mm												
Part Number	HRS No.	Pos.	A	B	C	D	E	F	G	Polarizing Slot	Polarizing Key	RoHS
HIF3MAW-10PA-2.54DSA	CL610-3600-0-00	10	32	17.5	10.16	28.14	51.1	21.8	27.9	0	1	Yes
HIF3MDW-10PA-2.54DSA	CL610-3601-3-00									0		
HIF3MAW-14PA-2.54DSA	CL610-3602-6-00	14	37.1	22.6	15.24	33.24	56.2	26.9	33	1		
HIF3MAW-16PA-2.54DSA	CL610-3603-9-00	16	39.6	25.1	17.78	35.74	58.7	29.5	35.5	1	2	
HIF3MAW-20PA-2.54DSA	CL610-3604-1-00	20	44.7	30.2	22.86	40.84	63.8	34.5	40.6			
HIF3MAW-26PA-2.54DSA	CL610-3505-4-00	26	52.3	37.8	30.48	48.44	71.4	42.2	48.3			
HIF3MAW-30PA-2.54DSA	CL610-3606-7-00	30	57.4	42.9	35.56	53.54	76.5	47.2	53.3			
HIF3MAW-34PA-2.54DSA	CL610-3607-0-00	34	62.5	48	40.64	58.64	81.6	52.3	58.4			
HIF3MAW-40PA-2.54DSA	CL610-3608-2-00	40	70.1	55.6	48.26	66.24	89.2	59.9	66			
HIF3MAW-50PA-2.54DSA	CL610-3609-5-00	50	82.8	68.3	60.96	78.94	101.9	72.6	78.7			
HIF3MBW-50PA-2.54DSA	CL610-3610-4-00									1		
HIF3MAW-60PA-2.54DSA	CL610-3611-7-00	60	95.5	81	73.66	91.64	114.6	85.3	91.4	2 ^{*1}		
HIF3MBW-60PA-2.54DSA	CL610-3612-0-00									1		
HIF3MAW-64PA-2.54DSA	CL610-3613-2-00	64	100.6	86.1	78.74	96.74	119.7	90.4	96.5	2 ^{*1}		
HIF3MBW-64PA-2.54DSA	CL610-3614-5-00									1		

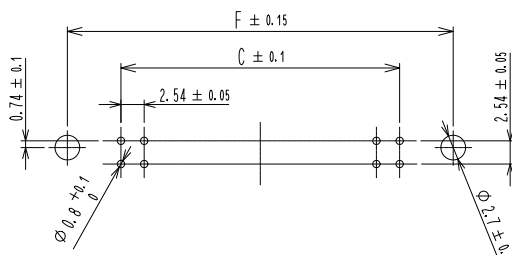
*¹ Pitch of polarizing guide is 22.86 mm.

● indicates MIL-C-83503 compliant product.

HIF3M*W Series: Pin Header (Right Angle) Drawing

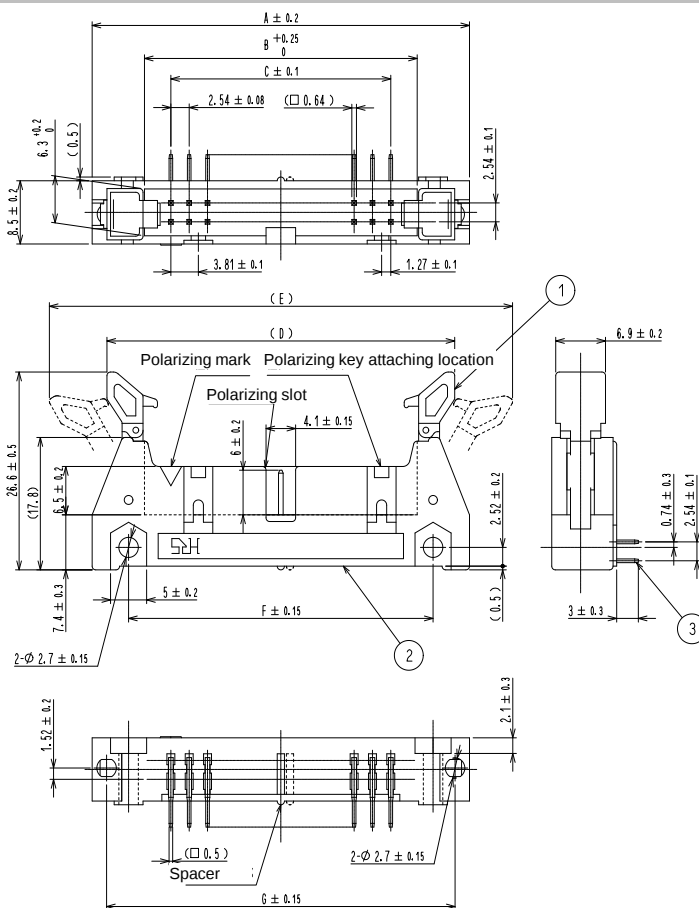


Recommended PCB Layout



COMPONENT	MATERIAL	FINISH, NOTE
① Lock	PBT	Black, UL94V-0
② Housing		
③ Contact	Brass	Contact area: Gold plating 0.15 μm MIN. DIP area: Pure tin plating 2 μm MIN.

- note**
- The number of polarizing slots and keys vary from 0 to 2.
 - The spacer moves to the right according to the number of positions.



Unit: mm

	Part Number	HRS No.	Pos.	A	B	C	D	E	F	G	Polarizing Slot	Polarizing Key	RoHS
●	HIF3MAW-10PA-2.54DS	CL610-3500-6-00	10	32	17.5	10.16	28.14	51.1	21.8	27.9	0	1	Yes
	HIF3MDW-10PA-2.54DS	CL610-3501-9-00										0	
●	HIF3MAW-14PA-2.54DS	CL610-3502-1-00	14	37.1	22.6	15.24	33.24	56.2	26.9	33	1	1	
●	HIF3MAW-16PA-2.54DS	CL610-3503-4-00	16	39.6	25.1	17.78	35.74	58.7	29.5	35.5		2	
●	HIF3MAW-20PA-2.54DS	CL610-3504-7-00	20	44.7	30.2	22.86	40.84	63.8	34.5	40.6			
●	HIF3MAW-26PA-2.54DS	CL610-3505-0-00	26	52.3	37.8	30.48	48.44	71.4	42.2	48.3			
●	HIF3MAW-30PA-2.54DS	CL610-3506-2-00	30	57.4	42.9	35.56	53.54	76.5	47.2	53.3			
●	HIF3MAW-34PA-2.54DS	CL610-3507-5-00	34	62.5	48	40.64	58.64	81.6	52.3	58.4			
●	HIF3MAW-40PA-2.54DS	CL610-3508-8-00	40	70.1	55.6	48.26	66.24	89.2	59.9	66			
●	HIF3MAW-50PA-2.54DS	CL610-3509-0-00	50	82.8	68.3	60.96	78.94	101.9	72.6	78.7	2 *1	2	
●	HIF3MBW-50PA-2.54DS	CL610-3510-0-00									1		
●	HIF3MAW-60PA-2.54DS	CL610-3511-2-00	60	95.5	81	73.66	91.64	114.6	85.3	91.4	2 *1		
●	HIF3MBW-60PA-2.54DS	CL610-3512-5-00									1		
●	HIF3MAW-64PA-2.54DS	CL610-3513-8-00	64	100.6	86.1	78.74	96.74	119.7	90.4	96.5	2 *1		
●	HIF3MBW-64PA-2.54DS	CL610-3514-0-00									1		

¹ Pitch of polarizing guide is 22.86 mm.

● indicates MIL-C-83503 compliant product.

HIF3 Series Specifications

Current Rating	1 A
Voltage Rating	200 V AC
Operating Temperature Range	-55 °C to 85 °C
Storage Temperature Range	-10 °C to 60 °C
Operating Humidity Range	Relative Humidity 85 % or below
Storage Humidity Range	(No condensation permitted)

* Specifications herein are subject to change without notice.
Contact Hirose for latest specifications, drawings, or availabilities.