



## USB 2.0 TYPE A CONNECTORS

# MIL-DTL-38999 Series III Type Connectors



## USB 2.0 and 3.0 Performance Specifications

USB 2.0 Performance Specifications	
Property	Description

### Material and Finish

<b>Shell/Coupling and Plating</b>	Aluminum, cad/o.d., electroless nickel, nickel PTFE, black zinc nickel
<b>Contacts</b>	PC tails, solder cup, and crimp contacts: copper alloy, gold plated
<b>USB Insulator</b>	LCP
<b>Grommet, Peripheral Seal, Interfacial Seal, O-ring</b>	Blended fluorosilicone/silicone elastomer, 30% silicone per ZZ-R-765, 70% fluorosilicone per MIL-R-25988
<b>Shell Sizes</b>	15 Consult factory for other shell size options

### Electrical Specifications

<b>Data Rate</b>	480 MBps
<b>Power Usage</b>	500 milliamps (mA)
<b>Current Rating</b>	1.5 Amps,
<b>D.W.V.</b>	500 VAC
<b>I.R.</b>	1000 MegOhms
<b>Cabling Length</b>	5.0 Meters Max
<b>Shielding</b>	Continuous through coupler or continuous coupler to shell

### Environmental/Mechanical Performance

<b>Sealing</b>	IP68 mated condition, IP67 unmated condition
<b>Outgassing</b>	<b>Mod Code 186S</b> meets outgassing requirements per ASTM E 595 and meets NASA level 3 screening for standard reliability <b>Mod Code 928</b> meets outgassing requirements per UL 94 V-0
<b>Operating Temperature</b>	-40°C to +120°C
<b>Vibration</b>	20g's, 3 Axis, 10 - 2000Hz
<b>Mechanical Shock</b>	300 g's
<b>Backshell Interface</b>	MIL-DTL-38999 Designator H
<b>Mating System</b>	Triple-start stub ACME
<b>Mating Cycles</b>	500

USB 3.0 Performance Specifications	
Property	Description

### Material and Finish

<b>Shell/Coupling and Plating</b>	Aluminum, cad/o.d., electroless nickel, nickel PTFE, black zinc nickel
<b>Contacts</b>	PC tails, solder cup, and crimp contacts: copper alloy, gold plated
<b>USB Insulator</b>	LCP
<b>Grommet, Peripheral Seal, Interfacial Seal, O-ring</b>	Blended fluorosilicone/silicone elastomer, 30% silicone per ZZ-R-765, 70% fluorosilicone per MIL-R-25988
<b>Shell Sizes</b>	15 Consult factory for other shell size options

### Electrical Specifications

<b>Data Rate</b>	5.0 GBps
<b>Power Usage</b>	500 milliamps (mA)
<b>Current Rating</b>	1.5 Amps,
<b>D.W.V.</b>	500 VAC
<b>I.R.</b>	1000 MegOhms
<b>Cabling Length</b>	3.0 Meters Max
<b>Shielding</b>	Continuous through coupler or continuous coupler to shell

### Environmental/Mechanical Performance

<b>Sealing</b>	IP68 mated condition, IP67 unmated condition
<b>Outgassing</b>	<b>Mod Code 186S</b> meets outgassing requirements per ASTM E 595 and meets NASA level 3 screening for standard reliability <b>Mod Code 928</b> meets outgassing requirements per UL 94 V-0
<b>Operating Temperature</b>	-40°C to +120°C
<b>Vibration</b>	20g's, 3 Axis, 10 - 2000Hz
<b>Mechanical Shock</b>	300 g's
<b>Backshell Interface</b>	MIL-DTL-38999 Designator H
<b>Mating System</b>	Triple-start stub ACME
<b>Mating Cycles</b>	500