

ULTRAMINIATURE SERIES 80
USB SuperSeal™ Small
Form-Factor Connectors



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Series 801 Mighty Mouse Plug and Receptacle with SuperSeal® Micro-B USB

Crimp contact micro-USB connectors with outstanding environmental performance and EMI/RFI grounding. Smallest form-factor high-performance solution for integration of the commercial USB interface

- Significant size and weight reduction compared to MIL-DTL-38999 type USB/ RJ45 solutions
- Rear-release crimp contact termination as well as USB/RJ45 jumper accommodation
- Superior sealing, IP67, in unmated condition compared to other available environmental circulars
- Superior grounding for electrostatic discharge and EMC
- Superior cable shield termination with integrated banding platform
- Optional spring-loaded protective covers for environmental protection of junction boxes and switches
- Wide range of high speed Ethernet/ network protocols supported, including USB 2.0

Test Description	Mighty Mouse USB Performance Requirements/Specifications	Procedure Per MIL-DTL-38999 or Other Standard
Dielectric withstanding voltage	Maximum leakage current = 2 milliamperes No evidence of electric breakdown or flashover	4.5.11.1 or 4.5.11.2 IAW EIA-364-20, Method A
Insulation resistance	At ambient temperature: >5000 megohms between any pair of contacts and between any contact and the shell. after altitude immersion = 1000 megohms min. after humidity = 100 megohms min. At elevated temperature: >1000 megohms	4.5.10.1 and 4.5.10.2 IAW EIA-364-21
Contact resistance	Terminal-to-terminal resistance of vd connector contacts shall not exceed 0.050 ohms.	4.5.14
Mating durability	500-1000 cycles depending on plating, with no mechanical damage. Dielectric, contact resistance and air pressure requirements as described above shall be met after 500-1000 mating cycles.	4.5.8
Contact retention	Individual contacts capable of withstanding at least 10 pounds axial load applied uniformly at one pound per second.	IAW EIA-364-29
Vibration and Shock	37 g's random vibration, 300 g's shock. No electrical discontinuity, no disengagement of mated connectors, backing off of the coupling mechanism, or evidence of cracking, breaking, or loosening.	4.5.23
Temperature cycling	-65°C to 175°C or 200°, depending on finish. No blistering, peeling or separation of plating or other damage detrimental to the operation of the connector.	4.5.4 EIA364-32, Test cond. A
Salt spray	5% solution, 34°-36°C. 48-1000 hours, depending on finish. Unmated connectors show no lifting of plated coating or exposure of basis material under 3X magnification which adversely affects performance.	4.5.13 EIA-364-26
Humidity	Cycle wired, mated connectors between 25 °C at 80 % and 65 °C at 50 %. Ramp time = 0.5 hour, dwell = 1.0 hour. 24 cycles.	4.5.26 EIA364-31, Method IV
Water immersion	1 Meter for 1 Hour, mated.	MIL-STD-810 Method 512
EMI Shielding	Series 801: Good • Series 804: Very Good • Series 805: Excellent	4.5.28 EIA-364-66

SUPERSEAL™ MIGHTY MOUSE MICRO-B USB CONNECTOR SELECTOR



Series 801 Plug Connector with Micro-B USB



Series 801 In-Line Receptacle



Series 801 Square Flange Mount Receptacle



Series 801 Rear Panel Jam Nut Mount Receptacle



Series 804 Plug Connector with Micro-B USB



Series 804 In-Line Receptacle



Series 804 Rear Panel Jam Nut Mount Receptacle



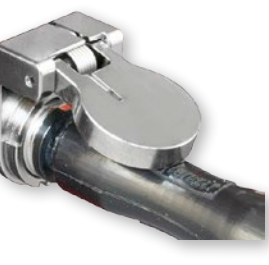
Series 804 Front Panel Jam Nut Mount Receptacle



Plug-and-Play Micro-USB Plug and Receptacle

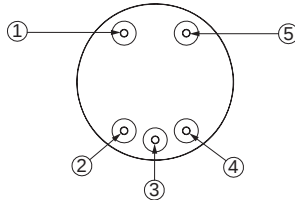


Plug-and-Play Micro-USB Booted Cordset



Spring-Loaded cover for Series 804 Jam Nut Receptacles

Crimp Contact Pin Layout



Pin Number	USB Designation	Typical Wiring Assignment
1	VBUS	Red
2	D-	White
3	D+	Green
4	ID	RA_PLUG_ID
5	GND	Black
Shell	SHIELD	DRAIN WIRE

MATERIAL AND FINISHES

- Shell/coupling: High strength aluminum alloy
- Plating: Cadmium olive drab over electroless nickel; Nickel PTFE; Electroless nickel
- Contacts: Copper alloy, gold plated
- USB insulator: LCP
- Seals: Silicon-based elastomer
- Stainless steel and other materials and finishes available. Please consult factory.

MICRO USB ELECTRICAL SPECIFICATIONS

- Voltage Rating: 30 VAC (rms)
- Current Rating: Signal pins 1.0A, Power pins 1.8A
- D.W.V.: 600 VAC
- Shield Continuity: Continuous through coupler or continuous coupler to shell