

Mini USB Cable Assemblies

Description:

Miniature Cable Assemblies for USB (Universal Serial Bus) based interfaces to small, handheld devices. Mini USBs are used to connect high-speed peripheral devices to computers. Mini USBs are ideal for applications that require small, lightweight connectors.

Typical Applications:

- Notebook computers
- PDAs, cell phones
- Digital cameras
- Portable music recorders/players

Benefits/Features:

- Industry Standards Meets the speed requirements of USB 2.0.
Meets preliminary requirements of USB OTG (On The Go).
- Flexible System Several standard cable lengths are available.
Non terminated (bare wire) cables for customer defined interfaces can be provided.
Integral ferrite cores are available.
- Ruggedness and Reliability . . . Full metal shields protect contacts from physical and ESD (Electro Static Discharge) damage.
Mini USB connectors are rated for 5,000 cycles.



Selectable Features:

Product Type	Mini USB cable assemblies
Application	Wire-to-board
Cable Types	Mini B captive, USB Type A to Type Mini B detachable, USB Type A to Type Mini B detachable with ferrite core
Total No. of Positions	5/0, 4/5, 4/5 with ferrite core
Centerline Spacing	0.80 mm [.031 in.], 2.00 mm [.079 in.]
Length	0.3 m, 0.5 m, 1 m (Mini B captive) 1 m, 1.5 m, 1.8 m (A to Mini B detachable)
Cable Diameter	4.2 mm
Wire Size (AWG)	Signal pair/power pair: 28/26 AWG Drain wire: 28 AWG
Operating Voltage	30 VDC (power pins), 5 VDC (signal)
Insertion Style	Cable
Contact Style	Formed
Contact Area Plating (Plug)	0.76 μ m [30 μ in.] Gold
Shell Plating (4P Plug)	Nickel
Housing Color (Plug)	Type A: white Type Mini B: black
Overmold Color (Plug)	Black
Cable Jacket Color	Black

Other Properties:

Voltage Rating	30 VAC
Temperature Range	0°C to +50°C
Insulation Resistance	100 M Ω initial
Withstanding Voltage	Type A: 500 VAC RMS, Type Mini B: 100 VAC RMS
Current Rating	Type A: 1.5 amp max. per contact, Type Mini B: 1.0 amp max. per contact, Cable Assembly: 1.0 amp max. per contact
Contact Resistance (Plug)	Type A: 30 m Ω max., Type Mini B: 50 m Ω max.
Contact Resistance (Cable)	2 Ω max.
Impedance Differential	90 Ω \pm 15%
Impedance Common Mode	30 Ω \pm 30%
Attenuation	Up to 5.8 dB at 400 MHz (see specification for details)
Propagation Delay	5.2 ns/m max.
Delay Skew	Less than 100 ps
Mutual Capacitance	20 pf/ft at 10 KHz max.
Durability (Mating Cycles)	Type A: 1500 cycles, Type Mini B: 5000 cycles
Mating Force	35 N [7.87 lbf] max.
Unmating Force	Type A: 10 N [2.25 lbf] min., Type Mini B: 7 N [1.57 lbf] min. initial, Type Mini B: 3 N [0.67 lbf] min. after 5000 cycles
Packaging Type	Polybag
Housing Material (Plug)	PBT, UL94V-0
Overmold Material (Plug)	PVC
Cable Jacket	PVC
Contact Base Material	Copper alloy
Shell Base Material	Steel
Plating (Contact Area)	0.76 μ m [30 μ in.] gold over nickel underplating
Plating (Soldering End)	2.54 μ m [100 μ in.] tin-lead min. over nickel underplating
Underplating	1.27 μ m [50 μ in.] nickel min.
Standards	Universal Serial Bus Revision 2.0 Specification USB 2.0 Specification ECN #1: Mini B connector
Approvals and Certification	UL approved

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Ordering Nomenclature

1543 1479 - 0 1 0

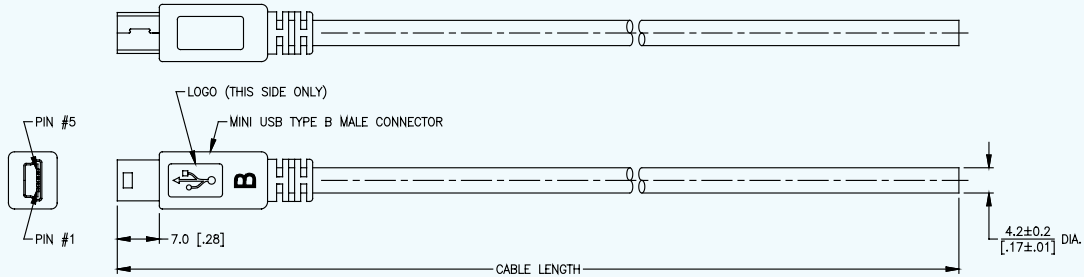
Mini USB Cable Assemblies:

- Mini B Captive 1543 1479
- A to Mini B Detachable . . 1543 1480
- A to Mini B Detachable with Ferrite Core 1543 1481

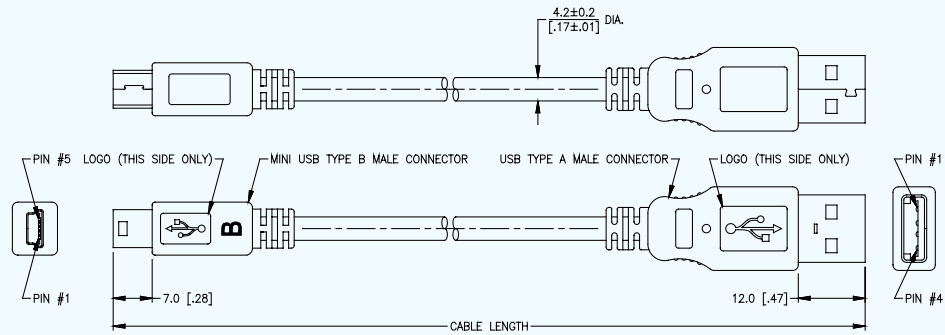
Cable Length Options:

- Mini B Captive:**
 - 1 = 300 mm ±10 mm [11.81 in. ±.39 in.]
 - 2 = 500 mm ±10 mm [19.69 in. ±.39 in.]
 - 3 = 1000 mm ±30 mm [39.37 in. ±1.18 in.]
- A to Mini B Detachable:**
 - 0 = 250 mm ±30 mm [9.84 in. ±1.18 in.]
 - 1 = 1000 mm ±30 mm [39.37 in. ±1.18 in.]
 - 2 = 1500 mm ±50 mm [59.06 in. ±1.97 in.]
 - 3 = 1800 mm ±50 mm [70.87 in. ±1.97 in.]
- A to Mini B Detachable w/Ferrite Core:**
 - 1 = 1000 mm ±30 mm [39.37 in. ±1.18 in.]
 - 2 = 1500 mm ±50 mm [59.06 in. ±1.97 in.]
 - 3 = 1800 mm ±50 mm [70.87 in. ±1.97 in.]

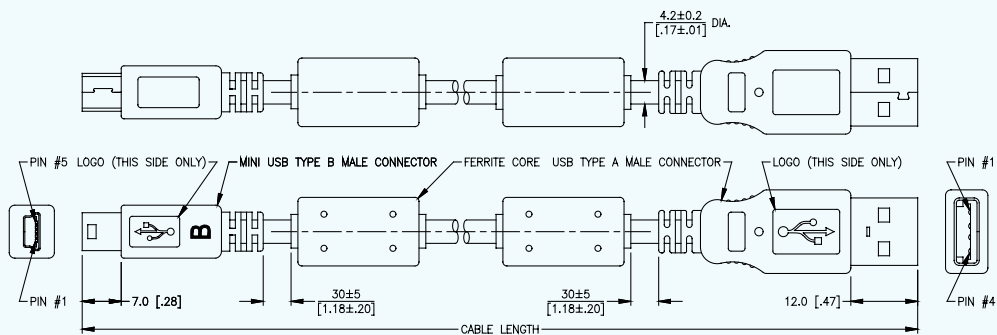
Mini B Captive



A to Mini B Detachable



A to Mini B Detachable with Ferrite Core



Dimensions are shown in millimeters [inches].



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