MUSB Rugged USB Series Connector

Amphenol
Commercial Products

Generation 1 Features

- Provides a standard USB interface ideal for harsh environments where Ethernet/IP Protocol is used
- Protection is provided for IP67 applications per IEC 60529 specification
- Reaches Data Rates up to 480Mbps (USB 2.0)
- Features an Epoxy-free assembly; sealed with O-rings & gaskets
- Available in Series A (single & stacked), B series, series Mini-B and series Mini-AB with right angle and vertical PCB tails

AMPHENOL CANADA CORP
RoHS
COMPLIANT
2011/65/EU RECAST

MARKETS

Amphenol's line of Rugged USB connectors serve many markets and applications across the globe including Transportation, Military, Medical and Industrial.

To learn more about Harsh Environment Connectors:
web: amphenolcanada.com email: sales@amphenolcanada.com

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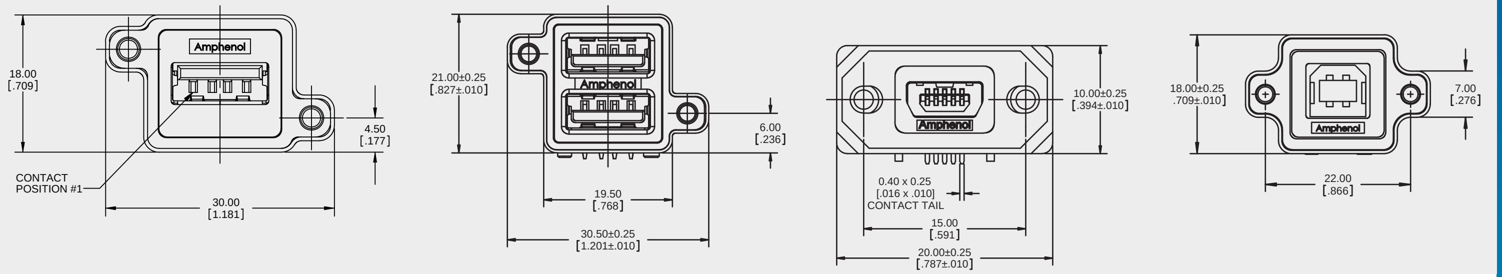

Photos Shown: MUSB-A111-30, MUSB-C111-30, MUSB-E151-34, MUSB-D111-30

Technical Specifications

External Shell:	Die Cast Zinc, Nickel Plated
Insulator Housing:	High Temperature Resistant Engineering Thermoplastic, Glass Reinforced, UL94V-0
Contacts:	Phosphor Bronze or Bronze Alloy Plated with 0.76µm (30µ") min Gold over 1.27µm (50µ") min Nickel on the Mating Area and 2.54µm (100µ") min Matte Tine over Nickel on the Contact Tails
Internal Shield & Rear Shield:	Copper or Steel Alloy, Nickel Plated or Stainless Steel, Passivated
Panel Gasket:	*Standard A & B* - Silicone Rubber, Black *Mini & Micro* - Cellular Arethane Foam, Black
Internal O-ring:	*Micro* - Silicone Rubber, Beige
PCB:	FR4 Fibreglass, Lead Free
Additional Connector:	UL Recognized Component
UL Recognition:	Level DUXR2, File Number E135615, see Listing
Water & Dust Protection Level:	Code IP67 per IEC 60529
Operating Temperature:	-40°C to +105°C
Insertion Force:	Per EIA-364-13, 35N (7.9lb_f) max
Extraction Force:	Per EIA-364-13: *Standard A & B* - 10N (2.2lb_f) min, *Mini* - 7N (1.6lb_f) min Initial, 3N (0.7lb_f) min after Durability, *Micro* - 8N (1.8lb_f) min after Durability
Durability:	Per EIA 364-09: *Standard A & B* - 1500 Mating Cycles, *Mini* - 5000 Mating Cycles, *Micro* - 10 000 Mating Cycles
Vibration:	Per EIA 364-28 Random Condition V, Letter A, No Discontinuity ≥ 1µs
Shock:	Per EIA 364-27 Test Condition H (11 ms, 30, ½ Sine), No Discontinuity ≥ 1µs
Temperature Life w/o Load:	Per EIA-364-17, 105°C, 1000 Hours
Thermal Shock:	Per EIA-364-32, -40°C to +125°C, 5 Cycles
Humidity:	Per EIA 364-31, 10 Cycles, 240 Hrs, 25°C to 65°C 90-95%RH, with -10C Cold Shock
Mixed Flowing Gas:	Per EIA 364-65 Class IIA (Cl_2, NO_2, H_2S & SO_2),14 Day Exposure
Salt Spray:	Per EIA 364-26, 250 Hours, 5% Salt, 35°C
Solvent Resistance:	Isopropyl Alcohol & 5% Sodium HydroxideSolution, 24 Hrs Each
Solderability:	Per EIA-364-52, 95% Coverage after Category 2 Steam Aging

Standard A & B

Current Rating:	1.5A max. per contact (ΔT ≤ 30°C)
Contact Resistance:	30 mΩ max.
Insulation Resistance:	1000 MΩ min.
DWV:	500V AC rms

Mini

Current Rating:	1.0A max. per contact (ΔT ≤ 30°C)
Contact Resistance:	50 mΩ max.
Insulation Resistance:	100 MΩ min.
DWV:	100V AC rms

Micro

Current Rating:	1.5A max for signal contacts 2, 3 & 4 or 1.8A max. for power contacts 1 & 5 with 0.5A max. for signal contacts 2, 3 & 4 (ΔT ≤ 30°C)
Contact Resistance:	30 mΩ max.
Insulation Resistance:	100 MΩ min.
DWV:	100V AC rms

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