

Product Update

Harsh Environment USB

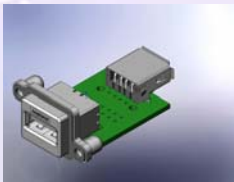
Amphenol

Now you're connected!

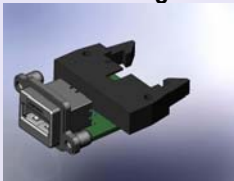
MUSB CONNECTOR SERIES

About Amphenol Commercial Products

Amphenol's Commercial Connector Products are used in a variety of end user applications including Networking, Telecom, Server & Computer, Storage & HDD, Consumer Electronics and Entertainment, Professional Audio, Industrial & Military/Aerospace



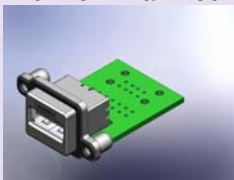
With matching USB



With Cable Header



With Terminal Block



With PCB for wiring



Description

The design of Amphenol Canada's harsh environment family of USB connectors represents a unique and innovative design. Our design provides the ideal solution for data transfer in harsh or demanding environments against physical and environmental conditions.

This family of rugged USB are available in series A (single & stacked), series B, series mini-B and series mini AB, right angle and vertical PCB. Matching USB, cable headers, terminal blocks, all mounted on a PCB and dust covers are also additional options offered with the different USB series.

These connectors meet IP67 in the mated and unmated conditions and also the Military shock and vibration levels.

Applications

MARKETS:

Industrial

Military

Automotive

APPLICATIONS

Medical Equipment
GPS Systems – Agriculture & shipping containers
Radiation Detector
Test Equipment
Microwave Transmitters

Military Radio
Military Vehicles
Test Enclosures

Mobile Entertainment Systems

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RELATED PRODUCTS

Amphenol manufactures a line of rugged RJ45, rugged D-sub and rugged bulkhead adapters, all meeting IP67. Contact your local Amphenol representative for details.



Electrical Properties

Current Rating: 1.5 Amperes
Contact Resistance: 30 milliohms maximum
Insulation Resistance: 1000 Mega ohm
DWV: 500 V AC @ sea level

Environmental Properties

Rohs Compliant
Operating Temperature: -40°C to +105°C
Thermal Shock: 5 cycles @ -40C to +125C
Humidity: Per EIA 364-31 Condition C Method III

Mechanical & Material Properties

Shell: Nickel Plated Die-cast Zinc Alloy
Housing: High Temperature Thermoplastic UL94V0, Black
Contacts: Phosphor Bronze, 30u" (0.76 microns) Gold over Nickel
Physical Shock: Per EIA 364-27 Condition H (11 ms 30G)
Vibration: Per EIA 364-28 per Condition V, Letter A

Available Documents

Drawing Number:	P-MUSB-XXXX-XX
QTR9300377	Series Mini AB
QTR9300378-A	Series A
QTR 9300378-B	Series B

Part Number

MUSB-XXXX-XX

Amphenol

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MUSB CONNECTOR PRODUCT NUMBERING SYSTEM

	MUSB	-	C	2	1	1	-	3	1	3
MUSB	Connector series designation - Rugged USB									
STYLE										
A	Receptacle type A, single									
B	Receptacle type Mini-B, single									
C	Receptacle type A over type A, stacked									
D	Receptacle type B, single									
E	Receptacle type Mini-AB, single									
TERMINATION										
1	Right angle pcb tail									
2	Right angle pcb tail, on pcb with right angle cable header, note 1									
3	Right angle pcb tail, on pcb with matching USB termination, note 2									
4	Right angle pcb tail, on pcb with terminal block(s), note 3									
5	Vertical pcb tail									
6	Right angle pcb tail, on pcb with MRJ & r/a cable header, note 5									
8	Right angle pcb tail, on pcb with vertical cable header, note 5									
A	Right angle pcb tail, on pcb without extra connectors, note 4									
B	Right angle pcb tail, on pcb vertical 5 pin one row header note 6									
D	Right angle pcb tail, on pcb, vertical 2x5 dual row header note 7									
NUMBER OF CONTACTS										
1	Standard 4 per port (use for styles A, C & D)									
5	Standard 5 per port (use for styles B & E)									
COLOR										
1	Standard black									
OPTIONS										
0	No rear shield; shell with Unified National thread, note 8 & 9									
3	With rear shield; shell with Unified National thread, note 8 & 9									
M	With rear shield; shell with Metric thread, note 8 & 10									
SPECIALS										
0	Standard (means 30u" (0.76um) gold, no dust cover)									
1	With grey color dust cover (supplied bulk packed)									
3	50u" (1.27um) gold									
5	With black color dust cover (supplied bulk packed)									
6	Vertical with 4.6mm tail length - for MUSB-A511-06 only									
UNIQUE SPECIAL CODE										
No Digit	Part defined by previous 10 digits									
1 to 9	Unique special feature. Consult Factory									

Notes

- 1) Termination code 2 currently available for styles A, C & D. A 14 pin cable header is used for styles A & C. A 10 pin cable header is used for style D.
- 2) Termination code 3 currently available for styles A & C.
- 3) Termination code 4 currently available for style C using 2 x 5 position terminal blocks. Proposed for style A.
- 4) Termination code 6 proposed for style A only.
- 5) Termination code 8 proposed for style A & C
- 6) Termination Code B currently available for style A
- 7) Termination code D currently available for style C
- 8) Rear shield required for styles A, C, D, with right angle pcb tails. Rear shield optional for styles B & E with r/a pcb tails. No rear shield for any vertical pcb tail.
- 9) Unified National thread - use #4-40 UNC for styles A, C, D, and #2-56 UNC for styles B & E.
- 10) Metric thread - use M3 for styles A, C, D, and M2 for styles B & E.
- 11) Unique special code defines the entire part. Note that code 3, for example, may have a completely different definition for every connector where it is used.

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