

MHDR Rugged HDMI

Product Specification S6089C Rev 1.4

Amphenol

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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.

Related Products

MUSB/MUSBR OPTIONS:

MUSBR



MUSBR-A511-40
TYPE A, VERTICAL,
LOW PROFILE

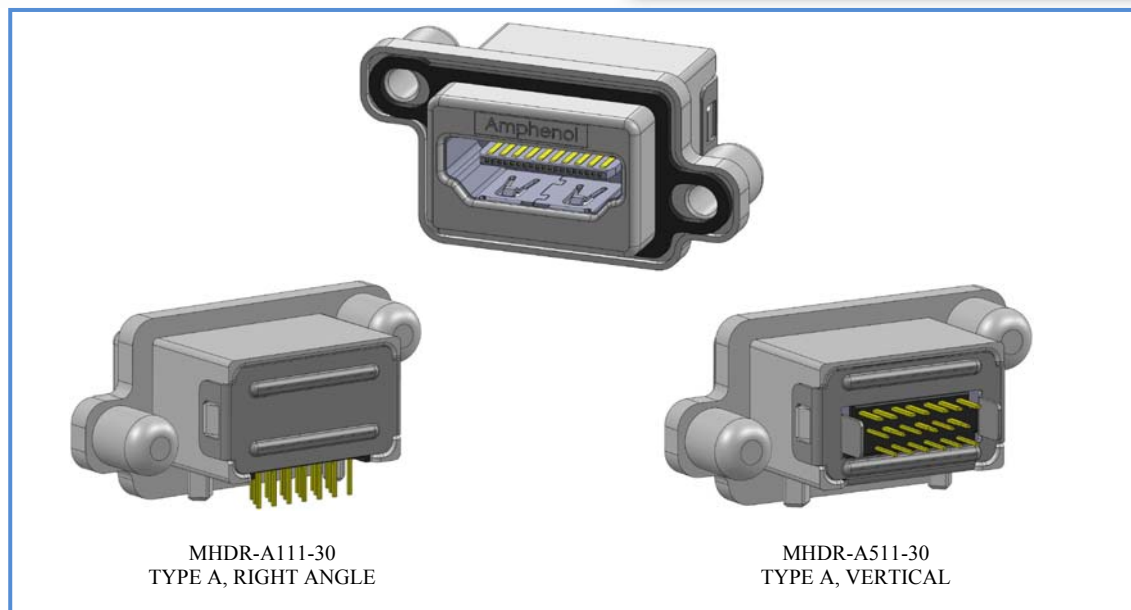
MUSB



MUSB-D111-30
TYPE B, RIGHT ANGLE



MUSB-C111-30
TYPE A, STACKED,
RIGHT ANGLE



MHDR-A111-30
TYPE A, RIGHT ANGLE

MHDR-A511-30
TYPE A, VERTICAL

Overview

This Product Specification defines the general use and performance parameters for Amphenol's MHDR connector.

Availability: Right angle PCB tail version as well as vertical mount receptacle are presently available. The right angle is also available on an interposer card with a right angle locking connector on the opposite side.

Usage

These connectors provide a High Definition Multimedia Interface for transmitting digital audiovisual signals. Receptacles will mate with any standard type A HDMI plug. Electrical performance complies with HDMI specification version 2.0. This supports 4K video up to 60 frames per second. Connectors provide water and dust protection complying with IP67 per IEC 60529.

Applications

Intended for use in applications such as:

- Portable computers
- Outdoor Audiovideo equipment
- Portable broadcast equipment
- Medical equipment
- Digital cameras/camcorders

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Related Products

MDBR



9 POSITION CONNECTOR SHOWN

MUSBK



MUSB-K152-30
SERIES MICRO-AB
RIGHT ANGLE, PCB TAIL

MRJR



MRJR-538X-01 SHOWN
RIGHT ANGLE, PCB TAIL,
8 POSITION RJ45

Connector Electrical Characteristics

Parameter	Type A
Current rating:	0.5A min per contact
Contact resistance:	10 mΩ max
Insulation resistance:	1000 MΩ min
DWV:	500V AC @ sea level
Impedance:	100Ω +/-15%
Total data rate:	18Gbit/s

Connector Mechanical Characteristics

Thermal Shock: 10 cycles @ -55° to +125° C
Physical Shock: 50G for 11ms (3 cycles in 3 axes)
Humidity: Per ANSI/EIA-364-31B
Vibration: Per ANSI/EIA-364-28 Condition III

Process Characteristics

Recommended soldering process: wave soldering with peak temperature of 260°C for 10 seconds.
Recommended Torque for #4-40 or M3 Panel Mount Screws: 0.45 to 0.65 Nm (4 – 5.75 in-lbs).
Solder tails suitable for PCB thickness of 1.52mm (.062")
Mating Cycles: 10,000 cycles

Material Requirements

MHDR connectors are RoHS compliant.

Unless otherwise specified, the materials for each component shall be:

- Contacts: Copper alloy with 30μ" (0.76μm) min gold over 50μ" (1.27μm) min nickel
- Housing: Engineering thermoplastic, UL94V-0 rated, black.
- Shell: Die cast zinc alloy with nickel plating

Operating temperature -55° to +85° C

Available Documents

Drawing Numbers:

P-MHDR-A111-X0
P-MHDR-A311-X0
P-MHDR-A311-M01
P-MHDR-A511-X0

MHDR series rugged HDMI, Type A, Right Angle PCB Tail
MHDR series rugged HDMI, Type A, on PCB with matching HDMI
MHDR series rugged HDMI, Type A, on PCB with matching HDMI with locking tab.
MHDR series rugged HDMI, Type A. Vertical PCB Tail

Contact factory, authorized Amphenol representative or website www.amphenolcanada.com for additional configurations

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Product Numbering System

		MHDR	-	A	X	1	1	-	X	0	X
MHDR	Rugged HDMI Receptacle Series										
	Receptacle Type										
	A – Standard A Series										
	Termination Style										
	1 – Right Angle										
	5 – Vertical										
	Number of Contacts										
	1 - Standard 19 Contacts										
	Insulator Housing Colour										
	1 – Black										
	Rear Shield and Thread Options										
	3 – #4-40 UNC Unified Thread										
	M – M3 x 0.5 Metric Thread										
	Other Options										
	0 – Standard										
	Unique Special Code ¹										
	No Digit – Standard part defined by previous 10 digits										
	1 to 9 – Unique special feature										

Notes:

- 1) Consult with Amphenol for additional termination styles, contact tail lengths, mounting styles, non-conductive gaskets or other special requirements.