

# MHDR Rugged HDMI

## Product Specification S6089C Rev 1.4

Amphenol

*Now you're connected!*

### 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

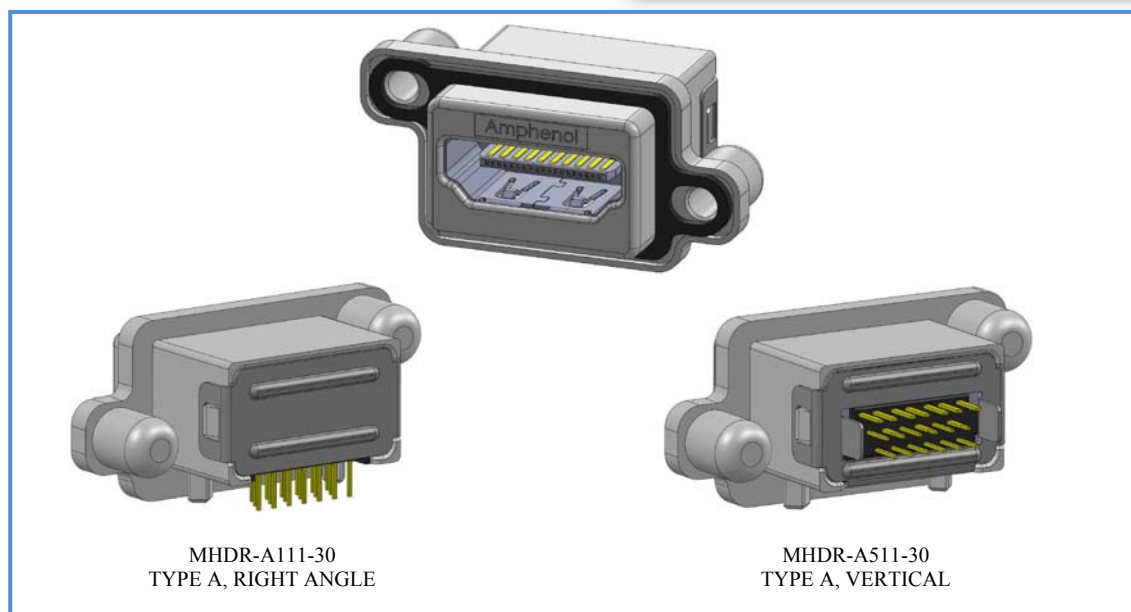
#### MUSB



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

# Now you're connected!

## 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

### MDBR



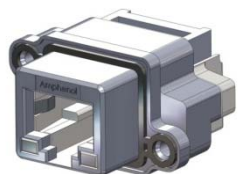
9 POSITION CONNECTOR SHOWN

### 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](http://www.amphenolcanada.com) for additional configurations

*Now you're connected!*

## 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 <sup>1</sup>                       |      |   |   |   |   |   |   |   |   |   |
|      | 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.

## Данный компонент на территории Российской Федерации

**Вы можете приобрести в компании MosChip.**

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

<http://moschip.ru/get-element>

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

### Офис по работе с юридическими лицами:

105318, г.Москва, ул.Щербаковская д.3, офис 1107, 1118, ДЦ «Щербаковский»

Телефон: +7 495 668-12-70 (многоканальный)

Факс: +7 495 668-12-70 (доб.304)

E-mail: [info@moschip.ru](mailto:info@moschip.ru)

Skype отдела продаж:

moschip.ru

moschip.ru\_4

moschip.ru\_6

moschip.ru\_9