

MRJR Rugged RJ45 Connector

Product Specification S6055C Rev 1.0

Amphenol

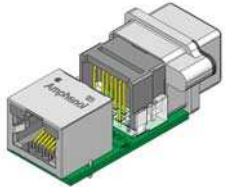
Now you're connected!

About Amphenol Commercial Products

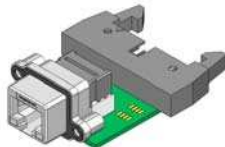
Amphenol's commercial connector products are used in a variety of end user applications including networking, telecom, server & computer, storage & HDD, consumer electronics and entertainment, professional audio & Industrial & Military/Aerospace.

MRJ/MRJR Options:

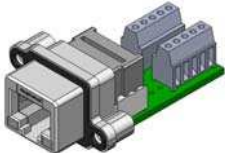
With matching RJ45



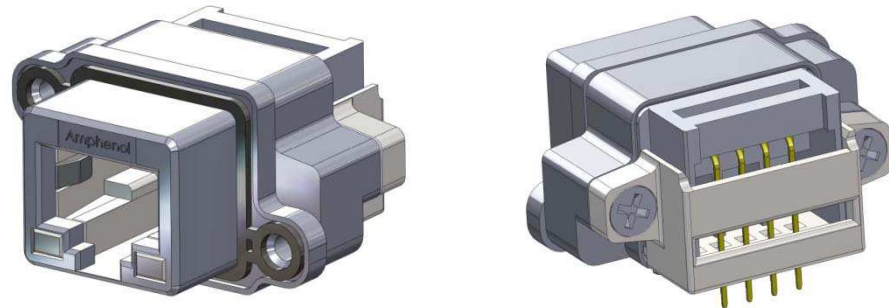
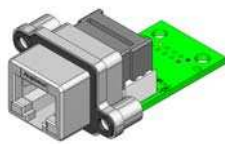
With Cable Header



With Terminal Block



With PCB for wiring



MRJR-5381-01 SHOWN
RIGHT ANGLE, PCB
TAIL, 8 POSITION RJ45

Overview

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

Availability: Right angle PCB tail termination with 8 or 10 positions, LED options, EMI ferrite filtering and PCB options (with matching RJ connector, cable header, terminal block or for hand wiring). Vertical PCB tail termination with 8 positions and LED options. Dust covers are available for enhanced mating area protection. A clear rubber boot for use with standard plugs is also available.

Usage

The connector system is designed to provide a standard RJ45 interface, ideal for harsh environments where Ethernet/IP protocol is used. Protection is provided for IP68 applications per IEC 60529 specification. Data rates conform to 10BaseT or 100BaseT Ethernet.

Applications

Intended for use in applications such as:

- Medical equipment
- ATM machines
- Lottery terminals & slot machines
- GPS positioning equipment
- Military vehicles, radios, computers
- Test equipment
- Mobile communication systems
- Traffic control & monitoring systems

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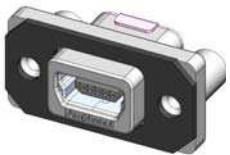
Related Products

MDBR



9 POSITION CONNECTOR SHOWN

MUSB



MUSB-B151-34
SERIES MINI-B, RIGHT
ANGLE SHOWN



STACKED TYPE A
OVER TYPE A

Connector Electrical Characteristics

Current rating: 1.5A per contact
 Contact resistance: 30 mΩ max
 Insulation Resistance: 500 MΩ min
 Dielectric Withstand Voltage: 1000/1500 V AC @ sea level
 LED forward DC current: 25mA max
 LED forward Voltage: 2.5 Volts max. @ 20mA
 Minimum Impedance (Ferrite): 38 Ohms at 25 MHz

Connector Mechanical Characteristics

Thermal Shock: 25 cycles @ -40° to +70° C
 Physical Shock: Per EIA364-27, Condition H (11ms 30G)
 Humidity: Per EIC512-6 / EIA364-11A
 Vibration: Per EIA364-28, Condition 5A
 Salt spray: Per EIA364-26, 250 Hrs
 Mating cycles: 2500

Assembly Process Characteristics

Recommended Torque for Panel Mount Screws: 0.45 to 0.65 Nm (4.00 – 5.75 in-lbs).
 Hand or wave solder: 150°C for 180 seconds (Pre-heat) and 265°C for 8 seconds max (Solder tails).
 Solder tails suitable for PCB thickness of 1.57 to 3.18 mm (.062" to 0.125")

Material Requirements

MRJR connectors are RoHS compliant.

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

- Contacts: Phosphor Bronze with 1.27μm (50μ") min Gold over 1.27μm (50μ") min Nickel
- Housing: High temperature thermoplastic, UL94V-0 rated, Black
- Front Housing: Clear Polycarbonate (customer process cleaners must be compatible)
- Shell: Die cast Zinc alloy, Nickel plating
- Gasket: Silicone rubber
- LED: Epoxy lens, Tin plating on steel tail

Temperature rise: Meets the requirement of 30° C ΔT
 Operating temperature -40° to +105° C

Available Documents

Drawing Numbers:

P-MRJR-5380-011 MRJR Receptacle, Right Angle, 8 position, Special Gasket and Seal Features
 P-MRJR-5381-012 MRJR Receptacle, Right Angle, 8 position, LED, #2-56 Threaded Holes for PCB Mounting
 P-MRJR-53XX-X1 MRJR Receptacle, Right Angle, 8 or 10 position, LED, Tail Length and Thread Options
 P-MRJR-5E80-031 MRJR Receptacle with 2 MUSB Type A Receptacles, Solder Cup Terminals

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

QTR9300463 Qualification Test Report

Now you're connected!

Product Numbering System

MRJR

-

5

3

8

0

-

0

1

MRJR	Connector series designation – Rugged RJ
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Version

3 - Receptacle, RJ11 (proposed)
5 - Receptacle, RJ45
6 - Receptacle, RJ45, with EMI filter
7 - Receptacle, RJ45, with Transient Voltage Protection (proposed) note 1

Termination

3 - PCB tail, right angle
5 - PCB tail, right angle, on PCB with right angle cable header
7 - PCB tail, right angle, on PCB with RJ45 right angle termination
8 - PCB tail, right angle, on PCB with RJ45 vertical termination
9 - PCB tail, right angle, on PCB with terminal block
A - PCB tail, right angle, on PCB for hand wiring (termination code 5 board)
B - PCB tail, right angle, on PCB with vertical cable header
C - PCB tail, right angle, on PCB for hand wiring (termination code 7 board)

Number of contacts (note 3)

8 - 8 contacts
A - 10 contacts

LED options

0 - No LEDs
1 - Green left, Yellow right
4 - Yellow left, Green right
5 - Green left, green right

Options (Tail Length & Thread)

0 - Tail 2.54mm (.100"), standard, through hole or #4-40 threaded lugs
B - Tail 3.81mm (.150"), through hole or #4-40 threaded lugs
M - Tail 2.54mm (.100"), M3 threaded lugs
P - Tail 3.81mm (.150"), M3 threaded lugs

Other Features

1 - 1 port (vertical has through hole mounting, right angle has threaded lug)
B - 1 port, vertical connector, through hole mounting, gasket on front shell flange
F - 1 port, vertical connector, threaded lug mounting
N - 1 port, vertical connector, threaded lug mounting, no alignment insert, contact & led length = 4mm (.157")

Unique Special Code

No Digit - Part defined by previous 10 digits
1 to 9 - Unique special feature. Note 4

Notes

- 1) Transient voltage protection is only possible with the connector supplied on a PCB.
- 2) Dust covers supplied bulk packed with the connectors.
- 3) 10 contact option is currently available for right angle PCB tail connectors only.
- 4) Many unique features are readily available to suit customer requirements. Consult with Amphenol Canada for details.