MRJ Rugged RJ45 Connector

Product Specification S6043C Rev 1.0

Now you're connected!

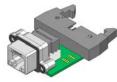
About Amphenol Commercial Products

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.

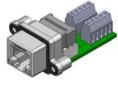




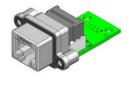
With Cable Header

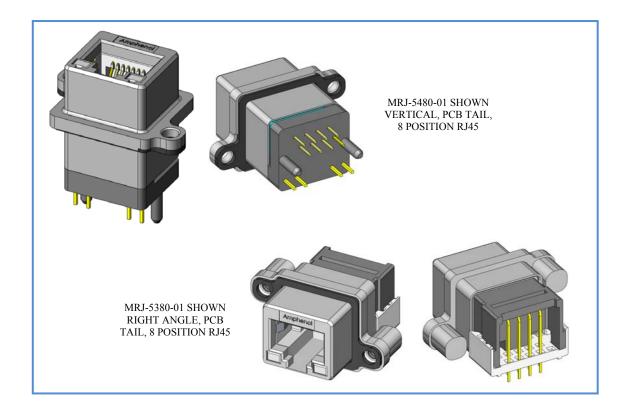


With Terminal Block



With PCB for wiring





Overview

This Product Specification defines the general use and performance parameters for Amphenol's MRJ 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. Both termination styles have dust covers 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 IP67 applications per IEC 60529 specification. Data rates conform to Gigabit Ethernet (1000Base-T) protocols.

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

MDB



9 POSITION CONNECTOR SHOWN

MUSB



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



SERIES A, RIGHT ANGLE, STACKED SHOWN

Connector Electrical Characteristics

Current rating: 1.5A per contact Contact resistance: 30 m Ω max Insulation Resistance: 500 M Ω 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

MRJ 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 Δ T Operating temperature -40° to +105° C

Available Documents

Drawing Numbers:

P-MRJ-53XX-X1 MRJ Receptacle, Right Angle, 8 or 10 position P-MRJ-548X-X1 MRJ Receptacle, Vertical, 8 position

P-MRJ-55XX-X1 MRJ Receptacle, Right Angle on PCB with Right Angle Cable Header

P-MRJ-578X-X1 MRJ Receptacle, Right Angle on PCB with RJ connector
P-MRJ-59XX-X1 MRJ Receptacle, Right Angle on PCB with Terminal Blocks
P-MRJ-63XX-X1 MRJ Receptacle, Right Angle, EMI filtered

P-MRJ-758X-X1 MRJ Receptacle, Right Angle on PCB with Transient Voltage Protection and Cable Header Contact Factory, authorized Amphenol representative or website www.amphenolcanada.com for additional configurations

QTR9300376 Quality Test Report

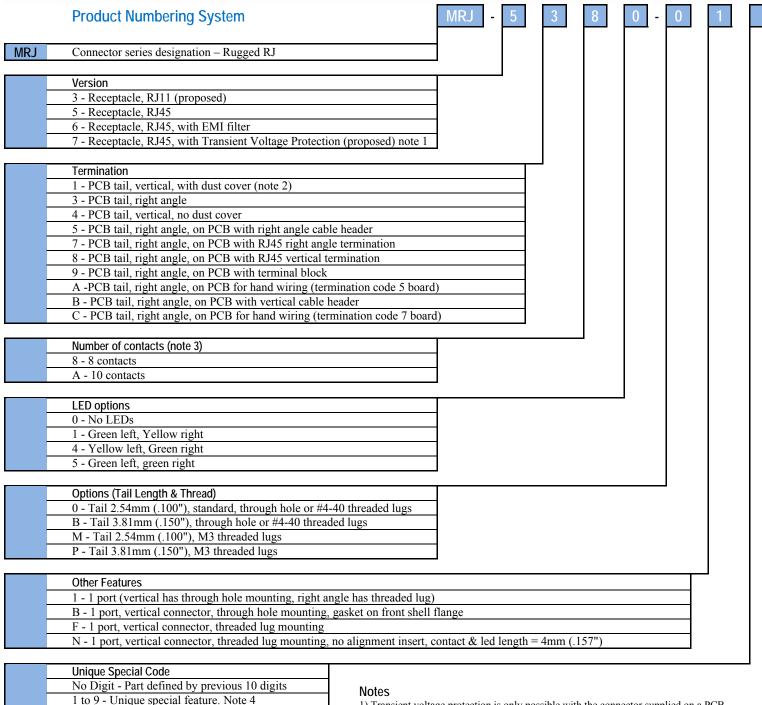
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- 1) Transient voltage protection is only possible with the connector supplied on a PCB.
- 2) Dust covers supplied bulk packed with the connectors.
- 3) 10 contact option is currently available for right angle PCB tail connectors only.
- 4) Many unique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

Consult with Amphenol Canada for details.

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