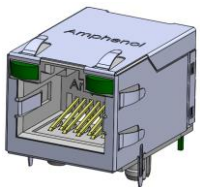


About Amphenol Commercial Products

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.

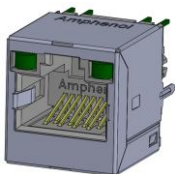
Related Products

RJE58

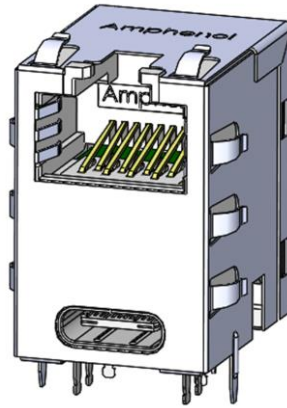


P/N RJE58-188-5XX1 SHOWN SINGLE PORT, 8 POSITIONS, WITH SHIELD AND LEDs CAT5e

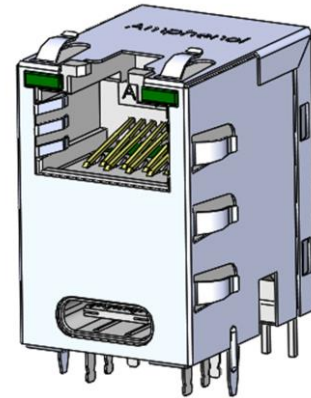
RJE45



P/N RJE45-188-2XX1 SHOWN SINGLE PORT, 8 POSITION, WITH SHIELD AND LEDs CAT6



P/N RJE4E-188-1X01 SHOWN, RJ45 over USB TYPE C, 8 POSITIONS, 8 CONTACTS, Shielded with EMI springs, without LEDs



P/N RJE4E-188-1XX1 SHOWN, RJ45 over USB TYPE C, 8 POSITIONS, 8 CONTACTS, Shielded with EMI springs, with LEDs

OVERVIEW

This product specification defines the general use and performance parameters for Amphenol's RJE4E series of modular jacks.

Availability: RJ45 over USB Type C connectors available with a wide variety of LED and USB Type C and shielding options.

USAGE

The RJ45 of RJE4E series meet CAT5e performance per EIA-568-C.2. It supports Gigabit Ethernet Protocols. Shielding is available for increasing EMI performance and LEDs for Link Activity and Network Speed verification.

The USB Type C of RJE4E series are unique as these receptacles will engage with the plugs regardless of how the plug is inserted. They also provide a multi function, single cable solution for USB, Power and Audio Video.

APPLICATIONS

Intended for use in applications such as:

Data

- Storage
- Servers
- Routers
- Switches
- Hubs

Consumer Goods

- Security Systems
- Set Top Boxes
- Video Game Systems
- PCs, Laptops
- Copiers, Printers

Industrial and Instrumentation

- Uninterruptible Power Supply (UPS)
- ATMs
- Vending Machines
- POS Terminals
- Industrial IoT Platforms

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Networking & Telecom

- 5G Wireless
- Telephones
- Modems
- Fax Machines
- Any Device that uses a USB currently

Medical

- Analysis Equipment
- Mass Spectrometers

■ CHARACTERISTICS FOR RJ45 PART

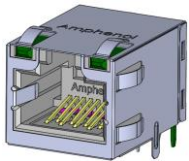
ELECTRICAL CHARACTERISTICS

Contact Resistance	20 mΩ maximum
Insulation Resistance	500 MΩ minimum at 500V DC for 2 minutes maximum
Current Rating	1.25 Amps per contact
Voltage Rating	125 Volts AC
DWV	1000 VAC, 60 HZ. 1 min
LED Forward DC Current	20 mA typical
LED Forward Voltage	1.9 Volts max. @ 2mA (for single colours) 2.6 Volts max. @ 20mA (for Bi-colours)
LED Reverse Voltage	5 Volts minimum
LED Light Intensity	0.4 to 1.5 mcd @ 2mA (for single colours) 0.5 mcd minimum @ 2mA (for Bi-colours) Yellow: 587 ± 7nm measured @20mA Green: 565 ± 6nm measured @20mA Red: 625 ± 5nm measured @ 20mA
LED Wavelength	

Supports PoE, PoE+, and PoE++ per IEEE PoE standards

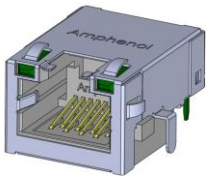
Related Products

RJE1A



P/N RJE1A-188-5XX1 SHOWN SINGLE PORT, 8POSITIONS, WITH SHIELD AND LEDs CAT5e

RJE71



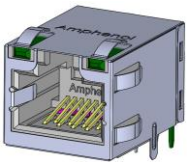
P/N RJE71-188-1XXX SHOWN SINGLE PORT, 8 POSITION, WITH SHIELD AND LEDs CAT6

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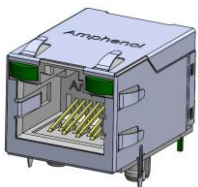
Related Products

RJE1B



P/N RJE1B-188-5XX1 SHOWN SINGLE PORT, 8 POSITIONS, WITH SHIELD AND LEDs CAT6

RJE60



P/N RJE60-188-5XX1 SHOWN SINGLE PORT 8 POSITIONS, WITH SHIELD AND LEDs CAT6A

CATEGORY 5e CHARACTERISTICS

Frequency MHz	Near-end Crosstalk dB Min.	Return Loss dB Min.	Attenuation dB Max.
1.0	65	30	0.1
4.0	65	30	0.1
8.0	64.9	30	0.1
10.0	63	30	0.1
16.0	58.9	30	0.2
20.0	57	30	0.2
25.0	55	30	0.2
31.25	53.1	30	0.2
62.5	47.1	24.1	0.3
100.0	43	20	0.4

MECHANICAL CHARACTERISTICS

Mating Connector Insertion force	5.0 lbs maximum
Mating Connector Pull Retention Force	20.0 lbs minimum
Durability	750 mating and unmating cycles for 50µ" gold plating
Recommended Soldering Temperature	Wave soldering peaked at 260°C for 5 seconds maximum
Operating Temperature	-40°C to +85°C

Connectors without LEDs are suitable for IR Reflow. Consult sales for LED versions suitable for Reflow.

MATERIAL REQUIREMENTS

RJE4W connectors are RoHS compliant, Unless otherwise specified, the materials for each component shall be:

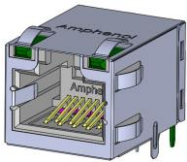
Insulator	High temperature thermoplastic, complies with UL 94V-0
Contacts	-Phosphor Bronze hard temper with gold thickness options (6µ", 15µ" 30µ", 50µ") over 50µ" minimum Nickel on contact mating area -100µ" minimum matte Tin plating on solder tails
Shield	Stainless Steel with tin-dipped tails
LED	Tin plating on LED tails

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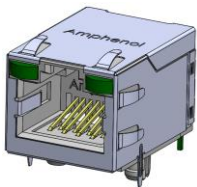
Related Products

RJE1B



P/N RJE1B-188-5XX1 SHOWN SINGLE PORT, 8 POSITIONS, WITH SHIELD AND LEDs CAT6

RJE60



P/N RJE60-188-5XX1 SHOWN SINGLE PORT 8 POSITIONS, WITH SHIELD AND LEDs CAT6A

CHARACTERISTICS FOR USB TYPE C PART

ELECTRICAL CHARACTERISTICS

Contact Resistance	40 mΩ maximum
Insulation Resistance	100 MΩ minimum
Current Rating	Up to 5A when following USB Type C spec
Differential Impedance	90 Ω +/- 15 Ω
DWV	100 VAC

MECHANICAL CHARACTERISTICS

Thermal Shock	5 cycles @ -40° to +125° C
Physical Shock	30g's ½ Sine for 11ms
Humidity	EAI-364-31 Condition C, method III
Vibration	EIA-364-28 Condition V, letter A

MATERIAL REQUIREMENTS

RJE4W connectors are RoHS compliant, Unless otherwise specified, the materials for each component shall be:

Insulator	High temperature thermoplastic, complies with UL 94V-0
Contacts	- Copper Alloy with gold thickness options (6μ", 15μ" 30μ") over 50μ" minimum Nickel on contact mating area -100μ" minimum matte Tin plating on solder tails
Shield	Stainless Steel with nickel plating.

AVAILABLE DOCUMENTS

Below is a list of the most popular standard sales drawings:
Contact our website, sales, or an authorized Amphenol representation for additional drawings.

RJE4E-188-1X01	RJ45 over USB TYPE C, shielded with EMI springs, without LEDs
RJE4E-188-1XX1	RJ45 over USB TYPE C, shielded with EMI springs, with LEDs