## Amphenol

# **RJE3B** Product Specification S6225C Rev 1.0

#### 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**

#### **RJE7B SERIES**

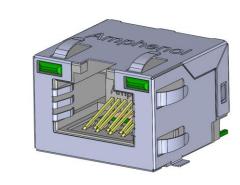


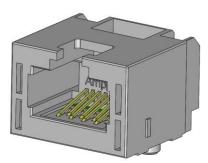
P/N RJE7B-188-1XXX SHOWN SINGLE PORT, 8 POSITION, WITH SHIELD AND LEDs CAT6A

#### **RJE45 SERIES**



P/N RJE45-188-1XX1 SHOWN SINGLE PORT, 8 POSITION, WITH SHIELD AND LEDs CAT6





P/N RJE3B-188-1452 SHOWN SINGLE PORT, 8 POSITION, SURFACE MOUNT, TAB-UP, WITHOUT BOARD PEGS, WITH SHIELD AND GREEN LEDS P/N RJE3B-188-0402 SHOWN SINGLE PORT, 8 POSITION, SURFACE MOUNT, TAB-UP, WITH BOARD PEGS, NO SHIELD, NO LEDs

Industrial and Instrumentation

Vending Machines

Industrial IoT Platforms

POS Terminals

ATMs

Uninterruptible Power Supply (UPS)

#### **OVERVIEW**

This product specification defines the general use and performance parameters for Amphenol's RJE3B series of modular jacks.

Availability: Single port connectors available with a wide variety of LED and shielding options

## USAGE

The RJE3B series of modular jacks meet CAT6 performance per EIA-568-C.2. It supports Gigabit Ethernet Protocols and 10Gig links in applications up to 50m. Shielding available for increased EMI performance and LEDs for Link Activity and Network Speed verification

## **APPLICATIONS**

Storage

Servers

Routers

Switches

Networking & Telecom

5G Wireless

Fax Machines

Modems

Hubs

Intended for use in applications such as: Data Consumer

#### Consumer Goods

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

#### Medical

- Analysis Equipment
- Mass Spectrometers

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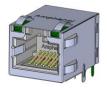
### **Related Products**

#### **RJE4A SERIES**



P/N RJE4A-188-1XX1 SHOWN SINGLE PORT, 8 POSITION, WITH SHIELD AND LEDS CAT6A

**RJE1A SERIES** 



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

## **ELECTRICAL CHARACTERISTICS**

Contact Resistance	20 mΩ maximum	
Insulation Resistance	500 $M\Omega$ minimum at 500V DC for 2 minutes maximum	
Current Rating	1.25 Amps per contact	
Voltage Rating	125 Volts AC	
DWV	Contact to Contact:1,000 VAC, 60 Hz, 1 minContact to LED:1,500 VAC, 60 Hz, 1 minContact to Shield:1,500 VAC, 60 Hz, 1 minLED to Shield:1,000 VAC, 60 Hz, 1 min	
LED Forward DC Current	20 mA typical	
LED Forward Voltage	2.4 Volts max. @ 20mA (for single colors) 2.4 Volts max. @ 20mA (for Bi-colors)	
LED Reverse Voltage	5 Volts maximum	
LED Light Intensity	4 to 30 mcd @ 20mA (for single colors) 8 to 20 mcd @ 20mA (for Bi-colors)	
LED Wavelength	Yellow: $587 \pm 7$ nm measured @ 20mAGreen: $565 \pm 6$ nm measured @ 20mARed: $625 \pm 5$ nm measured @ 20mA	

Supports PoE Type1, Type2, Type 3, and Type 4 per IEEE PoE standards IP20 rated per IEC 60529 TIA 1096 Compliant

## **CATEGORY 6 CHARACTERISTICS**

Frequency MHz	Near-end Crosstalk dB Min.	Return Loss dB Min.	Attenuation dB Max.
1.0	75.0	30.0	0.1
4.0	75.0	30.0	0.1
8.0	75.0	30.0	0.1
10.0	74.0	30.0	0.1
16.0	69.9	30.0	0.1
20.0	68.0	30.0	0.1
25.0	66.0	30.0	0.1
31.25	64.1	30.0	0.11
62.5	58.1	28.1	0.16
100.0	54.0	24.0	0.20
200.0	48.0	18.0	0.28
250.0	46.0	16.0	0.32

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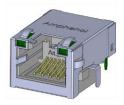
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## **Related Products**

#### **RJE71 SERIES**



P/N RJE71-188-1XX1 SHOWN SINGLE PORT, 8 POSITION, WITH SHIELD AND LEDs, CAT6

#### **RJE60 SERIES**



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

## **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 $50\mu^{\prime\prime}$ gold plating
Recommended Soldering Temperature	Reflow soldering peaked at 260°C for 10 seconds max.
Operating Temperature	-55°C to +85°C

## **MATERIAL REQUIREMENTS**

RJE3B 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 matte-Tin plating
LED	Tin plating on LED tails

## **AVAILABLE DOCUMENTS**

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

RJE3B-188-0X02	Single port, with board pegs, without shield, without LEDs
RJE3B-188-0XX2	Single port, with board pegs, without shield, with LEDs
RJE3B-188-1X02	Single port, with board pegs, shield with top and side EMI tabs, without LEDs
RJE3B-188-1XX2	Single port, with board pegs, shield with top and side EMI tabs, with LEDs
RJE3B-188-6X02	Single port, with board pegs, shield with no EMI tabs, without LEDs
RJE3B-188-6XX2	Single port, with board pegs, shield with no EMI tabs, with LEDs
RJE3B-188-1X01	Single port, without board pegs, shield with top and side EMI tabs, without LEDs
RJE3B-188-1XX1	Single port, without board pegs, shield with top and side EMI tabs, with LEDs
RJE3B-188-6X01	Single port, without board pegs, shield with no EMI tabs, without LEDs
RJE3B-188-6XX1	Single port, without board pegs, shield with no EMI tabs, with LEDs

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