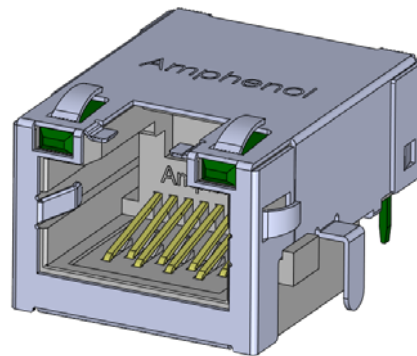


### About Amphenol Commercial Products

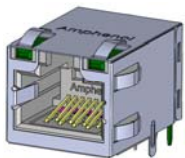
Amphenol's commercial connector products are used in a variety of end user applications including networking, telecom, server & computer, storage & HDD, consumer electronics and entertainment, professional audio & Industrial & Military/Aerospace.



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

### Related Products

#### RJE1A



P/N RJE1A-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

### OVERVIEW

This product specification defines the general use and performance parameters for Amphenol's RJE7B series of modular jacks.

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

### USAGE

The RJE7B series of modular jacks meet CAT6A performance per EIA-568-C.2. It supports Gigabit Ethernet Protocols and 10G Ethernet over lengths of up to 100m. Shielding available for increased EMI performance and LEDs for Link Activity and Network Speed verification.

### 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

#### Networking & Telecom

- 5G Wireless
- Telephones
- Modems
- Fax Machines

#### Medical

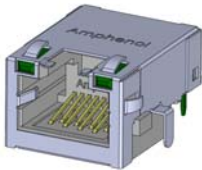
- Analysis Equipment
- Mass Spectrometers

## 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.

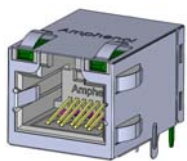
## Related Products

### RJE7Z



P/N RJE7Z-188-1XXX SHOWN SINGLE PORT, 8 POSITION, WITH SHIELD AND LEDs CAT5e

### RJE1B



P/N RJE1B-188-5XX1 SHOWN SINGLE PORT, 8 POSITIONS, WITH SHIELD AND LEDs CAT5e

## ELECTRICAL CHARACTERISTICS

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

Supports PoE, PoE+, and PoE++ per IEEE PoE standards  
IP20 rated per IEC 60529

## CATEGORY 6A CHARACTERISTICS

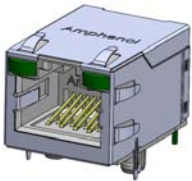
Frequency MHz	Near-end Crosstalk dB Min.	Return Loss dB Min.	Attenuation dB Max.
1.0	75.0	30.0	0.1
4.0	75.0	30.0	0.1
8.0	75.0	30.0	0.1
10.0	74.0	30.0	0.1
16.0	69.9	30.0	0.1
20.0	68.0	30.0	0.1
25.0	66.0	30.0	0.1
31.25	64.1	30.0	0.11
62.5	58.1	30	0.16
100.0	54.0	28.0	0.20
200.0	48.0	22.0	0.28
250.0	46.0	20.0	0.32
300.0	42.9	18.5	0.35
400.0	37.9	16.0	0.40
500.0	42.0	14.0	0.45

## 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.

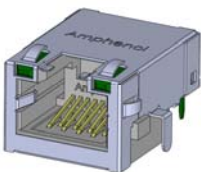
## Related Products

### RJE58



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

### RJE71



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

## MECHANICAL CHARACTERISTICS

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

UL File #: E135615

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

## MATERIAL REQUIREMENTS

RJE7B connectors are RoHS compliant,

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

<b>Insulator</b>	High temperature thermoplastic, complies with UL 94V-0
<b>Contacts</b>	-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
<b>Shield</b>	Stainless Steel with Tin dipped tails
<b>LED</b>	Tin plating on LED tails

## 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.*

**RJE7B-188-1X0X** Single port, shielded with top and side EMI tabs, without LEDs

**RJE7B-188-1XXX** Single port, shielded with top and side EMI tabs, with LEDs