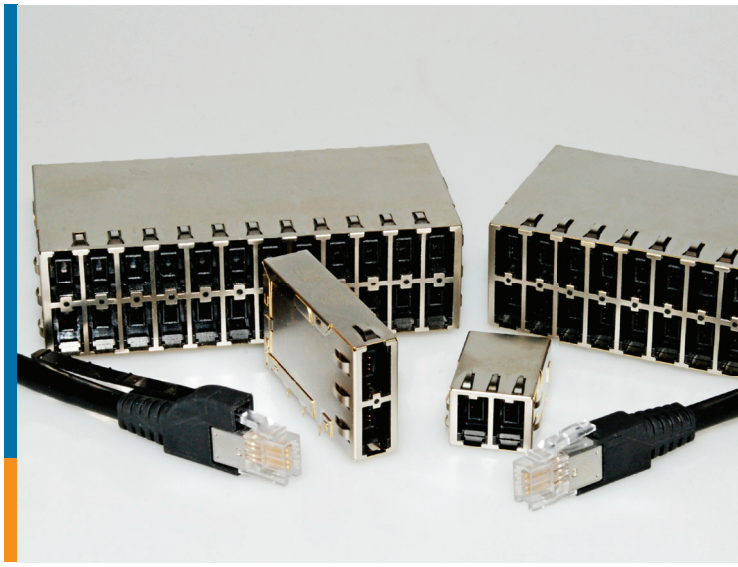
RJ *point five* CONNECTOR SYSTEM

Quick Reference Guide



TE Connectivity's (TE) next-generation Ethernet link, the RJ *point five* connector, offers higher density cabling solutions for Original Equipment Manufacturers (OEMs) who desire a competitive total cost of ownership per port--while maintaining the granularity of a single connector per channel. The port spacing is on a 7mm centerline, occupying half the space of a traditional RJ45 Ethernet link.

In addition to the high-density receptacle, TE offers the mating cable assembly along with cable management solutions for single-box and rack configurations. The receptacle and cable assembly were redesigned to eliminate the undesirable RJ45 split-pair configuration, which leads to heightened electrical performance. Additionally, the latching feature incorporates an easy-to-use lanyard that facilitates up to 96 ports on a single line card. Due to the density on the receptacle face, the light from the LEDs is transferred out through the cable boot, bringing the port indicator light closer to the end user.

FEATURES AND BENEFITS

- Approximately double the density offered over the standard RJ45 Ethernet link
- Receptacle is a modular design to allow for easy and rapid deployment of product extensions
- Lower total cost of ownership per port
- Offers field installations on cable assemblies, providing an option vs. factory terminated solutions
- Doubles density of gigabit ports in the same real estate; increases network capacity 100%
- Cable assemblies capable of field termination
- Cable management features available from for higher density configurations
- Product supports Gigabit speeds of Cat5e U/UTP and Cat5e F/UTP stranded (tinned) cable

Product Applications

- High density Ethernet switching/routing products
- Data center switching applications:
  - Top-of-rack
  - End-of-row
  - Mid-row
- Server I/O applications
- Wiring closet switching products

Electrical/Optical

Product meets category 5e performance for 10/100/1000BASE-T applications

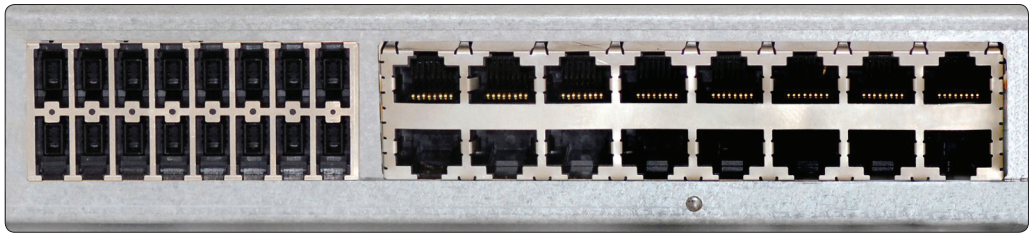
- Insertion loss 0.4 dB maximum at 100 MHz
- Return loss 20 dB minimum at 100 MHz
- NEXT loss 43 dB minimum at 100 MHz
- FEXT loss 35.1 dB minimum at 100 MHz

Mechanical

- Port center-on-center spacing at 7mm for Cat5e cabling
- Overall height is 25.25mm
- High-density cabling consists of ergonomically-friendly lanyard for easy extraction
- Port indicator LEDs conveniently located on the cable boot to facilitate easy viewing

RJ *point five* Connector Comparison to RJ45*

*Drawing not shown to scale



RJ *point five* Board Mount Receptacles and Plug Kit				
Part Number	**Description**	**Grounding Finger**	**LEDs**	**Product Available**
2057133-1	2x8 Receptacle	Yes	Yes (R/G)	Yes
2057133-2	2x8 Receptacle	Yes	Yes (Y/G)	Yes
2057134-1	2x12 Receptacle	Yes	Yes (R/G)	Yes
2057134-2	2x12 Receptacle	Yes	Yes (Y/G)	Yes
2057131-1	2x1 Receptacle	Yes	Yes (R/G)	Yes
2057131-2	2x1 Receptacle	Yes	Yes (R/G)	Yes
2170129-1	1x2 Receptacle	Yes	*	Yes
2170185-1	Plug Kit shielded	—	—	Yes

* has lightpipes for board mounted LEDs

RJ *point five* Connector Demo Rack

Demo Rack Illustrates:

- 96 Port RJ *point five* cards
- 48 Port RJ45 patch panels
- AMPTRAC intelligent infrastructure management system
- AMP NETCONNECT Hi-D cable management
- RJ *point five* connector to RJ45 jumper cables
- Cable assembly showing LEDs through cable plug

With Pull Tab
PNs 2100356/357
PNs 2142758/759

Without Pull Tab
PNs 2159683/684

RJ *point five* Cable Assembly Part Numbers

RJ *point five* to RJ *point five* Cable Assembly

Cat5e U/UTP AWG 24	Cat5e F/UTP AWG 26 LszH	Cat5e F/UTP AWG 26 LszH (short boot)	Cable Length
Part Number	Part Number	Part Number	
2100356-1	2142758-1	2159683-1	0.5 meters
2100356-2	2142758-2	2159683-2	1.0 meters
2100356-3	2142758-3	2159683-3	1.5 meters
2100356-4	2142758-4	2159683-4	2.0 meters
2100356-5	2142758-5	2159683-5	2.5 meters
2100356-6	2142758-6	2159683-6	3.0 meters
2100356-7	2142758-7	2159683-7	4.0 meters
2100356-8	2142758-8	2159683-8	5.0 meters
2100356-9	2142758-9	2159683-9	7.5 meters
1-2100356-0	1-2142758-0	1-2159683-0	10.0 meters
1-2100356-1	1-2142758-1	1-2159683-1	12.5 meters
1-2100356-2	1-2142758-2	1-2159683-2	15.0 meters

RJ *point five* to RJ45 Cable Assembly

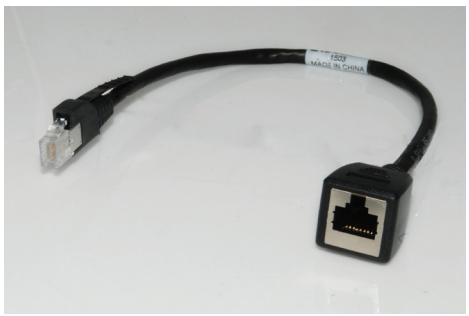
Cat5e U/UTP AWG 24	Cat5e F/UTP AWG 26 LszH	Cat5e F/UTP AWG 26 LszH (short boot)	Cable Length
Part Number	Part Number	Part Number	
2100357-1	2142759-1	2159684-1	0.5 meters
2100357-2	2142759-2	2159684-2	1.0 meters
2100357-3	2142759-3	2159684-3	1.5 meters
2100357-4	2142759-4	2159684-4	2.0 meters
2100357-5	2142759-5	2159684-5	2.5 meters
2100357-6	2142759-6	2159684-6	3.0 meters
2100357-7	2142759-7	2159684-7	4.0 meters
2100357-8	2142759-8	2159684-8	5.0 meters
2100357-9	2142759-9	2159684-9	7.5 meters
1-2100357-0	1-2142759-0	1-2159684-0	10.0 meters
1-2100357-1	1-2142759-1	1-2159684-1	12.5 meters
1-2100357-2	1-2142759-2	1-2159684-2	15.0 meters

RJ *point five* Coupler

Part Number	Raw Cable Type	Cable Length
2159658-1	Cat5e F/UTP AWG 26 LszH	0.25 meter
2159658-2	Cat5e F/UTP AWG 26 LszH	0.5 meter
2159658-3	Cat5e F/UTP AWG 26 LszH	1.0 meter

RJ *point five* Connector Documentation

Part Number	Description
108-2341	RJ *point five* Product Specifications (Design Objectives)
114-13228	RJ *point five* Receptacle Application Sheet
114-13235	RJ *point five* Plug Kit Application Sheet
408-10243	Cable Assembly Termination Instruction Sheet



RJ *point five* Coupler
PN 2159658-*

For More Information

te.com/products/rjpointfive

Frequently Asked Questions

What data rate does RJ *point five* product support?
RJ *point five* product currently supports 10/100/1000BASE-T applications or GbE RJ45 product applications.

What are the PCB termination options?
Receptacles are offered as press fit PCB termination style.

Is application tooling required?
Board mount receptacle connector will be press fit
(see application notes for press fit tooling), Plug requires only a hand-tool part number 2031734-1.

What cable lengths are required?
Cable length and wire gauge are related to the performance characteristics of the cable assembly. Longer cable lengths require heavier wire gauge, while shorter cable lengths can utilize a smaller gauge cable. Smaller gauge cable assemblies provide many benefits to the data center operator, such as ease of routing, less weight and increased airflow.

What cable types does the RJ *point five* plug accept?
The cables which can be used with this product line are CAT5e U/UTP cable with center conductors of AWG 24 stranded tinned copper and Cat5e F/UTP, SF/UTP cable with center conductors of 26 AWG stranded tinned copper, a primary insulation diameter of 0.89—0.99 mm, and a maximum cable jacket O.D. of 5.80 mm.

Standardization?
The RJ point five connector system; IEC, document number IEC 61076-3-121

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Part numbers in this brochure are RoHS Compliant (as defined on www.te.com/leadfree), unless marked otherwise.

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3-1773454-0 DTC 05/2015

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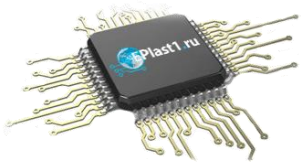

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