

# ETHERNET JACKS WITH INTEGRATED MAGNETICS AND PoE

Ethernet jacks with integrated magnetics and Power over Ethernet (PoE) from TE Connectivity (TE) offer a highly integrated connectivity PCB solution for Industrial Ethernet applications. Using a 3-wire choke improves EMI performance and allows for remote powering of peripherals over the Ethernet cable. The new jacks comply to the IEEE 802.3at (PoE+) standard, which supports up to 25.5W of power per ports. The Ethernet jacks support an industrial temperature range and can be used in reflow soldering production processes at 260°C for easy and cost effective manufacturing. All features combined with high corrosion resistivity makes the new series of jacks extremely suited for a broad spectrum of industrial applications.

## BENEFITS

- Supporting 260°C reflow solder processes to simplify manufacturing without extra process step
- Reduction of electrical problems and corrosion via thicker plating
- Fits Industrial applications: -40°C to +85°C temp range
- Compact design on PCB using integrated magnetics
- Remote powering supported by 802.3at PoE
- Enhanced EMI with 3 wire choke

## APPLICATIONS

- Industrial Communications & Ethernet
- Industrial Machinery
- Industrial Production Equipment
- Automated Test Equipment

## FEATURES

- Extended temperature range -40°C to +85°C
- PoE+ support according to 802.3at
- Plating thickness 0.76µm [30µ inch] Gold over 1.27µm [50µ inch] Nickel

## MATERIALS

- Plating thickness 0.76µm [30µ inch] Gold over 1.27µm [50µ inch] Nickel
- High grade LCP
- UL94-V0
- 260°C reflow capable
- Moisture sensitivity level (MSL) 1

## ELECTRICAL

- 10/100 Mbps Ethernet, 1 Gbps
- Dielectric withstanding 2250V DC
- Supports voltage or current mode applications
- 3-wire choke

## MECHANICAL
















- -40°C to +85°C
- Min. 750 mating cycles
- Different configurations available

## STANDARDS & SPECIFICATIONS

- Product Specification: 108-94694
- Application Specification: 114-94556

# Ethernet Jacks with Integrated Magnetics and POE

## PRODUCT OFFERINGS

Part Number	Description	Speed	Ports	Orientation	Tab	LEDs	Packaging	Solder Pin and Shield Length [mm]	
<a href="#">2337992-3</a>	RJ45 JACK MAG. PoE 10/100 LED 1x1 INV.	10/100	1x1	R/A	Up	Yes	T&R	1,9	
<a href="#">2337992-4</a>	RJ45 JACK MAG. PoE 10/100 LED 1x1	10/100	1x1	R/A	Down	Yes	T&R	1,9	
<a href="#">2337992-5</a>	RJ45 JACK MAG. PoE 1Gb LED 1x1 INV.	1G	1x1	R/A	Up	Yes	T&R	1,9	
<a href="#">2337992-8</a>	RJ45 JACK MAG. PoE 1Gb LED 1x1	1G	1x1	R/A	Down	Yes	T&R	1,9	
<a href="#">2337993-2</a>	RJ45 JACK MAG. PoE 10/100 LED 1x1 VERT.	10/100	1x1	Vertical	-	Yes	T&R	1,9	
<a href="#">2337994-3</a>	RJ45 JACK MAG. PoE 10/100 LED 1x2 INV.	10/100	1x2	R/A	Up	Yes	T&R	1,9	
<a href="#">2337994-4</a>	RJ45 JACK MAG. PoE 10/100 LED 1x2	10/100	1x2	R/A	Down	Yes	T&R	1,9	
<a href="#">5-2337992-3</a>	RJ45 JACK MAG. PoE 10/100 LED 1x1 INV.	10/100	1x1	R/A	Up	Yes	Tray	1,9	
<a href="#">5-2337992-4</a>	RJ45 JACK MAG. PoE 10/100 LED 1x1	10/100	1x1	R/A	Down	Yes	Tray	1,9	
<a href="#">5-2337992-5</a>	RJ45 JACK MAG. PoE 1Gb LED 1x1 INV.	1G	1x1	R/A	Up	Yes	Tray	1,9	
<a href="#">5-2337992-8</a>	RJ45 JACK MAG. PoE 1Gb LED 1x1	1G	1x1	R/A	Down	Yes	Tray	1,9	
<a href="#">5-2337993-2</a>	RJ45 JACK MAG. PoE 10/100 LED 1x1 VERT.	10/100	1x1	Vertical	-	Yes	Tray	1,9	
<a href="#">5-2337994-3</a>	RJ45 JACK MAG. PoE 10/100 LED 1x2 INV.	10/100	1x2	R/A	Up	Yes	Tray	1,9	
<a href="#">5-2337994-4</a>	RJ45 JACK MAG. PoE 10/100 LED 1x2	10/100	1x2	R/A	Down	Yes	Tray	1,9	
<a href="#">5-2337995-1</a>	RJ45 JACK MAG. PoE 10/100 LED 2x1	10/100	2x1	R/A	Down	Yes	Tray	1,9	

Industrial RJ45 also offers integrated magnetics and discrete series (X-2301994-X; X-2301995-X; X-2301996-X; X-2301997-X), please go to [te.com](#) for details

For additional features or requests, please reach out to your TE sales representative or our customer care specialists.

## te.com

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2337992-8

✓ ACTIVE

Industrial RJ45 Mag Jack, RJ45 Connectors, RJ45 with Integrated Magnetics, Single Port, Port Matrix Configuration 1 x 1, RJ Type Jacks & Plugs



Industrial RJ45 Mag Jack

TE Internal #: **2337992-8**

TE Internal Description: **RJ45 JACK MAG. POE 1GB LED 1X1**

Modular Jack & Plug Interface Type : **RJ45 with Integrated Magnetics**

Port Configuration : **Single Port**

Port Matrix Configuration : **1 x 1**

Modular Jacks & Plugs Products : **RJ Type Jacks & Plugs**

Connector Contact Density : **Standard**

Documents

Features

Product Compliance

Please review product documents or [contact us](#) for the latest agency approval information. Please Note: Use the Product Drawing for all design activity.

## Product Type Features

Modular Jack & Plug Interface Type : **RJ45 with Integrated Magnetics**

Modular Jacks & Plugs Products : **RJ Type Jacks & Plugs**

Modular Connector Style : **Jack**

Grounding Options : **PCB Ground**

Sealable : **No**

Connector & Contact Terminates To : **Printed Circuit Board**

Connectors & Connector Components Type : **Connector**

## Configuration Features

Port Configuration : **Single Port**

Port Matrix Configuration : **1 x 1**

Connector Contact Density : **Standard**

Status Indicator Type : **LED**

Number of Positions : **8**

Number of Loaded Positions : **8**

PCB Mount Orientation : **Right Angle**

Number of PCB Ground Tabs : **2**

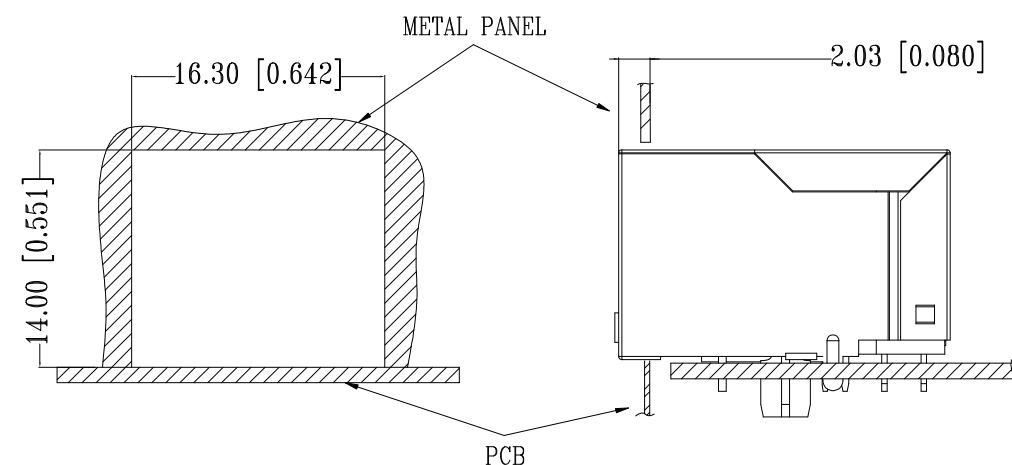
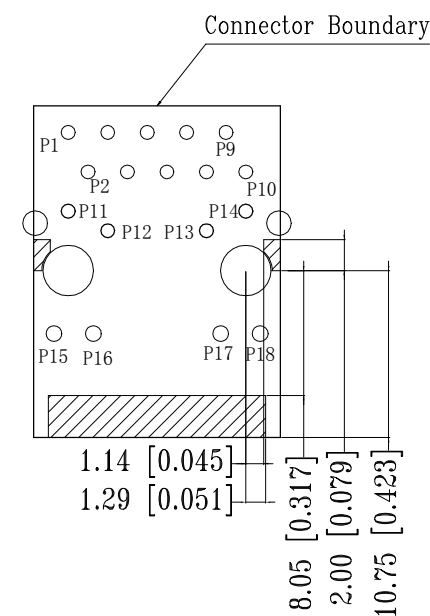
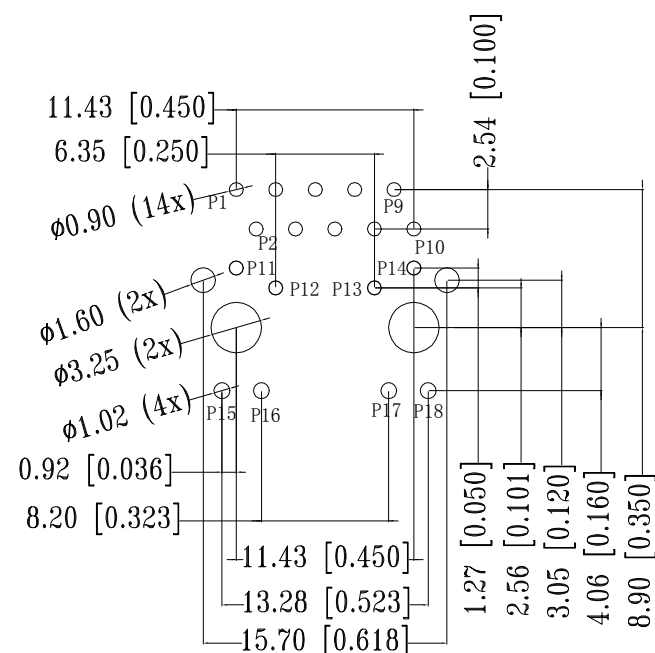
## Signal Characteristics

Data Rate (Mb/s): **1000**


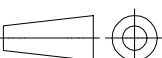



Body Features	Shield Material : <b>Brass</b> Shield Plating Material : <b>Nickel</b> Modular Jack Latch Orientation : <b>Standard - Latch Down</b> Connector Profile : <b>Standard</b> LED Color (Bottom Left) : <b>Green</b> LED Color (Bottom Right) : <b>Yellow</b> LED Color (Top Left) : <b>None</b> LED Color (Top Right) : <b>None</b> PCB Ground Tab Location : <b>3.05 mm [ .12 in ]</b> Shield Plating Finish : <b>Matte</b> Insulator Material : <b>LCP</b>
Contact Features	PCB Contact Termination Area Plating Material : <b>Tin</b> Contact Underplating Material : <b>Nickel</b> Contact Mating Area Plating Material : <b>Gold over Nickel</b> Contact Base Material : <b>Copper Alloy</b> Contact Mating Area Plating Material Thickness : <b>.76 µm [ 30 µin ]</b> PCB Termination Area Plating Finish : <b>Matte</b>
Termination Features	Termination Method to Printed Circuit Board : <b>Through Hole - Solder</b>
Mechanical Attachment	PCB Mount Retention Type : <b>Boardlock</b> Boardlock Material : <b>LCP</b>
Housing Features	Mating Entry Location : <b>Side</b> Housing Color : <b>Black</b> Housing Material : <b>LCP (Liquid Crystal Polymer)</b>
Dimensions	Connector Height : <b>13.65 mm [ .537 in ]</b>
Usage Conditions	Operating Temperature Range (°C): <b>-40 – 85</b> Operating Temperature Range (°F): <b>-40 – 185, -40 – 185</b> Housing Material Temperature : <b>260</b>
Operation/Application	Shielded : <b>Yes</b>
Industry Standards	UL Flammability Rating : <b>UL 94V-0</b> Performance Category : <b>Cat 5e</b>
Packaging Features	Packaging Quantity : <b>80</b> Packaging Method : <b>Reel</b> Packaging Reel Diameter (cm): <b>33</b>



P	LTR	DESCRIPTION	DATE	DWN	APVD
	—	SEE SHEET 1	—	—	—



UNIT: mm / inch  
TOLERANCES:  $\pm 0.10$  / 0.004

THIS DRAWING IS A CONTROLLED DOCUMENT.		DWN GANESH C M 26NOV2018		 TE Connectivity	
DIMENSIONS: mm [INCHES]		CHK O. WIBORG 26NOV2018			
TOLERANCES UNLESS OTHERWISE SPECIFIED:		APVD J. DE BRUIJN 26NOV2018		NAME	
		PRODUCT SPEC 108-94694 APPLICATION SPEC 114-94556		RJ45 JACK MAG. POE 1Gb LED 1x1	
MATERIAL 		WEIGHT 		SIZE A3	CAGE CODE 00779
FINISH 		CUSTOMER DRAWING		DRAWING NO C-2337992-8	RESTRICTED TO —
				SCALE 3:1	SHEET 2 OF 3
				REV A	

