

PulseJack™ 1X1 Tab-Down 10GBase-T RJ45

Designed to Support 10GBASE-T Transceivers



Features and Benefits:

- Ⓢ Compliant with IEEE 802.3 standard
- Ⓢ Qualified with top 10Gig PHY Manufacturers
- Ⓢ RoHS peak wave solder temperature rating 260°C
- Ⓢ Low profile package for PCI Express
- Ⓢ Fine-tune magnetics to specific PHY vendors
- Ⓢ RoHS compliant and Halogen Free

Electrical Specifications @ 25°C - Operating Temperature 0°C to 70°C

| Part Number | Channel Option | LEDs ² (L/R) | Insertion Loss (dB MAX) | | Return Loss (dB MIN) | | | | Common to Differential Mode Rejection (dB MIN) | | Cross Talk (dB or better) | | Hipot (V _{DC} MIN) |
|--------------|----------------|-------------------------|-------------------------|-----------|----------------------|---------|---------|---------|--|-------------|---------------------------|-------------|-----------------------------|
| | | | 100 KHz | 1-400 MHz | 1-100 MHz | 200 MHz | 300 MHz | 500 MHz | 1-300 MHz | 300-500 MHz | 1-100 MHz | 100-500 MHz | |
| JT4-1108HL* | 5 | G-Y/G | -3.0 | -2.0 | -22.0 | -16.5 | -13.2 | -9 | -30 | -22 | -28 | -19 | 2250 |
| JT4-1109HL* | 5 | G-A/G-A | -3.0 | -2.0 | -22.0 | -16.5 | -13.2 | -9 | -30 | -22 | -28 | -19 | 2250 |
| JT4-1120HL^ | 4 | G-Y/G | -3.0 | -2.0 | -22.0 | -16.5 | -13.2 | -9 | -30 | -22 | -28 | -19 | 2250 |
| JT4-1128HL** | 5 | G-Y/G | -3.0 | -2.0 | -22.0 | -16.5 | -13.2 | -9 | -30 | -22 | -28 | -19 | 2250 |
| JT4-1160HL* | 5 | G-Y/G | -3.0 | -2.0 | -22.0 | -16.5 | -13.2 | -9 | -30 | -22 | -28 | -19 | 2250 |
| JT4-1173HL^ | 4 | G/Y-G | -3.0 | -2.0 | -22.0 | -16.5 | -13.2 | -9 | -30 | -22 | -28 | -19 | 2250 |

Notes:

1. LEDs: (Left/Right) G = green, Y = yellow, A = amber
2. PHY Vendors Approval - INTEL *, MARVELL **, BROADCOM ^

RJ45 Durability Testing Rating

| Part Number | Mating Force (MAX) | Unmating Force (MAX) | Durability | Plug to Jack Retention (MIN) |
|-------------|--------------------|----------------------|----------------|------------------------------|
| JT4 Series | 5 lbs./2.268 kgs. | 5 lbs./2.268 kgs. | 750 Insertions | 20lbs./9.072 kgs. |

RJ45 Material Specification

| Part Number | Shield | | Contact | | | Housing | | MSL ² Rating |
|-------------|----------|--|-----------------|---|--|---------------|---------------|-------------------------|
| | Material | Finish | Material | Plating Area | Solder Area | Material | Specification | |
| JT4 Series | Brass | 50-200μ inches thick nickel over brass | Phosphor Bronze | 50μ inches gold over 30-50μ inches nickel | 200-500μ inches tin over 50-100μ inches nickel | Thermoplastic | UL 94 V-0 | 1 |

Notes:

1. Connector dimensions comply with FCC dimension requirements
2. MSL - Moisture Sensitivity Level
3. All parts are tin matte finish over nickel

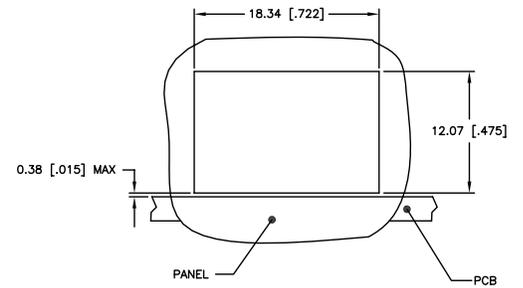
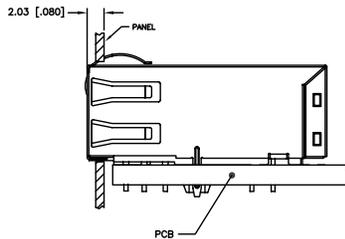
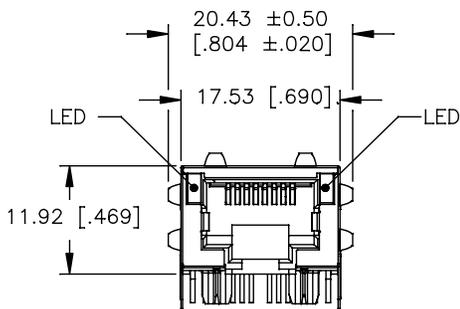
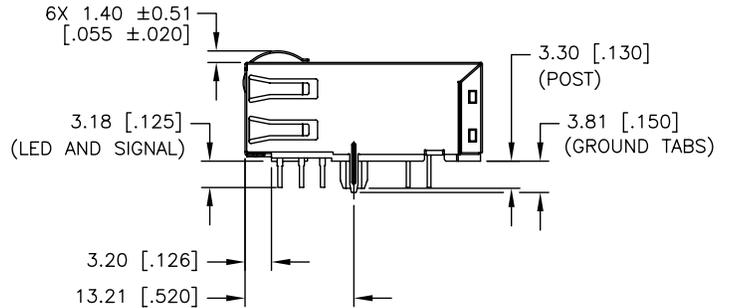
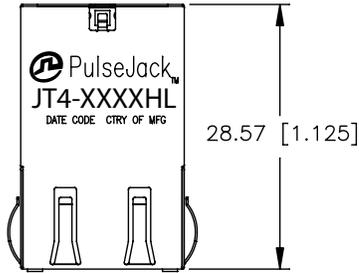
PulseJack™ 1X1 Tab-Down 10GBase-T RJ45

Designed to Support 10GBASE-T Transceivers

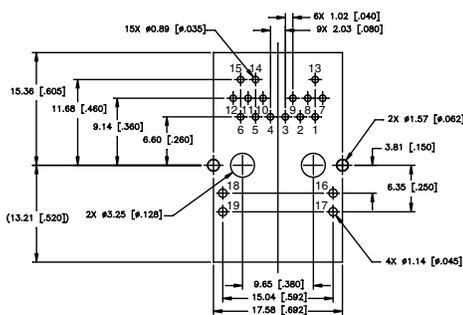


Mechanicals

JT4-1108HL, JT4-1109HL, JT4-1120HL, JT4-1128HL, JT4-1160HL, JT4-1173HL

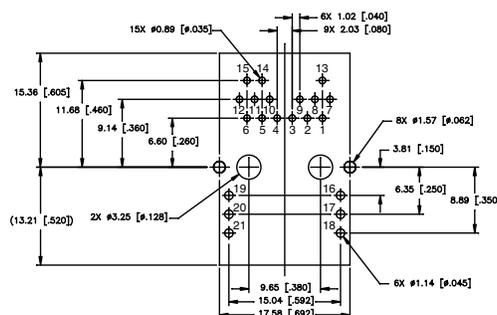


SUGGESTED PANEL CUTOUT



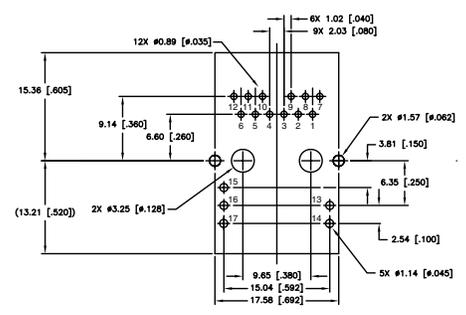
SUGGESTED FOOTPRINT (JT4-1108HL SIDE SHOWN)
THE FOLLOWING TOLERANCES APPLY:
x.xx [.xxx] = ±.008 [±.003]

JT4-1108/1128/1160HL



SUGGESTED FOOTPRINT (JT4-1109HL SIDE SHOWN)
THE FOLLOWING TOLERANCES APPLY:
x.xx [.xxx] = ±.008 [±.003]

JT4-1109HL



SUGGESTED FOOTPRINT (JT4-1120HL SIDE SHOWN)
THE FOLLOWING TOLERANCES APPLY:
x.xx [.xxx] = ±.008 [±.003]

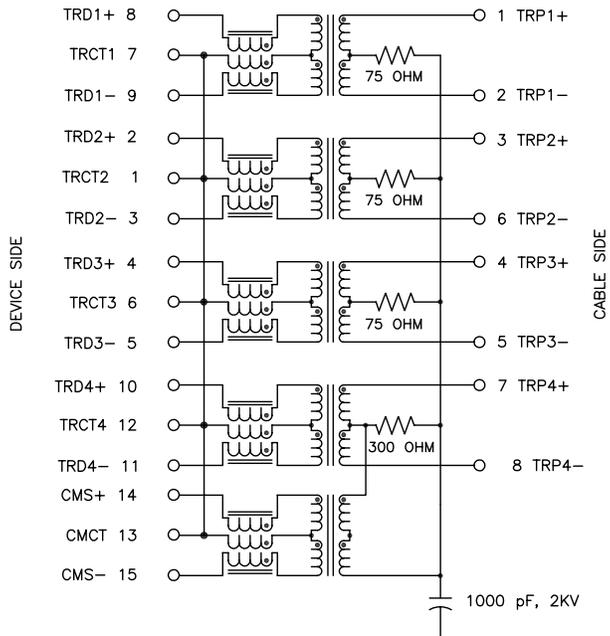
JT4-1120HL

PulseJack™ 1X1 Tab-Down 10GBase-T RJ45

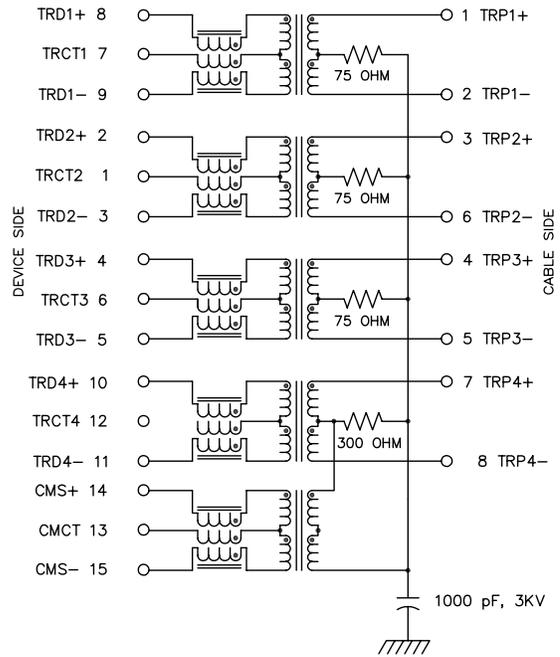
Designed to Support 10GBASE-T Transceivers

Schematics

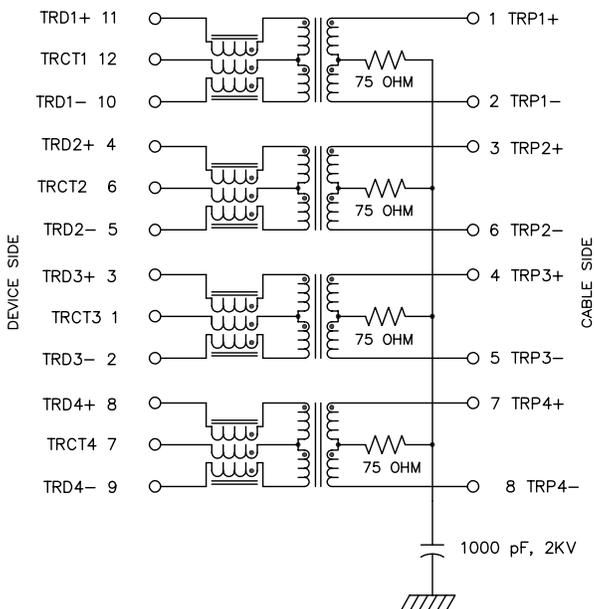
JT4-1108HL, JT4-1109HL



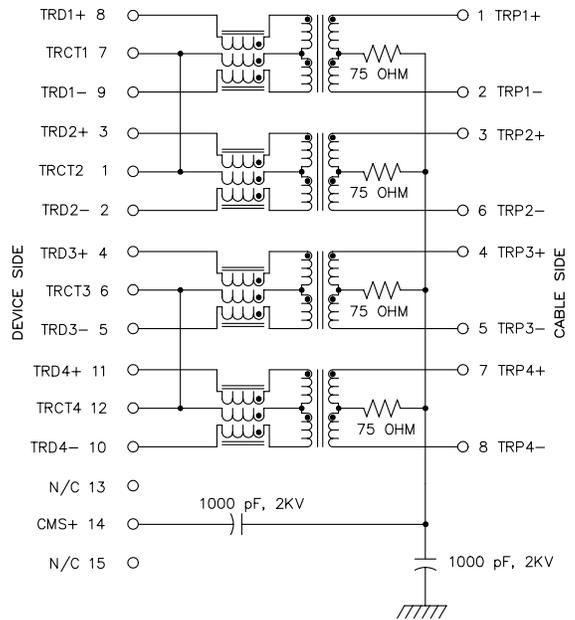
JT4-1160HL



JT4-1120HL



JT4-1128HL

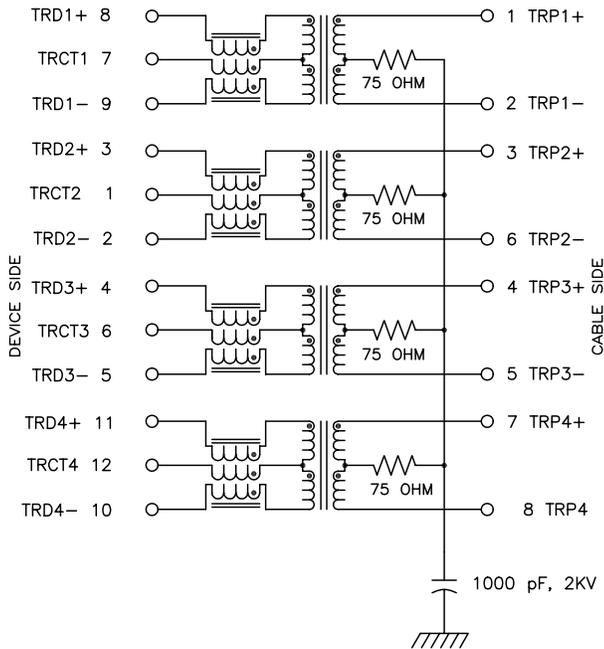


PulseJack™ 1X1 Tab-Down 10GBase-T RJ45

Designed to Support 10GBASE-T Transceivers

Schematic

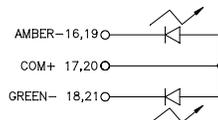
JT4-1173HL



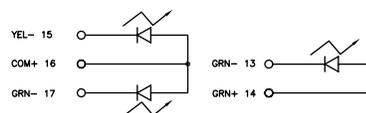
LED SPECIFICATIONS



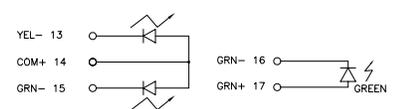
LED SPECIFICATION FOR JT4-1108/28/60HL



LED SPECIFICATION FOR JT4-1109HL



LED SPECIFICATION FOR JT4-1120HL



LED SPECIFICATION FOR JT4-1730HL

| EMMITTED COLOR | GREEN | YELLOW | GREEN |
|----------------------------|------------|------------|------------|
| WAVELENGTH (nm) | 565 | 588 | 565 |
| POWER DISSIPATION (Pd) | 105 mW MAX | 100 mW MAX | 105 mW MAX |
| DC FORWARD CURRENT | 25 mA MAX | 30 mA MAX | 25 mA MAX |
| FORWARD VOLTAGE (VF) @20mA | 2.2 V TYP | 2.1 V TYP | 2.2 V TYP |

BICOLOR

NOTE: PER VENDOR'S SPECIFICATION

| EMMITTED COLOR | GREEN | AMBER |
|----------------------------|------------|------------|
| WAVELENGTH (nm) | 570 | 607 |
| POWER DISSIPATION (Pd) | 105 mW MAX | 105 mW MAX |
| DC FORWARD CURRENT | 25 mA MAX | 30 mA MAX |
| FORWARD VOLTAGE (VF) @20mA | 2.2 V TYP | 2.1 V TYP |

BICOLOR

NOTE: PER VENDOR'S SPECIFICATION

For More Information:

Americas - prodinfonetworkamericas@pulseelectronics.com | Europe - comms-apps-europe@pulseelectronics.com | Asia - prodinfonetworkapac@pulseelectronics.com

Performance warranty of products offered on this data sheet is limited to the parameters specified. Data is subject to change without notice. Other brand and product names mentioned herein may be trademarks or registered trademarks of their respective owners. © Copyright, 2022. Pulse Electronics, Inc. All rights reserved.