






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

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

| RoHS Compliant Part Number | Channel Option | LEDs ² (L/R) | Insertion Loss (dB or better) | | Return Loss (dB or better) | | Common to Differential Mode Rejection (dB or better) | | Cross Talk (dB or better) | | Hipot (V _{RMS} MIN) |
|----------------------------|----------------|-------------------------|-------------------------------|--------------------------|----------------------------|-----------------------|--|-------------|---------------------------|-------------|------------------------------|
| | | | 100 KHz | 1-400 MHz | 1-40 MHz | 40-500 MHz | 1-250 MHz | 250-500 MHz | 1-100 MHz | 100-500 MHz | |
| JT4-1108HL | 5 | G-Y/G | 3.0 | -2.0dB MAX (-1.4 dB TYP) | -22 | -22 +18.27*LOG(f/100) | -30 | -22 | -30 | -20 | 1500 |
| JT4-1109HL | 5 | G-A/G-A | 3.0 | -2.0dB MAX (-1.4 dB TYP) | -22 | -22 +18.27*LOG(f/100) | -30 | -22 | -30 | -20 | 1500 |
| JT4-1120HL | 4 | G-Y/G | 3.0 | -2.0dB MAX (-1.4 dB TYP) | -22 | -17 +18.27*LOG(f/100) | -30 | -22 | -30 | -20 | 1500 |

Notes:

1. LEDs: (Left/Right) G = green, Y = yellow, A = amber

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 ³ | 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:

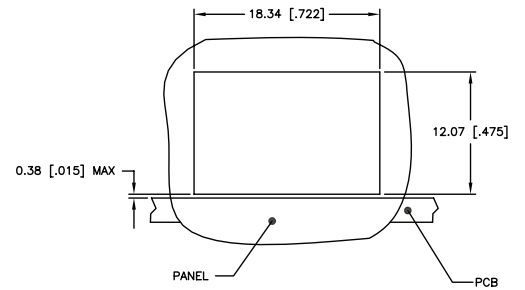
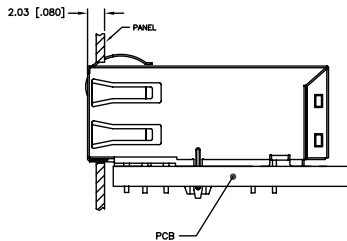
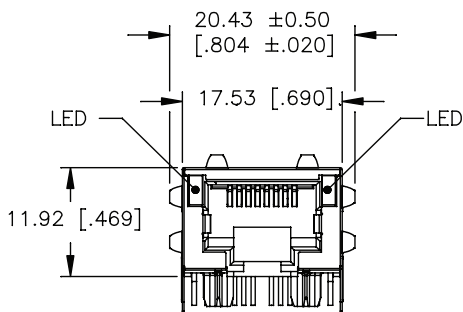
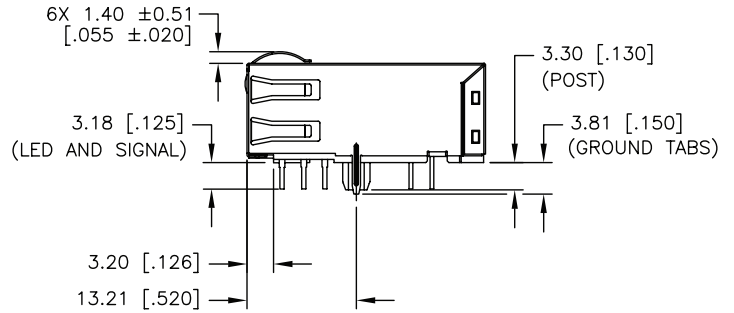
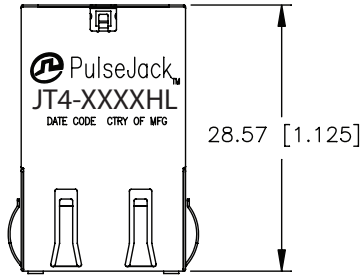
1. Connector dimensions comply with FCC dimension requirements.
2. MSL - Moisture Sensitivity Level
3. All parts are tin matte finish over nickel.

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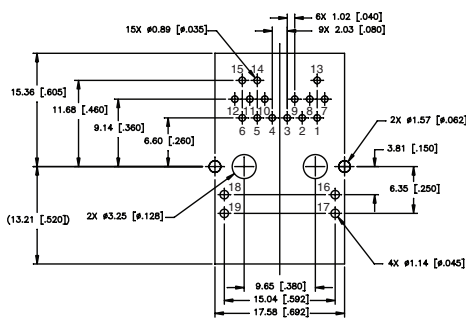
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Mechanicals

JT4-1108HL, JT4-1109HL, JT4-1120HL

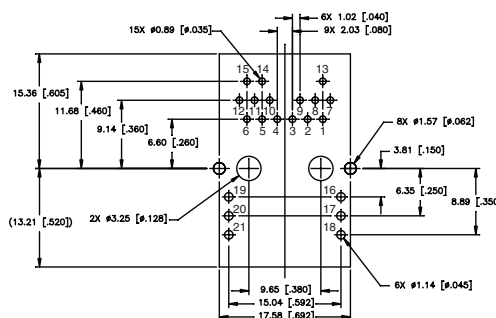


SUGGESTED PANEL CUTOUT



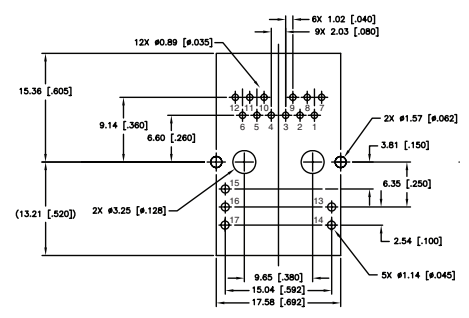
SUGGESTED FOOTPRINT (JT4-1108HL SIDE SHOWN)
THE FOLLOWING TOLERANCES APPLY:
x.xx [.xxx] = ±.008 [±.003]

JT4-1108HL



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]

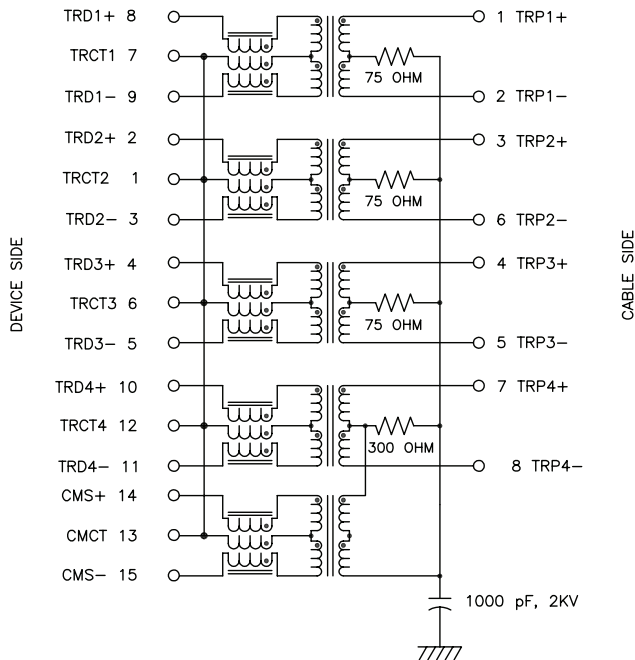
JT4-1120HL

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

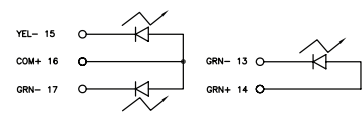
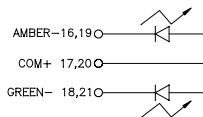
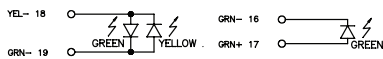
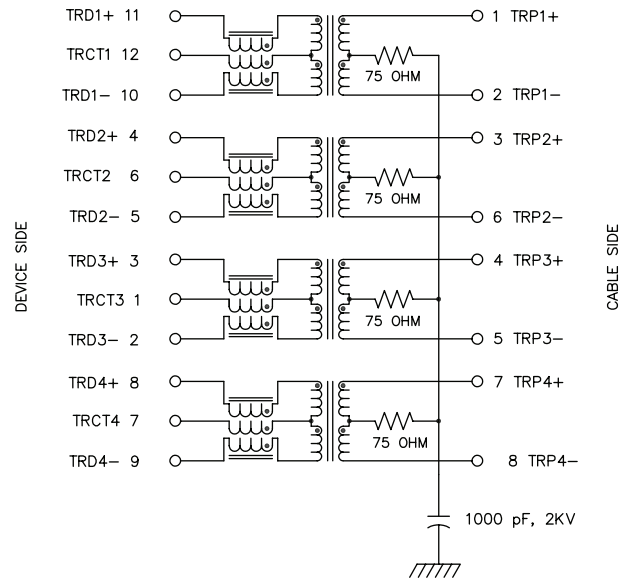
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Schematics

JT4-1108HL, JT4-1109HL



JT4-1120HL



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

NOTE: PER VENDOR'S SPECIFICATION

LED SPECIFICATION FOR JT4-1108HL

| 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 |

NOTE: PER VENDOR'S SPECIFICATION

LED SPECIFICATION FOR JT4-1109HL

| 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 |

NOTE: PER VENDOR'S SPECIFICATION

LED SPECIFICATION FOR JT4-1120HL

For More Information:

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

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