



10G ETHERNET FOR INDUSTRIAL APPLICATIONS

PULSEJACK™ - INTEGRATED CONNECTOR MODULES

Pulse Electronics expands its' range of market leading 10GBase-T Pulsejack™, integrated connector modules (ICMs) with the launch of the JXT4 family. These latest additions are ideal for use in linking rugged, Industrial, mobile 5G and other outdoor high-speed computing equipment to backhaul servers and switches.

The new additions complement, the current lower profile, commercial grade 10Gigabit products, pushing your design boundaries out into the wider operating temperature requirements of -40 to +85°C

All PulseJack™ designs provide a “one-component” solution to a discrete design and offers superior EMC; as all the magnetic portion is confined within the RJ45 and it's surrounding shield. The design of the JXT4's internal cavity and pin placement allows for the integration of an additional “5th channel”. This is a proprietary feature implemented by PHY vendors Aquantia, Intel and Marvell allowing for reduced processing power as the extra link permits sampling of the cable and helps the PHY eliminate common mode noise and improve integrity of the 10G data signal using cancellation algorithms. The shield has top and side metal fingers for improving EMI and the front LED and rear signal pins maintain adequate separation helping to ease EMC and PCB power, signal, ground routing issues.



KEY APPLICATIONS

Base-Stations and Roof-top Cabinets:

4G, LTE and 6G Mobile Mast and roof-top cabinets, Point-to-Point Datacoms

Industrial / Outdoor:

Industrial factory and rugged Servers and switches, Video and high- bandwidth image handling and storage, Mobile secure Comms and access points, Process back-up, AI systems and “Big-data” logging and remote monitoring.

FEATURED PRODUCTS

- JXT4-1128HL – 10Gig, 4 channel, no LEDs, non-PoE matched to Marvell Phy
- JXT4-1141HL – 10Gig, 5 channel, G-Y/G LEDs, 100W PoE matched to Intel, Aquantia Phy
- JXT4-1198HL – 10Gig, 4 channel, G-Y/G LEDs, 140W PoE matched to Broadcom Phy

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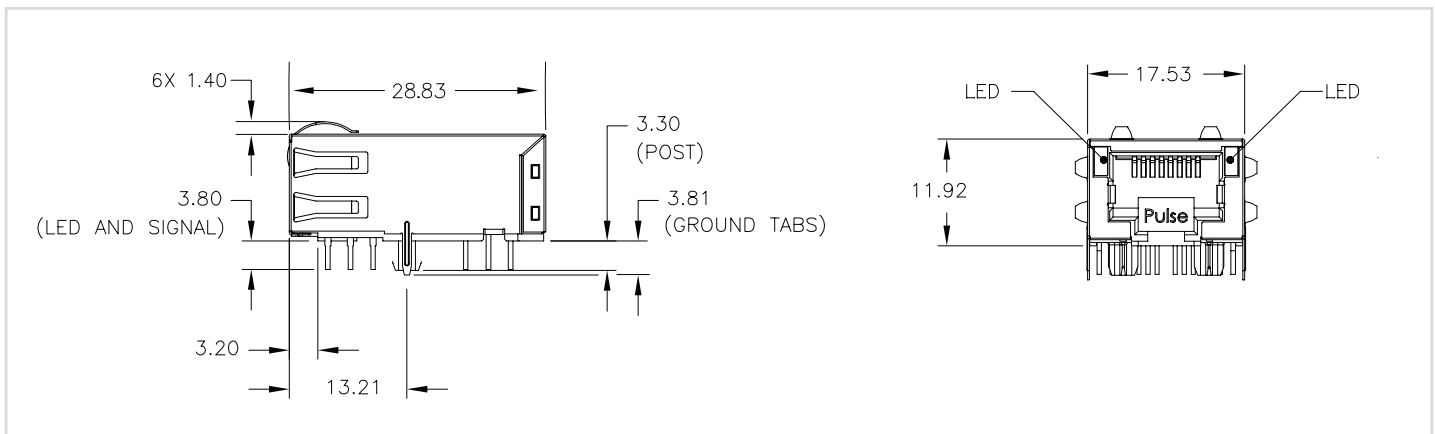
Industrial 100Base-Tx and 1000Base-T Ethernet Connector Modules						
Part No.	Data Rate	LED Option (Left/Right)	IC Design Style	Common mode sense Link (CMS+/-)		Matched PHY Vendor
JXT4-1128HL	10GBase-T	Yellow-Green/Green	5 Channel	Pin 14 *	Capacitive	Marvell 88X3310
JXT4-1141HL	10GBase-T	Yellow-Green/Green	4 Channel	N/A	N/A	Broadcom BCM84xxx
JXT4-1198HL	10GBase-T	Yellow-Green/Green	5 Channel	Pin 14 -15	Isolated Xfmr	Intel/Aquantia

Contact Pulse FAE's and Sales Team for other package sizes and configurations. Custom option may be considered.

FEATURES & BENEFITS

- Single component solution with excellent EMC
- Rugged Design for industrial and outdoor use
- Full RoHS and Halogen Free compliance
- Lower profile <12mm off PCB
- Industrial Temperature -40°C to +85°C
- 10G Ethernet over UTP surpassing IEEE802.3an
- Supports 5th Channel, Common Mode noise reduction pair.
- Bi-Colour LEDs for indicating operating mode
- Matched to leading PHY vendors ICs
- 50u" GOLD for secure connections

JXT4 - Basic Outline & Mechanical Dimensions(mm)



Visit www.pulseelectronics.com to search for the JXT4 product family data sheet or contact the "Network" team or a local Sales rep or FAE support desk to receive a full technical datasheet on a specific part. The Resource Library has a really useful Ethernet layout consideration paper with tips for PCB layout.

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