

XRJH SERIES 10/100Mbps, 1G & 10G Magnetic Connectors



Xmultiple XRJH series RJ45 Magnetic connectors with integrated LAN magnetics were designed to save board space and provide a way to increase the RJ port density on every printed circuit board.

The XRJH RJ45 Magnetic Jacks integrate magnetic components inside the shielded jack housing to save valuable board space and to reduce discrete component placements. The XRJH technology enhances a product's electromagnetic compatibility.

The XRJH RJ/ LED/Magnetic modular jacks are designed as shielded and unshielded jacks. The XRJH's are provided with thru-hole PC board mount. These high performance category 5 and 5e jacks conform to TIA/EIA-568A requirements.

LEDs integrated into the modular jack reduce space requirements for indicators. LEDs reduce time and much of the labor cost for electronic assembly. With built in LEDs the status of transmit/receive, collisions and line status can be identified by viewing the indicators directly in each port. The LEDs are offered in a variety of color combinations.

The XRJH modular jacks are provided with 1 and 4 ports as well as 2x1, 2x4, 2x6 and 2x8 Stackable connectors. With an industry-standard RJ45 footprint, the modular XRJH connectors offer a choice of magnetic components to meet 10/100 Base-T and 1 Gigabit specifications. By integrating customer-specific yoke coils and transformer configurations within the connector, the XRJH connectors permit designers to reduce board size or to dedicate more space to essential circuitry.

PRODUCT FACTS

- Stackable 2xN RJ45 With Integrated Magnetics.
- 1x1 and 1x4 With Integrated Magnetics
- LEDs provided in a variety of color options
- Designed to be compatible with standard wave solder, I/R and vapor phase manufacturing processes.
- Power over Ethernet (PoE) Enabled, Compatible to IEEE 802.3af standard
- 350uH Minimum OCL with 8 mA Bias Current
- Minimum 1500 Vrms Isolation to IEEE 802.3i/u/af Requirement
- Lower labor cost during assembly of PCB with integration of magnetic, RJ connector and LEDs
- Meets or exceeds IEEE 802.3i/u/af Standard
- Maximum EMI Suppression with High Performance

LED MODULAR JACK SPECIFICATIONS

Electrical

- **Current Rating** - 1.5 amp max. at 25°C
- **Voltage Rating** - 150 VAC max.
- **Dielectric Withstanding Voltage** – 1000 VAC
- **Insulation Resistance** – 500 megohms min.
- **Shielding Effectiveness** - 20dB min., 10 to 200 MHz
- **Attenuation** - @ 100 MHz - .04 dB max.
- **Return Loss** - @ 100 MHz - 19 dB min.
- **Common Mode Rejection** - 16 dB at 155 MHz (For Common Mode Choke, Electrical Diagram 023)

Mechanical

- **Durability** -1000 mating cycles (per IEC 603)
- **Mating/Unmating Forces** - 4.5 lbs. Max
- **Operating Temperature** - -40°C to 70°C

Material & Finish

- **Housing** - High temperature Nylon, Black, UL 94V-0 rated
- **Contact** - 0.33 [.013] Phosphor bronze, plated 0.00127 [.000050] gold in localized area and 0.00381 [.000150] tin-Lead on solder tails, over 0.00127 [.000050] nickel underplate
- **Shield** - 0.25 [.010] copper alloy, tin-lead plated



ORDERING INFORMATION

Part Number: XRJH-X-XX-X-X-X-XXX
Family: LED Modular Jacks with Integrated Magnetics
Version: Position, Through Hole or SMT
Number of Contacts & Positions: (6 or 8)
Shielding: Shielded or Unshielded
Number of Ports: 1, 4, 6, 8
LED1: Various Colors or Bi-LED Optional
LED2: Various Colors or Bi-LED Optional

Part Numbers

XRJH-XX (#ports) – X (magnetic type)-X (LED) – X (Protocol Type) – XX (Circuit Type) – Shield – X (Special Code)

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