

E-DAT™ Shielded Cable Termination Components



E-DAT_{module}

10G Modular Jack Product Description

Key Features & Benefits

- No special tools dramatically reduce installation time and labor cost.
- ISO/IEC Augmented Cat. 6 and EN Class E channel link performance: ACR > 30dB, 100MHz and ACR > 10dB, 250MHz typical.
- Performance tested to 800 MHz, ready for 100 meter channel certification per 10GBase-T IEEE 802.3an draft and component certification per TIA/EIA-568-B-2.10 draft Cat. 6A.
- Meets IEC 60603-7-5 draft standard RJ45, is backwards compatible and future proof.
- Compatible with Screened or Fully Shielded structured cable and provides 360° shield bonding directly through module housing.
- EMF/RFI Protection meets EMI proof and EMI emission per EN requirements, ready for ISO/IEC Industrial EtherNet/IP.
- Shielded Copper Cabling Systems provide 4x improvement in Shannon capacity and avoids UTP installation pathway spaces constraints, special cable orientations/geometries and unplanned quiet channel links.
- Perfect solution for Alien Crosstalk, avoids labor cost to repair/replace/test installations.
- Low total cost of ownership (TCO) considering operating and life-cycle costs.

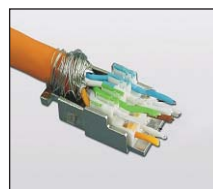
Applications

- Premise Wiring: High bandwidth data center, IP telephony and messaging, Videoconferencing.
- Structured Cabling: 3D Engineering, HPC, Storage Area Networks, Security/Access control and Web cameras, Gaming and Entertainment equipment, Retail POS terminals, Wireless Access Points, Hospital and Medical applications.
- Device Automation: Web-enabling commercial BAS applications and Time-sensitive integrated PAS to MES and Supply Chain applications, M2M machine-to-machine, Lighting systems.

Ordering Information

130910-I 10G and Cat. 6A channel ready Shielded Jack Module, E-DAT size.

E-DAT™ RJ45 Shielded Modular Jack Cat. 8(8) component # 130910-I is ready for Cat. 6A (augmented) Shielded Copper Cabling Systems (to 500 MHz) and must be installed and field tested as part of a system to achieve 10GBase-T certified performance (IEEE standard pending) over a 100 meter, 4 connector field terminated channel link. Unique design enables dramatically faster field termination of screened (ScTP and F/UTP) and fully shielded (S/FTP) four-pair 100Ω (balanced) copper Ethernet cable. Field termination requires no special tools. Finger force press of two mating parts results in secure connection via 8-pole insulation displacement connection (IDC) with complete shield bonding at module housing. Innovative two-tier staggered lay area for wire staging provides superior cable strain relief and minimal untwisting (0.5 inch or less) of AWG 22-26 insulated wire pairs. Wire color identification per T568A is standard with T568B (ISDN type) available. Includes passive PC board for BTR proprietary



T568A Wire Color

Digital Signal Processing type compensation (phase and other cable parameters). The E-DAT™ RJ45 Modular Jack Cat.6 8(8) field termination module is completely reusable on the same section of prepared cable up to 30 times when using a wire with the same or bigger cross section, thus reducing the need for service loops of spare cable. Meets or exceeds all TIA/EIA-568-B-2.10 draft augmented Cat. 6, EN 50173-1:2002 for Class E, and ISO/IEC 60603-7-5 for Cat. 6 component standard requirements

at swept frequencies up to 800 MHz.

Plated refined Zinc die-cast solid housing provides optimal protection from Alien crosstalk. Captive 360° shield connectivity spring enables potential balancing of shield/screen/foil for EMF/RFI protection and shield attenuation of the cable link, per ISO/IEC 11801:9/2002 and EN50173-11:2002, meeting requirements of EMI proof per EN 55022-B and EMI emissions per EN 50082-1, important to consider when installed in ISO/IEC 24702 draft Ethernet/IP and other harsh service conditions.

Component fits nominal 14.85 x 19.35 mm (0.585 x 0.762 inch) port size and is suitable for use in standard 19 inch, 24 port Rack Mount Patch Panel Frames and other standard size adaptors and housings, for example DIN and RMS.

Component RJ45 module meets or exceeds all performance requirements per draft IEC 60603-7-5/Ed. 1, type C8DE12, including transmission features, electromechanical properties, environmental performance, safety and quality. Contact spring base material copper alloy (CuSn) with 0.75 microns gold contact surface and 2 microns nickel underplating (Au + Ni). Conductor diameters 0.40 to 0.65 mm (0.016 to 0.026 inch). Insulation diameter 0.70 to 1.4 mm (0.028 to 0.055 inch) with uninsulated 7-wire stranded lead. Outer jacket diameter 5.0 mm to 9.6 mm (0.20 to 0.38 inch). Mating cycles, 750 minimum per IEC 60603-7 and 2500 minimum with Stewart RJ plugs.

Electrical rating for IEEE 802.3af Power over Ethernet (PoE) application is 1.0 Amp @ 50 VDC. Performance verified and tested per Shock and Vibration to IEC 60068-2-6. Operating temperature range -40C to 70C, per Climatic Category 40/70/21 per IEC 60603-7 via methods IEC 60512-11a, -11i, -11j, -11m. Weight, 35g.



Equi-potential bonding clip (removeable) for DIN Rail to Module Housing



Related E-DAT™ Products

Category 6 UTP Jack Modules:

- # 130A10-I, Keystone size
- # 130909-I, E-DAT size

Cat 5e UTP Jack Modules:

- #130908-I, E-DAT size
- #130A08-I, Keystone size

Female Couplers & Adapters:

- #1309A1-I fully shielded Cat. 6A channel ready 90° Keystone to E-DAT size
- #1309A0-I fully shielded Cat. 6A channel ready 180° Keystone to E-DAT size

Cat 6A 19 in. Rack Mount Patch Panel Frames:

- #130920-00-E anodized aluminum, 24 ports, 1 RMS with cable strain relief
- #130921-00-E high-grade steel, 24 ports, 1 RMS with cable strain relief
- #130924-00-E high-grade steel, 48 ports, 1.5 RMS with cable strain relief
- #130810-01-E cover plate 3 RMS
- #130807-E module frame 19 in. 3 RMS
- #130808-01-E module frame 10 in. 3 RMS
- #130809-01-E module frame 1/2-19 in. 3 RMS
- #1508120000-E cover screen 1 RMS
- #854544-E module frame 19 in. 1 RMS
- #854568-E module frame 10 in. 1 RMS
- #130894-E cable manager



Custom Housings and Adapters:

- #1308990110-E DIN rail adapter
- #130862-00-E 6x8 AP surface mount housing, 6 ports
- #130922-02-E 6x8 3 RMS frame mounting, 6 ports
- #130922-03-E 6x8 1 RMS frame or DIN rail adapter mounting, 6 ports

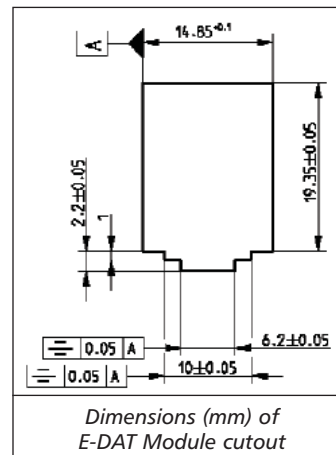
IP44 Mounting System:

- #1309430003-E Surface Mount Box
- #1309440003-E Surface Mount Box, with key/lock



IP67 Mounting System:

- #130906-03-E Cat. 6A channel ready RJ45 Plug MP8FS with Housing and Locking Clamp
- #1309410003-E Wall/Surface Mount Housing, includes E-DAT size module
- #1309415003-E Cable Coupler Housing, includes E-DAT size module
- #1309413003-E Bulkhead Mount Flange, for E-DAT size module
- #1309413203-E Panel Mount Flange, includes mounting kit for E-DAT size module
- #1309413103-E Bulkhead Mount Flange, for Keystone size module
- #1309413303-E Panel Mount Flange includes mounting kit, for Keystone size module
- #130906-VC-I Locking Clamps: C=5 yellow; C=7 green; C=8 red; C=6 blue; C=3 matching light grey



IP20 Mounting System:

- #1309426103-E DIN rail Mount Housing, with integrated potential balance spring
- #1309150102-E Surface Mount Box, 2 port

Crimp Tool:

- #130907-E for RJ45 plug type MP8FS



Ask us about channel link performance solutions! Call now for a complete BTR E-DAT™ component catalog.

