TERA® Category 8.2 Outlet and Plug

Originally designed as the interface for category 7A/class FA that has long been ahead of its time as the highest-performing twisted-pair copper cabling system available, Siemon’s innovative TERA outlet and plug have been newly characterized to support Category 8.2. When installed as part of a TERA 8.2 solution, these outlets and plugs deliver transmission performance up to 2 GHz to support two-connector, 30-meter channels in high-speed 25 Gigabit (25GBASE-T) and 40 Gigabit (40GBASE-T) applications for switch-to-server connections in the data center. The TERA outlets are easily installed in Siemon’s TERA-MAX® patch panels, while the plugs can be used to terminate 22 to 23 AWG solid or stranded S/FTP and F/FTP shielded cables into exact lengths. Both the TERA outlet and plug are backwards compatible with Category 7A/Class FA cabling systems.

**Contact Integrity** – Featuring Siemon’s patented crowned jack contact geometry that improves electrical and mechanical performance and ensures that any jack or plug contact damage due to arcing caused by unmating under PoE load occurs well away from the final mated contact position.

**TERA-MAX Panel** - TERA outlets are compatible with 24 port flat and angled TERA-MAX patch panels.

**TERA Category 8.2 Patch Cords** - Are available in TERA-to-RJ45 for direct equipment connections.

**STANDARDS COMPLIANCE**
- ISO/IEC 11801-1 Ed.1.0
- IEC 61076-3-104
- IEC 60512-99-002
- UL/cUL
- Cable Sharing Compliant System
- TERA Channel Tempest Rated

**APPLICATION SUPPORT**
- 10BASE-T to 40BASE-T
- IEEE 802.3at (Type 1 PoE)
- IEEE 802.3at (Type 2 PoE)
- IEEE 802.3bt (Type 3 and Type 4 PoE)
- Power over HDBaseT (POH)
- Supports all applications designed to run over category 8.2 cabling systems or lower

**Slim, compact design allows outlets to be side-stacked and are compatible with all MAX® series mounting hardware**

**Shielded quadrant design fully isolates pairs for optimum internal crosstalk performance**

**Fully shielded (S/FTP) cable and connector design eliminates alien crosstalk concerns**

**Robust termination of category 8.2 fully shielded (S/FTP) 22AWG cable**

**TERA outlets and plugs assure proper termination of cable shield — no additional crimping or processes required for grounding cable**

**Outlets include a hinged door to prevent exposure to dust and other contaminants**

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Product Information

### ELECTRICAL
- **Contact Resistance**: 20 mΩ
- **Input to Output Resistance - Signal Contact**: 200 mΩ
- **Min. Dielectric Withstand Voltage (contact to contact)**: 1000 V DC or AC peak
- **Min. Dielectric Withstand Voltage**: 1500 V DC or AC peak
- **Insulation Resistance**: 500 MΩ
- **Backward Compatibility**: to 5e, 6, 6A and 7A
- **Power over Ethernet (PoE)**: Type 1 through Type 4

### MECHANICAL-OUTLET
- **Operating Temperature**: -10 to 60 °C (14 to 140 °F)
- **Flammability Rating**: UL 94 V-0
- **Green Features**: RoHS, lead free, halogen free, PVC free
- **Housing Material**: Diecast zinc alloy
- **Contact Materials**: Plated copper alloy
- **Plastic Materials**: Flame retardant thermoplastic
- **Dimensions with boot (LxWxH)**: 64.2x14.5x24.3 mm (2.5x.570x.95 in.)
- **Shielding**: Quadrant design
- **Number of Plug Insertion Cycles**: 2500
- **Min Plug Retention Force**: 50N (11.24 lbf)
- **Plug Compatibility**: IEC 61076-3-104

### MECHANICAL-TERMINATION
- **Wire Size Range (nominal)**: 22-26 AWG solid and stranded
- **Wire Insulation Diameter Range (max)**: 1.58 mm (0.062 in.)
- **Conductor OD (max)**: 0.64 mm (0.025 in.)
- **Cable OD (max)**: 9 mm (0.354 in.)
- **Rterminations**: Not recommended

ORDERING INFORMATION

#### TERA® 4-Pair Outlet:
- **Part #**
  - **T7F-01-1**: TERA Outlet with black door, icon and boot, 22-24 AWG solid cable
  - **T7F-01-2**: TERA Outlet with black door, icon and boot, 26 AWG stranded cable

#### TERA Field-Terminated Plug
- **Part #**
  - **T7P4-B(XX)-1**: 4-pair TERA plug with colored boot. Compatible with 0.64 – 0.55mm (22 – 23 AWG) solid S/FTP and F/FTP cable
  - **T7P4-B(XX)-2**: 4-pair TERA plug with colored boot. Compatible with 0.48mm (26 AWG) stranded S/FTP and F/FTP cable

*Use (XX) to specify boot color: 01 = black, 02 = white, 03 = red, 05 = yellow, 06 = blue, 07 = green*