

# 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-conductor, 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.



Siemon's patented **PowerGUARD** technology prevents plug and jack contact erosion due to arcing at the mated location when the plug is unmated under PoE load conditions.

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 connecting hardware ensures that critical contact seating surfaces are not damaged when unmated under remote powering current loads per IEC 60512-99-001.

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

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

## 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 802.3af (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



### 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.

# Product Information

## ELECTRICAL

Contact Resistance	20Ω
Input to Output Resistance - Single Contact	200Ω
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, 6A and 7A
Power over Ethernet (PoE)	Suitable for PoE Type 1,2,3,4 and PoH

## 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 Materials	Diecast zinc alloy
Contact Materials	Plated copper alloy
Plastic Materials	Flame retardant themoplastic
Dimensions with boot (LxWxH)	64.2x14.5x24.3mm (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.)
Reterminations	Not recommended

## Ordering Information

### TERA 4-Pair Outlet

#### Part Number Description

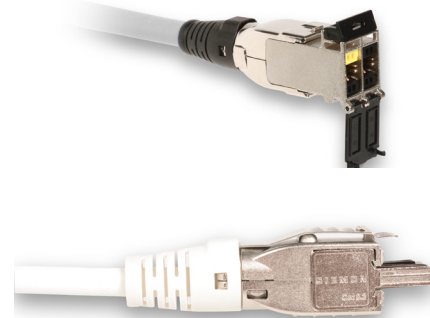
T7F-01-1 .....	TERA Outlet with black door, icon and boot, 22-24 AWG solid cable
T7F-01-2 .....	TERA Outlet with black door, icon and boot, 26 AWG stranded cable

### TERA Field-Terminated Plug

#### Part Number Description

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



Because we continuously improve our products, Siemon reserves the right to change specifications and availability without prior notice.

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