# TX6A™ 10Gig™ Shielded Copper Cable - F/UTP

#### specifications

Category 6A cable shall be constructed of 23 AWG copper conductors with PE CM, CMR or LSZH insulation. The copper conductors shall be twisted in pairs and separated by an integrated pair separator. All four pairs shall be surrounded by an overall metallic foil shield within a low smoke zero halogen jacket. The TX6A" 10Gig" Shielded Copper Cable must be installed as part of a complete TX6A" 10Gig" Shielded Copper Cabling System to achieve 10GBASE-T certified performance.



#### technical information

Electrical performance:	Certified channel performance in a 4-connector configuration up to 100 meters and exceeds the requirements of ISO 11801 Class $E_A$ and ANSI/TIA-568-C.2 Category 6A standards for supporting 10GBASE-T transmission over twisted-pair cabling systems as part of the Panduit® TX6A™ 10Gig™ Shielded Copper Cabling System		
	Certified component performance up to 100 meters and meets or exceeds the component requirement of the ISO/IEC 11801 Category 6A and ANSI/TIA-568-C.2 Category 6A standards for supporting 10GBASE-T transmission over twisted-pair cabling systems		
Conductors/insulators:	23 AWG solid bare copper wire covered by PE insulation		
Insulation diameter:	0.0415 in 0.044 in. (1.05mm - 1.12mm)		
Flame rating:	LSZH: IEC 60332-1, IEC 60754-1, IEC 60754-2, IEC 601034-2, EN 50575: Euroclass Dca - s2, d2, a1 CM: UL 1685 CMR: UL 1666 CMP: NFPA 262		
Standards compliance:	UL Listed CMP-LP 0.7A and CMR-LP 0.5A		
Installation tension:	110 N (25 lbf) maximum		
PoE compliance:	Meets IEEE 802.3af, IEEE 802.3at and IEEE 802.3bt for PoE applications		
Temperature rating:	-4°F to 167°F (-20°C to 75°C) Installation (Operation)		
Cable jacket:	LSZH, CM, CMR, CMP		
Cable diameter:	LSZH: 7.3mm (0.287 in.) nominal CM, CMR: 7.2mm (0.284 in.) nominal CMP: 7.5mm (0.296 in.) nominal		
Cable weight:	LSZH: 16 kg/305m (35 lbs./1000 ft.) CM, CMR: 15 kg/305m (33 lbs./1000 ft.) CMP: 19kb/305m (42 lbs./1000 ft.)		
Packaging:	LSZH: 18 kg/ 305m (40 lbs./1000 ft.) on a reel CM, CMR: 17 kg/ 305m (37 lbs./1000 ft.) on a reel CMP: 20kg/305m (46 lbs./1000 ft.) Packaged tested to ISTA Procedure 1A		

## key features and benefits

Integrated pair divider: Separates pairs for exceptional cable performance			
Overall foil shield:	Provides superior structural integrity and reduces low frequency external interference to ensure exceptional cable performance at all swept frequencies up to 500 MHz		
Internal drain wire:	Facilitates means of grounding the cable and provides for efficient performance and protection of network investment		
Descending length cable markings:	Easy identification of remaining cable reduces installation time and cable scrap		
Bulk packaging:	Supplied 305m (1000 ft.) to a reel		

## applications

TX6A\*\*\* 10Gig\*\*\* Shielded Copper Cable is a component of the Panduit\*\* TX6A\*\* 10Gig\*\* Shielded Copper Cabling System. This end-to-end system provides a cost-effective medium for ensuring that network bandwidth needs are easily met today and tomorrow. The shielded cabling system provides high performance, excellent EMI suppression, and aids in secure data transmission. The Panduit solution helps ensure organizations efficiently and reliably meet their data transmission needs. Usage

of the TX6A $^{\text{\tiny M}}$  10Gig $^{\text{\tiny M}}$  Shielded Copper Cabling System include high bandwidth applications within data centers and connections to high-end workstations such as:

- 10GBASE-T Ethernet
- · Data Center applications
- Virtual business management applications



TX6A<sup>™</sup> 10Gig<sup>™</sup> <u>Shielded Copper Cabling</u> System

TX6A<sup>™</sup> 10Gig <sup>™</sup> Shielded Copper Cable – F/UTP

 LSZH:
 PFL6X04\*-CEG

 CM:
 PFC6X04\*-CEG

 CMR:
 PFR6X04\*-CG

 CMP:
 PFP6X04\*-UG

TX6A™ 10Gig™ Shielded Jack Module

Jack Module: CJS6X88TGY

TX6A™ 10Gig™ Shielded Patch Cords

Meters: STP6X\*\*MIG Feet: STP6X\*\*\*IG

Mini-Com® Angled All Metal Shielded Modular Patch Panels

**24-port, 1 RU:** CPA24BLY **48-port, 2 RU:** CPA48BLY **72-port, 2 RU:** CPA72BLY

Mini-Com® Flat All Metal Shielded Modular Patch Panels

**24-port, 1 RU:** CP24BLY **48-port, 2 RU:** CP48BLY **72-port, 2 RU:** CP72BLY

Cable Prep Tools

Wire snipping tool: CWST Wire stripping tool: CJAST

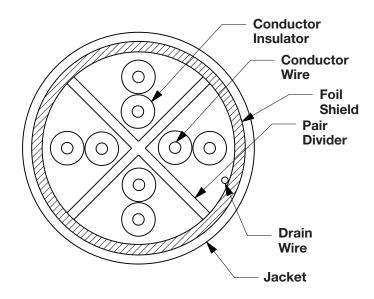
\*To designate color, add suffix BU (Blue) or WH (White). For additional cable colors, contact customer service.

\*\*For lengths 1 to 10 meters (increments of one meter) and 1.5, 2.5, 15, 20 meters, change the length designation in the part number to desired length. For standard cable colors other than IG (International Gray) substitute IG suffix with BL (Black), BU (Blue), GR (Green), RD (Red), YL (Yellow), OR (Orange) or VL (Violet) to the end of the part number, For example, the part number for a blue, 15-meter patch cord is STP6X15MBU.

\*\*\*For lengths 3 to 20 feet (increments of one foot) and 25, 30, 35, 40 feet, change the length designation in the part number to desired length. For standard cable colors other than IG (International Gray) substitute IG suffix with BL (Black), BU (Blue), GR (Green), RD (Red), YL (Yellow), OR (Orange) or VL (Violet) to the end of the part number. For example, the part number for a blue, 15-foot patch cord is STP6X15BU.

# TX6A™ 10Gig™ Shielded Copper Cable — F/UTP

	LSZH	СМ	CMR	СМР			
		Mechanical Test					
Ultimate Breaking Strength	>400 N (90 lbf)						
Minimum Bend Radius	8 x cable diameter during installation 4 x cable diameter during operation						
		Electrical Test					
Mutual Capacitance	<5.6 nF per 100m (328 ft.) at 1 Khz						
Characteristic Impedance	100 Ohm +/-15% up to 100 MHz						
Nominal Velocity of Propagation (NVP)		70% nominal					
DC Resistance	<9.38 ohm per 100m (328 ft.)	<9.50 ohm per 100m (328 ft.)	<7.32 ohm per 100m (328 ft.)	8.9 ohm per 100m (328 ft.)			
DC Resistance Unbalance	<5%	<2%	<5%	<4%			
Capacitance Unbalance	<330 pF per 100m (328 ft.)	<160 pF per 100m (328 ft.)	<330 pF per 100m (328 ft.) at 1 kHz (pair/ground)	<330 pF per 100m (328 ft.) at 1 kHz (pair/ground)			
Maximum Operating Voltage	80V	80V	80V	80V			



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