# TX6A<sup>™</sup> 10Gig UTP Copper Cable with Vari-MaTriX Technology

Europe, Middle East, Africa, Latin America, Asia Pacific



#### specifications

Category 6A/Class  $E_A$  cable shall be constructed of 23 AWG copper conductors with HDPE Low Smoke Zero Halogen (LSZH), PE Riser (CMR) or PVC (CM). The copper conductors shall be twisted in pairs and separated by a cross-divider. All four pairs shall be surrounded by a metallic Vari-MaTriX tape shall minimize the cable diameter and suppress the effects of alien crosstalk while retaining UTP electromagnetic interference immunity. The innovative cable design shall provide installation flexibility as cables can be routed in tight bundles through pathways and spaces.



## technical information

Category 6A/Class E <sub>A</sub> channel	Certified channel performance in a 4-connector configuration up to 100 meters and	
and component performance:	exceeds the requirements of ANSI/TIA-568.2-D Category 6A and ISO 11801 Class E <sub>A</sub> standards swept up to 650 MHz for supporting 10GBASE-T transmission over twisted-pair cabling systems as part of the Panduit® TX6A™ 10Gig UTP Copper Cabling System. Certified component performance up to 100 meters and exceeds the ANSI/TIA-568.2-D Category 6A and IEC 61156-5 Category 6A standards for supporting 10GBASE-T transmission over twisted-pair cabling systems	
Cable diameter:	LSZH Dca: 6.6mm (0.260 in.) nominal LSZH Cca and B2ca: 6.7mm (0.265 in.) nominal Riser (CMR) and PVC (CM): 6.6mm (0.260 in.) nominal	
Conductors/insulators:	23 AWG solid copper insulated with flame retardant PE (CMR) or HDPE (LSZH)	
Flame rating:	LSZH (Dca): IEC 60332-3-22, 60754-2, 61034-2; EEN 50575: EuroClass Dca-s2,d2,a1 LSZH (Cca): IEC 60332-3-22, 60754-2, 61034-2; EN 50575: EuroClass Cca-s1a-d1-a1 LSZH (EC 60332-3-25, 60754-2, 61034-2; EN 50575: EuroClass Dca-s2,d2,a1 LSZH (B2ca): EC 60332-3-22, 60754-2, 61034-2; EN 50575: EuroClass B2ca-s1a,d1,a1 Riser (CMR): UL1666 PVC (CM): UL1685	
Standards compliance:	UL Listed CMR-LP (0.5A), CM-LP (0.5A)	
Certification:	LSZH (Dca) ANATEL 2511-12-6246	
PoE compliant:	Meets IEEE 802.3af, IEEE 802.3at and IEEE 802.3bt for PoE applications	
Installation tension:	25 lbf (110 N) maximum	
Temperature rating:	0°C to 60°C (32°F to 140°F) during installation -20°C to 75°C (-4°F to 167°F) during operation (LSZH, CMR and CM) -20°C to 90°C (-4°F to 194°F) during operation (CMP)	
Cable jacket:	HDPE (LSZH) PE Riser (CMR) Low smoke flame retardant PVC PVC (CM): flame retardant PVC	
Cable weight:	LSZH Dca: 13.1kg/305m (28.9 lbs./1000 ft.); 21.5kg/500m (47.4 lbs./1640 ft.) LSZH Cca and B2ca: 16.5kg/305m (36.4 lbs./1000 ft.); 25.1kg/500m (55.4 lbs./1640 ft.) Riser (CMR) and PVC (CM): 13.1kg/305m (28.9 lbs./1000 ft.)	
Packaging:	LSZH Dca: 15.1kg/305m (33.3 lbs./1000 ft.); 22.5kg/500m (51.8 lbs./1640 ft.) LSZH Cca and B2ca 16.5kg/305m (36.4 lbs./1000 ft.); 25.1kg/500m (55.4 lbs./1640 Riser (CMR) and PVC (CM): 14.1kg/305m (31.1 lbs./1000 ft.) Package tested to ISTA procedure 1A	

### key features and benefits

Vari-MaTriX Technology	Best-in-class cable diameter delivers superior PSANEXT and PSAACRF suppression while retaining UTP EMI immunity	
Superior headroom warranty	Provides the highest worst-case margins above the industry standard for both electrical and alien crosstalk performance	
Small, round cable design	Improves fill capacity, cable management, reduces required bend radius and allows efficient use of pathways and spaces	
Extended temperature range	Allows operation in 75°C (167°F) ambient environment providing error-free performance in high-density cabinets and large cable bundles running PoE+ or PoE++ applications	
Highest density	All testing and headroom based on 48-port/1 RU panels	
Descending length cable markings	Easy identification of remaining cable to reduce installation time and cable scrap	

## applications

The TX6A™ 10Gig UTP Copper Cable with Vari-MaTriX Technology is a component of the TX6A™ 10Gig Copper Cabling System. Interoperable and backward compatible, this end-to-end system provides design flexibility to protect network investments well into the future.

Key applications include:

- 10GBASE-T Ethernet
- Data center I/O consolidation
- Data center server virtualization
- Consolidation of network interconnects
- Back-bone aggregation
   Barallal processing and
- Parallel processing and high speed computing

TX6A<sup>™</sup> 10Gig UTP Copper Cabling System with Vari-MaTriX Technology

# TX6A<sup>™</sup> 10Gig UTP Copper Cable with Vari-MaTriX Technology

LSZH: PUL6AV04\*-E+

Euroclass Dca-s2,d2,a1

**LSZH:** PUZ6AV04\*-E+ IEC 60332-3-25

LSZH: PUY6AV04\*-E+

Euroclass Cca-s1a,d1,a1

LSZH: PUW6AV04\*-E+

Euroclass B2ca-s1a,d1,a1

PVC

(CM): PUC6AV04\*-EG

Riser

(CMR): PUR6AV04\*-G

\*To designate color, add suffix BU (Blue), WH (White), IG (International Gray), or YL (Yellow).

For additional cable colors, contact customer service.

- + G for 305m reels
- D for 500m reels

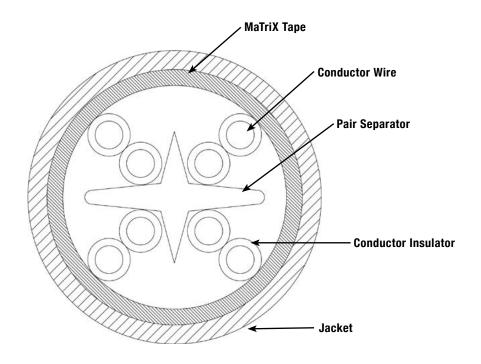
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## **TX6A<sup>™</sup> 10Gig UTP Copper Cable with Vari-MaTriX Technology**

additional specifications

Mechanical Test				
Ultimate Breaking Strength	> 90 lbf (400 N)			
Minimum Bend Radius	4 x cable diameter			
Electrical Test				
DC Resistance	<9.38 Ohm per 328 ft. (100m)			
DC Resistance Unbalance	<5%			
Mutual Capacitance	<5.6 nF per 328 ft. (100m) at 1 kHz			
Capacitance Unbalance	<330 pF per 328 ft. (100m) at 1 kHz			
Characteristic Impedance	100 Ohm +/-15% up to 100 MHz			
Nominal Velocity of Propagation (NVP)	70% for CMP; 65% all others			
Operating Voltage, Maximum	80V			

#### cable construction



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