

# TX6A™ 10Gig UTP Copper Cable with Vari-MaTriX Technology

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

**PANDUIT™**  
SPECIFICATION SHEET

## specifications


Category 6A/Class E<sub>A</sub> cable shall be constructed of 23 AWG copper conductors with HDPE Low Smoke Zero Halogen (LSZH), FEP (CMP) 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 and a flame retardant jacket. The 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

<b>Category 6A/Class E<sub>A</sub> channel and component performance:</b>	Certified channel performance in a 4-connector configuration up to 100 meters and 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
<b>Cable diameter:</b>	LSZH Dca: 6.6mm (0.260 in.) nominal LSZH Cca and B2ca: 6.7mm (0.265 in.) nominal Plenum (CMP): 6.4mm (0.250 in.) nominal Riser (CMR) and PVC (CM): 6.6mm (0.260 in.) nominal
<b>Conductors/insulators:</b>	23 AWG solid copper insulated with flame retardant PE (CMR) or HDPE (LSZH)
<b>Flame rating:</b>	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-s1b-d1-a1 LSZH IEC 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 Plenum (CMP): NFPA 262 Riser (CMR): UL1666 PVC (CM): UL 1685
<b>Standards compliance:</b>	UL Listed CMP-LP (0.6A), CMR-LP (0.5A), CM-LP (0.5A)
<b>PoE compliant:</b>	Meets IEEE 802.3af, IEEE 802.3at and IEEE 802.3bt for PoE applications
<b>Installation tension:</b>	25 lbf (110 N) maximum
<b>Temperature rating:</b>	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)
<b>Cable jacket:</b>	HDPE (LSZH) FEP Plenum (CMP): Flame retardant PVC PE Riser (CMR) Low smoke flame retardant PVC PVC (CM): flame retardant PVC
<b>Cable weight:</b>	LSZH Dca: 13.1 kg/305m (28.9 lbs./1000 ft.); 21.5 kg/500m (47.4 lbs./1640 ft.) LSZH Cca and B2ca: 16.5 kg/305m (36.4 lbs./1000 ft.); 25.1 kg/500m (55.4 lbs./1640 ft.) Plenum (CMP): 14.2 kg/305m (31.2 lbs./1000 ft.) Riser (CMR) and PVC (CM): 13.1 kg/305m (28.9 lbs./1000 ft.)
<b>Packaging:</b>	LSZH Dca: 15.1kg/305m (33.3 lbs./1000 ft.); 22.5 kg/500m (51.8 lbs./1640 ft.) LSZH Cca and B2ca 16.5 kg/305m (36.4 lbs./1000 ft.); 25.1 kg/500m (55.4 lbs./1640 ft.) Plenum (CMP): 15.2 kg/305m (33.4 lbs./1000 ft.) Riser (CMR) and PVC (CM): 14.1 kg/305m (31.1 lbs./1000 ft.) Package tested to ISTA procedure 1A

## key features and benefits

<b>Vari-MaTriX Technology</b> 	Best-in-class cable diameter delivers superior PSANEXT and PSAACRF suppression while retaining UTP EMI immunity
<b>Superior headroom warranty</b>	Provides the highest worst-case margins above the industry standard for both electrical and alien crosstalk performance
<b>Small, round cable design</b>	Improves fill capacity, cable management, reduces required bend radius and allows efficient use of pathways and spaces
<b>Extended temperature range</b>	Allows operation in 75°C (167°F) to 90°C (194°F) ambient environment providing error-free performance in high-density cabinets and large cable bundles running PoE+ or PoE++ applications
<b>Highest density</b>	All testing and headroom based on 48-port/1 RU panels
<b>Descending length cable markings</b>	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
- Parallel processing and high speed computing

**TX6A™ 10Gig UTP Copper Cabling System with Vari-MaTriX Technology**

**TX6A™ 10Gig UTP Copper Cable with Vari-MaTriX Technology**

<b>LSZH:</b>	PUL6AV04*-E+ Euroclass Dca-s2,d2,a1
<b>LSZH:</b>	PUZ6AV04*-E+ IEC 60332-3-25
<b>LSZH:</b>	PUY6AV04*-E+ Euroclass Cca-s1b,d1,a1
<b>LSZH:</b>	PUW6AV04*-E+ Euroclass B2ca-s1a,d1,a1
<b>PVC (CM):</b>	PUC6AV04*-EG
<b>Riser (CMR):</b>	PUR6AV04*-G
<b>Plenum (CMP):</b>	PUP6AV04*-G

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

For additional cable colors, contact customer service.

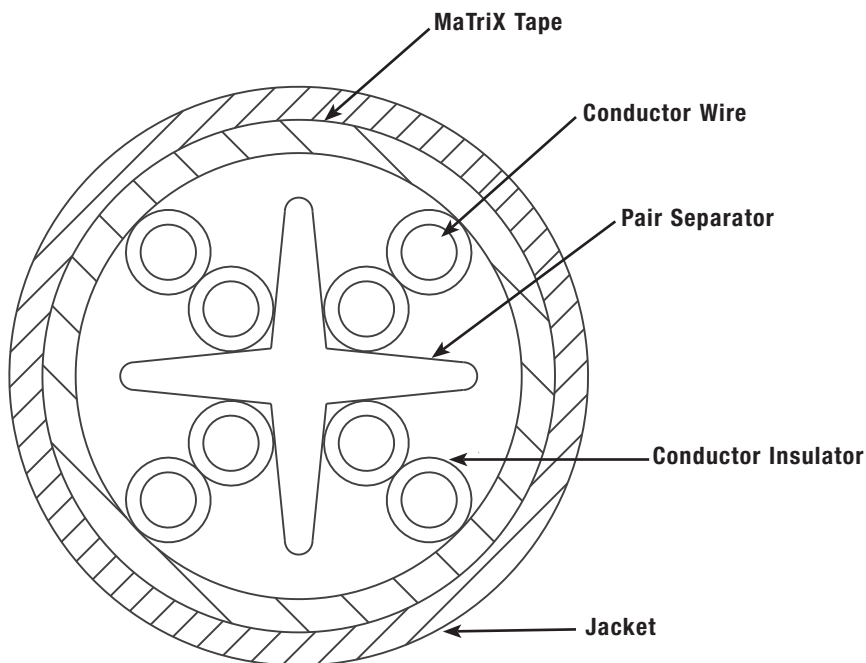
+ - G for 305m reels  
- D for 500m reels

# TX6A™ 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



### WORLDWIDE SUBSIDIARIES AND SALES OFFICES

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