TX6A™ 10Gig™ UTP Copper Cable with Advanced MaTriX Technology

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

PANDUIT®
SPECIFICATION SHEET

specifications

Category 6A/Class E_A cable shall be constructed of 23 AWG copper conductors with PE Riser (CMR), HDPE Low Smoke Zero Halogen (LSZH) or PVC (CM) insulation. The copper conductors shall be twisted in pairs and separated by a cross-divider. All four pairs shall be surrounded by advanced MaTriX tape and a flame retardant jacket. The advanced MaTriX tape shall suppress the effect of alien crosstalk allowing 10 Gb/s transmission, while minimizing cable diameter. 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_A channel and component performance:	Certified channel performance in a 4-connector configuration up to 100 meters and exceeds the requirements of ANSI/TIA-568-C.2 Category 6A and ISO 11801 Class E_A 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-C.2 Category 6A and IEC 61156-5 Category 6A standards for supporting 10GBASE-T transmission over twisted-pair cabling systems
Cable diameter:	PE Riser (CMR)/PVC (CM): 7.2mm (.285 in.) nominal HDPE (LSZH): 7.1mm (.280 in.) nominal
Conductors/insulators:	23 AWG solid copper insulated with flame retardant PE (CMR) or HDPE (LSZH)
Certification:	ANATEL 2511-12-6246
Flame rating:	PE Riser (CMR): UL1666 HDPE (LSZH-1): IEC 60332-1, 60754-2, 61034-2; EN 50575: Euroclass Dca - s2- d2- a1 HDPE (LSZH-3): IEC 60332-3-25 (-3d), NBN C 30-004(F2), 60754-2, 61034-2; EN50399: Euro Class Dca-s2, d2,a1; PVC (CM): IEC 60332-1 and UL 1685; EN 50575: Euroclass Eca
Standards Compliance:	CMR-LP 0.5A
PoE compliant:	Meets IEEE 802.3af, IEEE 802.3at and IEEE 802.3bt for PoE applications
Segregation classification:	Meets EN 50174-2:2009 segregation classification C
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
Cable jacket:	PE Riser (CMR) Low smoke flame retardant PVC HDPE (LSZH) PVC (CM): Flame retardant PVC
Cable weight:	PE Riser (CMR): 16.8 kg/305m (36.9 lbs. / 1000 ft.) LSZH-1: 15.3 kg/305m (33.8 lbs./1000 ft.); 25.1kg/500m (55.4 lbs./1640 ft.) LSZH-3: 16.5 kg/305m (36.4 lbs./1000 ft.); 27.4 kg/500m (60.6 lbs./1640 ft.) PVC (CM): 19.2 kg/305m (42.4 lbs./1000 ft.)
Packaging:	PE Riser (CMR): 18.8 kg/305m (41.3lbs. / 1000ft.) LSZH-1: 17.3 kg/305m (38.2 lbs./1000 ft.); 27.4 kg/500m (60.5 lbs./1640 ft.) LSZH-3: 18.5 kg/305m (40.8 lbs./1000 ft.); 29.7 kg/500m (65.6 lbs./1640 ft.) Package tested to ISTA procedure 1A PVC (CM): 21.2 kg/305m (46.8 lbs./1000 ft.)

key features and benefits

MaTriX Technology PATENTED	Best-in-class cable diameter delivers superior PSANEXT and PSAACRF suppression
Interoperable	Compatible with components of the TX6A-SD™ 10Gig™ UTP Copper Cabling System with MaTriX Technology (70 meter solution) for increased design flexibility
Superior headroom warranty	Provides the highest margins above the industry standard for both electrical and alien crosstalk performance
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/1RU 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 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

www.panduit.com

TX6A™ 10Gig™ UTP Copper Cabling System with Advanced MaTriX Technology

TX6A™ 10Gig™ UTP Copper Cable with Advanced MaTriX Technology

PE Riser (CMR):	PUR6AM04*-CG
LSZH (60332-1):	PUL6AM04*-CE+
LSZH (60332-3):	PUZ6AM04*-CE+
CM:	PUC6AM04*-CEG

Mini-Com® TX6A™ 10Gig™ UTP Jack Module

Jack module:	CJ6X88TG**
Shuttered jack module:	CJH688TG**

TX6A™ 10Gig™ UTP Patch Cords with MaTriX Technology

Meter lengths:	UTP6A^^M
Foot lengths:	UTP6A^

Mini-Com® Angled Modular Patch Panels

24-port, 1 RU:	CPPA24FMWBLY
48-port, 2 RU:	CPPA48FMWBLY
72-port, 2 RU:	CPPLA72WBLY

Mini-Com® Flat Modular Patch Panels

24-port, 1 RU:	CPP24FMWBLY
48-port, 1 RU:	CPP48HDWBLY
48-port, 2 RU:	CPP48FMWBLY
72-port, 2 RU:	CPP72FMWBLY

For additional modular patch panels reference www.panduit.com

Cable Prep Tools

Wire snipping tool:	CWST
Wire stripping tool:	CJAST
Cable bundle organizing tool:	CBOT24K

*To designate color, add suffix BU (Blue), WH (White), IG (International Gray), or YL (Yellow). For additional cable colors, contact customer service.

+ -CEG for 305m reels (18 reels/pallet), -CED for 500m reels (12 reels/pallet)

**To designate color, add suffix IW (Off White), EI (Electric Ivory), IG (International Gray), WH (White), AW (Arctic White), BL (Black), OR (Orange), RD (Red), BU (Blue), GR (Green), YL (Yellow), or VL (Violet) to end of the part number.

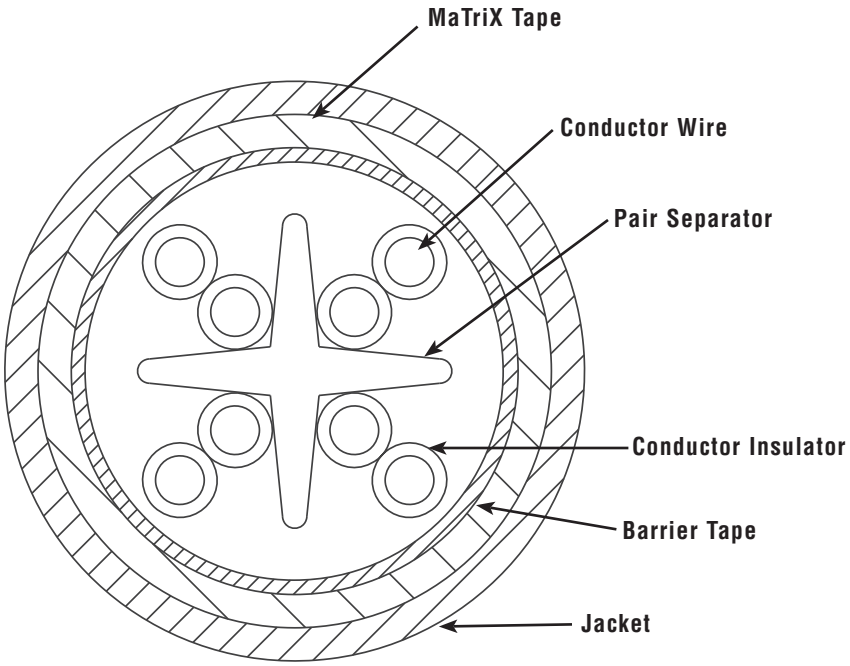
^Add length, then color to end of part number: 1M to 10M (one meter increments), 1.5M, 2.5M, 15M, and 20M. 3 to 20 feet (one foot increments), 25, 30, 35, and 40 ft. Color is off white unless color code is added to end: BL (Black), BU (Blue), RD (Red), YL (Yellow), GR (Green), OR (Orange), VL (Violet). Example: Blue, 5-meter patch cord is UTP6A5MBU

Contact Customer Service for keyed connectivity bulk packaged jack modules and patch cords.

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)	Panduit 67%
Operating Voltage, Maximum	80V

cable construction



WORLDWIDE SUBSIDIARIES AND SALES OFFICES

PANDUIT US/CANADA
Phone: 800.777.3300

PANDUIT EUROPE LTD.
London, UK
cs-emea@panduit.com
Phone: 44.20.8601.7200

PANDUIT SINGAPORE PTE. LTD.
Republic of Singapore
cs-ap@panduit.com
Phone: 65.6305.7575

PANDUIT JAPAN
Tokyo, Japan
cs-japan@panduit.com
Phone: 81.3.6863.6000

PANDUIT LATIN AMERICA
Guadalajara, Mexico
cs-la@panduit.com
Phone: 52.33.3777.6000

PANDUIT AUSTRALIA PTY. LTD.
Victoria, Australia
cs-aus@panduit.com
Phone: 61.3.9794.9020

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Contact Customer Service by email: cs@panduit.com
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