

# TX6A™ 10Gig™ U/UTP Copper Cable with MaTriX Technology

## specifications

Category 6A/Class E<sub>A</sub>, cable shall be constructed of 23 AWG copper conductors with FEP Plenum (CMP), 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 MaTriX tape and a flame retardant jacket. The patented MaTriX tape shall suppress the effect of alien crosstalk allowing 10 Gb/s transmission. 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-C.2 Category 6A and ISO 11801 Class E <sub>A</sub> standards 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
<b>Cable diameter:</b>	FEP Plenum (CMP): 0.292 in. (7.4mm) nominal PE Riser (CMR): 0.300 in. (7.6mm) nominal HDPE (LSZH)/PVC (CM): 0.305 in. (7.7mm) nominal
<b>Conductors/insulators:</b>	23 AWG solid copper insulated with FEP (CMP), flame retardant PE (CMR), HDPE (LSZH), or PVC (CM)
<b>Flame rating:</b>	FEP Plenum (CMP): NFPA 262 PE Riser (CMR): UL 1666 HDPE (LSZH-1): IEC 60332-1, 60754-2, 61034-2 HDPE (LSZH-3): IEC 60332-3-25 (-3d), NBN C 30-004 (F2), 60754-2, 61034-2 PVC (CM): IEC 60332-1 and UL 1685
<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>	32°F to 140°F (0°C to 60°C) during installation -4°F to 167°F (-20°C to 75°C) during operation
<b>Cable jacket:</b>	FEP Plenum (CMP)/PVC (CM): Flame retardant PVC PE Riser (CMR)/HDPE (LSZH): Low smoke flame retardant PVC HDPE (LSZH): PVC Free
<b>Cable weight:</b>	FEP Plenum (CMP): 44 lbs./1000 ft. (20 kg/305m) PE Riser (CMR): 35 lbs./1000 ft. (16 kg/305m) HDPE (LSZH)/PVC (CM): 39 lbs./1000 ft. (17.5 kg/305m) HDPE (LSZH): 51 lbs./1639ft (23 kg/500m)
<b>Packaging:</b>	1000 ft. (305m) on a reel FEP Plenum (CMP): 48 lbs./1000 ft. (22 kg/305m) PE Riser (CMR): 39 lbs./1000 ft. (18 kg/305m) HDPE (LSZH)/PVC (CM): 50 lbs./1000 ft. (22.5 kg/305m) Package tested to ISTA procedure 1A

## key features and benefits

<b>Interoperable</b>	Compatible with components of the TX6A-SD™ 10Gig™ U/UTP Copper Cabling System with MaTriX Technology (70 meter solution) for increased design flexibility
<b>MaTriX Technology <small>PATENTED</small></b>	Provides superior suppression of both PSANEXT and PSAACRF; improves the installation flexibility by allowing cable combing in existing pathways without compromising performance
<b>Superior headroom warranty</b>	Provides the highest margins above the industry standard for both electrical and alien crosstalk performance
<b>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) ambient environment providing error-free performance in high-density cabinets and large cable bundles running PoE Plus applications
<b>Cross-divider</b>	Separates pairs for exceptional cable performance
<b>Descending length cable markings</b>	Easy identification of remaining cable to reduce installation time and cable scrap

## applications

The TX6A™ 10Gig™ U/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**

# PANDUIT®

## SPECIFICATION SHEET

### TX6A™ 10Gig™ U/UTP Copper Cabling System with MaTriX Technology

#### TX6A™ 10Gig™ U/UTP Copper Cable

<b>Plenum:</b>	PUP6A04*-UG
<b>Riser:</b>	PUR6A04*-UG¹
<b>LSZH (60332-1):</b>	PUL6A04*-CEG
<b>LSZH (60332-3):</b>	PUZ6A04*-EB²
<b>CM:</b>	PUC6A04*-EG

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

<b>Jack module:</b>	CJ6X88TG**
<b>Shuttered jack module:</b>	CJD6X88TG**

#### TX6A™ 10Gig™ UTP Patch Cords

<b>Foot lengths:</b>	UTP6A^
<b>Meter lengths:</b>	UTP6A^MM

#### Mini-Com® Angled Modular Patch Panels

<b>24-port, 1 RU:</b>	CPPA24FMWBLY
<b>48-port, 2 RU:</b>	CPPA48FMWBLY
<b>72-port, 2 RU:</b>	CPPLA72WBLY

#### Mini-Com® Flat Modular Patch Panels

<b>24-port, 1 RU:</b>	CPP24FMWBLY
<b>48-port, 1 RU:</b>	CPP48HDWBLY
<b>48-port, 2 RU:</b>	CPP48FMWBLY
<b>72-port, 2 RU:</b>	CPP72FMWBLY

For additional modular patch panels reference [www.panduit.com](http://www.panduit.com)

#### Cable Prep Tools

<b>Wire stripping tool:</b>	CWST
<b>Wire stripping tool:</b>	CJAST
<b>Cable bundle organizing tool:</b>	CBOT24K

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

¹Substitute PUR6A04\*-CG for alternative manufacturing location.

²Substitute PUZ6A04\*-CED for a 500m reel.

\*\*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.

^For lengths 3 to 20 feet (increments of one foot) 20, 25, 30, 35, or 40 feet change the length designation in the part number to the desired length. For standard cable colors other than Off White, add suffix BL (Black), BU (Blue), RD (Red), YL (Yellow), GR (Green), 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 UTP6A15BU.

^^For lengths 1 to 10 meters (increments of one meter) 1.5, 2.5, 15, or 20 meters change the length designation in the part number to the desired length. For standard cable colors other than Off White, add suffix BL (Black), BU (Blue), RD (Red), YL (Yellow), GR (Green), 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 UTP6A15MBU.

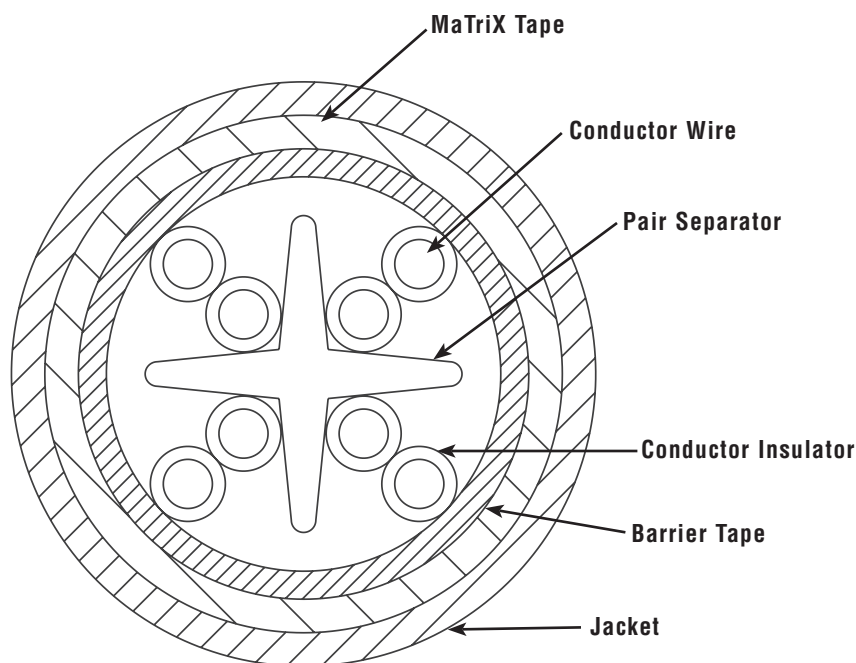
Contact Customer Service for keyed connectivity bulk packaged jack modules, and patch cords.

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## 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 CANADA  
Markham, Ontario  
cs-cdn@panduit.com  
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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