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



## specifications

Category 6A/Class  $E_A$  cable shall be constructed of 23 AWG copper conductors with FEP Plenum (CMP) 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 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 <sub>A</sub> 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 <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-C.2 Category 6A and IEC 61156-5 Category 6A standards for supporting 10GBASE-T transmission over twisted-pair cabling systems	
Standards Compliance:	UL Listed CMP-LP (0.6A) or better	
Cable diameter:	FEP Plenum (CMP): 0.275 in. (7mm) nominal	
Conductors/insulators:	23 AWG solid copper insulated with FEP (CMP), flame retardant PE	
Flame rating:	FEP Plenum (CMP): NFPA 262	
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:	32°F to 140°F (0°C to 60°C) during installation -4°F to 194°F (-20°C to 90°C) during operation	
Cable jacket:	FEP Plenum (CMP): Flame retardant PVC	
Cable weight:	FEP Plenum (CMP): 39.7 lbs./1000 ft. (18 kg/305m)	
Packaging:	1000 ft. (305m) on a reel FEP Plenum (CMP): 45.7 lbs./1000 ft. (20.7 kg/305m) Package tested to ISTA procedure 1A	

## key features and benefits

MaTriX Technology	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 90°C (194°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 virtualizationConsolidation of network interconnects
- Back-bone aggregation
- Parallel processing and high speed computing

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

TX6A<sup>™</sup> 10Gig<sup>™</sup> UTP Copper Cable with Advanced MaTriX Technology

PUP6AM04\*-UG

Mini-Com® TX6A™ 10Gig™

Mini-Com® TX6A™ 10Gig UTP Jack Module

Jack module: CJ6X88TG\*\*

Shuttered jack

Plenum:

module: CJD6X88TG\*\*

TX6A™ 10Gig™ UTP Patch Cords with MaTriX Technology

Foot lengths: UTP6A^ Meter lengths: UTP6A^M

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.

\*\*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 feet.

Color is off white unless color code is added to end: BI (Black) BI (Blue) BD (Bed) YI

end: BL (Black), BU (Blue), RD (Red), YL (Yellow), GR (Green), OR (Orange), VL (Violet) Example: Blue, 5-meter patch cord is UTP6A5MBU

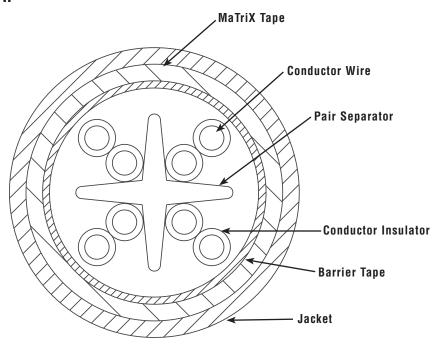
Contact Customer Service for keyed connectivity bulk packaged jack modules, and patch cords.

# TX6A™ 10Gig™ UTP Plenum Copper Cable with Advanced 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)	Panduit 67%			
Operating Voltage, Maximum	80V			

## cable construction



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