

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

## specifications

Category 6A/Class E<sub>A</sub> cable is constructed of 26 AWG copper conductors with FEP Plenum (CMP), PVC Riser (CMR), HDPE Low Smoke Zero Halogen (LSZH), or PVC (CM) insulation. The copper conductors are twisted in pairs and separated by a cross-divider. All four pairs are surrounded by MaTriX tape and a flame retardant jacket. The patented MaTriX tape suppresses the effect of alien crosstalk allowing 10 Gb/s transmission. The innovative cable design provides 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 performance:</b>	Exceeds electrical and alien crosstalk performance 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 in a 4-connector configuration  *Note: The cable utilizes 26 AWG conductors which does not meet the 24 to 22 AWG conductor size of horizontal cable in ANSI/TIA-568-C.2, resulting in increased attenuation which de-rates the maximum channel distance to 70 meters (229 feet)
<b>Cable diameter:</b>	0.240 in. (6.1mm) nominal
<b>Conductors/insulators:</b>	26 AWG solid copper insulated with FEP (CMP), flame retardant PVC (CMR), HDPE (LSZH), or PVC (CM)
<b>Flame rating:</b>	FEP Plenum (CMP): NFPA 262 PVC Riser (CMR): UL 1666 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; EN 50575: Euroclass Dca - s2, d2, a1 PVC (CM): IEC 60332-1 and UL 1685
<b>PoE compliance:</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 PVC Riser (CMR)/HDPE (LSZH): Low smoke flame retardant PVC HDPE (LSZH): PVC Free
<b>Cable weight:</b>	FEP Plenum: 38 lbs./1000 ft. (17 kg/305m) PVC Riser (CMR)/HDPE (LSZH)/PVC (CM): 30 lbs./1000 ft. (14 kg/305m)
<b>Packaging:</b>	1000 ft. (305m) on a reel FEP Plenum (CMP): 42 lbs./1000 ft. (19 kg/305m) PVC Riser (CMR): 34 lbs./1000 ft. (15 kg/305m) HDPE (LSZH)/PVC (CM): 46 lbs./1000 ft. (21 kg/305m) Package tested to ISTA procedure 1A

## key features and benefits

<b>Interoperable</b>	Compatible with components of the TX6A™ 10Gig™ U/UTP Copper Cabling System with MaTriX Technology (100 meter solution) for increased design flexibility
<b>MaTriX Technology</b> <b>PATENTED</b>	Provides superior suppression of alien crosstalk (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>Smaller cable diameter than most Category 6 cable and round, flexible design</b>	Allows efficient use of pathways and spaces by improving fill capacity and reducing required bend radius resulting in easier cable routing and management
<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 for 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-SD™ 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
  - Back-bone aggregation
  - Parallel processing and high speed computing

[www.panduit.com](http://www.panduit.com)

### TX6A-SD™ 10Gig™ U/UTP Copper Cabling System

#### TX6A-SD™ 10Gig™ U/UTP Copper Cable

<b>Plenum:</b>	PUP6ASD04*-UG
<b>Riser:</b>	PUR6ASD04*-CG
<b>LSZH (60332-1):</b>	PUL6ASD04 <sup>‡</sup>
<b>LSZH (60332-3):</b>	PUZ6ASD04 <sup>‡</sup>
<b>CM:</b>	PUC6ASD04*-EG

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

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

#### TX6A-SD™ 10Gig™ UTP Patch Cords

<b>CM (foot lengths):</b>	UTP6ASD^BU
<b>CM (meter lengths):</b>	UTP6ASD^^MBU
<b>LSZH (meter lengths):</b>	UTP6ASDL^^MBU

#### 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 snipping tool:</b>	CWST
<b>Wire stripping tool:</b>	CWST
<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.

‡ To designate color and length, replace <sup>‡</sup> with BU-EG (Blue) or WH-EG (White) to designate color in a Euro pallet with 36 reels, 305m each.

Replace <sup>‡</sup> with BU-CED (Blue) or WH-CED (White) to designate color in a Euro pallet of 36 reels, 500m each.

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

^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), GY (Gray), or VL (Violet) to the end of the part number. For example, the part number for a blue, 15-foot patch cord is UTP6ASD15BU.

^^For lengths 1, 2, 2.5, 3, 5 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), GY (Gray), or VL (Violet). LSZH patch cable available in Off White or BU (Blue). For example, the part number for a blue, 5-meter patch cord is UTP6ASD5MBU.

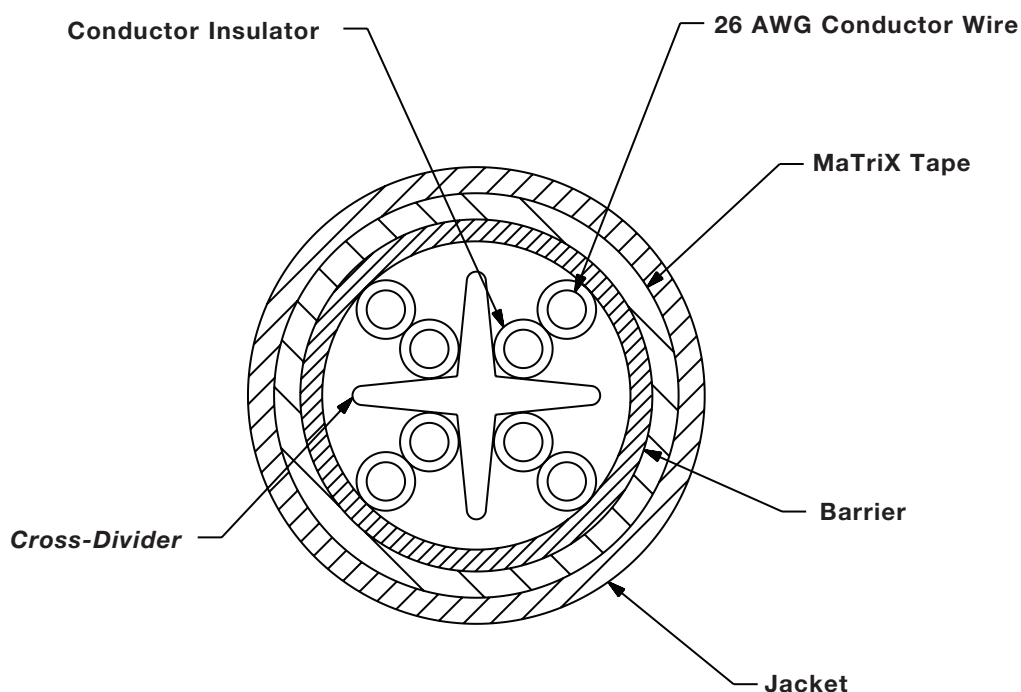
Contact Customer Service for bulk packaged and/or keyed jack modules and patch cords.

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## additional specifications

Mechanical Test	
<i>Ultimate Breaking Strength</i>	>90 lbf (400 N)
<i>Minimum Bend Radius</i>	4 x cable diameter
Electrical Test	
<i>DC Resistance</i>	<9.38 Ohm per 328 ft. (100m)
<i>DC Resistance Unbalance</i>	<5%
<i>Mutual Capacitance</i>	<5.6 nF per 328 ft. (100m) at 1 kHz
<i>Capacitance Unbalance</i>	<330 pF per 328 ft. (100m) at 1 kHz
<i>Characteristic Impedance</i>	100 Ohm +/-15% up to 100 MHz
<i>Nominal Velocity of Propagation (NVP)</i>	Panduit 67%
<i>Operating Voltage, maximum</i>	80V

## cable construction



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