

# TX6A™ UTP Copper Cable: Vari-MaTriX High Density (HD)

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 Foam PE and HDPE (CM & CMR) or HDPE Low Smoke Zero Halogen (LSZH), insulation. The copper conductors shall be twisted in pairs and separated by a tape-style 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 small cable diameter shall maximize cable density such that existing pathways can be utilized when upgrading from Category 6 cabling.



### TX6A UTP Copper Cable with Vari-MaTriX HD Technology

<b>CM:</b>	PUC6AHD04*-EG
<b>Riser (CMR):</b>	PUR6AHD04*-G
<b>Euroclass Dca-s2,d2,a1 LSZH:</b>	PUL6AHD04*-EG


\*\*Colors: BU (Blue), WH (White, or  
IG (International Gray)

For additional cable colors, contact  
customer service.

## 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 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>	6.2mm (0.245 in.) nominal
<b>Conductors/insulators:</b>	23 AWG solid copper insulated with flame retardant foam PE and HDPE (CM/CMR) or HDPE (LSZH)
<b>Flame rating:</b>	Riser (CMR): UL 1666 PVC (CM): UL 1685 LSZH (Dca): IEC 60332-3-22, 60754-2, 61034-2; EN 50575: EuroClass Dca-s2,d2,a1
<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>Cable jacket:</b>	HDPE (LSZH), PVC (CM/CMR)
<b>Cable weight:</b>	13 kg/305m (29 lbs./1000 ft.)
<b>Temperature rating:</b>	LSZH: 0°C to 60°C (32°F to 140°F) during installation CM/CMR: 0°C to 50°C (32°F to 122°F) during installation LSZH/CM/CMR: -20°C to 75°C (-4°F to 167°F) during operation
<b>Packaging:</b>	305m (1000 ft.) on a reel Package tested to ISTA procedure 1A

## KEY FEATURES AND BENEFITS

<b>Vari-MaTriX HD 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>High density 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+ 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

# TX6A™ UTP Copper Cable: Vari-MaTriX High Density (HD)

## APPLICATIONS

The TX6A UTP Copper Cable with Vari-MaTriX HD Technology is a component of the TX6A Copper Cabling System. Interoperable and backward compatible, this end-to-end system provides design flexibility to protect network investments well into the future.

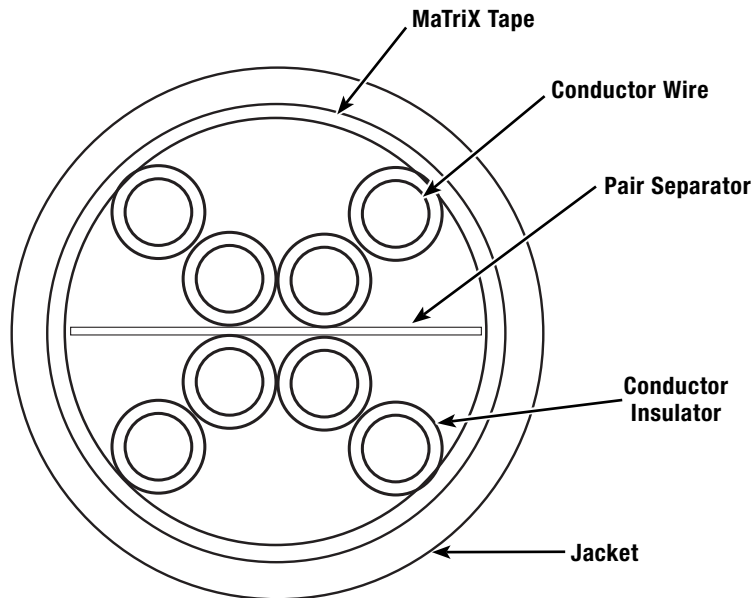
Key applications include:

- 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

## ADDITIONAL SPECIFICATIONS

Mechanical Test	
Ultimate Breaking Strength	> 90 lbf (400 N)
Minimum Bend Radius	4 × cable diameter
Electrical Test	
DC Resistance	< 9.38 Ohm per 100m (328 ft.)
DC Resistance Unbalance	< 5%
Mutual Capacitance	< 5.6 nF per 100m (328 ft.) at 1 kHz
Capacitance Unbalance	< 160 pF per 100m (328 ft.) at 1 kHz
Characteristic Impedance	100 Ohm +/-15% up to 100 MHz
Nominal Velocity of Propagation (NVP)	67% (LSZH) 65% (CM/CMR)
Operating Voltage, Maximum	80 V

## ENGINEERING DRAWING



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