

TX6A™ Category 6A U/UTP Copper Cable: Vari-MaTriX High Density (HD)

Canada and
Latin America

PANDUIT™
SPECIFICATION SHEET

SPECIFICATIONS

Category 6A/Class E_A cable shall be constructed of 23 AWG copper conductors with foamed PE and HDPE insulation. The copper conductors shall be twisted in pairs and separated by a tape divider. All four pairs shall be surrounded by a Vari-MaTriX tape and a flame retardant (CMR) jacket. The Vari-MaTriX tape shall minimize the cable diameter and suppress the effects of alien crosstalk while retaining U/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.



TECHNICAL INFORMATION

Category 6A/ Class E_A channel and component performance:	Certified channel performance in a 4-connector configuration up to 100m and exceeds the requirements of ANSI/TIA-568.2-E 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 TX6A U/UTP Copper Cabling System. Certified component performance up to 100m and exceeds the ANSI/TIA-568.2-E Category 6A and IEC 61156-5 Category 6A Standards for supporting 10GBASE-T transmission over twisted-pair cabling systems
Cable diameter:	6.3mm (0.248 in.) nominal
Insulation diameter:	1.06mm - 1.22mm (0.042 in. - 0.048 in.)
Conductors/insulators:	23 AWG solid copper insulated with foamed PE and HDPE
Flame rating:	UL 1666
PoE compliant:	Meets IEEE 802.3af, IEEE 802.3at and IEEE 802.3bt for PoE applications
Installation tension:	25 lbf (110 N) maximum
Cable jacket:	CMR
Cable weight:	14 kg/305m (31 lbs./1000 ft.)
Temperature rating:	0°C to 50°C (32°F to 122°F) during installation -20°C to 75°C (-4°F to 167°F) during operation
Packaging:	305m (1000 ft.) on a reel Package tested to ISTA procedure 1A

KEY FEATURES AND BENEFITS

Vari-MaTriX Technology:	 Best-in-class cable diameter delivers superior PSANEXT and PSAACRF suppression while retaining U/UTP EMI immunity
Superior headroom warranty:	Provides the highest worst-case margins above the industry standard for both electrical and alien crosstalk performance
High density 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/1 RU panels
Descending length cable markings:	Easy identification of remaining cable to reduce installation time and cable scrap

**TX6A U/UTP Copper Cable with
Vari-MaTriX HD Technology**

CMR:

PUR6AHD04**-G

**Colors: BU (Blue), WH (White), RD (Red), OR (Orange), YL (Yellow), GR (Green), VL (Violet), IG (International Gray), or BL (Black)

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APPLICATIONS

The TX6A U/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 x 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):	65% nominal
Operating voltage, maximum:	80 V

ENGINEERING DRAWING

