

TX6A™ Category 6A U/UTP Copper Cable

North America

PANDUIT®
SPECIFICATION SHEET

SPECIFICATIONS

Category 6A cable shall be constructed of 23 AWG copper conductors with polyolefin insulation. The copper conductors shall be twisted in pairs and separated by a cross-divider. All four pairs shall be surrounded by an AXT barrier tape and a flame retardant (CMR) jacket. The AXT barrier tape shall minimize the cable diameter and suppress the effects of alien crosstalk while retaining U/UTP electromagnetic interference immunity. The innovative cable design shall provide installation flexibility as cables can be routed in tight bundles through pathways and spaces.



TX6A Category 6A U/UTP Copper Cable

CMR: PUR6AS04**-Z

**To designate a color, add suffix BU (Blue), WH (White), YL (Yellow), IG (International Gray), BL (Black), RD (Red), GR (Green), OR (Orange), or VL (Violet).

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 Standard swept up to 500 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 Standard for supporting 10GBASE-T transmission over twisted-pair cabling systems
Conductors/insulators:	23 AWG solid copper insulated with polyolefin
Standards compliance:	UL Listed CMR-LP (0.5A)
Insulation diameter:	0.043 in. – 0.047 in. (1.09mm – 1.19mm)
Flame rating:	UL 1666
Installation tension:	25 lbf (110 N) maximum
PoE compliant:	Meets IEEE 802.3af, IEEE 802.3at and IEEE 802.3bt for PoE applications
Temperature rating:	32°F to 140°F (0°C to 60°C) during installation -4°F to 167°F (-20°C to 75°C) during operation
Cable jacket:	Flame retardant (CMR) PVC
Cable diameter:	0.265 in. (6.7mm) nominal
Cable weight:	26 lbs./1000 ft. (12 kg/305mm)
Packaging:	1000 ft. (305m) on a reel Package tested to ISTA procedure 1A

KEY FEATURES AND BENEFITS

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 167°F (75°C) ambient environment providing error-free performance in high-density cabinets and large cable bundles running PoE+ or PoE++ applications
Descending length cable markings:	Easy identification of remaining cable to reduce installation time and cable scrap



All listed part numbers are compliant with the U.S. Trade Agreements Act (TAA) for purchases shipped to customers in the United States.

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APPLICATIONS

Category 6A U/UTP Copper Cable is a component of the TX6A U/UTP Copper Cabling System when installed according to the above length considerations. Interoperable and backwards compatible, this end-to-end system provides design flexibility to protect network investments well into the future. With certified performance to the ANSI/TIA-568.2-E Category 6A standard.

Key applications include:

- 10GBASE-T Ethernet
- Data center I/O consolidation
- Data center server virtualization
- Consolidation of network interconnect
- 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 328 ft. (100m)
DC resistance unbalanced:	<5%
Mutual capacitance:	< 5.6 nF per 328' (100m) at 1 kHz
Capacitance unbalance:	< 330 pF per 328' (100m) at 1 kHz
Characteristic impedance:	100 Ohm +/-15% up to 100 MHz
Nominal velocity of propagation (NVP):	67% nominal
Operating voltage, maximum:	80 V

ENGINEERING DRAWING

