

NetKey® Unshielded Category 6A Copper Cable

SPECIFICATIONS

Category 6A/Class E_A cable shall be constructed of 23 AWG copper conductors with HDPE insulation. The copper conductors shall be twisted in pairs and separated by a cross divider with an overall AXT barrier tape. The AXT barrier tape shall not be grounded. All four pairs are surrounded by a PVC flame-retardant jacket.



NetKey Category 6A U/UTP Copper Cable

LSZH: NUL6X04**-FEG

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

TECHNICAL INFORMATION

Category 6A/Class E_A channel performance:	Certified channel performance in a 4-connector configuration up to 100m and exceeds the requirements of ISO 11801 Class E _A standards swept up to 500 MHz for supporting 10GBASE-T transmission over twisted-pair cabling systems as part of the NetKey U/UTP Copper Cabling System.
Cable diameter:	6.8mm (0.271 in.) nominal
Insulation diameter:	1.05 - 1.13mm (0.041 in. - 0.044 in.)
Conductors/insulators:	23 AWG solid copper insulated with HDPE
Flame rating:	IEC 60332-1, IEC 60332-3-22, IEC 60754, IEC 61034 EN 50399: EuroClass Dca-s1a,d1,a1
PoE compliant:	Meets IEEE 802.3af, IEEE 802.3at and IEEE 802.3bt for PoE applications
Installation tension:	110N (25 lbf) maximum
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
Cable jacket:	HDPE (LSZH)
Cable weight:	14 kg/500m (31 lbs./1640 ft.)
Packaging:	305m (1000 ft.) on a reel Packaged tested to ISTA procedure 1A

KEY FEATURES AND BENEFITS

Robust cable design:	Small cable diameter delivers superior PSANEXT and PSAACRF suppression
Round cable design:	Improves fill capacity, cable management, reduces required bend radius and allows efficient use of pathways and spaces
Highest density:	All testing based on 48-port/1RU panels
Descending length:	Easy identification of remaining cable to reduce installation time and cable scrap

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APPLICATIONS

The NetKey U/UTP Copper Cable 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:	>400 N (90 lbf)
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
Characterisitic impedance:	100 Ohm +/-15% up to 100 MHz
Nominal velocity of propagation (NVP):	63% nominal
Operating voltage, maximum:	80 V

ENGINEERING DRAWING

