Utility Grade UTG20 Copper Cable with Vari-MaTriX HD Technology

specifications

Utility Grade UTG20 cable shall be constructed of 23 AWG copper conductors with FEP Plenum (CMP) insulation. The cable shall be UL verified to the Bear Attack (BERetAC) Test Method℠. The copper conductors shall be twisted in pairs. All four pairs shall be surrounded by a metallic Vari-MaTriX tape cut into segments of varying length 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 innovative cable design shall maximize density and provide installation flexibility as cables can be routed in tight bundles through pathways and spaces.

Utility Grade UTG20 UTP Copper Cable with Vari-MaTriX HD Technology	
Plenum (CMP):	PUP6AHD04*-UTG

*To designate a color, add suffix BU (Blue), WH (White), IG (International Gray), or YL (Yellow). For additional cable colors, contact customer service.

technical information

Category 6A/Class E$_A$ channel and component performance:	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$_A$ standards swept up to **650 MHz** for supporting 10GBASE-T transmission over twisted-pair cabling systems as part of the Panduit® TX6A™ 10 Gig 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
Conductors/insulators:	23 AWG solid copper insulated with FEP (CMP)
Standards compliance:	UL Verified - Bear Attack (BERetAC) Test Method℠
Flame rating:	Plenum (CMP): NFPA 262
PoE Performance:	150m or more up to 100 W (CMP-LP - 0.7A)
	Meets IEEE 802.3af, IEEE 802.3at and IEEE 802.3bt for PoE applications
	UL PoH certified per UL4299
Temperature rating:	32°F to 140°F (0°C to 60°C) during installation
	-4°F to 221°F (-20°C to 105°C) during operation
Cable jacket:	Plenum (CMP): Flame-retardant PVC
Cable diameter:	Plenum (CMP): 0.230 in. (5.8mm) nominal
Cable weight:	30.0 lbs./1000 ft. (13.6 kg/305m)
Packaging:	1000 ft. (305m) on a reel 34.0 lbs./100 ft. (15.4 kg/305m) Package tested to ISTA Procedure 1A

key features and benefits

Vari-MaTriX HD Technology	PATENTED	Best-in-class cable diameter delivers superior PSANEXT and PSAACRF suppression while retaining UTP EMI immunity
Extended Transmission Distances		Supports low bit rate devices like OT and physical security applications at up to 150m, while also supporting increased distances for high bit rate IP-based applications.
Higher Bandwidth Capabilities		Maximum bandwidth of 650 MHz provides more headroom margin for connectivity performance and consistency with data transmission speeds up to 10 Gb/s at 100m
Extended AV Distances		Provides design flexibility for high definition 4K video surveillance, HDBaseT and Gb/s SDVoE applications
Increased PoE Application Distance		Minimizes degradation of insertion loss and maintains performance at longer distances with edge devices while still meeting code compliance
Ease of Installation		Flex Force Level 2 parameters simplifies installation readiness and highlights the ease of handling for pulling, installing, and terminating

applications

The Utility Grade UTG20 UTP Copper Cable with Vari-MaTriX HD Technology is a component of the TX6A™ 10 Gig 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
- Wi-Fi
- Smart building
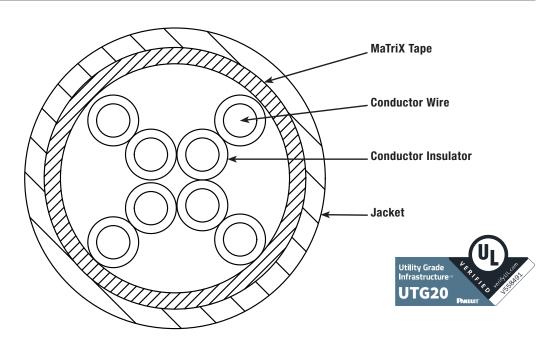- Power over Ethernet (PoE)
- High definition audio/visual
- 5G DAS

additional specifications

Mechanical Test	
Ultimate Breaking Strength	> 90 lbf (400 N)
Minimum Bend Radius	4 × cable diameter
Electrical Test	
Nominal Velocity of Propagation (NVP)	Plenum (CMP): 70%
Operating Voltage, Maximum	80 V

UL® Verified UTG Attributes (BERetAC Method)	
Maximum horizontal distance at 10 Mb/s	185m (606 ft.)
Maximum horizontal distance at 100 Mb/s	150m (492 ft.)
Maximum horizontal distance at 1 Gb/s	100m (328 ft.)
Maximum horizontal distance at 10 Gb/s	100m (328 ft.)
Maximum HDBaseT and Gb/s SDVoE distance	100m (328 ft.)
Video Surveillance (1080p HD and 4K UHD)	150-185m (492-606 ft.)
Maximum PoE distance - Type 1 (15.4 W)	185m (606 ft.)
Maximum PoE distance - Type 2 (30 W)	150m (492 ft.)
Maximum PoE distance - Type 3 (60 W)	100m (328 ft.)
Maximum PoE distance - Type 4 (100 W)	100m (328 ft.)
Maximum bundle size with PoE (Type 4 - 0.5A) @ 45°C	90 cables
Flex Force Level	2

cable construction

MaTriX Tape

Conductor Wire

Conductor Insulator

Jacket

Utility Grade Infrastructure℠ UTG20

UL VERIFIED — verifyUL.com — V558491

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Contact Customer Service by email: cs@panduit.com
or by phone: 800.777.3300

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