# 10Gain® XP+ Category 6A

CMR/CMP



Flame Retardant **PVC Jacket** Thermoplastic Insulation Cross-web Separator Solid Annealed Copper Conductor

Proprietary Wrap

SPECIFICATIONS					
Pair Count	4				
Conductor	Solid annealed copper				
AWG (mm)	23 (0.57)				
Insulation	CMR: Thermoplastic CMP: FEP				
Insulation Colors	Pair 1: ColorTip Light Blue, Blue Pair 2: ColorTip Light Orange, Orange Pair 3: ColorTip Light Green, Green Pair 4: ColorTip Light Brown, Brown				
Separator	Cross-web				
Core Wrap	Proprietary construction				
Jacket	CMR: Flame retardant (FR) PVC CMP: FR, low smoke PVC				
Characteristic Impedance Ohms	100 ± 15				
Velocity of Propagation %	CMR: 66 CMP: 71				
Performance Compliance	UL 444 CSA C22.2 No. 214-08 UL 1666 NFPA 262 ANSI/TIA-568.2-D Article 800, NEC (NFPA 70)				
NRTL Programs	UL Verified CAT 6A UL Listed CMR-LP (0.5) c(UL) Listed CMR UL Listed CMP-LP (0.5) c(UL) Listed CMP				
Sustainability	UL Certified EPD HPD Multi-Attribute Certification USGBC® Member RoHS-compliant/RoHS 2-compliant REACH-compliant				

### PRODUCT DESCRIPTION

10 Gain XP+ CAT 6A cable meets or exceeds all industry requirements including ANSI/TIA-568.2-D. This cable utilizes a proprietary core wrap which assures excellent alien crosstalk performance. This cable fully complies with UL 444 requirements for an unshielded twisted pair product. 10Gain XP+ has a nominal 0.25" (CMP) or 0.275" (CMR) diameter that allows for higher cable density than other CAT 6A cable products. 10Gain XP is ideal for PoE applications requiring higher levels of current and simultaneously up to 10 Gigabit Ethernet.

#### **APPLICATIONS**

- 10BASE-T through 10GBASE-T Ethernet
- Power over Ethernet (PoE) IEEE 802.3bt Type 1 to 4
- ATM and token ring
- Backward compatible to legacy protocols and applications
- HDBaseT Class A and B

FEATURES	BENEFIT
FEATURES	DENEFIL

•	FEATURES	BENEFITS				
	UL Certified Environmental Product Declaration (EPD)	Contributes toward 1 LEED credit under the Material and Resources credit (MRc)				
	<ul> <li>Health Product Declaration™         (HPD™)</li> </ul>	<ul> <li>Contributes toward 1 LEED credit under the MRc</li> </ul>				
	Multi-Attribute Certification by GreenCircle Certified, LLC	<ul> <li>Offers an overview of the sustainability of a product, its packaging and manufacturing</li> </ul>				
	Guaranteed 15 dB AXT margin	<ul> <li>Guaranteed AXT performance in virtually any installation environment</li> </ul>				
	<ul> <li>UL Verified CAT 6A</li> </ul>	<ul> <li>Assures consistent worry-free performance</li> </ul>				

- Tested to 650 MHz
- Nominal 0.275 (CMR)/0.250 (CMP) inch diameter
- Proprietary core wrap
- CableID® alpha numeric code printed every 2 feet
- QuickCount® marking system in feet and meters
- ColorTip™ circuit identification system

- Assures ample
- bandwidth headroom Higher cable density, smaller
- bend radius and lowers installation costs
- Provides substantially more AXT protection without grounding or bonding
- Allows both ends of a cable run to be easily identifiable without the need to separately label or tone the cable
- Provides remaining length of cable on reel
- · Easily identifiable conductor mates even in low-light environments

PART	NUMBERS	AND	PHYSICAL	CHARACTERISTICS

		Nominal Diameter	Approx. Weight		
Listing	Part Number <sup>1</sup>	in (mm)	lbs/kft (kg/km)	Package	Packages per Pallet
CMR	6B-246-xA	0.275 (6.99)	31 (47)	1,000' BrakeBox®	12
CMR	6B-272-xA	0.275 (6.99)	31 (47)	1,000' Reel	20
CMP	6B-246-xB	0.250 (6.35)	34 (50)	1,000' BrakeBox®	12
CMP	6B-272-xB	0.250 (6.35)	34 (50)	1,000' Reel	20

JACKET COLORS									
¹Replace "x" with:	Blue = 2	Gray = 3	White = 4	Green = 5	Yellow = 6	Purple = 7	Red = 9	Pink = C	Orange = D

## ELECTRICAL SPECIFICATIONS

Frequency	Insertion Loss @ 20°C Maximum dB/100 m		NEXT Minimum dB/100 m			ACR Minimum dB/100 m		PSNEXT Minimum dB/100 m		PSACR Minimum dB/100 m	
MHz	Guaranteed	Typical	Guaranteed	Typical	Guaranteed	Typical	Guaranteed	Typical	Guaranteed	Typical	
1	2.1	2.0	74.3	78.3	72.2	77.3	72.3	77.3	70.2	76.3	
4	3.8	3.7	65.3	69.3	61.5	66.6	63.3	68.3	59.5	65.6	
8	5.3	5.1	60.8	64.8	55.4	60.6	58.8	63.8	53.4	59.6	
10	5.9	5.7	59.3	63.3	53.4	58.6	57.3	62.3	51.4	57.6	
16	7.5	7.3	56.2	60.2	48.8	54.0	54.2	59.2	46.8	53.0	
20	8.4	8.1	54.8	58.8	46.4	51.7	52.8	57.8	44.4	51.2	
25	9.4	9.1	53.3	57.3	44.0	49.7	51.3	56.3	42.0	49.0	
31.25	10.5	10.2	51.9	55.9	41.4	47.2	49.9	54.9	39.4	46.7	
62.5	15.0	14.4	47.4	51.4	32.4	39.0	45.4	50.4	30.4	38.4	
100	19.1	18.4	44.3	48.3	25.2	32.4	42.3	47.3	23.2	31.7	
200	27.6	26.5	39.8	43.8	12.2	20.1	37.8	42.8	10.2	19.5	
250	31.1	29.8	38.3	42.3	7.3	15.5	36.3	41.3	5.3	15.1	
300	34.3	32.9	37.1	41.1	2.9	11.4	35.1	40.1	0.9	10.8	
400	40.1	38.3	35.3	39.3		4.6	33.3	38.3		3.6	
500	45.3	43.0	33.8	37.8			31.8	36.8			
600		47.5		36.4				35.6			
650		49.7		35.9				35.1			
700		51.4		35.5				34.6			
750		53.3		35.1				34.2			

Frequency	Return Loss Minimum dB/100 m		ACRF Minimum dB/100 m			PSACRF Minimum dB/100 m		PSANEXT Minimum dB/100 m		PSAACRF Minimum dB/100 m	
MHz	Guaranteed	Typical	Guaranteed	Typical	Guaranteed	Typical	Guaranteed	Typical	Guaranteed	Typical	
1	20.0	22.0	67.8	73.8	64.8	70.8	82.0	96.5	82.0	85.0	
4	23.0	25.0	55.8	61.8	52.8	58.8	82.0	87.5	81.2	84.2	
8	24.5	26.5	49.7	55.7	46.7	52.7	82.0	83.0	75.1	78.1	
10	25.0	27.0	47.8	53.8	44.8	50.8	82.0	83.0	73.2	76.2	
16	25.0	27.0	43.7	49.7	40.7	46.7	82.0	83.0	69.1	72.1	
20	25.0	27.0	41.8	47.8	38.8	44.8	82.0	83.0	67.2	70.2	
25	24.3	26.3	39.8	45.8	36.8	42.8	82.0	83.0	65.2	68.2	
31.25	23.6	25.6	37.9	43.9	34.9	40.9	82.0	83.0	63.3	66.3	
62.5	21.5	23.5	31.9	37.9	28.9	34.9	80.6	82.0	57.3	60.3	
100	20.1	22.1	27.8	33.8	24.8	30.8	77.5	80.0	53.2	56.2	
200	18.0	20.0	21.8	27.8	18.8	24.8	73.0	76.0	47.2	50.2	
250	17.3	19.3	19.8	25.8	16.8	22.8	71.5	74.0	45.2	48.2	
300	16.8	18.8	18.3	24.3	15.3	21.3	70.3	73.0	43.7	46.7	
400	15.9	17.9	15.8	21.8	12.8	18.8	69.3	71.0	42.2	44.2	
500	15.2	17.2	13.8	19.8	10.8	16.8	68.5	70.0	41.2	42.2	
600		16.7		18.2		15.2	67.0	69.0	39.2	40.6	
650		16.4		17.5		14.5		68.0		39.9	
700		16.2		16.9		13.9					
750		16.0		16.3		13.3					

#### SUSTAINABILITY LEADERSHIP













UL and the related logo are registered trademarks of UL LLC. Health Product Declaration, HPD and the related logo are trademarks of Health Product Declaration Collaborative. GreenCircle Certified logo is a registered trademark of GreenCircle Certified, LLC. USGBC and the related logo are registered trademarks of U.S. Green Building Council.

