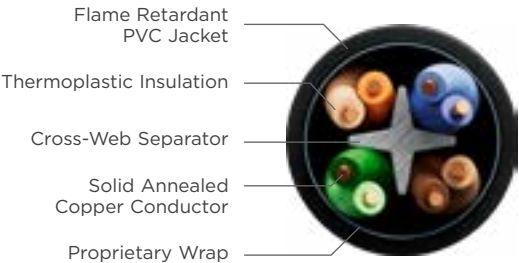


# 10 Gain® XP+ Category 6A

CMR/CMX Outdoor Sunlight Resistant



SPECIFICATIONS	
Pair Count	4
Conductor	Solid annealed copper
AWG (mm)	23 (0.57)
Insulation	Polyolefin
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	Tough, flame retardant, weather, sunlight and abrasion resistant riser PVC
Characteristic Impedance Ohms	100 ± 15
Velocity of Propagation %	68
Performance Compliance	UL 444 CSA C22.2 No. 214-08 UL 1581 UL 1666 ANSI/TIA-568.2-D ANSI/TIA/EIA-570-B Article 800, NEC (NFPA 70) RoHS-compliant/RoHS 2-compliant
NRTL Programs	UL Verified CAT 6A UL Listed CMR-LP (0.5) C(UL) Listed CMR UL, C(UL) Listed CMX Outdoor Sunlight Resistant

ENVIRONMENTAL SPECIFICATIONS AND TESTS	
Operation	-40°F to +167°F (-40°C to +75°C)
Installation	-40°F to +140°F (-40°C to +60°C)
ANSI/ICEA S-100-685-2009 Tested down to -67°F (-55°C)	Section 7.1: -4°F (-20°C) cold bend test Section 7.2: +14°F (-10°C) cold impact test Section 7.3: -40°F (-40°C) anvil test

**CAUTIONARY INFORMATION**

- Do not use as a substitute for Outside Plant (OSP) cables.
- Do not use in conduit or direct burial which can flood. These cables are not designed for extended exposure to water.

PART NUMBERS AND PHYSICAL CHARACTERISTICS				
Part Number¹	Nominal Diameter in (mm)	Approx. Weight lbs/kft (kg/km)	Package	Packages per Pallet
6B-246-E1	0.290 (7.36)	33 (49)	1,000' BrakeBox®	12
6B-272-E1	0.290 (7.36)	33 (49)	1,000' Reel	20

PRODUCT DESCRIPTION

10 Gain 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 is ideal for PoE applications requiring higher levels of current and simultaneously up to 10 Gigabit Ethernet.

The Superior Essex 10 Gain XP+ CAT 6A CMR/CMX Outdoor Sunlight Resistant cable is specifically designed for extreme sunlight and temperature applications. The level of UV blocking compounds is the same as in traditional Outside Plant (OSP) cable products, with the black color preventing damage from long-term UV sunlight exposure. Applications include Ethernet interconnect cable for Wi-Fi or retrofit cable installations that employ exterior runs having long-term outdoor exposure between two environmentally protected points. CMX Outdoor cables are designed to extend the run between the Network Interface Unit and the point of entry into the interior of a residence or a premise.

Superior Essex 10 Gain XP+ CAT 6A CMR/CMX Outdoor Sunlight Resistant black premises cable has been tested and listed as UL® 444 Sunlight Resistant compliant. This designation requires the cable to resist 720 hours of harsh UV and heat, which is more than twice the exposure time of the standard 300 hours required in the CMX Outdoor test. In addition, the CMR listing allows the cable to be used in riser spaces per UL 1666, eliminating the need to transition to fire resistant cables.

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	BENEFITS
<ul style="list-style-type: none"><li>Combined indoor/outdoor rating</li><li>UL 444/UL 1581 Sunlight Resistant Listed</li><li>Guaranteed 15 dB AXT margin</li></ul>	<ul style="list-style-type: none"><li>Reduces inventory by eliminating multiple cable types</li><li>Increased life in direct, long term sunlight</li><li>Guaranteed AXT performance in virtually any installation environment</li></ul>
<ul style="list-style-type: none"><li>UL Verified CAT 6A</li><li>Tested to 650 MHz</li></ul>	<ul style="list-style-type: none"><li>Assures consistent worry-free performance</li><li>Assures ample bandwidth headroom</li></ul>
<ul style="list-style-type: none"><li>Nominal 0.275 (CMR)/0.250 (CMP) inch diameter</li></ul>	<ul style="list-style-type: none"><li>Higher cable density, smaller bend radius and lowers installation costs</li></ul>
<ul style="list-style-type: none"><li>Proprietary core wrap</li></ul>	<ul style="list-style-type: none"><li>Provides substantially more AXT protection without grounding or bonding</li></ul>
<ul style="list-style-type: none"><li>CableID® alpha numeric code printed every 2 feet</li></ul>	<ul style="list-style-type: none"><li>Allows both ends of a cable run to be easily identifiable without the need to separately label or tone the cable</li></ul>
<ul style="list-style-type: none"><li>QuickCount® marking system in feet and meters</li><li>ColorTip™ circuit identification system</li></ul>	<ul style="list-style-type: none"><li>Provides remaining length of cable on reel</li><li>Easily identifiable conductor mates even in low-light environments</li></ul>

10Gain® XP + Category 6A CMR/CMX Outdoor Sunlight Resistant

ELECTRICAL SPECIFICATIONS

Frequency MHz	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	
	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 MHz	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	
	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



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