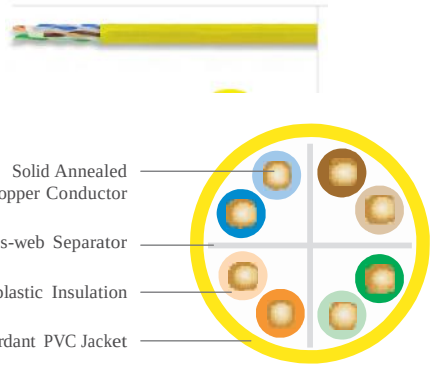
nextGain® Category 6ex

CMR/CMP



Product Description

NextGain® Category 6eX cable brings UTP performance to a new level. Guaranteed for 7 dB of margin (headroom) over base requirements of CAT 6 NEXT standards, this cable maximizes bandwidth for today's leading edge applications and those of the future. With positive ACR verified beyond 300 MHz, NextGain CAT 6eX cable demonstrates superior capability for ATM, Gigabit Ethernet and other bandwidth intensive applications.

Applications

- 10BASE-T through 1000BASE-T Ethernet
- Power over Ethernet (PoE) – IEEE 802.3af
- PoE+ – IEEE 802.3at Type 1 and 2
- ATM and token ring
- Supports legacy protocols and applications

Specifications

Pair Count	4
Conductor	Solid annealed copper
AWG (mm)	23 (0.57)
Insulation	CMR: Polyolefin 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
Jacket	CMR: Flame retardant (FR) PVC CMP: FR, low smoke PVC
Characteristic Impedance (Ohms)	100 ± 15
Nominal Velocity of Propagation (%)	CMR: 70 CMP: 74
Performance Compliance	UL 444 CSA C22.2 No. 214-08 UL 1666 NFPA 262 ANSI/TIA-568-C.2 Article 800, NEC (NFPA 70) RoHS-compliant
NRTL Programs	UL Verified CAT 6 UL, c(UL) Listed CMR UL, c(UL) Listed CMP

Features

- Guaranteed NEXT of 7 dB greater than CAT 6 requirements
- Guaranteed ACR of 30 dB at 100 MHz and 11.7 dB at 250 MHz
- Exceptional performance over CAT 6 requirements
- BrakeBox® payout control system
- Warranted with numerous connectivity manufacturers
- CableID® alpha numeric code printed every 2 feet
- QuickCount® marking system in feet and meters
- ColorTip™ circuit identification system
- Color coded box labels

Benefits

- "Future-proofing" the cable installation
- Performance assurance for multiple high-bandwidth applications (e.g., fast Ethernet, ATM, Gigabit Ethernet)
- Reduces BER, improving network efficiency
- Adjustable tension control on reel prevents over spin and entangling of cable
- Offers flexibility in selection of connectivity solutions
- 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
- Easily identifies jacket colors

Part Numbers and Physical Characteristics

Listing	Part Number[1]	Nominal Diameter in (mm)	Approx. Weight lbs/kft (kg/km)	Package	Packages per Pallet
CMR	154-246-xA1	0.23 (5.8)	24 (36)	1,000' BrakeBox	12
CMR	154-272-xA1	0.23 (5.8)	24 (36)	1,000' Plywood reel	16
CMP	154-246-xB1	0.23 (5.7)	28 (42)	1,000' BrakeBox	12
CMP	154-272-xB1	0.23 (5.7)	28 (42)	1,000' Plywood reel	16

Jacket Colors

[1]Replace "x" with:	Blue = 2	Gray = 3	White = 4	Green = 5	Yellow = 6	Purple = 7	Red = 9	Teal = F

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		
	TIA-568-C.2	GRUPO MATEL		TIA-568-C.2	GRUPO MATEL		TIA-568-C.2	GRUPO MATEL		TIA-568-C.2	GRUPO MATEL	
	Specified	Guaranteed	Typical	Specified	Guaranteed	Typical	Calculated	Guaranteed	Typical	Specified	Guaranteed	Typical
1	2.0	2.0	1.7	74.3	81.3	94.7	72.3	79.3	92.9	72.3	79.3	92.4
4	3.8	3.8	3.4	65.3	72.3	85.5	61.5	68.5	82.1	63.3	70.3	83.4
10	6.0	5.9	5.4	59.3	66.3	78.9	53.3	60.4	73.6	57.3	64.3	76.9
16	7.6	7.5	6.9	56.3	63.3	76.2	48.6	55.7	69.3	54.3	61.3	74.0
20	8.5	8.4	7.7	54.8	61.8	74.7	46.3	53.4	66.9	52.8	59.8	72.6
25	9.5	9.4	8.7	53.3	60.3	73.2	43.8	50.9	64.5	51.3	58.3	71.1
31.25	10.7	10.6	9.8	51.9	58.9	71.1	41.2	48.3	61.3	49.9	56.9	69.2
62.5	15.4	15.3	14.1	47.4	54.4	66.6	32.0	39.1	52.6	45.4	52.4	64.6
100	19.8	19.7	18.1	44.3	51.3	64.4	24.5	31.6	46.3	42.3	49.3	62.3
200	29.0	28.8	26.3	39.8	46.8	59.0	10.8	18.0	32.9	37.8	44.8	57.0
250	32.8	32.6	29.8	38.3	45.3	58.0	5.5	12.7	28.0	36.3	43.3	55.8
300		36.2	33.0		41.2	56.5		4.7	23.5		39.2	54.3
350		39.5	35.9		40.2	55.1		0.4	19.1		38.2	52.8
400		43.0	38.5		39.3	52.9			14.2		37.3	50.6
450		46.0	41.3		38.5	50.3			9.0		36.5	49.3
500		48.9	44.0		37.8	49.8			6.9		35.8	48.8
550		51.8	46.6		37.2	49.1			3.6		35.2	48.0
650			51.1			47.0						45.1

Frequency MHz	PSACR Minimum dB/100 m			Return Loss Minimum dB/100 m			ELFEXT (ACRF) Minimum dB/100 m			dB/100 m		
	TIA-568-C.2	GRUPO MATEL		TIA-568-C.2	GRUPO MATEL		TIA-568-C.2	GRUPO MATEL		TIA-568-C.2	GRUPO MATEL	
	Calculated	Guaranteed	Typical	Specified	Guaranteed	Typical	Specified	Guaranteed	Typical	Specified	Guaranteed	Typical
1	70.3	77.3	90.7	20.0	20.0	28.8	67.8	73.8	86.7	64.8	70.8	84.8
4	59.5	66.5	80.1	23.0	23.0	33.2	55.7	61.7	74.8	52.7	58.7	73.0
10	51.3	58.4	71.6	25.0	25.0	35.2	47.8	53.8	67.1	44.8	50.8	65.1
16	46.6	53.7	67.2	25.0	25.0	34.8	43.7	49.7	63.2	40.7	46.7	61.2
20	44.3	51.4	65.0	25.0	25.0	35.0	41.7	47.7	61.3	38.7	44.7	59.3
25	41.8	48.9	62.5	24.3	24.3	36.6	39.8	45.8	59.4	36.8	42.8	57.4
31.25	39.2	46.3	59.6	23.6	23.6	36.6	37.9	43.9	57.6	34.9	40.9	55.5
62.5	30.0	37.1	50.7	21.5	21.5	36.0	31.8	37.8	51.8	28.8	34.8	49.7
100	22.5	29.6	44.4	20.1	20.1	35.0	27.8	33.8	48.0	24.8	30.8	45.7
200	8.8	16.0	31.0	18.0	18.0	32.6	21.7	27.7	42.1	18.7	24.7	39.8
250	3.5	10.7	26.3	17.3	17.3	31.8	19.8	25.8	40.1	16.8	22.8	37.8
300		2.7	21.8		16.8	30.7		24.2	38.3		21.2	36.0
350			17.3		16.3	29.3		22.9	37.0		19.9	34.7
400			12.6		15.9	28.7		21.7	35.6		18.7	33.1
450			7.5		15.5	27.8			34.4			32.1
500			5.3		15.2	26.7			32.9			30.6
550			2.0		14.9	25.1			31.5			29.2
650						20.4			28.2			26.0