



Description

23 AWG CAT6A CMR, High-Performance Data Cable

Applicable Standards

- ETL Listed Type CMR
- C(ETL) listed CMG FT4
- TIA - 568-C.2, and ISO/IEC 11801
- ROHS Compliant
- ATM 155 Mbps
- Ethernet 10BASE-T, 100BASE-TX, 100BASE-VG, 100BASE-T4
- 1000 Mbps 1000BASE-T Gigabit Ethernet™ (IEEE 802.3)
- 16 Mbps Token Ring™ (IEEE 802.5)

Physical Characteristics

Number of Conductor Pairs	4
Size	23 AWG
Stranding	Solid
Conductor Material	Solid Annealed Bare Copper
Shield Material	Unshielded
Rip Cord	Yes
Insulation Material	HDPE
Insulation Overall Diameter	0.04 in. ± 0.0002 in.
Insulation Average Thickness	0.0086 in.
Jacket	Flame Retardant PVC
Outer Jacket Average Wall Thickness	0.022 in.
Outer Jacket Nominal O.D.	0.3 in. ± 0.008 in.
Nominal Weight	51 lbs.

Mechanical Characteristics

Temperature Rating	Installation	0 to + 60°C
	Operating	-20°C to + 75°C
Tensile Strength	Before	> = 13.8 Mpa
	Aging	> = 100%
Aging Condition	100°C x 168 hours	
	After	> = 85% of unaged
	Aging	> = 50% of unaged

Color Code

Pair 1	White / Blue	Blue
Pair 2	White / Orange	Orange
Pair 3	White / Green	Green
Pair 4	White / Brown	Brown

Cable Marking

UTP CAT.6A CMR: XXXXXX 23AWG 4 PR UTP CMR 75C
C(UL)US VERIFIED (UL) CATEGORY 6A ANSI/TIA-568-C.2

Electrical Performance

Frequency (MHz)	Attenuation (dB/100m)	Return loss (dB)	NEXT (dB)	PS-NEXT (dB)
	Max.	Min.	Min.	Min.
1	1.9	20	74.3	72.3
4	3.78	23.01	65.24	63.27
10	5.95	25	59.3	57.3
16	7.55	25	56.24	54.24
20	8.47	25	54.78	52.78
31.25	10.67	23.64	51.88	49.88
62.5	15.38	21.54	47.36	45.36
100	19.8	20.11	44.3	42.3
200	28.98	18	39.78	37.78
250	32.85	17.32	38.33	36.33
400	42.96	15.89	35.2	33.2
500	48.92	15.21	33.8	31.8

Frequency (MHz)	ELFEXT Min. (dB)	PS-ELFEXT Min. (dB)	Delay Min. (dB)
1	67.8	64.8	570
4	55.76	52.76	552
10	47.8	44.8	545
16	43.72	40.72	543
20	41.78	38.78	542
31.25	37.9	34.9	540
62.5	31.88	28.8	538
100	27.8	24.8	537
200	21.78	18.78	536
250	19.84	16.84	536
400	15.9	12.9	535
500	14.02	11.02	535

* Values above 250MHz are information only

Electrical Characteristics

Maximum Conductor DC Resistance @ 20°C	6.85 Ω / 100 Meters
Maximum DC Resistance Unbalanced @ 20°C	5%
Maximum Pair-to-Pair Ground Capacitance Unbalance	330 pF / 100 Meters
Characteristic Impedance	100 ± 15 Ω
Mutual Capacitance	5.6 nF / 100 Meters
Maximum Delay Skew	40 nS / 100 Meters
Nominal Velocity of Propagation	65%

Part Numbers

Part Number	Color	Put-up
	Blue	1,000' Reel
	Grey	1,000' Reel