



Description

23 AWG CAT6E CMR, High-Performance Data Cable

Applicable Standards

- UTP CABLE CAT6, #23 AWG X 4 PAIR W/HDPE INSULATION AND FLAME-RETARDANT PVC JACKET
- UL Listed Type CMR
- C(UL) listed CMG FT4
- ETL Listed Type CMR
- C(ETL) listed CMG FT4
- TIA/EIA-568-C.2, UL 1666 CMR RATED
- IEC 61156 AND ANSI/TIA-568-C.2
- 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	Polyethylene
Insulation Overall Diameter	0.040 in. ± 0.0002 in.
Insulation Average Thickness	0.0088 in.
Jacket	Flame Retardant PVC
Outer Jacket Average Wall Thickness	0.023 in.
Outer Jacket Nominal O.D.	0.244 in. ± 0.008 in.
Nominal Weight	30 lbs.

Mechanical Characteristics

Temperature Rating	Installation	0 to + 60°C
	Operating	0°C to + 75°C
Tensile Strength	Before	= 13.8 Mpa
Elongation	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

EXXXXXX-XX 23AWG 4 PR UTP CMR C(UL)US VERIFIED
75C (UL) CATEGORY 6 TIA.EIA-568C.2 C(ETL)US FT4 TESTED
TO 550 MHZ ETL VERIFIED TO ****FT

Electrical Performance

Frequency (MHz)	Attenuation (dB/100m)	Return loss (dB)	NEXT (dB)	PS-NEXT (dB)
	Max.	Min.	Min.	Min.
1	2.0	20.0	77.3	75.3
4	3.8	23.6	68.3	66.3
8	5.3	25.4	63.8	61.8
10	5.9	26.0	62.3	30.3
16	7.4	26.0	59.3	57.3
20	8.3	26.0	57.8	55.8
25	9.3	25.5	56.3	54.3
31.25	10.4	25.0	54.9	52.9
62.5	14.9	23.5	50.4	48.4
100	19.0	22.5	47.3	45.3
155	23.9	21.6	45.8	43.5
200	27.4	21.0	42.8	40.8
250	30.8	20.5	41.3	39.3
300	34.0	20.1	40.2	38.2
350	37.0	19.8	39.2	37.2
400	39.7	19.5	38.3	36.3
450	42.1	19.2	37.5	35.5
500	44.9	19.0	36.8	34.8
550	47.3	18.8	36.2	34.2

Frequency (MHz)	ELFEXT Min. (dB)	PS-ELFEXT Min. (dB)	ACR Min. (dB)	PS-ACR Min. (dB)
1	70.8	67.8	75.0	73.0
4	58.7	55.7	64.0	62.0
8	52.7	49.7	57.7	55.7
10	50.8	47.8	55.6	53.6
16	46.7	43.7	50.7	48.7
20	44.7	41.7	48.2	16.2
25	42.8	39.8	45.6	13.6
31.25	40.9	37.9	42.8	40.8
62.5	34.8	31.8	32.9	30.9
100	30.8	27.8	24.9	22.9
155	27.0	23.6	21.0	21.5
200	24.7	21.7	18.4	16.4
250	22.8	19.8	13.5	11.5
300	21.2	18.2	9.6	5.0
350	19.9	16.9	5.2	3.2
400	18.7	15.7	1.5	-
450	17.7	14.7	-	-
500	16.8	13.8	-	-
550	15.9	12.9	-	-

* Values above 250MHz are information only

Electrical Characteristics

Maximum Conductor DC Resistance @ 20°C	9.38 Ω / 100 Meters
Maximum DC Resistance Unbalanced @ 20°C	5%
Maximum Pair-to-Pair Ground Capacitance Unbalanced	330 pF / 100 Meters
Characteristic Impedance	100 ± 15 Ω
Mutual Capacitance	5.6 nF / 100 Meters
Maximum Delay Skew	40 nS / 100 Meters

Part Numbers

Part #	Color	Put-up
	Black	1,000' Reel in Box
	Blue	1,000' Reel in Box
	Green	1,000' Reel in Box
	Grey	1,000' Reel in Box
	Red	1,000' Reel in Box
	White	1,000' Reel in Box
	Yellow	1,000' Reel in Box