



Category 6A UTP 10G Riser (CMR) Cable

Cable Detail		
Description		
23 AWG CAT6A CMR, High-Performance Data Cable		
Applicable Standards		
<ul style="list-style-type: none"> • UL Listed Type CMR • C(ETL) listed CMG FT4 • ANSI/TIA-568-C.2 • 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		
Conductor Material	Solid Annealed Bare Copper	
Number of Conductor Pairs	4	
Size	23 AWG	
Stranding	Solid	
Insulation Material	HDPE	
Overall Diameter	0.04 in. ± 0.0002 in	
Average Thickness	0.0086 in	
Jacket Material	Flame Retardant PVC	
Average Wall Thickness	0.022 in.	
Nominal Outer Diameter	0.3 in. ± 0.008 in.	
Nominal Weight	38 lbs.	
Shield Material	Unshielded	
Ripcord	Yes	
Mechanical Characteristics		
Temperature Rating	Installation	0°C to + 60°C
	Operating	-20°C to + 75°C
Tensile Strength	Before	≥ 13.8 Mpa
Aging Condition	Elongation	≥ 100%
	Aging	100°C x 168 hours
		After
	Aging	≥ 50% of unaged
Insulation Colors		
Pair 1	White / Blue	Blue
Pair 2	White / Orange	Orange
Pair 3	White / Green	Green
Pair 4	White / Brown	Brown
Part Numbers	Jacket Color	Package
	Blue, Grey, White	1000FT / Reel

Electrical Characteristics

Max. Conductor DC Resistance @ 20°C	6.85 Ω / 100 Meters
Maximum DC Resistance Unbalanced @ 20°C	5%
Max. Pair-to-Pair Ground Capacitance Unbalance	330 pF / 100 Meters
Characteristic Impedance (1 ~ 350 MHz)	100 ± 15 Ω
Mutual Capacitance	5.6 nF / 100 Meters
Max. Delay Skew	40 nS / 100 Meters
Nominal Velocity of Propagation	65%

Electrical Performance

Frequency (MHz)	Attenuation (dB/100m) Max.	Return loss (dB) Min.	NEXT (dB) Min.	PS-NEXT (dB) Min.
1	2.08	20.00	74.30	72.30
4	3.80	23.01	65.27	63.27
8	5.31	24.52	60.75	58.75
10	5.93	25.00	59.30	57.30
16	7.49	25.00	56.24	54.24
20	8.38	25.00	54.78	52.78
25	9.38	24.32	53.33	51.33
31.25	10.50	23.64	51.88	49.88
62.5	14.99	21.54	47.36	45.36
100	19.14	20.11	44.30	42.30
200	27.58	18.00	39.78	37.78
250	31.07	17.32	38.33	36.33
300	34.27	16.77	37.14	35.14
400	40.05	15.89	35.27	33.27
500	45.26	15.21	33.82	31.82
600	50.05	14.66	32.63	30.63
625	51.20	14.54	32.36	30.36
650	52.33	14.42	32.11	30.11
700	54.53	14.19	31.62	29.62
750	56.68	13.98	31.17	29.17
Frequency (MHz)	ELFEXT (dB/100m) Min.	PS-ELFEXT (dB) Min.	PS-ANEXT (dB/100m)	PS-AELFEXT (dB/100m)
1	67.80	64.80	67.00	67.00
4	55.76	52.76	67.00	66.16
8	49.74	46.74	67.00	60.14
10	47.80	44.80	67.00	58.20
16	43.72	40.72	67.00	54.12
20	41.78	38.78	67.00	52.18
25	39.84	36.84	67.00	50.24
31.25	37.90	34.90	67.00	48.30
62.5	31.88	28.88	65.56	42.28
100	27.80	24.80	62.50	38.20
200	21.78	18.78	57.98	32.18
250	19.84	16.84	56.53	30.24
300	18.26	15.26	55.34	28.66
400	15.76	12.76	53.47	26.16
500	13.82	10.82	52.02	24.22
600	12.24	9.24	50.83	22.64
625	11.88	8.88	50.56	22.28
650	11.54	8.54	50.31	21.94
700	10.90	7.90	49.82	21.30
750	10.30	7.30	49.37	20.70

*Values above are for reference only.

Cable Marking

EXXXXXXX 23AWG 4 PR UTP CMR 75C FT4 C(UL)US VERIFIED (UL) CATEGORY 6A ANSI/TIA-568.C.2 ****FT