

Category 6E 600MHz FTP Plenum (CMP) Cable

Cable Detail		
Description		
23 AWG Shielded Plenum Twisted Pair, High-Performance Data Cable		
Applicable Standards		
<ul style="list-style-type: none"> • C(ETL) US CMP • CMP Rating FT6 • ETL Verified to ANSI/TIA/EIA - 568-C.2, Category 6 • National Electric Code - Article 800 • UL Subject 444) 		
Physical Characteristics		
Conductor Material	Solid Annealed Bare Copper	
Number of Conductor Pairs	4	
Size	23 AWG	
Stranding	Solid	
Insulation Material	FEP	
Overall Diameter	0.045 in. ± 0.0002 in	
Average Thickness	0.0085 in	
Min. Point Thickness	0.00767 in.	
Insulation Diameter	0.0402 in. +/- 0.012 in.	
Twisted Pair Diameter	0.0803 in. +/- 0.0078 in.	
PE-Tape	Overlapping rate >= 15%	
AL-Foil	Overlapping rate >= 15%	
Assembly Diameter	0.2559 in. +/- 0.0078 in.	
Jacket Material	Low Smoke FR-PVC	
Average Thickness	0.0197 in.	
Min. Point Thickness	0.0236 in.	
Nominal Outer Diameter	0.311 in. ± 0.008 in.	
Nominal Weight	52 lbs.	
Ripcord	Yes	
Mechanical Characteristics		
Temperature Rating	Installation	0°C to + 60°C
	Operating	-20°C to + 75°C
Tensile Strength	Before	>= 13.8 Mpa
Elongation	Aging	>= 100%
		100°C x 168 hours
	After	>= 85% of unaged
Aging Condition	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
Jacket Color		Package
Blue, Grey, or White		1000FT / Reel

Electrical Characteristics

Max. Conductor DC Resistance @ 20°C	28.6 Ω / 100 Feet	
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	14 nF / 100 ft Nominal	
Max. Delay Skew	45 nS / 100 m	
Velocity of Propagation	72%	
Characteristic Impedance	from 0.772 - 100 MHz	100 +/- 15%
	from 101 - 250 MHz	100 +/- 22%
	from 251 - 550 MHz	100 +/- 32%

Electrical Performance

Frequency (MHz)	Attenuation (dB/100m) Max.	Return loss (dB) Min.	NEXT (dB) Min.	PS-NEXT (dB) Min.
1	2.10	20.0	75.3	72.3
4	3.80	23.0	66.3	63.3
8	5.30	24.5	61.8	58.8
10	5.90	25.0	60.3	57.3
16	7.50	25.0	57.2	54.2
20	8.40	25.0	55.8	52.8
25	9.40	24.3	54.3	51.3
31.25	10.50	23.6	52.9	49.9
62.5	15.00	21.5	48.4	45.4
100	19.10	20.1	45.3	42.3
200	27.60	18.0	40.8	37.8
250	31.10	15.6	39.3	36.6
300	34.30	16.8	38.1	35.1
500	-	15.2	34.8	31.5
600	-	14.7	33.6	30.6
Frequency (MHz)	ELFEXT (dB/100m) Min.	PS-ELFEXT (dB) Min.	Delay (ns/100m) Max.	
1	68.00	65.00	552.00	
4	56.00	53.00	546.00	
8	49.90	46.90	545.00	
10	48.00	45.00	543.00	
16	43.30	40.90	542.00	
20	42.00	39.00	541.00	
25	40.00	37.00	540.00	
31.25	38.10	35.10	538.00	
62.5	32.10	29.10	537.00	
100	28.00	25.00	536.00	
200	22.00	19.00	535.00	
250	20.00	17.00	534.00	
300	18.50	15.50	534.00	
500	14.00	11.00	-	
600	12.00	10.00	-	

* Values above 250MHz are information only.

Cable Marking

CATEGORY 6E 600MHZ 23AWG 4PR FTP XXXXXXXX CMP C(ETL)US ETL
VERIFIED TO TIA-568C.2 ****FT