



Description

23 AWG Shielded Plenum Twisted Pair, High Performance Cable

Applicable Standards

- 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

Number of Conductor Pairs	4
Size	23 AWG
Stranding	Solid
Conductor Diameter	0.23 in.
Insulation	FEP
Average Thickness	0.0085 in.
Min. Point Thickness	0.00767 in.
Insulation Diameter	+/- 0.012 in. 0.0402 in.
Twisted Pair Diameter	+/- 0.0078 in. 0.0803 in.
PE-Tape	Overlapping rate >= 15%
AL-Foil	Overlapping rate >= 15%
Assembly Diameter	+/- 0.0078 in. 0.2559 in.
Jacket	Low Smoke FR-PVC
Average Thickness	0.0197 in.
Min. Point Thickness	0.0236 in.
Outer Diameter	0.311 in.
Rip Cord	Yes
Nominal Weight	49 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

ETL VERIFIED CAT6E TO TIA-568C.2 XXXXXX 23AWG 4PR FTP
CMP C(ETL)US CAT6E SWEPT TO 550MHZ ****FT

Electrical Performance

Frequency (MHz)	Attenuation (dB/100m)	Return loss (dB)	NEXT (dB)	PS-NEXT (dB)
	Max.	Min.	Min.	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	315.0
600	-	14.7	33.6	30.6

Frequency (MHz)	ELFEXT Min. (dB)	PS-ELFEXT Min. (dB)	Delay <=ns
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

Electrical Characteristics

Maximum Conductor DC Resistance @ 20°C	28.6 Ω/100 Feet
Maximum DC Resistance Unbalanced @ 20°C	5%
Maximum Delay Skew	45.0 ns/100m
Mutual Capacitance	14 nF/100ft Nominal
Capacitance Unbalance	330 pF/100m Maximum
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%

Part Numbers

Part Number	Color	Put-up
6E04FPBL2	Blue	1,000' Reel
6E04FPGY2	Grey	1,000' Reel