



Description

24 AWG Unshielded Twisted 25 Pair, High-Performance Data Cable

Applicable Standards

- ETL Listed Type CMR
- C(ETL) listed CMG FT4
- ETL Verified to 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	25
Size	24 AWG
Stranding	Solid
Conductor Material	Solid Annealed Bare Copper
Shield Material	None
Rip Cord	Yes
Insulation Overall Diameter	0.0354 in. ± 0.0002 in.
Insulation Average Thickness	0.00787 in.
Insulation Material	HDPE
Jacket	Flame Retardant PVC
Outer Jacket Average Wall Thickness	0.043 in. ± 0.0002 in.
Outer Jacket Nom. O.D.	0.492 in. ± 0.0002 in.
Assembly Diameter	0.413 in.
Twisted Pair Diameter	0.0709 in.
Nominal Weight	138 lbs.

Mechanical Characteristics

Temperature Rating	Installation	-20°C to + 75°C
	Operating	-20°C to + 75°C
Min. Ben Radius		8 times the O.D.
Max. Pulling Force		25 lbs
Tensile Strenth	Before	> = 13.8 Mpa
Elongation	Aging	> = 100%
Aging Condition		100°C x 168 hours
	After	> = 85% of unaged
	Aging	> = 85% of unaged

Cable Marking

CATEGORY 5E 350MHZ 24AWG 25 PR UTP XXXXXX CMR
C(ETL)US ETL LISTED & VERIFIED TO TIA - 568-C.2 ****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	65.3	62.3
4	4.1	23.0	56.3	53.3
8	5.8	24.5	51.8	48.8
10	6.5	25.0	50.3	47.3
16	8.2	25.0	47.3	44.3
20	9.3	25.0	45.8	42.8
25	10.4	24.3	44.3	41.3
31.25	11.7	23.6	42.9	39.9
62.5	17.0	21.5	38.4	35.4
100	22.0	20.1	35.3	32.3

Frequency (MHz)	ELFEXT (dB/100m)	PS-ELFEXT (dB/100m)	Delay (ns/100m)	ACR Typ(dB)
	Min.	Min.	Max.	
1	63.8	60.8	570.0	67.3
4	51.7	48.7	552.0	56.2
8	45.7	42.7	546.7	50.0
10	43.8	40.8	545.4	47.8
16	39.7	36.7	543.0	44.0
20	37.7	34.7	542.0	41.5
25	35.8	32.8	541.2	38.9
31.25	33.9	30.9	540.4	36.2
62.5	27.8	24.8	538.6	27.4
100	23.8	20.8	537.6	19.3

Color Code

Pair 1	Blue - White	Pair 16	Blue - Yellow
Pair 2	Orange - White	Pair 17	Orange - Yellow
Pair 3	Green - White	Pair 18	Green - Yellow
Pair 4	Brown - White	Pair 19	Brown - Yellow
Pair 5	Gray - White	Pair 20	Gray - Yellow
Pair 6	Blue - Red	Pair 21	Blue - Violet
Pair 7	Orange - Red	Pair 22	Orange - Violet
Pair 8	Green - Red	Pair 23	Green - Violet
Pair 9	Brown - Red	Pair 24	Brown - Violet
Pair 10	Gray - Red	Pair 25	Gray - Violet
Pair 11	Blue - Black		
Pair 12	Orange - Black		
Pair 13	Green - Black		
Pair 14	Brown - Black		
Pair 15	Gray - Black		

Electrical Characteristics

Maximum Conductor DC Resistance @ 20°C	9.5 Ω / 100 Meters
Maximum DC Resistance Unbalanced @ 20°C	5%
Maximum 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
Maximum Delay Skew	40 nS / 100 Meters

Part Numbers

Part Number	Color	Put- up
5E2SURGY2	Grey	1,000' Reel