



CATEGORY 5e OUTDOOR PLENUM CABLE P/N CA-0287

Description

- Enhanced twisted pair (UTP) cable for use in horizontal cabling systems and outdoors as described in TIA/EIA 568-B. The cable exceeds Category 5 and Category 5e electrical characteristics. The cable consists of 24 AWG solid bare copper insulated conductors, assembled into four tightly twisted pairs, with an overall jacket.

Supported Applications

- Fixed Wireless Internet Systems from receiver to user, IEEE 802.3 10Base-T (Ethernet), 100Base-T (Fast Ethernet), and 1000Base-T (Gigabit Ethernet), ANSI.X3.263FDDI TP-PMD, IEEE 802.5 4 and 16 Mbps Token Ring, ATM up to 155 Mbps, 550 MHz Broadband Video

Construction Details

Conductor

- 24 AWG Solid Bare Copper

Insulation

- Solid FEP™ Teflon

Pairs

- Tightly twisted with varied lays

Color Code

- Pair #1 White/Blue and Blue
- Pair #2 White/Orange and Orange
- Pair # 3 White/ Green and Green
- Pair # 4 White/ Brown and Brown

Cable

- 4 Pairs cabled together

Jacket

- FEP™ Teflon jacket.



Benefits

Cable Performance

- Cable design exceeds Category 5e electrical specifications for use in a wide variety of high speed network applications including outdoor to indoor installations for Wireless Internet Service in residential or commercial buildings.

Robust Applications

- Cable passes UL CMX-Outdoor rating.
- Passes the 300 hour Sunlight Resistant requirements of UL 444.
- Passes the Cold Impact requirement of -10°C per UL 444.
- Insulation and jacket compounds of FEP™ are very tough and durable.

Ease of Installation

- Cables are made without messy gel which must be cleaned from conductors.
- Cable available with white, beige, gray and blue jackets for easy circuit identification.

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CATEGORY 5e CABLE

ELECTRICAL CHARACTERISTICS:

CONDUCTOR DCR:	9.38 Ω /100m (28.6 Ω /Mft) MAX
DCR UNBALANCE:	5% MAX
MUTUAL CAPACITANCE:	46 pF/m (14 pF/ft) NOM
PAIR/GROUND:	132 pF/100m (400 pF/Mft) MAX
CHARACTERISTIC IMPEDANCE:	100 Ω \pm 15% (1-100 MHz)
RETURN LOSS (RL):	20 + 5 $\log_{10}(f)$ dB MIN (1-10 MHz) 25 dB MIN (>10-20 MHz) 25 - 7 $\log_{10}(f/20)$ dB MIN (>20 MHz)
INSERTION LOSS:	dB/100m MAX
NEXT:	36.3 - 15 $\log_{10}(f/100)$ dB/100m MIN
PS-NEXT:	32.3 - 15 $\log_{10}(f/100)$ dB/100m MIN
ELFEXT:	23.8 - 20 $\log_{10}(f/100)$ dB/100m MIN
PS-ELFEXT:	20.8 - 20 $\log_{10}(f/100)$ dB/100m MIN
PROPAGATION DELAY:	534 + 36/ \sqrt{f} ns/100m MAX
DELTA DELAY (SKEW):	25 ns/100m MAX
NOMINAL VELOCITY:	68%

WHERE f = FREQUENCY IN MHz from .772 to 100 MHz

FREQ (MHz)	INSERTION LOSS (dB/100m)		NEXT (dB/100m)		PS-NEXT (dB/100m)		EL-FEXT (dB/100m)	PS-ELFEXT (dB/100m)	RL (dB)
	avg	max	avg	min	avg	min	min	min	min
0.772	1.6	1.8	79.0	68.0	70.0	64.0			
1.0	1.8	2.0	77.0	66.3	68.0	62.3	63.8	60.8	20.0
4.0	3.8	4.1	68.0	57.3	57.0	53.3	51.8	48.8	23.0
8.0	5.4	5.8	64.0	52.8	54.0	48.8	45.7	42.7	24.5
10.0	6.0	6.5	62.0	51.3	52.0	47.3	43.8	40.8	25.0
16.0	7.6	8.2	60.0	48.2	50.0	44.2	39.7	36.7	25.0
20.0	8.6	9.3	58.0	46.8	48.0	42.8	37.8	34.8	25.0
25.0	9.7	10.4	57.0	45.3	47.0	41.3	35.8	32.8	24.3
31.3	10.9	11.7	56.0	43.9	46.0	39.9	33.9	30.9	23.6
62.5	15.8	17.0	52.0	39.4	42.0	35.4	27.9	24.9	21.5
100.0	20.5	22.0	48.0	36.3	38.0	32.3	23.8	20.8	20.1