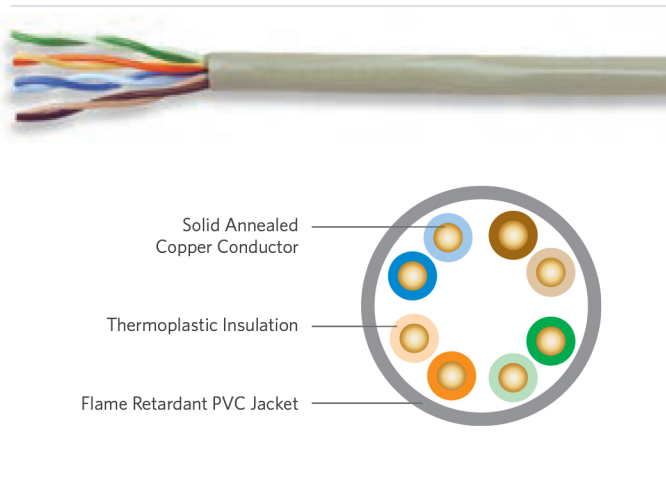


# Superior 51-241-28 Plenum Cat5e Cable



## PRODUCT DESCRIPTION

Superior 51-241-28 Plenum Category 5e cable offers an exceptional value for jobs that require standards compliance at a cost-effective price. While Superior 51-241-28 Plenum cable meets all of the ANSI/TIA-568-C.2 specifications, it also offers other features that make it easier to use, save on installation time and expense and ensure product quality during the installation. Superior 51-241028 Plenum cable provides more overall value than any other CAT5e product available today.

## APPLICATIONS

- 10BASE-T through 1000BASE-T Ethernet
- Power over Ethernet (PoE) - IEEE 802.3af
- PoE+ - IEEE 802.3at Type 1 and 2
- ATM and token ring

## FEATURES

- Meets ANSI/TIA-568-C.2 specification
- Tested to 350 MHz
- QuickCount marking system in feet and meters
- Color coded box labels

## BENEFITS

- Provides cost-effective solution
- Assures ample bandwidth headroom
- Reduces tension on wire to ensure proper electrical performance after installation
- Allows both ends of a cable run to be easily identifiable without the need to separately label or tone the cable
- Provides remaining length of cable on reel
- Easily identifiable conductor mates even in low-light environments
- Easily identifies jacket colors

## SPECIFICATIONS

Pair Count	4
Conductor	Solid annealed copper
AWG (mm)	24 (0.51)
Insulation	Thermoplastic
Insulation Colors	Pair 1: ColorTip Light Blue, Blue Pair 2: ColorTip Light Orange, Orange Pair 3: ColorTip Light Green, Green Pair 4: ColorTip Light Brown, Brown
Jacket	CMR: Flame retardant (FR) PVC CMP: FR, low smoke PVC
Characteristic Impedance (Ohms)	100 ± 15
Nominal Velocity of Propagation (%)	CMR: 71 CMP: 74
Performance Compliance	UL 444 CSA C22.2 No. 214-08 UL 1666 NFPA 262 ANSI/TIA-568-C.2 Article 800, NEC (NFPA 70) RoHS-compliant
NRTL Programs	UL or ETL Verified CAT 5e UL, c(UL) Listed CMR UL, c(UL) Listed CMP

## PART NUMBERS AND PHYSICAL CHARACTERISTICS

Listing	Part Number <sup>1</sup>	Nominal Diameter in (mm)	Approx. Weight lbs/kft (kg/km)	Package	Packages per Pallet
CMR	51-243-x5	0.18 (4.6)	17 (25)	1,000' Reel-in-a-Box	45
CMR	51-240-x5	0.18 (4.6)	17 (25)	1,000' POP box	45
CMR	51-220-x5	0.18 (4.6)	17 (25)	1,000' Plywood reel	36
CMR	51-273-x5	0.18 (4.6)	17 (25)	2,500' Plywood reel	16
CMP	51-243-x8	0.19 (4.8)	20 (30)	1,000' Reel-in-a-Box	45
CMP	51-241-x8	0.19 (4.8)	20 (30)	1,000' POP box	45
CMP	51-220-x8	0.19 (4.8)	20 (30)	1,000' Plywood reel	36
CMP	51-273-x8	0.19 (4.8)	20 (30)	2,500' Plywood reel	16

## JACKET COLORS

<sup>1</sup>Replace "x" with:

Blue = 2

Gray = 3

White = 4

Green = 5

Yellow = 6

Purple = 7

Red = 9

Pink = C

Orange = D

Black = E

# Superior 51-241-28 Plenum Cat5e Cable

## ELECTRICAL SPECIFICATIONS

Frequency MHz	Insertion Loss @ 20°C Maximum dB/100 m		NEXT Minimum dB/100 m		ACR Minimum dB/100 m		PSNEXT Minimum dB/100 m	
	TIA-568-C.2	Superior Essex	TIA-568-C.2	Superior Essex	TIA-568-C.2	Superior Essex	TIA-568-C.2	Superior Essex
	Specified	Typical	Specified	Typical	Calculated	Typical	Specified	Typical
0.772	1.8	1.5	67.0	78.5	65.2	83.0	64.0	77.0
1	2.0	1.8	65.3	76.8	63.3	81.0	62.3	75.3
4	4.1	3.7	56.3	67.8	52.2	70.1	53.3	66.3
8	5.8	5.4	51.8	63.3	46.0	63.9	48.8	61.8
10	6.5	6.0	50.3	61.8	43.8	61.8	47.3	60.3
16	8.2	7.7	47.2	58.7	39.0	57.0	44.3	57.2
20	9.3	8.6	45.8	57.3	36.5	54.7	42.8	55.8
25	10.4	9.6	44.3	55.8	33.9	52.2	41.3	54.3
31.25	11.7	10.8	42.9	54.4	31.2	49.6	39.9	52.9
62.5	17.0	15.5	38.4	49.9	21.4	40.4	35.4	48.4
100	22.0	19.8	35.3	46.8	13.3	33.0	32.3	45.3
155		24.8		43.9		25.1		42.4
200		28.2		42.3		20.1		40.8
250		31.8		40.8		15.0		39.3
300		35.0		39.6		10.6		38.1
350		38.3		38.6		6.3		37.1

Frequency MHz	PSACR Minimum dB/100 m		Return Loss Minimum dB/100 m		ELFEXT Minimum dB/100 m		PSELFEXT Minimum dB/100 m	
	TIA-568-C.2	Superior Essex	TIA-568-C.2	Superior Essex	TIA-568-C.2	Superior Essex	TIA-568-C.2	Superior Essex
	Calculated	Typical	Specified	Typical	Specified	Typical	Specified	Typical
0.772	62.2	80.3	19.4	32.4	66.0	76.8	63.0	71.5
1	60.3	78.3	20.0	33.0	63.8	74.6	60.8	69.3
4	49.2	67.4	23.0	36.0	51.8	62.6	48.8	57.3
8	43.0	61.2	24.5	37.5	45.7	56.5	42.7	51.2
10	40.8	59.1	25.0	38.0	43.8	54.6	40.8	49.3
16	36.1	54.3	25.0	38.0	39.7	50.5	36.7	45.2
20	33.5	52.0	25.0	38.0	37.8	48.6	34.8	43.3
25	30.9	49.5	24.3	37.3	35.8	46.6	32.8	41.3
31.25	28.2	46.9	23.6	36.6	33.9	44.7	30.9	39.4
62.5	18.4	37.7	21.5	34.5	27.9	38.7	24.9	33.4
100	10.3	30.3	20.1	33.1	23.8	34.6	20.8	29.3
155		22.4		31.8		30.8		25.5
200		17.4		31.0		28.6		23.3
250		12.3		30.3		26.6		21.3
300		7.9		29.8		25.1		19.8
350		3.6		29.3		23.7		18.4