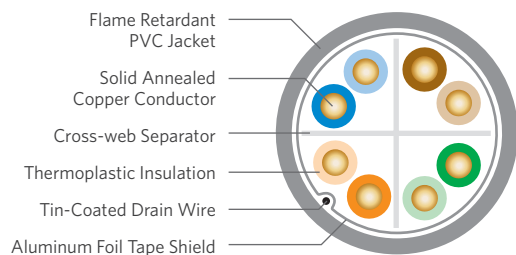


# Category 6+ ScTP (F/UTP)

CMR/CMP



## SPECIFICATIONS

Configuration	Copper pairs surrounded by aluminum PET foil with an outer drain wire and jacket
Pair Count	4
Conductor	Solid annealed copper
AWG (mm)	23 (0.57)
Insulation	CMR: Thermoplastic CMP: FEP
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
Separator	Cross-web
Shield	Aluminum/PET with 10% overlap
Drain Wire	Tinned copper
Jacket	CMR: Flame retardant (FR) PVC CMP: FR, low smoke PVC
Characteristic Impedance Ohms	100 ± 15
Nominal Velocity of Propagation %	CMR: 66 CMP: 71
Performance Compliance	UL 444 CSA C22.2 No. 214-08 UL 1666 NFPA 262 ANSI/TIA-568-C.2 ANSI/TIA/EIA-TSB-155 Article 800, NEC (NFPA 70) RoHS-compliant
NRTL Programs	UL Verified CAT 6 UL, c(UL) Listed CMR UL, c(UL) Listed CMP

## PRODUCT DESCRIPTION

Category 6+ ScTP (F/UTP) cable, with guaranteed performance out to 500 MHz, exceeds ANSI/TIA-568-C.2 for CAT 6 cables. The cable is UL Verified CAT 6 and has a typical Alien Crosstalk margin of 18 dB. The cable can be used for 10GBASE-T applications for up to 55 meters per ANSI/TIA/EIA-TSB-155.

The cable consists of four (4) balanced 23 AWG copper pairs around a flame retardant cross-web. The core is wrapped with a Mylar backed aluminum foil. A drain wire is applied longitudinally against the tape. The cable is then protected with a flexible riser or plenum rated PVC jacket. Standard features include ColorTip™ circuit identification system and QuickCount® length marking system measured in both feet and meters.

## APPLICATIONS

- 10GBASE-T (up to 55 meters), 1000BASE-T, 100BASE-T and legacy Ethernet applications
- Power over Ethernet (PoE) – IEEE 802.3af
- PoE+ – IEEE 802.3at Type 1 and 2
- ATM and token ring

## FEATURES

- Overall shielded core
- Guaranteed performance to 500 MHz
- Exceeds ANSI/TIA-568-C.2 specification for CAT 6 cable performance
- UL Verified CAT 6
- Riser and plenum rated designs
- CableID® alpha numeric code printed every 2 feet
- QuickCount marking system in feet and meters
- ColorTip circuit identification system

## BENEFITS

- Protects against EMI/RFI
- 18 dB typical margin Alien Crosstalk performance
- Assures ample headroom for existing and future high bandwidth applications
- Allows for 10GBASE-T applications up to 55 meters
- Assures CAT 6 performance by a nationally recognized test lab
- Meets all fire safety requirements for either backbone or horizontal applications
- 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

## 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	6T-272-xA	0.29 (7.3)	40 (59)	1,000' Plywood reel	12
CMP	6T-272-xB	0.30 (7.7)	46 (69)	1,000' Plywood reel	12

## JACKET COLORS

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

Blue = 2

Gray = 3

White = 4

Green = 5

Yellow = 6

Purple = 7

Red = 9

Orange = D

**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	Guaranteed	Typical	Specified	Guaranteed	Typical	Calculated	Guaranteed	Typical	Specified	Guaranteed	Typical
1	2.0	2.0	1.7	74.3	74.3	82.9	72.3	72.3	82.2	72.3	72.3	81.9
4	3.8	3.8	3.4	65.3	65.3	77.6	61.5	61.5	74.2	63.3	63.3	75.0
10	6.0	6.0	5.4	59.3	59.3	70.1	53.3	53.3	64.7	57.3	57.3	68.3
16	7.6	7.6	6.9	56.3	56.3	69.6	48.6	48.6	62.5	54.2	54.2	67.1
20	8.5	8.5	7.8	54.8	54.8	68.7	46.3	46.3	60.7	52.8	52.8	65.7
25	9.5	9.5	8.8	53.3	53.3	66.1	43.8	43.8	58.7	51.3	51.3	64.7
31.25	10.7	10.7	9.8	51.9	51.9	67.8	41.2	41.2	56.2	49.9	49.9	63.4
62.5	15.4	15.4	14.2	47.4	47.4	64.0	32.0	32.0	47.8	45.4	45.4	59.1
100	19.8	19.8	18.2	44.3	44.3	58.0	24.5	24.5	38.7	42.3	42.3	55.0
200	29.0	29.0	26.6	39.8	39.8	53.8	10.8	10.8	26.5	37.8	37.8	50.6
250	32.8	32.8	30.1	38.3	38.3	51.0	5.5	5.5	21.1	36.3	36.3	48.7
300		35.5	33.4		36.2	53.8		0.6	19.4		34.8	49.1
400		42.1	39.5		34.4	49.1			8.0		32.5	44.5
500		48.0	45.1		32.9	42.9					31.0	41.7

Frequency MHz	PSACR Minimum dB/100 m			Return Loss Minimum dB/100 m			ELFEXT (ACRF) Minimum dB/100 m			PSELFEXT (PSACRF) 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	Guaranteed	Typical	Specified	Guaranteed	Typical	Specified	Guaranteed	Typical	Specified	Guaranteed	Typical
1	70.3	70.3	80.2	20.0	20.0	26.0	67.8	67.8	78.7	64.8	64.8	76.6
4	59.5	59.5	71.6	23.0	23.0	31.1	55.8	55.8	65.9	52.8	52.8	64.2
10	51.3	51.3	62.9	25.0	25.0	36.3	47.8	47.8	58.1	44.8	44.8	56.4
16	46.6	46.6	60.2	25.0	25.0	37.7	43.7	43.7	54.0	40.7	40.7	52.2
20	44.3	44.3	58.1	25.0	25.0	36.0	41.8	41.8	52.1	38.8	38.8	50.3
25	41.8	41.8	56.1	24.3	24.3	38.6	39.8	39.8	50.2	36.8	36.8	48.4
31.25	39.2	39.2	53.6	23.6	23.6	38.3	37.9	37.9	48.1	34.9	34.9	46.4
62.5	30.0	30.0	45.0	21.5	21.5	32.8	31.9	31.9	41.4	28.9	28.9	40.3
100	22.5	22.5	37.0	20.1	20.1	30.7	27.8	27.8	36.8	24.8	24.8	35.2
200	8.8	8.8	24.0	18.0	18.0	27.6	21.8	21.8	32.6	18.8	18.8	31.8
250	3.5	3.5	18.8	17.3	17.3	28.5	19.8	19.8	32.5	16.8	16.8	31.3
300			15.8		15.9	28.6		17.5	30.8		14.5	28.9
400			5.0		14.9	24.9		14.9	24.7		11.9	23.5
500					13.7	25.0		12.5	22.5		9.5	21.5