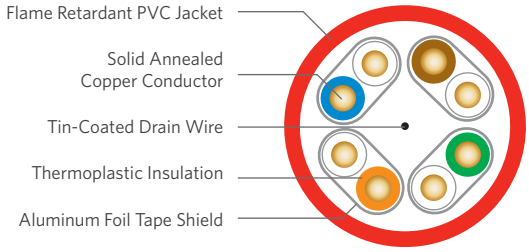
Category 6A STP (U/FTP)

CMR/CMP



PRODUCT DESCRIPTION

Superior Essex offers Shielded Twisted Pair (STP) Category 6A cables in both plenum and riser versions. The cable has guaranteed performance to 600 MHz and meets or exceeds ANSI/TIA-568-C.2 for CAT 6A cables required for 10GBASE-T applications. The cable consists of four (4) balanced 23 AWG copper pairs. Each pair is wrapped with a Mylar® backed aluminum foil with the drain wire in the center of all 4 copper pairs. The wrapped pairs are then jacketed with an appropriate flexible PVC jacket for either plenum or riser applications.

APPLICATIONS

- 10BASE-T through 10GBASE-T Ethernet
- Power over Ethernet (PoE) – IEEE 802.3af
- PoE+ – IEEE 802.3at Type 1 and 2
- ATM and token ring
- Backward compatible to legacy protocols and applications

SPECIFICATIONS

Configuration	Copper pairs each surrounded by aluminum/Myla® foil with center drain wire and jacket
Pair Count	4
Conductor	Solid annealed copper
AWG (mm)	23 (0.57)
Insulation	CMR: Polyolefin CMP: FEP
Insulation Colors	Pair 1: White/Blue Pair 2: White/Orange Pair 3: White/Green Pair 4: White/Brown
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: 73 CMP: 77
Performance Compliance	UL 444 CSA C22.2 No. 214-08 UL 1666 NFPA 262 ANSI/TIA-568-C.2 Article 800, NEC (NFPA 70)
NRTL Programs	UL, c(UL) or ETL, c(ETL) Listed CMR UL, c(UL) or ETL, c(ETL) Listed CMP

FEATURES	BENEFITS
• Individually foil shielded pairs	• Protects against EMI/RFI and provides exceptional NEXT, PSNEXT, ELFEXT, and Electrical Performance performance
• Exceeds specification ANSI/TIA-568-C.2 for CAT 6A cable performance	• Meets 10GBASE-T application requirements for both Insertion Loss and Return Loss and exceeds requirements for alien and internal crosstalk performance
• Riser and plenum rated designs	• UL 1666 and NFPA 262 fire rating options help to reduce additional expensive materials required to meet building safety codes
• QuickCount® marking system in feet and meters	• Provides remaining length of cable on reel

PART NUMBERS AND PHYSICAL CHARACTERISTICS

Listing	Part Number[1]	Nominal Diameter in (mm)	Approx. Weight lbs/kft (kg/km)	Package	Packages per Pallet
CMR	6S-220-xA	0.31 (7.9)	50 (74)	1,000' Plywood reel	15
CMP	6S-220-xB	0.29 (7.4)	52 (77)	1,000' Plywood reel	15

JACKET COLORS

[1]Replace "x" with:	Blue = 2	Gray = 3	White = 4	Green = 5	Yellow = 6	Red = 9	Orange = D	Black = E

SUPERIOR ESSEX
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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	2.1	2.1	2.1	65.0	74.2	74.2	62.9	76.2	78.2	72.2	76.2	78.2
4	3.8	3.8	3.7	65.0	69.2	74.2	61.2	65.4	70.5	63.2	67.2	72.2
8	5.3	5.3	5.2	60.7	64.7	74.2	55.4	59.4	69.0	58.7	62.7	72.2
10	5.9	5.9	5.8	59.2	63.2	74.2	53.3	57.3	68.4	57.2	61.2	72.2
16	7.4	7.4	7.4	56.2	60.2	74.2	48.7	52.7	66.8	54.2	58.2	71.2
20	8.3	8.3	8.2	54.7	58.7	72.7	46.4	50.4	64.4	52.7	56.7	69.7
25	9.3	9.3	9.2	53.3	57.3	71.3	43.9	47.9	62.0	51.3	55.3	68.3
31.25	10.5	10.5	10.4	51.8	55.8	69.8	41.3	45.3	59.4	49.8	53.8	66.8
62.5	14.9	14.9	14.8	47.3	51.3	65.3	32.3	36.3	50.5	45.3	49.3	62.3
100	19.1	19.1	18.9	44.2	48.2	62.2	25.1	29.1	43.3	42.2	46.2	59.2
200	27.5	27.5	27.3	39.7	43.7	57.7	12.2	16.2	30.4	37.7	41.7	54.7
250	31.1	31.1	30.7	38.3	42.3	56.3	7.2	11.2	25.5	36.3	40.3	53.3
300	34.2	34.2	33.9	37.1	41.1	55.1	2.8	6.8	21.2	35.1	39.1	52.1
350	37.2	37.2	36.8	36.1	40.1	54.1		2.9	17.2	34.1	38.1	51.1
400	40.1	40.1	39.6	35.2	39.2	53.2			13.6	33.2	37.2	50.2
500	45.2	45.2	44.8	33.8	37.8	51.8			7.0	31.8	35.8	48.8
600		50.1	49.5		36.6	50.6			1.1		34.6	47.6

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	70.2	74.2	76.2	20.0	20.0	20.6	67.7	69.7	73.7	64.7	66.7	70.7
4	59.4	63.4	68.5	23.0	23.0	23.7	55.7	57.7	61.7	52.7	54.7	58.7
8	53.4	57.4	67.0	24.5	24.5	25.3	49.7	51.7	55.7	46.7	48.7	52.7
10	51.3	55.3	66.4	25.0	25.0	25.8	47.7	49.7	53.7	44.7	46.7	50.7
16	46.7	50.7	63.8	25.0	25.0	25.8	43.7	45.7	49.7	40.7	42.7	46.7
20	44.4	48.4	61.4	25.0	25.0	25.8	41.7	43.7	47.7	38.7	40.7	44.7
25	41.9	45.9	59.0	24.3	24.3	25.1	39.8	41.8	45.8	36.8	38.8	42.8
31.25	39.3	43.3	56.4	23.6	23.6	24.3	37.8	39.8	43.8	34.8	36.8	40.8
62.5	30.3	34.3	47.5	21.5	21.5	22.2	31.8	33.8	37.8	28.8	30.8	34.8
100	23.1	27.1	40.3	20.1	20.1	20.7	27.8	29.8	33.7	24.8	26.8	30.8
200	10.2	14.2	27.4	18.0	18.0	18.5	21.7	23.7	27.7	18.7	20.7	24.7
250	5.2	9.2	22.5	17.3	17.3	17.8	19.8	21.8	25.8	16.8	18.8	22.8
300	0.8	4.8	18.2	16.8	16.8	17.3	18.2	20.2	24.2	15.2	17.2	21.2
350		0.9	14.2	16.3	16.3	16.8	16.9	18.9	22.9	13.9	15.9	19.9
400			10.6	15.9	15.9	16.4	15.7	17.7	21.7	12.7	14.7	18.7
500			4.0		15.2	15.7	13.8	15.8	19.8	10.8	12.8	16.8
600			-1.9			15.1		14.2	18.2		11.2	15.2