

# CAT6E 550 MHZ 23/4P SOL BC CMP-LP(0.6A)

105°C, 300V 550MHz PLENUM RATED; 4 UNSHIELDED TWISTED PAIRS

### CONSTRUCTION:

1. **Conductors:** 23 AWG SOLID BARE COPPER
2. **Insulation:** HIGH DENSITY POLYETHYLENE  
COLORS: BLUE & WHITE/BLUE STRIPE; ORANGE & WHITE/ORANGE STRIPE; GREEN & WHITE/GREEN STRIPE; BROWN & WHITE/BROWN STRIPE
3. **Assembly:** 4 PAIRS INDIVIDUALLY TWISTED, CABLED; UNSHIELDED; AND JACKETED
4. **Jacket:** PVC, Color : Consult factory for jacket color options.

### APPLICATIONS AND FEATURES:

Southwire Cat 6E unshielded twisted pair cable is a high performance data communication cable. This ethernet cable is designed for indoor and plenum network installations type CMP (Plenum rated communication cable), may be used in Ethernet Networking system, PoE applications, Video MPEG4 / M JPEG / Digital / Analog / Baseband / Broadband and other Multimedia Voice applications.

### SPECIFICATIONS:

- Meets or exceeds ANSI/TIA-568-C.2 test to 550MHz
- NEC ARTICLE 800
- IEEE802.3bt
- UL 444 CMP
- NFPA 262 ( UL 910)
- Directive (EU) 2015/863 – RoHS 3

### SAMPLE PRINT LEGEND:

6EP -CAT 6E SOUTHWIRE® TAPPAN™ I99997 E158012 23AWG 4PR UTP TYPE CMP-LP (0.6A) 105C C(UL)US LISTED ---ETL VERIFIED TO TIA-568.C.2 CATEGORY 6 RoHS-2 COMPLIANT YMMDD 0000FT

**PACKAGING** Standard lengths 1000 FT

**TABLE 1 - Product Electrical Characteristics**

Stock Code	Max Capacitance (nF/100m @ 1 kHz) (AWG)	Max DC Resistance (Ω/100m @ 68°F)	Max Delay Skew (ns/100m)	Nom Velocity of Propagation (%)	Characteristic Impedance (Ω @ 1-100 MHz)	Nominal OD (Inchs)	Nominal OD (mm)	Nominal Weight (Lbs/Mft)	Nominal Weight (kg/km)
I99997	3.3	9.38	45.0	68.0	100 +/- 15%	0.230	5.842	31.0	46.1

Freq. (MHz)	Attenuation (dB/100m)		NEXT (dB/100m)		ACR (dB/100m)		PSNEXT (dB/100m)		PSACR (dB/100m)		ACRF (dB/100m)		PS ACRF (dB/100m)		RL (dB)	
	Std.	Avg.	Std.	Avg.	Std.	Avg.	Min.	Avg.	Std.	Avg.	Min.	Avg.	Min.	Avg.	Min.	Avg.
1	2	1.6	74.3	97.7	72.3	96.1	72.3	90.1	70.3	88.5	67.8	91.9	64.8	82.8	20.0	33.2
4	3.8	3.5	65.1	86.5	61.3	83.0	63.1	79.9	59.3	76.4	55.5	79.7	52.5	71.3	23.1	37.7
8	5.3	5.0	60.9	81.7	55.6	76.7	58.9	75.1	53.6	70.1	49.9	73.1	46.9	65.2	24.5	37.6
10	6.1	5.7	59.1	80.9	53.0	75.2	57.1	73.9	51	68.2	47.5	71.2	44.5	63.4	25.0	37.4
16	7.5	7.2	56.3	77.5	48.8	70.3	54.3	70.6	46.8	63.4	43.7	66.7	40.7	59.4	25.0	37.6
20	8.5	8.1	54.7	77.1	46.2	70.0	52.7	69.7	44.2	61.6	41.6	64.5	38.6	57.0	25.0	38.8
25	9.6	9.1	53.2	74.7	43.6	65.6	51.2	67.9	41.6	58.8	39.7	62.8	36.7	54.9	24.3	37.2
31.25	10.7	10.3	51.8	73.5	41.1	63.2	49.8	66.4	39.1	56.1	37.8	60.5	34.8	53.0	23.6	38.1
62.5	15.4	14.6	47.3	75.9	31.9	61.3	45.3	62.1	29.9	47.5	31.8	55.2	28.8	46.3	21.5	36.6
100	19.8	18.9	44.3	66.3	24.5	47.4	42.3	58.9	22.5	40.0	27.8	49.3	24.8	41.4	20.1	33.3
200	29.0	27.3	39.8	61.8	10.8	34.5	37.8	54.7	8.8	27.4	21.8	42.3	18.8	34.3	18.0	28.9
250	32.8	30.7	38.3	60.3	5.5	29.6	36.3	53.3	3.5	22.6	19.8	39.5	16.8	30.7	17.3	28.8
300	--	33.8	--	58.7	--	24.9	--	51.4	--	17.6	--	35.8	--	26.5	--	28.2
400	--	39.6	--	56.3	--	16.7	--	49.9	--	10.3	--	29.0	--	20.4	--	25.5
500	--	44.7	--	54.8	--	10.1	--	46.7	--	2.0	--	21.9	--	13.3	--	25.4
550	--	46.8	--	54.4	--	7.6	--	46.3	--	0.0	--	19.5	--	11.1	--	24.2
600	--	48.8	--	53.9	--	5.1	--	45.8	--	(2.5)	--	17.1	--	8.8	--	22.9

Attenuation: Std. is a TIA 568C.2 Maximum (also called "Insertion Loss") Lower is better.  
 NEXT: Std. is a TIA 568C.2 Minimum. (Near End Crosstalk) Higher is better.  
 ACR: NEXT minus Attenuation ; ("Attenuation to Crosstalk Ratio") Higher is better.  
 PSNEXT: Std. is a TIA 568C.2 Minimum. (Power Sum Near End Crosstalk) Higher is better.  
 PSACR: PSNEXT minus Attenuation ; ("Attenuation to PSNEXT Ratio") Higher is better.  
 ACRF: Std. is a TIA 568C.2 Minimum. (Attenuation Crosstalk Ratio at Far End) Higher is better.  
 PSACRF: Std. is a TIA 568C.2 Minimum. (Power Sum Atten.' to Crosstalk Ratio) Higher is better.  
 RL: Std. is a TIA 568C.2 Minimum. (Return Loss) Higher is better.

All dimensions are nominal and subject to nominal manufacturing tolerances

The customer will accept all factory lengths and +/- 10 percent of total order requested.

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