



Category 6E 250 MHz CMP-LP



Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** Bare solid copper
2. **Insulation:** Fluorinated Polyethylene FPE
3. **Separator:** Spline separator cabled and jacketed
4. **Rip Cord:** Rip cord for ease of jacket removal
5. **Jacket:** Flame Retardant Polyvinyl Chloride PVC.

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 riser 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.

- DC Resistance: <9.38 ohm/100m
- DC Resistance Unbalance: <5.00%
- Mutual Capacitance: <5.60 nF/100m
- Capacitance Unbalance (Pair to Ground): <330 pF/100m
- Insulation Resistance: >500 MOhm/100m
- Impedance (mean): >100+/- 15% (1 < freq < 250MHz)
- Propagation Delay Skew: <45 nano sec /100m

SPECIFICATIONS:

- UL 444 Listed CMP
- IEEE 802.3 and IEC 61156-5 Ed. 2.0
- RoHS-3 Complies with European Directive 2015/863
- NFPA 262
- TIA/EIA 568.D.2 test to 550MHz, beyond 250MHz only for reference
- NEC Article 800

SAMPLE PRINT LEGEND:

6EP CAT 6E SOUTHWIRE ® TAPPAN™ I99997 E118871 LBI 23AWG 4PR UTP TYPE CMP LP (0.6A) 105C C(UL)US LISTED ETL VERIFIED TO TIA/EIA 568.D.2 CATEGORY 6 RoHS 2 COMPLIANT YYMMDD 0000FT





Table 1 – Weights and Measurements

| Stock Number | Cond. Size | Number of Pairs | Jacket Thickness | Approx. OD | Approx. Weight |
|--------------|------------|-----------------|------------------|------------|----------------|
| | AWG/Kcmil | pair | mil | inch | lb/1000ft |
| 199997 | 23 | 4 | 14 | 0.228 | 31 |

All dimensions are nominal and subject to normal manufacturing tolerances

◊ Cable marked with this symbol is a standard stock item

Table 2 – Weights and Measurements (Metric)

| Stock Number | Cond. Size | Number of Pairs | Jacket Thickness | Approx. OD | Approx. Weight |
|--------------|------------|-----------------|------------------|------------|----------------|
| | AWG/Kcmil | pair | mm | mm | lb/km |
| 199997 | 23 | 4 | 0.36 | 5.79 | 46 |

Electrical Performance

| Freq. (MHz) | Attenuation (dB/100m)Max | NEXT (dB/100m)Min | PSNEXT (dB/100m)Min | ELFEXT (dB/100m)Min | PSELFEXT (dB/100m)Min | TCL (dB/100m)Min | RL (dB/100m)Min | P.Delay (ns/100m)Max |
|-------------|--------------------------|-------------------|---------------------|---------------------|-----------------------|------------------|-----------------|----------------------|
| 1 | 2 | 74.3 | 72.3 | 67.8 | 64.8 | 40 | 20 | 570 |
| 4 | 3.8 | 65.3 | 63.3 | 55.8 | 52.8 | 40 | 23 | 552 |
| 8 | 5.5 | 60.8 | 58.8 | 49.7 | 46.7 | 40 | 24.5 | 547 |
| 10 | 6 | 59.3 | 57.3 | 47.8 | 44.8 | 40 | 25 | 545 |
| 16 | 7.6 | 56.2 | 54.2 | 43.7 | 40.7 | 38 | 25 | 543 |
| 20 | 8.5 | 54.8 | 52.8 | 41.8 | 38.8 | 37 | 25 | 542 |
| 25 | 9.5 | 53.3 | 51.3 | 39.8 | 36.8 | 36 | 24.3 | 541 |
| 31.25 | 10.7 | 51.9 | 49.9 | 37.9 | 34.9 | 35.1 | 23.6 | 540 |
| 62.5 | 15.4 | 47.4 | 45.4 | 31.9 | 28.9 | 32 | 21.5 | 539 |
| 100 | 19.8 | 44.3 | 42.3 | 27.8 | 24.8 | 30 | 20.1 | 538 |
| 200 | 29 | 39.8 | 37.8 | 21.8 | 18.8 | 27 | 18 | 537 |
| 250 | 32.8 | 38.3 | 36.3 | 19.8 | 16.8 | 26 | 17.3 | 536 |

