

Elite Cables

Product Part Number

- TUP2304S03XX

Product Description

- U/UTP, 23AWG solid bare copper, CAT.6A, CMP
- With cross filler
- With rip cord

Product Features

- High performance of single cable transmission.
- Zigzag jacket design provides excellent performance of six around one bundle transmission.
- Round and smooth jacket without twisted stripe.
- High quality of safety property.
- Sweep frequency up to 650 MHz

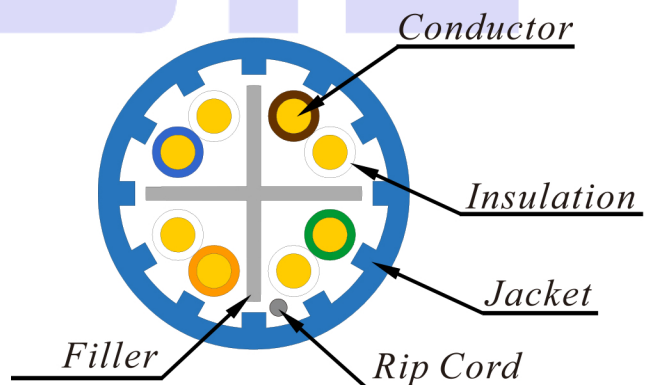
Application

- Structure cabling for horizontal and building backbone cable.
- Transmission of digital and analogue for data, video and audio applications.
- IEEE 802.3an 10GBASE-T and legacy speeds.
- CDDI / ATM / Token Ring
- IEEE 802.3af (PoE) / IEEE 802.3at (PoE+)

Applicable Standard

- Electrical Transmission
 - ANSI/TIA-568-C.2 (2009)
 - ISO/IEC 11801 (Edition 2.2)
 - IEC 61156-5 (Edition 2.0)
- Flame Test
 - NFPA 262 (CMP)
- Material and Construction
 - UL 444
 - CSA 22.2 NO.214
- EU Directive 2011/65/EC (RoHS2)
- EU Directive 2006/95/EC (LVD)
- CE compliance date: 2010.01.01

Sectional Drawing



Elite Cables

Material and Construction

| | | | |
|------------|--|--|----------------|
| Conductor | Material | 23AWG solid bare copper | |
| Insulation | Material | Fluorinated Ethylene Propylene (FEP) | |
| | Color code & diameter | Blue & white/blue Stripe | 1.12 ± 0.02 mm |
| | | Orange & white/orange stripe | 1.06 ± 0.02 mm |
| | | Green & white/green stripe | 1.10 ± 0.02 mm |
| | Brown & white/brown stripe | 1.06 ± 0.02 mm | |
| Twisted | Description | Left hand direction | |
| Filler | Material | Fluorinated Ethylene Propylene (FEP) | |
| Assembly | Description | Left hand direction | |
| Rip cord | Material | Polyester multi-yarn | |
| Jacket | Material | Low smoke flame retardant polyvinyl chloride (LSFRPVC) | |
| | Diameter | 8.1 ± 0.2 mm | |
| | Thickness | 1.00 ± 0.10 mm | |
| | Color | Per customer`s request | |
| Marking | ELITE 10GS CAT 6A --- E142890 UTP 4PR 23AWG CMP(PCC-FT6) C(UL)US --- ETL VERIFIED TO TIA-568-C.2 CAT 6A mmyy ¹ RoHS COMPLIANT XXXXFT Note 1: mmyy is date code. | | |

Usage & Environmental Condition

| | | |
|-------------------------|-------------------------------|---------------|
| Temperature range | Storage & shipping | -20°C to 75°C |
| | Installation | 0°C to 60°C |
| | Operation | -20°C to 60°C |
| Minimum bending radius | ≥ 4 times of overall diameter | |
| Maximum pulling tension | ≤ 110 N | |

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Physical & Electrical Characteristics (at 20°C)

| | |
|---|-------------------|
| Temperature | 75°C |
| Spark test | 2.5 KV DC |
| AC leakage current through overall jacket | ≤ 10mA (1.5KV AC) |
| Cable cold bend | -20°C for 4 hr |
| Conductor DC resistance | ≤ 9.38 Ω/100m |
| Resistance unbalance | ≤ 5% |
| Dielectric strength | 1.5 KV ac for 2 s |
| Insulation resistance | ≥ 5000 MΩ · km |
| Mutual capacitance | ≤ 5.6 nF/100m |
| Capacitance unbalance pair-to-ground | ≤ 330 pF/100m |
| Nominal Velocity of Propagation | 70% |
| Characteristic Impedance | 4~250 103±20Ω |
| | 250~500 103±25Ω |
| | 500~650 103±35Ω |

Transmission Performance (at 20°C)

| Frequency (MHz) | IL | NEXT | PS. NEXT | ACR | PS. ACR | ACRF | PS. ACRF | RL | Propagation Delay | Delay Skew | PS. ANEXT | PS. AACRF |
|--------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|----------------------|-----------------|-----------------|-----------------|
| | Max. dB/100m | Min. dB/100m | Min. dB/100m | Min. dB/100m | Min. dB/100m | Min. dB/100m | Min. dB/100m | Min. dB/100m | Max. ns/100m | Max. ns/100m | Min. dB/100m | Min. dB/100m |
| 1 | 2.08 | 78.30 | 76.30 | 76.22 | 74.22 | 71.80 | 68.80 | 20.00 | 570.00 | 45.00 | 67.00 | 67.00 |
| 4 | 3.80 | 69.27 | 67.27 | 65.47 | 63.47 | 59.76 | 56.76 | 23.01 | 552.00 | | 67.00 | 66.16 |
| 8 | 5.31 | 64.75 | 62.75 | 59.44 | 57.44 | 53.74 | 50.74 | 24.52 | 546.73 | | 67.00 | 60.14 |
| 10 | 5.93 | 63.30 | 61.30 | 57.37 | 55.37 | 51.80 | 48.80 | 25.00 | 545.38 | | 67.00 | 58.20 |
| 16 | 7.49 | 60.24 | 58.24 | 52.75 | 50.75 | 47.72 | 44.72 | 25.00 | 543.00 | | 67.00 | 54.12 |
| 20 | 8.38 | 58.78 | 56.78 | 50.41 | 48.41 | 45.78 | 42.78 | 25.00 | 542.05 | | 67.00 | 52.18 |
| 25 | 9.38 | 57.33 | 55.33 | 47.95 | 45.95 | 43.84 | 40.84 | 24.32 | 541.20 | | 67.00 | 50.24 |
| 31.25 | 10.50 | 55.88 | 53.88 | 45.37 | 43.37 | 41.90 | 38.90 | 23.64 | 540.44 | | 67.00 | 48.30 |
| 62.5 | 14.99 | 51.36 | 49.36 | 36.37 | 34.37 | 35.88 | 32.88 | 21.54 | 538.55 | | 65.56 | 42.28 |
| 100 | 19.14 | 48.30 | 46.30 | 29.17 | 27.17 | 31.80 | 28.80 | 20.11 | 537.60 | | 62.50 | 38.20 |
| 150 | 23.68 | 45.66 | 43.66 | 21.98 | 19.98 | 28.28 | 25.28 | 18.87 | 536.94 | | 59.86 | 34.68 |
| 200 | 27.58 | 43.78 | 41.78 | 16.21 | 14.21 | 25.78 | 22.78 | 18.00 | 536.55 | | 57.98 | 32.18 |
| 250 | 31.07 | 42.33 | 40.33 | 11.26 | 9.26 | 23.84 | 20.84 | 17.32 | 536.28 | | 56.53 | 30.24 |
| 300 | 34.27 | 41.14 | 39.14 | 6.88 | 4.88 | 22.26 | 19.26 | 16.77 | 536.08 | | 55.34 | 28.66 |
| 350 | 37.25 | 40.14 | 38.14 | 2.89 | 0.89 | 20.92 | 17.92 | 16.30 | 535.92 | | 54.34 | 27.32 |
| 400 | 40.05 | 39.27 | 37.27 | N.A. | N.A. | 19.76 | 16.76 | 15.89 | 535.80 | | 53.47 | 26.16 |
| 450 | 42.71 | 38.50 | 36.50 | N.A. | N.A. | 18.74 | 15.74 | 15.53 | 535.70 | 52.70 | 25.14 | |
| 500 | 45.26 | 37.82 | 35.82 | N.A. | N.A. | 17.82 | 14.82 | 15.21 | 535.61 | 52.02 | 24.22 | |
| 550 | 47.70 | 37.19 | 35.19 | N.A. | N.A. | 16.99 | 13.99 | 14.92 | 535.54 | 51.39 | 23.39 | |
| 600 | 50.05 | 36.63 | 34.63 | N.A. | N.A. | 16.24 | 13.24 | 14.66 | 535.47 | 50.83 | 22.64 | |
| 650 | 52.33 | 36.11 | 34.11 | N.A. | N.A. | 15.54 | 12.54 | 14.42 | 535.41 | 50.31 | 21.94 | |

Values above 500MHz are for information only.