

Specification

Product Part Number

- T2404L6A-SH

Product Description

- F/UTP, 23AWG solid bare copper, CAT.6A, CMR
- With cross filler
- Overall metal foil screen with drain wire

Product Features

- High performance of transmission.
- High quality of safety property.
- Sweep frequency up to 500 MHz.

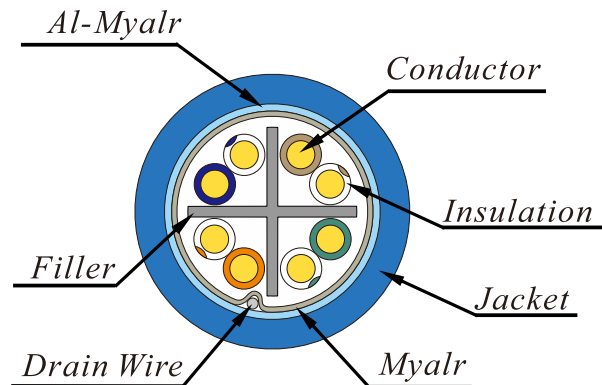
Application

- Structure cabling for horizontal and building backbone cable.
- Transmission of digital and analogue for data, video and audio applications.
- Overall metal shielded providing good protection from EMI noise.
- 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
 - UL 1666 (CMR)
- 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



| | | | | | |
|----------------|------------|---------|-----|--------------|--|
| Establish Date | 2022.03.01 | Edition | 1.0 | Revised Date | |
|----------------|------------|---------|-----|--------------|--|

Specification

Material and Construction

| | | | |
|------------|---|--|----------------|
| Conductor | Material | 23AWG solid bare copper | |
| Insulation | Material | Polyolefin (PO) | |
| | Color code & diameter | Blue & white/blue Stripe | 1.15 ± 0.02 mm |
| | | Orange & white/orange stripe | 1.11 ± 0.02 mm |
| | | Green & white/green stripe | 1.15 ± 0.02 mm |
| | Brown & white/brown stripe | 1.11 ± 0.02 mm | |
| Twisted | Description | Left hand direction | |
| Filler | Material | Polyolefin (PO) | |
| Assembly | Description | Left hand direction | |
| Shield | Material | Mylar tape | |
| Drain wire | Material | 24AWG solid tinned copper | |
| Shield | Material | Al Mylar tape | |
| | Description | 100 % coverage and mylar side facing out | |
| Jacket | Material | Flame retardant polyvinyl chloride (FRPVC) | |
| | Diameter | 7.70 ± 0.2 mm | |
| | Thickness | 0.55 ± 0.05 mm | |
| | Color | Per customer's request | |
| Marking | WELTRON CAT 6A 10G SYSTEM TESTED TO 500MHz---E465248-001 FTP 4PR 23AWG 75°C (UL) CMR---ETL VERIFIED TO TIA-568-C.2 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 | |

Specification

Physical & Electrical Characteristics (at 20°C)

| | |
|---|-------------------|
| Temperature & voltage rating | 75°C / 300V |
| 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 |

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 | 74.30 | 72.30 | 72.22 | 70.22 | 67.80 | 64.80 | 20.00 | 570.00 | 45.00 | 67.00 | 67.00 |
| 4 | 3.80 | 65.27 | 63.27 | 61.47 | 59.47 | 55.76 | 52.76 | 23.01 | 552.00 | | 67.00 | 66.16 |
| 8 | 5.31 | 60.75 | 58.75 | 55.44 | 53.44 | 49.74 | 46.74 | 24.52 | 546.73 | | 67.00 | 60.14 |
| 10 | 5.93 | 59.30 | 57.30 | 53.37 | 51.37 | 47.80 | 44.80 | 25.00 | 545.38 | | 67.00 | 58.20 |
| 16 | 7.49 | 56.24 | 54.24 | 48.75 | 46.75 | 43.72 | 40.72 | 25.00 | 543.00 | | 67.00 | 54.12 |
| 20 | 8.38 | 54.78 | 52.78 | 46.41 | 44.41 | 41.78 | 38.78 | 25.00 | 542.05 | | 67.00 | 52.18 |
| 25 | 9.38 | 53.33 | 51.33 | 43.95 | 41.95 | 39.84 | 36.84 | 24.32 | 541.20 | | 67.00 | 50.24 |
| 31.25 | 10.50 | 51.88 | 49.88 | 41.37 | 39.37 | 37.90 | 34.90 | 23.64 | 540.44 | | 67.00 | 48.30 |
| 62.5 | 14.99 | 47.36 | 45.36 | 32.37 | 30.37 | 31.88 | 28.88 | 21.54 | 538.55 | | 65.56 | 42.28 |
| 100 | 19.14 | 44.30 | 42.30 | 25.17 | 23.17 | 27.80 | 24.80 | 20.11 | 537.60 | | 62.50 | 38.20 |
| 150 | 23.68 | 41.66 | 39.66 | 17.98 | 15.98 | 24.28 | 21.28 | 18.87 | 536.94 | | 59.86 | 34.68 |
| 200 | 27.58 | 39.78 | 37.78 | 12.21 | 10.21 | 21.78 | 18.78 | 18.00 | 536.55 | | 57.98 | 32.18 |
| 250 | 31.07 | 38.33 | 36.33 | 7.26 | 5.26 | 19.84 | 16.84 | 17.32 | 536.28 | | 56.53 | 30.24 |
| 300 | 34.27 | 37.14 | 35.14 | 2.88 | 0.88 | 18.26 | 15.26 | 16.77 | 536.08 | | 55.34 | 28.66 |
| 350 | 37.25 | 36.14 | 34.14 | N.A. | N.A. | 16.92 | 13.92 | 16.30 | 535.92 | | 54.34 | 27.32 |
| 400 | 40.05 | 35.27 | 33.27 | N.A. | N.A. | 15.76 | 12.76 | 15.89 | 535.80 | | 53.47 | 26.16 |
| 450 | 42.71 | 34.50 | 32.50 | N.A. | N.A. | 14.74 | 11.74 | 15.53 | 535.70 | 52.70 | 25.14 | |
| 500 | 45.26 | 33.82 | 31.82 | N.A. | N.A. | 13.82 | 10.82 | 15.21 | 535.61 | 52.02 | 24.22 | |