



US-9146LSZH

LINK AMERICAN STANDARD



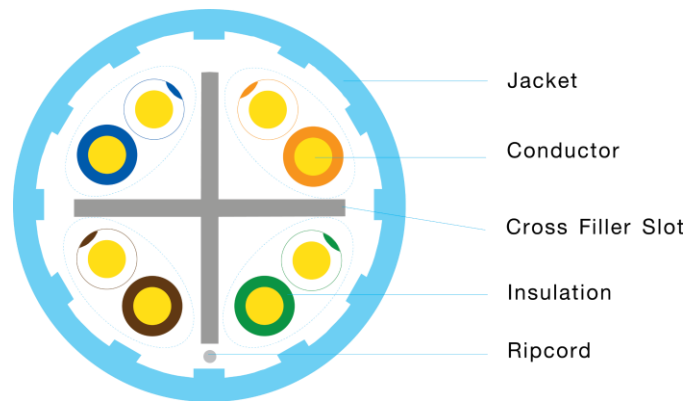
CAT6A UTP XG (750MHz) w/Cross Filler,

23AWG, LSZH

Scope of Applications

This specification covers the general requirements for UTP cable used for indoor installation. LINK Category 6A U/UTP LSZH cables compliant ISO/IEC 11801 Class EA and ANSI/TIA-568.2-D requirements for category 6A performance. These cables are characterized to 750MHz, Powersum NEXT tested certified. The outer jacket material made from LSZH compound to reduces the amount toxic smoke and corrosive has emitted during burned, for users' safety as well as increases the safety of firefighting operations.

Drawing



Technical Standards

- ANSI/TIA-568.2-D Category 6A
- ANSI/TIA-568-C.2 Category 6A
- ISO/IEC 11801:2017 class EA
- EN 50173-1 Category 6A
- EN 50288-11-1
- IEC 61156-5, IEC 60332-1
- IEC 60754-1, IEC 60754-2
- IEC 61034-1, IEC 61034-2
- UL 444/NEC 800
- CSA 22.2 No.214
- 3P Verified to Category 6A
- RoHS Compliant



Cable Construction

| | | |
|---------------------------------------|-------------------------|----------------------------------|
| Conductor | Material | Solid bare copper |
| | No. of Conductor | 4 Pairs (8 wires) |
| | Diameter | 23 AWG |
| Insulation | Material | High Density Polyethylene (HDPE) |
| | Diameter | 1.10 ±0.02 mm |
| Insulated Conductor Color Code | Pair 1 | White-Blue / Blue |
| | Pair 2 | White-Orange / Orange |
| | Pair 3 | White- Green / Green |
| | Pair 4 | White-Brown / Brown |
| Rip cord | | Under Jacket |
| Filler Slot (Cross Filler) | Material | PE |
| Jacket | Material | Lead free, FR-LSZH |
| | Thickness | 1.20 ±0.02 mm |
| | Color | Aqua Blue |
| Cable Diameter | | 8.5 ±0.2 mm |
| Marking | | Black color in every 2 ft |
| Flame Rating | | LSZH (Low Smoke Zero Halogen) |

Electrical Characteristic

| | |
|--|--------------------------------|
| Impedance | 100 ± 5 Ohms, 1 MHz to 750 MHz |
| Mutual Capacitance | ≤ 5.6 nF Max / 100m |
| Capacitance, Unbalance | ≤ 160 pF Max / 100m |
| DC Resistance | ≤ 6.658 Ohms Max./100m |
| DC Resistance, Unbalance | 3% Max. |
| Dielectric Strength | ≤1 kV/min |
| Insulated Resistance | ≥5000 MΩ/km |
| AC leakage current through overall jacket | 10mA (1.5 kV AC) |
| Spark Test | 2.5 kV |
| Propagation Delay | ≤534 ns/100m Max @500MHz |
| Delay Skew | ≤25 ns Max |
| NVP | 65% |

Physical Properties

| | | |
|-----------------------------------|-------------------------------|---------------|
| Tensile Strength | 110 N (25 lbf) | |
| Ultimate Breaking Strength | >400 N (90lbf) | |
| Min. Bending Radius | 4 X Cable Diameter | |
| Temperature | Installation/Operation | -20°C to 75°C |
| | Storage | -20°C to 80°C |



PERFORMANCE CHARACTERISTIC (meet or exceed ANSI/TIA-568.2-D Category 6A)

| Frequency (MHz) | Insertion Loss (dB/100m) | NEXT (dB) | | ACRF (dB) | | PSNEXT (dB) | | PSACRF (dB) | | PSANEXT (dB) | | PS.AACRF (dB) | | RL (dB) | |
|-----------------|--------------------------|-----------|------|-----------|------|-------------|------|-------------|------|--------------|------|---------------|------|---------|------|
| | | min | nom | min | nom | min | nom | min | nom | Max. | min | nom | min | nom | min |
| 0.772 | 1.8 | 79.0 | 82 | 77.2 | 80.2 | 77.0 | 79.0 | 72.2 | 74.2 | 68.1 | 70.1 | 67.8 | 69.8 | - | - |
| 1 | 2.0 | 78.3 | 81.3 | 71.8 | 79.3 | 76.0 | 78.0 | 68.8 | 70.8 | 67.0 | 67.0 | 67.0 | 69.0 | 20.0 | 28.0 |
| 4 | 3.7 | 69.3 | 72.3 | 59.8 | 62.8 | 67.3 | 69.3 | 56.8 | 58.8 | 67.0 | 67.0 | 66.1 | 68.1 | 23.0 | 31.0 |
| 8 | 5.2 | 65.4 | 68.4 | 55.2 | 58.2 | 63.4 | 65.4 | 47.1 | 49.1 | 67.0 | 67.0 | 64.0 | 64.0 | 24.5 | 32.5 |
| 10 | 6.0 | 63.3 | 66.3 | 51.8 | 61.1 | 61.3 | 63.3 | 48.8 | 50.8 | 67.0 | 67.0 | 60.7 | 64.7 | 25.0 | 33.0 |
| 16 | 7.4 | 60.0 | 63.0 | 48.7 | 51.7 | 58.9 | 60.9 | 45.3 | 47.3 | 67.0 | 67.0 | 58.6 | 60.6 | 25.0 | 33.0 |
| 20 | 8.3 | 58.8 | 61.8 | 45.8 | 48.8 | 56.8 | 58.8 | 42.8 | 44.8 | 67.0 | 67.0 | 54.6 | 56.6 | 25.0 | 33.0 |
| 25 | 9.2 | 57.5 | 60.5 | 42.3 | 45.3 | 56.8 | 58.8 | 41.2 | 43.2 | 67.0 | 67.0 | 51.2 | 51.2 | 24.3 | 32.3 |
| 31.25 | 10.4 | 55.9 | 59.0 | 41.9 | 44.9 | 53.9 | 55.9 | 38.9 | 40.9 | 67.0 | 67.0 | 48.3 | 50.3 | 23.6 | 31.6 |
| 62.5 | 14.9 | 51.4 | 54.4 | 35.9 | 38.9 | 49.4 | 51.4 | 32.9 | 34.9 | 65.0 | 67.0 | 42.3 | 44.3 | 21.5 | 29.5 |
| 100 | 19.0 | 48.3 | 51.5 | 31.8 | 34.8 | 46.3 | 48.3 | 28.8 | 30.8 | 62.5 | 64.5 | 38.2 | 40.2 | 20.1 | 28.1 |
| 155 | 24.2 | 45.0 | 48.0 | 27.2 | 30.2 | 44.5 | 46.5 | 23.9 | 25.9 | 61.7 | 63.7 | 36.4 | 38.4 | 18.8 | 26.8 |
| 200 | 27.5 | 43.8 | 47.4 | 24.6 | 29.6 | 41.8 | 43.8 | 22.8 | 24.8 | 58.0 | 60.0 | 32.2 | 34.2 | 18.0 | 26.0 |
| 250 | 31.0 | 42.3 | 45.3 | 23.8 | 26.8 | 40.3 | 42.3 | 20.8 | 22.8 | 56.5 | 58.5 | 30.2 | 32.2 | 17.3 | 25.3 |
| 300 | 34.2 | 41.1 | 44.1 | 22.3 | 25.3 | 39.3 | 41.3 | 19.3 | 21.3 | 55.3 | 57.3 | 28.7 | 30.7 | 16.8 | 24.8 |
| 350 | 38.3 | 39.5 | 42.5 | 21.5 | 24.5 | 38.5 | 40.5 | 17.6 | 19.6 | 54.5 | 56.5 | 27.9 | 29.9 | 16.3 | 24.3 |
| 400 | 40.1 | 38.5 | 41.5 | 19.8 | 21.8 | 37.5 | 39.5 | 16.2 | 18.2 | 53.2 | 55.2 | 26.4 | 28.4 | 15.9 | 23.9 |
| 450 | 42.6 | 38.0 | 41.0 | 18.4 | 21.4 | 36.5 | 38.5 | 15.1 | 17.1 | 52.8 | 54.8 | 25.1 | 27.1 | 15.5 | 23.5 |
| 500 | 45.3 | 37.8 | 40.8 | 17.8 | 20.8 | 35.8 | 37.8 | 14.8 | 16.8 | 52.0 | 54.0 | 24.2 | 26.2 | 15.2 | 23.2 |
| 550 | 47.7 | 37.2 | 40.2 | - | - | 35.2 | 37.2 | - | - | - | - | - | - | 17.2 | 25.2 |
| 650 | 52.4 | 36.1 | 39.1 | - | - | 34.6 | 36.6 | - | - | - | - | - | - | 16.7 | 24.7 |
| 750 | 56.8 | 35.2 | 38.2 | - | - | 33.2 | 35.2 | - | - | - | - | - | - | 16.0 | 24.0 |

Applications

- Structure cabling for building backbone
- Structure cabling for horizontal
- 2.5G/5G BASE-T (IEEE 802.3bz)
- 10G BASE-T (IEEE 802.3an 10Gigabit Ethernet)
- 1000 BASE-T (IEEE 802.3ab Gigabit Ethernet)
- 1000 BASE-TX (TIA/EIA-854)
- 100 BASE-TX (IEEE 802.3u Fast Ethernet)
- 10 BASE-T (IEEE 802.3i Ethernet)
- 52/155/622Mbps and 1.2Gbps ATM
- 4/16 Mbps Token Ring
- IEEE 802.3af (PoE), IEEE 802.3at (PoE+), IEEE 802.3bt (Type4)
- TP-PMD, TPDDI, ISDN, CDDI, VoIP
- EtherCAT Industrial standard, HDBaseT 2.0 standard
- Baseband, Broadband
- Digital and analog for data, video and audio application



Order Information

| Part number | Description | Color | Length | Package |
|-------------|---|-----------|--------|---------|
| US-9146LSZH | Category 6A, 4 Pairs, UTP SUPER XG Cable, 23AWG, LSZH, 750MHz | Aqua Blue | 305 m | Roll |

*Other jacket color available on request

Specifications subject to change without notice.

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US-9146LSZH-V1.0-301123