

Karbon Cable CAT6 CMR Riser Lan Cable

Product Description

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

Product Features

- High performance of transmission.
- High quality of safety property.
- Sweep frequency up to 600 MHz.
- Reelex II carton and easy to pull out.
- Carton with one layer corrugated design providing sufficient strength and saving packaging space.

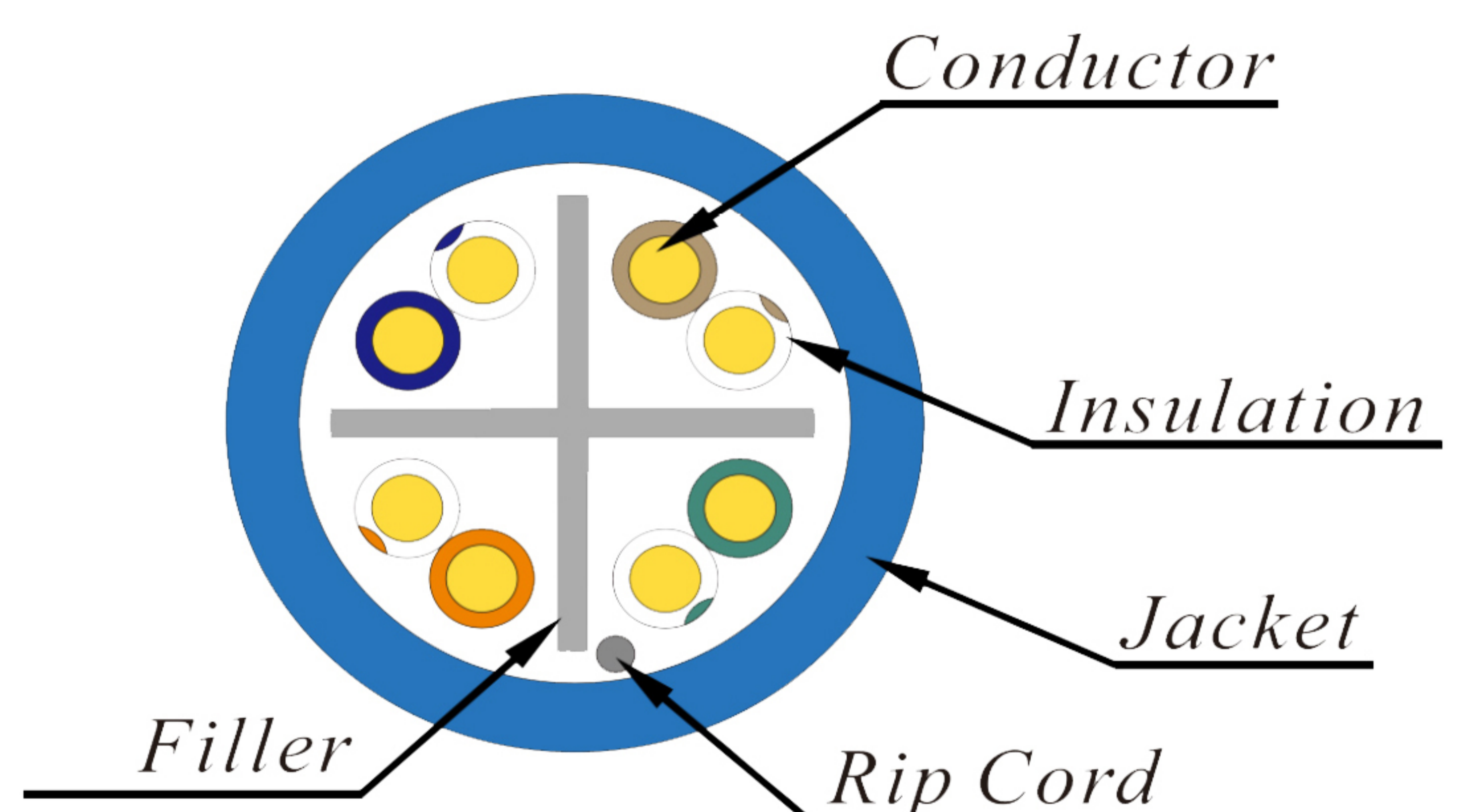
Application

- Structure cabling for horizontal and building backbone cable.
- Transmission of digital and analogue for data, video and audio applications.
- IEEE 802.3ab 1000BASE-T, 1000BASE-TX 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 2.1)
- Flame Test
 - UL 1666 (CMR)
- Material and Construction
 - UL 444
 - CSA 22.2 NO.214
- EU Directive 2011/65/EU (RoHS2)
- EU Directive 2006/95/EC (LVD)

Sectional Drawing



KARBON CABLE

Material and Construction

| | | | |
|----------------------------|---|--|----------------|
| Conductor | Material | 23AWG solid bare copper | |
| Insulation | Material | Polyolefin (PO) | |
| | Color code & diameter | Blue & white/blue Stripe | 0.97 ± 0.02 mm |
| | | Orange & white/orange stripe | 0.93 ± 0.02 mm |
| | | Green & white/green stripe | 0.96 ± 0.02 mm |
| Brown & white/brown stripe | | 0.93 ± 0.02 mm | |
| Twisted | Description | Left hand direction | |
| Filler | Material | Polyolefin (PO) | |
| Assembly | Description | Left hand direction | |
| Rip cord | Material | Polyester multi-yarn | |
| Jacket | Material | Flame retardant polyvinyl chloride (FRPVC) | |
| | Diameter | 6.0 ± 0.2 mm | |
| | Thickness | 0.55 ± 0.05 mm | |
| | Color | Per customer`s request | |
| Marking | KARBON CABLE CAT 6 E503612-W UTP 4PR 23AWG 75°C C(UL)US CMR---ETL VERIFIED TO TIA-568-C.2 mmyy 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 | |

KARBON CABLE

Physical & Electrical Characteristics (at 20°C)

| | |
|---|-------------------|
| Temperature rating | 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 |

Transmission Performance (at 20°C)

| Frequency (MHz) | IL | NEXT | PS.NEXT | ACR | PS.ACR | ACRF | PS.ACRF | RL | Propagation Delay | Delay Skew |
|--------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|----------------------|-----------------|
| | 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 |
| 1 | 2.03 | 74.30 | 72.30 | 72.28 | 70.28 | 67.80 | 64.80 | 20.00 | 570.00 | 45.00 |
| 4 | 3.78 | 65.27 | 63.27 | 61.49 | 59.49 | 55.76 | 52.76 | 23.01 | 552.00 | |
| 8 | 5.32 | 60.75 | 58.75 | 55.43 | 53.43 | 49.74 | 46.74 | 24.52 | 546.73 | |
| 10 | 5.95 | 59.30 | 57.30 | 53.35 | 51.35 | 47.80 | 44.80 | 25.00 | 545.38 | |
| 16 | 7.55 | 56.24 | 54.24 | 48.68 | 46.68 | 43.72 | 40.72 | 25.00 | 543.00 | |
| 20 | 8.47 | 54.78 | 52.78 | 46.31 | 44.31 | 41.78 | 38.78 | 25.00 | 542.05 | |
| 25 | 9.51 | 53.33 | 51.33 | 43.83 | 41.83 | 39.84 | 36.84 | 24.32 | 541.20 | |
| 31.25 | 10.67 | 51.88 | 49.88 | 41.20 | 39.20 | 37.90 | 34.90 | 23.64 | 540.44 | |
| 62.5 | 15.38 | 47.36 | 45.36 | 31.98 | 29.98 | 31.88 | 28.88 | 21.54 | 538.55 | |
| 100 | 19.80 | 44.30 | 42.30 | 24.50 | 22.50 | 27.80 | 24.80 | 20.11 | 537.60 | |
| 150 | 24.71 | 41.66 | 39.66 | 16.95 | 14.95 | 24.28 | 21.28 | 18.87 | 536.94 | |
| 200 | 28.98 | 39.78 | 37.78 | 10.80 | 8.80 | 21.78 | 18.78 | 18.00 | 536.55 | |
| 250 | 32.85 | 38.33 | 36.33 | 5.48 | 3.48 | 19.84 | 16.84 | 17.32 | 536.28 | |
| 300 | 36.43 | 37.14 | 35.14 | 0.72 | N.A. | 18.26 | 15.26 | 16.77 | 536.08 | |
| 350 | 39.79 | 36.14 | 34.14 | N.A. | N.A. | 16.92 | 13.92 | 16.30 | 535.92 | |
| 400 | 42.97 | 35.27 | 33.27 | N.A. | N.A. | 15.76 | 12.76 | 15.89 | 535.80 | |
| 450 | 46.01 | 34.50 | 32.50 | N.A. | N.A. | 14.74 | 11.74 | 15.53 | 535.70 | |
| 500 | 48.94 | 33.82 | 31.82 | N.A. | N.A. | 13.82 | 10.82 | 15.21 | 535.61 | |
| 550 | 51.76 | 33.19 | 31.19 | N.A. | N.A. | 12.99 | 9.99 | 14.92 | 535.54 | |
| 600 | 54.49 | 32.63 | 30.63 | N.A. | N.A. | 12.24 | 9.24 | 14.66 | 535.47 | |

Values above 250MHz are for information only.