



Application

Primary (Campus), Secondary (Riser), Tertiary (Horizontal)
IEEE 802.3: 10Base-T; 100Base-T; 1000Base-T;
IEEE 802.5 16 MB; ISDN; TPDDI; ATM

Standards

EIA/TIA 568-B.2
ISO/IEC 11801 2nd ed.; IEC 61156-5
EN 50173-1; EN 50288-3-1

Flame resistance

PVC: IEC 60332-1

Construction

| | |
|--------------|--|
| Conductor | bare copper wire, \varnothing 0.5 mm (AWG24) |
| Insulation | Polyethylene, \varnothing 0.9 mm |
| Twisting | 2 cores to the pair |
| Cable lay up | 4 pairs to the core |
| Sheath | PVC flame retardant, grey RAL 7032 |

Mechanical properties

Minimum bending radius

Temperature range

| | |
|---------------------|-------------------|
| Installation | 8 x D |
| Installed | 4 x D |
| during operation | -10°C upto + 60°C |
| during installation | 0°C upto + 40°C |

Electrical properties**at 20°C**

| | |
|---|----------------------|
| DC Resistance | ≤ 94Ω/km |
| DC Resistance unbalance | ≤ 5% |
| Insulation resistance (500 V) | ≥ 5000 MΩxkm |
| Capacitance at 1 kHz | ≥ 5.6nF/100m |
| Capacitance unbalance (pair to ground) at 1 kHz | ≤ 330pF/100m |
| Characteristic impedance (1-100 MHz) | (100 ± 15) Ω |
| Nominal velocity of propagation | approx. 68% |
| Propagation delay at 100 MHz | Maximum 538 ns/100 m |
| Delay skew at 1.0MHz – 100 MHz | Maximum 45 ns/100 m |
| Dielectric Strength | 2500 V DC/3 s |

Nominal transmission characteristics**at 20°C**

| F (MHZ) | Attenuation (dB/100m) | NEXT (dB) | PS-NEXT (dB) | ACR (dB/100m) | PS-ACR (dB/100m) | ELFEXT (dB/100m) | PS-ELFEXT (dB/100m) | Return loss (dB) |
|---------|-----------------------|-----------|--------------|---------------|------------------|------------------|---------------------|------------------|
| 1.0 | 1.9 | 71 | 68 | 69.1 | 66.1 | 68 | 65 | 20 |
| 4.0 | 3.7 | 62 | 59 | 58.3 | 55.3 | 56 | 53 | 23 |
| 10.0 | 6.0 | 56 | 53 | 50.0 | 47.0 | 48 | 45 | 25 |
| 16.0 | 7.6 | 53 | 50 | 45.4 | 42.4 | 44 | 41 | 25 |
| 20.0 | 8.5 | 51 | 48 | 42.5 | 39.5 | 42 | 39 | 25 |
| 31.2 | 10.7 | 49 | 46 | 38.3 | 35.3 | 38 | 35 | 24 |
| 62.5 | 15.7 | 44 | 41 | 28.3 | 25.3 | 32 | 29 | 22 |
| 100.0 | 19.8 | 41 | 38 | 21.2 | 18.2 | 28 | 25 | 20 |
| 125.0 | 22.3 | 40 | 37 | 17.7 | 14.7 | 26 | 23 | 19 |
| 155.5 | 24.2 | 38 | 35 | 13.8 | 10.8 | 24 | 21 | |
| 175.0 | 25.7 | 37 | 34 | 11.3 | 8.3 | 23 | 20 | |
| 200.0 | 27.5 | 36 | 33 | 8.5 | 5.5 | 22 | 19 | |
| 250.0 | 29.2 | 35 | 32 | 5.8 | 2.8 | 20 | 17 | |
| 300.0 | 32.0 | 34 | 31 | 2.0 | -1.0 | 16 | 13 | |

Technical data

| Product code | Designation | Brand name | Colour | Outer diameter | Storage Temperature | Weight netto | Copper content | Tensile force |
|--------------|-----------------------|------------|--------|----------------|---------------------|--------------|----------------|---------------|
| 799053 | U/UTP 4x2x0.5AWG24 | KELine | grey | 5.1mm | - 40°C - 70°C | 32 kg/km | 17.5 | 100N |

Marking : KELine Giga UTP 4x2x0.5mm PVC ISO/IEC 11801 3143535 ETL VERIFIED TO TIA/EIA 568-B.2 CAT5E
799053 ZYYMMDDHhmm (*)

Where:

(*) = Decreasing sequential length marking in meters from 305 m to 001 m with ± 0.5% for length marking tolerance