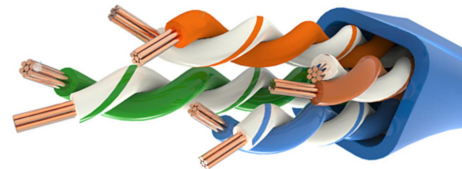


DATA SHEET

Category 6 Plus U/UTP Solid Cable Ultra-Thin PVC Jacket

24AWG* 4 Pair



Our category 6 twisted pair cables are characterized and tested to 250MHz and standardized to 24 AWG. We provide a positive PSACR up to 300 MHz for evolving and subsequent bandwidth requirements. They are tape design engineered for smaller overall diameter and ease of installation.

Construction

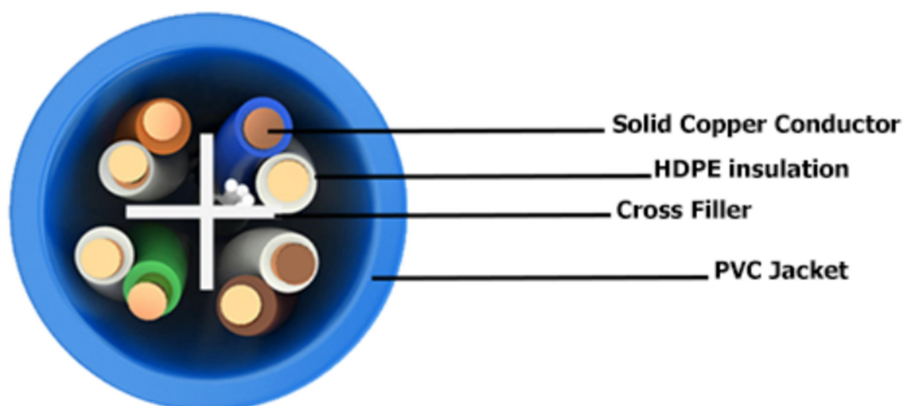
Solid bare copper conductors insulated with PE. Two insulated conductors twisted together to form a pair and four such pairs cabled to form the basic unit. A cross filler is cabled in between to separate the 4 pairs insulated conductors. The overall jacket is with PVC compound.

Applications

IEEE 802.3 : 1000BASE-T (Gigabit Ethernet), 100BASE-TX, 10BASE-T
ANSI/TIA / EIA-854 : 1000BASE-TX
155 Mb/s, 1.2 Gb/s ATM
ANSI X3.263 : 100 Mb/s
IEEE 802.3af DTE Power (POE)
4/16 Mb/s Token Ring
Digital Video
Broadband & Baseband Analog Video Technical details

Standard Compliance

- ISO/IEC 11801:2011 (Ed. 2.2)
- IEC 61156-5: 2009 (Ed.2.0)
- EN 50173-1:2011
- EN 50173-2:2007 including amendment A1:2010
- ANSI / TIA – 568-C.2:2009



Cable Description

| Conductor | |
|-----------------------|-------------------------------|
| Size | 24 AWG |
| Type | Solid bare copper |
| Diameter (mm) | 0.46± 0.01 |
| Insulation | |
| Type | PE |
| Diameter (mm) | 0.80± 0.05 |
| Min. thickness (mm) | 0.15 |
| Pairs with color code | |
| Pair 1 | Blue / White – blue strip |
| Pair 2 | Orange / White – orange strip |
| Pair 3 | Green / White – green strip |
| Pair 4 | Brown / White – brown strip |
| Central Element | |
| Type | PE cross separator |
| Jacket | |
| Type | PVC |
| Overall Diameter (mm) | 5.10 ± 0.3 |

Technical data- Physical

| | | |
|-----------------------------|----------------------------|-----------------------------------|
| Cold bend test | -20 ± 2°C X 4hrs no. crack | |
| Dielectric strength | AC 1.7 KV for 2S. | |
| Insulation | Before Aging | After aging |
| Min. Tension strength (psi) | 2400 | 75% before aging (100°C X 48hrs) |
| Min elongation (%) | 300 | 75% before aging (100°C X 48hrs) |
| Jacket | | |
| Min. Tension strength (psi) | 1300 | 60% before aging (100°C X 168hrs) |
| Min elongation (%) | 100 | 60% before aging (100°C X 168hrs) |
| Min. bending radius (mm) | 50 | |
| Max. pulling tension (lbs) | 25 | |
| Installation temperature | -10°C to +60°C | |
| Operating temperature | -10°C to +60°C | |

Technical data- Electrical

| | | |
|--|---|--|
| Pair to ground capacitance unbalance (max.) @ 0.8 or 1 kHz (pF/km) | 1600 | |
| Conductor DC Resistance (max) Ω / km @ 20°C | 9.5 | |
| Resistance unbalance within a pair (max.) (%) | 2 | |
| Resistance unbalance between pairs (max.) (%) | 4 | |
| Delay Skew (max.) ns/100m @ 20°C | 45 | |
| Mean input impedance @100 MHz | 100 ± 5 Ω | |
| Dielectric strength Mean | Min 1.0 kVdc or 0.7 kVac for 1 min. | Min 2.5 kVdc or 1.7 kVac for 2 sec |

Electrical Performance

| IEC 61156-5 Ed.2.0 Category 6 Horizontal Cable Parameters | | | | | | | |
|---|---------------------|---------|--------------|--------|-----------|--------|---------------------|
| Freq (MHz) | Ins. Loss (dB/100m) | RL (dB) | Pair to Pair | | Power Sum | | Po. Delay (ns/100m) |
| | | | NEXT | ELFEXT | NEXT | ELFEXT | |
| | Max. | Min | (dB/100m) | | (dB/100m) | | |
| | | | Min. | Min | Min. | Min | |
| 1 | 2.1 | 20 | 75.0 | 68.0 | 72.3 | 65.0 | 570.0 |
| 4 | 3.8 | 23 | 66.3 | 56.0 | 63.3 | 53.0 | 552.0 |
| 10 | 6.0 | 25 | 60.3 | 48.0 | 57.3 | 45.0 | 545.4 |
| 16 | 7.6 | 25 | 57.2 | 43.9 | 54.2 | 40.9 | 543.0 |
| 20 | 8.5 | 25 | 55.8 | 42.0 | 52.8 | 39.0 | 542.0 |
| 31.25 | 10.7 | 23.6 | 52.9 | 38.1 | 49.9 | 35.1 | 540.4 |
| 62.5 | 15.5 | 21.5 | 48.4 | 32.1 | 45.4 | 29.1 | 538.6 |
| 100 | 19.9 | 20.1 | 45.3 | 28.0 | 42.3 | 25.0 | 537.6 |
| 200 | 29.1 | 18 | 40.8 | 22.0 | 37.8 | 19.0 | 536.5 |
| 250 | 33.0 | 17.3 | 39.3 | 20.0 | 36.3 | 17.0 | 536.3 |

Note: All tests include 401 points on swept frequency measurements and also all electrical characteristics are given at 20°C.

| Packing |
|---|
| 305 mtr / 1000 ft reel in box or customizable rolls upto 500 meters |

Ordering guide

| Part Number | Description |
|--------------------|--|
| ANNTI31000195C1056 | Category 6+ - 24 AWG*4 pair U/UTP solid cable, PVC jacket, 305 m, Blue |
| ANNTI31000195C1055 | Category 6+ - 24 AWG*4 pair U/UTP solid cable, PVC jacket, 305 m, Gray |
| ANNTI31000195C1054 | Category 6+ - 24 AWG*4 pair U/UTP solid cable, PVC jacket, 305 m, Green |
| ANNTI31000195C1053 | Category 6+ - 24 AWG*4 pair U/UTP solid cable, PVC jacket, 305 m, Red |
| ANNTI31000195C1052 | Category 6+ - 24 AWG*4 pair U/UTP solid cable, PVC jacket, 305 m, Yellow |
| ANNTI31000195C1051 | Category 6+ - 24 AWG*4 pair U/UTP solid cable, PVC jacket, 305 m, Orange |