



## Category 6 UTP Patch Cable, 24AWG×4P, PVC(without Cross)

### STANDARD COMPLIANCES

All Proposed Category 6 requirements as per ANSI/TIA, ISO/IEC, and CENELEC EN Standards:  
ANSI/TIA-568-C.2 Cat.6

ISO/IEC 2<sup>nd</sup> Edition 11801 Class E

CENELEC EN 50173-1

CENELEC EN 50288-6-2, IEC 61156-6 for patch cable

Flame Retardancy is verified according to IEC 60332-1-2.

We implemented RoHS compliance for the requirement of European Union issued Directive 2002/95/EC.

### CONSTRUCTION & CHARACTERISTICS

|                |                           |                                                                                                                                                 |
|----------------|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| Conductor      | Material / Size           | Bare Copper / 24AWG                                                                                                                             |
| Insulation     | Material                  | HDPE                                                                                                                                            |
|                | Thickness                 | Nominal: 0.231 mm                                                                                                                               |
|                | Diameter                  | Nominal: 1.05 mm                                                                                                                                |
|                | Colors                    | Blue/White-Blue Orange/White-Orange<br>Green/White-Green Brown/White-Brown                                                                      |
|                | Unaged Elongation         | Min. 300%                                                                                                                                       |
|                | Unaged Tensile Strength   | Min. 1.683 Kgf/mm <sup>2</sup>                                                                                                                  |
| Jacket         | Material                  | Flame Retardant PVC                                                                                                                             |
|                | Thickness                 | Nominal: 0.50 mm                                                                                                                                |
|                | Diameter                  | Nominal: 5.8 mm                                                                                                                                 |
|                | Color                     | Assorted upon request                                                                                                                           |
|                | Unaged Elongation         | Min. 100%                                                                                                                                       |
|                | Unaged Tensile Strength   | Min. 1.407 Kgf/mm <sup>2</sup>                                                                                                                  |
|                | Aging at 100°C for 168Hrs | Min. elongation retention:50%<br>Min. tensile strength retention:75%                                                                            |
| Marking        |                           | YFC CAT.6 UTP PATCH ETL/3P VERIFIED TO ANSI/TIA-568-C.2 & ISO/IEC 11801 ED.2 & EN 50288-6-2 & IEC 60332-1-2 24AWGX4P<br>CM(UL) c(UL) E164469-XX |
|                |                           | or as customer request.                                                                                                                         |
| (PS): " + " mm |                           |                                                                                                                                                 |

### APPROVALS

UL/cUL Listed

ETL/3P Certified ANSI/TIA-568-C.2 Category 6 Testing Safety/Performance



## APPLICATIONS

1000BASE-TX Gigabit Ethernet  
 10BASE-T, 100BASE-TX Fast Ethernet (IEEE 802.3)  
 100 VG – AnyLAN (IEEE802.12), 155/622 Mbps ATM

550MHz Broadband Video  
 Voice, T1, ISDN, PoE

## ELECTRICAL PERFORMANCES

|                                   |           |                          |            |            |
|-----------------------------------|-----------|--------------------------|------------|------------|
| Dielectric Strength of Insulation |           | 2500 V dc / 2 seconds    |            |            |
| Insulation Resistance Test        |           | Min. 5000 MΩ·Km          |            |            |
| Conductor Resistance              |           | Max. 9.38 Ω/100m at 20°C |            |            |
| Resistance Unbalance              |           | Max. 2%                  |            |            |
| Capacitance Unbalance             |           | Max. 160 pF/100m         |            |            |
| Mutual Capacitance                |           | Max. 5600 pF/100m        |            |            |
| Impedance                         | 772kHz    | 125Ω ± 20%               |            |            |
|                                   | 1~250MHz  | 100Ω ± 15%               |            |            |
| Attenuation & Near End Cross Talk | Frequency | Max. Attenuation         | NEXT       | PSNEXT     |
|                                   | (MHz)     | (dB/100 meters)          | (dB), Min. | (dB), Min. |
|                                   | 1 MHz     | 2.0*                     | 74.3*      | 72.3*      |
|                                   | 4 MHz     | 3.8*                     | 65.3*      | 63.3*      |
|                                   | 10 MHz    | 6.0*                     | 59.3*      | 57.3*      |
|                                   | 16 MHz    | 7.6*                     | 56.2*      | 54.2*      |
|                                   | 20 MHz    | 8.5*                     | 54.8*      | 52.8*      |
|                                   | 31.25 MHz | 10.7*                    | 51.9*      | 49.9*      |
|                                   | 62.5 MHz  | 15.4*                    | 47.4*      | 45.4*      |
|                                   | 100 MHz   | 19.8*                    | 44.3*      | 42.3*      |
|                                   | 150 MHz   | 24.9*                    | 41.4*      | 39.4*      |
|                                   | 200MHz    | 29.0*                    | 39.8*      | 37.8*      |
|                                   | 250MHz    | 32.8*                    | 38.3*      | 36.3*      |

The asterisked (\*) value are for information only. The minimum Next coupling loss for any pair combination at room temperature is to be greater than the value determined using the formula:

$$NEXT(f \text{ MHz}) \geq NEXT(0.772) - 15 \log_{10}(f \text{ MHz}/0.772) \text{ dB}$$

## CONFIGURATION

|              |   |             |   |
|--------------|---|-------------|---|
| orange       | 2 | green       | 3 |
| white/orange |   | white/green |   |
| blue         | 1 | brown       | 4 |
| white/blue   |   | white/brown |   |

