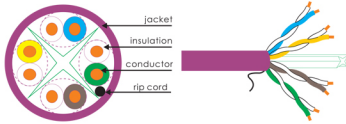


## CAT6 UTP, 23AWG SOLID BARE COPPER, 4 PAIR LAN CABLE, LDPE JACKET



### DIAGRAM & DESCRIPTION

OPTiLite Category 6 UTP cables are manufactured and tested to the TIA/EIA 568-B.2-1, EN50173-1 and ISO/ IEC 11801 Category 6 specifications. Each cable consists of 8 colour coded 23AWG polyethylene insulated conductors. These are twisted together to form 4 pairs with varying lay lengths. These pairs are then formed around a central 'X' shaped polyethylene filler. This filler assists in maintaining and enhancing the cables performance. A jacket of UV and moisture resistant polyethelene is applied making this cable ideal for outdoor installation.

Due to the risk of lightning or over-voltage damage both ends of the external cable must be fitted with equipment suitable for protecting the computer system and operators from a direct or indirect lightning strike or other over-voltage situation. These devices are available in many forms, but are usually system specific and you will need to contact the manufacturer of these devices to ensure the requirements of the network is met.

OPTiLite recommends the use of optical fibre in all external cabling, and any damage to the cabling system due to lightning strikes or over-voltage is solely at the risk of the installer.

### FEATURES

- External Duct Grade
- Central 'X' filler
- Fast Feed Reelex Packaging
- UV and Moisture Resistant Polyethelene Outer Sheath
- Supports Gigabit Ethernet
- Category 6 Compliant
- 23AWG Conductor

### PHYSICAL CHARACTERISTIC

Item \ Test Object	Jacket
Tensile Strength	≥14MPa
Elongation at Break	≥600%
Impact Brittleness in low temp.	≤-76°C
Resistance to Environmental Stress Crack F <sub>0</sub>	≥500h
200°C Oxidative Induced Time	≥30min

### Construction

**Conductor** - single copper wire

**Insulation** - PE insulation

**Jacket** - LDPE

### Physical Dimensions (mm)

**Nominal Conductor Diameter** - 0.570  
**Nominal Diameter Over Dielectric** - 1.030  
**Nominal Jacket Thickness** - 0.60  
**Nominal Jacket ODs** - 6.10

### ELECTRICAL CHARACTERISTIC

Characteristic Impedance	100±15Ω
DC Resistance(20°C)	≤8.5Ω/100m
DC Resistance Unbalance	≤2.5%
Mutual Capacitance	≤5.6nF/100m
Cap. Unbalance to Ground	≤330pF/100m
Insulated Resistance	≥6000MΩ·km
Propagation Delay Skew	≤45ns/100m

### STANDARDS COMPLIANCE

- ISO/IEC 11801 2nd Edition
- ANSI/TIA 568-C.2
- EN 50173
- IEC 61156-5
- EN 50288-3-1
- This product conforms to the materials requirements of RoHS2 / REACH

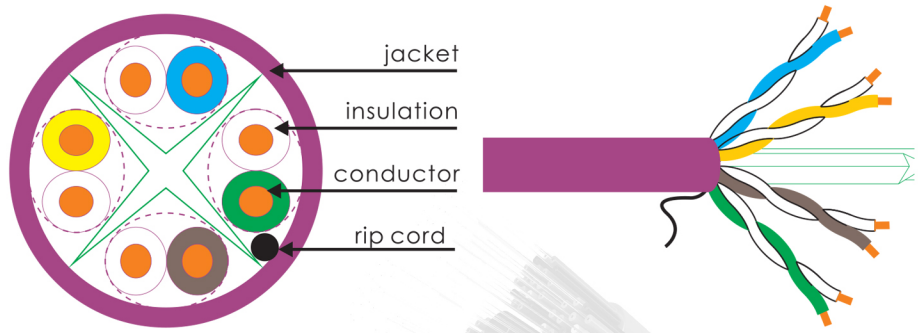
**Environmental:** Working Temperature: -40 °C to +70 °C

TRANSMISSION PERFORMANCE (20°C, 100M)							
Frequency (MHz)	Attenuation (dB/100m)	ReturnLoss (dB)	Next (dB)	PS-NEXT (dB)	ELFEXT	PS-ELFEXT (dB/100m)	Propagation Delay (ns/100m)
1.0	2.0	20.0	74.3	72.3	68.0	65.0	570
4.0	3.8	23.0	65.3	63.3	56.0	53.0	552
8.0	5.3	24.5	60.8	58.8	49.9	46.9	547
10.0	6.0	25.0	59.3	57.3	48.0	45.0	545
16.0	7.6	25.0	56.2	54.2	43.9	40.9	543
20.0	8.5	25.0	54.8	52.8	42.0	39.0	542
25.0	9.5	24.3	53.3	51.3	40.0	37.0	541
31.25	10.7	23.6	51.9	49.9	38.1	35.1	540
62.5	15.4	21.5	47.4	45.4	32.1	29.1	539
100.0	19.8	20.1	44.3	42.3	28.0	25.0	538
200.0	29.0	18.0	39.8	37.8	22.0	19.0	537
250.0	32.8	17.3	38.3	36.3	20.0	17.0	536

**Notes:**

**Print:** Repeat every meter replacing xxxx with meter count.

**Package:** 1000ft Reel-in-a-box.



**System Warranty:**

The OPTiLite Cabling System Warranty provides a 25-year product and applications assurance of compliance with the industry performance standard appropriate to the class of cabling installed. The warranty may be applied for by an accredited OPTiLite Partner who has designed, supplied and installed the said system.

