Category 6A UTP Copper Cable

**Specifications**

Category 6A cable shall be constructed of 23 AWG copper conductors, twisted in pairs, and separated by an integrated pair separator. Manufactured in Europe.

**Technical Information**

- **Electrical Performance:** Certified component and channel performance in a 4-connector configuration up to 100 meters and meets/exceeds the requirements of ISO 11801 Class EA and ANSI/TIA-568-C.2 Category 6A standards for swept frequencies up to 500 MHz.
- **Conductors/Insulators:** 23 AWG solid bare copper wire covered by HDPE and Foam PE insulation.
- **Insulation Diameter:** .96mm - 1.07mm (.038 in. - .042 in.)
- **Flame Rating:** HDPE (LSZH): IEC 60332-1
- **Segregation Classification:** Meets EN 50174-2:2009 segregation classification C.
- **PoE Compliance:** Meets IEEE 802.3af, IEEE 802.3at and IEEE 802.3bt for PoE applications.
- **Installation Tension:** 110 N (25 lbf) maximum.
- **Temperature Rating:** -20°C to 75°C (-4°F to 167°F).
- **Cable Jacket:** HDPE (LSZH): low smoke flame retardant PO.
- **Cable Diameter:** 8.6mm (0.339 in.).
- **Cable Weight:** 20.4 kg/305m (45 lbs./1000 ft.).
- **Packaging:** 21.5 kg/305m (47.4 lbs./1000 ft.) on a reel. Packaged tested to ISTA Procedure 1A.

**Key Features and Benefits**

- **Extended Temperature Range:** Allows operation in a 75°C ambient environment providing error free performance in high-density.
- **Innovative Pair Divider:** Separates pairs for exceptional cable performance and also improves alien crosstalk by creating spacing between cables when bundled.
- **Descending Length Cable Markings:** Easy identification of remaining cable reduces installation time and cable scrap.
- **Bulk Packaging:** Supplied 305m (1000 ft.) to a reel.

**Applications**

Category 6A UTP Copper Cable is a component of the TX6A” 10Gig™ UTP Copper Cabling System when installed according to the above length considerations. Interoperable and backwards compatible, this end-to-end system provides design flexibility to protect network investments well into the future.

With certified performance to the ISO 11801 Class EA and ANSI/TIA-568-C.2 Category 6A standards. Usage of the TX6A” 10Gig™ UTP Copper Cabling System includes:
- Ethernet 10GBASE-T
- Virtual business management applications
### Mechanical Test

<table>
<thead>
<tr>
<th>Test</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ultimate Breaking Strength</td>
<td>&gt;400 N (90 lbf)</td>
</tr>
<tr>
<td>Minimum Bend Radius</td>
<td>4 x cable diameter</td>
</tr>
</tbody>
</table>

### Electrical Test

<table>
<thead>
<tr>
<th>Test</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC Resistance</td>
<td>&lt;9.38 ohm per 100m (328 ft.)</td>
</tr>
<tr>
<td>DC Resistance Unbalance</td>
<td>&lt;5%</td>
</tr>
<tr>
<td>Mutual Capacitance</td>
<td>&lt;5.6 nF per 100m (328 ft.) at 1 Khz</td>
</tr>
<tr>
<td>Capacitance Unbalance</td>
<td>&lt;330 pF per 100m (328 ft.) at 1 kHz</td>
</tr>
<tr>
<td>Characteristic Impedance</td>
<td>100 Ohm +/-15% up to 100 MHz</td>
</tr>
<tr>
<td>Nominal Velocity of Propagation (NVP)</td>
<td>68% nominal</td>
</tr>
</tbody>
</table>

![Diagram of Category 6A UTP Copper Cable](image)

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