

PRODUCT DATA SHEET

Category 6 U/UTP (4 Pair) Cable



Introduction :

Cat6 is renowned for its robust performance, enhanced bandwidth capabilities and stands as a linchpin in facilitating seamless and high-speed data transmission across gigabit ethernet networks.

Performance Characteristics :

Bandwidth : Supports up to 250 MHz bandwidth.

Data Rate : Capable of handling Gigabit Ethernet speeds (up to 1 Gigabit per second) over distances of up to 100 meters.

Alien Crosstalk : Provides effective alien crosstalk mitigation, minimizing interference from neighbouring cables.

Backward Compatibility : Compatible with older Ethernet standards, ensuring seamless integration into existing networks.

Key Applications :

Wi-Fi 5 Deployments : Supports the high data rates required for access points, enabling seamless connectivity in dense wireless environments.

Gigabit Ethernet Networks : Ideal for businesses and organizations requiring high-speed network connectivity for everyday operations.

LAN Installations : Commonly used for local area network (LAN) installations in offices, schools, and homes, providing reliable connectivity for computers, printers, and other devices.

Streaming Media : Suitable for streaming high-definition multimedia content, including video, audio, and online gaming, with minimal latency and interruptions.

IP Telephony : Supports Voice over IP (VoIP) telephony systems, delivering clear and reliable voice communication for businesses and call centres.

Surveillance Systems : Well-suited for IP-based surveillance systems, allowing for the transmission of high-quality video feeds from security cameras over the network.

Cost Effective Solution : Cat6 is a cost-effective solution for organizations looking to upgrade their legacy network infrastructure to support increasing data demands.

IoT : With Cat6 cabling, sensors embedded in office equipment, lighting systems, and HVAC systems can seamlessly communicate data to central control systems, optimizing energy usage and enhancing comfort for occupants.

Product Specifications

Test Standard	ISO/IEC 11801, TIA-568-D:2018 and EN50173
Conductor - Material	Solid-Bare Copper
Conductor - Dimension	23AWG (0.560mm)
Insulation - Material	Polyolefin
Sheath - Material	PVC / LSZH / UV Resistant PVC (Black only)
Pairs	4 Twisted Pairs with Cross Divider
Pair Colour Code	Blue/White Blue, Orange/White Orange, Green/White Green, Brown/White Brown
Installation Tension	110N Maximum
PoE Compliance	IEEE 802.3af, IEEE 802.3at

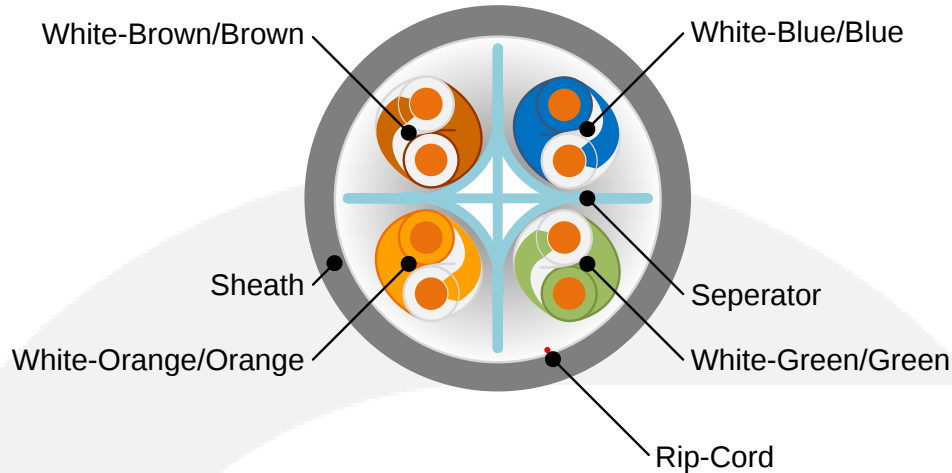
Part Numbers

Model No :	Description :
C6UTP-X	Cat6 UTP Solid Cable – Grey

- X – Jacket/Sheath : 1 = PVC, 2 = LSZH

PRODUCT DATA SHEET

Category 6 U/UTP (4 Pair) Cable



Technical Performance 100m :

Frequency Mhz	Attenuation dB/100m	NEXT dB	PSNEXT db	ACR	PSACR	ELFEXT dB	PSELFEXT dB	Return Loss
1.0	2.0	74.4	72.3	72.3	70.3	67.8	64.8	20.8
4.0	3.8	65.3	63.3	61.5	59.5	55.8	52.8	23.0
8.0	5.3	60.8	58.8	55.4	53.4	49.7	46.7	24.5
10.0	6.0	59.3	57.3	53.3	51.3	47.8	44.8	25.0
16.0	7.6	56.2	54.2	48.6	46.7	43.7	40.7	25.0
20.0	8.5	54.8	52.8	46.3	44.3	41.8	38.8	25.0
25.0	9.5	53.3	51.3	43.8	41.8	39.8	36.8	24.3
31.25	10.7	51.9	49.9	41.1	39.2	37.9	34.9	23.6
62.5	15.4	47.4	45.4	32	30	31.9	28.9	21.5
100	19.8	44.3	42.3	24.5	22.5	27.8	24.8	20.1
200	29.0	39.8	37.8	10.8	8.8	21.8	18.8	18.0
250	32.8	38.3	36.3	5.5	3.5	19.8	16.8	17.3

Fire Safety Rating

IEC60332 Part 1 (PVC)

IEC60332-1-2 (LSZH)

IEC60332-3-22 (LSZH)

IEC60332-3-24 (LSZH)

Physical Properties & Packing

Outside Diameter (Nom)

6.3 mm

Weight (kg/km)

52.2

Temperature Range

0°C to +50°C (Installation)
-20°C to +70°C (Operational)

Standard Packaging

305 m Easy Pull box (16kg/Box) (400mm x 400 mm 210 mm)
500 m Plastic Reels (30kg/Reel) (400mm x 228 mm - L30)

Electrical Characteristics @ 20°

DC Resistance

80 Ohms/Km (Max)

Resistance Unbalance

2% (Max)

Mutual Capacitance @ 1 kHz

42nF/Km (Max)

Capacitance Unbalance

1000 pF/Km (Max)

Delay Skew

450 nsec/Km (Max)

Velocity of Propagation

0.68 %

Characteristic Impedance

100 Ohms ± (15 + 0.05 (f-100)) @ 100 Mhz – 250 Mhz

Globalsix - Johannesburg

82 Schooner Street,
Laser Park,
Johannesburg,
South Africa

Contact No : +27 (0) 11 794 8301

Globalsix - Cape Town

Unit 1, Garnet Park,
6 Drill Avenue,
Montague Gardens,
Cape Town

Contact No : +27 (0) 21 555 2594