



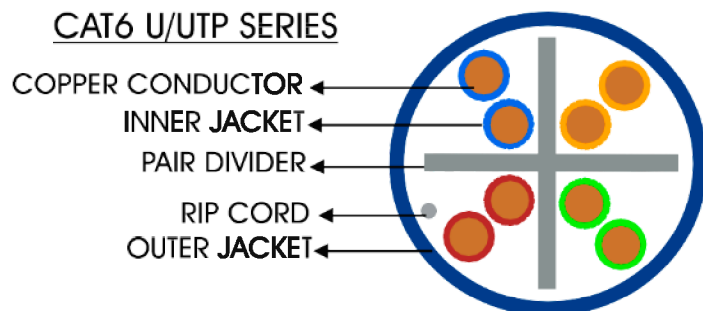
# Opternet Cables & Wires

**CAT 6 U / UTP 23AWG LAN CABLE**

**CONTENT OF DATASHEET**

Standards : ANSI/TIA/568.2-D CENELEC EN 50288-5IEC 61156-5 (ISO/IEC-11801 Class -E)

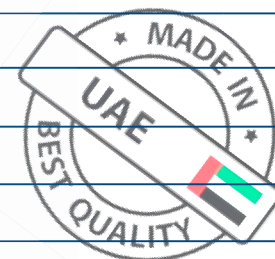
Opternet cables are the best twisted-pair cables in the market for transmitting data over local area networks (LANs). As streaming videos and multimedia over LAN are gaining popularity, users demand faster data transmission and reduce waiting time. Opternet cables are ideal for simple, cost effective and high speed transmission performance. They support a higher signal-to-noise ratio, providing better reliability for current applications and higher data rates for future applications.



CAT6 cables reduce crosstalk and system noise. The superior insulation around the 23AWG copper wires attributes to the increase performance. They cable transmit data at 1000Mbps (1Gigabit per second) with a frequency of 250MHz and suitable for 10BASE -T, 100BASETX fast ethernet and 1000BASE-T / 1000BASE-TX (Gigabit Ethernet)

**PHYSICAL AND MECHANICAL PROPERTIES**

Basic Conductor	Solid bare annealed copper
Conductor Size	23AWG
Insulation	HDPE
Number of Insulated Conductors	8, Twisted In 4 Pairs
Color Code of Pairs	Blue X White/Blue, Orange X White/Orange, Green X White/Green. Brown X White/Brown
Outer Jacket	LSZH
Standard Jacket Color	Blue/Grey/Black
Standard Surface Marking	Includes Opternet Cable P/N, Cable Description, Meter Mark And Model Number
Pulling Force	50 N/mm2 max
Short Term Bend Radius	8XOD (mm)
Storage Temperature	-20 TO +80C
Temperature Operating Range	-20 TO +60C
Installation Temperature Range	0 TO +50C
Flame Test	IEC 60332-1



**ELECTRICAL SPECIFICATIONS**

Characteristic Impedance	100±6 Ohm @1-250 MHz	Dielectric Strength	1500 Volts/1minute Min Rms
DC Resistance	93 Ohm/km max	Velocity Of Propagation (nvp)	67-69%
Resistance Unbalance	2% max	Propagation Delay	514 + 36/vf.ns/100m max @ 1-300 MHz
Mutual Capacitance	5.6 pF /100m max @ 1KHz	Propagation Delay Skew	35 nS/100mmax @ 1-300 MHz
Cap.Unbalance (Wire To Ground)	1600 pF/m max @1KHz	Insulation Resistance	5000 MOhm.m min. @ 500Vdc
Voltage Rating	72 Vdc max.	Coupling Attenuation	40 dB min @ 30-100MHz 40-20log(f/100) @ 100-300MHz