



GIGALAN CAT.6 U/UTP 23AWGx4P - LSZH (EXP)

Product Type LAN Cable

Product Family GigaLan

Construction

RoHS Compliant

Category 6

U/UTP (unshielded)

LSZH

General Characteristics

Features Solid bare copper conductors insulated with thermoplastics polyolefin. The conductors are twisted in pairs. Outside jacket of LSZH (Low smoke zero halogen) compound.

Installation Environment Internal

Operation Environment Non heavy

Compatibility FCS products

Applications

1. Exceeds physical and electrical requirement of ANSI/TIA/EIA-568C.2 standard.
2. The cable is in accordance with RoHS directives (Restriction of Hazardous Substances)
3. It can be used with the following network standards
 - c. GIGABIT ETHERNET, IEEE 802.3ab 1000 baseT, IEEE 802.3an 2006;
 - b. 100BASE-TX, IEEE 802.3u, 100 Mbps;
 - c. 100BASE-T4, IEEE 802.3u, 100 Mbps;
 - d. 100vg-AnyLAN, IEEE802.12, 100 Mbps;
 - e. ATM -155 (UTP), AF-PHY-0015.000 and AF-PHY-0018.000, 155/51/25 Mbps;
 - f. TP-PMD, ANSI X3T9.5, 100 Mbps;
 - g. 10BASE-T, IEEE802.3, 10 Mbps;
 - h. TOKEN RING, IEEE802.5, 4/16 Mbps;
 - i. 3X-AS400, IBM, 10 Mbps;
 - j. Compatible whit RJ-45 Cat.6 male conector;
 - k. TSB-155
 - l. ATM LAN 1.2 Gbit/s, AF-PHY 0162.000 2001;

Standards Compliance ANSI/TIA-568-C.2 and complements, ISO/IEC 11801, IEC 61156-5, IEC 60332, IEC 60754-2 (Acidity of smoke), IEC 61034-2 (smoke density)

Certifications

ETL Verified	J20021181
ETL 4 connections	3073041
ETL 6 connections	3118430

Constructive characteristic

Conductor Solid bare copper with nominal diameter 23AWG.

Insulation High density Polyethylene. Nominal diameter 1.0mm

Insulation Resistance	10000 MΩ/km																	
Number of Pairs	4 pairs, 23AWG																	
Pair	All pairs are twisted in such way to reduce Crosstalk effects. Each conductor is identified according with the following color sequence.																	
Color Codes	<table border="1"> <thead> <tr> <th>Pair</th> <th>Insulation Color "A"</th> <th>Insulation Color "B"</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Blue</td> <td>White / Blue Stripe</td> </tr> <tr> <td>2</td> <td>Orange</td> <td>White / Orange Stripe</td> </tr> <tr> <td>3</td> <td>Green</td> <td>White / Green Stripe</td> </tr> <tr> <td>4</td> <td>Brown</td> <td>White / Brown Stripe</td> </tr> </tbody> </table>			Pair	Insulation Color "A"	Insulation Color "B"	1	Blue	White / Blue Stripe	2	Orange	White / Orange Stripe	3	Green	White / Green Stripe	4	Brown	White / Brown Stripe
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1	Blue	White / Blue Stripe																
2	Orange	White / Orange Stripe																
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Cabling	All pairs are assembled, making the core cable. Will be used a central member (Cross web) made of a thermoplastic material to separate all 4 pairs.																	
Shield	Unshielded (U/UTP).																	
Sheath	LSZH compound, flame retardant, suitable to meet the cable flame rating class																	
Nominal Diameter	6.0mm																	
Color	Grey, Blue and Green. Other colors under consult.																	
Cable Weight	42 kg/km																	
Physical Characteristics																		
Flame Standards	<p>LSZH: Cable shall comply with IEC 60332 Part 3-25: "Test for vertical flame spread of vertically mounted bunched wires or cables"</p> <p>LSZH-1: Cable shall comply with IEC 60332 Part 1-2: "Test for vertical flame propagation for a single insulated wire or cable"</p>																	
Installation Temperature	0°C up to 50°C																	
Storage Temperature	-20 °C up to 70 °C																	
Operation Temperature	-20°C up to 60°C																	
Electrical Characteristics																		
Maximum Unbalance Resistance	5%																	
Conductor Max. DC Resistance at 20°C	93.8 Ω/km																	
Maximum Mutual Capacitance 1kHz	56 pF/m																	
Max. Unbalance Capacitance Pair x Ground	3,3 pF/m																	
Characteristic Impedance	100±15% Ω																	

Maximum Propagation Delay 545ns/100m

Maximum Delay Skew 45ns/100m

Dielectric strength 2500 VDC/3s

NVP 68%

Transmission Performance	Freq, MHz	Attenuation, dB/100m		NEXT, dB		PSNEXT, dB		ACRF, dB		PSACRF, dB		RL, dB	
		Std	Max	Std	Min	Std	Min	Std	Min	Std	Min	Std	Min
	1	2,0	2,0	74,3	76,3	72,3	74,3	67,8	67,8	64,8	64,8	20,0	20,0
	4	3,8	3,8	65,3	67,3	63,3	65,3	55,8	55,8	52,8	52,8	23,0	23,0
	8	5,3	5,3	60,8	62,8	58,8	60,8	49,7	49,7	46,7	46,7	24,5	24,5
	10	6,0	6,0	59,3	61,3	57,3	59,3	47,8	47,8	44,8	44,8	25,0	25,0
	16	7,6	7,6	56,2	58,2	54,2	56,2	43,7	43,7	40,7	40,7	25,0	25,0
	20	8,5	8,5	54,8	56,8	52,8	54,8	41,8	41,8	38,8	38,8	25,0	25,0
	25	9,5	9,5	53,3	55,3	51,3	53,3	39,8	39,8	36,8	36,8	24,3	24,3
	31,25	10,7	10,7	51,9	53,9	49,9	51,9	37,9	37,9	34,9	34,9	23,6	23,6
	62,5	15,4	15,4	47,4	49,4	45,4	47,4	31,9	31,9	28,9	28,9	21,5	21,5
	100	19,8	19,8	44,3	46,3	42,3	44,3	27,8	27,8	24,8	24,8	20,1	20,1
	155	25,2	25,2	41,4	43,4	39,4	41,4	24,0	24,0	21,0	21,0	18,8	18,8
	200	29,0	29,0	39,8	41,8	37,8	39,8	21,8	21,8	18,8	18,8	18,0	18,0
	250	32,8	32,8	38,3	40,3	36,3	38,3	19,8	19,8	16,8	16,8	17,3	17,3

Note: Cable measurements are performed on 100 m (328 ft) cable samples, removed from the reel or carton box, laid out along a non-conductive surface.

Marking **FURUKAWA GIGALAN CAT 6 U/UTP 23AWGX4P ZZZZ ETL VERIFIED TO TIA-568-C.2 CATEGORY 6 YAAMMDDHHmm {1}m**

Where:

{1} - Decreasing sequential length marking in meters starting from 305m to 001m or 1000m to 0001m

Traceability of product:

Y- Manufacturing process

AAMMDDHHmm: AA - year; MM - Month; DD - Day; HH - Hour; mm - minute.

ZZZZ: flame rating class LSZH (when meet IEC 60332-3) or LSZH-1 (for IEC60332-1).

Package Carton with 305m and/or wooden spool or plywood spool with 1000m