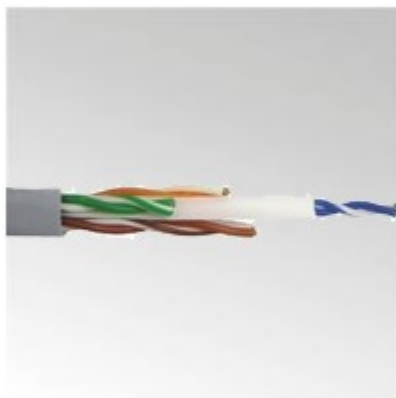




GIGALAN CAT 6 U/UTP 23AWGx4P - RoHS

Product Type LAN Cable

Product Family GigaLan

Construction RoHS Compliant

Category 6

U/UTP

PVC (CM/CMR)

General Characteristics

Features 4 pairs twisted cable, using solid bare copper, insulated with a special compound. External jacket using a PVC flame retardant material in according to RoHS Compliance (Restriction of Hazardous Substances).

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 TIA-568-C.2, ANSI/TIA 569, ISO/IEC 11801 and UL 444.

Certifications

UL Listed	E160837
ETL Listed	3050027
ETL Verified	J20021181
ETL 4 connections	3073041
ETL 6 connections	3118430
Anatel	0498-13-0256

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><tr><td>Pair</td><td>Insulation Color "A"</td><td>Insulation Color "B"</td></tr><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></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
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																
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	Made of flame retardant PVC compound.																	
Nominal Diameter	6.0mm																	
Color	Blue, Grey, Yellow, Light Brown, White, Orange, Brown, Black, Red, Green.																	
Cable Weight	42 kg/km																	
Cross Section																		
Physical Characteristics																		
Flame Standards	CM: standard UL 1581-Vertical tray Section 1160 (UL1685) CMR: standard UL 1666 (Riser)																	
Installation Temperature	0°C up to 50°C																	
StorageTemperature	-20 °C up to 80 °C																	
Operation Temperature	-20°C up to 60°C																	
Eletrical 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 @ 10MHz

Maximum Delay Skew 45ns/100m

Dielectric strength	Between two pairs	Between a pair and shield
	1000 VDC/3s	500 VDC/3s

NVP 68%

Transmission Performance

Freq. (MHz)	IL dB		NEXT dB		PSNEXT dB		ACR dB	
	TIA/EIA Máx	Typical	TIA/EIA Min	Typical	TIA/EIA Min	Typical	TIA/EIA MÍNIMO	TÍPICO
1	2,0	1,5	74,3	94,0	72,3	88,3	72,3	88,5
4	3,8	3,2	65,3	86,2	63,3	80,0	61,5	77,1
8	5,3	4,6	60,8	81,9	58,8	75,2	55,4	70,0
10	6,0	5,2	59,3	80,9	57,3	74,1	53,3	68,8
16	7,6	6,7	56,2	76,7	54,2	70,9	48,7	64,0
20	8,5	7,5	54,8	74,5	52,8	69,1	46,3	60,9
25	9,5	8,5	53,3	73,6	51,3	67,7	43,8	59,5
31,25	10,7	9,5	51,9	71,5	49,9	65,4	41,2	57,6
62,5	15,4	13,8	47,4	70,2	45,4	62,7	32,0	48,9
100	19,8	17,8	44,3	66,9	42,3	61,4	24,5	43,9
200	29,0	26,1	39,8	62,4	37,8	56,5	10,8	29,2
250	32,8	29,3	38,3	60,1	36,3	53,2	5,5	23,4
300		32,5	-	57,5		51,6		18,9
350		35,3	-	55,8		49,5		12,5
400		38,0	-	53,0		47,6		7,0
500		42,8	-	52,0		48,5		5,0
550		45,0	-	50,0		47,5		2,0
600		47,0	-	48,0		46,1		-2,0

Freq. (MHz)	PSACR dB		ELFEXT dB		PSELFEXT dB		RL dB	
	TIA/EIA Min	Typical	TIA/EIA Min	Typical	TIA/EIA Min	Typical	TIA/EIA Min	Typical
1	70,3	86,9	67,8	89,8	64,8	82,5	20,0	35,0
4	59,5	76,8	55,8	78,3	52,8	70,3	23,0	35,7
8	53,4	70,7	49,7	71,8	46,7	64,6	24,5	38,7
10	51,3	69,0	47,8	69,5	44,8	62,4	25,0	37,6
16	46,7	64,3	43,7	65,5	40,7	58,6	25,0	41,9
20	44,3	61,7	41,8	64,2	38,8	57,0	25,0	38,4
25	41,8	59,3	39,8	62,2	36,8	55,0	24,3	39,1
31,25	39,2	55,9	37,9	59,9	34,9	52,6	23,6	38,5

62,5	30,0	49,1	31,9	53,3	25,9	45,6	21,5	35,9
100	22,5	43,6	27,8	49,2	24,8	40,6	20,1	31,9
200	8,8	30,3	21,8	42,2	18,8	33,8	18,0	28,4
250	3,5	25,0	19,8	39,7	16,8	31,7	17,3	26,5
300		19,6		36,8		29,3		25,2
350		13,9		32,7		26,0		23,9
400		9,8		29,8		24,4		23,9
500		5,4		25,3		19,5		24,9
550		3,3		23,3		17,6		25,7
600		0,0		19,6		13,7		24,0

Cable measurements performed on cable samples of 100m (328ft) removed from the reel or packing, laid out along a non-conducting surface supported in aerial spans in accordance with ANSI/TIA/EIA 568-B.2-1.

Marking

For cables CM:

FURUKAWA GIGALAN U/UTP 23 AWG x 4P ROHS COMPLIANT NBR 14703
ANATEL 0498-13-0256 --- E160837 CM C(UL)US ETL VERIFIED TO TIA-568-C.2
CATEGORY 6 --- YAAMMDHm {1}

For cables CMR:

FURUKAWA GIGALAN U/UTP 23 AWG x 4P ROHS COMPLIANT NBR 14703
ANATEL 0498-13-0256 --- E160837 CMR C(UL)US ETL VERIFIED TO TIA-568-C.2
CATEGORY 6 --- YAAMMDHm {1}

Where:

{1} - Decreasing length (305 - 001 m)

Z - Making Process

YYMMDDHm: YY-Year, MM-Month, DD - Day, HH - Hour, mm - minute

Package

Package Type

Reelex pull box package

Standard Length

305 meters or in reels.

Dimension