



MULTILAN CAT.5e U/UTP 24AWGx4P - RoHS COMPLIANT

Product Type LAN Cable

Product Family Multilan

Construction

RoHS Compliant

Category 5e

U/UTP (not shielded)

PVC - CM, CMR

General Characteristics

Features 4 pairs twisted cable, using solid bare copper, 24 AWG, insulated with a special compound. External jacket using a PVC flame retardant material.

Installation Environment Internal

Operation Environment Non heavy

Compatibility FCS products

Applications

1. Exceeds physical and electrical requirements of EIA/TIA -568-c.2
2. Cable according with RoHS directive (Restriction of Hazardous Substances)
3. Can be used with all of the following protocols.
 - a) GIGABIT ETHERNET, IEEE 802.3z, 1000 Mbps;
 - 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 y 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) POWER OVER ETHERNET, IEEE 802.3af
4. Solutions: Data Center, Commercial Building, Government, Financial, Health, Education.

Standards Compliance ANSI/TIA-568-C.2, ISO/IEC 11801, NBR 14703, UL 444, UL 1685 (CM) and UL 1666 (CMR)

Certifications

UL Listed and Verified	E160837
ETL Verified	J99029130
ETL Listed	3031273
ETL 4 conexions	3075278-003
ISO9001/ISO14001	A1969/A10659
Anatel	00036-08-00256

Constructive characteristic

Conductor 24AWG

Insulation Resistance 10000 MΩ.km

Number of Pairs 4 pairs 24 AWG

Pair All pairs are twisted in such way to reduce Crosstalk effects. Each conductor is identified according with the following color sequence.

Color Codes

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 four pairs are cabled together in such way to reduce electromagnetic interferences making the cable lay-up.

Shield Unshielded (U/UTP).

Sheath Made of flame retardant PVC compound.

Nominal Diameter 4.8mm

Color Blue, Grey, Yellow, Light Brown, White, Orange, Brown, Black, Red, Green.

Cable Weight 26 kg/km

Physical Characteristics

Cable Flammability Rating CM: standard UL 1581-Vertical tray Section 1160 (UL1685)
CMR: standard UL 1666 (Riser)

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 25 ns/100 m

Dielectric strength 2500 VDC/3s

NVP 68%

Transmission Performance	Freq.	IL, dB		NEXT, dB		PSNEXT, dB		ACRF, dB		PSACRF, dB		RL, dB	
	(MHz)	TIA Maximum	Typical	TIA Minimum	Typical	TIA Minimum	Typical	TIA Minimum	Typical	TIA Minimum	Typical	TIA Minimum	Typical
	1	2.0	1.7	65.3	83.1	62.3	76.8	63.8	84.8	60.8	76.5	20.0	35.7
	4	4.1	3.6	56.3	74.8	53.3	67.8	51.7	74.2	48.7	65.3	23.1	39.1
	8	5.8	5.1	51.8	70.0	48.8	63.4	45.7	68.1	42.7	59.2	24.5	36.3
	10	6.5	5.7	50.3	68.6	47.3	61.7	43.8	66.5	40.8	57.4	25.0	35.1
	16	8.2	7.3	47.3	63.4	44.3	57.4	39.7	61.4	36.7	53.2	25.0	36.0
	20	9.3	8.3	45.8	63.7	42.8	57.6	37.7	59.7	34.7	51.3	25.0	37.5
	25	10.4	9.3	44.3	61.0	41.3	54.3	35.8	56.8	32.8	48.9	24.3	37.7
	31.25	11.7	11.1	42.9	60.7	39.9	53.7	33.9	53.3	30.9	45.6	23.6	34.8
	62.5	17.0	15.0	38.4	55.4	35.4	49.3	27.8	47.9	24.8	40.2	21.5	34.1
	100	22.0	19.3	35.3	51.9	32.3	45.2	23.8	43.3	20.8	35.7	20.1	32.3
	155	-	23.7	-	50.0	-	43.0	-	40.0	-	31.0	-	
	200	-	27.5	-	47.0	-	40.0	-	37.0	-	29.0	-	
	250	-	31.1	-	44.0	-	37.0	-	35.0	-	27.0	-	
	350	-	37.4	-	41.0	-	34.0	-	31.0	-	24.0	-	

Note: 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 568-B.2-1

Marking

Cables type CM:
 FURUKAWA MULTILAN U/UTP 24AWGx4P ROHS COMPLIANT NBR 14703 ANATEL 00036-08-00256
 --- E160837 CM 75°C C(UL)US ETL VERIFIED TO TIA-568-C.2 CAT 5E --- **YAAMDDHHmm {1}**

Cables type CMR:
 FURUKAWA MULTILAN U/UTP 24AWGx4P ROHS COMPLIANT NBR 14703 ANATEL 00036-08-00256 ---
 E160837 CMR 75°C C(UL)US ETL VERIFIED TO TIA-568-C.2 CAT 5E --- **YAAMDDHHmm {1}**

Where:

{1} - Sequential decreasing length marking from 305 to 001 m (when pull out from POB package)

Y- Traceability

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

Marking Color: blue or white

Package

Package Type Reelex pull box package

Standard Lengh	305 meters
Dimension	363x363x220mm (WHD)