



MultiLan Cat.5e U/UTP Indoor/Outdoor CMX

Description	Unshielded data cable MultiLan Category 5e for indoor/outdoor applications		
Application	It supports: ATM -155 (UTP), AF-PHY-0015.000 and AF-PHY-0018.000; TP-PMD , ANSI X3T9.5; GIGABIT ETHERNET, IEEE 802.3z; 100BASE-TX, IEEE 802.3u; 100BASE-T4, IEEE 802.3u; 100vg-AnyLAN, IEEE802.12; 10BASE-T, IEEE802.3; TOKEN RING, IEEE802.5; 3X-AS400, IBM.		
Category	CAT.5e		
Installation Environment	Indoor - Outdoor		
Operation Environment	Non heavy		
Compatibility	FCS products CAT.5e connectors and patch panels		
Conductor	Solid bare copper		
Conductor Gauge	24AWG		
Insulation	High density polyethylene of 0.94mm nominal diameter		
Pair	All pairs are twisted in such way to reduce Crosstalk effects. Each conductor is identified according to a color sequence.		
Number of Pairs	4		
Integrated Pair Divider	No		
Cabling	All four pairs are cabled together in such way to reduce electromagnetic interferences making the cable lay-up		
Construction	U/UTP		
Color code	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
Shield	Unshielded		

Sheath	Made of flame retardant PVC compound UV resistant
Color	Black
Cable Flammability Rating	CMX OUTDOOR: Must meet class CMX OUTDOOR according UL 444, and the CMX class according UL 1581 VW-1
Nominal Diameter	5.5mm
Operation Temperature	-20°C to 60°C
Storage Temperature	-20°C up to 70°C
Installation Temperature	0°C up to 50°C
Insulation Resistance	10000 MΩ.km
Maximum Unbalance Resistance	5%
Conductor Max. DC Resistance @ 20 °C	93.8 Ω/km
Maximum Mutual Capacitance @ 1 kHz	56 pF/m
Max. Unbalance Capacitance Pair x Ground @ 1 kHz	3.3 pF/m
Dielectric strength	2500 VDC/3s
Characteristic Impedance	100±15% Ω
Maximum Propagation Delay	545ns/100m @ 10MHz
Maximum Delay Skew	45ns/100m
NVP	68%

Transmission Performance

Freq. (MHz)	IL, dB		NEXT, dB		PSNEXT, dB		ACR, dB	
	TIA Max.	Typical	TIA Min.	Typical	TIA Min.	Typical	TIA Min.	Typical
1	2.0	1.7	65.3	83.1	62.3	76.8	63.3	75.3
4	4.1	3.6	56.3	74.8	53.3	67.8	52.2	64.4
8	5.8	5.1	51.8	70.0	48.8	63.4	46.0	57.9
10	6.5	5.7	50.3	68.6	47.3	61.7	43.8	55.7
16	8.2	7.3	47.3	63.4	44.3	57.4	39.0	50.8
20	9.3	8.3	45.8	63.7	42.8	57.6	36.5	49.9
25	10.4	9.3	44.3	61.0	41.3	54.3	33.9	44.5
31,25	11.7	11.1	42.9	60.7	39.9	53.7	31.2	43.6
62,5	17.0	15.0	38.4	55.4	35.4	49.3	21.4	34.7
100	22.0	19.3	35.3	51.9	32.3	45.2	13.3	25.8

Freq. (MHz)	PSACR, dB		ACRF, dB		PSACRF, dB		RL, dB	
	TIA Min.	Typical	TIA Min.	Typical	TIA Min.	Typical	TIA Min.	Typical
1	60.3	75.1	63.8	84.8	60.8	76.5	20.0	35.7
4	49.2	64.3	51.7	74.2	48.7	65.3	23.1	39.1
8	43.0	58.3	45.7	68.1	42.7	59.2	24.5	36.3
10	40.8	56.0	43.8	66.5	40.8	57.4	25.0	35.1
16	36.0	50.1	39.7	61.4	36.7	53.2	25.0	36.0
20	33.5	49.4	37.7	59.7	34.7	51.3	25.0	37.5
25	30.9	45.1	35.8	56.8	32.8	48.9	24.3	37.7
31.25	28.8	42.9	33.9	53.3	30.9	45.6	23.6	34.8
62.5	18.4	34.4	27.8	47.9	24.8	40.2	21.5	34.1
100	13.3	26.1	23.8	43.3	20.8	35.7	20.1	32.3

The transmission characteristics are based on measurements made cable samples taken from reels and placed over a flat non-conductive surface in accordance with ANSI/TIA 568.2-D

POE	PoE (IEEE 802.3af) - Without bundle restriction
	PoE+ (IEEE 802.at) - Without bundle restriction
	PoE++ (IEEE 802.bt) - 192 bundles
	4PPoE (IEEE 802.bt) - 128 bundles

Permanent Link	Up 90m permanent link
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Channel	Channel up to 4 connections - 100m	
MPTL	Up to 90m MPTL	
Standard	ANSI/TIA-568.2-D ISO/IEC 11801 ABNT/NBR 14703 + H36 ABNT/NBR 14705 UL 444 UL 1581 VW-1	
Certifications	ETL 4 connections	3073041-003
	Anatel	02044-07-00256
Warranty	12 months	
Marking	FURUKAWA MULTILAN U/UTP 24 AWGX4P NBR 14703 ANATEL 02044-07-00256 CMX OUTDOOR 75°C VERIFIED TO TIA-568.2-D CAT.5E YAAMMDDHHmm {1}m Where: YAAMMDDHHmm - Y: Traceability, AA: Year, MM: Month, DD: Day, HH: Hour, mm: minute {1} - Sequential length marking in meters	
Cable Weight	35 kg/km	
Package	305m: Cardboard box 1620m: Plywood or wooden spool	
Observations	The cable development for external use solves the problems regarding the environment where they are installed, however, is very important the electrical protection system installed against lightning, surges and outbrakes, compatible with the cable category installed.	

[Part Numbers](#)