TECHNOKABEL®

ISO 9001:2008

UTP (L) cat.5e 4 x 2 x 0.5 mm

LOCAL AREA NETWORK CABLE

APPLICATIONS

UTP (L) cat.5e 4 x 2 x 0.5 mm cable is intended for multimedia computer networks (data, sound and HDTV transmission), including structural wiring of buildings, applied in industrial and other dedicated networks not sensitive to electromagnetic interferences.

The cable is also applied in computer networks of increased binary transfer where simultaneous transmission in both directions in all 4 symmetrical circuits is used (full duplex, Gigabit Ethernet technique).

The cable is suitable for indoor installations.

CONSTRUCTION

- annealed copper single wire conductors of diameter 0.48 mm,
- polyethylene (PE) insulation coloured: white-blue and blue, white-orange and orange, white-green and green, white-brown and brown,
- insulated conductors twisted into pairs,
- pairs laid-up into a cable core,
- PVC cable sheath, grey RAL 7035, other colours also available.

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CHARACTERISTICS

Characteristic impedance	100 ± 15 Ω
Mutual capacitance of any pair at 1 kHz, approximate	50 nF/km
Capacitance unbalance of any pair to ground at 1 kHz, max.	1600 pF/km
Insulation resistance, minimum	5000 MΩ·km
Operating voltage	150 V
Voltage test	700 V rms
Velocity ratio	65%
Return loss, minimum	
at 4 ÷ 10 MHz	20+5·lg(f) dB
at 10 ÷ 20 MHz	25 dB
at 20 ÷ 125 MHz	25-7·lg(f/20) dB

DC loop resistance at 20°C, maximum	210 Ω/km
Resistance unbalance of any pair of conductors, maximum	2%
Phase delay T	534+36/√f ns/100 m
Phase delay dispersion of symmetrical circuits	45 ns/100 m
Operating temperature range	
during operation	from -20 to +70℃
during installation	from 0 to +50℃
Minimum bending radius	4 x cable diameter
Cable combustibility	flame retardant
Combustibility tests	EN 60332-1-2
Reference standards	EN 50288-3-1, EN 50288-3-2 IEC 61156-5, ISO/IEC 11801, TIA/EIA 568 A

Frequency MHz	Attenuation loss, maximum dB/100m	Near end cross-talk between pairs, minimum, dB			Far end cross-talk between pairs, minimum, dB	
		NEXT	PSNEXT	ACR	ELFEXT	PSELFEXT
1	2.1	65.3	62.3	68.3	63.8	60.8
4	4.3	56.3	53.3	57.2	51.7	48.7
8	5.9	51.8	48.8	51.0	45.7	42.7
10	6.6	50.3	47.3	48.8	43.8	40.8
16	8.2	47.3	44.3	44.0	39.7	36.7
20	9.2	45.8	42.8	41.5	37.7	34.7
25	10.5	44.3	41.3	38.9	35.8	32.8
31.25	11.8	42.9	39.9	36.2	33.9	30.9
62.50	17.1	38.4	35.4	26.4	27.8	24.8
100	22.0	35.3	32.3	18.3	23.8	20.8
155	28.1	32.5	29.5	4.4	19.9	16.9

CE = the cable meets requirements of the low voltage directive 2006/95/WE

Cable type	Number of pairs (x 2) x conductor diameter	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	number x mm	mm	kg/km	kg/km
UTP (L) cat.5e	4 x 2 x 0.5	4.7	13.8	24.0

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