

CABLES FOR INDOOR INSTALLATIONS

U/UTP Category 6

APPLICATION

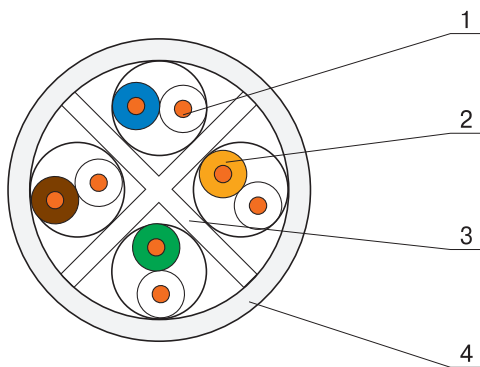
PBX, V.11, X.21, ISDN, Ethernet (10Base-T), ATM-25/52/155 Mbit/s, 100VG-AnyLAN, Fast Ethernet (100BASE-TX), Token Ring 16/100 Mbit/s, Gigabit Ethernet (1000BASE-T), Firewire 100 Mbit/s.

COMPLIANCE WITH THE REQUIREMENTS

ISO/IEC 11801:2002
EN 50173-1:2002
ANSI/TIA/EIA-568-B.2-1-2002
IEC 61156-5:2002
TU U 31.3-05758730-031-2003

DESIGN

- 1) Conductor: soft copper wire
Diameter: 0.57 mm (23 AWG)
- 2) Insulation: polyethylene
Conductor diameter: 1.05 mm
Pair: two conductors twisted together
Colour identification of pairs:
pair 1: white-blue / blue
pair 2: white-orange / orange
pair 3: white-green / green
pair 4: white-brown / brown
- 3) Cross-shaped plastic divider of pairs (string)
Core: 4 pairs twisted together with the string
- 4) Sheath: polyvinylchloride (PVC) or LS0H compound
Sheath colour: white (PVC), orange or blue (LS0H)
Maximum cable diameter: 7.3 mm



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INSTALLATION AND OPERATION CONDITIONS

For stationary installation inside buildings, stations, structures and equipment.
Operated on frequencies up to 250 MHz.

ELECTRICAL CHARACTERISTICS AT 20 °C

Direct current resistance	≤ 84 Ohm/km
Insulation resistance	≥ 5 GOhm/km
Capacitance	≤ 56 pF/m
Signal propagation velocity	≥ 0.68 s
Propagation delay	≤ 534+36/√f ns/100 m
Delay shift on the frequency: 100 MHz	≤ 30 ns/100 m
Characteristic impedance in the frequency range of:	
1-100 MHz	100±15 Ohm
100-250 MHz	100±22 Ohm
Test voltage between cores, (DC, 2 s)	2.5 kV
Working voltage (DC)	72 V

MECHANICAL CHARACTERISTICS

Temperature range:	
During installation	-10 °C ... +60 °C
After installation	-20 °C ... +60 °C
Bending radius:	
During installation	≥ 8 cable diameters
After installation	≥ 4 cable diameters
Tensile stress	≤ 85 N

MARKING

On the КПВ-ВП (250) 4x2x0,57 (UTP - cat.6) cable type:
OK-net <year of production> UTP CAT.6 250 MHz 4Pr AWG23
NVP 68% ISO/IEC 11801 100 OHM K-29 <metric mark>

On the КПВонг-НФ-ВП (250) 4x2x0,57 (UTP -
cat.6 LS0H) cable type:
OK-net <year of production> UTP CAT.6 LS0H 250 MHz 4Pr
AWG23 NVP 68% ISO/IEC 11801 100 OHM K-29
<metric mark>

SIGNAL TRANSMISSION PERFORMANCE AT 20 °C

Frequency (MHz)	Attenuation (dB/100 m)		NEXT (dB)		PS-NEXT (dB)		EL-FEXT (dB)		PS-ELFEXT (dB/100 m)		RL (dB)	
	max.*	nom.	min.*	nom.	min.*	nom.	min.*	nom.	min.*	nom.	min.*	nom.
1**	2,1	1,8	75,0	88,8	72,3	82,0	68,0	71,0	65,0	68,0	20,0	24,8
4	3,8	3,3	66,3	80,6	63,3	73,0	56,0	59,0	53,0	56,0	23,0	26,3
10	6,0	5,2	60,3	74,4	57,3	68,3	48,0	51,0	45,0	48,0	25,0	27,6
16	7,6	6,6	57,2	69,0	54,2	62,4	43,9	47,0	40,9	44,0	25,0	28,6
20	8,5	7,4	55,8	68,8	52,8	62,0	42,0	45,0	39,0	42,0	25,0	27,6
31,25	10,7	9,3	52,9	68,5	49,9	59,1	38,1	41,0	35,1	38,0	23,6	27,8
62,50	15,5	13,5	48,4	63,1	45,4	54,5	32,1	35,0	29,1	32,0	21,5	28,1
100	19,9	17,4	45,3	63,1	42,3	54,3	28,0	31,0	25,0	28,0	20,1	27,9
125	22,5	19,7	43,8	57,4	40,8	51,2	26,1	29,0	23,1	26,0	19,4	25,2
200	29,1	25,6	40,8	57,1	37,8	50,3	22,0	25,0	19,0	22,0	18,0	23,9
250	33,0	29,1	39,3	52,9	36,3	46,9	20,0	23,0	17,0	20,0	17,3	21,8

*IEC 61156-5:2002

**Values lower than 4 MHz are given for information only

ORDER INFORMATION

Code	Cable type	Sheath	Packing	Weight, kg/km
49212	КПВ-ВП (250) 4x2x0,57 (UTP - cat. 6)	PVC	Box 305 m	48.7
49260	КПВонг-НФ-ВП (250) 4x2x0,57 (UTP-cat.6 LS0H)	LS0H	Box 305 m	49.9