U/UTP Category 5e

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

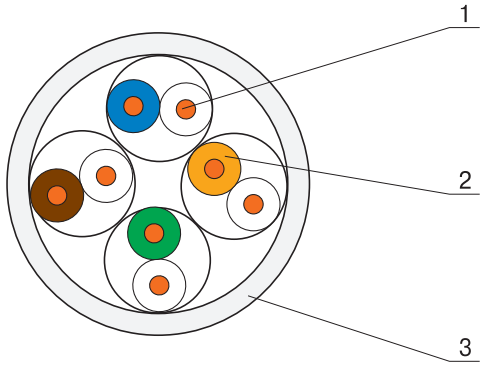
COMPLIANCE WITH THE REQUIREMENTS

ISO/IEC 11801:2002
EN 50173-1:2002
ANSI/TIA/EIA-568-B.2-2001
IEC 61156-5:2002
TU U 31.3-05758730-020-2002

DESIGN

1) Conductor: soft copper wire
   Diameter: 0.51 mm (24 AWG)
2) Insulation: polyethylene
   Conductor diameter: 0.96 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

   Core: 4 pairs twisted together
3) Sheath: polyvinylchloride (PVC) or LS0H compound
   Sheath colour: white (PVC), orange or blue (LS0H)
   Maximun cable diameter: 5.9 mm



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INSTALLATION AND OPERATION CONDITIONS

For stationary installation inside buildings, stations, structures and equipment.
Operated on frequencies up to 350 MHz.

ELECTRICAL CHARACTERISTICS AT 20 °C

Direct current resistance	≤ 96 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 100 MHz:	≤ 45 ns/100 m
Characteristic impedance in the frequency range of:	
1-100 MHz	100±7 Ohm
100-350 MHz	100±10 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 (350) 4x2x0,51 (UTP - cat.5e) cable type:
OK-net <year of production> UTP CAT.5e 350 MHz 4Pr AWG24 NVP 68% ISO/IEC 11801 100 OHM K-29<metric mark>

On the КПВонг-HF-ВП (350) 4x2x0,51 (UTP - cat.5e LS0H) cable type:
OK-net <year of production> UTP CAT.5e LS0H 350 MHz 4Pr AWG24 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	1,9	65,3	82,0	62,3	79,0	64,0	74,0	61,0	71,0	20,0	25,00
4	4,1	3,7	56,3	81,0	53,3	78,0	52,0	66,0	49,0	63,0	23,0	30,00
10	6,5	5,8	50,3	79,0	47,3	76,0	44,0	58,0	41,0	55,0	25,0	37,00
16	8,3	7,5	47,2	75,0	44,2	72,0	39,9	56,0	36,9	53,0	25,0	34,00
20	9,3	8,4	45,8	74,0	42,8	71,0	38,0	54,0	35,0	51,0	25,0	34,00
31.25	11,7	10,6	42,9	68,0	39,9	65,0	34,1	48,0	31,1	45,0	23,6	33,00
62.50	17,0	15,4	38,4	65,0	35,4	62,0	28,1	44,0	25,1	41,0	21,5	28,00
100	22,0	20,0	35,3	63,0	32,3	60,0	24,0	40,0	21,0	37,0	20,1	24,00
125	24,9	22,7	33,8	59,0	30,8	56,0	22,1	38,0	19,1	35,0	19,4	23,50
200	32,4	29,6	30,8	53,0	27,8	50,0	18,0	34,0	15,0	31,0	18,0	21,00
250	36,9	33,7	29,3	47,0	26,3	44,0	16,0	30,0	13,0	27,0	17,3	19,00
300	41,0	37,6	28,1	43,0	25,1	40,0	14,5	28,0	11,5	25,0	17,3	18,00
350	44,9	41,2	27,1	38,0	24,1	35,0	13,1	24,0	10,1	21,0	17,3	17,50

*IEC 61156-5:2002
**Values lower than 4 MHz are given for information only

ORDER INFORMATION

Code	Cable type	Sheath	Packing	Weight, kg/km
49245	КПВ-ВП (350) 4x2x0,51 (UTP-cat.5e)	PVC	Box 305 m	33.6
49246	КПВонг-HF-ВП (350) 4x2x0,51 (UTP-cat.5e LS0H)	LS0H	Box 305 m	34.0