UTP Cat. 6 Characterised up to 350 MHz

Unshielded Twisted Pair 4x2x24 AWG Cat. 6

SPECIFICATION SHEET

LSZH or PVC Sheath

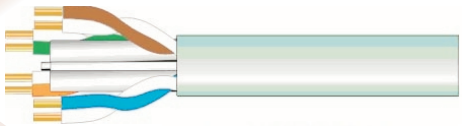
Part Number LSZH SMP-611UTP64PLZ
Part Number PVC SMP-611UTP64P

APPLICATION

Horizontal and work area wiring cables for voice, video and high speed data transmission at frequency up to 350 MHz, exceeding IEC 11801 Cat. 5 specification.
Application support List: Voice, 4/16 Mbps Token Ring, 100 VG-any LAN, 100 Mbps TP-PMD, 155/622 Mbps ATM, 10BASE-T Ethernet, 100BASE-TX Fast Ethernet, 1000BASE-T Gigabit Ethernet, TIA-PN4657 Gigabit Ethernet over Category 6 cabling, 270 Mbps digital video, Broadband video, all other applications developed for operation over Category 6 or Class E cabling.

PHYSICAL CHARACTERISTICS

· **Conductors**	Annealed copper wirer AWG 24	
· **Insulation**	Polyethylene	
· **Pairs**	**Colour code**	
	1. White/Blue	Blue
	2. White/Orange	Orange
	3. White/Green	Green
	4. White/Brown	Brown
· **Overall jacket**	LSZH (or PVC) material Nominal 5,9mm	
· **Nominal weight**	40 kg/km	
· **Packaging**	m. 305 Reel Box	



NOMINAL ELECTRICAL CHARACTERISTICS at 20° C

- DC loop resistance		Max	170 Ω/Km
- DC resistance unbalance		Max	1%
- Mutual capacitance		Max	52 pF/m
- Capacitance unbalance		Max	1.600 pF/Km
- Operating voltage		Max	125 V_{DC}
- Dielectric strength			2.500 [V_{DC}/2"]
- Insulation resistance		min	10 Ω x Km
- Characteristics Impedance	f = 1÷100 MHz		100±15 Ω
	f =100÷350 MHz		100±22 Ω
- Velocity propagation	(@ 100 MHz)		66%c
- Propagation delay	(@ 100 MHz)	Max	500 ns/100m
- Skew	(@ 100 MHz)	Max	25 ns/100m

MARKING

Superior Modular Products
week/year - UTP 4x2x24AWG - LSZH (or PVC) - CATEGORY 6
Extended Frequency 350MHz
100ohm - ISO/IEC 11801 + metric

INSTALLATION CHARACTERISTICS

- Max. install tension		100 N
- Minimum bending radius	Installation	50 mm
	Operation	25 mm
-Temperature rating [°C]	Installation	0 ÷ +50 °C
	Operation	-20 ÷ +50 °C

FIRE PERFORMANCE (*Only for LSZH version)

- Flame retardant IEC 60332.1
- Low smoke opacity *IEC 1034 1/2
- Halogen free *IEC 754-1

STANDARDS

fdEN 50288-6-1
ISO/IEC11801/2°ed.
prEN 50173/2°ed.
EIA/TIA 568 B-2.1

CABLE PERFORMANCES

Freq. [MHz]	Attenuation [dB/100m]		NEXT [dB]		PS-NEXT [dB]		ELFEXT [dB]		PS-ELFEXT [dB]		ACR [dB]	
	EN 50288	Typical value	EN 50288	Typical value	EN 50288	Typical value	EN 50288	Typical value	EN 50288	Typical value	EN 50288	Typical value
1	2,1	1,8	66,0	78	64,0	72	66,0	72	63,0	70	63,9	76,2
4	3,8	3,5	65,3	72	63,3	65	55,8	60	52,8	57	61,5	68,5
10	6,0	5,7	59,3	66	57,3	58	47,8	52	44,8	50	53,3	60,3
16	7,6	7,3	56,2	63	54,2	55	43,7	49	40,7	46	48,6	55,7
20	8,5	8,1	54,8	61	52,8	53	41,8	46	38,8	43	46,3	52,9
31,25	10,7	10,3	51,9	59	49,9	50	37,9	43	34,9	41	41,2	48,7
62,5	15,5	14,8	47,4	54	45,4	45	31,9	36	28,9	34	31,9	39,2
100	19,9	19,1	44,4	50	42,3	42	27,8	32	24,8	29	24,4	30,9
155	25,3	24,3	41,4	48	39,4	40	24,0	28	21,0	25	16,1	23,7
200	29,2	28,1	39,8	45	37,8	38	21,8	25	18,8	23	10,6	16,9
250	33,0	31,5	38,3	44	36,3	37	19,8	24	16,8	22	5,3	12,5
350	/	35,2	/	41	/	35	/	22	/	20	/	5,8

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