



## Cat 6 FTP LSZH Cable

### Construction

Conductor	23 awg solid bare copper (0.55mm)
Insulation	Polyolefine
Pair	4 shielded twisted pairs: white/blue & blue, white/orange & orange, white/green & green, white/brown & brown Conductor identification according to IEC 60304
Diameter over insulation	1.15mm
Cross web	Polyolefine
Shield	Aluminium/polyester foil
Drainwire	26 awg solid tinned copper
Sheath	FRNC compound, grey Overall diameter: 7.30mm
BATT Part Number	77074

### Applications

Horizontal & building backbone cable to support cat 6 and cat 5e applications, such as 10 Base-T, 100 Base-T, 1000 Base-T, FDDI, ATM

### Standards

ISO/IEC 11801 2nd edition (2002), EN 50173 2nd edition (2001), ANSI/TIA/EIA 568-b.2 (2002)

### General Characteristics

Temperature range - operation	-20°C to +60°C
Temperature range - installation	0°C to +50°C
Minimum bending radius - operation	29 mm
Minimum bending radius - installation	58mm
Maximum pulling tension	50N
Flame retardancy	IEC 60332
Caloric value	820 kJ/m
Weight	51.0 kg/km
Maximum operating voltage	48 V rms
Max continuous current per conductor (25°C)	1.4 A

### Electrical Characteristics at 20°C

Nominal mutual capacitance at 1kHz	50 nF/km
Max conductor DCR	91 Ohm/km
Nominal Velocity of Propagation	0.7 c
Mean characteristic impedance 4-100 MHz*	100 +/- 5 Ohms
SKEW - propagation delay difference (100MHz) typical	≤ 15 ns/100m

\* according to cable requirements of ISO/IEC 11801 category 6, sept 2002



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### Electrical Characteristics at 20°C (cont)

#### Attenuation

Frequency MHz	1	4	10	16	20	31.2	62.5	100	155	200	250
Spec (Max)* dB/100m	-	4.0	6.0	7.6	8.5	10.8	15.5	19.9	25.3	29.2	33
Typical dB/100m	(1.9)	3.5	5.5	6.9	7.6	9.7	13.8	17.7	22.4	25.1	28.2

#### NEXT Near end crosstalk

Frequency MHz	1	4	10	16	20	31.2	62.5	100	155	200	250
Spec (Min)* dB/100m	-	66	60	57	56	53	48	45	42	41	39
Typical dB/100m	(80)	76	70	67	66	63	58	55	51	49	45

#### Power sum NEXT

Frequency MHz	1	4	10	16	20	31.2	62.5	100	155	200	250
Spec (Min)* dB/100m	-	63	57	54	53	50	45	42	39	38	36
Typical dB/100m	(74)	71	64	62	61	54	53	50	47	46	43

#### Power sum ELFEXT

Frequency MHz	1	4	10	16	20	31.2	62.5	100	155	200	250
Spec (Min)* dB/100m	-	53	45	41	39	35	29	25	21	19	17
Typical dB/100m	(70)	64	57	51	49	45	39	35	31	29	27

#### ACR

Frequency MHz	1	4	10	16	20	31.2	62.5	100	155	200	250
Spec (Min)* dB/100m	-	62.0	54.0	49.4	47.5	42.2	32.5	25.1	16.7	11.8	6.0
Typical dB/100m	(78)	73	65	60	58	53	44	37	29	24	17

#### Power sum ACR

Frequency MHz	1	4	10	16	20	31.2	62.5	100	155	200	250
Spec (Min)* dB/100m	-	59.0	51.0	46.4	44.5	39.2	29.5	22.1	13.7	8.8	3.0
Typical dB/100m	(76)	71	63	58	56	51	42	35	27	22	15

#### Return Loss

Frequency MHz	1	4	10	16	20	31.2	62.5	100	155	200	250
Spec (Min)* dB/100m	-	23.0	25.0	25.0	25.0	23.6	21.5	20.1	18.8	18.0	17.3
Typical dB/100m	(30)	35	40	44	44	44	34	30	25	24	24

\* specification values according to cable requirements of ISO/IEC 11801 category 6, Sept 2002

Note: values between brackets are for information only

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