Cat 6 UTP LSZH Cable

Construction

Conductor	23 awg solid bare copper (0.57mm)
Insulation	Polyolefine
Pair	4 twisted pairs: white/blue & blue, white/orange & orange, white/green & green, white/brown & brown Conductor identification according to IEC 60304
Diameter over insulation	1.01mm
Cross web	FRNC compound
Sheath	FRNC compound Overall diameter: 6.20mm

BATT Part Number	54271 Red sheath 54272 White sheath 54273 Black sheath 54249 Violet sheath 54255 Blue sheath 54268 Violet sheath

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	25 mm
Minimum bending radius - installation	50mm
Maxiumum pulling tension	80N
Flame retardancy	IEC 60332
Caloric value	480 kJ/m
Weight	43.9 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	70 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	(1.7)	3.5	5.6	7.1	8.0	10.1	14.4	18.6	23.6	27.0	30.7

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	(76)	73	66	64	63	56	55	52	49	48	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	(74)	70	60	57	55	46	41	33	25	21	14

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	(72)	68	58	55	53	44	39	31	23	19	12

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	(33)	36	44	42	40	38	36	31	27	25	24

* specification values according to cable requirements of ISO/IEC 11801 category 6, Sept 2002
Note: values between brackets are for information only

Aberdeen: 01224 897979
Birmingham: 0121 313 2870
Bristol: 0117 966 6333
Cardiff: 02920 450044
Edinburgh: 0131 333 4400
Erith: 01322 441165
Leeds: 0113 253 3565
Manchester: 01204 793111
Peterborough: 01733 558485
Teesside: 01642 678633
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