

RoHS
Compliant



Application

Category 6 supports a frequency range of up to 250MHz and is designed for transmission speeds of up to 1 gigabit per second (Gigabit Ethernet).

Characteristics

Minimum Bending Radius	: 8 × overall diameter
Core Identification	: Pair 1: Blue, White/Blue Pair 2: Orange, White/Orange Pair 3: Green, White/Green Pair 4: Brown, White/Brown
Outer Sheath Colour	: Violet

Cable Standards

ISO / IEC 11801, TIA 568-C.2, YD/T1019

Construction

Conductor

Solid bare copper conductor

Insulation

HDPE (High Density Polyethylene)

Screen

Mylar + Aluminium foil/Mylar

Drain Wire

Tinned copper

Sheath

LSZH (Low Smoke Zero Halogen)

This product range is available on reels of 305m or per metre

Dimensions

No. of Pairs (23 AWG)	Nominal Diameter of Conductor mm		Nominal Diameter Over Insulation mm	Nominal Sheath Thickness mm	Nominal Overall Diameter mm	Nominal Weight kg/305m box
	+0.005 UP	-0.005 DOWN				
4	0.565		1.12	0.55	7.4	14

Physical Properties of Sheath

Before Aging		Aging Period C°×hrs	After Aging Period	
Tensile Strength (Mpa)	Elongation (%)		Tensile Strength (Mpa)	Elongation (%)
≥10.0	≥125	100°C×24h×7d	≥8.0	≥100

Performance Characteristics

Frequency MHz	RL dB	Attenuation dB	NEXT dB	Delay ns	PS-NEXT dB	ELFEXT dB	PSELFEXT dB
1	20	-	74.3	570	72.3	68	65
4	23	3.78	65.3	552	63.3	56	53
8	24.5	5.32	60.8	546.73	58.7	49.9	46.9
10	25	5.95	59.3	545.38	57.3	48	45
16	25	7.55	56.2	543	54.2	43.9	40.9
20	25	8.47	54.8	542.05	52.8	42	39
25	24.3	9.51	53.3	541.2	51.3	40	37
31.25	23.6	10.67	52	540.44	49.9	38.1	35.1
62.5	21.5	15.38	47.4	538.55	45.4	32.1	29.1
100	20.1	19.8	44.3	537.6	42.3	28	25
200	18	28.98	39.8	536.54	37.8	22	19
250	17.3	32.85	38.3	536.27	36.3	20	17

Electrical Characteristics at 20°C

Impedance (1-250MHz) Ω	Delay Shew (1-250MHz) Ω	Maximum Capacitance (Unbalanced to Ground) ns/100m	Maximum DC Resistance at 20°C Ω/100m	Maximum DC Conductor Resistance Unbalance %
100±15	≤45	330	9.5	5.0

Part Number Table

Description	Cable Length	Part Number
Screened Network Cable, Cat 6, F/UTP, LSZH, 4 Pair, 23AWG, Violet	305m or per metre	PP002143

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