

RoHS
Compliant



Application

A 4 pair high performance cable that consists of twisted pair conductors, used mainly for data transmission. Category 6 is recommended for all new installations, supports a frequency range of up to 250MHz and is designed for transmission speeds of up to 1 gigabit per second (Gigabit Ethernet). For installations where fire, smoke emissions and toxic fumes create a potential risk to life and equipment.

Characteristics

Temperature Rating	: Fixed: -20°C to +50°C
Minimum Bending Radius	: Fixed: 5 × overall diameter Flexed: 9 × overall diameter
Core Identification	: Pair 1: Blue, White/Blue Pair 2: Orange, White/Orange Pair 3: Green, White/Green Pair 4: Brown White/Brown
Sheath Colour	: Violet

Cable Standards

ISO/IEC 11801, TIA 568C-2, BS EN/IEC 60332-1

Construction

Conductor

Class 1 solid copper conductor

Insulation

HDPE (High Density Polyethylene)

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 Over Insulation mm	Nominal Overall Diameter mm	Nominal Weight kg/305m box
4	1.035	6.1	16

Performance Characteristics

Frequency MHz	Attenuation dB/100m	NEXT dB	PS-NEXT dB	RL dB	ELFEXT dB	PS-ELFEXT dB/100m	Phase Delay ns
1	2.03	74.3	72.3	20	67.8	64.8	570
4	3.78	65.3	63.3	23	55.8	52.8	552

Newark.com/multicomp-pro
Farnell.com/multicomp-pro
Element14.com/multicomp-pro

Frequency MHz	Attenuation dB/100m	NEXT dB	PS-NEXT dB	RL dB	ELFEXT dB	PS-ELFEXT dB/100m	Phase Delay ns
8	5.32	60.8	58.8	24.5	49.7	46.7	546.73
10	5.95	59.3	57.3	25	47.8	44.8	545.38
16	7.55	56.2	54.2	25	43.7	40.7	543
20	8.47	54.8	52.8	25	41.8	38.8	542.05
25	9.51	53.3	41.3	24.3	39.8	36.8	541.2
31.25	10.67	51.9	49.9	23.6	37.9	34.9	540.44
62.5	15.38	47.7	45.4	21.5	31.9	28.9	538.55
100	19.8	44.3	42.3	20.1	27.8	24.8	537.6
200	28.98	39.8	37.8	18	21.8	18.8	536.54
250	32.85	38.3	36.3	17.3	19.8	16.8	536.27

Electrical Characteristics

Impedance (1-250MHz) Ω	Maximum Resistance of Conductor at 20°C Ω/km	Maximum Resistance Unbalance % max
100±15	95	5

Part Number Table

Description	Cable Length	Part Number
Unscreened Network Cable, Cat 6, U/UTP, LSZH, 4 Pair, 23AWG, Violet	305m or per metre	PP002141

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