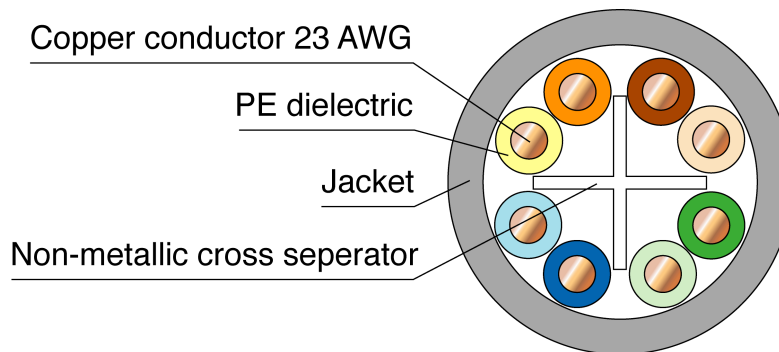


L02002A0057

Solid Cable

100Ω Data Cable EIA/TIA-568-B.2 Cat.6+

Cat.6+ UTP

Application

Primary (Campus), Secondary (Riser), Tertiary (Horizontal) IEEE 802.3: 10Base-T; 100Base-T; 1000Base-T; Gigabit-Ethernet; ISDN; FDDI; ATM

Standards

EIA/TIA-568-B.2-1 6/2002; IEC 61156-5; ISO/IEC 11801; EN50173

Construction

Conductor	Bare copper wire Ø 0.56 mm (AWG23)
Insulation	Polyethylene, Ø 1.0 mm
Twisting	2 cores to the pair
Cable lay up	4 pairs with different pitches Non-metallic cross separator (spine)
Outer jacket	PVC or LSZH
Outer diameter	6.3 mm ± 0.2 mm

Mechanical Properties

Bending radius	≥ 25 mm without load ≥ 50 mm with load
Temperature range,	
during operation	-20°C up to 60°C
during installation	0°C up to 50°C

Electrical Properties (at 20°C ± 5°C)

DC resistance	max. 8.2Ω / 100m at 20°C
Resistance unbalance	max. 2% at 20°C
Insulation resistance (500 V)	min. 5000 MΩ/Km at 20°C
Mutual capacitance	nom. 5.1 nf / 100 m at 1 kHz
Capacitance unbalance (pair to ground)	max. 50 pf / 100 m at 1 kHz
Characteristic impedance	
(1 - 100 MHz)	(100 ± 15) Ω
(100 - 250 MHz)	(100 ± 20) Ω
Nominal velocity of propagation	67 %
Test voltage (DC, 1 min)	1 kV / 1 min

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Transmission characteristics acc. to EIA/TIA 568-B.2-1 Cat.6+ (at 20°C)

Frequency (MHz)	Impedance		Attenuation (dB)		NEXT (dB)		PSNEXT (dB)		ACR (dB)		PSACR (dB)		ELFEXT (dB)	
	Min.	Typ.	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.
1	100 ± 15	100 ± 10	2.0	1.9	74.3	82.3	72.3	80.3	72.3	80.4	70.3	78.4	67.8	75.8
4			3.8	3.7	65.3	73.3	63.3	71.3	61.5	69.6	59.5	67.6	55.8	63.8
8			5.3	5.2	60.8	68.8	58.8	66.8	55.5	63.6	53.5	61.6	49.7	57.7
10			6.0	5.9	59.3	67.3	57.3	65.3	53.3	61.4	51.3	59.4	47.8	55.8
16			7.6	7.5	56.3	64.3	54.3	62.3	48.7	56.8	46.7	54.8	43.7	51.7
20			8.5	8.4	54.8	62.8	52.8	60.8	46.3	54.4	44.3	52.4	41.8	49.8
25			9.5	9.4	53.4	61.4	51.4	59.4	43.9	52.0	41.9	50.0	39.8	47.8
31.25			10.7	10.6	51.9	59.9	49.9	57.9	41.2	49.3	39.2	47.3	37.9	45.9
62.5			15.4	15.3	47.4	55.4	45.4	53.4	32.0	40.1	31.0	38.1	31.9	39.9
100			100 ± 20	100 ± 15	19.8	19.7	44.3	52.3	42.3	50.3	24.5	32.6	22.5	30.6
200	29.0	28.0			39.8	47.8	37.8	45.8	10.8	19.8	8.8	17.8	21.8	29.8
250	32.8	31.7			38.4	46.4	36.4	44.4	5.6	14.7	3.6	12.7	19.8	27.8

Frequency (MHz)	PSELFEXT dB		Return Loss dB		Propagation Delay ns		Delay Skew ns	
	Min.	Typ.	Min.	Typ.	Max.	Typ.	Max.	Typ.
1	64.8	72.8	20.0	23.0	570.0	546.0	45	30
4	52.8	60.8	23.0	26.0	552.0	528.0		
8	46.7	54.7	24.5	27.5	546.7	522.7		
10	44.8	52.8	25.0	28.0	545.4	521.4		
16	40.7	48.7	25.0	28.0	543.0	519.0		
20	38.8	46.8	25.0	28.0	542.1	518.1		
25	36.8	44.8	24.3	28.0	541.2	517.2		
31.25	34.9	42.9	23.6	26.6	540.4	516.4		
62.5	28.9	36.9	21.5	24.5	535.9	514.6		
100	24.8	32.8	20.1	23.1	537.6	513.6		
200	18.8	26.8	18.0	21.0	536.6	513.2		
250	16.8	24.8	17.3	20.3	536.3	512.5		

Packing

Parts number	Product	Color	Length	Package	Dimensions (cm)
L02002A0057-305	UTP C6+ horizontal cable	Light grey	1000 ft (305 m)	Reel carton	33 × 26.5 × 33.5
L02002A0057-500			500 m	Wooden reel	Ø 40 × 24
L02002A0057-1000			1000 m	Wooden reel	Ø 50 × 28