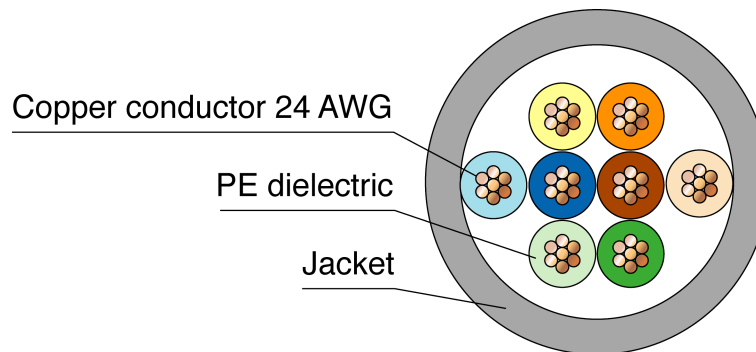


L02002A0041

Patch Cable

Cat.5e UTP

100Ω Data Cable EIA/TIA-568-B.2 Cat.5e



Application	Tertiary (Horizontal) IEEE 802.3: 10Base-T; 100Base-T; Gigabit-Ethernet
Standards	EIA/TIA 568-B.2; IEC 61156-5; ISO/IEC 11801; EN50173
Fire Rating	
	PVC IEC 60332-1; UL 1581, FT2 (horizontal flame test)
	CM-PVC IEC 60332-1, UL 1581 VW-1; UL 444 CM
	LSZH IEC 60332-1; UL 1581, FT2 (horizontal flame test)

Construction

Conductor	Stranded bare copper wire Ø 0.56 mm (AWG24)
Insulation	Polyethylene, Ø 0.96 mm
Twisting	4 twisted pairs, 2 single conductors paired, Twisted pair color code: 1: white-orange / orange 2: white-blue / blue 3: white-brown / brown 4: white-green / green
Cable lay up	4 pairs with different pitches
Outer jacket	PVC or LSZH
Outer diameter	5.4 mm ± 0.2 mm

Mechanical Properties

Bending radius	≥ 20 mm without load ≥ 40 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. 9.38 Ω / 100 m at 20 °C
Resistance unbalance	max. 5 % at 20 °C
Insulation resistance (500V)	min. 5000 MΩ/Km at 20 °C
Mutual capacitance	nom. 5.1 nf / 100 m at 1 kHz
Capacitance unbalance (pair to ground)	max. 160 pf / 100 m at 1 kHz
Characteristic impedance (1-100 MHz)	100 Ω ± 15 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 Cat.5e (at 20 °C)

Frequency (MHz)	Impedance (Ω)		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			3.1	2.4	65.3	68.3	62.3	65.3	62.2	65.9	59.2	62.9	63.8	66.8
4			6.1	4.9	56.3	59.3	53.3	56.3	50.2	54.4	47.2	51.4	51.7	54.7
8			8.6	6.9	51.8	54.8	48.8	51.8	43.2	47.9	40.2	44.9	45.7	48.7
10			9.7	7.8	50.3	53.3	47.3	50.3	40.6	45.5	37.6	42.5	43.8	46.8
16	100	100	12.4	9.9	47.3	50.3	44.3	47.3	34.9	40.4	31.9	37.4	39.7	42.7
20	± 15	± 10	13.9	11.1	45.8	48.8	42.8	45.8	31.9	37.7	28.9	34.7	37.7	40.7
25			15.6	12.5	44.3	47.3	41.3	44.3	28.7	34.8	25.7	31.8	35.8	38.8
31.25			17.6	14.1	42.9	45.9	39.9	42.9	25.3	31.8	22.3	28.8	33.9	36.9
62.5			25.5	20.4	38.4	41.4	35.4	38.4	12.9	21.0	9.9	18.0	27.8	30.8
100			33.0	26.4	35.3	38.3	32.3	35.3	2.3	11.9	—	8.9	23.8	26.8

Frequency (MHz)	PSELFEXT (dB)		Return Loss (dB)		Propagation Delay (ns)		Delay Skew (ns)	
	Min.	Typ.	Min.	Typ.	Max.	Typ.	Max.	Typ.
1	60.8	63.8	20.0	22.0	570.0	546.0		
4	48.7	51.7	23.0	25.0	552.0	528.0		
8	42.7	45.7	24.5	26.5	546.7	522.7		
10	40.8	43.8	25.0	27.0	545.4	521.4		
16	36.7	39.7	25.0	27.0	543.0	519.0	45	25
20	34.7	37.7	25.0	27.0	542.1	518.1		
25	32.8	35.8	24.2	26.2	541.2	517.2		
31.25	30.9	33.9	23.3	25.3	540.4	516.4		
62.5	24.8	27.8	20.7	22.7	535.9	514.6		
100	20.8	23.8	19.0	21.0	537.6	513.6		

Packing

Parts number	Product	Color	Length	Package	Dimensions (cm)
L02002A0041-305	UTP C5E patch cable	Light grey	100 ft (305 m)	Unreel carton	35 × 35 × 21
L02002A0041-500			500 m	Wooden reel	Ø 40 × 24
L02002A0041-1000			1000 m	Wooden reel	Ø 50 × 28