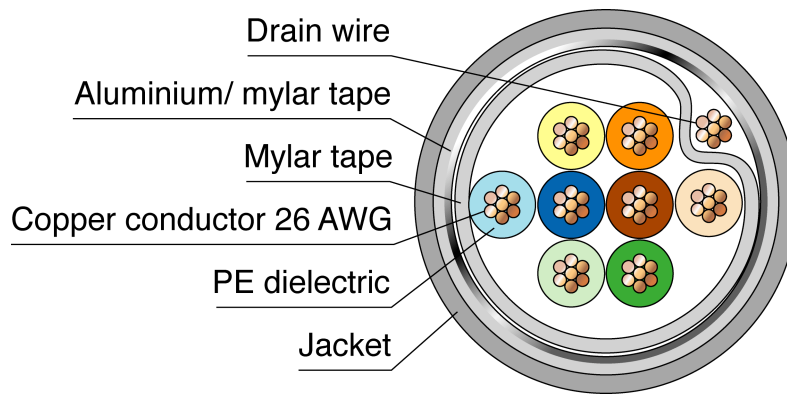


L02002A0042

Patch Cable

Cat.5e FTP

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 0.48 mm (26 AWG)
Insulation	Polyethylene, Ø 0.92 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
Shielding	1. Mylar tape as buffer layer. 2. Mylar tape laminated with aluminum foil as shield, with foil facing inward. 3. Drain wire (24 AWG) placed between Mylar tape and aluminum-foil-laminated Mylar tape.
Outer jacket	PVC, CM-PVC or LSZH
Outer diameter	5.5 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. 14.5 Ω / 100 m at 20 °C
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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

Transmission characteristics acc. to ISO/IEC 11801 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			(3.0)	3.0	65.3	69.3	62.3	66.3	62.2	66.3	59.2	63.3	63.8	67.8
4			6.4	6.4	56.3	60.3	53.3	57.3	50.2	53.9	47.2	50.9	51.7	55.7
8			8.7	8.7	51.8	55.8	48.8	52.8	43.2	47.1	40.2	44.1	45.7	49.7
10			9.6	9.6	50.3	54.3	47.3	51.3	40.6	44.7	37.6	41.7	43.8	47.8
16	100	100	12.3	12.3	47.3	51.3	44.3	48.3	34.9	39.0	31.9	36.0	39.7	43.7
20	± 15	± 10	13.6	13.6	45.8	49.8	42.8	46.8	31.9	36.2	28.9	33.2	37.7	41.7
25			15.2	15.2	44.3	48.3	41.3	45.3	28.7	33.1	25.7	30.1	35.8	39.8
31.25			17.1	17.1	42.9	46.9	39.9	43.9	25.3	29.8	22.3	26.8	33.9	37.9
62.5			24.8	24.8	38.4	42.4	35.4	39.4	12.9	17.6	9.9	14.6	27.8	31.8
100			32.0	32.0	35.3	39.3	32.3	36.3	2.3	7.3	—	4.3	23.8	27.8

Frequency (MHz)	PSELFEXT dB		Return Loss dB		Propagation Delay ns		Delay Skew ns	
	Min.	Typ.	Min.	Typ.	Max.	Typ.	Max.	Typ.
1	60.8	64.8	(20)	22.0	570.0	554.0		
4	48.7	52.7	23.0	25.0	552.0	536.0		
8	42.7	46.7	24.5	26.5	546.7	530.7		
10	40.8	44.8	25.0	27.0	545.4	529.4		
16	36.7	40.7	25.0	27.0	543.0	527.0	45	30
20	34.7	38.7	25.0	27.0	542.1	526.1		
25	32.8	36.8	24.2	26.2	541.2	525.2		
31.25	30.9	34.9	23.3	25.3	540.4	524.4		
62.5	24.8	28.8	20.7	22.7	535.9	522.6		
100	20.8	24.8	19.0	21.0	537.6	521.6		

Packing

Parts number	Product	Color	Length	Package	Dimensions (cm)
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Telegärtner

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