

TP Patch Cable
Cat 6, 300 MHz
4x(2x26 AWG) S/FTP

Description

This is a 100 Ω double-shielded patch cable, designed for high data-rates and tested up to 300 MHz. The cable conforms to IEC 61156-6, Cat 5e, and Cat 6 requirements for shielded pairs of stranded conductors (50 %). The cable contains 4 individually shielded twisted pairs, cabled, overall braid shielded, jacketed with FR-LSZH jacket for indoor use compatible with RJ-45 modular plugs.

Technical specification

Construction

- Conductor: Stranded bare copper, 7x 0.16 mm (26 AWG)
- Insulation: PO, 0.98 mm nom. OD.
- Number of basic wires: 8
- Number of pairs: 4
- Color code: white-blue, white-orange, white-green and white-brown
- Individual shield: Each pair is wrapped with a polyester-aluminum foil, providing 100% coverage
- Pair arrangement: The four pairs are cabled together.
- Overall shield: Tinned-copper braid, providing 35% nom. coverage.
- Overall jacket material: FR-LSZH
- Jacket color: per request

Standards

- IEC 61156-6 and TIA/EIA 568 B.2-1 Cat.6 (50%) patch cable.
- Class E ISO/IEC 11801:2002 cabling.
- Flame resistance: acc. IEC 60332-1

General properties

- Cable- Ø: 6.3 ± 0.2 mm
- Weight: 38 kg/km nominal
- Temperature range
 - storage: -30 °C to +70 °C
 - Installation: -20 °C to +60 °C

Electrical properties

- DC resistance: < 145 Ω/km @ 20°C
- Resistance unbalance: < 2 %
- Characteristic impedance: 100 Ω ± 15 % @ 1-600 MHz
- Voltage rating: 30 V rms
- Dielectical strength: > 700 V AC/1 minute
- Velocity of propagation: 79 – 80 % nominal
- Transfer impedance: < 10 mΩ/m @ 1-10 MHz
- Capacitance unbalance: < 1.5 pF/m @ 1 kHz wire to ground
- Propagation delay:
 - < 5.7 nS/m @ 1 MHz
 - < 5.4 nS/m @ 10 MHz
 - < 5.3 nS/m @ 100 MHz
- Skew propagation delay: < 30 nS/100 m @ 1-600 MHz
- Insulation resistance: > 5 GΩ*km @ 500 VDC, 20°C

Transmission properties

Frequency [MHz]	Attenuation		NEXT Loss		Return Loss Min. [dB]
	Nom. [dB/100m]	Max. [dB/100m]	Nom. [dB]	Min. [dB]	
1	2,8	3	85	80	20
4	5,4	5,6	85	80	23
10	8,6	8,8	85	80	26
16	10,7	11,1	85	80	26
31,25	14,8	15,6	85	80	24
62,5	21,5	22,3	80	75	22
100	28	28,5	80	75	20
200	40,5	41,3	80	75	17,5
300	50,5	51,3	75	70	16