CAT 5E CABLE

High reliability Cat 5e Ethernet cable & cordsets



General construction

A 4 pair, 24 AWG, 100 Ohm SFTP round patch cable, designed to the ISO / IEC 11801 Category 5e requirements (cat 5e on 76m). The cable contains 4 twisted pairs, cabled, double shielded with kevlar reinforcement strands, jacketed in black UV resistant Polyurethane HFFR. Designed for fixed or portable applications in harsh environments.

HFFR: Halogen Free Flame Retardant

Jacket compound specification:

- Halogen free flame retardant polyether-based polyurethane
- Excellent hydrolysis resistance
- High microbial resistance
- Glossy finish
- UV resistant
- High flexibility

Applications

- Robotics
- Motion control
- Railways
- CNC machines
- Battelfield communication
- Industrial process control

Datas for the cable alone only (without RJ45 plug)

Physical characteristics

CONDUCTORS	24 AWG (0,25 mm^2) tinned copper, 7x0.20 mm
INSULATION	Color coded 568-B, linear low Density Polyethylene, Nom. Dia. 0,039" (1mm)
ASSEMBLY	Pairs cabled with Kevlar strength members and separation tape wrapped
SHIELDS	Inner: aluminium mylar 100% coverage Outer: tinned copper braid 80% coverage
JACKET	Black, special PUR compound
WEIGHT	40 lbs / mft (59 kg/km)
OUTSIDE DIAM.	0.28" (7.1 mm) nom.
MIN BEND RADIUS *(During installation)*	67.5mm (9x O. D.)
MIN BEND RADIUS *(During operation)*	37.5mm (5 x O.D.)
MIN FLEXES TO FAILURE	Passes IEC 61156-6 requirements
TEMPERATURE	Plus 85°C, minus 40°C

Cordsets with a RJ45 plug overmolded on each end

Length (m/ft)	Part number
0,76 m / 2,5 ft	RJF SFTP 5E 0076
1,00 m / 3.28 ft	RJF SFTP 5E 0100
1,52 m / 5 ft	RJF SFTP 5E 0152
3,05 m / 10 ft	RJF SFTP 5E 0305
4,57 m / 15 ft	RJF SFTP 5E 0457
5,00 m / 16.4 ft	RJF SFTP 5E 0500
6,00 m / 19.68 ft	RJF SFTP 5E 0600
6,24 m / 20.46 ft	RJF SFTP 5E 0624
7,62 m / 25 ft	RJF SFTP 5E 0762
8,00 m / 26.24 ft	RJF SFTP 5E 0800
10,00 m / 32.78 ft	RJF SFTP 5E 1000
14,00 m / 45.92 ft	RJF SFTP 5E 1400
15,25 m / 50 ft	RJF SFTP 5E 1525
22,87 m / 75 ft	RJF SFTP 5E 2287
30,5 m / 100 ft	RJF SFTP 5E 3050
45,75 m / 150 ft	RJF SFTP 5E 4575
50,00 m / 164 ft	RJF SFTP 5E 5000
61,00 m / 200.08 ft	RJF SFTP 5E 6100

Electrical characteristics *(at 20°C - 68°F)*

DC Resistance	96 Ohms/Km
Impedance *(1-100 MHz)*	100 +/- 15 Ohms

Frequency	Attenuation *(dB/100m)*	N.E.X.T. *(Near-End Crosstalk Loss)*
772 KHz	2.70 dB	64 dB min.
1 MHz	3.15 dB	62 dB min.
4 MHz	6.45 dB	53 dB min.
10 MHz	9.90 dB	47 dB min.
16 MHz	12.3 dB	44 dB min.
20 MHz	13.8 dB	42 dB min.
31.25 MHz	17.7 dB	40 dB min.
62.5 MHz	25.6 dB	35 dB min.
100 MHz	33 dB	32 dB min.

Capacitance (1 kHz)	46nF/km nom.
LCL	43 dB min. @ 64 KHz
Capacitance unbalance	3.4 pF/m max. @ 1KHz (wire to ground)
Insulation resistance	150 M Ohm min.
Voltage rating	230 VMS
Dielectric strength	VAC/1 min - 700 V/Min
Propagation delay (100 MHz)	5.2 ns/m max.
Delay skew	20 ns/100m max. @ 1-100 MHz
Resistance unbalance	3% max.
Structural return loss (1-20 MHz)	23db/100m min.
Spark test (tested during production)	3 KV
Velocity of propagation	67% nom.

Reel of cable *(without RJ45 plug on ends)*

Length (m / ft)	Part number
100 m / ~328 ft	190-038045-00
300 m / ~984 ft	190-038045-01