

# High Reliability Cat 5 Ethernet Cable & Cordsets



## General Construction :

26 AWG stranded, bare copper wire with 200°, 300 volt HFFR insulation, double-shielded, with Kevlar 600# strength member and extra-rugged black polyurethane jacket.

## HFFR : Halogen Free Flame Retardant

TESTING : Meets specifications for TIA CAT5 SFTP 100 Ohm cable, passes all CAT5 tests in lengths up to 30 meters.

## Jacket Compound Specification :

Halogen Free Flame Retardant Polyether-based Polyurethane. Glossy finish. Excellent hydrolysis resistance. High microbial resistance. UV resistant. High flexibility.

PHYSICAL CHARACTERISTICS	
<b>CONDUCTORS</b>	26 AWG Bare copper stranded 7x0.16 mm
<b>INSULATION</b>	Color coded, Linear Low Density Polyethylene (LLDPE) Nom. Dia. 0,90 mm
<b>ASSEMBLY</b>	Pairs cabled with Kevlar strength member and tape wrapped.
<b>SHIELD</b>	Inner : Aluminium/Mylar, 100% coverage. Outer : Tinned copper braid, 80% coverage.
<b>JACKET</b>	Black HFFR Nom. Wall : 1,5 mm Elongation : 550% Tensile Strength : 5,000 psi
<b>PHYSICAL</b>	Outside diameter : 7,5 mm nom. Weigth : 55Kg per Km.
<b>TEMPERATURE</b>	Plus 105° C, Minus 70° C

Cordsets with a RJ45 plug overmolded on each end	
Length (m/ft)	Part Number
0,76 m / 2,5 ft	RJF SFTP 0076
1,52 m / 5 ft	RJF SFTP 0152
3,05 m / 10 ft	RJF SFTP 0305
3,73 m / 12,23 ft	RJF SFTP 0373
4,57 m / 15 ft	RJF SFTP 0457
6,24 m / 20,46 ft	RJF SFTP 0624
7,62 m / 25 ft	RJF SFTP 0762
15,25 m / 50 ft	RJF SFTP 1525
22,87 m / 75 ft	RJF SFTP 2287
30,5 m / 100 ft	RJF SFTP 3050
45,75 m / 150 ft	RJF SFTP 4575

Reel of cable (without RJ45 plug on ends)	
Length (m / ft)	Part Number
100 m / ~328 ft	190-036161-00
300 m / ~984 ft	190-036161-01

ELECTRICAL CHARACTERISTICS	
<b>DC Resistance</b>	15 Ohms/100 @ 20° C
<b>Impedance</b>	100 +/- 15 Ohms 1-100 MHz
<b>Attenuation</b>	
772 KHz	2.70 db/100m nom.
1 MHz	3.15 db/100m nom.
4 MHz	6.45 db/100m nom.
10 MHz	9.90 db/100m nom.
16 MHz	12.3 db/100m nom.
20 MHz	13.8 db/100m nom.
31.25 MHz	17.7 db/100m nom.
62.5 MHz	25.6 db/100m nom.
100 MHz	33 db/100m nom.
<b>N.E.X.T. (Near-End Crosstalk Loss)</b>	
772 KHz	64 db min.
1 MHz	62 db min.
4 MHz	53 db min.
10 MHz	47 db min.
16 MHz	44 db min.
20 MHz	42 db min.
31.25 MHz	40 db min.
62.5 MHz	35 db min.
100 MHz	32 db min.
<b>Capacitance</b>	4.6 nF / 100m
<b>Capacitance Unbalance</b>	340 pF / 100m max. @ 1KHz (wire to ground)
<b>Insulation Resistance</b>	150 M Ohm min.
<b>Voltage Rating</b>	230 VMS
<b>Dielectric Strength</b>	700 Vrms
<b>Propagation Delay (100 MHz)</b>	5.2 ns/m max. @ 100 MHz
<b>Delay Skew</b>	20 ns/100m max. @ 1-100 MHz
<b>Resistance Unbalance</b>	3% max. @ 20° C
<b>Structural Return Loss (100 MHz)</b>	23db/100m min. @ 1-20 MHz

## Applications

- Robotics
- Industrial Process Control
- CNC Machines
- Railways
- Motion Control
- Data Acquisition and Transmission In Harsh Environment
- Tele-maintenance

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