

# High Reliability Ethernet Cables



■ **GENERAL** : 26 AWG stranded, bare copper wire with 200C, 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

■ **Reel of 100 m (328 feet) of cable** : 190-036161-00  
(without RJ45 plug en ends)

■ **Cordset with RJ45 plug on each end**

|                    |               |
|--------------------|---------------|
| 2.5 feet / 0,76 m  | RJF SFTP 0076 |
| 5 feet / 1,52 m    | RJF SFTP 0152 |
| 10 feet / 3,05 m   | RJF SFTP 0305 |
| 15 feet / 4,57 m   | RJF SFTP 0457 |
| 25 feet / 7,62 m   | RJF SFTP 0762 |
| 50 feet / 15,25 m  | RJF SFTP 1525 |
| 75 feet / 22,87 m  | RJF SFTP 2287 |
| 100 feet / 30,50 m | RJF SFTP 3050 |

Other lengths please consult factory

| PHYSICAL CHARACTERISTICS |                                                                                     | ELECTRICAL CHARACTERISTICS                |                                              |
|--------------------------|-------------------------------------------------------------------------------------|-------------------------------------------|----------------------------------------------|
| <b>CONDUCTORS</b>        | 26 AWG Bare copper stranded 7x0.16 mm                                               | <b>DC Resistance</b>                      | 15 Ohms/100m @ 20° C                         |
| <b>INSULATION</b>        | Color coded, Linear Low Density Polyethylene (LLDPE)<br>Nom. dia. 0.90 mm           | <b>Impedance</b>                          | 100 +/-15 Ohms 1-100 MHz                     |
| <b>ASSEMBLY</b>          | Pairs cabled with Kevlar strength member and tape wrapped.                          | <b>Attenuation</b>                        |                                              |
| <b>SHIELD</b>            | Inner: Aluminum/Mylar, 100% coverage.<br>Outer: Tinned copper braid, 80% coverage.  | 772 KHz                                   | 2.70 db/100m nom.                            |
| <b>JACKET</b>            | Black HFFR<br>Nom. wall: 1.5 mm<br>Elongation: 550%<br>Tensile Strength: 5,000 psi. | 1 MHz                                     | 3.15 db/100m nom.                            |
| <b>PHYSICAL</b>          | Outside diameter: 7.5 mm nom.<br>Weight: 55Kg per Km.                               | 4 MHz                                     | 6.45 db/100m nom.                            |
| <b>TEMPERATURE</b>       | Plus 105° C, minus 70° C.                                                           | 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.<br>@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 (100MHz)</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

- Factory Automation, Industrial Process Control
- Data Acquisition and Transmission in Harsh Environment
- Railways
- Battlefield C4I requirements
- Tele-maintenance