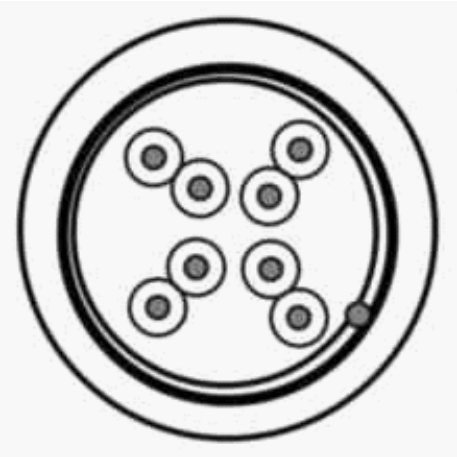

**Part Number:** 1868ENH.001000

Category 5e Nonbonded-Pair ScTP Cable

## Product Description

Cat. 5e (100MHz), 4-Pair, F/UTP Foil shielded, Work Area Patch Cable, 26 AWG stranded (7x34) bare copper conductors, Polyethylene insulation, Beldfoil® shield, AWG 26 stranded (7x34) tinned copper drainwire, LSZH jacket, RJ-45 compatible

## Technical Specifications

| | |
|---|---|
| **Suitable Applications:** | Work area patch cable; Support current and future Category 5e applications, such as: 1000Base - T (Gigabit Ethernet), 100 Base - T, 10 Base - T, FDDI, ATM |

## Construction and Dimensions

### Conductor:

| Element | AWG | Stranding | Material | No. of Pairs |
|---|---|---|---|---|
| Individual pair | 26 | Stranded 7xAWG34 | Bare copper | 4 |

| | |
|---|---|
| **Total Number of Conductors:** | 8 |
| **Total Number of Pairs:** | 4 |
| **Min Elongation at Breakof Conductors:** | 10 % |

### Insulation:

| Element | Type | Material | Nominal Diameter |
|---|---|---|---|
| Individual pair | Dielectric | Polyethylene | 0.95 mm |

| | |
|---|---|
| **Min Elongation at Breakof Insulation:** | 100 % |

### Color Chart 1:

| Number | Color |
|---|---|
| Pair 1 | Black/Blue & Blue |
| Pair 2 | Black/Orange & Orange |
| Pair 3 | Black/Green & Green |
| Pair 4 | Black/Brown & Brown |

### Outershield 1:

| Type | Material | Coverage [%] | Drainwire Material | Drainwire AWG | Drainwire Position |
|---|---|---|---|---|---|
| Tape | Aluminum / Polyester | 100 % | Stranded tinned copper | 26 (7xAWG34) | Under foil |
| Aluminum facing inside in contact with drain wire in in | | | | | |

### Outerjacket 1:

| Material | Color | Nominal Diameter | Diameter +/- Tolerance | Max. Diameter | Min. Wall Thickness | Nominal Wall Thickness |
|---|---|---|---|---|---|---|
| FRNC / LSZH | Grey (RAL 7032) and Blue (RAL 5015) | 5.4 mm | 0.3 mm | 5.9 mm | 0.4 mm | 0.45 mm |

| | |
|---|---|
| **Min Elongation at Breakof Jacket:** | 100 % |
| **Min Tensile Strength of Jacket:** | 9 MPa |

## Electrical Characteristics

### Conductor DCR:

| Max. Conductor DCR | Max DCR Unbalanced Between Pairs [%] | Max. DCR Unbalanced Within Pair [%] |
|---|---|---|
| 145 Ohm/km | 4 % | 2 Ohm |

### Capacitance:

| Max. Capacitance Unbalance | Max. Mutual Capacitance |
|---|---|
| 1,600 pF/m | 56 pF/m |

| | |
|---|---|
| **Min Insulation Resistance:** | 5000 MOhm*km |

### Impedance:

| Nominal Characteristic Impedance |
|---|
| 100 Ohm |

### Delay:

| Max. Delay Skew | Min. Velocity of Propagation |
|---|---|
| 40 ns/100m | 60 % |

### High Freq:

| Element | Frequency [MHz] | Max. Insertion Loss (Attenuation) | Min. NEXT [dB] | Min. PSNEXT [dB] | Min. ACR [dB] | Min. PSACR [dB] | Min. ACRF (ELFEXT) [dB] | Min. PSACRF (PSELFEXT) [dB] | Min. RL (Return Loss) [dB] | Min. TCL [dB] | Min. ELTCTL [dB] |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 MHz | 3.2 dB/100m | 65.3 dB | 62.3 dB | 62.1 dB | 59.1 dB | 64 dB | 61 dB | 20 dB | 40 dB | 35 dB |
| | 4 MHz | 6 dB/100m | 56.3 dB | 53.3 dB | 50.3 dB | 47.3 dB | 52 dB | 49 dB | 23 dB | 34 dB | 23 dB |
| | 10 MHz | 9.5 dB/100m | 50.3 dB | 47.3 dB | 40.8 dB | 37.8 dB | 44 dB | 41 dB | 25 dB | 30 dB | 15 dB |
| | 16 MHz | 12.1 dB/100m | 47.2 dB | 44.2 dB | 35.2 dB | 32.2 dB | 39.9 dB | 36.9 dB | 25 dB | 28 dB | 10.9 dB |
| | 20 MHz | 13.5 dB/100m | 45.8 dB | 42.8 dB | 32.2 dB | 29.2 dB | 38 dB | 35 dB | 25 dB | 27 dB | 9 dB |
| | 31.25 MHz | 17.1 dB/100m | 42.9 dB | 39.9 dB | 25.8 dB | 22.8 dB | 34.1 dB | 31.5 dB | 23.3 dB | 25.1 dB | 5.5 dB |
| | 62.5 MHz | 24.8 dB/100m | 38.4 dB | 35.4 dB | 13.6 dB | 10.6 dB | 28.1 dB | 25.1 dB | 20.7 dB | 22 dB | |
| | 100 MHz | 32 dB/100m | 35.3 dB | 32.3 dB | 3.3 dB | 0.3 dB | 24 dB | 21 dB | 19 dB | 20 dB | |

): Limits below 4MHz are for information only.

### Current:

| Max. Recommended Current [A] |
|---|
| 1.5 A |

### Voltage:

| Voltage Rating [V] |
|---|
| 72 V |

### Coupling Attenuation:

| Element | Coupling Attenuation [dB] |
|---|---|
| | Type II V dB |
| Type II | |

| | |
|---|---|
| **Coupling Attenuation Class:** | Type II |

### Transfer Impedance:

| Frequency [MHz] | Description | Transfer Impedance |
|---|---|---|
| 1 Mhz | Grade 2 | Max.50 mOhm/m |
| 10 Mhz | | Max.100 mOhm/m |
| 30 Mhz | | Max.200 mOhm/m |
| 100 Mhz | | Max.1000 mOhm/m |

## Use

| | |
|---|---|
| **Burning Load:** | 395 kJ/m |
| **Max Recommended Pulling Tension:** | 45 N |

## Safety

| | |
|---|---|
| **ISO/IEC Flammability:** | IEC 60332-1 |

## Temperature Range

| | |
|---|---|
| **Installation Temp Range:** | 0 to +50 °C |
| **Operating Temp Range:** | -30 to +60 °C |

## Mechanical Characteristics

| | |
|---|---|
| **Min Bend Radius During Installation:** | 42 mm |
| **Min Bend Radius During Operation:** | 21 mm |

## Standards

| | |
|---|---|
| **ISO/IEC Compliance:** | ISO/IEC 11801 2nd edition (2002) and ISO/IEC 11801 Amendment 2 (2010) |
| **ANSI Compliance:** | ANSI/TIA/EIA 568-B.2-1 (2002) |
| **CENELEC Compliance:** | EN 50173-1 (2011) |

## History

| | |
|---|---|
| **Revision Number:** | 9 |

## Product Variants

| Part Number | Color | Put-Up Type | Length |
|---|---|---|---|
| 1868ENH.001000 | GRAY, RAL 7032 | Reel | 1000 m |
| 1868ENH.00500 | GRAY, RAL 7032 | Reel | 500 m |
| 1868ENH.00B100 | GRAY | Flat Box | 100 m |
| 1868ENH.001000 | GRAY, RAL 7032 | Reel | 500 m |
| 1868ENH.001000 | | | |