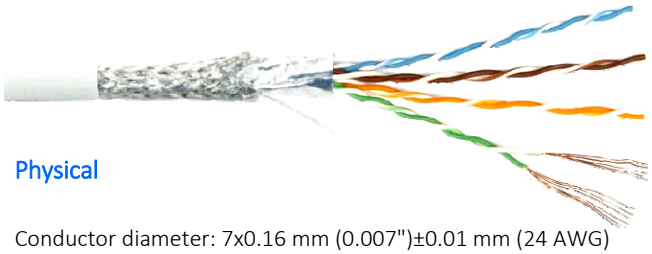
# i-Net Networks Category5e SF/UTP Stranded Cable



## Physical

Conductor diameter: 7x0.16 mm (0.007")±0.01 mm (24 AWG)
Insulated conductor diameter: 0.93±0.2 mm (0.036"±0.008")
Outer cable diameter: 5.6±0.2 mm (0.22"±0.008")
Jacket thickness: 0.4 mm (0.0157")
Minimum bend radius:
8xØ (installation), 6xØ (vertical cabling), 4xØ (horizontal cabling)
Conductor elongation: 14% minimum
Drain wire diameter: 0.5 mm (0.019")
Operating temperature: –4°F to +167°F (–20°C to +75°C)
Weight per 1000 ft (304.8 m): 12.5 kg (26.89 lbs)

## Compliance

Meets ANSI/EIA/TIA 568-B.2 requirements
Meets general purpose cable UL-1581 CM rating
Meets fire retardant low smoke IEC60332-1 rating

## Material

Conductive material: Soft annealed electrolytic copper

Conductor insulation: HDPE

The cable jacket: PVC/LSZH

Shield: Aluminum tape shield helically applied over the cable core with a minimum overlap of 25% or 5 mm (0.19"), thickness –0.025 mm (0.001"), width–20 mm (0.78"), and braid of 16 tinned Copper wires

## Electrical

| Frequency, MHz | RL | Attenuation, dB | NEXT, dB | PSNEXT, dB | ELFEXT, dB | PSELFEXT, dB |
|---|---|---|---|---|---|---|
| 0.772 | - | 1.8 | 67.0 | 64.0 | - | - |
| 1.0 | 20.0 | 2.0 | 65.3 | 62.3 | 63.8 | 60.8 |
| 4.0 | 23.0 | 4.0 | 56.3 | 53.3 | 51.7 | 48.7 |
| 8.0 | 24.5 | 5.8 | 51.8 | 48.8 | 45.7 | 42.7 |
| 10.0 | 25.0 | 6.5 | 50.3 | 47.3 | 43.8 | 40.8 |
| 16.0 | 25.0 | 8.2 | 47.3 | 44.3 | 39.7 | 36.7 |
| 20.0 | 25.0 | 9.3 | 45.8 | 42.8 | 37.7 | 34.7 |
| 25.0 | 24.3 | 10.4 | 44.3 | 41.3 | 35.8 | 32.8 |
| 31.25 | 23.6 | 11.7 | 42.9 | 39.9 | 33.9 | 30.9 |
| 62.5 | 21.5 | 17.0 | 38.4 | 35.4 | 27.8 | 24.8 |
| 100.0 | 20.1 | 22.0 | 35.3 | 32.3 | 23.8 | 20.8 |

## Technical

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|---|---|
| Max conductor resistance at 20°C (68°F) | 9.38Ω/100m (2.9Ω/100ft) |
| Max Resistance Unbalance | 5% |
| Max pair-to-ground capacitance unbalance | 330pF/100m (101pF/100ft) |
| Characteristic Impedance at 0.772-100 MHz | 85Ω-115Ω |
| Mutual capacitance | 5.6nF/m (1.7nF/ft) |
| Spark Test | 2.5kV |

## Ordering

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|---|---|
| HI5ESRM-C | i-Net Networks Horizontal Cable Category5e SF/UTP Stranded 24AWG 4-Pair Milky Gray PVC |
| C | C-PVC, L-LSZH |