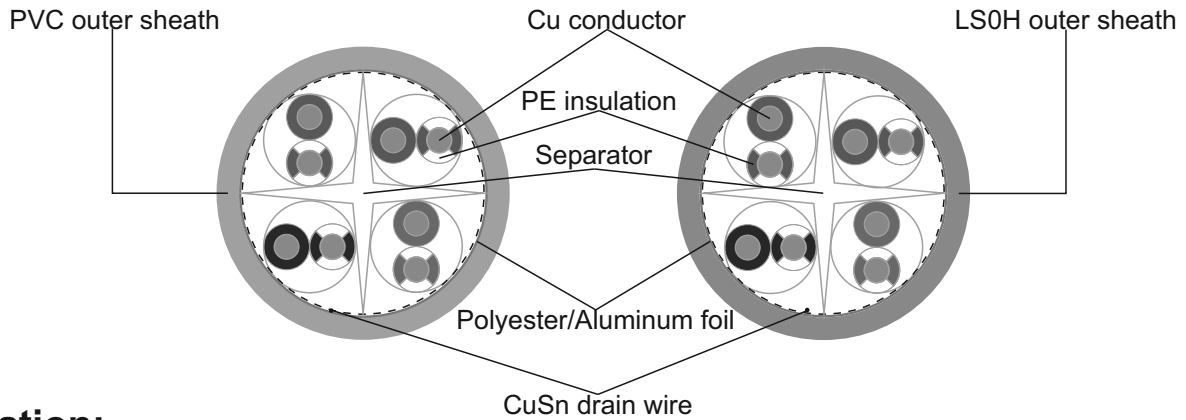


Data transmission cable - BiTLAN F/UTP cat. 6 350 MHz



Application:

F/UTP cat. 6 cables are applicable to computer networks with operating frequency band up to 350 MHz. Suitable for transmission of data, audio and video signals, with bitrate up to 1 Gb/s and additional collective polyester/aluminum foil with CuSn drain wire as a protection against external electromagnetic interferences. Dedicated for fixed installations within indoor structured cabling systems as per PN-EN 50173-1, PN-EN 50288-5-1, ISO/IEC 11801 2nd ed., IEC 61156-5, ANSI/TIA/EIA 568-C.2 standards, as well as within industrial networks exposed to external electromagnetic interferences. Flame retardant according to IEC 60332-1.

LS0H outer sheath conforms to fire performance requirements as per IEC 61034-2, IEC 60754-2.

Technical data:

Operating temperature:

Fixed installation: -30°C to +70°C

Flexible connections: -10°C to +50°C

Bending radius: 4 x Ø

DC loop resistance at 20 °C (max): 190 Ω/km

Insulation resistance (min): 5 GΩ x km

Resistance unbalance: ≤ 2%

Capacitance at 1 kHz: 50 ± 5 nF/km

Capacitance unbalance at 1kHz (max): 1600 pF/km

Nominal voltage: 150V

Test voltage:

AC 50 Hz: 700V

DC: 1000V

Characteristic impedance: 100 ± 5Ω

NVP value: 69%

Return loss (min):

f = 4÷10 MHz: 20 + 5lg(f)

f = 10÷20 MHz: 25

f = 20÷350 MHz: 25 - 7lg(f/20)

**Screen attenuation within the range of
30 ÷ 350 MHz (min.):** 50 dB

Transfer impedance at 10 MHz (max):
100 mΩ/m

Construction:

Conductors: solid round copper conductors

Insulation: special polyolefin compound

Core identification: wh/bu-bu, wh/or-or, wh/gn-gn,
wh/bn-bn

Core arrangement: cores twisted in pairs, pairs
twisted together

Screen: polyester/aluminum foil with tinned copper
drain wire Ø 0,4 mm

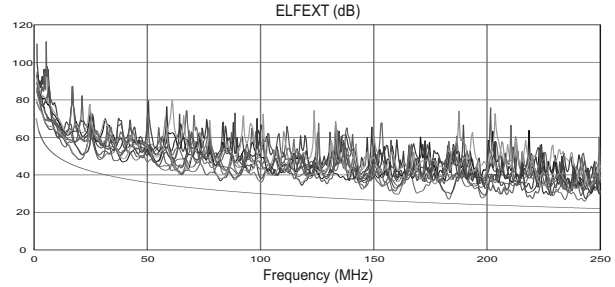
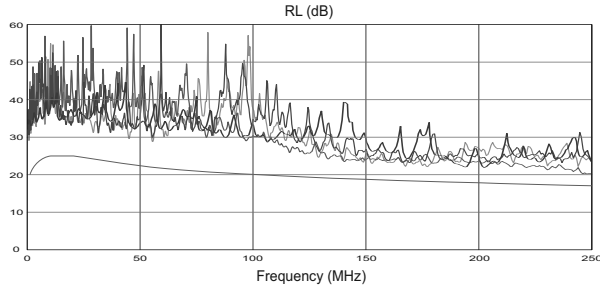
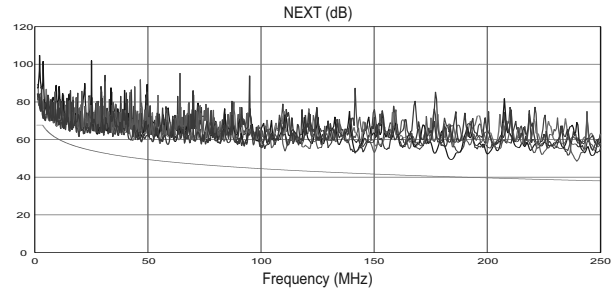
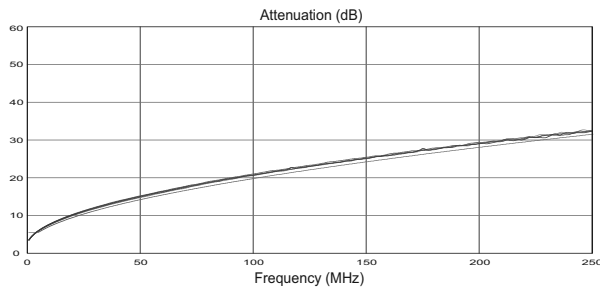
Outer sheath: PVC or special LS0H compound

Outer sheath colour: grey RAL 7035 for PVC or
orange RAL 2003 for LS0H; other colours available
on customer's request

Construction:

| ID | Construction | Cu wire | O.D. [mm] | Copper weight | Cable weight | Band [Mhz] |
|----|--------------|--------------|-----------|---------------|--------------|------------|
| | F/UTP cat.6 | 23AWG (0,54) | 7,5 | 20 | 50 | 350 |

Performance test charts and data:



| Freq. Mhz | Min. RL (dB) | | Max. IL (dB) | | Min. NEXT (dB) | | Min. PS NEXT (dB) | | Min. ACR-F (dB) | |
|--------------|--------------|----------------------|--------------|----------------------|----------------|----------------------|-------------------|----------------------|-----------------|----------------------|
| | Standard | BITNER ¹⁾ | Standard | BITNER ¹⁾ | Standard | BITNER ¹⁾ | Standard | BITNER ¹⁾ | Standard | BITNER ¹⁾ |
| 1 | 20,0 | | 2,0 | 1,9 | 74,3 | 89,8 | 72,3 | 84,2 | 67,8 | 89,8 |
| 4 | 23,0 | 33,9 | 3,8 | 3,5 | 65,3 | 87,0 | 63,3 | 77,3 | 55,8 | 87,0 |
| 8 | 24,5 | 32,1 | 5,3 | 5,0 | 60,8 | 82,1 | 58,8 | 68,4 | 49,7 | 82,1 |
| 10 | 25,0 | 36,2 | 6,0 | 5,6 | 59,3 | 79,5 | 57,3 | 70,1 | 47,8 | 79,5 |
| 16 | 25,0 | 29,6 | 7,6 | 7,1 | 56,2 | 74,5 | 54,2 | 68,3 | 43,7 | 74,5 |
| 20 | 25,0 | 34,4 | 8,5 | 8,0 | 54,8 | 72,2 | 52,8 | 66,6 | 41,8 | 72,2 |
| 25 | 24,3 | 32,0 | 9,5 | 8,9 | 53,3 | 70,2 | 51,3 | 66,3 | 39,8 | 70,2 |
| 31,25 | 23,6 | 29,9 | 10,7 | 10,0 | 51,9 | 68,1 | 49,9 | 64,2 | 37,9 | 68,1 |
| 62,50 | 21,5 | 30,2 | 15,4 | 14,2 | 47,4 | 63,9 | 45,4 | 57,7 | 31,9 | 63,9 |
| 100 | 20,1 | 31,2 | 19,8 | 18,0 | 44,3 | 57,7 | 42,3 | 52,8 | 27,8 | 57,7 |
| 200 | 18,0 | 29,2 | 29,0 | 25,7 | 39,8 | 51,4 | 37,8 | 51,8 | 21,8 | 51,4 |
| 250 | 17,3 | 21,6 | 32,8 | 29,1 | 38,3 | 54,9 | 36,3 | 50,5 | 19,8 | 54,9 |

¹⁾ Typical average test result