

BiTLAN[®] F/FTP cat.6 350 MHz

LSOH Halogen-free, data transmission cable, screened



internal application



EN 60332-1-2



data transmission

halogen-free
EN 60754low smoke emission
EN 61034

Technical data:

Thermal parameters:

Temperature range:

operating temperature: -30 °C to 70 °C
min. installation temp: -10 °C

Electrical parameters:

Conductor diameter: 0,54 ± 0,015 mm

Insulated core diameter: 1,24 ± 0,03 mm

DC loop resistance at 20 °C (max):

145 Ω/km

Insulation resistance (min): 2 GΩ x km

Resistance unbalance within a pair: ≤ 2 %

Mutual capacitance at 1 kHz: 45 ± 5 nF/km

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

Nominal voltage: 150 V

Test voltage at 1 min.:

AC 50 Hz: 700 V

DC: 1000 V

Characteristic impedance at 100 MHz:

100 ± 5 Ω

NVP value: 77 %

Return loss dB (min):

f = 4 + 10 MHz: 20 + 5 × log₁₀(f)

f = 10 + 20 MHz: 25

f = 20 + 350 MHz: 25 - 7 × log₁₀(f/20)

Coupling attenuation within the range of 30 + 100 MHz (min.): 55 dB

Transfer impedance at 10 MHz (max):

100 mΩ/m

Mechanical parameters:

Bending radius:

during operation: ≥ 6 x Ø

during installation: ≥ 8 x Ø

Design:

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, screened pairs twisted together

Screen 1:

aluminium backed polyester tape on every pair and

tinned copper drain wire

Screen 2:

aluminium backed polyester tape

Outer sheath:

special LSOH compound

Outer sheath colour:

orange RAL 2003, other colours available on customer's

request

Marking: BITNER BiTLAN F/FTP 4x2x23AWG(0,54) cat.6 350MHz LSOH

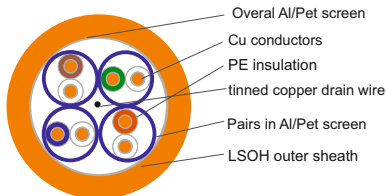
EN 50173-1 ISO/IEC 11801 ANSI/TIA 568-C.2 ID no. CE RoHS

www.bitner.com.pl meters

Application:

BiTLAN F/FTP cat.6 350MHz LSOH cables are applicable to computer networks with operating frequency band up to 350MHz. Suitable for transmission of data, audio and video signals, with bitrate up to 1Gb/s. Additional individual and collective Al/Pet screens with tinned copper drain wire acts as a protection against external electromagnetic interferences. Dedicated for fixed installations within indoor structured cabling systems as per EN 50173-1, ISO/IEC 11801, ANSI/TIA 568-C.2 standards, as well as within industrial networks exposed to external electromagnetic interferences. Cables with flame retardant LSOH outer sheath ensuring low smoke emission acc. to EN 50268, IEC 61034-1 (2) and limited emission of corrosive gases acc. to EN 50267, IEC 60754-2 should be installed in places with increased fire safety requirements. Cables classified according to **EN 50575 (CPR)**.

Packaging:

plywood reel
305mplywood reel
500mplywood reel/
drum
1000m

Cat. no.	Construction	Cu wire	Outer diameter* [mm]	CPR classification EN 50575	Cable weight [kg]	Bandwidth [MHz]
T10111	F/FTP cat.6 LSOH	23AWG(0,5)	7,7	Dca	59	350

*Outer diameter tolerance: +/-5%

Cable Factory BITNER reserves the right to modify the specifications without prior notice

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Requirements of teletransmission data:

Frequency MHz	1	4	10	16	20	30	45	60	80	100	120	150	180	200	220	250	280	300	320	350
Attenuation ≤ dB/100m	2,1	3,8	6,0	7,6	8,5	10,5	13,0	15,1	17,7	19,9	22,0	24,8	27,5	29,1	30,7	33,0	35,2	36,6	38,0	40,0
NEXT ≥ dB	66,0	65,3	59,3	56,2	54,8	52,1	49,5	47,6	45,8	44,3	43,1	41,7	40,5	39,8	39,2	38,3	37,6	37,1	36,7	36,1
PS NEXT ≥ dB	64,0	63,3	57,3	54,2	52,8	50,1	47,5	45,6	43,8	42,3	41,1	39,7	38,5	37,8	37,2	36,3	35,6	35,1	34,7	34,1
ELFEXT ≥ dB/100m	66,0	58,0	50,0	45,9	44,0	40,5	36,9	34,5	32,0	30,0	28,4	26,5	24,9	24,0	23,1	22,0	21,0	20,5	19,9	19,1
PS ELFEXT ≥ dB/100m	64,0	55,0	47,0	42,9	41,0	37,5	33,9	31,4	28,9	27,0	25,4	23,5	21,9	21,0	20,1	19,0	18,0	17,5	16,9	16,1
RL ≥ dB	20,0	23,0	25,0	25,0	25,0	23,8	22,5	21,7	20,8	20,1	19,5	18,9	18,3	18,0	17,7	17,3	17,0	16,8	16,6	16,3

Transmission parameters graphs - examples of measurement results

