

BiTLAN® S/FTP cat.6A 500 MHz

Data transmission cable, screened

BITNER BiTLAN S/FTP 4P cat.6A 500MHz



internal application



EN 60332-1-2



data transmission

Technical data:

Thermal parameters:

Temperature range:

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

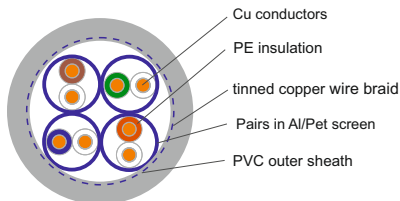
Electrical parameters:

Conductor diameter: 0,54 ± 0,015 mm
Insulated core diameter: 1,3 ± 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):
 $f = 4 \div 10 \text{ MHz: } 20 \pm 5 \times \log_{10}(f)$
 $f = 10 \div 20 \text{ MHz: } 25$
 $f = 20 \div 250 \text{ MHz: } 25 - 7 \times \log_{10}(f/20)$
 $f = 250 \div 500 \text{ MHz: } 17,3$
Coupling attenuation within the range of 30 ÷ 100 MHz (min.): 70 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, wh/or, wh/gn, wh/bn

Core arrangement:

cores twisted in pairs, screened pairs twisted together

Screen 1:

aluminium backed polyester tape on every pair

Screen 2:

tinned copper wire braid

Outer sheath:

PVC compound

Outer sheath colour:

grey RAL 7035, other colours available on customer's request

Marking: BITNER BiTLAN S/FTP 4P cat.6A 500MHz EN 50173-1 ISO/IEC 11801 ANSI/TIA 568-C.2 ID no. CE RoHS www.bitner.com.pl meters

Application:

BiTLAN S/FTP cat.6A 500MHz cables are applicable to computer networks with operating frequency band up to 500 MHz. Suitable for transmission of data, audio and video signals, with bitrate up to 10Gb/s. Additional individual Al/Pet and collective screen 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 classified according to EN 50575 (CPR).

Packaging:



plywood reel
500m



plywood reel/
drum
1000m

Cat. no.	Construction	Cu wire	Outer diameter* [mm]	CPR classification EN 50575	Cable weight [kg]	Bandwidth [MHz]
TI0076	S/FTP cat.6A	23AWG	7,8	Eca	63	500

*Outer diameter tolerance: +/-5%

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

BiTLAN[®] S/FTP cat.6A 500 MHz

Data transmission cable, screened

Requirements of teletransmission data:

Frequency MHz	1	4	10	16	20	31,25	62,5	100	125	155	175	200	250	300	500
Attenuation ≤ dB/100m	2,1	3,8	5,9	7,5	8,4	10,5	15,0	19,1	21,5	24,1	25,7	27,6	31,1	34,3	45,3
NEXT ≥ dB	75,3	66,3	60,3	57,2	55,8	52,9	48,4	45,3	43,8	42,4	41,7	40,8	39,3	38,1	34,8
PS NEXT ≥ dB	72,3	63,3	57,3	54,2	52,8	49,9	45,4	42,3	40,8	39,4	38,7	37,8	36,3	35,1	31,8
ELFEXT ≥ dB/100m	68,0	56,0	48,0	43,9	42,0	38,1	32,1	28,0	26,1	24,2	23,1	22,0	20,0	18,5	14,0
PS ELFEXT ≥ dB/100m	65,0	53,0	45,0	41,9	39,0	35,1	29,1	25,0	23,1	21,2	20,1	19,0	17,0	15,5	11,0
RL ≥ dB	20,0	23,0	25,0	25,0	25,0	23,6	21,5	20,1	19,4	18,8	18,4	18,0	17,3	17,3	17,3

Transmission parameters graphs - examples of measurement results

