

BiTLAN[®] S/FTP cat.6A outdoor

RoHS 2015/863/EU



LVD 2014/35/EU

CPR

CPR 305/2011

24 months warranty

500 MHz

Data transmission cable suitable for external applications, screened



Technical data:

Thermal parameters:

Temperature range:

operating temperature: -30 °C to 80 °C
min. installation temp: -10 °C

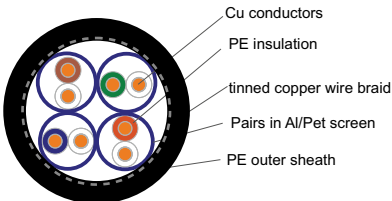
Electrical parameters:

Conductor diameter: 0,57 ± 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 + 10 MHz: 20 + 5 x log₁₀(f)
f = 10 + 20 MHz: 25
f = 20 + 350 MHz: 25 - 7 x log₁₀(f/20)
f = 250 + 500 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:

special PE compound

Outer sheath colour:

black

Marking: BITNER BiTLAN S/FTP 4P cat.6A outdoor 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 outdoor 500MHz cables are applicable to computer networks with operating frequency band up to 500MHz. Suitable for transmission of data, audio and video signals with bitrate up to 10Gb/s. Dedicated for fixed installations within structured cabling systems as per EN 50173-1, ISO/IEC 11801-1, ANSI/TIA 568-C.2 standards. Common and individual shielding of the pairs additionally improves the teletransmission parameters against external electromagnetic interferences and crosstalks between the pairs, therefore they can be used in industrial networks. UV resistant outer sheath enables external application. Cables classified according to EN 50575 (CPR).

Packaging:



plywood reel
500m



plywood reel/
drum
1000m

Cat. no.	Construction	Cu wire [mm]	Outer diameter* [mm]	CPR classification EN 50575	Cable weight [kg]	Bandwidth [MHz]
TI0090	S/FTP cat.6A outdoor	23AWG	8,3	Fca	57	500

*Outer diameter tolerance: +/-5%

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

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500 MHz

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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/100m	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/100m	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

