

BiTLAN[®] U/FTP cat.6A 500 MHz

LSOH

Halogen-free, data transmission cable,
screened

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



internal
application



EN 60332-1-2



halogen-free
EN 60754



low smoke emission
EN 61034



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: 1.27 ± 0.03 mm

DC loop resistance at 20 °C (max):

145 Ω/km

Insulation resistance (min): 5 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 + 250 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):

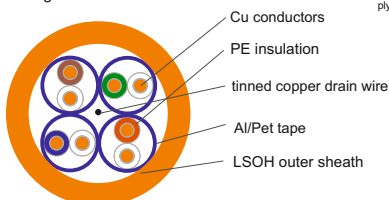
100 mΩ/m

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 with tinned copper drain wire

Screen:

pairs individually screened with aluminum backed polyester tape

Outer sheath:

special LSOH compound

Outer sheath colour:

orange RAL 2003, other colours available on customer's request

Marking: BITNER BiTLAN U/FTP 4P cat.6A 500MHz LSOH

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

www.bitner.com.pl meters

Application:

BiTLAN U/FTP cat.6A 500MHz LSOH 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. Additional individual Al/Pet screen 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 and IEC 60754-2, should be installed in places with increased fire safety requirements. 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]
TI0079	U/FTP cat.6A LSOH	23AWG	7,5	Dca	55	500

*Outer diameter tolerance: +1,5%

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

BiTLAN® U/FTP cat.6A 500 MHz

LSOH Halogen-free, 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

