BiTLAN®U/FTP cat.6A DUPLEX 500 MHz LSOH

Double data transmission cable

RoHS 2015/863/EU

LVD 2014/35/EU

CPR 305/2011

24 months warranty

internal application | EN 60332-1-2 | data transmission | halogen-free EN 60754 | low smoke emission EN 61034

Technical data:

Thermal parameters:

Temperature range:
operating temperature: -30 °C to 70 °C
installation temperature: -10 °C to 50 °C
min. installation temperature: -10 °C

Electrical parameters:

Conductor diameter: 0,54 ± 0,015 mm
Insulated core diameter: 1,30 ± 0,05m
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 - 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 $\log_{10}$(f)
f = 10 ÷ 20 MHz: 25
f = 20 ÷ 250 MHz: 25 - 7 x $\log_{10}$(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 foam-skin 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 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 2x4P cat.6A DUPLEX 500MHz LSOH EN 50173-1 ISO/IEC 11801 ANSI/TIA 568-C.2 ID no. CE RoHS www.bitner.com.pl meters*

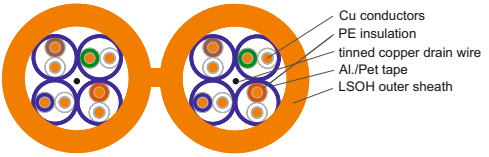
Application:

BiTLAN U/FTP cat.6A DUPLEX 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]
TI0121	U/FTP cat.6A DUPLEX LSOH	23AWG	7,8	Dca	110	500

*Outer diameter tolerance: +/-5%
Cable Factory BITNER reserves the right to modify the specifications without prior notice

BITNER®

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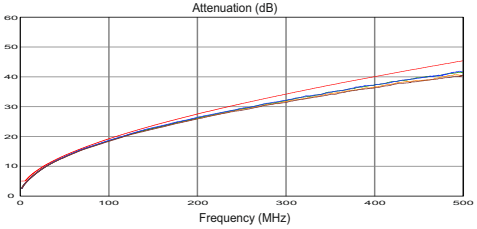
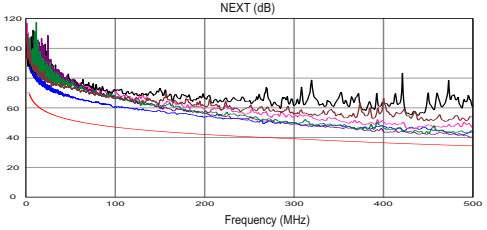
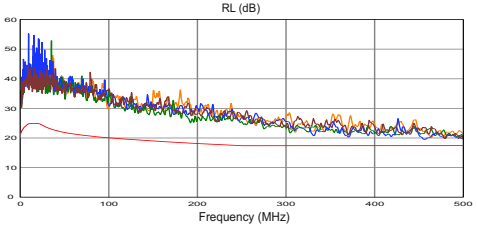
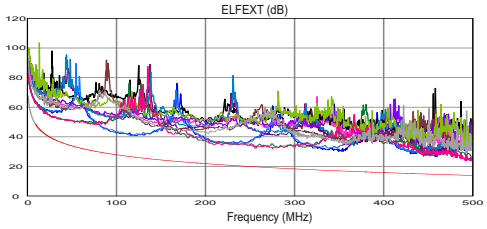
Requirements of teletransmission data:

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