

# BiTLAN<sup>®</sup> U/UTP cat.6 350 MHz

## LSOH B2ca

Halogen-free, data transmission cable

BITNER BiTLAN U/UTP 4x2x23AWG(0,54) cat. 6 350MHz LSOH B2ca



internal application



EN 60332-1-2



data transmission

halogen-free  
EN 60754low smoke emission  
EN 61034

B2ca-s1a,d1,a1



## 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:** 0,99 ± 0,03 mm

**DC loop resistance at 20 °C (max):**

165 Ω/km

**Insulation resistance (min):** 5 GΩ x km

**Resistance unbalance within a pair:** ≤ 2 %

**Mutual capacitance at 1 kHz:** 50 ± 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:** 67 %

**Return loss dB (min):**

f = 4 + 10 MHz: 20 + 5 x log<sub>10</sub>(f)

f = 10 + 20 MHz: 25

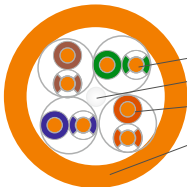
f = 20 + 350 MHz: 25 - 7 x log<sub>10</sub>(f/20)

### Mechanical parameters:

#### Bending radius:

during operation: ≥ 6 x Ø

during installation: ≥ 8 x Ø



Cu conductors

Circular filling element

PE insulation

LSOH outer sheath

## 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, pairs twisted together with a circular filling element

### Outer sheath:

special LSOH compound

### Outer sheath colour:

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

**Marking:** BITNER BiTLAN U/UTP 4x2x23AWG(0,54) cat.6 350MHz LSOH B2ca

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

[www.bitner.com.pl](http://www.bitner.com.pl) meters

## Application:

BiTLAN U/UTP cat.6 350MHz LSOH B2ca 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. 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 not 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:



box  
(305m)



pallet 9150m  
(30x305m)



plywood reel  
500m



plywood reel/  
drum  
1000m

Cat. no.	Construction	Cu wire	Outer diameter* [mm]	CPR classification EN 50575	Cable weight [kg/km]	Bandwidth [MHz]
Ti0119	U/UTP cat.6 LSOH B2ca	23AWG(0,54)	6,1	B2ca	47	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

