

BiTLAN[®] U/FTP cat.6 350 MHz



Data transmission cable, screened



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

LAN cables



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: 1,25 ± 0,03 mm

DC loop resistance at 20 °C (max):
165 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)

Coupling attenuation within the range of 30 ÷ 100 MHz (min.): 55 dB

Transfer impedance at 10 MHz (max):

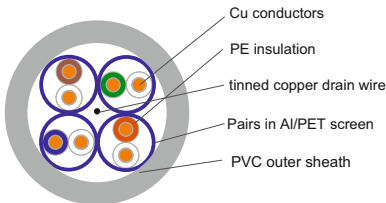
100 mΩ/m

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-bu, wh/or-or, wh/gn-gn, wh/bn-bn

Core arrangement:

cores twisted in pairs, screened pairs twisted together with CuSn drain wire

Screen:

aluminium backed polyester tape on every pair

Outer sheath:

PVC compound

Outer sheath colour:

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

Marking: BITNER BiTLAN U/FTP 4x2x23AWG(0,54) cat.6 350MHz. 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.6 350MHz 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. 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 classified according to **EN 50575 (CPR)**.

Packaging:



plywood reel
305m



plywood reel
500m



plywood reel/
drum
1000m

Cat. no.	Construction	Cu wire	Outer diameter* [mm]	CPR classification EN 50575	Cable weight [kg]	Bandwidth [MHz]
T10082	U/FTP cat.6	23AWG	7,1	Eca	50	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

