BiTLAN®F/UTP cat.5e 200 MHz LSOH

Data transmission cable, halogen-free, screened

RoHS 2015/863/EU
LVD 2014/35/EU
CPR
CPR 305/2011
24 months warranty

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

Technical data:

Thermal parameters:

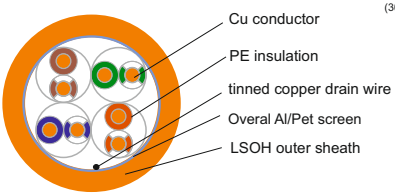
Temperature range:
operating temperature: -30 °C to 70 °C
min. installation temp: -10 °C

Electrical parameters:

Conductor diameter: 0,5 ± 0,015 mm
Insulated core diameter: 0,92 ± 0,03 mm
DC loop resistance at 20 °C (max):
190 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: 69 %
Return loss dB (min):
f = 4 ÷ 10 MHz: 20 + 5 x $\log_{10}$(f)
f = 10 ÷ 20 MHz: 25
f = 20 ÷ 200 MHz: 25 - 7 x $\log_{10}$(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, pairs twisted together
Screen:	Al/Pet screen with tinned copper drain wire
Outer sheath:	special LSOH compound
Outer sheath colour:	orange RAL 2003, other colours available on customer's request

Marking: *BITNER BiTLAN F/UTP 4x2x24AWG(0,5) cat.5e 200MHz LSOH EN 50173-1 ISO/IEC 11801 ANSI/TIA 568-C.2 ID no. CE RoHS www.bitner.com.pl meters*

Application:

BiTLAN F/UTP cat.5e 200MHz LSOH cables are applicable to computer networks with operating frequency band up to 200MHz. Suitable for transmission of data, audio and video signals, with bitrate up to 1Gb/s. Additional collective 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, 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]	Bandwidth [MHz]
TI0009	F/UTP cat.5e LSOH	24AWG(0,5)	6,1	Dca	38	200

*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	30	45	60	80	100	120	130	155	175	200
Attenuation ≤ dB/100m	2,1	4,0	6,3	8,0	9,0	11,2	13,9	16,2	18,9	21,3	23,6	24,7	27,2	29,2	31,5
NEXT ≥ dB	65,3	56,3	50,3	47,2	45,8	43,1	40,5	38,6	36,7	35,3	34,1	33,6	32,4	31,6	30,8
PS NEXT ≥ dB	62,3	53,3	47,3	44,2	42,8	40,1	37,5	35,6	33,8	32,3	31,1	30,6	29,5	28,6	27,8
ELFEXT ≥ dB/100m	63,8	51,8	43,8	39,7	37,8	34,3	30,7	28,2	25,7	23,8	22,2	21,5	20,0	19,0	17,8
PS ELFEXT ≥ dB/100m	60,8	48,8	40,8	36,7	34,8	31,3	27,7	25,2	22,7	20,8	19,2	18,5	17,0	16,0	14,8
RL ≥ dB	20,0	23,0	25,0	25,0	25,0	23,8	22,5	21,7	20,8	20,1	19,5	19,3	18,8	18,4	18,0

Transmission parameters graphs - examples of measurement results