

BiTLAN[®] F/UTPf cat.5e outdoor

200 MHz

Data transmission cable, screened and suitable for external applications



BITNER BiTLAN F/UTPf 4x2x24AWG(0,5) cat. 5e outdoor 200MHz



external application



data transmission



UV resistance



oil resistant
EN 60811-2-1



self-supporting

Technical data:

Thermal parameters:

Temperature range:

operating temperature: -30 °C to 80 °C
min. installation temp: -10 °C

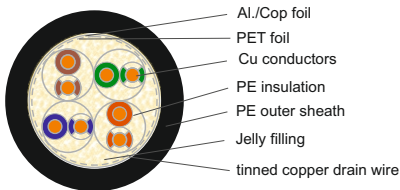
Electrical parameters:

Conductor diameter: 0,5 ± 0,015 mm
Insulated core diameter: 1,05 ± 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 (max): 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 log₁₀(f)
f = 10 + 20 MHz: 25
f = 20 + 200 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, pairs twisted together

Filling:

hydrophobic jelly filling

Screen:

Al./Cop foil with tinned copper drain wire

Outer sheath:

polyethylene PE

Outer sheath colour:

black

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

Application:

BiTLAN F/UTPs cat.5e outdoor 200MHz/cables are applicable to computer networks with operating frequency band up to 200 MHz. Suitable for transmission of data, audio and video signals, with bitrate up to 1 Gb/s. Dedicated for fixed installations within outdoor structured cabling systems as per EN 50173-1, ISO/IEC 11801, ANSI/TIA 568-C.2 standards. Additional collective Al/Cop screen with tinned copper drain wire acts as a protection against external electromagnetic interferences and as a moisture barrier. Cables are filled with hydrophobic gel preventing water ingress and have UV resistant outer sheath allowing external application as well as direct burial. 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]
T10013	F/UTPf cat.5e outdoor	24AWG(0,5)	7,4	Fca	53	200

*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	130	155	175	200
Attenuation \leq 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 \geq 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 \geq 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 \geq 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 \geq 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 \geq 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

