

# BiTLAN<sup>®</sup> U/UTP cat.5e outdoor

## 200 MHz

Data transmission cable suitable  
for external applications



### Technical data:

#### Thermal parameters:

##### Temperature range:

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

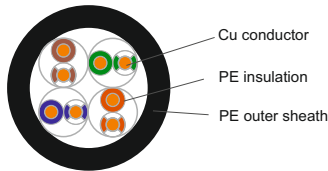
#### Electrical parameters:

**Conductor diameter:** 0,5 ± 0,015 mm  
**Insulated core diameter:** 0,83 ± 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<sub>10</sub>(f)  
f = 10 + 20 MHz: 25  
f = 20 + 200 MHz: 25 - 7 x log<sub>10</sub>(f/20)

#### Mechanical parameters:

##### Bending radius:

during operation: ≥ 6 x Ø  
during installation: ≥ 8 x Ø



Cat. no.	Construction	Cu wire	Outer diameter* [mm]	CPR classification EN 50575	Cable weight [kg]	Bandwidth [MHz]
TI0060	U/UTP cat.5e outdoor	24AWG(0,5)	5,7	Fca	32	200

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

### Design:

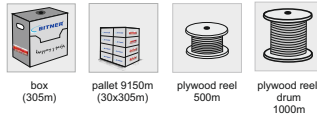
**Conductors:** solid round copper conductors  
**Insulation:** special polyolefin compound  
**Core identification:** wh/bu-bu, wh/or-or, wh/gn-gn, wh/bn-bn  
**Core arrangement:** cores twisted in pairs, pairs twisted together  
**Outer sheath:** polyethylene PE  
**Outer sheath colour:** black

**Marking:** BITNER BiTLAN U/UTP 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](http://www.bitner.com.pl) meters

### Application:

BiTLAN U/UTP cat.5e outdoor 200MHz 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. Dedicated for fixed installations within outdoor 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. UV resistant outer sheath enables external application. Cables classified according to **EN 50575 (CPR)**.

### Packaging:



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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

