

# BiTLAN® U/UTP cat.5e 200 MHz



Data transmission cable

BITNER BiTLAN U/UTP 4x2x24AWG(0,5) cat. 5e 200MHz



LAN cables



internal application



data transmission



EN 60332-1-2

## Technical data:

### Thermal parameters

#### Temperature range:

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

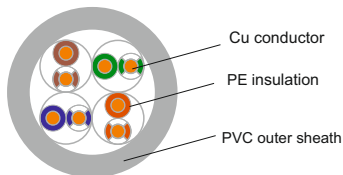
### Electrical parameters

**Conductor diameter:**  $0,5 \pm 0,015$  mm  
**Insulated core diameter:**  $0,86 \pm 0,03$  mm  
**DC loop resistance at 20 °C (max):** 190  $\Omega$ /km  
**Insulation resistance (min):** 5 G $\Omega$  x km  
**Resistance unbalance within a pair:**  $\leq 2$  %  
**Mutual capacitance at 1 kHz:**  $50 \pm 5$  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:**  $100 \pm 5 \Omega$   
**NVP value:** 69 %  
**Return loss dB (min.):**  
 $f = 4 + 10$  MHz:  $20 + 5 \times \log_{10}(f)$   
 $f = 10 + 20$  MHz: 25  
 $f = 20 + 200$  MHz:  $25 - 7 \times \log_{10}(f/20)$

### Mechanical parameters:

#### Bending radius:

during operation:  $\geq 4 \times \varnothing$   
during installation:  $\geq 6 \times \varnothing$



## 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:

PVC compound

#### Outer sheath colour:

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

**Marking:** BITNER BiTLAN U/UTP 4x2x24AWG(0,5) cat.5e 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 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 1 Gb/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 classified according to **EN 50575 (CPR)**.

## Packaging:



box  
(305m)



pallet 10 980m  
(36x305m)



plywood reel  
500m



plywood reel/  
drum  
1000m

Cat. no.	Construction	Cu wire	Outer diameter* [mm]	CPR classification EN 50575	Cable weight [kg]	Bandwidth [MHz]
T10006	U/UTP cat.5e	24AWG(0,5)	4,8	Eca	28	200

\*Outer diameter tolerance: +/- 5%

Cable Factory BITNER reserves the right to modify the specifications without prior notice

# BiTLAN<sup>®</sup> U/UTP cat.5e 200 MHz

Data transmission cable

## 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

