

# BiTLAN F/UTP cat.6 350MHz

Data transmission cable, screened



internal  
application



EN 60332-1



data transmission

RoHS 2011/65/EU



LVD 2014/35/EU



CPR 305/2011



## Technical data:

### Temperature range:

Operating temperature: -30°C to +70°C

Min. installation temp: -10°C

Bending radius: 6xØ

Conductor diameter: 0,54±0,015mm

Insulated core diameter: 1,06±0,05mm

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

Insulation resistance (min): 5GΩxkm

Resistance unbalance: ≤2%

Capacitance at 1 kHz: 50±5nF/km

Capacitance unbalance at 1kHz (max):

1600pF/km

Nominal voltage: 150V

Test voltage:

AC 50 Hz: 700V

DC: 1000V

Characteristic impedance: 100±5Ω

NVP value: 67%

Return loss (min):

f = 4÷10MHz: 20+5lg(f)

f = 10÷20MHz: 25

f = 20÷350MHz: 25-7lg(f/20)

Coupling attenuation within the range

of 30 ÷ 100 MHz (min.): 55dB

Transfer impedance at 10 MHz (max):

100mΩ/m.

## Construction:

**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 with a cross spacer

**Screen:** aluminium backed polyester tape and tinned copper drain wire

**Outer sheath:** special PVC

**Outer sheath colour:** grey RAL 7035, other colours available on customer's request

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

## Application:

BiTLAN F/UTP cat. 6 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 collective Al/Pet screen with CuSn 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)**.

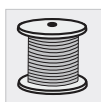
## Packaging:



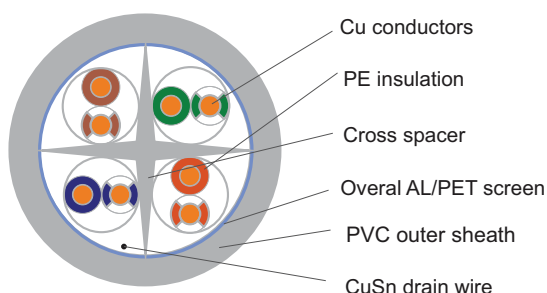
Spool/Coil  
305m



Spool/Coil  
500m



Spool/drum  
1000m



Cat. no	Construction	Cu wire	O.D. [mm]	CPR classification EN 50575	Cu [kg/km]	Cable weight [kg]	Bandwidth [MHz]
TI0048	F/UTP cat.6	23AWG	7,3	Eca	22	50	350

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

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## Performance test charts and data:

Frequency MHz	1	4	10	16	20	30	45	60	80	100	120	150	180	200	220	250	280	300	320	350
Attenuation $\leq$ 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 $\geq$ dB/100m	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 $\geq$ dB/100m	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 $\geq$ 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 $\geq$ 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 $\geq$ 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

