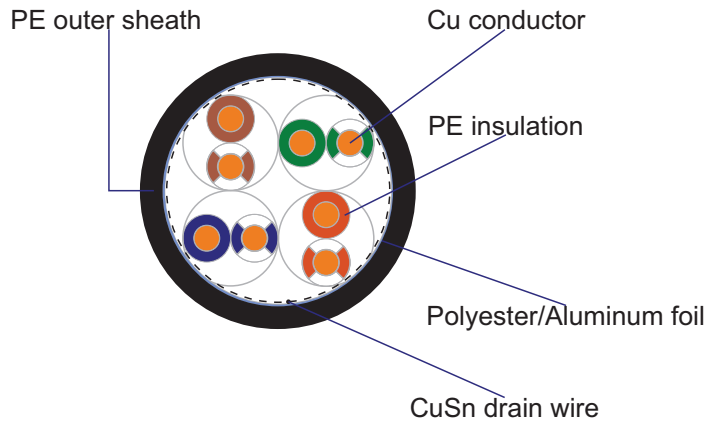


## Data transmission cable - BiTLAN F/UTP cat. 5e PE (1mm) 200 MHz



### Application:

F/UTP cat. 5e outdoor 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. Collective polyester/aluminum foil with CuSn drain wire protect against external electromagnetic interferences. Dedicated for fixed installations within outdoor structured cabling systems as per PN-EN 50173-1, PN-EN 50288-2-1, ISO/IEC 11801 2<sup>nd</sup>ed., IEC 61156-5, ANSI/TIA/EIA 568-C.2 standards, as well as within industrial networks exposed to external electromagnetic interferences.

Cable suitable for outdoor installations thanks to PE outer jacket, resistant to UV radiation. Applicable to be laid in cable ducts or buried directly to the ground.

### Technical data:

#### Operating temperature:

Fixed installation: -30°C to +80°C

Flexible connections: -10°C to +50°C

**Bending radius:** 10 x Ø

**DC loop resistance at 20 °C (max):** 190 Ω/km

**Insulation resistance (min):** 5 GΩ x km

**Resistance unbalance:** ≤ 2%

**Capacitance at 1 kHz:** 50 ± 5 nF/km

**Capacitance unbalance at 1kHz (max):** 1600 pF/km

**Nominal voltage:** 150V

#### Test voltage:

AC 50 Hz: 700V

DC: 1000V

**Characteristic impedance:** 100 ± 5Ω

**NVP value:** 67%

#### Return loss (min):

f = 4÷10 MHz: 20 + 5lg(f)

f = 10÷20 MHz: 25

f = 20÷200 MHz: 25 - 7lg(f/20)

**Screen attenuation within the range of  
30 ÷ 200 Mhz (min.):** 50 dB

**Transfer impedance at 10 Mhz (max):**  
100 mΩ/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

**Screen:** polyester/aluminum foil with tinned copper  
drain wire Ø 0,4 mm

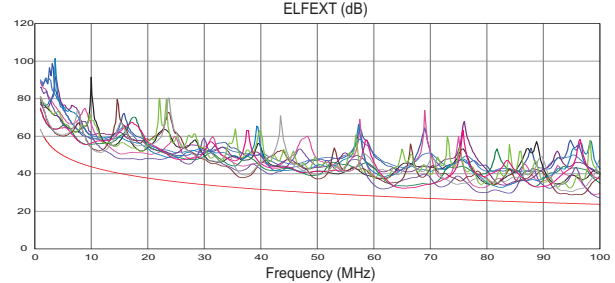
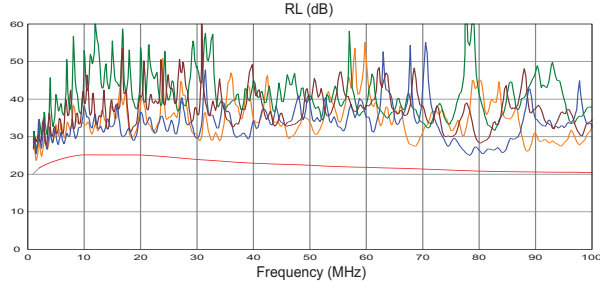
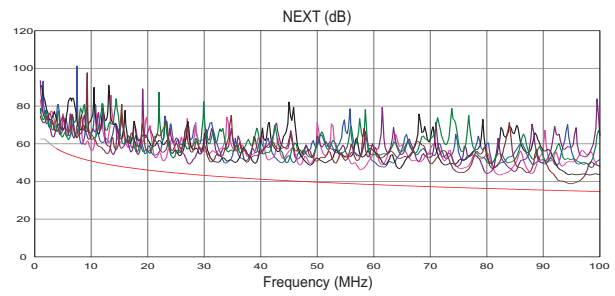
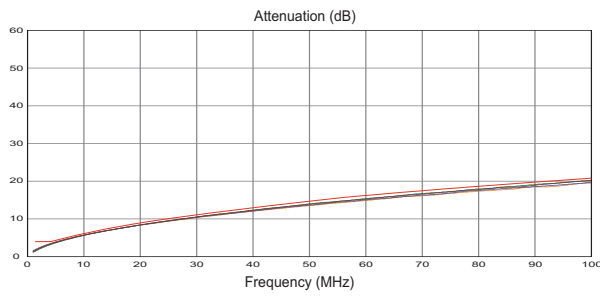
**Outer sheath:** PE compound, UV resistant

**Outer sheath colour:** black RAL 9005

## Construction:

ID	Construction	Cu wire	O.D. [mm]	Copper weight	Cable weight	Band [Mhz]
	F/UTP cat.5e	24AWG (0,50)	7,0	17	41	200

## Performance test charts and data:



Freq. Mhz	Min. RL (dB)		Max. IL (dB)		Min. NEXT (dB)		Min. PS NEXT (dB)		Min. ACR-F (dB)	
	Standard	BITNER <sup>1)</sup>	Standard	BITNER <sup>1)</sup>	Standard	BITNER <sup>1)</sup>	Standard	BITNER <sup>1)</sup>	Standard	BITNER <sup>1)</sup>
1	20,0		2,0	2,0	65,3	85,4	62,3	77,4	63,8	86,2
4	23,0	29,4	4,1	3,7	56,3	78,5	53,3	70,5	51,8	77,5
8	24,5	30,4	5,8	5,2	51,8	69,3	48,8	62,4	45,7	69,8
10	25,0	33,4	6,5	5,8	50,3	71,0	47,3	65,1	43,8	66,7
16	25,0	34,5	8,2	7,3	47,2	66,9	44,2	56,4	39,7	62,4
20	25,0	32,9	9,3	8,2	45,8	64,7	42,8	56,6	37,8	60,5
25	24,3	34,1	10,4	9,2	44,3	63,4	41,3	56,2	35,8	58,1
31,25	23,6	35,4	11,7	10,3	42,9	60,7	39,9	51,4	33,9	56,3
62,50	21,5	37,0	17,0	14,7	38,4	58,4	35,4	48,2	27,9	51,3
100	20,1	36,2	22,0	18,6	35,3	55,1	32,3	46,0	23,8	49,0

<sup>1)</sup> Typical average test result