



**Cable 600 MHz FR-LSZH sheath**  
S/FTP Category 7

Structural Cabling FIBRAIN DATA Ultra Series, fully satisfies the requirements of cat. 7 (class F) in accordance with standard ISO/IEC 11801 2nd Ed. as well as EN 50173-1. Moreover all components of the transmission line complete ROHS 2002/95/WE Directive. Specified cables are with upgraded characteristic up to 600 Mhz.

**Electrical and constructional parameters:**

Parameter:		
Impedance 10 to 600 MHz (Ohm)		100±5
Nominal velocity of propagation NVP (% speed of light)		78
Attenuation:		
Value for:	-30 - 100 MHz	>80 dB
	100 - 1000 MHz	80-20log(f/100)
Delay skew (max) (ns/100 m)		25
Dielectric strength during 1 minute (V c.c.)		700
Insulation strength (MΩm/km)		>5000
Nominal/maximum operating voltage (V)		125/200
Maximum operating current (A)		0,25
DC resistance in C.C (Ωm/k)		164
Diameter (mm)		7,1
Weight (kg/km)		60
Flame resistance		NFC 32070 C2
Temperature while operation (°C)		-40/+65

**Construction:**

- **Conductor:** 23 AWG (0,574 mm)
- **Insulation:** cellular PO
- **Number of wires:** 4 pairs twisted together
- **Orange jacket FR-LSZH** according to IEC 60322-1
- **Shield:** aluminum foil/polyester around each pair
- **Shield:** braid around all pairs
- **Grounding:** cooper, galvanized drainage wire  $\phi$ 0,4 mm

**Application:**

- Supports full and half duplex application
- Digital and analogue video transmission
- 100 BASE-T (IEEE 802.3)
- 1000 BASE-T (Gigabit Ethernet)
- 155/622 Mbps ATM
- 1,2 Gbps ATM
- 10G BASE-T (10 Gigabit Ethernet)
- Broadband CATV

**Norms:**

- FR-LSZH: PN-EN 61034, PN-EN 60332-1-2,
- PN-EN 50267-2-1, PN-EN 60332-3, IEC 60754-1
- ISO/IEC 11801, EN 50173

**Cable marking:**

Below information is printed on each meter of the cable:

- **Supplier:** FIBRAIN DATA
- **Cable Type:** S/FTP 4PR 23AWG CAT.7 600 MHZ
- **Jacket type:** FR-LSZH
- **Norms:** IEC 61156-5 ISO/IEC 11801 EN 50173
- **Year of production:** XXXX
- **ID number:** XXXXXX
- **Length marking in meters**



Frequency MHz:	Tłumienie Max		NEXT		PS-NEXT		ACR-F		PS-ACR-F		Return Loss	
	dB/100m				Typical Value   Cat. 7							
1	2,0	2,0	108,0	78,0	105,0	75,0	98,0	78,0	95,0	75,0	22,0	20,0
4	3,6	3,7	101,0	78,0	98,0	75,0	93,0	78,0	90,0	75,0	25,0	23,0
10	5,6	5,8	98,0	78,0	95,0	75,0	89,0	74,0	86,0	71,0	28,0	25,0
20	7,9	8,3	93,0	78,0	90,0	75,0	83,0	68,0	80,0	65,0	28,0	25,0
30	9,7	10,2	88,0	78,0	85,0	75,0	79,0	64,5	76,0	61,5	27,0	23,8
100	18,0	19,0	83,0	72,4	80,0	69,4	69,0	54,0	66,0	51,0	24,0	21,1
150	22,4	23,6	81,0	69,7	78,0	66,7	66,0	50,5	63,0	47,5	22,0	18,8
200	26,0	27,5	81,0	68,0	78,0	65,0	63,0	48,0	60,0	45,0	21,0	18,0
250	29,4	31,0	78,0	66,4	75,0	63,4	61,0	46,0	58,0	43,0	20,0	17,3
300	32,5	34,2	78,0	65,2	75,0	62,2	55,0	44,5	52,0	41,5	19,0	17,3
400	38,0	40,0	73,0	63,4	70,0	60,4	52,0	41,9	49,0	38,9	19,0	17,3
500	43,0	45,2	73,0	61,9	70,0	58,9	50,0	40,0	47,0	37,0	19,0	17,3
600	47,6	50,1	73,0	60,7	70,0	57,7	48,0	38,4	45,0	35,4	19,0	17,3

X6U100F146 FIBRAIN DATA Ultra S/FTP Kat.7 900 MHz drum 500 m FR-LSZH jacket orange colour

X6U100F147 drum 1000 m