



**Rapid 6a**

**Cable 500 MHz FR-LSZH sheath**  
U/FTP Category 6A

Structural Cabling FIBRAIN DATA Rapid Series, fully satisfies the requirements of cat. 6A (class EA) in accordance with standards ISO/IEC 11801 2nd Ed. Am. 1, ANSI/TIA/EIA 568-C-2.1 as well as EN 50173-1. Moreover all components of the transmission line complete ROHS 2002/95/WE Directive.

Electrical and constructional parameters:		
Parameter:		
Impedance 10 to 500 MHz (Ohm)		100±5
Nominal velocity of propagation NVP (% speed of light)		74
Attenuation:		
Value for:	-30 - 100 MHz	>55 dB
	100 - 1000 MHz	55-20log(f/100)
Delay skew (max) (ns/100 m)		<25
Dielectric strength during 1 minute (V c.c.)		1000
Insulation strength (MΩ/km)		>5000
Nominal/maximum operating voltage (V)		125/200
Maximum operating current (A)		0,25
DC resistance in C.C (Ω/k)		164
Diameter (mm)		7,9
Weight (kg/km)		60
Flame resistance		NFC 32070 C2
Temperature while installation (°C)		-10/+50
Temperature while operation (°C)		0/+50

**Construction:**

- Conductor – 23 AWG (0,574 mm)
- Insulation: polyolefine
- Number of wires: 4 pairs twisted together
- Turquoise jacket FR-LSZH according to IEC 60322-1
- Shield: aluminum foil/polyester around all pairs
- Grounding: cooper, galvanized wire drainage φ 0,4 mm

**Application:**

- Supports full and half duplex application
- Digital and analogue video transmission
- 100 Mbps TP-PMOD
- 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)

**Norms:**

- FR-LSZH: PN-EN 61034, PN-EN 60332-1-2,
- PN-EN 50267-2-1, PN-EN 60332-3, IEC 60754-1
- ANSI/TIA/EIA 568-C-2.1 (Cat. 6A)
- ISO/IEC 11801, EN 50173

**Cable marking:**

Below information is printed on each meter of the cable:

- **Supplier:** FIBRAIN DATA
- **Cable Type:** U/FTP 4PR 23AWG CAT.6A 500 MHz
- **Jacket type:** FR-LSZH
- **Norms:** IEC 61156-5 ISO/IEC 11801 EN 50173
- **Year of production:** XXXX
- **ID number:** XXXX
- **Length marking in meters**



Frequency Mhz:	Attenuation Max dB/100 m:	NEXT	PS-NEXT	ACR-F dB/100 m(min):	PS-ACR-F	Return Loss
1	2	75,3	72,3	68,0	65,0	20,0
10	5,9	60,3	57,3	48,0	45,0	25,0
16	7,4	57,3	54,2	43,9	40,9	25,0
31,25	10,4	52,9	49,9	38,1	35,1	23,6
62,5	14,8	48,4	45,4	32,1	29,1	21,5
100	19,0	45,3	42,3	28,0	25,0	20,1
155	24,0	42,4	39,4	24,2	21,2	18,8
250	31,0	39,3	36,3	20,0	17,0	17,3
300	34,2	38,1	35,1	18,5	15,5	16,8
500	50,1	34,8	32,8	14,0	11,0	15,2

XR 100F126 FIBRAIN DATA Rapid U/FTP Cat. 6A 500 MHz drum 500 m jacket FR-LSZH turquoise colour