



Rapid 6a

01

Cable 500 MHz LSZH sheath
S/FTP Category 6_A

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)	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)	7,5
Weight (kg/km)	61
Flame resistance	IEC 60332-1, UL 1581, UL CMX
Temperature while operation (°C)	-40/+60

Construction:

- Conductor - 23 AWG (0,574 mm)
- Insulation: cellular PO
- Number of wires: 2x 4 pairs twisted together
- Turquoise jacket FR-LSZH according to IEC 60322-1
- Shield: aluminum foil/polyester around each pair
- Shield: braid 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:** 2x F/FTP 8P23AWG CAT.6A 500 MHz
- **Jacket type:**FR- LSZH
- **Norms:** IEC 61156—5 ISO/IEC 11801 EN 50173
- **Year of production:** XXXX
- **ID number:** XXXX



Frequency MHz:	Attenuation Max		NEXT		PS-NEXT		ACR-F		PS-ACR-F		Return Loss	
					Typical Value Cat. 6A							
1	2,0	2,0	98,0	75,3	95,0	72,3	88,0	68,0	85,0	65,0	22,0	20,0
4	3,7	3,8	98,0	66,3	95,0	63,3	76,0	56,0	73,0	53,0	25,0	23,0
10	5,6	5,9	98,0	60,3	95,0	57,3	68,0	48,0	65,0	45,0	28,0	25,0
20	7,9	8,4	93,0	55,8	90,0	52,8	62,0	42,0	59,0	39,0	28,0	25,0
30	9,7	10,3	88,0	53,1	85,0	45,4	58,4	38,4	55,4	35,4	27,0	23,8
100	18,0	19,1	83,0	45,3	80,0	42,3	48,0	28,0	45,0	25,0	24,0	21,1
150	22,4	23,6	81,0	42,7	78,0	39,7	44,5	24,5	41,5	21,5	22,0	18,8
200	26,0	27,6	81,0	40,8	78,0	37,8	52,0	22,0	49,0	19,0	21,0	18,0
250	29,4	31,0	78,0	39,3	35,1	36,3	40,0	20,0	37,0	17,0	20,0	17,3
300	32,5	34,3	78,0	38,1	32,8	35,1	38,5	18,5	35,5	15,5	19,0	17,3
400	38,0	40,0	73,0	36,3	32,8	33,3	36,0	16,0	33,0	13,0	19,0	17,3
500	43,0	45,2	73,0	34,8	32,8	31,8	34,0	14,0	31,0	11,0	19,0	17,3
600	47,6	N/A	73,0	N/A	32,8	N/A	33,0	N/A	30,0	N/A	19,0	N/A
700	52,0	N/A	73,0	N/A	32,8	N/A	32,0	N/A	29,0	N/A	19,0	N/A

XR100F146 FIBRAIN DATA Rapid S/FTP Kat.6_A 500 MHz drum 500 m. jacket FR-LSZH turquoise colour

XR100F147 drum 1000 m.