

F/UTP cat. 6_A 500 MHz

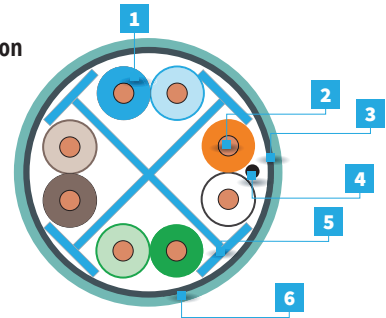
Rapid 6a



F/UTP cat. 6_A 500 MHz

Cable construction

1. Insulation
2. Conductor
3. Shield
4. Drain wire
5. Cross web
6. Jacket



FibrainDATA Rapid F/UTP Cat.6_A Jacket LSZH 500 MHz

500 m drum	XR100.116
1000 m drum	XR100.117
JACKET - LSZH AQUA	

ELECTRICAL AND CONSTRUCTION PARAMETERS

Impedance from 10 do 500 MHz [Ohm]	100±5
Nominal velocity of propagation NVP (% speed of light)	72
Return loss (RL) dB (min)	
values at	
30 - 100 MHz	>55 dB
100 - 500 MHz	50-20log(f/100)
Delay skew (max) [ns/100 m]	40
Dielectric strength during 1 minute (V c.c.)	1500
Insulation strength (MOhm*km)	>5000
Nominal/maximum operating voltage [V]	125/200
Maximum operating current [A]	0.25
Diameter [mm]	7.6
Weight [kg/km]	52.6
Installation temperature [°C]	-20/+70
Operating temperature [°C]	-20/+70

Applications

- Half and full duplex transmission
- Analog and digital transmission of video signals
- 100Mbps 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

- LSZH: PN-EN 61034, PN-EN 50267-2-1
- PN-EN 60332-1, PN-EN 60332-3-24
- ANSI/TIA/EIA 568-C.2 (Cat.6A)
- ISO/IEC 11801:2011
- PN-EN 50173:2011

Construction

- Conductor (wire) - 23 AWG (0.574 mm)
- Insulation: polyolefin
- Pair number: 4 twisted pairs
- Jacket: LSZH aqua in accordance with IEC 60322-1
- Shield: Aluminium foil/polyester around all pairs
- Grounding: galvanized copper wire Ø0.4 mm

Frequency [MHz]	Max. attenuation [dB/100 m]	NEXT	PS-NEXT	ACR-F	PS-ACR-F	ACR-F	PS-ACR-F	Return loss [dB]
		[dB/100 m] min						
1*	2.1	75.3	72.3	68.0	65.0	73.2	70.2	20.0
4	3.8	66.3	63.3	56.0	53.0	62.5	59.5	23.0
8	5.3	61.8	58.8	69.9	46.9	56.4	53.4	24.5
10	5.9	60.3	57.3	48.0	45.0	54.4	51.4	25.0
16	7.5	57.2	54.2	43.9	40.9	49.8	46.8	25.0
25	9.4	54.3	51.3	40.0	37.0	45.0	42.0	24.3
31.25	10.5	52.9	49.9	38.1	35.1	42.4	39.4	23.6
62.5	15.0	48.4	45.4	32.1	29.1	33.4	30.4	21.5
100	19.0	45.3	42.3	28.0	25.0	26.2	23.2	20.1
155	24.1	42.4	39.4	24.2	21.2	18.4	15.4	18.8
200	27.6	40.8	37.8	22.0	19.0	13.2	10.2	18.0
250	31.1	39.3	36.3	20.0	17.0	8.3	5.3	17.3
300	34.3	38.1	35.1	18.5	15.5	3.9	0.9	17.3
350	37.2	37.1	34.1	17.1	14.1	---	---	17.3
400	40.1	36.3	33.3	16.0	---	---	---	17.3
500	45.3	34.8	31.8	14.0	---	---	---	17.3