

ADTRONICS® AD-C4C6AFF-500 MHz

Ethernet Cable CAT6A F/FTP

4P,LSZH, 500MHz AWG23



Application

Primary (Campus), Secondary (Riser), Tertiary (Horizontal)

IEEE 802.3: 10Base-T; 100Base-T; 1000Base-T;

IEEE 802.5 16 MB; ISDN; TPDDI; ATM

IEEE 802.3af Power over Ethernet (PoE) / IEEE 802.3at PoE+

Standards

IEEE 802.3at : 10Base-T ; 100Base-TX ; 1000Base-T IEEE 802.5 / FDDI / ATM / RNIS

Class E compliant ANSI/TIA/EIA

IEC 61156-5 ed.2 / EN 50288-10-1 / EN 50174 / EN 50173-1

ISO/IEC 11801 2nded. / EIA/TIA 568-A/B2.10/C2

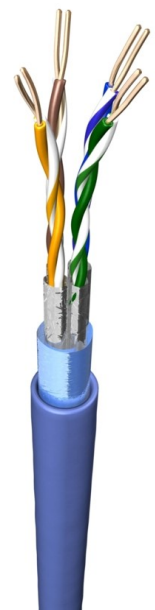
RoHS 2002/95/EC

Fire Rating

PVC: IEC 60332-1-2; Class Eca

LSZH: IEC 60332-1-2; IEC 60754-1-2; IEC 61034-2; Class Eca

LSFRZH: IEC 60332-1-2; IEC 60332-3-24; IEC 60754-1&2; IEC 61034-2 Class Eca



Construction

Conductor	Bare copper wire Ø 0.56 mm (AWG23/1)
Insulation	Foamskin Polyethylene, Ø 1.35 mm
Stranding	2 cores to the pair
Pair screen	High Performance FTP: Al-laminated plastic foil, patented wrapping of two pairs each
Cable lay up	4x2 pairs to the core
Screen	Advanced screen: Al-laminated plastic foil, drain wire AWG26 tinned
Sheath	PVC alt. LSHF(FRNC), blue RAL 5024
	Duplex sheath: two cables parallel, separable

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Mechanical properties

Minimum bending radius	Installation	8 x D
	Installed	4 x D
Temperature range	during operation	-20°C up to + 60°C
	during installation	0°C up to + 50°C

Electrical properties at 20°C± 5°C

loop resistance		≤ 156 Ω /km	
Resistance unbalance		≤ 2%	
Insulation resistance	(500 V)	≥ 2000 MΩ *km	
Mutual Capacitance	at 800 Hz	Nom. 43 nF/km	
Capacitance unbalance	(pair to ground)	≤ 1500 pF/km	
Mean impedance	100 MHz	100 ± 5 Ω	
Nominal velocity of propagation		ca. 79 %	
Propagation delay		Nominal ≤ 427 ns/100m	
Delay skew		Nominal ≤ 12 ns/100m	
Test voltage	(DC, 1 min) Core/Core and core/screen	1000 V	
Transfer impedance	at 1 MHz	≤ 20 MΩ /m	Grade 2
	at 10 MHz	≤ 50 MΩ /m	
	at 30 MHz	≤ 100 MΩ /m	
Coupling attenuation		55 dB	Type 2
Segregation classification acc. EN 50174-2		C	

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Electrical data (nominal) acc. to Cat.6 (at 20°C)

F (MHZ)	Attenuation (dB/100m)	NEXT (dB)	PS-NEXT (dB)	ACR (dB/100m)	PS-ACR (dB/100m)	ACRF (dB/100m)	PS-ACRF (dB/100m)	Return loss (dB)
1.0	1.8	100	97	98	95	105	105	-
4.0	3.4	100	97	97	94	105	102	27
10.0	5.4	100	97	95	92	97	94	30
16.0	6.8	100	97	93	90	93	90	30
20.0	7.7	100	97	92	89	91	88	30
31.2	9.6	100	97	90	87	87	84	30
62.5	13.7	100	97	86	83	81	78	30
100.0	17.4	100	97	83	80	77	74	30
125.0	19.5	95	92	75	72	75	72	26
155.5	21.9	94	91	72	69	73	70	26
175.0	23.3	93	90	70	67	72	69	25
200.0	25.0	92	89	67	64	71	68	25
250.0	28.1	90	87	62	59	69	66	24
300.0	30.9	89	86	58	55	67	64	24
400.0	38.3	87	84	48	45	64	61	23
500.0	44.8	85	82	40	37	61	58	22

References

References	Description
AD-C4C6AFFPVC	Cable Cat. 6A F/FTP PVC, 500 MHz AWG 23
AD-C4C6AFFLSZH	Cable Cat. 6A F/FTP LSZH, 500 MHz AWG 23