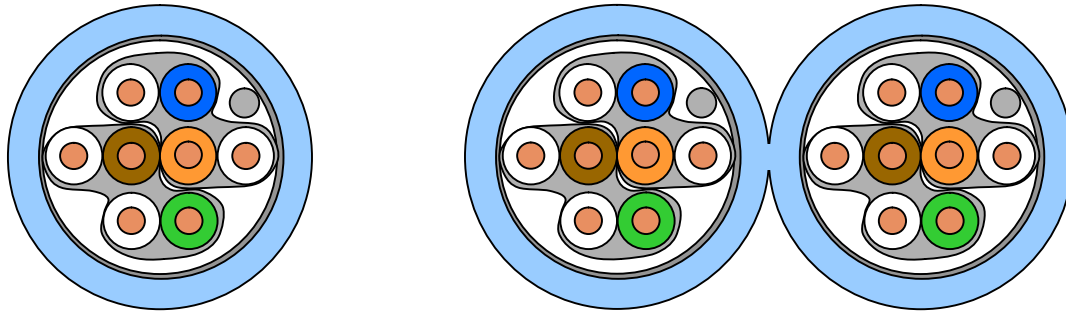


UC500 AS23 Cat.6a

F/FTP



Application

Primary (Campus), Secondary (Riser), Tertiary (Horizontal)
 IEEE 802.3: 10Base-T; 100Base-T; 1000Base-T; 10GBase-T
 IEEE 802.5 16 MB; ISDN; FDDI; ATM

Standards

EN 50173-1; EN 50288-5-1
 ISO/IEC 11801; IEC 61156-5
 TIA/EIA-568-B.2

Flame resistance

LSHF(LSOH): IEC 60332-1; IEC 60754-2; IEC 61034
 LSHF-FR(LSFROH): additionally IEC 60332-3-24

Construction

Conductor	bare copper wire Ø 0.56 mm (AWG23)
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	LSHF, blue RAL 5024 Duplex sheath: two cables parallel, separable

UC500 AS23 Cat.6a

Mechanical properties

Bending radius	without load	≥ 35 mm
	with load	≥ 70 mm
Temperature range	during operation	-20°C to + 60°C
	during installation	0°C to + 50°C

Electrical properties

at 20°C ± 5°C

Loop resistance		≤ 176 Ω/km
Resistance unbalance		≤ 2%
Insulation resistance	(500 V)	≥ 2000 MΩ*km
Mutual capacitance	at 800 Hz	Nom. 43 nF/km
Capacitance unbalance	(pair/ground)	≤ 1500 pF/km
Characteristic impedance	(1-100 MHz)	(100 ± 15) Ω
	(100 - 250) MHz	(100 ± 18) Ω
Nominal velocity of propagation		ca. 79 %
Propagation delay		≤ 427 ns/100m
Delay skew		≤ 12 ns/100m
Test voltage	(DC, 1 min) core/core and core/screen	1000 V
Transfer impedance	at 1 MHz	≤ 20 mΩ/m
	at 10 MHz	≤ 50 mΩ/m
	at 30 MHz	≤ 100 mΩ/m
Coupling attenuation		≥ 55 dB

Electrical data (nominal)

acc. to Cat.6A (at 20°C)

F (MHZ)	Attenuation (dB/100m)	NEXT (dB)	PS-NEXT (dB)	ACR (dB/100m)	PS-ACR (dB/100m)	ELFEXT (dB/100m)	PS-ELFEXT (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

UC500 AS23 Cat.6a

Technical data

Product code	Cable type	Brand name	Outer diameter	Fire load		Weight kg/km	Copper content	Tensile force N
			Mm	MJ/km	kWh/m			
1001019	J-02YS(St)H 4x2x0.56	UC500 AS23 Cat.6a F/FTP 4P LSHF	6.5	501	0.139	44	24	100
1007955	J-02YS(St)H 2x(4x2x0.56)	UC500 AS23 Cat.6a F/FTP 2x4P LSHF	6.5/13.0	1002	0.278	88	48	200