

Recognition of Recommended Cable

The HDBaseT Alliance acknowledges completion of the requirements under HDBaseT Alliance Certification Program 2.0 for the cable below to be recognized as recommended

Draka Comteq Germany GmbH & Co KG

UC500 S23 Cat.6A U/FTP

Certification Granted as of March 21, 2016

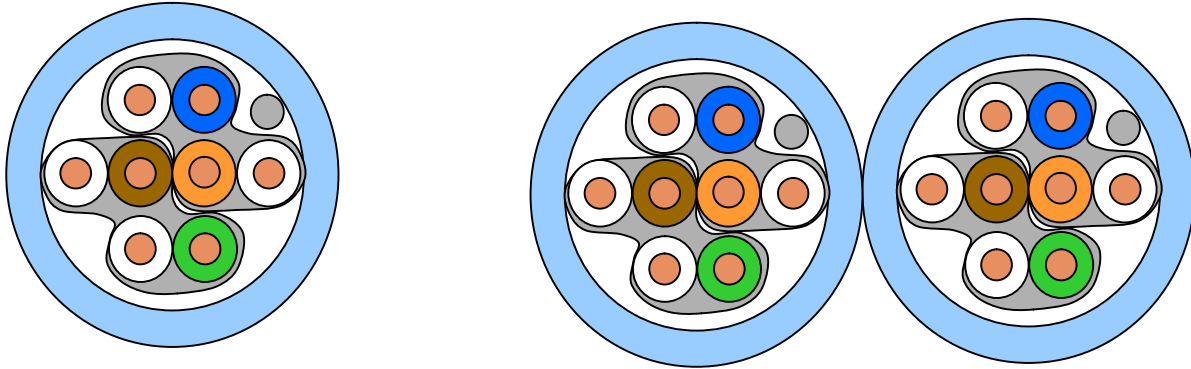


Ariel Sobelman HDBaseT Alliance President



UC500 S23 Cat.6_A

U/FTP AWG23/1



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
Power over Ethernet (PoE) / PoE+

Standards

EIA/TIA-568-B.2-10 Draft 5.0
ISO/IEC 11801 2nd ed.; IEEE 802.3at
EN 50173-1
EN 50288-10 Draft
IEC 61156-5 (46C/783/CDV)

Flame resistance

LSHF(FRNC): IEC 60332-1; IEC 60754-2; IEC 61034

Construction

Conductor	bare copper wire, Ø 0.56 mm (AWG23/1)
Insulation	Foamskin Polyethylene, Ø 1.35 mm
Twisting	2 cores to the pair
Pair screen	High Performance STP: Al-laminated plastic foil, patented wrapping of two pairs each, drain wire AWG26 tinned
Cable lay up	2x2 pairs to the core
Sheath	LSHF, blue RAL 5024

Mechanical properties

Bending radius	Installation	8 x Outer diameter
	Installed	4 x Outer diameter
Temperature range	During operation	-20°C to + 60°C
	During installation	0°C to + 50°C

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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	
Mean characteristic impedance	100 MHz	100 ± 5Ω	
Nominal velocity of propagation		Ca. 79 %	
Propagation delay	Nominal	< 450 ns/100m	
Delay skew	Nominal	< 15 ns/100m	
Test voltage	(DC, 1 min) core/ core and core/screen	1000 V	
Transfer impedance	at 1 MHz	≤ 50 mΩ /m	Grade 2
	at 10 MHz	≤ 100 mΩ /m	
	at 30 MHz	≤ 200 mΩ /m	
Coupling attenuation		55 dB	Type 2
Segregation classification acc. EN 50174-2		"c"	

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)	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

Product order data

Product code	Cable type	Brand name	Outer diameter mm	Fire load		Weight kg/km	Copper content	Tensile force
				MJ/km	kWh/m			N

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1003514	J-02YS(St)H 4x2x0.56	UC500 S23 Cat.6 _A 4P LSHF	6.9	493	0.137	45	24	100
1014100	J-02YS(St)H 2x4x2x0.56	UC500 S23 Cat.6 _A 2x4P LSHF	6.9 x 13.9	986	0.274	90	48	200

Certificates



Product Code Table

Product Description	Product Code	PG Reference Code	PG Part Number
UC500 S23 C6A U/FTP 4P LSHF	1003514	60015537	60015537
UC500 S23 C6A U/FTP 4P LSHF 305BR	1003514-00305BR	60015537	60011113
UC500 S23 C6A U/FTP 4P LSHF 500DW	1003514-00500DW	60015537	60011412
UC500 S23 C6A U/FTP 4P LSHF 1000DW	1003514-01000DW	60015537	60011413
UC500 S23 Cat.6a U/FTP 4P LSHF	1003514-00500DP	60015537	60013266
UC500 S23 C6A U/FTP 2x4P LSHF		60015554	60015554
UC500 S23 C6A U/FTP 2x4P LSHF 500DW	1014100-00500DW	60015554	60015555
UC500 S23 C6A U/FTP 2x4P LSHF 500DP	1014100-00500DP	60015554	60015557

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