



Category 6A U/FTP 100 Ohm Horizontal LAN Cables



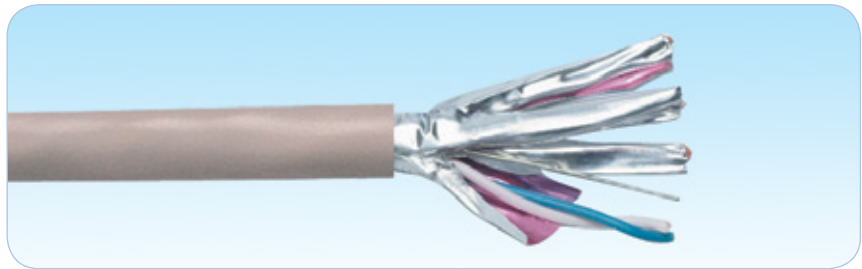
Description

HCS DataLink 500A cable series consists of 100 Ohm impedance, 4-pair and 8-pair U/FTP cables for horizontal installations in local area networks (LANs). All cables fully conform to and provide a substantial margin above all Category 6A ScTP requirements of ANSI/TIA/568-C.2 and Category 6A of IEC 61156-5.

Applications

HCS DataLink 500A Horizontal cables support all presently available and future LAN applications, including the following protocols:

- ☑ 10GBASE-T 10 Gigabit Ethernet
- ☑ 1000BASE-T Gigabit Ethernet
- ☑ ATM 155
- ☑ TP-PMD
- ☑ 100BASE-T Fast Ethernet
- ☑ 100BASE-T2
- ☑ 100BASE-T4
- ☑ 100BASE-TX
- ☑ Token Ring 100 Mbps
- ☑ ATM 52
- ☑ ATM 25
- ☑ 10BASE-T Ethernet
- ☑ Token Ring 4 Mbps and 16 Mbps
- ☑ Broadband and Baseband Video
- ☑ ISDN Basic and Primary Access
- ☑ 1BASE-5 Starlan
- ☑ ISALAN
- ☑ ITU V.21 and X.11



Qualifications and Approvals

HCS DataLink 500A Cables are tested and verified for full compliance with the following standards:

- ➔ Category 6A ScTP according to ANSI/TIA/568-C.2
- ➔ Category 6A according to IEC 61156-5.

Benefits & Features

- ➔ Exceptional transmission properties - suitable for 10GBE applications on 100m channels.
- ➔ Testing every reel of cable prior to shipment - Providing the highest degree of quality assurance.
- ➔ Exceptional material properties and cable design - Providing a unique Century™ Lifetime Warranty.
- ➔ High ACR values - Providing low BER (Bit-Error-Rate) in all applications.
- ➔ Extremely high pair-balance and individual foil shields - Providing excellent EMC (Electro Magnetic Compatibility), minimizing radiation and maximizing noise immunity.
- ➔ Revolutionary pair lay scheme - Providing an extremely low delay skew.
- ➔ Descending sequential meter mark - Providing easy stock and left-over handling.
- ➔ Smooth and rigid jacket - Providing fast and easy cable pulling and installation.
- ➔ Batch number printed every meter - Providing fast retrieval of test results from data-base.
- ➔ Unique DoubleSafe™ Quality Assurance Program - Providing lowest rejection rate available.

PHYSICAL AND MECHANICAL PROPERTIES

4 color-coded, individually foil-shielded twisted pairs cabled together with a tin-coated drain-wire, overall wrapped with a polyester tape and overall jacketed. Siamese (Figure-8) cables are made of two identical 4-pair cables connected in a zip-cord formation, one cable identified with two raised ribs on the jacket surface.

Basic Conductor	Solid, 23AWG, bare annealed copper
Insulation	Polyolefin
Number of Insulated Conductors	8, twisted in 4 pairs. (8 pairs in FIG-8 cables)
Color Code of Pairs	Blue x White, Orange x White, Green x White, Brown x White.
Individual Pair Shield	Laminated aluminum foil (foil face outward) providing 100% coverage.
Drain Wire	Solid, 24AWG, 0.51 mm, tin-coated annealed copper
Overall Tape	Polyester tape providing 100% coverage.
Outer Jacket	LSOH Halogen free flame retardant or PVC compound.
Standard Jacket Color	Light Gray RAL 7035. Other colors available upon request.
Standard Surface Marking	Includes HCS P/N, Cable Description, Meter Mark and Batch Number.
Pulling Force	50 N/mm ² max.
Short Term Bend Radius	8xOD mm
Long Term Bend Radius	4xOD mm
Storage Temperature	-20 to +80C
Temperature Operating Range	-20 to +60C
Flame Test	IEC 60332-1, IEC 60332-3-24 or IEC 60332-3-25
Conductor Size Test	UL 444.
Halogen Content in LSOH Cables	Null.

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TRANSMISSION PROPERTIES AND ELECTRICAL SPECIFICATIONS

FREQ.	Insertion Loss	NEXT	PS NEXT	ACR-F	PS ACR-F	RL	Delay	TCL	EL TCL	PS ANEXT	PS AACR-F
MHz	dB/100m	dB	dB	dB/100m	dB/100m	dB	nS/100m	dB	dB	dB	dB
	Max	Min	Min	Min	Min	Min	Max	Min	Min	Min	Min
1	2.08	75.30	73.30	68.00	65.00	20.00	570.00	40.00	35.00	67.00	67.00
10	5.93	60.30	58.30	48.00	45.00	25.00	545.38	40.00	15.00	67.00	58.20
20	8.38	55.78	53.78	41.98	38.98	25.00	542.05	36.99	8.98	67.00	52.18
25	9.38	54.33	52.33	40.04	37.04	24.32	541.20	36.02	7.04	67.00	50.24
30	10.29	53.14	51.14	38.46	35.46	23.77	540.57	35.23	5.46	67.00	48.66
62.5	14.99	48.36	46.36	32.08	29.08	21.54	538.55	32.04	NS	65.56	42.28
100	19.14	45.30	43.30	28.00	25.00	20.11	537.60	30.00	NS	62.50	38.20
200	27.58	40.78	38.78	21.98	18.98	18.00	536.55	26.99	NS	57.98	32.18
250	31.07	39.33	37.33	20.04	17.04	17.32	536.28	26.02	NS	56.53	30.24
300	34.27	38.14	36.14	18.46	15.46	17.30	536.08	25.23	NS	55.34	28.66
400	40.05	36.27	34.27	15.96	12.96	17.30	535.80	23.98	NS	53.47	26.16
500	45.26	34.82	32.82	14.02	11.02	17.30	535.61	23.01	NS	52.02	24.22

Characteristic Impedance	100±6 Ohm @ 1-500 MHz
Resistance Unbalance	2% max.
Capacitance	45 pF/m nom. @ 1 KHz
Cap. Unbalance (Wire to Ground)	1500 pF/Km max. @ 1 KHz.
Voltage Rating	72 Vdc max.
Dielectric Strength	1500 Volts/1 minute min rms
Velocity of Propagation (NVP)	78-80%
Propagation Delay Skew	45 nS/100m max @ 1-500 MHz
Insulation Resistance	5000 MegaOhm·Km min. @ 500 Vdc
Coupling Attenuation	55 dB min @ 30-100 MHz 55-20Log(f/100) @100-500 MHz
Transfer Impedance	10 mOhm/m max @ 1-10 MHz 30 mOhm/m max @ 30 MHz

ORDERING INFORMATION

HCS P/N	Description	OD mm	Weight Kg/Km	Cal. Value Kj/m	Packaging	Notes
H6A-F0431-DK	4x2x23# U/FTP CAT 6A PVC Gray	6.8	47	600	305m Drum	-
H6A-F0431-DP	4x2x23# U/FTP CAT 6A PVC Gray	6.8	47	600	500m Drum	-
H6A-F0431-DM	4x2x23# U/FTP CAT 6A PVC Gray	6.8	47	600	1000m Drum	-
H6A-F0432-DK	4x2x23# U/FTP CAT 6A LS0H Gray	6.8	47	605	305m Drum	-
H6A-F0432-DP	4x2x23# U/FTP CAT 6A LS0H Gray	6.8	47	605	500m Drum	-
H6A-F0432-DM	4x2x23# U/FTP CAT 6A LS0H Gray	6.8	47	605	1000m Drum	-
H6A-F0833-DP	2x(4x2x23#) U/FTP CAT 6A PVC Gray	6.8x13.7	94	1200	500m Drum	FIG-8
H6A-F0833-DM	2x(4x2x23#) U/FTP CAT 6A PVC Gray	6.8x13.7	94	1200	1000m Drum	FIG-8
H6A-F0834-DP	2x(4x2x23#) U/FTP CAT 6A LS0H Gray	6.8x13.7	94	1210	500m Drum	FIG-8
H6A-F0834-DM	2x(4x2x23#) U/FTP CAT 6A LS0H Gray	6.8x13.7	94	1210	1000m Drum	FIG-8

Flame Test Conformance F=0: IEC 60332-1 F=C: IEC 60332-3-24 F=D: IEC 60332-3-25

Note: Standard Jacket Color: Light Gray RAL 7035. Other colors available upon request.