

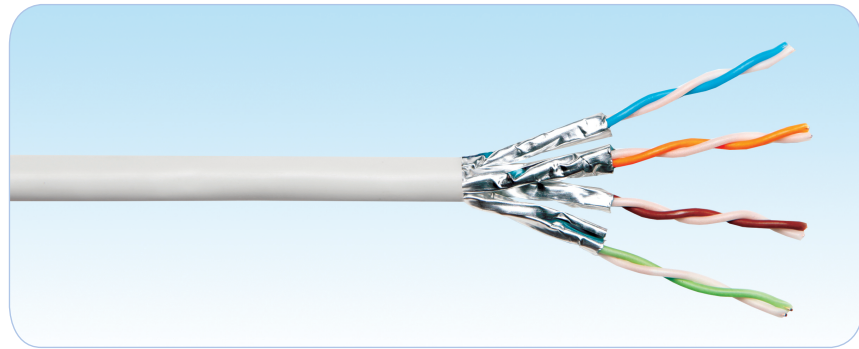
### Description

HCS DataLink 500A cable series consists of 100 Ohm impedance, 4-pair and 8-pair U/UTP cables for horizontal installations in local area networks (LANs). All cables fully conform to and provide a substantial margins above all Category U/UTP requirements of ANSI/TIA-568.2-D and Category 6A of IEC 61156-5. All cables fully support all IEEE 802.3 PoE applications including Type 1, 2, 3 & 4, CISCO UPoE & UPoE+ and HDBase-T PoH.

### 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 U/UTP according to ANSI/TIA-568.2-D
- 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, individual and overall foil shields - Providing excellent EMC (Electro Magnetic Compatibility), minimizing radiation and maximizing noise immunity.
- Revolutionary pair lay scheme - Providing an extremely low delay skew.
- 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 twisted pairs, each covered by a special tape, cabled together, overall jacketed with LSOH compound.

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 Tape Wrap	Special tape, providing 100% coverage.
Outer Jacket	LSOH - Halogen free flame retardant low smoke 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 <sup>2</sup> max.
Dynamic Bend Radius (during installation)	8xOD mm
Static Bend Radius	4xOD mm
Storage Temperature	-20 to +80C
Temperature operating range	-20 to +60C
Optional Flame Tests	IEC 60332-1, IEC 60332-3-24 or IEC 60332-3-25
Conductor Size Test	UL 444.
Optional CPR Rating	Available in all EN 13501 classes, up to Class B2ca-s1a,d0,a1.

## Category 6A U/UTP 100 Ohm Horizontal LAN Cables

# DataLink 500A

### TRANSMISSION PROPERTIES AND ELECTRICAL SPECIFICATIONS

FREQ.	Insertion Loss	NEXT Loss	PS NEXT Loss	ACR-F	PS ACR-F	Return Loss	Prop. Delay	TCL	EL-TCTL	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	500 MegaOhm·km min. @ 500 Vdc
Coupling attenuation	40 dB min @ 30-100 MHz 40-20Log(f/100) @100-500 MHz
Transfer Impedance	NA

### ORDERING INFORMATION

HCS P/N	Description	OD mm	Weight kg/km	Cal. Value kj/m	Packaging	Notes
H6A-00406-DK0	4x2x23# U/UTP CAT 6A LS0H Gray	7.2	49	605	305m Drum	-
H6A-00406-DP0	4x2x23# U/UTP CAT 6A LS0H Gray	7.2	49	605	500m Drum	-
H6A-00406-DM0	4x2x23# U/UTP CAT 6A LS0H Gray	7.2	49	605	1000m Drum	-
H6A-00806-DP0	2x(4x2x23#) U/UTP CAT 6A LS0H Gray	7.2x14.4	98	1210	500m Drum	FIG-8
H6A-00806-DM0	2x(4x2x23#) U/UTP CAT 6A LS0H Gray	7.2x14.4	98	1210	1000m Drum	FIG-8

