DataLink 500A

Category 6A S/FTP
100 Ohm Modular Cords (Type L)

HES Cabling Systems
Connecting Networks™

Description

HCS DataLink 500A modular cord series consists of 100 Ohm impedance, 4-pair S/FTP terminated cords for work area, jumper and patching in local area networks (LANs). HCS DataLink 500A modular cords feature a unique termination method, combining strength relief injection molding into the RJ-45 plug with a removable boot. This design provides the advantages of both molded and non-molded terminations. HCS DataLink 500A modular cords exceed all ANSI/TIA-568.2-D requirements for Category 6A needed to support 10GBASE-T and are specially designed to provide outstanding Alien Crosstalk Loss. HCS DataLink 500A modular cords can be used with either T568A or T568B modular jacks. The standard jacket color is gray RAL 7035, but they are available in 10 different jacket colors.

Applications

HCS DataLink 500A modular cords 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
- ☑ All IEEE 802.3 PoE applications including Type 1, 2, 3 & 4, CISCO UPoE & UPoE+ and HDBase-T PoH.

Qualifications and Approvals

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

- ➔ Category 6A according to ANSI/TIA-568.2-D
- ➔ Category 6A according to ISO/IEC-11801-1

Benefits & Features

- ➔ Testing every cord prior to shipment - Providing the highest degree of quality assurance.
- ➔ Unique double termination method - Providing the advantages of both molded and non-molded terminations.
- ➔ Exceptional material properties and cable design - Providing the highest degree of reliability.
- ➔ High Return Loss and NEXT Loss values - Providing low BER (Bit-Error-Rate) in all applications.
- ➔ Extremely high pair-balance and overall cable shield - Providing excellent alien crosstalk loss and noise immunity.
- ➔ Revolutionary pair lay scheme - Providing an extremely low delay skew.
- ➔ Smooth and limp jacket - Providing comfortable cord handling.
- ➔ Unique DoubleSafe™ Quality Assurance Program - Providing lowest rejection rate available.

PHYSICAL AND MECHANICAL PROPERTIES

4 color-coded, individually foil shielded twisted pairs cabled together, overall braid shielded and jacketed. Both cable ends terminated with shielded modular plug connectors conforming to IEC 60603-7-5.

Basic Cable Conductor	Stranded, 26 AWG, 7x0.16 mm, bare annealed copper
Wire Insulation	Polyolefin
Number of Insulated Conductors	8, twisted in 4 pairs.
Color Code of Pairs	Blue x White/Blue, Orange x White/Orange, Green x White/Green, Brown x White/Brown.
Individual Pair Shield	Polyester-Aluminum foil, providing 100% coverage with 25% overlap, aluminum facing out.
Overall Shield	Tinned copper braid laid in close contact with the individual foil shields.
Drain wire	None.
Outer Jacket and Boots	LS0H Halogen free flame retardant or PVC compound.
Standard Jacket and Boot Color	Light Gray RAL 7035. Other colors available upon request.
Standard Surface Marking	Includes HCS P/N, Cable Description, Meter Mark and Batch Number.
Cable to Plug Tensile Strength	9 Kgf (90N) min.
Pulling Force	1 Kgf (10N) max.
Storage Temperature	-20 to +80C
Durability	750 mating cycles
Cable OD	6.5 mm nom.
Bend Radius	25 mm min.
Plug Housing Material	Polycarbonate, conforming to UL 94 V-0.
Plug Contact Material	50 micro-inches gold plating over 100 micro-inches nickel plated copper alloy.
Temperature Operating Range	-20 to +60C
Flame Test	IEC 60332-1.
Halogen Content in LS0H Cables	Null.

TRANSMISSION PROPERTIES AND ELECTRICAL SPECIFICATIONS

FREQ.	Min. NEXT				Min RL
MHz	dB				dB
	1 m cord	2 m cord	5 m cord	10 m cord	
1.0	65.0	65.0	65.0	65.0	19.8
4.0	65.0	65.0	65.0	65.0	21.6
8.0	65.0	65.0	65.0	64.8	22.5
10.0	65.0	65.0	64.5	63.0	22.8
16.0	62.7	62.0	60.5	59.1	23.4
20.0	60.7	60.1	58.7	57.3	23.7
25.0	58.8	58.2	56.8	55.4	24.0
31.25	56.9	56.3	54.9	53.6	23.0
62.5	51.0	50.4	49.2	48.1	20.0
100	47.0	46.4	45.4	44.5	18.0
200	41.1	40.7	39.9	39.3	15.0
250	39.3	38.9	38.1	37.7	14.0
300	36.4	36.2	35.9	35.8	12.8
400	31.8	31.9	32.1	32.5	10.9
500	28.2	28.4	29.0	29.8	9.5

Characteristic Impedance	100±6 Ohm @ 1-500 MHz
Contact Resistance	20 mOhm max.
Resistance Unbalance	2% max.
Voltage Rating	72 Vdc max.
Dielectric Strength	1000 Volts/1 minute min rms
Ampacity	1.0 Amps max.
Insulation Resistance	500 MOhm min. @ 500 Vdc
Coupling Attenuation	55 dB min @ 30-100 MHz 55-20log(f/100) @100-500 MHZ
Transfer Impedance	10mOhm/m max @1-10 MHZ 30 mOhm/m max @30 MHZ

ORDERING INFORMATION

HCS P/N	Description	Length (m)	SR Color	Clip Color
T6A-00470-0571	4x2x26# S/FTP CAT 6A PVC Modular Cord Grey	0.5	Black	Blue
T6A-00480-0571	4x2x26# S/FTP CAT 6A LS0H Modular Cord Grey	0.5	Black	Blue
T6A-00470-1071	4x2x26# S/FTP CAT 6A PVC Modular Cord Grey	1.0	Black	Blue
T6A-00480-1071	4x2x26# S/FTP CAT 6A LS0H Modular Cord Grey	1.0	Black	Blue
T6A-00470-2071	4x2x26# S/FTP CAT 6A PVC Modular Cord Grey	2.0	Black	Blue
T6A-00480-2071	4x2x26# S/FTP CAT 6A LS0H Modular Cord Grey	2.0	Black	Blue
T6A-00470-3071	4x2x26# S/FTP CAT 6A PVC Modular Cord Grey	3.0	Black	Blue
T6A-00480-3071	4x2x26# S/FTP CAT 6A LS0H Modular Cord Grey	3.0	Black	Blue
T6A-00470-5071	4x2x26# S/FTP CAT 6A PVC Modular Cord Grey	5.0	Black	Blue
T6A-00480-5071	4x2x26# S/FTP CAT 6A LS0H Modular Cord Grey	5.0	Black	Blue
T6A-00470-7071	4x2x26# S/FTP CAT 6A PVC Modular Cord Grey	7.0	Black	Blue
T6A-00480-7071	4x2x26# S/FTP CAT 6A LS0H Modular Cord Grey	7.0	Black	Blue
T6A-00470-A071	4x2x26# S/FTP CAT 6A PVC Modular Cord Grey	10	Black	Blue
T6A-00480-A071	4x2x26# S/FTP CAT 6A LS0H Modular Cord Grey	10	Black	Blue

Note: Standard color: Light Gray RAL 7035. To define other colors and constructions use the Modular Cords P/N System Table.