

### Description

**HCS DataLink 500A 30AWG CAT 6A LS0H slim and thin modular cord series consists of 100 Ohm impedance, 4-pair S/FTP RJ45 terminated cords for work area, jumper and patching in tight locations such as high density cabinets in data-centers.**

**HCS CAT6A 30AWG modular cords exceed all ANSI/TIA-568.2-D Category 6A requirements up to 5m and they can be used with either T568A or T568B RJ45 jacks.**

### Applications

HCS DataLink 500A CAT6A 30AWG modular cords support all presently available and future LAN applications, including the following protocols:

- ☑ 10GBASE-T
- ☑ 2.5GBASE-T & 5GBASE-T
- ☑ 1000BASE-T
- ☑ 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
- ☑ ITU V.21 and X.11



### Qualifications and Approvals

HCS DataLink 500A CAT6A 30AWG modular cords are tested and verified for full compliance with the following standards:

- ➔ Category 6A according to ANSI/TIA-568.2-D (Up to 5m, based on 28AWG cords limits.)

### Benefits & Features

- ➔ Extremely low cable OD and slim form factor - Ideal for high-density panels and cabinets in data-centers.
- ➔ 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 RJ45 plugs conforming to IEC 60603-7-5.

|                                |                                                                                            |
|--------------------------------|--------------------------------------------------------------------------------------------|
| Basic Cable Conductor          | Stranded, 30AWG , 7x0.10mm , 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 30% overlap , aluminum facing out.   |
| Overall shield                 | Tinned copper braid, 45% coverage, laid in close contact with the individual foil shields. |
| Drain wire                     | None.                                                                                      |
| Outer Jacket and boots         | LS0H Halogen free flame retardant 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 | 50N min.                                                                                   |
| Pulling force                  | 5N max.                                                                                    |
| Storage Temperature            | -20 to +60C                                                                                |
| Durability                     | 1200 mating cycles                                                                         |
| Cable OD                       | 4.6±0.1 mm                                                                                 |
| Bend radius                    | 19 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.                                                                               |

**TRANSMISSION PROPERTIES AND ELECTRICAL SPECIFICATIONS**

| FREQ. | Min. NEXT |          |          | Min RL |
|-------|-----------|----------|----------|--------|
| MHz   | dB        |          |          | dB     |
|       | 1 m cord  | 2 m cord | 5 m cord |        |
| 1     | 65.0      | 65.0     | 65.0     | 19.8   |
| 4     | 65.0      | 65.0     | 65.0     | 21.6   |
| 8     | 65.0      | 65.0     | 65.0     | 22.5   |
| 10    | 65.0      | 65.0     | 64.5     | 22.8   |
| 16    | 62.7      | 62.0     | 60.5     | 23.4   |
| 20    | 60.7      | 60.1     | 58.7     | 23.7   |
| 25    | 58.8      | 58.2     | 56.8     | 24.0   |
| 31.25 | 56.9      | 56.3     | 54.9     | 23.0   |
| 62.5  | 51.0      | 50.4     | 49.2     | 20.0   |
| 100   | 47.0      | 46.4     | 45.4     | 18.0   |
| 200   | 41.1      | 40.7     | 39.9     | 15.0   |
| 250   | 39.3      | 38.9     | 38.1     | 14.0   |
| 300   | 36.4      | 36.2     | 35.9     | 12.8   |
| 400   | 31.8      | 31.9     | 32.1     | 10.9   |
| 500   | 28.2      | 28.4     | 29.0     | 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      | 500 Volts/1 minute min rms |
| Ampacity                 | 0.5 Amps max.              |
| Insulation Resistance    | 500 MOhm min. @ 500 Vdc    |

**ORDERING INFORMATION**

| HCS P/N        | Description                                 | Length (m) | SR Color | Clip Color |
|----------------|---------------------------------------------|------------|----------|------------|
| T6A-004T0-0571 | 4x2x30# S/FTP CAT 6A LS0H Modular Cord Grey | 0.5        | Black    | Blue       |
| T6A-004T0-1071 | 4x2x30# S/FTP CAT 6A LS0H Modular Cord Grey | 1.0        | Black    | Blue       |
| T6A-004T0-2071 | 4x2x30# S/FTP CAT 6A LS0H Modular Cord Grey | 2.0        | Black    | Blue       |
| T6A-004T0-3071 | 4x2x30# S/FTP CAT 6A LS0H Modular Cord Grey | 3.0        | Black    | Blue       |
| T6A-004T0-5071 | 4x2x30# S/FTP CAT 6A LS0H Modular Cord Grey | 5.0        | Black    | Blue       |

**Note:** Other colors and constructions are available upon request.