

Description

HCS DataLink 100e modular cord series consists of 100 Ohm impedance, 4-pair overall foil + braid (SF/UTP) shielded terminated cords for work area, jumper and patching in local area networks (LANs). HCS DataLink 100e 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 100e modular cords exceed all ANSI/TIA-568.2-D Category 5e and ISO/IEC-11801 (2nd Edition) requirements in shielded cabling systems where improved noise immunity is required, and are specially designed to be backward compatible with all Category 5 jacks. The HCS DataLink 100e modular cords can be used with either T568A or T568B modular jacks. The standard color is Grey RAL 7035, but they are available in 10 different jacket colors and supplied with boots that match the color of the cord.

Applications

HCS DataLink 100e modular cords can be used for connections in telecommunications outlet, MUTO, consolidation point, patch panel and terminal equipment. HCS DataLink 100e modular cords support all presently available LAN applications, including the following protocols:

- ☑ 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 100e modular cords are tested and verified for full compliance with the following standards:

- ➔ Category 5e according to ANSI/TIA-568.2-D
- ➔ Category 5e according to ISO/IEC-11801 (2nd Edition)

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 - Providing excellent EMC (Electro Magnetic Compatibility), minimizing radiation and maximizing noise immunity.
- ➔ End-to-end shield continuity - Providing a low transfer impedance, a high coupling-attenuation and improved EMC.
- ➔ 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, unshielded twisted pairs cabled together and overall taped-wrapped with a polyester tape, shielded with an aluminum foil plus a tin-coated copper braid and overall jacketed. Both cable ends terminated with fully shielded modular plug connectors conforming to IEC 60603-7-3.

| | |
|--------------------------------|---|
| 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. |
| Overall Tape Wrap | Polyester tape, providing 100% coverage. |
| Overall inner shield | Polyester-aluminum foil (foil face out), providing 100% coverage. |
| Overall outer shield | Tinned-copper braid, providing 65% coverage, laid over the aluminum foil. |
| Outer Jacket and boots | LSOH 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 | 5.7 mm nom. |
| Bend radius | 23 mm min. |
| Plug housing material | Polycarbonate. |
| 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 LSOH cables | Null. |

TRANSMISSION PROPERTIES AND ELECTRICAL SPECIFICATIONS

| FREQ. | NEXT | | | RL |
|--------|----------------|----------------|-----------------|------|
| MHz | dB | | | dB |
| | Min | | | Min |
| | 2 m Patch Cord | 5 m Patch Cord | 10 m Patch Cord | |
| 1.00 | 65.0 | 65.0 | 65.0 | 19.8 |
| 4.00 | 62.3 | 61.5 | 60.4 | 21.6 |
| 8.00 | 56.4 | 55.6 | 54.7 | 22.5 |
| 10.00 | 54.5 | 53.7 | 52.8 | 22.8 |
| 16.00 | 50.4 | 49.8 | 48.9 | 23.4 |
| 20.00 | 48.6 | 47.9 | 47.1 | 23.7 |
| 25.00 | 46.7 | 46.0 | 45.3 | 24.0 |
| 31.25 | 44.8 | 44.2 | 43.6 | 23.0 |
| 62.50 | 39.0 | 38.5 | 38.1 | 20.0 |
| 100.00 | 35.1 | 34.8 | 34.6 | 18.0 |

| | |
|--------------------------|-----------------------------|
| Characteristic Impedance | 100±6 Ohm @ 1-100 MHz |
| Contact Resistance | 20 mOhm max. |
| Resistance Unbalance | 2% max. |
| Voltage Rating | 72 Vdc max. |
| Dielectric Strength | 1000 Volts/1 minute min rms |
| Ampacity | 0.5 Amps max. |
| Insulation Resistance | 500 MOhm min. @ 500 Vdc |
| Coupling Attenuation | 65 dB min @ 30-100 MHz |

ORDERING INFORMATION

| HCS P/N | Description | Length (m) | SR Color | Clip Color |
|----------------|--|------------|----------|------------|
| T5E-00450-0579 | 4x2x26# SF/UTP CAT 5e PVC Modular Cord Grey | 0.5 | Black | Purple |
| T5E-00460-0579 | 4x2x26# SF/UTP CAT 5e LS0H Modular Cord Grey | 0.5 | Black | Purple |
| T5E-00450-1079 | 4x2x26# SF/UTP CAT 5e PVC Modular Cord Grey | 1.0 | Black | Purple |
| T5E-00460-1079 | 4x2x26# SF/UTP CAT 5e LS0H Modular Cord Grey | 1.0 | Black | Purple |
| T5E-00450-2079 | 4x2x26# SF/UTP CAT 5e PVC Modular Cord Grey | 2.0 | Black | Purple |
| T5E-00460-2079 | 4x2x26# SF/UTP CAT 5e LS0H Modular Cord Grey | 2.0 | Black | Purple |
| T5E-00450-3079 | 4x2x26# SF/UTP CAT 5e PVC Modular Cord Grey | 3.0 | Black | Purple |
| T5E-00460-3079 | 4x2x26# SF/UTP CAT 5e LS0H Modular Cord Grey | 3.0 | Black | Purple |
| T5E-00450-5079 | 4x2x26# SF/UTP CAT 5e PVC Modular Cord Grey | 5.0 | Black | Purple |
| T5E-00460-5079 | 4x2x26# SF/UTP CAT 5e LS0H Modular Cord Grey | 5.0 | Black | Purple |
| T5E-00450-7079 | 4x2x26# SF/UTP CAT 5e PVC Modular Cord Grey | 7.0 | Black | Purple |
| T5E-00460-7079 | 4x2x26# SF/UTP CAT 5e LS0H Modular Cord Grey | 7.0 | Black | Purple |
| T5E-00450-A079 | 4x2x26# SF/UTP CAT 5e PVC Modular Cord Grey | 10 | Black | Purple |
| T5E-00460-A079 | 4x2x26# SF/UTP CAT 5e LS0H Modular Cord Grey | 10 | Black | Purple |

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