# DataLink 100e

# Category 5E U/UTP 100 Ohm Modular Cords









#### Description

HCS DataLink 100E modular cord series consists of 100 Ohm impedance, 4-pair U/UTP 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-C.2 Category 5E and ISO/IEC-11801 (2nd Edition) requirements 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 Gray 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 relevant LAN applications, including the following protocols:

1000BASE-T Gigabit Ethernet

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✓ ATM 155
✓ TP-PMD

✓ 100BASE-TX✓ Token Ring 100 Mbps

100BASE-T Fast Ethernet

✓ 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-C.2
- → 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.
- 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 jacketed.

Both cable ends terminated with unshielded modular plug connectors conforming to IEC 60603-7-2.

Basic Cable Conductor	Stranded, 24 AWG, 7x0.20 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	None.
Overall Shield	None.
Drain Wire	None.
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	5.3 mm nom.
Bend Radius	22 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	1.0 Amps max.
Insulation Resistance	500 MOhm min. @ 500 Vdc
Coupling Attenuation	40 dB min @ 30-100 MHz
Transfer Impedance	N/A

#### **ORDERING INFORMATION**

HCS P/N	Description	Length (m)	Notes
T5E-00410-05	4x2x24# U/UTP CAT 5E PVC Modular Cord Gray	0.5	-
T5E-00420-05	4x2x24# U/UTP CAT 5E LS0H Modular Cord Gray	0.5	-
T5E-00410-10	4x2x24# U/UTP CAT 5E PVC Modular Cord Gray	1.0	-
T5E-00420-10	4x2x24# U/UTP CAT 5E LSOH Modular Cord Gray	1.0	-
T5E-00410-20	4x2x24# U/UTP CAT 5E PVC Modular Cord Gray	2.0	-
T5E-00420-20	4x2x24# U/UTP CAT 5E LSOH Modular Cord Gray	2.0	-
T5E-00410-30	4x2x24# U/UTP CAT 5E PVC Modular Cord Gray	3.0	-
T5E-00420-30	4x2x24# U/UTP CAT 5E LS0H Modular Cord Gray	3.0	-
T5E-00410-50	4x2x24# U/UTP CAT 5E PVC Modular Cord Gray	5.0	-
T5E-00420-50	4x2x24# U/UTP CAT 5E LSOH Modular Cord Gray	5.0	-
T5E-00410-70	4x2x24# U/UTP CAT 5E PVC Modular Cord Gray	7.0	-
T5E-00420-70	4x2x24# U/UTP CAT 5E LS0H Modular Cord Gray	7.0	-
T5E-00410-00	4x2x24# U/UTP CAT 5E PVC Modular Cord Gray	10	-
T5E-00420-00	4x2x24# U/UTP CAT 5E LSOH Modular Cord Gray	10	-

# Category 5E F/UTP 100 Ohm **Modular Cords**









#### **Description**

HCS DataLink 100E modular cord series consists of 100 Ohm impedance, 4-pair overall foil (F/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-C.2 Category 5E and ISO/IEC-11801 (2nd Edition) requirements requirements in shielded cabling systems, 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 Gray 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 relevant LAN applications, including the following protocols:

1000BASE-T Gigabit Ethernet

 $\square$ ATM 155

 $\square$ TP-PMD

100BASE-T Fast Ethernet Ø

100BASE-T2 Q

100BASE-T4

100BASE-TX

Token Ring 100 Mbps

Q ATM 52 ATM 25 Q

Q 10BASE-T Ethernet

Token Ring 4 Mbps and 16 Mbps

Broadband and Baseband Video

ISDN Basic and Primary Access 1BASE-5 Starlan

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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-C.2
- 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, Overall Taped-wrapped with a polyester tape and an aluminum foil 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 Shield	Polyester-aluminum foil (foil face in), providing 100% coverage.
Drain Wire	Stranded, 26 AWG, 7x0.16 mm, tinned-copper laid under 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	5.5 mm nom.
Bend Radius	22 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	55 dB min @ 30-100 MHz

# **ORDERING INFORMATION**

HCS P/N	Description	Length (m)	Notes
IIC3 F/N	·	• , ,	Notes
T5E-00430-05	4x2x26# F/UTP CAT 5E PVC Modular Cord Gray	0.5	
T5E-00440-05	4x2x26# F/UTP CAT 5E LS0H Modular Cord Gray	0.5	
T5E-00430-10	4x2x26# F/UTP CAT 5E PVC Modular Cord Gray	1.0	
T5E-00440-10	4x2x26# F/UTP CAT 5E LS0H Modular Cord Gray	1.0	
T5E-00430-20	4x2x26# F/UTP CAT 5E PVC Modular Cord Gray	2.0	
T5E-00440-20	4x2x26# F/UTP CAT 5E LS0H Modular Cord Gray	2.0	
T5E-00430-30	4x2x26# F/UTP CAT 5E PVC Modular Cord Gray	3.0	
T5E-00440-30	4x2x26# F/UTP CAT 5E LS0H Modular Cord Gray	3.0	
T5E-00430-50	4x2x26# F/UTP CAT 5E PVC Modular Cord Gray	5.0	
T5E-00440-50	4x2x26# F/UTP CAT 5E LS0H Modular Cord Gray	5.0	
T5E-00430-70	4x2x26# F/UTP CAT 5E PVC Modular Cord Gray	7.0	
T5E-00440-70	4x2x26# F/UTP CAT 5E LSOH Modular Cord Gray	7.0	
T5E-00430-00	4x2x26# F/UTP CAT 5E PVC Modular Cord Gray	10	
T5E-00440-00	4x2x26# F/UTP CAT 5E LS0H Modular Cord Gray	10	

# DataLink 100e

# Category 5E SF/UTP 100 Ohm Modular Cords









#### **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-C.2 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 Gray 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 relevant LAN applications, including the following protocols:

100BASE-TX

Token Ring 100 Mbps

☑ 1000BASE-T Gigabit Ethernet☑ ATM 155☑ TP-PMD

☑ TP-PMD
 ☑ 100BASE-T Fast Ethernet
 ☑ 100BASE-T Ethernet
 ☑ 100BASE-T Ethernet
 ☑ 100BASE-T Ethernet

☑ 100BASE-T4 ☑ Token Ring 4 Mbps and 16 Mbps

☑ Broadband and Baseband Video☑ ISDN Basic and Primary Access

✓ 1BASE-5 Starlan✓ ISALAN

#### **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-C.2
- 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.

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- 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 double-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, 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)	Notes
T5E-00450-05	4x2x26# SF/UTP CAT 5E PVC Modular Cord Gray	0.5	
T5E-00460-05	4x2x26# SF/UTP CAT 5E LS0H Modular Cord Gray	0.5	
T5E-00450-10	4x2x26# SF/UTP CAT 5E PVC Modular Cord Gray	1.0	
T5E-00460-10	4x2x26# SF/UTP CAT 5E LS0H Modular Cord Gray	1.0	
T5E-00450-20	4x2x26# SF/UTP CAT 5E PVC Modular Cord Gray	2.0	
T5E-00460-20	4x2x26# SF/UTP CAT 5E LS0H Modular Cord Gray	2.0	
T5E-00450-30	4x2x26# SF/UTP CAT 5E PVC Modular Cord Gray	3.0	
T5E-00460-30	4x2x26# SF/UTP CAT 5E LS0H Modular Cord Gray	3.0	
T5E-00450-50	4x2x26# SF/UTP CAT 5E PVC Modular Cord Gray	5.0	
T5E-00460-50	4x2x26# SF/UTP CAT 5E LS0H Modular Cord Gray	5.0	
T5E-00450-70	4x2x26# SF/UTP CAT 5E PVC Modular Cord Gray	7.0	
T5E-00460-70	4x2x26# SF/UTP CAT 5E LS0H Modular Cord Gray	7.0	
T5E-00450-00	4x2x26# SF/UTP CAT 5E PVC Modular Cord Gray	10	
T5E-00460-00	4x2x26# SF/UTP CAT 5E LS0H Modular Cord Gray	10	

# DataLink 250

# Category 6 U/UTP 100 Ohm **Modular Cords**







#### Description

HCS DataLink 250 modular cord series consists of 100 Ohm impedance, 4-pair U/UTP terminated cords for work area, jumper and patching in local area networks (LANs).HCS DataLink 250 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 250 modular cords exceed all ANSI/TIA/568-C.2 and ISO/IEC-11801 (2nd Edition) Category 6 requirements and are specially designed to be backward compatible with all Category 5 and Category 5E jacks. The HCS DataLink 250 modular cords can be used with either T568A or T568B modular jacks. The standard color is Gray 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 250 modular cords support all relevant LAN applications, including the following protocols:

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1000BASE-T Gigabit Ethernet

Ø ATM 155 TP-PMD Q

 $\square$ 100BASE-T2

100BASE-T Fast Ethernet

10BASE-T Ethernet Token Ring 4 Mbps and 16 Mbps

Token Ring 100 Mbps

100BASE-TX

ATM 52

ATM 25

100BASE-T4

Broadband and Baseband Video

ISDN Basic and Primary Access  $\square$ 1BASE-5 Starlan Q

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ITU V.21 and X.11

#### **Qualifications and Approvals**

 $HCS\ DataLink\ 250\ Cables\ are\ tested\ and\ verified\ for\ full\ compliance\ with\ the\ following\ standards:$ 

- Category 6 according to ANSI/TIA/568-C.2
- Category 6 according to ISO/IEC-11801 (2nd Edition)

#### **Benefits & Features**

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- 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.
- 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 jacketed. Both cable ends terminated with unshielded modular plug connectors conforming to IEC 60603-7-4. Strandad 24 AMC 7v0 20 mm hara annualed conner

Basic Cable Conductor	Stranded, 24 AWG, 7x0.20 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	None.
Overall Shield	None.
Drain Wire	None.
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, 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 LSOH Cables	Null.

# Category 6 U/UTP 100 Ohm **Modular Cords**

# 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	65.0	65.0	65.0	21.6
8.00	65.0	65.0	65.0	22.5
10.00	65.0	65.0	62.9	22.8
16.00	62.0	60.5	59.0	23.4
20.00	60.1	58.6	57.2	23.7
25.00	58.1	56.8	55.4	24.0
31.25	56.2	54.9	53.6	23.0
62.50	50.4	49.2	48.1	20.0
100.00	46.4	45.3	44.4	18.0
125.00	44.5	43.5	42.7	17.0
150.00	43.0	42.1	41.4	16.2
200.00	40.6	39.8	39.3	15.0
250.00	38.8	38.1	37.6	14.0

Characteristic Impedance	100±6 Ohm @ 1-250 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	40 dB min @ 30-100 MHz 40-20log (f/100)@100-250 MHz
Transfer Impedance	N/A

# ORDERING INFORMATION

HCS P/N	Description	Length (m)	Notes
T06-00410-05	4x2x24# U/UTP CAT 6 PVC Modular Cord Gray	0.5	
T06-00420-05	4x2x24# U/UTP CAT 6 LS0H Modular Cord Gray	0.5	
T06-00410-10	4x2x24# U/UTP CAT 6 PVC Modular Cord Gray	1.0	
T06-00420-10	4x2x24# U/UTP CAT 6 LS0H Modular Cord Gray	1.0	
T06-00410-20	4x2x24# U/UTP CAT 6 PVC Modular Cord Gray	2.0	
T06-00420-20	4x2x24# U/UTP CAT 6 LS0H Modular Cord Gray	2.0	
T06-00410-30	4x2x24# U/UTP CAT 6 PVC Modular Cord Gray	3.0	
T06-00420-30	4x2x24# U/UTP CAT 6 LS0H Modular Cord Gray	3.0	
T06-00410-50	4x2x24# U/UTP CAT 6 PVC Modular Cord Gray	5.0	
T06-00420-50	4x2x24# U/UTP CAT 6 LS0H Modular Cord Gray	5.0	
T06-00410-70	4x2x24# U/UTP CAT 6 PVC Modular Cord Gray	7.0	
T06-00420-70	4x2x24# U/UTP CAT 6 LS0H Modular Cord Gray	7.0	
T06-00410-00	4x2x24# U/UTP CAT 6 PVC Modular Cord Gray	10	
T06-00420-00	4x2x24# U/UTP CAT 6 LS0H Modular Cord Gray	10	

# DataLink 250

# Category 6 U/UTP 100 Ohm Modular Cords



#### Description

HCS DataLink 250 modular cord series consists of 100 Ohm impedance, 4-pair U/UTP terminated cords for work area, jumper and patching in local area networks (LANs).HCS DataLink 250 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 250 modular cords exceed all ANSI/TIA/568-C.2 and ISO/IEC-11801 (2nd Edition) Category 6 requirements and are specially designed to be backward compatible with all Category 5 and Category 5E jacks. The HCS DataLink 250 modular cords can be used with either T568A or T568B modular jacks.The standard color is Gray 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 250 modular cords support all relevant LAN applications, including the following protocols:

- 1000BASE-T Gigabit Ethernet
- ablaATM 155
- TP-PMD Ø
- 100BASE-T Fast Ethernet abla
- abla100BASE-T2
- abla100BASE-T4
- 100BASE-TX abla
- ablaToken Ring 100 Mbps
- Ø ATM 52
- abla**ATM 25**
- 10BASE-T Ethernet
- Token Ring 4 Mbps and 16 Mbps abla
- Q Broadband and Baseband Video
- ISDN Basic and Primary Access  $\square$
- 1BASE-5 Starlan
- abla**ISALAN**
- $\square$ ITU V.21 and X.11



#### **Qualifications and Approvals**

HCS DataLink 250 Cables are tested and verified for full compliance with the following standards:

- Category 6 according to ANSI/TIA/568-C.2
- Category 6 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.
- 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 jacketed. Both cable ends terminated with unshielded modular plug connectors conforming to IEC 60603-7-4.

Basic Cable Conductor	Stranded, 24 AWG, 7x0.20 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	None.
Overall Shield	None.
Drain Wire	None.
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, 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 LSOH Cables	Null.

# Category 6 U/UTP 100 Ohm **Modular Cords**

# 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	65.0	65.0	65.0	21.6
8.00	65.0	65.0	65.0	22.5
10.00	65.0	65.0	62.9	22.8
16.00	62.0	60.5	59.0	23.4
20.00	60.1	58.6	57.2	23.7
25.00	58.1	56.8	55.4	24.0
31.25	56.2	54.9	53.6	23.0
62.50	50.4	49.2	48.1	20.0
100.00	46.4	45.3	44.4	18.0
125.00	44.5	43.5	42.7	17.0
150.00	43.0	42.1	41.4	16.2
200.00	40.6	39.8	39.3	15.0
250.00	38.8	38.1	37.6	14.0

Characteristic Impedance	100±6 Ohm @ 1-250 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	40 dB min @ 30-100 MHz 40-20log (f/100)@100-250 MHz
Transfer Impedance	N/A

# ORDERING INFORMATION

HCS P/N	Description	Length (m)	Notes
T06-00410-056	4x2x24# U/UTP CAT 6 PVC Modular Cord Gray	0.5	
T06-00420-056	4x2x24# U/UTP CAT 6 LS0H Modular Cord Gray	0.5	
T06-00410-106	4x2x24# U/UTP CAT 6 PVC Modular Cord Gray	1.0	
T06-00420-106	4x2x24# U/UTP CAT 6 LS0H Modular Cord Gray	1.0	
T06-00410-206	4x2x24# U/UTP CAT 6 PVC Modular Cord Gray	2.0	
T06-00420-206	4x2x24# U/UTP CAT 6 LSOH Modular Cord Gray	2.0	
T06-00410-306	4x2x24# U/UTP CAT 6 PVC Modular Cord Gray	3.0	
T06-00420-306	4x2x24# U/UTP CAT 6 LSOH Modular Cord Gray	3.0	
T06-00410-506	4x2x24# U/UTP CAT 6 PVC Modular Cord Gray	5.0	
T06-00420-506	4x2x24# U/UTP CAT 6 LS0H Modular Cord Gray	5.0	
T06-00410-706	4x2x24# U/UTP CAT 6 PVC Modular Cord Gray	7.0	
T06-00420-706	4x2x24# U/UTP CAT 6 LS0H Modular Cord Gray	7.0	
T06-00410-006	4x2x24# U/UTP CAT 6 PVC Modular Cord Gray	10	
T06-00420-006	4x2x24# U/UTP CAT 6 LS0H Modular Cord Gray	10	

# Category 6 F/UTP 100 Ohm Modular Cords







#### Description

HCS DataLink 250 FTP modular cord series consists of 100 Ohm impedance, 4-pair F/UTP terminated cords for work area, jumper and patching in local area networks (LANs).

HCS DataLink 250 FTP modular cords feature a unique termination and shielding method, combining a full metal case with grip and a strain-relief with a removable boot.

HCS DataLink 250 modular cords exceed all ANSI/TIA/568-C.2 and ISO/IEC-11801 (2nd Edition) Category 6 requirements and are specially designed to be backward compatible with all Category 5 and Category 5E jacks.

The HCS DataLink 250 modular cords can be used with either T568A or T568B modular jacks.

The standard color is Gray RAL 7035. 10 different jacket & boot colors are available upon request.

#### **Applications**

HCS DataLink 250 F/UTP modular cords support all relevant LAN applications, including the following protocols:

☑ 1000BASE-T Gigabit Ethernet
 ☑ 100BASE-TX
 ☑ Broadband and Baseband Video
 ☑ 15DN Basic and Primary Access

 ☑
 TP-PMD
 ☑
 ATM 52
 ☑
 1BASE-5 Starlan

 ☑
 100BASE-T Fast Ethernet
 ☑
 ATM 25
 ☑
 ISALAN

 ☑
 100BASE-T2
 ☑
 10BASE-T Ethernet
 ☑
 ITU V.21 and X.11

☑ 100BASE-T4 ☑ Token Ring 4 Mbps and 16 Mbps

#### **Qualifications and Approvals**

All HCS DataLink 250 F/UTP terminated cords are tested at the component level and officially ETL verified for full compliance with ANSI/TIA/568-C.2 Category 6.

#### **Benefits & Features**

- Testing every cord prior to shipment Providing the highest degree of quality assurance.
- 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.
- 50μ aluminum foil shield Providing excellent EMC (Electro Magnetic Compatibility), minimizing radiation and maximizing 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, unshielded twisted pairs cabled together, overall foil shielded and jacketed.

Both cable ends terminated with fully shields	Both cable ends terminated with fully 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.			
Pair separator	Cross shaped spacer			
Overall Shield	Polyester-aluminum foil, foil face out.			
Drain Wire	Solid 26 AWG tin-coated annealed copper.			
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	0.7 Kgf (7N) max.			
Storage Temperature	-20 to +80C			
Durability	750 mating cycles			
Cable OD	6.2 mm nom.			
Bend Radius	50 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.			

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Halogen Content in LSOH Cables

# Category 6 F/UTP 100 Ohm Modular Cords

# 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	65.0	65.0	65.0	21.6
8.00	65.0	65.0	65.0	22.5
10.00	65.0	65.0	62.9	22.8
16.00	62.0	60.5	59.0	23.4
20.00	60.1	58.6	57.2	23.7
25.00	58.1	56.8	55.4	24.0
31.25	56.2	54.9	53.6	23.0
62.50	50.4	49.2	48.1	20.0
100.00	46.4	45.3	44.4	18.0
125.00	44.5	43.5	42.7	17.0
150.00	43.0	42.1	41.4	16.2
200.00	40.6	39.8	39.3	15.0
250.00	38.8	38.1	37.6	14.0

Characteristic Impedance	100±6 Ohm @ 1-250 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)@100-250 MHz
Transfer Impedance	10mOhm/m max @1-10 MHZ 30 mOhm/m max @30 MHz

# ORDERING INFORMATION

HCS P/N	Description	Length (m)	Notes
T06-00430-05	4x2x26# F/UTP CAT 6 PVC Modular Cord Gray	0.5	
T06-00440-05	4x2x26# F/UTP CAT 6 LS0H Modular Cord Gray	0.5	
T06-00430-10	4x2x26# F/UTP CAT 6 PVC Modular Cord Gray	1.0	
T06-00440-10	4x2x26# F/UTP CAT 6 LS0H Modular Cord Gray	1.0	
T06-00430-20	4x2x26# F/UTP CAT 6 PVC Modular Cord Gray	2.0	
T06-00440-20	4x2x26# F/UTP CAT 6 LSOH Modular Cord Gray	2.0	
T06-00430-30	4x2x26# F/UTP CAT 6 PVC Modular Cord Gray	3.0	
T06-00440-30	4x2x26# F/UTP CAT 6 LSOH Modular Cord Gray	3.0	
T06-00430-50	4x2x26# F/UTP CAT 6 PVC Modular Cord Gray	5.0	
T06-00440-50	4x2x26# F/UTP CAT 6 LS0H Modular Cord Gray	5.0	
T06-00430-70	4x2x26# F/UTP CAT 6 PVC Modular Cord Gray	7.0	
T06-00440-70	4x2x26# F/UTPCAT 6 LS0H Modular Cord Gray	7.0	
T06-00430-00	4x2x26# F/UTP CAT 6 PVC Modular Cord Gray	10	
T06-00440-00	4x2x26# F/UTP CAT 6 LSOH Modular Cord Gray	10	

# DataLink 250 Category 6 F/UTP 100 Ohm Modular Cords



#### Description

HCS DataLink 250 FTP modular cord series consists of 100 Ohm impedance, 4-pair F/UTP terminated cords for work area, jumper and patching in local area networks (LANs).

HCS DataLink 250 FTP modular cords feature a unique termination and shielding method, combining a full metal case with grip and a strain-relief with a removable boot.

HCS DataLink 250 modular cords exceed all ANSI/TIA/568-C.2 and ISO/IEC-11801 (2nd Edition) Category 6 requirements and are specially designed to be backward compatible with all Category 5 and Category 5E jacks.

The HCS DataLink 250 modular cords can be used with either T568A or T568B modular jacks.

The standard color is Gray RAL 7035. 10 different jacket & boot colors are available upon request.

#### **Applications**

HCS DataLink 250 F/UTP modular cords support all relevant LAN applications, including the following protocols:

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



#### **Qualifications and Approvals**

All HCS DataLink 250 F/UTP terminated cords are tested at the component level and officially ETL verified for full compliance with ANSI/TIA/568-C.2 Category 6.

#### **Benefits & Features**

- Testing every cord prior to shipment Providing the highest degree of quality assurance.
- 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.
- 50μ aluminum foil shield Providing excellent EMC (Electro Magnetic Compatibility), minimizing radiation and maximizing 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, unshielded twisted pairs cabled together, overall foil shielded and jacketed. Both cable ends terminated with fully shielded modular plug connectors conforming to IEC 60603-7-5.

Basic Cable Conductor 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. Pair separator Cross shaped spacer Overall Shield Polyester-aluminum foil, foil face out. Drain Wire Solid 26 AWG tin-coated annealed copper. Outer Jacket and Boots LSOH Halogen free flame retardant or PVC compound. Standard Jacket and Boot Color Standard Surface Marking Includes HCS P/N, Cable Description, Meter Mark and Batch Number. Cable to Plug Tensile Strength Pulling Force 9 Kgf (90N) min. Pulling Force 0.7 Kgf (7N) max. Storage Temperature -20 to +80C Durability 750 mating cycles Cable OD 6.2 mm nom.
Number of Insulated Conductors  Color Code of Pairs  Blue x White/Blue, Orange x White/Orange, Green x White/Green, Brown x White/Brown.  Cross shaped spacer  Overall Shield  Polyester-aluminum foil, foil face out.  Drain Wire  Solid 26 AWG tin-coated annealed copper.  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  0.7 Kgf (7N) max.  Storage Temperature  -20 to +80C  Durability  750 mating cycles
Color Code of Pairs  Blue x White/Blue, Orange x White/Orange, Green x White/Green, Brown x White/Brown.  Cross shaped spacer  Overall Shield  Polyester-aluminum foil, foil face out.  Drain Wire  Solid 26 AWG tin-coated annealed copper.  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  0.7 Kgf (7N) max.  Storage Temperature  -20 to +80C  Durability  750 mating cycles
Pair separator  Overall Shield  Polyester-aluminum foil, foil face out.  Drain Wire  Solid 26 AWG tin-coated annealed copper.  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  0.7 Kgf (7N) max.  Storage Temperature  -20 to +80C  Durability  750 mating cycles
Overall Shield Polyester-aluminum foil, foil face out.  Drain Wire Solid 26 AWG tin-coated annealed copper.  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 0.7 Kgf (7N) max.  Storage Temperature -20 to +80C  Durability 750 mating cycles
Drain Wire Solid 26 AWG tin-coated annealed copper.  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 0.7 Kgf (7N) max.  Storage Temperature -20 to +80C  Durability 750 mating cycles
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  0.7 Kgf (7N) max.  Storage Temperature  -20 to +80C  Durability  750 mating cycles
Standard Jacket and Boot Color  Light Gray RAL 7035. Other colors available upon request.  Standard Surface Marking  Lincludes HCS P/N, Cable Description, Meter Mark and Batch Number.  Cable to Plug Tensile Strength  9 Kgf (90N) min.  Pulling Force  0.7 Kgf (7N) max.  Storage Temperature  -20 to +80C  Durability  750 mating cycles
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 0.7 Kgf (7N) max.  Storage Temperature -20 to +80C  Durability 750 mating cycles
Cable to Plug Tensile Strength 9 Kgf (90N) min.  Pulling Force 0.7 Kgf (7N) max.  Storage Temperature -20 to +80C  Durability 750 mating cycles
Pulling Force 0.7 Kgf (7N) max.  Storage Temperature -20 to +80C  Durability 750 mating cycles
Storage Temperature -20 to +80C Durability 750 mating cycles
Durability 750 mating cycles
·
Cable OD 6.2 mm nom.
Bend Radius 50 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 LS0H Cables Null.

# Category 6 F/UTP 100 Ohm **Modular Cords**

# TRANSMISSION PROPERTIES AND ELECTRICAL SPECIFICATIONS

FREQ.	NEXT		RL	
MHz		dB		dB
		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	65.0	65.0	65.0	21.6
8.00	65.0	65.0	65.0	22.5
10.00	65.0	65.0	62.9	22.8
16.00	62.0	60.5	59.0	23.4
20.00	60.1	58.6	57.2	23.7
25.00	58.1	56.8	55.4	24.0
31.25	56.2	54.9	53.6	23.0
62.50	50.4	49.2	48.1	20.0
100.00	46.4	45.3	44.4	18.0
125.00	44.5	43.5	42.7	17.0
150.00	43.0	42.1	41.4	16.2
200.00	40.6	39.8	39.3	15.0
250.00	38.8	38.1	37.6	14.0

Characteristic Impedance	100±6 Ohm @ 1-250 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)@100-250 MHz
Transfer Impedance	10mOhm/m max @1-10 MHZ 30 mOhm/m max @30 MHz

#### ORDERING INFORMATION

HCS P/N	Description	Length (m)	Notes
T06-00430-056	4x2x26# F/UTP CAT 6 PVC Modular Cord Gray	0.5	
T06-00440-056	4x2x26# F/UTP CAT 6 LS0H Modular Cord Gray	0.5	
T06-00430-106	4x2x26# F/UTP CAT 6 PVC Modular Cord Gray	1.0	
T06-00440-106	4x2x26# F/UTP CAT 6 LS0H Modular Cord Gray	1.0	
T06-00430-206	4x2x26# F/UTP CAT 6 PVC Modular Cord Gray	2.0	
T06-00440-206	4x2x26# F/UTP CAT 6 LS0H Modular Cord Gray	2.0	
T06-00430-306	4x2x26# F/UTP CAT 6 PVC Modular Cord Gray	3.0	
T06-00440-306	4x2x26# F/UTP CAT 6 LS0H Modular Cord Gray	3.0	
T06-00430-506	4x2x26# F/UTP CAT 6 PVC Modular Cord Gray	5.0	
T06-00440-506	4x2x26# F/UTP CAT 6 LS0H Modular Cord Gray	5.0	
T06-00430-706	4x2x26# F/UTP CAT 6 PVC Modular Cord Gray	7.0	
T06-00440-706	4x2x26# F/UTPCAT 6 LS0H Modular Cord Gray	7.0	
T06-00430-006	4x2x26# F/UTP CAT 6 PVC Modular Cord Gray	10	
T06-00440-006	4x2x26# F/UTP CAT 6 LS0H Modular Cord Gray	10	

# DataLink 250

# Category 6 S/FTP 100 Ohm Modular Cords







#### Description

HCS DataLink 250 S/FTP 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) ETL Verified at the component level. HCS DataLink 250 S/FTP 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 250 S/FTP modular cords exceed all ANSI/TIA/568-C.2 and ISO/IEC-11801 (2nd Edition) Category 6 requirements and are specially designed to be backward compatible with all Category 5 and Category 5E jacks.

HCS DataLink 250 S/FTP modular cords can be used with either T568A or T568B modular jacks.

The standard jacket color is Gray RAL 7035. 10 different jacket & boot colors are available upon request.

#### **Applications**

HCS DataLink 250 S/FTP modular cords support all relevant LAN applications, including the following protocols:

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

#### **Qualifications and Approvals**

All HCS DataLink 250 S/FTP terminated cords are tested at the component level and officially ETL verified for full compliance with ANSI/TIA/568-C.2 Category 6.

#### **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.
- Individual foil + overall copper braid Providing excellent EMC (Electro Magnetic Compatibility), minimizing radiation and maximizing 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 Shielded with tin-coated copper braid and overall jacketed. Both cable ends terminated with fully 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, Orange x White, Green x White, Brown x White.
Individual Pair Shield	Polyester-aluminum, foil face out, providing 100% coverage.
Overall Shield	Tin-coated copper braid.
Drain Wire	None.
Outer Jacket and Boots	LSOH Halogen free flame retardant or PVC compound.
Standard Jacket Color	Light Gray RAL 7035. Other colors available upon request.
Boot Color	Red.
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	0.7 Kgf (7N) max.
Storage Temperature	-20 to +80C
Durability	750 mating cycles
Cable OD	6.2±0.3 mm nom.
Bend Radius	25 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.

# Category 6 S/FTP 100 Ohm **Modular Cords**

# TRANSMISSION PROPERTIES AND ELECTRICAL SPECIFICATIONS

FREQ.	NEXT		RL	
MHz		dB		dB
		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	65.0	65.0	65.0	21.6
8.00	65.0	65.0	65.0	22.5
10.00	65.0	65.0	62.9	22.8
16.00	62.0	60.5	59.0	23.4
20.00	60.1	58.6	57.2	23.7
25.00	58.1	56.8	55.4	24.0
31.25	56.2	54.9	53.6	23.0
62.50	50.4	49.2	48.1	20.0
100.00	46.4	45.3	44.4	18.0
125.00	44.5	43.5	42.7	17.0
150.00	43.0	42.1	41.4	16.2
200.00	40.6	39.8	39.3	15.0
250.00	38.8	38.1	37.6	14.0

Characteristic Impedance	100±6 Ohm @ 1-250 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)@100-250 MHz
Transfer Impedance	10mOhm/m max @1-10 MHZ 30 mOhm/m max @30 MHz

# ORDERING INFORMATION

HCS P/N	Description	Length (m)	Notes
T06-00470-05	4x2x26# S/FTP CAT 6 PVC Modular Cord Gray	0.5	
T06-00480-05	4x2x26# S/FTP CAT 6 LSOH Modular Cord Gray	0.5	
T06-00470-10	4x2x26# S/FTP CAT 6 PVC Modular Cord Gray	1.0	
T06-00480-10	4x2x26# S/FTP CAT 6 LSOH Modular Cord Gray	1.0	
T06-00470-20	4x2x26# S/FTP CAT 6 PVC Modular Cord Gray	2.0	
T06-00480-20	4x2x26# S/FTP CAT 6 LS0H Modular Cord Gray	2.0	
T06-00470-30	4x2x26# S/FTP CAT 6 PVC Modular Cord Gray	3.0	
T06-00480-30	4x2x26# S/FTP CAT 6 LS0H Modular Cord Gray	3.0	
T06-00470-50	4x2x26# S/FTP CAT 6 PVC Modular Cord Gray	5.0	
T06-00480-50	4x2x26# S/FTP CAT 6 LS0H Modular Cord Gray	5.0	
T06-00470-70	4x2x26# S/FTP CAT 6 PVC Modular Cord Gray	7.0	
T06-00480-70	4x2x26# S/FTP CAT 6 LSOH Modular Cord Gray	7.0	
T06-00470-00	4x2x26# S/FTP CAT 6 PVC Modular Cord Gray	10	
T06-00480-00	4x2x26# S/FTP CAT 6 LS0H Modular Cord Gray	10	

#### Category 6 S/FTP 100 Ohm DataLink 250 **Modular Cords**



#### Description

HCS DataLink 250 S/FTP 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) ETL Verified at the component level. HCS DataLink 250 S/FTP 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 250 S/FTP modular cords exceed all ANSI/TIA/568-C.2 and ISO/IEC-11801 (2nd Edition) Category 6 requirements and are specially designed to be backward compatible with all Category 5 and Category 5E jacks.

HCS DataLink 250 S/FTP modular cords can be used with either T568A or T568B modular jacks.

The standard jacket color is Gray RAL 7035. 10 different jacket & boot colors are available upon request.

HCS DataLink 250 S/FTP modular cords support all relevant LAN applications, including the following protocols:

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



#### **Qualifications and Approvals**

All HCS DataLink 250 S/FTP terminated cords are tested at the component level and officially ETL verified for full compliance with ANSI/TIA/568-C.2 Category 6.

#### **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.
- Individual foil + overall copper braid Providing excellent EMC (Electro Magnetic Compatibility), minimizing radiation and maximizing 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 Shielded with tin-coated copper braid and overall jacketed. Both cable ends terminated with fully shielded modular plug connectors conforming to IEC 60603-7-5.

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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, Orange x White, Green x White, Brown x White.			
Individual Pair Shield	Polyester-aluminum, foil face out, providing 100% coverage.			
Overall Shield	Tin-coated copper braid.			
Drain Wire	None.			
Outer Jacket and Boots	LSOH Halogen free flame retardant or PVC compound.			
Standard Jacket Color	Light Gray RAL 7035. Other colors available upon request.			
Boot Color	Red.			
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	0.7 Kgf (7N) max.			
Storage Temperature	-20 to +80C			
Durability	750 mating cycles			
Cable OD	6.2±0.3 mm nom.			
Bend Radius	25 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.			

# Category 6 S/FTP 100 Ohm **Modular Cords**

# 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	65.0	65.0	65.0	21.6
8.00	65.0	65.0	65.0	22.5
10.00	65.0	65.0	62.9	22.8
16.00	62.0	60.5	59.0	23.4
20.00	60.1	58.6	57.2	23.7
25.00	58.1	56.8	55.4	24.0
31.25	56.2	54.9	53.6	23.0
62.50	50.4	49.2	48.1	20.0
100.00	46.4	45.3	44.4	18.0
125.00	44.5	43.5	42.7	17.0
150.00	43.0	42.1	41.4	16.2
200.00	40.6	39.8	39.3	15.0
250.00	38.8	38.1	37.6	14.0

Characteristic Impedance	100±6 Ohm @ 1-250 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)@100-250 MHz
Transfer Impedance	10mOhm/m max @1-10 MHZ 30 mOhm/m max @30 MHz

# ORDERING INFORMATION

HCS P/N	Description	Length (m)	Notes
T06-00470-056	4x2x26# S/FTP CAT 6 PVC Modular Cord Gray	0.5	
T06-00480-056	4x2x26# S/FTP CAT 6 LSOH Modular Cord Gray	0.5	
T06-00470-106	4x2x26# S/FTP CAT 6 PVC Modular Cord Gray	1.0	
T06-00480-106	4x2x26# S/FTP CAT 6 LSOH Modular Cord Gray	1.0	
T06-00470-206	4x2x26# S/FTP CAT 6 PVC Modular Cord Gray	2.0	
T06-00480-206	4x2x26# S/FTP CAT 6 LS0H Modular Cord Gray	2.0	
T06-00470-306	4x2x26# S/FTP CAT 6 PVC Modular Cord Gray	3.0	
T06-00480-306	4x2x26# S/FTP CAT 6 LSOH Modular Cord Gray	3.0	
T06-00470-506	4x2x26# S/FTP CAT 6 PVC Modular Cord Gray	5.0	
T06-00480-506	4x2x26# S/FTP CAT 6 LSOH Modular Cord Gray	5.0	
T06-00470-706	4x2x26# S/FTP CAT 6 PVC Modular Cord Gray	7.0	
T06-00480-706	4x2x26# S/FTP CAT 6 LS0H Modular Cord Gray	7.0	
T06-00470-006	4x2x26# S/FTP CAT 6 PVC Modular Cord Gray	10	
T06-00480-006	4x2x26# S/FTP CAT 6 LSOH Modular Cord Gray	10	



# Augmented Category 6 UTP 100 Ohm Modular Cords







#### Description

HCS DataLink 500A modular cord series consists of 100 Ohm impedance, 4-pair UTP 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-C.2 requirements for Augmented Category 6 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 Token Ring 4 Mbps and 16 Mbps 1000BASE-T Gigabit Ethernet 100BASE-TX Broadband and Baseband Video Ø ATM 155 Token Ring 100 Mbps ISDN Basic and Primary Access TP-PMD ATM 52 1BASE-5 Starlan  $\square$  $\square$  $\square$ 100BASE-T Fast Ethernet Ø Q ATM 25 Ø ISAI AN  $\square$ 100BASE-T2  $\square$ 10BASE-T Ethernet  $\square$ ITU V.21 and X.11

#### **Qualifications and Approvals**

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

- Augmented Category 6 according to ANSI/TIA/568-C.2
- → Category 6 according to ANSI/TIA/568-C.2
- Category 6 according to ISO/IEC-11801 (2nd Edition)

#### **Benefits & Features**

Halogen Content in LSOH Cables

- 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, unshielded twisted pairs cabled together around and overall jackted.

Both cable ends terminated with unshielded modular plug connectors conforming to IEC 60603-7-41.				
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, Orange x White, Green x White, Brown x White.			
Overall Tape Wrap	None.			
Overall Shield	Polyester aluminum foil, 50μm aluminum.			
Drain wire	None.			
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	6.2 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.			

# **Augmented** Category 6 UTP 100 Ohm **Modular Cords**

# TRANSMISSION PROPERTIES AND ELECTRICAL SPECIFICATIONS

FREQ.	Min. NEXT			Min RL	
MHz		d	IB		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	40 dB min @ 30-100 MHz
Transfer Impedance	N/A

#### ORDERING INFORMATION

HCS P/N	Description	Length (m)	Notes
T6A-00410-10	4x2x26# UTP CAT 6A PVC Modular Cord Gray	1.0	
T6A-00420-10	4x2x26# UTP CAT 6A LS0H Modular Cord Gray	1.0	
T6A-00410-20	4x2x26# UTP CAT 6A PVC Modular Cord Gray	2.0	
T6A-00420-20	4x2x26# UTP CAT 6A LS0H Modular Cord Gray	2.0	
T6A-00410-30	4x2x26# UTP CAT 6A PVC Modular Cord Gray	3.0	
T6A-00420-30	4x2x26# UTP CAT 6A LS0H Modular Cord Gray	3.0	
T6A-00410-50	4x2x26# UTP CAT 6A PVC Modular Cord Gray	5.0	
T6A-00420-50	4x2x26# UTP CAT 6A LS0H Modular Cord Gray	5.0	
T6A-00410-70	4x2x26# UTP CAT 6A PVC Modular Cord Gray	7.0	
T6A-00420-70	4x2x26# UTP CAT 6A LS0H Modular Cord Gray	7.0	
T6A-00410-00	4x2x26# UTP CAT 6A PVC Modular Cord Gray	10	
T6A-00420-00	4x2x26# UTP CAT 6A LS0H Modular Cord Gray	10	



# Augmented Category 6 F/UTP 100 Ohm Modular Cords







#### Description

HCS DataLink 500A modular cord series consists of 100 Ohm impedance, 4-pair F/UTP 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-C.2 requirements for Augmented Category 6 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 100BASE-T4 Token Ring 4 Mbps and 16 Mbps  $\square$ 1000BASE-T Gigabit Ethernet  $\square$ 100BASE-TX Broadband and Baseband Video Token Ring 100 Mbps ISDN Basic and Primary Access ATM 155 Q Q Q 1BASE-5 Starlan TP-PMD Q Q **ATM 52** Ø 100BASE-T Fast Ethernet **ATM 25**  $\square$ ISALAN 100BASE-T2 10BASE-T Ethernet ITU V.21 and X.11

#### **Qualifications and Approvals**

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

- → Augmented Category 6 according to ANSI/TIA/568-C.2
- → Category 6 according to ANSI/TIA/568-C.2
- Category 6 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 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, unshielded twisted pairs cabled together around a central cross-shaped filler, overall foil shielded and jacketed. Both cable ends terminated with shielded modular plug connectors conforming to IEC 60603-7-51.

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	None.
Overall Shield	Polyester aluminum foil, 50µm aluminum. aluminum foil out.
Drain wire	26 AWG Tinned copper wire.
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	6.2 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 LSOH Cables	Null.

# **Augmented** Category 6 F/UTP 100 Ohm **Modular Cords**

# TRANSMISSION PROPERTIES AND ELECTRICAL SPECIFICATIONS

FREQ.	Min. NEXT			Min RL	
MHz		d	IB		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)	Notes
T6A-00430-10	4x2x26# F/UTP CAT 6A PVC Modular Cord Gray	1.0	
T6A-00440-10	4x2x26# F/UTP CAT 6A LSOH Modular Cord Gray	1.0	
T6A-00430-20	4x2x26# F/UTP CAT 6A PVC Modular Cord Gray	2.0	
T6A-00440-20	4x2x26# F/UTP CAT 6A LS0H Modular Cord Gray	2.0	
T6A-00430-30	4x2x26# F/UTP CAT 6A PVC Modular Cord Gray	3.0	
T6A-00440-30	4x2x26# F/UTP CAT 6A LS0H Modular Cord Gray	3.0	
T6A-00430-50	4x2x26# F/UTP CAT 6A PVC Modular Cord Gray	5.0	
T6A-00440-50	4x2x26# F/UTP CAT 6A LS0H Modular Cord Gray	5.0	
T6A-00430-70	4x2x26# F/UTP CAT 6A PVC Modular Cord Gray	7.0	
T6A-00440-70	4x2x26# F/UTP CAT 6A LSOH Modular Cord Gray	7.0	
T6A-00430-00	4x2x26# F/UTP CAT 6A PVC Modular Cord Gray	10	
T6A-00440-00	4x2x26# F/UTP CAT 6A LSOH Modular Cord Gray	10	

# DataLink 500A

# Augmented Category 6 F/UTP 100 Ohm Modular Cords



#### Description

HCS DataLink 500A modular cord series consists of 100 Ohm impedance, 4-pair F/UTP 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-C.2 requirements for Augmented Category 6 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
- ☑ ATM 155
- ☑ TP-PMD

- ☑ 100BASE-TX
- ☑ Token Ring 100 Mbps
- ☑ ATM 52
- ☑ ATM 25
- ☑ 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:

- Augmented Category 6 according to ANSI/TIA/568-C.2
- → Category 6 according to ANSI/TIA/568-C.2
- → Category 6 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 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, unshielded twisted pairs cabled together around a central cross-shaped filler, overall foil shielded and jacketed. Both cable ends terminated with shielded modular plug connectors conforming to IEC 60603-7-51.

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	None.
Overall Shield	Polyester aluminum foil, 50µm aluminum. aluminum foil out.
Drain wire	26 AWG Tinned copper wire.
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	6.2 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 LSOH Cables	Null.

# **Augmented** Category 6 F/UTP 100 Ohm **Modular Cords**

# TRANSMISSION PROPERTIES AND ELECTRICAL SPECIFICATIONS

FREQ.	Min. NEXT			Min RL	
MHz		d	IB		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)	Notes
T6A-00430-101	4x2x26# F/UTP CAT 6A PVC Modular Cord Gray	1.0	
T6A-00440-101	4x2x26# F/UTP CAT 6A LS0H Modular Cord Gray	1.0	
T6A-00430-201	4x2x26# F/UTP CAT 6A PVC Modular Cord Gray	2.0	
T6A-00440-201	4x2x26# F/UTP CAT 6A LS0H Modular Cord Gray	2.0	
T6A-00430-301	4x2x26# F/UTP CAT 6A PVC Modular Cord Gray	3.0	
T6A-00440-301	4x2x26# F/UTP CAT 6A LSOH Modular Cord Gray	3.0	
T6A-00430-501	4x2x26# F/UTP CAT 6A PVC Modular Cord Gray	5.0	
T6A-00440-501	4x2x26# F/UTP CAT 6A LS0H Modular Cord Gray	5.0	
T6A-00430-701	4x2x26# F/UTP CAT 6A PVC Modular Cord Gray	7.0	
T6A-00440-701	4x2x26# F/UTP CAT 6A LS0H Modular Cord Gray	7.0	
T6A-00430-001	4x2x26# F/UTP CAT 6A PVC Modular Cord Gray	10	
T6A-00440-001	4x2x26# F/UTP CAT 6A LS0H Modular Cord Gray	10	



# Augmented Category 6 S/FTP 100 Ohm Modular Cords







#### 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-C.2 requirements for Augmented Category 6 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 Token Ring 4 Mbps and 16 Mbps 1000BASE-T Gigabit Ethernet Q 100BASF-TX Broadband and Baseband Video  $\square$ ATM 155 Token Ring 100 Mbps ISDN Basic and Primary Access ATM 52 1BASE-5 Starlan  $\square$ 100BASE-T Fast Ethernet  $\square$ **ATM 25**  $\square$ **ISALAN** 10BASE-T Ethernet 100BASE-T2 ITU V.21 and X.11  $\square$ Q

#### **Qualifications and Approvals**

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

- Augmented Category 6 according to ANSI/TIA/568-C.2
- → Category 6 according to ANSI/TIA/568-C.2
- Category 6 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 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 60603-7-51.

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, Orange x White, Green x White, Brown x White.
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	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	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.

# Augmented Category 6 S/FTP 100 Ohm Modular Cords

# 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	85 dB min @ 30-100 MHz 85-20log(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)	Notes
T6A-00470-10	4x2x26# S/FTP CAT 6A PVC Modular Cord Gray	1.0	
T6A-00480-10	4x2x26# S/FTP CAT 6A LSOH Modular Cord Gray	1.0	
T6A-00470-20	4x2x26# S/FTP CAT 6A PVC Modular Cord Gray	2.0	
T6A-00480-20	4x2x26# S/FTP CAT 6A LS0H Modular Cord Gray	2.0	
T6A-00470-30	4x2x26# S/FTP CAT 6A PVC Modular Cord Gray	3.0	
T6A-00480-30	4x2x26# S/FTP CAT 6A LS0H Modular Cord Gray	3.0	
T6A-00470-50	4x2x26# S/FTP CAT 6A PVC Modular Cord Gray	5.0	
T6A-00480-50	4x2x26# S/FTP CAT 6A LS0H Modular Cord Gray	5.0	
T6A-00470-70	4x2x26# S/FTP CAT 6A PVC Modular Cord Gray	7.0	
T6A-00480-70	4x2x26# S/FTP CAT 6A LSOH Modular Cord Gray	7.0	
T6A-00470-00	4x2x26# S/FTP CAT 6A PVC Modular Cord Gray	10	
T6A-00480-00	4x2x26# S/FTP CAT 6A LS0H Modular Cord Gray	10	

# DataLink 500A

# Augmented Category 6 S/FTP 100 Ohm **Modular Cords**



#### 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-C.2 requirements for Augmented Category 6 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  $\square$
- ATM 155
- TP-PMD abla
- $\square$ 100BASE-T Fast Ethernet
- $\square$ 100BASE-T2
- 100BASE-T4
- $\square$ 100BASE-TX
- $\square$ Token Ring 100 Mbps
- abla**ATM 52**
- **ATM 25**
- $\square$ 10BASE-T Ethernet
- Token Ring 4 Mbps and 16 Mbps
- Broadband and Baseband Video
- ISDN Basic and Primary Access
- abla1BASE-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:

- Augmented Category 6 according to ANSI/TIA/568-C.2
- Category 6 according to ANSI/TIA/568-C.2
- Category 6 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 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 60603-7-51.

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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, Orange x White, Green x White, Brown x White.
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	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	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 LSOH Cables	Null.

# **Augmented** Category 6 S/FTP 100 Ohm **Modular Cords**

# TRANSMISSION PROPERTIES AND ELECTRICAL SPECIFICATIONS

FREQ.	Min. NEXT				Min RL
MHz		d	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	85 dB min @ 30-100 MHz 85-20log(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)	Notes
T6A-00470-101	4x2x26# S/FTP CAT 6A PVC Modular Cord Gray	1.0	
T6A-00480-101	4x2x26# S/FTP CAT 6A LS0H Modular Cord Gray	1.0	
T6A-00470-201	4x2x26# S/FTP CAT 6A PVC Modular Cord Gray	2.0	
T6A-00480-201	4x2x26# S/FTP CAT 6A LS0H Modular Cord Gray	2.0	
T6A-00470-301	4x2x26# S/FTP CAT 6A PVC Modular Cord Gray	3.0	
T6A-00480-301	4x2x26# S/FTP CAT 6A LS0H Modular Cord Gray	3.0	
T6A-00470-501	4x2x26# S/FTP CAT 6A PVC Modular Cord Gray	5.0	
T6A-00480-501	4x2x26# S/FTP CAT 6A LS0H Modular Cord Gray	5.0	
T6A-00470-701	4x2x26# S/FTP CAT 6A PVC Modular Cord Gray	7.0	
T6A-00480-701	4x2x26# S/FTP CAT 6A LS0H Modular Cord Gray	7.0	
T6A-00470-001	4x2x26# S/FTP CAT 6A PVC Modular Cord Gray	10	
T6A-00480-001	4x2x26# S/FTP CAT 6A LS0H Modular Cord Gray	10	

#### Shielded DL-1200 DataLink 1200 Modular Cords



#### Description

HCS DataLink DL-1200 modular cord series consists of 100 Ohm impedance, 1 to 4-pair S/FTP terminated cords for work area, jumper and patching in local area networks (LANs). HCS DataLink DL-1200 modular cords exceed all present standards requirements and are specially designed to provide outstanding Alien Crosstalk Loss.

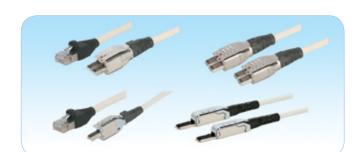
HCS DataLink DL-1200 modular cords are available in several different configurations.

The DL-1200 to DL-1200 patch cords deliver twice the bandwidth of category 7/class F specifications when combined with the DL-1200 outlet. While current specifications characterize connector performance up to 1000 MHz, DL-1200 delivers up to 1.2 GHz of bandwidth per pair. This extra bandwidth is critical for demanding applications like broadband video, with an upper frequency requirement of 862 MHz, or the convergence of video, voice and data onto a single 4-pair cable and outlet.

DL-1200 to RJ-45 plug cord options are available. 1- and 2-pair plug modularity allows multiple applications to be served from a single 4-pair outlet.

HCS DataLink 1200 Horizontal cables support all presently available and future LAN applications, including the following:

- 10 Gigabit Ethernet -10GBASE-T
- Broadband Digital and Analog CATV signals up to 1200 MHz
- SOHO and multiple simultaneous applications on all 4 pairs.
- $\square$ 1000BASE-T Gigabit Ethernet
- ಠ
- TP-PMD
- $\square$ 100BASE-T Fast Ethernet
- $\square$ 100BASE-T2
- 100BASE-T4
- Ø 100BASE-TX
- $\square$ Token Ring 100 Mbps
- ☒ ATM 52
- **ATM 25**
- Ø 10BASE-T Ethernet
- Token Ring 4 Mbps and 16 Mbps ಠ
- Broadband and Baseband Video
- ISDN Basic and Primary Access
- 1BASE-5 Starlan Ø
- Ιςδί δΝ M
- ITU V.21 and X.11 ಠ



#### **Qualifications and Approvals**

HCS DataLink DL-1200 modular cords are tested and verified for full compliance with the following standards:

- Category 7A according to ISO/IEC-11801
- Augmented Category 6 according to ANSI/TIA/568-C.2 Category 7 according to ISO/IEC-11801

- Category 6 according to ANSI/TIA/568-C.2
- Category 6A according to ISO/IEC-11801
- Category 5E according to ANSI/TIA/568-C.2

#### **Benefits & Features**

- DL-1200 cords deliver 1200 MHz bandwidth supporting shared applications and broadband video.
- Testing every cord prior to shipment Providing the highest degree of quality assurance.
- Unique termination method suitable for field 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 & connector 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.

#### 4 PAIR PATCH CORDS PHYSICAL AND MECHANICAL PROPERTIES

4 color-coded, individually foil shielded twisted pairs cabled together, overall braid shielded and jacketed. Cable ends terminated with various types of modular plug connectors .

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	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	6.5 mm nom.
Bend Radius	25 mm min.
Temperature Operating Range	-20 to +60C
Flame Test	IEC 60332-1.
Halogen Content in LSOH Cables	Null.

# **ELECTRICAL SPECIFICATIONS**

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	85 dB min @ 30-100 MHz 85-20log(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	Pairs	Termination & Application
T7A-00110-XX	1x2x26# CAT 7A PVC Modular Cord Gray: 1P DL-1200 to 1P DL-1200	1	Standard, 1200 MHz
T7A-00120-XX	1x2x26# CAT 7A LSOH Modular Cord Gray: 1P DL-1200 to 1P DL-1200	1	Standard, 1200 MHz
T7A-00210-XX	2x2x26# CAT 7A PVC Modular Cord Gray: 2P DL-1200 to 2P DL-1200	2	Standard, 1200 MHz
T7A-00220-XX	2x2x26# CAT 7A LSOH Modular Cord Gray: 2P DL-1200 to 2P DL-1200	2	Standard, 1200 MHz
T7A-00410-XX	4x2x26# CAT 7A PVC Modular Cord Gray: 4P DL-1200 to 4P DL-1200	4	Standard, 1200 MHz
T7A-00420-XX	4x2x26# CAT 7A LS0H Modular Cord Gray: 4P DL-1200 to 4P DL-1200	4	Standard, 1200 MHz
T6A-A0410-XX	4x2x26# CAT 6A PVC Modular Cord Gray: 4P DL-1200 to Shielded RJ-45	4	T568A
T6A-A0420-XX	4x2x26# CAT 6A LSOH Modular Cord Gray: 4P DL-1200 to Shielded RJ-45	4	T568A
T6A-B0410-XX	4x2x26# CAT 6A PVC Modular Cord Gray: 4P DL-1200 to Shielded RJ-45	4	T568B
T6A-B0420-XX	4x2x26# CAT 6A LS0H Modular Cord Gray: 4P DL-1200 to Shielded RJ-45	4	T568B
T5E-E0210-XX	2x2x26# CAT 5E PVC Modular Cord Gray: 2P DL-1200 to Shielded RJ-45	2	10BASE-T & 100BASE-T
T5E-E0220-XX	2x2x26# CAT 5E LS0H Modular Cord Gray: 2P DL-1200 to Shielded RJ-45	2	10BASE-T & 100BASE-T
T5E-T0210-XX	2x2x26# CAT 5E PVC Modular Cord Gray: 2P DL-1200 Shielded to RJ-45	2	Token-Ring
T5E-T0220-XX	2x2x26# CAT 5E LSOH Modular Cord Gray: 2P DL-1200 Shielded to RJ-45	2	Token-Ring
T02-00110-XX	1x2x26# PVC Modular Cord Gray: 1P DL-1200 to Unshielded RJ-11	1	Voice Grade
T02-00120-XX	1x2x26# LS0H Modular Cord Gray: 1P DL-1200 to Unshielded RJ-11	1	Voice Grade
T08-T0120-XX	1x2x26# CAT 8 PVC Modular Cord Gray: 1P DL-1200 to PAL Video plug	1	Broadband
T08-T0110-XX	1x2x26# CAT 8 LS0H Modular Cord Gray: 1P DL-1200 to PAL Video plug	1	Broadband

**Standard Color:** Light Gray RAL 7035 (indicated by 0) Other colors available for selection from Color Table No. 6. **Length:** Indicated by the XX. (-05= 0.5m cord. -10 = 1 m cord. -00=10m cord). Custom designs available upon request.

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