



Category 7 S/FTP 100 Ohm Horizontal LAN Cables



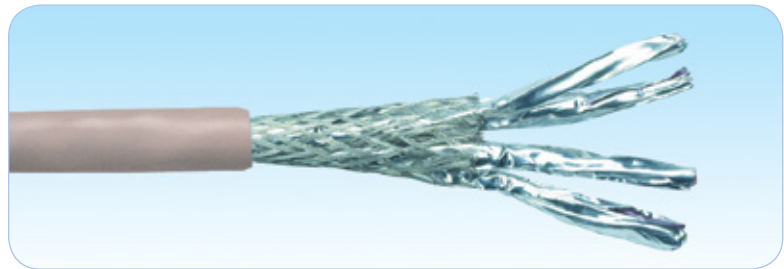
Description

HCS DataLink 600 CAT 7 cable series consists of 100 Ohm impedance, 4-pair and 8-pair S/FTP cables for horizontal installations in local area networks (LANs). All cables fully conform to and provide a substantial margin above all Category 7 requirements of IEC 61156-5 (Specified in ISO/IEC 11801) and are tested up to 600MHz.

Applications

HCS DataLink 600 CAT 7 Horizontal cables support all presently available and future LAN applications, including the following protocols:

- ☑ Broadband Digital and Analog CATV signals up to 600 MHz
- ☑ SOHO and multiple simultaneous applications on all 4 pairs
- ☑ 10GBASE-T 10 Gigabit Ethernet
- ☑ 1000BASE-T 1 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.1110BASE-T Ethernet



Qualifications and Approvals

HCS DataLink 600 CAT 7 Cables are tested and verified for full compliance with the following standards:

- ➔ Category 7 according to IEC 61156-5 (for ISO/IEC-11801).
- ➔ 600 MHz according to CENELEC EN 50288-4

Benefits & Features

- ➔ Exceptional transmission properties - suitable for 10GBE applications on 100m channels.
- ➔ Testing every reel of cable prior to shipment - Providing the highest degree of quality assurance.
- ➔ Exceptional material properties and cable design - Providing a unique Century™ Lifetime Warranty.
- ➔ High ACR values - Providing low BER (Bit-Error-Rate) in all applications.
- ➔ Extremely high pair-balance and double shield - Providing excellent EMC (Electro Magnetic Compatibility), minimizing radiation, maximizing noise immunity and preventing any alien-crosstalk (AXT).
- ➔ Revolutionary pair lay scheme - Providing an extremely low delay skew.
- ➔ Descending sequential meter mark - Providing easy stock and left-over handling.
- ➔ Smooth and rigid jacket - Providing fast and easy cable pulling and installation.
- ➔ Batch number printed every meter - Providing fast retrieval of test results from data-base.
- ➔ A comprehensive product range - Providing all state-of-the-art cable constructions.
- ➔ Large variety of packaging options - Providing minimum scrap and left-over cable sections.
- ➔ Unique DoubleSafe™ Quality Assurance Program - Providing lowest rejection rate available.
- ➔ Full compliance with EU Directive 2011/65/CE (RoHS-2).

PHYSICAL AND MECHANICAL PROPERTIES

4 color-coded, individually foil shielded twisted pairs cabled together, Overall Shielded with a tin-coated copper braid and overall jacketed. Siamese (Figure-8) cables are made of two identical 4-pair cables connected in a zip-cord formation, one cable identified with two raised ribs on the jacket surface.

Basic Conductor	Solid, 23AWG, bare annealed copper
Insulation	Polyolefin
Number of Insulated Conductors	8, twisted in 4 pairs. (8 pairs in FIG-8 cables)
Color Code of Pairs	Blue x White, Orange x White, Green x White, Brown x White.
Individual Pair Shield	Polyester-aluminum foil (foil face out), providing 100% coverage.
Overall Shield	Tin coated copper braid laid in close contact over the inner foils.
Outer Jacket	LSOH Halogen free flame retardant or PVC compound.
Standard Jacket Color	Light Gray RAL 7035. Other colors available upon request.
Standard Surface Marking	Includes HCS P/N, Cable Description, Meter Mark and Batch Number.
Pulling Force	50 N/mm ² max.
Short Term Bend Radius	8xOD mm
Long Term Bend Radius	4xOD mm
Storage Temperature	-20 to +60C
Temperature Operating Range	-20 to +60C
Installation Temperature Range	0 to +50C
Flame Test	IEC 60332-1, IEC 60332-3-24 or IEC 60332-3-25.
Conductor Size Test	UL 444.
Halogen Content in LSOH Cables	IEC 60754 (gas) & IEC 61034 (smoke)

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TRANSMISSION PROPERTIES AND ELECTRICAL SPECIFICATIONS

FREQ.	Insertion Loss	NEXT	PS NEXT	EL FEXT	PS EL FEXT	RL	TCL	EL TCL	PS ANEXT	PS AFEXT
MHz	dB/100m	dB	dB	dB/100m	dB/100m	dB	dB	dB	dB	dB
	Max	Min	Min	Min	Min	Min	Min	Min	Min	Min
1	NS	78.0	75.0	78.0	75.0	20.0	40.0	35.0	67.0	67.0
4	3.74	78.0	75.0	83.3	80.3	23.0	40.0	23.0	67.0	67.0
8	5.24	78.0	75.0	77.2	74.2	24.5	40.0	16.9	67.0	67.0
10	5.86	78.0	75.0	75.3	72.3	25.0	40.0	15.0	67.0	67.0
16	7.41	78.0	75.0	71.2	68.2	26.0	38.0	10.9	67.0	67.0
20	8.29	78.0	75.0	69.3	66.3	25.0	37.0	9.0	67.0	67.0
25	9.29	78.0	75.0	67.3	64.3	24.3	36.0	7.0	67.0	65.2
31.25	10.41	78.0	75.0	65.4	62.4	23.6	35.1	5.1	67.0	63.3
62.5	14.88	75.5	72.5	59.4	56.4	21.5	32.0	NS	67.0	57.3
100	19.02	72.4	69.4	55.3	52.3	20.1	30.0	NS	67.0	53.2
150	23.56	69.8	66.8	51.8	48.8	18.9	28.2	NS	67.0	49.7
200	27.47	67.9	64.9	49.3	46.3	18.0	27.0	NS	67.0	47.2
250	30.97	66.4	63.4	47.3	44.3	17.3	26.0	NS	67.0	45.2
300	34.19	65.2	62.2	45.8	42.8	17.3	NS	NS	67.0	43.7
400	40.01	63.4	60.4	43.3	40.3	17.3	NS	NS	67.0	41.2
500	45.26	61.9	58.9	41.3	38.3	17.3	NS	NS	67.0	39.2
600	50.10	60.7	57.7	39.7	36.7	17.3	NS	NS	65.8	37.6

Characteristic Impedance	100±5 Ohm @ 1-600 MHz
Resistance Unbalance	2% max.
Capacitance	45 pF/m nom. @ 1 KHz
Cap. Unbalance (Wire to Ground)	1500 pF/Km max. @ 1 KHz.
Voltage Rating	72 Vdc max.
Dielectric Strength	700 Volts/1 minute min rms
Velocity of Propagation (NVP)	77-80%
Propagation Delay	500+36/ft/2
Delay Skew	25 nS/100m max @ 1-600 MHz.
Insulation Resistance	5000 MegaOhm•Km min. @ 500 Vdc
Coupling Attenuation	85 dB min @ 30-100 MHz 85-20Log(f/100) @100-600 MHz
Screening Attenuation	60 dB min @ 30-600 MHz
Transfer Impedance	10 mOhm/m max @ 1-30 MHz 30 MOhm/m max @ 30-100 MHz

ORDERING INFORMATION

HCS P/N	Description	OD mm	Weight Kg/Km	Cal. Value Kj/m	Packaging	Notes
H07-F0401-DP	4x2x23# S/FTP CAT 7 PVC Gray	7.0	48	660	500m Drum	
H07-F0401-DM	4x2x23# S/FTP CAT 7 PVC Gray	7.0	48	660	1000m Drum	
H07-F0402-DP	4x2x23# S/FTP CAT 7 LS0H Gray	7.0	48	660	500m Drum	
H07-F0402-DM	4x2x23# S/FTP CAT 7 LS0H Gray	7.0	48	660	1000m Drum	
H07-F0803-DP	2x(4x2x23#) CAT 7 S/FTP PVC Gray	7.0x14.2	100	1320	500m Drum	FIG-8
H07-F0803-DM	2x(4x2x23#) CAT 7 S/FTP PVC Gray	7.0x14.2	100	1320	1000m Drum	FIG-8
H07-F0804-DP	2x(4x2x23#) CAT 7 S/FTP LS0H Gray	7.0x14.2	100	1320	500m Drum	FIG-8
H07-F0804-DM	2x(4x2x23#) CAT 7 S/FTP LS0H Gray	7.0x14.2	100	1320	1000m Drum	FIG-8

Flame Test Conformance F=0: IEC 60332-1 F=C: IEC 60332-3-24 F=D: IEC 60332-3-25

Note: Standard Jacket Color: Light Gray RAL 7035. Other colors available upon request.