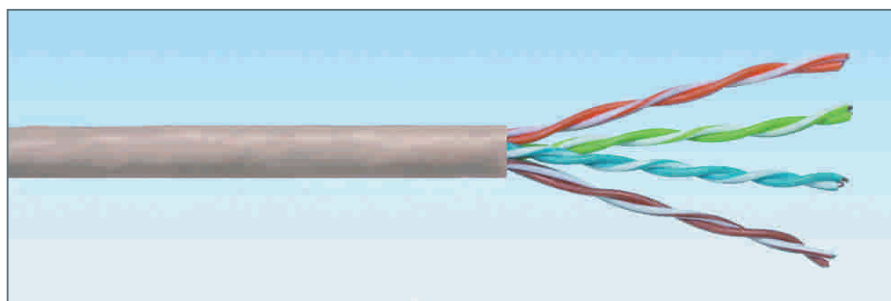


Category 5e U/UTP 100 Ohm Horizontal LAN Cables



Description

HCS DataLink 100e cable series consists of 100 Ohm impedance, 4-pair and 8-pair U/UTP cables for horizontal installations in local area networks (LANs). All cables fully conform to and provide a substantial margin above all Category 5e requirements of TIA/EIA-568-B.2 and IEC 61156-5.

Applications

HCS DataLink 100e Horizontal cables support all presently available LAN applications, including the following protocols:

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

Qualifications and Approvals

HCS DataLink 100e Cables are tested and verified for full compliance with the following standards:

- Category 5e according to ANSI/TIA/EIA-568-B.2
- Category 5e according to IEC 61156-5 (for ISO/IEC-11801 2nd Edition).
- 100 MHz according to CENELEC EN 50288-3
- Category 5 according to ICEA S-90-661-1997

Benefits and Features

- ✓ Testing every box or 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 - providing excellent EMC (Electro Magnetic Compatibility), minimizing radiation and maximizing noise immunity.
- ✓ Revolutionary pair lay scheme - providing an extremely low delay skew.
- ✓ Co-extruded crisp and clear spiral color coding of wires - providing positive wire identification and ease of installation.
- ✓ Descending sequential meter mark - providing easy stock and left-over handling.
- ✓ Smooth and rigid jacket - proving 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.

Physical and Mechanical Properties

4 color-coded, unshielded twisted pairs cabled together 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 a longitudinal rib.

Basic Conductor	Solid, 24AWG, 0.5 mm, 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/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	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 +80C
Temperature operating range	-20 to +60C
Installation temperature range	0 to +50C
Flame Test	IEC 60332-1
Halogen content in LSOH cables	Null

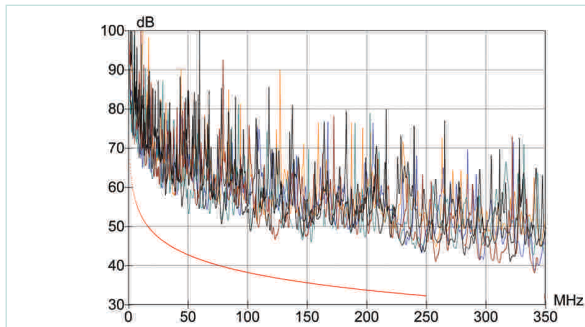
Category 5e U/UTP 100 Ohm Horizontal LAN Cables

Transmission Properties and Electrical Specifications

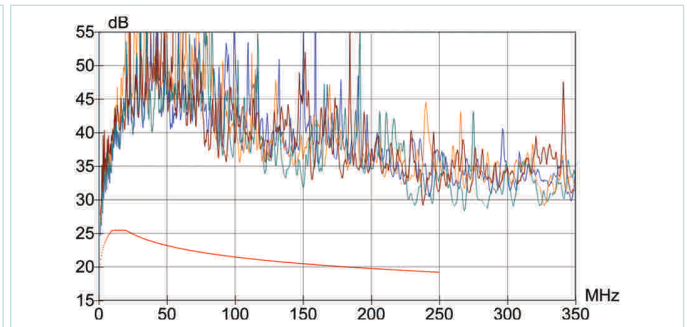
Frequency	Insertion Loss		NEXT		PS NEXT		EL FEXT		PS EL FEXT		RL		SKEW	Prop. Delay	TCL
	dB/100m		dB		dB		dB/100m		dB/100m		dB		nS/100m	nS/100m	dB
	Max	Nom	Min	Nom	Min	Nom	Min	Nom	Min	Nom	Min	Nom	Max	Max	Min
0.0000	2.10	1.80	68.30	900	66.30	860	67.80	900	65.80	870	20.00	300	40.00	5500	40.000
4.0000	4.10	3.70	59.30	750	57.30	710	55.70	800	53.70	770	23.30	350	40.00	5320	34.000
8.0000	5.80	5.30	54.80	700	52.80	660	49.70	750	47.70	720	25.00	350	40.00	5270	31.000
10.000	6.50	6.00	53.30	670	51.30	630	47.80	700	45.80	670	25.50	350	40.00	5250	30.000
16.000	8.20	7.60	50.30	650	48.30	610	43.70	650	41.70	620	25.50	400	40.00	5230	28.000
25.000	10.30	9.60	47.30	630	45.30	590	39.80	600	37.80	570	25.50	400	40.00	5210	26.000
31.250	11.50	10.70	45.90	600	43.90	560	37.90	550	35.90	520	24.40	400	40.00	5200	25.100
62.500	16.40	15.30	41.40	580	39.40	540	31.80	500	29.80	470	22.70	350	40.00	5190	22.000
100.000	21.00	19.80	38.30	530	36.30	490	27.80	450	25.80	420	21.50	350	40.00	5180	20.000
200.000	30.20	28.50	33.80	500	31.80	460	21.70	400	19.70	370	19.00	300	40.00	5170	17.000
250.000	34.00	33.00	32.30	470	30.30	430	19.80	350	17.80	320	18.40	300	40.00	5160	16.0

Characteristic Impedance	100±6 Ohm @ 1-100 MHz
DC Resistance	93 Ohm/Km max.
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	1500 Volts/1 minute min rms
Velocity of Propagation (NVP)	67-69%
Insulation Resistance	5000 MegaOhm • Km min. @ 500 Vdc
Coupling attenuation	40 dB min @ 30-100 MHz
Transfer Impedance	N/A

Typical NEXT Loss



Typical Return Loss



Ordering Information

HCS P/N	Description	OD mm	Weight Kg/Km	Cal. Value Kj/m	Packaging	Notes
H5E-00401-BK	4x2x24# U/UTP CAT 5e PVC Grey	5.0	31	475	1000ft Reelx II™	-
H5E-00401-BP	4x2x24# U/UTP CAT 5e PVC Grey	5.0	31	475	500m Reelx II™	-
H5E-00401-DP	4x2x24# U/UTP CAT 5e PVC Grey	5.0	31	475	500m Drum	-
H5E-00401-DM	4x2x24# U/UTP CAT 5e PVC Grey	5.0	31	475	1000m Drum	-
H5E-00402-DP	4x2x24# U/UTP CAT 5e LS0H Grey	5.0	30	485	500m Drum	-
H5E-00402-DM	4x2x24# U/UTP CAT 5e LS0H Grey	5.0	30	485	1000m Drum	-
H5E-00803-DP	2x(4x2x24#) U/UTP CAT 5e PVC Grey	5.1x10.2	63	950	500m Drum	FIG-8
H5E-00803-DM	2x(4x2x24#) U/UTP CAT 5e PVC Grey	5.1x10.2	63	950	1000m Drum	FIG-8
H5E-00804-DP	2x(4x2x24#) U/UTP CAT 5e LS0H Grey	5.1x10.2	61	970	500m Drum	FIG-8
H5E-00804-DM	2x(4x2x24#) U/UTP CAT 5e LS0H Grey	5.1x10.2	61	970	1000m Drum	FIG-8

Note: Standard jacket color: Light Gray RAL 7035. Other colors available upon request.