

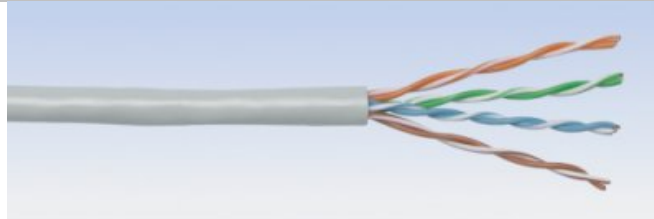


## Technical Specification

Cable Type: 4-Pair 23AWG U/UTP Category 6 100 Ohm LS0H Indoor Horizontal Cable

HCS P/N: H06-00402-xx0-CA0001

Revision: 11/22 Date: 27 June 2022



Category 6 U/UTP indoor cable, conforming to ANSI/TIA-568.2-D, ISO/IEC-11801, IEC 61156-5. The cable contains 4 twisted pairs cabled together and overall jacketed with LS0H compound for indoor use. The cable conforms to EU Regulation 305/2011 (CPR) Class Cca-s1a,d1,a1 and it fully supports all IEEE 802.3 PoE applications including Type 1, 2, 3 & 4, CISCO UPOE & UPOE+ and HDBase-T PoH and Class E permanent links & channels as specified in ISO/IEC 11801 and EN 50173.

### Physical Description

Basic conductor	Solid bare annealed copper, 23AWG (UL 444).
Insulation	Solid PE.
Total number of insulated conductors	8, twisted in 4 pairs.
Color code - longitudinal stripes	Blue x White/Blue, Orange x White/Orange, Green x White/Green, Brown x White/Brown.
Center element	None.
Tape warp	None.
Rip-cord	None.
Outer jacket	Halogen-free Flame-retardant LS0H compound for indoor use.
Color	Gray RAL 7035.
Outer jacket thickness	0.75 mm nom.
Outer diameter	5.9 mm nom.
Surface Marking	HCS H06-00402 4x2x23# U/UTP CATEGORY 6 DataLink 250 LS0H CABLE VERIFIED to ANSI/TIA-568.2-D & IEC 61156-5 ISO/IEC-11801 CAT 6 FR IEC 60332-1 CE CPR Class Cca-s1a,d1,a1 CE 2011/65/EU (RoHS-2) [Meter Mark] METER [Batch Number]

### Mechanical Properties

Bend Radius	Permanent: 4xD min. During installation: 8xD min.
Cold Bend Radius	Mandrel: 4xD. Temp: -20C Method: ASTM D4565
Conductor size test	UL444
Operating temperature range	-20 to +60C
Storage temperature range	-40 to +60C
Installation temperature range	0 to +50C
Pulling force	100 N max.
Flame Tests	IEC 60332-1 (flame propagation), IEC 60754 (acid gas) & IEC 61034 (smoke density).
EU Regulation 305/2011 (CPR) conformance	CENELEC EN 13501 Class Cca-s1a,d1,a1. NB 0099.
Total Weight	43 kg/km nom.

### Electrical @ Transmission Properties @ 20C

Input Impedance	100±15 Ohm @1-100 MHz 100±20 Ohm @100-160 MHz 100±22 Ohm @160-250 MHz
DC Resistance	82.8 Ohm/km max.
Resistance unbalance (ASTM D-4566)	5% max.
Capacitance	56 pF/m max. @ 1 kHz
Cap. Unbalance (wire to ground)	1500 pF/km max. @ 1 kHz.
TCL	30-10Log(f/100) dB min. @ 1-250 MHz, 40dB min.
EL-TCTL	35-20Log(f) dB min. @ 1-30 MHz
Voltage rating	75 Vac max
Dielectric strength	1700 Volts ac for 2 seconds.
Velocity of Propagation (NVP)	67% nom @ 100MHz.
Insulation Resistance	500 MegaOhm•km min. @ 500 Vdc
Propagation Delay	534 + 36f <sup>1/2</sup> nS/100m max.
Propagation Delay Skew	45 nS/100m max.
Coupling attenuation	IEC 61156-5 TYPE III
Transfer impedance & Screening attenuation	N/A

### Transmission Properties - Conforming to Category 6 ANSI/TIA-568.2-D

FREQ. MHz	Insertion Loss		NEXT		PS NEXT		ACR-F		PS ACR-F		RL		TCL	EL-TCTL
	Nom	Max	Nom	Min	Nom	Min	Nom	Min	Nom	Min	Nom	Min	dB	dB
1.00	1.65	2.0	84.3	74.3	82.3	72.3	80	67.8	77	64.8	25	20.0	40	35
10.00	5.6	6.0	69.3	59.3	67.3	57.3	65	47.8	62	44.8	30	25.0	40	15
25.00	9.0	9.5	63.3	53.3	61.3	51.3	57	39.8	54	36.8	30	24.3	36	7.0
31.25	10.2	10.7	61.9	51.9	59.9	49.9	53	37.9	50	34.9	28	23.6	35.1	5.5
62.50	14.9	15.4	57.4	47.4	55.4	45.4	45	31.9	43	28.9	27	21.5	32	NS
100.00	19.2	19.8	54.3	44.3	52.3	42.3	43	27.8	40	24.8	26	20.1	30	NS
200.00	27.5	29.0	49.8	39.8	47.8	37.8	40	21.8	37	18.8	25	18.0	27	NS
250.00	31.0	32.8	48.3	38.3	46.3	36.3	37	19.8	34	16.8	25	17.3	26	NS

This cable fully conforms to EU Directive CE 2011/65/EU (RoHS-2)