

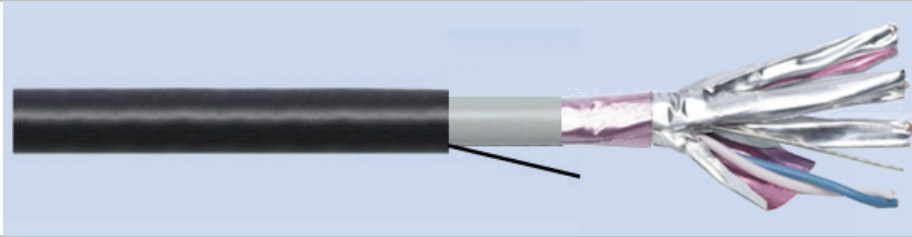


Technical Specification

Cable Type: 4x2x23# F/FTP Category 7 100 Ohm Outdoor DJ Horizontal Cable

HCS P/N: H07-00445-xx7-FA00W1

Revision: 13/24 Date: 14 November 2024



Category 7 F/FTP outdoor double-jacketed cable, conforming to IEC 61156-5 and ISO/IEC 11801. The cable contains 4 individually foil-shielded twisted pairs cabled together, overall shielded with aluminum foil and overall jacketed with a gray LSOH compound for indoor use, conforming to IEC 60332-1. An additional black PE jacket renders the cable suitable for mild outdoor use. The cable fully supports all IEEE 802.3 PoE applications including Type 1, 2, 3 & 4, CISCO UPoE & UPoE+ and HDBase-T PoH.

Physical Description

Basic Conductor	Solid 23AWG (UL444), bare annealed copper.
Insulation	SFS-PO.
Total number of insulated conductors	8, twisted in 4 pairs.
Color code	Blue x White, Orange x White, Green x White, Brown x White.
Individual pair shield	Aluminum foil, providing 100% coverage, foil face out.
Drain wire	Tin-coated copper wire, 0.40±0.01 mm, laid in contact with the foils and the braid shields.
Overall shield	Aluminum foil, providing 100% coverage, foil face in.
Inner jacket	Low-smoke, Zero-halogen, Flame-retardant compound for indoor use.
Inner jacket thickness	0.55 mm nom.
Color	Grey RAL 7001
Inner Diameter	7.3 mm nom.
Surface Marking (Black)	HCS H07-00452 4x2x23# F/FTP CATEGORY 7 DataLink 600 LSOH CABLE VERIFIED to CAT 7 ISO/IEC-11801 & IEC 61156-5
Inner jacket	FR IEC 60332-1 CE 2011/65/EU (RoHS-2) [Meter Mark] METER wwSnnxxx
Note	Batch number wwSnnxxx ww=week number Snn=cabling machine number xxx=master reel number.
Rip cord	PET rope laid in parallel between the two jackets for easy outer jacket removal.
Outer jacket	UV resistant PE compound for outdoor use. The two jackets are not be bonded together.
Note	The outer jacket must be easily removed and the rip-cord must not tear during jacket removal.
Outer jacket thickness	0.7 mm nom.
Color	Black RAL 9005.
Overall Diameter	8.8 mm nom.
Surface Marking (White)	HCS H07-00445 4x2x23# F/FTP CATEGORY 7 DataLink 600 DJ OUTDOOR CABLE VERIFIED to IEC 61156-5 & ISO/IEC 11801
Outer jacket	CE 2011/65/EU (RoHS-2) [Meter Mark] METER wwSnnxxx
Note	Batch number wwSnnxxx ww=week number Snn=cabling machine number xxx=master reel number.

Mechanical Properties

Bend Radius	Dynamic: 10xD min. Static: 6xD min.
Storage temperature	-20 to +80C
Operating temperature	-20 to +60C
Installation temperature	0 to +50C
Flame Tests - Inner cable only	IEC 60332-1 (flame propagation), IEC 60754 (acid gas release) & IEC 61034 (smoke density).
Pulling force	100 N max.
Total Weight	77 kg/km nom.

Electrical Properties

Mean Impedance	100±5 Ohm @ 1-600 MHz
Vp	74% nom.
Capacitance	40 pF/m nom @ 1 kHz
Capacitance unbalance (wire to ground)	1500 pF/m max @ 1 kHz
Conductors DC Resistance	77 Ohm/km max. (2% max. resistance unbalance).
Conductors DC Loop Resistance	154 Ohm/km max. (2% max. resistance unbalance).
DC Resistance unbalance	2% max.
Coupling attenuation	IEC 61156-5 Type Ib.
Transfer Impedance	IEC 61156-5 Grade 1.
Voltage rating	72Vdc max.
Delay Skew	25 nS/100m max.

Transmission Properties @ 20C - Conforming to IEC 61156-5 Category 7

FREQ. MHz	Insertion Loss dB/100m		NEXT dB		PS NEXT dB		ACR-F dB/100m		PS ACR-F dB/100m		RL dB		TCL dB	EL-TCTL dB
	Max	Nom	Min	Nom	Min	Nom	Min	Nom	Min	Nom	Min	Nom	Min	Min
1.00	2.0	1.8	80.0	100	75.0	97	75.0	105	72.0	105	20.0	-	40	35
10.00	5.9	5.4	80.0	100	75.0	97	74.0	97	71.0	94	25.0	30	40	15
16.00	7.4	6.8	80.0	100	75.0	97	69.9	93	66.9	90	25.0	30	40	11
25.00	9.3	8.7	80.0	100	75.0	97	66.0	90	63.0	85	24.3	30	36	7.0
31.25	10.7	9.6	80.0	100	75.0	97	64.1	87	61.1	84	23.6	30	35	5.5
62.50	14.9	13.7	75.5	100	72.5	97	58.1	81	55.1	78	21.5	30	32	NS
100.0	19.0	17.4	72.4	100	69.4	97	54.0	77	51.0	74	20.1	30	30	NS
200.0	27.5	25.0	67.9	92	64.9	89	48.0	71	45.0	68	18.0	25	27	NS
300.0	34.1	30.9	65.2	89	62.2	86	44.5	67	41.5	64	16.8	24	NS	NS
400.0	40.0	35.6	63.4	88	60.4	85	42.0	65	39.0	62	15.9	24	NS	NS
500.0	45.3	40.3	61.9	86	58.9	83	40.0	62	37.0	60	15.2	22	NS	NS
600.0	50.1	44.8	60.7	85	57.7	83	38.4	61	35.4	58	14.7	22	NS	NS

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