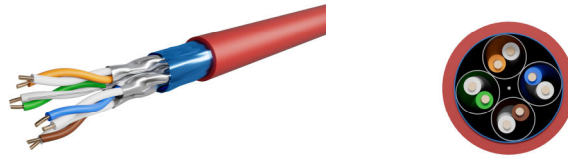




Technical Specification
Cable Type: 4x2x23# F/FTP Category 7 100 Ohm LS0H-1 Indoor Horizontal Cable
Part Number: HD704R3L
Revision: 05/24 Date: 03/09/2024



Category 7 F/FTP indoor cable, conforming to ISO/IEC-11801, IEC 61156-5 and EN50288-4, tested up to 1000*MHz. The cable contains 4 individually foil shielded twisted pairs cabled together, overall shielded with aluminum foil and overall jacketed with LS0H compound for indoor use.

Physical Description

Basic conductor	Solid 23AWG, bare annealed copper
Insulation	SFS-PO
Total number of insulated conductors	8, twisted in 4 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 face out
Drain wire	Solid tin-coated copper wire, 0.40 mm nom.
Overall shield	Polyester-aluminum foil, providing 100% coverage with 25% overlap, aluminum face in
Outer jacket	Flame retardant, Low smoke, halogen-free (FR-LS0H) compound for indoor use
Color	Red, RAL 3000
Jacket thickness	0.5 mm nom.
Cable OD.	7.2 mm nom.
Surface marking	WESTERN WIRE HD704R3L 4x2x23 AWG F/FTP CATEGORY 7 LS0H LAN CABLE ISO/IEC-11801 & IEC 61156-5 FR IEC 60332-1 CE 2011/65/EU (RoHS-2) [Batch Number] [Sequential Meter Mark] METER

Mechanical Properties

Bend radius	Dynamic: 8xD Static: 4xD
Operating temperature	-40 to +75°C
Storage temperature	-20 to +60°C
Installation temperature	-20 to +50°C
Jacket properties - before aging	
Tensile strength	10.0 Mpa min.
Elongation	125% min
Jacket properties - After aging (100°Cx24hx7d)	
Tensile strength	8.0 Mpa min.
Elongation	100% min
Pulling force	110N max.
Flame test	IEC 60332-1 (Flame propagation), IEC 60754 (Acid gas) & IEC 61034 (smoke density)
Total weight	51 kg/km nom.

Electrical Properties

Mean Impedance	100±5 Ohm @ 0-1000* MHz
DC Resistance	9.38 Ohm/100m max.
Resistance unbalance - core to core	2% max.
Resistance unbalance - pair to pair	4% max.
Mutual capacitance	56 nF/km max. @ 1 kHz
Cap. unbalance (wire to ground)	160 pF/100m max. @ 1 kHz
Delay skew	25 ns/100m max.
Nominal Velocity of Propagation (NVP)	74%
Coupling attenuation	IEC 61156-5 Type II
Transfer Impedance	IEC 61156-5 Grade 2
TCL	IEC 61156-5 Level 1
Voltage rating	72 Vdc max

*Electrical parameters indicated above 600MHz are non-binding nominal values provided for reference only.

Transmission Properties @ 20C conforming to IEC 61156-5 Category 7 (extended to 1GHz)

FREQ.	RL	Attenuation	NEXT	PHASE DELAY	PS NEXT	ELFEXT	PS ELFEXT
MHz	dB	dB/100m	dB	ns	dB	dB/100m	dB/100m
	Min.	Max.	Min.	Max.	Min.	Min.	Min.
1	20.0	NS	78.0	570.0	75.0	78.0	75.0
4	23.0	3.74	78.0	552.0	75.0	78.0	75.0
8	24.5	5.24	78.0	546.7	75.0	75.9	72.9
10	25.0	5.86	78.0	545.4	75.0	74.0	71.0
16	25.0	7.41	78.0	543.0	75.0	69.9	66.9
20	25.0	8.29	78.0	542.0	75.0	68.0	65.0
25	24.3	9.29	78.0	541.2	75.0	66.0	63.0
31.25	23.6	10.41	78.0	540.4	75.0	64.1	61.1
62.5	21.5	14.88	75.5	538.6	72.5	58.1	55.1
100	20.1	19.02	72.4	537.6	69.4	54.0	51.0
150	18.9	23.56	69.8	536.9	66.8	50.2	47.2
200	18.0	27.47	67.9	536.5	64.9	48.0	45.0
250	17.3	30.97	66.4	536.3	63.4	46.0	43.0
300	17.3	34.19	65.2	536.1	62.2	44.5	41.5
600	17.3	50.10	60.7	535.5	57.7	38.4	35.4
700*	14.2	54.63	59.7	535.4	56.7	37.1	34.1
1000*	13.1	66.93	57.3	535.1	54.4	34.0	31.0

*Transmission parameters indicated above 600MHz are non-binding nominal values provided for reference only.

Ordering information

Cable PN	Cable length	Packaging
HD704R3L-100	100 meter	Coil
HD704R3L-200	200 meter	Coil
HD704R3L-300	300 meter	Wooden drum
HD704R3L-500	500 meter	Wooden drum

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