

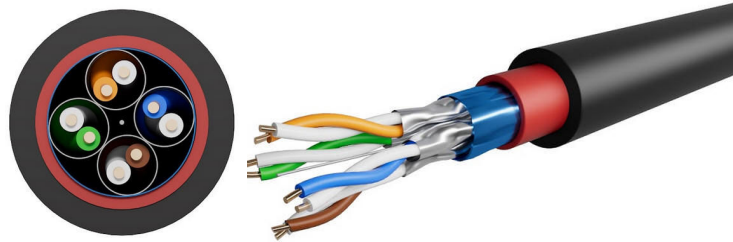


Technical Specification

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

Part Number: KD704R1K

Revision: 09/25 Date: 21/01/2025



Category 7 F/FTP outdoor double jacketed 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 a red LS0H compound for indoor use. An additional Black PE jacket render the cable suitable for mild outdoor 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
Inner jacket	Flame retardant, Low smoke, halogen-free (FR-LS0H) compound for indoor use
Color	Red, RAL 3000
Jacket thickness	0.5 mm nom.
Inner cable OD.	7.2 mm nom.
Inner cable surface Marking	None
Rip cord	YES - A rip cord is inserted between the two jackets to facilitate easy removal of the outer jacket
Outer jacket	UV-Resistance PE compound for outdoor use. The two jacket are not bonded together
Color	Black, RAL 9005
Jacket thickness	0.6 mm nom.
Cable OD.	8.5 mm nom.
Surface Marking	WESTERN WIRE KD704R1K 4x2x23 AWG F/FTP CATEGORY 7 OUTDOOR PE LAN CABLE ISO/IEC-11801 & IEC 61156-5 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	350% min
Jacket properties - After aging (100°Cx24hx10d)	
Elongation	300% min
Pulling force	110N max.
Flame test (only for inner cable)	IEC 60332-1 (Flame propagation), IEC 60754 (Acid gas) & IEC 61034 (smoke density)
Total Weight	70 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.

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