

RFX 7/8"-50 COAXIAL ANTENNA

RFX 7/8"-50
RFX 7/8"-50 BHF Dca
RFX 7/8"-50 MBHF Cca

CONSTRUCTION



Inner conductor	Copper tube	Ø 9.4 mm	(0.37 in)
Dielectric	Cellular polyethylene	Ø 22.5 mm	(0.89 in)
Outer conductor	Corrugated single side slotted copper tube	Ø 25.4 mm	(1.00 in)
Jacket	See Jacketing Options table below	Ø 28.0 mm	(1.10 in)
Marking	Draka, cable type, CPR class, manufacture week, year, batch number and meter mark		

ELECTRICAL CHARACTERISTICS at +20°C (+68°F)

Characteristic impedance	50 ± 2 Ω	
Typical return loss (VSWR) on effective frequency range	18 dB	(1.29)
Velocity factor	0.90	
Capacitance	73 pF/m	(22.3 pF/ft)
Maximum frequency	5100 MHz	
DC-resistance		
- Inner conductor	1.52 Ω/km	(0.39 Ω/1000 ft)
- Outer conductor	1.36 Ω/km	(0.36 Ω/1000 ft)

ATTENUATION AND COUPLING LOSS ACC. TO IEC 61196-4

Frequency MHz	Attenuation dB/100m (dB/100ft) ± 5%	Coupling loss 50%, dB ± 10 dB	Coupling loss 95%, dB ± 10 dB	Coupling loss * 50%, dB ± 10 dB	Coupling loss * 95%, dB ± 10 dB
75	1,2 (0.37)	52	60	-	-
150	1,6 (0.49)	62	67	51	55
450	2,9 (0.88)	64	70	50	55
900	4,4 (1.34)	69	74	60	66
1800	6,8 (2.07)	71	76	59	64
2200	7,7 (2.35)	71	76	62	67
2400	8,2 (2.50)	75	79	67	72
2600	8,6 (2.62)	73	79	65	70

Attenuation and coupling loss values are typical and measured acc. to IEC 61196-4 free space method.

* Coupling loss values are real measurement results from simulated sub-way tunnel.

MECHANICAL CHARACTERISTICS

Weight (polyethylene jacket)	0.45 kg/m	(0.30 lb/ft)
Weight (GHF/BHF fire retardant jacket)	0.49 kg/m	(0.33 lb/ft)
Maximum pulling force	2400 N	(539 lb)
Minimum single bending radius	240 mm	(9.4 in)
Operating temperature range	-55...+85°C (-67...+185 °F)	

JACKETING OPTIONS

TYPE	JACKET	IEC 60754-1/-2 halogen free, non corrosive	IEC 61034 low smoke emission	IEC 60332-3-24 fire retardant	CPR Class	UV retardancy	Min. installation temperature
RFX 7/8"-50	Black, halogen free polyethylene	yes	no	no	no	yes	-40°C (-40°F)
RFX 7/8"-50 BHF Dca	Black, halogen free fire retardant thermoplastic	yes	yes	yes	Dca-s2d2a2	yes	-20°C (-4°F)
RFX 7/8"-50 MBHF Cca	Black, halogen free fire retardant thermoplastic with mica tape fire barrier	yes	yes	yes	Cca-s1d1a1	yes	-20°C (-4°F)

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