



# Coaxial Antennas

## RFX 1 5/8"-50

## RF2X 1 5/8"-50

### Specifications

COAXIAL CABLE	
Type	Code
RFX 1 5/8"-50	NKRFX15800
RFX 1 5/8"-50 GHF	NKRFX15801
RFX 1 5/8"-50 BHF	NKRFX15802
RF2X 1 5/8"-50	NKRFX2X15800
RF2X 1 5/8"-50 GHF	NKRFX2X15801
RF2X 1 5/8"-50 BHF	NKRFX2X15802

CONSTRUCTION			
Inner conductor	Corrugated copper tube	Ø 17.6 mm	(0.69 in)
Dielectric	Cellular polyethylene	Ø 42.0 mm	(1.65 in)
Outer conductor	Corrugated slotted copper tube	Ø 46.3 mm	(1.82 in)
Jacket	See Jacketing Options table below	Ø 50.0 mm	(1.97 in)
Marking	Draka, cable type, manufacture week, year, batch number and meter mark		

MECHANICAL CHARACTERISTICS			
Weight	1.13 kg/m	(0.76 lb/ft)	
Maximum pulling force	3750 N	(826 lb)	
Minimum single bending radius	400 mm	(15.7 in)	
Operating temperature range	-55...+80°C	(-67...+176°F)	
Recommended clamp spacing	1.5 m	(5 ft)	

JACKETING OPTIONS						
TYPE	JACKET	IEC 60754 -1/-2 halogen free, non corrosive	IEC 61034 low smoke emission	IEC 60332-1 fire retardant	UV Retardancy	Min. installation temperature
RFX 1 5/8"-50 RF2X 1 5/8"-50	Black, halogen free polyethylene	yes	no	no	yes	-40°C (-40°F)
RFX 1 5/8"-50 GHF RF2X 1 5/8"-50 GHF	Grey, halogen free fire retardant thermoplastic	yes	yes	yes	no	-5°C (-4°F)
RFX 1 5/8"-50 BHF RF2X 1 5/8"-50 BHF	Black, halogen free fire retardant thermoplastic	yes	yes	yes	yes	-5°C (-4°F)

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	0.89	
Capacitance	74 pF/m	(22.6 pF/ft)
Maximum frequency	2800 MHz	
DC-resistance		
• Inner conductor	1.16 Ω/km	(0.35 Ω/1000 ft)
• Outer conductor	0.43 Ω/km	(0.13 Ω/1000 ft)

ATTENUATION (measured acc. to IEC 61196-4 free space method)		
<b>RFX 1 5/8"-50</b>		
at 75 MHz	0.7 dB/100 m	(0.21 dB/100 ft)
at 150 MHz	0.9 dB/100 m	(0.27 dB/100 ft)
at 450 MHz	1.7 dB/100 m	(0.52 dB/100 ft)
at 900 MHz	2.7 dB/100 m	(0.82 dB/100 ft)
at 1.8 GHz	4.6 dB/100 m	(1.40 dB/100 ft)
at 2.1 GHz	5.2 dB/100 m	(1.58 dB/100 ft)
at 2.4 GHz	6.2 dB/100 m	(1.89 dB/100 ft)

COUPLING LOSS (measured acc. to IEC 61196-4 free space method)			
<b>RFX 1 5/8"-50</b>			
	50% value	95% value	
at 75 MHz	53 dB	60 dB	
at 150 MHz	63 dB	69 dB	
at 450 MHz	68 dB	73 dB	
at 900 MHz	68 dB	73 dB	
at 1.8 GHz	69 dB	75 dB	
at 2.1 GHz	67 dB	72 dB	
at 2.4 GHz	68 dB	74 dB	

<b>RF2X 1 5/8"-50</b>		
at 75 MHz	0.7 dB/100 m	(0.21 dB/100 ft)
at 150 MHz	1.0 dB/100 m	(0.30 dB/100 ft)
at 450 MHz	1.9 dB/100 m	(0.58 dB/100 ft)
at 900 MHz	3.0 dB/100 m	(0.91 dB/100 ft)
at 1.8 GHz	5.5 dB/100 m	(1.68 dB/100 ft)
at 2.1 GHz	6.4 dB/100 m	(1.95 dB/100 ft)
at 2.4 GHz	7.5 dB/100 m	(2.29 dB/100 ft)

<b>RF2X 1 5/8"-50</b>			
	50% value	95% value	
at 75 MHz	50 dB	56 dB	
at 150 MHz	58 dB	63 dB	
at 450 MHz	63 dB	67 dB	
at 900 MHz	64 dB	72 dB	
at 1.8 GHz	66 dB	73 dB	
at 2.1 GHz	65 dB	72 dB	
at 2.4 GHz	66 dB	74 dB	

STANDARD DRUM							
Cable type	Drum	Standard length	Outer diam. (D)	Outer width (W)	Drum weight (empty)	Total weight	Drum freight volume
		m (ft)	cm (in)	cm (in)	kg (lb)	kg (lb)	m <sup>3</sup> (cu.ft)
RFX 1 5/8"	P20G	400 (1312)	204 (80)	74 (29)	157 (346)	654 (1443)	3.08 (108.77)

CODES FOR NKC CONNECTORS	
Connector type	Code
7-16 male	NKC1158100
7-16 female	NKC1158200
7-16 Bulkhead female	NKC1158290
N male	NKC1158300
N female	NKC1158400