

**COAXIAL ANTENNA**

**TYPE:**

**NK CODE:**

**RFX 1/2"-50**  
**RFX 1/2"-50 GHF**  
**RFX 1/2"-50 BHF**

**NKRFX01200**  
**NKRFX01202**  
**NKRFX01207**

**CONSTRUCTION**



Inner conductor	Copper-clad aluminium wire	Ø 4.8 mm	(0.19 in)
Dielectric	Cellular polyethylene	Ø 12.1 mm	(0.48 in)
Outer conductor	Corrugated single side slotted copper tube	Ø 13.9 mm	(0.55 in)
Jacket	See Jacketing Options table below	Ø 16.0 mm	(0.63 in)
Marking	Draka, cable type, 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		0.88	
Capacitance		76 pF/m	(23 pF/ft)
Maximum frequency		9800 MHz	
DC resistance			
- Inner conductor		1.44 Ω/km	(0.44 Ω/1000 ft)
- Outer conductor		2.24 Ω/km	(0.68 Ω/1000 ft)

Attenuation (typical, measured acc. to IEC 61196-4 free space method)

at 75 MHz	2.0 dB/100m	(0.61 dB/100ft)
at 150 "	2.8 "	(0.85 " )
at 450 "	5.0 "	(1.52 " )
at 900 "	7.3 "	(2.23 " )
at 1.8 GHz	10.8 "	(3.29 " )
at 2.1 "	11.7 "	(3.57 " )
at 2.4 "	12.7 "	(3.87 " )

Coupling loss (typical, measured acc. to IEC 61196-4 free space method)

	<u>50% value</u>	<u>95% value</u>
at 75 MHz	63 dB	69 dB
at 150 "	68 "	74 "
at 450 "	76 "	82 "
at 900 "	78 "	83 "
at 1.8 GHz	79 "	86 "
at 2.1 "	80 "	88 "
at 2.4 "	81 "	91 "

**MECHANICAL CHARACTERISTICS**

Weight (polyethylene jacket)	0.22 kg/m	(0.15 lb/ft)
Weight (GHF/BHF fire retardant jacket)	0.25 kg/m	(0.17 lb/ft)
Maximum pulling force	2550 N	(562 lb)
Minimum single bending radius	120 mm	(4.7 in)
Operating temperature range	-55...+80°C	(-67...+176 °F)

**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 1/2"-50	Black, halogen free polyethylene	yes	no	no	yes	-40°C (-40°F)
RFX 1/2"-50 BHF	Black, halogen free fire retardant thermoplastic	yes	no	yes	yes	-20°C (-4°F)
RFX 1/2"-50 MBHF	Black, halogen free fire retardant thermoplastic with mica tape fire barrier	yes	yes	yes	yes	-20°C (-4°F)