



# Coaxial Antennas

Draka coaxial antennas include two product families: RFX / RF2X and RFXT. RFX and RF2X cables are the best choice for multi- and broadband systems. RFXT cables are ideal when certain selected frequencies are required; the performance of RFXT cables is optimized for the respective frequency bands. Our coaxial antennas provide a reliable way to build indoor coverage network in buildings and in tunnels.

RFX and RF2X cables are coupled mode cables with a corrugated and milled outer conductor. RFX cables have slots in one line on the outer

conductor and RF2X have slots in two lines on the outer conductor. These cables are also available with a suspension wire: RFXK and RF2XK. RFXT cables are radiating mode cables with a periodically slotted and overlapped copper tape outer conductor.

The most important electrical characteristics of coaxial antennas are longitudinal attenuation and coupling loss. The excellent electrical performance of our RFX, RF2X and RFXT cables is achieved by continuous development work and an extensive test program.

## Draka 50 Ohm Radio Frequency Cables

COAXIAL ANTENNAS						
Type	Product code	Inner conductor diam. mm (in)	Outer conductor diam. mm (in)	Jacket diam. mm (in)	Standard length m (ft)	Standard drum type
RFX 1/2"-50	NKRFX01200	4.8 (0.19)	13.9 (0.55)	16.0 (0.63)	500 (1640)	P11D
RFX 7/8"-50	NKRFX07800	9.3 (0.37)	25.2 (0.99)	27.8 (1.09)	500 (1640)	P13G
RFX 1 1/4"-50	NKRFX11400	13.0 (0.51)	35.8 (1.41)	39.0 (1.54)	600 (1968)	P20G
RFX 1 5/8"-50	NKRFX15800	17.6 (0.69)	46.3 (1.82)	50.0 (1.97)	400 (1312)	P20G
RFXT 7/8"-50	NKRFX07806	9.0 (0.35)	23.5 (0.93)	28.7 (1.13)	500 (1640)	P21G
RFXT 1 1/4"-50	NKRFX11406	12.8 (0.50)	32.8 (1.29)	38.8 (1.53)	500 (1640)	P19Q



# Coaxial Antennas

## RFX 1/2"-50

## RF2X 1/2"-50

### Specifications

COAXIAL CABLE	
Type	Code
RFX 1/2"-50	NKRFX01200
RFX 1/2"-50 GHF	NKRFX01201
RFX 1/2"-50 BHF	NKRFX01202
RF2X 1/2"-50	NKRFX2X01200
RF2X 1/2"-50 GHF	NKRFX2X01201
RF2X 1/2"-50 BHF	NKRFX2X01202

### 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 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		

### MECHANICAL CHARACTERISTICS

Weight	0.22 kg/m	(0.15 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)
Recommended clamp spacing	1.0 m	(3.3 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 1/2"-50 RF2X 1/2"-50	Black, halogen free polyethylene	yes	no	no	yes	-40°C (-40°F)
RFX 1/2"-50 GHF RF2X 1/2"-50 GHF	Grey, halogen free fire retardant thermoplastic	yes	no	yes	no	-20°C (-4°F)
RFX 1/2"-50 BHF RF2X 1/2"-50 BHF	Black, halogen free fire retardant thermoplastic	yes	no	yes	yes	-20°C (-4°F)
RFX 1/2"-50 MBHF RF2X 1/2"-50 MBHF	Black, halogen free fire retardant thermoplastic with mica tape	yes	yes	yes	yes	-20°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	0.88	
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  
(measured acc. to IEC 61196-4 free space method)****RFX 1/2"-50**

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

**RF2X 1/2"-50**

at 75 MHz	2.2 dB/100 m	(0.67 dB/100 ft)
at 150 MHz	3.1 dB/100 m	(0.94 dB/100 ft)
at 450 MHz	5.7 dB/100 m	(1.74 dB/100 ft)
at 900 MHz	8.4 dB/100 m	(2.56 dB/100 ft)
at 1.8 GHz	12.7 dB/100 m	(3.87 dB/100 ft)
at 2.1 GHz	14.0 dB/100 m	(4.27 dB/100 ft)
at 2.4 GHz	15.1 dB/100 m	(4.60 dB/100 ft)

**COUPLING LOSS  
(measured acc. to IEC 61196-4 free space method)****RFX 1/2"-50**    50% value    95% value

at 75 MHz	63 dB	69 dB
at 150 MHz	68 dB	74 dB
at 450 MHz	76 dB	82 dB
at 900 MHz	78 dB	83 dB
at 1.8 GHz	79 dB	86 dB
at 2.1 GHz	80 dB	88 dB
at 2.4 GHz	81 dB	91 dB

**RF2X 1/2"-50**    50% value    95% value

at 75 MHz	57 dB	64 dB
at 150 MHz	63 dB	68 dB
at 450 MHz	69 dB	74 dB
at 900 MHz	71 dB	78 dB
at 1.8 GHz	77 dB	83 dB
at 2.1 GHz	74 dB	81 dB
at 2.4 GHz	76 dB	85 dB

**STANDARD DRUM**

Cable type	Drum	Standard length		Outer diam. (D)		Outer width (W)		Drum weight (empty) kg (lb)	Total weight kg (lb)	Drum freight volume m <sup>3</sup> (cu.ft)			
		m	(ft)	cm	(in)	cm	(in)						
RFX 1/2"	P11D	500	(1640)	114	(45)	51	(20)	45	(99)	170	(375)	0.66	(23.31)

**CODES FOR NKC CONNECTORS**

Connector type	Code
7-16 male	NKC1012100
7-16 female	NKC1012200
N male	NKC1012300
N female	NKC1012400
7-16 male Right angle	NKC1012500
N male Right angle	NKC1012600



# Coaxial Antennas

## RFX 7/8"-50

## RF2X 7/8"-50

### Specifications

COAXIAL CABLE	
Type	Code
RFX 7/8"-50	NKRFX07800
RFX 7/8"-50 GHF	NKRFX07801
RFX 7/8"-50 BHF	NKRFX07802
RF2X 7/8"-50	NKRFX2X07800
RF2X 7/8"-50 GHF	NKRFX2X07801
RF2X 7/8"-50 BHF	NKRFX2X07802

### CONSTRUCTION

Inner conductor	Copper tube	Ø 9.3 mm	(0.37 in)
Dielectric	Cellular polyethylene	Ø 22.0 mm	(0.86 in)
Outer conductor	Corrugated slotted copper tube	Ø 25.2 mm	(0.99 in)
Jacket	See Jacketing Options table below	Ø 27.8 mm	(1.09 in)
Marking	Draka, cable type, manufacture week, year, batch number and meter mark		

### MECHANICAL CHARACTERISTICS

Weight	0.46 kg/m	(0.31 lb/ft)
Maximum pulling force	2800 N	(617 lb)
Minimum single bending radius	240 mm	(9.4 in)
Operating temperature range	-55...+80°C	(-67...+176°F)
Recommended clamp spacing	1.0 m	(3.3 ft)

JACKETING OPTIONS						
Type	Jacket	IEC 60754 -1/-2 halogen free, non corrosive	IEC 61034 low smoke emission	IEC 60332-3-24 fire retardant	UV Retardancy	Min. installation temperature
RFX 7/8"-50 RF2X 7/8"-50	Black, halogen free polyethylene	yes	no	no	yes	-40°C (-40°F)
RFX 7/8"-50 GHF RF2X 7/8"-50 GHF	Grey, halogen free fire retardant thermoplastic	yes	no	yes	no	-20°C (-4°F)
RFX 7/8"-50 BHF RF2X 7/8"-50 BHF	Black, halogen free fire retardant thermoplastic	yes	no	yes	yes	-20°C (-4°F)
RFX 7/8"-50 MBHF RF2X 7/8"-50 MBHF	Black, halogen free fire retardant thermoplastic with mica tape	yes	yes	yes	yes	-20°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	0.90	
Capacitance	73 pF/m	(22.3 pF/ft)
Maximum frequency	5100 MHz	
DC-resistance		
• Inner conductor	1.11 Ω/km	(0.34 Ω/1000 ft)
• Outer conductor	1.11 Ω/km	(0.34 Ω/1000 ft)

**ATTENUATION  
(measured acc. to IEC 61196-4 free space method)****RFX 7/8"-50**

at 75 MHz	1.2 dB/100 m	(0.37 dB/100 ft)
at 150 MHz	1.6 dB/100 m	(0.49 dB/100 ft)
at 450 MHz	3.0 dB/100 m	(0.91 dB/100 ft)
at 900 MHz	4.5 dB/100 m	(1.37 dB/100 ft)
at 1.8 GHz	6.9 dB/100 m	(2.10 dB/100 ft)
at 2.1 GHz	7.9 dB/100 m	(2.41 dB/100 ft)
at 2.4 GHz	8.6 dB/100 m	(2.62 dB/100 ft)

**RF2X 7/8"-50**

at 75 MHz	1.4 dB/100 m	(0.43 dB/100 ft)
at 150 MHz	1.8 dB/100 m	(0.55 dB/100 ft)
at 450 MHz	3.5 dB/100 m	(1.07 dB/100 ft)
at 900 MHz	5.4 dB/100 m	(1.65 dB/100 ft)
at 1.8 GHz	8.8 dB/100 m	(2.68 dB/100 ft)
at 2.1 GHz	10.0 dB/100 m	(3.05 dB/100 ft)
at 2.4 GHz	11.3 dB/100 m	(3.44 dB/100 ft)

**COUPLING LOSS  
(measured acc. to IEC 61196-4 free space method)****RFX 7/8"-50**    50% value    95% value

at 75 MHz	51 dB	61 dB
at 150 MHz	63 dB	69 dB
at 450 MHz	69 dB	73 dB
at 900 MHz	70 dB	78 dB
at 1.8 GHz	72 dB	77 dB
at 2.1 GHz	71 dB	76 dB
at 2.4 GHz	77 dB	84 dB

**RF2X 7/8"-50**    50% value    95% value

at 75 MHz	49 dB	55 dB
at 150 MHz	57 dB	62 dB
at 450 MHz	62 dB	69 dB
at 900 MHz	64 dB	71 dB
at 1.8 GHz	65 dB	71 dB
at 2.1 GHz	67 dB	74 dB
at 2.4 GHz	68 dB	77 dB

**STANDARD DRUM**

Cable type	Drum	Standard length		Outer diam. (D)		Outer width (W)		Drum weight (empty) kg (lb)	Total weight kg (lb)	Drum freight volume m <sup>3</sup> (cu.ft)
		m	(ft)	cm	(in)	cm	(in)			
RFX 7/8"	P13G	500	(1640)	134	(52)	70	(28)	69 (152)	330 (728)	1.26 (44.50)

**CODES FOR NKC CONNECTORS**

Connector type	Code
7-16 male	NKC1078100
7-16 female	NKC1078200
7-16 Bulkhead female	NKC1078290
N male	NKC1078300
N female	NKC1078400
7-16 male Right angle	NKC1078500



# Coaxial Antennas

## RFX 1 1/4"-50

## RF2X 1 1/4"-50

### Specifications

COAXIAL CABLE	
Type	Code
RFX 1 1/4"-50	NKRFX11400
RFX 1 1/4"-50 GHF	NKRFX11401
RFX 1 1/4"-50 BHF	NKRFX11402
RF2X 1 1/4"-50	NKRFX2X11400
RF2X 1 1/4"-50 GHF	NKRFX2X11401
RF2X 1 1/4"-50 BHF	NKRFX2X11402

### CONSTRUCTION

Inner conductor	Copper tube	Ø 13.0 mm	(0.51 in)
Dielectric	Cellular polyethylene	Ø 32.2 mm	(1.27 in)
Outer conductor	Corrugated slotted copper tube	Ø 35.8 mm	(1.41 in)
Jacket	See Jacketing Options table below	Ø 39.0 mm	(1.54 in)
Marking	Draka, cable type, manufacture week, year, batch number and meter mark		

### MECHANICAL CHARACTERISTICS

Weight	0.86 kg/m	(0.58 lb/ft)
Maximum pulling force	6050 N	(1340 lb)
Minimum bending radius	350 mm	(14 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 60332-3-24 fire retardant	UV Retardancy	Min. installation temperature
RFX 1 1/4"-50 RF2X 1 1/4"-50	Black, halogen free polyethylene	yes	no	no	yes	-40°C (-40°F)
RFX 1 1/4"-50 GHF RF2X 1 1/4"-50 GHF	Grey, halogen free fire retardant thermoplastic	yes	no	yes	no	-5°C (+23°F)
RFX 1 1/4"-50 BHF RF2X 1 1/4"-50 BHF	Black, halogen free fire retardant thermoplastic	yes	no	yes	yes	-5°C (+23°F)
RFX 1 1/4"-50 MBHF RF2X 1 1/4"-50 MBHF	Black, halogen free fire retardant thermoplastic with mica tape	yes	yes	yes	yes	-5°C (+23°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	0.88	
Capacitance	75 pF/m	(23 pF/ft)
Maximum frequency	3500 MHz	
DC-resistance		
• Inner conductor	0.74 Ω/km	(0.22 Ω/1000 ft)
• Outer conductor	0.65 Ω/km	(0.20 Ω/1000 ft)

**ATTENUATION  
(measured acc. to IEC 61196-4 free space method)****RFX 1 1/4"-50**

at 75 MHz	0.9 dB/100 m	(0.27 dB/100 ft)
at 150 MHz	1.1 dB/100 m	(0.34 dB/100 ft)
at 450 MHz	2.2 dB/100 m	(0.67 dB/100 ft)
at 900 MHz	3.2 dB/100 m	(0.98 dB/100 ft)
at 1.8 GHz	5.4 dB/100 m	(1.65 dB/100 ft)
at 2.1 GHz	6.1 dB/100 m	(1.86 dB/100 ft)
at 2.4 GHz	6.8 dB/100 m	(2.07 dB/100 ft)

**RF2X 1 1/4"-50**

at 75 MHz	1.0 dB/100 m	(0.30 dB/100 ft)
at 150 MHz	1.4 dB/100 m	(0.43 dB/100 ft)
at 450 MHz	2.5 dB/100 m	(0.76 dB/100 ft)
at 900 MHz	4.1 dB/100 m	(1.25 dB/100 ft)
at 1.8 GHz	7.9 dB/100 m	(2.41 dB/100 ft)
at 2.1 GHz	9.1 dB/100 m	(2.77 dB/100 ft)
at 2.4 GHz	11.2 dB/100 m	(3.41 dB/100 ft)

**COUPLING LOSS  
(measured acc. to IEC 61196-4 free space method)****RFX 1 1/4"-50** 50% value 95% value

at 75 MHz	53 dB	60 dB
at 150 MHz	62 dB	69 dB
at 450 MHz	70 dB	76 dB
at 900 MHz	71 dB	76 dB
at 1.8 GHz	71 dB	75 dB
at 2.1 GHz	68 dB	72 dB
at 2.4 GHz	68 dB	73 dB

**RF2X 1 1/4"-50** 50% value 95% value

at 75 MHz	47 dB	53 dB
at 150 MHz	54 dB	60 dB
at 450 MHz	64 dB	71 dB
at 900 MHz	64 dB	71 dB
at 1.8 GHz	64 dB	70 dB
at 2.1 GHz	65 dB	71 dB
at 2.4 GHz	64 dB	71 dB

**STANDARD DRUM**

Cable type	Drum	Standard length		Outer diam. (D) cm (in)	Outer width (W) cm (in)	Drum weight (empty) kg (lb)	Total weight kg (lb)	Drum freight volume m <sup>3</sup> (cu.ft)					
		m	(ft)										
RFX 1 1/4"	P20G	600	(1968)	204	(80)	70	(28)	155	(342)	717	(1584)	3.08	(108.76)

**CODES FOR NKC CONNECTORS**

Connector type	Code
7-16 male	NKC1114100
7-16 female	NKC1114200
7-16 Bulkhead female	NKC1114290
N male	NKC1114300
N female	NKC1114400





# 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 60332-3-24 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	no	yes	no	-5°C (+23°F)
RFX 1 5/8"-50 BHF RF2X 1 5/8"-50 BHF	Black, halogen free fire retardant thermoplastic	yes	no	yes	yes	-5°C (+23°F)
RFX 1 5/8"-50 MBHF RF2X 1 5/8"-50 MBHF	Black, halogen free fire retardant thermoplastic with mica tape	yes	yes	yes	yes	-5°C (+23°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)**
**RFX 1 5/8"-50**

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)

**RF2X 1 5/8"-50**

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)

**COUPLING LOSS  
(measured acc. to IEC 61196-4 free space method)**
**RFX 1 5/8"-50**    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

**RF2X 1 5/8"-50**    50% value    95% value

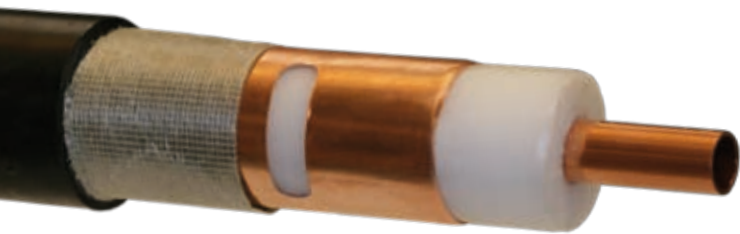
at 75 MHz	50 dB	56 dB
at 150 MHz	58 dB	63 dB
at 450 MHz	63 dB	67 dB
at 900 MHz	64 dB	72 dB
at 1.8 GHz	66 dB	73 dB
at 2.1 GHz	65 dB	72 dB
at 2.4 GHz	66 dB	74 dB

**STANDARD DRUM**

Cable type	Drum	Standard length		Outer diam. (D)		Outer width (W)		Drum weight (empty) kg (lb)	Total weight kg (lb)	Drum freight volume m <sup>3</sup> (cu.ft)
		m	(ft)	cm	(in)	cm	(in)			
RFX 1 5/8"	P20G	400	(1312)	204	(80)	70	(28)	155 (342)	653 (1440)	3.08 (108.76)

**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



# Coaxial Antennas

## RFXT 7/8"-50

### MBHF

#### Specifications

COAXIAL CABLE	
Type	Code
RFXT 7/8"-50 MGHF	NKRFXTO7806
RFXT 7/8"-50 MBHF	NKRFXTO7807

#### CONSTRUCTION

Inner conductor	Copper tube	Ø 9.0 mm	(0.35 in)
Dielectric	Cellular polyethylene	Ø 23.2 mm	(0.91 in)
Outer conductor	Copper tape with periodic slots	Ø 23.5 mm	(0.93 in)
Fire barrier	Mica tape	Ø 23.7 mm	(0.93 in)
Jacket	See Jacketing Options table below	Ø 28.7 mm	(1.13 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	5100 MHz	
DC-resistance		
• Inner conductor	1.16 Ω/km	(0.35 Ω/1000 ft)
• Outer conductor	1.11 Ω/km	(0.45 Ω/1000 ft)

JACKETING OPTIONS						
Type	Jacket	IEC 60754 -1/-2 halogen free, non corrosive	IEC 61034 low smoke emission	IEC 60332-3-24 fire retardant	UV Retardancy	Min. installation temperature
RFXT 7/8"-50 MGHF	Grey, halogen free fire retardant thermoplastic with mica tape	yes	yes	yes	no	-20°C (-4°F)
RFXT 7/8"-50 MBHF	Black, halogen free fire retardant thermoplastic with mica tape	yes	yes	yes	yes	-20°C (-4°F)

**MECHANICAL CHARACTERISTICS**

Weight	0.66 kg/m	(0.44 lb/ft)
Maximum pulling force	2300 N	(507 lb)
Minimum single bending radius	400 mm	(17 in)
Operating temperature range	-55...+80°C	(-67...+176°F)
Recommended clamp spacing	1.0 m	(3.3 ft)

**ATTENUATION**

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

at 150 MHz	1.9 dB/100m	(0.58 dB/100ft)
at 450 MHz	3.2 dB/100m	(0.98 dB/100ft)
at 900 MHz	5.0 dB/100m	(1.52 dB/100ft)
at 1.8 GHz	8.0 dB/100m	(2.44 dB/100ft)

**COUPLING LOSS**

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

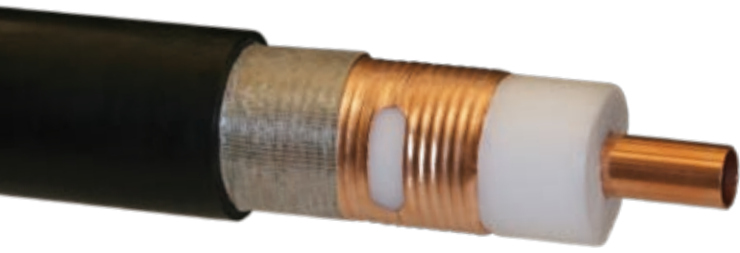
	50% value	95% value
at 150 MHz	70 dB	76 dB
at 450 MHz	65 dB	68 dB
at 900 MHz	65 dB	71 dB
at 1.8 GHz	67 dB	72 dB

**STANDARD DRUM**

Cable type	Drum	Standard length		Outer diam. (D)		Outer width (W)		Drum weight (empty) kg (lb)	Total weight kg (lb)	Drum freight volume m <sup>3</sup> (cu.ft)
		m	(ft)	cm	(in)	cm	(in)			
RFXT 7/8"	P20G	500	(1640)	204	(80)	70	(28)	155 (342)	531 (1170)	3.08 (108.76)

**CODES FOR NKC CONNECTORS**

Connector type	Code
7-16 male	NKC3078120
7-16 female	NKC3078220
N male	NKC3078320
N female	NKC3078420



# Coaxial Antennas

## RFXT 1 1/4"-50

### MBHF

#### Specifications

COAXIAL CABLE	
Type	Code
RFXT 1 1/4"-50 MGHF	NKRFX11406
RFXT 1 1/4"-50 MBHF	NKRFX11407

#### CONSTRUCTION

Inner conductor	Copper tube	Ø 12.8 mm	(0.50 in)
Dielectric	Cellular polyethylene	Ø 32.5 mm	(1.28 in)
Outer conductor	Copper tape with periodic slots	Ø 32.8 mm	(1.29 in)
Fire barrier	Mica tape	Ø 33.0 mm	(1.30 in)
Jacket	See Jacketing Options table below	Ø 38.8 mm	(1.53 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	3500 MHz	
DC-resistance		
• Inner conductor	0.63 Ω/km	(0.19 Ω/1000 ft)
• Outer conductor	1.14 Ω/km	(0.35 Ω/1000 ft)

JACKETING OPTIONS						
Type	Jacket	IEC 60754-1/-2 halogen free, non corrosive	IEC 61034 low smoke emission	IEC 60332-3-24 fire retardant	UV Retardancy	Min. installation temperature
RFXT 1 1/4"-50 MGHF	Grey, halogen free fire retardant thermoplastic with mica tape	yes	yes	yes	no	-5°C (+23°F)
RFXT 1 1/4"-50 MBHF	Black, halogen free fire retardant thermoplastic with mica tape	yes	yes	yes	yes	-5°C (+23°F)

**MECHANICAL CHARACTERISTICS**

Weight	0.910 kg/m	(0.61 lb/ft)
Maximum pulling force	3000 N	(664 lb)
Minimum single bending radius	450 mm	(18 in)
Operating temperature range	-55...+80°C	(-67...+176°F)
Recommended clamp spacing	1.5 m	(5 ft)

**ATTENUATION**

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

at 150 MHz	1.1 dB/100m	(0.34 dB/100ft)
at 450 MHz	2.1 dB/100m	(0.64 dB/100ft)
at 900 MHz	3.0 dB/100m	(0.91 dB/100ft)
at 1.8 GHz	5.2 dB/100m	(1.59 dB/100ft)

**COUPLING LOSS**

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

	50% value	95% value
at 150 MHz	76 dB	82 dB
at 450 MHz	67 dB	74 dB
at 900 MHz	69 dB	75 dB
at 1.8 GHz	64 dB	70 dB

**STANDARD DRUM**

Cable type	Drum	Standard length		Outer diam. (D)		Outer width (W)		Drum weight (empty) kg (lb)	Total weight kg (lb)	Drum freight volume m <sup>3</sup> (cu.ft)
		m	(ft)	cm	(in)	cm	(in)			
RFXT 1 1/4"	P19Q	500	(1640)	194	(76)	102	(40)	141 (311)	672 (1478)	3.99 (140.89)

**CODES FOR NKC CONNECTORS**

Connector type	Code
7-16 male	NKC3114120
7-16 female	NKC3114220
N male	NKC3114320
N female	NKC3114420

**FINLAND**

**Draka NK Cables Ltd.**

**Office:**

Kimmeltie 1  
FI-02110 Espoo  
Tel. +358 10 56 61  
Fax. +358 9 52 98 41  
E-mail: [mnc-sales@draka.com](mailto:mnc-sales@draka.com)

**Oulu Plant:**

Johdintie 5  
FI-90630 Oulu  
Tel. +358 10 56 61

**SINGAPORE**

**Draka NK Cables (Asia) Pte Ltd.**

171 Chin Swee Road  
#12-05 San Centre  
Singapore 169877  
Tel. +65 65 33 20 12  
Fax. +65 65 33 20 26  
[sales@nkcables.com.sg](mailto:sales@nkcables.com.sg)

**CHINA**

**NK Wuhan Cable Co. Ltd.**

DongXin Road Guanshan  
430073 Wuhan  
China  
Tel. +86 27 87 77 05 33  
Fax. +86 27 87 80 60 90

For more information, please visit us at [www.draka.com](http://www.draka.com).





# Draka

[www.draka.com](http://www.draka.com)

