

## COAXIAL CABLE

TYPE	RFA 1 5/8"-50	NK code: NKRFA15800	
	RFA 1 5/8"-50 GHF		NKRFA15801
	RFA 1 5/8"-50 BHF		NKRFA15802

## 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 copper tube	Ø 46.3 mm	(1.82 in)
Jacket	See Jacketing Options table below	Ø 50.0 mm	(1.97 in)
Marking	NK Cables, cable type, manufacture week, year, batch number and meter mark		

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

Characteristic impedance	50 ± 1 Ω
Return loss 24 dB for 100 m cable with NKC connectors	
- 380 - 500	MHz
- 806 - 960	"
- 1710 - 1880	"
- 1900 - 2170	"
Other bands also available on request	
Bands according to customer's specifications	
Attenuation	See table
Velocity factor	0.89
Capacitance	74 pF/m (22.6 pF/ft)
Maximum frequency	2800 MHz
Max power rating	See table
Peak RF voltage rating	5.7 kV
Peak power rating	314 kW
DC-resistance	
- Inner conductor	1.16 Ω/km (0.35 Ω/1000 ft)
- Outer conductor	0.43 Ω/km (0.13 Ω/1000 ft)

## MECHANICAL CHARACTERISTICS

Weight	1.16 kg/m	(0.78 lb/ft)
Maximum pulling force	3900 N	(860 lb)
Minimum bending radius		
- Single bending	200 mm	(7.9 in)
- Repeated bending	400 mm	(15.7 in)
Operating temperature range	-55...+80°C	(-67...+176 °F)
Crush resistance	3.1 kg/mm	(173 lb/in)
Bending moment	45 Nm	(33)
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
RFA 1 5/8"-50	Black, halogen free polyethylene (LDPE with HDPE skin)	yes	no	no	yes	-40°C (-40°F)
RFA 1 5/8"-50 GHF	Grey, halogen free fire retardant thermoplastic	yes	yes	yes	no	-5°C (23°F)
RFA 1 5/8"-50 BHF	Black, halogen free fire retardant thermoplastic	yes	yes	yes	yes	-5°C (23°F)

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FREQUENCY MHz	ATTENUATION dB/100 m	ATTENUATION dB/100 ft	POWER RATING kW
10	0.196	0.060	55
30	0.343	0.105	31
50	0.447	0.136	24
88	0.601	0.183	18
100	0.643	0.196	17
108	0.669	0.204	16
174	0.863	0.263	12
200	0.929	0.283	11
300	1.16	0.353	9.1
400	1.36	0.413	7.8
450	1.45	0.441	7.3
500	1.54	0.468	6.9
512	1.56	0.474	6.8
600	1.70	0.518	6.2
700	1.85	0.565	5.7
800	2.00	0.610	5.3
850	2.07	0.631	5.1
890	2.13	0.648	5.0
900	2.14	0.652	4.9
950	2.21	0.673	4.8
960	2.22	0.677	4.7
1000	2.27	0.693	4.6
1200	2.53	0.770	4.2
1400	2.77	0.843	3.8
1600	2.99	0.913	3.5
1800	3.21	0.979	3.3
1900	3.32	1.01	3.2
2000	3.42	1.04	3.1
2200	3.63	1.11	2.9
2400	3.82	1.17	2.7
2600	4.02	1.22	2.6
2800	4.20	1.28	2.5

Attenuation values are typical at ambient temperature +20°C (+68°F).

Power rating ambient temperature +40°C (+104°F), inner conductor +100°C (+212°F).

**CODES FOR NKC CONNECTORS**

CONNECTOR TYPE	NK CODE
N male	NKC1158300
N female	NKC1158400
7-16 male	NKC1158100
7-16 female	NKC1158200
7-16 Bulkhead female	NKC1158290