

COAXIAL CABLE

TYPE	RFA 2 1/4"-50 RFA 2 1/4"-50 GHF RFA 2 1/4"-50 BHF	NK code:	NKRFA21400 NKRFA21401 NKRFA21402
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CONSTRUCTION



Inner conductor	Corrugated copper tube	Ø 21.2 mm	(0.83 in)
Dielectric	Cellular polyethylene	Ø 52.0 mm	(2.05 in)
Outer conductor	Corrugated copper tube	Ø 55.9 mm	(2.20 in)
Jacket	See Jacketing Options table below	Ø 60.0 mm	(2.36 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	0.88	
Capacitance	75 pF/m	(23 pF/ft)
Maximum frequency	2300 MHz	
Max power rating	See table	
Peak RF voltage rating	6.6 kV	
Peak power rating	449.4 kW	
DC-resistance		
- Inner conductor	0.55 Ω/km	(0.17 Ω/1000 ft)
- Outer conductor	0.25 Ω/km	(0.08 Ω/1000 ft)

MECHANICAL CHARACTERISTICS

Weight	1.93 kg/m	(1.30 lb/ft)
Maximum pulling force	6950 N	(1550 lb)
Minimum bending radius		
- Single bending	240 mm	(9.4 in)
- Repeated bending	500 mm	(19.7 in)
Operating temperature range	-55...+80°C	(-67...+176 °F)
Crush resistance	3.5 kg/mm	(196 lb/in)
Bending moment	94.5 Nm	(70 lb-ft)
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
RFA 2 1/4"-50	Black, halogen free polyethylene	yes	no	no	yes	-20°C (-4°F)
RFA 2 1/4"-50 GHF	Grey, halogen free fire retardant thermoplastic	yes	yes	yes	no	-5°C (23°F)
RFA 2 1/4"-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	ATTENUATION dB/100 ft	POWER RATING kW
10	0.167	0.051	72
30	0.294	0.090	41
50	0.385	0.117	31
88	0.521	0.159	23
100	0.558	0.170	21
108	0.582	0.177	21
174	0.755	0.230	16
200	0.816	0.249	15
300	1.02	0.312	12
400	1.21	0.368	9.9
450	1.29	0.394	9.2
500	1.37	0.419	8.7
512	1.39	0.425	8.5
600	1.53	0.466	7.8
700	1.68	0.511	7.1
800	1.82	0.553	6.6
850	1.88	0.574	6.3
890	1.94	0.590	6.2
900	1.95	0.594	6.1
950	2.01	0.614	5.9
960	2.03	0.618	5.9
1000	2.08	0.633	5.7
1200	2.32	0.708	5.1
1400	2.56	0.779	4.7
1600	2.78	0.848	4.3
1800	3.00	0.913	4.0
1900	3.10	0.945	3.8
2000	3.21	0.977	3.7
2200	3.41	1.04	3.5

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	NKC1214300
N female	NKC1214400
7-16 male	NKC1214100
7-16 female	NKC1214200