

RFA 1/2" COAXIAL CABLE

| | | |
|-----------------|-----------------------------------|-------------------|
| NK CODES | RFA 1/2"-50 | NKRFA01200 |
| | RFA 1/2"-50 GHF | NKRFA01201 |
| | RFA 1/2"-50 BHF | NKRFA01202 |
| | RFA 1/2"-50 BHF (UL) CATVR | NKRFA01204 |

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 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 ± 1 Ω |
| Return loss 24 dB for 100 m cable with NKC connectors | |
| - 380 - 500 | MHz |
| - 806 - 960 | " |
| - 1710 - 1880 | " |
| - 1900 - 2170 | " |
| - 3400 - 3600 | " |
| Other bands also available on request | |
| Bands according to customer's specifications | |
| Attenuation | See table |
| Velocity factor | 0.88 |
| Capacitance | 76 pF/m (23 pF/ft) |
| Maximum frequency | 9800 MHz |
| Max power rating | See table |
| Peak RF voltage rating | 1.80 kV |
| Peak power rating | 31.8 kW |
| DC resistance | |
| - Inner conductor | 1.44 Ω/km (0.44 Ω/1000 ft) |
| - Outer conductor | 2.24 Ω/km (0.68 Ω/1000 ft) |

MECHANICAL CHARACTERISTICS

| | |
|-----------------------------|-----------------------------|
| Weight | 0.23 kg/m (0.15 lb/ft) |
| Maximum pulling force | 2550 N (562 lb) |
| Minimum bending radius | |
| - Single bending | 70 mm (2.8 in) |
| - Repeated bending | 120 mm (4.7 in) |
| Operating temperature range | -55...+80°C (-67...+176 °F) |
| Crush resistance | 2.0 kg/mm (110 lb/in) |
| Bending moment | 3.8 Nm (2.8 lb-ft) |
| 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 | UL Rated | Min. installation temperature |
|----------------------------|--|---|------------------------------------|----------------------------------|------------------|-------------|----------------------------------|
| RFA 1/2"-50 | Black, halogen free polyethylene | yes | no | no | yes | no | -40°C (-40°F) |
| RFA 1/2"-50 GHF | Grey, halogen free fire retardant thermoplastic | yes | yes | yes | no | no | -20°C (-4°F) |
| RFA 1/2"-50 BHF | Black, halogen free fire retardant thermoplastic | yes | yes | yes | yes | no | -20°C (-4°F) |
| RFA 1/2"-50 BHF (UL) CATVR | Black, halogen free fire retardant UL Riser rated jacket | yes | yes | yes | yes | yes | -20°C (-4°F) |

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| FREQUENCY MHz | ATTENUATION dB/100 m | ATTENUATION dB/100 ft | POWER RATING kW |
|------------------|-------------------------|--------------------------|--------------------|
| 10 | 0.665 | 0.203 | 12 |
| 30 | 1.16 | 0.354 | 6.9 |
| 50 | 1.51 | 0.459 | 5.3 |
| 88 | 2.01 | 0.613 | 4.0 |
| 100 | 2.15 | 0.655 | 3.7 |
| 108 | 2.24 | 0.682 | 3.6 |
| 174 | 2.86 | 0.873 | 2.8 |
| 200 | 3.08 | 0.938 | 2.6 |
| 300 | 3.81 | 1.16 | 2.1 |
| 400 | 4.43 | 1.35 | 1.8 |
| 450 | 4.72 | 1.44 | 1.7 |
| 500 | 4.99 | 1.52 | 1.6 |
| 512 | 5.06 | 1.54 | 1.6 |
| 600 | 5.50 | 1.68 | 1.4 |
| 700 | 5.98 | 1.82 | 1.3 |
| 800 | 6.43 | 1.96 | 1.2 |
| 850 | 6.64 | 2.03 | 1.2 |
| 890 | 6.81 | 2.08 | 1.2 |
| 900 | 6.85 | 2.09 | 1.2 |
| 950 | 7.06 | 2.15 | 1.1 |
| 960 | 7.10 | 2.16 | 1.1 |
| 1000 | 7.26 | 2.21 | 1.1 |
| 1200 | 8.02 | 2.45 | 0.98 |
| 1400 | 8.74 | 2.66 | 0.90 |
| 1600 | 9.41 | 2.87 | 0.83 |
| 1800 | 10.0 | 3.06 | 0.78 |
| 1900 | 10.4 | 3.16 | 0.76 |
| 2000 | 10.7 | 3.25 | 0.74 |
| 2200 | 11.3 | 3.43 | 0.70 |
| 2400 | 11.8 | 3.60 | 0.66 |
| 2600 | 12.4 | 3.77 | 0.63 |
| 2800 | 12.9 | 3.94 | 0.61 |
| 3000 | 13.4 | 4.09 | 0.58 |
| 3400 | 14.4 | 4.40 | 0.54 |
| 6000 | 20.2 | 6.15 | 0.39 |
| 8800 | 25.5 | 7.77 | 0.31 |

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 | NKC1012300 |
| N female | NKC1012400 |
| 7-16 male | NKC1012100 |
| 7-16 female | NKC1012200 |
| N male Right angle | NKC1012600 |
| 7-16 male Right angle | NKC1012500 |