

TECHNICAL SPECIFICATION

1. GENERAL

1.1 Scope

Product Name	Part Number
1/2" S Radio Frequency Coaxial Cable	103000044

2. CONSTRUCTION and PARAMETERS

2.1 Cable Construction



2.2 Structure

Item	Outer Diameter(mm)	Material
Inner conductor	3.50±0.05	Copper clad aluminum wire smooth solid tube
Insulation	9.70±0.20	Foamed polyethylene
Outer copper conductor	11.90±0.25	Sin Wave corrugated copper tube
Jacket	13.40±0.20	Polyethylene (UV protection)* Halogen Free

*Note: The PE jacket is UV resistant, but not UL certified

2.3 Mechanical Properties

Minimum bending radius (single)	31mm
Minimum bending radius (repeated)	34mm
Approx. weight	141kg/km
Max. tensile force	702N
Bending moment	2.75Nm
Maximum clamp spacing	0.62m

2.4 Electrical Properties

Max. operation frequency	8.9GHz
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Return loss (0-2700MHz)		21dB
Lay environment temperature		-20 ~ +70°C
Operation temperature		-40 ~ +60°C
Characteristics impedance		50±2Ω
Velocity		83%
Min. insulation resistance		11000 MΩ·km @DC 500V ,1 minute
Capacitance		83 pF/m
Dielectric strength		DC 2500V 1 minute
VSWR typical value		≤1.20@820~960MHz
		≤1.20@1710~2500MHz
Peak power rating (kW)		16.2
RF Peak voltage rating (V)		≥1560
Jacket spark test RMS/ (V)		5050
DC-resistance inner conductor/(Ω/km)		2.88
DC-resistance outer conductor/ (Ω/km)		6.10
Power rating(kW)	900 MHz	0.95
	1800 MHz	0.63
	2100 MHz	0.58
	2700 MHz	0.53
Attenuation(dB/100m)*	900 MHz	11.8
	1800 MHz	16.5
	2100 MHz	18.21
	2700 MHz	21.56

*Note: The tolerance of attenuation shall be ± 5%