

**1/2" S Superflexible physical foamed insulation coaxial cable**  
**RF 50 1/2" S**

RoHS compliant

Description	TYPE No.	PART No.
Standard cable	RF5012S	06.012.S00-002
Fire retardant cable	RF5012S Z	06.012.S00-002/FR

**Construction**

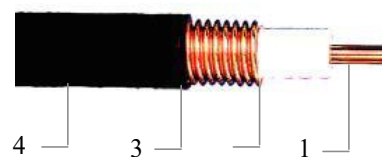
Inner Conductor	Material	Copper clad aluminum wire
	Diameter, mm	3.60±0.04
Insulation	Material	Physically foamed PE
	Diameter, mm	8.80±0.20
Outer conductor	Material	Helically corrugated copper
	Diameter, mm	12.20±0.20
Jacket	Material	PE or fire retardant PE
	Diameter, mm	13.60±0.20

**Mechanical properties**

Bending radius, mm	Single	25
	Repeated	30
	Moving	200
Pulling strength, N		800
Crush resistance, kg/mm		1.9
Recommend temperature °C	Store	-70~+85
	Installation	-40~+60
	Operation	-55~+85

**Electrical properties**

Inner conductor DC resistance, Ω/km	2.69
Outer conductor DC resistance, Ω/km	3.54
Impedance, Ω	50 ± 1
Capacitance, PF/m	82
Inductance, μH/m	0.205
Propagation velocity, %	81
DC breakdown voltage, kV	2.5
Insulation resistance, MΩ • km	>5 × 10 <sup>3</sup>
Peak power, kW	15.6
Screening attenuation, dB	>>120
Cut-off frequency, GHz	10.2



1: Inner Conductor      2: Insulation  
3: Outer conductor      4: Jacket

**Attenuation and average power**

Frequency MHz	Nom. attenuation @20°C, dB/100m	Power rate @20°C, kW
10	1.04	10.1
100	3.41	3.08
200	4.91	2.14
450	7.59	1.38
800	10.4	1.01
900	11.2	0.943
1000	11.8	0.889
1500	14.9	0.705
1800	16.6	0.634
2000	17.6	0.597
2300	19.1	0.549
3000	22.4	0.469

● Maximum attenuation value shall be 105% of the nominal attenuation value

**VSWR**

806~960MHz	≤ 1.15
1700~2200MHz	≤ 1.15
5~3000MHz	≤ 1.25

**Note:**

● For fire retardant jacket, recommended temperatures are:

Store temperature      -30~+80 °C  
Installation temperature      -25~+60 °C  
Operation temperature      -30~+80 °C

**Meet the IEC requirements according to:**

IEC 60754-1/2 : smoke emission ; halogen free ; no corrosive  
IEC 60332-1 : flame retardant  
IEC 61034 low smoke