

Low loss physical foamed insulation coaxial cable

RF 50 1/2"

RoHS compliant

Description	TYPE No.	PART NO.
Standard cable	RF5012	06.012.C00-005
Fire retardant cable	RF5012 Z	06.012.C00-005 /FR

Construction

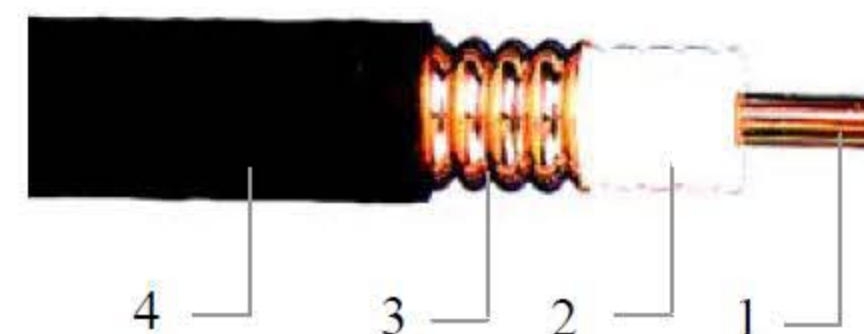
Inner Conductor	Material	Copper clad aluminum wire
	Diameter, mm	4.80±0.05
Insulation	Material	Physically foamed PE
	Diameter, mm	12.20±0.30
Outer conductor	Material	Ring corrugated copper
	Diameter, mm	13.80±0.20
Jacket	Material	PE or fire retardant PE
	Diameter, mm	15.80±0.20

Mechanical properties

Bending radius, mm	Single	70
	Repeated	125
	Moving	350
Pulling strength, N		1130
Crush resistance, kg/mm		2.0
Recommended temperature °C	Store	-70~+85
	Installation	-40~+60
	Operation	-55~+85

Electrical properties

Impedance, Ω	50±1
Capacitance, PF/m	75.8
Propagation velocity, %	88
DC breakdown voltage, kV	4.0
Insulation resistance, MΩ·km	>5×10 ³
Peak power, kW	40
Screening attenuation, dB	>>120
Cut-off frequency, GHz	8.8



- 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	0.672	11.30
100	2.17	3.49
200	3.10	2.44
450	4.75	1.59
800	6.46	1.17
900	6.87	1.10
1000	7.28	1.04
1500	9.09	0.833
1800	10.10	0.753
2000	10.70	0.710
2500	12.10	0.627
3000	13.40	0.565

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

VSWR

800~1000MHz	≤1.15
1700~2200MHz	≤1.15
5~3000MHz	≤1.25

Note:

- For fire retardant cable, 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