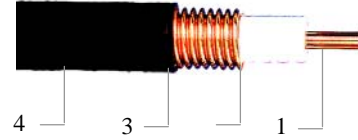


Product Specification

PART NO.	3110101 /3110102	ISSUE NO.	4
DATE OF ISSUE	28-9-2006	PAGE	1 of 10

1/4" S Superflexible physical foamed insulation coaxial cable

RF 50 1/4" S



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

Figure 1: RF50 1/4" S coaxial cable

Description	TYPE No.	PART NO.
Standard cable	RF5014S	3110101
Fire retardant cable	RF5014S Z	3110102
Construction		
Inner Conductor	Material	Copper clad aluminum wire
	Diameter, mm	1.90±0.02
Insulation	Material	Physically foamed PE
	Diameter, mm	4.70±0.20
Outer conductor	Material	Helically corrugated copper
	Diameter, mm	6.40±0.20
Jacket	Material	PE or fire retardant PE
	Diameter, mm	7.40±0.20
Mechanical properties		
Bending radius, mm	Single	20
	Repeated	25
	Moving	-
Pulling strength, N		680
Crush resistance, kg/mm		1.8
Recommended temperature, °C	Store	-70~+85
	Installation	-40~+60
	Operation	-55~+85
Electrical properties		
Impedance, Ω		50±1
Capacitance, PF/m		79.4
Propagation velocity, %		84
DC breakdown voltage, kV		1.6
Insulation resistance, MΩ·km		>5×10 ³
Peak power, kW		6.4
Screening attenuation, dB		>>120
Cut-off frequency, GHz		20.4

Attenuation and average power		
Frequency MHz	Nom. attenuation @20°C, dB/100m	Power rate @20°C, kW
10	1.83	3.97
100	5.89	1.23
200	8.41	0.865
450	12.80	0.567
800	17.40	0.419
900	18.40	0.395
1000	19.60	0.372
1500	24.30	0.299
1800	26.90	0.271
2000	28.50	0.256
2300	30.70	0.237
3000	35.60	0.204

- 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 jacket, recommended temperatures are:

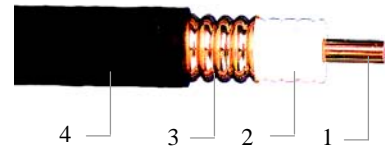
Store temperature	-30~+80°C
Installation temperature	-25~+60°C
Operation temperature	-30~+80°C

Product Specification

PART NO.	3110201 /3110202	ISSUE NO.	4
DATE OF ISSUE	28-9-2006	PAGE	2 of 10

1/4" low loss physical foamed insulation coaxial cable RF 50 1/4"

Description	TYPE No.	PART NO.
Standard cable	RF5014	3110201
Fire retardant cable	RF5014 Z	3110202
Construction		
Inner Conductor	Material	Copper clad aluminum wire
	Diameter, mm	2.60±0.025
Insulation	Material	Physically foamed PE
	Diameter, mm	6.35±0.20
Outer Conductor	Material	Ring corrugated copper
	Diameter, mm	7.75±0.20
Jacket	Material	PE or fire retardant PE
	Diameter, mm	8.80±0.20
Mechanical properties		
Bending radius, mm	Single	30
	Repeated	76
	Moving	-
Pulling strength, N		910
Crush resistance, kg/mm		1.4
Recommended temperature, °C	Store	-70~+85
	Installation	-40~+60
	Operation	-55~+85
Electrical properties		
Impedance, Ω		50±1
Capacitance, PF/m		76.8
Propagation velocity, %		86
DC breakdown voltage, kV		2.2
Insulation resistance, MΩ·km		>5×10 ³
Peak power, kW		12.1
Screening attenuation, dB		>>120
Cut-off frequency, GHz		15.8



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

Figure 2: RF50 1/4" coaxial cable

Attenuation and average power		
Frequency MHz	Nom. attenuation @20°C, dB/100m	Power rate @20°C, kW
10	1.25	5.79
100	4.05	1.79
200	5.80	1.25
450	8.88	0.818
800	12.10	0.601
900	12.80	0.566
1000	13.60	0.533
1500	17.00	0.426
1800	18.90	0.385
2000	20.00	0.363
2300	21.60	0.336
3000	25.20	0.269
<ul style="list-style-type: none"> 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 jacket, recommended temperatures are:

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

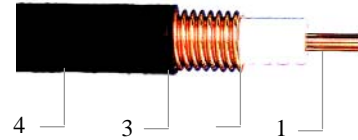
Product Specification

PART NO.	3110301 /3110302	3	4
DATE OF ISSUE	28-9-2006	PAGE	3 of 10

3/8" S Superflexible physical foamed insulation coaxial cable

RF 50 3/8" S

Description	TYPE No.	PART NO.
Standard cable	RF5038S	3110301
Fire retardant cable	RF5038S Z	3110302
Construction		
Inner Conductor	Material	Copper clad aluminum wire
	Diameter, mm	2.80±0.03
Insulation	Material	Physically foamed PE
	Diameter, mm	7.00±0.20
Outer conductor	Material	Helically corrugated copper
	Diameter, mm	9.52±0.20
Jacket	Material	PE or fire retardant PE
	Diameter, mm	10.80±0.20
Mechanical properties		
Bending radius, mm	Single	25
	Repeated	50
	Moving	-
Pulling strength, N		950
Crush resistance, kg/mm		1.8
Recommended temperature, °C	Store	-70~+85
	Installation	-40~+60
	Operation	-55~+85
Electrical properties		
Impedance, Ω		50±1
Capacitance, PF/m		79.7
Propagation velocity, %		83
DC breakdown voltage, kV		2.3
Insulation resistance, MΩ·km		>5×10 ³
Peak power, kW		13.2
Screening attenuation, dB		>>120
Cut-off frequency, GHz		13.4



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

Figure 3: RF50 3/8" S coaxial cable

Attenuation and average power		
Frequency MHz	Nom. attenuation @20°C, dB/100m	Power rate @20°C, kW
10	1.22	6.92
100	3.94	2.14
200	5.65	1.49
450	8.66	0.975
800	11.80	0.715
900	12.50	0.673
1000	13.30	0.634
1500	16.70	0.507
1800	18.50	0.457
2000	19.60	0.431
2300	21.20	0.398
3000	24.70	0.342
<ul style="list-style-type: none"> 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 jacket, recommended temperatures are:

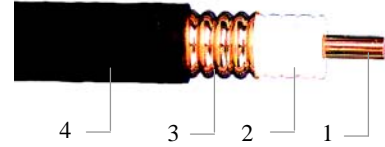
Store temperature	-30~+80°C
Installation temperature	-25~+60°C
Operation temperature	-30~+80°C

Product Specification

PART NO.	3110401 /3110402	ISSUE NO.	4
DATE OF ISSUE	28-9-2006	PAGE	4 of 10

3/8" low loss physical foamed insulation coaxial cable RF 50 3/8"

Description	TYPE No.	PART NO.
Standard cable	RF5038	3110401
Fire retardant cable	RF5038 Z	3110402
Construction		
Inner Conductor	Material	Copper clad aluminum wire
	Diameter, mm	3.15±0.03
Insulation	Material	Physically foamed PE
	Diameter, mm	8.20±0.20
Outer conductor	Material	Ring corrugated copper
	Diameter, mm	9.53±0.20
Jacket	Material	PE or fire retardant PE
	Diameter, mm	11.20±0.20
Mechanical properties		
Bending radius, mm	Single	50
	Repeated	95
	Moving	300
Pulling strength, N		800
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
Propagation velocity, %		88
DC breakdown voltage, kV		2.5
Insulation resistance, MΩ •km		>5×10 ³
Peak power, kW		15.6
Screening attenuation, dB		>>120
Cut-off frequency, GHz		13.5



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

Figure 4: RF50 3/8" coaxial cable

Attenuation and average power		
Frequency MHz	Nom. attenuation @20°C, dB/100m	Power rate @20°C, kW
10	1.06	7.23
100	3.42	2.24
200	4.90	1.56
450	7.51	1.02
800	10.20	0.748
900	10.90	0.702
1000	11.60	0.663
1500	14.40	0.530
1800	16.00	0.479
2000	17.00	0.451
2500	19.30	0.400
3000	21.40	0.358

● 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 jacket, recommended temperatures are:

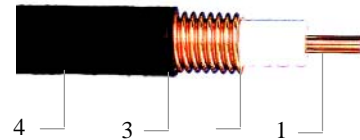
Store temperature	-30~+80°C
Installation temperature	-25~+60°C
Operation temperature	-30~+80°C

Product Specification

PART NO.	3110501 /3110502	ISSUE NO.	4
DATE OF ISSUE	28-9-2006	PAGE	5 of 10

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

Description	TYPE No.	PART NO.
Standard cable	RF5012S	3110501
Fire retardant cable	RF5012S Z	3110502
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	13.40 ^{+0.20} _{-0.00}
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		
Impedance, Ω		50±1
Capacitance, PF/m		82
Propagation velocity, %		81
DC breakdown voltage, kV		2.5
Insulation resistance, MΩ·km		>5×10 ³
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

Figure 5: RF50 1/2" S coaxial cable

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
2500	19.7	0.535
3000	22.4	0.469
<ul style="list-style-type: none"> 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 jacket, recommended temperatures are:

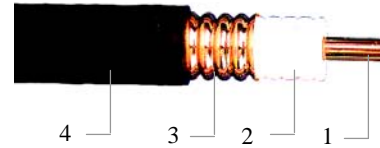
Store temperature	-30~+80°C
Installation temperature	-25~+60°C
Operation temperature	-30~+80°C

Product Specification

PART NO.	3110601 /3110602	ISSUE NO.	4
DATE OF ISSUE	28-9-2006	PAGE	6 of 10

1/2" low loss physical foamed insulation coaxial cable RF 50 1/2"

Description	TYPE No.	PART NO.
Standard cable	RF5012	3110601
Fire retardant cable	RF5012 Z	3110602
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

Figure 6: RF50 1/2" coaxial cable

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
<ul style="list-style-type: none"> 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 jacket, recommended temperatures are:

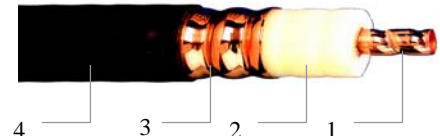
Store temperature	-30~+80°C
Installation temperature	-25~+60°C
Operation temperature	-30~+80°C

Product Specification

PART NO.	3111901/3111902	ISSUE NO.	4
DATE OF ISSUE	28-9-2006	PAGE	7 of 10

7/8" S Superflexible physical foamed insulation coaxial cable RF 50 7/8" S

Description	TYPE No.	PART NO.
Standard cable	RF5078S	3110901
Fire retardant cable	RF5078S Z	3110902
Construction		
Inner Conductor	Material	Helically corrugated copper
	Diameter, mm	9.42±0.10
Insulation	Material	Physically foamed PE
	Diameter, mm	22.50±0.40
Outer conductor	Material	Ring corrugated copper
	Diameter, mm	24.90±0.25
Jacket	Material	PE or fire retardant PE
	Diameter, mm	27.30±0.20
Mechanical properties		
Bending radius, mm	Single	40
	Repeated	125
	Moving	-
Pulling strength, N		1020
Crush resistance, kg/mm		1.4
Recommended temperature, °C	Store	-70~+85
	Installation	-40~+60
	Operation	-55~+85
Electrical properties		
Impedance, Ω		50 ± 1
Capacitance, PF/m		74.2
Propagation velocity, %		83
DC breakdown voltage, kV		6.0
Insulation resistance, MΩ •km		>5 × 10 ³
Peak power, kW		90
Screening attenuation, dB		>>120
Cut-off frequency, GHz		4.9



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

Figure 7: RF50 7/8" S coaxial cable

Attenuation and average power		
Frequency MHz	Nom. attenuation @20°C, dB/100m	Power rate @20°C, kW
10	0.402	21.50
100	1.30	6.62
200	1.87	4.61
450	2.88	2.99
800	3.94	2.19
900	4.20	2.06
1000	4.46	1.94
1500	5.60	1.54
1800	6.21	1.39
2000	6.59	1.31
2300	7.15	1.21
3000	8.35	1.04
<ul style="list-style-type: none"> 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 jacket, recommended temperatures are:

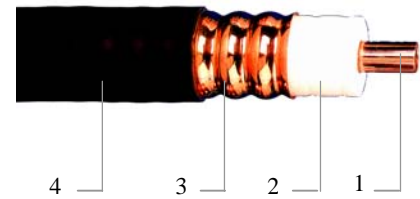
Store temperature	-30~+80 °C
Installation temperature	-25~+60 °C
Operation temperature	-30~+80 °C

Product Specification

PART NO.	3110801/3110802	ISSUE NO.	4
DATE OF ISSUE	28-9-2006	PAGE	8 of 10

7/8" low loss physical foamed insulation coaxial cable RF 50 7/8"

Description	TYPE No.	PART NO.
Standard cable	RF5078	3110801
Fire retardant cable	RF5078 Z	3110802
Construction		
Inner Conductor	Material	Smooth copper tube
	Diameter, mm	8.95±0.05
Insulation	Material	Physically foamed PE
	Diameter, mm	22.50±0.40
Outer conductor	Material	Ring corrugated copper
	Diameter, mm	24.90±0.30
Jacket	Material	PE or fire retardant PE
	Diameter, mm	27.30±0.20
Mechanical properties		
Bending radius, mm	Single	120
	Repeated	250
	Moving	500
Pulling strength, N		1470
Crush resistance, kg/mm		1.4
Recommended temperature, °C	Store	-70~+85
	Installation	-40~+60
	Operation	-55~+85
Electrical properties		
Impedance, Ω		50 ± 1
Capacitance, PF/m		75
Propagation velocity, %		88
DC breakdown voltage, kV		6.0
Insulation resistance, MΩ •km		>5 × 10 ³
Peak power, kW		91
Screening attenuation, dB		>>120
Cut-off frequency, GHz		5.0



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

Figure 8:RF50 7/8" coaxial cable

Attenuation and average power		
Frequency MHz	Nom. attenuation @20°C, dB/100m	Power rate @20°C, kW
10	0.366	24.6
100	1.19	7.56
200	1.72	5.26
450	2.65	3.41
800	3.63	2.48
900	3.88	2.33
1000	4.12	2.19
1500	5.18	1.74
1800	5.75	1.57
2000	6.11	1.48
2500	6.95	1.30
3000	7.76	1.16
<ul style="list-style-type: none"> 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 jacket, recommended temperatures are:

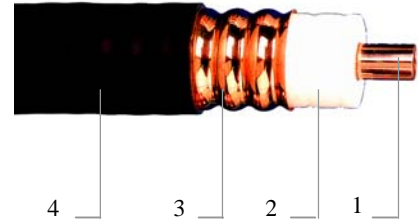
Store temperature	-30~+80°C
Installation temperature	-25~+60°C
Operation temperature	-30~+80°C

Product Specification

PART NO.	3111001/3111002	ISSUE NO.	4
DATE OF ISSUE	28-9-2006	PAGE	9 of 10

1-1/4" low loss physical foamed insulation coaxial cable RF 50 1-1/4"

Description	TYPE No.	PART NO.
Standard cable	RF50114	3111001
Fire retardant cable	RF50114 Z	3111002
Construction		
Inner Conductor	Material	Smooth copper tube
	Diameter, mm	13.10±0.05
Insulation	Material	Physically foamed PE
	Diameter, mm	32.80±0.40
Outer conductor	Material	Ring corrugated copper
	Diameter, mm	35.80±0.30
Jacket	Material	PE or fire retardant PE
	Diameter, mm	38.80±0.30
Mechanical properties		
Bending radius, mm	Single	200
	Repeated	380
	Moving	-
Pulling strength, N		5900
Crush resistance, kg/mm		2.2
Recommended temperature, °C	Store	-70~+85
	Installation	-40~+60
	Operation	-55~+85
Electrical properties		
Impedance, Ω		50±1
Capacitance, PF/m		75
Propagation velocity, %		89
DC breakdown voltage, kV		9.0
Insulation resistance, MΩ·km		>5×10 ³
Peak power, kW		205
Screening attenuation, dB		>>120
Cut-off frequency, GHz		3.3



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

Figure 9:RF50 1-1/4" coaxial cable

Attenuation and average power		
Frequency MHz	Nom. attenuation @20°C, dB/100m	Power rate @20°C, kW
10	0.253	38.6
100	0.832	11.7
200	1.20	8.12
450	1.87	5.22
800	2.59	3.78
900	2.77	3.53
1000	2.94	3.32
1500	3.73	2.62
1800	4.16	2.35
2000	4.43	2.21
2500	5.08	1.92
3000	5.68	1.72
<ul style="list-style-type: none"> 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:

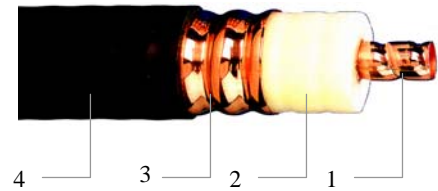
- For fire retardant jacket, recommended temperatures are:

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

Specifications

PART NO.	3111201/3111202	ISSUE NO.	4
DATE OF ISSUE	28-9-2006	PAGE	10 of 10

1-5/8" low loss physical foamed insulation coaxial cable RF 50 1-5/8"



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

Figure 10:RF50 1-5/8" coaxial cable

Description	TYPE No.	PART NO.
Standard cable	RF50158	3111201
Fire retardant cable	RF50158 Z	3111202
Construction		
Inner Conductor	Material	Helically corrugated copper
	Diameter, mm	17.30±0.10
Insulation	Material	Physically foamed PE
	Diameter, mm	43.50±0.60
Outer conductor	Material	Ring corrugated copper
	Diameter, mm	46.50±0.30
Jacket	Material	PE or fire retardant PE
	Diameter, mm	49.50±0.40
Mechanical properties		
Bending radius, mm	Single	300
	Repeated	510
	Moving	--
Pulling strength, N		3630
Crush resistance, kg/mm		2.1
Recommended temperature, °C	Store	-70~+85
	Installation	-40~+60
	Operation	-55~+85
Electrical properties		
Impedance, Ω		50±1
Capacitance, PF/m		76
Propagation velocity, %		88
DC breakdown voltage, kV		11
Insulation resistance, M Ω ·km		>5×10 ³
Peak power, kW		315
Screening attenuation, dB		>>120
Cut-off frequency, GHz		2.5

Attenuation and average power		
Frequency MHz	Nom. attenuation @20°C, dB/100m	Power rate @20°C, kW
10	0.202	54.3
100	0.671	16.4
150	0.834	13.2
200	0.976	11.3
300	1.22	9.01
450	1.53	7.18
800	2.13	5.15
900	2.29	4.81
1000	2.43	4.52
1500	3.11	3.54
1800	3.47	3.17
2000	3.71	2.96
2500	4.27	2.58
<ul style="list-style-type: none"> 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 jacket, recommended temperatures are:

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