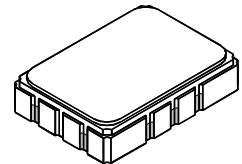


- **Designed for SDARS Receiver IF Application**
- **Low Insertion Loss**
- **5.0 X 7.0 mm Surface-Mount Case**
- **Differential Input and Output**
- **Complies with Directive 2002/95/EC (RoHS)**
- **Moisture Sensitivity Level: 1**
- **AEC-Q200 Qualified**

SF2024B

**467.751 MHz
SAW Filter**



SMP-03

Absolute Maximum Ratings

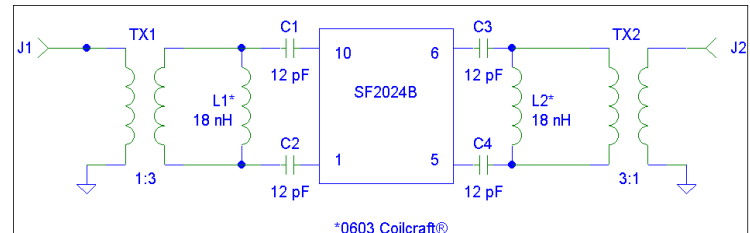
Rating	Value	Units
Maximum Incident Power in Passband	+10	dBm
Max. DC voltage between any 2 terminals	30	VDC
Storage Temperature Range	-40 to +85	°C
Suitable for lead-free soldering - Max Soldering Profile	260°C for 30 s	

Electrical Characteristics

Characteristic	Sym	Notes	Min	Typ	Max	Units	
Nominal Center Frequency	f_C			467.751		MHz	
Passband Minimum Insertion Loss	IL			18	20	dB	
	$BW_{1.5}$	1.5 dB Passband		14.2			MHz
	BW_3	3 dB Passband		15			
Amplitude Ripple from fc-6.344 MHz to fc-4.2985 MHz (-20 to 85°C)					1	dB _{p-p}	
Amplitude Ripple from fc-6.344 MHz to fc-4.2985 MHz (-40 to -20°C)					1.25		
Amplitude Ripple from fc-4.4865 MHz to fc-2.441 MHz					1		
Amplitude Ripple from fc-2.629 MHz to fc+0.069 MHz					1		
Amplitude Ripple from fc-0.069 MHz to fc+2.629 MHz					1		
Amplitude Ripple from fc+2.441 MHz to fc+4.4865 MHz					1		
Amplitude Ripple from fc+4.2985 MHz to fc+6.344 MHz (-40 to 50°C)					1		
Amplitude Ripple from fc+4.2985 MHz to fc+6.344 MHz (50 to 85°C)					1.25		
Group Delay Variation over fc-6.344 MHz to fc-2.441 MHz and from fc+6.344 MHz to fc+2.441 MHz	GDV1			60	80	ns _{p-p}	
	GDV2	Group Delay Variation over fc±2.629 MHz		60	120		
Rejection fc-33 to fc-12 MHz and fc+12 to fc+33 MHz			32	40		dB	
		fc-12 to fc-10.5 MHz	24	40			
		fc+9 to fc+12 MHz	10	24			
Operating Temperature Range	T_A		-40		+85	°C	
Differential Input and Output Impedance			150 ohms				
Case Style			SMP-03 7 x 5 mm Nominal Footprint				
Lid Symbolization (YY=year, WW=week, S=shift, ## = Sequence Code)			RFM SF2024B YYWWS##				

Electrical Connections

Connection	Terminals
Port 1 Hot	10
Port 1 Ground Return	1
Port 2 Hot	5
Port 2 Ground Return	6
Case Ground	All Others

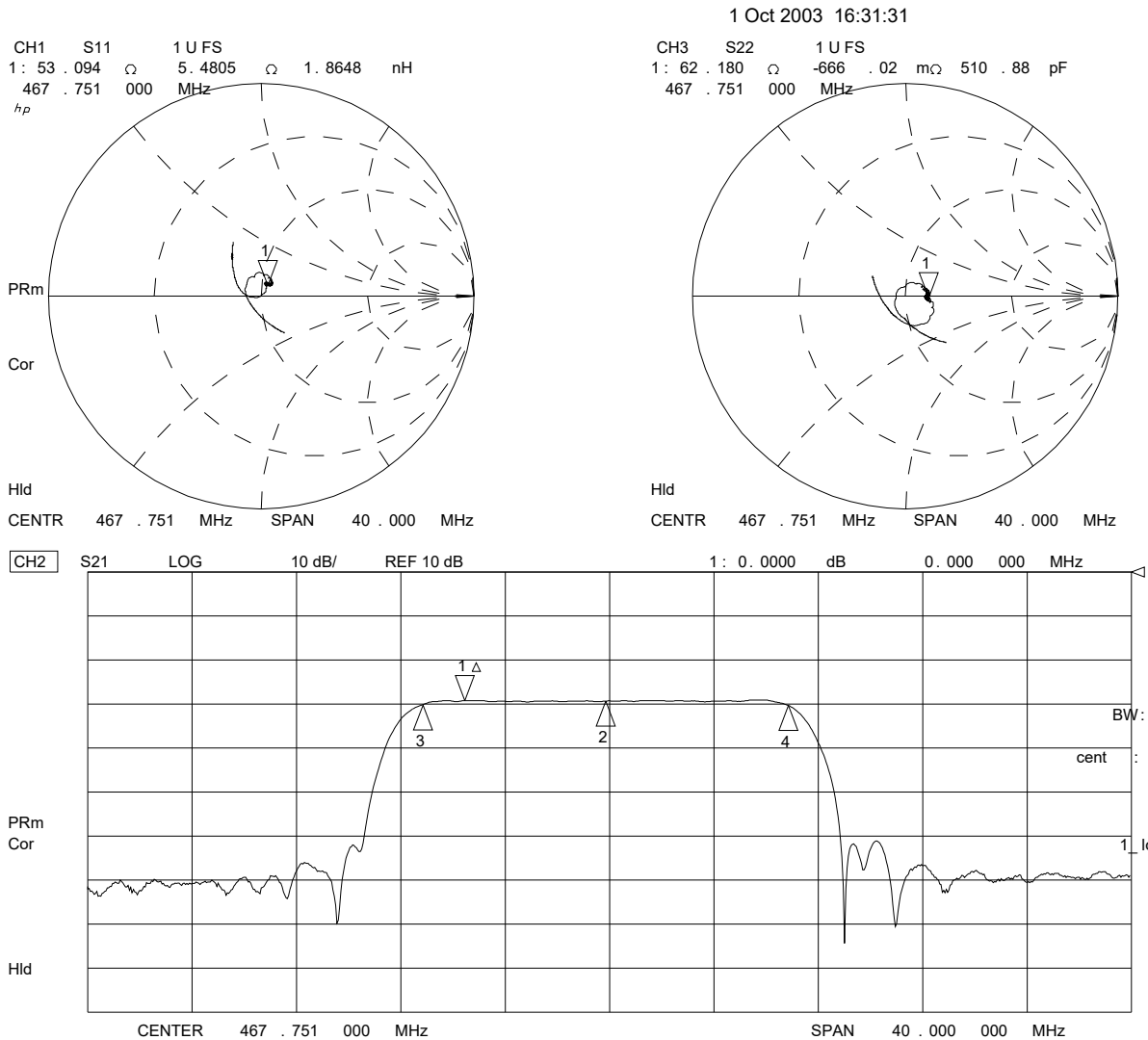




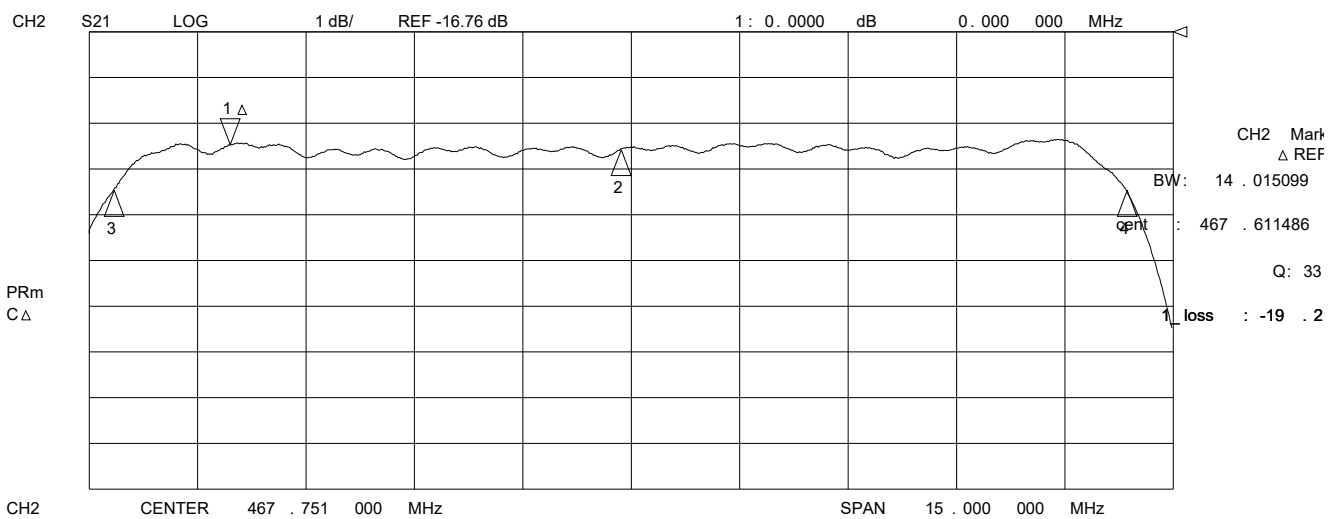
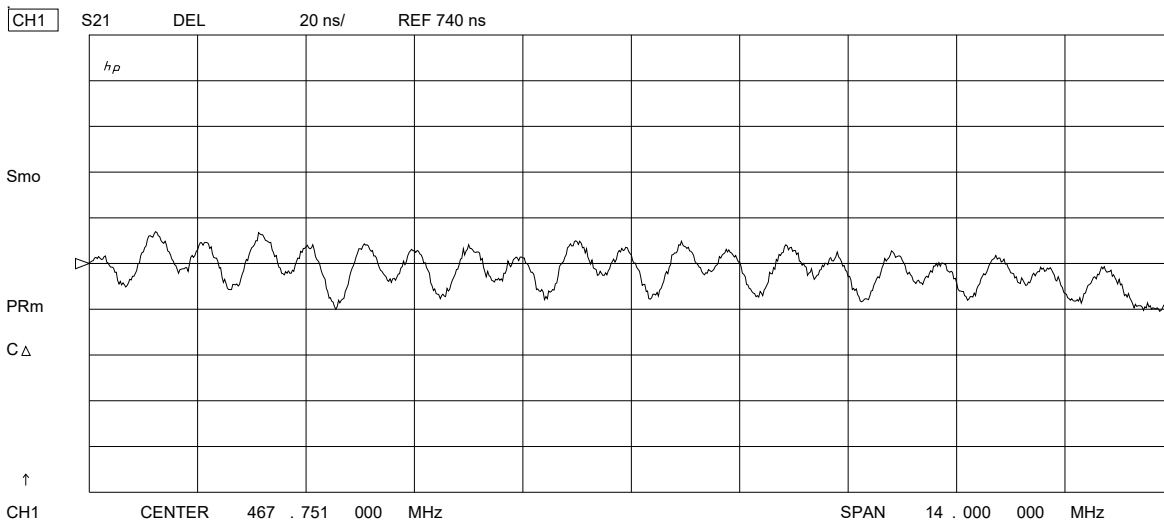
CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

NOTES:

1. The design, manufacturing process, and specifications of this device are subject to change.
2. US or International patents may apply.
3. RoHS compliant from the first date of manufacture.



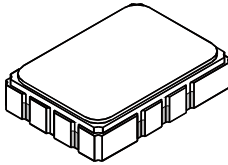
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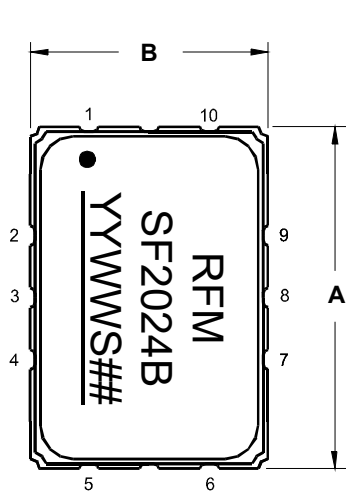
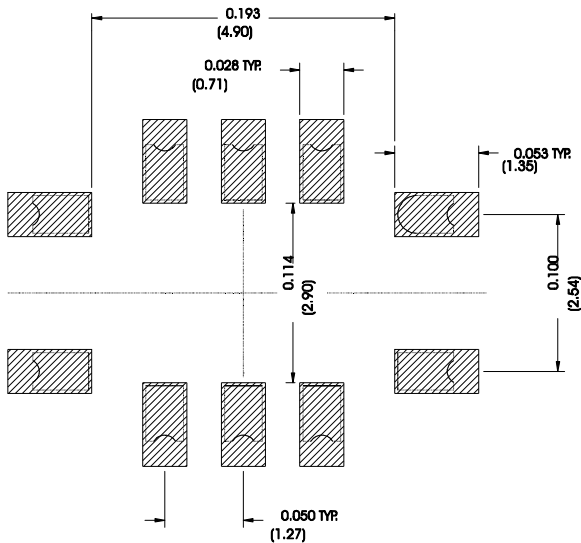
SMP-03 Case

10-Terminal Ceramic Surface-Mount Case

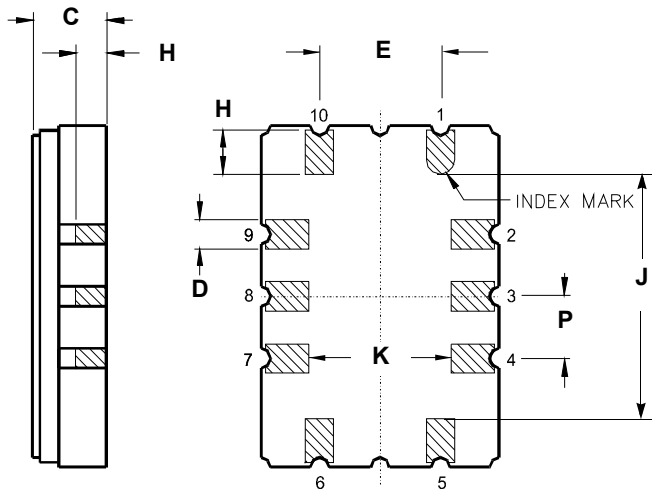
7 x 5 mm Nominal Footprint



Recommended PCB Footprint



TOP VIEW



BOTTOM VIEW

Case Dimensions

Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	6.80	7.00	7.20	0.268	0.276	0.283
B	4.80	5.00	5.20	0.189	0.197	0.205
C		1.65	2.00		0.065	0.079
D	.47	0.60	.73	0.019	0.024	0.029
E	2.41	2.54	2.67	0.095	0.100	0.105
H	0.87	1.0	1.13	0.034	0.039	0.044
J	4.87	5.00	5.13	0.192	0.197	0.202
K	2.87	3.00	3.13	0.113	0.118	0.123
P	1.14	1.27	1.40	0.045	0.050	0.055

Materials

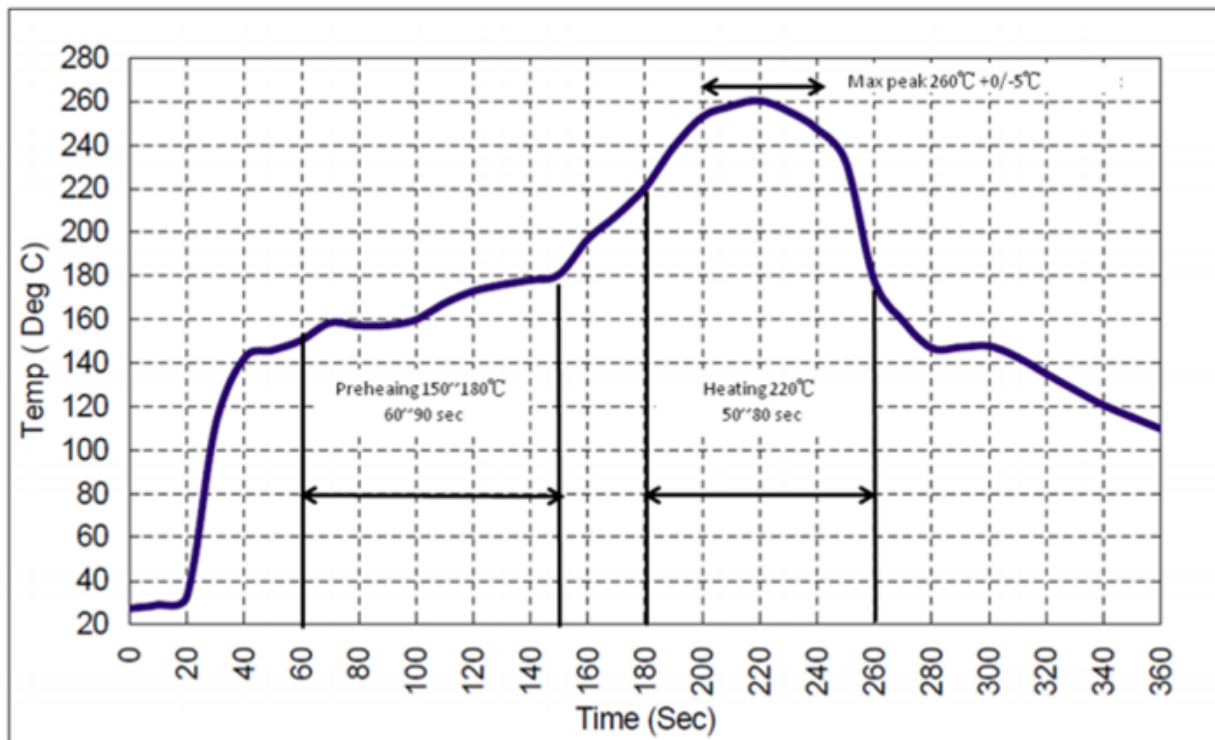
Solder Pad Termination	Au plating 30 - 60 ulnches (76.2-152 μ m) over 80-200 ulnches (203-508 μ m) Ni.
Lid	Fe-Ni-Co Alloy Electroless Nickel Plate (8-11% Phosphorus) 100-200 ulnches Thick
Body	Al_2O_3 Ceramic

Electrical Connections

Connection		Terminals
Port 1	Input or Return	10
	Return or Input	1
Port 2	Output or Return	5
	Return or Output	6
Ground		All others
Single Ended Operation		Return is ground
Differential Operation		Return is hot

Recommended Reflow Profile

1. Preheating shall be fixed at 150~180°C for 60~90 seconds.
2. Ascending time to preheating temperature 150°C shall be 30 seconds min.
3. Heating shall be fixed at 220°C for 50~80 seconds and at 260°C+0/-5°C peak (10 seconds).
4. Time: 5 times maximum.



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