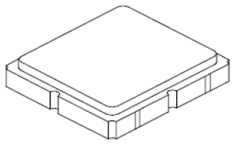
RFMi
A BRAND OF AKOUSTIS

RoHS compliant

SF2002B-2

942.5 MHz SAW Filter

- ***RF Filter for EGSM***
- ***High Attenuation Design***
- ***No Matching Circuit Required***
- ***3.0 x 3.0 x 1.3 mm Package***
- ***Complies with directive 2002/95/EC (RoHS)***
- ***Moisture Senstivity Level: 1***



SM3030-6

Absolute Maximum Ratings

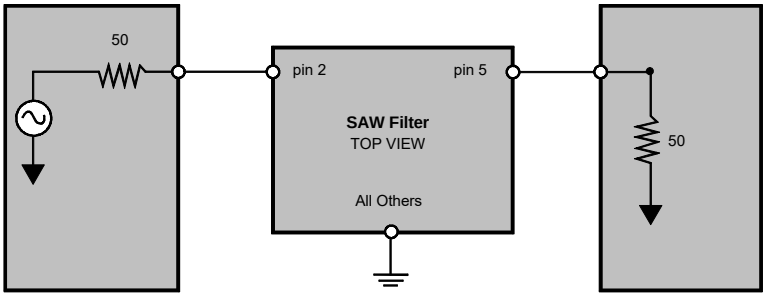
Rating	Value	Units
Maximum Input Power	+15	dBm
DC voltage between Terminals	-3 ~ +3	VDC
Operating Temperature	-30 to +80	°C

Electrical Characteristics

Characteristic	Sym	Notes	Min	Typ	Max	Units
Nominal Operating Frequency	f_C			942.5		MHz
Passband Insertion Loss (925~960 MHz)	IL			2.8	4.0	dB
Amplitude Ripple (925~960 MHz)				1.1	2.3	dB
Attenuation (Reference level from 0 dB)						
10~800 MHZ			50	63		dB
800~880 MHZ			40	48		dB
880~905 MHZ			35	43		dB
980~982 MHZ			20	27		dB
982~1005 MHZ			23	28		dB
1005~1025 MHZ			29	33		dB
1025~1760 MHZ			40	50		dB
1760~2300 MHZ			30	41		dB
2300~3000 MHZ			20	28		dB
Input Z_{IN}				50		Ω
Output Z_{OUT}				50		Ω
Case Style	SM3030-6 3 x 3 mm Nominal Footprint					
Lid Symbolization (Y=year, WW=week, S=Shift)	464, YWWS					

Electrical Connections

Connection	Terminals
Input	2
Output	5
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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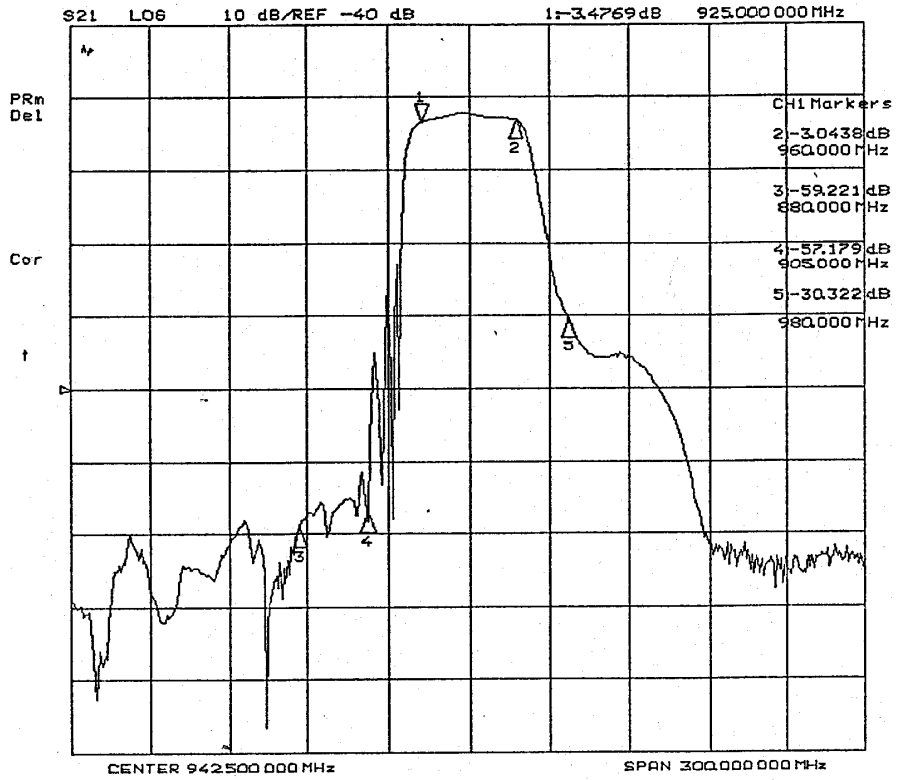
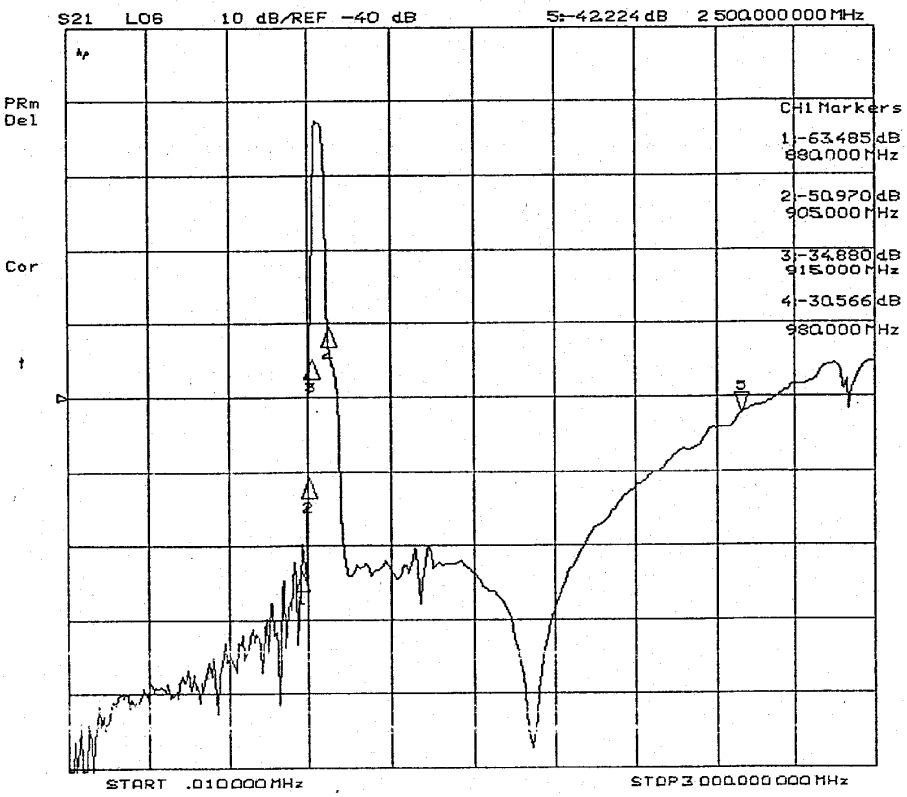
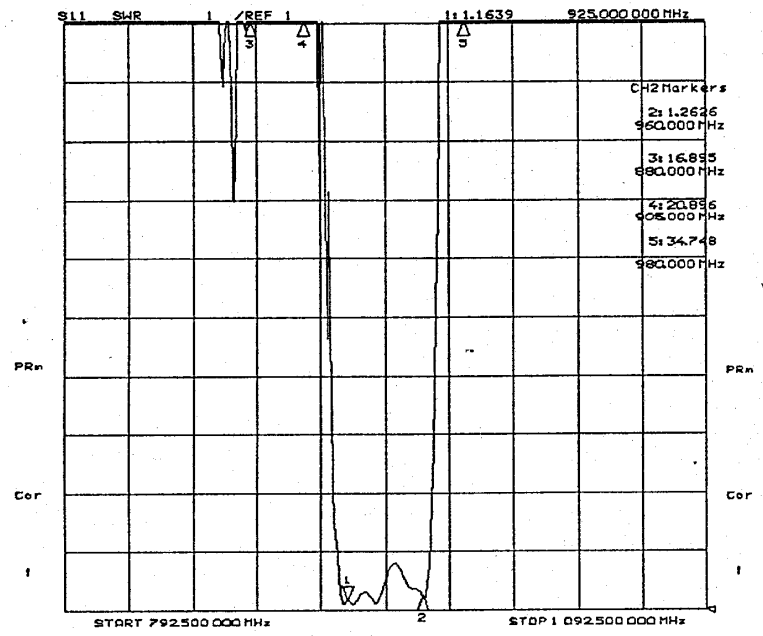
FREQUENCY CHRACTERISTICS:

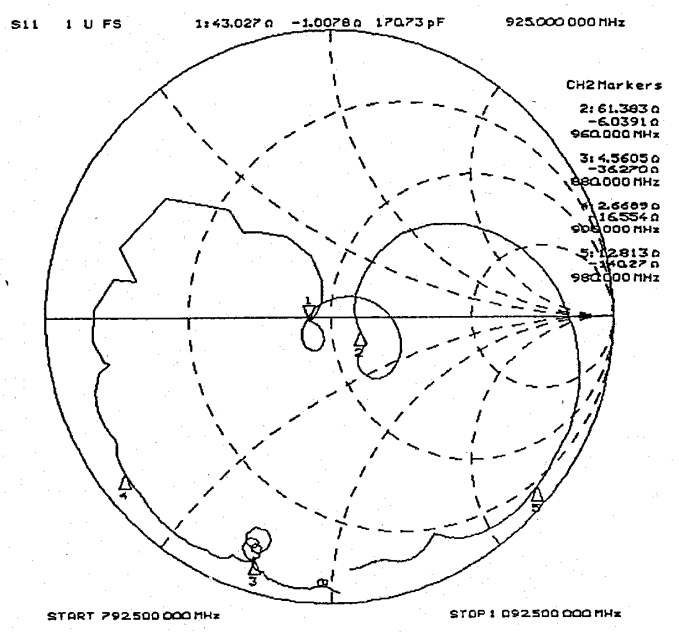
1. wideband response:



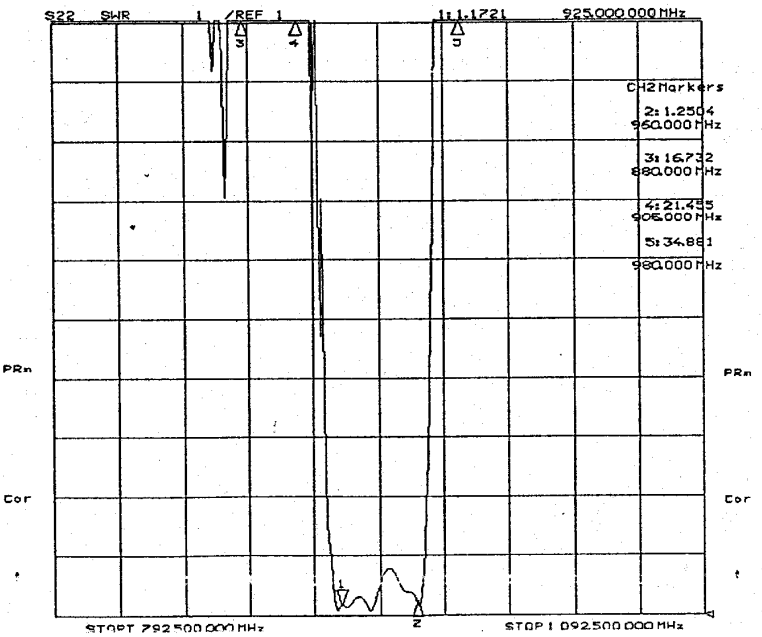


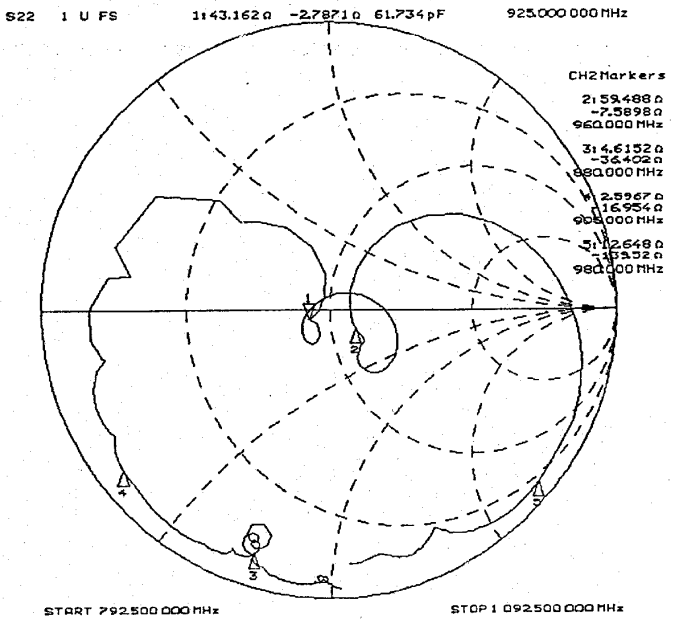
S11 Return Loss & VSWR:





S22 Return Loss & VSWR:





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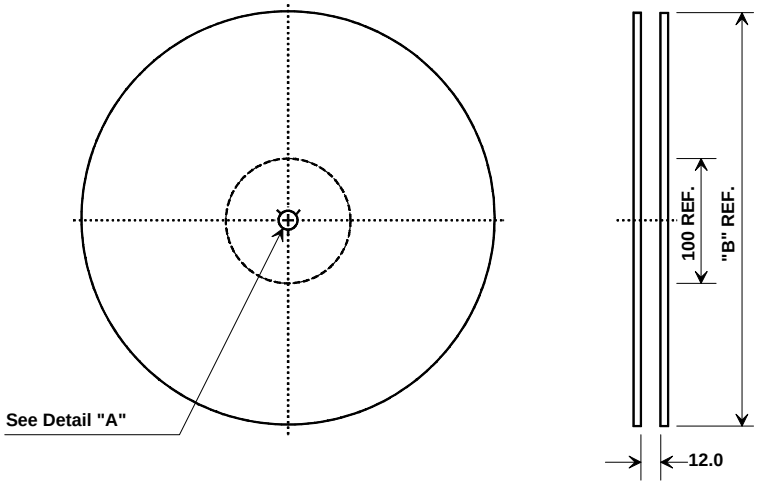
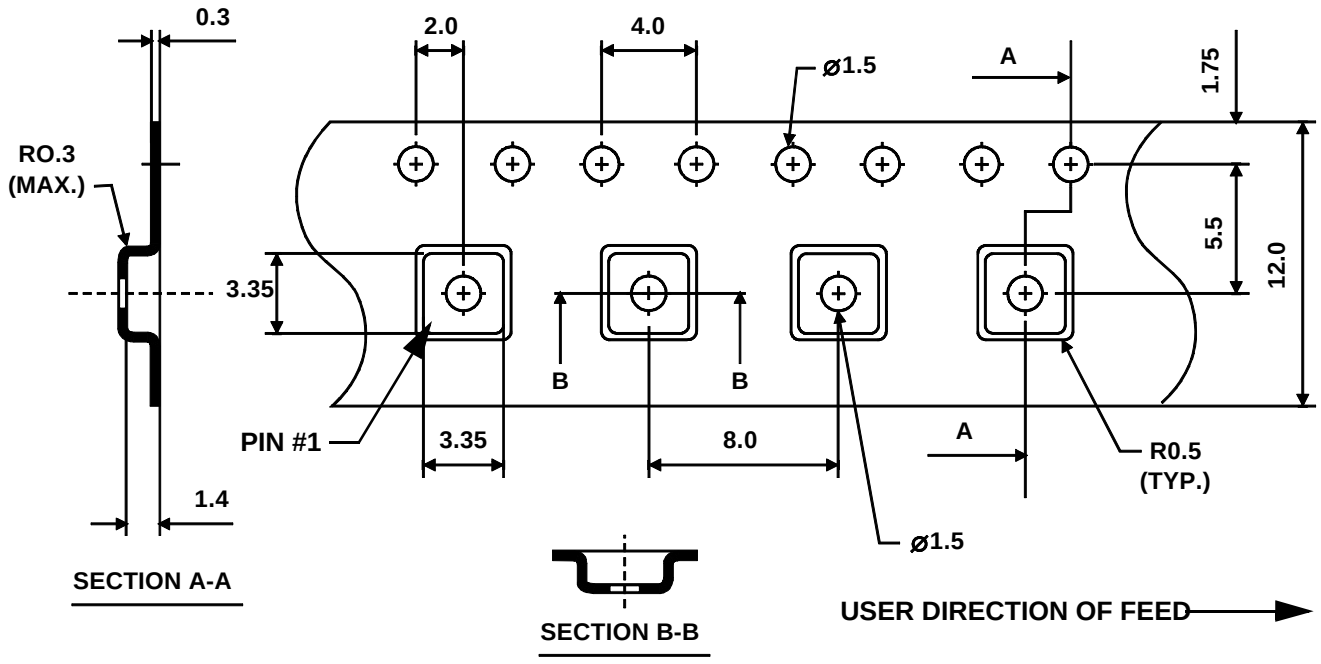
Tape and Reel Specifications

Tape and Reel Standard per ANSI/EIA481



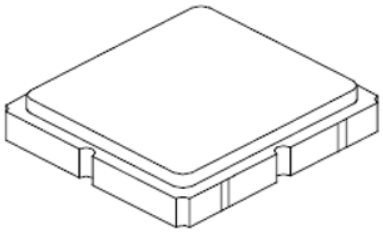
"B " Nominal Size		Quantity Per Reel
Inches	millimeters	
7	178	500
13	330	3000

COMPONENT ORIENTATION



SM3030-6 Case

6-Terminal Ceramic Surface-Mount Case
3.0 X 3.0 mm Nominal Footprint



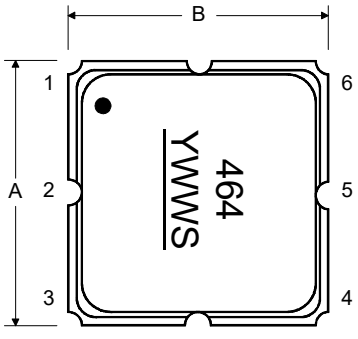
Case Dimensions

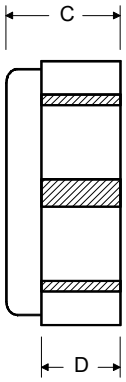
Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A		3.0			0.118	
B		3.0			0.118	
C		1.3			0.051	
D		0.9			0.035	
E		2.54			0.100	
F		1.6			0.063	
G		0.85			0.033	
H		1.5			0.059	
I		0.6			0.024	
J		1.3			0.051	

Electrical Connections

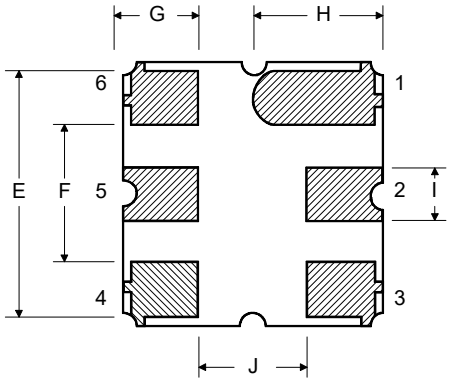
Connection		Terminals
Port 1	Single Ended Input	2
Port 2	Single Ended Output	5
	Ground	All others
Single Ended Operation Only		
Dot indicates Pin 1		

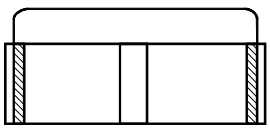
TOP VIEW





BOTTOM VIEW





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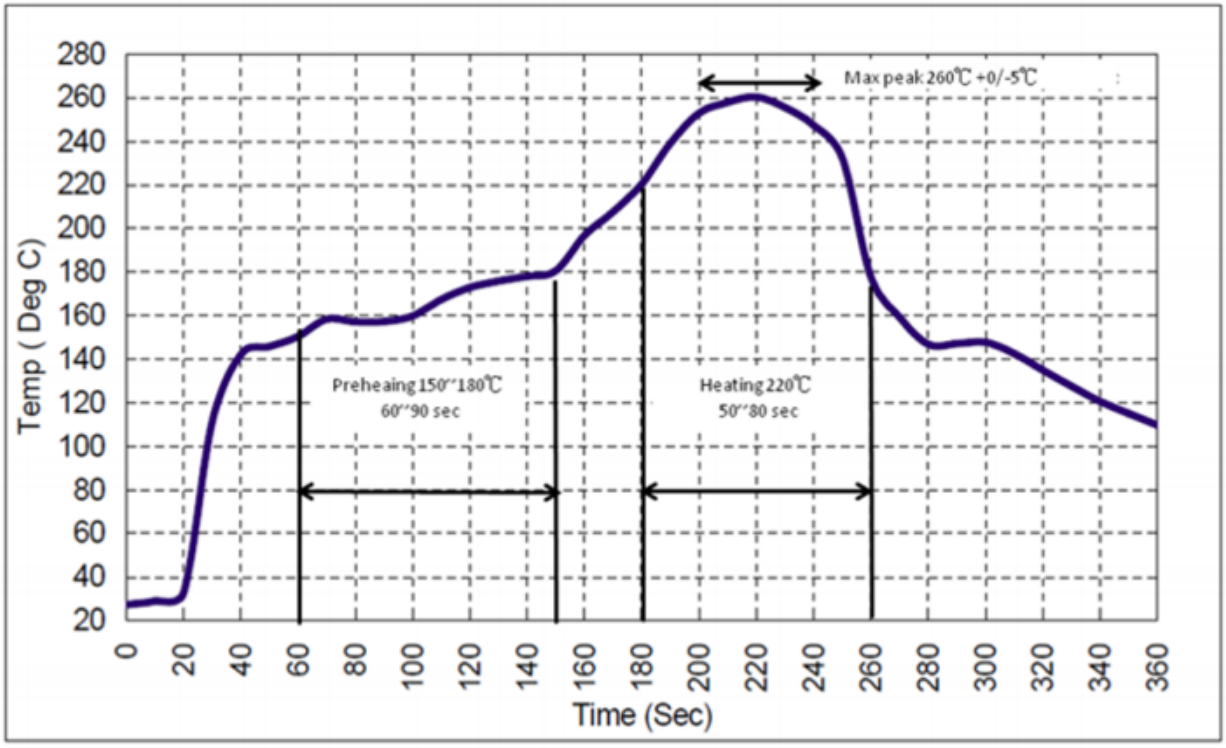
Recommended Reflow Profile

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



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