RFMi
A BRAND OF AKOUSTIS

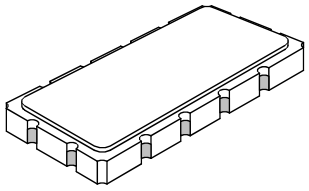
Preliminary

RoHS compliant

SF2310A

70 MHz SAW Filter

- ***Precision IF SAW Filter***
- ***Hermetic 13.3 x 6.5 mm Surface-mount Case***
- ***Complies with Directive 2002/95/EC (RoHS)***
- ***Moisture Sensitivity Level: 1***



SM13365

Absolute Maximum Ratings

Rating	Value	Units
Maximum Incident Power in Passband	+10	dBm
Maximum DC Voltage on any Non-ground Terminal	10	VDC
Operating Temperature Range of Component	-30 to +80	°C
Storage Temperature Range in Tape and Reel	-40 to +85	°C
Suitable for Lead-free Soldering - Maximum Soldering Profile	260 °C for 30 s	

Electrical Characteristics, 25 °C

Characteristic	Sym	Notes	Min	Typ	Max	Units
Center Frequency	f_C		69.8	70.0	70.2	MHz
1 dB Bandwidth	BW_1			11.77		
3 dB Bandwidth	BW_3			12.77		
40 dB Bandwidth	BW_{40}			16.00	18.25	
Minimum Insertion Loss	IL_{MIN}			11.5	13.0	dB
Amplitude Ripple, f_C ± 5.0 MHz				0.46	1.00	dB_{P-P}
Group Delay Ripple, f_C ± 5.0 MHz				30	90	ns_{P-P}
Triple Transit Suppression			40	49		
Phase Linearity, f_C ± 5.0 MHz				5	11	deg_{P-P}
Attenuation Referenced to IL_{MIN}:						dB
(f_C - 30) to (f_C - 15) MHz			36	53		
(f_C + 15) to (f_C + 30) MHz			36	53		
Frequency Temperature Coefficient				-94		ppm/°C

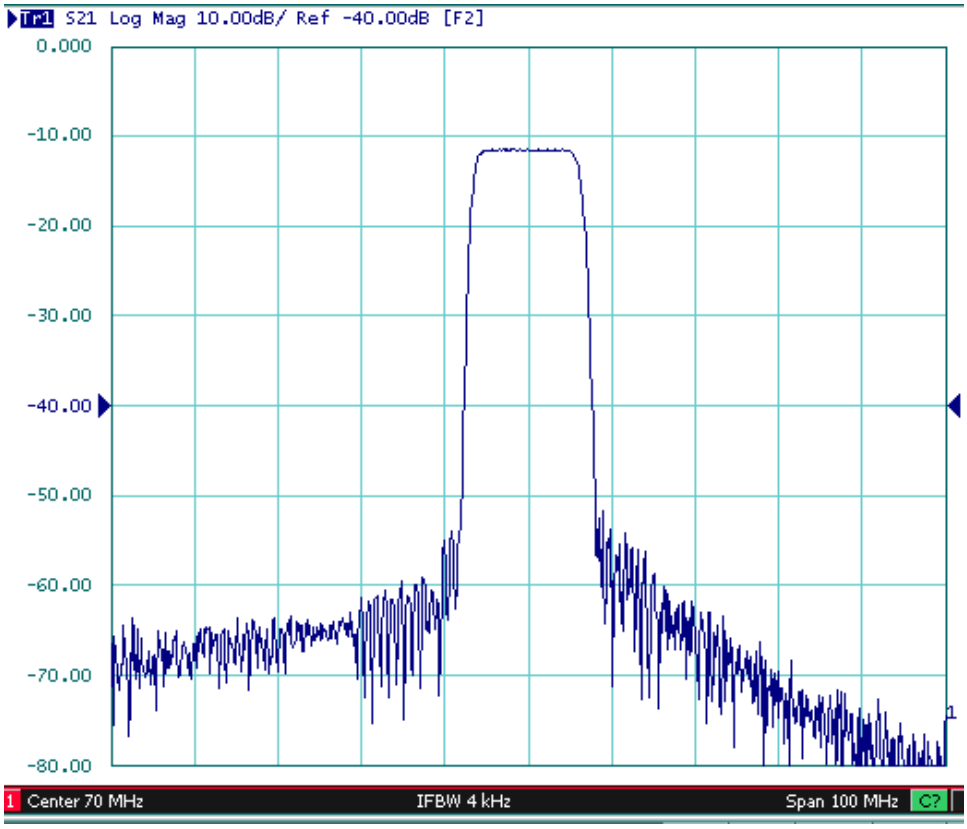
Impedance Matching to 50 Ω Unbalanced Source/Load	External L-C
Case Style	13.3 x 6.5 mm Nominal Footprint
Lid Symbolization (YY = year, WW = week, S = Shift, ## = Sequence Code)	RFM/SF2310A/YYWWS##

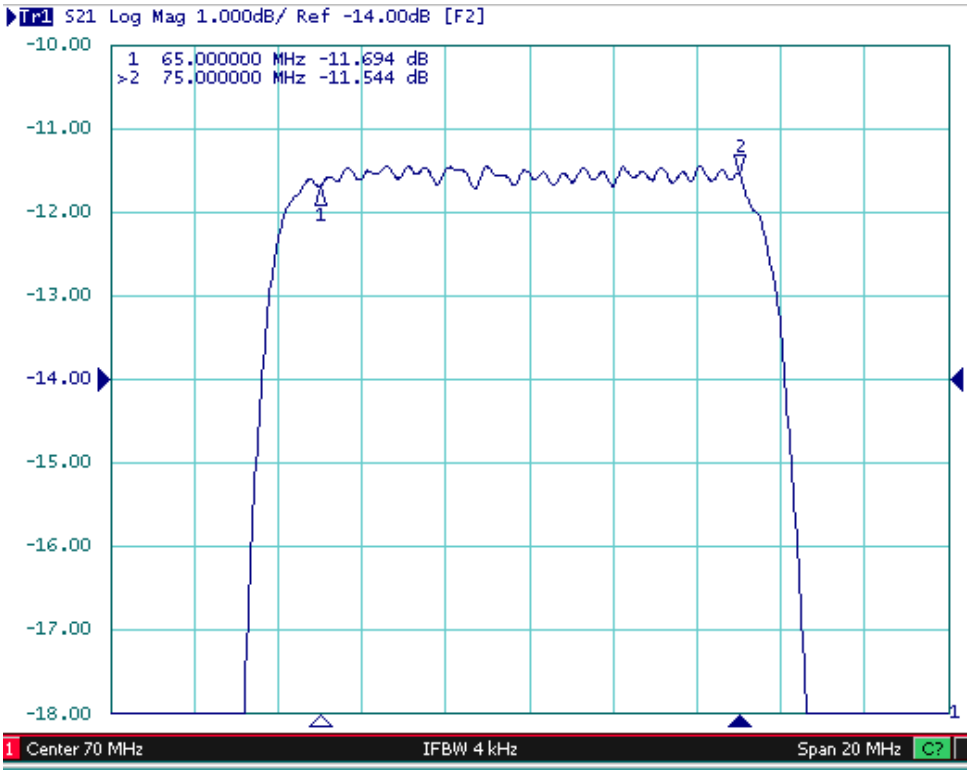
CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

NOTES:

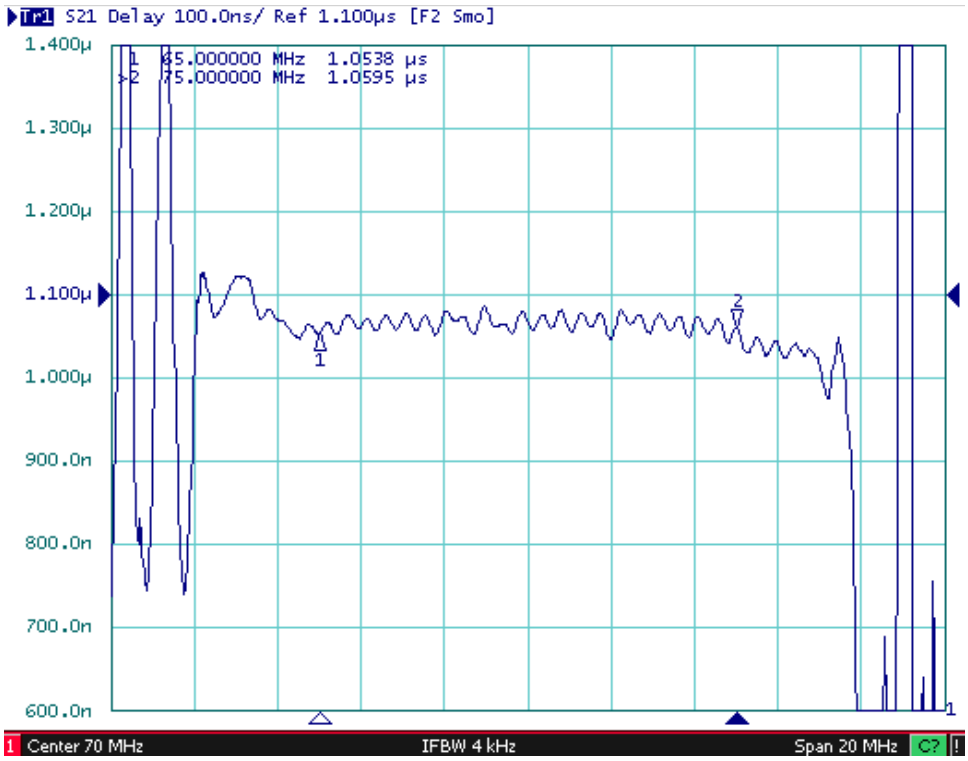
1. The design, manufacturing process, and specifications of this device are subject to change.
2. US or International patents may apply.
3. RoHS compliant from the first date of manufacture.

Filter Frequency Response Plots

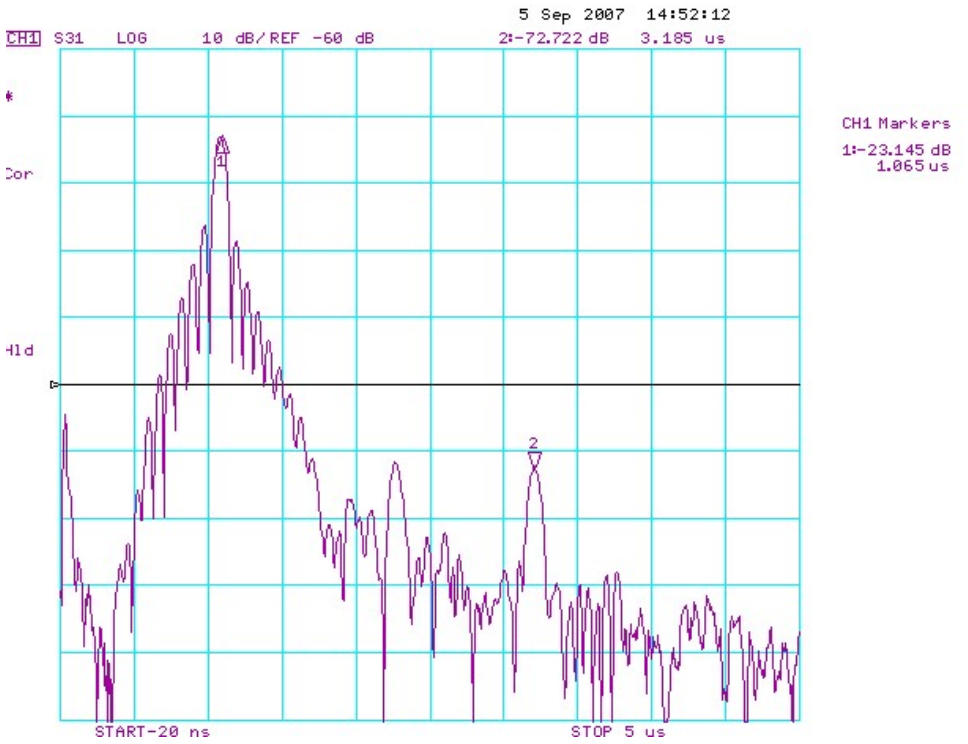




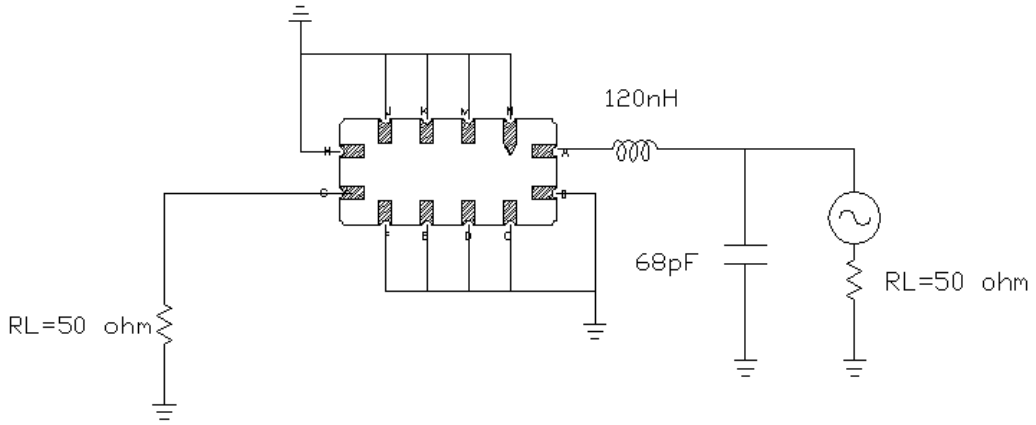
Filter Group Delay Plot



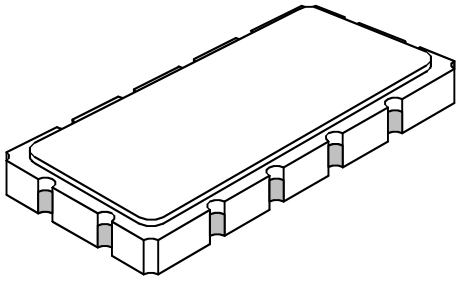
Filter Time Domain Plot



Typical Tuning Component Values



Ceramic Surface-mount 12-Terminal Case
13.3 x 6.5 mm Nominal Footprint



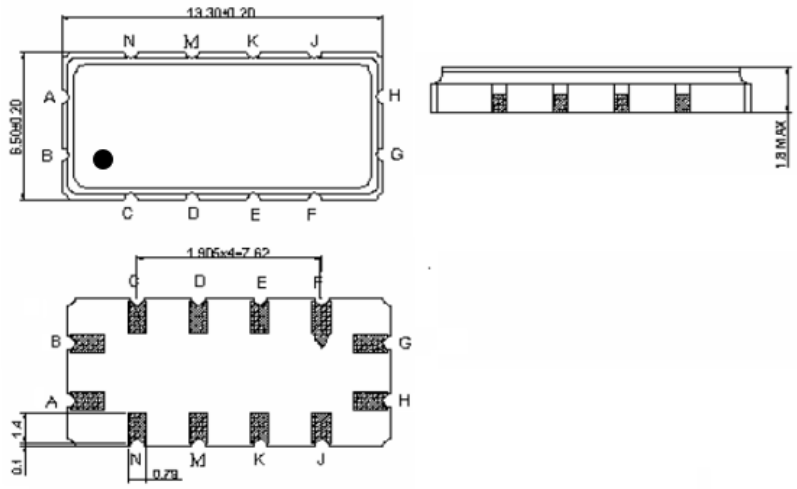
Case Material

Materials	
Solder Pad Plating	0.3 to 1.0 µm Gold over 1.27 to 8.89 µm Nickel
Lid Plating	2.0 to 3.0 µm Nickel
Body	Al_2O_3 Ceramic

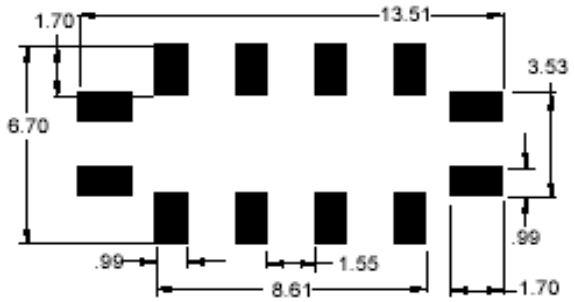
Electrical Connections

Connection	Terminals
Input	A
Output	G
Case Ground	All others

Case Outline Drawing



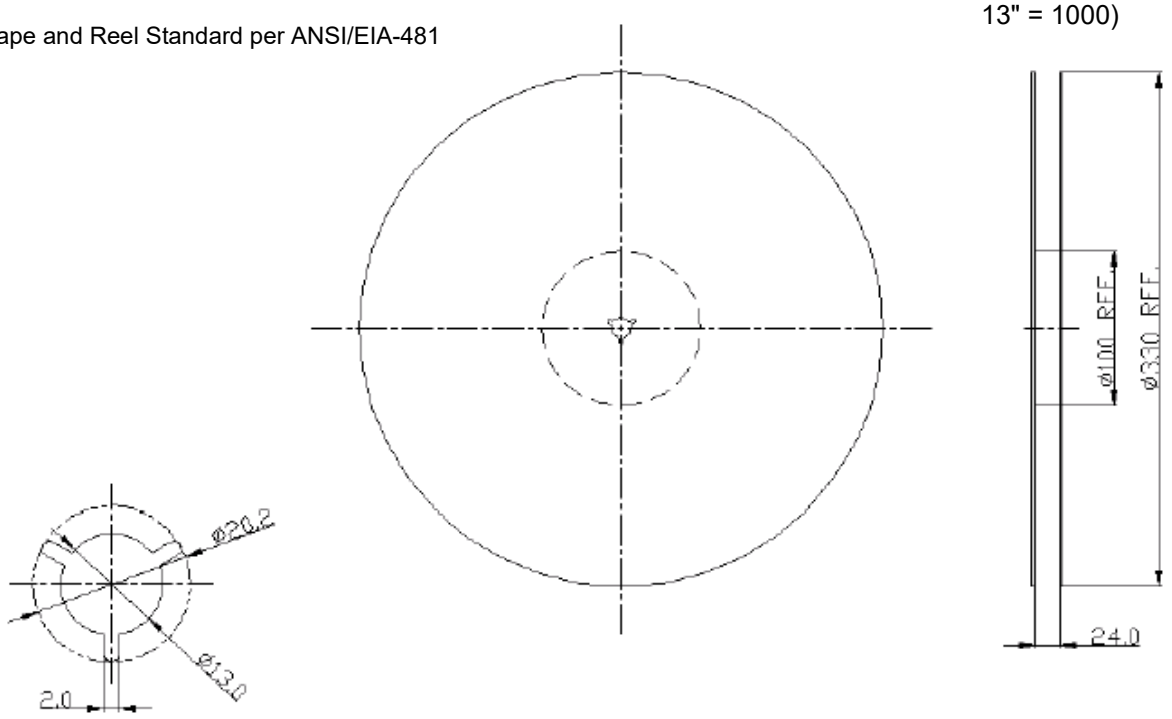
PCB Pad Layout



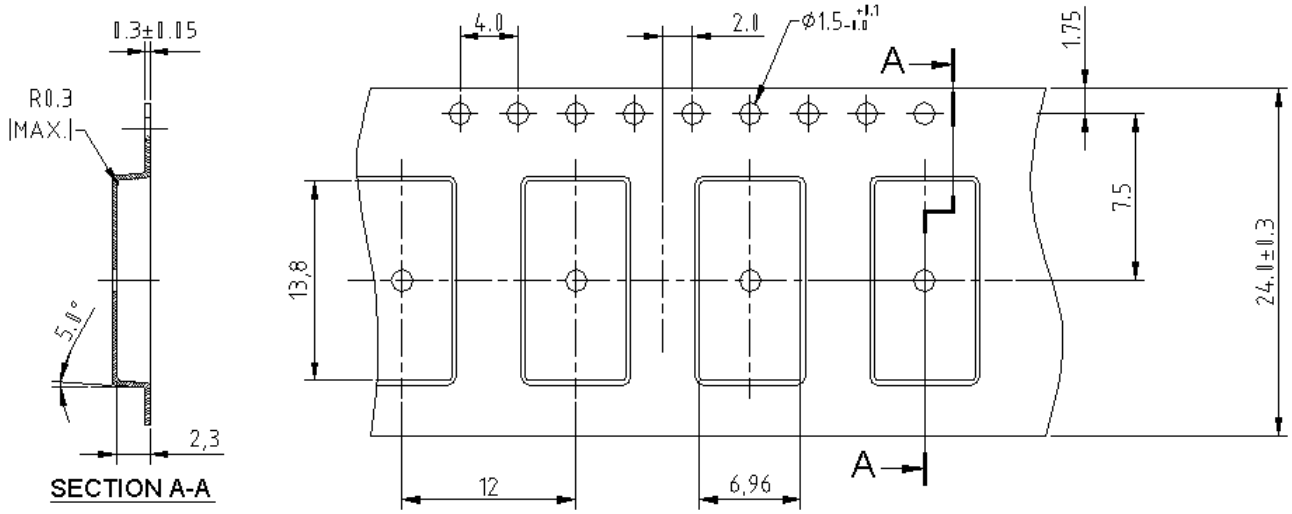
Tape and Reel Specifications

Reel Count:
7" = 500
13" = 1000)

Tape and Reel Standard per ANSI/EIA-481



13.3X6.5



Recommended Reflow Profile

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