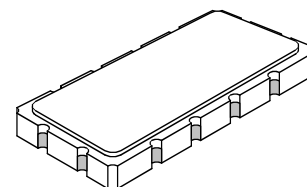




Preliminary

SF2149A

46.08 MHz
SAW Filter



SM13365-12

- TD-SCDMA SAW Filter, 46.08 MHz, 5 MHz BW
- Low Insertion Loss
- 13.3 x 6.5 x 1.9 mm Surface-mount Case
- Complies with Directive 2002/95/EC (RoHS)



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 10 s	

Electrical Characteristics

Characteristic	Sym	Notes	Min	Typ	Max	Units
Nominal Center Frequency	f_N	1		46.08		MHz
Passband bandwidth	B_W		5			MHz
Insertion Loss	I_L			8	10	dB
Relative Attenuation to IL @		1, 2, 3		20	25	
out of pass band (Rejection)				40	45	
				15	25	
				40	45	
Amplitude ripple (p-p)				0.6	1.0	dB
Amplitude ripple (p-p) @ 25°C				0.8		dB
Group delay ripple (p-p)				100	120	ns
1 dB compression Point			12	15		dBm
Input IP3			35	40		dBm
Operating Temperature			-40		+85	°C
Terminating impedance				50		Ohm

Case Style	SM13365-12 13.3 x 6.5 mm Nominal Footprint
Lid Symbolization (YY = year, WW = week, S=shift) See note 4	RFM SF2149A // YYWWS



CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

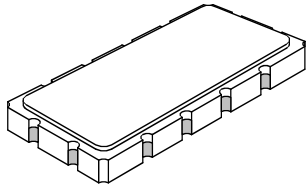
Notes:

1. Unless noted otherwise, all specifications apply over the operating temperature range with filter soldered to the specified demonstration board with impedance matching to 50 Ω and measured with 50 Ω network analyzer.
2. Unless noted otherwise, all frequency specifications are referenced to the nominal center frequency, f_c .
3. Rejection is measured as attenuation below the minimum IL point in the passband. Rejection in final user application is dependent on PCB layout and external impedance matching design. See Application Note No. 42 for details.
4. Part to part absolute delay measurement records the absolute delay mean across 1 dB passband.
5. "LRIP" or "L" after the part number indicates "low rate initial production" and "ENG" or "E" indicates "engineering prototypes."
6. The design, manufacturing process, and specifications of this filter are subject to change.
7. Either Port 1 or Port 2 may be used for either input or output in the design. However, impedances and impedance matching may vary between Port 1 and Port 2, so that the filter must always be installed in one direction per the circuit design.
8. US and international patents may apply.

SM13365-12 Case

12-Terminal Ceramic Surface-Mount Case

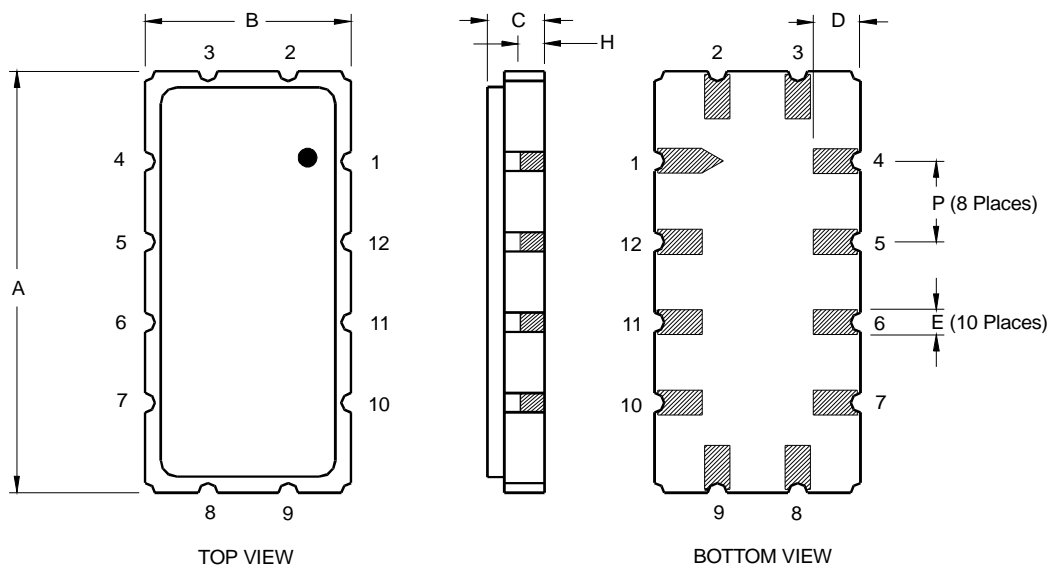
13.3 x 6.5 mm Nominal Footprint



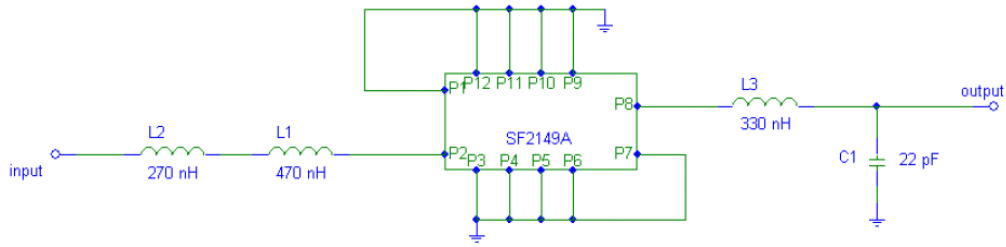
Case Dimensions						
Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	13.08	13.31	13.60	0.515	0.524	0.535
B	6.27	6.50	6.80	0.247	0.256	0.268
C		1.91	2.00		0.075	0.079
D		1.50			0.059	
E		0.79			0.031	
H		1.0			0.039	
P		2.54			0.100	

Materials	
Solder Pad Termination	Au plating 30 - 60 ulnches (76.2-152 uM) over 80-200 ulnches (203-508 uM) Ni.
Lid	Fe-Ni-Co Alloy Electroless Nickel Plate (8-11% Phosphorus) 100-200 ulnches Thick
Body	Al ₂ O ₃ Ceramic
Pb Free	

Electrical Connections		
Connection		Terminals
Port 1	Input or Return	2
	Return or Input	3
Port 2	Output or Return	8
	Return or Output	9
	Ground	All others
Single Ended Operation		Return is ground
Differential Operation		Return is hot



Testing Environment



401-1412-001 PCB
0805 coilcraft inductors

Frequency Response

