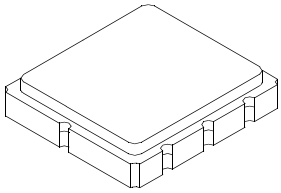
SF2006C

190.00 MHz SAW Filter

- ***SAW Filter for W-CDMA***
- ***5.0 X 5.0 X 1.7 mm Surface-Mount Case***
- ***Complies with Directive 2002/95/EC (RoHS)***



SM5050-8

Maximum Rating

Rating	Value	Units
Input Power Level	10	dBm
Operating Temperature Range	-30 to +70	°C
Storage Temperature Range in Tape and Reel	-30 to +70	°C

Electrical Characteristics

Characteristic	Sym	Notes	Min	Typ	Max	Units
Center Frequency	f_C			190		MHz
Insertion Loss	IL_{MIN}			8.0	10	dB
6 dB Bandwidth	BW		4.8	5.73		MHz
Group Delay Ripple				70	150	ns
RMS Phase Linearity, $f_C \pm 2$ MHz				6	8	deg
Attenuation Referended to IL_{MIN}:						
170 to 180 MHz, or (f_C - 20 MHz) to (f_C - 10 MHz)			27	34		dB
180 to 185.5 MHz, or (f_C -10 MHz) to (f_C -4.5 MHz)			25	31		
194.5 to 200 MHz, or (f_C + 4.5 MHz) to (f_C + 10 MHz)			25	30		
200 to 210 MHz, or (f_C + 10 MHz) to (f_C + 20 MHz)			27	33		
Ultimate Rejection				50		
Lid Symbolization (Y=year, WW=week, S=shift)		RFM 734 YWWS				

Electrical Connections

Connection		Terminals
Port 1	Input	2
Port 2	Output	6
	Ground	All others
Dot indicates Pin 1		

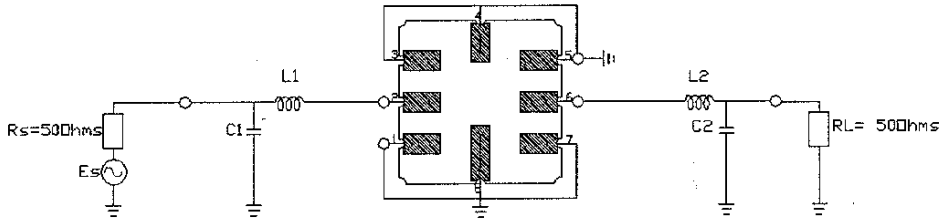
CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

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, fc.
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. "LRIP" or "L" after the part number indicates "low rate initial production" and "ENG" or "E" indicates "engineering prototypes."
5. The design, manufacturing process, and specifications of this filter are subject to change.
6. 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.
7. US and international patents may apply.
8. RFM, stylized RFM logo, and RF Monolithics, Inc. are registered trademarks of RF Monolithics, Inc.

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D. MATCHING CONFIGURATION:



C1=10pF C2=20pF

L1=65nH L2=80nH

Note1: The values of components for matching circuit will vary slightly due to parasitic capacitor of PCB

E. FREQUENCY CHRACTERISTICS:

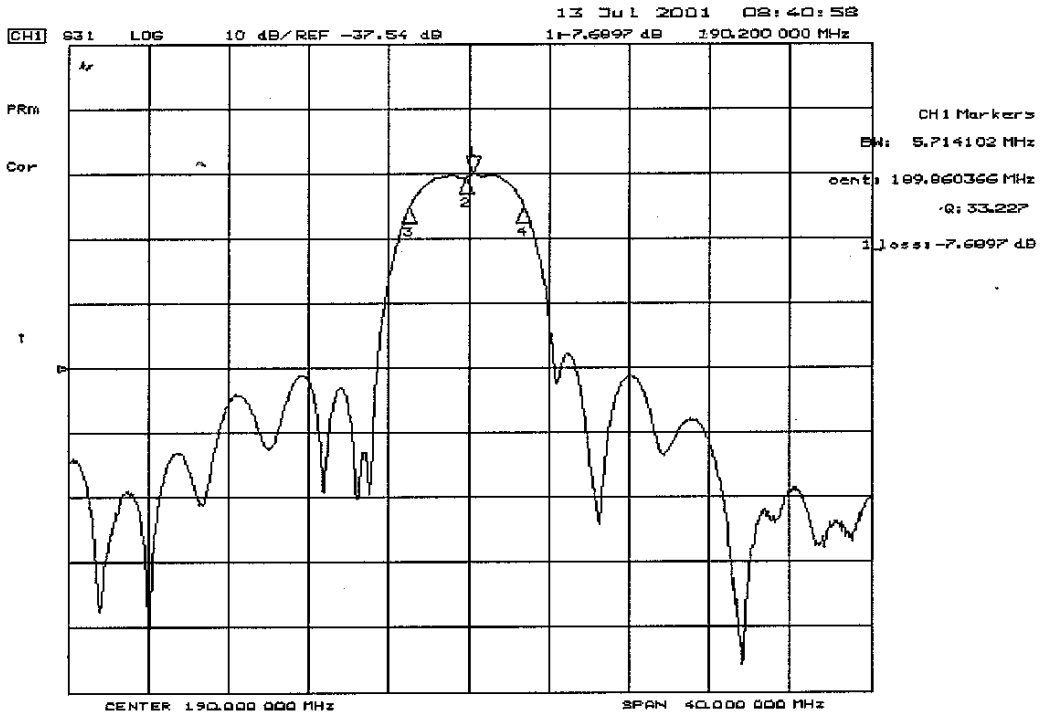
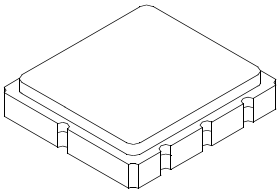


Fig-1 S21 Response

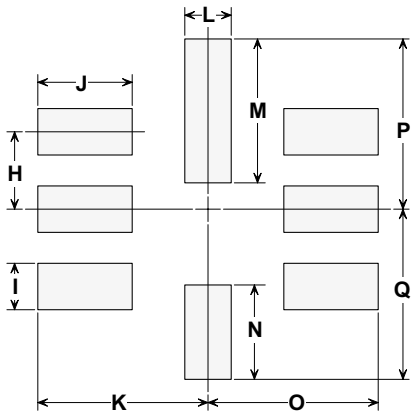
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SM5050-8 Surface-Mount 8-Terminal Ceramic Case
5.0 X 5.0 mm Nominal Footprint



Case Dimensions

Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	4.80	5.00	5.20	0.189	0.197	0.205
B	4.80	5.00	5.20	0.189	0.197	0.205
C	1.30	1.50	1.70	0.050	0.060	0.067
D	1.98	2.08	2.18	0.078	0.082	0.086
E	1.07	1.17	1.27	0.042	0.046	0.050
F	0.50	0.64	0.70	0.020	0.025	0.028
G	2.39	2.54	2.69	0.094	0.100	0.106
H		1.27			0.050	
I		0.76			0.030	
J		1.55			0.061	
K		2.79			0.110	
L		0.76			0.030	
M		2.36			0.093	
N		1.55			0.061	
O		2.79			0.110	
P		2.79			0.110	
Q		2.79			0.110	



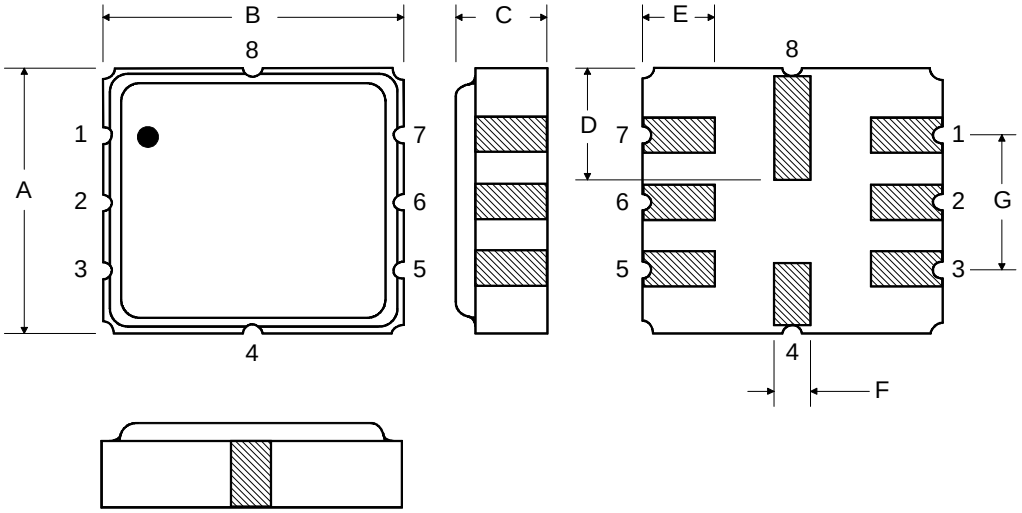
PCB Footprint

Case Materials

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
Pb Free	

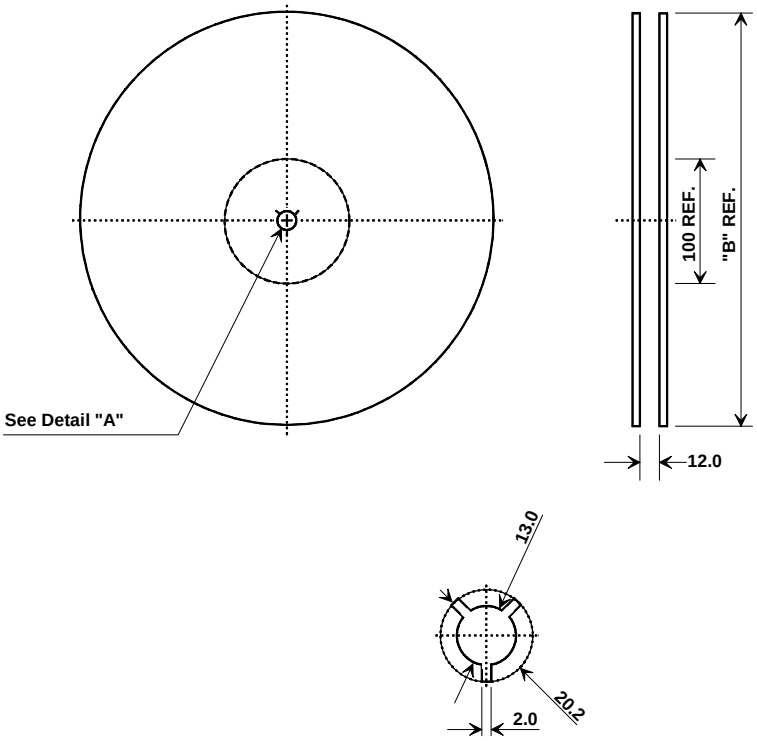
TOP VIEW

BOTTOM VIEW



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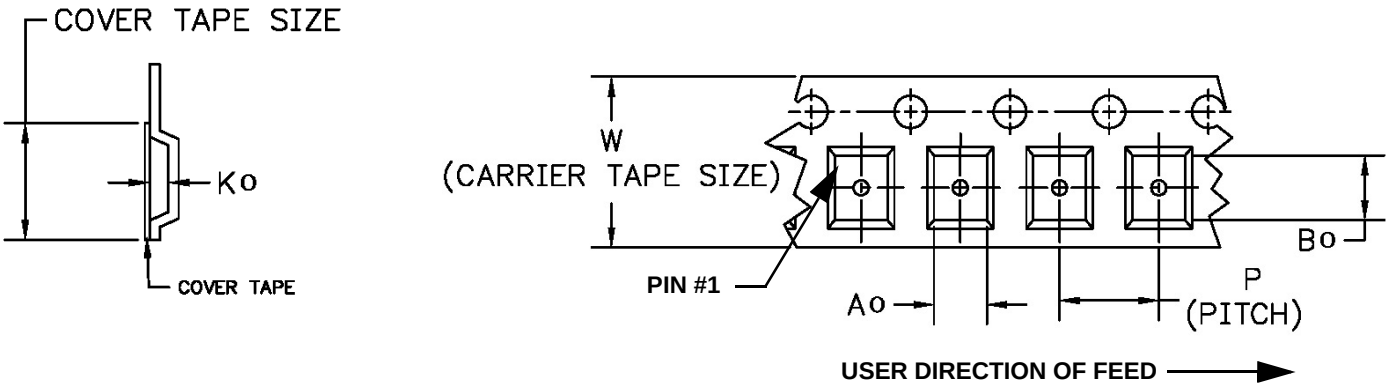
Tape and Reel Specifications



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

COMPONENT ORIENTATION and DIMENSIONS

Carrier Tape Dimensions	
Ao	5.3 mm
Bo	5.3 mm
Ko	2.0 mm
Pitch	8.0 mm
W	12.0 mm



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