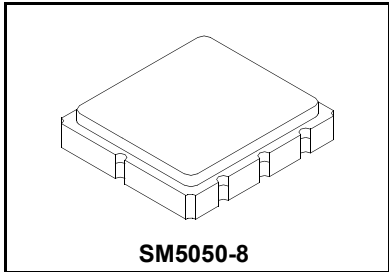


SF2089C

**327.5 MHz
SAW Filter**



- **Low Insertion Loss**
- **5.0 X 5.0 mm Surface-mount Case**
- **Single-ended Input and Output**
- **Complies with Directive 2002/95/EC (RoHS)**
- **Moisture Sensitivity Level: 1**

Absolute Maximum Ratings

Rating	Value	Units
Maximum Incident Power in Passband	+13	dBm
Maximum DC Voltage on any Non-ground Terminal	30	VDC
Storage Temperature Range in Tape and Reel	-40 to +85	°C
Suitable for Lead-free Soldering - Maximum Soldering Temperature	260 °C for 30 s	

Electrical Characteristics

Characteristic	Sym	Notes	Min	Typ	Max	Units
Center Frequency	f_c			327.5		MHz
Insertion Loss					12	dB
1.5 dB Bandwidth	$BW_{1.5}$		35			MHz
Amplitude Ripple, $f_c \pm 17.5$ MHz, within adjacent 5 MHz windows					1	dB _{p-p}
Group Delay Deviation, $f_c \pm 17.5$ MHz, within adjacent 5 MHz windows					50	nS _{p-p}
Group Delay Deviation, $f_c \pm 17.5$ MHz, full bandwidth				50	100	nS _{p-p}
VSWR at f_c					2.5:1	
40 dB Rejection Bandwidth					65	MHz
Operating Temperature Range			-40		85	°C
Case Style			SM5050-8 5 x 5 mm Nominal Footprint			
Lid Symbolization (Y=year, WW=week, S=shift)			591, YWWS			

Electrical Connections

Connection		Terminals
Port 1	Input	1
Port 2	Output	5
	Ground	All others
Dot indicates Pin 1		

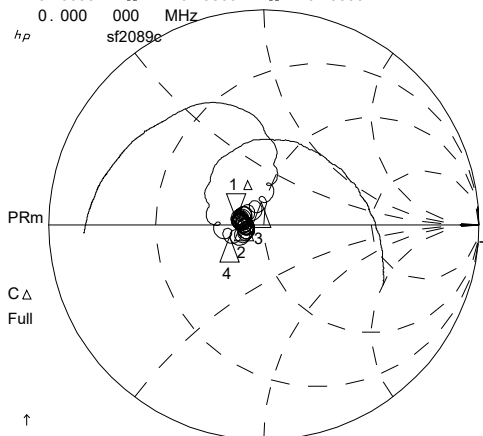
 **CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.**

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.

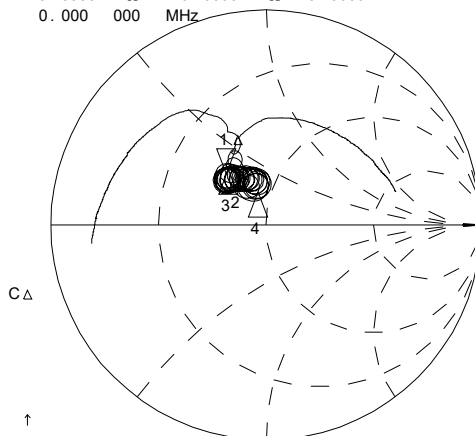
18 Nov 2005 15:21:41

CH1 S11 1 UFS
 1: 0.0000 Ω 0.0000 Ω 0.0000 H
 0.000 000 MHz



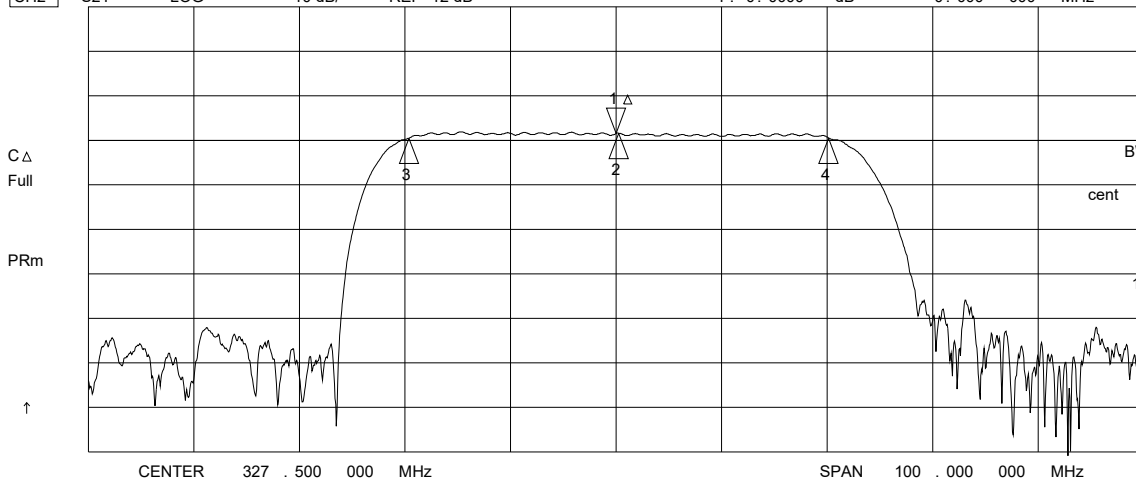
CH1 Markers
 Δ REF=1
 2: 3.0195 Ω
 1.6621 Ω
 282.553 kHz
 3: 9.3320 Ω
 8.3770 Ω
 -19.5794 MHz
 4: -2.2051 Ω
 -6.1328 Ω
 20.1445 MHz

CH3 S22 1 UFS
 1: 0.0000 Ω 0.0000 Ω 0.0000 H
 0.000 000 MHz



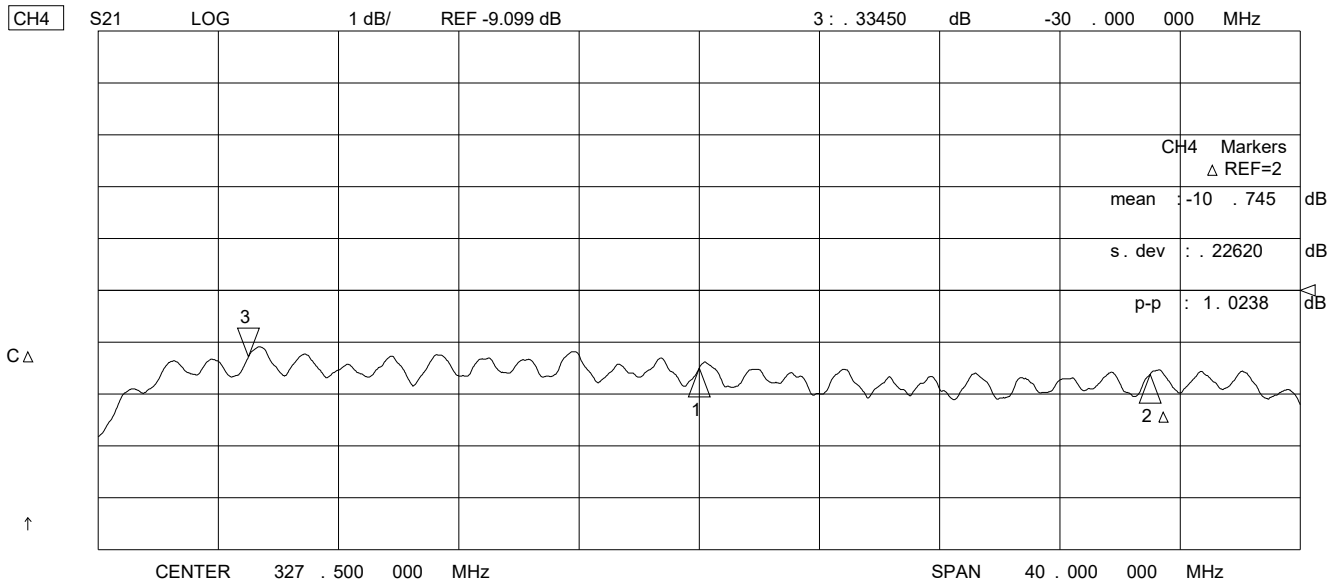
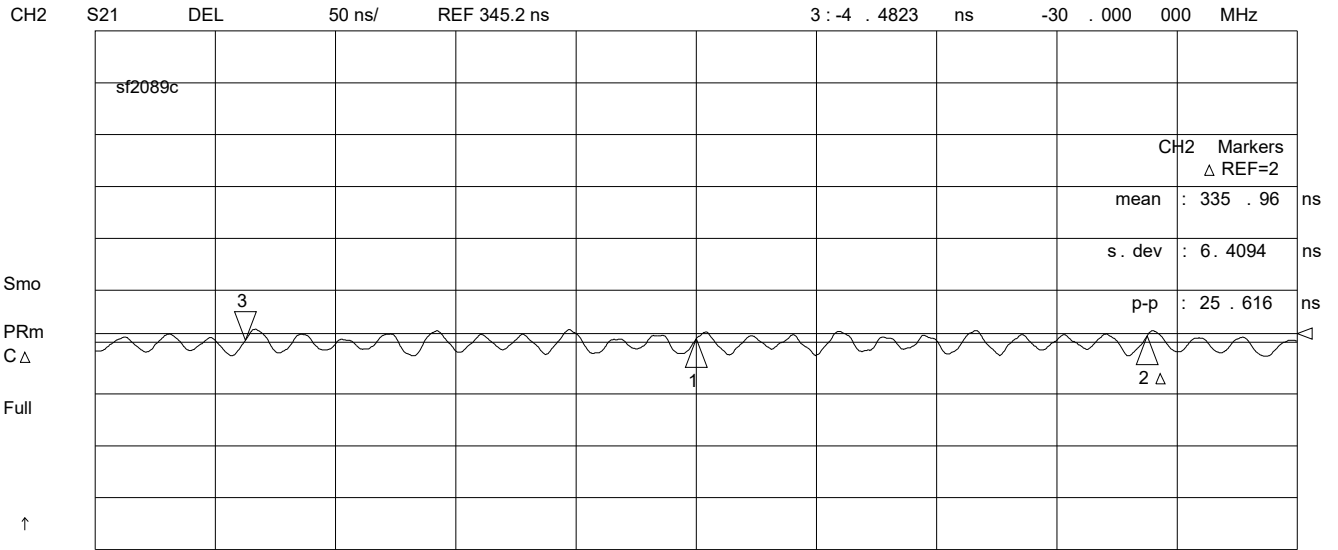
CH3 Markers
 Δ REF=1
 2: 2.5342 Ω
 4.0986 Ω
 282.553 kHz
 3: 70.313 mΩ
 1.7891 Ω
 -19.5794 MHz
 4: 13.325 Ω
 -2.1670 Ω
 20.1445 MHz

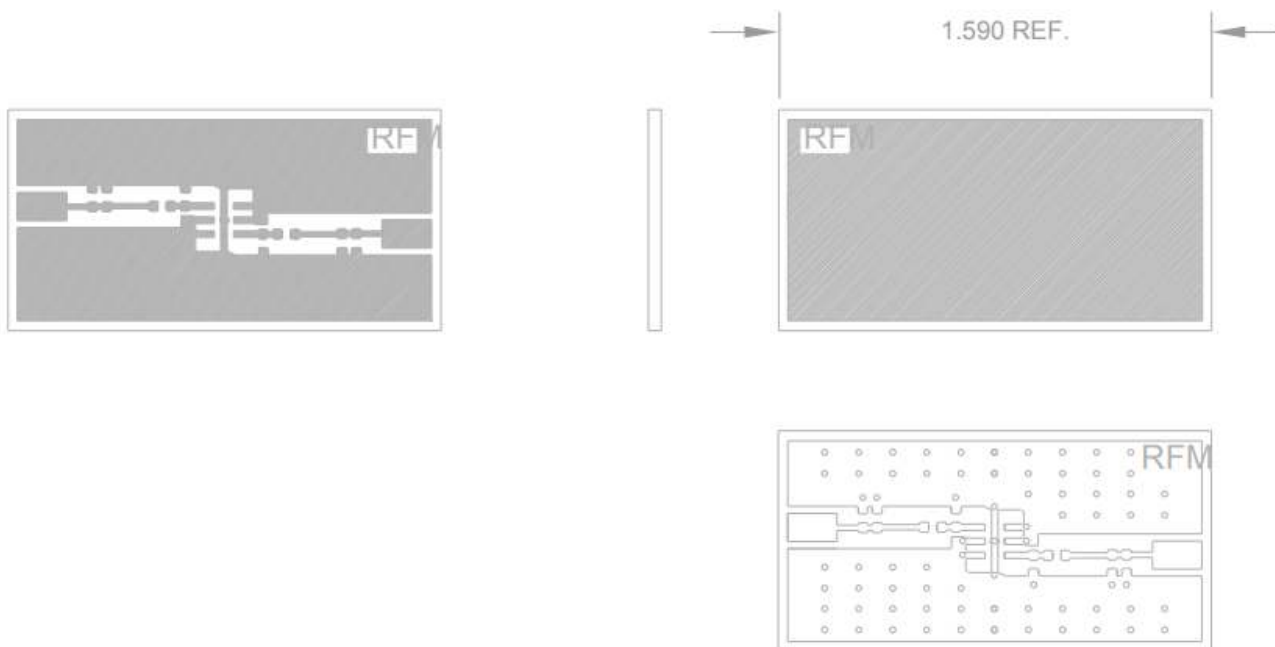
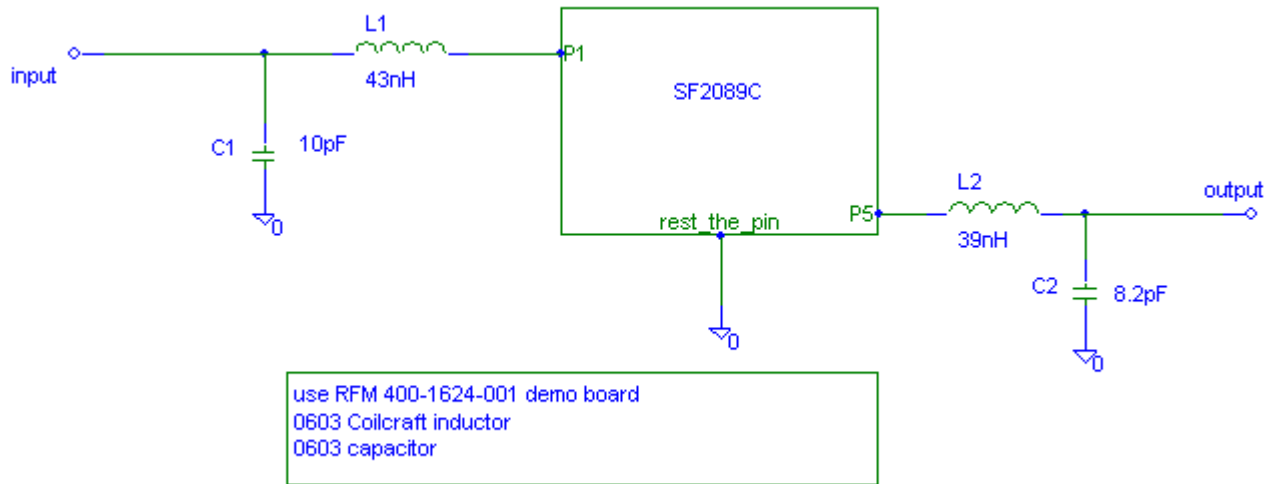
CH2 S21 LOG 10 dB/ REF -12 dB 1: 0.0000 dB 0.000 000 MHz



CH2 Markers
 Δ REF=1
 BW: 39.723986 MHz
 cent: 327.782553 MHz
 Q: 8.2515
 1_loss: -10.490 dB

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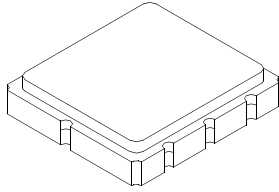




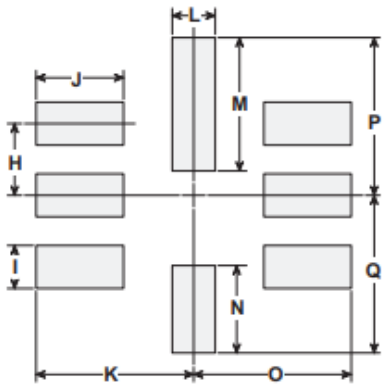
DRILL ALL HOLES #76 DRILL (0.020)
ALL HOLES ARE PLATED THRU.

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	

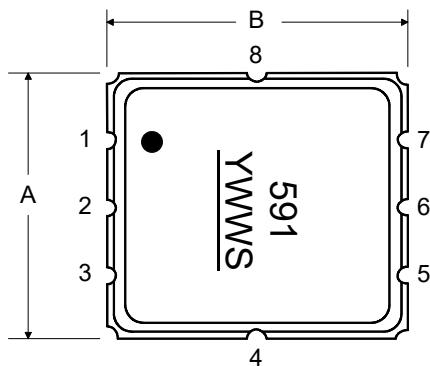


Case Materials

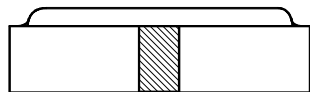
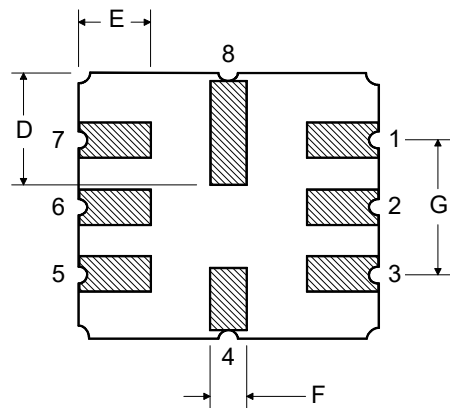
Materials	
Solder Pad Plating	0.3 to 1.0 μm Gold over 1.27 to 8.89 μm Nickel
Lid Plating	2.0 to 3.0 μm Nickel
Body	Al_2O_3 Ceramic

PCB Footprint

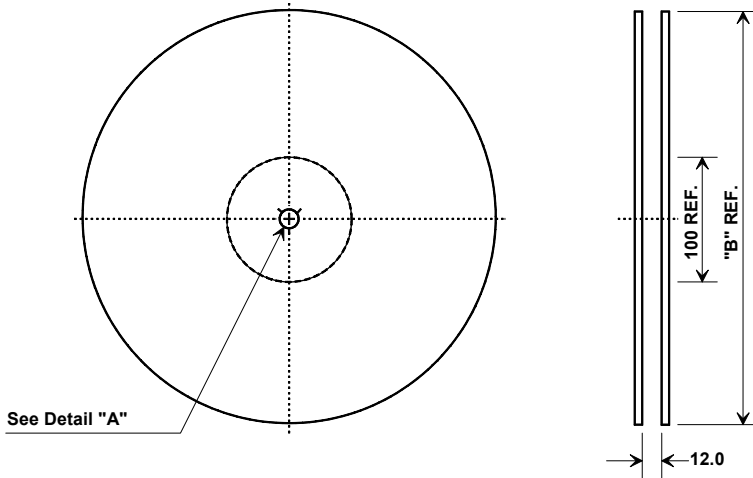
TOP VIEW



BOTTOM VIEW

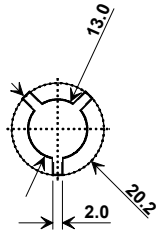


Tape and Reel Specifications



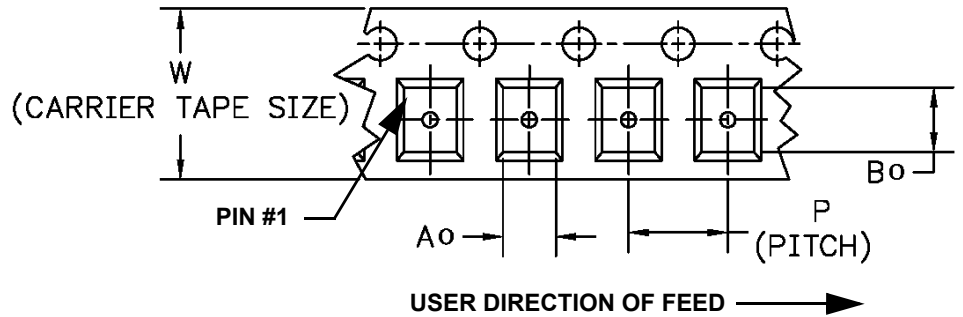
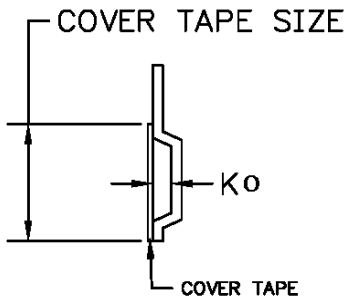
Tape and Reel Standard per ANSI/EIA-481

"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



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.

