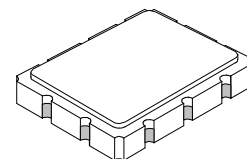




- **Designed for WLAN IF Applications**
- **Low Insertion Loss**
- **9.1 x 7.1 mm Surface-mount Case**
- **Unbalanced Input and Output**
- **RFM Standard-Connection Version of SF1090A-1**
- **Complies with Directive 2002/95/EC (RoHS)**

**SF1090A****350 MHz
SAW Filter****SM9171-10****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 30 s	

Electrical Characteristics

Characteristic	Sym	Notes	Min	Typ	Max	Units
Nominal Center Frequency	f_c	1	350.000			MHz
Passband	Insertion Loss at f_c			10	13.0	dB
	1 dB Passband	BW ₁	±500			kHz
	3 dB Passband	BW ₃	±600	±880		
Group Delay Variation over f_c ±600 kHz		GDV		<100	200	ns _{p-p}
Rejection	f_c -2.0 to f_c -1.8 and f_c +1.8 to f_c +2.0 MHz		30			dB
	f_c -7.0 to f_c -2.0 and f_c +2.0 to f_c +7.0 MHz		40			
	At < f_c -7.0 MHz and > f_c +7.0 MHz		50			
Operating Temperature Range	T _A	1	-20		+70	°C

Impedance Matching to 50 Ω unbalanced	External L-C
Case Style	SM9171-10 9.1 x 7.1 mm Nominal Footprint
Lid Symbolization (XX = 2 character date code)	RFM SF1090A XX

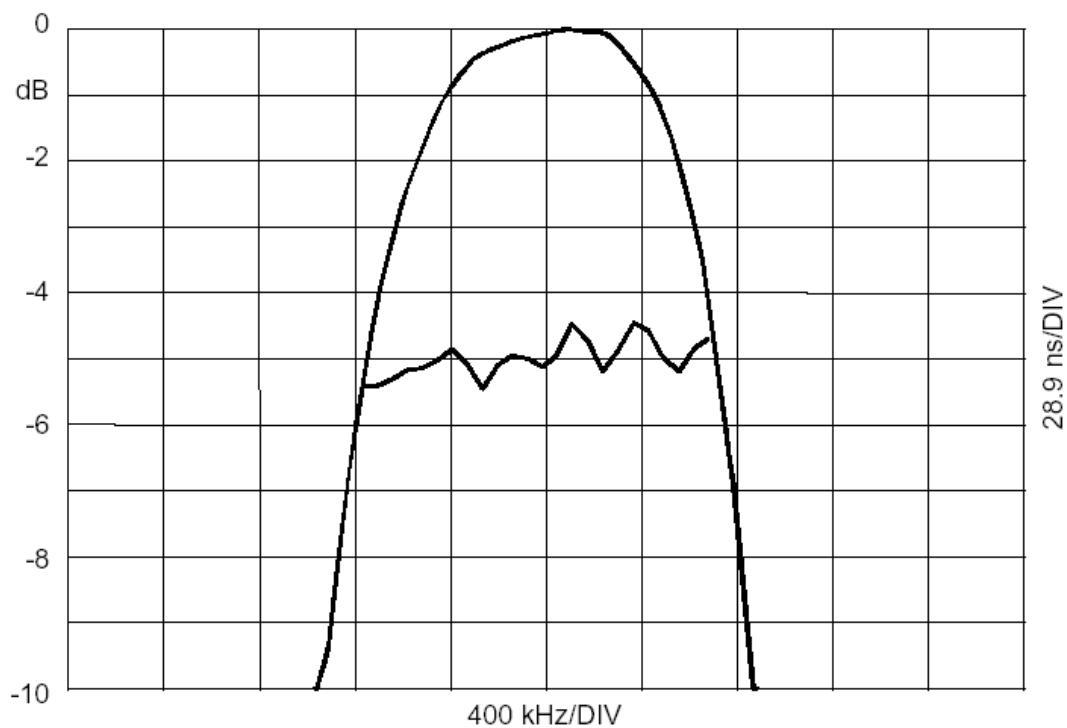
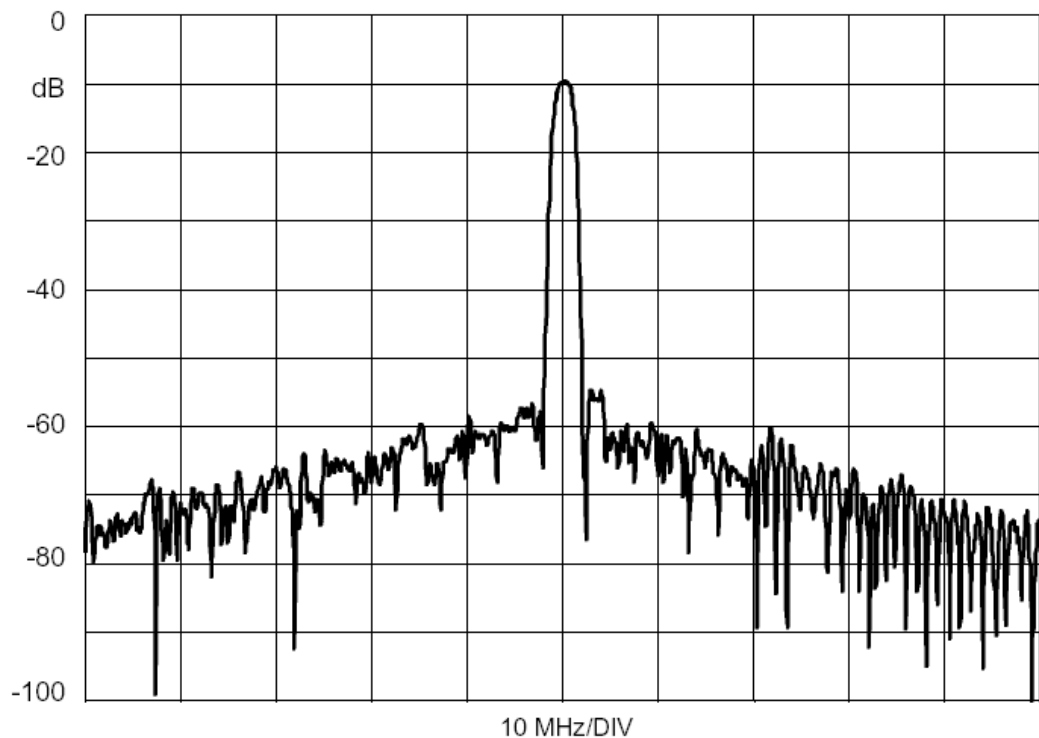
Electrical Connections

Connection	Terminals
Port 1 Hot	10
Port 1 Gnd Return	1
Port 2 Hot	5
Port 2 Gnd Return	6
Case Ground	All others

Notes:

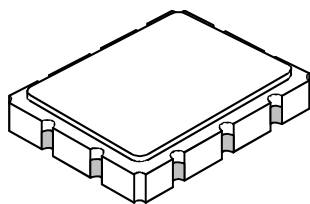
1. Unless noted otherwise, all specification apply over the operating temperature range with filter soldered to the specified demonstration board with impedanced matching to 50 Ω network analyzer.
2. Unless noted otherwise, all frequency specifications are referenced to the nominal center frequency, f_c .
3. Rejection is measured as attenuation below the minimum IL point in the passband. Rejection in final user application is dependent oon 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. Electrostatic Sensitive Device. Observe precautions for handling.





SM9171-10 Case

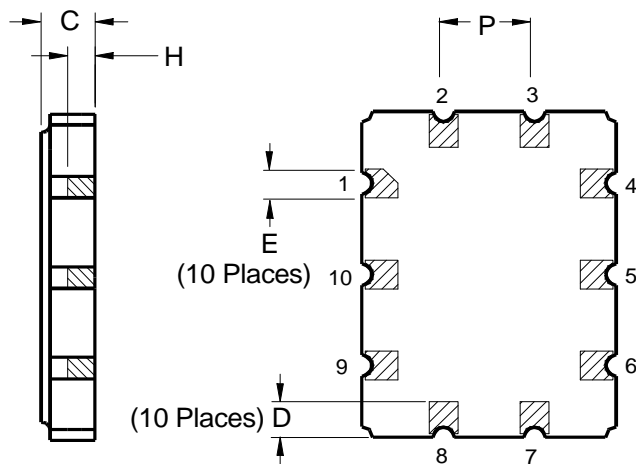
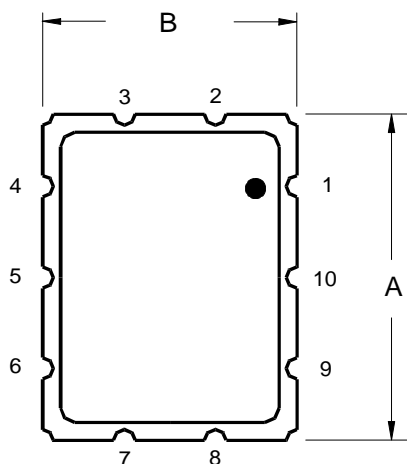
10-Terminal Ceramic Surface-Mount Case
9.1 x 7.1 mm Nominal Footprint



Case Dimensions						
Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	8.86	9.09	9.40	0.349	0.358	0.370
B	6.88	7.11	7.40	0.271	0.280	0.291
C		1.91	2.00		0.075	0.079
D		0.99			0.039	
E		0.79			0.031	
H		1.0			0.039	
P		2.54			0.100	

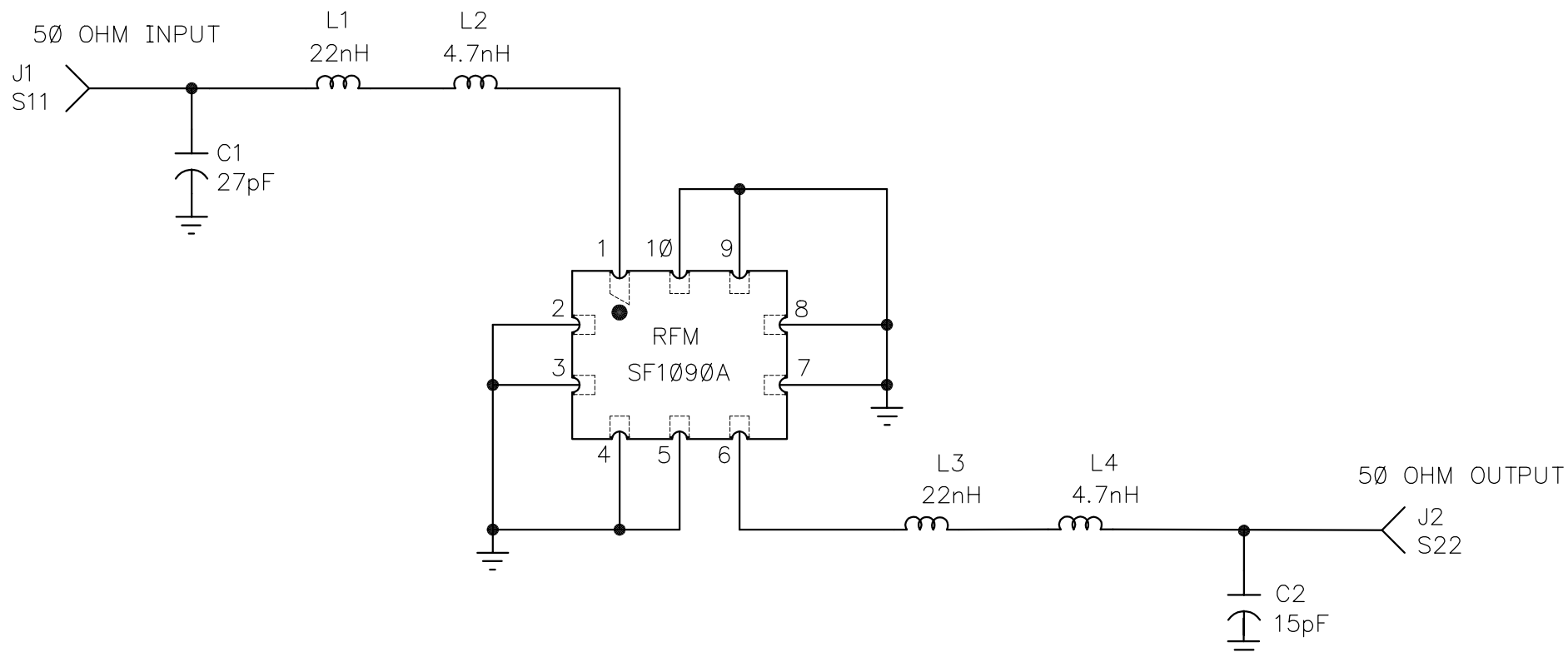
Materials	
Solder Pad Termination	Au plating 30 - 60 μinches (76.2-152 μm) over 80-200 μinches (203-508 μm) Ni.
Lid	Fe-Ni-Co Alloy Electroless Nickel Plate (8-11% Phosphorus) 100-200 μinches Thick
Body	Al ₂ O ₃ Ceramic
Pb Free	

Electrical Connections		
Connection		Terminals
Port 1	Input or Return	6
	Return or Input	5
Port 2	Output or Return	1
	Return or Output	10
Ground		All others
Single Ended Operation		Return is ground
Differential Operation		Return is hot



NOTES:

REV	ECN NO.	DESCRIPTION	APP/DATE
A	8982	INITIAL RELEASE	28aug00



SCHEMATIC

D.U.T. VIEWED FROM TOP

DRAWN BY/DATE: J.F.Christopherson 28aug00

TITLE: ASSEMBLY DIAGRAM, SF1090A-DEMO

RF Monolithics, Inc.
DALLAS, TEXAS 75244

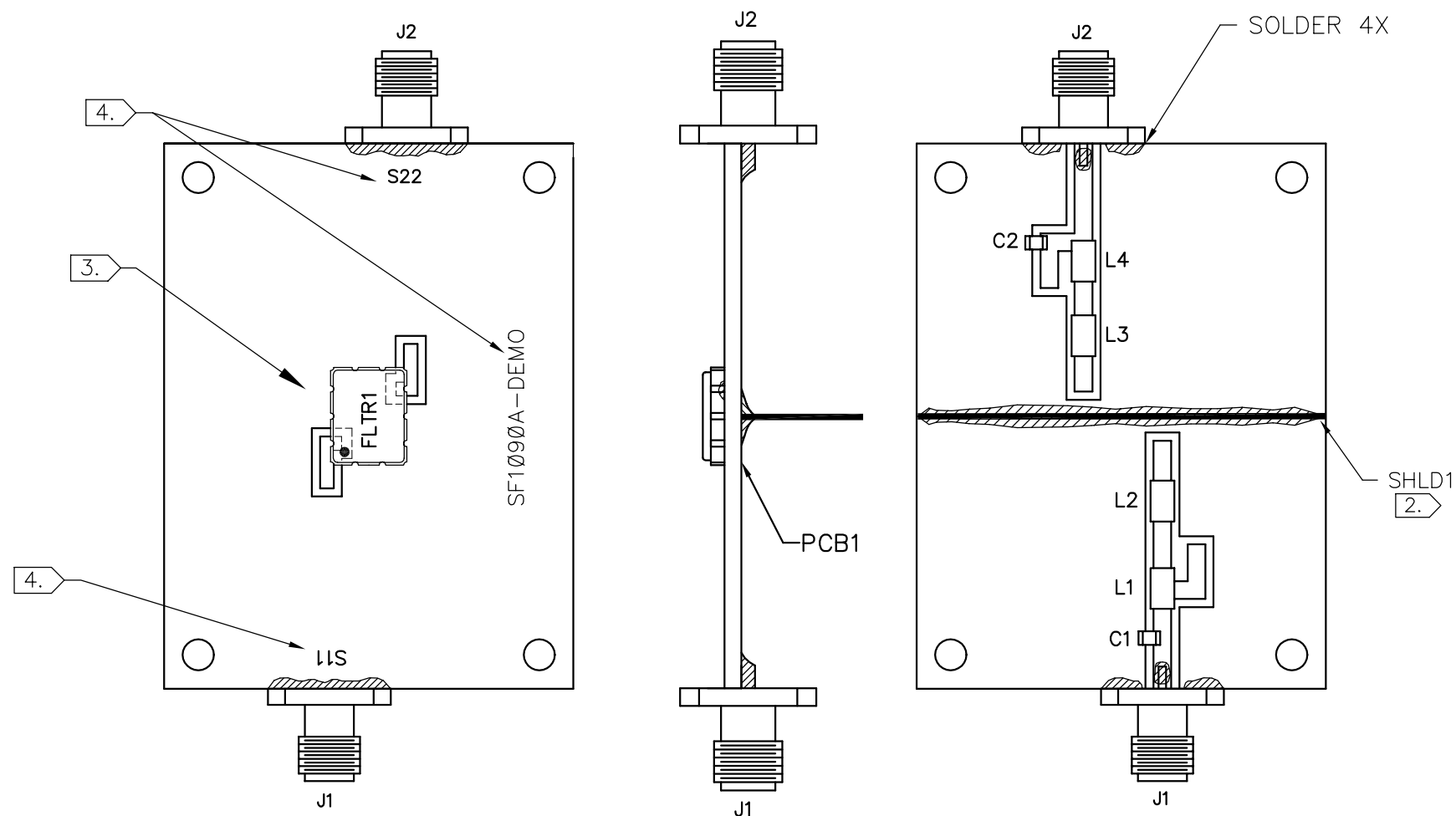
SIZE **A** CODE IDENT **2U874**

DWG. NO. SF1090A-000

REV **A** SHEET 1/3

NOTES:

1. SOLDER MOUNT COMPONENTS AND CONNECTORS TO PCB1
2. SOLDER SHLD1 AS SHOWN AND TRIM TAB FROM SHIELD SO THAT IT IS FLUSH WITH PCB.
3. ORIENT THE FLTR1 AND SOLDER IT DOWN TO THE BOARD AS SHOWN
4. LABEL AS SHOWN.



SF1090A
 Demo Brd #1
 8-24-00
 RT

