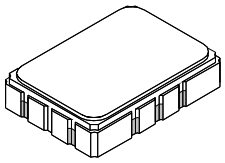
SF1103B 285 MHz SAW Filter

PRELIMINARY

- *Designed for WCDMA 3G IF Applications*
- *Quartz Temperature Stability*
- *Small Size*
- *Hermetic 7 x 5 mm Surface-Mount Case*



Characteristic		Sym	Min	Typ	Max	Units	Notes
Nominal Center Frequency		fc		285.000		MHz	1
Passband	Insertion Loss at fc	IL		14.5		dB	
	1 dB Passband	BW_1	TBD	±2.0		MHz	1, 2
	3 dB Passband	BW_3		±2.5			
	Amplitude Ripple over fc ±1.9 MHz			0.8	1.0	dB_{P-P}	
	Group Delay Variation over fc ±1.9 MHz	GDV		70	150	ns_{P-P}	
Rejection	fc-25 to fc-5.0 and fc+5.0 to fc+25 MHz		40	42		dB	1, 2, 3
Operating Temperature Range		T_A	-20		+80	°C	1

Matching to Unbalanced 50 Ω	External L-C
Case Style	SMP-03 7 x 5 mm Nominal Footprint
Lid Symbolization (YY = year, WW = week) See note 4	RFM SF1103B YYWW

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
Max Soldering Profile	235°C for 90 s	

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 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.
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10. Electrostatic Sensitive Device. Observe precautions for handling.

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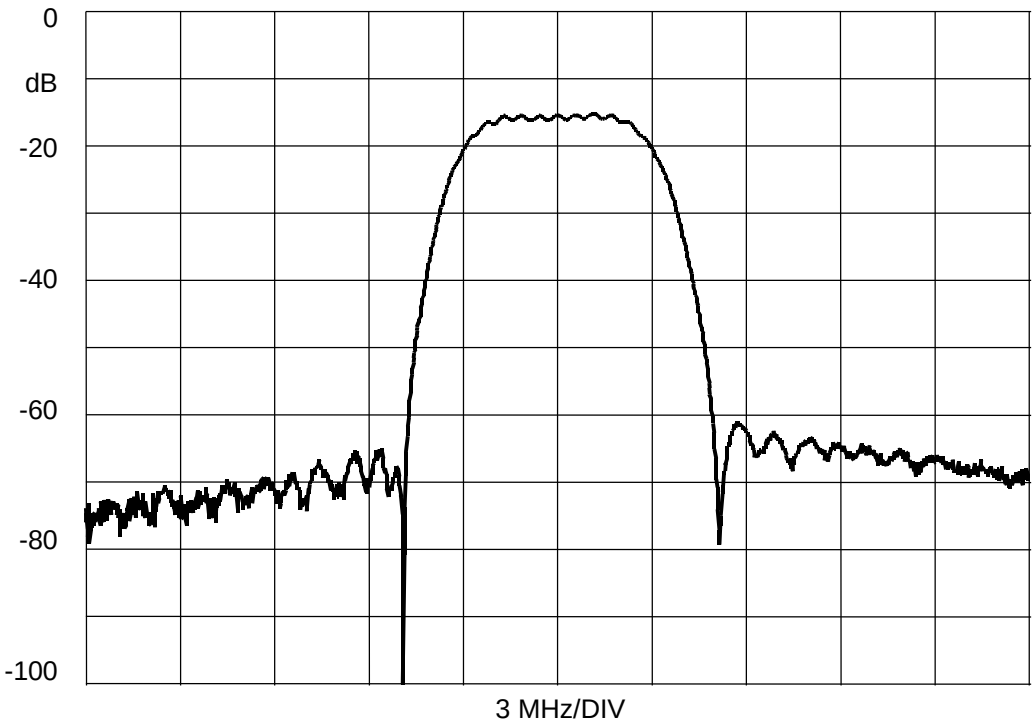

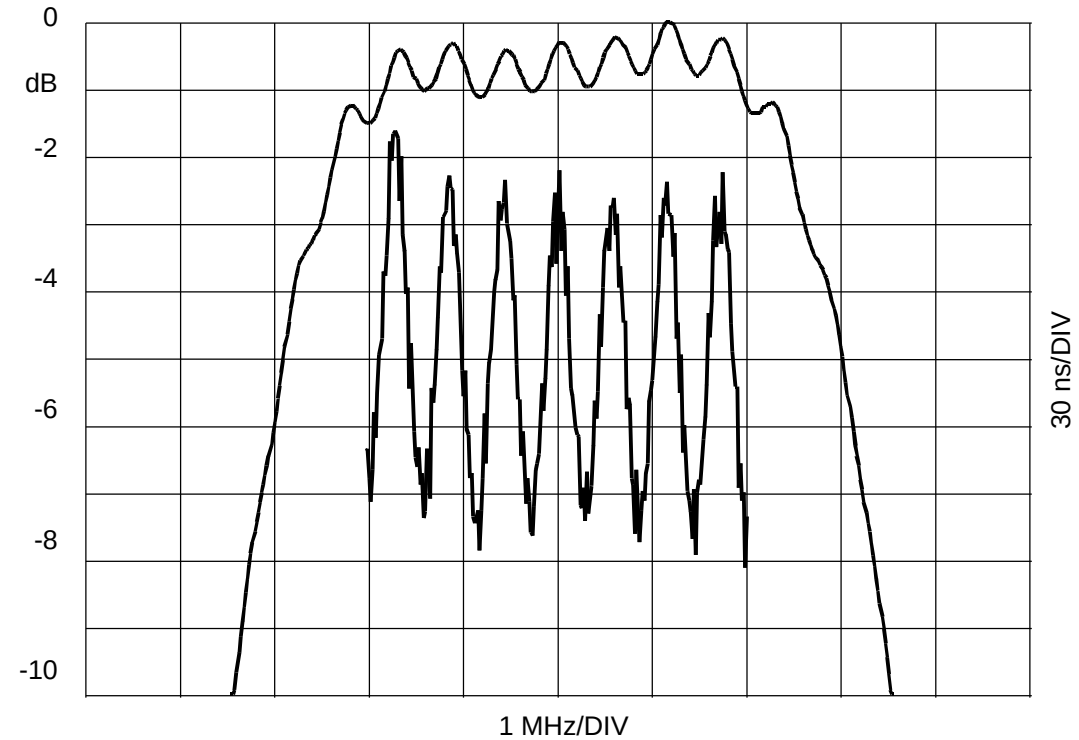

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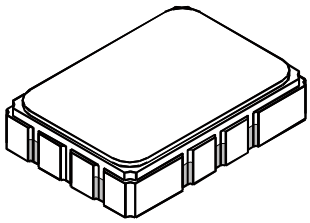
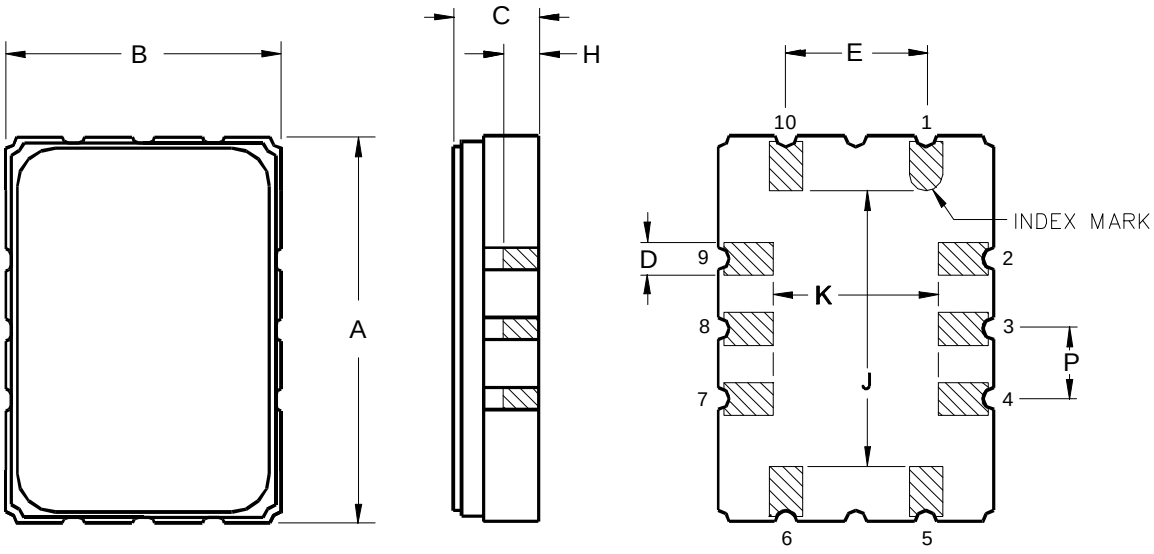
SMP-03 Case

10-Terminal Ceramic Surface-Mount Case
7 x 5 mm Nominal Footprint



Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	6.80	7.00	7.20	0.268	0.276	0.283
B	4.80	5.00	5.20	0.189	0.197	0.205
C		1.65	2.00		0.065	0.079
D		0.60			0.024	
E		2.54			0.100	
J		5.00			0.197	
K		3.00			0.118	
P		1.27			0.050	



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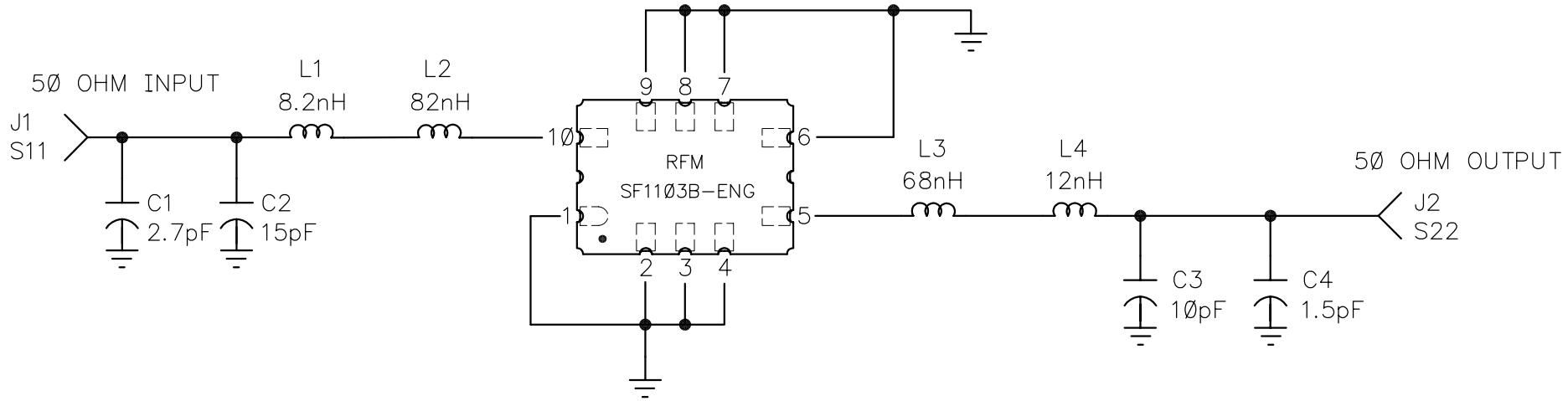
NOTES:

REV	ECN NO.	DESCRIPTION	APP/DATE
A	9755	INITIAL RELEASE	12julØ1



SCHEMATIC

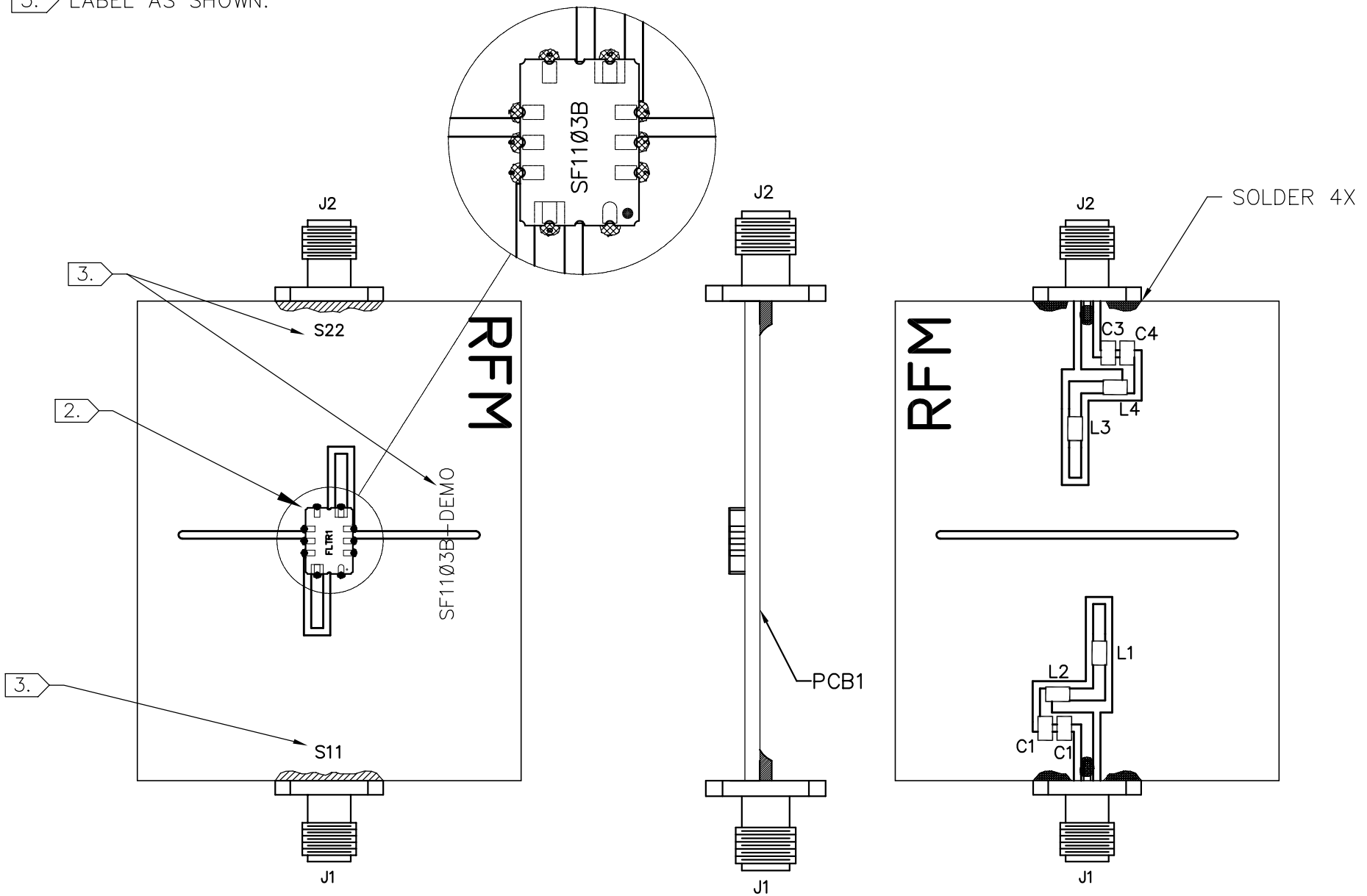
D.U.T. VIEWED FROM TOP

DOT INDICATES PIN 1 (INPUT)

DRAWN BY/DATE: J.F.Christopherson 12julØ1		TITLE: ASSEMBLY DIAGRAM, SF11Ø3B-DEMO				
RF Monolithics, Inc. DALLAS, TEXAS 75244		SIZE **A**	CODE IDENT **2U874**	DWG. NO. SF11Ø3B-1ØØ	REV A	SHEET 1/3

NOTES:

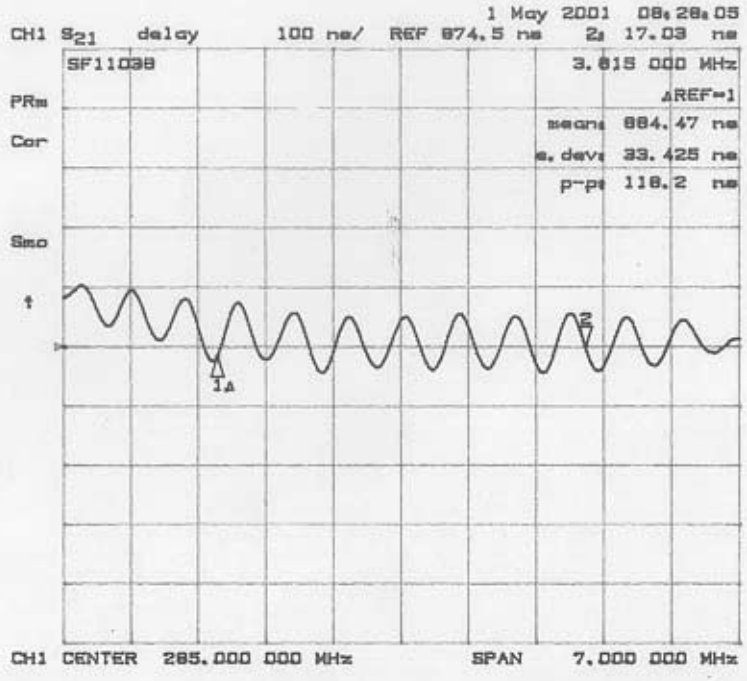
1. SOLDER MOUNT COMPONENTS AND CONNECTORS TO PCB1
2. ORIENT THE FLTR1 AND SOLDER IT DOWN TO THE BOARD AS SHOWN
3. LABEL AS SHOWN.

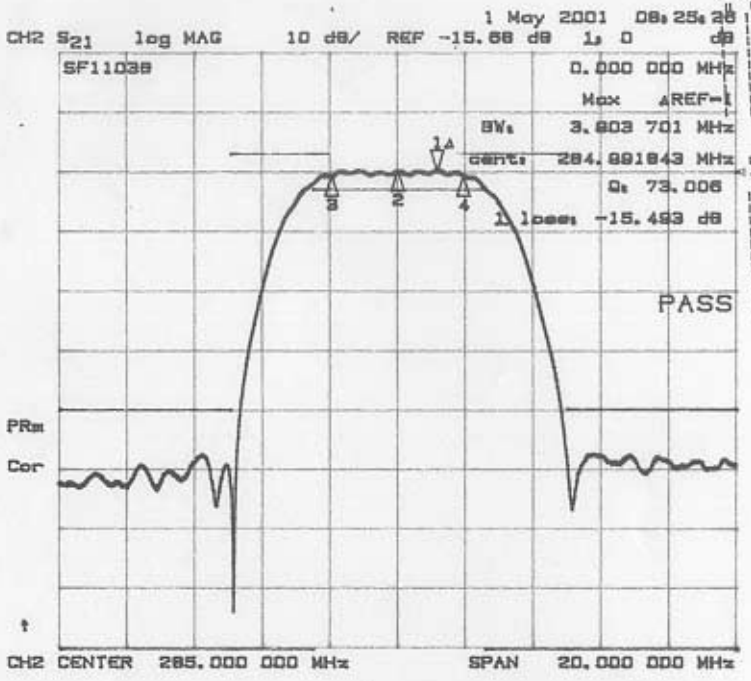


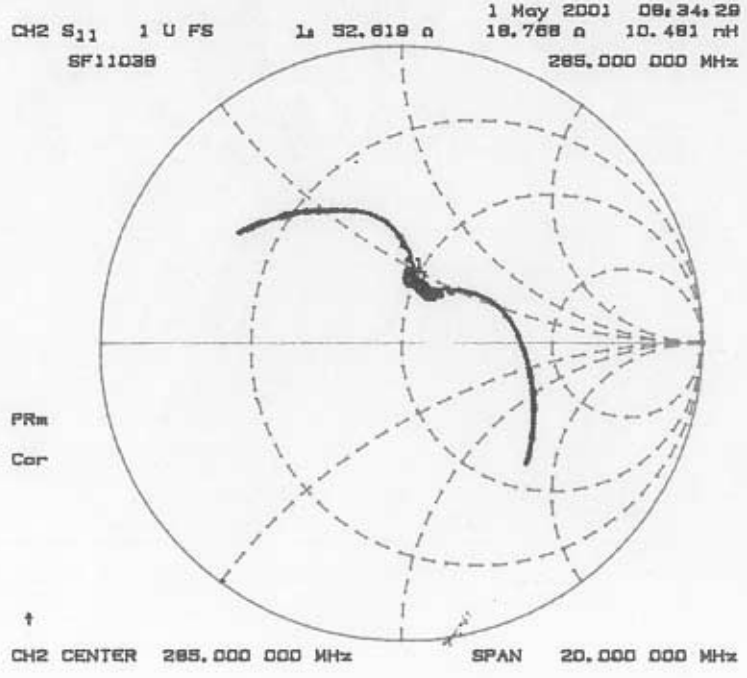
RF Monolithics, Inc. DALLAS, TEXAS 75244		SIZE A	CODE IDENT 2U874	DWG. NO. SF1103B-100	REV A	SHEET 2

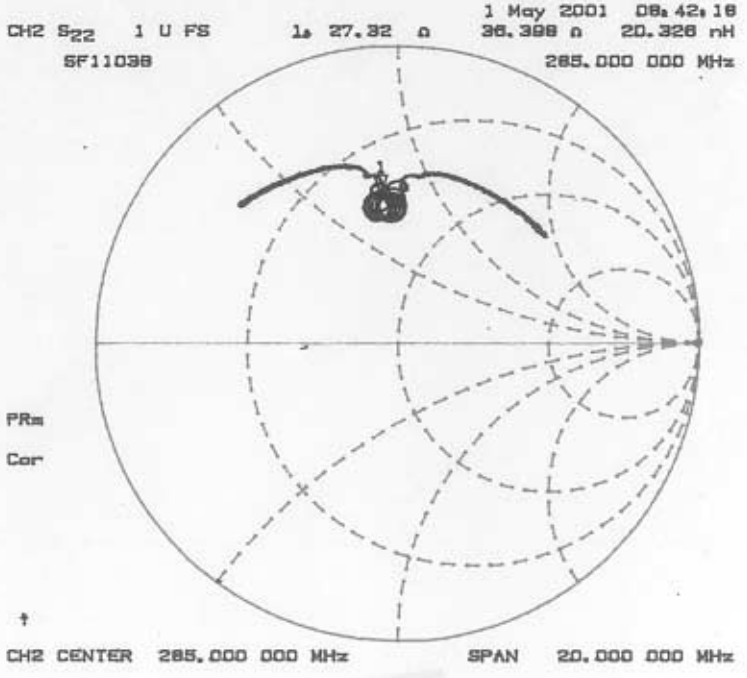
SF1103 Demo

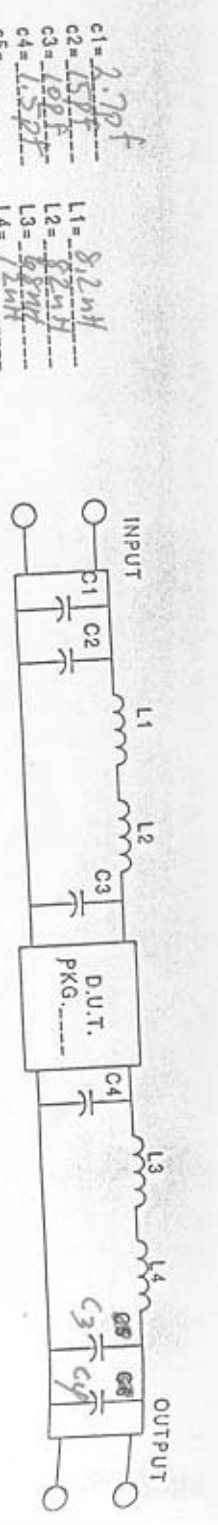
5/1/01











SF1103B-100

SHEET 3