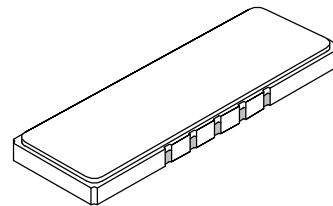


SF1081A-1 71 MHz SAW Filter



- Designed for GSM BTS Receiver IF
- Simple External Impedance Matching
- Hermetic SMP-87 Surface-Mount Case
- Unbalanced Input and Output
- Wider Temperature Version of SF1081A



Characteristic	Sym	Min	Typ	Max	Units	Notes
Nominal Center Frequency	fc		71.000		MHz	1
Passband	Insertion Loss at fc	IL	6	8.0	dB	1, 2
	3 dB Passband	BW ₃	±100	±140	kHz	
	Amplitude Ripple over fc ±80 kHz			1.5	dB _{P-P}	
	Group Delay Variation over fc ±50 kHz	GDV	300	1000	nS _{P-P}	
Rejection	Absolute Group Delay	GD	2.8		µs	1, 2, 3
	fc-600 to fc-400 and fc+400 to fc+600 kHz		25	26	dB	
	fc-1.0 MHz to fc-0.6 MHz and fc+0.6 MHz to fc+1.8 MHz		35	40		
	69.6 to 70.0 MHz		40	45		
31 to 69.6 and 71.8 to 111 MHz			35	50		
Operating Temperature Range	T _A	-40		+85	°C	1

Impedance Matching to 50 Ω unbalanced	External L-C
Case Style	SMP-87 22.1 x 8 mm Nominal Footprint
Lid Symbolization (YY = year, WW = week)	RFM FO71MHZ SF1081A-1 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	265°C for 10 s	

Electrical Connections (See note 3)

Connection	Terminals
Port 1 Hot	1
Port 1 Gnd Return	10
Port 2 Hot	6
Port 2 Gnd Return	5
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 42 for details. All "NC" or "no connection" terminals should be grounded.
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.
9. ©Copyright 1999, RF Monolithics Inc.
10. Electrostatic Sensitive Device. Observe precautions for handling.

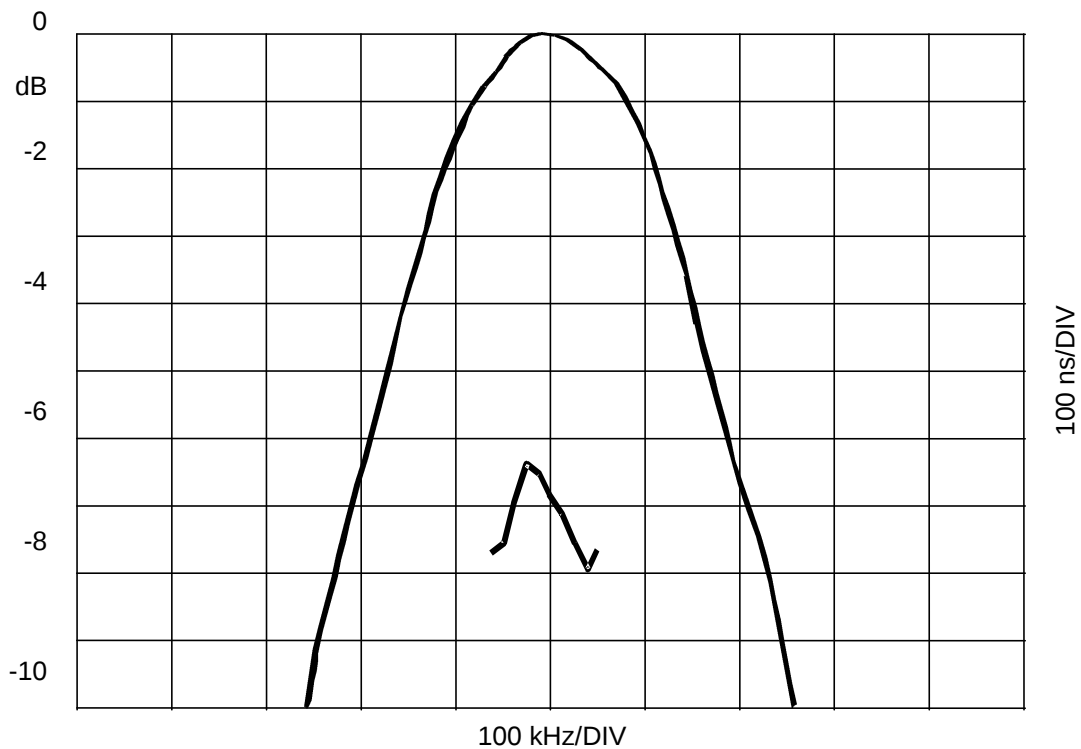
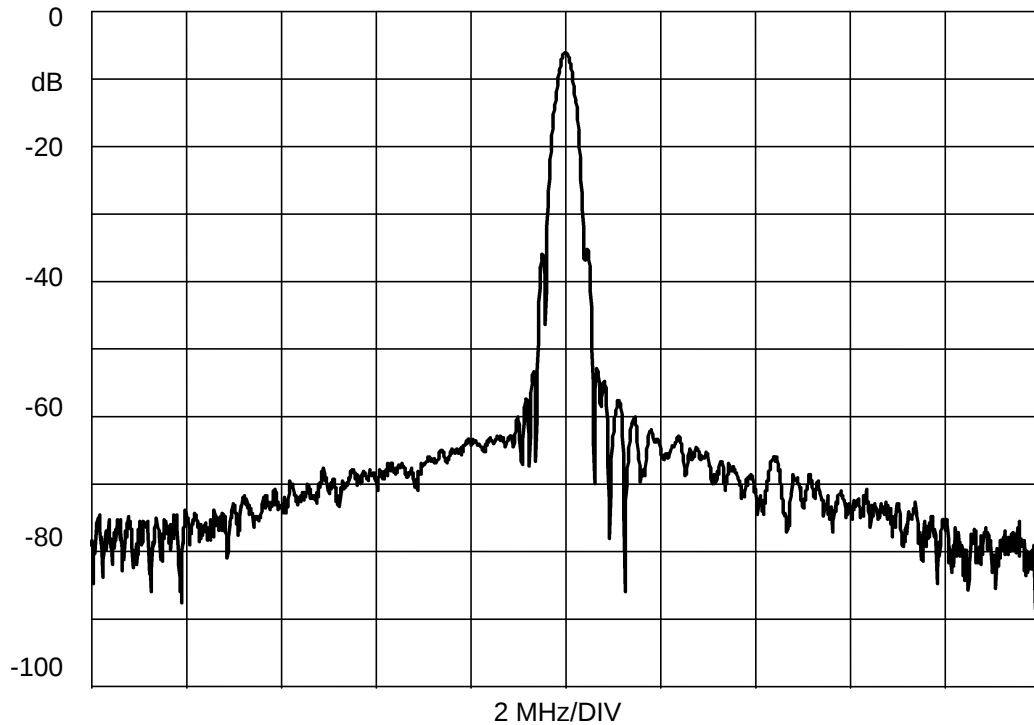


RF Monolithics, Inc.
4347 Sigma Road
Dallas, Texas 75244
USA

Phone: +1(972)233-2903
Fax: +1(972)387-8148
e-mail: info@rfm.com
Home page: www.rfm.com

European Sales Office
44 1963 251 383
44 1963 251 510

SF1081A-1 71 MHz SAW Filter

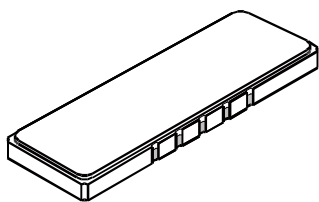


RF Monolithics, Inc.
4347 Sigma Road
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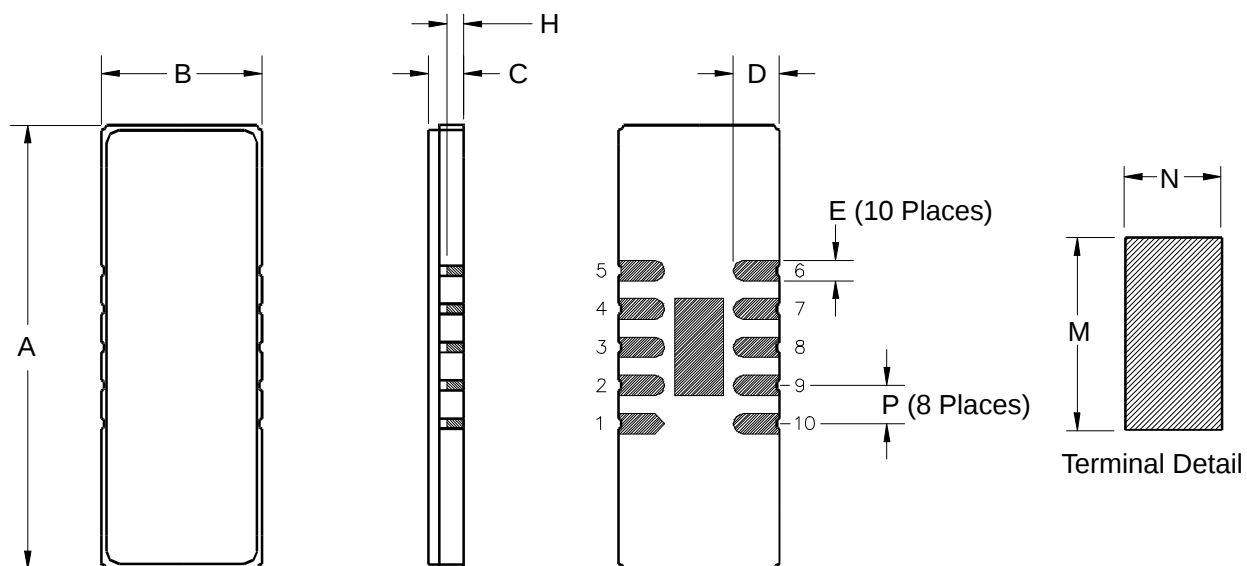
Phone: +1(972)233-2903
Fax: +1(972)387-8148
e-mail: info@rfm.com
Home page: www.rfm.com

European Sales Office
44 1963 251383
44 1963 251510

10-Terminal Ceramic Surface-Mount Case 22.1 x 8 mm Nominal Footprint



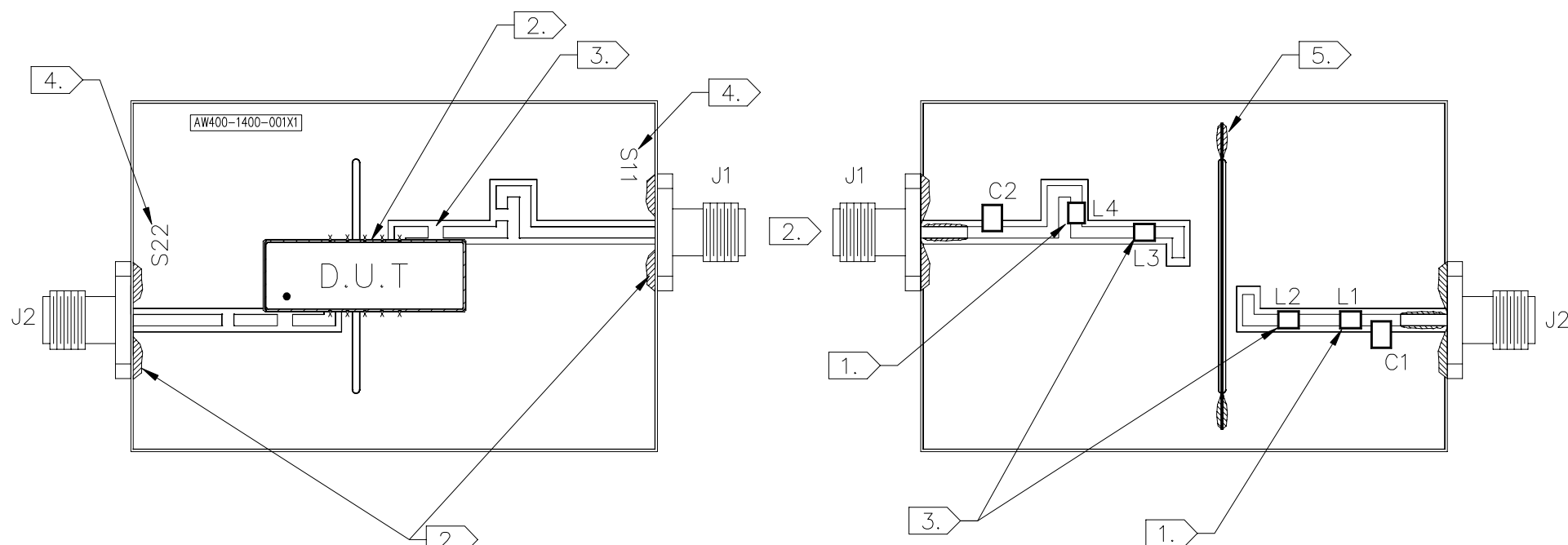
Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	21.90	22.10	22.40	0.862	0.870	0.882
B	7.80	8.00	8.30	0.307	0.315	0.327
C		1.78	2.00		0.070	0.079
D		2.29			0.090	
E		1.02			0.040	
H		0.76			0.030	
M		4.83			0.190	
N		2.41			0.095	
P		1.905			0.075	



NOTES:

1. NOTE PROPER ORIENTATION OF INDUCTORS L1 & L4. THEY ARE TO BE POSITIONED 90° TO EACH OTHER.
2. SOLDER SURFACE MOUNT PACKAGE TO TEST SIDE OF PCB. SOLDER 10 PLACES AND CONNECTORS AS SHOWN.
3. CUT TRACES ON BOTH SIDES OF THE PCB BETWEEN THE SAME HOLES TO PROVIDE GAP FOR L2 & L3.
4. LABEL BOARD USING ELECTRONIC METHOD.
5. CUT SHIELD TAB SO THAT IT IS EVEN WITH TEST SIDE. SOLDER AS SHOWN.

REV	ECN NO.	DESCRIPTION	DATE
A	7160	INITIAL RELEASE	9 NOV 98



DRAWN BY/DATE: L. ASHMORE 9 NOV98

TITLE: ASSEMBLY, SF1081A-1-DEMO

RF Monolithics, Inc.
DALLAS, TEXAS 75244

CHECKED/APPROVED

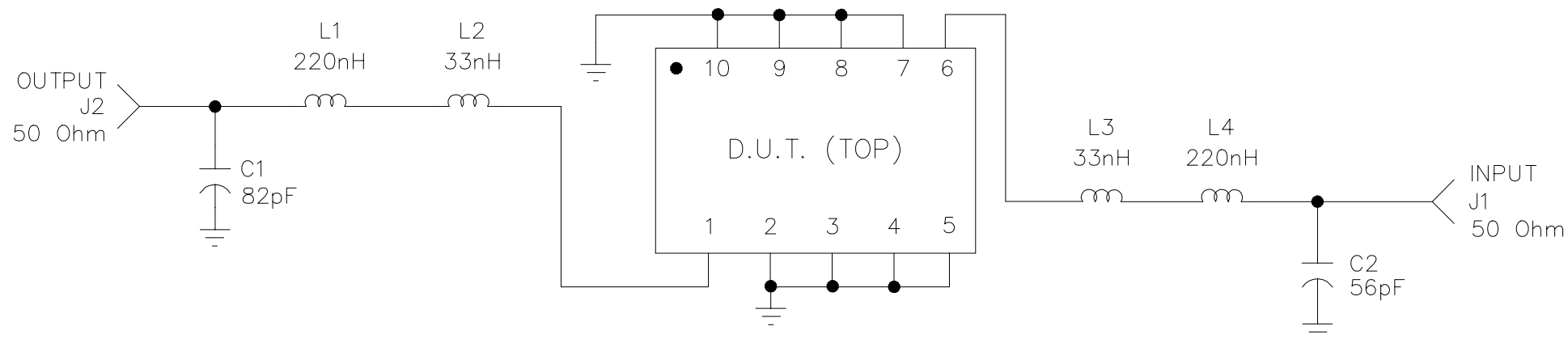
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CODE IDENT
2U874

DWG. NO. SF1081A-1-000

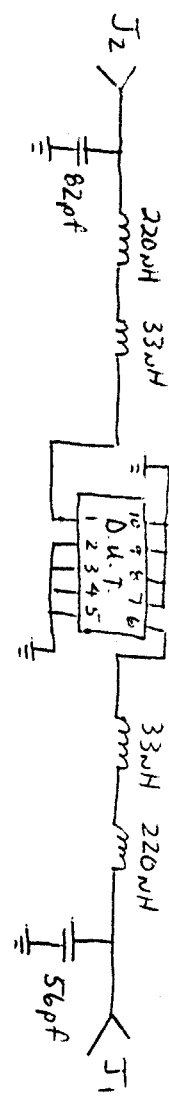
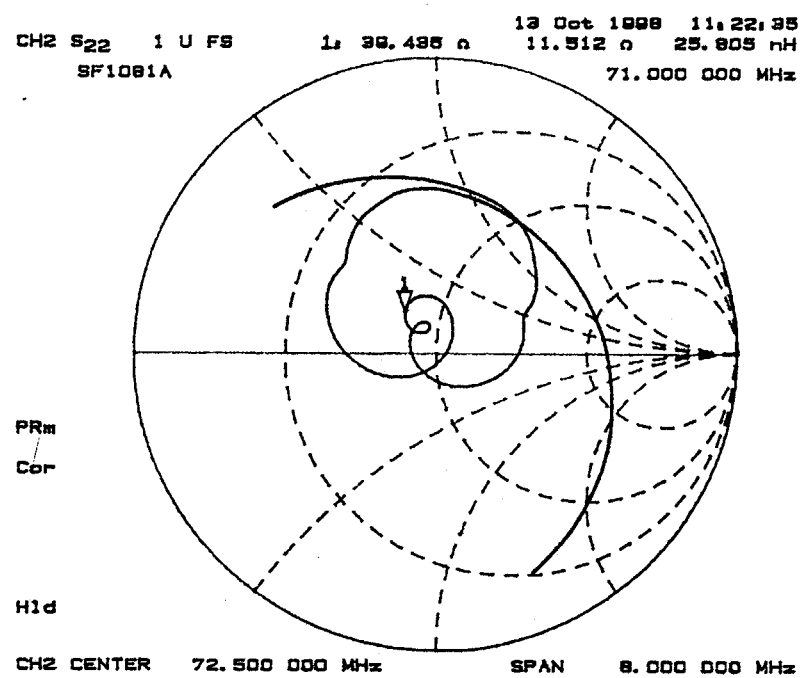
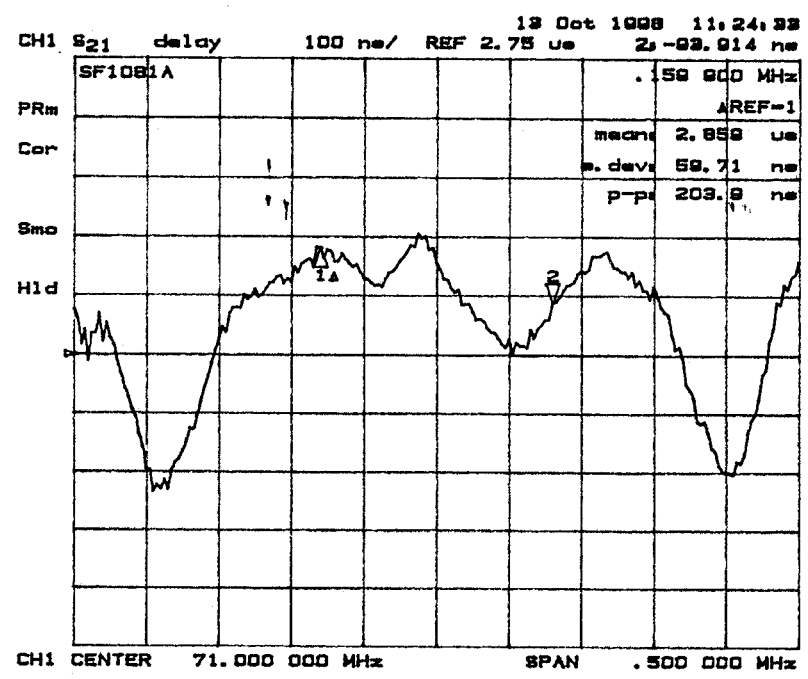
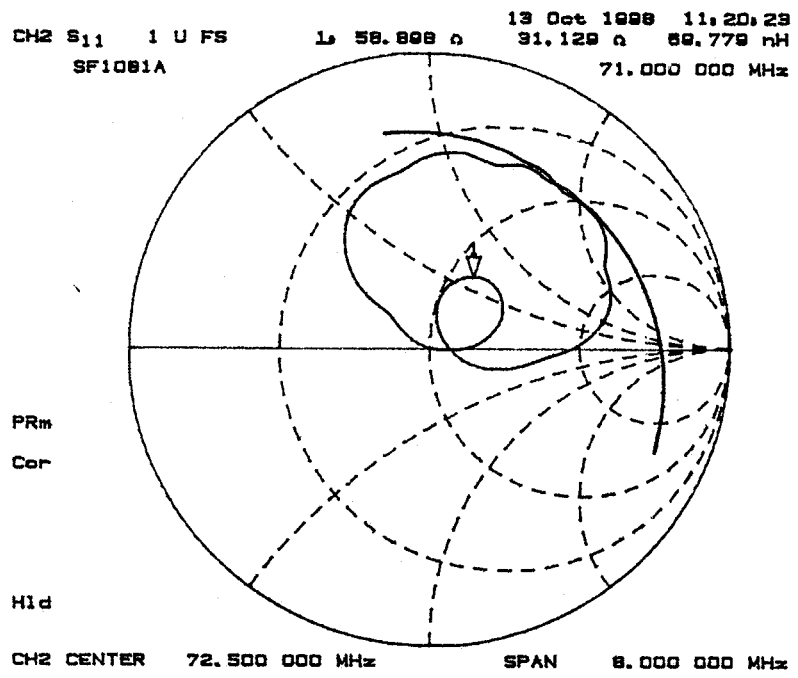
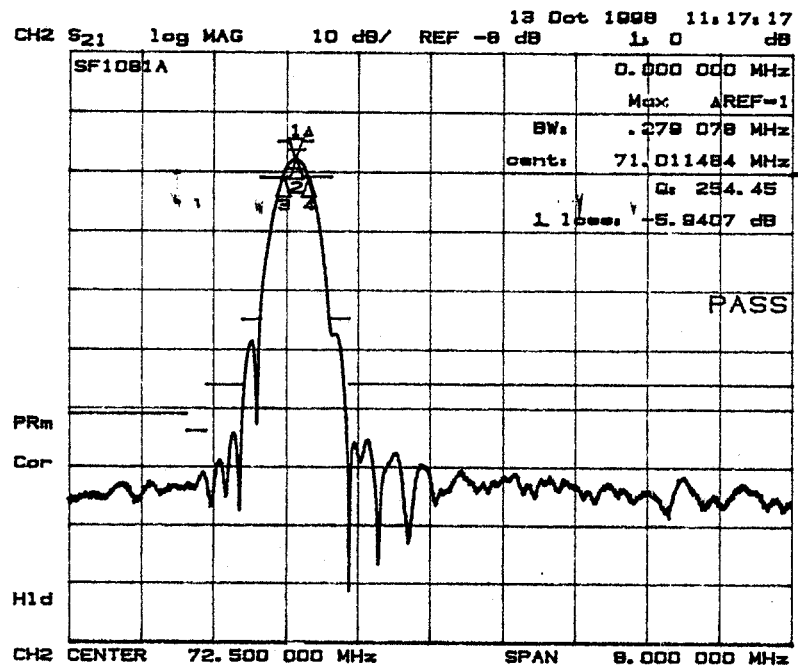
REV
A

SHEET
1/3



SF1081A-1
E# N/A
Demo

B.C
10/13/98



BILL OF MATERIALS

<u>PART IDENTIFIER</u>	<u>DESCRIPTION 1</u>	<u>DESCRIPTION 2</u>	<u>QTY/ASSY</u>	<u>REFERENCE DESCRIPTION</u>
SF1081A-1-DEMO	DEMO BOARD,SF1081A-1			
400-1400-001	PCB,DEMO BOARD,SF1081A		1.0000	
400-0533-001	SHIELD,TO-39 TEST FIXTURE		1.0000	
500-0319-001	TAPE,COPPER FOIL,SCOTCH	TYPE 1181,44F3260,1/2"	0	
SF1081A-1-LRIP	FILTER,SM,71.000MHZ		1.0000	
SF1081A-1-000	ASSY DIAGRAM,DEMO BOARD,	SF1081A-1	0	
500-0003-820	CAP,CHIP,NPO,82(J),STD		1.0000	C 1
500-0003-560	CAP,CHIP,NPO,56(J),STD		1.0000	C 2
500-0248-001	CONN,COAX,FLANGE MT.JACK	4 HOLE	2.0000	J 1,2
500-0010-221	IND,CHIP,1008CS,220NH,10%		2.0000	L 1,4
500-0010-330	IND,CHIP,1008CS,33NH,10%		2.0000	L 2,3



SIZE

A

FSCM NO.

2U874

DWG NO.

SF1081A-1-DEMO

SCALE

NONE

W/O or ECN

7160

REV

A

SHEET

1

OF **2**

