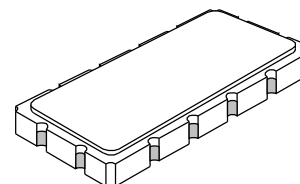


SF1056A 110.592 MHz SAW Filter



- Designed for DECT and WLAN IF Applications
- Low Insertion Loss
- Excellent Size-to-Performance Ratio
- Hermetic 13.3 x 6.5 mm Surface-Mount Case
- Unbalanced Input and Output



Characteristic	Sym	Min	Typ	Max	Units	Notes
Nominal Center Frequency	fc	110.592			MHz	1
Passband	Insertion Loss at fc	IL	8.5	10.0	dB	1, 2
	3 dB Passband	BW ₃	±576	±750		
	Group Delay Variation over fc ±576 kHz	GDV	<150	200	ns _{P-P}	
Rejection	fc-3.4 to fc-1.728 and fc+1.728 to fc+3.4 MHz DC to fc -3.4 and fc +3.4 to 200 MHz Ultimate		28	40	dB	1, 2, 3
			40	>45		
				45		
Operating Temperature Range	T _A	-10		+60	°C	1

Impedance Matching to 50 W unbalanced	External L-C
Case Style	SM13365-12 13.3 x 6.5 mm Nominal Footprint
Lid Symbolization (YY = year, WW = week) See note 4	RFM SF1056A 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

Connection	Terminals
Port 1 Hot	2
Port 1 Gnd Return	3
Port 2 Hot	8
Port 2 Gnd Return	9
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.
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.

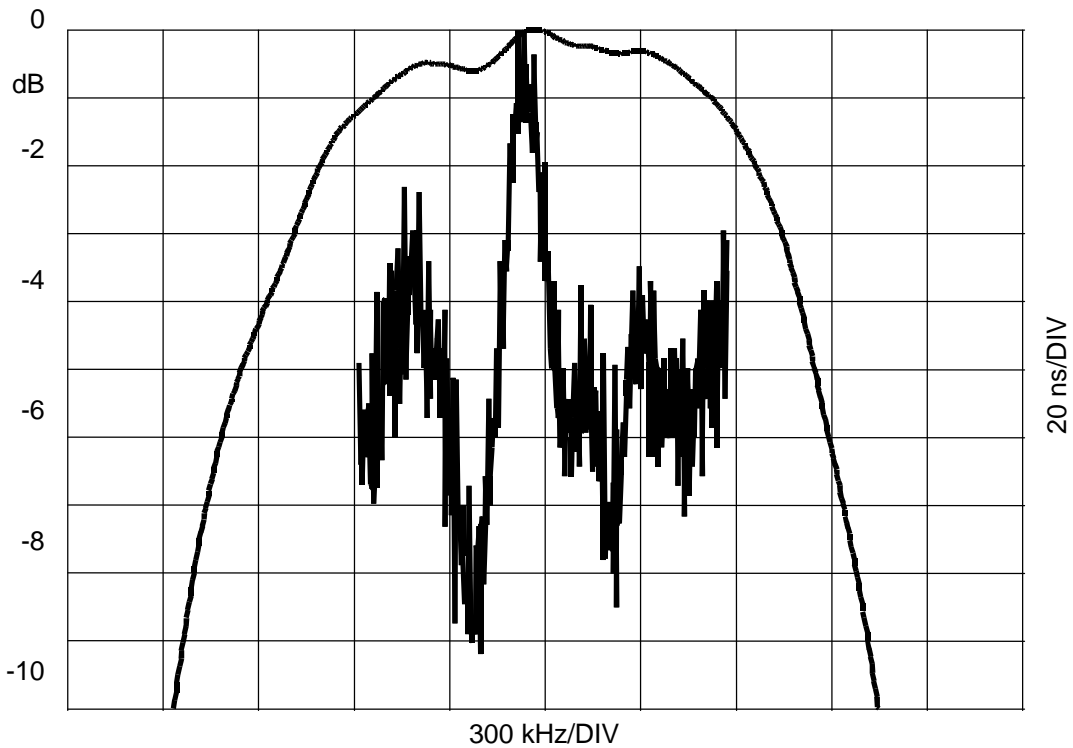
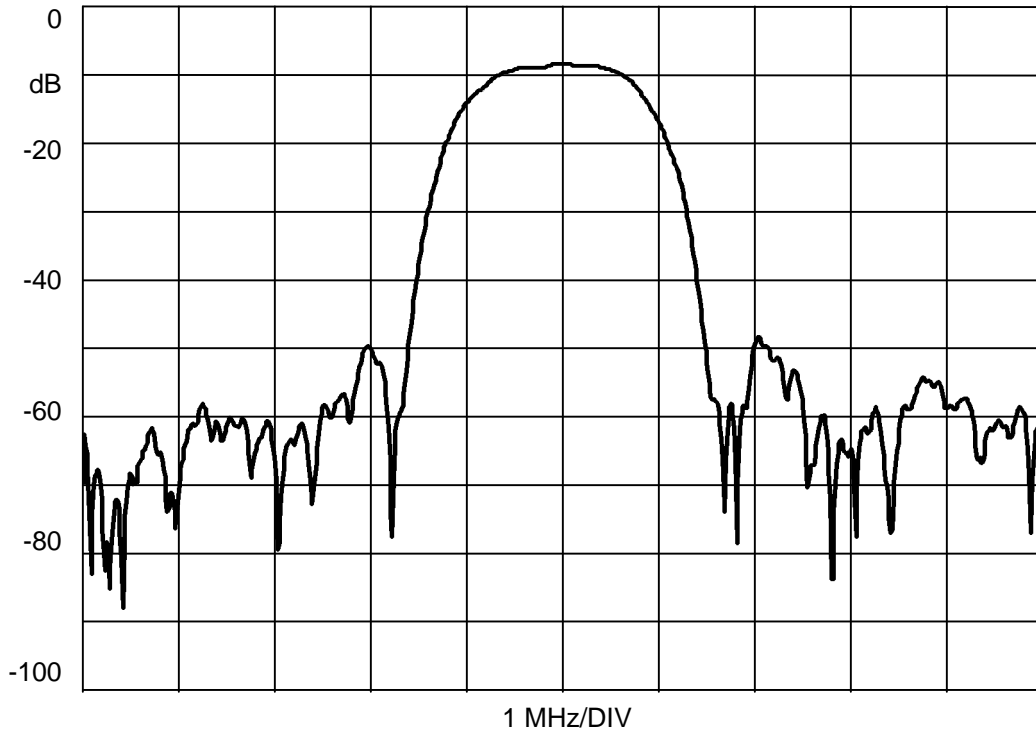


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Home page: www.rfm.com

European Sales Office
44 1963 251383
44 1963 251510

SF1056A 110.592 MHz SAW Filter

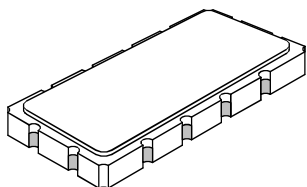


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44 1963 251510

12-Terminal Ceramic Surface-Mount Case 13.3 x 6.5 mm Nominal Footprint

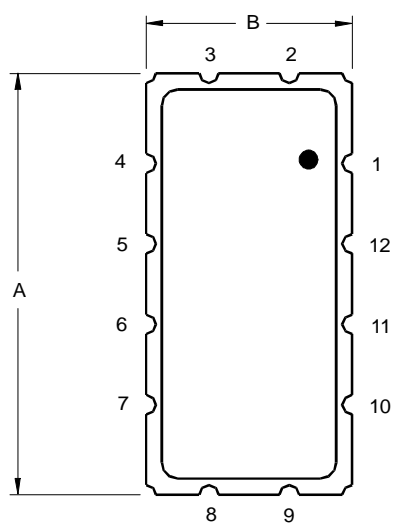


Case Dimensions

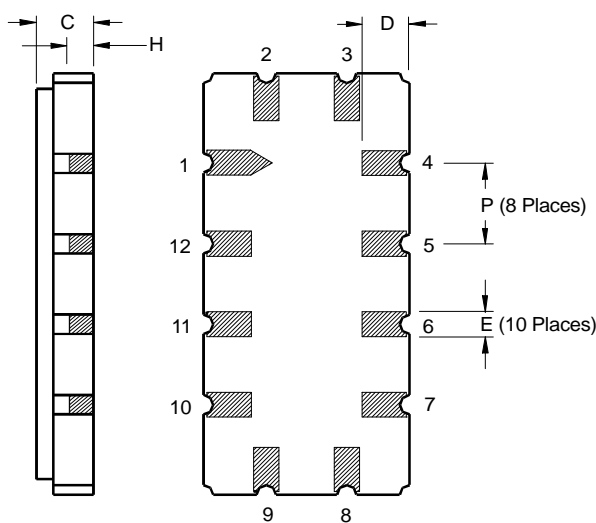
Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	13.08	13.31	13.60	0.515	0.524	0.535
B	6.27	6.50	6.80	0.247	0.256	0.268
C		1.91	2.00		0.075	0.079
D		1.50			0.059	
E		0.79			0.031	
H		1.0			0.039	
P		2.54			0.100	

Electrical Connections

Connection		Terminals
Port 1	Input or Return	2
	Return or Input	3
Port 2	Output or Return	8
	Return or Output	9
Ground		All others
Single Ended Operation		Return is ground
Differential Operation		Return is hot



TOP VIEW

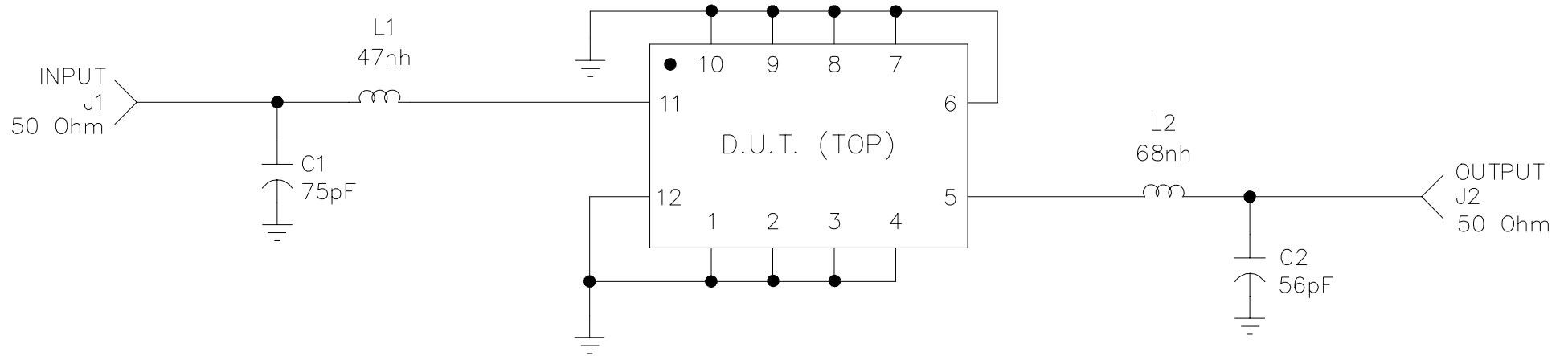


BOTTOM VIEW

NOTES:

1. NOTE PROPER ORIENTATION OF INDUCTORS L1 AND L2. THEY ARE TO BE POSITIONED 90° TO EACH OTHER.
2. SOLDER SURFACE MOUNT PACKAGE TO TEST SIDE OF PCB. SOLDER 12 PLACES AS SHOWN.

REV	ECN NO.	DESCRIPTION	APP/DATE
A	7202	INITIAL RELEASE	



DRAWN BY/DATE: L. ASHMORE 15dec98

TITLE: SF1056A DEMO PCB

RF Monolithics, Inc.
DALLAS, TEXAS 75244

CHECKED/APPROVED

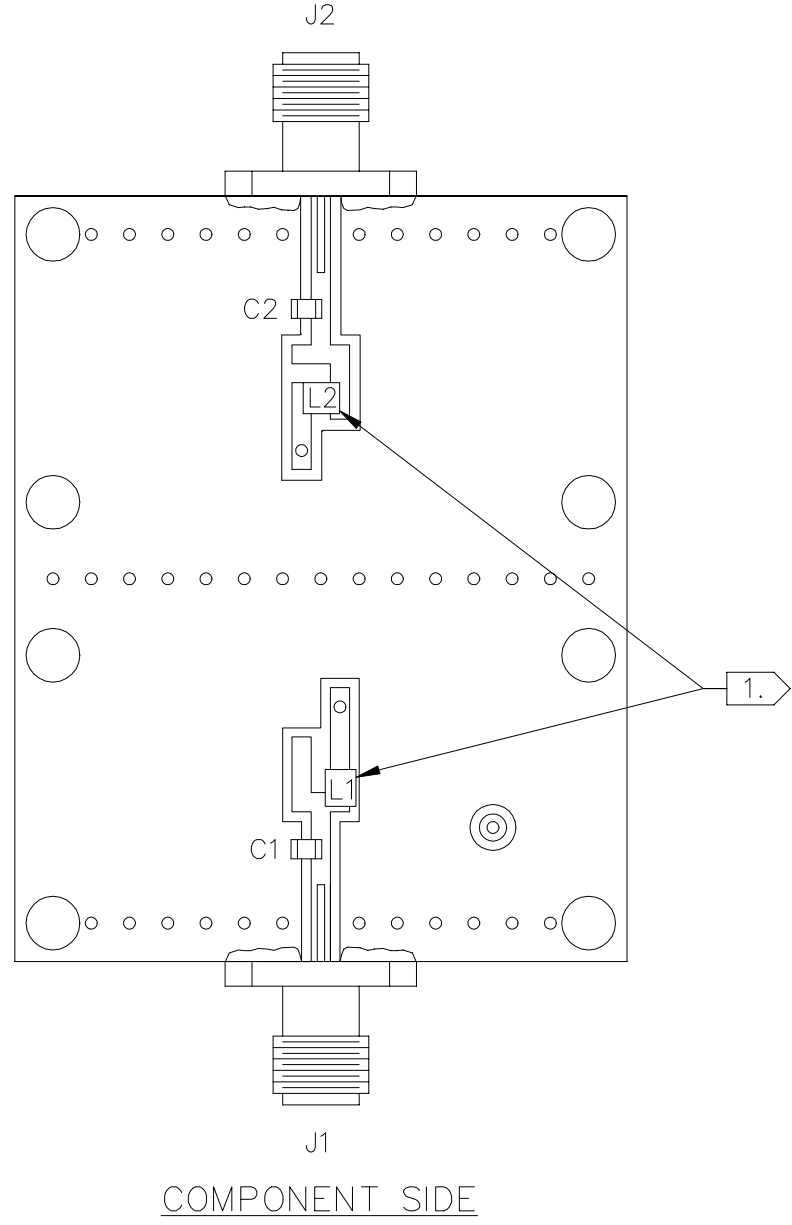
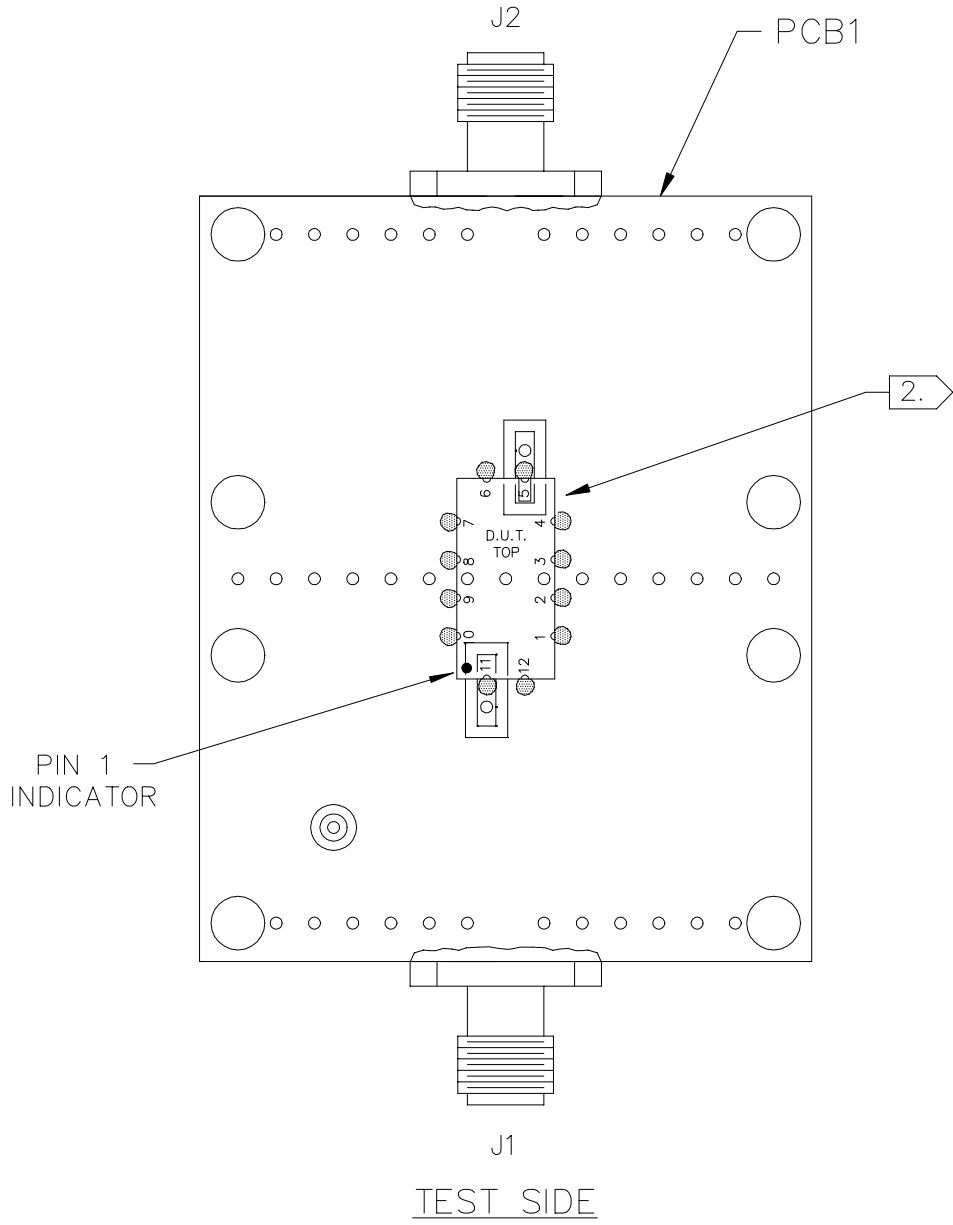
SIZE
A

CODE IDENT
2U874

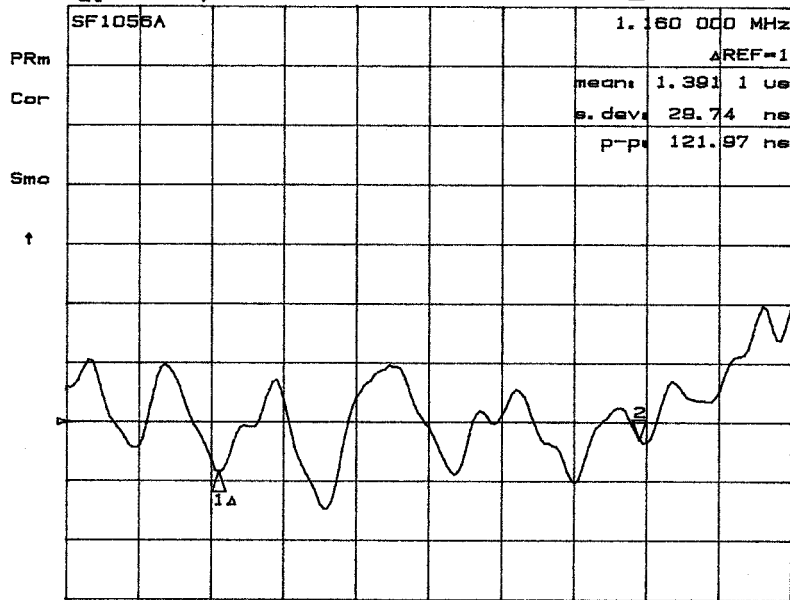
DWG. NO. SF1056A-000

REV
A

SHEET
1/3

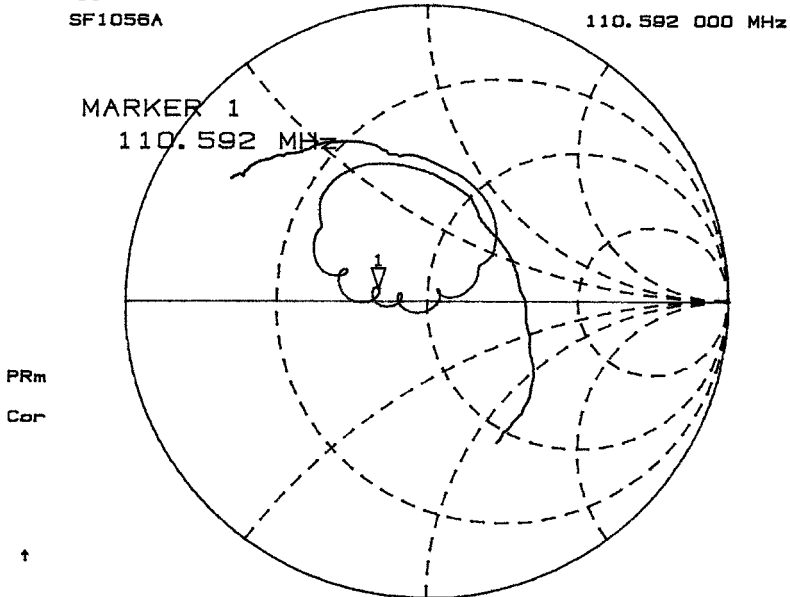


7 Aug 1998 16:02:50
 CH1 S21 delay 50 ne/ REF 1.397 us 2 27.847 ne



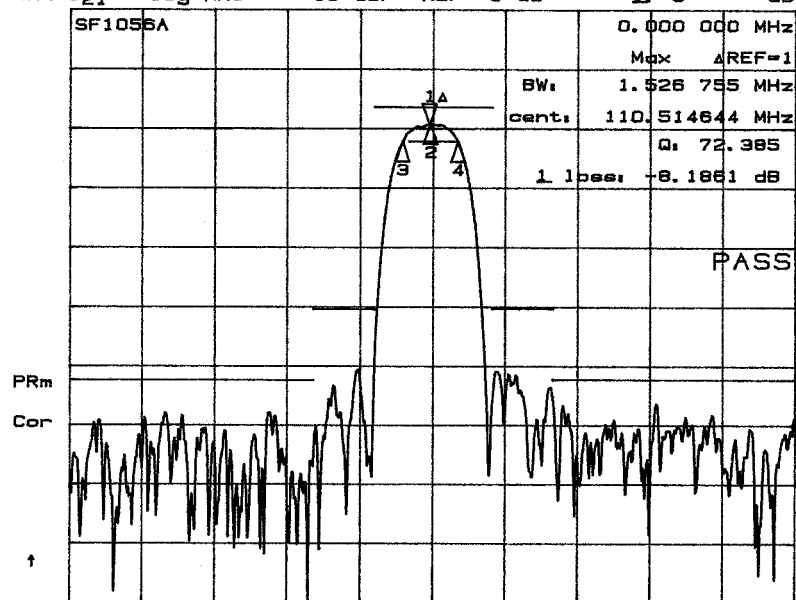
CH1 CENTER 110.592 000 MHz SPAN 2.000 000 MHz

7 Aug 1998 16:06:53
 CH2 S11 1 U FS L1 36.1 n 3.332 n 4.7952 nH
 SF1056A 110.592 000 MHz



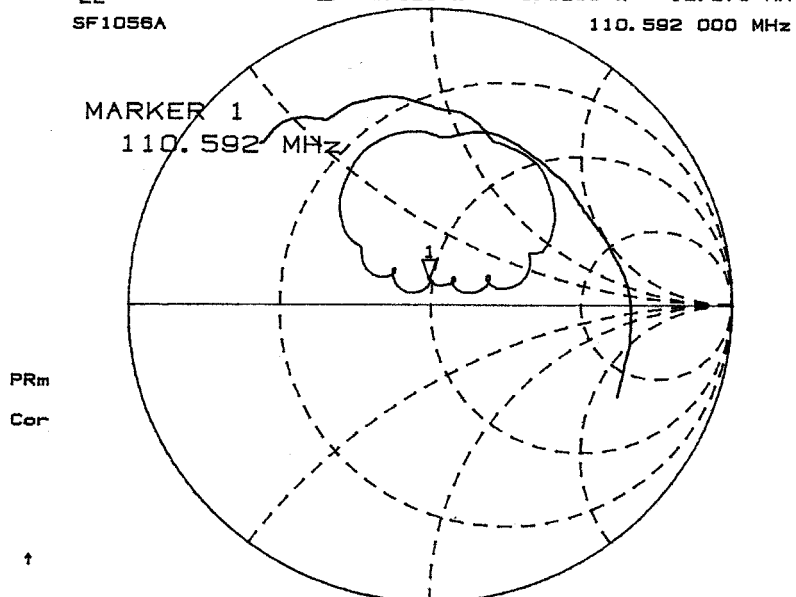
CH2 CENTER 110.592 000 MHz SPAN 20.000 000 MHz

7 Aug 1998 16:04:55
 CH2 S21 log MAG 10 dB/ REF -9 dB L1 0 dB



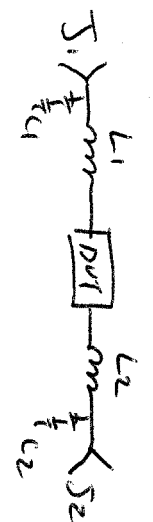
CH2 CENTER 110.592 000 MHz SPAN 20.000 000 MHz

7 Aug 1998 16:08:48
 CH2 S22 1 U FS L1 49.029 n 8.5293 n 12.275 nH
 SF1056A 110.592 000 MHz



CH2 CENTER 110.592 000 MHz SPAN 20.000 000 MHz

SF1056A
 Demo #1
 8-7-98
 LP



C1 - 75 pF
 C2 - 56 pF
 L1 - 47 nH
 L2 - 68 nH

BILL OF MATERIALS

<u>PART IDENTIFIER</u>	<u>DESCRIPTION 1</u>	<u>DESCRIPTION 2</u>	<u>QTY/ASSY</u>	<u>REFERENCE DESCRIPTION</u>
SF1056A-DEMO	DEMO BOARD, SF1056A			
SF1056A-000	ASSY DIGRAM, DEMO BOARD	SF1056A	0	
400-0735-001	PCB, DEMO BOARD, 13.3 X 6.5		1.0000	PCB1
500-0003-750	CAP ,CHIP, NPO, 75 (J), STD		1.0000	C 1
500-0003-560	CAP, CHIP, NPO, 56 (J), STD		1.0000	C 2
500-0010-470	IND, CHIP, 1008CS, 47 NH, 10%		1.0000	L 1
500-0010-680	IND, CHIP, 1008CS, 68 NH, 10%		1.0000	L 2
500-0248-001	CONN,COAX,FLANGE MT.JACK	4 HOLE	2.0000	J 1,2



SIZE

A

FSCM NO.

2U874

DWG NO.

SF1056A-DEMO

SCALE

NONE

W/O or ECN

7202

REV

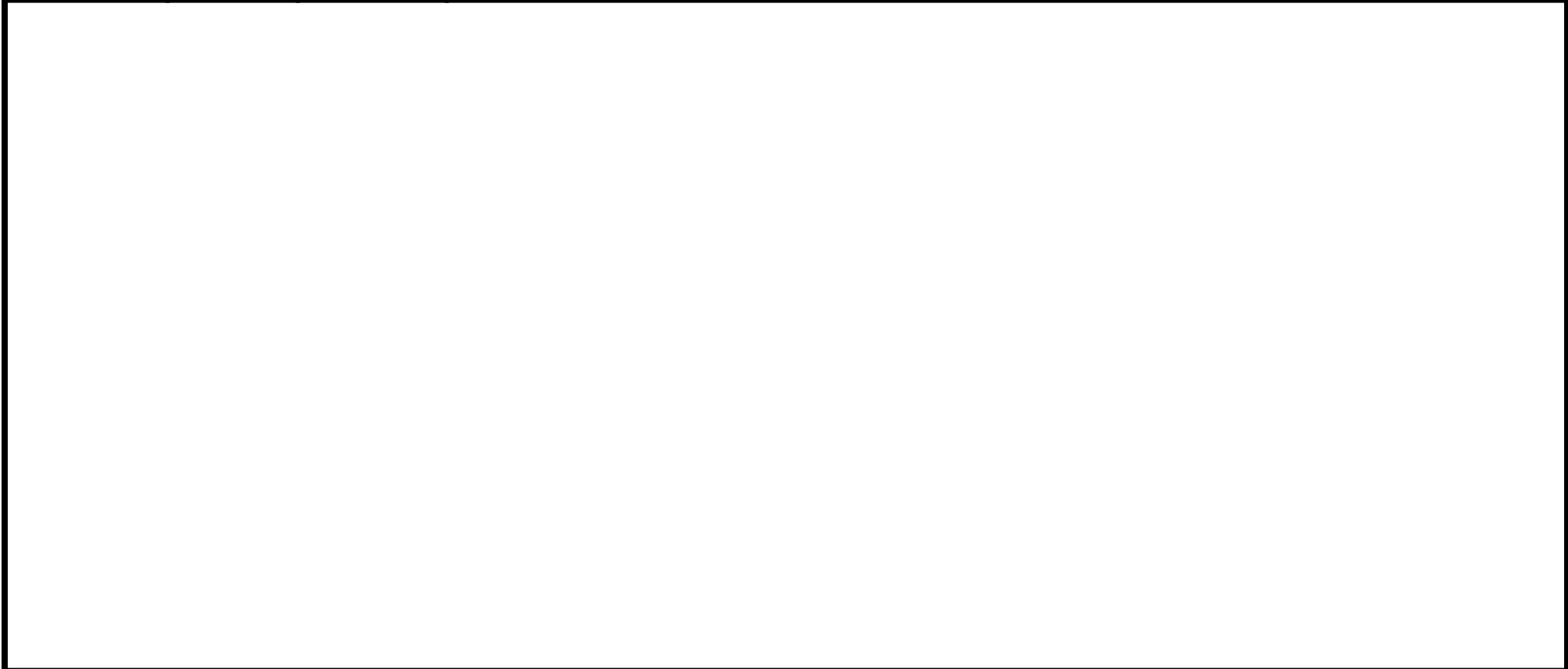
A

SHEET

1 OF 2

REV HISTORY

REV	ECN	DATE	DESCRIPTION
A	7202	12/07/98	INITIAL RELEASE



	FRIM	SIZE	FSCM NO.	DWG NO.
		A	2U874	SF1056A-DEMO
SCALE	NONE	W/O or ECN	7202	REV
				A
				SHEET
				2 OF 2