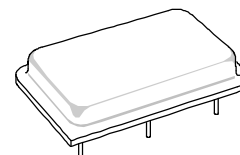


SF1071 71 MHz SAW Filter



- Designed for GSM Receiver IF Applications
- Simple External Impedance Matching
- Hermetic Metal DIP
- Unbalanced Input and Output



Characteristic	Sym	Min	Typ	Max	Units	Notes
Nominal Center Frequency	fc	71.000			MHz	1
Passband	Insertion Loss at fc	IL	8	9.5	dB	1, 2, 3
	3 dB Passband	BW ₃	±100	±200	kHz	
	Group Delay Variation over fc ±100 kHz	GDV		350	ns _{P-P}	
Rejection	fc-1.2 to fc-0.4 and fc+0.4 to fc+1.2 MHz		30		dB	
	fc-1.6 to fc-1.2 and fc+1.2 to fc+1.6 MHz		35			
	fc-18.0 to fc-1.6 and fc+1.6 to fc+8.0 MHz		40			
	1 to 63 and 79 to 150 MHz		45			
Operating Temperature Range	T _A	-10		+85	°C	1

Impedance Matching to 50 Ω unbalanced	External L-C
Case Style	DIP14-6 20.2 x 12.6 mm Nominal Footprint
Lid Symbolization (YY = year, WW = week)	RFM SF1071 YYWW

Absolute Maximum Ratings

Rating	Value	Units
Maximum Incident Power in Passband	+15	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 2 Hot	8
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. 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.

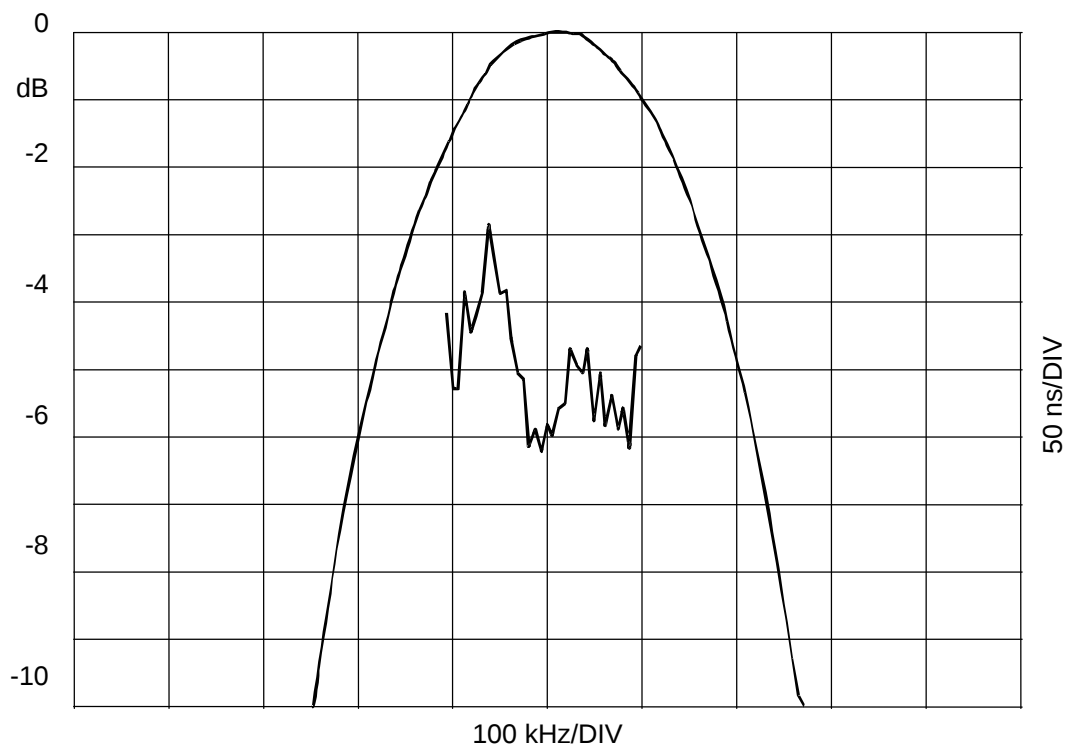
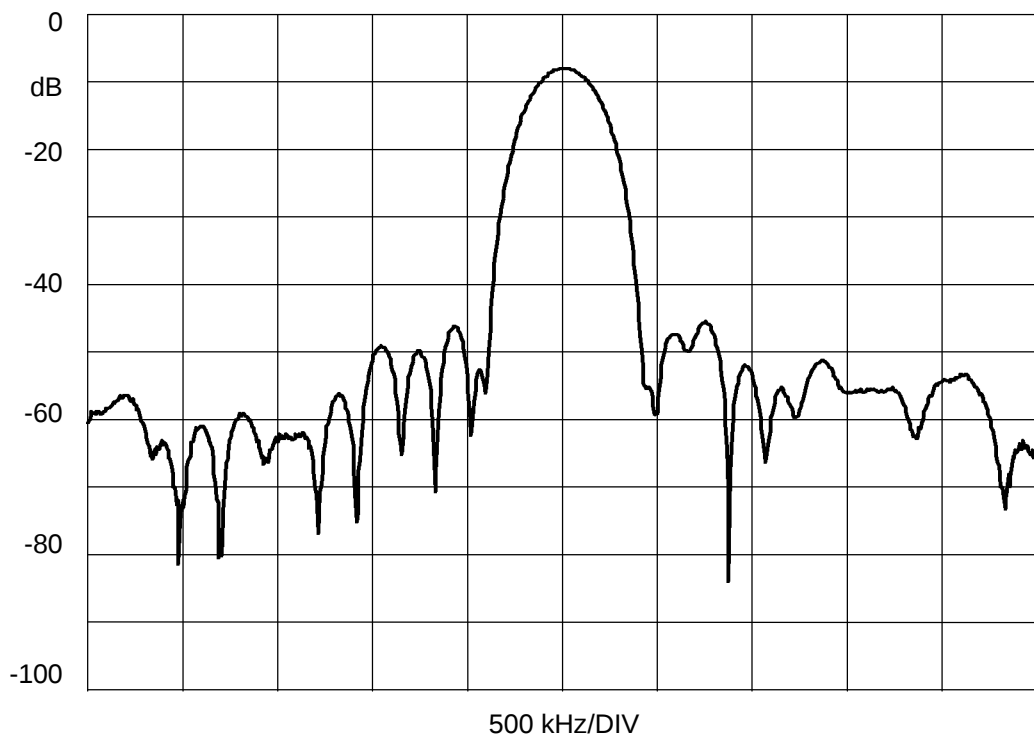


RF Monolithics, Inc.
4347 Sigma Road
Dallas, Texas 75244
USA

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 251383
44 1963 251510

SF1071 71 MHz SAW Filter

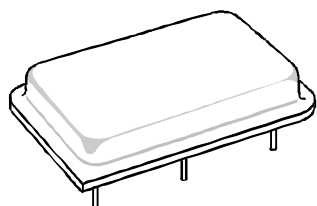


RF Monolithics, Inc.
4347 Sigma Road
Dallas, Texas 75244
USA

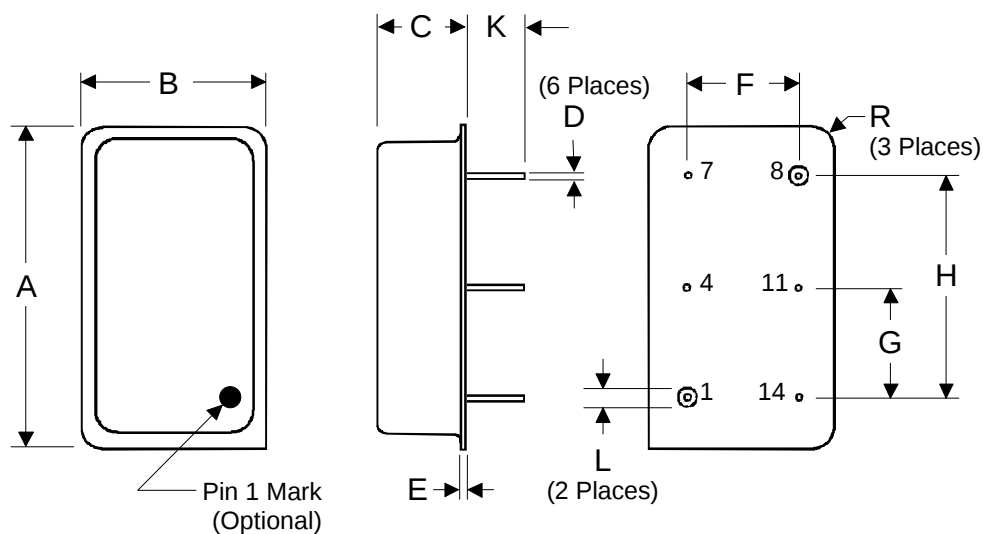
Phone: +1(972)233-2903
Fax: +1(972)387-8148
e-mail: info@rfm.com
Home page: www.rfm.com

European Sales Office
44 1963 251383
44 1963 251510

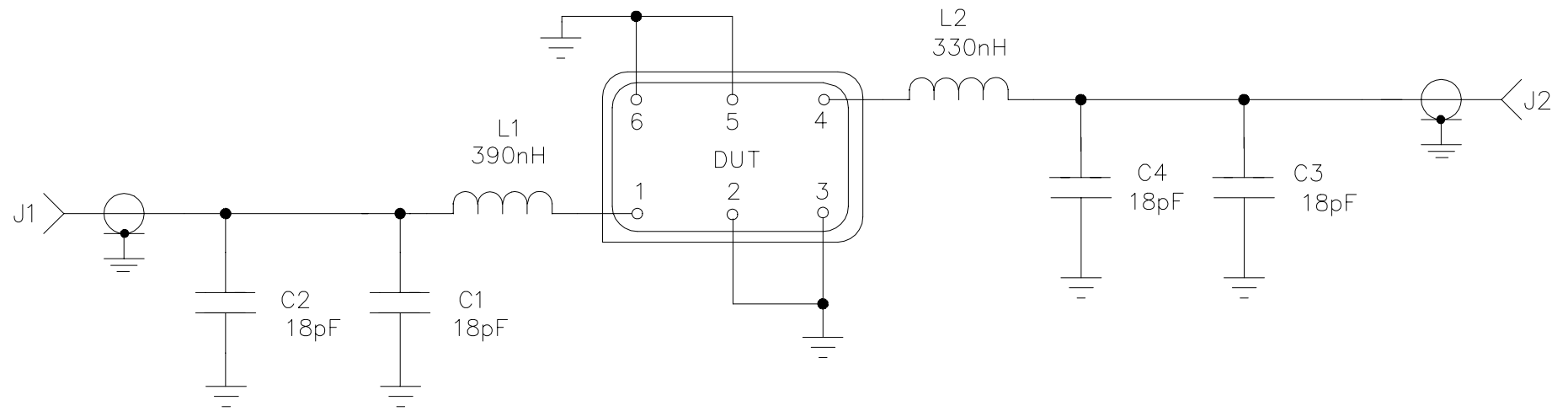
Metal 6-Pin DIP in 14-Pin Configuration 20.2 x 12.6 mm Nominal Footprint



Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A		20.17	20.50		0.794	0.807
B		12.55	12.83		0.494	0.505
C		4.67	5.08		0.184	0.200
D	0.41	0.48	0.51	0.016	0.019	0.020
E		0.89			0.035	
F		7.62			0.300	
G		7.62			0.300	
H		15.24			0.600	
K	3.30	5.59	6.73	0.130	0.220	0.265
L	1.37	1.45	1.52	0.054	0.057	0.060
R		2.03			0.080	



REV	ECN NO.	DESCRIPTION	APP/DATE
A	5807	INITIAL RELEASE	
B	7299	REVISED	18dec98



DRAWN BY/DATE: J.J. LAYTON

09/15/97

TITLE:

ASSEMBLY, DEMO, SF1071

RF Monolithics, Inc.
DALLAS, TEXAS 75244

CHECKED/APPROVED

SIZE
A

CODE IDENT
2U874

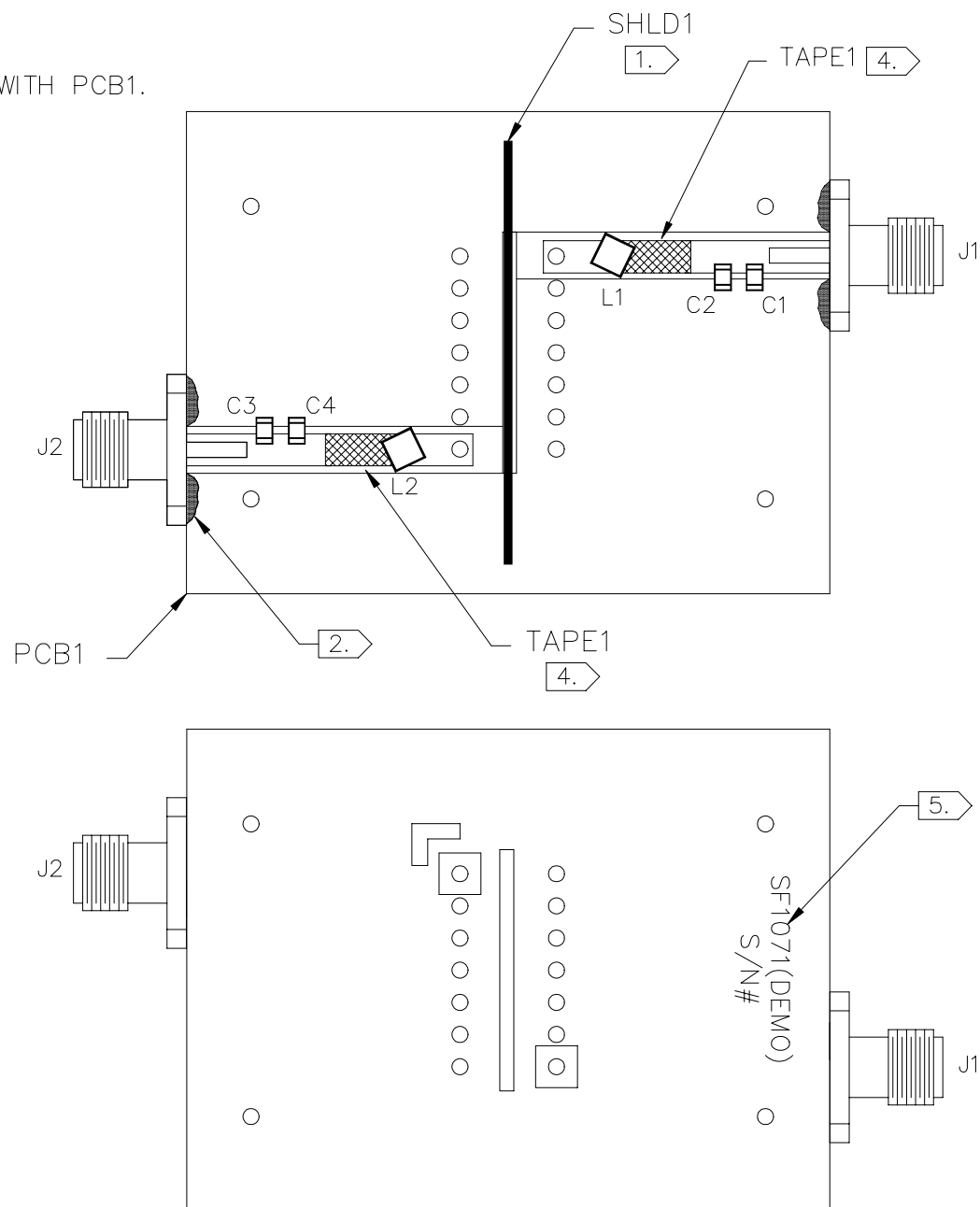
DWG.
NO.

SF1071-000

REV
B

SHEET
1/5

1. SOLDER SHLD1 TO PCB1. CUT SHLD1 FLUSH WITH PCB1.
2. SOLDER J1,2 TO PCB1 AS SHOWN.
3. SOLDER COMPONENTS AS SHOWN.
4. SOLDER TAPE1 TO PCB1 AS SHOWN.
5. LABEL PCB1 WITH PART NUMBER AND S/N#.
6. ORIENT L1,L2 90° TO EACH OTHER AS SHOWN.



SF1071 (DEMO)

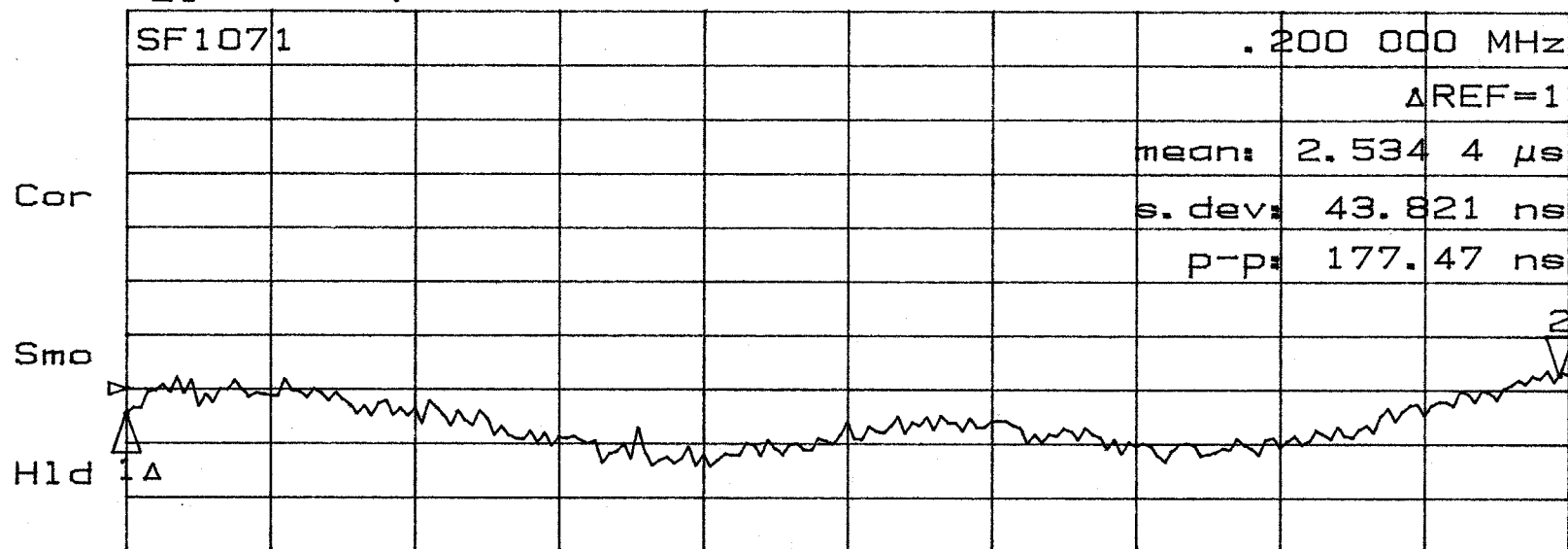
#1

R/L/S 9730

w/o 0695-03

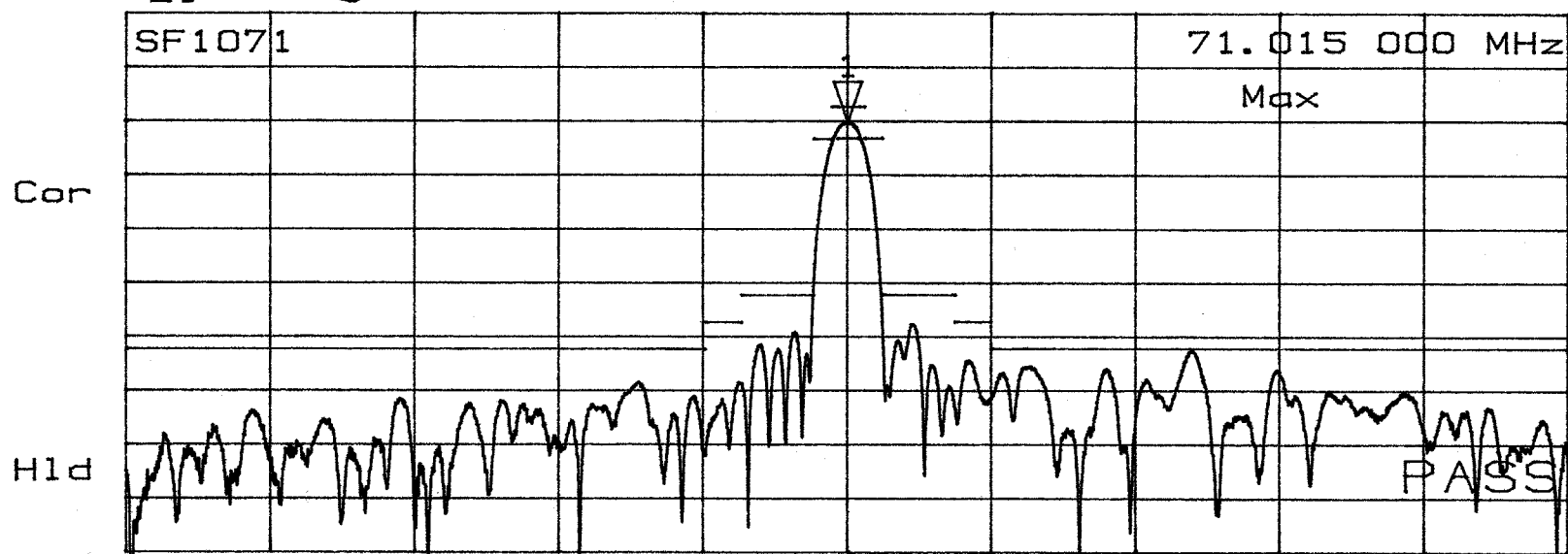
M.F. 7-25-97

CH1 S₂₁ delay 100 ns/ REF 2.6 μ s 2 72.508 ns



CH1 CENTER 71.000 625 MHz SPAN .201 250 MHz

CH2 S₂₁ log MAG 10 dB/ REF -8 dB 1 -8.1228 dB



CH2 CENTER 71.005 000 MHz SPAN 16.000 000 MHz

-000
SF1071 (DEMO) REV: AB
3 of 5

SF1071 (DEMO)

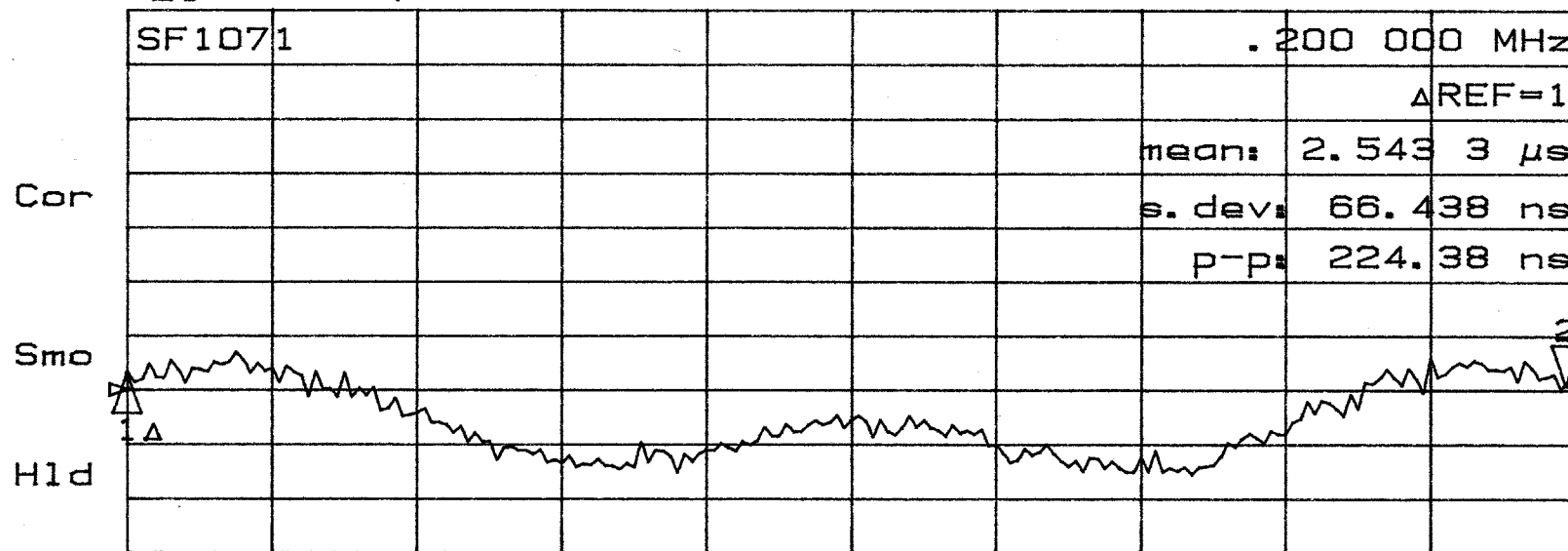
#2

r/L/S 9730

w/o 0695-03

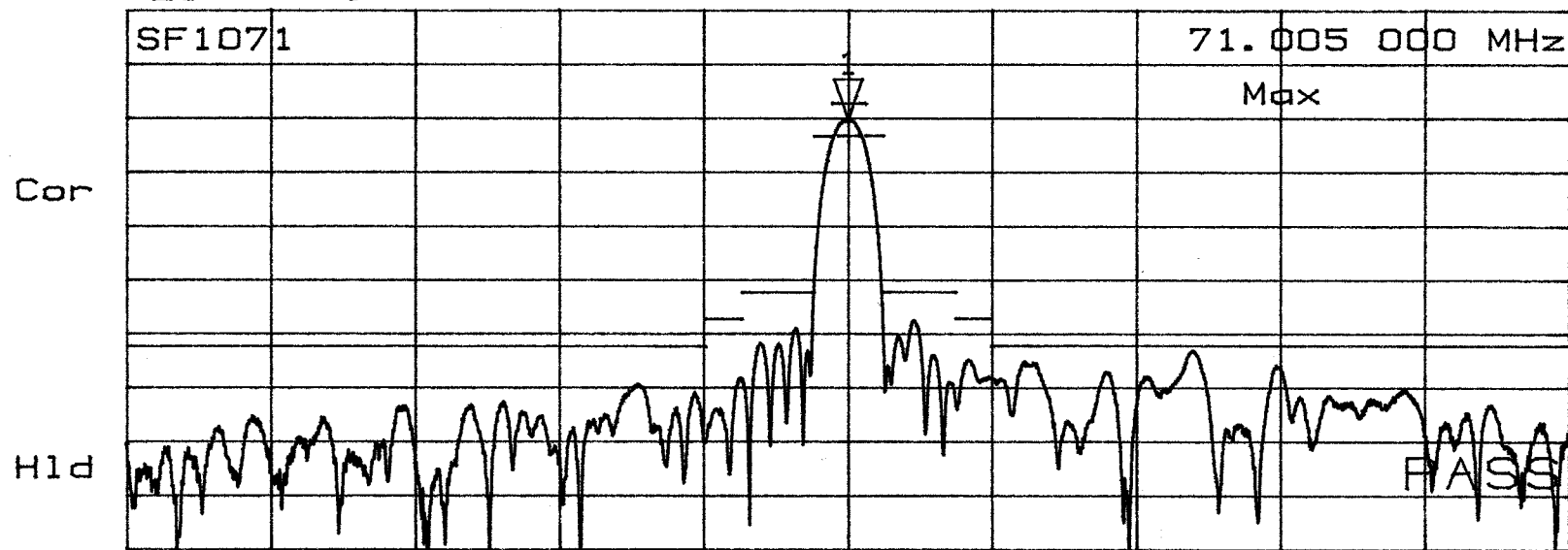
m.f. 7-25-97

CH1 S₂₁ delay 100 ns/ REF 2.6 μ s 2: -19.463 ns



CH1 CENTER 71.000 625 MHz SPAN .201 250 MHz

CH2 S₂₁ log MAG 10 dB/ REF -8 dB 1 -8.0797 dB



CH2 CENTER 71.005 000 MHz SPAN 16.000 000 MHz

-000
SF1071 (DEMO) Rev 1.0
4 of 6

SF1071 (DEMO)

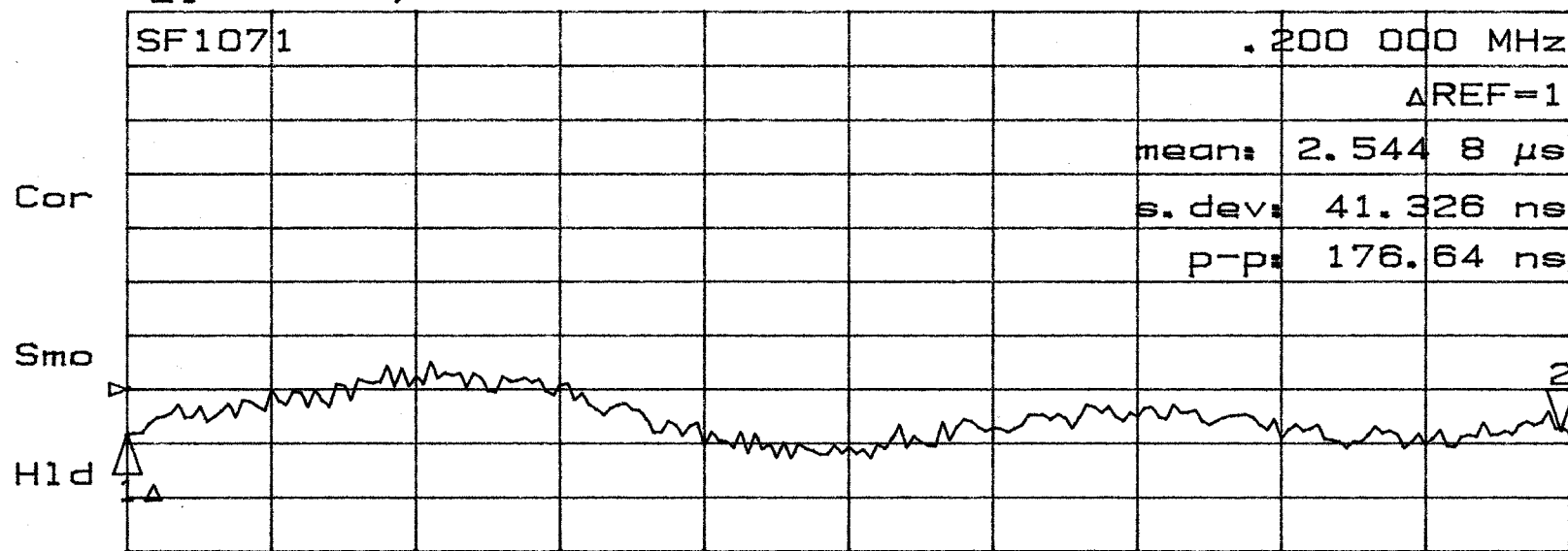
3

R/L/S 9730

W/O 0695-03

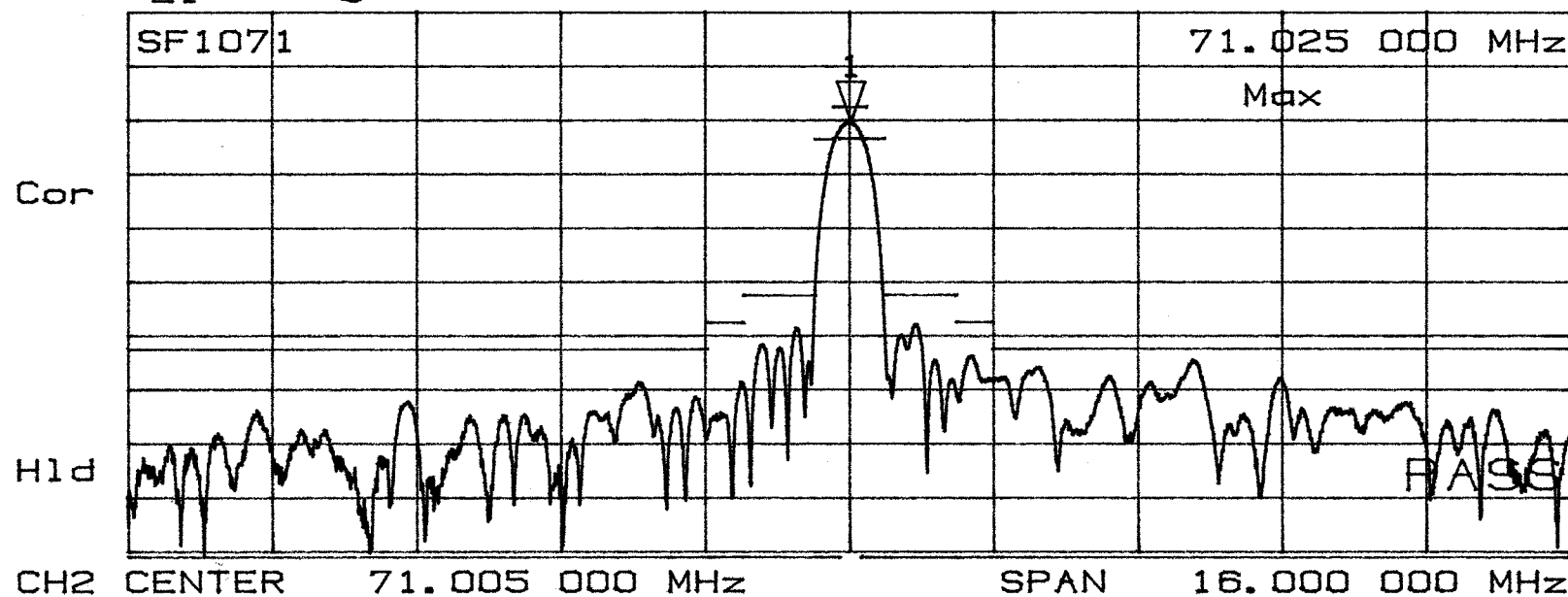
M.F. 7-25-97

CH1 S₂₁ delay 100 ns/ REF 2.6 μ s 2: 9.1222 ns



CH1 CENTER 71.000 625 MHz SPAN .201 250 MHz

CH2 S₂₁ log MAG 10 dB/ REF -8 dB 1 -8.2554 dB



SF1071 (DEMO) Rev B
5 of 5

BILL OF MATERIALS

<u>PART IDENTIFIER</u>	<u>DESCRIPTION 1</u>	<u>DESCRIPTION 2</u>	<u>QTY/ASSY</u>	<u>REFERENCE DESCRIPTION</u>
SF1071(DEMO)	DEMO BOARD,SF1071			
SF1071	FILTER,71.000MHZ		1.0000	
SF1071-000	ASSY DIAGRAM,DEMO BOARD,	SF1071	0	
400-0612-001	PCB,TEST FIXTURE,	14-PIN	1.0000	PCB1
400-0533-001	SHIELD,TO-39 TEST FIXTURE		1.0000	SHD1
500-0319-001	TAPE,COPPER FOIL,SCOTCH	TYPE 1181,44F3260,1/2"	0	TAPE1
500-0003-180	CAP,CHIP,NPO,18(J),STD		4.0000	C 1,2,3,4
500-0248-001	CONN,COAX,FLANGE MT.JACK		2.0000	J 1,2
500-0010-391	IND,CHIP,1008CS,390NH,10%		1.0000	L 1
500-0010-331	IND,CHIP,1008CS,330NH,10%		1.0000	L 2



SIZE
A

FSCM NO.
2U874

DWG NO.
SF1071(DEMO)

SCALE **NONE**

W/O or ECN **5807**

REV **A**

SHEET **1** OF **2**

REV HISTORY			
REV	ECN	DATE	DESCRIPTION
A	5807	09/15/97	INITIAL RELEASE

		SIZE A	FSCM NO. 2U874	DWG NO. SF1071(DEMO)
	SCALE NONE	W/O or ECN 5807	REV A	SHEET 2 OF 2