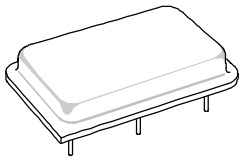
SF1071 71 MHz SAW Filter

- *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	
	3 dB Passband	BW_3	±100		±200	kHz	1, 2, 3
	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.
10. Electrostatic Sensitive Device. Observe precautions for handling.

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European Sales Office
44 1963 251383
44 1963 251510

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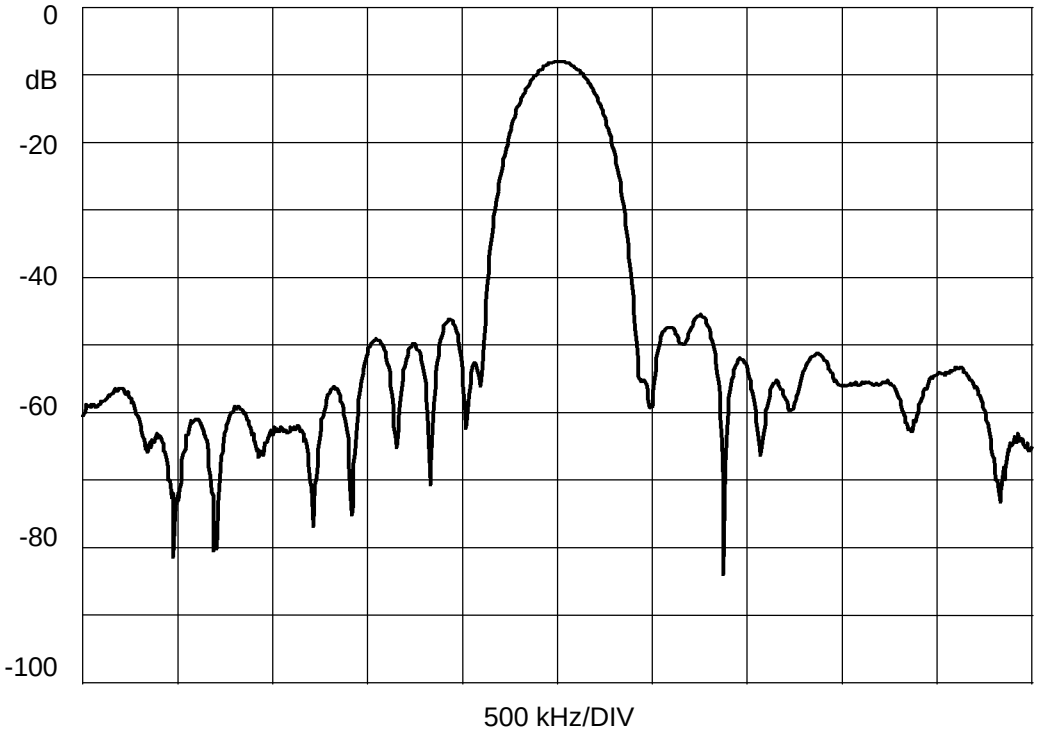

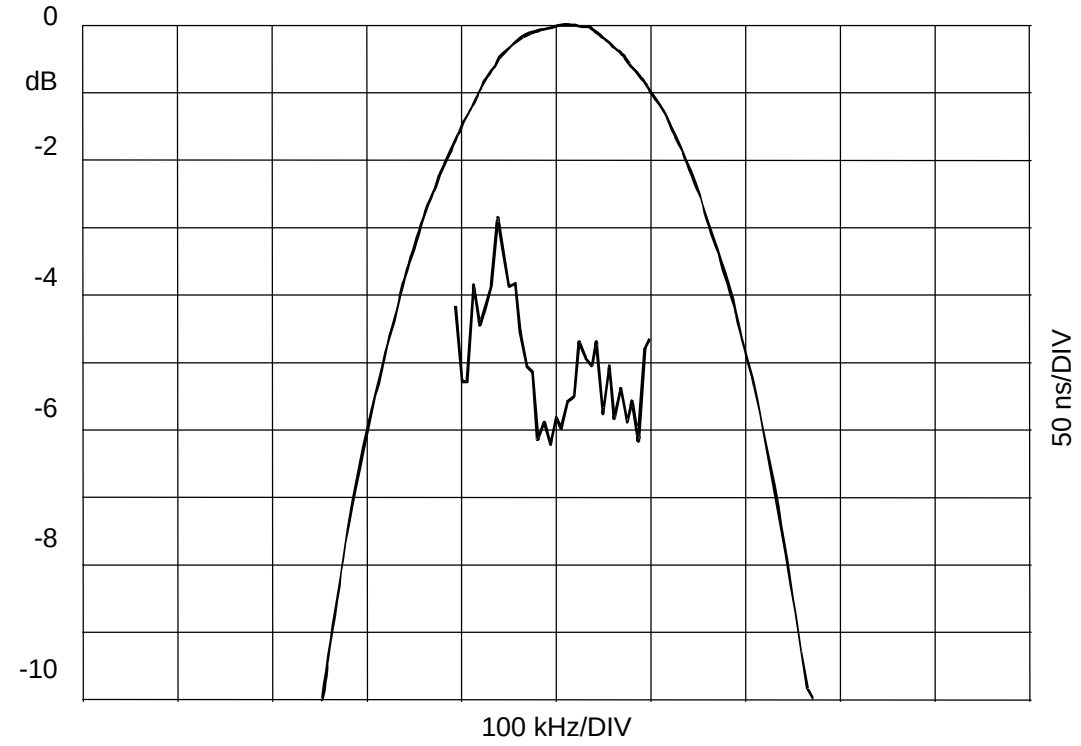

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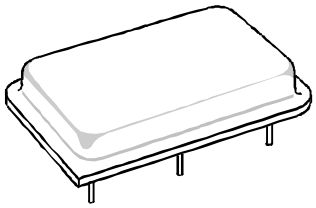
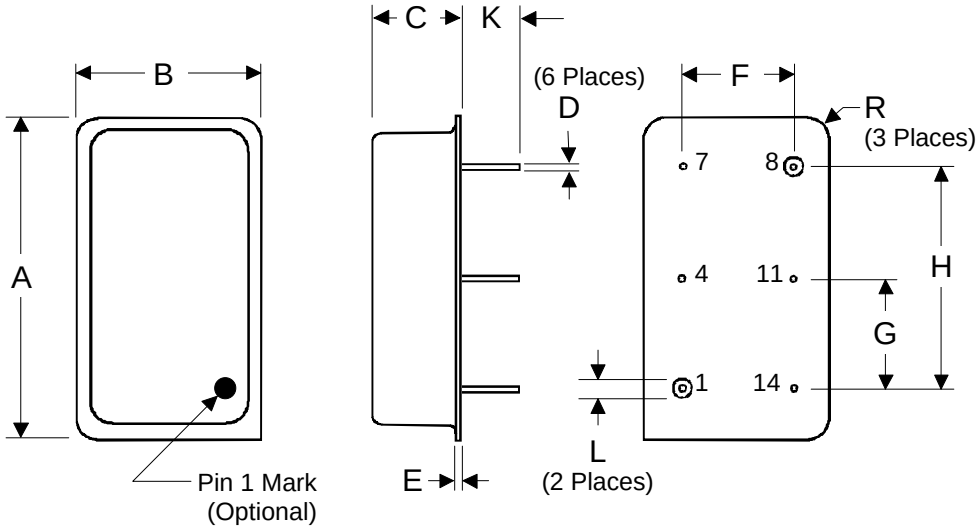
DIP14-6 Case

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	



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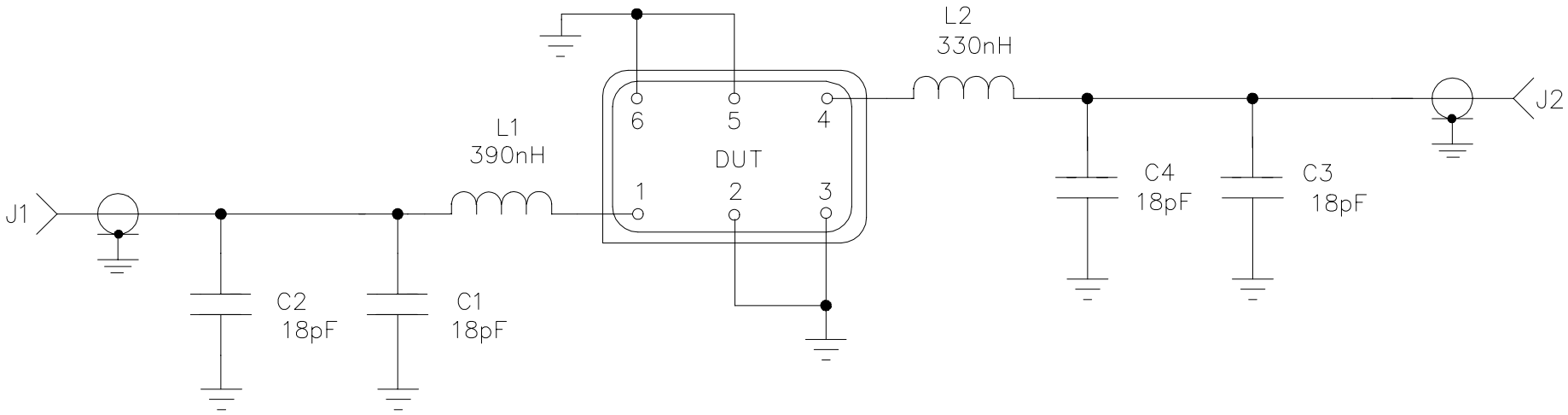
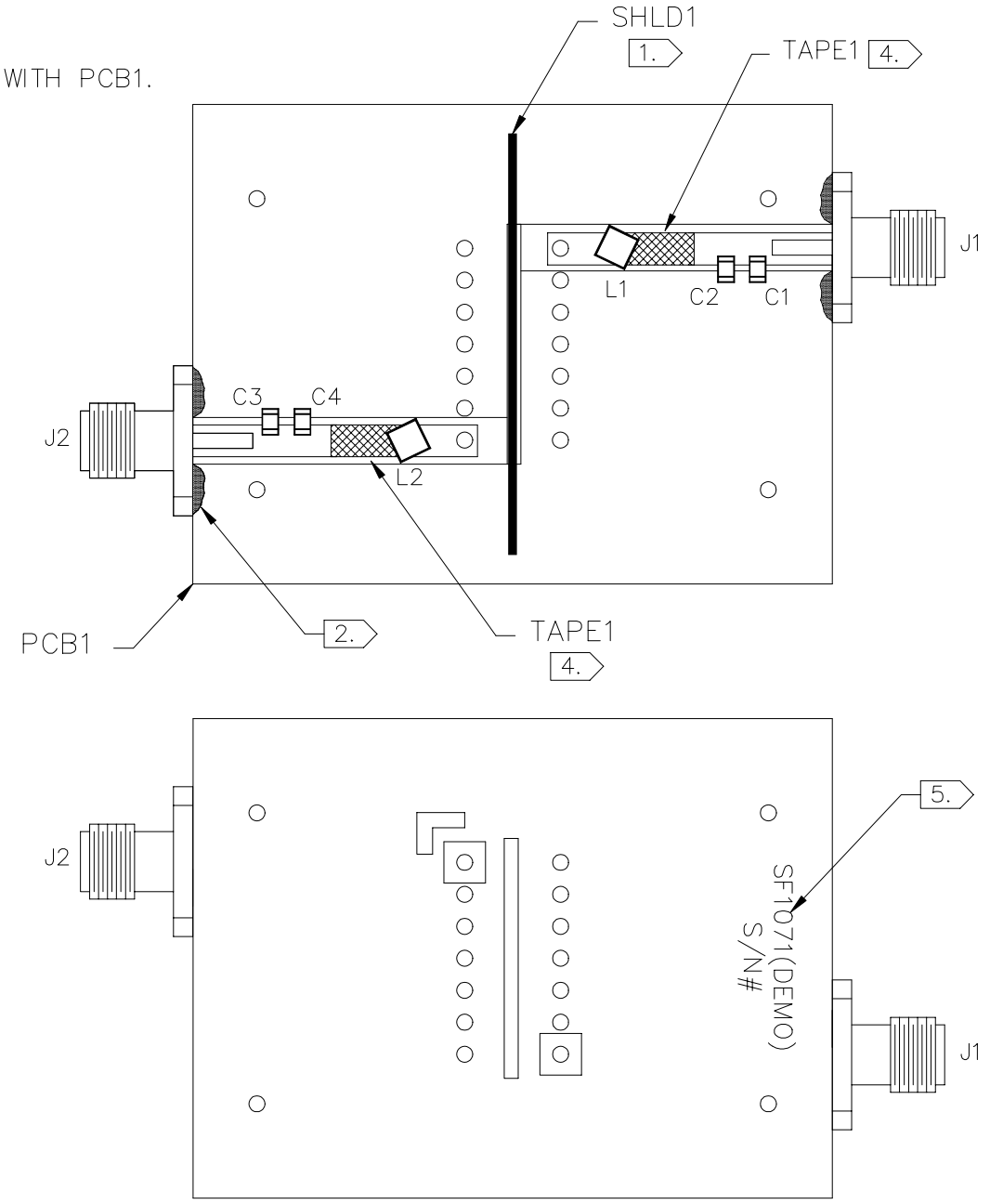
REV	ECN NO.	DESCRIPTION	APP/DATE
A	5807	INITIAL RELEASE	
B	7299	REVISED	18dec98



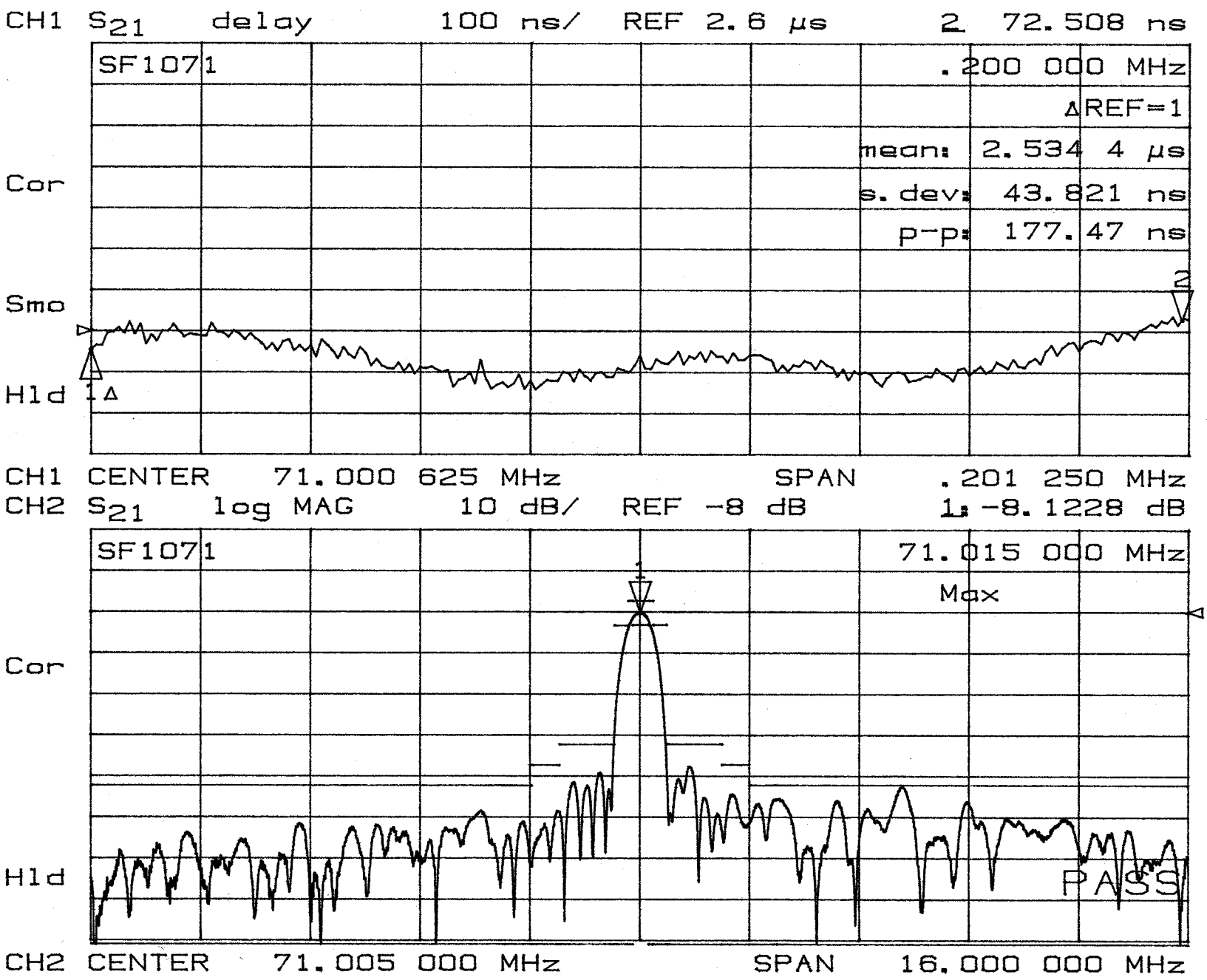
DRAWN BY/DATE: J.J. LAYTON 09/15/97			TITLE: ASSEMBLY, DEMO, SF1071				
RF Monolithics, Inc. DALLAS, TEXAS 75244	CHECKED/APPROVED	SIZE A	CODE IDENT 2U874	DWG. NO. SF1071-000		REV B	SHEET 1/5

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.



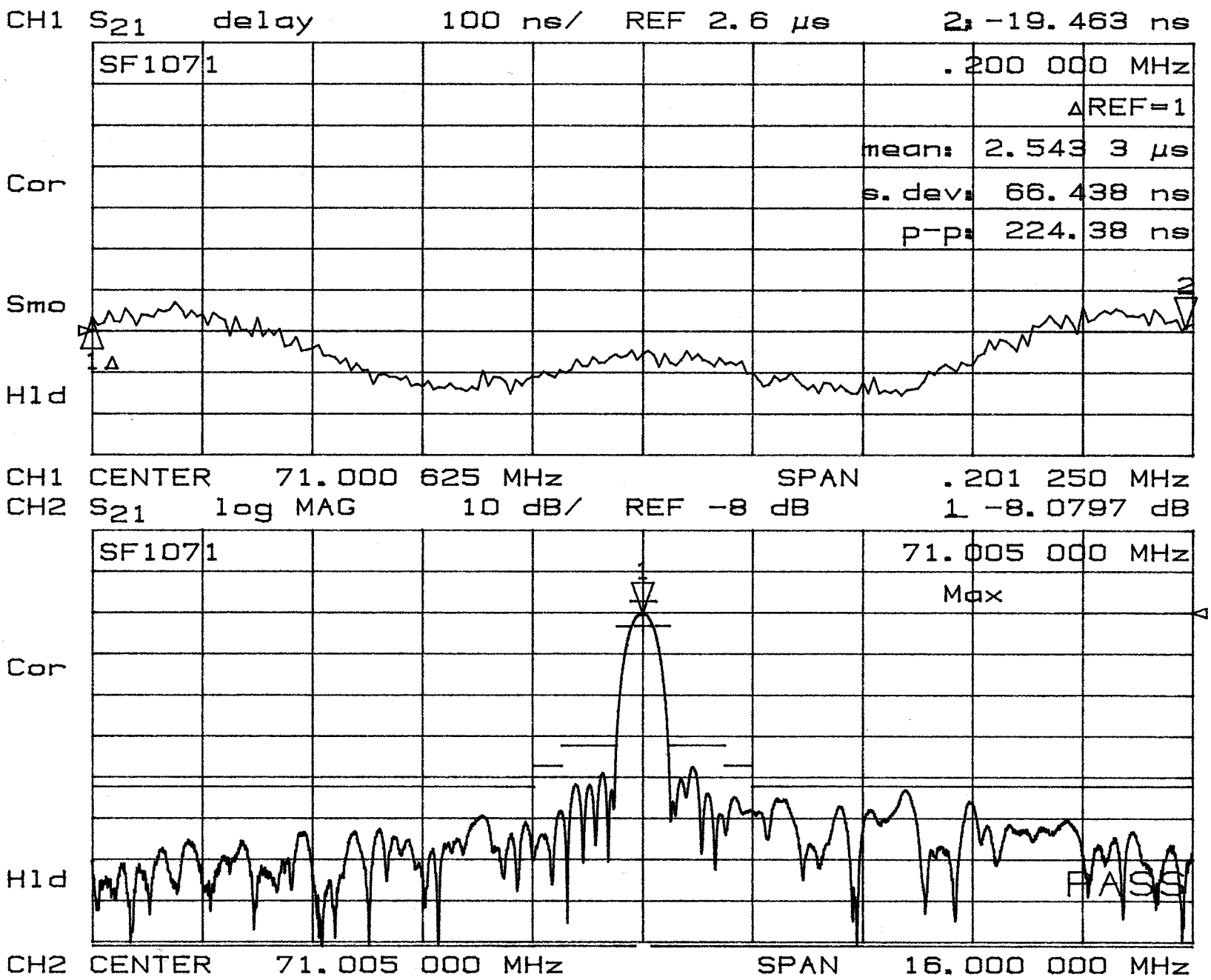
RF Monolithics, Inc. DALLAS, TEXAS 75244		SIZE A	CODE IDENT 2U874	DWG. NO. SF1071-000	REV B	SHEET 2

SF1071 (DEMO)
#1
R/L/S 9730
W/O 0695-03
M.T. 7-25-97



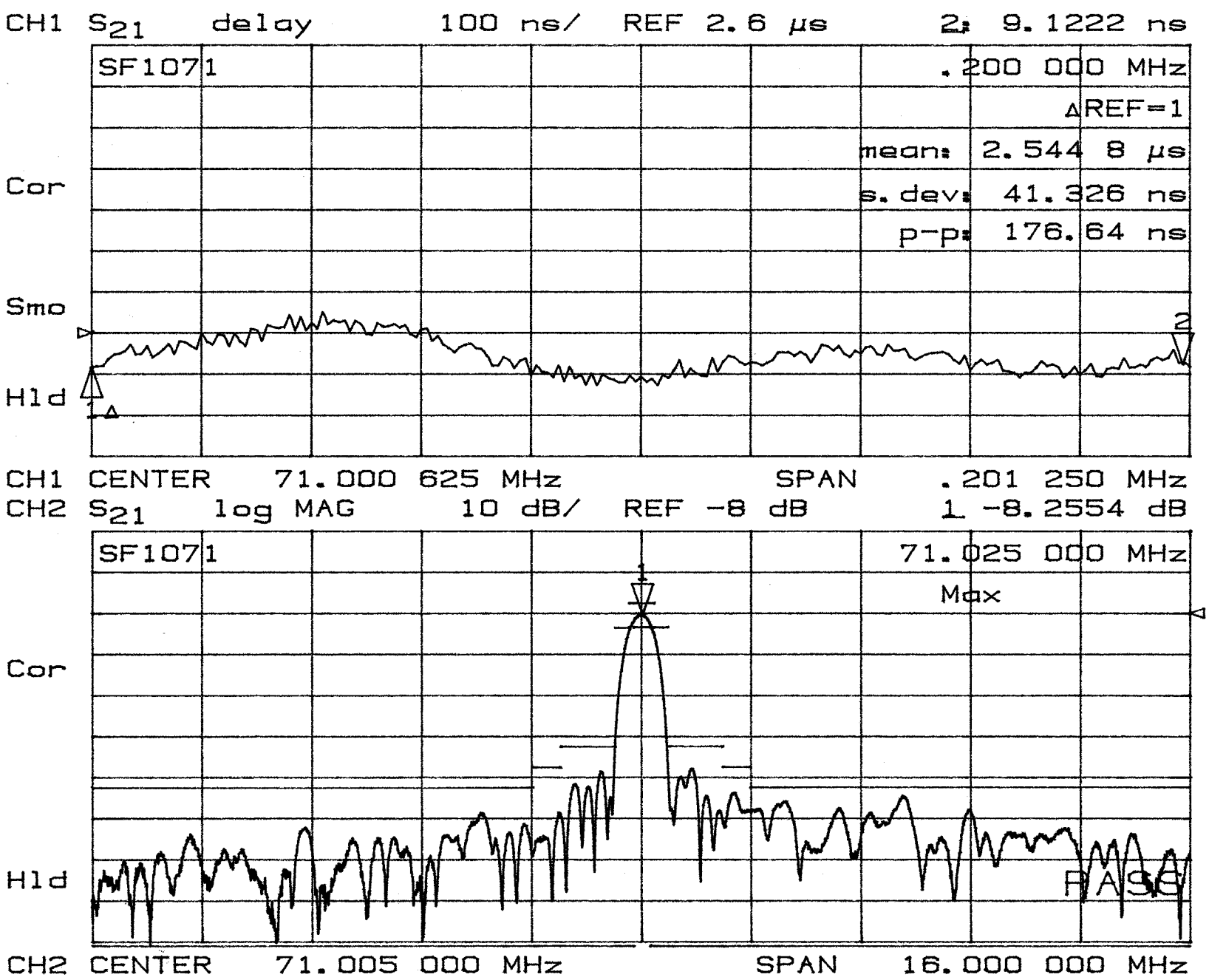
SF1071 (~~DEMO~~ -000) REV: AB

SF1071 (DEMO)
#2
r/l/s 9730
w/o 0695-03
M.T. 7-25-97



SF1071 ~~(DEMO)~~ -000 Rev B
4 of 5

SF1071 (DEMO)
#3
R/L/S 9730
W/O 0695-03
M.F. 7-25-97



SF1071 (~~DEMO~~ -000) Rev B
5 of 5

BILL OF MATERIALS

PART IDENTIFIER	DESCRIPTION 1	DESCRIPTION 2	QTY/ASSY	REFERENCE DESCRIPTION
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

RFM	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

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