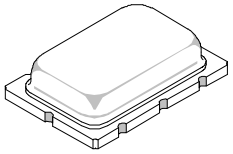
SF1083B 286 MHz SAW Filter

- *Designed for GSM BTS Transmitter Applications*
- *Low Insertion Loss and Small Size*
- *8.5 x 5.8 mm Surface-Mount Case*
- *Unbalanced Input and Output*



Characteristic		Sym	Min	Typ	Max	Units	Notes
Nominal Center Frequency		fc		286.000		MHz	1
Passband	Insertion Loss at fc	IL		6	8.0	dB	
	3 dB Passband	BW_3	±275			kHz	1, 2
	Amplitude Ripple over fc ±75 kHz				0.3	dB_{P-P}	
	Group Delay Variation over fc ±75 kHz	GDV			100	ns_{P-P}	
Rejection	100 kHz to fc-6.0 MHz and fc+6.0 to 540 MHz		20	40		dB	1, 2, 3
	Ultimate			>40			
Operating Temperature Range		T_A	-40		+85	°C	1

Impedance Matching to 50 Ω unbalanced	External L-C
Case Style	SM8558-8 8.5 x 5.8 mm Nominal Footprint
Lid Symbolization (YY=year, WW=week, XXX=lot code)	RFM SF1083B YYWWXXX

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	7
Port 1 Gnd Return	1
Port 2 Hot	3
Port 2 Gnd Return	5
Case Ground	All Others

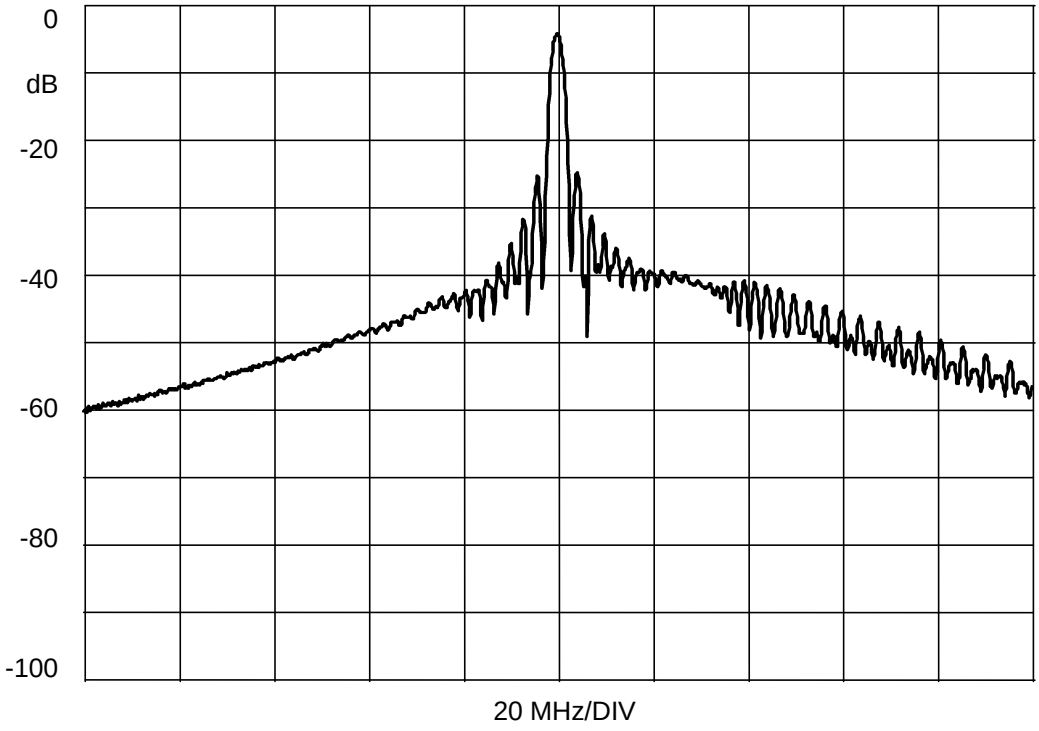
Notes:
1. Unless noted otherwise, all specifications apply *over the operating temperature range* with filter soldered to the specified demonstration board with impedance matching to 50 Ω and measured with 50 Ω network analyzer.
2. Unless noted otherwise, all frequency specifications are referenced to 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 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.
10. Electrostatic Sensitive Device. Observe precautions for handling.

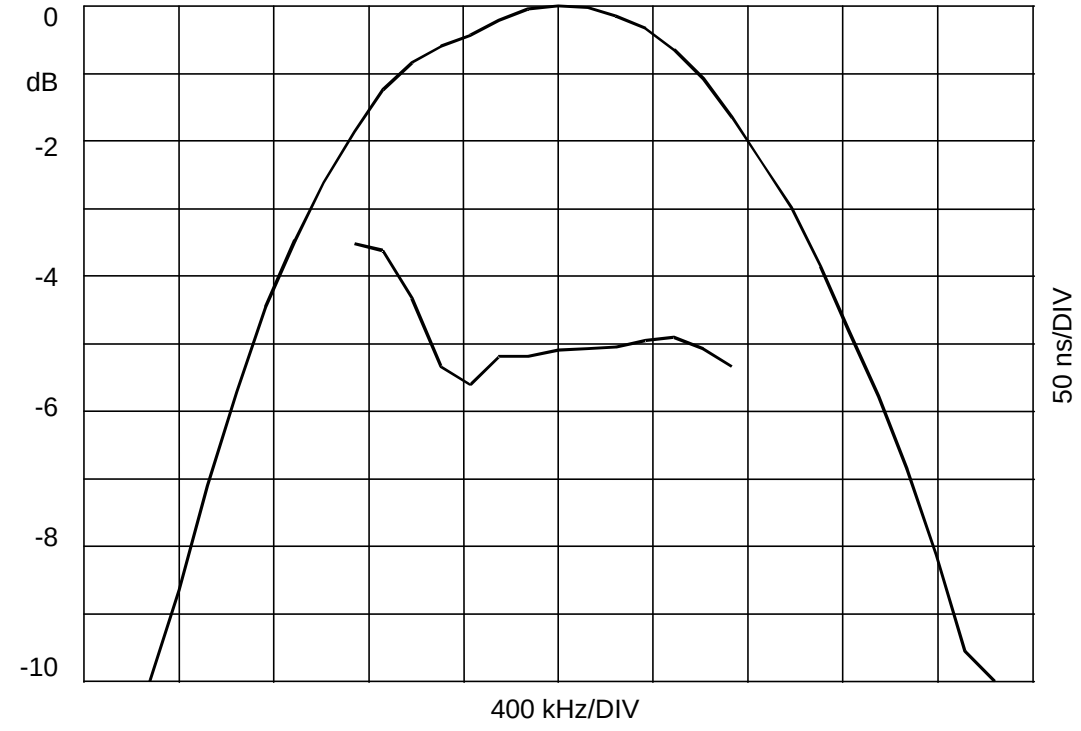
RF Monolithics, Inc.
4347 Sigma Road
Dallas, Texas 75244
USA

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

SF1083B 286 MHz SAW Filter





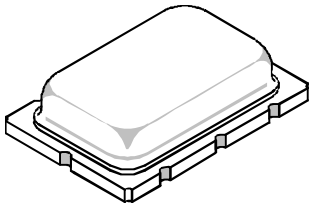
RF Monolithics, Inc.
4347 Sigma Road
Dallas, Texas 75244
USA

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

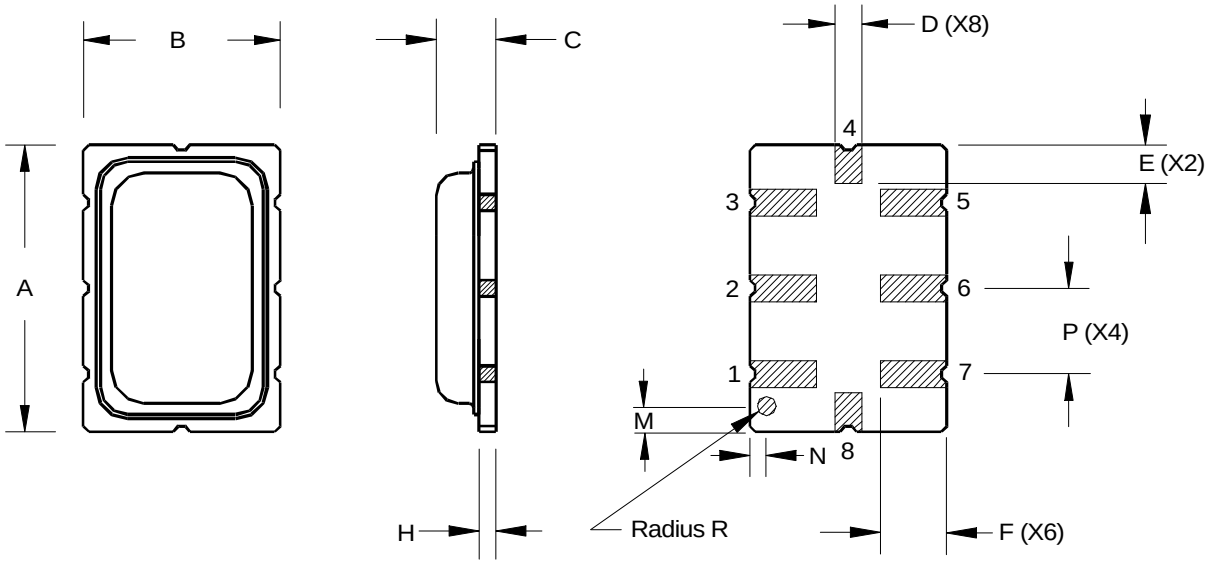
European Sales Office
44 1963 251383
44 1963 251510

SM8558-8 Case

8-Terminal Ceramic Surface-Mount Case
8.5 x 5.8 mm Nominal Footprint

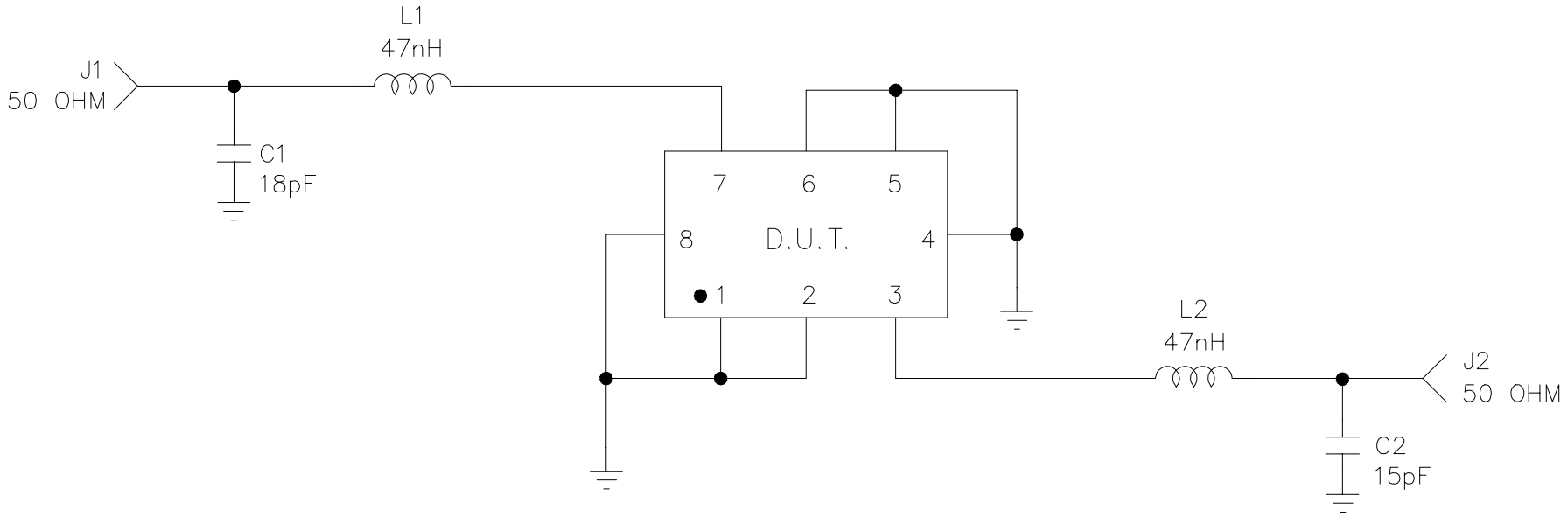


Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	8.26	8.51	8.76	0.325	0.335	0.345
B	5.59	5.84	6.10	0.220	0.230	0.240
C		1.70	2.00		0.067	0.079
D		0.79			0.031	
E		1.14			0.045	
F		1.98			0.078	
H		0.51			0.020	
M		0.76			0.030	
N		0.51			0.020	
P		2.54			0.100	
R		0.51			0.020	



RF Monolithics, Inc. Phone: +1(972) 233-2903 Fax: +1(972) 387-8148 E-mail: info@rfm.com
RFM Europe Phone: 44 1963 251383 Fax: 44 1963 251510 http://www.rfm.com

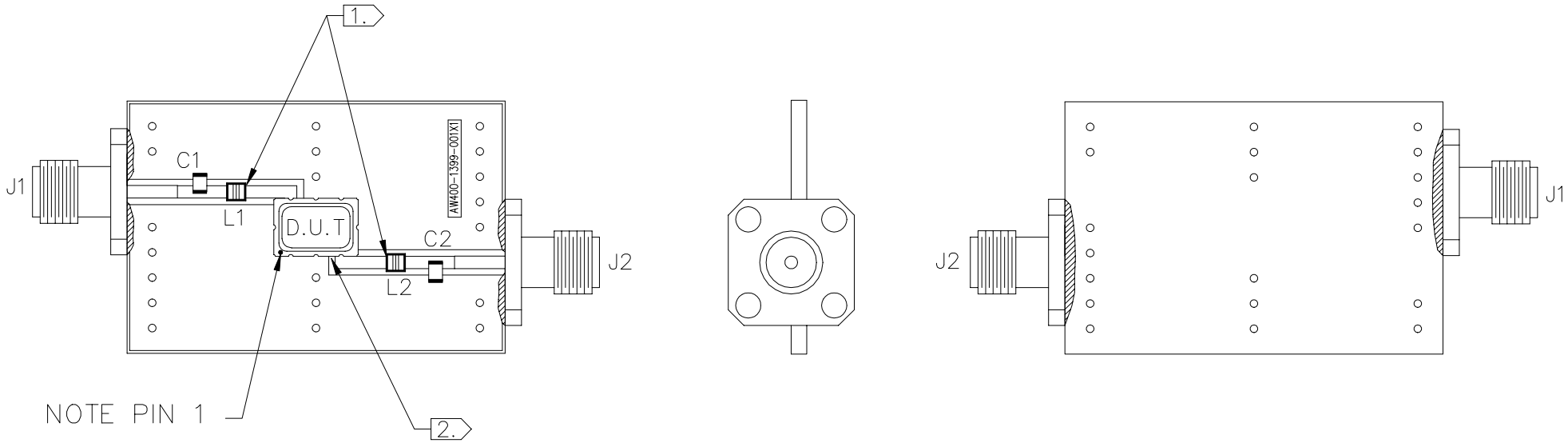
REV	ECN NO.	DESCRIPTION	DATE
A	6771	INITIAL RELEASE	6/8/98
B	7677	C2 WAS 18pf	5/4/99



DRAWN BY/DATE: J.J. LAYTON 06/08/98			TITLE: ASSY DIAGRAM, DEMO BOARD, SF1083B				
RF Monolithics, Inc. DALLAS, TEXAS 75244	CHECKED/APPROVED	SIZE A	CODE IDENT 2U874	DWG. NO. SF1083B-100		REV B	SHEET 1/3

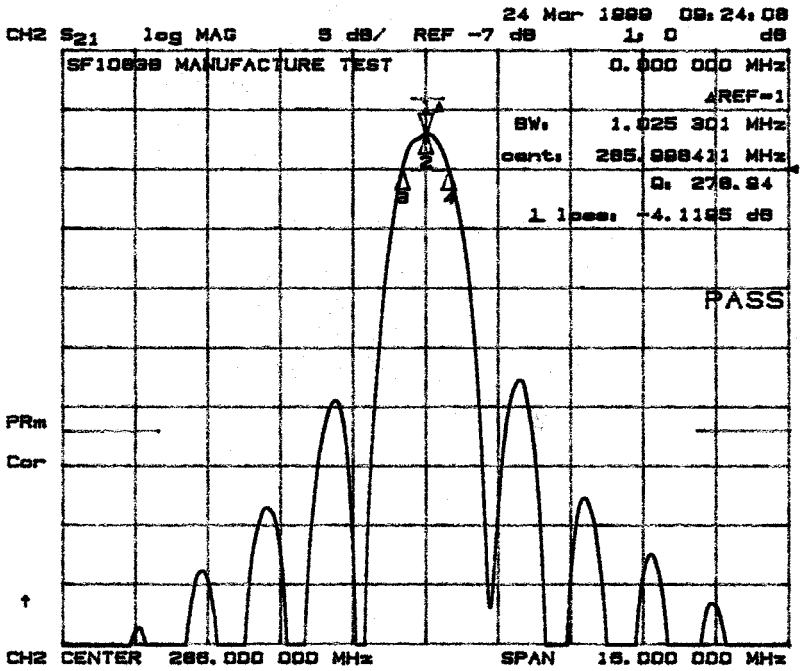
NOTES:

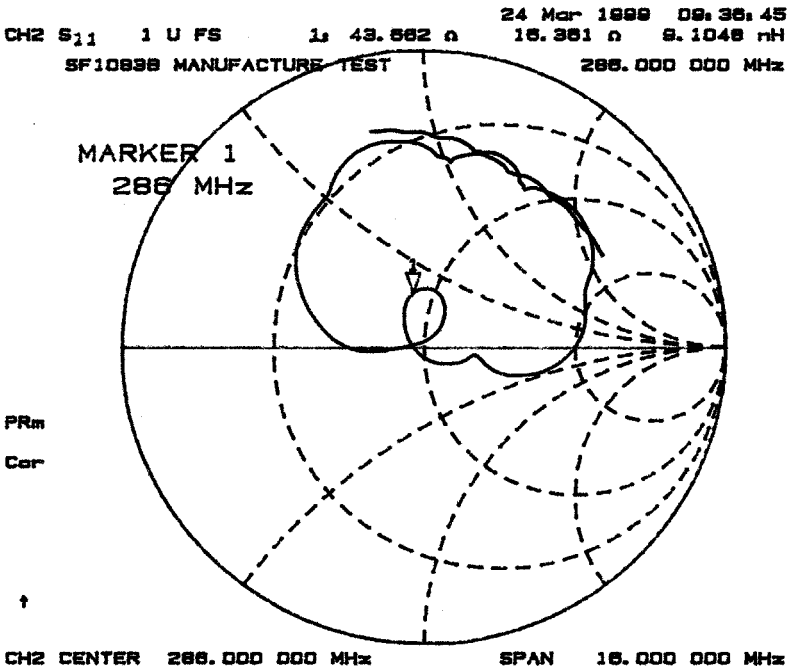
1. CUT TRACE (2 PLACES) ON PCB FOR L1 & L2.
2. INSTALL DUT AS SHOWN.
3. INSTALL TUNING COMPONENTS.
4. INSTALL CONNECTORS. SOLDER BULKHEAD TO BOTH SIDES OF PCB.

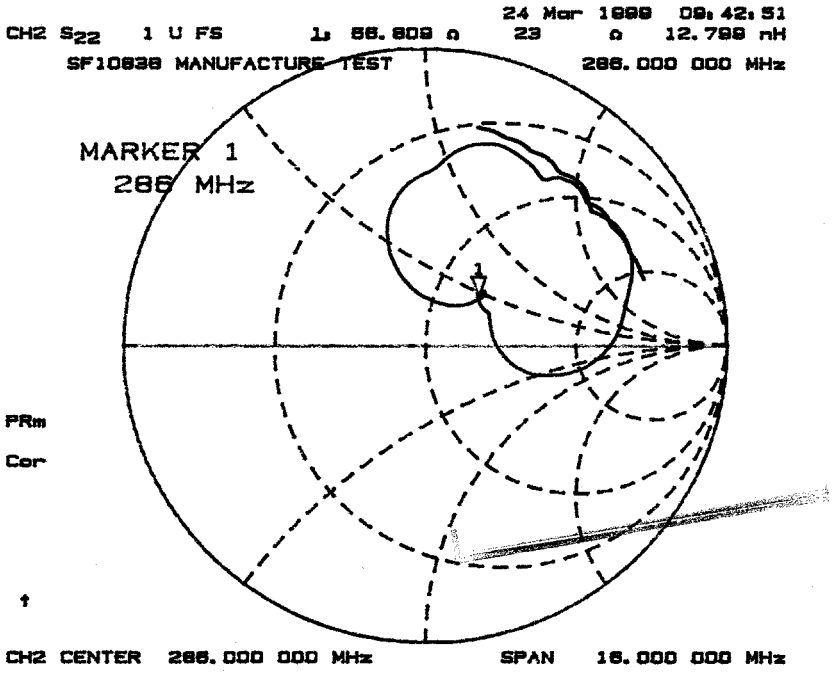


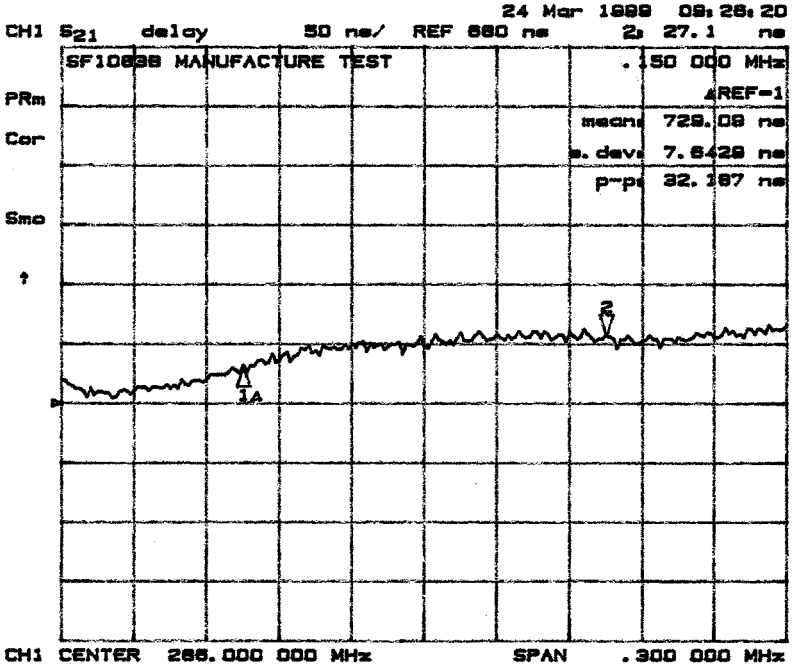
RF Monolithics, Inc. DALLAS, TEXAS 75244		SIZE A	CODE IDENT 2U874	DWG. NO. SF1083B-100	REV B	SHEET 2

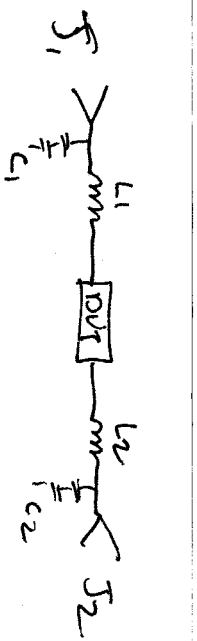
SF1083B
Demo #1
Device #1
3-24-99
LP











L_1, L_2 - 47nH
C_1 - 18pf
C_2 - 15pf