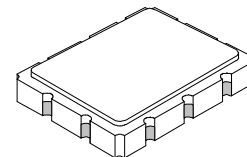


SF1067A 350 MHz SAW Filter



- Designed for WLAN IF Applications
- Low Insertion Loss
- 9.1 X 7.1 mm Surface-Mount Case
- Unbalanced Input and Output



Characteristic	Sym	Min	Typ	Max	Units	Notes
Nominal Center Frequency	fc		350.000		MHz	1
Passband	Insertion Loss at fc		9	10.0	dB	1, 2
	3 dB Passband					
	BW ₃	±525	±670		kHz	
	Amplitude Ripple over fc ±250 kHz			0.5	dB _{P-P}	
	Group Delay Variation over fc ±400 kHz		<200	250	nS _{P-P}	
Rejection	fc-4.0 to fc-1.8 and fc+1.8 to fc+4.0 MHz	33	40		dB	1, 2, 3
	fc-50 to fc-8.0 and fc+8.0 to fc+50 MHz	40	45			
	Ultimate		50			
Operating Temperature Range	T _A	-20		+70	°C	1

Impedance Matching to 50 Ω unbalanced	External L-C
Case Style	SM9171-10 9.1 x 7.1 mm Nominal Footprint
Lid Symbolization (XX = 2-character date code)	RFM SF1067A XX

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	10
Port 1 Gnd Return	1
Port 2 Hot	5
Port 2 Gnd Return	6
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.

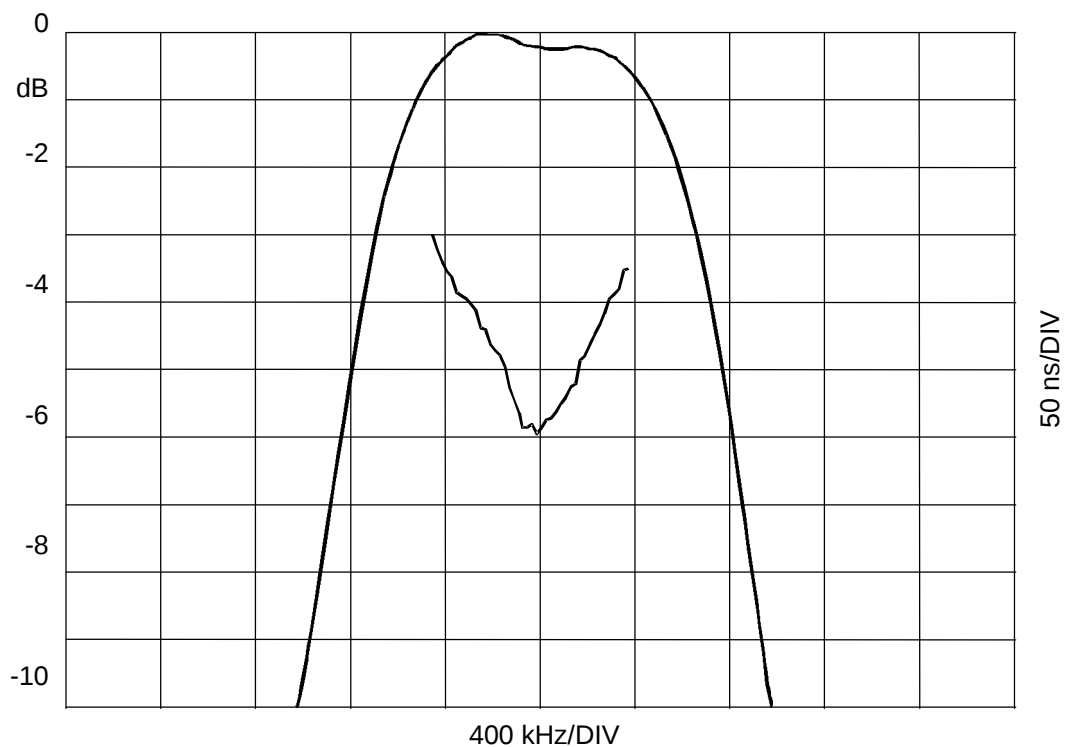
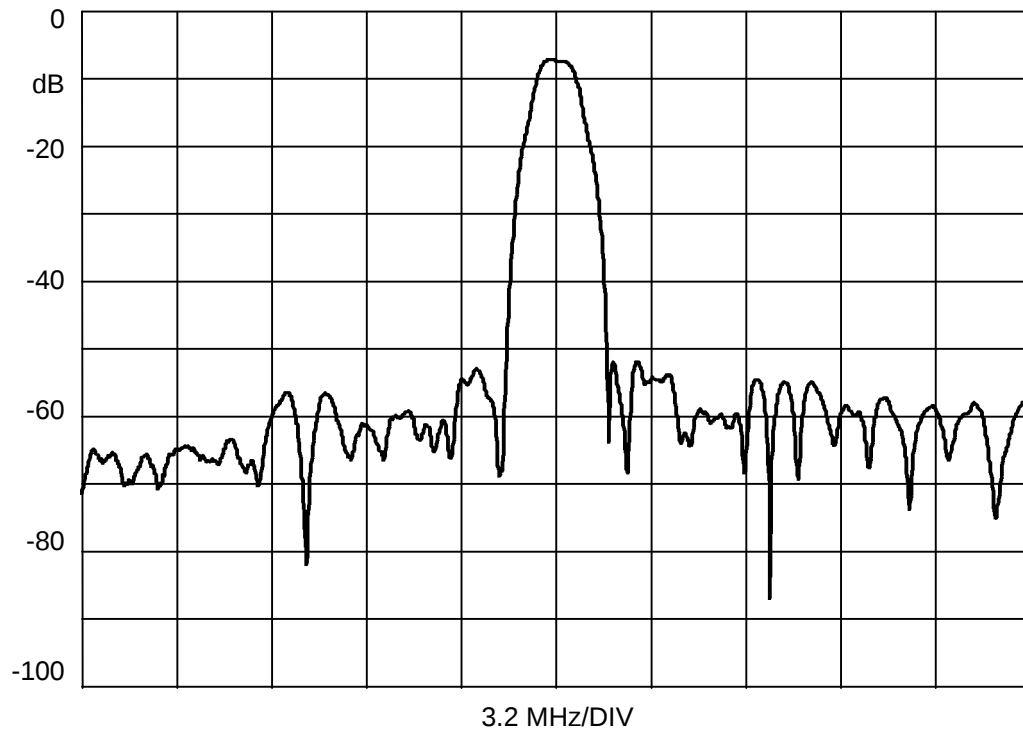


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Home page: www.rfm.com

European Sales Office
44 1963 251383
44 1963 251510

SF1067A 350 MHz SAW Filter

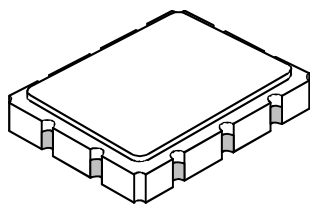


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10-Terminal Ceramic Surface-Mount Case 9.1 x 7.1 mm Nominal Footprint

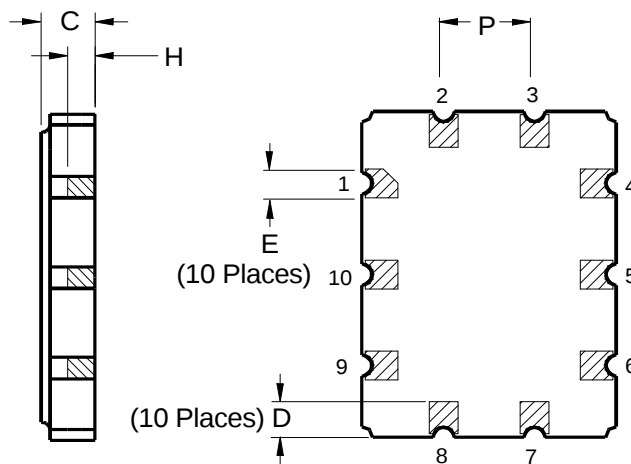
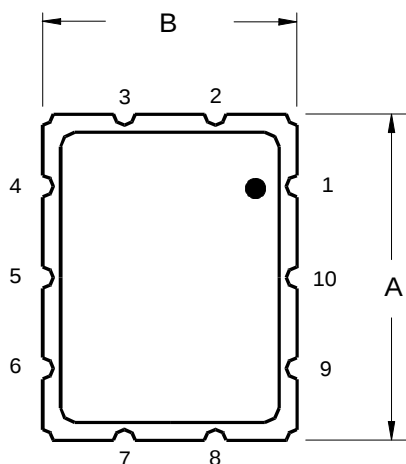


Case Dimensions

Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	8.86	9.09	9.40	0.349	0.358	0.370
B	6.88	7.11	7.40	0.271	0.280	0.291
C		1.91	2.00		0.075	0.079
D		0.99			0.039	
E		0.79			0.031	
H		1.0			0.039	
P		2.54			0.100	

Electrical Connections

Connection		Terminals
Port 1	Input or Return	6
	Return or Input	5
Port 2	Output or Return	1
	Return or Output	10
Ground		All others
Single Ended Operation		Return is ground
Differential Operation		Return is hot



REV	ECN NO.	DESCRIPTION	APP/DATE
A	4572	INITIAL RELEASE	

BILL OF MATERIALS

SEQ	QTY	RFM P/N	DESCRIPTION	REF DES	REFERENCE/ COMMENTS
1	1	400-0845-001	PCB, 9x7mm	PCB	
2	2	500-0003-220	CAP, NPO 22 pF	C1,2	±5%
3	2	500-0003-010	CAP, NPO 1pF	C3,4	±5%,
4	1	500-0003-270	CAP, NPO 27pF	C5	±5%,
5	2	500-0248-001	CONN, COAX, FLANGE MT. JACK	J1,2	
6	2	500-0010-270	IND, CHIP 27nH	L1,2	±10%

DRAWN BY/DATE: J. LAYTON 04/29/96

TITLE: DEMO PCB, SF1067A

RF Monolithics, Inc.
DALLAS, TEXAS 75244

CHECKED/APPROVED

SIZE
A

CODE IDENT
2U874

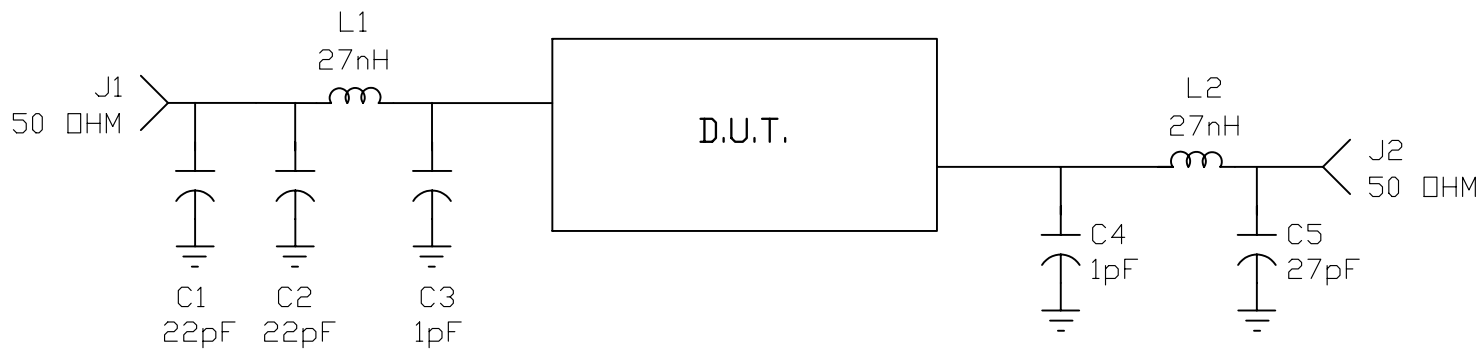
DWG.
NO.

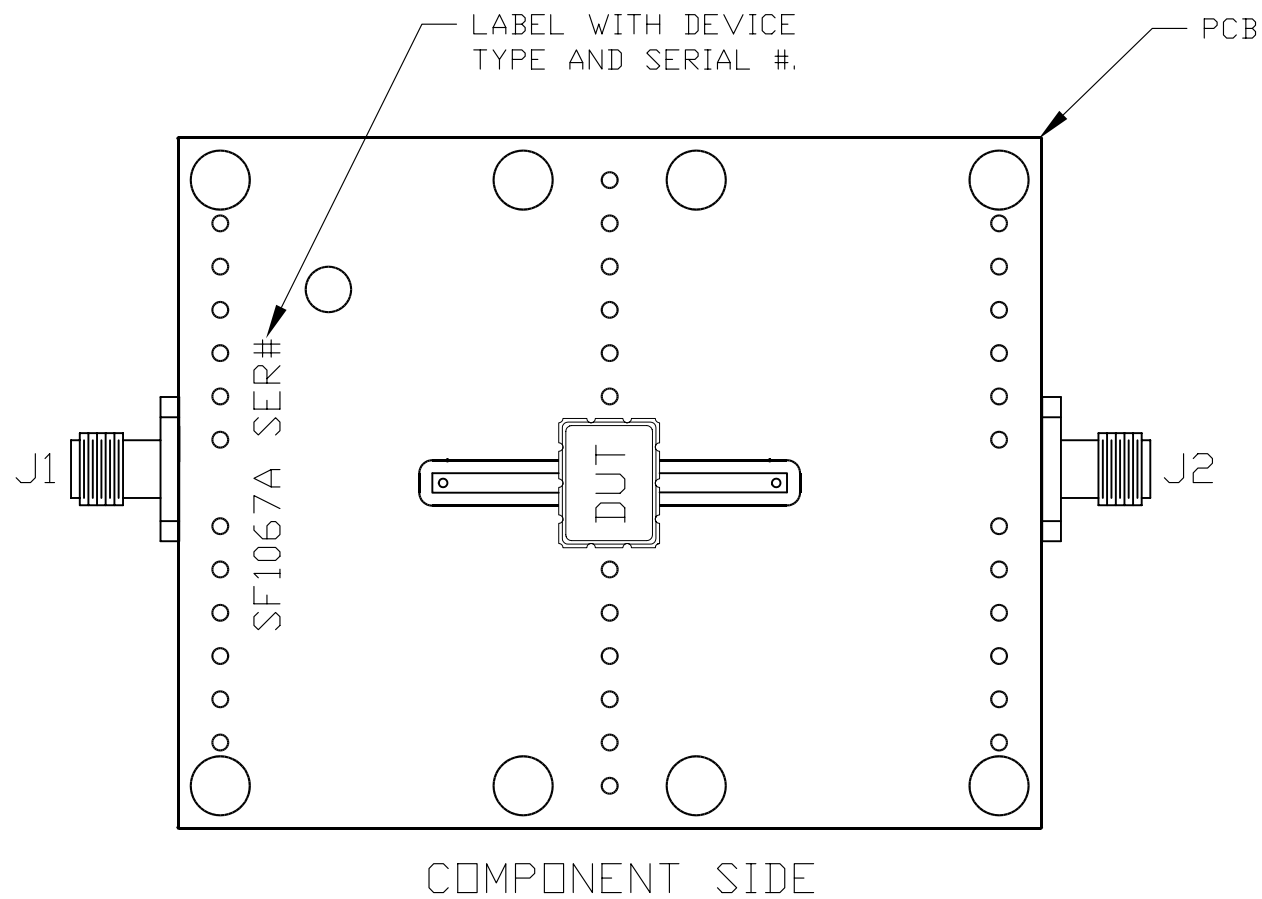
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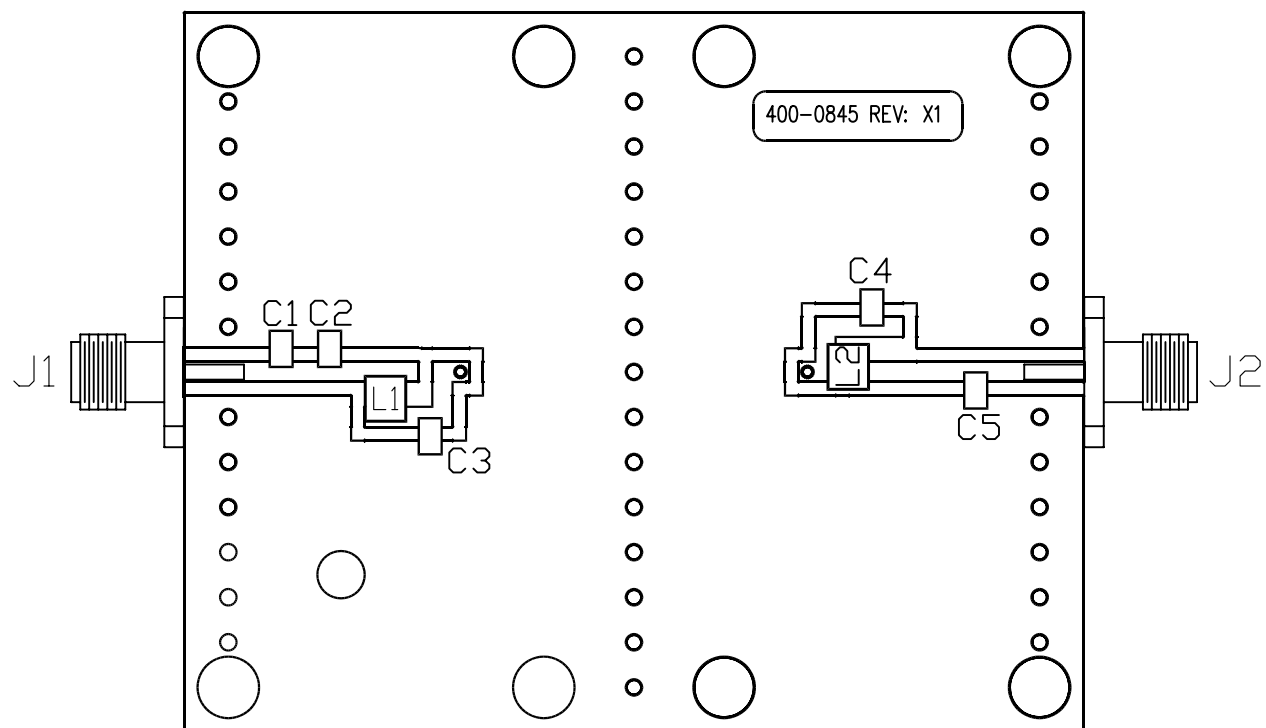
REV
A

SHEET
1/9

SCHEMATIC, SF1067A (DEMO)







SOLDER SIDE

INSTRUCTIONS:

PLOTS: Plots A & B show the aproximate place on the smith chart where device is to be tuned to.
Plot #C is a reference plot for Amplitude Ripple.
Plot #D is to be delivered with each demo.

NOTE: The number of tuning components and their values may vary in order to achieve proper tuning. Note component values & tolerances on each plot.

SF1067A plot A

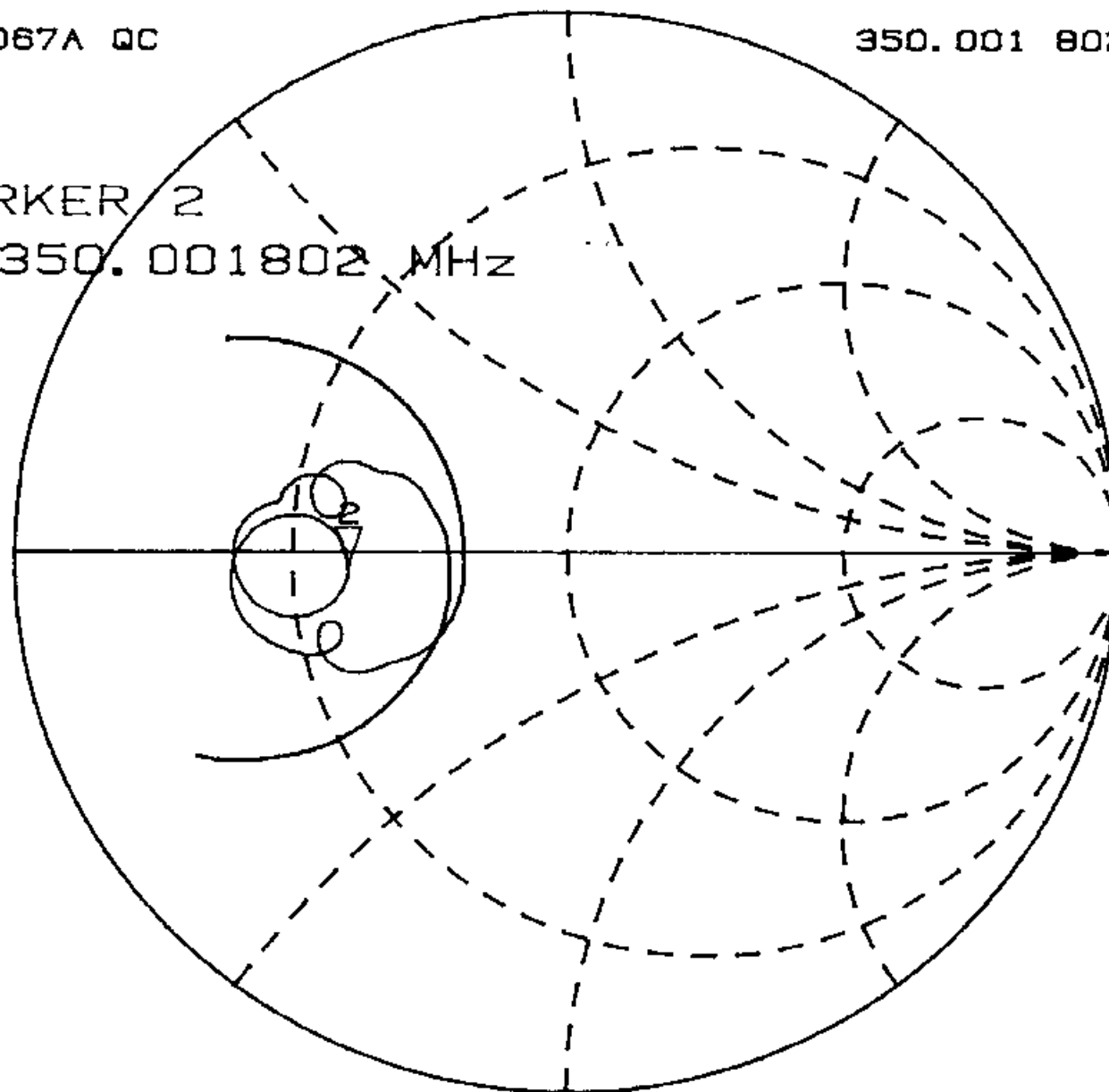
CH2 S₁₁ 1 U FS 2 21.645 Ω -1.0957 Ω 415.01 pF
 SF1067A QC 350.001 802 MHz

MARKER 2
 350.001802 MHz

Cor

CH2 CENTER 350.000 000 MHz SPAN 20.000 000 MHz

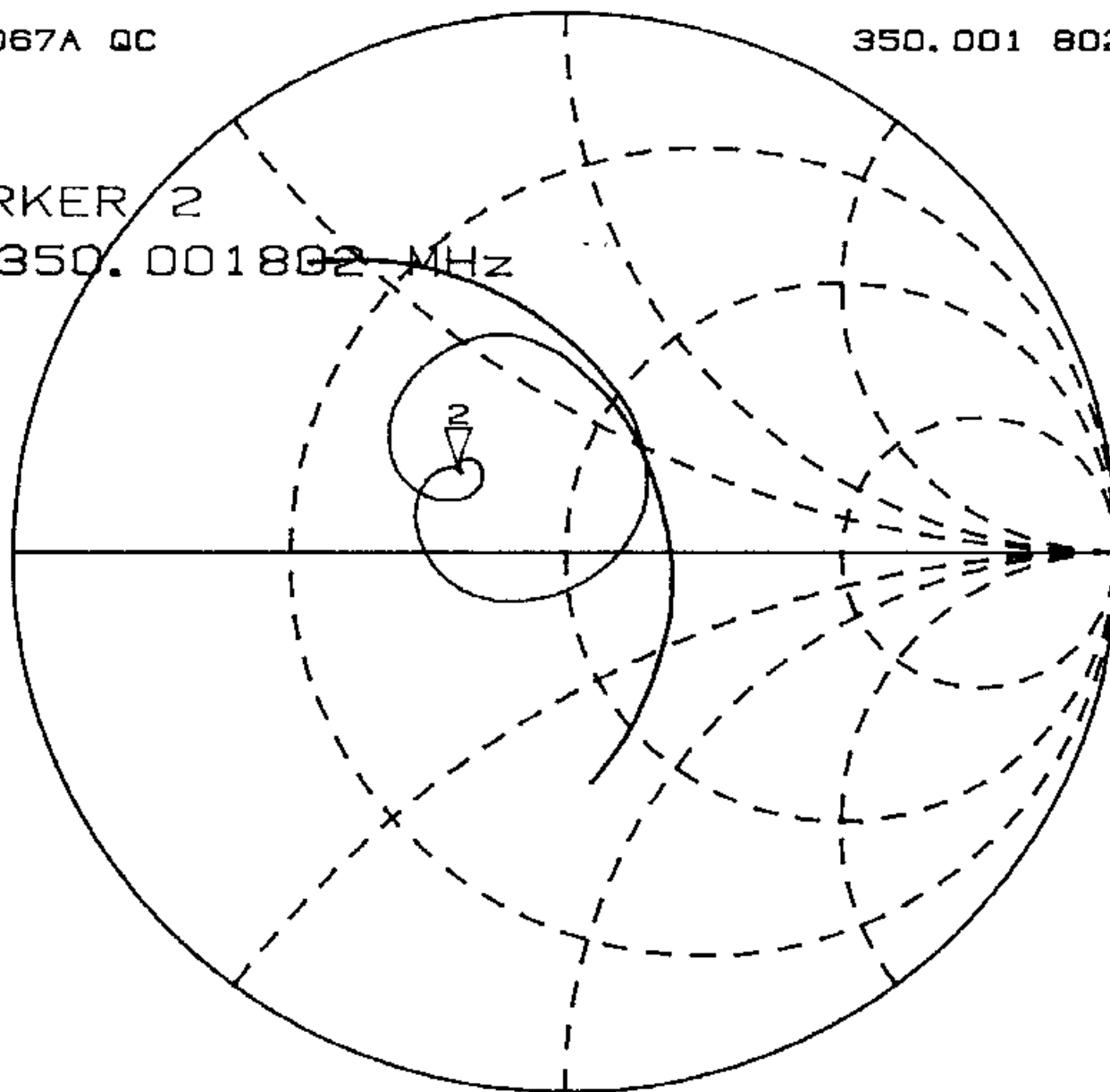
Sheet 6089 REV:A



SF1067A plot B

CH2 S₂₂ 1 U FS 2 32.281 n 11.201 n 5.0935 nH
 SF1067A QC 350.001 802 MHz

MARKER 2
 350.001802 MHz



Cor

CH2 CENTER 350.000 000 MHz SPAN 20.000 000 MHz

Sheet 7069 Rev: A

CH2 S22 1 U FS

23.537 n

19 Apr 1996 08:25:41

-15.693 n 18.473 pF

SF1063A

Demo #1

549.000 000 MHz

MARKER 1
549 MHz

PRm

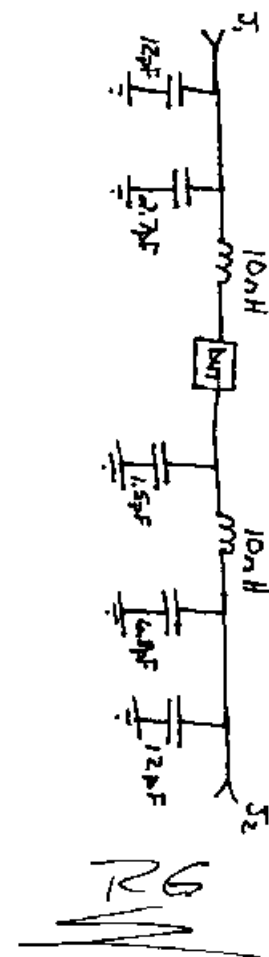
Cor

↑

CENTER 549.000 000 MHz

SPAN 10.000 000 MHz

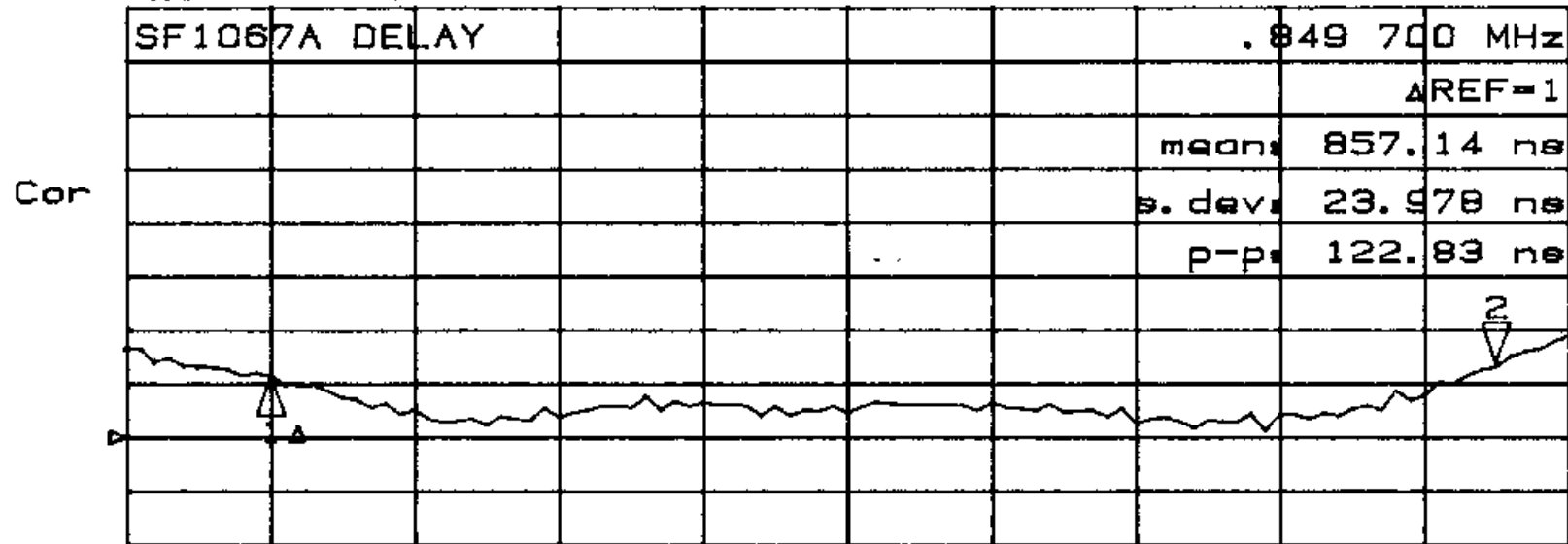
SF1063A (Demo)



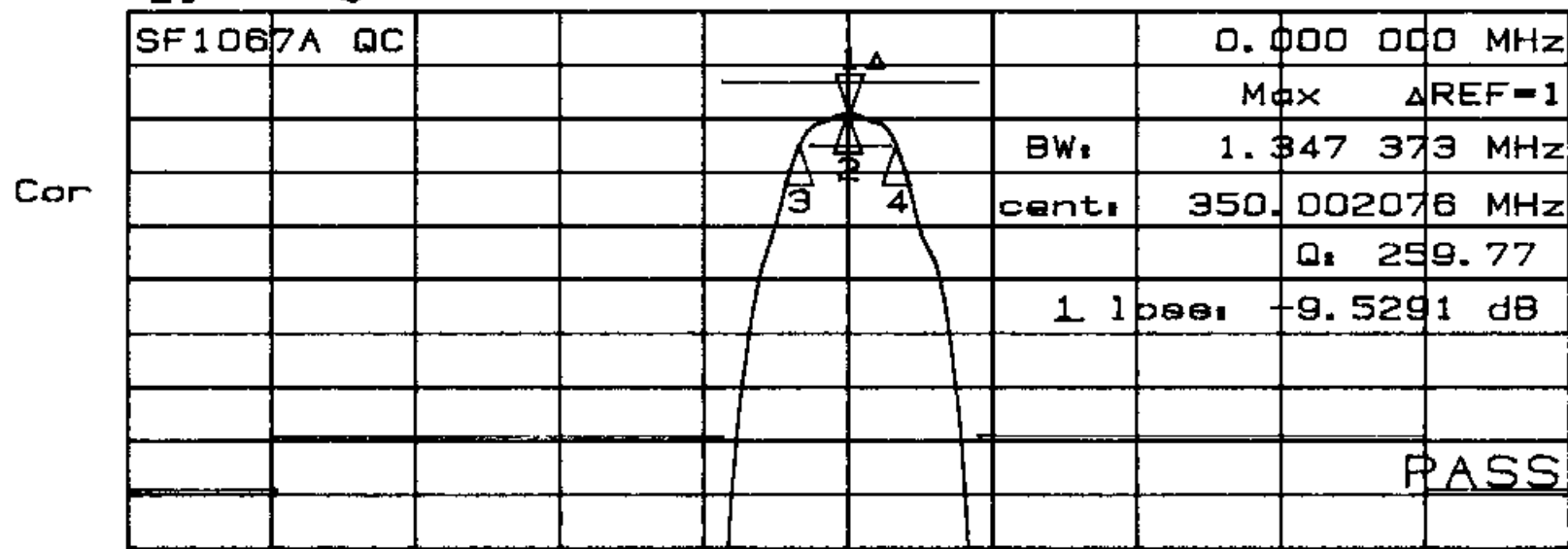
SF1067A plot D

SF1067A
d/c KD
#1
2-1-96
SS.

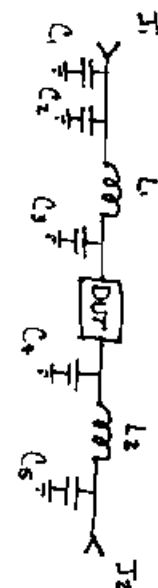
CH1 S₂₁ delay 100 ns/ REF 800 ns 2 25.665 ns



CH1 CENTER 350.000 000 MHz SPAN 1.000 000 MHz
CH2 S₂₁ log MAG 5 dB/ REF -10 dB 1 0 dB



CH2 CENTER 350.000 000 MHz SPAN 20.000 000 MHz



L₁, L₂ 27nH ± 10%
C₁, C₂ 22pF ± 5%
C₃, C₄ 1pF ± 5%
C₅ 27pF ± 5%