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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

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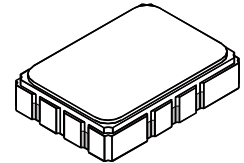
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**SF1141B**

**75.00 MHz  
SAW Filter**



**SMP-03**

- **Designed for SDARS IF Receiver**
- **Low Insertion Loss**
- **5.0 X 7.0 mm Surface-Mount Case**
- **Differential Input and Output**
- **Complies with Directive 2002/95/EC (RoHS)**



**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 Characteristics**

Characteristic	Sym	Notes	Min	Typ	Max	Units
Nominal Center Frequency	$f_c$			75.000		MHz
Passband	Insertion Loss at $f_c$	1		12.5	16.0	dB
			1dB Passband	$BW_1$	$\pm 6.35$	$\pm 7.43$
	Fast Amplitude Ripple over $f_c \pm 6.35$ MHz	1, 2			1.5	dB <sub>P-P</sub>
			Group Delay Variation over $f_c \pm 6.35$ MHz	GDV		75
Rejection	$f_c - 100$ to $f_c - 10.95$ and $f_c + 18.8$ to $f_c + 100$ MHz	1, 2, 3		40	45	dB
			$f_c + 10.95$ to $f_c + 18.8$ MHz		30	
Operating Temperature Range	$T_A$	1	-40		+85	°C
Differential Input and Output Impedance			250 ohms			
Case Style			SMP-03 7 x 5 mm Nominal Footprint			
Lid Symbolization (YY=year, WW=week, S=shift) See note 4		6	RFM SF1141B YYWWSS			

**Electrical Connections**

Connection	Terminals
Port 1 Hot	10
Port 1 Ground Return	1
Port 2 Hot	5
Port 2 Ground Return	6
Case Ground	All Others

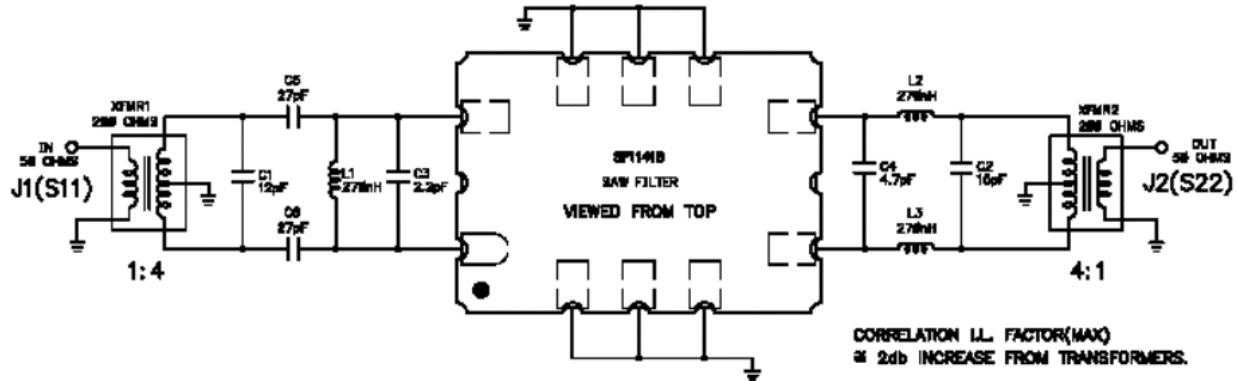
 **CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.**  
**NOTES:**

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  $\Omega$  and measured with 50  $\Omega$  network analyzer.
2. Unless noted otherwise, all frequency specifications are referenced to the nominal center frequency,  $f_c$ .
3. The design, manufacturing process, and specifications of this filter are subject to change.
4. 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.
5. US and international patents may apply.

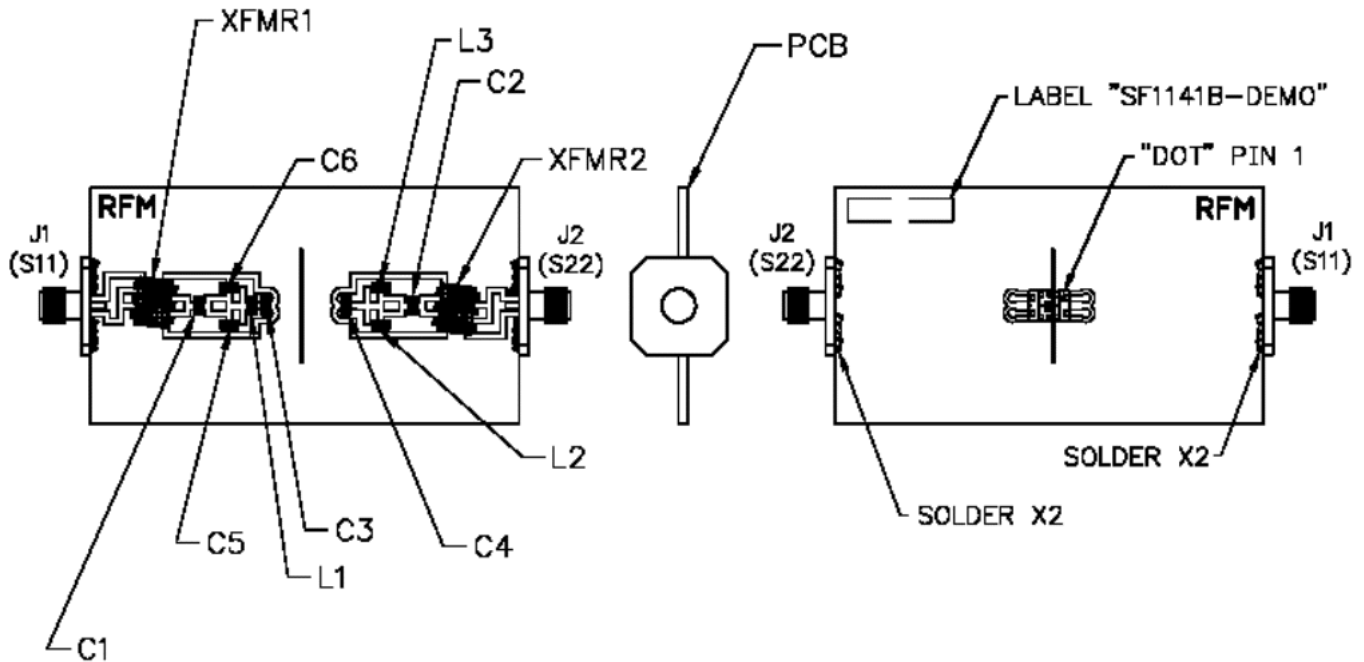
NOTES:

- 1 USE A WRIST STRAP WHEN SOLDERING TRANS 1, AND TRANS 2 TO PCB.  
(CUT LEADS .87 IN.)
- 2 MOUNT AND SOLDER ALL COMPONENTS ON PCB.
- 3 CUT CENTER CONDUCTORS FROM J1 AND J2 TO .18 IN.
- 4 MOUNT J1 AND J2 AS SHOWN (SOLDER BACKSIDE ALSO).
- 5 LABEL DEMO BOARD ACCORDINGLY.
- 6 MOUNT "FILTER" ON TOPSIDE OF PCB AS SHOWN.

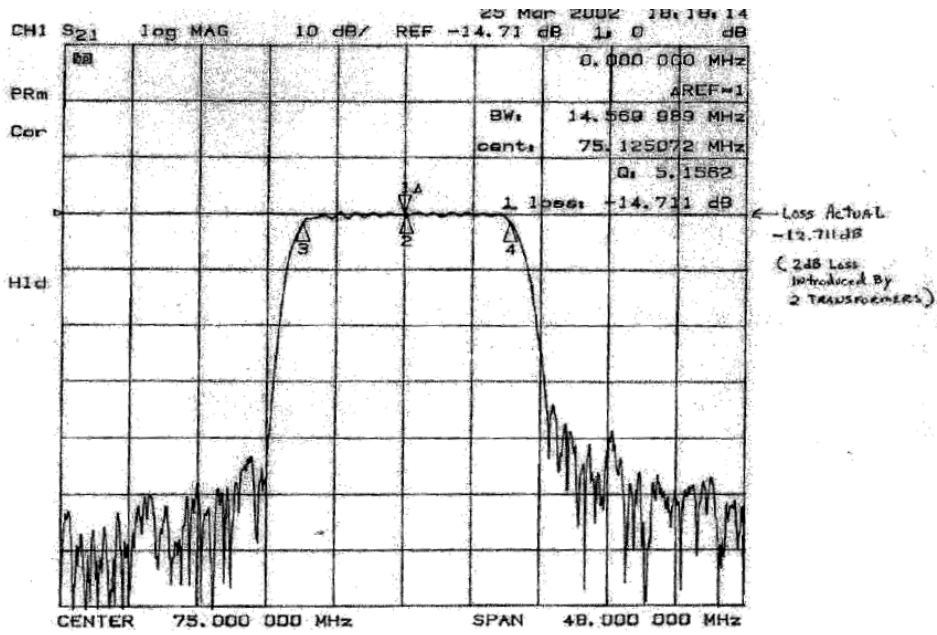
REV	SIZE	DESCRIPTION	DATE
A	9248	INITIAL RELEASE	11dec88
B	18658	REVISED	30apr92
C	11676	REVISED	28nov92



TITLE				
ASSY DIAGRAM, DEMO BOARD, SF1141B, S, TD				
SIZE	FORM NO.	QWL NO.	REV	SHEET
B	2U874	SF1141B-100	C	1/2



SIZE	FORM NO.	QWL NO.	REV	SHEET
B	2U874	SF1141B-100	C	2



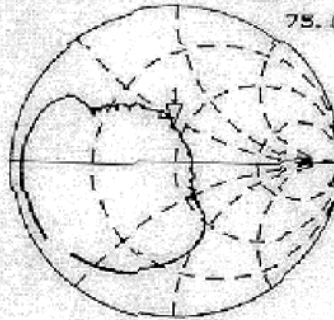
25 Mar 2002 18:20:56

CH1 S<sub>11</sub> 1 U FS 1 44.408 n 20.768 n 44.07 nH

PRm

Cor

75.000 000 MHz

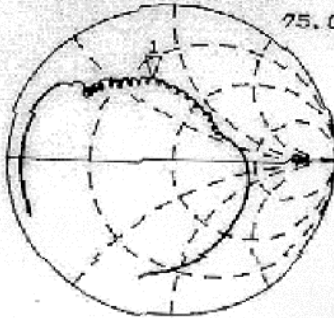


CH2 S<sub>22</sub> 1 U FS 1 23.957 n 34.564 n 73.348 nH

PRm

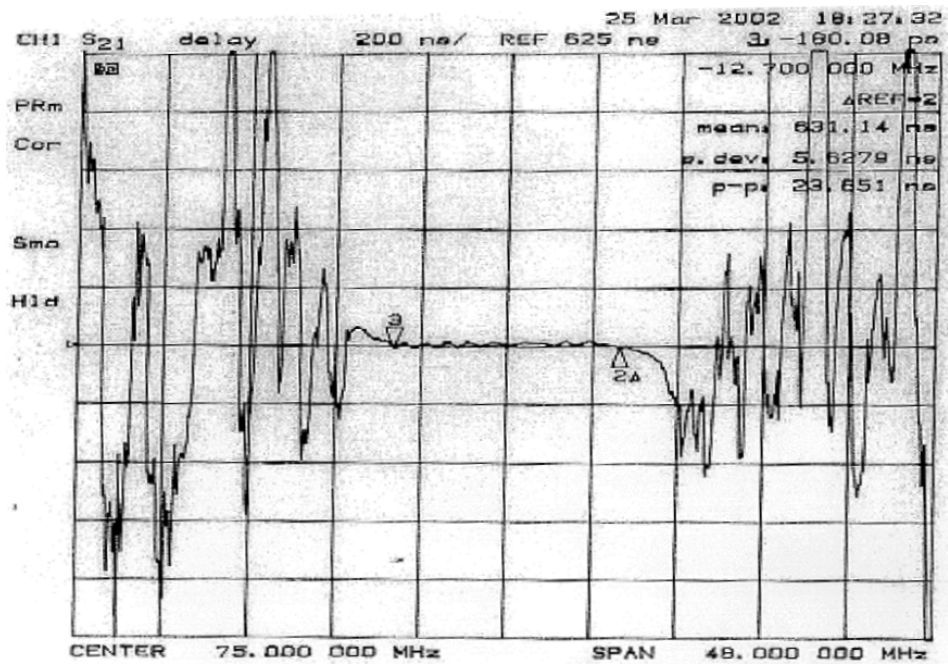
Cor

75.000 000 MHz

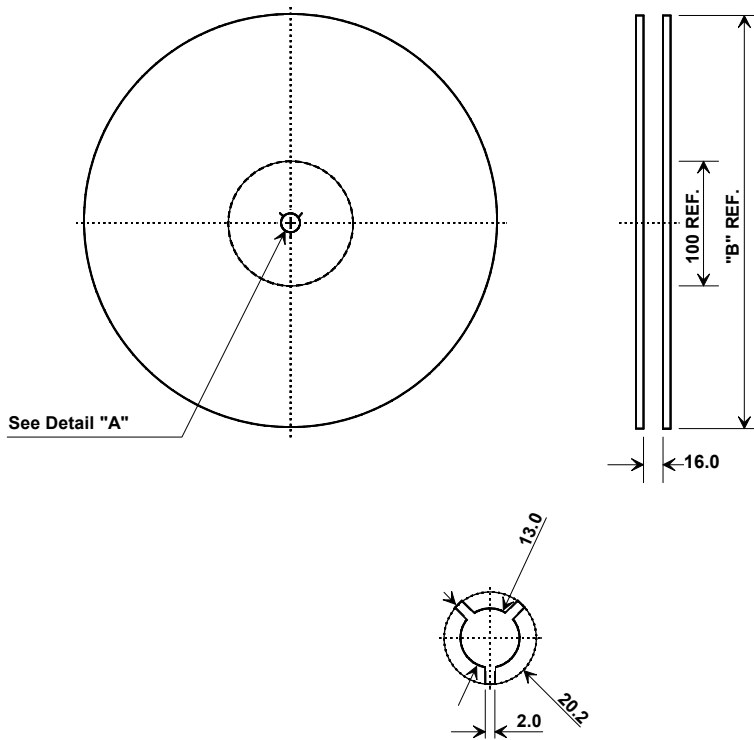


H1d

START 51.000 000 MHz STOP 99.000 000 MHz

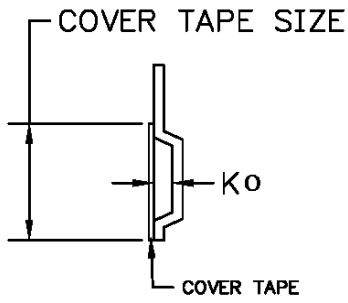


### Tape and Reel Specifications

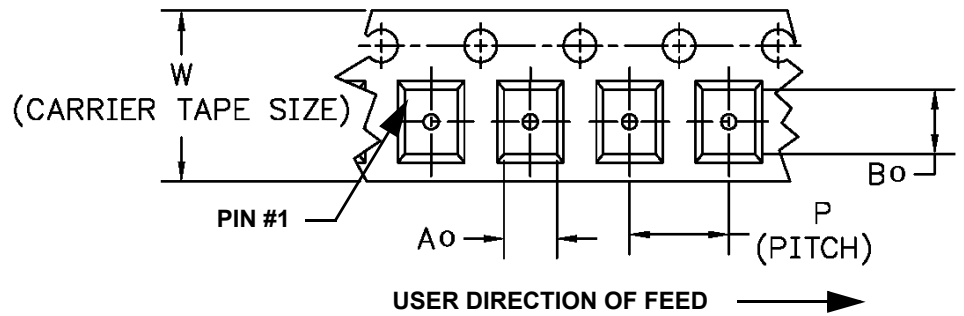


"B" Nominal Size		Quantity Per Reel
Inches	millimeters	
7	178	500
13	330	2000

COMPONENT ORIENTATION and DIMENSIONS

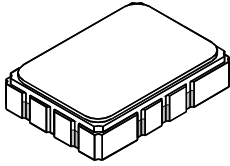


Carrier Tape Dimensions		Tolerance
Ao	5.5 mm	± 0.1mm
Bo	7.5 mm	± 0.1mm
Ko	2.0 mm	± 0.1mm
Pitch	8.0 mm	± 0.1mm
W	16.0 mm	± 0.2mm

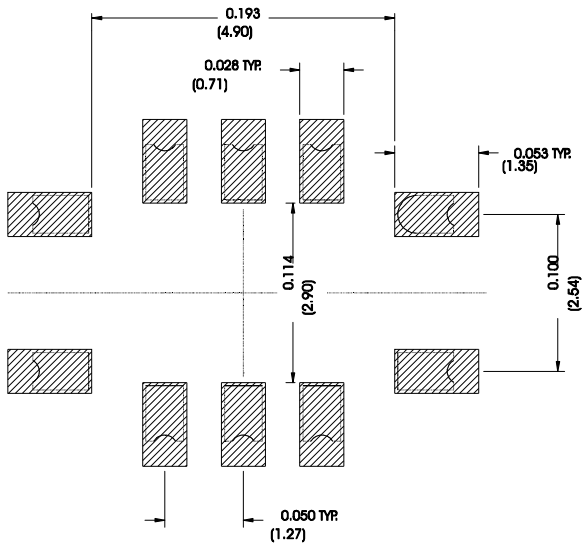


# SMP-03 Case

## 10-Terminal Ceramic Surface-Mount Case 7 x 5 mm Nominal Footprint



### Recommended PCB Footprint



Case Dimensions						
Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	6.80	7.00	7.20	0.268	0.276	0.283
B	4.80	5.00	5.20	0.189	0.197	0.205
C		1.65	2.00		0.065	0.079
D	.47	0.60	.73	0.019	0.024	0.029
E	2.41	2.54	2.67	0.095	0.100	0.105
H	0.87	1.0	1.13	0.034	0.039	0.044
J	4.87	5.00	5.13	0.192	0.197	0.202
K	2.87	3.00	3.13	0.113	0.118	0.123
P	1.14	1.27	1.40	0.045	0.050	0.055

Materials	
Solder Pad Termination	Au plating 30 - 60 ulnches (76.2-152 uM) over 80-200 ulnches (203-508 uM) Ni.
Lid	Fe-Ni-Co Alloy Electroless Nickel Plate (8-11% Phosphorus) 100-200 ulnches Thick
Body	Al <sub>2</sub> O <sub>3</sub> Ceramic
Pb Free	

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

