

- RF Filter for Mobile Communication Applications
- No Matching Circuit Required
- 3.0 x 3.0 x 1.3 mm Package
- Complies with Directive 2002/95/EC (RoHS)



# 012 E MU-

SF1192B





## **Absolute Maximum Ratings**

Rating	Value	Units
Maximum Input Power	+10	dBm
DC voltage between Terminals	0	VDC
Case Temperature	-40 to +85 °C	
Suitable for lead-free soldering - Max Soldering Temperature	260°C for 30 s	

### **Electrical Characteristics**

Characteristic			Notes	Min	Тур	Max	Units
Nominal Operating Frequency		f <sub>C</sub>			1842.5		MHz
Passband	Insertion Loss across Fc+/ -37.5 MHz	IL			2.2	3.8	dB
Amplitude Ripple p-p across Fc+/ -37.5 MHz					1.3	2.3	dB
Attenuation	1542.5 ~ 1600 MHZ			20.0	24.5		dB
	1600 ~ 1710 MHZ			22.0	25.0		dB
	1710 ~ 1785 MHZ			10.0	23.5		dB
	1920 ~ 2142.5 MHZ			25.0	28.0		dB
VSWR across Fc +/ -37.5 MHz					1.9	2.6	
Source impedance		Z <sub>S</sub>			50		Ω
Load impedance		$Z_{L}$			50		Ω
Operating Temperat	ture	T <sub>A</sub>		-30		+85	°C

Case Style	SM3030-6 3 x 3 mm Nominal Footprint
Lid Symbolization (Y=year, WW=week, S=Shift)	454 YWWD

#### **Electrical Connections**

Connection	Terminals
Input	2
Output	5
Ground	All others

#### Notes

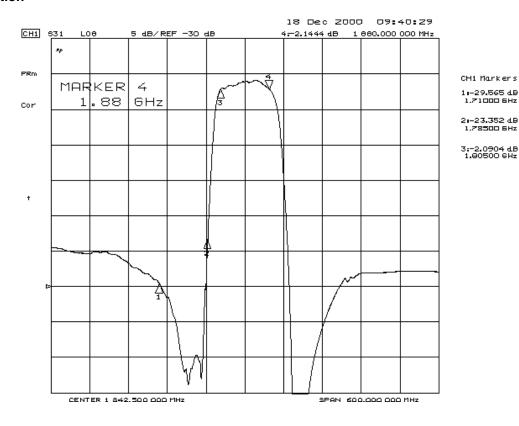
- 1. Unless noted otherwise, all specifications apply over the operating temperature range with filter soldered to the specified demonstration board with impedance matching to 50  $\Omega$  and measured with 50  $\Omega$  network analyzer.
- 2. Unless noted otherwise, all frequency specifications are referenced to the nominal center frequency, fc.
- The design, manufacturing process, and specifications of this filter are subject to change.
- 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.
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- 8. Electrostatic Sensitive Device. Observe precautions for handling.

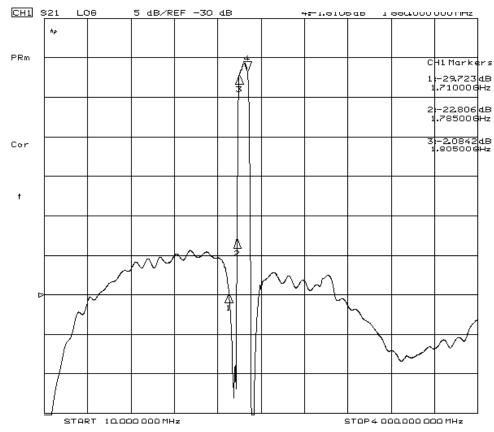


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# Frequency Characteristics: Transfer Function

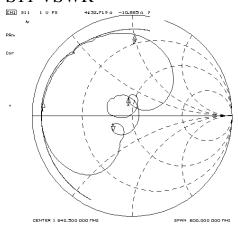


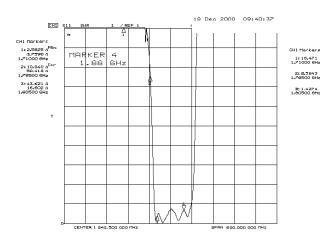


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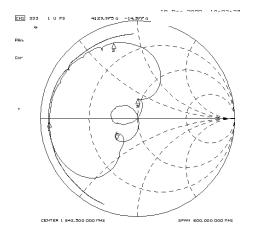
# **Reflections Functions:**

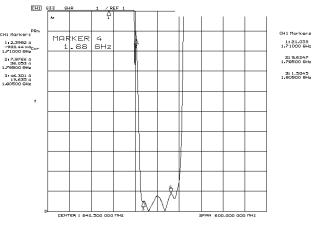
# S11 VSWR





# S22 VSWR

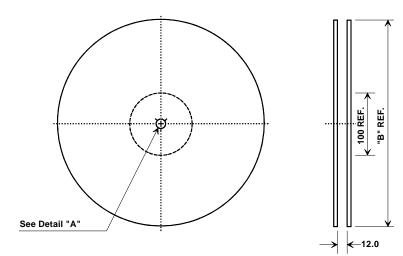




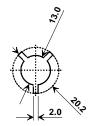
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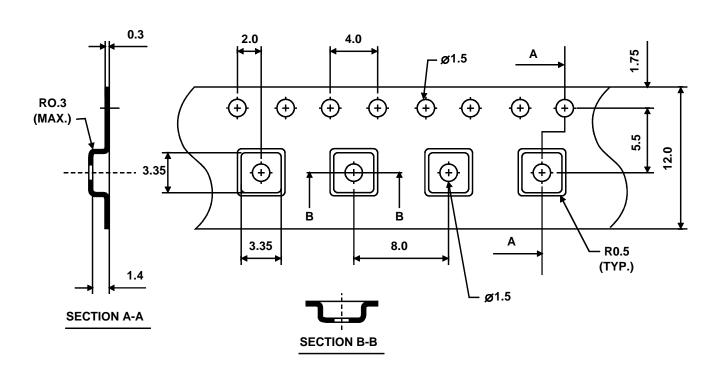
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# **Tape and Reel Specifications**



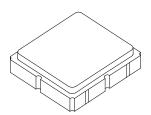
	B " nal Size	Quantity	Per Reel
Inches	millimeters	Min	Max
7	178	TBD	TBD
13	330	TBD	TBD





# **SM3030-6 Case**

# 6-Terminal Ceramic Surface-Mount Case 3.0 X 3.0 mm Nominal Footprint

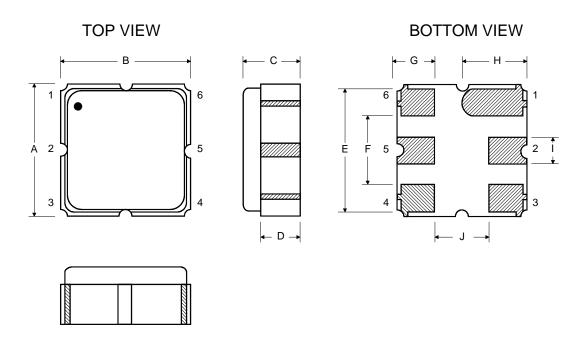


### **Case Dimensions**

Dimension		mm			Inches	
Dilliension	Min	Nom	Max	Min	Nom	Max
Α		3.0			0.118	
В		3.0			0.118	
С		1.3			0.051	
D		0.9			0.035	
E		2.54			0.100	
F		1.6			0.063	
G		0.85			0.033	
Н		1.5			0.059	
I		0.6			0.024	
J		1.3			0.051	

## **Electrical Connections**

	Connection	Terminals			
Port 1	Single Ended Input	2			
Port 2	Single Ended Output	5			
	Ground	All others			
Single Ended Operation Only					
Dot indicates Pin 1					



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