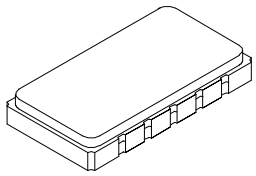
Preliminary

For prototype or pre-production sample please contact RFM Sales.

SF2096B

176.00 MHz SAW Filter

- ***Low Insertion Loss***
- ***13.3 X 6.5 mm Surface-Mount Case***
- ***Complies with Directive 2002/95/EC (RoHS)***



SMP-53-S

Absolute Maximum Ratings

Rating	Value	Units
Maximum Incident Power in Passband	+13	dBm
Max. DC voltage between any 2 terminals	30	VDC
Storage Temperature Range	-40 to +85	°C
Suitable for lead-free soldering - Max Soldering Temperature	260°C for 30 s	

Electrical Characteristics

Characteristic		Sym	Notes	Min	Typ	Max	Units
Nominal Center Frequency		f_C	1	175.9	176	176.1	MHz
Source Impedance (single ended)					50		Ω
Load Impedance (single ended)					50		Ω
Insertion Loss						13	dB
1 dB Bandwidth		BW_1		1.85		1.95	MHz
40 dB Bandwidth		BW_{40}				3.5	MHz
Passband Ripple	CF ±0.875 MHz					0.5	dB
Group Delay Variation						150	ns
Ultimate Rejection	CF ±1.75 to CF ±3.5 MHz			40			dB
	CF ±3.5 to CF ±7 MHz			50			dB
Maximum Peak RF Input Power						13	dBm
Maximum RF Input Power Over Life						10	dBm
Matching to 50Ω Single Ended Impedance			External L-C				
Temperature Range	Operating			-40		85	°C
	Storage			-40		85	
Frequency Temperature Coefficient		FTC			0.032		ppm/°C²
Case Style			SMP-53-S 13.3 x 6.5 mm Nominal Footprint				
Lid Symbolization (YY=year, WW=week, S=shift)			RFM SF2096B YYWWS				

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. 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.
3. The design, manufacturing process, and specifications of this filter are subject to change.
4. Tape and Reel Standard ANSI / EIA 481.
5. 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.
6. US and international patents may apply.
7. RFM, stylized RFM logo, and RF Monolithics, Inc. are registered trademarks of RF Monolithics, Inc.
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9. Electrostatic Sensitive Device. Observe precautions for handling.

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