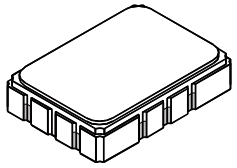
RFM products are now Murata products.

SF2060B-1

115.18 MHz SAW Filter

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



SMP-03-S

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
Suitable for lead-free soldering - Max Soldering Temperature	260°C for 30 s	

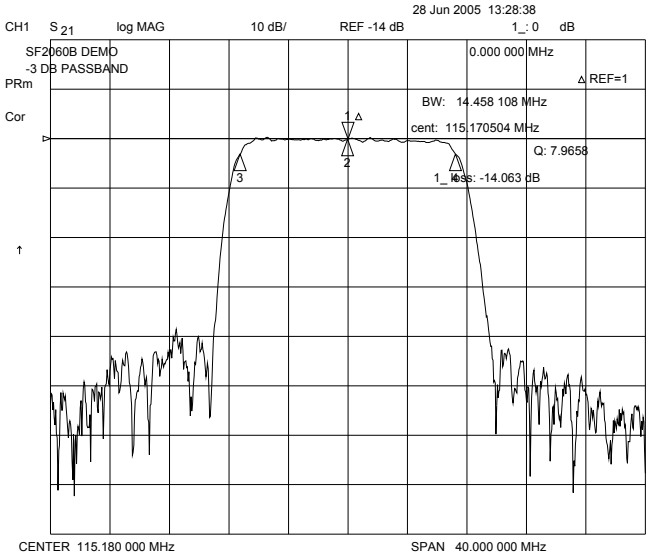
Electrical Characteristics

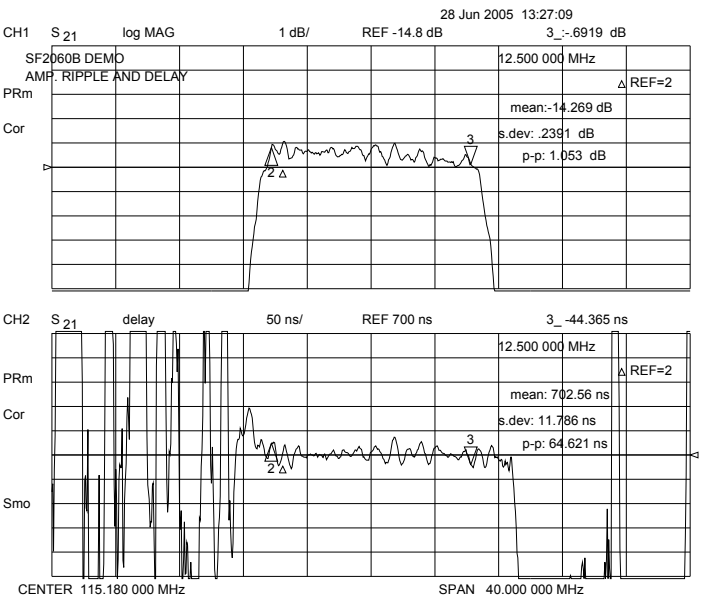
Characteristic	Sym	Notes	Min	Typ	Max	Units
Center Frequency (Fc variation must also be accounted for with an extra ±94 kHz due to crystal variation ±40 ppm at the LO frequency)	f_C	1		115.18		MHz
Insertion Loss (all BW specifications are a function of FC variation)				14	16.2	dB
Amplitude Ripple (p-p) between (Fc-6.250 MHz to Fc-4.3925 MHz)					1.65	dB
Amplitude Ripple (p-p) between (Fc-4.3925 MHz to Fc-2.535 MHz)					1.5	
Amplitude Ripple (p-p) between (Fc-2.535 MHz to Fc-0.025 MHz)					1.5	
Amplitude Ripple (p-p) between (Fc+0.025 MHz to Fc+2.535 MHz)					1.6	
Amplitude Ripple (p-p) between (Fc+2.5350 MHz to Fc+4.3925 MHz)					1.5	
Amplitude Ripple (p-p) between (Fc+4.3925 MHz to Fc+6.250 MHz)					1.5	
Pass Bandwidth of -1.5 dB				13.5		MHz
Pass Bandwidth of -3 dB				14.5		
Low side Attenuation Fc < (Fc -16.5 MHz)			34			dB
Low side Attenuation between: (Fc -16.5 MHz)....(Fc -10.5 MHz)			32			
High side Attenuation between: (Fc +9.0 MHz)....(Fc +16.5 MHz) (-15~85°C)			24			
High side Attenuation between: (Fc +9.0 MHz)....(Fc +16.5 MHz) (-40~-15°C)			18			
High side Attenuation Fc > (Fc +16.5 MHz)			33			
Temperature Coefficient of Frequency					-18	ppm/°C
Delay Ripple (p-p) between (Fc -6.250 MHz to Fc-4.3925 MHz) SAT1A					150	ns
(Fc -4.3925 MHz to Fc-2.535 MHz) SAT2A					180	
(Fc -2.535 MHz to Fc-0.025 MHz) TERA					120	
(Fc +0.025 MHz to Fc+2.535 MHz) TERB					120	
(Fc +2.535 MHz to Fc+4.3925 MHz) SAT2B					120	
(Fc +4.3925 MHz to Fc+6.25 MHz) SAT1B					120	
Operating Temperature Range	T_A	1	-40		+85	°C
Differential Input and Output Impedance	L & C Match to 200 ohms					
Case Style		6	SMP-03-S 7 x 5 mm Nominal Footprint			
Lid Symbolization (YY=year, WW=week, S=shift) See note 4			RFM SF2060B=1 YYWWS			

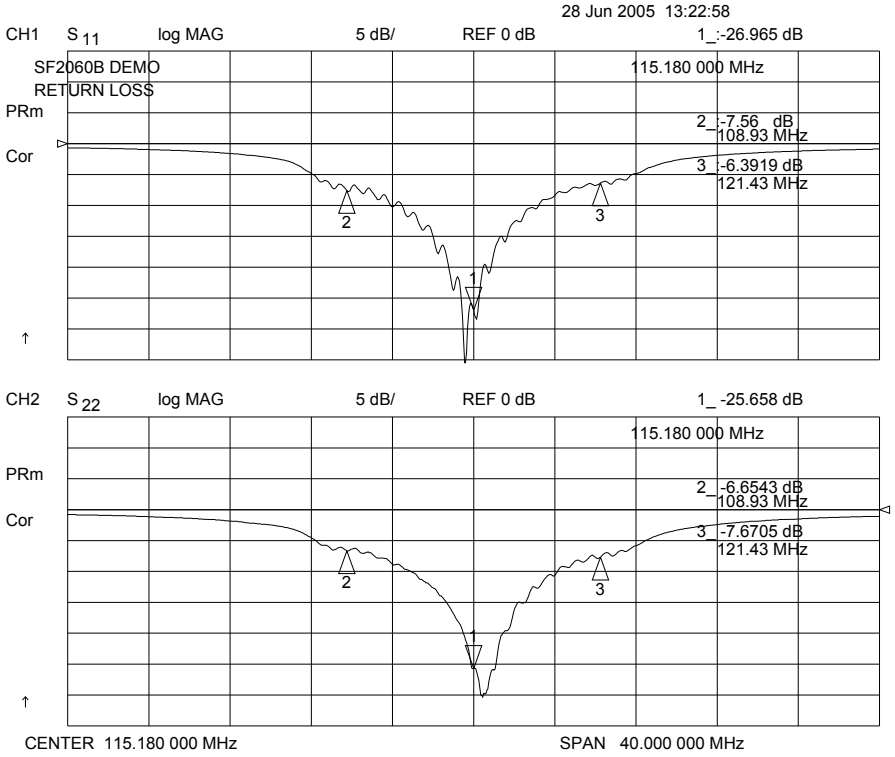
CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

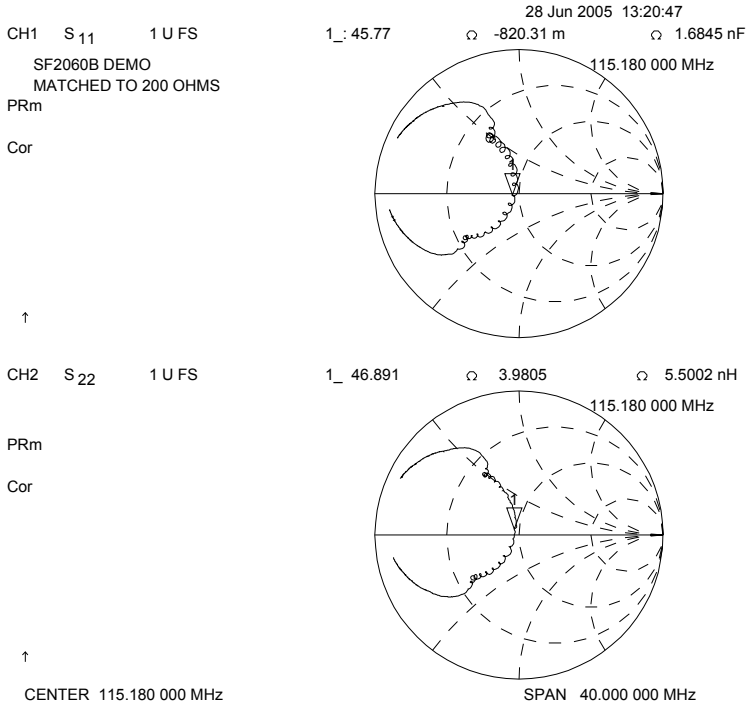
NOTES:

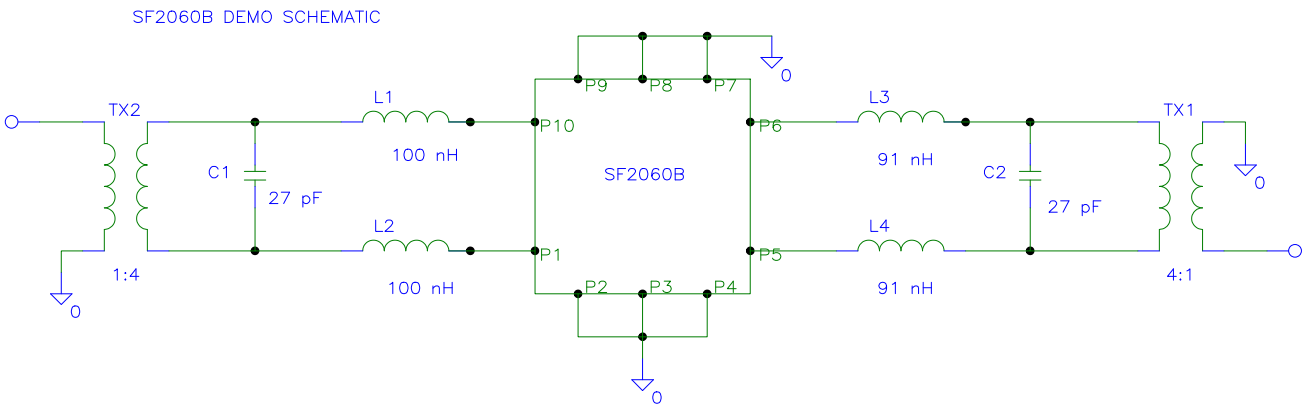
1. Unless noted otherwise, all specifications apply over the operating temperature range with filter soldered to the specified demonstration board with impedance matching to 50 Ω and measured with 50 Ω network analyzer.
2. Unless noted otherwise, all frequency specifications are referenced to the nominal 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. The design, manufacturing process, and specifications of this filter are subject to change.
5. Tape and Reel Standard Per ANSI / EIA 481.
6. US and international patents may apply.
7. Murata, stylized Murata logo, and Murata N.A., Inc. are registered trademarks of Murata Manufacturing Co., Ltd.

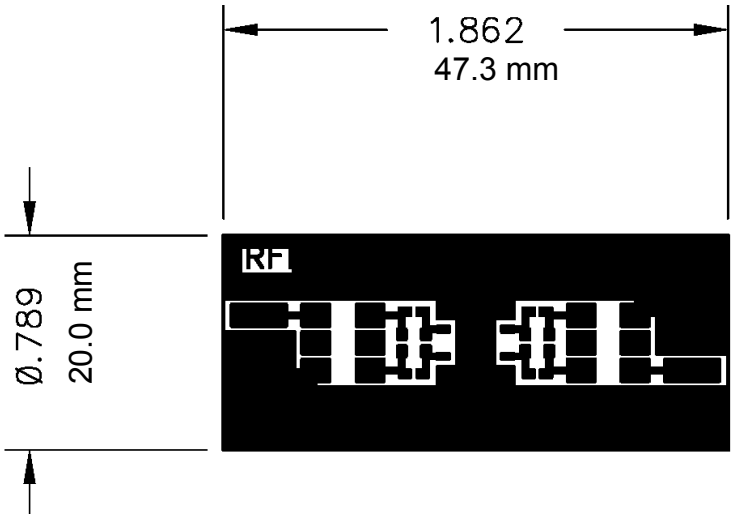


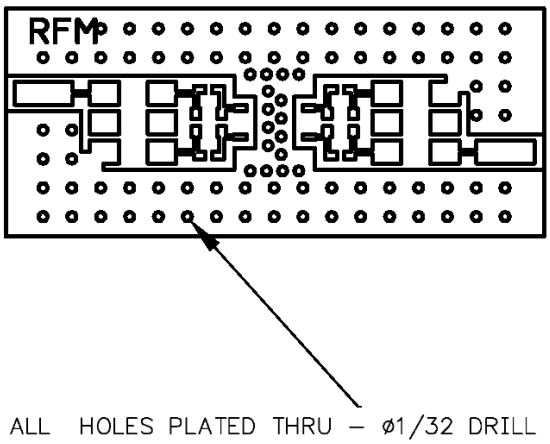








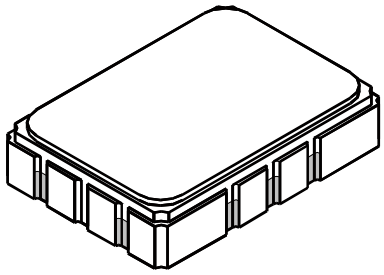




SMP-03-S Case

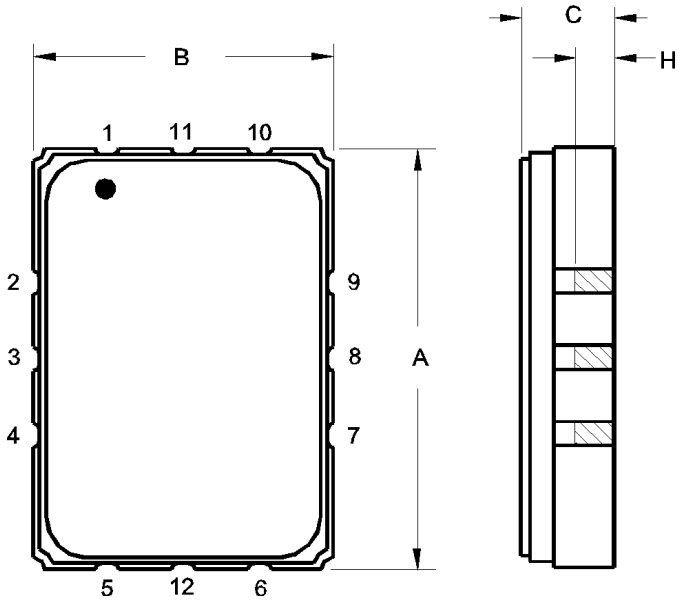
12-Terminal Ceramic Surface-Mount Case

5 x 7 mm Nominal Footprint

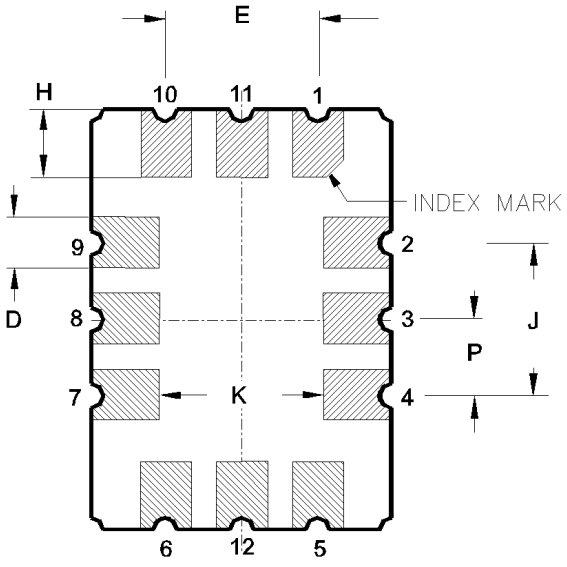


Case Dimensions						
Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	6.80	7.00	7.20	0.268	0.276	0.283
B	4.80	5.00	5.20	0.189	0.197	0.205
C		1.65	2.00		0.065	0.079
D		0.80				
E	2.41	2.54	2.67	0.095	0.100	0.105
H	0.87	1.1	1.13	0.034	0.039	0.044
J		2.54				
K	2.87	3.00	3.13	0.113	0.118	0.123
P	1.14	1.27	1.40	0.045	0.050	0.055

Materials	
Solder Pad Termination	Au plating 30 - 60 µinches (76.2-152 µm) over 80-200 µinches (203-508 µm) Ni.
Lid	Fe-Ni-Co Alloy Electroless Nickel Plate (8-11% Phosphorus) 100-200 µinches Thick
Body	Al_2O_3 Ceramic
Pb Free	

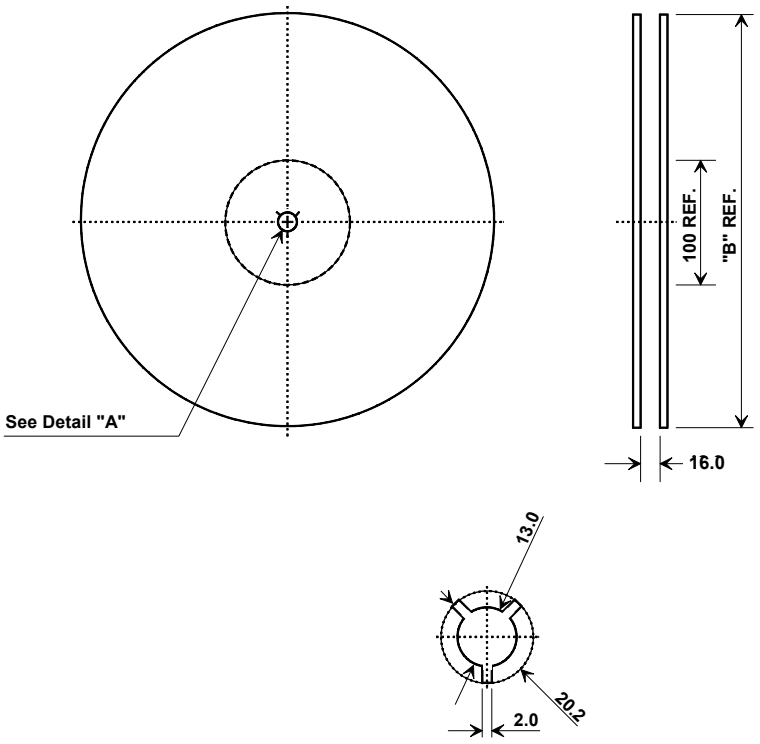


TOP VIEW



BOTTOM VIEW

Tape and Reel Specifications



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

COMPONENT ORIENTATION and DIMENSIONS

Carrier Tape Dimensions	
Ao	5.5 mm
Bo	7.5 mm
Ko	2.0 mm
Pitch	8.0 mm
W	16.0 mm