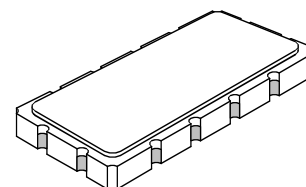




- **Designed for IF Applications**
- **Excellent Size-to-Performance Ratio**
- **Hermetic 13.3 x 6.5 mm Surface-mount Case**
- **Complies with Directive 2002/95/EC (RoHS)**

**SF2045A****140 MHz
SAW Filter****SM13365-12****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 Profile	260°C for 30 s	

Electrical Characteristics

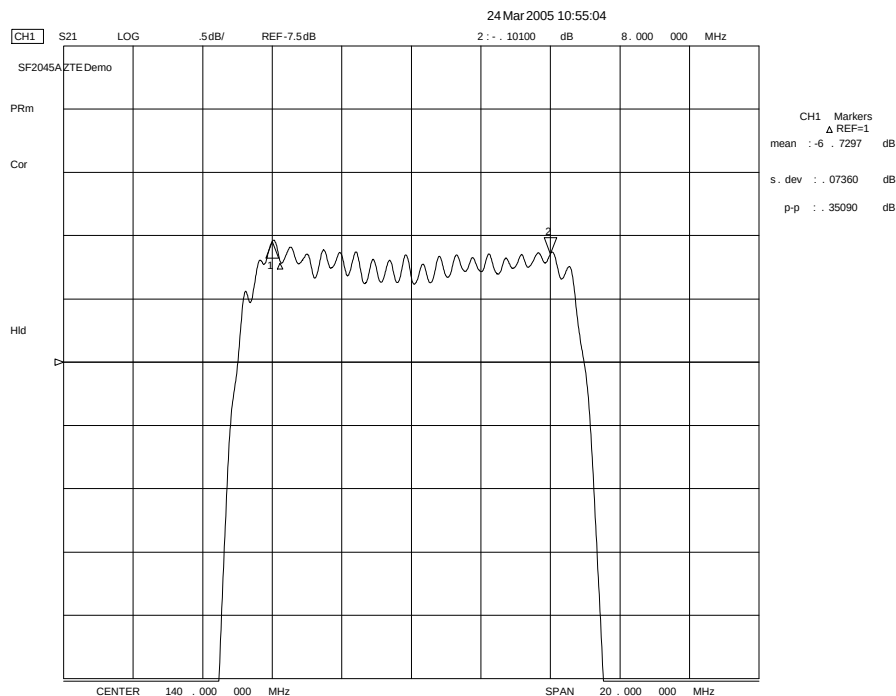
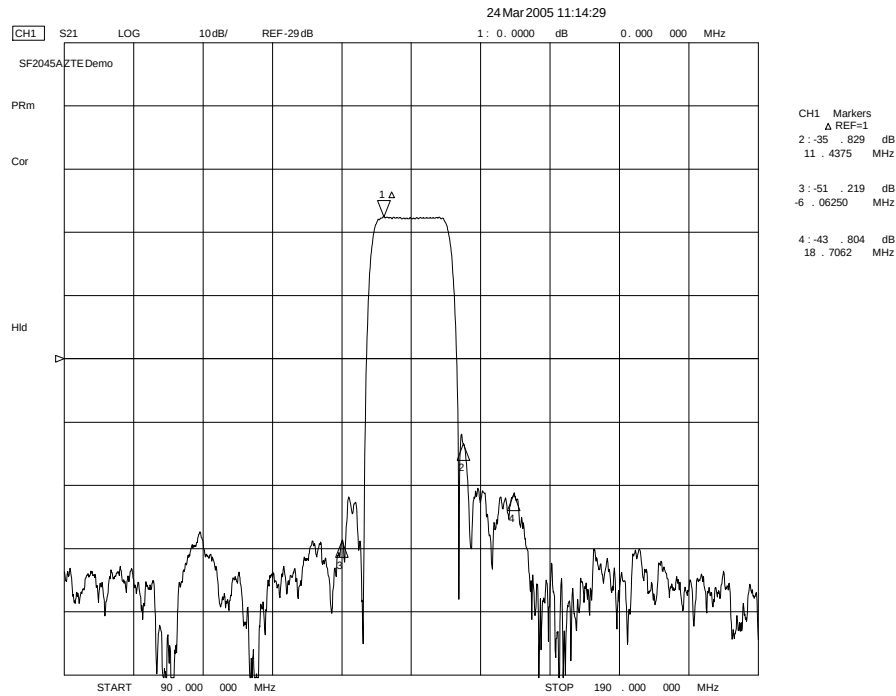
Characteristic	Sym	Notes	Min	Typ	Max	Units
Center Frequency (3dB points) at 25°C	f_C	1	139.60	140.000	140.40	MHz
Passband						
Insertion Loss at f_C	IL			7.7	11	dB
1 dB Passband	BW ₁		8	9.8		MHz
3 dB Passband	BW ₃	1, 2	10	10.8		
Amplitude Ripple over 1 dB BW				0.4	0.8	dB _{P-P}
Phase Linearity over 1 dB BW				2.7	8	° _{P-P}
Group Delay Variation over 1 dB BW	GDV			50	100	ns _{P-P}
Absolute Group Delay				1.057		µsec
Rejection						
35 dB BW				13.9	15	MHz
10 - 120 MHz		1, 2, 3	40	52		dB
120 - 130 MHz			40	47		
150 - 1000 MHz			40	45		
Operating Temperature Range	T _A	1	-40	25	85	°C
Frequency Temperature Coefficient	FTC			-94		ppm/°C

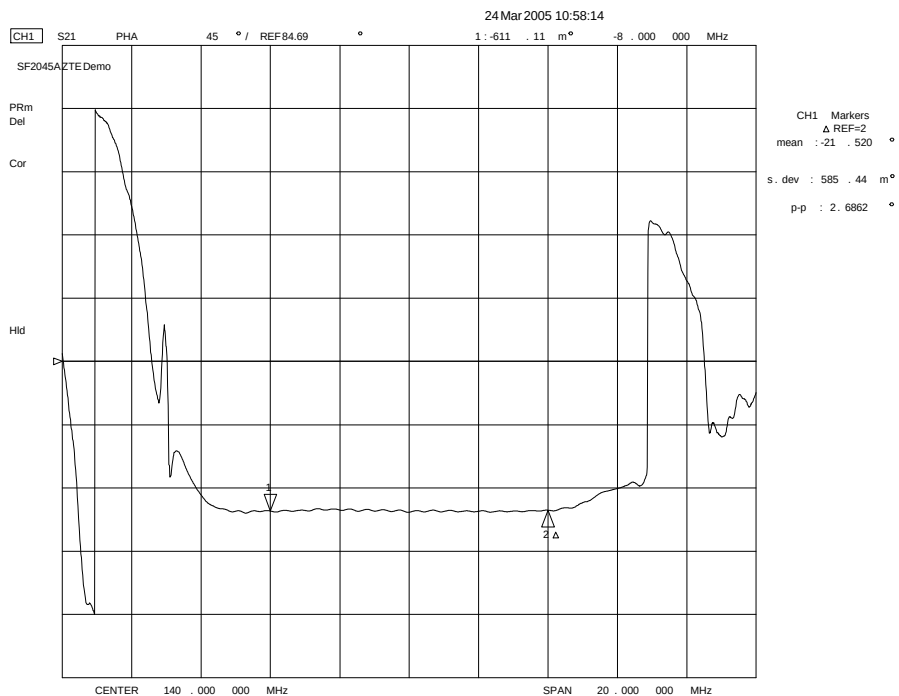
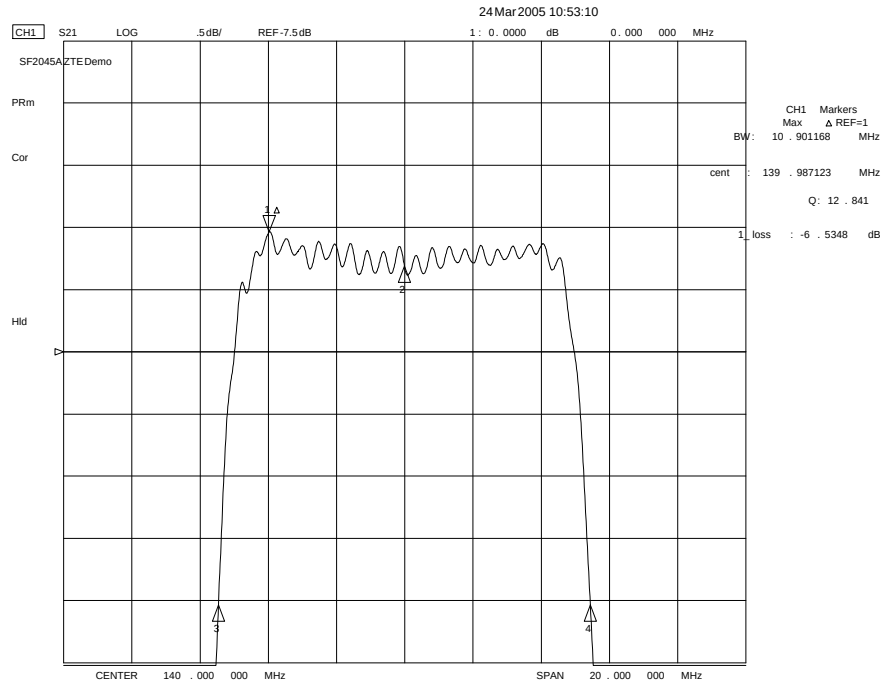
Impedance Matching to 50Ω Unbalanced	External L-C
Case Style	SM13365-12 13.3 x 6.5 mm Nominal Footprint
Lid Symbolization (YY = year, WW = week)	RFM SF2045A YYWW

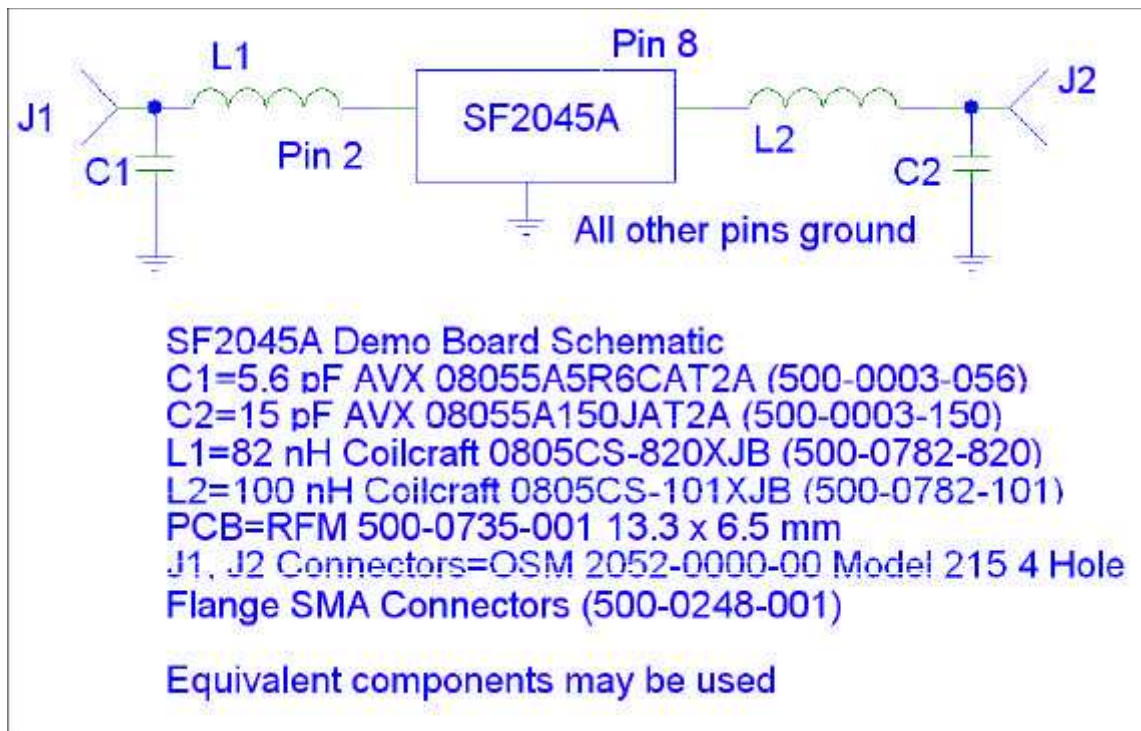
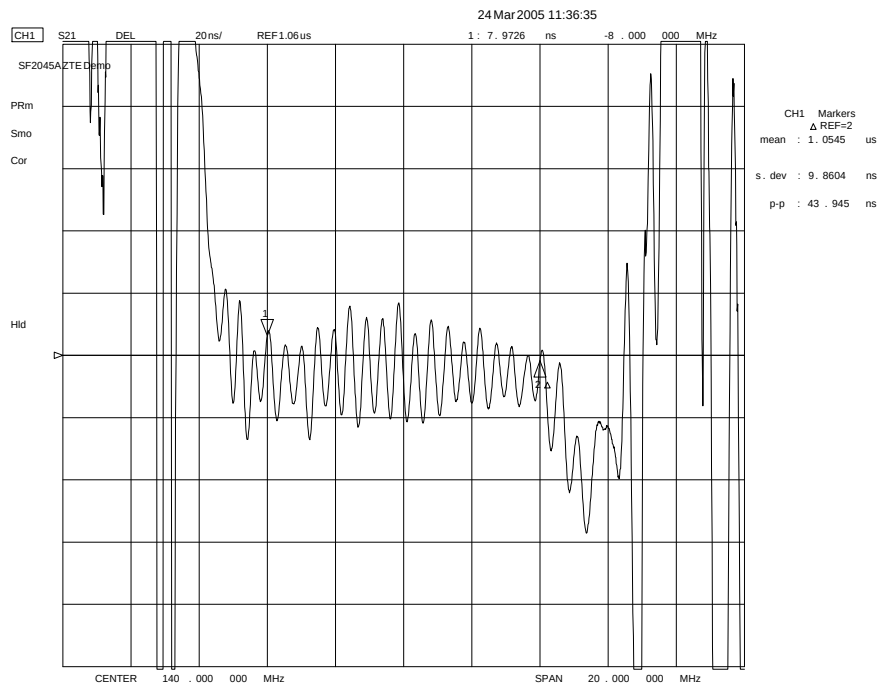
Notes:

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. The design, manufacturing process, and specifications of this filter are subject to change.
3. 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.
4. US and international patents may apply.
5. Electrostatic Sensitive Device. Observe precautions for handling.





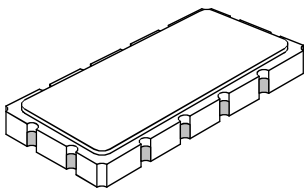




SM13365-12 Case

12-Terminal Ceramic Surface-Mount Case

13.3 x 6.5 mm Nominal Footprint



Case Dimensions						
Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	13.08	13.31	13.60	0.515	0.524	0.535
B	6.27	6.50	6.80	0.247	0.256	0.268
C		1.91	2.00		0.075	0.079
D		1.50			0.059	
E		0.79			0.031	
H		1.0			0.039	
P		2.54			0.100	

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 ₂ O ₃ Ceramic
Pb Free	

Electrical Connections		
Connection		Terminals
Port 1	Input	2
	Ground	3
Port 2	Output	8
	Ground	9
	Ground	All others
See Note 3 on Data Sheet		

● pin 1 indicator
 - - - mark for pin 1 on underside of package
 YY year code
 WW week code
 #### lot code

