RFMi
A BRAND OF AKOUSTIS

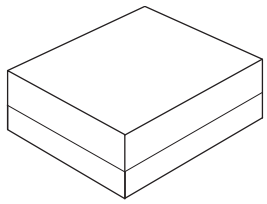
Preliminary

RoHS compliant

SF2363K

403.5 MHz SAW Filter

- ***403.5 MHz SAW RF Filter***
- ***5 MHz Bandwidth***
- ***1.4 x 1.1 mm Surface-mount Case***
- ***Complies with Directive 2002/95/EC (RoHS)***
- ***Moisture Sensitivity Level - 1***
- ***AEC-Q200 Qualified***



SM1411-5

Absolute Maximum Ratings

Rating	Value	Units
Maximum Incident Power in Passband	+17	dBm
Maximum DC Voltage On any Non-ground Terminal	3	VDC
Operating Temperature Range	+0 to +55	°C
Storage Temperature Range in Tape and Reel	-20 to +70	°C
Maximum Soldering Temperature Profile (5 cycles maximum)	265 °C for 10 s	

Electrical Characteristics

Characteristic	Sym	Notes	Min	Typ	Max	Units
Center Frequency at +25°C	f_C			403.50		MHz
Insertion Loss, 402 to 405 MHz	IL			2.6	4.0	dB
1.5dB Bandwidth	*BW*		5.0	6.1		dB
Amplitude Ripple, 402 to 405 MHz				0.6	2.0	dB
Input VSWR 402 to 405 MHz				1.6	2.0	MHz
Output VSWR 402 to 405 MHz				1.5	2.0	
Attenuation (relative to *IL*)	α_{rel}					
DC to 380 MHz			30	58		dB
380 to 398 MHz			15	20		
412 to 430 MHz			20	27		
430 to 2000 MHz			30	62		
Case		1.4 x 1.1 x 0.7 mm, 5 Terminals				
Terminating Source Impedance: Single-Ended				50		Ω
Terminating Source Impedance: Differential				200		Ω
Temperature Coefficient of Frequency				-36		ppm/°C

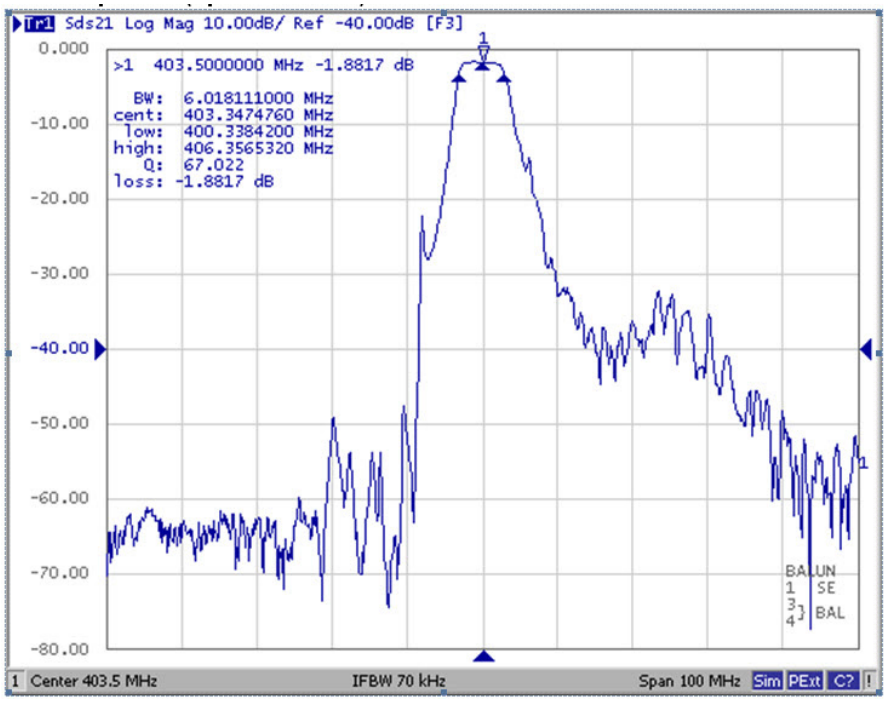
CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

NOTES:

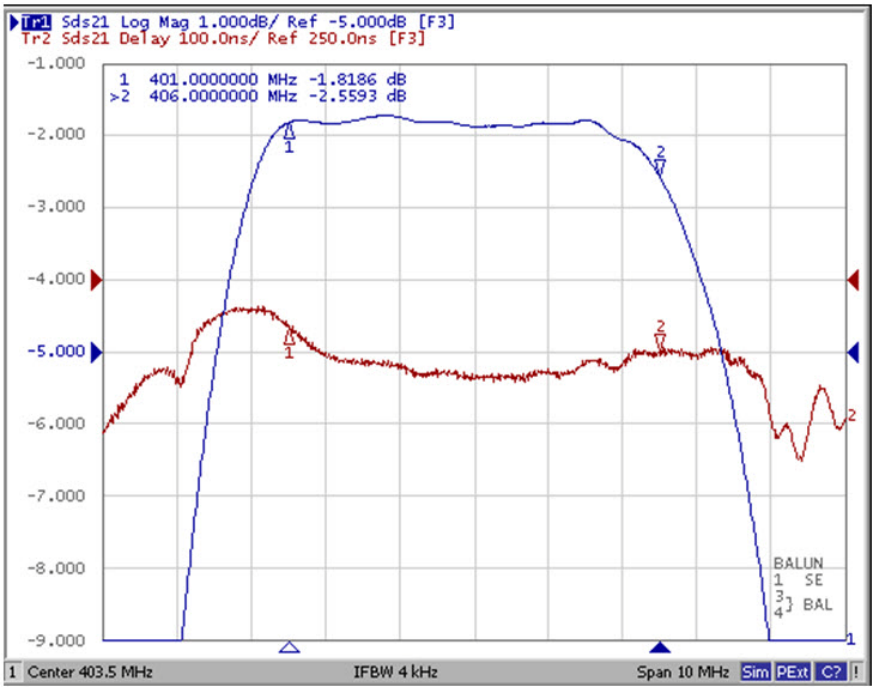
1. The design, manufacturing process, and specifications of this device are subject to change.
2. US or International patents may apply.
3. RoHS compliant from the first date of manufacture.

Frequency Response Plots

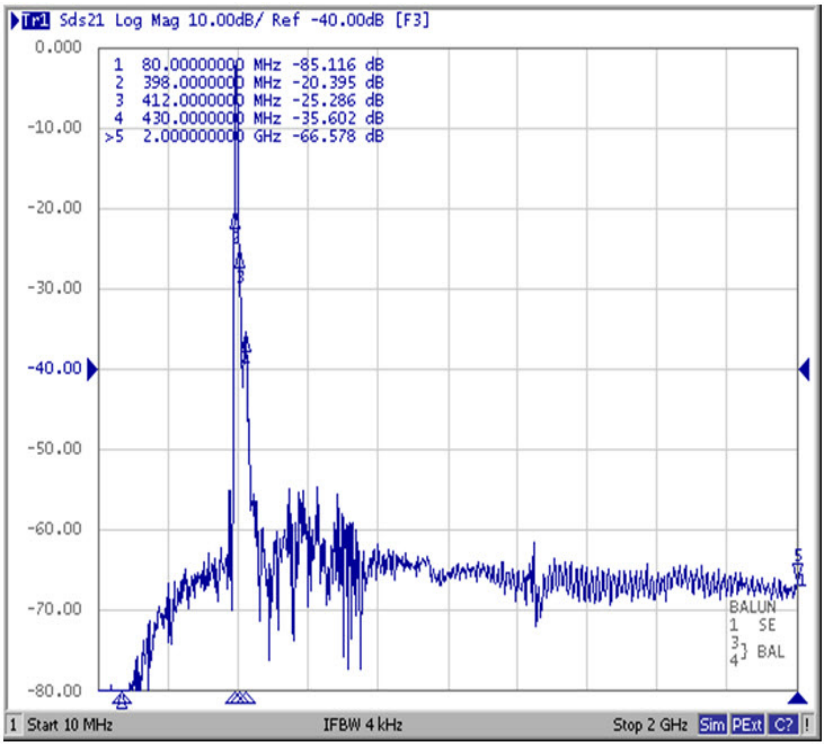
S21 Response - span 100 MHz



S21 Response - span 10 MHz

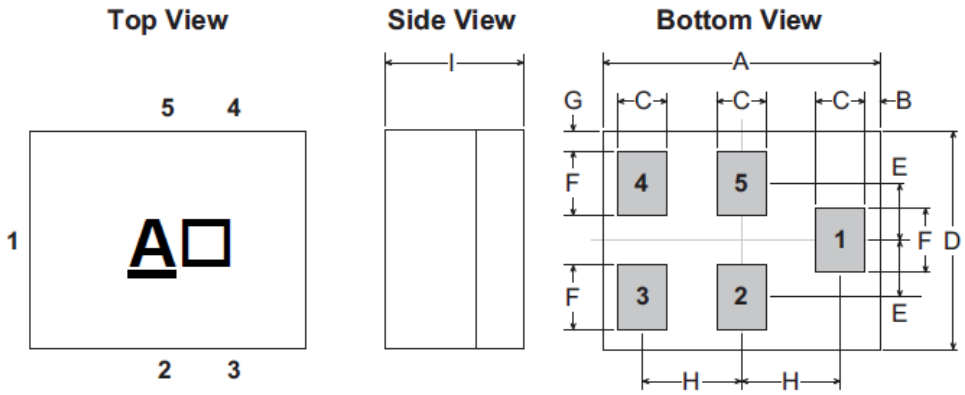


S21 Response - span 2.5 GHz



S11 and S22 VSWR - span 10 MHz

SM1411-5 1.4 X 1.1 mm 5-Terminal Surface-mount Case Drawing



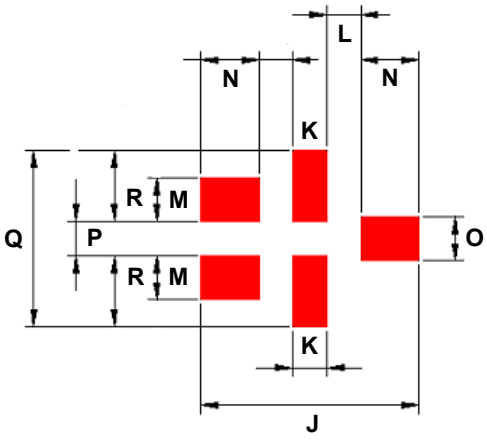
A = Symbol Code

= Year/Month

Case and PCB Footprint Dimensions

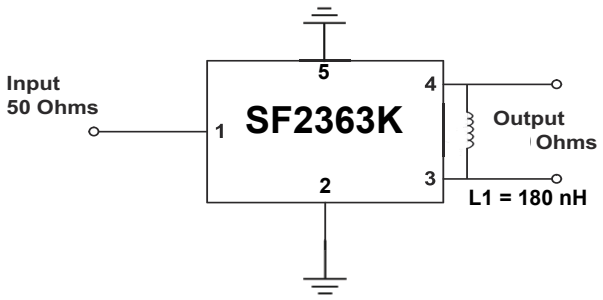
Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	1.3500	1.4000	1.4500	0.0531	0.0551	0.0571
B	-	0.0750	-	-	0.0030	-
C	0.1700	0.250	0.3300	0.0067	0.0098	0.0130
D	1.0500	1.1000	1.1500	0.0413	0.0433	0.0453
E	-	0.2875	-	-	0.0113	-
F	0.2450	0.3250	0.4050	0.0096	0.0128	0.0159
G	-	0.100	-	-	0.0039	-
H	-	0.5000	-	-	0.0196	-
I		0.5000	0.700	0.0236	0.0256	0.0276
J	-	1.6000	-	-	0.0629	-
K	-	0.2500	-	-	0.0138	-
L	-	0.2500	-	-	0.0098	-
M	-	0.3250	-	-	0.0127	-
N	-	0.4250	-	-	0.0167	-
0	-	0.3250	-	-	0.0394	-
P	-	0.2500	-	-	0.0098	-
Q	-	1.3000	-	-	0.0511	-
R	-	0.5250	-	-	0.0206	-

PCB Footprint



Materials	
Solder Pad Plating	0.3 to 1.0 µm Gold over 1.27 to 8.89 µm Nickel
Lid Plating	Plastic molding
Body	Al_2O_3 Ceramic

Test Circuit

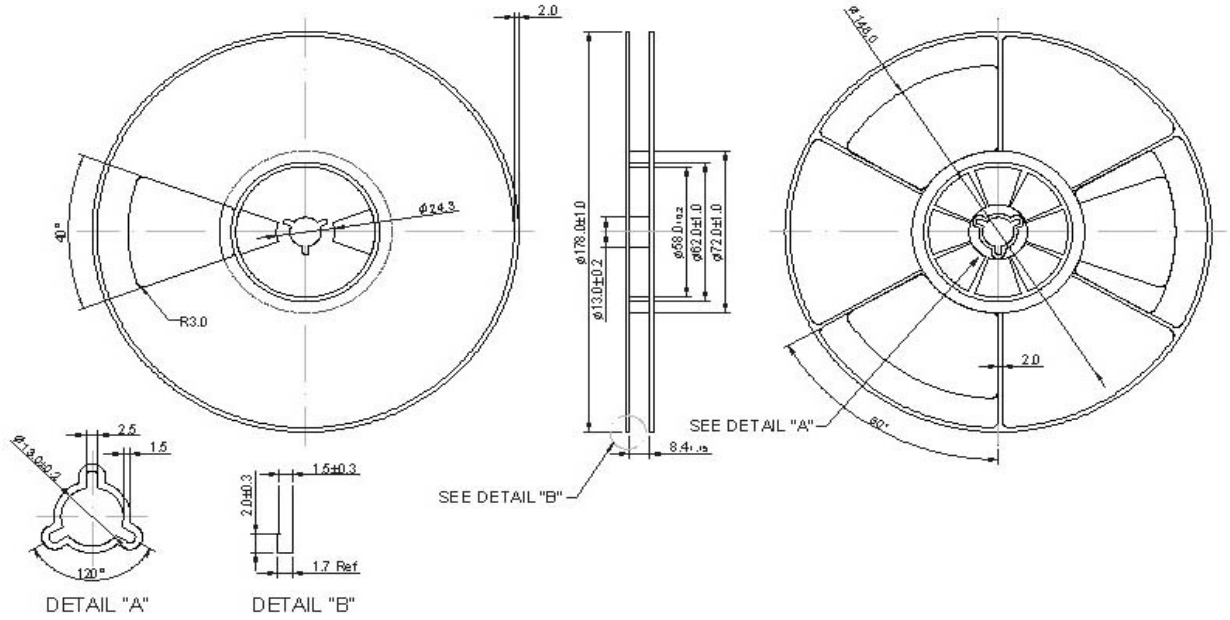


Pin Description	
1	Input
3, 4	Balanced Output
2, 5	Ground

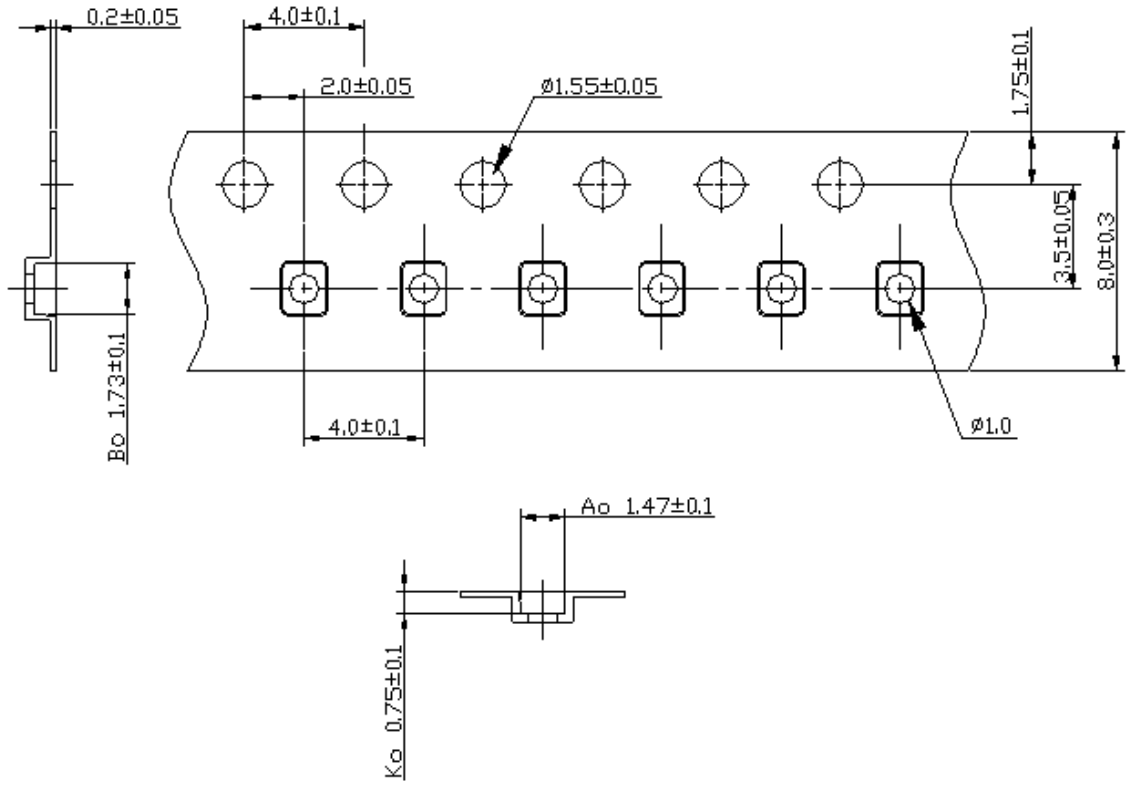
Reel Dimensions:

Reel Count:
7" = 3000
13" = 10,000

Tape and Reel Standard per ANSI/EIA-481



Tape Dimensions



Recommended Reflow Profile

1. Preheating shall be fixed at 150~180ºC for 60~90 seconds.
2. Ascending time to preheating temperature 150ºC shall be 30 seconds min.
3. Heating shall be fixed at 220ºC for 50~80 seconds and at 260ºC +0/-5ºC peak (10 seconds).
4. Time: 5 times maximum.