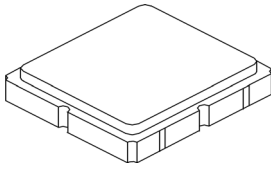
RoHS Compliance
This component is compliant with RoHS directive.
This component was always RoHS compliant from the first date of manufacture.

RF3625E

434.42 MHz SAW Filter

- ***Low-loss RF SAW Filter***
- ***3 x 3 mm Surface-mount Package***



SM3030-6

Absolute Maximum Ratings

Rating	Value	Units
Input Power Level	+13	dBm
DC Voltage on any Non-ground Terminal	±0	V
Operating Temperature Range	-40 to +105	°C
Storage Temperature Range in Tape and Reel	-40 to +85	°C
Source Impedance	$Z_{S=}$50	Ω
Load Impedance	$Z_{L=}$50	Ω

Electrical Characteristics

Characteristic		Sym	Notes	Min	Typ	Max	Units
Center Frequency		f_C			434.42		MHz
Minimum Insertion Loss, α min		IL					
Incl. Loss in Matching Elements	433.79 to 435.05 MHz				2.2	2.9	dB
Excl. Loss In Matching Elements	433.79 to 435.05 MHz				1.4	2.1	
Pass Band (Relative to α min)	433.79 to 435.05 MHz				1.1	2.5	
	433.72 to 435.12 MHz				1.3	3.0	
Relative Attenuation (Relative to α min)							
10 to 350 MHz				50	55		
350 to 414 MHz				30	35		
414 to 425 MHz				30	35		
425 to 433.02 MHz				13	17		
436.42 to 437.3 MHz				13	17		
437.3 to 438 MHz				22	27		dB
438 to 446 MHz				25	30		
446 to 455 MHz				25	30		
455 to 480 MHz				28	33		
480 to 800 MHz				40	45		
800 to 1700 MHz				52	57		
1700 to 2500 MHz				42	47		
Input: Z_{IN}= Ls1/Cp1					75/7.5		nH/pF
Output: Z_{OUT}= Ls2/Cp2					75/7.5		

Case Style		SM3030-6 3.0 x 3.0 mm Nominal Footprint
Lid Symbolization (Y=year, WW=week, S=shift) dot=pin 1 indicator		A85, YWWS
Standard Reel Quantity	Reel Size 7 Inch	500 Pieces/Reel
	Reel Size 13 Inch	3000 Pieces/Reel

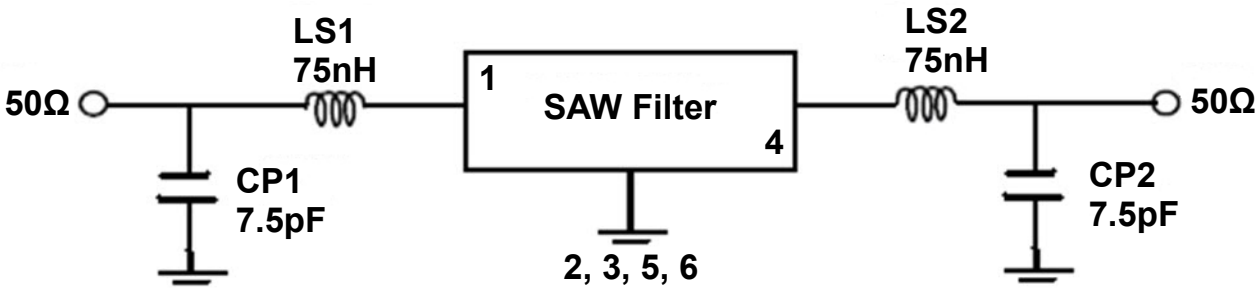
CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

NOTES:

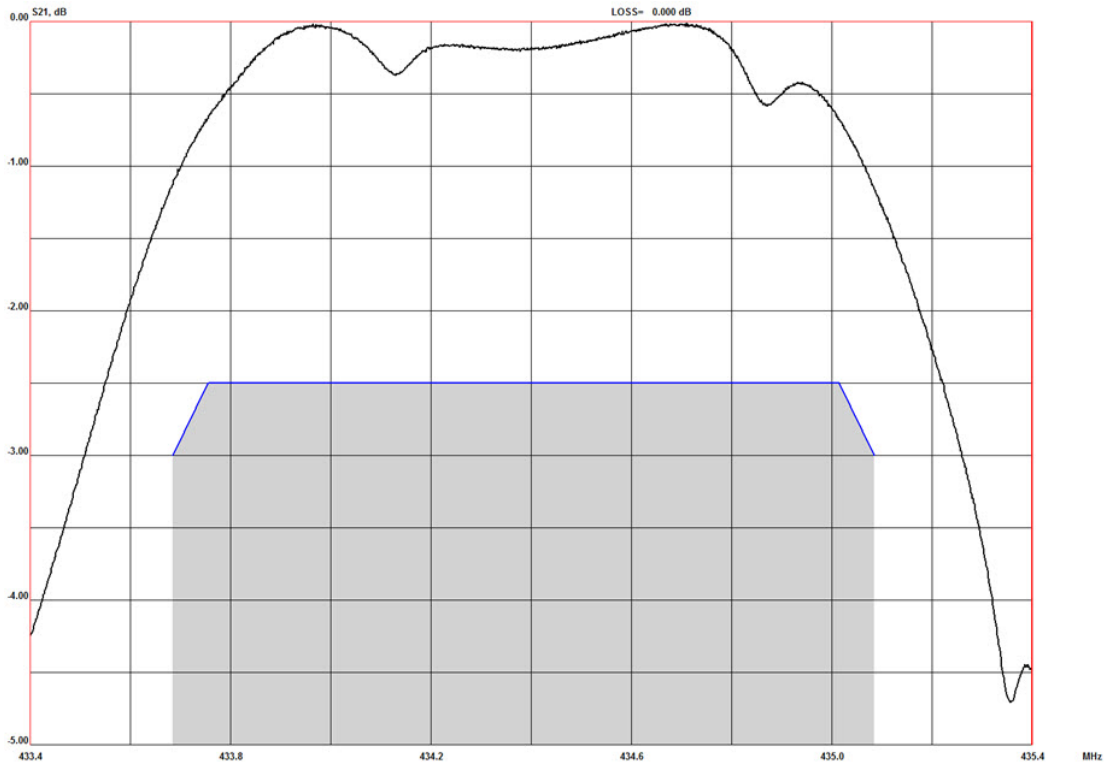
1. Unless noted otherwise, all specifications apply over the operating temperature range with filter soldered to the specified demonstration board with impedance matching to 50 Ω and measured with 50 Ω network analyzer.
2. Unless noted otherwise, all frequency specifications are referenced to the nominal 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. US and international patents may apply.
6. Murata, stylized Murata logo, and Murata N.A., Inc. are registered trademarks of Murata Manufacturing Co., Ltd.

Electrical Connections

Connection	Terminals
Input or Input Ground	1
Output or Output Ground	4
Ground	2, 3, 5, 6

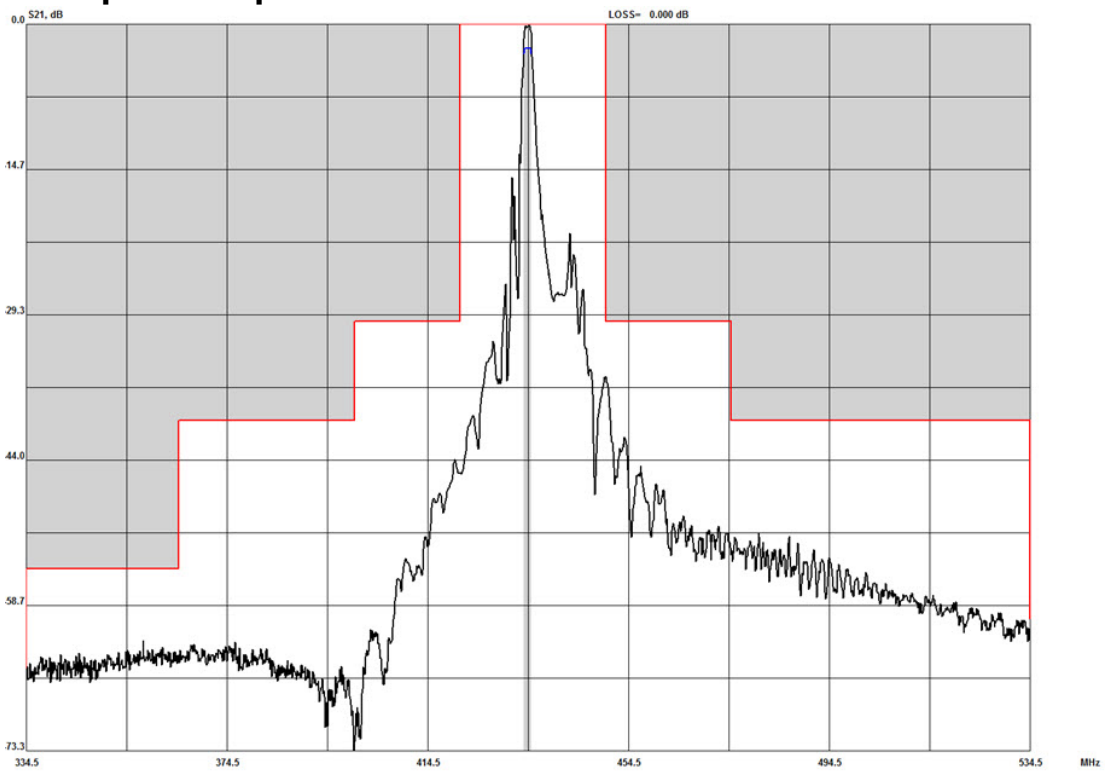


RF3625E Frequency Characteristics
S21 Response - span: 2 MHz

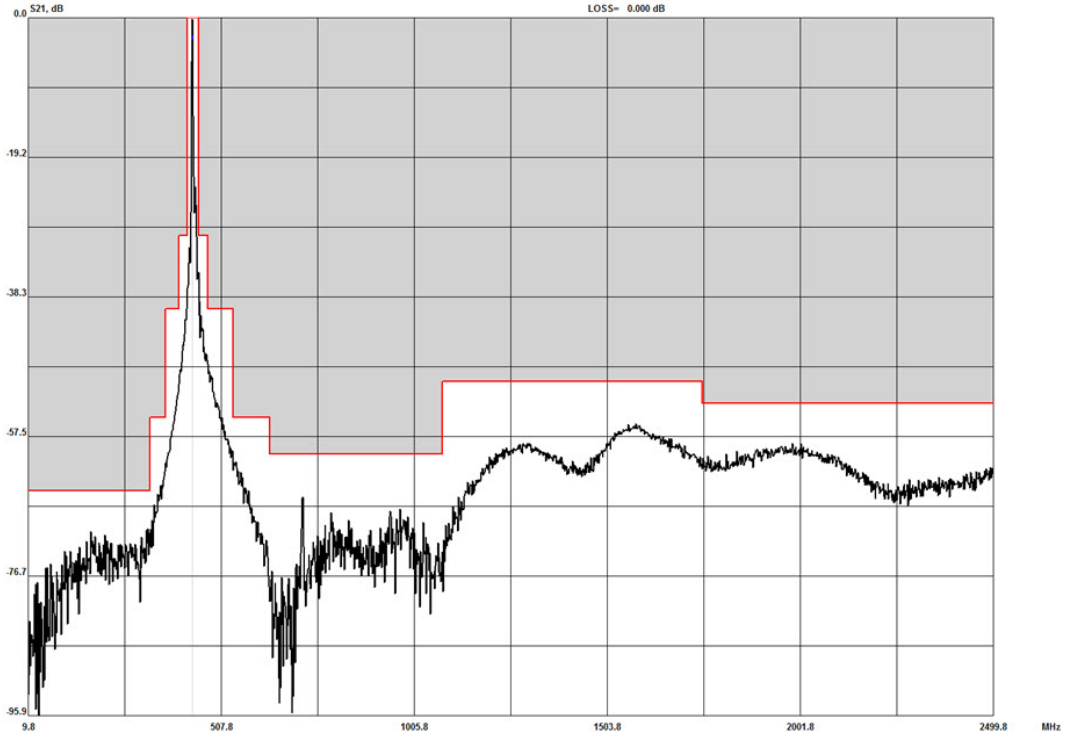


RF3625E Frequency Characteristics (continued)

S21 Response: span 200 MHz

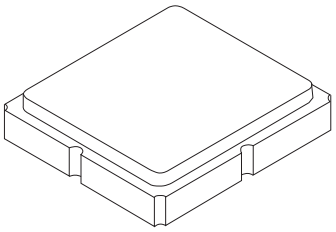


S21 Response: span 10 MHz to 2.5 GHz



SM3030-6 Case

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



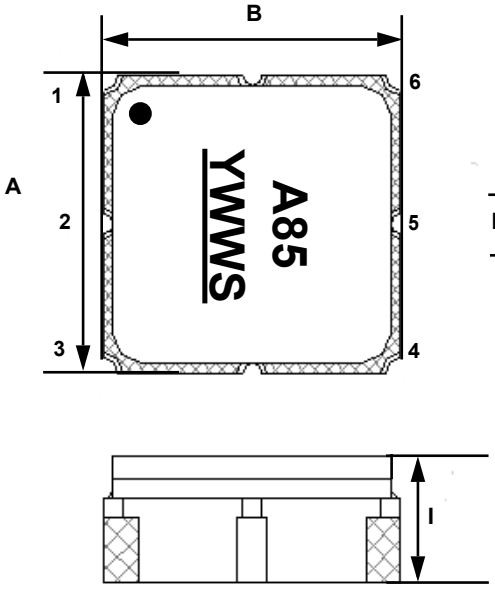
Case Dimensions

Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	2.85	3.00	3.15	0.112	0.118	0.124
B	2.85	3.00	3.15	0.112	0.118	0.124
C	-	0.45	-	-	0.177	-
D	-	0.15	-	-	0.005	-
E	1.05	1.20	1.35	0.041	0.047	0.053
F	0.38	0.53	0.68	0.014	0.020	0.026
G	0.60	0.75	0.90	0.023	0.029	0.035
H	0.55	0.60	0.65	0.021	0.023	0.025
I	-	-	1.40	-	-	0.055

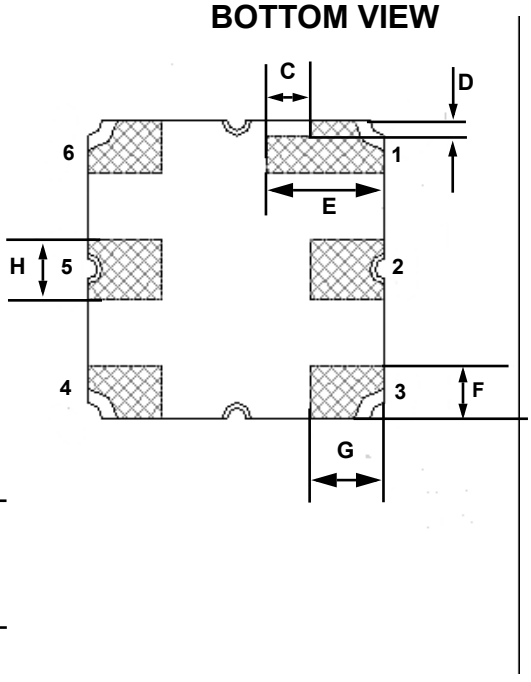
Case Materials

Materials	
Solder Pad Plating	0.3 to 1.0 µm Gold over 1.27 to 8.89 µm Nickel
Lid Plating	2.0 to 3.0 µm Nickel
Body	Al_2O_3 Ceramic
Pb Free	

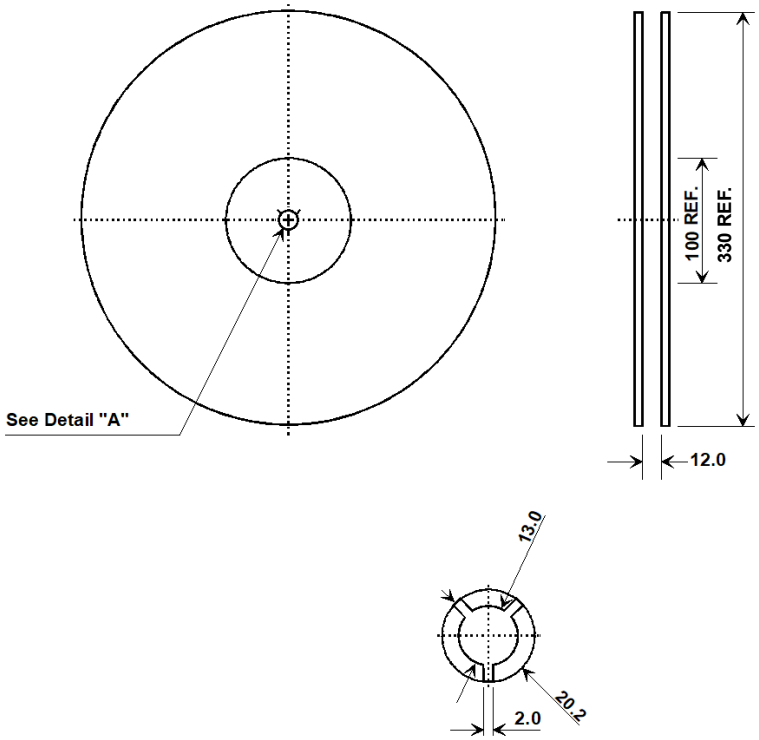
TOP VIEW



BOTTOM VIEW



Tape and Reel Specifications



COMPONENT ORIENTATION and DIMENSIONS

Carrier Tape Dimensions	
Ao	4.25 mm
Bo	4.25 mm
Ko	1.30 mm
Pitch	8.0 mm
W	12.0 mm