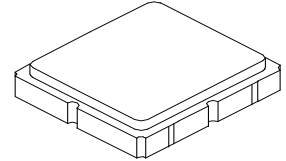


# SF2470E-1

## 1415 MHz SAW Filter



SM3030-6

- Complies with Directive 2002/95/EC (RoHS)
- Moisture Sensitivity Level: 1

### Maximum Rating

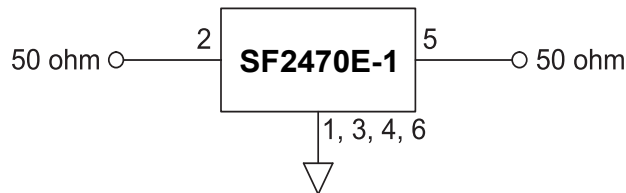
Rating	Value	Units
Input Power Level	20	dB <sub>m</sub>
DC Voltage	3	V
Operable Temperature Range	-45 to +125	°C
Specification Temperature Range	-20 to +70	°C
Storage Temperature in Tape and Reel	-40 to +85	°C
Solder Reflow Temperature, 5 Cycles Maximum	260°C for 10 seconds	

### Electrical Characteristics

Characteristic	Sym	Notes	Min	Typ	Max	Units
Center Frequency	$f_C$			1415		MHz
Insertion Loss, 1390 to 1440 MHz				2.7	3.5	dB
Insertion Loss, 1390 to 1440 MHz (At Room Temperature)	IL			2.7	3.0	dB
Amplitude Ripple, 1390 to 1440 MHz				1.0	2.0	dB
Amplitude Ripple, 1390 to 1440 MHz (At Room Temperature)				1.0	1.5	
Group Delay Ripple, 1390 to 1440 MHz				10	25	ns
Attenuation Referenced to 0 dB						dB
10 to 1300 MHz			50	52		
1300 to 1330 MHz			40	46		
1510 to 1580 MHz			35	40		
1580 to 1920 MHz			40	43		
1920 to 2000 MHz			35	38		
2000 to 2800 MHz			40	42		
2800 to 3000 MHz			38	39		

Case Style	SM3030-6 3.0 x 3.0 mm Nominal Footprint
Lid Symbolization (Y=year, WW=week, S=shift) dot=pin 1 indicator	D4, YWWS

### Measurement Circuit



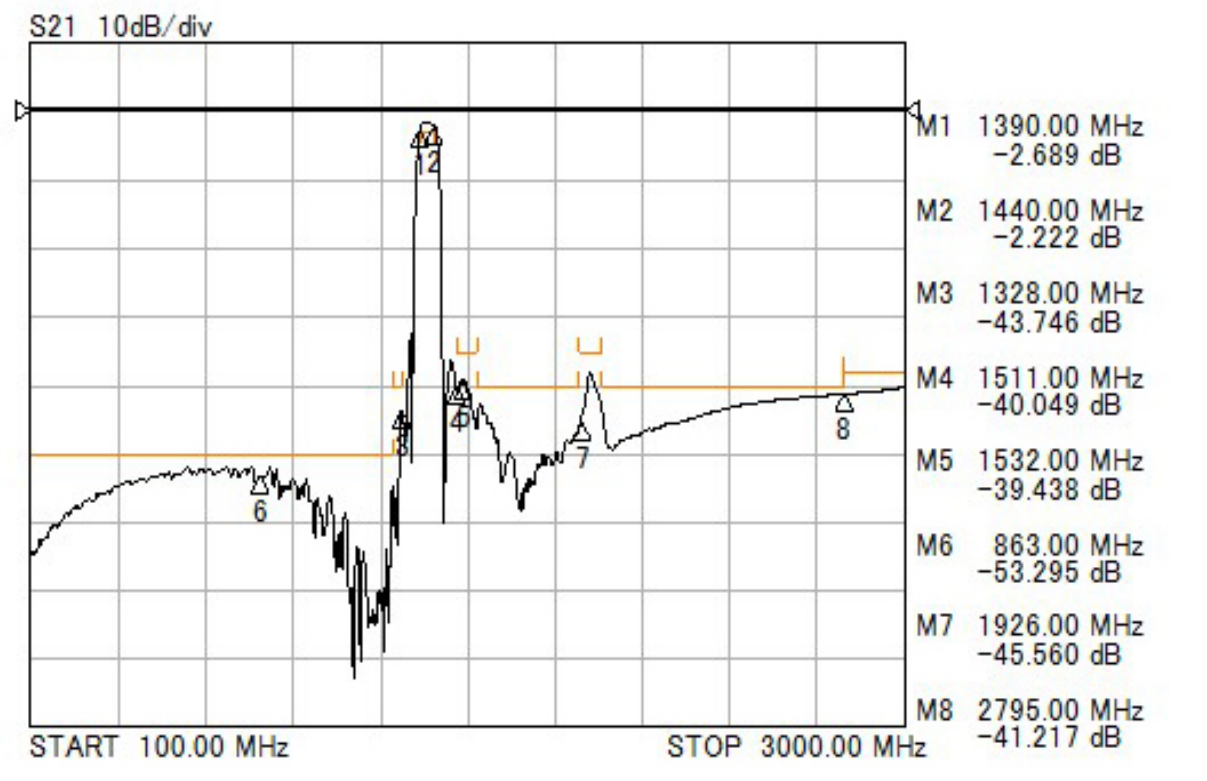
**CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.**

#### NOTES:

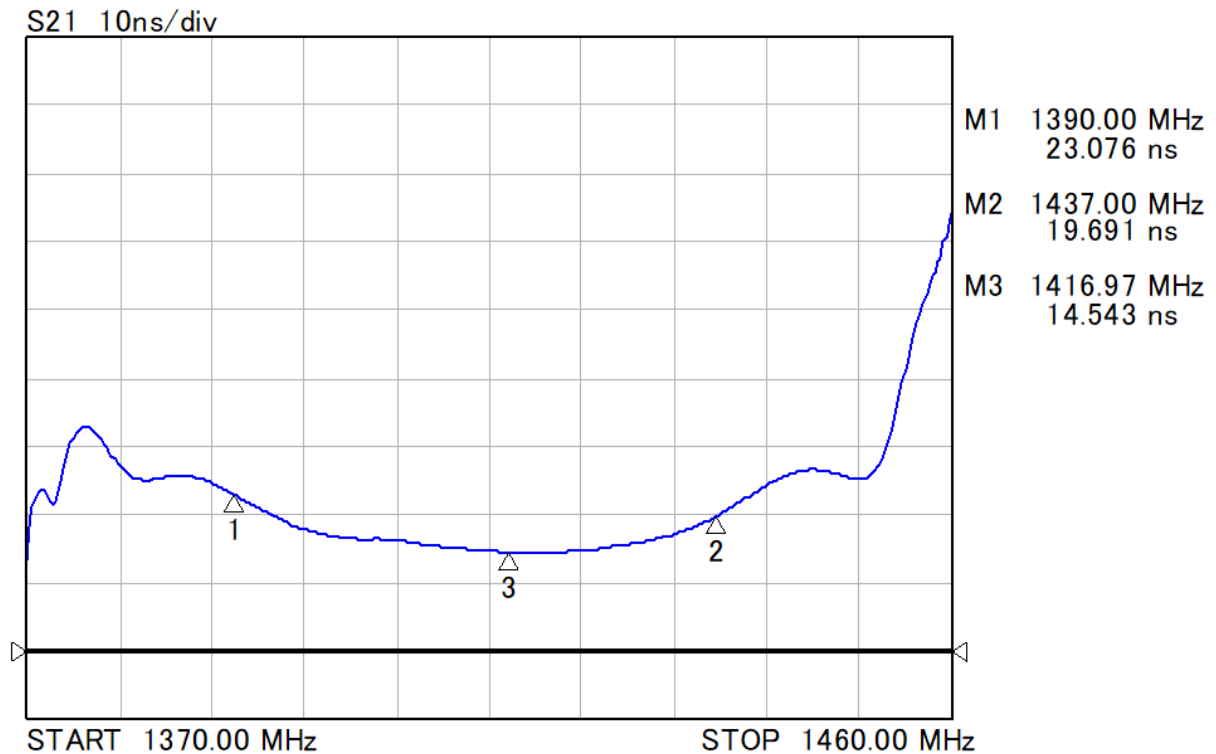
1. The design, manufacturing process, and specifications of this device are subject to change.
2. US or International patents may apply.
3. Complies with Directive 2002/95/EC (RoHS)

## Frequency Characteristics

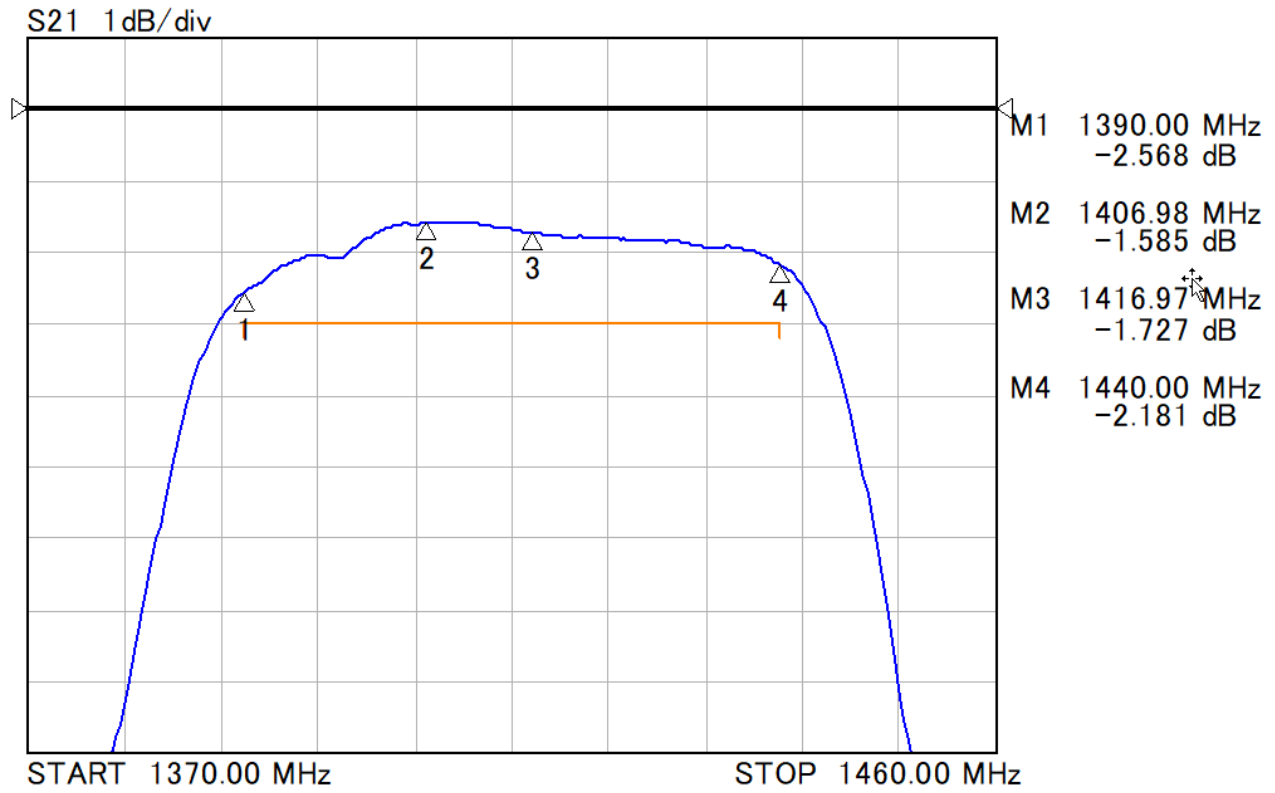
### Span 2900 MHz



### Span 90 MHz

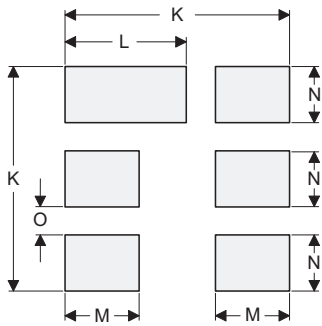
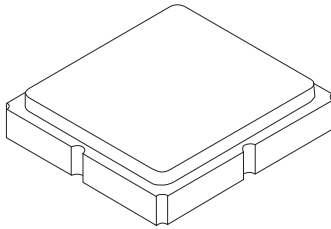


# Span 90 MHz



# SM3030-6 Case

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



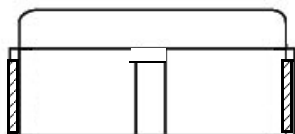
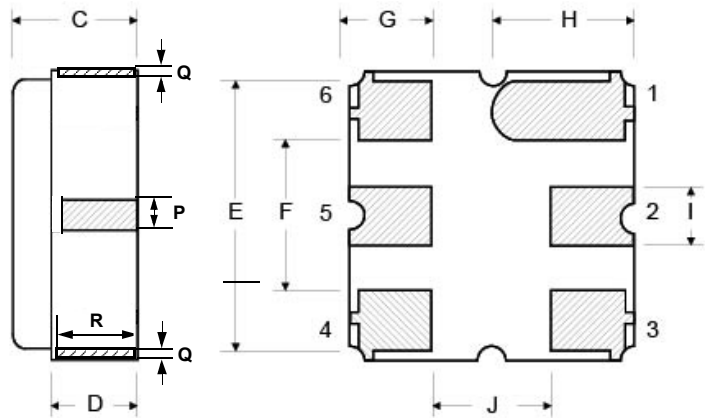
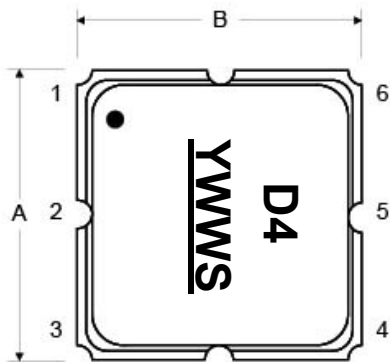
PCB Footprint Top View

### Case and PCB Footprint Dimensions

Dimension	mm			Inches		
	Min	Nom	Max	Min	Nom	Max
A	2.87	3.00	3.13	0.113	0.118	0.123
B	2.87	3.00	3.13	0.113	0.118	0.123
C	1.12	1.25	1.38	0.044	0.049	0.054
D	0.77	0.90	1.03	0.030	0.035	0.040
E	2.67	2.80	2.93	0.105	0.110	0.115
F	1.47	1.60	1.73	0.058	0.063	0.068
G	0.72	0.85	0.98	0.028	0.033	0.038
H	1.37	1.50	1.63	0.054	0.059	0.064
I	0.47	0.60	0.73	0.019	0.024	0.029
J	1.17	1.30	1.43	0.046	0.051	0.056
K		3.20			0.126	
L		1.70			0.067	
M		1.05			0.041	
N		0.81			0.032	
O		0.38			0.015	
P	0.15	0.30	0.45	0.005	0.011	0.017
Q	0.07	0.20	0.36	0.002	0.007	0.014
R	0.62	0.7	0.78	0.024	0.027	0.030

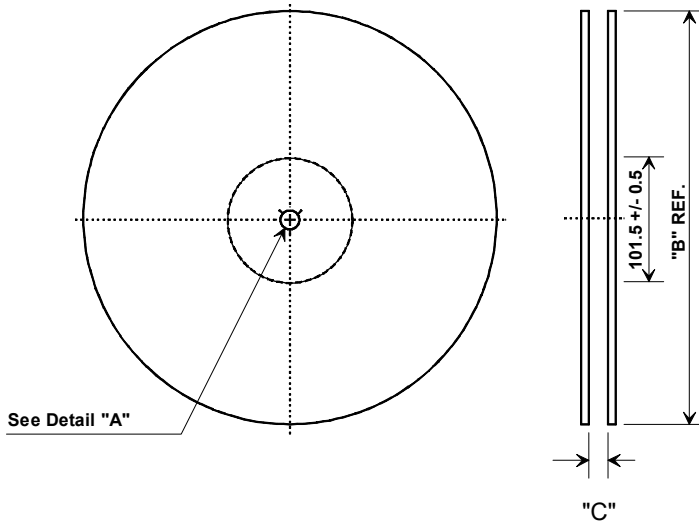
### Case Materials

Materials	
Solder Pad Plating	0.3 to 1.0 $\mu\text{m}$ Gold over 1.27 to 8.89 $\mu\text{m}$ Nickel
Lid Plating	2.0 to 3.0 $\mu\text{m}$ Nickel
Body	$\text{Al}_2\text{O}_3$ Ceramic

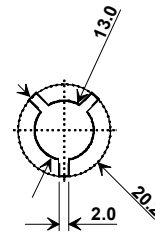


## Tape and Reel Specifications

Tape and Reel Standard per ANSI/EIA481

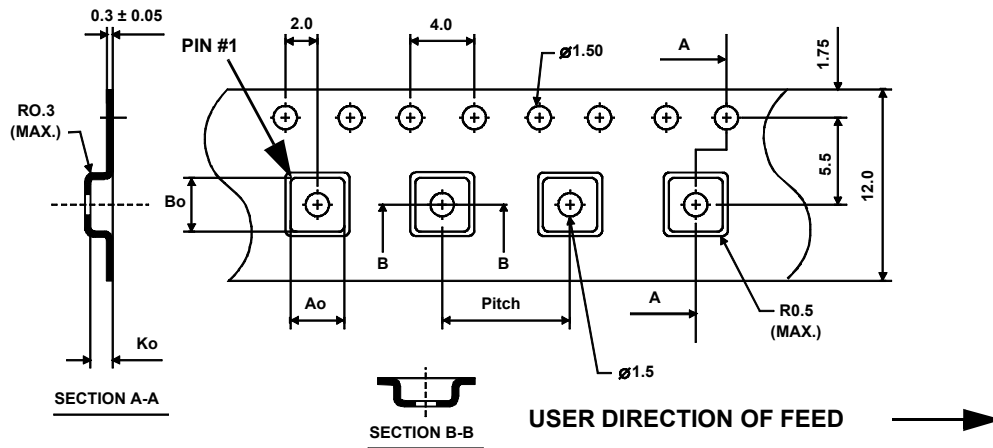


"B"		"C"	Quantity per Reel
Inches	Millimeters		
7	178	13 ± 0.3	500
13	330	15.5 ± 1	3000



### COMPONENT ORIENTATION and DIMENSIONS

Carrier Tape Dimensions	
<b>Ao</b>	4.25 mm
<b>Bo</b>	4.25 mm
<b>Ko</b>	1.30 mm
<b>Pitch</b>	8.0 mm
<b>W</b>	12.0 mm



# Recommended Reflow Profile:

## Recommended Reflow Profile

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

