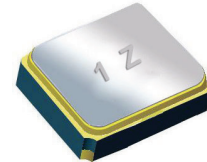


Surface Mount 1575.42MHz SAW Filter

AFS14A04-1575.42-T2



RoHS
Compliant



1.4 x 1.1 x 0.7 mm

FEATURES:

- 1.4 x 1.1 x 0.7 mm low profile SMT package
- Low Insertion loss
- Excellent selectivity with high out-of-band rejection

APPLICATIONS:

- Wireless Communication
- Remote Control
- Cellular Phones

ELECTRICAL SPECIFICATIONS:

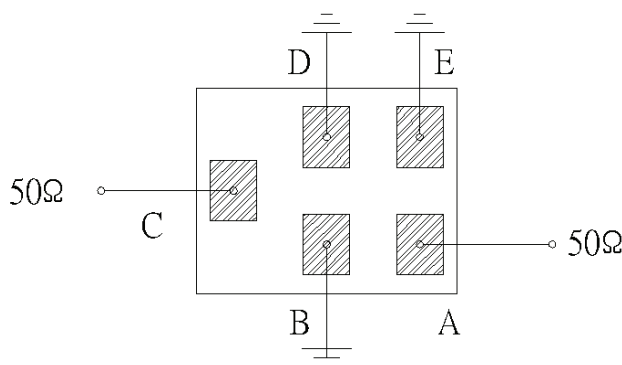
Maximum Ratings

Item	Value
Input Power Level	+15 dBm max.
DC Permissive Voltage	3.0V DC max.
Operating Temperature Range	-40°C to + 85°C
Storage Temperature Range	-40°C to + 85°C

Parameters	Minimum	Typical	Maximum	Units	Notes
Center Frequency (f_c)		1575.42		MHz	
Insertion Loss (IL)		0.90	1.50	dB	(1574.42~1576.42 MHz)
3-dB Bandwidth		40		MHz	
Amplitude Ripple		0.1	0.75	dB	(1574.42~1576.42 MHz)
Worst-Case Input / Output Return Loss		23	12.7	dB	(1574.42~1576.42 MHz)
Stop-band Attenuation (Referenced to 0.0 dB)	35	38		dB	D.C~1450 MHz
	30	45			1450~1520 MHz
	45	48			1625~1640 MHz
	38	40			1640~1805 MHz
	38	40			1805~1910 MHz
	38	43			1910~2000 MHz
	30	45			2000~4000 MHz
	20	22			4000~6000 MHz
Source Impedance (Z_S)		50		Ω	See note # 1
Load Impedance (Z_L)		50		Ω	See note # 1

Note #1: No matching network required for operation into 50 Ω 's

TEST CIRCUIT:

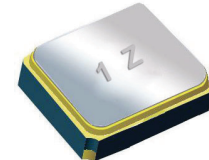


Surface Mount 1575.42MHz SAW Filter

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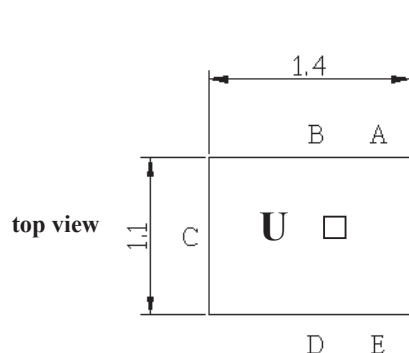


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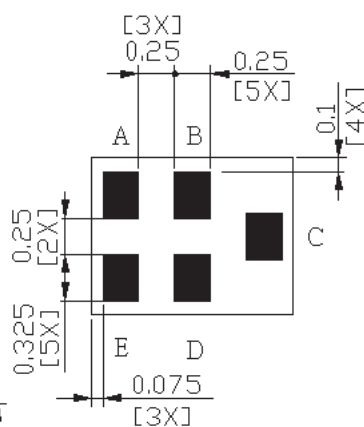


1.4 x 1.1 x 0.7 mm

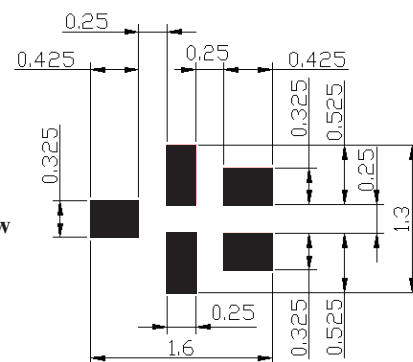
OUTLINE DIMENSIONS:



side view



bottom view



■ : Land Pattern
Unit : mm

C:	Input
A:	Output
B, D, E:	Ground

*All Dimensions are in mm

□ Year/Month Code (Follow the table)

Year/Month	1	2	3	4	5	6	7	8	9	10	11	12
2009	A	B	C	D	E	F	G	H	J	K	L	M
2010	N	P	Q	R	S	T	U	V	W	X	Y	Z
2011	A	B	C	D	E	F	G	H	J	K	L	M
2012	N	P	Q	R	S	T	U	V	W	X	Y	Z
2013	A	B	C	D	E	F	G	H	J	K	L	M
2014	N	P	Q	R	S	T	U	V	W	X	Y	Z

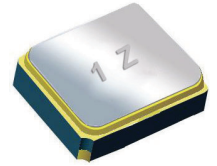


Surface Mount 1575.42MHz SAW Filter

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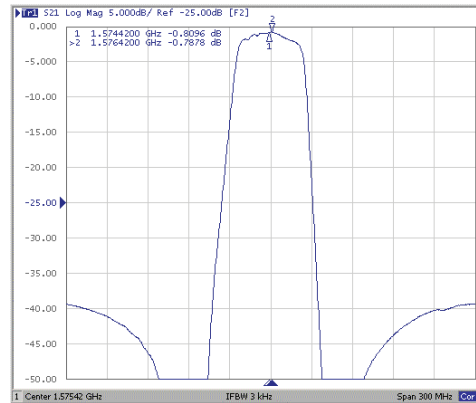
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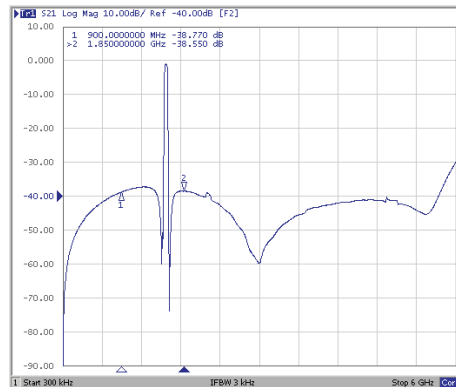
1.4 x 1.1 x 0.7 mm

FREQUENCY CHARACTERISTICS:

Filter Frequency Response (Narrowband)

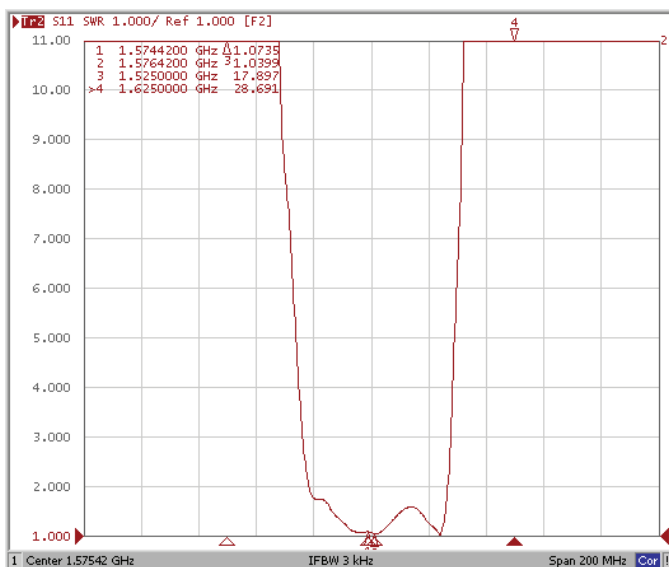


Filter Frequency Response (Wideband)

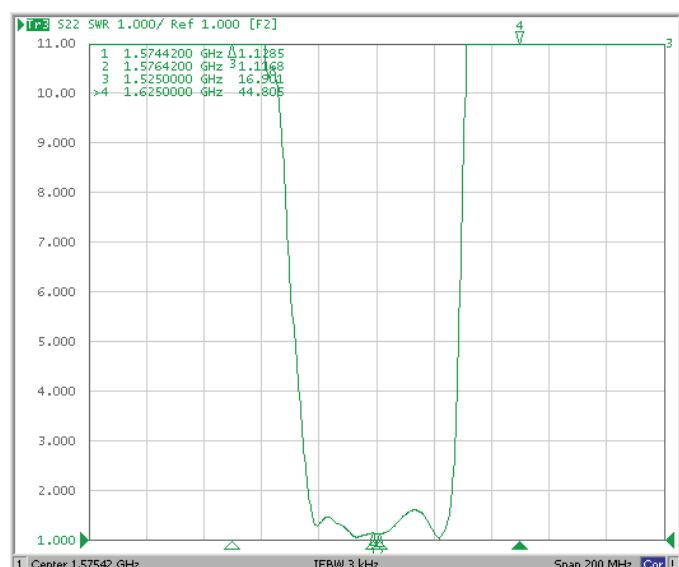


REFLECTION FUNCTIONS:

S11



S22



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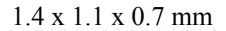
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Revised: 06.20.12

AFS14A04-1575.42-T2



The graph plots Temperature (Deg C) on the y-axis (ranging from 20 to 280 in increments of 20) against Time (Sec) on the x-axis (ranging from 0 to 360 in increments of 20). The curve shows a non-linear increase in temperature over time, with a distinct plateau around 150°C between 80 and 100 seconds, and a peak around 260°C at 220 seconds.

Time (Sec)	Temp (Deg C)
0	20
20	20
40	140
60	150
80	150
100	150
120	160
140	170
160	190
180	220
200	250
220	260
240	250
260	170
280	140
300	140
320	130
340	110
360	100

Technical drawing of a circular mechanical part, showing three views: front, side, and top.

Front View (Left): Shows a circular flange with a central hub. The outer edge has a 40° chamfer. The central hole has a diameter of $\phi 17 \text{ Re } 1$. The flange has a radius of $R3.0$.

Side View (Middle): Shows the profile of the part. The flange thickness is 2.0. The central hole has a diameter of $\phi 17 \text{ Re } 1$. The hub has a diameter of $\phi 13.0 \pm 0.2$. The flange has a radius of $R3.0$.

Top View (Right): Shows the circular flange with a central hub. The outer edge has a 60° chamfer. The central hole has a diameter of $\phi 17 \text{ Re } 1$. The flange has a radius of $R3.0$.

DETAIL "A" (Bottom Left): A detailed view of the central hub, showing a 120° angle and a radius of $R1.0 \pm 0.2$.

DETAIL "B" (Bottom Middle): A detailed view of the central hole, showing a diameter of $\phi 17 \pm 0.2$ and a radius of $R1.0 \pm 0.2$.

Revised: 06.20.12

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