

# SMD 2442MHz SAW FILTER

AFS  
2442.0S4



3.0 x 3.0 x 1.4mm



**RoHS**  
Compliant

AFS2442.0S4

## FEATURES:

- Small package
- Low Insertion Loss
- Excellent Attenuation Bandwidth

## APPLICATIONS:

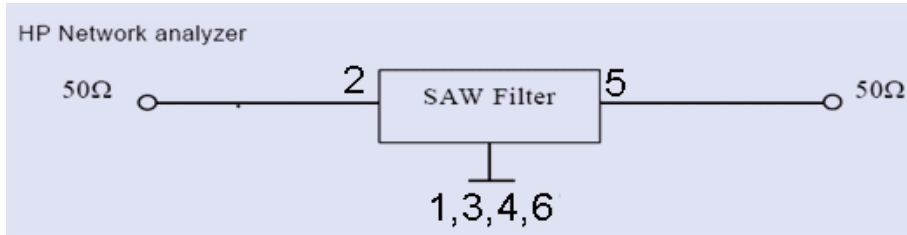
- Bluetooth Technology
- Mobile, GPS, ISM Band

## ELECTRICAL SPECIFICATIONS:

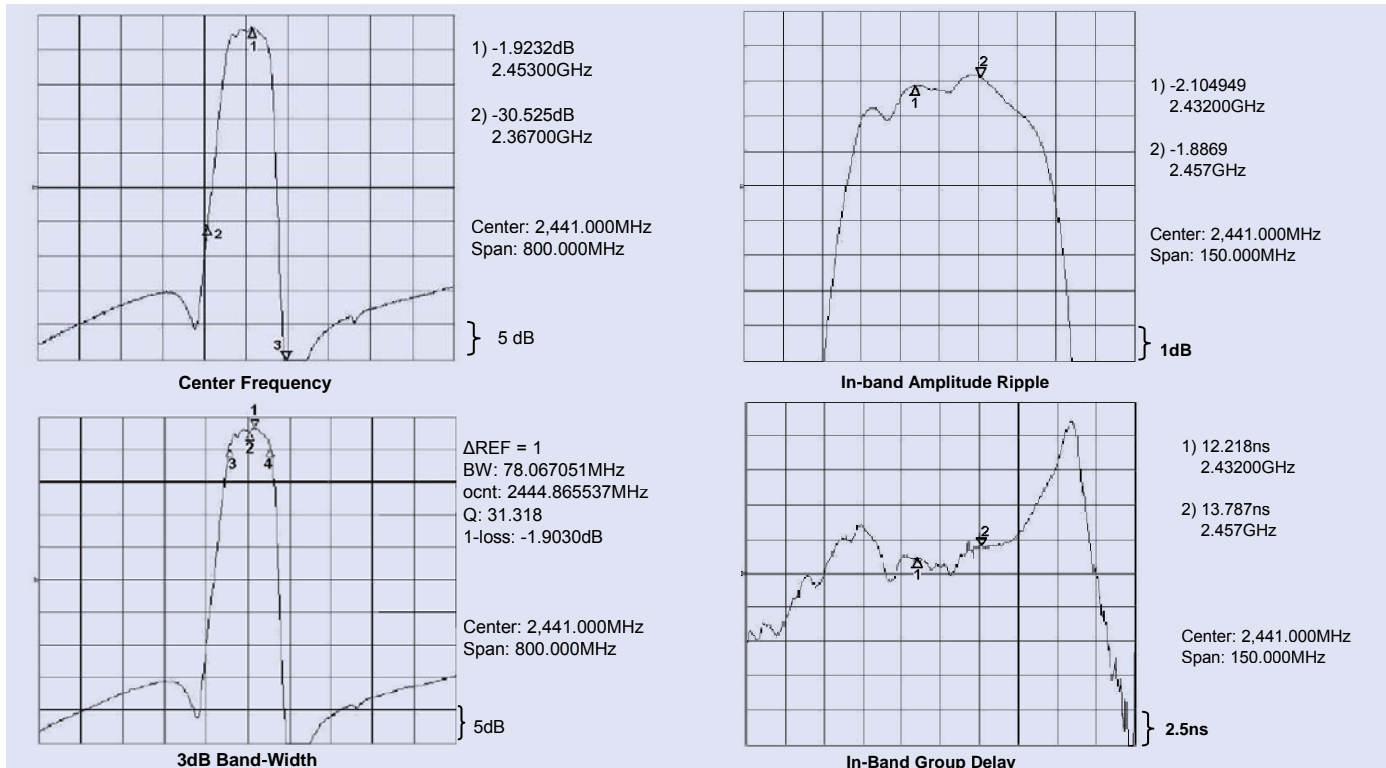
PARAMETERS	
ABRACON P/N	AFS2442.0S4
DC Voltage	10Vdc max.
Operating Temperature	-20°C to +70°C
Storage Temperature	-40°C to +85°C
Input Power Level	15 dBm average; 18 dBm Peak-Power with 5% Duty Cycle

Item	Units	Minimum	Typical	Maximum
Center Frequency Fc	MHz	2437.000	2442	2447.00
In-Band Insertion Loss (2437 ~ 2447 MHz)	dB	--	1.9	6.0
3-dB Bandwidth	MHz	--	78	--
Amplitude ripple (Fc ± 12.5MHz)	dB	--	0.25	2.0
Group delay (Fc ± 12.5MHz)	ns	--	12.5	--
Group delay ripple (Fc ± 5MHz)	ns	--	1.60	--
Attenuation				
D.C. ~ 2300 MHz	dB	37.0	41.0	--
2300 ~ 2367 MHz	dB	20.0	31.0	--
2517 ~ 2650 MHz	dB	40.0	44.0	--
2650 ~ 4000 MHz	dB	25.0	31.0	--
Return Loss	dB	--	12.0	--
Source impedance	Ω	--	50	--
Load impedance	Ω	--	50	--

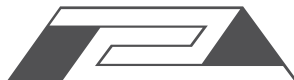
## TEST CIRCUIT:



## FREQUENCY CHARACTERISTICS (Transfer Function):



ABRACON IS  
ISO 9001 / QS 9000  
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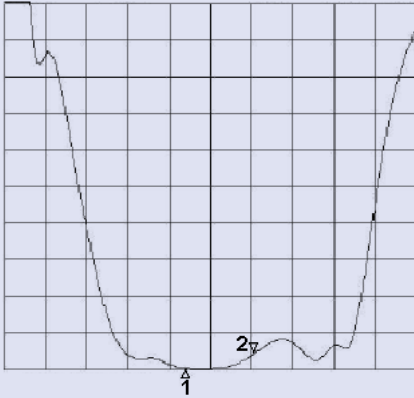
**RoHS**  
Compliant



3.0 x 3.0 x 1.4mm

## FREQUENCY CHARACTERISTICS (Reflection Function):

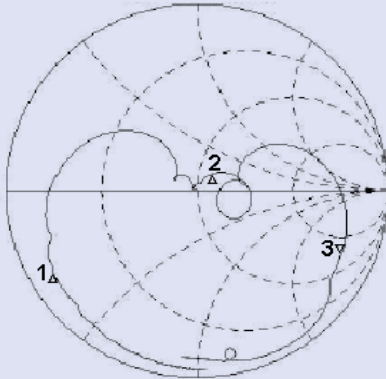
### Input VSWR



- 1: 1.0455  
2.43200GHz
- 2) 1.4482  
2.457GHz

Center: 2,441.000MHz  
Span: 150.000MHz

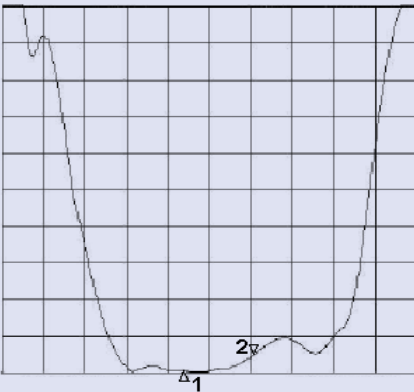
2.00 VSWR per Division



- 1: 3.7559Ω  
-13.361Ω  
2.36700GHz
- 2: 57.404Ω  
10.383Ω  
2.45300GHz
- 3 : 87.805Ω  
-191.95Ω  
2.517GHz

Center: 2,441.000MHz  
Span: 800.000MHz

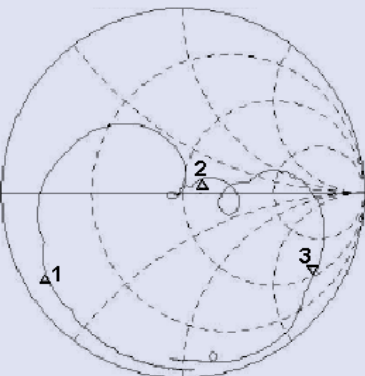
### Output VSWR



- 1) 1.0455  
2.43200GHz
- 2) 1.4908  
2.457GHz

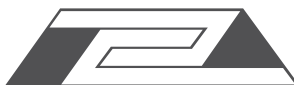
Center: 2,441.000MHz  
Span: 150.000MHz

2.00 VSWR per Division



- 1) 3.7866Ω  
-13.022Ω  
2.36700GHz
- 2) 61.475Ω  
9.2983Ω  
2.45300GHz
- 3) 50.805Ω  
-162.07Ω  
2.517GHz

Center: 2,441.000MHz  
Span: 800.000MHz



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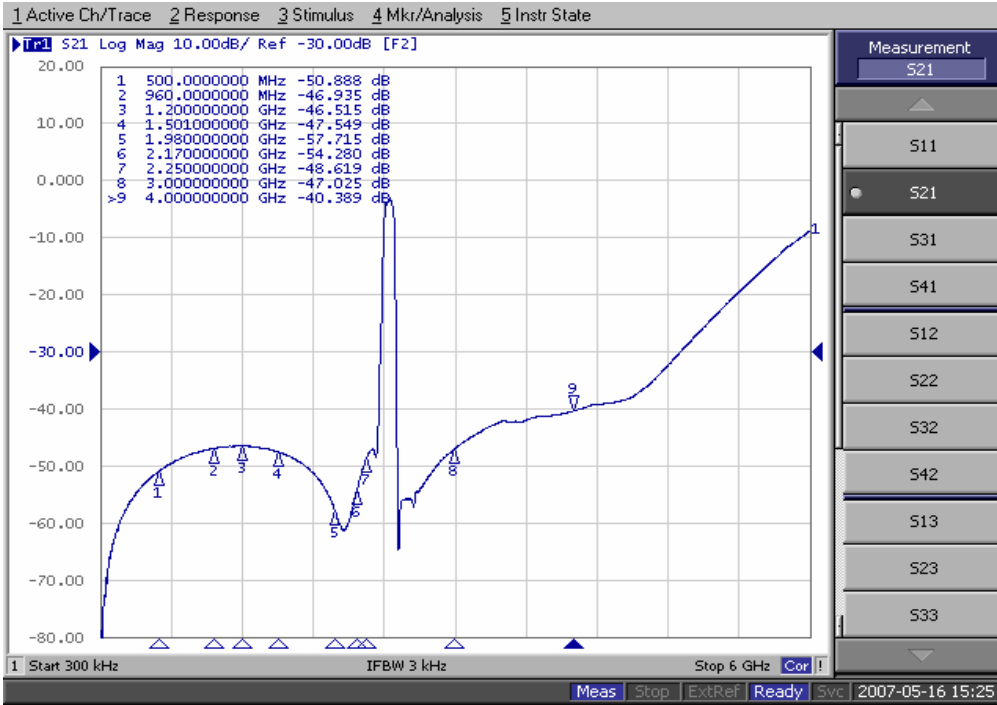


3.0 x 3.0 x 1.4mm



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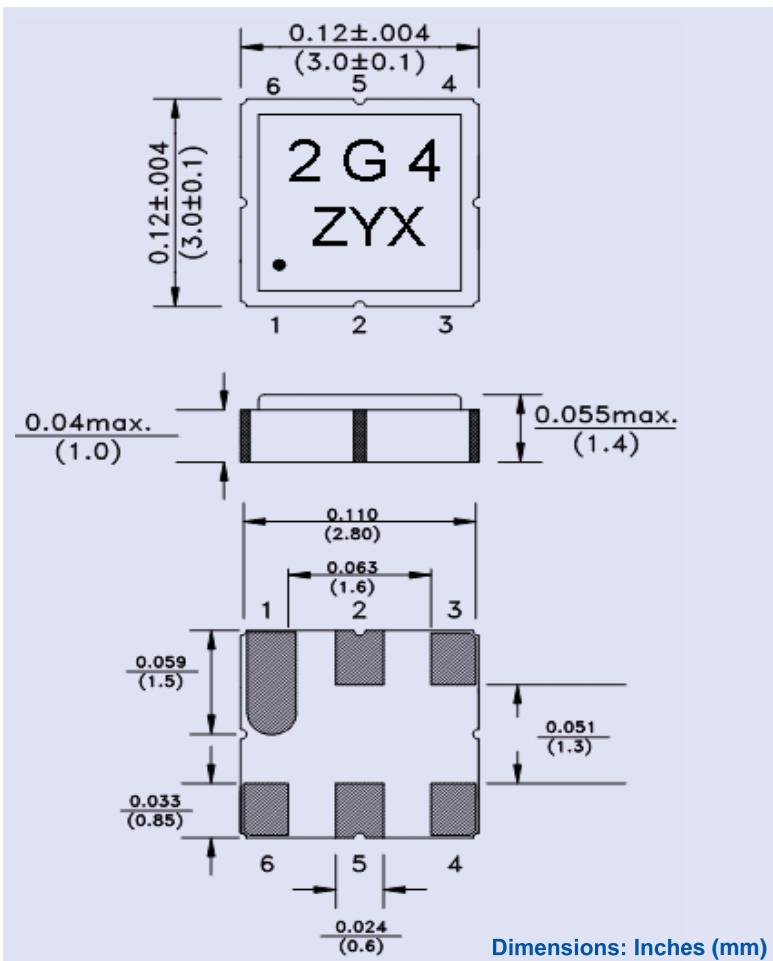
## FREQUENCY CHARACTERISTICS (Reflection Function):



## S21 Table

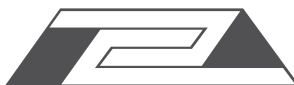
Characteristic	typ. Value (dB)
D.C. ~ 500 MHz	50.9
500 ~ 960 MHz	47.0
960 ~ 1200 MHz	46.5
1200 ~ 1501 MHz	46.5
1501 ~ 1980 MHz	47.5
1980 ~ 2170 MHz	54.4
2170 ~ 2250 MHz	48.7
2700 ~ 3000 MHz	47.0
3000 ~ 4000 MHz	39.5
4000 ~ 6000 MHz	9.0

## OUTLINE DRAWING:



Pin	Function
1	Ground
2	Input
3	Ground
4	Ground
5	Output
6	Ground

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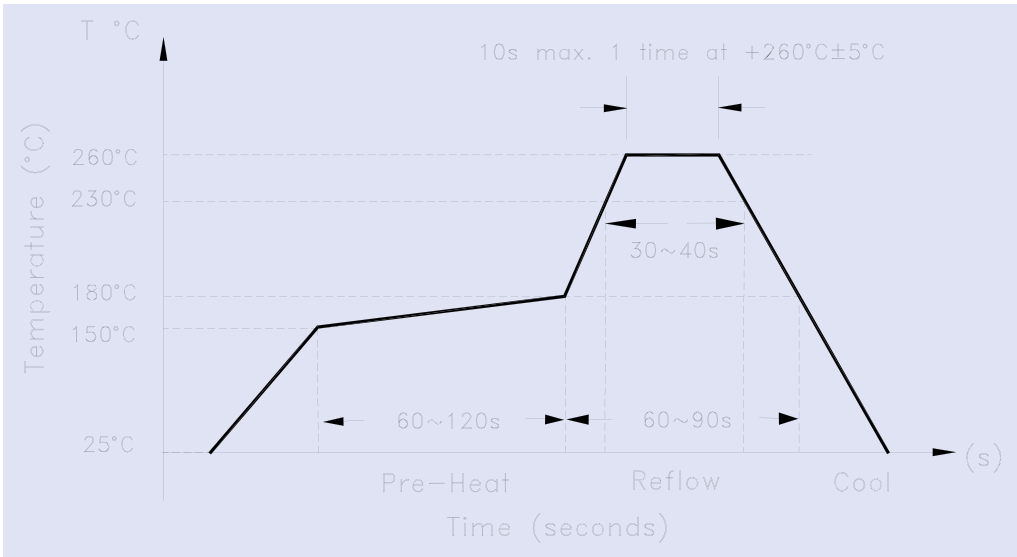
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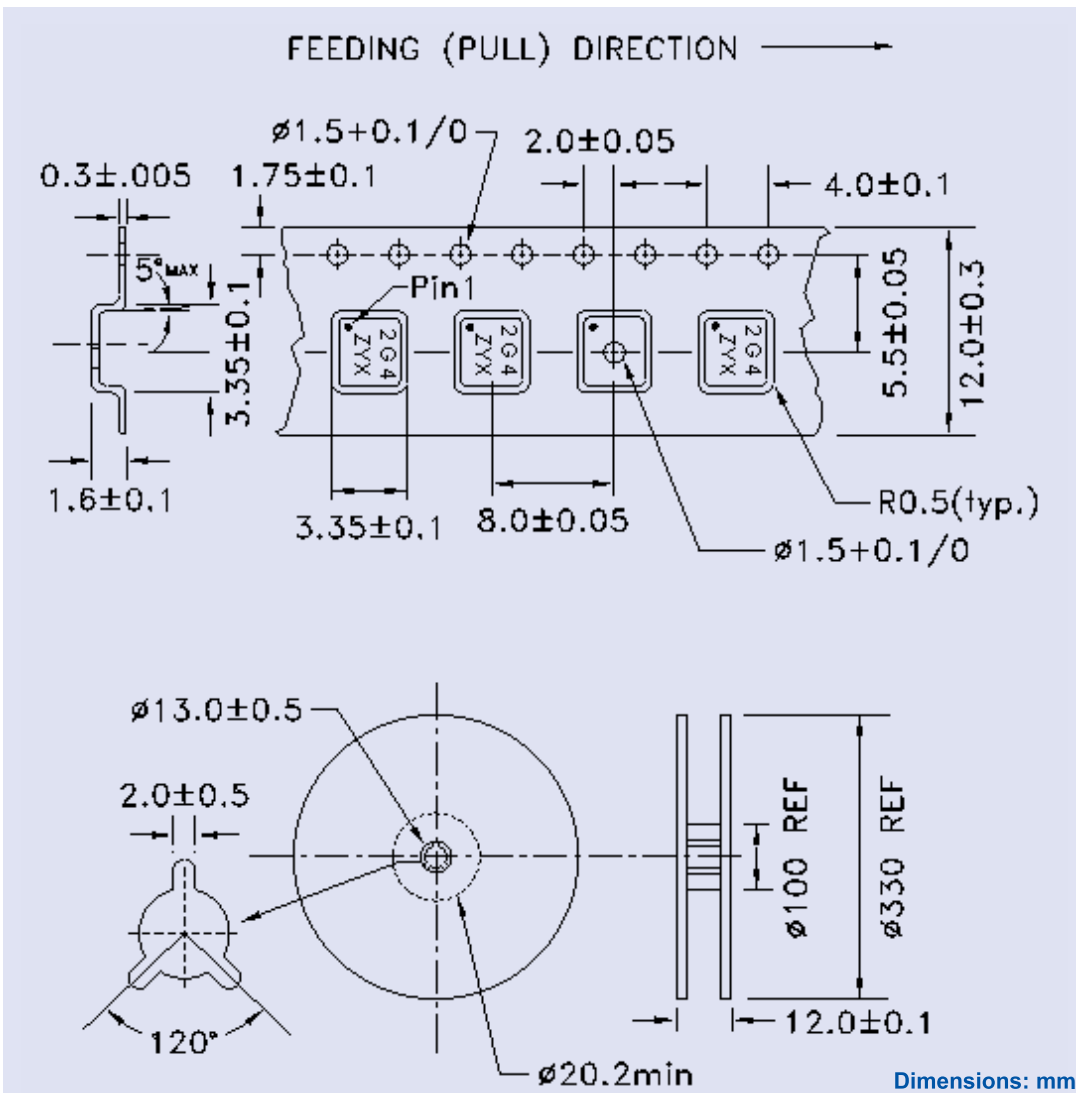


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## REFLOW PROFILE:



## TAPE & REEL: T= tape and reel (1000 pcs / reel)



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