

# SMD 2442MHz SAW FILTER

AFS2442.0S4



3.0 x 3.0 x 1.4mm



**RoHS**  
Compliant

## FEATURES:

- Small package
- Low Insertion Loss
- Excellent Attenuation Bandwidth

## APPLICATIONS:

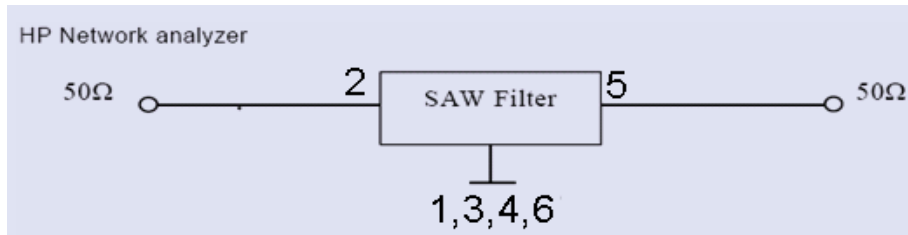
- Bluetooth Technology
- Mobile, GPS, ISM Band

## ELECTRICAL SPECIFICATIONS:

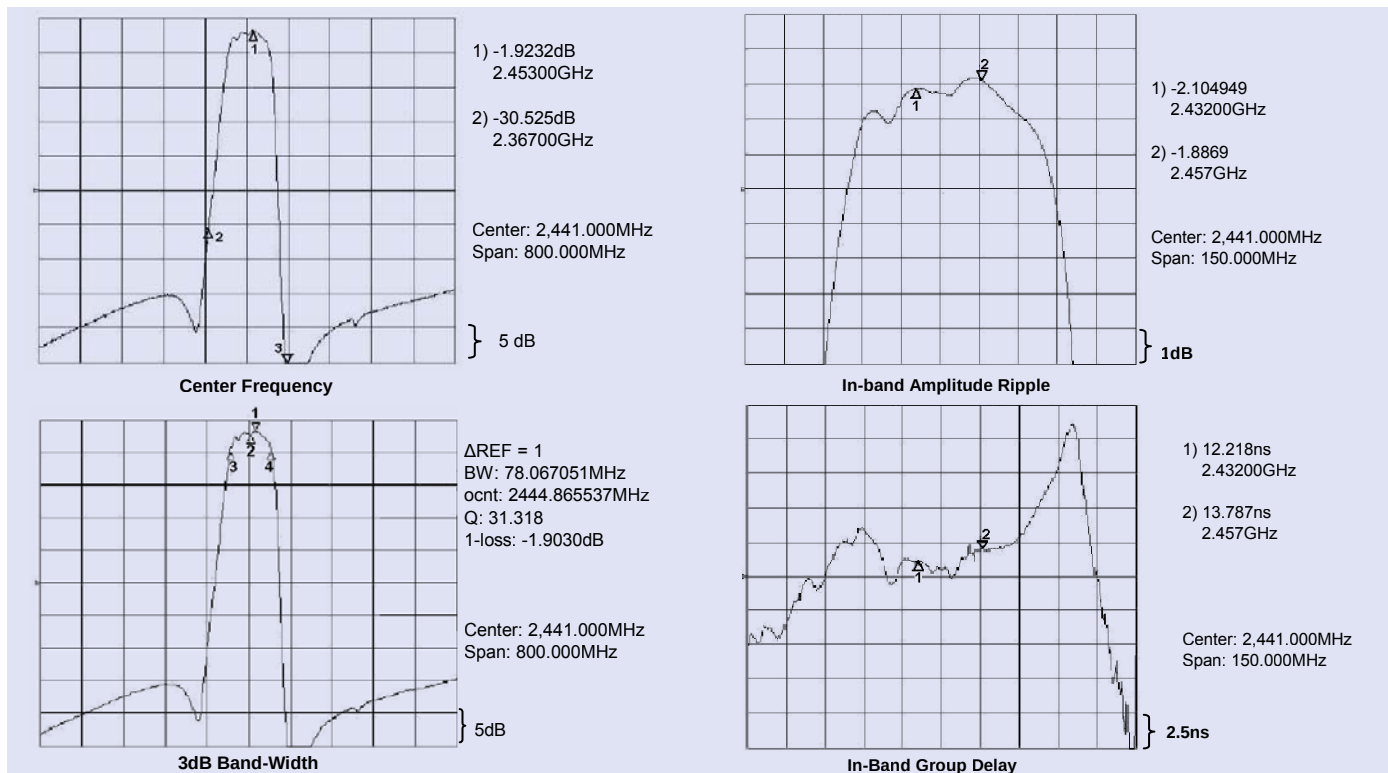
| PARAMETERS            |                                                         |
|-----------------------|---------------------------------------------------------|
| ABRACON P/N           | AFS2442.0S4                                             |
| DC Voltage            | 10Vdc max.                                              |
| Operating Temperature | -20°C to +70°C                                          |
| Storage Temperature   | -40°C to +85°C                                          |
| Input Power Level     | 15 dBm average;<br>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  
CERTIFIED



**ABRACON**  
CORPORATION

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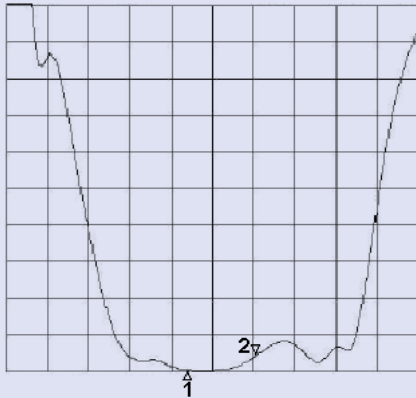
**RoHS**  
Compliant



3.0 x 3.0 x 1.4mm

## FREQUENCY CHARACTERISTICS (Reflection Function):

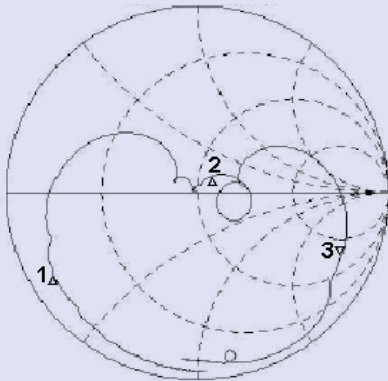
### Input VSWR



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

Center: 2,441.000MHz  
Span: 150.000MHz

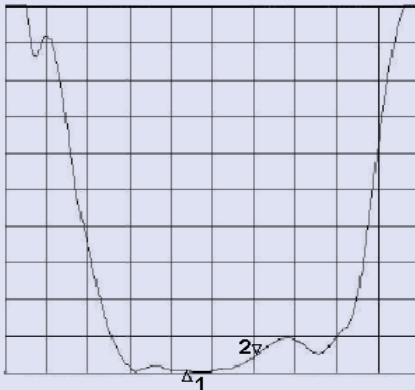
} 2.00 VSWR per Division



- 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

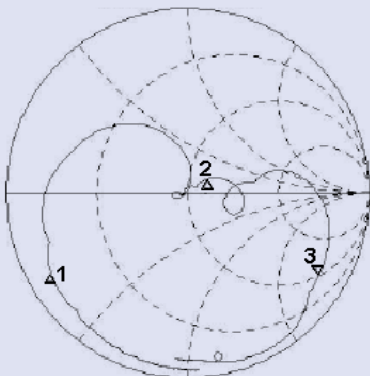
### Output VSWR



- 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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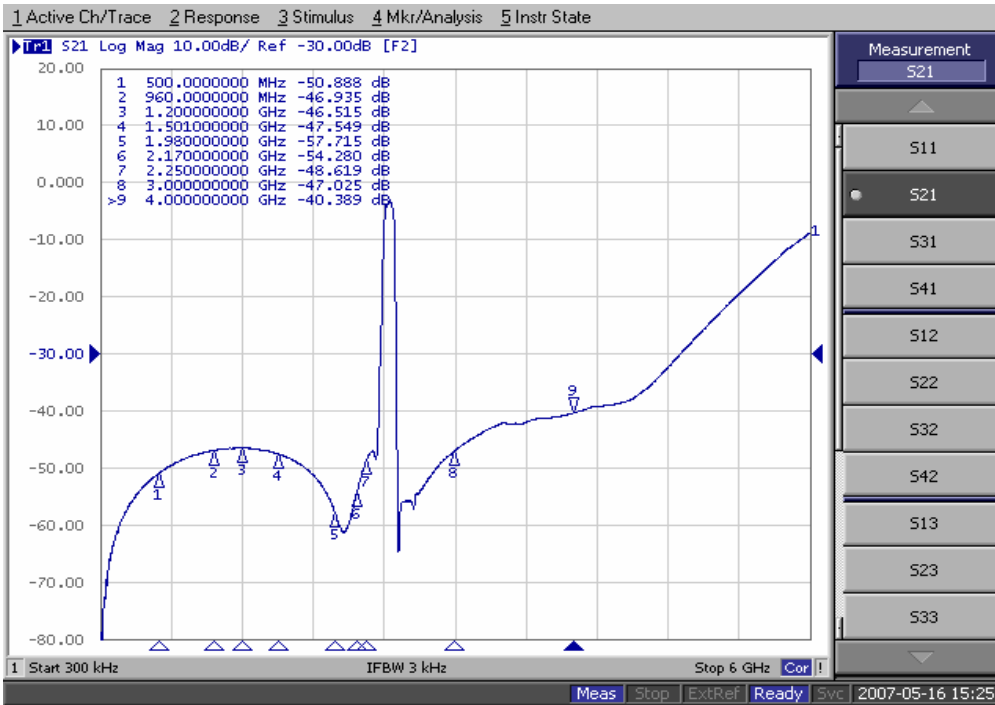


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Compliant



3.0 x 3.0 x 1.4mm

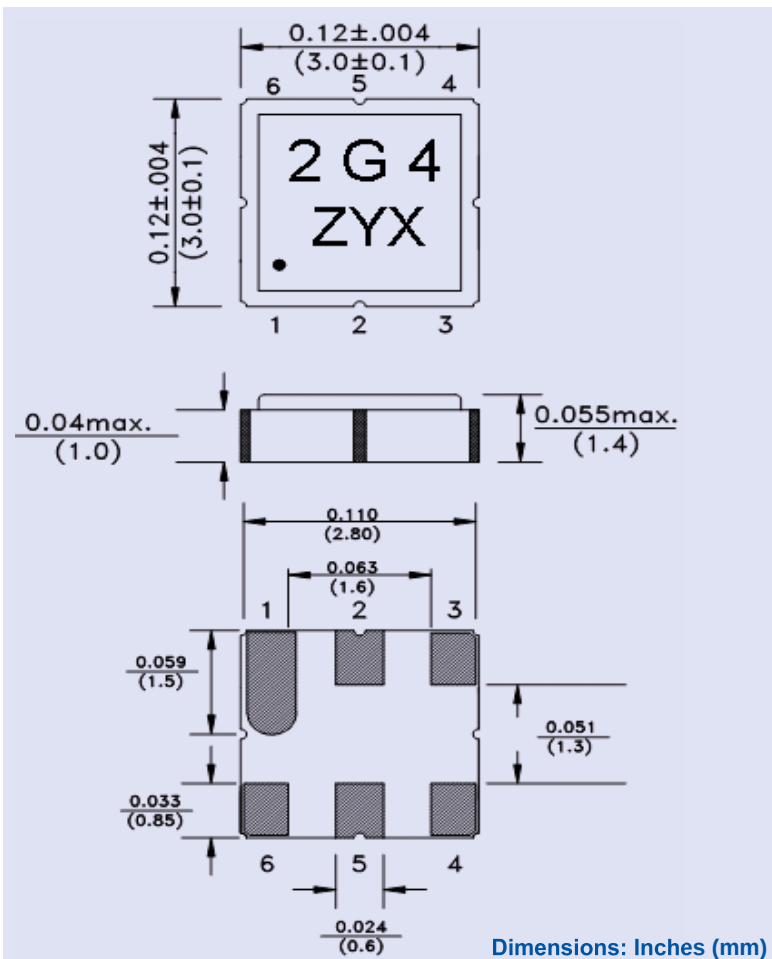
## FREQUENCY CHARACTERISTICS (Reflection Function):



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   |



# SMD 2442MHz SAW FILTER

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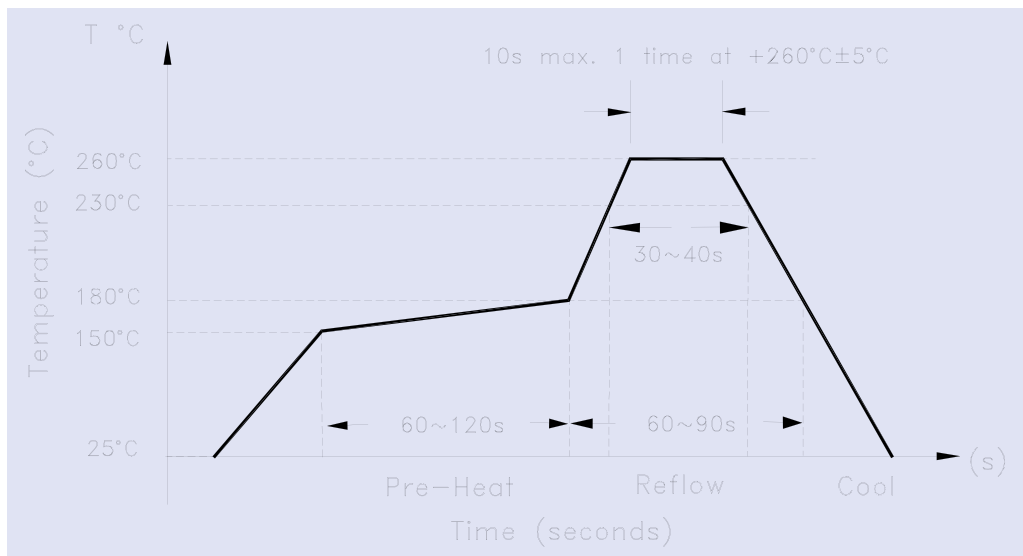


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## REFLOW PROFILE:



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

