

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

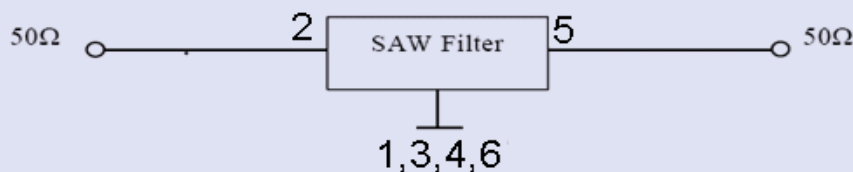
ELECTRICAL SPECIFICATIONS:

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; 18 dBm Peak- Power with 5% Duty Cycle

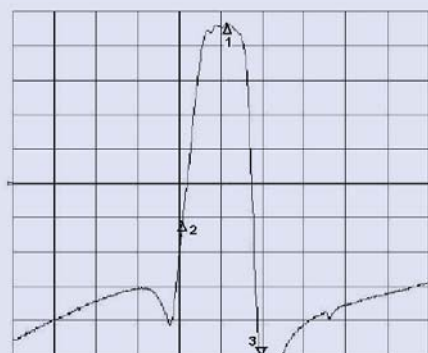
Item	Units	Minimum	Typical	Maximum
Center Frequency Fc	MHz	2437.000	2442	2447.00
In-Band Insertion Loss (2437 ~ 2447 MHz)	dB	--	1.9	6.0
3-dB Bandwidth	MHz	--	78	--
Amplitude ripple (Fc ± 12.5MHz)	dB	--	0.25	2.0
Group delay (Fc ± 12.5MHz)	ns	--	12.5	--
Group delay ripple (Fc ± 5MHz)	ns	--	1.60	--
Attenuation				
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:

HP Network analyzer

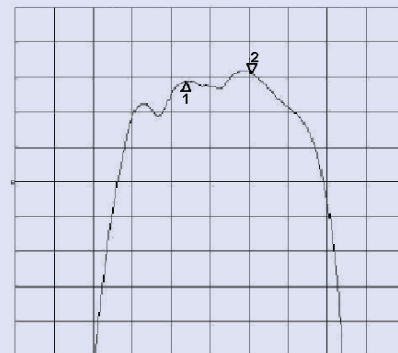


FREQUENCY CHARACTERISTICS (Transfer Function):



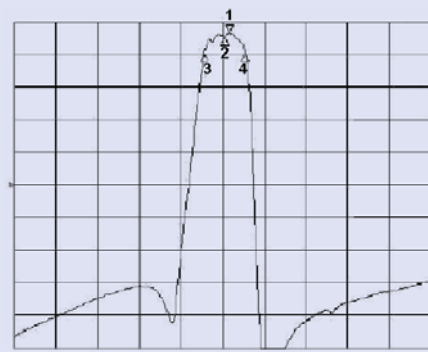
- 1) -1.9232dB
2.45300GHz
- 2) -30.525dB
2.36700GHz

Center: 2,441.000MHz
Span: 800.000MHz



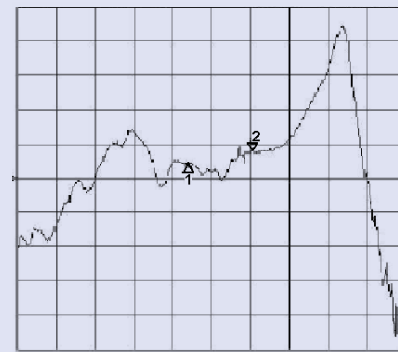
- 1) -2.104949
2.43200GHz
- 2) -1.8869
2.457GHz

Center: 2,441.000MHz
Span: 150.000MHz



ΔREF = 1
BW: 78.067051MHz
ocnt: 2444.865537MHz
Q: 31.318
1-loss: -1.9030dB

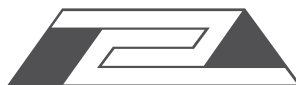
Center: 2,441.000MHz
Span: 800.000MHz



- 1) 12.218ns
2.43200GHz
- 2) 13.787ns
2.457GHz

Center: 2,441.000MHz
Span: 150.000MHz

ABRACON IS
ISO 9001 / QS 9000
CERTIFIED



ABRACON
CORPORATION

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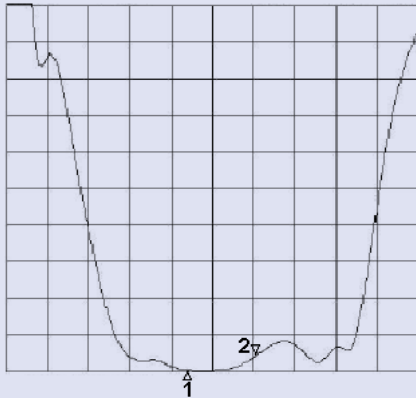
RoHS
Compliant



3.0 x 3.0 x 1.4mm

FREQUENCY CHARACTERISTICS (Reflection Function):

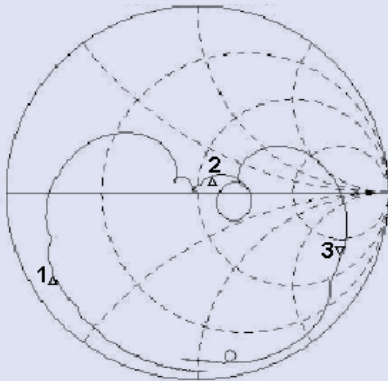
Input VSWR



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

Center: 2,441.000MHz
Span: 150.000MHz

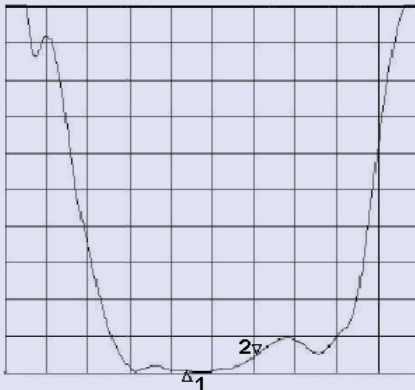
} 2.00 VSWR per Division



- 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

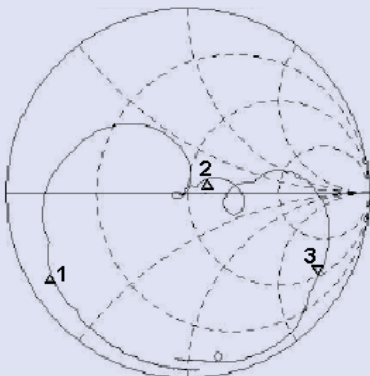
Output VSWR



- 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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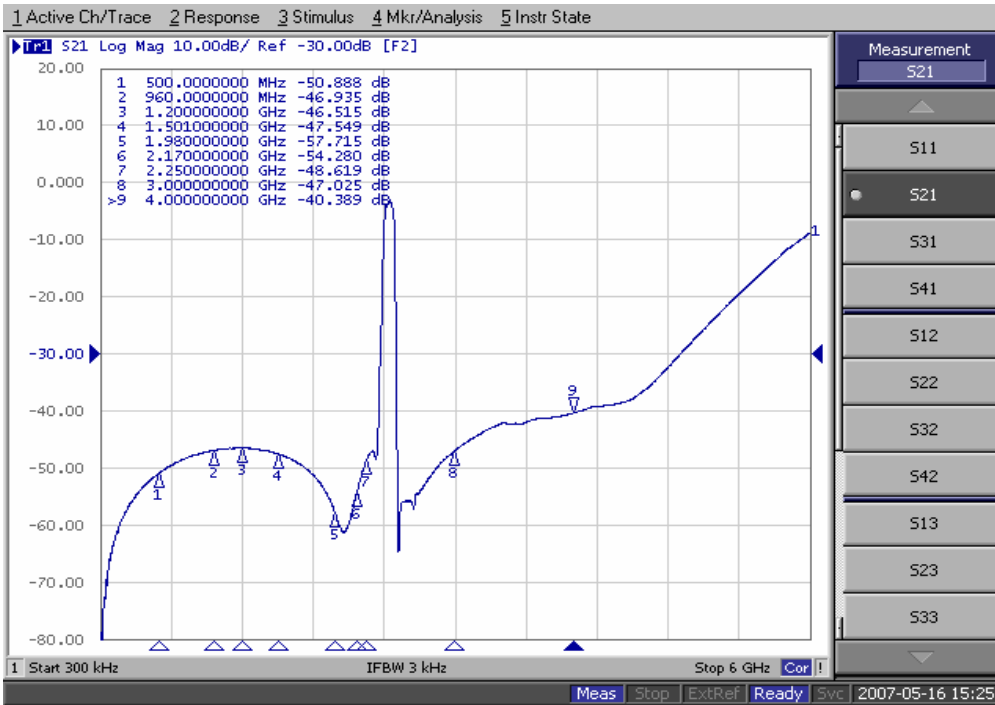


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3.0 x 3.0 x 1.4mm

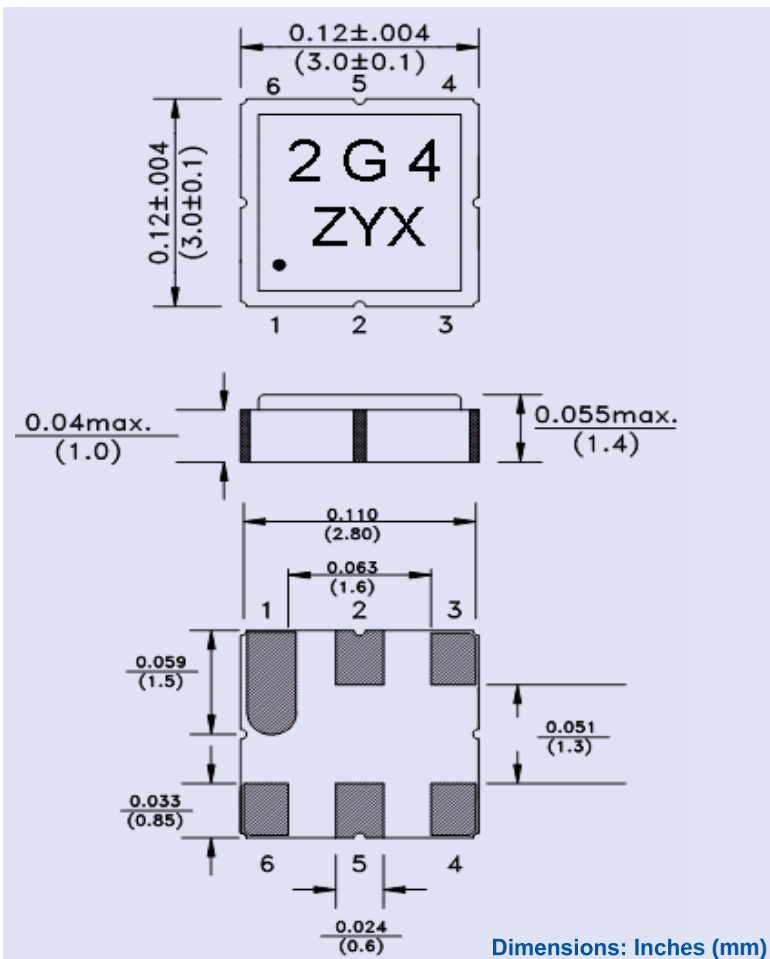
FREQUENCY CHARACTERISTICS (Reflection Function):



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



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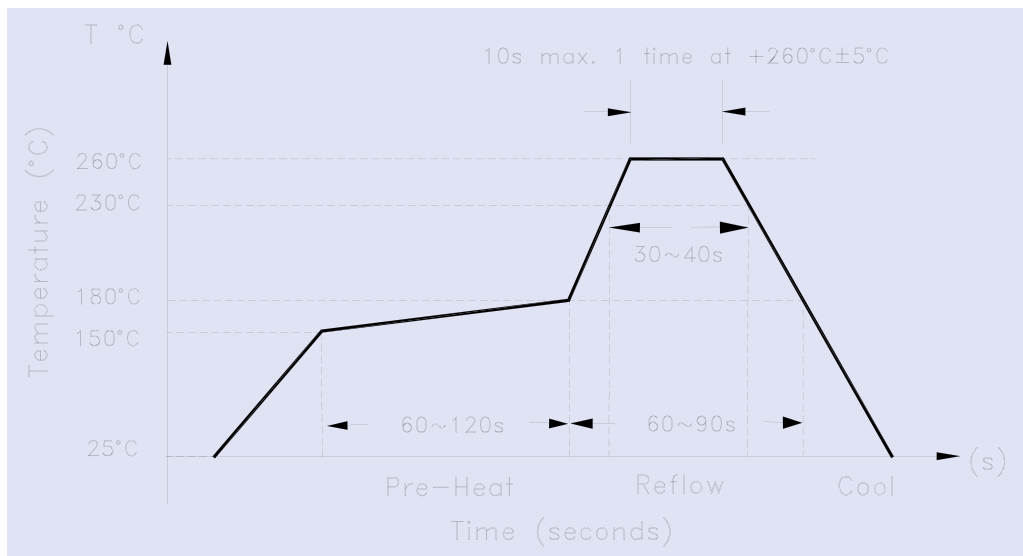


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REFLOW PROFILE:



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

