

ECN/PCN No.: R0449

For Manufacturer

Product Description: SMD 2436 MHz SAW Filter	Abracon Part Number / Part Series: AFS14A72-2436.00	<input type="checkbox"/> Documentation only <input checked="" type="checkbox"/> ECN <input type="checkbox"/> EOL	<input type="checkbox"/> Series <input type="checkbox"/> Part <input type="checkbox"/> Number
Affected Revision: A	New Revision: B	Application:	<input type="checkbox"/> Safety <input checked="" type="checkbox"/> Non-Safety

Prior to Change:

AFS14A72-2436.00-T3
 Surface Mount
 2436.00MHz SAW Filter

RoHS
 Compliant

FSD Sensitive

Date of Issue: Oct. 6th, 2014
 1.4 x 1.1 x 0.7 mm
 Abracon Drawing #: A53641
 Revision #: A

1.0 Key Electrical Specifications

1.1 Maximum Ratings

Item	Value
Input Power Level (<i>Note #1</i>)	+21 dBm max.
DC Permissible Voltage	3.0V DC max.
Operating Temperature Range	-30°C to + 85°C
Storage Temperature Range	-40°C to + 85°C

Note #1: Input Power Level = +10dBm max for products with September 2014 date code or earlier
 Input Power Level = +21dBm max for products with October 2014 date code or later

1.2 Electrical Characteristics

Parameters	Minimum	Typical	Maximum	Units	Notes
Center Frequency (f _c)		2436.00	4.4	MHz	(2400.00–2472.00MHz)
Insertion Loss (IL)		3.5	4.4	dB	(2400.00–2472.00MHz)
3-dB Bandwidth		72	3.3	dB	(2400.00–2472.00MHz)
Amplitude Ripple		2.0	3.3	dB	(2400.00–2472.00MHz)
Worst-Case Input / Output Return Loss		9.54	7.35	dB	
Stop-band Attenuation (Referenced to 0.0 dB)	25	35		dB	DC–960 MHz
	25	33		dB	960–1580 MHz
	25	34		dB	1710–1990 MHz
	28	37		dB	2110–2170 MHz
	30	40		dB	2496–2690MHz @ 25°C
	10	20		dB	2496–2690MHz over the operating temperature
	25	44		dB	2690–4800MHz
Terminating Source Impedance (Z _s)	20	36		Ω	4800–5000MHz
	15	31		Ω	5000–6000MHz
Terminating Load Impedance (Z _L)		50		Ω	
Temperature Coefficient of Frequency		-36		ppm/°C	

2.0 AFS14A72-2436.00-T3 is RoHS/RoHS II Compliant and Pb free.

3.0 Moisture Sensitivity Level (MSL) – This product is Hermetically Sealed and not Moisture Sensitive - MSL = N/A: Not Applicable

After Change:

SMD 2436 MHz SAW Filter

AFS14A72-2436.00

[Request Samples](#) [Check Inventory](#)

1.4 x 1.1 x 0.7 mm
 RoHS Compliant
 MSL Level - 3

Description

Designed for cost-sensitive IoT and consumer electronics, this compact 1.4 x 1.1 x 0.7 mm filter provides essential RF conditioning for Wi-Fi 4/5, Bluetooth®, Zigbee®, Thread, and Matter protocols. Its 72 MHz bandwidth and >20 dB out-of-band rejection effectively mitigate interference, while a 2 dB insertion loss balances performance and value. Supporting up to +21 dBm input power and rated MSL Level 3 for reliable assembly, this RoHS-compliant solution is ideally suited for compact routers, home automation devices, and various networking and remote sensing applications.

Features

- Bandwidth: 72 MHz
- Small 1.4 x 1.1 x 0.7 mm in Size
- Low Insertion Loss: 2 dB
- Out-of-Band Rejection: > 20 dB
- Maximum Input Power: +21 dBm
- RoHS Compliant | MSL Level 3

Applications

- Wi-Fi/WLAN Coverage
 - Wi-Fi 4/5 (802.11b/g/n/ac)
- Bluetooth®/ ZigBee® / Thread/ Matter
- Router and Networking
- Home Automation and Remote Sensing

Ordering Information

Part Number	Description
AFS14A72-2436.00	SMD 2436 MHz SAW Filter on Cut Tape
AFS14A72-2436.00-T3	SMD 2436 MHz SAW Filter on Tape & Reel
AFS14A72-2436.00-EVB	SMD 2436 MHz SAW Filter Evaluation Board

Note: Other options not listed may be available upon request via [Abracon online support](#)

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REVISED: 05-19-26

Cause/Reason for Change: Updated templates & product image, no design or performance updates

Change Plan

Effective Date: 05/19/2026	Additional Remarks:
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Change Declaration:

Issued Date: 05/19/2026	Issued By: Allan	Issued Department: Engineering
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Approval: Saravanan Subramanian Engineering Manager	Approval: Reuben Quintanilla Quality Director	Approval: Ying Huang Purchasing Director
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For Abracon EOL only

Last Time Buy (if applicable):	Alternate Part Number / Part Series:
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Additional Approval:	Additional Approval:	Additional Approval:
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Customer Approval (If Applicable)

Qualification Status: <input type="checkbox"/> Approved <input type="checkbox"/> Not accepted <i>Note: It is considered approved if there is no feedback from the customer 1 month after ECN/PCN is released.</i>
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Customer Part Number:	Customer Project:
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Company Name:	Company Representative:	Representative Signature:
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Customer Remarks:

SMD 2436 MHz SAW Filter



AFS14A72-2436.00

Request Samples



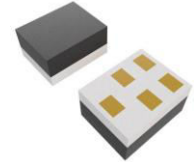
Check Inventory



1.4 x 1.1 x 0.7 mm
RoHS Compliant
MSL Level = 3

Description

Designed for cost-sensitive IoT and consumer electronics, this compact 1.4 x 1.1 x 0.7 mm filter provides essential RF conditioning for Wi-Fi 4/5, Bluetooth®, Zigbee®, Thread, and Matter protocols. Its 72 MHz bandwidth and >20 dB out-of-band rejection effectively mitigate interference, while a 2 dB insertion loss balances performance and value. Supporting up to +21 dBm input power and rated MSL Level 3 for reliable assembly, this RoHS-compliant solution is ideally suited for compact routers, home automation devices, and various networking and remote sensing applications.



Features

- Bandwidth: 72 MHz
- Small 1.4 x 1.1 x 0.7 mm in Size
- Low Insertion Loss: 2 dB
- Out-of-Band Rejection: > 20 dB
- Maximum Input Power: +21 dBm
- [RoHS Compliant | MSL Level 3](#)

Applications

- Wi-Fi/WLAN Coverage
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1.4 x 1.1 x 0.7 mm
RoHS Compliant
 MSL Level = 3

Electrical Specification

Parameters	Minimum	Typical	Maximum	Units	Notes
Center Frequency (fc)	2400	2436	2472	MHz	
Bandwidth	-	72	-	MHz	
VSWR ⁽¹⁾	-	2.1	2.5	-	2400~2472MHz
Insertion Loss ⁽¹⁾	-	2.0	2.7	dB	2400~2472MHz
Insertion Loss	-	3.5	4.4	dB	2400~2472MHz
Amplitude Ripple ⁽¹⁾	-	1.5	2.1	dB	2400~2472MHz
Amplitude Ripple	-	2	3.3	dB	2400~2472MHz
Group Delay ⁽¹⁾	-	11.4	18.4	ns	2400~2472MHz
Group Delay Ripple ⁽¹⁾	-	1.5	6.1	ns	2400~2472MHz
Attenuation (Refer to min. insertion loss) ⁽¹⁾	25	35	-	dB	DC~960 MHz
	25	33	-		960~1580 MHz
	25	34	-		1710~1990 MHz
	28	37	-		2110~2170 MHz
	30	40	-		2496~2690 MHz @ 25°C
	10	20	-		2496~2690MHz over the operating temperature
	25	44	-		2690~4800MHz
	20	36	-		4800~5000MHz
	15	31	-		5000~6000MHz
DC Voltage	-	3	-	V	
Input Power Level	-	-	21	dBm	
Terminating Source Impedance ⁽²⁾	-	50	-	Ω	
Terminating Load Impedance ⁽²⁾	-	50	-	Ω	
Temperature Coefficient of Frequency		-36		ppm/°C	

Notes: (1) Averaged values of linear S-Parameters at +25°C

(2) A matching network is unnecessary (refer to the Measurement Circuits section).

SMD 2436 MHz SAW Filter



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1.4 x 1.1 x 0.7 mm
RoHS Compliant
MSL Level = 3

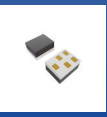
Mechanical Specification

Parameters	Specifications
Dimension	1.4 x 1.1 x 0.7 mm
Mounting Type	Surface Mount

Environmental Specification

Parameters	Specifications
Operating Temperature Range	-30°C ~ +85°C
Storage Temperature Range	-40°C ~ +85°C
MSL level	3

SMD 2436 MHz SAW Filter



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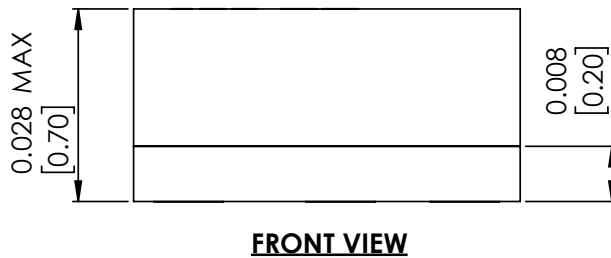
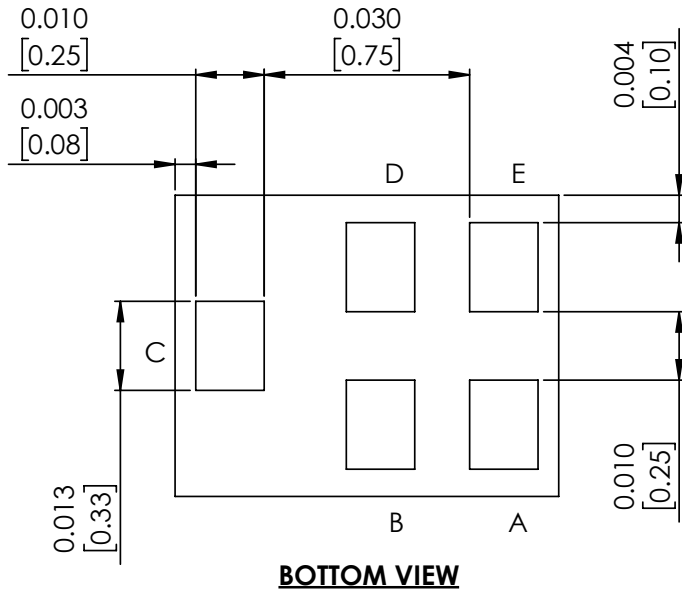
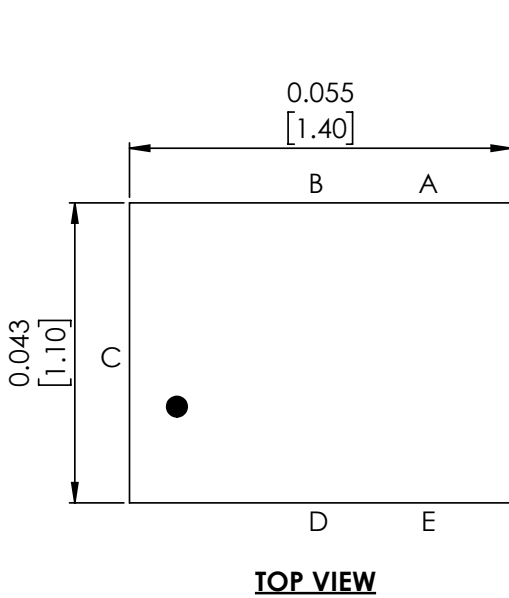


Check Inventory



1.4 x 1.1 x 0.7 mm
RoHS Compliant
 MSL Level = 3

Product Dimensions



Unit: inches [mm]

Pin No.	Description
C	Input
A	Output
B, D, E	Ground

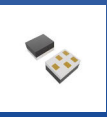


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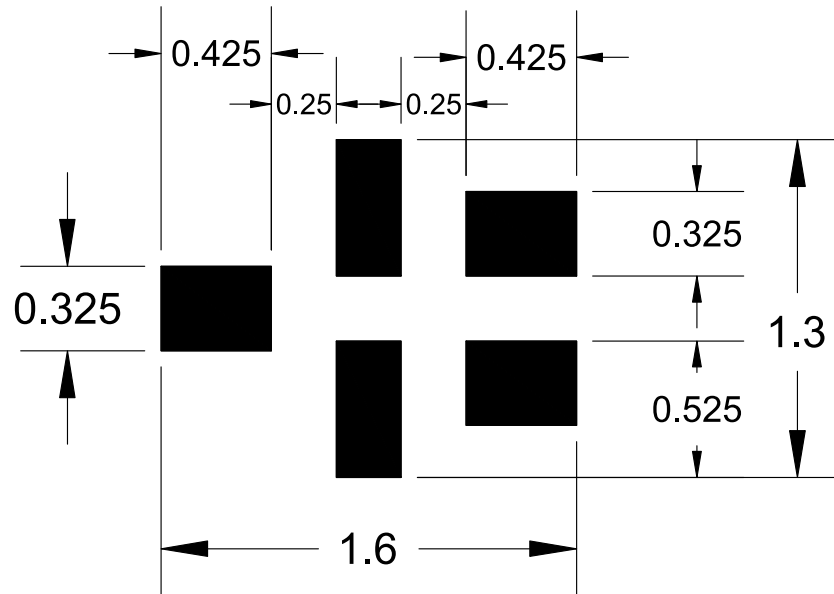


Check Inventory



1.4 x 1.1 x 0.7 mm
RoHS Compliant
MSL Level = 3

Recommended Land Pattern



Land Pattern

Unit : mm

Please note: The line width should be designed to achieve a 50-ohm characteristic impedance, depending on the PCB material and thickness. For technical assistance, please contact [Abracon online support](#) through our online support platform.

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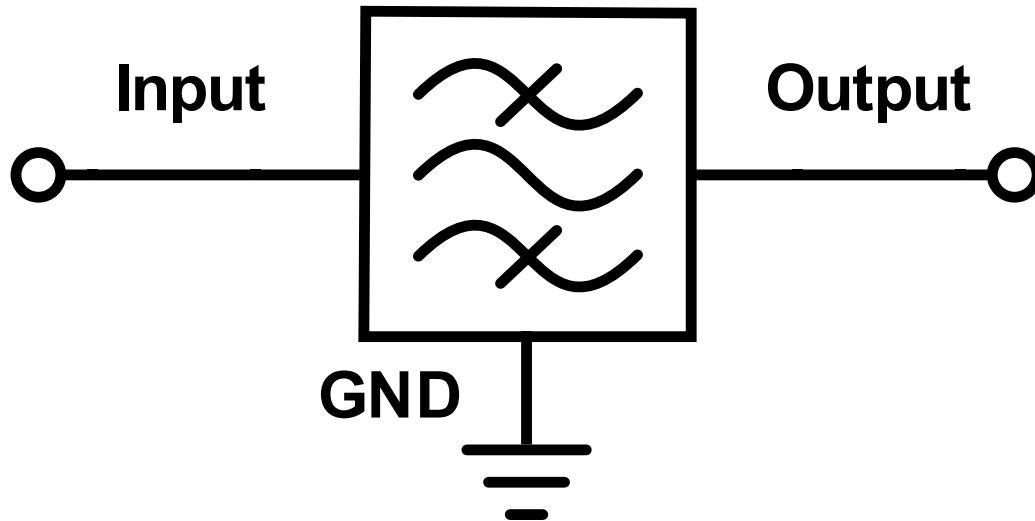


Check Inventory



1.4 x 1.1 x 0.7 mm
RoHS Compliant
MSL Level = 3

Measurement Circuit



Pin No.	Description
C	Input Impedance: 50 Ω
A	Output Impedance: 50 Ω
B, D, E	Ground

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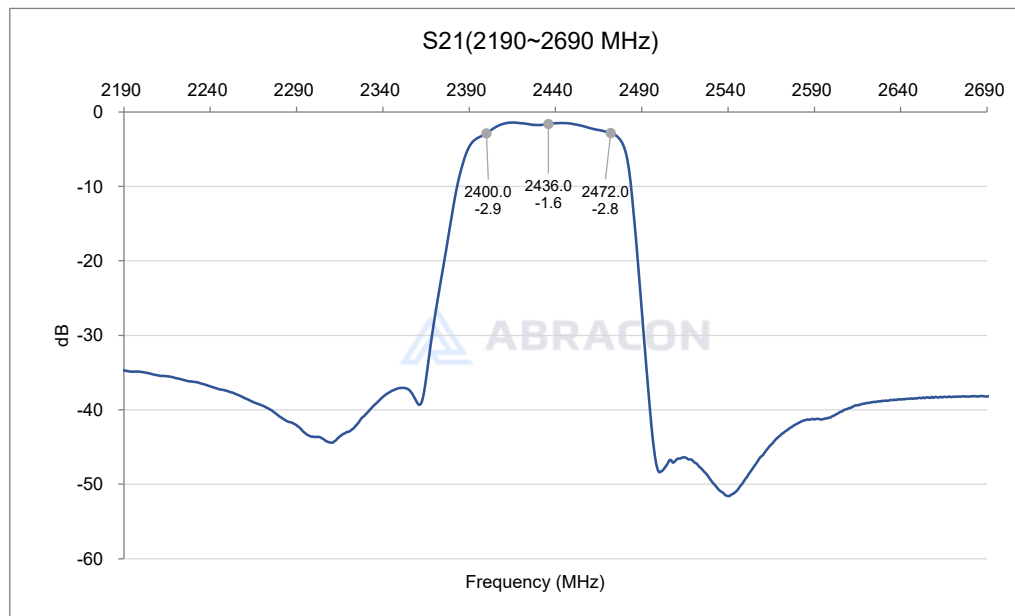
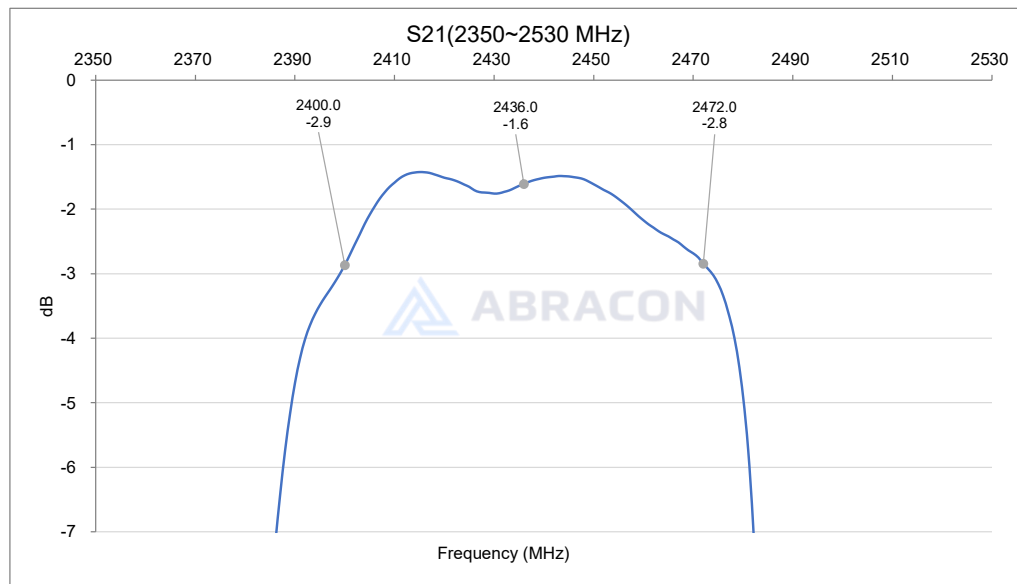
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1.4 x 1.1 x 0.7 mm
RoHS Compliant
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Frequency Characteristics

S21 Narrow Band



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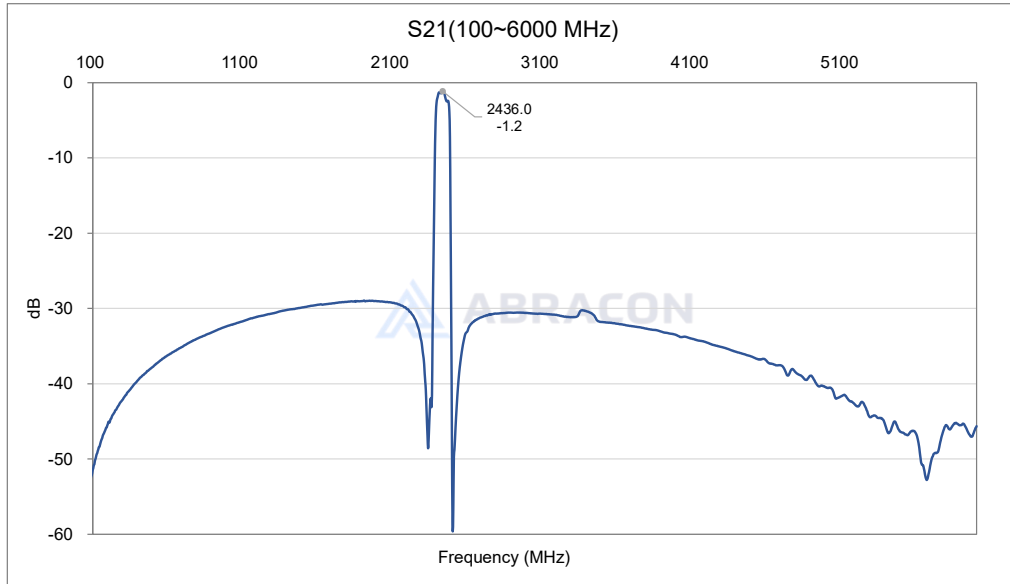


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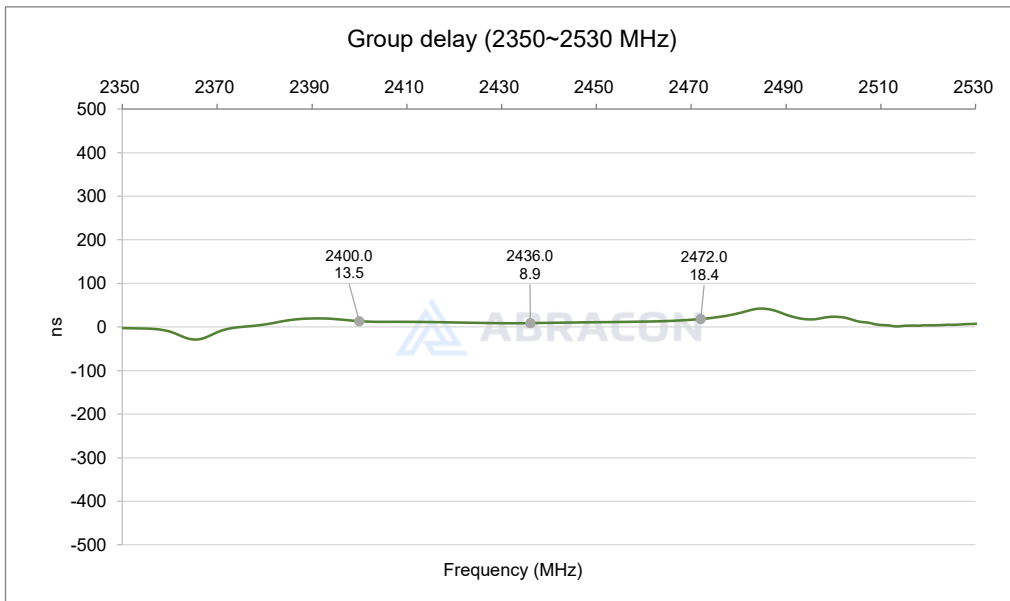


1.4 x 1.1 x 0.7 mm
RoHS Compliant
MSL Level = 3

S21 Wide Band



Group Delay



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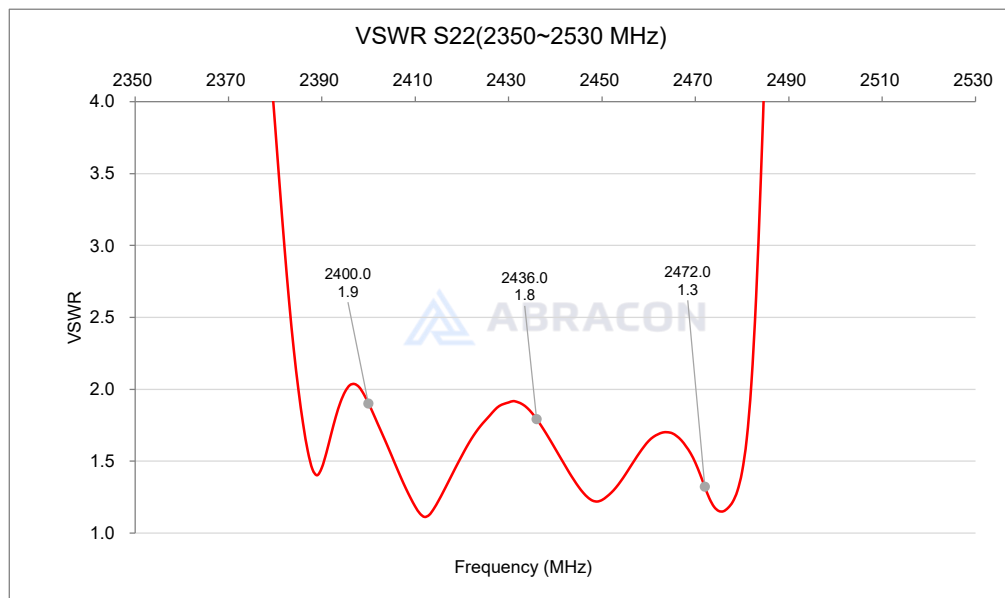
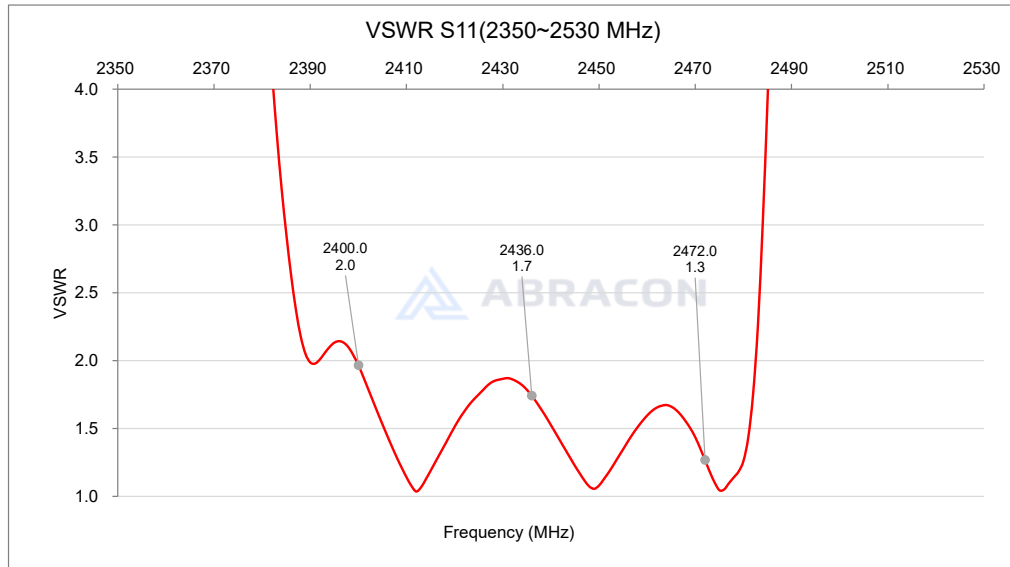


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1.4 x 1.1 x 0.7 mm
RoHS Compliant
MSL Level = 3

VSWR (S11 & S22)



SMD 2436 MHz SAW Filter



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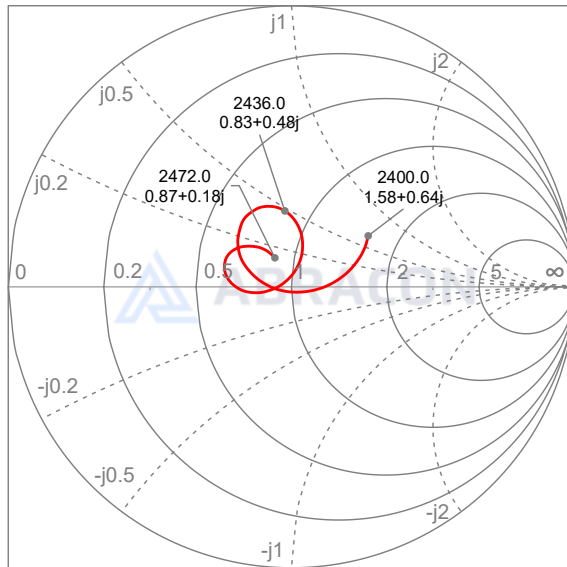
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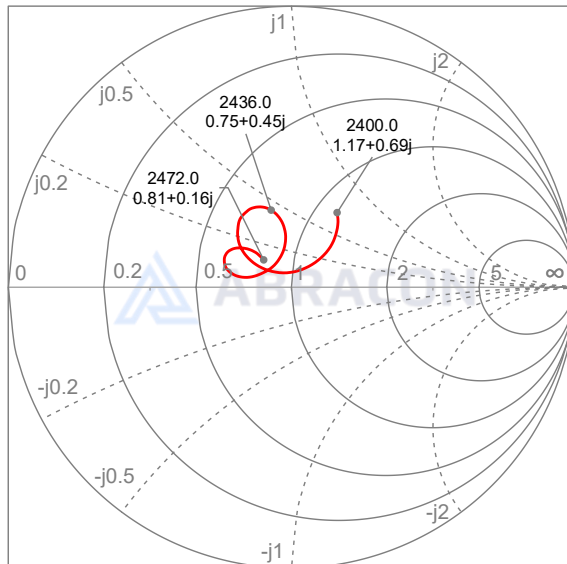
1.4 x 1.1 x 0.7 mm
RoHS Compliant
MSL Level = 3

Smith Chart (S11 & S22)

Smith chart S11 (2400~2472 MHz)



Smith chart S22 (2400~2472 MHz)



SMD 2436 MHz SAW Filter



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1.4 x 1.1 x 0.7 mm
RoHS Compliant
MSL Level = 3

Reflow Profile [JEDEC J-STD-020]

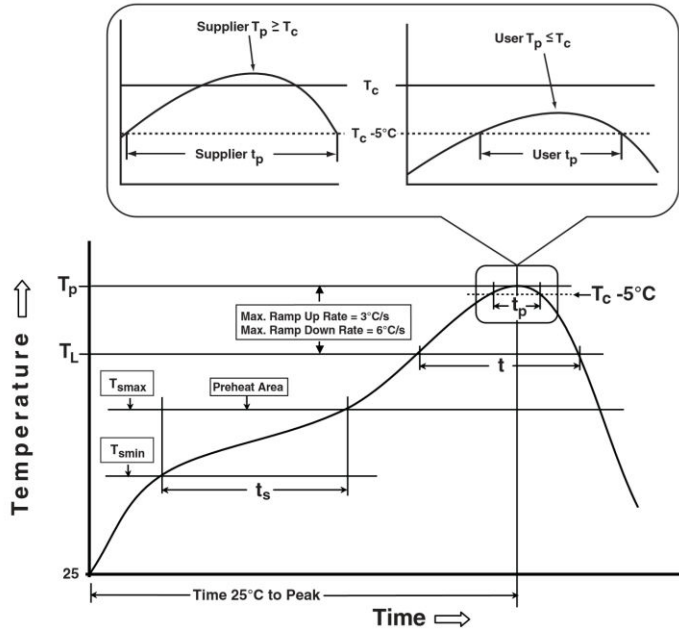


Table 1

SnPb Eutectic Process Classification Temperatures (T_c)

Package Thickness	Volume mm^3 <350	Volume mm^3 \geq 350
<2.5mm	235°C	220°C
\geq 2.5mm	220°C	220°C

Table 2

Pb-Free Process Classification Temperatures (T_c)

Package Thickness	Volume mm^3 <350	Volume mm^3 350-2000	Volume mm^3 >2000
<1.6mm	260°C	260°C	260°C
1.6mm - 2.5mm	260°C	250°C	245°C
>2.5mm	250°C	245°C	245°C

Profile Feature	Sn-Pb Eutectic Assembly	Pb-Free Assembly
Preheat / soak		
Temperature minimum (T_{smin})	100°C	150°C
Temperature maximum (T_{smax})	150°C	180°C
Time (T_{smin} to T_{smax}) (t_s)	60 – 120 sec.	60 – 90 sec.
Average ramp-up rate (T_{smax} to T_p)	3°C/sec. max	3°C/sec. max
Liquidous temperature (T_L)	183°C	220°C
Time at Liquidous (T_L)	60 – 150 sec.	50 – 80 sec.
Peak package body temperature (T_p)*	See Table 1	See Table 2
Time (T_p)** within 5°C of the specified classification temperature (T_c)	20 sec.	20 ~ 40 sec.
Ramp-down rate (T_p to T_{smax})	6°C/sec. max	6°C/sec. max
Time 25°C to peak temperature	6 min. max	8 min. max
Reflow cycles	2 max	2 max

*Tolerance for peak profile temperature (T_p) is defined as a supplier minimum and a user maximum.

**Tolerance for time at peak profile temperature (t_p) is defined as a supplier minimum and a user maximum.

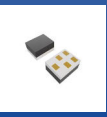


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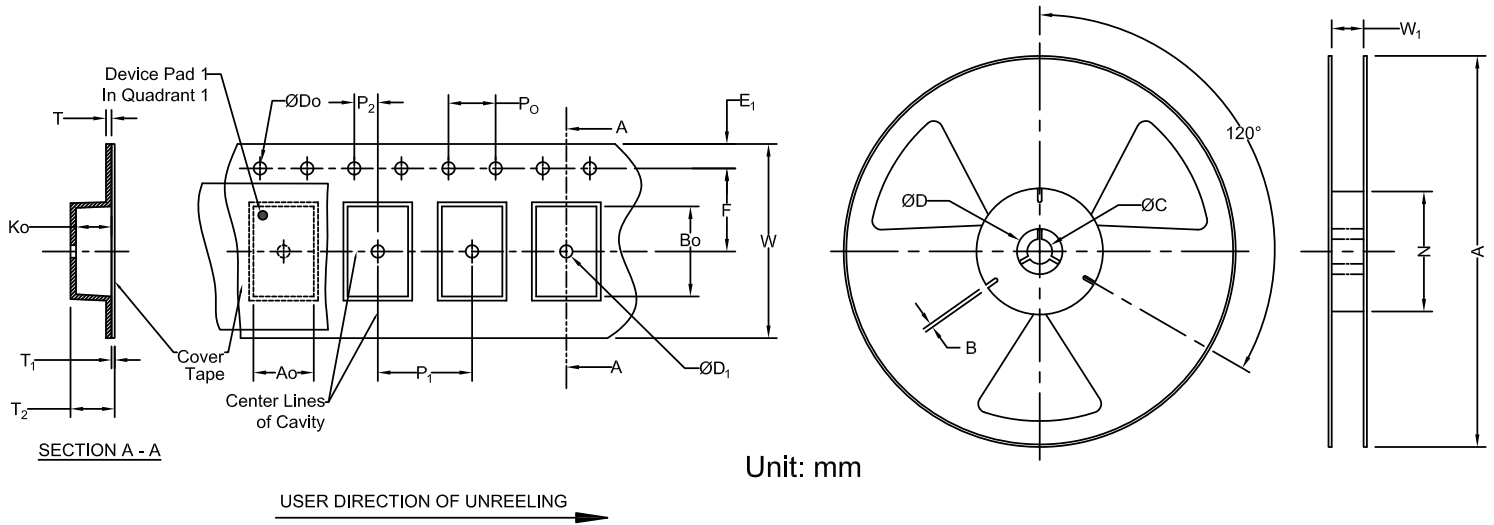


1.4 x 1.1 x 0.7 mm
RoHS Compliant
MSL Level = 3

Packaging

Tape & Reel

1. Tape & Reel Dimension



Carrier Tape Specifications (mm)

Do	D ₁	E ₁	P ₀	P ₂	T	F	P ₁	W	A ₀	B ₀	K ₀	Reel Qty
1.55 ± 0.05	1.0	1.75 ± 0.1	4.0 ± 0.1	2.0 ± 0.05	0.2 ± 0.05	3.5 ± 0.05	4.0 ± 0.1	8.0 ± 0.3	1.47 ± 0.1	1.73 ± 0.1	0.75 ± 0.1	3,000

Reel Specifications (mm)

A	W ₁	N	C	B
178.0 ± 1.0	8.4	72.0 ± 1.0	13.0 ± 0.2	2.0

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Brand	Affected PN	Discontinued/EOL PN	Added PN	Series	ECO#
Abracon	AFS14A72-2436.00			AFS14A72-2436.00	R0449
Abracon	AFS14A72-2436.00-T3			AFS14A72-2436.00	R0449
Abracon	AFS14A72-2436.00-EVB			AFS14A72-2436.00	R0449

Datasheet Link

<https://abracon.com/Filters/saw-filters/AFS14A72-2436.00-T3.pdf>

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ECN Notification Link

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