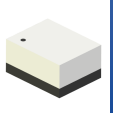


SMD 1575 MHz SAW FILTER



AFII-SW-0062

Request Samples



Check Inventory



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

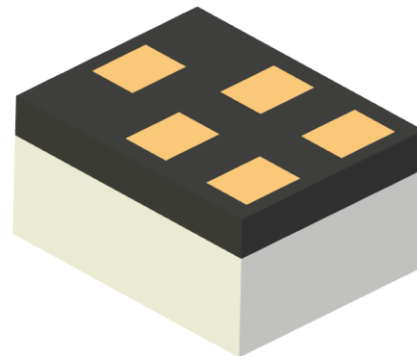
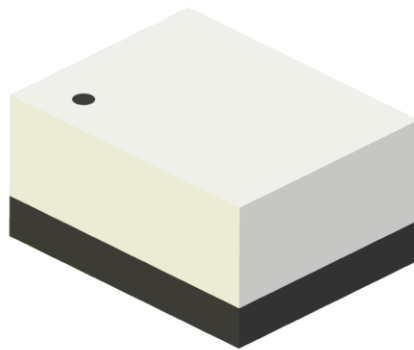
Features

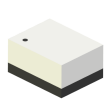
- Supports GPS L1 Band
- 1.4 x 1.1 x 0.7mm in Size
- Low Insertion Loss: 0.9 dB
- Out-of-Band Rejection: > 22 dB
- 50 Ohms Single-Ended Input & Output
- Maximum Input Power: +10 dBm

Applications

- GNSS Modules
- RTK Systems
- Automotive Transportation & Telematics
- Asset Tracking / Fleet Management
- UAVs, Robotics & Autonomous Vehicles
- Micro-Mobility Solutions
- Precision Agriculture

Product Image





SMD 1575 MHz SAW FILTER

AFII-SW-0062

Request Samples



Check Inventory



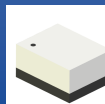
1.4 x 1.1 x 0.7mm
RoHS Compliant
MSL Level = 3

Electrical Specification

Parameters	Minimum	Typical	Maximum	Units	Notes
Center Frequency(fc)	-	1575.42	-	MHz	-
VSWR	-	1.2	1.8		
Insertion Loss ⁽¹⁾	-	0.9	1.04	dB	1574.22 ~ 1576.62MHz
Amplitude Ripple ⁽¹⁾	-	0.2	0.6		1574.22 ~ 1576.62MHz
Group Delay ⁽¹⁾		16	17	ns	1574.22 ~ 1576.62MHz
Group Delay Ripple ⁽¹⁾	-	0.05	0.1	ns	1574.22 ~ 1576.62MHz
Attenuation ⁽²⁾ (Reference level from 0 dB)	30	35	-	dB	DC ~1450 MHz
	32	38	-		1450 ~1520 MHz
	32	38	-		1625 ~1640 MHz
	35	40	-		1640 ~1805 MHz
	35	40	-		1805 ~1910 MHz
	35	40	-		1910 ~2000 MHz
	25	30	-		2000 ~4000 MHz
	18	22	-		4000 ~6000 MHz
Source Impedance ⁽³⁾ (single ended)	-	50	-	Ω	
Load Impedance ⁽³⁾ (single ended)	-	50	-	Ω	
RF Power Dissipation	-	10	-	dBm	

- Notes: (1) Averaged values of linear S-Parameters at +25°C
(2) Averaged values of linear S-Parameters at +25°C
(3) A matching network is unnecessary (refer to the Measurement Circuits section).

SMD 1575 MHz SAW FILTER



AFII-SW-0062

Request Samples



Check Inventory



1.4 x 1.1 x 0.7mm

RoHS Compliant

MSL Level = 3

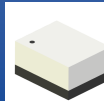
Mechanical Specification

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

Environmental Specification

Parameters	Specifications
Operating Temperature Range	-40°C ~ +85°C
Storage Temperature Range	-40°C ~ +85°C
ESD (HBM)	>100 V
ESD (CDM)	>100 V
MSL level	3
RoHS Compliant	Yes

SMD 1575 MHz SAW FILTER



AFII-SW-0062

Request Samples



Check Inventory



1.4 x 1.1 x 0.7mm

RoHS Compliant

MSL Level = 3

Ordering Information

Part Number	Description
AFII-SW-0062	SMD 1575 MHz SAW FILTER on Cut Tape
AFII-SW-0062-T	SMD 1575 MHz SAW FILTER on Tape & Reel
AFII-SW-0062-EVB	SMD 1575 MHz SAW FILTER Evaluation Board

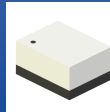
Note: Other options not listed may be available upon request via [Abracon online support](#)



5101 Hidden Creek Ln Spicewood TX 78669
Phone: 512-371-6159 | Fax: 512-351-8858
For terms and conditions of sales, please visit:
www.abracon.com

REVISED: 03-13-25

ABRACON IS
ISO9001-2015
CERTIFIED



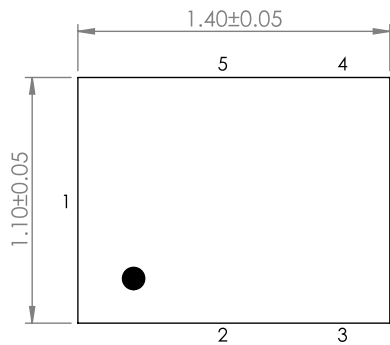
SMD 1575 MHz SAW FILTER

AFII-SW-0062

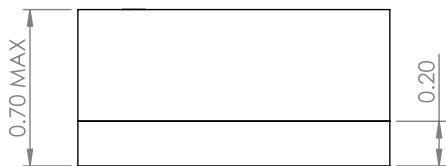
Request Samples  Check Inventory 

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

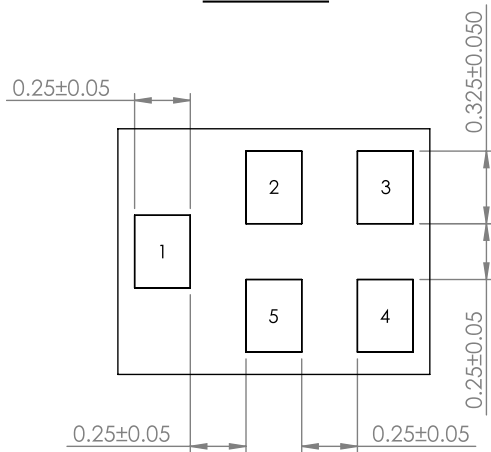
Product Dimensions



TOP VIEW



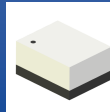
FRONT VIEW



BOTTOM VIEW

Unit : mm

Pin No.	Description
1	Input
4	Output
2, 3, 5	Ground



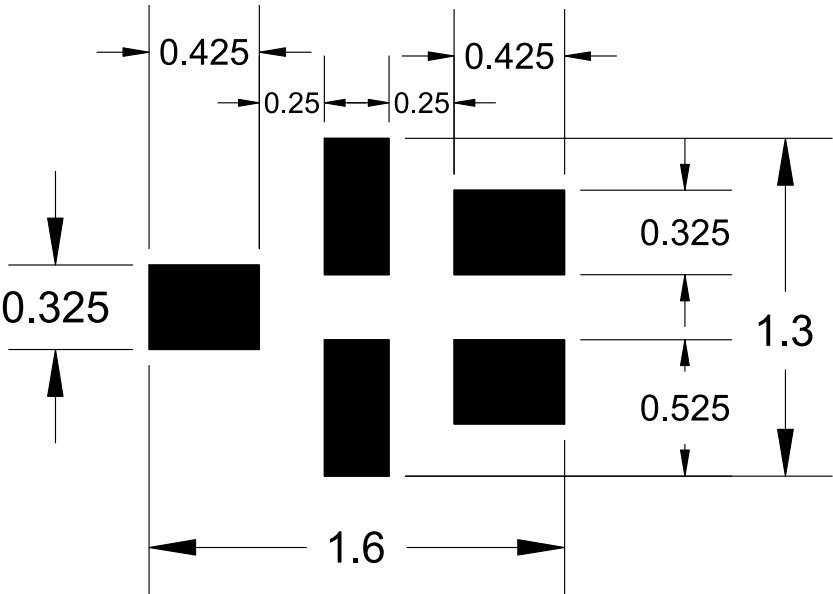
SMD 1575 MHz SAW FILTER

AFII-SW-0062

Request Samples  Check Inventory 

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

Recommended Land Pattern

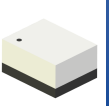


Land Pattern

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.

SMD 1575 MHz SAW FILTER



AFII-SW-0062

Request Samples

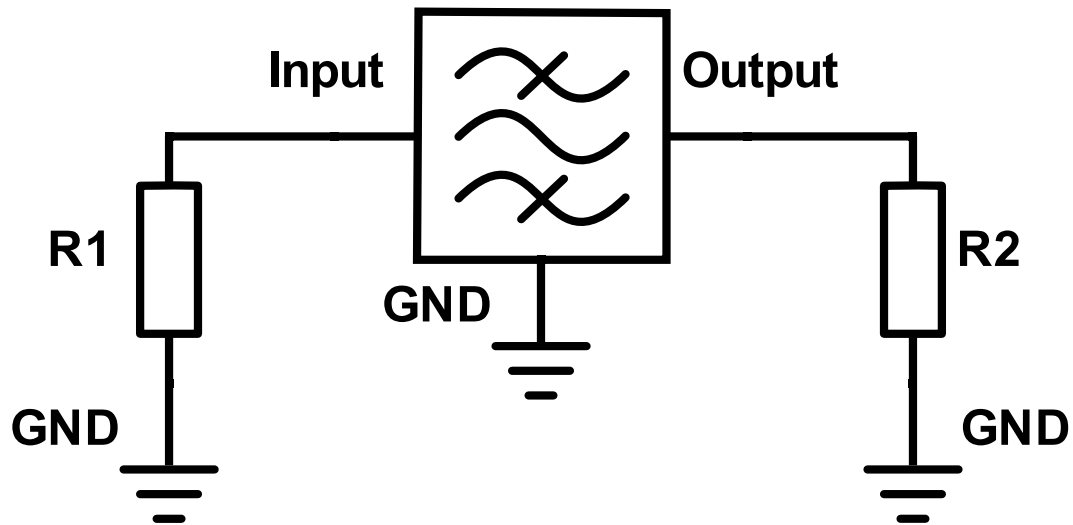


Check Inventory

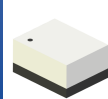


1.4 x 1.1 x 0.7mm
RoHS Compliant
MSL Level = 3

Measurement Circuit



Port	Matching Component
Input (Pin 1)	R1: 50 Ω
Output (Pin 4)	R2: 50 Ω



SMD 1575 MHz SAW FILTER

AFII-SW-0062

Request Samples



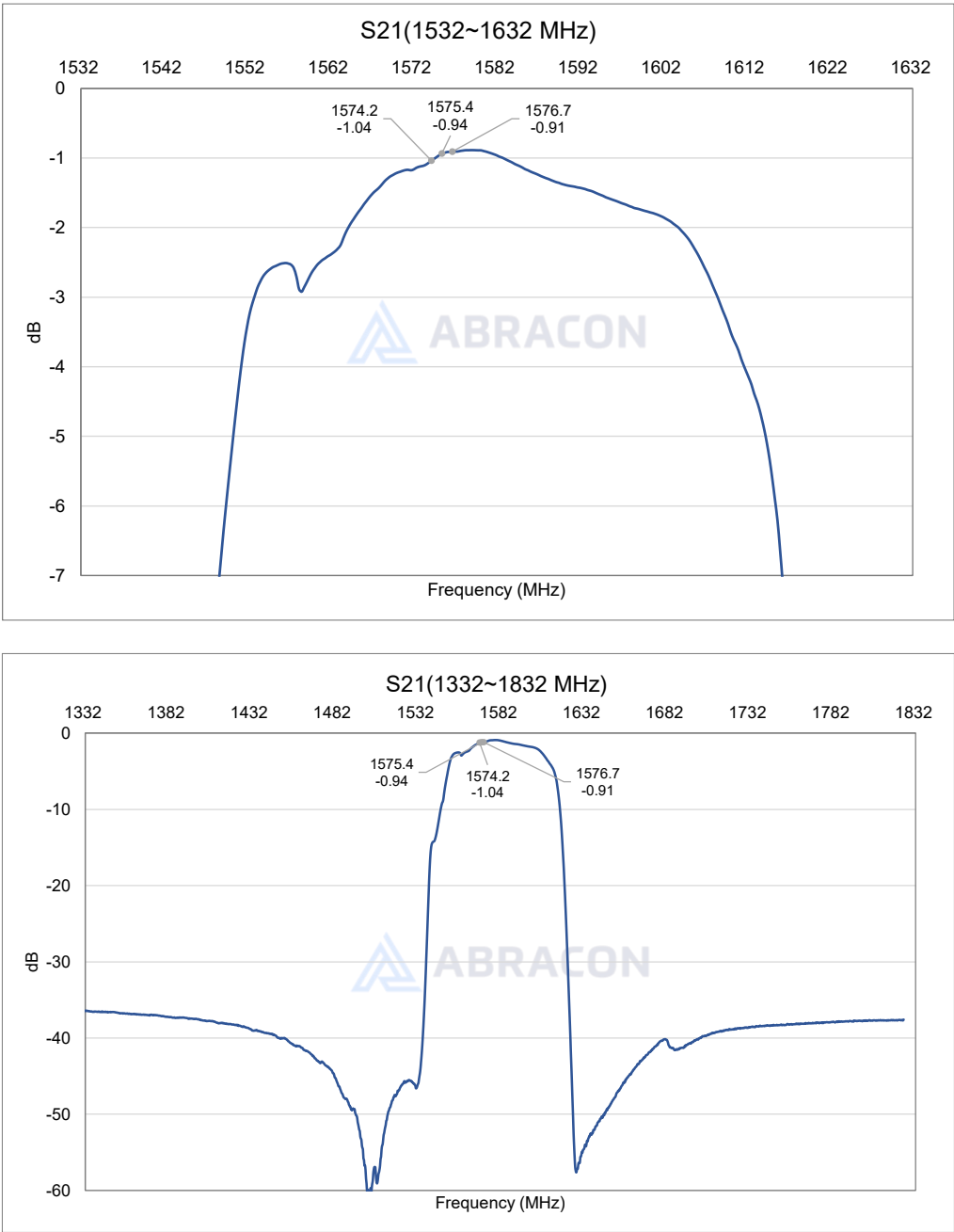
Check Inventory

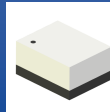


1.4 x 1.1 x 0.7mm
RoHS Compliant
MSL Level = 3

Frequency Characteristics

S21 narrow band





SMD 1575 MHz SAW FILTER

AFII-SW-0062

Request Samples

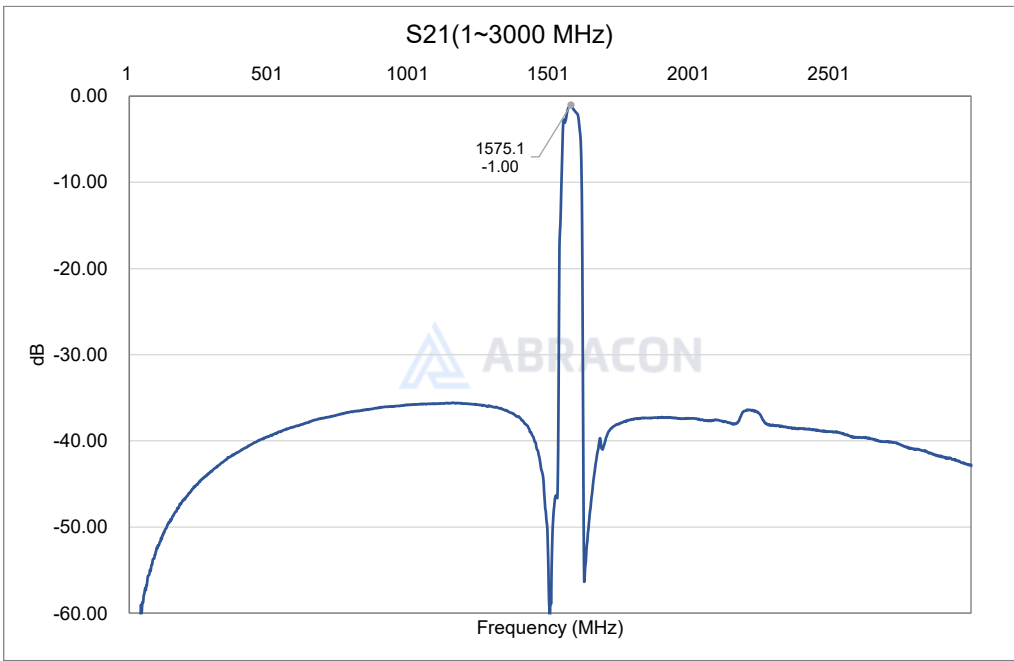


Check Inventory

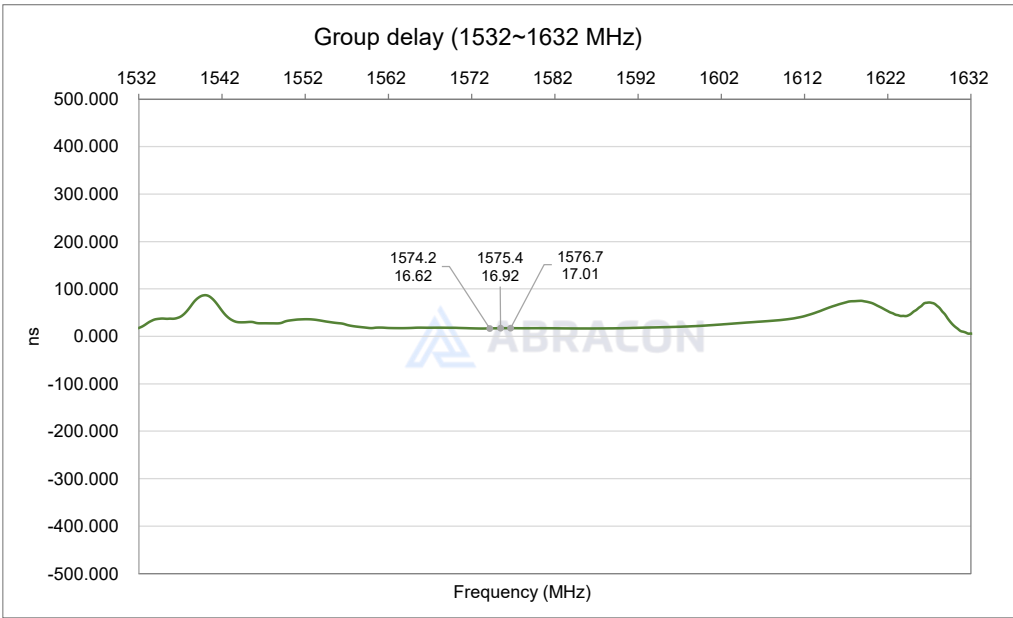


1.4 x 1.1 x 0.7mm
RoHS Compliant
MSL Level = 3

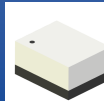
S21 Wide Band



Group Delay Ripple



SMD 1575 MHz SAW FILTER



AFII-SW-0062

Request Samples

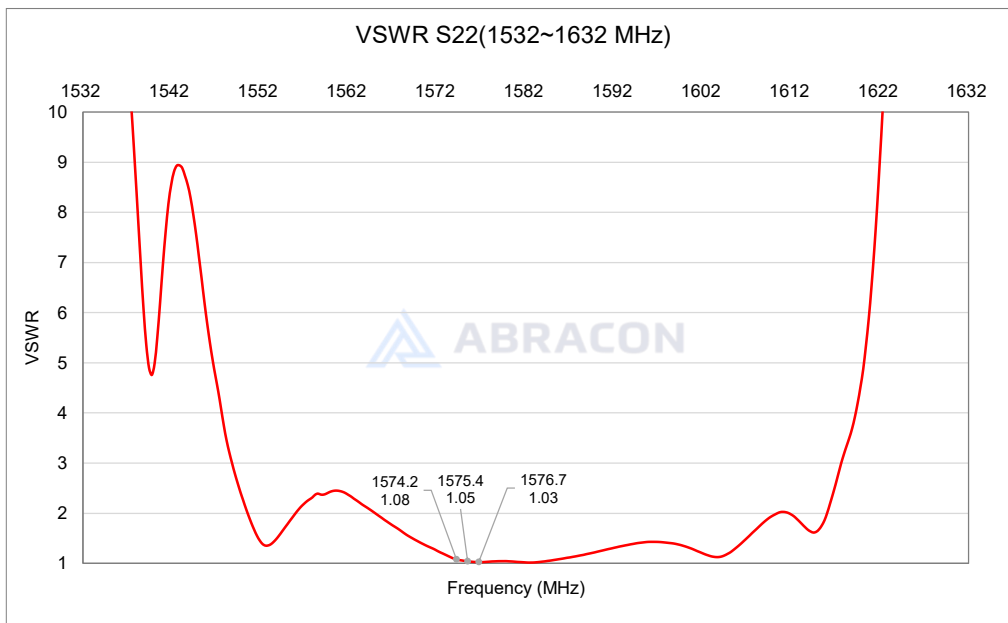
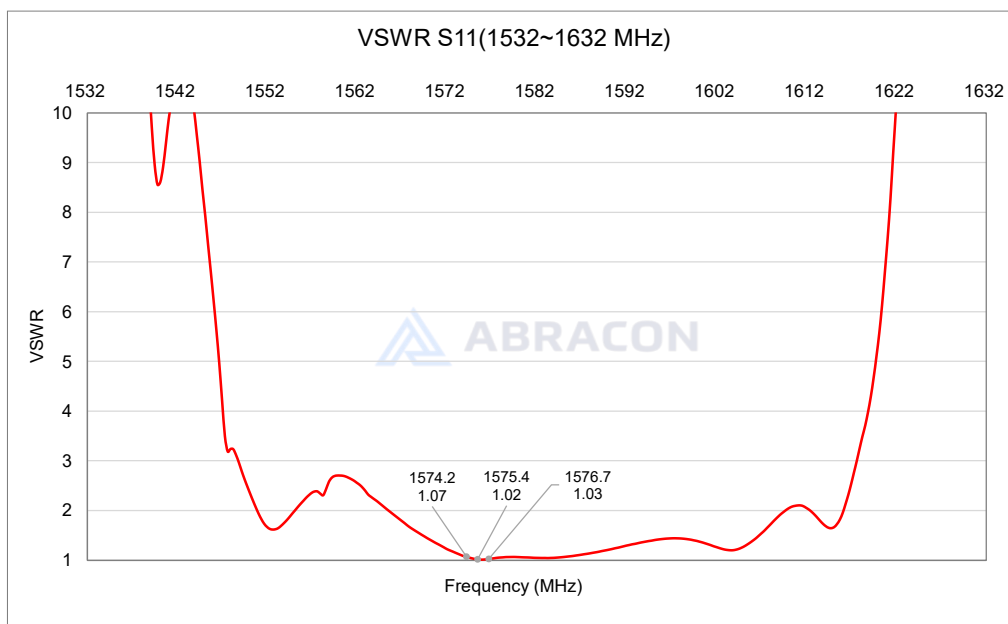


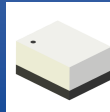
Check Inventory



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

VSWR (S11 & S22)





SMD 1575 MHz SAW FILTER

AFII-SW-0062

Request Samples



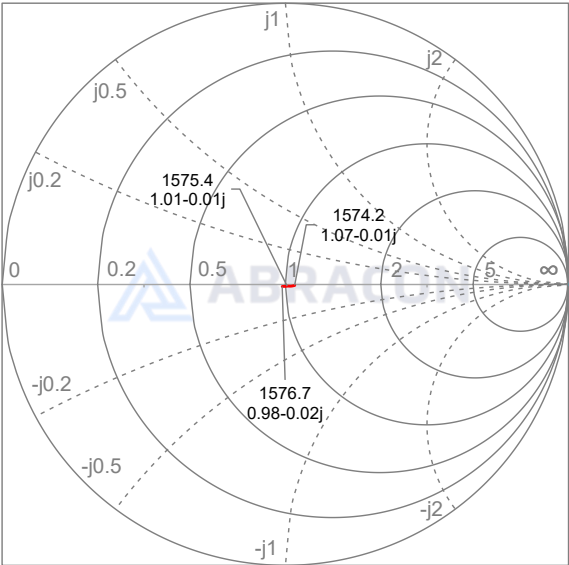
Check Inventory



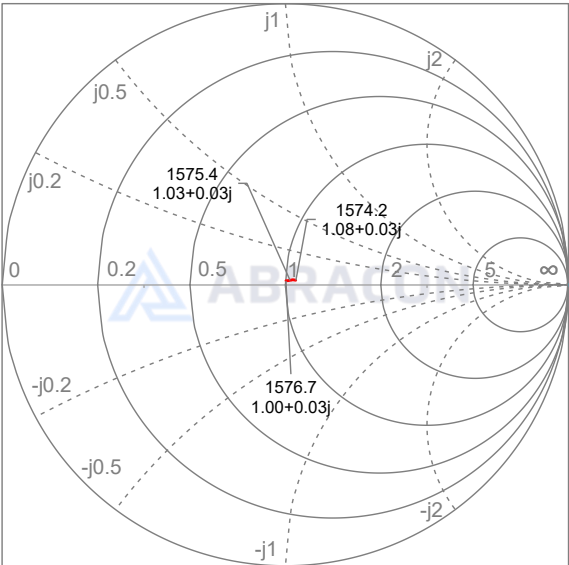
1.4 x 1.1 x 0.7mm
RoHS Compliant
MSL Level = 3

Smith Chart (S11 & S22)

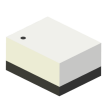
Smith chart S11 (1574~1576MHz)



Smith chart S22 (1574~1576MHz)



SMD 1575 MHz SAW FILTER



AFII-SW-0062

Request Samples



Check Inventory



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

Reflow Profile [JEDEC J-STD-020]

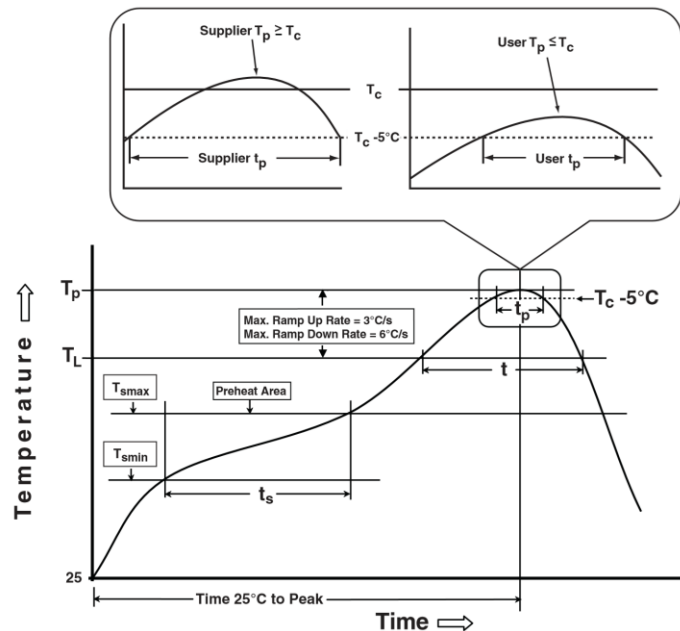


Table 1

SnPb Eutectic Process
Classification Temperatures (T_c)

Package Thickness	Volume mm^3 <350	Volume mm^3 ≥ 350
<2.5mm	235°C	220°C
$\geq 2.5\text{mm}$	220°C	220°C

Table 2

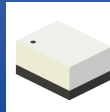
Pb-Free Process
Classification Temperatures (T_c)

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_{smmin})	100°C	150°C
Temperature maximum (T_{smmax})	150°C	180°C
Time (T_{smmin} to T_{smmax}) (t_s)	60 – 120 sec.	60 – 90 sec.
Average ramp-up rate (T_{smmax} 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_{smmax})	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.



SMD 1575 MHz SAW FILTER

AFII-SW-0062

Request Samples



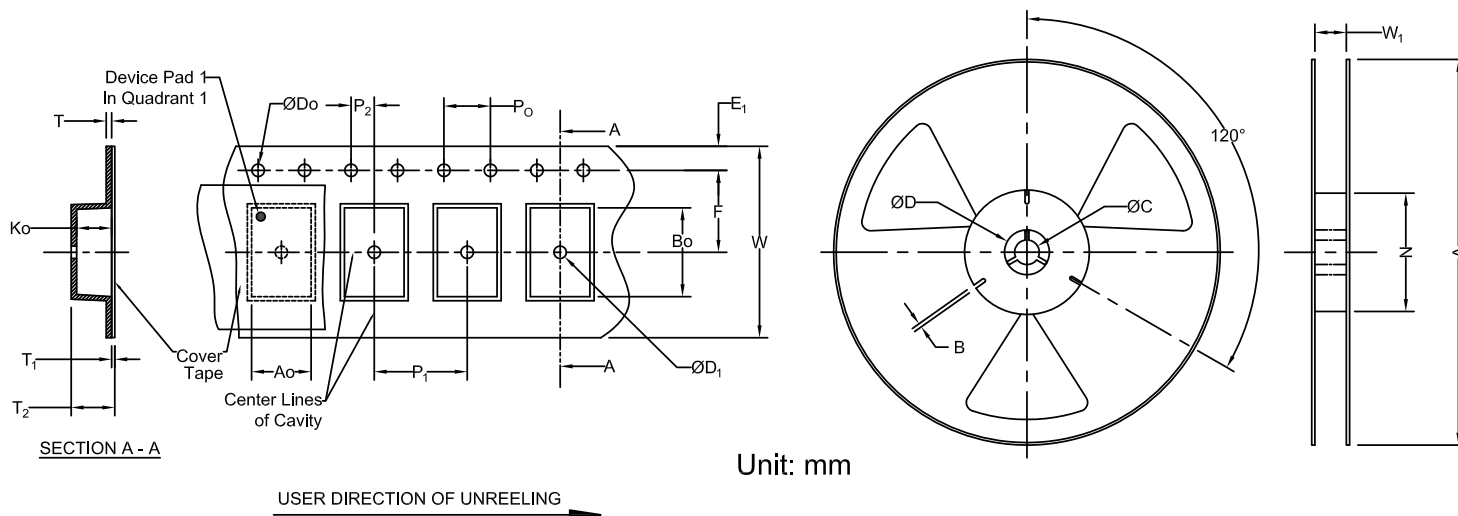
Check Inventory



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

Packaging

Tape & Reel Dimension



Carrier Tape Specifications (mm)

D0	D1	E1	P0	P2	F	P1	W	A0	B0	K0	Reel Qty
1.55 ± 0.05	0.60 ± 0.05	1.75 ± 0.1	4.0 ± 0.1	2.0 ± 0.05	3.5 ± 0.05	4.0 ± 0.1	8.0 ± 0.1	1.30 ± 0.05	1.60 ± 0.05	0.77 ± 0.05	5,000

Reel Specifications (mm)

A	W1	N	C
178.0 ± 1.0	8.48 ± 0.15	57.12 ± 0.15	13.12 ± 0.15

ATTENTION: Abracon LLC's products are Commercial-Off-The-Shelf ('COTS'), which are designed, intended, and validated for use in commercial, industrial, and automotive applications. The customer is responsible for testing and verifying the performance of an Abracon solution to meet their system-level requirements.



5101 Hidden Creek Ln Spicewood TX 78669
Phone: 512-371-6159 | Fax: 512-351-8858
For terms and conditions of sales, please visit:
www.abracon.com

REVISED: 03-13-25

ABRACON IS
ISO9001-2015
CERTIFIED