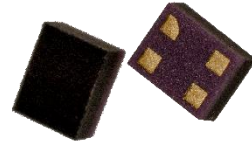


Data Sheet for

SAW Components

2.4GHz WiFi/Bluetooth
Single Filter



Product ID: LAS2443H4Z

Date: Sep. 8, 2023

Revision: 0.1 Preliminary

Features

- ◆ Package Size : 0.9 x 0.7 x 0.5max mm
- ◆ Single-Ended Input and Output
- ◆ Terminating Impedance : 50 Ω
- ◆ Moisture Sensitivity Level 3
- ◆ ESD Sensitive Device
- ◆ Normal-SAW
- ◆ World Smallest PKG Size

Electrical Specifications 2.4GHz WiFi/Bluetooth Single Filter

Temperature Range for Specification : -30 to +85 °C

Input to Output	Min.	Typ.	Max.	Unit
Insertion Loss				
2403 - 2481 MHz	-	1.0	1.3	dB _{INT} ^{*1}
2403 - 2481 MHz	-	1.0	1.3	dB _{INT} ^{*1*2}
2401.5 - 2480.5 MHz	-	1.0	1.5	dB
2401.5 - 2480.5 MHz	-	1.0	1.5	dB ^{*2}
Pass Band Ripple				
2401.5 - 2480.5 MHz	-	0.4	1.0	dB
2401.5 - 2480.5 MHz	-	0.4	1.0	dB ^{*2}
VSWR Input				
2401.5 - 2481 MHz	-	1.2	2.0	-
VSWR Output				
2401.5 - 2481 MHz	-	1.2	2.0	-
Absolute Attenuation				
50 - 960 MHz	20	38	-	dB
1545 - 1605 MHz	20	25	-	dB
1710 - 1990 MHz	18	22	-	dB
2110 - 2170 MHz	18	23	-	dB
2110 - 2360 MHz	5	23	-	dB
2520 - 2600 MHz	5	9	-	dB
2600 - 3600 MHz	20	26	-	dB
4802 - 4966 MHz	30	36	-	dB
7203 - 7449 MHz	18	23	-	dB

*1: Integrated |S₂₁| over the center 18 MHz CH BW and converting to dB value

*2: +25 °C

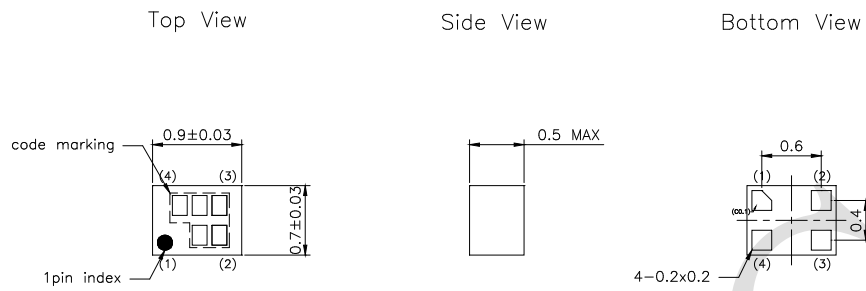
Maximum Ratings

Item	Rating	Condition / Remark
Storage Temperature	-40 to +85 °C	
DC Voltage	5 V	+25 °C
Input power	+26 dBm	CW , +55 °C , 5000 h

Recommended Operating Conditions

Item	Rating	Condition / Remark
Operating Temperature, T _{CASE}	-30 to +85 °C	

Package Information

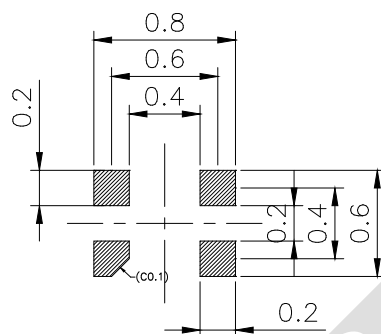


Unit:mm

Pin Configuration

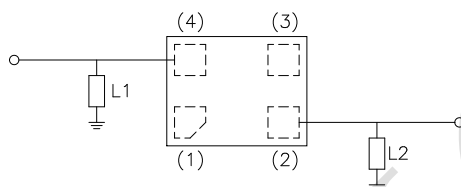
2 : Input port
 4 : Output port
 Other : GND

Land Pattern



Unit:mm

Application Circuit

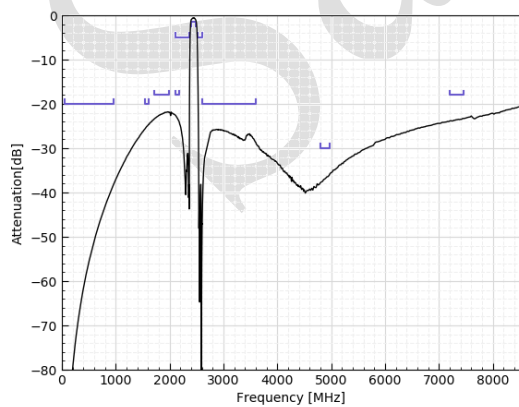
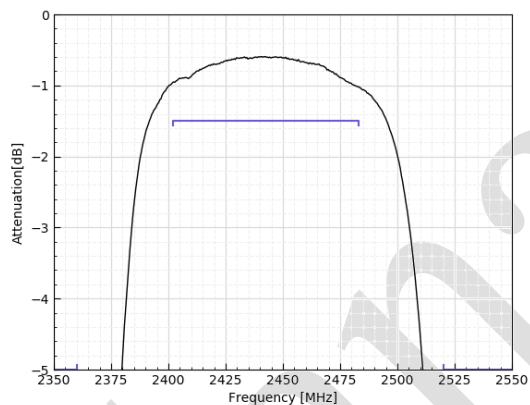
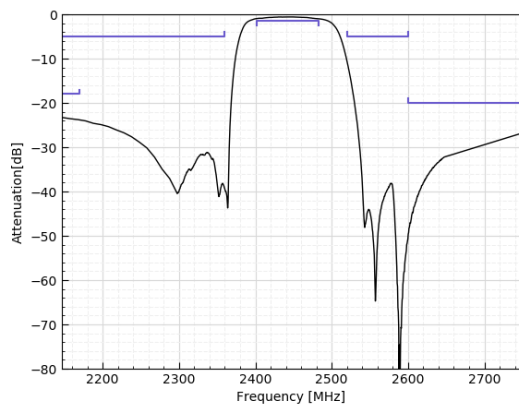


Port	Terminating Z	Matching Component
Output	50 Ω	L1 : 4.7nH (Ideal inductor)
Input	50 Ω	L2 : 3.9nH (Ideal inductor)

For ESD protection, external shunt inductor at all ports is recommended.

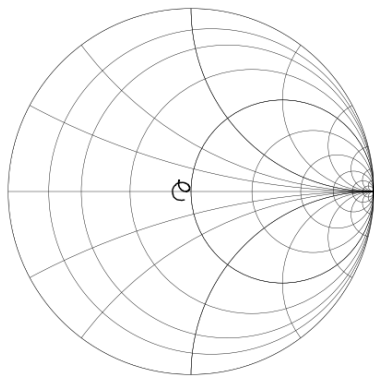
Electrical Characteristics 2.4GHz WiFi/Bluetooth Single Filter

Input to Output

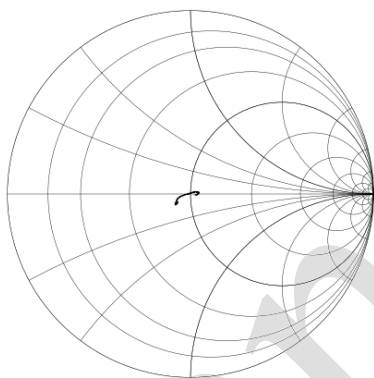


Electrical Characteristics 2.4GHz WiFi/Bluetooth Single Filter

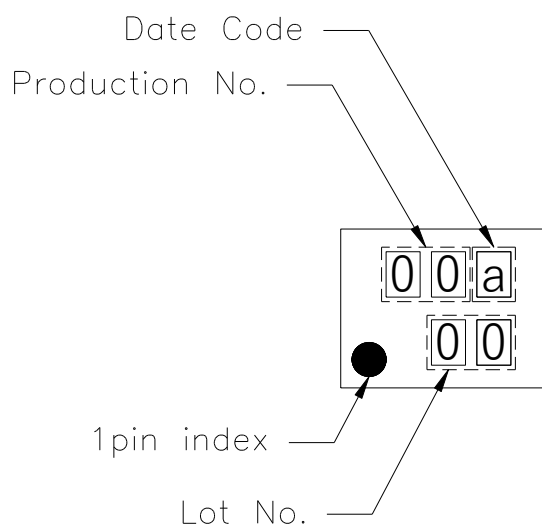
Input Port Impedance



Output Port Impedance



Marking Information



Production type No. (S: Sample, P: Production)

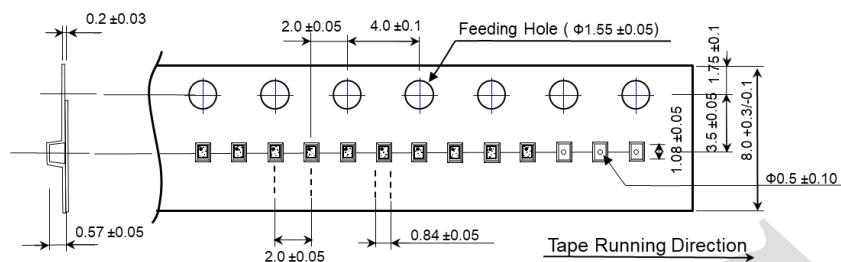
Product No. : 4Z

Lot No. (Indicated by 0 ~ 9 or A to Z and a to z, except I, O, i, o and l)

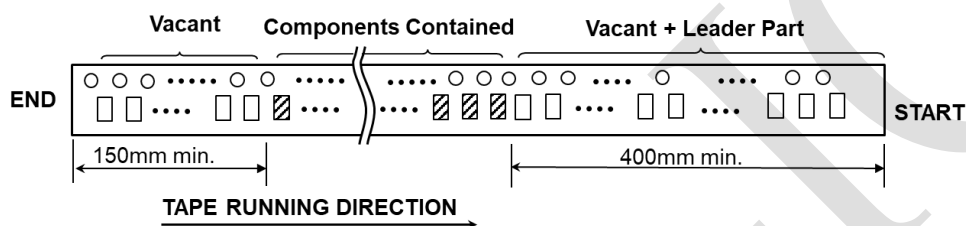
Product date code :

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2023	n	p	q	r	s	t	u	v	w	x	y	Z
2024	A	B	C	D	E	F	G	H	J	K	L	M
2025	N	P	Q	R	S	T	U	V	W	X	Y	Z
2026	a	b	c	d	e	f	g	h	j	k	l	m

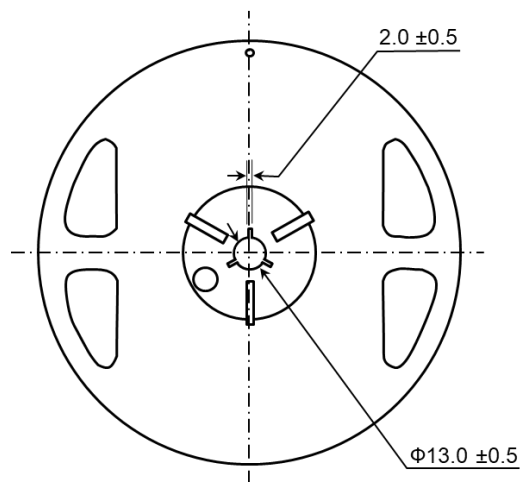
Tape Information



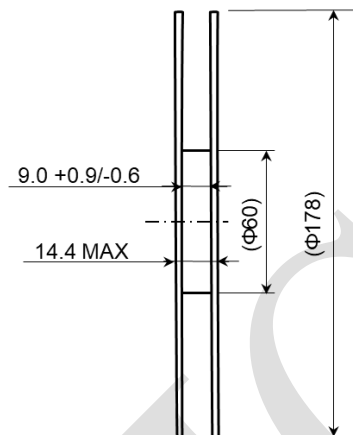
UNIT: mm



Reel Information



$\Phi 178$ Reel Dimension



UNIT: mm

Ordering Code

Part Number	Description
LAS2443H4Z-SA	Bulk (few pieces)
LAS2443H4Z-MB	Tape & Reel 3,000 pcs/reel
LAS2443H4Z-SZ	Tape & Reel 10,000 pcs/reel
LAS2443H4Z-SZ	EVB

Revision History

Revision	Date	Description
0.1	Sep. 8, 2023	● Initial release
		●

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