



DATASHEET

of SAW Devices

Part Number: SXCFL1L5L6RANSC15

L1_L5_L6, Triplexer

- Package Dimensions
- Testing Environment
- Electrical Characteristics
- Frequency Characteristics
- Remark and Packing

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审批: 劉澄飛

生效日期: 2025.12.25

SAW Components	Triplexer
PART Number	SXCFL1L5L6RANSC15

Revision Record

Revision Number	Date	Description
SXCFL1L5L6RANSC15_V1.0	2025-12-25	Version 1.0

SAW Components

Triplexer

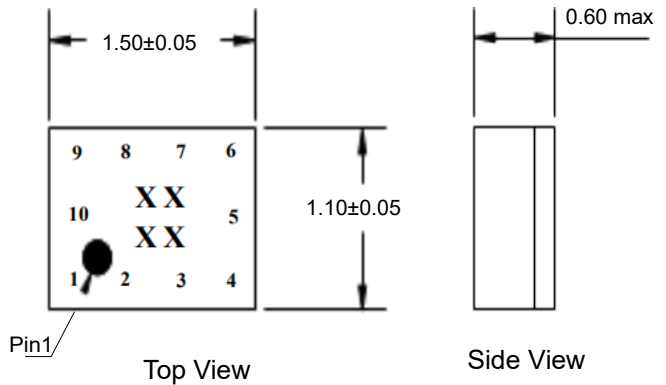
PART Number

SXCFL1L5L6RANSC15

Dimensions & Features

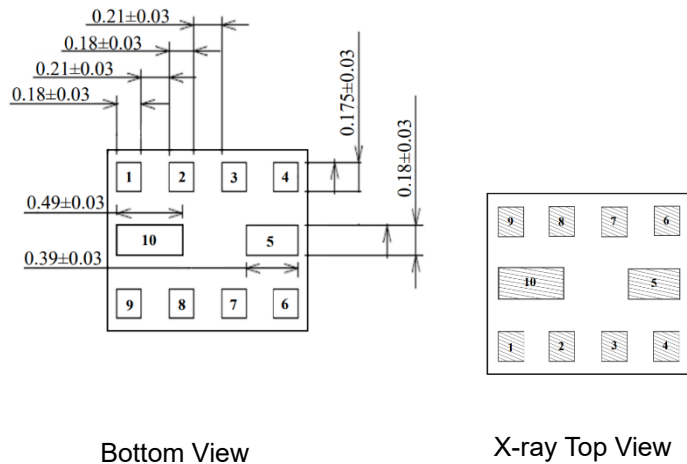
- Package size 1.5 x 1.1 x 0.6(max.)mm³
- RoHS compatible
- Electrostatic Sensitive Device(ESD)
- Moisture Sensitivity Level 2
- AEC-Q200 qualified component family

(Grade 2: -40°C to +105°C)



Pin Configuration

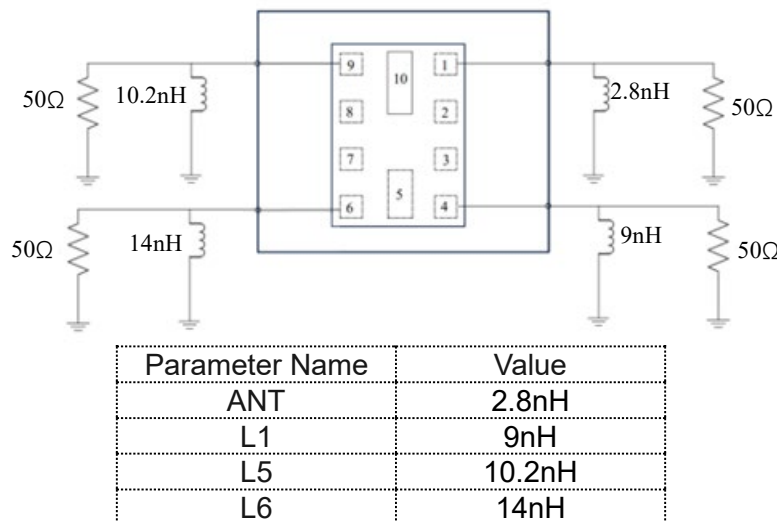
- 1 ANT
- 4 L1 Unbalanced Output port
- 6 L6 Unbalanced Output port
- 9 L5 Unbalanced Output port
- Others: GND



Marking

- XX: Kj
- XX(The second row): Date Code
(Please refer to the last page for the information of Date Code.)

Measurement Circuit



SAW Components

Triplexer

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Maximum Ratings

Characteristics		Ratings	Unit
Operable Temperature Range	T	-40 to +105	°C
Storage Temperature Range	T _{stg}	-40 to +105	°C
Maximum DC Voltage	V _{DC}	5	V
Input Power Level	P	15	dBm
ESD Voltage(MM)	V _{MM}	50	V
ESD Voltage(HBM)	V _{HBM}	175	V

Characteristics

Temperature range for specification: -40°C ~ +105°C

L1		Specifications				
Item	Frequency Range [MHz]	Characteristics				
		min.	typ.	max.	Unit	Note
Insertion Loss	1559.05 - 1563.15	-	1.7	2.6	dB	
	1574.39 - 1576.45	-	1.7	2.3	dB	
	1597.55 - 1605.89	-	1.8	2.7	dB	
Amplitude Ripple	1559.05 - 1605.89	-	1.0	2.0	dB	
Input VSWR	1559.05 - 1605.89	-	1.6	2.2		
Output VSWR	1559.05 - 1605.89	-	1.6	2.2		
Absolute Attenuation	10 - 699	40	45	-	dB	
	703 - 798	35	40	-	dB	
	814 - 915	32	37	-	dB	
	1427 - 1463	30	36	-	dB	
	1710 - 1797	34	39	-	dB	
	1850 - 1980	32	38	-	dB	
	2010 - 2570	32	38	-	dB	
	3300 - 4200	25	30	-	dB	
	4400 - 5000	25	30	-	dB	
	5150 - 5950	25	30	-	dB	

1. Evaluation Board Feed line loss is de-embedded.

SAW Components

Triplexer

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Temperature range for specification: -40°C ~ +105°C

L5		Specifications				
Item	Frequency Range [MHz]	Characteristics				Note
		min.	typ.	max.	Unit	
Insertion Loss	1166.22 - 1186.68	-	1.7	2.6	dB	
	1205.09 - 1209.19	-	1.1	2.1	dB	
	1226.58 - 1228.62	-	1.6	2.6	dB	
Amplitude Ripple	1166.22 - 1228.62	-	1.0	2.0	dB	
Input VSWR	1166.22 - 1186.68	-	1.7	2.3		
	1205.09 - 1209.19	-	1.4	2.2		
	1226.58 - 1228.62	-	1.5	2.2		
Output VSWR	1166.22 - 1186.68	-	1.7	2.3		
	1205.09 - 1209.19	-	1.4	2.2		
	1226.58 - 1228.62	-	1.5	2.2		
Absolute Attenuation	650 - 850	32	38	-	dB	
	850 - 950	32	36	-	dB	
	1427 - 1463	25	33	-	dB	
	1626 - 1661	22	27	-	dB	
	1710 - 2200	30	35	-	dB	
	2300 - 2690	27	33	-	dB	
	3300 - 4200	25	30	-	dB	
	4400 - 5000	25	30	-	dB	
	5150 - 5950	25	30	-	dB	

1. Evaluation Board Feed line loss is de-embedded.

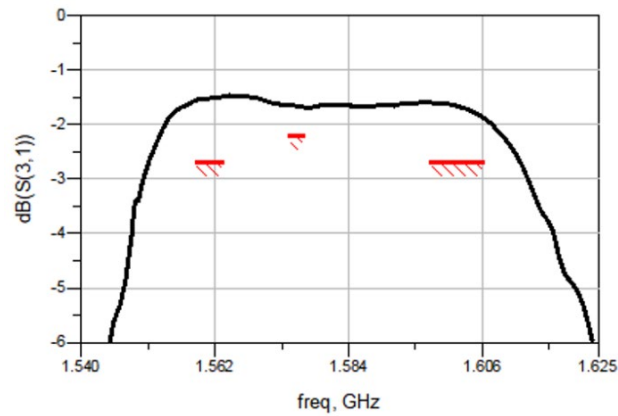
Temperature range for specification: -40°C ~ +105°C

L6		Specifications				
Item	Frequency Range [MHz]	Characteristics				Note
		min.	typ.	max.	Unit	
Insertion Loss	1257.75 - 1299.75	-	1.4	2.3	dB	
Amplitude Ripple	1257.75 - 1299.75	-	0.7	1.5	dB	
Input VSWR	1257.75 - 1299.75	-	1.5	2.2		
Output VSWR	1257.75 - 1299.75	-	1.5	2.2		
Absolute Attenuation	650 - 850	34	41	-	dB	
	850 - 950	32	40	-	dB	
	1427 - 1463	23	29	-	dB	
	1626 - 1661	28	36	-	dB	
	1710 - 2200	28	33	-	dB	
	2300 - 2690	25	32	-	dB	
	3300 - 4200	25	30	-	dB	
	4400 - 5000	25	30	-	dB	
	5150 - 5950	25	30	-	dB	

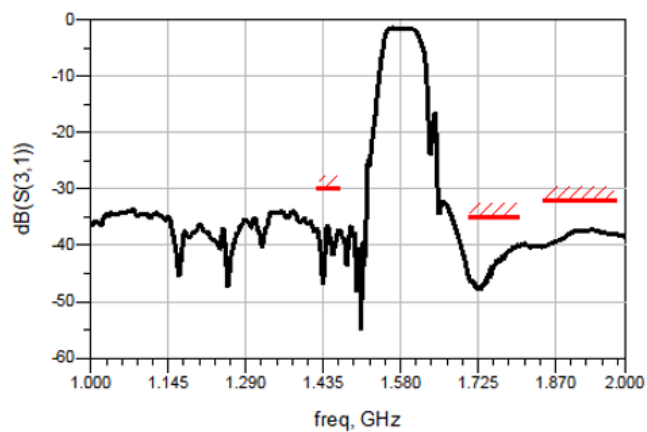
1. Evaluation Board Feed line loss is de-embedded.

Frequency Characteristics

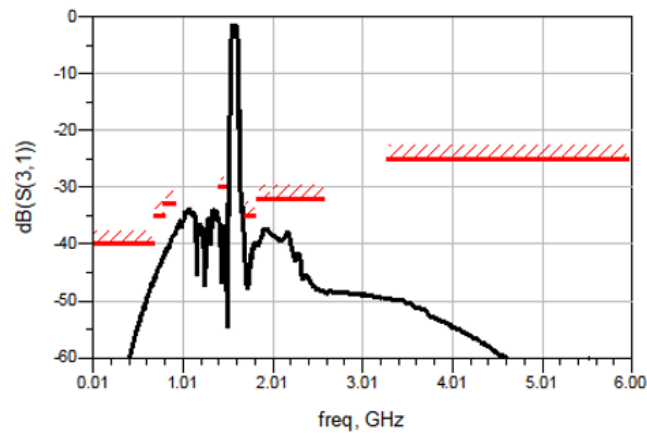
Narrow Span (L1)



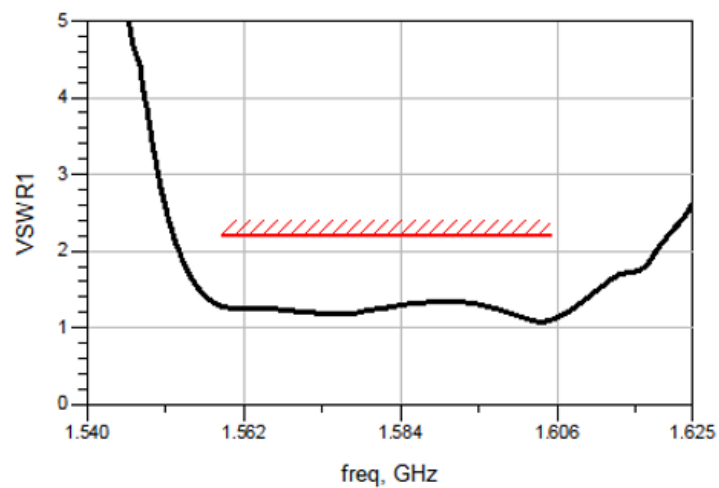
Middle Span (L1)



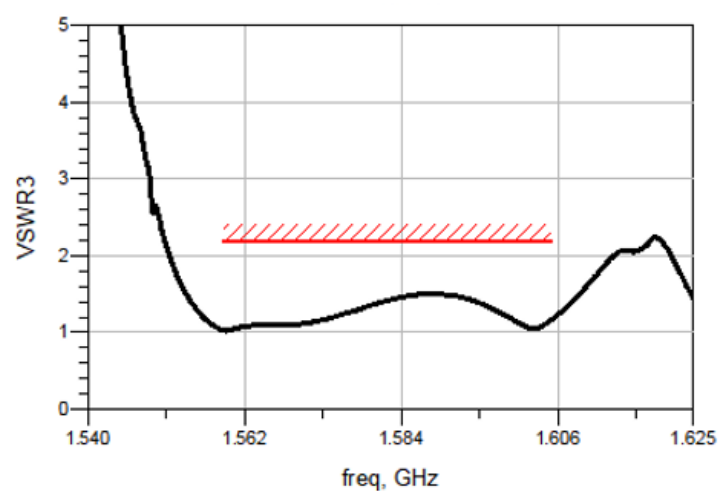
Wide Span (L1)



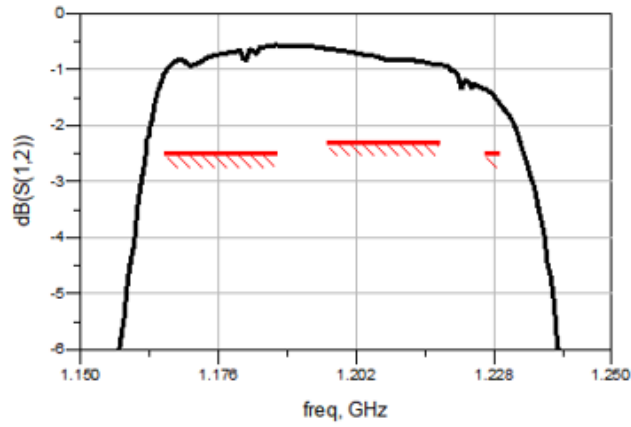
S11 VSWR (L1)



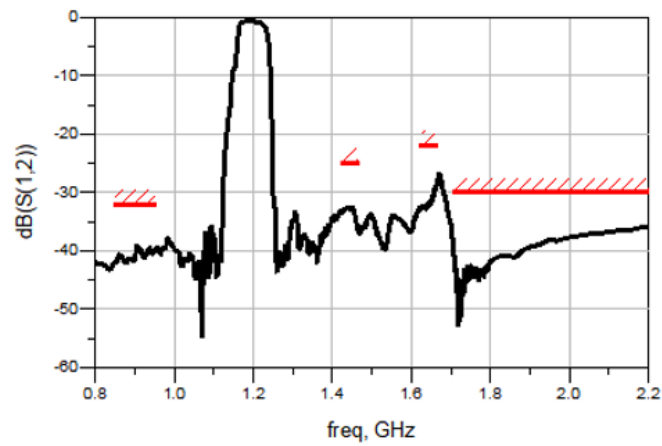
S33 VSWR (L1)



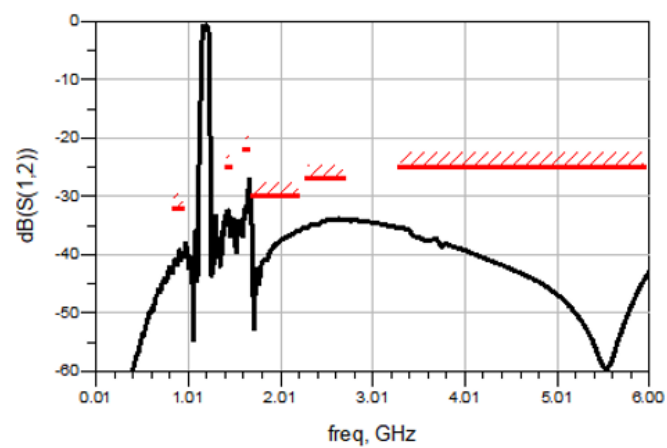
Narrow Span (L5)



Middle Span (L5)



Wide Span (L5)



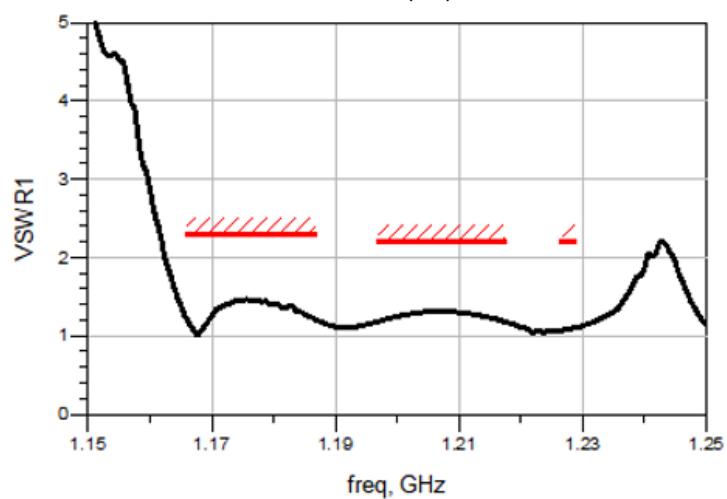
SAW Components

Triplexer

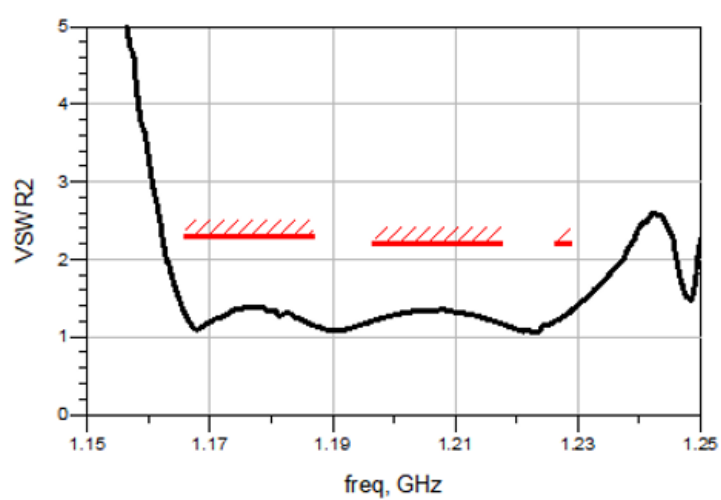
PART Number

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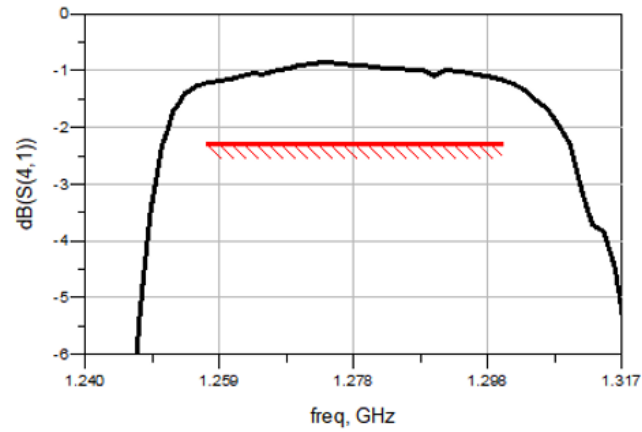
S11 VSWR (L5)



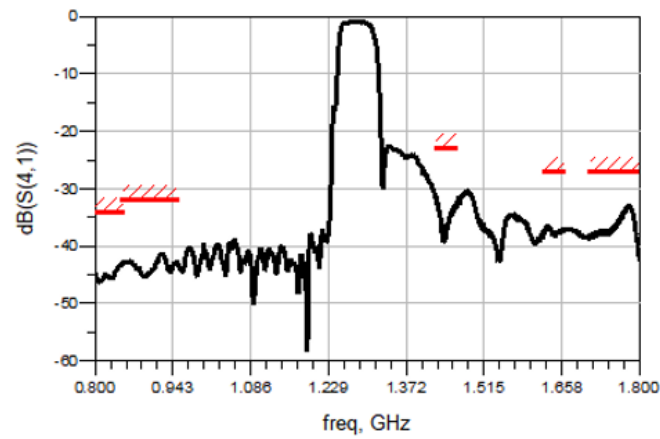
S22 VSWR (L5)



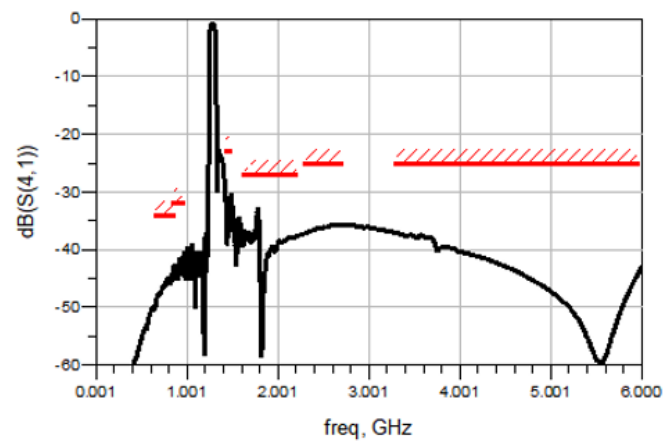
Narrow Span (L6)



Middle Span (L6)



Wide Span (L6)



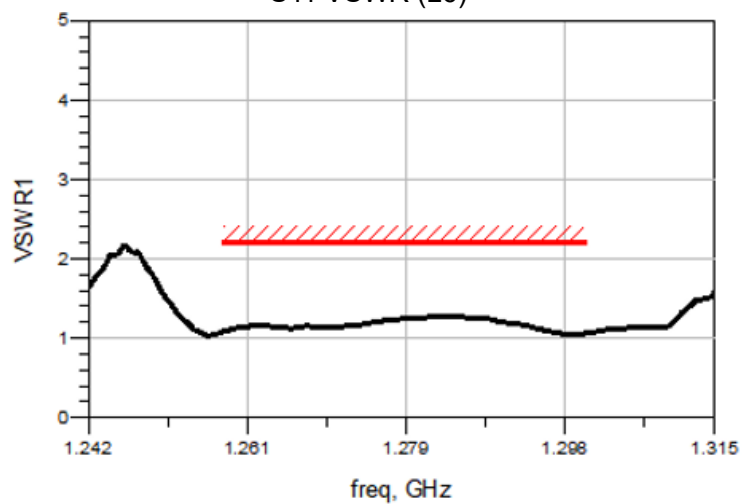
SAW Components

Triplexer

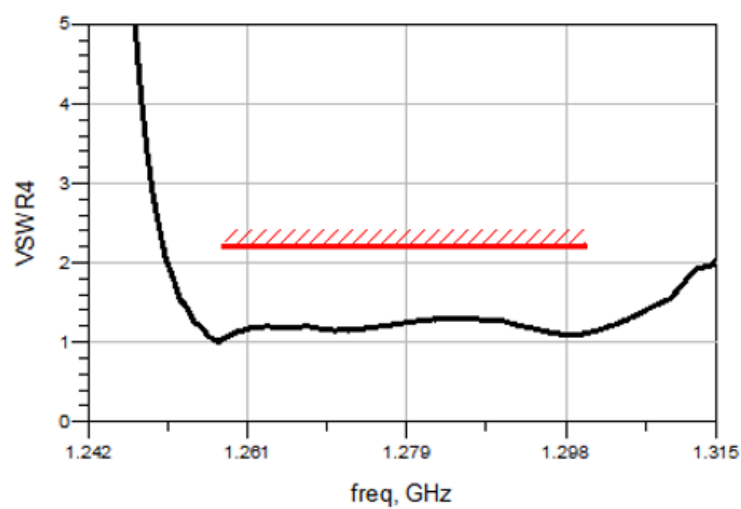
PART Number

SXCFL1L5L6RANSC15

S11 VSWR (L6)



S44 VSWR (L6)



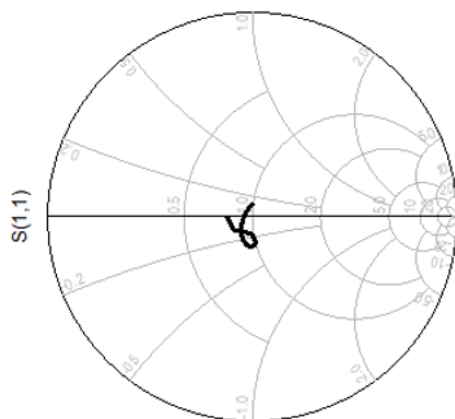
SAW Components

Triplexer

PART Number

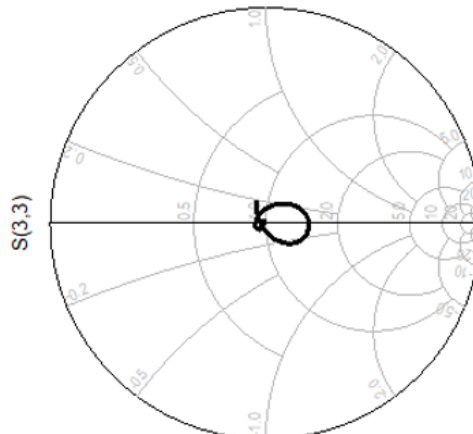
SXCFL1L5L6RANSC15

S11 Smith Chart (L1)



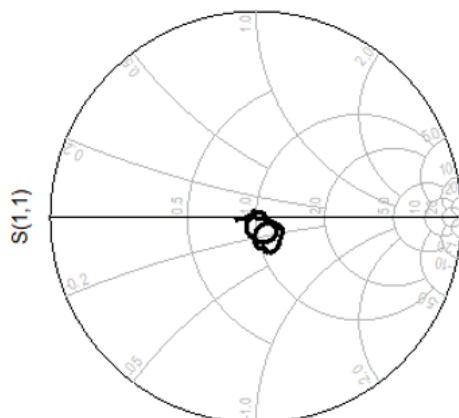
freq (1.559GHz to 1.606GHz)

S33 Smith Chart (L1)



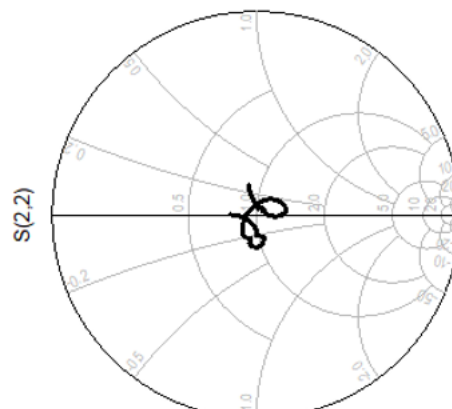
freq (1.559GHz to 1.606GHz)

S11 Smith Chart (L5)



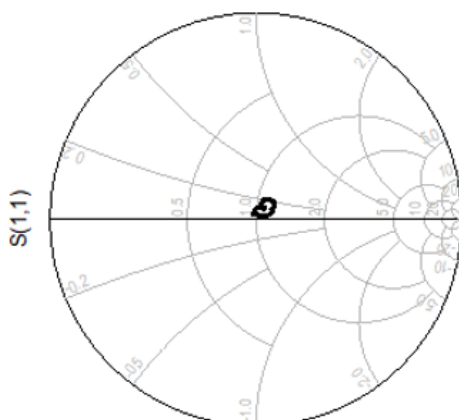
freq (1.166GHz to 1.229GHz)

S22 Smith Chart (L5)



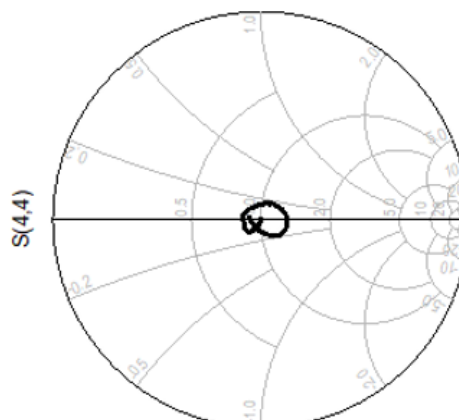
freq (1.166GHz to 1.229GHz)

S11 Smith Chart (L6)



freq (1.257GHz to 1.300GHz)

S44 Smith Chart (L6)



freq (1.257GHz to 1.300GHz)

Reliability Characteristics

No.	Item	Condition to be satisfied
1	High Temp. Storage	①Test temperature: +85°C±3°C ②Duration time: 500 hours ③Restore time: 2 hours at the room temperature(25°C)
2	Low Temp. Storage	①Test temperature: -40°C±3°C ②Duration Time: 500 hours ③Restore time: 2 hours at the room temperature(25°C)
3	High Temp. High Humidity Storage	①Test temperature: +85°C±3°C ②Test Humidity: 85%±3% ③Duration Hours: 240 hours ④Restore time: 2 hours at the room temperature(25°C)
4	Temperature Cycling	①Test Temperature: -40 ^{±10} °C~+85 ⁺¹⁰ °C ②Time for each step: ≥30min ③Conversion time: ≤1min ④Cycle times: 100 times ⑤Restore time: 24 hours at the room temperature(25°C)
5	Soldering heat resistance	①Reflow with 260+0/-5°C, 10±1s (Solder Pot) ②Restore time: 2 hours at the room temperature(25°C)
6	Solderability test	Soldering method and temperature: lead-free reflow soldering, 245±5 °C for 5±0.5s

Remarks

1. Please be certain not to apply voltage above the rated voltage of SAW components.
2. Please be sure that the components are operated within the specified operating temperature range.
3. Abrupt temperature change shall be avoided because deterioration of the component characteristics can occur under that situation.
4. Please be careful of soldering temperature when soldering.
5. Please do not place soldering iron on the body of components.
6. Please be careful not to subject the terminals or leads of components to excessive force.

SAW Components

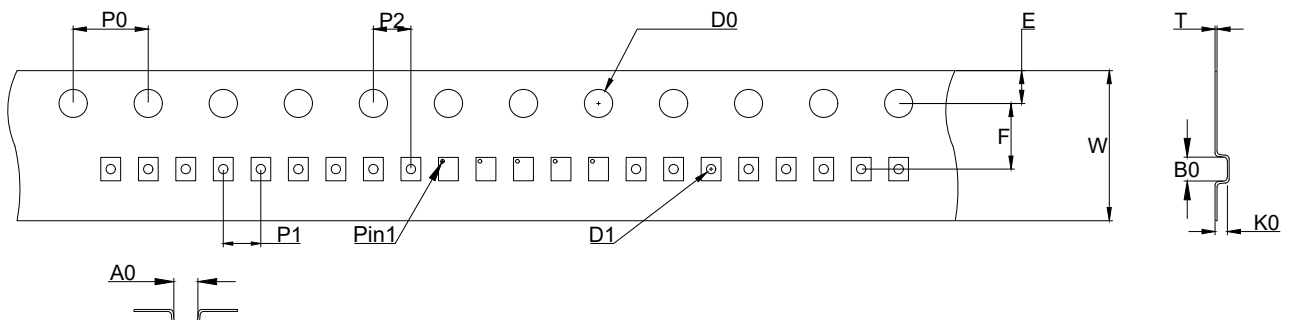
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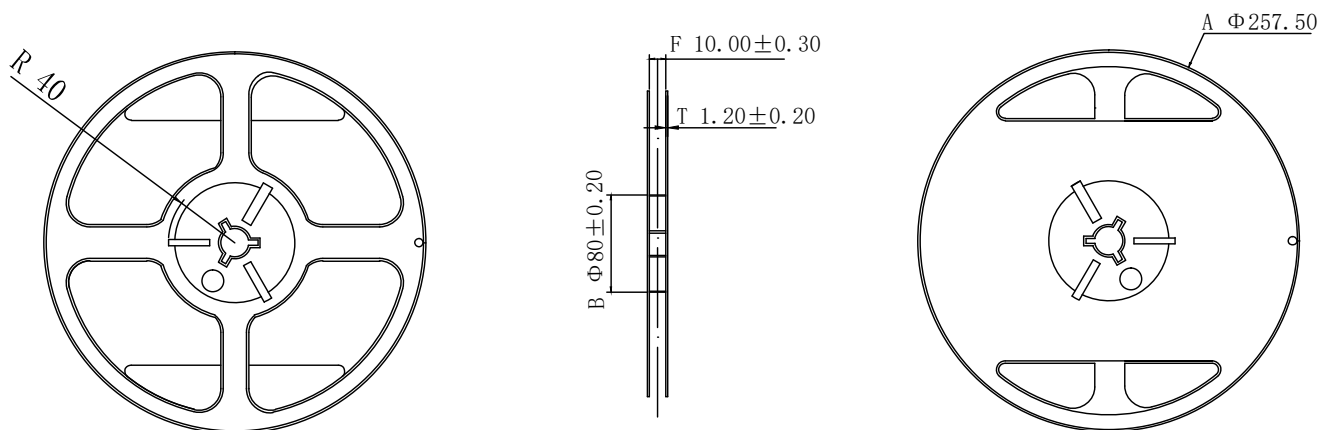
Packing Information

Tape(Unit: mm)



Size	P0	P1	P2	D0	D1	E	F	W	A0	B0	K0	T
Value	4.00	4.00	2.00	Φ1.50	Φ0.50	1.75	3.50	8.00	1.30	1.70	0.65	0.25
Tolerance	±0.10	±0.10	±0.10	±0.10	±0.10	±0.10	±0.10	±0.30	±0.05	±0.05	±0.05	±0.03

Reel: 10000pcs/Reel(Standard Size)



SAW Components

Triplexer

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Description of Date Code

A. Month Code:

2022	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
2026	A	B	C	D	E	F	G	H	J	K	L	M
2030												
2023	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
2027	N	P	Q	R	S	T	U	V	W	X	Y	Z
2031												
2024	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
2028	a	b	€	d	e	f	g	h	j	k	l	m
2032												
2025	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
2029	n	○	þ	q	r	ş	t	ū	ÿ	w	ÿ	y
2033												

B. Date Code:

1	2	3	4	5	6	7	8	9	10
A	B	C	D	E	F	G	H	J	K
11	12	13	14	15	16	17	18	19	20
L	M	N	P	Q	R	S	T	U	V
21	22	23	24	25	26	27	28	29	30
W	X	Y	Z	a	b	€	d	e	f
									g

Recommended Soldering Profile

