Acoustic Chip Technology
Shengxin

DATASHEET

of SAW Devices

SAW Filter

Automotive telematics

Part Number: SXCF1582RENSC11

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

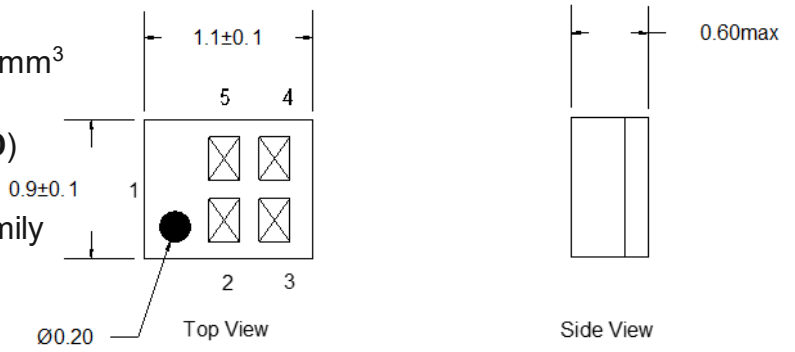
Revision Record

Revision Number	Date	Description
SXCF1582RENSC11_V1.0	2025-06-16	Version 1.0
SXCF1582RENSC11_V1.1	2025-06-19	Version 1.1(DC Voltage)
SXCF1582RENSC11_V1.2	2025-07-22	Version 1.2(Marking)
SXCF1582RENSC11_V1.3	2025-07-25	Version 1.3(Features&Marking&Description)

Features

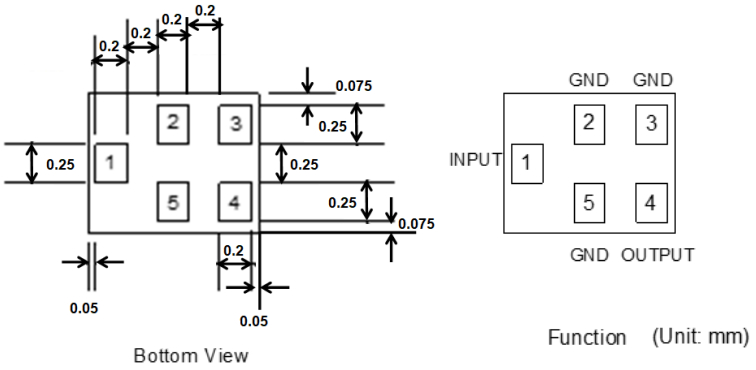
- Package size 1.1 x 0.9 x 0.6(max.)mm^3
- RoHS compatible
- **E**lectrostatic **S**ensitive **D**evice (**ESD**)
- **M**oisture **S**ensitivity **L**evel 2
- AEC-Q200 qualified component family

  (Grade 2: -40℃ to +105℃)



Pin Configuration

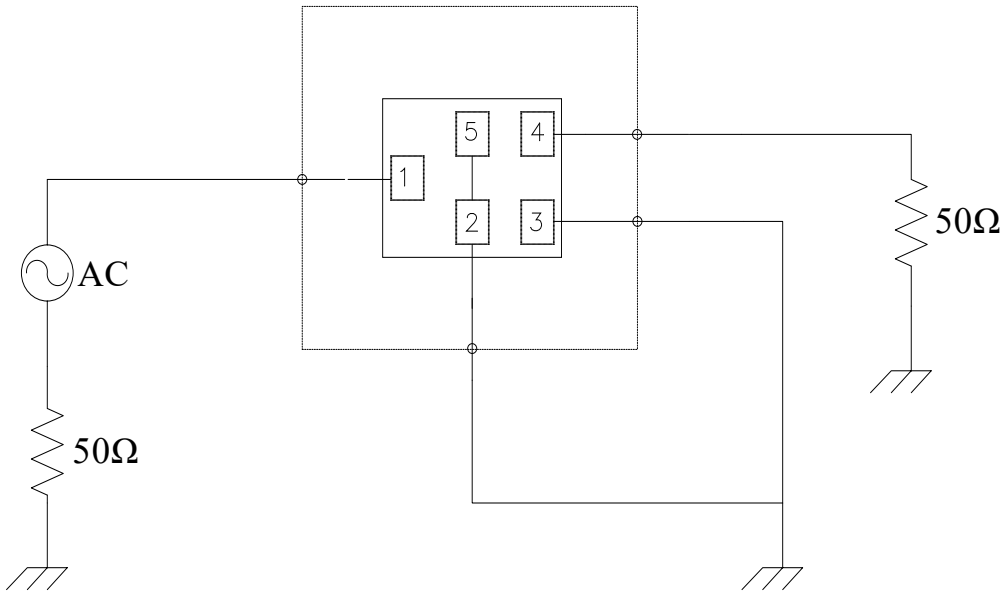
- 1 Unbalanced port
- 4 Unbalanced port
- Others: GND



Marking

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

Measurement Circuit (Top Thru View)



Data sheet

Maximum Ratings

Characteristics		Ratings	Unit
Operable Temperature Range	T	-40 to +105	℃
Storage Temperature Range	T_{stg}	-40 to +105	℃
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

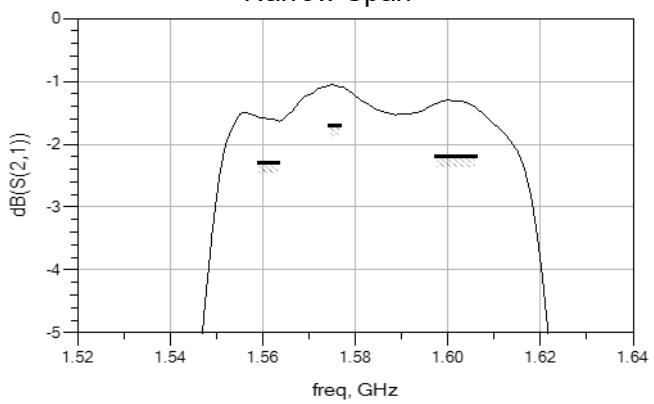
Temperature range for specification: -40 to +105℃
Terminal source impedance: 50Ω
Terminal load impedance: 50Ω

Item	Frequency Range [MHz]	Characteristics			
		min.	typ.	max.	Unit
Insertion Loss	1559.05 – 1563.15	-	1.6	2.3	dB
	1574.39 – 1576.45	-	1.1	1.7	dB
	1597.55 – 1605.89	-	1.4	2.2	dB
Amplitude Ripple	1559.05 – 1563.15	-	0.1	0.8	dB
	1574.39 – 1576.45	-	0.1	0.7	dB
	1597.55 – 1605.89	-	0.2	1.0	dB
VSWR	1559.05 – 1563.15	-	1.7	2.2	
	1574.39 – 1576.45	-	1.2	1.8	
	1597.55 – 1605.89	-	1.4	2.0	
Absolute Attenuation	10 – 960	40	45	-	dB
	1427 – 1463	45	52	-	dB
	1470 – 1530	7	35	-	dB
	1635 – 1700	8	40	-	dB
	1710 – 1785	44	49	-	dB
	1850 – 1910	40	45	-	dB
	1910 – 1980	40	45	-	dB
	2110 – 2170	37	42	-	dB
	2400 – 2500	45	50	-	dB
	2500 – 2570	45	50	-	dB
	3300 – 4200	30	36	-	dB
	4400 – 5000	28	33	-	dB
	5150 – 5950	25	30	-	dB

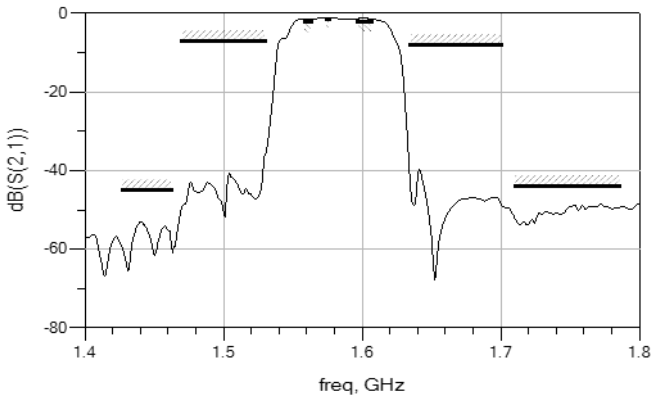
1. Evaluation Board Feed line loss is de-embedded.

Frequency Characteristics

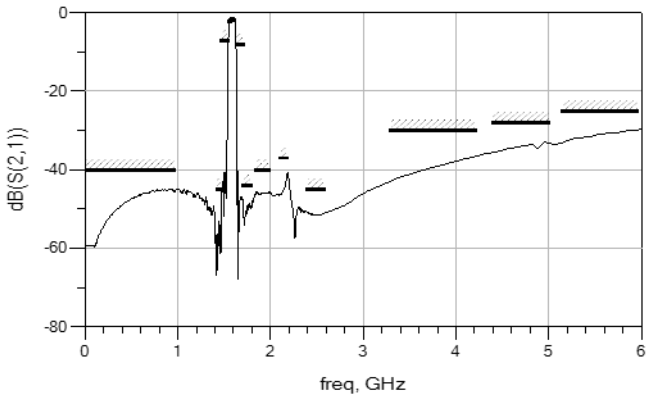
Narrow Span



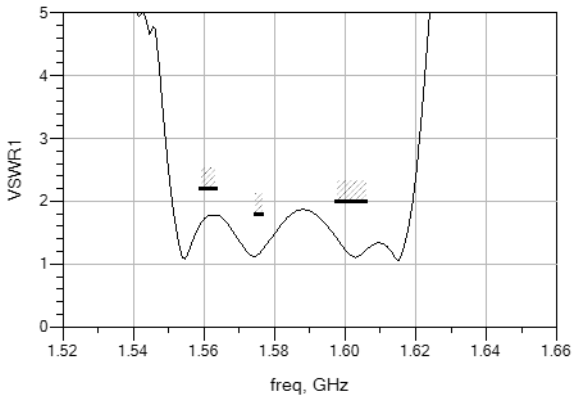
Middle Span



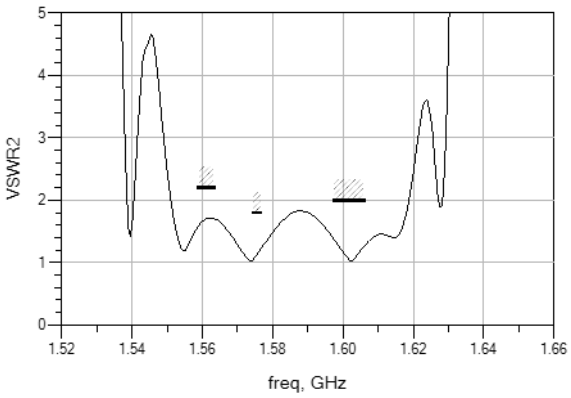
Wide Span



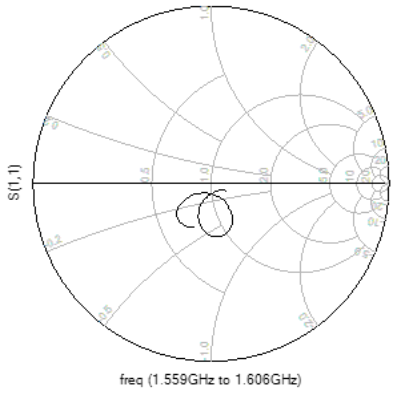
S11 VSWR



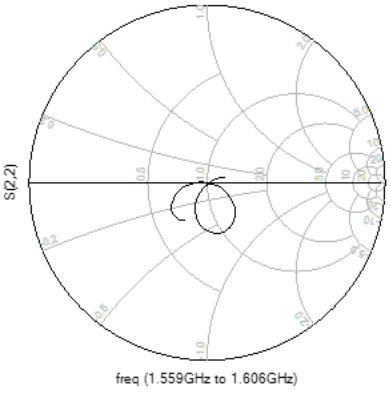
S22 VSWR



S11 Smith Chart



S22 Smith Chart

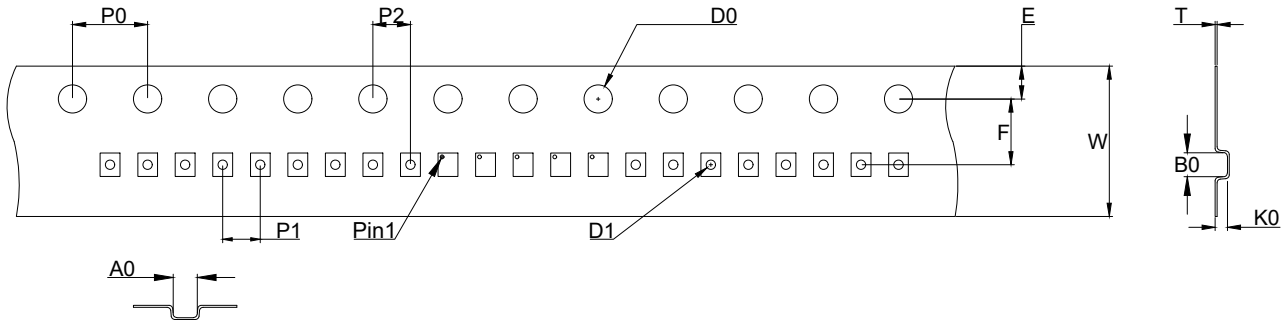


Remarks

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.

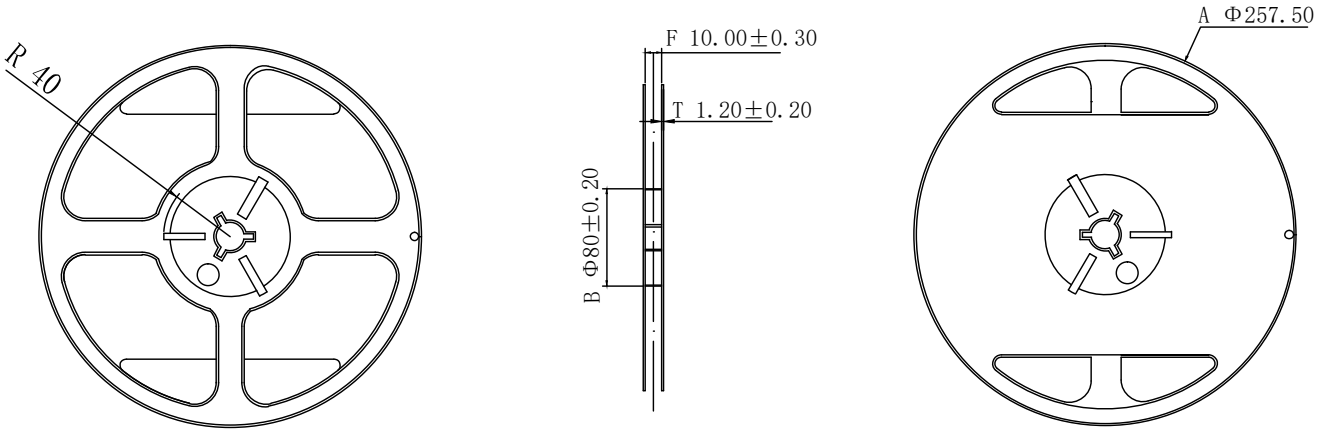
Packing Information

Tape(Unit: mm)



Size	P0	P1	P2	D0	D1	E	F	W	A0	B0	K0	T
Value	4.00	2.00	2.00	Φ1.50	Φ0.50	1.75	3.50	8.00	0.95	1.15	0.68	0.20
Tolerance	±0.10	±0.10	±0.05	±0.10	±0.10	±0.10	±0.05	±0.30	±0.05	±0.05	±0.04	±0.03

Reel：10000pcs/Reel(Standard Size)



Description of Date Code

A. Month Code:

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

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	31
W	X	Y	Z	a	b	ϵ	d	e	f	g

Recommended Soldering Profile