Acoustic Chip Technology
Shengxin

DATASHEET

of SAW Devices

SAW Dual Filter

Automotive telematics

Part Number: SXCFL1L5RCNSC15

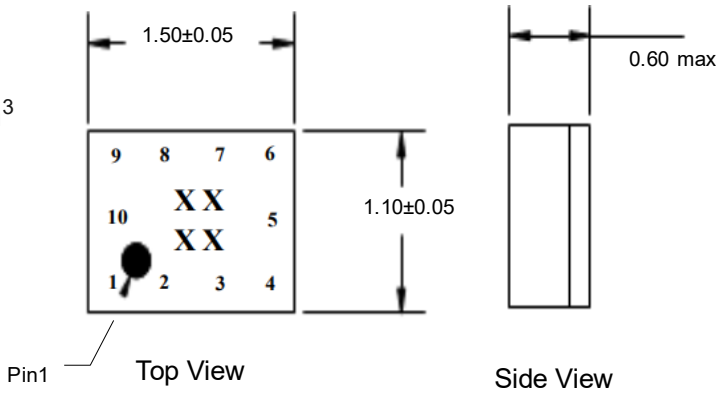
L1_L5, SAW Dual Filter

- Package Dimensions
- Testing Environment
- Electrical Characteristics
- Frequency Characteristics
- Description

Revision Record

Revision Number	Date	Description
SXCFL1L5RCNSC15_V1.0	2025-06-16	Version 1.0
SXCFL1L5RCNSC15_V1.1	2025-06-19	Version 1.1(DC Voltage)
SXCFL1L5RCNSC15_V1.2	2025-07-22	Version 1.2(Marking&Packing Information)
SXCFL1L5RCNSC15_V1.3	2025-07-25	Version 1.3(Marking&Description)

Dimensions & Features

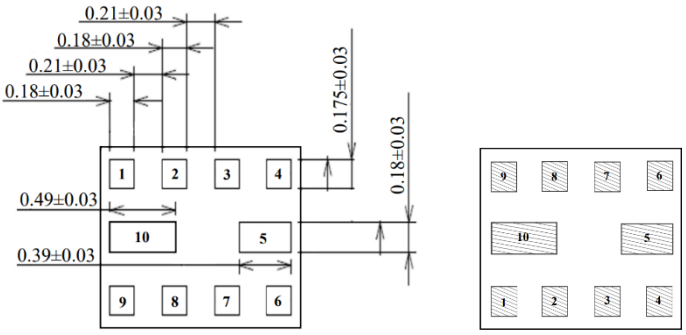


- Package size 1.5 x 1.1 x 0.6(max.)mm^3
- RoHS compatible
- **E**lectrostatic **S**ensitive **D**evice(**ESD**)
- **M**oisture **S**ensitivity **L**evel 2
- AEC-Q200 qualified component family

  (Grade 2: -40℃ to +105℃)

Pin Configuration

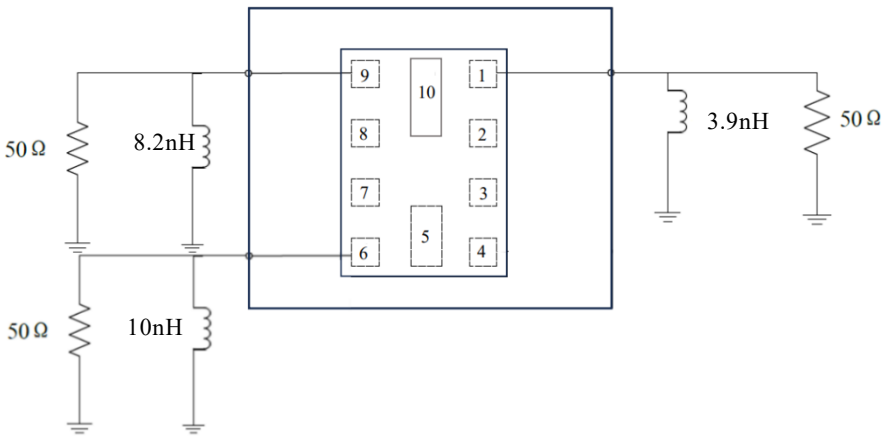
- 1 L1/L5 Unbalanced Input port
- 6 L1 Unbalanced Output port
- 9 L5 Unbalanced Output port
- Others: GND



Marking

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

Measurement Circuit



Parameter Name	Value
L1/L5 Input	3.9nH
L1 Output	10nH
L5 Output	8.2nH

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℃ ~ +105℃

L1		Specifications				
Item	Frequency Range [MHz]	Characteristics				
		min.	typ.	max.	Unit	Note
Insertion Loss	1559.05 - 1563.15	-	1.6	2.2	dB	
	1574.39 - 1576.45	-	1.4	2.0	dB	
	1597.55 - 1605.89	-	1.7	2.4	dB	
Amplitude Ripple	1559 - 1605	-	0.6	1.3	dB	
Input VSWR	1559.05 - 1605.89	-	1.5	2.0		
Output VSWR	1559.05 - 1605.89	-	1.5	2.0		
Absolute Attenuation	10 - 824	33	38	-	dB	
	824 - 915	33	38	-	dB	
	825 - 960	33	38	-	dB	
	1427 - 1463	35	40	-	dB	
	1710 - 1785	35	40	-	dB	
	1850 - 2025	35	40	-	dB	
	2300 - 2690	37	47	-	dB	
	3400 - 3800	37	42	-	dB	
	4400 - 4900	33	37	-	dB	
	5150 - 5925	27	33	-	dB	

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

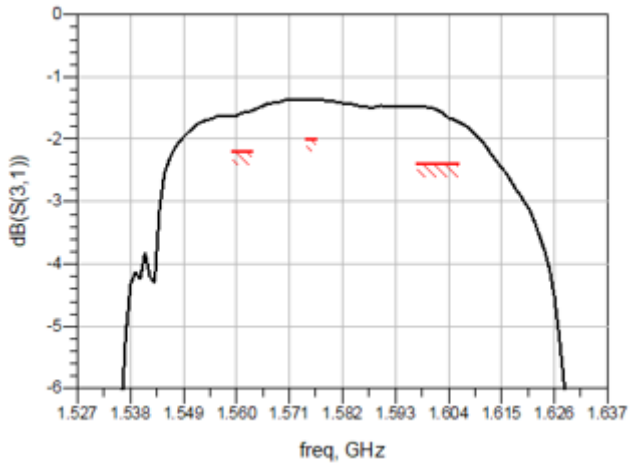
Temperature range for specification: -40℃ ~ +105℃

L5		Specifications				
Item	Frequency Range [MHz]	Characteristics				
		min.	typ.	max.	Unit	Note
Insertion Loss	1166.22 - 1186.68	-	1.1	1.8	dB	
	1205.09 - 1209.19	-	0.9	1.5	dB	
	1226.58 - 1228.62	-	1.6	2.3	dB	
Amplitude Ripple	1166.22 - 1228.62	-	0.9	1.5	dB	
Input VSWR	1166.22 - 1228.62	-	1.5	2		
Output VSWR	1166.22 - 1228.62	-	1.5	2		
Absolute Attenuation	10 - 824	32	38	-	dB	
	824 - 915	32	37	-	dB	
	925 - 960	30	35	-	dB	
	1427 - 1463	27	31	-	dB	
	1710 - 1785	25	30	-	dB	
	1850 - 2025	35	40	-	dB	
	2300 - 2690	35	40	-	dB	
	3400 - 3800	30	34	-	dB	
	4400 - 4900	28	33	-	dB	
	5150 - 5925	24	28	-	dB	

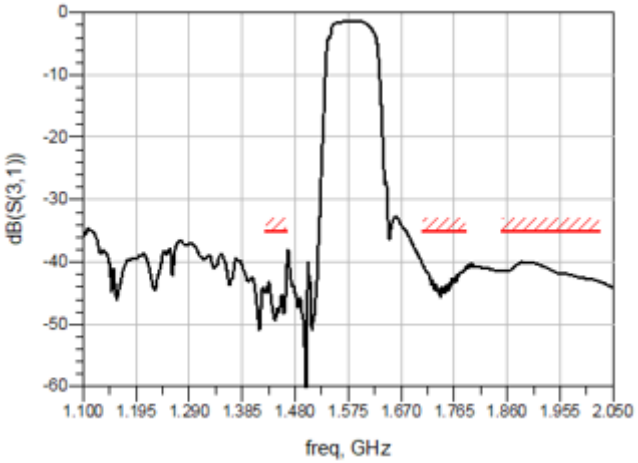
1. Evaluation Board Feed line loss is de-embedded.

Frequency Characteristics

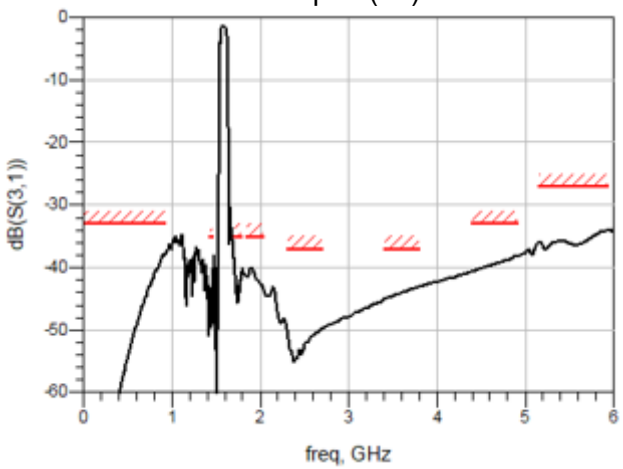
Narrow Span (L1)



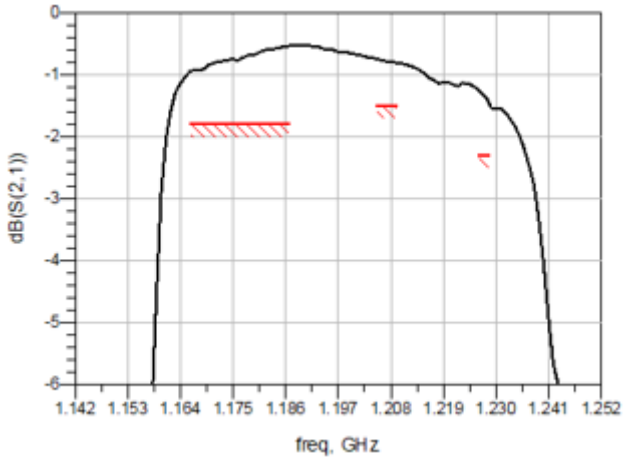
Middle Span (L1)



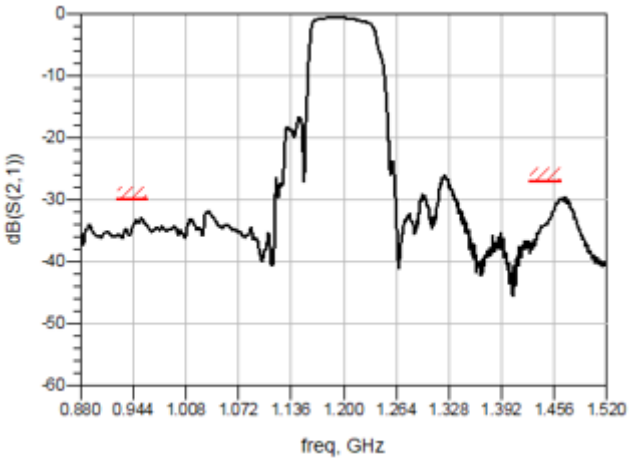
Wide Span (L1)



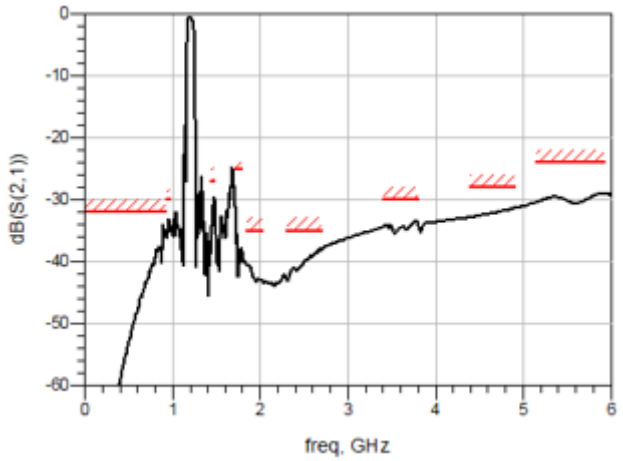
Narrow Span (L5)



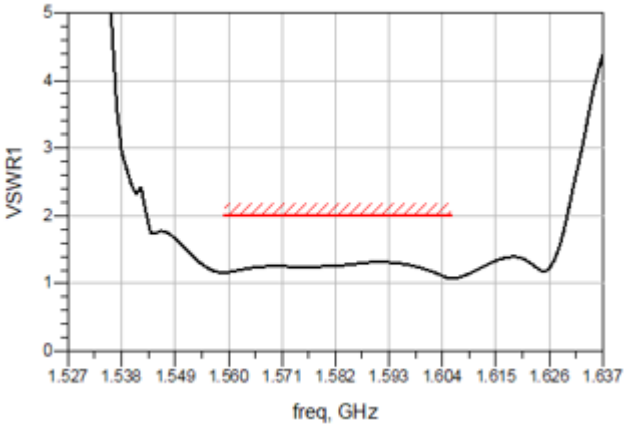
Middle Span (L5)



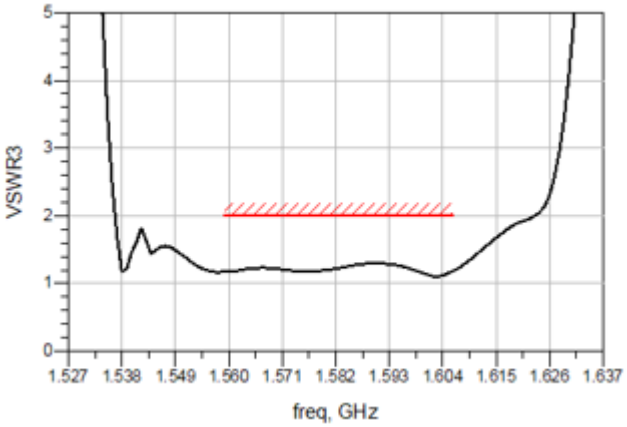
Wide Span (L5)



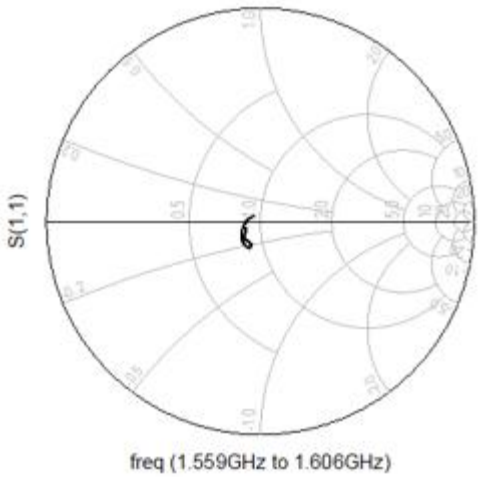
S11 VSWR(L1)



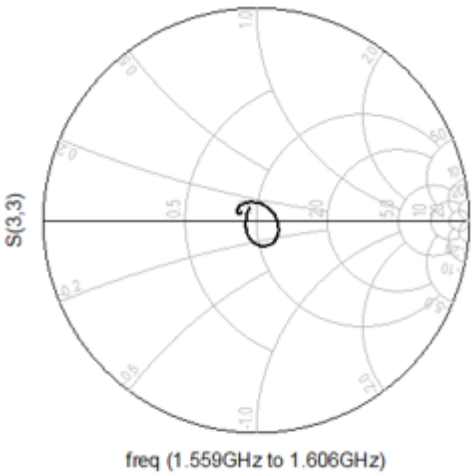
S33 VSWR(L1)



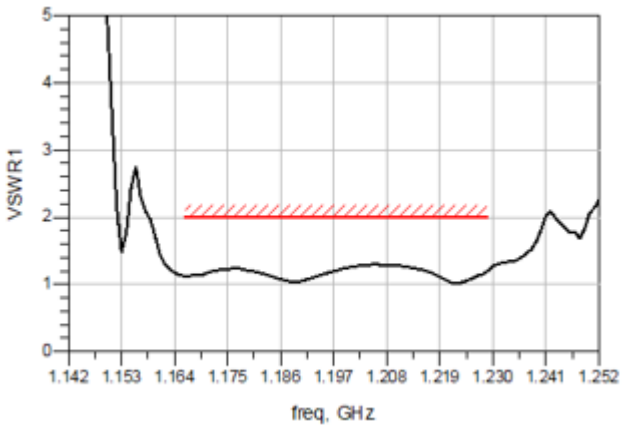
S11 Smith Chart(L1)



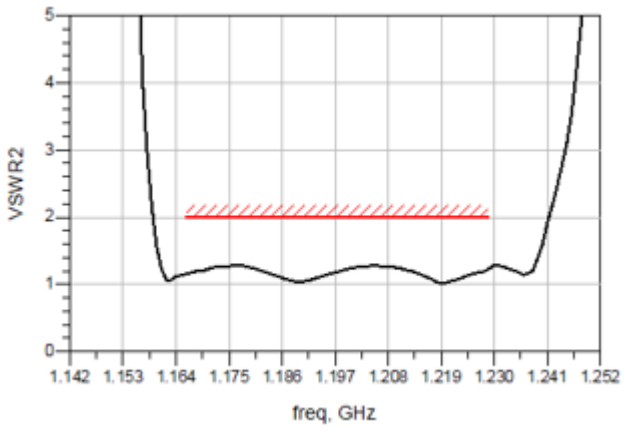
S33 Smith Chart(L1)



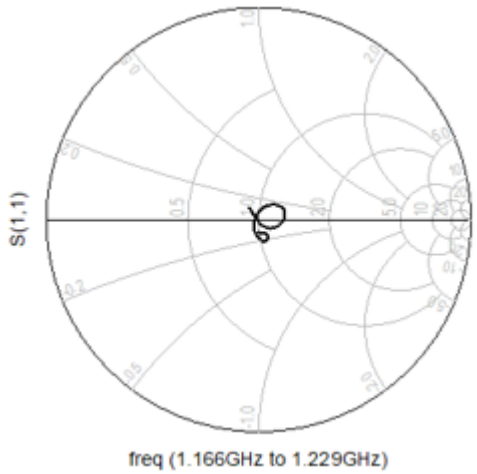
S11 VSWR(L5)



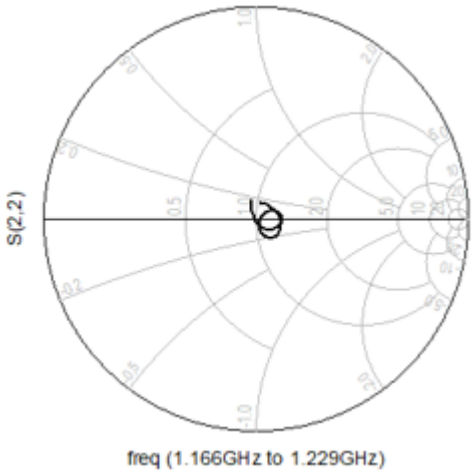
S22 VSWR(L5)



S11 Smith Chart(L5)



S22 Smith Chart(L5)

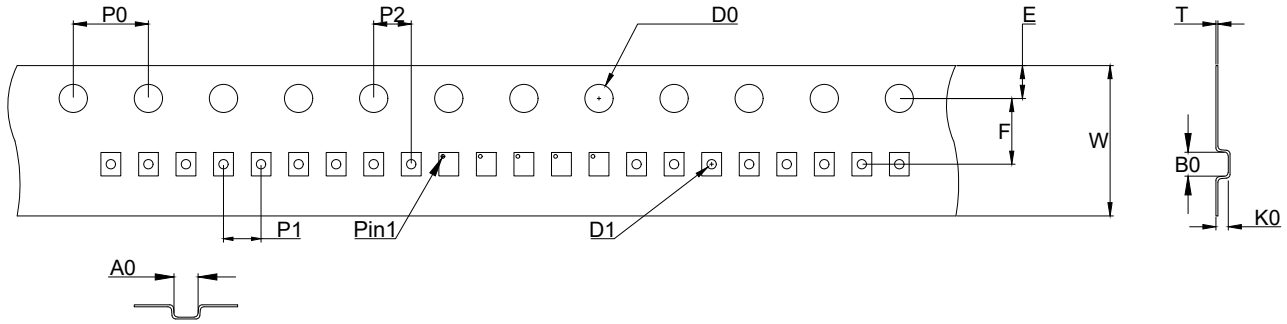


Remarks

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.

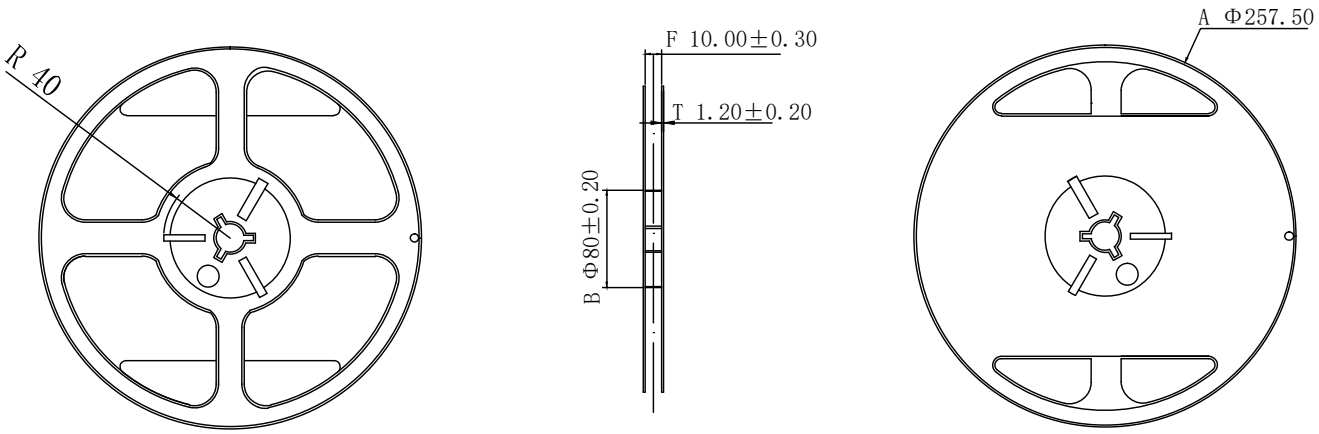
Packing Information

Tape(Unit: mm)



Size	P0	P1	P2	D0	D1	E	F	W	A0	B0	K0	T
Value	4.00	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：4000pcs/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