



DATASHEET

of SAW Devices

SAW Duplexer

Part Number : SXDB005LCNSC18

Band 5, SAW Duplexer

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

SAW Components	SAW Duplexer
PART Number	SXDB005LCNSC18

Revision Record

Revision Number	Date	Description
SXDB005LCNSC18_Rev0.1	2022-08-02	Spec. Adjustment
SXDB005LCNSC18_Rev0.2	2022-09-26	Description and Other Information

SAW Components

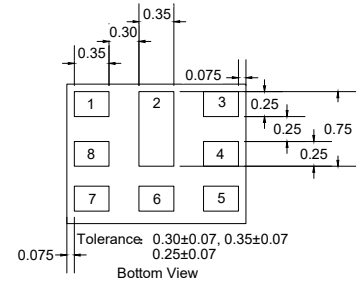
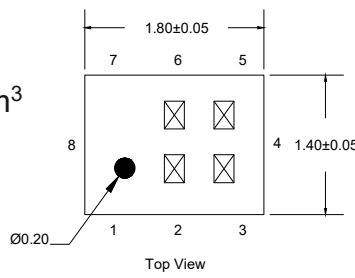
SAW Duplexer

PART Number

SXDB005LCNSC18

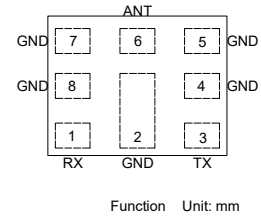
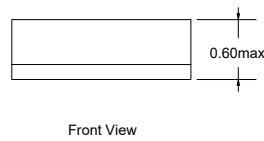
Dimensions & Features

- Package size 1.8 x 1.4 x 0.6(max.)mm³
- RoHS compatible
- **Electrostatic Sensitive Device(ESD)**
- **Moisture Sensitivity Level 2**



Pin Configuration

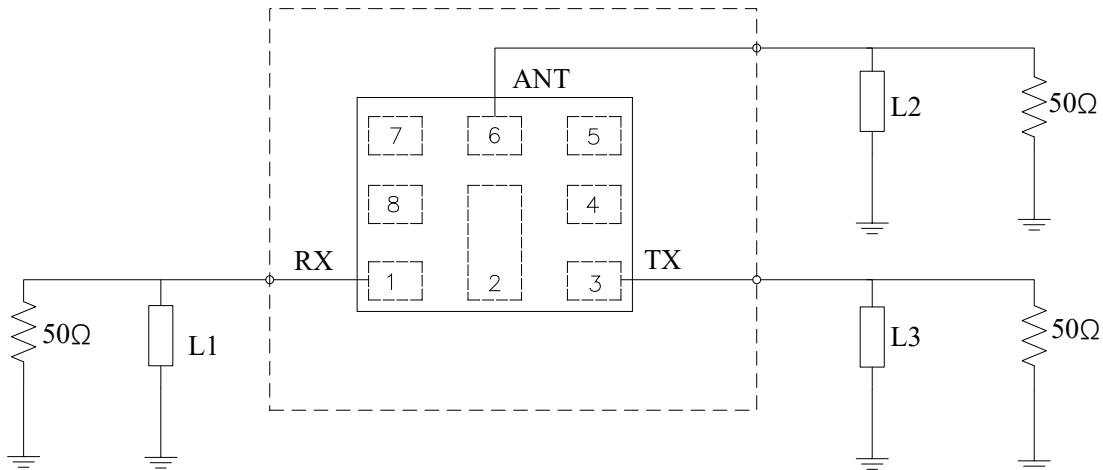
- 6 Ant
- 3 Tx (836.5MHz)
- 1 Rx (881.5MHz)
- Others: GND



Marking

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

Measurement Circuit



Parameter Name	Value
L1	10nH
L2	3.9nH
L3	3.9nH

Rx Impedance(unbalanced)¹: 50Ω

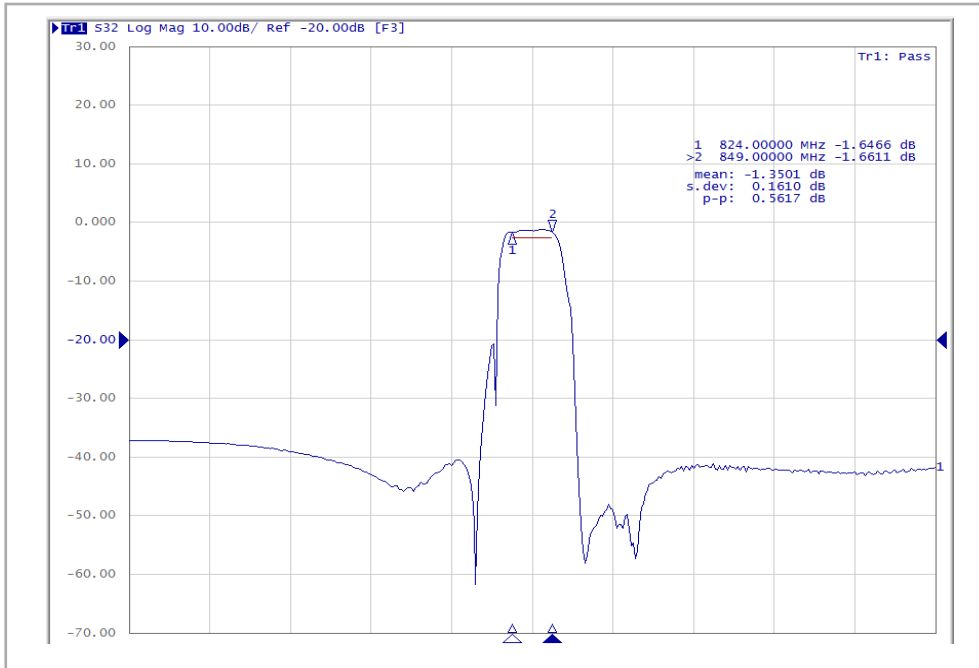
Ant to Rx		Specifications			
Item	Frequency Range [MHz]	Characteristics			Unit
		min.	typ. ²	max.	
Insertion Loss	869.00 - 894.00	-	1.9	2.8	dB
Ripple Deviation	869.00 - 894.00	-	1.1	1.5	dB
VSWR of Rx Port	869.00 - 894.00	-	1.8	2.2	-
VSWR of Ant. Port	869.00 - 894.00	-	1.8	2.2	-
Absolute Attenuation	10.00 - 447.00	35	45	-	dB
	45.00	50	80	-	dB
	447.00 - 824.00	32	43	-	dB
	779.00 - 804.00	35	45	-	dB
	824.00 - 849.00	50	55	-	dB
	1693.00 - 2494.00	40	55	-	dB
	2517.00 - 2592.00	20	33	-	dB
	2607.00 - 2682.00	35	51	-	dB
	3476.00 - 3576.00	30	50	-	dB
	4345.00 - 4470.00	18	23	-	dB
	4900.00 - 5950.00	18	22	-	dB
	5214.00 - 5364.00	18	22	-	dB
	6083.00 - 6258.00	20	40	-	dB
	6952.00 - 7152.00	15	41	-	dB

Tx to Rx		Specifications			
Item	Frequency Range [MHz]	Characteristics			Unit
		min.	typ. ²	max.	
Isolation	824.00 - 849.00	52	57	-	dB
	869.00 - 894.00	50	53	-	dB
	1574.00 - 1577.00	40	58	-	dB

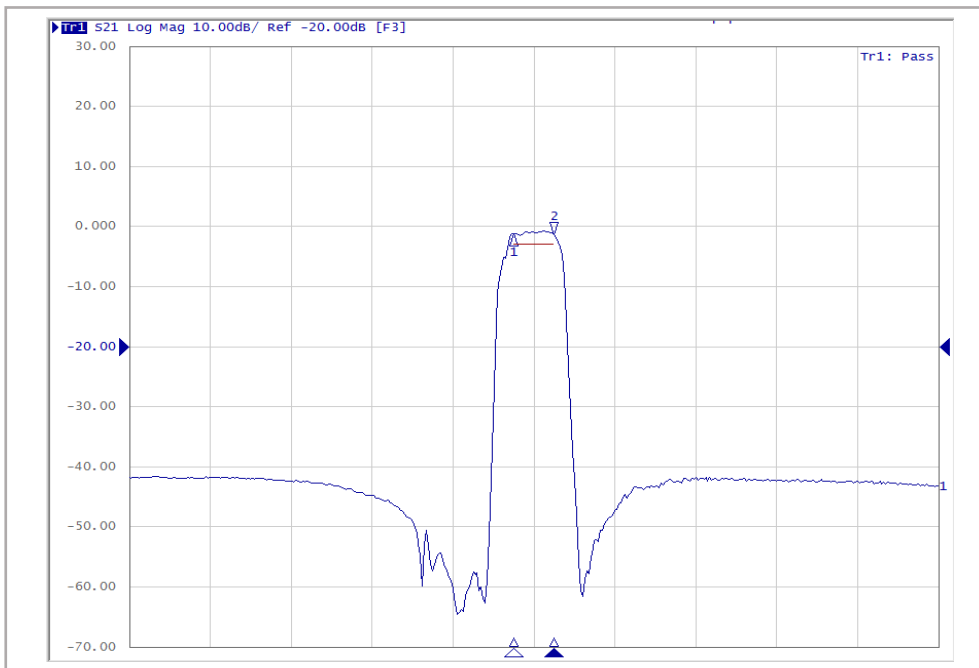
1. **Attention:** under the condition with matching network
2. Typical value at 25±2deg.C

Frequency Characteristics

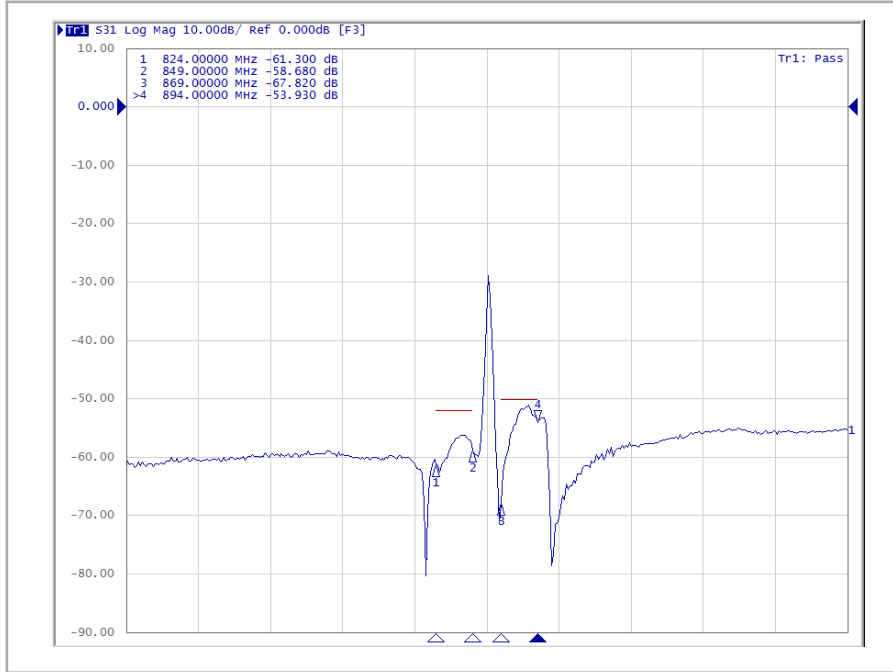
Tx to Ant



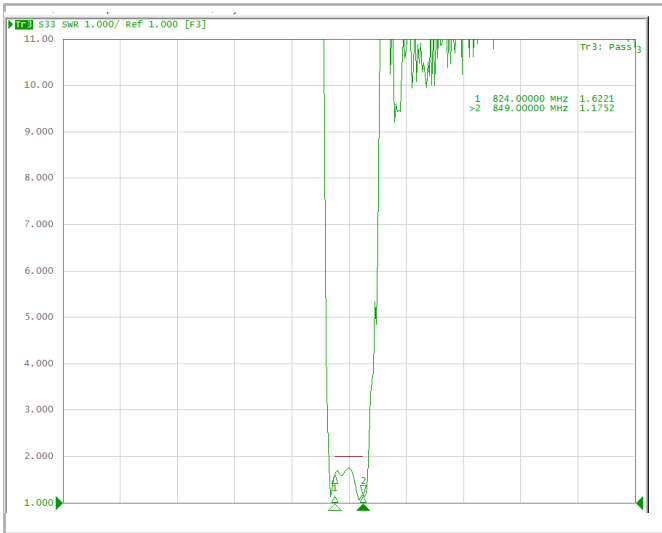
Ant to Rx



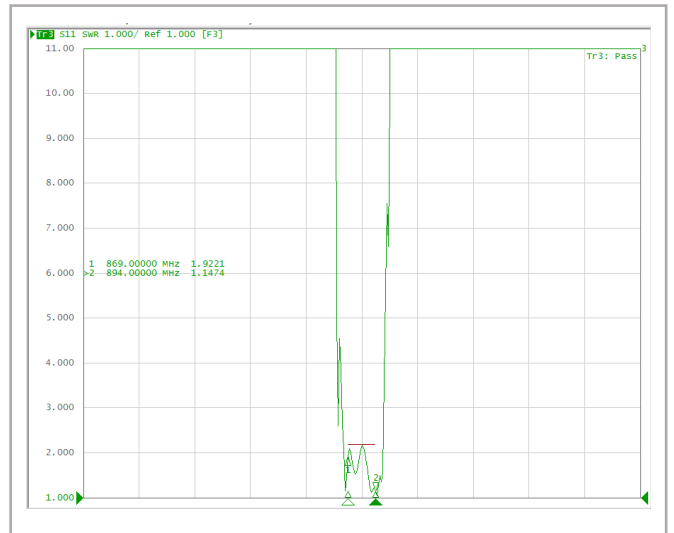
Isolation



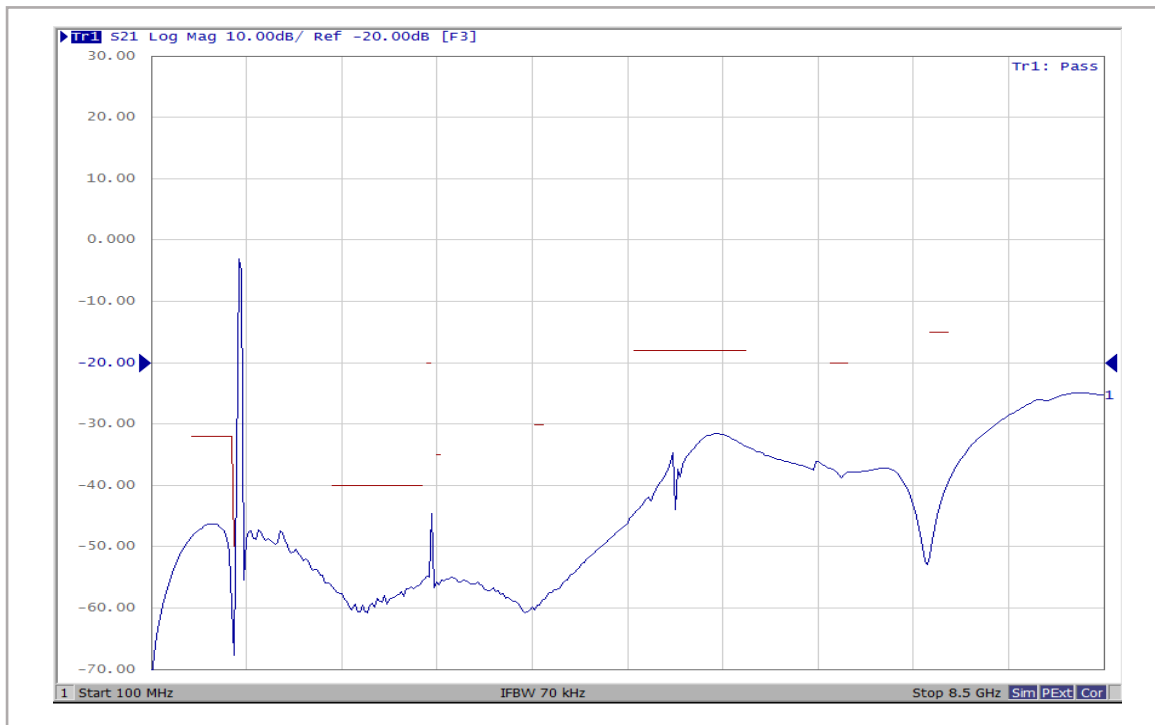
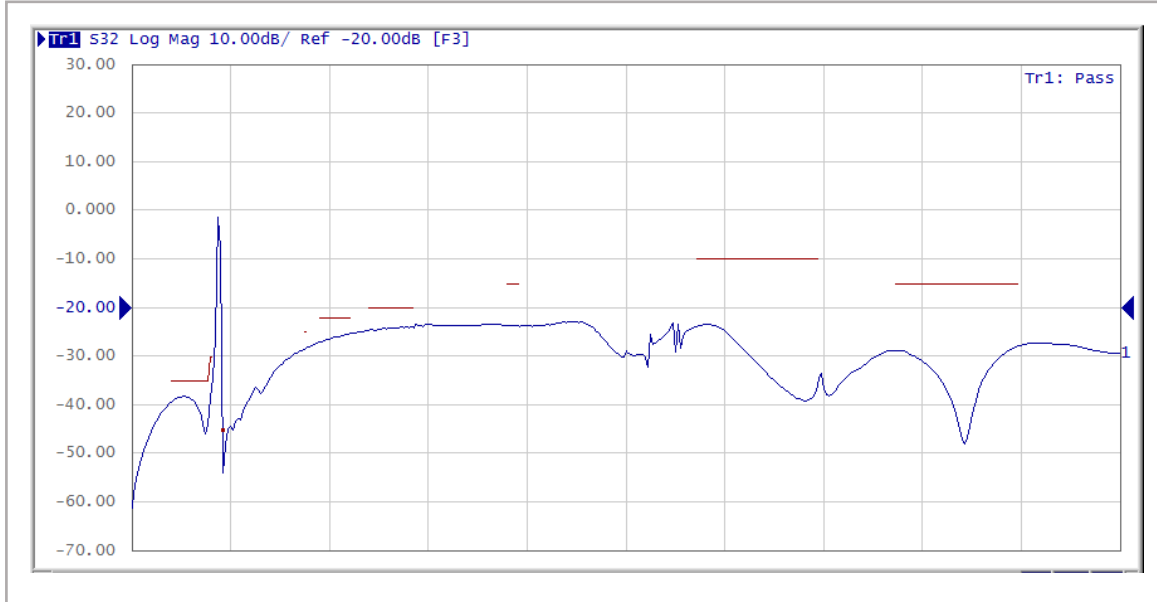
VSWR (Tx Port)



VSWR (Rx Port)



Wide Span



Reliability Characteristics

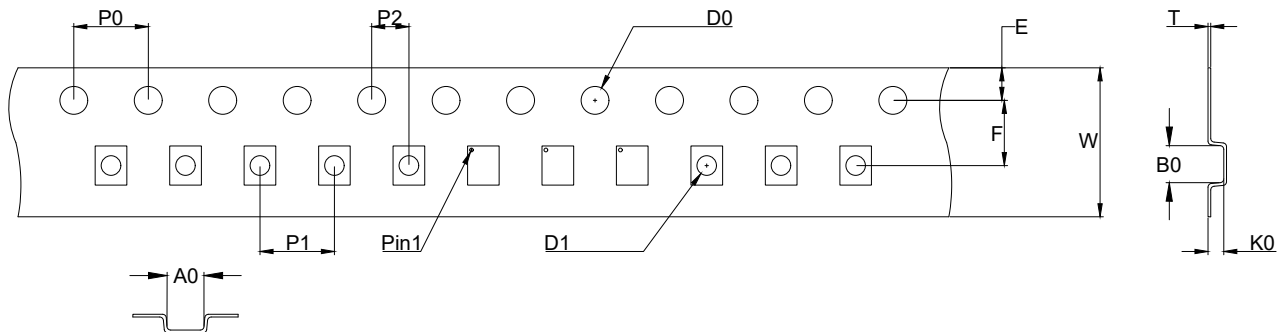
No.	Item	Condition to be satisfied
1	High Temp. Storage	①Test temperature: +85°C±3°C ②Duration time: 500 hours ③Restore time: 2 hours at the room temperature(25°C)
2	Low Temp. Storage	①Test temperature: -40°C±3°C ②Duration Time: 500 hours ③Restore time: 2 hours at the room temperature(25°C)
3	High Temp. 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 . ₀ °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±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, +255 ⁺⁵ . ₀ °C

Remarks

1. Please be certain not to apply voltage above the rated voltage of SAW components.
2. Please be sure that the component operate 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

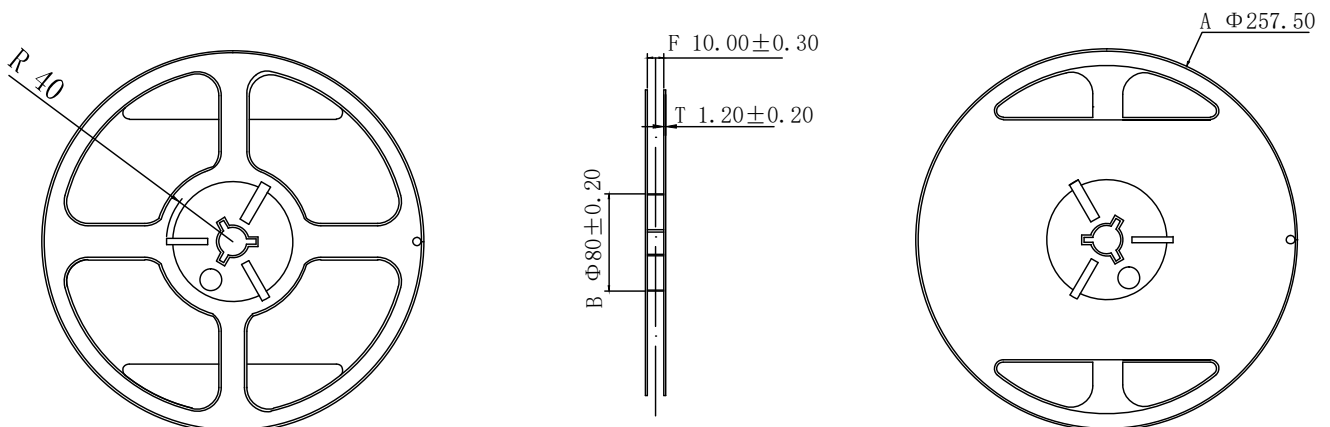
Tape (Unit: mm)



Size	P0	P1	P2	D0	D1	E	F	W	A0	B0	K0	T
Value	4.00	4.00	2.00	Φ 1.55	Φ 1.05	1.75	3.50	8.00	1.70	2.10	0.90	0.18
Tolerance	±0.10	±0.10	±0.10	±0.05	±0.05	±0.10	±0.10	±0.20	±0.05	±0.05	±0.05	±0.05

Reel (Unit: mm)

10000pcs/Reel



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	ᵿ
2032												
2025	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
2029	n	○	Ṗ	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	31
W	X	Y	Z	a	b	€	d	e	f	g

Recommended Soldering Profile

