Features

SAW filter for BAND 41 Tx

- Low-loss RF filter for mobile telephone
- Usable passband 194 MHz
- 50 Ω / 50 Ω Unbalanced to unbalanced operation
- Low insertion attenuation
- Package size 1.4 mm *1. 1 mm

Electrical Specification

ITEM		Min.	Typ.	Max.	Unit
Center Frequency			2593		MHz
Insertion Loss	@2496~2500 MHz		2.1	2.6	dB
Insertion Loss	@2500~2511 MHz		1.9	2.3	
Insertion Loss	@2511~2690 MHz		1.9	2.4	
Insertion Loss	@2545~2575 MHz		1.6	2.3	
Insertion Loss	@2555~2655 MHz		1.7	2.3	
Insertion Loss	@2620~2690 MHz		1.9	2.3	
Passband Ripple	@2496~2520 MHz		0.5	1.2	dB
Passband Ripple	@2520~2655 MHz		0.4	1.2	dB
VSWR	@2496~2520 MHz		1.4	2.0	
VSWR	@2520~2690 MHz		1.3	2.0	
Attenuation	10~916 MHz	38	45		dB
Attenuation	925~960 MHz	37	44		dB
Attenuation	1226.57~1228.63 MHz	32	39		dB
Attenuation	1242.42~1249.14 MHz	31	39		dB
Attenuation	1248~1564 MHz	30	38		dB
Attenuation	1559~1563 MHz	30	42		dB
Attenuation	1565.42~1573.37 MHz	31	42		dB
Attenuation	1573.37~1577.47 MHz	31	43		dB
Attenuation	1577.47~1585.42 MHz	31	43		dB
Attenuation	1597.55~1605.89 MHz	31	45		dB
Attenuation	1615~2400 MHz	2.1	6.6		dB
Attenuation	1710~1785 MHz	20	30		dB
Attenuation	1805~1850 MHz	15	24		dB
Attenuation	1880~1920 MHz	1 1	20		dB
Attenuation	1920~1980 MHz	8.0	16.0		dB
Attenuation	2110~2170 MHz	2.1	6.9		dB
Attenuation	2401~2468 MHz	23	31		dB

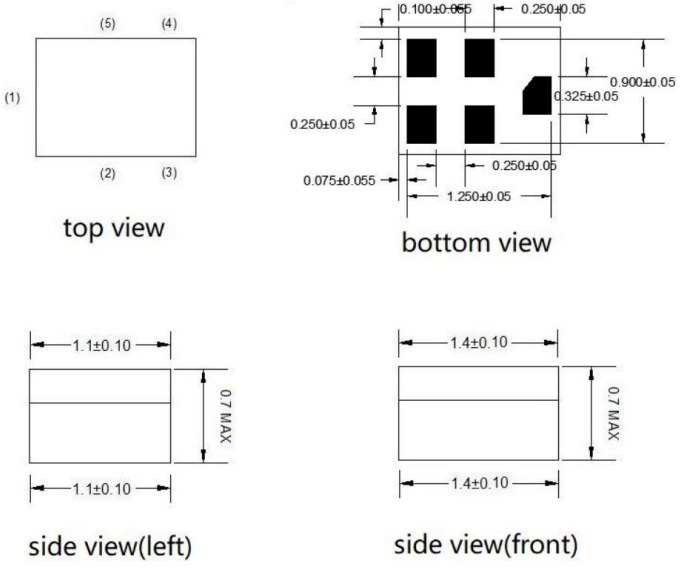
	(WLAN Ch 1- 10 18MHz-BW)				
Attenuation	2451~2473 MHz (WLAN Ch 1 1 18MHz-BW)	12	37		dB
Attenuation	2456~2478 MHz (WLAN Ch 12 18MHz-BW)	8.0	18.0		dB
Attenuation	2461~2483 MHz (WLAN Ch 13 18MHz-BW)	5.0	10.0		dB
Attenuation	2475 MHz	2.5	6.6		dB
Attenuation	2775~4992 MHz	2.0	5.4		dB
Attenuation	4992~5380 MHz	26	31		dB
Attenuation	5381~7487 MHz	17	22		dB
Attenuation	7488~8070 MHz	15	21		dB
Input / Output Impedance (Nominal)			50		Ω

Maximum Ratings

Rating	Symbol	Value	Unit
DC Voltage (between any Terminals)	V_{DC}	0	V
RF Power (in BW)	P	+32dBm 5000h+50deg.C	
Operating Temperature Range	T_A	-20 ~ +85	°C
Storage Temperature Range	Tstg	-40 ~ +85	°C

Outline Drawing

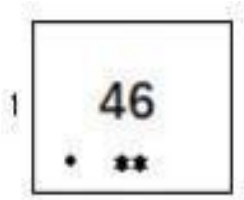
Unit: mm



Pin Configuration

PIN#	Description
1	Input
4	Output
2,3,5	Ground

Marking



Top View, Laser Marking

"46": Part Number
"." Dot marking, indicates input

"1": Terminal 1

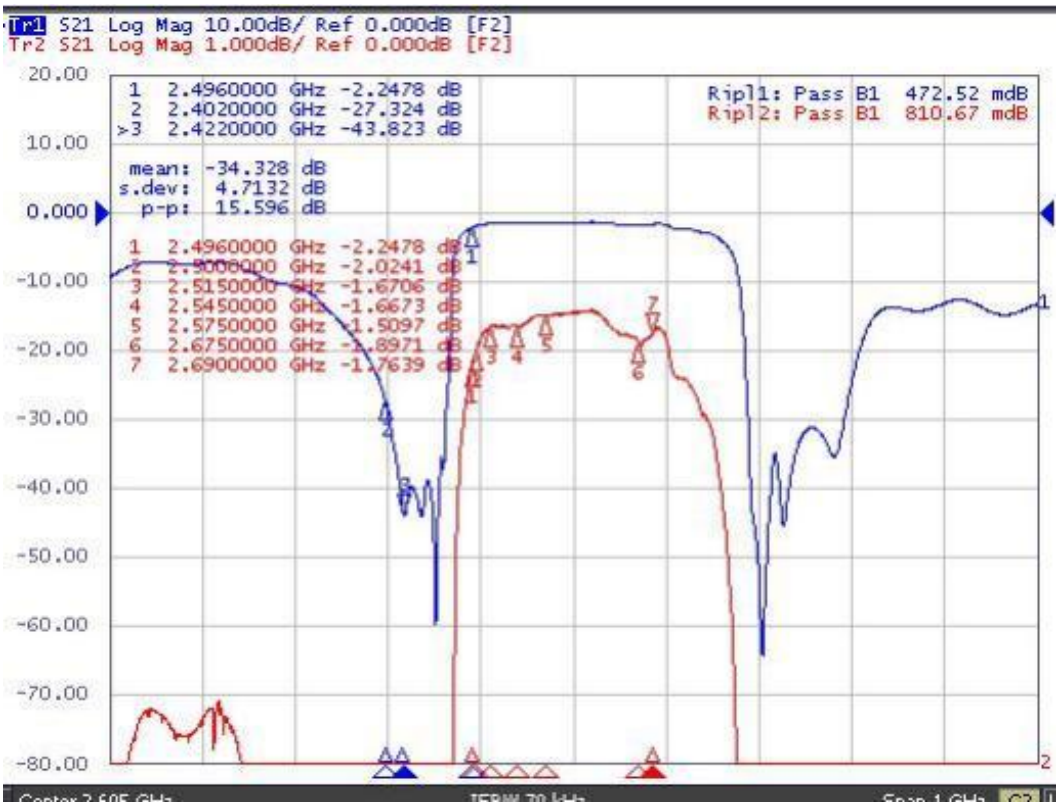
The first "*": Month Code (The code shown below varies in a 4-year-cycle)

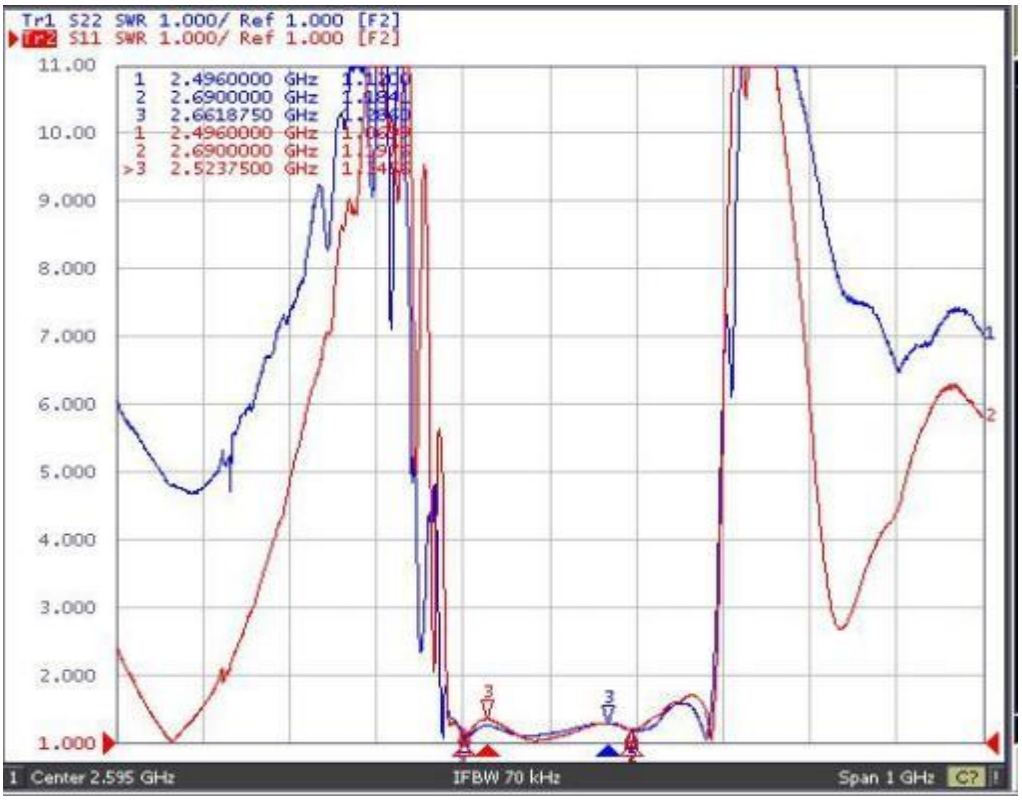
Month	1	2	3	4	5	6	7	8	9	10	11	12
2016/2020	n	p	q	r	s	t	u	v	w	x	y	z
2017/2021	A	B	C	D	E	F	G	H	J	K	L	M
2018/2022	N	P	Q	R	S	T	U	V	W	X	Y	Z
2019/2023	a	b	c	d	e	f	g	h	i	j	k	m

The second "*": Date Code

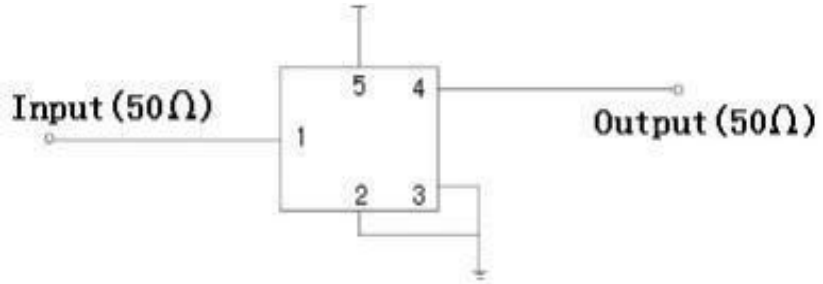
Date	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	
Code	A	B	C	D	E	F	G	H	J	K	
Date	11th	12th	13th	14th	15th	16th	17th	18th	19th	20th	
Code	L	M	N	P	Q	R	S	T	U	V	
Date	21st	22nd	23rd	24th	25th	26th	27th	28th	19th	30th	31st
Code	W	X	Y	Z	a	b	d	e	f	g	h

Typical Frequency Response





Test Circuit



Stability Characteristics

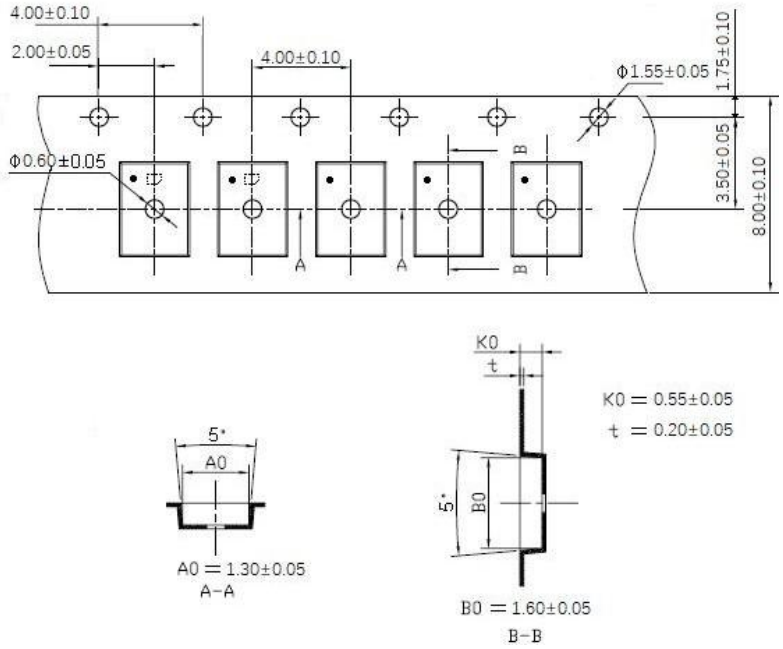
ITEM	Test Item	STD Reference	Test Conditions	per lot
Preconditioning		JESD22-A113	1) Temperature Cycling, 5 cycles -40°C to 85°C; 2) Bake, 24 hrs @85±5°C; 3)Moisture Soak, Soak time and conditions per IPC/JEDEC J-STD-020 based on device MSL level; 4) Reflow, 3 reflow cycles; 5) Drying, Room ambient temperature.	All behind
1	Temperature Cycling	JESD22-A104	-40°C / +85°C ,5°C/min, 15min dwell,< 1 min transfer time,500cycles	3*25 pcs
2	High Temperature Storage	JESD22-A103	Temperature = 85°C, 1000 hours.	3*25 pcs
3	Temperature Humidity no bias	JEDEC Std A101-B	85°C 85%RH 240 hours	3*25 pcs
4	Human Body Mode ESD	JESD22-A114	Ta=25°C, ⩾100V	3 pcs
5	Charge Device Mode ESD	JESD22-C101	Ta=25°C, ⩾100V	3 pcs
6	Solderability	JESD22-B102	Wetting: 245°C, 5s.	22 pcs
7	Drop Test	JESD22-B111	1500 Gs, 0.5 millisecond duration, half-sine pulse.	20 pcs
8	Mechanical Shock	JESD-47	Shock pulse of 1500g with pulse duration of 0.5+/-0. 1msec (X ,Y & Z); 5 shocks per axis.	3*25 pcs

Remarks

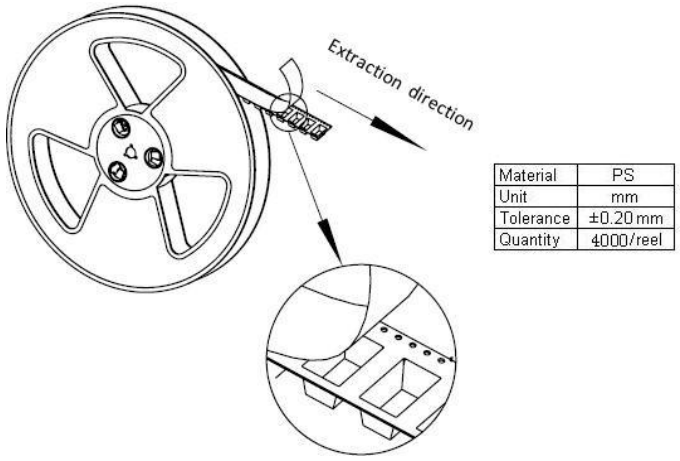
- SAW devices should not be used in any type of fluid such as water, oil, organic solvent, etc.
- Be certain not to apply voltage exceeding the rated voltage of components.
- Do not operate outside the recommended operating temperature range of components.
- Sudden change of temperature shall be avoided, deterioration of the characteristics can occur.
- Be careful of soldering temperature and duration of components when soldering.
- Do not place soldering iron on the body of components.
- Be careful not to subject the terminals or leads of components to excessive force.
- SAW devices are electrostatic sensitive. Please avoid static voltage during operation and storage.
- Ultrasonic cleaning shall be avoided. Ultrasonic vibration may cause destruction of components.

Packing Information

Carrier Tape



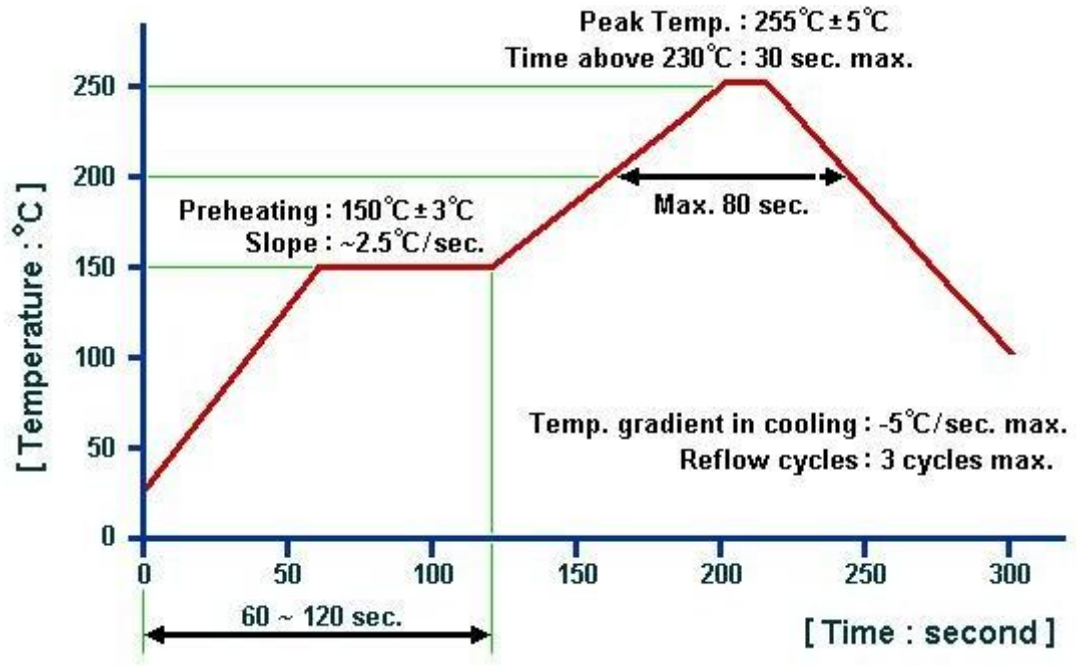
Reel Dimensions



Outer Packing

Type	Quantity	Dimension	Description	Weight
Carton Box I	40000	240×210×285mm	anti-static plastic bag & carton box 1 reel / bag 10 bags / box (40000pcs)	1.86kg
Carton Box II	120000	470×310×285mm	30 bags / box (120000pcs)	5.64kg

Recommended Soldering Profile



Remarks:

1. The specifications of this device are subject to change or obsolescence without notice.
2. Typically, equipment utilizing this device requires emissions testing and government approval, which is the responsibility of the equipment manufacturer.
3. Our liability is only assumed for the Surface Acoustic Wave (SAW) component(s) per se, not for applications, processes and circuits implemented within components or assemblies.
4. For questions on technology, prices and delivery, please contact our sales offices or e-mail sales@sainty-tech.com.