



SAW BANDPASS FILTER

PART NO.: ACTFH025-1485SA-1109

Product Type:	Customer:
SAW filter for LTE BAND 11 (Rx).	
	Customer Part NO.:
	Issued Date:

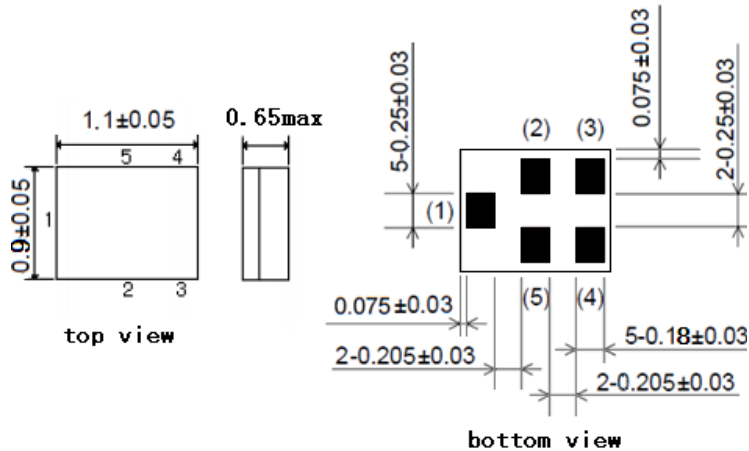
Features

SAW filter for LTE BAND 11 (Rx).

- 1 High stability and reliability with good performance and no adjustment.
- 2 Single ended to Single ended.
- 3 Useable Pass band 20MHz.
- 4 Package size 1.1mm*0.9mm.

Package Dimensions

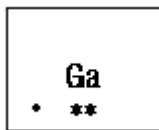
Ceramic Package: Unit: mm



Pin Configuration

1	Input
4	Output
2,3,5	Ground

Marking



Top View, Laser Marking

"Ga" Part number

"." Dot marking, indicates input 1

" 1" Terminal1

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

data	□1st	□2nd	3rd	4th	5th	6th	7th	8th	9th	10th	
code	A	B	C	D	E	F	G	H	J	K	
data	11th	12th	13th	14th	15th	16th	17th	18th	19th	20th	
code	L	M	N	P	Q	R	S	T	U	V	
data	21st	22nd	23rd	24th	25th	26th	27th	28th	29th	30th	31st
code	W	X	Y	Z	a	b	d	e	f	g	h

Maximum Ratings


DC Voltage (between any Terminals)	V_{DC}	10	V
RF Power (in BW)	P	15 dBm /2000hr@55°C	
Operating Temperature Range	T_A	-30 ~ +85	°C
Storage Temperature Range	T_{stg}	-40 ~ +85	°C
ESD Voltage (HB)	V_{ESD}	>150	V
Moisture Sensitivity Levels	MSL	2A	

Electrical Characteristics:

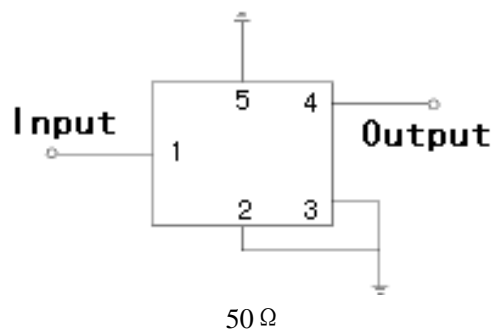
Terminating impedance: $Z=50\ \Omega$

Center Frequency	f_c	1485.9	MHz
Insertion-loss	1475.9—1495.9MHz	IL	2.1 2.5 dB
	1475.9—1495.9MHz		2.1 2.3 dB +23to+27deg.C
Pass band Ripple @1475.9—1495.9MHz	Pr	0.8 1.2	dB
Absolute Attenuation	48MHz	47 61	dB
	814—849MHz	38 42	
	1427.9—1447.9MHz	47 52	
	1452—1460MHz	3 8	
	1581—6000MHz	30 35	
	2400—2500MHz	38 43	
	4427.7—4487.7MHz	35 39	
	4900—5950MHz	30 35	
VSWR @1475.9—1495.9MHz		1.6 2.0	

 RoHS Compliant

 Electrostatic Sensitive Device

Test Circuit

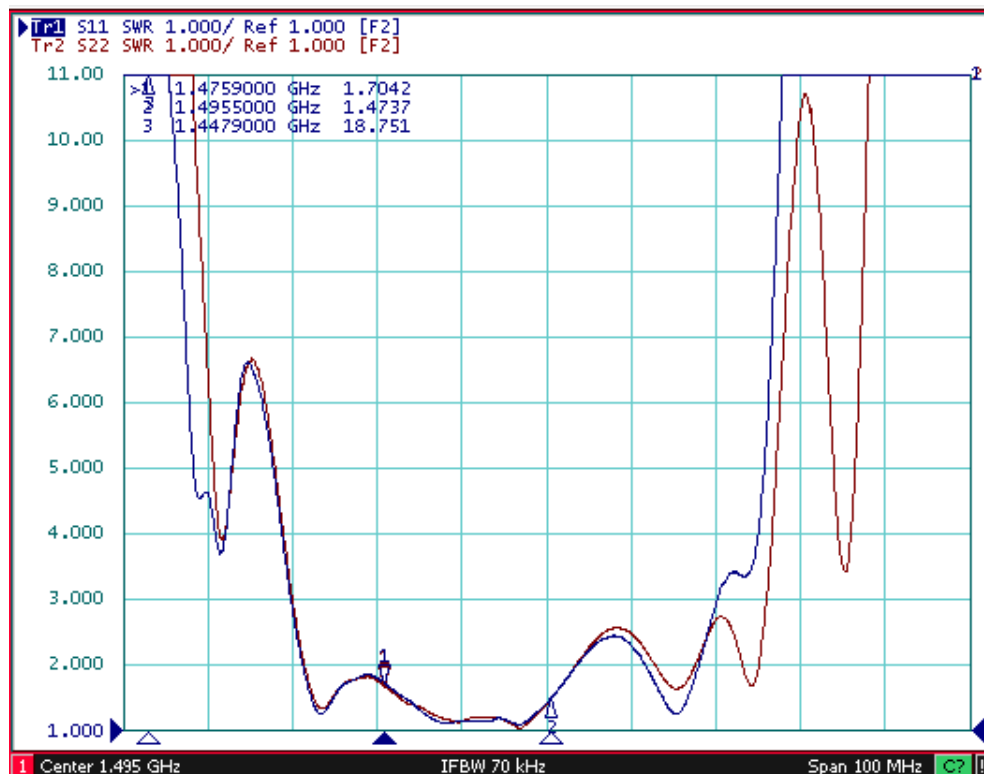


Typical Frequency Response

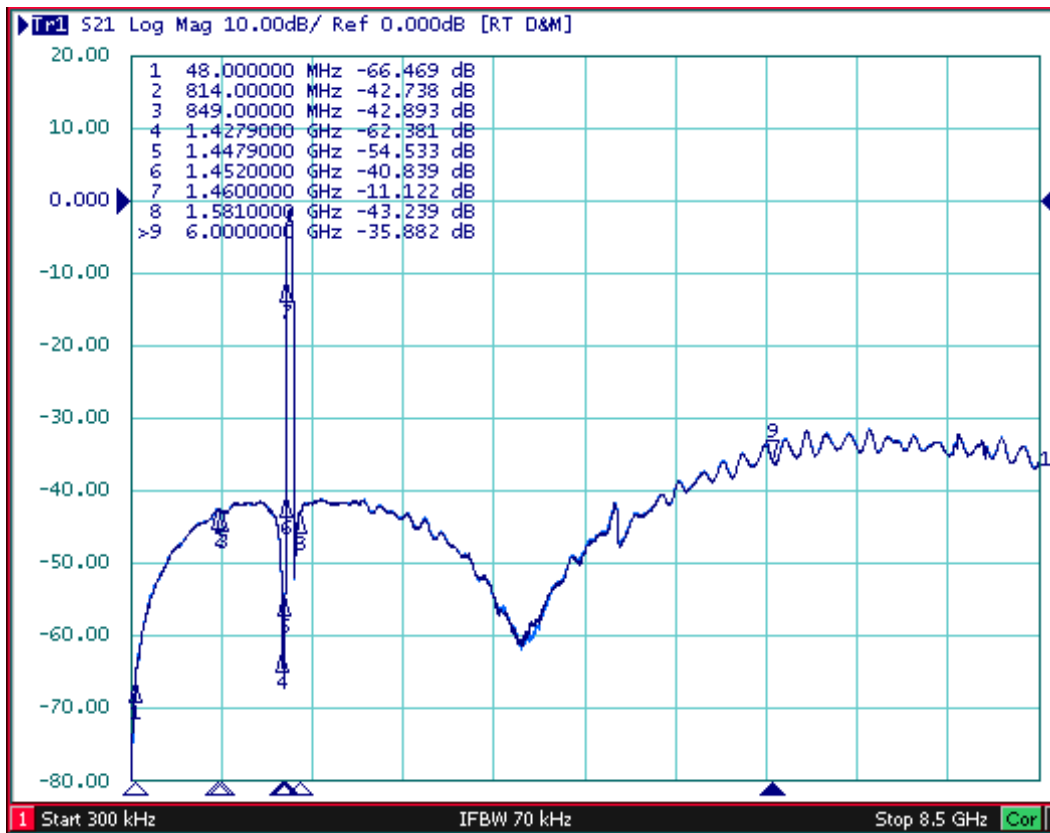
S21



S11 S22



Far side



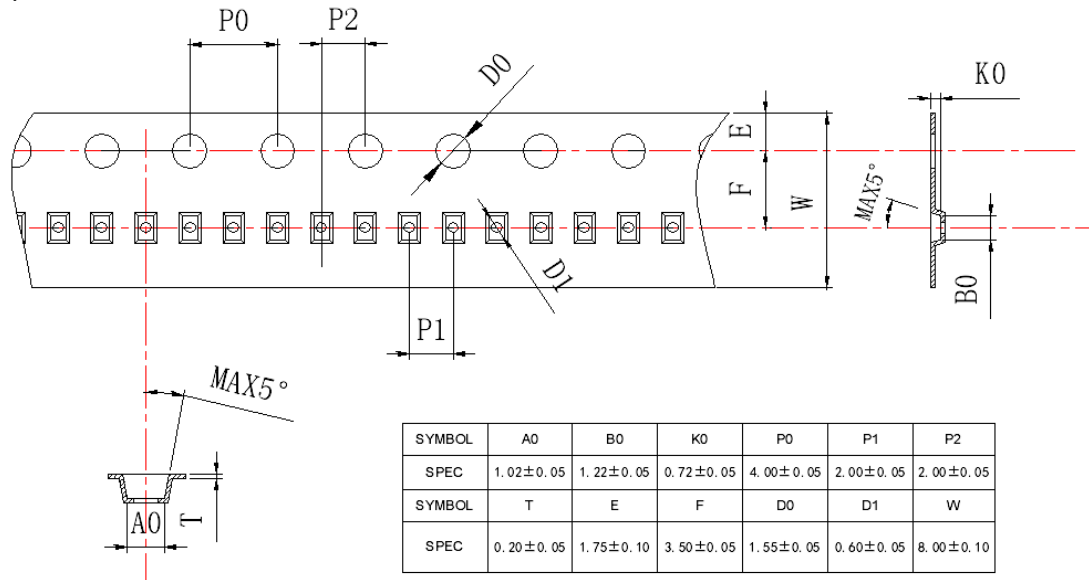
Stability Characteristics

Item No.	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

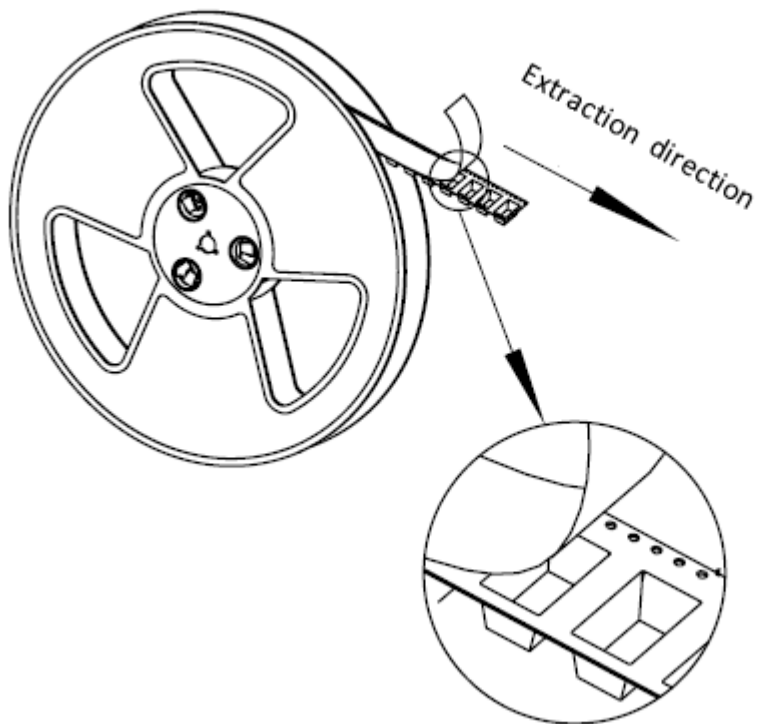
Requirements: The SAW filer shall remain within the electrical specifications after tests.

Packing Information

Carrier Tape



Reel Dimensions



Material	PS
Unit	mm
Tolerance	±0.20 mm
Quantity	10000/reel

Outer Packing

Carton Box I	20000	240x220x120	anti-static plastic bag & carton box 1 reel / bag 30 bags / box (20000pcs)	5.21
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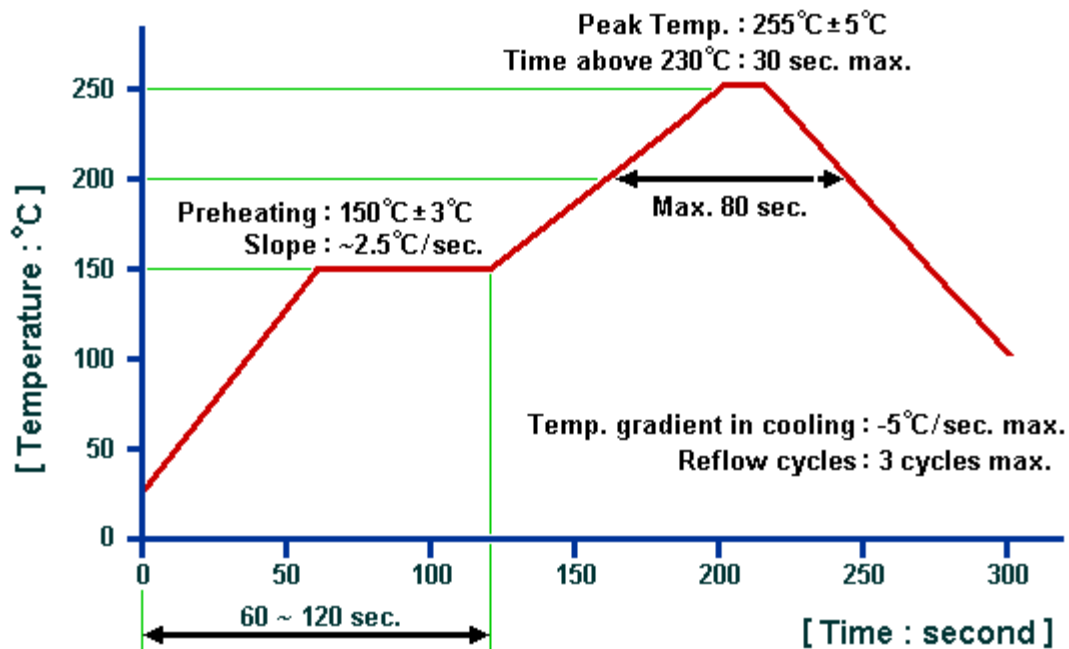
Unit: mm

Unit: kg

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.

Recommended Soldering Profile



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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.