



SAW BANDPASS FILTER

PART NO.: ACTFG023-2350SA-1411

Product Type:	Customer:
SAW Filter for Band 40 Tx, Unbalanced	
	Customer Part NO.:
	Issued Date:

Maximum Ratings

Rating		Value	Unit
DC Voltage (between any Terminals)	V_{DC}	10	V
RF Power (in BW)	P	29 dBm max	
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	

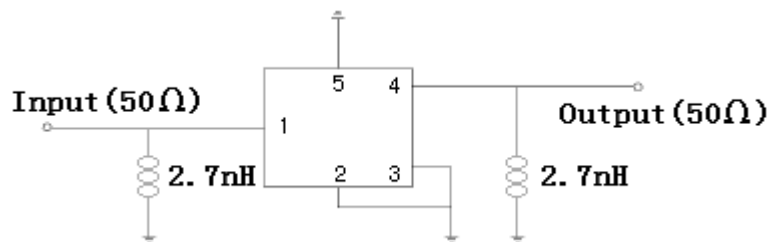
Electrical Characteristics:

Item		Minimum	Typical	Maximum	Unit
Center Frequency	f_c		2350		MHz
Insertion Loss @2300 2400 MHz	IL		2.0	2.5	dB
Passband Ripple @2300 2400 MHz	Pr		0.8	1.4	dB
VSWR@2300 2400 MHz	V_{swr}		1.5	2.0	
Absolute Attenuation	α				
DC 1574.00 MHz		33	38		dB
1574 1577.00 MHz		33	38		dB
1577.00 1680.00 MHz		30	35		dB
1845.00 1880.00 MHz		27	30		dB
2110.00 2170.00 MHz		27	30		dB
2460.00 2485.00 MHz		40	50		dB
2845.00 2500.00 MHz		42	50		dB
2500.00 3000.00 MHz		30	33		dB
4600.00 7200.00 MHz		25	28		dB
Input / Output Impedance (Nominal)		50			Ω

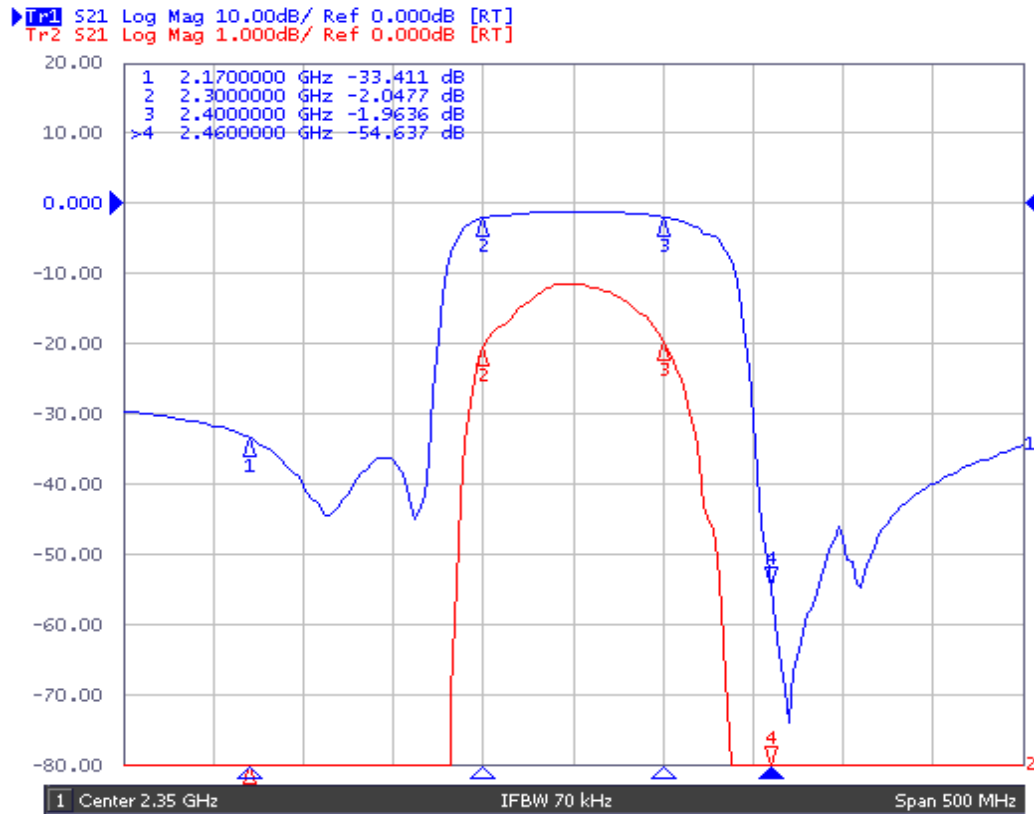
 RoHS Compliant

 Electrostatic Sensitive Device

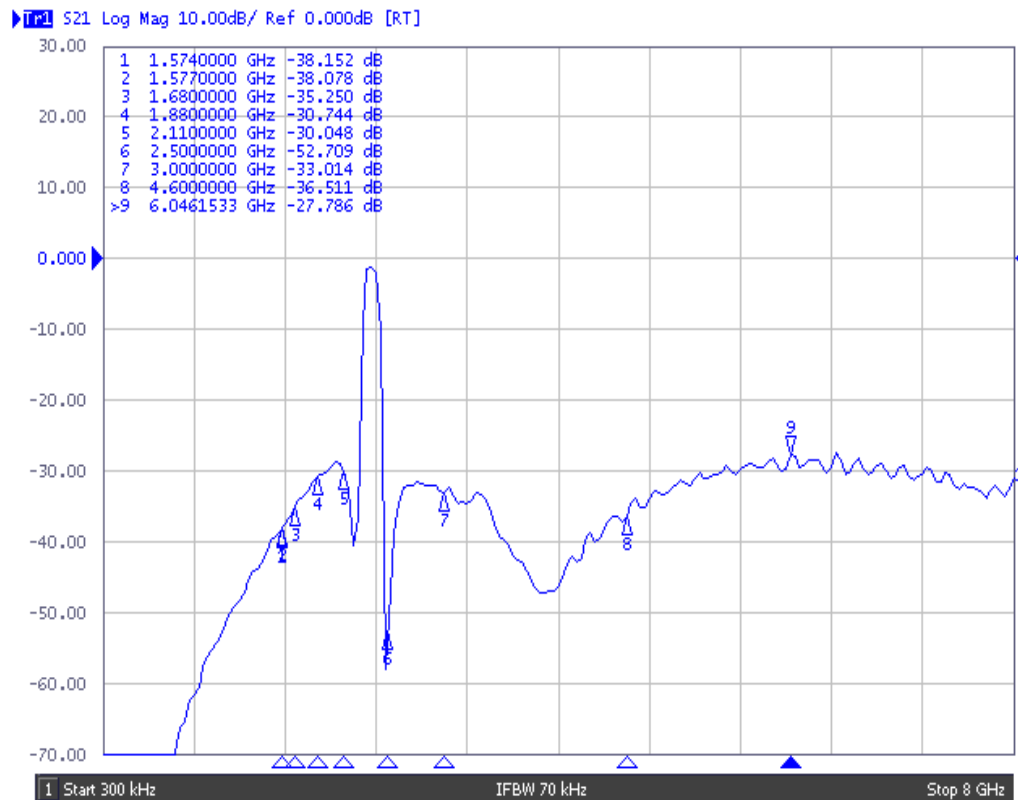
Test Circuit



Typical Frequency Response S21

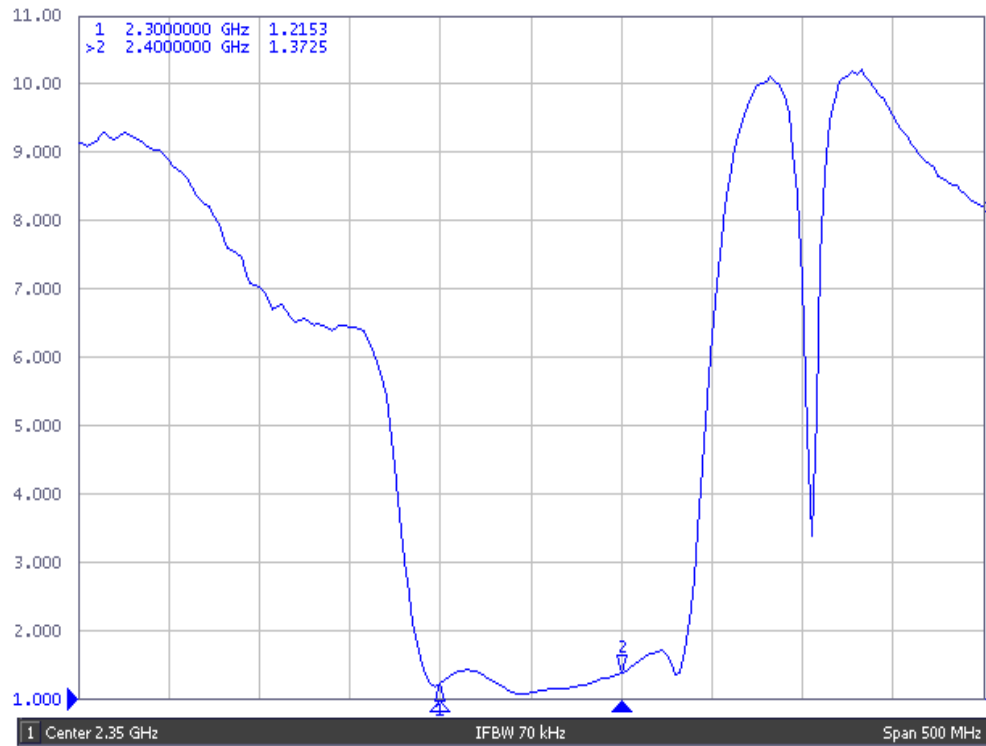


Far side

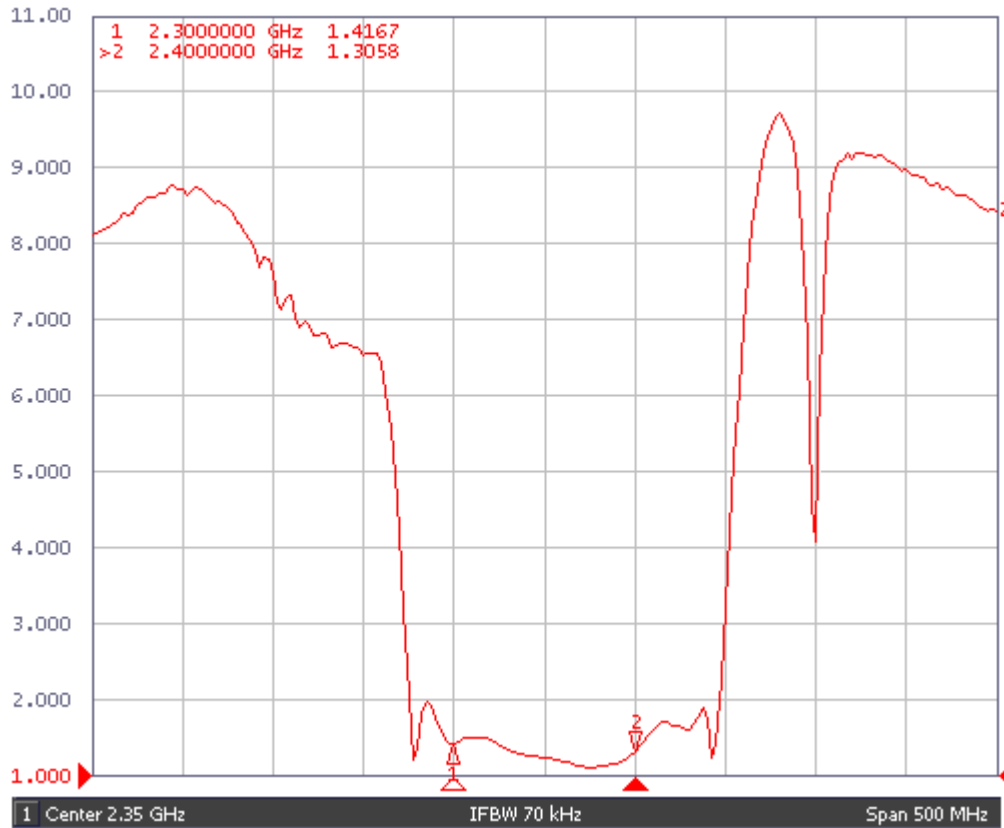


VSWR

▶ **Tr1** S11 SWR 1.000/ Ref 1.000



▶ **Tr2** S22 SWR 1.000/ Ref 1.000





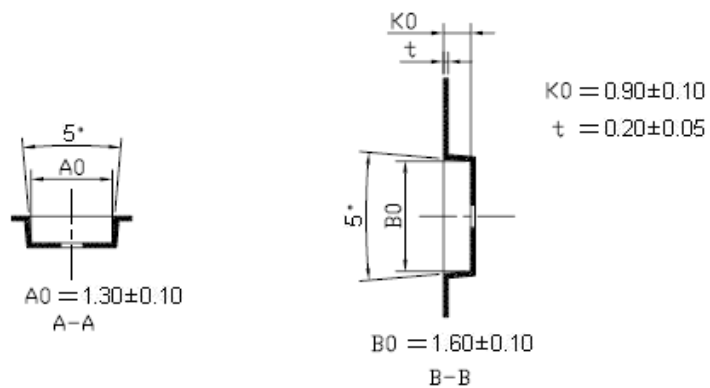
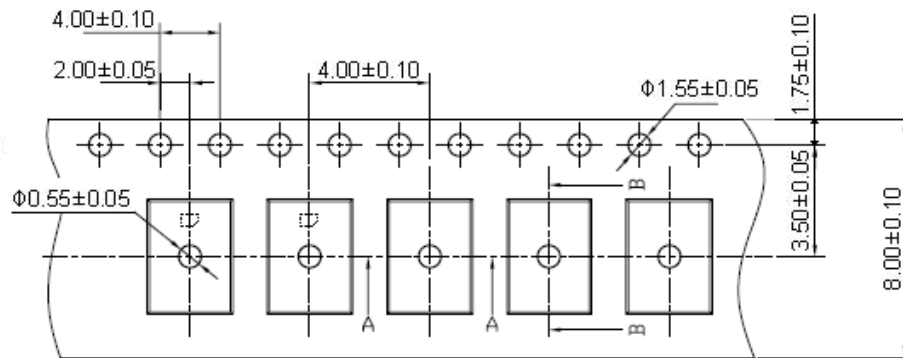
Stability Characteristics

•	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

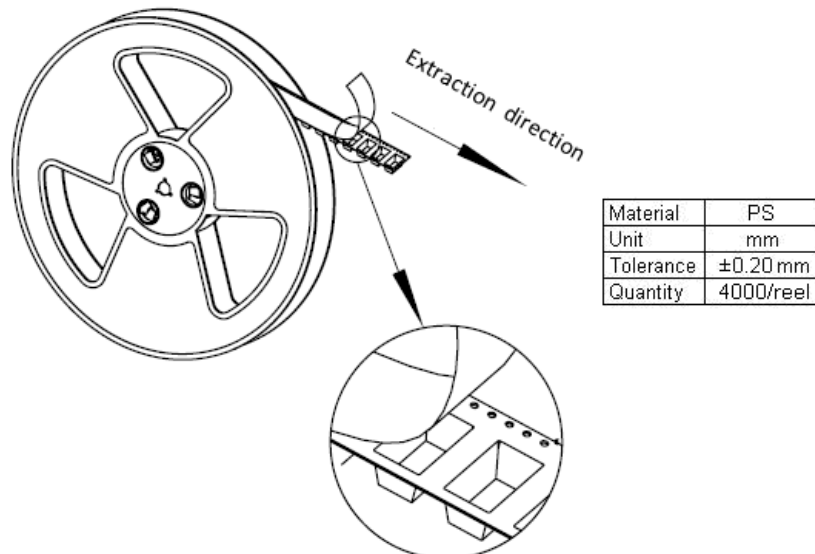
Requirements: The SAW filer shall remain within the electrical specifications after tests.

Packing Information

Carrier Tape



Reel Dimensions



Outer Packing

Type	Quantity	Dimension	Description	Weight
Carton Box I	40000	240x210x285	anti-static plastic bag & carton box 1 reel / bag	1.86
Carton Box II	120000	470x310x285	10bags / box (40000 pcs) 30 bags / box (120000pcs)	5.64

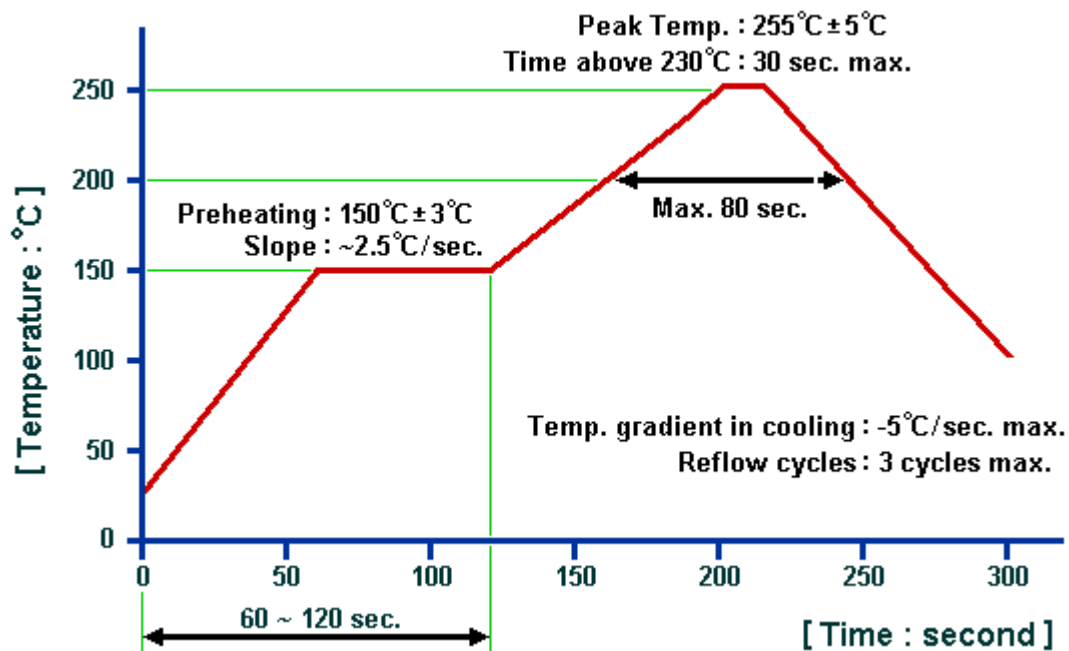
Unit: mm

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.