

SAW Single Filter

for B30 / Unbalanced / 5pin /1109

Pinnacle PN: SA3011092G35AT

Key Feature:

✓ B30 Rx

✓ High Attenuation

1 Description

SA3011092G35AT is a high-performance Surface Acoustic Wave (SAW) Band pass filter optimized for Band30 applications operating in the range of 2350-2360 MHz. It is designed to provide both low insertion loss in the Band30 and high rejection in the adjacent cellular Bands for mobile devices.

SA3011092G35AT uses advanced Chip Scale Package (CSP) technology and is housed in an industry-standard, 5-pin 1.1mm x 0.9mm package with a low profile of 0.6mm max.

2 Features

- High Rejection in B30 TX Band(2305-2315 MHz)
- Small Footprint: $0.25 \pm 0.03\text{mm} \times 0.20 \pm 0.03\text{mm}$.
- Package size $1.1 \pm 0.05\text{mm} \times 0.9 \pm 0.05\text{mm}$
- Approximate weight 2mg
- Moisture Sensitivity Level 3 (MSL3)
- Electrostatic Sensitive Device (ESD)
- Package height 0.6mm max.
- Single-Ended Operation
- RoHS Compliant

3 Package & Dimensions

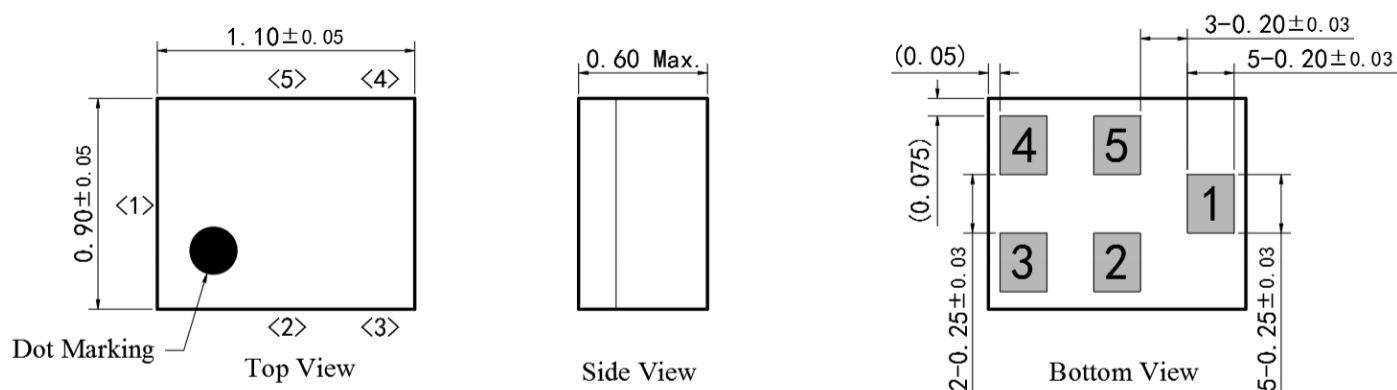


Figure 1: Drawing of Package with each tolerance range

4 Pin configuration

- 1 Input (recommended)
- 4 Output (recommended)
- 2,3,5 To be grounded

5 Matching Circuit(recommended)

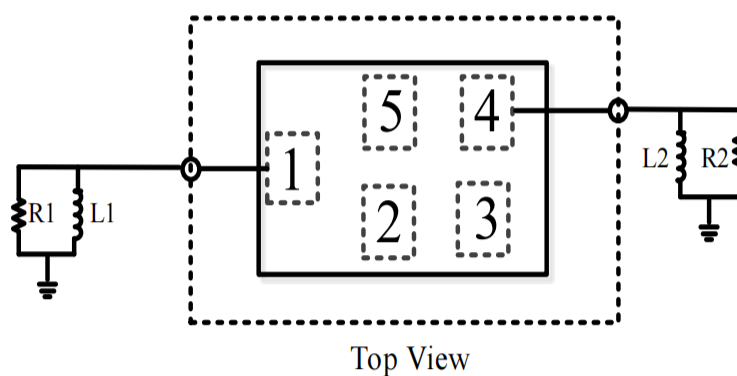


Figure 2: Schematic of matching circuit.

R1: 50 Ohm	L1: 18 nH
R2: 50 Ohm	L2: NC

6 Absolute Maximum Ratings

Parameter	Rating	Unit
Operating Temperature	-30 to +85	°C
Storage Temperature	-40 to +85	°C
Maximum Input Power	+15	dBm
Maximum DC Voltage	5	V

7 Recommended Soldering Profile

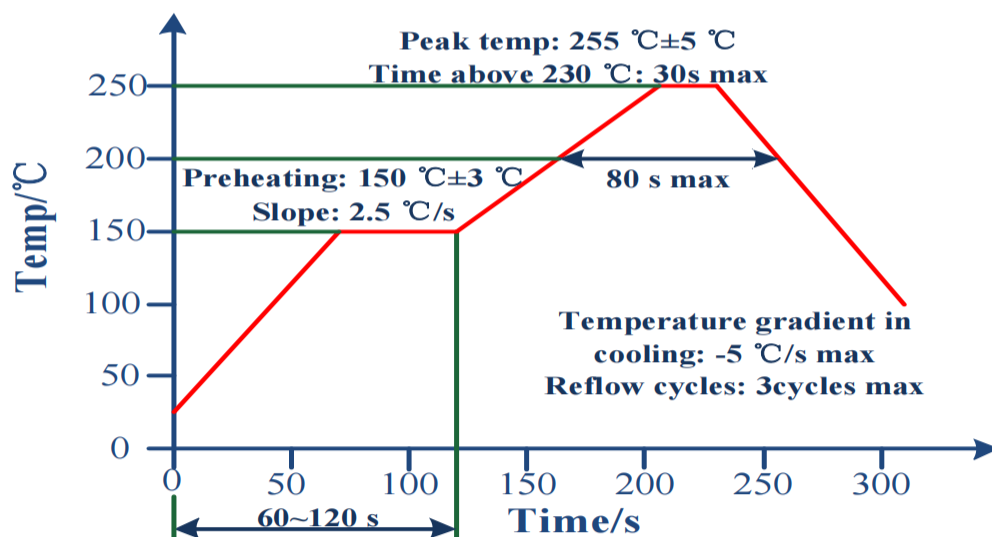


Figure 3 : Recommended Reflow profile for convection and infrared soldering-lead-free solder.

8 Electrical Specifications

(At $T_a=25^{\circ}\text{C}$, unless otherwise specified, as measured on the evaluation board of PRB30R11AULP1 with feed line loss de-embedded.)

Parameters		Characteristics			Unit
		-30 to +85°C			
		Min	Typ.	Max	
Insertion Loss	2350 - 2360 MHz	-	2.4	3.0	dB
Passband Ripple	2350 - 2360 MHz	-	0.4	1.0	dB
Attenuation	0.3 - 1980 MHz	34	40	-	dB
	2305 - 2315 MHz	30	42	-	dB
	2400 - 2484 MHz	20	35	-	dB
	2500 - 2570 MHz	36	41	-	dB
	4700 - 4720 MHz	38	43	-	dB
	5200 - 5900 MHz	31	34	-	dB
VSWR (input)	2350 - 2360 MHz	-	1.6	1.8	-
VSWR (output)	2350 - 2360 MHz	-	1.6	1.8	-

9 Transmission coefficients

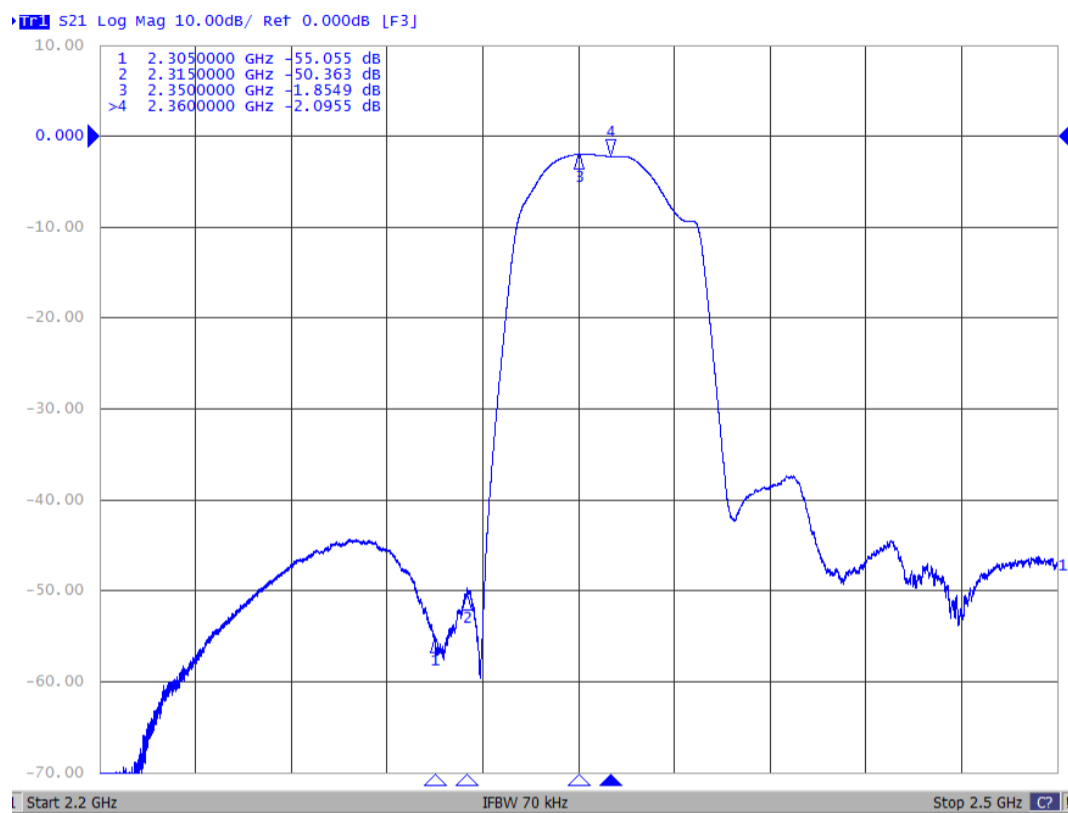


Figure 4:S21

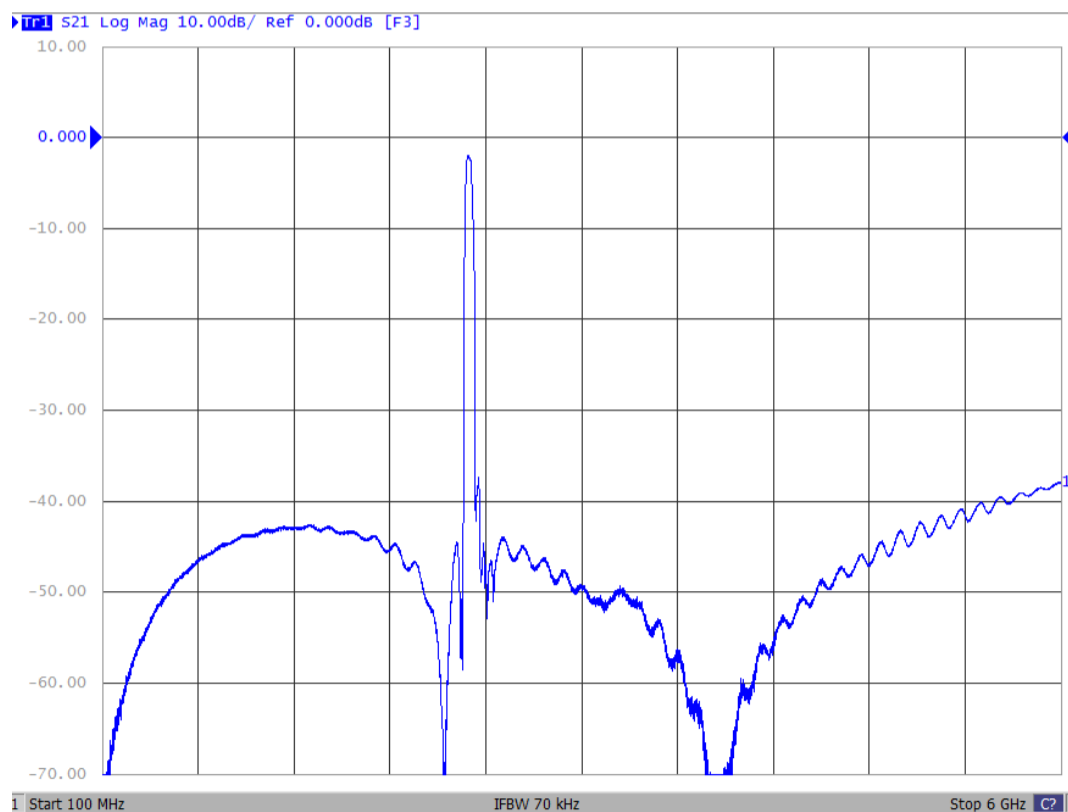


Figure 5: Wide Band S21

10 Packing material

10.1 Tape

Tensile Strength of Carrier Tape: Carrier tape 10N or more; Cover tape 5N or more. Packaging quantities: 5000 PCS / Reel.

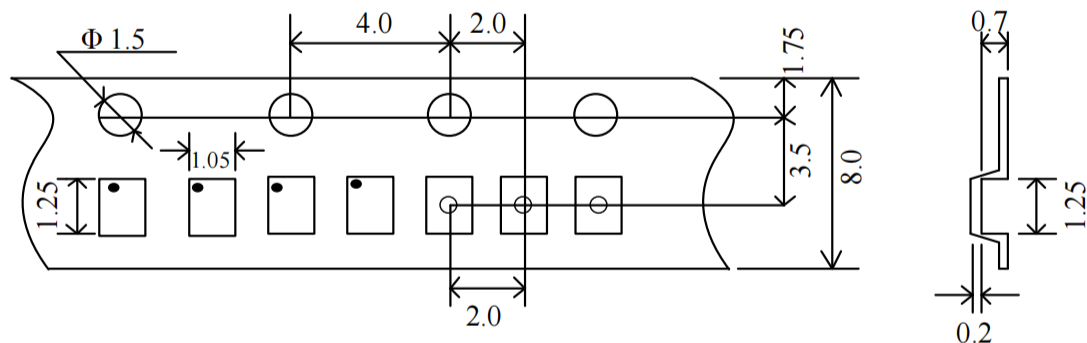


Figure 6: Drawing of tape with tape dimensions according above.

10.2 Reel with diameter of 178mm

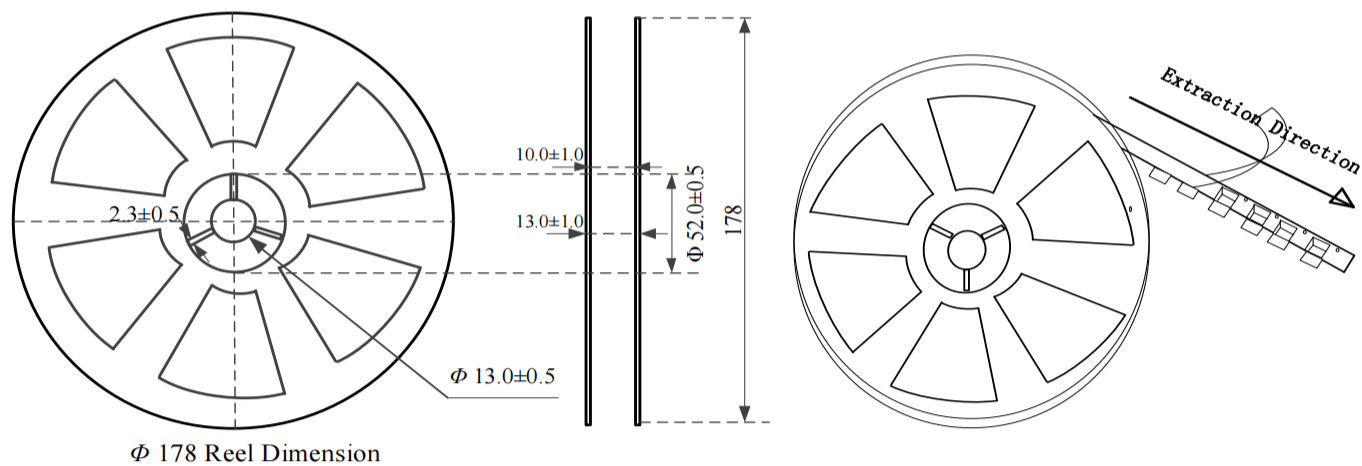


Figure 7: Drawing of reel with diameter of 178mm.