Spectron® Technologies

Data Sheet
2332.5MHz SAW 3030
SPT2332M3030A

V1.0

Description:

The Spectron SPT2332M3030A is a SAW filter that work frequency ranges from 2320MHz to 2345MHz.It is designed for applications in wireless module and Information& Communications filed.

The SPT2332M3030A provides +20 dBm power handling, low insertion loss and high out of band rejection.

The design and manufacturing of the SPT2332M3030A exploit Spectron's exclusive TSAW technology to deliver competitive performance against state of the art at a low cost.

The SPT2332M3030A is compatible with high volume, lead-free SMT soldering processes.

Features:

- Single-Ended Input and Output
- Terminating Impedance： 50 Ω
- RoHS Compliant

Specifications:

- Operation Temperature:-40°C to +85°C
- Usable passband 25.0 MHz
- Compact miniature size
  - 3.0 mm × 3.0 mm footprint
  - 1.25 mm max-height

Applications:

- Information& Communications Devices
- Wireless module
- Satellite Radio antenna modules
- Satellite Radio devices

Electrical Specifications

Table 1 Electrical Specifications. Test Temperature: 25℃±2℃

Item		Minimum	Typical	Maximun	Unit
Center Frequency	-	-	2332.50	-	MHz
Insertion Loss	2320.00 - 2345.00MHz	-	2.6	3.0	dB
Ripple Deviation	2320.00 - 2345.00MHz	-	0.6	1.0	dB
Group Delay	2320.00 - 2345.00MHz		10	30	ns
VSWR	2320.00 - 2345.00MHz	-	1.5	2.0	-
Attenuation	DC-2085.00MHz	25	38	-	dB
	2097.00-2230.00MHz	25	35	-	dB
	2100.00MHz	35	50	-	dB
	2400.00MHz	35	45	-	dB
	2235.00-2256.00MHz	15	30	-	dB
	2600.00-3000.00MHz	25	35	-	dB

Figure 1 Electrical Characteristics: Frequency response.

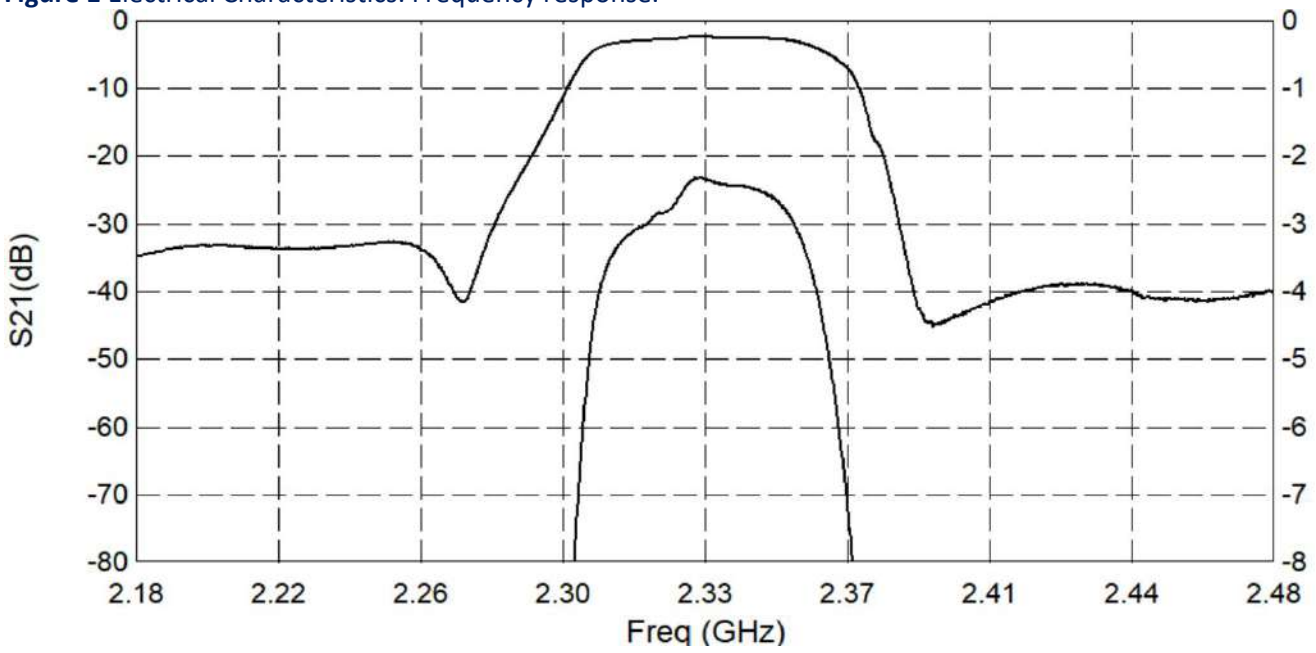
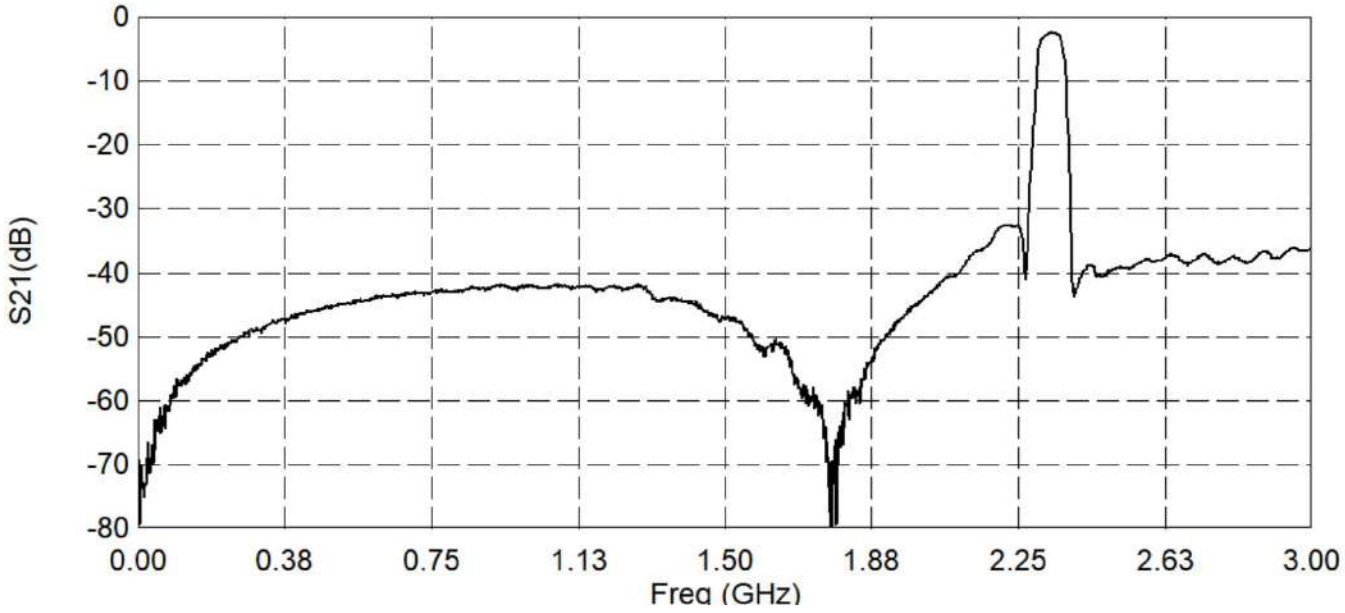
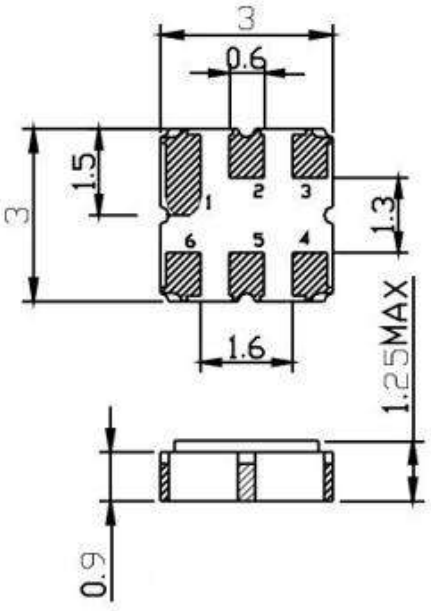


Figure 2 Electrical Characteristics: Frequency response. （Wide Band）



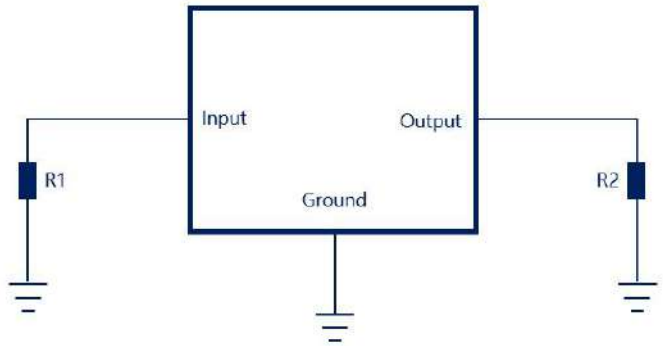
Package & Dimensions



Pin No.	Description
2	Input
5	Output
1,3,4,6	Case Ground

All dimensions are in millimeters. Angles are in degrees.
All tolerances are ±0.1mm unless other specified.

Matching



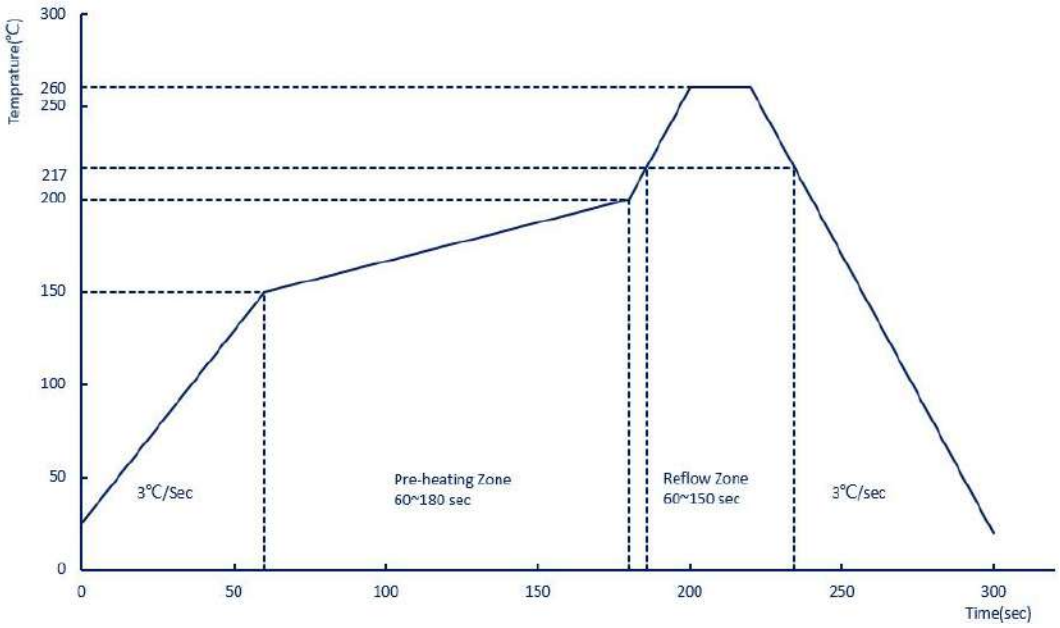
Port	Matching Component[1]
Input	R1: 50Ω
Output	R2: 50Ω

Matching component values shown are recommended based on the Spectron evaluation board.
Value adjustment may be required on the end-user's circuit boards for the selected component manufacturer and PCB material.

Maximum Ratings

Item		Value	Unit
Operation Temperature	T	-40 ~ +85	℃
Storage Temperature	T_{stg}	-40 ~ +85	℃
RF Power Dissipation	P	20	dBm

Recommended SMT Solder Profile



Ordering Information

Part Number	Number of Devices	Container
SPT2332M3030A	1000pcs or 3000pcs	Tape and Reel

Reliability

No.	Test item	Test condition
1	Temperature Storage	Temperature: 85℃±2℃ , Duration: 250h , Recovery time: 2h±0.5h (2) Temperature: –55℃±3℃ , Duration: 250h ,Recovery time: 2h±0.5h
2	Humidity Test	Conditions: 60℃±2℃ ,90~95% RH Duration: 250h
3	Thermal Shock	Heat cycle conditions: TA=-55℃±3℃, TB=85℃±2℃, t1=t2=30min, Switch time: ≤3min, Cycle time: 100 times, Recovery time: 2h±0.5h.
4	Vibration Fatigue	Frequency of vibration: 10~55Hz Amplitude:1.5mm Directions: X,Y and Z Duration: 2h
5	Drop Test	Cycle time: 10 times Height: 1.0m
6	Solder Ability Test	Temperature: 245℃±5℃ Duration: 3.0s--5.0s Depth: DIP--2/3 , SMD--1/5
7	Resistance to Soldering Heat	(1) Thickness of PCB:1mm , Solder condition: 260℃±5℃ , Duration: 10±1s (2) Temperature of Soldering Iron: 350℃±10℃, Duration: 3~4s, Recovery time : 2 ± 0.5h