

Data Sheet 932MHz SAW 3030 SPT932M30E

V1.0

Features:

- Ceramic Package for Surface Mounted Technology (SMT)
- RoHS compatible
- Package size 3.00x3.00x1.25mm³
- Electrostatic Sensitive Device(ESD)

Specifications:

- Operation Temperature:-40°C to +85°C
- Compact miniature size
 - $3.0 \text{ mm} \times 3.0 \text{ mm}$ footprint
 - 1.25 mm max-height

Applications:

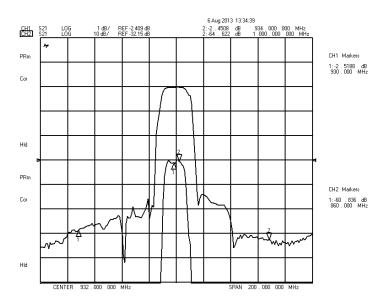
- Low-loss SAW component
- Low amplitude ripple
- Sharp rejections at both out-bands
- Usable passband 4.0 MHz

Electrical Specifications. Test Temperature: $25^{\circ}\text{C} \pm 2^{\circ}\text{C}$

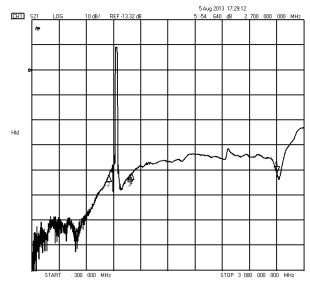
Item		Minimum	Typical	Maximum	Unit
Center Frequency	fc		932.00		MHz
Insertion Loss(min)	IL		2.5	3.2	dB
Insertion Loss 930.00-934.00MHz	IL		2.7	3.5	dB
Amplitude Ripple (p-p) 930.00-934.00MHz	Δα		0.6	1.0	dB
Group Delay Ripple 930.00-934.00MHz	GDR		10.0	30.0	ns
Absolute Attenuation	α				
DC - 490.00 MHz		50.0	55.0		dB
490.00 -850.00 MHz		45.0	50.0		dB
850.00 -860.00 MHz		45.0	50.0		dB
1000.00-1080.00MHz		45.0	50.0		dB
1080.00 -1100.00 MHz		50.0	53.0		dB
1100.00 -2700.00 MHz		35.0	40.0		dB
2700.00 -3000.00 MHz		25.0	30.0		dB
Input VSWR 930.00-934.00MHz			1.5:1	2.0:1	/
Output VSWR 930.00-934.00MHz			1.5:1	2.0:1	/

Frequency Characteristics.

Frequency Response

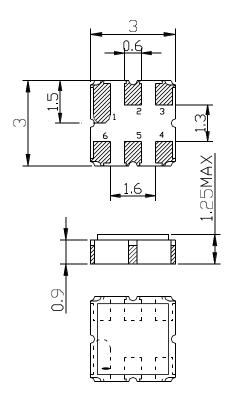


Frequency Response (wideband)



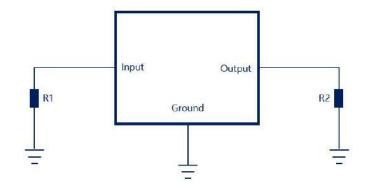
CH1 Markers
1:-77 . 111 d8
490 . 000 MH2
2:-55 . 312 d8
850 . 000 MH2
3:-55 . 202 d8
1. 08000 GHz
4:-54 . 548 d8
1. 10000 GHz

Package & Dimensions



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

Matching



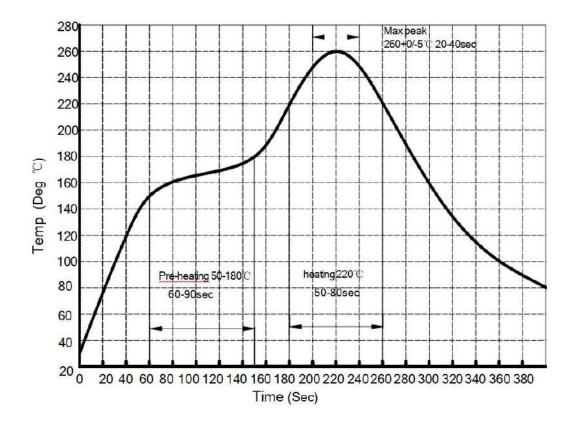
Port	Matching Component ¹		
Input	R1 : 50 Ω		
Output	R2 : 50 Ω		

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

ltem		Value	Unit
DC Voltage	VDC	5	V
Operation Temperature	Т	-40 ~ +85	°C
Storage Temperature	T _{stg}	-40 ~ +85	°C
RF Power Dissipation	Р	20	dBm

Recommended Reflow Soldering Diagram



Ordering Information

Part Number	Number of Devices	Container
SPT932M30E	1000pcs	Tape and Reel

Reliability

No.	Test item	Test condition	
1	Temperature Storage	Temperature: $85^{\circ}C\pm 2^{\circ}C$, Duration: 250h, Recovery time: $2h\pm 0.5h$ (2) Temperature: $-55^{\circ}C\pm 3^{\circ}C$, Duration: 250h, Recovery time: $2h\pm 0.5h$	
2	Humidity Test	Conditions: 60°C±2°C ,90~95% RH Duration: 250h	
3	Thermal Shock	Heat cycle conditions: TA=-55°C±3°C, TB=85°C±2°C, 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°C±5°C Duration: 3.0s5.0s Depth: DIP2/3 , SMD1/5	
7	Resistance to Soldering Heat	 (1) Thickness of PCB:1mm , Solder condition: 260°C±5°C , Duration: 10±1s (2) Temperature of Soldering Iron: 350°C±10°C, Duration: 3~4s, Recovery time : 2 ± 0.5h 	

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