



**Data Sheet**  
**865MHz SAW 3030**  
**SPT865M30E**

V1.0

**Features:**

- Ceramic Package for Surface Mounted Technology (SMT)
- RoHS compatible
- Package size 3.00x3.00x1.25mm<sup>3</sup>
- Electrostatic Sensitive Device(ESD)

**Specifications:**

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

**Applications:**

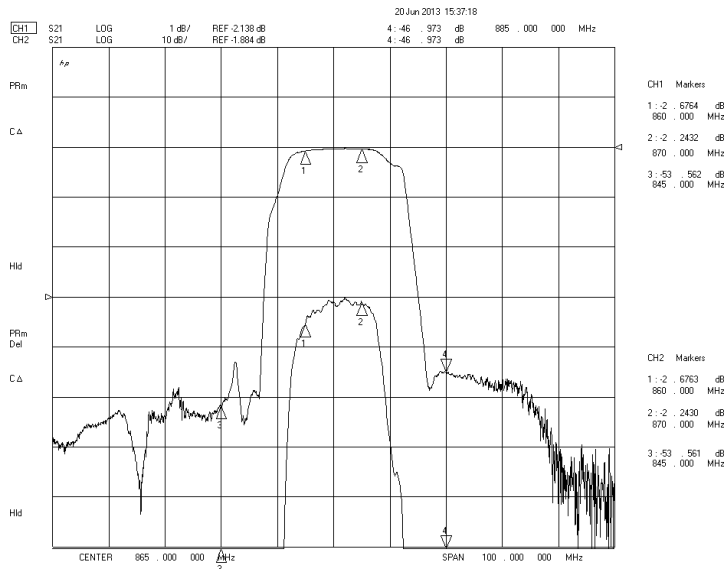
- Low-loss SAW component
- Low amplitude ripple
- Sharp rejections at both out-bands
- Usable passband 10.0 MHz

**Electrical Specifications.** Test Temperature: 25°C±2°C

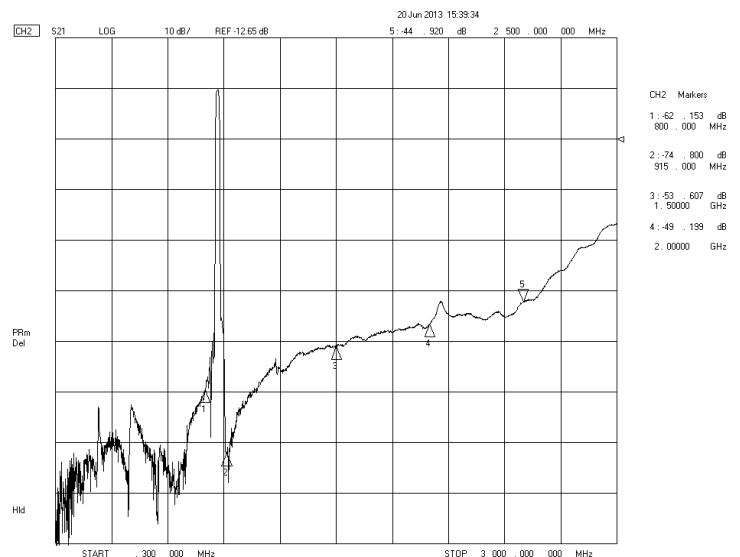
Item		Minimum	Typical	Maximum	Unit
Center Frequency	fc		865.00		MHz
Insertion Loss(min)	IL		2.3	2.5	dB
Insertion Loss	860.00 - 870.00 MHz	IL	2.7	3.2	dB
Amplitude Ripple (p-p)	860.00 - 870.00 MHz	$\Delta\alpha$	0.5	1.0	dB
Group Delay Ripple	860.00 - 870.00 MHz	GDR	30.0	60.0	ns
Absolute Attenuation	$\alpha$				
	DC - 845.00 MHz	45.0	50.0		dB
	885.00 - 915.00 MHz	40.0	45.0		dB
	915.00 - 1500.00 MHz	45.0	50.0		dB
	1500.00 - 2500.00 MHz	35.0	40.0		dB
	2500.00 - 3000.00 MHz	23.0	25.0		dB
Input VSWR	860.00 - 870.00 MHz		1.4:1	2.0:1	/
Output VSWR	860.00 - 870.00 MHz		1.4:1	2.0:1	/

**Frequency Characteristics.**

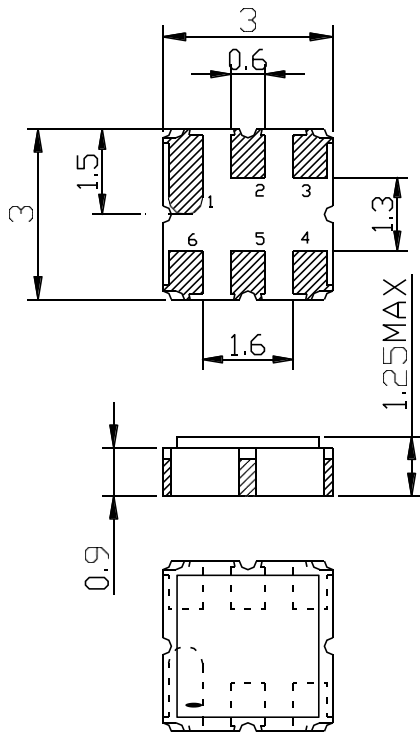
**Frequency Response**



**Frequency Response (wideband)**

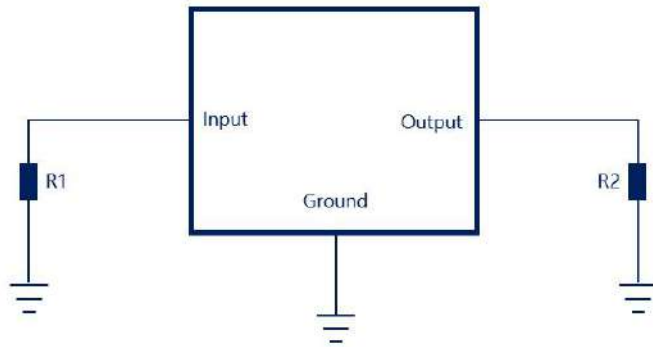


**Package & Dimensions**



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

**Matching**



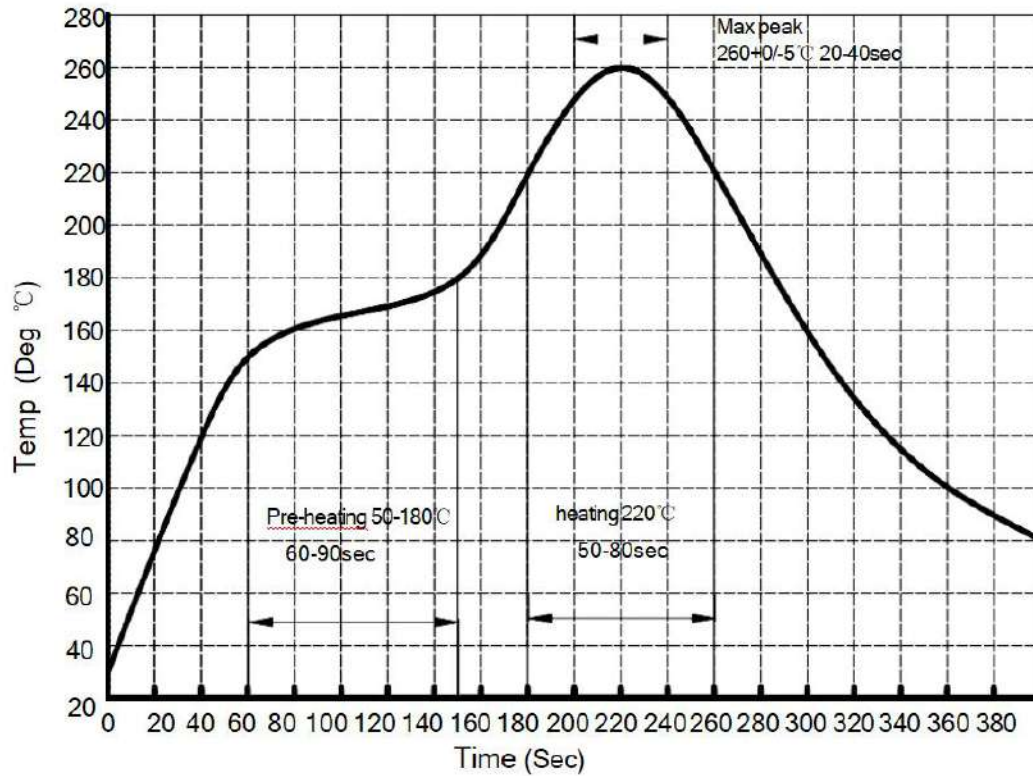
Port	Matching Component <sup>1</sup>
Input	R1: 50Ω
Output	R2: 50Ω

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
DC Voltage	V <sub>dc</sub>	5	V
Operation Temperature	T	-40 ~ +85	°C
Storage Temperature	T <sub>stg</sub>	-40 ~ +85	°C
RF Power Dissipation	P	20	dBm

## Recommended Reflow Soldering Diagram



## Ordering Information

Part Number	Number of Devices	Container
SPT865M30E	1000pcs	Tape and Reel

