



Data Sheet
433.92MHz SAW 5050
SPT434M5050A

V1.0

Description:

The Spectron SPT434M5050A is a SAW filter that work frequency ranges from 430.92 to 436.92MHz. It is designed for applications in remote control, wireless module and Information & Communications filed.

The SPT434M5050A provides +20 dBm power handling, low insertion loss and high out of band rejection.

The design and manufacturing of the SPT434M5050A exploit Spectron's exclusive TSAW technology to deliver competitive performance against state of the art at a low cost.

The SPT434M5050A is compatible with high volume, lead-free SMT soldering processes.

Features:

- Single-Ended Input and Output
- Terminating Impedance: 50 Ω
- RoHS Compliant
- Package size 5.00x5.00x1.50mm³

Specifications:

- Operation Temperature: -40°C to +85°C
- Low-loss SAW component
- Low amplitude ripple
- Sharp rejections at both out-bands
- Usable passband 6 MHz

Applications:

- Information & Communications Devices
- Remote control
- Wireless module

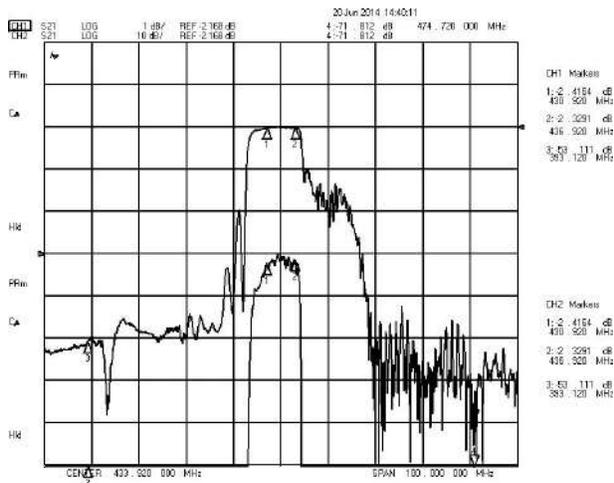
Electrical Specifications**Table 1** Electrical Specifications.

Item		Minimum	Typical	Maximum	Unit
Center Frequency	fc		433.92		MHz
Insertion Loss(min)	IL		2.2	3.0	dB
Insertion Loss 430.92 – 436.92 MHz	IL		2.5	3.5	dB
Amplitude Ripple (p-p) 430.92 – 436.92 MHz	Δa		0.5	1.5	dB
Group Delay Ripple 430.92 – 436.92 MHz	GDR		40.0	80.0	ns
Absolute Attenuation	a				
DC – 333.92 MHz		40.0	45.0		dB
333.92 - 393.12 MHz		40.0	45.0		dB
474.72 - 533.92 MHz		45.0	50.0		dB
533.92 - 1000.00 MHz		45.0	50.0		dB
1000.00 - 1500.00 MHz		30.0	35.0		dB
1500.00 - 2000.00 MHz		20.0	25.0		dB
Input VSWR 430.92 – 436.92 MHz			1.5:1	2.0:1	/
Output VSWR 430.92 – 436.92 MHz			1.5:1	2.0:1	/

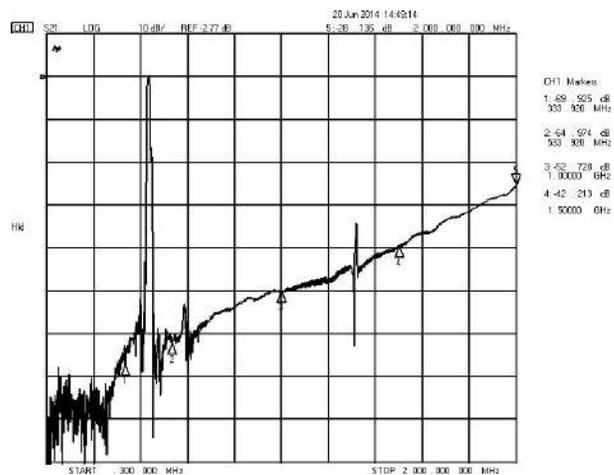
1. Min/Max specifications are guaranteed at the indicated temperature (unless otherwise noted).
2. Typical data is the average value (arithmetic mean) of the parameter over the indicated band at +25°C

Figure 1 Electrical Characteristics: Frequency response.

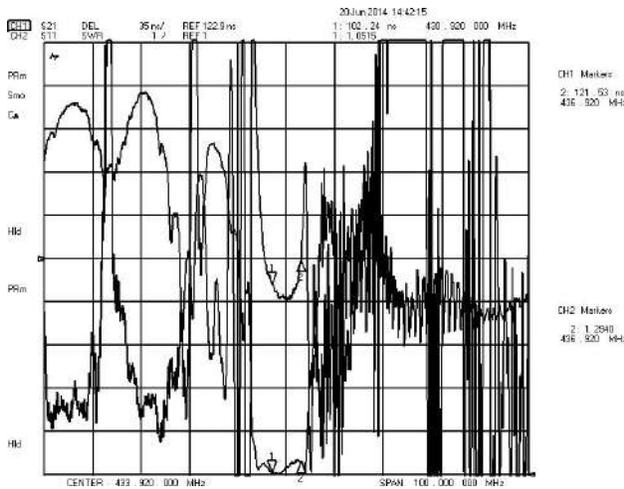
Frequency Response



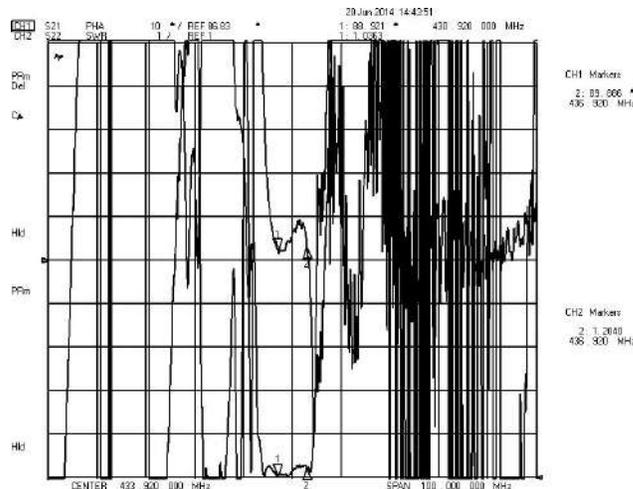
Frequency Response (wideband)



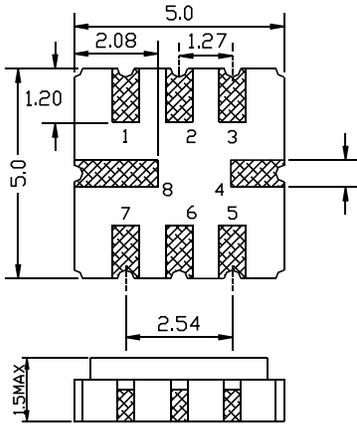
Delay Ripple & S11 VSWR



Phase Linearity & S22 VSWR

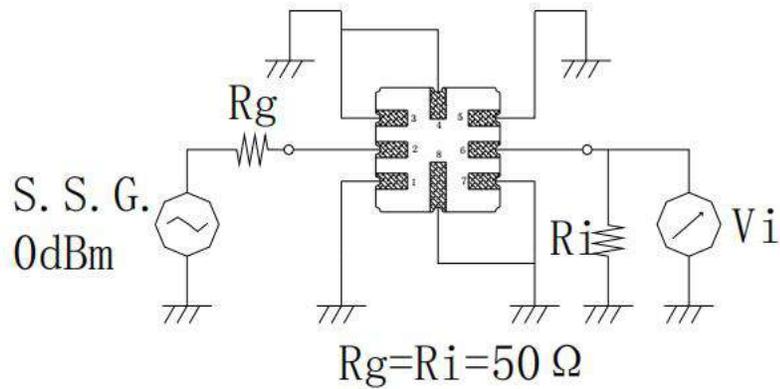


Package & Dimensions



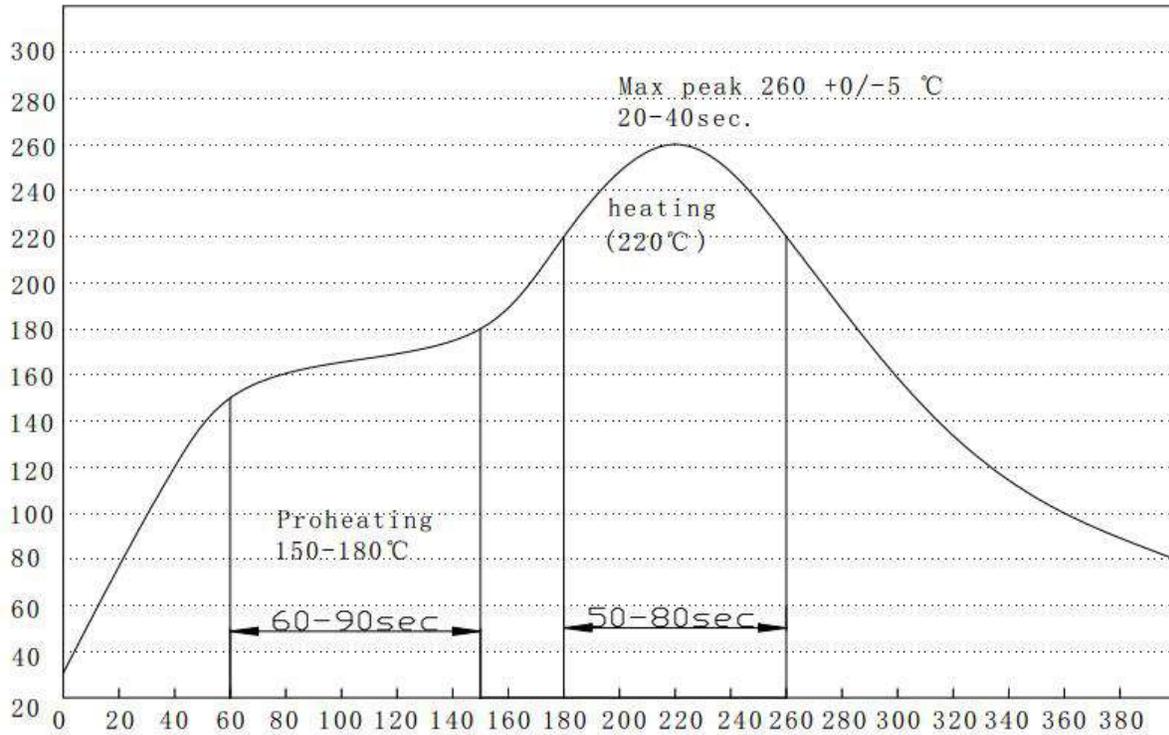
Pin No.	Description
2	Input
6	Output
1,3,4,5,7,8	Ground

Test circuit



Maximum Ratings

Item		Value	Unit
Operation Temperature	T	-40 ~ +85	°C
Storage Temperature	T _{stg}	-40 ~ +125	°C
RF Power Dissipation	P	20	dBm

Recommended SMT Solder Profile**Ordering Information**

Part Number	Number of Devices	Container
SPT434M5050A	1000pcs	Tape and Reel

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