

Data Sheet 2605MHz SAW 3030 SPT2605M3030A

V1.0

Description:

The Spectron SPT2605M3030A is a SAW filter that designed for applications in IOT equipments and Information& Communications filed.

The SPT2605M3030A provides +20 dBm power handling, low insertion loss and high out of band rejection.

The design and manufacturing of the SPT2605M3030A exploit Spectron's exclusive TSAW technology to deliver competitive performance against state of the art at a low cost.

The SPT2605M3030A 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 60.0 MHz
- Compact miniature size
 - $3.0 \text{ mm} \times 3.0 \text{ mm}$ footprint
 - 1.25 mm max-height

Applications:

- IOT equipments
- Information& Communications Devices

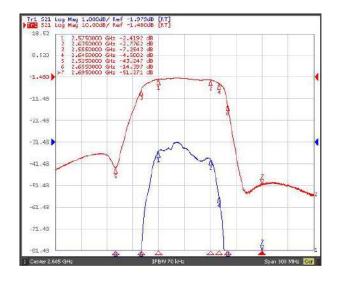
Electrical Specifications

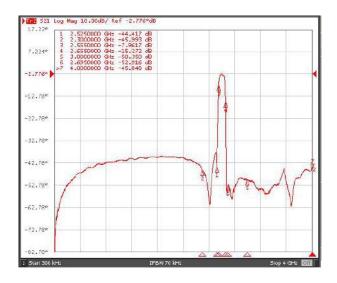
 Table 1 Electrical Specifications.

Test Temperature: 25°C±2°C

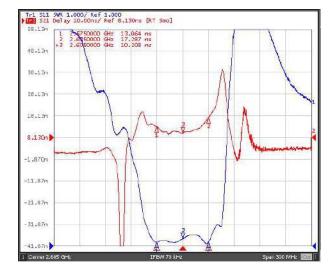
Item		Minimum	Typical	Maximum	Unit
Center Frequency	fc		2605.00		MHz
Insertion Loss(min)	IL		2.0	2.5	dB
Insertion Loss 2575.00 - 2635.00 MHz	IL		2.8	4.0	dB
Amplitude Ripple (p-p) 2575.00 - 2635.00 MHz	Δa		0.9	2.5	dB
Group Delay Ripple 2575.00 - 2635.00 MHz	GDR		10.0	30.0	ns
Absolute Attenuation	а				
DC – 2525.00 MHz		30.0	35.0		dB
2525.00 – 2555.00 MHz		3.0	6.0		dB
2645.00 – 2655.00 MHz		1.0	2.0		dB
2655.00 – 2695.00 MHz		3.0	10.0		dB
2695.00 - 4000.00 MHz		25.0	30.0		dB
Input VSWR 2575.00 - 2635.00 MHz			1.6:1	2.0:1	/
Output VSWR 2575.00 - 2635.00 MHz			1.6:1	2.0:1	/

Figure 1 Electrical Characteristics: Frequency response.

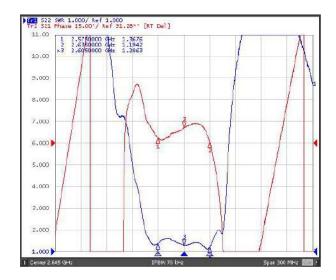




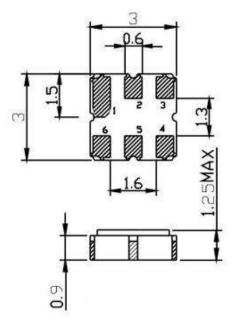
Delay Ripple & S11 VSWR



Phase Linearity & S22 VSWR

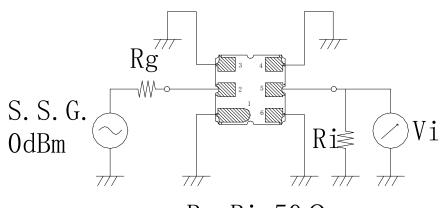


Package & Dimensions



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

Test circuit

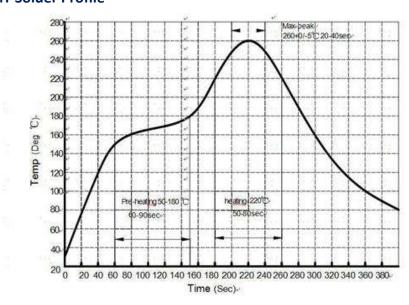


Rg=Ri=50 Ω

Maximum Ratings

Item		Value	Unit
Operation Temperature	Т	-40 ~ +85	°C
Storage Temperature	T_{stg}	-40 ~ +125	°C
RF Power Dissipation	Р	20	dBm

Recommended SMT Solder Profile



Ordering Information

Part Number	Number of Devices	Container
SPT2605M3030A	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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