



Data Sheet
540MHz SAW 3838
SPT540M38E

V1.0

Features:

- Ceramic Package for Surface Mounted Technology (SMT)
- RoHS compatible
- Package size 3.80x3.80x1.50mm³
- Electrostatic Sensitive Device(ESD)

Specifications:

- Operation Temperature:-40°C to +85°C
- Compact miniature size
 - 3.8 mm × 3.8 mm footprint
 - 1.50 mm max-height

Applications:

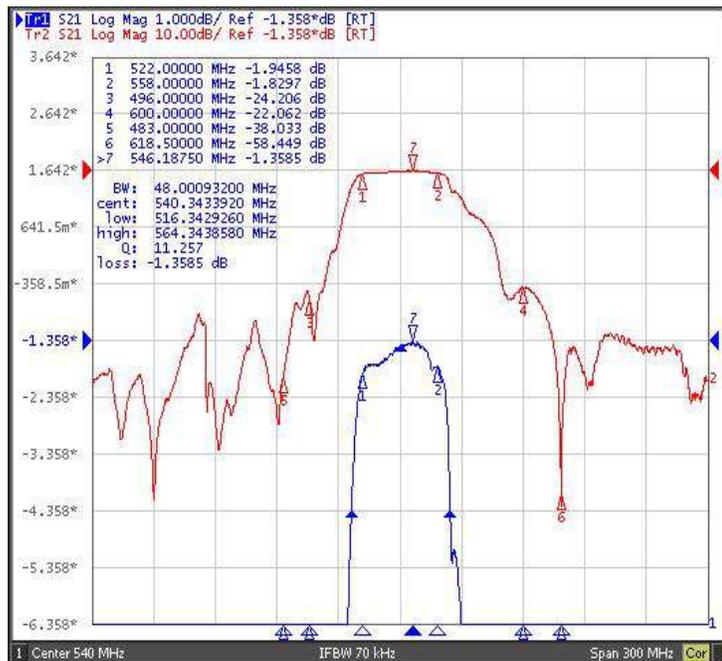
- Low-loss SAW component
- Low amplitude ripple
- Sharp rejections at both out-bands
- Usable passband 36.0 MHz

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

Item		Minimum	Typical	Maximum	Unit
Center Frequency	fc		540.00		MHz
Insertion Loss(min)	IL		1.6	2.5	dB
Insertion Loss	522.00 - 558.00 MHz IL		2.5	3.0	dB
1dB Bandwidth	BW _{1dB}	40.0	41.5		MHz
3 dB Bandwidth	BW _{3dB}		47.0		MHz
Amplitude Ripple (p-p)	522.00 - 558.00 MHz $\Delta\alpha$		0.8	1.2	dB
Group Delay Ripple	522.00 - 558.00 MHz GDR		15.0	35.0	ns
Absolute Attenuation	α				
	DC - 409.00 MHz	28.0	32.0		dB
	409.00 - 483.00 MHz	20.0	25.0		dB
	496.00 MHz	20.0	22.0		dB
	600.00 MHz	20.0	22.0		dB
	618.50 - 723.50 MHz	25.0	30.0		dB
	723.50 - 873.00 MHz	18.0	22.0		dB
	873.00 - 1310.00 MHz	25.0	30.0		dB
	1310.00 - 2000.00 MHz	25.0	30.0		dB
Input VSWR	522.00 - 558.00 MHz		1.8:1	2.0:1	/
Output VSWR	522.00 - 558.00 MHz		1.8:1	2.0:1	/

Frequency Characteristics.

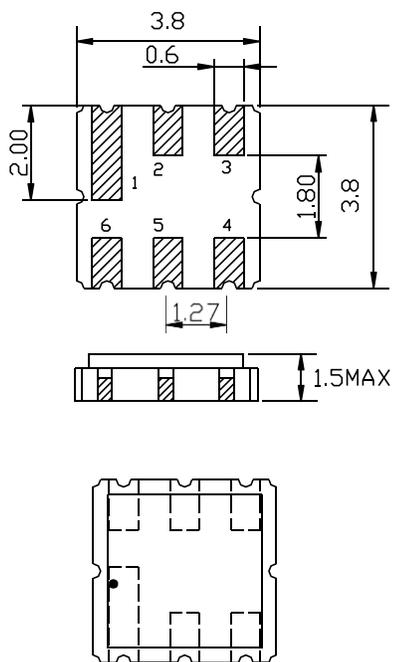
Frequency Response



Frequency Response (wideband)

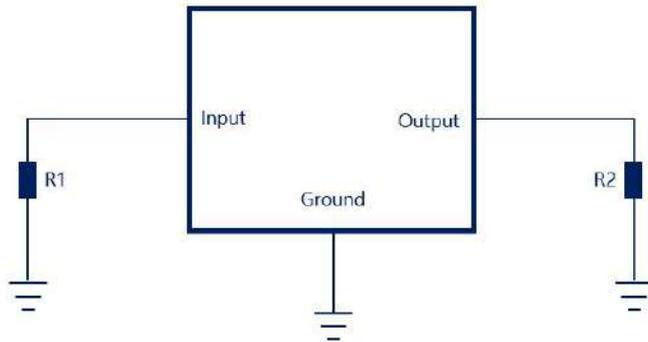


Package & Dimensions



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

Matching



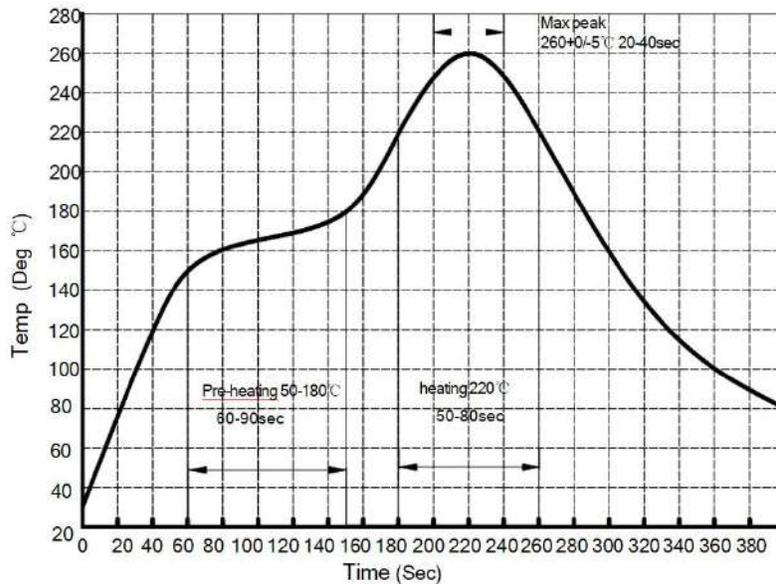
Port	Matching Component ¹
Input	R1: 50Ω
Output	R2: 50Ω

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
DC Voltage	V _{dc}	3	V
Operation Temperature	T	-40 ~ +85	°C
Storage Temperature	T _{stg}	-40 ~ +85	°C
RF Power Dissipation	P	10	dBm

Recommended Reflow Soldering Diagram



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