APPROVAL SHEET SHENZHEN PUWEI TECHNOLOGY CO.,LTD.

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Product Description: SAW Filter 70.0 MHz SMD 27.20×12.64x5.50mm (BW=480KHz)

Part No.	PV0M70N
Pages	7
Date	2020/07/20
Revision	1.0



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History Record

Date	Part No.	Version No.	Modify Content	Remark

SAW Filter

PV0M70N

Application

- Low-loss SAW component
- Low amplitude ripple
- Sharp rejections at both out-bands
- Usable passband 480 KHz
- Low Shape factor

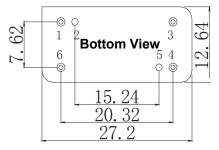
Maximum Rating

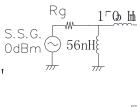
Features

- RoHS compatible
- Package size 27.20x12.64x5.50mm³
- Package Code DIP2712Electrostatic
- SensitiveDevice(ESD)

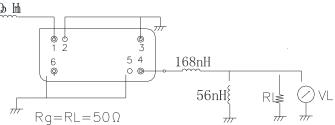
ltem	Value	Unit	
DC Voltage	V _{DC}	3	V
Operation Temperature	Т	-40 ~ +85	°C
Storage Temperature	T _{stg}	-55 ~ +125	°C
Input Power Level	Р	10	dBm

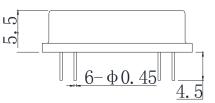
Package Dimensions (Unit: mm)





Test Circuit (Bottom View)





0M70N

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PV

Pin Configuration

1	Input
4	Output
2,3,5,6	Ground

Top View, Laser Marking

■ "PV": Manufacturer's mark "0M70N": Part number "·": Terminal 1

• " * ": Lot number (The code shown below varies in a 4-year cycle)

TOLERANCE : ± 0.2

UNIT:mm

Code	1	2	3	4	5	6	7	8	9	10	11	12
2021	а	b	С	d	е	f	g	h	i	j	k	m
2022	n	р	q	r	s	t	u	v	w	x	у	z
2023	A	В	С	D	E	F	G	Н	J	К	L	М
2024	N	Р	Q	R	S	Т	U	V	W	Х	Y	Z

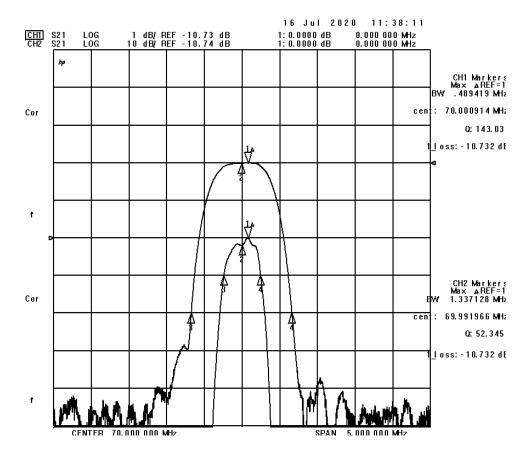
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Electronic Characteristics Test Temperature: $25^{\circ}C \pm 2^{\circ}C$

Terminating source impedance: 50 Ω

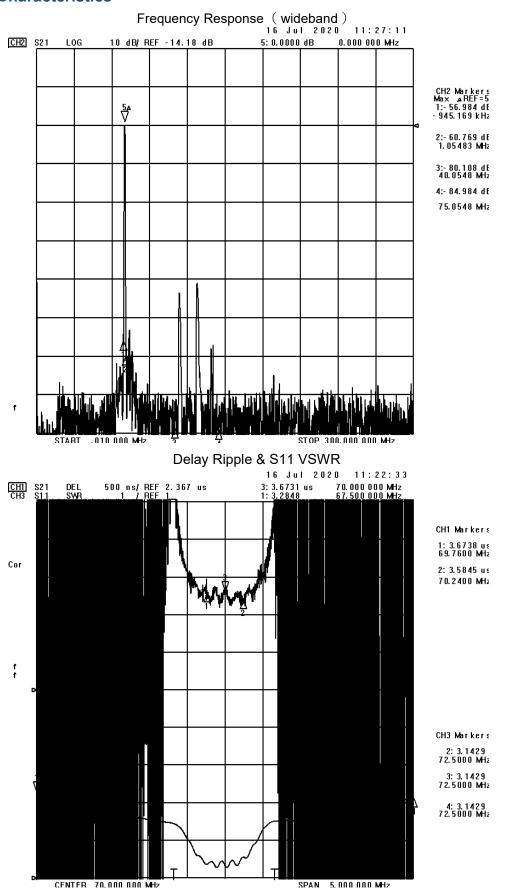
Item		Minimum	Typical	Maximum	Unit
Center Frequency	fc	69.95	70.00	70.05	MHz
Insertion Loss(min)	IL		10.6	12.0	dB
Amplitude Ripple (p-p)	∆a		0.3	0.5	dB
1 dB Bandwidth	BW1dB	480	490		KHz
3 dB Bandwidth	BW3dB		678	700	KHz
Shape factor	BW40dB /BW3dB		2.0	2.5	
Absolute Attenuation	а				
DC - 139.20 MHz		45.0	55.0		dB
71.00 - 110.00 MHz		40.0	54.0		dB
110.00-145.00 MHz		35.0	40.0		dB
145.00-300.00 MHz		40.0	60.0		dB
Input VSWR			1.5		
Onput VSWR			1.5	2.5	

Frequency Characteristics



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Frequency Characteristics

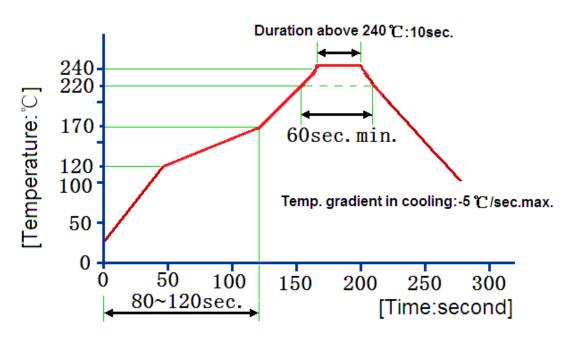


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No.	Test item	Test condition
1	Temperature Storage	(1) Temperature: $85^{\circ}C\pm 2^{\circ}C$, Duration: 250h, Recovery time:2h±0.5h (2) Temperature: $-55^{\circ}C\pm 3^{\circ}C$, Duration: 250h, Recovery time:2h±0.5h
2	Humidity Test	Conditions: 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: \leq 3min, Cycle time: 100 times, Recovery time: 2h±0.5h.
4	Vibration Fatigue	Frequency of vibration: 10~55HzAmplitude:1.5mmDirections: X,Y and ZDuration: 2h
5	Drop Test	Cycle time: 10 times Height: 1.0m
6	Solder Ability Test	Temperature: 245°C±5°CDuration: 3.0s5.0sDepth: 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

Reliability (The SAW components shall remain electrical performance after tests)

Recommended Reflow Soldering Diagram



Reflow cycles:3 cycles max.

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Notes

- 1. As a result of the particularity of inner structure of SAW products, it easy to be breakdown by electrostatic, so we should pay attention to **ESD protect** in thetest.
- 2. **Static voltage** between signal load and ground may cause deterioration and destruction of the component. Please avoid static voltage.
- 3. **Ultrasonic cleaning** may cause deterioration and destruction of the component. Please avoid ultrasonic cleaning.
- 4. Only leads of component may be soldered. Please avoid soldering another part of component.
- 5. There is a close relationship between the device's performance and **matching network**. The specifications of this device are based on the test circuit shown above. L and C values may change depending on board layout. Values shown are intended as a guideonly.