

SPECIFICATION
COMMERCIALY AVAILABLE

ITEM: SAW BAND PASS
PART NUMBER: SF0450001
RoHS

2/5/2019: Changed Minimum Stop Band Attenuation at 453 MHz from 40dB to 30dB. Changed Typical Stop Band Attenuation at 453 MHz from 45dB to 33dB. Removed the matching requirement on the test circuit shown in section 3. Replaced with new test circuit diagram.

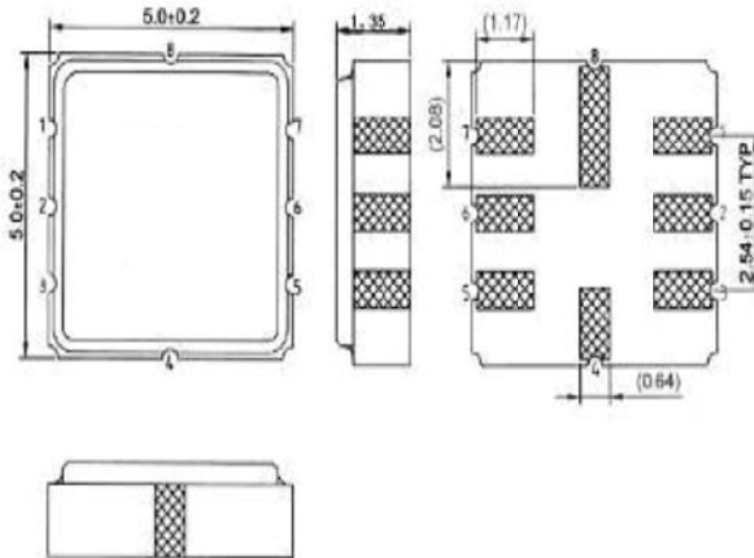
ISSUED / REVISION	ENGINEER APPROVED	DOCUMENT CHECKED	DRAFTSMAN
5/2/18 ^(KR)			
2/5/2019 ^(CJG)	2/5/2019 ^(TG)		

FILTRONETICS Inc

1. Electrical Specifications:

	UNIT	MINIMUM	TYPICAL	MAXIMUM
Center Frequency	MHz	-	450	-
Insertion Loss	dB	-	-	6
3 dB Band Width	MHz	1.0	-	-
Amplitude Ripple (Fo ± 500 KHz)	dB	-	-	1.0
Stop Band Attenuation	At 447 MHz	40	45	-
	At 453 MHz	30	33	-
Group Delay Variation (Fo ± 0.1 MHz)	ns	-	-	100
Input/Output Impedance	Ω	50		
Maximum Input Power	dBm	+27		
Operating Temperature	°C	-40 ~ +85		
Storage Temperature	°C	-55 ~ +125		
Package size	mm	5.0 x 5.0 x 1.35		

2. Dimension:



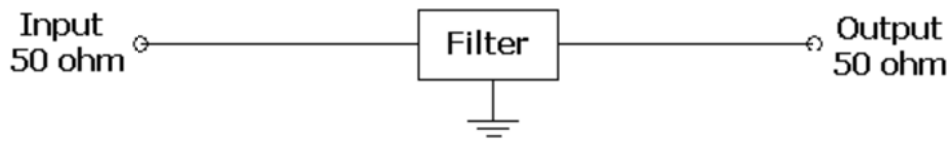
- | |
|-----------------|
| 1. Ground |
| 2. Input/output |
| 3. Ground |
| 4. Ground |
| 5. Ground |
| 6. Input/output |
| 7. Ground |
| 8. Ground |

Marking:
Too small for marking

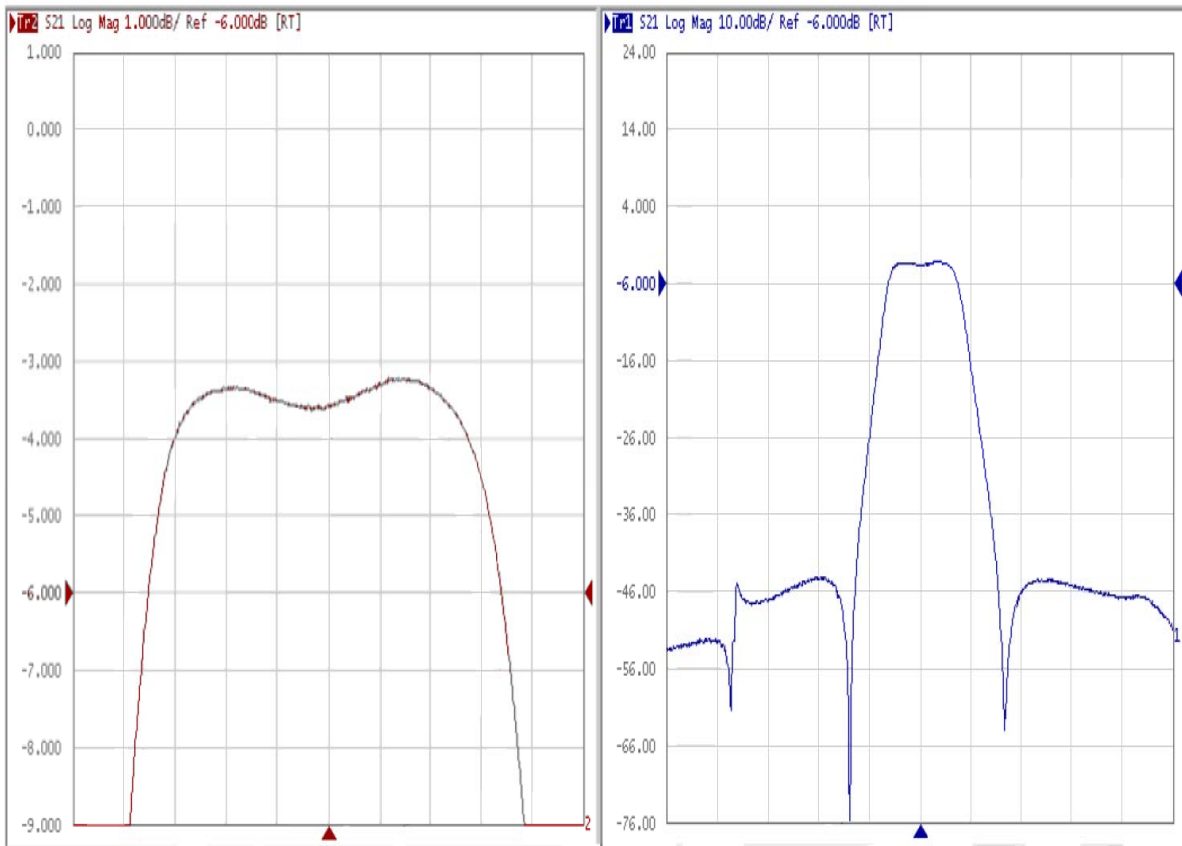
Cautions:

- Static Voltage:**
Static voltage between signal load & ground may cause deterioration & destruction of the component. Please avoid static voltage.
- Ultrasonic Cleaning:**
Ultrasonic vibration may cause deterioration & destruction of the component. Please avoid ultrasonic cleaning.
- Soldering:**
Only leads of component may be soldered. Please avoid soldering another part of component.

3. Test Circuit



4. Theoretical Response



F0: 450MHz SPAN :1.6MHz

F0: 450MHz SPAN : 8.4MHz

Environmental Characteristics	
High Temperature Exposure	Subject the device to +85°C for 16 hours. Then release the filter into the room conditions for 24 hours prior to the measurement. It shall fulfill the specifications.
Low Temperature Exposure	Subject the device to -40°C for 16 hours. Then release the device into the room conditions for 24 hours prior to the measurement. It shall fulfill the specifications.
Temperature Cycling	Subject the device to a low temperature of -40°C for 30 minutes. Following by a high temperature of +85°C for 30 minutes. Then release the device into the room conditions for 24 hours prior to the measurement. The device shall meet the specifications.
Resistance to solder heat	Dip the device terminal no closer than 1.5mm into the solder bath at 260°C ±10°C for 10±1 sec. Then release the device into the room conditions for 4 hours. The device shall meet the specifications.
Solderability	Subject the device terminals into the solder bath at 245°C ±5°C for 5s. More than 95% area of the terminals must be covered with new solder. It shall meet the specifications.
Mechanical Shock	Drop the device randomly onto the concrete floor from the height of 1 m 3 times. The device shall fulfill the specifications.
Vibration	Subject the device to the vibration for 1 hour each in x , y and z axes with the amplitude of 1.5 mm at 10 to 55 Hz. The device shall fulfill the specifications.