

SPECIFICATION

COMMERCIALY AVAILABLE

ITEM: DIELECTRIC CERAMIC FILTER

PART NUMBER: CFM-094403210

PLEASE VERIFY RECEIPT BY SIGNING BELOW AND RETURNING THIS FORM BY FAX OR EMAIL.

CUSTOMER SIGNATURE: _____

DATE: _____

FAX NUMBER: 816-241-0368

EMAIL: filtro@filtro.net

THIS FORM MUST BE SIGNED AND RETURNED TO SUPPLIER IF ALL SPECIFICATION ARE AGREEABLE WITH YOUR REQUIREMENTS.

ISSUED	CHECKED	CHECKED	CHECKED	APPROVED

FILTRONETICS Inc

1. APPLICATION

THIS SPECIFICATION APPLIES TO A BAND PASS FILTER USING DIELECTRIC RESONATORS.

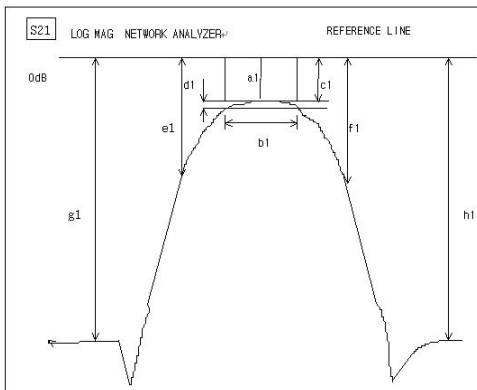
2. PART NUMBER

PART NO	CFM-094403210
PACKAGING	PLASTIC TRAY

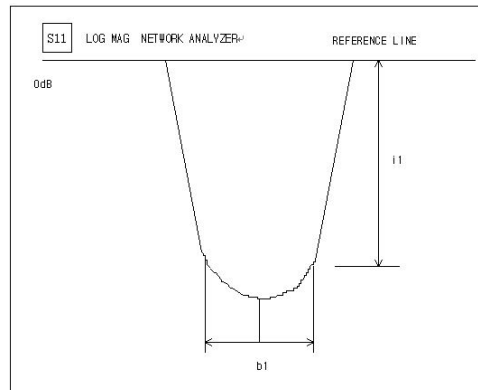
3. SPECIFICATIONS

NO	Parameter	Ref.	Typ.	Spec.
1	Center Frequency (Fo)	a1	944 MHz	
2	Pass Bandwidth (BW)	b1	928 ~ 960 MHz	
3	Insertion Loss at Fo	c1	3.0 dB	3.3 dB Max.
4	Ripple in BW	d1	2.5 dB	2.8 dB Max.
5	Return Loss in BW	i1	15 dB	13 dB Min.
6	Attenuation	At 915 MHz	e1	72 dB Min.
		At 973 MHz	f1	70 dB Min.
7	Input Power		3 W Max.	
8	Operating Temperature		-40 to +85 °C	
9	Impedance		50 ohm	

S21 LOG MAG NETWORK ANALYZER

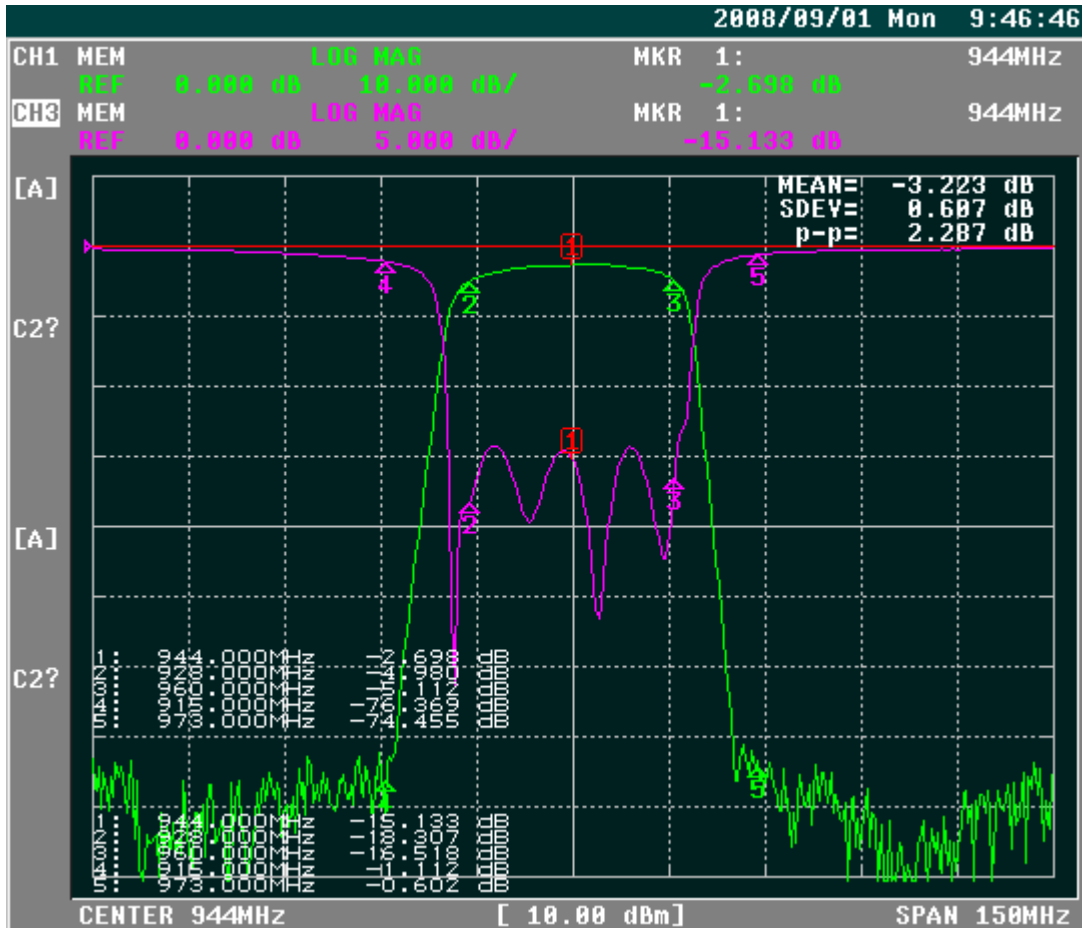


S11 LOG MAG NETWORK ANALYZER

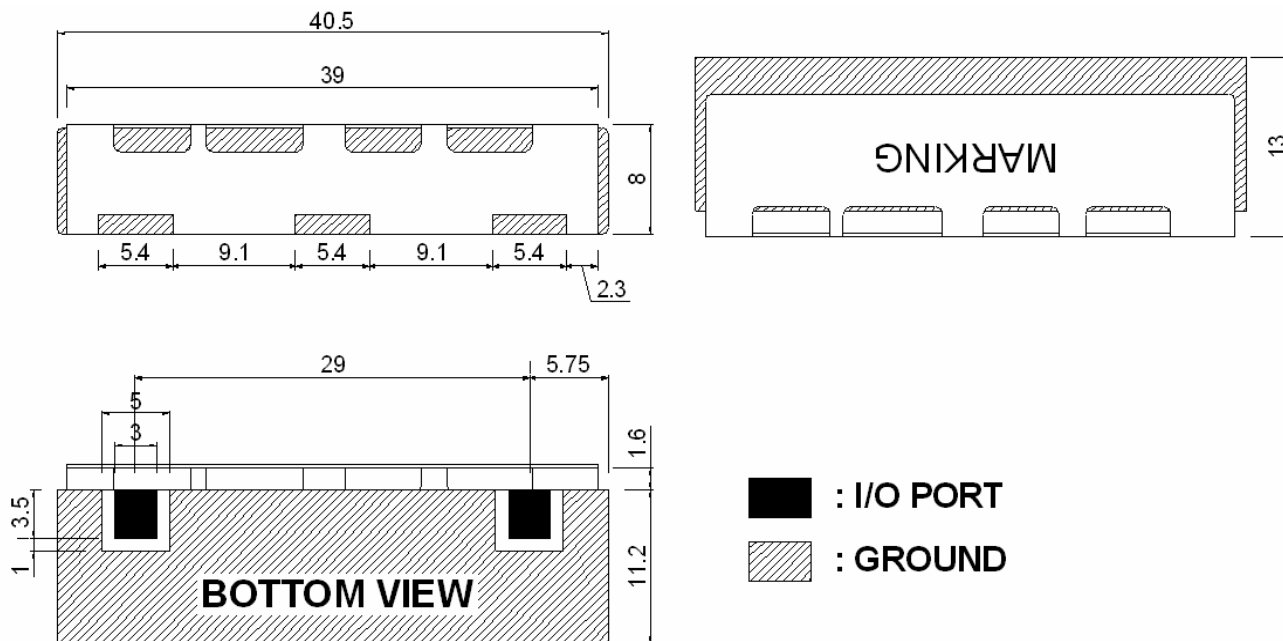


4. GRAPHS

S21 & S11 (Insertion Loss, Ripple, Return Loss, Attenuation at 915, 973 MHz)



5. DIMENSIONS



<p>□ MATERIAL SPECIFICATION</p> <ol style="list-style-type: none"> 1. METAL CASE <ol style="list-style-type: none"> 1) MATERIAL: Sn OR Ni PLATED 2. RESONATOR <ol style="list-style-type: none"> 1) COATING MATERIAL: Ag 3. RoHS Compliant

<p>□ MARKING (LASER)</p> <p>CFM-094403210</p>
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● CAUTIONS:

1. When handling products, be careful not to damage the outer-electrode.
2. When handling products be careful not to touch the outer-electrode with bare hands or solderability is reduced.
3. Do not apply excessive pressure or shock to product in handling or in transportation or damage to the ceramic filters may result.

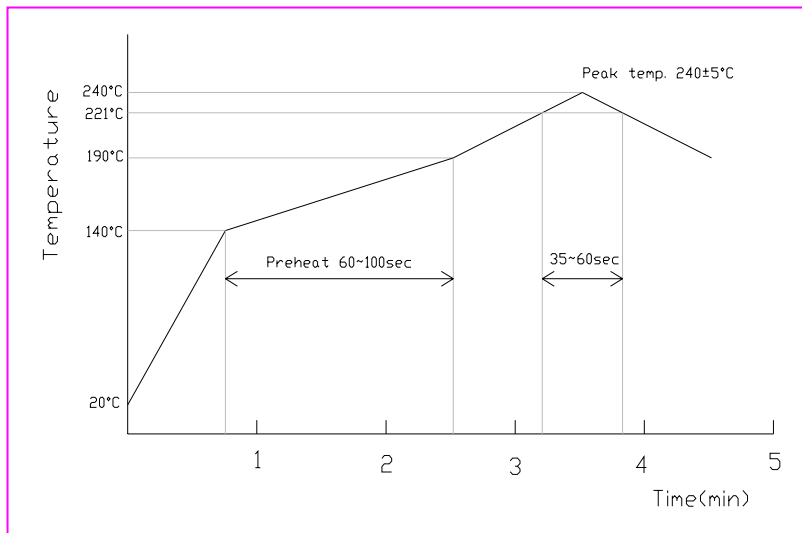
6. DEFINITIONS

TERMS	DESCRIPTION	SPECIFICATION
Center Frequency	The midpoint of through band pass filter pass band, normally expressed as the arithmetic mean of the -3db point. Also called f_0 .	3. SPECIFICATION
Pass Band Width	The width of the pass band of a filter referenced to the minimum insertion loss point in the pass band. The pass band of a filter is stated as -1.0dB bandwidth.	
Insertion Loss	The loss of the filter, in db, measured at center frequency relative to a through line (0 dB).	
Attenuation	Reduction of RF power through a filter measured in dB, at desired band and referenced to 0 dB. (Filter to be removed from circuit)	
Pass Band Ripple	Variations in loss in the pass band of the filter, superimposed upon the fundamental shape of the pass band.	
V.S.W.R in Pass Band	The ratio of the maximum value of a standing wave to its minimum value, related to the return loss in pass band.	

7. RELIABILITY TEST AND CONDITIONS

ITEM	TEST CONDITIONS	REQUIREMENTS
Resistance to solder heat	Preheat temperature : 120 to 150°C Preheat time: 1 to 1.5 min Solder temperature: 260 +/- 10°C Dipping time: 10 +/- 0.5 sec	No damage such as cracks should be caused in chip element.
Solderability	Preheat temperature: 120 to 150°C Preheat time: 1 to 1.5 min Solder temperature: 235 +/- 5°C Dipping time: 5 +/- 1 sec	More than 80% of the terminal electrode shall be covered with new solder
Heat resistance (High-temperature Load)	Temperature: 85 +/- 2°C Applied voltage: Rated voltage Applied current: Rated current Recovery: 1 to 2hrs of recovery under the standard condition after the removal from test chamber.	No mechanical damage. After test, the device shall satisfy the specification in section 3.
Thermal shock (Temperature cycle)	Conditions for 1 cycle Step 1: + 85°C 15 min Step 2 : - 30°C 15 min Number of cycle: 10	No mechanical damage. After test, the device shall satisfy the specification in section 3.
Humidity Resistance	Temperature: 40 +/- 2°C Humidity: 90 to 95% RH Duration: 96 +/- 5 hrs Recovery: 1 to 2hrs of recovery under the standard condition after the removal from test chamber.	No mechanical damage. After test, the device shall satisfy the specification in section 3.
Vibration	Frequency: 10 ~ 50 Hz Amplitude: 1.52 mm (0.060 inches) Direction: X, Y and Z Time: each 30 min for all directions	No mechanical damage. After test, the device shall satisfy the specification in section 3.

8. REFLOW SOLDERING STANDARD CONDITIONS



- Measuring point of temperature in-out terminals of the device.
- Reflow Soldering
- Both convection and infrared rays
- Hot air
- Solder Cream: Sn96.5/Ag3.5