SPECIFICATION

COMMERCIALLY AVAILABLE

ITEM: DIELECTRIC CERAMIC FILTER

PART NUMBER CFM-09150262

RoHS Compliant

ISSUED / REVISION	ENGINEER APPROVED	DOCUMENT CHECKED	DRAFTSMAN
11/26/03**			
11/11/10 DS	**12/1/2010 SRJ**	12/2/2010 BF	**12/2/2010 GL**

***FILTRO**NETICS Inc*

1. APPLICATION

THIS SPECIFICATION APPLIES TO A BAND PASS FILTER USING DIELECTRIC RESONATORS

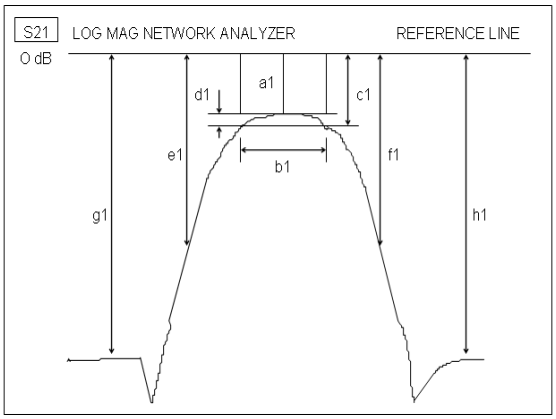
2. PART NUMBER

PART NO	CFM-09150262
PACKING	TAPE AND REEL

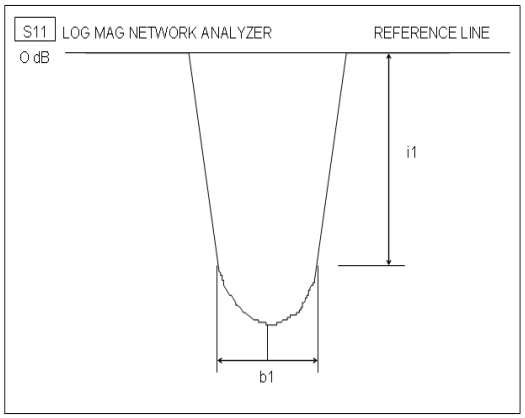
3. SPECIFICATIONS:

NO	Parameter		Ref.	Typ.	Spec. (@ 25)
1	Center Frequency (Fo)		a1	915 MHz	
2	Pass Bandwidth (BW)		b1	902 ~ 928 MHz	
3	Insertion Loss in BW		c1	2.0 dB	2.5 dB Max.
4	Ripple in BW		d1	0.8 dB	1.2 dB Max.
5	Return Loss in BW		i1	13 dB	10 dB Min.
6	Attenuation	At 837.5 MHz	e1	30 dB	27 dB Min.
		At 992.5 MHz	f1	18 dB	17 dB Min.
7	Input Power			1 W Max.	
8	Operating Temperature			-40 to +85	
9	Impedance			50 ohm	

S21 LOG MAG NETWORK ANALYZER

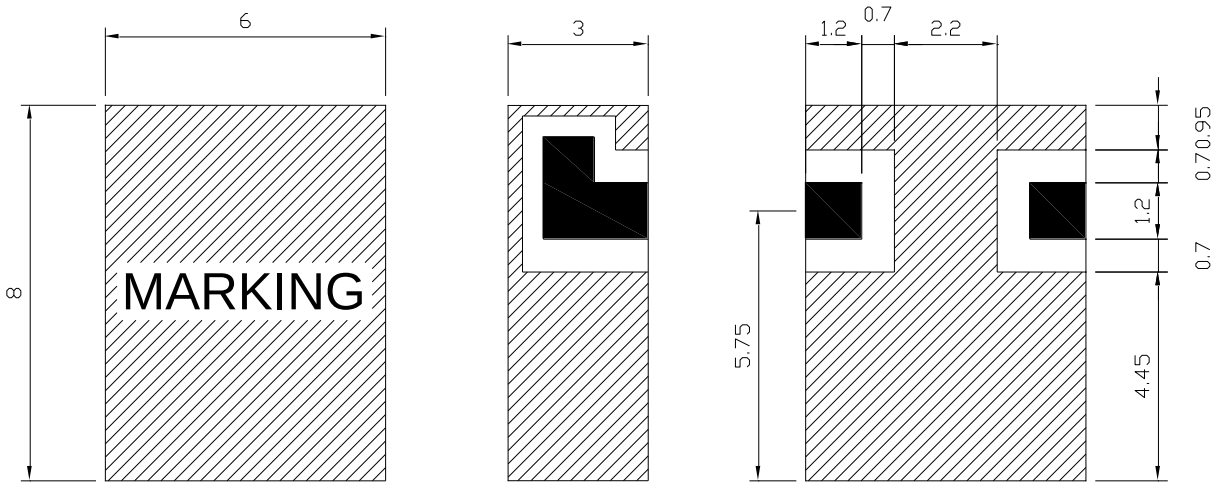


S11 LOG MAG NETWORK ANALYZER



4. DIMENSIONS

UNIT: MM
TOLERANCE: ±0.3MM

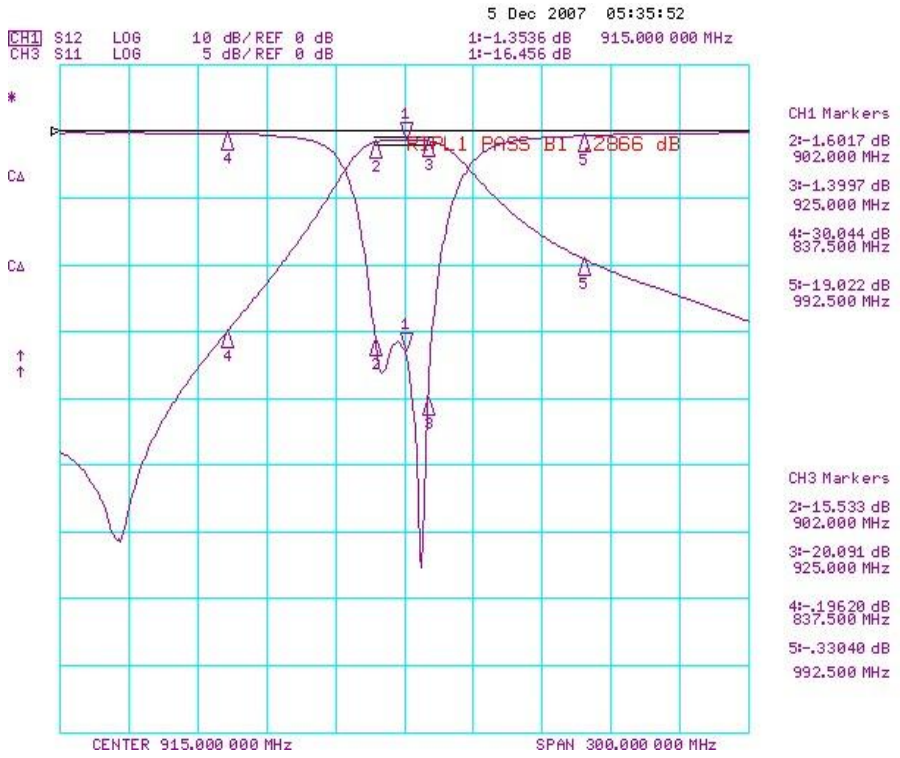


:I/O PORT
:GROUND

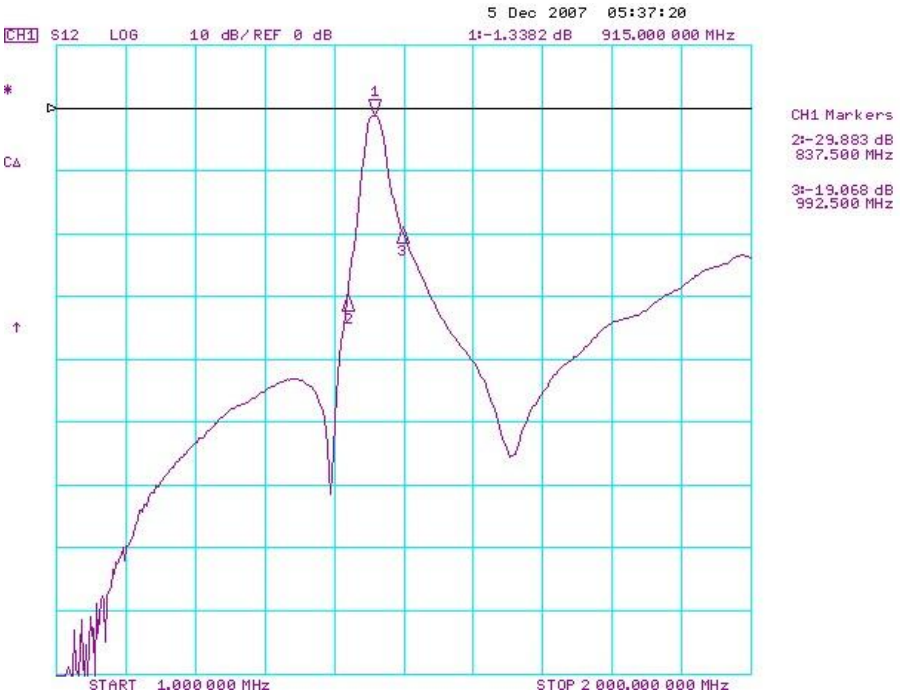
MATERIAL SPECIFICATION	MARKING (INK)
1. RESONATOR 1) COATING MATERIAL: Ag 2. RoHS Compliant	**915 MHz**

5. GRAPHS:

S21 & S11 (INSERTION LOSS, RIPPLE, RETURN LOSS, ATTENUATIN AT 837.5, 992.5 MHz)



S21 (ATTENUATIN AT 1 ~ 2000 MHz)



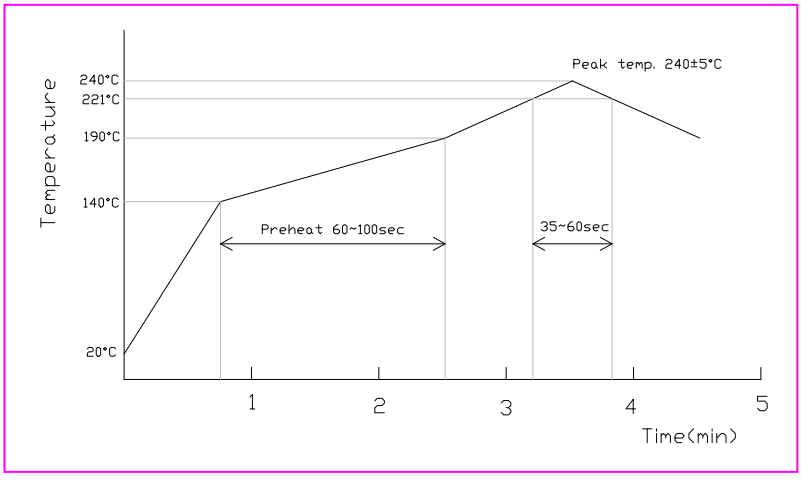
6. DEFINITIONS:

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 Fo.	3. SPECIFICATION
Pass Bandwidth	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 -1.0 dB bandwidth. Also called BW.	
Insertion Loss in BW	The loss of the filter, in dB, measured at the maximum loss point of the pass band 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)	
Ripple in BW	Variations in loss in the pass band of the filter, superimposed upon the fundamental shape of the pass band.	
Return Loss in BW	The ratio, at the junction of a transmission line and a terminating impedance or other discontinuity, of the amplitude of the reflected wave to the amplitude of the incident wave.	

7. RELIABILITY TEST AND CONDITIONS:

ITEM	TEST CONDITIONS	REQUIREMENTS
Operating Temp. Range		- 40 ~ + 85
Resistance to solder heat	Preheat temperature : 120 to 150 Preheat time: 1 to 1.5 min Solder temperature: 260 +/- 10 Dipping time: 10 +/- 0.5 sec	No damage such as cracks should be caused in chip element.
Solderability	Preheat temperature: 120 to 150 Preheat time: 1 to 1.5 min Solder temperature: 235 +/- 5 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 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 15 min Step 2 : - 30 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 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 ㎜ (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
- Hot Plates
- Solder Cream: Sn96.5/Ag3.5