SPECIFICATION

COMMERCIALLY AVAILABLE

ITEM: DIELECTRIC CERAMIC FILTER
PART NUMBER CF-22501803

Release Date:12/15/09

Prepared By:DS
Revised By:
Revised Date:
Revision Made:

ISSUED	CHECKED	CHECKED	CHECKED	APPROVED

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1. APPLICATION

THIS SPECIFICATION APPLIES TO A BAND PASS FILTER USING DIELECTRIC RESONATORS

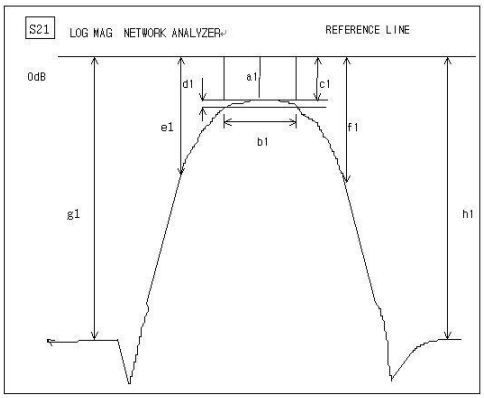
2. PART NUMBER:

PART NO	CF-22501803
PACKAGING	PLASTIC TRAY

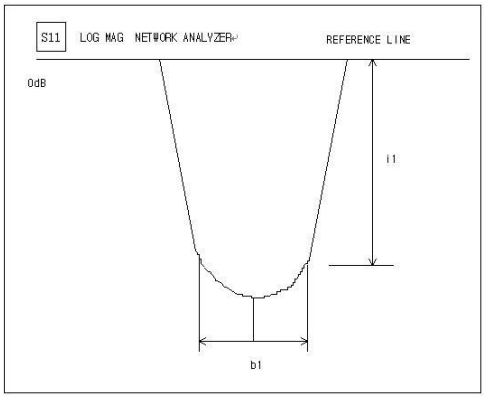
3. SPECIFICATIONS:

NO	ITEMS	Ref.	SPECIFICATION
1	Center Frequency (Fo)	-	2250 MHz
2	1dB Band Width	-	180Mhz Min
3	Insertion Loss At Fo	-	1.2 dB Max
4	40dB Band Width		2000Mhz Max
5	Ripple IN Fo+/-90Mhz		1.0 dB Max
6	Return Loss IN Fo+/-90Mhz	-	12dB min
7	Impedance	-	50Ω
8	Maximum Input Power	-	1 W Max
9	Operating Temperature Range	-	-0 ~ +70 degree(℃)

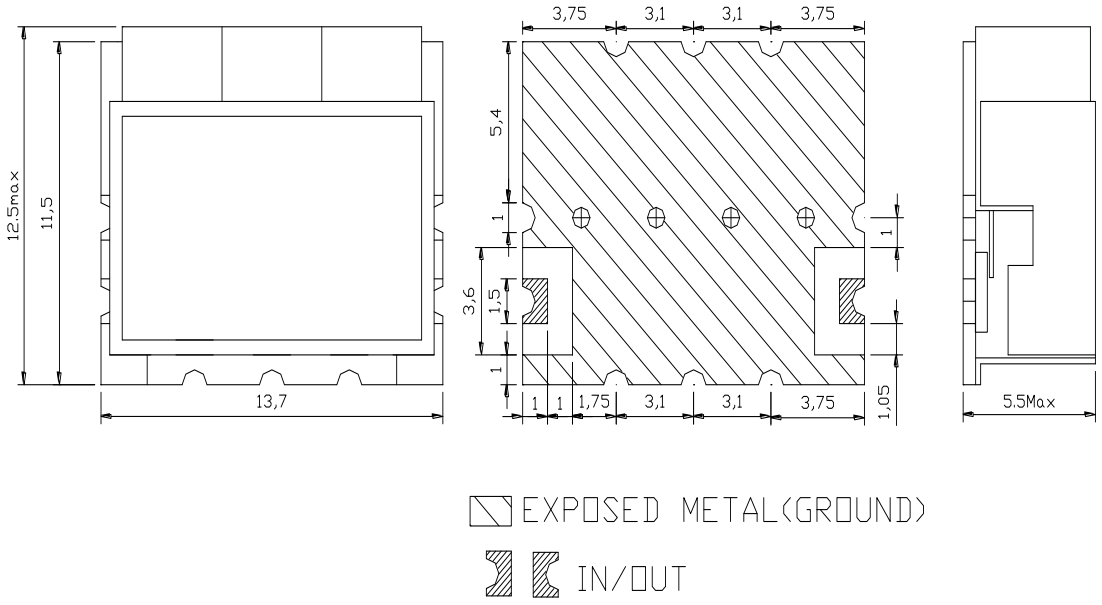
S21 LOG MAG NETWORK ANALYZER



S11 LOG MAG NETWORK ANALYZER



4. DIMENSIONS



MATERIAL SPECIFICATION

1. PCB
   1) MATERIAL: FR4
   2) TERMINALS: Au PLATED
2. METAL CASE
   1) MATERIAL: Sn OR Ni PLATED
3. RESONATOR
   1) COATING MATERIAL: Ag

MARKING

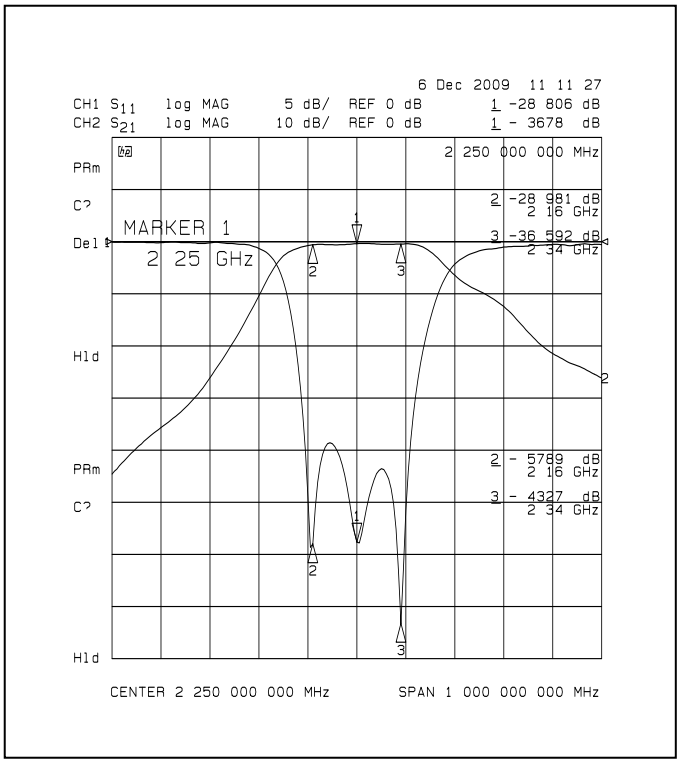
Part No
Filtronetics, Inc
Date Code

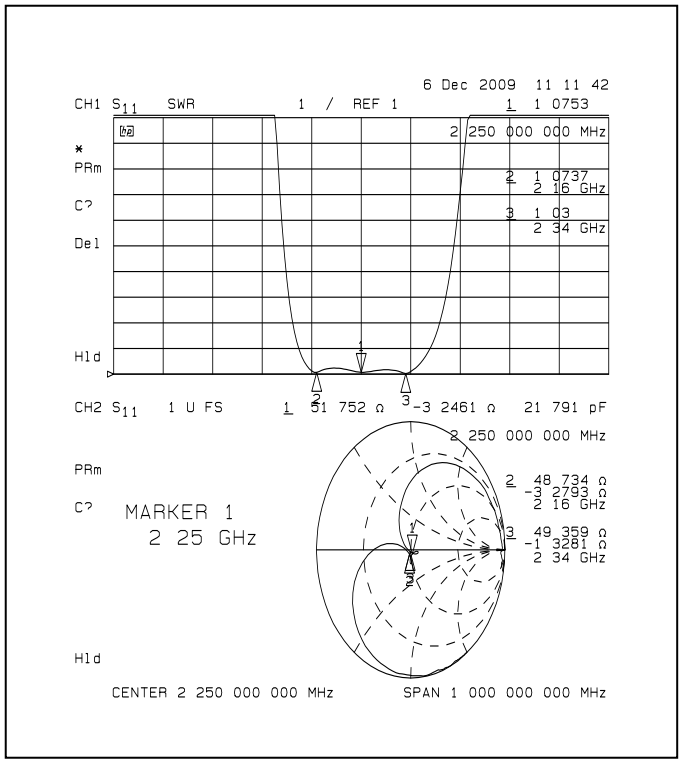
UNIT: MM
TOLERANCE: +/-0.5MM
IN/OUT LAND: +/-0.3MM

- 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 solder-ability 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.

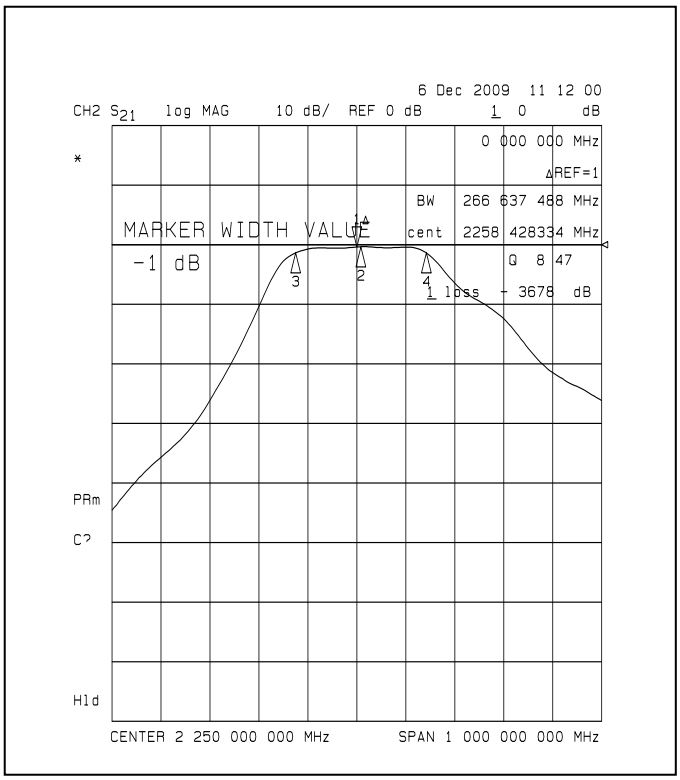
5. GRAPHS

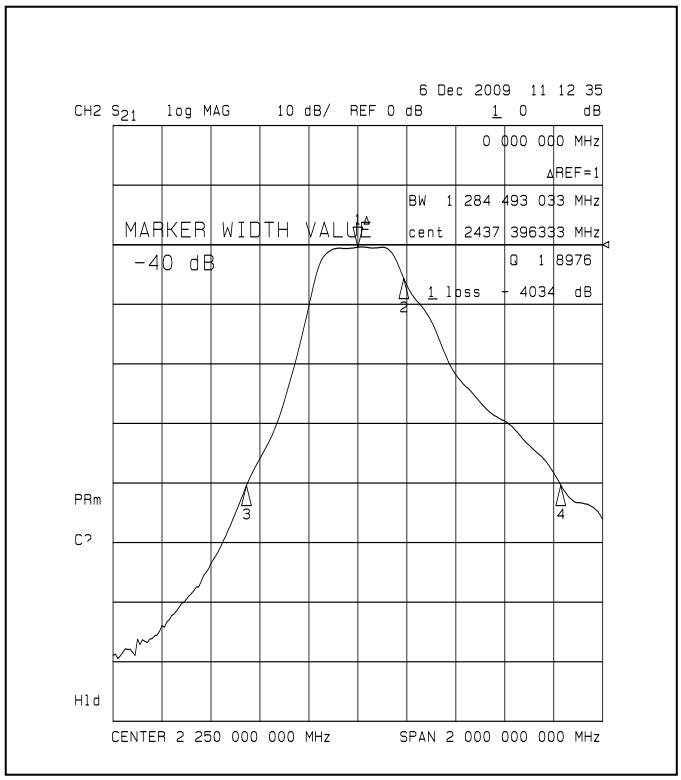
S21 vs. S11 (INSERTION LOSS, RETURN LOSS, V.S.W.R, SMITH CHART)





S21 (1dB, 40dB BAND WIDTH)





6. DEFINITIONS

	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 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.**	