

# SPECIFICATION FOR APPROVAL

## COMMERCIALY AVAILABLE

ITEM: DIELECTRIC CERAMIC FILTER  
PART NUMBER: CF-17470754

CHANGE DATE	2003. .			
	2003. .			
	2003. .			
	2003. .			
	2003. .			
	2003. .			
ISSUED	CHECKED	CHECKED	CHECKED	APPROVED
<b><i>FILTRONETICS Inc</i></b>				

**1. APPLICATION**

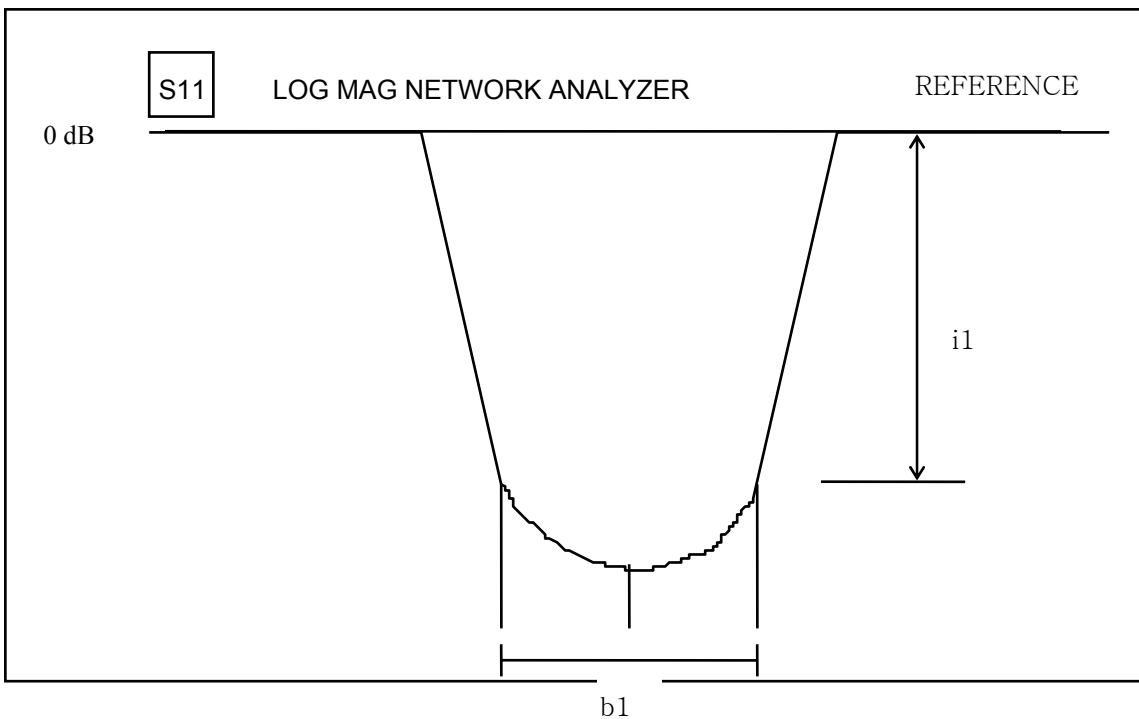
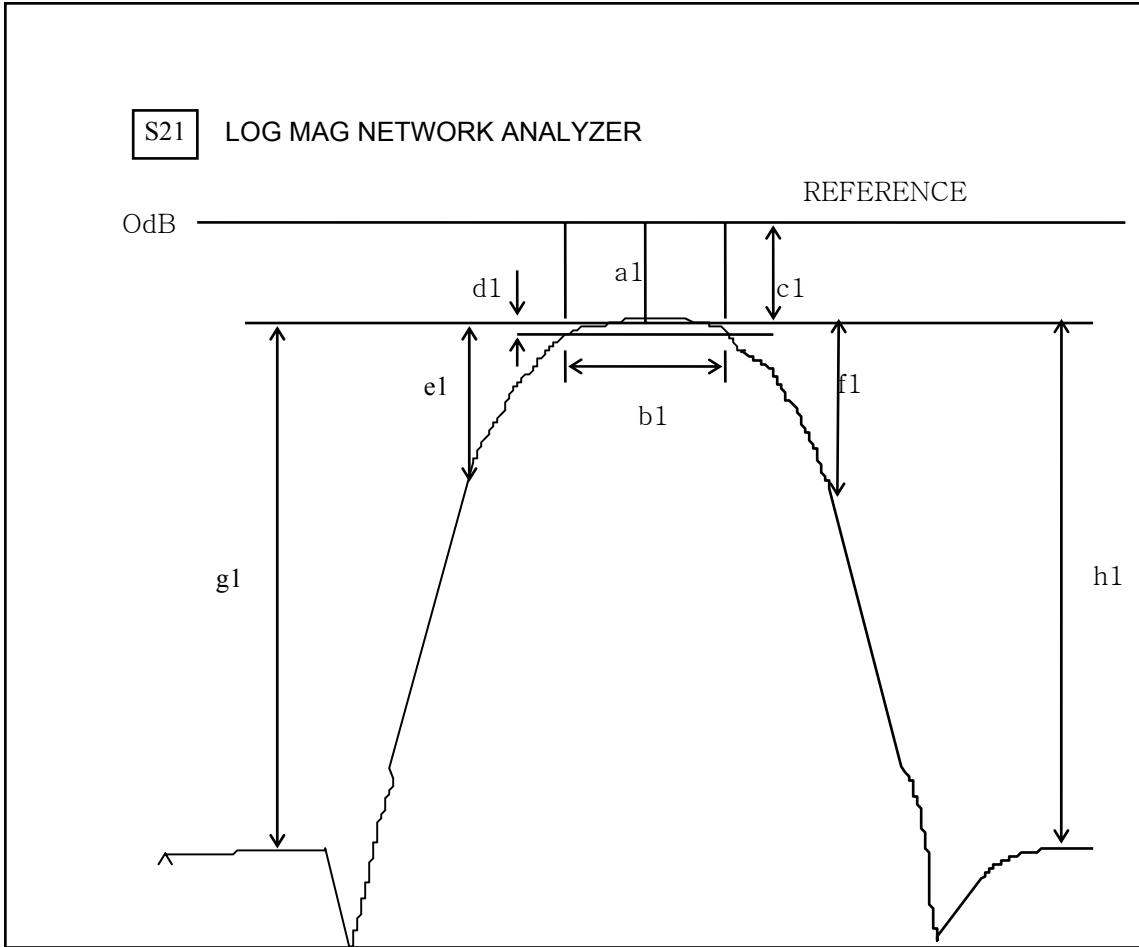
THIS SPECIFICATION APPLIES TO A BAND PASS FILTER USING DIELECTRIC RESONATORS.

**2. PART NUMBER**

<b>PART NO</b>	<b>CF-17470754</b>
----------------	--------------------

**3. SPECIFICATIONS**

1	Center Frequency (fo)	a1	1747.5 MHz	
2	Pass Band Width(PB)	b1	Fo+/-37.5MHz	
3	Ripple                    IN PB	d1	1.3dBmax	
4	V.S.W.R                    IN PB	b1	2.0:1 MAX	
5	Insertion Loss            IN PB	b1	3.5 dB max	
6	Attenuation	Fo+/-57.5	e1~f1	9 dB min
7	Impedance		50Ω	
8	Maximum Input Power		1 W (+30dBm)	
9	Group Delay Time                    in PB		ns max	
10	Operating Temperature Range		-20 ~ +70 °C	



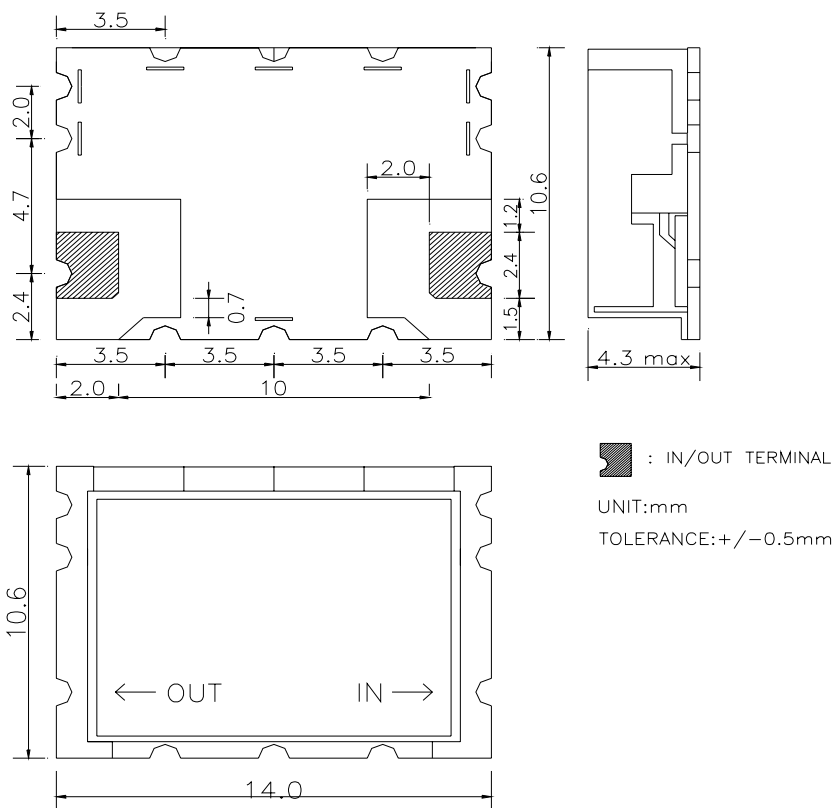
## 4. SPECIFICATION

CHARACTERISTICS	DESCRIPTION	SPECIFICATION
CENTER FREQUENCY	THE MIDPOINT OF THROUGH BANDPASS FILTER PASSBAND, NORMALLY EXPRESSED AS THE ARITHMETIC MEAN OF THE -3dB POINT. ALSO CALLED $f_0$ .	3. SPECIFICATION
PASS BAND WIDTH	THE WIDTH OF THE PASSBAND OF A FILTER REFERENCED TO THE MINIMUM INSERTION LOSS POINT IN THE PASSBAND. THE PASSBAND OF A FILTER IS STATED AS -0.5dB BANDWIDTH.	
INSERTION LOSS	THE LOSS OF THE FILTER, IN dB, MEASURED AT CENTER FREQUENCY OR AT THE MINIMUM LOSS POINT OF THE PASSBAND RELATIVE TO A THROUGH LINE (0 dB).	
ATTENUATION	REDUCTION OF RF POWER THROUGH A FILTER, MEASURED IN dB, AT DESIRED BAND AND INSERTION LOSS AT $f_0$ (FILTER REMOVED FROM CIRCUIT)	
PASSBAND RIPPLE	VARIATIONS IN LOSS IN THE PASSBAND OF THE FILTER, SUPERIMPOSED UPON THE FUNDAMENTAL SHAPE OF THE PASSBAND.	
V.S.W.R in PB	THE RATIO OF THE MAXIMUM VALUE OF A STANDING WAVE TO ITS MINIMUM VALUE, RELATED TO THE RETURN LOSS IN PASSBAND.	

**5. DIMENSIONS**

UNIT : mm

TOLERANCE : +/- 0.3mm

**1. PCB**

- 1) MATERIAL : FR-4
- 2) TERMINALS : Gold PLATED

**2. CASE**

- 1) MATERIAL : Sn/Pb OR Ni PLATED

**3. RESONATOR**

- 1) COATING MATERIAL : Ag

6. GRAPH

S21 vs S11- PASS BANDWIDTH , IL ,RIPPLE ,RETURN LOSS, ATTENUATION

