Dielectric Filter Specifications

Unit Name	Dielectric Resonator Filter
Part Name	MBP22R5787S125PAY
Date	December 26, 2005

Written by	Checked by	Approved by
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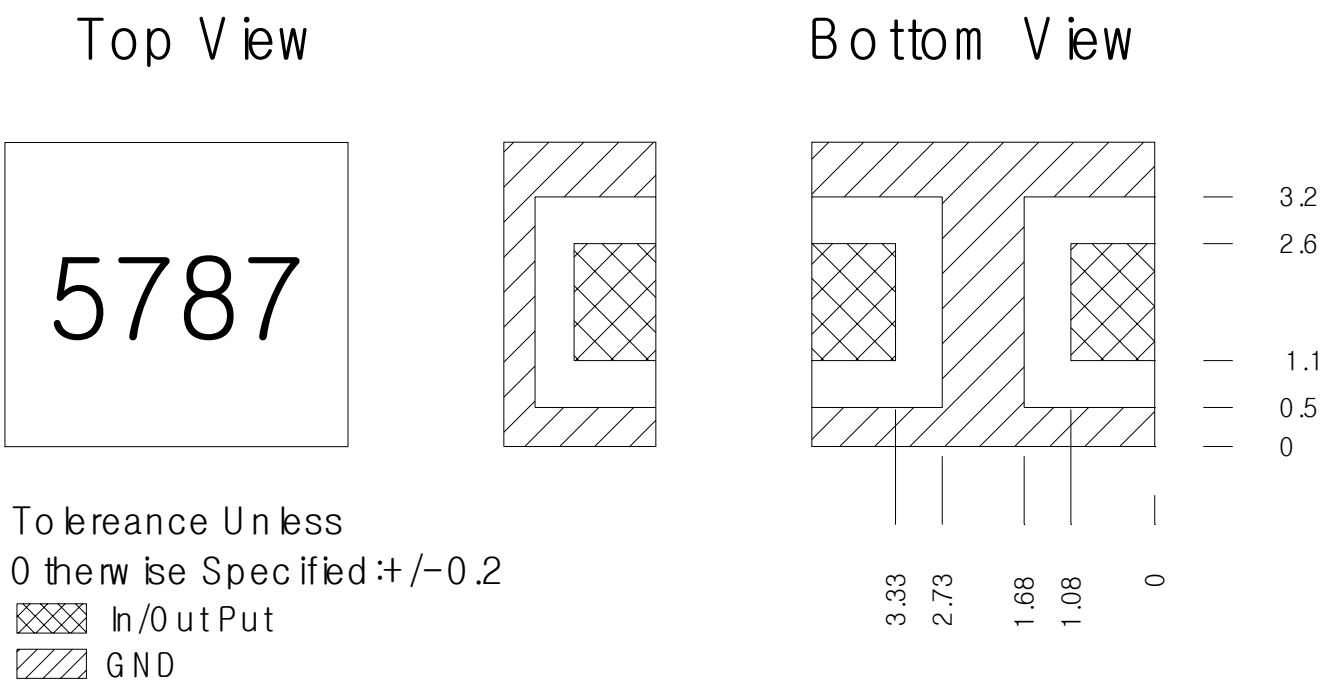
1.Part Name

MBP22R5787S125PAY

2. Electrical Specifications.

Item	Specifications
Center Frequency (= Fc)	5787.5 MHz
Pass Bandwidth (= BW)	Fc ±62.5 MHz
Insertion Loss @ BW	2.0 dB max.
Ripple @ BW	1.0 dB max.
V.S.W.R @ BW	2.0 max.
In, Output Impedance	50 Ω
Input Power	1 W max.
Attenuation	20 dB min. @ 5400 MHz 10 dB min. @ 6175 MHz
Operation Temperature Range	-40°C ~ +85°C

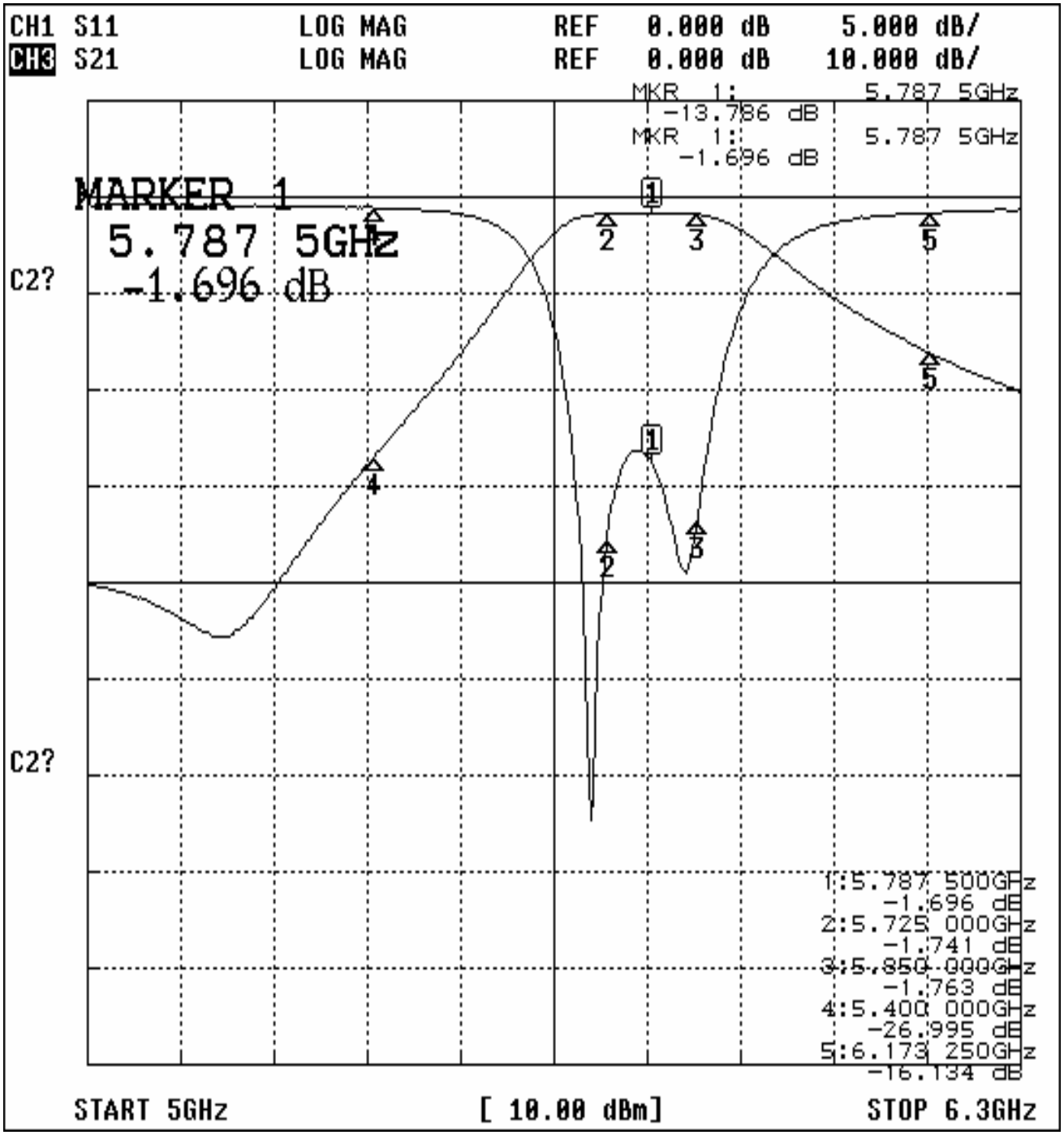
3. Appearance and structure



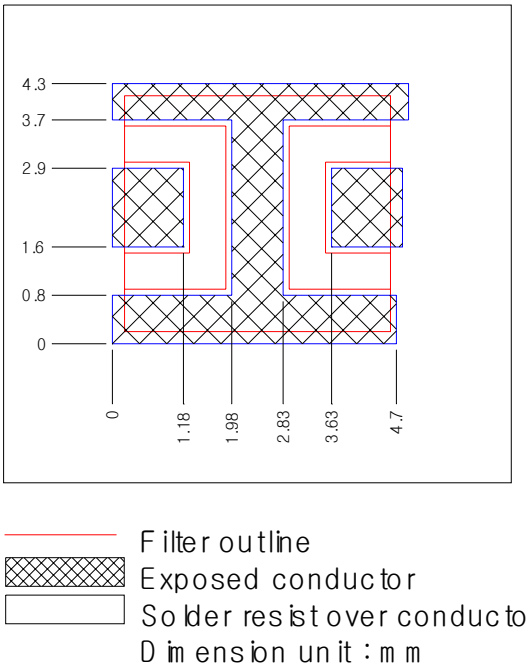
4. Environmental Specifications

4.1 Operation Temperature Range : -30°C ～ +85°C

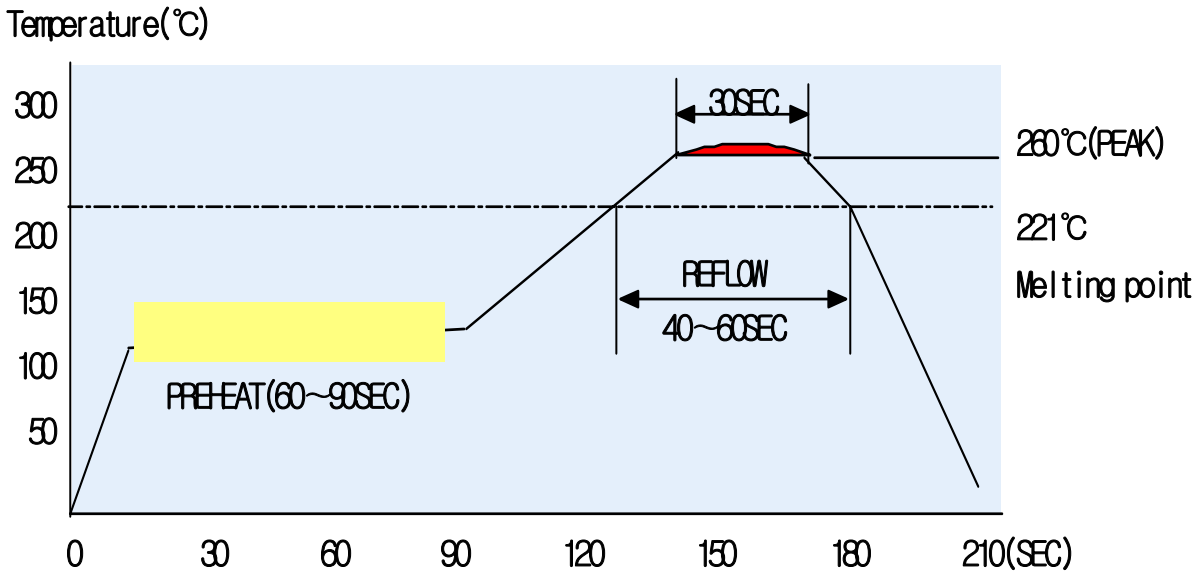
5. Data



6. Recommended footprint



7. Reflow Soldering Condition



Test solder cream: HSP 350

Solder alloy: Sn 96.5:Ag 3.5 %

8. Reliability Specification

This specification applies to common matter to prepare dielectric filter.

8-1. Environmental Characteristics

Item	Condition	Specifications
Humidity (steady conditions)	Temperature : 85±2℃, Relative humidity : 80 to 90% Test duration : 96 hours Measurement must be taken after subjection to the above conditions, followed by exposure in room environment for 1 to 2 hours.	① Electrical performance requirements must be satisfied. ② No excessive changes in appearance may be observed.
High temperature	Temperature : 85±2℃, Test duration : 96 hours Measurement must be taken after subjection to the above conditions, followed by exposure in room environment for 1 to 2 hours.	
Low temperature	Temperature : -30±3℃, Test duration : 96 hours. Measurement must be taken after subjection to the above conditions, followed by exposure in room environment for 1 to 2 hours.	
Temperature cycle	Test temperature and exposure time 100 cycles must be applied, with one cycle consisting of exposure In -30℃ for 30 minutes and +85℃ for an additional 30 minutes.	
Temperature characteristics	Measure characteristic change in -30℃ to +85℃ relative to 20℃	Insertion loss: Initial measurement±0.5dB Attenuation: Electrical performance Requirements must be satisfied.

8-2. Mechanical performance

Item	Condition	Specifications
Vibration test	Freq.: 10 ~ 55 Hz, Amplitude: 1.5 mm Duration: 2hours per each axis of X,Y and Z crossing axes.	① Electrical performance requirements must be satisfied. ② No excessive changes in appearance may be observed.
Drop shock	3 times non-accelerated natural drops from 100cm above a wood board.	
Conductor Thickness	Conductor electrode: Silver, Silver thickness : 10 ~ 25 ㎛	
Tensile strength (pull out)	Adhesion strength:4kgf/㎠ min. Measurement M/C: Force Gauge Method: After attaching lead pin on the surface of filter, using the tensile test M/C pull out each other side.	

9.Revision

Revision No.	Originator	Description of Change	Date of Changes
Ver-00	T.W.Kim	Sample specification	2005/12/22