

## HD34388

## MEMS Band Pass Filter

### Features:

- Pass Band : 3.0 ~ 5.0 GHz
- Insertion Loss : 2.5dB
- Size : 9.0 X 7.4 X 0.42mm

### Absolute Maximum Ratings

- Max. Input Power : +35dBm
- Storage Temperature : -55 ~ +85Deg.C
- Operating Temperature : -55 ~ +125Deg.C

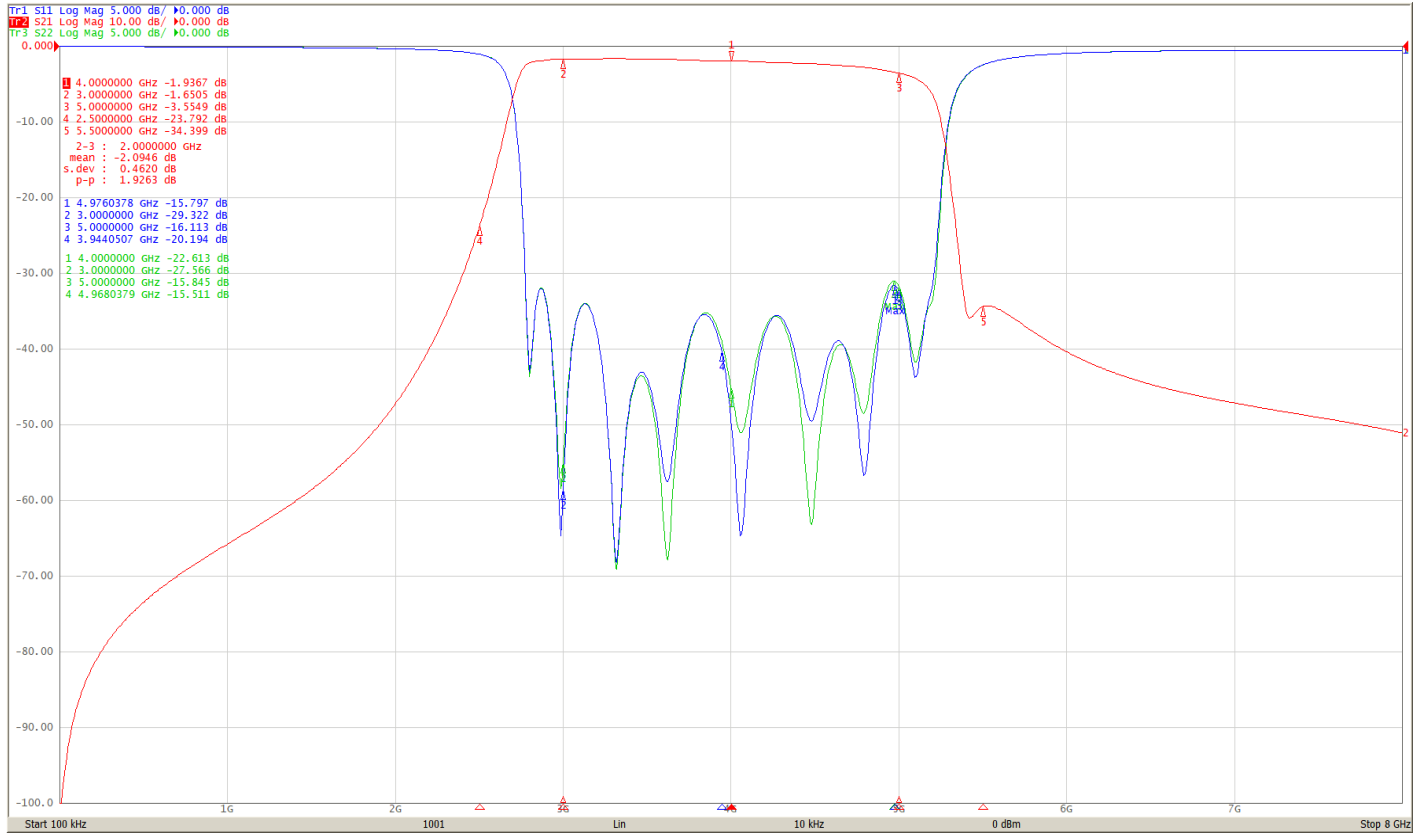


ELECTROSTATIC SENSITIVE DEVICE  
OBSERVE HANDLING PRECAUTIONS

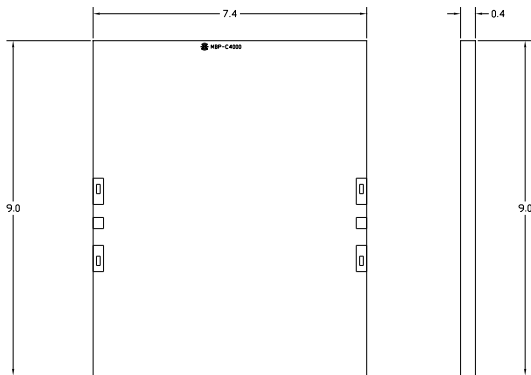
### Electrical Specifications (TA=+25Deg.C, 50Ω system)

Parameter	Min.Value	Typical Value	Max.Value	Unit	
Frequency Range	3.0 ~ 5.0			GHz	
Insertion Loss (Fc)	-	1.93	2.5	dB	
Ripple	-	1.92	2.5	dB	
Attenuation	2.5GHz	20.0	23.79	-	dB
	5.5GHz	30.0	34.39	-	dB
Input Return Loss	12.0	15.79	-	dB	
Output Return loss	12.0	15.51	-	dB	

**Simulation Data**



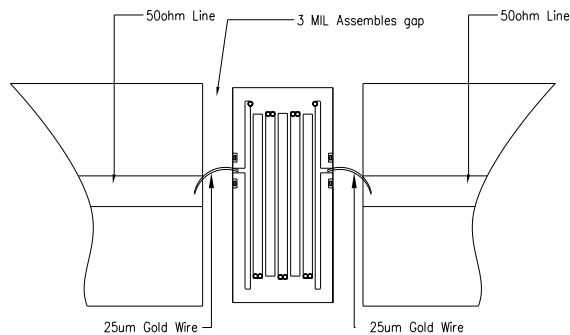
**Size**



Remarks: Unit : mm, Tolerance :  $\pm 0.25$ mm  
 1. Chip bottom is gold plated and grounded.  
 2. Bonding pressure points are gold plated.

**Applications**

1. Assembly and Bonding Diagram.



Assembly Diagram

2. The chip is back-metalized and can be die mounted with AuSn eutectic performs or with electrically conductive epoxy (for example ME8456).
3. The die should be assembled on carriers like Kovar or Mu-Cu which have same Coefficient of thermal expansion. (2.9ppm/°C) with Silicon, thickness 0.2mm max.
4. Handle the chips in a clean environment. DO NOT attempt to clean the chip using liquid cleaning systems.
5. Handle the chip along the edges with a vacuum collet or with a sharp pair of bent tweezers.