

## Feature

- Precision MEMS process
- High performance, shielded, Micro-cavity structure
- Silicon substrate, 50Ω CPW output
- Au wire bonding, for MCM applications

## Environmental Specifications

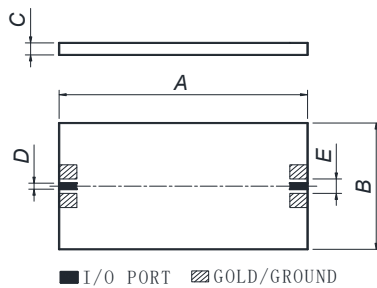
Operating Temperature	-55°C~+85°C
Storage Temperature	-55°C~+125°C
Max. Input Power	35dBm

## Electrical Specifications( $T_A=+25^\circ\text{C}$ )

Parameter	Min.	Typ.	Max.	Unit
Center Freq. ( $f_0$ )	-	4.65	-	GHz
Pass Band	4.55	-	4.75	GHz
Ripple in Pass band	-	-	1	dB
Insertion Loss @ $f_0$	-	-	4	dB
Return Loss	12	-	-	dB
Out of band Attenuation	$\geq 30@4.25\text{GHz}\&4.95\text{GHz}$			dB
Group Delay Variation	$\leq 1@4.55\sim 4.75\text{GHz}$			ns
Linear Phase	$\leq \pm 5@4.55\sim 4.75\text{GHz}$			°

S2P file name: SiMS4R62\_R2-6D5.s2p

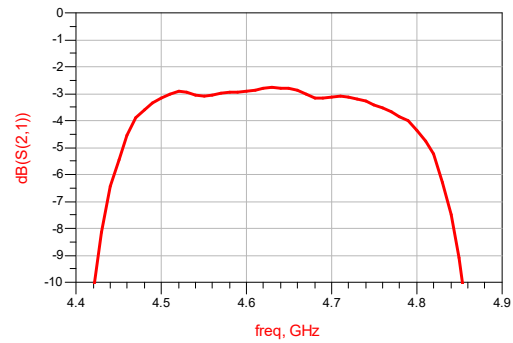
## Outline Drawing



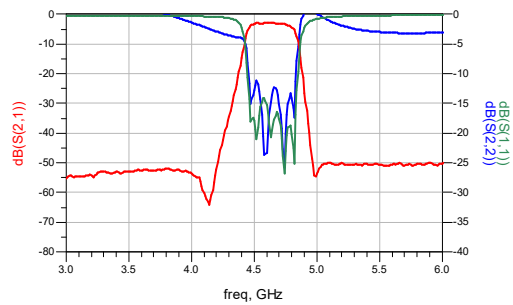
Symbol	Value (mm)		
	Min.	Nominal	Max.
A	8.9	-	9.0
B	8.9	-	9.0

## Typical Test Curves

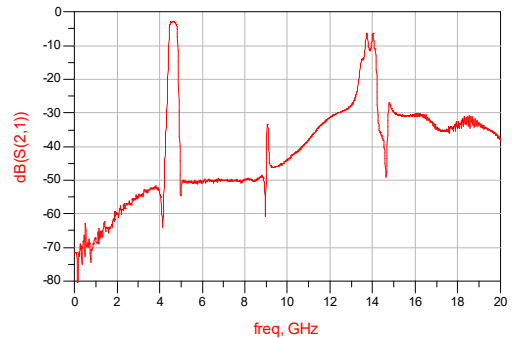
Insertion Loss VS Frequency ( $T_A=25^\circ\text{C}$ )



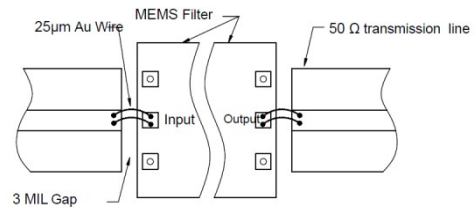
Insertion Loss & Return Loss VS Frequency ( $T_A=25^\circ\text{C}$ )



Broadband Insertion Loss VS Frequency ( $T_A=25^\circ\text{C}$ )



## Recommended Assembly Diagrams



## Application Notes:

1. The chip is back-metalized and can be die mounted with AuSn eutectic performs or with electrically conductive epoxy (for example ME8456).
2. 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.
3. Handle the chips in a clean environment. DO NOT attempt to clean the chip using liquid cleaning systems.
4. Handle the chip along the edges with a vacuum collet or with a sharp pair of bent tweezers.

5. Recommended to use T structure as below for bonding.

Rogers 5880, 10mil	Rogers 4350, 10mil

6. If you have any questions, please contact us.