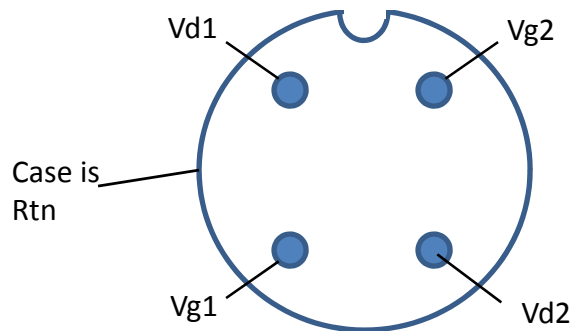
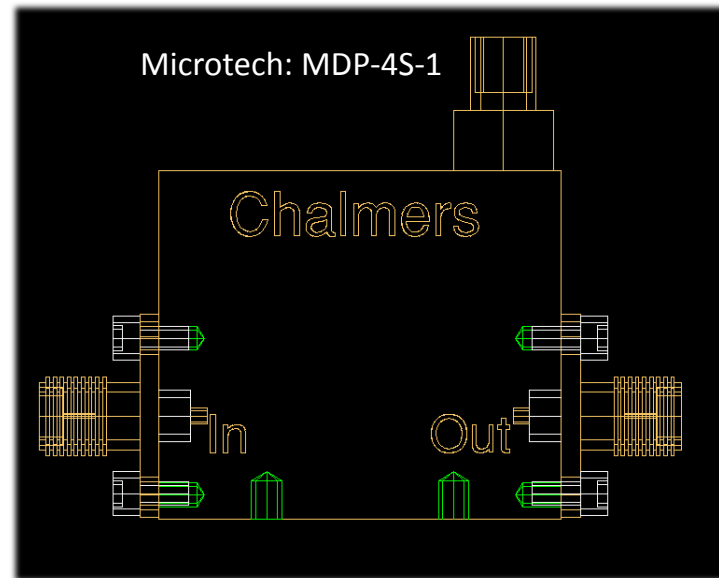
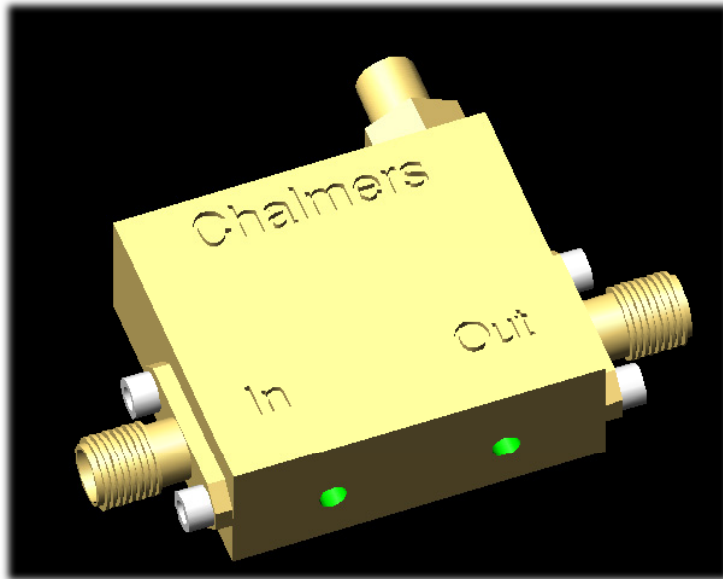


CSO Chalmers MICs

J. W. Kooi, 21 Feb 2011



Microtech: MDP-4S-1
(on MIC body, looking INTO the LNA)

Tie Vd1/Vd2 and Vg1/ Vg2 together at connector.
Solder return wire to the male connector sleeve.
→ 3 wires: Vd, Vg, Rtn

Barney settings of 1/30/2006:
CTH-6H09

4K:

Vd=0.8V

Id=10mA

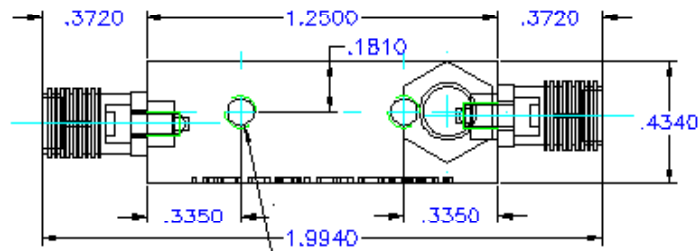
Vg= +0.9V-2V*

*depends on wire resistance cryostat. There is a 1/11 on the gate inside the MIC.

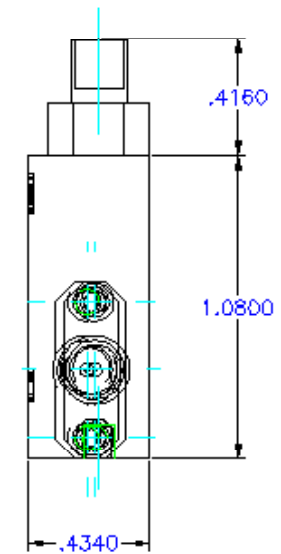
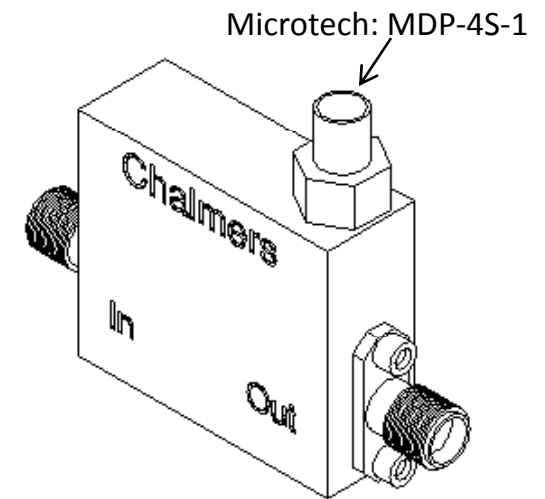
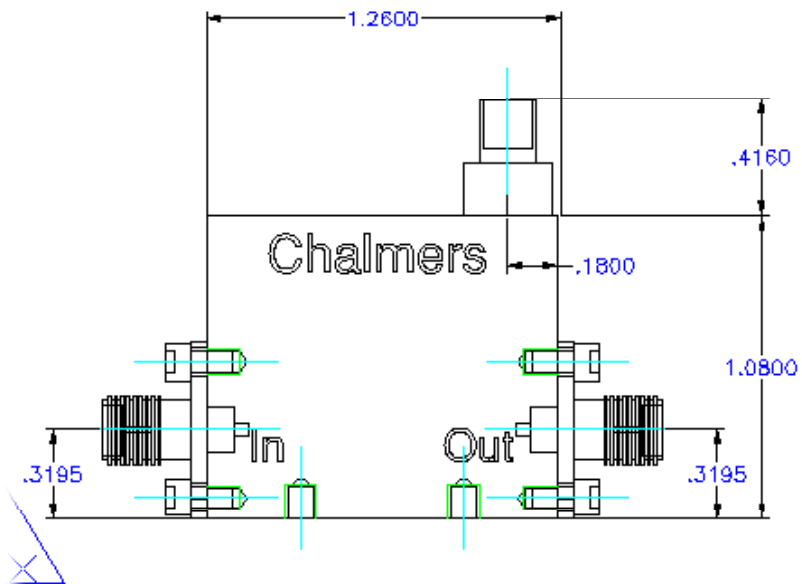
** Measure pinchoff with Vds=0.05V. Rds should be $\geq 5K\Omega$

CSO Chalmers MICs

J. W. Kooi, 17 Feb 2011

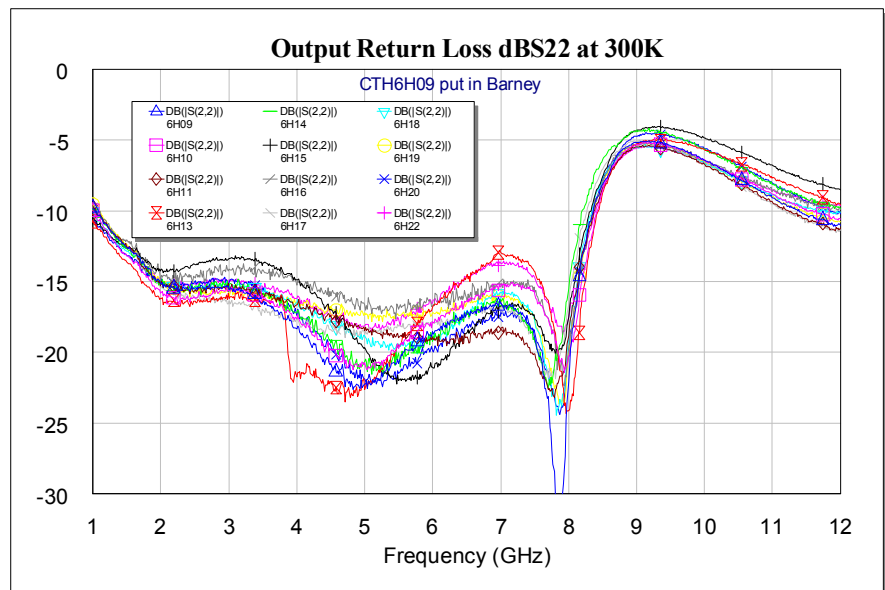
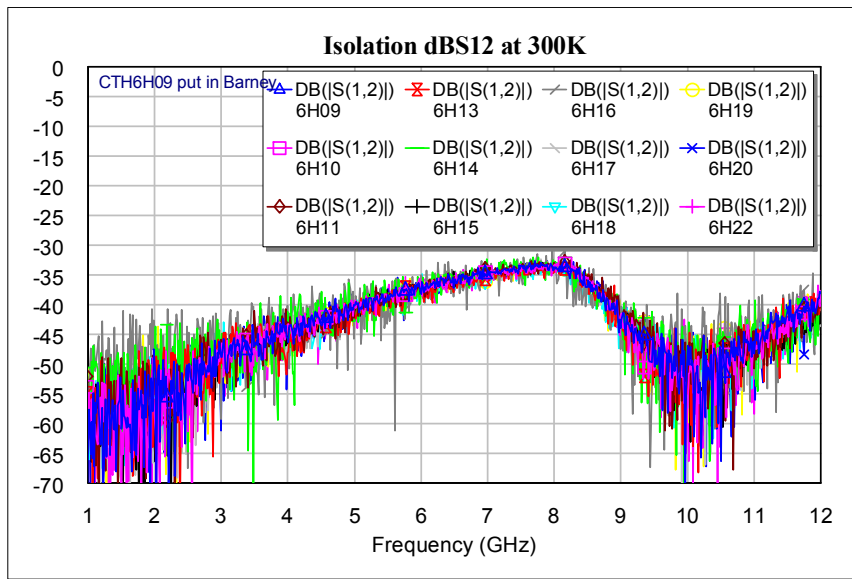
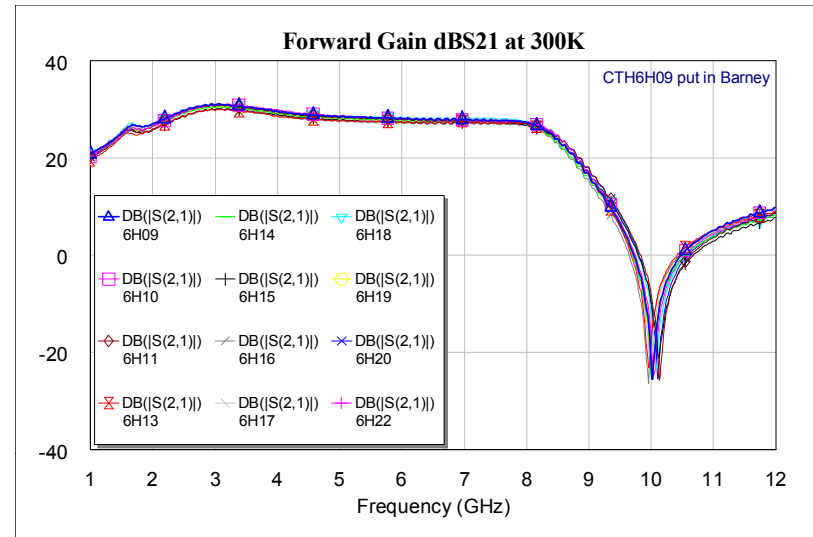
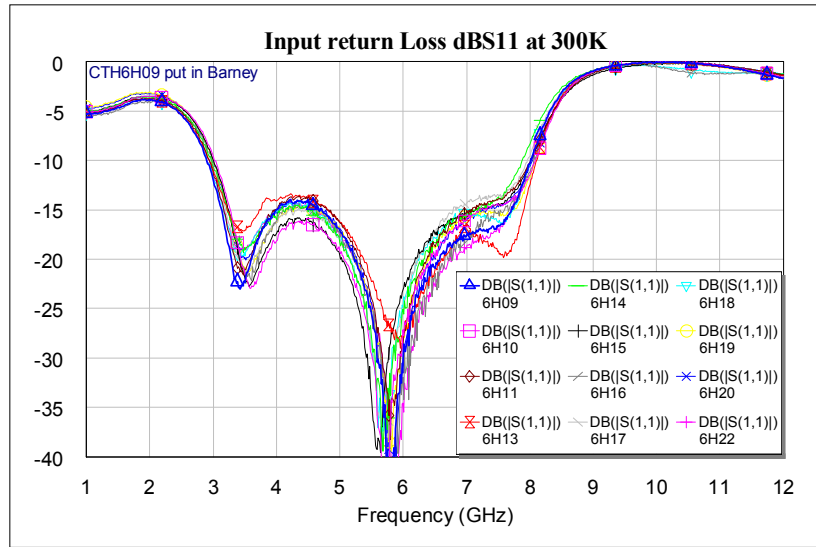


#4-40 mounting hole, 2pls



Chalmers MIC, 300K (30 Jan 2006)

[Barney has CTH-6H09]



Bp1:
 $V_d=0.8V$
 $I_d=10.0mA$
 $V_{g1}=0.185V$
 $I_{g1}=0.0uA$
 $V_{g2}=2.45V$
 $P_{dc}=4mW/Stage$
 $T_{avg}=1.69K$

Gain (dB) BP1
 Gain (dB) BP2
 Gain (dB) BP3
 Gain (dB) BP4
 Gain (dB) BP5

Noise (K) BP1
 Noise (K) BP2
 Noise (K) BP3
 Noise (K) BP4
 Noise (K) BP5

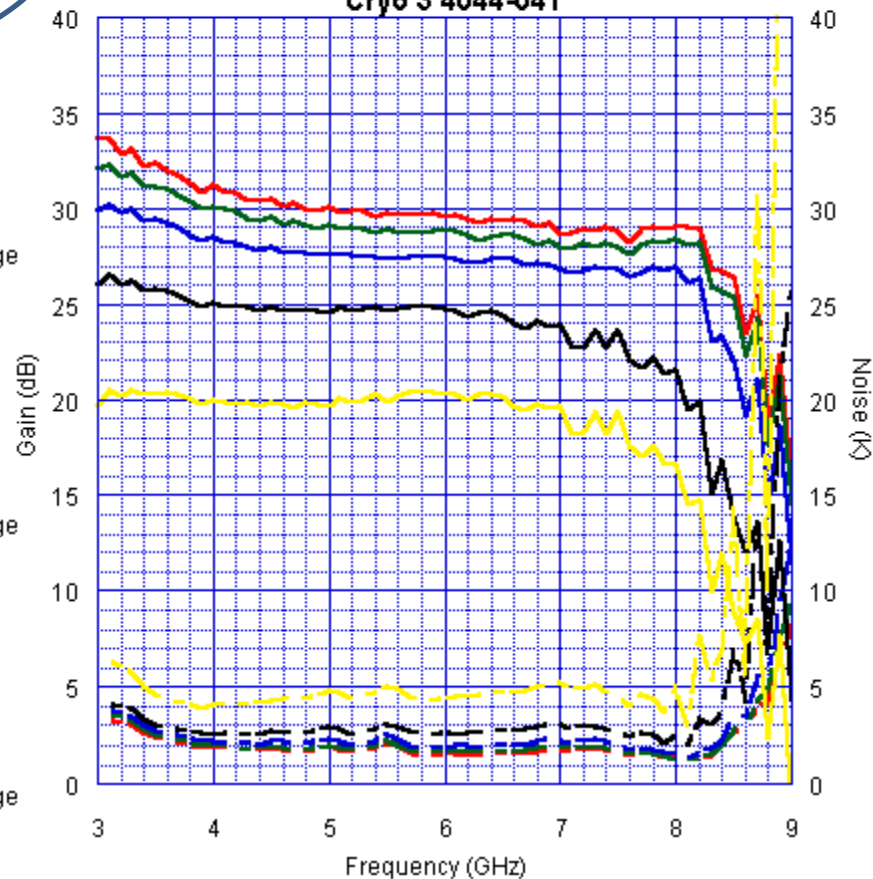
4-8GHz LNA#6H21 @11K Cryo 3 4044-041

Bp2:
 $V_d=0.6V$
 $I_d=6.0mA$
 $V_{g1}=0.189V$
 $I_{g1}=0.0uA$
 $V_{g2}=2.37V$
 $P_{dc}=1.8mW/Stage$
 $T_{avg}=1.80K$

Bp3:
 $V_d=0.4V$
 $I_d=4mA$
 $V_{g1}=0.194V$
 $I_{g1}=0.0uA$
 $V_{g2}=2.42V$
 $P_{dc}=0.8mW/Stage$
 $T_{avg}=2.05K$

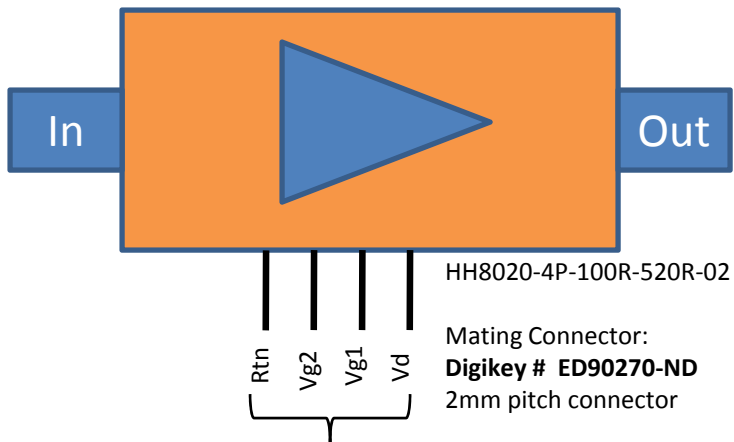
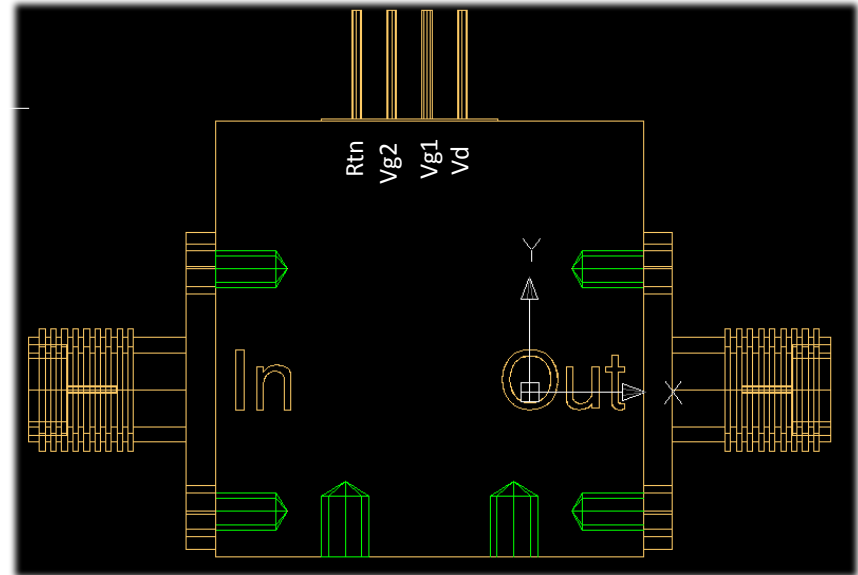
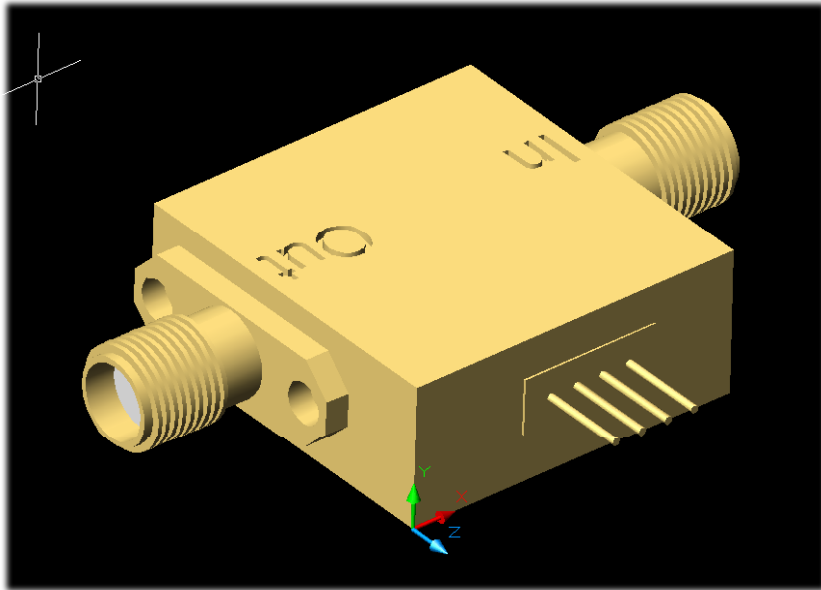
Bp4:
 $V_d=0.2V$
 $I_d=3mA$
 $V_{g1}=0.205V$
 $I_{g1}=0.0uA$
 $V_{g2}=2.55V$
 $P_{dc}=0.3mW/Stage$
 $T_{avg}=2.69K$

Bp5:
 $V_d=0.1V$
 $I_d=1.5mA$
 $V_{g1}=0.204V$
 $I_{g1}=0.0uA$
 $V_{g2}=2.54V$
 $P_{dc}=0.075mW/Stage$
 $T_{avg}=4.57K$



CSO MMIC

J. W. Kooi, 17 Feb 2011



Tie Vg1/Vg2 together at connector
→ 3 wires: Vd, Vg, Rtn

Barney settings of 1/30/2006:
MMIC-28B

4K:

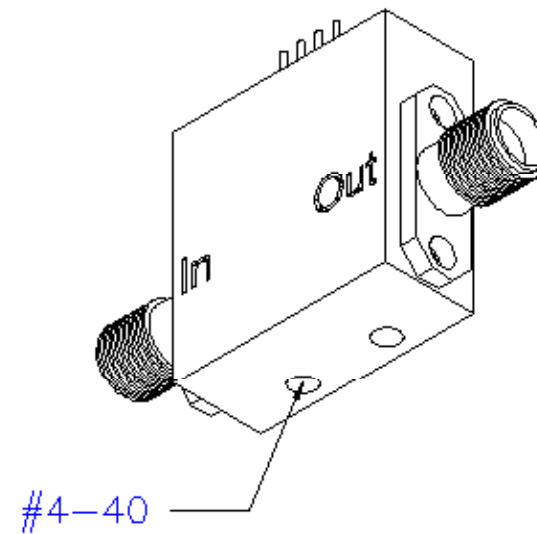
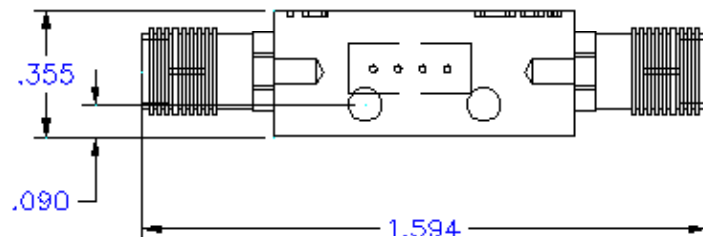
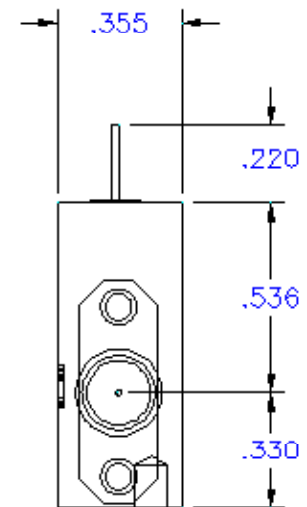
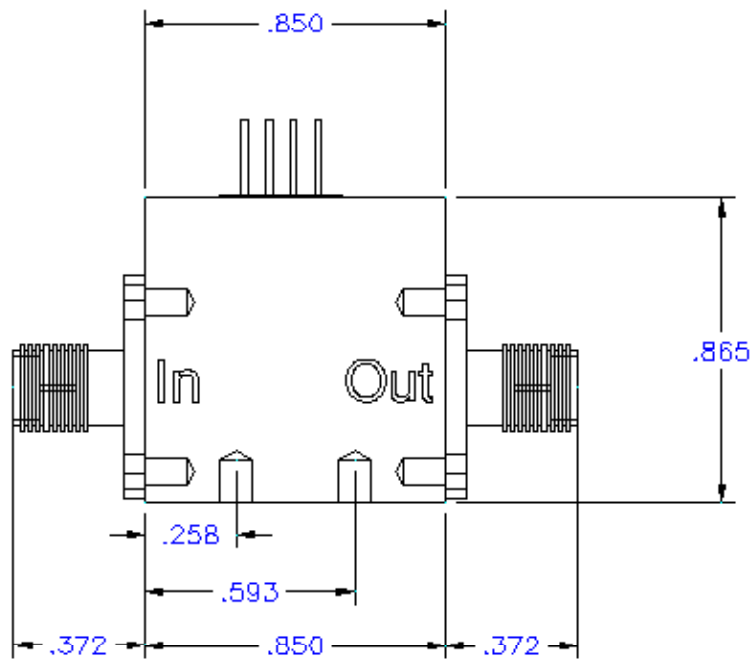
Vd=1.2V

Id=15mA

Vg= +0.6V (approx)

CSO MMIC

J. W. Kooi, 17 Feb 2011



Caltech MMIC, 300K (30 Jan 2006)

[Barney has MMIC-28B]

