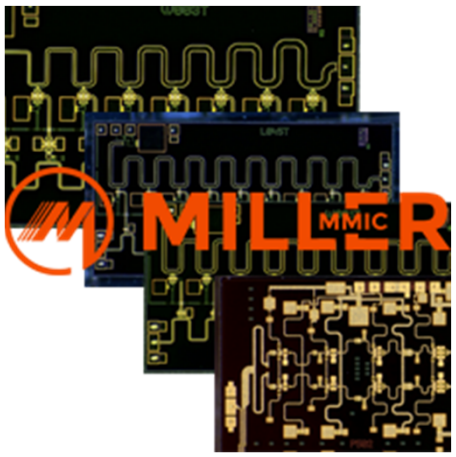
V1.0.0

GaAs pHEMT MMIC
SP3T Reflective *Switch*
DC~18GHz

Features

- SP3T Reflective design
- Frequency:DC~18GHz
- Isolation: 50dB
- Insertion Loss: 1.5dB
- Return Loss (ON):17dB
- Control Voltage:0/-5V
- Switching Speed:15ns
- Die Size: 1.38x1.4x 0.1 mm



Typical Applications

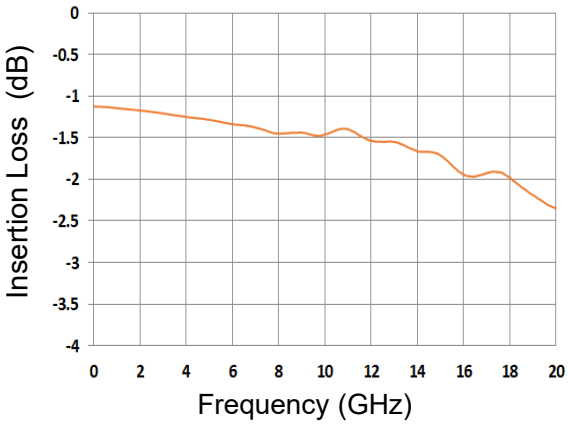
- Voltage control no current
- Fast Switching Speed
- Low Insertion Loss and High Isolation
- Customization available upon request

Electrical Specifications

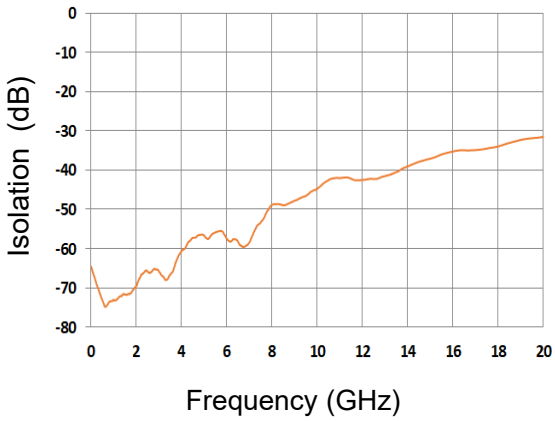
TA = +25ºC, VCTL=0/-5V

Parameters	Min.	Typ.	Max.	Min.	Typ.	Max.	Units
Frequency	DC~6			6-18			GHz
Insertion Loss		1.25	1.5		1.5	2.2	dB
Isolation	55	60		35	45		dB
Return Loss (ON State)	17	18		15	17		dB
Input P-1		20			20		dBm
RF Input power			30			30	dBm
IIP3		30			30		dBm
Switching Speed	15						ns

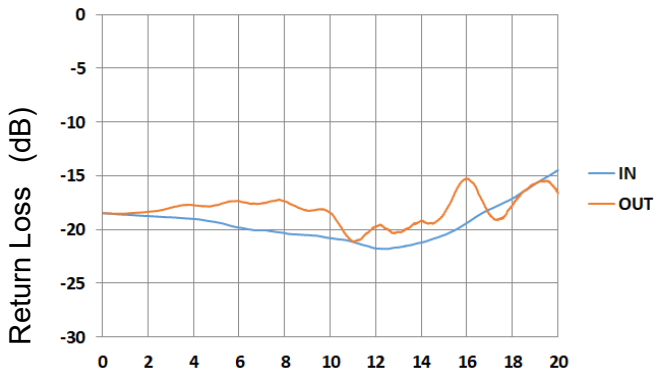
Insertion Loss @25℃



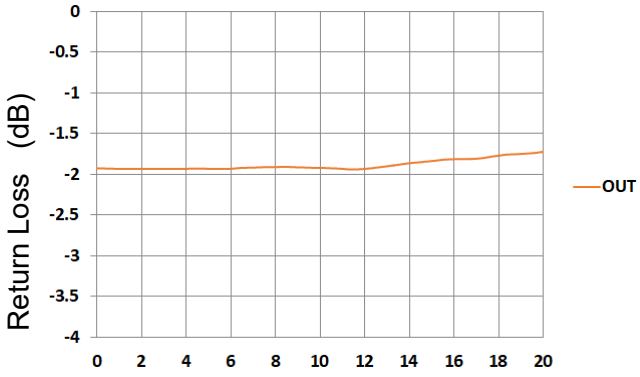
Isolation @25℃

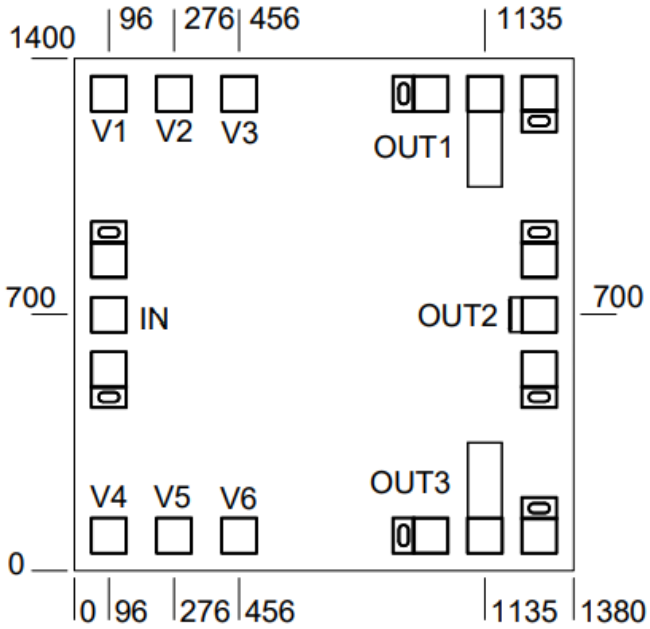


Return Loss (ON) @25℃



Output Return Loss (OFF) @25℃

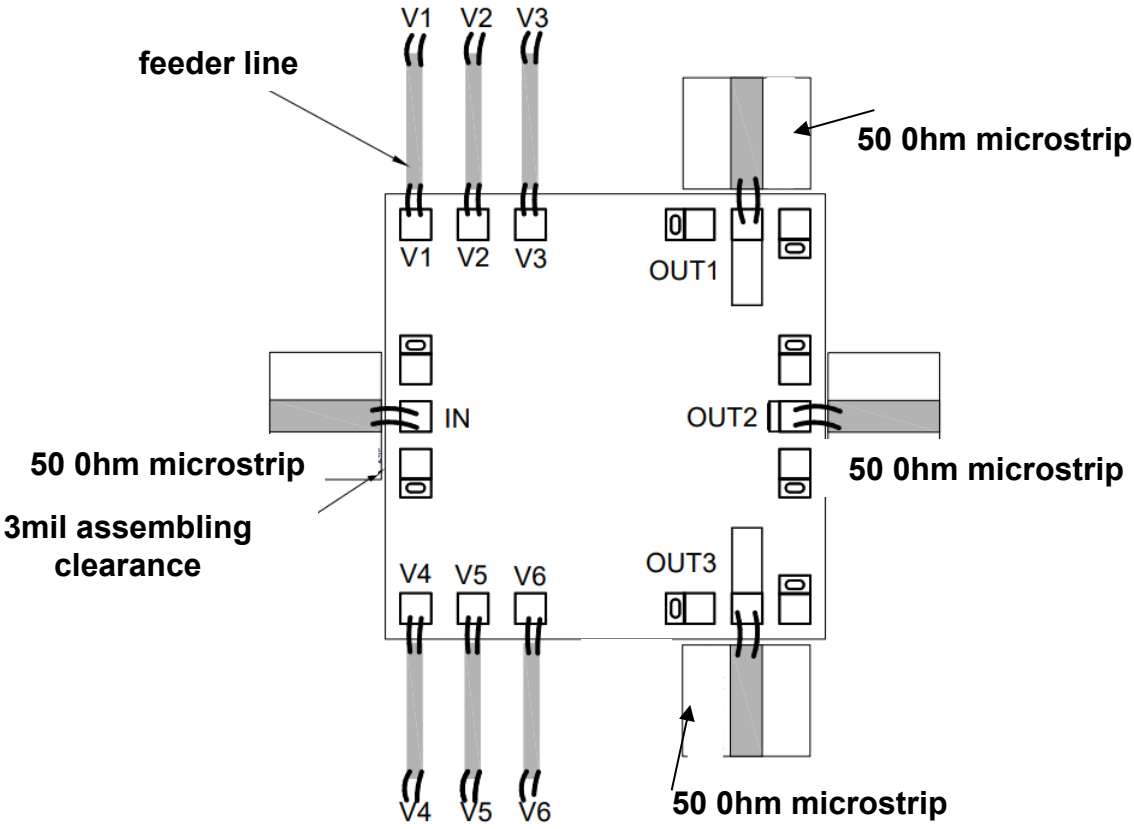




True Table

V1	V2	V3	V4	V5	V6	IN-OUT1	IN-OUT2	IN-OUT3
0	-5	-5	-5	0	0	ON	OFF	OFF
-5	0	0	-5	-5	0	OFF	ON	OFF
-5	-5	0	0	0	-5	OFF	OFF	ON

Assembly Drawing



Notes:

1. Die thickness: 100um
2. Typical bond pad is 100*100 μm²
3. Bond pad metalization: Gold
4. Backside metalization: Gold
5. Backside of the die (GND)
6. No connection required for unlabeled bond pads

Maximum Ratings:

1. RF input power: +30dBm
2. Control Voltage: -8~+1V
3. Storage temperature: -65℃ to +150℃
4. Operating temperature: -55℃ to 125℃