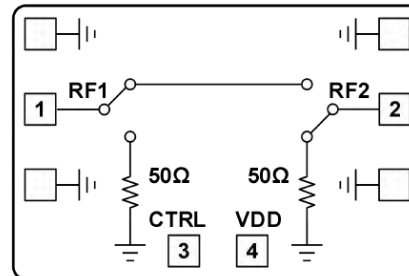


**Features**

- Positive voltage control
- Isolation: 49dB@ 20GHz
- Insertion Loss: 1.6dB@ 20GHz
- SPST Matching design
- Power supply: +5V@1mA
- Die Size: 1.5x0.8x 0.1 mm

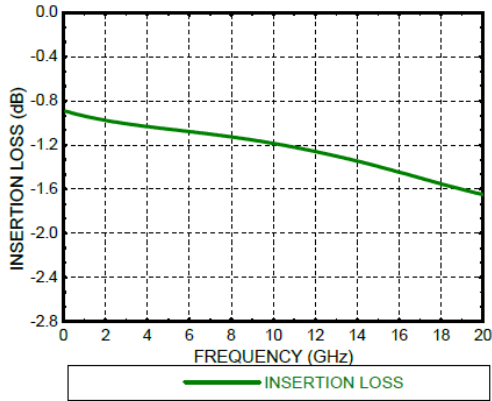
**Functional Block Diagram**

**Typical Applications**

- TTL compatible driver included
- Fast Switching Speed
- Low Insertion Loss and High Isolation
- Customization available upon request

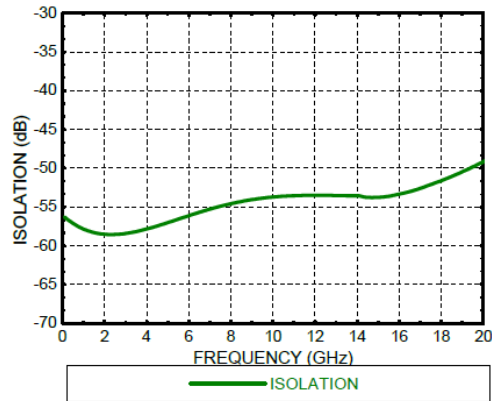
**Electrical Specifications**
**TA = +25°C, CTRL=0/+3.3V, VDD= +5V**

Parameters	Min.	Typ.	Max.	Units
Frequency	0.1-20			GHz
Insertion Loss		1.4		dB
Isolation		50		dB
Return Loss (ON State)		20		dB
Return Loss (OFF State)		20		dB
Input 1dB Compression@1-20GHz		22		dBm
Switching Speed		30		ns

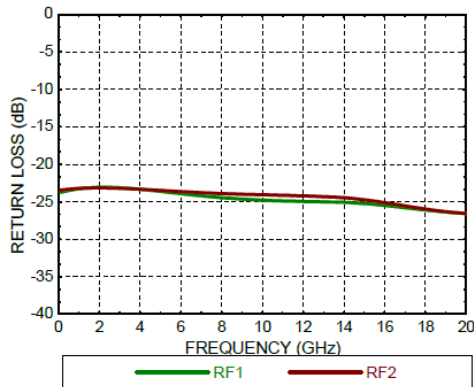
Insertion Loss



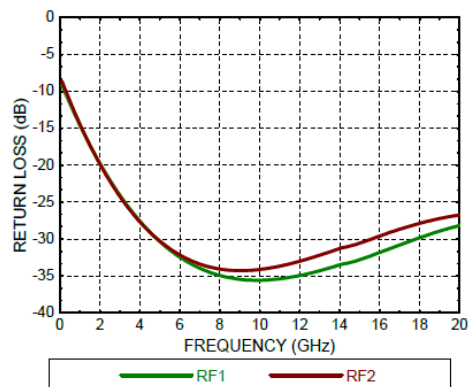
Isolation



Return Loss (ON State)



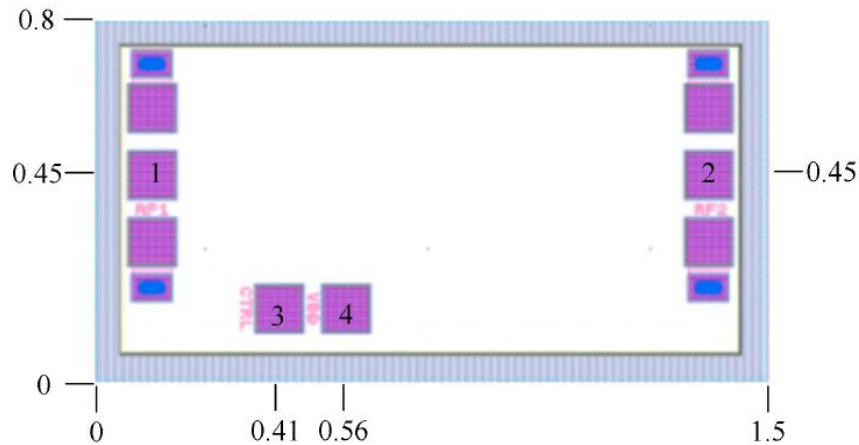
Return Loss (OFF State)





### Outline Drawing:

All Dimensions in mm



### Pad Description

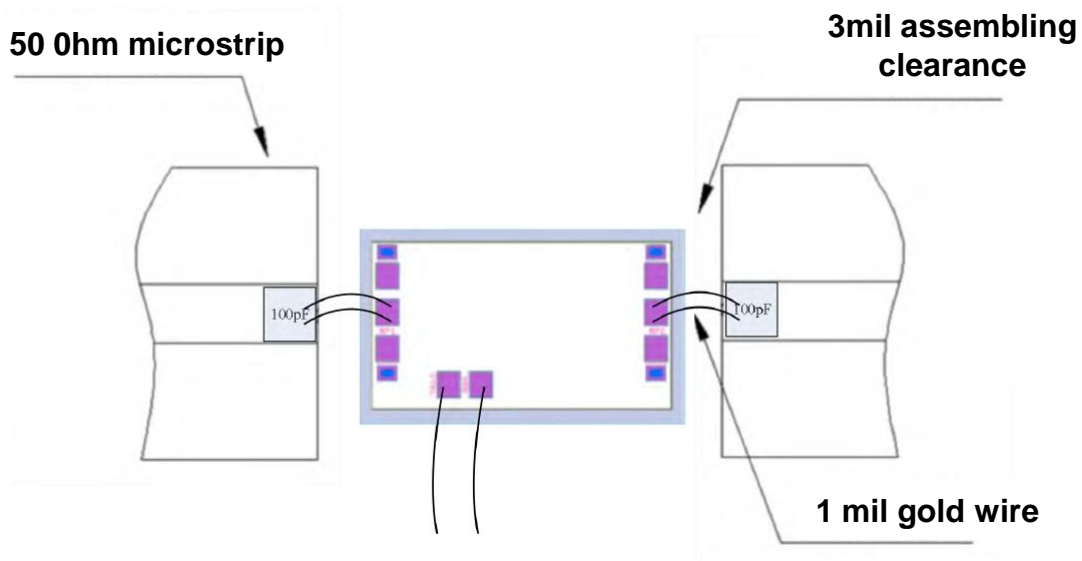
PAD	Function	Description
1,2	RF1,RF2	RF in/out port, blocking capacitor is required externally.
3	CTRL	When CTRL=5V, then RF1, RF2 are "ON" state, When CTRL=0V, then RF1, RF2 are "OFF" state.
4	VDD	Digital circuit power supply port, connected to +5V voltage.
Die Bottom	GND	Die bottom must be connected to RF/DC ground.

### True Table

Function	CTRL
ON	1
OFF	0
"0" voltage range:0~0.8V, "1" voltage range:2.3~5V	



### Assembly Drawing



#### Notes:

1. Die thickness: 100um
2. Typical bond pad is 100\*100  $\mu\text{m}^2$
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: +24dBm
2. Storage temperature: -65°C to +150°C
3. Operating temperature: -55°C to +85°C