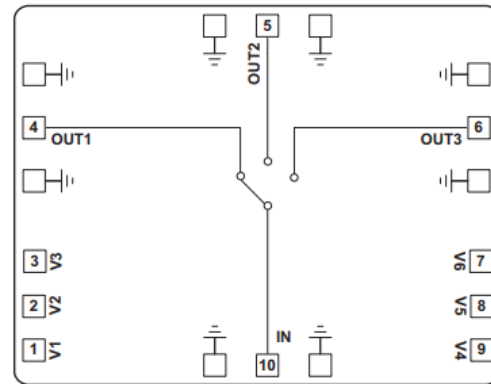


**Features**

- Isolation: 40dB @ 20GHz
- Insertion Loss: 2.5dB @ 20GHz
- Absorptive design
- Die Size: 1.5x 1.5x 0.1 mm

**Typical Applications**

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

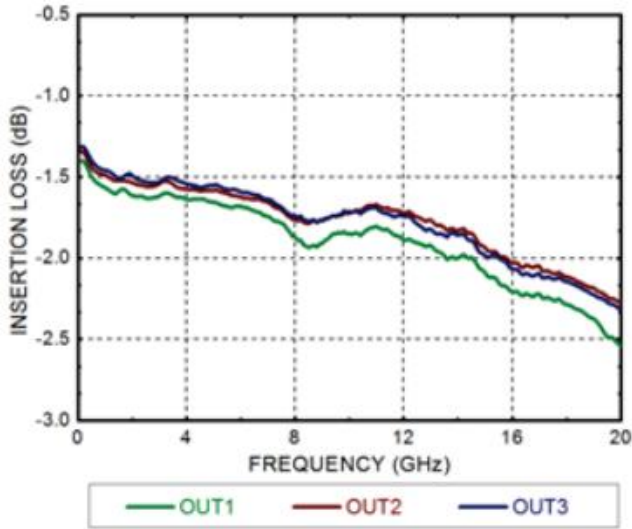
**Functional Block Diagram**

**Electrical Specifications**

TA = +25°C, Vctl = 0/-5V

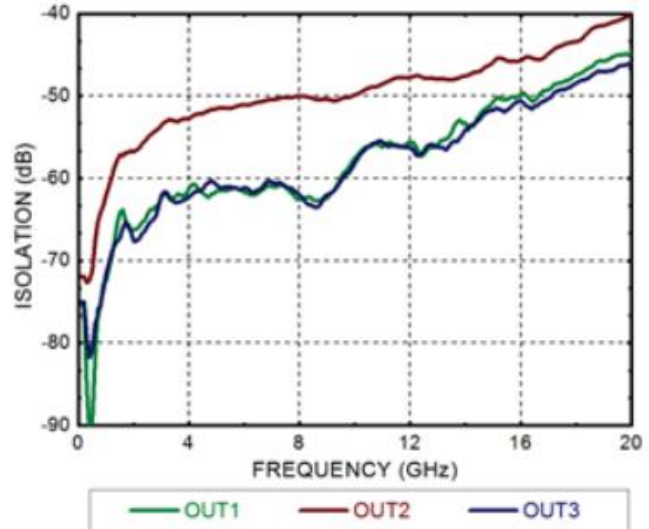
Parameters	Min.	Typ.	Max.	Units
Frequency	DC - 20			GHz
Insertion Loss		2.5		dB
Isolation		50		dB
Return Loss (ON State)		15		dB
Return Loss (OFF State)		15		dB
Input 1dB Compression (P1dB)		25		dBm
Switching Speed		15		ns



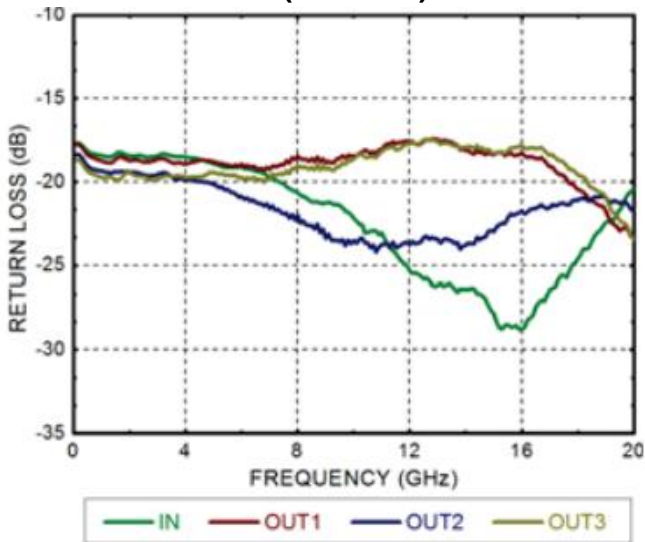
### Insertion Loss



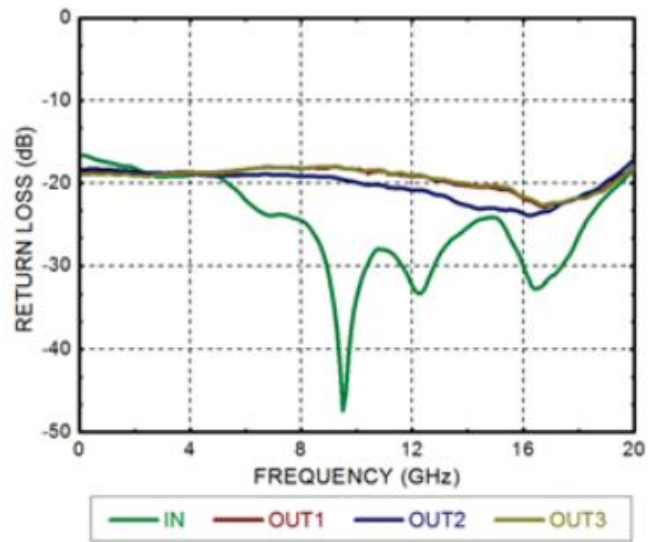
### Isolation



### Return Loss (ONState)



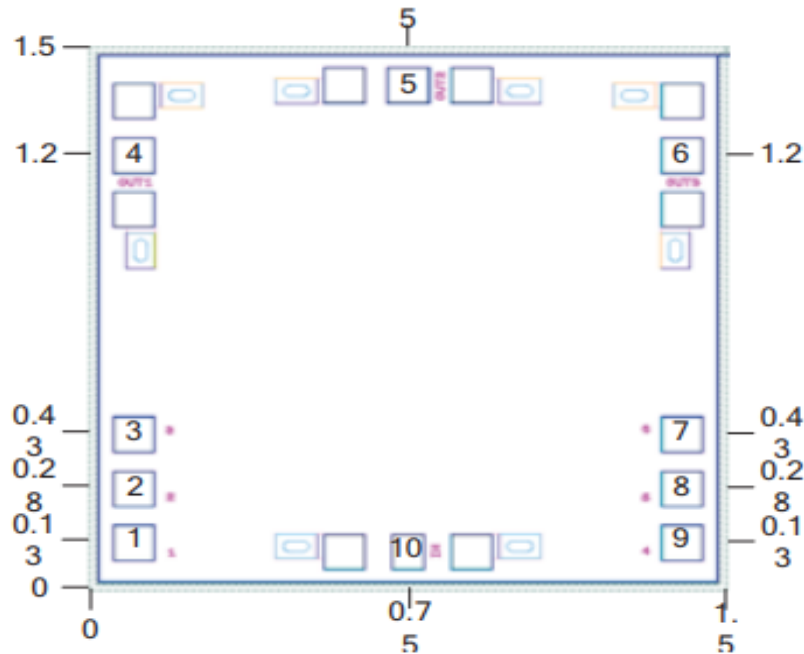
### Return Loss (OFF State)





### Outline Drawing:

All Dimensions in mm

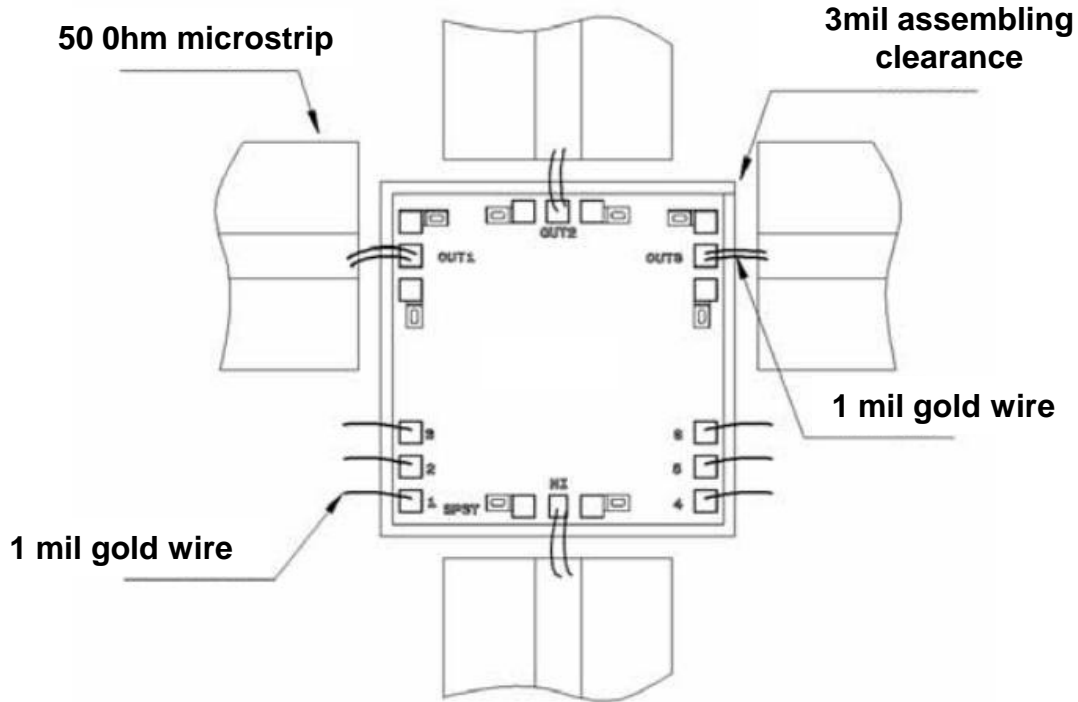


### Pad Description

PAD	Function	Description
10	IN	The pad is DC coupled to 50 ohms . If the RF level is not 0V, then the blocking capacitor is required externally.
4, 5, 6	OUT1, OUT2, OUT3	The pad is DC coupled to 50 ohms . If the RF level is not 0V, then the blocking capacitor is required externally.
1, 2, 3 7, 8, 9	V1, V2, V3 V6, V5, V4	When V1, V5, V6=0V, V3, V2, V4=-5V, The OUT1 is "ON" state; When V2, V3, V6=0V, V5, V1, V4=-5V, The OUT2 is "ON" state; When V4, V3, V5=0V, V6, V1, V2=-5V, The OUT3 is "ON" state; When V3, V5, V6=0V, V1, V2, V4=-5V, The OUT1, OUT2, OUT3 are all "OFF" state
Die Bottom	GND	Die bottom must be connected to RF/DC ground



### 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: +27dBm
2. Storage temperature: -65°C to +175°C
3. Operating temperature: -55°C to +85°C