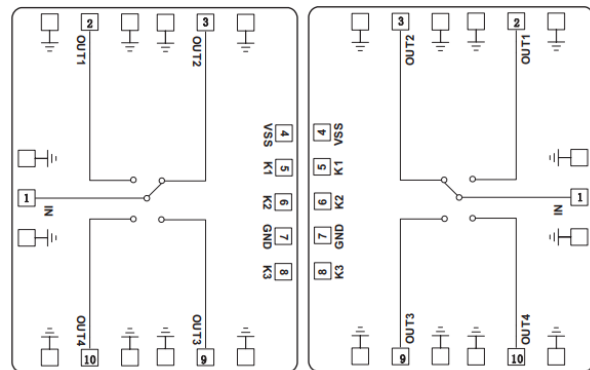


Features

- MM116-PD and MM116R-PD is Left and right mirror relation
- Integrated TTL driver can turn off all RF signals
- Isolation: 42dB @ 20GHz
- Insertion Loss: 2.6dB @ 20GHz
- Absorptive design
- Die Size: 2 x 1.5 x 0.1 mm³

Typical Applications

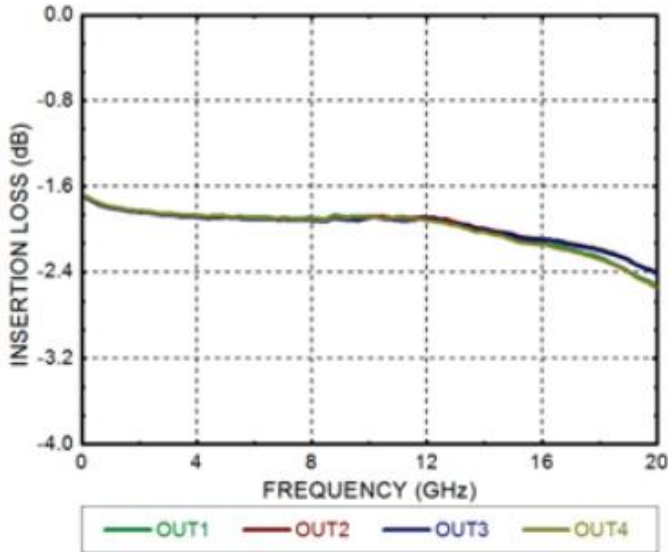
- Fast Switching Speed
- Low Insertion Loss and High Isolation
- Customization available upon request

Functional Block Diagram

Electrical Specifications

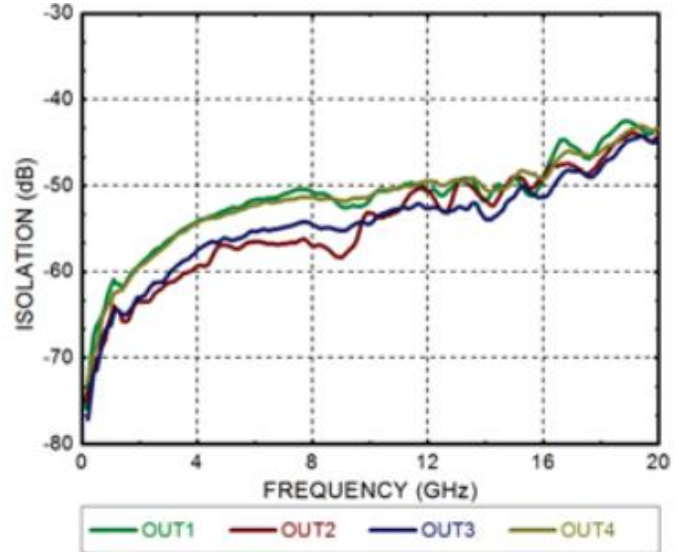
TA = +25°C, Vctl = 0/+5V

Parameters	Min.	Typ.	Max.	Units
Frequency	DC - 20			GHz
Insertion Loss		2		dB
Isolation		50		dB
Return Loss (ON State)		15		dB
Return Loss (OFF State)		15		dB
Input 1dB Compression (P1dB)		25		dBm
Switching Speed		30		ns

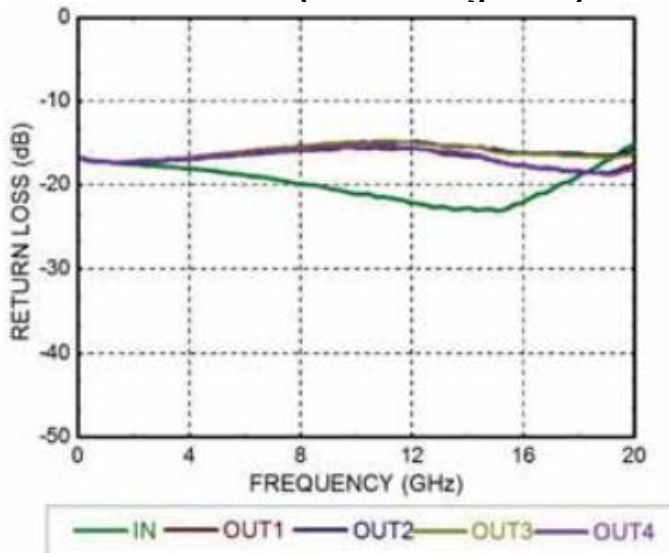
Insertion Loss



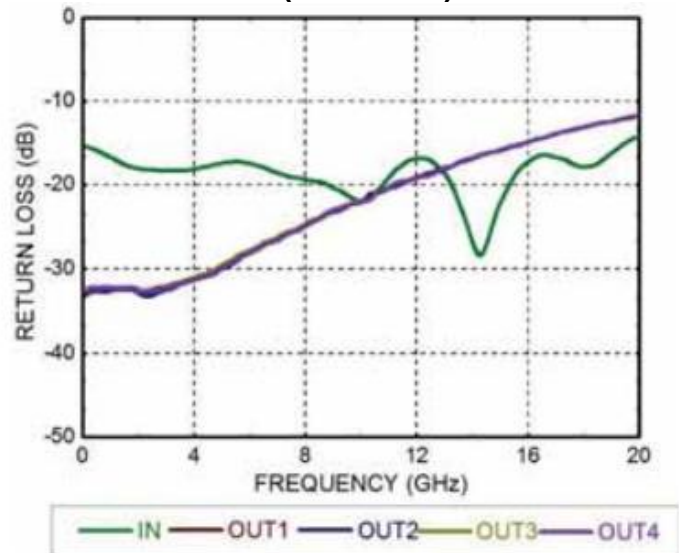
Isolation



Return Loss(Conducting State)



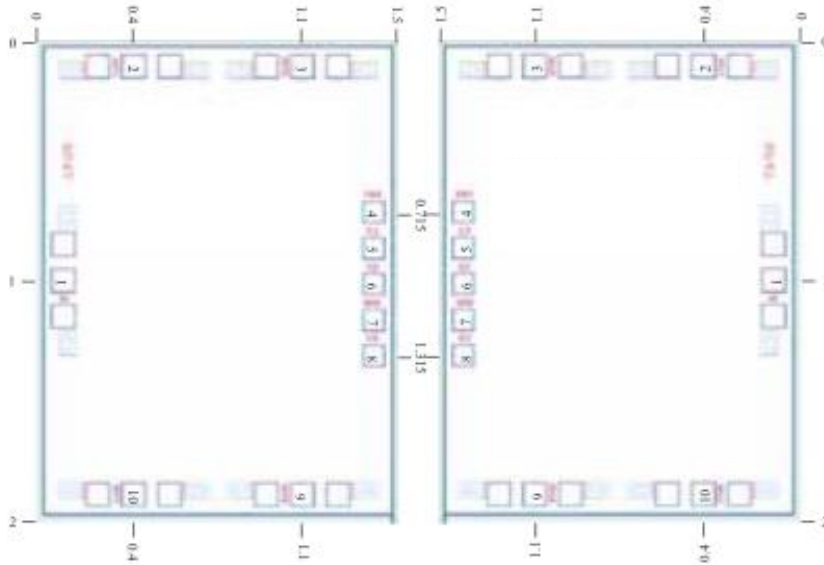
Return Loss(OFF State)





Outline Drawing:

All Dimensions in mm

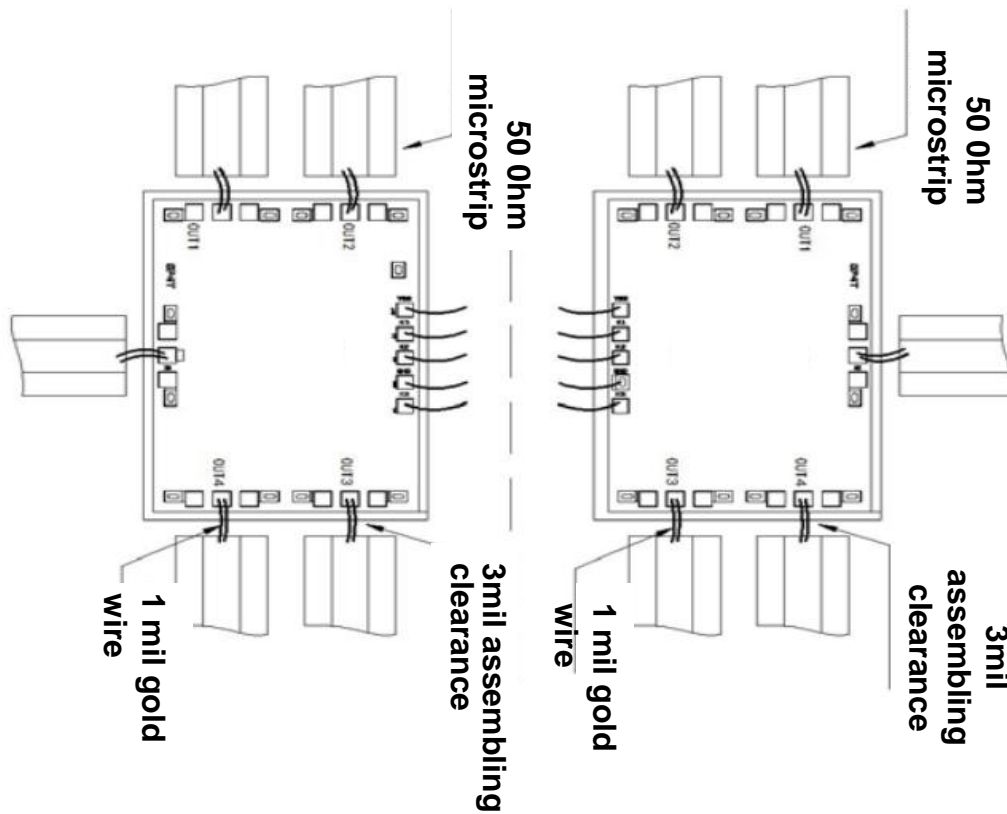


Pad Description

PAD	Function	Description
1	IN	The pad is DC coupled, and matched to 50 ohms . If the RF level is not 0V, then the blocking capacitor is required externally.
2, 3, 9, 10	OUT1, OUT2 OUT3, OUT4	The pad is DC coupled, and matched to 50 ohms . If the RF level is not 0V, then the blocking capacitor is required externally.
5, 6, 8	K1, K2, K3	When K1=0V, K2=0V, K3=0V , The OUT1 is “ON” state; When K1=5V, K2=0V, K3=0V, The OUT2 is “ON” state; When K1=0V, K2=5V, K3=0V, The OUT3 is “ON” state; When K1=5V, K2=5V, K3=0V, The OUT4 is “ON” state; When K3=5V, The OUT1-- OUT4 are all “OFF” state
4	VSS	This pad is power conversion circuit power supply, and then -5V power supply.
7	GND	The pad is power conversion circuit ground end, which can be grounded or suspended when used.
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 μm^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. Power supply voltage: -6V
2. RF input power: +27dBm
3. Storage temperature: -65°C to +175°C
4. Operating temperature: -55°C to +85°C