

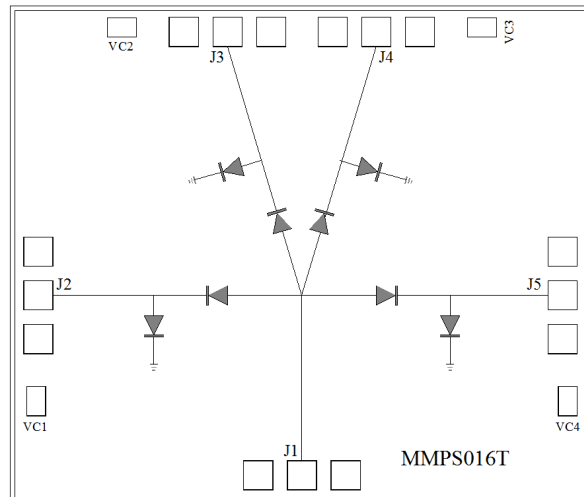
Features

- PIN Diode SP4T Reflective design
- Frequency: 2-20GHz
- Isolation: 48dB Typical
- Insertion Loss: 0.9 dB Typical
- Control Voltage: +5/-5V
- Switching Speed: 20 ns Typical
- Die Size: 2.0 x 1.7 x 0.1 mm

Typical Applications

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

Functional Block Diagram



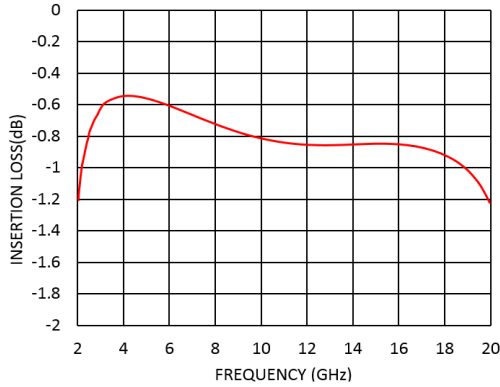
Electrical Specifications

TA = +25°C, VCTL=+5/-5V , +12mA /-10mA Typical

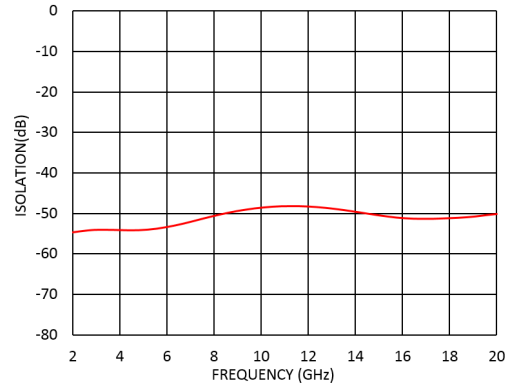
Parameters	Min.	Typ.	Max.	Units
Frequency	2		20	GHz
Insertion Loss		0.9	1.4	dB
Isolation		49		dB
Input Return Loss (ON State)		15		dB
Output Return Loss (OFF State)		15		dB
P1dB - Output 1dB Compression		25		dBm
IIP3-Input Third Order Intercept		40		dBm
Switching Speed		20		ns



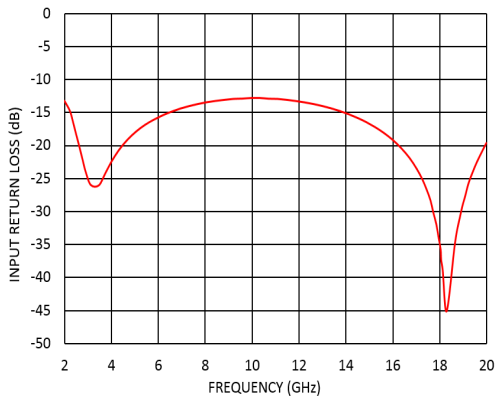
Insertion Loss vs. Frequency



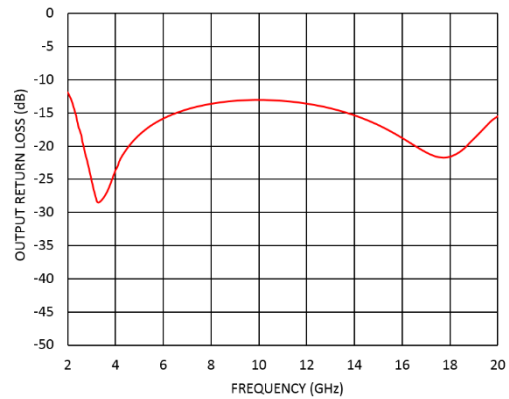
Isolation vs. Frequency



Input Return Loss vs. Frequency



Output Return Loss vs. Frequency





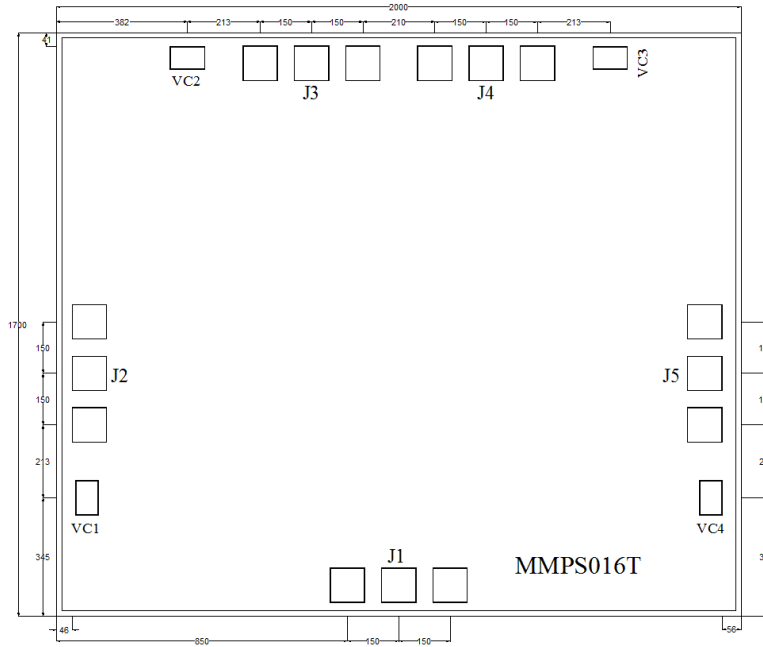
Absolute Maximum Ratings

Max Incident C.W. RF Power	+31dBm
DC Reverse Voltage	25V
Bias Current	±50 mA
Operating Temperature	-55°C to +85 °C
Storage Temperature	-65°C to +150 °C



ELECTROSTATIC SENSITIVE DEVICE
OBSERVE HANDLING PRECAUTIONS

Outline Drawing: All Dimensions in μm

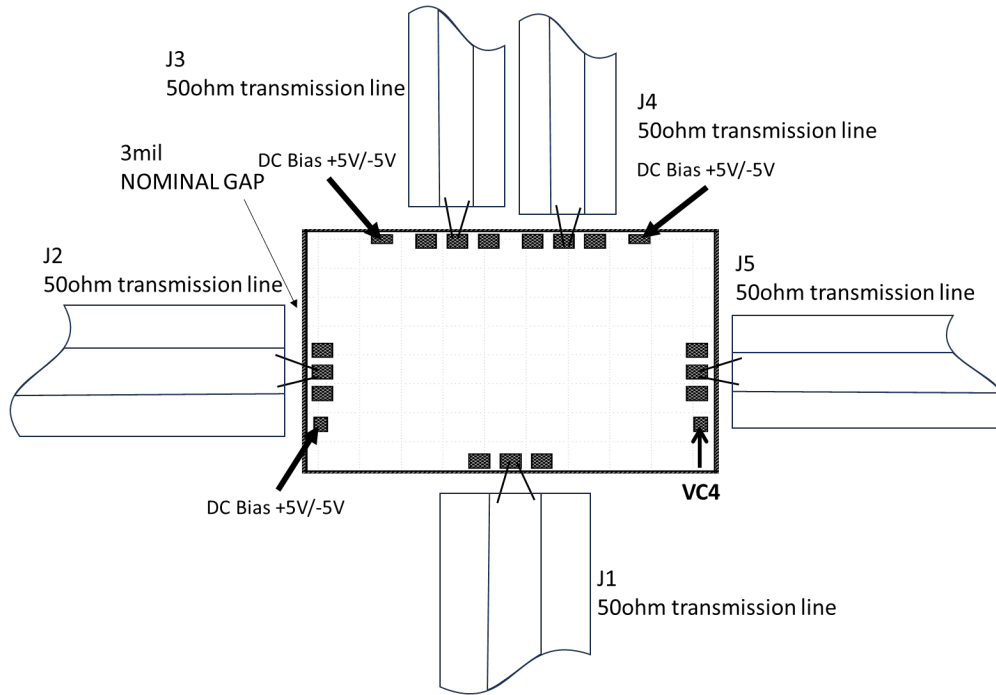


True Table

Control Voltage				State			
VC1	VC2	VC3	VC4	J2→J1	J3→J1	J4→J1	J5→J1
-5V	+5V	+5V	+5V	ON	OFF	OFF	OFF
+5V	-5V	+5V	+5V	OFF	ON	OFF	OFF
+5V	+5V	-5V	+5V	OFF	OFF	ON	OFF
+5V	+5V	+5V	-5V	OFF	OFF	OFF	ON



Assembly Drawing



Notes:

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

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