



### Features

- FET SP4T Absorptive design
- Frequency: DC-19GHz
- Isolation: 47dB Typical
- Insertion Loss: 1.8dB Typical
- Control Voltage: 0/+5V
- Switching Speed: 10ns Typical
- Die Size: 2.05 x 2.0 x 0.1 mm

### Typical Applications

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

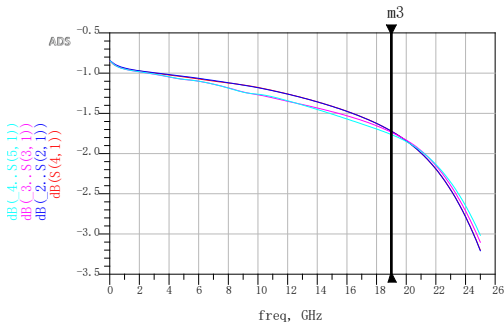
### Electrical Specifications

TA = +25°C, VCTL=0/+5V , 1mA ; VEE=-5V , 10mA

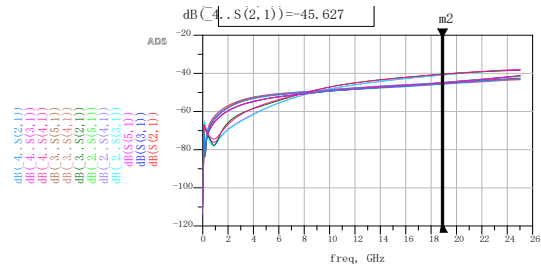
Parameters	Min.	Typ.	Max.	Units
Frequency	DC		19	GHz
Insertion Loss		1.8		dB
Isolation		47		dB
Input Return Loss		-19		dB
Output Return Loss		-19		dB
P1dB - Output 1dB Compression		21		dBm
IIP3-Input Third Order Intercept		37		dBm
Switching Speed		10		ns



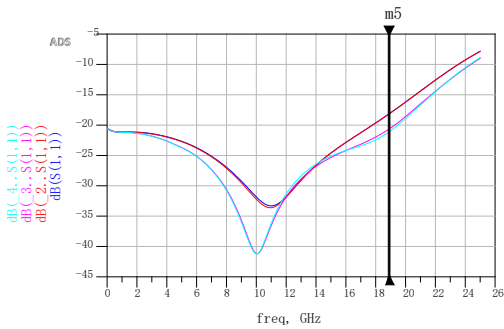
### Insertion Loss vs. Frequency



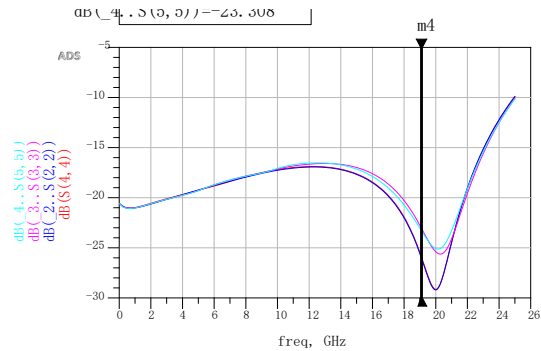
### Isolation vs. Frequency



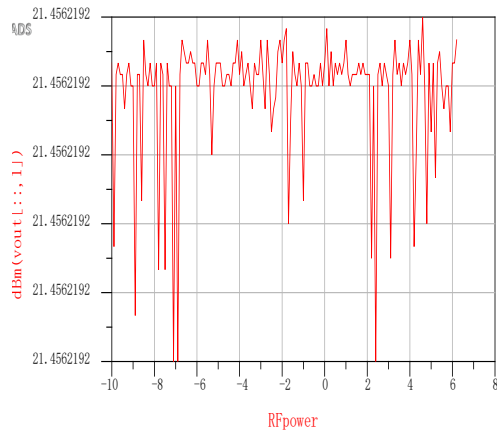
### Input Return Loss vs. Frequency



### Output Return Loss vs. Frequency

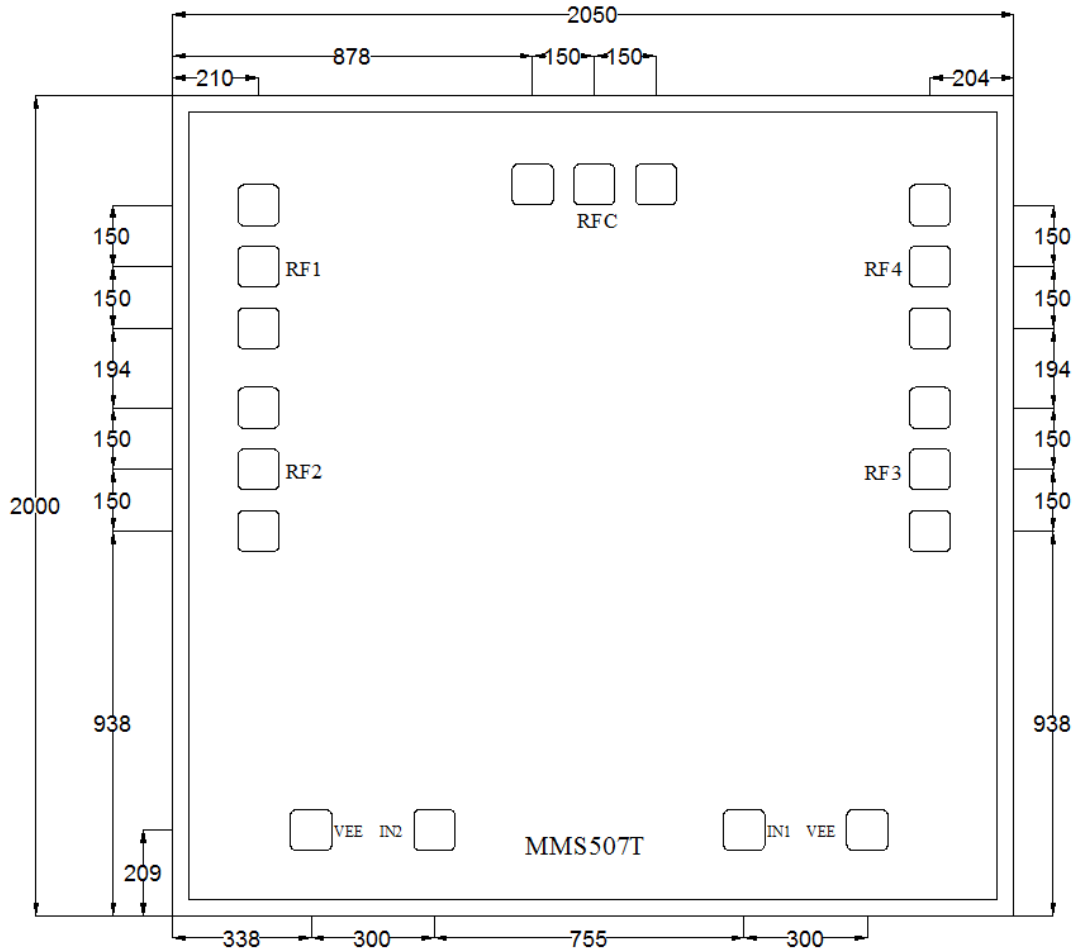


### P1dB





**Outline Drawing:**  
All Dimensions in  $\mu\text{m}$

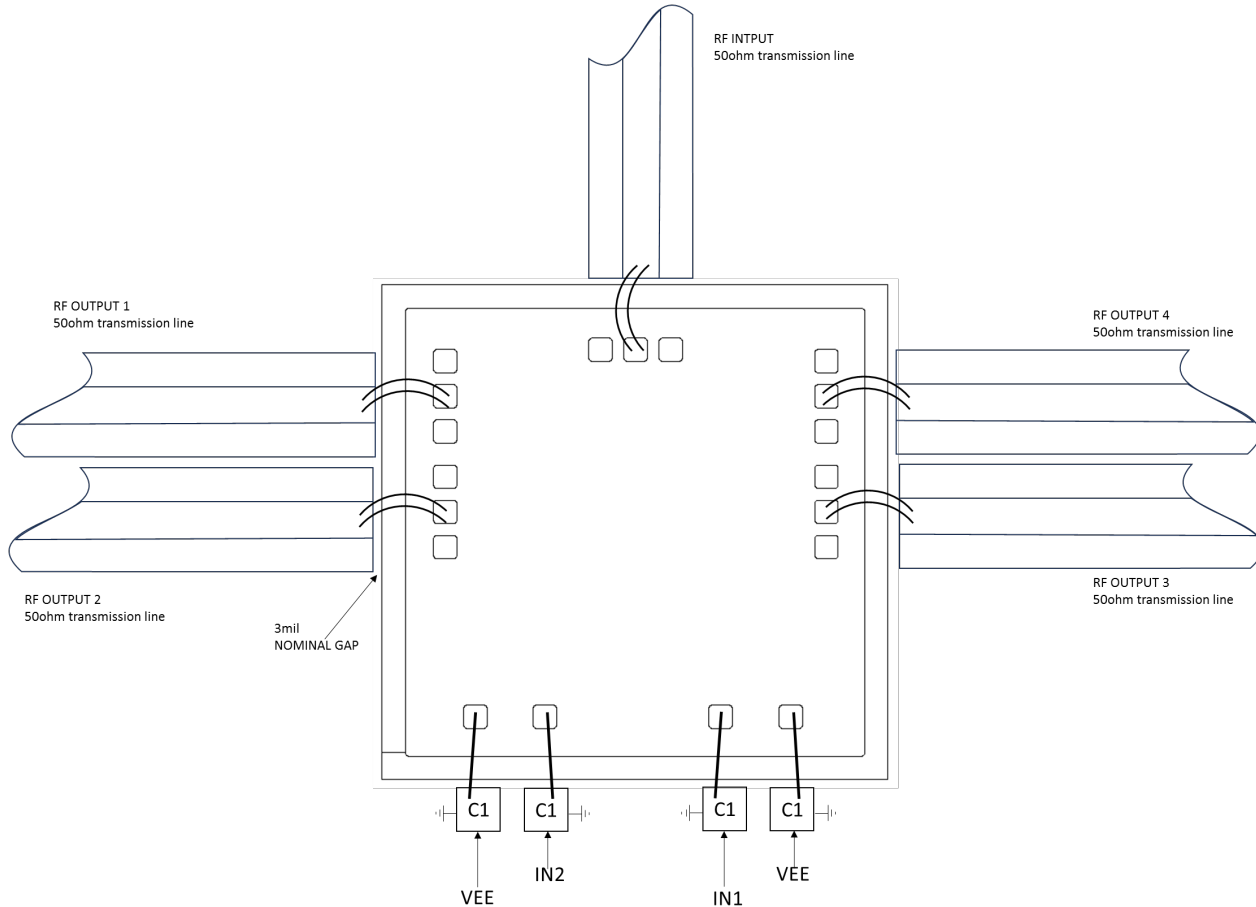


**Truth Table**

Voltage			State			
VEE	IN1	IN2	RF1	RF2	RF3	RF4
-5V	0V	0V	ON	OFF	OFF	OFF
-5V	0V	5V	OFF	ON	OFF	OFF
-5V	5V	0V	OFF	OFF	ON	OFF
-5V	5V	5V	OFF	OFF	OFF	ON



### Assembly Drawing



#### Notes:

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

Item	Description
C1	39pF Capacitor Example: Skyworks Part: SC10002430

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