

V1.0.0 GaAs MMIC FET SP2T Absorptive Switch
DC-19GHz

Features

FET SP2T Absorptive design
 Frequency: DC-19GHz
 Isolation: 53dB Typical
 Insertion Loss: 1.2dB Typical
 Control Voltage: 0/+5V

Switching Speed: 10ns Typical
Die Size: 1.75 x 1.4 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 , 600 μA ; VEE=-5V , 3mA

Parameters	Min.	Тур.	Max.	Units
Frequency	DC		19	GHz
Insertion Loss		1.2		dB
Isolation		53		dB
Input Return Loss		-19		dB
Output Return Loss		-20		dB
P1dB - Output 1dB Compression		22		dBm
IIP3-Input Third Order Intercept		-		dBm
Switching Speed		10		ns

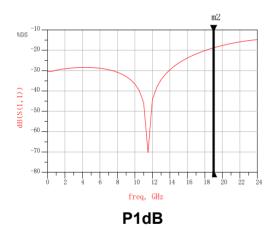


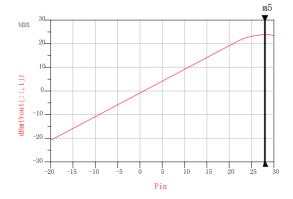
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Insertion Loss vs. Frequency

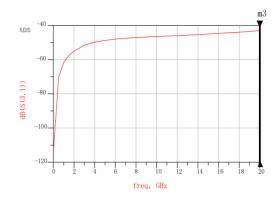


Input Return Loss vs. Frequency

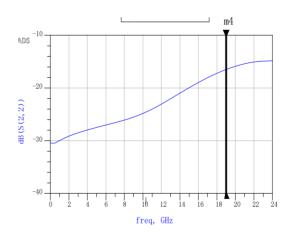




Isolation vs. Frequency



Output Return Loss vs. Frequency

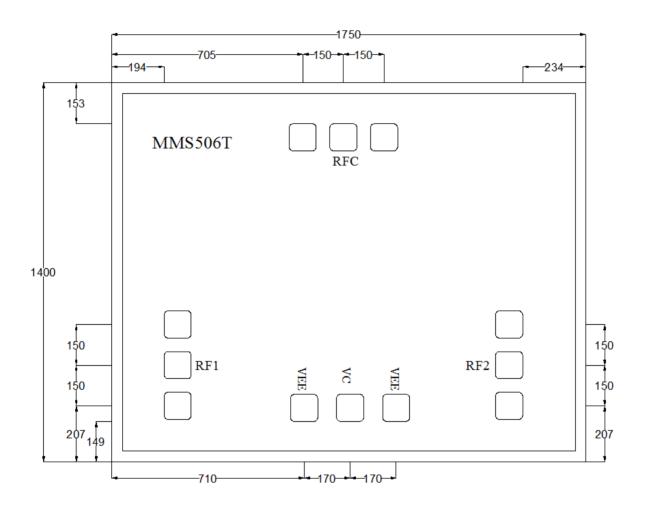




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Outline Drawing:

All Dimensions in μm



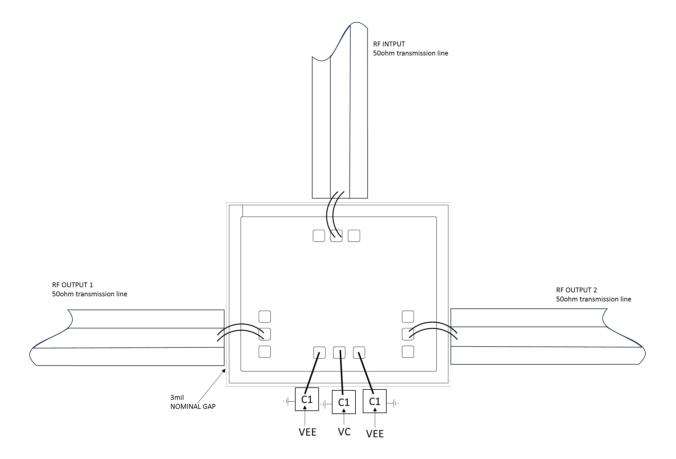
Truth Table

Voltage		State		
VEE	VC	RF1	RF2	
-5V	0V	ON	OFF	
-5V	5V	OFF	ON	



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Assembly Drawing



Notes:

1. Die thickness:100µm

2. Typical bond pad is 100*100um²

3. Bond pad mentalization: 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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