# GW1466

## *High Power GaAs SPDT Switch for WiMAX*

Ver. 1.2

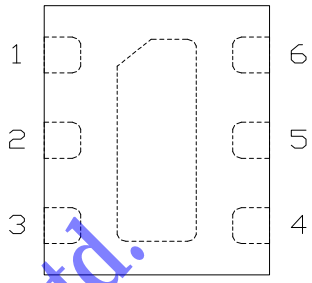
## ■ Features

- WiMAX and WLAN 802.11a/b/g/n Applications
- Low Insertion Loss: 0.50dB@2.3 ~ 2.7GHz
  0.60dB@3.3 ~ 3.9GHz
  0.55dB@4.9 ~ 6.0GHz
- High Isolation: 30dB@2.3 ~ 2.7GHz
  32dB@3.3 ~ 3.9GHz
  35dB@4.9 ~ 6.0GHz
- Low Cost and Good Reliability Performance

## ■ General Description

The GW1466 is a high power GaAs MMIC SPDT switch in a DFN 3.0×2.0mm 6 lead plastic package. The GW1466 features low insertion loss, high isolation and positive voltage operation with 2 controls. Typical applications are for WiMAX and EEE WLAN 802.11 a/b/g/n system or systems operating frequency DC to 6GHz that employs antenna for transmit and receive diversity.

## ■Pin Functional Schematic and Assignment




DFN 3×2mm (Top View)

| Pin No. | Pin Name | Description |
|---|---|---|
| 1 | RF1(Output1) | Output1 Port |
| 2 | GND | Ground |
| 3 | RF2(Output2) | Output2 Port |
| 4 | Vcont2 | Voltage Control 2 |
| 5 | RFC(Input) | Input Port |
| 6 | Vcont1 | Voltage Control 1 |

## ■ Electrical Specifications at 25°C with ( 0, +3V ) Control Voltages, 8pF Capacitor

| Parameter | Test Conditions | Min. | Typ. | Max. | Unit |
|---|---|---|---|---|---|
| Insertion Loss | 2.3 - 2.7 GHz | - | 0.50 | 0.70 | dB |
| | 3.3 – 3.9 GHz | - | 0.60 | 0.80 | |
| | 4.9 – 6.0 GHz | - | 0.55 | 0.75 | |
| Isolation (Input to Output1 , Input to Output2) | 2.3 - 2.7 GHz | 27 | 30 | - | dB |
| | 3.3 – 3.9 GHz | 29 | 32 | - | |
| | 4.9 – 6.0 GHz | 32 | 35 | - | |
| Isolation (Output1 to Output2) | 2.3 - 2.7 GHz | 25 | 28 | - | dB |
| | 3.3 – 3.9 GHz | 25 | 28 | - | |
| | 4.9 – 6.0 GHz | 22 | 25 | - | |
| Input/Output Return Loss | 2.3 - 2.7 GHz | 10 | 18 | - | dB |
| | 3.3 – 3.9 GHz | 10 | 15 | - | |
| | 4.9 – 6.0 GHz | 10 | 15 | - | |
| Input Power for 1 dB compression | 2.3 - 2.7 GHz | - | 37 | - | dBm |
| | 3.3 – 3.9 GHz | - | 37 | - | |
| | 4.9 – 6.0 GHz | - | 37 | - | |
| Second Harmonics | 2.5 GHz, $P_{IN}$ = 20dBm | - | -70 | - | dBc |
| Third Harmonics | 2.5 GHz, $P_{IN}$ = 20dBm | - | -70 | - | dBc |
| Switch Time | 50% CTL to 90/10% | - | 50 | - | ns |
| Control Current | Input Power +20dBm | - | 4 | 30 | μA |

Notes: All measurements made in 50Ω system, unless otherwise specified.