



GW2236

High-Power 4-control DPDT Switch LF-6GHz

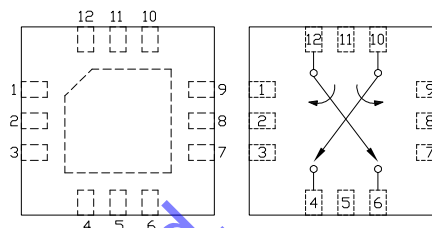
Preliminary 052810

■ Features

- Low Insertion Loss: 1dB@2.4 ~ 6.0GHz
- High Isolation: 25dB@2.4~6.0GHz
- QFN 3.0mm×3.0mm 12 Lead Green Package
- 0.5 μ m GaAs pHEMT Process
- Low Cost and Good Reliability Performance

■ Pin Functional Schematic and Assignment

QFN 3.0×3.0 (Top View)



■ General Description

The GW2236 is a pHEMT GaAs MMIC DPDT switch in a QFN 3.0mm×3.0mm 12 lead plastic package. The GW2236 features low insertion loss, high isolation and positive voltage operation with 4 controls. Typical applications are for WiFi systems and capable of covering both the 2.4GHz and 5GHz bands that employs antenna for transmit and receive diversity.

Pin No.	Pin Name	Description
1	Vcont1	Voltage Control 1
2	GND	Ground
3	Vcont4	Voltage Control 4
4	ANT1(Input1)	Input1 Port
5	GND	Ground
6	ANT2(Input2)	Input2 Port
7	Vcont3	Voltage Control 3
8	GND	Ground
9	Vcont2	Voltage Control 2
10	Rx(Output2)	Output2 Port
11	GND	Ground
12	Tx(Output1)	Output1 Port

■ Electrical Specifications at 25°C with (0, +2.8V) Control Voltages, 56pF Capacitor

Parameter	Test Conditions	Min.	Typ.	Max.	Unit
Insertion Loss	2.4 – 2.5 GHz	-	0.45	0.65	dB
	5.0 – 6.0 GHz	-	1	1.1	
Isolation (ANT1 to Tx , ANT1 to Rx , ANT2 to Tx , ANT2 to Rx)	2.4 – 2.5 GHz	29	32	-	dB
	5.0 – 6.0 GHz	22	25	-	
Isolation (ANT1 to ANT2 , Tx to Rx)	2.4 – 2.5 GHz	29	32	-	dB
	5.0 – 6.0 GHz	22	25	-	
Input/Output Return Loss	2.4 – 2.5 GHz	-	15	-	dB
	5.0 – 6.0 GHz	-	15	-	
Input Power for 1 dB compression	2.4GHz~6.0GHz $2.8V \leq V_{cont(H)} - V_{cont(L)} \leq 5.3V$	-	34	-	dBm
	2.4GHz~6.0GHz $1.8V \leq V_{cont(H)} - V_{cont(L)} \leq 2.8V$	-	28	-	dBm
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	50	μA

Notes: All measurements made in 50 Ω system, unless otherwise specified. DC=500MHz