

GaAs MMIC Absorptive SPDT Switch Chip, DC- 19 GHz

Performance characteristics

- Frequency range: DC - 19 GHz
- Insertion loss : 1.6 dB
- Isolation: 48 dB
- wave ratio : 1.3
- 50Ohm input/output
- ESD Protection
- QFN3X3mm

Product Introduction

GSW-0019ADT-PQ3 is a GaAs MMIC absorptive single-pole double-throw switch chip with 50Ω matching at the input/output ends, a frequency range covering DC ~19 GHz , 0V/-5V power supply, and a switching speed of 10ns. This chip is packaged in a 3 x 3 mm plastic surface mount package, and the surface of the pin pad is tinned. It is suitable for Reflow soldering installation process.

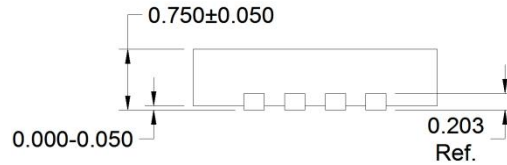
Use restriction parameter ¹	
Control voltage range	-8V ~ +0.5V
Maximum input power	+33dBm
Operating temperature	-55 ~ +85°C
Storage temperature	-65 ~ +150°C

【1】 Exceeding any of these maximum limits may cause permanent damage.

Electrical Parameters (TA = +25°C)				
Index	Minimum	Typical Value	Maximum	unit
Frequency Range	DC-19			G Hz
Insertion loss	-	1.6	-	dB
Isolation	-	48	-	dB
Input return loss	-	19	-	dB
Output return loss	-	19	-	dB
P-1dB@2-18G	-	30	-	dBm
P-1dB@1G	-	28	-	dBm
P-1dB@0.5G	-	24	-	dBm
Switching speed	-	10	-	ns
ESD	-	1800	-	V

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Appearance structure



Side View

The units in the figure are all millimeters, with a tolerance of ± 0.05 mm.

Pin Definition

Bonding point number	Function Symbol	Functional Description
3	RFIN	RF signal input terminal, external DC blocking capacitor is required
7, 14	RFOUT1, RFOUT2	RF signal output terminal, external DC blocking capacitor is required
2, 4, 6, 8, 13, 15	GND	The bottom of the chip needs to be well grounded to RF and DC
10, 11	VC1, VC2	On/off control
other	NC	No welding required

Truth table :

V C1	V C2	IN-OUT1	IN-OUT2
-5V	0V	Closure	Continuity
0V	-5V	Continuity	Closure

Application Circuit

