

Matched GaAs SP3T Switch

5 - 2000 MHz

SW-247

V3.00

Features

- Low Insertion Loss, 1.0 dB Typical
- Fast Switching Speed, 20 ns Typical
- Ultra Low DC Power Consumption, 0.22 mA Typical
- Integral TTL

Guaranteed Specifications* (From -55°C to +85°C)

Frequency Range	5 - 2000 MHz	
Insertion Loss	5-2000 MHz	1.8 dB Max
	5-1000 MHz	1.4 dB Max
	5- 500 MHz	1.2 dB Max
VSWR	5-2000 MHz	2.0:1 Max
	5-1000 MHz	1.6:1 Max
	5- 500 MHz	1.4:1 Max
Isolation	5-2000 MHz	35 dB Min
	5-1000 MHz	42 dB Min
	5- 500 MHz	52 dB Min

Operating Characteristics

Impedance 50 Ohms Nominal

Switching Characteristics

Trise, Tfall	7 ns Typ
Ton, Toff (50% CTL to 90/10% RF)	20 ns Typ
Transients (In-Band)	80 mV Typ

Input Power for 1 dB Compression

Model	SW-247
500-2000 MHz	+27 dBm Typ
50 MHz	+21 dBm Typ

Intermodulation Intercept Point (for two-tone input power up to +13 dBm)

Intercept Points	IP ₂	IP ₃	
500-2000 MHz	+68	+46	dBm Typ
50 MHz	+60	+40	dBm Typ

Bias Power

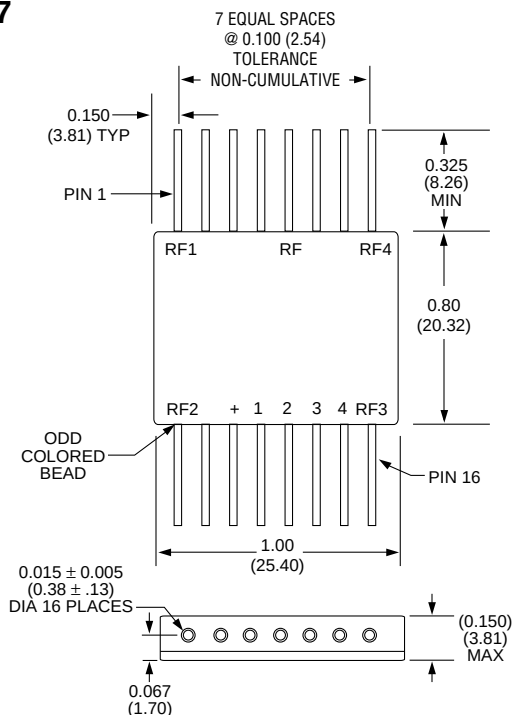
+5 VDC @ 0.22 mA Typ, 1 mA Max

Environmental

MIL-STD-883 screening available.

* All specifications apply when operated with bias voltages of +5 VDC and 50 ohm impedance at all RF ports.

FP-17



Dimensions in () are in mm.
Unless Otherwise Noted: .xxx = ±0.010 (.xx = ±0.25)
.xx = ±0.02 (.x = ±0.5)
WEIGHT (APPROX.) 0.21 OUNCES 6 GRAMS

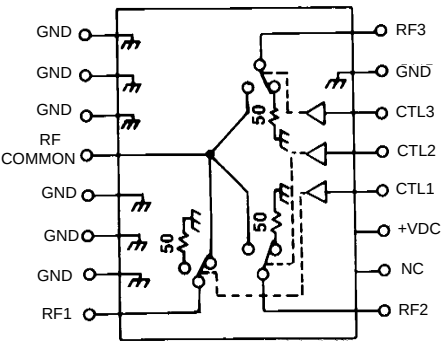
Ordering Information

Model No.	Package
SW-247 PIN	Flatpack

Truth Table

Control Input			Condition of Switch		
"1" = Logic High			RF Common To Each RF PORT		
CTL1	CTL2	CTL3	RF1	RF2	RF3
1	0	0	ON	OFF	OFF
0	1	0	OFF	ON	OFF
0	0	1	OFF	OFF	ON

Schematic



Typical Performance

