SW-215-PIN / SW-216-PIN



Rev. V3

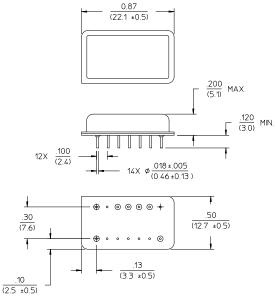
Matched GaAs SPST Switch, 5 - 3000 MHz

Features

- Low Insertion Loss, 1.0 dB Typical
- Fast Switching Speed, 20 nS Typical
- Ultra Low DC Power Consumption, 0.07 mA Typical
- Integral TTL (SW-215) or CMOS (SW-216) Driver
- 50 Ohm Nominal Impedance
- MIL-STD-883 screening available

Description

Functional Block Diagram



Dimensions in () are in mm Unless Otherwise Noted: XXX = ±0.010 (XX = ±0.25) XX = ±0.02 (X = ±0.5) WEIGHT (APPROX): 0.14 OUNCES 4 GRAMS

Truth Table

TTL Control Input "1" = Logic High	Condition of Switch RF Common to Each RF Port			
TTL (SW-215)/ CMOS (SW-216)	RF1 to RF2			
0	ON			
1	OFF			

Ordering Information

Part Number	Package
SW-215-PIN	DI-1
SW-216-PIN	DI-1

Note: Reference Application Note M513 for reel size information. Note: Die quantity varies.

* Restrictions on Hazardous Substances, European Union Directive 2002/95/EC.

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SW-215-PIN / SW-216-PIN



Matched GaAs SPST Switch, 5 - 3000 MHz

Rev. V3

Electrical Specifications: $T_A = -55^{\circ}C$ to $+85^{\circ}C^{-1}$

Parameter	Test Conditions	Frequency	Units	Min	Тур	Max
Insertion Loss	_	5 - 3000 MHz 5 - 2000 MHz 5 - 1000 MHz 5 - 500 MHz	dB dB dB dB	2.9 1.5 1.2 1.1	 	
VSWR	_	5 - 3000 MHz 5 - 2000 MHz 5 - 1000 MHz 5 - 500 MHz	Ratio Ratio Ratio Ratio	 	 	2.0:1 1.9:1 1.4:1 1.25:1
Isolation	_	5 - 3000 MHz 5 - 2000 MHz 5 - 1000 MHz 5 - 500 MHz	dB dB dB dB	27 45 55 60		
IP ₂	For two tone input power up to +13 dBm	500 - 4000 MHz 50 MHz	dBm dBm	_	+68 +60	_
IP ₃	For two tone input power up to +13 dBm	500 - 4000 MHz 50 MHz	dBm dBm		+46 +40	_

1. All specifications apply when operated with bias voltages of +5 VDC (SW-205) or +8 VDC (SW-206) and 50 ohm impedance at all RF ports.

SW-215

Parameter	Test Conditions	Frequency	Units	Min	Тур	Max
Trise, Tfall Ton, Toff Transients	50% CTL to 90/10% RF In-band		nS nS mV		7 20 70	
1 dB Compression	Input Power	500 - 4000 MHz 50 MHz	dBm dBm	_	+27 +21	_
Bias Power	+5 VDC @ 0.07 mA Typ	_	mA	—	—	1

SW-216

Parameter	Test Conditions	Frequency	Units	Min	Тур	Max
Trise, Tfall Ton, Toff Transients	50% CTL to 90/10% RF In-band		nS nS mV		20 40 35	
1 dB Compression	Input Power	500 - 4000 MHz 50 MHz	dBm dBm	_	+33 +26	_
Bias Power	+5 to +8 VDC @ 0.07 to 0.22 mA Typ	_	mA			1

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