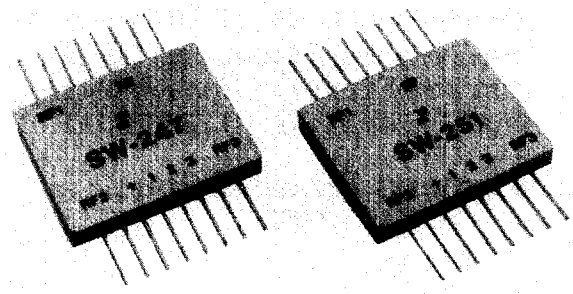
NEW

MODELS SW-247/251

MATCHED GaAs SP3T SWITCH
5-2000 MHz

- Low Insertion Loss, 1.0 dB Typical
- Fast Switching Speed, 20 ns Typical
- Ultra Low DC Power Consumption, 0.22mA Typical
- Integral TTL (SW-247) or CMOS (SW-251) Driver



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		**SW-247 (TTL)**	**SW-251 (CMOS)**
t_{RISE}, t_{FALL}		7 ns	20 ns Typ
t_{ON}, t_{OFF} (50% CTL to 90/10% RF)		20 ns	40 ns Typ
Transients (In-Band)		80 mV	40 mV Typ
Input Power for 1 dB Compression			
Model #'s	SW-247	SW-251	
500-2000 MHz	+27	+33	dBm Typ
50 MHz	+21	+26	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			
SW-247	+5 VDC @ 0.22 mA Typ, 1 mA Max		
SW-251	+5 to +8 VDC @ 0.22 to 0.40 mA Typ, 1 mA Max		
Package Type		Flatpack (FP-17) (See page 476 for physical dimensions.)	

Environmental

These units are designed to meet the environmental and screening requirements of Table 1B, page 497 of the Adams-Russell catalog.

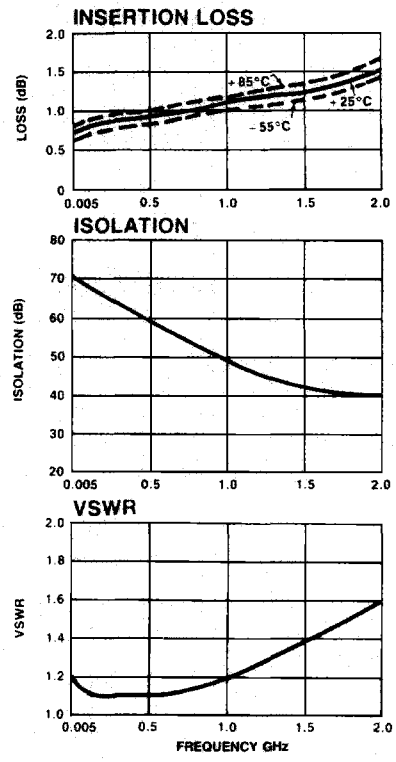
*All specifications apply when operated with bias voltages of +5 VDC (SW-247) or +8 VDC (SW-251) and 50 ohm impedance at all RF ports.

Ordering Information

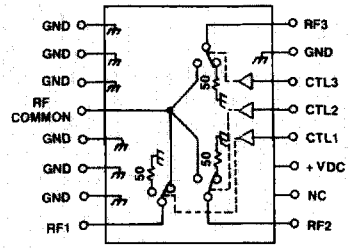
Model No.	Part No.	Connectors	Unit Price (5-9 Units)
SW-247	6804	Pin	$418
SW-251	6806	Pin	418

Delivery is from stock.

Typical Performance



Schematic



Truth Table

Control Input "1" = Logic High TTL (SW-247)/CMOS (SW-251)			Condition of Switch 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