



MODEL
SW-281

GaAs DPDT SWITCH
DC - 4 GHz

NEW

- Low Insertion Loss, 0.5 dB Typical
- Miniature Relay Replacement, 0.250" Sq. Pkg.
- Fast Switching Speed, 4ns Typical
- Ultra Low DC Power Consumption

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

Frequency Range	DC - 4 GHz	
Insertion Loss	DC - 4 GHz	1.2dB Max
	DC - 2 GHz	0.8dB Max
	DC - 1 GHz	0.7dB Max
	DC - 0.5 GHz	0.6dB Max
VSWR	DC - 4 GHz	1.8:1 Max
	DC - 2 GHz	1.5:1 Max
	DC - 1 GHz	1.2:1 Max
	DC - 0.5 GHz	1.2:1 Max
Isolation	DC - 4 GHz	20dB Min
	DC - 2 GHz	30dB Min
	DC - 1 GHz	40dB Min
	DC - 0.5 GHz	50dB Min

Operating Characteristics

Impedance 50 Ohms Nominal

Switching Characteristics†

t _{RISE} , t _{FALL} (10/90% or 90/10% RF)	2ns Typ
t _{ON} , t _{OFF} (50% control to 90/10% RF)	4ns Typ
Transients (In-Band)	15mV Typ

Input Power for 1dB Compression

Control Voltages (Vdc)	0/-5	0/-8	
0.5 to 4 GHz	+27	+33	dBm Typ
0.05 GHz	+21	+26	dBm Typ

Intermodulation Intercept Point

(for two-tone input power up to +5dBm)

Intercept Points	IP ₂	IP ₃	
0.5 to 4 GHz	+68	+48	dBm Typ
0.05 GHz	+62	+45	dBm Typ

Control Voltages (Complementary Logic)

V _{I/N} Low	0 to -0.2V @ 5 μA Max
V _{I/N} Hi	-5V @ 10 μA Typ to -8V @ 100 μA Max

Package Type Flatpack (CR-4)
(See page 490 for physical dimensions.)

Environmental

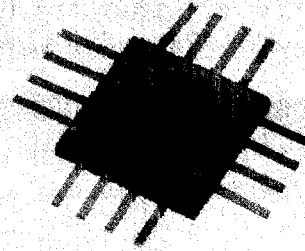
These units are designed to meet the environmental and screening requirements of Table 1B, page 497 of the Adams-Russell catalog.

*All specifications apply with 50 ohm impedance connected to all RF ports with 0 and -5 Vdc control voltages
†Faster switching speed can be achieved with enhanced driver waveform
**When an RF output port is "off" it is shorted to ground through an "on" shunt MESFET

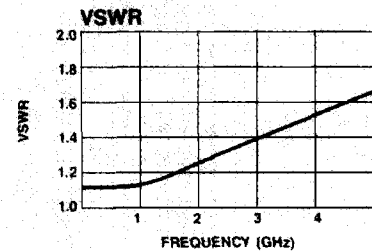
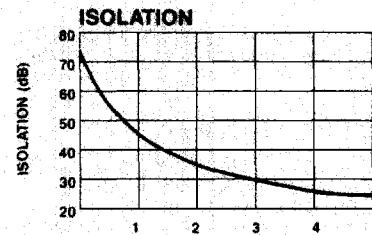
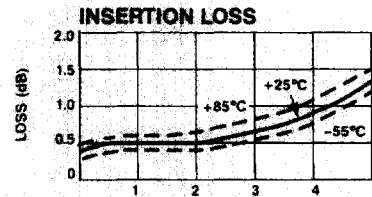
Ordering Information

Model No.	Connectors	Unit Price (5-9 Units)
SW-281	PIN	\$90

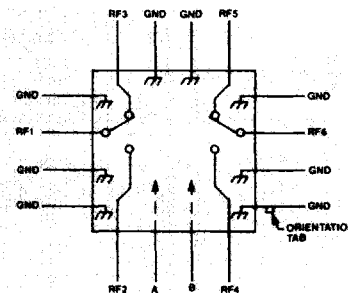
Delivery: s from stock.



Typical Performance



Schematic



Truth Table**

Control Input		Condition of Switch			
A	B	RF1 to RF2	RF3	RF4	RF6 to RF5
Hi	Low	ON	OFF	ON	OFF
Low	Hi	OFF	ON	OFF	ON

ANZAC

Make the Connection...

Adams Russell
COMPONENTS GROUP

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For Ordering Information, Call (617) 273-3333