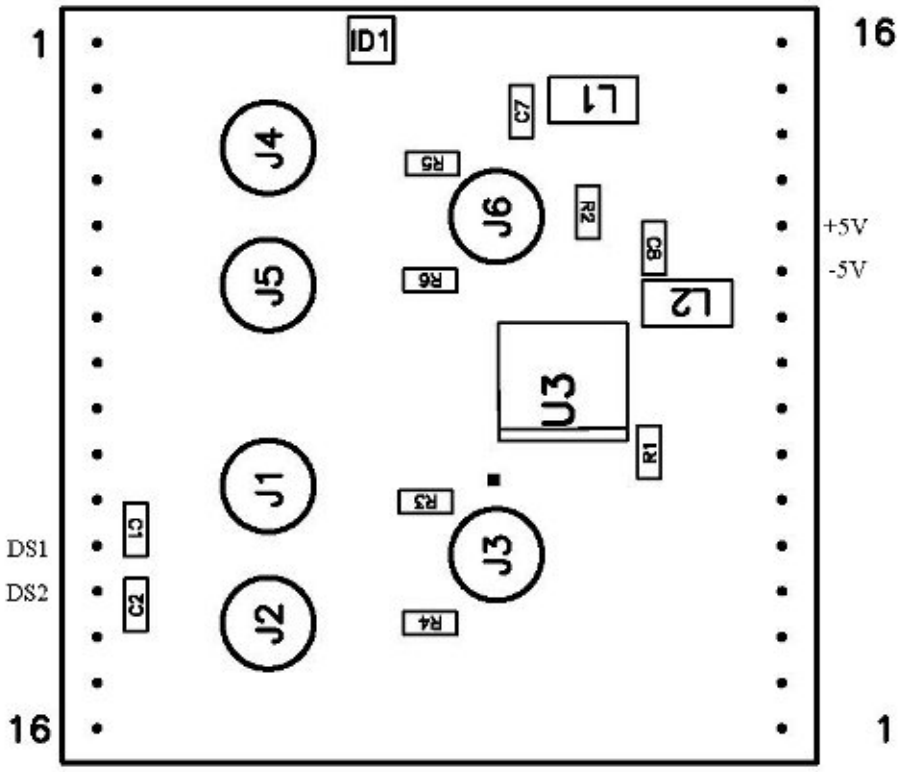
RIK0058A - SPDT Absorptive Switch

Revised: 02/03/2003 - 05/12/2008 Topic(s): Fixture Doc ID:DFES-5JEUYP

RIK0058A
Two, Dual SPDT RF Switch Modules

The RIK0058A Kit consists of two, dual SPDT RF switch modules, for a total of four SPDT switches. The SPDT Switch is wide band (DC to 6 GHz) and is intended to be used with the RIK0014A smart carrier. It is especially easy to use since DC wiring is not required when used in conjunction with the smart carrier. It also helps to reduce fixture complexity where RF switching is required.

Top View



Y0004CC1 SPDT Switch Pin Out

Pin#	Function	DS1	DS2	Connector Type
P2:12	+5V			Header Pin
P2:11	-5V			Header Pin
P1:12	DS1			Header Pin
P1:13	DS2			Header Pin
J1	SW2 NC	X	1	MCX Female
J2	SW2 NO	X	0	MCX Female
J3	SW2 POLE			MCX Female
J4	SW1 NC	1	X	MCX Female
J5	SW1 NO	0	X	MCX Female
J6	SW1 POLE			MCX Female

Table 1

Switch 1 & 2 Typical Performance

Current Drain +/-5V ALL CBITS HI	100uA Max
Current Drain +/-5V 1 CBIT LOW	500uA typical
Current Drain +/-5V 2 CBITS LOW	1mA typical
Insertion Loss (Activated)	Fig. 1
Minimum Freq.	DC
Isolation / NC to NO	Fig. 2
Isolation / Pole To Inactive	Fig. 3
Common Port Return Loss	Fig. 4
Active Port Return Loss	Fig. 5
2nd Harm @13dBm Pin 880MHz	60dBc
3rd Harm @13dBM Pin 880MHz	65DBc
1dB Compression	24dBm
Max Inout Power	33dBm > 500MHz
Open Pole	Absorptive

Table 2

Coding Requirements:

Fixture Carrier Position#	Smart Carrier Module#
M1	M1 (S1)
M2	M2 (S2)
M3	M3 (S3)
M4	M4 (S4)
M13	M5 (S5)
M14	M6 (S6)
M15	M7 (S7)
M16	M8 (S8)

Fixture requirements:

1. Smart Carrier (RIK0014A).
2. Press in connector strips (16 pin) installed at desired module locations (M1 - M16).
3. Bench Top DC Voltage Requirements: +5V / -5V

Cbits Programming:

1. When writing to a Smart Carrier Cbit the format is of **S#10X1**
   S = S, # = Module number being written to, X = 1, X, or 0.
   Bit position = S# DS1 DS2 DS3 DS4

S21

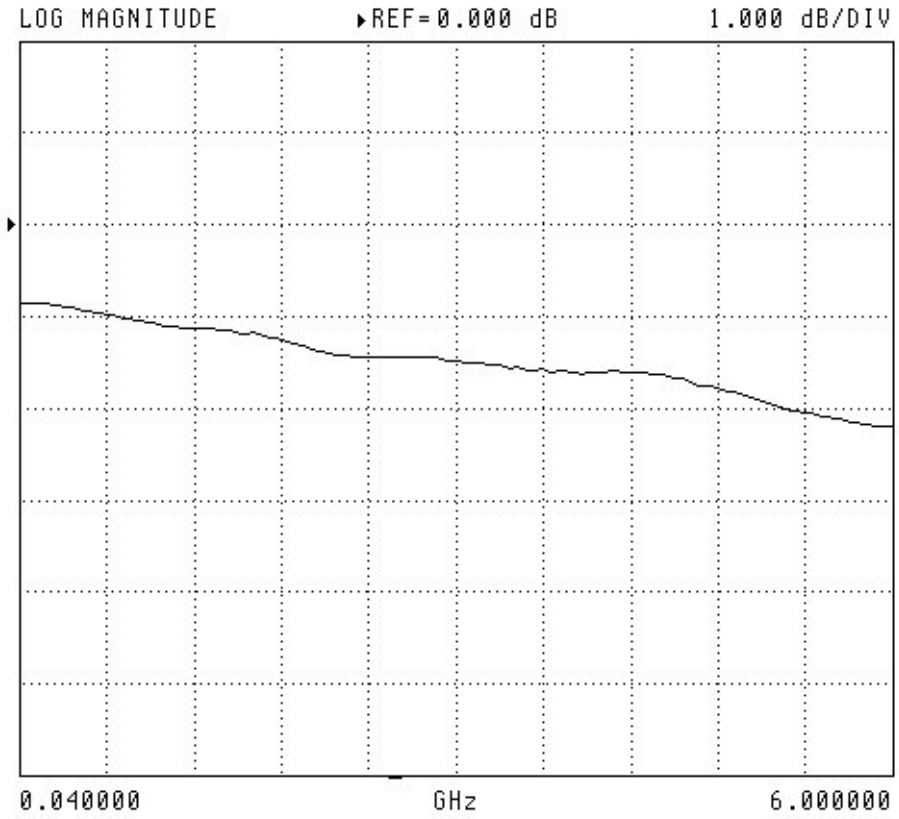


Fig. 1

Isolation NC to NO

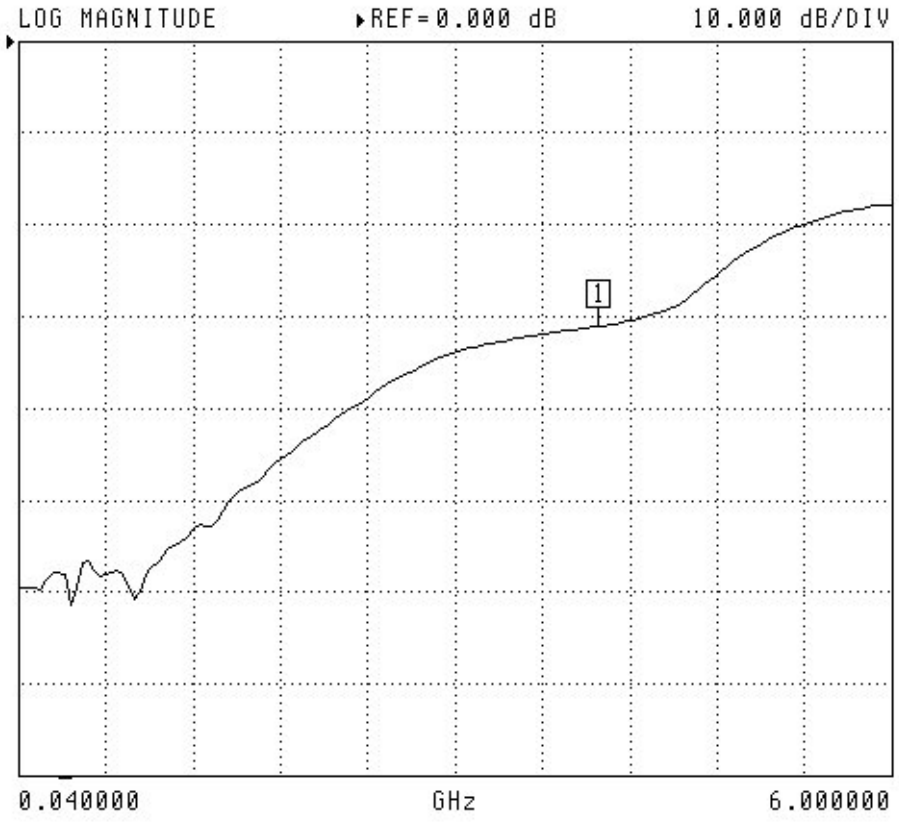


Fig. 2

Isolation Open to Common

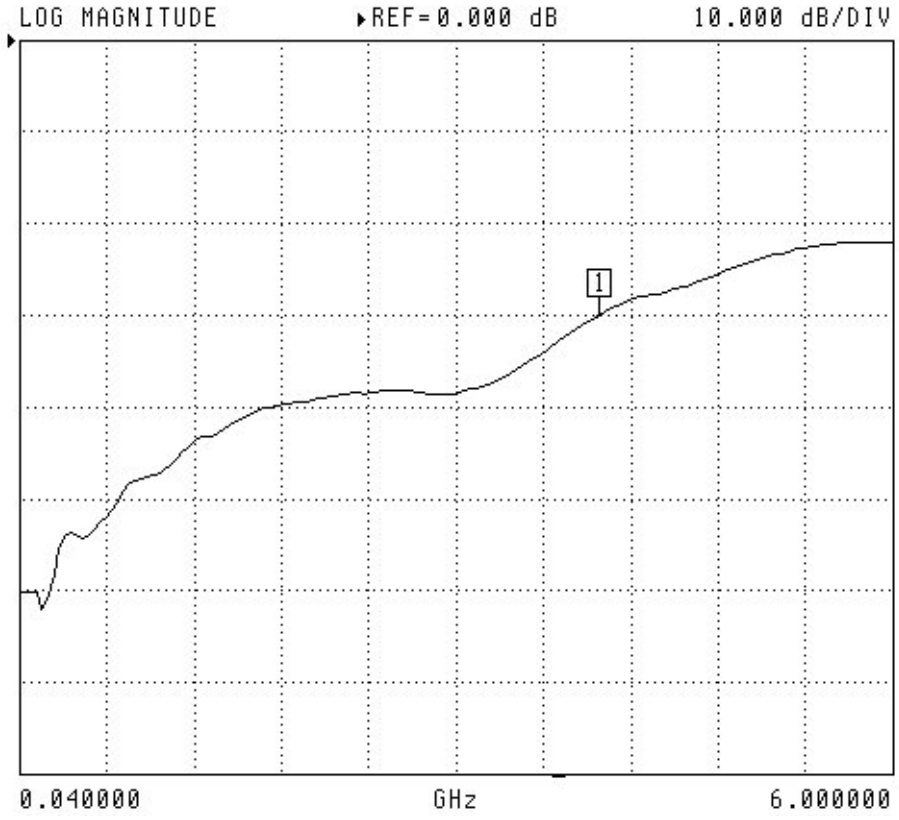


Fig. 3

S11

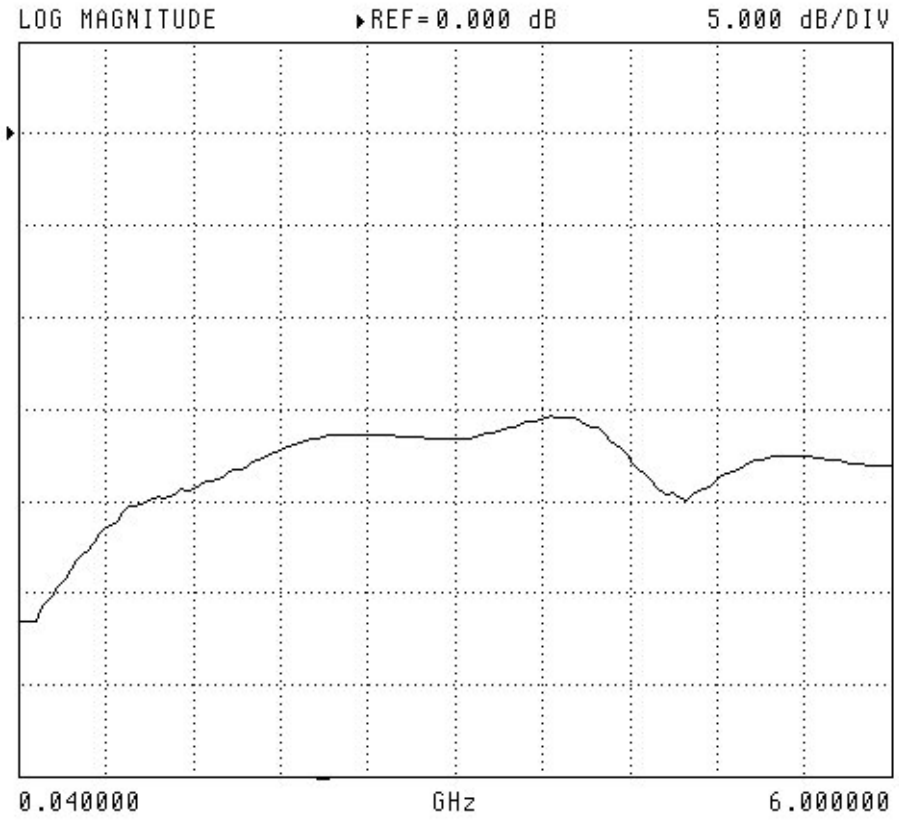


Fig. 4

S22

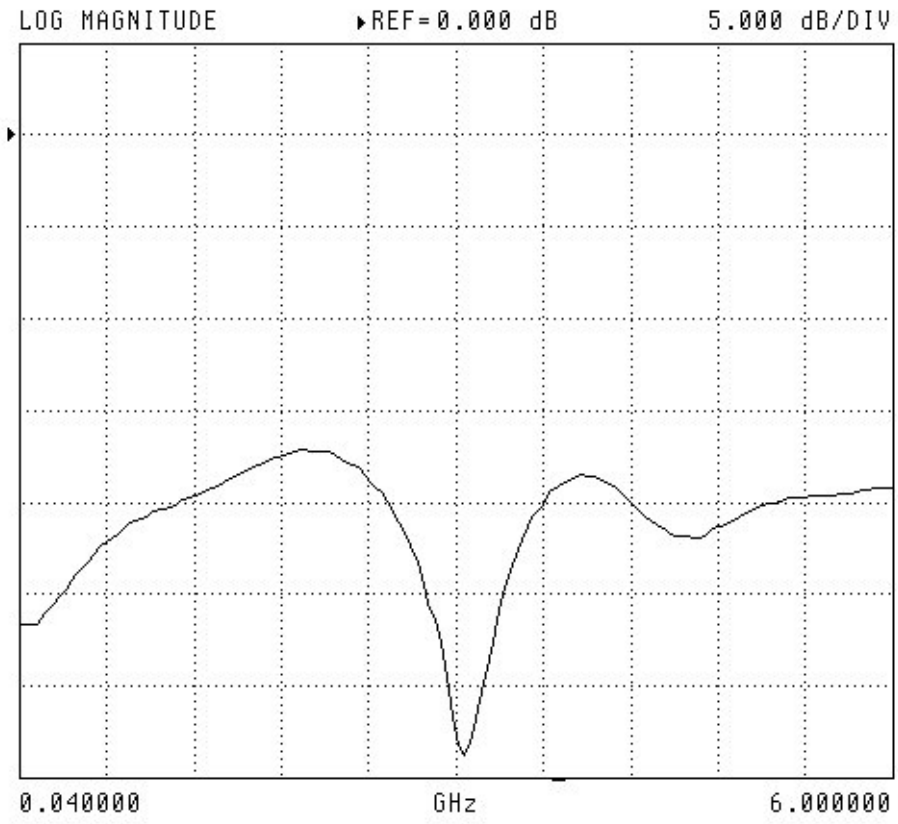


Fig. 5