

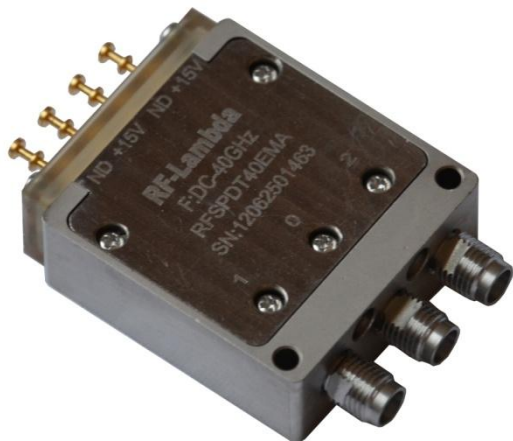


RF-LAMBDA

LEADER OF RF BROADBAND SOLUTIONS

RFSPDT40EMA

SPDT Reflective Electro-Mechanical Switch DC-40GHz



Features

- SPDT configuration
- Magnetic latching
- Operating life of 1 million cycles
- Guaranteed repeatability of 0.05dB up to 1 million cycles
- Excellent isolation, typically >80 dB to 20GHz
- TTL Compatible (optional)

Description

RF-Lambda's multiport switch offers low insertion loss and high isolation, which is necessary for high performance test systems. The repeatability and reliability of this switch is vital to ATS measurement accuracy and can cut the cost of ownership by reducing calibration cycles.

Our electro-mechanical switches are made through RF-Lambda's rigorous design and tight manufacturing specifications.

Part Number	Description	Type	Low Freq (GHz)	High Freq (GHz)	Avg. Power (Watts)
RFSPDT40EMA-T RFSPDT40EMA-S	Electromechanical Switches	SPDT	DC	40	2 (hot switching)
Insert. Loss (dB)	VSWR (Max:1)	Isolation (dB)	Actuator Type	Switching Speed (ms)	Contact
1.5(DC~26.5GHz) 2.0(26.5~40GH)	1.8(DC~26.5GHz) 2.0(26.5~40GH)	50(DC~26.5 GHz) 45(26.5~40GHz)	Latching	20	Break Before Make
Repeatability (dB) max.	Life Cycles (Tims)	Connector	Biasing (VDC)	Current (A)	Control
0.05	1,000,000	2.4mm	15	0.2	-T for TTL type -S for Ground type

* Result taken at 25°C +15VDC

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Environmental Specifications

Operating temperature:	-25 to 75° C
Storage temperature:	-55 to 85° C
Thermal Shock:	-25 to 70° C (1.5 hours dwell, 10 cycles)
Sine Vibration:	25 grams rms
Life Cycles:	1,000,000 times
Vibration:	20G rms.
Moisture resistance:	65°C, 95% RH, 10 days per MIL-STD-202F, Method 106E
Altitude storage:	30,000 feet (per MIL-STD-202F, Method 105C, Condition B)
RFI:	Per MIL-STD-461C, RE02, Part 4
Magnetic field:	<5 gauss 1/4 inch from surface
Hot switching:	2W CW 100W peak, 10us max pulse width
TTL Drive Levels	0 - 0.8V for TTL low and 2.5-5.5V for TTL high
TTL Drive Current	10uA typ.

Typical Performance Plots

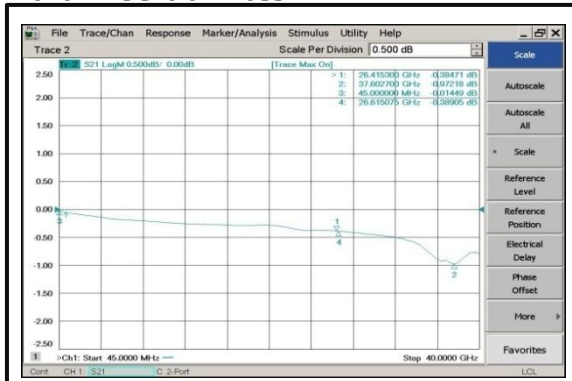
Port 1 VSWR



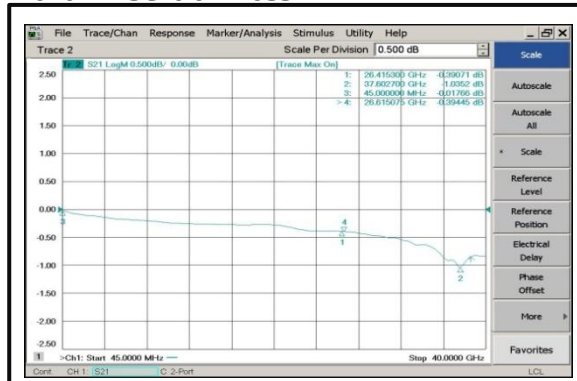
Port 2 VSWR



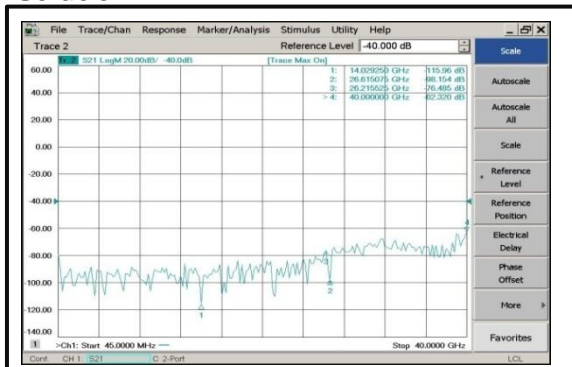
Port 1 Insertion Loss



Port 2 Insertion Loss



Isolation



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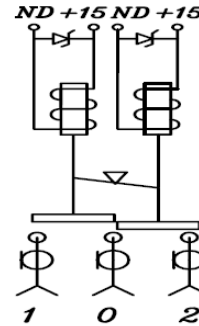
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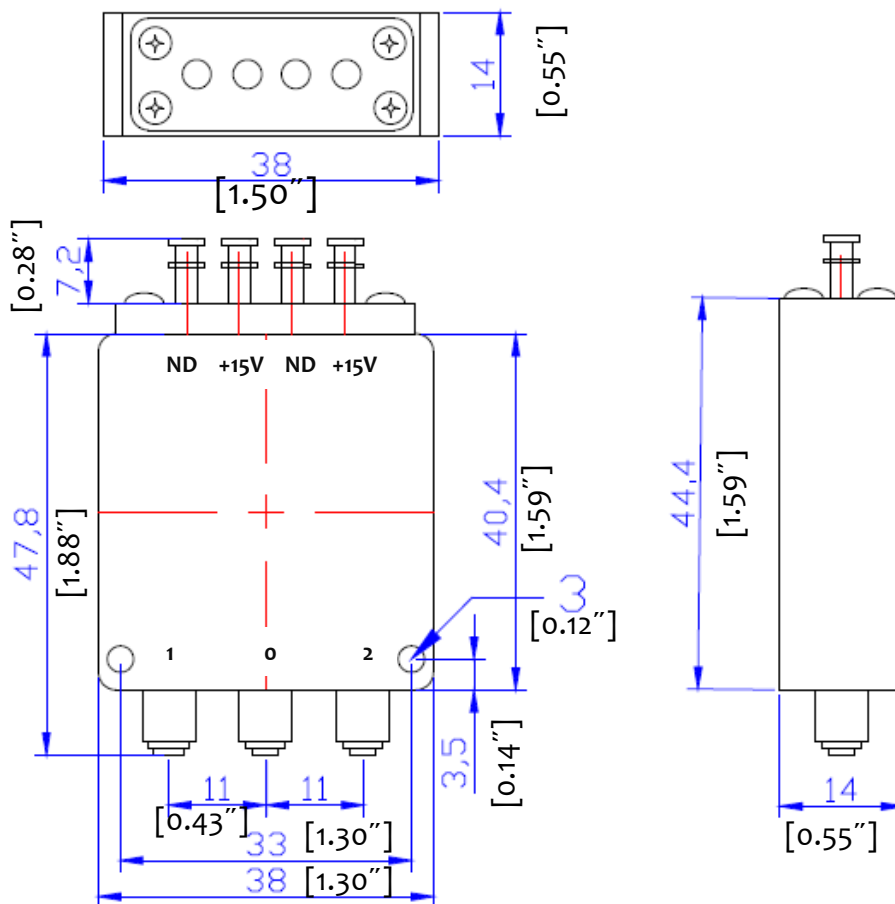
	PIN	I	II	III	IV
STATUS					
PORT 0 TO PORT 1		GND	15V	OPEN	OPEN
PORT 0 TO PORT 2		OPEN	OPEN	GND	15V

* Note unselected port is reflective



Outline Drawing:

All Dimensions in mm [inches]



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