Absorptive SP6T Electro-Mechanical Switch DC – 26.5GHz

Note: The photo is for illustration purposes only.
Please refer to the outline drawing.

Features

- SP6T 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 18GHz
- Terminated ports
- TTL/5V CMOS 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)	Input Power (Watts)
RFSP6T26EMA-S	Absorptive Electromechanical Switches	SP6T	DC	26.5	1 (Max)
Insert. Loss (dB)	**VSWR (Max:1) ON Status**	**Isolation (dB)**	**Actuator Type**	**Swtiching Speed (ms)**	**Contact**
0.2(DC~4GHz) 0.5(4~12.4GHz) 0.7(12.4~26.5GHz)	1.2(DC~4GHz) 1.35(4~12.4GHz) 1.7(12.4~26.5GHz)	80(DC~4GHz) 70(4~12.4GHz) 60 (12.4~26.5GHz)	Latching	20	Break Before Make
Repeatability (dB) max.	**Life Cycle**	**Connector**	**Bias (VDC)**	**Current (A)**	**Control**
0.05	1,000,000	3.5mm-Female	22-28V	0.2	Ground type

* Result taken at 25°C +15VDC

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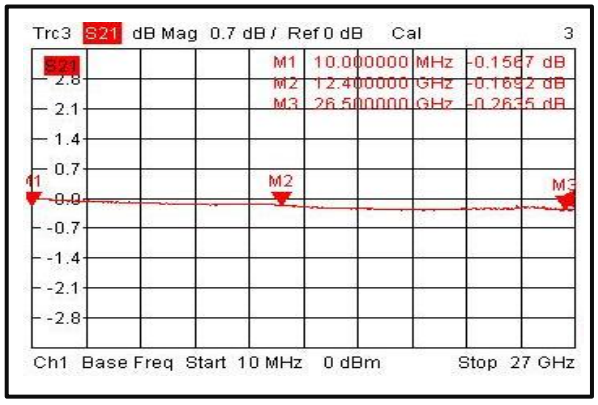
Environmental Specifications and Test Standards

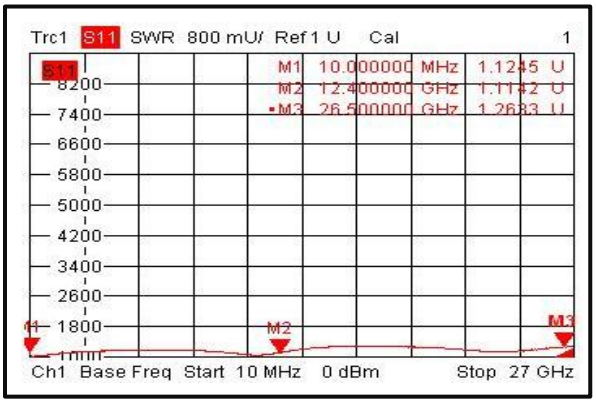
Parameter	Standard	Description
Operational Temperature	MIL-STD-39016	-25℃~+75℃
Storage Temperature		-55℃~+85℃
Thermal Shock		1 Hour@ -45℃ → 1 Hour @ +85℃ (5 Cycles)
Random Vibration		Acceleration Spectral Density 6 (m/s) Total 92.6 RMS
Electrical & Temperature Burn In		Temperature +85℃ for 72 Hours
Shock		1. Weight >20g, 50g half sine wave for 11ms, Speed variation 3.44m/s 2. Weight <=20g, 100g Half sine wave for 6ms, Speed variation 3.75m/s 3. Total 18 times (6 directions, 3 repetitions per direction).
Altitude		Standard: 30,000 Ft (Epoxy Sealed Controlled Environment) Optional: Hermetically Sealed (60,000 ft. 1.0 PSI min)
Hermetically Sealed (Optional)	MIL-STD-883	MIL-STD-883 (For Hermetically Sealed Units)

Typical Performance Plots

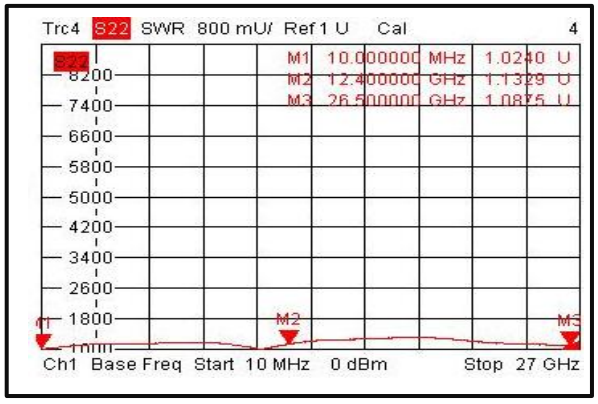
Insertion Loss



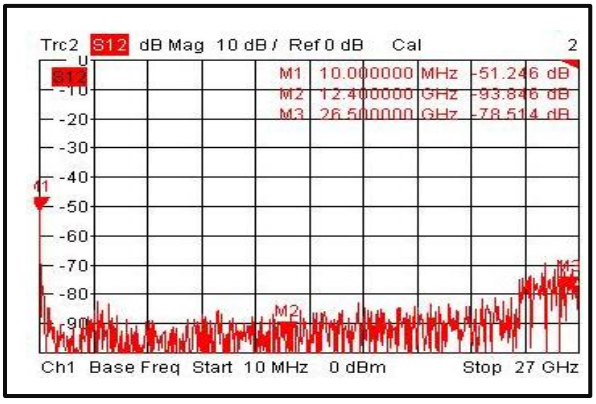
Input VSWR



Output VSWR



Isolation



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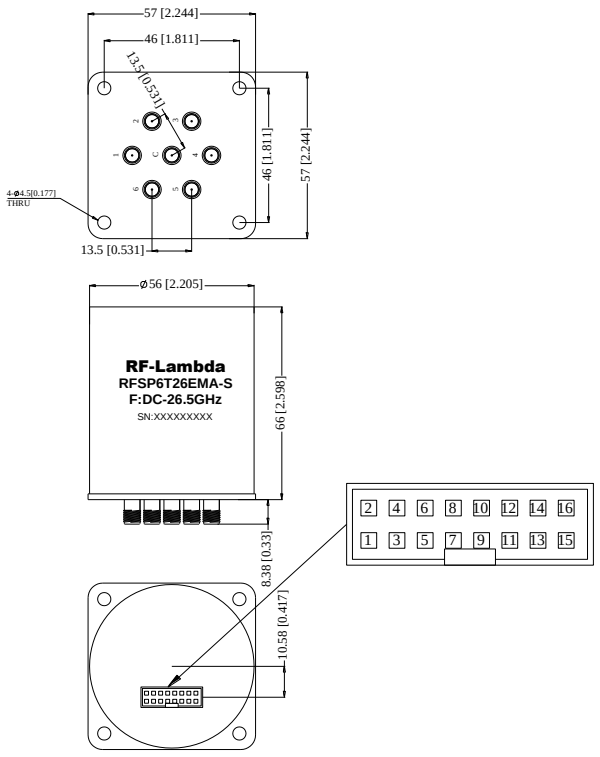
PIN / STATUS	1	15	Standard Drive Voltage					
			3	5	7	9	11	13
RF to 1	22-28V	GND	GND	OPEN	OPEN	OPEN	OPEN	OPEN
RF to 2			OPEN	GND	OPEN	OPEN	OPEN	OPEN
RF to 3			OPEN	OPEN	GND	OPEN	OPEN	OPEN
RF to 4			OPEN	OPEN	OPEN	GND	OPEN	OPEN
RF to 5			OPEN	OPEN	OPEN	OPEN	GND	OPEN
RF to 6			OPEN	OPEN	OPEN	OPEN	OPEN	GND

Outline Drawing:

All Dimensions in mm [inches]



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