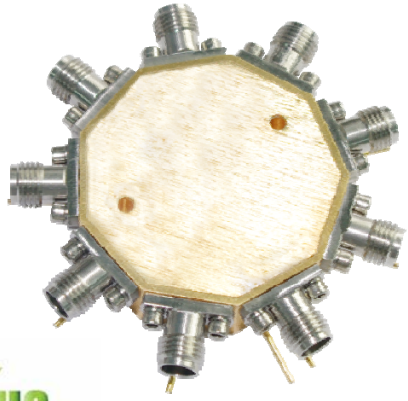
Absorptive 0.5-43.5GHzCoaxial SP8T Switch



RoHS Compliant

Features

- Wide Band Operation 0.5-43.5GHz
- TTL compatible driver include
- Fast Switching Speed
- Low Insertion Loss and High Isolation
- Temperature Range -45°C~+85°C
- Customization available upon request
- Hermetically sealed package up to 60,000ft available upon request.

Electrical Specifications, TA = +25° C, With Vdd = +5V, Vss = -5V & VCTL = 0/ +5V

Description	PN: RFSP8TA5M43G									
	SP8T AbsorptiveSwitch									
	Low Power Cold Switching									
Parameters	Min	Typ.	Max	Min	Typ.	Max	Min	Typ.	Max	Units
Frequency Range	0.5-18			18-30			30-43.5			GHz
Insertion Loss		4	5		6	7		8.5	10	dB
Insertion Loss Temperature Coefficient		0.003			0.003			0.003		dB/°C
Isolation	70			50			50			dB
Input VSWR		2	2.5		2.5	3		2.5	3	ratio
Output VSWR (ON State)		2	2.5		2.5	3		2.5	3	ratio
Output VSWR (OFF State)			3		2.5	3		2.5	3	ratio
Power Dissipation (CW)		0.15			0.15			0.15		W
IM3		30			30			30		dBc
1dB Compression P1dB		23			23			23		dBm
Switching Speed			50			50			50	ns
Weight	100									g
Impedance	50									Ω
Biasing(+5v/-5v)	100/30									mA
Input /Output Connector	2.92mm-Female(Standard)									
Finishing	Gold Plating									
Material	Aluminum									
Seal	Hermetically Sealed (optional)									

AbsorptiveCoaxial Single Pole Eight Throw Switch 0.5-43.5GHz

Absolute Maximum Ratings

Biasing	+5v/-5v
TTL Control Voltage	+5V/0V
RF Input power	+23dBm
Operating Temperature(C°)	-45 ~ +85
Storage Temperature(C°)	-50 ~ +125

Environment specifications

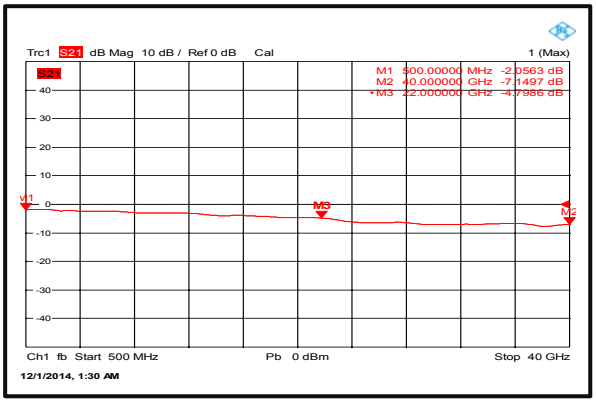
Operational Temperature (C°)	-45 ~ +85
Storage Temperature (C°)	-50 ~ +125
Altitude	30,000 ft. (Epoxy Seal Controlled environment) - Standard
	60,000 ft 1.0psi min (Hermetically Seal Un-controlled environment) (Optional)
Vibration	25g rms (15 degree 2KHz) endurance, 1 hour per axis
Humidity	100% RH at 35c, 95%RH at 40°c
Shock	20G for 11msc half sin wave,3 axis both directions

Ordering Information

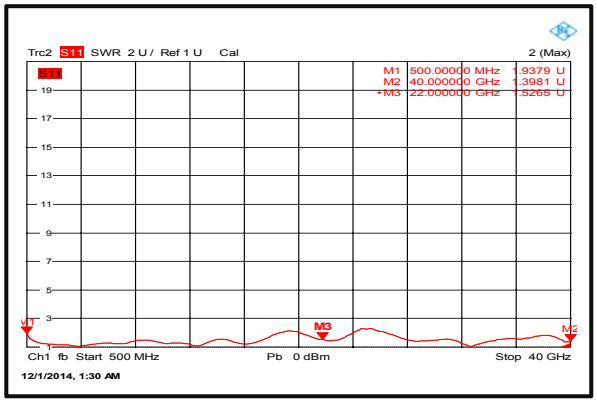
Part No	ECCN	Description
RFSP8TA5M43G	EAR99	SP8T 0.5-43.5PIN Diode Switch

performance plots

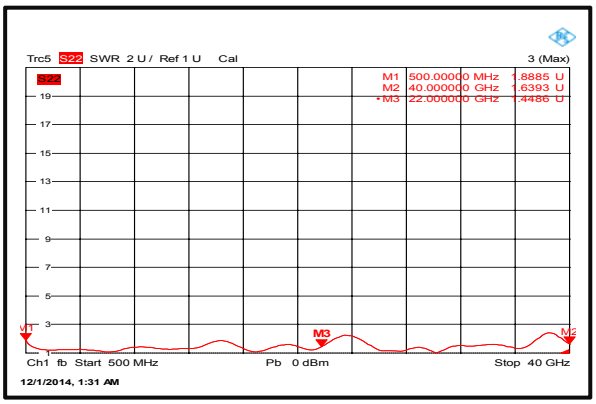
Insertion Loss



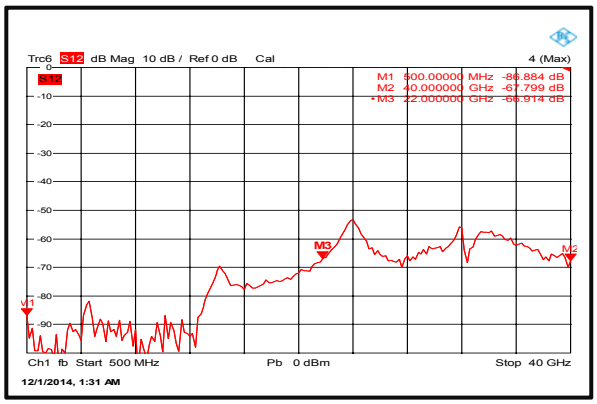
Input VSWR



Output VSWR



Isolation



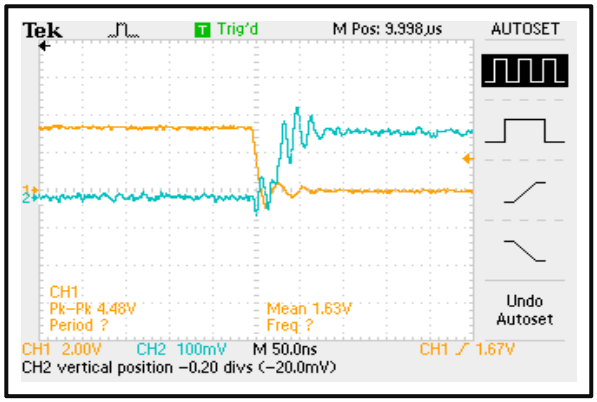
AbsorptiveCoaxial Single Pole Eight Throw Switch 0.5-43.5GHz

Output Third Order Intercept (IP3)

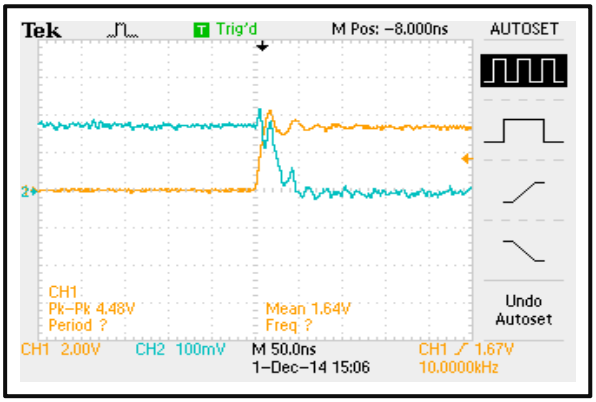
P1dB vs. Frequency

The datasheet for test 1dB

Switching Speed

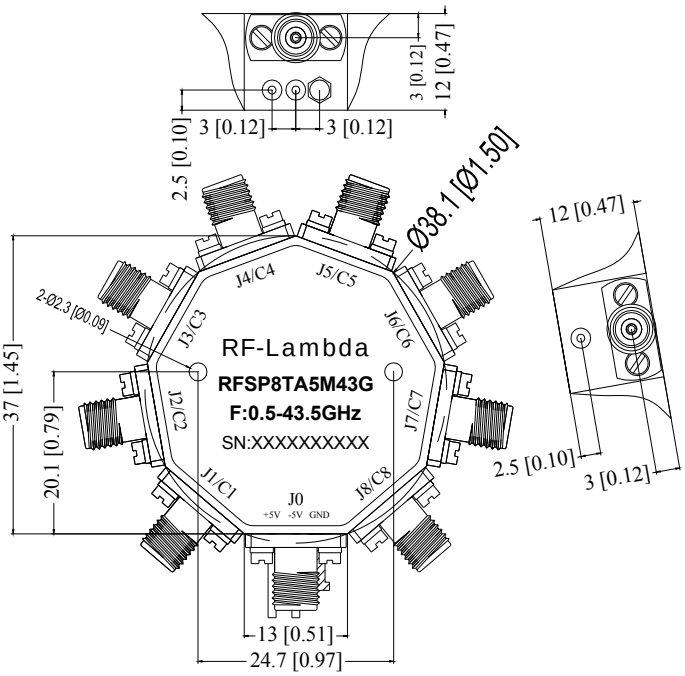


Switching Speed



Outline Drawing:

All Dimensions in mm（inches）



Truth Table

Control Input TTL								Signal Path State
C8	C7	C6	C5	C4	C3	C2	C1	
1	1	1	1	1	1	1	0	J0-J1
1	1	1	1	1	1	0	1	J0-J2
1	1	1	1	1	0	1	1	J0-J3
1	1	1	1	0	1	1	1	J0-J4
1	1	1	0	1	1	1	1	J0-J5
1	1	0	1	1	1	1	1	J0-J6
1	0	1	1	1	1	1	1	J0-J7
0	1	1	1	1	1	1	1	J0-J8
Control Pin Customization available upon request								

Important Notice

The information contained herein is believed to be reliable. RF-Lambda makes no warranties regarding the information contained herein. RF-Lambda assumes no responsibility or liability whatsoever for any of the information contained herein. RF-Lambda assumes no responsibility or liability whatsoever for the use of the information contained herein. The information contained herein is provided "AS IS, WHERE IS" and with all faults, and the entire risk associated with such information is entirely with the user. All information contained herein is subject to change without notice. Customers should obtain and verify the latest relevant information before placing orders for RF-Lambda products. The information contained herein or any use of such information does not grant, explicitly or implicitly, to any party any patent rights, licenses, or any other intellectual property rights, whether with regard to such information itself or anything described by such information.
RF-Lambda products are not warranted or authorized for use as critical components in medical, life-saving, or life sustaining applications, or other applications where a failure would reasonably be expected to cause severe personal injury or death.