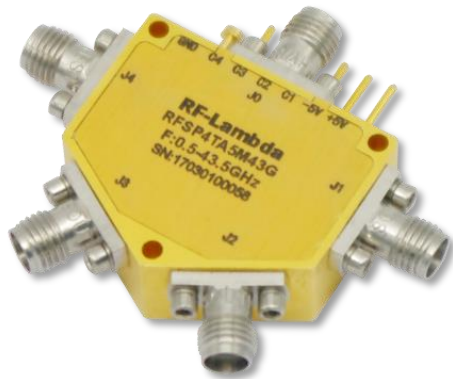




**Absorptive Coaxial SP4T Switch
0.5 - 43.5GHz**



Features

- Ultra Wide Band Operation 0.5-43.5GHz
- TTL compatible driver included
- Fast Switching Speed
- Low Insertion Loss and High Isolation
- Customization available upon request

Electrical Specifications, $T_A = +25^\circ\text{C}$, $V_{dd} = +5\text{V}/-5\text{V}$, $TTL = 0 / +5\text{V}$

Description	PN: RFSP4TA5M43G									
	SP4T Absorptive Switch									
	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		3.5	4.0		4.5	5.0		5.2	6.0	dB
Insertion Loss Temperature Coefficient		0.003			0.003			0.003		dB/°C
Isolation	65	70		50	57		45	50		dB
Input VSWR		2	2.5		2.5	3		2.5	3	:1
Output VSWR		2	2.5		2.5	3		2.5	3	:1
RF Input power			23			23			23	dBm
DC Power Dissipation(CW)		0.8			0.8			0.8		W
0.1dB Compression Point (Po.1dB)		23			23			23		dBm
Switching Speed		50	80		50	80		50	80	ns
Weight	1.06									Ounces
Impedance	50									Ω
Bias Current (+5V/ -5V)	150/50									mA
Input / Output Connectors	2.92mm-Female									
Finishing	Gold Plating									
Material	Aluminum									
Sealing	Hermetically Sealed (Optional)									

Absorptive Coaxial Single Pole Four Throw Switch 0.5 - 43.5GHz



Absolute Maximum Ratings

Biasing	+5V±10%/-5V±10%
TTL Control Voltage	0~ 0.8V / 2 ~ 5V

Note: TTL pins cannot be connected to the negative voltage otherwise the internal driver will be damaged.

Ordering Information

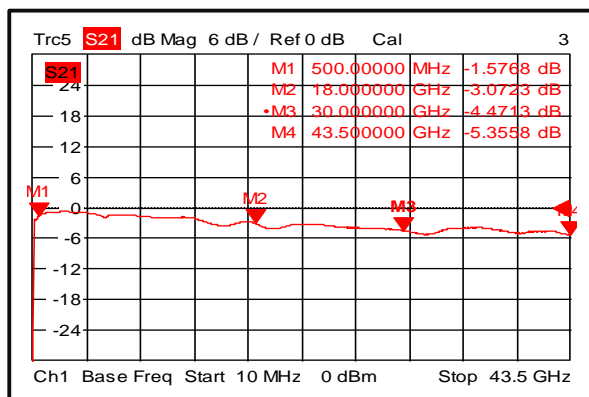
Part No.	ECCN	Description
RFSP4TA5M43G	EAR99	SP4T 0.5-43.5GHz PIN Diode Switch

Environmental Specifications

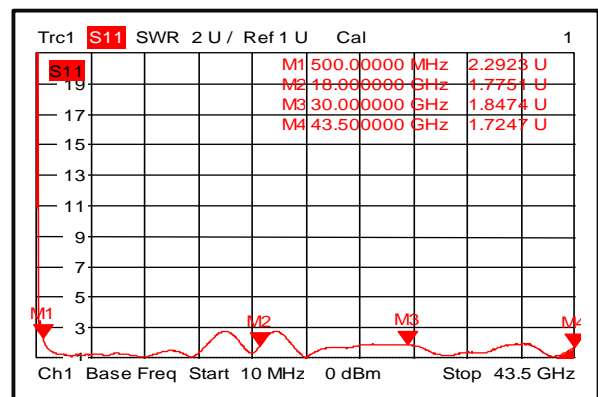
Operational Temperature (°C)	-45 ~ +85
Storage Temperature (°C)	-50 ~ +125
Altitude	30,000 ft. (Epoxy Sealed Controlled environment)
	60,000 ft. 1.0psi min (Hermetically Sealed Un-controlled environment) (Optional)
Vibration	25g RMS (15 degrees 2KHz) endurance, 1 hour per axis
Humidity	100% RH at 35C,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

Typical Performance Plots

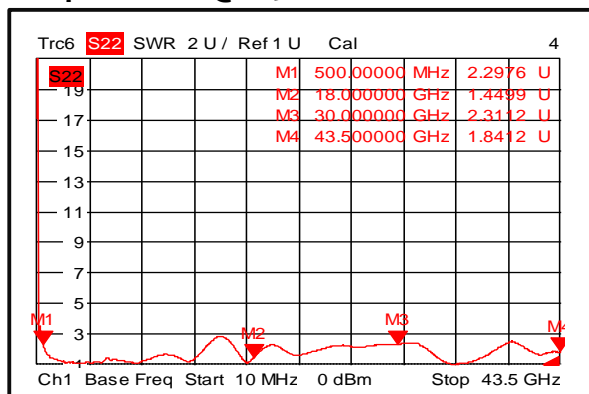
Insertion Loss @+25°C



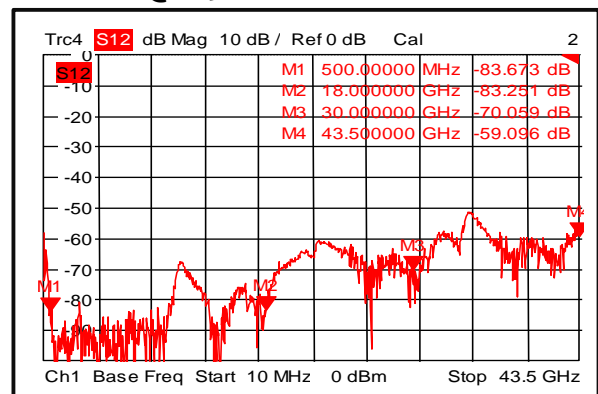
Input VSWR @+25°C



Output VSWR @+25°C



Isolation @+25°C



Absorptive Coaxial Single Pole Four Throw Switch 0.5 - 43.5GHz



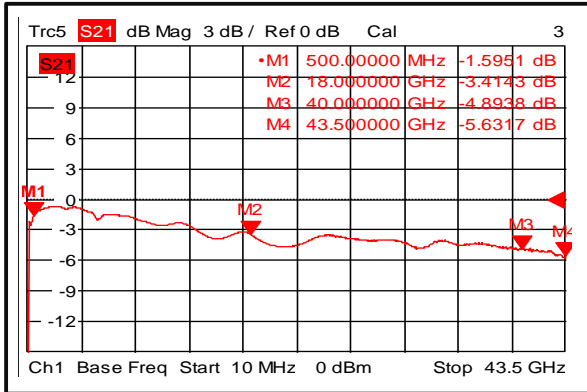
RF-LAMBDA

LEADER OF RF BROADBAND SOLUTIONS

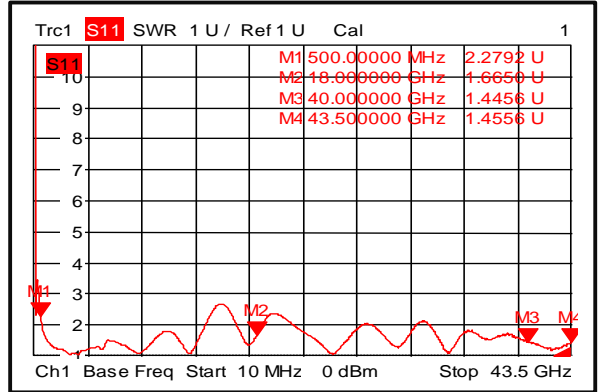
RFSP4TA5M43G

Absorptive Coaxial Single Pole Four Throw Switch 0.5 - 43.5GHz

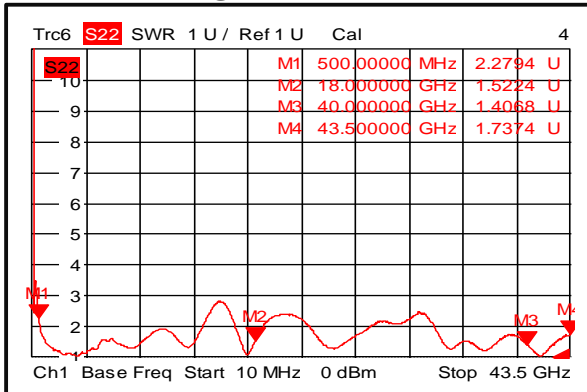
Insertion Loss @-45°C



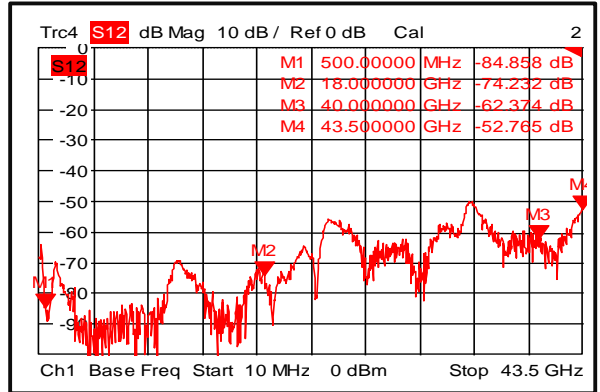
Input VSWR @-45°C



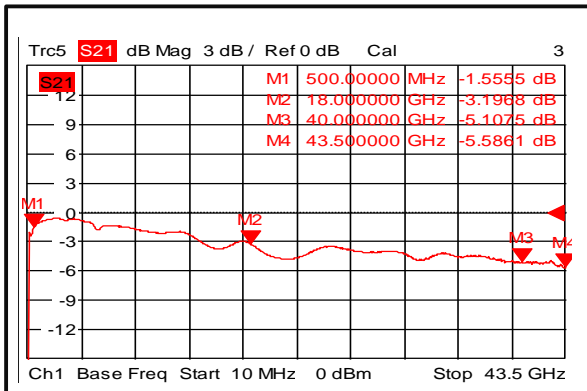
Output VSWR @-45°C



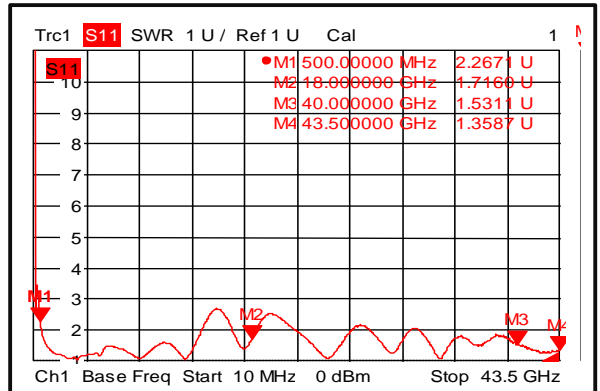
Isolation @-45°C



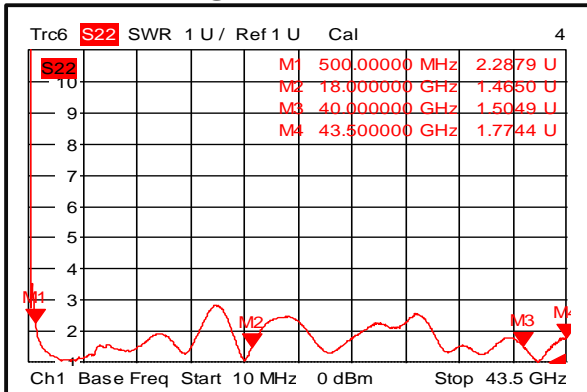
Insertion Loss @+80°C



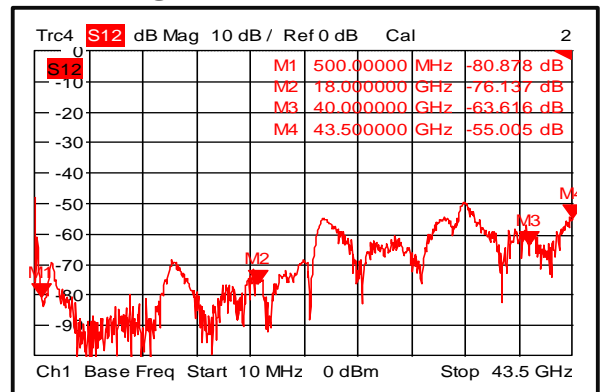
Input VSWR @+80°C



Output VSWR @+80°C

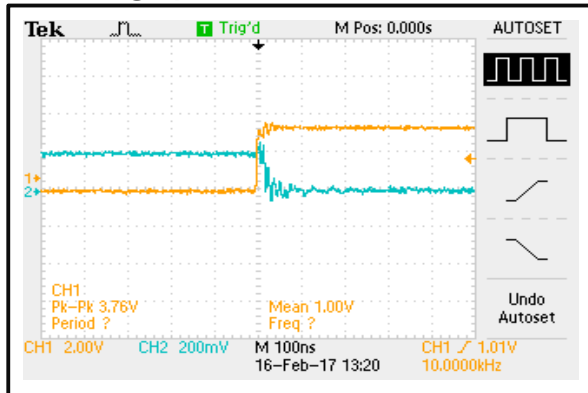


Isolation @+80°C

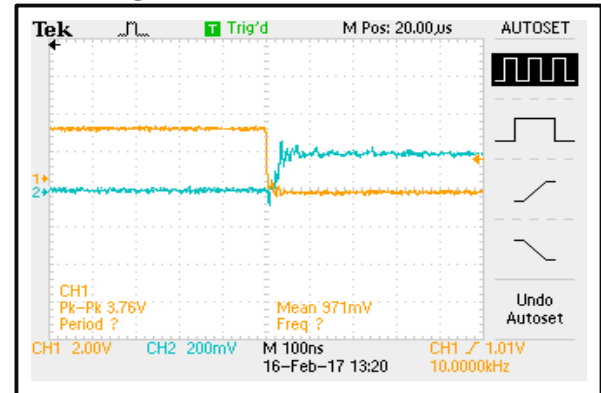




Switching Speed

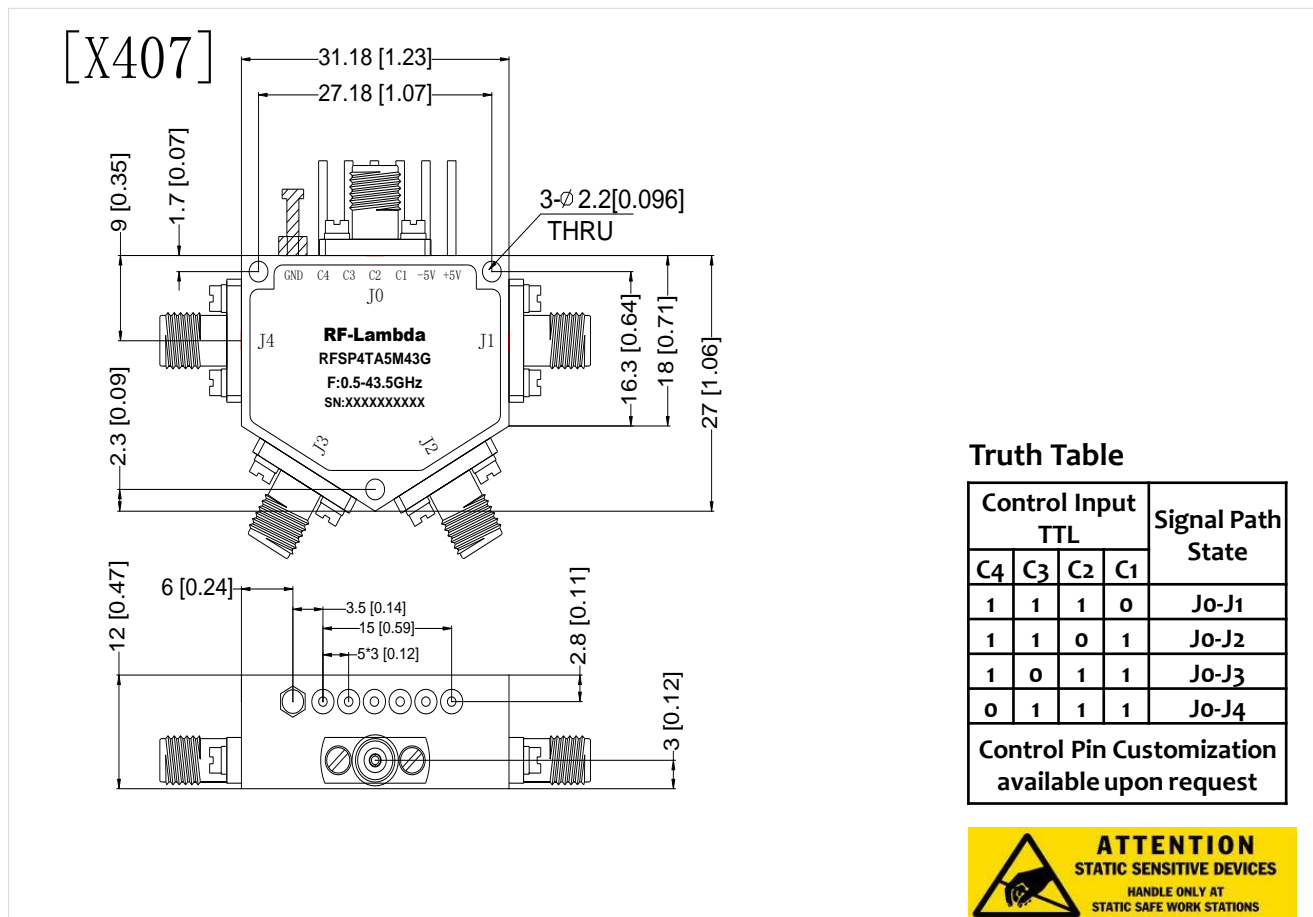


Switching Speed



Outline Drawing:

All Dimensions in mm [inches]



Truth Table

Control Input TTL				Signal Path State
C4	C3	C2	C1	
1	1	1	0	J0-J1
1	1	0	1	J0-J2
1	0	1	1	J0-J3
0	1	1	1	J0-J4

Control Pin Customization available upon request



Important Notice

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Absorptive Coaxial Single Pole Four Throw Switch 0.5 - 43.5GHz