

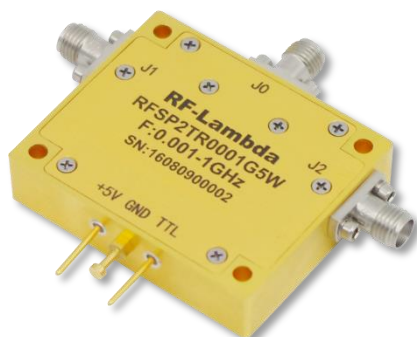


RF-LAMBDA

LEADER OF RF BROADBAND SOLUTIONS

RFSP2TR0001G5W

Reflective Coaxial SP2T Switch 0.001 - 1GHz



Features

- Wide Band Operation 0.001-1GHz
- TTL compatible driver included
- Fast Switching Speed
- Low Insertion Loss and High Isolation
- Customization available upon request

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

Description	PN: RFSP2TR0001G5W						
	SP2T Reflective Switch						
	High Power Cold Switching						
Parameters	Min	Typ	Max	Min	Typ	Max	Units
Frequency Range	0.001-0.1			0.1~1			GHz
Insertion Loss		0.5	1.5		0.8	1.5	dB
Insertion Loss Temperature Coefficient		0.003			0.003		dB/°C
Isolation	65	80		65	80		dB
Input VSWR		1.2	1.5		1.2	1.5	:1
Output VSWR		1.2	1.5		1.2	1.5	:1
RF Input Power			32			37	dBm
DC Power Dissipation		0.6			0.6		W
0.1dB Compression Point (Po.1dB)		32			37		dBm
IIP3		50			50		dBm
Switching Speed		2	5		2	5	us
Weight	1.41						Ounces
Impedance	50						Ω
Bias Current (+5V)	110						mA
Input / Output Connectors	SMA-Female						
Finish	Gold Plated						
Material	Aluminum						
Sealing	Hermetically Sealed (Optional)						

Reflective Coaxial Single Pole Double Throw Switch 0.001 - 1GHz



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Absolute Maximum Ratings

Biasing	+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

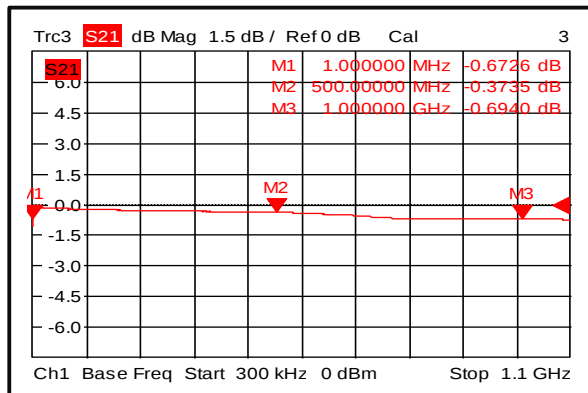
Part No.	ECCN	Description
RFSP2TR0001G5W	EAR99	SP2T 0.001-1GHz PIN Diode Switch

Environmental Specifications

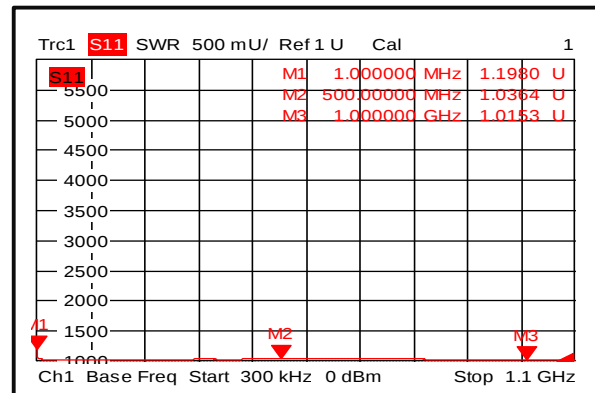
Operational Temperature (°C)	-45 ~ +85
Storage Temperature (°C)	-50 ~ +125
Altitude	30,000 ft. (Epoxy Sealed Controlled environment)
	60,000 ft. 1.0psi min (Hermetically Sealed Un-controlled environment) (Optional)
Vibration	25g RMS (15 degrees 2KHz) endurance, 1 hour per axis
Humidity	100% RH at 35°C,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

Typical Performance Plots

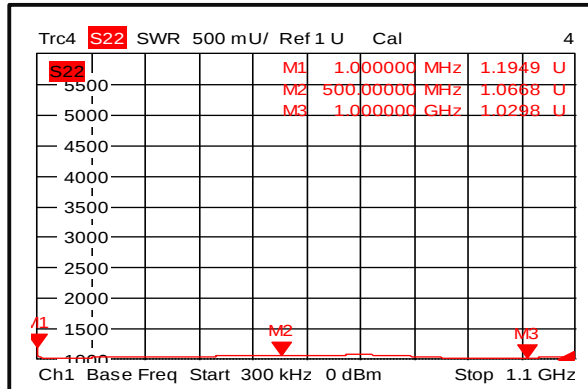
Insertion Loss @+25°C



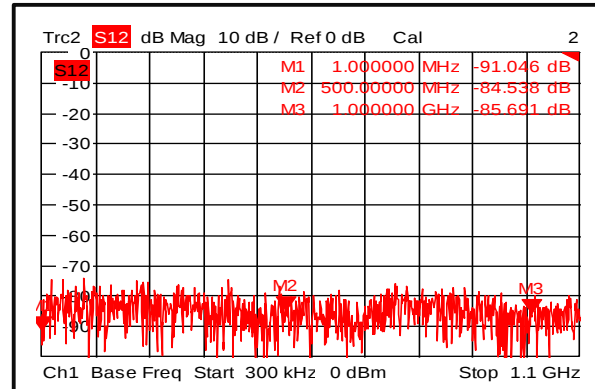
Input VSWR @+25°C



Output VSWR @+25°C



Isolation @+25°C



Reflective Coaxial Single Pole Double Throw Switch 0.001 - 1GHz

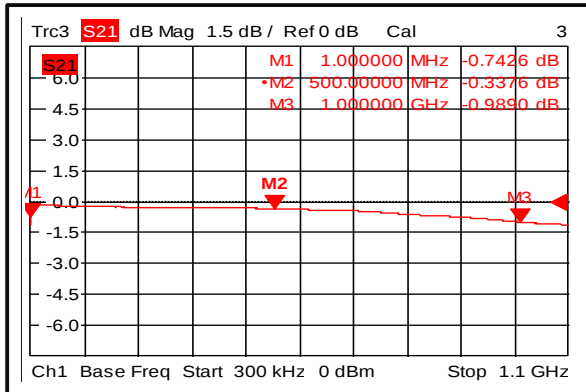


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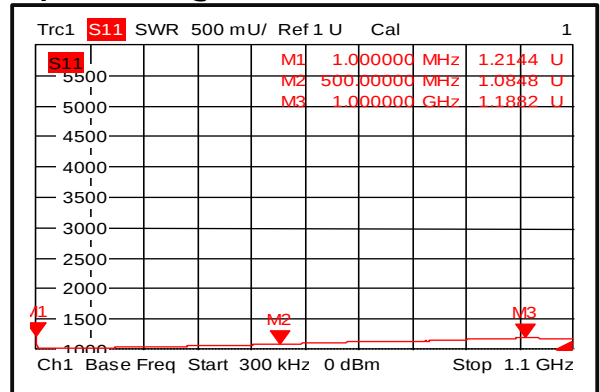
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RFSP2TR0001G5W

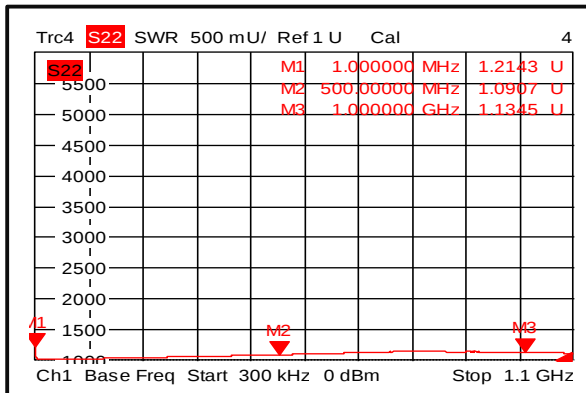
Insertion Loss @-45°C



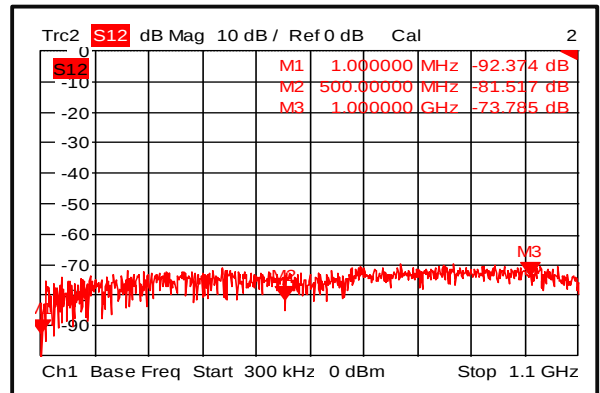
Input VSWR @-45°C



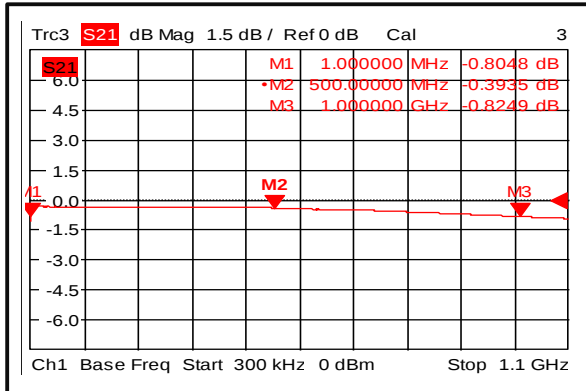
Output VSWR @-45°C



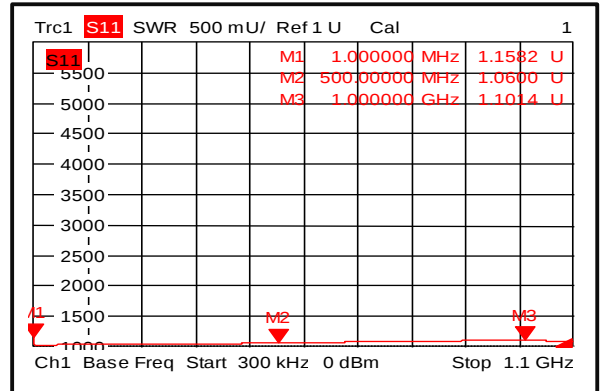
Isolation @-45°C



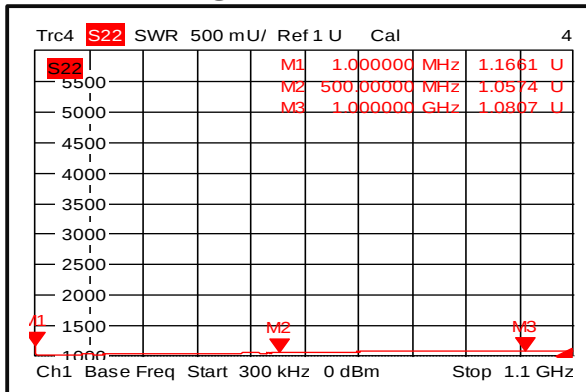
Insertion Loss @+85°C



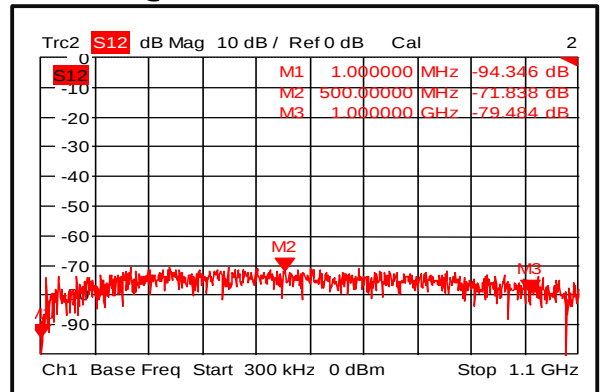
Input VSWR @+85°C



Output VSWR @+85°C



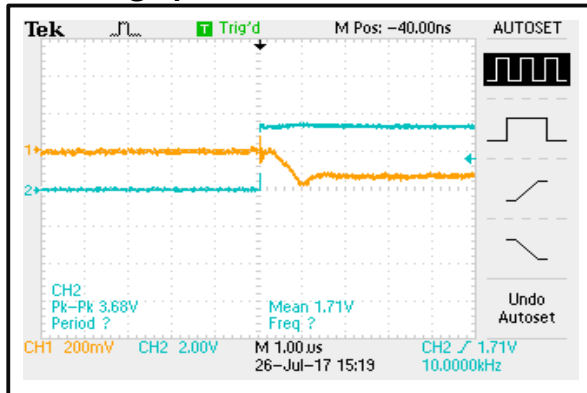
Isolation @+85°C



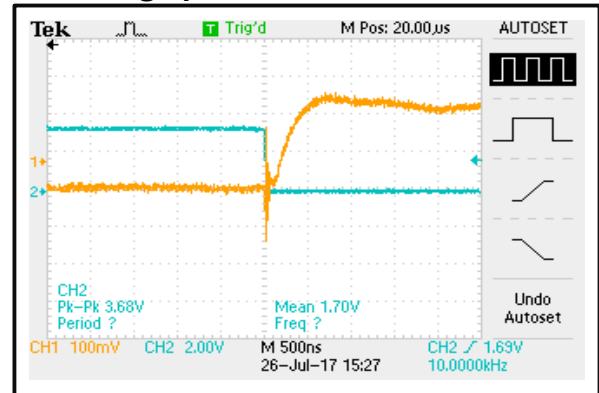
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Switching Speed



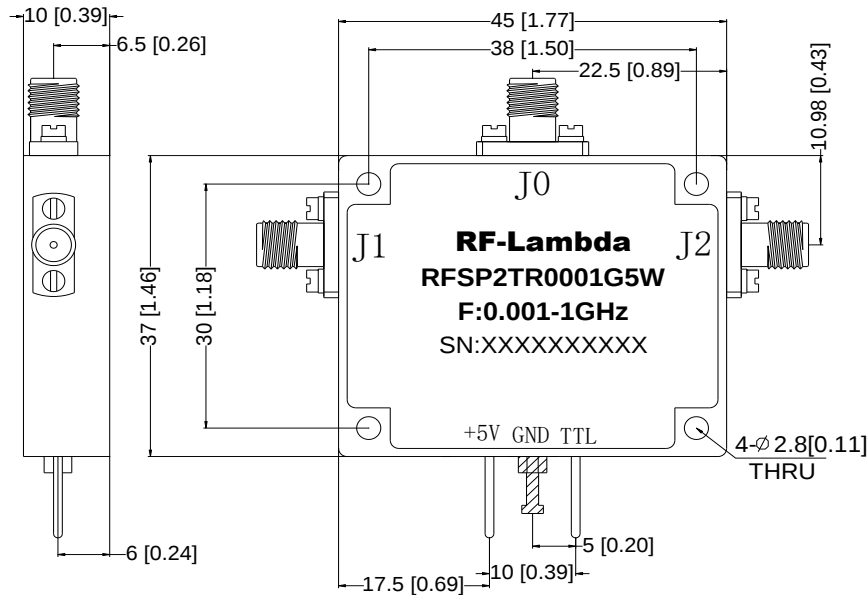
Switching Speed



Outline Drawing:

All Dimensions in mm [inches]

[X205]



Truth Table

Control Input TTL	Signal Path State
0	Jo-J1
1	Jo-J2

Control Pin Customization available upon request



Important Notice

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