SP2T Reflective Coaxial Switch
1 - 26GHz

RoHS Compliant

Features

- Ultra Wide Band Operation 1-26GHz
- TTL compatible driver included
- Fast Switching Speed
- Low Insertion Loss and High Isolation
- Customization available upon request

Electrical Specifications, T_A = +25 ℃, Vdd = +5V/-5V, TTL = 0 / +5V

Description	PN: RFSP2TR1G26G SP2T Reflective Switch Low Power Cold Switching						
Parameters	Min.	Typ.	Max.	Min.	Typ.	Max.	Units
Frequency Range	1		8	8		26	GHz
Insertion Loss		2.2	2.8		3.0	4.0	dB
Insertion Loss Temperature Coefficient		0.003			0.003		dB/ ℃
Isolation	60			47			dB
Input VSWR		1.6	2.2		2	2.5	: 1
Output VSWR		1.6	2.2		2	2.5	: 1
RF Input power			23			23	dBm
DC Power Dissipation		0.5			0.5		W
0.1dB Compression Point (P0.1dB)		23			23		dBm
IIP3		50			45		dBm
Switching Speed		50	60		50	60	ns
Weight	0.71						ounces
Impedance	50						Ω
Bias Current (+5V / -5V)	110/50						mA
Input / Output Connectors	SMA-Female						
Finish	Gold Plated						
Material	Aluminum						
Sealing	Epoxy / Laser Welded						

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Absolute Maximum Ratings

Biasing	+5V±10%/-5V±10%
TTL Control Voltage	0~0.8V / 2.8~5V

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

Ordering Information

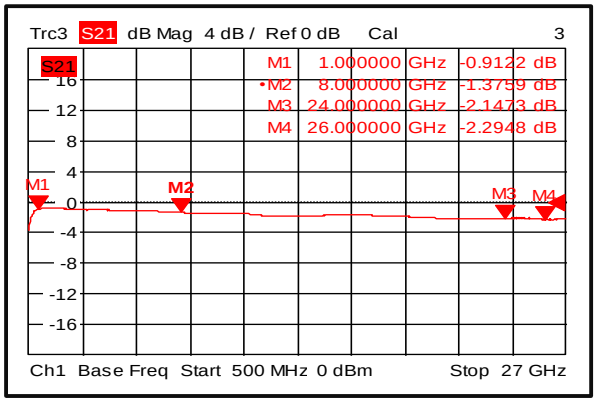
Part No.	ECCN	Description
RFSP2TR1G26G	EAR99	SP2T 1-26G PIN Diode Switch

Environmental Specifications and Test Standards

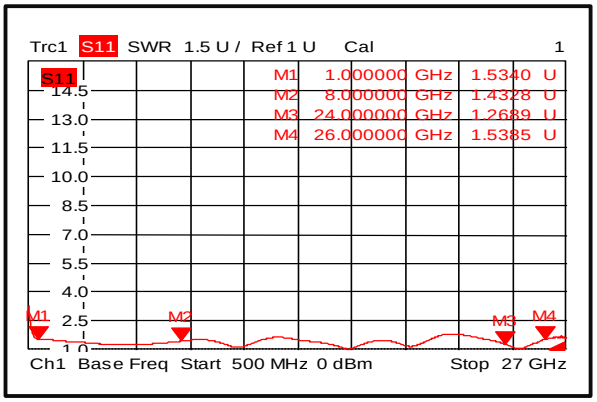
Parameter	Standard	Description
Operational Temperature	MIL-STD-39016	-45℃~+85℃ (Case Temperature)
Storage Temperature		-50℃~+125℃
Thermal Shock		1 Hour@ -45℃ → 1 Hour @ +85℃ (5 Cycles)
Random Vibration		Acceleration Spectral Density 6 (m/s) Total 92.6 RMS
Electrical & Temperature Burn In		Temperature +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

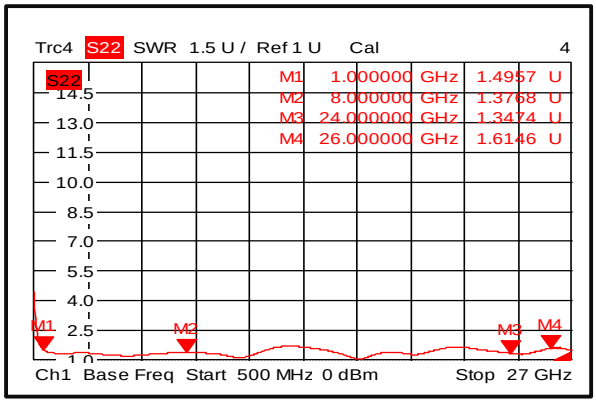
Insertion Loss



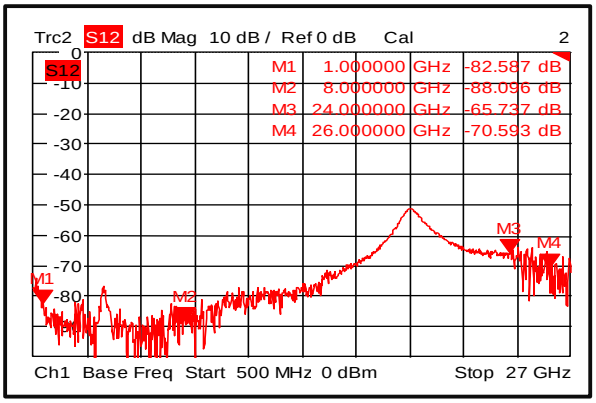
Input VSWR



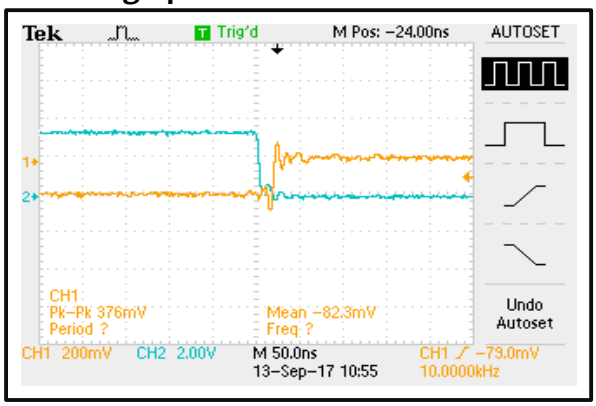
Output VSWR



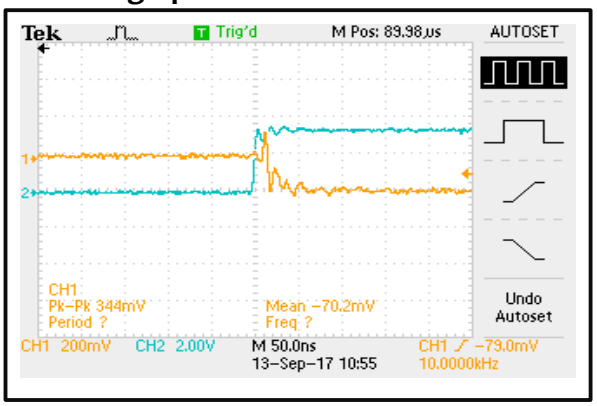
Isolation



Switching Speed



Switching Speed



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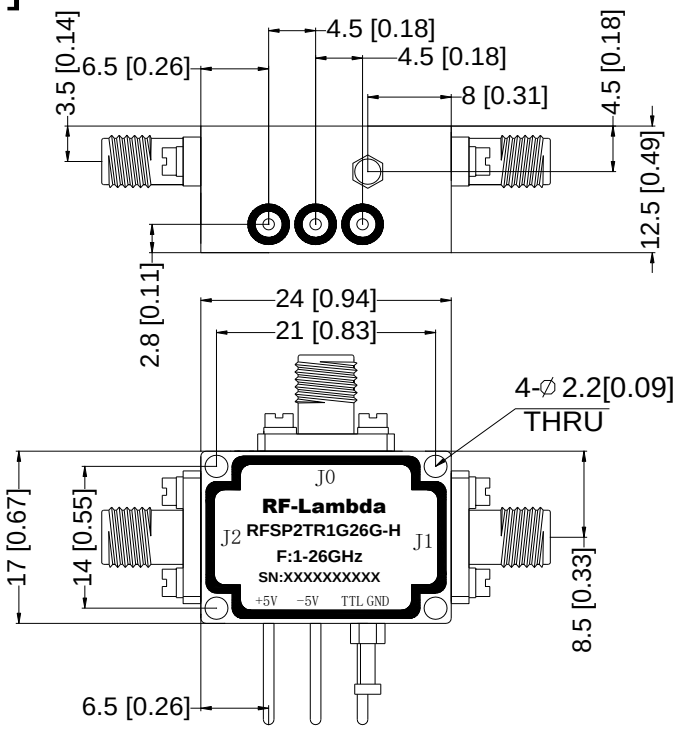
Outline Drawing:

All Dimensions in mm [inches]

[X202]



Truth Table

Control Input TTL	Signal Path State
0	J0-J2
1	J0-J1
Control Pin Customization available upon request	

Important Notice

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