

Reflective 0.02-0.5GHz Coaxial SP2T Switch

Features

- Wide Band Operation 20-500MHz
- TTL compatible driver included
- Fast Switching Speed
- Low Insertion Loss and High Isolation
- High Power Cold Switching



Typical Applications

- Wireless Infrastructure
 - Military & Aerospace
 - Fiber Optics
- RF Microwave & VSAT
Test Instrument

Parameters	Min	Typ.	Max	Min	Typ.	Max	Units
Frequency Range	20 – 25			25 - 500			MHz
Insertion Loss		0.8	1.1		0.55	0.8	dB
Insertion Loss Temperature Coefficient		0.003			0.003		dB/ ° C
Isolation	55	60		60	65		dB
Input VSWR		1.5	1.8		1.4	1.5	: 1
Output VSWR		1.5	1.8		1.4	1.5	: 1
RF Input Power (CW)			100			100	W
DC Power Dissipation		1.3			1.3		W
0.1dB Compression Point (P0.1dB)		50			50		dBm
IIP3		55			55		dBm
Switching Speed		2.5	3		2.5	3	us
Weight	1.41						ounces
Impedance	50						Ω
Bias Current (+5V/-28V)	250/50						mA
Input / Output Connectors	SMA - Female						
Finish	Gold Plated						
Material	Aluminum						
Sealing	Hermetically Sealed (Optional)						



Absolute Maximum Ratings

Biasing	+5V $\pm$ 10%/-28V $\pm$ 10%
TTL Control Voltage	0~0.8V/2.8~5V

Ordering Information

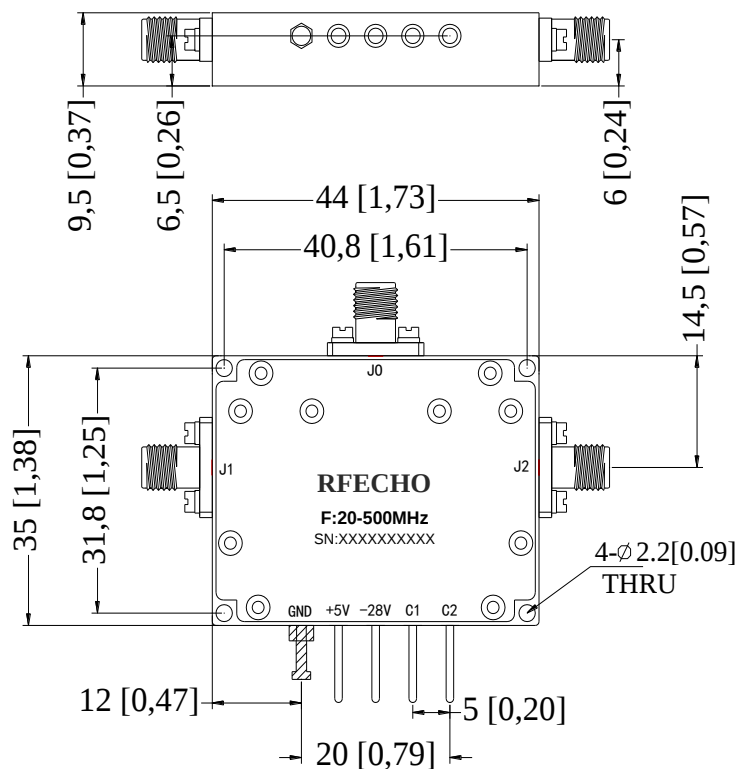
Part No.	ECCN	Description
DBSR0200020050A	EAR99	SP2T0.02-0.5GHz PIN Diode Switch

Environmental Specifications

Operational Temperature	-45°C~+85°C
Storage Temperature	-55°C~+125°C
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

Outline Drawing:

All Dimensions in mm (inches)

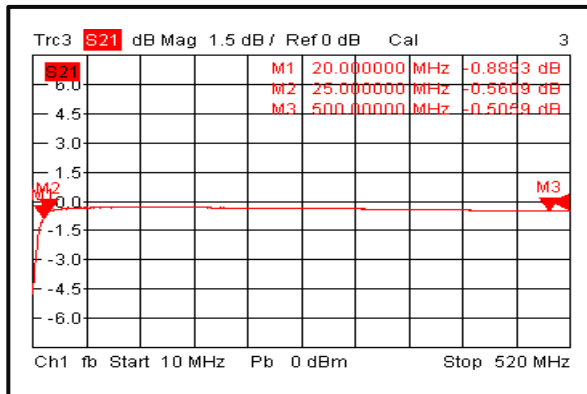


Truth Table

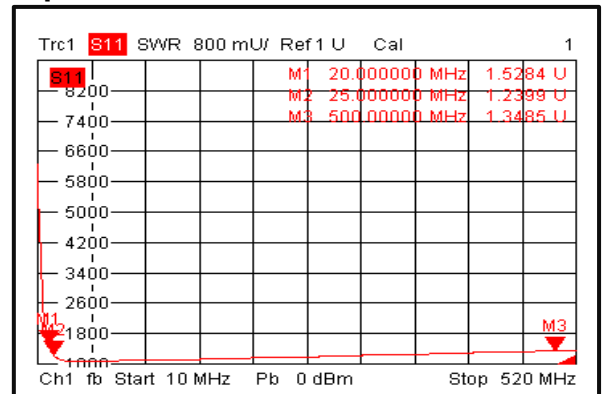
Control Input TTL		Signal Path State
C2	C1	
0	0	OFF
0	1	J0-J1
1	0	J0-J2
1	1	Not Used
Control Pin Customization available upon request		



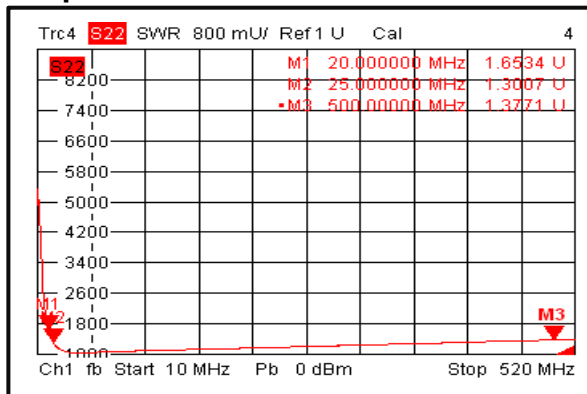
Insertion Loss



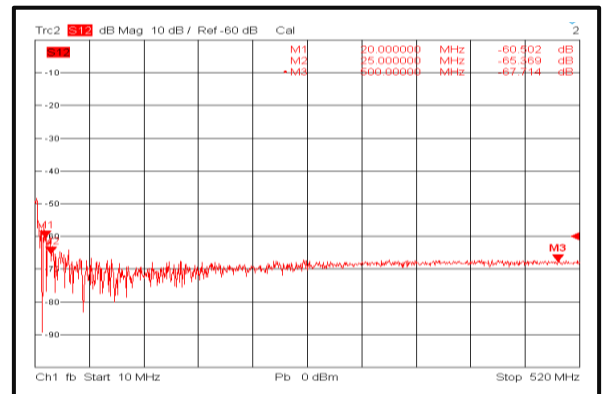
Input VSWR



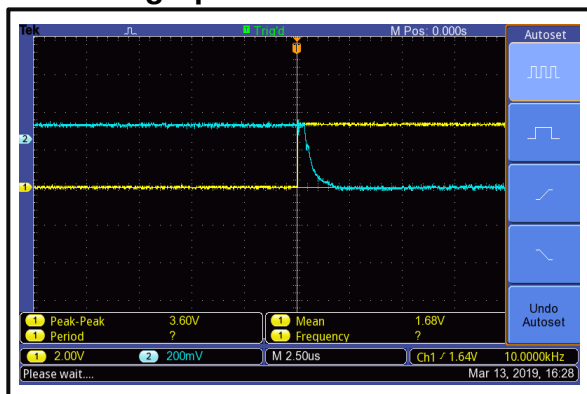
Output VSWR



Isolation



Switching Speed



Switching Speed

