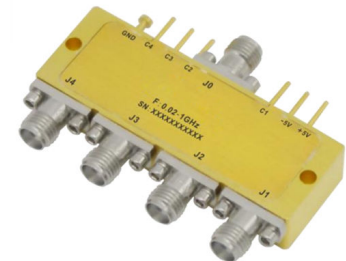


Absorptive 0.02-1GHz Coaxial SP4T Switch

Features

- Wide Band Operation 0.02-1GHz
- TTL compatible driver included
- Fast Switching Speed
- Low Insertion Loss and High Isolation
- Customization available upon request



Typical Applications

- Wireless Infrastructure
- 5G communication
- Test and measurement Instrument

RF Microwave & VSAT
Fiber Optics

Parameters	Min	Typ.	Max	Units
Frequency Range		0.02-1		GHz
Insertion Loss		1.4	1.7	dB
Insertion Loss Temperature Coefficient		0.003		dB/ ° C
Isolation	80	85		dB
Input VSWR		1.4	1.5	: 1
Output VSWR		1.4	1.5	: 1
Power Dissipation (CW)		0.25		W
IM3		40		dBc
1dB Compression P1dB		30		dBm
Switching Speed	500(Standard)			ns
	100(Option with extra cost)			
Weight		1.7		ounces
Impedance		50		Ω
Biasing(+5V/-5V)		160/50		mA
Input /Output Connectors	SMA-Female/SMA-Female(Standard)			
Finish	Gold Plated			
Material	Aluminum			
Seal	Hermetically Sealed (optional)			



Absolute Maximum Ratings

Biasing	+5V ± 10%/-5V ± 10%
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Ordering Information

Part No.	Description
DBSA0400020100A	SP4T 0.02-1GHz PIN Diode Switch

Environmental Specifications

Operational Temperature	-40°C ~ +85°C (Case Temperature)
Storage Temperature	-50°C ~ +105°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 35°C, 95%RH at 40°C
Shock	20G for 11msec half sine wave, 3 axis both directions

Outline Drawing:

All Dimensions in mm (inches)

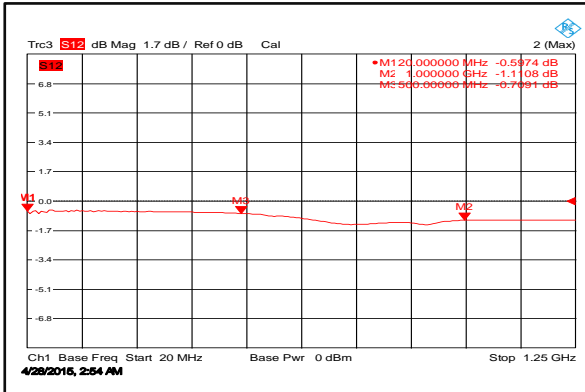
The drawing shows a rectangular component with dimensions: 52 mm [2.05] width, 18 mm [0.71] height, and 9.5 mm [0.37] depth. The top view shows pins labeled GND, C4, C3, C2, J0, C1, -5V, +5V, J4, J3, J2, and J1. The side view shows a depth of 2 mm [0.08] and a hole diameter of 2-ø2.8 mm [ø0.11] with a thickness of 3 mm [0.12]. The component is labeled "RFECHO F:0.02-1GHz SN:XXXXXXXXXX".

TTL Control Voltage THRESHOLD				Low(0)=0~0.8V
				High(1)=2.8~5V
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

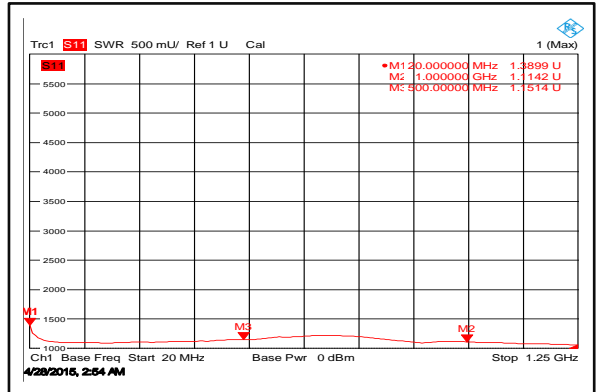
Control Pin Customization available upon request



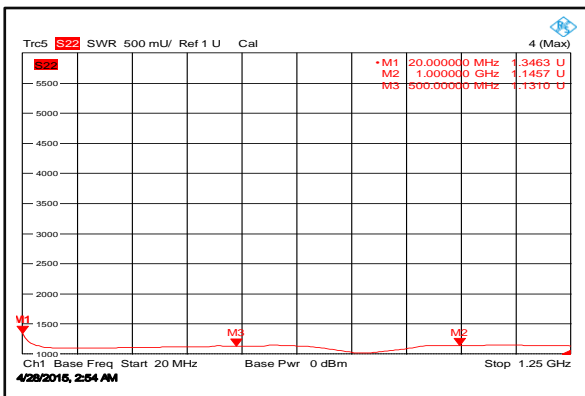
Insertion Loss



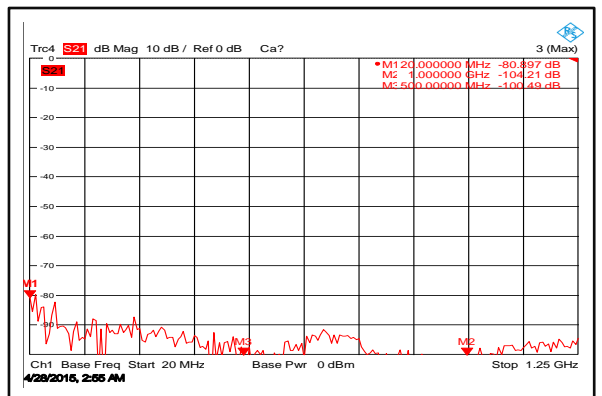
Input VSWR



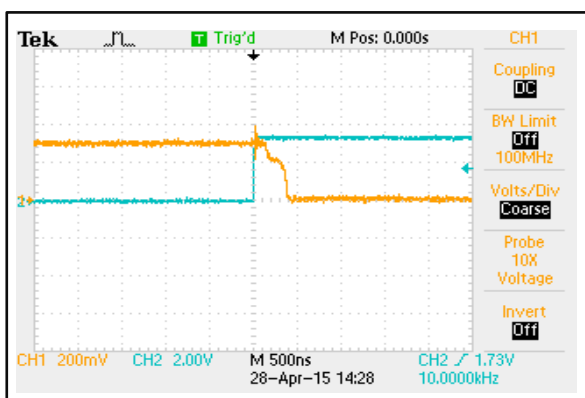
Output VSWR



Isolation



Switching Speed



Switching Speed

