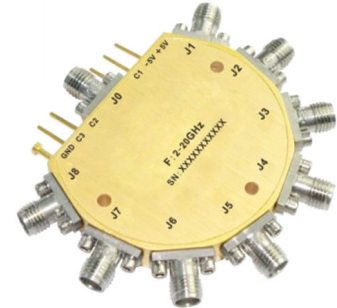




Absorptive 2-20GHz Coaxial SP8T Switch

Features

- Ultra Wide Band Operation 2-20GHz
- TTL compatible driver included
- Fast Switching Speed
- Low Insertion Loss and High Isolation
- Customization available upon request



Typical Applications

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

Parameters	Min	Typ.	Max	Min	Typ.	Max	Min	Typ.	Max	Units
Frequency Range	2-6			6-12			12-20			GHz
Insertion Loss		2	2.5		2.5	3		3.5	4	dB
Insertion Loss Temperature Coefficient		0.003			0.003			0.003		dB/ °C
Isolation	70	80		80	85		80	82		dB
Input VSWR		1.5	2		1.5	2		1.5	2	: 1
Output VSWR		1.5	2		1.5	2		1.5	2	: 1
RF Input power (CW)	1			1			1			W
Power Dissipation (CW)		0.3			0.4			0.5		W
0.1dB Compression P0.1dB		30			30			30		dBm
IM3		40			40			40		dBc
IIP3		45			45			45		dBm
Switching Speed	100									ns
Weight	1.76									ounces
Impedance	50									Ω
Biasing(+5V/-5V)	350/50									mA
Input /Output Connector	SMA-Female									
Finishing	Gold Plating									
Material	Aluminum									
Seal	Hermetically Sealed (optional)									



Absolute Maximum Ratings

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

Ordering Information

Part No.	ECCN	Description
DBSA0802002000A	EAR99	SP8T 2-20GHz 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 Uncontrolled 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)

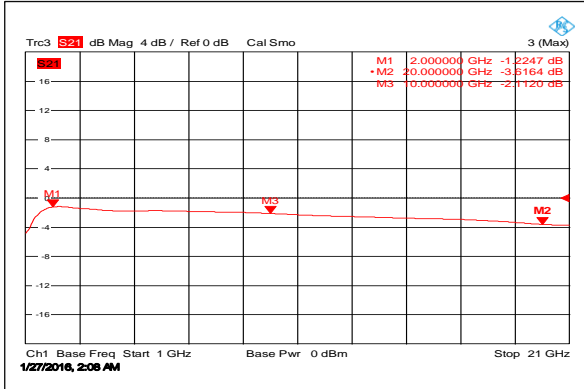
Truth Table

Control Input TTL			Signal Path State
C3	C2	C1	
0	0	0	J0-J1
0	0	1	J0-J2
0	1	0	J0-J3
0	1	1	J0-J4
1	0	0	J0-J5
1	0	1	J0-J6
1	1	0	J0-J7
1	1	1	J0-J8

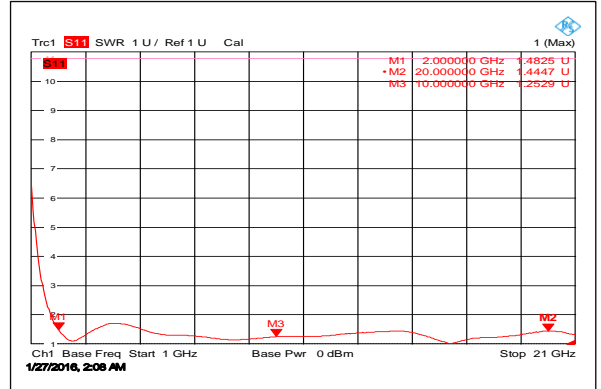
Control Pin Customization available upon request



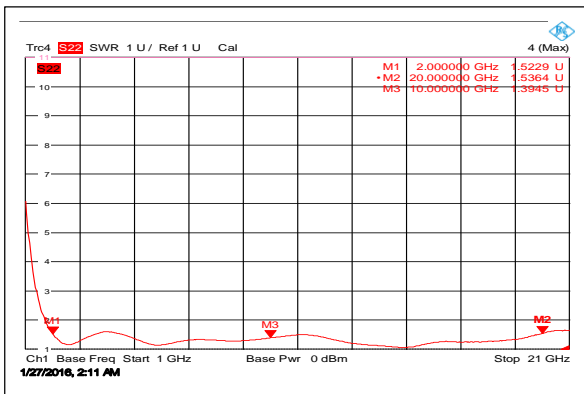
Insertion Loss



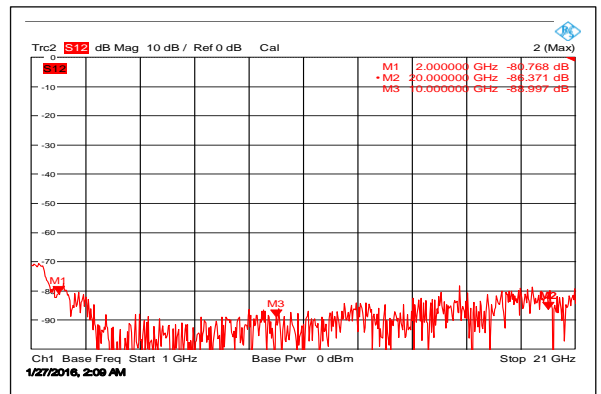
Input VSWR



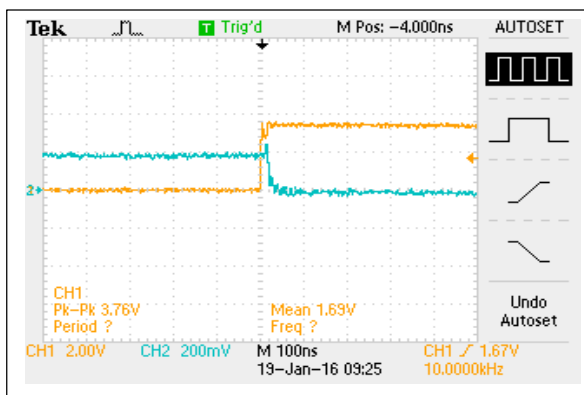
Output VSWR



Isolation



Turn on Switching Speed



Turn off Switching Speed

