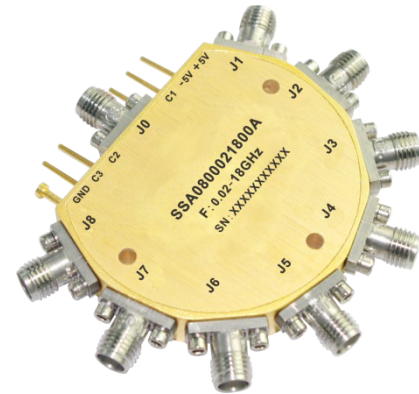


Absorptive 0.02-18GHz Coaxial SP8T Switch

Features

- Ultra Wide Band Operation 0.02-18GHz
- 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.	Min.	Typ.	Max.	Min.	Typ.	Max.	Units
Frequency Range	0.02-6			6-12			12-18			GHz
Insertion Loss		2.5	4.5		3.8	5.5		5.5	6.0	dB
Insertion Loss Temperature Coefficient		0.003			0.003			0.003		dB/ ° C
Isolation	60	85		75	80		60	70		dB
Input VSWR		1.5	1.8		1.5	1.8		1.5	2	: 1
Output VSWR		1.5	1.8		1.5	1.8		1.5	2	: 1
RF Input Power			30			30			30	dBm
DC Power Dissipation		1.5			1.5			1.5		W
0.1dB Compression Point (P0.1dB)		30			30			30		dBm
IIP3		42			42			40		dBm
Switching Speed	250 Max.									ns
Weight	1.9 Max.									ounces
Impedance	50									Ω
Bias Current (+5V / -5V)	350/50 Max.									mA
Input / Output Connectors	SMA - Female									
Finish	Gold Plated									
Material	Aluminum									
Sealing	Hermetically Sealed (Optional)									

Absorptive 0.02-18GHz Coaxial SP8T Switch

Absolute Maximum Ratings

Biasing	+5V $\pm$ 10%/-5V $\pm$ 10%
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Note: TTL pins cannot be connected to the negative voltage otherwise the internal driver will be damaged.

Ordering Information

Part No.	Description
SSA0800021800A	SP8T 0.02-18GHz PIN Diode Switch

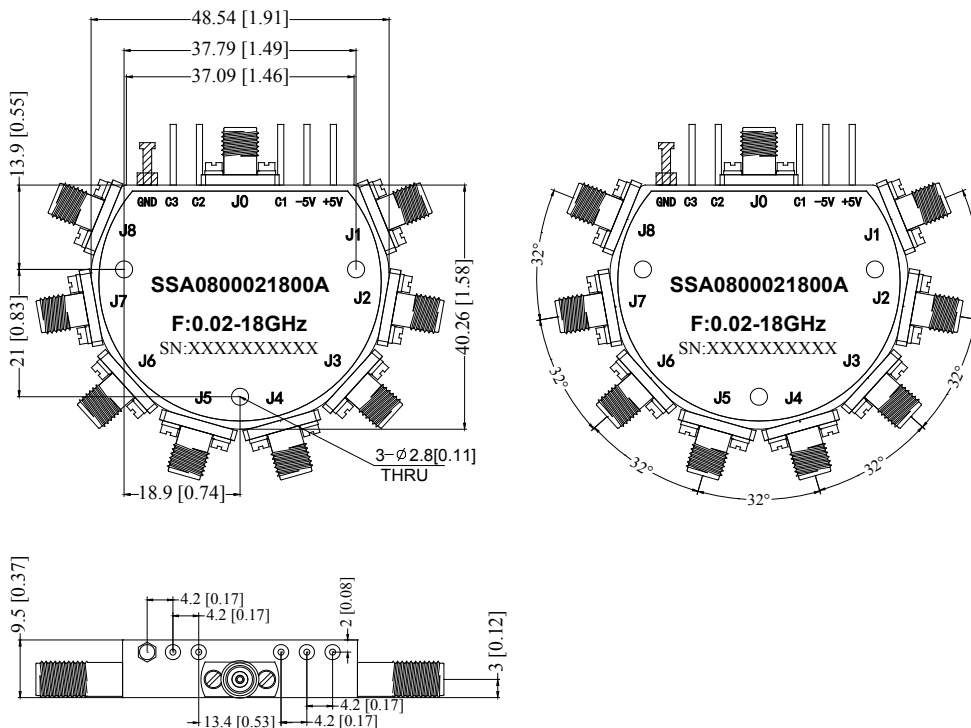
Environmental Specifications

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

Outline Drawing:

All Dimensions in mm (inches)

Housing Tolerances $\pm$ 0.1 (0.004)



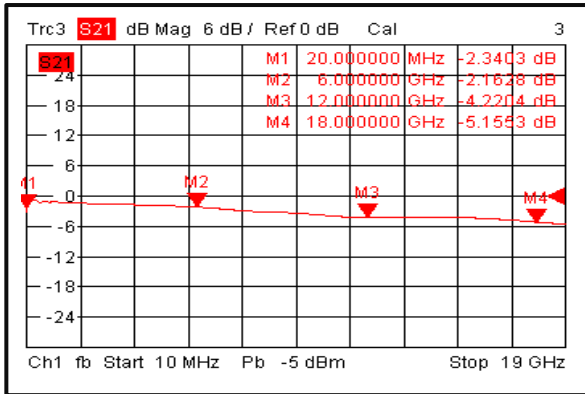
Truth Table

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

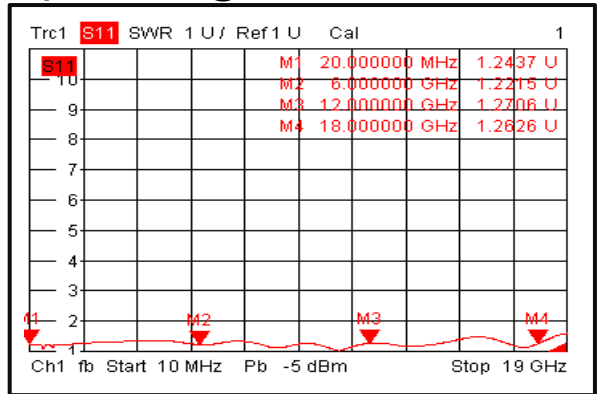
Control Pin Customization available upon request

Absorptive 0.02-18GHz Coaxial SP8T Switch

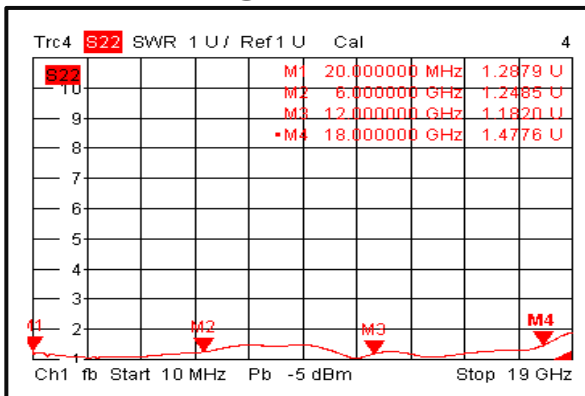
Insertion Loss @+25°C



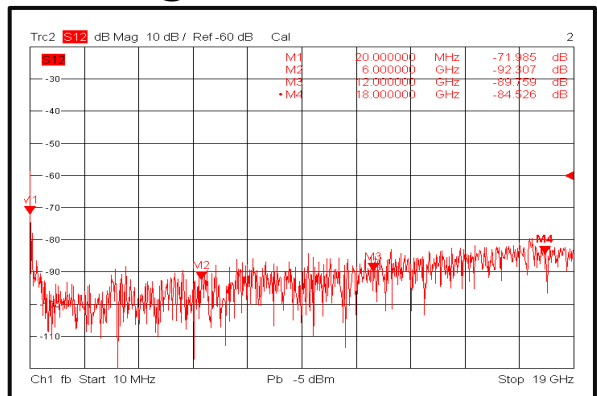
Input VSWR @+25°C



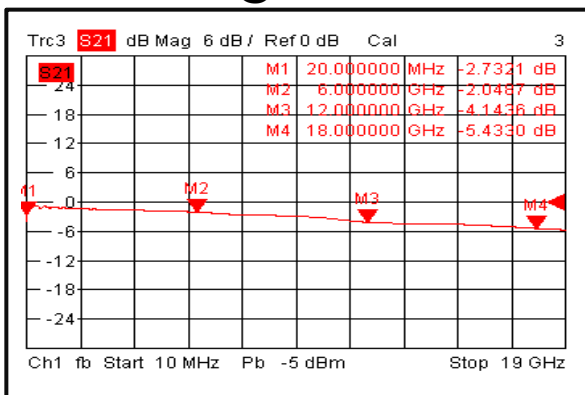
Output VSWR @+25°C



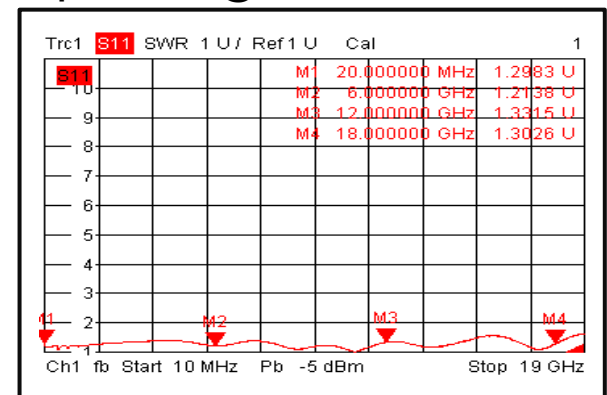
Isolation @+25°C



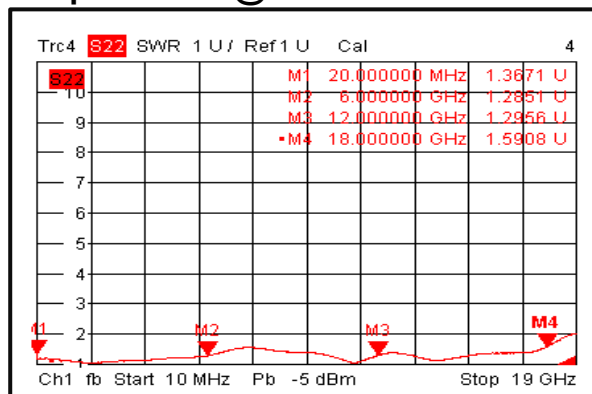
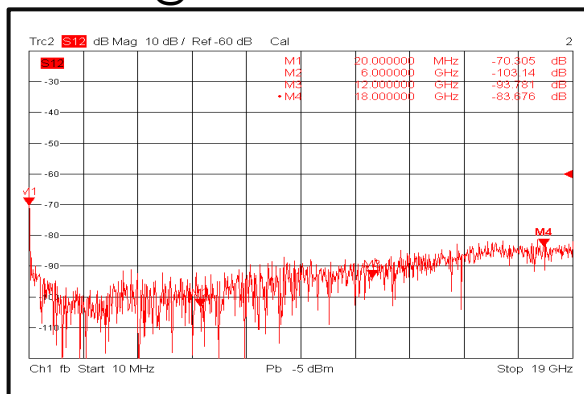
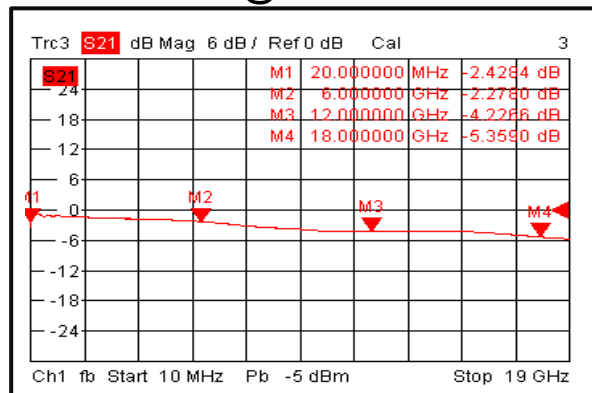
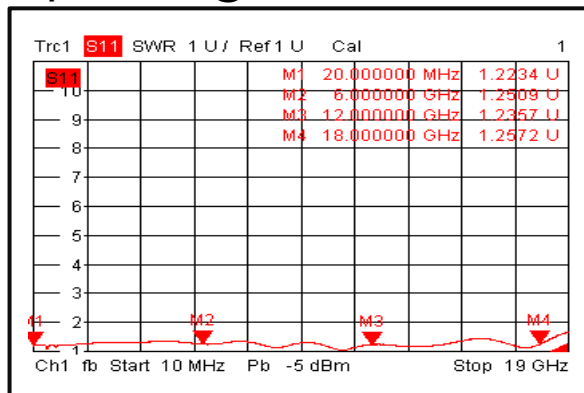
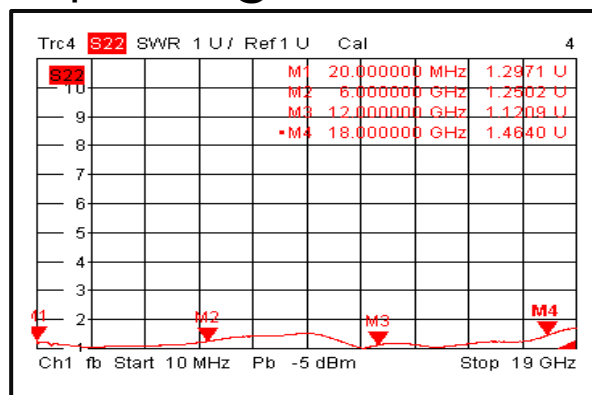
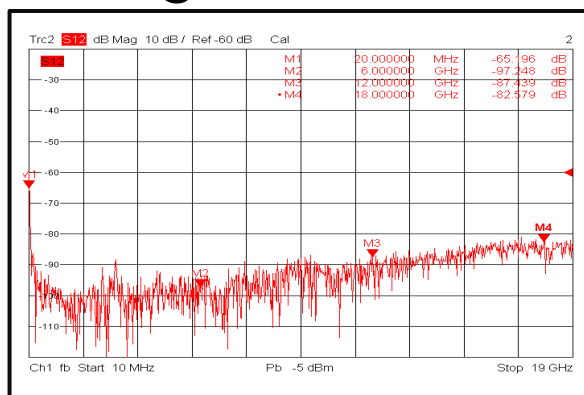
Insertion Loss @-40°C



Input VSWR @-40°C

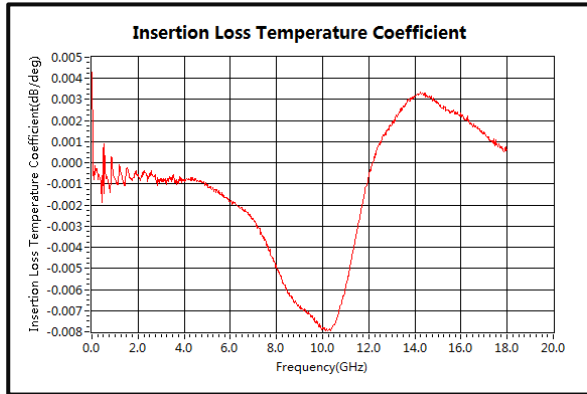


Absorptive 0.02-18GHz Coaxial SP8T Switch

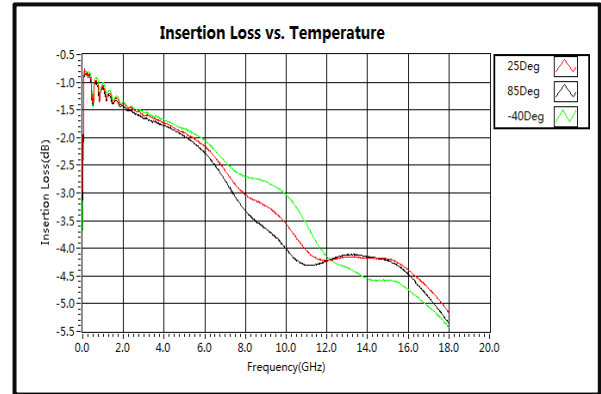
Output VSWR @-40°C

Isolation @-40°C

Insertion Loss @+85°C

Input VSWR @+85°C

Output VSWR @+85°C

Isolation @+85°C


Absorptive 0.02-18GHz Coaxial SP8T Switch

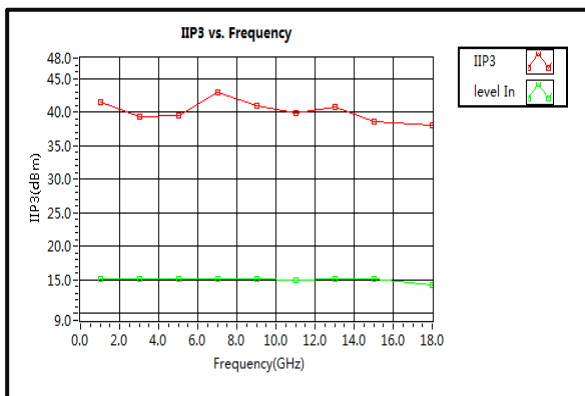
Insertion Loss Temperature Coefficient



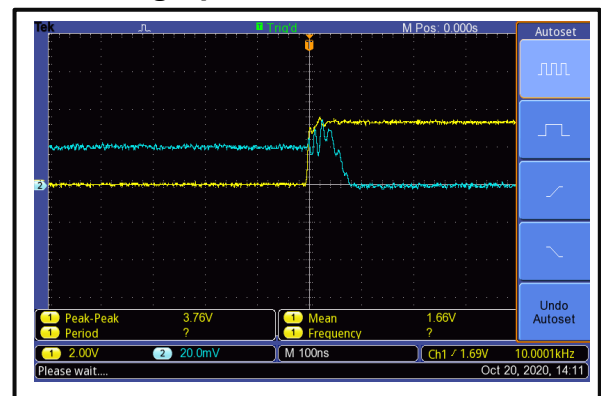
Insertion Loss vs. Temperature



IIP3



Switching Speed



Switching Speed

