

Absorptive 0.1-50GHz Coaxial SP4T Switch

Features

- Ultra Wide Band Operation 0.1-50GHz
- 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	0.1-18			18-43.5			43.5-50			GHz
Insertion Loss		3.3	4.0		5.0	6.0		5.5	6.5	dB
Insertion Loss Temperature Coefficient		0.003			0.003			0.003		dB/ °C
Isolation	60	70		45	55		40	55		dB
Input VSWR		1.8	2.5		2.5	3		2	2.5	: 1
Output VSWR		1.8	2.5		2.5	3		2	2.5	: 1
RF Input power			23			23			23	dBm
DC Power Dissipation		0.15			0.15			0.15		W
0.1dB Compression Point (P0.1dB)		23			23			23		dBm
IIP3		45			43			43		dBm
Switching Speed	100 Max.									ns
Weight	1.2 Max.									Ounces
Impedance	50									Ω
Bias Current(+5V/-15V)	120/50 Max.									mA
Input /Output Connectors	2.4mm-Female									
Finish	Gold Plated									
Material	Aluminum									
Sealing	Hermetically Sealed (optional)									

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Absolute Maximum Ratings

Biasing	+5V $\pm$ 10%/-15V $\pm$ 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
SSA0400105000A	SP4T 0.1-50GHz PIN Diode Switch

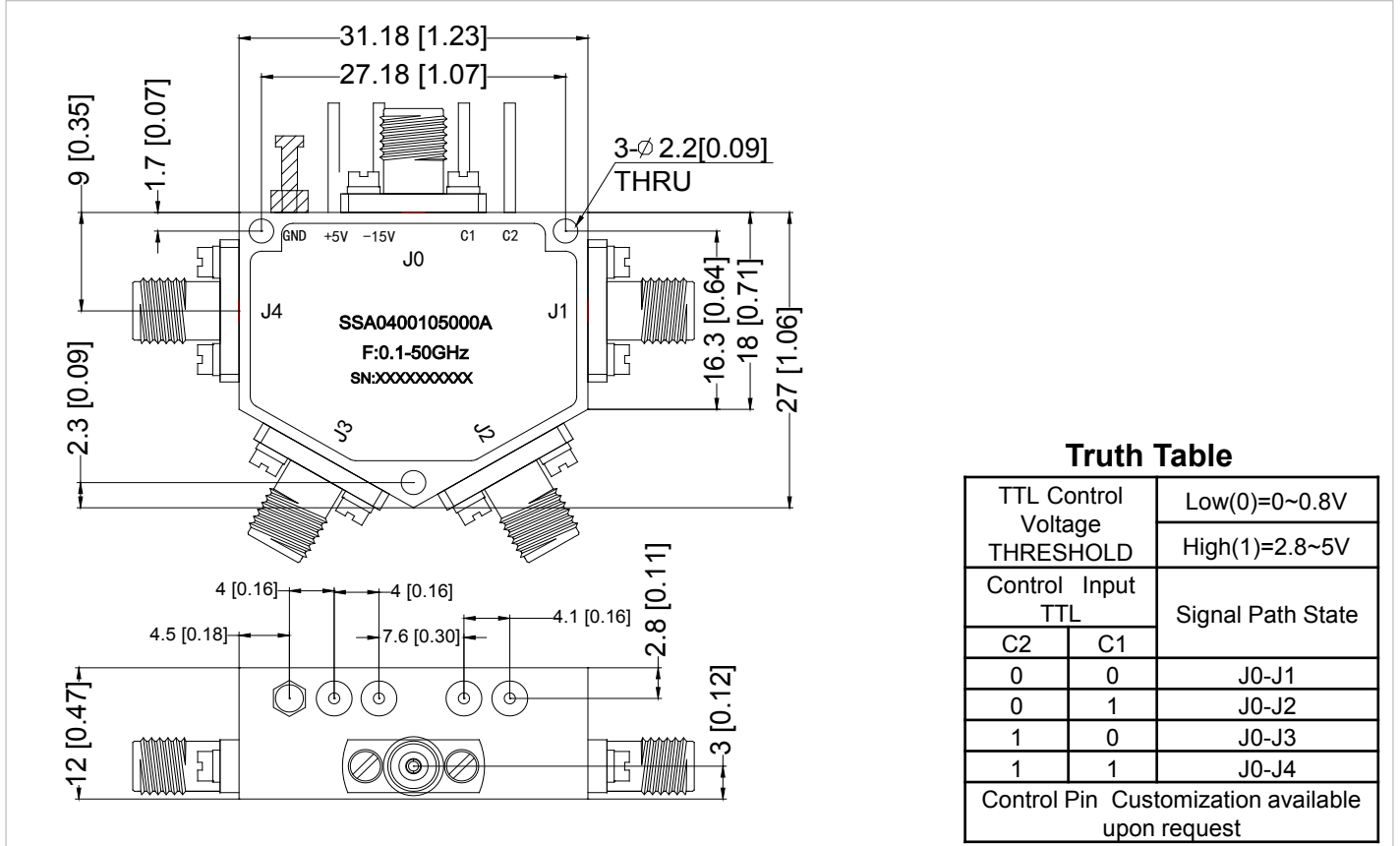
Environmental Specifications

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

Outline Drawing:

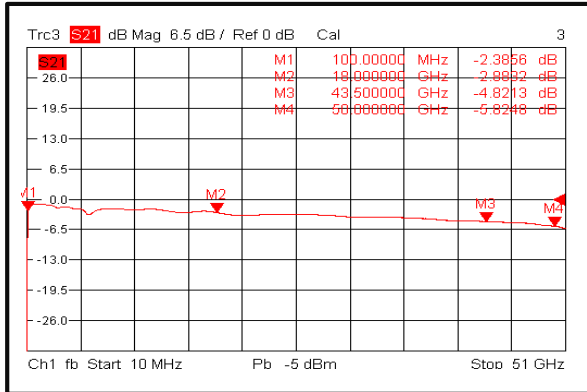
All Dimensions in mm (inches)

Housing Tolerances $\pm$ 0.1 (0.004)

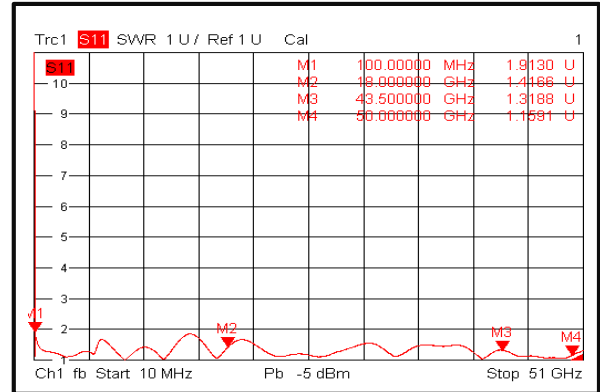


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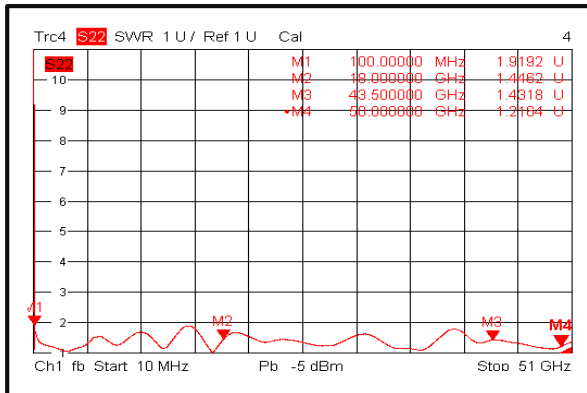
Insertion Loss @+25°C



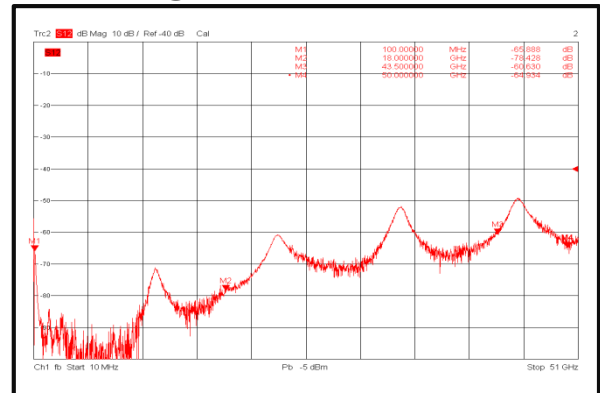
Input VSWR @+25°C



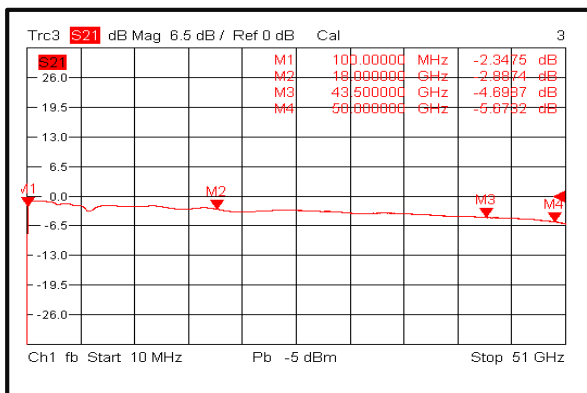
Output VSWR @+25°C



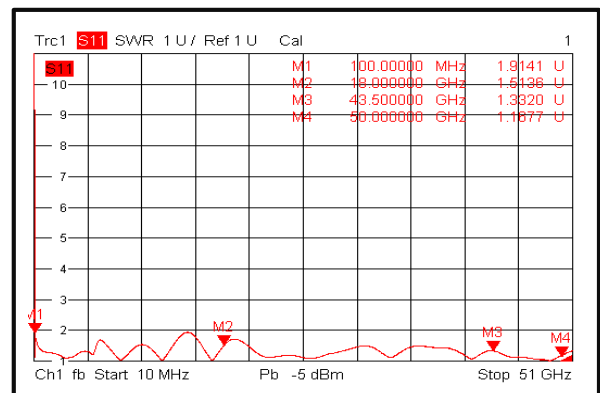
Isolation @+25°C



Insertion Loss @-40°C

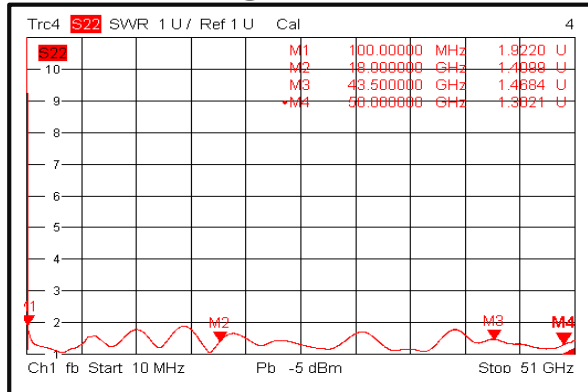


Input VSWR @-40°C

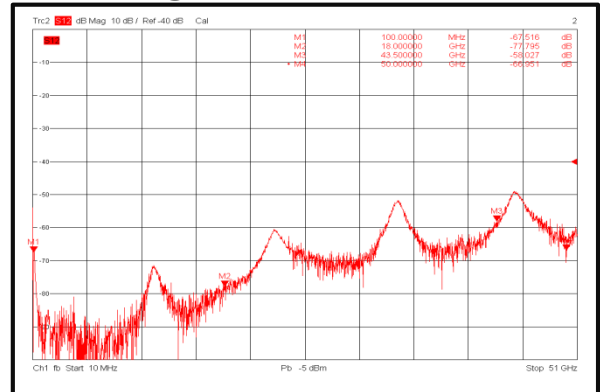


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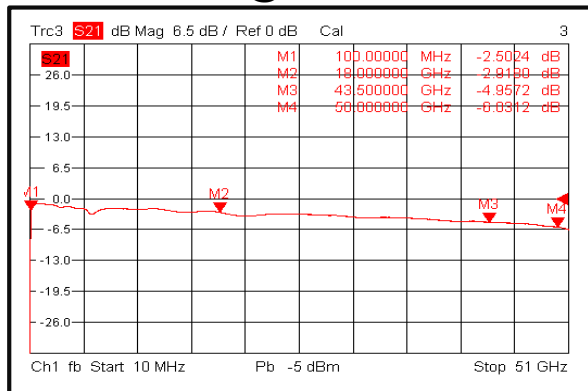
Output VSWR @-40°C



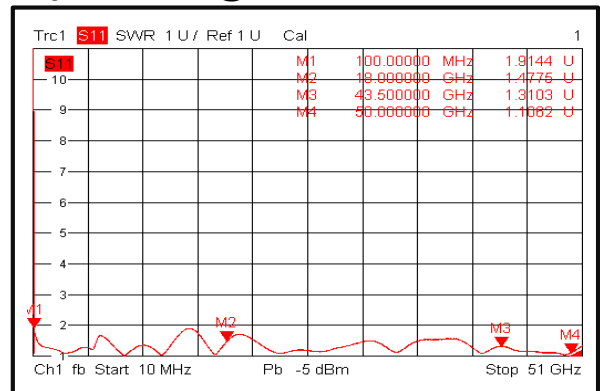
Isolation @-40°C



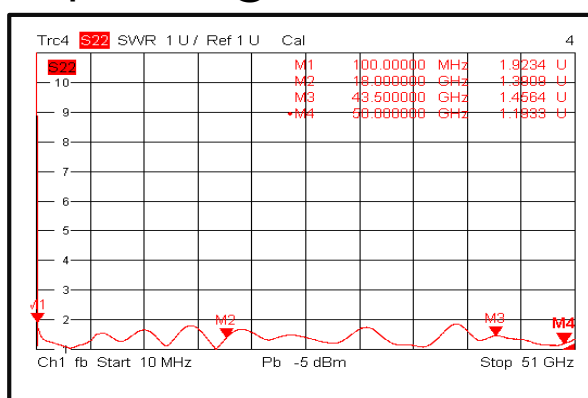
Insertion Loss @+85°C



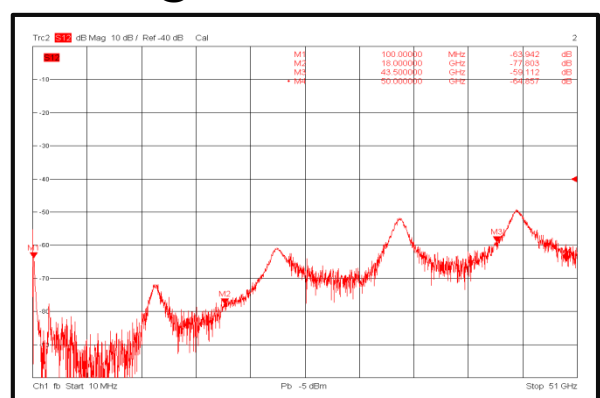
Input VSWR @+85°C



Output VSWR @+85°C

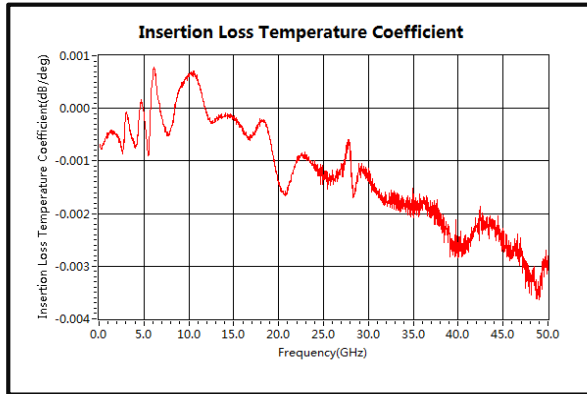


Isolation @+85°C

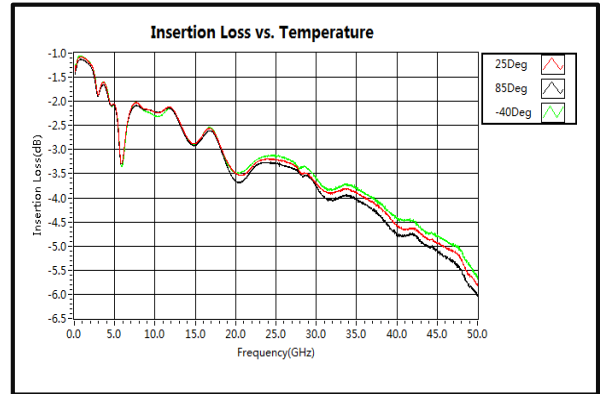


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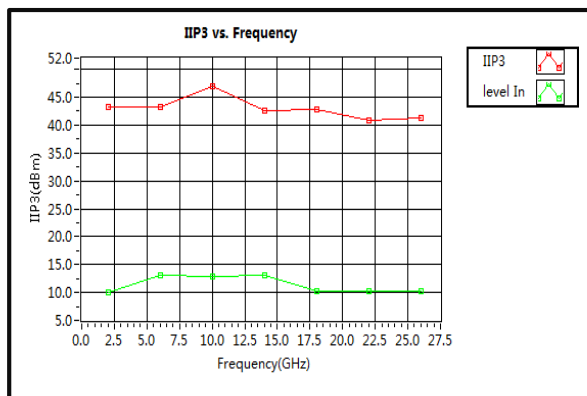
Insertion Loss Temperature Coefficient



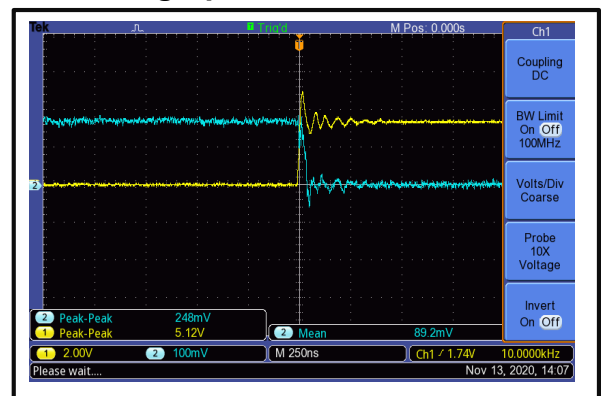
Insertion Loss vs. Temperature



IIP3



Switching Speed



Switching Speed

