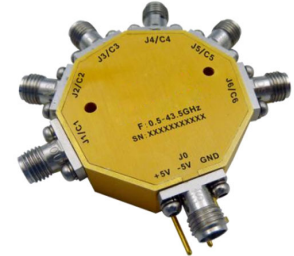




Absorptive Coaxial SP6T Switch 0.5 – 43.5GHz

Features

- Ultra Wide Band Operation 0.5-43.5GHz
- 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	0.5		8	8		26.5	26.5		43.5	GHz
Insertion Loss		4.2	4.5		6.5	7		7.5	8.5	dB
Insertion Loss Temperature Coefficient		0.003			0.003			0.003		dB/ ° C
Isolation	60	70		50	58		48	55		dB
Input VSWR		2	3		1.9	3		1.8	2.5	: 1
Output VSWR		2	3		1.9	3		1.8	2.5	: 1
RF Input Power(CW)			23			23			23	dBm
DC Power Dissipation		0.8			0.8			0.8		W
0.1dB Compression Point (P0.1dB)		23			23			23		dBm
IIP3		55			55			50		dBm
Switching Speed		50	100		50	100		50	100	ns
Weight	1.41									ounces
Impedance	50									Ω
Bias Current (+5V/-5V)	200/50									mA
Input / Output Connectors	2.92mm - Female									
Finish	Gold Plated									
Material	Aluminum									
Sealing	Hermetically Sealed (Optional)									

Absolute Maximum Ratings

Biassing	+5V±10%/-5V±10%
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Environmental Specifications

Operational Temperature	-40°C~+85°C
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

Ordering Information

Part No.	Description
DBSA0600504350A	SP6T 0.5-43.5GHz PIN Diode Switch

Outline Drawing:

All Dimensions in mm (inches)

The drawing includes a top view showing a hexagonal package with six ports labeled J0 through J5. Dimensions include a diameter of 38.1 mm (1.5 inches) and various mounting hole and pin dimensions. Side views show the profile of the package with a height of 12 mm (0.47 inches) and a base width of 2.5 mm (0.10 inches). Detail views K and P show the internal structure and pin configurations.

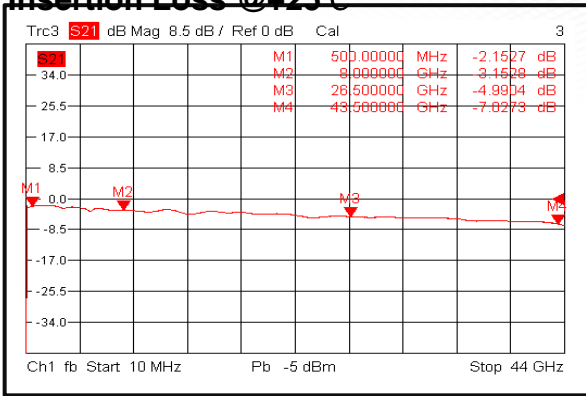
Truth Table

TTL Control Voltage THRESHOLD		Low(0)=0~0.8V High(1)=2.8~5V				
Control Input TTL						Signal Path State
C6	C5	C4	C3	C2	C1	
1	1	1	1	1	0	J0-J1
1	1	1	1	0	1	J0-J2
1	1	1	0	1	1	J0-J3
1	1	0	1	1	1	J0-J4
1	0	1	1	1	1	J0-J5
0	1	1	1	1	1	J0-J6

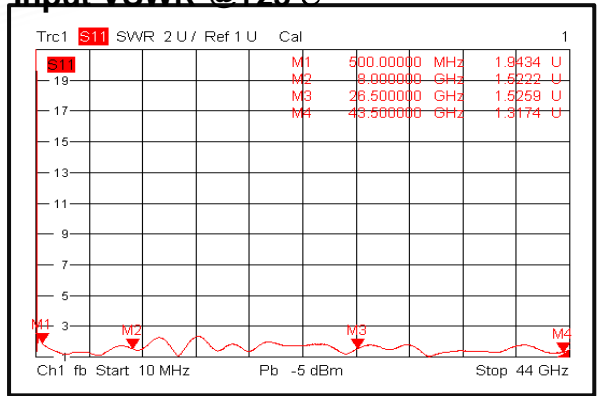
Control Pin Customization available upon request



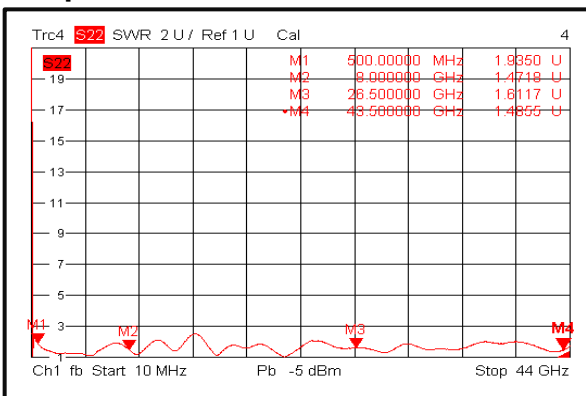
Insertion Loss @+25°C



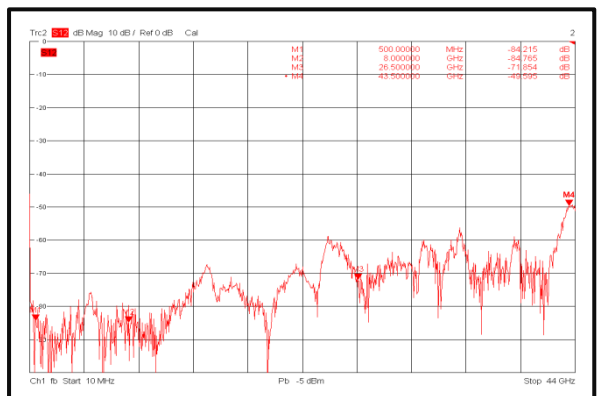
Input VSWR @+25°C



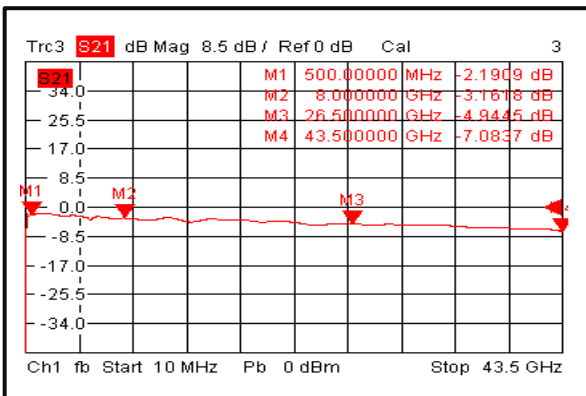
Output VSWR @+25°C



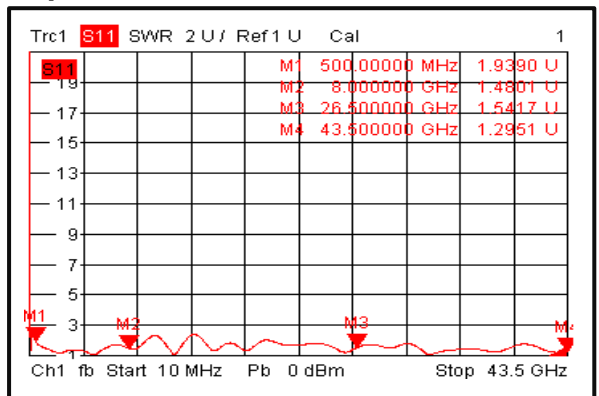
Isolation @+25°C



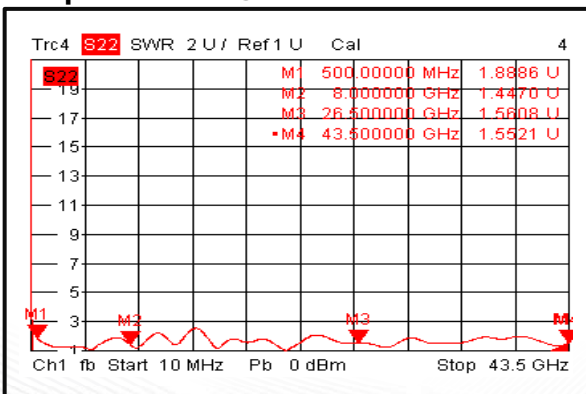
Insertion Loss @-40°C



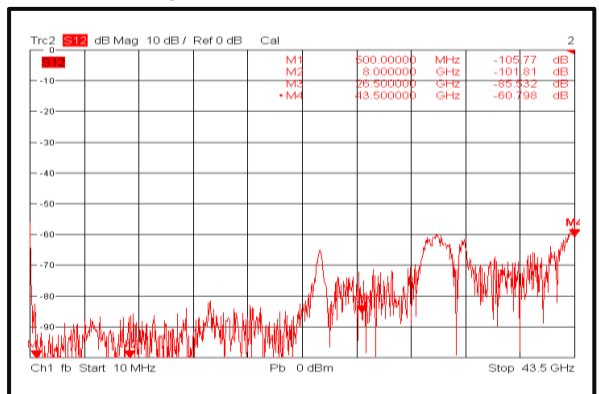
Input VSWR @-40°C



Output VSWR @-40°C

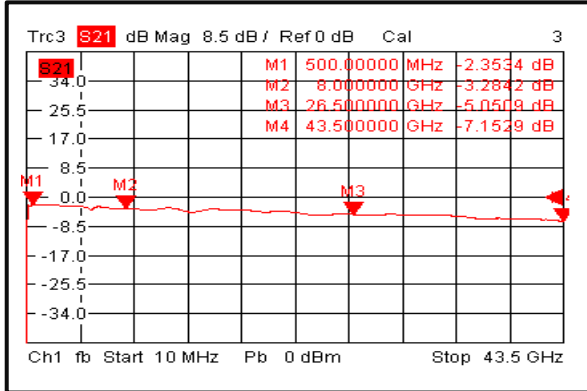


Isolation @-40°C

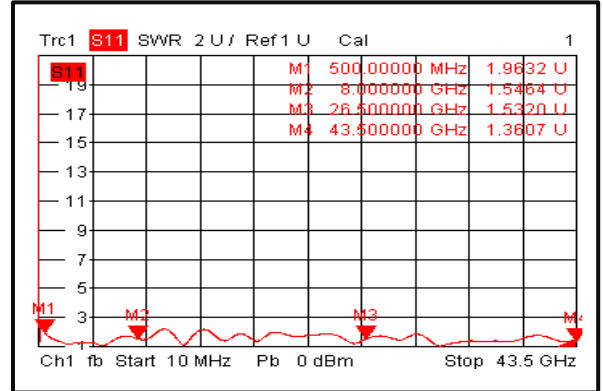




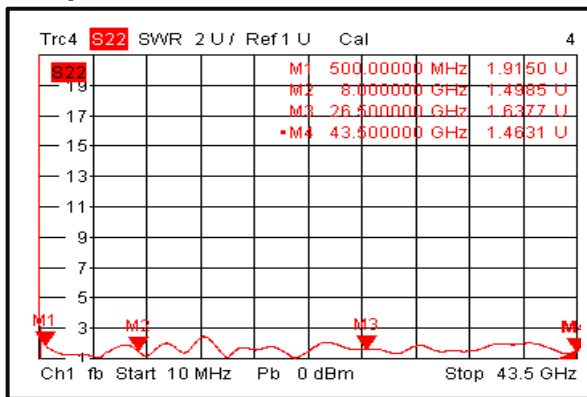
Insertion Loss @+85°C



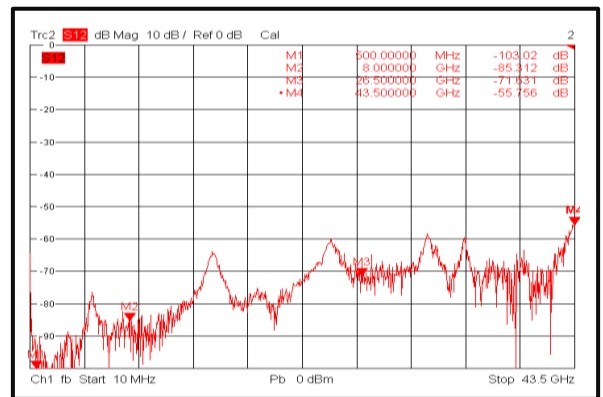
Input VSWR @+85°C



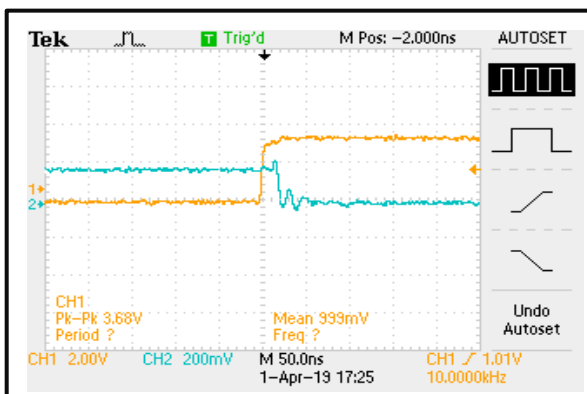
Output VSWR @+85°C



Isolation @+85°C



Switching Speed



Switching Speed

