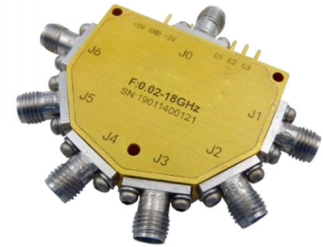




Absorptive Coaxial SP6T Switch 0.02 - 18GHz

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	0.02~8			8~12			12~18			GHz
Insertion Loss		3.0	4.5		4.5	5.5		5.5	6.0	dB
Flatness of Insertion Loss (Between each port)		±0.25			±0.25			±0.25		dB
Insertion Loss Temperature Coefficient		0.003			0.003			0.003		dB/ °C
Isolation	60	75		60	70		60	65		dB
Input VSWR		1.5	2.0		1.6	2.0		1.7	2.0	: 1
Output VSWR		1.5	2.0		1.6	2.0		1.7	2.0	: 1
RF Input power			30			30			30	dBm
DC Power Dissipation		1.1			1.1			1.1		W
0.1dB Compression Point (P0.1dB)		30			30			30		dBm
IIP3		45			40			38		dBm
Switching Speed	250 Max.									ns
Weight	1.4 Max.									Ounces
Impedance	50									Ω
Bias Current (+5V / -5V)	240/50 Max.									mA
Input / Output Connectors	SMA-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 Uncontrolled 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
DBSA0600021800A	SP6T 0.02-18GHz PIN Diode Switch

Outline Drawing:

All Dimensions in mm (inches) Tolerances ±0.1 (0.004)

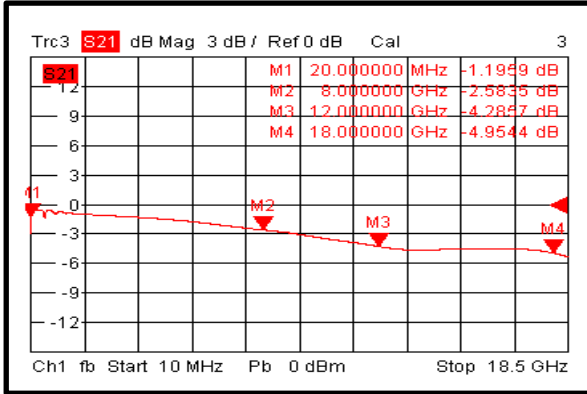
The drawing shows a top view and a side view of the component. Key dimensions include: overall width 40 [1.57] mm, overall height 33.03 [1.30] mm, and various pin spacings and heights. The top view labels include J0, J1, J2, J3, J4, J5, J6, and control pins C1, C2, C3. The side view shows a height of 12 [0.47] mm. The component is labeled 'RFECHO F:0.02-18GHz SN:XXXXXXXXXX'. A note indicates '3-Ø2.2[0.09] THRU' for the mounting holes.

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-J6
0	0	1	J0-J5
0	1	0	J0-J4
0	1	1	J0-J3
1	0	0	J0-J2
1	0	1	J0-J1
1	1	0	OFF
1	1	1	OFF

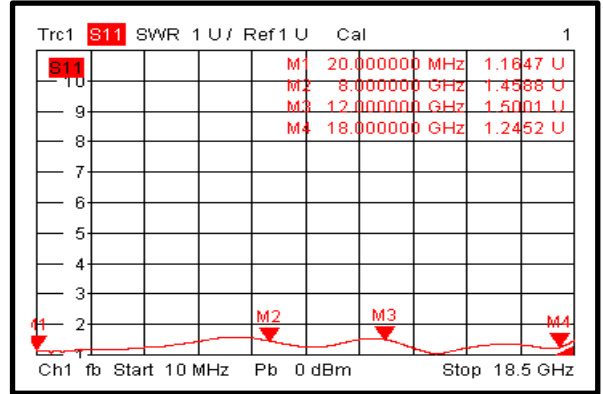
Control Pin Customization available upon request



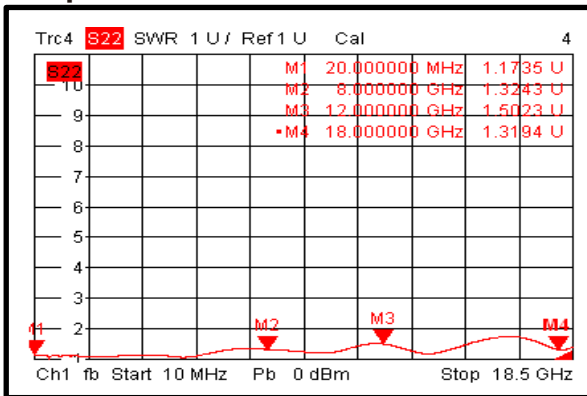
Insertion Loss @+25°C



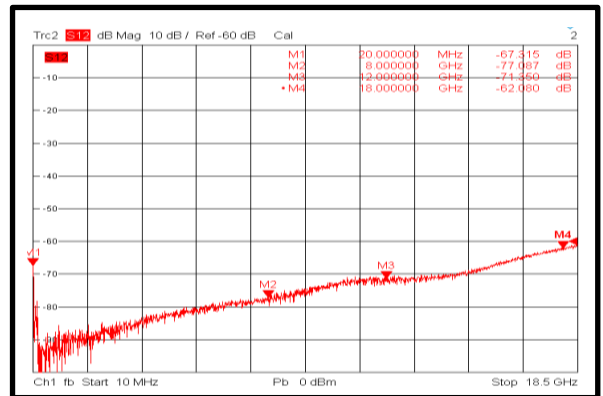
Input VSWR @+25°C



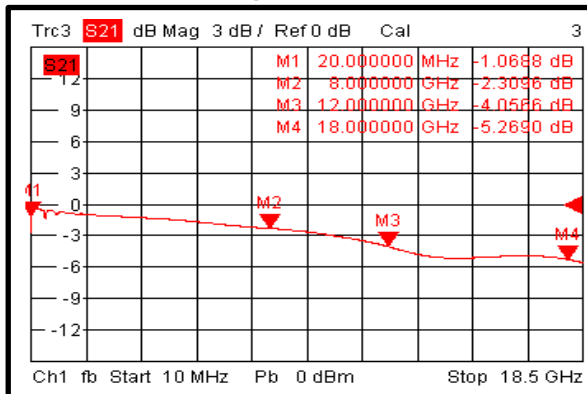
Output VSWR @+25°C



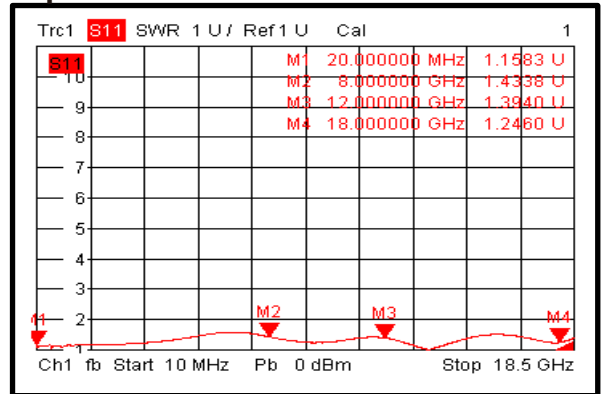
Isolation @+25°C



Insertion Loss @-40°C

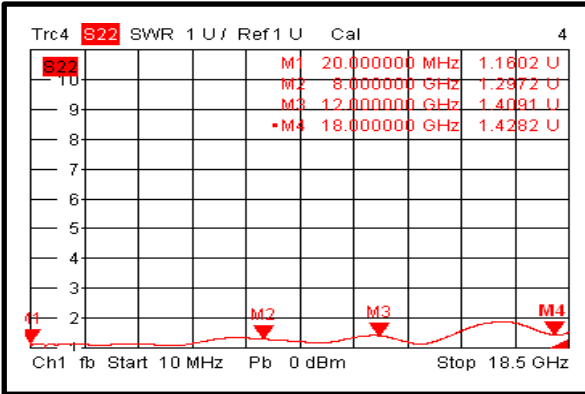


Input VSWR @-40°C

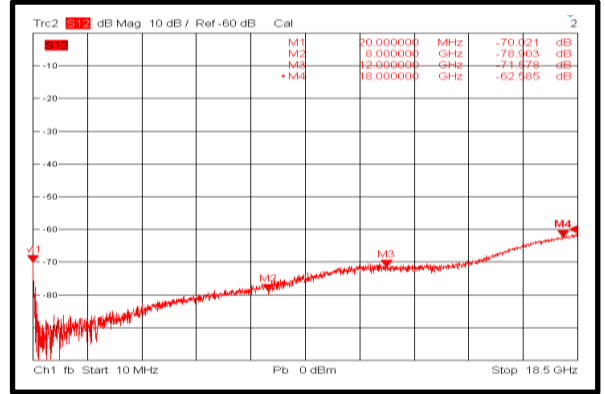




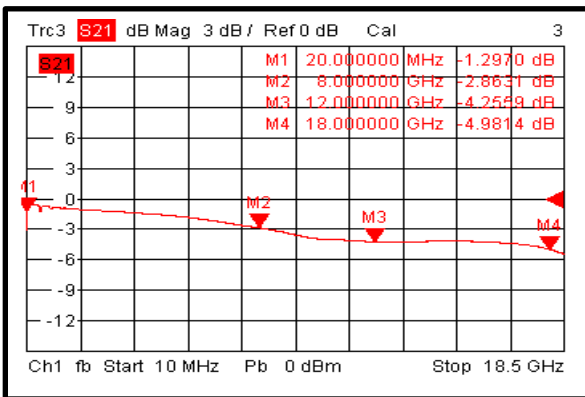
Output VSWR @-40°C



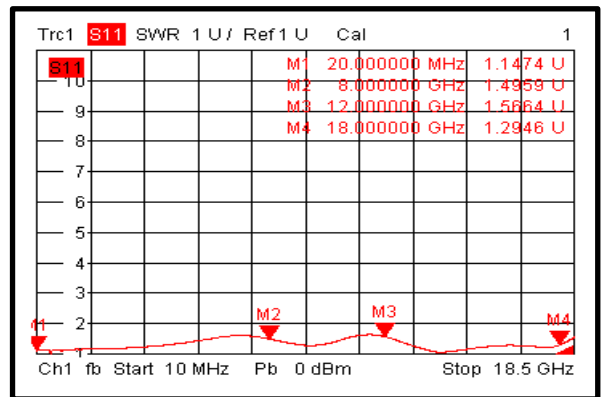
Isolation @-40°C



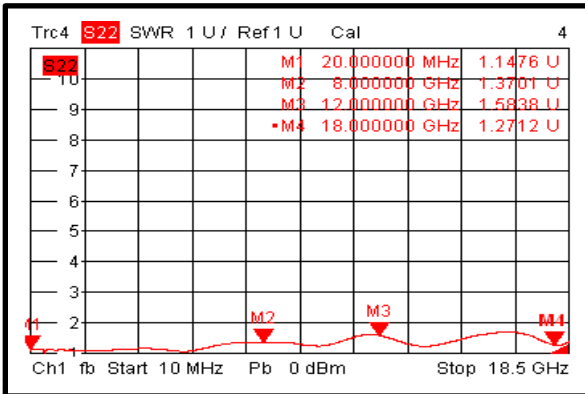
Insertion Loss @+85°C



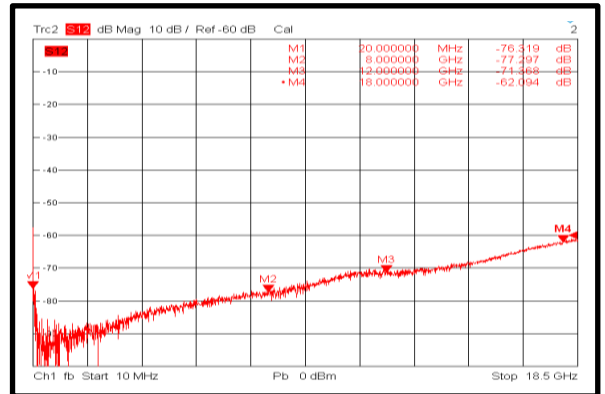
Input VSWR @+85°C



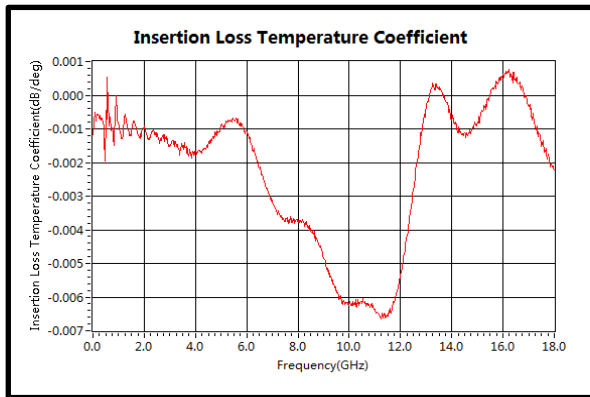
Output VSWR @+85°C



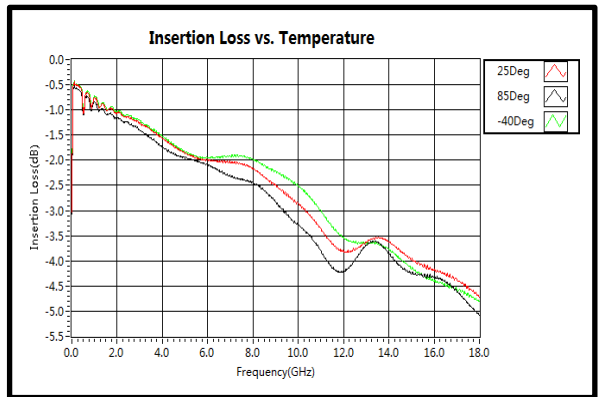
Isolation @+85°C



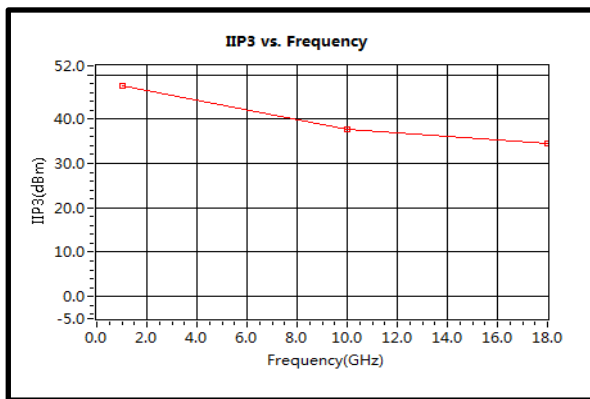
Insertion Loss Temperature Coefficient



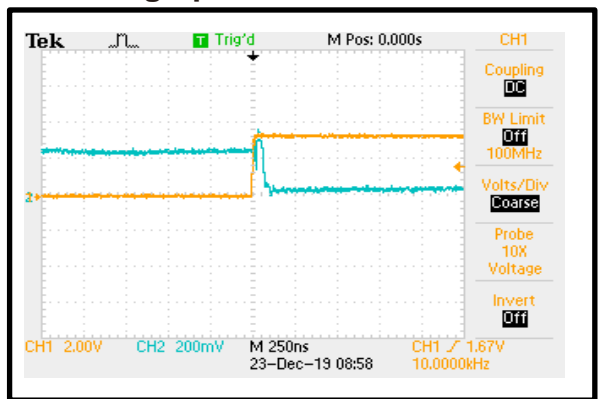
Insertion Loss vs. Temperature



IIP3



Switching Speed



Switching Speed

