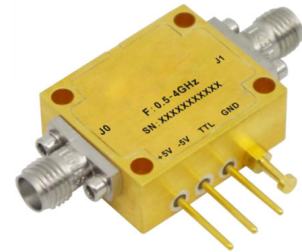




Absorptive 0.5-4GHz Coaxial SPST Switch

Features

- Wide Band Operation 0.5-4GHz
- 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	Units
Frequency Range	0.5		2	2		4	GHz
Insertion Loss		0.7	1		1.0	1.5	dB
Insertion Loss Temperature Coefficient		0.003			0.003		dB/ °C
Isolation	80	85		80	85		dB
Input VSWR		1.3	1.5		1.3	1.5	:1
Output VSWR		1.3	1.5		1.3	1.5	:1
Input Power			30			30	dBm
DC Power Dissipation (CW)		0.25			0.3		W
0.1dB Compression P 0.1dB		30			30		dBm
IIP3		50			48		dBm
Switching Speed	100Max.						ns
Weight	0.5 Max.						ounces
Impedance	50						Ω
Biasing(+5V/-5V)	80/50 Max.						mA
Input /Output Connectors	SMA-Female						
Finish	Gold Plated						
Material	Aluminum						
Sealing	Hermetically Sealed (optional)						



Absolute Maximum Ratings

Biasing	+5V±10%/-5V±10%
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Environment specifications

Operational Temperature	-40°C~+85°C(Case Temperature)
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
DBSA0100500400B	SPST 0.5-4GHz PIN Diode Switch

Outline Drawing:

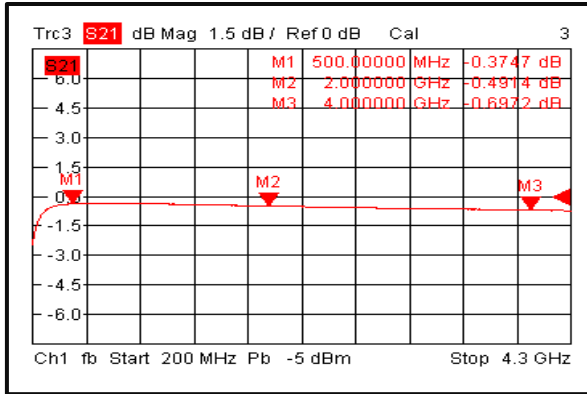
All Dimensions in mm (inches)

Notes:
J0: Absorptive Port
J1: Reflective port

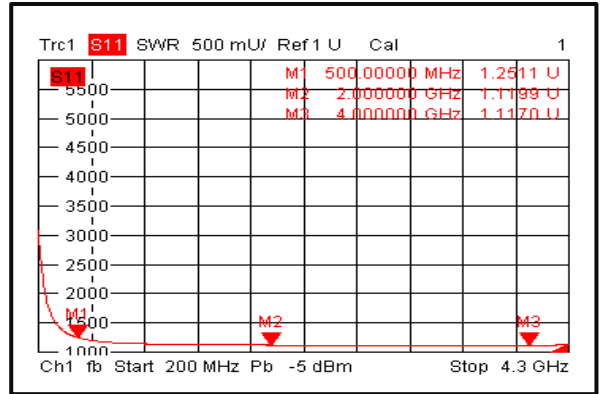
TTL Control Voltage THRESHOLD	Low(0)=0~0.8V
	High(1)=2.8~5V
Control Input TTL	State
1	OFF
0	ON
Control Pin Customization available upon request	



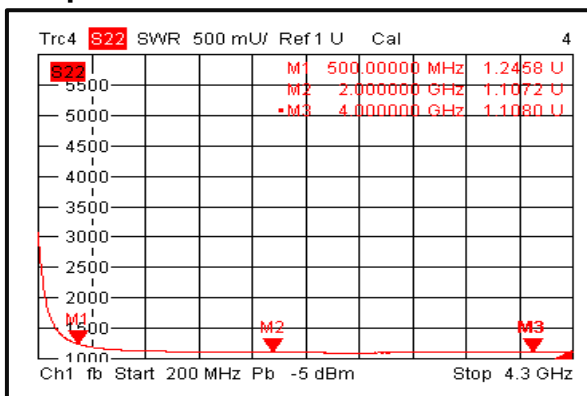
Insertion Loss @+25°C



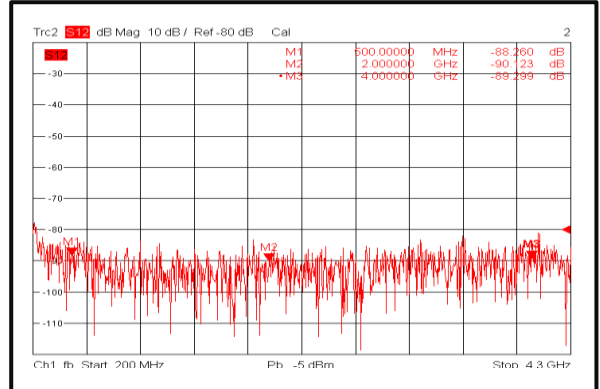
Input VSWR @+25°C



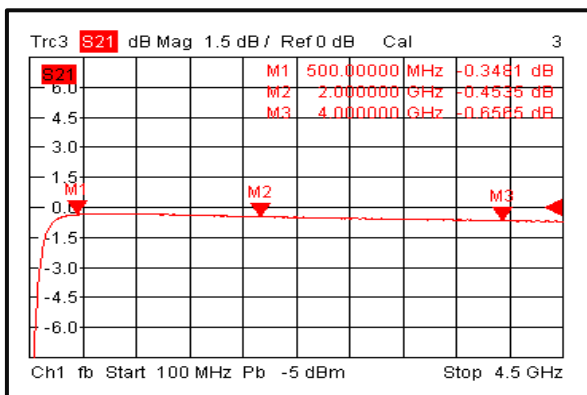
Output VSWR @+25°C



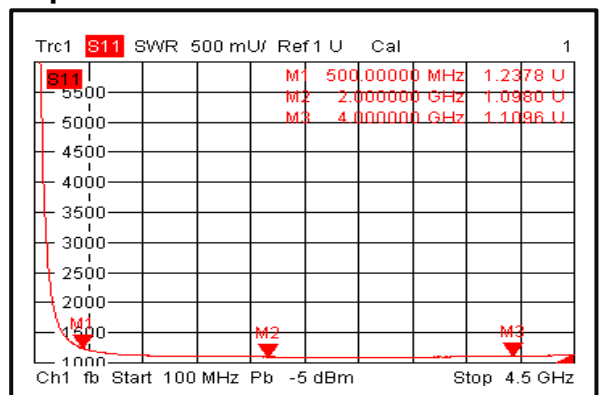
Isolation @+25°C



Insertion Loss @-40°C

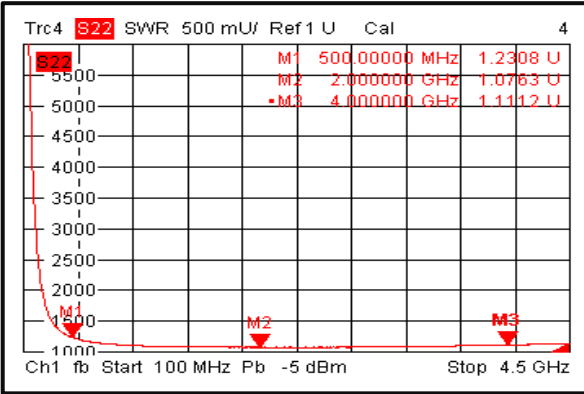


Input VSWR @-40°C

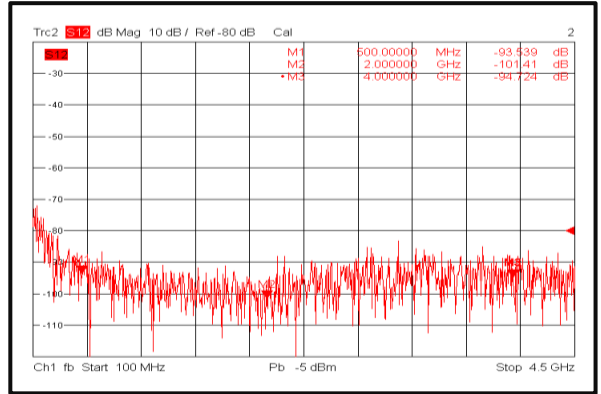




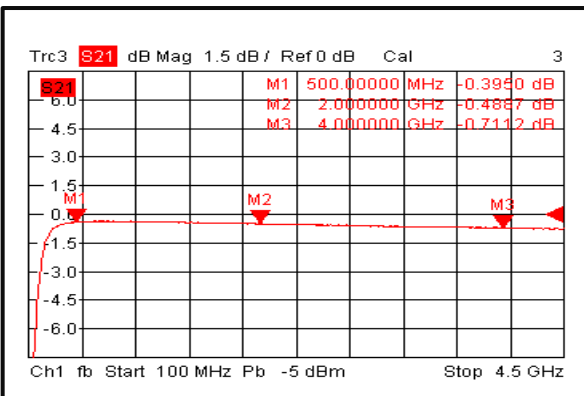
Output VSWR @-40°C



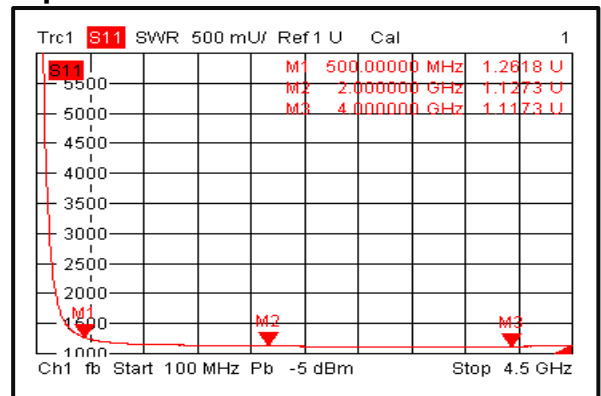
Isolation @-40°C



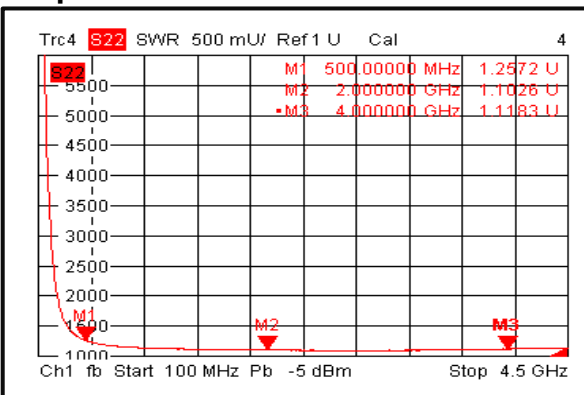
Insertion Loss @+85°C



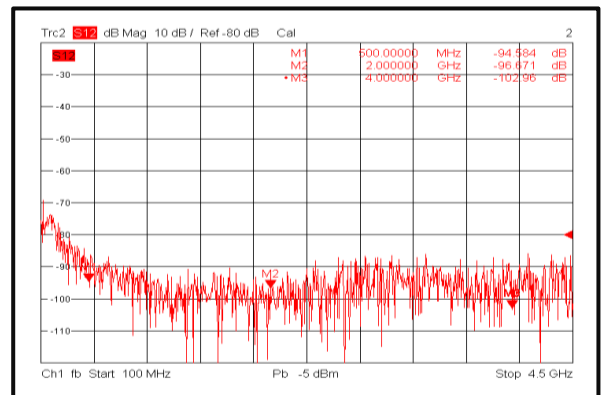
Input VSWR @+85°C



Output VSWR @+85°C

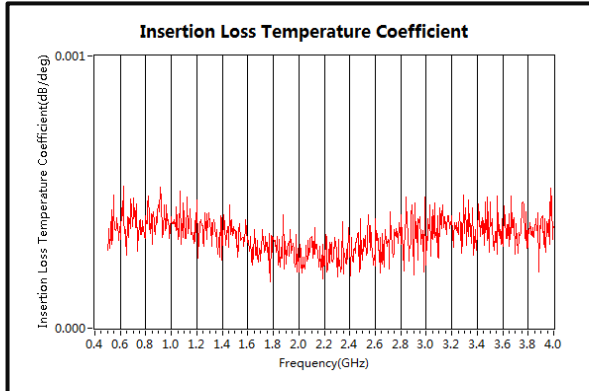


Isolation @+85°C

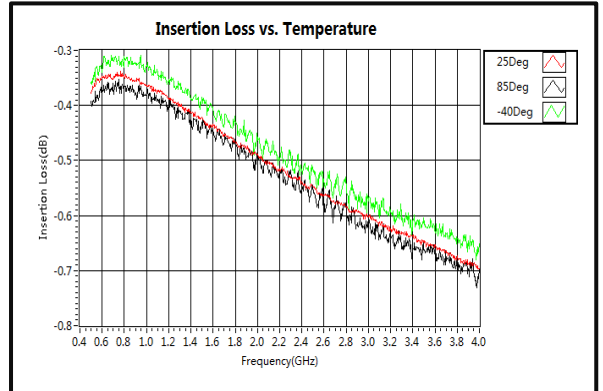




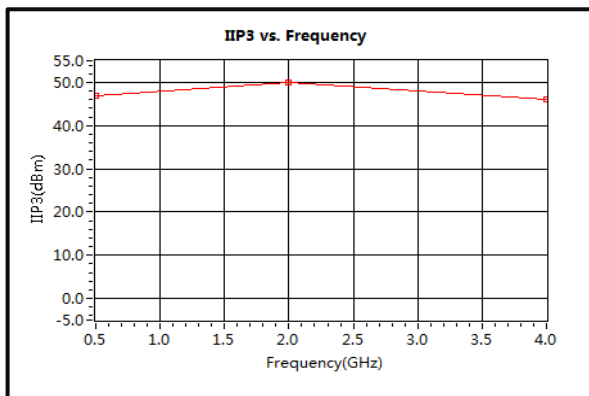
Insertion Loss Temperature Coefficient



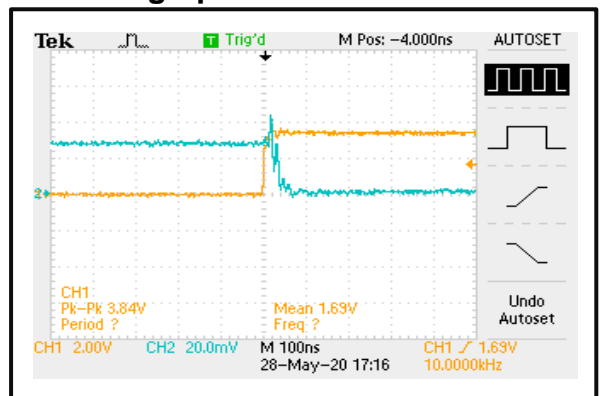
Insertion Loss vs. Temperature



IIP3



Switching Speed



Switching Speed

