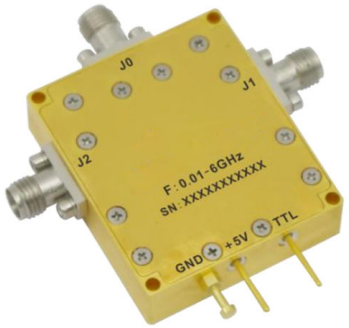
Reflective 0.01-6GHz Coaxial SP2T Switch

Features

- Ultra Wide Band Operation 0.01~6GHz
- TTL compatible driver included
- Fast Switching Speed
- Low Insertion Loss and High Isolation
- High Power Cold Switching



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		0.01-3			3-6		GHz
Insertion Loss		0.8	1.0		1.1	1.3	dB
Insertion Loss Temperature Coefficient		0.003			0.003		dB/ ° C
Isolation	31	37		23	28		dB
Input VSWR		1.2	1.3		1.3	1.5	: 1
Output VSWR		1.2	1.3		1.3	1.5	: 1
RF Input Power (CW)			46			46	dBm
DC Power Dissipation		0.7			0.7		W
0.1dB Compression Point (P0.1dB)		46			46		dBm
IIP3		55			55		dBm
Switching Speed		100	200		100	200	ns
Weight	1.41						Ounces
Impedance	50						Ω
Bias Current (+5V)	100						mA
Input / Output Connectors	SMA-Female						
Finish	Gold Plated						
Material	Aluminum						
Sealing	Hermetically Sealed (Optional)						

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Absolute Maximum Ratings

Biasing	+5.5V

Environmental Specifications

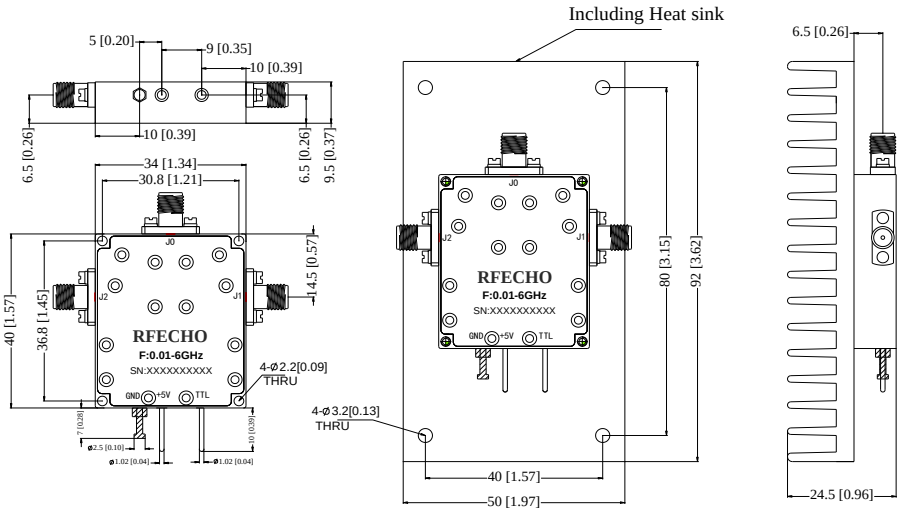
Operational Temperature	-40ºC~+85ºC
Storage Temperature	-50ºC~+105ºC
Altitude	30,000 ft. (Epoxy Sealed Controlled environment)
	60,000 ft. 1.0psi min (Hermetically Sealed Un-controlled environment) (Optional)
Vibration	25g RMS (15 degrees 2KHz) endurance, 1 hour per axis
Humidity	100% RH at 35ºc, 95%RH at 40ºc
Shock	20G for 11msec half sine wave,3 axis both directions

Ordering Information

Part No.	Description
DBSR0200010600A	SP2T 0.01-6GHz GaN Switch

Outline Drawing:

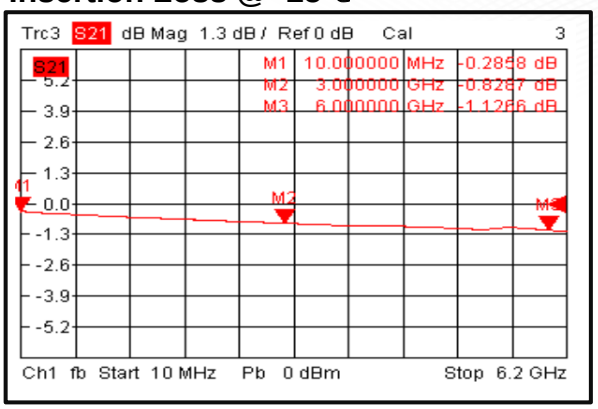
All Dimensions in mm (inches)
Housing Tolerances ±0.1(0.004)



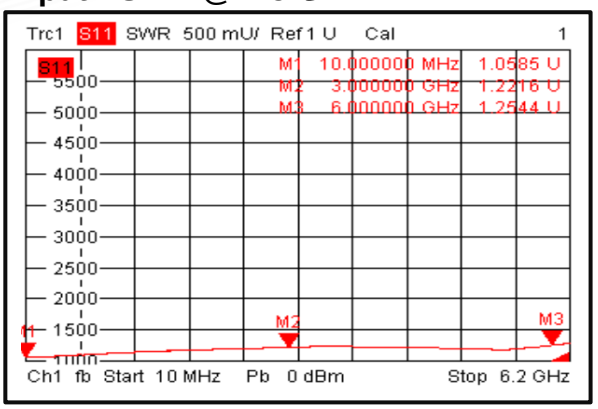
Truth Table

TTL Control Voltage THRESHOLD	Low(0)=0~0.8V
	High(1)=2.8~5V
Control Input TTL	Signal Path State
1	J0-J1
0	J0-J2
Control Pin Customization available upon request	

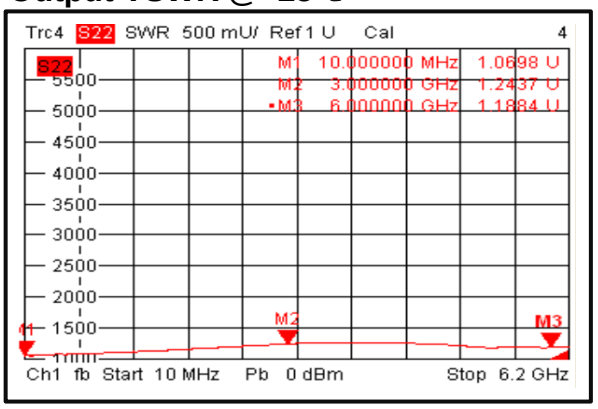
Insertion Loss @+25℃



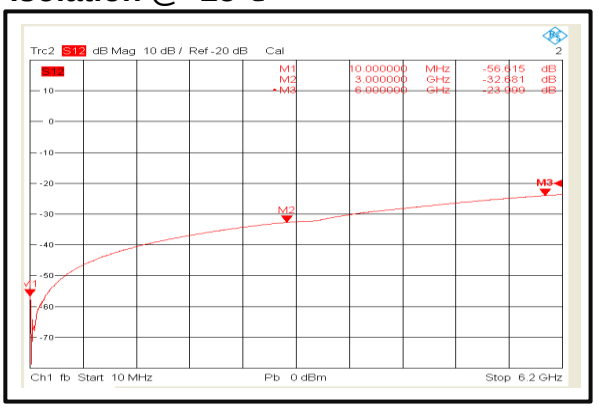
Input VSWR @+25℃



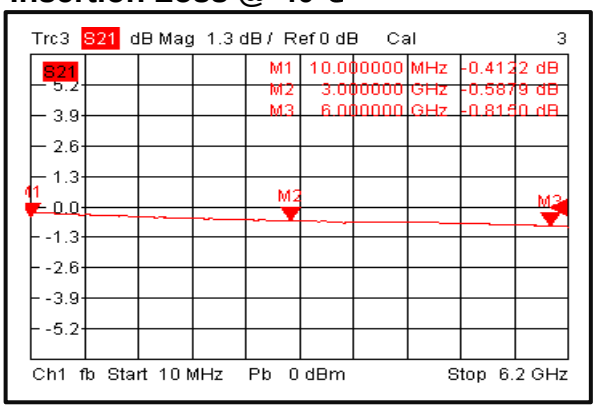
Output VSWR @+25℃



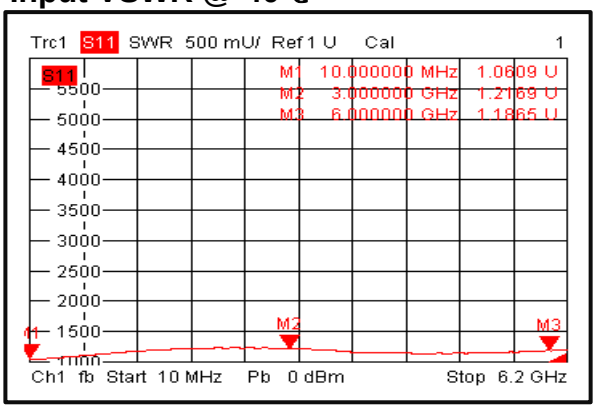
Isolation @+25℃



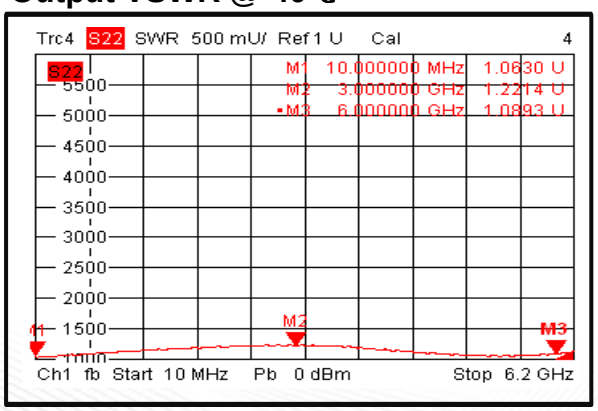
Insertion Loss @-40℃



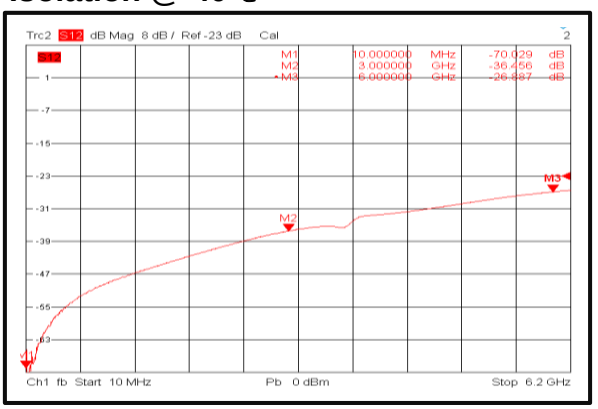
Input VSWR @-40℃



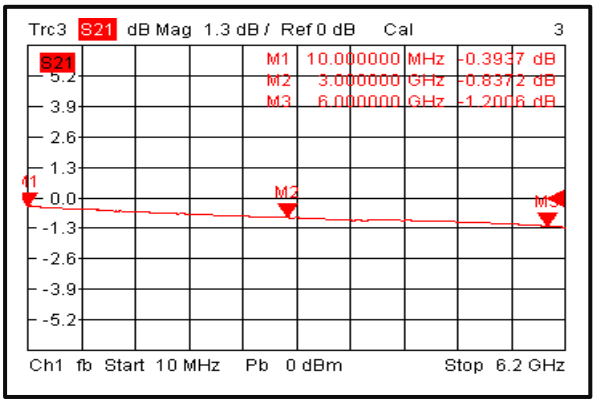
Output VSWR @-40℃



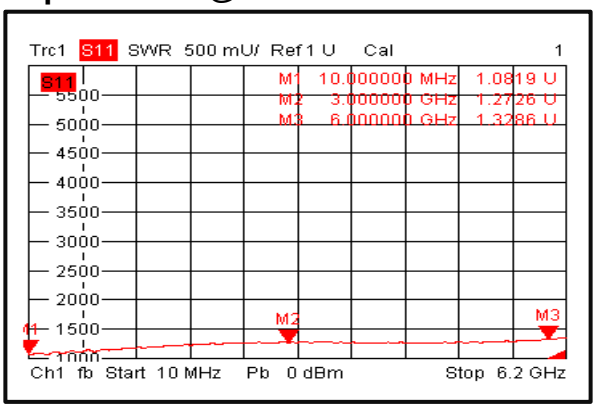
Isolation @-40℃



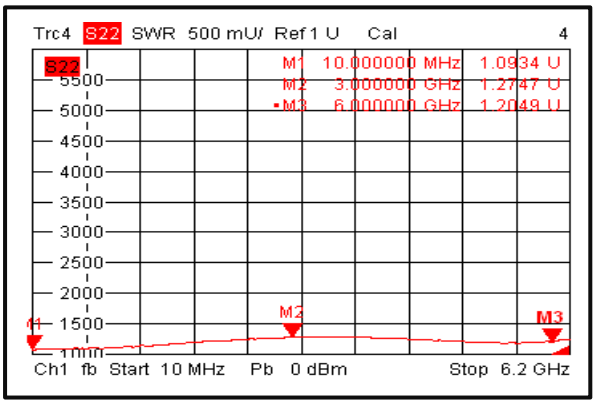
Insertion Loss @+85℃



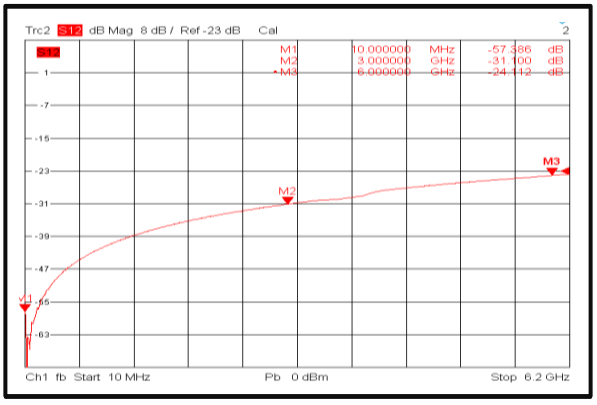
Input VSWR @+85℃



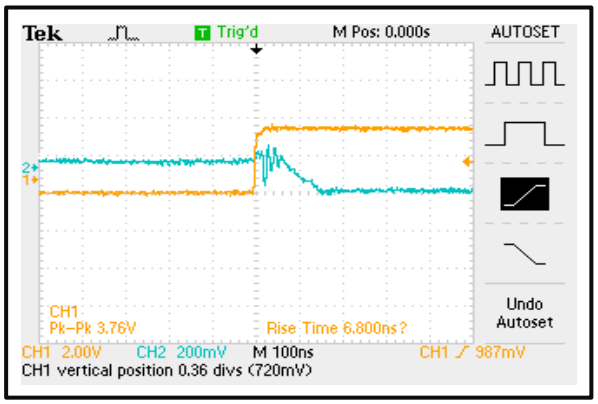
Output VSWR @+85℃



Isolation @+85℃



Switching Speed



Switching Speed