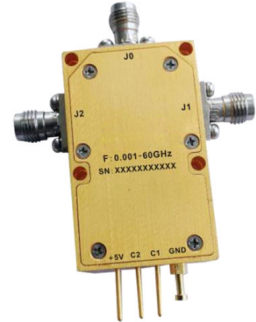




Reflective 0.001-60GHz Coaxial SP2T Switch

Features

- Ultra Wide Band Operation 0.001-60GHz
- 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	0.001-20			20-40			40-60			GHz
Insertion Loss		3.5	4.0		4.5	5.5		8.5	10.0	dB
Insertion Loss Temperature Coefficient		0.003			0.003			0.003		dB/ °C
Isolation	35	40		30	33		25	28		dB
Input VSWR		2.5	3.0		2.8	3.0		2.1	3.0	: 1
Output VSWR		2.5	3.0		2.8	3.0		2.1	3.0	: 1
RF Input Power			23			23			23	dBm
DC Power Dissipation		0.6			0.6			0.6		W
0.1dB Compression Point (P0.1dB)		23			23			23		dBm
IIP3		55			50			50		dBm
Switching Speed		50	80		50	80		50	80	ns
Weight	1.41									ounces
Impedance	50									Ω
Bias Current (+5V)	30 Max.									mA
Input / Output Connectors	1.85mm - Female									
Finish	Gold Plated									
Material	Aluminum									
Sealing	Hermetically Sealed (Optional)									



Absolute Maximum Ratings

Biasing	+5V±10%
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Environmental Specifications

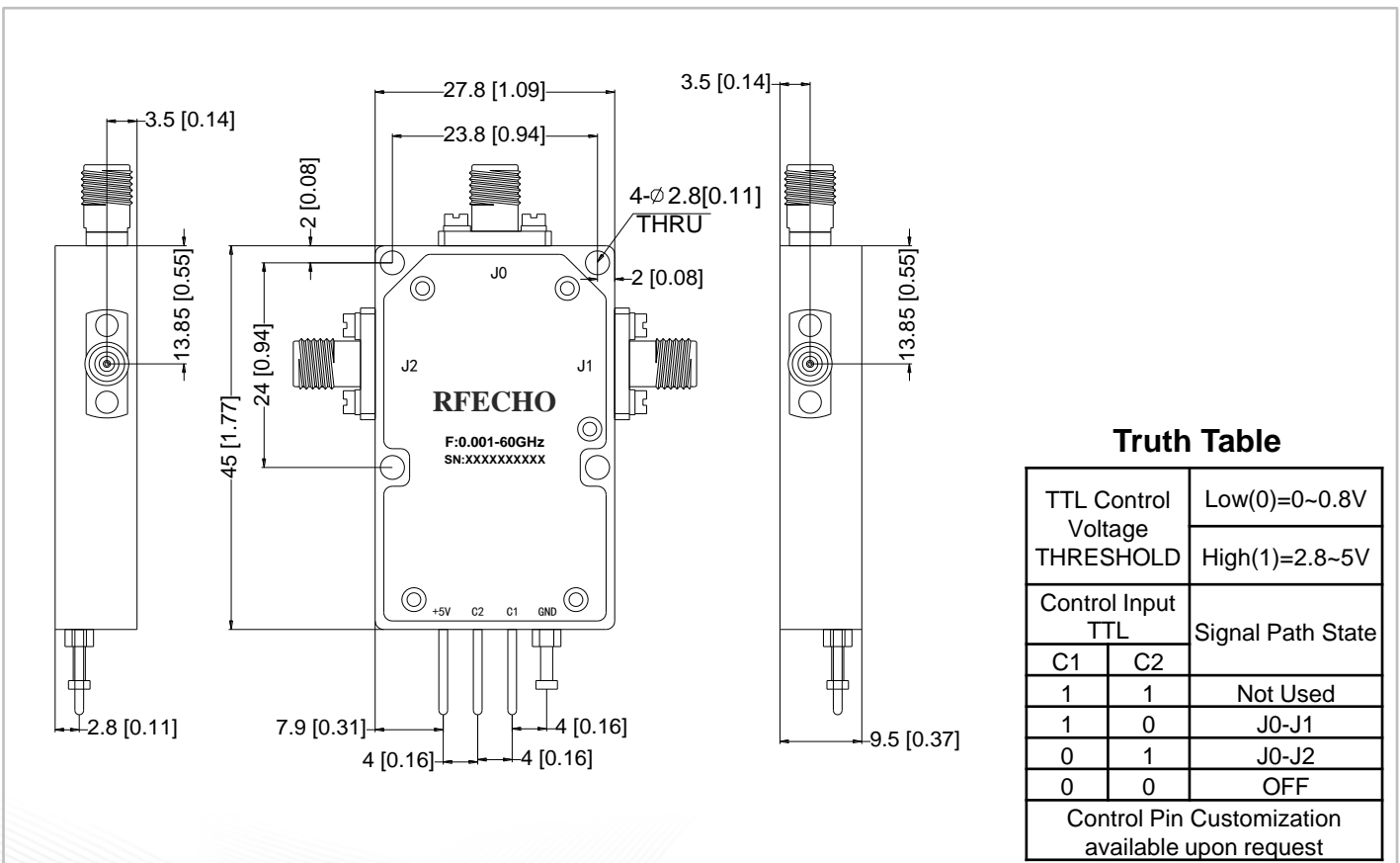
Operational Temperature	-40°C~+85°C
Storage Temperature	-50°C~+105°C
Altitude	30,000 ft. (Epoxy Sealed Controlled environment)
	60,000 ft. 1.0psi min (Hermetically Sealed Un-controlled environment) (Optional)
Vibration	25g RMS (15 degrees 2KHz) endurance, 1 hour per axis
Humidity	100% RH at 35°C, 95%RH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

Ordering Information

Part No.	Description
DBSR0200006000A	SP2T 0.001-60GHz GaN Switch

Outline Drawing:

All Dimensions in mm (inches)

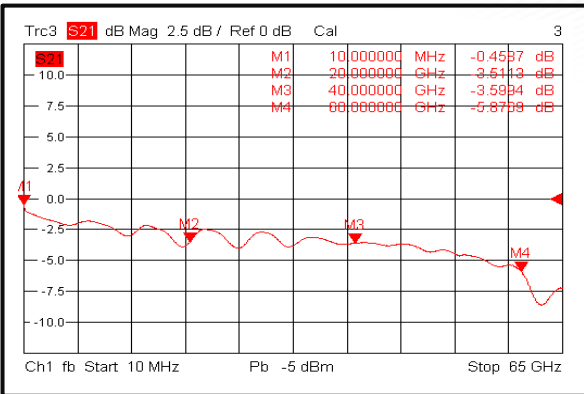


Truth Table

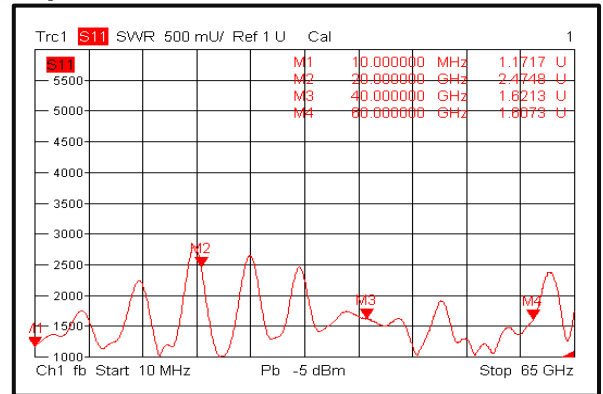
TTL Control Voltage THRESHOLD	Low(0)=0~0.8V	
	High(1)=2.8~5V	
Control Input TTL	Signal Path State	
	C1	C2
1	1	Not Used
1	0	J0-J1
0	1	J0-J2
0	0	OFF
Control Pin Customization available upon request		



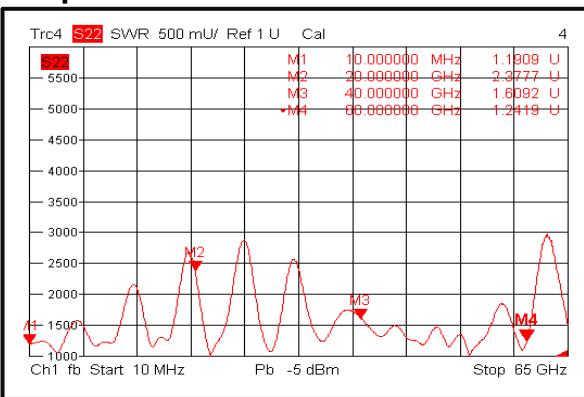
Insertion Loss @+25°C



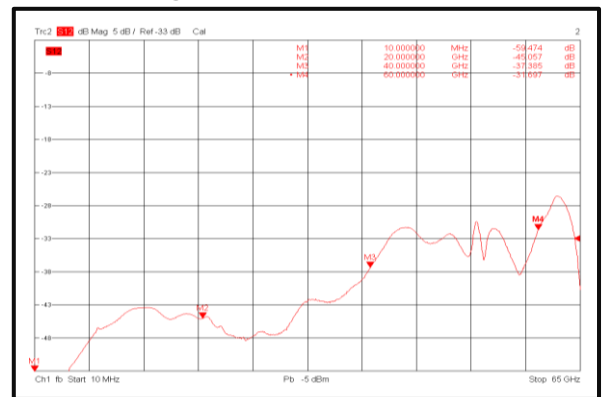
Input VSWR @+25°C



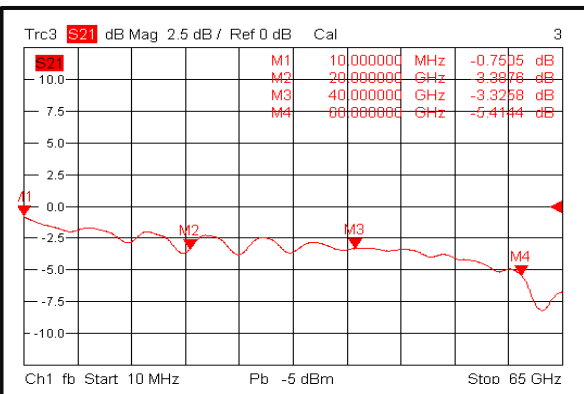
Output VSWR @+25°C



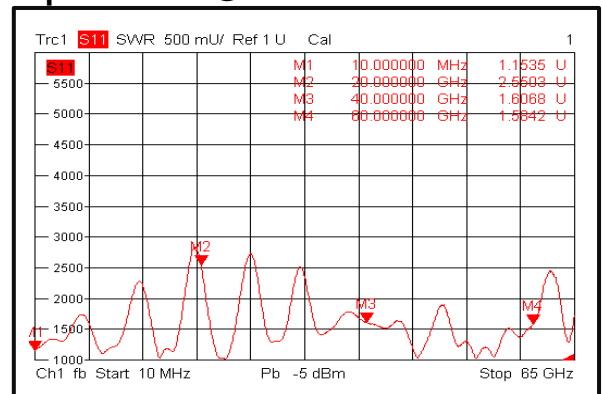
Isolation @+25°C



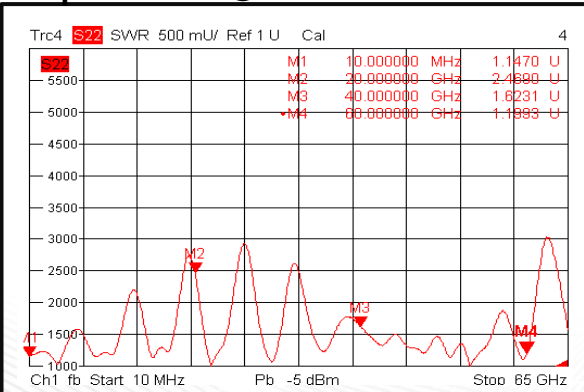
Insertion Loss @-40°C



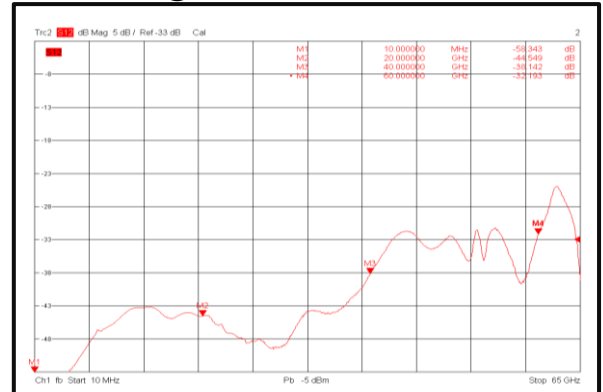
Input VSWR @-40°C



Output VSWR @-40°C

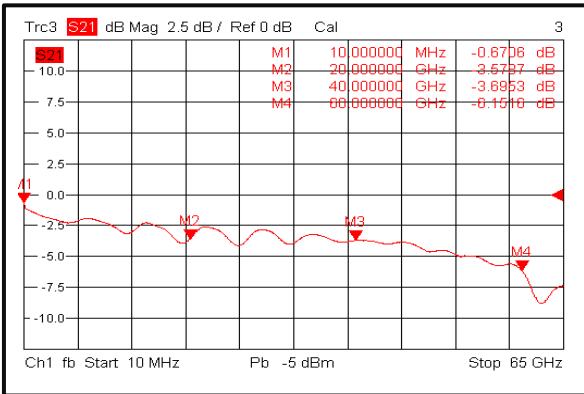


Isolation @-40°C

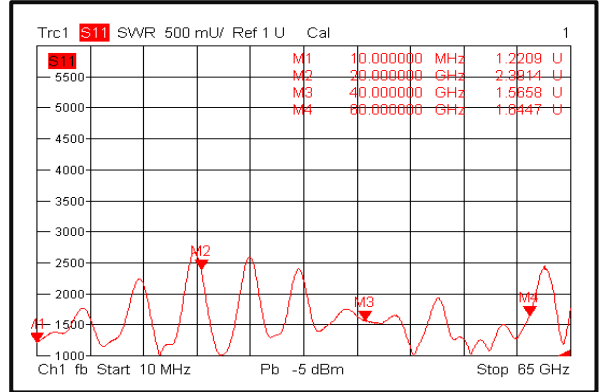




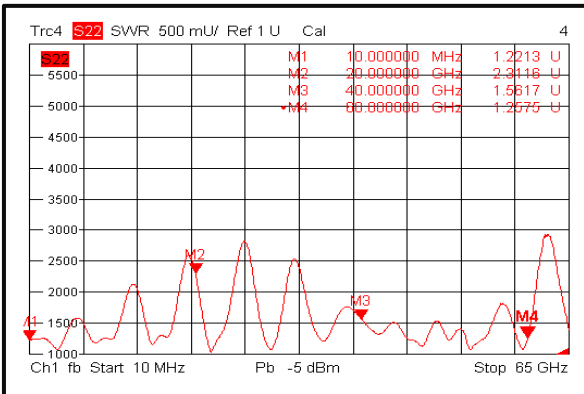
Insertion Loss @+85°C



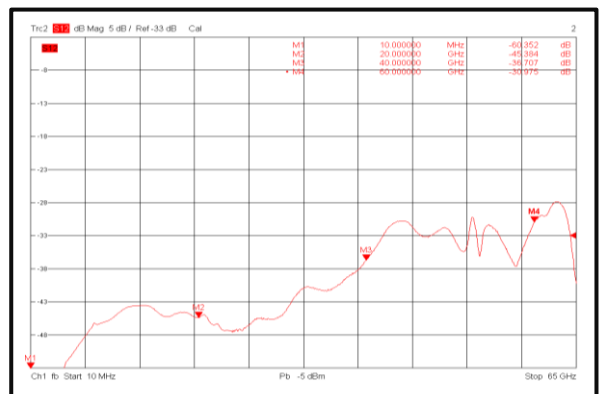
Input VSWR @+85°C



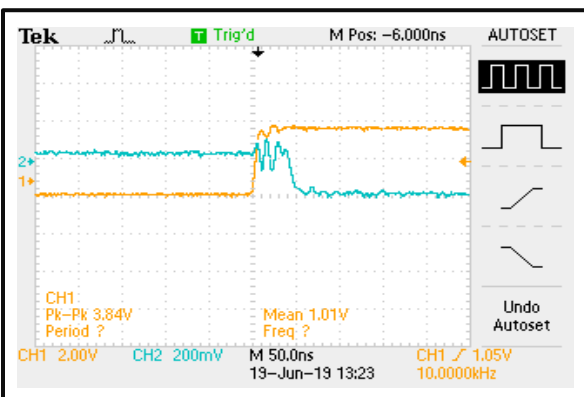
Output VSWR @+85°C



Isolation @+85°C



Switching Speed



Switching Speed

