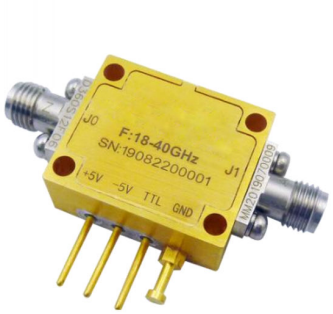
Absorptive Coaxial SPST Switch 18-40GHz

Features

- Wide Band Operation 18-40GHz
- 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		18-30			30-40		GHz
Insertion Loss		3	3.8		3.6	4.5	dB
Insertion Loss Temperature Coefficient		0.003			0.003		dB/ °C
Isolation (J0→J1)	75	80		70	80		dB
Input VSWR		1.3	2.5		1.8	2.2	: 1
Output VSWR		1.3	2.5		1.8	2.2	: 1
RF Input Power			23			23	dBm
Power Dissipation (CW)		0.25			0.25		W
0.1dB Compression Point (P0.1dB)		23			23		dBm
IIP3		40			36		dBm
Switching Speed	50						ns
Weight	0.65 Max.						ounces
Impedance	50						Ω
Bias Current (+5V/-5V)	70/50						mA
Input / Output Connectors	2.92mm-Female						
Finish	Gold Plated						
Material	Aluminum						
Sealing	Hermetically Sealed (Optional)						

Absolute Maximum Ratings

Biasing	+5V±10%/-5V±10%

Ordering Information

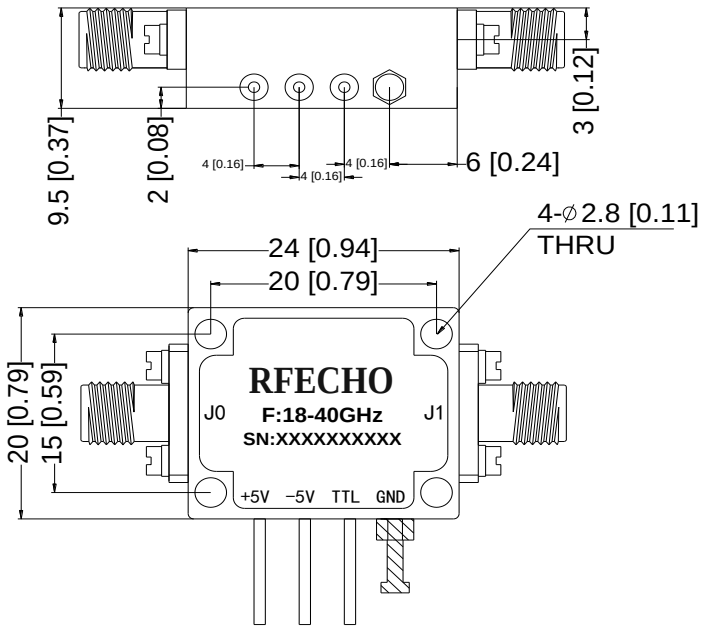
Part No.	Description
DBSA0118004000A	SPST 18-40GHz PIN Diode Switch

Environmental Specifications

Operational Temperature	-40ºC~+85ºC(Case Temperature)
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

Outline Drawing:

All Dimensions in mm (inches)

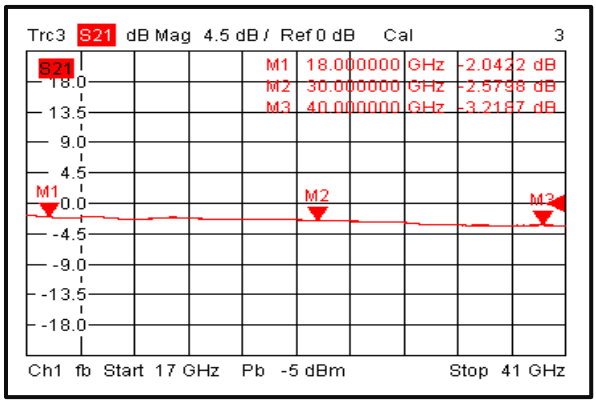


Notes:
J0: Reflective Port
J1: Absorptive port

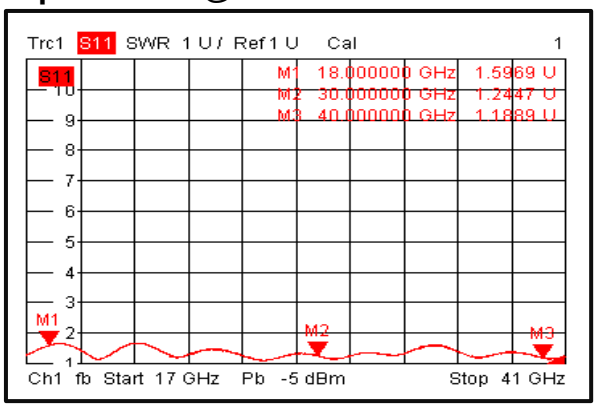
Truth Table

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

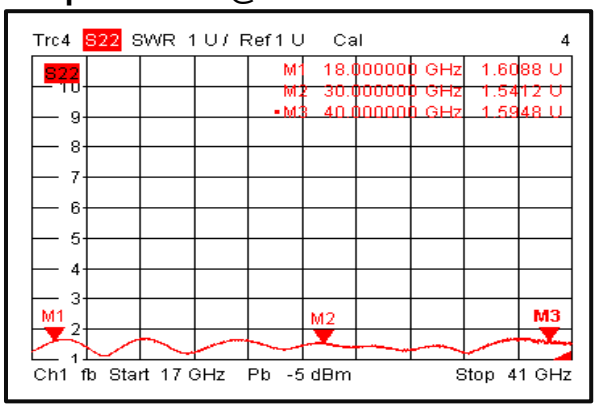
Insertion Loss @+25℃



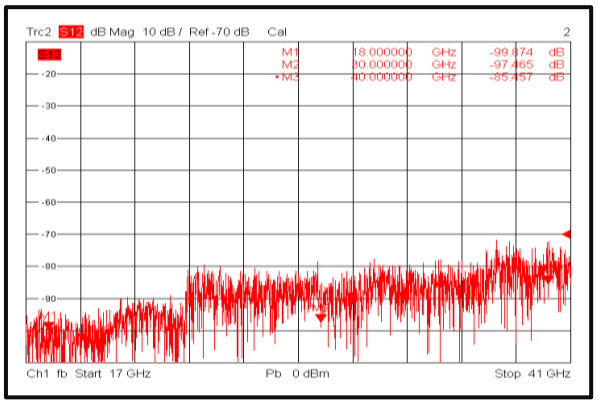
Input VSWR @+25℃



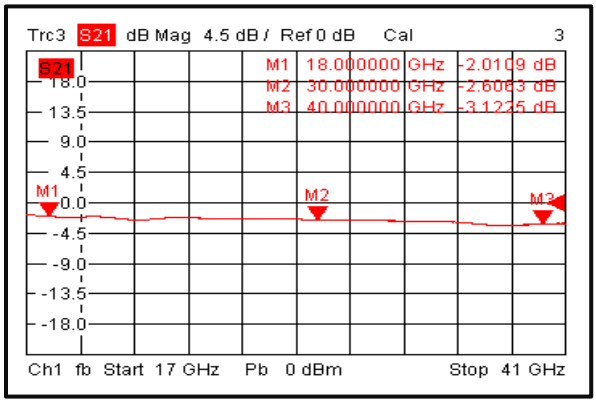
Output VSWR @+25℃



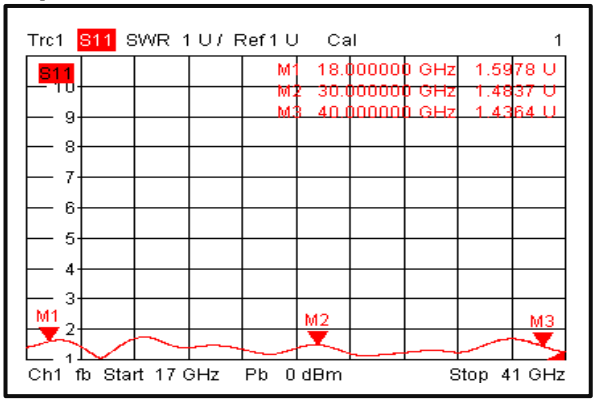
Isolation @+25℃



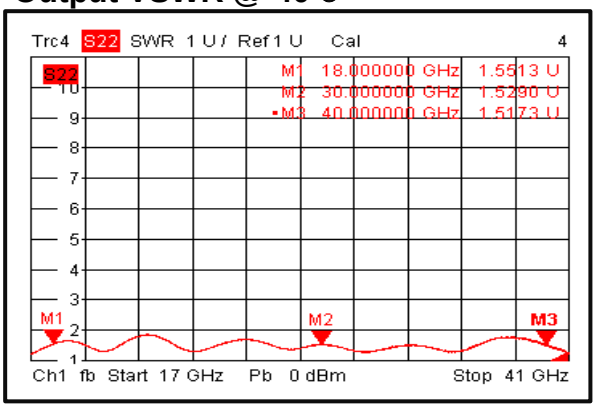
Insertion Loss @-40℃



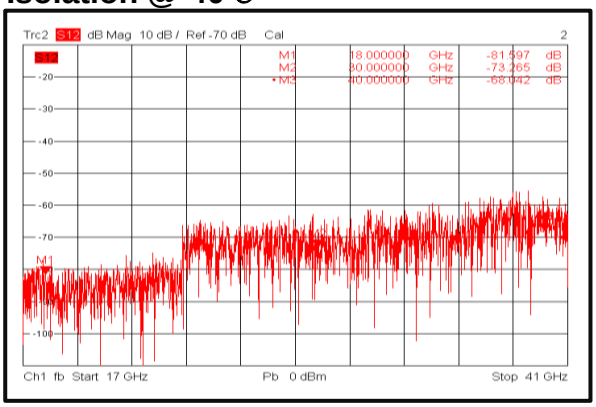
Input VSWR @-40℃



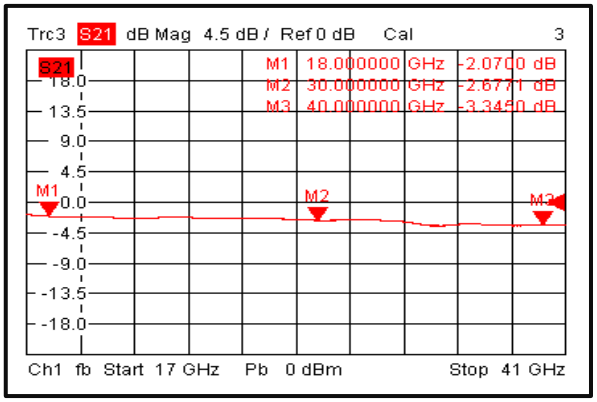
Output VSWR @-40℃



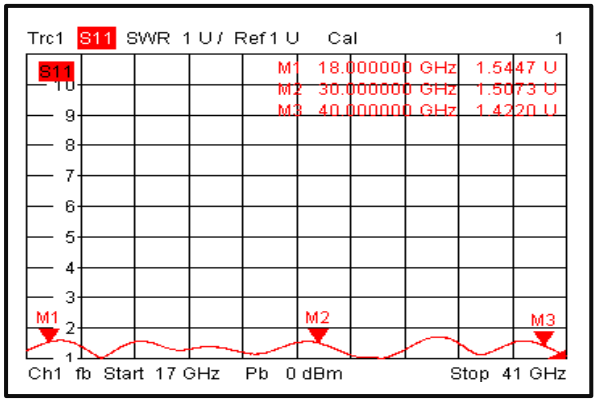
Isolation @-40℃



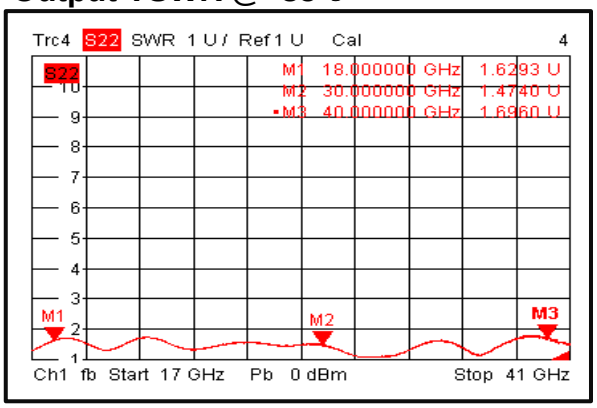
Insertion Loss @+85℃



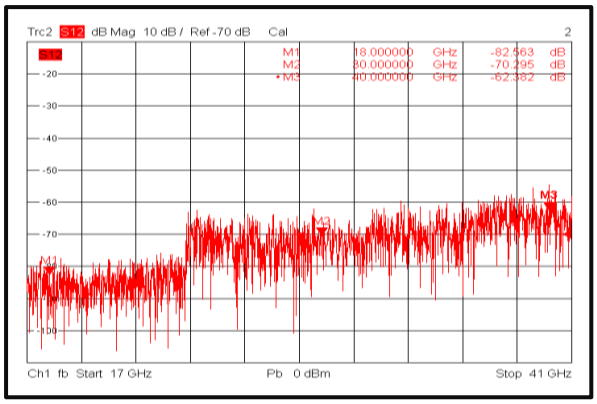
Input VSWR @+85℃



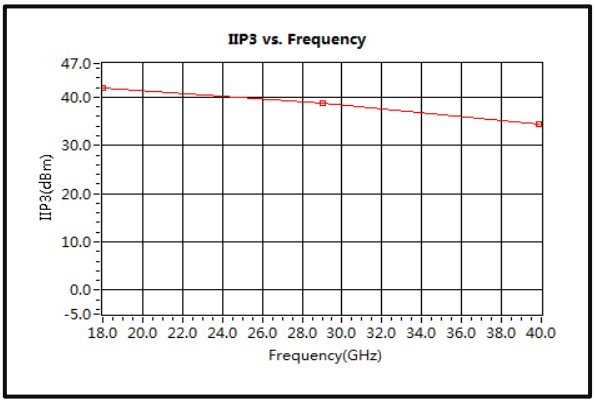
Output VSWR @+85℃



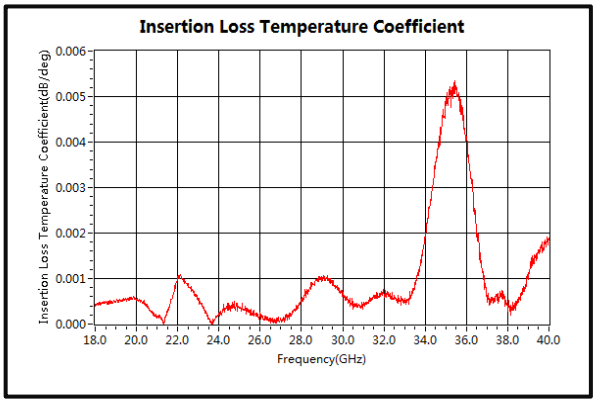
Isolation @+85℃



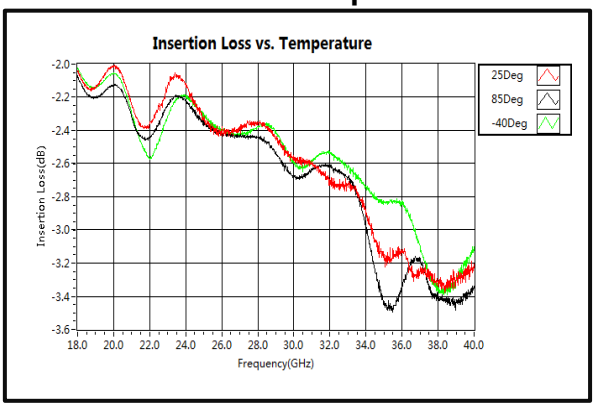
IIP3



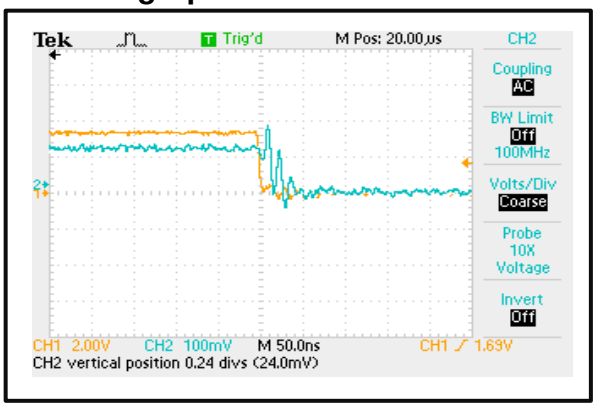
Insertion Loss Temperature Coefficient



Insertion Loss vs. Temperature



Switching Speed



Switching Speed