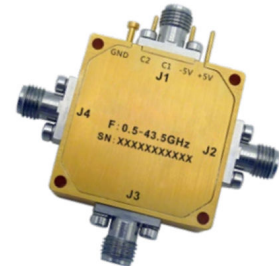




Wide Band Coaxial DPDT Switch 0.5 – 43.5GHz

Features

- Ultra Wide Band Operation 0.5-43.5GHz
- TTL compatible driver included
- Fast Switching Speed
- Low Insertion Loss and High Isolation



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	0.5		8	8		26.5	26.5		43.5	GHz
Insertion Loss		2.5	3.5		3.0	4.0		5.0	6.5	dB
Insertion Loss Temperature Coefficient		0.003			0.003			0.003		dB/ ° C
Isolation	40	45		40	45		40	45		dB
Input VSWR		1.6	2.0		2.5	3.0		1.8	3.0	: 1
Output VSWR		1.6	2.0		2.5	3.0		1.8	3.0	: 1
RF Input Power			23			23			23	dBm
DC Power Dissipation		0.7			0.7			0.7		W
0.1dB Compression Point (P0.1dB)		23			23			23		dBm
IIP3		43			40			38		dBm
Switching Speed	100 Max.									ns
Weight	1.5 Max.									ounces
Impedance	50									Ω
Bias Current (+5V / -5V)	120/100 Typ.									mA
Input / Output Connectors	2.92mm-Female									
Finish	Gold Plated									
Material	Aluminum									
Sealing	Hermetically Sealed (Optional)									

Absolute Maximum Ratings

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

Environmental Specifications

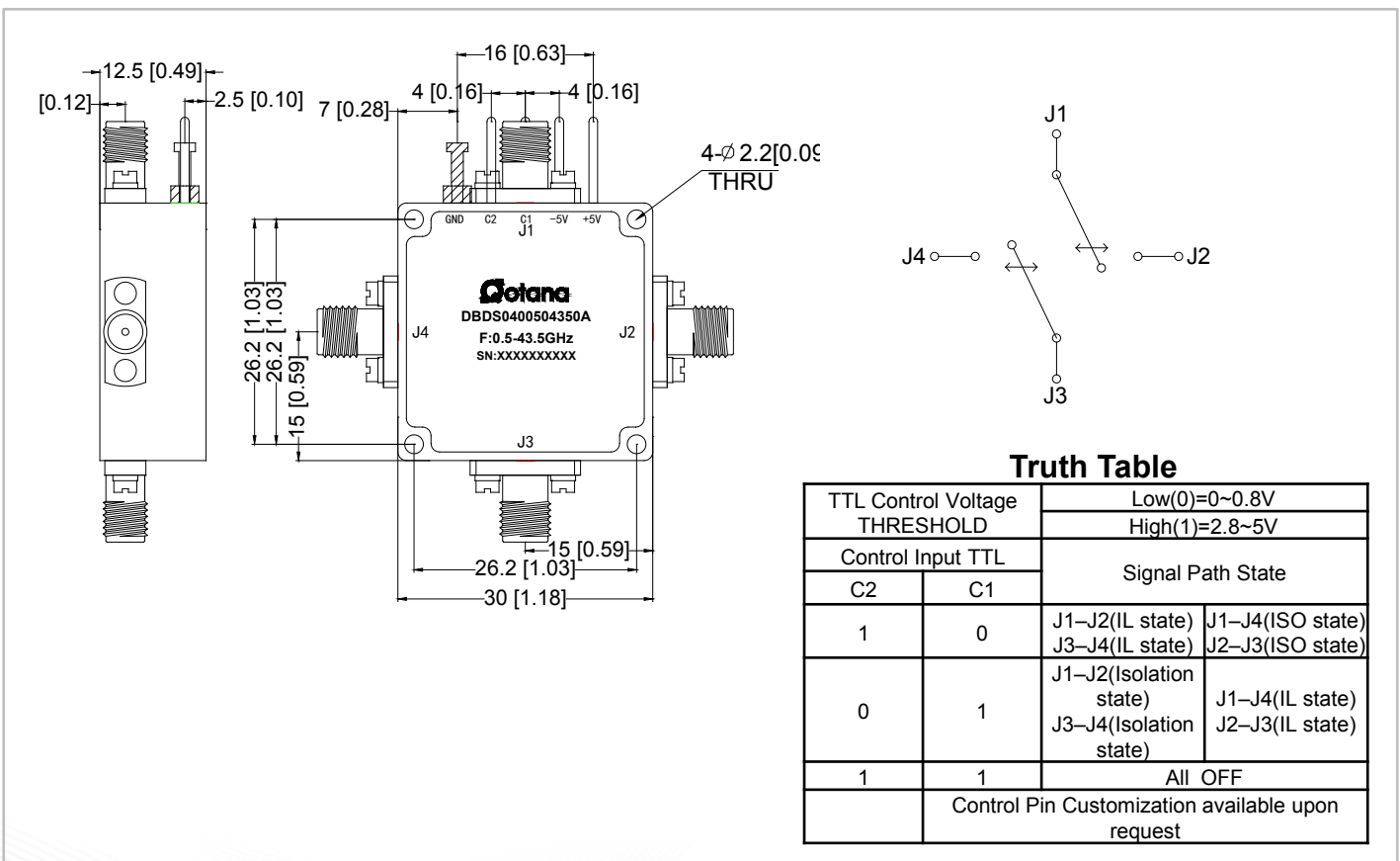
Operational Temperature	-40°C~+85°C
Storage Temperature	-50°C~+105°C
Altitude	30,000 ft. (Epoxy Sealed Controlled environment)
	60,000 ft. 1.0psi min (Hermetically Sealed Uncontrolled environment) (Optional)
Vibration	25g RMS (15 degrees 2KHz) endurance, 1 hour per axis
Humidity	100% RH at 35°C, 95%RH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

Ordering Information

Part No.	Description
DBDS0400504350A	DPDT 0.5-43.5GHz PIN Diode Switch

Outline Drawing:

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

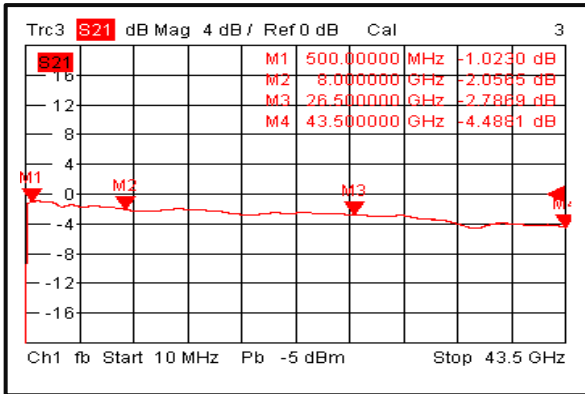


Truth Table

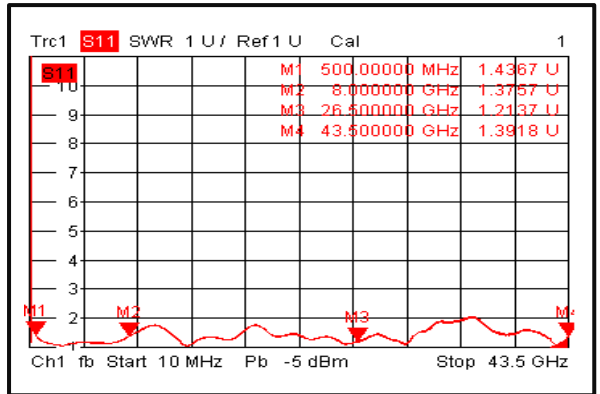
TTL Control Voltage THRESHOLD		Low(0)=0~0.8V High(1)=2.8~5V	
Control Input TTL		Signal Path State	
C2	C1		
1	0	J1-J2(IL state) J3-J4(IL state)	J1-J4(ISO state) J2-J3(ISO state)
0	1	J1-J2(Isolation state) J3-J4(Isolation state)	J1-J4(IL state) J2-J3(IL state)
1	1	All OFF	
Control Pin Customization available upon request			



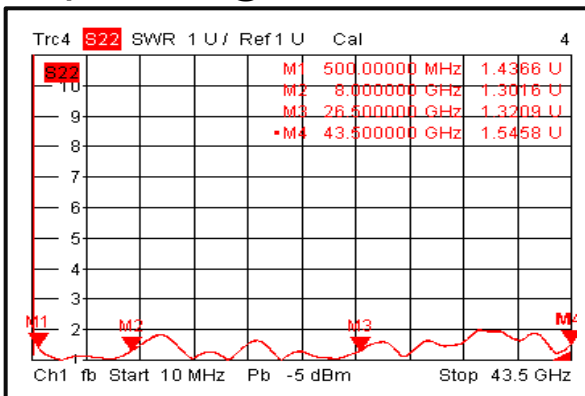
Insertion Loss @+25°C



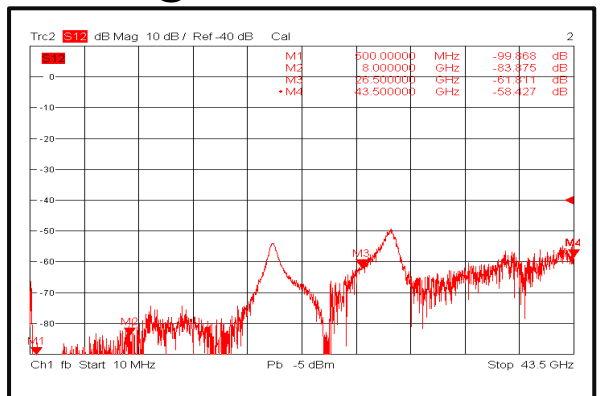
Input VSWR @+25°C



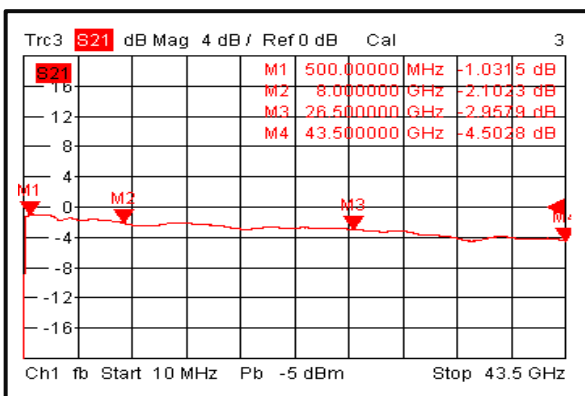
Output VSWR @+25°C



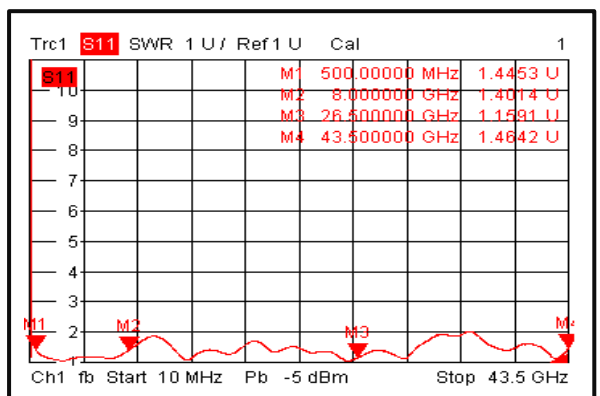
Isolation @+25°C



Insertion Loss @-40°C

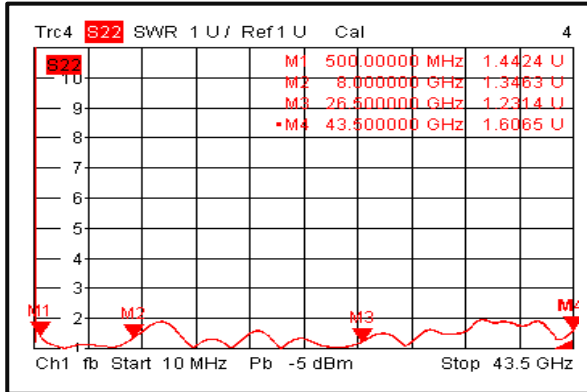


Input VSWR @-40°C

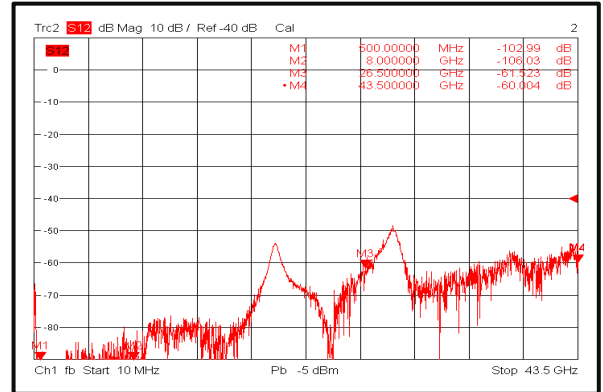




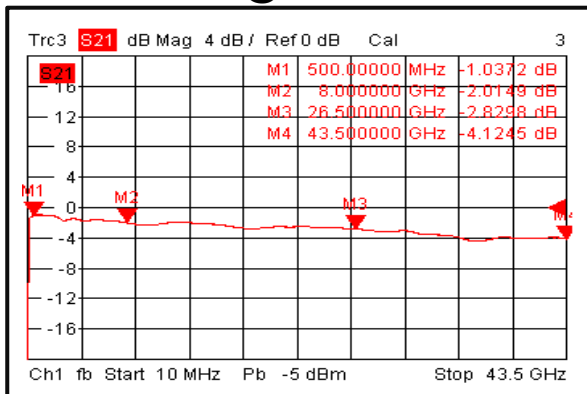
Output VSWR @-40°C



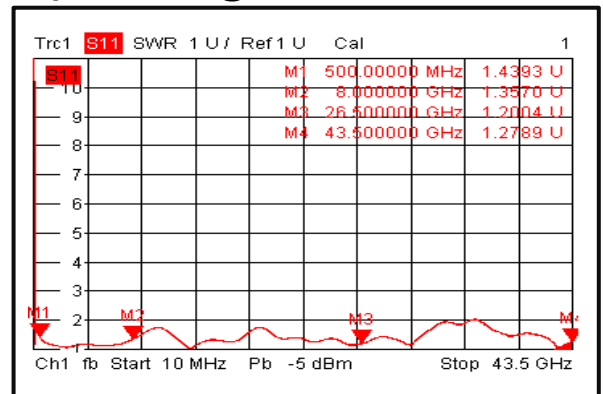
Isolation @-40°C



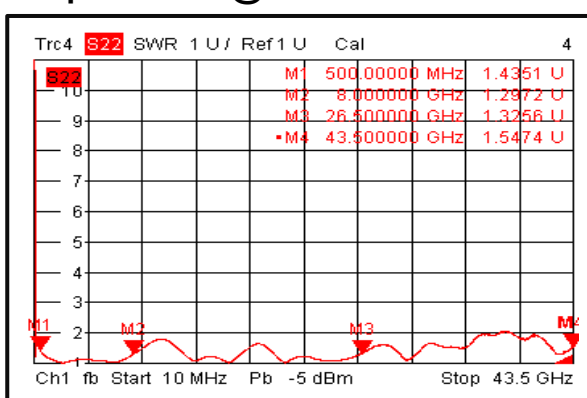
Insertion Loss @+85°C



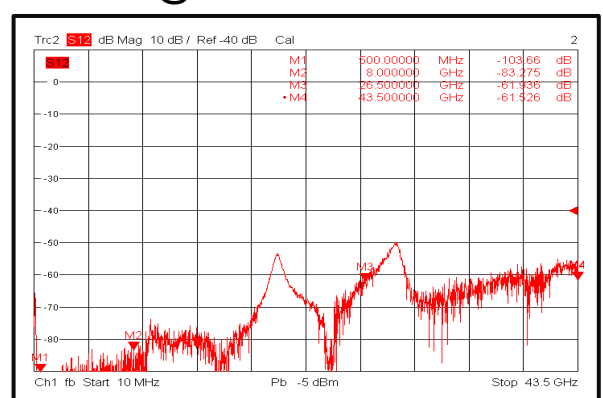
Input VSWR @+85°C



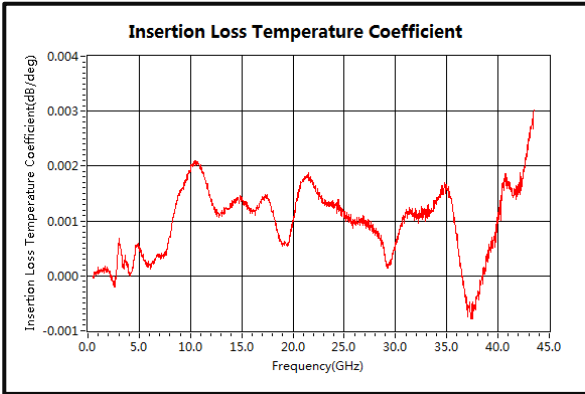
Output VSWR @+85°C



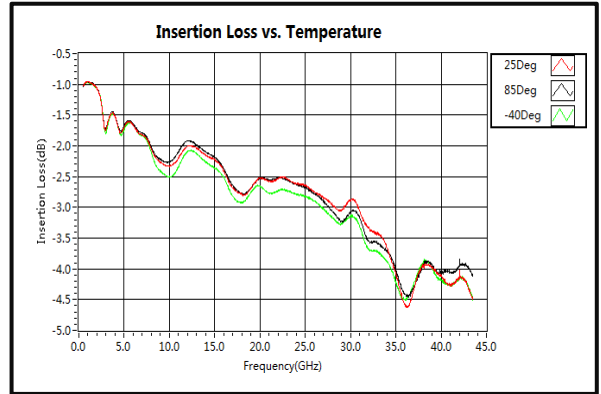
Isolation @+85°C



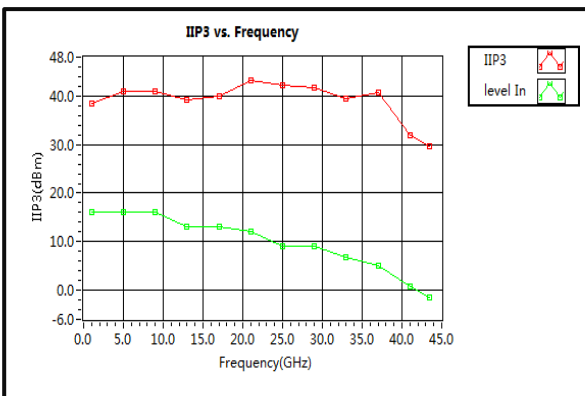
Insertion Loss Temperature Coefficient



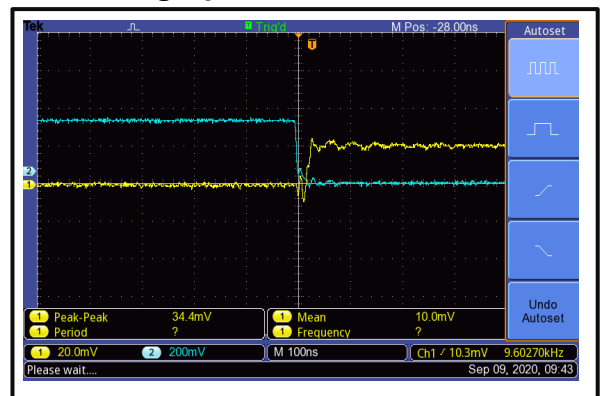
Insertion Loss vs. Temperature



IIP3



Switching Speed



Switching Speed

