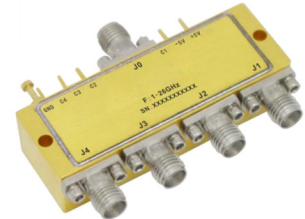




Hermetically Sealed Reflective 1-26GHz Coaxial SP4T Switch

Features

- Ultra Wide Band Operation 1-26GHz
- 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	1-10			10-24			24-26			GHz
Insertion Loss		1.5	2.0		2.5	3.0		3.0	3.5	dB
Insertion Loss Temperature Coefficient		0.003			0.003			0.003		dB/ °C
Isolation	65	70		50	55		46	52		dB
Output to Output Port Isolation	65	80		50	55		50	55		dB
Input VSWR		1.8	2.3		1.6	2.0		1.8	2.0	: 1
Output VSWR		1.8	2.3		1.6	2.0		1.8	2.0	: 1
RF Input power (CW)			23			23			23	dBm
DC Power Dissipation		0.9			0.9			0.9		W
0.1dB Compression Point (P 0.1dB)		23			23			23		dBm
IIP3		55			55			50		dbm
Switching Speed			100			100			100	ns
Weight	1.06									Ounces
Impedance	50									Ω
Bias Current (+5V/-5V)	160/50									mA
Input / Output Connectors	2.92mm-Female									
Finish	Gold Plated									
Material	Aluminum									
Sealing	Hermetically Sealed (Laser Welded)									



Absolute Maximum Ratings

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

Part No.	Description
DBSR0401002600A	SP4T1-26GHz PIN Diode Switch

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

Outline Drawing:

All Dimensions in mm (inches)

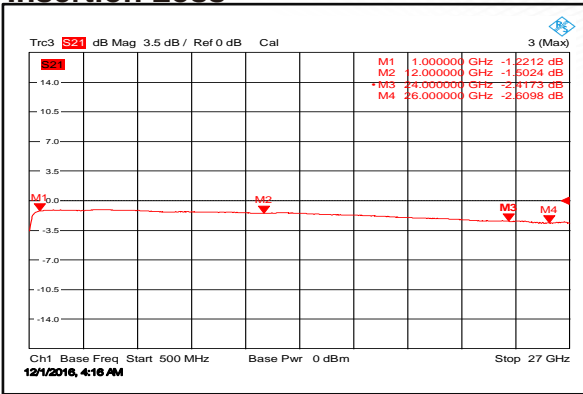
Truth Table

TTL Control Voltage THRESHOLD				Low(0)=0~0.8V
				High(1)=2.8~5V
Control Input TTL				Signal Path State
C1	C2	C3	C4	
1	1	1	1	OFF
0	1	1	1	J0-J1
1	0	1	1	J0-J2
1	1	0	1	J0-J3
1	1	1	0	J0-J4
0	0	0	0	Not Used

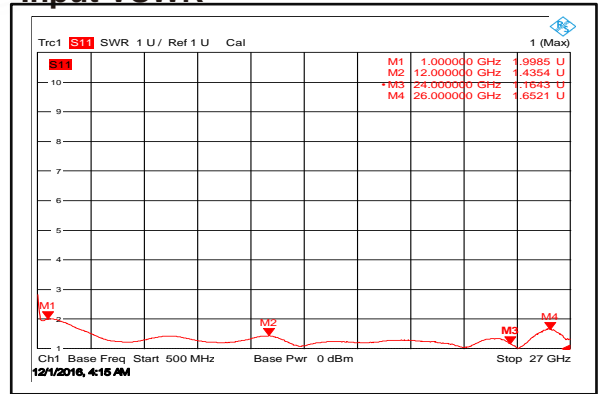
Control Pin Customization available upon request



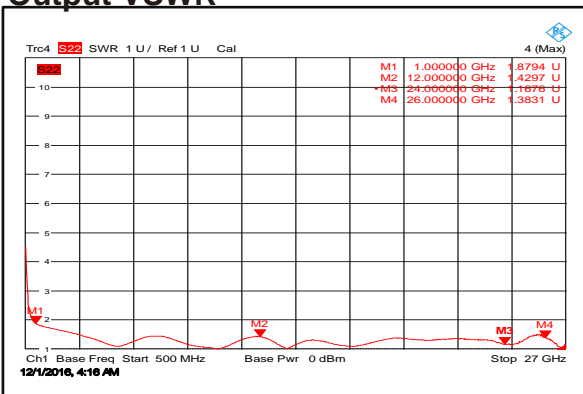
Insertion Loss



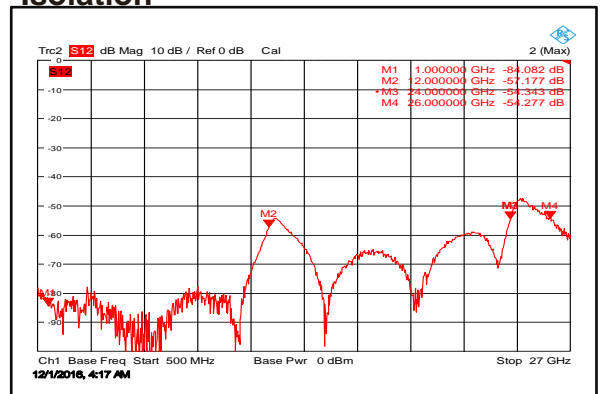
Input VSWR



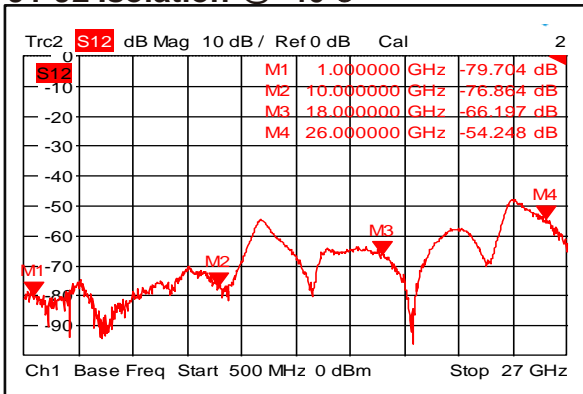
Output VSWR



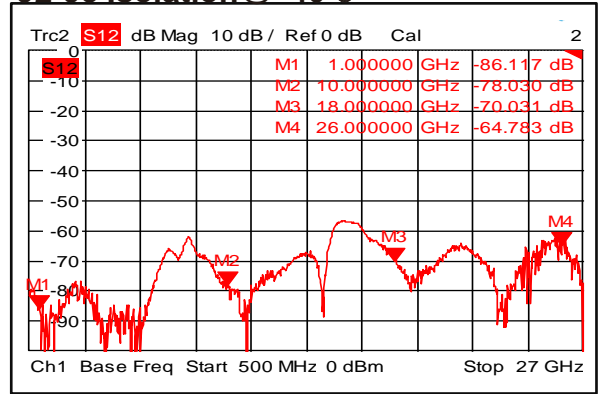
Isolation



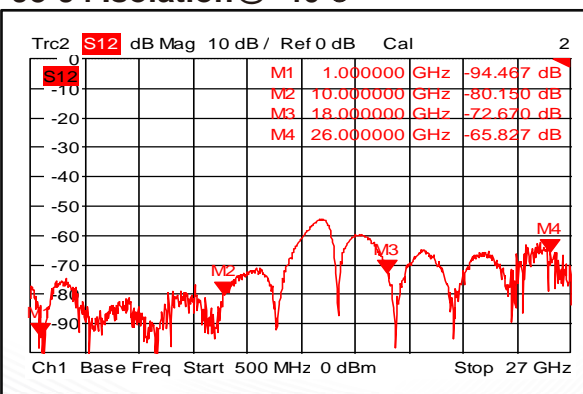
J1-J2 Isolation @ -40°C



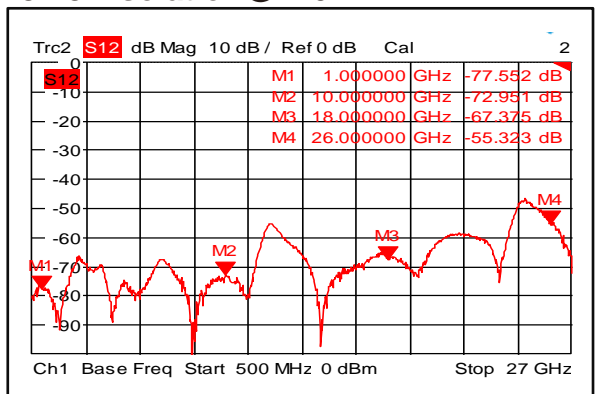
J2-J3 Isolation @ -40°C



J3-J4 Isolation @ -40°C

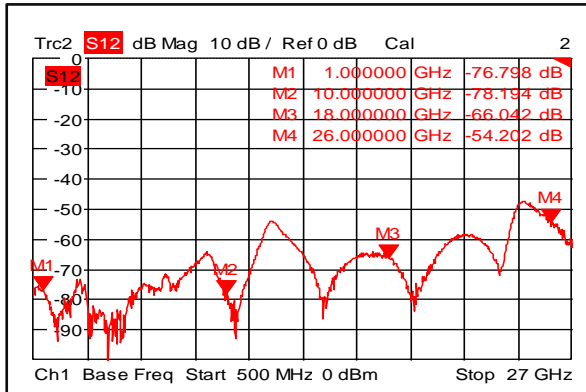


J1-J4 Isolation @ -40°C

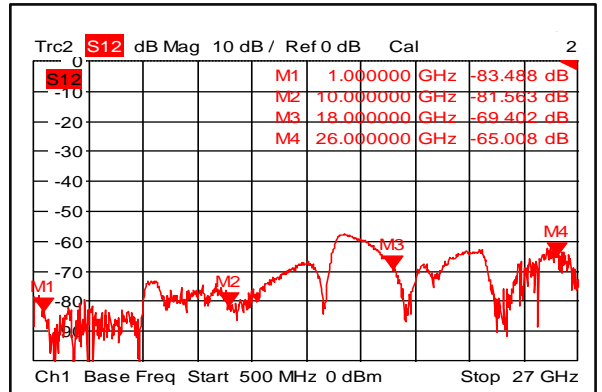




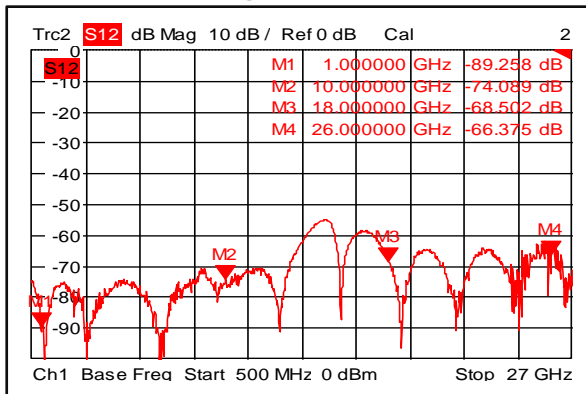
J1-J2 Isolation @ +85°C



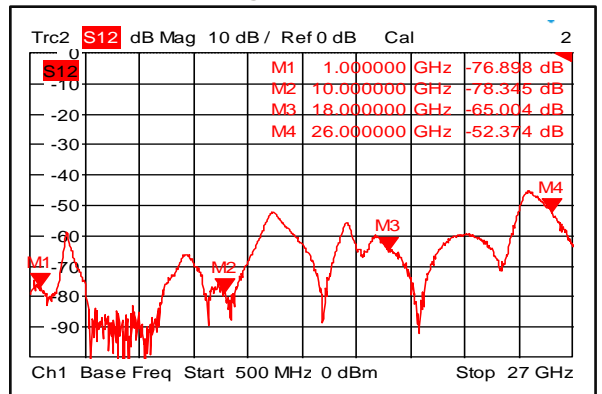
J2-J3 Isolation @ +85°C



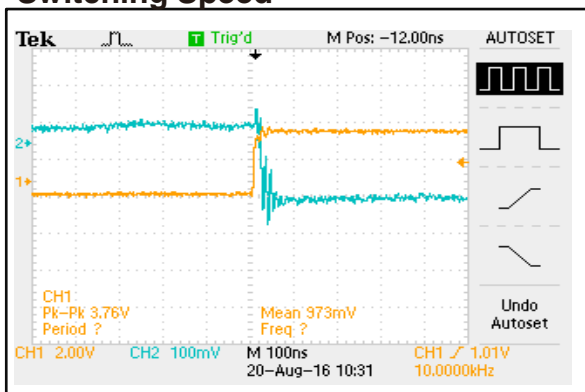
J3-J4 Isolation @ +85°C



J1-J4 Isolation @ +85°C



Switching Speed



Switching Speed

