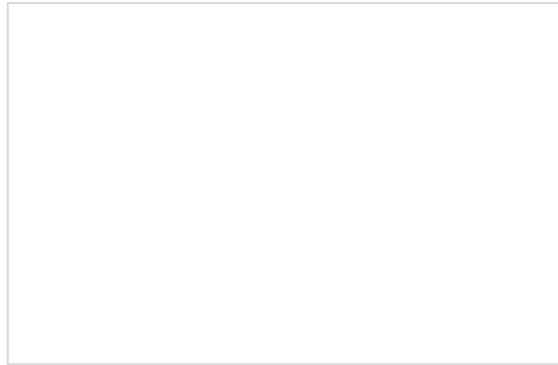




MODEL HISPDTA0118

1-18GHz Broadband PIN Power Switch



■ Features

- Ultra Wide Band: 1-18GHz
- Low Insertion Loss: 2.5dB
- Power Handling : 2W
- High Isolation

■ Applications

- Radar Systems
- Communication Systems
- Receivers Systems

Note: The photo is for illustration purposes only.
Please refer to outline drawing

□ Electrical Specifications

Parameter	Min.	Typ.	Max	Units
Frequency Range		1-18		GHz
Insertion Loss		2.5	3.5	dB
Loss Variation Over Temperature		0.003		dB/°C
Isolation	60	70		dB
Input VSWR		1.5	2.0	-
Output VSWR		1.5	2.0	-
Switch Speed		50	100	ns
Power Handling (operational)			1	W
IIP3	50	55		dBm
DC Current (Vcc=+/-5V)		50/40		mA
Control Logic TTL		0/+5		v
Impedance		50		Ω
Input Output Connector		SMA-k/SMA-K		
Material		Aluminium/Nickel Painting		
Weight		50g		
Package Sealing		Epoxy Sealing (Standard)		

Environmental Conditions

Operational Temperature	-45°C~+85°C	Vibration	25g rms (15 degree 2KHz) endurance, 1 hour per axis
Storage Temperature	-55°C~+125°C	Shock	20G for 11msc half sin wave, 3 axis both directions
Executive Standard	MIL-STD-810G	Humidity	100% RH at 35c, 95%RH at 40°C

Absolute Maximum Ratings

Supply Bias Voltage	+/-5%
RF INPUT POWER	2W
ESD sensitivity (HBm)	Class 0, passed 150V

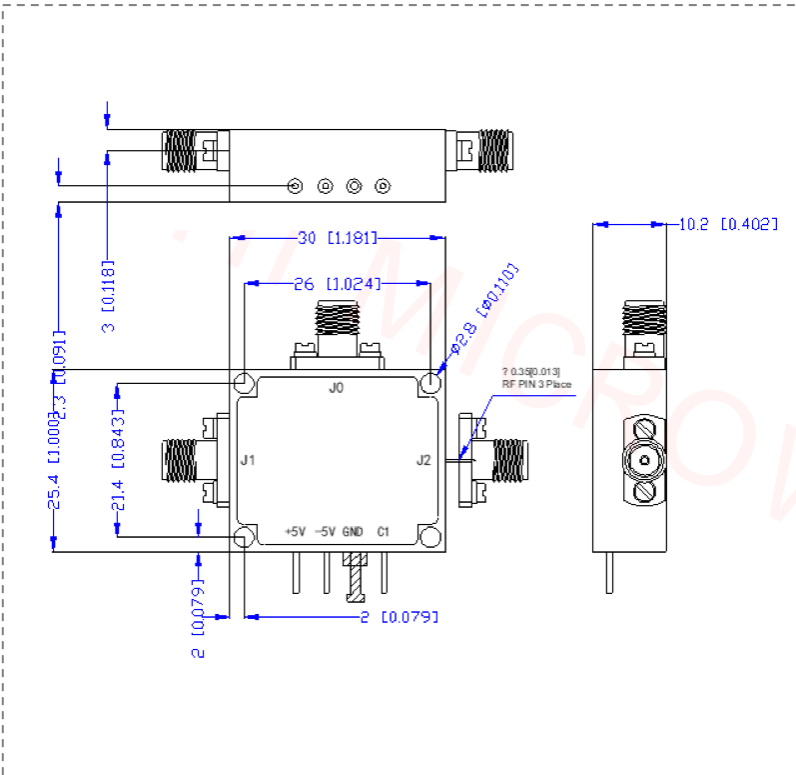


OBSERVE PRECAUTIONS
ELECTROSTATIC SENSITIVE
DEVICES



Outline Drawing

All Dimensions in mm (inches) Tolerance ± 0.25 (0.01)

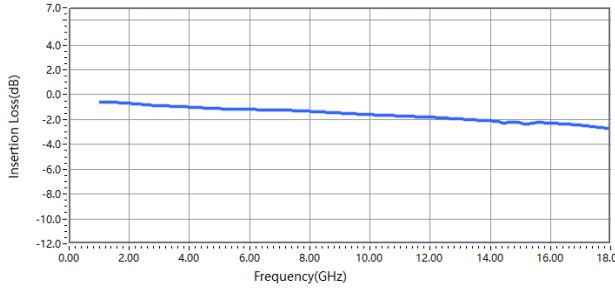


TTL Control Voltages & VDD	
Stage	Bias Condition
VDD	+5V ($\pm 5\%$)
Low	0 to 0.8Vdc
High	2.0 to +5.0Vdc

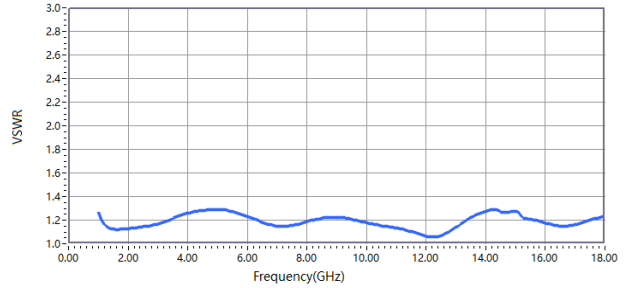
Truth Table	
Control TTL Input	Signal Path State
C1	
0	J0-J1
1	J0-J2

Typical Performance

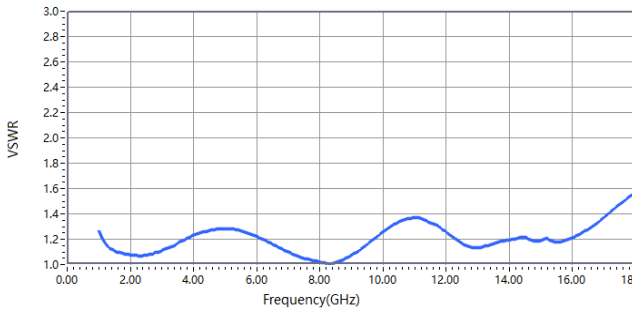
Insertion Loss vs. Frequency



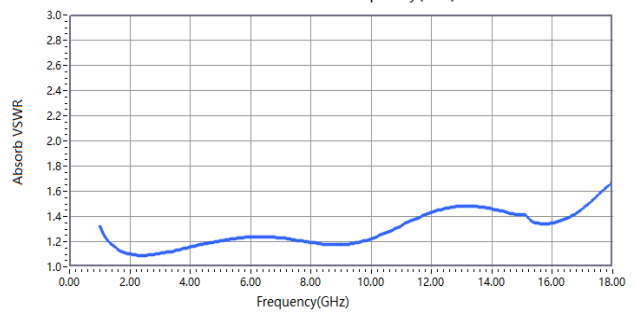
VSWR vs. Frequency(S11)



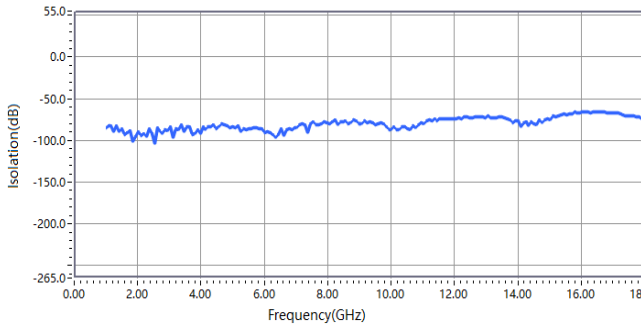
VSWR vs. Frequency(S22)



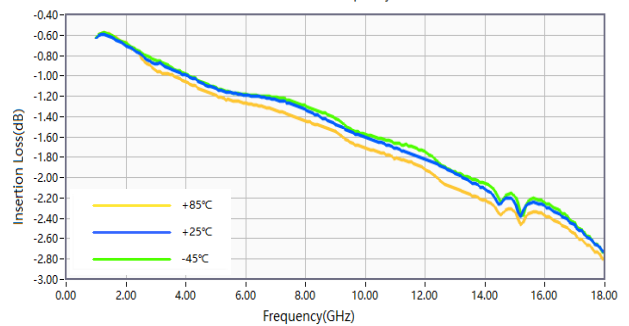
Absorb VSWR vs. Frequency(S33)



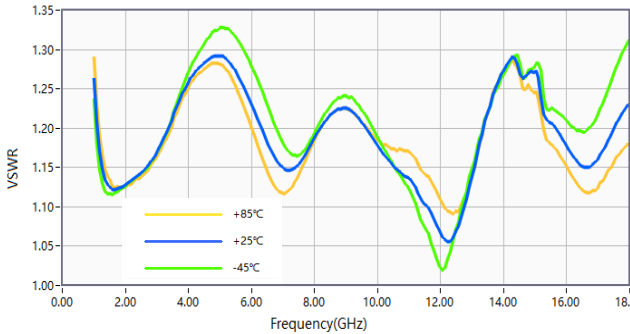
Isolation vs. Frequency



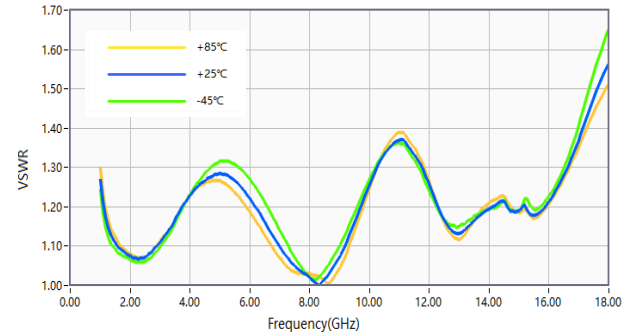
Insertion Loss vs. Frequency



VSWR vs. Frequency(S11)



VSWR vs. Frequency(S22)



■ Typical Performance

