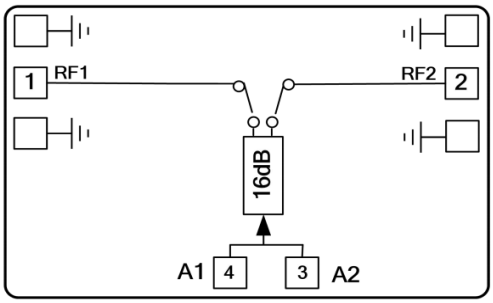
Features

- Frequency: DC-20GHz
- IL: 1.1dB typ.
- Att. Range: 16dB
- Control bits: 1bit
- Input /Output Return Loss: 20dB typ.
- Power Supply: -5 V
- Control Level: -5/0 V
- Die Size: 1.0 x 1.0 x 0.1 mm



Typical Applications

- Test Instrumentation
- Microwave Radio & VSAT
- Military & Space
- Telecom Infrastructure
- Fiber Optics

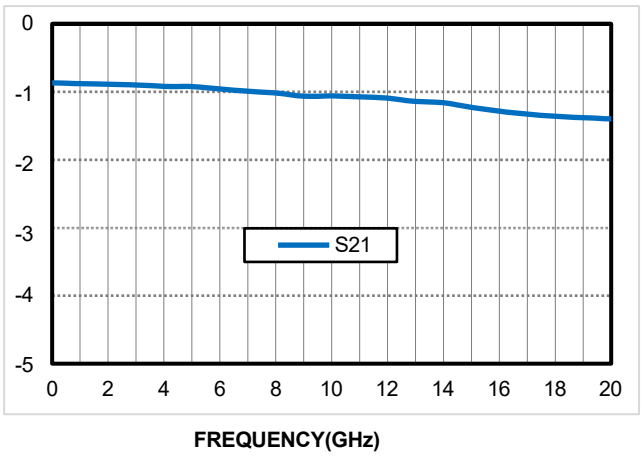
Electrical Specifications

TA = +25℃, VEE = -5V

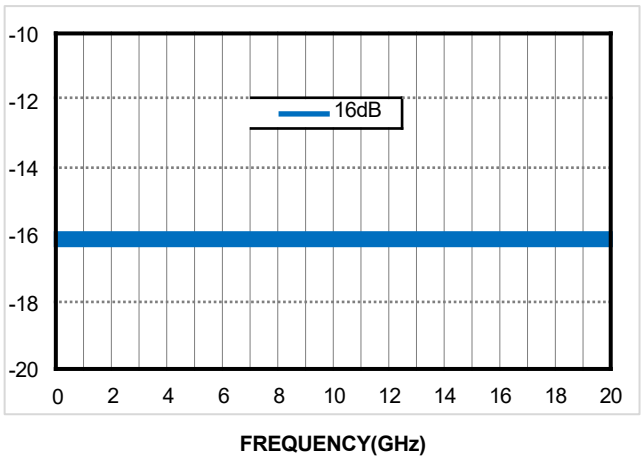
Parameters	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Units
Frequency	DC-6			6-18			18-20			GHz
IL	0.9	0.9	1.0	0.9	1.1	1.3	1.3	1.4	1.5	dB
Attenuation (V2-0.1)	16.0	16.1	16.2	15.9	16.0	16.1	15.9	16	16.1	dB
Revision * Different Nominal Attenuation Value	Standard Version 16.0dB+/-0.25dB (As shown above) Version 1 16.10dB+/-0.25dB (Special Order) Version 2 16.15dB+/-0.25dB (Special Order) Version 3 16.35dB+/-0.25dB (Special Order)									dB
Input RL		20			20			20		dB
Output RL		20			20			20		dB
Input P1dB	24 (typ.)									dBm
Switch time	30 (typ.)									ns

* Special Order requires a minimum order amount with a different price. Contact us for details

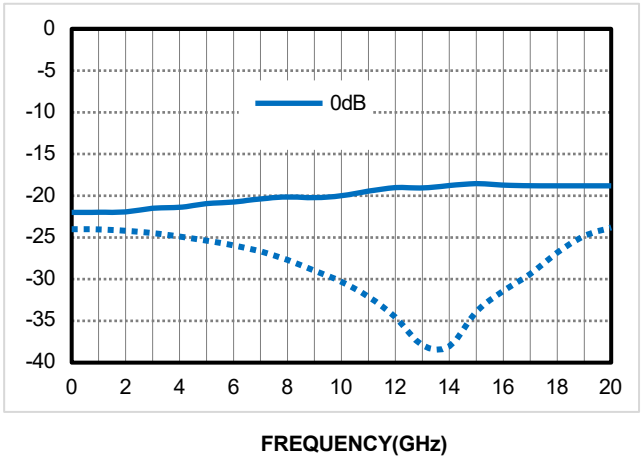
IL vs. Frequency



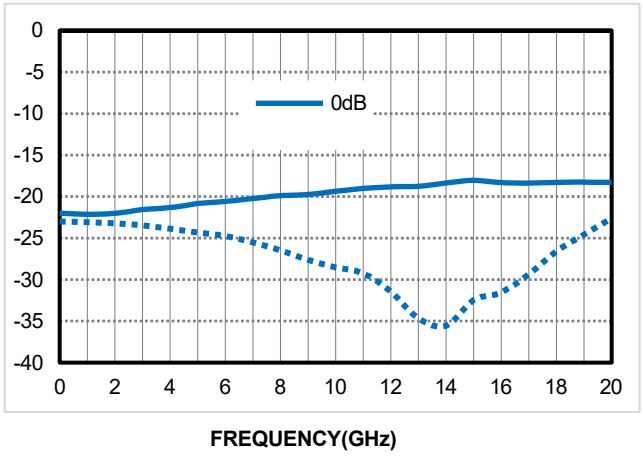
Att. vs. Fequency



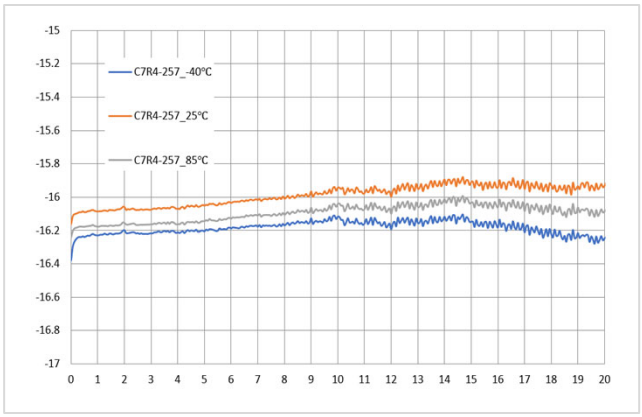
Input RL vs. Frequency



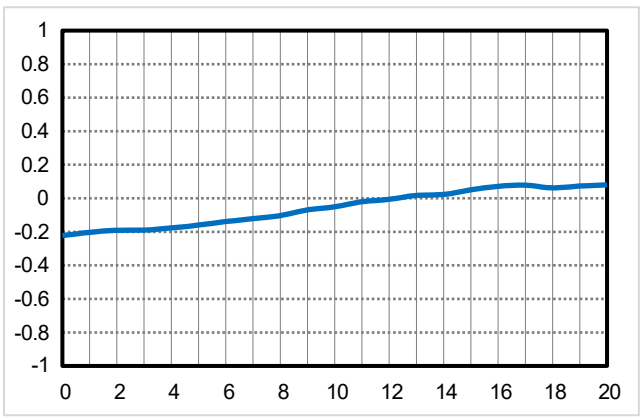
Output RL vs. Frequency



Attenuation over Temperature



Attenuation accuracy vs. Frequency



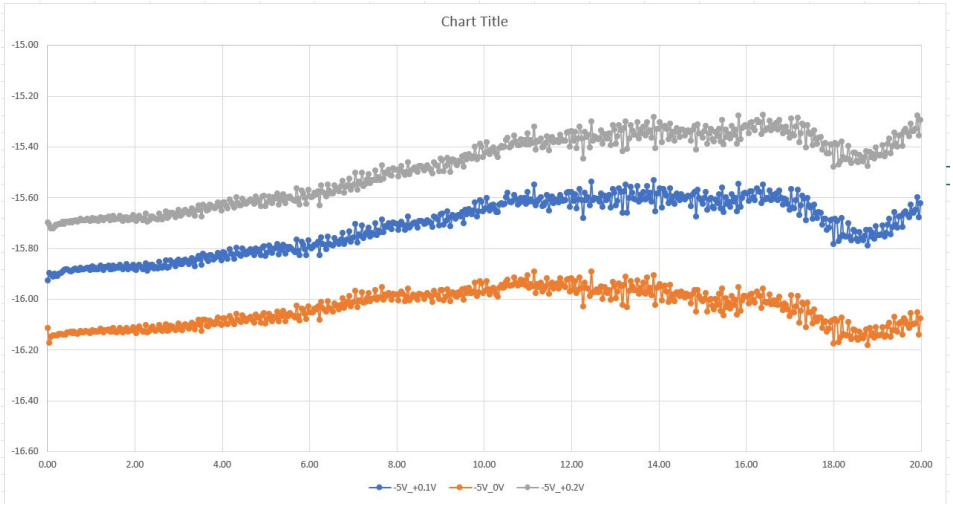
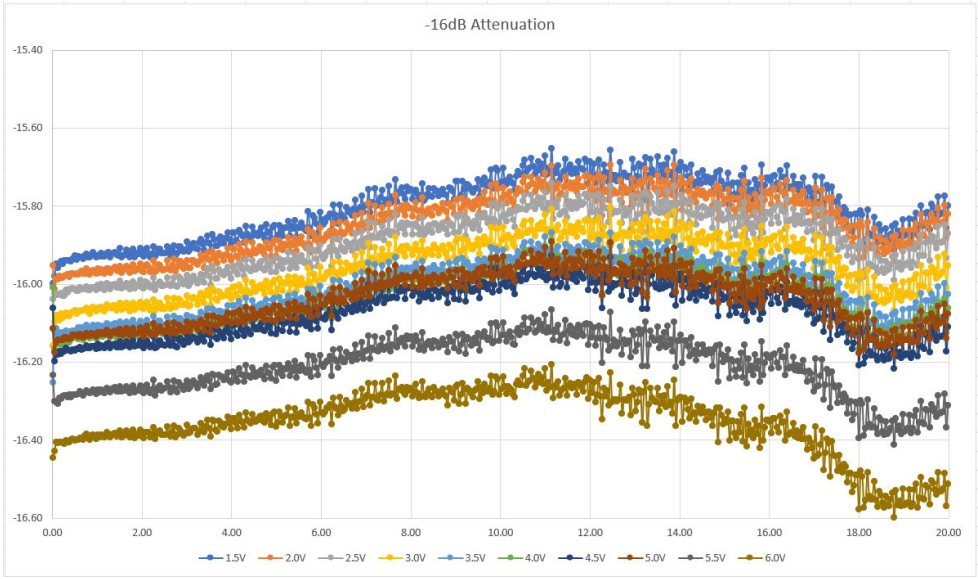
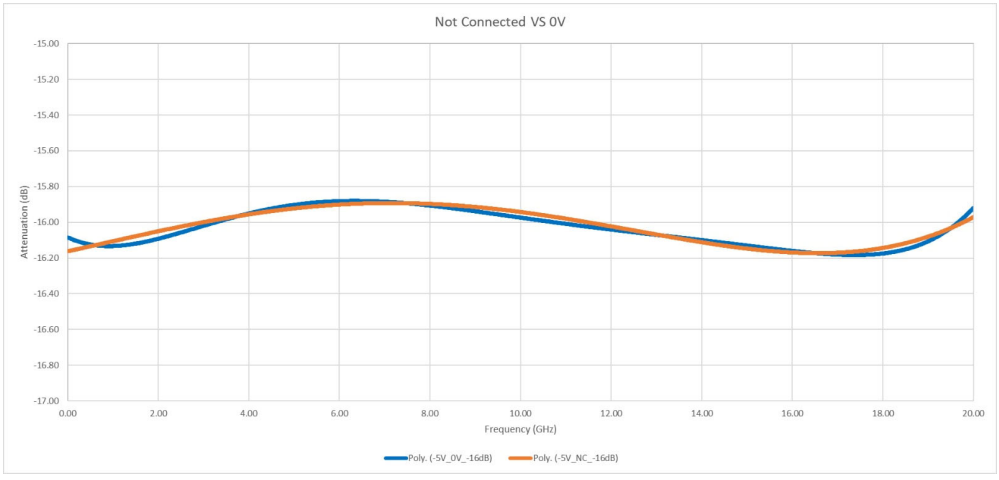
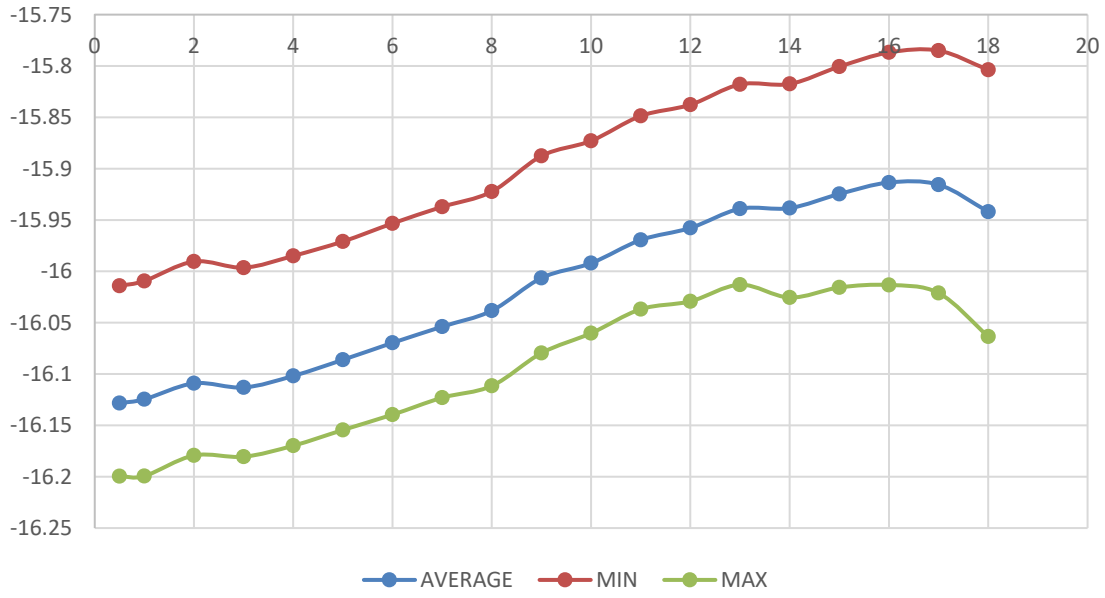


Chart Title
-15.00
-15.20
-15.40
-15.60
-15.80
-16.00
-16.20
-16.40
-16.60
0.00
2.00
4.00
6.00
8.00
10.00
12.00
14.00
16.00
18.00
20.00
-5V_+0.1V
-5V_0V
-5V_+0.2V

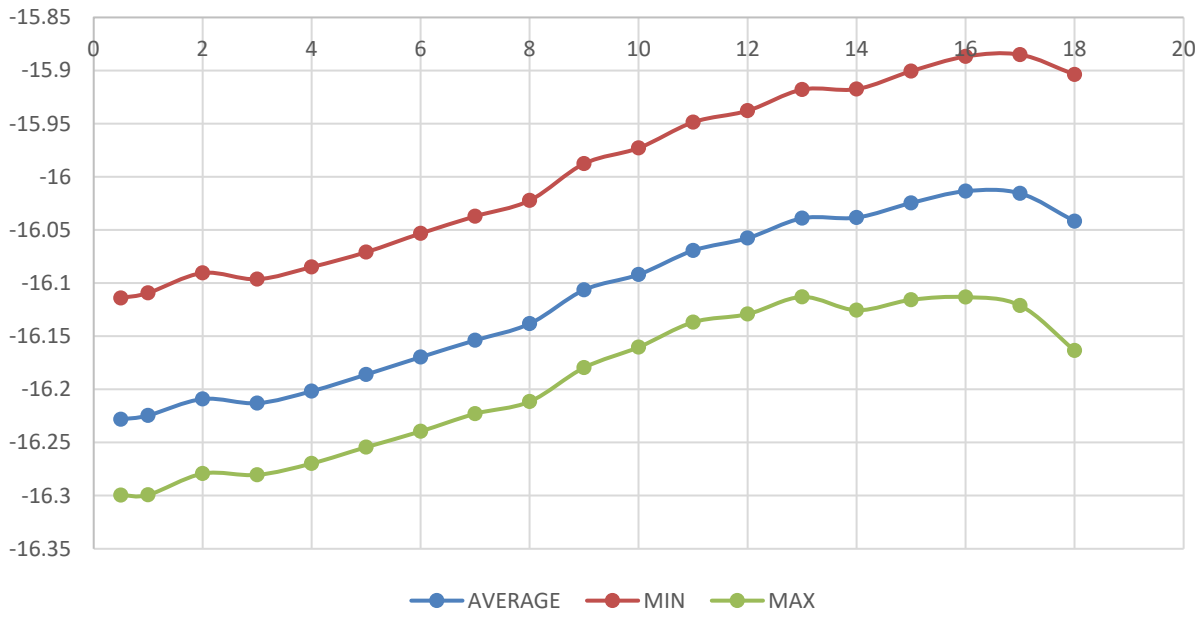

-16dB Attenuation
-15.40
-15.60
-15.80
-16.00
-16.20
-16.40
-16.60
0.00
2.00
4.00
6.00
8.00
10.00
12.00
14.00
16.00
18.00
20.00
1.5V
2.0V
2.5V
3.0V
3.5V
4.0V
4.5V
5.0V
5.5V
6.0V


Not Connected VS 0V
-15.00
-15.20
-15.40
-15.60
-15.80
-16.00
-16.20
-16.40
-16.60
-16.80
-17.00
Attenuation (dB)
0.00
2.00
4.00
6.00
8.00
10.00
12.00
14.00
16.00
18.00
20.00
Frequency (GHz)
Poly. (-5V_0V_-16dB)
Poly. (-5V_NC_-16dB)

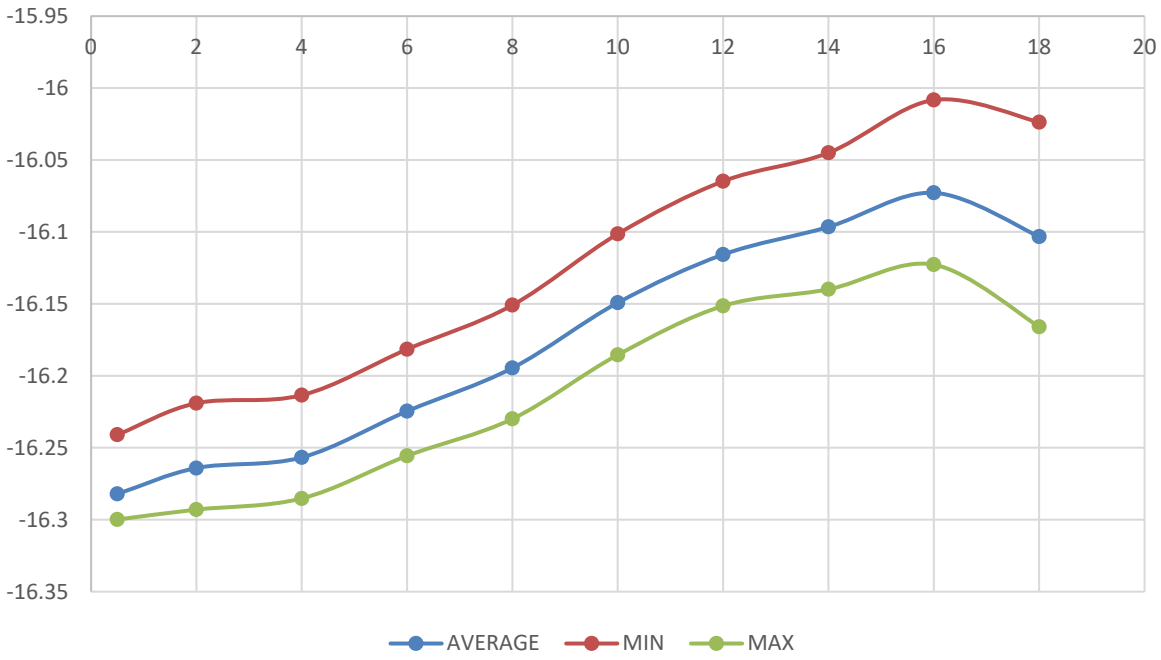
Standard Version 16.0dB+/-0.25dB (As shown above)



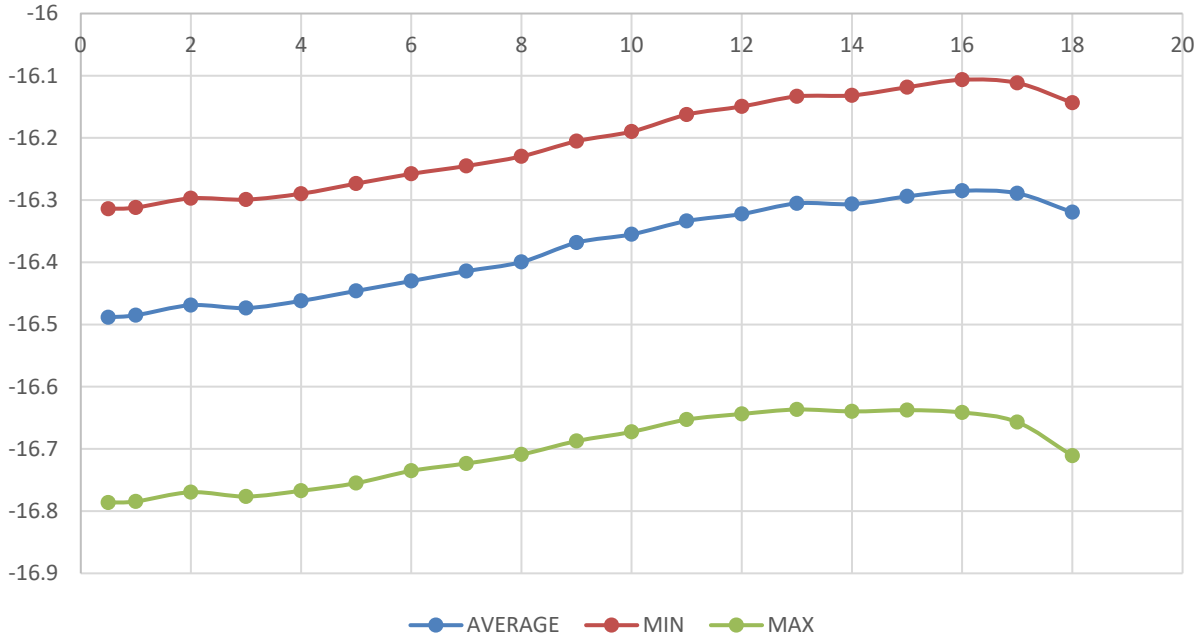
Version 1 16.10dB+/-0.25dB (Special Order)



Version 2 16.15dB+/-0.25dB (Special Order)

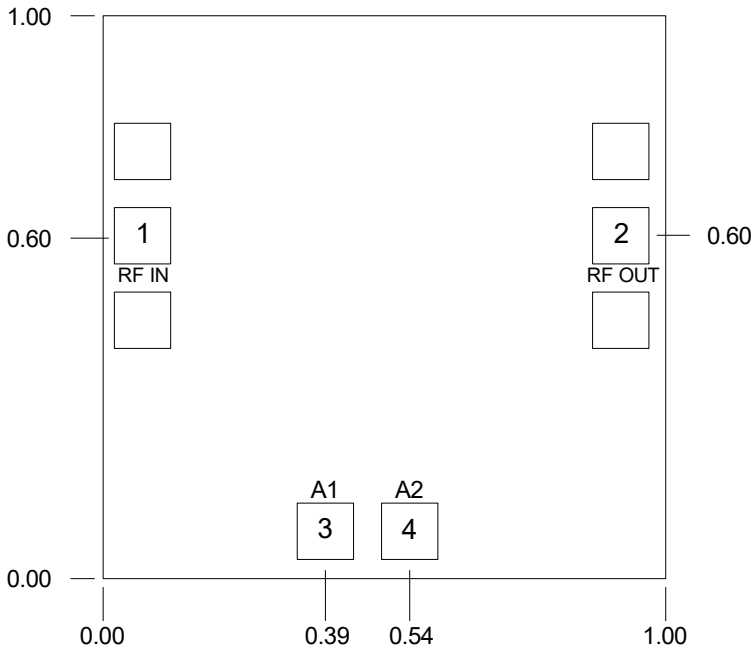


Version 3 16.35dB+/-0.25dB (Special Order)



Outline Drawing:

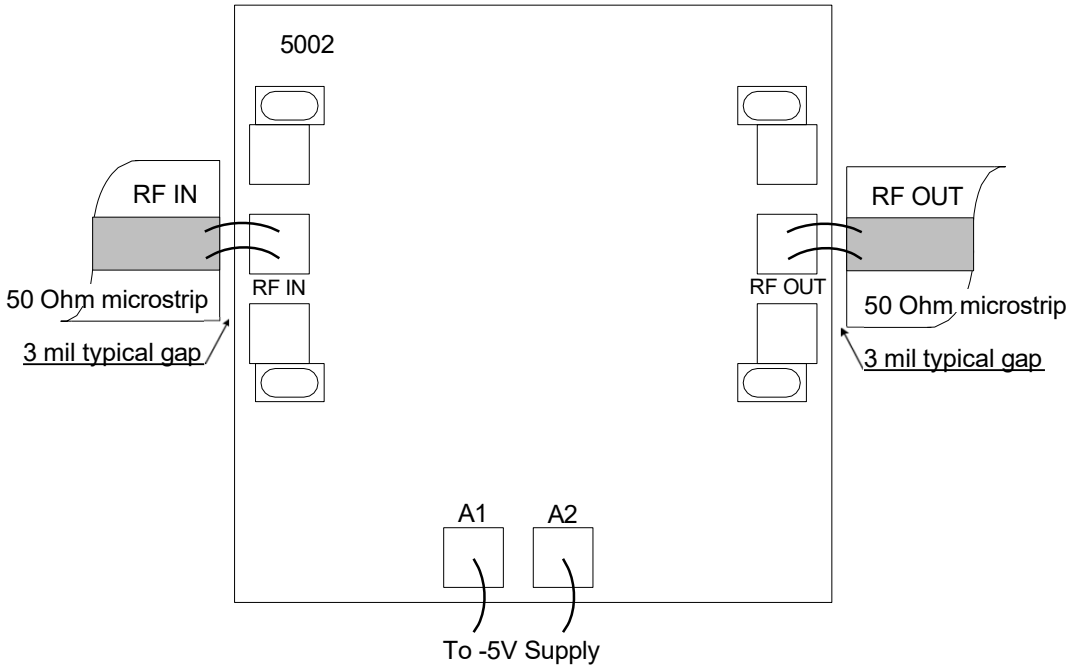
All Dimensions in mm



Pad	Function	Description
1,2	RF1, RF2	50 ohm circuit matched, and there is no blocking capacitor integrated inside the chip
3,4	A1, A2	Contorl ports, see below the truth table
Bottom of chip	GND	The bottom of the chip should be in good contact with the RF and DC ground

Status	A1	A2
Reference	0V~+0.2V (+0.5V max) Or NC- No Connection)	-5V (-8V Max)
16dB	-5V (-8V Max)	0V~+0.2V (+0.5V max) Or NC- No Connection)

Assembly Drawing



Notes:

1. Die thickness: 100um
2. Typical bond pad is 100*100 μm²
3. Bond pad metalization: Gold
4. Backside metalization: Gold
5. Backside of the die (GND)
6. No connection required for unlabeled bond pads
7. Internal DC Block at both input and output.
8. Input/Output use two 25um gold wire, length less than 250um is recommended.

Maximum Ratings:

1. Input power: +24dBm
2. Max control Voltage -8V and +0.5V
3. Operating temperature: -55℃ to +100℃
4. Storage temperature: -65℃ to +150℃