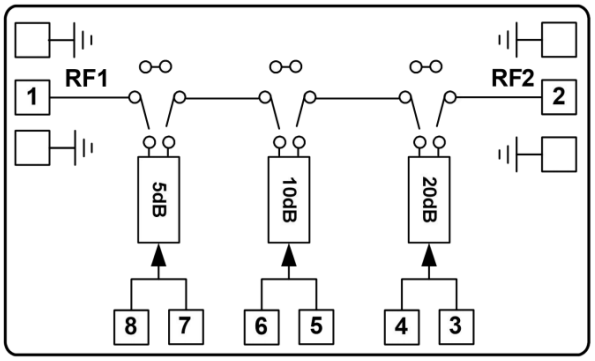
Features

- Frequency: DC-20GHz
- IL: 4.0dB typ.
- Att. Range: 35dB
- Control bits: 3bits
- Input /Output Return Loss: 20dB Typ.
- Power Supply: -5 V
- Control Level: -5/0 V
- Die Size: 2.2 x 0.92 x 0.1 mm



Typical Applications

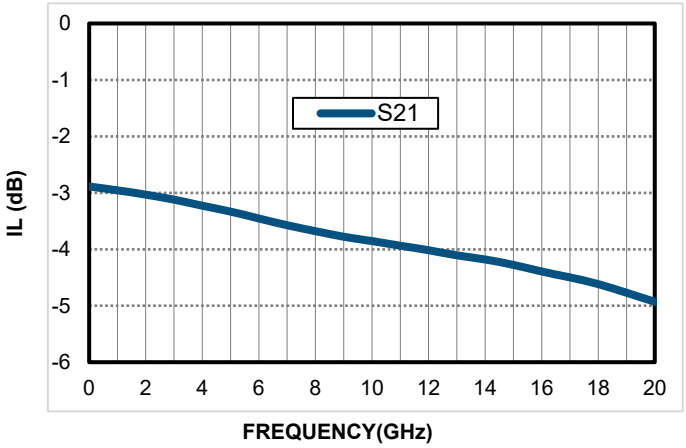
- Test Instrumentation
- Microwave Radio & VSAT
- Military & Space
- Telecom Infrastructure
- Fiber Optics

Electrical Specifications

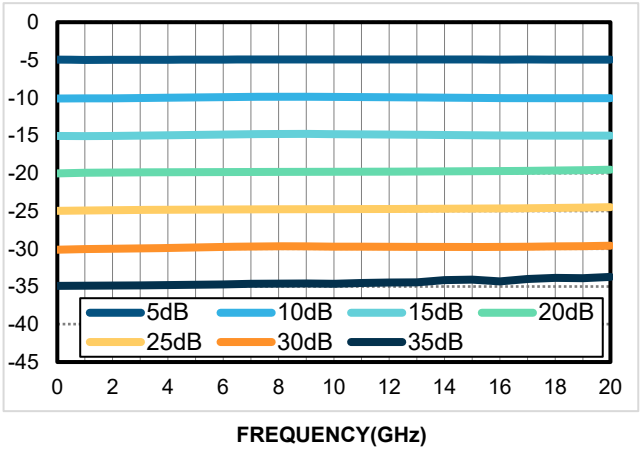
TA = +25℃, VEE = -5V

Parameters	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Units
Frequency	DC-6			6-18			18-20			GHz
IL	3	3.5			4			4.5	5	dB
ATT Range		35			35			35		dB
Attenuation accuracy	±1.0dB									dB
Input RL		20			20			18		dB
Output RL		25			30			25		dB
Input P1dB	24 (typ.)									dBm
Switch time	30 (typ.)									ns

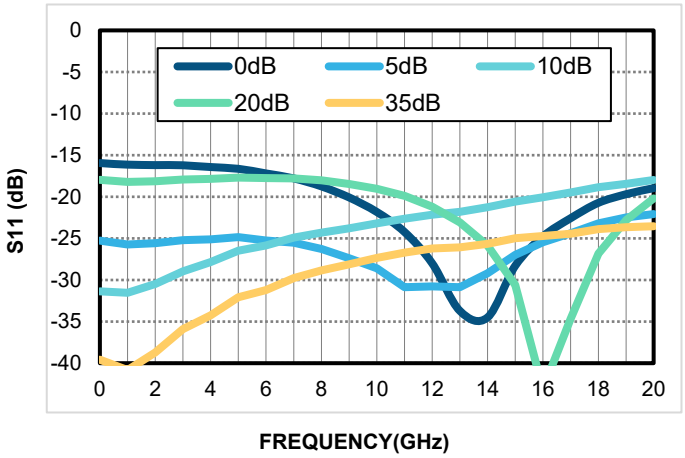
IL vs. Frequency



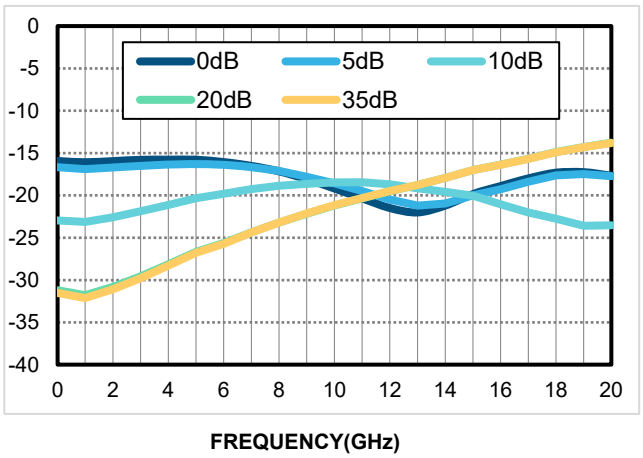
Att. vs. Fequency



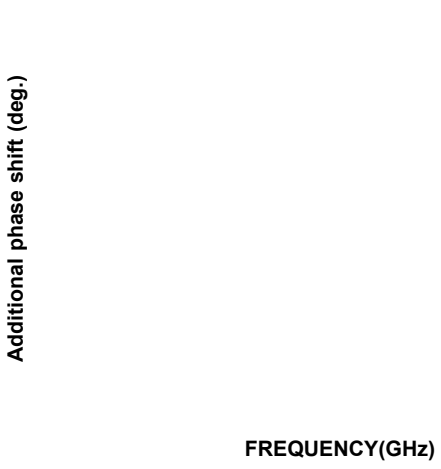
Input RL vs. Frequency



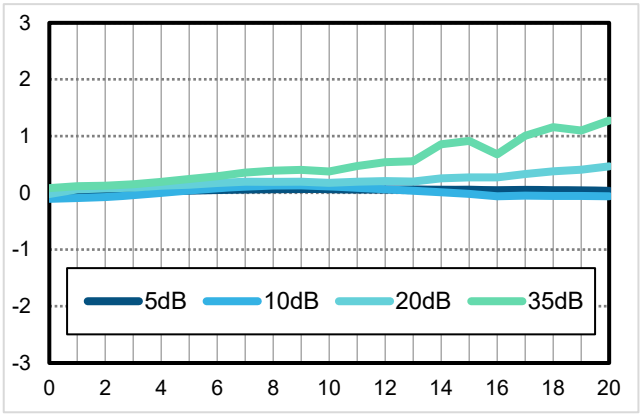
Output RL vs. Frequency



Additional phase shift vs. Frequency

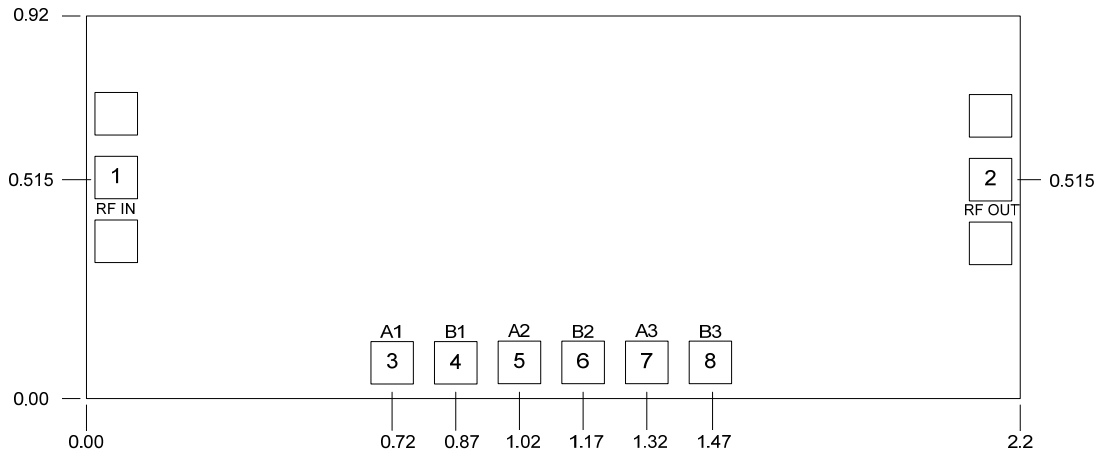


Attenuation accuracy vs. Frequency



Outline Drawing:

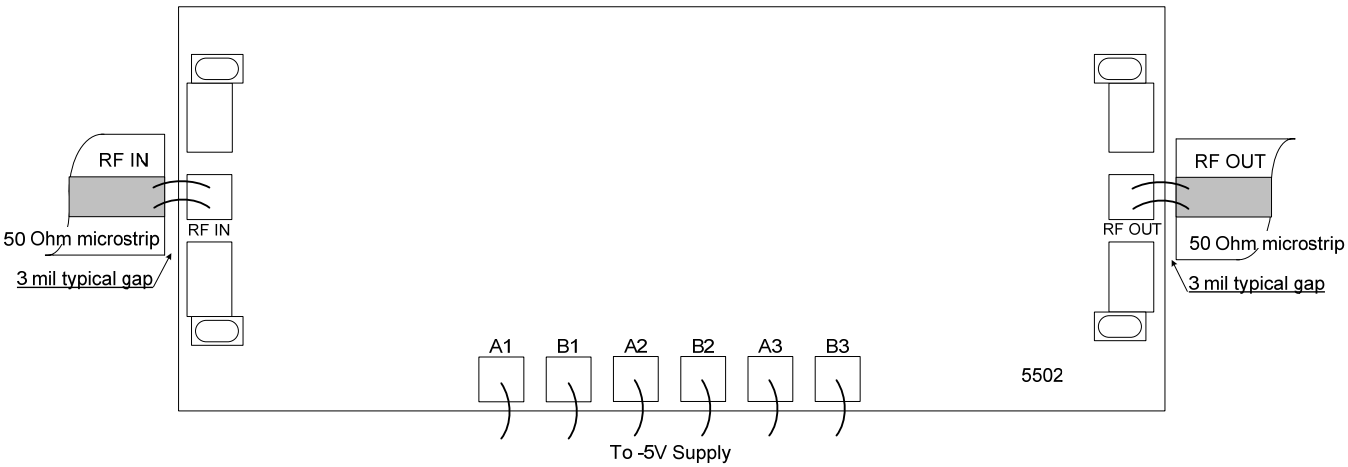
All Dimensions in mm



Pad	Function	Description
1,2	RF1, RF2	50 ohm circuit matched, and there is no blocking capacitor integrated inside the chip
3,4…7,8	A1,B1,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	B1	A2	B2	A3	B3
Reference	0	-5	0	-5	0	-5
5dB	-5	0	0	-5	0	-5
10dB	0	-5	-5	0	0	-5
20dB	0	-5	0	-5	-5	0
35dB	-5	0	-5	0	-5	0

Assembly Drawing



Notes:

1. Die thickness: 100um
2. Typical bond pad is 100*100 μm^2
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. Operating temperature: -55℃ to +85℃
3. Storage temperature: -65℃ to +150℃