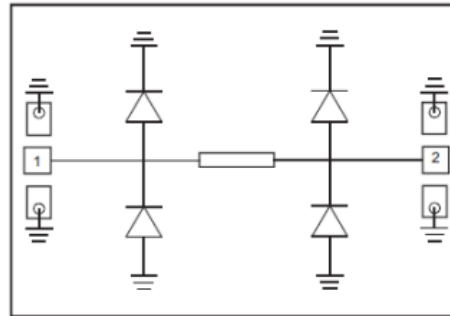


**Features**

- Frequency:15-40GHz
- Insertion Loss: 0.9dB(typ.)
- Limit Power:18dBm
- Tolerance Power:30dBm(CW)
- Input/Output: 50Ω
- Die Size: 1.64x0.72x 0.1 mm

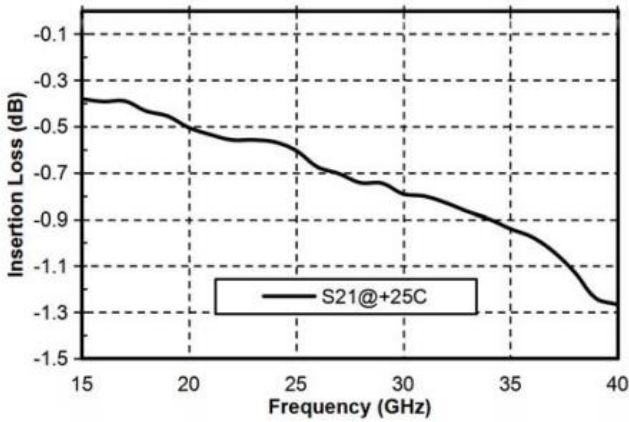
**Typical Applications**

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

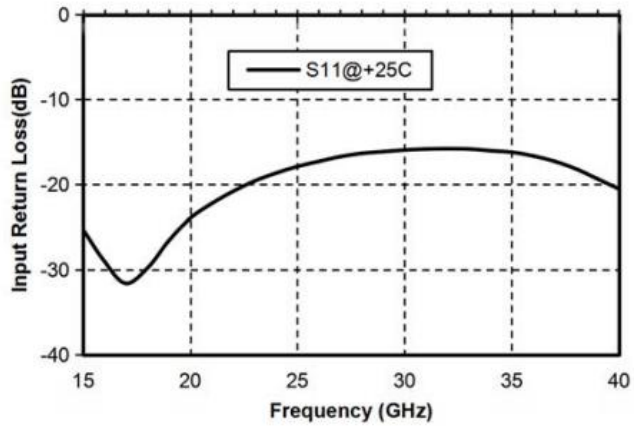
**Functional Block Diagram**

**Electrical Specifications**
**TA = +25°C**

| Parameters         | Min.  | Typ. | Max. | Units |
|--------------------|-------|------|------|-------|
| Frequency          | 15-40 |      |      | GHz   |
| Insertion Loss     | -     | 0.9  | 1.3  | dB    |
| Input Return Loss  | 15    | 17   | -    | dB    |
| Output Return Loss | 16    | 17   | -    | dB    |
| Limit Power        | -     | 18   | -    | dBm   |
| Tolerance Power    |       | 30   |      | dBm   |

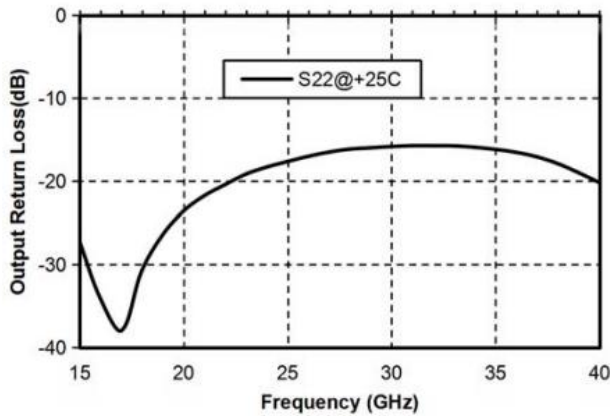
### Insertion Loss Vs. Frequency



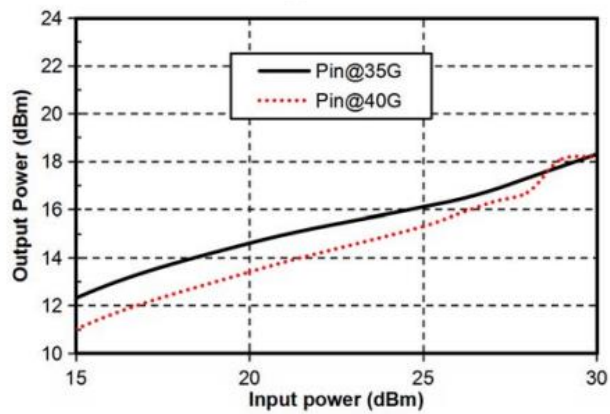
### Input Return Loss Vs. Frequency



### Output Return Loss Vs. Frequency



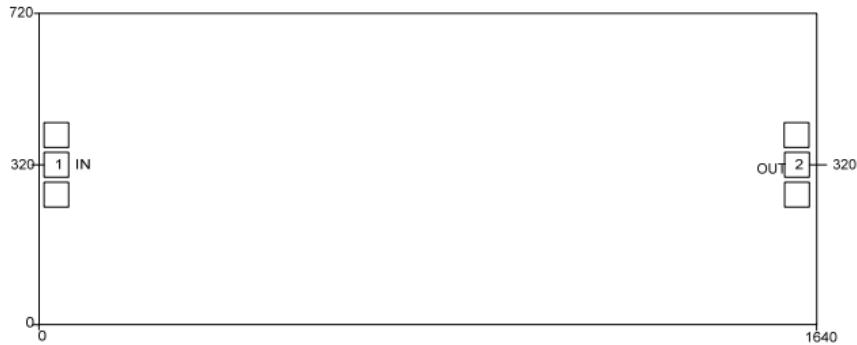
### Limit Power @35G 40G





### Outline Drawing:

All Dimensions in um, tolerance range  $\pm 50\mu\text{m}$



### Pad Description

| PAD        | Function  | Description   |
|------------|-----------|---|
| 1          | RF IN     | RF signal input, A DC blocking capacitor has been integrated at the input of the chip   |
| 2          | RF OUTPUT | RF signal output, A DC blocking capacitor has been integrated at the output of the chip |
| Die Bottom | GND       | Die bottom must be connected to RF/DC ground.   |



### Assembly Drawing



#### Notes:

1. Die thickness: 100um
2. Typical bond pad is 100\*100  $\mu\text{m}^2$
3. Bond pad metalization: Gold
4. Backside metalization: Gold
5. Backside of the die (GND)
6. No connection required for unlabeled bond pads

#### Maximum Ratings:

1. RF input power: +30dBm
2. Storage temperature: -65°C to +150°C
3. Operating temperature: -55°C to 125°C