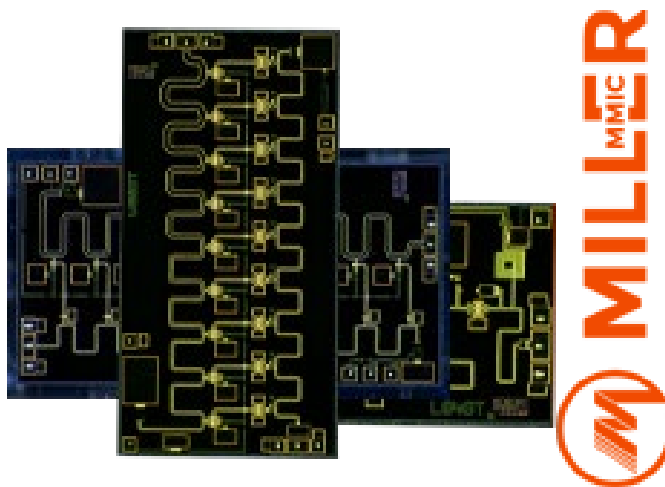


## Features

- Ultra broadband single channel attenuator
- Frequency Range: DC - 40GHz
- Attenuation 0, 1, 2... 10, 15, 20, 30dB value
- Power Handling: 27dBm
- 50Ω Input and Output Impedance
- Return Loss: 20dB
- Bare Die (QFN 3x3mm Available)
- RoHS & REACH Compliant

## Typical Applications

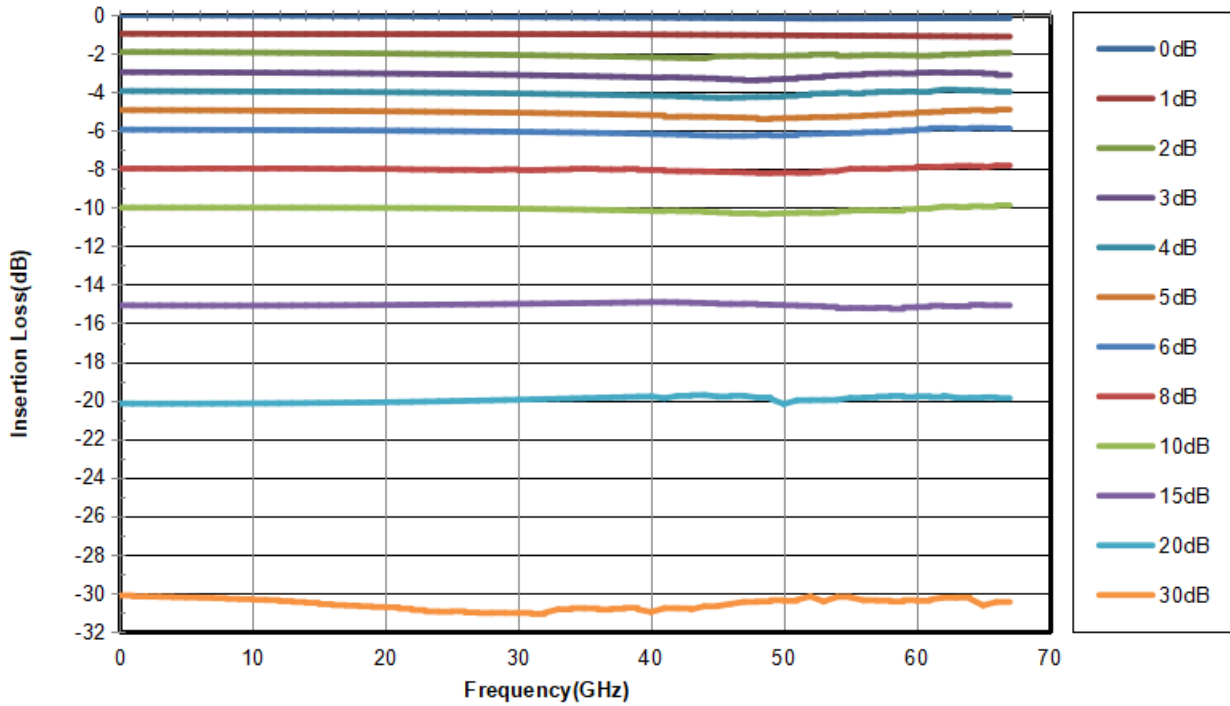
- Test Instrumentation
- Microwave Radio & VSAT
- Military & Space
- Telecom Infrastructure
- General Purpose



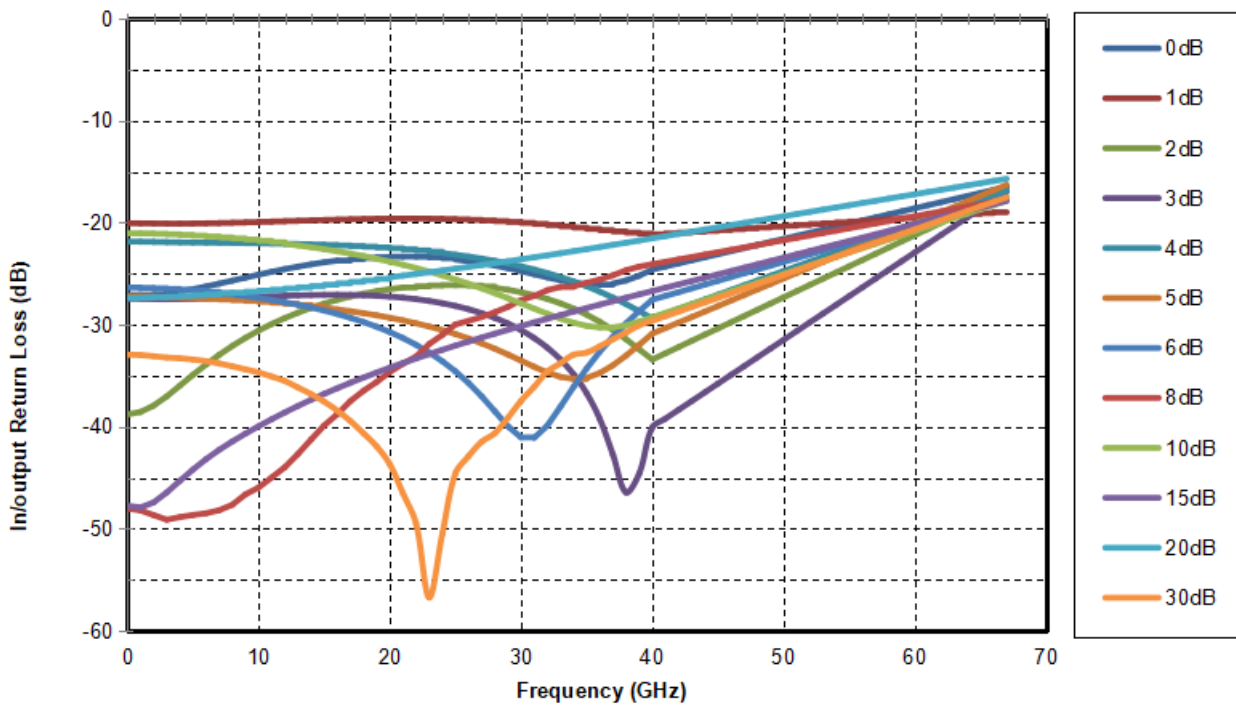
| Part Number | Type             | Frequency (GHz) | Attenuator (dB) | Power Handling (dBm) | Return Loss (dB) |
|-------------|------------------|-----------------|-----------------|----------------------|------------------|
| MFA1001     | Fixed Attenuator | DC-40           | 0               | 27                   | 20               |
| MFA1002     | Fixed Attenuator | DC-40           | 1               | 27                   | 20               |
| MFA1003     | Fixed Attenuator | DC-40           | 2               | 27                   | 20               |
| MFA1004     | Fixed Attenuator | DC-40           | 3               | 27                   | 20               |
| MFA1005     | Fixed Attenuator | DC-40           | 4               | 27                   | 20               |
| MFA1006     | Fixed Attenuator | DC-40           | 5               | 27                   | 20               |
| MFA1007     | Fixed Attenuator | DC-40           | 6               | 27                   | 20               |
| MFA1008     | Fixed Attenuator | DC-40           | 7               | 27                   | 20               |
| MFA1009     | Fixed Attenuator | DC-40           | 8               | 27                   | 20               |
| MFA1010     | Fixed Attenuator | DC-40           | 9               | 27                   | 20               |
| MFA1011     | Fixed Attenuator | DC-40           | 10              | 27                   | 20               |
| MFA1012     | Fixed Attenuator | DC-40           | 15              | 27                   | 20               |
| MFA1013     | Fixed Attenuator | DC-40           | 20              | 27                   | 20               |
| MFA1014     | Fixed Attenuator | DC-40           | 30              | 27                   | 20               |



### Attenuation vs. Frequency @Att=0dB



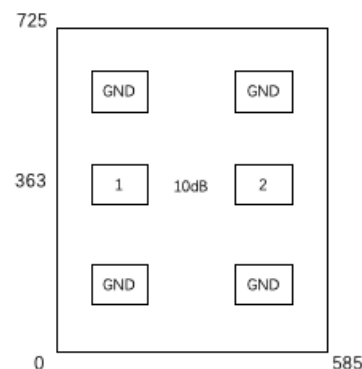
### Return Loss vs. Frequency @Att=0dB



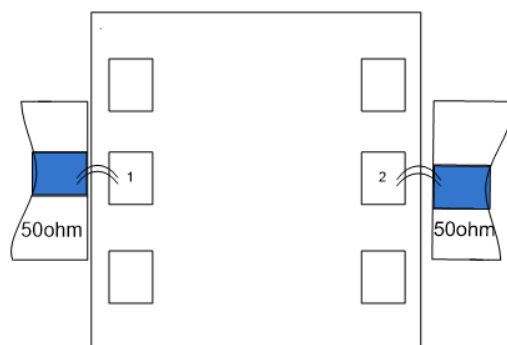
### Outline Drawing:

All Dimensions in  $\mu\text{m}$

| Pad        | Function | Description   |
|------------|----------|---|
| 1          | RF IN    | RF signal input terminal;<br>DC blocking capacitor required.  |
| 2          | RF OUT   | RF signal output terminal;<br>DC blocking capacitor required. |
| Die bottom | GND      | Die bottom must be connected to RF/DC ground.                 |



### Assembly Drawing



#### Notes:

1. Die thickness:  $100\mu\text{m}$
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. Maximum input power: +27dBm
2. Operating temperature:  $-55^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$
3. Storage temperature:  $-65^{\circ}\text{C}$  to  $+150^{\circ}\text{C}$

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