

### 0.5-30GHz Broadband Frequency Divider, /2

2021-1-26

#### Description:

AT-FD2-26 is low noise divide-by-2 frequency divider with 2.92mm female input connector. This device operates from 500MHz to 30GHz with a single 5V supply.



This divider offers SSB phase noise of -152dBc/Hz at 100kHz, which helps the user maintain excellent system noise performance. Differential input and differential output is available according to request.

More information, visit [www.atmicrowave.com](http://www.atmicrowave.com)

#### Feature

- ✓ Wideband coverage
- ✓ Low SSB phase noise
- ✓ Low current
- ✓ Small Size

#### Application

- ✓ 5G Systems
- ✓ Radar System
- ✓ Test Equipment
- ✓ ROF (RF Over Fiber)
- ✓ Communication System

#### Electronical Specifications:

| Parameter                                      | Min    | Typical    | Max   |
|--|--------|------------|-------|
| Input Frequency Range                          |        | 0.5-30GHz  |       |
| Minimum Input Frequency<br>(Square wave Input) |        | 0.2GHz     |       |
| Input Power                                    | -10dBm | 0dBm       | +8dBm |
| Divider Rate                                   |        | /2         |       |
| Output Frequency                               |        | 0.25-15GHz |       |
| Output Power                                   | -6dBm  | -3dBm      |       |
| SSB Phase Noise @100kHz                        |        | -152dBc/Hz |       |
| Vdd  |        | +5V        | +8V   |
| Current  |        | 35mA       |       |
| Spec Temp                                      |        | 25C        |       |





# AT-FD2-26

0.5-30GHz Frequency Divider by2

## Mechanical Information

| Item                      | Description   |
|---------------------------|---------------|
| Input Port (Note)         | 2.92mm Female |
| Output Port               | SMA Female    |
| Case Material             | Copper        |
| Finish                    | Gold Plated   |
| Weight (Without Heatsink) | 50g           |
| Size:                     | 20x20x8 mm    |

Note: Differential input and differential output is available according to request.

## Absolute Maximum Ratings Table

| Parameter             | Value        |
|-----------------------|--------------|
| Power Supply          | +13V         |
| RF Power Handling     | +15dBm       |
| Operating Temperature | -20 to 70C   |
| Storage Temperature   | -65 to +150C |

## Ordering Information

| Part Number | Description                |
|-------------|----------------------------|
| AT-FD2-26   | Vdd with PIN, Default      |
| AT-FD2-26S  | Vdd supply with SMA Female |

### Caution:

Please pay attention to the case temperature. If case temperature exceed higher than +50C, heat sink and fan are required, or the amplifier may be damaged.

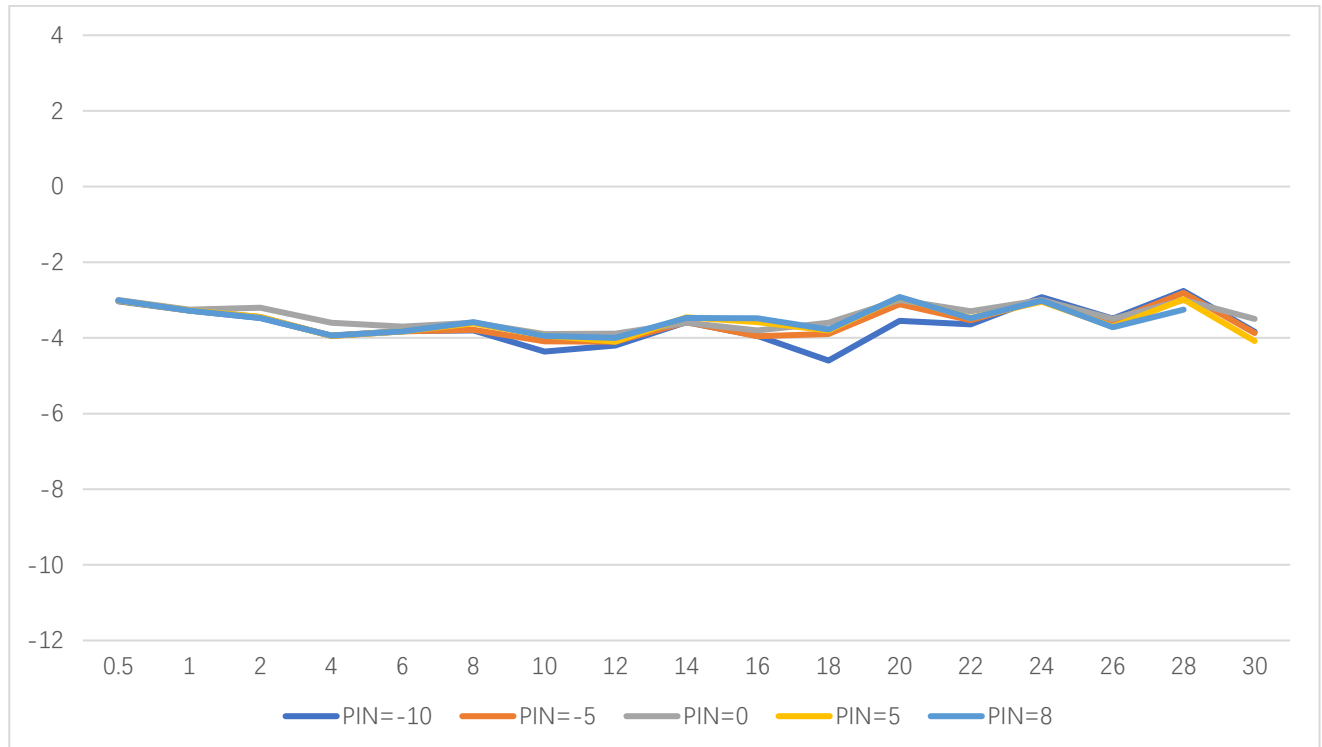
### Notes:

1. Datasheet may be changed according to update of MMIC, Raw materials , process, and so on.
2. This data is only for reference, not for guaranteed specifications.
3. Please contact AT Microwave team to make sure you have the most current data.

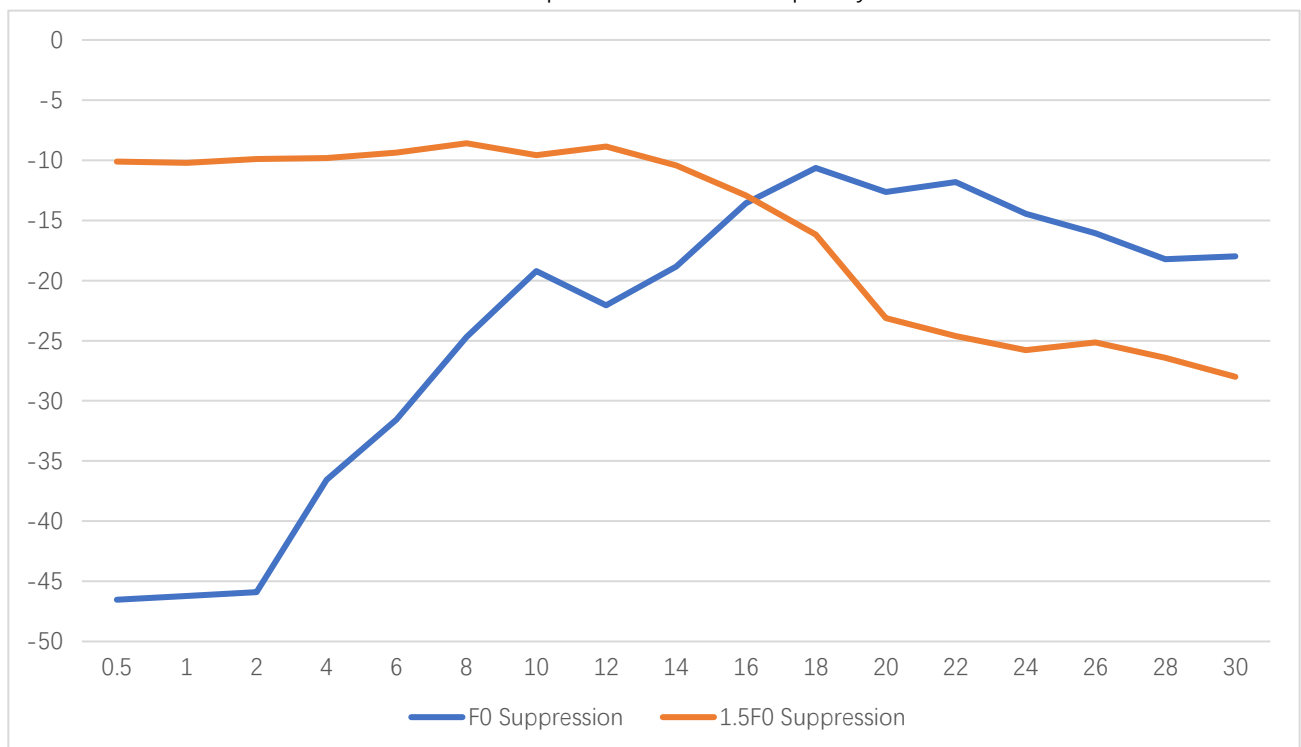


### Test Data:

F0=Input Frequency, sinewave



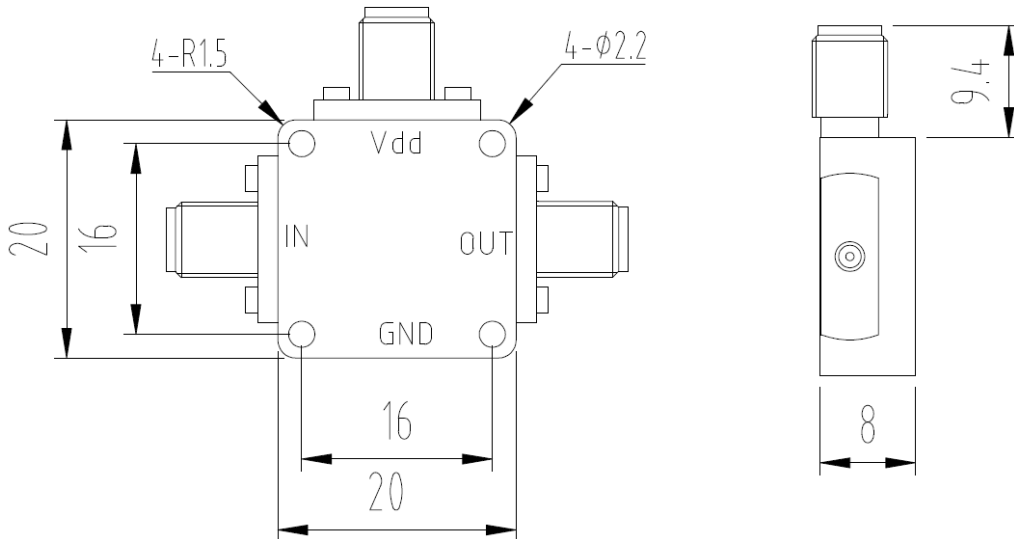
F0/2 Output Power vs F0 Frequency



F0/1.5F0 Suppression vs F0/2

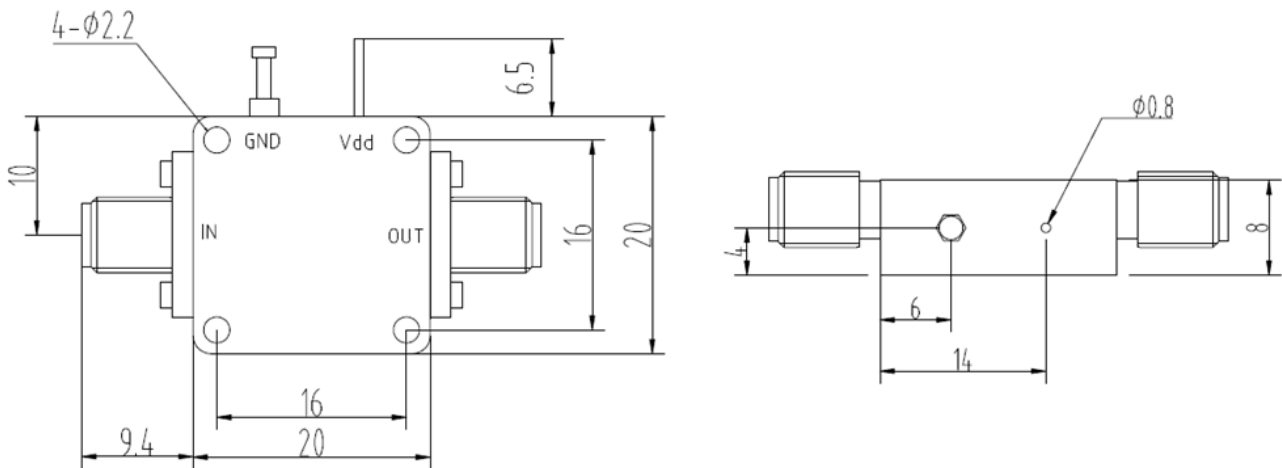


### Dimension: (mm)



备注: 标注尺寸单位mm, 图中接头型号为SMA阴头

AT-PD2-26S Dimension



|            | <26.5GHz | <40GHz | <50GHz | <67GHz |
|------------|----------|--------|--------|--------|
| Connector  | SMA      | 2.92mm | 2.4mm  | 1.85mm |
| Lenth of a | 9.4mm    | 9.5mm  | 10.8mm | 11.3mm |

Note: Female Default. Contact with us for other types.

AT-PD2-26 PIN Dimension

