Features

- Frequency: 0.1-27GHz
- Small Signal Gain: 12dB Typical
- Gain Flatness: ±2.5dB Typical
- Noise Figure:2.0dB Typical
- P1dB: 18dBm Typical
- Power Supply:
  VD=+7.5V@55mA ,VG=+0.6V
- Input/Output: 50Ω
- Chip Size: 0.995 x 0.8 x 0.1mm

Typical Applications

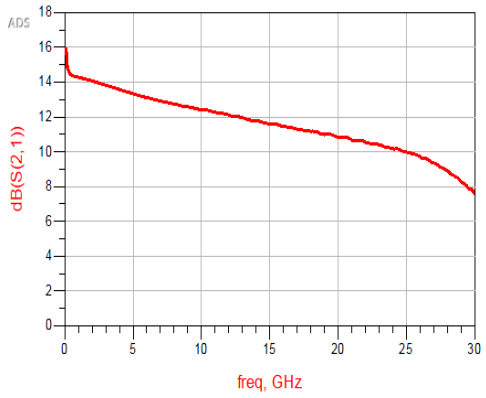
- Test Instrumentation
- Microwave Radio & VSAT
- Military & Space
- Telecom Infrastructure
- Fiber Optics

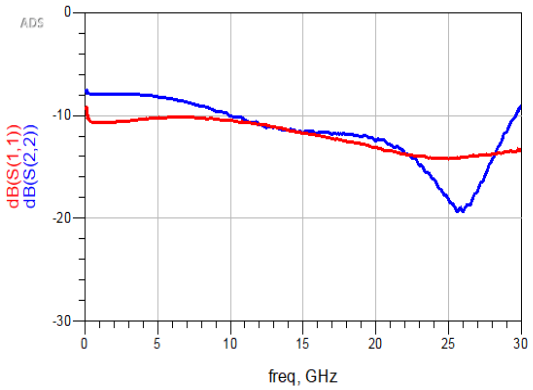
Electrical Specifications

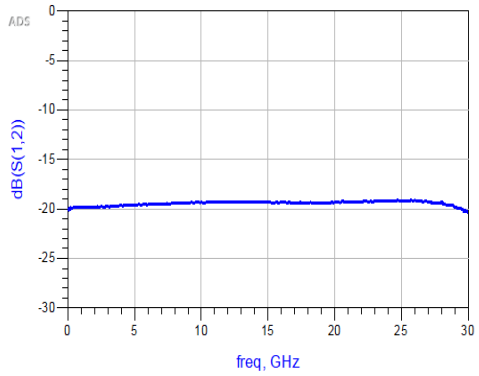
TA = +25°C, VD = +7.5V with 30Ω , VG=+0.6V , IDD = 55mA Typical

Parameters	Min.	Typ.	Max.	Units
Frequency	**0.1**		**27**	**GHz**
Small Signal Gain	**9**	**12**		**dB**
Gain Flatness		**±2.5**		**dB**
Noise Figure		**2.0**		**dB**
P1dB - Output 1dB Compression		**18**		**dBm**
Psat - Saturated Output Power		**19**		**dBm**
OIP3 - Output Third Order Intercept		**28**		**dBm**
Input Return Loss		**-10**		**dB**
Output Return Loss		**-8**		**dB**

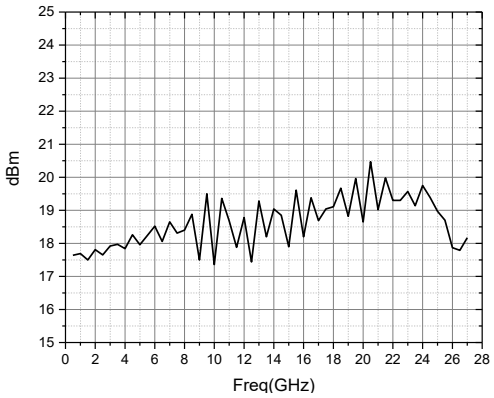
Measurement Plots: S-parameters



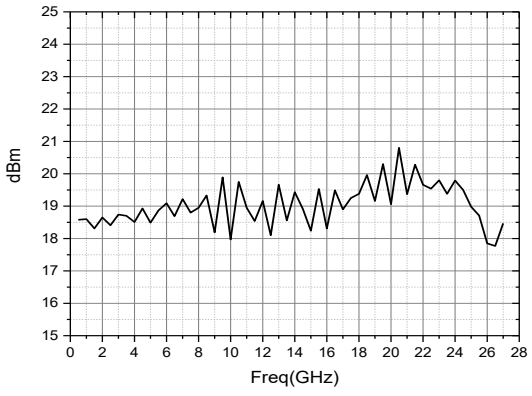




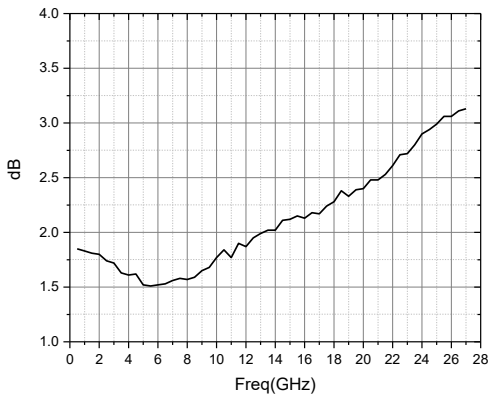
Measurement Plots: P1dB



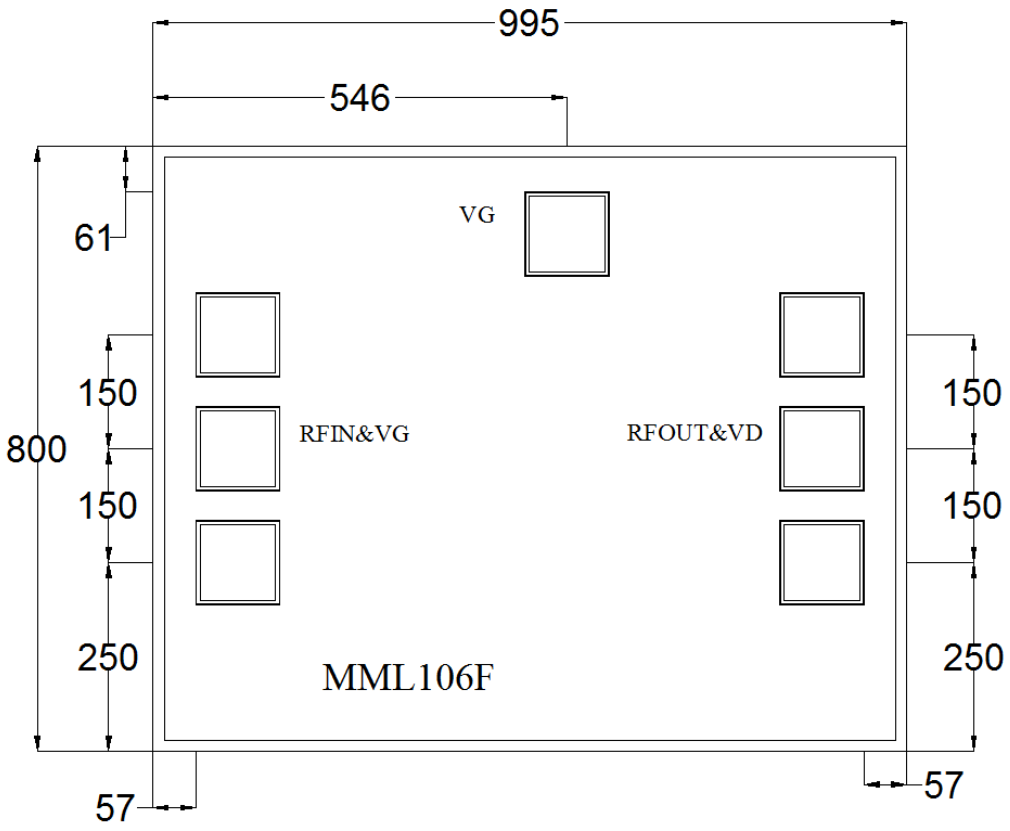
Measurement Plots: P5dB



Measurement Plots: Noise Figure



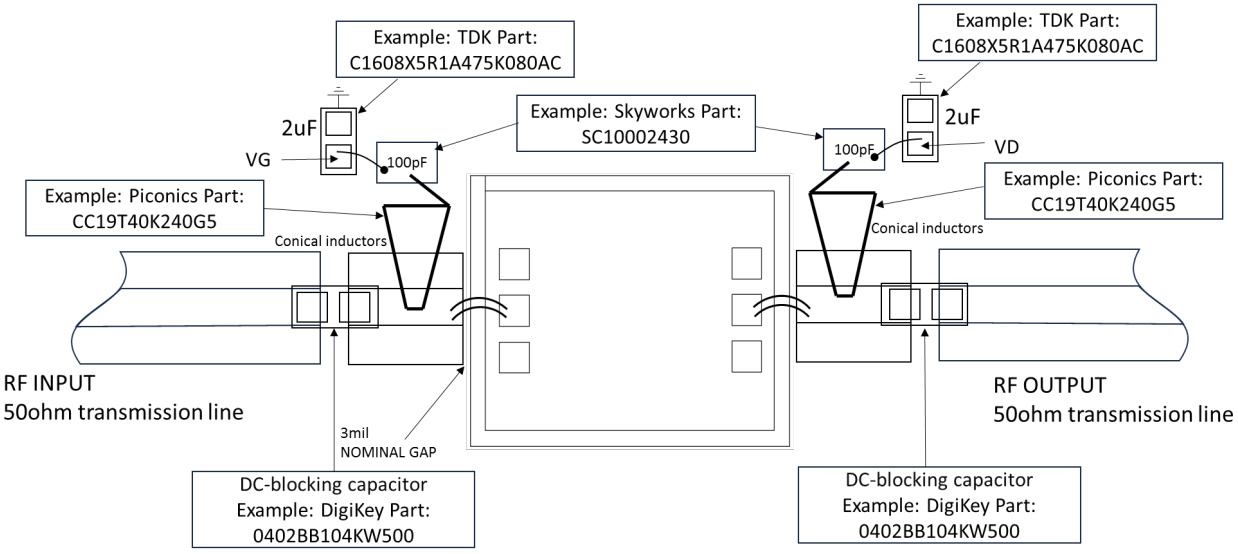
Outline Drawing:
All Dimensions in µm



Notes:

1. **Die thickness: 100µm**
2. **DC bond pad is 100*100µm^2**
3. **RF IN/OUT bond pad is 100*100µm^2**
4. **Bond pad metalization: Gold**
5. **Backside metalization: Gold**

Assembly Drawing



No	Function	Description
1	RF IN &VG	RF signal input terminal; connected to 50Ω circuit; blocking capacitor required; The gate bias of the amplifier requires an external inductor and 100pF,2uF bypass capacitors.
2	RF OUT &VD	RF signal output terminal; connected to 50Ω circuit; blocking capacitor required; The amplifier drain bias requires an external inductor and 100pF,2uF bypass capacitors.
3	VG	N/A
4	Die Bottom	Die bottom must be connected to RF and dc ground.