Features

- Frequency: 6-18GHz
- Small Signal Gain: 28dB Typical
- Power Gain: 15dB Typical
- Gain Flatness: ±4.0dB Typical
- Psat: 40dBm Typical
- PAE:25%
- Supply Voltage:
  VD=+28V@0.85A,VG=-1.6V
- Input/Output: 50Ω
- Die Size: 4.2 x 3.15 x 0.1mm

Typical Applications

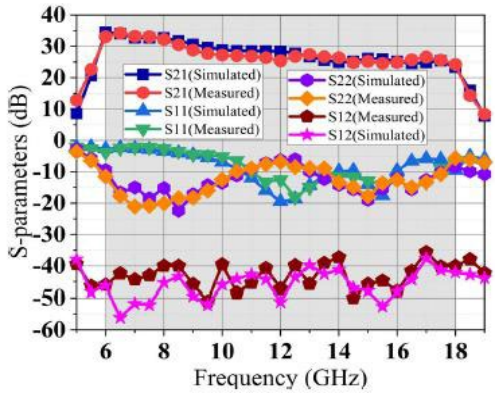
- Test Instrumentation
- Microwave Radio & VSAT
- Military & Space
- Telecom Infrastructure
- Fiber Optics

Electrical Specifications

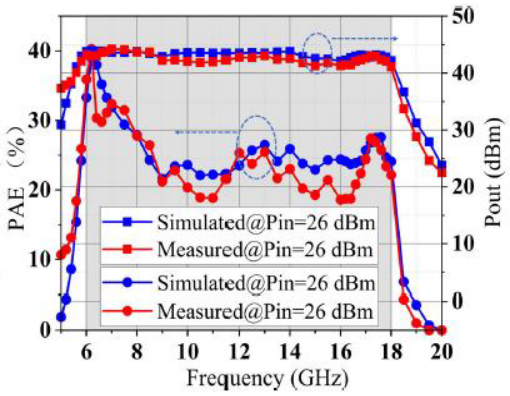
TA = +25°C, VD=+28V, IDD =0.85A Typical

Parameters	Min.	Typ.	Max.	Units
Frequency	6		18	GHz
Small Signal Gain		28		dB
Power Gain		15		dB
Gain Flatness		±4.0		dB
P1dB - Output 1dB Compression		/		dBm
Psat - Saturated Output Power		40		dBm
PAE-Power Added Efficiency		25		%
Input Return Loss		-8		dB
Output Return Loss		-8		dB

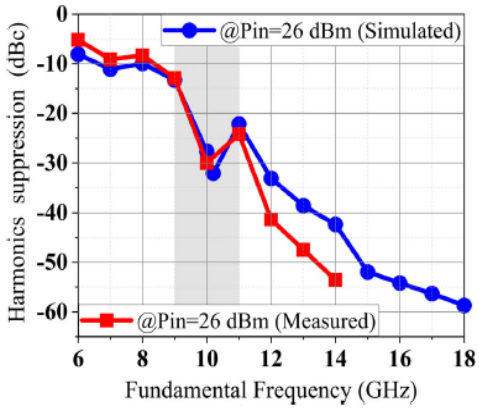
S-parameters vs. Frequency



PAE vs. Frequency



Harmonics Supperssion



Absolute Maximum Ratings

Drain Bias Voltage (VD)	+30V
Gate Bias Voltages(VG)	–5V
RF Input Power (RFIN)@(+28V)	+30dBm
Channel Temperature	225 °C
Junction Temperature	310 °C
Operating Temperature	-55°C to +85 °C
Storage Temperature	-55°C to +175 °C

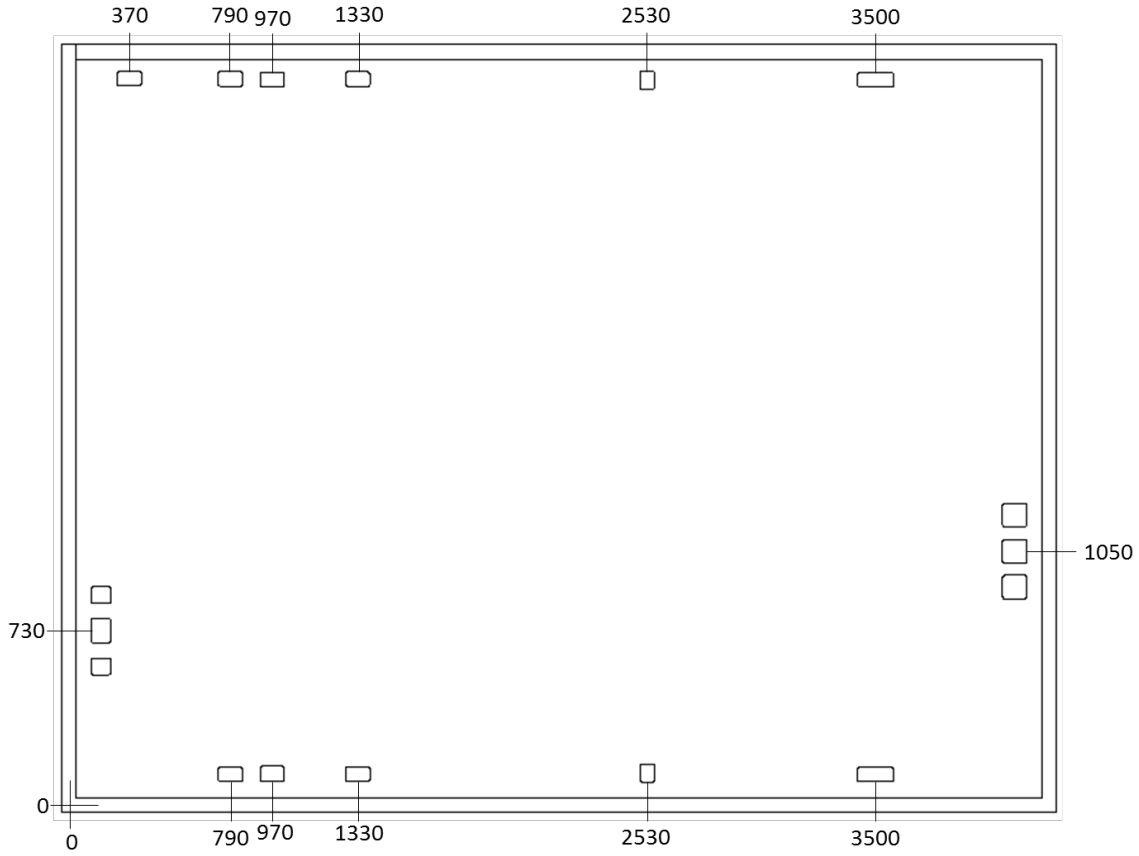
Typical Supply Current vs. VD,VG

VD (V)	VG (V)	IDD (mA)
+28	-1.6	850

ELECTROSTATIC SENSITIVE DEVICE
OBSERVE HANDLING PRECAUTIONS

Outline Drawing:

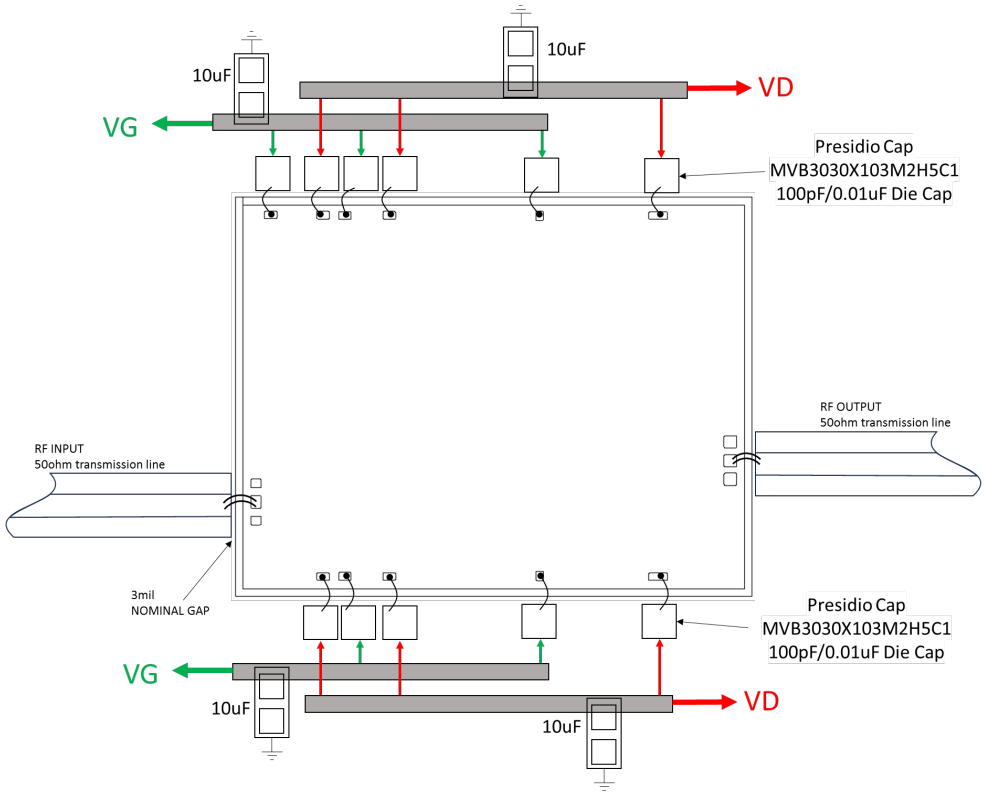
All Dimensions in µm



Notes:

1. **Die size: 4200*3150 µm**
2. **Input RF Pad size : 100*85 µm**
3. **Output RF Pad size: 100*100 µm**
4. **VG1,2 pad size : 100*62 µm**
5. **VD1,2 pad size : 100*62 µm**
6. **VG3 pad size : 63*75 µm**
7. **VD3 pad size : 150*62 µm**
8. **GSG: 150 µm**
9. **Bond pad metalization: Gold**
10. **Backside metalization: Gold**

Assembly Drawing



No.	Mnemonic	Description
1	RF IN	Signal input terminal, connected to 50Ω circuit.
2	RF OUT	Signal output terminal, connected to 50Ω circuit.
3	VD	Drain voltage, bias network is required; see Application Circuit on.
4	VG	Gate voltage, bias network is required; see Application Circuit on.
5	Die Bottom	Die bottom must be connected to RF and dc ground.