

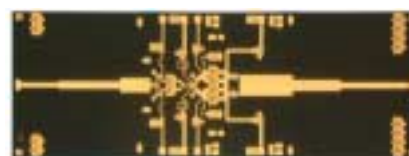
-Preliminary-

6 – 18 GHz 28dBm PA MMIC

FEATURES

- P_{1dB} : 28 dBm
- Small Signal Gain: 12 dB
- Bias Condition: 450 mA @ 7 V

PHOTO ENLARGEMENT



DESCRIPTION

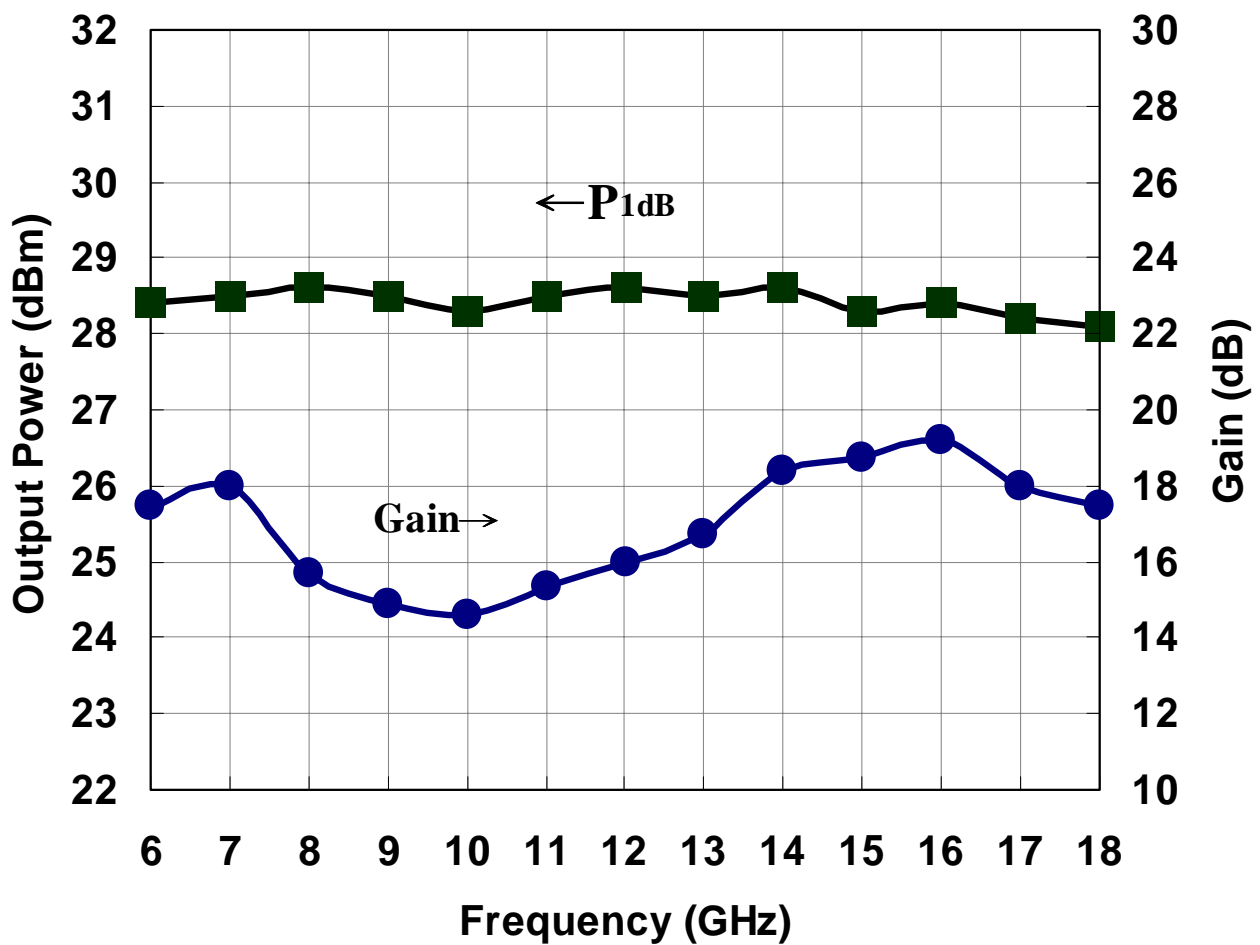
The TC1902 is a two stages PHEMT high power amplifier MMIC that operates from 6 to 18 GHz. The amplifier provides a typical 12 dB of gain and delivers 28 dBm of P_{1dB} . The MMIC is fabricated using Transcom's proprietary matured GaAs PHEMT process. The process features full passivation for increased performance and reliability. All devices are 100 % DC tested to assure consistent quality. Bond pads are gold plated for either thermocompression or thermosonic wire bonding. Backside gold plating is compatible with standard AuSn die-attach.

ELECTRICAL SPECIFICATIONS (Ta = 25 °C)

| SYMBOL | DESCRIPTION | MIN | TYP | MAX | UNITS |
|------------------|---------------------------------------|-----|-------|-----|-------|
| FREQ | Frequency Range | 6 | | 18 | GHz |
| SSG | Small Signal Gain | | 12 | | dB |
| P1dB | Output Power at 1 dB Gain Compression | | 28 | | dBm |
| VSWR, IN | Input VSWR | | 2.5:1 | | - |
| VSWR, OUT | Output VSWR | | 3:1 | | - |
| VDD | Supply Voltage | | 7 | | Volt |
| Vg | Gate Voltage | | -0.7 | | Volt |
| IDD | Current Supply without RF | | 450 | | mA |
| IDRF | Current Supply @ Pout = P_{1dB} | | 470 | | mA |

TYPICAL CHARACTERISTICS

Pout VS Freq. & Gain VS Freq.



ASSEMBLY DIAGRAM

