

## Preliminary DATA SHEET

# GDM1828: 1805 to 1880MHz High Efficiency 28dBm Power Amplifier

### Product overview

GDM1828 is a three-stage HBT general purpose power amplifier working at 1805~1880MHz (band 3) with on-chip PA enable controller and temperature compensation circuits. This high-efficiency and DPD-friendly PA can deliver up to 28dBm average output power and 37dBm peak power using 20MHz LTE signal (9.5dB PAR @ 0.01% CCDF). The product input and output are both internally matched to 50Ohm.

### Key Features

- 1805MHz – 1880MHz
- 36dB Gain
- 35% PAE at 28dBm output power
- Below -31dBc ACPR at 28dBm output power
- Higher than 37dBm peak power
- Wide instantaneous BW DPD friendly design
- Input/output internally matched to 50Ohm
- On-chip PA enable controller and temperature compensation circuits
- Compact and low-cost 5mm x 5mm LGA package (MSL3, 260°C per JEDEC J-STD-020)
- ESD Level: HBM 1000V; CDM 2000V

### Applications

- FDD and TDD 2G/3G/4G LTE/5G NR systems
- 3GPP band 3 small-cell base stations
- Driver amplifier for micro-base and macro-base stations
- Active antenna array and massive MIMO
- Customer Premises Equipment (CPE)

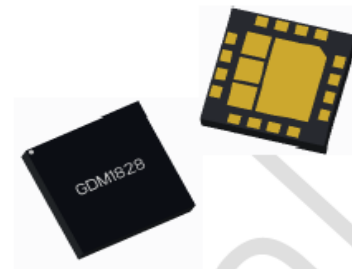


Figure 1. 16 Pad 5 x 5 mm Laminate Package

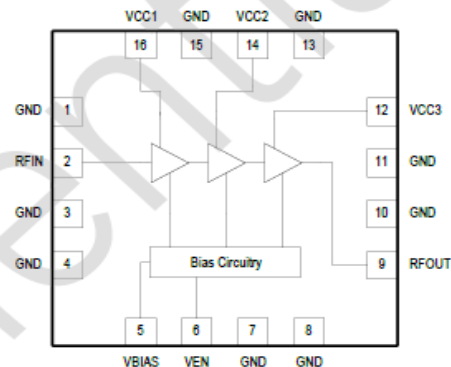


Figure 2. GDM1828 Function Block Diagram

Table 1. Pin-to-Pin Compatible PA Family

| Part Num | Frequency (MHz) | 3GPP Band      |
|----------|-----------------|----------------|
| GDM0628  | 617-652         | B71, n71       |
| GDM0728  | 728-821         | B20, n20       |
| GDM0928  | 869-960         | B5, B8, n5, n8 |
| GDM2128  | 2110-2170       | Band 1, n1     |
| GDM2428  | 2300-2400       | Band 40, n40   |
| GDM2628  | 2496-2690       | Band 41, n41   |
| GDM3528  | 3300-3600       | Band 42, n78   |
| GDM3728  | 3400-3800       | Band 42, n78   |
| GDM4028  | 3700-4000       | C-band, n77    |
| GDM5028  | 4600-5000       | n79            |

### Ordering Information

| Part No. | Description                                           |
|----------|-------------------------------------------------------|
| GDM1828  | 1805-1880MHz High efficiency PA, 7' Reel with 1500pcs |