

## Preliminary DATA SHEET

# GDM0728: 728 to 821MHz High Efficiency 28dBm Power Amplifier

### Product overview

GDM0728 is a two-stage HBT general purpose power amplifier working at 728~821 MHz (Band n12, n20) 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 36dBm peak power using 20MHz LTE signal (8.5dB PAR @ 0.01% CCDF). The product input and output are both internally matched to 50Ohm.

### Key Features

- 728MHz – 821MHz
- 30dB Gain
- 33% PAE at 28dBm output power
- Below -34dBc ACPR at 28dBm output power
- Higher than 36dBm 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 and 5G NR systems
- 3GPP band B20, 5G n20 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

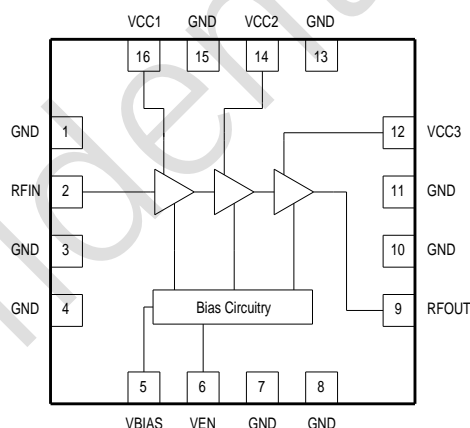


Figure 2. GDM0728 Function Block Diagram

Table 1. Pin-to-Pin Compatible PA Family

Part Num	Frequency (MHz)	3GPP Band
GDM0628	617-652	B71, n71
GDM0928	869-960	B5, B8, n5, n8
GDM1828	1805-1880	Band 3, n3
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
GDM5028	4600-5000	n79

### Ordering Information

Part No.	Description
GDM0728	728-821MHz High efficiency PA, 7' Reel with 1500pcs