

## General Description

The EXP8603 is a GaAs MMIC power amplifier designed for 50-Ohm systems, and specified for operation in the 81 to 86 GHz range of E-Band.

The EXP8603 enables delivery of 25.5 dBm RF output power when driven to 3 dB of gain compression, and maintains good linearity well below the onset of gain compression. Typical small-signal gain is 18 dB with flatness of  $\pm 0.6$  dB over a 1.25 GHz window. DC power consumption is as low as 1.9 W.

The EXP8603 also provides a built-in E-Band power detector, and internally de-couples DC from RF input and output ports to simplify system-level design.

## Applications

- Point-to-point E-band radios
- Test and measurement equipment

## Device Diagram

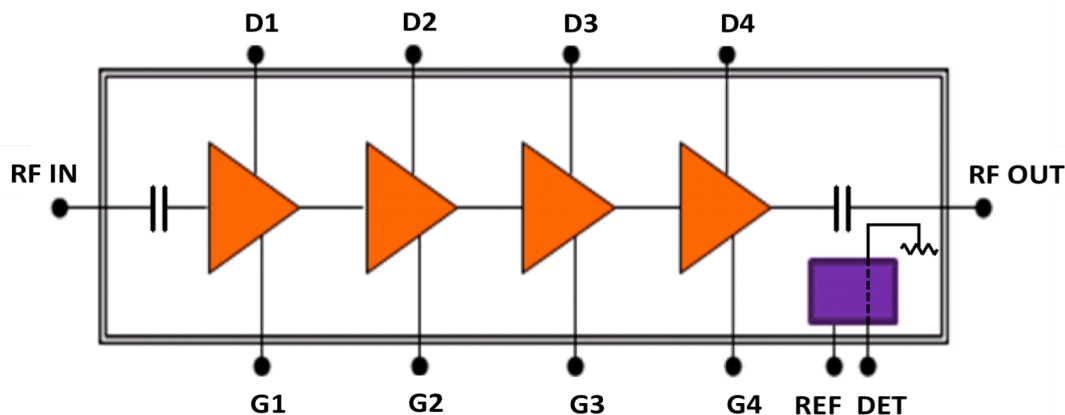


Figure 1: Device diagram

## Features

- 81 to 86 GHz Frequency Range
- 18 dB Nominal Gain
- 33 dBm Nominal  $IP_3$
- 24 dBm Nominal  $P_{-1dB}$
- 25.5 dBm Nominal  $P_{-3dB}$
- 4 V, 474 mA Nominal Quiescent Drain Bias
- 4.17 mm × 1.87 mm Die Size

## Ordering Information

Part	Description
EXP8603-DNT	RoHS compliant bare die in gel packs

For price, delivery schedules, and to place orders, please contact IDT: [www.IDT.com/go/sales](http://www.IDT.com/go/sales)

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