

General Description

The EXP8602 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 EXP8602 enables delivery of 23 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 19 dB with flatness of ± 0.75 dB over a 1.25 GHz window. DC power consumption is as low as 2.2 W.

The EXP8602 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

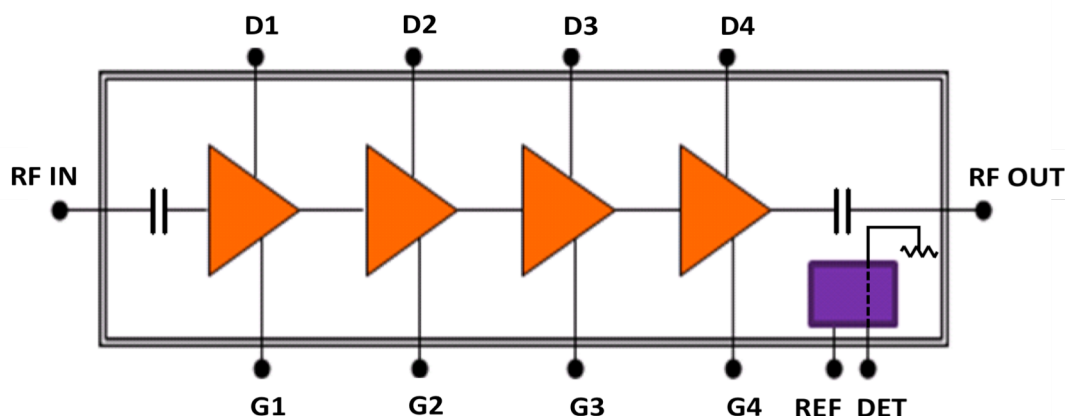


Figure 1: Device diagram

Features

- 81 to 86 GHz Frequency Range
- 19 dB Nominal Gain
- 32.5 dBm Nominal IP_3
- 21.5 dBm Nominal P_{-1dB}
- 23 dBm Nominal P_{-3dB}
- 4 V, 550 mA Nominal Quiescent Drain Bias
- 4.17 mm $\times$ 1.87 mm Die Size

Ordering Information

Part	Description
EXP8602-DNT	RoHS compliant bare die in gel packs

For price, delivery schedules, and to place orders, please contact IDT: www.IDT.com/go/sales

**Corporate Headquarters**

6024 Silver Creek Valley Road
San Jose, CA 95138

www.IDT.com

Sales

1-800-345-7015 or 408-284-8200
Fax: 408-284-2775

www.IDT.com/go/sales

Tech Support

www.IDT.com/go/support

DISCLAIMER Integrated Device Technology, Inc. (IDT) and its affiliated companies (herein referred to as "IDT") reserve the right to modify the products and/or specifications described herein at any time, without notice, at IDT's sole discretion. Performance specifications and operating parameters of the described products are determined in an independent state and are not guaranteed to perform the same way when installed in customer products. The information contained herein is provided without representation or warranty of any kind, whether express or implied, including, but not limited to, the suitability of IDT's products for any particular purpose, an implied warranty of merchantability, or non-infringement of the intellectual property rights of others. This document is presented only as a guide and does not convey any license under intellectual property rights of IDT or any third parties.

IDT's products are not intended for use in applications involving extreme environmental conditions or in life support systems or similar devices where the failure or malfunction of an IDT product can be reasonably expected to significantly affect the health or safety of users. Anyone using an IDT product in such a manner does so at their own risk, absent an express, written agreement by IDT.

Integrated Device Technology, IDT and the IDT logo are trademarks or registered trademarks of IDT and its subsidiaries in the United States and other countries. Other trademarks used herein are the property of IDT or their respective third party owners. For datasheet type definitions and a glossary of common terms, visit www.idt.com/go/glossary. All contents of this document are copyright of Integrated Device Technology, Inc. All rights reserved.