A Microchip Technology Company

2.4 GHz High-Power, High-Gain Power Amplifier
SST12LP15B

Product Brief

The SST12LP15B is a versatile power amplifier based on the highly-reliable InGaP/GaAs HBT technology. Easily configured for high-power applications with excellent power-added efficiency while operating over the 2.4- 2.5 GHz frequency band, it typically provides 32 dB gain with 34% power-added efficiency. The SST12LP15B has excellent linearity while meeting 802.11g spectrum mask at 24 dBm. The SST12LP15B also features easy board-level usage along with high-speed power-up/down control through a single combined reference voltage pin and is offered in a 16-contact VQFN package.

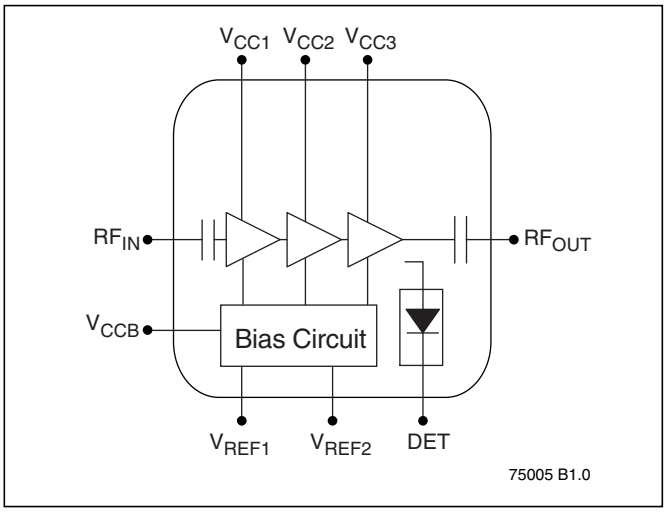
Features

- **High Gain:**
  - More than 32 dB gain across 2.4–2.5 GHz over temperature -40°C to +85°C
- **High linear output power (at 3.3V):**
  - >29 dBm P1dB
  - Meets 802.11g OFDM ACPR requirement up to 26 dBm
  - ~3% added EVM up to 22 dBm for 54 Mbps 802.11g signal
  - Meets 802.11b ACPR requirement up to 25.5 dBm
- **High power-added efficiency/Low operating current for 802.11b/g/n applications**
- **Low Shut-down Current (~2µA)**
- **High temperature stability**
  - ~1 dB gain/power variation between 0°C to +85°C
  - ~2 dB gain/power variation between -40°C to +85°C
- **Temperature and load insensitive on-chip power detector**
  - 20 dB dynamic range
- **Packages available**
  - 16-contact VQFN – 3mm x 3mm x 0.9mm
- **All non-Pb (lead-free) devices are RoHS compliant**

Applications

- **WLAN (IEEE 802.11b/g/n)**
- **Home RF**
- **Cordless phones**
- **2.4 GHz ISM wireless equipment**

Block Diagram



Product Ordering

Valid combinations for SST12LP15B

SST12LP15B-QVCE

SST12LP15B Evaluation Kits

SST12LP15B-QVCE-K

Note: Valid combinations are those products in mass production or will be in mass production. Consult your SST sales representative to confirm availability of valid combinations and to determine availability of new combinations.

Contact Information

Thank you for your interest in Microchip RF products. The data sheet for this device contains proprietary information. To obtain a copy of the data sheet, contact your local Microchip sales representative or distributor at the link below.

Global Sales and Distribution

Table 1: Revision History

Revision	Description	Date
A	• Initial release of Product Brief	Apr 2011
B	• Added Contact Information	Jun 2011

ISBN:978-1-61341-339-5

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Specifications are subject to change without notice. Refer to www.microchip.com for the most recent documentation. For the most current package drawings, please see the Packaging Specification located at http://www.microchip.com/packaging.

Memory sizes denote raw storage capacity; actual usable capacity may be less.

SST makes no warranty for the use of its products other than those expressly contained in the Standard Terms and Conditions of Sale.

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