



2.4 GHz High-Efficiency, High-Gain Power Amplifier Module

SST12LP14E

Product Brief

SST12LP14E is a high-efficiency, ultra-compact power amplifier (PA) based on the highly-reliable InGaP/GaAs HBT technology. Designed to operate over the 2.4 - 2.5 GHz frequency band, SST12LP14E typically provides 23.5 dB gain with 33% power-added efficiency at 22 dBm output. This power amplifier has excellent linearity while meeting 802.11g spectrum mask requirements up to 22 dBm. The device typically consumes only 95 mA total current at 18 dBm output power, with linear 54 Mbps 802.11g modulation. This efficiency is desirable in embedded applications such as in hand-held units. The SST12LP14E 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 both 6- and 8-contact XSON packages.

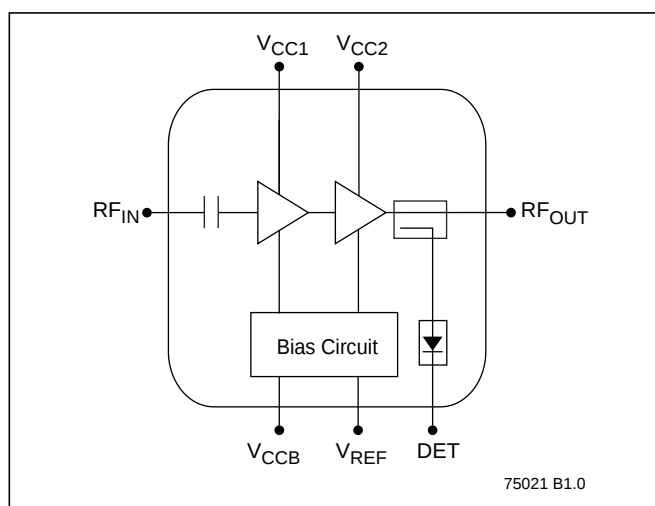
Features

- **Excellent RF Stability with Moderate Gain:**
 - Typically 23.5 dB gain across 2.4 – 2.5 GHz
- **High Linear Output Power (at 3.3V):**
 - Meets 802.11g OFDM ACPR requirement up to 22 dBm
 - ~2.5% added EVM up to 18 dBm for 54 Mbps 802.11g signal
 - Meets 802.11b ACPR requirement up to 22 dBm
- **High Power-added Efficiency/Low Operating Current for 802.11b/g/n Applications**
 - ~33% @ $P_{OUT} = 22$ dBm for 802.11g
- **Limited variation over temperature**
 - 2.5 dB gain variation between -40°C to +85°C
 - 1 dB power variation between -40°C to +85°C
- **Low Shut-down Current: <2.5 μ A (typical)**
- **Temperature and load insensitive on-chip power detector**
 - >15dB dynamic range
 - <+/- 0.3dB variation between 0°C to +85°C
 - <+/- 0.4dB variation with 2:1 VSWR mismatch
 - <+/- 0.3dB variation Ch1 through Ch14
- **Simple input/output matching**
- **Packages Available**
 - 6-contact XSON – 1.5mm x 1.5mm
 - 8-contact XSON – 2mm x 2mm
- **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 SST12LP14E

SST12LP14E-QX8E SST12LP14E-QX6E

SST12LP14E Evaluation Kits

SST12LP14E-QX8E-K SST12LP14E-QX6E-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.



A Microchip Technology Company

2.4 GHz High-Efficiency, High-Gain Power Amplifier Module

SST12LP14E

Product Brief

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	Mar 2012

ISBN:978-162076-085-7

© 2012 Silicon Storage Technology, Inc—a Microchip Technology Company. All rights reserved.

SST, Silicon Storage Technology, the SST logo, SuperFlash, MTP, and FlashFlex are registered trademarks of Silicon Storage Technology, Inc. MPF, SQI, Serial Quad I/O, and Z-Scale are trademarks of Silicon Storage Technology, Inc. All other trademarks and registered trademarks mentioned herein are the property of their respective owners.

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.

For sales office locations and information, please see www.microchip.com.

Silicon Storage Technology, Inc.
A Microchip Technology Company
www.microchip.com

Компания «Life Electronics» занимается поставками электронных компонентов импортного и отечественного производства от производителей и со складов крупных дистрибьюторов Европы, Америки и Азии.

С конца 2013 года компания активно расширяет линейку поставок компонентов по направлению коаксиальный кабель, кварцевые генераторы и конденсаторы (керамические, пленочные, электролитические), за счёт заключения дистрибьюторских договоров

Мы предлагаем:

- Конкурентоспособные цены и скидки постоянным клиентам.
- Специальные условия для постоянных клиентов.
- Подбор аналогов.
- Поставку компонентов в любых объемах, удовлетворяющих вашим потребностям.
- Приемлемые сроки поставки, возможна ускоренная поставка.
- Доставку товара в любую точку России и стран СНГ.
- Комплексную поставку.
- Работу по проектам и поставку образцов.
- Формирование склада под заказчика.
- Сертификаты соответствия на поставляемую продукцию (по желанию клиента).
- Тестирование поставляемой продукции.
- Поставку компонентов, требующих военную и космическую приемку.
- Входной контроль качества.
- Наличие сертификата ISO.

В составе нашей компании организован Конструкторский отдел, призванный помогать разработчикам, и инженерам.

Конструкторский отдел помогает осуществить:

- Регистрацию проекта у производителя компонентов.
- Техническую поддержку проекта.
- Защиту от снятия компонента с производства.
- Оценку стоимости проекта по компонентам.
- Изготовление тестовой платы монтаж и пусконаладочные работы.



Тел: +7 (812) 336 43 04 (многоканальный)

Email: org@lifeelectronics.ru

www.lifeelectronics.ru