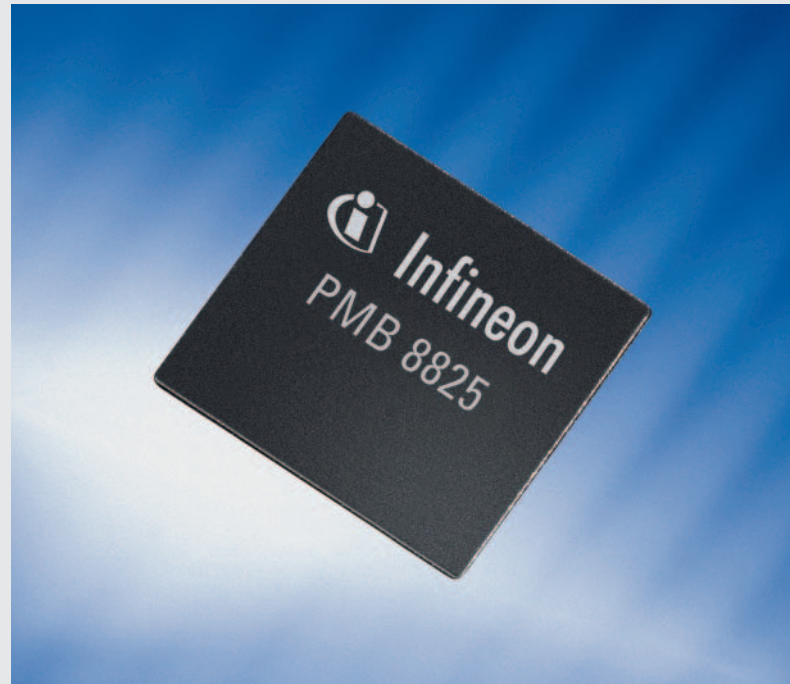


Dual-Band Power Amplifier for WLAN Systems

The Infineon dual-band Power Amplifier PMB 8825 is an extremely linear, high power SiGe amplifier for Wireless LAN applications and is fully compliant with IEEE802.11a, 11b and 11g standards with data rates up to 54 Mbit/s in 802.11a and 11g mode.

The PMB 8825 is designed to form an Infineon WLAN chipset in combination with the PMB 8680 dual-band RF Transceiver, the PMB 8787 dual-band Modem IC (PHY) and the PMB 8789 MAC IC.



WirelessLAN

Features

- Enhanced bipolar technology (SiGe)
- Dual-band and dual-mode solution
- Single +3.3 V supply voltage
- Highly linear PA for OFDM and DSSS/CCK
- Low EVM for 64 QAM/54 Mbit/s
- Low power droop
- Analog power control for both bands
- Digital band select (2.4 GHz/5 GHz)
- Digital standby mode
- Integrated power detector with buffer for power control loop
- Operating ambient temperature: -40 ... +85°C
- Small size VQFN-24 package with heat sink

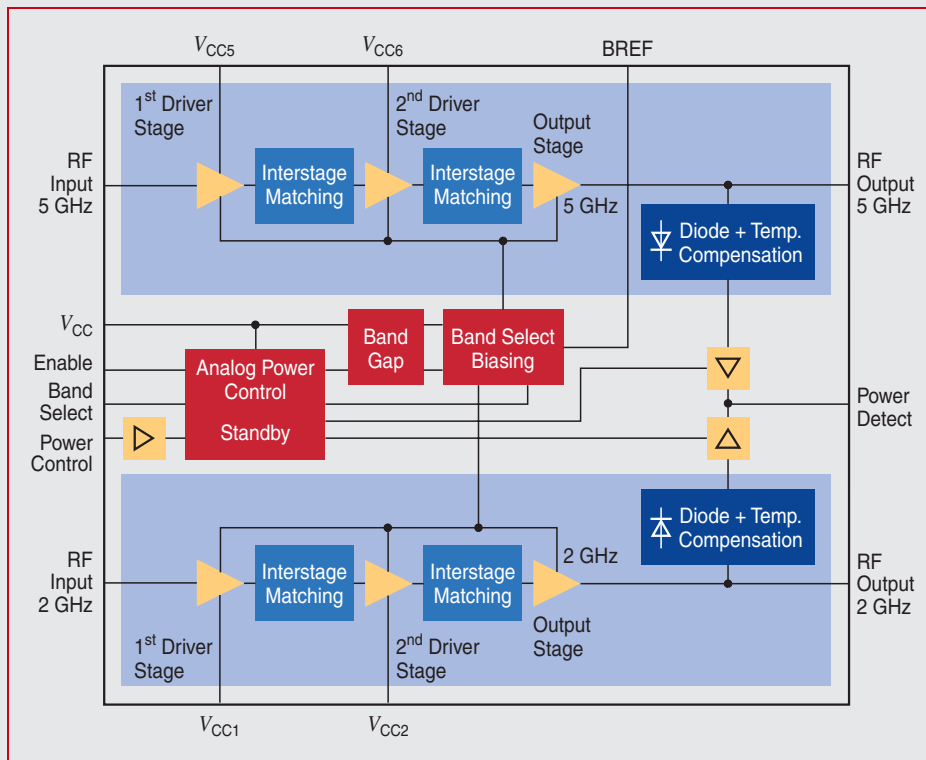
Applications

- High data-rate wireless LAN
- PC card wireless LAN adapters
- (Mini) PCI wireless LAN cards
- CardBus wireless LAN adapters
- Compact flash wireless LAN cards
- USB wireless LAN adapters
- Wireless LAN modules, access points, bridge products, and point-to-multipoint systems

P M B 8 8 2 5
Dual-Band Power Amplifier



N e v e r s t o p t h i n k i n g .

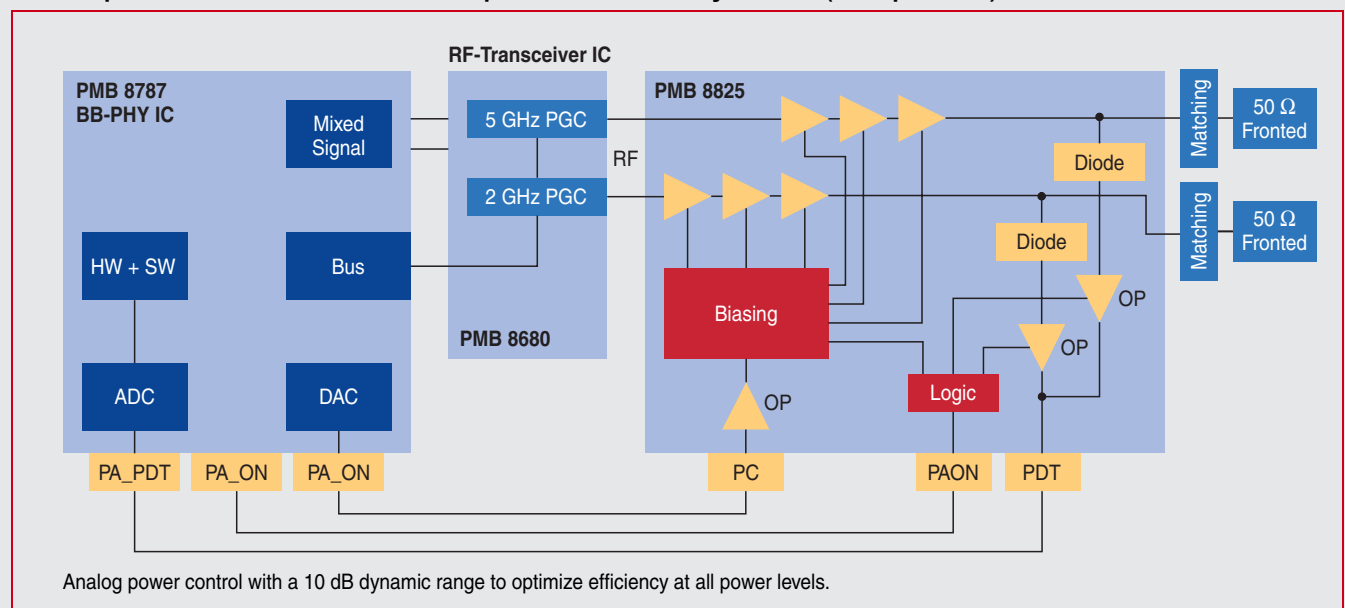


Block Diagram

Frequency Bands

- 2.4 GHz ... 2.5 GHz Band
 - $P_{\text{sat}} = 30 \text{ dB}$
 - $P_{1\text{dB}} = 27 \text{ dBm}$
 - Gain = 31 dB
- 5.15 GHz ... 5.825 GHz Band
 - $P_{\text{sat}} = 27 \text{ dBm}$
 - $P_{1\text{dB}} = 24 \text{ dBm}$
 - Gain = 22 dB

Example: Power Control Loop for WLAN System (simplified)



Type	Sales Code	Package
WLAN Power Amplifier	PMB 8825	P-VQFN-24

How to reach us:

<http://www.infineon.com>

Published by
Infineon Technologies AG,
St.-Martin-Strasse 53,
81669 München

© Infineon Technologies AG 2003. All Rights Reserved.

Attention please!

The information herein is given to describe certain components and shall not be considered as warranted characteristics.

Terms of delivery and rights to technical change reserved.

We hereby disclaim any and all warranties, including but not limited to warranties of non-infringement, regarding circuits, descriptions and charts stated herein.

Infineon Technologies is an approved CECC manufacturer.

Information

For further information on technology, delivery terms and conditions and prices please contact your nearest Infineon Technologies Office in Germany or our Infineon Technologies Representatives worldwide.

Warnings

Due to technical requirements components may contain dangerous substances. For information on the types in question please contact your nearest Infineon Technologies Office.

Infineon Technologies Components may only be used in life-support devices or systems with the express written approval of Infineon Technologies, if a failure of such components can reasonably be expected to cause the failure of that life-support device or system, or to affect the safety or effectiveness of that device or system. Life-support devices or systems are intended to be implanted in the human body, or to support and/or maintain and sustain and/or protect human life. If they fail, it is reasonable to assume that the health of the user or other persons may be endangered.