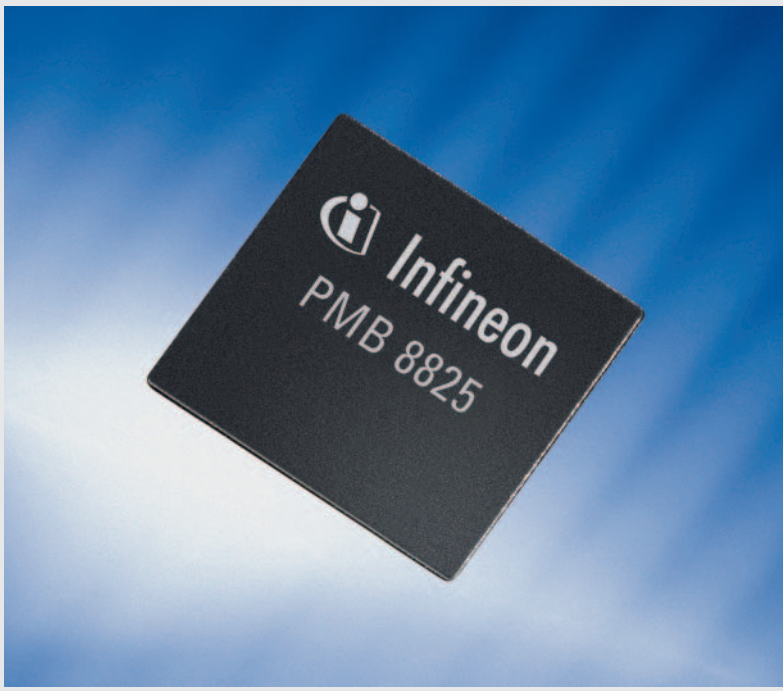
Dual-Band Power Amplifier for WLAN Systems

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.



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

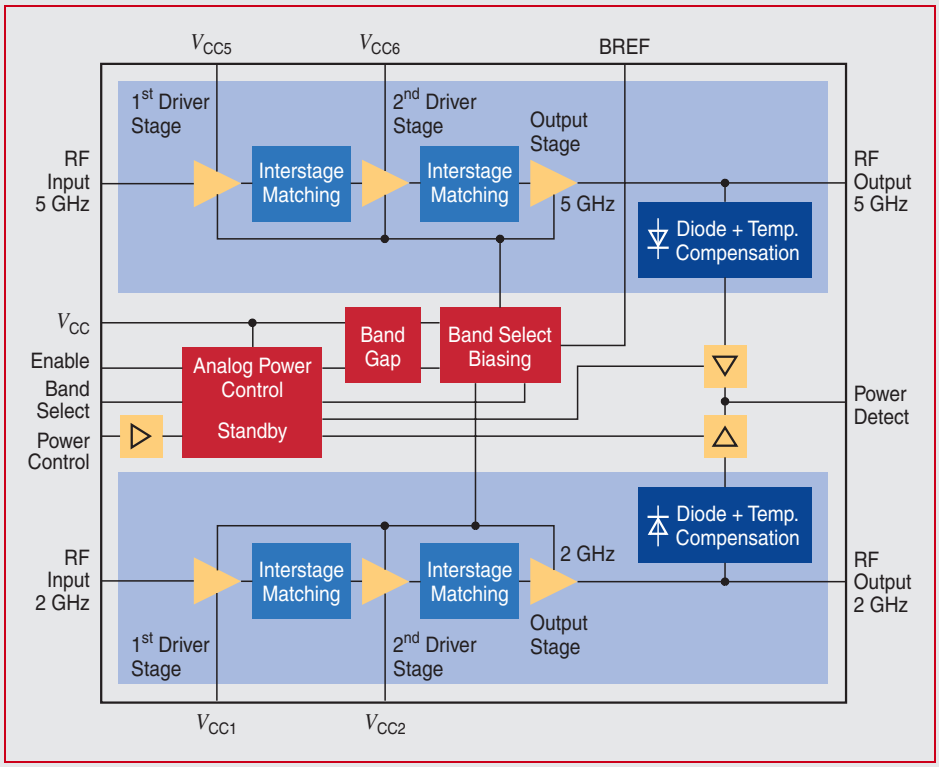
- High data-rate wireless LAN
- PC card wireless LAN adapters
- (Mini) PCI wireless LAN cards
- CardBus wireless LAN adapters
- Compact flash wireless LAN cards
- USB wireless LAN adapters
- Wireless LAN modules, access points, bridge products, and point-to-multipoint systems

PMB 8825

Dual-Band Power Amplifier

Infineon technologies

Never stop thinking.

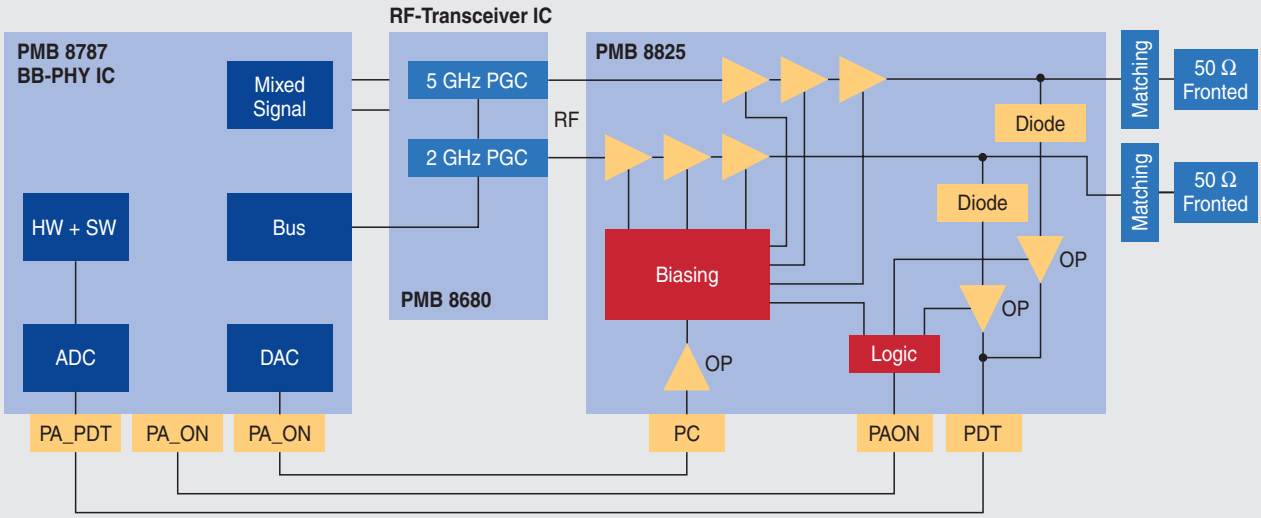


Block Diagram

Frequency Bands

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

Example: Power Control Loop for WLAN System (simplified)



Analog power control with a 10 dB dynamic range to optimize efficiency at all power levels.

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

How to reach us:
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