

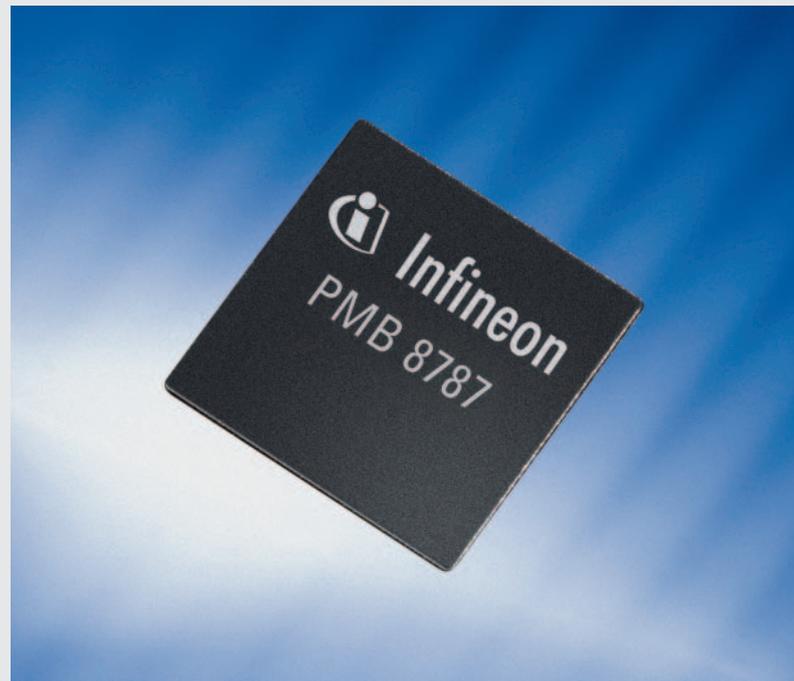
Dual-Band Modem IC (PHY) for WLAN System Solutions

The PMB 8787 provides the complete modem functionality for a dual-band wireless LAN chipset.

It contains the signal processing functionality for both the DSSS/CCK and the OFDM modulation/demodulation needed for an 802.11a/b/g compliant system.

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

The device is fabricated in an advanced 0.13 μm CMOS-technology and will be available in a LFBGA-81 package.



WirelessLAN

Features

- Advanced low power CMOS technology
- Supply voltage 3.3 V for MAC/RF interface and 1.5 V for core and analog supply
- Full support of 802.11a (54 Mbit @ 5 GHz) OFDM
- Full support of 802.11g (54 Mbit @ 2.4 GHz) OFDM
- Market proven 802.11b CCK/DSSS signal processing
- Data flow/low power architecture
- Radar/CW Detection (802.11h)
- Adaptive data rate selection due to SNR measurement
- Channel selection due to silence measurement
- Proven high performance mixed signal blocks (ADC/DAC, PLL)
- Low power A/D Converter

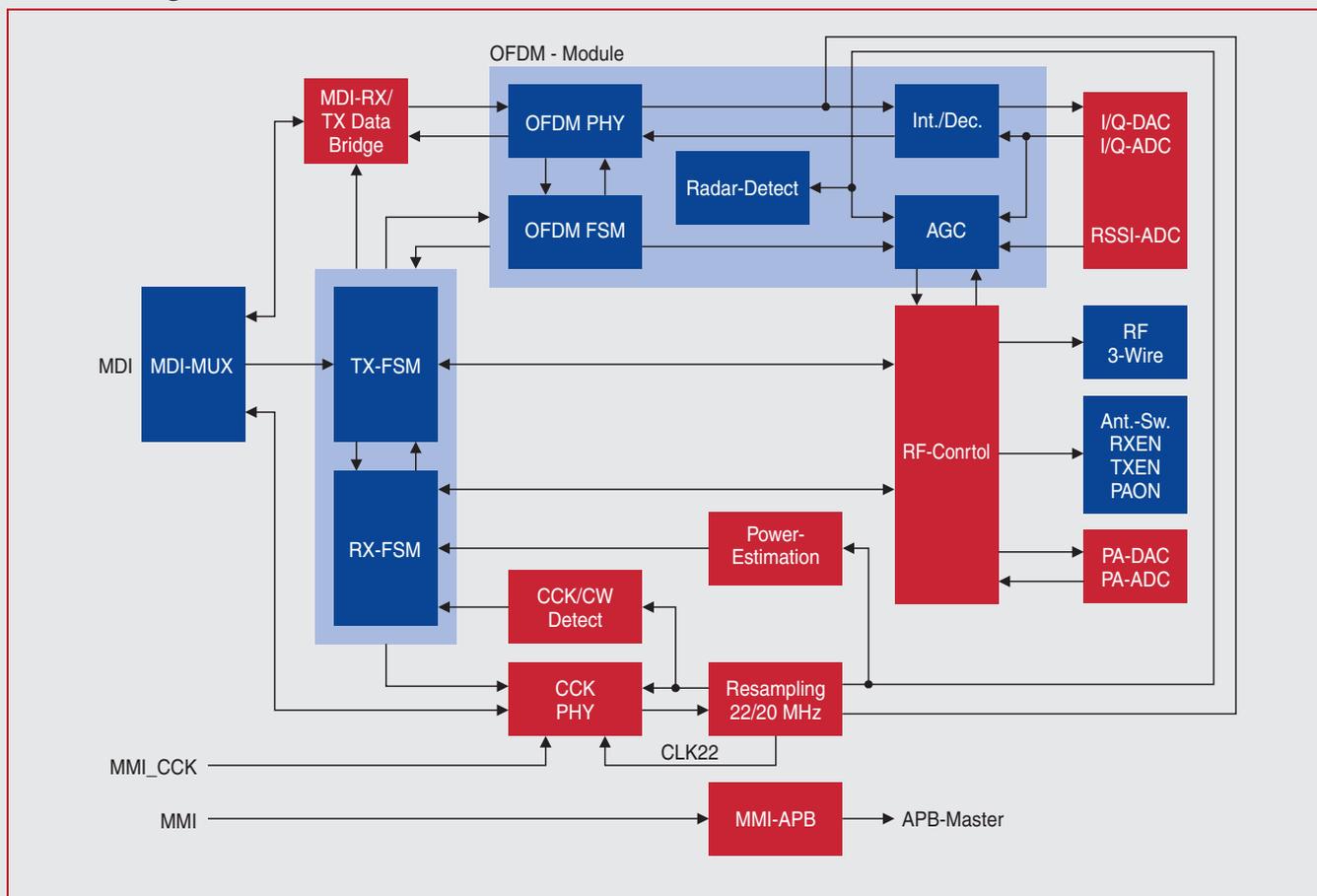
Applications

- 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 7 8 7
Dual-Band Modem IC (PHY)



Block Diagram



Features

- Modem data interface (MDI) to WLAN MAC controller, PMB 8789
- Modem management interface (MMI) to WLAN MAC controller, PMB 8789
- Serial 3 wire control interface to dual-band RF transceiver PMB 8680
- Analog RX/TX IQ-interface
- JTAG Test Access Port (TAP)
- Engineering test interface for real time debugging
- Parallel control RF-port
- Integrated PLL
- Support of OFDM modulation/demodulation 6/9/12/18/24/36/54 Mbit/s rate according to 802.11a/g standard
- Interpolation/Decimation
- Automatic gain control
- Channel tracking
- Supports DSSS/CCK for 1/2/5.5 and 11 Mbit/s rate according 802.11b standard
- Simultaneous DSSS-/CCK- and OFDM-preamble detection for 802.11g operation

Ordering Information

Please contact the local Infineon sales office for dedicated information on our Wireless LAN products

Type	Sales Code	Package
WLAN 802.11a/g PHY	PMB 8787	P-LFBGA-81

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.