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.

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 date 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

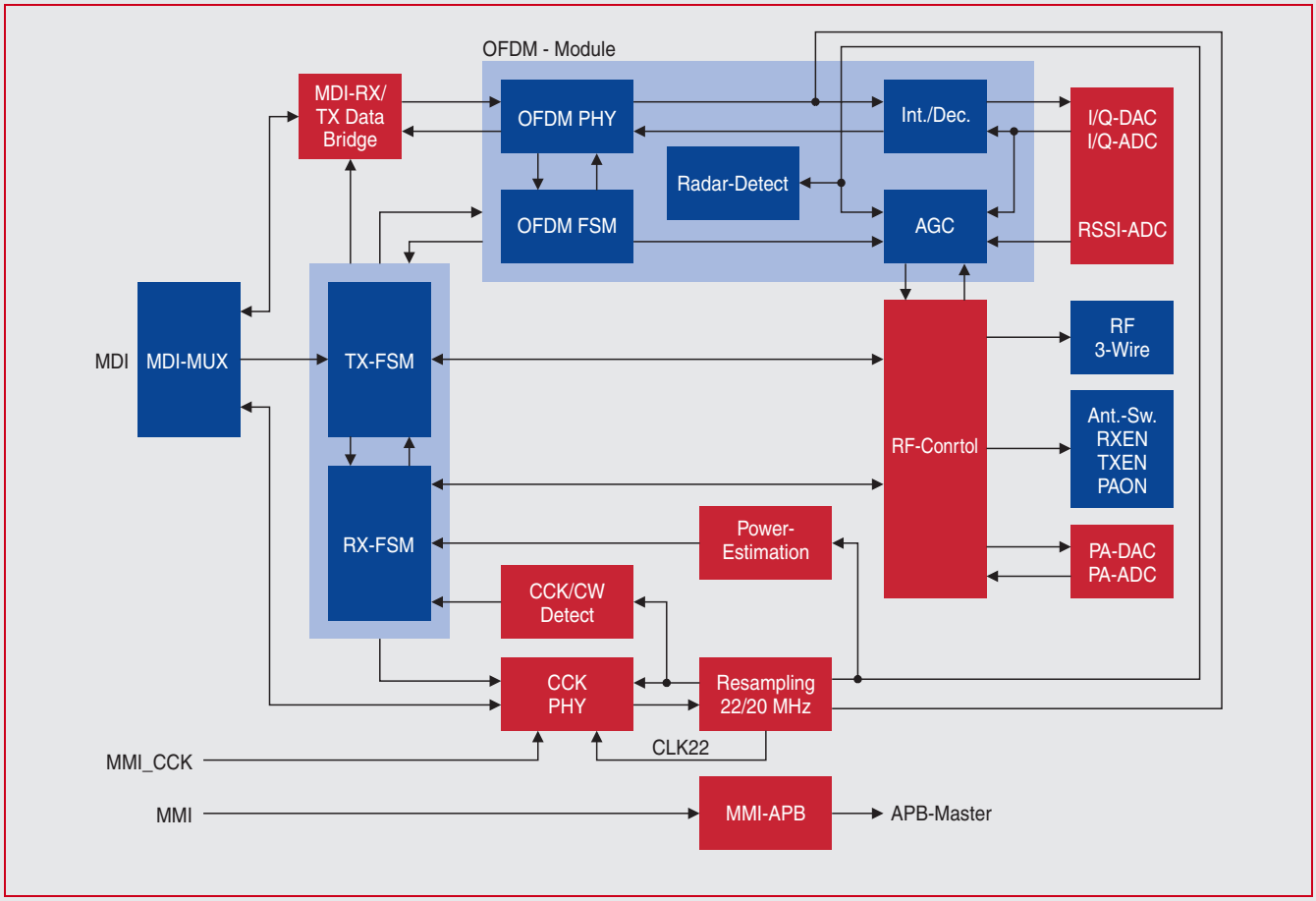
- High data-rate wireless LAN
- PC card wireless LAN adapters
- (Mini) PCI wireless LAN cards
- CardBus wireless LAN adapters
- Compact flash wireless LAN cards
- USB wireless LAN adapters
- Wireless LAN modules, access points, bridge products, and point-to-multipoint systems

PMB 8787

Dual-Band Modem IC (PHY)

Infineon technologies

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

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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.

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