

LMX9830 – Optimized Bluetooth solution for cable replacement and voice applications

National Semiconductor. Powering the Wireless World



Bluetooth

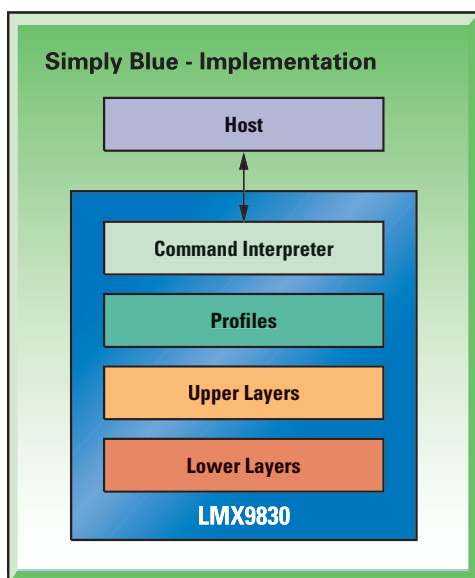
National Semiconductor Bluetooth Wireless Solutions

Everyone wants to be connected. At home. At work. At play. And National Semiconductor is pioneering wireless solutions across the board.

From high-performance, optimized ICs to modules, from fully developed accessories to complete reference designs— National's Bluetooth technology is enabling wireless communications anytime, anywhere.

Bringing you a world of fast and secure wireless connectivity between consumer electronics, information appliances, cellular phones, PCs, and peripherals – National is at the forefront of Bluetooth innovation, making tomorrow's technology a reality today.

Today, National Semiconductor is making Bluetooth® technology easier to adopt than ever before. With National's Simply Blue family of modules, customers can obtain fully-integrated, easy-to-use Bluetooth solutions designed to meet their application-specific needs.



Each module in the Simply Blue family includes a complete embedded Bluetooth protocol stack, application-specific profiles, and a high-level command interpreter. The high-level command set effectively removes the need for Bluetooth expertise. Moreover, as the entire Bluetooth Stack and Profiles run in the module (not on the host processor), the host processor task loading for Bluetooth is rendered negligible and porting Bluetooth technology to proprietary host operating systems is no longer required.

Technical Specifications

To simplify and accelerate the design cycle, National's Simply Blue modules are supported by a comprehensive development suite including demo boards and detailed technical support documentation.

LMX9830 – National's latest Simply Blue family member

The LMX9830 integrates a CMOS radio transceiver that delivers the highest level of RF integration available today and a baseband controller with cost efficient ROM memory.

Besides various serial cable replacement applications, the LMX9830 supports all kinds of embedded data and voice oriented applications, by supporting multiple connections with maximum data throughput and synchronous audio links (SCO).

- Bluetooth 2.0 pre-certified serial port module
- Easy to use high level command set – for fast application integration
- Configurable UART speed up to 921.6 kbps
- Very high data throughput over SPP
- Point-to-multipoint piconet support
- LMX9830 offers an automatic slave operation with transparent UART for plug-and-play serial cable applications
- Includes GAP, SPP, and SDAP
- ACL and SCO links
- Small footprint (6 x 9 x 1.2 mm)
- BGA 60 package, 0.8 mm pitch
- Embedded Bluetooth stack and profiles – for minimum host processor intrusion
- Output power Class 2
- Receiver sensitivity – 81 dBm
- Low power consumption

Product design support

Reference design kit LMX9830DONGLE includes

- Complete RS232/UART reference design board
- Audio codec board
- Power supply and cables
- Simply Blue Commander SW
- Simply Blue Smart demo SW
- Full design documentation
- Bluetooth USB dongle and SW



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