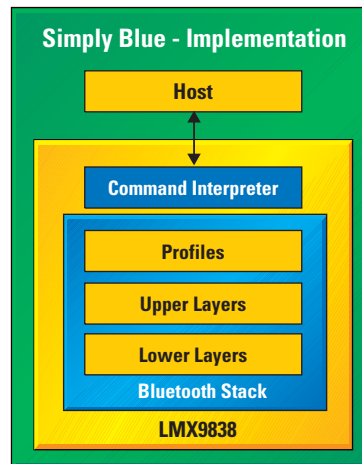


LMX9838 – Optimized Bluetooth® Solution For Cable Replacement and Voice Applications



Today, National Semiconductor is making Bluetooth® technology easier to adopt than ever before. The National Semiconductor LMX9838 Bluetooth Serial Port module is a fully integrated Bluetooth 2.0 baseband controller, 2.4 GHz radio, crystal, antenna, LDO and discrete: combined to form a complete small form factor (10 mm X 17 mm x 2.0 mm) Bluetooth node. 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. With the LMX9838, no RF certifications are required. All FCC, IC, and CE certifications are included.

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.



Applications

- Medical cable replacement
- Industrial cable replacement
- Telemetry
- Automotive diagnostics
- Custom voice audio applications

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.

LMX9838 – National's Latest Simply Blue Family Member

The LMX9838 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 LMX9838 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
- Integrated LDO, EEPROM, antenna, crystal, and all necessary RF circuitry
- Embedded Bluetooth stack and profiles – for minimum host processor intrusion
- Includes GAP, SPP, and SDAP
- ACL and SCO links
- Point-to-multipoint piconet support
- Easy to use high level command set - for fast application integration
- Very high data throughput over SPP
- Configurable UART speed up to 921.6 kbps
- Automatic slave operation with transparent UART for plug-and-play serial cable applications

- Receiver sensitivity - 81 dBm
- Output power Class 2
- Only single power supply required
- Low power consumption
- Small footprint (10 x 17 x 2 mm)
- Leaded grid array for easy surface mount assembly
- All FCC, IC, and CE certifications included - no RF certifications required

Product Design Support

Evaluation Design Kit LMX9838DONGLE Includes

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



Actual size: 10 x 17 x 2 mm

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