

AM/DM37x + WL1271

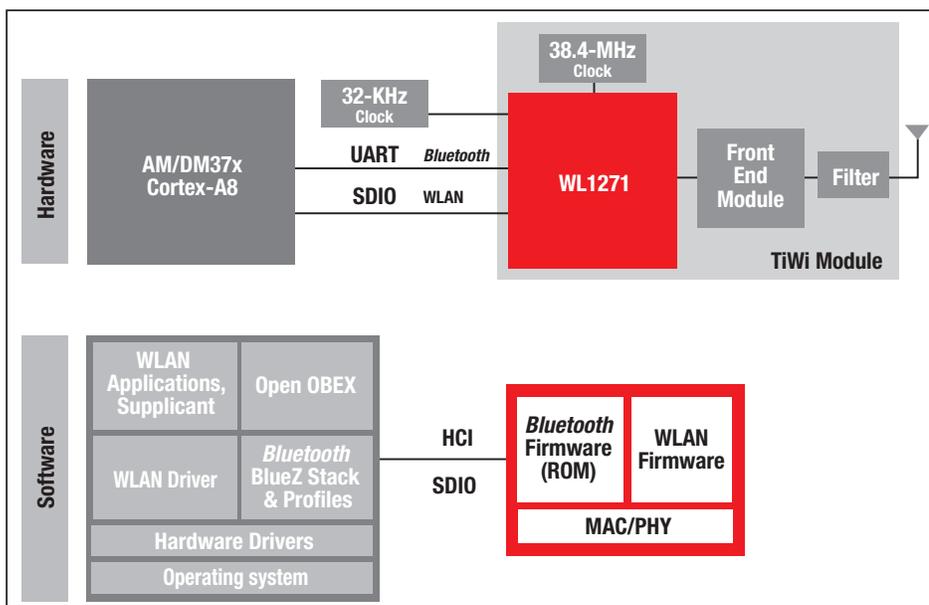
Wi-Fi® & Bluetooth® Platform



Platform features

- WLAN (IEEE 802.11 b/g/n) and *Bluetooth* 2.1 + Enhanced Data Rate (EDR) on a single-chip with best-in-class coexistence technology
- Complete, validated, certified, production-ready module offered by LSR: WL1271-TiWi
- AM/DM37x pre-integrated with WL1271-TiWi module
- Complete system integration including firmware, and low-level drivers
- System level throughput and power optimization including Enhanced Low Power (ELP) technology
- Full-featured evaluation boards for hardware and software prototyping
- Software development kit (SDK) including Linux 2.6.x WLAN drivers, WPA supplicant, OBEX, and BlueZ *Bluetooth* stack
- Sample applications and demos provided, with CLI-based step-by-step instructions to showcase WLAN and *Bluetooth* functionality
- Getting started guides, documentation and support: www.ti.com/connectivitywiki
- TI's proven 6th generation WLAN technology allows secure, high-throughput, reliable Wi-Fi® connectivity of electronic devices to each other, the Internet, and to wired networks
- TI's 7th generation *Bluetooth* technology supports low power applications in personal area networks
- Coexistence technology provides an unlimited bus for intelligent coordination and bandwidth allocation between WLAN and *Bluetooth* cores
- ELP extends power efficiency and battery life of end product
- WL1271-TiWi module lowers manufacturing and operating costs, saves board space, eases certification, and minimizes RF expertise required
- Pre-integration of host processor and WLAN/*Bluetooth* module simplifies and reduces hardware and software development, allowing faster time-to-market
- Evaluation tools allow for extensive prototyping and development of applications that require WLAN and *Bluetooth* connectivity

Platform benefits



▲ WL1271-TiWi WLAN and Bluetooth® system

Key features:

WL1271-TiWi

- IEEE 802.11 b/g/n compliant
- Typical WLAN Transmit power:
 - +20 dBm , 11 Mbps, CCK (b)
 - +14.5 dBm , 54 Mbps, OFDM (g)
 - +12.5 dBm, 65 Mbps, OFDM (n)
- Typical WLAN Receiver sensitivity:
 - -89 dBm , 11 Mbps
 - -76 dBm , 54 Mbps
 - -73 dBm, 65 Mbps
- *Bluetooth*® v2.1 + EDR
 - Increased *Bluetooth* transmit power: +9.5 dBm
 - -92 dBm Receiver sensitivity
- Best-in-class coexistence technology on a single-chip
- Enhanced low power (ELP) technology
- On board TCXO, power regulation, and U.FL antenna connector
- Software-upgradable for ANT & *Bluetooth* low energy (BLE)
- FCC/IC/CE certified
- Dimensions: 13 mm x 18 mm x 1.9 mm

AM/DM37x ARM Cortex-A8

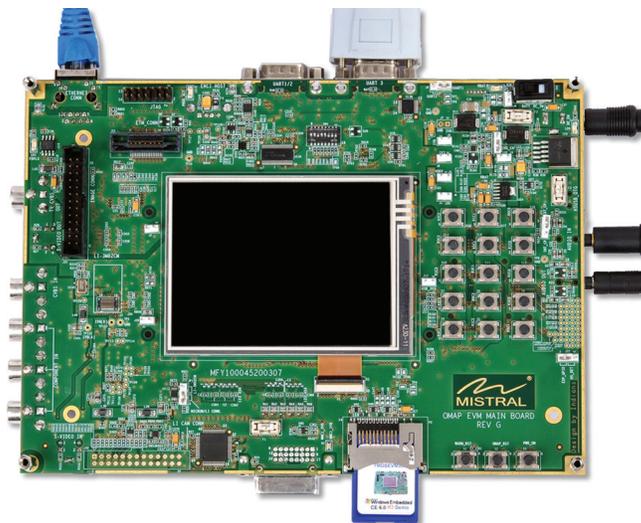
- Up to 1-GHz Cortex-A8 with NEON™ coprocessor
- 3D graphics accelerator (3715)
- 64 KB SRAM on chip
- LPDDR and NAND interface
- USB HS Host x 3, 2.0 OTG
- MMC/SD card interface x 3

Hardware and software development

WL1271 + AM/DM37x platform

Hardware

- AM/DM37x EVM :
 - 1GHz ARM Cortex™-A8
 - 256 MB MDDR/512 MB NAND
 - TPS64102 Power Management Module
 - 3.7 LCD Touch screen
 - Peripheral access
- Wireless connectivity card
 - WL1271-TiWi module with integrated TCXO
 - 2.4-GHz chip antenna or U.FL antenna connector
 - Plugs into EVM's expansion connector



▲ TMDXEVM3730: AM/DM37x Evaluation module

Software

- Pre-integrated and validated with TI's Linux SDK with UI and demos
- WLAN and Bluetooth software support
- Core IP pre-tested against WiFi and Bluetooth specifications
- Open source Linux drivers: Kernel 2.6.x, TI WLAN driver, BlueZ Bluetooth stack
- User guides, complete API reference, application notes, demo applications and sample code



WL1271-TiWi Module

▲ Wireless connectivity adapter board

Platform resources

- Ask an engineer: <http://e2e.ti.com/forums>
 - Forum: Wireless connectivity for OMAP™ applications processors
- Leverage TI connectivity Wiki: www.ti.com/connectivitywiki

Platform partners

- Mistral: Linux system integration
 www.mistralsolutions.com
- LS Research: Hardware and antenna design services
 www.lsr.com
- Adeneo: Win CE system integration
 www.adeneo-embedded.com

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