

Stellaris[®] + CC2560 Bluetooth[®] platform



Platform features

- *Bluetooth* 2.1 + Enhanced Data Rate (EDR) with best-in-class *Bluetooth* RF performance
- Complete, validated, certified, production-ready module offered by Panasonic: CC2560-PAN1325, CC2560-PAN1315
- Stellaris LM3S9000 series pre-integrated with *Bluetooth* software stack and Panasonic modules
- Full-featured evaluation boards for hardware and software prototyping
- Software development kit including *Bluetooth* software stack, Serial Port Profile (SPP), Advanced Audio Distribution Profile (A2DP), and Audio/Video Remote Control Profile (AVRCP)
- Sample applications and demos provided in source code showing API usage
- Getting started guides, documentation and support: www.ti.com/connectivitywiki

Platform benefits

- TI's proven 7th generation *Bluetooth* technology enables a robust, high-throughput wireless connection with extended range and power efficiency
- CC2560-PAN1325/15 modules lower manufacturing and operating costs, save board space, ease certification, and minimize RF expertise required
- Pre-integration of host controller and *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 *Bluetooth* connectivity

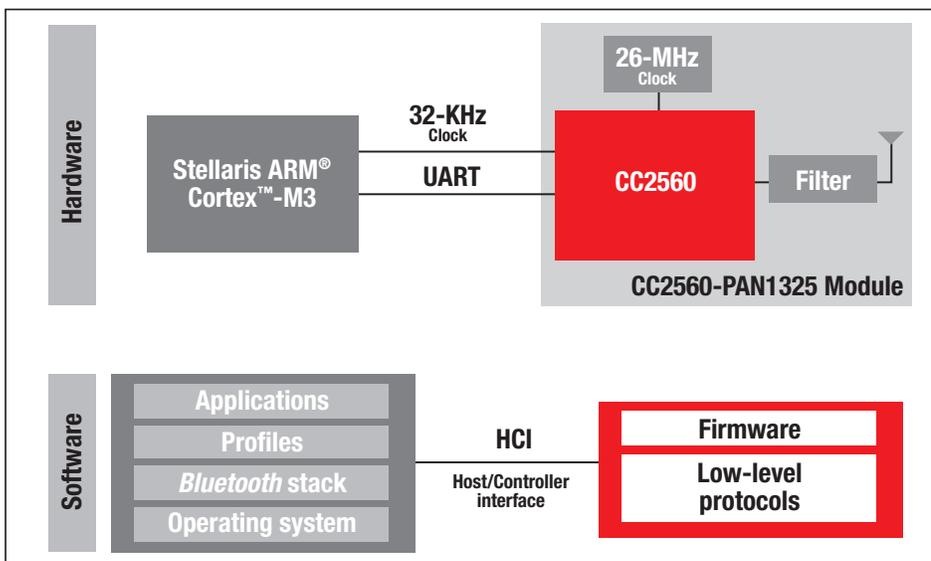
Key features:

CC2560-PAN1325/15

- Fully qualified *Bluetooth* v2.1 + EDR module
- Data rate up to 2.1 Mbps
- Best-in-class *Bluetooth* RF performance (Tx power, Rx sensitivity, blocking)
- +10 dBm typical Tx power with transmit power control
- -93 dBm typical receiver sensitivity
- Support for *Bluetooth* power saving modes (sniff, hold)
- *Bluetooth*, FCC, CE, IC certified
- Dimensions: 9 mm x 9.5 mm x 1.8 mm (CC2560-PAN1325, integrated antenna); 6.5 mm x 9.5 mm x 1.8 mm (CC2560-PAN1315, without antenna)
- *Bluetooth* + ANT footprint-compatible module available (CC2567/PAN1327), and *Bluetooth* + BLE available in 2H 2011
- Integrates with TI's Stellaris[®] MCU devices

Stellaris ARM[®] Cortex[™]-M3

- Industry's first and broadest implementation of ARM Cortex-M3
- Up to 256-KB Flash, with single-cycle flash memory up to 50-MHz
- One-chip combination of USB, Ethernet MAC and PHY, and CAN
- Thumb-2 instruction set combines both 16-bit and 32-bit instructions to deliver the best balance of code density and performance
- StellarisWare software — Free license and royalty-free source code including:
 - Peripheral driver library
 - Graphics library
 - USB library
 - Boot loader
 - IEC 60730 library

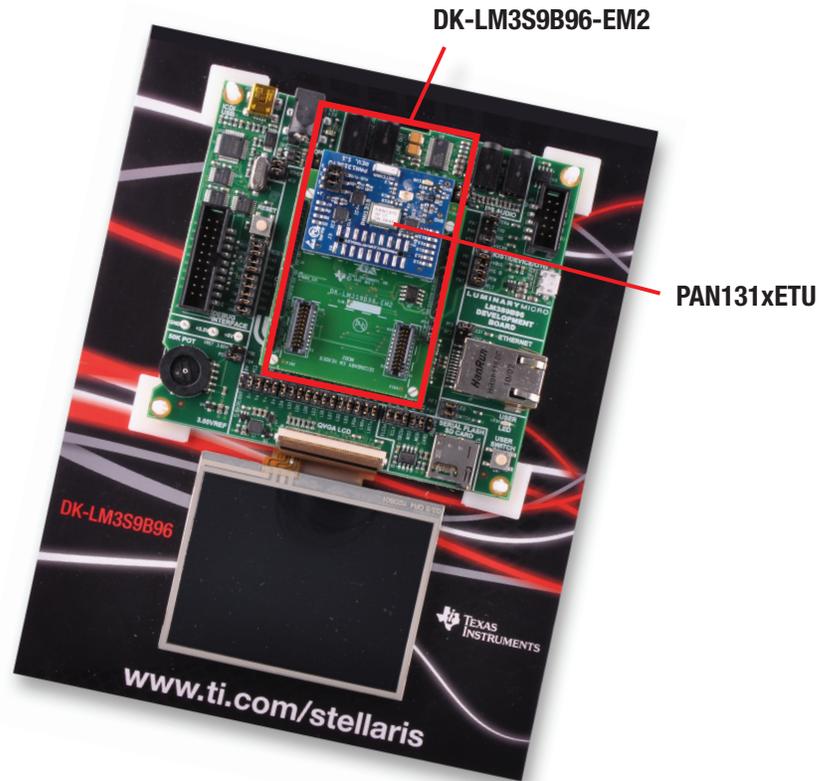


▲ CC2560-PAN1325 Bluetooth system

Hardware and software development

Stellaris + Bluetooth Kit – Bluetooth development and evaluation kit

- The PAN131xETU, when coupled with the Stellaris DK-LM3S9B96 development board (pictured here), enables early software and hardware prototyping for wireless embedded applications
- Hardware required includes:
 - 1 PAN131xETU (Easy to use) boards containing the CC2560-PAN1315 module, on board antenna connector and RF thru-line connector
 - DK-LM3S9B96 Development kit – full-featured development kit for LM3S9000 series devices
 - DK-LM3S9B96-EM2 – connector board for Development kit and PAN131xETU



▲ StellarisDK-LM3S9B96 Development Kit

Stonestreet One Bluetooth stack

- Pre-integrated with the Stellaris DK-LM3S9B96 development kit
- Quickly evaluate Bluetooth software protocol stack, SPP, A2DP, and AVRCP, and implement applications using it
- SPP – Allows for reception and transmission of generic data streams enabling cable replacement
- A2DP and AVRCP – Allows audio streaming from end devices like mobile phones
- SafeRTOS supports the Bluetooth read and write tasks
- Customers can engage directly with Stonestreet One today for Bluetooth stack solutions on Stellaris MCUs. TI is working to integrate the Stonestreet One Bluetooth stack into StellarisWare in 1H 2011.

Platform partners

- Panasonic - RF modules and design services www.panasonic.com/ti

Panasonic

- Stonestreet One - Bluetooth software and design services www.stonestreetone.com


stonestreet one

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