

Enabling secure remote patient monitoring with SimpleLink™ Wi-Fi® wireless MCU's



Remote patient monitoring equipment provides a glimpse at the future of IoT (Internet of Things) in healthcare by allowing physicians to monitor patients in real-time.

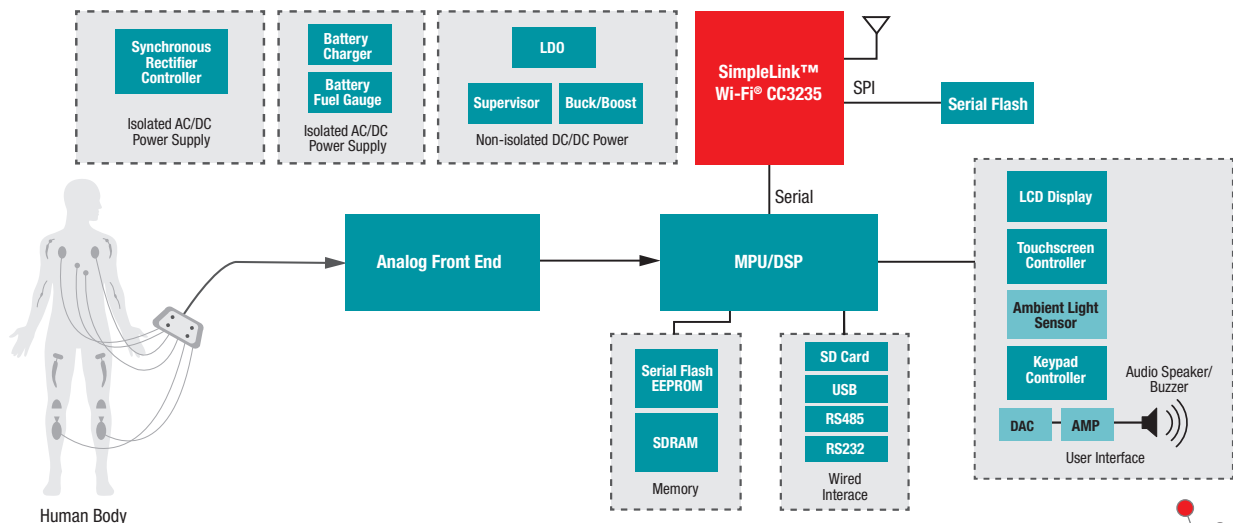
Saving patients' and physicians' time, remote patient monitoring provides critical patient information on an outpatient basis. Using a secure connection to a wireless network, remote patient monitoring devices allow the patient to leave the hospital sooner without the need for excessive cables.

Connected MCU-based patient monitoring devices link valuable patient data to the Cloud for real-time use by physicians and insurance companies, allowing for the patient to receive a higher standard of care while in the comfort of their own home.

Enable **government-approved security, lowest power** and tested interoperability to your patient monitoring designs using SimpleLink™ Wi-Fi® CERTIFIED devices and using readily available **resources** that will help you get to market even faster.

Key features	Benefits
Certified & robust	<ul style="list-style-type: none"> • Wi-Fi Certified IC's and regulatory Certified Modules drastically reduce complexity, time, resources and thousands of dollars in costs associated with the certification process
Integration & flexibility	<ul style="list-style-type: none"> • Supports SimpleLink™ MCU Platform with common SDK core • Platform expansion (BLE, Sub 1Ghz and MCU's) is easier with platform wide code portability • Dual core connected wireless MCU technology provides two separate execution environments • One Wi-Fi Certified network processor that handles all Wi-Fi & Internet level protocols • One customer dedicated ARM®-M4 offering 256 KB RAM and ease in development with available UARTs, I2S, SPI, SDIO and multiple GPIOs to support a variety of systems level needs and customer interfaces while interfacing with additional processors
Security	<ul style="list-style-type: none"> • Embedded Security assist in protecting against theft and hostile takeovers of identity, keys, data and code without the need for any other external components • Featuring network and manufacturer IP protection facilitated by hardware crypto engine (including APIs to AES256, DES, SHA/MD5 and CRC) • FIPS 140-2 Level 1 validation allows for easy full-product validation in US and Canada medical markets
Cloud integration	<ul style="list-style-type: none"> • Get to market faster with TI Cloud Tools and easy to integrate certified IoT cloud agents that reduce development complexity, costs and enable faster implementation times
Low power	<ul style="list-style-type: none"> • TI's proprietary Network learning algorithm ensures a low power performance <0.9 mA when tested with 100+ access points (APs) • Best low power consumption on Wi-Fi MCU, extends 2xAA battery life up to 3 years when always connected

Block diagram: Remote patient monitoring



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