Silicon & Modules

Xtreme Low Power Single Protocol Wireless SoC Controller **UE961**

Xtreme Low Power Single Protocol Wireless Communications Controller

Create a sustainable world is utmost important for future generation. Benefit from our unique Xtreme Low Power Chip technology plus High Density (HD) Indoor Solar Panel, Universal Electronics Inc. is committed to help transition the world towards a more sustainable future by reducing primary battery wastage throughout the product lifespan, as the result to reduce the CO2 footprint.

Extreme Low Power
The silicon's unique chip-level extreme low power digital circuit, RF and analog design, ensure every single joules of energy do not go to waste. This is a prefect solution tailor made for the next generation wireless remote controller and sensor applications, and users do not need to change the batteries as frequent as today

No compromise to the product features

- 2.5x computing power plus 80% more efficient as compared to previous generation SoC; Advanced features including wireless connectivity, adaptive backlight, powered by QuickSet, multi-platform compatible and always listening handsfree can be supported without compromise in battery life
- Common use wireless connectivity included Bluetooth Low Energy 5.3 and Infrared are fully supported from our promising solution

Time to Market without Additional Effort
One-stop shop Xtreme Low Power Energy Harvesting solution included the single protocol SoC, high density solar panel plus software development kit. We can help to shorten the product development cycle and commercialize the product in short period of the time

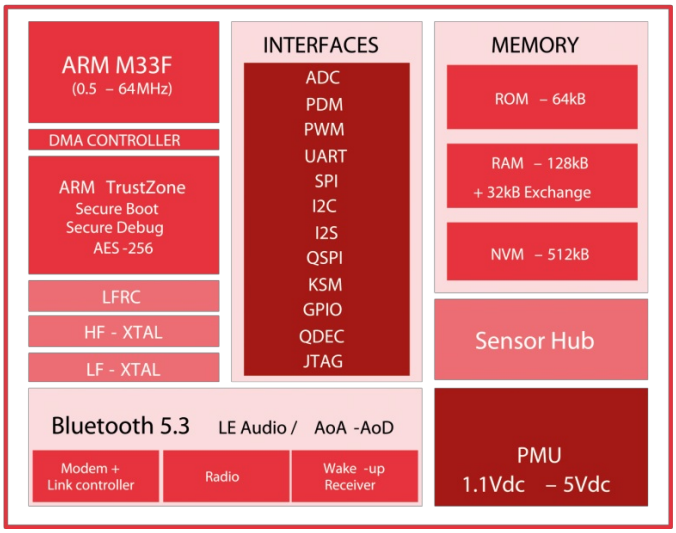
Product USPs

- Battery saver
- Compatible with QuickSet
- Minimize CO2 footprint
- Powerful
- Secure

Features

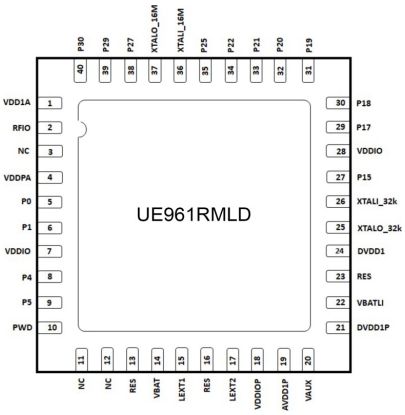
Block diagram

UE961

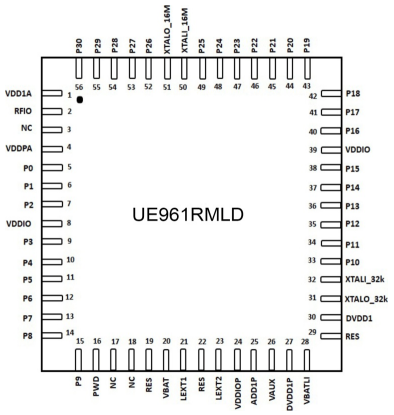


Package Layout

QFN40 5mmx5mm



QFN56 7mmx7mm



Specifications

Model

- Version Number: UE961RMLD

Connectivity

- Bluetooth Low Energy (BLE)
- Bluetooth version: 5.3
- Infrared

Hardware

- Processor: Cortex M33F Processor, 0.5 - 64MHz
- Flash Program Memory: 512kB
- SRAM: 128kB
- IR Features: QuickSet compliant

Power Consumption

- Hibernate mode: 0.7uA
- Sleep mode: 2uA
- RF Rx @-93dBm @3V: 1.1mA
- RF Tx @0dBm @3V: 3.0mA
- Bluetooth Low Energy Voice (5sec): 0.6mA

Interface

- Serial interface: ADC, I2C, I2S, JTAG, KSM, PDM, PWM, QDEC, QSPI, SPI, URAT
- GPIO interface: up to 31 GPIO

Security

- Security Features: AES 256, ARM TrustZone (store sensitive data), Secure boot (prevent hacking & malware attack), Secure debug, Secure execute, SHA-2 256 HW Crypto Engine, SRAM-PUF, True Random Number Generator

Operating Temperature

- Operational Temperature (C): -40°C - +85°C
- Operating Voltage: 1.1V - 3.3V

Package Layout

- Package layout: QFN40 5mmx5mm
- Package layout: QFN56 7mmx7mm

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