



# Communications Controller without LCD Driver **UE61S**

## UE61S Low Power Wi-Fi / BLE Communications Controller without LCD Driver

The Universal Electronics UE61S is a highly integrated single-chip controller supported with low power single bands (2.4GHz) Wireless LAN (WLAN) and Bluetooth Low Energy (BLE 5.0) communication controller

### Connectivity

- WiFi 802.11 b/g/n 2.4GHz ISM-band, build-in Balun powered by QuickSet
- BLE 5.0 support central & peripheral mode
- Hardware based RF coexistence interface

### Hardware

- Dual processor core
  - KM4: 200MHz ARMv8-M Cortex M33 Processor supported with DSP instructions;
  - KM0: 20MHz ARMv8-M Cortex M23 Processor
- 4.5 MB SRAM

### Security

- Advanced security and networking features, including hardware AES/DES/SHA engine, eFuse protection, TrustZone-M & Secure boot support.

### Interface

- UART, SPI, I2C, up to 35GPIO

### Layout

- QFN68 & QFN88 package

### Sales Status

- YR2021



### Product USPs



Powerful



Secure



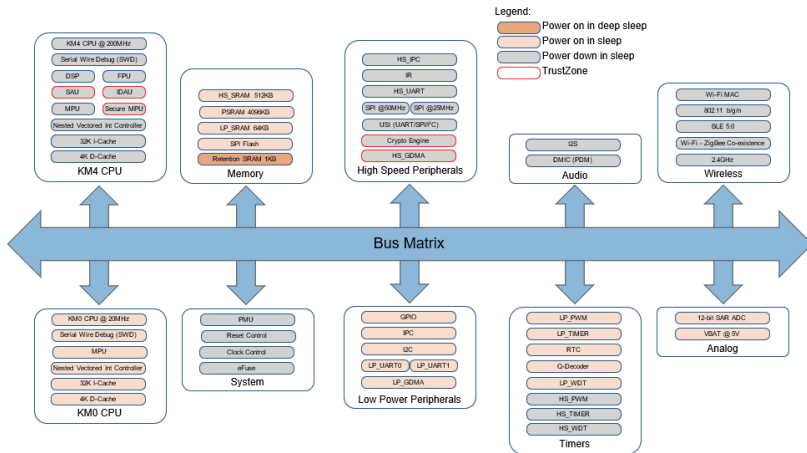
Multi-Rfprotocol



Highlyintegrated

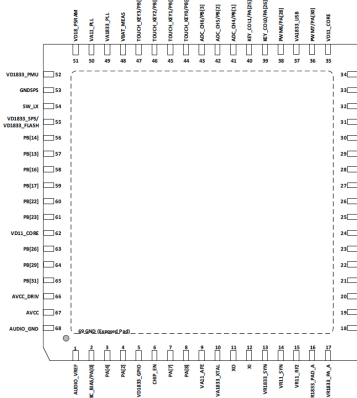
# Features

## Block diagram

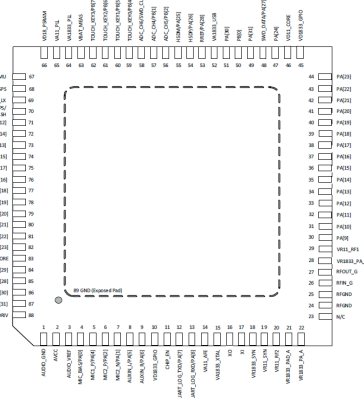


## Package Layout

### QFN68



### QFN88



# Specifications

## Connectivity

- 2.4-GHz WiFi 802.11 b/g/n 1x1, Low power architecture included lower power Tx/Rx@1.8V, beacon listen mode, Rx and suspends mode
- BLE5.0 2Mbps/s support central & peripheral mode

## Hardware

- Dual processor core (Inter-Processor communication)
- KM4: 200MHz Armv8-M Cortex-M33
  - Up to 512KB contiguous main SRAM @200MHz
  - 4MB PSRAM @ 50MHz, 8-bit DDR
  - Supported with DSP instructions
- KM0: 20MHz Armv8-M Cortex-M23
  - Up to 64KB contiguous main SRAM
  - Up to 1KB retention SRAM for keeping data in power saving modes
- KM4 and KM0 have a GDMA controller
- DSPI Flash controller with cache

## Communication Interface

- Universal serial interface (SPI, UART & I2C)
- IR diode input supported
- Up to 35 GPIO pins

## Security

- Hardware AES/DES/SHA engine
- TrustZone-M supported
- Secure boot supported
- SWD port protection and prohibition mode
- eFuse protection
- RSIP flash decryption on-the-fly

## Layout

- QFN68 8x8mm package
- QFN88 10x10mm package