

# RA Ecosystem Partner Solution EdgeLinX IOT Telematics Unit (Model: ELT-X10)



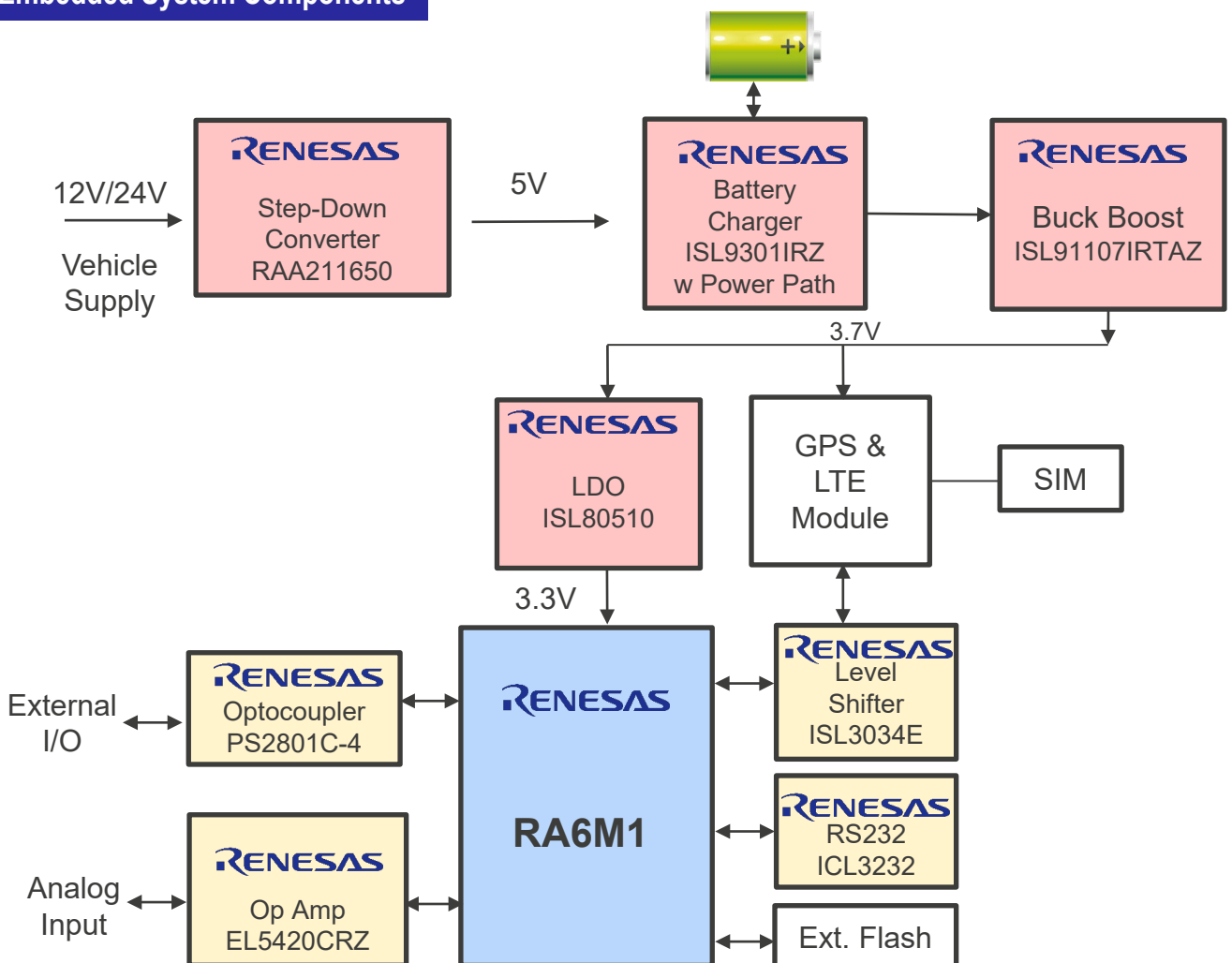
## Solution Summary

IOT device suitable for Sensor-based and Asset-monitoring applications in IOT, Telematics, Transportation and Logistics markets. Part of the CAD-IT's family of IOT products and technologies. Incorporates Renesas' latest [RA power-saving MCU](#) and power-based technologies for product features, reliability and protection from dirty power sources.

## Diagrams/Graphics



## Embedded System Components



## RA Ecosystem Partner Solution

### *CAD-IT's Telematics & IOT Intelligence Platform (CTIP)*



#### Solution Summary

The CAD-IT Telematics & IOT Intelligence Platform (**CTIP**) is a modular suite of software libraries within CAD-IT's architecture for IOT applications and related devices. It offers integrate-able engines and modules in the development of server and cloud applications, and embedded IOT devices.

The server and cloud-based modules of CTIP support Microsoft Azure services, MS SQL Server and some open-source technologies and can be provisioned to run on virtual machines on any cloud offerings.

Separately, the CAD-IT Telematics & IOT Embedded Framework (**CTEF**) and associated libraries simplify the development of software and firmware for IOT devices. The CTEF software library is suitable for the Renesas [RA6 MCUs](#) and targets primarily FreeRTOS. It encapsulates the technical and domain experiences from CAD-IT's experience in designing and deploying its own IOT products. It offers reduced complexity and time-to-market in designing your own products.

#### Features/Benefits

##### Market Advantage

- Cloud ready
- Support for general features offered by modules on the market
- Flexible & Portable – OS agnostic
- Easier, faster development
- Benefit from CAD-IT's extensive technical and domain knowledge
- Shorter product development cycle
- Improved product stability and reliability

##### Technical Features of CTIP (for server and cloud-based applications)

- Runs on MS SQL Server
- Support Microsoft Azure
- Supports https, MQTT 5.0 and web technologies
- Functionality is accessible through JSON-based APIs

##### Technical Features of CTEF (for embedded devices)

- Based on Renesas' RA6 microcontroller family using Renesas [e2studio](#) and FreeRTOS.
- Support for other toolchains and other RTOS.
- Architected to support multi-tasking applications written in C for FreeRTOS, for stability and ease of functionality management.
- Support various GPS, 4G, WiFi, Bluetooth, serial flash, SD Card, SIM and sensor-based features and technologies, depending on hardware modules selected. Please ask.
- Used in CAD-IT's hardware product suite, which is the EdgeLinx IOT family of devices

#### Target Markets and Applications

- Industrial & Factory 4.0, IoT, Smart Building, Enterprise Appliances & Sensors, Transportation & Telematics