

CASCADEMIC Solutions Pvt. Ltd.

In the era of the smart and the convergence of technologies, we at CASCADEMIC extended and evolved our decades of embedded expertise from the SCADA to the M2M & Growing IoT space.

CASCADEMIC is a Fabless ODM Solution Provider in M2M and IoT. Specializing in Wireless Remote Monitoring, Sensors, and Controls & Industrial Automation.

In the process of continuous evolution and upgradation of technology, the process and processor SoC's are evolving and becoming more and more integrated. In addition, the complexities around RF, Ultra low power, Wireless protocols, and Embedded Java & Real time firmware applications built-on many such industrial embedded devices with long term reliability and availability requirements are increasing.

By addressing the above needs from the Concept to Manufacturing Vertical Integration, we act as an ODM partner for our Customer's Intelligent System Solution needs of:

- Wireless Smart Flow Meter
- OEM Thermal Printer Solution
- Wi-Fi RFID Access Control Solution
- Wireless Sensor Networks
- Smart Automation & Control
- GPS NAVITRAK

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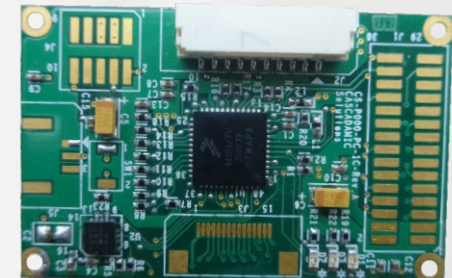
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Dunamis A3- Kinetis KL15 IoT Module



128 KB on-chip Flash & 16 KB RAM

On board three-axis accelerometer

Up to 48 MHz ARM® Cortex-M0+ core

Low power modes for battery powered applications

Description:

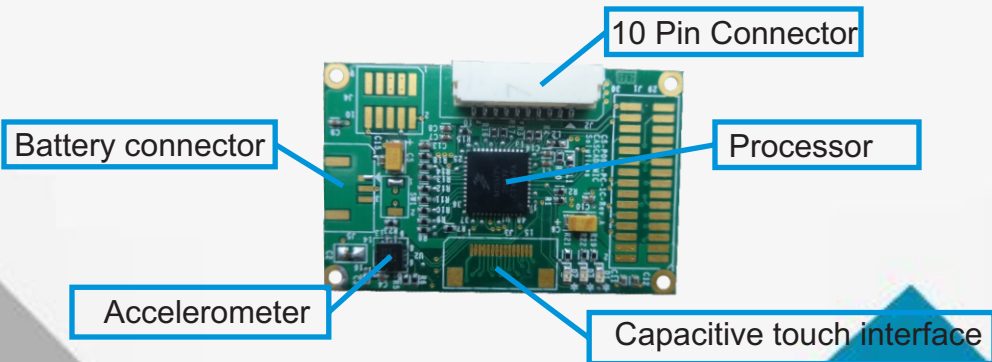
The Kinetis KL15 IoT Module is a simple yet multiple featured design built on Kinetis L Series Micro controller MKL15Z128VFT4. The micro controller is based on ARM Cortex M0+Architecture. ARM Cortex M0+ processors are found to consume low power with greater efficiency.

The module specifically supports low power applications availing all major communication interfaces for the user. The maximum operating frequency is 48MHz which can be chosen as per the application requirement. The micro controller has internal flash of 128 KB and RAM 16 KB.

The module contains a three-axis, capacitive, micro-machined accelerometer with 12 bits of resolution. The accelerometer shall be used for orientation detection, motion detection, shock and vibration monitoring, etc.

The Kinetis KL15 IoT Module contains a touch-pad connector providing 12 touch interface pins. The board also avails a 10 pin connector and 30 pin connector providing UART, SPI, I2C, ADC and GPIO interfaces.

The module has an extra feature – components are placed on one layer only, enabling the module to be stuck on surfaces.



Features:

Specification	Description
Power supply:	➤ 3.6V through battery connector.
MCU:	➤ Up to 48 MHz ARM® Cortex-M0+ core. ➤ Low power modes for battery powered applications . ➤ Unique identification ID for each IC.
Memory:	➤ 128 KB on-chip Flash & 16 KB RAM.
Connectors:	➤ One touch interface connector. ➤ Two peripheral connectors. ➤ Debug connector supporting SWD.
Communication Interface:	➤ One UART. ➤ One 8-bit SPI. ➤ One I2C interface.
Analog Interface:	➤ 12-bit DAC. ➤ 16-bit ADC.
Digital I/O:	➤ GPIOs supporting 8-bit, 16-bit or 32-bit accesses.

Application:

- Remote control.
- Wearable wireless medical devices.
- Home automation.
- Industrial / commercial sensor nodes.