

## 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

## ADDRESS

CASCADEMIC Solutions Pvt. Ltd.  
1525/58, 2nd Floor, 28th Main,  
South End 'B' Cross,9th Block,  
Jayanagar, Bangalore-560069  
INDIA  
Phone: 080 2658 3333

[www.cascademic.com](http://www.cascademic.com)

Email: [info@cascademic.com](mailto:info@cascademic.com)



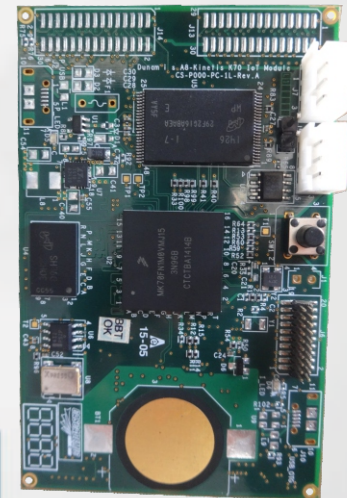
## Dunamis A8- Kinetic K70 IoT Module

ARM® Cortex™-M4 architecture with  
Graphical LCD controller.

10/100 Mbps Ethernet MAC Interface.

1Gb of DDR2 SDRAM memory on Module.

2Gb of NAND flash memory on Module.



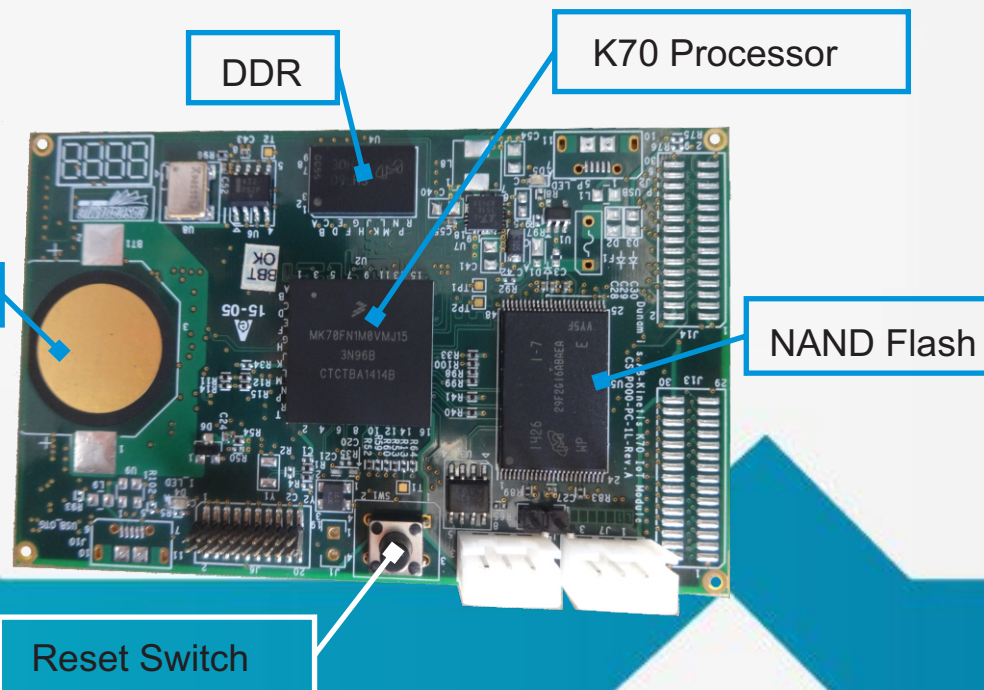
## Description:

Dunamis A8-Kinetis K70 IoT Module is based on the new Freescale ARM Cortex M4 Microcontroller. It got 32-bit ARM Cortex-M4 core with DSP instructions. It runs up to 150 MHz and consumes as little as 500mW. It also offers all the interfaces needed in a modern embedded device: beside the internal Flash memory, external NAND Flash, interfaces available for data storage – SD micro card, USB Memory Stick.

The module provides glue less connectivity to passive and active LCD's with resolution up to 800×600 and as well as 4-wire resistive touch screens without next controller. An integrated Ethernet PHY provides 10/100 Mbit Ethernet connection with time stamp functionality.

The operating system supported by default is Freescale MQX. Additionally there are many other RTOS applicable on ARM M4 Kinetis family microcontrollers like Uclinux Kernel etc.

## Board:



## Features:

Specification	Description
Power supply:	5V supply through USB or Through Sathodis E1-CAS Industrial Carrier Module.
CPU:	MK70FN1M0 120 / 150 MHz.
Security:	Hardware encryption coprocessor, Hardware tamper detection. Memory protection unit, Hardware cyclic redundancy check engine and Independent-clocked COP. External watchdog monitor.
Memory:	1 MB FLASH on chip and 128 KB SRAM on chip. 2Gbx16 FLASH on Module and 1Gbx16 DDR2 on module.
Connectors:	JTAG debug circuit. Rj45 Ethernet connector with magnetics and LED control Interfacing through Sathodis E1-CAS Industrial Carrier Module. Two 30 Pin Connectors on Module adding Wi-Fi or Bluetooth support. On module RTC Battery Holder for 20mm lithium battery. (e.g. 2032, 2025)
Interfaces:	Graphics LCD controller, external memory on Module, Touch screen, I2S audio digital, I2C interconnect, CAN, USB OTG/HOST/DEVICE on Module, SPI, UART, SDCard on Module, Ethernet 10/100 Mbit, Tamper detect, A/D high speed 12 bit, A/D 16 bit, D/A 12 bit, GPIO with pin interrupt support, DMA request capability, digital glitch filtering and User Indication LED (I_LED) controlled by GPIO.

## Application:

- IoT and M2M Applications
- Industrial control panels
- Navigational displays
- Point-of-sale terminals
- Medical monitoring equipment