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 NAVI TRACK

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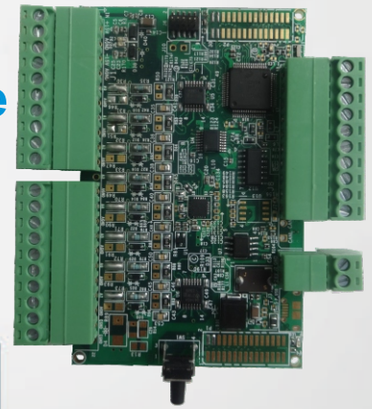
Dunamis A10 - K10 Intelligent Analog input Module



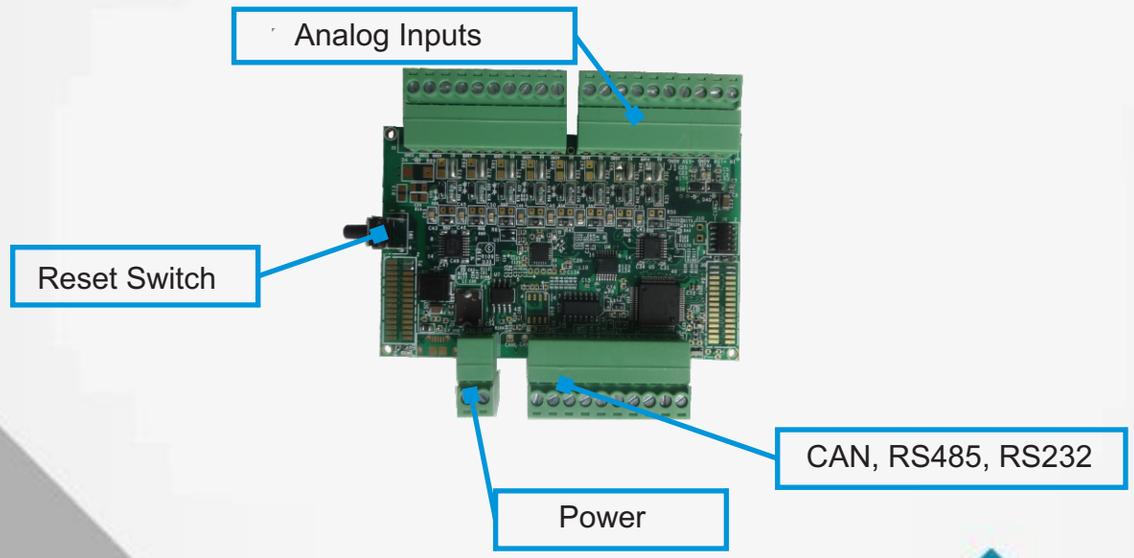
- **CAN, RS485, RS232 Interface**
- **Software selectable input ranges**
- **Isolated 12-bit, 8-Channel & Bipolar SAR**
- **IEC61000-4 standards for ESD, EFT and Surge**

Description:

The **Intelligent Analog Input Module** contains 12-bit ADC resolution Up to 8 Channels single-ended inputs with User programmable has a sample rate of up to 1MSPS, with ESD, EFT and Surge Protection circuits at Analog section.

The ADC IC is controlled from the Master controller which is from Freescale Kinetis K10 series is a 32-bit ARM Cortex-M4 core with DSP instructions communicated through SPI interface to ADC IC. It runs at up to 8MHz. Either Voltage Inputs/Current Inputs individually configured through Hardware whereas the voltage and Current levels are software Programmable for individual Channels.

Board:



Features:

Specification	Description
Power supply:	Isolated Analog Section Requires +/-15V. 5V supply through USB or 9V to 24V through the terminal block. Over-voltage, Under voltage and power reversal protection.
MCU:	Up to 72 MHz ARM® Cortex-M4 core.
Security:	Hardware CRC module to support fast cyclic redundancy checks. 128-bit unique identification (ID) number per chip.
Memory:	64 KB FLASH on chip and 1MBit EEPROM.
Communication Interfaces:	SPI (Digitally isolated SPI interface), I2C, UART, I2S, USB, CAN RS485(MODBUS Protocol), RS232 and GPIO.
Accuracy over entire input range:	Voltage: < ±0.2% full scale at 25 °C. Current: < ±0.35% full scale at 25 °C. Sample rate of up to 1MSPS
Voltage Inputs:	with impedance > 1M ±10V, ±5V, ±2.5V, 0-10V, 0- 5V, Up to ±12V
Current Inputs:	0-20mA, 4-20 mA (with input impedance of 250Ω)
Modularity:	Pluggable to Gateway Controller of Cascademic Modules such as Bluetooth, WIFI, and Telit for easy Transmission of data Remotely.
Connectors:	Plug-in Screw Terminal Block 3.5mm Standard, 30 Pin Cascademic Standard connectors for interfacing Cascademic modules. 10 pin Debug connector supporting JTAG.
Slim Form Factor:	85×53.98mm (Approx. Credit card Size)
Tamper:	Tamper Detection through GPIO.

Application:

- IoT and M2M Applications
- Industrial control panels
- PLC: Current and voltage input module
- Remote PLCs and DCS
- Data Acquisition Systems
- Test and Measurement