



## H/W Specifications

### CPU / Memory

- CPU: Atmel SAM4E16E Cortex M4 SoC 120MHz
- Memory: 128KB SRAM, 1MB Flash inside SoC  
128KB SRAM, 2MB Flash on board via SPI expansion

### Network Interface

- Type: 1 x 10/100 Mbps Ethernet, RJ45 connector
- Protection: 1.5KV magnetic isolation

### Serial Ports

- Serial Console / RS-232 x 1
- RS-485 1500Vrms isolated x 1

### Isolated Analog Input

- No. of Channel: 4
- Input Type: Differential input
- Input Mode: Current / Voltage
- Resolution: 16-bit
- Input Range:  
Unipolar: 0~150 mV, 0~500 mV, 0~1V, 0~5V, 0~10V  
Bipolar: +/-150 mV, +/-500 mV, +/-1V, +/-5V, +/-10V  
Current: 0~20mA
- Input Impedance: 20M Ohm (voltage), 120 Ohm (current)
- Accuracy: +/-0.1% FSR
- Isolated: 1500Vrms

### Isolation Digital Input

- No. of Channels: 4
- Isolation protection: 2500Vrms
- Logical High: 5~24VDC
- Logical Low: 0~1.5VDC
- LED indicator: Yes

### Relay Output

- No. of Channels: 2
- Contact Rating: 30VDC@1A or 125VAC@0.5A
- LED Indicator: Yes

### Maxim 1-Wire Interface

- No. of Channels: 2
- Connector: 3-pin terminal block (VDD, DQ, GND)

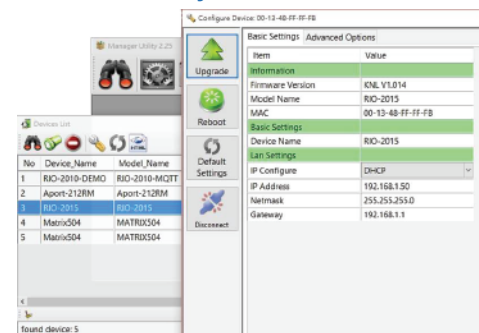
### General

- Power Input: 9~48VDC
- Operating Temperature: 0~70°C
- Dimension(WxLxH): 115.7x121.5x43mm  
(4.56"x4.78"x1.69")
- Weight: 242g (0.53lb)
- Installation: DIN-rail mounting
- Mass Storage: Micro-SD socket inside x1

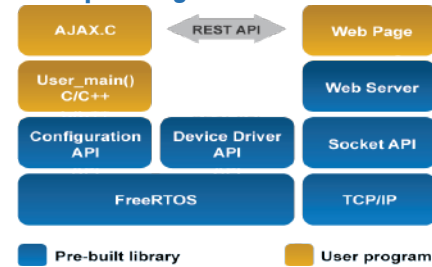
## Features

- 4 x Opto-isolated digital inputs
- 2 x Relay outputs
- 4 x Isolation Analog inputs
- 2 x Maxim 1-Wire interface
- 1 x 10/100Mbps Ethernet interface
- 1 x Isolation RS-485 port, 1 Serial Console / RS-232 port
- 1 x microSD card interface
- Support lwIP and BSD socket library
- Support tiny web server
- Windows configuration utility included
- Toolchain: Atmel Studio

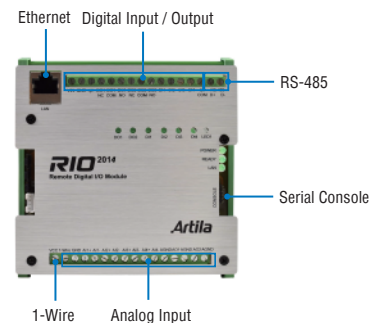
## Windows Utility Software



## Example Program



## Front View



## Ordering Information

- RIO-2014PG  
C Programmable Remote I/O Module
- CBL-F10M9-20 (91-0P9M9-001)  
Console Cable (10Pin Header to DB9 Male, 20cm)
- DS18B20 (91-6DS18-001)  
Programmable Resolution 1-wire Digital Thermometer
- PWR-12V-1A (31-62100-000)  
110~240VAC to 12VDC 1A Power Adapter