



### Features

- 4 x Opto-isolated digital inputs
- 2 x Relay outputs
- 4 x Isolation Analog inputs, 2 x Isolation Analog outputs
- 1 x Maxim 1-Wire interface
- 1 x 10/100Mbps Ethernet interface
- 1 x Isolation RS-485 interface, 1 x RS-232 interface
- 1 x microSD card interface
- Web-based control & monitor
- Remote industrial I/O with web interface (AJAX)
- Windows and Linux C/C++ API available

### 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

- RS-232 x 1
- RS-485 2500Vrms 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

#### Isolated Analog Output

- No. of Channels: 2
- Output Mode: Current / Voltage
- Resolution: 16-bit
- Output Range:
  - Unipolar: 0~5V, 0~10V
  - Bipolar: +/-5V, +/-10V
- Current: 4~20mA, 0~20mA, 0~24mA
- Accuracy: +/-0.25% FSR (voltage)  
+/-0.2% FSR (current)
- Load Resistor: 0~1k Ohm
- Isolation: 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

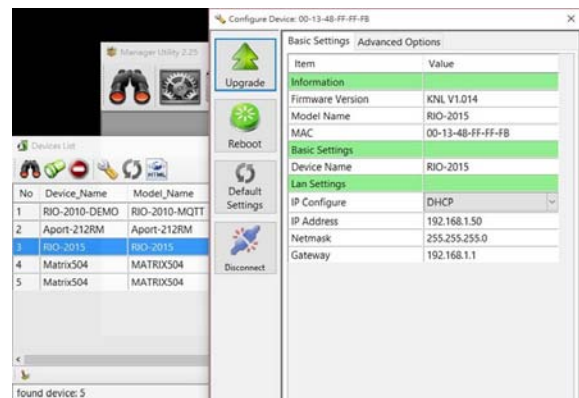
#### Maxim 1-Wire Interface

- No. of Channels: 1
- Connector : 3-pin terminal block (VDD, DQ, GND)

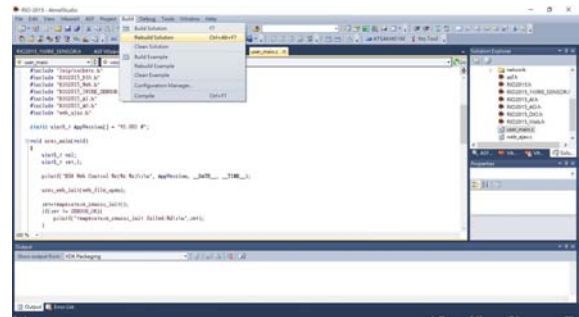
#### General

- Power Input: 9~48VDC
- Operating Temperature: 0~70°C

### Windows Utility Software



### Example Program



### Ordering Information

- **RIO-2015PG**  
C Programmable Remote I/O Module
- **91-0P9M9-001**  
Console Cable (10Pin Header to DB9 Male, 20cm)
- **91-6DS18-001 (DS18B20)**  
Programmable Resolution 1-wire Digital Thermometer
- **PWR-12V-1A**  
110~240VAC to 12VDC 1A Power Adapter