

### Features

- NXP LPC1768 ARM Cortex-M3 100MHz CPU
- 512KB on-chip Flash and 64KB SRAM
- 1 x full modem RS-232 and 1 x isolated RS-485 serial port
- 1 x 10/100Mbps Ethernet port
- 1 x serial console port
- Support lwIP and BSD socket library
- Support tiny web server
- Windows configuration utility included
- Toolchain: Sourcery CodeBench Lite or Keil from ARM

### H/W Specifications

#### CPU / Memory

- CPU: NXP LPC1768 Cortex-M3 100MHz
- Memory: 512KB on-chip Flash, 64KB SRAM

#### Network Interface

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

#### Serial Ports

- Port 1: RS-232 full modem
- Port 2: RS-485 2500Vrms isolated
- Console: RS-232 three wires

#### Serial Port Parameters

- Baud Rate: 1.2~921.6Kbps
- Flow Control: None / Hardware / Xon\_Xoff
- Data Bits: 5 to 8
- Stop Bits: 1 to 2
- Protection: 15KV ESD

#### Isolation Digital Input

- No. of Channels: 16
- Photo Isolation (AC in): 2500Vrms
- Logical High: 5~24VDC
- Logical Low: 0~1.5VDC
- Input Resistance: 1.2k Ohms@0.5W

#### Relay Output

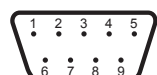
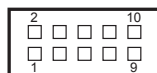
- No. of Channels: 8
- Contact Rating: 30VDC@1A or 125VAC@0.5A

#### General

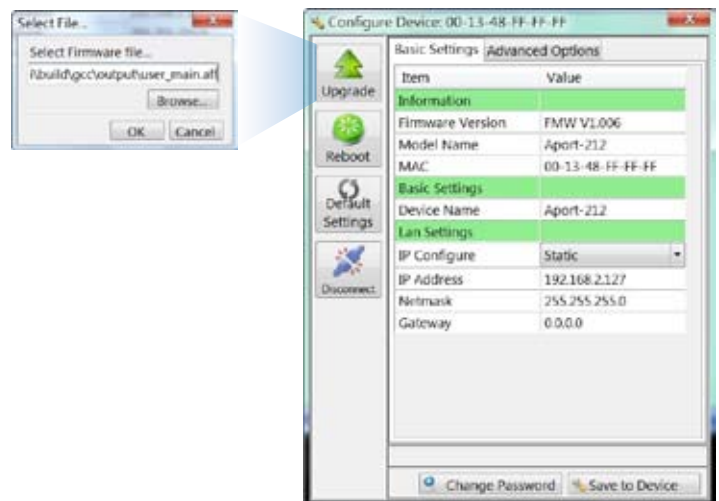
- Temperature Sensor: Maxim DS18B20 (optional accessory 91-6DS18-001)
- Temperature Range: -55°C~125°C
- Accuracy: +/-0.5°C
- Real Time Clock: Manual or NTP (Network Time Protocol) setup and sync.
- Power: 9~48VDC power jack and terminal block
- Dimensions (W x H x D): 182 x 118 x 35.82mm
- Operating Temperature: 0~70°C
- Storage Temperature: -20~85°C

### Pin Assignment

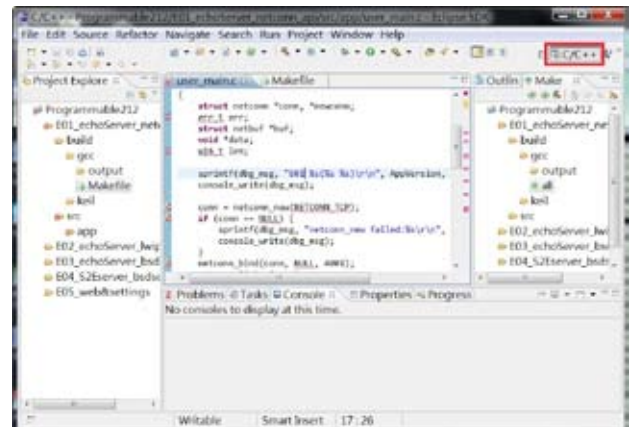
PIN	RS-232	Console
1	DCD	N/C
2	DSR	N/C
3	RXD	TXD
4	RTS	N/C
5	TXD	TXD
6	CTS	N/C
7	DTR	N/C
8	N/C	N/C
9	GND	GND
10	N/C	N/C



### Windows Utility Software



### Example Program



### Ordering Information

- **RIO-2010PG**  
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