







Features

-  10/100BaseT Ethernet port
-  Flash disk and RTC onboard
-  Four serial ports; up to 17 I/O lines
-  Supports Wi-Fi, LCD, keypad, buzzer
-  Mates with RJ203 jack/magnetics
-  Very compact (33.2x18.1x5.5mm)



About

The EM1206 is a miniature BASIC-programmable embedded module. In combination with the RJ203 jack/magnetics, the EM1206 occupies only 34.5x19 mm of board space. Alternatively, the EM1206 can be used with any suitable magnetics and jack.

The module's hardware mix, which includes 100Base/T Ethernet, four serial ports, flash disk, EEPROM, and RTC, has been carefully tailored to address the typical needs of network-enabled control applications.

This makes the EM1206 especially suitable for "connected" edge products such as sensors, network-enabled card readers, actuators, and other lightweight devices.

The EM1206 can also support Wi-Fi communications (this requires GA1000 add-on board), as well as external LCD, keypad, and buzzer.

The EM1206 can be ordered standalone or in combination with the RJ203 module.

Not available in the U.S.

Specifications

- Based on a high-performance purpose-built 88-MHz ASIC (T1000).
- 10/100BaseT auto-MDIX Ethernet port (no magnetics).
- Four high-speed serial ports (CMOS-level):
 - Baudrates of up to 921,600bps;
 - None/even/odd/mark/space parity modes;
 - 7/8 bits/character modes;
 - Full-duplex mode with optional flow control;
 - Half-duplex mode with direction control;
 - Encoding and decoding of Wiegand and clock/data streams.
- Up to 1024KB flash memory for firmware, application, and data.
- 2KB EEPROM for data storage.
- RTC with backup power input.
- Supports external LCD and keypad.
- Programmable square-wave output for external buzzer.
- Up to 17 general-purpose I/O lines (including 8 interrupt lines).
- Control lines for two external status LEDs.

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Specifications (continued)

- Four status LEDs onboard:
 - Green and red status LEDs;
 - Green and yellow Ethernet status LEDs.
- Optional Wi-Fi interface (requires GA1000 add-on module).
- Software-controlled onboard PLL.
- Reliable power-on/brown-out reset circuit.
- Power: 230mA @ 3.3V (100BaseT mode, PLL on).
- Dimensions: 33.2x18.1x5.5mm.
- Firmware is upgradeable through the serial port or network.

Programming

Platform Objects

- Sock — socket comms (up to 16 UDP, TCP, and HTTP sessions).
- Net — controls Ethernet port.
- WIn — handles Wi-Fi interface (requires GA1000 add-on module)
- Ser — up to 4 serial channels (UART, Wiegand, and clock/data modes).
- IO — handles I/O lines, ports, and interrupts.
- Kp — scans keypads of matrix and “binary” types.
- Rtc — keeps track of date and time.
- Fd — manages flash memory file system and direct sector access.
- Stor — provides access to the EEPROM
- Romfile — facilitates access to resource files (fixed data).
- Pat — “plays” patterns on up to five LED pairs.
- Beep — generates buzzer patterns.
- Button — monitors MD line (setup button).
- Sys — in charge of general device functionality.

Function Groups

String functions (21 in total!), date/time conversion functions, and hash calculation functions (md5 and sha1).

Variable Types

Byte, char, integer (word), short, dword, long, real, string, plus user-defined arrays and structures.

Tibbo Integrated Development Environment (TIDE)

All BASIC-programmable Tibbo devices are provided with free TIDE software.

Code in Comfort

Enjoy a modern code editor supporting syntax highlighting, context help, code hinting, and auto-completion.






Debug with Ease

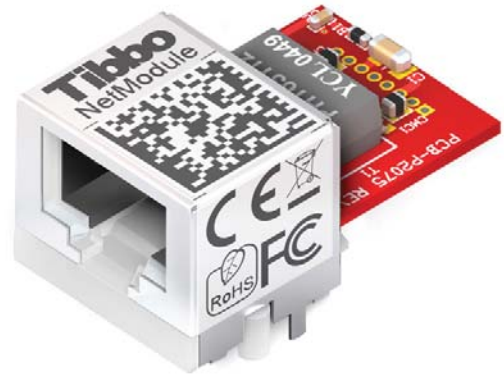
Set breakpoints, watch variables, inspect the stack, step through your code... the built-in debugger in Tibbo IDE provides all the tools for fast and convenient debugging.

Our debugger does not rely on any special hardware like an ICE machine or a JTAG board. Simply connect your Tibbo device to the Ethernet, select it in the IDE, and you are all set!

For more information on TIDE, see <http://basic.tibbo.com/product/tide.html>

Features

-  100/10BaseT magnetics onboard
-  RJ45 jack onboard
-  Mates with EM203 module
-  Compact (31.0x20.0x15.5mm)
-  Patent pending



About

The RJ203 is an “Ethernet front-end” module that contains an RJ45 jack and 10/100BaseT magnetics (designed to work with the Davicom DM9000B Ethernet controller).

The RJ203’s patent-pending design lets you put other components right under it, and thus minimize host PCB size. The front face of the device is translucent. Place status LEDs directly on the host PCB under the RJ203, and you will still see them on the outside.

You can also use the RJ203 together with the EM203 or EM1206 Ethernet modules, which fit right under it. You can order the RJ203 standalone, or in combination with one of these modules.

Not available in the U.S.

Specifications

- Includes standard RJ45 Ethernet jack.
- 100BaseT magnetics onboard:
 - RJ203: compatible with the DM9000B controller IC;
 - RJ203A: compatible with the DM9000EP controller IC.
- Can be used with EM203 (RJ203) and EM203A (RJ203A) modules.
- Dimensions: 31.0x20.0x15.5mm.
- Patent-pending design minimizes board footprint.