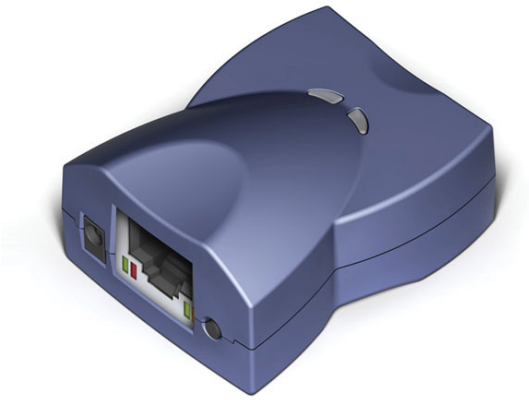
DS1202 BASIC-programmable Controller

Tibbo TECHNOLOGY

Features

- 10/100BaseT Ethernet port
- Compact (60x47x30mm)
- Up to 3.5 serial channels
- Wide supply voltage (10-25V)
- Free serial-over-IP Tibbo BASIC application available



About

The DS1202 is a miniature BASIC-programmable controller designed primarily for serial-over-IP and serial control applications. It comes preloaded with a fully functional serial-over-IP application.

The unique feature of the DS1202 is its multi-channel serial port. The device has a single DB9M connector and is priced as a single-port device, yet packs four independent serial channels. Have no use for those DSR and DTR lines? Turn them into RX and TX of an additional serial channel. Don't want CTS and RTS either? That's one more channel! In total, there are 15 different configurations to choose from.

Specifications

- Superior upgrade to the DS203 device.
- Based on the EM1202 BASIC-programmable embedded module.
- 10/100BaseT, auto-MDIX Ethernet port.
- Up to 3.5 serial channels on a single RS232 connector:
  - Baudrates of up to 921,600bps;
  - None/even/odd/mark/space parity modes;
  - 7/8 bits/character modes;
  - Optional flow control;
  - Flexible mapping with 15 different options, such as:
  - A single channel: RX, TX, CTS, RTS, DSR, and DTR lines;
  - 3.5 channels: RX, TX, RX2, TX2, RX3, TX3, and RX4 lines.
- 1024KB flash memory for firmware, application, and data.
- 2KB EEPROM for data storage.
- Software-controlled onboard PLL.
- Six LEDs:
  - Green and red status LEDs on top of the device;
  - Green and red status LEDs on the RJ45 jack.
  - Link and speed Ethernet status LEDs on the RJ45 jack.
- Power: 10-24V (12V nominal).
- Dimensions: 60x47x30mm.
- Firmware is upgradeable through the serial port or network.
- Optional Accessories:
  - DMK1000 DIN rail mounting kit.
  - 12V/0.5A adaptor: APR-P0011 (US), APR-P0012 (EU), APR-P0013 (UK).
  - WAS-1499 straight Ethernet cable (for this device can be used as crossover cable too).
  - WAS-P0004(B) DB9M-to-DB9F serial cable (device-to-PC).
  - WAS-P0005(B) DB9F-to-DB9F serial cable (device-to-device).

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Programming

Platform Objects

- Sock — socket comms (up to 16 UDP, TCP, and HTTP sessions).
- Net — controls Ethernet port.
- Ser — up to 4 serial channels (UART, Wiegand, and clock/data modes).
- IO — handles I/O lines, ports, and interrupts.
- 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.
- Button — monitors MD line (setup button).
- Sys — in charge of general device functionality.

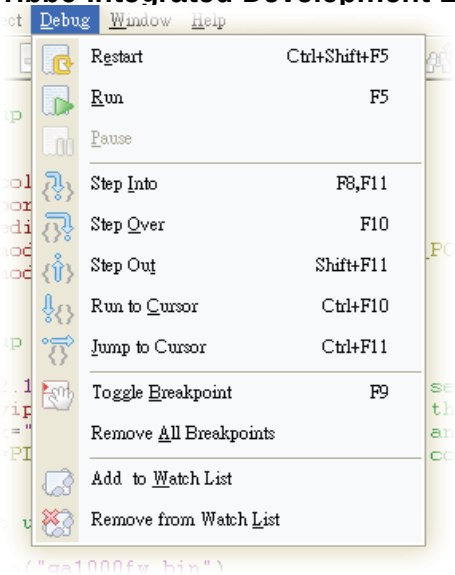
Function Groups

String functions (27 in total!), date/time conversion functions (8), encryption/hash calculation functions (RC4, MD5, SHA-1), and more.

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

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