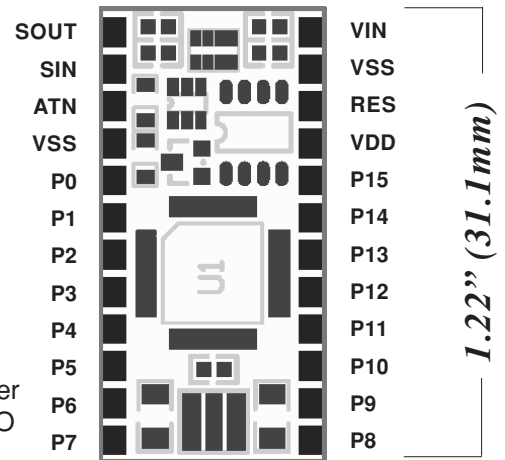


Features:

- 2K or Ram
- 32K of Flash Program memory
- Up to 100,000 Instructions Per Second
- Built in Analog
- Built in PWM
- Built in UART
- BasicATOM Compatible

Description

The BasicATOM Pro is a tiny computer, or better known as a microcontroller. The BasicATOM Pro was designed for use in a wide array of applications. It is built around the 3664 Hitachi micro which contains 32K of internal FLASH memory and 2K of RAM for variables (2K of ram will hold up to 2000 byte sized variables). Each BasicATOM Pro has a built-in 5-volt regulator, a number of general-purpose I/O pins (TTL-level, 0-5 volts), commands for math and I/O pin operations and a RS232 level converter, for in circuit programming.



BasicATOM Pro 24 Pin IC

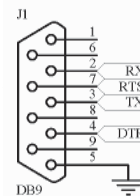
.62" (16mm)

Hardware

The BasicATOM Pro was designed to be pin and syntax compatible to the BasicATOM24-M module. The BasicATOM Pro has several feature advantages over the BasicATOM. One of the main features being speed and code space. The ATOM Pro can execute as many as 100,000 instructions per second. The BasicATOM Pro has several hardware features including analog, PWM, UART, timers and much more. Refer to www.basicmicro.com web site for more details.

Programming Connection Method I

Without the development board; the BasicATOM Pro must be connected to free PC serial port as shown. DTR or RTS must be connected to the ATN pin. Power must be supplied with a common ground to the Atom and serial cable ground. A maximum of 9 volts can be used to power the Atom from the VIN pin. Otherwise a regulated 5 volts can be supplied to VDD. If you have trouble connecting to the Atom double check your wiring. Most programming problems arise from incorrect wiring or faulty serial cables.



Serial Port	ATOM
RX	-> SOUT
TX	-> SIN
DTR or RTS	-> ATN
VSS/GND	-> VSS

Programming Connection Method II

With the BasicATOM Pro development board; first insert the BasicATOM Pro module with power off. Pin one on the Development is clearly marked. Pin one on the Atom, is the pin labeled SOUT, shown above. Connect the PC serial port to the DB-9 connector. Then plug the power adapter in and power up the development board. If you are having problems programming the Atom double check your connections. Make sure power is applied and the LED is lite on the development board. Most programming problems are usually related to bad serial cables.

Software Setup

To begin software installation, follow the instruction in the BasicATOM Pro programming manual (The BasicATOM software is not compatible with the BasicATOM Pro). Once you have the software installed make sure to select the correct COM port, the Basic Atom is attached to. Go to the Tools menu, select Preferences. The General Preferences screen will only display the COM ports available. If a certain COM port is not displayed, windows is not reporting its status to the Basic Atom software. Check your device manager to ensure the COM port is installed correctly.

Pin Descriptions

S_OUT	-Software/Programming Async-Serial output
S_IN	-Software/Programming Async-Serial input
ATN	-Attention
VSS	-Ground
P0	-Digital I/O,WKP0,AN0
P1	-Digital I/O,WKP1,AN1
P2	-Digital I/O,WKP2,AN2
P3	-Digital I/O,WKP3,AN3
P4	-Digital I/O,WKP4
P5	-Digital I/O,WKP5,ADTRG
P6	-Digital I/O,SDA,IRQ2
P7	-Digital I/O,SCL,IRQ3,TRGV
P8	-Digital I/O,FTCI,IRQ1
P9	-Digital I/O,FTIOA,TMRIV
P10	-Digital I/O,FTIOB,TMCIV
P11	-Digital I/O,FTIOC,TMOV
P12	-Digital I/O,FTIOD,TMOW
P13	-Digital I/O,SCK3
P14	-Digital I/O,RXD
P15	-Digital I/O,TXD
VDD	-Regulated 5V input
VSS	-Ground
RES	-Reset
VIN	-Non-Regulated power input(max 12V)

Power Consumption

Normal operation, no loads	TBA
Sleep Mode	TBA
Nap Mode	TBA

Warranty

Basic Micro warranties its products against defects in material and workmanship for a period of 90 days. If a defect is discovered, Basic Micro will at our discretion repair, replace, or refund the purchase price of the product in question. Contact us at support@basicmicro.com No returns will be accepted without the proper authorization.

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Email: sales@basicmicro.com, Tech support: support@basicmicro.com, Web: <http://www.basicmicro.com>

Discussion List

A web based discussion board is maintained at <http://www.basicmicro.com>

Technical Support

Technical support is made available by sending an email to support@basicmicro.com. All email will be answered within 48 hours. All general syntax and programming question, unless deemed to be a software issue, will be referred to the on-line discussion forums.

