

# Micro SoftPLC

Models SPBB-x



**Good things DO come in small packages!**

## General Description

Physically small, but functionally huge, the Micro SoftPLC-BB model PAC's (*Programmable Automation Controllers*) provide a low cost control platform for applications ranging from simple communication gateways, data logging, machine control and RTUs.

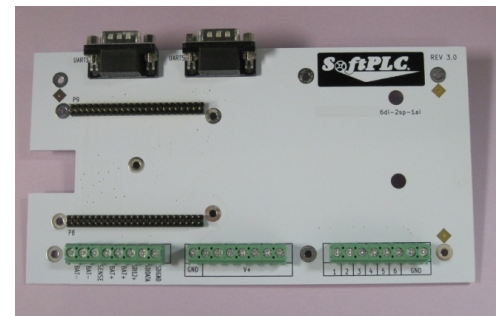
SoftPLC-BB models include all the functions/features of SoftPLC Control Software including:

- ◆ Deterministic, high speed program execution
- ◆ "Unlimited" user logic and data table memory
- ◆ Ladder logic and data table addressing similar to Allen-Bradley PLC-5/SLC-500
- ◆ Fully documented applications, all documentation resides in the controller
- ◆ Supports user functions written in C++
- ◆ Data logging to local/remote drives and databases
- ◆ Compatible with all HMI/SCADA products
- ◆ SoftPLC TagWell cloud interface
- ◆ Industry standard protocols such as ModbusTCP, A-B Ethernet, DF1, Modbus RTU, and others are supported for communications and I/O
- ◆ Embedded HMI via web server or Web Studio IoTView

The SoftPLC-BB is programmed and maintained with TOPDOC® NexGen via Ethernet. TOPDOC NexGen is available for Windows and Linux operating systems.

## Hardware Features

- CPU - 1GHz ARM® Cortex-A8
- Memory - 512MB DDR3 RAM
- Storage - 4GB on-board flash, MicroSD flash (*optional*)
- USB 2.0 host
- USB 2.0 client (*for power & communications*)
- 10/100MB Ethernet port, RJ-45
- +5V DC power from barrel connector or USB device port
- Low power, 210-460mA @5V
- Extended Operating Temperature -40~85°C (*optional*)
- Size - 3.4" x 2.1" (86.36 x 53.34 mm); with optional enclosure (*Cat No SPBB-ENCL1*) 2.4" x 0.82" x 3.54" (62 x 21 x 90 mm)



*Optional Carrier Board  
(Cat No SPBB-6DI2SP1AI)*

## Options

- Multi-function carrier board (*above*) provides 12V operation w/ solar battery monitoring functions, 6 digital inputs (5/12VDC), 1 frequency input, (2) RS-232 ports and an SDI-12 sensor bus interface
- Local I/O via daughter cards that mount atop board on (2) 46 pin vibration insensitive connectors
- Communication daughter cards for serial ports, wireless / Bluetooth
- Others



*Micro SoftPLC in optional enclosure*

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<http://softplc.com>

## I/O and System Configurations

Micro SoftPLC CPU's can be used with a wide variety of I/O and other devices. Any Ethernet or USB remote I/O can be used providing a SoftPLC driver exists, such as ModbusTCP compatible devices.

With an added optional serial port interface, serial I/O is also an option, such as any Modbus compatible products.

Local I/O boards can be installed on the CPU for applications with special needs, low I/O counts, etc. Many drivers exist, or can be developed using the SoftPLC Programmer's Toolkit.

Multiple I/O types can be used with a single controller.

### Examples:

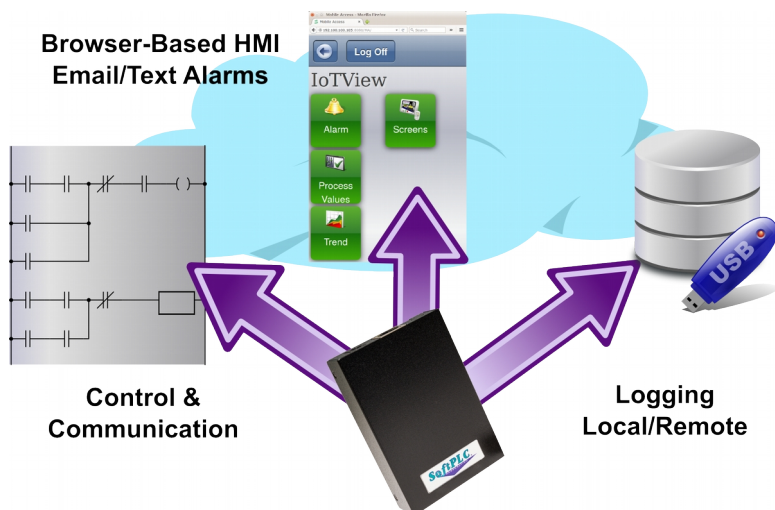
ModbusTCP Ethernet I/O (eg: SoftPLC's A Series)  
Modbus via an added serial port (eg: SoftPLC's A Series)  
Local I/O (eg: SPBB-6DI2SP1AI daughter board)

## Embedded Virtual Operator Interface

Software options for an embedded web server or Web Studio IoTView provide HTML based operator interface functions generated by the Micro SoftPLC. These pages can be viewed on any browser, such as a table or SmartPhone.

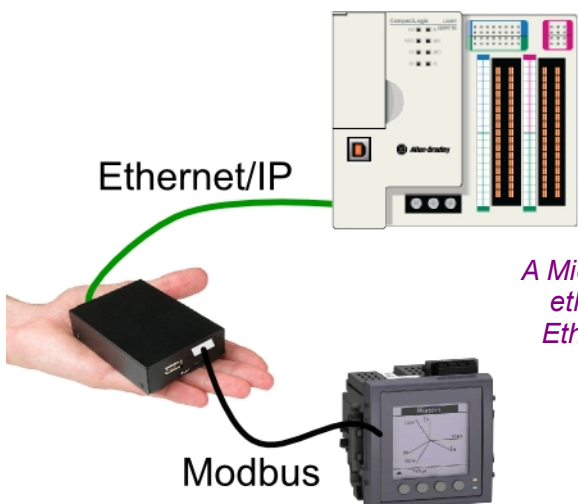
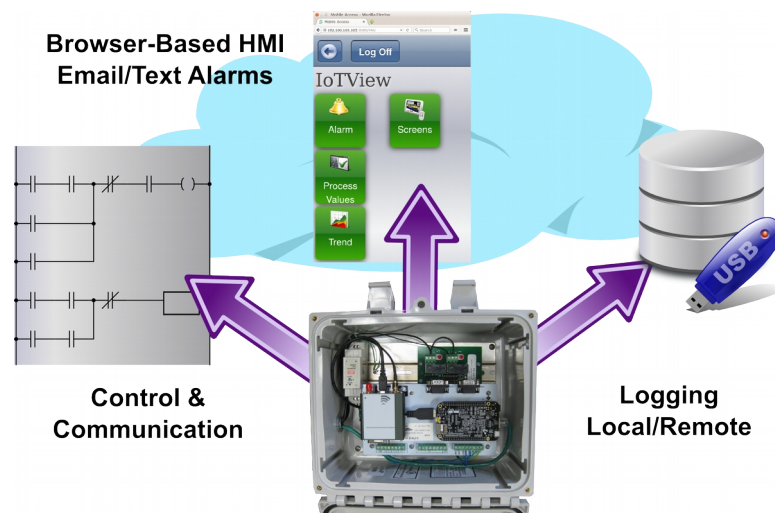
This virtual HMI is extremely useful for remotely located systems, or those when the operator interface is only required for configuration or troubleshooting. This eliminates the cost of a permanent and separate HMI unit.

Other standard operator interface functions include data logging, and alarm notification via email or text messages.



*A Micro SoftPLC is a controller, data logger, alarm system and can also provide a virtual operator interface via web pages.*

*Above the Micro is shown in optional enclosure, below is Micro SoftPLC packaged as an RTU with optional carrier board and cell modem for remotely located applications.*



*A Micro SoftPLC is a low cost serial to ethernet gateway. (eg: Modbus to Ethernet/IP or ModbusTCP, DF1 to Ethernet/IP)*

