BASIC Stamp 2sx Microcontroller Module

Overview

The BASIC Stamp 2sx serves as the brains inside of electronics projects and applications that require a programmable microcontroller. It is able to control and monitor timers, keypads, motors, sensors, switches, relays, lights, and more. Programming is performed in an easy-to-learn language called PBASIC.

All vital components (processor, clock source, memory, power regulator) are provided on the BS2sx's tiny PCB; just connect power and go! Projects needing small, permanent soldering area for circuitry may benefit from combining the BS2sx-IC with the BASIC Stamp 2 Carrier Board (/node/439)(#27120) or the Super Carrier Board (/node/370)(#27130). For lower-cost OEM solutions, the processor (PBASIC2sx interpreter) and other components are available for integration into your PCB.

The BS2sx-IC is useful for those that have previous experience with the BS2 and would like more speed and program space or the use of Scratch Pad RAM. For customers that require a more powerful, multi-processing microcontroller, we recommend the Propeller microcontroller.

Key Features:

- Small form factor requires very little space
- Non-volitile memory holds up to 4,000 instructions even without power
- PBASIC commands are easy to learn and remember
- Industrial rated since Rev F

Details

- Processor Speed: 50 MHz; ~10,000 PBASIC instructions/sec
- PBASIC Commands: 45
- Package: 24-pin DIP
- I/O pins: 16 + 2 dedicated serial
- RAM Size: 32 Bytes (6 I/O, 26 Variable)
- Scratch Pad RAM: 64 bytes
- EEPROM (Program) Size: 8 x 2 KBytes; ~4,000 PBASIC instructions
- Voltage requirements: 5.5 to 12 VDC (Vin), or 5 VDC (Vdd)
- Current requirements: 60 mA Run, 500 µA Sleep
- Source/Sink Current per I/O: 30 mA / 30 mA
- Source/Sink Current per unit: 60 mA / 60 mA per 8 I/O pins
- Communication: Serial (9600 baud for programming)
- Dimensions: 1.20 x 0.63 x 0.15 in (30.0 x 16.0 x 3.81 mm)
- Operating temp range: -40 to +185 °F (-40 to +85 °C)