SBC485A

A turnkey RS-232/RS-485 solution for OEM's

The SBC485 is a low cost single board computer that provides OEM's with a turnkey RS-232 and RS-485/422 interface and control solution.

The SBC485 features:

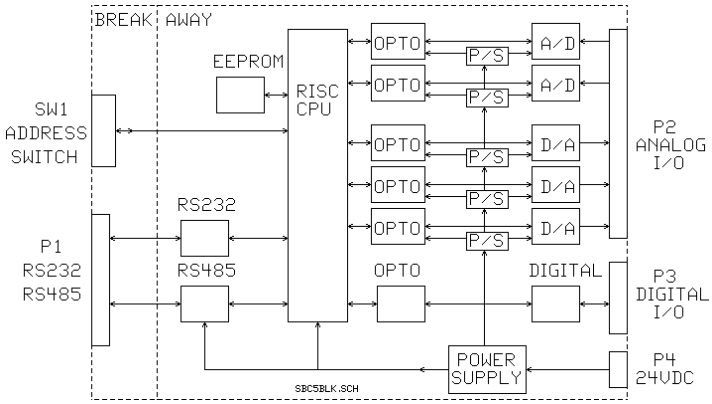
- ***RISC microprocessor running at 20 Mhz.***
- ***Wide input range power supply, 15-35 VDC.***
- ***RS-232 communications up to 19,200 baud with DB-9 connector.***
- ***RS-485 half duplex connection with multi-drop capability.***
- ***Three independently optically isolated channels of 12 bit D/A. Full scale voltage ranges of 0-2.5, 0-5.0 and 0-10 VDC are available.***
- ***12 Bit A/D with 4 channels single ended or 2 channels differential and with optical isolation between channels.***
- ***8 bit bi-directional digital I/O to connect to keypads, LCD's and discrete control lines.***
- ***2500 VAC Optical isolation for D/A, A/D and Digital I/O.***
- ***512 bytes of EEPROM for non-volatile storage of calibration or other constants.***
- ***RS-232/RS-485 connector board breaks away for easy packaging. The SBC485 connects to the assembly via ribbon cable.***
- ***A Windows(tm) program is available to control the SBC485 from a PC.***

The SBC485 is designed for both OEM's and end user applications. The C source code and the large array of peripherals make the SBC485 useful in many different applications. Custom OEM and end user applications can be created quickly and easily by modifying the C Source.

The SBC485 can be applied many applications including:

- ***OEMs can use the SBC485 to add RS-485/232 interface/control capability to their power supply, instrument, robot or test equipment.***
- ***RS-485 Network controller with multiple SBC485's.***

SBC485A-OEM BLOCK DIAGRAM



SBC485-OEM SPECIFICATIONS

Size	***5.50" X 2.50" and 0.63" X 2.50" connector PCB***
Processor	***RISC Processor w/ EPROM, SRAM and EEPROM.***
CLK Speed	***20 MHz***
Power	***15-35 VDC power supply, 1.2 Watts max.***
RS-232/485	***Up to 19200 Baud.***
D/A Conv.	***12 Bit, up to 3 Channel, 2.5, 5.0 and 10.0 Vfs***
A/D Conv.	***12 Bit, 2 or 4 Channel, 2.5, 5.0 and 10.0 Vfs***
Digital I/O	***8 Bit Bi-directional w/optional pull up resistors***

Power Supply

The low EMI power supply provides power for all standard and optional features from a wide range DC input.

Serial Communications

The SBC485 includes RS-232 capability and allows communication with any terminal or PC. In addition it provides the OEM with a multi-drop capable RS-485 half duplex interface switch configurable to 31 unique addresses. The Baud rate is programmable.

Digital I/O

The digital I/O capability is 8 bits and based on a Phillips I^2C bi-directional data port. The port allows easy interface to standard parallel LCD's and keypads. Sockets for SIP resistor pull-ups are provided to increase source current if necessary.

Technical Manual

A complete technical manual includes:

- ***Complete specifications.***
- ***Functional descriptions.***
- ***Operating Instructions.***
- ***Programming instructions for SBC485 with QuickBasic examples.***
- ***Test and Troubleshooting information.***

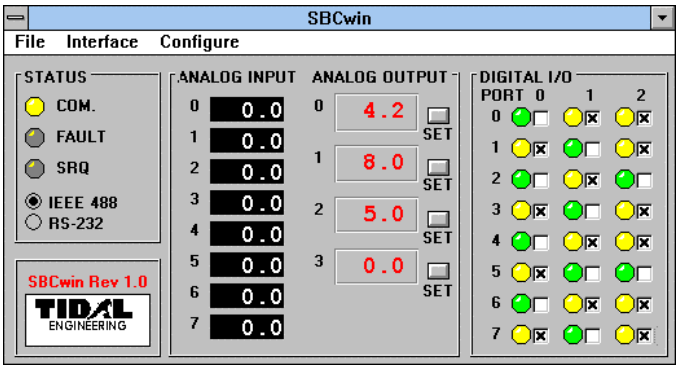
Software

SBC485-OEM includes application firmware in EPROM for:

- ***Serial communications functions and D/A, A/D and Digital I/O commands.***

A Windows(tm) program called SBCwin is provided to control the SBC485 from a PC using either the RS-232 or the RS-485.

The SBC485A and the Visual Basic source code for SBCwin are also available to OEM's as a starting point for your dedicated control program development.



Hardware Price List (prices effective until July 00)

Model	Description	QTY 1
SBC485A-OEM	Loaded SBC485-OEM, 20 MHz, RS-485 & RS-232 Interfaces,.	$245
ADAIO	12-bit ADC, and DAC 1,2.5,5 and 10 VDC	$170

Software Price List (prices effective until July 97)

SBCwin-source	Visual Basic ® Source code	$200
SBC485-source	SBC485 C Source code	$475

The SBC485A is available exclusively from:

ADI AMERICAN DISTRIBUTORS INC.

ADI is an ISO-9002 certified distributor of Electronic and Electro-Mechanical components and assemblies. Founded in 1983, ADI serves domestic and international customers in both commercial and military markets. ADI has introduced several high technology board level solutions in joint venture with Tidal Engineering. Tidal Engineering, founded in 1994, is involved in contract engineering and product development in embedded software, digital, analog and power electronics.

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For more information contact Craig Borax