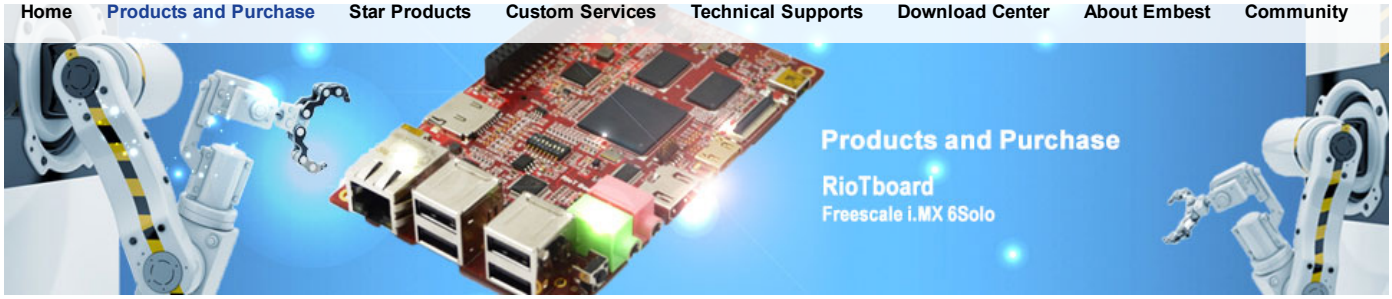


Products and Purchase

- Evaluation Boards
- Single-Board Computers
- CPU Modules
- Modules for Raspberry Pi
- Application Platforms
- Expansion Modules/Accessories
- Development Tools
- CooCox
- EmbestUniversity®
- AVID Series

Search here Search result：0 Results Sort by： --Select--

Manufacturers

Raspberry Pi, Freescale, Texas Instruments, Atmel, Altera, STMicroelectronics, NXP, Broadcom, Nuvoton, Samsung, AMD, CYPRESS, BBC

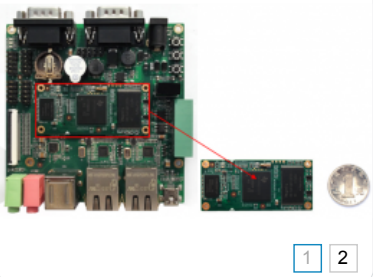
Cores

Cortex-A9, Cortex-A7, Cortex-A53, Cortex-A8, Cortex-A5, ARM 11, ARM 9, ARM7, Cortex-M4, Cortex-M3, Cortex-M0, SoC FPGA, X86

Search

Home > Products > Single-Board Computers > SBC8600B Single Board Computer

SBC8600B Single Board Computer



1 2

Accept ODM/OEM

LeadTime: 3~15 days

Part No: 6010237 6010238 6010239

Item: SBC8600B Single Board Computer

Quantity: 1

Price: $145.00

Delivery Wt: 2.21 lb

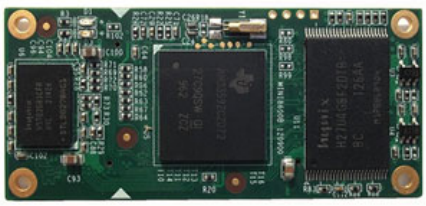
Buy in bulk, please contact: globalsales@embest-tech.com

Share Add to Cart

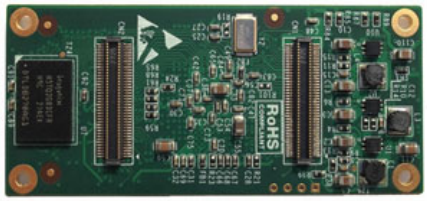
Overview **Purchase** **Inquiry** **Download**

SBC8600B single board computer

The SBC8600B is an excellent high-performance single board computer based on Texas Instruments' 1GHz Sitara AM3358 ARM Cortex-A8 processor. It is driven by a tiny CPU Module Mini8600B which has integrated AM3358 processor, DDR3, Nand Flash and brought out most of the features and signals of the AM3358 CPU through expansion pins. The CPU Module is in combination with a carrier board to extend and provide more features through headers and connectors.



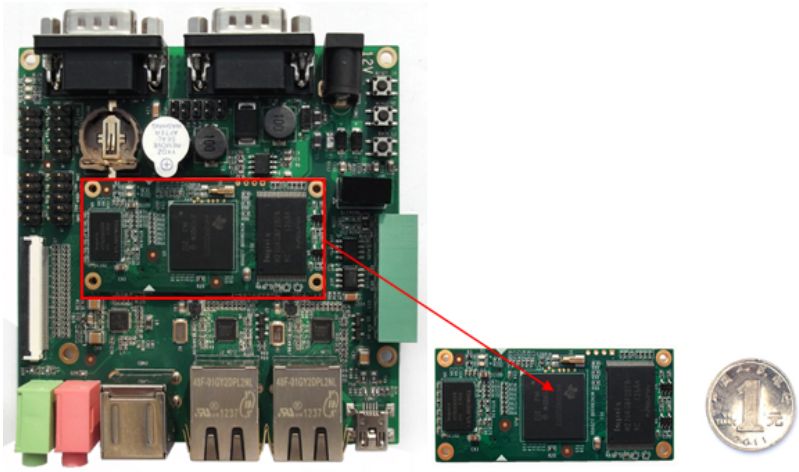
Top-View of Mini8600B CPU Module (CPU CPU Module of SBC8600B)



Bottom-View of Mini8600B CPU Module (CPU CPU Module of SBC8600B)

The SBC8600B board comes with a rich set of communication peripherals including six serial ports (2*RS232, 3*TTL, 1*RS485), two 10/100/1000 Mbps Ethernet ports, two USB Host, USB OTG and CAN interfaces, providing an ideal solution for applications requiring remote control and monitoring or mass connectivity. The board also has LCD and touch screen interface, Audio input and output ports, RTC, Buzzer and more other interfaces. Embest offers 4.3 inch and 7 inch LCD panels for user options which contain a 4-wire resistive touch screen as well.

The SBC8600B board is a ready-to-run solution which is provided with Linux 3.2.0, Android 2.3 and WinCE 7 BSP. One DVD is delivered along with the goods which includes the software driver source code and relative documents to help customer better understand this board and start their reference design.



Top-View of SBC8600B

Bottom-View of SBC8600B

Additionally, Embest offers various optional modules for the SBC8600B which greatly enhanced the functions of this board. Target applications of the SBC8600B board include Industrial Automation, Building Automation, Home control, Consumer Electronics, Security and Instrumentation.

Optional Module	Description	Interface to Board	Linux	Android	WinCE
VGA8000	VGA Module	LCD	Support*	Support*	Support*
WF8000-U	WiFi Module	USB Host	Support*	Not yet	Not yet
CDMA8000-U	3G Module (CDMA2000 standard)	USB Host	Support*	Not yet	Not yet
WCDMA8000-U	3G Module (WCDMA standard)	USB Host	Support*	Not yet	Not yet
CAM8100-U	Digital Camera Module	USB Host	Support*	Not yet	Not yet

LVDS8000	RGB-to-LVDS Module	LCD	Support*	Support*	Support*

* = Provided with Source Code # = Not Provided with Source Code

The SBC8600B Single Board Computer is based on TI's AM3358 ARM Cortex-A8 processor and designed with a tiny CPU Module Mini8600B mounted directly onto an expansion board. The SBC8600B is characterized as follows:

Mechanical Parameters

- Dimensions: 60.0 mm x 27.0 mm (8 layer PCB design)
- Working temperature: 0~70 Celsius
- Humidity Range: 20% ~ 90%
- Input Voltage: 3.3V
- **Mini8600B**

Processor

- TI AM3358 ARM Cortex-A8 microprocessor
- 1GHz ARM Cortex-A8 32-bit RISC MPU
- NEON™ SIMD Coprocessor
- 32KB/32KB of L1 Instruction/Data Cache with Single-Error Detection (parity)
- 256KB of L2 Cache with Error Correcting Code (ECC)
- SGX530 Graphics Engine
- Programmable Real-Time Unit Subsystem

Memory

- 2*256MByte DDR3 SDRAM
- 512MByte NAND Flash

Expansion Interfaces and Signals Routed to Pins

Two 0.4mm space 2*40-pin board-to-board male expansion connectors
- TFT LCD Interface (support 24-bpp parallel RGB Interface LCD)
- Two USB 2.0 OTG Ports With Integrated PHY, High-Speed
- Three inter-integrated circuit (I2C) Bus interfaces
- Six UART interfaces;
- One SPI interface;
- Two 10/100/1000 Mb/s Ethernet MAC (EMAC) with Management Data Input/Output (MDIO) module;
- A multichannel audio serial ports (McASP);
- 8-channel 12-bit ADC interfaces;
- Two 4-line SD/MMC card interfaces;
- GPMC bus

Expansion Board of SBC8600B

Mechanical Parameters

- Dimensions: 96 mm x 96 mm (6 layer PCB design)
- Input Voltage: +12V
- Temperature Range: 0~70 Celsius
- Humidity Range: 20% ~ 90%

Audio/Video Interfaces

- An Audio input interface (3.5mm audio jack)
- A two-channel audio output interface (3.5mm audio jack)
- A TFT LCD interface / 4 line Resistive Touch Screen interface (50pin FPC connector)

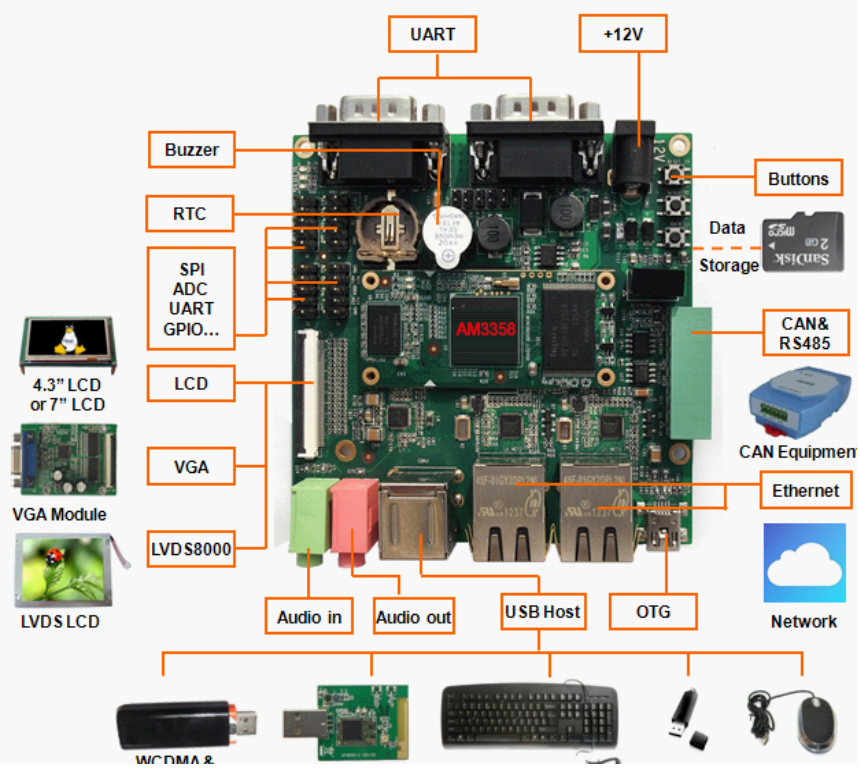
Data Transfer Interfaces

- Serial port:
  - 1 x 3 line Debug serial port, RS232 voltage (UART0 brings out by DB9 connector)
  - 1 x 3 line serial ports, RS232 voltage (UART2 brings out by DB9 connector)
  - 3 x 3 line serial port, TTL voltage (UART3/4/5 brings out by J6 and J7 2.54mm pitch 2*5-pin expansion connectors)
- USB ports:
  - 2 x USB2.0 Host ports with Integrated PHY (High-speed, 480Mbps, USB-A Type)
  - 1 x USB2.0 OTG port with Integrated PHY (High-speed, 480Mbps, Mini-USB Type)
- TF card slot
- 2 x Ethernet: 10/100/1000 Mbps, RJ45 connector (only one Ethernet supported in WinCE)
- 1 x CAN2.0 interface (brings out by 8-pin Phoenix Connector)
- 1 x RS485 interface (brings out by 8-pin Phoenix Connector)
- GPMC Bus interface

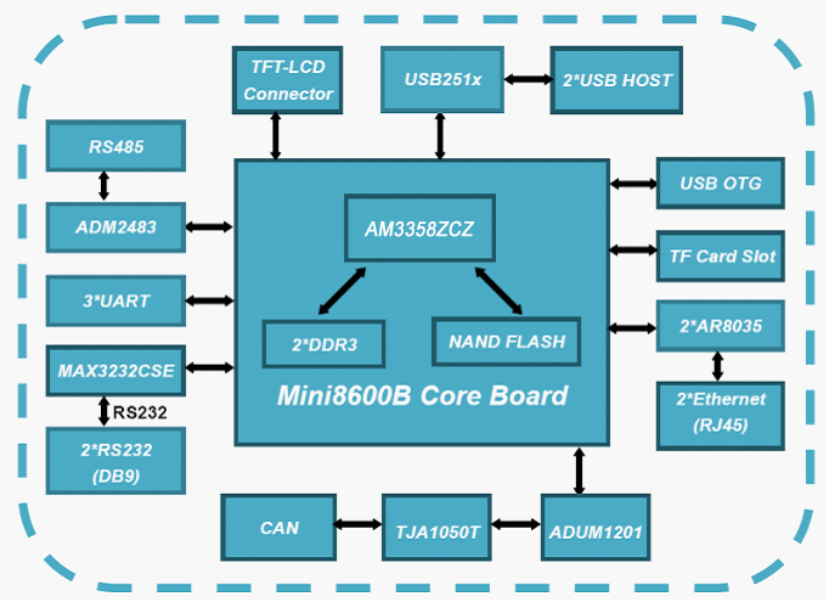
Input Interfaces and Other Facilities

- One RESET button
- Two User buttons (MENU and BACK)
- One Power indicator
- Two User LEDs
- One Buzzer

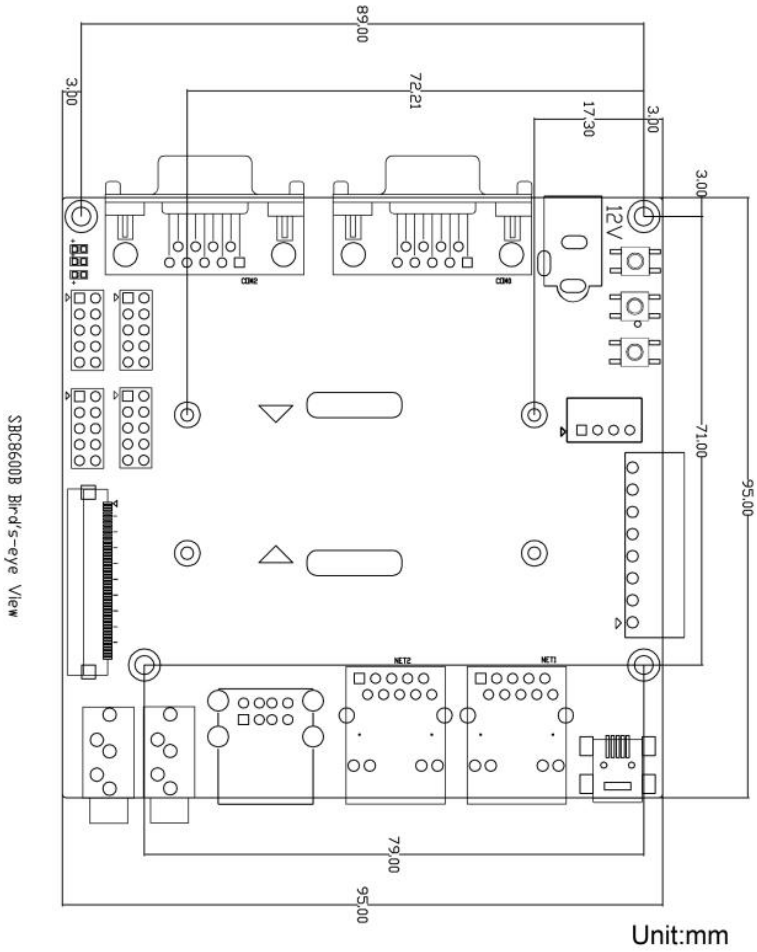
The board takes full features of TI's AM3358 microprocessor and has exposed many hardware peripherals through connectors or headers. Embest has also designed various function modules to further enhance the performance of SBC8600B board including VGA, Camera, WiFi and 3G (with CDMA2000 or WCDMA standard) modules, which are flexible for user selections to meet their own needs. More other modules are under development and will be released continuously.



Note: The TF card slot is on the rear of the board.



SBC8600B Function Block Diagram



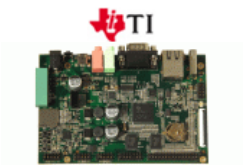
Dimension Chart of SBC8600B Single Board Computer

The SBC8600B Single Board Computer is provided with Linux 3.2.0, Android2.3 and WinCE7 BSP, with steady-going drivers, many of which are all in source code. Please refer to below table.

OS		Item	Remark
Linux	BIOS	SPL (First boot loader)	NAND
			MMC/SD
			FAT
		U-boot (Second boot loader)	NAND
			MMC/SD
			FAT
			NET
	Kernel	Linux-3.2.0	Supports ROM/CRAM/EXT2/EXT3/FAT/NFS/ JFFS2/UBIFS file systems
	Driver	NAND Flash, SDRAM, Serial port, RTC, Ethernet, TFT LCD, Touch screen, TF card, USB OTG, Audio input/output, LED, Key, CAN, RS485, Power Management (backlight, PWM, ADC) (provided with source code)	
		2D/3D (not provided with source code)	
Android	Kernel	Linux-3.1.0	Gingerbread
		NAND Flash, SDRAM, Serial port, RTC, Ethernet, TFT LCD, Touch screen, TF card, USB OTG, Audio input/output, LED, Key, Power Management (backlight,	

	Driver	PWM) (provided with source code) 2D/3D (not provided with source code)	
WinCE7	BIOS	X-loader (First boot loader)	NAND MMC/SD FAT
		EBOOT (Second boot loader)	NAND MMC/SD FAT NET
	OAL	OAL module	Boot parameter KILT(EMAC) Serial debug REBOOT Watchdog RTC Kernel profiler System timer Interrupt controller MMU
	Driver	NAND Flash, SDRAM, Serial port, RTC, Ethernet, TFT LCD, Touch screen, TF card, USB OTG, Audio input/output, LED, Key, RS485, Power Management (backlight) (provided with source code) CAN, 2D/3D (not provided with source code)	

Related Products



DevKit8600 with Accessories

SBC8118 Single Board Computer

Mini8600B CPU Module

BeagleBone Black(Rev C)

Contact Us

Tel: 0755-33190868-833/863/866/650

Fax: 0755-25616057

Sales: globalsales@embest-tech.com

Support: support@embest-tech.com

Tel: +86-(0)755-33190868-863/865/866/650

Emails: globalsales@embest-tech.com

About Embest

Embest Technology Co. Ltd, (part of element14/Premier Farnell Group) is a leading provider of embedded system solutions including hardware and software development tools and design services. With over 15 year experience in embedded solutions, Embest's expertise allows customers to implement Innovative technologies and products across a wide range of application areas, including automotive, consumer, industrial, wired and wireless networking. By offering a wide range of inexpensive hardware platforms for ARM-based controllers and software solutions for Android, Linux and Wince, we help customers quickly develop embedded applications, saving cost and getting faster to market.