



## Embbest BeagleBone Black Rev.C - Single-board Computer

SKU: 102110001

(images/product/BeagleBone Black Rev.C.jpg)

BeagleBone Black Rev.C is a development kit based on an AM335x processor which integrates an ARM Cortex™-A8 core operating at up to 1GHz and has abundant peripheral devices. BB Black provides lots of expansion interfaces such as Ethernet, USB host and OTG, TF card, serial, JTAG (no connector by default), HDMI D type, Emmc, ADC, I2C, SPI, PWM and LCD. Embest BeagleBone Black Rev.C is designed to satisfy the different requirements of various fields including game devices, home and industrial automation, consumer medical devices, printers, intelligent tolling systems, weighing systems of intelligent vending machine, educational terminals and high-end toys.

#### **Hardware Features**

##### **• General Specifications:**

- Dimensions: 86.36 mm×54.61mm
- Operation Temperature: 0 ~ 70°C
- Operating Humidity: 20% ~ 90% (Non-Condensing)
- Power Supply: 5V/0.35A

##### **• AM335x Processor:**

- Integrating 1GHz ARM Cortex™-A8 core
- Integrating NEON™ SIMD coprocessor
- Integrating SGX530 graphics engine
- Integrating programmable real-time unit subsystem
- Integrating 32KB instruction buffer and 32KB data buffer with single-error detection (parity)
- Integrating 256KB L2 cache with error-check code

##### **• On-Board Memories:**

- 4GB 8-bit eMMC on-board flash storage (rev. 3)
- 512MB DDR3 SDRAM

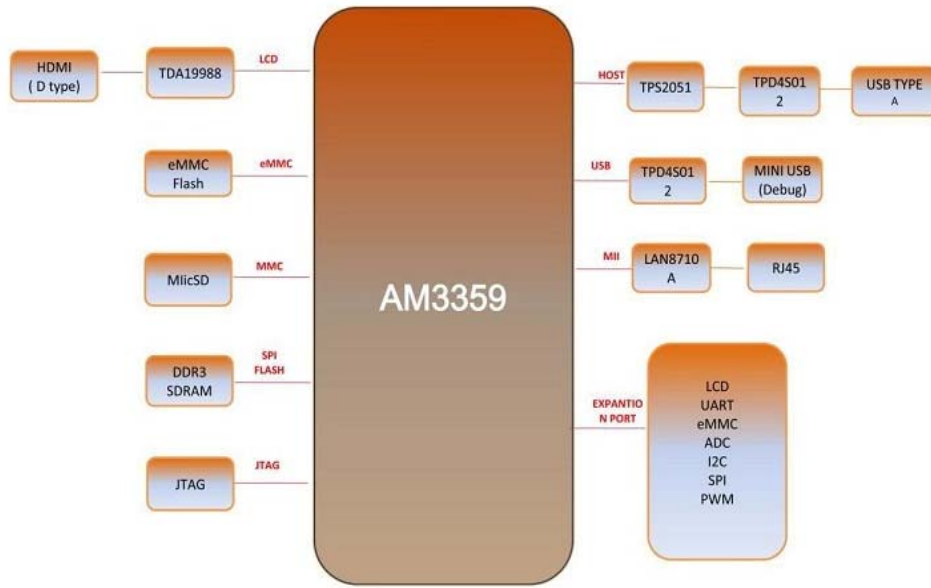
##### **• On-Board Interfaces:**

- 1 HDMI D type interface (16-bit color with audio output)
- 1 LCD interface (24-bit output, extended by P8 interface)
- 1 10/100M Ethernet (RJ45 connector)
- 1 high-speed USB 2.0 OTG interface with PHY (Mini USB type-B connector)
- 1 high-speed USB 2.0 HOST interface with PHY (USB type-A connector)
- 1 TF card slot (SD/MMC)
- 1 3-line debugging serial interface (6-pin 2.54-pitch connector)
- 1 HDMI type-D interface
- 1 expansion interface for LCD, UART, eMMC, ADC, I2C, SPI and PWM
- 1 JTAG interface (optional item, 20-pin standard interface, no connector mounted by default)

##### **• Buttons & LEDs:**

- 1 boot device selection button
- 1 power button
- 1 reset button
- 1 LED power indicator
- 4 user custom indicators

### System Block Diagram



### Software Features

Items	Notes	
OS	Debian, Angstrom, Ubuntu, Android	
Device Driver	Uart	Uart Driver
	Ehternet	10/100 IEEE1588
	Display	HDMI Driver
	mmc/sd	SD 2.0 /eMMC Driver
	USB	High speed USB Host Driver
	Led	User LED Driver

- Supported by Debian system for element14 BeagleBone Black(Rev C) and shipped with drivers and source code
- Supported by TISDK system for element14 BeagleBone Black(Rev C) and shipped with drivers and source code

For more information, please click here (<http://www.embest-tech.com/shop/star/element14-beaglebone-black-rev-c.html>).

### Overview



(<http://www.seeedstudio.com/depot/Maker-Pro-t-1672.html?ref=pinfo>)

Designer: Embest  
(<http://www.embest-tech.com>)  
Other Products From

This Designer (<http://www.seeedstudio.com/depot/Embest-m-111.html?ref=pinfo>)  
Weight: 123 g