**20140814 - BeagleBone Black - Getting Started - Demos and Information**

Specifications: BBB vs rPI

|  | BBB model B | BBB model C | rPI rev B | rPI rev B+ |
| --- | --- | --- | --- | --- |
| SoC | AM3358/9 | AM3358/9 | Broadcom BCM2835 | Broadcom BCM2835 |
| CPU | Cortex-A8 1ghz | Cortex-A8 1ghz | 700mhz Arm1176 (Arm11 ARMv6 instruction set) | 700mhz Arm1176 (Arm11 ARMv6 instruction set) |
| GPU | PowerVR SGX530 200mhz | PowerVR SGX530 200mhz | Broadcom VideoCore IV 250mhz OpenGL ES 2.0 MPEG-2 and VC-1 1080p | Broadcom VideoCore IV 250mhz OpenGL ES 2.0 MPEG-2 and VC-1 1080p |
| Memory | DDR3 512mb | DDR3 512mb | 512mb (shared with GPU) | 512mb (shared with GPU) |
| USB 2.0 | 1x Standard A Host (direct) 1x mini B device port (direct) | 1x Standard A Host (direct) 1x mini B device port (direct) | 2 via onboard 3 port USB hub | 4 via onboard 5 port USB hub |
| Video output | Micro-HDMI and cape add ons | Micro-HDMI and cape add ons | Composite RCA, HDMI (full size), raw LCD Panels via DSI | Composite RCA (on 3.5mm jack), HDMI (full size), raw LCD Panels via DSI |
| Video input |  |  | 15-pin MIPI camera interface connector | 15-pin MIPI camera interface connector |
| Audio output | Micro-HDMI and cape add ons | Micro-HDMI and cape add ons | 3.5mm jack, HDMI, I2S audio | 3.5mm jack, HDMI, I2S audio |
| Onboard Storage | 8-bit eMMC 2gb (Angstrom pre-installed) microSD card | 8-bit eMMC 4gb (Debian pre-installed), microSD card | SD card slot | microSD card slot |
| Onboard Network | Fast Ethernet MII based | Fast Ethernet MII based | 10/100 Mbits Ethernet | 10/100 Mbits Ethernet |
| Low-Level Peripherals | 4x UART, 8x PWM, LCD, GPMC, MMC1, 2x SPI, 2x I2C, A/D converter, 2x CAN Bus, 4 Timers | 4x UART, 8x PWM, LCD, GPMC, MMC1, 2x SPI, 2x I2C, A/D converter, 2x CAN Bus, 4 Timers | 8x GPIO, UART, I2C bus, SPI bus w/2 chip selects, I2S audio | 17x GPIO, UART, I2C bus, SPI bus w/2 chip selects, I2S audio |
| power ratings | 210-460mA @5v | 210-460mA @5v | 700mA (3.5W) @5v | 600mA (3.0W) @5v |
| Power Source | mini USB or 2.1mm x 5.5mm 5v Jack | mini USB or 2.1mm x 5.5mm 5v Jack | 5v via MicroUSB or GPIO header | 5v via MicroUSB or GPIO header |
| Size | 86.4 mm x 53.3 mm (3.4 in x 2.1 in apx) | 86.4 mm x 53.3mm (3.4 in x 2.1 in apx) | 85.6 mm x 56mm (3.37 in x 2.2 in apx) | 85.6 mm x 56mm (3.37in x 2.2in apx) |
| Weight | 39.68 g (1.4oz) | 39.68g (1.4oz) | 45g (1.6oz) | 45g (1.6oz) |
| Optional Accessories | BeagleBoard Zippy/Zippy 2, BeagleTouch Display, Beagle LCD2 Expansion board, BeagleJuice (battery pack), WLAN (wireless), BeadaFrame, 4DLCD Cape | BeagleBoard Zippy/Zippy 2, BeagleTouch Display, Beagle LCD2 Expansion board, BeagleJuice (battery pack), WLAN (wireless), BeadaFrame, 4DLCD Cape | Camera, Gertboard, Infrared Camera, HAT (Hardware Attached on Top) Expansion boards | Camera, Gertboard, Infrared Camera, HAT (Hardware Attached on Top) Expansion boards |

There are a number of expansion boards for both the BBB and the rPI.

Was looking for some hard numbers on the community/users of both boards, and couldn’t come up with anything.

If G+ communities are any indication then rPI has BBB beat by a long shot. With 169,000+ members vs the 2600+ members of BBB or the 1800 member of a different BBB communitie (thou you have to figure at least some of those are cross-overs)

There are Beaglebone Clones the IGEPv2 has slightly more ram, built-in Bluetooth and Wi-FI, a USB host, ethernet, microSD

<http://en.wikipedia.org/wiki/IGEPv2>

BeagleBoard.org Getting Started Tutorial: (This is where we are going to start!)

<http://beagleboard.org/getting-started>

Inspire BeagleBone Black Resources:

<http://inspire.logicsupply.com/>

Visual of BeagleBone Black GPIO (Java needed):

<http://eskimon.fr/beaglebone-black-gpio-interactive-map>

Tinker Now - Things to tinker with has many BBB projects:

<http://tinkernow.com/>