



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



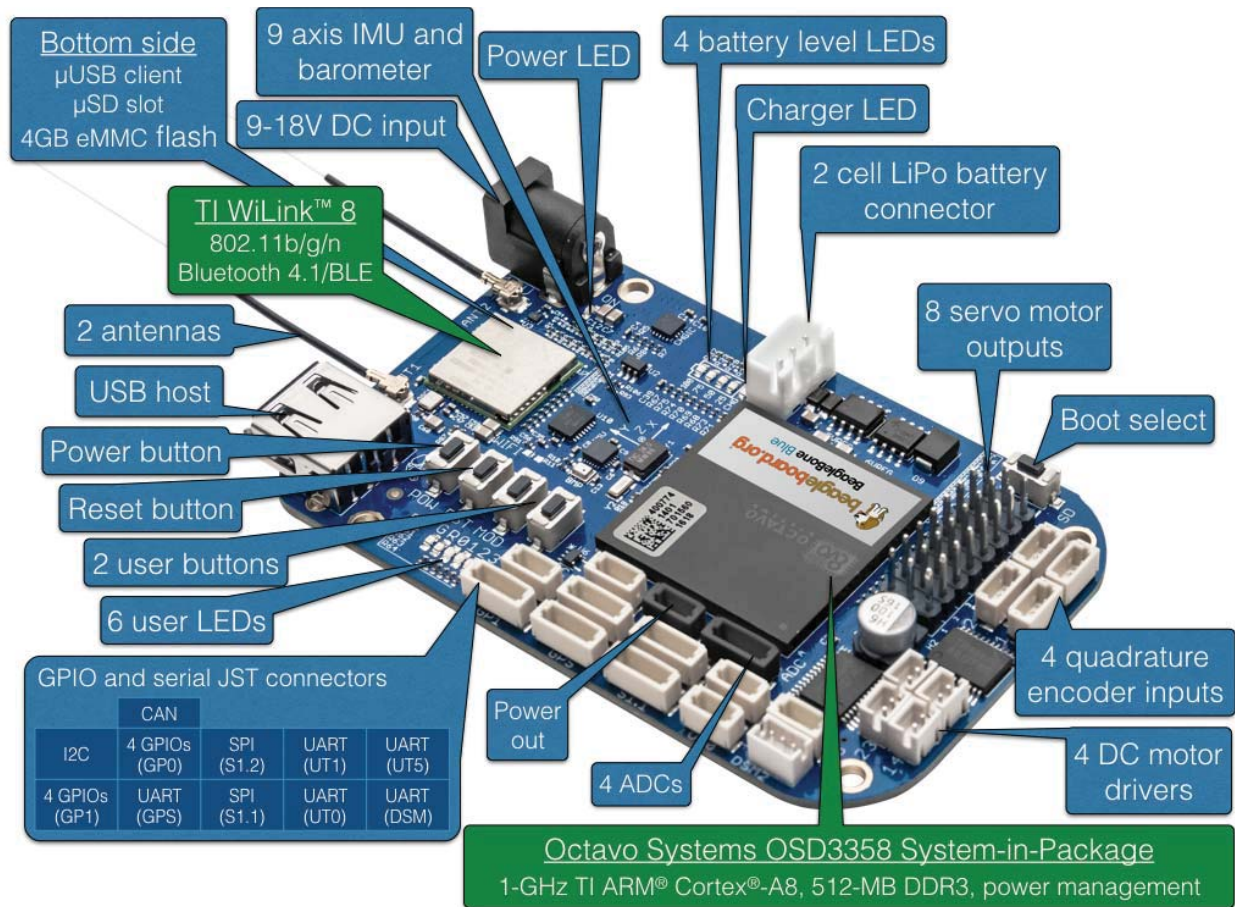
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Specifications:

- a. Processor (Integrated in the OSD3358):
 - i. AM335x 1GHz ARM® Cortex-A8
 - ii. SGX530 graphics accelerator
 - iii. NEON floating-point accelerator
 - iv. 2x PRU 32-bit 200MHz microcontrollers
- b. Memory:
 - i. 512MB DDR3 800MHZ RAM (Integrated in the OSD3358)
 - ii. 4GB 8-bit eMMC on-board flash storage
 - iii. SD/ MMC Connector for microSD
- c. Software Compatibility
 - i. Debian
 - ii. Ardupilot

- iii. ROS
- iv. Cloud9 IDE on Node.js w/ BoneScript library
- d. Connectivity
 - i. High speed USB 2.0 Client port: Access to USB0, Client mode via microUSB
 - ii. High speed USB 2.0 Host port: Access to USB1, Type A Socket, 500mA LS/ FS/ HS
 - iii. WiLink 1835 WiFi 802.11 b/ g/ n 2.4GHz. Supports the following modes
 - 1. 2x2 MIMO
 - 2. AP
 - 3. SmartConfig
 - 4. STA
 - 5. Wi-Fi Direct
 - 6. Mesh over Wi-Fi based on 802.11s
 - iv. WiLink 1835 Bluetooth 4.1 with BLE
 - v. Serial port:
 - 1. UART0, UART1, UART5 available via 4 pin JST-SH connectors
 - 2. UART2 available via 6 pin JST-SH connector (EM-506 GPS style connector)
 - 3. UART4 RX available via 3 pin DSM2 (JST-ZH) connector
 - vi. I2C1 available via 4 pin JST-SH connector
 - vii. SPI1 CS0 (S1.1) and SPI1 CS1 (S1.2) available via 6 pin JST-SH connectors
 - viii. CAN available via 4 pin JST-SH connector (includes TCAN1051 CAN transceiver)
 - ix. 8 GPIOs (GP0 and GP1) available via 6 pin JST-SH connectors
 - x. ADC inputs 0 to 3 available via 6 pin JST-SH connector
 - xi. 3.3VDC and 5VDC power output via 4 pin JST-SH connector
- e. Power management:
 - i. TPS65217C PMIC is used along with a separate LDO to provide power to the system (Integrated in the OSD3358)
 - ii. 2 cell (2S) LiPo battery charger (powered by 9 – 18VDC DC Jack)
 - iii. 6VDC 4A regulator to drive servo motor outputs
- f. Debug Support: JTAG test points
- g. Power Source
 - i. microUSB USB

- ii. 2 cell (2S) LiPo battery JST-XH connector
 - iii. 9 - 18VDC DC Jack
 - h. User Input / Output
 - i. Power Button
 - ii. Reset Button
 - iii. Boot Button
 - iv. 2 user configurable buttons (MOD, PAU)
 - v. 11 user configurable LEDs (USR0-3, Red, Green, WIFI, Battery 0-3); Charger LED; Power LED
 - i. Motor Control (requires power from either DC Jack or 2S battery):
 - i. 4 DC motor drivers
 - ii. 4 Quadrature encoder inputs
 - iii. 8 Servo motor outputs
 - j. Sensors
 - i. 9 axis IMU
 - ii. Barometer