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 GPI1) 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