CL1B Hardware Design Brief

Processor & core system:
Via C7-M (1 GHz) ULV CPU
Via VX855 Companion chip for peripheral I/O
512 MiByte or 1 GiByte DDR2 SDRAM system memory, running at 400MHz
Embedded controller for system monitoring
ISA Compatibility: Support for both the MMX and SSE X86 instruction-set extensions

Storage:
4 GiByte of NAND Flash memory on motherboard
1 MiByte of serial Flash memory provided separately for firmware
Expandable through a single SD/MMC memory module socket.

Audio:
HD Audio subsystem
Internal stereo speakers and amplifier
Internal mono. microphone
Jack for external stereo headphone
Jack for external stereo microphone, dual sensors, or switches

Display:
7.5in (19 cm) color/monochrome dual mode TFT LCD, 1200x900 (200dpi)
Viewing area: 152.4 mm x 114.3 mm; 6 in x 4.5 in
Sunlight readable
Dedicated display controller (with separate 2MB SGRAM frame buffer) supports use of display when CPU is powered down
Solid state (LED) backlight

Camera module:
Integrated color video camera
640 x 480 resolution
Full frame rate (30fps)

Wireless Networking:
Integrated IEEE 802.11/b/g (2.4 GHz) wireless networking interface
Ad-hoc and AP mode networking supported
Capable of network operation when CPU is powered down
Dual antennas integrated into laptop

Expansion Ports:
Three external USB 2.0 ports provided

Input Devices:
Water and dust proof 80+ key rubber keyboard, with 1mm stroke
Capacitive touchpad used for pointing device

Buttons:
Power button on the side of the display
Screen rotate button on the side of the display
Two sets of 4-direction cursor control buttons
Magnetic sensor detects laptop closure
Magnetic sensor detects use in eBook mode

Indicators:
Power on/off LED
Battery status LED (Dual color)
WiFi and Storage status LEDs
Hardware controlled internal Microphone in-use LED
Hardware controlled camera in-use LED

Power Conversion:
DC power input, from 11V to 24V, internally limited to 25W draw
Integrated charger for Ni-MH/ LiFePO4 batteries
High efficiency LED Backlight control circuit
6 mm power input connector (1.65 mm center pin)

Overall Safety:
IEC 60950-1 qualified (in process)
EN 60950-1 qualified (in process)
CSA/UL 60950-1 qualified (in process)
ASTM F 963 – Standard Consumer Spec on Toy Safety qualified (in process)

Battery Pack:
5 serial Ni-MH AF type batteries with integrated gas gauge IC
2 or 4 serial LiFePO4 AF type batteries with integrated gas gauge IC
Safety: UL 1642 qualified
Minumum Capacity: 3100 mAh
Operating Temp. Charge: -10 to +50C
Opertaing Temp. Discharge: -20 to +55C
Lifetime requirement: 2000 cycles at 25C, with 50% capacity remaining

AC adapter:
25W external AC adapter
90v(-10%) ~ 240v(+25%), 35-60Hz, AC input
12V DC output
EnergyStar Level IV compliance
Safety: IEC 60950-1, EN 60950-1 & CSA/UL 60950-1 qualified
Extra Transient and Burst Immunity: IEC 61000-4-4 passed
Extra Surge Immunity: IEC 61000-4-5 passed

Weight: <1.5KG **Size:** 245mm (9.65") x 230mm (9") x 30.5mm (1.2")