operation funtions

1.Characteristics:

1>UMPC891 is a model of touching screen Notebook built on X86 instruction set architecture, with CPU Intel Atom N series. It has Ultra Mobile (Portable), touching screen/handwriting, WiFi, Bluetooth functions.

2.Description of Funtions

1>CPU is the head of the whole computer system, chipset (MCH and ICH) is bones of the body. As the part directly dealing with CPU, Chipset is the basic platform of CPU Power realization. Let ‘s start with Clock chip ICS9L, it can be considered as the heart of Motherboard, it supplies the basic punctual time signal to all functional Chips, guarantee all parts working in order.

2>MCH(North Bridge) is the central chip connecting CPU, memory, and ICH. Its main job is calculating and transfering some high speed and big size pictures and memory data, e.g. data transfer between RAM and CPU. LVDS signal is sent through MCH. MCH also works as Video card. Video Memory is taken from RAM.

3>Many Functional Modules are connected to ICH(South Bridge), e.g. USB devices, HDD, EC, Audio, LAN, etc, all are controlled by ICH. ICH specification can have eight USB connections. USB connections in use are one USB camera, three USB ports, one SD card and one BT/Wifi module. Soundcard chip is connecting ICH via AC_LINK bus. Soundcard chip controls MIC and Speaker. ICH controls LAN via PCIE bus. The following is the most important functional Module – EC. EC (embedded controller) connects ICH via LPC bus. EC controls the output and the allocation of the whole power system power voltage, e.g. system power on signal, CPU heat ventilation functioning and battery’s charging process etc. It also controls low speed connecting parts in the System, e.g. keyboard, touchpad or other user interfaces. System Bios is normally next to EC chip. The control firmware of EC is stored with BIOS program code in the Flash ROM of Bios chip.

4>UMPC891 uses Aluminum Alloy metal back case, realizes good earthing function and better avoid EMI interruption.

3.Specifcation

CPU	**Intel atom N270　1.6GHz**
Chipset	**Intel 945GSE+ICH7-M**
LCD	**8.9"TFT Touch Screen (1024×600）**
Memory	**DDR2 /1~2G/667MHz**
Graphics	**Intel GMA950**
Hard Disk	**16~250G　SSD**
Internet　Connection	**Wireless Internet card Built-in Wifi (802.11b/g)//Built-in 10/100Mbps Wire-Internet**
Camera	**COMS Camera 0.3 ~ 1.3M Pixel**
USB interface	**USB interface 2.0×3**
	USB 2.0×3 **wire-internet & VGA interface×1** **Storage expansion SD/ MMC×1**

	Mic input φ3.5mm / -56dB×1 **Earphone output φ3.5mm / 40mW×2×1** **Power input DC18.5V/ 3.5A×1**
Size	**250 mm×168 mm×21.3 mm**
Weight	**NW: 1.01kg GW: 1.335kg**
Bluetooth	**Built-in Bluetooth modular/FHSS modulation**

Antenna: PIFA antenna with gain 2.5dBi for two antennas (Bluetooth and Wifi shared the antennas)

RF Module Control Unit can check the signal strength of the two antennas, and decide use which one through control the RF switch unit. In the same time just One Antenna is working.

Modulation type: DSSS (CCK, DQPSK, DBPSK) For 802.11b and OFDM (64QAM, 16AQM, QPSK, BPSK) For 802.11g for Wifi; FHSS for Bluetooth

Operational Frequency: 2412-2462MHz for Wifi and 2402-2480MHz for Bluetooth

Input Voltage: 18.5V powered by power adaptor or 10.8V powered by Lion Battery (Model: WY02, Rating: 10.8V, 27Wh)