

## **Operational Description**

Flatted machine with bottom leveled up and install the battery.

Take out the adapter and power cord and then connect the adapter with power cord firstly.

Put AC power cord into power plug in.

Put adapter output jack into the computer power socket.

After The above ready, press power on and wait few seconds stepping into windows.

Click start from program to choose the software you want, or directly click shortcut on the desktop to get into application file.

Kindly update your anti-virus software when internet connected to protect your computer.

Click shut down from start when you want power off the machine

## **Operational Description of WIFI Module**

The AW-NE785H is a low-profile highly integrated cost-effective Single-Chip Wireless LAN network interface controller that integrates a Wireless LAN MAC, a baseband processor, and 2.4GHz RF onto one chip. It provides a PCI Express bus controller, and full compliance with IEEE 802.11 and IEEE 802.11b/g/n specifications. It also complies with WMM, 802.11e, and CCX specifications.

To reduce protocol overhead, the AW-NE785H supports Short Inte Frame Space (SIFS) burst mode to send packets back-to-back. A protection mechanism prevents collisions among 802.11b nodes.

Direct Sequence Spread Spectrum (DSSS), Complementary Code Keying (CCK), and Orthogonal Frequency Division Multiplexing (OFDM) baseband processing are implemented to support all IEEE 802.11b, and 802.11g and 802.11n data rates. Differential phase shift keying modulation schemes, DBPSK and DQPSK with data scrambling capability, are available, along with complementary code keying to provide data rates of 1, 2, 5.5, and 11Mbps, with long or short preamble. A high-speed Fast Fourier Transform (FFT)/Inverse Fast Fourier Transform (IFFT),

combined with BPSK, QPSK, 16QAM and 64QAM modulation of the individual sub-carriers, provides data rates of 6, 9, 12, 18, 24, 36, 48 and 54Mbps, with rate-compatible punctured convolutional coding with a coding rate of 1/2, 2/3, and 3/4.

An enhanced signal detector, an adaptive frequency domain equalizer, and a soft-decision Viterbi decoder are built-in to alleviate severe multipath effects. Efficient IQ-imbalance calibration, DC offset, phase noise, frequency offset, and timing offset compensation reduce radio frequency front-end impairments. Selectable digital transmit and receive FIR filters are provided to meet the requirements of transmit spectrum masks, and to reject adjacent channel interference, respectively. Both in the transmitter and receiver, programmable scaling in the digital domain trades the quantization noise against the increased probability of clipping. Robust signal detection, symbol boundary detection, and channel estimation perform well at the minimum sensitivity.

The AW-NE785H supports fast receiver Automatic Gain Control (AGC) and antenna diversity functions, and an adaptive transmit power control function to obtain better performance in the analog portions of the transceiver. It also has on-chip digital-to-analog converters and analog-to-digital converters for analog I and Q inputs and outputs, transmit TSSI and receiver RSSI inputs, and transmit and receiver AGC outputs.

It supports Advanced Configuration Power management Interface (ACPI), Legacy PCI power management, and PCI Express power management for modern operating systems that are capable of Operating System directed Power Management (OSPM). PCI MSI (Message Signaled Interrupt) function and PCI Express Device Serial Number Capability are also supported.

In addition to the ACPI feature, the AW-NE785H also supports remote wake-up (including AMD Magic Packet and Microsoft® wake-up frame) in both ACPI and APM environments. To support Wake on Wireless LAN from a deep power down state (e.g., D3cold, i.e. main power is off and only auxiliary power exists), the auxiliary power source must be able to provide the needed power. When auxiliary power is applied and the main power remains off, the AW-NE785H is ready and waiting for a Magic Packet or wake-up frame to wake the system up.

The AW-NE785H supports an enhanced link list descriptor-based buffer management architecture, which is an essential part of a design for a modern network interface card. It contributes to lowering CPU utilization.

Also, the AW-NE785H features inter-connect PCI Express technology. PCI Express is a high-bandwidth, low pin count, serial, interconnect technology that offers significant improvements in performance over conventional PCI and also maintains software compatibility with existing PCI infrastructure. Support is also

provided for Multiple BSSID, Adjustable fallback steps and fallback rates during auto rate fallback, TX Power Tracking, Enhanced three-wire mechanism, Parallel Control Interface between Baseband and RF, and Bluetooth coexistence.

The AW-NE785H keeps network maintenance costs low and eliminates usage barriers. The AW-NE785H is highly integrated and requires no 'glue' logic or external memory.