

## **Wireless LAN and Bluetooth Class2**

### **Overview**

The CE-500 platform provides an optional combined Wireless Local Area Network (IEEE 802.11) and Bluetooth (Class2) communication module. The Wireless LAN communication is especially suited to high-speed data transfer over the air, when the Wireless LAN hotspot infrastructure is provided. For applications that require huge data transactions, Wireless LAN is the most economical way to implement the solution. Bluetooth communication is used for the Bluetooth-enabled connections with peripherals, such as mobile phone, audio headset, and printer.

The CE-500 Wireless LAN and Bluetooth Class2 module adopts Marvell's latest highly-integrated WLAN and Bluetooth SoC - 88W8688

### **Wireless LAN Operation**

The module is compliant with the IEEE 802.11b/g standard and uses DSSS (Direct Sequence Spread Spectrum), OFDM (Orthogonal Frequency Division Multiplexing), DBPSK, DQPSK, CCK, and QAM baseband modulation technologies.

In addition to the support of WPA / WPA2, WEP 64-bit, and 128-bit encryption, the module supports the IEEE 802.11i security standard. The module supports this standard through the implementation of AES (Advanced Encryption Standard), CCMP (Counter Mode CBC-MAC Protocol), and WEP with TKIP security mechanisms.

The module also supports IPsec with DES / 3DES / ASE encryption and MD5 / SHA-1 authentication.

For the Chinese market, the module supports WAPI specifications.

For video, voice, and multimedia applications, the AW-GH381 supports 802.11e QoS (Quality of Service).

## **Bluetooth Operation**

The module is Bluetooth 2.1+EDR (Enhanced Data Rate) compliant.

The CE-500 system supports the following Bluetooth communication profiles:

SPP [Service (Serial) Port Profile]

LAP (LAN Access Profile, applicable in professional license only)

PAN (Personal Area Networking) Profile

GAP (Generic Access Profile) **TBD**

GOEP (Generic Object Exchange Profile) **TBD**

HCRP (Hardcopy Cable Replacement Profile) **TBD**

DUN (Dial-Up Network) Profile **TBD**

FTP (File Transfer Profile) **TBD**

HID (Human Interface Device) Profile **TBD**

HFP (Hands-Free Profile) **TBD**

HSP (Headset Profile) **TBD**

OPP (Object Push Profile) **TBD**