

**FCCID : XOJGA1000**  
**Operation Theory**

1. **Purpose:** The purpose of this document is to describe key component operations of WIFI.
2. **Key components:** Marvell 88W8686, System on chip for WIFI.
3. **Operation Principle:** The Marvell 88W8686 is a highly integrated IEEE 802.11 b/g ,WIFI Baseband. Operation at 3.3V for interface power supply, 1.8V for core. For WIFI, support 802.11B datarate :  
1M/2M/5.5M/11M  
802.11G datarate :  
6M/9M/12M/18M/24M/36M/48M/54M.

# 1 Key Features

## Radio

- Operation with common TX/RX terminals simplifies external matching circuitry .
- High Speed for SDIO/SPI.
- Cellular phone co-existence support.
- IEEE 802.11i for advance security.

A simplified block diagram of the AW-GH321 module is depicted in the figure below.

