Operational Description

This device AP-1001g-P operates based on 802.11b/g standard, in the 2.4GHz frequency band. The maximum data rate could be up to 108Mbps which OFDM technique will be applied. If the signal to noise radio is too poor which could not support 108Mbps, the 11Mbps data rate with CCK technique will be applied.

The transmitter of the EUT was powered by a power adapter. The antenna type is patch antenna and printed antenna without antenna connector.

Under normal use condition, the user has to keep at least 20cm separation distance between radiator and the body of the user.

The other instruction, please have a look at the users manual.

For Block Diagram, please refer to Block Diagram Description.

This device is powered by a 12Vdc supply. It's designed to operate at frequency 2.412GHz to 2.462GHz.
There is a button located beside the LED, this button is used reset the device back to Factory Default setting, to do this, please press and hold this button for 10sec.
All tuning and verification are performed by the manufacturer and there are no adjustments can be mode by use.
The Main processor AR2312A is the MAC/Baseband processor, integrates a 32-bit MIPS processor core; an SDRAM controller; memory interfaces for Flash and ROM; interfaces to AR2112 RoC(Radio On Chip); one IEEE802.3 compatible MII interface to KS8721BE Ethernet Phy. for Ethernet connectivity.

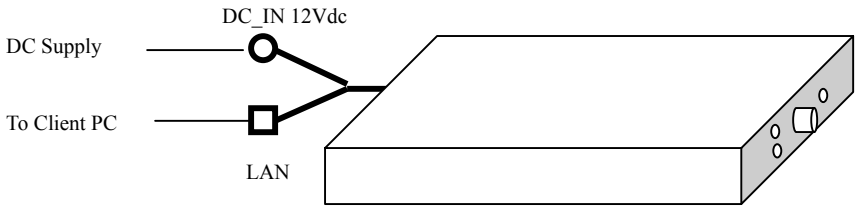
The **digital section** consists of the AR2312A, SDRAM, Flash, IEEE8-23(u) Ethernet switch, LEDs, push buttons.
The **analog/RF section** consists of a 2.4GHz channel for 802.11b/g. This consists of Atheros RoC AR2112, an external output power booster, and an external low noise amplifier (LNA), in addition to matching and filtering elements.

The **AR2312A** implements a half-duplex, Orthogonal Frequency Division Multiplexing (OFDM) baseband processor supporting all 802.11b.g data rates.
The **AR2112** chip is an integrated CMOS radio transceiver that supports the 802.11b/g standard. Support connection to external output power booster for high performance. The transceiver core, digital logic, and VCO are powered by 2.5V.

During Transmission, I/Q data will be generated by AR2312A and send to AR2112 where the data to will be converted to RF signal, the RF signal then transmit to a output power booster for amplification, the amplified signal will pass through the BPF and Antenna Switch to the Antenna.

During Receiving, The RF signal received by antenna, go through Antenna switch, a BPF then amplified by a LNA, the signal then receive by AR2112 to demodulate and send to AR2312A in I/Q format.

Get started



As Ethernet Client

When the device is Power Up (Factory default), the device will act as an Ethernet client, with following setting.

Model: AP-1001g-P

IP Address: 10.0.0.2

SSID: Teraoka

As AccessPoint (AP)

These device can be configure to AP, please refer to **users manual** for detail.

In AP mode, Any nearby 802.11b/g clients can be connected to this device, provided the clients are configured with same SSID as the AP.