

## Introduction

The USI 802.11 Type I CompactFlash Wireless network module, "CF-BA-G-02", is a full function 802.11b 11 Mbps wireless network module which provides CF+ host interface with type I mechanical design. The design of two External antenna connectors provides flexibility on antenna design.

CF-B-AG-02 is a standard product that is approved as one of USI's Wi-Fi NIC module product lines. It provides user friendly interface to enable the host system users to manage and access to the network by wireless.

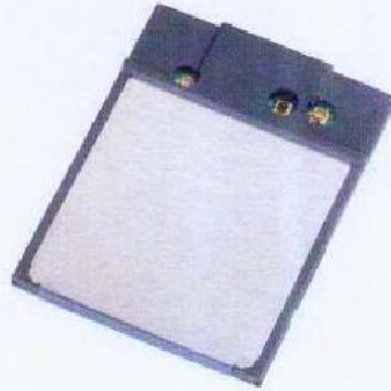
The small size design, low power consumption and excellent radio performance make it the best solution for OEM customers who require CF type 802.11b Wi-Fi NIC adapters, such as, access point, wireless router, PDA, mini-printer, wireless camera, tablet PC etc.

For the hardware features, Agere "Beagle" chipset solution is adopted. In addition to the classic radio performance of Agere solution, two antenna connectors provide antenna diversity switching that support robust and smooth data connection under multi-path (office) environments.

802.11d is supported for new applications and requirements.

In addition to WEP, WPA and TKIP are supported to provide your network security.

For the software and driver development, USI provides standard drivers base on listed OS and processors for OEM.



## Features

- Small size and type I CF card design suitable for system integration.
- 2.400-2.462 GHz frequency band.
- Support 802.11d for universal regulation.
- Easy to use on mobile and handheld devices with CF type I interface.
- Two antenna connectors support antenna diversity to extend the range performance and maintain the robust wireless link under multi-path fading environments.
- Support Wi-Fi and radio regulatory compliance.

## Wireless Specifications

The CF-B-AG-02 complies with the following features and standards;

Features	Description
WLAN Standards	IEEE 802 Part 11b (802.11b)
Antenna Connector	Two antenna connectors support diversity switching.
Data Rates	1,2,5.5, 11 Mbps
Medium Access Protocol	CSMA/CA (Collision Avoidance) with ACK

## Radio Specifications 802.11b

The Radio specification is compliant with the SPEC of 802.11b

Features	Description
Frequency Band	2.400 – 2.462 GHz (2.4 GHz ISM Band)
Number of Selectable Subchannels	11 channels
Modulation	DSSS (Direct Sequence Spread Spectrum), DBPSK, DQPSK, CCK
Supported Rates	1,2, 5.5 and 11 Mbps
Maximum Receive Level	- 4dBm (with PER < 8%)
Output Power	15dBm +/- 1 dBm
Antenna	Two ceramic antennas with internal diversity switching

## Radio Characteristics

Receive Sensitivity	Delay Spread	Data Rate
- 83 dBm	65 ns	11 Mbps
- 86 dBm	300 ns	5.5 Mbps
- 89 dBm	400 ns	2.0 Mbps
- 92 dBm	500 ns	1.0 Mbps