
RF Card 802.11g

8-0717-xx

User Guide

Version 2.0

November 29, 2005

A. Specifications

Host Interfaces	Compact Flash
Compatible Interfaces	Compact Flash Type I
Form factor	Compact Flash Type I
Chipset	MARVELL 88W8385 + 88W8015
Operation Voltage	DC 3.3V
Network Standards	IEEE 802.11g/b
Modulation Techniques	DBPSK, DQPSK, CCK, 16QAM, 64QAM,
Modulation Technology	DSSS and OFDM
Data Rate	802.11b: 11, 5.5, 2, 1 Mbps 802.11g: 54, 48, 36, 24, 18, 12, 9, 6 Mbps
Network Architectures	Infrastructure and Ad Hoc
Operating Frequencies	2.4 – 2.5 GHz
Operating Channels	802.11b/g: 1-11 for North America
RF Output Power	Before antenna 802.11b (1M,2M,5.5M,11M) : 14 dBm 802.11g (6M,9M,12M,18M,24M,36M, 48M,54M) : 15 dBm
Receiver sensitivity	802.11b: 1M=-90dBm, 2M=-90dBm, 5.5M=-90dBm, 11M=-87dBm 802.11g: 6M=-83dBm, 9M=-83dBm, 12M=-83dBm, 18M=-83dBm, 24M=-81dBm 36M=-78dBm, 48M=-74dBm, 54M=-73dBm
Power Consumption	Tx peak: 500mA @ 3.3VDC ; Rx peak: 275mA @ 3.3VDC
Support Voltage	3.3V
Security	● WEP 64-and 128-bit encryption with hardware TKIP processing. ● WPA
Delay Tolerance	Multi-path R.M.S Delay Spread @ 10%FER 680 ns in 11M mode, 150ns in 54M mode
Software Support	Windows CE 4.2 & CE 5.0, Linux
Temperatures	Operates from -20 to 70 °C Storage from -40 to 120 °C
Humidity (non-condensing)	5 to 95%*
Certifications	Wi-Fi Pretest*; FCC part 15C/15.247*; ETS 300 328-2*; UL*; IEC60950*; EN 301 489-1,17*; prEN50371*; CE Mark*; TELEC*

*Perform approved procedure is based on customer's request.

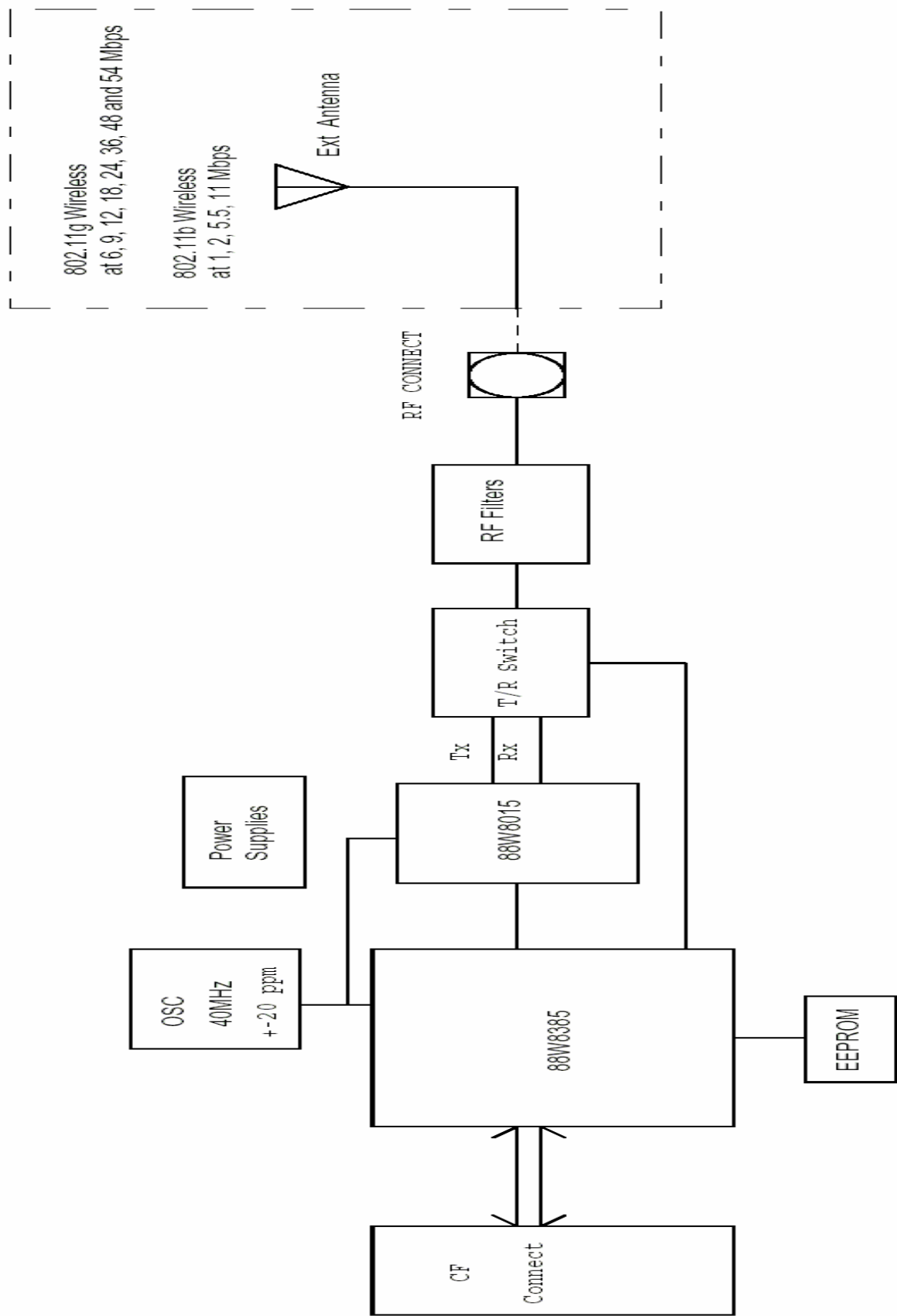
B. Marvell WLAN 802.11b/g CF8385PN Software Feature

Core Features	Short preamble
	802.11b, 802.11g, and g/b mix-mode infrastructure
	802.11b and 802.11g Adhoc mode
	Transmit fragmentation and receive defragmentation
	Client IEEE Power Save Infrastructure & Adhoc mode
	Basic rate adaptation - 11g/b for optimizing each STA throughput
	Background scan
Security	64/ 128-bit WEP Encryption and open/ shared authentication
	WPA PSK
	WPA 802.1x
	WPAII PSK**
	WPAII 802.1x**
	Cisco CCX V1 (LEAP)**
	Hardware AES
IEEE Standards	AH Security
	IEEE 802.11b
	IEEE 802.11g
	IEEE 802.11d**
	IEEE 802.11e (EDCA)**
Other Standards	IEEE 802.11e (HCCA)**
	Wi-Fi WME**
Drivers for the following Operating Systems	Wi-Fi WSM APSD**
	Windows CE.net (CE4.2, CE5.0)
	Windows Pocket PC 2003
	Windows Mobile Edition
Network Protocol	Linux 2.4.22 and above
	TCP/IP, IPX

** NOTE **

The transmitter module is authorized for use in specific End-product (Falcon 4420 Mobile Computer with and without Handle). The OEM integrator is still responsible for testing their end product for any additional compliance requirements required with this module installed.

C. Block Diagram



***Subject to be changed without notice.

Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

IMPORTANT NOTE:**FCC Radiation Exposure Statement:**

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

This device is intended only for OEM integrators under the following conditions:

The transmitter module may not be co-located with any other transmitter or antenna.

As long as conduction above is met, further transmitter test will not be required. However, the OEM integrator is still responsible for testing their end-product for any additional compliance requirements required with this module installed (for example, digital device emissions, PC peripheral requirements, etc.).

IMPORTANT NOTE: In the event that these conditions can not be met (for example certain laptop configurations or co-location with another transmitter), then the FCC authorization is no longer considered valid and the FCC ID can not be used on the final product. In these circumstances, the OEM integrator will be responsible for re-evaluating the end product (including the transmitter) and obtaining a separate FCC authorization.

End Product Labeling

The final end product must be labeled in a visible area with the following:
“Contains TX FCC ID: O9NFALCON11BG”.

Manual Information That Must be Included

The OEM integrator has to be aware not to provide information to the end user regarding how to install or remove this RF module in the users manual of the end product which integrate this module.

The users manual for OEM integrators must include the following information in a prominent location “ IMPORTANT NOTE: To comply with FCC RF exposure compliance requirements. The antenna must not be co-located or operating in conjunction with any other antenna or transmitter.