

## **Product Description**

### **Vienna wireless WiFi module for IP cameras**

Vienna is a WLAN module supporting IEEE 802.11 b/g/n standards

This is a small form factor and low cost compact WLAN module designed for the wireless connectivity of products with embedded system.

This module operates in 2.4GHz ISM frequency band. This module can be built-in other embedded applications such as IP Camera, IP

set top box, GPS, Internet radio apparatus, it can be directly soldered on a main

PCB.

## **Features**

802.11b: 1, 2, 5.5, 11Mbps; 802.11g: 6, 9, 12, 24, 36, 48, 54Mbps

802.11n: (20MHz) MCS0-7, Support up to 72Mbps (40MHz) MCS0-7,

Support up to 150Mbps OFDM, Peak rate 150Mbps, Peak throughput 90Mbps.

Security support for 64/128 WEP, WPA, WPA2, TKIP, AES Operates in 2.4GHz

frequency bands.

Power Management

Antenna configuration: Built-in On Board

## **Temperature**

### **1.1 Operating Temperature**

Continuous reliable operation in ambient temperature: -10°C to +55°C.

### **1.2 Storage Temperature**

The product is not damaged or degraded when keeping in -20°C to +85°C.

## **2 Humidity**

### **2.1 Operating Humidity Conditions**

The product should be capable of continuous reliable operation when subjected to

relative humidity in the range of 20% to 80% (non-condensing) .

### **2.2 Non-Operating Humidity Conditions (including warehouse)**

The product should not be damaged or degraded when kept in the place (where

relative humidity range is in the range of 20% to 80%) for 48 hours.

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Standards	IEEE802.11b/g/n(1T1Rmode)
OperatingFrequency	2.412GHz~2.4835GHz
Protocols	802.11b:CCK,QPSK,BPSK,802.11g/n:OFDM
Antenna	ExternalantennaViaI-PEXMHFreceptacleorBuilt-inOnBoard
Security	WPA/WP2/WPAI,64/128/152-bitWEP,WPS
TransmitOutputPower(Typical)	11b:17±1.0dBm@11Mbps;11g:14±1dBm@54Mbps
	802.11n:(HT20),12+/-1dBm,802.11n:(HT40),12+/-1dBm
ReceiveSensitivity	11b:-83dBm@11Mbps;11g:-70dBm@54Mbps.
	802.11n:(HT20),-67dBm@MSC7,(HT40),-67dBm@MSC7
OperatingVoltage	5.0V or 3.3V DV±5%
OperatingCurrent	5.0V power input, <170mA; 3.3V power input, <260mA

## **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.

***FCC Caution:*** To assure continued compliance, any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. (Example - use only shielded interface cables when connecting to computer or peripheral devices).

## **End Product Labeling**

This transmitter module is authorized only for use in devices where the antenna may be installed such that 20 cm may be maintained between the antenna and users. The final end product must be labeled in visible area with the following: "Contains FCC ID: 2ABF3-VIENNA"

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## **End Product Manual Information**

The user manual for end users must include the following information in a prominent location "IMPORTANT NOTE: To comply with FCC RF exposure compliance requirements, the antenna used for this transmitter must be installed to provide a separation distance of at least 20cm from all persons and must not be colocated or operating in conjunction with any other antenna or transmitter." 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.

**IMPORTANT NOTE:** In the event that these conditions can not be met (for example certain laptop configurations or colocation 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 reevaluating the end product (including the transmitter) and obtaining a separate FCC authorization. This device is intended only for OEM integrators under the following conditions: The antenna must be installed such that 20 cm is maintained between the antenna and users. As long as a condition 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.).