

OEM/Integrators Installation Manual

W8188R511K

WLAN 802.11b/g/n module

Notice

The information in this document has been carefully checked and is believed to be entirely accurate at the release time.

Please, ensure that W8188R511K must be working within this specification.

But, COMMAX assumes no responsibility, however, for possible errors or missing, or for any result from the use of the information contained documents.

COMMAX can change the specification at any time without notice and is not required to update this documentation to reflect such changes.

Revision History

Revision no	Date	Page	Description of changes
Ver1.0	2018-06-29		Initial Release

Scope

The WIFI module, W8188R511K is designed for IEEE802.11/b/g/n system.

Application :

- Smart TV
- Digital still cameras
- Personal video recorders
- PDAs
- Other portable devices

Features

Data rate: up to 54Mbps in 802.11g and 150Mbps in 802.11n

- Support for IEEE 802.11 b/g/n
- Complies with USB 1.0/ 1.1/ 2.0 for WLAN
- Support for IEEE 802.11e Qos Enhancement (WMM)
- Support for 802.11i (WPA, WPA2). Open, shared key, and pair-wise key authentication services
- Support for 20MHz and 40MHz bandwidth transmission
- Size 25 * 13.15 * 2.0mm
- Support 11 channels (from Channel 1 ~ Channel 11)

Product Information

· Mechanical Information

- Length	25	mm
- Width	13.15	mm
- Height	1.8(2@ use shield case)	mm
- Weight	0.98	g

· Temperature Information

- Operating temperature	+0℃ ~ +70℃
- Storage temperature	-45℃ ~ +85℃

· Connection Information

- 9Pin Solder pads used (SMT Type)
 - All Pin need to protect against RF radiation or conduction noise.
- Software Version: 1.0
- Hardware Version: 1.0

Pin Description

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Electrical Characteristic

DC characteristics

Recommended Operating Conditions					
Symbol	Parameter	Min.	Nom.	MAX.	Unit
DC 5V Module		4.5	5	5.5	V
VIO(5V)		1.8		3.3	V

WLAN 2.4-GHz current consumption

Recommended Operating Conditions					
Parameter	Conditions	Min.	Nom.	MAX.	Unit
802.11b 11Mbps	TX 99%,		250		mA
802.11g 54Mbps	TX 99%,		150		mA
802.11n MCS7	TX 99%		150		mA
802.11b 11Mbps	RX, -76dBm		65		mA
802.11g 54Mbps	RX, -65dBm		65		mA
802.11n MCS7	RX, -64 dBm		65		mA

Product Dimension

Product Dimension

(Unit: mm)

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Product Dimension

PAD Dimension

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Federal Communication Commission Statement

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.

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

Federal Communication Commission Statement

OEM Responsibilities to comply with FCC

- The module is limited to OEM installation only.
- The OEM integrator is responsible for ensuring that the end-user has no manual instructions to remove or install module.
- The antenna(s) must be installed such that a minimum separation distance of at least 20 cm is maintained between the radiator (antenna) and all persons at all times.
- The module is limited to installation in mobile or fixed applications.
- The transmitter module must not be co-located or operating in conjunction with any other antenna or transmitter except in accordance with FCC multi-transmitter product procedures.
- Separate approval will be required for all other operating configurations, including portable configurations with respect to Part 2.1093 and different antenna configurations other than supplied antennas.

As long as the condition above is met, further transmitter testing 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.).

Also, the OEM integrator is responsible to provide to the host manufacturer for compliance with the Part 15B requirements.

Host User Manual

The host manual shall include the following regulatory statement:

Part 15.19: 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.

Part 15.21: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

RF exposure

This device is only authorized for use in a mobile application. This device should be installed and operated with minimum distance 20cm between the radiator & your body.

Host Product labeling

The module is labeled with its own FCC. If the FCC ID is not visible when the module is installed inside another device, then the outside of the device into which the module is installed must also display a label referring to the enclosed module. In that case, the final end product must be labeled in a visible area with the following: "Contains FCC ID: CCEW8188R511K"