

FCC Notices

AURORA Model: WL-C15005

FCC ID: 2AECKWL-C15005

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 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 device may only be used with the approved antenna that is shipped with the unit and installed per the installation instructions. The use of any other antennas will invalidate the units' FCC Part 15 certifications.
- To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that permitted for successful communication. Operating the device with the supplied antenna will ensure that this requirement is met.

This equipment generates 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 or more 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

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. Ubiquiti will provide guidance to the host manufacturer for compliance with Part 15 Subpart B requirements.

FCC RF Exposure Requirements

A separation distance of 20 cm should be observed to maintain compliance with the FCC's RF exposure guidelines set out in OET Bulletin 65.

OEM Responsibility to the FCC Rules and Regulations

The AURORA Module has been certified per FCC Part 15 rules for integration into products without further testing or certification. To fulfill the FCC certification requirements, the OEM using the AURORA Module must ensure that the information provided on the AURORA Label is placed on the outside of the final product. The AURORA Module is labeled with its own FCC ID Number. If this 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. This exterior label can use wording such as the following: “Contains Transmitter Module FCC ID: 2AECKWL-C15005.

The OEM using the AURORA Module must only use the approved on-board chip-antenna that has been certified with this module.

The OEM using the AURORA Module must test their final product configuration to comply with Unintentional Radiator Limits before declaring FCC compliance per Part 15 of the FCC rules.

FCC RF Exposure Requirements

A separation distance of 20 cm should be observed to maintain compliance with the FCC’s RF exposure guidelines set out in OET Bulletin 65.

The AURORA 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 the module. The AURORA Module is limited to installation in mobile or fixed applications. A separated approval is required for all other operating configurations. The OEM integrator must provide required operating conditions for end users including the above FCC RF Exposure Notice. The AURORA Module must comply with any applicable RF exposure requirements in its final configuration.

Power

Aurora Microcontrollers require a 5VDC battery power supply. It can also work with 3.3VDC battery power however depending on the sensors being used may not provide enough power at 3.3VDC. You can use 3.3VDC coin cell batteries via the VCC. You can also use higher voltage batteries up to 28VDC through the RAW pin and it will be regulated to 5VDC through the board itself.

Inputs/Outputs

There are 14 Digital pins and 6 analog pins for hooking up sensors, motors, servos and relays.

Programming

To program an Aurora MicroController you must use a FTDI programmer. Simply plug the programmer into the bottom Aurora board's bottom connector face up. Using the Arduino IDE, select the port and upload your sketch. (Ensure you have selected Uno as the board type. This is only for development prototypes. Final will be arduino pro-mini type.

Bootloader

You can use an AVR programmer or another Aurora MicroController to either update or replace the bootloader. If you are using an Aurora MicroController please use the following pin connections.

D13 -> D13

D12 -> D12

D11 -> D11

D10 -> RST (Ensure this is the target board)

VCC -> VCC

GND -> GND