User Guide

The Onion Omega 2 is a hardware development platform designed specifically for developers. It comes with built-in Wi-Fi, it is Arduino-compatible and it runs full Linux operating system. Omega2 lets you prototype hardware devices using familiar tools such as Git, pip, npm, and using high level programming languages such as Python, Javascript, PHP. The Onion Omega 2 is fully integrated with the Onion Cloud, making it a breeze to connect physical devices to the Web to create IoT applications.

Features:

。Embedded MIPS24KEc (580 MHz) with 64 KB I-Cache and 32 KB D-Cache

。1T1R 2.4 GHz with 150 Mbps PHY data rate

。IEEE 802.11b/g/n

。Built-in Flash 16MB/32MB and DDR264MB/128MB

。Built-in Ceramic Antenna

。Built-in MicroSD Slot

。Support x1 USB 2.0 Host

。Support x1 SD-XC/eMMC

。Support x1 I2C

。Support x1 I2S

。Support x1 SPI

。Support x2 UART

。Support PWM,GPIO

。1-port 10/100 FE PHY

。Ambient Temperature -20-55℃

。Operating Humidity 10%-90%RH（Non-Condensing）

。Storage Humidity 5%-90%RH（Non-Condensing）

。Working voltage DC 3.3V

FCC Warning Statement

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

FCC Radiation Exposure Statement

The antennas used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co - located for operating in conjunction with any other antenna or transmitter.

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.
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 Radiation Exposure Statement:
This Bluetooth Module complies with FCC radio-frequency exposure guidelines set forth for an uncontrolled environment.
This device is intended only for OEM integrators under the following conditions:
(1) According to FCC Part 15 Subpart C Section 15.212, the radio elements of the modular transmitter must have their own shielding. This module is granted as a Single Modular Approval.

(2) This device has been designed to operate with a Integral antenna having a maximum gain of 2dBi(max.). Only this type of antenna may be used.
(3) Integration is typically strictly restricted to Grantee himself or dedicated OEM integrators under control of the Grantee.
As long as 3 conditions above are 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.).

USER MANUAL OF THE END PRODUCT:
In the user manual of the end product, the end user has to be informed that the equipment complies with FCC radio-frequency exposure guidelines set forth for an uncontrolled environment.
The end user has to also be informed that any changes or modifications not expressly approved by the manufacturer could void the user's authority to operate this equipment.
If the size of the end product is smaller than 8x10cm, then additional FCC part 15.19 statement is required to be available in the user manual: This device complies with Part 15 of
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.

LABEL OF THE END PRODUCT:
The final end product must be labeled in a visible area with the following" Contains TX FCC ID: 2AJVP-OMEGA2 ". If the size of the end product is larger than 8x10cm, then the following FCC part 15.19 statement has to also be available on the label: This device complies with Part 15 of 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.