

## LGA22U 802.11 a/b/g/n USB module

LGA22U is an 802.11a/b/g/n Wireless 2T2R dual-band MIMO USB interface LGA module that enables devices with high performance wireless connectivity.

## **FEATURES**

- Supports 2T2R 2.4/5GHz dual-band
- PHY data rate up to 144.4 Mbps using 20MHz bandwidth,
  300 Mbps using 40MHz bandwidth
- Supports IEEE 802.11e/ i/ h/ k



## **SPECIFICATIONS**

| SPECIFICATIONS      |   |
|---------------------|---|
| Standards           | IEEE 802.11 a/b/g/n                                     |
| Chipset             | Realtek RTL8192DU                                       |
| Frequency Band      | 2.4 - 2.483 GHz; 5.150 ~ 5.825 GHz                      |
| Encryption          | 64/128 bit WEP, WPA,WPA2, IEEE 802.1x                   |
| Output Power        | 2.4GHz Band:  |
|                     | 802.11n (HT20, MCS7): 9 ± 2 dBm                         |
|                     | 802.11n (HT40, MCS7): 9 ± 2 dBm                         |
|                     | 802.11g (54Mbps): 11 ± 2 dBm                            |
|                     | 802.11b: 17 ± 2 dBm                                     |
|                     | 5GHz Band:  |
|                     | 802.11n (HT20, MCS7): 9 $\pm$ 2 dBm @ Lower/Middle Band |
|                     | 802.11n (HT20, MCS7): 7 $\pm$ 2 dBm @ Upper Band        |
|                     | 802.11n (HT40, MCS7): 9 $\pm$ 2 dBm @ Lower/Middle Band |
|                     | 802.11n (HT40, MCS7): 7 $\pm$ 2 dBm @ Upper Band        |
|                     | 802.11a: 10 ± 2 dBm @ 54Mbps                            |
| Receive Sensitivity | 2.4GHz:   |
|                     | 802.11b: -80 dBm max. @ 11Mbps                          |
|                     | 802.11g: -65 dBm max. @ 54Mbps                          |
|                     | 802.11n (HT20): -64 dBm max. @ MCS07                    |
|                     | 802.11n (HT40): -61 dBm max. @ MCS07                    |
|                     | 5GHz:   |
|                     | 802.11a: -65 dBm max. @ 54Mbps                          |
|                     | 802.11n (HT20): -64 dBm max. @ MCS07                    |
|                     | 802.11n (HT40): -61 dBm max. @ MCS07                    |
| DC Voltage          | 3.3V (Typical)  |
| Host Interface      | USB 2.0   |
| Antenna             | Two printed PCB antennas on board (2T2R)                |



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| Host Connector         | LGA module                         |
|------------------------|------------------------------------|
| Temperature            | Operating: 0 ~ 70 Celsius          |
|                        | Storage: -20 ~ 70 Celsius          |
| Humidity               | Storage: 10 ~ 80% (Non Condensing) |
| Dimensions (L x W x H) | 38.5 x 23.0 x 2.85 mm              |

 $<sup>{}^{\</sup>star}\mathrm{Specifications}$  are subject to change without further notice.

#### FEDERAL COMMUNICATIONS COMMISSION INTERFERENCE STATEMENT

This equipment has been tested and found to comply with the limit s 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 of f 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.

#### CAUTION:

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the 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 RF Radiation Exposure Statement:

- 1. This Transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.
- 2. This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.

#### Canada IC Regulatory notices

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. 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 necessary for successful communication.