Realtek Semiconductor RTL8822CE 802.11a/b/g/n/ac RTL8822CE Combo Module User Guide

Contents

SAFETY INFORMATION

⚠ This symbol identifies safety and health messages in this guide.

Caution: Device stability

Do not place your device on uneven or unstable surfaces. Be sure to hold it securely when it is carried and not via an accessory, cable, or cord. Failure to hold your device securely could cause it to fall or hit a person or object, which could damage your device, damage other property, or cause personal injury.

⚠ **WARNING: Cleaning**

The risk of fire, shock, or damage to your device during cleaning can be reduced by taking the following precautions:

- Unplug all cables and turn your device off before cleaning.

- Only clean the exterior of your device.
- Clean your device with a dry cloth
- Gently wipe the exterior surface of fans, vents, or other openings to remove any dust buildup.
- Do not attempt to clean connectors through immersion in liquids. Only gently wipe and dry with a clean cloth.

WARNING: Ports and openings
To reduce the risk of fire, electric shock, or damage to your device

- Do not insert objects into the vents, ports, kickstand slots, hinges, spaces around keys, or another opening.
- Do not attempt to clean ports, kickstand slots and hinges, spaces around keys, or another opening with sharp objects (i.e., paper clips, screwdrivers, utility knives, etc.)

WARNING: Risk in repairs
Opening and/or repairing your device can present electric shock, device damage, fire, personal injury risks, and other hazards. Here we recommend that you seek professional assistance for device repairs and that you use caution if undertaking do-it-yourself repairs.

WARNING: Usage
To reduce the risk of fire, shock, or damage to your device, do not expose your device to rain, snow, or other types of moisture. Do not use your device near water or in a damp or excessively humid location (e.g., near a shower, bathtub, sink, or swimming pool, or in a damp basement). To keep your device in prime operating condition:

- Do not use your device near heat sources, food, excessive dirt, dust, oil, chemicals, or in strong direct sunlight.
- Do not place objects on top of your device.
- Use only attachments/accessories specified by ASUS.
- Do not insert objects into the fan, vents, ports, slots and hinges, spaces around keys, or another opening.
- Do not allow dust to build upon the fan, vents, or other openings.
- Do not place your device in a narrow or cramped space.
- Do not dry your device with a hairdryer, clothes dryer, conventional, toaster, or microwave oven. If your device becomes wet, gently wipe the exterior with a clean, dry cloth.

NOTICE: Handling
Handle your ASUS device with care. It is made of metal, plastic and has sensitive electronic components inside. Your device can be damaged if dropped, burned, punctured, or crushed, or if it comes in contact with liquid. If you suspect damage to your device or its battery, discontinue use of your device, as it may cause overheating or injury.

WARNING: Choking hazard
This device may contain small parts that may be a choking hazard to children under 3 years. Keep small parts away from children.

WARNING: Keep out of reach of small children
Your device and its accessories are not toys. Do not allow small children to play with them because children could

hurt themselves or others or damage your device. Keep your device and all its parts and accessories out of the reach of small children.

NOTICE: Heat-related concerns

Your device may become very warm during normal use. It complies with the user-accessible surface temperature limits defined by the International Standards for Safety (IEC 60950-1 and IEC 62368). Still, sustained contact with warm surfaces for long periods of time may cause discomfort or injury. To reduce potential heat-related concerns, follow these guidelines:

- Keep your device and its power supply unit (PSU) in a well-ventilated area when in use or charging. Allow for adequate air circulation under and around the device and its PSU.
- Use common sense to avoid situations where your skin is in contact with your device or its PSU when it's operating or connected to a power source. For example, don't sleep with your device or its PSU, or place it under a blanket or pillow, and avoid contact between your body and your device when the PSU is connected to a power source. Take special care if you have a physical condition that affects your ability to detect heat against the body.
- If your device is used for long periods, its surface can become very warm.
- Never place your device or its PSU on furniture or any other surface that might be marred by exposure to heat since the base of your device and the surface of the PSU may increase in temperature during normal use.

WARNING: Power supply unit (PSU) DC connector

- Avoid prolonged skin contact with the DC connector when your power supply unit (PSU) is plugged into a power source because it may cause discomfort or injury. Sleeping or sitting on the DC connector should be avoided.
- Do not expose the connector to liquids, sweat, dirt, or other contaminants. Using a contaminated connector can lead to heating and cause discomfort or injury. Stop using the connector immediately. Unplug the DC connector from the device. Dry and wipe it with a clean cloth.
- If you find any damage on any part of your charger or cord, stop using them and contact us for support options.

CAUTION: Cable and cord safety

Exposed device cables and cords pose a potential tripping hazard. Arrange all cables and cords so that people and pets are not likely to trip over or accidentally pull on them as they move around or walk through the area. Do not allow children to play with cables and cords. To avoid damaging the cords and cables:

- Protect cords from being walked on or crushed.
- Protect cords from being pinched or sharply bent, particularly where they connect to a wall power (mains) outlet, the power supply unit, and your device.
- Do not jerk, knot, sharply bend, stretch, or otherwise abuse the power cords. Do not wrap your power cord too tightly, especially around the power brick. Instead, wrap it using loose coils rather than right angles.
- When positioning your device or PSU make sure that the cords are not bent sharply and that the connectors are not pushed against a wall or hard surface.
- Do not expose power cords to heat sources.
- Do not allow pets or children to bite or chew on power cords.
- When disconnecting the power cord, pull on the plug—do not pull on the cord.
- Inspect your power cords and cables regularly. If a power cord or cable becomes warm, frayed, cracked, or

damaged in any way, stop using it immediately. We recommend that you replace your damaged power cord or cable with a genuine ASUS replacement power or cable.

- Unplug your charging cable or cord during lightning storms or when unused for long periods.

WARNING: Electrostatic Discharge (ESD)
This product includes numerous components sensitive which may be damaged as a result of electrostatic discharge. The following precautions should be employed to avoid causing damage by ESD:

- Touch a large metal object prior to picking up the individual modules
- Avoid directly touching the circuit boards when moving the modules in the kit
- Use an ESD wrist strap when handling the boards directly (including removal of the boards from their chassis)

REGULATORY INFORMATION

Regulatory model series: DKSC-101. This equipment is:

- Evaluated as Information Technology Equipment (ITE), designed to operate in the typical household or office environment. The suitability of this product for other environments may require further evaluation.
- Designed for use with NRTL Listed (UL, CSA, ETL, etc.), and IEC/EN 60950-1 or IEC/EN 62368-1 compliant (CE marked) Information Technology equipment.
- Designed for operating temperature from +0°C (+32°F) to +35°C (+95°F)

For electrical supply ratings, refer to the power supply rating label provided with the unit.
NOTICE: Changes or modifications made to the equipment not expressly approved by ASUS may void the user's authority to operate the equipment.

USA:

This device complies with part 15 of the FCC Rules standard(s). 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 of the device. Operation in the band 5150–5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems. Users are advised that high-power radars are allocated as primary users (priority users) of the bands 5250–5350 MHz and 5650–5850 MHz and these radars could cause interference and/or damage to LE-LAN devices. The maximum antenna gain permitted for devices in the bands 5250-5350 MHz, 5470-5725 MHz, and 5725-5850MHz bands must comply with the e.i.r.p. limit.

Antenna Type	Connector	Gain (dB)	
		2.4GHz	5GHz
PIFA Antenna	RP-SMA	2.24	1.99

Note: 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 to 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.

For more information about interference issues, go to the FCC website at: fcc.gov/cgb/consumerfacts/interference.html. You can also call the FCC at 1-888-CALL FCC to request Interference and Telephone Interference fact sheets.
This product has demonstrated EMC compliance under conditions that included the use of compliant peripheral devices and shielded cables between system components. It is important that you use compliant peripheral devices and shielded cables between system components to reduce the possibility of causing interference to radios, television sets, and other electronic devices.

Exposure to Radio Frequency Energy

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20cm (8 inches) between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. Additional information about radiofrequency safety can be found on the FCC website at **https://www.fcc.gov/general/radio-frequency-safety-0**.

Responsible party:
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Documents / Resources

	**Realtek Semiconductor RTL8822CE 802.11a/b/g/n/ac RTL8822CE Combo Module** [pdf] User Guide RTL8822CE TX2-RTL8822CE, TX2RTL8822CE, RTL8822CE 802.11a b g n ac RTL8822CE Combo Module, RTL8822CE Combo Module

References

- **ASUS USA**
- **CNR-102 — Conformité des appareils de radiocommunication aux limites d'exposition humaine aux radiofréquences (toutes bandes de fréquences)**

- Official Support | ASUS Global
- Radio Frequency Safety | Federal Communications Commission