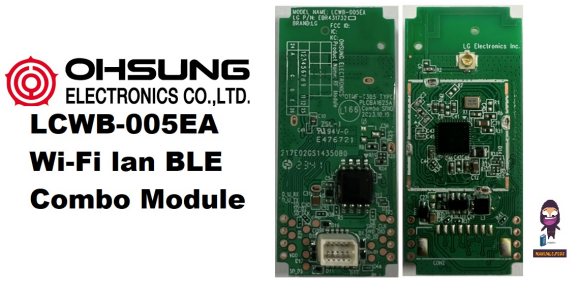


OHSUNG ELECTRONICS LCWB-005EA Wi-Fi lan BLE Combo Module Instruction Manual

Contents

OHSUNG ELECTRONICS LCWB-005EA Wi-Fi lan BLE Combo Module

Specifications

- **Model Name:** LCWB-005EA
- **Range of Frequency:** 2400MHz ~ 2483.5MHz
- **WIFI Transmission Output:** 4.5 dBm
- **WIFI Reception Sensitivity:** -95 dBm
- **BLE Transmission Output:** N/A
- **BLE Reception Sensitivity:** N/A
- **Antenna:** FPC Antenna
- **Dimension:** 48 x 20 x 11.2 (typical)
- **Power Out Power Tolerance:** N/A

Product Usage Instructions

Overview

The LCWB-005EA is a Wi-Fi & BLE Combo module designed for wireless communication with wired LAN IoT products.
It utilizes IEEE 802.11 b/g/n (HT20) standard technology for Wi-Fi communication and features the RTL8720 series Bluetooth Low Energy controller with a UART interface.

Wi-Fi Setup

1. Ensure the module is properly connected to your IoT product.
2. Access the Wi-Fi settings on your device and search for available networks.
3. Select the network name associated with the module and enter the password if required.
4. Once connected, you can start using the Wi-Fi features of your IoT product.

Bluetooth Low Energy (BLE) Connectivity

1. To establish BLE connectivity, ensure that the module is powered on.
2. Scan for BLE devices on your smartphone or other compatible devices.
3. Select the LCWB-005EA module from the list of available devices to pair.
4. Follow any additional on-screen instructions to complete the pairing process.

Frequently Asked Questions

Q: What is the range of the Wi-Fi signal for the LCWB-005EA module?

A: The Wi-Fi signal operates within the frequency range of 2400MHz to 2483.5MHz with a transmission output of 4.5 dBm.

Q: Can the LCWB-005EA module be used for mobile applications?

A: Yes, the module can be used for mobile applications as long as a minimum separation distance of at least 20 cm is maintained between the antenna and all persons at all times, and it is not co-located with other antennas or transmitters.

LCWB-005EA Overview and Specification

Overview

1. This is a Wi-Fi&BLE Combo module
2. Wi-Fi wireless communication with wired LAN IoT product for protocol and application performance based on IEEE 802.11 b/g/n (HT20) standard technology.
3. The RTL8720 series highly integrated Bluetooth Low Energy controller with a UART interface. It combines a BLE Protocol (PHY, LL, L2CAP, SM, ATT, GAP, GATT), BLE Baseband, Modem, and BLE RF in the chip, and also supports BLE user GATT-based profile application.

Specification

Categories		**Details**
Model Name		**LCWB-005EA**
WIFI	Range of Frequency	2400MHz ~ 2483.5MHz
	Channel	14EA
	Transmission Output	16 dBm (802.11b)
		14 dBm (802.11g)
		13 dBm (802.11n)
	Reception sensitivity	–88 dBm (802.11b)
		-75 dBm (802.11g)
		-72 dBm (802.11n)
	Modulation	802.11b : DQPSK, DBPSK, CK 802.11g/n : OFDM/64-QAM,16-QAM, QPSK, BPSK
BLE	Range of Frequency	2402MHz ~ 2480MHz
	Channel	40EA
	Transmission Output	4.5 dBm
	Reception sensitivity	-95 dBm
Antenna		FPC Antenna
Dimension		L x W x H : 48 x 20 x 11.2 (typical) mm
Power		5V±0.5V / 12V±1.2V
Out power Tolerance		± 2 dBm

FCC Statement

FCC Part 15.19 Statements:	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, 2. this device must accept any interference received, including interference that may cause undesired operation.

FCC Part 15.105 statement(Class B)	This equipment has been tested and found to comply with the limits for a Class B digital device, under 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 by 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.
FCC Part 15.21 statement	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 must not be co-located or operating in conjunction with any other antenna or transmitter.
Responsible Party Information	Unique Identifier: (e.g., Trade Name, Model Number) Responsible Party – U.S. Contact Information **LG ELECTRONICS USA** 111 Sylvan Avenue, North Building, Englewood Cliffs, New Jersey 07632, United States

Modular Approval Statement	Regulatory notice to host manufacturer according to KDB 996369 D03 OEM Manual This module has been granted modular approval as below listed FCC rule parts. -FCC Rule parts 15C(15.247) Summarize the specific operational use conditions -The OEM integrator should use equivalent antennas that are the same type and have equal or less gain than an antenna listed below this instruction manual. RF exposure considerations -The module has been certified for integration into products only by OEM integrators under the following conditions: -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 transmitter module must not be co-located or operating in conjunction with any other antenna or transmitter except under FCC multi-transmitter product procedures. Mobile use As long as the three conditions above are met, further transmitter testing will not be required. OEM integrators should provide the minimum separation distance to end users in their end-product manuals. Antennas list

This module is certified with the following integrated antenna. -. Max. Antenna gain: 3.52 dBi / Ant. Type: FPC Antenna Any new antenna type, with a higher gain than the listed antenna should meet the requirements of FCC rules 15 .203 and 2.1043 as permissive change procedure.
End Product Labeling The module is labeled with its own FCC ID and IC Certification Number. If the FCC ID and IC Certification Numb er are not visible when the module is installed inside another device, then the outside of the device into which th e module is installed must also display a label referring to the enclosed module. In that case, the end product m ust be labeled in a visible area with the following: “Contains FCC ID: BEJ-LCWB005EA “Contains IC: 2703N-LCWB005EA
Information on test modes and additional testing requirements -OEM integrator is still responsible for testing their end-product for any additional compliance requirements requi red with this module installed (for example, digital device emissions, PC peripheral requirements, additional tran smitter in the host, etc.). Additional testing, Part 15 Subpart B disclaimer -The final host product also requires Part 15 subpart B compliance testing with the modular transmitter installed to be properly authorized for operation as a Part 15 digital device.

ISED Statement

Licensed-exempt Statement

This device contains license-exempt transmitter(s)/receiver(s) that comply with Innovation, Science, and Economic Development Canada’s license-exempt RSS(s). Operation is subject to the following two conditions:

1. This device may not cause interference.
2. This device must accept any interference, including interference that may cause undesired operation of the device.

RF Exposure Statement (MPE)

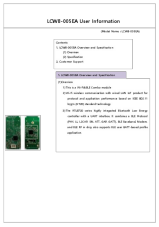
The antenna(s) must be installed such that a minimum separation distance of at least 20 cm is maintained between the radiator (antenna) and all persons at all times.

Customer Support

- **Tel**: 1588 6400
- **[Certification** Mark
- **Certification** Number]
- **KC**: R C LGE LCWB 00 5EA
- **FCC** ID : BEJ LCWB00 5EA
- **IC** : 2703N LCWB00 5EA

- **CE**: Marking (min. 5mm)
- **Company:** Ohsung Electronics
- **Production Date:** 20 2 3 10.24
- **Manufacturer Country:** Ohsung Electronics KOREA

Documents / Resources

	OHSUNG ELECTRONICS LCWB-005EA Wi-Fi lan BLE Combo Module [pdf] Instruction Manual LCWB005EA, BEJ-LCWB005EA, BEJLCWB005EA, LCWB-005EA Wi-Fi lan BLE Combo Module, LCWB-005EA, Wi-Fi lan BLE Combo Module, BLE Combo Module, Combo Module, Module
	OHSUNG ELECTRONICS LCWB-005EA Wi-Fi lan BLE Combo Module [pdf] Instruction Manual BEJ-LCWB005, BEJLCWB005, lcwb005, LCWB-005EA Wi-Fi lan BLE Combo Module, LCWB-005EA, Wi-Fi lan BLE Combo Module, BLE Combo Module, Combo Module, Module

References

- User Manual