

**Bay Area Compliance Laboratories Corp.**

**JAPAN MIC  
CERTIFICATE OF TYPE APPROVAL**

**Certificate Number:** 211-161007

**Certificate Holder:** Espressif Systems (Shanghai) PTE Ltd.  
Room 204, Building 2, 693 Bibo Road,  
Pudong Dist., Shanghai, China

**Manufacturer:** Espressif Systems (Shanghai) PTE Ltd.

**Model Number(s):** ESP-WROOM-32  
Article 2 Paragraph 1, Item 19

**Type of Equipment:** Low Power Data Communications System in the 2.4 GHz Band  
Specified Radio Equipment Specified in Article 38-2-2,  
Paragraph 1, Item 1 of the Radio Law

**Category:** Bluetooth/BLE: 2402-2480 MHz  
Wi-Fi: 2412-2472 MHz, 2422-2462 MHz

**Frequency Range:** Bluetooth: GFSK,  $\pi/4$ -DQPSK, 8DPSK; BLE: GFSK  
Wi-Fi: DSSS, OFDM

**Modulation(s):** Bluetooth: 1 MHz (79 CH); BLE: 2 MHz (40 CH)  
Wi-Fi: 5 MHz (13 CH), 5 MHz (9 CH)

**Channel Spacing:** Bluetooth/BLE: F1D; Wi-Fi: G1D, D1D  
Bluetooth: 0.023 mW/MHz; BLE: 2.62 mW  
Wi-Fi: 6.41 mW/MHz (802.11b), 2.90 mW/MHz (802.11g)  
3.49 mW/MHz (802.11n20), 1.35 mW/MHz (802.11n40)

**Type of Emissions:** PCB Antenna, 2.0 dBi

**Antenna Output Power:** MIC Notices NO. 88 Annex 1, 43


**Antenna Type:** B16102011, RKS161017001-00J/-00K/-00L

**Standards Applied:** RCB ID: 211

**Remark:** Bay Area Compliance Laboratories Corp.  
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Tel: 1-(408)-732-9162 Fax: 1-(408)-732-9164  
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**Registered Certification Body:**

This certificate is issued to the applicant for the product(s) listed above which is (are) compliant with the Radio Law (Law No. 131, 1950) and Amendments.

Authorized by:   
John Chan, Certification Manager



Issue Date: 2016-12-30

JRMIC-B