

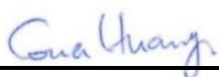
# RF EXPOSURE EVALUATION REPORT

FCC ID : Z64-CC33DBMOD  
Equipment : 802.11 a/b/g/n/ac/ax WLAN + BLE Radio Module  
Brand Name : Texas Instruments  
Model Name : CC33MOD-DB  
Applicant : Texas Instruments Incorporated  
12500 TI BLVD., Dallas, Texas, 75243  
Manufacturer : Texas Instruments Incorporated  
12500 TI BLVD., Dallas, Texas, 75243  
Standard : 47 CFR Part 2.1091

We, SPORTON INTERNATIONAL INC has been evaluated this product in accordance with 47 CFR Part2.1091 and it complies with applicable limit.

Sporton Lab is accredited to ISO 17025 by Taiwan Accreditation Foundation (TAF code: 3786) and the FCC designation No. TW3786 under the FCC 2.948(e) by Mutual Recognition Agreement (MRA) in FCC evaluation.

The results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. Laboratory, the test report shall not be reproduced except in full.



Approved by: Cona Huang / Deputy Manager



**SPORTON INTERNATIONAL INC. Wensan Laboratory**

No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City 333010, Taiwan



## **Table of Contents**

1. DESCRIPTION OF EQUIPMENT UNDER TEST (EUT) .....	4
2. MAXIMUM RF AVERAGE OUTPUT POWER AMONG PRODUCTION UNITS .....	4
3. RF EXPOSURE LIMIT INTRODUCTION .....	5
4. RADIO FREQUENCY RADIATION EXPOSURE EVALUATION .....	5



## History of this test report

Report No.	Version	Description	Issued Date
FA550509	Rev. 01	Initial issue of report	Jul. 10, 2025
FA550509	Rev. 02	Update section 1, 2 and 4	Jul. 14, 2025
FA550509	Rev. 03	Update Model name	Jul. 15, 2025

**1. Description of Equipment Under Test (EUT)**

Product Feature & Specification	
EUT Type	802.11 a/b/g/n/ac/ax WLAN + BLE Radio Module
Brand Name	Texas Instruments
Model Name	CC33MOD-DB
FCC ID	Z64-CC33DBMOD
Wireless Technology and Frequency Range	WLAN 2.4 GHz Band: 2400 MHz ~ 2483.5 MHz WLAN 5.2 GHz Band: 5150 MHz ~ 5250 MHz WLAN 5.3 GHz Band: 5250 MHz ~ 5350 MHz WLAN 5.6 GHz Band: 5470 MHz ~ 5725 MHz WLAN 5.8 GHz Band: 5725 MHz ~ 5850 MHz Bluetooth: 2400 MHz ~ 2483.5 MHz
Mode	WLAN: 802.11a/b/g/n/ac/ax HT20/VHT20/HE20 Bluetooth LE
Remark: 1. The device supports several power levels, which differ in software version.	

**Reviewed by: Jason Wang****Report Producer: Carlie Tsai****2. Maximum RF average output power among production units**

Band		Tune-Up Limit (dBm)
WLAN 2.4GHz		18.5
WLAN 5.2GHz		17.0
WLAN 5.3GHz		17.0
WLAN 5.5GHz		16.5
WLAN 5.8GHz		15.5
Bluetooth LE	125kbps / 500kbps	7.0
	1 Mbps / 2 Mbps	7.0

### **3. RF Exposure Limit Introduction**

According to ANSI/IEEE C95.1-1992, the criteria listed in Table 1 shall be used to evaluate the environmental impact of human exposure to radio frequency (RF) radiation as specified in §1.1310.

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm <sup>2</sup> )	Averaging time (minutes)
<b>(A) Limits for Occupational/Controlled Exposures</b>				
0.3-3.0	614	1.63	*(100)	6
3.0-30	1842/f	4.89/f	*(900/f <sup>2</sup> )	6
30-300	61.4	0.163	1.0	6
300-1500			f/300	6
1500-100,000			5	6
<b>(B) Limits for General Population/Uncontrolled Exposure</b>				
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*(180/f <sup>2</sup> )	30
30-300	27.5	0.073	0.2	30
300-1500			f/1500	30
1500-100,000			1.0	30

The MPE was calculated at 20 cm to show compliance with the power density limit.

The following formula was used to calculate the Power Density:

$$S = \frac{PG}{4\pi R^2}$$

Where:

S = Power Density

P = Output Power at Antenna Terminals

G = Gain of Transmit Antenna (linear gain)

R = Distance from Transmitting Antenna

### **4. Radio Frequency Radiation Exposure Evaluation**

Band	Antenna Gain (dBi)	Maximum Power (dBm)	Maximum EIRP (dBm)	Maximum EIRP (W)	Maximum PG (mW)	Power Density at 20cm (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )
WLAN2.4GHz Band	3.00	18.50	21.50	0.14	141.25	0.028	1.000
WLAN5GHz Band	4.00	17.00	21.00	0.13	125.89	0.025	1.000
Bluetooth LE	3.00	7.00	10.00	0.01	10.00	0.002	1.000

### **Conclusion:**

According to 47 CFR §2.1091, the RF exposure analysis concludes that the RF Exposure is FCC compliant.