

RF EXPOSURE EVALUATION REPORT

FCC ID : G95438TX
Equipment : CWA438TCOM
Brand Name : Vantiva
Model Name : CWA438TCOM
Applicant : Vantiva USA LLC
4855 Peachtree Industrial Blvd. Suite 200
Norcross, Georgia 30092
Manufacturer : Vantiva
4855 Peachtree Industrial Blvd, Suite 200
Norcross GA 30092
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.

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Approved by: Cona Huang / Deputy Manager



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History of this test report

Report No.	Version	Description	Issued Date
FA612627	Rev. 01	Initial issue of report	Jul. 06, 2026

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

Product Feature & Specification	
EUT Type	CWA438TCOM
Brand Name	Vantiva
Model Name	CWA438TCOM
FCC ID	G95438TX
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 WLAN 6GHz Band: 5925 MHz ~ 6425 MHz, 6425 MHz ~ 6525 MHz, 6525 MHz ~ 6875 MHz, 6875 MHz ~ 7125 MHz Bluetooth: 2400 MHz ~ 2483.5 MHz Zigbee: 2405 MHz ~ 2475 MHz
Mode	WLAN:802.11a/b/g/n/ac/ax/be HT20/HT40/VHT20/VHT40/VHT80/VHT160/HE20/HE40/HE80/HE160/EHT20/EHT40/EHT80/EHT160/EHT320 Bluetooth BR/EDR/LE Zigbee: OQPSK
HW Version	DVT1b
EUT Stage	Production Unit

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

Wireless Tech.	Max power (dBm)	Gain	Max EIRP (dBm)
BLE	8.81	2.3	11.11
Zigbee	17.7	4.5	22.2
2.4GHz WLAN	29.95	5.8	35.75
5.2GHz WLAN	27.57	6.8	34.37
5.3GHz WLAN	23.75	6.1	29.85
5.5GHz WLAN	22.01	6.9	28.91
5.8GHz WLAN	29.08	6.9	35.98
6GHz WLAN			28.35

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 ²)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposures				
0.3-3.0	614	1.63	*(100)	6
3.0-30	1842/f	4.89/f	*(900/f ²)	6
30-300	61.4	0.163	1.0	6
300-1500			f/300	6
1500-100,000			5	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*(180/f ²)	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 32 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

4.1. Standalone Power Density Calculation

Band	Antenna Gain (dBi)	Maximum Power (dBm)	Maximum EIRP (dBm)	Maximum PG (mW)	Power Density at 32cm (mW/cm ²)	Limit (mW/cm ²)	Power Density / Limit
BLE	2.30	8.81	11.11	12.91	0.001	1.000	0.001
Zigbee	4.50	17.70	22.20	165.96	0.013	1.000	0.013
2.4GHz WLAN	5.80	29.95	35.75	3758.37	0.292	1.000	0.292
5.2GHz WLAN	6.80	27.57	34.37	2735.27	0.213	1.000	0.213
5.3GHz WLAN	6.10	23.75	29.85	966.05	0.075	1.000	0.075
5.5GHz WLAN	6.90	22.01	28.91	778.04	0.060	1.000	0.060
5.8GHz WLAN	6.90	29.08	35.98	3962.78	0.308	1.000	0.308
6GHz WLAN			28.35	683.91	0.053	1.000	0.053

4.2. Collocated Power Density Calculation

<2.4GHz+5GHz+6GHz>

WLAN 2.4GHz Power Density / Limit	WLAN 5GHz Power Density / Limit	WLAN 6GHz Power Density / Limit	Σ (Power Density / Limit) of WLAN 2.4GHz + WLAN 5GHz + WLAN 6GHz
0.292	0.308	0.053	0.653

<5GHz+6GHz+Zigbee>

WLAN 5GHz Power Density / Limit	WLAN 6GHz Power Density / Limit	Zigbee Power Density / Limit	Σ (Power Density / Limit) of WLAN 5GHz + WLAN 6GHz + Zigbee
0.308	0.053	0.013	0.374

<5GHz+6GHz+Bluetooth>

WLAN 5GHz Power Density / Limit	WLAN 6GHz Power Density / Limit	Bluetooth Power Density / Limit	Σ (Power Density / Limit) of WLAN 5GHz + WLAN 6GHz + Bluetooth
0.308	0.053	0.001	0.362

Note:

1. Σ (Power Density / Limit): This is a summation of [(power density for each transmitter/antenna included in the simultaneous transmission)/ (corresponding MPE limit)]
2. Considering the WLAN module collocation with the Zigbee and Bluetooth transmitter of the EIRP performance listed in the table above, the aggregated (power density /limit) is smaller than 1

Conclusion:

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