



RADIO EXPOSURE TEST REPORT

FCC ID : L4B-RTBNA200
Equipment : BN19000 Tri Band WiFi Router
Brand Name : ASUS
Model Name : BN12, BN19000
Applicant : Asus Computer International
48720 Kato Road, Fremont, CA 94538, United States
Standard : 47 CFR Part 2.1091

The product was received on Feb. 24, 2026, and testing was started from Feb. 24, 2026 and completed on Jun. 09, 2026. We, Sporton International Inc. Hsinchu Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in 47 CFR Part 2.1091 and shown compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of Sporton International Inc. Hsinchu Laboratory, the test report shall not be reproduced except in full.

Approved by: Sam Chen

Sporton International Inc. Hsinchu Laboratory

No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County 302010, Taiwan (R.O.C.)



Table of Contents

History of this test report.....	3
Summary of Test Result.....	4
1 General Description	5
1.1 EUT General Information	5
1.2 Antenna Information	6
1.3 Table for Multiple Listing	7
1.4 Table for EUT Supports Function.....	7
1.5 Accessories	7
1.6 Testing Location	7
2 Maximum Permissible Exposure	8
2.1 Limit of Maximum Permissible Exposure	8
2.2 MPE Calculation Method.....	8
2.3 Calculated Result and Limit.....	9

Photographs of EUT v01



History of this test report

TEL : 886-3-656-9065
FAX : 886-3-656-9085
Report Template No.: CB-A1_1 Ver1.1

Page Number : 3 of 9
Issued Date : Sep. 18, 2026
Report Version : 01



Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
2	-	Exposure evaluation	PASS	-

Conformity Assessment Condition:

1. The test results (PASS/FAIL) with all measurement uncertainty excluded are presented against the regulation limits or in accordance with the requirements stipulated by the applicant/manufacture who shall bear all the risks of non-compliance that may potentially occur if measurement uncertainty is taken into account.
2. The measurement uncertainty please refer to each test result in the chapter "Measurement Uncertainty".

Disclaimer:

The product specifications of the EUT presented in the test report that may affect the test assessments are declared by the manufacturer who shall take full responsibility for the authenticity.

Reviewed by: Sam Chen

Report Producer: Muse Chan



1 General Description

1.1 EUT General Information

RF General Information			
Evaluation Mode	Frequency Range (MHz)	Operating Frequency (MHz)	Modulation Type
2.4GHz WLAN	2400-2483.5	2412-2462	802.11b: DSSS (DBPSK, DQPSK, CCK) 802.11g/n: OFDM (BPSK, QPSK, 16QAM, 64QAM) VHT: OFDM (BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM) 802.11ax: OFDMA (BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM) 802.11be: OFDMA (BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM, 4096QAM) 802.11bn: OFDMA (BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM, 4096QAM)
5GHz WLAN	5150-5250 5250-5350 5470-5725 5725-5850	5180-5250 5250-5320 5500-5720 5745-5825	802.11a/n: OFDM (BPSK, QPSK, 16QAM, 64QAM) 802.11ac: OFDM (BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM) 802.11ax: OFDMA (BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM) 802.11be: OFDMA (BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM, 4096QAM) 802.11bn: OFDMA (BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM, 4096QAM)
6GHz WLAN	5925-7125	5955-7055	802.11a: OFDM-BPSK, QPSK, 16QAM, 64QAM 802.11ax: OFDMA (BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM) 802.11be: OFDMA (BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM, 4096QAM) 802.11bn: OFDMA (BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM, 4096QAM)



1.2 Antenna Information

Ant.	Port			Brand	Model Name	Antenna Type	Connector	Gain (dBi)
	2.4GHz	5GHz	6GHz					
1	1	4	-	Whayu	C660-510683-A	Dipole	I-PEX	Note 1
2	2	3	-	Whayu	C660-510683-A	Dipole	I-PEX	
3	3	2	-	Whayu	C660-510683-A	Dipole	I-PEX	
4	4	1	-	Whayu	C660-510683-A	Dipole	I-PEX	
5	-	-	3	Whayu	C660-510683-A	Dipole	I-PEX	
6	-	-	4	Whayu	C660-510683-A	Dipole	I-PEX	
7	-	-	2	Whayu	C660-510683-A	Dipole	I-PEX	
8	-	-	1	Whayu	C660-510683-A	Dipole	I-PEX	

Note 1:

Ant.	WLAN 2.4GHz (dBi)	WLAN 5GHz (dBi)				WLAN 6GHz (dBi)			
		UNII 1	UNII 2A	UNII 2C	UNII 3	UNII 5	UNII 6	UNII 7	UNII 8
1	3.52	2.95	3.28	3.9	3.78	-	-	-	-
2	3.69	3.47	2.87	3.76	3.81	-	-	-	-
3	3.59	3.98	3.76	3.77	3.93	-	-	-	-
4	3.47	3.46	3.93	3.64	3.55	-	-	-	-
5	-	-	-	-	-	4.41	4.27	3.16	3.9
6	-	-	-	-	-	4.42	4.11	4.03	4.1
7	-	-	-	-	-	4.48	4.32	3.95	4.4
8	-	-	-	-	-	4.38	4.47	4.25	4.24

Directional Gain (dBi)														
WLAN 2.4GHz			WLAN 5GHz UNII 1			WLAN 5GHz UNII 2A			WLAN 5GHz UNII 2C			WLAN 5GHz UNII 3		
4T1S	4T2S	4T4S	4T1S	4T2S	4T4S	4T1S	4T2S	4T4S	4T1S	4T2S	4T4S	4T1S	4T2S	4T4S
7.41	4.41	3.69	7.61	4.61	3.98	7.47	4.47	3.93	7.98	4.98	3.9	7.33	4.33	3.93

Directional Gain (dBi)											
WLAN 6GHz UNII 5			WLAN 6GHz UNII 6			WLAN 6GHz UNII 7			WLAN 6GHz UNII 8		
4T1S	4T2S	4T4S	4T1S	4T2S	4T4S	4T1S	4T2S	4T4S	4T1S	4T2S	4T4S
6.71	4.48	4.48	6.73	4.47	4.47	6.03	4.25	4.25	6.82	4.4	4.4

Note 2: The antenna gain and directional gain are measured which follow the procedure of KDB 662911 D03.

<For 2.4GHz function>

For IEEE 802.11b/g/n/VHT/ax/be/bn (4TX/4RX):

Port 1~Port 4 can be used as transmitting/receiving antenna.

Port 1~Port 4 could transmit/receive simultaneously.

<For 5GHz function>

For IEEE 802.11a/n/ac/ax/be/bn (4TX/4RX):

Port 1~Port 4 can be used as transmitting/receiving antenna.

Port 1~Port 4 could transmit/receive simultaneously.



<For 6GHz function>

For IEEE 802.11a/ax/be/bn (4TX/4RX):

Port 1~Port 4 can be used as transmitting/receiving antenna.

Port 1~Port 4 could transmit/receive simultaneously.

1.3 Table for Multiple Listing

Model Name	Description
BN12	All the models are identical, the difference model served as marketing strategy.
BN19000	

Note 1: From the above models, model: BN12 was selected as representative model for the test and its data was recorded in this report.

Note 2: The above information was declared by manufacturer.

1.4 Table for EUT Supports Function

Function
AP Router
Mesh

Note 1: The USB port on this device supports both storage and WWAN functionality.

Note 2: The above information was declared by manufacturer.

1.5 Accessories

Accessories			
Equipment Name	Brand Name	Model Name	Rating
Adapter	Leader	MU60B3120500-A1	Input: 100-240V~50/60Hz, 1.5A Output: 12.0V, 5.0A
Other			
RJ-45 cable*1: Shielded, 1.5m			

1.6 Testing Location

Testing Location Information	
Test Lab. : Sporton International Inc. Hsinchu Laboratory	
Hsinchu	ADD: No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County 302010, Taiwan (R.O.C.)
(TAF: 3787)	TEL: 886-3-656-9065 FAX: 886-3-656-9085
Test site Designation No. TW3787 with FCC.	
Conformity Assessment Body Identifier (CABID) TW3787 with ISCED.	



2 Maximum Permissible Exposure

2.1 Limit of Maximum Permissible Exposure

(A) Limits for Occupational / Controlled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm ²)	Averaging Time E ² , H ² or S (minutes)
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

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm ²)	Averaging Time E ² , H ² or S (minutes)
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

Note: f = frequency in MHz ; *Plane-wave equivalent power density

2.2 MPE Calculation Method

The MPE was calculated at 28 cm to show compliance with the power density limit.

The following formula was used to calculate the Power Density:

$$E \text{ (V/m)} = \frac{\sqrt{30 \times P \times G}}{d} \quad \text{Power Density: } Pd \text{ (W/m}^2\text{)} = \frac{E^2}{377}$$

E = Electric field (V/m)

P = RF output power (W)

G = EUT Antenna numeric gain (numeric)

d = Separation distance between radiator and human body (m)

The formula can be changed to

$$Pd = \frac{30 \times P \times G}{377 \times d^2}$$



2.3 Calculated Result and Limit

Exposure Environment: General Population / Uncontrolled Exposure

Mode	DG (dBi)	Power (dBm)	EIRP (dBm)	Tolerance (dB)	Tune-up EIRP (dBm)	Distance (cm)	S (mW/cm ²)	S Limit (mW/cm ²)	Ratio (S/Limit)
2.4G;D1D	7.41	28.45	35.86	0.13	35.99	28	0.40316	1.00000	0.40316
5.2G;D1D	7.61	28.19	35.80	0.19	35.99	28	0.40316	1.00000	0.40316
5.3G;D1D	7.47	22.44	29.91	0.06	29.97	28	0.10080	1.00000	0.1008
5.6G;D1D	7.98	21.98	29.96	0.01	29.97	28	0.10080	1.00000	0.1008
5.8G;D1D	7.33	28.64	35.97	0.02	35.99	28	0.40316	1.00000	0.40316
6.2G;D1D	-	-	29.91	0.08	29.99	28	0.10127	1.00000	0.10127
6.4G;D1D	-	-	29.45	0.50	29.95	28	0.10034	1.00000	0.10034
6.7G;D1D	-	-	28.47	0.50	28.97	28	0.08007	1.00000	0.08007
7.0G;D1D	-	-	25.58	0.50	26.08	28	0.04116	1.00000	0.04116
Band12;G7D	-	-	24.00	0.50	24.50	28	0.02861	0.46600	0.06139

Simultaneous Transmission Analysis Mode:

Mode 1: WLAN 2.4GHz + WLAN 5GHz + WLAN 6GHz

Mode	DG (dBi)	Power (dBm)	EIRP (dBm)	Tolerance (dB)	Tune-up EIRP (dBm)	Distance (cm)	S (mW/cm ²)	S Limit (mW/cm ²)	Ratio (S/Limit)
2.4G;D1D	7.41	28.45	35.86	0.13	35.99	28	0.40316	1.00000	0.40316
5.8G;D1D	7.33	28.64	35.97	0.02	35.99	28	0.40316	1.00000	0.40316
6.2G;D1D	-	-	29.91	0.08	29.99	28	0.10127	1.00000	0.10127
Sum S/Limit Ratio	0.90759								
Ratio Limit	1								

Mode 2: WLAN 2.4GHz + WLAN 5GHz + WLAN 6GHz + WWAN

Mode	DG (dBi)	Power (dBm)	EIRP (dBm)	Tolerance (dB)	Tune-up EIRP (dBm)	Distance (cm)	S (mW/cm ²)	S Limit (mW/cm ²)	Ratio (S/Limit)
2.4G;D1D	7.41	28.45	35.86	0.13	35.99	28	0.40316	1.00000	0.40316
5.8G;D1D	7.33	28.64	35.97	0.02	35.99	28	0.40316	1.00000	0.40316
6.2G;D1D	-	-	29.91	0.08	29.99	28	0.10127	1.00000	0.10127
Band12;G7D	-	-	24.00	0.50	24.50	28	0.02861	0.46600	0.06139
Sum S/Limit Ratio	0.96898								
Ratio Limit	1								

—————THE END—————