Shenzhen Most Technology Service Co., Ltd.
East A, 1 floor of New Aolin Factory buiding, Langshan Erlu, North District,
Hi-tech Industry Park, Nanshan,Shenzhen,Guangdong,China

RF Exposure Evaluation Report

Report Reference No..... :	**MTEB24090294-H**
FCC ID..... :	**2BKIN-BLUVY10**
Compiled by (position+printed name+signature).. :	File administrators Alisa Luo
Supervised by (position+printed name+signature).. :	Test Engineer Sunny Deng
Approved by (position+printed name+signature).. :	Manager Yvette Zhou
Date of issue..... :	**Sep. 24,2024**
Representative Laboratory Name. :	**Shenzhen Most Technology Service Co., Ltd.**
Address..... :	No.5, 2nd Langshan Road, North District, Hi-tech Industrial Park, Nanshan, Shenzhen, Guangdong, China.
Applicant's name..... :	**Amazonia Enterprises LLC.**
Address..... :	450 Sheringham Terrace, Roswell, GA 30076, United States
Test specification/ Standard.....**:**	**47 CFR Part 1.1307;47 CFR Part 1.1310** **KDB447498D01 General RF Exposure Guidance v06**
TRF Originator..... :	Shenzhen Most Technology Service Co., Ltd.

Test item description.....:	Bluvy
Trade Mark..... :	N/A
Model/Type reference..... :	Bluvy 1.0
Listed Models ..... :	N/A
Modulation Type..... :	GFSK, π/4DQPSK,8DPSK b: DSSS ,CCK; g/n: BPSK,QPSK,QAM OFDM
Operation Frequency..... :	From 2402MHz to 2480MHz From 2412MHz~2462MHz From 5180MHz-5240MHz；5260MHz-5320MHz； 5500MHz-5700MHz；5745MHz-5825MHz
Hardware Version.....	1.0
Software Version.....	1.0
Rating..... :	DC 3.8V by Battery DC 5V by USB Port
Result..... :	**PASS**

T E S T R E P O R T

Equipment under Test	:	Bluvy
Model /Type	:	Bluvy 1.0
Listed Models	:	N/A
Remark		N/A
Applicant	:	Amazonia Enterprises LLC.
Address	:	450 Sheringham Terrace, Roswell, GA 30076, United States
Manufacturer	:	Amazonia Enterprises LLC
Address	:	450 Sheringham Terrace, Roswell, GA 30076, United States

Test Result:	**PASS**

The test report merely corresponds to the test sample.
It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

1. Revision History

Revision	Issue Date	Revisions	Revised By
00	2024.09.24	Initial Issue	Alisa Luo

2. SAR Evaluation

2.1 RF Exposure Compliance Requirement

2.1.1 Standard Requirement

According to KDB447498D01 General RF Exposure Guidance v06
4.3.1. Standalone SAR test exclusion considerations
Unless specifically required by the published RF exposure KDB procedures, standalone 1-g head or body and 10-g extremity SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding SAR Exclusion Threshold condition, listed below, is satisfied.

2.1.2 Limits

According to FCC Part1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in part1.1307(b)

TABLE 1—LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

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

F= Frequency in MHz
Friis Formula
Friis transmission formula: Pd = (Pout*G)/(4* Pi * R 2) Where
Pd = power density in mW/cm2
Pout = output power to antenna in mW
G = gain of antenna in linear scale
Pi = 3.1416

R = distance between observation point and center of the radiator in cm
Pd id the limit of MPE, 1 mW/cm2 . If we know the maximum gain of the antenna and the total power input to the antenna, through the calculation, we will know the distance r where the MPE limit is reached.

2.1.3 EUT RF Exposure

BT classic

GFSK			
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power (dBm)
Lowest(2402MHz)	2.633	2.633±1	3.633
Middle(2441MHz)	3.009	3.009±1	4.009
Highest(2480MHz)	2.531	2.531±1	3.531

π /4DQPSK			
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power (dBm)
Lowest(2402MHz)	0.139	0.139±1	1.139
Middle(2441MHz)	0.503	0.503±1	1.503
Highest(2480MHz)	0.059	0.059±1	1.059

8DPSK			
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power (dBm)
Lowest(2402MHz)	0.561	0.561±1	1.561
Middle(2441MHz)	0.979	0.979±1	1.979
Highest(2480MHz)	0.476	0.476±1	1.476

Worst case: GFSK						
Channel	Maximum tune-up Power (dBm)	Maximum tune-up Power (MW)	Antenna Gain (dBi)	Power Density at R = 20 cm (mW/cm2)	Limit	Result
Middle(2441MHz)	4.009	2.52	1.41	0.0007	1.0	Pass

Note: 1) Refer to report MTEB24090294-R for EUT test Max Conducted average Output Power value.
Note: 2) Pd = (Pout*G)/(4* Pi * R^2)=(2.52*1.38)/(4*3.1416*20^2)=0.0007
Note: 3)EUT's Bluetooth module is more than 20cm away from the human body.

BLE

GFSK			
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power (dBm)
Lowest(2402 MHz)	0.116	0.116±1	1.116
Middle(2440MHz)	0.004	0.004±1	1.004
Highest(2480MHz)	-1.231	-1.231±1	-0.231

BLE

Worst case: GFSK						
Channel	Maximum tune-up Power (dBm)	Maximum tune-up Power (MW)	Antenna Gain (dBi)	Power Density at R = 20 cm (mW/cm2)	Limit	Result
Lowest(2402 MHz)	1.116	1.29	1.41	0.00035	1.0	Pass

Note: 1) Refer to report MTEB24090294-R1 for EUT test Max Conducted average Output Power value.
Note: 2) Pd = (Pout*G)/(4* Pi * R^2)=(1.29*1.38)/(4*3.1416*20^2)=0.00035
Note: 3)EUT's Bluetooth module is more than 20cm away from the human body.

WIFI 2.4G

802.11b			
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power (dBm)
Lowest(2412MHz)	14.90	14.90±1	15.9
Middle(2437MHz)	13.81	13.81±1	14.81
Highest(2462MHz)	13.69	13.69±1	14.69

802.11g			
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power (dBm)
Lowest(2412MHz)	12.91	12.91±1	13.91
Middle(2437MHz)	12.88	12.88±1	13.88
Highest(2462MHz)	12.82	12.82±1	13.82

802.11n(H20)			
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power (dBm)
Lowest(2412MHz)	13.41	13.41±1	14.41
Middle(2437MHz)	13.25	13.25±1	14.25
Highest(2462MHz)	13.37	13.37±1	14.37

802.11n(H40)			
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power (dBm)
Lowest(2422MHz)	13.20	13.20±1	14.2
Middle(2437MHz)	13.15	13.15±1	14.15
Highest(2452MHz)	13.05	13.05±1	14.05

WIFI 2.4G

Worst case: 802.11b						
Channel	Maximum tune-up Power (dBm)	Maximum tune-up Power (MW)	Antenna Gain (dBi)	Power Density at R = 20 cm (mW/cm2)	Limit	Result
Lowest(2412MHz)	15.9	38.90	1.41	0.0106	1.0	Pass

Note: 1) Refer to report MTEB24090294-R2 for EUT test Max Conducted average Output Power value.
Note: 2) Pd = (Pout*G)/(4* Pi * R^2)=(38.90*1.38)/(4*3.1416*20^2)=0.0106
Note: 3)EUT's Bluetooth module is more than 20cm away from the human body.

WIFI 5G

IEEE for 802.11a U-NI-1			
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power (dBm)
5180	10.334	10.334±1	11.334
5200	10.866	10.866±1	11.866
5240	10.906	10.906±1	11.906
IEEE for 802.11a U-NI-2A			
5260	11.881	11.881±1	12.881
5280	11.570	11.570±1	12.57
5320	10.823	10.823±1	11.823
IEEE for 802.11a U-NI-2C			
5500	10.413	10.413±1	11.413
5600	10.443	10.443±1	11.443
5700	8.680	8.680±1	9.68
IEEE for 802.11a U-NI-3			
5745	9.252	9.252±1	10.252
5785	8.735	8.735±1	9.735
5825	8.758	8.758±1	9.758

IEEE for 802.11n(HT20) U-NI-1			
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power (dBm)
5180	13.985	13.985±1	14.985
5200	13.932	13.932±1	14.932
5240	14.232	14.232±1	15.232
IEEE for 802.11n(HT20) U-NI-2A			
5260	13.506	13.506±1	14.506
5280	13.190	13.190±1	14.19
5320	12.662	12.662±1	13.662
IEEE for 802.11n(HT20) U-NI-2C			
5500	12.249	12.249±1	13.249
5600	11.291	11.291±1	12.291
5700	9.275	9.275±1	10.275
IEEE for 802.11n(HT20) U-NI-3			
5745	12.765	12.765±1	13.765
5785	12.188	12.188±1	13.188
5825	12.204	12.204±1	13.204

IEEE for 802.11n(HT40) U-NI-1			
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power (dBm)
5190	13.402	13.402±1	14.402
5230	14.156	14.156±1	15.156
IEEE for 802.11n(HT40) U-NI-2A			
5270	13.316	13.316±1	14.316
5310	12.447	12.447±1	13.447
IEEE for 802.11n(HT40) U-NI-2C			
5510	11.711	11.711±1	12.711
5590	11.301	11.301±1	12.301
5670	9.534	9.534±1	10.534
IEEE for 802.11n(HT40) U-NI-3			
5755	12.797	12.797±1	13.797
5795	11.877	11.877±1	12.877

IEEE for 802.11ac(HT20) U-NI-1			
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power (dBm)
5180	11.940	11.940±1	12.94
5200	13.059	13.059±1	14.059
5240	13.653	13.653±1	14.653
IEEE for 802.11 ac (HT20) U-NI-2A			
5260	13.932	13.932±1	14.932
5280	13.559	13.559±1	14.559
5320	13.667	13.667±1	14.667
IEEE for 802.11 ac (HT20) U-NI-2C			
5500	13.010	13.010±1	14.01
5600	11.731	11.731±1	12.731
5700	10.014	10.014±1	11.014
IEEE for 802.11 ac (HT20) U-NI-3			
5745	10.328	10.328±1	11.328
5785	9.501	9.501±1	10.501
5825	9.097	9.097±1	10.097

IEEE for 802.11ac(HT40) U-NI-1			
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power (dBm)
5190	11.960	11.960±1	12.96
5230	13.140	13.140±1	14.14
IEEE for 802.11 ac (HT40) U-NI-2A			
5270	13.463	13.463±1	14.463
5310	12.967	12.967±1	13.967
IEEE for 802.11 ac (HT40) U-NI-2C			
5510	12.436	12.436±1	13.436
5590	11.510	11.510±1	12.51
5670	10.279	10.279±1	11.279
IEEE for 802.11 ac (HT40) U-NI-3			
5755	10.105	10.105±1	11.105
5795	8.965	8.965±1	9.965

IEEE for 802.11ac(HT80) U-NI-1			
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power (dBm)
5210	12.299	12.299±1	13.299
IEEE for 802.11 ac (HT80) U-NI-2A			
5290	13.001	13.001±1	14.001
IEEE for 802.11 ac (HT80) U-NI-2C			
5530	12.241	12.241±1	13.241
5610	11.326	11.326±1	12.326
IEEE for 802.11 ac (HT80) U-NI-3			
5775	9.377	9.377±1	10.377

U-NI-1

Worst case: IEEE for 802.11n(HT20)						
Channel	Maximum tune-up Power (dBm)	Maximum tune-up Power (MW)	Antenna Gain (dBi)	Power Density at R = 20 cm (mW/cm2)	Limit	Result
5240	15.232	33.36	1.16	0.0086	1.0	Pass

Note: 1) Refer to report **MTEB24090294–R3** for EUT test Max Conducted average Output Power value.
Note: 2) Pd = (Pout*G)/(4* Pi * R^2)=(33.36*1.30)/(4*3.1416*20^2)=0.0086
Note: 3)EUT's Bluetooth module is more than 20cm away from the human body.

U-NI-2A

Worst case: IEEE for ac (HT20)						
Channel	Maximum tune-up Power (dBm)	Maximum tune-up Power (MW)	Antenna Gain (dBi)	Power Density at R = 20 cm (mW/cm2)	Limit	Result
5260	14.932	31.13	2.45	0.0109	1.0	Pass

Note: 1) Refer to report **MTEB24090294–R3** for EUT test Max Conducted average Output Power value.
Note: 2) Pd = (Pout*G)/(4* Pi * R^2)=(31.13*1.76)/(4*3.1416*20^2)=0.0109
Note: 3)EUT's Bluetooth module is more than 20cm away from the human body.

U-NI-2C

Worst case: IEEE for ac (HT20)						
Channel	Maximum tune-up Power (dBm)	Maximum tune-up Power (MW)	Antenna Gain (dBi)	Power Density at R = 20 cm (mW/cm2)	Limit	Result
5500	14.01	25.18	1.67	0.007	1.0	Pass

Note: 1) Refer to report **MTEB24090294–R3** for EUT test Max Conducted average Output Power value.
Note: 2) Pd = (Pout*G)/(4* Pi * R^2)=(25.18*1.47)/(4*3.1416*20^2)=0.007
Note: 3)EUT's Bluetooth module is more than 20cm away from the human body.

U-NI-3

Worst case: IEEE for 802.11n(HT40)						
Channel	Maximum tune-up Power (dBm)	Maximum tune-up Power (MW)	Antenna Gain (dBi)	Power Density at R = 20 cm (mW/cm2)	Limit	Result
5755	13.797	23.97	1.03	0.006	1.0	Pass

Note: 1) Refer to report **MTEB24090294–R3** for EUT test Max Conducted average Output Power value.
Note: 2) Pd = (Pout*G)/(4* Pi * R^2)=(23.97*1.27)/(4*3.1416*20^2)=0.006
Note: 3)EUT's Bluetooth module is more than 20cm away from the human body.

.....THE END OF REPORT.....