



RF Exposure Evaluation Report

Application No.: DNT2601290767R01410-02191
Applicant: Vandsec Electronics Co., Ltd.
Address of Applicant: Room 201, No.75 Bao'nan Road, Nanlian Community, Longgang Sub-district, Longgang District, Shenzhen City, Guangdong Province, China, 518100
EUT Description: Hanging Hummingbird Feeder
Model No.: V10-FNQ-01
Additional Model(s): V10-FNQ-02, V10-FNQ-03, V10-FNQ-05, V10-FNQ-06, V10-FNQ-07, V10-FNQ-08
FCC ID: 2BVEK-V10-FNQ01
Power Supply: Input DC 5V; DC 3.7V From Battery
Trade Mark: /
Standards: 47 CFR Part 2.1091
FCC KDB 447498 D01 v06
Date of Receipt: 2026/1/29
Date of Test: 2026/1/30 to 2026/3/11
Date of Issue: 2026/3/26
Test Result: **PASS**

Prepared By: Carl Lin (Testing Engineer)

Reviewed By: Wayne Lin (Project Engineer)

Approved By: Heise Shen (Manager)



Note: If there is any objection to the results in this report, please submit a written inquiry to the company within 15 days from the date of receiving the report. The test report is effective only with both signature and specialized stamp, and is issued by the company in accordance with the requirements of the "Conditions of Issuance of Test Reports" printed in the attached page. Unless otherwise stated, the results presented in this report only apply to the samples tested this time. Partial reproduction of this report is not allowed unless approved by the company in writing.

Dongguan DN Testing Co., Ltd.

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Report Revise Record

Report Version	Revise Time	Issued Date	Valid Version	Notes
V1.0	/	Mar.26, 2026	Valid	Original Report



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1 General Information

1.1 Test Location

Company:	Dongguan DN Testing Co., Ltd
Address:	No. 1, West Fourth Street, South Xinfu Road, Wusha Liwu, Chang 'an Town, Dongguan City, Guangdong P.R.China
Test engineer:	Gali Lin

1.2 General Description of EUT

Manufacturer:	Vandsec Electronics Co., Ltd.
Address of Manufacturer:	Room 201, No.75 Bao'nan Road, Nanlian Community, Longgang Sub-district, Longgang District, Shenzhen City, Guangdong Province, China, 518100
Factory:	Vandsec Electronics Co., Ltd.
Address of Factory:	Room 201, No.75 Bao'nan Road, Nanlian Community, Longgang Sub-district, Longgang District, Shenzhen City, Guangdong Province, China, 518100
EUT Description:	Hanging Hummingbird Feeder
Model No.:	V10-FNQ-01
Additional Model(s):	V10-FNQ-02, V10-FNQ-03, V10-FNQ-05, V10-FNQ-06, V10-FNQ-07, V10-FNQ-08
Power Supply:	Input DC 5V; DC 3.7V From Battery
Trade Mark:	/
Hardware Version:	V1.0
Software Version:	V1.0
Chip Type:	AIC8800M40B
Serial number	PR2601290767R01410
Sample Type:	Portable Device, ☐ Module, ☒ Mobile Device
Antenna Type:	☐ External, ☒ Integrated
Antenna Ports:	☒ Ant 1, ☐ Ant 2, ☐ Ant 3
Antenna Gain:	☒ Provided by applicant
	2.4G:4.68dBi 5G:5.36dBi
Note: *Since the above data and/or information is provided by the client relevant results or conclusions of this report are only made for these data and/or information, DNT is not responsible for the authenticity, integrity and results of the data and information and/or the validity of the conclusion. *All models are just name differences, motherboard, PCB circuit board, chip, electronic components is all the same.	



2 RF Exposure Evaluation

2.1 RF Exposure Compliance Requirement

2.1.1 Limits

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 *=Plane-wave equivalent power density RF exposure compliance will need to be determined with respect to 1.1307(c) and (d) of the FCC rules. The emissions should be within the limits at 300kHz in Table 1 of 1.1310(use the 300kHz limits for 150kHz:614V/m,1.63A/m).				

Friis Formula

Friis transmission formula: $P_d = (P_{out} * G) / (4 * \pi * R^2)$

Where

P_d = power density in mW/cm²

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

π = 3.1416

R = distance between observation point and center of the radiator in cm

P_d is 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.



2.1.2 Test Procedure

Software provided by client enabled the EUT to transmit data at lowest, middle and highest channel individually

2.1.3 EUT RF Exposure Evaluation

Antenna Gain: The maximum Gain measured in fully anechoic chamber is 2.0 / 2.0 in linear scale.

Output Power Into Antenna & RF Exposure Evaluation Distance:

This confirmed that the device comply with MPE limit.

Test Mode	Antenna	Freq(MHz)	Power [dBm]
GFSK	Ant1	2402	3.08
	Ant1	2441	3.42
	Ant1	2480	3.72
$\pi/4$ -DQPSK	Ant1	2402	2.46
	Ant1	2441	2.72
	Ant1	2480	3.10
8-DPSK	Ant1	2402	2.78
	Ant1	2441	3.02
	Ant1	2480	3.53
GFSK 1Mbps	Ant1	2402	3.87
	Ant1	2440	4.19
	Ant1	2480	4.56
GFSK 2Mbps	Ant1	2402	3.83
	Ant1	2440	4.18
	Ant1	2480	4.55

Test Mode	Antenna	Freq(MHz)	Power [dBm]
11B	Ant1	2412	18.86
	Ant1	2437	19.03
	Ant1	2462	18.28
11G	Ant1	2412	11.08
	Ant1	2437	18.94
	Ant1	2462	17.12
11N20SISO	Ant1	2412	17.96
	Ant1	2437	18.22
	Ant1	2462	16.82
11N40SISO	Ant1	2422	17.51
	Ant1	2437	18.10
	Ant1	2452	18.58
11AX20SISO	Ant1	2412	18.21
	Ant1	2437	18.34
	Ant1	2462	16.36
11AX40SISO	Ant1	2422	17.50
	Ant1	2437	15.64
	Ant1	2452	15.92



Test Mode	Antenna	Freq (MHz)	Power [dBm]
11A	Ant1	5180	12.80
		5200	15.83
		5240	14.62
		5260	16.44
		5280	18.29
		5320	20.47
		5500	15.96
		5580	15.24
		5700	15.62
		5745	17.28
		5785	14.55
		5825	15.62
11N20SISO	Ant1	5180	11.22
		5200	10.99
		5240	12.52
		5260	14.80
		5280	15.04
		5320	16.73
		5500	13.86
		5580	14.74
		5700	14.50
		5745	15.79
		5785	16.40
		5825	16.58
11N40SISO	Ant1	5190	7.90
		5230	14.87
		5270	12.01
		5310	14.16
		5510	11.74
		5550	12.93
		5670	16.69
		5755	16.52
11AC20SISO	Ant1	5180	15.42
		5200	14.91
		5240	9.28
		5260	9.31
		5280	9.21
		5320	12.33
		5500	10.26
		5580	12.96
		5700	13.45
		5745	16.60
		5785	13.66
		5825	11.54
11AC40SISO	Ant1	5190	4.97
		5230	16.79
		5270	13.76
		5310	10.94
		5510	12.72
		5550	11.87
		5670	13.06
		5755	12.04
11AC40SISO	Ant1	5795	15.18



11AX20SISO	Ant1	5180	9.50
		5200	12.64
		5240	11.83
		5260	8.80
		5280	13.71
		5320	11.42
		5500	8.13
		5580	13.20
		5700	14.10
		5745	15.94
		5785	13.46
		5825	12.85
11AX40SISO	Ant1	5190	10.20
		5230	11.02
		5270	11.51
		5310	10.02
		5510	13.71
		5550	8.90
		5670	13.86
		5755	14.50
		5795	17.75

The Worst Mode	Antenna	MAX output power (dBm)	Target power (dBm)	MAX Target power (dBm)	Antenna gain		Power Density (S) (mW /cm ²)	Limited of Power Density (S) (mW /cm ²)	Test Result	Distance (cm)
					(dBi)	(Linear)				
GFSK	Ant1	3.72	3±1	4	4.68	2.94	0.0015	1	Complies	20
BLE GFSK 1Mbps	Ant1	4.56	4±1	5	4.68	2.94	0.0019	1	Complies	20
11b(2.4G Wi-Fi)	Ant1	19.03	19±1	20	4.68	2.94	0.0584	1	Complies	20
11a(5G Wi-Fi)	Ant1	20.47	20±1	21	5.36	3.44	0.0861	1	Complies	20

The End Report