



Shenzhen HTT Technology Co., Ltd.

RF Exposure MPE	
Report Reference No.....	HTT20251079F05
FCC ID.....	2BG5Z-FCN
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Date of issue	Nov. 28, 2025
Testing Laboratory Name	Shenzhen HTT Technology Co.,Ltd.
Address.....	1F, Building B, Huafeng International Robotics Industrial Park, Hangcheng Road,Nanchang Community, Xixiang Street, Bao'an District, Shenzhen, Guangdong, China
Applicant's name.....	Suzhou Deep Foresight Technology Co., Ltd.
Address.....	Room 2302, Building G2, Phase VII, AI Industrial Park No. 88 Jinji Lake Avenue, Suzhou, Jiangsu 215000, China
Standard	47CFR §1.1310 47CFR §2.1091 KDB447498 D01 General RF Exposure Guidance v06
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Test item description	XbotGo Falcon
Manufacturer	Suzhou Deep Foresight Technology Co., Ltd.
Trade Mark	XbotGo
Model/Type reference	FCN
Rating	Input: 5V---3A 9V---2A 12V---1.5A Battery: 3.6Vdc 9200mAh
Result	PASS

TEST REPORT

Equipment under Test : XbotGo Falcon

Model /Type : FCN

Listed Models : FCNB01, FCNG01, FCNO01

Model difference : The PCB board, circuit, structure and internal of these models are the same, Only model number is different for these model.

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Manufacturer : Suzhou Deep Foresight Technology Co., Ltd.

Address : Room 2302, Building G2, Phase VII, AI Industrial Park No. 88 Jinji Lake Avenue, Suzhou, Jiangsu 215000, China

Test Result:	PASS
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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.

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1 TEST STANDARDS

The tests were performed according to following standards:

[ANSI C95.1-1999](#): IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz.

[FCC KDB 447498 D01 General RF Exposure Guidance v06](#): Mobile and Portable Device, RF Exposure, Equipment Authorization Procedures.

[FCC CFR 47 part1 1.1310](#): Radiofrequency radiation exposure limits.

[FCC CFR 47 part2 2.1091](#): Radiofrequency radiation exposure evaluation: mobile devices

2 SUMMARY

2.1 General Remarks

Date of receipt of test sample	:	Nov. 07, 2025
Testing commenced on	:	Nov. 07, 2025
Testing concluded on	:	Nov. 28, 2025

2.2 Product Description

Product description:	XbotGo Falcon
Model/Type reference:	FCN
Power supply:	Input: 5V---3A 9V---2A 12V---1.5A Battery: 3.6Vdc 9200mAh
Adapter Information:	Mode: CD127 Input: 100-240V~, 50/60Hz, 1.8A max Output: 5V---3A 9V---3A 12V---3A 15V---3A 20V---3.25A 3.3-21V---3A 65W Max
Battery 1:	Model: INR18650-1S3P Nominal Voltage: 3.6V Rated Capacity: 9200mAh Rated Energy: 33.12Wh Producer: Shenzhen Thanksun Technology Co., Ltd.
Battery 2:	Model: INR18650-1S3P Nominal Voltage: 3.6V Rated Capacity: 9200mAh Rated Energy: 33.12Wh Manufacturer/Producer: DongGuan RTD Technology CO.,LTD
Testing sample ID:	HTT202510797-1# (Engineer sample) HTT202510797-2# (Normal sample)
Hardware version:	/
Software version:	/
BT :	
Supported Type:	Bluetooth BR/EDR
Modulation:	GFSK, $\pi/4$ DQPSK, 8DPSK
Operation frequency:	2402MHz~2480MHz
Channel number:	79
Channel separation:	1MHz
Antenna type:	FPC antenna
Antenna gain:	0.30 dBi
BLE	
Supported type:	Bluetooth low Energy
Modulation:	GFSK
Operation frequency:	2402MHz to 2480MHz

Channel number:	40			
Channel separation:	2 MHz			
Bit Rate of Transmitter:	1Mbps/2Mbps			
Antenna type:	FPC antenna			
Antenna gain:	0.30 dBi			
WIFI 2.4G :				
Supported type:	802.11b/802.11g/802.11n(HT20)/ 802.11n(HT40)/802.11ax(HT20)/ 802.11ax(HT40)			
Modulation:	802.11b: DSSS 802.11g/802.11n(HT20)/ 802.11n(HT40)/802.11ax(HT20)/ 802.11ax(HT40): OFDM			
Operation frequency:	802.11b/802.11g/802.11n(H20)/802.11ax(H20): 2412MHz~2462MHz 802.11n(H40)/ 802.11ax(HT40): 2422MHz~2452MHz			
Channel number:	802.11b/802.11g/802.11n(HT20)/802.11ax(H20): 11 802.11n(HT40)/ 802.11ax(HT40):7			
Channel separation:	5MHz			
Antenna type:	FPC antenna			
Antenna gain:	0.30 dBi for ANT 1, 2.50 dBi for ANT2			
WIFI 5G				
Supported type:	20MHz system	40MHz system	80MHz system	160MHz system
	802.11a 802.11n 802.11ax 802.11ac	802.11n 802.11ax 802.11ac	802.11n 802.11ax 802.11ac	N/A
Operation frequency:	5180MHz-5240MHz 5745MHz-5825MHz	5190MHz-5230MHz 5755MHz-5795MHz	5210MHz 5775MHz	N/A
Modulation:	802.11a/802.11n/ 802.11ax/802.11ac: OFDM	802.11n/802.11ax/ 802.11ac:OFDM	802.11n/802.11a x/802.11ac:OFD M	N/A
Channel number:	9	4	2	N/A
Channel separation:	20MHz	40MHz	80MHz	N/A
Antenna Type:	FPC Antenna			
Antenna gain:	3.00dBi for 5180-5240MHz for ANT 1, 3.10dBi for 5745-5825MHz for ANT 1, 2.00dBi for 5180-5240MHz for ANT 2, 4.60dBi for 5745-5825MHz for ANT 2			

2.3 Special Accessories

The following is the EUT test of the auxiliary equipment provided by the laboratory:

Description	Manufacturer	Model	Technical Parameters	Certificate	Provided by
/	/	/	/	/	/

2.4 Modifications

No modifications were implemented to meet testing criteria.

3 TEST ENVIRONMENT

3.1 Address of the test laboratory

Shenzhen HTT Technology Co.,Ltd.

1F, Building B, Huafeng International Robotics Industrial Park, Hangcheng Road,Nanchang Community, Xixiang Street, Bao'an District, Shenzhen, Guangdong, China

3.2 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

FCC-Registration No.: 779513 Designation Number: CN1319

Shenzhen HTT Technology Co.,Ltd. has been listed on the US Federal Communications Commission list of test facilities recognized to perform electromagnetic emissions measurements.

A2LA-Lab Cert. No.: 6435.01

Shenzhen HTT Technology Co.,Ltd. has been listed by American Association for Laboratory Accreditation to perform electromagnetic emission measurement.

The 3m-Semi anechoic test site fulfils CISPR 16-1-4 according to ANSI C63.10 and CISPR 16-1-4:2010.

3.3 Statement of the measurement uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. to TR-100028-01" Electromagnetic compatibility and Radio spectrum Matters (ERM);Uncertainties in the measurement of mobile radio equipment characteristics; Part 1" and TR-100028-02 "Electromagnetic compatibility and Radio spectrum Matters (ERM);Uncertainties in the measurement of mobile radio equipment characteristics; Part 2 " and is documented in the Shenzhen HTT Technology Co.,Ltd. quality system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

Hereafter the best measurement capability for Shenzhen HTT Technology Co.,Ltd. :

Test Item	Frequency Range	Measurement Uncertainty	Notes
Radiated Emission	9KHz~30MHz	3.12 dB	(1)
Radiated Emission	30~1000MHz	4.37 dB	(1)
Radiated Emission	1~18GHz	5.40 dB	(1)
Radiated Emission	18-40GHz	5.45 dB	(1)
Conducted Disturbance	0.15~30MHz	2.68 dB	(1)
Spectrum bandwidth	/	1.2%	(1)
Output Peak power	30MHz~18GHz	0.57dB	(1)
Time	/	± 10%	(1)

Note (1): The measurement uncertainty is for coverage factor of k=2 and a level of confidence of 95%.

4 Test limit

4.1 Requirement

Limits for Maximum Permissible Exposure (MPE)/Controlled Exposure

Frequency Range(MHz)	Electric Field Strength(V/m)	Magnetic Field Strength(A/m)	Power Density (mW/cm ²)	Averaging Time (minute)
Limits for Occupational/Controlled Exposure				
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

Limits for Maximum Permissible Exposure (MPE)/Uncontrolled Exposure

Frequency Range(MHz)	Electric Field Strength(V/m)	Magnetic Field Strength(A/m)	Power Density (mW/cm ²)	Averaging Time (minute)
Limits for Occupational/Controlled Exposure				
0.3 – 3.0	614	1.63	(100) *	30
3.0 – 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

4.2 MPE Calculation Method

Predication of MPE limit at a given distance

Equation from page 18 of OET Bulletin 65, Edition 97-01

$$S=PG/4\pi R^2$$

Where: S=power density

P=power input to antenna

G=power gain of the antenna in the direction of interest relative to an isotropic radiator

R=distance to the center of radiation of the antenna

4.3 Max Conducted Power Results

Mode	TX Type	Frequency (MHz)	Packet Type	Maximum Peak Conducted Output Power (dBm)
				ANT1
GFSK	SISO	2402	DH5	3.8
		2441	DH5	2.9
		2480	DH5	1.71
Pi/4DQPSK	SISO	2402	2DH5	4.2
		2441	2DH5	3.28
		2480	2DH5	2.1
8DPSK	SISO	2402	3DH5	4.63
		2441	3DH5	3.67
		2480	3DH5	2.55

Mode	TX Type	Frequency (MHz)	Maximum Peak Conducted Output Power (dBm)
			ANT1
1M	SISO	2402	3.87
		2440	2.93
		2480	1.77
2M	SISO	2402	3.94
		2440	2.99
		2480	1.82

Mode	TX Type	Frequency (MHz)	Maximum Peak Conducted Output Power (dBm)		
			ANT1	ANT2	MIMO
802.11b	SISO	2412	19.99	20.86	/
		2437	20.1	20.51	/
		2462	19.93	20.76	/
802.11g	SISO	2412	22.95	23.77	/
		2437	23.03	23.52	/
		2462	22.63	23.71	/
802.11n (HT20)	SISO	2412	22.94	23.72	26.36
		2437	22.97	23.49	26.25
		2462	22.57	23.68	26.17
802.11n (HT40)	SISO	2422	23.27	24	26.66
		2437	23.35	23.75	26.56
		2452	22.97	24.04	26.55
802.11ax (HEW20)	SISO	2412	24.49	25.31	27.93
		2437	24.56	24.96	27.77
		2462	24.21	25.22	27.75
802.11ax (HEW40)	SISO	2422	24.31	24.99	27.67
		2437	24.39	24.69	27.55
		2452	24.12	24.97	27.58

Mode	TX Type	Frequency (MHz)	Maximum Average Conducted Output Power (dBm)		
			ANT1	ANT2	MIMO
802.11a	SISO	5180	5.09	4.35	/
		5200	4.57	4.02	/
		5240	5.14	4.05	/
		5745	3.26	3.64	/
		5785	4.15	4.36	/
		5825	5.44	5.47	/
802.11n (HT20)	SISO	5180	5.03	4.28	7.68
		5200	4.41	3.94	7.19
		5240	4.99	3.95	7.51
		5745	2.69	3.15	5.94
		5785	3.56	3.96	6.77
		5825	4.69	5.07	7.89
802.11n (HT40)	SISO	5190	4.78	4.31	7.56
		5230	4.85	4	7.46
		5755	3.55	4.19	6.89
		5795	4.36	4.67	7.53
802.11ac (VHT20)	SISO	5180	4.74	4.12	7.45
		5200	4.3	3.9	7.11
		5240	4.91	4.05	7.51
		5745	2.91	3.44	6.19
		5785	3.72	4.14	6.95
		5825	4.79	5.18	8
802.11ac (VHT40)	SISO	5190	4.74	4.27	7.52
		5230	4.69	4.12	7.42
		5755	3.7	4.3	7.02
		5795	4.46	4.73	7.61
802.11ac (VHT80)	SISO	5210	4.77	3.95	7.39
		5775	4.39	4.88	7.65
802.11ax (HEW20)	SISO	5180	4.81	4.29	7.57
		5200	4.29	4.06	7.19
		5240	4.9	4.19	7.57
		5745	3.06	3.59	6.34
		5785	3.66	4.21	6.95
		5825	4.84	5.24	8.05
802.11ax (HEW40)	SISO	5190	4.59	4.21	7.41
		5230	4.54	4.08	7.33
		5755	3.44	4.29	6.9
		5795	4.24	4.68	7.48
802.11ax (HEW80)	SISO	5210	4.79	4.13	7.48
		5775	4.41	5	7.73

4.4 Manufacturing tolerance

Mode	Max. Peak Conducted Output Power (dBm)	Max. tune-up
BT	4.63	4.0 ± 1
BLE	3.94	3.0 ± 1

Mode	Max. Peak Conducted Output Power (dBm)		Max. tune-up	
	Antenna1	Antenna2	Antenna1	Antenna2
2.4GWIFI	24.56	25.31	25.0 ± 1	25.0 ± 1

Mode	Max. Average Conducted Output Power (dBm)		Max. tune-up	
	Antenna1	Antenna2	Antenna1	Antenna2
5.2GWIFI	5.14	4.35	5.0 ± 1	5.0 ± 1
5.8GWIFI	5.44	5.47	5.0 ± 1	5.0 ± 1

4.5 Standalone MPE Result

As declared by the Applicant, the EUT is a wireless device used in a fix application, at least 20 cm from any body part of the user or nearby persons; from the maximum EUT RF output power, the minimum separation distance, $r = 20\text{cm}$, as well as the gain of the used antenna is refer to section 2.2, the RF power density can be obtained.

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm^2)	MPE Limits (mW/cm^2)
	dBm	mW				
BT	5.0	3.1623	0.30	1.0715	0.0007	1.0000
BLE	4.0	2.5119	0.30	1.0715	0.0005	1.0000
2.4GWIFI Ant 1	26.0	398.1072	0.30	1.0715	0.0849	1.0000
2.4GWIFI Ant 2	26.0	398.1072	2.50	1.7783	0.1409	1.0000
5.2GWIFI Ant 1	6.0	3.9811	3.0	1.9953	0.0016	1.0000
5.2GWIFI Ant 2	6.0	3.9811	2.0	1.5849	0.0013	1.0000
5.8GWIFI Ant 1	6.0	3.9811	3.1	2.0417	0.0016	1.0000
5.8GWIFI Ant 2	6.0	3.9811	4.6	2.8840	0.0023	1.0000

Remark:

1. Output power including turn-up tolerance;
2. MPE evaluate distance is 20cm from user manual provide by manufacturer.

4.6 Simultaneous Transmission for MPE Result

2.4GWIFI ANT1 MPE (Ratio)	2.4GWIFI ANT2 MPE (Ratio)	BT MPE (Ratio)	simultaneous MPE (Ratio)	MPE Limits (Ratio)
0.0849	0.1409	0.0007	0.2265	1.0000

5 Conclusion

The measurement results comply with the FCC Limit per 47 CFR 2.1091 for the uncontrolled RF Exposure of mobile device Threshold per KDB 447498 D01v06

***** End of Report *****