FCC TEST REPORT

FCC ID: 2AT3Y-DVR-980

Product	:	Mobile DVR
Model Name	:	DVR-980-4CH-WIFI-4G, DVR-980-4CH, DVR-980-4CH-WIFI, DVR-980-4CH-4G, DVR-980-8CH-WIFI-4G, DVR-980-8CH, DVR-980-8CH-WIFI, DVR-980-8CH-4G
Brand	:	N/A
Report No.	:	PTC24041211101E-FC03

Prepared for

Shenzhen Brandoo Technology Co.,LTD

Room 803-805,8th floor,Bensi Building,Ganli 6 road Zhonghaixin Industrial park,Bulan Road, Longgang District,Shenzhen, China

Prepared by

Precise Testing & Certification Co., Ltd.

Building 1, No. 6, Tongxin Road, Dongcheng Street, Dongguan, Guangdong, China.

TEST RESULT CERTIFICATION

Applicant's name	:	Shenzhen Brandoo Technology Co.,LTD
Address	:	Room 803-805,8th floor,Bensi Building,Ganli 6 road Zhonghaixin Industrial park,Bulan Road, Longgang District,Shenzhen, China
Manufacture's name	:	Shenzhen Brandoo Technology Co.,LTD
Address	:	Room 803-805,8th floor,Bensi Building,Ganli 6 road Zhonghaixin Industrial park,Bulan Road, Longgang District,Shenzhen, China
Product name	:	Mobile DVR
Model name	:	DVR-980-4CH-WIFI-4G, DVR-980-4CH, DVR-980-4CH-WIFI, DVR-980-4CH-4G, DVR-980-8CH-WIFI-4G, DVR-980-8CH, DVR-980-8CH-WIFI, DVR-980-8CH-4G
Test procedure	:	FCC CFR47 Part 1.1307(b)(1)
Test Date	:	April. 30, 2024 to Aug. 09, 2024
Date of Issue	:	Aug. 09, 2024
Test Result	:	PASS

This device described above has been tested by PTC, and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

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Test Engineer:

Jack zhou / Engineer

Technical Manager:

Simon Pu / Manager

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2 Test Summary

Test Items	Test Requirement	Result
Maximum Permissible Exposure (Exposure of Humans to RF Fields)	15.247 (i)	PASS
Remark:		
N/A: Not Applicable		

3 General Information

3.1 General Description of E.U.T.

Product Name	:	Mobile DVR
Model Name	:	DVR-980-4CH-WIFI-4G
Additional model	:	DVR-980-4CH, DVR-980-4CH-WIFI, DVR-980-4CH-4G, DVR-980-8CH-WIFI-4G, DVR-980-8CH, DVR-980-8CH-WIFI, DVR-980-8CH-4G
Specification	:	802.11b/g/n HT20/HT40 802.11n HT20/HT40 E-UTRA Band 7
Operation Frequency	:	2412-2462MHz for 802.11b/g/ n(HT20) 2422-2452MHz for 802.11 n(HT40) E-UTRA Band 7: Tx:2500MHz-2570 MHz;Rx:2620 MHz-2690 MHz
Number of Channel	:	11 channels for 802.11b/g/ n(HT20) 7 channels for 802.11n(HT40)
Type of Modulation	:	DSSS with DBPSK/DQPSK/CCK for 802.11b; OFDM with BPSK/QPSK/16QAM/64QAM for 802.11g/n; ☒ QPSK ☒ 16QAM ☒ 64QAM(Downlink Only)(LTE)
Antenna installation	:	External antenna
Antenna Gain	:	2.4G WiFi： 1.64 dBi E-UTRA Band 7: -1.29dBi
Power supply	:	Input: 12～32VDC Output: 11.5V/1.5A
Hardware Version	:	HDVR9808F_MC6650_MB_V14
Software Version	:	20240304-v205

4 RF Exposure

Test Requirement : FCC Part 1.1307(b)(1)

Evaluation Method : KDB 447498 D01 General RF Exposure Guidance v06

4.1 Requirements

Systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess limit for maximum permissible exposure. In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as a mobile device whereby a distance of 0.2 m normally can be maintained between the user and the device.

4.2 The procedures / limit

(A) Limits for Occupational / Controlled Exposure

Frequency Range	Electric Field	Magnetic Field	Power Density (S)	Averaging Time
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842 / f	4.89 / f	(900 / f)*	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	Electric Field	Magnetic Field	Power Density (S)	Averaging Time
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f)*	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

4.3 MPE Calculation Method

E (V/m) = $\frac{\sqrt{30 \times P \times G}}{d}$ Power Density: Pd (W/m²) = $\frac{E^2}{377}$

E = Electric field (V/m)

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

From the peak EUT RF output power, the minimum mobile separation distance, d=0.2m, as well as the gain of the used antenna, the RF power density can be obtained

4.4 Test Result

Test Mode	Test Frequency(MHz)	Antenna Gain (numeric)	Max. Peak Output Power (dBm)	Tune up tolerance (dBm)	Max Tune Up Power (mW)	Power Density (mW/cm2)	Limit of Power Density (mW/cm2)	Result
11G	2412	1.46	21	21±1	158.489319	0.045997	1	Pass
E-UTRA Band 7	2510	0.74	19.50	19.50±1	112.201845	0.016586	1	Pass

5 simultaneous MPE Result

2.4GWi-Fi MPE ratio	E-UTRA Band 7 MPE ratio	simultaneous MPE ratio	MPE Limits ratio	Test result
0.045786	0.015694	0.06148	1	PASS

Note: The measurement results comply with the FCC Limit per 47 CFR 2.1091 for the uncontrolled RF Exposure of mobile device.

******THE END REPORT******