



RF EXPOSURE REPORT

Applicant	:	BYD Auto Industry Company Limited
Address of Applicant	:	No. 3001, 3007 HengPing Road, Pingshan, Shenzhen, P.R. China
Manufacturer	:	BYD Auto Industry Company Limited
Address of Manufacturer	:	No. 3001, 3007 HengPing Road, Pingshan, Shenzhen, P.R. China
Equipment under Test	:	In-vehicle Multimedia Host
Model No.	:	MTD421-B2
FCC ID	:	SD4-MTD421-B2
Test Standard(s)	:	KDB447498 D01 General RF Exposure Guidance v06
Report No.	:	DDT-RE25060926-1E12
Issue Date	:	2026/04/02
Issue By	:	Guangdong Dongdian Testing Service Co., Ltd. Unit 2, Building 1, No. 17, Zongbu 2nd Road, Songshan Lake Park, Dongguan, Guangdong, China, 523808

REPORT

Table of Contents

1.	General Test Information.....	5
1.1.	Description of EUT	5
1.2.	Accessories of EUT	6
1.3.	Accessories of EUT	6
1.4.	Test laboratory	6
2.	RF Exposure evaluation for FCC	7
2.1.	Assessment procedure.....	7
2.2.	Assess result.....	8

Test Report Declare

Applicant	:	BYD Auto Industry Company Limited
Address of Applicant	:	No. 3001, 3007 HengPing Road, Pingshan, Shenzhen, P.R. China
Equipment under Test	:	In-vehicle Multimedia Host
Model No.	:	MTD421-B2
Manufacturer	:	BYD Auto Industry Company Limited
Address of Manufacturer	:	No. 3001, 3007 HengPing Road, Pingshan, Shenzhen, P.R. China

Test Standard Used:

KDB447498 D01 General RF Exposure Guidance v06

We Declare:

The equipment described above is tested by Guangdong Dongdian Testing Service Co., Ltd. and in the configuration tested the equipment complied with the standards specified above. The test results are contained in this test report and Guangdong Dongdian Testing Service Co., Ltd. is assumed of full responsibility for the accuracy and completeness of these tests.

Report No.:	DDT-RE25060926-1E12		
Date of Receipt:	2025/08/13	Date of Test:	2025/08/19~2026/02/12

Created: Jacky Huang	Reviewed: Johnson Huang	Approved: Ella Gong
		
2026/01/06	2026/04/02	2026/04/02

Note: This report applies to above tested sample only. This report shall not be reproduced in parts without written approval of Guangdong Dongdian Testing Service Co., Ltd.

Revision History

Version	Revision Content	Issue Date	Approved
V0	Initial issue	2026/04/02	Ella Gong

1. General Test Information

1.1. Description of EUT

EUT Name	: In-vehicle Multimedia Host
Model Number	: MTD421-B2
EUT Function Description	: Please reference user manual of this device
Power Supply	: DC 12V
Antenna Type	: External antenna
Max Antenna Gain (dBi)	: 2.4G band: 3.78 5G band: 3.56
Bluetooth	
Radio Specification	: Bluetooth BR/EDR/LE
Operation Channel Frequency	: 2402 MHz to 2480 MHz
Modulation	: GFSK
Rate	: 1 Mbps, 2 Mbps, 3 Mbps
2.4G WIFI	
Radio Technology	: IEEE 802.11b/g/n/ax
Operation Channel Frequency	: IEEE 802.11b: 2412MHz to 2462MHz IEEE 802.11g: 2412MHz to 2462MHz IEEE 802.11n HT20: 2412MHz to 2462MHz IEEE 802.11n HT40: 2422MHz to 2452MHz IEEE 802.11ax HE20: 2412MHz to 2462MHz
Modulation	: IEEE 802.11b: DSSS (CCK, DQPSK, DBPSK) IEEE 802.11g: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11n: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11ax: OFDM, OFDMA (1024QAM, 256QAM, 64QAM, 16QAM, QPSK, BPSK)
5G WIFI	
Radio Technology	: IEEE 802.11a/n/ac/ax
Operation Channel Frequency	: U-NII-1: 5180 MHz to 5240 MHz U-NII-2A: 5260 MHz to 5320 MHz U-NII-2C: 5500 MHz to 5720 MHz U-NII-3: 5745 MHz to 5825 MHz
Modulation	: IEEE 802.11a: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11n: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11ac: OFDM (256QAM, 64QAM, 16QAM, QPSK, BPSK) IEEE 802.11ax: OFDM, OFDMA (1024QAM, 256QAM, 64QAM, 16QAM, QPSK, BPSK)
DFS Function	: Slave without DFS detection

Note: The above EUT information is declared by manufacturer and for more detailed features description please refer to the manufacturer's specifications or User's Manual.

1.2. Accessories of EUT

Accessories	Manufacturer	Model number	Description
/	/	/	/

1.3. Accessories of EUT

Accessories	Manufacturer	Model number	Description
Connecting cable	N/A	N/A	length: 2.0m, unshielded
Power cable	N/A	N/A	length: 2.0m, unshielded
Display cable	N/A	N/A	length: 2.0m, shielded
Bluetooth/WIFI antenna	N/A	N/A	length: 2.00m, shielded

1.4. Test laboratory

Guangdong Dongdian Testing Service Co., Ltd.

Add.: Unit 2, Building 1, No. 17, Zongbu 2nd Road, Songshan Lake Park, Dongguan, Guangdong, China, 523808.

Tel.: +86-0769-38826678, <http://www.dgddt.com>, Email: ddt@dgddt.com.

CNAS Accreditation No. L6451; A2LA Accreditation Number: 3870.01

FCC Designation Number: CN1182, Test Firm Registration Number: 540522

Innovation, Science and Economic Development Canada Site Registration Number: 10288A

Conformity Assessment Body identifier: CN0048

VCCI facility registration number: C-20087, T-20088, R-20123, R-20240, G-20118

2. RF Exposure evaluation for FCC

2.1. Assessment procedure

Requirement:

Systems operating under the provisions of FCC 47 CFR section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as mobile device whereby a distance of 0.2 m normally can be maintained between the user and the device, and below RF Permissible Exposure limit shall comply with.

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)*	30
30-300	27.5	0.073	0.2	30
300-1500			F/1500	30
1500-100000			1.0	30
Note: f= frequency in MHz; *Plane-wave equivalent power density				

Calculation method

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

E = Electric field (V/m)

P = Peak RF output power (mW)

G = EUT Antenna numeric gain (numeric)=

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

The formula can be changed to

We can change the formula to:

$$S = \frac{30 \times P \times G}{377 \times d^2} \quad \text{or, } d = \sqrt{\frac{30 \times P \times G}{377 \times S}}$$

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

2.2. Assess result

Mode	Output power (dBm)	Tune up power (dBm)	Tune up power (mW)	Antenna Gain (dBi)	Antenna Gain (linear)	MPE Values (mW/cm ²)	MPE Limit (mW/cm ²)
Bluetooth BR/EDR 1	10.25	11.00	12.59	3.78	2.39	0.006	1
Bluetooth BR/EDR 2	9.26	11.00	12.59	3.78	2.39	0.006	1
Bluetooth LE 1	6.00	6.50	4.47	3.78	2.39	0.002	1
Bluetooth LE 2	4.15	6.00	3.98	3.78	2.39	0.002	1
2.4G WiFi 1	13.01	14.00	25.12	3.78	2.39	0.012	1
2.4G WiFi 2	12.63	14.00	25.12	3.78	2.39	0.012	1
5G WiFi 1	19.99	21.00	125.89	3.56	2.27	0.057	1
5G WiFi 2	19.41	21.00	125.89	3.56	2.27	0.057	1

simultaneous emission (worst case):

$$BT1+BT2+5G\ WiFi1+5G\ WiFi2=0.006+0.006+0.057+0.057=0.13<1$$

Note 1: 2.4G and 5G dual-band WIFI cannot simultaneous emission.

Note 2: The estimation distance is 20 cm

Conclusion: MPE evaluation required since transmitter power is below FCC threshold.

-----End Report-----