
RF Exposure Report

Report No.: AGC02931251206FH01

FCC ID : 2BLTR-RPT2V

APPLICATION PURPOSE : Original Equipment

PRODUCT DESIGNATION : DMR Repeater

BRAND NAME : TYTECH, ABLEBOW

MODEL NAME : MD-7500, AB-ZD7500

APPLICANT : Quanzhou RadioBoss Technology Co., Ltd

DATE OF ISSUE : May 14, 2026

STANDARD(S) : FCC Part 2 Subpart J §2.1091

REPORT VERSION : V1.0

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Report Revise Record

Report Version	Revise Time	Issued Date	Valid Version	Notes
V1.0	/	May 14, 2026	Valid	Initial Release

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1. General Information

Applicant	Quanzhou RadioBoss Technology Co., Ltd
Address	No.8, Chuangzao Road, Optoelectronics-information industry base, Nan'an, Quanzhou, Fujian,China
Manufacturer	Quanzhou RadioBoss Technology Co., Ltd
Address	No.8, Chuangzao Road, Optoelectronics-information industry base, Nan'an, Quanzhou, Fujian,China
Factory	Quanzhou RadioBoss Technology Co., Ltd
Address	No.8, Chuangzao Road, Optoelectronics-information industry base, Nan'an, Quanzhou, Fujian,China
Product Designation	DMR Repeater
Brand Name	TYTECH, ABLEBOW
Test Model	MD-7500
Series Model(s)	AB-ZD7500
Difference Description	The only difference is the model name
Date of receipt of test item	Dec. 11, 2025
Date of Test	Dec. 11, 2025~Apr. 24, 2026
Deviation from Standard	No any deviation from the test method
Condition of Test Sample	Normal
Test Result	Pass
Test Report Form No	AGCER-FCC-RF Exposure-V1

Note: The test results of this report relate only to the tested sample identified in this report.

Prepared By



Bibo Zhang
(Project Engineer)

May 14, 2026

Reviewed By



Jack Gui
(Reviewer)

May 14, 2026

Approved By



Angela Li
(Authorized Officer)

May 14, 2026

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2. Product Information

2.1 Product Technical Description

Frequency Band (Operating)	☒ WLAN: 2.412GHz ~ 2.462GHz ☒ WLAN: 5.18GHz ~ 5.32GHz / 5.50GHz ~ 5.70GHz ☒ WLAN: 5.745GHz ~ 5.825GHz ☐ Bluetooth: 2.402GHz ~ 2.480GHz ☒ Other: 136MHz to 174MHz--VHF ☒ LTE: Band 2: 1850 MHz -1910MHz; Band 4: 1710 MHz – 1755 MHz Band 5: 824 MHz – 849; Band 7: 2500 MHz – 2570 MHz Band 12: 699 MHz – 716; Band 13: 777 MHz – 787 MHz Band 14: 788 MHz – 798; Band 17: 704 MHz – 716 MHz Band 25: 1850 MHz – 1915; Band 26: 814 MHz – 849 MHz Band 41: 2496 MHz – 2690; Band 66: 1710 MHz – 1780 MHz Band 71:663 MHz – 698 MHz
Hardware Version	V2.0
Software Version	V1.0.0.56
Modulation Type	2.4G WLAN: 802.11b:(DQPSK, DBPSK, CCK) DSSS 802.11g/n:(64-QAM,16-QAM, QPSK, BPSK) OFDM 5G WLAN: 802.11a/n:(64-QAM, 16-QAM, QPSK, BPSK) OFDM 802.11ac :(256-QAM, 64-QAM, 16-QAM, QPSK, BPSK) OFDM LTE:QPSK/16QAM UHF: FM&4FSK
Device Category	☐ Portable (<20cm separation) ☒ Mobile (>20cm separation) ☐ Others:
Antenna Diversity	☒ Single antenna ☐ Multiple antennas ☐ Tx diversity ☐ Rx diversity ☐ Tx/Rx diversity
Antenna Designation	2.4G WLAN: Whip Antenna 5G WLAN: Whip Antenna
Antenna Gain	2.4G WLAN: -3.8dBi 5G WLAN: -2.0dBi LTE: Band 2:-2.0dBi, Band 4:-2.0dBi, Band 5:-1.5dBi, Band 7:-2.0dBi Band 12:-1.5dBi, Band 13:-1.5dBi, Band 14:-1.5dBi, Band 17:-1.5dBi Band 25:-2.0dBi, Band 26:-1.5dBi, Band 41:-2.0dBi, Band 66:-2.0dBi Band 71:-1.5dBi VHF:3.0dBi
Minimum Assessment Distance	185cm

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Evaluation Applied	☒ MPE Evaluation ☐ SAR Evaluation
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3. Test Environment

3.1 Address Of The Test Laboratory

Laboratory: Attestation of Global Compliance (Shenzhen) Co., Ltd.
Address: 101 & 201, Building 19(B5), Junfeng Industrial Park, Chongqing Road, P.R.C.

3.2 Test Facility

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

CNAS-Lab Code: L5488

Attestation of Global Compliance (Shenzhen) Co., Ltd. has been assessed and proved to follow CNAS-CL01 Accreditation Criteria for Testing and Calibration Laboratories (identical to ISO/IEC17025: 2017 General Requirements for the Competence of Testing and Calibration Laboratories.)

A2LA-Lab Cert. No.: 5054.02

Attestation of Global Compliance (Shenzhen) Co., Ltd. EMC Laboratory has been accredited by A2LA for technical competence in the field of electrical testing, and proved to follow ISO/IEC 17025: 2017 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing.

FCC-Registration No.: 975832

Attestation of Global Compliance (Shenzhen) Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the FCC (Federal Communications Commission). The acceptance letter from the FCC is maintained in our files with Registration 975832.

IC-Registration No.: 24842(CAB identifier: CN0063)

Attestation of Global Compliance (Shenzhen) Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the Certification and Engineering Bureau of Industry Canada. The acceptance letter from the IC is maintained in our files with Registration 24842.

3.3 Environmental Conditions

	Normal Conditions
Temperature range (°C)	15 - 35
Relative humidity range	20 % - 75 %
Pressure range (kPa)	86 - 106
Power supply	AC 120V, 60Hz from AC Main& DC 13.6V 22A from DC Power Supply

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4. Mobile Device Evaluation Method and Limit

Human exposure to RF emissions from mobile devices (47 CFR §2.1091) may be evaluated based on the MPE limits adopted by the FCC for electric and magnetic field strength and/or power density, as appropriate, since exposures are assumed to occur at distances of 155 cm or more from persons.

Limits For General Population / Uncontrolled Exposure

Frequency Range (MHz)	E-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 ²)*	30
30 -- 300	27.5	0.073	0.2	30
300 -- 1500	--	--	f/1500	30
1500 -- 100,000	--	--	1.0	30

*Note:

1. f= Frequency in MHz * Plane-wave Equivalent Power Density
2. The averaging time for General Population/Uncontrolled exposure to fixed transmitters is not applicable for mobile and portable transmitters. See 47 CFR §§2.1091 and 2.1093 on source-based time-averaging requirement for mobile and portable transmitters.

The calculation formula of MPE measurement is as follows:

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

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5. Measurement Results

A minimum test separation distance ≥ 20 cm is required between the antenna and radiating structures of the device and nearby persons to apply mobile device exposure limits. The distance must be at least 20 cm and fully supported by the operating and installation configurations of the transmitter and its antenna(s), according to the source-based time-averaged maximum power requirements of § 2.1091(d)(2). In cases where cable losses or other attenuations are applied to determine compliance, the most conservative operating configurations and exposure conditions must be evaluated.

Test Mode	Frequency (MHz)	Antenna Gain (linear)	Max. Output Power (dBm)	Max. Output Power (mW)	Power Density (mW/cm ²)	Power Density Limit (mW/cm ²)
LTE BAND 2	1907.5	0.63	21.46	139.959	0.00021	1.000
LTE BAND 4	1732.5	0.63	21.71	148.252	0.00022	1.000
LTE BAND 5	829	0.71	20.02	100.462	0.00017	0.553
LTE BAND 7	2567.5	0.63	20.99	125.603	0.00018	1.000
LTE BAND 12	704	0.71	20.34	108.143	0.00018	0.469
LTE BAND 13	782	0.71	20.14	103.276	0.00017	0.521
LTE BAND 14	793	0.71	20.05	101.158	0.00017	0.529
LTE BAND 17	706.5	0.71	20.22	105.196	0.00017	0.471
LTE BAND 25	1882.5	0.63	21.07	127.938	0.00019	1.000
LTE BAND 26 (814-824MHz)	819.0	0.71	19.55	90.157	0.00015	0.546
LTE BAND 26 (824-849MHz)	836.5	0.71	19.82	95.940	0.00016	0.558
LTE BAND 41	2593.0	0.63	20.86	121.899	0.00018	1.000
LTE BAND 66	1710.7	0.63	21.79	151.008	0.00022	1.000
LTE BAND 71	680.5	0.71	20.30	107.152	0.00018	0.454
2.4GWIFI 802.11g	2437	0.42	21.48	140.605	0.00014	1.000
5G WLAN 802.11a	5320	0.63	13.38	21.777	0.00003	1.000
Analog Mobile	155.7525	2.00	46.32	42854.852	0.19885	0.200
Digital Mobile	155.7525	2.00	46.32	42854.852	0.19885	0.200
Analog Repeater	173.975	2.00	46.31	42756.289	0.19839	0.200
Digital Repeater	173.975	2.00	46.26	42266.861	0.19612	0.200

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Simultaneous transmission of:

1. Only the worst case recorded.
2. The LTE BAND66 and 2.4GWIFI can transmit simultaneously:
 $0.00022/1+0.00014/1=0.000357889<1$.
3. The 2.4GWIFI and VHF(Analog Mobile) can transmit simultaneously:
 $0.00014/1+0.19885/0.2=0.994393224<1$.
4. According to the user manual, the minimum separate distance which used for MPE calculate is 185cm

6. Measurement Evaluation

The equipment meets MPE measurement evaluation requirements.

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Conditions of Issuance of Test Reports

1. All samples and goods are accepted by the Attestation of Global Compliance (Shenzhen) Co., Ltd (the "Company") solely for testing and reporting in accordance with the following terms and conditions. The company provides its services on the basis that such terms and conditions constitute express agreement between the company and any person, firm or company requesting its services (the "Clients").
2. Any report issued by Company as a result of this application for testing services (the "Report") shall be issued in confidence to the Clients and the Report will be strictly treated as such by the Company. It may not be reproduced either in its entirety or in part and it may not be used for advertising or other unauthorized purposes without the written consent of the Company. The Clients to whom the Report is issued may, however, show or send it, or a certified copy thereof prepared by the Company to its customer, supplier or other persons directly concerned. The Company will not, without the consent of the Clients, enter into any discussion or correspondence with any third party concerning the contents of the Report, unless required by the relevant governmental authorities, laws or court orders.
3. The Company shall not be called or be liable to be called to give evidence or testimony on the Report in a court of law without its prior written consent, unless required by the relevant governmental authorities, laws or court orders.
4. In the event of the improper use of the report as determined by the Company, the Company reserves the right to withdraw it, and to adopt any other additional remedies which may be appropriate.
5. Samples submitted for testing are accepted on the understanding that the Report issued cannot form the basis of, or be the instrument for, any legal action against the Company.
6. The Company will not be liable for or accept responsibility for any loss or damage however arising from the use of information contained in any of its Reports or in any communication whatsoever about its said tests or investigations.
7. Clients wishing to use the Report in court proceedings or arbitration shall inform the Company to that effect prior to submitting the sample for testing.
8. The Company is not responsible for recalling the electronic version of the original report when any revision is made to them. The Client assumes the responsibility to providing the revised version to any interested party who uses them.
9. Subject to the variable length of retention time for test data and report stored hereinto as otherwise specifically required by individual accreditation authorities, the Company will only keep the supporting test data and information of the test report for a period of six years. The data and information will be disposed of after the aforementioned retention period has elapsed. Under no circumstances shall we provide any data and information which has been disposed of after retention period. Under no circumstances shall we be liable for damage of any kind, including (but not limited to) compensatory damages, lost profits, lost data, or any form of special, incidental, indirect, consequential or punitive damages of any kind, whether based on breach of contract of warranty, tort (including negligence), product liability or otherwise, even if we are informed in advance of the possibility of such damages.

---End of Report---

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