

Test Report

Applicant : Shenzhen Ruist Import and Export Trading Co., Ltd.
Address : 433, Building 25, Keyuan West, No. 5 Kezhi West Road, Science and Technology Park, Yuehai Street, Nanshan District, Shenzhen, China
Product Name : Motorcycle Carplay HD Touch Screen
Brand Mark : RUIST
Model : MOX70
Series model : MOX68, MOX61, MOX50
Report Number : BLA-EMC-202508-A5104
FCC ID : 2BRHI-MOX
Date of Receipt : Aug. 12, 2025
Date of Test : Aug. 18, 2025 to Sept. 05, 2025
Test Standard : 47 CFR Part 15, Subpart E 15.407
Test Result : Pass

Compiled by: *charlie*Review by: *Xavier*

Approved by:

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Issued Date: Sept. 08, 2025



BlueAsia of Technical Services(Shenzhen) Co.,Ltd.

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Revise Record

Version No.	Date	Description
01	Sept. 08, 2025	Original

BlueAsia

1 General information

1.1 General information

Applicant	Shenzhen Ruist Import and Export Trading Co., Ltd.
Address	433, Building 25, Keyuan West, No. 5 Kezhi West Road, Science and Technology Park, Yuehai Street, Nanshan District, Shenzhen, China
Manufacturer	Shenzhen Ruist Import and Export Trading Co., Ltd.
Address	433, Building 25, Keyuan West, No. 5 Kezhi West Road, Science and Technology Park, Yuehai Street, Nanshan District, Shenzhen, China
Factory	Shenzhen Ruist Import and Export Trading Co., Ltd.
Address	433, Building 25, Keyuan West, No. 5 Kezhi West Road, Science and Technology Park, Yuehai Street, Nanshan District, Shenzhen, China

1.2 General description of EUT

Product Name	Motorcycle Carplay HD Touch Screen
Model no.	MOX70
Series model	MOX68, MOX61, MOX50
Differences of Series model	The PCBA is consistent. Only the size and appearance differ from those of the model.
Operation Frequency	Band1: 5180MHz~5240MHz; Band4: 5745MHz~5825MHz
Channel numbers	Band 1: 802.11a/802.11n(HT20)/802.11ac(HT20): 4, 802.11n(HT40)/802.11ac(HT40): 2,
	Band 4: 802.11a/802.11(HT20)/802.11ac(HT20): 5, 802.11n(HT40)/802.11ac(HT40): 2,
Channel Spacing	802.11a/n/ac(HT20): 20MHz, 802.11n/ac(HT40): 40MHz,
Modulation Type	IEEE 802.11a: OFDM (BPSK, QPSK, 16QAM, 64QAM) IEEE 802.11n(HT20/HT40): OFDM (BPSK, QPSK, 16QAM, 64QAM) IEEE for 802.11ac(VHT20/VHT40): OFDM(BPSK, QPSK, 16QAM, 64QAM, 256QAM)
Transmit Data Rate	IEEE 802.11a: 6, 9, 12, 18, 24, 36, 48, 54 Mbps IEEE 802.11n HT20(1X1): up to 72.2 Mbps, HT40(1X1): up to 150 Mbps IEEE 802.11ac VHT20(1X1): up to 86.7 Mbps, VHT40(1X1): up to 200 Mbps
Antenna Type	FPC antenna

Antenna Gain	-0.41dBi(Provided by the customer)
Function	☒ SISO ☐ 2x2 MIMO ☐ TPC
Power supply or adapter information	DC12V
Hardware version	N/A
Software version	N/A
Engineer sample no.	BLA-EMC-202508-A51
Note: For a more detailed description, please refer to Specification or User's Manual supplied by the applicant and/or manufacturer. The main models of this EUT, namely MOX70 series, MOX68, MOX61, and MOX50, have the same PCBA. However, their sizes and appearances are different from each other. For the part with size differences, a Radiated Spurious Emissions (30MHz - 1GHz) difference test has been conducted for the series models.	

2 Test summary

No.	Test item	FCC standard	Test Method (Clause)	Result
1	Antenna Requirement	§15.203	N/A	Pass
2	Conducted Emissions at AC Power Line (150kHz-30MHz)	§15.207	ANSI C63.10-2020+Cor.1-2023 Clause 6.2	N/A
3	Frequency Stability	§15.407 (g)	ANSI C63.10-2020+Cor.1-2023 Clause 6.8	Pass
4	Maximum Conducted output power	§15.407 (a)	KDB 789033 D02 II E	Pass
5	Transmitter Power Control	§15.407 (h)(1)	KDB 789033 D02 II E	N/A
6	Peak Power spectrum density	§15.407 (a)	KDB 789033 D02 II F	Pass
7	Minimum 6 dB bandwidth (5.725-5.85 GHz band)	§15.407 (e)	KDB 789033 D02 II C 2	Pass
8	26dB Emission bandwidth	§15.407 (a)	KDB 789033 D02 II C 1	Pass
9	99% Bandwidth	N/A	KDB 789033 II D	Pass
10	Duty Cycle	KDB 789033 D02 II B 1	KDB 789033 II B 1	Pass
11	Conducted Band Edges Measurement	§15.407 (b)(4)	ANSI C63.10-2020+Cor.1-2023 Clause 11.13	Pass
12	Conducted spurious emissions	§15.407(b)	ANSI C63.10-2020+Cor.1-2023 Clause 11.11	Pass
13	Radiated Emissions which fall in the restricted bands	§15.209 §15.407(b)	KDB 789033 D02 II G	Pass
14	Radiated Emissions	§15.209 §15.407(b)	KDB 789033 D02 II G	Pass
15	DFS: Channel Closing Transmission Time	§15.407((h)(2)	KDB 905462 D02 Clause 7.8.3	N/A
16	DFS: Non-occupancy period	§15.407((h)(2)	KDB 905462 D02 Clause 7.8.3	N/A

N/A: Not Applicable

3 Test Configuration

3.1 Test mode

Test Mode ^{Note 1}	Description
TX	Keep the EUT in continuously transmitting mode with modulation. (Duty cycle>98%)
RX	Keep the EUT in receiving mode
TX Low channel	Keep the EUT in continuously transmitting mode in low channel
TX middle channel	Keep the EUT in continuously transmitting mode in middle channel
TX high channel	Keep the EUT in continuously transmitting mode in high channel

Note 1: The EUT was configured to measure its highest possible emission and/or immunity level. The test modes were adapted according to the operation manual for use

3.2 Operation frequency and test channel

802.11a/n/ac

Band \ Bandwidth	20(MHz)		40(MHz)	
	Channel number	frequency (MHz)	Channel number	frequency (MHz)
U-NII-1	36	5180	38	5190
	40	5200		
	44	5220	46	5230
	48	5240		
U-NII-3	149	5745	151	5755
	153	5765		
	157	5785	159	5795
	161	5805		
	165	5825	--	--

3.3 Auxiliary equipment

Device Type	Manufacturer	Model Name	Serial No.	Remark
PC	lenovo	E46OC	N/A	From lab (No.BLA-ZC-BS-2022005)
Rechargeable battery	OUTDO	UTX7L-BS	N/A	From lab (No.BLA-ZC-PJ-2023005)
Note: “--” mean no any auxiliary device during testing.				

3.4 Test environment

Temperature	Normal	25℃
	Low Extreme	-20℃
	High Extreme	+70℃
Voltage	Normal	DC 12V
	Low Extreme	DC 10.8V
	High Extreme	DC 13.2V

4 Laboratory information

4.1 Laboratory and accreditations

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

Company name:	BlueAsia of Technical Services(Shenzhen) Co., Ltd.
Address:	Building C, No. 107, Shihuan Road, Shiyan Sub-District, Baoan District, Shenzhen, Guangdong Province, China
CNAS accredited No.:	L9788
A2LA Cert. No.:	5071.01
FCC Designation No.:	CN1252
ISED CAB identifier No.:	CN0028
Telephone:	+86-755-28682673
FAX:	+86-755-28682673

4.2 Measurement uncertainty

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k=1.96$.

Parameter	Expanded Uncertainty
Radiated Emission(9kHz-30MHz)	$\pm 4.34\text{dB}$
Radiated Emission(30Mz-1000MHz)	$\pm 4.24\text{dB}$
Radiated Emission(1GHz-18GHz)	$\pm 4.68\text{dB}$
AC Power Line Conducted Emission(150kHz-30MHz)	$\pm 3.45\text{dB}$
Occupied Channel Bandwidth	$\pm 5\%$
RF output power, conducted	$\pm 1.5\text{dB}$
Power Spectral Density, conducted	$\pm 3.0\text{dB}$
Unwanted Emissions, conducted	$\pm 3.0\text{dB}$
Temperature	$\pm 3\text{ }^{\circ}\text{C}$
Supply voltages	$\pm 3\%$
Time	$\pm 5\%$

5 Test equipment

Radiated Spurious Emissions (Below 1GHz)

Equipment	Name	Model	Manufacture	S/N	Cal. Date	Due. Date
BLA-EMC-002-01	Anechoic chamber	9*6*6 chamber	SKET	N/A	2024/3/27	2027/3/26
BLA-EMC-002-02	Control room	966 control room	SKET	N/A	2024/3/27	2027/3/26
BLA-EMC-009	EMI receiver	ESR7	R&S	101199	2025/08/05	2026/08/04
BLA-EMC-043	Loop antenna	FMZB1519B	Schwarzbeck	00102	2024/06/29	2026/06/28
BLA-EMC-065	Broadband antenna	VULB9168	Schwarzbeck	01065P	2024/06/29	2026/06/27
BLA-XC-01	Coaxial Cable	N/A	BlueAsia	V01	N/A	N/A
BLA-XC-02	Coaxial Cable	N/A	BlueAsia	V02	N/A	N/A

Radiated Spurious Emissions (Above 1GHz)

Equipment	Name	Model	Manufacture	S/N	Cal. Date	Due. Date
BLA-EMC-001-01	Anechoic chamber	9*6*6 chamber	SKET	N/A	2023/11/16	2026/11/15
BLA-EMC-001-02	Control Room	966 control room	SKET	N/A	2023/11/16	2025/11/15
BLA-EMC-008	Spectrum	FSP40	R&S	100817	2025/08/05	2026/08/04
BLA-EMC-012	Broadband antenna	VULB9168	Schwarzbeck	00836 P:00227	2022/10/12	2025/10/11
BLA-EMC-013	Horn Antenna	BBHA9120D	Schwarzbeck	01892	2024/06/29	2026/06/28
BLA-EMC-014	Amplifier	PA_000318G-45	SKET	PA201804 3003	2025/08/05	2026/08/04
BLA-EMC-046	Filter bank	2.4G/5G Filter bank	SKET	N/A	2025/06/09	2026/06/08
BLA-EMC-061	Receiver	ESPI7	R&S	101477	2025/06/09	2026/06/08
BLA-EMC-066	Amplifier	LNPA_30M01 G-30	SKET	SK202106 0801	2025/06/09	2026/06/08
BLA-EMC-086	Amplifier	LNPA_18G40 G-50dB	SKET	SK202207 1301	2025/06/09	2026/06/08
BLA-EMC-087	Horn Antenna	BBHA 9170	Schwarzbeck	1106	2024/06/29	2026/06/28
BLA-XC-03	Coaxial Cable	N/A	BlueAsia	V03	N/A	N/A
BLA-XC-04	Coaxial Cable	N/A	BlueAsia	V04	N/A	N/A

RF conducted

Equipment	Name	Model	Manufacture	S/N	Cal. Date	Due. Date
BLA-EMC-003-003	Shield room	5*3*3	SKET	N/A	2023/11/16	2025/11/15
BLA-EMC-016	Signal Generator	N5182A	Agilent	MY52420567	2025/06/09	2026/06/08
BLA-EMC-038	Spectrum	N9020A	Agilent	MY49100060	2025/08/05	2026/08/04
BLA-EMC-042	Power sensor	RPR3006 W	DARE	14I00889SN042	2025/08/05	2026/08/04
BLA-EMC-044	Radio communication tester	CMW500	R&S	132429	2025/08/05	2026/08/04
BLA-EMC-064	Signal Generator	N5182B	KEYSIGHT	MY58108892	2025/06/09	2026/06/08
BLA-EMC-079	Spectrum	N9020A	Agilent	MY54420161	2025/08/05	2026/08/04
BLA-EMC-088	Audio Analyzer	ATS-1	Audio Precision	ATS141094	2025/06/09	2026/06/08
BLA-EMC-100	Digital Radio Tester	RWC2010	Redwoodcom m	RWC201024903 04	2025/06/09	2026/06/08

Test Software Record

Software No.	Software Name	Manufacture	Software version	Test site
BLA-EMC-S001	EZ-EMC	EZ	EEMC-3A1+	RE
BLA-EMC-S002	EZ-EMC	EZ	EEMC-3A1+	RE
BLA-EMC-S010	MTS 8310	MW	2.0.0.0	RF

6 Test result

6.1 Antenna requirement

Test Standard	47 CFR Part 15, Subpart C 15.203
Test Method	N/A

6.1.1 Requirement

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit permanently attached antenna or of a so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

EUT antenna:

The antenna is FPC Antenna The best case gain of the antenna is -0.41dBi

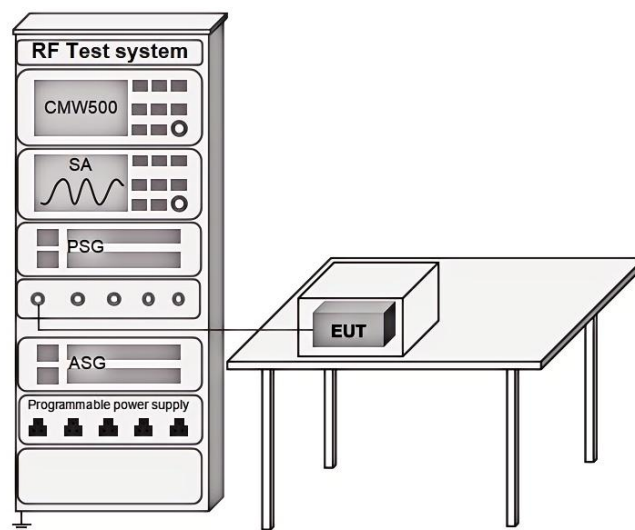
6.2 Frequency Stability

Test Standard	47 CFR Part 15, Subpart E 15.407(g)
Test Method	ANSI C63.10-2020+Cor.1-2023 Clause 6.8
Test Mode (Pre-Scan)	TX
Test Mode (Final Test)	TX

6.2.1 Limit

The frequency tolerance shall be maintained within the band of operation frequency over a temperature variation of 0 degrees to 35 degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20 degrees C.

6.2.2 Test setup



6.2.3 Test data

Pass: Please refer to appendix A for details