



SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch

SZEMC-TRF-01 Rev. A/1

Report No.: SZCR250500207705

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RF EXPOSURE EVALUATION REPORT

Application No.: SZCR2505002077AT
Applicant: Shenzhen Jimi IoT Co., Ltd.
Address of Applicant: 3-4/F, Block A, Building #7, Shenzhen International Innovation Valley, Dashi 1st Road, Nanshan District, Shenzhen, Guangdong, China
Manufacturer: Shenzhen Jimi IoT Co., Ltd.
Address of Manufacturer: 3-4/F, Block A, Building #7, Shenzhen International Innovation Valley, Dashi 1st Road, Nanshan District, Shenzhen, Guangdong, China
Factory: Huizhou Newthinking Electronics Co., Ltd.
Address of Factory: The third&sixth floor, 1&2 Factory Buildings, Jimi Industrial Park, No.101 Jinfu Road, Xiaojinkou street, Huicheng District, Huizhou
Equipment Under Test (EUT):
EUT Name: 4G AI DashCam
Model No.: JC450, JC450PRO, JC450PLUS, R46, JC450-EU ♣
♣ Please refer to section 3 of this report which indicates which model was actually tested and which were electrically identical.
Trade Mark: Jimi IoT
FCC ID: 2AMLF-JC450
Standard(s) : FCC Rules 47 CFR §2.1091
KDB 447498 D04 interim General RF Exposure Guidance v01
Date of Receipt: 2025-05-22
Date of Test: 2025-05-29 to 2025-07-10
Date of Issue: 2025-07-15

Evaluation Result:	Pass*
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* In the configuration evaluated, the EUT complied with the standards specified above.

Keny Xu

Keny Xu
EMC Laboratory Manager



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Shenzhen Branch EMC Laboratory

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Revision Record				
Version	Chapter	Date	Modifier	Remark
01		2025-07-15		Original

Authorized for issue by:				
		Darren Yuan		
		Darren Yuan/Project Engineer		
		Eric Fu		
		Eric Fu/Reviewer		



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3 General Information

3.1 General Description of E.U.T.

Product Type:	<input type="checkbox"/> Portable device
	<input checked="" type="checkbox"/> Mobile device
	<input type="checkbox"/> Fixed device

3.2 Detail of E.U.T.

Power supply:	Input: DC9-30V
For BT	
Operation Frequency:	2402MHz to 2480MHz
Modulation Type:	GFSK, pi/4DQPSK, 8DPSK
Number of Channels:	79
Channel Spacing:	1MHz
Spectrum Spread Technology:	Frequency Hopping Spread Spectrum(FHSS)
Antenna Type:	PIFA Antenna
Antenna Gain:	2.04dBi
For BLE:	
Operation Frequency:	2402MHz to 2480MHz
Modulation Type:	GFSK
Number of Channels:	40
Channel Spacing:	2MHz
Antenna Type:	PIFA Antenna
Antenna Gain:	2.04dBi
For 2.4G Wi-Fi:	
Operation Frequency:	802.11b/g/n(HT20): 2412MHz to 2462MHz; 802.11n(HT40): 2422MHz to 2452MHz
Modulation Type:	802.11b: DSSS (DBPSK, DQPSK, CCK); 802.11g/n: OFDM (BPSK, QPSK, 16QAM, 64QAM)
Number of Channels:	802.11b/g/n(HT20):11; 802.11n(HT40):7
Channel Spacing:	5MHz
Antenna Type:	PIFA Antenna
Antenna Gain:	2.04dBi

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LTE Module (model: EC200A-AU), this LTE module has certified,

FCC ID is XMR202112EC200AAU

For GSM:			
Frequency band:	Band	Tx (MHz)	Rx (MHz)
	GSM850	824 to 849	869 to 894
	PCS1900	1850 to 1910	1930 to 1990
GPRS Multi-slot class:	12		
EGPRS Multi-slot class:	12		
Type of Modulation:	GMSK(GPRS/EGPRS), 8PSK (EGPRS)		
Antenna Type:	FIPA Antenna		
Antenna Gain:	GSM850: -1.08dBi; PCS1900: 1.4dBi		

For WCDMA:			
Frequency band:	Band	Tx (MHz)	Rx (MHz)
	BAND II	1850 to 1910	1930 to 1990
	BAND IV	1710 to 1755	2110 to 2155
	BAND V	824 to 849	869 to 894
Type of Modulation:	QPSK,16QAM		
Power Class:	3		
Antenna Type:	PIFA Antenna		
Antenna Gain:	Band II: 1.4dBi		
	Band IV: 4.12dBi		
	Band V: -1.08dBi		



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For LTE:			
Frequency band:	LTE Band	Uplink (MHz)	Downlink (MHz)
	2	1850 to 1910	1930 to 1990
	4	1710 to 1755	2110 to 2155
	5	824 to 849	869 to 894
	7	2500 to 2570	2620 to 2690
	66	1710 to 1780	2110 to 2200
Type of Modulation:	UL QPSK,16QAM DL QPSK,16QAM		
Antenna Type:	FIPA Antenna		
Antenna Gain:	LTE Band2: 1.4dBi		
	LTE Band4: 4.12dBi		
	LTE Band5: -1.08dBi		
	LTE Band7: 2.36dBi		
	LTE Band66: 4.12dBi		

Remark: The information in this section is provided by the applicant or manufacturer, SGS is not liable to the accuracy, suitability, reliability or/and integrity of the information.

Declaration of EUT Family Grouping:

Model No.: JC450, JC450PRO, JC450PLUS, R46, JC450-EU

Only the model JC450 was tested, since according to the declaration from the applicant, the electrical circuit design, PCB layout, components used and internal wiring and functions were identical for the above models, with only difference on model No..



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3.3 Separation Distance

Minimum test separation distance:	20cm
Remark: This minimum test separation distance is determined by the smallest distance from the antenna and radiating structures or outer surface of the device, according to the host form factor, exposure conditions and platform requirements, to any part of the body or extremity of a user or bystander.	

3.4 Test Location

All tests were performed at:

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No tests were sub-contracted.

3.5 Test Facility

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

• A2LA (Certificate No. 3816.01)

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory is accredited by the American Association for Laboratory Accreditation(A2LA). Certificate No. 3816.01.

• VCCI (Member No. 1937)

The 3m Fully-anechoic chamber for above 1GHz, 10m Semi-anechoic chamber for below 1GHz, Shielded Room for Mains Port Conducted Interference Measurement and Telecommunication Port Conducted Interference Measurement of SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen EMC laboratory have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: G-20026, R-14188, C-12383 and T-11153 respectively.

• FCC –Designation Number: CN1336

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been recognized as an accredited testing laboratory.

Designation Number: CN1336. Test Firm Registration Number: 787754.

• Innovation, Science and Economic Development Canada

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been recognized by ISED as an accredited testing laboratory.

CAB identifier: CN0006.

IC#: 4620C.

3.6 Deviation from Standards

None

3.7 Abnormalities from Standard Conditions

None



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4 RF Exposure Evaluation

4.1 RF Exposure Compliance Requirement

4.1.1 Limits

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposures				
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
(B) Limits for General Population/Uncontrolled Exposure				
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

F=frequency in MHz
 *=Plane-wave equivalent power density
 RF exposure compliance will need to be determined with respect to 1.1307(c) and (d) of the FCC rules. The emissions should be within the limits at 300kHz in Table 1 of 1.1310(use the 300kHz limits for 150kHz:614V/m,1.63A/m).

Friis Formula

Friis transmission formula: $P_d = (P_{out} * G) / (4 * \pi * R^2)$

Where

P_d = power density in mW/cm²

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale, $\pi = 3.1416$



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4.2 EUT RF Exposure Evaluation

RF Exposure Evaluation Distance: 20cm

Standalone transmission:

WWAN use Internal Antenna

Mode	Frequency (MHz)	Maximum Conducted Power (dBm)	Antenna Gain (dBi)	Power Density (mW/cm ²)	Limit of Power Density (mW/cm ²)	Ratio	Verdict
BT	2402	8.68	2.04	0.002	1.000	0.0023	Pass
BLE	2480	-3.72	2.04	0.000	1.000	0.0001	Pass
2.4G Wi-Fi	2412	9.38	2.04	0.003	1.000	0.0028	Pass
GSM850	824.2	25.97	-1.08	0.061	0.549	0.1117	Pass
GSM1900	1850.2	22.97	1.4	0.054	1.000	0.0544	Pass
UMTS Band II	1852.4	25	1.4	0.087	1.000	0.0869	Pass
UMTS Band IV	1712.4	25	4.12	0.163	1.000	0.1625	Pass
UMTS Band V	826.4	25	-1.08	0.049	0.551	0.0891	Pass
LTE Band 2	1850.7	25	1.4	0.087	1.000	0.0869	Pass
LTE Band 4	1710.7	25	4.12	0.163	1.000	0.1625	Pass
LTE Band 5	824.7	25	-1.08	0.049	0.550	0.0893	Pass
LTE Band 7	2502.5	25	2.36	0.108	1.000	0.1084	Pass
LTE Band 66	1710.7	25	4.12	0.163	1.000	0.1625	Pass

Note1: Maximum power of BT Refer to report SZCR250500207702

Note2: Maximum power of BLE Refer to report SZCR250500207703

Note3: Maximum power of 2.4G Wi-Fi Refer to report SZCR250500207704

Note4: Maximum power of GSM, WCDMA and LTE refer to module report BTL-FCCP-4-2110H020

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Simultaneous transmission

Test Mode	BT	BLE	2.4G Wi-Fi	LTE Module	Total Ratio	Limit	Verdict
Maximum Ratio	0.0023	0.0001	0.0028	0.1625	N/A	N/A	N/A
Scenario 1	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	0.1648	1.0	Pass
Scenario 2		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	0.1626	1.0	Pass
Scenario 3			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	0.1653	1.0	Pass

The EUT meet the Exemption Limits for Routine Evaluation – SAR Evaluation, so no SAR evaluation is required for the EUT.

- End of the Report -



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