



Compliance Certification Services (Kunshan) Inc.

CCSEM-TRF-001 Rev. 02 Sep 01, 2023

Report No.: KSCR240300045603

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TEST REPORT

Application No.: KSCR2403000456AT
FCC ID: 2BF29GT573-LAAG35LA
Applicant: GOSUNCN WELINK TECHNOLOGY CO.,LTD.
Address of Applicant: ROOM 606, TOWER A, GONGXIANG BUILDING, NO.78 NORTH KEYUAN ROAD, NANSHAN DISTRICT, SHENZHEN, CHINA
Manufacturer: Gosuncn Technology Group Co., Ltd.
Address of Manufacturer: 6F, No. 2819, KaiChuang Avenue, Science City, Huangpu District, Guangzhou City, Guangdong Province, China
Factory: DBG TECHNOLOGY CO., LTD
Address of Factory: No.5, Yongda Road, Xiang Shui River Industrial Area, Daya Bay, Huizhou City, 516083 Guangdong, P. R. China
Equipment Under Test (EUT):
EUT Name: HARDWARE ASSY-TELEMATIC NODE
Model No.: GT573-LA
Trade Mark: GOSUNCN
Standard(s) : 47 CFR Part 2
47 CFR Part 22
47 CFR Part 24
47 CFR Part 27
Date of Receipt: 2024-03-18
Date of Test: 2024-03-28 to 2024-04-10
Date of Issue: 2024-04-12

Test Result:	Pass*
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* In the configuration tested, the EUT complied with the standards specified above.

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Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.



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<i>Revision Record</i>			
<i>Version</i>	<i>Description</i>	<i>Date</i>	<i>Remark</i>
00	Original	2024-04-12	/

Authorized for issue by:			
Tested By		<i>Maker Qi</i>	
		_____ Maker_Qi/Project Engineer	
Approved By		<i>Terry Hou</i>	
		_____ Terry Hou /Reviewer	

2 Test Summary

Test Item	FCC Rule No.	Requirements	Verdict
Effective (Isotropic) Radiated Power Output Data	§2.1046 §22.913 §24.232 §27.50(d) §27.50(h)	ERP≤7W(LTE Band 5) EIRP≤ 2W(LTE Band 2,7) EIRP≤ 1W(LTE Band 4)	PASS
Peak-Average Ratio	§27.50(d)	≤13dB	PASS
Bandwidth	§2.1049(h)	OBW:No limit EBW: No limit	PASS
Band Edge Compliance	§2.1051 §22.917 §24.238 §27.53(h) §27.53(m)	≤ -13dBm/1%*EBW, in 1 MHz bands immediately outside and adjacent to the frequency block ≤ -13dBm(LTE Band7<5.5MHz) -25dBm(LTE Band7≥5.5MHz)	PASS
Spurious emissions at antenna terminals	§2.1051 §22.917 §24.238 §27.53(h) §27.53(m)	≤ -13dBm(LTE Band2,4,5) ≤ -25dBm(LTE Band7)	PASS
Radiated spurious emission	§2.1051 §22.917 §24.238 §27.53(h) §27.53(m)	≤ -13dBm(LTE Band2,4,5) ≤ -25dBm(LTE Band7)	PASS
Frequency stability	§2.1055, §22.355, §24.235 §27.54	≤ ±2.5ppm.	PASS

Note: This host product using a certified module(FCC ID: XMR201905AG35LA).

The host integrator declares that they have followed the integration instructions provided by the module manufacturer and ensure that the end product complies with the FCC requirements by a technical evaluation to the FCC rules and to KDB Publication 996369.

In this report, the testing is performed with the host product configured in typical operational modes to check the spurious emissions for compliance with all the applicable rules, other test data please refer to original module test report no. FG291701.

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4 General Information

4.1 Details of E.U.T.

Power supply:	Voltage Range: 9V~16V, Rating: 12V 0.6A
Operation Frequency:	Band 2:Uplink:1850 - 1910 MHz,Downlink:1930 - 1990 MHz Band 4:Uplink:1710 - 1755 MHz,Downlink:2110 - 2155 MHz Band 5:Uplink:824 - 849 MHz,Downlink:869 - 894 MHz Band 7:Uplink:2500-2570MHz,Downlink:2620-2690MHz
Modulation Type:	QPSK/16QAM/64QAM(Downlink only)
Antenna Type:	External Antenna
Antenna Gain:	Band 2:1.5dBi (Provided by the manufacturer) Band 4:1.5dBi (Provided by the manufacturer) Band 5:-1dBi (Provided by the manufacturer) Band 7:1.5dBi (Provided by the manufacturer)

Note:

The antenna gain value is provided by the customer. The test lab will not be responsible for wrong test result due to incorrect information about antenna gain values.

4.2 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
DC power supply	Agilent	E3632A	/

4.3 Test Frequency

Test mode:	Nominal Bandwidth (MHz)	RF Channel		
		Low (L)	Middle (M)	High (H)
		MHz	MHz	MHz
LTE FDD Band 2	1.4	1850.7	1880	1909.3
	3	1851.5	1880	1908.5
	5	1852.5	1880	1907.5
	10	1855.0	1880	1905.0
	15	1857.5	1880	1902.5
	20	1860.0	1880	1900.0
Test mode:	Nominal Bandwidth (MHz)	RF Channel		
		Low (L)	Middle (M)	High (H)
		MHz	MHz	MHz
LTE FDD Band 4	1.4	1710.7	1732.5	1754.3
	3	1711.5	1732.5	1753.5
	5	1712.5	1732.5	1752.5
	10	1715.0	1732.5	1750.0
	15	1717.5	1732.5	1747.5
	20	1720.0	1732.5	1745.0
Test mode:	Nominal Bandwidth (MHz)	RF Channel		
		Low (L)	Middle (M)	High (H)
		MHz	MHz	MHz
LTE FDD Band 5	1.4	824.7	836.5	848.3
	3	825.5	836.5	847.5
	5	826.5	836.5	846.5
	10	829.0	836.5	844.0
Test mode:	Nominal Bandwidth (MHz)	RF Channel		
		Low (L)	Middle (M)	High (H)
		MHz	MHz	MHz
LTE FDD Band 7	5	2502.5	2535	2567.5
	10	2505	2535	2565
	15	2507.5	2535	2562.5
	20	2510	2535	2560

2.1 Test Environment

Environment Parameter	Selected Values During Tests	
Relative Humidity	48%	
Atmospheric Pressure:	1015Pa	
Temperature:	TN	25 °C
Voltage:	VL	9V
	VN	12V
	VH	16V

NOTE: VL= lower extreme test voltage
 VN= nominal voltage
 VH= upper extreme test voltage
 TN= normal temperature

4.4 Measurement Uncertainty

No.	Item	Measurement Uncertainty
1	Radio Frequency	8.4 x 10 ⁻⁸
2	Timeout	2s
3	Duty Cycle	0.37%
4	Occupied Bandwidth	3%
5	RF Conducted Power	0.6dB
6	RF Power Density	2.9dB
7	Conducted Spurious Emissions	0.75dB
8	RF Radiated Power	5.2dB (Below 1GHz)
		5.9dB (Above 1GHz)
9	Radiated Spurious Emission Test	4.2dB (Below 30MHz)
		4.5dB (30MHz-1GHz)
		5.1dB (1GHz-18GHz)
		5.4dB (Above 18GHz)
10	Temperature Test	1°C
11	Humidity Test	3%
12	Supply Voltages	1.5%
13	Time	3%

Note: The measurement uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

4.5 Test Location

All tests were performed at:

Compliance Certification Services (Kunshan) Inc.

No.10 Weiye Rd, Innovation park, Eco&Tec, Development Zone, Kunshan City, Jiangsu, China.

Tel: +86 512 5735 5888 Fax: +86 512 5737 0818

No tests were sub-contracted.

Note:

1. SGS is not responsible for wrong test results due to incorrect information (e.g., max. internal working frequency, antenna gain, cable loss, etc) is provided by the applicant. (If applicable).
2. SGS is not responsible for the authenticity, integrity and the validity of the conclusion based on results of the data provided by applicant. (If applicable).
3. Sample source: sent by customer.

4.6 Test Facility

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

- **A2LA**

Compliance Certification Services (Kunshan) Inc. is accredited by the American Association for Laboratory Accreditation (A2LA). Certificate No. 2541.01.

- **FCC**

Compliance Certification Services (Kunshan) Inc. has been recognized as an accredited testing laboratory. Designation Number: CN1172.

- **ISED**

Compliance Certification Services (Kunshan) Inc. has been recognized by Innovation, Science and Economic Development Canada (ISED) as an accredited testing laboratory. Company Number: 2324E

- **VCCI**

The 3m and 10m Semi-anechoic chamber and Shielded Room of Compliance Certification Services (Kunshan) Inc. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-20134, R-11600, C-11707, T-11499, G-10216 respectively.

4.7 Deviation from Standards

None

4.8 Abnormalities from Standard Conditions

None



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5 Equipment List

Item	Equipment	Manufacturer	Model	Inventory No	Cal Date	Cal. Due Date
RF Conducted Test						
1	Spectrum Analyzer	Keysight	N9020A	KUS1911E004-2	08/24/2023	08/23/2024
2	Spectrum Analyzer	Keysight	N9020A	KUS2001M001-2	08/24/2023	08/23/2024
3	Spectrum Analyzer	Keysight	N9030B	KSEM021-1	01/15/2024	01/14/2025
4	Signal Generator	R&S	SMBV100B	KSEM032	03/19/2024	03/18/2025
5	Signal Generator	R&S	SMW200A	KSEM020-1	08/24/2023	08/23/2024
6	Signal Generator	Agilent	N5182A	KUS2001M001-1	08/24/2023	08/23/2024
7	Radio Communication Test Station	Anritsu	MT8000A	KSEM001-1	08/24/2023	08/23/2024
8	Radio Communication Analyzer	Anritsu	MT8821C	KSEM002-1	03/19/2024	03/18/2025
9	Universal Radio Communication Tester	R&S	CMW500	KUS1911E004-1	08/24/2023	08/23/2024
10	Switcher	TST	FY562	KUS2001M001-4	01/15/2024	01/14/2025
11	AC Power Source	EXTECH	6605	KS301178	N.C.R	N.C.R
12	DC Power Supply	Agilent	E3632A	KS301180	N.C.R	N.C.R
13	Conducted Test Cable	Thermax	RF01-RF04	CZ301111-CZ301120	01/15/2024	01/14/2025
14	Temp. / Humidity Chamber	TERCHY	MHK-120AK	KS301190	08/24/2023	08/23/2024
15	Temperature & Humidity Recorder	Renke Control	RS-WS-N01-6J	KSEM024-5	03/19/2024	03/18/2025
16	Software	BST	TST-PASS	/	NCR	NCR
RF Radiated Test						
1	Spectrum Analyzer	R&S	FSV40	KUS1806E003	08/24/2023	08/23/2024
2	Universal Radio Communication Tester	R&S	CMW500	KSEM009-1	03/19/2024	03/18/2025
3	Signal Generator	Agilent	E8257C	KS301066	08/24/2023	08/23/2024
4	Loop Antenna	COM-POWER	AL-130R	KUS1806E001	03/18/2023	03/17/2025
5	Bilog Antenna	TESEQ	CBL 6112D	KUS1806E005	06/29/2023	06/28/2025
6	Bilog Antenna	TESEQ	CBL 6112D	KUS1806E006	03/19/2024	03/18/2025
7	Horn-antenna(1-18GHz)	Schwarzbeck	BBHA9120D	KS301079	08/24/2023	08/23/2024
8	Horn-antenna(1-18GHz)	ETS-LINDGREN	3117	KS301186	04/07/2023	04/06/2025
9	Horn Antenna(18-40GHz)	Schwarzbeck	BBHA9170	CZ301058	01/07/2024	01/06/2026
10	Amplifier(30MHz~18GHz)	PANSHAN TECHNOLOGY	LNA:1~18G	KSEM010-1	01/15/2024	01/14/2025
11	Amplifier(18~40GHz)	PANSHAN TECHNOLOGY	LNA180400G40	KSEM038	08/24/2023	08/23/2024
12	RE Test Cable	REBES MICROWAVE	/	CZ301097	08/24/2023	08/23/2024
13	Temperature & Humidity Recorder	Renke Control	RS-WS-N01-6J	KSEM024-4	03/19/2024	03/18/2025
14	Software	Faratron	EZ EMC-v 3A1	/	NCR	NCR
15	Software	ESE	E3_V 6.111221a	/	NCR	NCR

6 Radio Spectrum Matter Test Results

6.1 Field strength of spurious radiation

Test Requirement: §2.1051
 Test Method: ANSI C63.26, KDB 971168 D01 v03
 Limit: $\leq -13\text{dBm}$ (LTE Band2,4,5)
 $\leq -25\text{dBm}$ (LTE Band7)

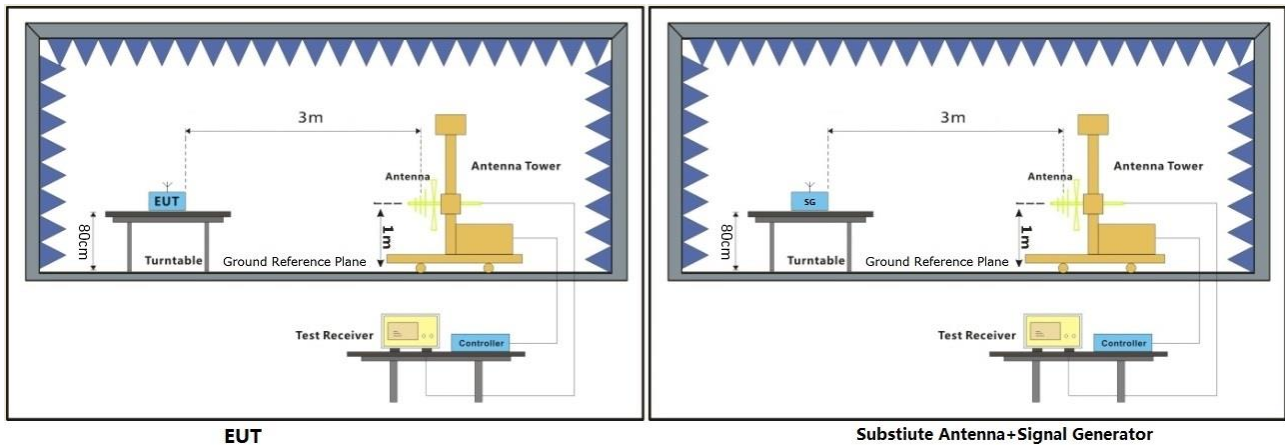
6.1.1 E.U.T. Operation

Operating Environment:
 Temperature: 24.3 °C Humidity: 50.2 % RH Atmospheric Pressure: 1010 mbar

6.1.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	12	TX mode_Keep the EUT in transmitting mode

6.1.3 Test Setup Diagram



6.1.4 Measurement Procedure and Data

Test Procedure:

- (1) On a test site, the EUT shall be placed on a turntable and in the position closest to the normal use as declared by the user.
- (2) The test antenna shall be oriented initially for vertical polarization located 3m from the EUT to correspond to the transmitter.
- (3) The output of the antenna shall be connected to the measuring receiver and either a peak or quasi-peak detector was used for the measurement as indicated on the report. The detector selection is based on how close the emission level was approaching the limit.
- (4) The transmitter shall be switched on; if possible, without the modulation and the measurement receiver shall be tuned to the frequency of the transmitter under test.
- (5) The test antenna shall be raised and lowered through the specified range of height until the measuring receiver detects a maximum signal level.
- (6) The transmitter shall then be rotated through 360° in the horizontal plane, until the maximum signal level is detected by the measuring receiver.
- (7) The test antenna shall be raised and lowered again through the specified range of height until the measuring receiver detects a maximum signal level.
- (8) The maximum signal level detected by the measuring receiver shall be noted.
- (9) The measurement shall be repeated with the test antenna set to horizontal polarization.
- (10) Replace the antenna with a proper Antenna (substitution antenna).
- (11) The substitution antenna shall be oriented for vertical polarization and, if necessary, the length of the substitution antenna shall be adjusted to correspond to the frequency of transmitting.
- (12) The substitution antenna shall be connected to a calibrated signal generator.
- (13) If necessary, the input attenuator setting of the measuring receiver shall be adjusted in order to increase the sensitivity of the measuring receiver.
- (14) The test antenna shall be raised and lowered through the specified range of the height to ensure that the maximum signal is received.
- (15) The input signal to substitution antenna shall be adjusted to the level that produces a level detected by the measuring receiver, that is equal to the level noted while the transmitter radiated power was measured, corrected for the change of input attenuation setting of the measuring receiver.
- (16) The input level to the substitution antenna shall be recorded as power level in dBm, corrected for any change of input attenuator setting of the measuring receiver.
- (17) The measurement shall be repeated with the test antenna and the substitution antenna oriented for horizontal polarization.

Remark: The disturbance below 1GHz was very low and the above harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.



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LTE BAND 2-Low channel				
Frequency (MHz)	Level (dBm)	Limit (dBm)	Over Limit (dB)	Polarization
3720.000	-58.15	-13	-45.15	Horizontal
5580.000	-57.57	-13	-44.57	Horizontal
7440.000	-56.19	-13	-43.19	Horizontal
3720.000	-58.56	-13	-45.56	Vertical
5580.000	-59.75	-13	-46.75	Vertical
7440.000	-53.87	-13	-40.87	Vertical

LTE BAND 2-Middle channel				
Frequency (MHz)	Level (dBm)	Limit (dBm)	Over Limit (dB)	Polarization
3760.000	-55.62	-13	-42.62	Horizontal
5640.000	-58.77	-13	-45.77	Horizontal
7520.000	-59.49	-13	-46.49	Horizontal
3760.000	-53.43	-13	-40.43	Vertical
5640.000	-58.54	-13	-45.54	Vertical
7520.000	-57.57	-13	-44.57	Vertical

LTE BAND 2-High channel				
Frequency (MHz)	Level (dBm)	Limit (dBm)	Over Limit (dB)	Polarization
3800.000	-56.87	-13	-43.87	Horizontal
5700.000	-62.66	-13	-49.66	Horizontal
7600.000	-54.47	-13	-41.47	Horizontal
3800.000	-61.36	-13	-48.36	Vertical
5700.000	-63.07	-13	-50.07	Vertical
7600.000	-52.40	-13	-39.40	Vertical



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LTE BAND 4-Low channel				
Frequency (MHz)	Level (dBm)	Limit (dBm)	Over Limit (dB)	Polarization
3440.000	-56.13	-13	-43.13	Horizontal
5160.000	-58.86	-13	-45.86	Horizontal
6880.000	-57.50	-13	-44.50	Horizontal
3440.000	-56.81	-13	-43.81	Vertical
5160.000	-59.98	-13	-46.98	Vertical
6880.000	-57.17	-13	-44.17	Vertical

LTE BAND 4-Middle channel				
Frequency (MHz)	Level (dBm)	Limit (dBm)	Over Limit (dB)	Polarization
3465.000	-51.57	-13	-38.57	Horizontal
5197.500	-58.55	-13	-45.55	Horizontal
6930.000	-55.75	-13	-42.75	Horizontal
3465.000	-58.80	-13	-45.80	Vertical
5197.500	-58.59	-13	-45.59	Vertical
6930.000	-58.09	-13	-45.09	Vertical

LTE BAND 4-High channel				
Frequency (MHz)	Level (dBm)	Limit (dBm)	Over Limit (dB)	Polarization
3490.000	-52.34	-13	-39.34	Horizontal
5235.000	-59.57	-13	-46.57	Horizontal
6980.000	-54.23	-13	-41.23	Horizontal
3490.000	-56.10	-13	-43.10	Vertical
5235.000	-61.04	-13	-48.04	Vertical
6980.000	-54.97	-13	-41.97	Vertical



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LTE BAND 5-Low channel				
Frequency (MHz)	Level (dBm)	Limit (dBm)	Over Limit (dB)	Polarization
1658.000	-59.00	-13	-46.00	Horizontal
2487.000	-59.29	-13	-46.29	Horizontal
3316.000	-54.42	-13	-41.42	Horizontal
1658.000	-55.07	-13	-42.07	Vertical
2487.000	-59.11	-13	-46.11	Vertical
3316.000	-53.71	-13	-40.71	Vertical

LTE BAND 5-Middle channel				
Frequency (MHz)	Level (dBm)	Limit (dBm)	Over Limit (dB)	Polarization
1673.000	-54.74	-13	-41.74	Horizontal
2509.500	-59.83	-13	-46.83	Horizontal
3346.000	-59.37	-13	-46.37	Horizontal
1673.000	-56.32	-13	-43.32	Vertical
2509.500	-57.54	-13	-44.54	Vertical
3346.000	-55.88	-13	-42.88	Vertical

LTE BAND 5-High channel				
Frequency (MHz)	Level (dBm)	Limit (dBm)	Over Limit (dB)	Polarization
1688.000	-61.48	-13	-48.48	Horizontal
2532.000	-63.52	-13	-50.52	Horizontal
3376.000	-52.43	-13	-39.43	Horizontal
1688.000	-52.70	-13	-39.70	Vertical
2532.000	-60.12	-13	-47.12	Vertical
3376.000	-54.85	-13	-41.85	Vertical



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LTE BAND 7-Low channel				
Frequency (MHz)	Level (dBm)	Limit (dBm)	Over Limit (dB)	Polarization
5020.000	-57.43	-25	-32.43	Horizontal
7530.000	-59.87	-25	-34.87	Horizontal
10040.000	-52.98	-25	-27.98	Horizontal
5020.000	-51.04	-25	-26.04	Vertical
7530.000	-56.34	-25	-31.34	Vertical
10040.000	-54.21	-25	-29.21	Vertical

LTE BAND 7-Middle channel				
Frequency (MHz)	Level (dBm)	Limit (dBm)	Over Limit (dB)	Polarization
5070.000	-55.39	-25	-30.39	Horizontal
7605.000	-57.56	-25	-32.56	Horizontal
10140.000	-59.81	-25	-34.81	Horizontal
5070.000	-59.17	-25	-34.17	Vertical
7605.000	-59.66	-25	-34.66	Vertical
10140.000	-57.82	-25	-32.82	Vertical

LTE BAND 7-High channel				
Frequency (MHz)	Level (dBm)	Limit (dBm)	Over Limit (dB)	Polarization
5120.000	-59.02	-25	-34.02	Horizontal
7680.000	-61.80	-25	-36.80	Horizontal
10240.000	-53.31	-25	-28.31	Horizontal
5120.000	-61.24	-25	-36.24	Vertical
7680.000	-60.12	-25	-35.12	Vertical
10240.000	-55.18	-25	-30.18	Vertical



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7 Test Setup Photo

Refer to Appendix - Test Setup Photo for KSCR2403000456AT

8 EUT Constructional Details (EUT Photos)

Refer to Appendix - Photographs of EUT Constructional Details for KSCR2403000456AT

- End of the Report -