

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

Report No.: KSCR240300045602

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## TEST REPORT

**Application No.:** KSCR2403000456AT **FCC ID:** 2BF29GT573-LAAG35LA

Applicant: GOSUNCNWELINK 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 FCC Part 2

47 CFR FCC Part 22 47 CFR FCC Part 24 47 CFR FCC 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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<sup>\*</sup> In the configuration tested, the EUT complied with the standards specified above.



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Revision Record					
Version Description Date Rei					
00	Original	2024-04-12	/		

Authorized for issue by:		
Tested By	Maker_Qi/Project Engineer	
Approved By	Terry Hou /Reviewer	



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### 2 Test Summary

Test Item	FCC	Poguiromento	Verdict	
rest item	Rule No.	Requirements		
	§2.1046	EIRP≤2W (Band 2)		
Effective (Isotropic) Radiated	§22.913	EIRP≤1W (Band 4)	PASS	
Power Output Data	§24.232	ERP≤7W (Band 5)	. , , , ,	
	§27.50(d)	Enti = TVV (Band 0)		
Peak-Average Ratio	§24.232	≤13dB	PASS	
r eak-Average Natio	§27.50(d)	משטוב	FASS	
Bandwidth	§2.1049	OBW: No limit	DACC	
Dariuwiutii	92.1049	EBW: No limit	PASS	
	§2.1051,			
Bood Edwa Consultance	§22.917,	≤ -13dBm/1%*EBW, in 1 MHz bands	D400	
Band Edge Compliance	§24.238	immediately outside and adjacent to the frequency block.	PASS	
	§27.53(h)	mequancy bloom		
	§2.1051,			
Spurious emissions at antenna	§22.917,	< 40 dD	DAGG	
terminals	§24.238	≤ -13dBm	PASS	
	§27.53(h)			
	§2.1051,			
Dedicted on wisus emissions	§22.917,	< 40 dD∞	DACC	
Radiated spurious emissions	§24.238	≤ -13dBm	PASS	
	§27.53(h)			
	§2.1055,			
Francisco et abiliti:	§22.355,	< 12 Fn mm	DACC	
Frequency stability	§24.235	≤ ±2.5ppm.	PASS	
	§27.54			

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. FG932502A.



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## 4 General Information

### 4.1 Details of E.U.T.

Power supply:	Voltage Range: 9V~16V, Rating: 12V 0.6A	
	Band 2:TX:1850 -1910 MHz RX:1930 - 1990 MHz	
Operation Frequency:	Band 4:TX:1710 -1755MHz RX:2110 - 2155MHz	
	Band 5:TX:824 - 849MHz RX:869 - 894MHz	
Modulation Type:	BPSK/QPSK/16QAM(16QAM uplink is not supported)/64QAM	
Antenna Type:	External Antenna	
	Band 2:1.5dBi (Provided by the manufacturer)	
Antenna Gain:	Band 4:1.5dBi (Provided by the manufacturer)	
	Band 5:-1dBi (Provided by the manufacturer)	

4.2 Description of Support Units

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

4.3 Test Frequency

Toot made:	TX / RX	RF Channel			
Test mode:	IA/RA	Low (L)	Middle (M)	High (H)	
	TX	Channel 9262	Channel 9400	Channel 9538	
WCDMA B2	1.	1852.4 MHz	1880.0 MHz	1907.6 MHz	
WCDIVIA BZ	RX	Channel 9662	Channel 9800	Channel 9938	
	KA	1932.4 MHz	1960 MHz	1987.6 MHz	
Test mode:	TX / RX		RF Channel		
rest mode.	IA/KA	Low (L)	Middle (M)	High (H)	
	TX	Channel 1312	Channel 1413	Channel 1513	
WCDMA B4		1712.4 MHz	1732.6 MHz	1752.6 MHz	
WCDIVIA 64	RX	Channel 1537	Channel 1638	Channel 1738	
		2112.4 MHz	2132.6 MHz	2152.6 MHz	
Test mode:	TX / RX		RF Channel		
rest mode.	IX/RX	Low (L)	Middle (M)	High (H)	
	TX	Channel 4132	Channel 4183	Channel 4233	
WCDMA B5	1.	826.4 MHz	836.6 MHz	846.6 MHz	
	RX	Channel 4357	Channel 4408	Channel 4458	
	NΛ	871.4 MHz	881.6 MHz	891.6 MHz	



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### 4.4 Test Environment

Environment Parameter	Selected Values During Tests		
Relative Humidity	52%		
Atmospheric Pressure:	1	01kPa	
Temperature:	TN	25 °C	
	VL	9V	
Voltage:	VN	12V	
	VH	16V	

NOTE: VL= lower extreme test voltage

VN= nominal voltage

VH= upper extreme test voltage

TN= normal temperature



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### 4.5 Measurement Uncertainty

No.	Item	Measurement Uncertainty	
1	Radio Frequency	8.4 x 10 <sup>-8</sup>	
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	DE Dadiated Dawer	5.2dB (Below 1GHz)	
0	RF Radiated Power	5.9dB (Above 1GHz)	
		4.2dB (Below 30MHz)	
9	Dadiated Consissa Fasinsias Test	4.5dB (30MHz-1GHz)	
9	Radiated Spurious Emission Test —	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.



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#### 4.6 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.

### 4.7 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.

### 4.8 Deviation from Standards

None

#### 4.9 Abnormalities from Standard Conditions

None



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# 5 Equipment List

Item	Equipment	Manufacturer	Model	Inventory No	Cal Date	Cal. Due Date	
RF Con	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	Aglient	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 Rad	liated Test	T			T		
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	Faratronic	EZ_EMC-v 3A1	1	NCR	NCR	
15	Software	ESE	E3_V 6.111221a	1	NCR	NCR	



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## **6 Radio Spectrum Matter Test Results**

### 6.1 Field strength of spurious radiation

Test Requirement §2.1051, §22.917, §24.238

Test Method: ANSI C63.26, KDB 971168 D01 v03

Limit: ≤ -13dBm

### 6.1.1 E.U.T. Operation

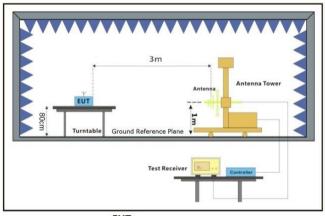
Operating Environment:

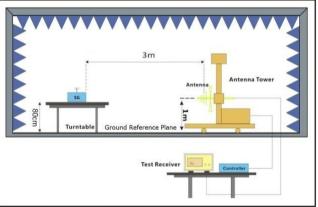
Temperature: 24.3 °C Humidity: 50.2 % RH Atmospheric Pressure: 1010 mbar

### 6.1.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	11	TX mode_Keep the EUT in transmitting mode

### 6.1.3 Test Setup Diagram





EUT

Substiute Antenna+Signal Generator



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#### 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 than 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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WCDMA BAND II-Low channel						
Frequency	Level	Limit	Over Limit	Polarization		
(MHz)	(dBm)	(dBm)	(dB)			
3704.800	-51.65	-13	-38.65	Horizontal		
5557.200	-58.67	-13	-45.67	Horizontal		
7409.600	-54.52	-13	-41.52	Horizontal		
3704.800	-55.01	-13	-42.01	Vertical		
5557.200	-57.80	-13	-44.80	Vertical		
7409.600	-56.20	-13	-43.20	Vertical		

WCDMA BAND II-Middle channel					
Frequency	Level	Limit	Over Limit	Polarization	
(MHz)	(dBm)	(dBm)	(dB)		
3760.000	-54.45	-13	-41.45	Horizontal	
5640.000	-62.26	-13	-49.26	Horizontal	
7520.000	-59.26	-13	-46.26	Horizontal	
3760.000	-54.93	-13	-41.93	Vertical	
5640.000	-58.77	-13	-45.77	Vertical	
7520.000	-57.66	-13	-44.66	Vertical	

WCDMA BAND II-High channel					
Frequency	Level	Limit	Over Limit	Polarization	
(MHz)	(dBm)	(dBm)	(dB)		
3815.200	-56.01	-13	-43.01	Horizontal	
5722.800	-59.56	-13	-46.56	Horizontal	
7630.400	-55.45	-13	-42.45	Horizontal	
3815.200	-58.32	-13	-45.32	Vertical	
5722.800	-61.79	-13	-48.79	Vertical	
7630.400	-53.93	-13	-40.93	Vertical	



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WCDMA BAND IV-Low channel				
Frequency (MHz)	Level (dBm)	Limit (dBm)	Over Limit (dB)	Polarization
3440.000	-44.77	-13	-31.77	Horizontal
5160.000	-51.10	-13	-38.10	Horizontal
6880.000	-48.37	-13	-35.37	Horizontal
3440.000	-48.99	-13	-35.99	Vertical
5160.000	-48.88	-13	-35.88	Vertical
6880.000	-46.33	-13	-33.33	Vertical

WCDMA BAND IV-Middle channel					
Frequency (MHz)	Level (dBm)	Limit (dBm)	Over Limit (dB)	Polarization	
3465.200	-41.42	-13	-28.42	Horizontal	
5197.800	-53.76	-13	-40.76	Horizontal	
6930.400	-46.44	-13	-33.44	Horizontal	
3465.200	-46.02	-13	-33.02	Vertical	
5197.800	-53.70	-13	-40.70	Vertical	
6930.400	-48.02	-13	-35.02	Vertical	

WCDMA BAND IV-High channel					
Frequency (MHz)	Level (dBm)	Limit (dBm)	Over Limit (dB)	Polarization	
3490.000	-52.85	-13	-39.85	Horizontal	
5235.000	-48.72	-13	-35.72	Horizontal	
6980.000	-42.28	-13	-29.28	Horizontal	
3490.000	-47.54	-13	-34.54	Vertical	
5235.000	-48.90	-13	-35.90	Vertical	
6980.000	-44.74	-13	-31.74	Vertical	



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WCDMA BAND V-Low channel				
Frequency (MHz)	Level (dBm)	Limit (dBm)	Over Limit (dB)	Polarization
1652.800	-49.71	-13	-36.71	Horizontal
2479.200	-50.59	-13	-37.59	Horizontal
3305.600	-48.57	-13	-35.57	Horizontal
1652.800	-47.41	-13	-34.41	Vertical
2479.200	-48.44	-13	-35.44	Vertical
3305.600	-47.43	-13	-34.43	Vertical

WCDMA BAND V-Middle channel				
Frequency (MHz)	Level (dBm)	Limit (dBm)	Over Limit (dB)	Polarization
1672.800	-47.38	-13	-34.38	Horizontal
2509.200	-53.14	-13	-40.14	Horizontal
3345.600	-46.65	-13	-33.65	Horizontal
1672.800	-48.41	-13	-35.41	Vertical
2509.200	-50.38	-13	-37.38	Vertical
3345.600	-44.41	-13	-31.41	Vertical

WCDMA BAND V-High channel					
Frequency (MHz)	Level (dBm)	Limit (dBm)	Over Limit (dB)	Polarization	
1692.800	-48.33	-13	-35.33	Horizontal	
2539.200	-51.48	-13	-38.48	Horizontal	
3385.600	-42.87	-13	-29.87	Horizontal	
1692.800	-45.16	-13	-32.16	Vertical	
2539.200	-50.44	-13	-37.44	Vertical	
3385.600	-42.30	-13	-29.30	Vertical	

### Remark:

We have tested all modulation and all Bandwidth, but only the worst case data presented in this report.



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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 -