





# RF TEST REPORT

**Applicant** Positioning Universal Inc

FCC ID 2AHRH-FT7200MW

**Product** Vehicle Telematics Gateway

**Brand** PUI

Model FT7200MW

**Report No.** R2312A1389-R1

**Issue Date** February 1, 2024

TA Technology (Shanghai) Co., Ltd. tested the above equipment in accordance with the requirements in FCC CFR47 Part 2 (2023)/ FCC CFR 47 Part 22H (2023). The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

Zhu Chentolo

Prepared by: Zhu Chentao

Approved by: Xu Kai

Xiken

TA Technology (Shanghai) Co., Ltd.

Building 3, No.145, Jintang Rd, Pudong Shanghai, P.R.China TEL: +86-021-50791141/2/3 FAX: +86-021-50791141/2/3-8000

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## **Summary of Measurement Results**

No.	Test Case	Clause in FCC rules	Verdict
1	RF Power Output and Effective Radiated Power	2.1046 22.913(a)(5)	PASS
2	Radiated Spurious Emission	2.1053 / 22.917 (a)	PASS

Date of Testing: December 29, 2023 ~ January 11, 2024

Date of Sample Received: December 18, 2023

Note: PASS: The EUT complies with the essential requirements in the standard.

FAIL: The EUT does not comply with the essential requirements in the standard.

All indications of Pass/Fail in this report are opinions expressed by TA Technology (Shanghai) Co., Ltd. based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only.

Only Radiated Spurious Emission is tested for FT7200MW in this report, and because of the change of antenna gain, Effective Radiated Power also re-evaluated. Other test items refer to the Module report (Report No.: R2005A0283-R1V1, FCC ID: XMR202005BG95M5).



1. Test Laboratory

1.1. Notes of the Test Report

This report shall not be reproduced in full or partial, without the written approval of **TA Technology** (Shanghai) Co., Ltd. The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. Measurement Uncertainties were not taken into account and are published for informational purposes only. This report is written to support

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regulatory compliance of the applicable standards stated above.

1.2. Test Facility

FCC (Designation number: CN1179, Test Firm Registration Number: 446626)

TA Technology (Shanghai) Co., Ltd. has been listed on the US Federal Communications Commission list of test facilities recognized to perform measurements.

A2LA (Certificate Number: 3857.01)

TA Technology (Shanghai) Co., Ltd. has been listed by American Association for Laboratory Accreditation to perform measurement.

1.3. Testing Location

Company: TA Technology (Shanghai) Co., Ltd.

Address: Building 3, No.145, Jintang Rd, Pudong Shanghai, P.R.China

City: Shanghai Post code: 201201

Country: P. R. China

Contact: Xu Kai

Telephone: +86-021-50791141/2/3

Fax: +86-021-50791141/2/3-8000

Website: https://www.eurofins.com/electrical-and-electronics

E-mail: Kain.Xu@cpt.eurofinscn.com



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# 2. General Description of Equipment Under Test

## 2.1. Applicant and Manufacturer Information

Applicant	Positioning Universal Inc
Applicant address	4660 La Jolla Village Drive Suite 1100, San Diego, USA
Manufacturer	Positioning Universal Inc
Manufacturer address	4660 La Jolla Village Drive Suite 1100, San Diego, USA

## 2.2. General Information

EUT Description								
Model	FT7200MW							
IMEI	866356068464071	866356068464071						
Hardware Version	P2							
Software Version	BG95M5LAR02A03_01.	.007.01.007						
Power Supply	Battery							
Antenna Type	External Antenna							
Antenna Gain	2 dBi							
Test Mode(s)	GSM 850; LTE-M Band	5/26;						
Test Modulation	Test Modulation (GSM/GPRS) GMSK, (EGPRS) GMSK/ 8PSK; (LTE-M) QPSK, 16QAM,							
GPRS Multislot Class	33							
EGPRS Multislot Class	33							
LTE Category	M1							
	GSM 850: 32.19 dBm							
Maximum E.R.P.	LTE-M Band 5:							
	LTE-M Band 26: 23.05 dBm							
Rated Power Supply Voltage	12V	•						
Operating Voltage	Minimum: 7V Maximum: 90V							
Operating Temperature	Lowest: -40°C Highe	est: +85°C						
Testing Temperature	Lowest: -30°C Highest: +50°C							
	Band	Tx (MHz)	Rx (MHz)					
Operating Frequency Bens (5)	GSM850	824 ~ 849	869 ~ 894					
Operating Frequency Range(s)	LTE-M Band 5 824 ~ 849 8		869 ~ 894					
	LTE-M Band 26	824 ~ 849	869 ~ 894					
Note: 1. The ELIT is cent from the applicant to TA and the information of the ELIT is declared by the								

Note: 1. The EUT is sent from the applicant to TA and the information of the EUT is declared by the applicant.

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## 3. Applied Standards

According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

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Test standards:

FCC CFR 47 Part 22H (2023)

FCC CFR47 Part 2 (2023)

Reference standard:

ANSI C63.26-2015

KDB 971168 D01 Power Meas License Digital Systems v03r01

4. Test Configuration

Radiated measurements are performed by rotating the EUT in three different orthogonal test planes. EUT stand-up position (vertical), lie-down position (horizontal). The worst emission was found in stand-up position (vertical)

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All mode and data rates and positions and RB size and modulations were investigated.

Subsequently, only the worst case emissions are reported.

The following testing in GSM /LTE-M is set based on the maximum RF Output Power.

Test modes are chosen to be reported as the worst case configuration below:

Toot itoms	Modes/Modulation
Test items	GSM 850
	GSM
RF Power Output and Effective Radiated power	GPRS
	EGPRS
Radiated Spurious Emission	GSM

Test modes are chosen as the worst case configuration below for LTE-M Band 5/26

Test items	Bandwidth (MHz)				Modulation		RB			Test Channel				
		1.4	3	5	10	15	QPSK	16QAM	1	50%	100%	L	М	Н
RF power output and	LTE-M 5	0	0	0	0	-	0	0	0	0	0	0	0	0
Effective Radiated power	LTE-M 26	0	0	0	0	0	0	0	0	0	0	0	0	0
Radiated	LTE-M 5	0	-	0	0	-	0	-	0	-	-	-	0	-
Spurious Emission	LTE-M 26	0	1	0	-	0	0	-	0	1	-	1	0	-
Note						•		s chosen fo not testing		ng.				



### 5. Test Case

### 5.1. RF Power Output and Effective Radiated Power

#### **Ambient Condition**

Temperature	Relative humidity	Pressure
15°C ~ 35°C	20% ~ 80%	86 kPa ~ 106 kPa

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#### **Methods of Measurement**

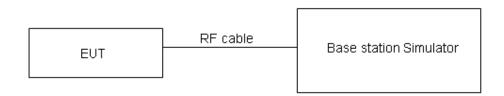
During the process of the testing, The EUT was connected to the Base Station Simulator with a known loss. The EUT is controlled by the Base Station Simulator test set to ensure max power transmission with proper modulation.

ERP can then be calculated as follows:

EIRP (dBm) = Output Power (dBm) + Antenna Gain (dBi)

EIRP (dBm) = ERP (dBm) + 2.15 (dB).

#### **Test Setup**



#### Limits

No specific RF power output requirements in part 2.1046.

Rule Part 22.913(a)(5) specifies that "Mobile/portable stations are limited to 7 watts ERP".

#### **Measurement Uncertainty**

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor k = 2, U = 0.4 dB for RF power output, k = 2, U = 1.19 dB for ERP.

#### **Test Results**

Refer to the section 6.1 of this report for test data.



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#### 5.2. Radiated Spurious Emission

#### **Ambient Condition**

Temperature	Relative humidity	Pressure
15°C ~ 35°C	20% ~ 80%	86 kPa ~ 106 kPa

#### **Method of Measurement**

- 1. The testing follows FCC KDB 971168 v03r01 Section 5.8 and ANSI C63.26-2015.
- 2. Below 1GHz: The EUT is placed on a turntable 0.8 meters above the ground in the chamber, 3 meter away from the antenna. The maximal emission value is acquired by adjusting the antenna height, polarisation and turntable azimuth. Normally, the height range of antenna is 1 m to 4 m, the azimuth range of turntable is 0° to 360°, and the receive antenna has two polarizations Vertical (V) and Horizontal (H). Above 1GHz: (Note: the FCC's permission to use 1.5m as an alternative per TCBC Conf call of Dec. 2, 2014.) The EUT is placed on a turntable 1.5 meters above the ground in the chamber, 3 meter away from the antenna. The maximal emission value is acquired by adjusting the antenna height, polarisation and turntable azimuth. Normally, the height range of antenna is 1 m to 4 m, the azimuth range of turntable is 0° to 360°, and the receive antenna has two polarizations Vertical (V) and Horizontal (H).
- 3. A loop antenna, A log-periodic antenna or horn antenna shall be substituted in place of the EUT. The log-periodic antenna will be driven by a signal generator and the level will be adjusted till the same power value on the spectrum analyzer or receiver. The level of the spurious emissions can be calculated through the level of the signal generator, cable loss, the gain of the substitution antenna and the reading of the spectrum analyzer or receiver.
- 4. The EUT is then put into continuously transmitting mode at its maximum power level during the test. Set Test Receiver or Spectrum RBW=100kHz, VBW=300kHz, and the maximum value of the receiver should be recorded as (Pr).
- 5. The EUT shall be replaced by a substitution antenna. In the chamber, an substitution antenna for the frequency band of interest is placed at the reference point of the chamber. An RF Signal source for the frequency band of interest is connected to the substitution antenna with a cable that has been constructed to not interfere with the radiation pattern of the antenna. A power (PMea) is applied to the input of the substitution antenna, and adjust the level of the signal generator output until the value of the receiver reach the previously recorded (Pr). The power of signal source (PMea) is recorded. The test should be performed by rotating the test item and adjusting the receiving antenna polarization.
- 6. A amplifier should be connected to the Signal Source output port. And the cable should be connect between the Amplifier and the Substitution Antenna. The cable loss (PcI) ,the Substitution Antenna Gain (Ga) and the Amplifier Gain (PAg) should be recorded after test.
- 7. The measurement results are obtained as described below:

Power (EIRP) = PMea - PAg - Pcl + Ga

The measurement results are amend as described below:

Power (EIRP) = PMea - Pcl + Ga

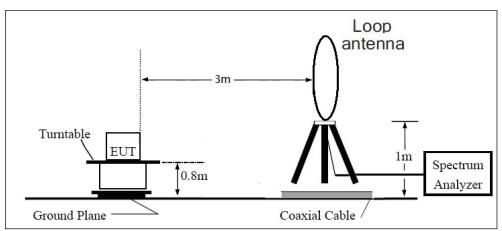
8. This value is EIRP since the measurement is calibrated using an antenna of known gain (2.15 dB) and known input power. ERP can be calculated from EIRP by subtracting the gain of the dipole, ERP = EIRP-2.15dB.

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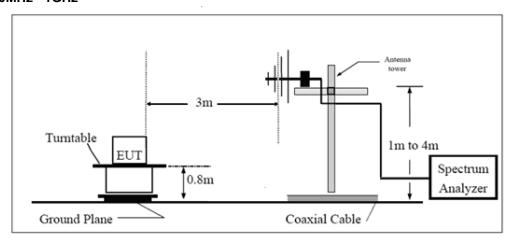
The modulation mode and RB allocation refer to section 5.1, using the maximum output power configuration.

### **Test Setup**

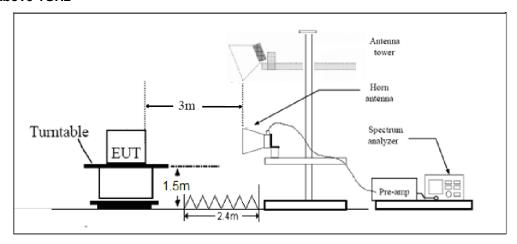
### 9KHz~30MHz



#### 30MHz~1GHz



#### **Above 1GHz**



Note: Area side: 2.4mX3.6m



#### Limits

Rule Part 22.917(a) specifies that "The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log (P) Db."

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### **Measurement Uncertainty**

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor k = 1.96, U = 3.55 Db.

#### **Test Results**

Refer to the section 6.2 of this report for test data.



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## 6. Test Result

## 6.1. RF Power Output and Effective Radiated Power

	Maxim	um Output (dBm)	Power	ERP (dBm)			
COMO	Channel	Channel	Channel	Channel	Channel	Channel	
GSM 850		128	190	251	128	190	251
	824.2	836.6	848.8	824.2	836.6	848.8	
		(MHz)	(MHz)	(MHz)	(MHz)	(MHz)	(MHz)
	1Txslot	32.34	31.82	32.15	32.19	31.67	32.00
GPRS	2Txslots	30.94	30.57	30.97	30.79	30.42	30.82
(GMSK)	3Txslots	29.36	29.02	29.45	29.21	28.87	29.3
	4Txslots	27.86	27.53	27.86	27.71	27.38	27.71
	1Txslot	26.83	26.70	27.08	26.68	26.55	26.93
EGPRS	2Txslots	26.84	26.56	26.94	26.69	26.41	26.79
(8PSK)	3Txslots	24.97	24.94	25.13	24.82	24.79	24.98
	4Txslots	24.62	24.33	24.62	24.47	24.18	24.47

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LTE-M Band5	Channel/ Frequency(MHz)	Index	RB# RBstart	RB# RBstart	Conducted Power (dBm)		ERP (dBm)		
			QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	
	20407/824.7	0	1#0	1#0	23.20	22.67	23.05	22.52	
	20407/024.7	0	6#0	5#0	23.11	21.85	22.96	21.70	
1.4MHz	20525/836.5	0	1#0	1#0	23.00	22.59	22.85	22.44	
1.4IVI⊓Z	20020/000.0	0	6#0	5#0	22.75	21.47	22.60	21.32	
	20643/848.3	0	1#5	1#5	23.23	22.49	23.08	22.34	
	20043/040.3	0	6#0	5#0	23.08	22.61	22.93	22.46	
	20415/825.5	0	1#0	1#0	23.21	22.70	23.06	22.55	
	20415/825.5	0	6#0	5#0	23.16	21.89	23.01	21.74	
3MHz	20525/836.5	0	1#0	1#0	23.04	22.62	22.89	22.47	
SIVITZ		0	6#0	5#0	22.80	21.51	22.65	21.36	
	20635/847.5	1	1#5	1#5	23.28	22.53	23.13	22.38	
		1	6#0	5#0	23.12	22.66	22.97	22.51	
	20425/826.5	3	1#0	1#0	23.17	22.68	23.02	22.53	
		0	6#0	5#0	23.15	21.86	23.00	21.71	
5MHz	20525/836.5	0	1#0	1#0	22.99	22.58	22.84	22.43	
SIVITZ		0	6#0	5#0	22.76	21.48	22.61	21.33	
	2062E/846 E	0	1#5	1#5	23.23	22.49	23.08	22.34	
	20625/846.5	3	6#0	5#0	23.09	22.62	22.94	22.47	
	20450/920	3	1#0	1#0	23.13	22.65	22.98	22.50	
	20450/829	0	4#0	4#0	23.11	21.84	22.96	21.69	
40MI I-	20525/836.5	0	1#0	1#0	22.98	22.55	22.83	22.40	
10MHz		0	4#0	4#0	22.71	21.44	22.56	21.29	
	20600/944	4	1#5	1#5	23.19	22.46	23.04	22.31	
	20600/844	7	4#2	4#2	23.04	22.58	22.89	22.43	

LTE-M Band26	Channel/ Frequency(MHz)	Index	RB# RBstart	RB# RBstart		Conducted Power (dBm)		ERP (dBm)		
			QPSK	16QAM	QPSK	16QAM	QPSK	16QAM		
	26797/824.7	0	1#0	1#0	22.73	22.88	22.58	22.73		
		0	6#0	5#0	22.34	22.65	22.19	22.50		
1 AMU=	26915/836.5	0	1#0	1#0	22.90	23.16	22.75	23.01		
1.4MHz	20910/030.5	0	6#0	5#0	22.35	22.63	22.20	22.48		
	27022/040.2	0	1#5	1#5	22.25	21.89	22.10	21.74		
	27033/848.3	0	6#0	5#0	21.95	21.83	21.80	21.68		
	20005/025 5	0	1#0	1#0	22.77	22.91	22.62	22.76		
OM1.1-	26805/825.5	0	6#0	5#0	22.39	22.69	22.24	22.54		
3MHz	26915/836.5	0	1#0	1#0	22.95	23.20	22.80	23.05		
		0	6#0	5#0	22.45	22.74	22.30	22.59		



15MHz

26915/836.5

26965/841.5

0

8

11

6#0

1#5

6#0

5#0

1#5

5#0

22.36

22.25

21.98

22.67

21.91

21.84

22.21

22.10

21.83

22.52

21.76

21.69

Report No.: R2312A1389-R1 1 1#5 1#5 22.33 21.99 21.84 22.18 27025/847.5 1 6#0 5#0 22.04 21.91 21.89 21.76 3 1#0 1#0 22.76 22.90 22.61 22.75 26815/826.5 0 22.40 6#0 5#0 22.70 22.25 22.55 0 1#0 1#0 22.94 23.19 22.79 23.04 5MHz 26915/836.5 0 6#0 5#0 22.45 22.74 22.30 22.59 0 1#5 1#5 22.34 21.98 22.19 21.83 27015/846.5 3 6#0 5#0 22.06 21.92 21.91 21.77 3 1#0 1#0 22.72 22.88 22.57 22.73 26840/829 0 4#0 4#0 22.39 22.67 22.24 22.52 0 1#0 1#0 22.89 23.15 22.74 23.00 10MHz 26915/836.5 0 4#0 4#0 22.41 22.71 22.26 22.56 4 1#5 1#5 22.29 21.94 22.14 21.79 26990/844 7 4#2 4#2 22.03 21.88 21.88 21.73 3 1#0 1#0 22.68 22.85 22.53 22.70 26865/831.5 0 6#0 5#0 22.35 22.65 22.20 22.50 0 1#0 1#0 22.88 23.12 22.73 22.97

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## 6.2. Radiated Spurious Emission

Sweep the whole frequency band through the range from 9kHz to the 10th harmonic of the carrier, the emissions below the noise floor will not be recorded in the report.

GSM 850 CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1672.95	-51.41	1.70	8.70	Vertical	-46.56	-13.00	33.56	0
3	2509.95	-58.64	2.30	12.00	Vertical	-51.09	-13.00	38.09	225
4	3346.40	-66.21	2.70	12.70	Vertical	-58.36	-13.00	45.36	135
5	4183.00	-61.98	3.00	12.50	Vertical	-54.63	-13.00	41.63	229
6	5019.60	-61.08	3.40	12.50	Vertical	-54.13	-13.00	41.13	46
7	5856.20	-60.50	3.40	12.80	Vertical	-53.25	-13.00	40.25	73
8	6692.80	-57.58	4.10	11.50	Vertical	-52.33	-13.00	39.33	104
9	7529.40	-55.31	4.20	12.20	Vertical	-49.46	-13.00	36.46	18
10	8366.00	-56.45	4.30	12.50	Vertical	-50.40	-13.00	37.40	306

Note: 1. The other Spurious RF Radiated emissions level is no more than noise floor.

LTE-M Band 5 1.4MHz CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1673.00	-54.85	1.70	8.70	Vertical	-50.00	-13.00	37.00	315
3	2509.50	-61.11	2.30	12.00	Vertical	-53.56	-13.00	40.56	315
4	3346.00	-67.18	2.70	12.70	Vertical	-59.33	-13.00	46.33	45
5	4182.50	-63.78	3.00	12.50	Vertical	-56.43	-13.00	43.43	16
6	5019.00	-61.27	3.40	12.50	Vertical	-54.32	-13.00	41.32	139
7	5855.50	-60.18	3.40	12.80	Vertical	-52.93	-13.00	39.93	261
8	6692.00	-57.50	4.10	11.50	Vertical	-52.25	-13.00	39.25	252
9	7528.50	-55.39	4.20	12.20	Vertical	-49.54	-13.00	36.54	58
10	8365.00	-55.29	4.30	12.50	Vertical	-49.24	-13.00	36.24	206

Note: 1. The other Spurious RF Radiated emissions level is no more than noise floor.

<sup>2.</sup> The worst emission was found in the antenna is Vertical position.

<sup>2.</sup> The worst emission was found in the antenna is Vertical position.



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#### LTE-M Band 5 5MHz CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1668.60	-62.01	1.70	8.70	Vertical	-57.16	-13.00	44.16	46
3	2503.30	-59.79	2.30	12.00	Vertical	-52.24	-13.00	39.24	270
4	3337.50	-66.48	2.70	12.70	Vertical	-58.63	-13.00	45.63	315
5	4171.88	-63.68	3.00	12.50	Vertical	-56.33	-13.00	43.33	243
6	5006.25	-60.98	3.40	12.50	Vertical	-54.03	-13.00	41.03	128
7	5840.63	-60.64	3.40	12.80	Vertical	-53.39	-13.00	40.39	29
8	6675.00	-56.54	4.10	11.50	Vertical	-51.29	-13.00	38.29	308
9	7509.38	-54.83	4.20	12.20	Vertical	-48.98	-13.00	35.98	124
10	8343.75	-54.11	4.30	12.50	Vertical	-48.06	-13.00	35.06	153

Note: 1. The other Spurious RF Radiated emissions level is no more than noise floor.

#### LTE-M Band 5 10MHz CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1664.40	-62.36	1.70	8.70	Vertical	-57.51	-13.00	44.51	159
3	2496.60	-60.79	2.30	12.00	Vertical	-53.24	-13.00	40.24	305
4	3326.00	-66.94	2.70	12.70	Vertical	-59.09	-13.00	46.09	135
5	4157.50	-63.76	3.00	12.50	Vertical	-56.41	-13.00	43.41	43
6	4989.00	-61.98	3.40	12.50	Vertical	-55.03	-13.00	42.03	62
7	5820.50	-59.16	3.40	12.80	Vertical	-51.91	-13.00	38.91	119
8	6652.00	-56.50	4.10	11.50	Vertical	-51.25	-13.00	38.25	308
9	7483.50	-54.11	4.20	12.20	Vertical	-48.26	-13.00	35.26	0
10	8315.00	-55.38	4.30	12.50	Vertical	-49.33	-13.00	36.33	270

Note: 1. The other Spurious RF Radiated emissions level is no more than noise floor.

<sup>2.</sup> The worst emission was found in the antenna is Vertical position.

<sup>2.</sup> The worst emission was found in the antenna is Vertical position.



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#### LTE-M Band 26 1.4MHz CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1673.00	-61.67	1.70	8.70	Vertical	-56.82	-13.00	43.82	226
3	2509.50	-61.24	2.30	12.00	Vertical	-53.69	-13.00	40.69	56
4	3346.00	-66.57	2.70	12.70	Vertical	-58.72	-13.00	45.72	34
5	4182.50	-63.64	3.00	12.50	Vertical	-56.29	-13.00	43.29	201
6	5019.00	-61.17	3.40	12.50	Vertical	-54.22	-13.00	41.22	117
7	5855.50	-60.13	3.40	12.80	Vertical	-52.88	-13.00	39.88	46
8	6692.00	-57.81	4.10	11.50	Vertical	-52.56	-13.00	39.56	270
9	7528.50	-54.83	4.20	12.20	Vertical	-48.98	-13.00	35.98	93
10	8365.00	-55.03	4.30	12.50	Vertical	-48.98	-13.00	35.98	315

Note: 1. The other Spurious RF Radiated emissions level is no more than noise floor.

#### LTE-M Band 26 5MHz CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1668.00	-62.08	1.70	8.70	Vertical	-57.23	-13.00	44.23	116
3	2502.00	-58.82	2.30	12.00	Vertical	-51.27	-13.00	38.27	315
4	3336.00	-66.68	2.70	12.70	Vertical	-58.83	-13.00	45.83	0
5	4170.00	-63.13	3.00	12.50	Vertical	-55.78	-13.00	42.78	53
6	5004.00	-61.19	3.40	12.50	Vertical	-54.24	-13.00	41.24	48
7	5838.00	-59.39	3.40	12.80	Vertical	-52.14	-13.00	39.14	146
8	6672.00	-57.09	4.10	11.50	Vertical	-51.84	-13.00	38.84	315
9	7506.00	-55.23	4.20	12.20	Vertical	-49.38	-13.00	36.38	29
10	8340.00	-54.64	4.30	12.50	Vertical	-48.59	-13.00	35.59	24

Note: 1. The other Spurious RF Radiated emissions level is no more than noise floor.

<sup>2.</sup> The worst emission was found in the antenna is Vertical position.

<sup>2.</sup> The worst emission was found in the antenna is Vertical position.



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#### LTE-M Band 26 15MHz CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	ERP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	1658.00	-56.68	1.70	8.70	Vertical	-51.83	-13.00	38.83	26
3	2487.00	-61.26	2.30	12.00	Vertical	-53.71	-13.00	40.71	109
4	3316.00	-67.30	2.70	12.70	Vertical	-59.45	-13.00	46.45	79
5	4145.00	-63.16	3.00	12.50	Vertical	-55.81	-13.00	42.81	304
6	4974.00	-62.33	3.40	12.50	Vertical	-55.38	-13.00	42.38	246
7	5803.00	-59.59	3.40	12.80	Vertical	-52.34	-13.00	39.34	69
8	6632.00	-57.33	4.10	11.50	Vertical	-52.08	-13.00	39.08	135
9	7461.00	-54.74	4.20	12.20	Vertical	-48.89	-13.00	35.89	94
10	8290.00	-55.39	4.30	12.50	Vertical	-49.34	-13.00	36.34	26

Note: 1. The other Spurious RF Radiated emissions level is no more than noise floor.

<sup>2.</sup> The worst emission was found in the antenna is Vertical position.



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## 7. Main Test Instruments

Name	Manufacturer	Туре	Serial Number	Calibration Date	Expiration Date
Wideband radio communication tester	R&S	CMW500	113645	2023-03-16	2024-03-15
Spectrum Analyzer	R&S	FSV30	100815	2023-12-05	2024-12-04
Loop Antenna	SCHWARZBECK	FMZB1519	1519-047	2023-04-16	2026-04-15
TRILOG Broadband Antenna	SCHWARZBECK	VULB 9163	391	2022-09-29	2025-09-28
Horn Antenna	SCHWARZBECK	BBHA 9120D	1594	2023-12-05	2026-12-04
Software	R&S	EMC32	10.35.10	1	1



# **ANNEX A: The EUT Appearance**

The EUT Appearance is submitted separately.

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## **ANNEX B: Test Setup Photos**

The Test Setup Photos is submitted separately.

\*\*\*\*\*\* END OF REPORT \*\*\*\*\*\*

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