

REM- EMISS25C433ALT-03Av0

MPE test report

According to the standard:

CFR 47 FCC PART 15

Equipment under test:

GATE2CARE

FCC ID: **2BUWO-00687001**

Company:

ALTANEOS

Distribution: Mr CHRISTOPHE NICLAES

(Company: ALTANEOS)

Number of pages: 6 with 1 appendix

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Information in italics are declared by the manufacturer/customer and are under his responsibility

DESIGNATION OF PRODUCT: *GATE2CARE*

Serial number (S/N): *GATE2CARE_P00687_001_254800010010*

Reference / model (P/N): *GATE2CARE*

Software version: *GATE2CARE-D-v1.10.0*

MANUFACTURER: *ALTANEOS*

COMPANY SUBMITTING THE PRODUCT:

Company: *ALTANEOS*

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DATE(S) OF TEST: *From 11-Dec-25 to 12-Dec-25*

TESTING LOCATION: *EMITECH CHASSIEU laboratory at CHASSIEU (69) FRANCE
FCC Accredited under US-EU MRA Designation Number: FR0013
Test Firm Registration Number: 807590*

TESTED BY: *T. LEDRESSEUR*

VISA:



WRITTEN BY: *T. LEDRESSEUR*

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REVISIONS HISTORY

Revision	Date	Modified pages	Modifications
0	13-Mar-26	/	Creation

1. INTRODUCTION

This report presents the results of radio test carried out on the following radio equipment: **GATE2CARE**, in accordance with normative reference.

The equipment under test integrates:

- LTE/GNSS transceiver radio module already certified, (Module SIM7672G, FCCID: 2AJYU-8XS0001, IC : 23761-8XS0005)
- Bluetooth Low Energy / Wi-Fi 2.4 transceiver radio module already certified, (Module: ESP32-S3-WROOM-1, FCCID : 2AC7Z-ESPS3WROOM1, IC: 21098- ESPS3WROOM1)

2. PRODUCT DESCRIPTION

Class: B

Utilization: Residential

Operating frequency range: From 2402 MHz to 2480 MHz for BLE
From 2402 MHz to 2480 MHz for Wi-Fi 2.4GHz

Operating frequency range for LTE:

From 1850 MHz to 1910 MHz (LTE Band 2)
From 1710 MHz to 1755 MHz (LTE Band 4)
From 824 MHz to 849 MHz (LTE Band 5)
From 2500 MHz to 2570 MHz (LTE Band 7)
From 699 MHz to 716 MHz (LTE Band 12)
From 777 MHz to 787 MHz (LTE Band 13)
From 1850 MHz to 1915 MHz (LTE Band 25)
From 814 MHz to 849 MHz (LTE Band 26)
From 2570 MHz to 2620 MHz (LTE Band 38)
From 2496 MHz to 2690 MHz (LTE Band 41)
From 1710 MHz to 1780 MHz (LTE Band 66)
From 663 MHz to 698 MHz (LTE Band 71)

Power source: 120 Vac - 60Hz

Power level, frequency range and channels characteristics are not user adjustable.
The details pictures of the product and the circuit boards are joined with this file.

3. NORMATIVE REFERENCE

The standards and testing methods related throughout this report are those listed below.

They are applied on the whole test report even though the extensions (version, date and amendment) are not repeated.

CFR 47 (2025) Radio Frequency Devices

447498 D01 General RF Exposure Guidance v06 RF Exposure procedures and equipment authorization policies for mobile and portable equipment

447498 D04 Interim General RF Exposure Guidance v01 RF Exposure Procedures and Equipment Authorization Policies for Mobile and Portable Devices

4. RF EXPOSURE

Wi-Fi and Bluetooth analysis

The results are extracted from the original certification.

Band	Frequency (MHz)	Antenna Gain (dBi)	Maximum Power (dBm)	Maximum EIRP (dBm)	Maximum EIRP (W)	Average EIRP (mW)	Power Density at 20cm (mW/cm ²)	Limit (mW/cm ²)
2.4GHz WLAN	2412	3.26	20.50	23.76	0.24	237.68	0.047	1.000
Bluetooth	2402	3.26	10.00	13.26	0.02	21.18	0.004	1.000

Note:

1. For conservativeness, the lowest frequency of each band is used to determine the MPE limit of that band.
2. Chose the maximum power to do MPE analysis.
3. According to the EUT characteristic, WLAN and Bluetooth cannot transmit simultaneously.

The MPE ratio is then calculated for the simultaneous transmission, only worst case used.

$$\text{MPE ratio(WLAN)} = \frac{0.0000000017243}{0.98} = 0.047$$

LTE analysis

The results are extracted from the original certification.

Band	Antenna Gain (dBi)	Maximum Power (dBm)	Average EIRP (mW)	Power Density (mW/cm^2)	Limit (mW/cm^2)	Power Density / Limit	Result (PASS / FAIL)
LTE Band 2	1.87	25.5	545.76	0.109	1.000	0.109	Pass
LTE Band 4	2.12	24.5	459.20	0.091	1.000	0.091	Pass
LTE Band 5	0.64	24.5	326.59	0.065	0.549	0.118	Pass
LTE Band 7	1.13	25.5	460.26	0.092	1.000	0.092	Pass
LTE Band 12	0.22	25	332.66	0.066	0.466	0.142	Pass
LTE Band 13	2.23	24.5	470.98	0.094	0.518	0.181	Pass
LTE Band 25	1.87	25.5	545.76	0.109	1.000	0.109	Pass
LTE Band 26 for Part22	0.64	24	291.07	0.058	0.550	0.105	Pass
LTE Band 26 for Part90	0.64	24	291.07	0.058	0.543	0.107	Pass
LTE Band 38	1.21	24.5	372.39	0.074	1.000	0.074	Pass
LTE Band 41	1.15	23.5	291.74	0.058	1.000	0.058	Pass
LTE Band 66	2.12	24.5	459.20	0.091	1.000	0.091	Pass
LTE Band 71	0.22	25	332.66	0.066	0.444	0.149	Pass

The most critical MPE ratio is then taken for the simultaneous transmission. This is the results on band LTE13.

Calculus for simultaneous transmission

Only the worst critical case for the LTE module is taken into account for this analysis

$$\sum \text{ of MPE ratio} = \text{MPE ratio(WLAN)} + \text{MPE ratio(LTE)} = 0.047 + 0.181 = 0.228 \leq 1.0$$

The product meets the requirement for Simultaneous transmission MPE test exclusion from §2.2 of KDB 447498 provided that the distance between the user and the antenna is 20 cm or more.

□□□ End of report□□□