RRA-EMIESS24B231TMS-01Av0

Certification Radio test report

According to the standard:

CFR 47 FCC PART 15

RSS GEN – Issue 5
RSS 210 - Issue 10

Equipment under test:
XGCS8901201 RFID compact station

FCC ID: 2BCVYXGCS89
IC NUMBER: 31308-XGCS89

Company:

TMSS FRANCE

Distribution: Mr CORAZZA **(Company:** TMSS FRANCE)

Number of pages: 26 with 2 appendixes

Ed.	Date	Modified Page(s)	Technical Verification and Quality Approval Name and Function / Visa
0	5-Sep-24	Creation	S. LOUIS, Radio Technician

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S51 RTY 000 INT 00014 [04]

DESIGNATION OF PRODUCT:	***XGCS8901201 RFID compact station***
Serial number (S/N):	*NONE*
Reference / model (P/N):	*XGCS8901201*
Software version:	*3.9*
MANUFACTURER:	*TMSS FRANCE*

COMPANY SUBMITTING THE PRODUCT:

Company:	TMSS FRANCE
Address:	BLD SALVADOR ALLENDE ZONE INDUSTRIELLE N°3 16340 L'ISLE D' ESPAGNAC FRANCE
Responsible:	Mr CORAZZA
Person(s) present during the tests:	/
DATE(S) OF TEST:	From 10-Apr-24 to 15-Apr-24
TESTING LOCATION:	EMITECH ANGERS laboratory at JUIGNE SUR LOIRE (49) FRANCE FCC Accredited under US-EU MRA Designation Number: FR0009 Test Firm Registration Number: 873677 ISED Accredited under CANADA-EU MRA Designation Number: FR0001 Industry Canada Registration Number: 4452A
TESTED BY:	B. VOVARD **VISA:** B.Vovard
WRITTEN BY:	B. VOVARD

CONTENTS

REVISIONS HISTORY

Revision	Date	Modified pages	Modifications
0	**16-Apr-24**	/	Creation

1. INTRODUCTION

This report presents the results of radio test carried out on the following radio equipment: ***XGCS8901201 RFID compact station***, in accordance with normative reference.

The device under test integrates a RFID Radio part.

2. PRODUCT DESCRIPTION

Category of equipment (ISED):	I
Class:	B
Utilization:	Industrial (but tested with B class limits)
Antenna type and gain:	Integrated antenna (unknown gain)
Number of channels:	1
Channel spacing:	Not concerned
Modulation:	ASK
Power source:	24Vdc Input

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 FCC Part 15 (2024)	Radio Frequency Devices
ANSI C63.10	2013 Procedures for ComplianceTesting of Unlicensed Wireless Devices.
RSP-100	Issue 12, August 2019 Certification of Radio Apparatus and Broadcasting equipment
RSS-Gen	Issue 5, April 2018 General Requirements for Compliance of Radio Apparatus
RSS-210	Issue 10, December 2019 Licence-Exempt Radio Apparatus: Category I equipment.

4. TEST METHODOLOGY

Radio performance tests procedures given in CFR 47 part 15:

Subpart C – Intentional Radiators
- Paragraph 203: Antenna requirement
- Paragraph 205: Restricted bands of operation
- Paragraph 209: Radiated emission limits; general requirements
- Paragraph 215: Additional provisions to the general radiated emission limitations
- Paragraph 225: Operation within the band 13.110-14.010 MHz

Radio performance tests procedures given in RSS-Gen:
- Paragraph 2 - General
- Paragraph 3 - Normative publications and related documents
- Paragraph 4 - Labelling requirements
- Paragraph 6 - General administrative and technical requirements
- Paragraph 8 - Licence-exempt Radio Apparatus

Radio performance tests procedures given in RSS-210:
- Paragraph 5 – RSS-Gen compliance
- Paragraph 7 - Technical specifications
- Annex B - Devices Operating in Frequency Bands for Any Application
  - Annex B.6 Band 13.110-14.010 MHz

5. TEST EQUIPMENT CALIBRATION DATES

Emitech Number	Model	Type	Last calibration	Calibration interval (years)	Next calibration due
0	BAT-EMC V3.18.0.26	Software	/	/	/
1406	EMCO 6502	Loop antenna	04/04/2024	1	04/04/2025
6796	R&S FSP7	Spectrum Analyzer	19/07/2023	2	18/07/2025
7171	R&S HL223	Antenna	19/05/2022	3	18/05/2025
7190	R&S HL223	Antenna	17/03/2022	3	16/03/2025
7240	Emco 3110	Biconical antenna	17/03/2022	3	16/03/2025
7566	Testo 608-H1	Meteo station	12/12/2022	2	11/12/2024
8528	Schwarzbeck VHA 9103	Biconical antenna	19/05/2022	3	18/05/2025
8732	Emitech	OATS	28/03/2022	3	27/03/2025
8750	La Crosse Technology WS-9232	Meteo station	20/11/2023	1	19/11/2024
8773	Hewlett Packard E3612A	Power source	(1)	(1)	(1)
8775	Fontaine FTN 2515B	Power source	(1)	(1)	(1)
8785	N-1.5m Emitech	Cable	23/04/2022	2	23/04/2024
8855	EMITECH	Turntable and mat controller	/	/	/
8874	N-20m Gyl Technologies	Cable	11/05/2022	2	10/05/2024
8896	ACQUISYS GPS8	Satellite synchronized frequency standard	/	/	/
9399	N-1m	Cable	29/01/2024	2	28/01/2026
10759	COMTEST Cage 3	Anechoic chamber	/	/	/
10789	MATURO	Turntable and mat controller NCD	/	/	/
11832	N-8m - C&C	Cable	16/04/2022	2	16/04/2024
14303	SUCOFLEX N-2m	cable	01/12/2022	2	30/11/2024
14716	GMH 3710	Precision Thermometer -30°C/+100°C	28/04/2023	1	27/04/2024
14903	Fluke 177	Multimeter	22/12/2023	2	21/12/2025
15666	R&S FSV40	Spectrum Analyzer	27/09/2022	2	26/09/2024
15883	SUCOFLEX	cable N 5m	08/02/2023	2	07/02/2025
15913	SUCOFLEX SF104 N 2.5m	Cable	01/12/2022	2	30/11/2024
16059	CLIMATS EXCAL² 1411-TA	Climatic chamber	/	/	/
17008	R&S ESW44	Test receiver	16/04/2023	1	16/04/2024
19274	ASC805C	Low Noise Amplifier - ASC	12/01/2024	1	11/01/2025
//	RS Commander V2.4.2	Software	/	/	/

(1) The equipment is not verified; instead, the output voltage is checked before each measurement with the calibrated multimeter.

6. TESTS RESULTS SUMMARY

6.1 CFR 47 part 15 requirements

Test procedure	Description of test	Respected criteria?				Comment
		Yes	No	NAp	NAs	
FCC Part 15.203	ANTENNA REQUIREMENT	X				Note 1
FCC Part 15.205	RESTRICTED BANDS OF OPERATION	X				
FCC Part 15.207	CONDUCTED LIMITS			X		Supplied by DC voltage
FCC Part 15.209	RADIATED EMISSION LIMITS; general requirements	X				Note 2
FCC part 15.215	ADDITIONAL PROVISIONS TO THE GENERAL RADIATED EMISSION LIMITATIONS					
	(a) Alternative to general radiated emission limits	X				
	(b) Unwanted emissions outside of §15.225 frequency bands	X				Note 3
	(c) 20 dB bandwidth and band-edge compliance	X				
FCC Part 15.225	OPERATION WITHIN THE BAND 13.110-14.010 MHZ					
	(a) Field strength within the band 13.553-13.567 MHz	X				
	(b) Field strength within the bands 13.410-13.553 MHz and 13.567-13.710 MHz	X				
	(c) Field strength within the bands 13.110-13.410 MHz and 13.710-14.010 MHz	X				
	(d) Field strength outside the band 13.110-14.010 MHz	X				
	(e) Carrier frequency tolerance	X				
	(f) Powered tags			X		

NAp: Not Applicable NAs: Not Asked

Note 1: Integral antenna without standard connector.
Note 2: See FCC part 15.225 (d).
Note 3: See FCC part 15.209. Unwanted emissions levels are all below the fundamental emission field strength level.

6.2 RSS-Gen requirements

Test procedure	Description of test	Criteria respected ?				Comment
		Yes	No	NAp	NAs	
Paragraph 2	General	X				
Paragraph 3	Normative publications and related documents	X				
Paragraph 4	Labelling requirements	X				
Paragraph 6	General administrative and technical requirements	X				
§ 6.7	Occupied bandwidth (or 99% emission bandwidth) and x dB bandwidth	X				
Paragraph 8	Licence-exempt radio apparatus					
§ 8.1	Measurement Bandwidths and Detector Functions	X				
§ 8.2	Pulsed operation	X				
§ 8.3	Prohibition of amplifiers	X				
§ 8.4	User manual notice	X				see certification documents
§ 8.5	Measurement of licence-exempt devices on-site (in-situ)			X		
§ 8.6	Operating frequency range of devices in master/slave networks			X		
§ 8.7	Radio frequency identification (RFID) devices	X				
§ 8.8	AC power line conducted emissions limits			X		
§ 8.9	Transmitter emission limits			X		Supplied by DC voltage
§ 8.10	Restricted frequency bands	X				
§ 8.11	Frequency stability	X				

NAp: Not Applicable NAs: Not Asked

6.3 RSS-210 requirements

Test Procedure RSS-210	Description of test	Criteria respected ?				Comment
		Yes	No	NAp	NAs	
Paragraph 5	RSS-Gen compliance	X				
Paragraph 7	Technical Specifications					
7.1	Emission Falling Within Restricted Frequency Bands	X				
7.2	General Field Strength Limits	X				
7.3	Transmitters with wanted and unwanted emissions that are within the general field strength limits	X				
7.4	Cordless Telephones			X		
Annex B	Device Operating in Frequency Bands for Any Application					
Annex B.6	Band 13.110-14.010 MHz					
(a) i	Field strength within the band 13.553-13.567 MHz	X				
(a) ii	Field strength within the bands 13.410-13.553 MHz and 13.67-13.710 MHz	X				
(a) iii	Field strength within the bands 13.110-13.410 MHz and 13.710-14.010 MHz	X				
(a) iv	Field strength outside the band 13.110-14.010 MHz	X				
(b)	Carrier frequency stability	X				

NAp: Not Applicable NAs: Not Asked

7. MEASUREMENT UNCERTAINTY

To declare, or not, the compliance with the specifications, it was not explicitly taken into account of uncertainty associated with the result(s)

The reported expanded uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for normal distribution corresponds to a coverage probability of approximately 95%.

Parameter	Emitech Uncertainty
RF power, conducted	± 0.8dB
Radiated emission valid to 26 GHz 9kHz – 30MHz 30MHz – 1GHz 1GHz – 18GHz 18GHz – 40GHz	 ± 2.7 dB ± 5.0 dB ± 5.3 dB ± 6.1 dB
AC Power Lines conducted emissions	± 3.4 dB
Temperature	± 1 °C
Humidity	± 5 %

8. OCCUPIED BANDWIDTH

Temperature (°C) : 21 **Humidity (%HR):** 42 **Date :** April 10, 2024
Technician : B. VOVARD

Standard: FCC Part 15
RSS-210

Test procedure:
Method of § 6.9.3 of ANSI C63.10 (99% Measurement)
Method of § 6.9.2 of ANSI C63.10 (20dB Measurement)

Test set up:

Test realized in near field.

Setting:

Measure	**99%**	**20dB**
Center frequency	The centre frequency of the channel under test	
Detector	Peak	
Span	1.5 to 5 times the OBW	2 to 5 times the OBW
RBW	1% to 5% of the OBW	1% to 5% of the OBW
VBW	3 x RBW	3 x RBW
Trace	Max hold	
Sweep	Auto	

Test operating condition of the equipment:

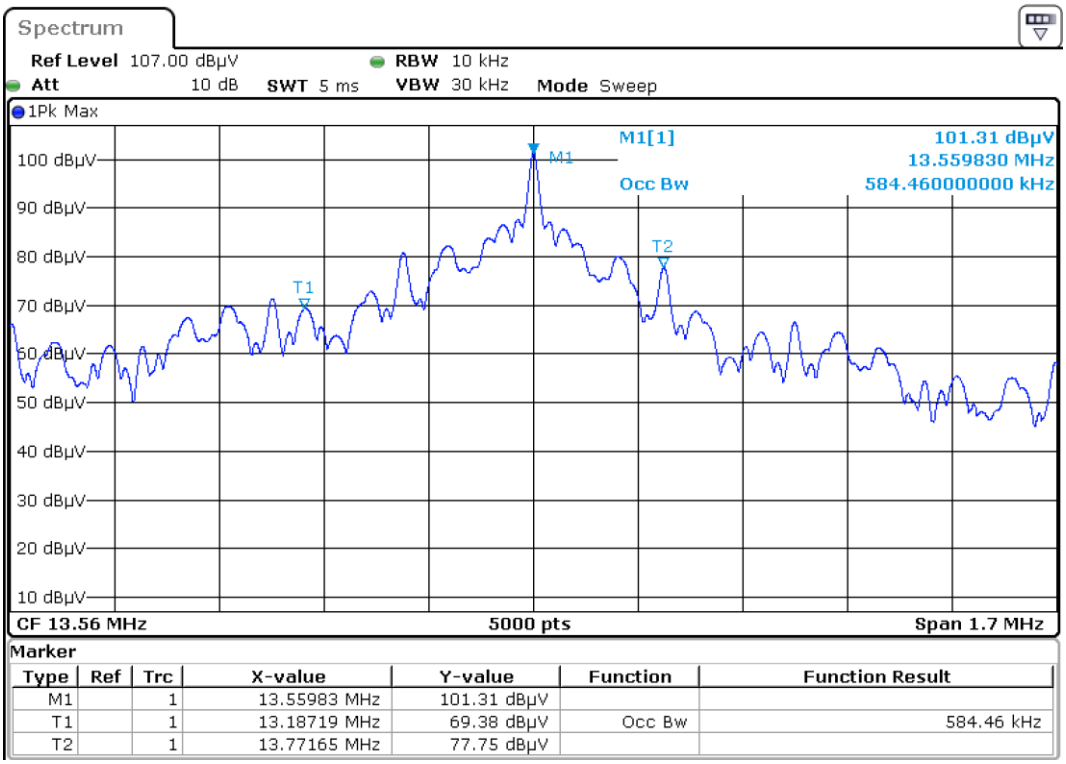
The equipment under test is blocked in discontinuous modulated transmission mode, at the highest output power level at which the transmitter is intended to operate.

Power source: 24 Vdc by an external power supply
Percentage of voltage variation during the test (%): ± 1

Results:

Sample N° 1

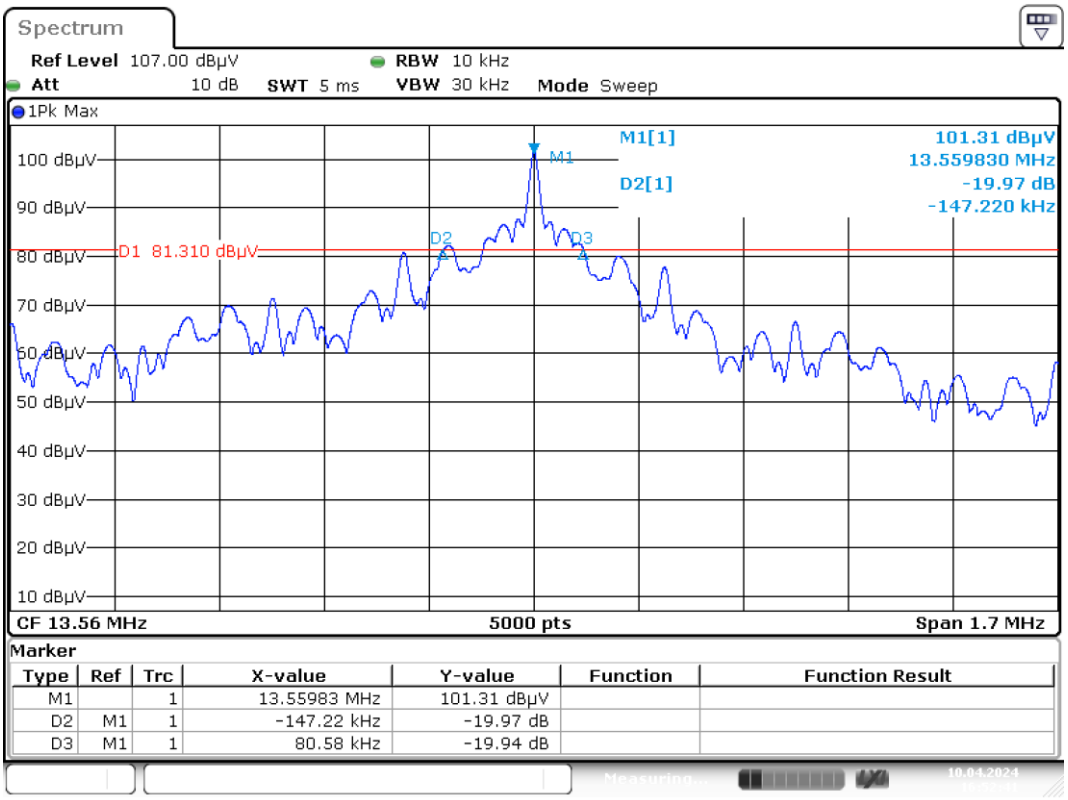
99% bandwidth – RFID 13.56 MHz



Limit:

Measure realized for reporting only

20dB bandwidth – RFID 13.56 MHz



Limit:

Measure realized for reporting only

9. BAND EDGE

Temperature (°C) : 21 and 17 **Humidity (%HR):** 42 and 55 **Date :** April 10, 2024 and April 12, 2024

Technician : B. VOVARD

Standard: FCC Part 15

Test procedure:

For FCC Part 15: § 15.215
Method of § 6.10.6 of ANSI C63.10

Test set up:

Test realized in near field. All field strength measurements are correlated with the radiated maximum peak output power

Test operating condition of the equipment:

The equipment under test is blocked in discontinuous modulated transmission mode, at the highest output power level at which the transmitter is intended to operate.

Power source: 24 Vdc by an external power supply
Percentage of voltage variation during the test (%): ± 1

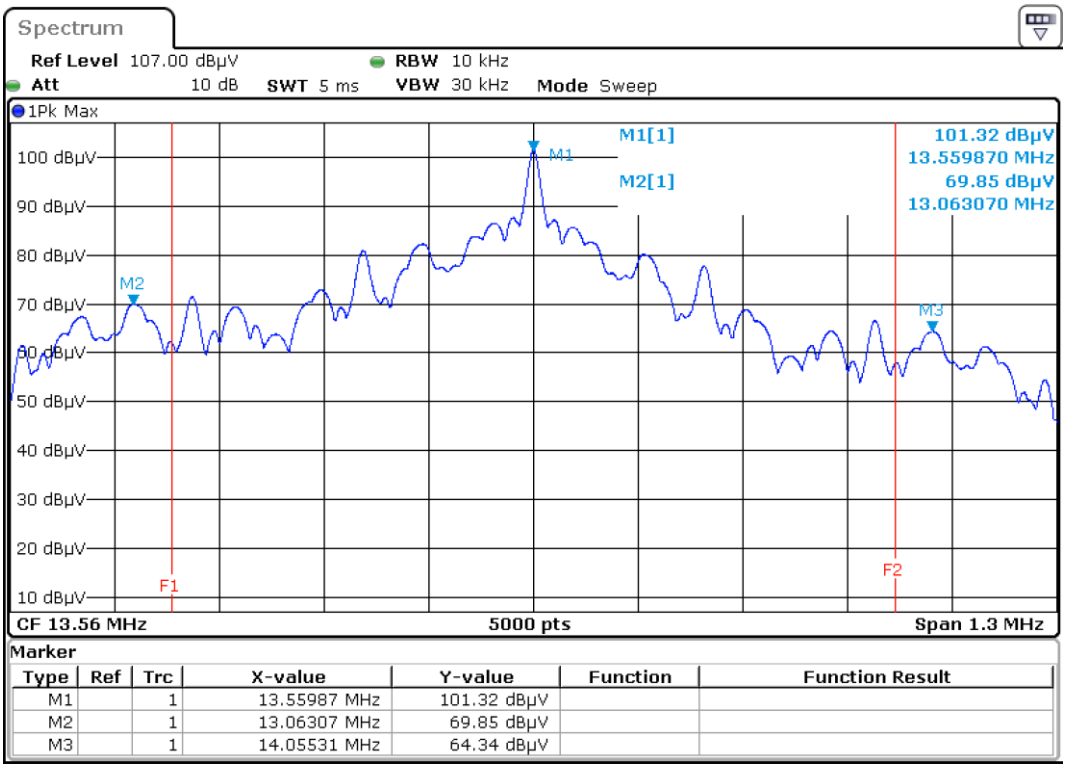
Results:

Lower Band Edge: From 13.090 MHz to 13.110 MHz
Upper Band Edge: From 14.010 MHz to 14.030 MHz

Sample N° 1:

Fundamental frequency (MHz)	Field Strength Level of fundamental (dBµV/m)	Detector (Peak or Average)	Frequency of maximum Band-edges Emission (MHz)	Delta Marker (dB) (1)	Calculated Max Out-of-Band Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)
13.56	49.78	Peak	13.063	31.47	18.31	48.63	30.32
13.56	49.78	Peak	14.055	36.98	12.80	48.63	35.83

(1) Marker-Delta method



Test conclusion:

RESPECTED STANDARD

10. OPERATION WITHIN THE BAND 13.110 – 14.010 MHZ

Temperature (°C) : 17 **Humidity (%HR):** 55 **Date :** April 12, 2024
Technician : B. VOVARD

Standard: FCC Part 15
RSS-210

Test procedure:
For FCC Part 15: § 15.209, § 15.225 (a), (b), (c), (e)
For RSS-210: § Annex B.6 (a), (b), (c)

Method of § 6.3 of ANSI C63.10
Method of § 6.4 of ANSI C63.10
Method of § 6.8 of ANSI C63.10

Test set up: (Refer Appendix 2)

First an exploratory radiated measurement was performed. During this phase the product is oriented in these two normal positions.

Then the final measurement is realized with the product on the most critical orientation.

The system is tested in an open area test site (OATS). The EUT is placed on a rotating table, 0.8 m from a ground plane. Zero degree azimuth corresponds to the front of the equipment under test.

See test setup in appendix 2

The frequency stability measure is realized in near-field with the product in a climatic chamber.

Detection mode: Quasi-peak (F < 1 GHz)

Bandwidth: 9 kHz (150 kHz < F < 30MHz)

Distance of antenna: 10 meters

Antenna height: 1 meter

Antenna polarization: oriented in the vertical plane. The lowest point of the loop is 1m above ground level.

Equipment under test operating condition:

The equipment under test is blocked in discontinuous modulated transmission mode, at the highest output power level at which the transmitter is intended to operate.

Power source: 24 Vdc by an external power supply
Percentage of voltage variation during the test (%): ± 1

Results:

Sample N° 1:

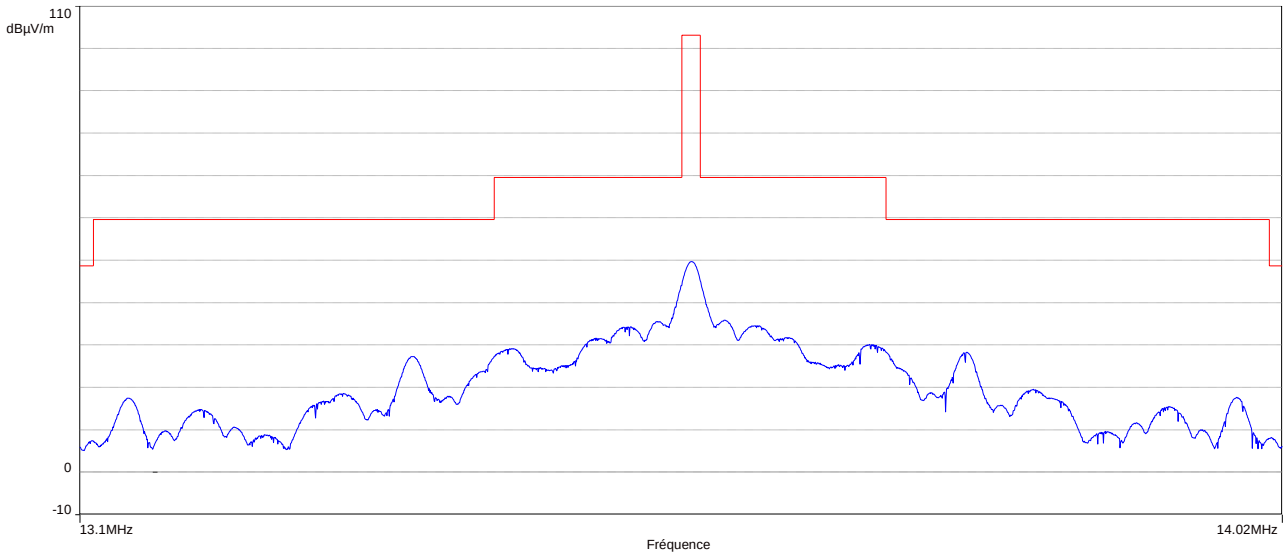
Carrier field strength

	Field strength (dBµV/m) at frequency: 13.56 MHz
Normal test conditions measure at 10 m	49.78
Normal test conditions correlated at 30 m	30.70
Limits at 30m (dBµV/m) (1)	84
Margin (dB)	53.30

Polarization of test antenna: perpendicular at the equipment at 0 degree.
Position of equipment: 1 see photos in appendix 2 (azimuth: 105°)

(1) Field strength extrapolated at 30 meters using 40dB/decade fall off

Field strength within the band 13.110-14.010 MHz



Frequency stability

Results for temperature variation

Realized with a power source at 24 Vdc by an external power supply

Temperature (°C)	Mesure at startup		Measure at 2 min		Measure at 5 min		Measure at 10 min		Drift limit (kHz)
	Frequency measured (MHz)	Frequency drift (kHz)	Frequency measured (MHz)	Frequency drift (kHz)	Frequency measured (MHz)	Frequency drift (kHz)	Frequency measured (MHz)	Frequency drift (kHz)	
50	13.560212	0.212	13.560206	0.206	13.560200	0.200	13.560198	0.198	± 1.356 (a)
40	13.560248	0.248	13.560238	0.238	13.560230	0.230	13.560224	0.224	
30	13.560288	0.288	13.560274	0.274	13.560266	0.266	13.560266	0.266	
20	13.560316	0.316	13.560308	0.308	13.560302	0.302	13.560294	0.294	
10	13.560336	0.336	13.560332	0.332	13.560328	0.328	13.560324	0.324	
0	13.560338	0.338	13.560342	0.342	13.560342	0.342	13.560342	0.342	
-10	13.560306	0.306	13.560320	0.320	13.560328	0.328	13.560332	0.332	
-20	13.560232	0.232	13.560262	0.262	13.560278	0.278	13.560288	0.288	

(a) ±0.01% of the operating frequency

Results for power supply variation

Realized at +20 °C

Power supply (Vdc)	Frequency measured (MHz)	Frequency drift (kHz)	Drift limit (kHz)
20.4	13.560294	0.294	± 1.356 (b)
24.0	13.560294	0.294	
27.6	13.560294	0.294	

(b) ±0.01% of the operating frequency

Test conclusion:

RESPECTED STANDARD

11. FIELD STRENGTH OUTSIDE THE BAND 13.110-14.01 MHZ

Temperature (°C) : 21 **Humidity (%HR):** 42 **Date :** April 10, 2024
Technician : B. VOVARD

Standard: FCC Part 15

Standard: FCC Part 15
RSS-210

Test procedure:
For FCC Part 15: § 15.209, § 15.225 (d)
For RSS-210: § Annex B.6 (d)

Method of § 6.3 of ANSI C63.10
Method of § 6.4 of ANSI C63.10
Method of § 6.5 of ANSI C63.10

Test set up: (Refer Appendix 2)

First an exploratory radiated measurement was performed. During this phase the product is oriented in these two normal positions.

Then the final measurement is realized with the product on the most critical orientation.

The measure is realized on open area test site under 1 GHz.

When the system is tested in an open area test site (OATS), the EUT is placed on a rotating table, 0.8m from a ground plane.

When the system is tested in anechoic chamber, the EUT is placed on a rotating table, 1.5 m from a ground plane.

Zero degree azimuths correspond to the front of the device under test.

See test setup in appendix 2

Frequency range: From 9 kHz to 140 MHz (10^{th} harmonic of the highest fundamental frequency (13.56 MHz))

Detection mode: Quasi-peak (F < 1 GHz) Peak / Average (F > 1 GHz)

Bandwidth: 200Hz (9 kHz < F < 150kHz)
9 kHz (150 kHz < F < 30MHz)
120 kHz (30 MHz < F < 1 GHz)
1 MHz (F > 1 GHz)

Distance of antenna: 10 meters (in open area test site)

Antenna height: 1 to 4 meters (in open area test site)

Antenna polarization: vertical and horizontal (only the highest level is recorded)

Equipment under test operating condition:

The equipment under test is blocked in discontinuous modulated transmission mode, at the highest output power level at which the transmitter is intended to operate.

Power source: 24 Vdc by an external power supply
Percentage of voltage variation during the test (%): ± 1

Results:

Sample N° 1:

Below 30 MHz

Frequencies (MHz)	Detector P QP Av	Antenna height (cm)	RBW (kHz)	Polarization (Parallel Perpendicular Horizontal)	Field strength Measured at 10 m (dBµV/m)	Field strength Computed at 30 m (dBµV/m)	Limits (dBµV/m)	Margin (dB)
27.12	P	100	9	Parallel	27.53	8.45	29.5	21.05

Above 30 MHz

Frequencies (MHz)	Detector P QP Av	Position	Antenna height (cm)	RBW (kHz)	Polarization H: Horizontal V: Vertical	Field strength Measured at 10 m (dBµV/m)	Field strength Computed at 3 m (dBµV/m)	Limits at 3m (dBµV/m)	Margin (dB)
40.68	P	1	100	100	V	18.05	28.51	40	11.49
54.24	P	1	100	100	V	21.97 (1)	32.43	40	7.57
67.80	P	2	100	100	V	17.52	27.98	40	12.02
81.36	P	1	100	100	V	16.21	26.67	40	13.33
108.48	P	2	100	100	V	16.69	27.15	43.5	16.35
122.04	P	1	100	100	V	20.41	30.87	43.5	12.63
135.60	P	2	100	100	V	22.65	33.11	43.5	10.39

P= Peak, QP=Quasi-peak, Av=Average
(1) Noise floor

Applicable limits:

for 9 kHz ≤ F ≤ 490 kHz :	2400/F(kHz) at 300 meters
for 490 kHz < F ≤ 1.705 MHz :	24000/F(kHz) at 30 meters
for 1.705 MHz < F ≤ 30 MHz :	29.5 dBµV/m at 30 meters
for 30 MHz < F ≤ 88 MHz :	40 dBµV/m at 3 meters
for 88 MHz < F ≤ 216 MHz :	43.5 dBµV/m at 3 meters
for 216 MHz < F ≤ 960 MHz :	46 dBµV/m at 3 meters
Above 960 MHz :	54 dBµV/m at 3 meters

Test conclusion:

RESPECTED STANDARD

□□□ End of report, 2 appendixes to be forwarded □□□

APPENDIX 1: Test equipment list

Occupied bandwidth

TYPE	MANUFACTURER	EMITECH NUMBER
Satellite synchronized frequency standard GPS8	ACQUISYS	8896
Spectrum Analyzer FSV40	Rohde & Schwarz	15666
Loop antenna 6502	EMCO	1406
Log periodic antenna HL223	Rohde & Schwarz	7190
N-2M Cable	SUCOFLEX	14303
N-5M Cable	SUCOFLEX	15883
N-2.5M Cable	H & S	15913
Power source FTN 2515B	Fontaine	8775
Multimeter 177	Fluke	14903
Meteo station 608-H1	Testo	7566
Software	RS Commander V2.4.2	//

Band edge

TYPE	MANUFACTURER	EMITECH NUMBER
Satellite synchronized frequency standard GPS8	ACQUISYS	8896
Spectrum Analyzer FSV40	Rohde & Schwarz	15666
Loop antenna 6502	EMCO	1406
Log periodic antenna HL223	Rohde & Schwarz	7190
N-2M Cable	SUCOFLEX	14303
N-5M Cable	SUCOFLEX	15883
N-2.5M Cable	H & S	15913
Power source FTN 2515B	Fontaine	8775
Multimeter 177	Fluke	14903
Meteo station 608-H1	Testo	7566
Software	RS Commander V2.4.2	//

Operation within the band 13.110 – 14.010 MHz

TYPE	MANUFACTURER	EMITECH NUMBER
Open test site	EMITECH	8732
Turntable and mat controller	EMITECH	8855
Satellite synchronized frequency standard GPS8	ACQUISYS	8896
Test receiver ESW44	Rohde & Schwarz	17008
Spectrum Analyzer FSP7	Rohde & Schwarz	6796
Loop antenna 6502	EMCO	1406
N-3GHz Cable	GYL Technologies	8785
N-1GHz Cable	EMITECH	8874
N-8M Cable	C & C	11832
Climats EXCAL² 1411-TA	CLIMATS	16059
Precision thermometer GMH 3710	GHM Greisinger	14716
Power source E3612A	Hewlett Packard	8773
Power source FTN 2515B	Fontaine	8775
Multimeter 177	Fluke	14903
Meteo station WS-9232	La Crosse Technology	8750
Software	BAT-EMC V3.18.0.26	0000

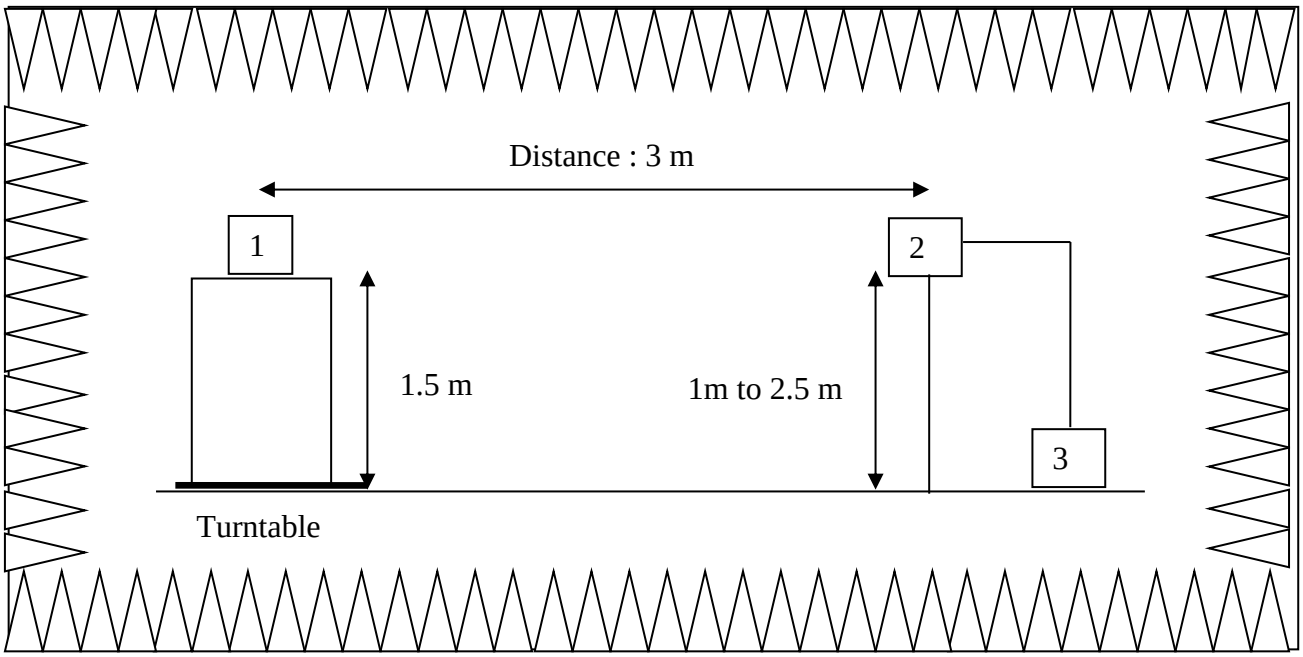
Field strength outside the band 13.110-14.010 MHz

TYPE	MANUFACTURER	EMITECH NUMBER
Open test site	EMITECH	8732
Turntable and mat controller	EMITECH	8855
Full anechoic chamber	EMITECH	10759
Turntable and mat controller NCD	MATURO	10789
Satellite synchronized frequency standard GPS8	ACQUISYS	8896
Test receiver ESW44	Rohde & Schwarz	17008
Spectrum Analyzer FSV40	Rohde & Schwarz	15666
Loop antenna 6502	EMCO	1406
Biconical antenna 3110	Emco	7240
Biconical antenna VHA 9103	Schwarzbeck	8528
Log periodic antenna HL223	Rohde & Schwarz	7190
Log periodic antenna HL223	Rohde & Schwarz	7171
Low-noise amplifier ASC805C	ASC	19274
N-3GHz Cable	GYL Technologies	8785
N-1GHz Cable	EMITECH	8874
N-8M Cable	C & C	11832
N-1M Cable	SUCOFLEX	9399
N-2M Cable	SUCOFLEX	14303
N-5M Cable	SUCOFLEX	15883
N-2.5M Cable	H & S	15913
Power source FTN 2515B	Fontaine	8775
Multimeter 177	Fluke	14903
Meteo station 608-H1	Testo	7566
Meteo station WS-9232	La Crosse Technology	8750
Software	BAT-EMC V3.18.0.26	0000

APPENDIX 2: Radiated Test Setup

Anechoic chamber setup

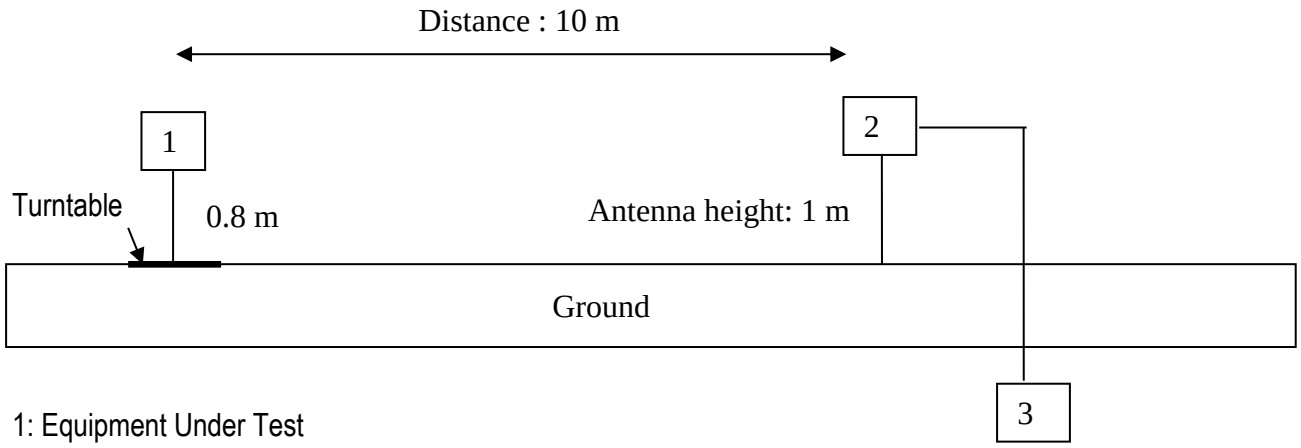
Above 1 GHz



1: Equipment Under Test
2: Measurement antenna
3: Measurement equipment

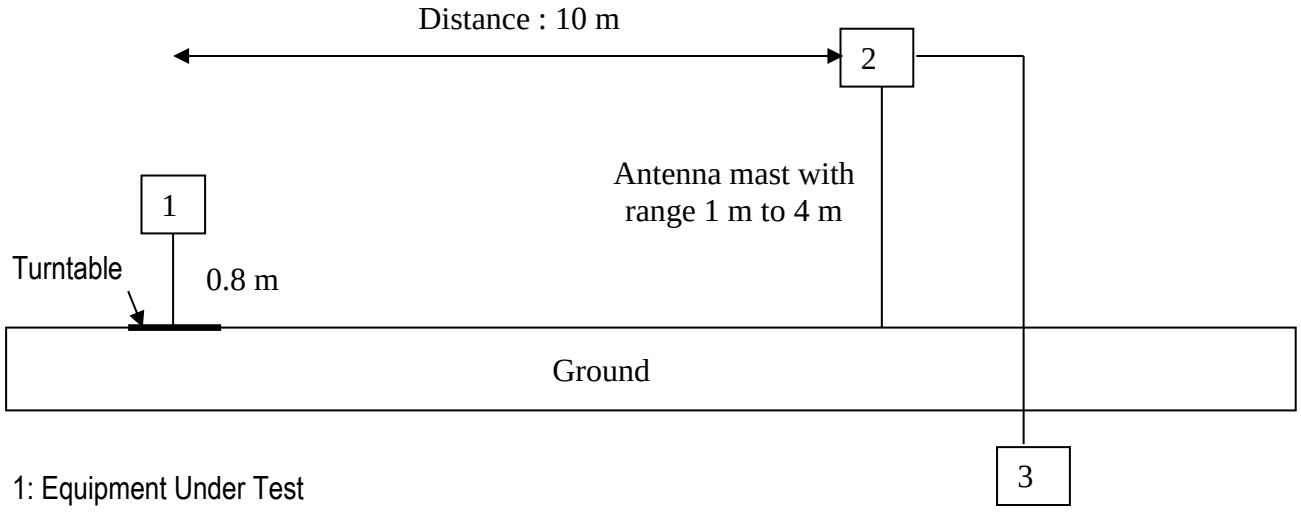
Open area setup

Below 30 MHz



1: Equipment Under Test
2: Measurement antenna
3: Measurement equipment

Between 30 MHz and 1 GHz



1: Equipment Under Test
2: Measurement antenna
3: Measurement equipment