

RRA-EMIESS25D916AGR-07Av1

This report cancels and replaces the test report N° RRA-EMIESS25D916AGR-07Av0

Certification Radio test report

According to the standard:

CFR 47 FCC PART 15
RSS GEN – Issue 5
RSS 210 - Issue 11

Equipment under test:

SafeScanPro
GPR2

FCC ID: QG2-30024
IC NUMBER: 6252A-30024

Company:**AGRIDENT GMBH****Distribution:** Mr OTTO**(Company:** AGRIDENT GMBH)**Number of pages:** 21 with 3 annexes

Ed.	Date	Modified Page(s)	Technical Verification and Quality Approval	
			Name and Function	Visa
1	16-Mar-26	1	B. VOVARD, Radio Technician	

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This document is the result of testing a specimen or a sample of the product submitted. It does not imply an assessment of the conformity of the whole manufactured products of the tested sample.

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

DESIGNATION OF PRODUCT: *SafeScanPro*

Serial number (S/N): *7CK00030WC000017*

Reference / model (P/N): *GPR2*

Firmware version: *2.0.1, Jul 30 2025 - 090813*

MANUFACTURER: *AGRIDENT GMBH*

COMPANY SUBMITTING THE PRODUCT:

Company: AGRIDENT GMBH

Address: DAHLKAMPSANGER 2
30890 BARSINGHAUSEN
GERMANY

Responsible: Mr OTTO

Person(s) present during the tests: Mr LANGOUET

DATE(S) OF TEST: From 4-Aug-25 to 14-Aug-25

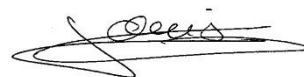
TESTING LOCATION: EMITECH ANGERS laboratory at BEAUCOUZE (49) FRANCE

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: S. LOUIS

VISA:

A handwritten signature in black ink, appearing to read "O. Louis", with a long horizontal flourish extending to the left.

WRITTEN BY: S. LOUIS

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REVISIONS HISTORY

Revision	Date	Modified pages	Modifications
0	28-Oct-25	/	Creation
1	02-Mar-26	1	Modification of FCC ID and IC Number

1. INTRODUCTION

This report presents the results of radio test carried out on the following radio equipment: **SafeScanPro GPR2**, in accordance with normative reference.

The equipment under test integrates:

- WiFi 2.4 GHz transceiver radio function not already certified,
- BLE transceiver radio part function not already certified,
- 134.2kHz RFID Reader function not already certified.

This report concerns only 134.2kHz RFID radio part.

The applicant declared that this radio part is not operational during charging mode.

So, all tests were performed on battery only

2. PRODUCT DESCRIPTION

Category of equipment (ISED): I

Class: B

Utilization: General use

Antenna type and gain: integral antenna (unknown gain)

Operating frequency range: From 119 kHz to 135 kHz

Number of channels: 1

Single Frequency device

Power source: 7.4Vdc by lithium battery

Test frequencies:

Sample N°= 1 ⇒ 134.2 kHz Limited tests

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 (2025)	Radio Frequency Devices
ANSI C63.10	2020 + Corrigendum (2023) + Amendment 1 (2024) Procedures for Compliance Testing 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 11, June 2024 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 207: Conducted limits
- Paragraph 209: Radiated emission limits; general requirements

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 8 - Technical specifications

5. TEST EQUIPMENT CALIBRATION DATES

Emitech Number	Model	Type	Last calibration (DD/MM/YYYY)	Calibration interval (years)	Next calibration due (DD/MM/YYYY)
0	BAT-EMC V3.18.0.26	Software	/	/	/
1406	EMCO 6502	Loop antenna	02/04/2025	1	02/04/2026
1766	Mini-circuit ZFL-1000LN	Low-noise amplifier	30/05/2025	1	30/05/2026
7190	R&S HL223	Antenna	10/04/2025	3	09/04/2028
7240	Emco 3110	Biconical antenna	10/04/2025	3	09/04/2028
7566	Testo 608-H1	Meteo station	17/12/2024	2	17/12/2026
8528	Schwarzbeck VHA 9103	Biconical antenna	10/04/2025	3	09/04/2028
10789	MATURO	Turntable and mat controller NCD	/	/	/
14831	Fluke 177	Multimeter	22/12/2023	2	21/12/2025
15666	R&S FSV40	Spectrum Analyzer	09/04/2025	2	09/04/2027
17377	COMTEST	Semi Anechoic Chamber	/	/	/
19274	ASC - ASC805C	Low-noise amplifier	19/12/2024	1	19/12/2025
19877	HYTEM - N - 5m	Cable	30/08/2024	2	30/08/2026
19887	HYTEM - N - 1m	Cable	30/08/2024	2	30/08/2026
19898	HYTEM - N - 2.5m	Cable	30/08/2024	2	30/08/2026
19907	HYTEM - N - 5.8m	Cable	30/08/2024	2	30/08/2026
20040	COMTEST FAR-2	Anechoic chamber	/	/	/
20308	Emitech	OATS	/	/	/
//	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 (subpart C)

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		Note 2
FCC Part 15.209	RADIATED EMISSION LIMITS; GENERAL REQUIREMENTS	X				

NAp: Not Applicable

NAs: Not Asked

Note 1: Dedicated antenna without standard connector.

Note 2: The radio is not operational during charging mode.

6.2 RSS-Gen requirements

Test procedure	Description of test	Respected criteria?				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		Note 1
§ 8.9	Transmitter emission limits	X				
§ 8.10	Restricted frequency bands	X				
§ 8.11	Frequency stability			X		

NAP: Not Applicable

NAs: Not Asked

Note 1: The radio is not operational during charging mode.

6.3 RSS-210 requirements

Test Procedure RSS-210	Description of test	Respected criteria?				Comment
		Yes	No	NAP	NAs	
Paragraph 5	RSS-Gen compliance	X				
Paragraph 8	Technical Specifications					
8.1	Emission Falling Within Restricted Frequency Bands	X				
8.2	General Field Strength Limits	X				
8.3	Transmitters with wanted and unwanted emissions that are within the general field strength limits	X				
8.4	Cordless Telephones			X		

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	MAXIMAL EMITECH UNCERTAINTY	MINIMAL STANDARD UNCERTAINTY
Radio frequency	$\pm 1 \times 10^{-7}$	$\pm 1 \times 10^{-7}$
RF power, conducted		
RF power	$\pm 0.8\text{dB}$	$\pm 1\text{ dB}$
RF power (EN 300328 / EN 301893)	$\pm 1.2\text{dB}$	$\pm 1.5\text{ dB}$
Power spectral density	$\pm 2.7\text{dB}$	$\pm 3\text{ dB}$
Occupied bandwidth		
RF power	$\pm 3.8\%$	$\pm 5\%$
RF power (EN 300328 / EN 301893)	$\pm 3.8\%$	$\pm 5\%$
Maximum frequency deviation		
300 Hz < audio frequency < 6 kHz	$\pm 1.2\%$	$\pm 5\%$
6 kHz < audio frequency < 25 kHz	$\pm 1.2\%$	$\pm 3\text{ dB}$
Adjacent channel power	$\pm 1.6\text{ dB}$	$\pm 3\text{ dB}$
Sensitivity of receiver (conducted)	$\pm 1.9\text{ dB}$	$\pm 3\text{ dB}$
Blocking	$\pm 3.9\text{ dB}$	$\pm 4\text{ dB}$
Transient		
Amplitude	$\pm 8.5\%$	$\pm 20\%$
At the frequency	$\pm 166\text{ Hz}$	$\pm 250\text{ Hz}$
Conducted emission (spurious)		
$f \leq 1\text{ GHz}$	$\pm 0.8\text{ dB}$	$\pm 3\text{ dB}$
1 GHz - 12.75 GHz	$\pm 1.6\text{ dB}$	
Radiated power (ERP / EIRP / spurious)		
$f \leq 62.5\text{ MHz}$	$\pm 5.2\text{ dB}$	$\pm 6\text{ dB}$
62.5 MHz - 1 GHz	$\pm 5.4\text{ dB}$	$\pm 6\text{ dB}$
1 GHz - 18 GHz (~)	$\pm 5.2\text{ dB}$	$\pm 6\text{ dB}$
18 GHz – 40 GHz	$\pm 5.9\text{ dB}$	$\pm 6\text{ dB}$
40 GHz – 110 GHz	$\pm 5.9\text{ dB}$	Between ± 6 to 10 dB
180-1000 MHz / 1 – 12.75 GHz (EN 301908-1)	$\pm 2.8 / 2.7\text{ dB}$	$\pm 3\text{ dB}$
RF power (EN 300328 / EN 301893)	$\pm 5.3\text{ dB}$	$\pm 6\text{ dB}$
EIRP and power spectral density with diode	$\pm 5.4\text{ dB}$	$\pm 6\text{ dB}$
Radiated emission (magnetic field)		
9kHz – 30MHz	$\pm 4.3\text{ dB}$	$\pm 6\text{ dB}$
RF level for a given BER	$\pm 0.8\text{ dB}$	$\pm 1.5\text{ dB}$
Supply voltages	$\pm 2.9\%$	$\pm 3\%$
Temperature	$\pm 0.95\text{ }^{\circ}\text{C}$	$\pm 1\text{ }^{\circ}\text{C}$
Humidity	$\pm 4.6\%$	$\pm 5\%$
Time / Duty cycle (power probe)	$\pm 4.4\%$	$\pm 5\%$
Time (spectrum analyzer)	$\pm 0.3\%$	/
Adaptivity	$\pm 4.2\text{ dB}$	/

PARAMETER	MAXIMAL EMITECH UNCERTAINTY	MINIMAL STANDARD UNCERTAINTY
Conducted emission (FCC) (Artificial Mains Network) 150kHz – 30MHz	± 3.7 dB	/
Radiated emission (electric field for FCC standard) 9kHz – 30MHz	± 4.3 dB	/
30MHz – 1GHz	± 5.9 dB	/
1GHz – 18GHz	$\pm 4,8$ dB	/
18GHz – 40GHz	$\pm 5,9$ dB	/
40GHz – 140GHz	± 5.7 dB	/
Radiated power (EIRP / spurious) vehicle chamber n°19046		
1 GHz - 6 GHz	± 9.9 dB	± 6 dB
6 GHz - 18 GHz	± 5.9 dB	± 6 dB

8. OCCUPIED BANDWIDTH

Temperature (°C) : 22

Humidity (%HR): 52

Date : August 7, 2025

Technician : S. LOUIS

Standard: FCC Part 15
RSS-GEN

Test procedure:

Method of paragraphs 6.9.3 of ANSI C63.10 (99% Measurement)

Test set up:

Radiated test

Test realized in near field.

Setting:

Measure	99%
Center frequency	The centre frequency of the channel under test
Detector	Peak
Span	1.5 to 5 times the OBW
RBW	1% to 5% of the OBW
VBW	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.

We used for power source the internal battery of the equipment and we noted:

Voltage at the beginning of test (Vdc): 7.53

Voltage at the end of test (Vdc): 7.38

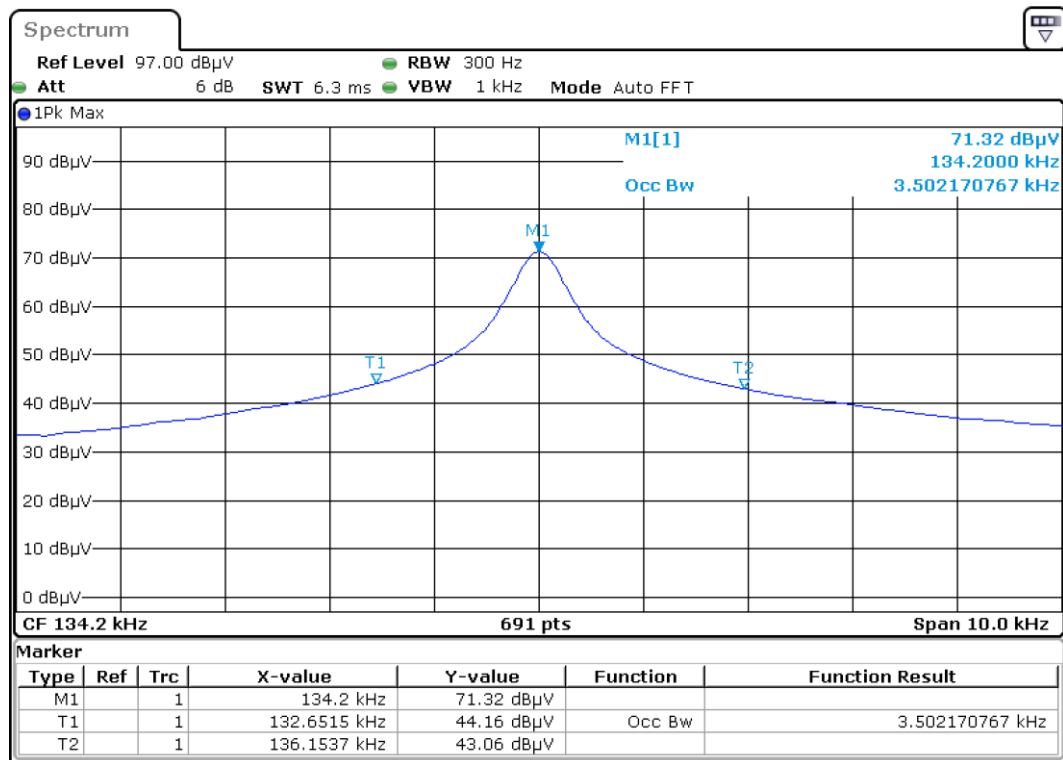
Percentage of voltage drop during the test (%): 2.00

Results:

EUT	Channel	Frequency (kHz)	99 % Emissions Bandwidth (kHz)
Sample 1	/	134.2	3.502

Sample N° 1

99% bandwidth – Channel 134.2 kHz



Limit:

Measure realized for reporting only

Test conclusion:

RESPECTED STANDARD

9. RADIATED EMISSION LIMITS; GENERAL REQUIREMENTS**Temperature (°C) :** 22**Humidity (%HR):** 52**Date :** August 7, 2025**Technician :** S. LOUIS**Standard:** FCC Part 15
RSS-GEN
RSS-210**Test procedure:** For FCC Part 15: paragraph 209
For RSS-GEN: paragraph 8.9
For RSS-210: paragraph 8.2
Method of § 6.4 of ANSI C63.10**Test set up:** (Refer Appendix 3)

First an exploratory radiated measurement was performed.

During this phase the product is oriented in three orthogonal planes.

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

The measure is realized on open area test site under 30 MHz.

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.

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

Frequency range: From 9 kHz to 1 GHz**Detection mode:** Quasi-peak ($F < 1$ GHz)
Except for the frequency bands 9-90 kHz, 110-490 kHz. Radiated emission limits in these bands are based on measurements employing an average detector**Bandwidth:** 200Hz ($9 \text{ kHz} < F < 150\text{kHz}$)
9 kHz ($150 \text{ kHz} < F < 30\text{MHz}$)
120 kHz ($30 \text{ MHz} < F < 1 \text{ GHz}$)**Distance of antenna:** 3 meters**Antenna height:** 1 meter (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.

We used for power source the internal battery of the equipment and we noted:

Voltage at the beginning of test (Vdc): 7.53

Voltage at the end of test (Vdc): 7.38

Percentage of voltage drop during the test (%): 2.00

Results:

Sample N° 1: Carrier = 134.2 kHz

Frequencies (kHz)	Detector P: Peak Av: Average	Field strength at 3 meters dB μ V/m (1)	Field strength at 10 meters dB μ V/m (2)	Field strength at 300 meters dB μ V/m (3)	Limits 300m dB μ V/m	Margin (dB)
134.2	P	91.46	70.54	11.46	45	33.54
134.2	Av	89.41	68.49	9.41	25	15.59

With antenna height: 100 cm; Azimuth: 0°; Polarization antenna: Parallel - Position 1

- (1) Field strength measured at 3 meters
- (2) Field strength extrapolated at 10 meters using 40dB/decade fall off
- (3) Field strength extrapolated at 300 meters using 40dB/decade fall off

Sample 1: Harmonics and spurious:

Frequencies (kHz)	Detector P: Peak Av: Average	Field strength at 3 meters dB μ V/m (1)	Field strength at 10 meters dB μ V/m (2)	Field strength at 300 meters dB μ V/m (3)	Limits 300m dB μ V/m	Margin (dB)
268.4	P	50.76	29.84	-29.24	39	68.24
268.4	Av	40.50	19.58	-39.50	19	58.50
402.6	P	53.77	32.85	-26.23	35.5	61.73
402.6	Av	48.93	28.01	-31.07	15.5	46.57

- (1) Field strength measured at 3 meters
- (2) Field strength extrapolated at 10 meters using 40dB/decade fall off
- (3) Field strength extrapolated at 300 meters using 40dB/decade fall off

Frequencies (kHz)	Detector P: Peak Av: Average	Field strength at 3 meters dB μ V/m (5)	Field strength at 10 meters dB μ V/m (6)	Field strength at 30 meters dB μ V/m (6)	Limits 30m dB μ V/m	Margin (dB)
536.8	QP	46.43	25.51	6.43	44.72	38.29
671	QP	48.52	27.60	8.52	35.75	27.23
805.2	QP	39.75	18.83	-0.25	29.8	30.05
939.4	QP	40.33	19.41	0.33	25.55	25.22
1073.6	QP	33.08	12.16	-6.92	22.35	29.27
1207.8	QP	37.37	16.45	-2.63	19.87	22.50
1342	QP	31.74	10.82	-8.26	17.88	26.14

- (1) Field strength measured at 3 meters
- (2) Field strength extrapolated at 10 meters using 40dB/decade fall off
- (3) Field strength extrapolated at 3 meters using 40dB/decade fall off

Applicable limits:	for $9 \text{ kHz} \leq F \leq 490 \text{ kHz}$:	$2400/F(\text{kHz})$ at 300 meters
	for $490 \text{ kHz} < F \leq 1.705 \text{ MHz}$:	$24000/F(\text{kHz})$ at 30 meters
	for $1.705 \text{ MHz} < F \leq 30 \text{ MHz}$:	$29.5 \text{ dB}\mu\text{V/m}$ at 30 meters
	for $30 \text{ MHz} < F \leq 88 \text{ MHz}$:	$40 \text{ dB}\mu\text{V/m}$ at 3 meters
	for $88 \text{ MHz} < F \leq 216 \text{ MHz}$:	$43.5 \text{ dB}\mu\text{V/m}$ at 3 meters
	for $216 \text{ MHz} < F \leq 960 \text{ MHz}$:	$46 \text{ dB}\mu\text{V/m}$ at 3 meters
	Above 960 MHz :	$54 \text{ dB}\mu\text{V/m}$ at 3 meters

Test conclusion:

RESPECTED STANDARD

□□□ End of report, 3 appendixes to be forwarded □□□

APPENDIX 1: Calculation example for radiated spurious emission

Frequencies (MHz)	Level (dBμV/m) (1)	Margin (dB) (2)	Limit (dBμV/m)	Read level (dBμV)	Antenna Factor (dBm)	Cable Loss (dB)	Preamp Factor (dB)
2390 (Peak)	57.63	16.37	74	64.3	32.7	3.27	42.64
2390 (Av)	46.43	7.57	54	53.1	32.7	3.27	42.64

(1) Level (dBμV/m) = Antenna Factor (dBm) + Cable loss (dB) + Read level (dBμV) – Preamp Factor (dB)

(2) Margin (dB) = Limit (dBμV/m) - Level (dBμV/m)

For Peak Limit @ 2390MHz:

(1) Level (dBμV/m)

= Antenna Factor (dBm) + Cable loss (dB) + Read level (dBμV) – Preamp Factor (dB)

= 32.7 (dBm) + 3.27 (dB) + 64.3 (dBμV) - 42.64 (dB)

= 57.63 (dBμV/m)

(2) Margin (dB)

= Limit (dBμV/m) - Level (dBμV/m)

= 74 (dBμV/m) - 57.63 (dBμV/m)

= 16.37 (dB)

For Average Limit @ 2390MHz:

(1) Level (dBμV/m)

= Antenna Factor (dBm) + Cable loss (dB) + Read level (dBμV) – Preamp Factor (dB)

= 32.7 (dBm) + 3.27 (dB) + 53.1 (dBμV) - 42.64 (dB)

= 46.43 (dBμV/m)

(2) Margin (dB)

= Limit (dBμV/m) - Level (dBμV/m)

= 54 (dBμV/m) – 46.43 (dBμV/m)

= 7.57 (dB)

APPENDIX 2: Test equipment list

Occupied bandwidth

TYPE	MANUFACTURER	EMITECH NUMBER
Spectrum Analyzer FSV40	Rohde & Schwarz	15666
Loop antenna	EMCO 6502	1406
N-1M Cable	HYTEM	19887
N-2.5M Cable	HYTEM	19898
N-5M Cable	HYTEM	19877
N-5.8M Cable	HYTEM	19907
Multimeter 177	Fluke	14831
Meteo station 608-H1	Testo	7566
Software	RS Commander V2.4.2	//

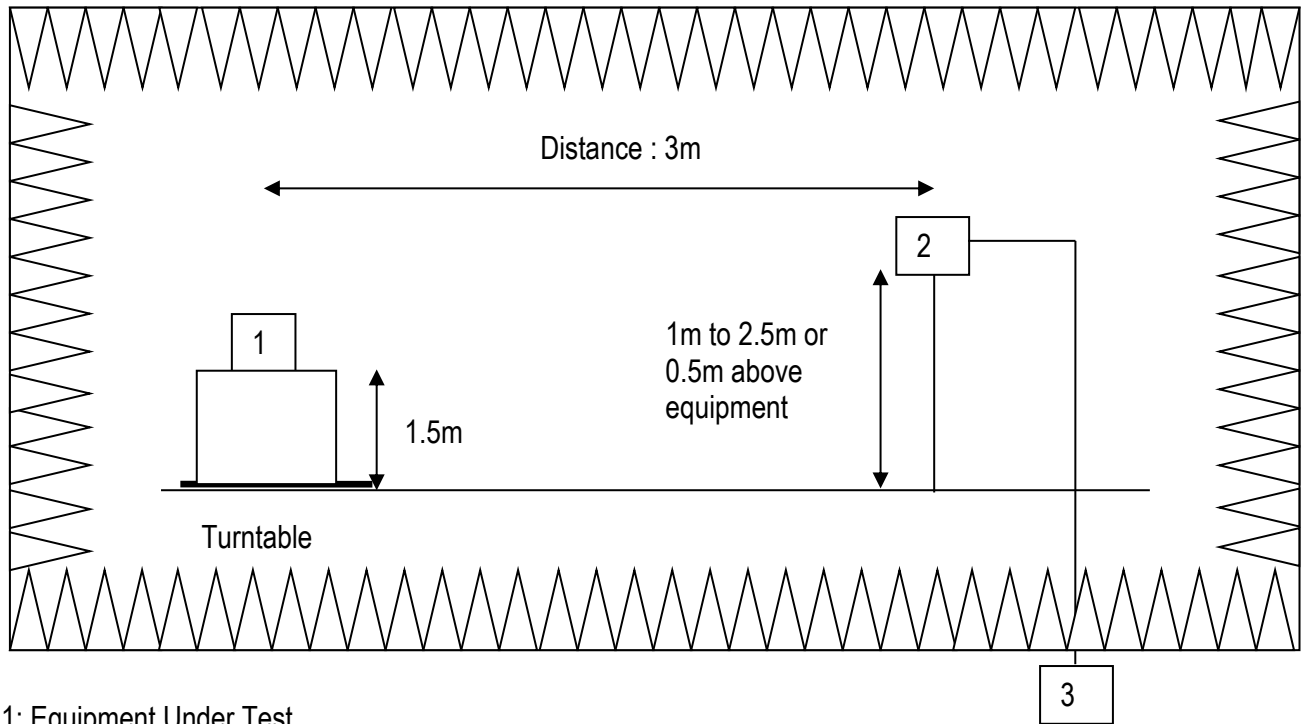
Radiated emission limits; general requirements

TYPE	MANUFACTURER	EMITECH NUMBER
Open test site	EMITECH	20308
Semi Anechoic Chamber	EMITECH	17377
Full anechoic chamber 2	EMITECH	20040
Turntable and mat controller NCD	MATURO	10789
Spectrum Analyzer FSV40	Rohde & Schwarz	15666
Loop antenna 6502	EMCO	1406
Biconical antenna VHA 9103	Schwarzbeck	8528
Biconical antenna 3110	Emco	7240
Log periodic antenna HL223	Rohde & Schwarz	7190
Low-noise amplifier ZFL-1000LN	Mini-circuit	1766
Low-noise amplifier ASC805C	ASC	19274
Multimeter 177	Fluke	14831
Meteo station 608-H1	Testo	7566
Software	BAT-EMC V3.18.0.26	0000

APPENDIX 3: Radiated Test Setup

Anechoic chamber setup

Above 1 GHz

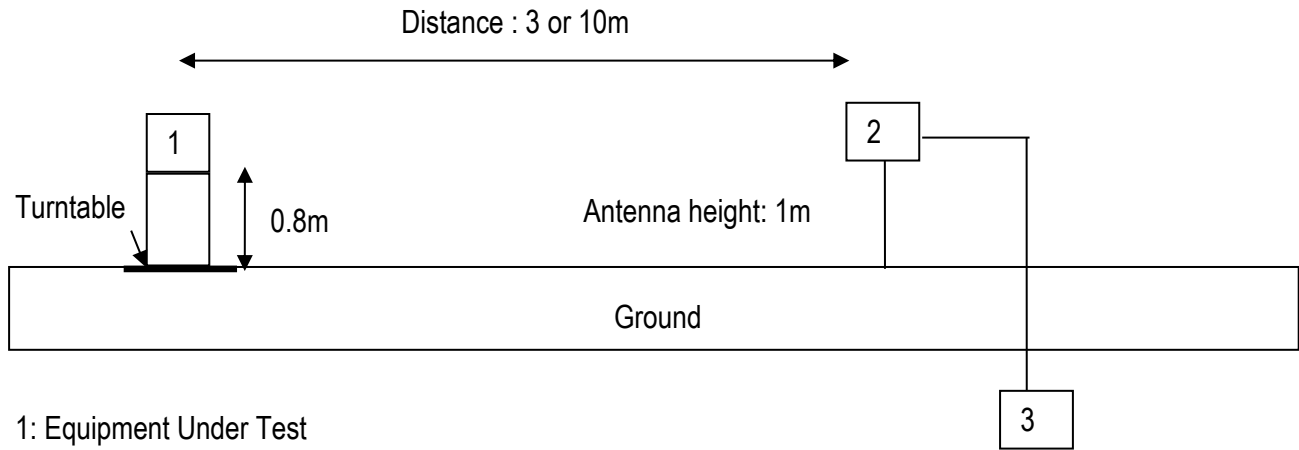


1: Equipment Under Test

2: Measurement antenna with tilt for variation from 1 to 2.5m or 0.5m above top of equipment

3: Measurement equipment

Open area setup

Below 30 MHz

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

Semi anechoic chamber setup

Between 30 MHz and 1 GHz

