



**LABORATORIUM VOOR OMGEVINGSMETINGEN
LABORATOIRE D'ESSAIS D'ENVIRONNEMENT
ENVIRONMENTAL TEST LABORATORIA**

NOTIFIED BODY (NB2758) UNDER EU-DIRECTIVE 2014/30/EU	 041-TEST - ISO17025
ACCREDITED FOR NBN EN ISO 17025 BY BELAC 041-TEST - ISO17025	
RECOGNISED TESTING AUTHORITY FOR AUSTRALIA	
CONFORMITY ASSESSMENT BODY MRA US-EU SECTORAL ANNEX EMC (FCC)	

EMC TESTREPORT

Product	DSRFID type D
Standard	FCC part 15 subpart c
Test Report	PCC-RAD-6113
LDN Number	LDN5031
Date of issue	2024-11-07
Edition	02

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This Test Report contains 41 pages
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SECTION 1: IDENTIFICATION OF THE TEST LABORATORIA

LABORATORIA DE NAYER <u>Product Certification Centre (PCC)</u>	
J.De Nayerlaan 9 B-2860 St.-Katelijne-Waver Belgium Tel: +32 (0) 15 30 54 00 Fax: +32 (0) 15 32 1212	Direct phone numbers and e-mail address: (Test engineer) J. De Vos +32(0)15 30 54 04 j.de.vos@labodenayer.be

TEST LABORATORY RESPONSIBILITIES			
Function	Name(s)	Date	Signature
Test Operator	Jan De Vos	2024-11-07	
Author Report	Jan De Vos	2024-11-07	
Technical Expert	ir. Filip Nauwelaerts	2024-11-07	



041-TEST – ISO17025

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The results refer to the described sample or equipment under test only.

Neither the accredited status of Laboratoria De Nayer v.z.w., nor this test report implies that the sample or equipment under test is approved by BELAC or any other establishment.

In case the customer wants to refer to his appeal to our accredited laboratories, he will use the following orequivalent sentence: "Tested by Laboratoria De Nayer, E.M.C.department, accredited by BELAC for EMC-immunity and EMC-emission under registration number 041-TEST".

SECTION 2: CUSTOMER INFORMATION AND DATES

CUSTOMER INFORMATION	
Company name:	Agfa NV
Address:	Septestraat 27 2640 Mortsel Belgium
Contact person:	Jan Vercammen
Telephone nr:	+32 3 444.62.33
E-mail:	jan.vercammen1@agfa.com
DATES	
Receipt of the EUT:	2024-08-19
Start of tests:	2024-08-19
End of tests:	2024-08-20

SECTION 3: EQUIPMENT UNDER TEST (E.U.T.)

The correctness of the description and identification of the equipment under test, its operating conditions, possible modifications and monitoring of its behaviour during and/ or after the test conditions generated by the De Nayer Environmental Test Laboratory are under the responsibility of the customer.

IDENTIFICATION OF THE E.U.T.

Intended use:	Modular device for wireless interfacing film tags in film tray(s) of printer for medical X-ray film
Manufacturer:	Agfa NV
Model / Type:	The modular device has reference A800126.xx, where xx is a version number larger than 06
Software Version:	Version of the microcontroller code is DSRFID_V9.1.2.hex
used frequency range:	Carrier frequency is 13.56MHz
Used modulation types :	ISO/IEC 15693
Used antenna:	PCB fixed inductive (coil) antenna
PSU :	+5V
Serial Number:	Device under test RS2408059001
FCC-ID number:	FCC-ID number: HPL-DSRFID-D

Illustrations: (Equipment under test)

Photo : EUT top

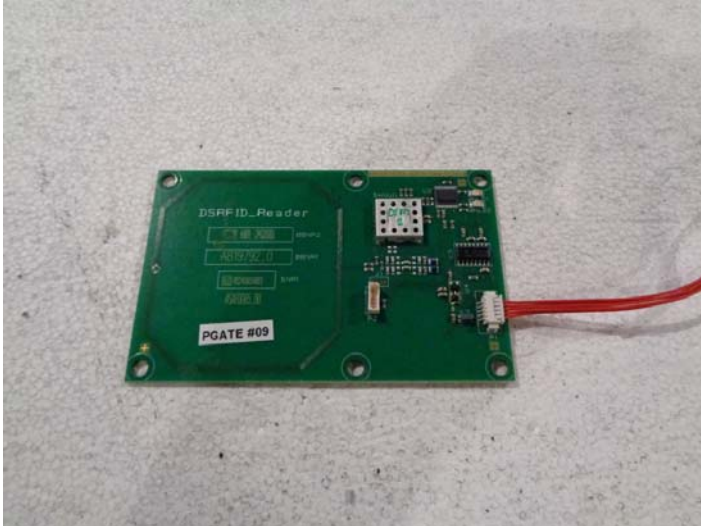


Photo : bottom

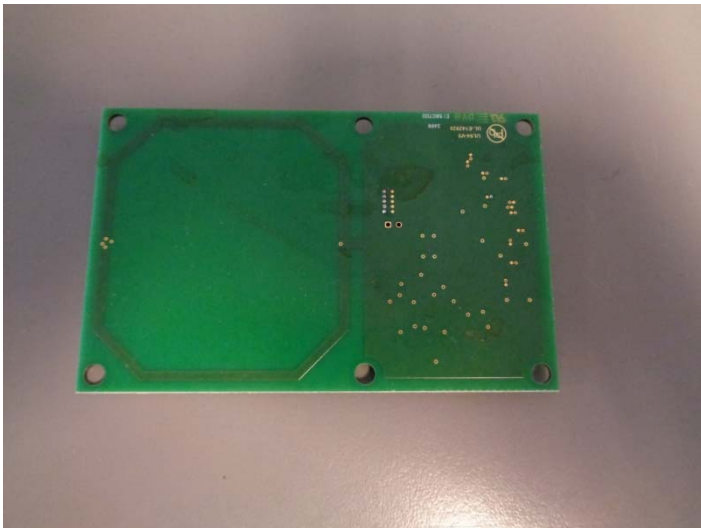


photo A.E.



Photo : pcb and tag



SECTION 4: TEST SPECIFICATIONS AND TEST METHODS

Applied Tests or Technical Standards		
Emission:		
Test or Technical Standard	Title	
FCC CFR47 part 15	Code of Federal Regulations , part 15 , Subpart C , intentional Radiators	
ANSI C63.10 (2020)	American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices	

(*) if the log  is mentioned, the measurement is under accreditation : 041-TEST – ISO17025

MRA : between E.C. and USA : CAB (EMC) [designation number BE0002] date of validation 15.01.2002

Equipment Classifications

Field Strength Calculation.

The field strength is calculated in the receiver and software EMC32 , for conducted and radiated emission .

LISN-ENV216 is the Transducer Factor for the LISN (combination of the attenuation of the LISN and cable in the range 150kHz-30MHz)

FCC-Efield-low is the Transducer Factor for the emission in the range 9kHz-30MHz (combination of the attenuation of the Loop antenna and cable in the range 9kHz-30MHz)

LDNRE_band-CD is the Transducer factor for the bilog antenna (combination of the AF of the R&S antenna , pre-amplifier and cables in the range 30MHz-1GHz) .

SECTION 5: OPERATION OF EUT DURING TESTING

The following performance criteria are described in the standard .

Operating modes during emission testing

there are two modes used during testing:

- (1) continuous test writing and reading tag memory
- (2) carrier on (no modulation) for test requiring RF carrier only

SECTION 6: SUMMARY OF TEST RESULTS

6.1 Test results of the tests.

emission measurement according to : FCC part 15		
Test §	The EUT complies limits	remarks
§ 15.207 : AC power conducted emissions	yes	1
§ 15.225 radiated emissions 9k-1GHz	yes	2
§ 15.225 Operation within the band	yes	2
§ 15.225 frequency tolerance	yes	
§ 15.225 Occupied bandwidth	yes	

Remark 1 : tested with +5Vdc power
 Remark 2 : The PCB that contains the printed copper antenna is constrained to the horizontal plane in the printer application.

Section 15.19 Labelling requirements.

(3) All other devices shall bear the following statement in a conspicuous location on the device:

This device complies with Part 15 of the FCC Rules.
 Operation is subject to the following two conditions:
 (1) this device may not cause harmful interference,
 and (2) this device must accept any interference received, including
 interference that may cause undesired operation.

(b) Products subject to authorization under a Declaration of Conformity shall be labeled as follows:
 (1) The label shall be located in a conspicuous location on the device and shall contain the unique identification described in Section 2.1074 of this chapter and the following logo:
 (i) If the product is authorized based on testing of the product or system; or



SECTION 7: DETAILED TEST RESULTS

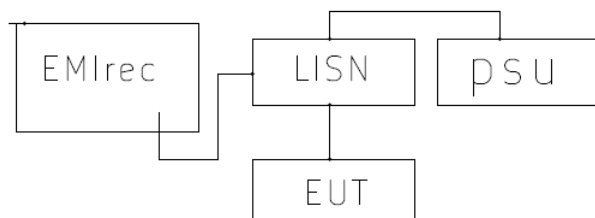
7.1 CONDUCTED EMISSION TEST : power

CONDITIONS
The equipment was placed at 40cm above the floor. The test has been performed in a shielded room. The conducted emission level was measured with a LISN according to CISPR16/ANSI C63.4 (0.15 MHz-30 MHz). Test voltage : 5Vdc Test specification : ANSI C63.10 section 6.2 Specification reference : C.F.R.47 part 15.207 The upper limit line is the quasi-peak limit line . The lower limit line is the average limit line. Test date :2024-08-20
Test equipment : Receiver: R&S ESU40 , MN20112350 Limiter : R&S ESH3Z2 , MN : 2006150 LISN : R&S ENV216 , MN Cables : IR07 , 192 , 194

Hardware Setup:	LISN-ENV216
Receiver:	[ESU 40]
Level Unit:	dBµV
LISN TDF :	Correction Table (Line 0): ENV216-N 150k
	Correction Table (Line 1): ENV216-L1 150k

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
150 kHz - 30 MHz	5 kHz	PK+; AVG	9 kHz	0,02 s	0 dB

Setup



Conducted emission L1-PE
Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line
0.255000	49.34	61.59	12.25	1000.0	9.000	L1
0.495000	45.32	56.08	10.77	1000.0	9.000	L1
0.545000	44.95	56.00	11.05	1000.0	9.000	L1
0.590000	45.35	56.00	10.65	1000.0	9.000	L1
0.695000	46.25	56.00	9.75	1000.0	9.000	L1
0.735000	46.41	56.00	9.59	1000.0	9.000	L1
0.810000	43.10	56.00	12.90	1000.0	9.000	L1
0.975000	42.48	56.00	13.52	1000.0	9.000	L1
1.260000	39.93	56.00	16.07	1000.0	9.000	L1
1.300000	42.77	56.00	13.23	1000.0	9.000	L1
4.470000	48.01	56.00	7.99	1000.0	9.000	L1
4.540000	47.71	56.00	8.30	1000.0	9.000	L1
4.610000	45.83	56.00	10.17	1000.0	9.000	L1
13.560000	54.81	**		1000.0	9.000	L1

Final_Result_CAV

Frequency (MHz)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line
0.200000	43.48	53.61	10.13	1000.0	9.000	L1
0.255000	41.95	51.59	9.64	1000.0	9.000	L1
0.695000	37.35	46.00	8.65	1000.0	9.000	L1
0.725000	41.93	46.00	4.07	1000.0	9.000	L1
4.330000	34.45	46.00	11.55	1000.0	9.000	L1
4.400000	35.29	46.00	10.71	1000.0	9.000	L1
4.470000	36.24	46.00	9.76	1000.0	9.000	L1
4.540000	36.21	46.00	9.79	1000.0	9.000	L1
4.610000	35.41	46.00	10.59	1000.0	9.000	L1
13.560000	53.50	**		1000.0	9.000	L1
24.000000	28.83	50.00	21.17	1000.0	9.000	L1

Conducted emission N-PE
 Final Result QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line
0.200000	49.07	63.61	14.54	1000.0	9.000	N
0.305000	46.45	60.11	13.65	1000.0	9.000	N
0.535000	42.91	56.00	13.09	1000.0	9.000	N
0.580000	44.92	56.00	11.08	1000.0	9.000	N
0.715000	47.87	56.00	8.13	1000.0	9.000	N
0.725000	48.44	56.00	7.56	1000.0	9.000	N
4.470000	48.99	56.00	7.01	1000.0	9.000	N
4.540000	49.96	56.00	6.04	1000.0	9.000	N
4.610000	48.91	56.00	7.09	1000.0	9.000	N
13.550000	24.23	60.00	35.77	1000.0	9.000	N
13.560000	51.05	**		1000.0	9.000	N

Final Result CAV

Frequency (MHz)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line
0.200000	43.05	53.61	10.56	1000.0	9.000	N
0.410000	38.17	47.65	9.48	1000.0	9.000	N
0.530000	33.56	46.00	12.44	1000.0	9.000	N
0.725000	43.89	46.00	2.11	1000.0	9.000	N
0.755000	34.64	46.00	11.36	1000.0	9.000	N
4.470000	36.77	46.00	9.23	1000.0	9.000	N
4.540000	37.46	46.00	8.54	1000.0	9.000	N
4.610000	36.93	46.00	9.07	1000.0	9.000	N
4.700000	35.29	46.00	10.71	1000.0	9.000	N
13.560000	54.75	**		1000.0	9.000	N

** Remark : 13.56MHz is the part of the intentional generator frequency

Test result	pass
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fig Conducted emission L1-PE

Full Spectrum

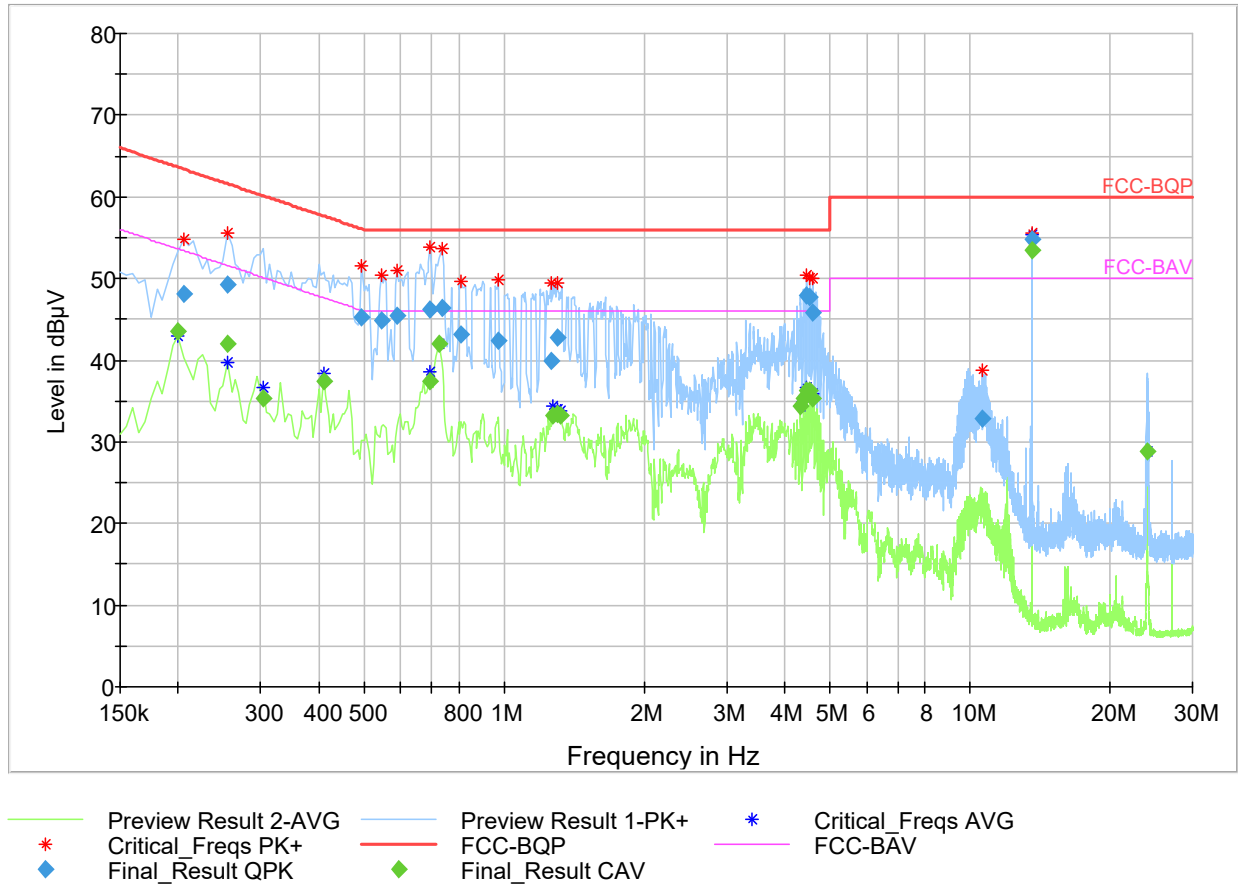
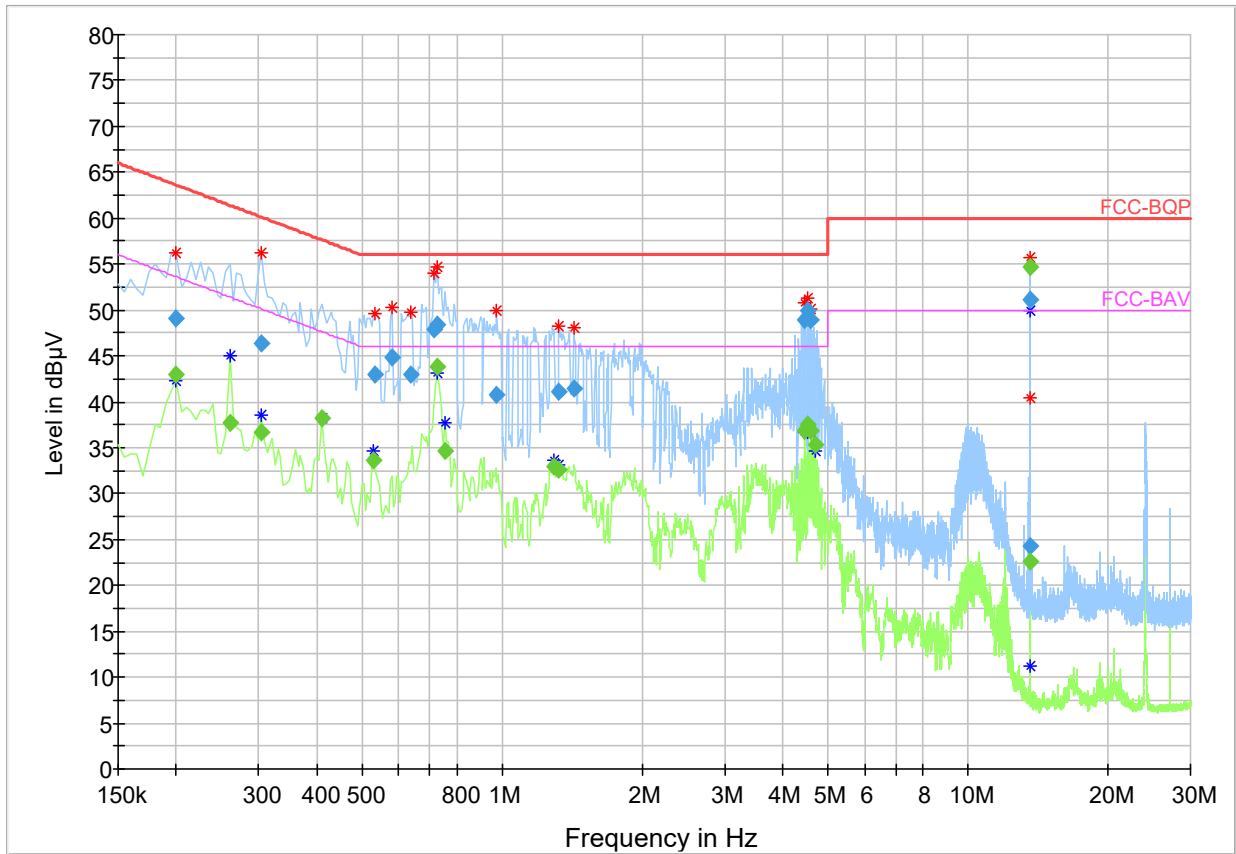


Fig Conducted emission N-PE

Full Spectrum



7.2. Radiated emissions (9k-30MHz)

CONDITIONS
The equipment was placed at 80cm above the floor. The test has been performed in a shielded room. The radiated emission level was measured with a shielded loop according to CISPR16 Test voltage : +5Vdc Test specification : ANSI C63.10 section 6.4 and 6.5 Specification reference :C.F.R.47 part 15.225 The upper limit line is the quasi-peak limit line . Test date :2024-08-20
Test equipment : Receiver: R&S ESU40 , MN : 20112350 Antenna : R&S HFH2-Z2E : MN : 20220033 Preamp : hp8447A , MN : 475041 Turntable : RST 073 Controller : RSC 02

Range 9k-30MHz

Hardware Setup:	FCC-Efield-low
Receiver:	[ESU 40]
Level Unit:	dBµV/m
TDF :	Correction Table (vertical): HFH2-Z2Ev
	Correction Table (horizontal): HFH2-Z2Ev

Subrange	Step Size	Detectors	IF BW
9 kHz - 90 kHz	100 Hz	AVG	200 Hz
90 kHz - 110 kHz	100 Hz	QPK	200 Hz
110 kHz - 150 kHz	100 Hz	AVG	200 Hz
150 kHz - 490 kHz	4,5 kHz	AVG	9 kHz
490 kHz - 30 MHz	4,5 kHz	QPK	9 kHz

Final_Result_CAV

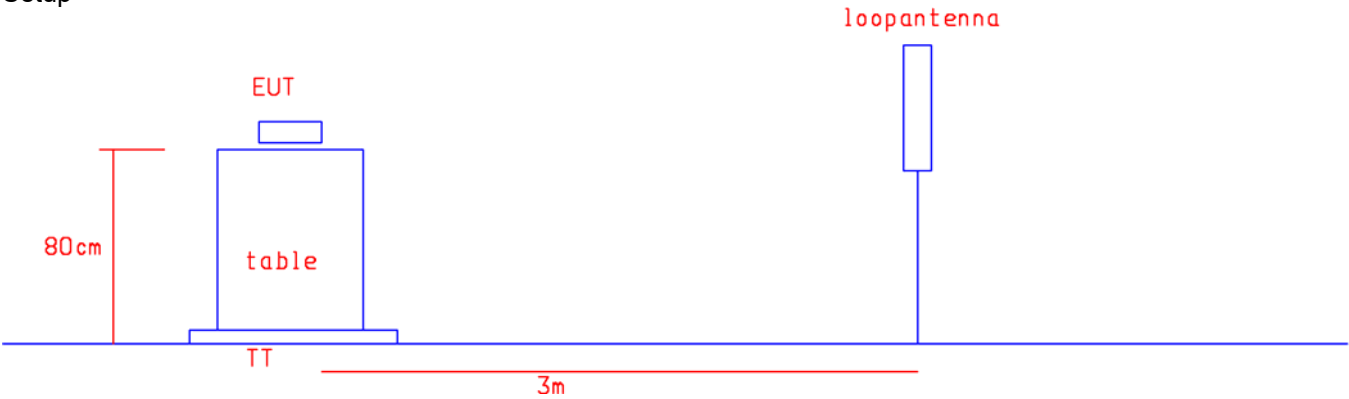
Frequency (MHz)	CAverage (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Pol	Azimuth (deg)
0.009900	44.47	87.67	43.21	100.0	0.200	H	90.0
0.031400	40.88	77.65	36.77	100.0	0.200	H	90.0
0.050100	31.72	73.60	41.88	100.0	0.200	H	0.0
0.235500	28.44	60.16	31.72	20.0	9.000	H	270.0
0.244500	28.39	59.84	31.44	20.0	9.000	H	180.0

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit QPK (dBµV/m)	Margin QPK (dB)	Meas. Time (ms)	Bandwidth (kHz)	Pol	Azimuth (deg)
1.311000	27.34	45.3	17.93	20.0	9.000	H	0.0
1.594500	27.08	43.6	16.50	20.0	9.000	H	0.0
4.434000	26.21	49.5	23.29	20.0	9.000	H	90.0
13.560000	25.62	**		20.0	9.000	H	0.0
24.000000	30.34	49.5	19.16	20.0	9.000	H	180.0

** Remark : 13.56MHz is the part of the intentional generator frequency

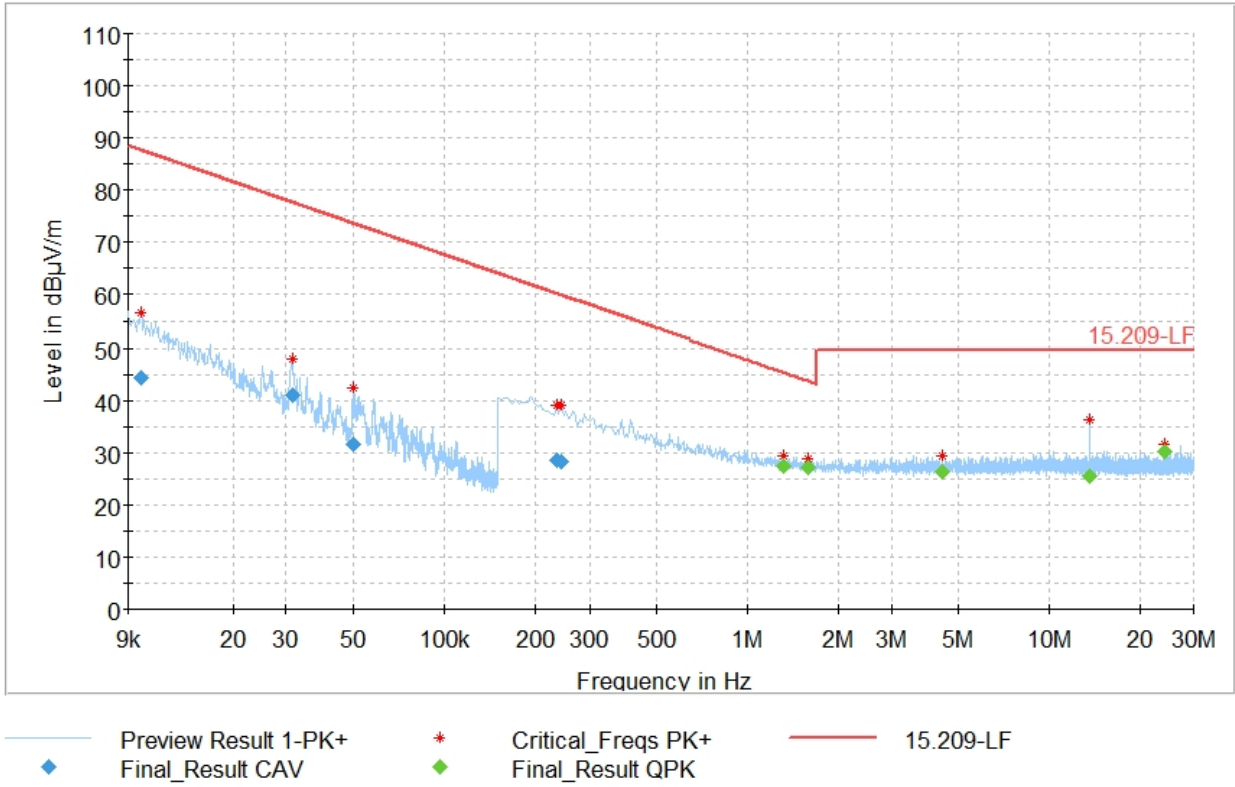
Setup



Test result	pass
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Plot 9k-30MHz

Full Spectrum



7.3 Radiated emissions (30-1000MHz)

CONDITIONS
The equipment was placed at 80cm above the floor. The test has been performed in a shielded room. The radiated emission level was measured with a bicon antenna (30-200MHz) and a log antenna (200-1000MHz) Specification reference :C.F.R.47 part Test specification : ANSI C63.10 section 6.3 and 6.5 (f <1GHz) Test voltage : The upper limit line is the quasi-peak limit line Test date :2024-08-19 and 30
Test equipment : Receiver: R&S ESU40 , MN : 20112350 Antenna : R&S HK116 , MN : 2006057 Antenna : R&S HL562 , MN :2006052 Antenna mast : RSM 010 Turntable : RST 073 Controller : RSC 02

Range 30-50MHz

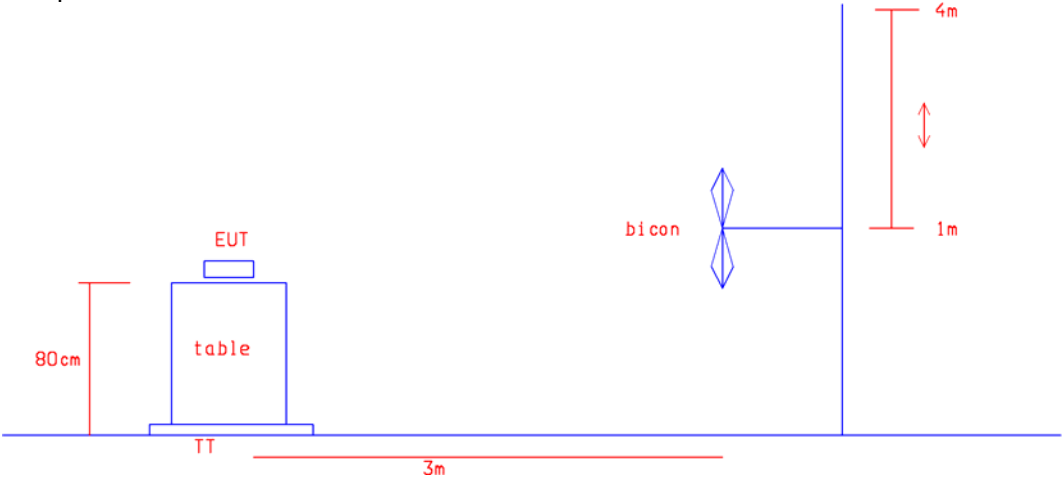
Hardware Setup:	LDNRE band-C
Receiver:	[ESU 40]
Level Unit:	dBµV/m
TDF :	Correction Table (vertical): HK116
	Correction Table (horizontal): HK116

Range 30-1000MHz

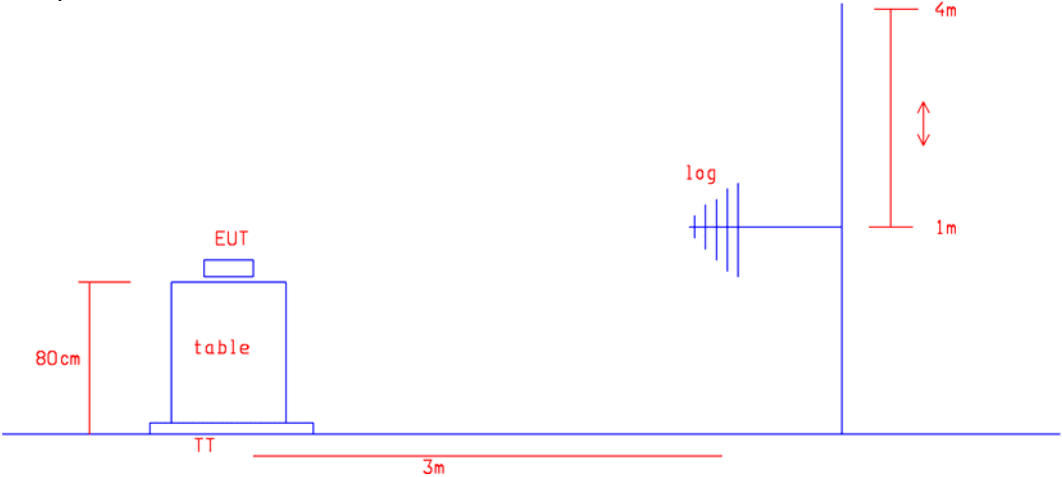
Hardware Setup:	LDNRE band-CD
Receiver:	[ESU 40]
Level Unit:	dBµV/m
TDF :	Correction Table (vertical): HL562ANSIJAN
	Correction Table (horizontal): HL562ANSIJAN

Subrange	Step Size	Detectors	IF BW
30 MHz - 1 GHz	62.5 kHz	PK/QP	120 kHz

Setup 30-200MHz



Setup 200-1000MHz



Test result	pass
Remark	In the range 30 to 35MHz the peak value were above the limit line , therefore the measurement was repeated with a bicon antenna and no peak spurious levels were found above the limit line .

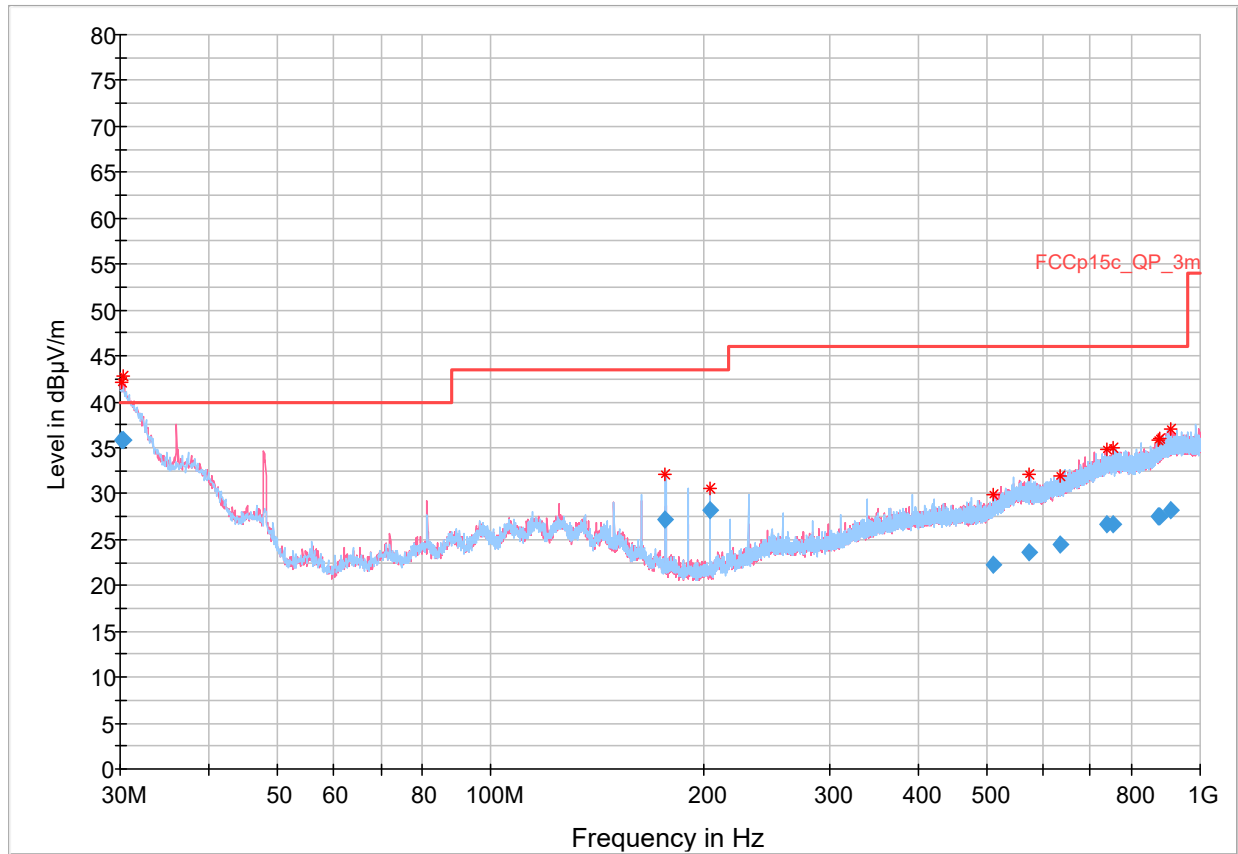
Results :

Final_Result_QPK

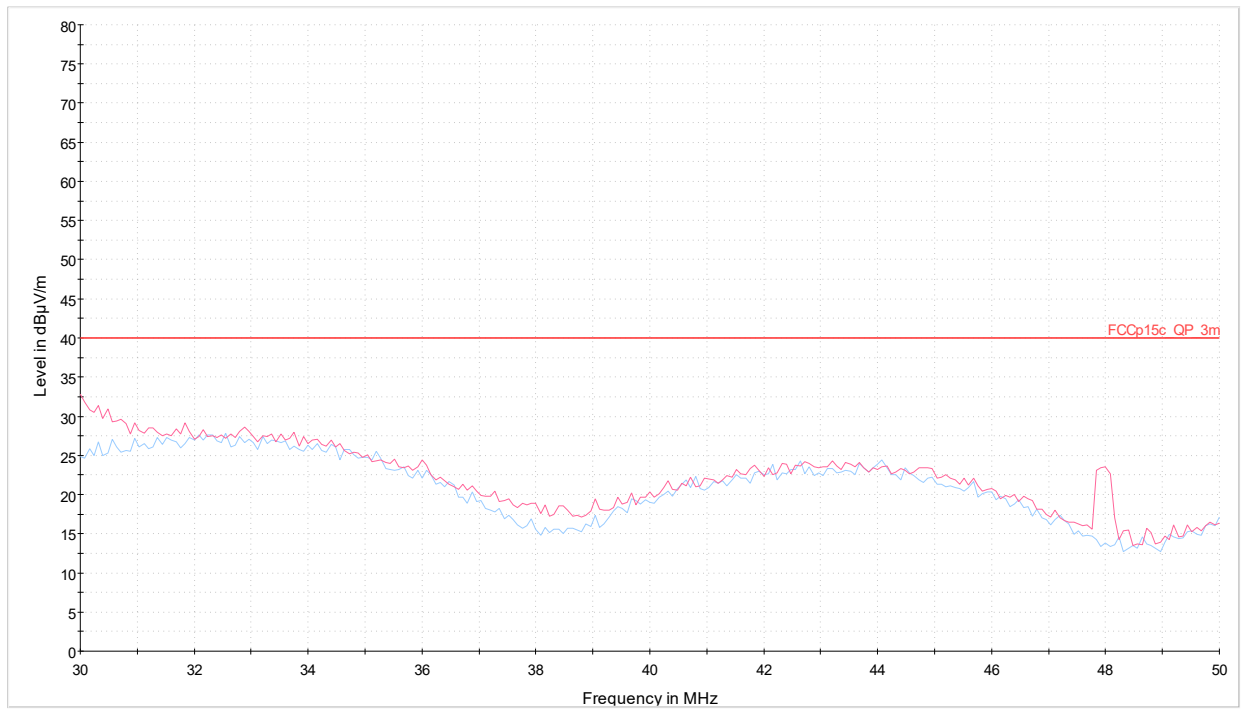
Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)
30.080000	35.91	40.00	4.09	1000.0	120.000	250.0	V	180.0
30.240000	35.76	40.00	4.24	1000.0	120.000	200.0	V	135.0
176.240000	27.18	43.50	16.32	1000.0	120.000	125.0	H	180.0
203.440000	28.15	43.50	15.35	1000.0	120.000	175.0	H	225.0
739.040000	26.68	46.00	19.32	1000.0	120.000	225.0	H	270.0
751.920000	26.69	46.00	19.31	1000.0	120.000	175.0	V	0.0
873.920000	27.46	46.00	18.54	1000.0	120.000	225.0	H	90.0
878.000000	27.54	46.00	18.46	1000.0	120.000	100.0	V	45.0
909.600000	28.26	46.00	17.74	1000.0	120.000	225.0	V	0.0

Plot 30-100MHz

Full Spectrum



Plot 30-50MHz



Red : range 30-50MHz measured with bicon antenna cable connected from EUT to AE (PC) ,
Blue: range 30-50MHz measured with bicon antenna cable disconnected from EUT to AE (PC)

7.4 Field strength within band

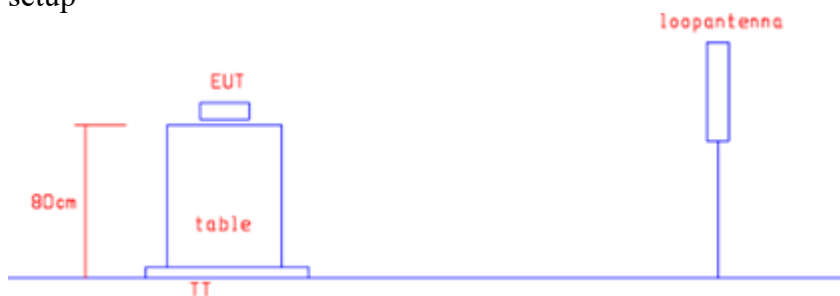
CONDITIONS
Specification reference : C.F.R.47 part 15.225(a,b,c) (a) The field strength of any emissions within the band 13.553-13.567 MHz shall not exceed 15,848 microvolts/meter at 30 meters. (b) Within the bands 13.410-13.553 MHz and 13.567-13.710 MHz, the field strength of any emissions shall not exceed 334 microvolts/meter at 30 meters. (c) Within the bands 13.110-13.410 MHz and 13.710-14.010 MHz the field strength of any emissions shall not exceed 106 microvolts/meter at 30 meters. Used test distance : 3m Used Test voltage : +5V The limit line 1 is the quasi-peak limit line Test date : 2024-08-20
Receiver: R&S ESU40 , MN : 20112350 Antenna : EMCO6502 , MN:20112384 Turntable : RST 073 Controller : RSC 02

Calculation limits : limits in standard @30m : 15,848µV/m is 84dBµV/m @30m
Distance correction factor (refer 15.31) : by using the square of an inverse linear distance extrapolation factor (40 dB/decade). In case of a measurement distance of 3m : $40 \cdot \log(30/1) = 59\text{dB}$

Hardware Setup:	FCC-Efield-1356
Receiver:	[ESU 40]
Level Unit:	dBµV/m

Subrange	Step Size	Detectors	IF BW
13,11 MHz - 14,01 MHz	4 kHz	QP	9 kHz

setup

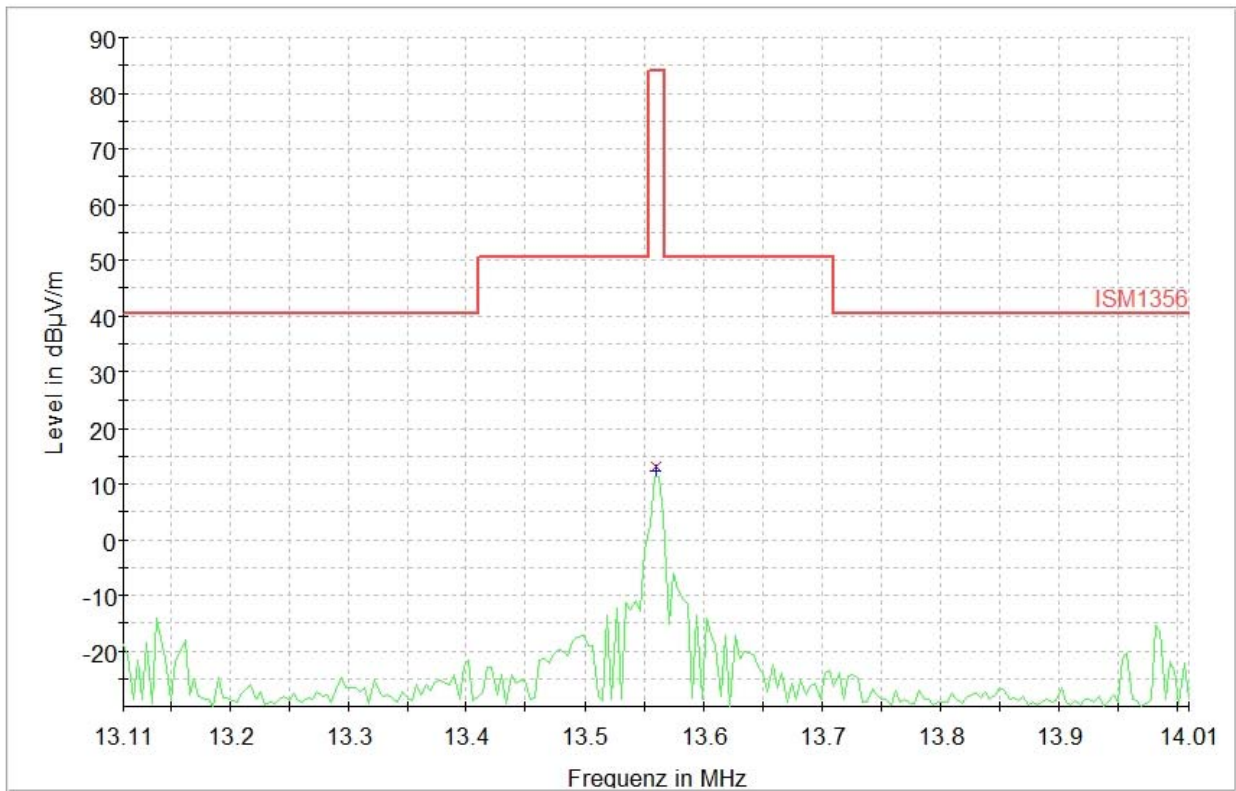


CW

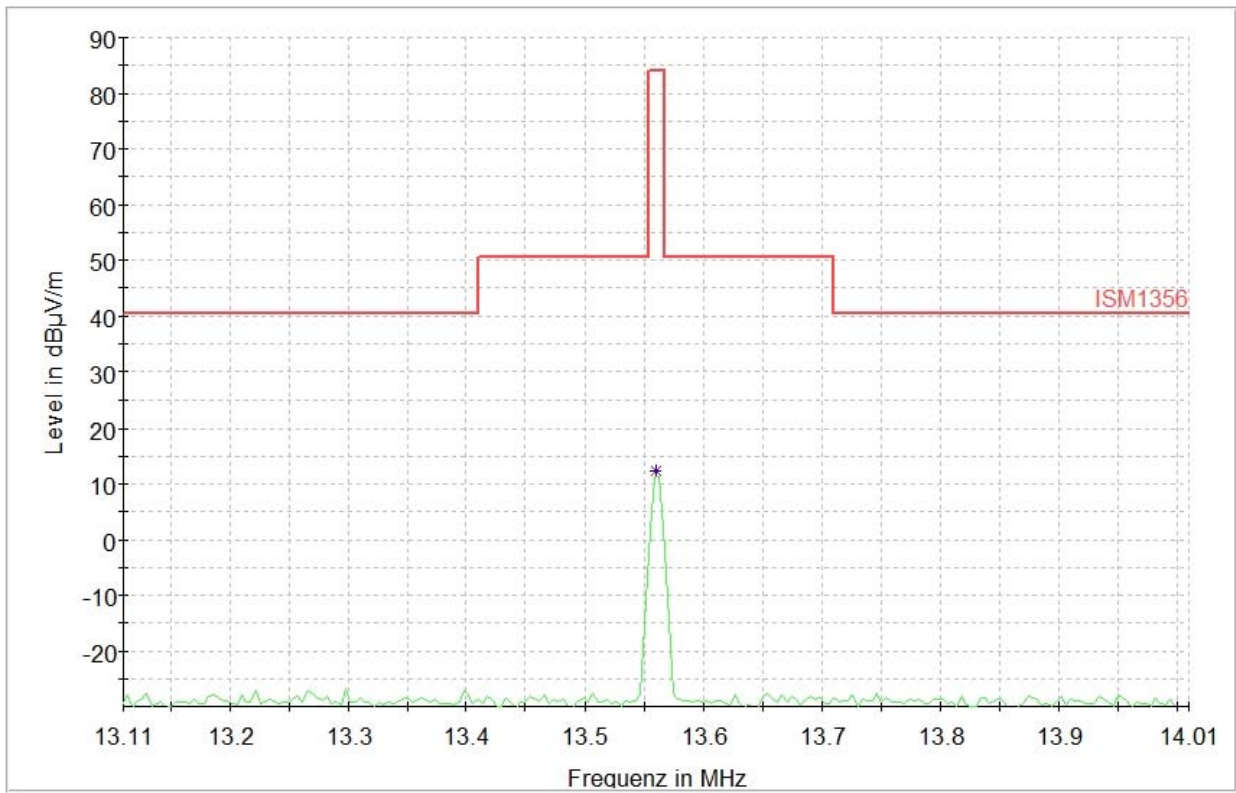
Frequency (MHz)	MaxPeak (dBµV/m)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)
13.560000	13.1	12.3	50.0	9.000	100.0	H	0.0

Test result pass

Plot : modulation



Plot : CW



CONDITIONS

§15.215 Additional provisions to the general radiated emission limitations.

(a) The regulations in §§15.217 through 15.257 provide alternatives to the general radiated emission limits for intentional radiators operating in specified frequency bands. Unless otherwise stated, there are no restrictions as to the types of operation permitted under these sections.

(b) In most cases, unwanted emissions outside of the frequency bands shown in these alternative provisions must be attenuated to the emission limits shown in §15.209. In no case shall the level of the unwanted emissions from an intentional radiator operating under these additional provisions exceed the field strength of the fundamental emission.

(c) Intentional radiators operating under the alternative provisions to the general emission limits, as contained in §§15.217 through 15.257 and in subpart E of this part, must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated. In the case of intentional radiators operating under the provisions of subpart E, the emission bandwidth may span across multiple contiguous frequency bands identified in that subpart. The requirement to contain the designated bandwidth of the emission within the specified frequency band includes the effects from frequency sweeping, frequency hopping and other modulation techniques that may be employed as well as the frequency stability of the transmitter over expected variations in temperature and supply voltage. If a frequency stability is not specified in the regulations, it is recommended that the fundamental emission be kept within at least the central 80% of the permitted band in order to minimize the possibility of out-of-band operation.

Test : ANSI 63.10 Clause 6.9.2.

Test date : 2024-08-20

Receiver: R&S ESU40 , MN : 20112350

Antenna : EMCO6502 , MN:20112384

Turntable : RST 073

Controller : RSC 02

setup

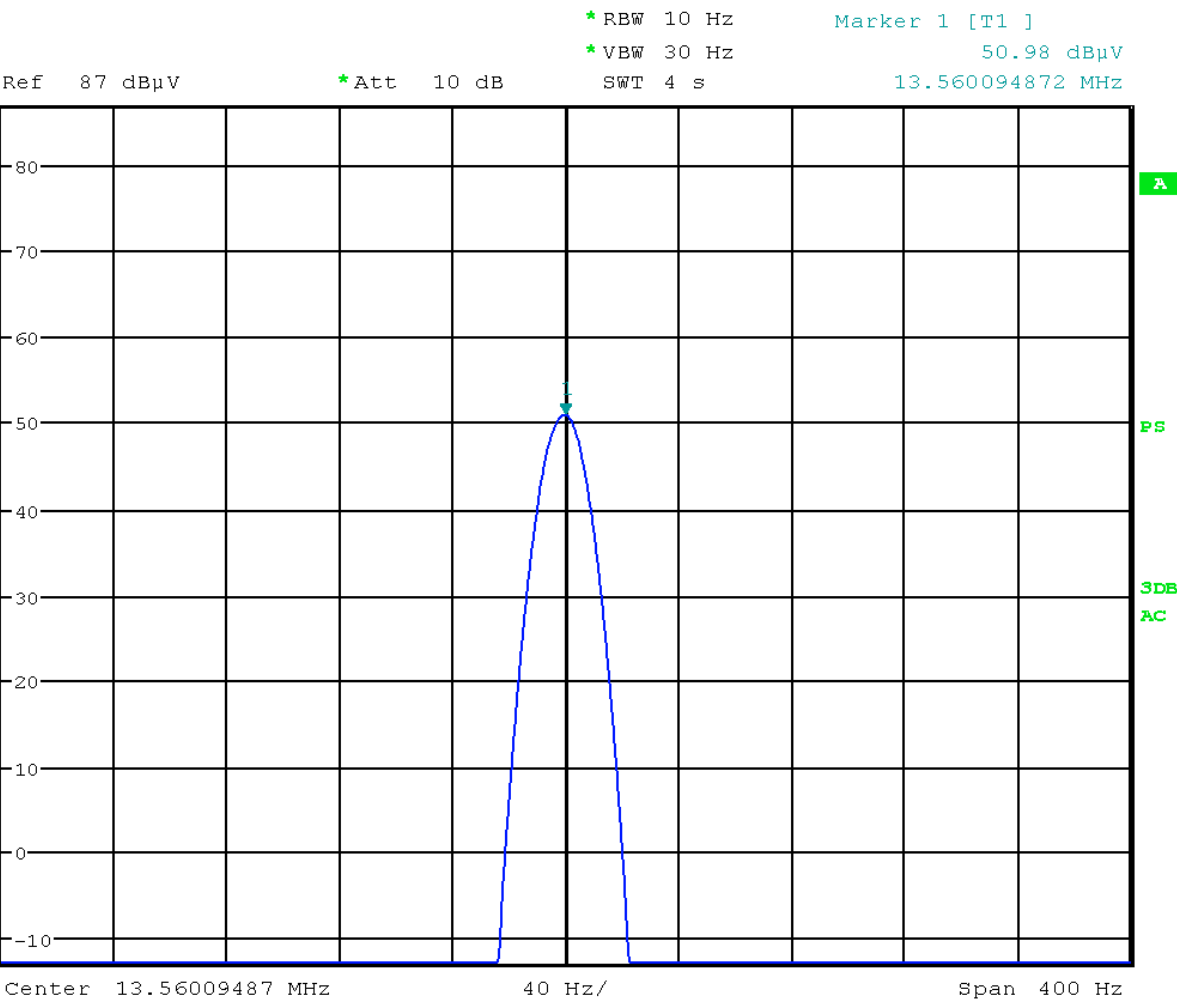


Test result	pass
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plot



1 AP
VIEW



7.6 frequency tolerance

CONDITIONS
Specification reference :C.F.R.47 part 15.225(e) (e) The frequency tolerance of the carrier signal shall be maintained within $\pm 0.01\%$ of the operating frequency over a temperature variation of -20 degrees to $+50$ degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20 degrees C. For battery operated equipment, the equipment tests shall be performed using a new battery. Test voltage : +5Vdc Test date : 2024-08-20
Test equipment : Near field probe R&S DC power supply : HP E3631 , MN : 462043 DVM : Fluke 73III , MN :2006126 Climate chamber : K9 , MN : 20160006 Frequency counter hp5315 , MN: 2006225

Test procedure temperature :

The EUT is placed in an climate chamber . The voltage to the EUT is the nominal voltage and the carrier is in CW (no modulation) . A near field probe is used to measure the carrier .

Before the measurement there is sufficient time to allow the EUT to stabilize at the temperature .

Maximum allowed frequency deviation is $\pm 0.01\%$ or 100ppm

Test : temperature test : -20 to $+50^{\circ}\text{C}$

Temperature $^{\circ}\text{C}$	Frequency (kHz)	Tolerance (ppm)	result
-20	13560.1753	12.9	pass
+25	13560.1148	8.5	pass
+50	13560.0584	4.3	pass

The EUT is placed in an climate chamber . The voltage to the EUT is the nominal voltage and the carrier is in CW (no modulation) . A near field probe is used to measure the carrier .

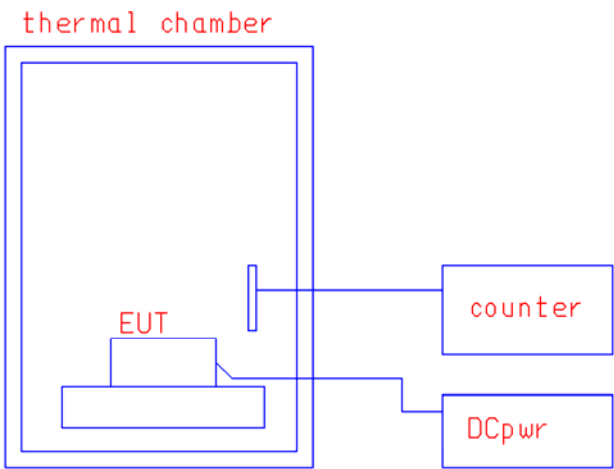
Before the measurement there is sufficient time to allow the EUT to stabilize at the temperature .

Maximum allowed frequency deviation is $\pm 0.01\%$ or 100ppm , fixed temperature : $+20^{\circ}\text{C}$

Test : voltage test : to $\pm 10\%$, $V_{\text{nom}} = 5\text{V}$

Voltage	Frequency(kHz)	Tolerance (ppm)	result
4.5V	13560.1149	8.5	pass
5.0V	13560.1148	8.5	pass
5.5V	13560.1147	8.5	pass

setup



7.7. limits

Table : CE on mains (class)

frequency (MHz)	QP (dB μ V)	AV (dB μ V)
0.15-0.50	66	56
0.50-5.0	56	46
5.0-30	60	50

Table : spurious 9k-30MHz , 3m distance

Frequency MHz	Limit dBuV/m
0,009000	128,5
0,490000	94,0
0,490000	73,8
1,705000	63,0
1,705000	69,5
13,110000	69,5
13,110000	80,5
13,410000	80,5
13,410000	90,5
13,553000	90,5
13,553000	124,0
13,567000	124,0
13,567000	90,5
13,710000	90,5
13,710000	80,5
14,010000	80,5
14,010000	69,5
30,000000	69,5

Table : RE @ 3m

Frequency (MHz)	QP (dB μ V/m)	AV (dB μ V/m)	Peak (dB μ V/m)
30-88	40,0	--	--
88-216	43,5	--	--
216-960	46,0	--	--
960-1000	54,0	--	--
1000-18000	--	54,0	

Table : 13,56MHz
distance 30m

MHz	dB μ V/m
13.110000	40.5
13,410000	40.5
13,410000	50.5
13,553000	50.5
13,553000	50.5
13,553000	84
13,567000	84
13,567000	50.5
13,710000	50.5
13,710000	40.5
14,010000	40.5

7.8. Test equipment due dates

type	MN	Cal due
ESU40	20112350	2025-02-28
HK116	2006057	2027-01-31
HL562	2006052	2027-01-31
HFH2-Z2E	20220033	2025-03-25
PAM-1	20111408	2025-02-28

7.9 Test dates and Climate conditions.

date	2024-08-19 and 20
ambient temperature	24/25°C
relative humidity	66/60%
atmospheric pressure	1031/1011 hPa

SECTION 8: MEASUREMENT UNCERTAINTIES

item	uncertainty
RF frequency	$\pm 1 \times 10^{-8}$
RF field radiated	$\pm 5.0\text{dB}$
Temperature	$\pm 1^{\circ}\text{C}$
Humidity	$\pm 5\%$
CE mains 150k-30M	$\pm 2.4\text{dB}$

Remark : When a statement of conformity is made the laboratory does not take the measurement uncertainty into account

SECTION 9: ADDITIONAL INFORMATION GIVEN BY THE CUSTOMER

Applicant's role during testing
Connecting and brings the EUT in operating mode. Witness testing

EUT information given by the customer

Auxiliary equipment connected during testing
PC : laptop Dell latitude E5470 , SW Drystar RFID tester 3

Cables
Cable used is 6 discrete non-twisted wires in plastic sheet, there is no metal shielding, only 5 wires are used: the communication is RX/TX pair RS232 9600 baud, voltage is 5V (polyfuse on RFID reader) and one signal can be used to reset the RFID reader (buffered over RS232). The cable length used in the emission test was about 10m. This cable connects the RFID reader to the aux equipment outside the shielded room. It is possible to use an USB derived 5V or a external bench power supply set to 5V (e.g. was used for frequency tolerance test voltage test).

SECTION 10: MODIFICATIONS OF EUT

MODIFICATIONS OF EUT : none

SECTION 11: History of the test Report

HISTORY OF THE TEST REPORT (EDITION)

Edition	Adjustment (reason for up-grade)
PCC-RAD-6113_ed.0	Draft
PCC-RAD-6113_ed.1	Original
PCC-RAD-6113_ed.2	Adding info and change limit line to 30m

SECTION 12: ACCREDITATION CERTIFICATE



Organisme belge d'Accréditation
Belgische Accreditatieinstelling
Belgische Akkreditierungsstelle
Belgian Accreditation Body

EA MLA Signatory

Accreditation Certificate No. 041-TEST

In compliance with the provisions of the Royal Decree of 31 January 2006 setting up BELAC, the Accreditation Board hereby declares to have granted accreditation conform the requirements of the standard EN ISO/IEC 17025:2017 to:

Laboratoria De Nayer vzw
Jan Pieter de Nayerlaan 9
2860 Sint-Katelijne-Waver

The body demonstrated the competence to perform the activities in the activity sites, as described in the scope of accreditation 041-TEST which is an integral part of the present certificate.

The current version of the scope of accreditation is available at www.belac.be.

This certificate remains valid as long as the body continues to meet the accreditation conditions.

The Chair of the Accreditation Board BELAC,



Maureen LOGGHE

Version : 9

Validity period : 2024-01-08 - 2029-01-07

Original version of this certificate is in Dutch.

.be

BELAC 6-319 RO-2020

FCC :

FEDERAL COMMUNICATIONS COMMISSION

**Laboratory Division
7435 Oakland Mills Road
Columbia, MD 21046**

To: Tina Vounasi
SPF Economie, PME, Classes moyennes et Energie
GROW-NANDO-ADMINISTRATOR@ec.europa.eu
From: George Tannahill
George.Tannahill@fcc.gov
Date: April 03, 2020

Test Firm Name: Laboratoria De Nayer
Designation Number: BE0002
Test Firm Registration Number: 963303

Subject: **FCC recognition of accreditation for Laboratoria De Nayer**

We have been notified by SPF Economie, PME, Classes moyennes et Energie that Laboratoria De Nayer has been accredited as a testing laboratory.

At this time Laboratoria De Nayer is hereby recognized to perform compliance testing on equipment subject to the Commission's Declaration Of Conformity (DOC) and Certification rules for the following scope(s):

Unintentional Radiators - FCC Part15, Subpart B
Industrial, Scientific, and Medical Equipment - FCC Part 18
Intentional Radiators - FCC Part 15 Subpart C

This recognition will expire upon expiration of the accreditation or notification of withdrawal of Commission's recognition.

Any questions about this recognition should be submitted as an inquiry to the FCC Knowledge Database at www.fcc.gov/kdb.