

## TEST REPORT

### Nr. R23187901

#### Federal Communication Commission (FCC)

<b>Report Reference No.</b> .....	R23187901
Date of issue: .....	08.02.2024
Total number pages: .....	63
<b>Customer name</b> .....	Imet S.r.l.
Address .....	Via Ronche, 93 – 33077 Sacile (PN) – Italy
<b>Test specification:</b>	<p>Standards .....</p> <p>FCC Rules &amp; Regulations, Title 47:2021  Part 15 paragraph(s): 203, 204, 205, 207, 209, 215 and 247</p>
Non-standard test method .....	N/A
<b>Test Report Form No.</b> .....	15-247_Hopping_DEKRA
Test Report Form(s) Originator ...:	DEKRA Testing and Certification S.r.l.
Master TRF .....	2023-11

#### General disclaimer:

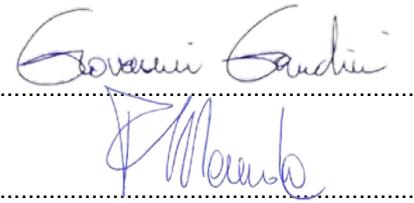
The test results presented in this report relate only to the object tested.

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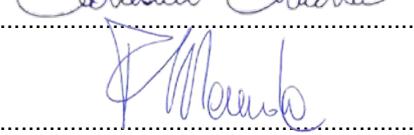
(*) <b>Test item description</b> .....	RF Transceiver module 915-928MHz
(*) Trademark .....	Imet
(*) Manufacturer .....	Imet S.r.l.
(*) Model / Type reference .....	B921C
(*) FCC ID .....	2AYRTB921C
(*) Rating(s).....	3,7 Vdc from battery

#### Report

Tested by (name + signature) ....: G. Gandini



Approved by (name +  
signature) .....



(\*) information provided by the customer

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**2 Reference standard**

FCC Rules and Regulation Title 47 part 15:2021 | --

**3 List of attachments**

Attachment 1: Measurement uncertainty, judgement of compliance and quality manual references

**4 Deviation(s) from test specification**

None

**5 Testing location**

DEKRA Testing and Certification S.r.l.

Via della Fisica, 20 – 36016 Thiene (VI) – Italy

Test site facility's FCC registration number: 182474

<b>Revision index</b>	<b>Date</b>	<b>Change history</b>
1.0	08.02.2024	--

**Testing and sampling:**

Date of receipt of test item .....	16.10.2023
Testing start date .....	18.01.2024
Testing end date .....	05.02.2024
Sampling procedure .....	Sample used for testing chosen by the customer; DEKRA Testing and Certification S.r.l. cannot be considered responsible for the selection of the sample
Internal identification .....	Adhesive label with the product number P230926

**General remarks:**

This report shall not be reproduced, except in full, without the written approval of DEKRA Testing and Certification S.r.l.

The test results presented in this report relate only to the object tested.

“(see appended table)": refers to a table appended to the report.

Throughout this report a comma is used as the decimal separator.

Tests reported in this test report marked by wording: “Test not accredited by ACCREDIA” are not part of the ACCREDIA accreditation of this laboratory.

**Possible test case verdicts:**

Test case does not apply to the test object:	N/A (Not Applicable)
Test object meets the requirement:	P (Pass)
Test object does not meet the requirement:	F (Fail)
Test object was not evaluated for the requirement:	N/E (Not Executed)

**Definition of symbols used in this test report:**

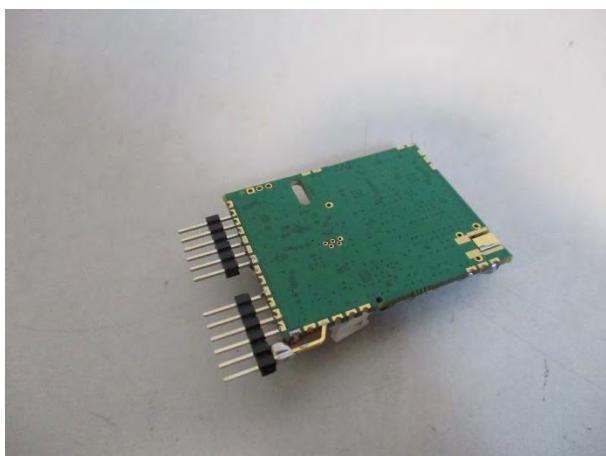
Indicates that the listed condition, standard or equipment is applicable for this report.

Indicates that the listed condition, standard or equipment is not applicable for this report.

## 6 General description of tested item and testing condition(s)

Description .....	RF Transceiver module 915-928MHz											
Model Number .....	B921C											
FCC ID .....	2AYRTB921C											
Serial Number.....	--											
Brand name .....	Imet											
Frequency band .....	902 – 928 MHz											
Nominal frequencies .....	F <sub>L</sub> : 915,200 MHz	F <sub>M</sub> : 921,400 MHz	F <sub>H</sub> : 927,800 MHz									
Test power supply.....		Voltage and Frequency	Reference poles									
			N	L1	L2	L3	PE					
	<input type="checkbox"/>	AC:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
	<input type="checkbox"/>	AC:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
	<input checked="" type="checkbox"/>	DC: 3,7 V from battery					<input type="checkbox"/>					
Software version .....	PCB921_R00_IC326_915MHz_1v3.hex											
Pseudo randomly ordered list of hopping frequencies .....	See document B921C DEVICE DESCRIPTION REV.0_EN											
Type of equipment .....	<input checked="" type="checkbox"/> Transmitter unit <input checked="" type="checkbox"/> Receiver unit											
Type of station .....	<input checked="" type="checkbox"/> Portable station <input type="checkbox"/> Mobile station											
Test arrangements of EUT .....	<i>Intended operational arrangement(s) of EUT</i>		<i>Test arrangement (see basic standard)</i>									
	<input type="checkbox"/>	Table-top only	Table-top									
	<input type="checkbox"/>	Floor-standing only	Floor-standing									
	<input type="checkbox"/>	Can be floor-standing or table-top	Table-top									
	<input type="checkbox"/>	Rack mounted	In rack or table-top									
	<input checked="" type="checkbox"/>	Other, for example wall mounted, ceiling mounted, handheld, body worn	Table-top									
Operating modes .....	No.	Operating mode of test item										
	1	EUT in continuous transmission at maximum power										
Declination of responsibility .....	Information relating to the description of the sample, components list, and software/hardware version (if reported) are provided by the customer. DEKRA Testing and Certification S.r.l. cannot be considered responsible for this information, for any other document sent by the customer and for any difference between the software version present in the tested sample and that present in the object intended for final sale. In some cases, the software in the tested sample is in a version dedicated exclusively to the test, and therefore does not represent the software installed in the final version of the product.											

## 6.1 Photos of the test item



**7 Verdict summary section**

<b>FCC Rules &amp; Regulations, Title 47:2021</b> <b>Part 15 paragraph(s): 203, 204, 205, 207, 209, 215 and 247</b>			
<b>Clause</b>	<b>Requirement – Test case</b>	<b>Basic standard</b>	<b>Verdict</b>
Part 15.247 (a) (1)	Pseudo randomly ordered list of hopping frequencies	--	<b>P</b>
Part 15.203	Antenna requirements	ANSI C63.10	<b>P</b>
Part 15.207	Conducted emissions	ANSI C63.10	<b>P</b>
Part 15.209	Radiated emissions and spurious emissions	ANSI C63.10	<b>P</b>
Part 15.247	20 dB Bandwidth	ANSI C63.10	<b>P</b>
Part 15.247	Channel Separation	ANSI C63.10	<b>P</b>
Part 15.247	Number of Hopping Channel	ANSI C63.10	<b>P</b>
Part 15.247	Time of occupancy	ANSI C63.10	<b>P</b>
Part 15.247	Band edge	ANSI C63.10	<b>P</b>
Part 15.209 and 15.247	Peak Output Power	ANSI C63.10	<b>P</b>

**Normative references**

<b>Reference no.</b>	<b>Description</b>
FCC Rules and Regulation Title 47 part 15:2021	--
KDB 558074 D01 15.247 Meas Guidance v05r02	Guidance for compliance measurements on Digital Transmission System, Frequency Hopping Spread Spectrum System, and Hybrid System Devices operating under section 15.247 of the FCC rules
ANSI C63.4:2014	American National Standard for Methods of Measuring of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz – 40 GHz
ANSI C63.10:2013	American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices

## 8 Test conditions

### 8.1 General





Environmental reference conditions.....:	<p>The climatic conditions during the tests are within the limits specified by the manufacturer for the operation of the EUT and the test equipment.</p> <p>The climatic conditions during the tests were within the following limits:</p>		
Measurement uncertainties .....	Attachment 1		

## 9 Test results

### 9.1 Antenna requirements

Tested by .....	G. Gandini	
Test date .....	18.01.2024	
Reference standards.....	FCC Rules and Regulation; Titles 47 Part. 15.203 and 15.204	
Test specification .....	<p>An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. This requirement does not apply to carrier current devices or to devices operated under the provisions of §§ 15.211, 15.213, 15.217, 15.219, 15.221, or § 15.236. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with § 15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded</p>	
Antenna type .....	<input type="checkbox"/> Integral antenna <input checked="" type="checkbox"/> External antenna	
Antenna gain .....	1,631 dBi	
External R.F. power amplifier.....	Not Present	

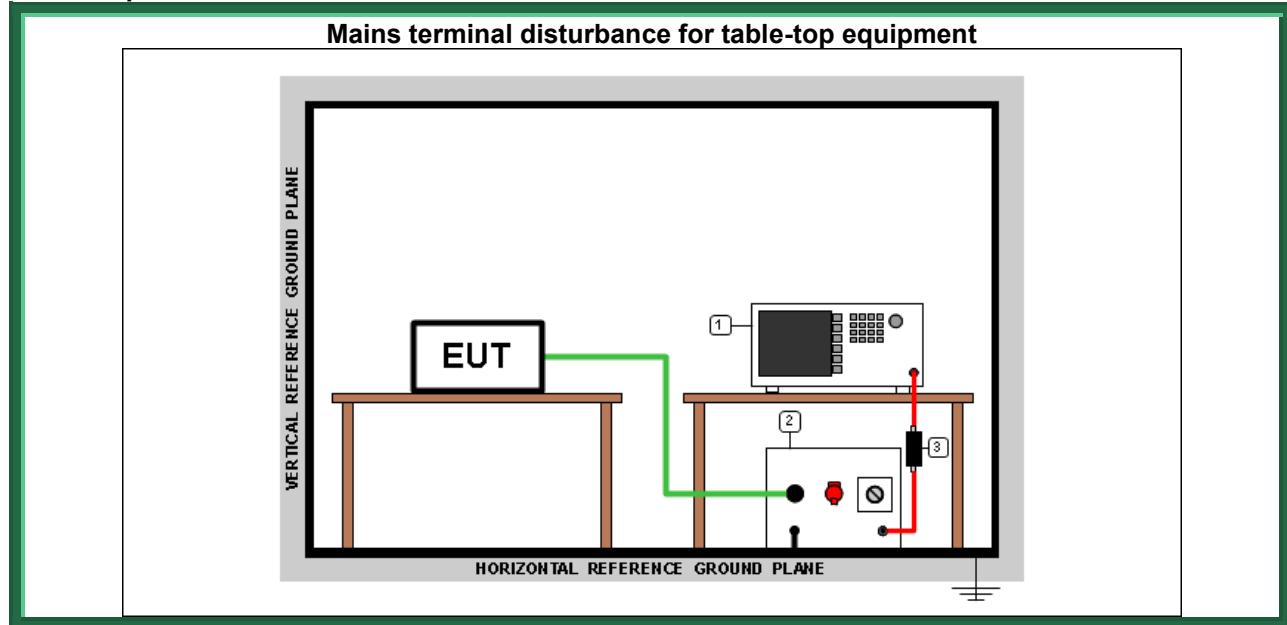
## 9.2 Conducted emission

Tested by .....	G. Gandini	
Test date .....	05.02.2024	
Test location (stand).....	Shielded chamber (CMC A001)	
Reference standards.....	FCC Rules and Regulation; Titles 47 Part. 15.207 ANSI C63.10 cl. 6.2	
Test set-up description.....	<input checked="" type="checkbox"/> Table top equipment set-up (80 cm above the reference ground plane) <input type="checkbox"/> Floor standing equipment set-up (insulating material up to 12 mm thick) <input type="checkbox"/> False floor installation equipment set-up (insulating material up to 34 cm above the reference ground plane)	
Supplementary Test set-up description.....	--	
Test method applied.....	<input checked="" type="checkbox"/> Artificial mains network, 50 $\mu$ H/50 $\Omega$ LISN <input type="checkbox"/> Other:	

### Acceptance limits

Frequency range (MHz)	dB( $\mu$ V) Quasi-peak	dB( $\mu$ V) Average
0,15 to 0,50	66 to 56	56 to 46
0,5 to 5	56	46
5 to 30	60	50

## Test setup



*Test setup PE001\_01*

Nr.	Id. Number	Manufacturer	Model	Serial number	Description	Last calibration date	Calibration expiration
3	CMC S010	Rohde & Schwarz	ESH3-Z2	--	Pulse limiter	January 2023	January 2024
2	CMC S200	Schwarzbeck	NSLK 8128	8128-273	V-LISN	January 2023	January 2024
1	CMC S206	Rohde & Schwarz	ESCI 7	100781	EMC Receiver 9KHz-7GHz	December 2023	December 2024

## Result

Line	Frequency Range (MHz)	Graphs	Remarks	Result
L1	0,15 – 30	G23187940	--	P
N	0,15 – 30	G23187941	--	P

**Remarks:** tests performed with EUT supplied from 120 V ~ 60 Hz power unit

Line	Frequency Range (MHz)	Graphs	Remarks	Result
+3,7 Vdc	0,15 – 30	G23187942	--	P
-3,7 Vdc	0,15 – 30	G23187943	--	P

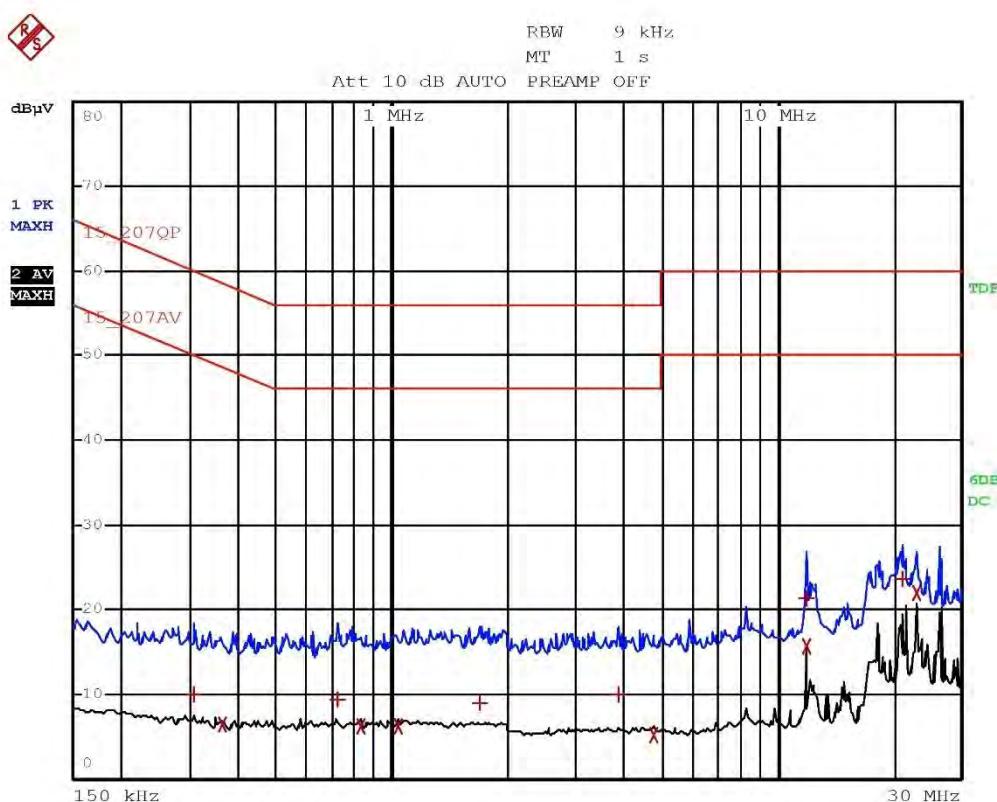
**Remarks:** tests performed with EUT supplied from 3,7 Vdc

### Graphs Legend

PK: Peak; QP [1s] (quasi-peak at 1 second) values are marked with a +

AV: Average; AV [1s] (average at 1 second) values are marked with a X

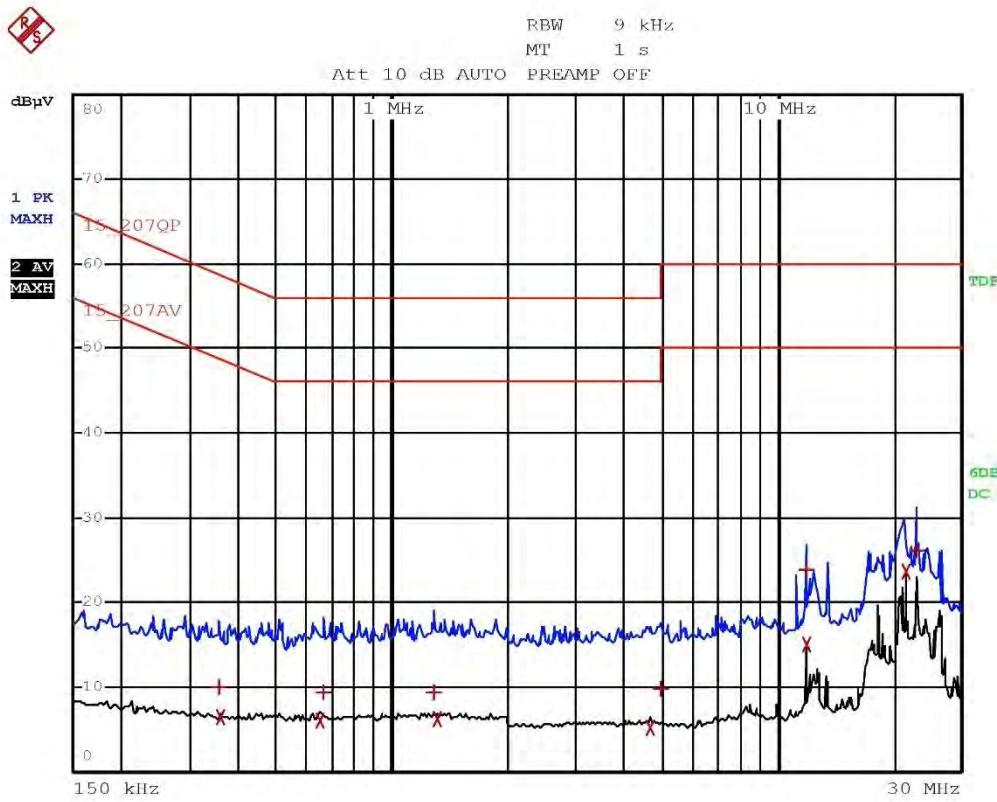
## Graphs



Gandini 23187940

EDIT PEAK LIST (Final Measurement Results)				
Trace1:	15_207QP			
Trace2:	15_207AV			
Trace3:	---			
TRACE	FREQUENCY	LEVEL dB $\mu$ V	DELTA	LIMIT dB
1 Quasi Peak	306 kHz	9.86	-50.20	
2 Average	362 kHz	6.38	-42.30	
1 Quasi Peak	722 kHz	9.24	-46.75	
2 Average	830 kHz	6.17	-39.82	
2 Average	1.034 MHz	6.18	-39.81	
1 Quasi Peak	1.694 MHz	9.00	-46.99	
1 Quasi Peak	3.894 MHz	9.91	-46.08	
2 Average	4.806 MHz	5.04	-40.95	
1 Quasi Peak	11.93 MHz	21.26	-38.73	
2 Average	11.934 MHz	15.62	-34.37	
1 Quasi Peak	21.174 MHz	23.69	-36.31	
2 Average	23.13 MHz	21.88	-28.11	

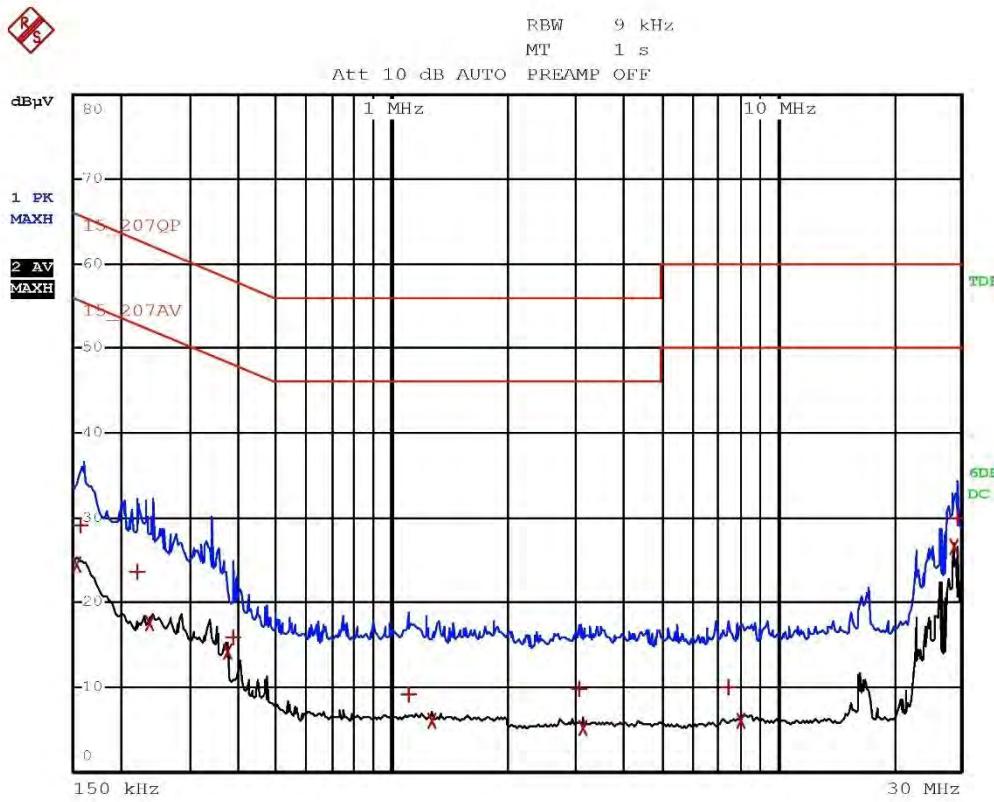
Gandini 23187940



Gandini 23187941

EDIT PEAK LIST (Final Measurement Results)			
Trace1:	15_207QP	Trace2:	15_207AV
Trace3:	---		
TRACE	FREQUENCY	LEVEL dB $\mu$ V	DELTA LIMIT dB
1	Quasi Peak 354 kHz	9.86	-48.99
2	Average 358 kHz	6.36	-42.41
2	Average 650 kHz	6.03	-39.96
1	Quasi Peak 662 kHz	9.32	-46.67
1	Quasi Peak 1.282 MHz	9.24	-46.75
2	Average 1.306 MHz	6.17	-39.82
2	Average 4.694 MHz	5.10	-40.89
1	Quasi Peak 4.99 MHz	9.72	-46.28
1	Quasi Peak 11.938 MHz	23.74	-36.25
2	Average 11.938 MHz	15.03	-34.96
2	Average 21.662 MHz	23.71	-26.28
1	Quasi Peak 23.13 MHz	26.09	-33.90

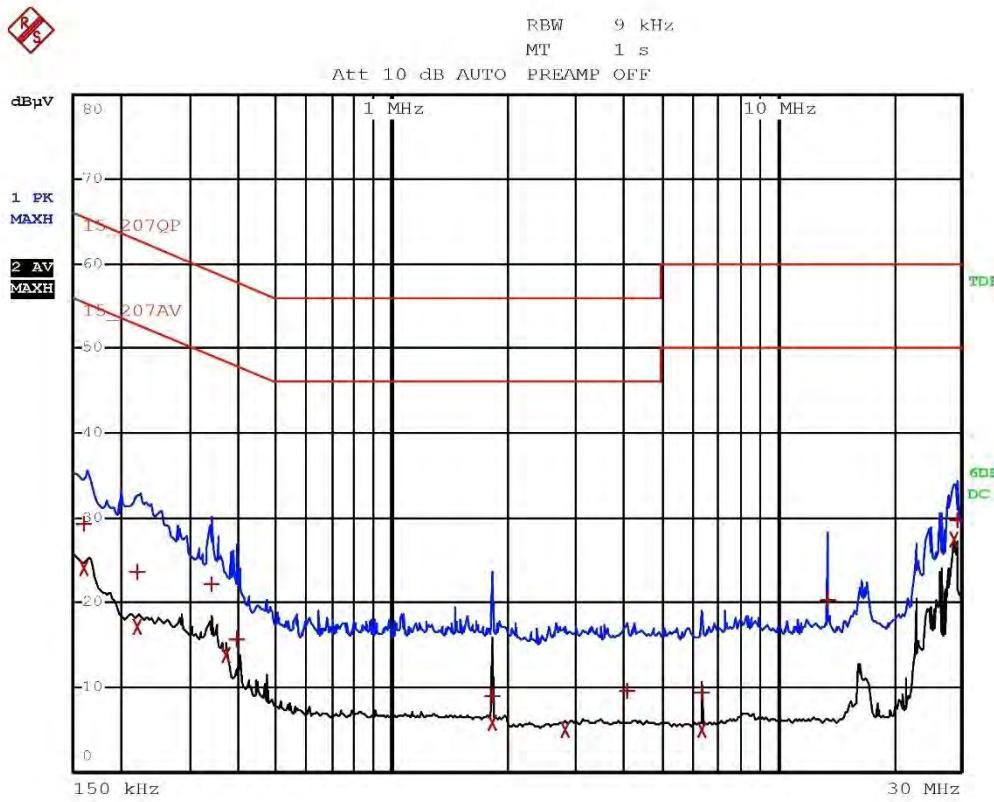
Gandini 23187941



Gandini 23187942

EDIT PEAK LIST (Final Measurement Results)				
Trace1:	15_207QP			
Trace2:	15_207AV			
Trace3:	---			
TRACE	FREQUENCY	LEVEL dB $\mu$ V	DELTA	LIMIT dB
2 Average	154 kHz	24.53	-31.24	
1 Quasi Peak	158 kHz	28.98	-36.58	
1 Quasi Peak	218 kHz	23.57	-39.32	
2 Average	238 kHz	17.44	-34.72	
2 Average	374 kHz	14.13	-34.27	
1 Quasi Peak	386 kHz	15.77	-42.37	
1 Quasi Peak	1.102 MHz	9.08	-46.91	
2 Average	1.278 MHz	6.07	-39.92	
1 Quasi Peak	3.086 MHz	9.81	-46.18	
2 Average	3.15 MHz	5.07	-40.92	
1 Quasi Peak	7.494 MHz	10.05	-49.94	
2 Average	8.058 MHz	5.97	-44.02	
2 Average	28.686 MHz	26.57	-23.42	
1 Quasi Peak	29.238 MHz	30.00	-29.99	

Gandini 23187942



Gandini 23187943

EDIT PEAK LIST (Final Measurement Results)				
Trace1:	15_207QP			
Trace2:	15_207AV			
Trace3:	---			
TRACE	FREQUENCY	LEVEL dB $\mu$ V	DELTA	LIMIT dB
2 Average	162 kHz	24.11	-31.24	
1 Quasi Peak	162 kHz	29.36	-35.99	
1 Quasi Peak	222 kHz	23.54	-39.20	
2 Average	222 kHz	17.09	-35.64	
1 Quasi Peak	338 kHz	22.18	-37.06	
2 Average	370 kHz	13.78	-34.72	
1 Quasi Peak	394 kHz	15.70	-42.27	
1 Quasi Peak	1.822 MHz	8.92	-47.07	
2 Average	1.822 MHz	5.72	-40.27	
2 Average	2.814 MHz	4.93	-41.06	
1 Quasi Peak	4.106 MHz	9.62	-46.37	
1 Quasi Peak	6.386 MHz	9.40	-50.59	
2 Average	6.386 MHz	4.88	-45.11	
1 Quasi Peak	13.554 MHz	20.23	-39.76	
2 Average	28.686 MHz	27.37	-22.62	
1 Quasi Peak	29.238 MHz	29.78	-30.21	

Gandini 23187943

### 9.3 Emissions in restricted frequency bands and in unrestricted frequency bands

Tested by .....	G. Gandini
Test date .....	19.01.2024
Test location (stand) .....	Semi-anechoic chamber (CMC A070)
Reference standards.....	FCC Rules and Regulation; Titles 47 Part. 15.209 ANSI C63.10 cl. 6.3, 6.4, 6.5 and 6.6
Test set-up description.....	<input checked="" type="checkbox"/> Table top equipment set-up (80 cm above the reference ground plane) <input type="checkbox"/> Floor standing equipment set-up (insulating material up to 12 mm thick) <input type="checkbox"/> False floor installation equipment set-up (insulating material up to 34 cm above the reference ground plane)
Supplementary test set-up description.....	--
Test method applied .....	OATS or SAC with measurement distance [m]: 10 m for frequencies below 1 GHz 3 m for frequencies above 1 GHz
Supplementary information .....	--

#### Acceptance limits

Acceptance limits for emissions in restricted frequency bands ( $f < 1000$ MHz)		
Frequency range (MHz)	Test distance (m)	Limits [dB( $\mu$ V/m)]
0,009 to 0,490	300	20log(2400/F(kHz))
0,490 to 1,705	30	20log(24000/F(kHz))
1,705 to 30	30	20log(30)
30 to 88	3	20log(100)**
88 to 216	3	20log(150)**
216 to 960	3	20log(200)**
Above 960	3	20log(500)

\*\*: except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this section shall not be located in the frequency bands 54 – 72 MHz, 76 – 88 MHz, 174 – 216 MHz or 470 – 806 MHz. However, operation within these frequency bands is permitted under other sections of this part, e.g., §§ 15.231 and 15.241.

Perimeter protection systems may operate in the 54 – 72 MHz and 76 – 88 MHz bands under the provisions of this section. The use of such perimeter protection systems is limited to industrial, business and commercial applications.

**Remarks:** the emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9 – 90 kHz and 110 – 490 kHz. Radiated emission limits in these two bands are based on measurements employing an average detector. The results have been extrapolated to the specified distance using an extrapolation factor

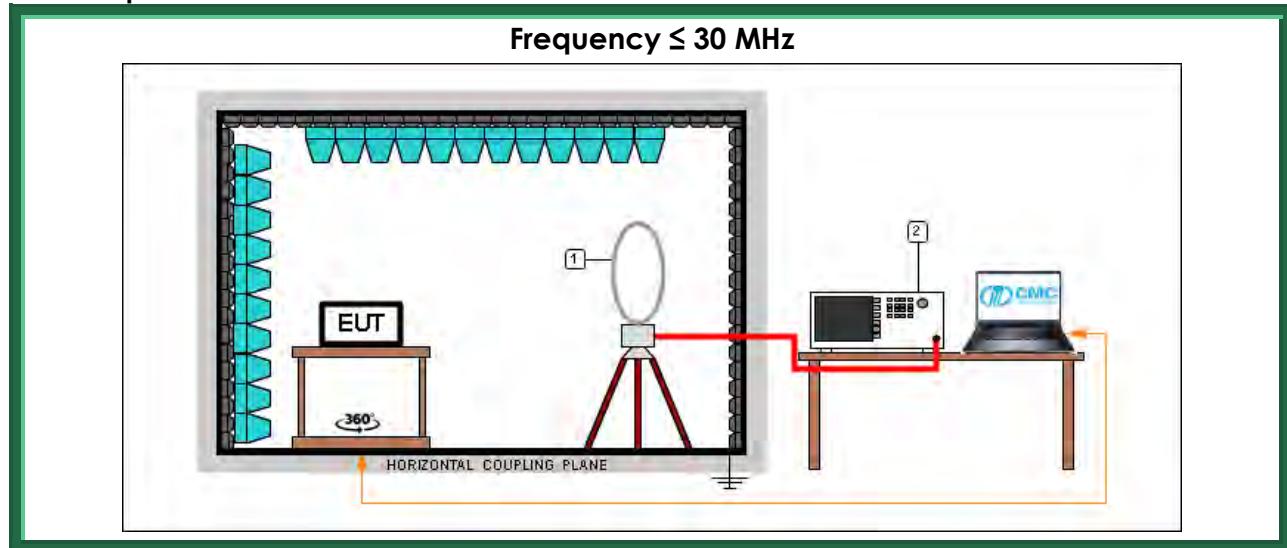
Acceptance limits for emissions in restricted frequency bands ( $f \geq 1000$ MHz)			
Frequency (MHz)	Test distance (m)	AV limits [dB( $\mu$ V/m)]	Peak limits [dB( $\mu$ V/m)]
> 1000	3	54	74

The restricted frequency bands are listed in the following table

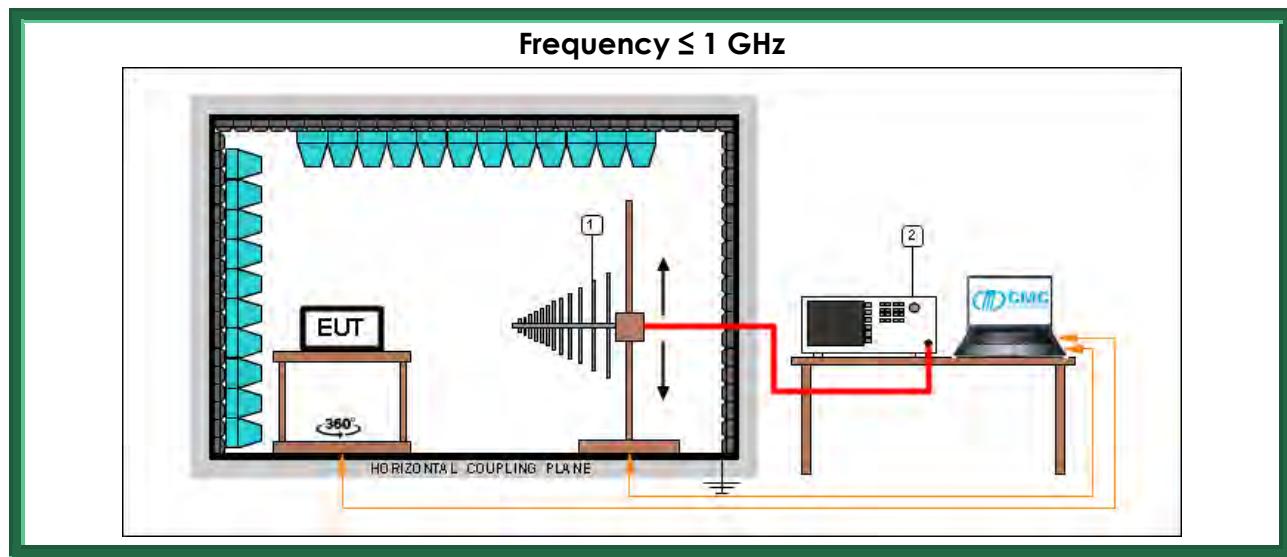
<b>MHz</b>	<b>MHz</b>	<b>MHz</b>	<b>GHz</b>
0,090 – 0,110	16,42 – 16,423	399,9 – 410	4,5 – 5,15
0,495 – 0,505	16,69475 – 16,69525	608 – 614	5,35 – 5,46
2,1735 – 2,1905	16,80425 – 16,80475	960 – 1240	7,25 – 7,75
4,125 – 4,128	25,5 – 25,67	1300 – 1427	8,025 – 8,5
4,17725 – 4,17775	37,5 – 38,25	1435 – 1626,5	9,0 – 9,2
4,20725 – 4,20775	73 – 74,6	1645,5 – 1646,5	9,3 – 9,5
6,215 – 6,218	74,8 – 75,2	1660 – 1710	10,6 – 12,7
6,26775 – 6,26825	108 – 121,94	1718,8 – 1722,2	13,25 – 13,4
6,31175 – 6,31225	123 – 138	2200 – 2300	14,47 – 14,5
8,291 – 8,294	149,9 – 150,05	2310 – 2390	15,35 – 16,2
8,362 – 8,366	156,52475 – 156,52525	2483,5 – 2500	17,7 – 21,4
8,37625 – 8,38675	156,7 – 156,9	2690 – 2900	22,01 – 23,12
8,41425 – 8,41475	162,0125 – 167,17	3260 – 3267	23,6 – 24,0
12,29 – 12,293	167,72 – 173,2	3332 – 3339	31,2 – 31,8
12,51975 – 12,52025	240 – 285	3345,8 – 3358	36,43 – 36,5
12,57675 – 12,57725	322 – 335,4	3600 – 4400	Above 38,6
13,36 – 13,41			

***Acceptance limits for emissions in non-restricted frequency bands***

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits.

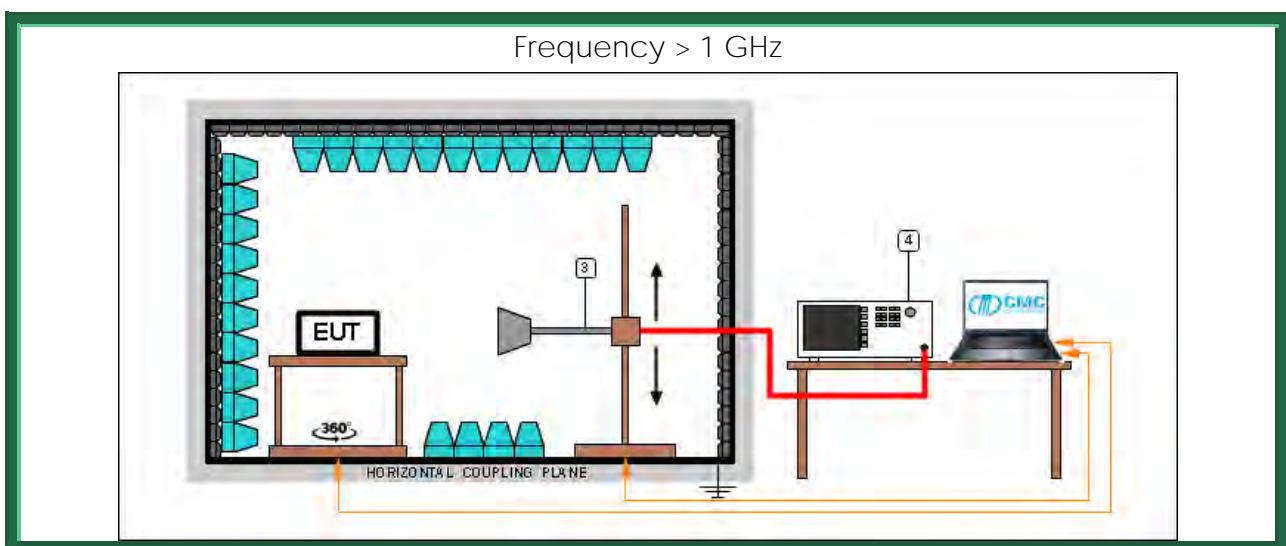
**Test setup**


Test setup PE004_01							
Nr.	Id. Number	Manufacturer	Model	Serial number	Description	Last calibration date	Calibration expiration
2	CMC S353	Rohde & Schwarz	ESW26	101492	Emi Test Receiver	December 2023	December 2024
1	CMC S127	Schaffner	HLA6120	1191	Loop Antenna 9kHz - 30MHz	May 2023	May 2024



Test setup PE004_02							
Nr.	Id. Number	Manufacturer	Model	Serial number	Description	Last calibration date	Calibration expiration
2	CMC S353	Rohde & Schwarz	ESW26	101492	Emi Test Receiver	December 2023	December 2024
1	CMC S271	Schwarzbeck	BBA 9106 + VHBB 9124	831	Broadband Antenna	August 2022	August 2025

Test setup PE004_03							
Nr.	Id. Number	Manufacturer	Model	Serial number	Description	Last calibration date	Calibration expiration
2	CMC S353	Rohde & Schwarz	ESW26	101492	Emi Test Receiver	December 2023	December 2024
1	CMC S287	Schwarzbeck	VUSLP 9111B-203	9111B-203	Broadband Antenna	August 2022	August 2025



Test setup PE004_04							
Nr.	Id. Number	Manufacturer	Model	Serial number	Description	Last calibration date	Calibration expiration
4	CMC S353	Rohde & Schwarz	ESW26	101492	Emi Test Receiver	December 2023	December 2024
3	CMC S108	Emco	3115	9811-5622	Waveguide antenna	August 2022	August 2025

Test setup PE004_05							
Nr.	Id. Number	Manufacturer	Model	Serial number	Description	Last calibration date	Calibration expiration
4	CMC S353	Rohde & Schwarz	ESW26	101492	Emi Test Receiver	December 2023	December 2024
3	CMC S290	Schwarzbeck	BBHA 9170	733	Horn Antenna	October 2021	October 2026

**Result**

Transmission frequency (MHz)	Polarization	Frequency Range (MHz)	Graphs	Result
915,20	V	1000 – 10000	G23187901	P
915,20	H	1000 – 10000	G23187902	P
921,40	H	1000 – 10000	G23187903	P
921,40	V	1000 – 10000	G23187904	P
927,80	V	1000 – 10000	G23187905	P
927,80	H	1000 – 10000	G23187906	P
Worst case	Loop	0,009 – 30	G23187907	P
927,80	H	300 – 1000	G23187908	P
927,80	V	300 – 1000	G23187909	P
921,40	V	300 – 1000	G23187910	P
921,40	H	300 – 1000	G23187911	P
915,20	H	300 – 1000	G23187912	P
915,20	V	300 – 1000	G23187913	P
Worst case	V	30 – 300	G23187914	P
Worst case	H	30 – 300	G23187915	P

**Remarks:** EUT was tested in 3 orthogonal planes, graphs are related to the highest detected levels.

Measurements at frequencies lower than 30 MHz have been performed with an EUT – antenna distance of 10 m. Measured values have been corrected with conversion factor  $40\log(\text{test distance}/10)$  based on the measuring distance provided by the standard.

Measurements at frequencies higher than 30 MHz and lower than 1000 MHz have been performed with an EUT – antenna distance of 10 m. Measured values have been corrected with conversion factor  $20\log(\text{test distance}/10)$  based on the measuring distance provided by the standard.

Peaks above the limits are caused by the nominal transmitting frequencies.

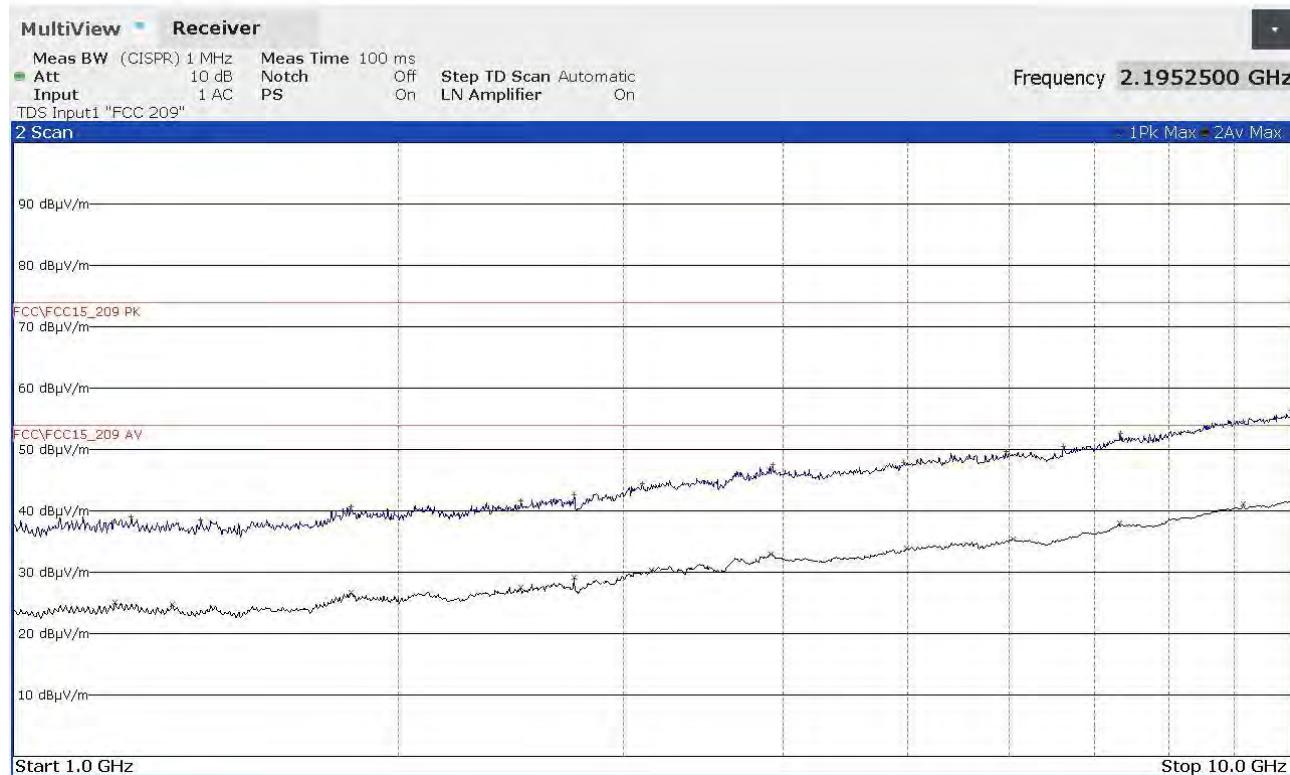
**Graphs Legend**

PK: Peak; QP [1s] (quasi-peak at 1 second) values are marked with a +

AV: Average; AV [1s] (average at 1 second) values are marked with a X

## Graphs

Gandini 23187901

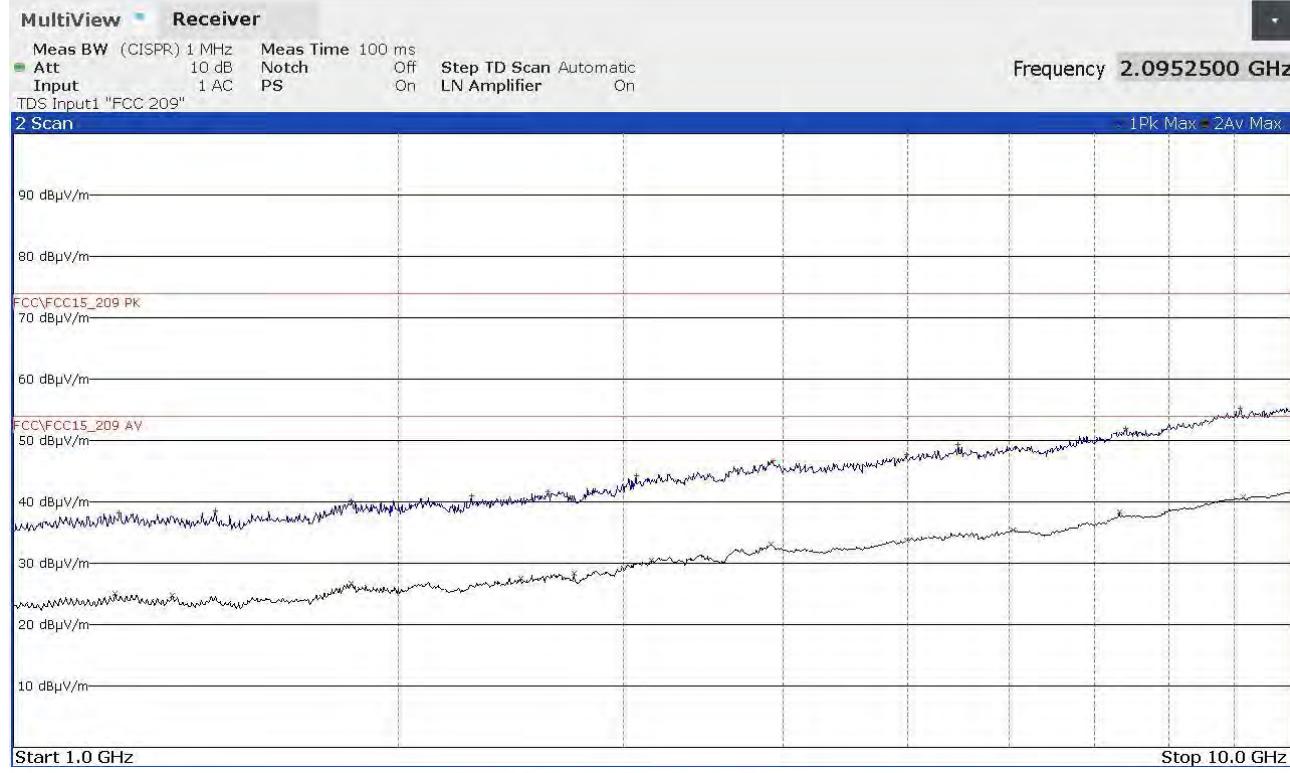


FINAL RESULT TABLE

MAX PEAK			AVERAGE		
Freq Hz	Lev dBuV/m	Margin dB	Freq Hz	Lev dBuV/m	Margin dB
1236250000	+39,09	-34,89	1201000000	+25,16	-28,82
1400750000	+38,51	-35,47	1330250000	+24,74	-29,24
1835750000	+40,65	-33,33	1836250000	+26,69	-27,29
2492000000	+41,58	-32,40	2492500000	+27,59	-26,39
2745750000	+42,66	-31,32	2745500000	+29,16	-24,82
3102000000	+44,49	-29,49	3154750000	+30,39	-23,59
3925250000	+47,57	-26,41	3912500000	+33,00	-20,98
4967000000	+47,95	-26,03	4996750000	+33,86	-20,12
5969250000	+49,74	-24,24	6043750000	+35,39	-18,59
6623500000	+50,57	-23,41	7321500000	+38,05	-15,93
7333000000	+52,59	-21,39	9152000000	+41,14	-12,84
9158500000	+54,51	-19,47	9997500000	+41,88	-12,10
9974500000	+56,39	-17,59			

23187901\_2

Gandini 23187902

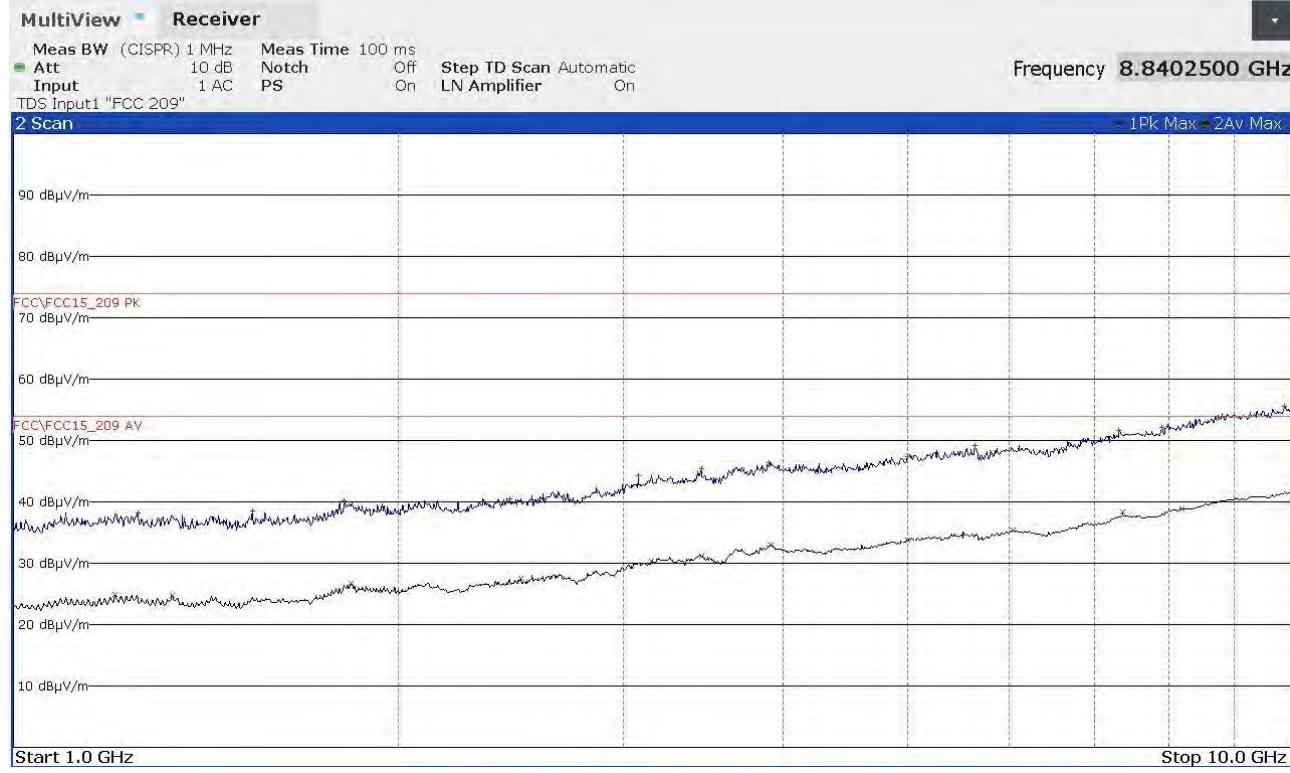


**FINAL RESULT TABLE**

MAX PEAK			AVERAGE		
Freq Hz	Lev dBuV/m	Margin dB	Freq Hz	Lev dBuV/m	Margin dB
1210000000	+38,17	-35,81	1201000000	+25,08	-28,90
1437750000	+38,55	-35,43	1330250000	+24,82	-29,16
1836000000	+40,21	-33,77	1836000000	+26,74	-27,24
2281250000	+41,05	-32,93	2492500000	+27,62	-26,36
2616000000	+41,62	-32,36	2745500000	+28,38	-25,60
3067500000	+44,21	-29,77	3155500000	+30,44	-23,54
3925500000	+46,80	-27,18	3912500000	+33,05	-20,93
4990000000	+47,66	-26,32	4996250000	+33,85	-20,13
5479250000	+49,29	-24,69	6042750000	+35,42	-18,56
7412750000	+52,01	-21,97	7321500000	+38,28	-15,70
9106000000	+55,20	-18,78	9152000000	+40,80	-13,18
9993750000	+56,27	-17,71	9996500000	+41,93	-12,05

23187902\_2

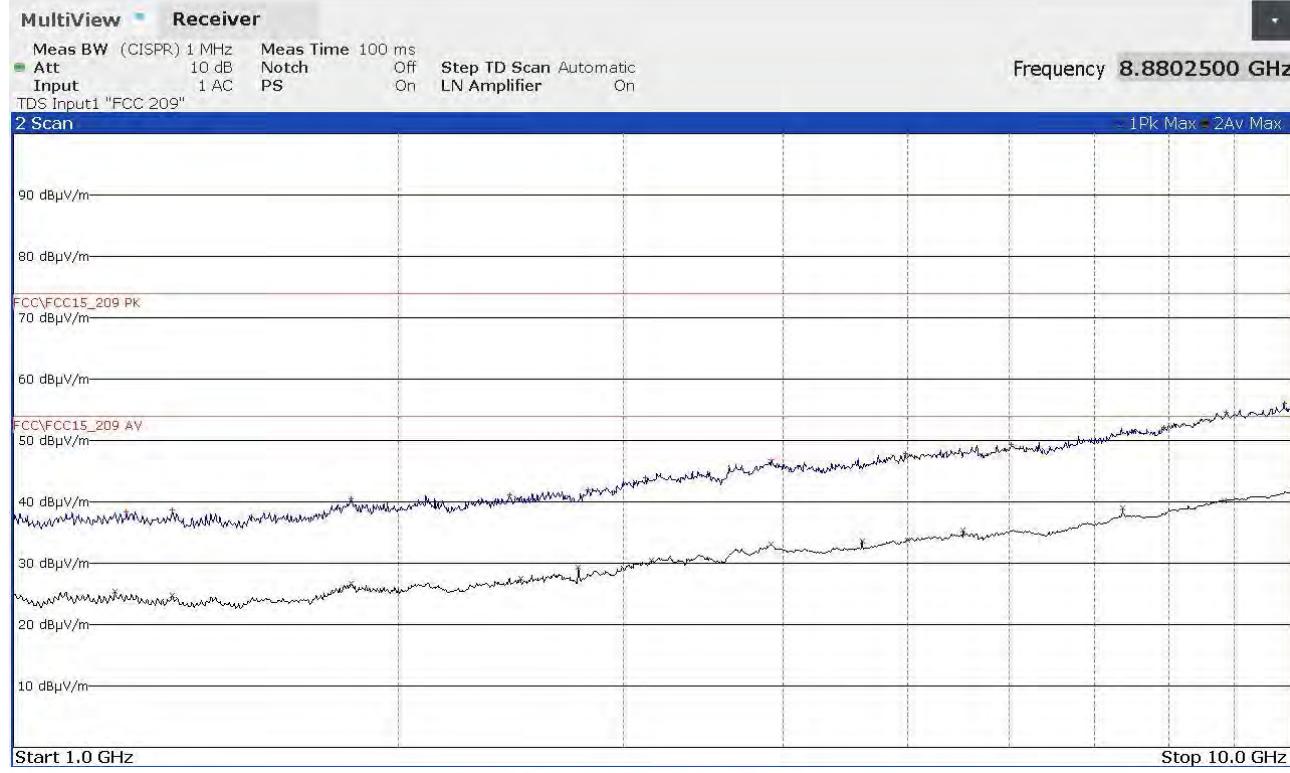
Gandini 23187903


**FINAL RESULT TABLE**

MAX PEAK			AVERAGE		
Freq Hz	Lev dBuV/m	Margin dB	Freq Hz	Lev dBuV/m	Margin dB
1250750000	+38,21	-35,77	1201000000	+24,91	-29,07
1537250000	+38,50	-35,48	1330250000	+24,71	-29,27
1814750000	+40,22	-33,76	1836750000	+26,73	-27,25
2442750000	+40,54	-33,44	2493000000	+27,58	-26,40
3080500000	+44,30	-29,68	3155750000	+30,36	-23,62
3450500000	+45,42	-28,56	3450750000	+31,15	-22,83
3898250000	+46,44	-27,54	3912750000	+33,01	-20,97
5005250000	+47,36	-26,62	4998250000	+33,83	-20,15
5643250000	+49,15	-24,83	6044000000	+35,40	-18,58
7316000000	+51,67	-22,31	7371250000	+38,40	-15,58
7906250000	+52,13	-21,85	8189750000	+38,90	-15,08
9853000000	+55,57	-18,41	9992000000	+41,89	-12,09

23187903\_2

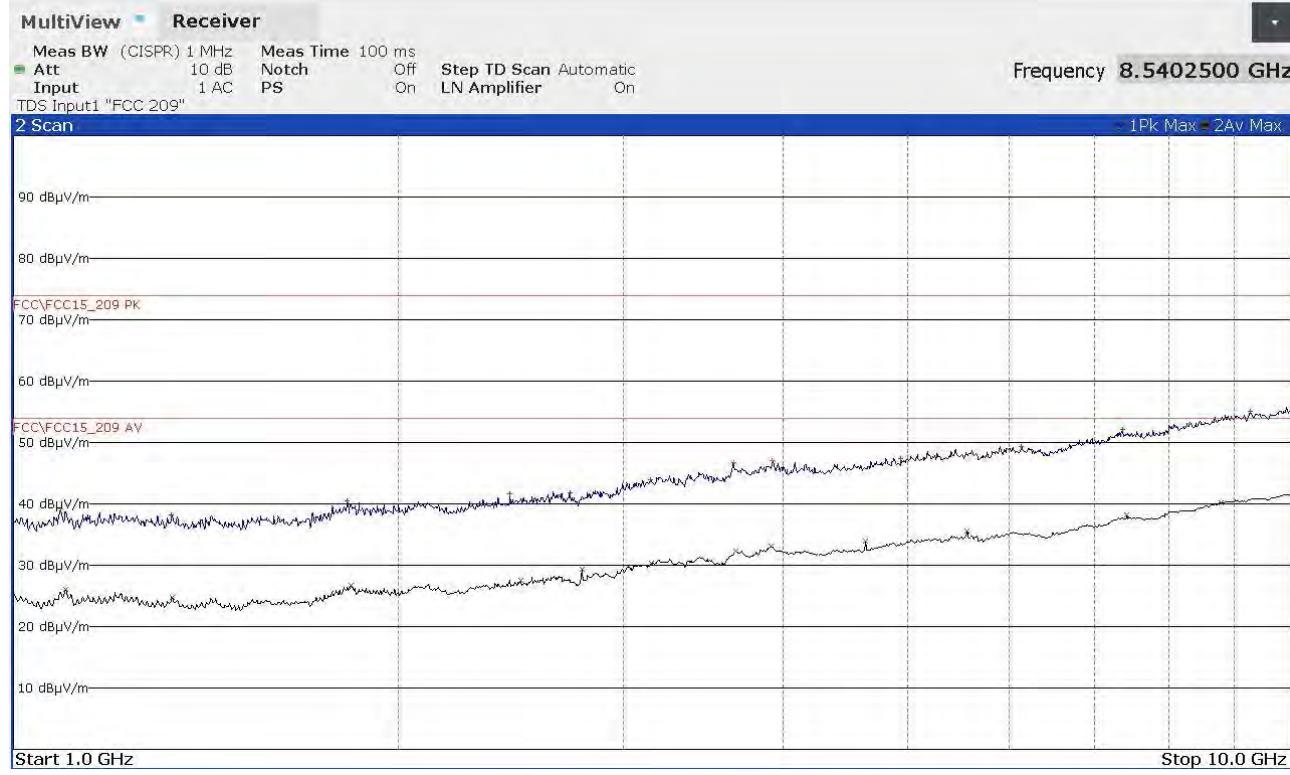
Gandini 23187904


**FINAL RESULT TABLE**

MAX PEAK			AVERAGE		
Freq Hz	Lev dBuV/m	Margin dB	Freq Hz	Lev dBuV/m	Margin dB
1225000000	+38,38	-35,60	1201000000	+25,33	-28,65
1331000000	+38,68	-35,30	1330500000	+24,72	-29,26
1835750000	+40,49	-33,49	1835750000	+26,70	-27,28
2443750000	+41,20	-32,78	2492750000	+27,62	-26,36
2811750000	+42,02	-31,96	2764250000	+29,38	-24,60
3119750000	+43,96	-30,02	3155750000	+30,41	-23,57
3913500000	+46,91	-27,07	3912500000	+33,05	-20,93
4982500000	+47,90	-26,08	4607000000	+33,53	-20,45
6024250000	+49,28	-24,70	4998000000	+33,85	-20,13
7935500000	+52,16	-21,82	5528500000	+35,42	-18,56
8871000000	+54,57	-19,41	7371250000	+38,97	-15,01
9847500000	+56,05	-17,93	8849250000	+40,22	-13,76
			9996500000	+41,89	-12,09

23187904\_2

Gandini 23187905

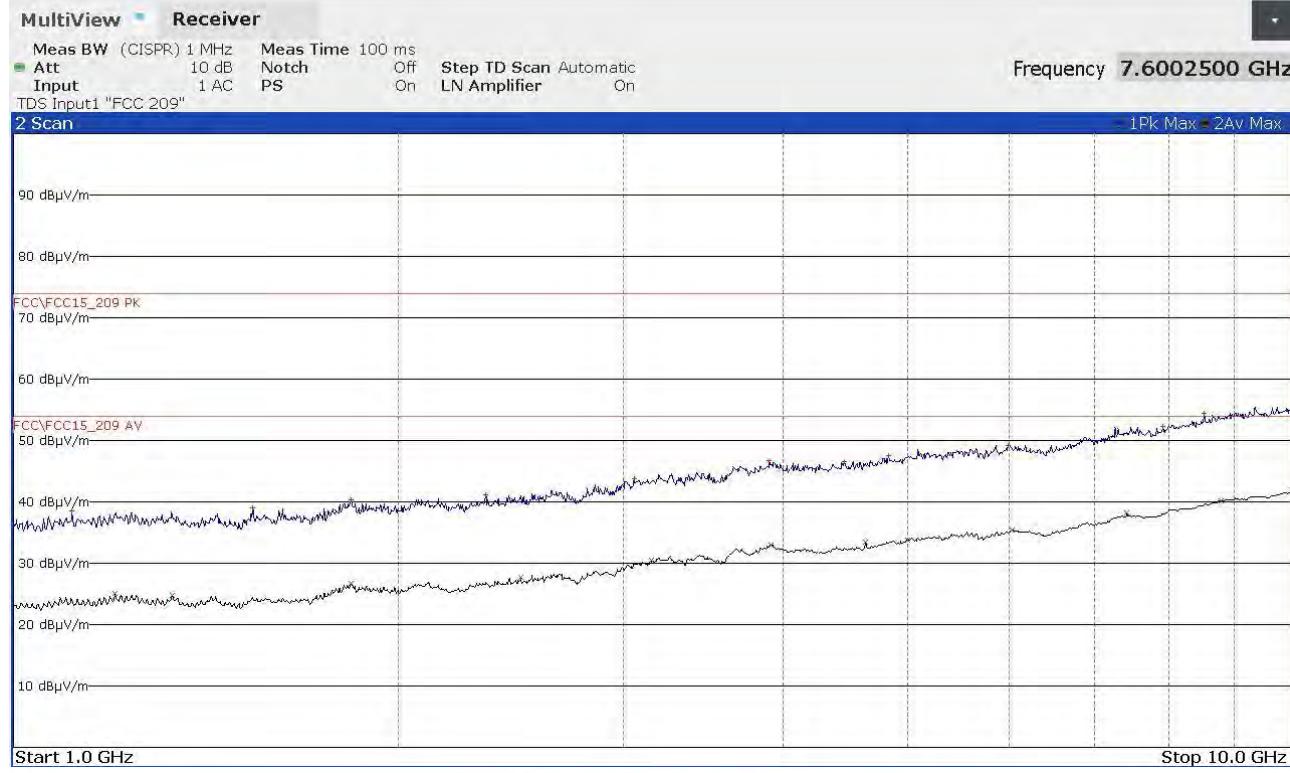


FINAL RESULT TABLE

MAX PEAK			AVERAGE		
Freq Hz	Lev dBuV/m	Margin dB	Freq Hz	Lev dBuV/m	Margin dB
1088000000	+39,12	-34,86	1099250000	+26,12	-27,86
1329250000	+38,23	-35,75	1330750000	+24,71	-29,27
1824000000	+40,49	-33,49	1836500000	+26,71	-27,27
2444000000	+41,64	-32,34	2492500000	+27,60	-26,38
2721500000	+41,86	-32,12	2783500000	+29,39	-24,59
3150750000	+43,91	-30,07	3156500000	+30,40	-23,58
3655500000	+46,74	-27,24	3668750000	+32,29	-21,69
3921500000	+47,04	-26,94	3913250000	+33,05	-20,93
4938500000	+47,41	-26,57	4639000000	+34,01	-19,97
6139500000	+49,35	-24,63	5566750000	+35,60	-18,38
7368000000	+52,15	-21,83	7422500000	+38,26	-15,72
9271250000	+55,09	-18,89	8788000000	+40,24	-13,74
9995000000	+56,06	-17,92	9994000000	+41,89	-12,09

23187905\_2

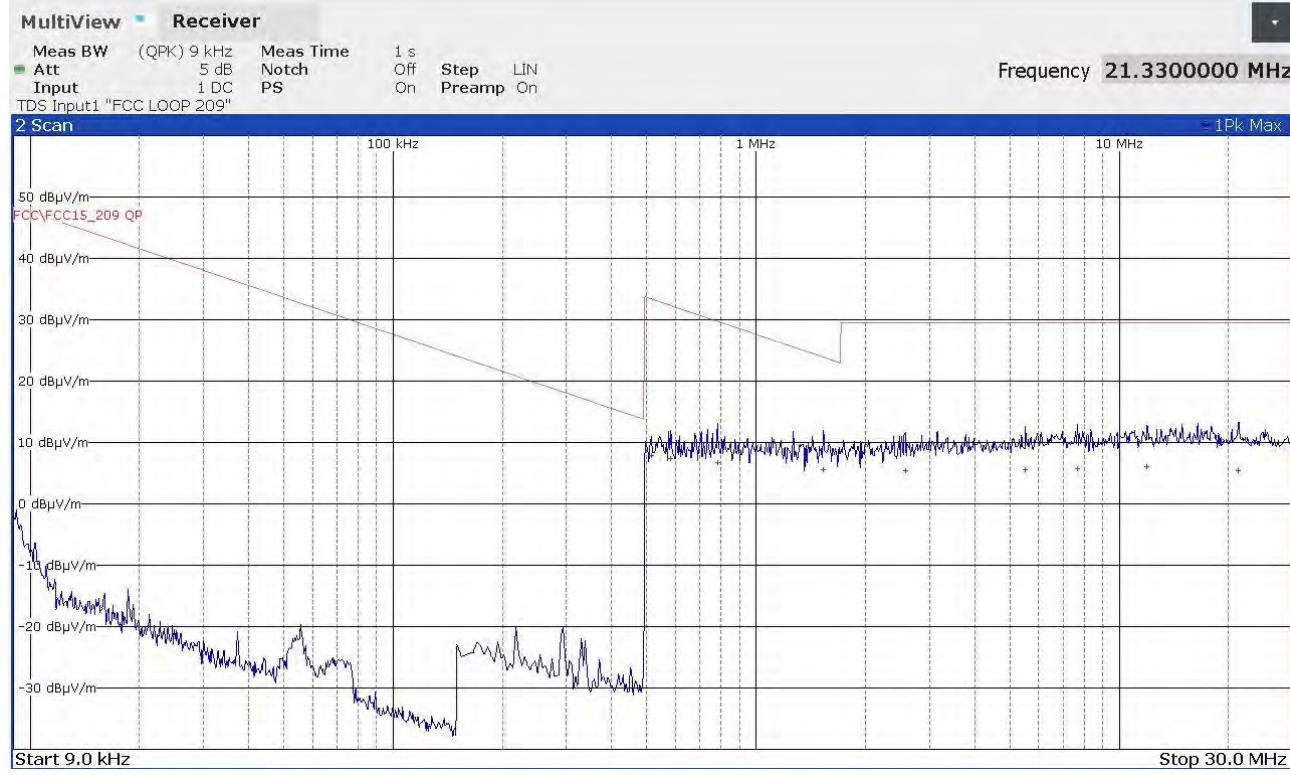
Gandini 23187906


**FINAL RESULT TABLE**

MAX PEAK			AVERAGE		
Freq Hz	Lev dBuV/m	Margin dB	Freq Hz	Lev dBuV/m	Margin dB
1110250000	+38,53	-35,45	1201000000	+25,01	-28,97
1538750000	+39,05	-34,93	1330250000	+24,77	-29,21
1836500000	+40,35	-33,63	1836250000	+26,72	-27,26
2341750000	+41,21	-32,77	2493000000	+27,63	-26,35
3056500000	+43,69	-30,29	3156250000	+30,42	-23,56
3897750000	+46,79	-27,19	3912750000	+33,02	-20,96
4461750000	+46,59	-27,39	4639000000	+33,40	-20,58
4833000000	+47,55	-26,43	4999000000	+33,83	-20,15
5998500000	+49,24	-24,74	6042500000	+35,40	-18,58
7918250000	+52,25	-21,73	7422500000	+38,19	-15,79
8532500000	+54,39	-19,59	8788500000	+40,21	-13,77
9996250000	+55,50	-18,48	9993500000	+41,90	-12,08

23187906\_2

Gandini 23187907



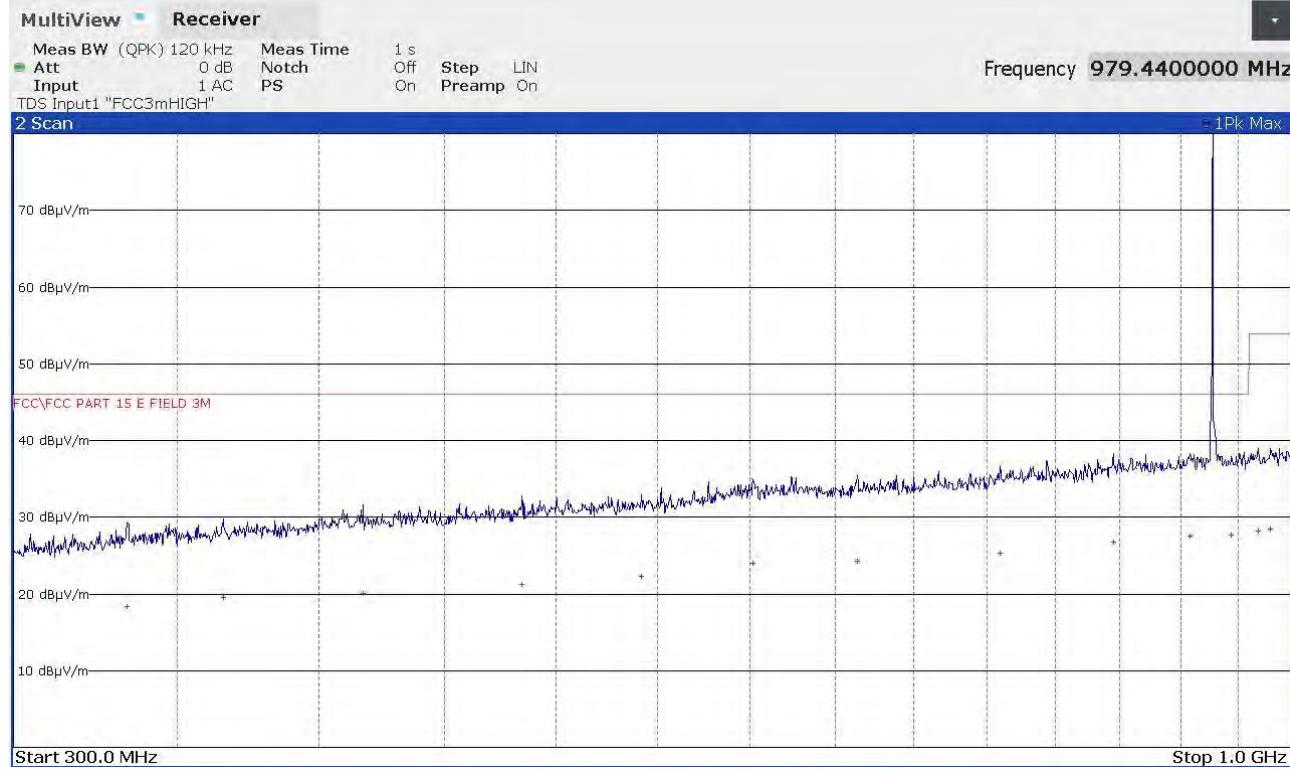
### FINAL RESULT TABLE

#### QUASI PEAK

Freq Hz	Lev dBuV/m	Margin dB
514000	+7,81	-25,57
582000	+7,43	-24,88
782000	+6,68	-23,06
1534000	+5,57	-18,32
2574000	+5,34	-24,20
5506000	+5,65	-23,89
7670000	+5,79	-23,75
11942000	+6,02	-23,52
21330000	+5,49	-24,05

23187907\_2

Gandini 23187908



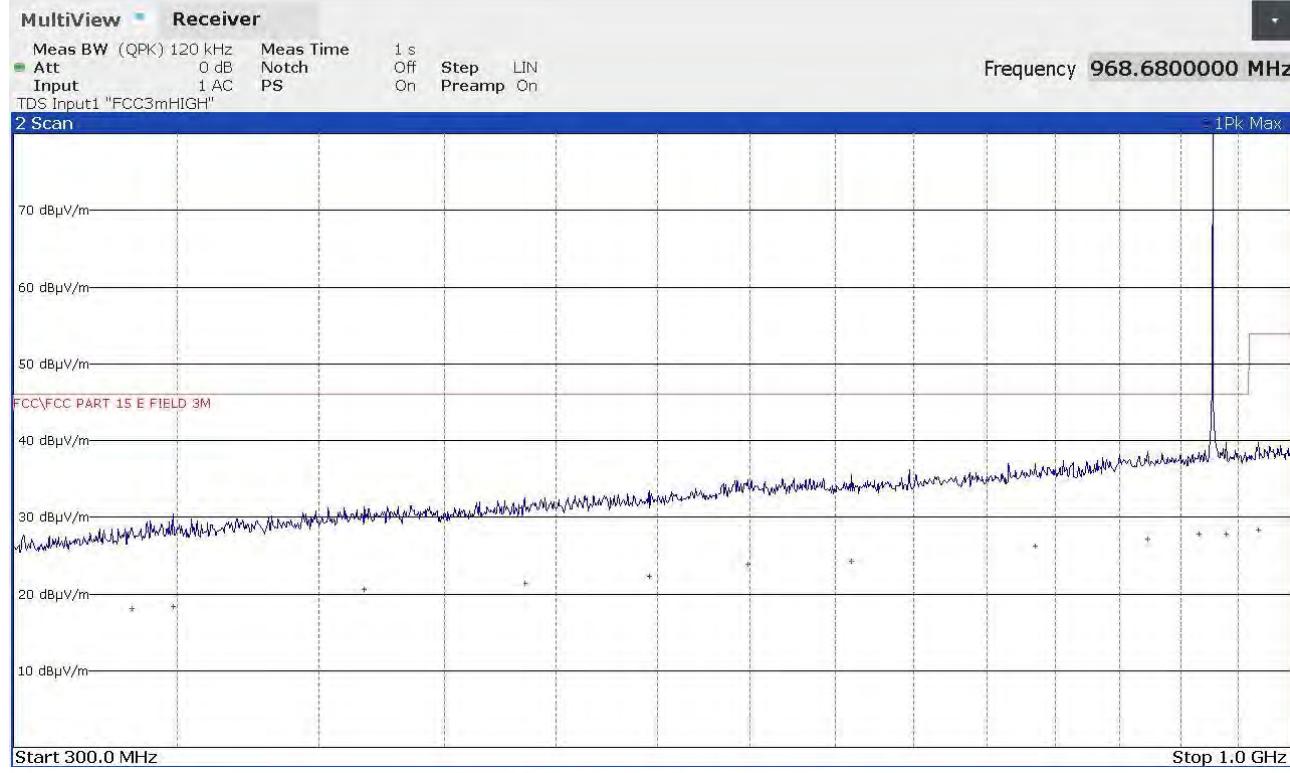
#### FINAL RESULT TABLE

##### QUASI PEAK

Freq Hz	Lev dB $\mu$ V/m	Margin dB
333880000	+18,38	-27,62
365600000	+19,49	-26,51
416880000	+20,05	-25,95
484200000	+21,28	-24,72
541920000	+22,23	-23,77
601560000	+24,03	-21,97
664160000	+24,20	-21,80
759640000	+25,28	-20,72
844920000	+26,75	-19,25
908360000	+27,56	-18,44
944040000	+27,66	-18,34
968200000	+28,15	-25,75
979440000	+28,52	-25,38

23187908\_2

Gandini 23187909



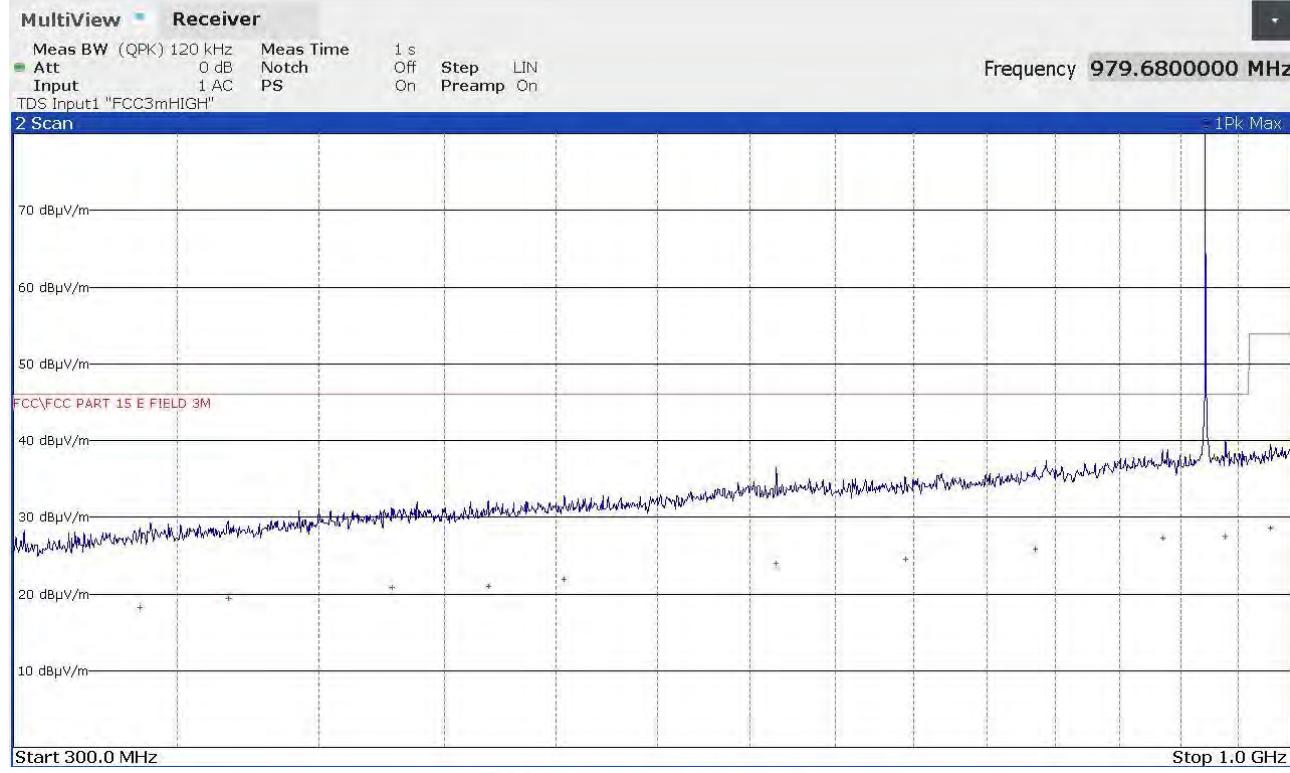
#### FINAL RESULT TABLE

##### QUASI PEAK

Freq Hz	Lev dB $\mu$ V/m	Margin dB
335400000	+18,04	-27,96
348600000	+18,42	-27,58
417480000	+20,64	-25,36
485320000	+21,36	-24,64
545720000	+22,25	-23,75
598840000	+23,91	-22,09
660240000	+24,21	-21,79
784920000	+26,24	-19,76
872720000	+27,09	-18,91
915840000	+27,86	-18,14
939400000	+27,81	-18,19
968680000	+28,29	-25,61

23187909\_2

Gandini 23187910



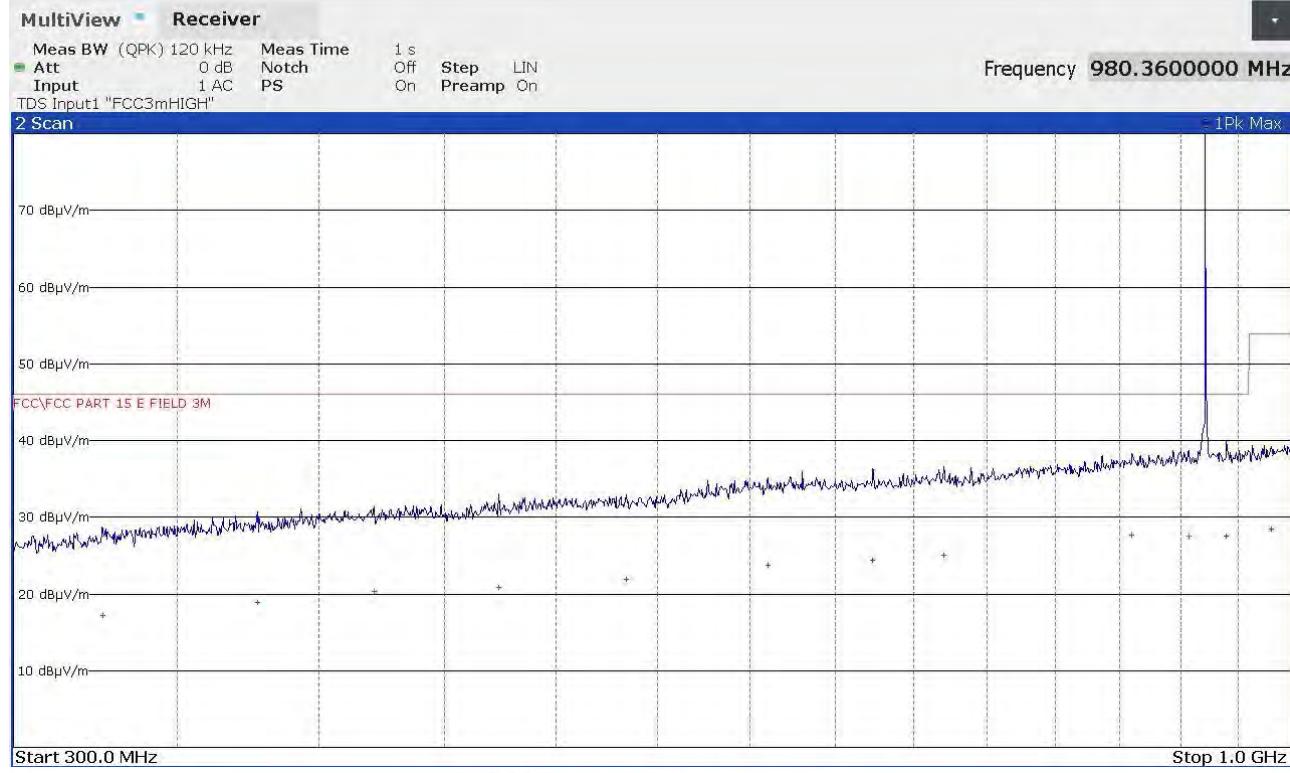
#### FINAL RESULT TABLE

##### QUASI PEAK

Freq Hz	Lev dB $\mu$ V/m	Margin dB
337880000	+18,21	-27,79
367160000	+19,46	-26,54
428320000	+20,91	-25,09
469080000	+20,94	-25,06
503920000	+21,96	-24,04
615200000	+23,94	-22,06
694480000	+24,55	-21,45
784760000	+25,83	-20,17
884880000	+27,24	-18,76
938920000	+27,55	-18,45
979680000	+28,57	-25,33

23187910\_2

Gandini 23187911



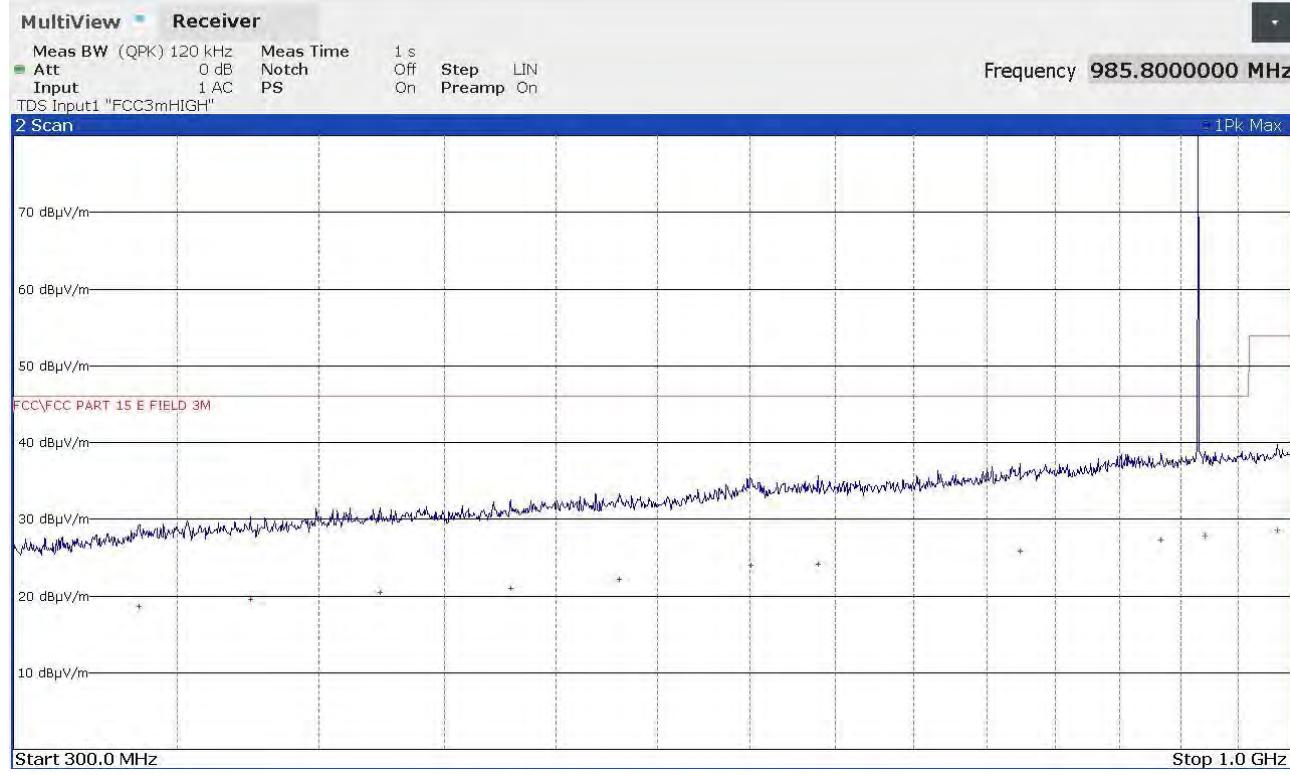
#### FINAL RESULT TABLE

##### QUASI PEAK

Freq Hz	Lev dB $\mu$ V/m	Margin dB
326200000	+17,23	-28,77
377400000	+18,92	-27,08
421160000	+20,28	-25,72
473640000	+20,87	-25,13
534120000	+21,92	-24,08
610160000	+23,77	-22,23
673720000	+24,43	-21,57
720280000	+25,10	-20,90
859880000	+27,61	-18,39
906800000	+27,58	-18,42
939760000	+27,60	-18,40
980360000	+28,52	-25,38

23187911\_2

Gandini 23187912



#### FINAL RESULT TABLE

##### QUASI PEAK

Freq Hz	Lev dB $\mu$ V/m	Margin dB
337800000	+18,57	-27,43
374960000	+19,60	-26,40
423560000	+20,49	-25,51
478960000	+21,02	-24,98
530560000	+22,14	-23,86
600360000	+23,98	-22,02
639800000	+24,11	-21,89
773920000	+25,83	-20,17
883760000	+27,28	-18,72
921320000	+27,84	-18,16
985800000	+28,56	-25,34

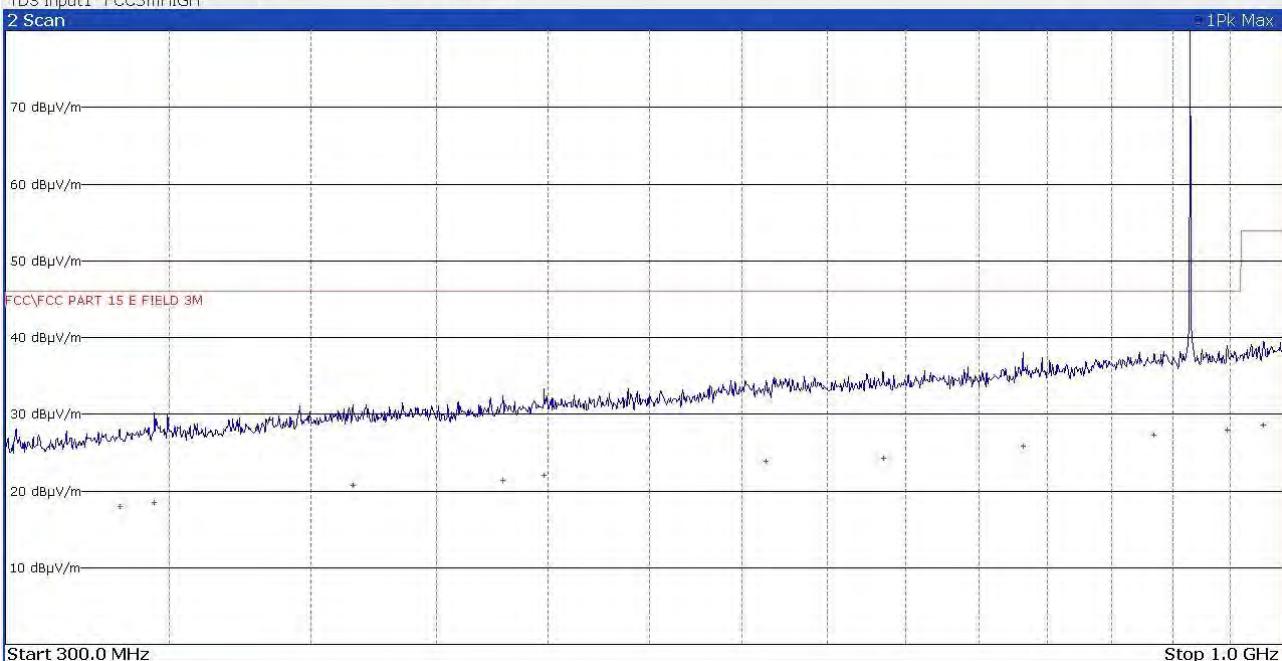
23187912\_2

Gandini 23187913

**MultiView □ Receiver**

Meas BW (QPK) 120 kHz Meas Time 1 s  
 Att 0 dB Off Step LIN  
 Input 1 AC Notch On Preamp On  
TDS Input1 "FCC3mHIGH"

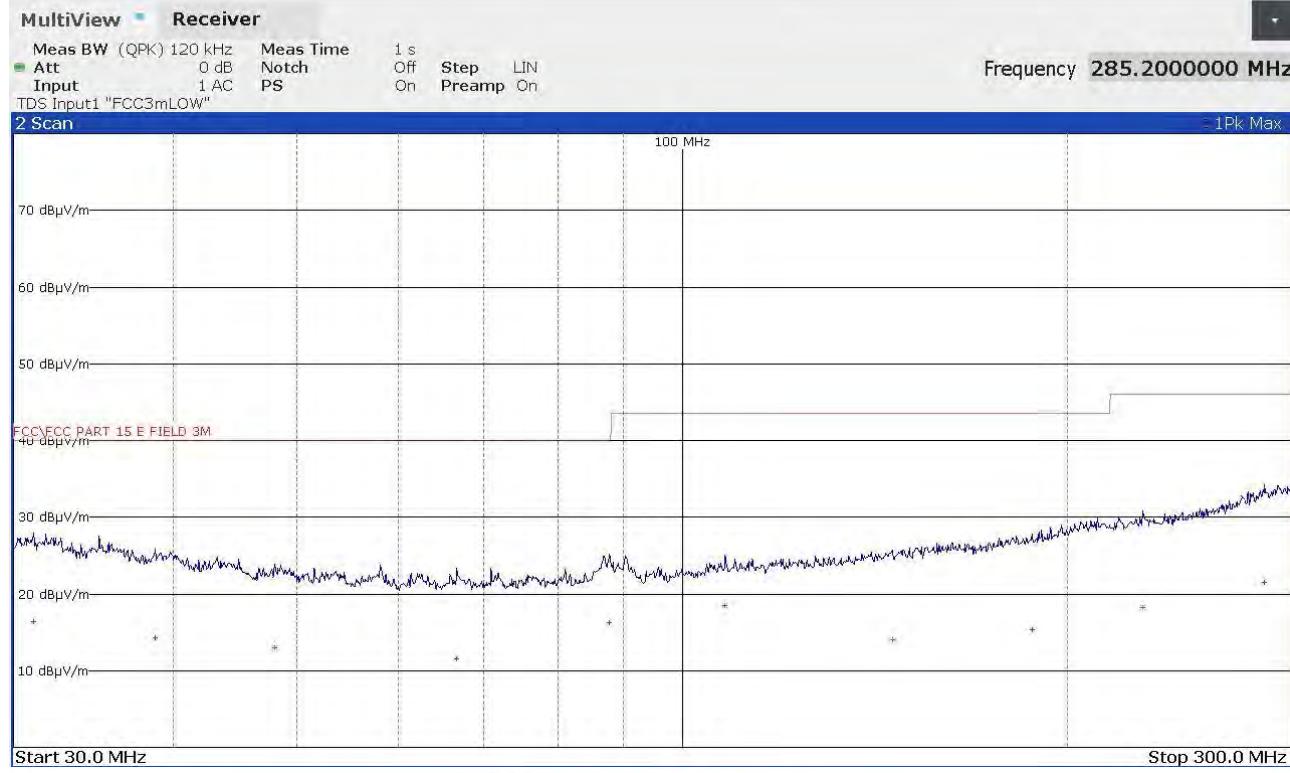
Frequency 980.6800000 MHz


**FINAL RESULT TABLE**
**QUASI PEAK**

Freq Hz	Lev dB $\mu$ V/m	Margin dB
334040000	+18,02	-27,98
345160000	+18,50	-27,50
416000000	+20,70	-25,30
479240000	+21,34	-24,66
498000000	+21,99	-24,01
613920000	+23,91	-22,09
685360000	+24,25	-21,75
781920000	+25,90	-20,10
884600000	+27,26	-18,74
947280000	+28,00	-18,00
980680000	+28,63	-25,27

23187913\_2

Gandini 23187914



#### FINAL RESULT TABLE

##### QUASI PEAK

Freq Hz	Lev dBuV/m	Margin dB
31120000	+16,45	-23,55
38720000	+14,31	-25,69
48000000	+12,95	-27,05
66640000	+11,55	-28,45
87760000	+16,23	-23,77
108000000	+18,55	-24,95
145960000	+13,97	-29,53
187680000	+15,40	-28,10
229160000	+18,17	-27,83
285200000	+21,57	-24,43

23187914\_2

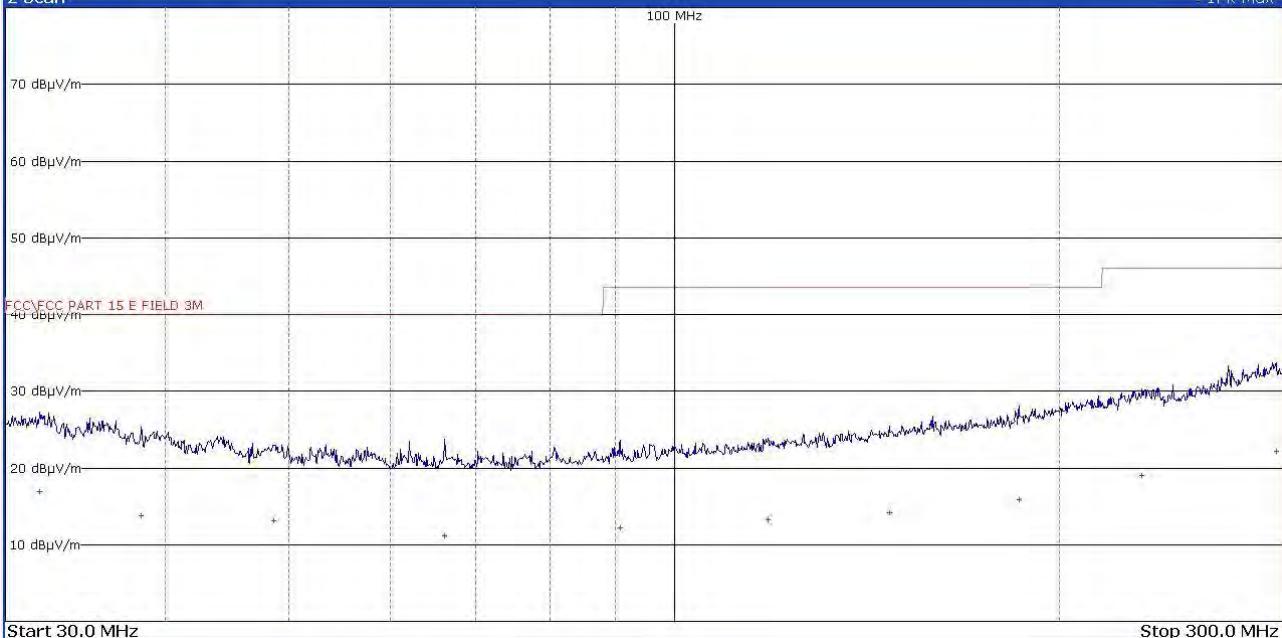
Gandini 23187915

**MultiView □ Receiver**

Meas BW (QPK) 120 kHz    Meas Time 1 s  
 Att 0 dB    Notch Off  
 Input 1 AC    PS Step  
 TDS Input1 "FCC3mLOW" Preamp On

Frequency 295.5200000 MHz

2 Scan



Start 30.0 MHz

Stop 300.0 MHz

**FINAL RESULT TABLE**
**QUASI PEAK**

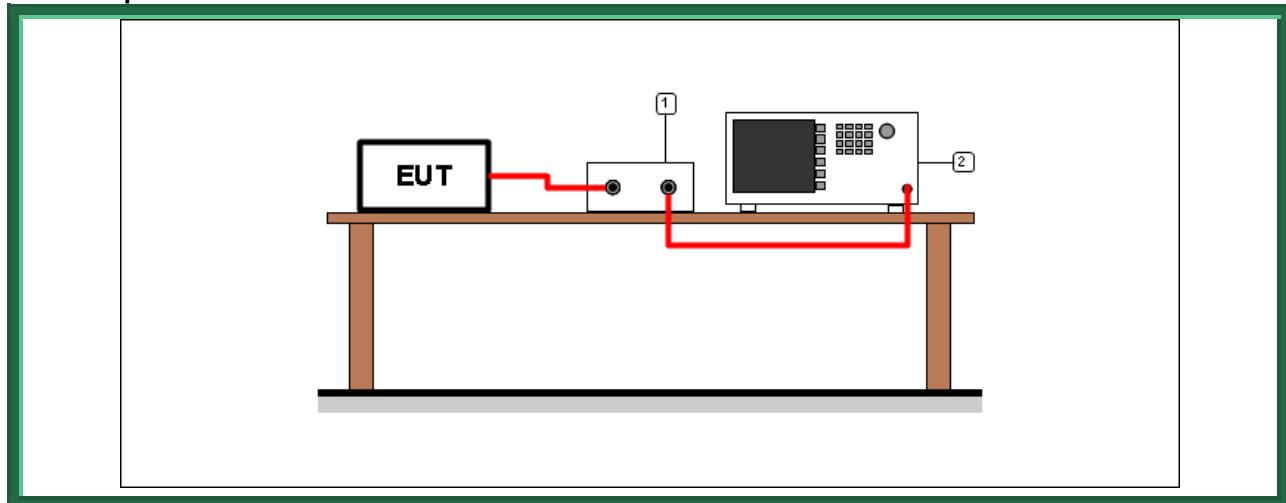
Freq Hz	Lev dBuV/m	Margin dB
31920000	+16,92	-23,08
38320000	+13,76	-26,24
48640000	+13,13	-26,87
66160000	+11,20	-28,80
90680000	+12,22	-31,28
118480000	+13,25	-30,25
147320000	+14,12	-29,38
186000000	+15,83	-27,67
232160000	+19,03	-26,97
295520000	+22,19	-23,81

23187915\_2

#### 9.4 20 dB bandwidth

Tested by .....	G. Gandini
Test date .....	31.01.2024
Test location (stand) .....	Laboratory
Reference standards.....	FCC Rules and Regulation; Titles 47 Part. 15.215 (c) ANSI C63.10 cl. 7.8.7
Supplementary test set-up description.....	--
Supplementary information .....	--

#### Test setup



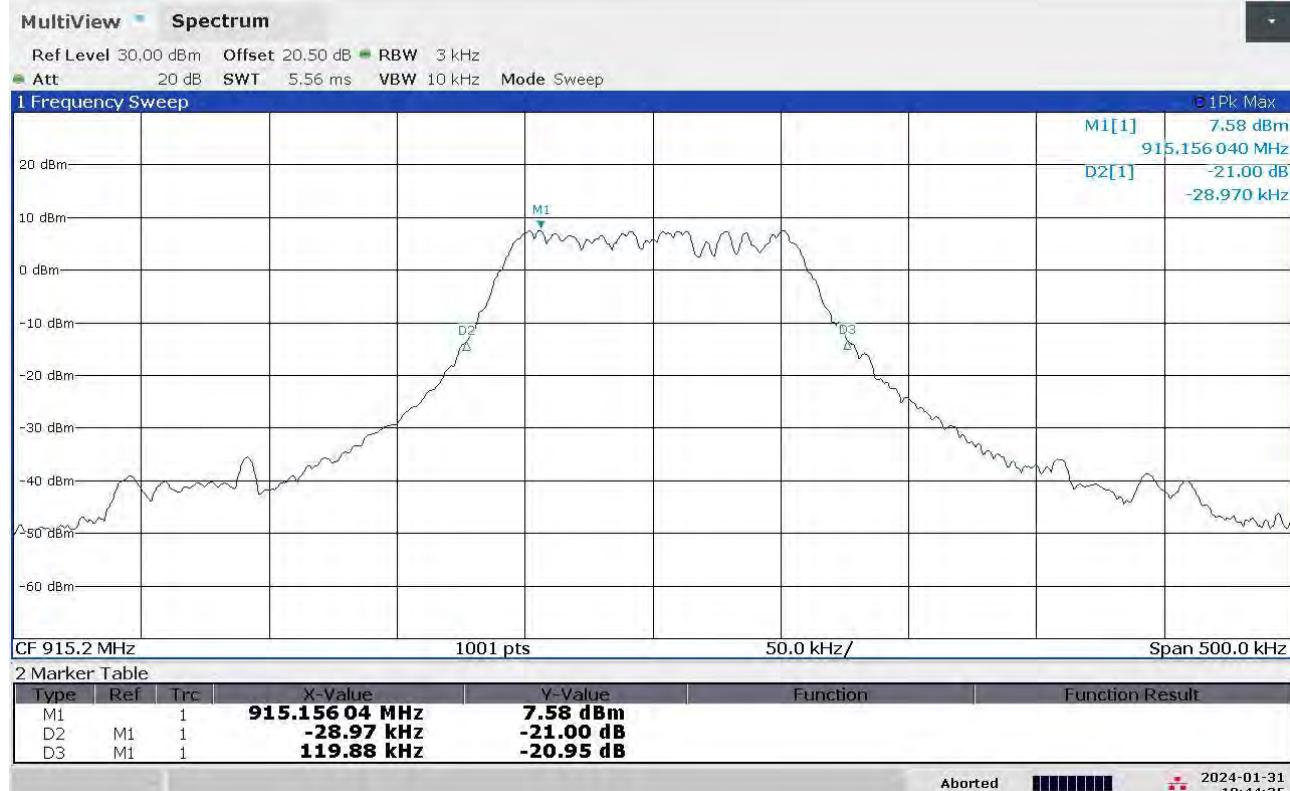
Test setup PR002_01							
Nr.	Id. Number	Manufacturer	Model	Serial number	Description	Last calibration date	Calibration expiration
2	CMC S295	Rohde & Schwarz	FSW43	104059	Spectrum Analyzer 43GHz	January 2023	January 2026
1	--	--	--	--	Cable + attenuator	Calibrated before the test	Calibrated before the test

#### Result

Frequency (MHz)	Graphs	20 dB bandwidth (kHz)
915,20	G23187923	148,85
921,40	G23187928	150,35
927,80	G23187929	150,35

## Graphs

Gandini 23187923



Gandini 23187928





Gandini 23187929



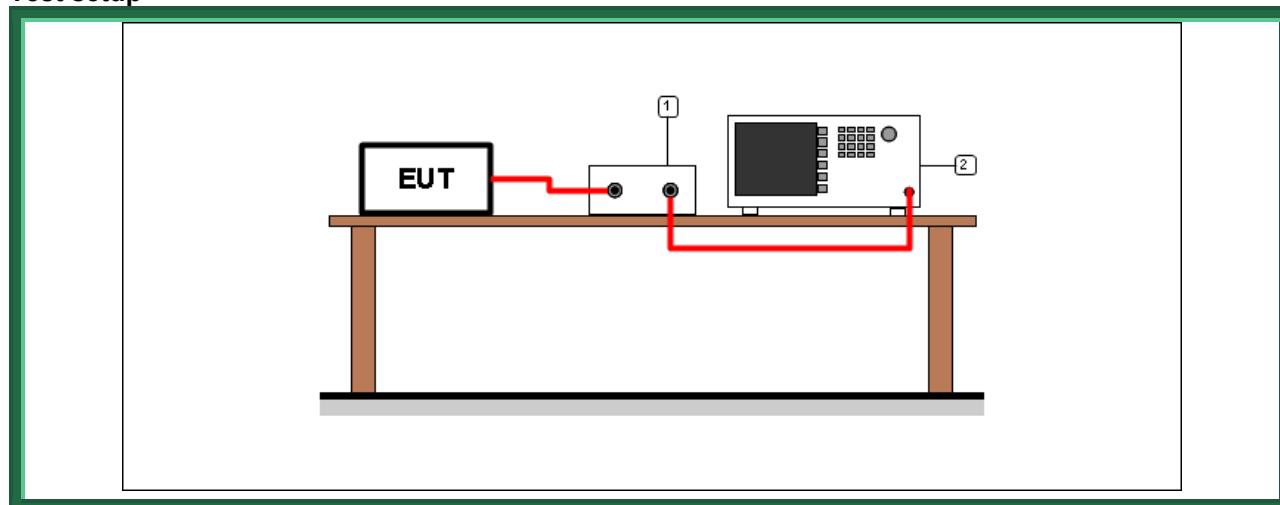
## 9.5 Channel separation

Tested by .....	G. Gandini
Test date .....	01.02.2024
Test location (stand) .....	Laboratory
Reference standards.....	FCC Rules and Regulation; Titles 47 Part. 15.247 KDB 558074 D01 15.247 Meas Guidance v05r02 cl. 9 b) ANSI C63.10 cl. 7.8.2
Supplementary test set-up description.....	--
Supplementary information .....	--

### Acceptance limits

Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater. Alternatively, frequency hopping systems operating in the 2400–2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125 mW. The system shall hop to channel frequencies that are selected at the system hopping rate from a pseudo randomly ordered list of hopping frequencies. Each frequency must be used equally on the average by each transmitter. The system receivers shall have input bandwidths that match the hopping channel bandwidths of their corresponding transmitters and shall shift frequencies in synchronization with the transmitted signals.

### Test setup

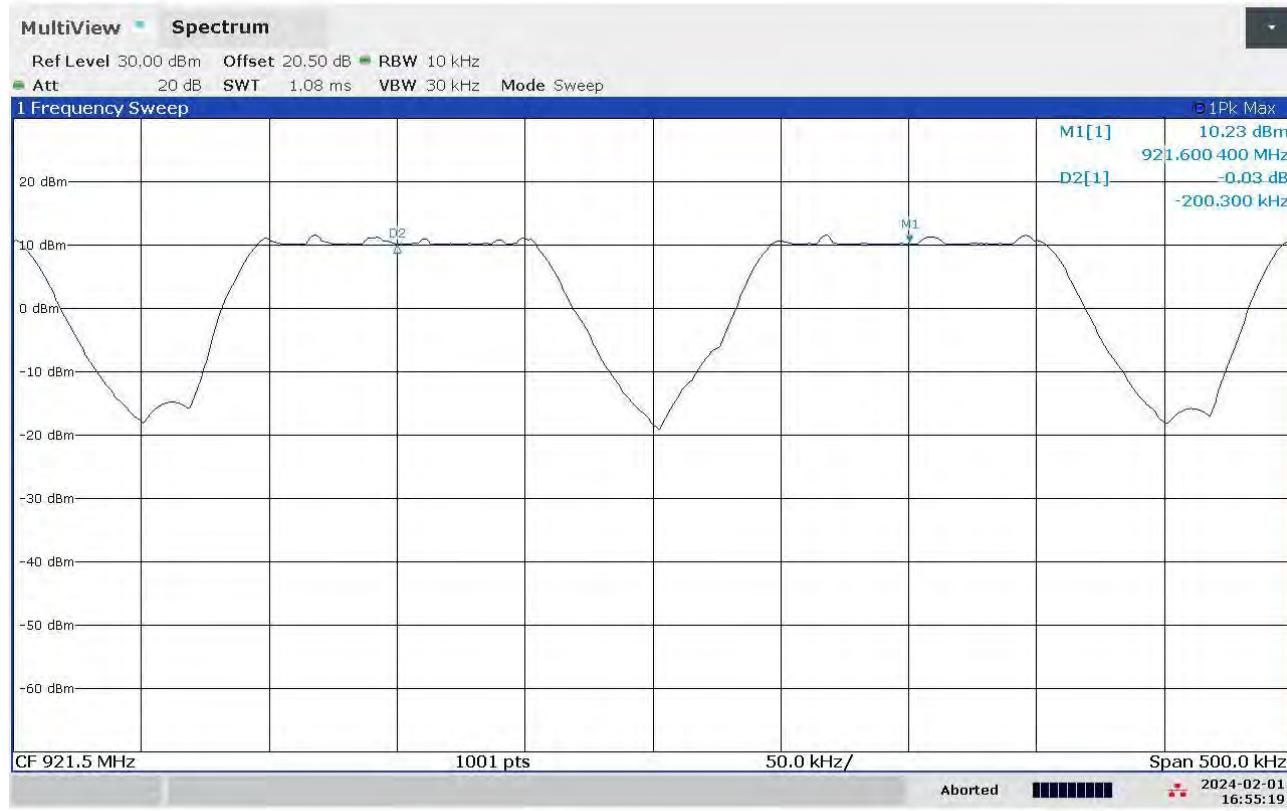


Test setup PR002_01							
Nr.	Id. Number	Manufacturer	Model	Serial number	Description	Last calibration date	Calibration expiration date
2	CMC S295	Rohde & Schwarz	FSW43	104059	Spectrum Analyzer 43GHz	January 2023	January 2026
1	--	--	--	--	Cable + attenuator	Calibrated before the test	Calibrated before the test

**Result**

Frequency band (MHz)	Graphs	Channel separation (kHz)	Minimum channel separation required (kHz)	Results
902 – 928	G23187936	200,3	150,35	Complies

**Remarks:** minimum channel separation is the 20 dB bandwidth, greater than 25 kHz

**Graphs**
**Gandini 23187936**


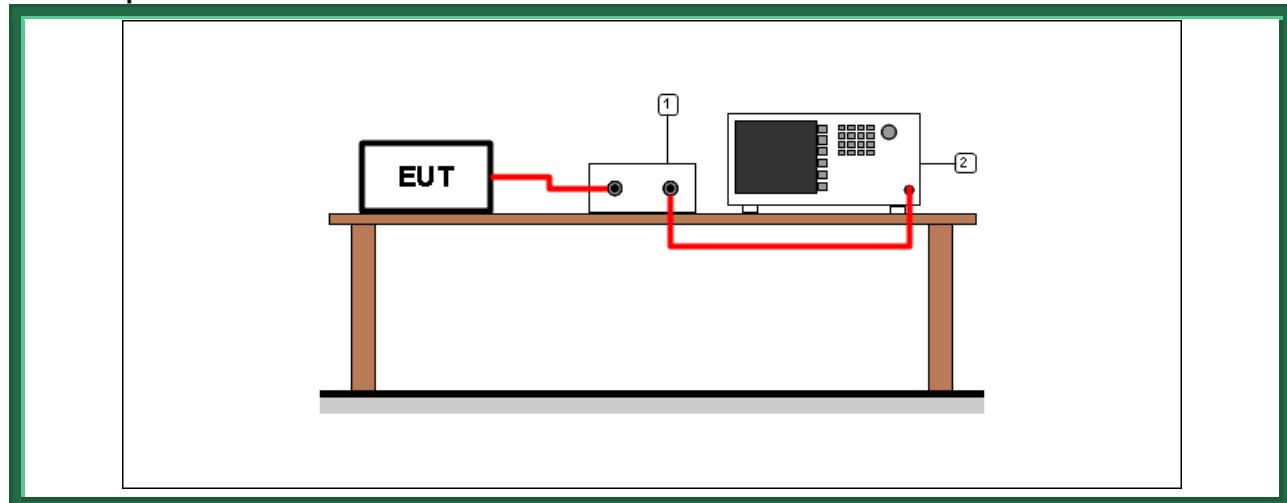
## 9.6 Number of hopping channels

Tested by .....	G. Gandini
Test date .....	01.02.2024
Test location (stand) .....	Laboratory
Reference standards.....	FCC Rules and Regulation; Titles 47 Part. 15.247 KDB 558074 D01 15.247 Meas Guidance v05r02 cl. 9 b) ANSI C63.10 cl. 7.8.3
Supplementary test set-up description.....	--
Supplementary information .....	--

### Acceptance limits

For frequency hopping systems operating in the 902 – 928 MHz band: if the 20 dB bandwidth of the hopping channel is less than 250 kHz, the system shall use at least 50 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0,4 seconds within a 20 second period; if the 20 dB bandwidth of the hopping channel is 250 kHz or greater, the system shall use at least 25 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0,4 seconds within a 10 second period. The maximum allowed 20 dB bandwidth of the hopping channel is 500 kHz.

### Test setup



Test setup PR002\_01

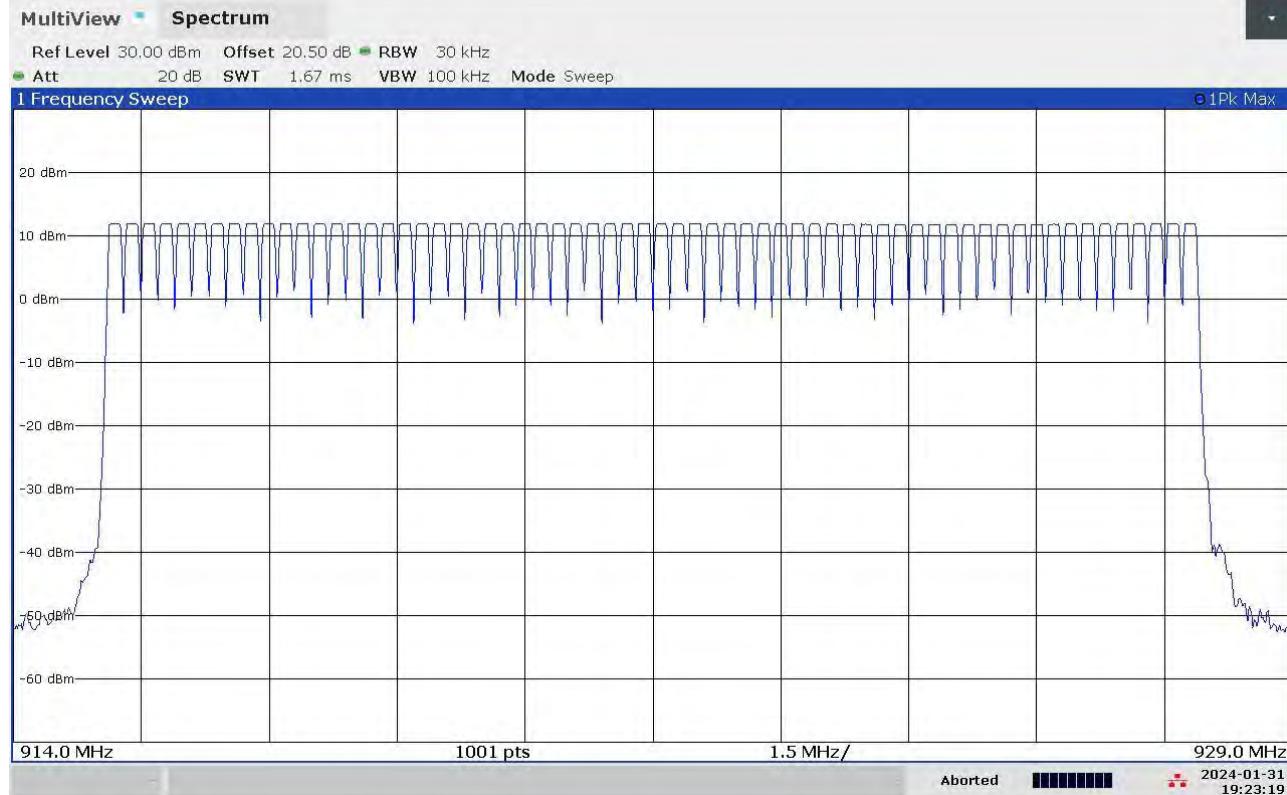
Nr.	Id. Number	Manufacturer	Model	Serial number	Description	Last calibration date	Calibration expiration
2	CMC S295	Rohde & Schwarz	FSW43	104059	Spectrum Analyzer 43GHz	January 2023	January 2026
1	--	--	--	--	Cable + attenuator	Calibrated before the test	Calibrated before the test

## Result

Frequency band (MHz)	Graphs	Number of hopping channels	Minimum number of hopping channels required	Results
902 – 928	G23187920 G23187921 G23187922	64	50	Complies

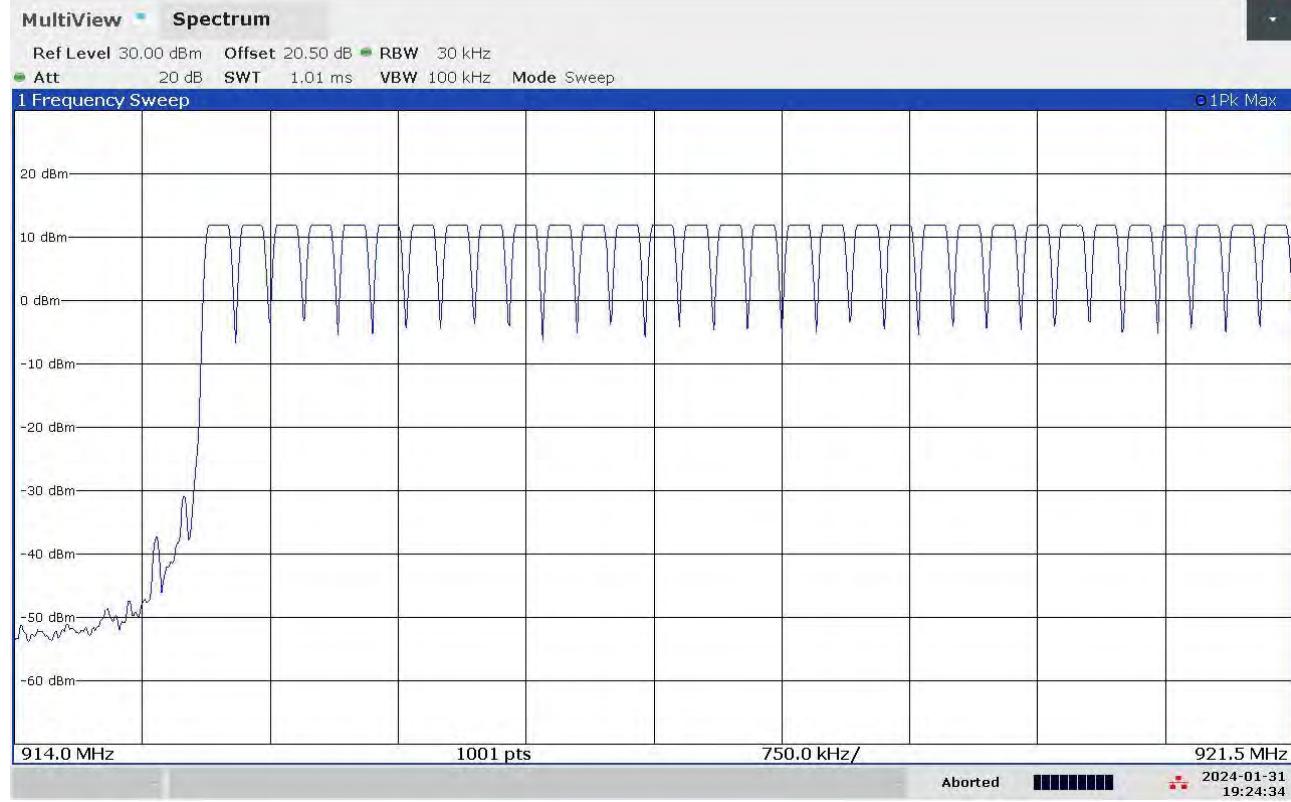
## Graphs

Gandini 23187920

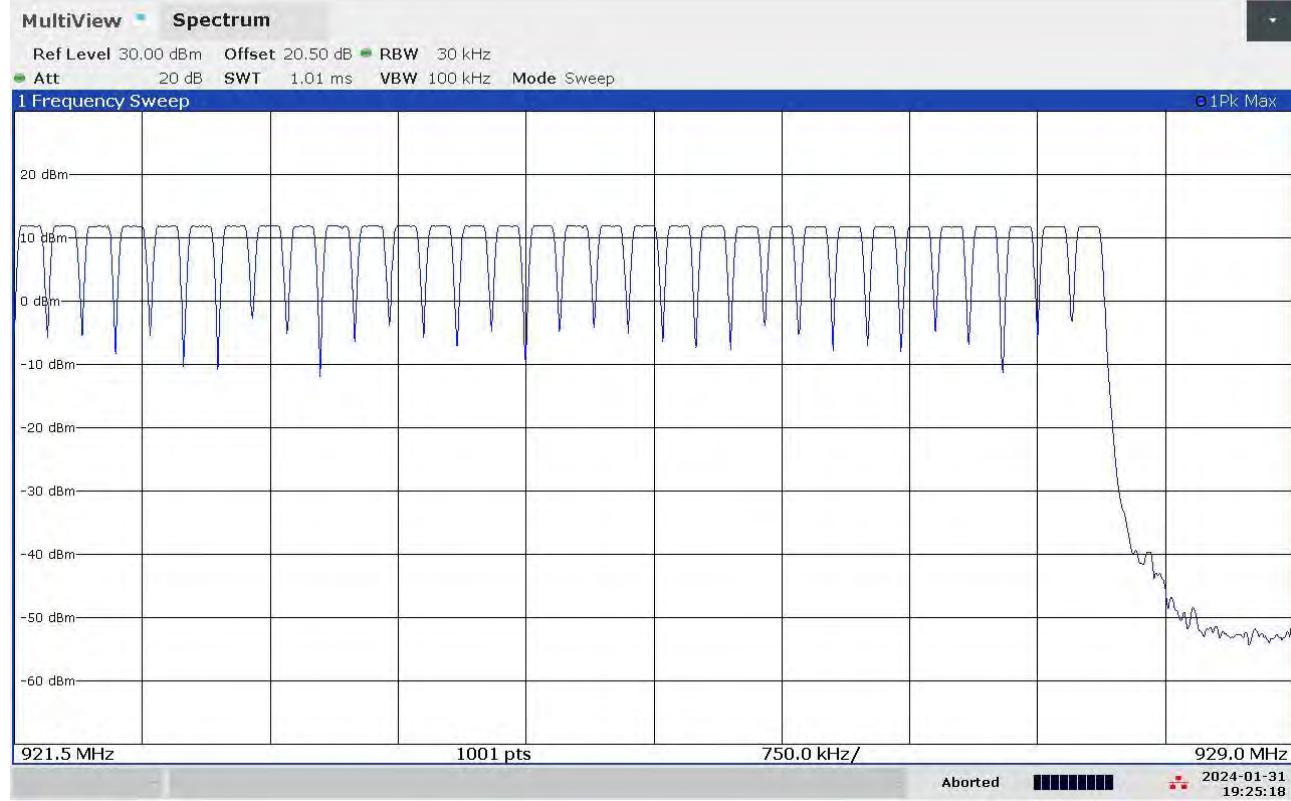




Gandini 23187921



Gandini 23187922



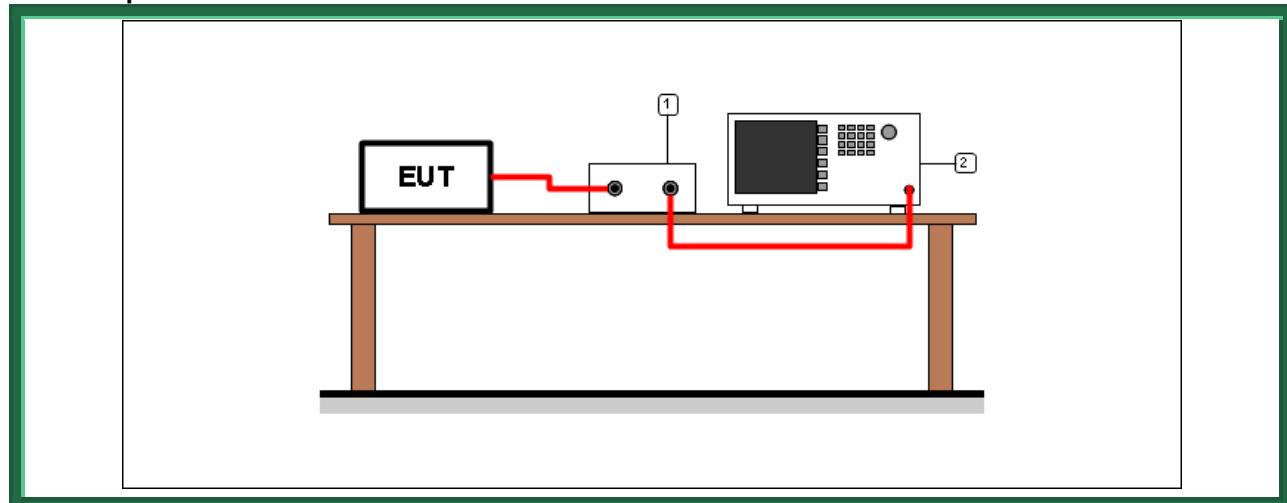
## 9.7 Time of occupancy

Tested by .....	G. Gandini
Test date .....	01.02.2024
Test location (stand) .....	Laboratory
Reference standards.....	FCC Rules and Regulation; Titles 47 Part. 15.247 KDB 558074 D01 15.247 Meas Guidance v05r02 cl. 9 b) ANSI C63.10 cl. 7.8.4
Supplementary test set-up description.....	--
Supplementary information .....	--

### Acceptance limits

For frequency hopping systems operating in the 902 – 928 MHz band: if the 20 dB bandwidth of the hopping channel is less than 250 kHz, the system shall use at least 50 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0,4 seconds within a 20 second period; if the 20 dB bandwidth of the hopping channel is 250 kHz or greater, the system shall use at least 25 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0,4 seconds within a 10 second period. The maximum allowed 20 dB bandwidth of the hopping channel is 500 kHz.

### Test setup



Test setup PR002\_01

Nr.	Id. Number	Manufacturer	Model	Serial number	Description	Last calibration date	Calibration expiration
2	CMC S295	Rohde & Schwarz	FSW43	104059	Spectrum Analyzer 43GHz	January 2023	January 2026
1	--	--	--	--	Cable + attenuator	Calibrated before the test	Calibrated before the test

**Result**

Frequency (MHz)	Graphs	Dwell time (ms)
921,40	G23187937	40,38

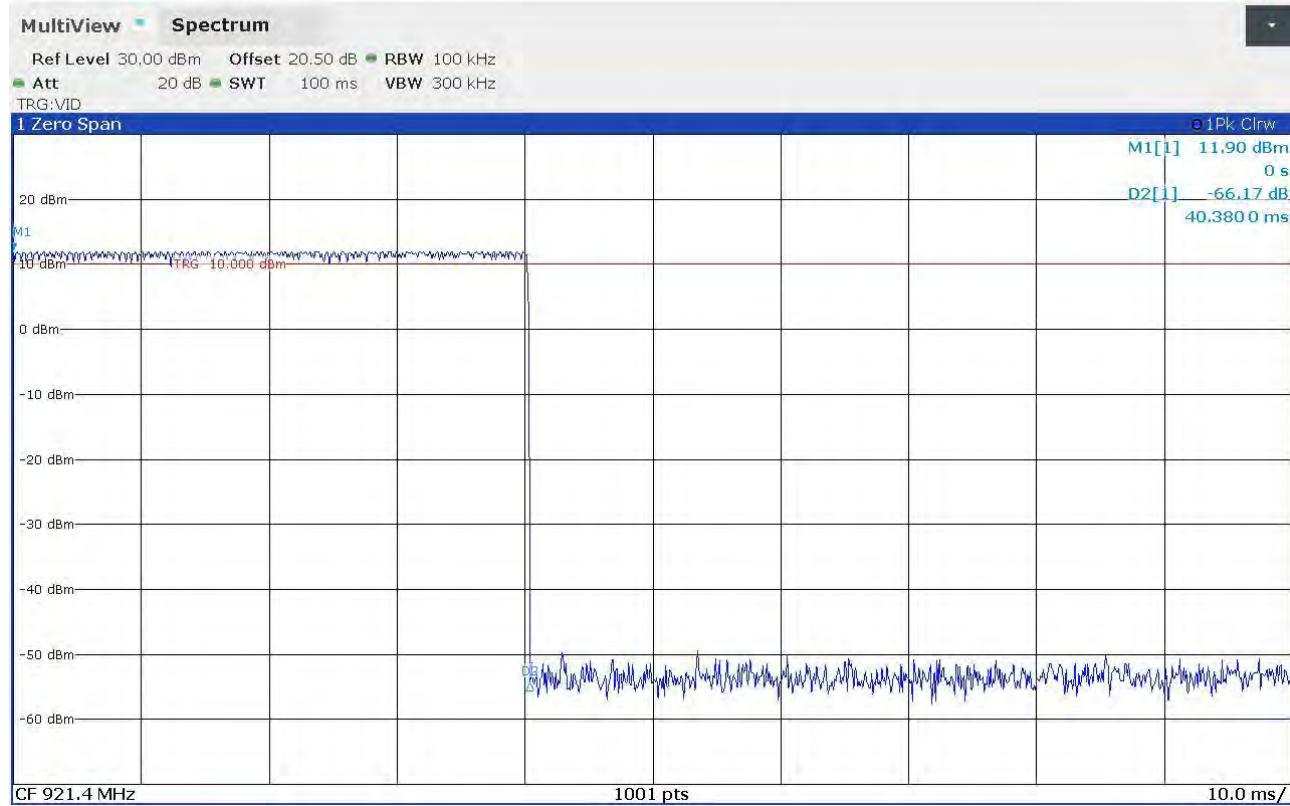
Frequency (MHz)	Graphs	Number of transmissions	Period
921,40	G23187938	4	20 s

**Remarks:** only the highest peaks have been considered. The lowest peaks are due to the auxiliary receiver unit

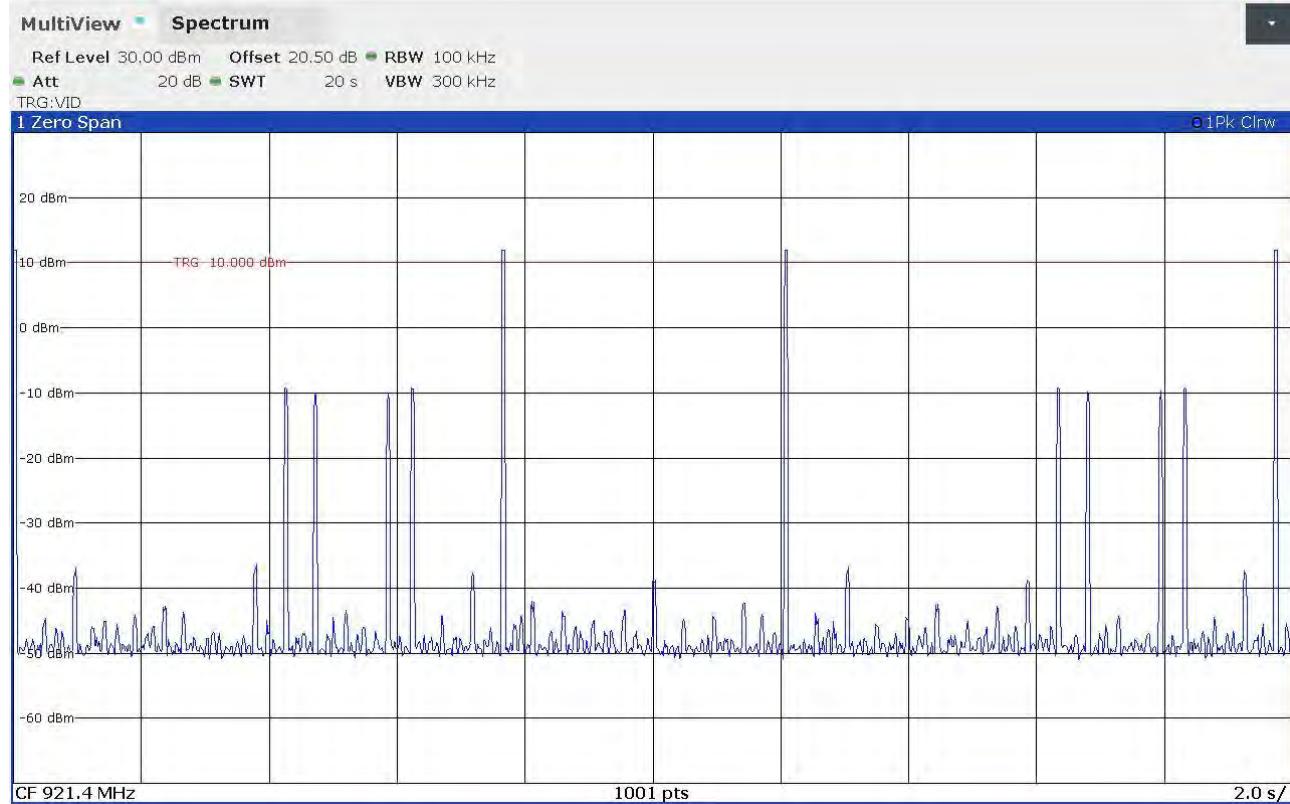
Time of occupancy (Dwell time x Nr. transmissions)	Maximum allowed time of occupancy	Results
161,52	400 ms	Complies

## Graphs

Gandini 23187937



Gandini 23187938



## 9.8 Band edge

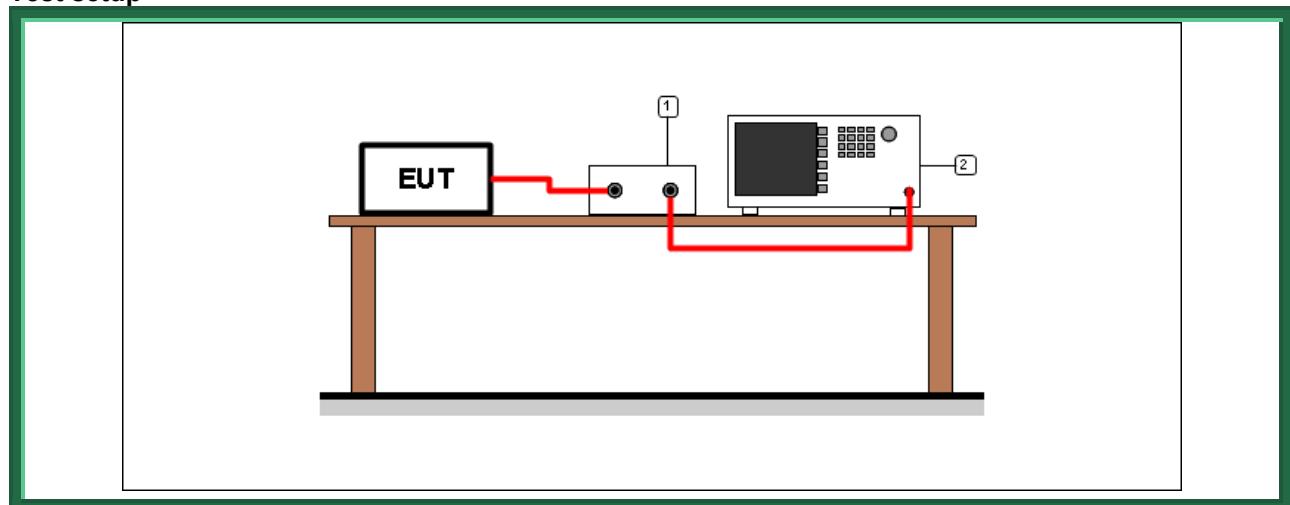
Tested by .....	G. Gandini
Test date .....	31.01.2024
Test location (stand) .....	Laboratory
Reference standards.....	FCC Rules and Regulation; Titles 47 Part. 15.247 ANSI C63.10 cl. 7.8.6
Supplementary test set-up description.....	--
Supplementary information .....	--

### Acceptance limits

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in § 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in § 15.209(a) (see § 15.205(c)).

Operation within the band 902 – 928 MHz.

### Test setup



Test setup PR002_01							
Nr.	Id. Number	Manufacturer	Model	Serial number	Description	Last calibration date	Calibration expiration
2	CMC S295	Rohde & Schwarz	FSW43	104059	Spectrum Analyzer 43GHz	January 2023	January 2026
1	--	--	--	--	Cable + attenuator	Calibrated before the test	Calibrated before the test

**Result**

Frequency (MHz)	Bandwidth	Graph(s) – Hopping	Measured values	Limit	Results
915,20	100 kHz	G23187918 G23187919	F <sub>L</sub> : 915,0105 MHz	901,95 MHz	Complies
927,80	100 kHz	G23187916 G23187917	F <sub>H</sub> : 927,9981 MHz	928,05 MHz	Complies

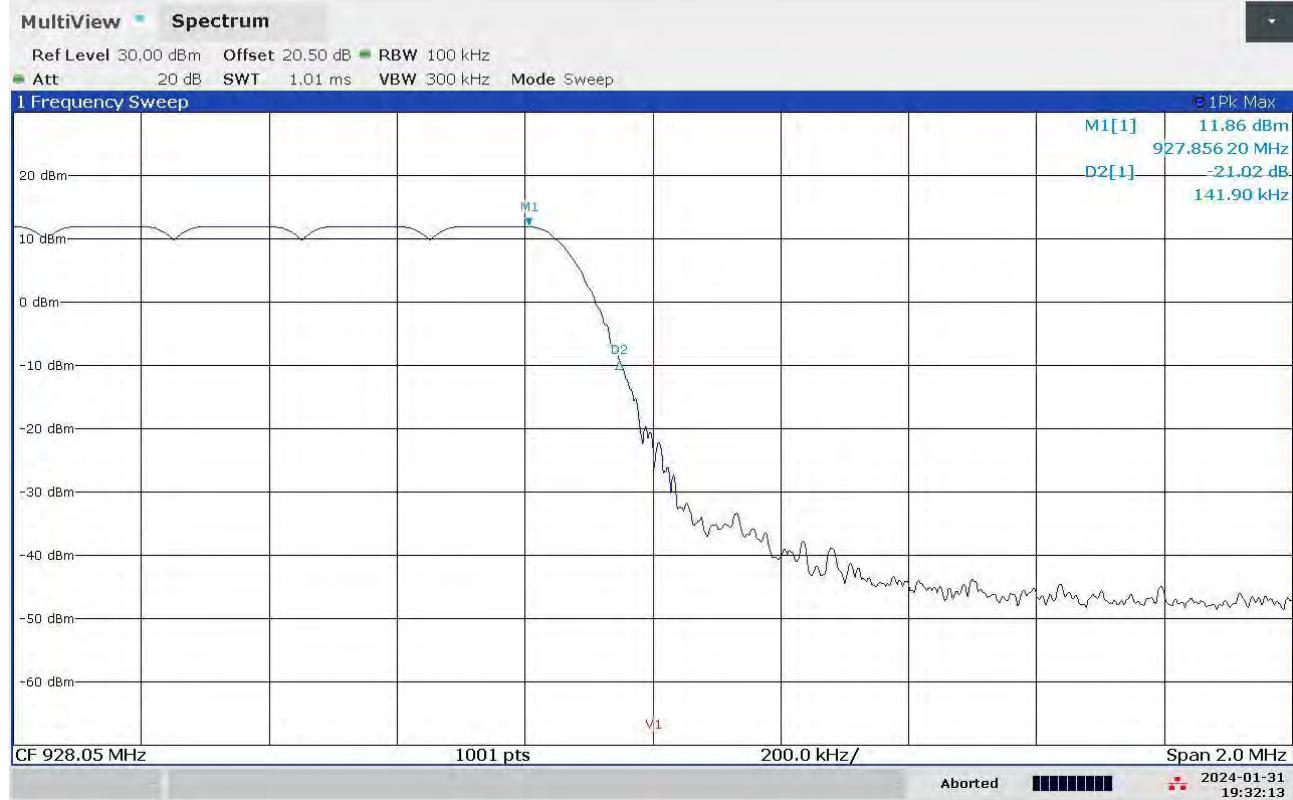
**Remarks:** acceptable limits are the operating band  $\pm$  RBW/2

Frequency (MHz)	Bandwidth	Graph(s) – No hopping	Measured values	Limit	Results
915,20	100 kHz	G23187934 G23187935	F <sub>L</sub> : 915,0057 MHz	901,95 MHz	Complies
927,80	100 kHz	G23187931 G23187932	F <sub>H</sub> : 927,9990 MHz	928,05 MHz	Complies

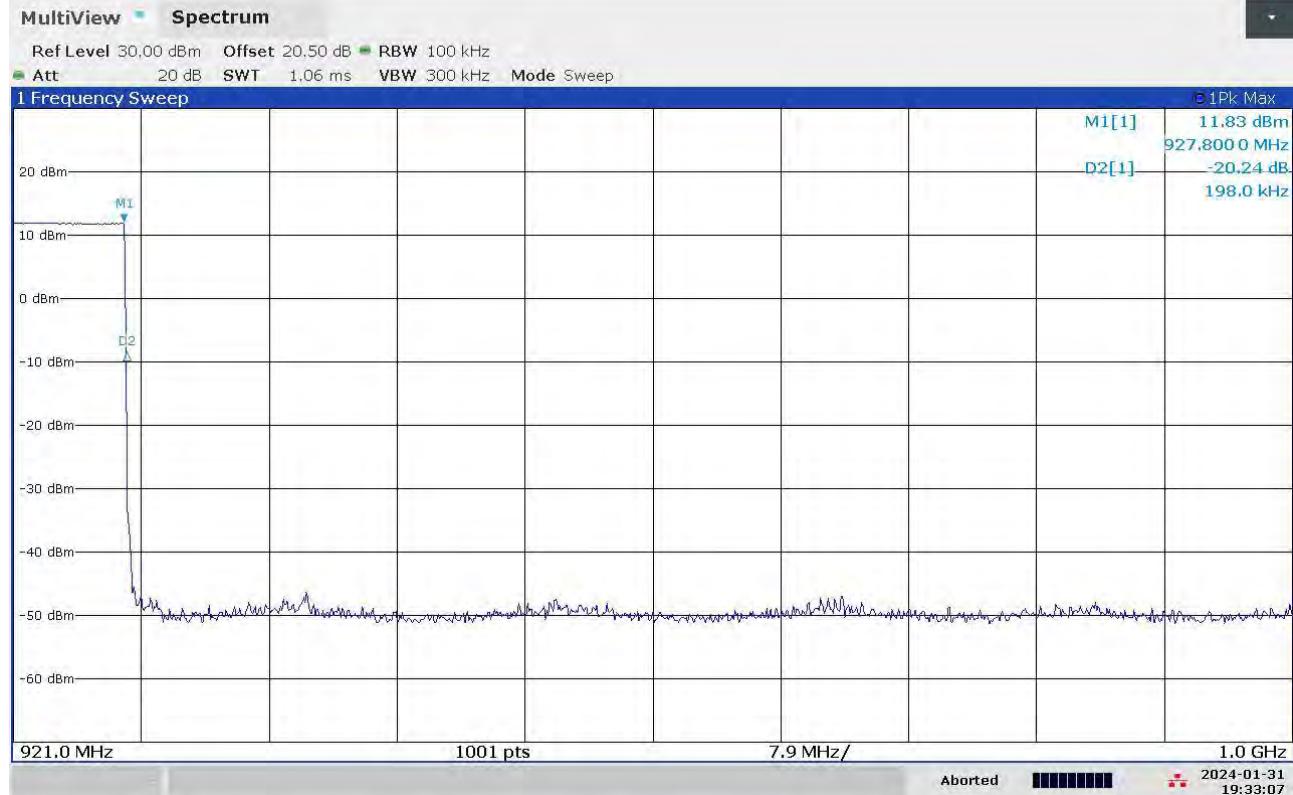
**Remarks:** acceptable limits are the operating band  $\pm$  RBW/2

## Graphs

Gandini 23187916



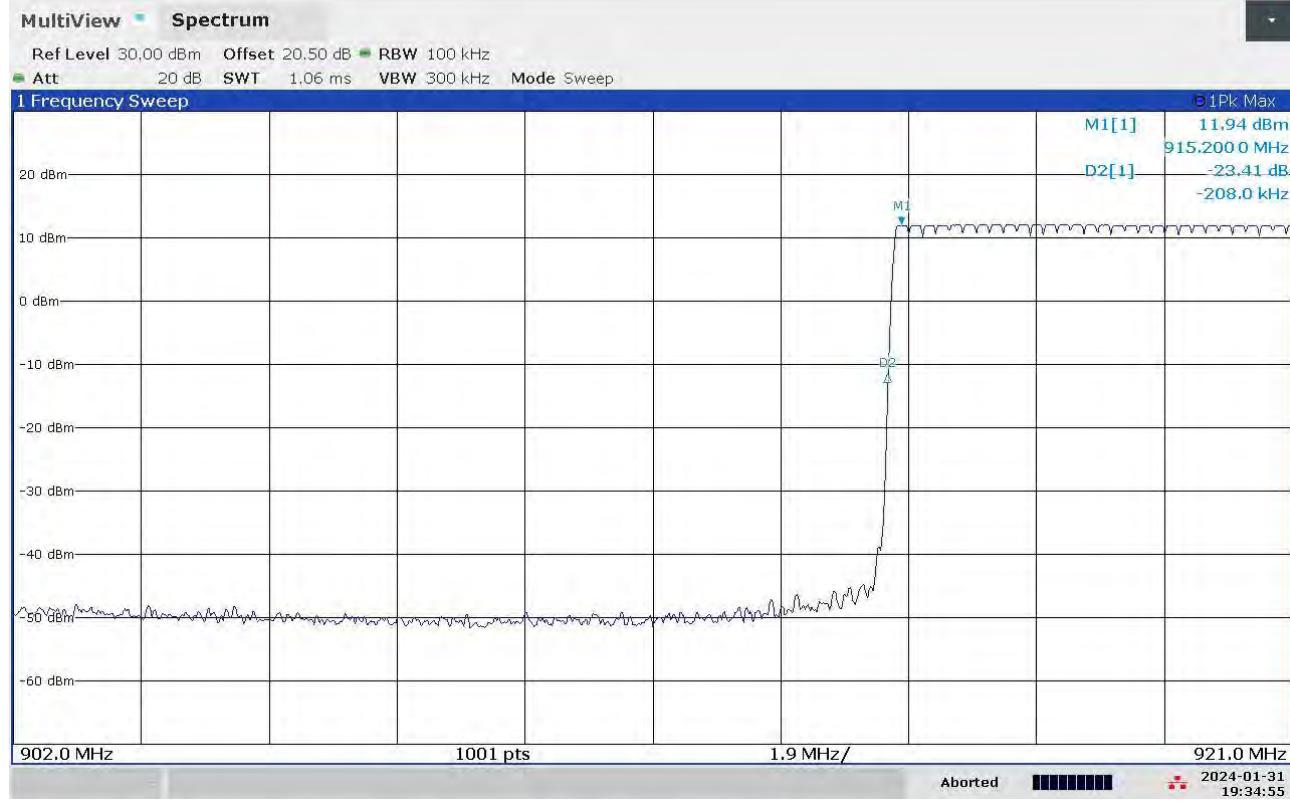
Gandini 23187917



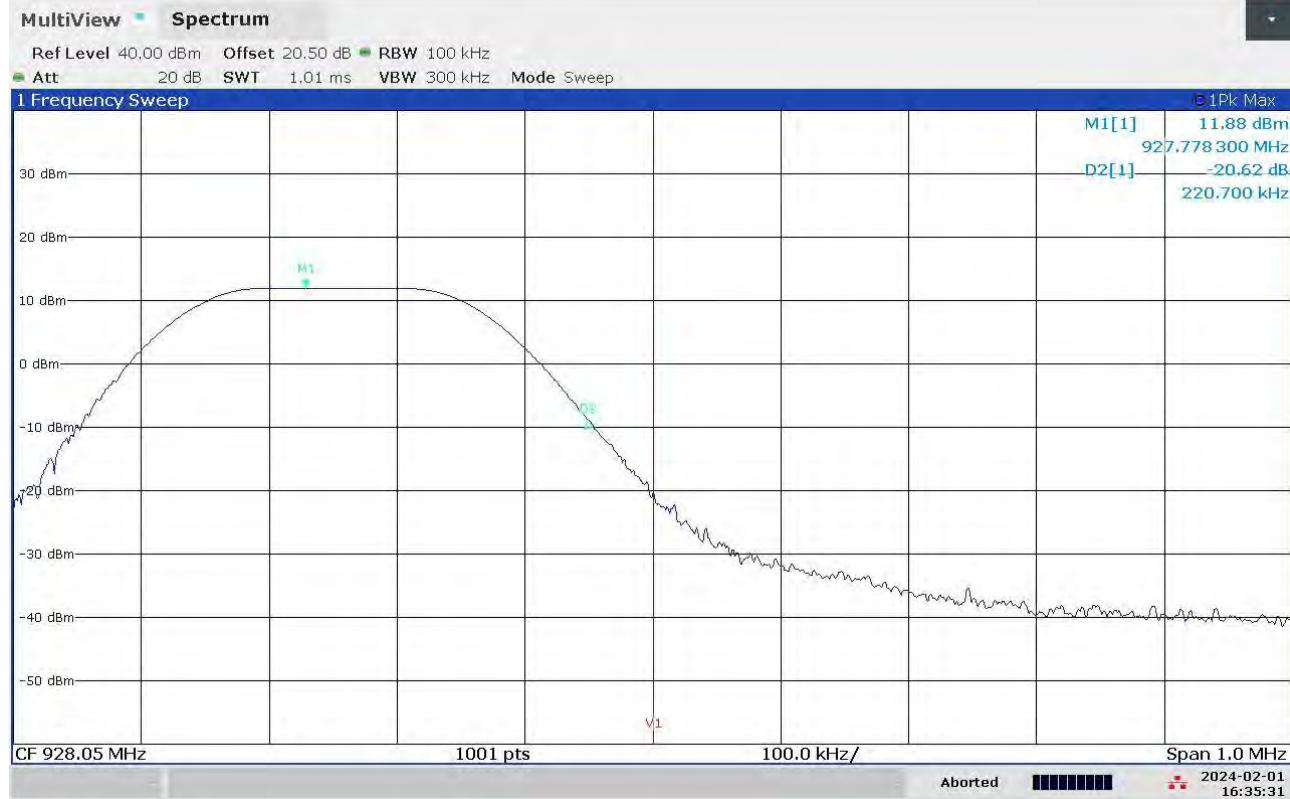
Gandini 23187918



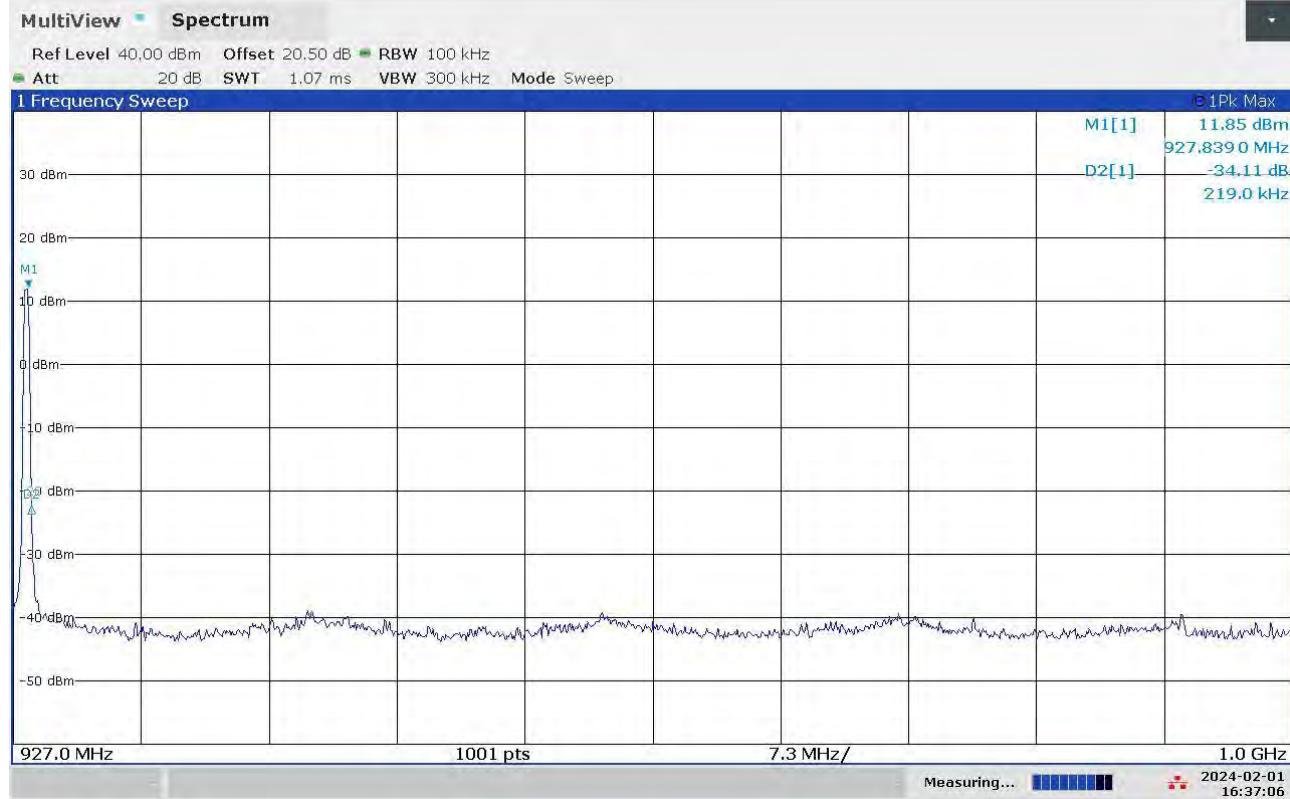
Gandini 23187919



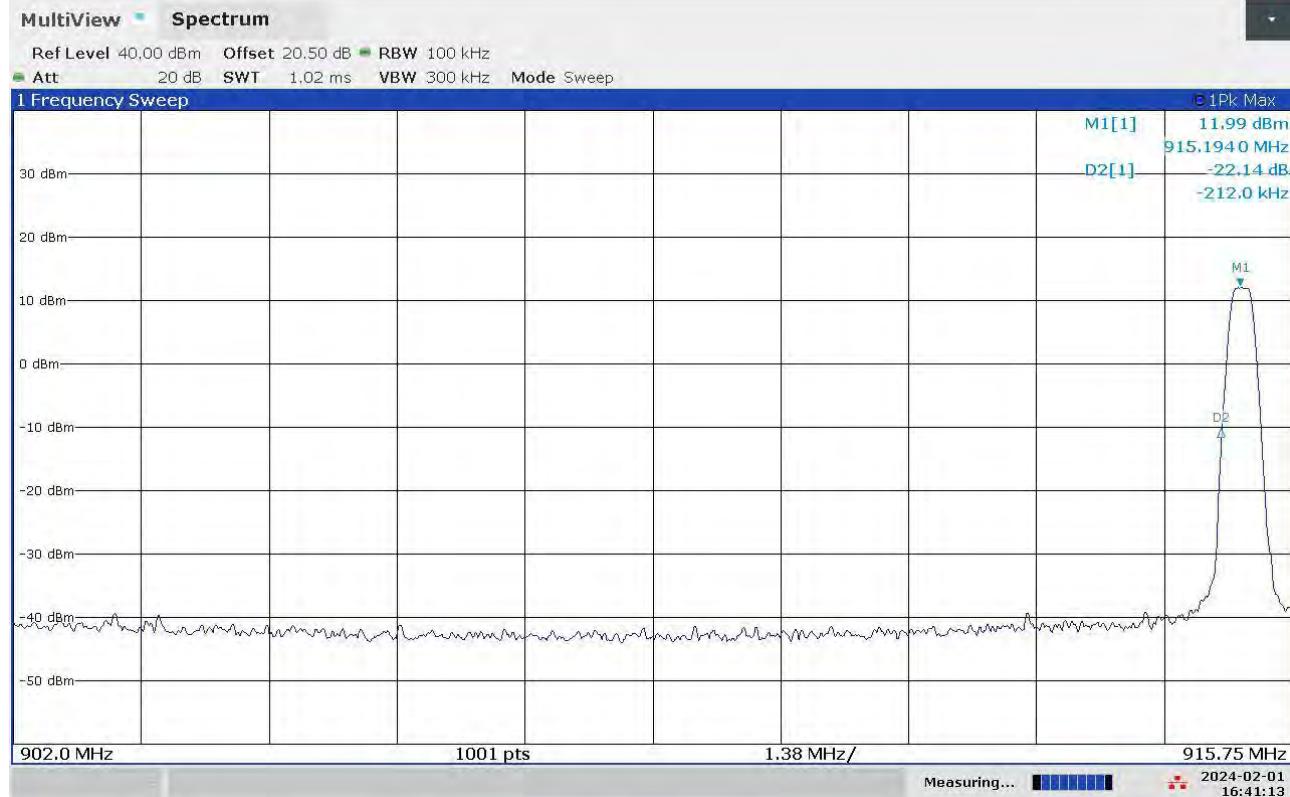
Gandini 23187931



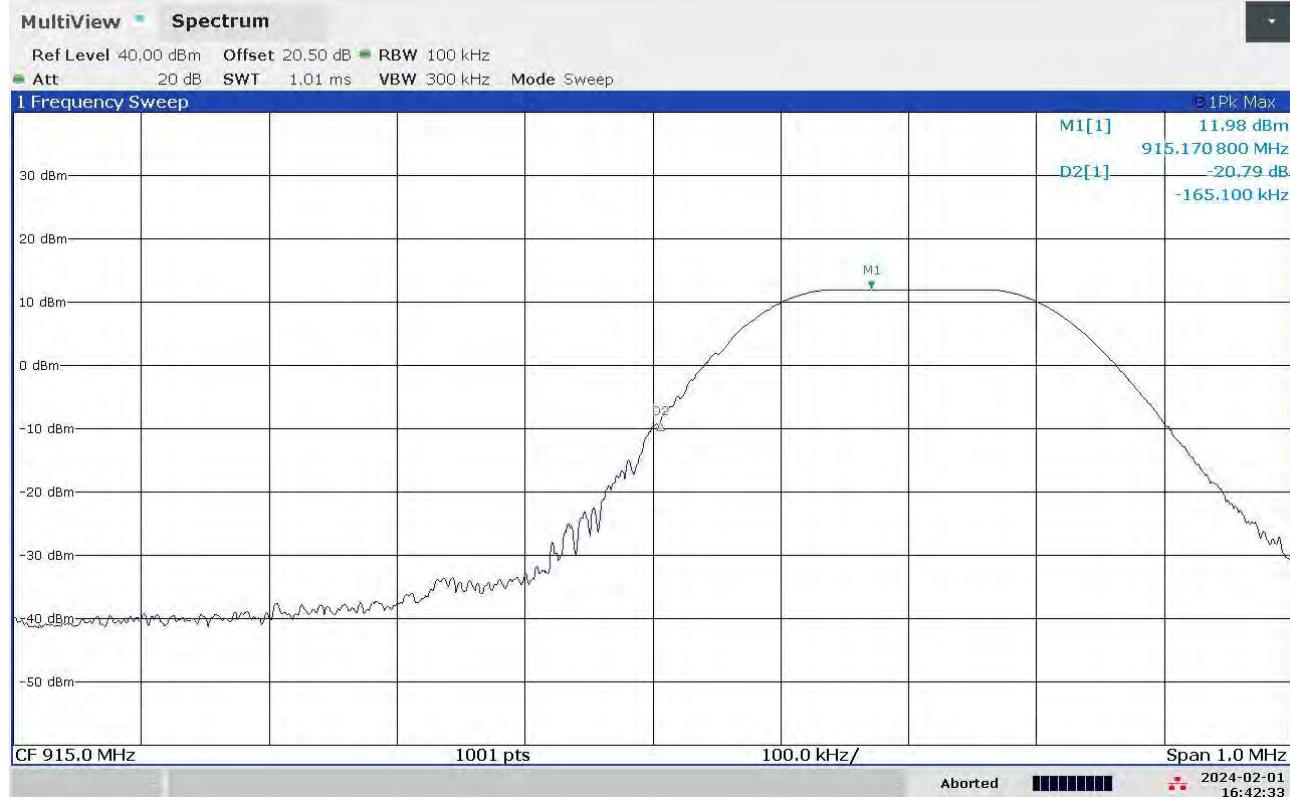
Gandini 23187932



Gandini 23187934



Gandini 23187935



## 9.9 Peak Output Power

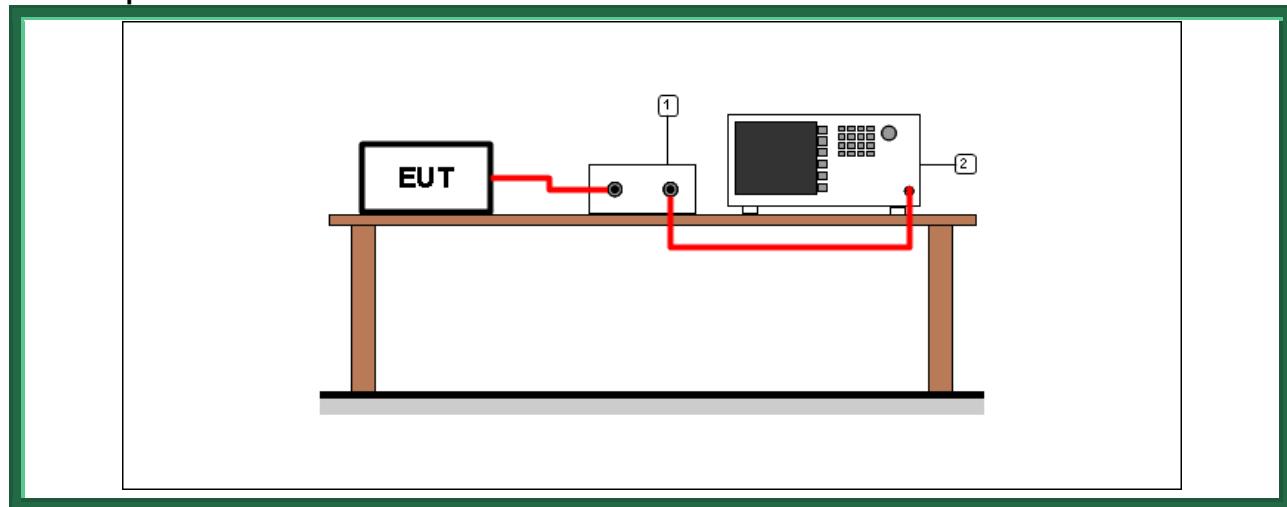
Tested by .....	G. Gandini
Test date .....	31.01.2024
Test location (stand) .....	Laboratory
Reference standards.....	FCC Rules and Regulation; Titles 47 Part. 15.247 KDB 558074 D01 15.247 Meas Guidance v05r02 cl. 2.2 ANSI C63.10 cl. 7.8.5
Supplementary test set-up description.....	--
Supplementary information .....	--

### Acceptance limits

For frequency hopping systems operating in the 2400–2483,5 MHz band employing at least 75 non-overlapping hopping channels, and all frequency hopping systems in the 5725–5850 MHz band: 1 watt. For all other frequency hopping systems in the 2400–2483,5 MHz band: 0,125 watts.

For frequency hopping systems operating in the 902–928 MHz band: 1 watt for systems employing at least 50 hopping channels; and 0,25 watts for systems employing less than 50 hopping channels, but at least 25 hopping channels.

### Test setup



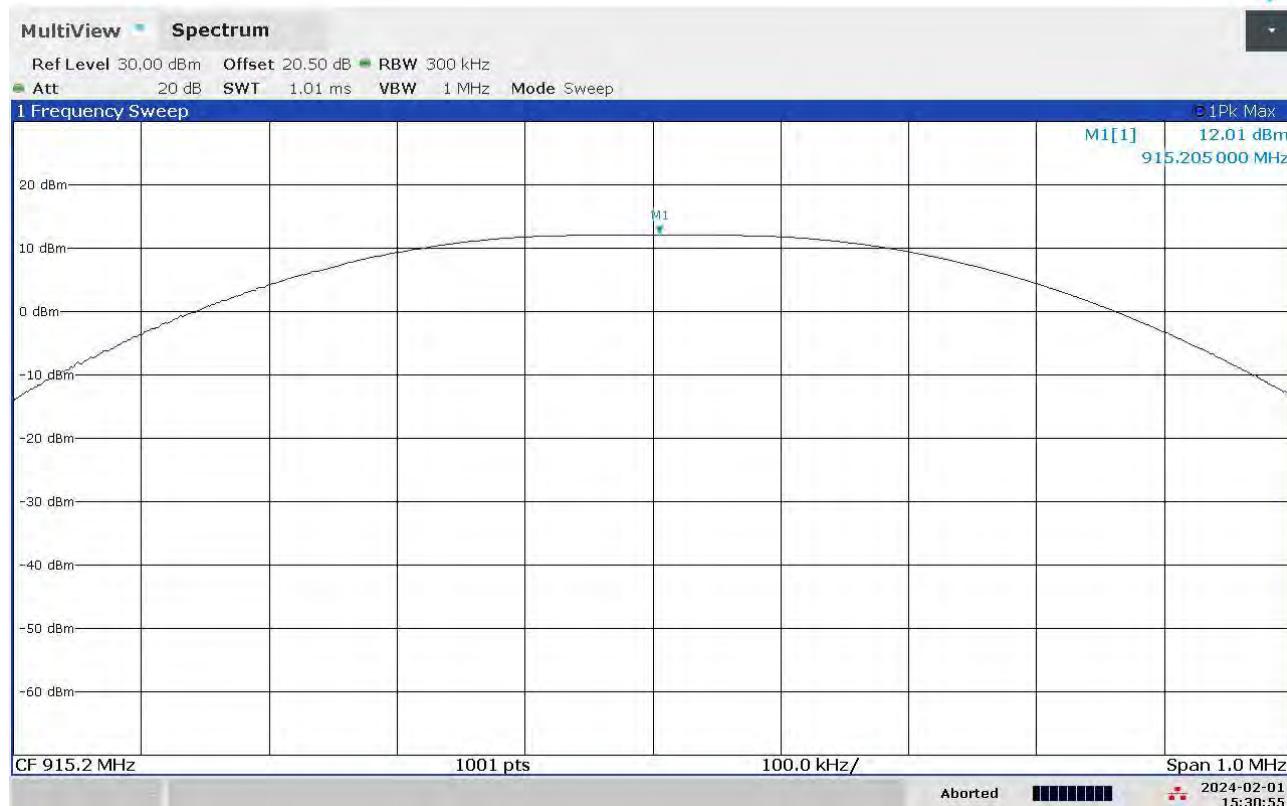
Test setup PR002_01							
Nr.	Id. Number	Manufacturer	Model	Serial number	Description	Last calibration date	Calibration expiration
2	CMC S295	Rohde & Schwarz	FSW43	104059	Spectrum Analyzer 43GHz	January 2023	January 2026
1	--	--	--	--	Cable + attenuator	Calibrated before the test	Calibrated before the test

## Result

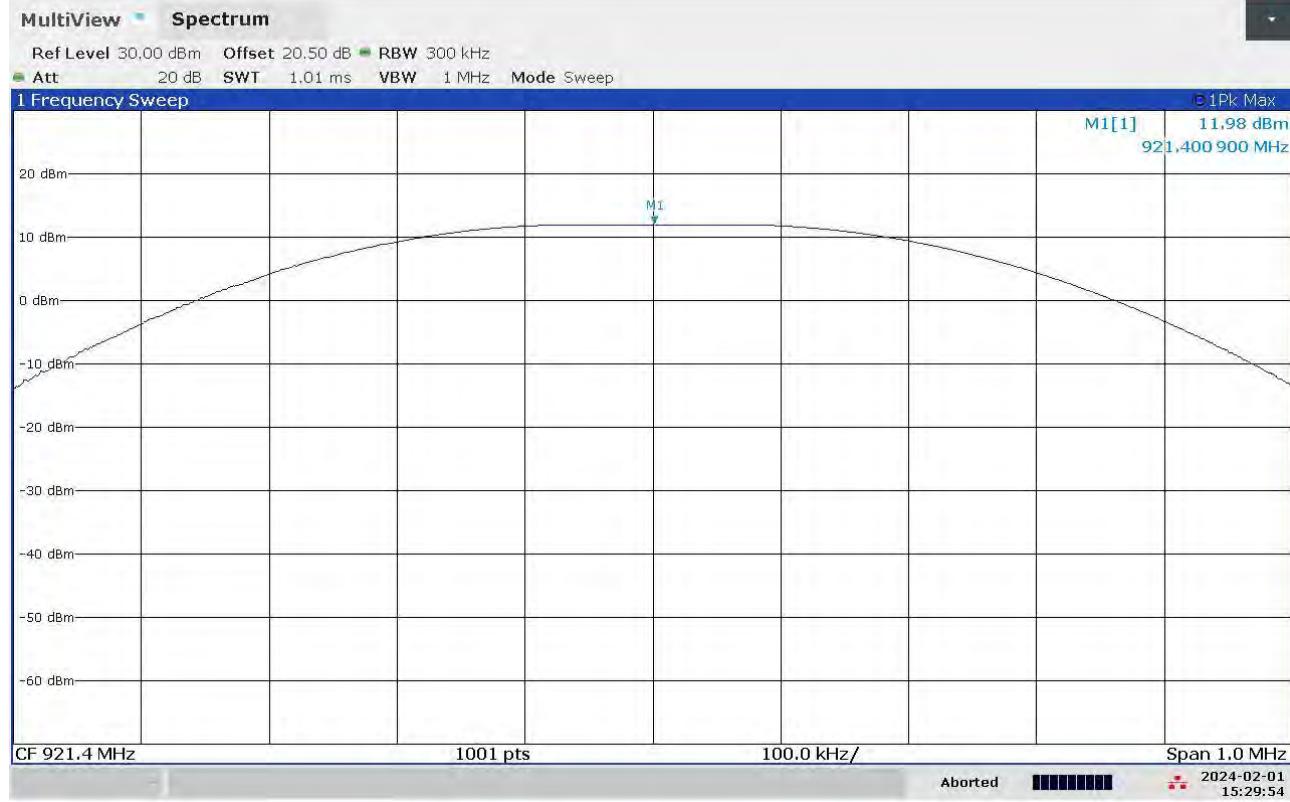
Frequency (MHz)	Graphs	Peak Output Power (dBm)	Peak Output Power (mW)	Limit (mW)
915,20	G23187925	12,01	15,89	1000
921,40	G23187926	11,98	15,78	1000
927,80	G23187933	11,87	15,38	1000

## Graphs

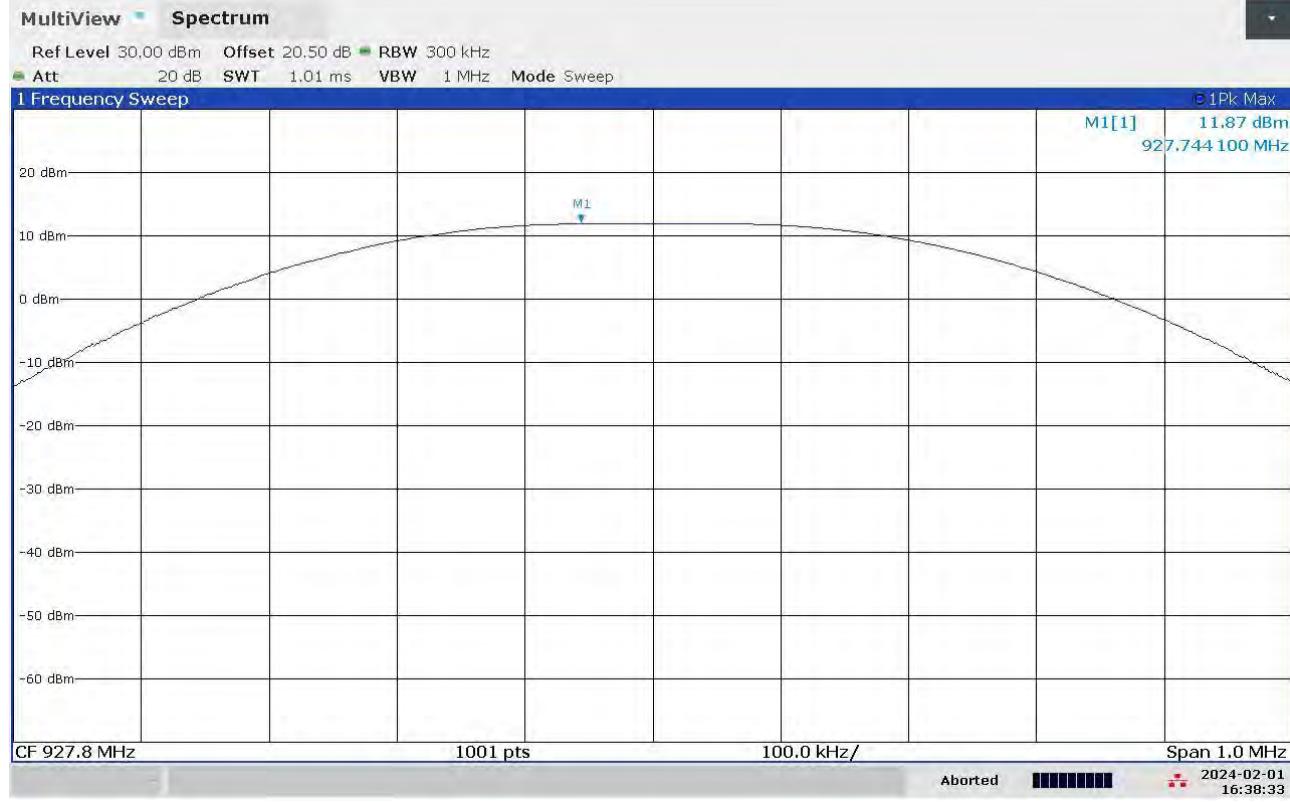
Gandini 23187925



Gandini 23187926



Gandini 23187933



## Attachment 1

### Measurement uncertainty

Test	Test Setup	Expanded uncertainty		Note
Conducted emission CISPR 16 <u>LISN 50uH 0,009-0,0150 MHz</u>	PE001_01	3,4	dB	1
Conducted emission CISPR 16 <u>LISN 50uH 0,150-30,0 MHz</u>	PE001_01	2,9	dB	1
Conducted emission CISPR 16 <u>Voltage Probe 0,15-30 MHz</u>	PE001_02	2,1	dB	1
Conducted emission CISPR 16 <u>Current Probe 0,15-30 MHz</u>	PE001_03	2,5	dB	1
Conducted emission CISPR 16 <u>ISN 0,15-30 MHz</u>	PE001_04	4,7	dB	1
Clic CISPR 16 <u>LISN 50uH 0,150-30,0 MHz</u>	PE001_05	2,9	dB	1
Radiated Emission CDNE <u>30-300 MHz</u>	PE001_06	3,3	dB	1
Disturbance Power <u>30-300 MHz</u>	PE002_01	3,7	dB	1
Radiated Emission LAS <u>0,15-30 MHz</u>	PE003_01	1,9	dB	1
Radiated Emission CISPR 16 <u>Loop Ant. 0,15-30 MHz</u>	PE004_01	4,1	dB	1
Radiated Emission CISPR 16 <u>Bicon. Ant. 30-300 MHz</u>	PE004_02	4,6	dB	1
Radiated Emission CISPR 16 <u>LogP. Ant. 300-1000 MHz</u>	PE004_03	4,5	dB	1
Radiated Emission CISPR 16 <u>Horn Ant. 1-18 GHz</u>	PE004_04	4,7	dB	1
Human Exposure to electromagnetic fields	PE005_01	14,2	%	1
Harmonics	PE006_01	10 mA	+	2,9 %
Flicker	PE007_01			4,20 %
Radiated Immunity <u>80 MHz - 6 GHz</u>	PE102_XX	2,25	dB	0,89 V/m a 3V/m
Conducted Immunity <u>0,15 - 230 MHz</u>	PE105_XX	1,19	dB	0,44 V a 3V
AC Magnetic field	PE106_01	1,55	%	0,15 A/m a 10A/m
Pulse Magnetic field	PE107_01	6,25	%	18,8 A/m a 300A/m
Dumped Magnetic field	PE108_01	6,25	%	1,88 A/m a 30A/m
Common mode conducted immunity	PE112_01	2,22	%	0,22 V a 10V

### Attachment 1

Test	Test Setup	Expanded uncertainty	Note
Power/Spurious 9kHz-30MHz	PR001_01	4,1 dB	1
Power/Spurious ERP 30-1000MHz d=10m	PR001_02+03	4,7 dB	1
Misura della potenza EiRP 1-18GHz d=3m	PR001_04+05	4,7 dB	1
Misura della potenza EiRP 18-40GHz d=3m	PR001_06	5,1 dB	1
Frequency error	PR002_01+02	< 1x10-7	1
Timing zero span (1001pts.)	PR002_01+02	0,2 % SWT	1
Modulation bandwidth	PR002_01+02	< 1x10-7	1
Conducted RF power and spurious emission	PR002_01+02	1,1 dB	1
Adjacent channel power	PR002_01+02	1,1 dB	1
Blocking	PR002_01+02	1,1 dB	1

Test	Test Setup	Expanded uncertainty	Note
Electrostatic discharge immunity test	PE101_0X		2
Electrical fast transients / burst immunity test	PE103_0X		2
Surge immunity test	PE104_0X		2
Short interruption immunity test	PE109_01		2
Ring Wave immunity test	PE110_01		2
Low frequency immunity test	PE111_01		2
Dumped Oscillatory immunity test	PE113_01		2

Rev. 23\_01 date 20/03/2023

**Note 1:**

The expanded uncertainty reported according to the document EA-4-02 is based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of p = 95%

**Note 2:**

It has been demonstrated that the used test equipment meets the specified requirements in the standard with at least a 95% confidence, covering factor k=2

## Attachment 1

### Judgement of compliance

Case 1	Case 2	Case 3	Case 4
<p>The sample complies with the requirements. The measurement result is within the specification limit when the measurement uncertainty is taken into account.</p>	<p>The sample complies with the requirements. It is not possible to state compliance using a 95% coverage probability for the expanded uncertainty although the measurement result is below the limit.</p>	<p>The sample does not comply with the requirements. It is not possible to state compliance using a 95% coverage probability for the expanded uncertainty also the measurement result is upper the limit.</p>	<p>The sample does not comply with the requirements. The measurement results is outside the specification limit when the measurement uncertainty is taken into account.</p>

In agreement with ILAC-G8:09/2019 cl.4.2.1 Guidelines on Decision Rules and Statements of Conformity

### Quality manual references – Internal procedure

Internal Procedure PM001 rev. 4.0 (Quality Manual) .....	Measure procedure
Internal Procedure INC_M rev. 10.0 (Quality Manual) .....	Measurement uncertainty calculation