TEST REPORT
Nr. R24000301

Federal Communication Commission (FCC)

Report Reference No. .....:	R24000301
Date of issue: .....:	23.01.2024
Total number pages: .....:	34
Customer name .....:	BFT S.p.A.
Address .....:	Via Lago di Vico, 44 – 36015 Schio (VI) – Italy
Test specification:	
Standards .....:	FCC Rules & Regulations, Title 47:2022 Part 15 paragraph(s): 203, 204, 207, 209 and 231
Non-standard test method .....:	N/A
Test Report Form No. .....:	15-231_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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(*) Test item description .....:	Radio Transmitter
(*) Trademark .....:	BFT
(*) Manufacturer .....:	BFT S.p.A.
(*) Model / Type reference .....:	Mitto Cool C4
(*) FCC ID .....:	V5HMTCLC4
(*) Rating(s) .....:	3 Vdc from battery

Report

Tested by (name + signature) .....: S. Zanivan .....

Approved by (name + signature) .....: F. Marenda .....

(*) information provided by the customer

1 Summary

2 Reference standard	
FCC Rules and Regulation Title 47 part 15:2022	--
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	

Revision index	***Date***	***Change history***
1.0	23.01.2024	--

Testing and sampling:	
Date of receipt of test item .....:	08.01.2024
Testing start date .....:	09.01.2024
Testing end date .....:	10.01.2024
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 P240002
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 test item(s)

Description ..... :	Radio Transmitter						
Model Number ..... :	Mitto Cool C4						
FCC ID ..... :	V5HMTCLC4						
Serial Number ..... :	--						
Brand name ..... :	BFT						
Frequency band ..... :	260 – 470 MHz						
Nominal frequency ..... :	F_C: 433,94 MHz						
Rated power supply ..... :		Voltage and Frequency	Reference poles				
			N	L1	L2	L3	PE
	☐	AC:	☐	☐	☐	☐	☐
	☐	AC:	☐	☐	☐	☐	☐
	☒	DC: 3 V from battery					☐
Software version ..... :	3.57.0						
Type of equipment ..... :	☑ Transmitter unit ❑ Receiver unit						
Type of station ..... :	☑ Portable station ❑ Mobile station						
Test arrangements of EUT ..... :	*Intended operational arrangement(s) of EUT*		*Test arrangement (see basic standard)*				
	❑ Table-top only		Table-top				
	❑ Floor-standing only		Floor-standing				
	❑ Can be floor-standing or table-top		Table-top				
	❑ Rack mounted		In rack or table-top				
	☑ 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, test performed on sample A, power level -6					
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

FCC Rules & Regulations, Title 47:2022 Part 15 paragraph(s): 203, 204, 207, 209 and 231			
Clause	**Requirement – Test case**	**Basic standard**	**Verdict**
Part 15.203	Antenna requirements	ANSI C63.10	**P**
Part 15.207	Conducted emissions	ANSI C63.10	**N/A (+)**
Part 15.209	Radiated emissions	ANSI C63.10	**P**
Part 15.209 and 15.231(b) (e)	Field strength of fundamental	ANSI C63.10	**P**
Part 15.209 and 15.231	Spurious emissions (> 1 GHz)	ANSI C63.10	**P**
Part 15.231(c)	Occupied channel bandwidth	ANSI C63.10	**P**
Part 15.231(a) (e)	Periodic operation characteristics	ANSI C63.10	**P**

(+) Devices which only employ battery power. See FCC Part 15.207 (c)

Normative references	
Reference no.	***Description***
FCC Rules and Regulation Title 47 part 15:2022	--
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

<table>
<tr><td>Environmental reference conditions.....:</td><td>The climatic conditions during the tests are within the limits specified by the manufacturer for the operation of the EUT and the test equipment.
The climatic conditions during the tests were within the following limits:
<table>
<tr><th>Temperature</th><th>Humidity</th><th>Atmospheric pressure</th></tr>
<tr><td>15 °C – 35 °C</td><td>30 % - 60 %</td><td>800 hPa – 1060 hPa</td></tr>
<tr><td colspan="3">If explicitly required in the basic standard or applied product standard the climatic values are recorded and documented separately in this test report.</td></tr>
</table></td></tr>
<tr><td>Measurement uncertainties .....:</td><td>Attachment 1</td></tr>
</table>

9 Test results

9.1 Antenna requirements

Tested by .....:	S. Zanivan	
Test date .....:	09.01.2024	
Reference standards.....:	FCC Rules and Regulation; Titles 47 Part. 15.203 and 15.204	
Test specification .....:	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	
Antenna type .....:	☒	Integral antenna
	☐	External antenna
Antenna gain .....:	-9,6 dBi	
External R.F. power amplifier.....:	Not Present	

9.2 Radiated emissions and spurious emissions

Tested by .....:	S. Zanivan	
Test date .....:	09.01.2024	
Test location (stand) .....:	Semi-anechoic chamber (CMC A070)	
Reference standards.....:	FCC Rules and Regulation; Titles 47 Part. 15.209 and 15.231 ANSI C63.10 cl. 6.3, 6.4, 6.5 and 6.6	
Test set-up description.....:	☒	Table top equipment set-up (80 cm above the reference ground plane)
	☐	Floor standing equipment set-up (insulating material up to 12 mm thick)
	☐	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(µV/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 ≥ 1000 MHz)			
Frequency (MHz)	*Test distance (m)*	*AV limits [dB(µV/m)]*	*Peak limits [dB(µV/m)]*
> 1000	3	54	74

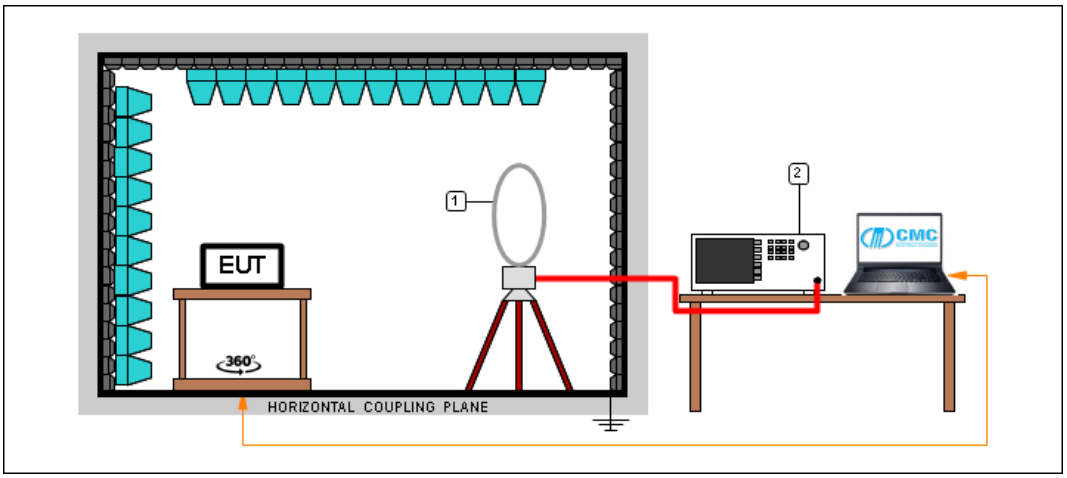
The restricted frequency bands are listed in the following table

MHz	*MHz*	*MHz*	*GHz*
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.

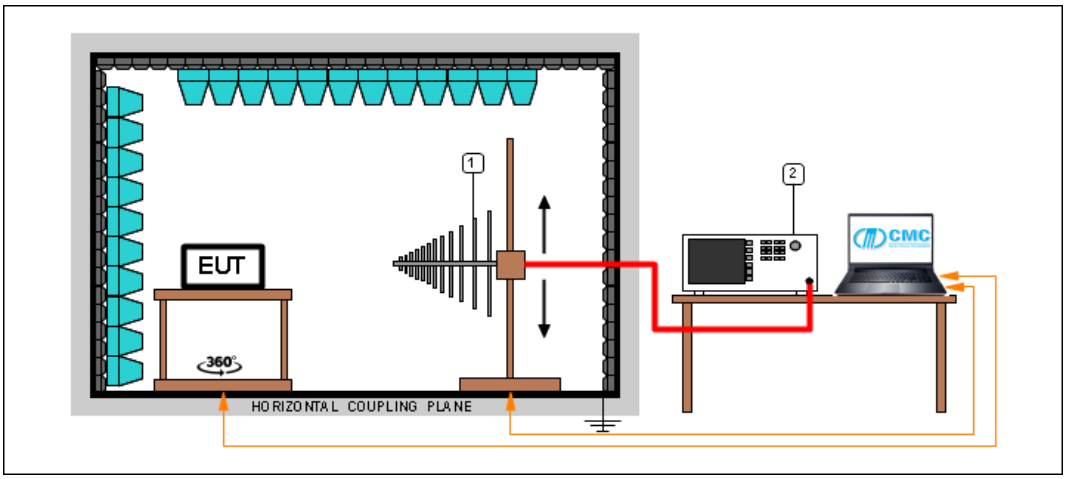
Test setup

Frequency ≤ 30 MHz



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

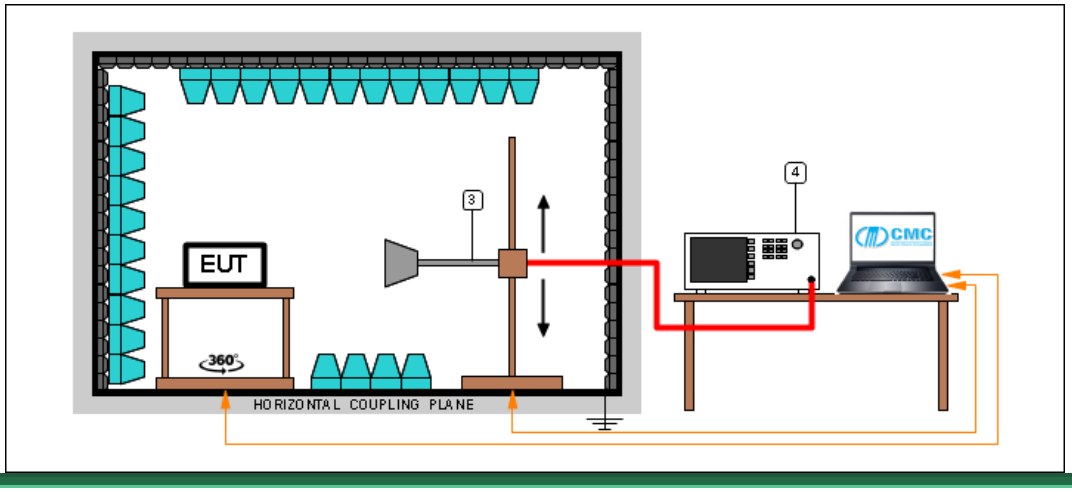
Frequency ≤ 1 GHz



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	9111B-203	Broadband Antenna	August 2022	August 2025

Frequency > 1 GHz



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

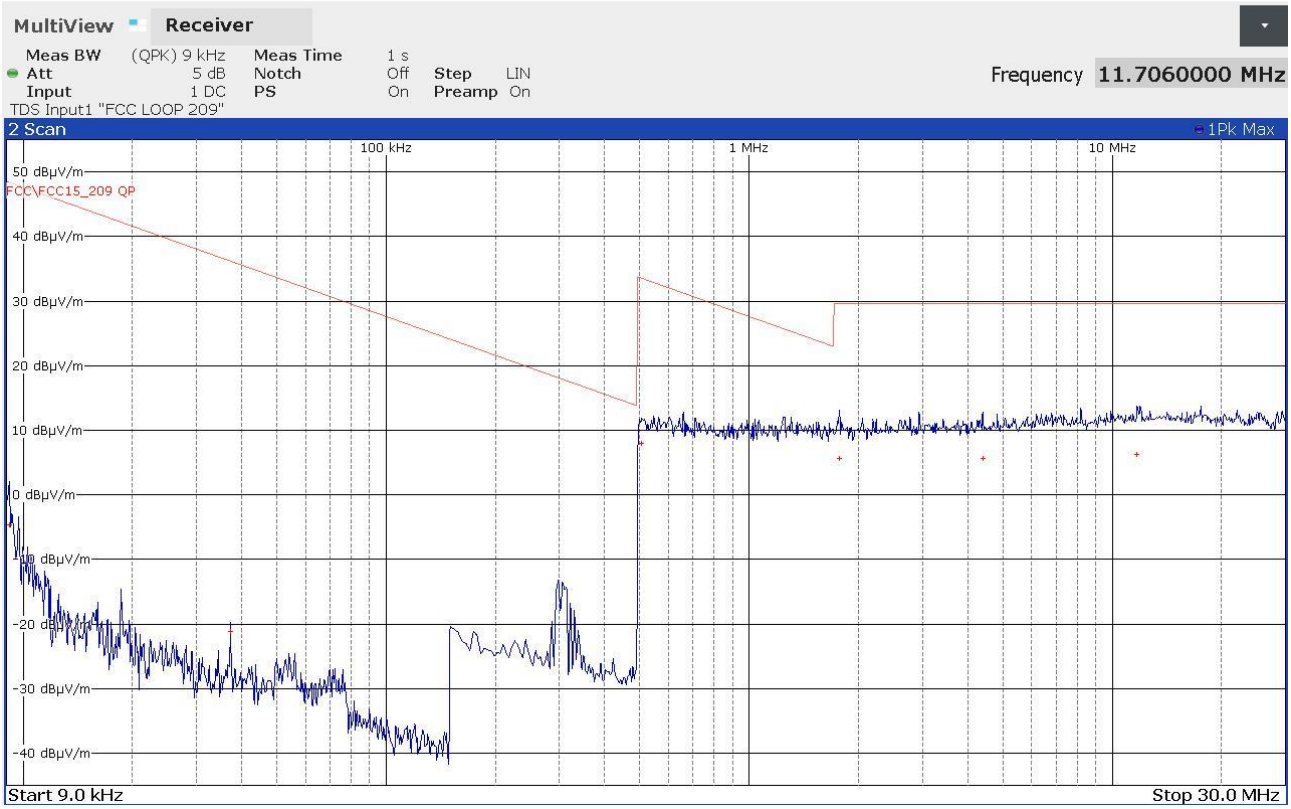
Antenna polarization	*EUT polarization*	*Frequency Range (MHz)*	*Graphs*	*Remarks*	*Result*
Loop	Worst case	0,009 – 30	G24000305	--	P
V	Worst case	30 – 300	G24000306	--	P
H	Worst case	30 – 300	G24000307	--	P
V	Worst case	300 – 1000	G24000313	--	P
H	Worst case	300 – 1000	G24000314	--	P
V	H	1000 – 4500	G24000315	--	P
H	H	1000 – 4500	G24000316	--	P
H	V	1000 – 4500	G24000317	--	P
V	V	1000 – 4500	G24000318	--	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 40log(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 20log(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

Zanivan 24000305



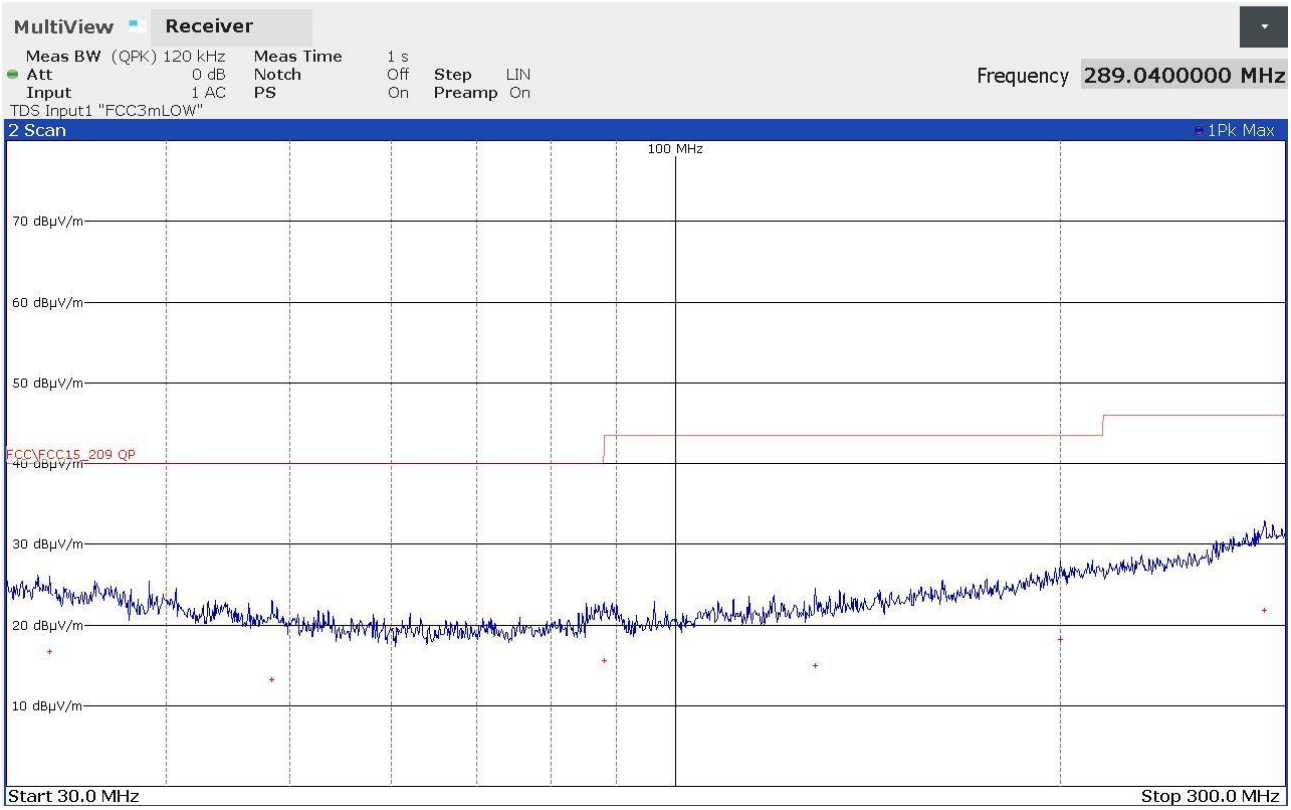
FINAL RESULT TABLE

QUASI PEAK

Freq Hz	Lev dBuV/m	Margin dB
9160	-4,70	-53,07
37240	-21,19	-57,37
506000	+7,96	-25,56
1774000	+5,59	-23,95
4394000	+5,58	-23,96
11706000	+6,31	-23,23

24000305_2

Zanivan 24000306



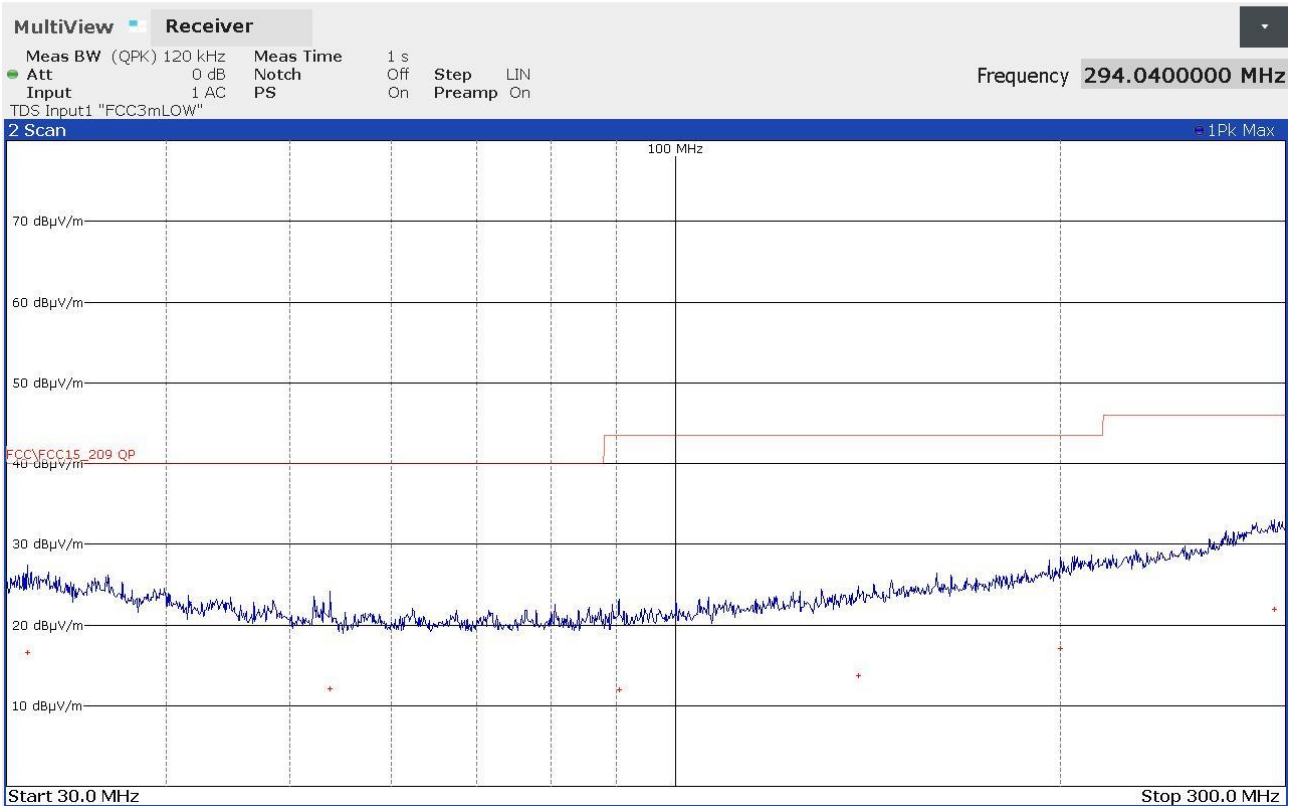
FINAL RESULT TABLE

QUASI PEAK

Freq Hz	Lev dBuV/m	Margin dB
32440000	+16,65	-23,35
48400000	+13,22	-26,78
87960000	+15,53	-24,47
128600000	+14,96	-28,56
200120000	+18,22	-25,30
289040000	+21,80	-24,22

24000306_2

Zanivan 24000307



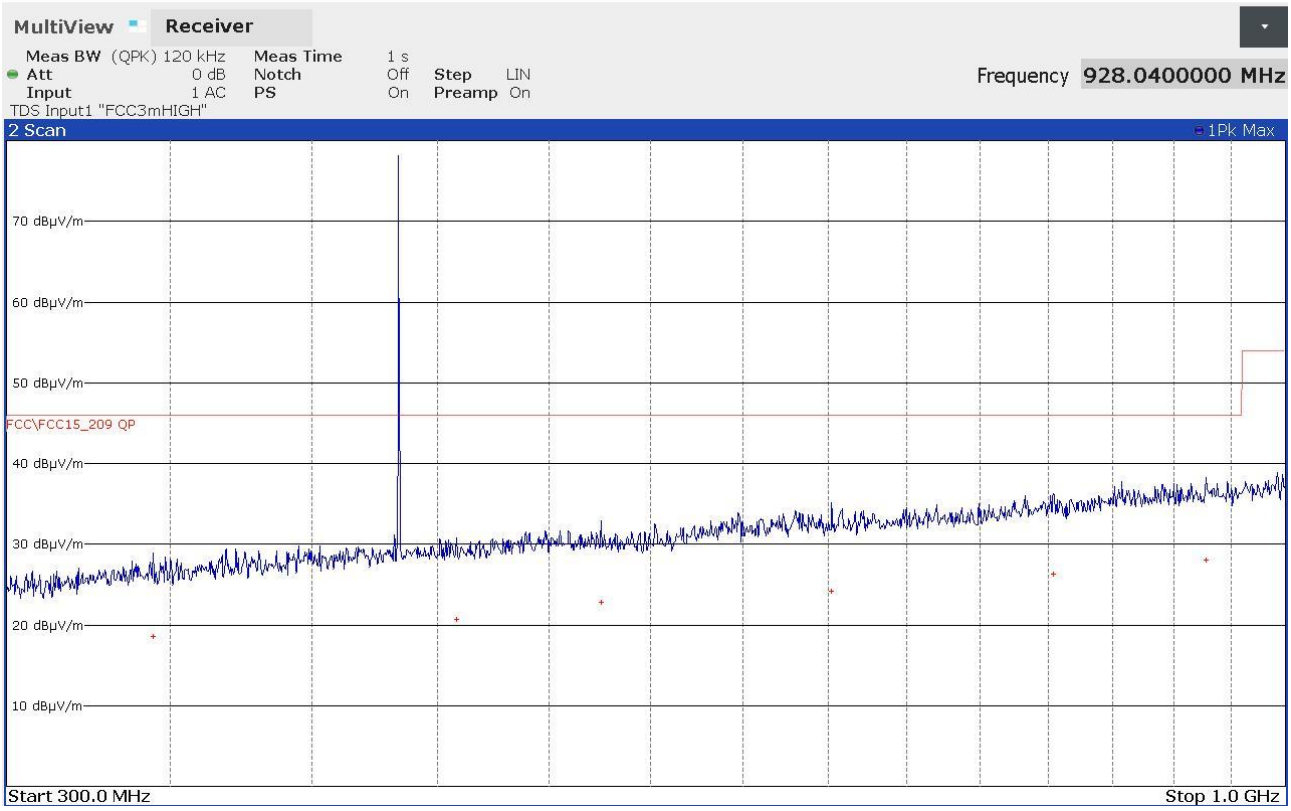
FINAL RESULT TABLE

QUASI PEAK

Freq Hz	Lev dBuV/m	Margin dB
31160000	+16,63	-23,37
53720000	+12,13	-27,87
90360000	+11,97	-31,55
139040000	+13,75	-29,77
200080000	+17,06	-26,46
294040000	+21,99	-24,03

24000307_2

Zanivan 24000313



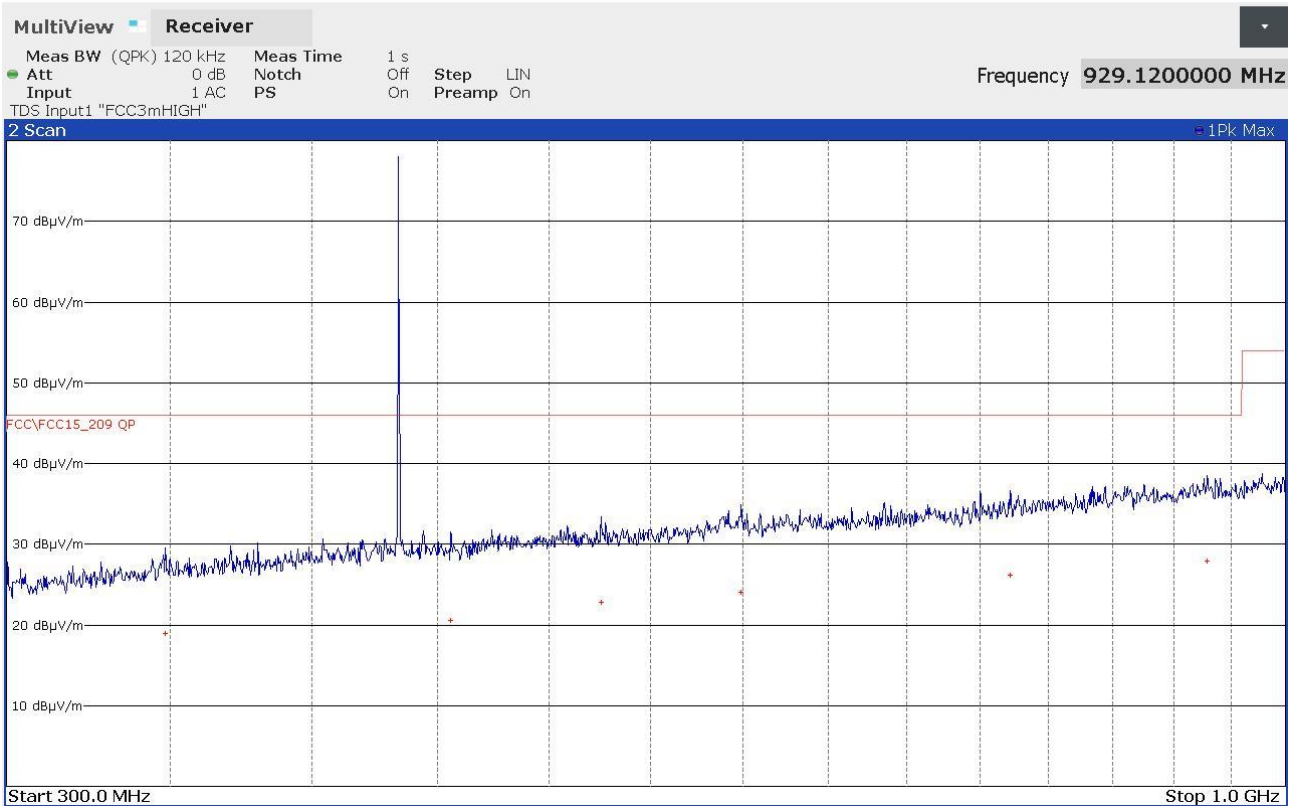
FINAL RESULT TABLE

QUASI PEAK

Freq Hz	Lev dBuV/m	Margin dB
344400000	+18,59	-27,43
458200000	+20,69	-25,33
524960000	+22,83	-23,19
652280000	+24,20	-21,82
803720000	+26,25	-19,77
928040000	+28,03	-17,99

24000313_2

Zanivan 24000314



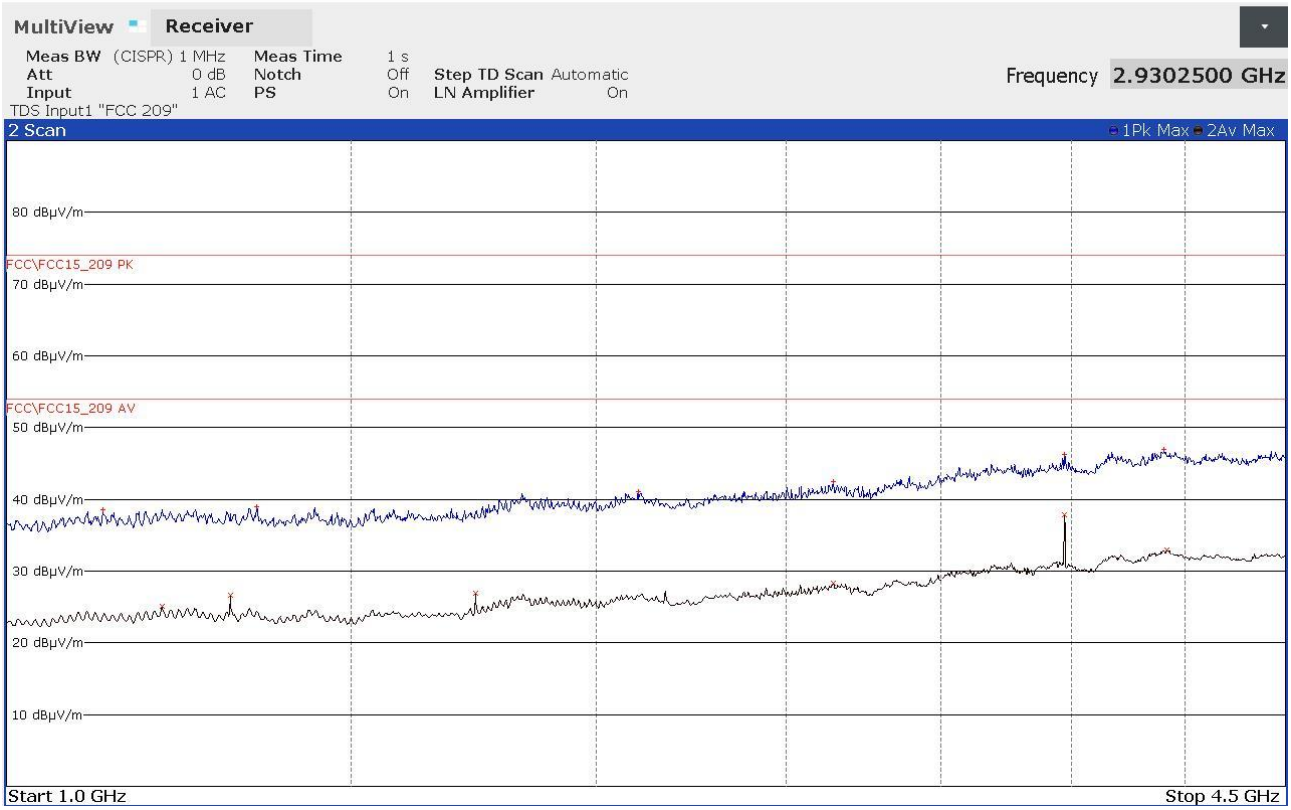
FINAL RESULT TABLE

QUASI PEAK

Freq Hz	Lev dBuV/m	Margin dB
348440000	+18.90	-27.12
455840000	+20.58	-25.44
524960000	+22.83	-23.19
599040000	+24.11	-21.91
772000000	+26.12	-19.90
929120000	+27.94	-18.08

24000314_2

Zanivan 24000315

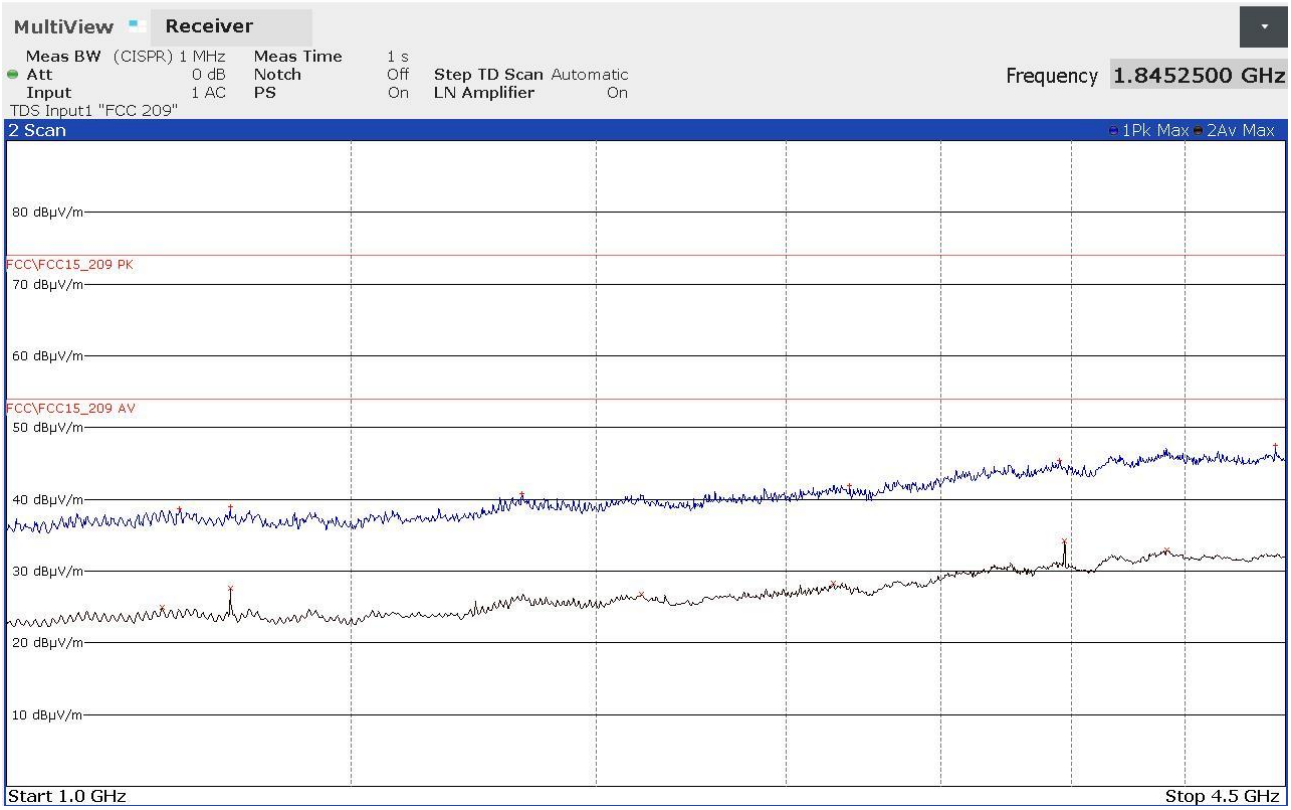


FINAL RESULT TABLE

MAX PEAK			AVERAGE		
Freq Hz	Lev dBuV/m	Margin dB	Freq Hz	Lev dBuV/m	Margin dB
1120250000	+38.59	-35.39	1201000000	+25.03	-28.95
1342750000	+38.91	-35.07	1301750000	+26.59	-27.39
2101750000	+41.10	-32.88	1735750000	+26.91	-27.07
2643000000	+42.42	-31.56	2644250000	+28.32	-25.66
3471500000	+46.24	-27.74	3471500000	+37.82	-16.16
3900000000	+47.01	-26.97	3912500000	+33.00	-20.98

24000315_2

Zanivan 24000316

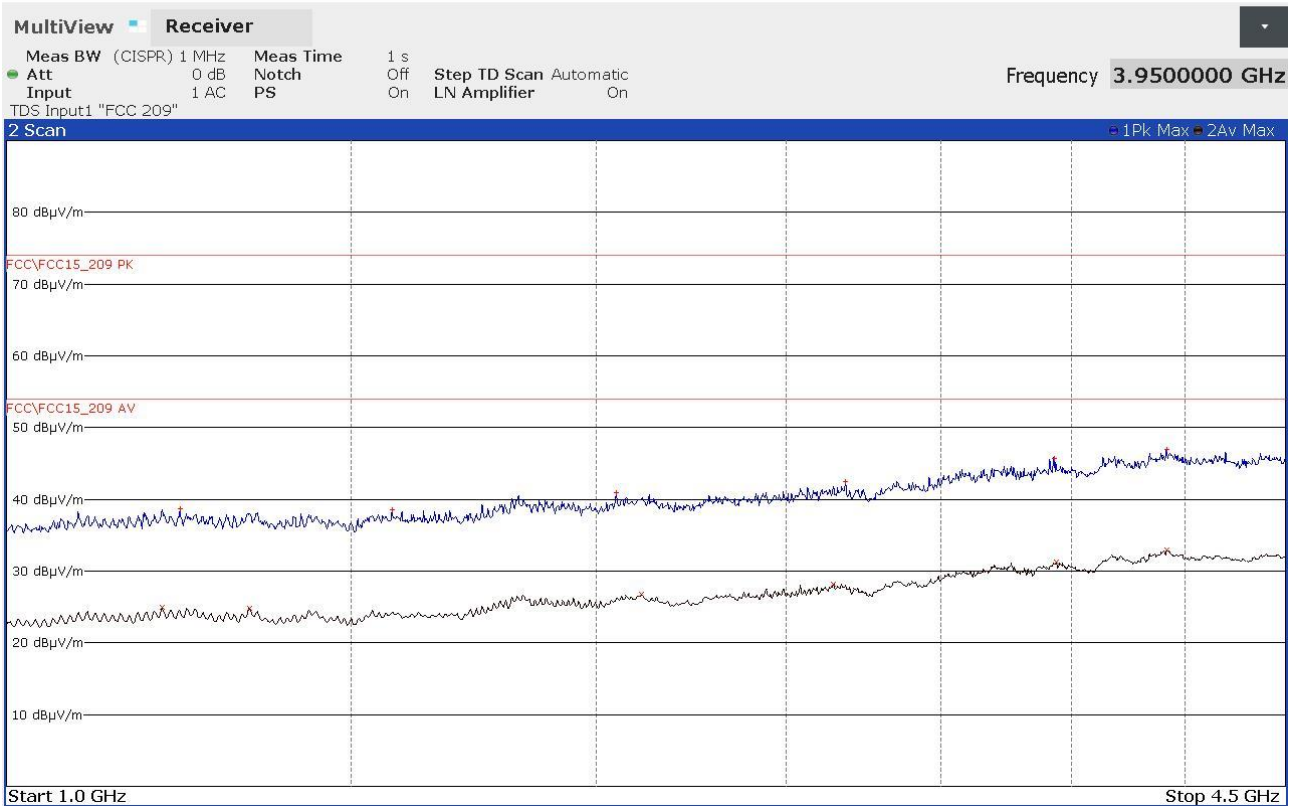


FINAL RESULT TABLE

MAX PEAK			AVERAGE		
Freq Hz	Lev dBuV/m	Margin dB	Freq Hz	Lev dBuV/m	Margin dB
1225750000	+38.65	-35.33	1201000000	+25.01	-28.97
1301750000	+39.02	-34.96	1301750000	+27.56	-26.42
1833000000	+40.85	-33.13	2111000000	+26.77	-27.21
2694500000	+41.95	-32.03	2644500000	+28.25	-25.73
3451250000	+45.39	-28.59	3471500000	+34.15	-19.83
4445000000	+47.49	-26.49	3912750000	+32.97	-21.01

24000316_2

Zanivan 24000317



FINAL RESULT TABLE

MAX PEAK

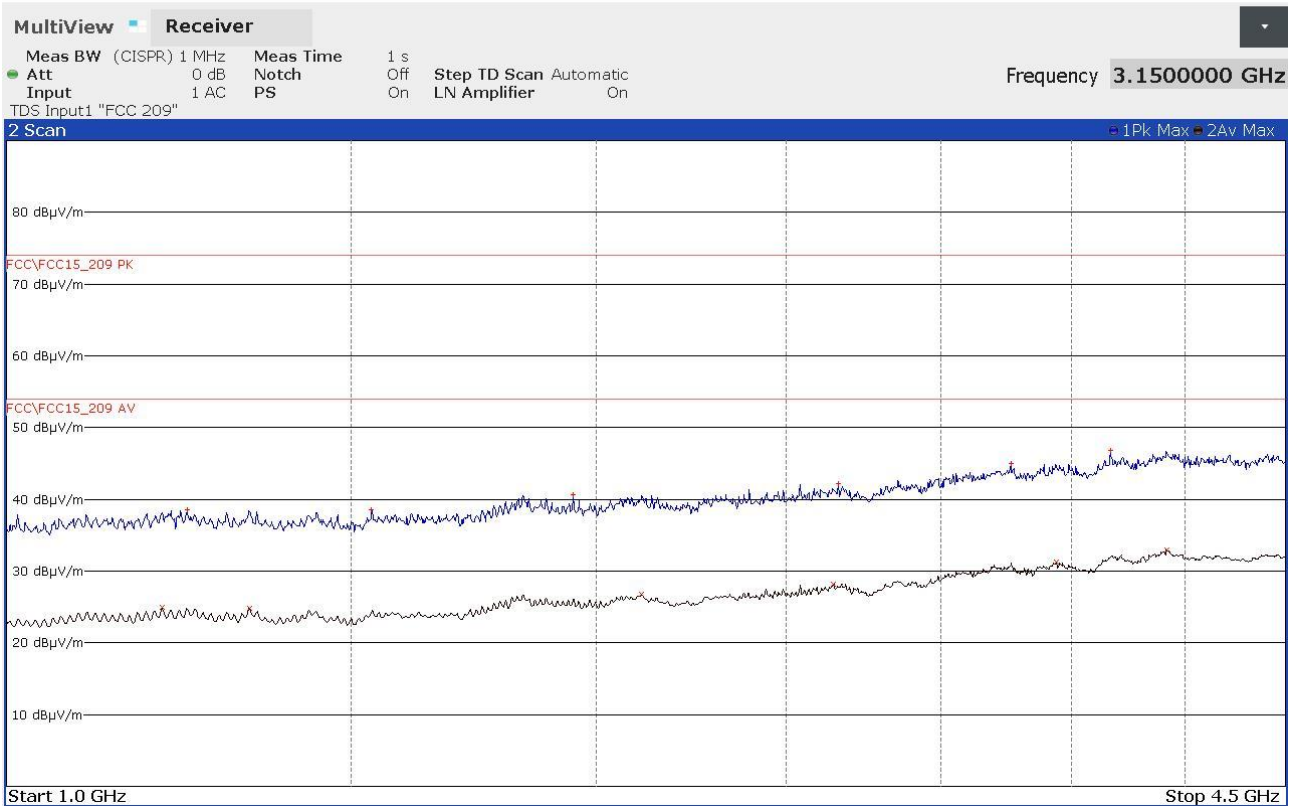
Freq Hz	Lev dBuV/m	Margin dB
1226500000	+38.65	-35.33
1573750000	+38.60	-35.38
2048250000	+40.91	-33.07
2681750000	+42.42	-31.56
3427250000	+45.69	-28.29
3912250000	+46.97	-27.01

AVERAGE

Freq Hz	Lev dBuV/m	Margin dB
1201000000	+24.99	-28.99
1330750000	+24.76	-29.22
2111000000	+26.75	-27.23
2644000000	+28.23	-25.75
3436750000	+31.27	-22.71
3912500000	+32.95	-21.03

24000317_2

Zanivan 24000318



FINAL RESULT TABLE

MAX PEAK

Freq Hz	Lev dBuV/m	Margin dB
1237000000	+38.50	-35.48
1536000000	+38.56	-35.42
1947250000	+40.63	-33.35
2659500000	+42.24	-31.74
3258750000	+44.96	-29.02
3663000000	+46.76	-27.22

AVERAGE

Freq Hz	Lev dBuV/m	Margin dB
1201000000	+25.00	-28.98
1330500000	+24.78	-29.20
2110750000	+26.76	-27.22
2644250000	+28.21	-25.77
3437250000	+31.28	-22.70
3912250000	+32.92	-21.06

24000318_2

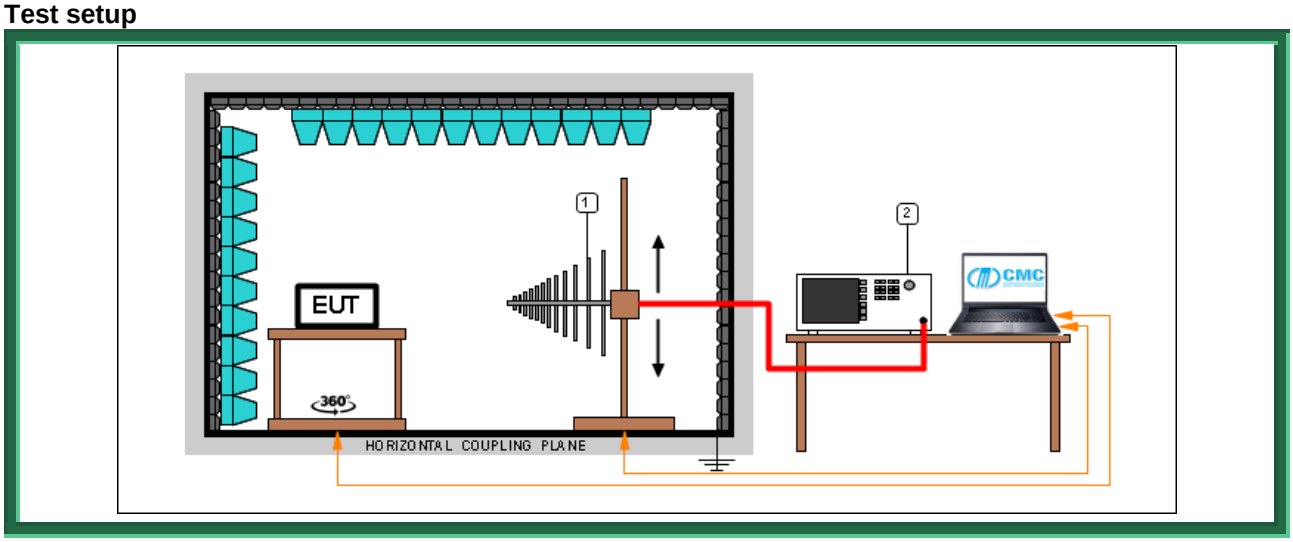
9.3 Field strength of fundamental

Tested by .....:	S. Zanivan
Test date .....:	09.01.2024
Test location (stand) .....:	Semi-anechoic chamber (CMC A070)
Reference standards.....:	FCC Rules and Regulation; Titles 47 Part. 15.209 and 15.231 (b)
Supplementary test set-up description.....:	EUT – antenna distance: 10 m
Supplementary information.....:	--

Acceptance limits

FCC Part 15.231 (b)	
Fundamental frequency (MHz)	*Field strength of fundamental [dB(µV/m)]*
40,66 to 40,70	67,04
70 to 130	61,94
130 to 174	61,94 to 71,48
174 to 260	71,48
260 to 470	71,48 to 81,94
Above 470	81,94

Test setup



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	9111B-203	Broadband Antenna	August 2022	August 2025

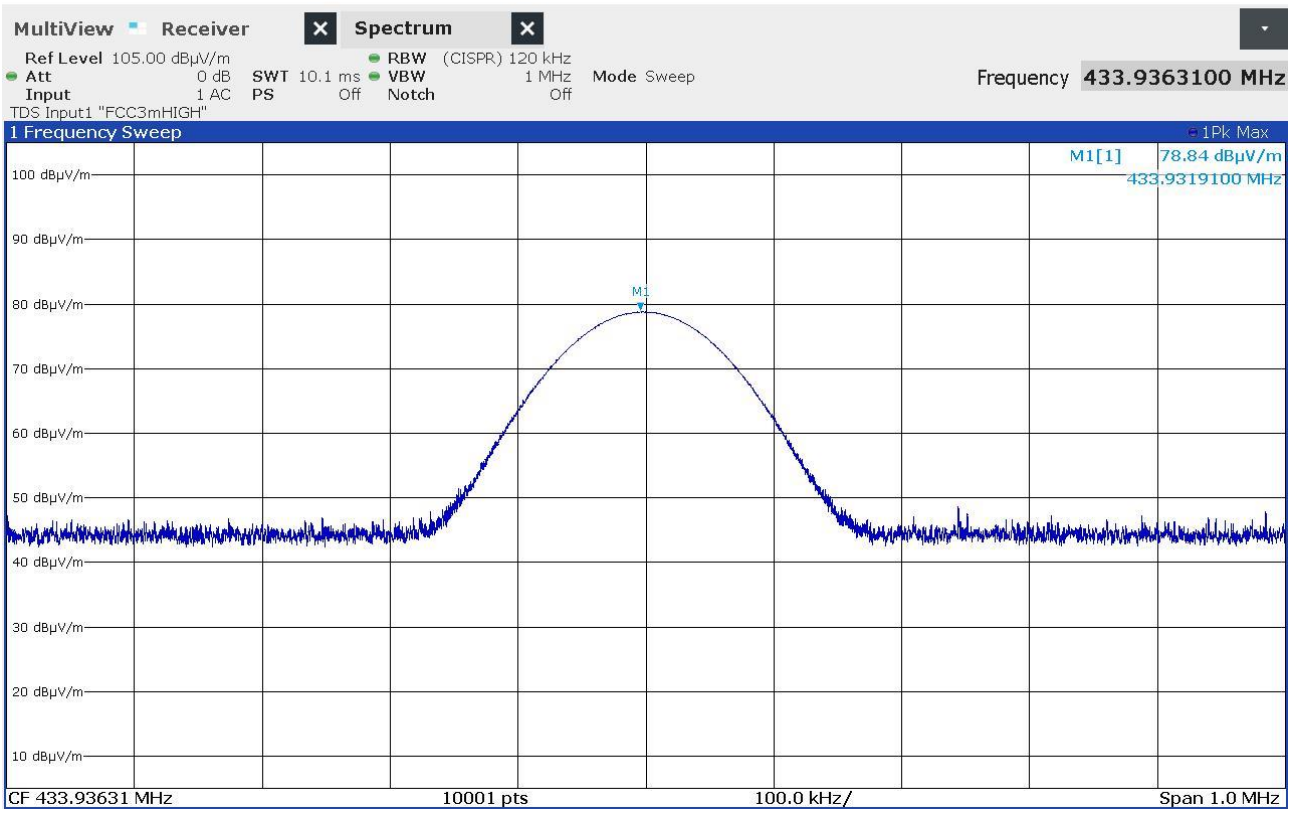
Result

Frequency (MHz)	*Graph(s)*	*Measured peak level (dBµV/m)*	*Limits (dBµV/m)*
433,94	G24000308	78,84	80,83

Remarks: EUT was tested in 3 orthogonal planes. The results in this table show the highest value.

Graphs

Zanivan 24000308



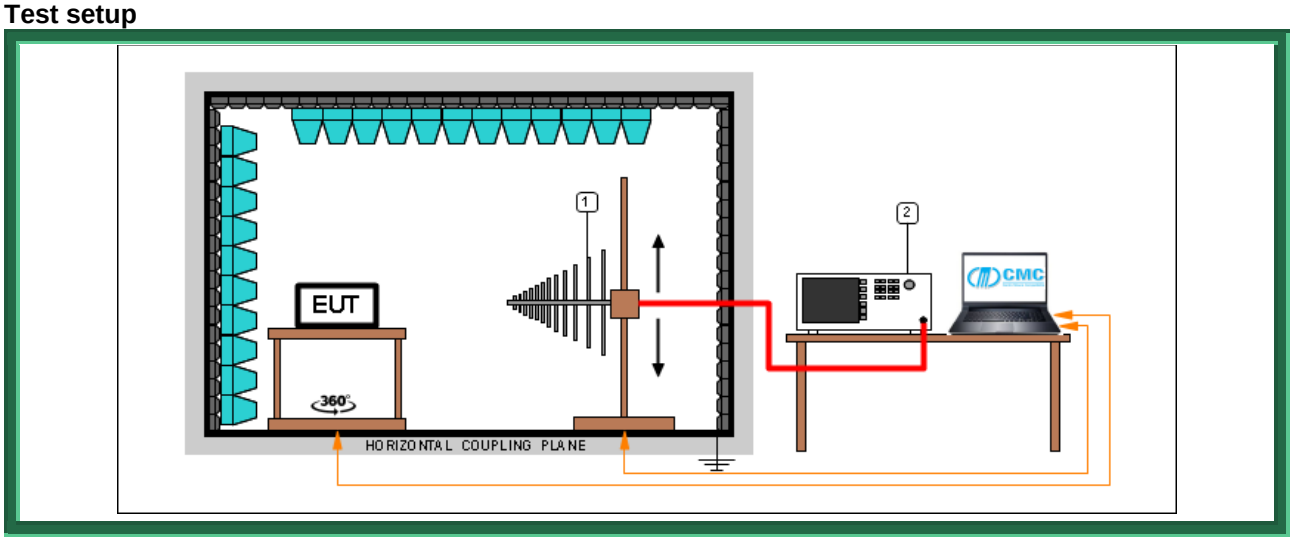
9.4 Occupied channel bandwidth

Tested by .....:	S. Zanivan
Test date .....:	10.01.2024
Test location (stand) .....:	Semi-anechoic chamber (CMC A070)
Reference standards.....:	FCC Rules and Regulation; Titles 47 Part. 15.231 (c)
Supplementary test set-up description.....:	--
Supplementary information.....:	--

Acceptance limits

Limits	
Devices operating above 70 MHz and below 900 MHz	***Devices operating above 900 MHz***
0,25% of the center frequency	0,5% of the center frequency

Test setup



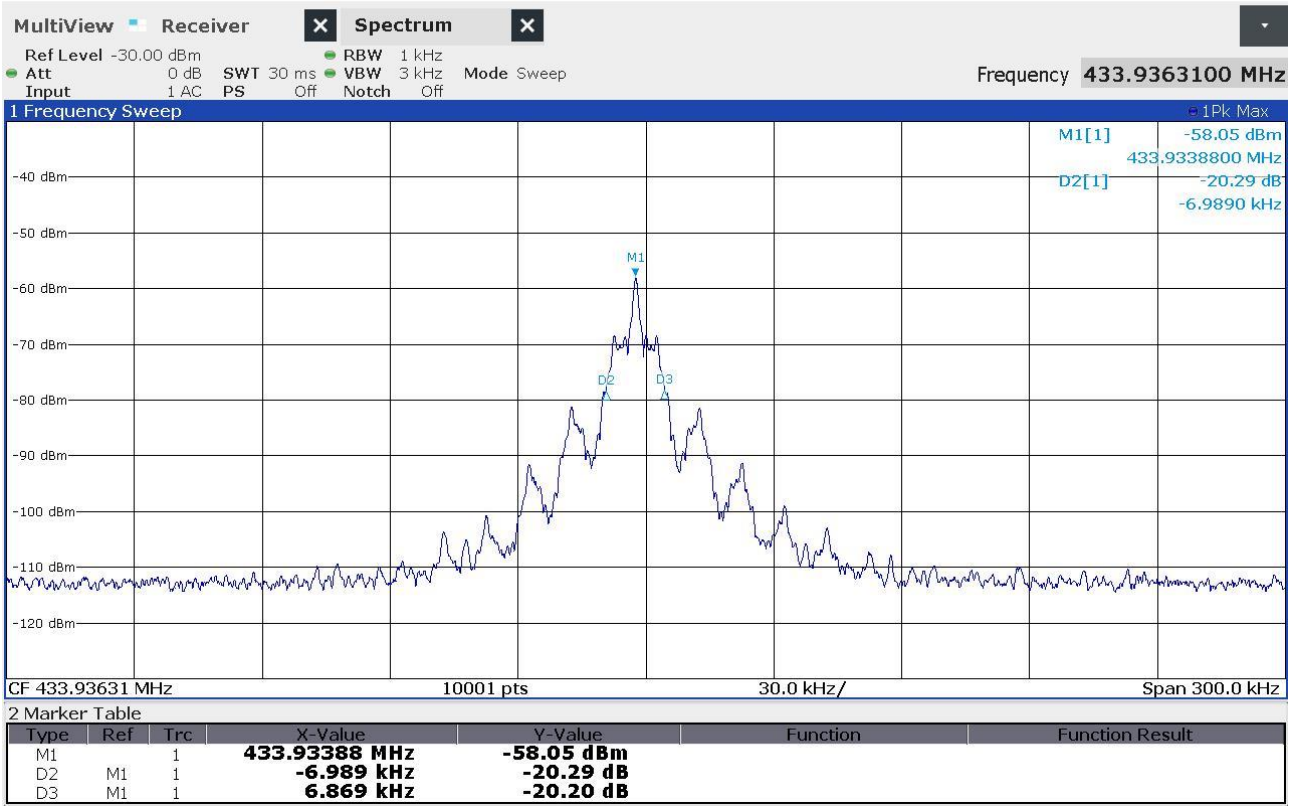
Test setup PE004_03							
Nr.	*Id. Number*	*Manufacturer*	*Model*	*Serial number*	*Description*	*Last calibration date*	*Calibration expiration*
2	CMC S353	Rohde & Schwarz	ESW26	101492	Emi Test Receiver	December 2023	December 2024
1	CMC S287	Schwarzbeck	VUSLP 9111B	9111B-203	Broadband Antenna	August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

Result

Frequency (MHz)	*Graphs*	*20 dB bandwidth (kHz)*	*Limit (kHz)*
433,94	G24000309	13,858	1084,85

Graphs

Zanivan 24000309



9.5 Periodic operation characteristics

Tested by .....:	S. Zanivan	
Test date .....:	10.01.2024	
Test location (stand) .....:	Laboratory	
Reference standards.....:	FCC Rules and Regulation; Titles 47 Part. 15.231 (a) (e)	
Type of transmission.....:	☒	Manually operated transmitter
	☐	Transmitter activated automatically

Acceptance limits

The provisions of this section are restricted to periodic operation within the band 40,66 – 40,70 MHz and above 70 MHz. Except as shown in paragraph (e) of this section, the intentional radiator is restricted to the transmission of a control signal such as those used with alarm systems, door openers, remote switches, etc. Continuous transmissions, voice, video and the radio control of toys are not permitted. Data is permitted to be sent with a control signal. The following conditions shall be met to comply with the provisions for this periodic operation

15.231(a1) A manually operated transmitter shall employ a switch that will automatically deactivate the transmitter within not more than 5 seconds of being released.

Transmission channel (MHz)	*Graphs*	*Transmitter deactivation time*	*Limits*
433,94	G24000319	720 ms	5 s

15.231(a2) A transmitter activated automatically shall cease transmission within 5 seconds after activation

Result: N.A.

15.231(a3) Periodic transmissions at regular predetermined intervals are not permitted. However, polling or supervision transmissions, including data, to determine system integrity of transmitters
used in security or safety applications are allowed if the total duration of transmissions does not exceed more than two seconds per hour for each transmitter. There is no limit on the number of individual transmissions, provided the total transmission time does not exceed two seconds per hour

Result: The EUT does not employ periodic transmission.

15.231(a4) Intentional radiators which are employed for radio control purposes during emergencies involving fire, security, and safety of life, when activated to signal an alarm, may operate during the pendency of the alarm condition.

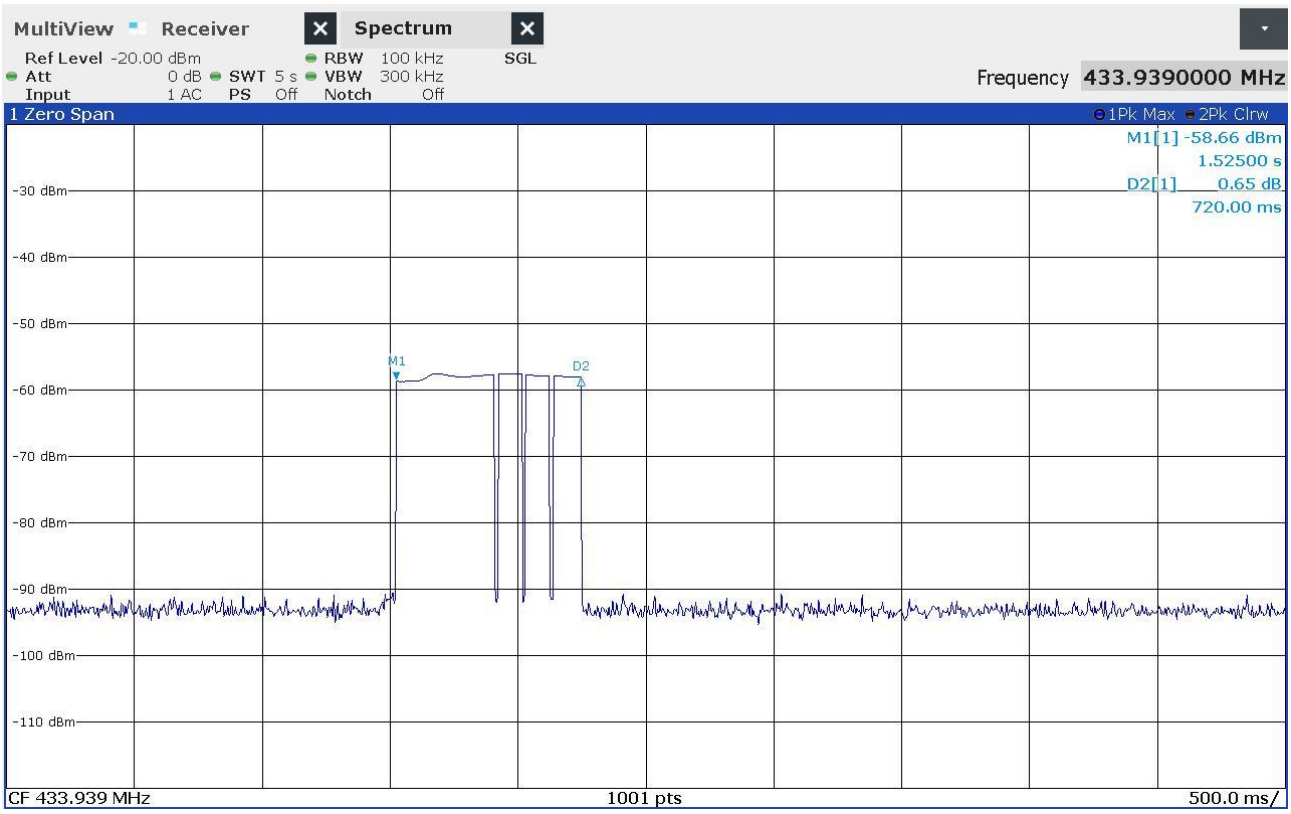
Result: N.A.

15.231(a5) Transmission of set-up information for security systems may exceed the transmission duration limits in paragraphs (a)(1) and (a)(2) of this section, provided such transmissions are under the control of a professional installer and do not exceed ten seconds after a manually operated switch is released or a transmitter is activated automatically. Such set-up information may include data

Result: N.A.

Graphs

Zanivan 24000319



Attachment 1

Measurement uncertainty

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

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 Oscillotary immunity test	PE113_01		2
Rev_23_01 date 20/03/2023			

Note 1:

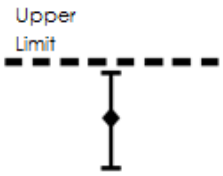
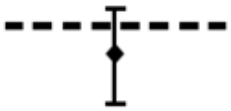
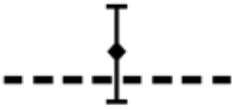
The expanded uncertainty reported according to the document EA-4-02 is based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of p = 95%

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
			
The sample complies with the requirements. The measurement results is within the specification limit when the measurement uncertainty is taken into account.	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.	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.	The sample does not comply with the requirements. The measurement results is outside the specification limit when the measurement uncertainty is taken into account.

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