

TEST REPORT

Nr. R22034401

Federal Communication Commission (FCC)

Report Reference No.	R22034401
Date of issue:	02.03.2022
Total number pages:	40
Applicant's name	D-Air Lab S.r.l.
Address	Via dell'Economia, 64/C – 36100 Vicenza (VI) – Italy
Test specification:	
Standards	FCC Rules & Regulations, Title 47:2020 Part 15 paragraph(s): 107 and 109
Non-standard test method	N/A
Test Report Form No.	15-107_15-109CMC
Test Report Form(s) Originator ...	CMC Centro Misure Compatibilità S.r.l.
Master TRF	2022-02
General disclaimer:	
The test results presented in this report relate only to the object tested. This report shall not be reproduced, except in full, without the written approval of CMC Centro Misure Compatibilità S.r.l.	
(*) Test item description	Equipment with integrated technology that activates the inflation of the Air-Bag Devices
(*) Trademark	DAirLab
(*) Manufacturer	D-Air Lab S.r.l.
(*) Model / Type reference	001_F
FCC ID	2AWM3-001F
Rating(s)	3,7 Vdc from battery
Report	
Tested by (name + signature)	M. Segalla
Approved by (name + signature)	F. Marenda

(*) information provided by the customer

1 Summary

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2 Reference standard	
FCC Rules and Regulation Title 47 part 15:2020	--
3 List of attachments	
Attachment 1: Instruments list, measurement uncertainty, judgement of compliance and quality manual references	
4 Deviation(s) from test specification	
None	
5 Testing location	
CMC Centro Misure Compatibilità S.r.l. Via della Fisica, 20 – 36016 Thiene (VI) – Italy Test site facility's FCC registration number: 182474	

<i>Revision index</i>	<i>Date</i>	<i>Change history</i>
1.0	02.03.2022	--

Testing and sampling:	
Date of receipt of test item	18.02.2022
Testing start date	22.02.2022
Testing end date	22.02.2022
Sampling procedure	Equipment used for testing was picked up by the customer
Internal identification	Adhesive label with the product number P220166
General remarks:	
This report shall not be reproduced, except in full, without the written approval of CMC. 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 does meet the requirement:	P (Pass)
Test object does not meet the requirement:	F (Fail)
Test object does not performed:	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	Equipment with integrated technology that activates the inflation of the Air-Bag Devices						
Model Number	001_F						
FCC ID	2AWM3-001F						
Serial Number	--						
Brand name	DAirlab						
Type of device	TV Broadcast Receiver	☐					
	FM Broadcast Receiver	☐					
	CB Receiver	☐					
	Superregenerative Receiver	☐					
	Scanning Receiver	☐					
	Radar Detector	☐					
	All other receivers subject to Part 15	☐					
	TV Interface Device	☐					
	Cable System Terminal Device	☐					
	Stand-alone Cable input selector switch	☐					
	Class B personal computers and peripherals	☐					
	CPU boards and internal power supplies used with Class B personal computers	☐					
	Class B personal computers assembled using authorized CPU boards or power supplies	☐					
	Class B external switching power supplies	☐					
	Other Class B digital devices & peripherals	☒					
	Class A digital devices, peripherals & external switching power supplies	☐					
	Access Broadband over Power Line (Access BPL)	☐					
	All other devices	☐					
Test power supply.....		Voltage and Frequency	Reference poles				
			N	L1	L2	L3	PE
	☐	AC:	☐	☐	☐	☐	☐
	☐	AC:	☐	☐	☐	☐	☐
	☒	DC: 3,7 V from battery					☐
Emission class	Class B						

Test arrangements of EUT	<i>Intended operational arrangement(s) of EUT</i>		<i>Test arrangement (see basic standard)</i>
	☐ 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
Required highest frequency for radiated measurement.....	<i>Highest frequency generated or used in the device or on which the device operates or tunes (MHz)</i>		<i>Upper frequency of measurement range (MHz)</i>
	☐ Below 1,705		30
	☐ 1,705 – 108		1000
	☐ 108 – 500		2000
	☐ 500 – 1000		5000
	☒ Above 1000		5 th harmonic of the highest frequency or 40 GHz, whichever is lower
Operating modes	No.	Operating mode of test item	
	1	EUT in battery operation, BLE link with auxiliary smartphone	
	2	Recharging mode, BLE link with auxiliary smartphone	
Accessories (not part of the test item)	Accessory	Type	Manufacturer
	Smartphone	Nexus 5X	LG
	Battery charger	PSM03E-050Q-3	Phihong
Declination of responsibility	Information relating to the description of the sample, components list and software/hardware version (if reported) are provided by the manufacturer. CMC Centro Misura Compatibilità S.r.l. cannot be considered responsible for these 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 47:2020 Part 15 paragraph(s): 107 and 109				
Clause	Requirement – Test case	Basic standard	Test sequence	Verdict
Part 15.107	Conducted emission	ANSI C63.4	1	P
Part 15.109	Radiated emission	ANSI C63.4	2	P

Normative references	
Reference no.	Description
FCC Rules and Regulation Title 47 part 15:2020	--
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

8 Test conditions

8.1 General

Environmental reference conditions..... :	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:		
	Temperature	Humidity	Atmospheric pressure
	15 °C – 35 °C	30 % - 60 %	800 hPa – 1060 hPa
	If explicitly required in the basic standard or applied product standard the climatic values are recorded and documented separately in this test report.		
Measurement uncertainties :	Attachment 1		

9 Emission

9.1 Conducted emission

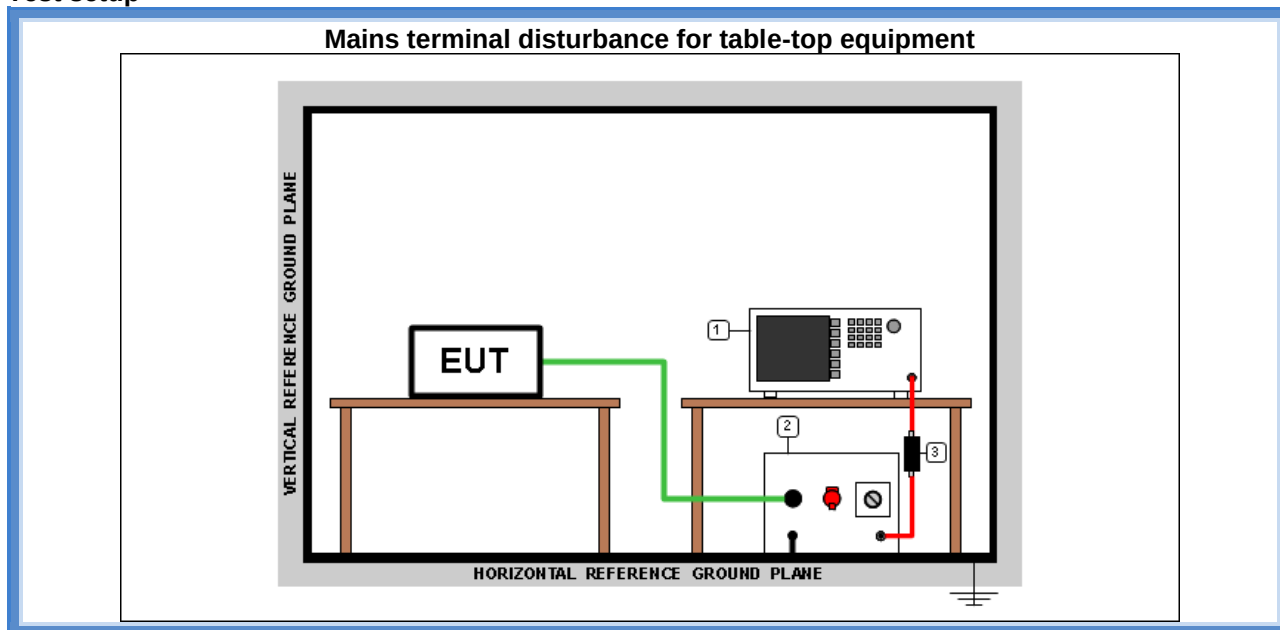
Tested by	M. Segalla	
Test date	22.02.2022	
Test location (stand).....	Shielded chamber (CMC A001)	
Reference standards.....	FCC Rules and Regulation; Titles 47 Part. 15.107 ANSI C63.4 cl. 7	
Test set-up description.....	☒	Table top equipment set-up (80 cm above the reference ground plane)
	☐	Floor standing 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.....	☒	Artificial mains network, 50 μ H/50 Ω LISN
	☐	Other:

Acceptance limits

Limits for class A equipment		
Frequency range (MHz)	$\text{dB}(\mu\text{V})$ Quasi-peak	$\text{dB}(\mu\text{V})$ Average
0,15 to 0,50	79	66
0,5 to 5	73	60
5 to 30	73	60

Limits for class B equipment		
Frequency range (MHz)	$\text{dB}(\mu\text{V})$ Quasi-peak	$\text{dB}(\mu\text{V})$ 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	Description
3	CMC S010	Rohde & Schwarz	ESH3-Z2	Pulse limiter
2	CMC S200	Schwarzbeck	NSLK 8128	V-LISN
1	CMC S206	Rohde & Schwarz	ESCI 7	EMC Receiver 9KHz-7GHz

Result

Operating mode	Line	Frequency Range (MHz)	Graphs	Result
Mode no. 2	L1	0,15 – 30	G22034401	P
Mode no. 2	N	0,15 – 30	G22034402	P

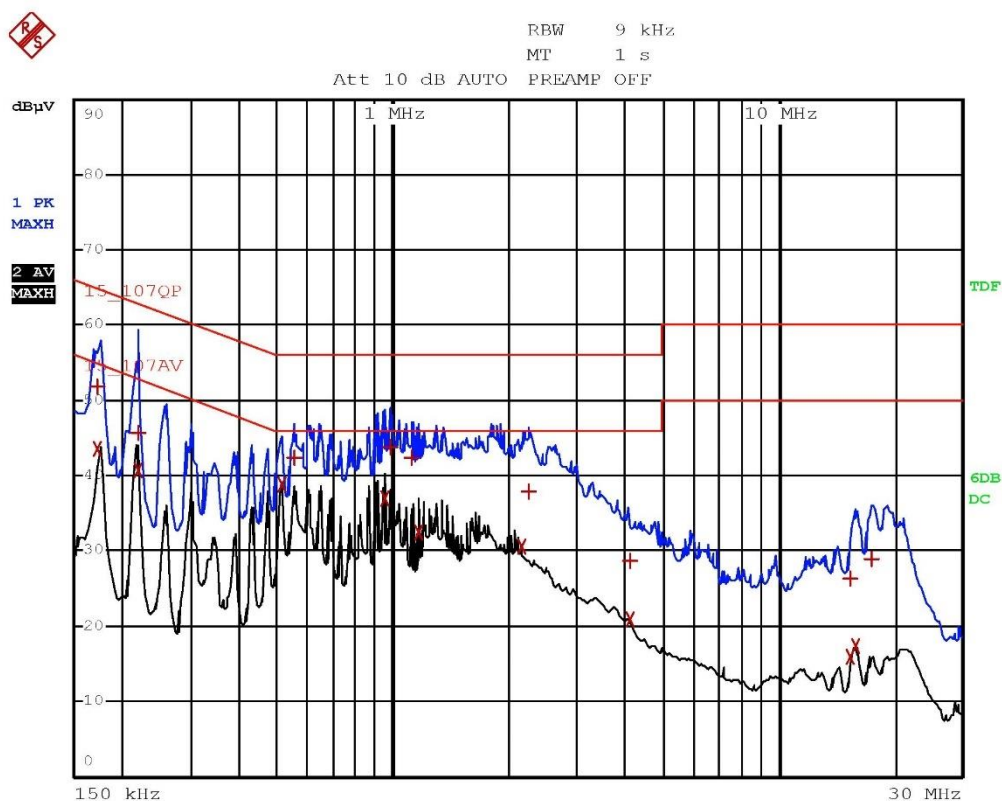
Remarks: tests performed on 120 Vac side of auxiliary battery charger

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

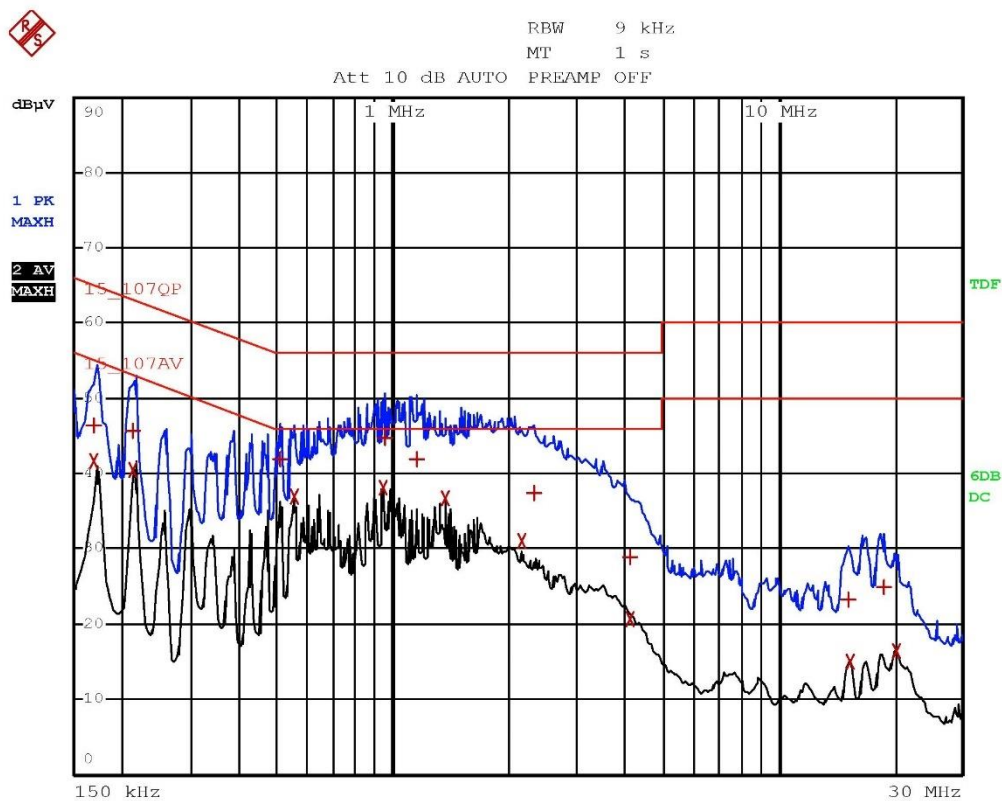
Graphs



Segalla 22034401-Line L(120V 60Hz)-Recharge

EDIT PEAK LIST (Final Measurement Results)				
Trace1:	15_107QP			
Trace2:	15_107AV			
Trace3:	---			
TRACE	FREQUENCY	LEVEL dBμV	DELTA LIMIT dB	
1 Quasi Peak	174 kHz	51.79	-12.96	
2 Average	174 kHz	43.64	-11.11	
1 Quasi Peak	218 kHz	45.60	-17.28	
2 Average	218 kHz	40.63	-12.25	
2 Average	514 kHz	38.90	-7.09	
1 Quasi Peak	554 kHz	42.36	-13.63	
2 Average	950 kHz	36.85	-9.14	
1 Quasi Peak	990 kHz	43.70	-12.29	
1 Quasi Peak	1.125 MHz	42.34	-13.65	
2 Average	1.166 MHz	32.38	-13.61	
2 Average	2.156 MHz	30.60	-15.39	
1 Quasi Peak	2.258 MHz	37.82	-18.17	
2 Average	4.138 MHz	20.98	-25.01	
1 Quasi Peak	4.146 MHz	28.80	-27.19	
1 Quasi Peak	15.454 MHz	26.26	-33.73	
2 Average	15.47 MHz	15.85	-34.14	
2 Average	15.946 MHz	17.43	-32.56	
1 Quasi Peak	17.406 MHz	28.87	-31.13	

Segalla 22034401-Line L(120V 60Hz)-Recharge



Segalla 22034402-Line N(120V 60Hz)-Recharge

EDIT PEAK LIST (Final Measurement Results)				
Trace1:	15_107QP			
Trace2:	15_107AV			
Trace3:	---			
TRACE	FREQUENCY	LEVEL dBμV	DELTA LIMIT dB	
1 Quasi Peak	170 kHz	46.44	-18.51	
2 Average	170 kHz	41.67	-13.28	
1 Quasi Peak	214 kHz	45.60	-17.44	
2 Average	214 kHz	40.50	-12.54	
1 Quasi Peak	510 kHz	41.88	-14.11	
2 Average	554 kHz	36.99	-9.01	
2 Average	942 kHz	38.21	-7.78	
1 Quasi Peak	954 kHz	44.76	-11.23	
1 Quasi Peak	1.158 MHz	42.02	-13.97	
2 Average	1.37 MHz	36.80	-9.19	
2 Average	2.154 MHz	31.01	-14.98	
1 Quasi Peak	2.318 MHz	37.43	-18.56	
1 Quasi Peak	4.118 MHz	28.92	-27.07	
2 Average	4.118 MHz	20.55	-25.44	
1 Quasi Peak	15.262 MHz	23.23	-36.76	
2 Average	15.458 MHz	14.90	-35.09	
1 Quasi Peak	18.79 MHz	24.89	-35.10	
2 Average	20.282 MHz	16.42	-33.57	

Segalla 22034402-Line N(120V 60Hz)-Recharge

9.2 Radiated emission

Tested by	M. Segalla	
Test date	22.02.2022	
Test location (stand)	Semi-anechoic chamber (CMC A070)	
Reference standards.....	FCC Rules and Regulation; Titles 47 Part. 15.109 ANSI C63.4 cl. 8	
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	--	

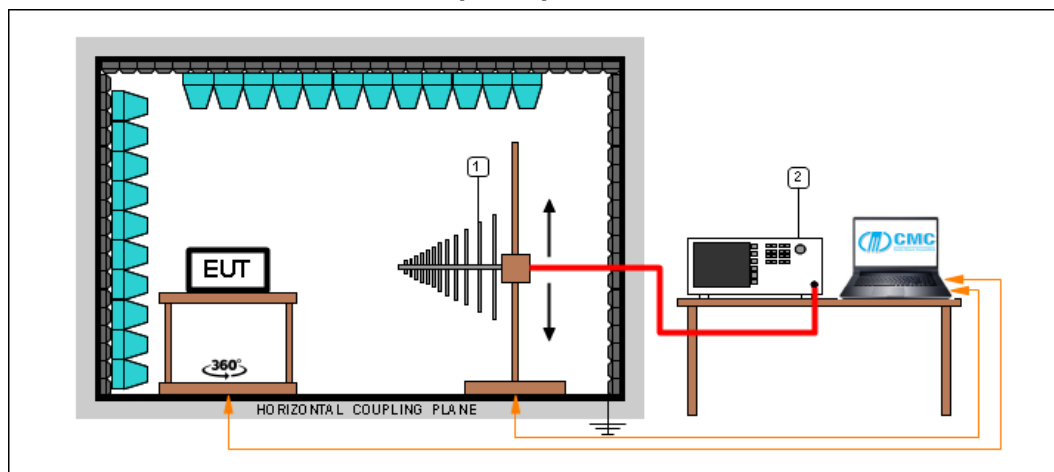
Acceptance limits

Class A radiated limits		
Frequency range (MHz)	Limits [dB(μV/m)]	Measurement distance (m)
30 to 88	39,08	10
88 to 216	43,52	10
216 to 960	46,44	10
Above 960	49,54	10

Class B radiated limits		
Frequency range (MHz)	Limits [dB(μV/m)]	Measurement distance (m)
30 to 88	40	3
88 to 216	43,52	3
216 to 960	46,02	3
Above 960	53,98	3

Test setup

Frequency ≤ 1 GHz



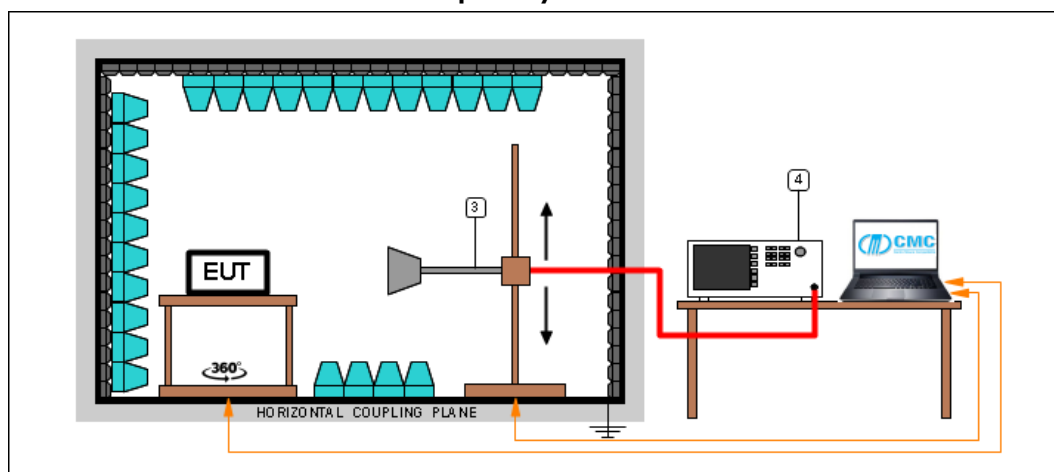
Test setup PE004_02

Nr.	Id. Number	Manufacturer	Model	Description
2	CMC S353	Rohde & Schwarz	ESW26	EMI Test Receiver 1 Hz - 26.5 GHz
1	CMC S271	Schwarzbeck	BBA 9106 + VHBB 9124	Broadband Antenna

Test setup PE004_03

Nr.	Id. Number	Manufacturer	Model	Description
2	CMC S353	Rohde & Schwarz	ESW26	EMI Test Receiver 1 Hz - 26.5 GHz
1	CMC S287	Schwarzbeck	VUSLP 9111B	Broadband Antenna

Frequency > 1 GHz



Test setup PE004_04

Nr.	Id. Number	Manufacturer	Model	Description
4	CMC S353	Rohde & Schwarz	ESW26	EMI Test Receiver 1 Hz - 26.5 GHz
3	CMC S108	Emco	3115	Waveguide antenna

Result

<i>Operating mode</i>	<i>Polarization</i>	<i>Frequency Range (MHz)</i>	<i>Graphs</i>	<i>Result</i>
Mode no. 1	V	1000 – 3000	G22034403	P
Mode no. 1	H	1000 – 3000	G22034404	P
Mode no. 1	H	3000 – 12500	G22034405	P
Mode no. 1	V	3000 – 12500	G22034406	P
Mode no. 1	V	300 – 1000	G22034407	P
Mode no. 1	H	300 – 1000	G22034408	P
Mode no. 1	H	30 – 300	G22034409	P
Mode no. 1	V	30 – 300	G22034410	P
Mode no. 2	V	30 – 300	G22034411	P
Mode no. 2	H	30 – 300	G22034412	P
Mode no. 2	H	300 – 1000	G22034413	P
Mode no. 2	V	300 – 1000	G22034414	P
Mode no. 2	V	3000 – 12500	G22034415	P
Mode no. 2	H	3000 – 12500	G22034416	P
Mode no. 2	H	1000 – 3000	G22034417	P
Mode no. 2	V	1000 – 3000	G22034418	P

Remarks: measurements at frequencies 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, using the transducer factor of the test receiver. Peaks above the limits at 2,4 GHz are due to the BLE main transmitting frequency

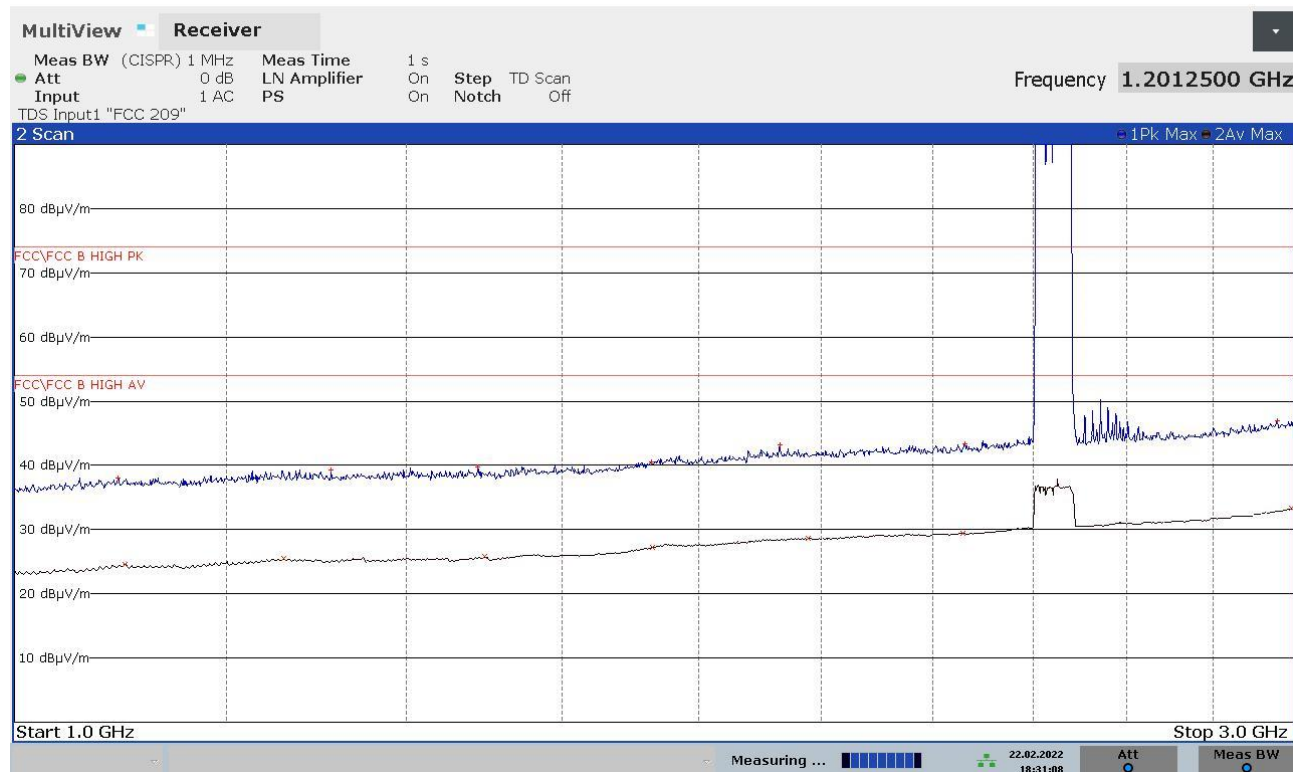
Graphs Legend

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

Segalla 22034403-Vert(1000-3000MHz)-Battery

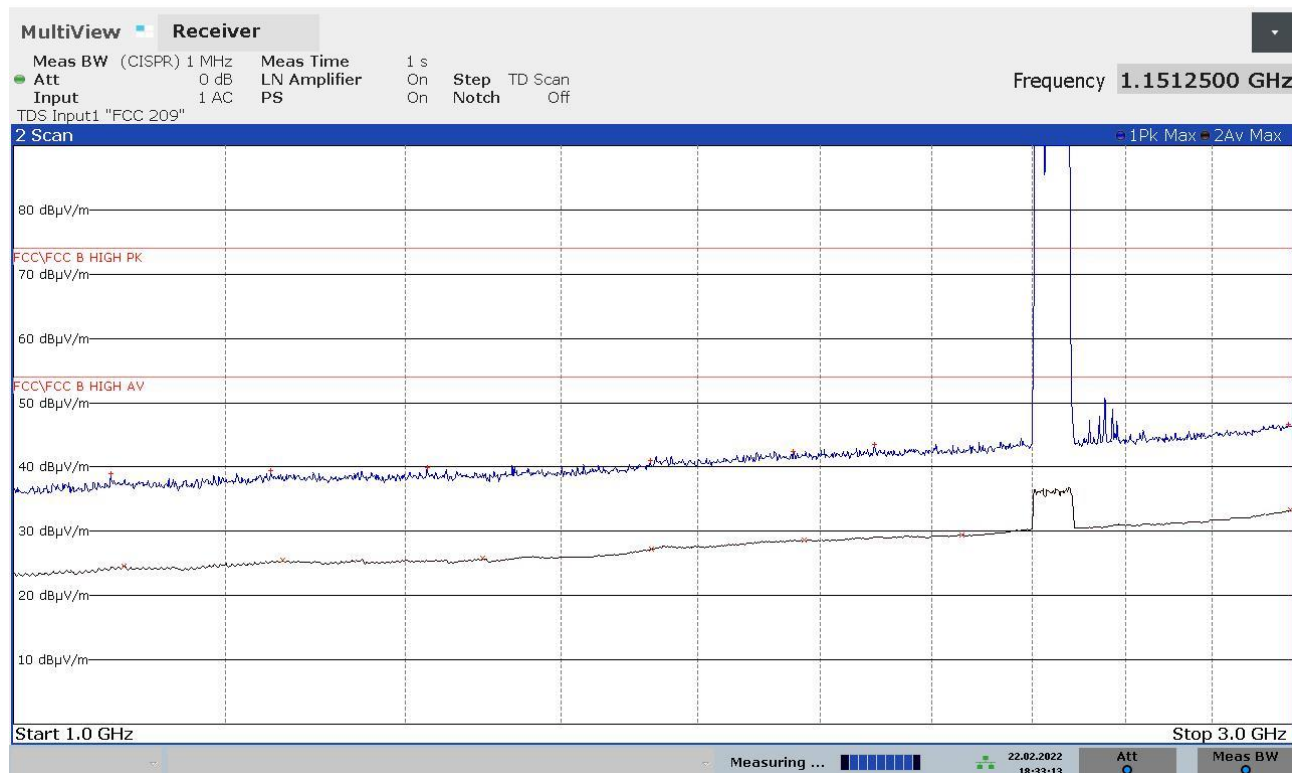


FINAL RESULT TABLE

MAX PEAK			AVERAGE		
Freq Hz	Lev dBuV/m	Margin dB	Freq Hz	Lev dBuV/m	Margin dB
1093250000	+38,11	-35,87	1099250000	+24,64	-29,34
1312500000	+39,23	-34,75	1260000000	+25,48	-28,50
1488750000	+39,83	-34,15	1497250000	+25,77	-28,21
1728000000	+40,61	-33,37	1729500000	+27,31	-26,67
1929500000	+43,19	-30,79	1977750000	+28,66	-25,32
2261750000	+43,37	-30,61	2258750000	+29,42	-24,56
2958250000	+46,97	-27,01	2995250000	+33,27	-20,71

22034403_2

Segalla 22034404-Horiz(1000-3000MHz)-Battery

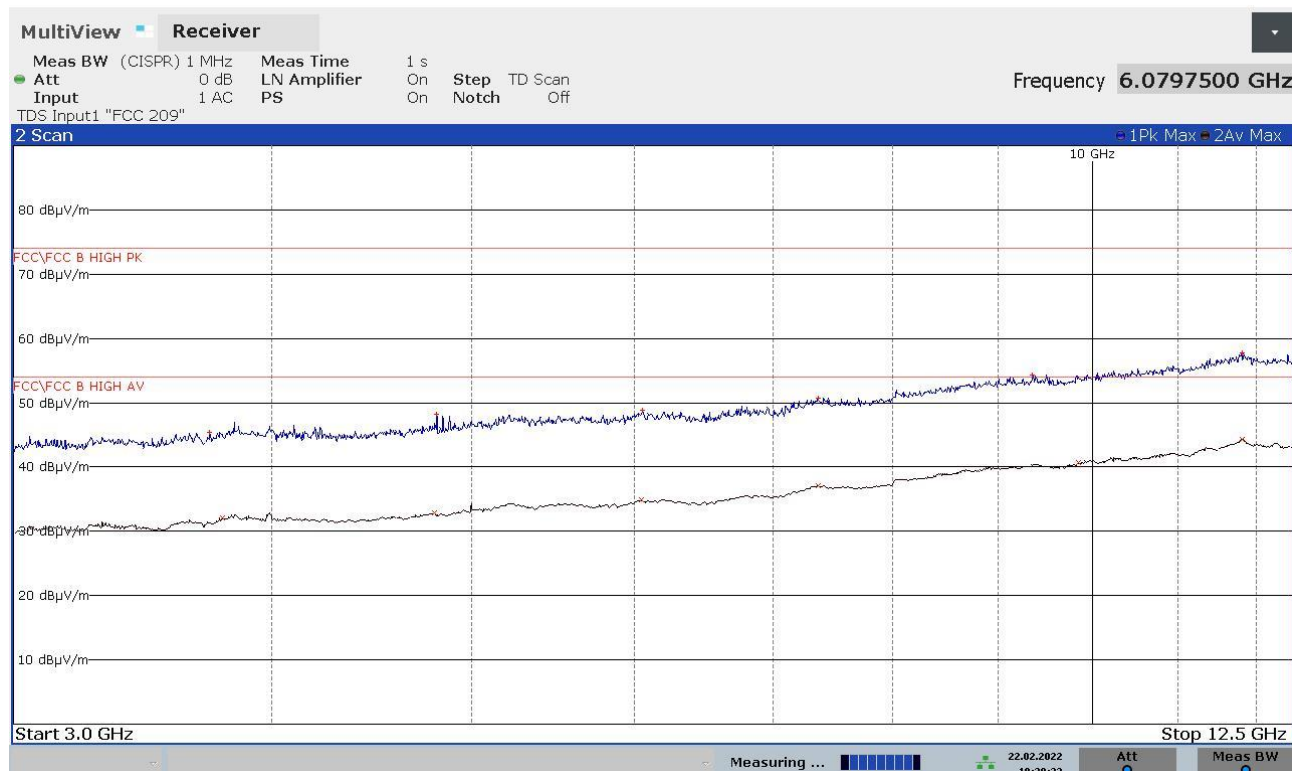


FINAL RESULT TABLE

MAX PEAK			AVERAGE		
Freq Hz	Lev dBuV/m	Margin dB	Freq Hz	Lev dBuV/m	Margin dB
1087250000	+38,90	-35,08	1099500000	+24,65	-29,33
1247000000	+39,45	-34,53	1259750000	+25,45	-28,53
1426500000	+39,90	-34,08	1496750000	+25,78	-28,20
1728500000	+40,99	-32,99	1730000000	+27,31	-26,67
1954000000	+42,47	-31,51	1972500000	+28,68	-25,30
2094750000	+43,49	-30,49	2259000000	+29,42	-24,56
2988750000	+46,58	-27,40	2996000000	+33,27	-20,71

22034404_2

Segalla 22034405-Horiz(3000-12500MHz)-Battery

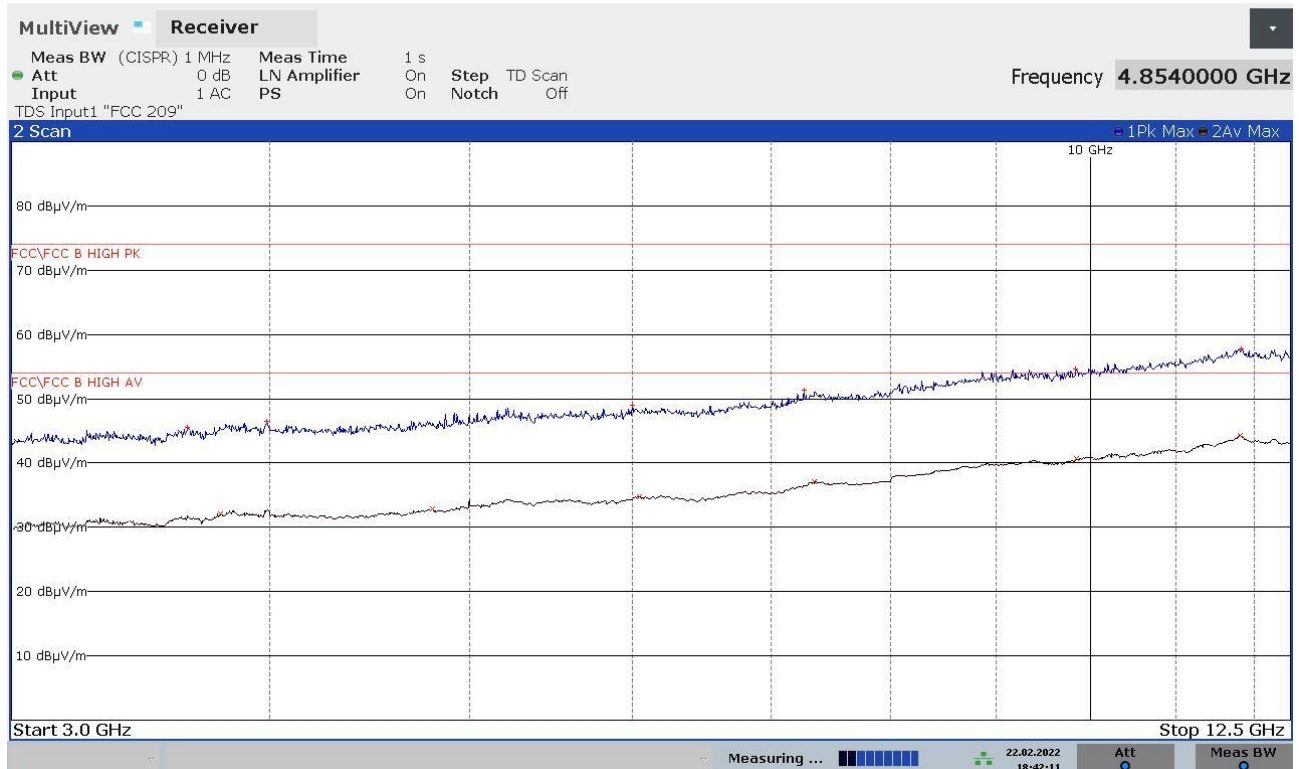


FINAL RESULT TABLE

MAX PEAK			AVERAGE		
Freq Hz	Lev dBuV/m	Margin dB	Freq Hz	Lev dBuV/m	Margin dB
3733750000	+45,42	-28,56	3787750000	+32,06	-21,92
4812000000	+48,15	-25,83	4799000000	+32,93	-21,05
6054000000	+48,79	-25,19	6044750000	+34,84	-19,14
7360250000	+50,77	-23,21	7362500000	+37,13	-16,85
9354500000	+54,32	-19,66	9840000000	+40,68	-13,30
11814750000	+57,80	-16,18	11820000000	+44,36	-9,62

22034405_2

Segalla 22034406-Vert(3000-12500MHz)-Battery

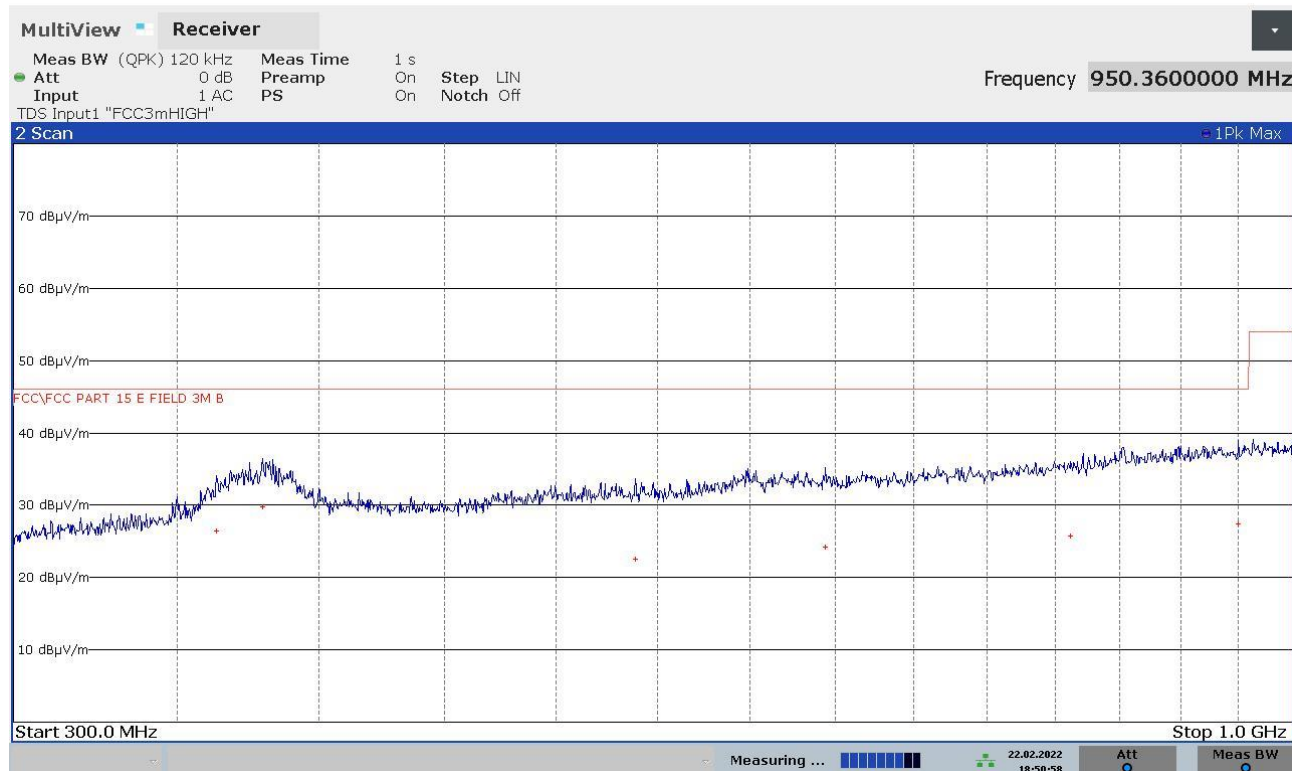


FINAL RESULT TABLE

MAX PEAK			AVERAGE		
Freq Hz	Lev dBuV/m	Margin dB	Freq Hz	Lev dBuV/m	Margin dB
3651750000	+45,57	-28,41	3787500000	+32,02	-21,96
3989500000	+46,44	-27,54	4799250000	+32,90	-21,08
5999500000	+48,99	-24,99	6045250000	+34,79	-19,19
7266000000	+51,35	-22,63	7350500000	+37,08	-16,90
9838750000	+54,56	-19,42	9840000000	+40,65	-13,33
11836750000	+57,68	-16,30	11820000000	+44,31	-9,67

22034406_2

Segalla 22034407-Vert(300-1000MHz - 10m)-Battery



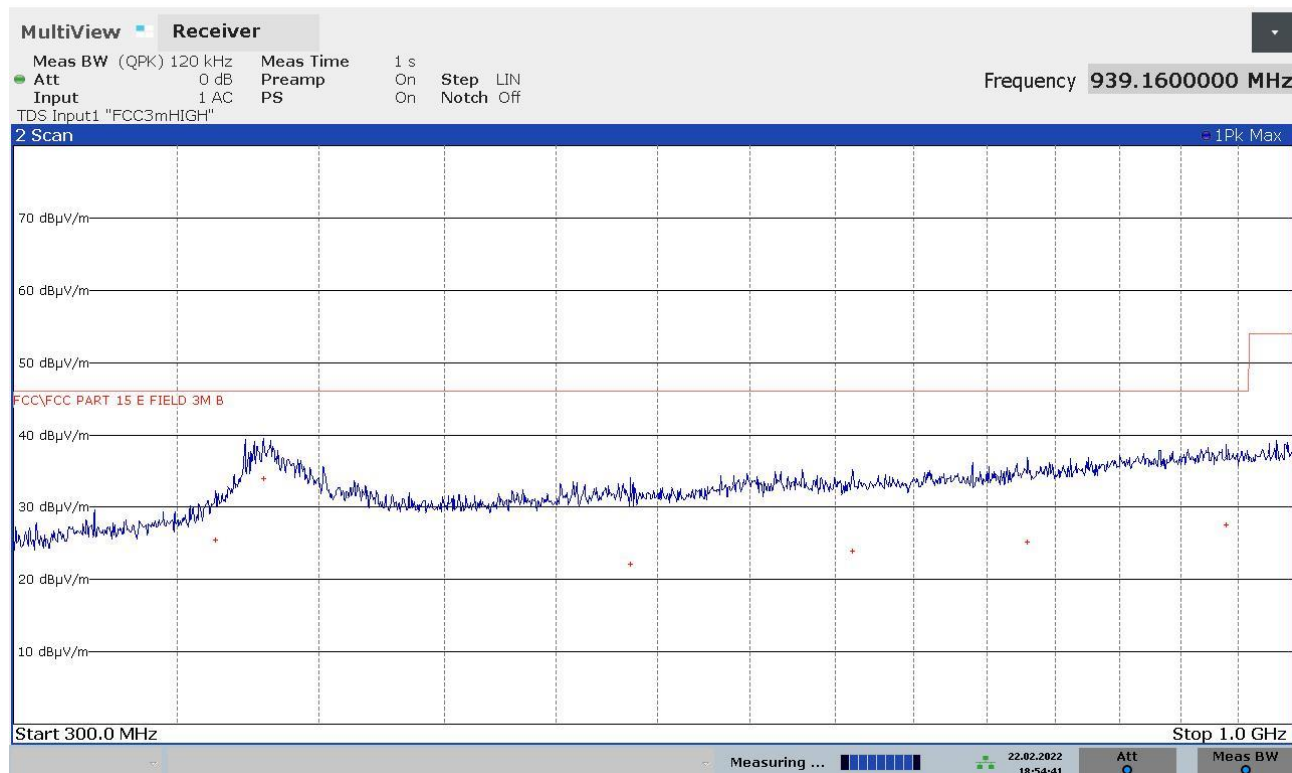
FINAL RESULT TABLE

QUASI PEAK

Freq Hz	Lev dBuV/m	Margin dB
363080000	+26,40	-19,62
379200000	+29,80	-16,22
538840000	+22,47	-23,55
644240000	+24,15	-21,87
811480000	+25,78	-20,24
950360000	+27,47	-18,55

22034407_2

Segalla 22034408-Horiz(300-1000MHz - 10m)-Battery



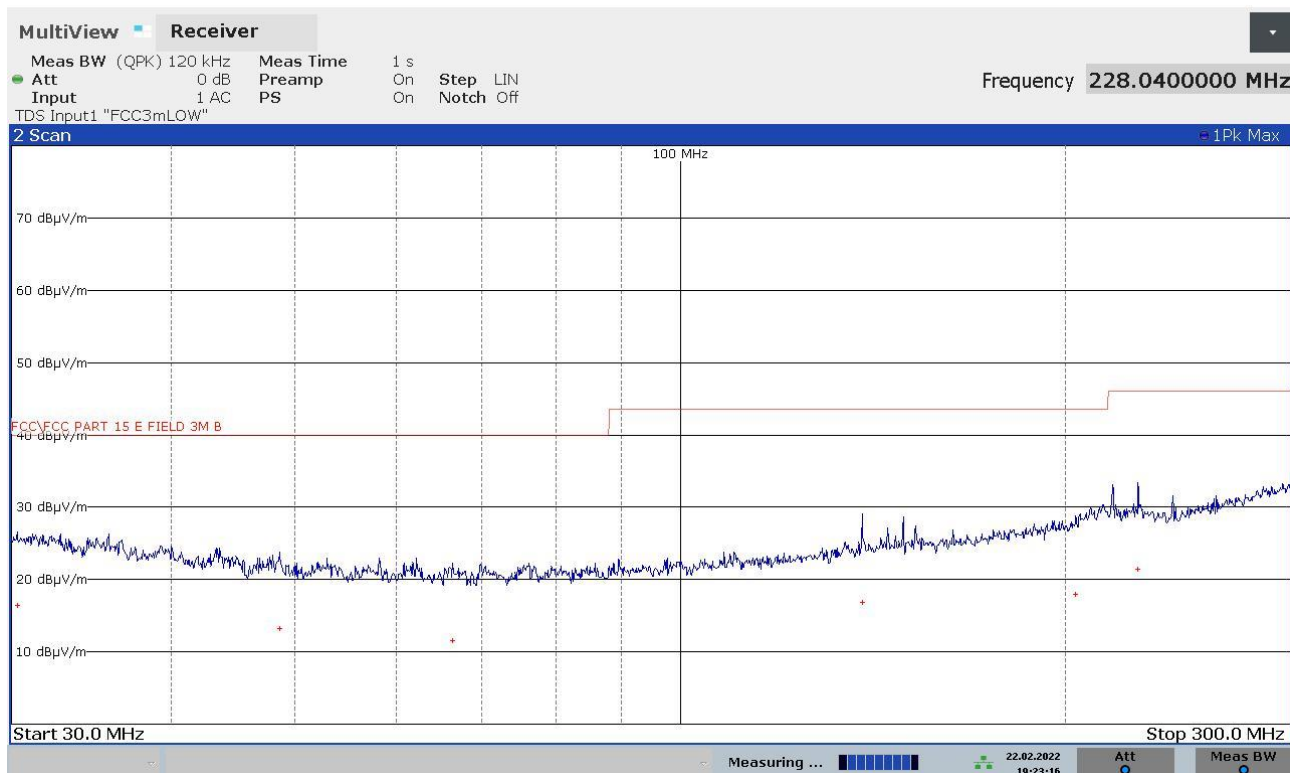
FINAL RESULT TABLE

QUASI PEAK

Freq Hz	Lev dBuV/m	Margin dB
362920000	+25,50	-20,52
379560000	+33,96	-12,06
536160000	+22,06	-23,96
661040000	+23,96	-22,06
779240000	+25,22	-20,80
939160000	+27,53	-18,49

22034408_2

Segalla 22034409-Horiz(30-300MHz - 10m)-Battery



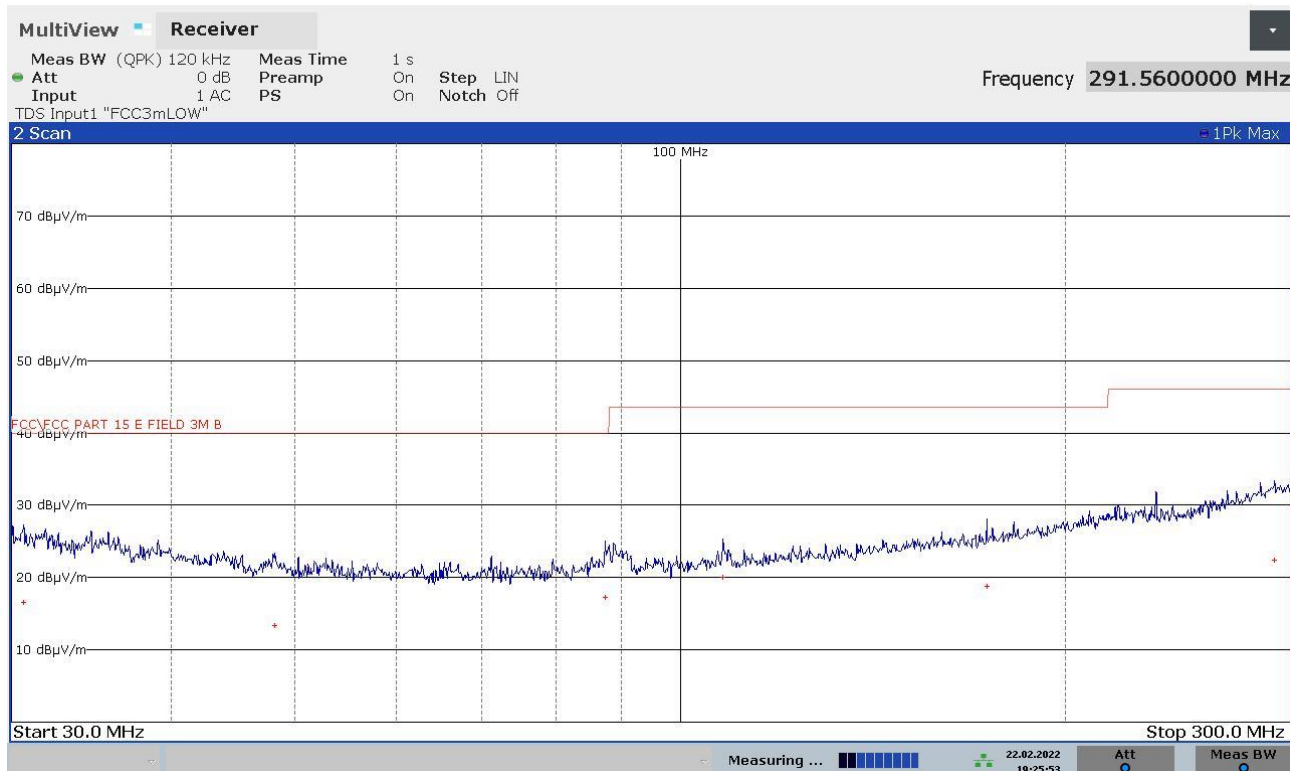
FINAL RESULT TABLE

QUASI PEAK

Freq Hz	Lev dBuV/m	Margin dB
30320000	+16,35	-23,65
48600000	+13,22	-26,78
66360000	+11,60	-28,40
138840000	+16,88	-26,64
203800000	+17,92	-25,60
228040000	+21,37	-24,65

22034409_2

Segalla 22034410-Vert(30-300MHz - 10m)-Battery



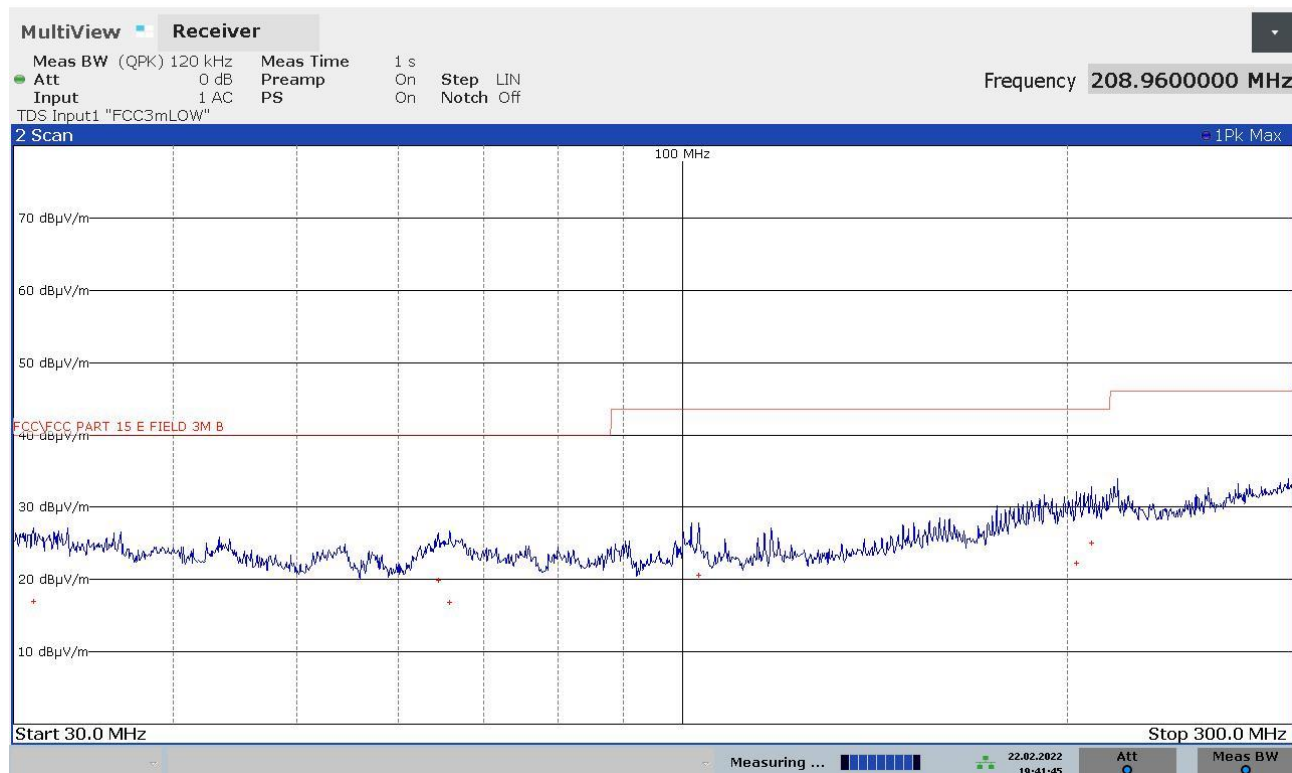
FINAL RESULT TABLE

QUASI PEAK

Freq Hz	Lev dBuV/m	Margin dB
30680000	+16,54	-23,46
48200000	+13,35	-26,65
87400000	+17,28	-22,72
108000000	+20,07	-23,45
173640000	+18,72	-24,80
291560000	+22,35	-23,67

22034410_2

Segalla 22034411-Vert(30-300MHz - 10m)-Recharge



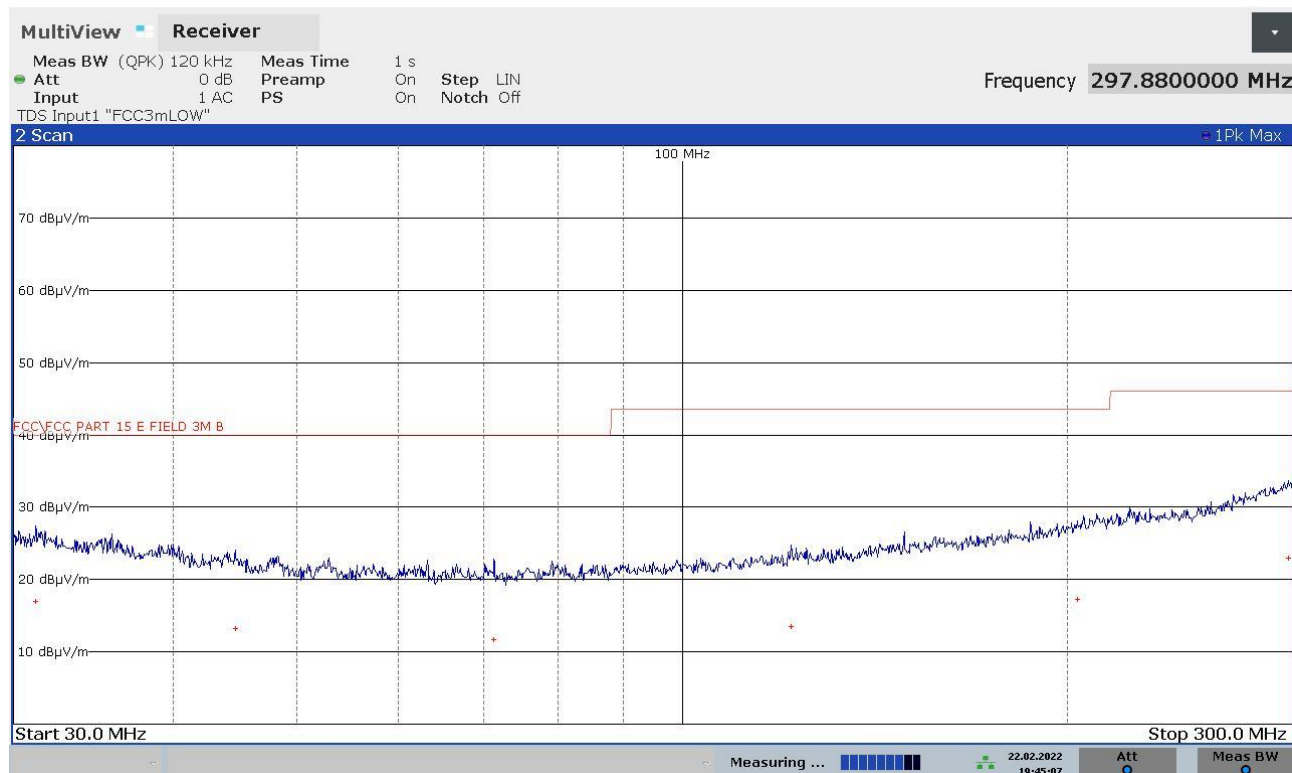
FINAL RESULT TABLE

QUASI PEAK

Freq Hz	Lev dBuV/m	Margin dB
31120000	+17,02	-22,98
64440000	+19,92	-20,08
65800000	+16,83	-23,17
103080000	+20,57	-22,95
203280000	+22,22	-21,30
208960000	+25,03	-18,49

22034411_2

Segalla 22034412-Horiz(30-300MHz - 10m)-Recharge



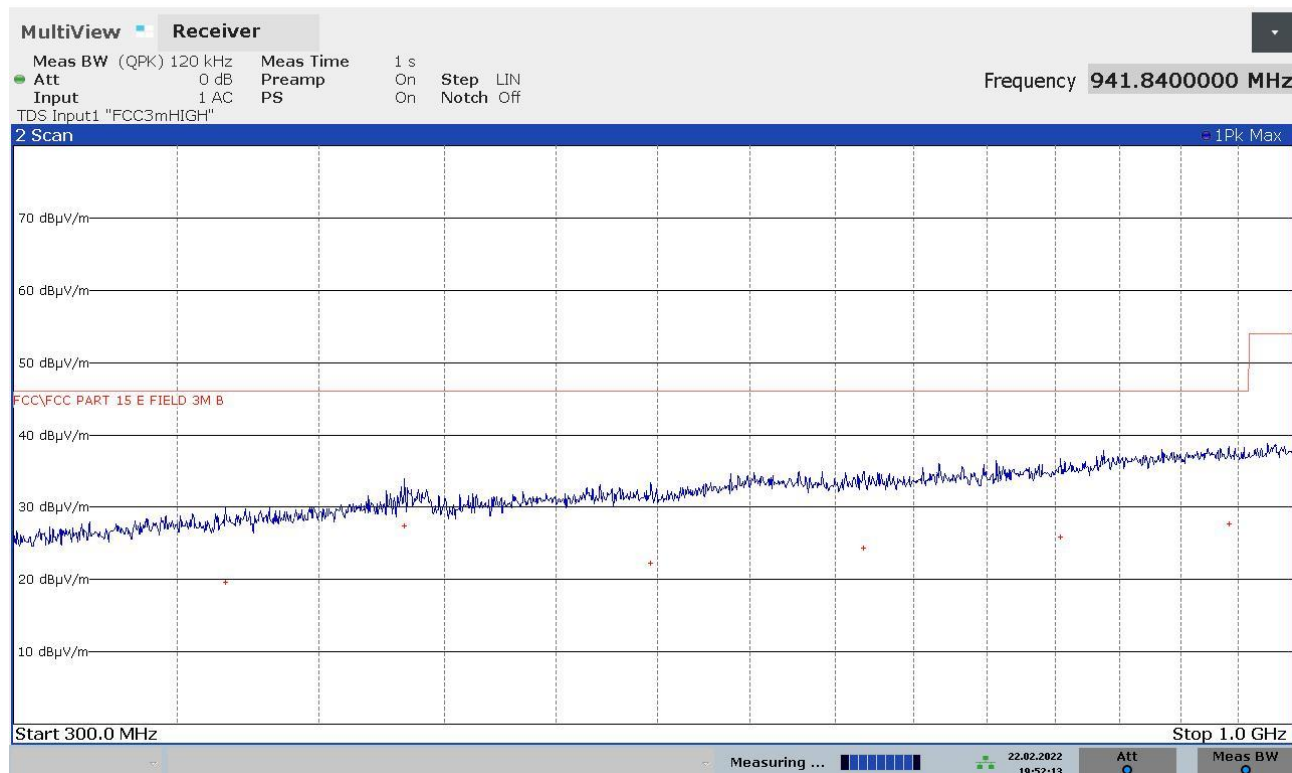
FINAL RESULT TABLE

QUASI PEAK

Freq Hz	Lev dBuV/m	Margin dB
31240000	+16,92	-23,08
44720000	+13,17	-26,83
71280000	+11,70	-28,30
121680000	+13,47	-30,05
203760000	+17,27	-26,25
297880000	+22,90	-23,12

22034412_2

Segalla 22034413-Horiz(300-1000MHz - 10m)-Recharge



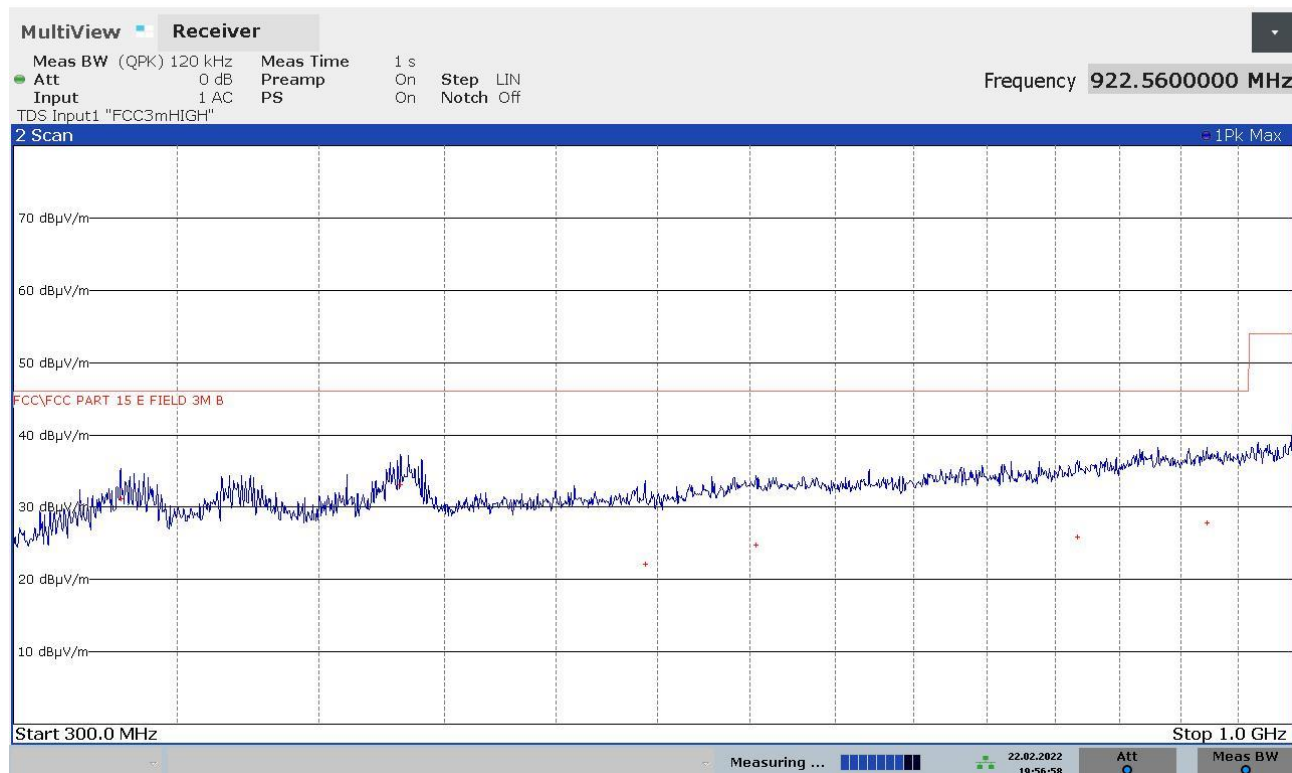
FINAL RESULT TABLE

QUASI PEAK

Freq Hz	Lev dBuV/m	Margin dB
366160000	+19,63	-26,39
433520000	+27,47	-18,55
546640000	+22,25	-23,77
668000000	+24,33	-21,69
803720000	+25,90	-20,12
941840000	+27,66	-18,36

22034413_2

Segalla 22034414-Vert(300-1000MHz - 10m)-Recharge



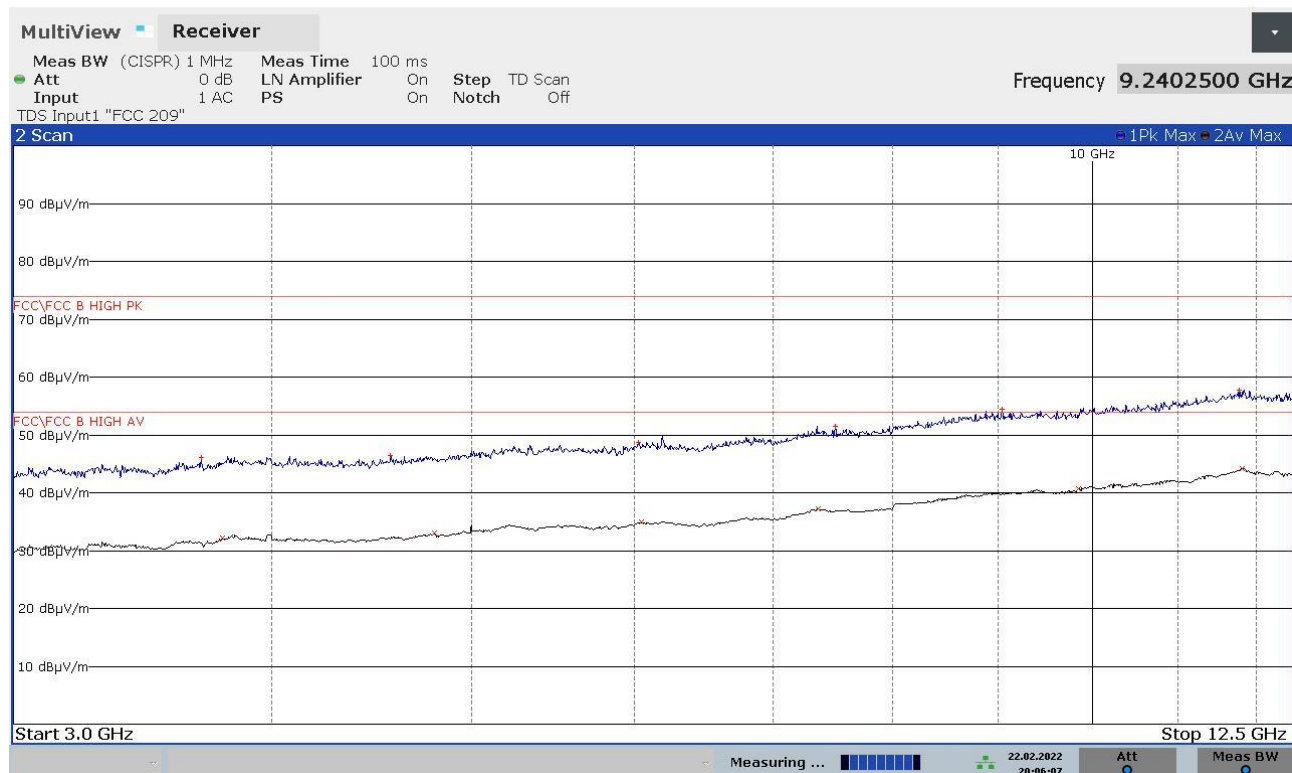
FINAL RESULT TABLE

QUASI PEAK

Freq Hz	Lev dBuV/m	Margin dB
331800000	+31,20	-14,82
431960000	+33,11	-12,91
543720000	+22,16	-23,86
603640000	+24,74	-21,28
816920000	+25,89	-20,13
922560000	+27,76	-18,26

22034414_2

Segalla 22034415-Vert(1000-12500MHz)-Recharge

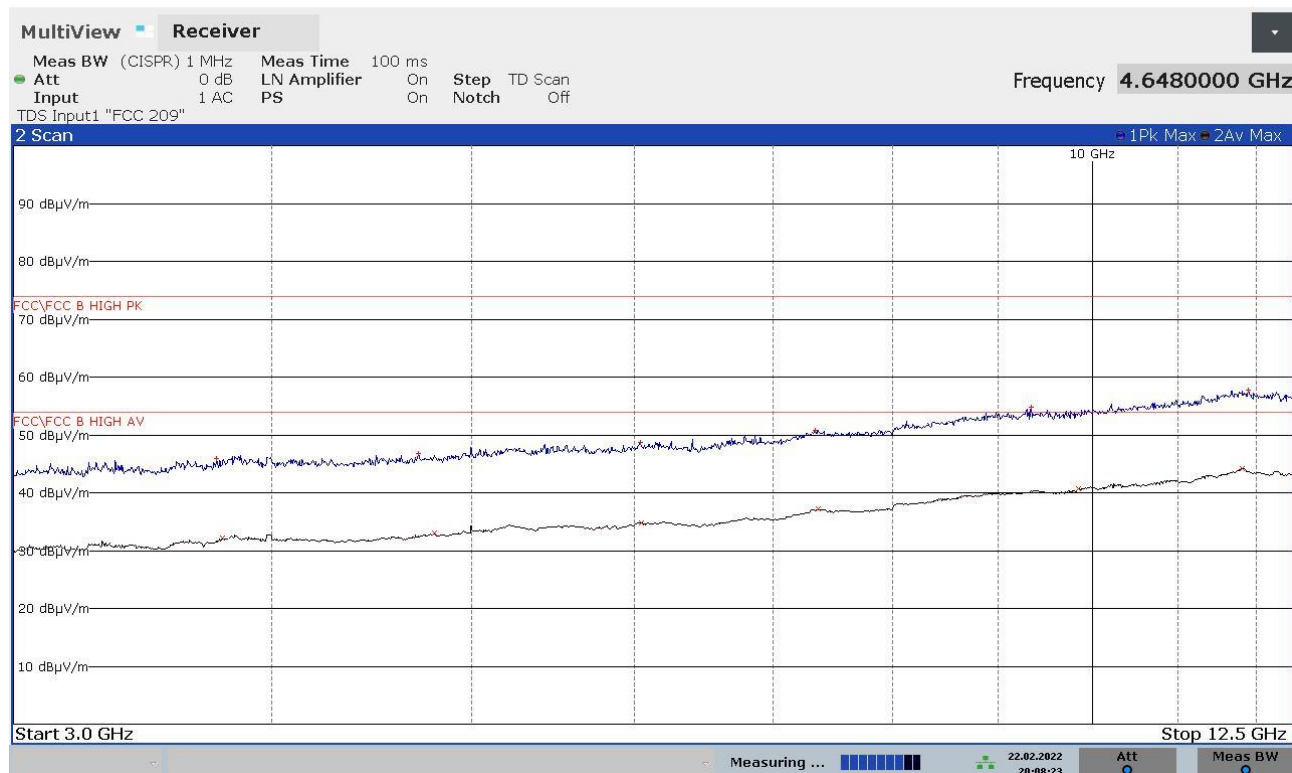


FINAL RESULT TABLE

MAX PEAK			AVERAGE		
Freq Hz	Lev dBuV/m	Margin dB	Freq Hz	Lev dBuV/m	Margin dB
3700750000	+46,16	-27,82	3788250000	+32,10	-21,88
4569000000	+46,48	-27,50	4799250000	+32,99	-20,99
6024500000	+48,75	-25,23	6045750000	+34,89	-19,09
7507250000	+51,53	-22,45	7363000000	+37,16	-16,82
9039750000	+54,37	-19,61	9840000000	+40,71	-13,27
11779750000	+57,80	-16,18	11820000000	+44,23	-9,75

22034415_2

Segalla 22034416-Horiz(3000-12500MHz)-Recharge

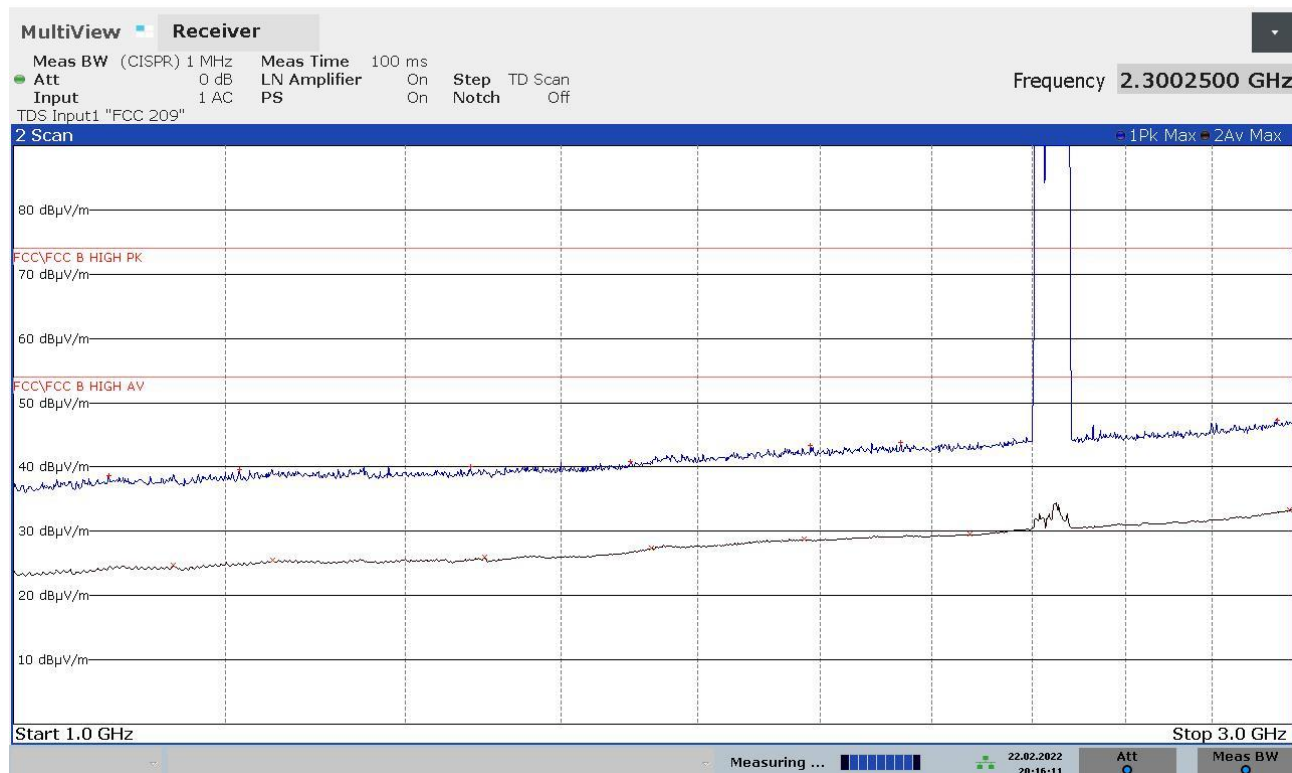


FINAL RESULT TABLE

MAX PEAK			AVERAGE		
Freq Hz	Lev dBuV/m	Margin dB	Freq Hz	Lev dBuV/m	Margin dB
3763000000	+45,94	-28,04	3788000000	+32,10	-21,88
4715000000	+46,74	-27,24	4798750000	+32,98	-21,00
6037000000	+48,76	-25,22	6044500000	+34,85	-19,13
7337000000	+50,84	-23,14	7362250000	+37,15	-16,83
9336000000	+54,76	-19,22	9840000000	+40,68	-13,30
11898000000	+57,78	-16,20	11820000000	+44,26	-9,72

22034416_2

Segalla 22034417-Horiz(1000-3000MHz)-Recharge

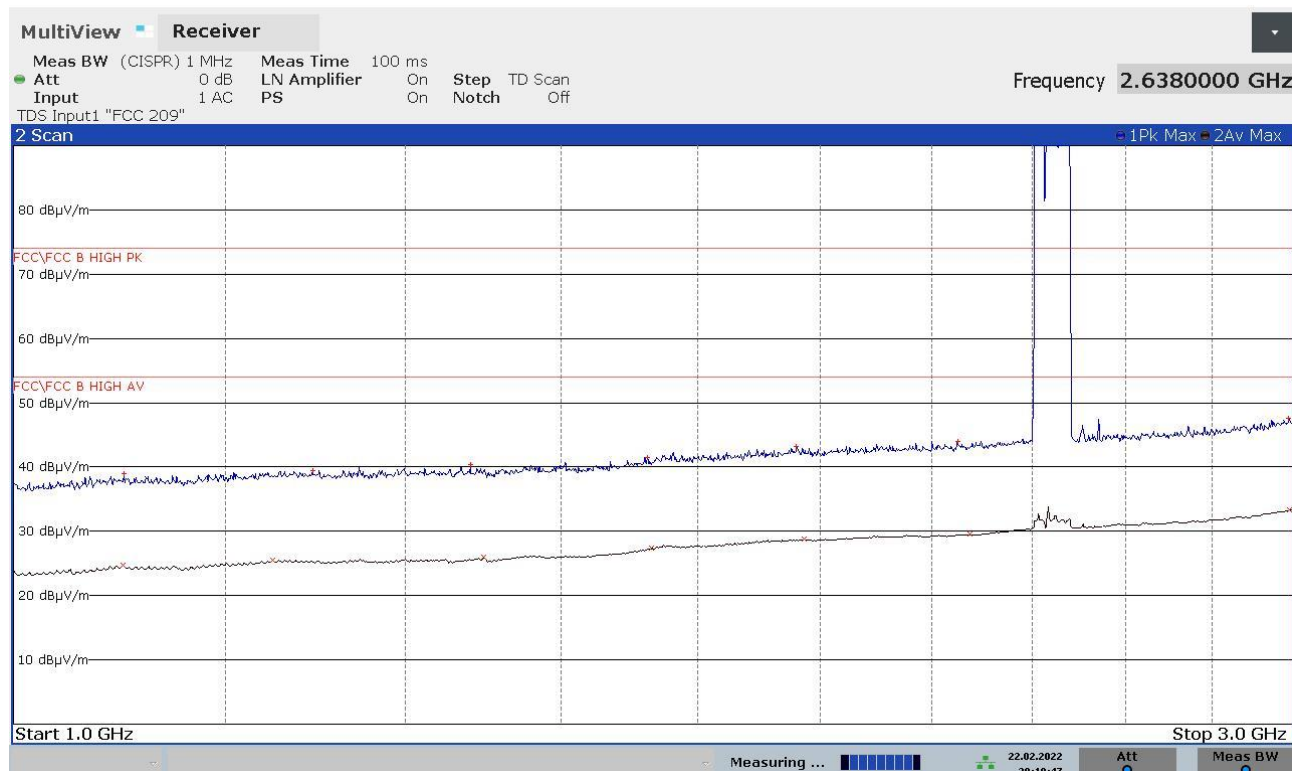


FINAL RESULT TABLE

MAX PEAK			AVERAGE		
Freq Hz	Lev dBuV/m	Margin dB	Freq Hz	Lev dBuV/m	Margin dB
1085000000	+38,60	-35,38	1147000000	+24,68	-29,30
1214000000	+39,58	-34,40	1249500000	+25,52	-28,46
1480750000	+40,00	-33,98	1498500000	+25,92	-28,06
1698500000	+40,89	-33,09	1729750000	+27,39	-26,59
1983000000	+43,36	-30,62	1971750000	+28,76	-25,22
2142500000	+43,89	-30,09	2274500000	+29,51	-24,47
2960250000	+47,21	-26,77	2992000000	+33,32	-20,66

22034417_2

Segalla 22034418-Vert(1000-3000MHz)-Recharge



FINAL RESULT TABLE

MAX PEAK			AVERAGE		
Freq Hz	Lev dBuV/m	Margin dB	Freq Hz	Lev dBuV/m	Margin dB
1099500000	+38,97	-35,01	1098500000	+24,68	-29,30
1293000000	+39,44	-34,54	1249500000	+25,53	-28,45
1480750000	+40,32	-33,66	1498250000	+25,93	-28,05
1724000000	+41,53	-32,45	1730250000	+27,39	-26,59
1959250000	+43,17	-30,81	1971500000	+28,77	-25,21
2249750000	+43,99	-29,99	2274250000	+29,52	-24,46
2990750000	+47,53	-26,45	2991750000	+33,31	-20,67

22034418_2

Attachment 1

Instruments list

<i>Id. number</i>	<i>Manufacturer</i>	<i>Model</i>	<i>Description</i>	<i>Serial number</i>	<i>Last calibration</i>	<i>Due date calibration</i>
CMC S010	Rohde & Schwarz	ESH3-Z2	Impulses Limiting Device	- - -	January '22	January '23
CMC S108	EMCO	3115	Horn Antenna	9811-5622	June '19	June '22
CMC S200	Schwarzbeck	NSLK 8128	V-LISN	8128-273	January '22	January '23
CMC S206	Rohde & Schwarz	ESCI 7	EMC Receiver 9KHz-7GHz	100781	January '22	January '23
CMC S271	Schwarzbeck	BBA 9106 + VHBB 9124	Biconical Antenna (30-300MHz)	831	June '19	June '22
CMC S287	Schwarzbeck	VUSLP 9111B	Log-periodic Antenna (200 MHz-3GHz)	9111B-203	June '19	June '22
CMC S353	Rohde & Schwarz	ESW26	Emi Test Receiver 1 Hz - 26.5 GHz	101492	September '20	September '22

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	3,0 dB		1
Conducted emission CISPR 16 Voltage Probe 0,15-30 MHz	PE001_02	2,3 dB		1
Conducted emission CISPR 16 Current Probe 0,15-30 MHz	PE001_03	2,6 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	3,8 dB		1
Radiated Emission LAS 0,15-30 MHz	PE003_01	2,0 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	4,7 dB		1
Radiated Emission CISPR 16 LogP. Ant. 300-1000 MHz	PE004_03	4,6 dB		1
Radiated Emission CISPR 16 Horn Ant. 1-18 GHz	PE004_04	4,7 dB		1
Human Exposure to electromagnetic fields	PE005_01	16,7 %		1
Harmonics	PE006_01	10 mA +	2,9 %	1
Flicker	PE007_01	4,15 %		1
Radiated Immunity 80 MHz - 6 GHz	PE102_XX	2,20 dB	0,86 V/m a 3V/m	1
Conducted Immunity 0,15 - 230 MHz	PE105_XX	1,20 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	6,23 %	18,7 A/m a 300A/m	1
Dumped Magnetic field	PE108_01	6,23 %	1,87 A/m a 30A/m	1
Common mode conducted immunity	PE112_01	2,16 %	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	5,4 dB	1
Frequency error	PR002_01+02	$< 1 \times 10^{-7}$	1
Timing zero span (1001pts.)	PR002_01+02	0,2 % SWT	1
Modulation bandwidth	PR002_01+02	$< 1 \times 10^{-7}$	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_22_01 date 31/01/2022

Note 1:

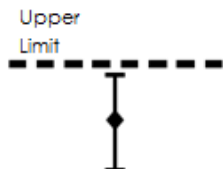
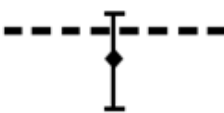
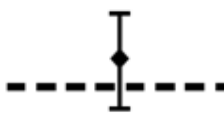
The expanded uncertainty reported according to the document EA-4-02 is based on a standard uncertainty multiplied by a coverage factor of $k=2$, providing a level of confidence of $p = 95\%$

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. 3.1 (Quality Manual)	Measure procedure
Internal Procedure INC_M rev. 9.7 (Quality Manual)	Measurement uncertainty calculation