

TEST REPORT

of

FCC Part 15 Subpart C §15.209

FCC ID: NYOMBECNEE2606

Equipment Under Test : UNIT ASSY-WIRELESS CHARGING
Model Name : MBECNEE2606
Variant Model Name(s) : -
Applicant : MOBASE ELECTRONICS CO., LTD.
Manufacturer : MOBASE ELECTRONICS CO., LTD.
Date of Receipt : 2025.11.03
Date of Test(s) : 2026.01.29 ~ 2026.06.04
Date of Issue : 2026.06.05

In the configuration tested, the EUT complied with the standards specified above. This test report does not assure KOLAS accreditation.

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- 2) The SGS Korea is not responsible for the sampling, the results of this test report apply to the sample as received.
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- 4) The data marked ※ in this report was provided by the customer and may affect the validity of the test results.

We are responsible for all the information of this test report except for the data(※) provided by the customer.

Tested by:



Jangwon Lee

Technical
Manager:



Jinhyoung Cho

SGS Korea Co., Ltd. Gunpo Laboratory

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1. General Information

1.1. Testing Laboratory

SGS Korea Co., Ltd. (Gunpo Laboratory)

- 10-2, LS-ro 182beon-gil, Gunpo-si, Gyeonggi-do, Korea, 15807
- 4, LS-ro 182beon-gil, Gunpo-si, Gyeonggi-do, Korea, 15807
- Designation number: KR0150

All SGS services are rendered in accordance with the applicable SGS conditions of service available on request and accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx>.

Phone No. : +82 31 688 0901

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1.2. Details of Applicant

Applicant : MOBASE ELECTRONICS CO., LTD.

Address : 100, Saneop-ro 156beon-gil, Gwonseon-gu, Suwon-si, Gyeonggi-do,
South Korea, 16648

Contact Person : Ryu, Hee-tack

Phone No. : +82 31 8090 2611

1.3. Details of Manufacturer

Company : Same as applicant

Address : Same as applicant

1.4. Description of EUT

Kind of Product	UNIT ASSY-WIRELESS CHARGING
Model Name	MBECNEE2606
Serial Number	001
Power Supply	DC 12 V
Operation Mode	Ant.1: 5 W, 7.5 W, 15 W Ant.2: 5 W, 7.5 W, 15 W
Frequency Range	128 kHz
Antenna Type	Coil Antenna
Antenna Part Number	001
H/W Version	1.0
S/W Version	1.0

1.5. Test Equipment List

Equipment	Manufacturer	Model	S/N	Cal. Date	Cal. Interval	Cal. Due
Signal Generator	R&S	SMBV100A	259067	06/24/2025	Annual	06/24/2026
DC Power Supply	Agilent	U8002A	MY50060028	09/18/2025	Annual	09/18/2026
Spectrum Analyzer	R&S	FSV30	103211	02/20/2026	Annual	02/20/2027
Loop Antenna	Schwarzbeck Mess-Elektronik	HFRAE 5161	5161-028	11/14/2025	Annual	11/14/2026
Amplifier	H.P.	8447F	2944A03909	08/07/2025	Annual	08/07/2026
Loop Antenna	Schwarzbeck Mess-Elektronik	FMZB 1519	1519-039	10/01/2025	Biennial	10/01/2027
Bilog Antenna	Schwarzbeck Mess-Elektronik	VULB 9163	01126	03/09/2026	Biennial	03/09/2028
EMI Test Receiver	R&S	ESU26	100109	01/21/2026	Annual	01/21/2027
Turn Table	Innco systems GmbH	DS 1200 S	N/A	N.C.R.	N/A	N.C.R.
Controller	Innco systems GmbH	CONTROLLER CO3000-4P	CO3000/963/38330516/L	N.C.R.	N/A	N.C.R.
Antenna Mast	Innco systems GmbH	MA4640-XP-ET	MA4640/536/38330516/L	N.C.R.	N/A	N.C.R.
Anechoic Chamber	SY Corporation	L × W × H (9.6 m × 6.4 m × 6.6 m)	N/A	N.C.R.	N/A	N.C.R.
Coaxial Cable ¹⁾	SENSORVIEW	NMST-13A26-NMST-5 m	TPC2402190004	10/13/2025	Semi-annual	04/13/2026
				04/17/2026		10/17/2026
Coaxial Cable ²⁾	SENSORVIEW	NMST-13A26-NMST-10 m	TPC2402190001	10/13/2025	Semi-annual	04/13/2026
				04/17/2026		10/17/2026
Coaxial Cable ³⁾	RADIAL	TESTPRO 3	182287	10/10/2025	Semi-annual	04/10/2026
				04/10/2026		10/10/2026

► Support Equipment

Description	Manufacturer	S/N	Model	FCC ID
SAMSUNG Mobile Phone	Samsung Electronics Co., Ltd	R3CTB068PEN	SM-S918B	A3LSMS918B
SAMSUNG Mobile Phone	Samsung Electronics Co., Ltd	R3CT5050JHA	SM-S918B	A3LSMS918B
Apple Mobile phone	Apple Inc.	GR6CF03YKPHH	A1921	BCG-E3219A
Apple Mobile phone	Apple Inc.	FK1VQ17KJCLJ	A1865	BCG-E3161A

Note;

- 1) The equipment was not used for testing during the period from [04/13/2026] to [04/20/2026].
- 2) The equipment was not used for testing during the period from [04/13/2026] to [04/20/2026].
- 3) The equipment was not used for testing during the period from [04/08/2026] to [04/14/2026].

1.6. Summary of Test Results

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC Part 15 Subpart C		
Section	Test Item(s)	Result
15.209	Radiated Emission, Spurious Emission and Field Strength of Fundamental	Pass
2.1049	20 dB Bandwidth	Pass
15.207	AC Power Line Conducted Emission	N/A ¹⁾

Note;

1) The AC power line test was not performed because the EUT use battery power for operation and which do not operate from the AC power lines.

1.7. Test Procedure(s)

The measurement procedures described in the American National Standard of Procedure for Compliance Testing of unlicensed Wireless Devices (ANSI C63.10-2020).

1.8. Sample Calculation

Where relevant, the following sample calculation is provided:

Field strength level (dB μ V/m) = Measured level (dB μ V) + Antenna factor (dB/m) + Cable loss (dB) + (AMP (dB))

1.9. Test Report Revision

Revision	Report Number	Date of Issue	Description
0	F690501-RF-RTL007042	2026.06.05	Initial

1.10. Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

Parameter	Uncertainty	
20 dB Bandwidth	0.01 kHz	
Radiated Emission, 9 kHz to 30 MHz	H	3.60 dB
	V	3.60 dB
Radiated Emission, below 1 GHz	H	5.50 dB
	V	5.10 dB

All measurement uncertainty values are shown with a coverage factor of $k=2$ to indicate a 95 % level of confidence.

1.11. Worst Case of Test Configurations

Charging mode With client device		Mode		Description
Model	FCC ID			
SM-S918B	A3LSMS918B	5 W, 15 W	128 kHz	1 % of battery 50 % of battery 99 % of battery
A1921	BCG-E3219A	7.5W	128 kHz	
A1865	BCG-E3161A	7.5W	128 kHz	

Ant.1

Mode	Battery	Frequency (kHz)	Detect Mode	Reading (dBμV)
5 W	1 %	128	Average	75.80
	50 %			70.80
	99 %			70.90
7.5 W	1 %	128	Average	71.10
	50 %			66.60
	99 %			66.70
15 W	1 %	128	Average	75.10
	50 %			73.80
	99 %			73.80

Ant.2

Mode	Battery	Frequency (kHz)	Detect Mode	Reading (dBμV)
5 W	1 %	128	Average	<u>74.40</u>
	50 %			69.40
	99 %			67.51
7.5 W	1 %	128	Average	<u>71.10</u>
	50 %			68.70
	99 %			67.40
15 W	1 %	128	Average	<u>72.60</u>
	50 %			69.20
	99 %			70.30

Ant.1 + Ant.2

Mode	Battery	Frequency (kHz)	Detect Mode	Reading (dBμV)
5 W	1 %	128	Average	<u>76.60</u>
	50 %			74.10
	99 %			72.20
7.5 W	1 %	128	Average	<u>72.90</u>
	50 %			66.90
	99 %			68.60
15 W	1 %	128	Average	<u>76.00</u>
	50 %			74.70
	99 %			73.40

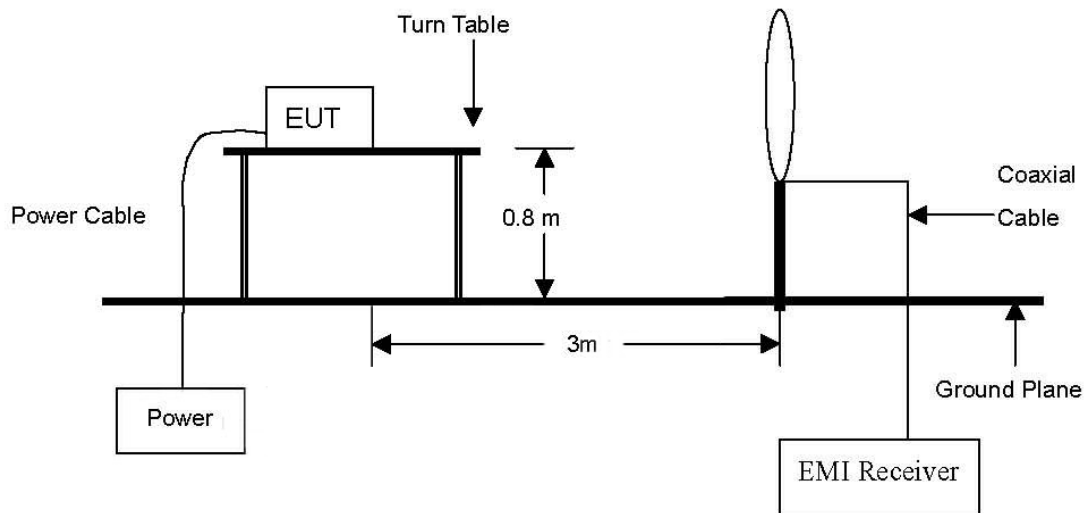
Note;

- EUT was investigated with client device under normal charging condition as above then worst value was only reported.

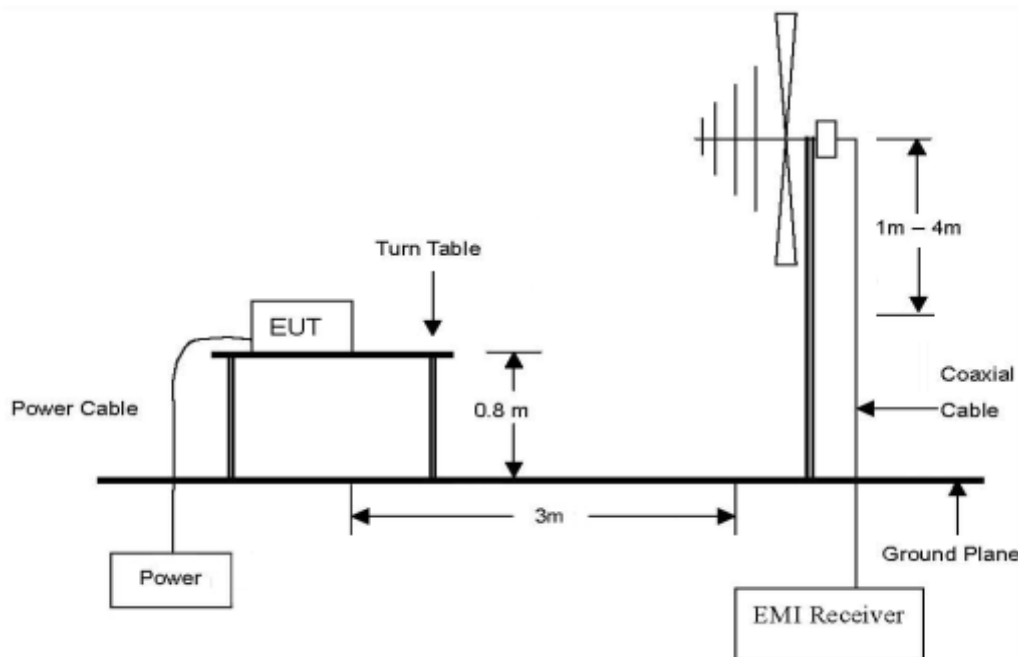
2. Field Strength of Fundamental and Spurious Emission

2.1. Test Setup

The diagram below shows the test setup that is utilized to make the measurements for emission from 9 kHz to 30 MHz.



The diagram below shows the test setup that is utilized to make the measurements for emission from 30 MHz to 1 GHz.



2.2. Limit

2.2.1. Radiated emission limits, general requirements

According to §15.209(a), except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meter)
0.009-0.490	2 400/F(kHz)	300
0.490-1.705	24 000/F(kHz)	30
1.705-30.0	30	30
30-88	100**	3
88-216	150**	3
216-960	200**	3
Above 960	500	3

** 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

According to §15.209(d), 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, 110-490 kHz and above 1 000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.

2.3. Test Procedures

Radiated emissions from the EUT were measured according to the dictates of ANSI C63.10:2020.

2.3.1. Test Procedures for emission from 9 kHz to 30 MHz

1. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter anechoic chamber test site. The table was rotated 360 degrees to determine the position of the highest radiation.
2. Then antenna is a loop antenna is fixed at one meter above the ground to determine the maximum value of the field strength. Both parallel and perpendicular of the antenna are set to make the measurement.
3. For each suspected emission, the EUT was arranged to its worst case and then the table was turned from 0 degrees to 360 degrees to find the maximum reading.
4. The test-receiver system was set to Quasi Peak and Average Detect Function and Specified Bandwidth with Maximum Hold Mode.
5. To get a maximum emission level from the EUT, the EUT is manipulated through three orthogonal planes (X, Y, Z). Worst orthogonal plan of EUT is **X – axis** during radiation test.

2.3.2. Test Procedures for emission from 30 MHz to 1 000 MHz

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter anechoic chamber test site. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. During performing radiated emission below 1 GHz, the EUT was set 3 meters away from the interference receiving antenna, which was mounted on the top of a variable-height antenna tower. During performing radiated emission above 1 GHz, the EUT was set 3 meter away from the interference-receiving antenna.
- c. The antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the table was turned from 0 degrees to 360 degrees to find the maximum reading.

2.4. Field Strength of Fundamental Test Result

Ambient temperature : (23 ± 1) °C
Relative humidity : 47 %

The following table shows the highest levels of radiated emissions on between polarizations of horizontal and vertical.

Ant.1

Test Condition: 5 W Operating mode with client device

Radiated Emissions			Ant.	Correction Factors		Total		Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	Cable (dB)	Actual (dB μ V/m) at 3 m	Actual (dB μ V/m) at 300 m	Limit (dB μ V/m) at 300 m	Margin (dB)
Operating Frequency: 128 kHz									
0.128	75.80	Average	H	18.09	0.04	93.93	13.93	25.46	11.53

Test Condition: 7.5 W Operating mode with client device

Radiated Emissions			Ant.	Correction Factors		Total		Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	Cable (dB)	Actual (dB μ V/m) at 3 m	Actual (dB μ V/m) at 300 m	Limit (dB μ V/m) at 300 m	Margin (dB)
Operating Frequency: 128 kHz									
0.128	71.10	Average	H	18.09	0.04	89.23	9.23	25.46	16.23

Test Condition: 15 W Operating mode with client device

Radiated Emissions			Ant.	Correction Factors		Total		Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	Cable (dB)	Actual (dB μ V/m) at 3 m	Actual (dB μ V/m) at 300 m	Limit (dB μ V/m) at 300 m	Margin (dB)
Operating Frequency: 128 kHz									
0.128	75.10	Average	H	18.09	0.04	93.23	13.23	25.46	12.23

Ant.2

Test Condition: 5 W Operating mode with client device

Radiated Emissions			Ant.	Correction Factors		Total		Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	Cable (dB)	Actual (dB μ V/m) at 3 m	Actual (dB μ V/m) at 300 m	Limit (dB μ V/m) at 300 m	Margin (dB)
Operating Frequency: 128 kHz									
0.128	74.40	Average	H	18.09	0.04	92.53	12.53	25.46	12.93

Test Condition: 7.5 W Operating mode with client device

Radiated Emissions			Ant.	Correction Factors		Total		Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	Cable (dB)	Actual (dB μ V/m) at 3 m	Actual (dB μ V/m) at 300 m	Limit (dB μ V/m) at 300 m	Margin (dB)
Operating Frequency: 128 kHz									
0.128	71.10	Average	H	18.09	0.04	89.23	9.23	25.46	16.23

Test Condition: 15 W Operating mode with client device

Radiated Emissions			Ant.	Correction Factors		Total		Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	Cable (dB)	Actual (dB μ V/m) at 3 m	Actual (dB μ V/m) at 300 m	Limit (dB μ V/m) at 300 m	Margin (dB)
Operating Frequency: 128 kHz									
0.128	72.60	Average	H	18.09	0.04	90.73	10.73	25.46	14.73

Ant.1 + Ant.2

Test Condition: 5 W + 5 W Operating mode with client device

Radiated Emissions			Ant.	Correction Factors		Total		Limit	
Frequency (MHz)	Reading (dBμV)	Detect Mode	Pol.	AF (dB/m)	Cable (dB)	Actual (dBμV/m) at 3 m	Actual (dBμV/m) at 300 m	Limit (dBμV/m) at 300 m	Margin (dB)
Operating Frequency: 128 kHz									
0.128	76.60	Average	H	18.09	0.04	94.73	14.73	25.46	10.73

Test Condition: 7.5 W + 7.5 W Operating mode with client device

Radiated Emissions			Ant.	Correction Factors		Total		Limit	
Frequency (MHz)	Reading (dBμV)	Detect Mode	Pol.	AF (dB/m)	Cable (dB)	Actual (dBμV/m) at 3 m	Actual (dBμV/m) at 300 m	Limit (dBμV/m) at 300 m	Margin (dB)
Operating Frequency: 128 kHz									
0.128	72.90	Average	H	18.09	0.04	91.03	11.03	25.46	14.43

Test Condition: 15 W + 15 W Operating mode with client device

Radiated Emissions			Ant.	Correction Factors		Total		Limit	
Frequency (MHz)	Reading (dBμV)	Detect Mode	Pol.	AF (dB/m)	Cable (dB)	Actual (dBμV/m) at 3 m	Actual (dBμV/m) at 300 m	Limit (dBμV/m) at 300 m	Margin (dB)
Operating Frequency: 128 kHz									
0.128	76.00	Average	H	18.09	0.04	94.13	14.13	25.46	11.33

Test Condition: Idle mode

Radiated Emissions			Ant.	Correction Factors		Total		Limit	
Frequency (MHz)	Reading (dBμV)	Detect Mode	Pol.	AF (dB/m)	Cable (dB)	Actual (dBμV/m) at 3 m	Actual (dBμV/m) at 300 m	Limit (dBμV/m) at 300 m	Margin (dB)
Operating Frequency: 128 kHz									
0.128	67.40	Average	H	18.09	0.04	85.53	5.53	25.46	19.93

Remark;

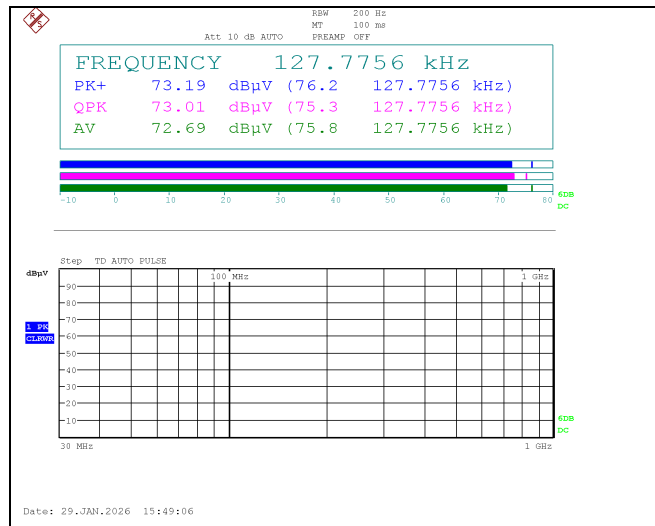
- According to §15.31(f)(2),
- 300 m Result (dBμV/m) = 3 m Result (dBμV/m) - 40log (300/3) (dBμV/m).
- According to field strength table of general requirement in §15.209(a), field strength limits below 1.705 MHz were calculated as below.
- 9 kHz to 490 kHz: 20log (2 400 / F (kHz)) at 300 m (dBμV/m)
- 490 kHz to 1.705 MHz: 20log (24 000/F (kHz)) at 30 m (dBμV/m)
- According to §15.209(d), the measurements were tested by using Quasi peak detector except for the frequency bands 9-90 kHz, 110-490 kHz and above 1 GHz in these three bands on measurements employing an average detector.
- The limit above was calculated based on table of §15.209(a).
- Actual (dBμV/m) at 3 m = Reading (dBμV) + AF (dB/m) + CL (dB).

- Test plots

Ant.1

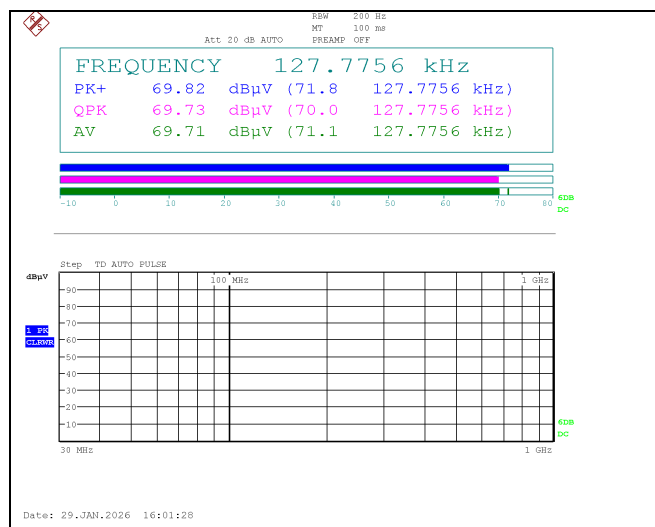
Test Condition: 5 W Operating mode with client device

Operating Frequency: 128 kHz



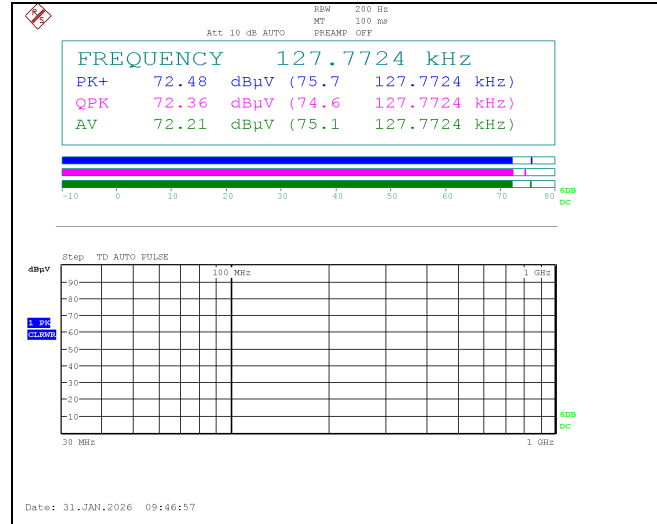
Test Condition: 7.5 W Operating mode with client device

Operating Frequency: 128 kHz



Test Condition: 15 W Operating mode with client device

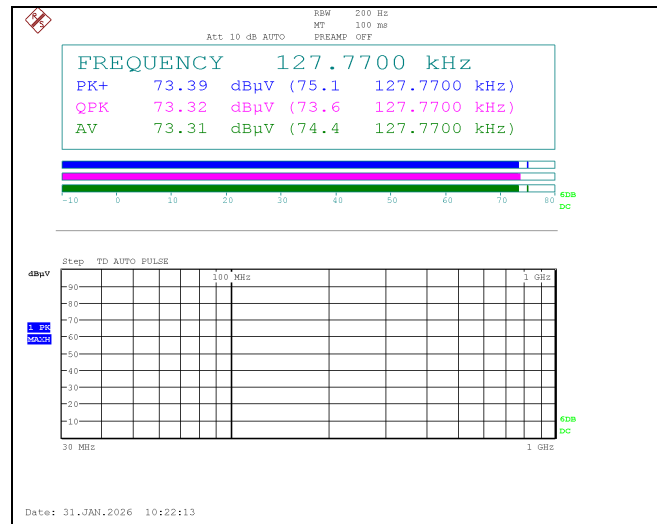
Operating Frequency: 128 kHz



Ant.2

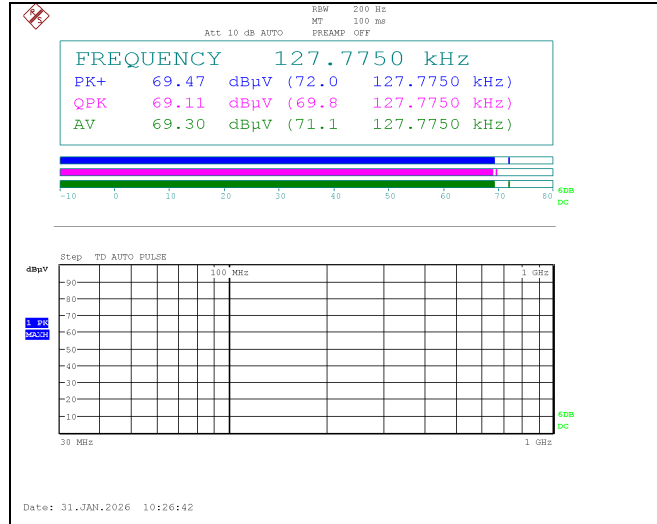
Test Condition: 5 W Operating mode with client device

Operating Frequency: 128 kHz



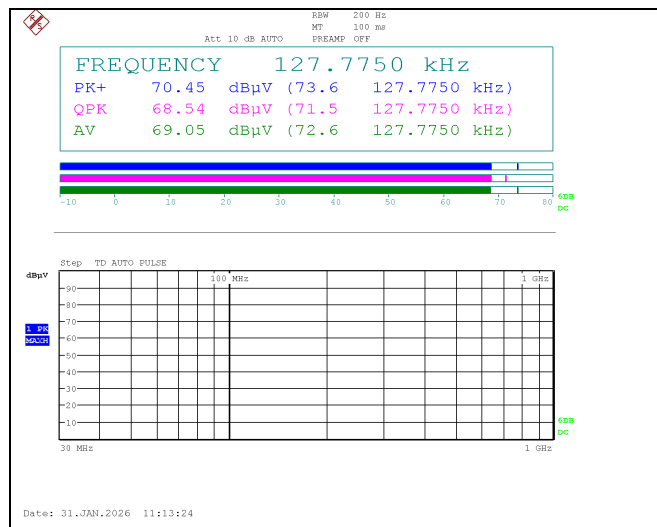
Test Condition: 7.5 W Operating mode with client device

Operating Frequency: 128 kHz



Test Condition: 15 W Operating mode with client device

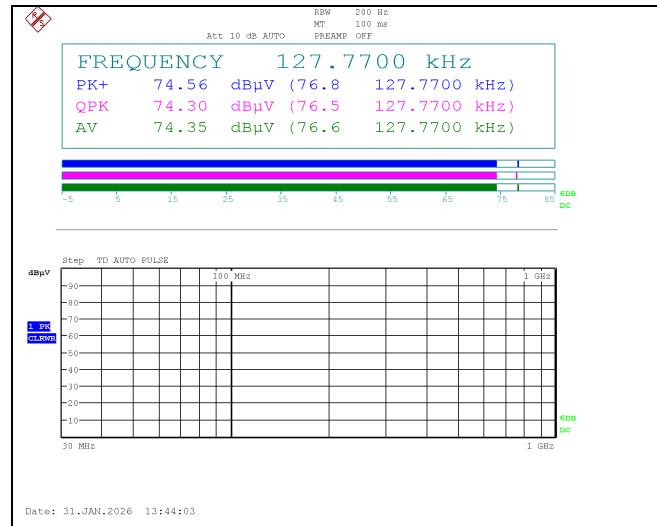
Operating Frequency: 128 kHz



Ant.1 + Ant.2

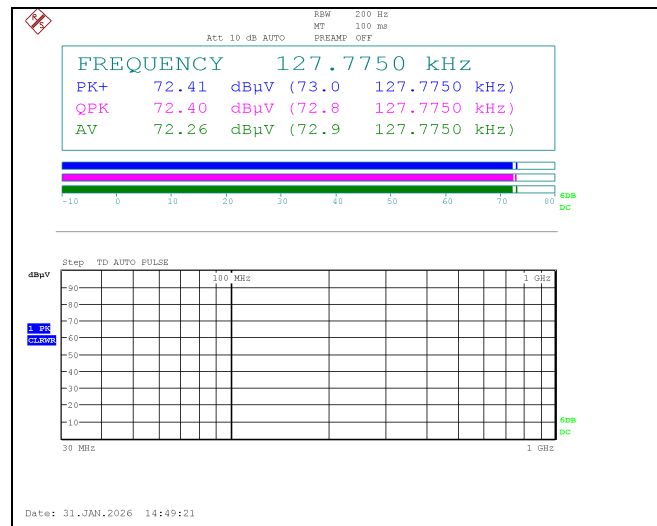
Test Condition: 5 W + 5 W Operating mode with client device

Operating Frequency: 128 kHz



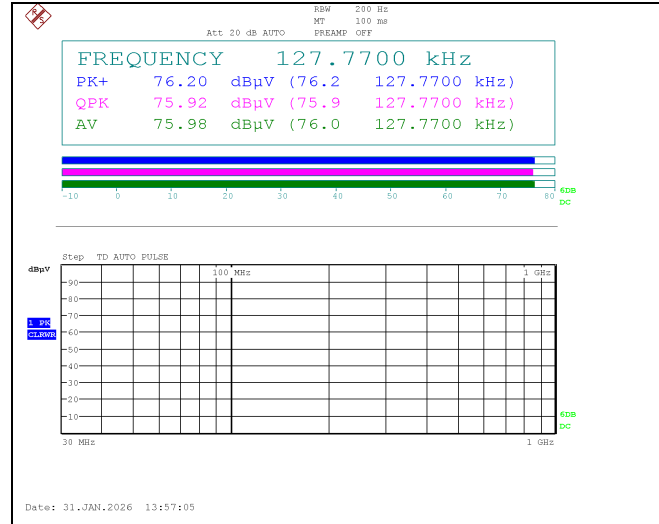
Test Condition: 7.5 W + 7.5 W Operating mode with client device

Operating Frequency: 128 kHz



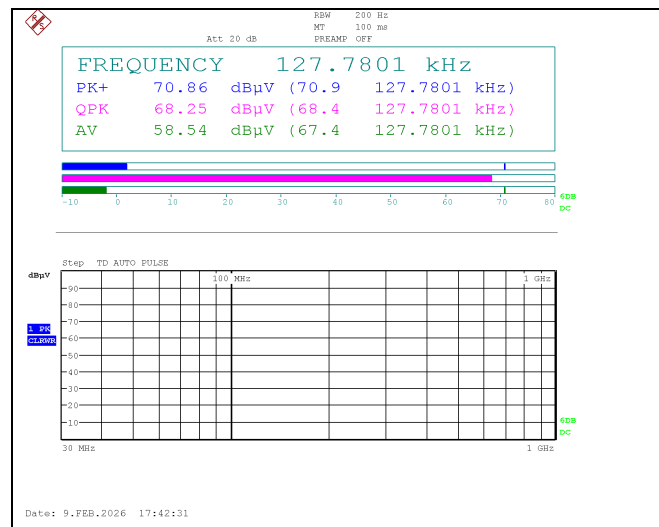
Test Condition: 15 W + 15W Operating mode with client device

Operating Frequency: 128 kHz



Test Condition: Idle mode

Operating Frequency: 128 kHz



2.5. Spurious Emission Test Result

Ambient temperature : (23 ± 1) °C
Relative humidity : 47 %

The following table shows the highest levels of radiated emissions on between polarizations of horizontal and vertical.

Ant.1

Test Condition: 5 W Operating mode with client device

Operating Frequency: 128 MHz

Below 30 MHz

Radiated Emissions			Ant.	Correction Factors		Total		Limit	
Frequency (MHz)	Reading (dBμV)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Actual (dBμV/m) at 3 m	Actual (dBμV/m) at 300 m or 30 m	Limit (dBμV/m) at 300 m or 30 m	Margin (dB)
0.035	36.50	Average	H	18.29	0.03	54.82	-25.18	36.72	61.90
0.040	30.80	Average	H	18.27	0.03	49.10	-30.90	35.56	66.46
0.130	30.50	Average	H	18.09	0.04	48.63	-31.37	25.33	56.70
0.150	20.70	Average	H	18.08	0.07	38.85	-41.15	24.08	65.23
0.384	40.70	Average	H	18.04	0.09	58.83	-21.17	15.92	37.09
0.638	27.53	Quasi Peak	H	18.16	0.11	45.80	5.80	31.51	25.71
Above 1.000	Not detected	-	-	-	-	-	-	-	-

Above 30 MHz

Radiated Emissions			Ant.	Correction (dB/m)	Total	Limit	
Frequency (MHz)	Reading (dBμV)	Detect Mode	Pol.		Actual (dBμV/m)	Limit (dBμV/m)	Margin (dB)
33.88	39.11	Quasi Peak	V	-10.84	28.27	40.00	11.73
44.43	42.31	Quasi Peak	V	-7.68	34.63	40.00	5.37
62.50	44.78	Quasi Peak	V	-9.24	35.54	40.00	4.46
163.01	38.25	Quasi Peak	H	-11.11	27.14	43.50	16.36
226.43	33.96	Quasi Peak	H	-7.73	26.23	46.00	19.77
399.45	31.41	Quasi Peak	H	-3.51	27.90	46.00	18.10
Above 400.000	Not detected	-	-	-	-	-	-

Test Condition: 7.5 W Operating mode with client device

Operating Frequency: 128 MHz

Below 30 MHz

Radiated Emissions			Ant.	Correction Factors		Total		Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Actual (dB μ V/m) at 3 m	Actual (dB μ V/m) at 300 m or 30 m	Limit (dB μ V/m) at 300 m or 30 m	Margin (dB)
0.018	26.50	Average	H	18.72	0.04	45.26	-34.74	42.50	77.24
0.035	34.30	Average	H	18.29	0.03	52.62	-27.38	36.72	64.10
0.150	17.70	Average	H	18.08	0.07	35.85	-44.15	24.08	68.23
0.384	22.10	Average	H	18.04	0.09	40.23	-39.77	15.94	55.71
0.638	26.20	Quasi Peak	H	18.16	0.11	44.47	4.47	31.51	27.04
Above 1.000	Not detected	-	-	-	-	-	-	-	-

Above 30 MHz

Radiated Emissions			Ant.	Correction (dB/m)	Total	Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.		Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
33.88	38.65	Quasi Peak	V	-10.84	27.81	40.00	12.19
44.43	42.07	Quasi Peak	V	-7.68	34.39	40.00	5.61
62.50	46.38	Quasi Peak	V	-9.24	37.14	40.00	2.86
156.46	36.30	Quasi Peak	V	-11.58	24.72	43.50	18.78
227.03	38.03	Quasi Peak	H	-7.70	30.33	46.00	15.67
409.15	35.34	Quasi Peak	H	-3.22	32.12	46.00	13.88
Above 500.000	Not detected	-	-	-	-	-	-

Test Condition: 15 W Operating mode with client device

Operating Frequency: 128 MHz

Below 30 MHz

Radiated Emissions			Ant.	Correction Factors		Total		Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Actual (dB μ V/m) at 3 m	Actual (dB μ V/m) at 300 m or 30 m	Limit (dB μ V/m) at 300 m or 30 m	Margin (dB)
0.048	25.20	Average	H	18.25	0.03	43.48	-36.52	33.98	70.50
0.051	22.20	Average	H	18.24	0.03	40.47	-39.53	33.45	72.98
0.130	30.10	Average	H	18.09	0.04	48.23	-31.77	25.33	57.10
0.165	16.30	Average	H	18.07	0.07	34.44	-45.56	23.25	68.81
5.613	15.00	Quasi Peak	H	18.79	0.39	34.18	-5.82	29.54	35.36
Above 6.000	Not detected	-	-	-	-	-	-	-	-

Above 30 MHz

Radiated Emissions			Ant.	Correction (dB/m)	Total	Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.		Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
34.00	49.33	Quasi Peak	V	-10.80	38.53	40.00	1.47
43.34	41.10	Quasi Peak	V	-7.86	33.24	40.00	6.76
61.40	41.28	Quasi Peak	V	-8.91	32.37	40.00	7.63
155.98	38.46	Quasi Peak	V	-11.58	26.88	43.50	16.62
224.97	38.30	Quasi Peak	H	-7.86	30.44	46.00	15.56
409.51	36.06	Quasi Peak	H	-3.20	32.86	46.00	13.14
Above 500.00	Not detected	-	-	-	-	-	-

Ant.2

Test Condition: 5 W Operating mode with client device

Operating Frequency: 128 MHz

Below 30 MHz

Radiated Emissions			Ant.	Correction Factors		Total		Limit	
Frequency (MHz)	Reading (dBμV)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Actual (dBμV/m) at 3 m	Actual (dBμV/m) at 300 m or 30 m	Limit (dBμV/m) at 300 m or 30 m	Margin (dB)
0.019	26.90	Average	H	18.69	0.04	45.63	-34.37	42.03	76.40
0.034	39.20	Average	H	18.29	0.03	57.52	-22.48	36.97	59.45
0.130	23.10	Average	H	18.09	0.04	41.23	-38.77	25.33	64.10
0.150	19.73	Average	H	18.08	0.07	37.88	-42.12	24.08	66.20
0.381	30.30	Average	H	18.04	0.09	48.43	-31.57	15.99	47.56
0.562	30.70	Quasi Peak	H	18.12	0.11	48.93	8.93	32.61	23.68
Above 1.000	Not detected	-	-	-	-	-	-	-	-

Above 30 MHz

Radiated Emissions			Ant.	Correction (dB/m)	Total	Limit	
Frequency (MHz)	Reading (dBμV)	Detect Mode	Pol.		Actual (dBμV/m)	Limit (dBμV/m)	Margin (dB)
33.88	38.40	Quasi Peak	V	-10.84	27.56	40.00	12.44
43.46	42.08	Quasi Peak	V	-7.84	34.24	40.00	5.76
62.50	45.36	Quasi Peak	V	-9.24	36.12	40.00	3.88
228.85	38.13	Quasi Peak	H	-7.59	30.54	46.00	15.46
279.90	38.39	Quasi Peak	H	-6.30	32.09	46.00	13.91
394.11	34.25	Quasi Peak	H	-3.67	30.58	46.00	15.42
Above 400.00	Not detected	-	-	-	-	-	-

Test Condition: 7.5 W Operating mode with client device

Operating Frequency: 128 MHz

Below 30 MHz

Radiated Emissions			Ant.	Correction Factors		Total		Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Actual (dB μ V/m) at 3 m	Actual (dB μ V/m) at 300 m or 30 m	Limit (dB μ V/m) at 300 m or 30 m	Margin (dB)
0.019	31.10	Average	H	18.69	0.04	49.83	-30.17	42.03	72.20
0.034	40.00	Average	H	18.29	0.03	58.32	-21.68	36.97	58.65
0.252	22.90	Average	H	18.02	0.08	41.00	-39.00	19.58	58.58
0.382	30.30	Average	H	18.04	0.09	48.43	-31.57	15.96	47.53
0.638	30.00	Quasi Peak	H	18.16	0.11	48.27	8.27	31.51	23.24
Above 1.000	Not detected	-	-	-	-	-	-	-	-

Above 30 MHz

Radiated Emissions			Ant.	Correction (dB/m)	Total	Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.		Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
33.88	39.23	Quasi Peak	V	-10.84	28.39	40.00	11.61
44.43	42.35	Quasi Peak	V	-7.68	34.67	40.00	5.33
62.37	42.77	Quasi Peak	V	-9.21	33.56	40.00	6.44
228.37	41.44	Quasi Peak	H	-7.62	33.82	46.00	12.18
281.59	41.81	Quasi Peak	H	-6.20	35.61	46.00	10.39
396.30	39.54	Quasi Peak	H	-3.66	35.88	46.00	10.12
Above 400.00	Not detected	-	-	-	-	-	-

Test Condition: 15 W Operating mode with client device

Operating Frequency: 128 MHz

Below 30 MHz

Radiated Emissions			Ant.	Correction Factors		Total		Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Actual (dB μ V/m) at 3 m	Actual (dB μ V/m) at 300 m or 30 m	Limit (dB μ V/m) at 300 m or 30 m	Margin (dB)
0.034	39.40	Average	H	18.29	0.03	57.72	-22.28	36.97	59.25
0.130	29.40	Average	H	18.09	0.04	47.53	-32.47	25.33	57.80
0.134	21.40	Average	H	18.08	0.05	39.53	-40.47	25.06	65.53
0.150	21.60	Average	H	18.08	0.07	39.75	-40.25	24.08	64.33
0.382	38.20	Average	H	18.04	0.09	56.33	-23.67	15.96	39.63
0.638	31.10	Quasi Peak	H	18.16	0.11	49.37	9.37	31.51	22.14
Above 1.000	Not detected	-	-	-	-	-	-	-	-

Above 30 MHz

Radiated Emissions			Ant.	Correction (dB/m)	Total	Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.		Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
33.88	39.82	Quasi Peak	V	-10.84	28.98	40.00	11.02
43.46	43.01	Quasi Peak	V	-7.84	35.17	40.00	4.83
61.40	41.27	Quasi Peak	V	-8.91	32.36	40.00	7.64
229.82	41.66	Quasi Peak	H	-7.54	34.12	46.00	11.88
309.00	41.16	Quasi Peak	H	-5.71	35.45	46.00	10.55
398.48	39.23	Quasi Peak	H	-3.55	35.68	46.00	10.32
Above 400.00	Not detected	-	-	-	-	-	-

Ant.1 + Ant.2

Test Condition: 5 W + 5W Operating mode with client device

Operating Frequency: 128 MHz

Below 30 MHz

Radiated Emissions			Ant.	Correction Factors		Total		Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Actual (dB μ V/m) at 3 m	Actual (dB μ V/m) at 300 m or 30 m	Limit (dB μ V/m) at 300 m or 30 m	Margin (dB)
0.034	38.40	Average	H	18.29	0.03	56.72	-23.28	36.97	60.25
0.130	30.80	Average	H	18.09	0.04	48.93	-31.07	25.33	56.40
0.284	12.00	Average	H	18.01	0.08	30.09	-49.91	18.54	68.45
0.384	32.60	Average	H	18.04	0.09	50.73	-29.27	15.92	45.19
0.639	27.50	Quasi Peak	H	18.16	0.11	45.77	5.77	31.49	25.72
Above 1.000	Not detected	-	-	-	-	-	-	-	-

Above 30 MHz

Radiated Emissions			Ant.	Correction (dB/m)	Total	Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.		Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
33.88	38.31	Quasi Peak	V	-10.84	27.47	40.00	12.53
44.55	42.88	Quasi Peak	V	-7.66	35.22	40.00	4.78
62.37	41.93	Quasi Peak	V	-9.21	32.72	40.00	7.28
228.37	43.17	Quasi Peak	H	-7.62	35.55	46.00	10.45
279.29	40.79	Quasi Peak	H	-6.33	34.46	46.00	11.54
399.69	37.78	Quasi Peak	H	-3.49	34.29	46.00	11.71
Above 400.000	Not detected	-	-	-	-	-	-

Test Condition: 7.5 W + 7.5 W Operating mode with client device

Operating Frequency: 128 MHz

Below 30 MHz

Radiated Emissions			Ant.	Correction Factors		Total		Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Actual (dB μ V/m) at 3 m	Actual (dB μ V/m) at 300 m or 30 m	Limit (dB μ V/m) at 300 m or 30 m	Margin (dB)
0.018	29.00	Average	H	18.72	0.04	47.76	-32.24	42.50	74.74
0.034	37.90	Average	H	18.29	0.03	56.22	-23.78	36.97	60.75
0.150	20.43	Average	H	18.08	0.07	38.58	-41.42	24.08	65.50
0.383	32.81	Average	H	18.04	0.09	50.94	-29.06	15.94	45.00
0.638	29.90	Quasi Peak	H	18.16	0.11	48.17	8.17	31.51	23.34
Above 1.000	Not detected	-	-	-	-	-	-	-	-

Above 30 MHz

Radiated Emissions			Ant.	Correction (dB/m)	Total	Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.		Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
34.00	48.43	Quasi Peak	V	-10.80	37.63	40.00	2.37
44.43	42.55	Quasi Peak	V	-7.68	34.87	40.00	5.13
62.37	41.99	Quasi Peak	V	-9.21	32.78	40.00	7.22
227.40	42.25	Quasi Peak	H	-7.68	34.57	46.00	11.43
281.84	41.50	Quasi Peak	H	-6.19	35.31	46.00	10.69
395.21	38.15	Quasi Peak	H	-3.67	34.48	46.00	11.52
Above 400.00	Not detected	-	-	-	-	-	-

Test Condition: 15 W + 15W Operating mode with client device

Operating Frequency: 128 MHz

Below 30 MHz

Radiated Emissions			Ant.	Correction Factors		Total		Limit	
Frequency (MHz)	Reading (dBμV)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Actual (dBμV/m) at 3 m	Actual (dBμV/m) at 300 m or 30 m	Limit (dBμV/m) at 300 m or 30 m	Margin (dB)
0.019	29.60	Average	H	18.69	0.04	48.33	-31.67	42.03	73.70
0.034	38.80	Average	H	18.29	0.03	57.12	-22.88	36.97	59.85
0.130	28.70	Average	H	18.09	0.04	46.83	-33.17	25.33	58.50
0.150	21.10	Average	H	18.08	0.07	39.25	-40.75	24.08	64.83
0.383	34.30	Average	H	18.04	0.09	52.43	-27.57	15.94	43.51
0.639	34.20	Quasi Peak	H	18.16	0.11	52.47	12.47	31.49	19.02
Above 1.000	Not detected	-	-	-	-	-	-	-	-

Above 30 MHz

Radiated Emissions			Ant.	Correction (dB/m)	Total	Limit	
Frequency (MHz)	Reading (dBμV)	Detect Mode	Pol.		Actual (dBμV/m)	Limit (dBμV/m)	Margin (dB)
33.88	38.38	Quasi Peak	V	-10.84	27.54	40.00	12.46
44.43	42.39	Quasi Peak	V	-7.68	34.71	40.00	5.29
61.40	42.10	Quasi Peak	V	-8.91	33.19	40.00	6.81
226.79	42.25	Quasi Peak	H	-7.71	34.54	46.00	11.46
309.12	40.29	Quasi Peak	H	-5.71	34.58	46.00	11.42
395.45	37.32	Quasi Peak	H	-3.67	33.65	46.00	12.35
Above 400.00	Not detected	-	-	-	-	-	-

Test Condition: Idle mode

Operating Frequency: 128 MHz

Below 30 MHz

Radiated Emissions			Ant.	Correction Factors		Total		Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Actual (dB μ V/m) at 3 m	Actual (dB μ V/m) at 300 m or 30 m	Limit (dB μ V/m) at 300 m or 30 m	Margin (dB)
0.034	43.50	Average	H	18.29	0.03	61.82	-18.18	36.97	55.15
0.072	15.00	Average	H	18.18	0.02	33.20	-46.80	30.46	77.26
0.127	19.90	Average	H	18.09	0.04	38.03	-41.97	25.53	67.50
0.150	17.80	Average	H	18.08	0.07	35.95	-44.05	24.08	68.13
0.382	28.70	Average	H	18.04	0.09	46.83	-33.17	15.96	49.13
23.254	2.60	Quasi Peak	H	19.13	0.75	22.48	-17.52	29.54	47.06
Above 24.000	Not detected	-	-	-	-	-	-	-	-

Above 30 MHz

Radiated Emissions			Ant.	Correction (dB/m)	Total	Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.		Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
125.76	35.43	Quasi Peak	V	-11.47	23.96	43.50	19.54
201.26	32.12	Quasi Peak	V	-8.47	23.65	43.50	19.85
409.86	29.74	Quasi Peak	V	-3.18	26.56	46.00	19.44
909.95	23.47	Quasi Peak	V	4.83	28.30	46.00	17.70

Remark;

1. According to §15.31 (f)(2),
 - 300 m Result (dB μ V/m) = 3 m Result (dB μ V/m) - 40log (300/3) (dB μ V/m)
 - 30 m Result (dB μ V/m) = 3 m Result (dB μ V/m) - 40log (30/3) (dB μ V/m)
2. According to field strength table of general requirement in §15.209 (a), field strength limits below 1.705 MHz were calculated as below.
 - 9 kHz to 490 kHz: 20log (2 400 / F (kHz)) at 300 m (dB μ V/m)
 - 490 kHz to 1.705 MHz: 20log (24 000 / F (kHz)) at 30 m (dB μ V/m)
3. According to §15.209 (d), the measurements were tested by using Quasi peak detector except for the frequency bands 9-90 kHz, 110-490 kHz and above 1 GHz in these three bands on measurements employing an average detector.
4. The limit above was calculated based on table of §15.209 (a).
5. Actual (dB μ V/m) at 3 m were calculated as below.
 - Below 30 MHz : Reading (dB μ V) + AF (dB/m) + CL (dB)
 - Above 30 MHz : Actual = Reading + Correction (Correction = Antenna Factor + AMP Factor + Cable Loss)
6. According to §15.31(o), emission levels are not report much lower than the limits by over 20 dB.
7. Test from 30 MHz to 1 000 MHz was performed using the software of ELEKTRA(V5.02) from Rohde & Schwarz GmbH & Co. KG.

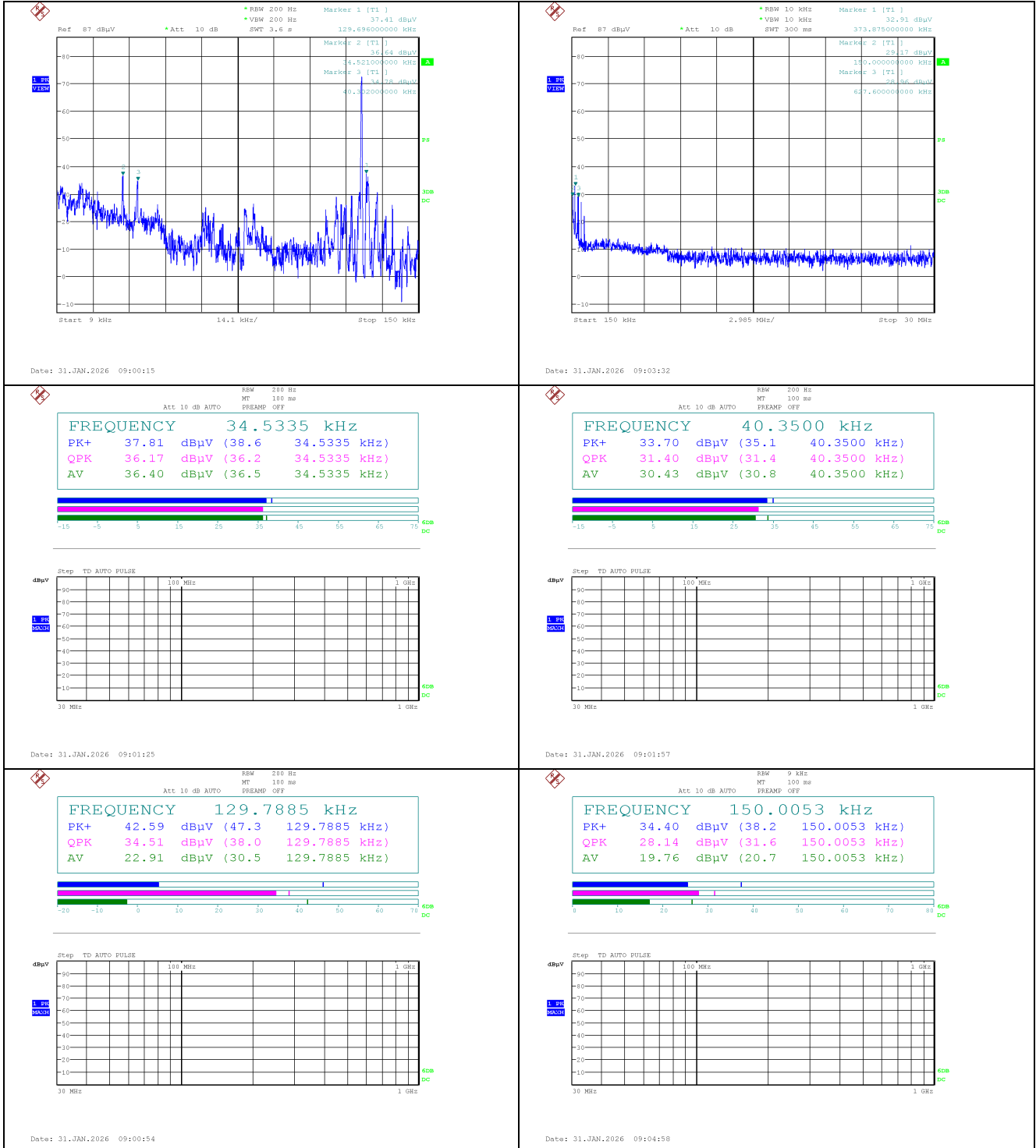
- Test plots

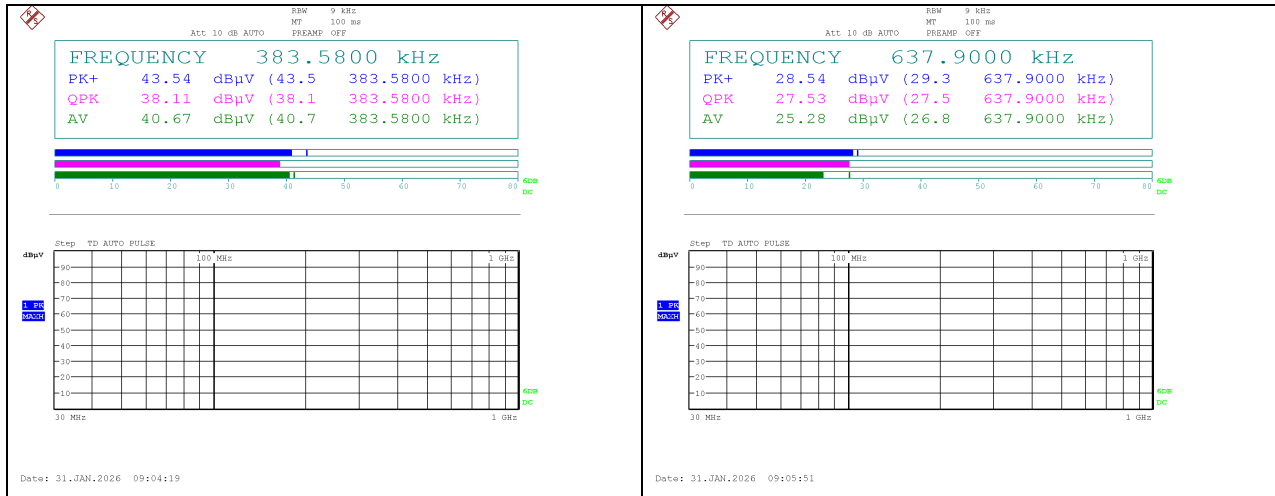
Ant.1

Test Condition: 5 W Operating mode with client device

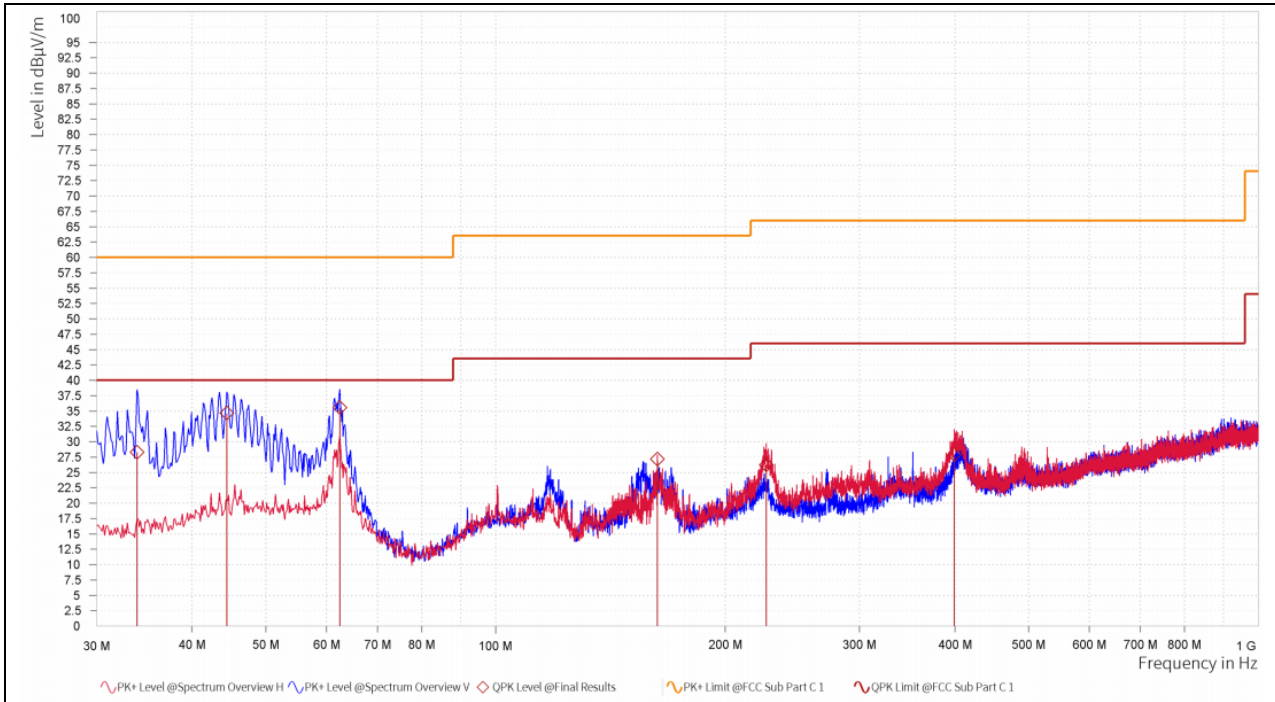
Operating Frequency: 128 kHz

Below 30 MHz





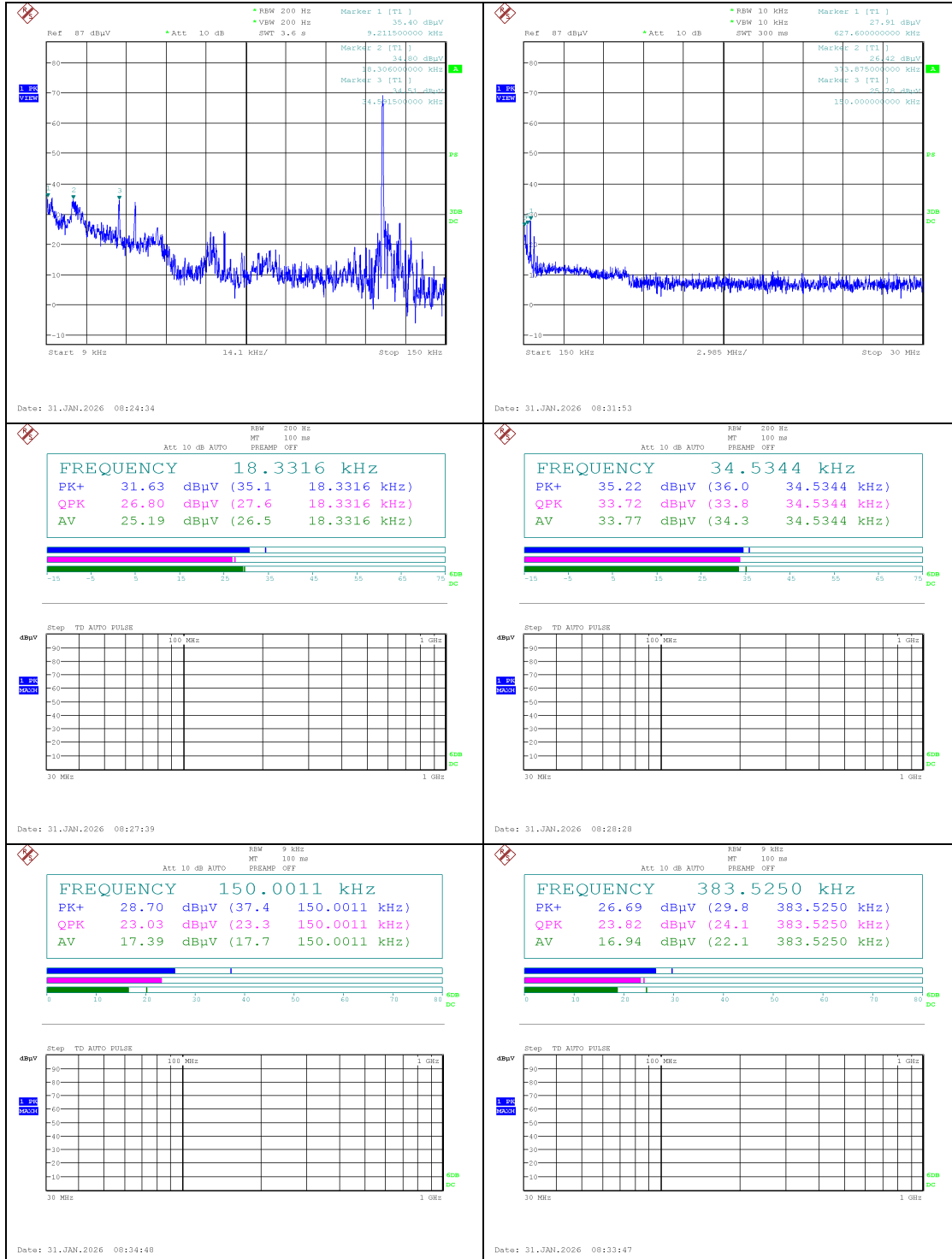
Above 30 MHz

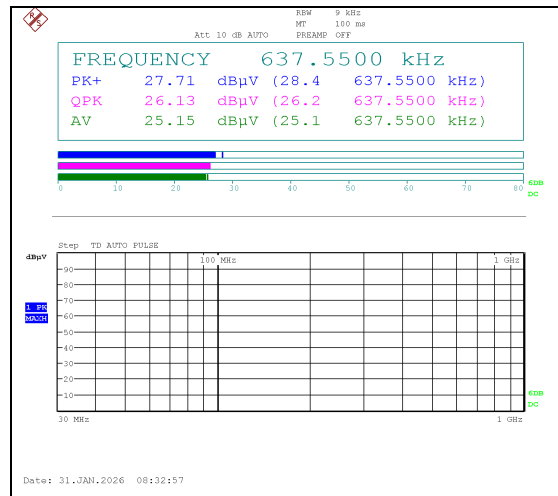


Test Condition: 7.5 W Operating mode with client device

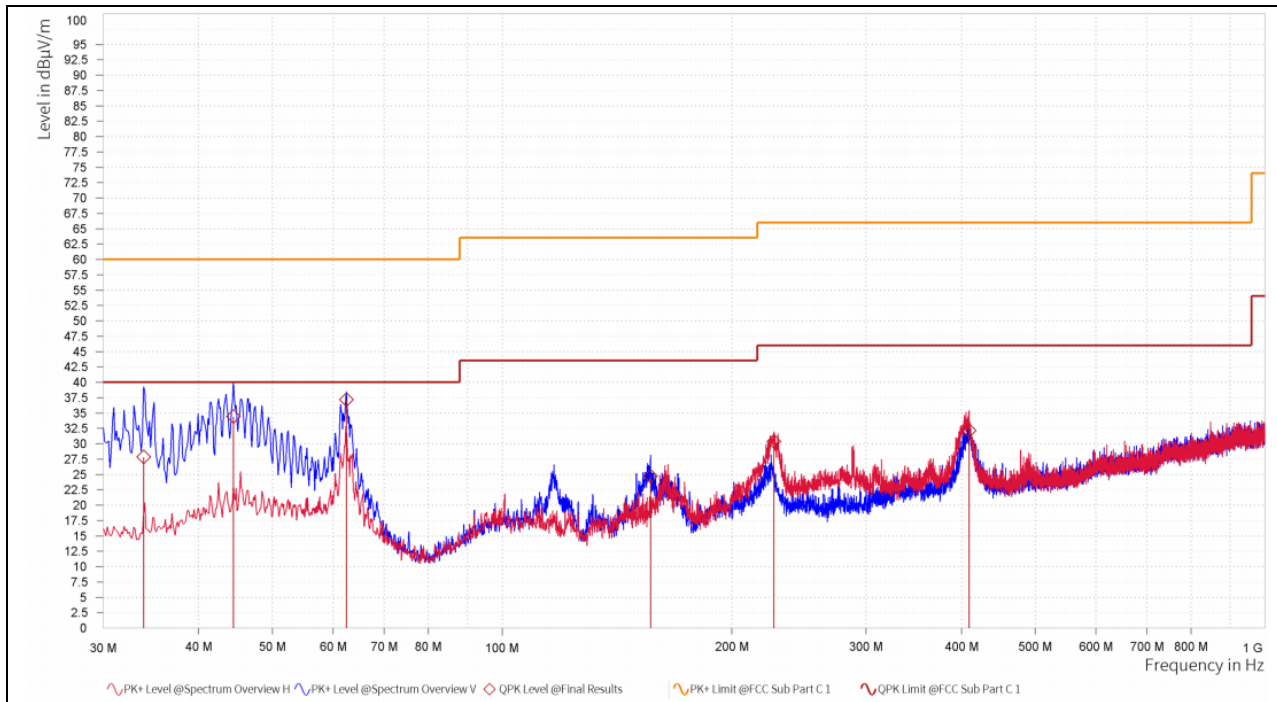
Operating Frequency: 128 MHz

Below 30 MHz





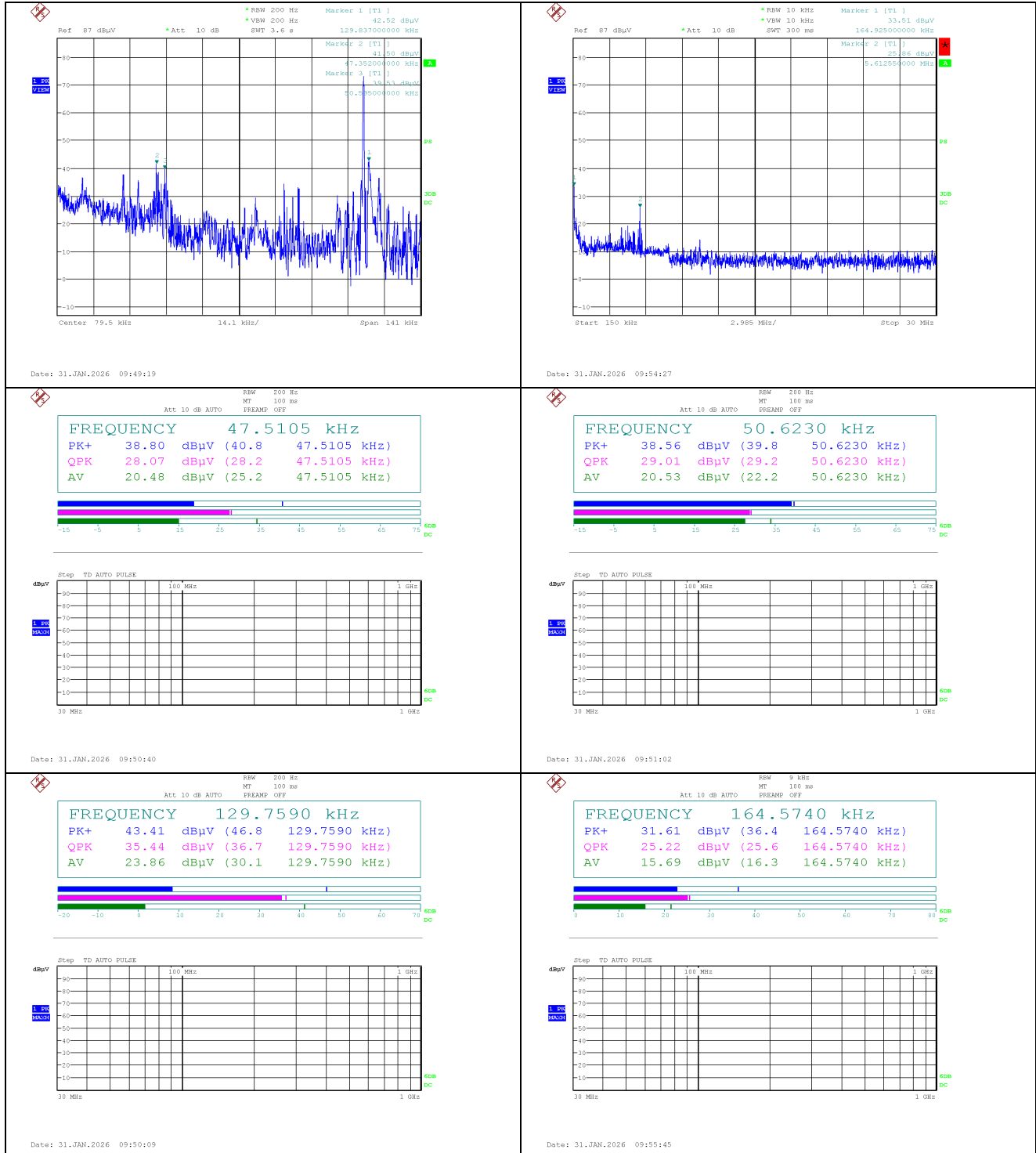
Above 30 MHz

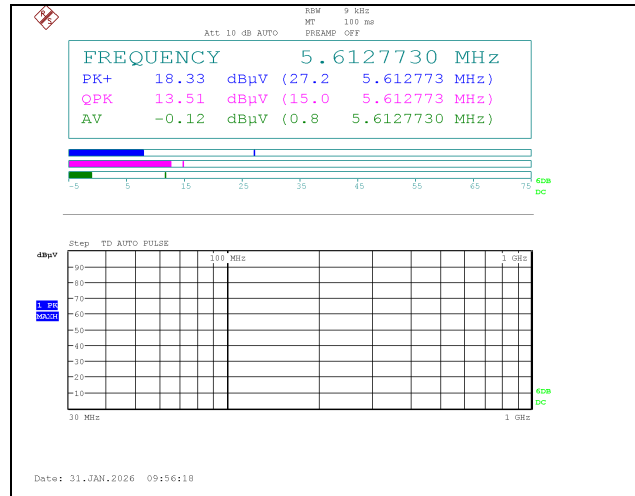


Test Condition: 15 W Operating mode with client device

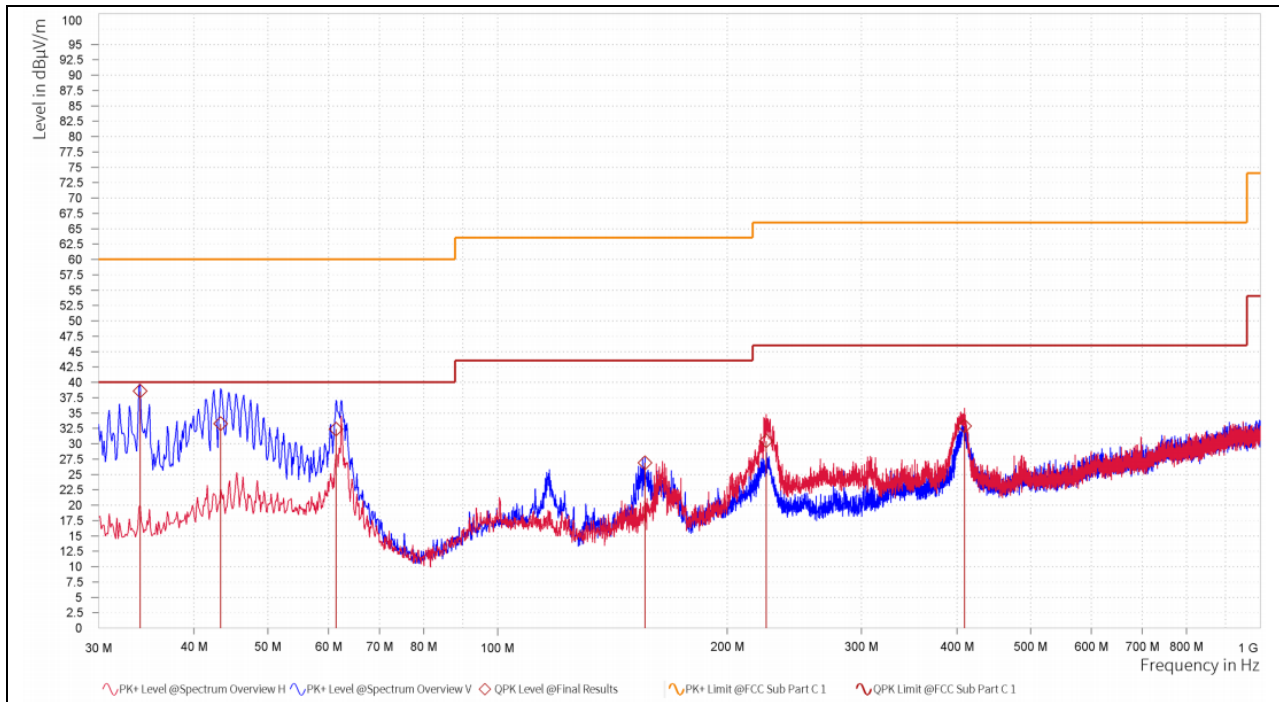
Operating Frequency: 128 MHz

Below 30 MHz





Above 30 MHz

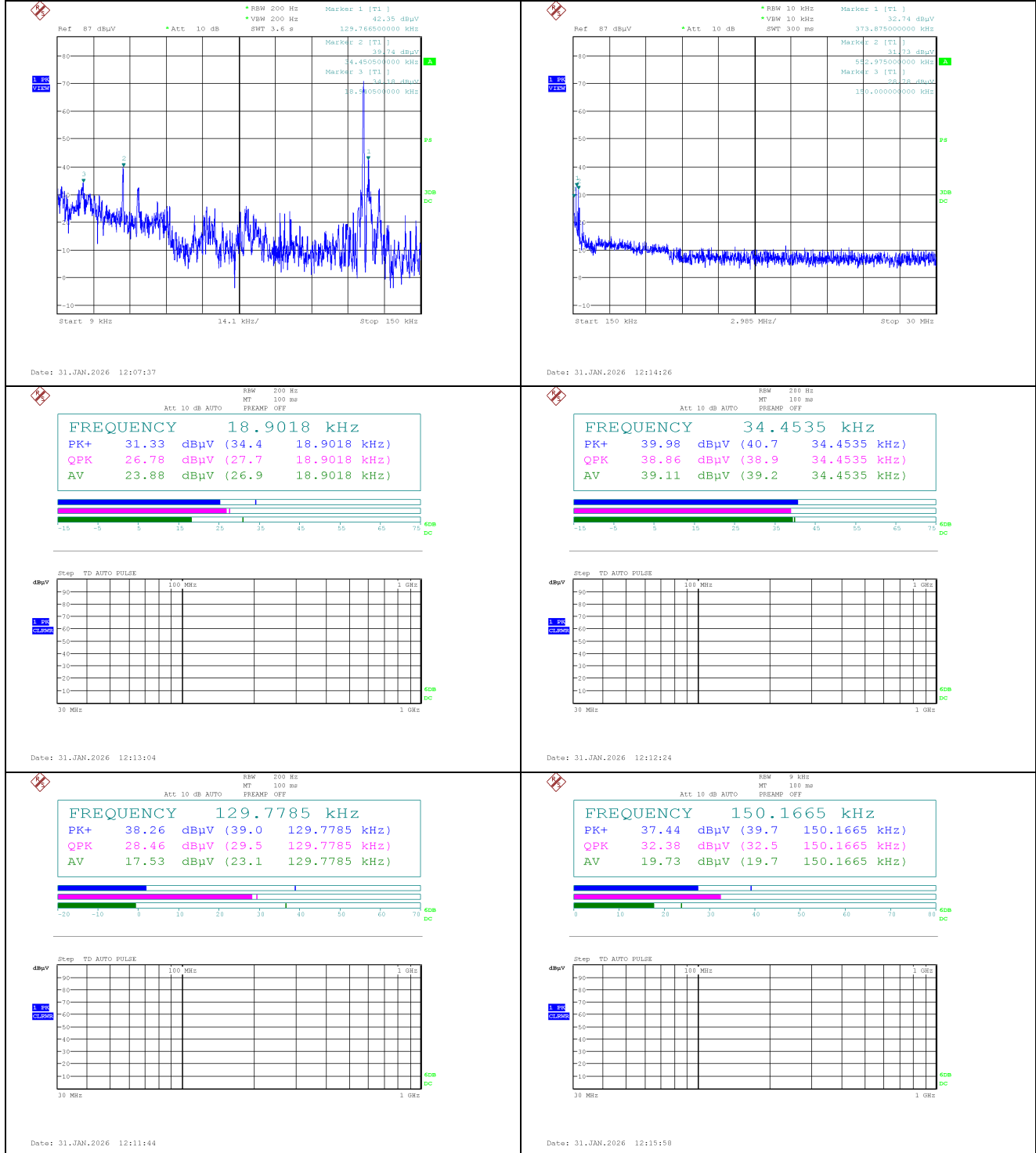


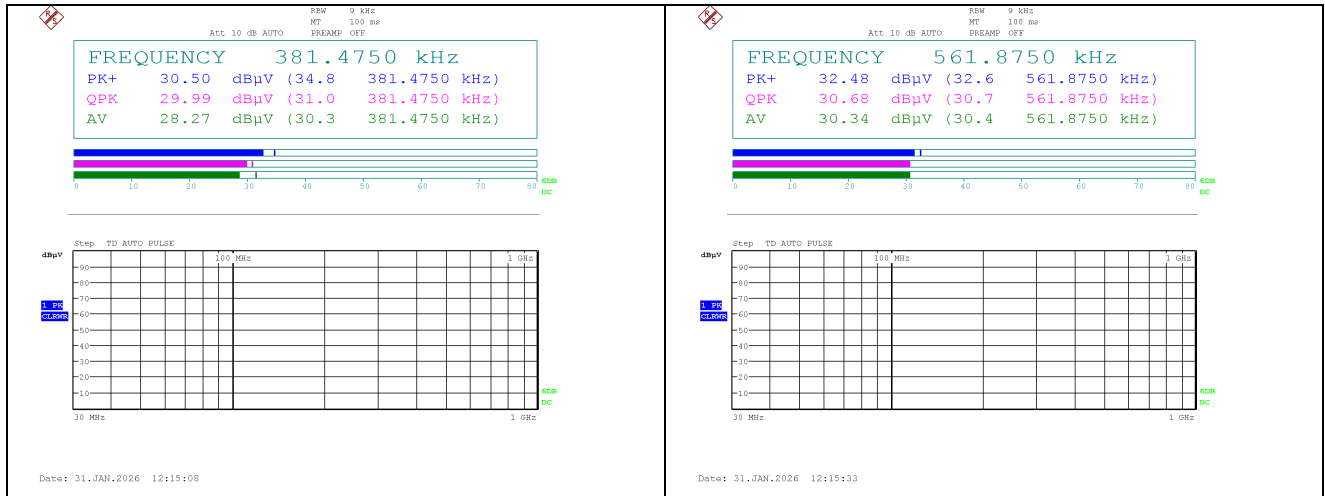
Ant.2

Test Condition: 5 W Operating mode with client device

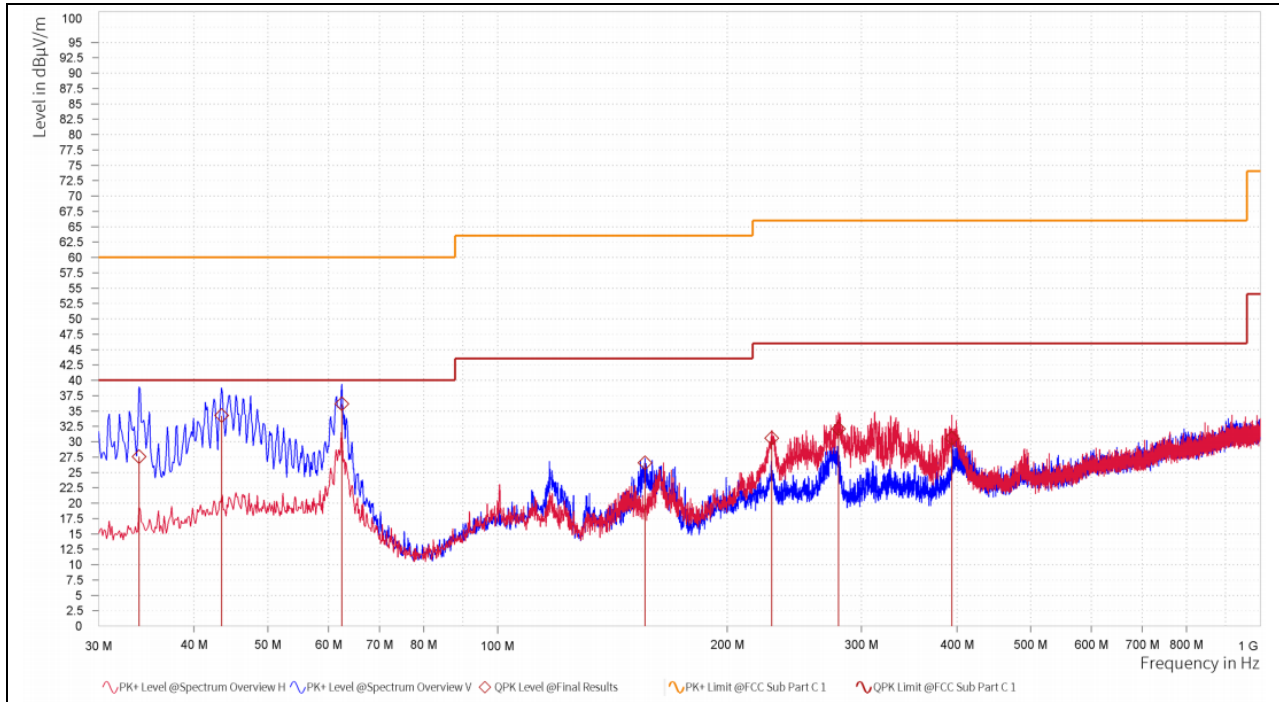
Operating Frequency: 128 MHz

Below 30 MHz





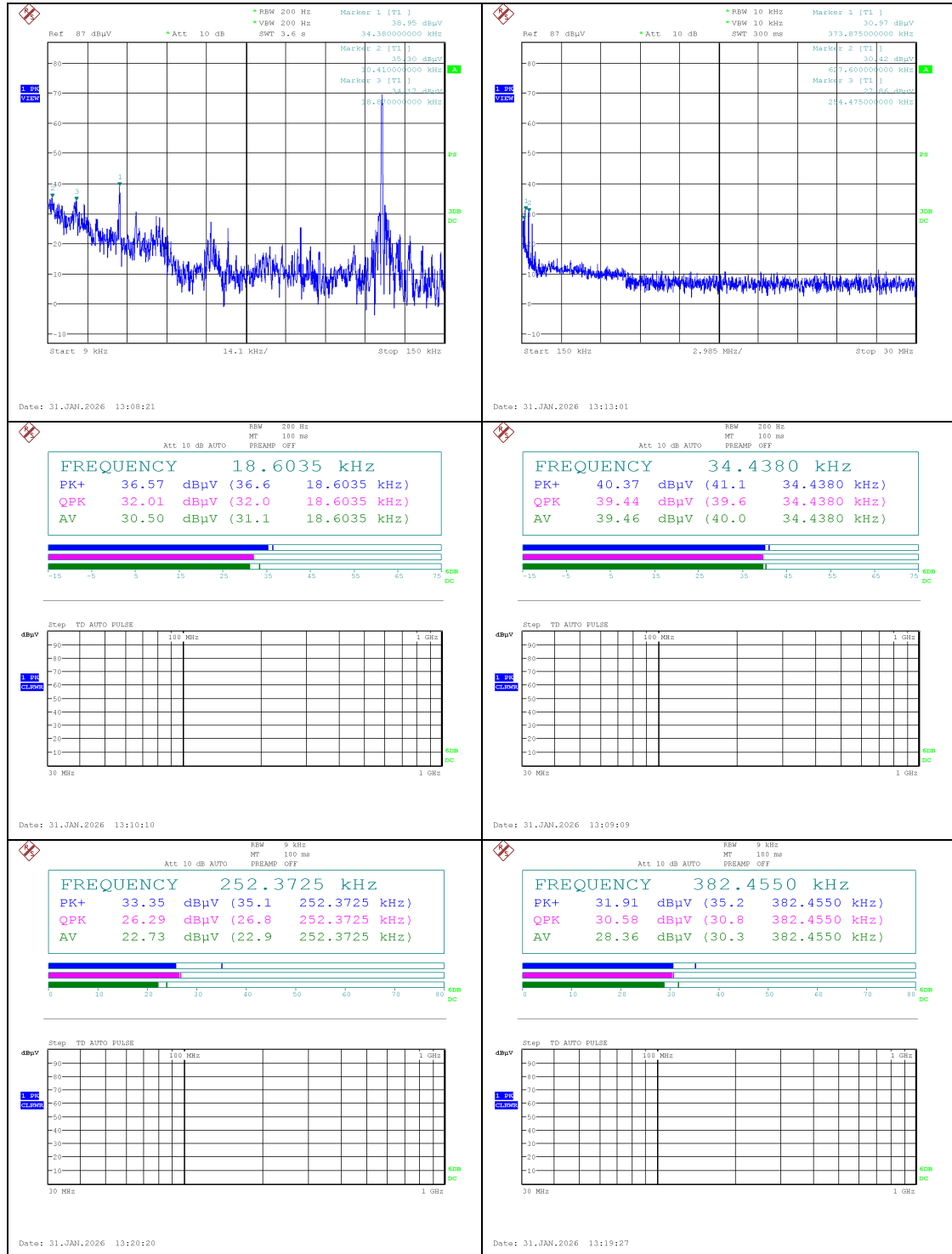
Above 30 MHz

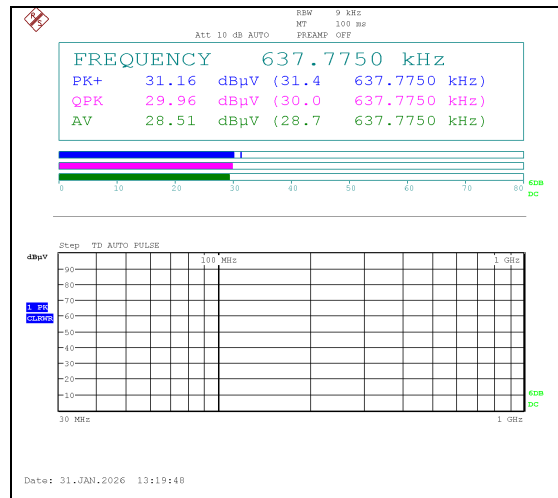


Test Condition: 7.5 W Operating mode with client device

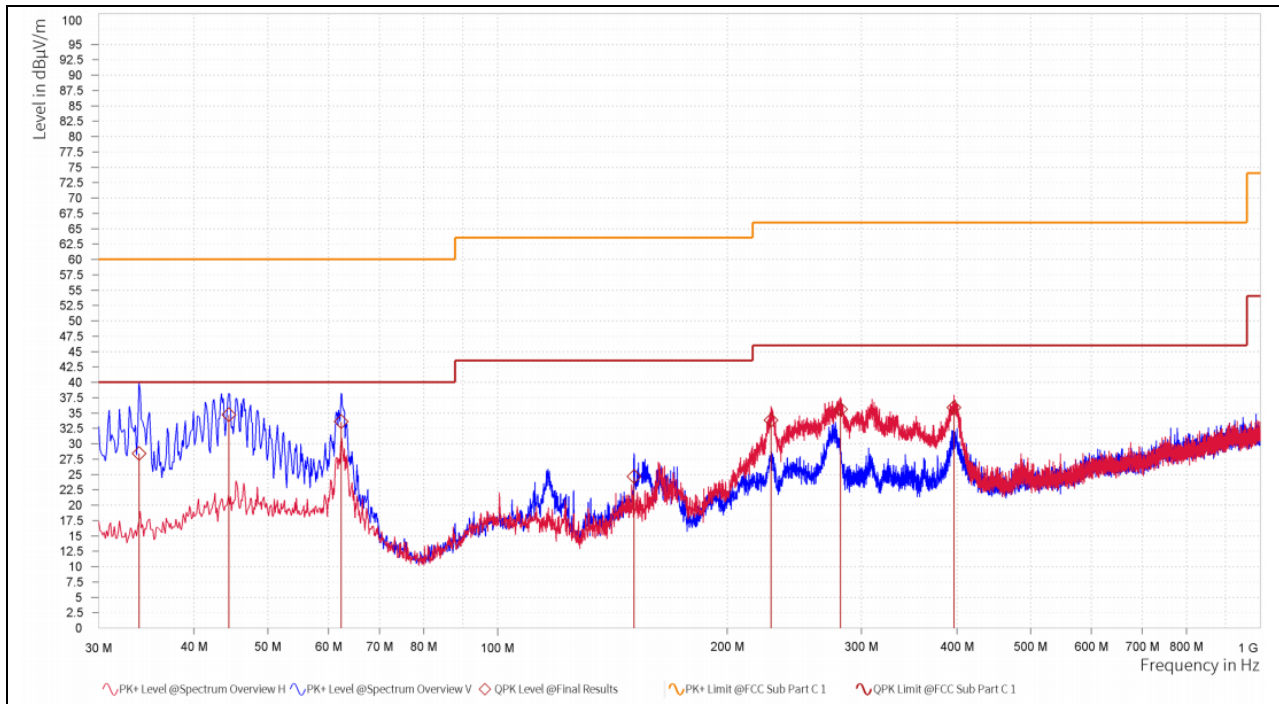
Operating Frequency: 128 MHz

Below 30 MHz





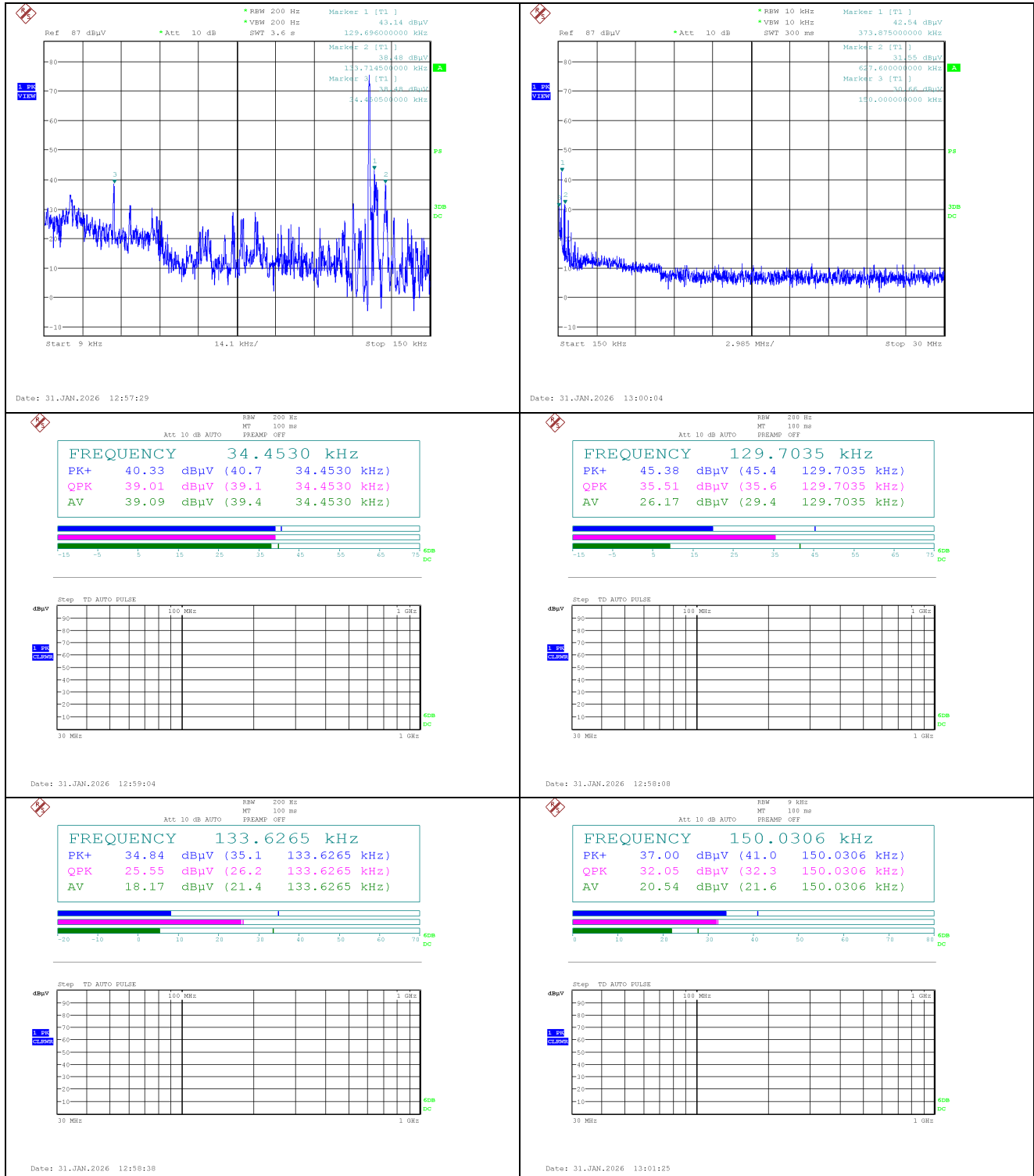
Above 30 MHz

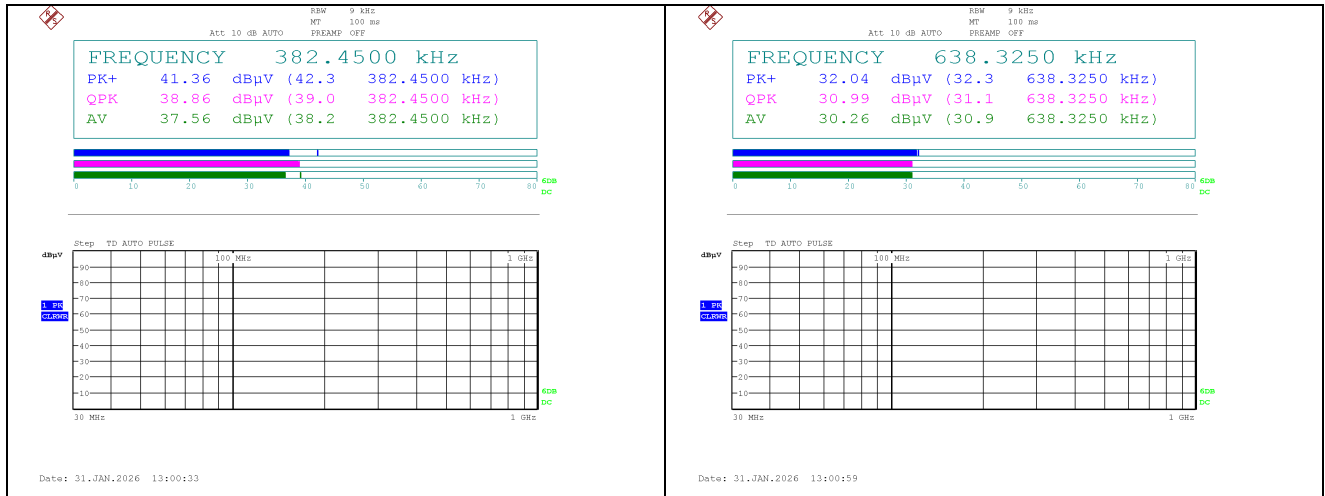


Test Condition: 15 W Operating mode with client device

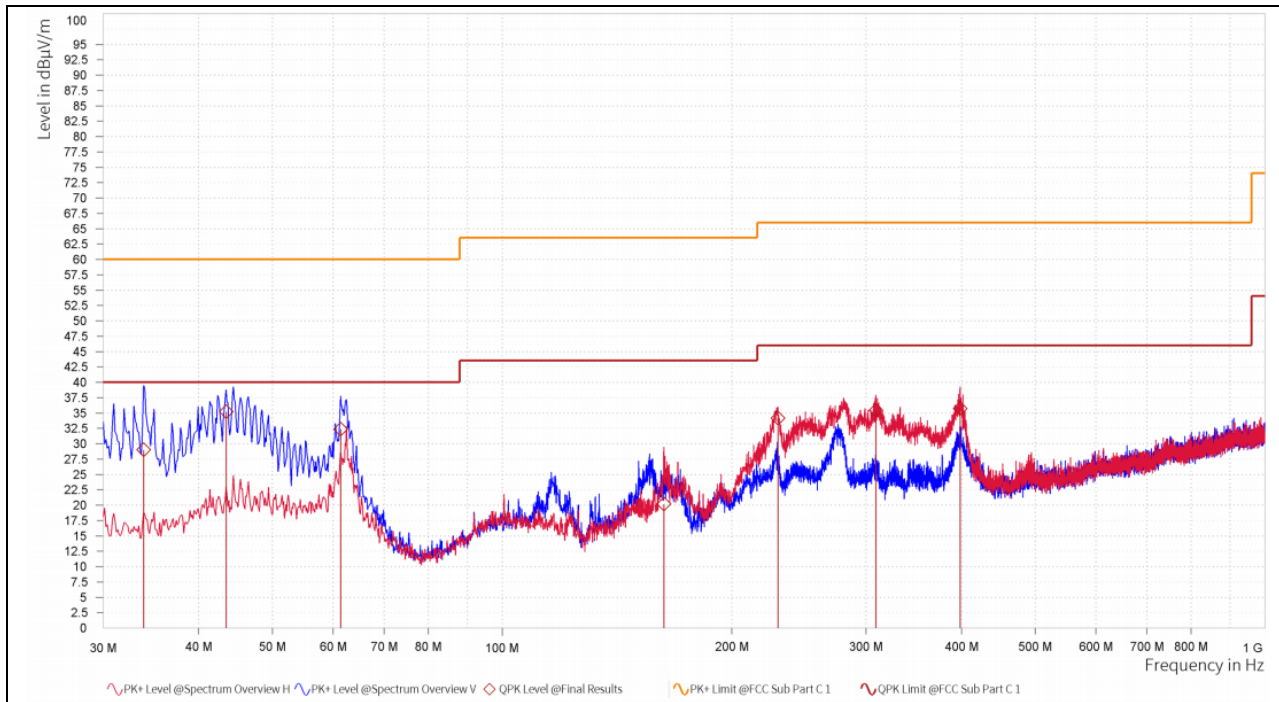
Operating Frequency: 128 MHz

Below 30 MHz





Above 30 MHz

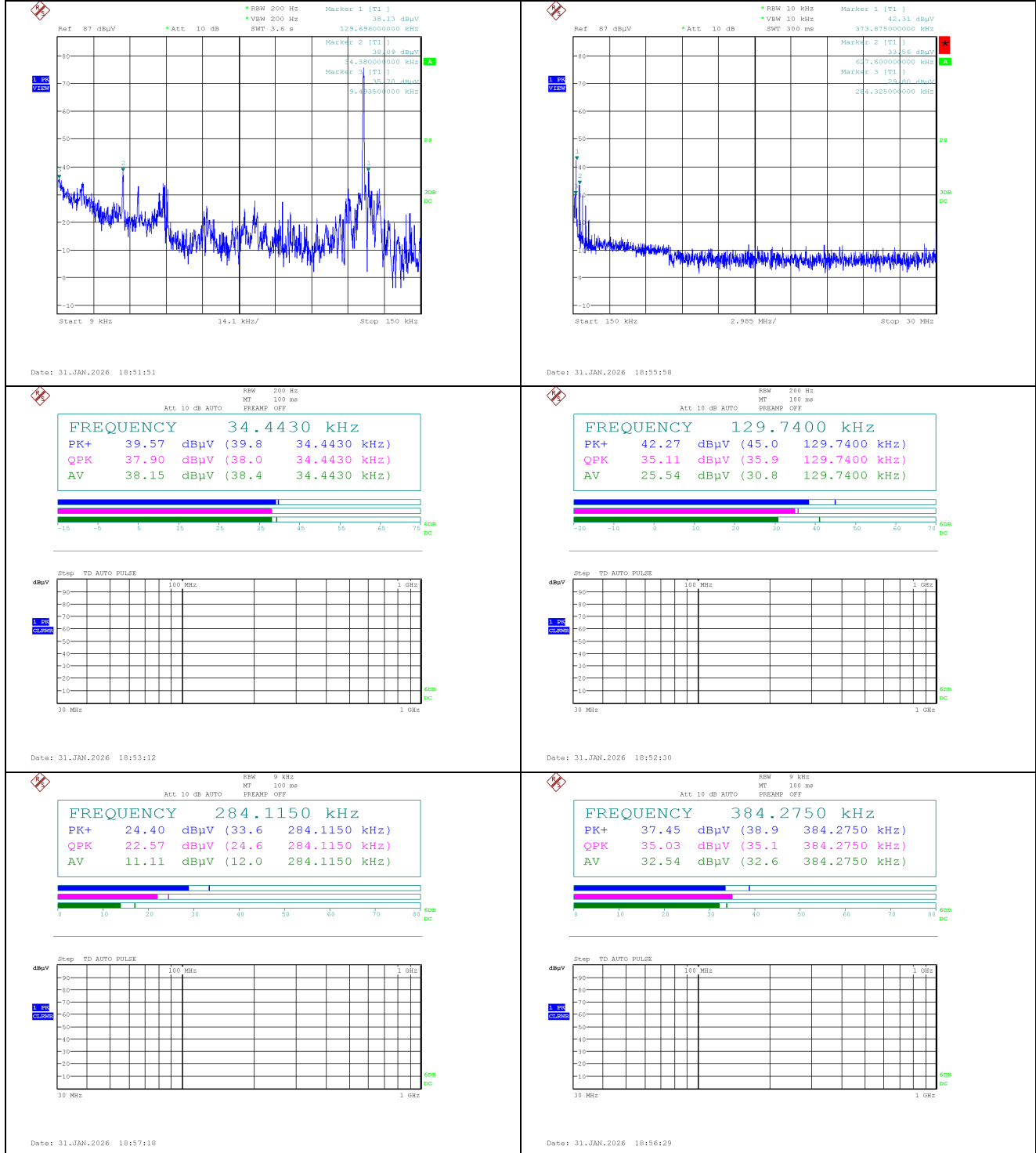


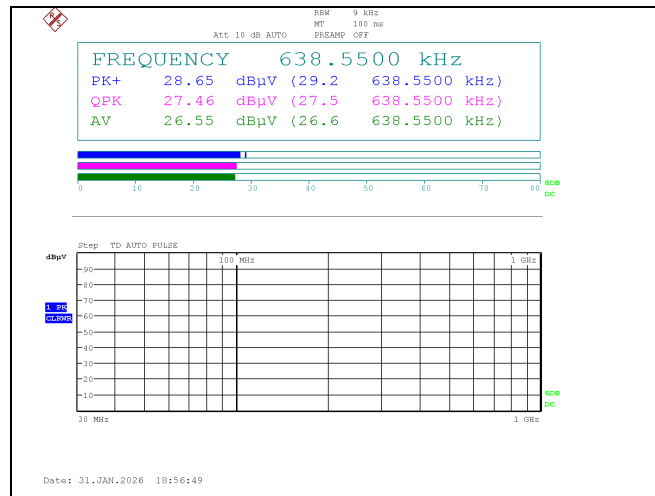
Ant.1 + Ant.2

Test Condition: 5 W + 5 W Operating mode with client device

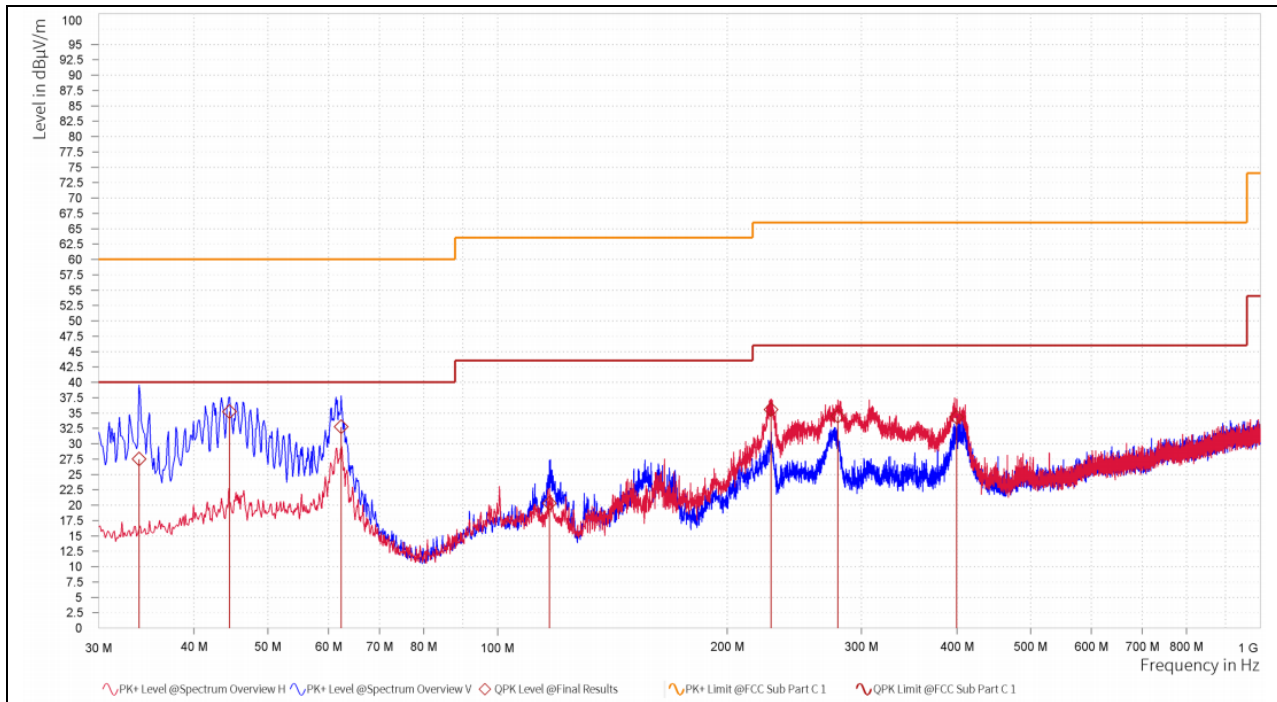
Operating Frequency: 128 MHz

Below 30 MHz



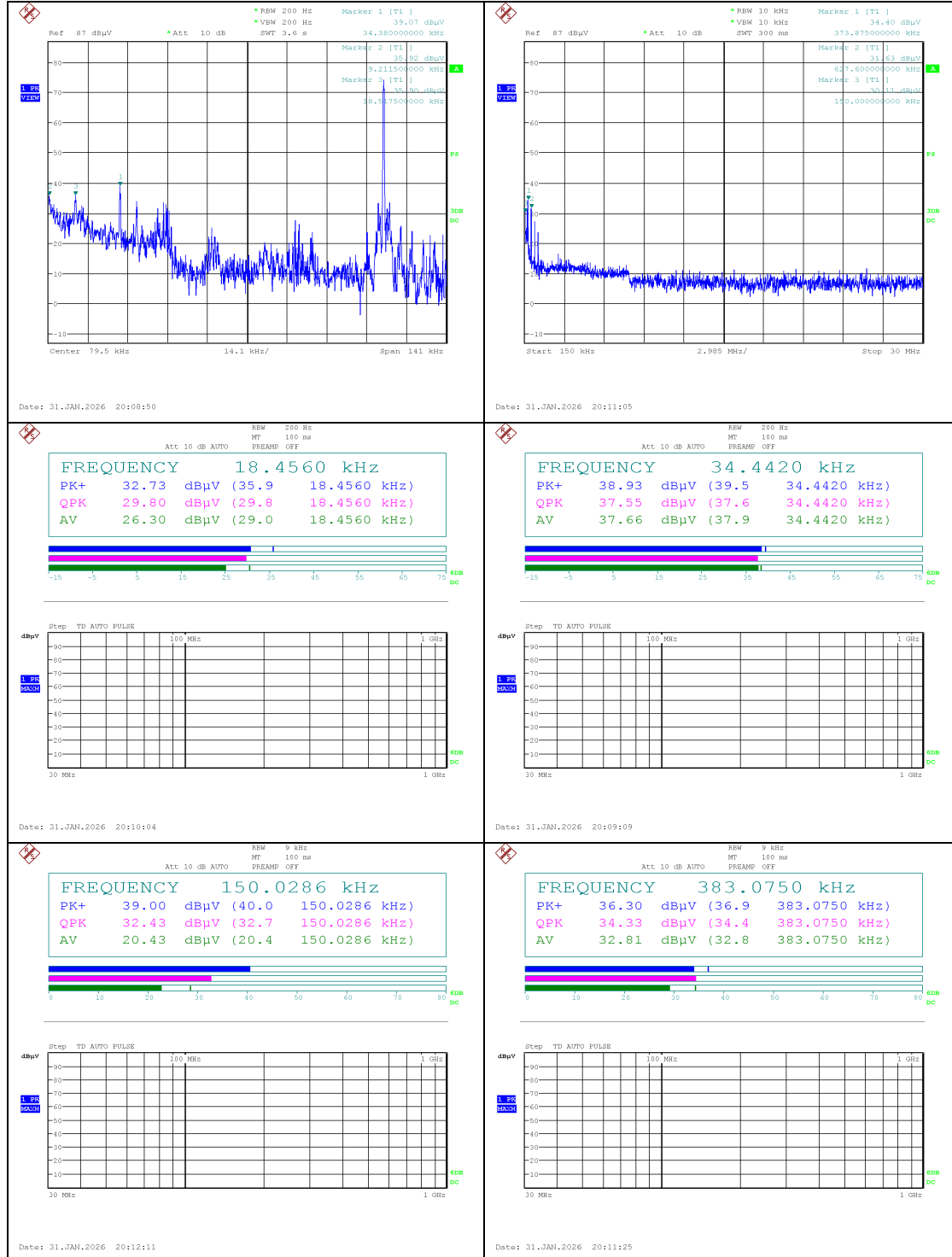


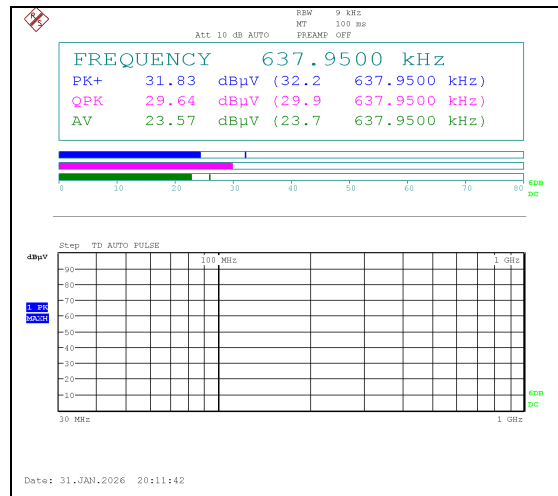
Above 30 MHz



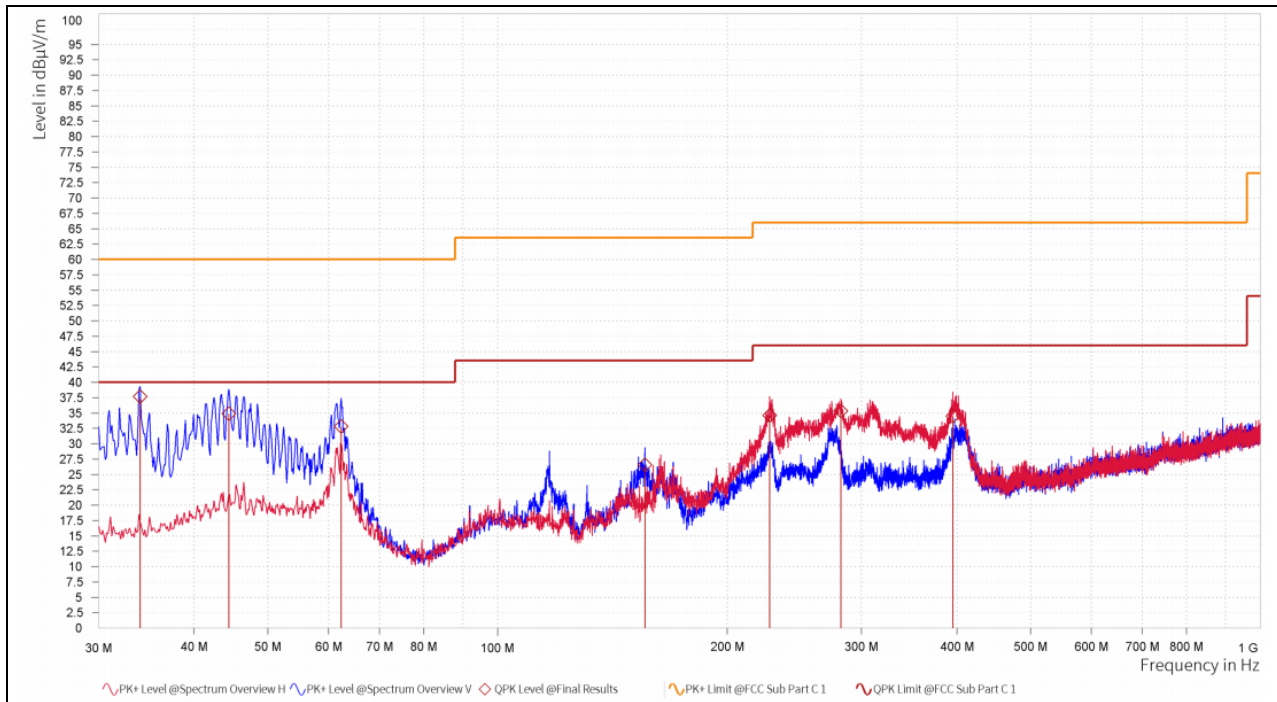
Test Condition: 7.5 W + 7.5 W Operating mode with client device
Operating Frequency: 128 kHz

Below 30 MHz





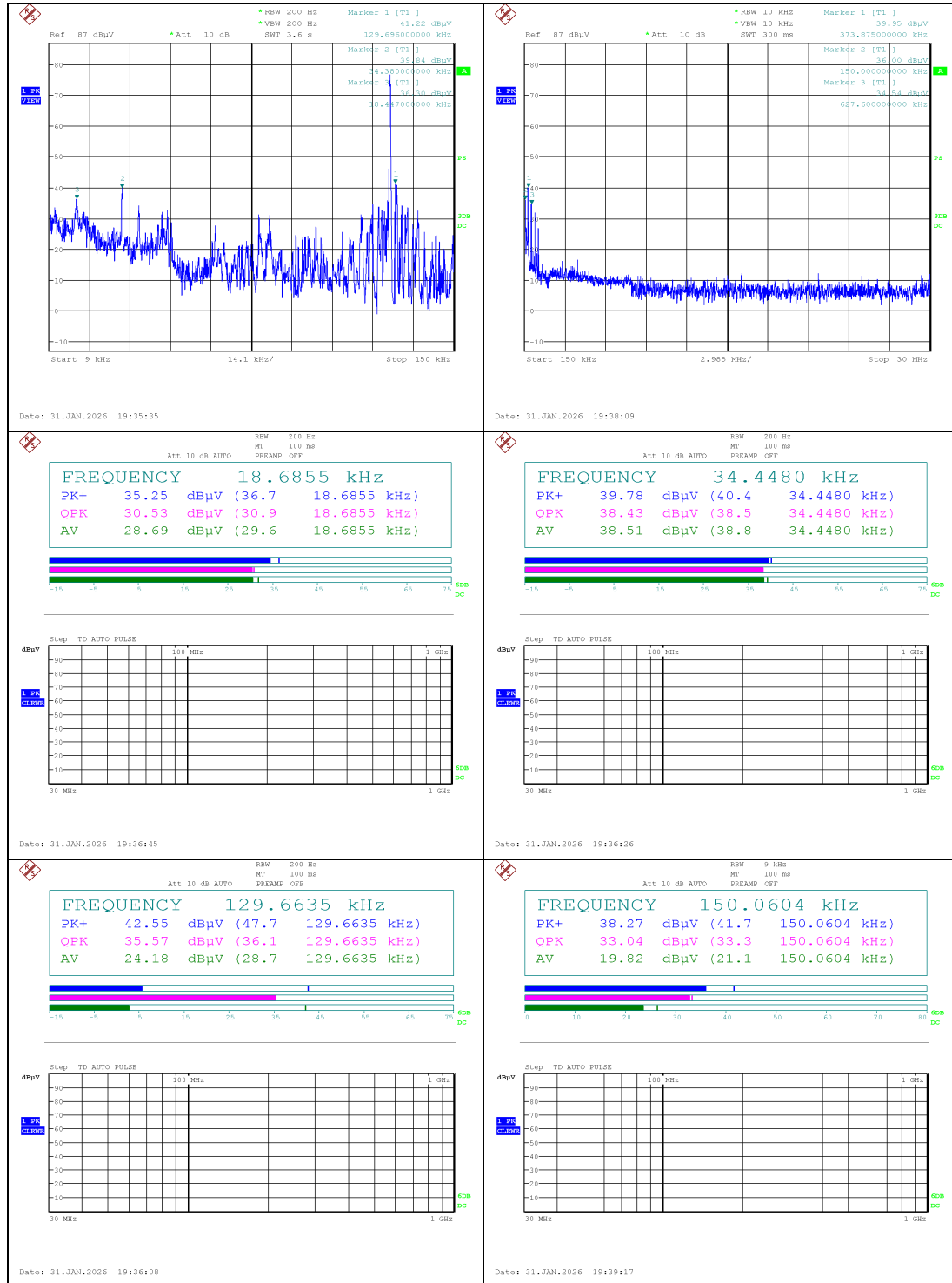
Above 30 MHz

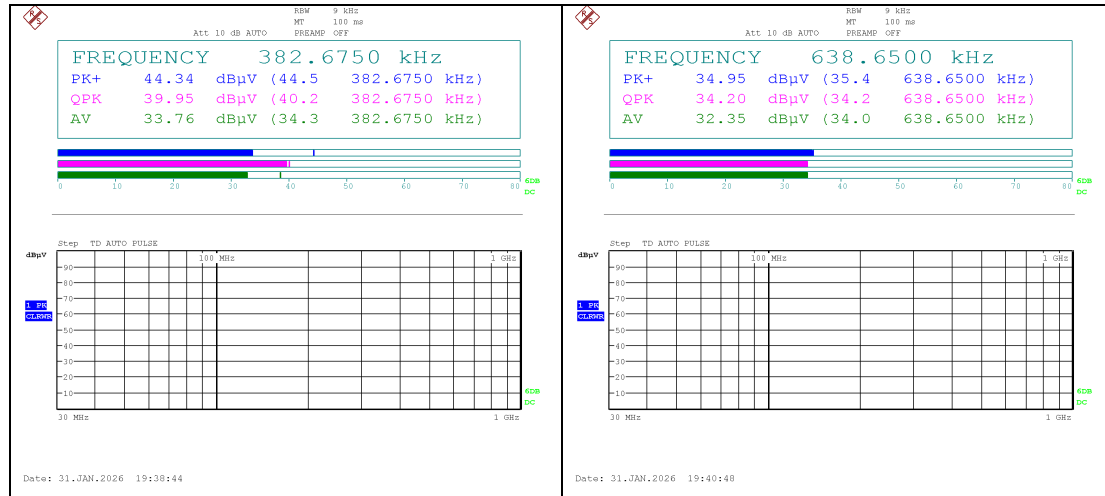


Test Condition: 15 W + 15 W Operating mode with client device

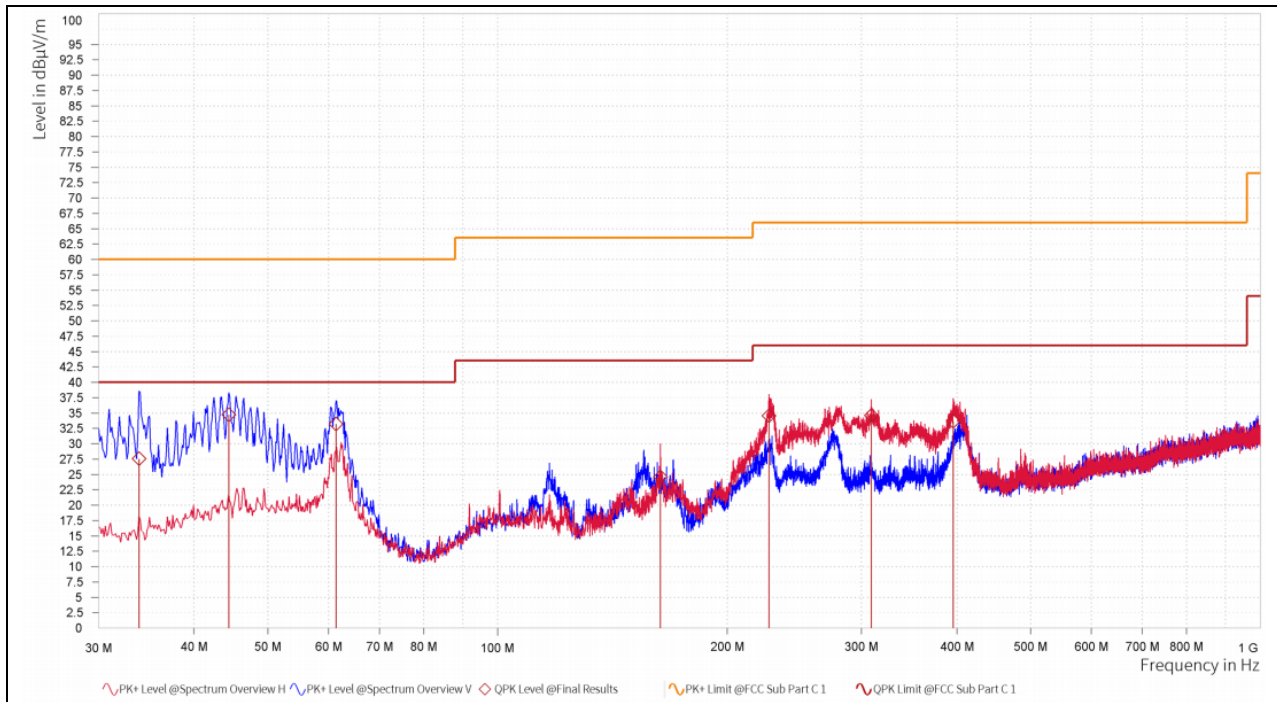
Operating Frequency: 128 MHz

Below 30 MHz





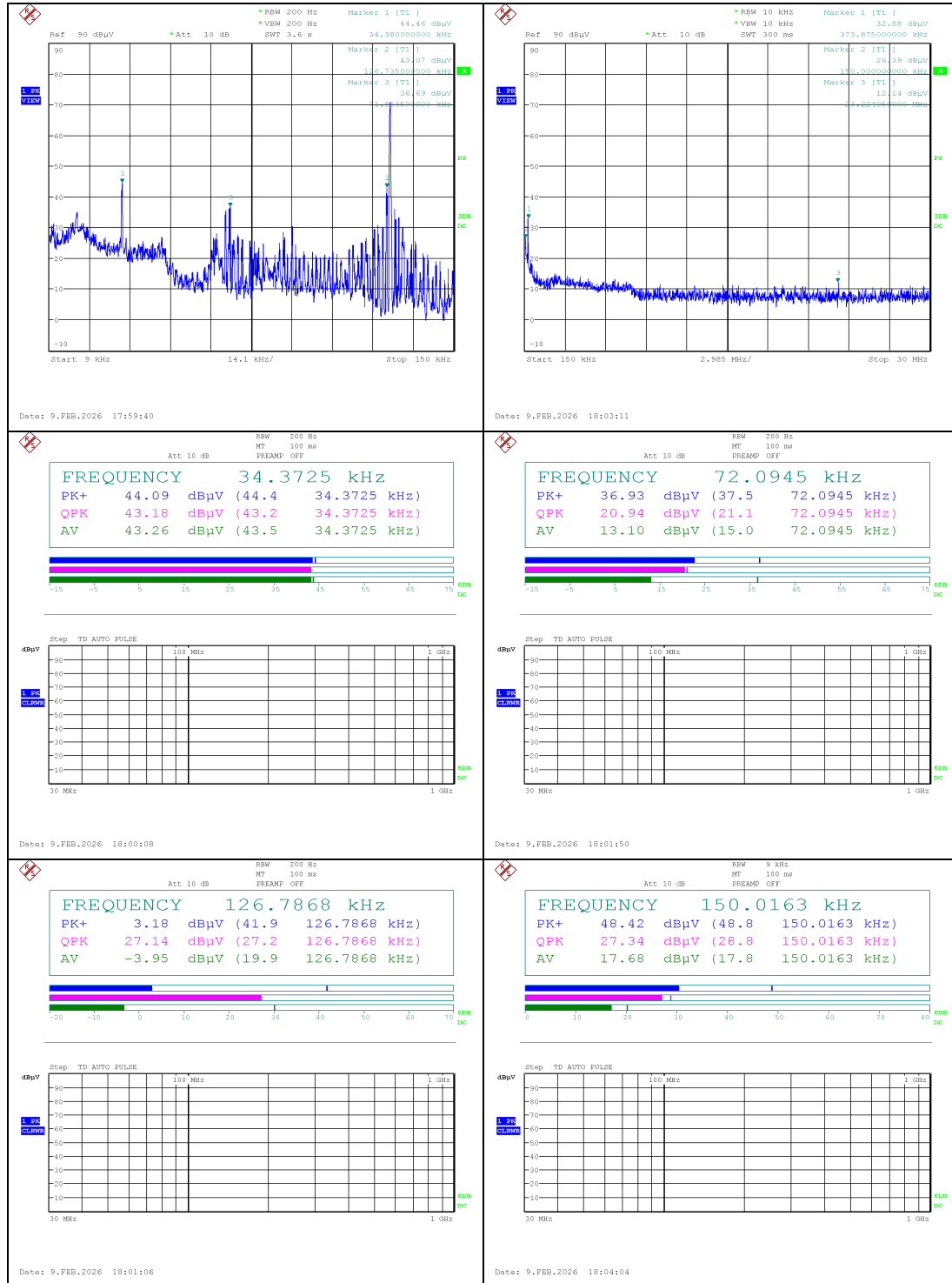
Above 30 MHz

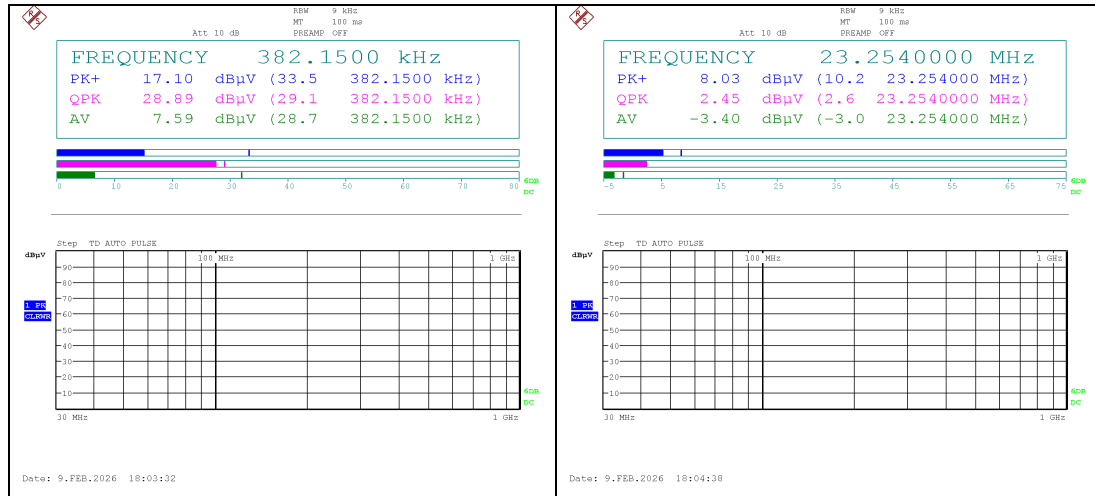


Test Condition: Idle mode

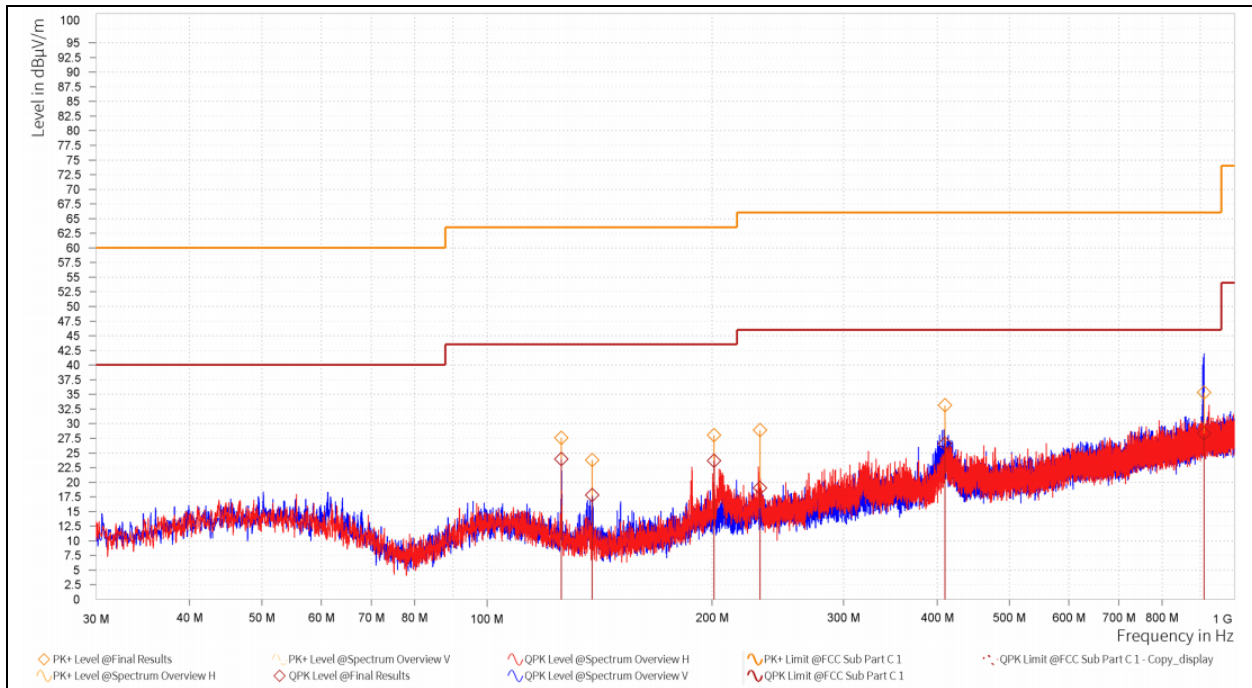
Operating Frequency: 128 MHz

Below 30 MHz



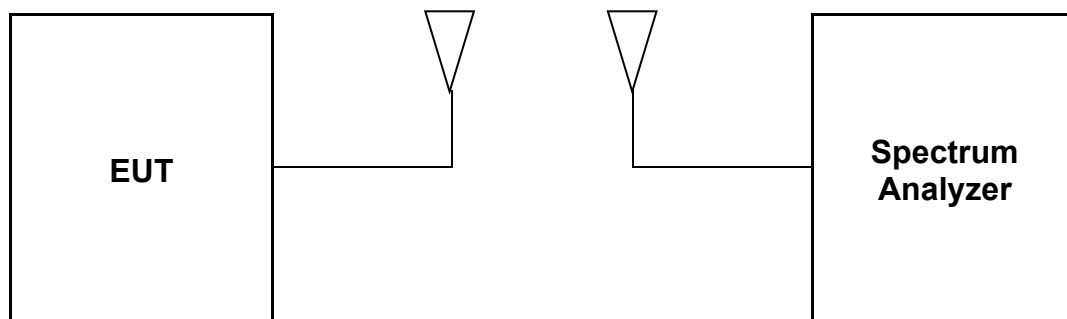


Above 30 MHz



3. 20 dB Bandwidth

3.1. Test Setup



3.2. Limit

None; for reporting purposed only

3.3. Test Procedure

- a. Span = set to capture all products of the modulation process, including the emission skirts.
 RBW = 200 Hz, VBW > 3xRBW, Sweep = auto, Detector = peak, Trace = max hold.
- b. The marker-to-peak function to set the mark to the peak of the emission. Use the marker-delta function to measure 20 dB down one side of the emission. Reset the function, and move the marker to the other side of the emission, until it is (as close as possible to) even with the reference marker level. The marker-delta reading at this point is 20 dB bandwidth of the emission.

3.4. Test Result

Ambient temperature : (23 ± 1) °C
Relative humidity : 47 %

Ant.1

Test Condition: 5 W Operating mode with client device

Frequency (kHz)	EUT Status	20 dB Bandwidth (kHz)	Limit
128 kHz	With client device (1 % battery status of client device)	0.555	Reporting proposed only

Test Condition: 7.5 W Operating mode with client device

Frequency (kHz)	EUT Status	20 dB Bandwidth (kHz)	Limit
128 kHz	With client device (1 % battery status of client device)	0.560	Reporting proposed only

Test Condition: 15 W Operating mode with client device

Frequency (kHz)	EUT Status	20 dB Bandwidth (kHz)	Limit
128 kHz	With client device (1 % battery status of client device)	0.536	Reporting proposed only

Ant.2

Test Condition: 5 W Operating mode with client device

Frequency (kHz)	EUT Status	20 dB Bandwidth (kHz)	Limit
128 kHz	With client device (1 % battery status of client device)	0.519	Reporting proposed only

Test Condition: 7.5 W Operating mode with client device

Frequency (kHz)	EUT Status	20 dB Bandwidth (kHz)	Limit
128 kHz	With client device (1 % battery status of client device)	0.645	Reporting proposed only

Test Condition: 15 W Operating mode with client device

Frequency (kHz)	EUT Status	20 dB Bandwidth (kHz)	Limit
128 kHz	With client device (1 % battery status of client device)	0.550	Reporting proposed only

Ant.1 + Ant.2

Test Condition: 5 W + 5 W Operating mode with client device

Frequency (kHz)	EUT Status	20 dB Bandwidth (kHz)	Limit
128 kHz	With client device (1 % battery status of client device)	0.596	Reporting proposed only

Test Condition: 7.5 W + 7.5 W Operating mode with client device

Frequency (kHz)	EUT Status	20 dB Bandwidth (kHz)	Limit
128 kHz	With client device (1 % battery status of client device)	0.525	Reporting proposed only

Test Condition: 15 W + 15 W Operating mode with client device

Frequency (kHz)	EUT Status	20 dB Bandwidth (kHz)	Limit
128 kHz	With client device (1 % battery status of client device)	0.541	Reporting proposed only

Test Condition: Idle mode

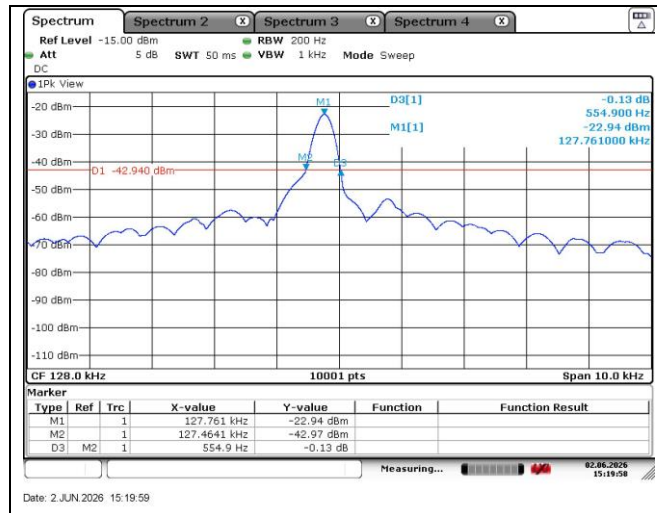
Frequency (kHz)	EUT Status	20 dB Bandwidth (kHz)	Limit
128 kHz	Without client device	1.013	Reporting proposed only

- Test plots

Ant.1

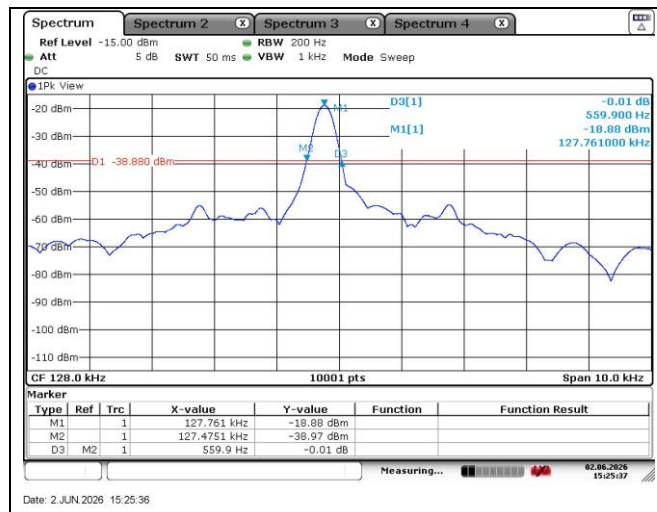
Test Condition: 5 W Operating mode with client device

Operating Frequency: 128 kHz



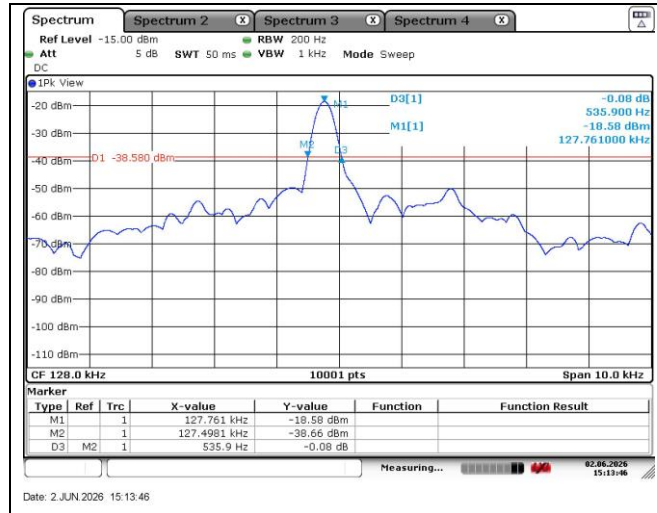
Test Condition: 7.5 W Operating mode with client device

Operating Frequency: 128 kHz



Test Condition: 15 W Operating mode with client device

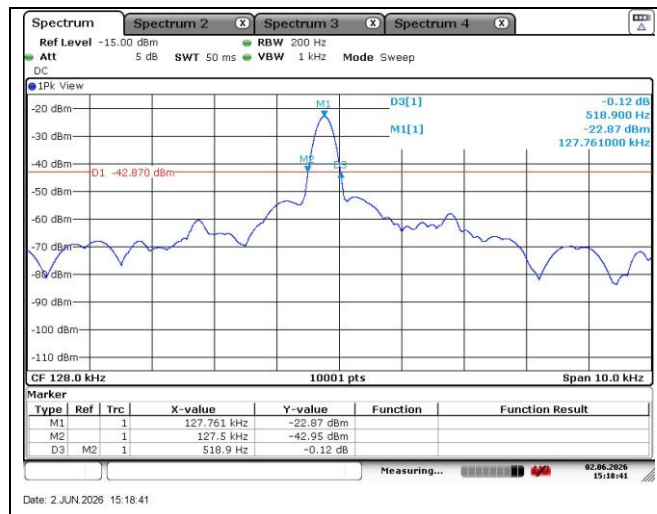
Operating Frequency: 128 kHz



Ant.2

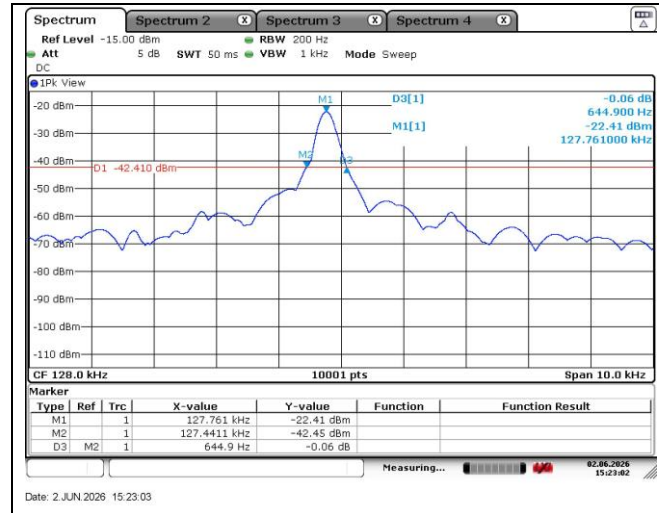
Test Condition: 5 W Operating mode with client device

Operating Frequency: 128 kHz



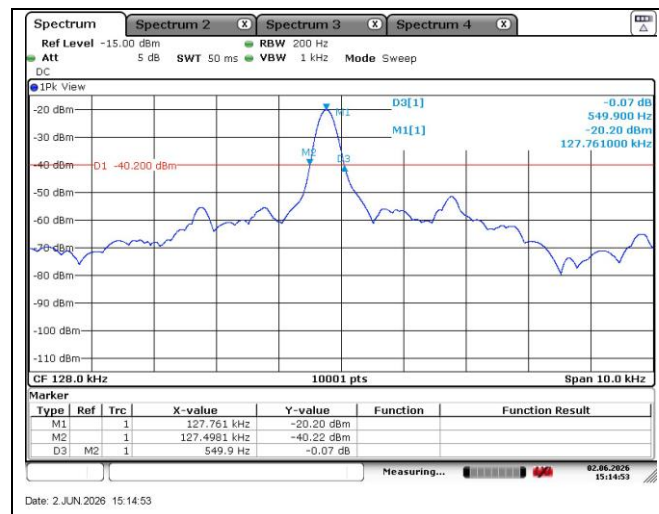
Test Condition: 7.5 W Operating mode with client device

Operating Frequency: 128 kHz



Test Condition: 15 W Operating mode with client device

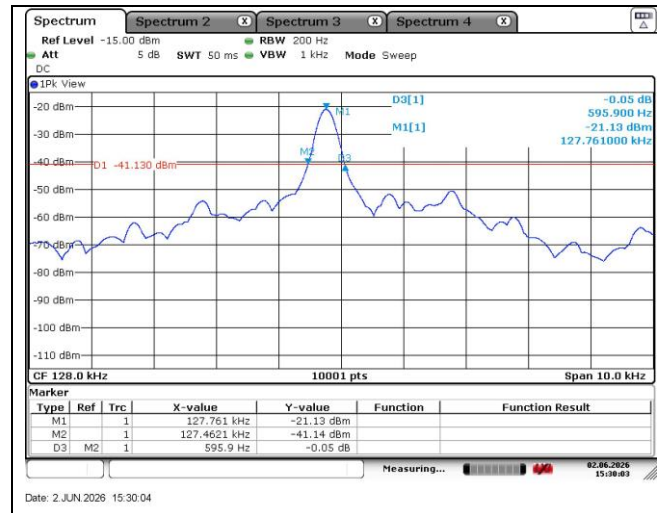
Operating Frequency: 128 kHz



Ant.1 + Ant.2

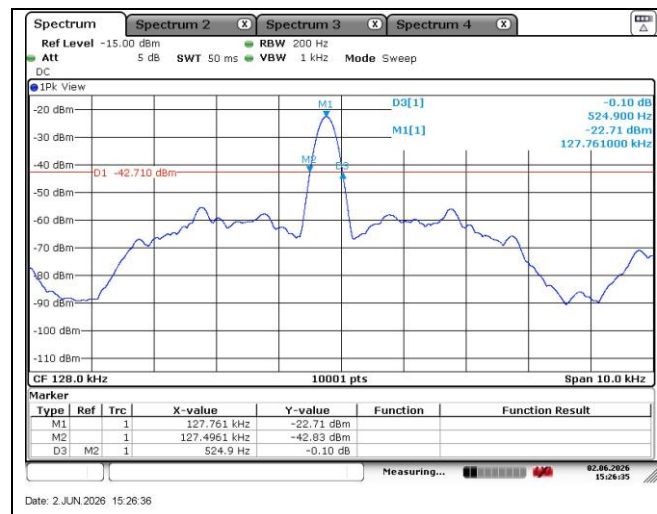
Test Condition: 5 W + 5 W Operating mode with client device

Operating Frequency: 128 kHz



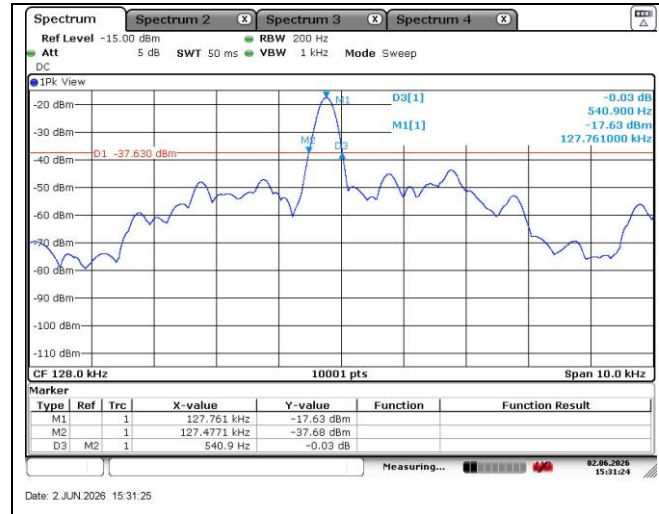
Test Condition: 7.5 W + 7.5 W Operating mode with client device

Operating Frequency: 128 kHz



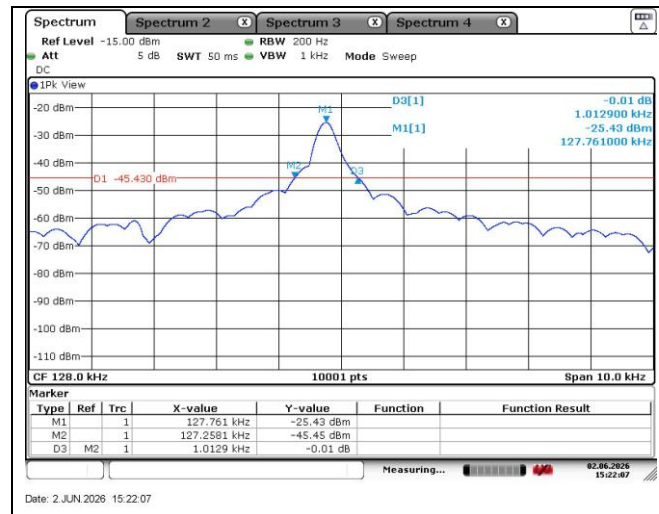
Test Condition: 15 W + 15 W Operating mode with client device

Operating Frequency: 128 kHz



Test Condition: Idle mode

Operating Frequency: 128 kHz



4. Antenna Requirement

4.1. Standard Applicable

For intentional device, according to FCC 47 CFR Section §15.203, 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. 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.

- End of the Test Report -