

TEST REPORT

For

Watch

Model Number: OPWE242

FCC ID: 2ABZ2-OPWE242

IC: 12739A-OPWE242

Report Number : WT248002352

Test Laboratory : Shenzhen Academy of Metrology and Quality Inspection

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The "important statement" on the back of report's homepage is an element of the report, and any copy that does not contain the "important statement" is incomplete.

Revision History

No	Date	Remark
V1.0	2025.03.11	Initial issue

TEST REPORT DECLARATION

Applicant : OnePlus Technology (Shenzhen) Co., Ltd.
Address : 18C02, 18C03, 18C04 and 18C05, Shum Yip Terra Building,
Binhe Avenue North, Futian District, Shenzhen, Guangdong,
518100, P.R. China
Manufacturer : OnePlus Technology (Shenzhen) Co., Ltd.
Address : 18C02, 18C03, 18C04 and 18C05, Shum Yip Terra Building,
Binhe Avenue North, Futian District, Shenzhen, Guangdong,
518100, P.R. China
EUT Description : Watch
Model No. : OPWE242
Trade mark : ONEPLUS
HVIN : OPWE242
FCC ID : 2ABZ2-OPWE242
IC : 12739A-OPWE242

Test Standards:

FCC Part 15 Subpart E

RSS-247 Issue 3 (2023-08)

RSS-GEN Issue 5 (2021-02)

The EUT described above is tested by Shenzhen Academy of Metrology and Quality Inspection EMC Laboratory to determine the maximum emissions from the EUT. Shenzhen Academy of Metrology and Quality Inspection EMC Laboratory is assumed full responsibility for the accuracy of the test results, unless they depend on the manufacturer information.

The test report is valid for above tested sample only and shall not be reproduced in part without written approval of the laboratory.

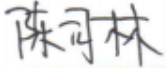
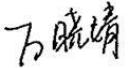
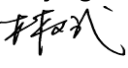
Project Engineer:	 (Chen Silin 陈司林)	Date:	Mar. 11, 2025
Checked by:	 (Wan Xiaojing 万晓婧)	Date:	Mar. 11, 2025
Approved by:	 (Lin Bin 林斌)	Date:	Mar. 11, 2025

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1. TEST RESULTS SUMMARY

Table 1 Test Results Summary

Test Items	FCC Rules	IC Rules	Test Results
6dB Bandwidth	FCC §15.407 (e)	RSS-247 Clause 6.2.4	Pass
26dB Bandwidth	FCC §15.407 (a)	RSS-247 Clause 6.2.1	Pass
99% Bandwidth	/	RSS-Gen Clause 6.7	Pass
Maximum Conducted Output Power	FCC §15.407 (a)	RSS-247 Clause 6.2.1	Pass
Maximum Power Spectral Density Level	FCC §15.407 (a)	RSS-247 Clause 6.2.1	Pass
Radiated Bandedge and Spurious	15.407 (b) 15.209 15.205	RSS-247 Clause 6.2.1 RSS-Gen Clause 8.9	Pass
Automatic Discontinue Transmission	/	RSS-247 Clause 6.4(a)	Pass
Conducted emission test for AC power port	15.207	RSS-Gen Clause 8.8	Pass
Antenna Requirements	15.203	RSS-GEN, Clause 6.8	Pass

Remark: "N/A" means "Not applicable."

2. GENERAL INFORMATION

2.1. Report Information

This report is not a certificate of quality; it only applies to the sample of the specific product/equipment given at the time of its testing. The results are not used to indicate or imply that they are application to the similar items. In addition, such results must not be used to indicate or imply that SMQ approves recommends or endorses the manufacture, supplier or use of such product/equipment, or that SMQ in any way guarantees the later performance of the product/equipment.

The sample/s mentioned in this report is/are supplied by Applicant, SMQ therefore assumes no responsibility for the accuracy of information on the brand name, model number, origin of manufacture or any information supplied.

Additional copies of the report are available to the Applicant at an additional fee. No third part can obtain a copy of this report through SMQ, unless the applicant has authorized SMQ in writing to do so.

The lab will not be liable for any loss or damage resulting for false, inaccurate, inappropriate or incomplete product information provided by the applicant/manufacturer.

2.2. Laboratory Accreditation and Relationship to Customer

The testing report were performed by the Shenzhen Academy of Metrology and quality Inspection EMC Laboratory (Guangdong EMC compliance testing center), in their facilities located at NETC Building, No.4 Tongfa Rd., Xili, Nanshan, Shenzhen, China. At the time of testing, Laboratory is accredited by the following organizations:

China National Accreditation Service for Conformity Assessment (CNAS) accredits the Laboratory for conformance to FCC standards, EMC international standards and EN standards. The Registration Number is CNAS L0579.

The Laboratory is Accredited Testing Laboratory of FCC with Designation number CN1165 and Site registration number 582918.

The Laboratory is registered to perform emission tests with Innovation, Science and Economic Development (ISED), and the registration number is 11177A.

The Laboratory is registered to perform emission tests with VCCI, and the registration number are C-20048, G20076, R-20077, R-20078 and T-20047.

The Laboratory is Accredited Testing Laboratory of American Association for Laboratory Accreditation (A2LA) and certificate number is 3292.01.

2.3.Measurement Uncertainty

Conducted Emission

9 kHz~150 kHz $U=3.7\text{dB}$ $k=2$

150 kHz~30MHz $U=3.3\text{dB}$ $k=2$

Radiated Emission

30MHz~1000MHz $U=4.3\text{dB}$ $k=2$

1GHz~6GHz $U=4.6\text{ dB}$ $k=2$

6GHz~40GHz $U=5.1\text{dB}$ $k=2$

3. PRODUCT DESCRIPTION

NOTE: The extreme test conditions for temperature and antenna gain were declared by the manufacturer.

3.1. EUT Description

Description : Watch
Manufacturer : OnePlus Technology (Shenzhen) Co., Ltd.
Model Number : OPWE242
Operate : U-NII 1(5180~5240 MHz)
Frequency : U-NII 2A(5260~5320 MHz)
U-NII 2C(5500~5700 MHz)
U-NII 3(5745~5820 MHz)
Antenna : Monopole antenna: -0.5 dBi
Designation
Operating Voltage : DC 3.92 V
Software Version : OPWE242_11_A.02
Hardware Version : XK935

Remark: /

Frequency List:

Band 1		Band 2A		Band 2C		Band 3	
Ch.	Frequency (MHz)	Ch.	Frequency (MHz)	Ch.	Frequency (MHz)	Ch.	Frequency (MHz)
36	5180	52	5260	100	5500	149	5745
40	5200	56	5280	104	5520	153	5765
44	5220	60	5300	108	5540	157	5785
48	5240	64	5320	112	5560	161	5805
				116	5580	165	5825
				132	5660		
				136	5680		
				140	5700		

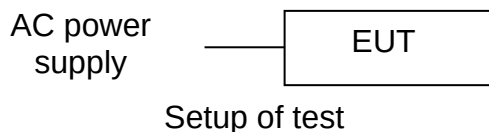
Table 2 802.11a/802.11n (20MHz) Frequency /Channel operations

3.2. Related Submittal(s) / Grant (s)

This submittal(s) (test report) is intended for FCC ID: **2ABZ2-OPWE242** filing to comply with Section 15.207, 15.209, 15.407 of the FCC Part 15 Subpart E.

This submittal(s) (test report) is intended for **IC: 12739A-OPWE242** filing to comply with RSS-247 and RSS-GEN.

3.3. Block Diagram of EUT Configuration



3.4. Operating Condition of EUT

The Radiated spurious emission measurements were carried out in semi-anechoic chamber with 3-meter test range, and EUT is rotated on three test planes to find out the worst emission (X plane).

Worst-case mode and channel used for 30-1000 MHz radiated and power line conducted emissions was the mode and channel with the highest output power.

Worst-case data rates as provided by the client were:

802.11a mode: 6 Mbps

802.11n HT20 mode: MCS0

Modulation Mode:	Single (TX)
802.11a	support
802.11n HT20	support

3.5. Directional Antenna Gain

Directional gain need NOT to be considered.

3.6. Support Equipment List

Table 3 Support Equipment List

Name	Model No	S/N	Manufacturer
Adapter	VCB3HDUH	---	Huizhou Golden Lake Industrial Co., Ltd.

3.7. Test Conditions

Date of test: Dec.24, 2024- Jan.02, 2025

Date of EUT Receive: Dec.10, 2024

Temperature: 20 °C-25 °C

Relative Humidity: 25%-52%

3.8. Special Accessories

Not available for this EUT intended for grant.

3.9. Equipment Modifications

Not available for this EUT intended for grant.

4. TEST EQUIPMENT USED

Table 4 Test Equipment

No.	Equipment	Manufacturer	Model No.	Last Cal.	Cal. Interval
SB9054/05	Test Receiver	R&S	ESCI	Jun.17, 2024	1 Year
SB8501/06	AMN	R&S	ESH-Z5	Jan.16, 2024	1 Year
SB9549	Shielded Room	Albatross	SR	Aug.28, 2024	1 Year
SB17366	Test Receiver	R&S	ESR26	Apr.30, 2024	1 Year
SB3345	Loop Antenna	Schwarzbeck	FMZB1516	Jan.12, 2024	1 Year
SB3955	Broadband Antenna	SCHWARZBECK	VULB9163	Apr.30, 2024	1 Year
SB9555/01	Semi Anechoic Chamber	Albatross	9×6×6(m)	Aug.12, 2024	1 Year
SB8501/09	Test Receiver	R&S	ESU40	Jan.17, 2024	1 Year
SB3435	Horn Antenna	R&S	HF906	Nov.19, 2024	1 Year
SB9058/03	Pre-Amplifier	R&S	SCU 18	Jan.16, 2024	1 Year
SB8501/11	Antenna	R&S	3160-09	Feb.22,2023	3 Years
SB8501/12	Antenna	R&S	3160-10	Feb.22,2023	3 Years
SB8501/16	Pre-Amplifier	R&S	SCU-26	Jan.16, 2024	1 Year
SB9059	Pre-Amplifier	R&S	SCU-40	Aug.19, 2024	1 Year
SB9060	Spectrum Analyzer	R&S	FSQ40	Apr.22, 2024	1 Year
SB9555/02	Fully Anechoic Chamber	Albatross	10.0×5.2×5.4(m)	Aug.08, 2024	1 Year

Table 5 Test software

Name	Manufacturer	Version
Bluetooth and WiFi Test System	Shenzhen JS tonscent co.,ltd	3.3.10

5. DUTY CYCLE

5.1.Limits of Duty Cycle

None; for reporting purposes only

5.2.Test Procedure

1. Set span = Zero
2. RBW = 20MHz
3. VBW = 30MHz,
4. Detector = Peak

5.3.Test Setup

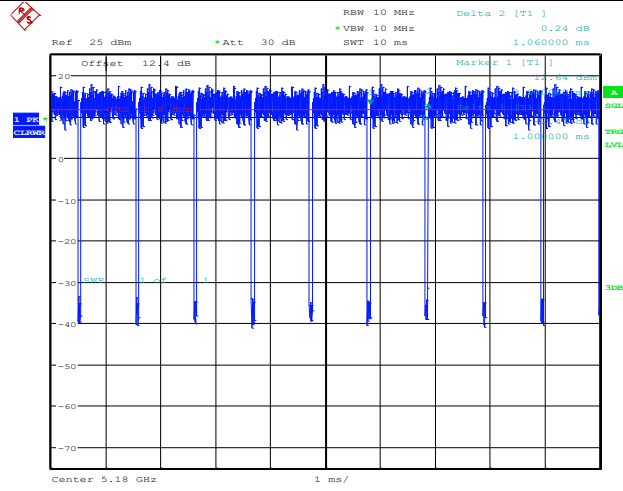


5.4.Test Data

Table 6 Duty Cycle Test Data

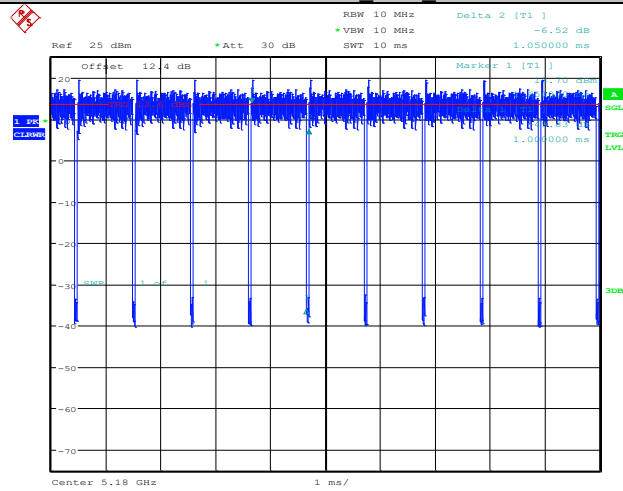
Test Mode	On Time (ms)	Duty Cycle (%)	Duty Factor (dB)	1/T Minimum VBW (kHz)
802.11a	1.00	94.34	0.25	0.01
802.11n HT20	1.00	95.24	0.21	0.01

11A Ant1 5180



Date: 24.DEC.2024 08:47:52

11N20SISO Ant1 5180



Date: 24.DEC.2024 08:55:21

6. 6DB BANDWIDTH MEASUREMENT

6.1.Limits of 6dB Bandwidth Measurement

The minimum 6 dB emission bandwidth of at least 500 kHz for the band 5.725-5.85 GHz.

6.2.Test Procedure

The transmitter output was connected to the spectrum analyzer.

- a) Set RBW = 100 kHz.
- b) Set the video bandwidth (VBW) $\geq 3 \times$ RBW.
- c)Detector = Peak.
- d)Trace mode = max hold.
- e)Sweep = auto couple.
- f)Allow the trace to stabilize.
- g)Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

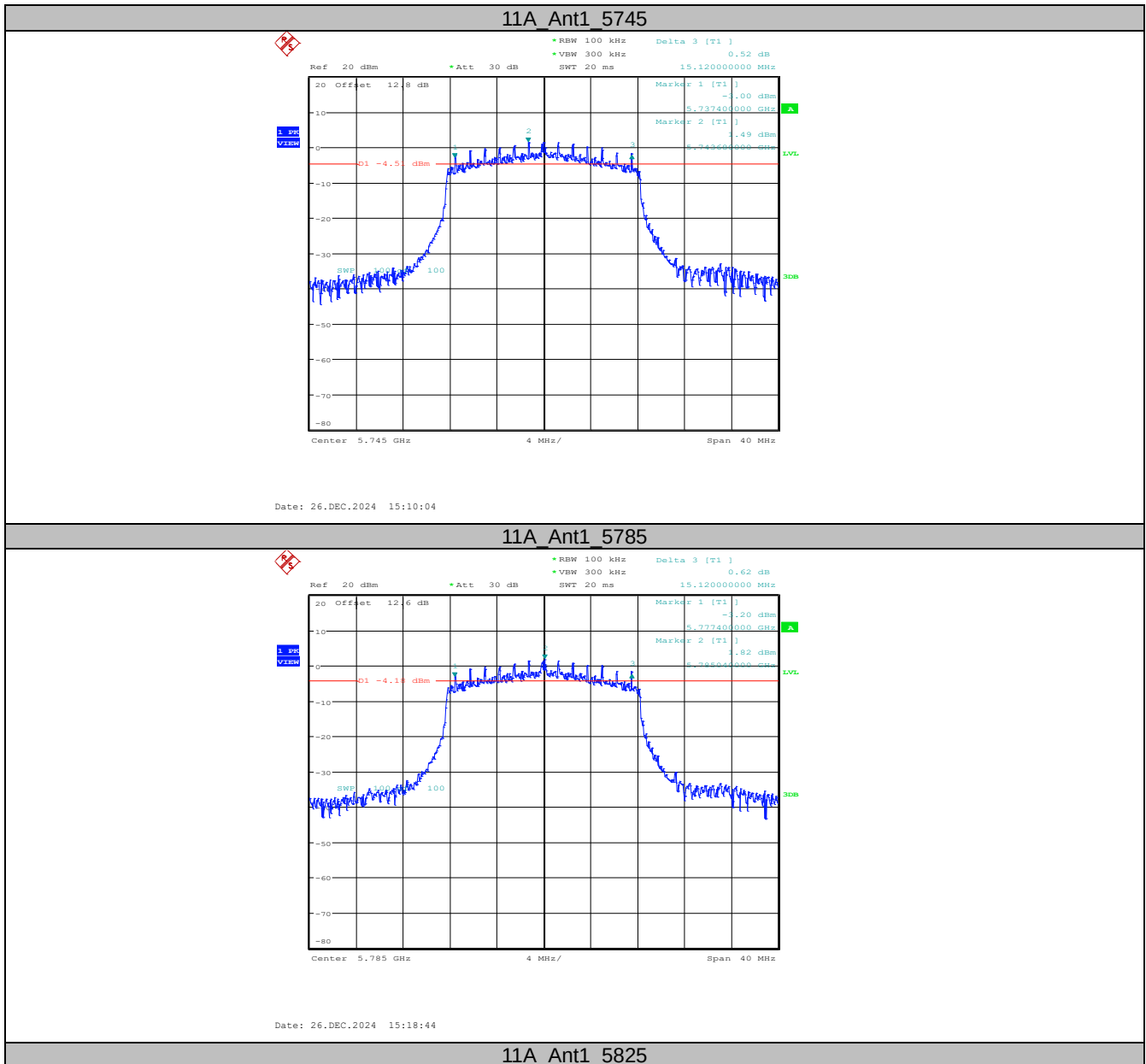
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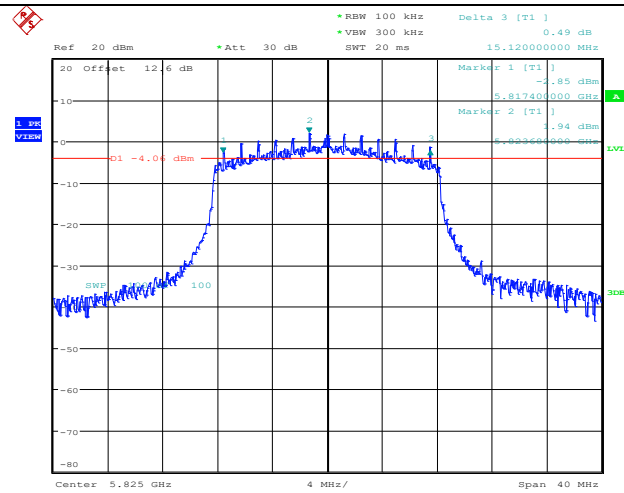


6.4.Test Data

6dB Bandwidth Test Data

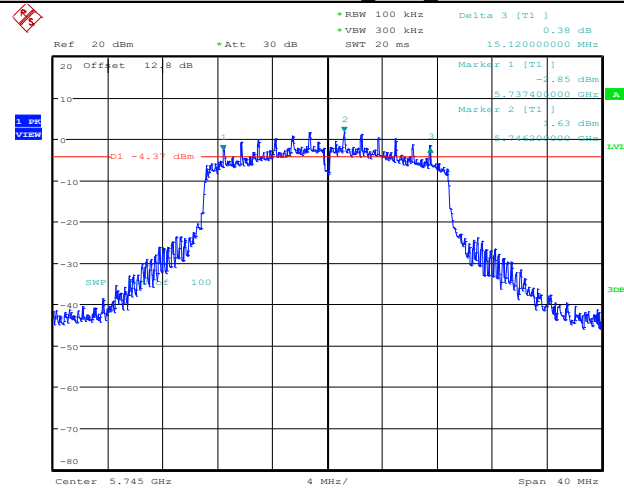
TestMode	Antenna	Frequency [MHz]	6db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5745	15.12	5737.40	5752.52	0.5	PASS
		5785	15.12	5777.40	5792.52	0.5	PASS
		5825	15.12	5817.40	5832.52	0.5	PASS
11N20SISO	Ant1	5745	15.12	5737.40	5752.52	0.5	PASS
		5785	15.12	5777.40	5792.52	0.5	PASS
		5825	15.12	5817.40	5832.52	0.5	PASS





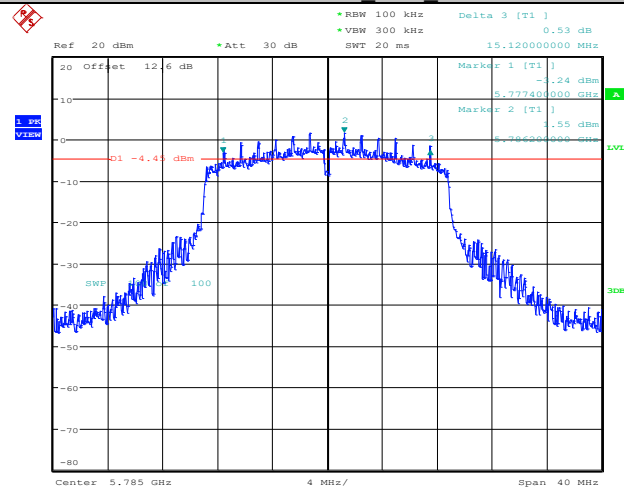
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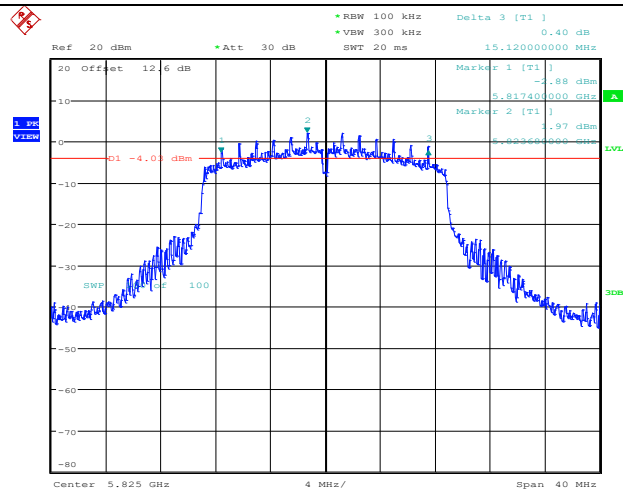
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11N20SISO_Ant1_5785



Date: 26.DEC.2024 16:04:27

11N20SISO_Ant1_5825



Date: 26.DEC.2024 16:09:55

7. 99% BANDWIDTH MEASUREMENT

7.1.LIMITS OF 99% Bandwidth

RSS-GEN Clause 6.7, For reporting purposes only

7.2.TEST PROCEDURE

The transmitter output was connected to the spectrum analyzer.

The transmitter output is connected to a spectrum analyzer.

The RBW is set to $\geq 1\%$ to 5% of the actual occupied.

The VBW is set to $\geq 3\text{RBW}$. The sweep time is coupled

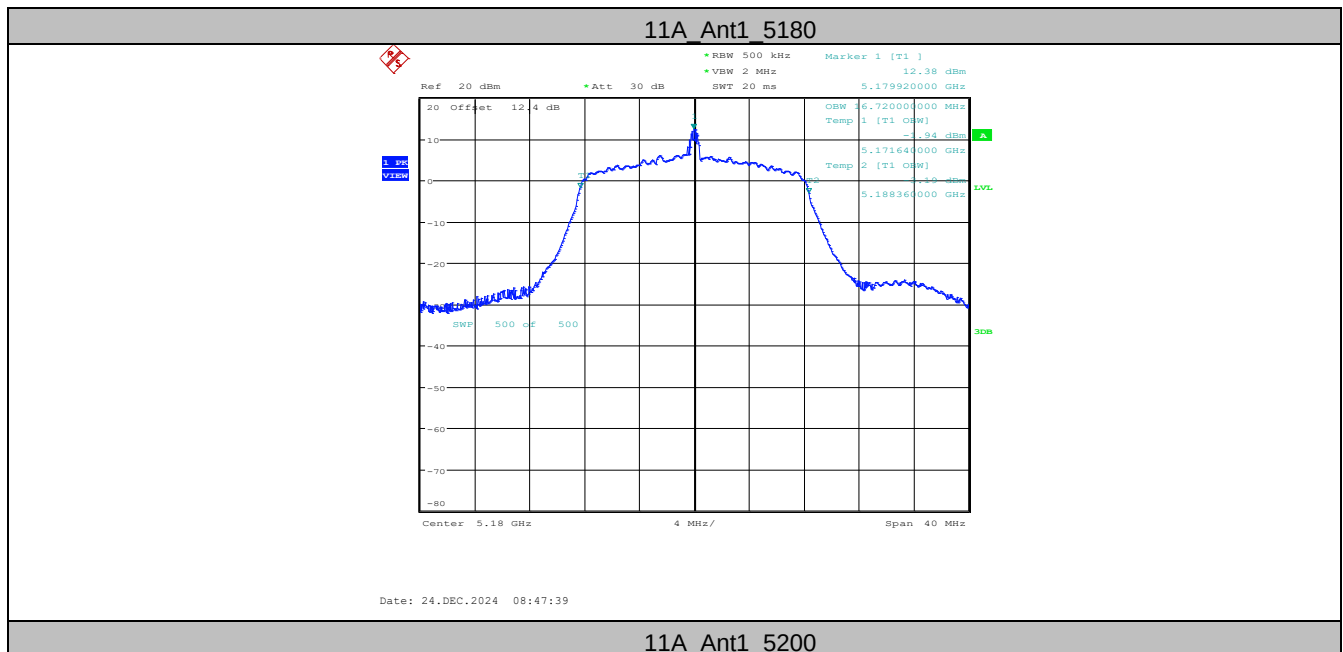
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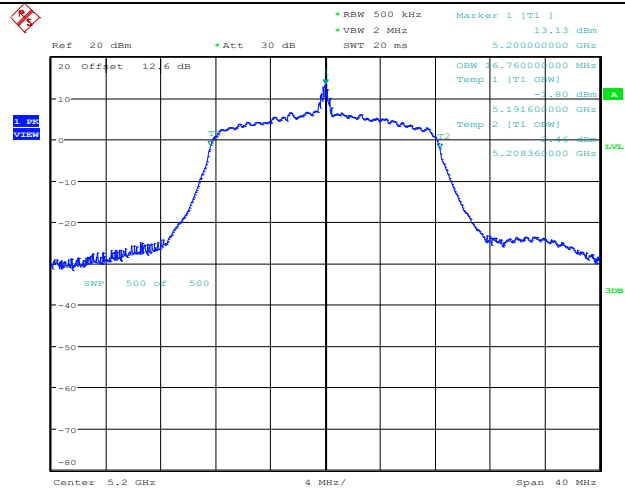


7.4.Test Data

99% Bandwidth Test Data

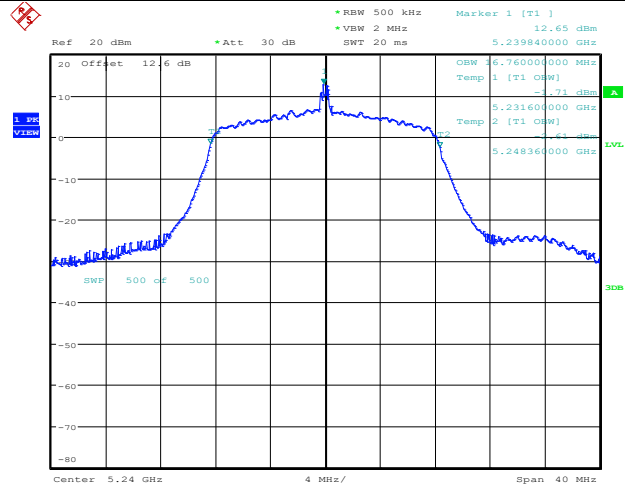
TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	16.72	5171.6400	5188.3600	---	---
		5200	16.76	5191.6000	5208.3600	---	---
		5240	16.76	5231.6000	5248.3600	---	---
		5260	16.72	5251.6400	5268.3600	---	---
		5280	16.8	5271.6000	5288.4000	---	---
		5320	16.76	5311.6000	5328.3600	---	---
		5500	16.76	5491.6000	5508.3600	---	---
		5600	16.76	5591.6000	5608.3600	---	---
		5700	16.76	5691.6000	5708.3600	---	---
		5745	16.76	5736.6000	5753.3600	---	---
		5785	16.76	5776.6000	5793.3600	---	---
11N20SISO	Ant1	5180	17.96	5171.0400	5189.0000	---	---
		5200	17.96	5191.0400	5209.0000	---	---
		5240	18	5231.0000	5249.0000	---	---
		5260	18.12	5250.9600	5269.0800	---	---
		5280	18.08	5271.0000	5289.0800	---	---
		5320	18.08	5310.9600	5329.0400	---	---
		5500	18.2	5490.9200	5509.1200	---	---
		5580	18.16	5570.8800	5589.0400	---	---
		5700	18.24	5690.8400	5709.0800	---	---
		5745	18.24	5735.8400	5754.0800	---	---
		5785	18.24	5775.8400	5794.0800	---	---
		5825	18.24	5815.8400	5834.0800	---	---





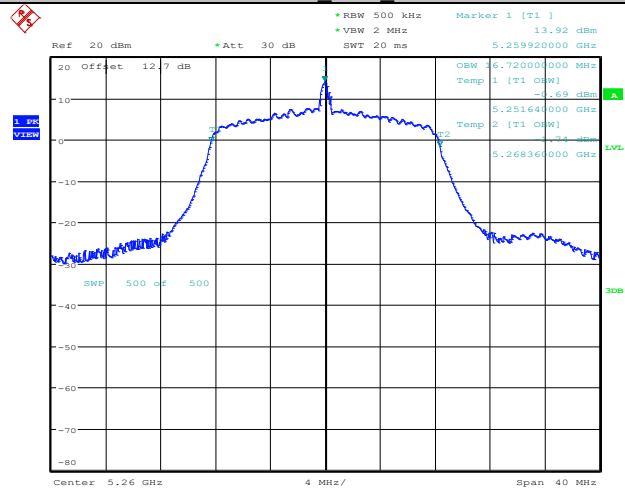
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11A Ant1_5240



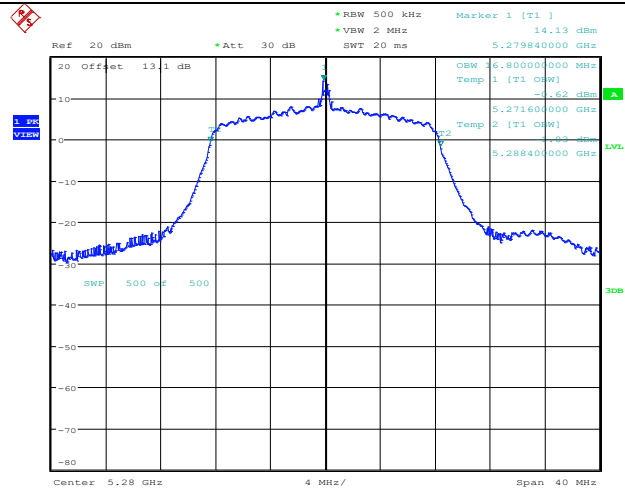
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11A Ant1_5260



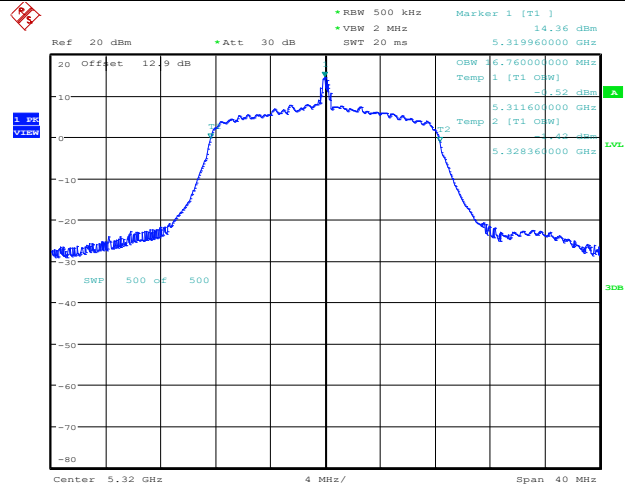
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11A Ant1_5280



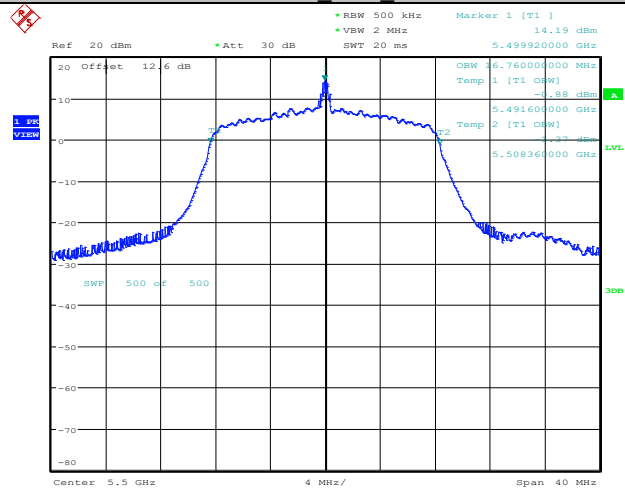
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11A Ant1_5320



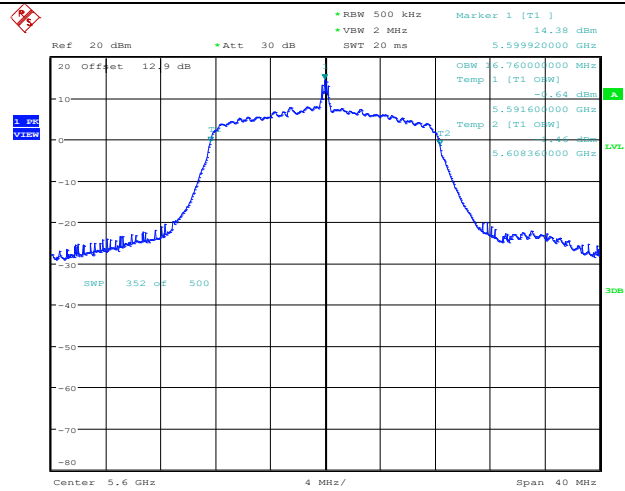
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11A Ant1_5500



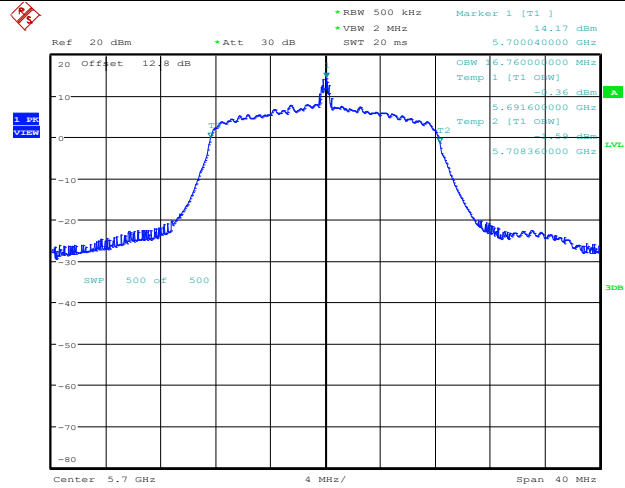
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11A Ant1_5600



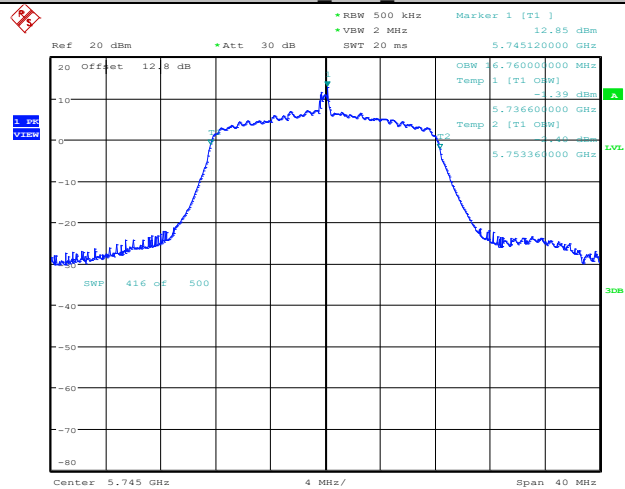
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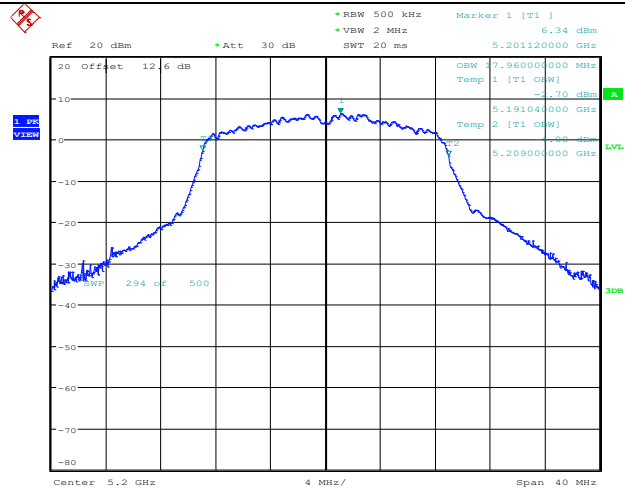
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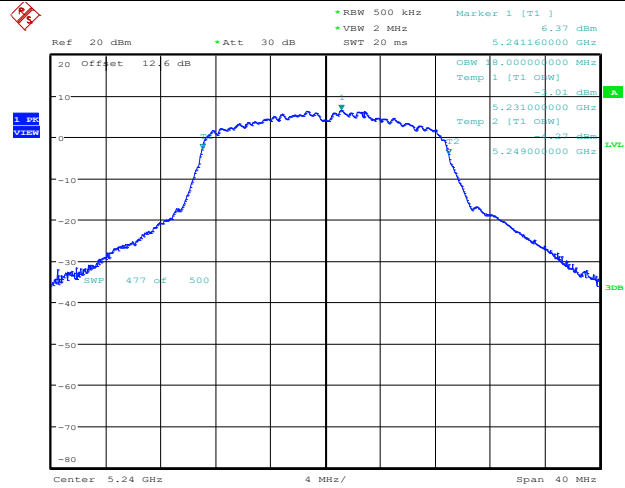
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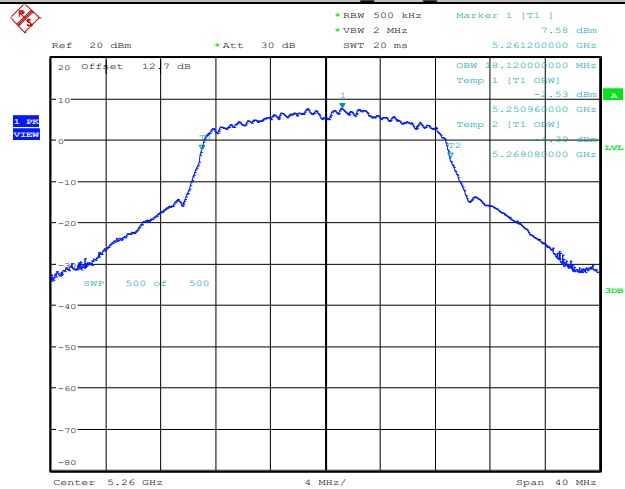
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11N20SISO_Ant1_5240



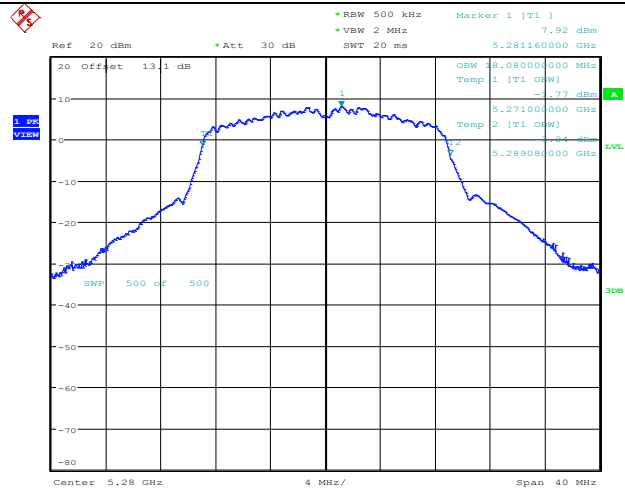
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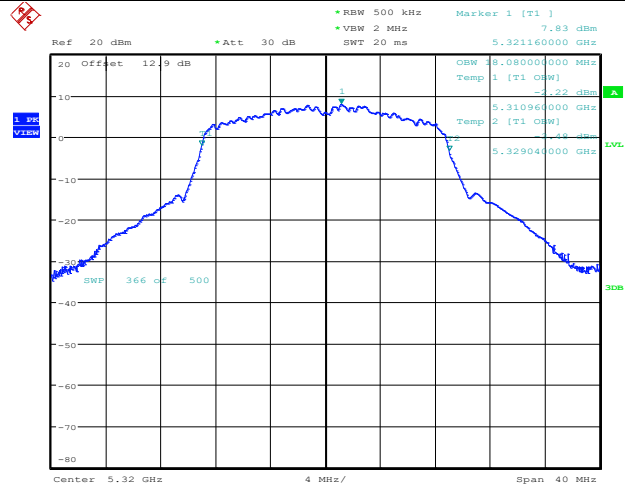
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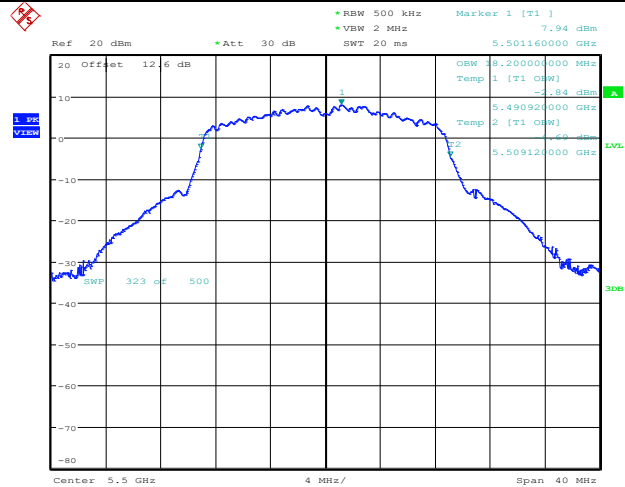
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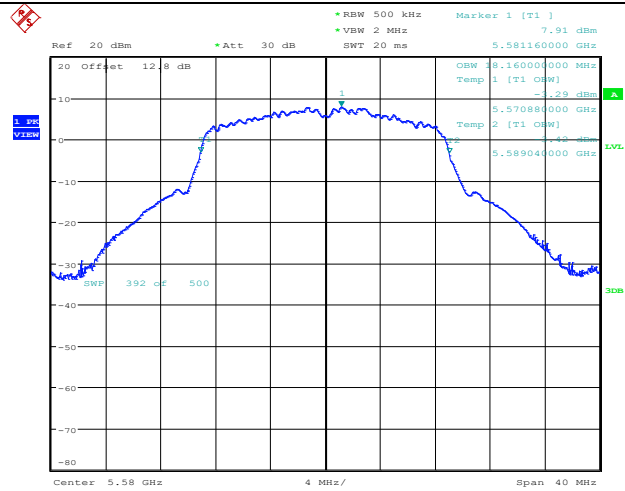
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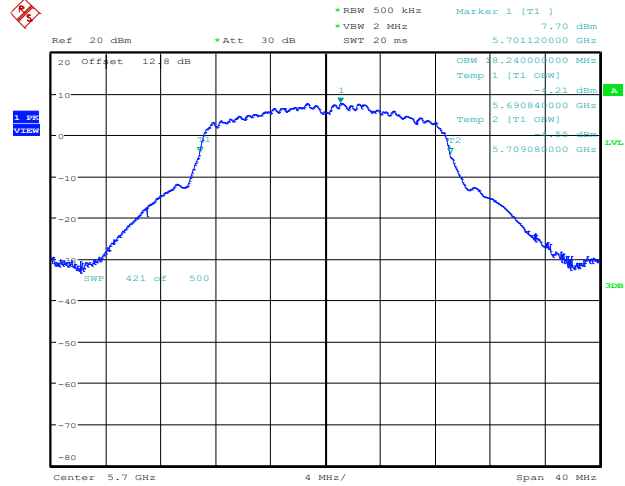
Date: 26.DEC.2024 15:53:32

11N20SISO_Ant1_5580



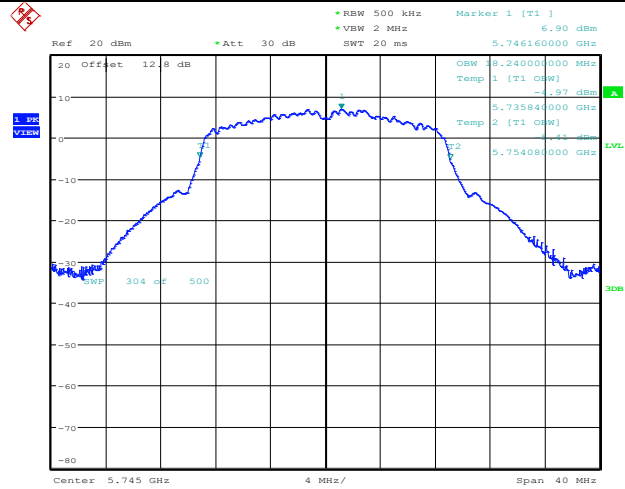
Date: 26.DEC.2024 15:56:33

11N20SISO_Ant1_5700



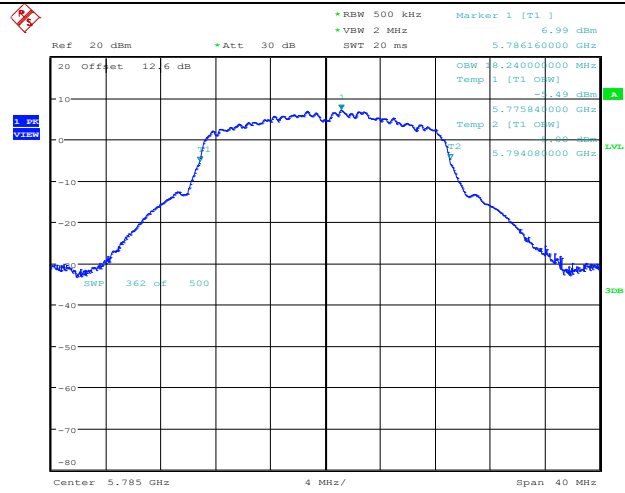
Date: 26.DEC.2024 15:58:21

11N20SISO_Ant1_5745



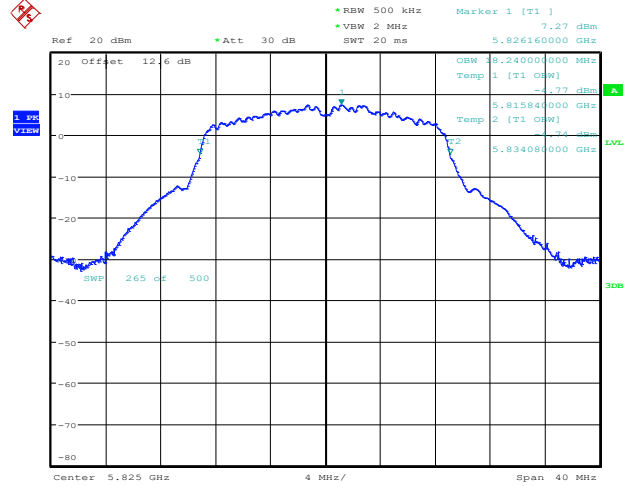
Date: 26.DEC.2024 16:00:50

11N20SISO_Ant1_5785



Date: 26.DEC.2024 16:04:46

11N20SISO Ant1 5825



Date: 26.DEC.2024 16:10:12

8. 26DB BANDWIDTH MEASUREMENT

8.1.Limits of 26dB Bandwidth Measurement

None; for reporting purposes only.

8.2.Test Procedure

- Set RBW = approximately 1% of the emission bandwidth.
- Set the VBW > RBW.
- Detector = Peak.
- Trace mode = max hold.
- Measure the maximum width of the emission that is 26 dB down from the maximum of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

8.3.Test Setup

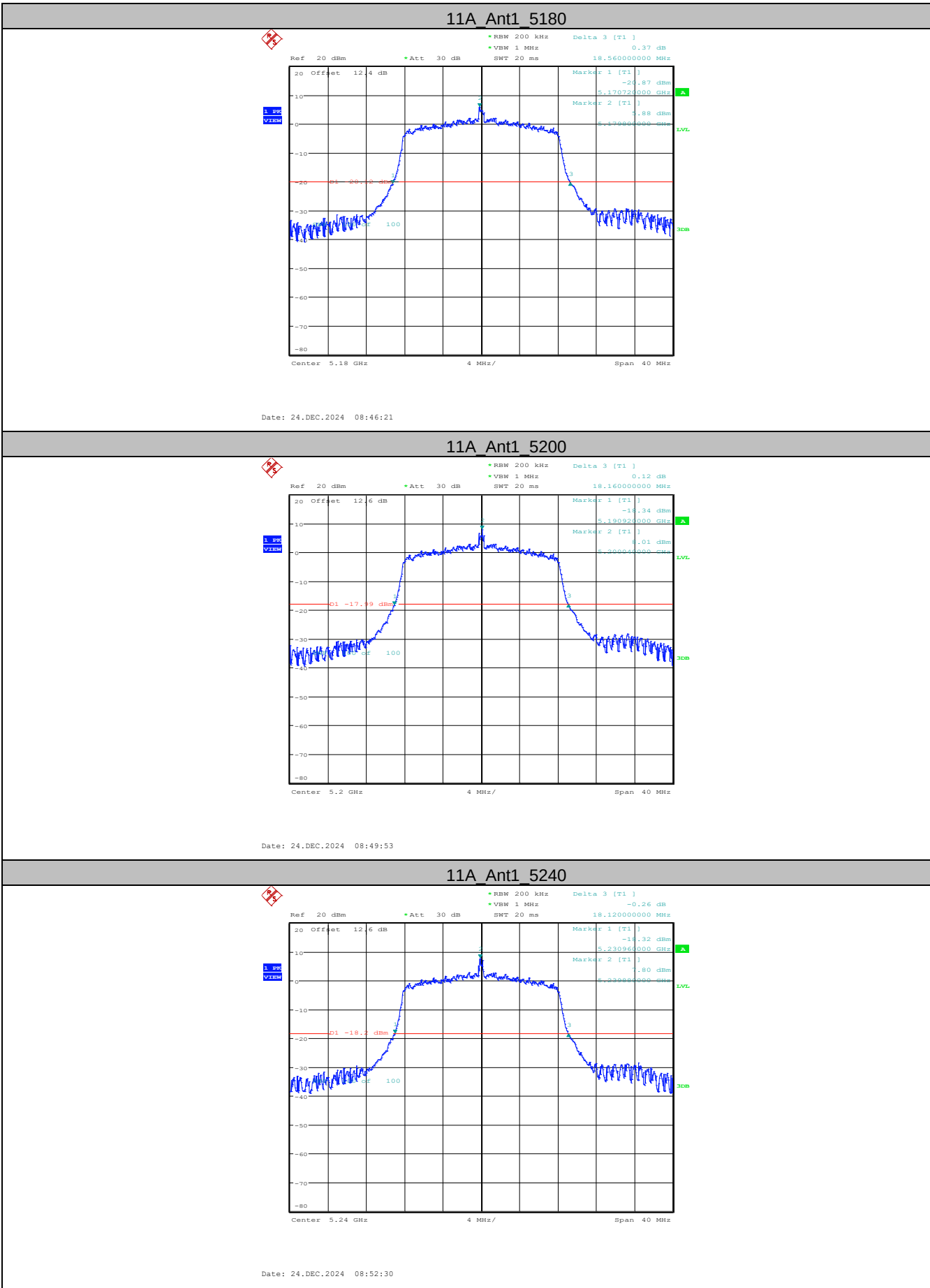


8.4. Test Data

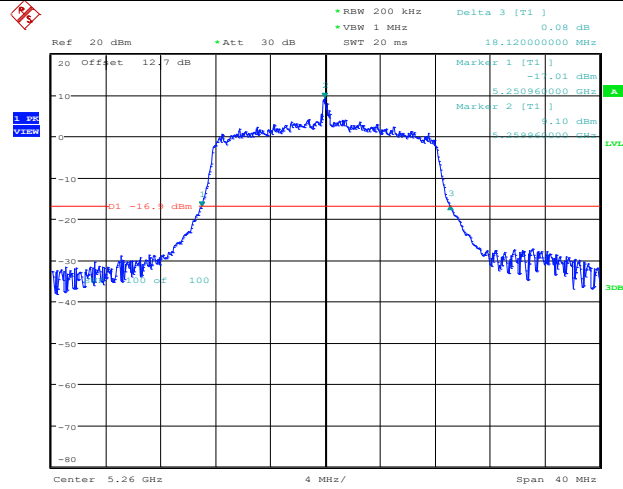
26dB Bandwidth Test Data

TestMode	Antenna	Frequency [MHz]	26db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	18.56	5170.72	5189.28	---	---
		5200	18.16	5190.92	5209.08	---	---
		5240	18.12	5230.96	5249.08	---	---
		5260	18.12	5250.96	5269.08	---	---
		5280	18.12	5270.96	5289.08	---	---
		5320	18.04	5310.96	5329.00	---	---
		5500	18.08	5490.96	5509.04	---	---
		5600	18.08	5590.96	5609.04	---	---
		5700	18.08	5690.96	5709.04	---	---
		5745	18.08	5735.96	5754.04	---	---
		5785	18.08	5775.96	5794.04	---	---
11N20SISO	Ant1	5825	18.08	5815.96	5834.04	---	---
		5180	22.20	5169.12	5191.32	---	---
		5200	22.36	5189.08	5211.44	---	---
		5240	22.40	5229.04	5251.44	---	---
		5260	24.00	5248.36	5272.36	---	---
		5280	23.76	5268.56	5292.32	---	---
		5320	24.00	5308.32	5332.32	---	---
		5500	24.88	5487.68	5512.56	---	---
		5580	25.16	5567.40	5592.56	---	---
		5700	25.12	5687.40	5712.52	---	---
		5745	25.16	5732.44	5757.60	---	---
		5785	24.92	5772.48	5797.40	---	---

		5825	25.12	5812.40	5837.52	---	---
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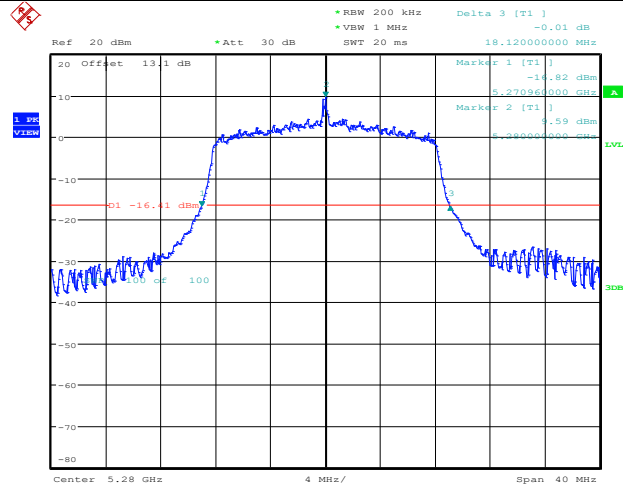


11A_Ant1_5260



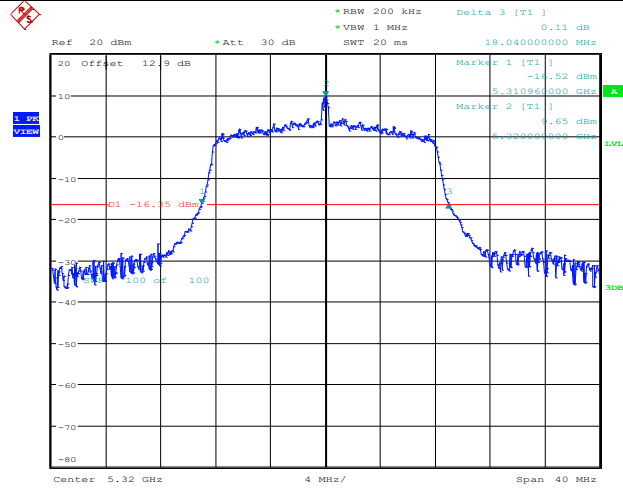
Date: 26.DEC.2024 14:30:36

11A_Ant1_5280



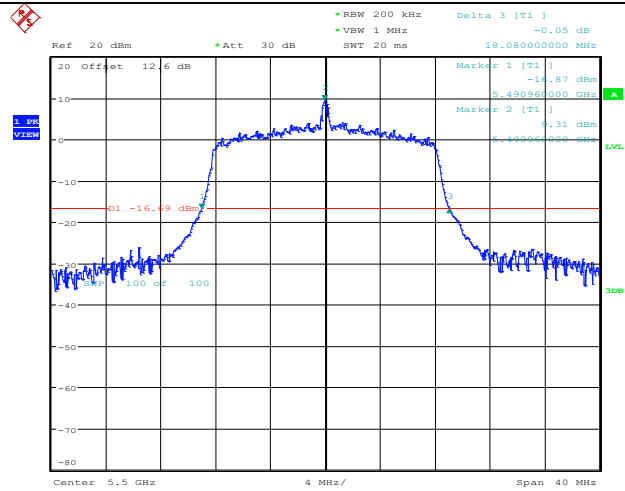
Date: 26.DEC.2024 14:38:43

11A_Ant1_5320



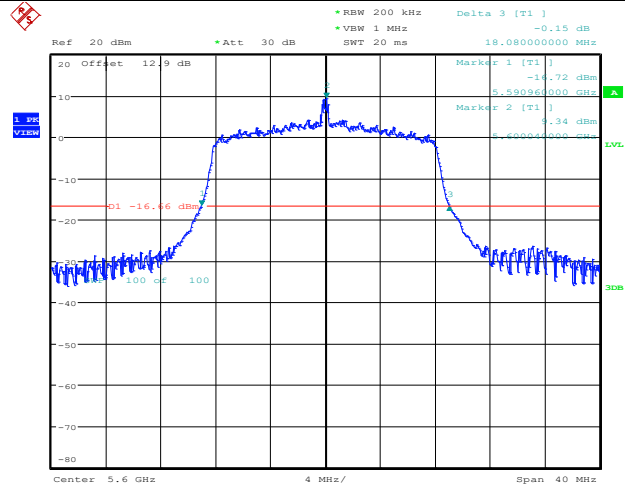
Date: 26.DEC.2024 14:42:25

11A_Ant1_5500



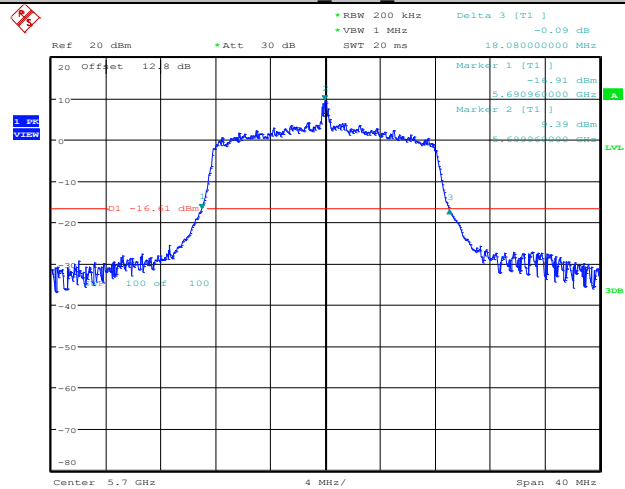
Date: 26.DEC.2024 14:48:32

11A_Ant1_5600



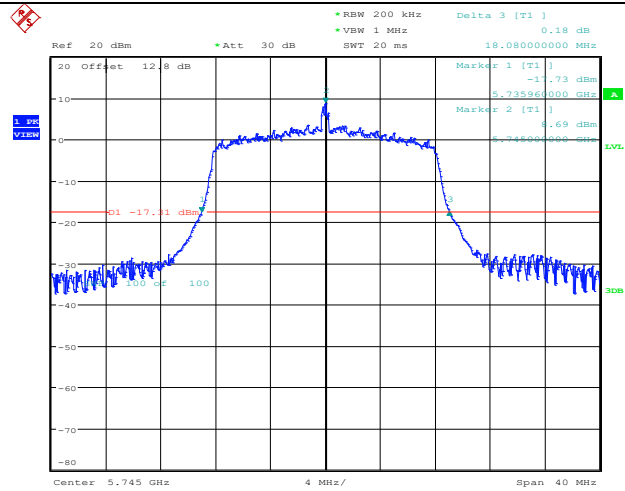
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11A_Ant1_5700



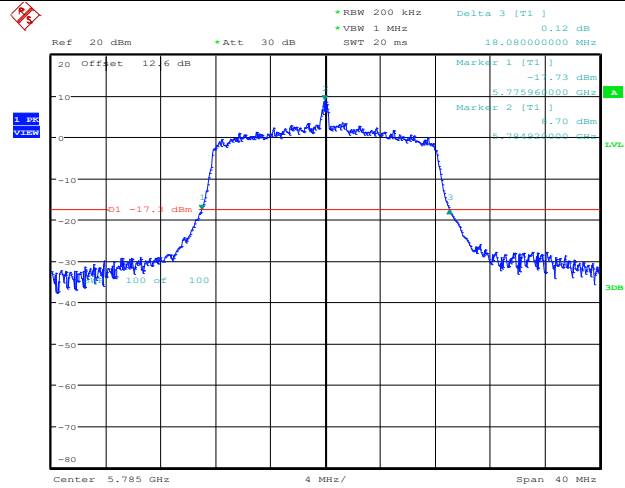
Date: 26.DEC.2024 14:58:52

11A_Ant1_5745



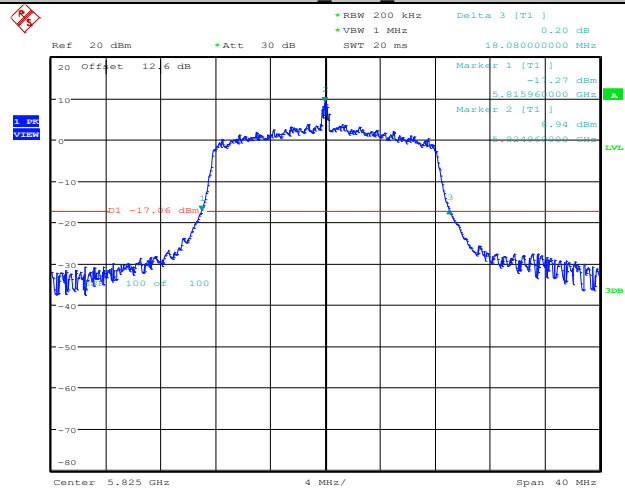
Date: 26.DEC.2024 15:08:13

11A_Ant1_5785



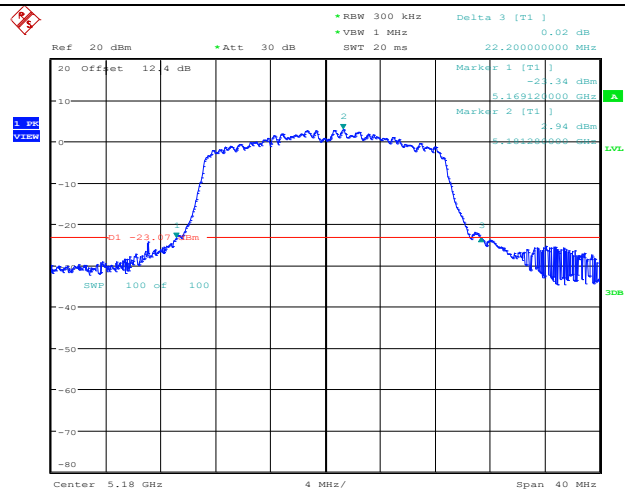
Date: 26.DEC.2024 15:15:40

11A_Ant1_5825



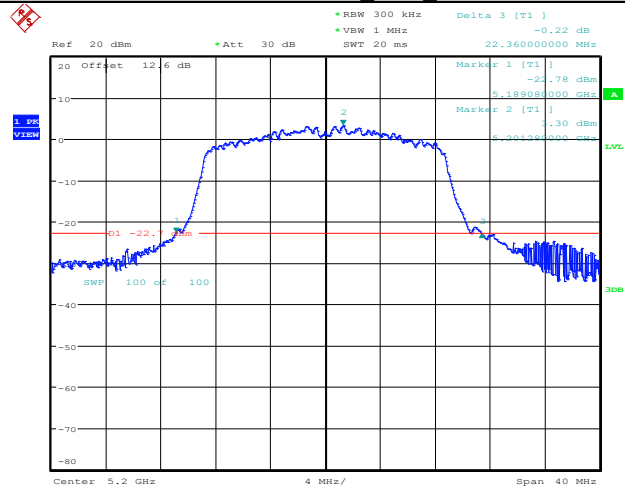
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11N20SISO_Ant1_5180



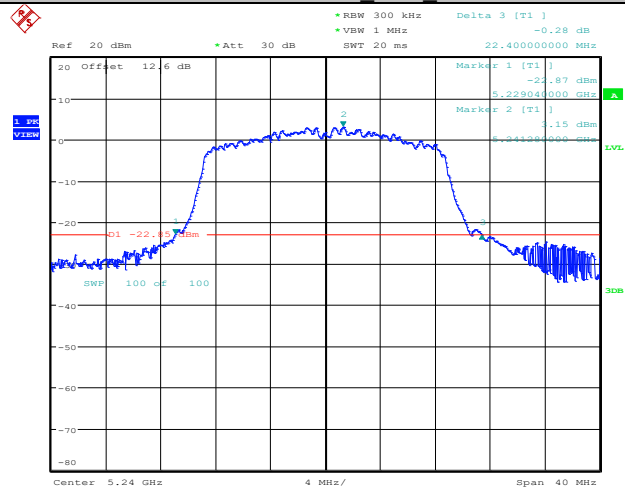
Date: 11.MAR.2025 09:36:32

11N20SISO_Ant1_5200



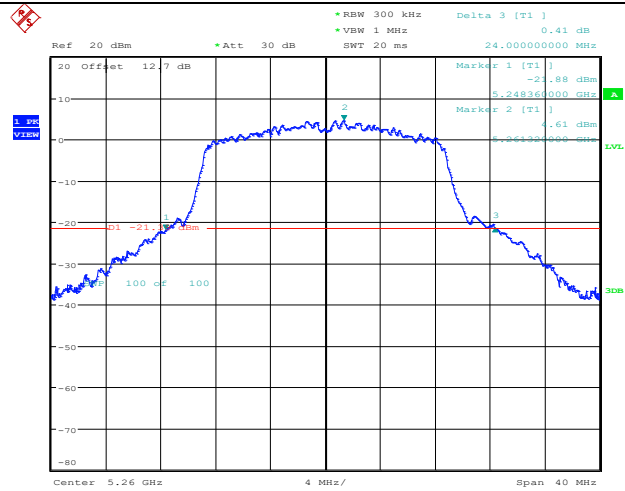
Date: 11.MAR.2025 09:38:17

11N20SISO_Ant1_5240



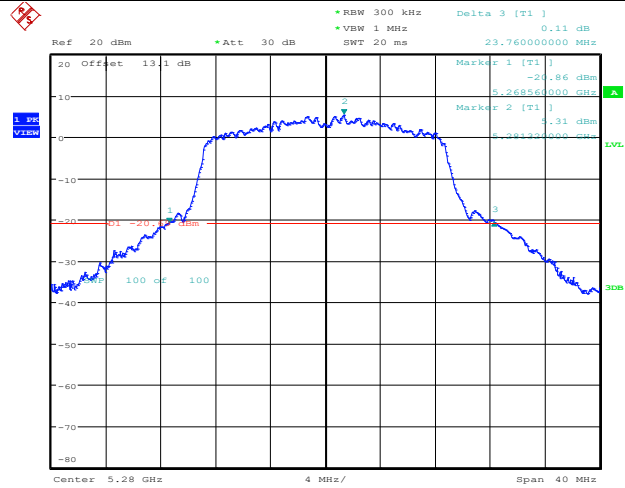
Date: 11.MAR.2025 09:40:30

11N20SISO_Ant1_5260



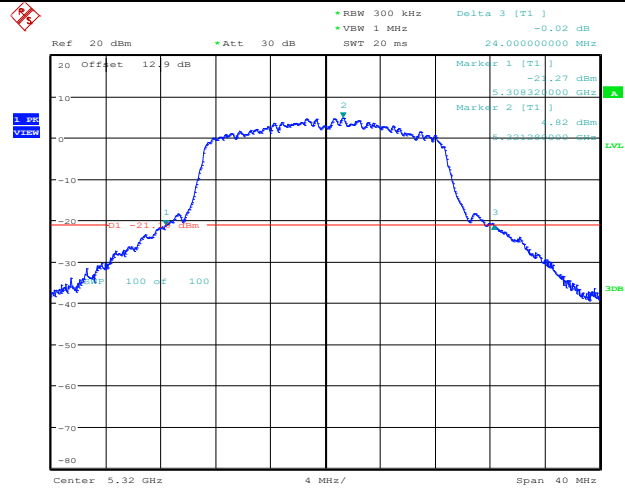
Date: 11.MAR.2025 10:34:58

11N20SISO_Ant1_5280



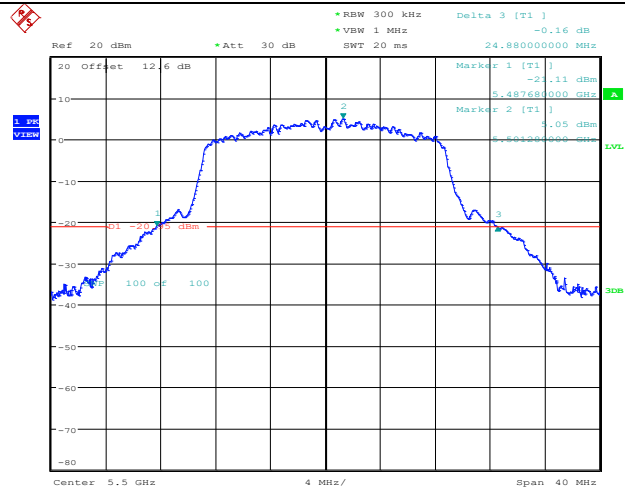
Date: 11.MAR.2025 10:36:31

11N20SISO_Ant1_5320



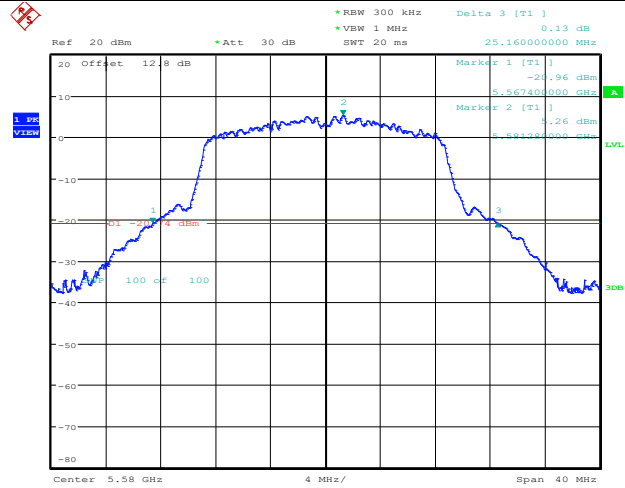
Date: 11.MAR.2025 10:37:59

11N20SISO_Ant1_5500



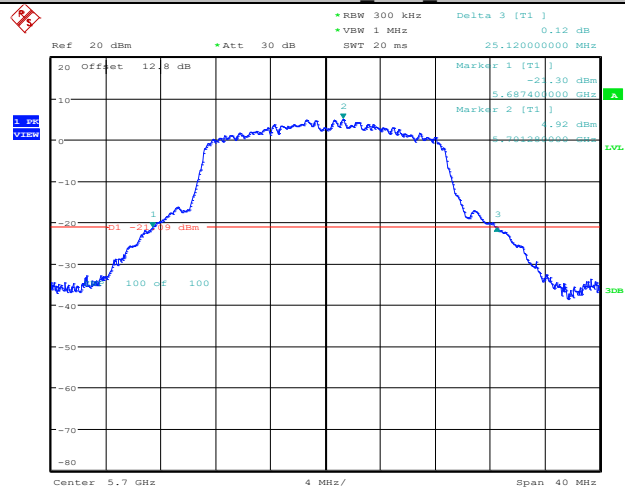
Date: 11.MAR.2025 10:38:55

11N20SISO_Ant1_5580



Date: 11.MAR.2025 10:40:35

11N20SISO_Ant1_5700



Date: 11.MAR.2025 10:41:56

11N20SISO_Ant1_5745

9. MAXIMUM CONDUCTED OUTPUT POWER MEASUREMENT

9.1.Limits of Maximum Conducted Output Power Measurement

CFR 47 (FCC) part 15.407 (a)

For the band 5.15–5.25 GHz.

For mobile and portable client devices in the 5.15–5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi.

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in megahertz, the maximum antenna gain does not exceed 6 dBi.

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W.

RSS-247 6.2

For the band 5.15–5.25 GHz.

The maximum e.i.r.p. shall not exceed 200 mW or $10 + 10 \log_{10} B$, dBm, whichever power is less. B is the 99% emission bandwidth in megahertz.

For the band 5.25–5.35 GHz.

The maximum conducted output power shall not exceed 250 mW or $11 + 10 \log_{10} B$, dBm, whichever power is less. B is the 99% emission bandwidth in megahertz.

The maximum e.i.r.p. shall not exceed 1.0 W or $17 + 10 \log_{10} B$, dBm, whichever is less. B is the 99% emission bandwidth in megahertz

For the band 5470-5600 MHz and 5650-5725 MHzGHz.

The maximum conducted output power shall not exceed 250 mW or $11 + 10 \log_{10} B$, dBm, whichever power is less. B is the 99% emission bandwidth in megahertz.

The maximum e.i.r.p. shall not exceed 1.0 W or $17 + 10 \log_{10} B$, dBm, whichever is less. B is the 99% emission bandwidth in megahertz

For the band 5725-5850 MHz.

The maximum conducted output power shall not exceed 1 W.

9.2.Test Procedure

(i) Measurements may be performed using a wideband RF power meter with a thermocouple detector or equivalent if all of the conditions listed below are satisfied.

The EUT is configured to transmit continuously or to transmit with a constant duty cycle.

At all times when the EUT is transmitting, it must be transmitting at its maximum power control level.

The integration period of the power meter exceeds the repetition period of the transmitted signal by at least a factor of five.

(ii) If the transmitter does not transmit continuously, measure the duty cycle, x, of the transmitter output signal as described in section II.B.

(iii) Measure the average power of the transmitter. This measurement is an average over both the on and off periods of the transmitter.

(iv) Adjust the measurement in dBm by adding $10 \log(1/x)$ where x is the duty cycle (e.g., $10 \log(1/0.25)$ if the duty cycle is 25%). the measurement result.

9.3. Test Setup



9.4. Test Data

Test Result for FCC

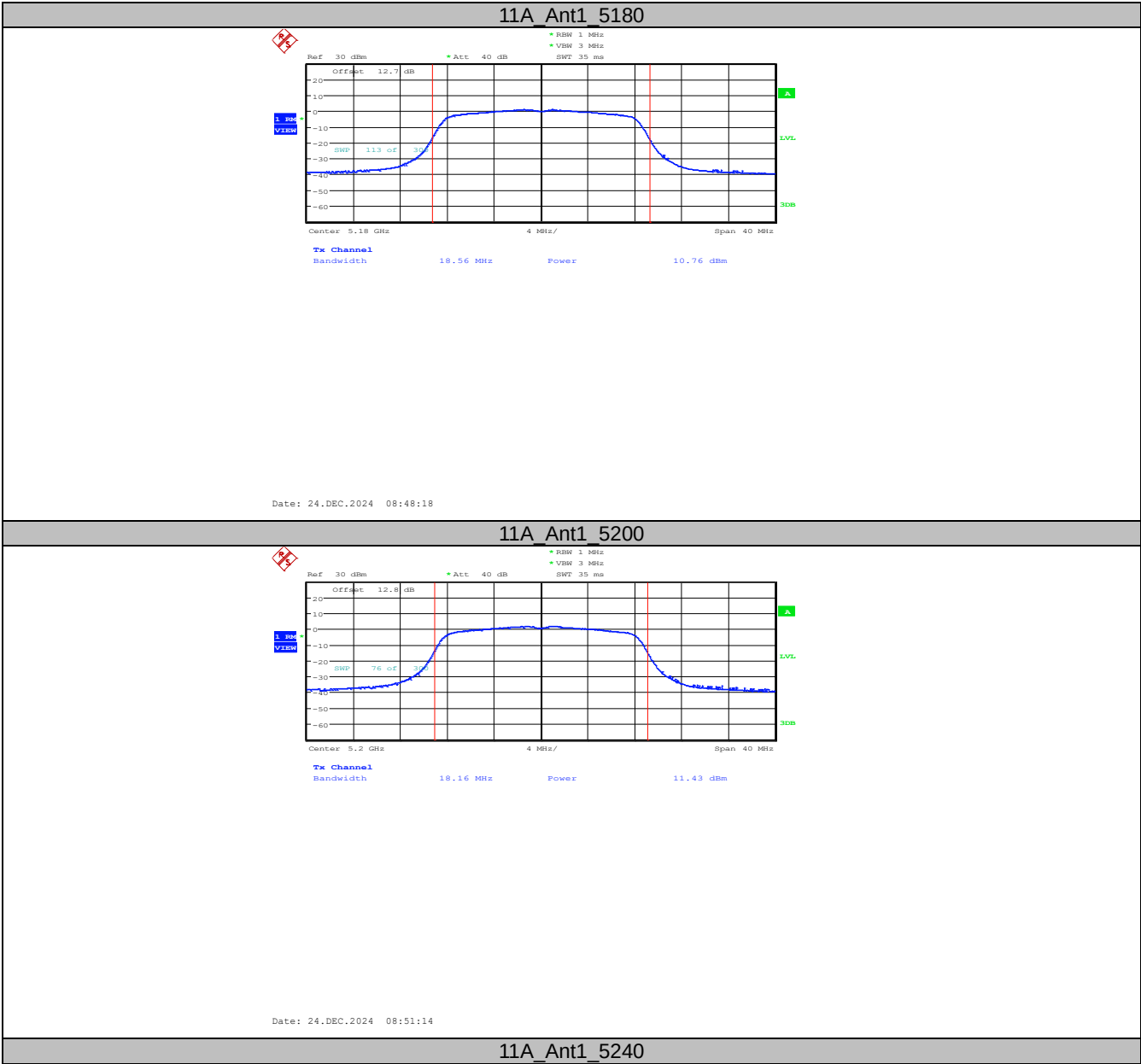
TestMode	Antenna	Frequency [MHz]	Result	Limit	Verdict
11A	Ant1	5180	10.76	≤ 23.98	PASS
		5200	11.43	≤ 23.98	PASS
		5240	11.34	≤ 23.98	PASS
		5260	12.38	≤ 23.58	PASS
		5280	12.87	≤ 23.58	PASS
		5320	12.80	≤ 23.56	PASS
		5500	12.59	≤ 23.57	PASS
		5600	12.95	≤ 23.57	PASS
		5700	12.67	≤ 23.57	PASS
		5745	11.80	≤ 30.00	PASS
		5785	11.75	≤ 30.00	PASS
		5825	12.27	≤ 30.00	PASS
11N20SISO	Ant1	5180	9.66	≤ 23.98	PASS
		5200	11.13	≤ 23.98	PASS
		5240	11.16	≤ 23.98	PASS
		5260	12.25	≤ 23.98	PASS
		5280	12.77	≤ 23.98	PASS
		5320	12.74	≤ 23.98	PASS
		5500	12.70	≤ 23.98	PASS
		5580	12.73	≤ 23.98	PASS
		5700	12.55	≤ 23.98	PASS
		5745	11.74	≤ 30.00	PASS
		5785	11.66	≤ 30.00	PASS
		5825	12.18	≤ 30.00	PASS

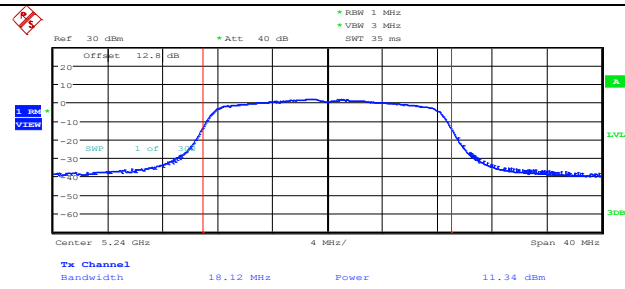
Test Result for IC

Test Mode	Antenna	Frequency [MHz]	Maximum conducted output power [dBm]	Maximum conducted output power Limit[dBm]	E.i.r.p [dBm]	E.i.r.p Limit[dBm]	Verdict
11A	Ant1	5180	10.76	---	10.26	≤ 23.01 or $10+10\log(B)=22.23$	PASS
		5200	11.43	---	10.93	≤ 23.01 or $10+10\log(B)=22.24$	PASS
		5240	11.34	---	10.84	≤ 23.01 or $10+10\log(B)=22.24$	PASS
		5260	12.38	≤ 23.98 or $11+10\log(B)=23.23$	11.88	≤ 30 or $17+10\log(B)=29.23$	PASS
		5280	12.87	≤ 23.98 or $11+10\log(B)=23.25$	12.37	≤ 30 or $17+10\log(B)=29.25$	PASS
		5320	12.80	≤ 23.98 or $11+10\log(B)=23.24$	12.3	≤ 30 or $17+10\log(B)=29.24$	PASS
		5500	12.59	≤ 23.98 or $11+10\log(B)=23.24$	12.09	≤ 30 or $17+10\log(B)=29.24$	PASS
		5580	12.95	≤ 23.98 or $11+10\log(B)=23.24$	12.45	≤ 30 or $17+10\log(B)=29.24$	PASS
		5700	12.67	≤ 23.98 or $11+10\log(B)=23.24$	12.17	≤ 30 or $17+10\log(B)=29.24$	PASS
		5745	11.80	≤ 30.00	11.3	≤ 36.00	PASS
		5785	11.75	≤ 30.00	11.25	≤ 36.00	PASS
		5825	12.27	≤ 30.00	11.77	≤ 36.00	PASS

11N20 SISO	Ant1	5180	9.66	---	9.16	≤ 23.01 or $10+10\log(B)=22.54$	PASS
		5200	11.13	---	10.63	≤ 23.01 or $10+10\log(B)=22.54$	PASS
		5240	11.16	---	10.66	≤ 23.01 or $10+10\log(B)=22.55$	PASS
		5260	12.25	≤ 23.98 or $11+10\log(B)=23.58$	11.75	≤ 30 or $17+10\log(B)=29.58$	PASS
		5280	12.77	≤ 23.98 or $11+10\log(B)=23.57$	12.27	≤ 30 or $17+10\log(B)=29.57$	PASS
		5320	12.74	≤ 23.98 or $11+10\log(B)=23.57$	12.24	≤ 30 or $17+10\log(B)=29.57$	PASS
		5500	12.70	≤ 23.98 or $11+10\log(B)=23.60$	12.2	≤ 30 or $17+10\log(B)=29.60$	PASS
		5580	12.73	≤ 23.98 or $11+10\log(B)=23.59$	12.23	≤ 30 or $17+10\log(B)=29.59$	PASS
		5700	12.55	≤ 23.98 or $11+10\log(B)=23.61$	12.05	≤ 30 or $17+10\log(B)=29.61$	PASS
		5745	11.74	≤ 30.00	11.24	≤ 36.00	PASS
		5785	11.66	≤ 30.00	11.16	≤ 36.00	PASS
		5825	12.18	≤ 30.00	11.68	≤ 36.00	PASS

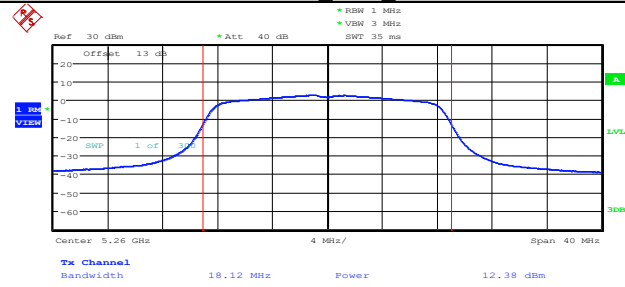
Note: The Duty Cycle Factor is compensated in the graph.





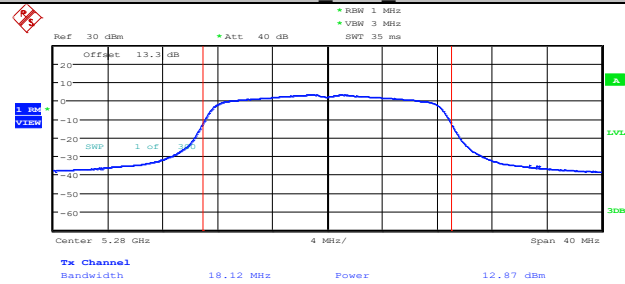
Date: 24.DEC.2024 08:53:38

11A Ant1 5260



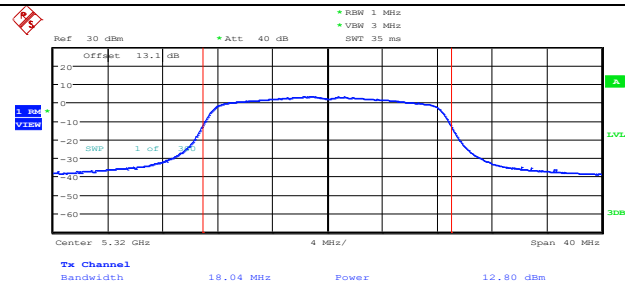
Date: 26.DEC.2024 14:34:16

11A Ant1 5280



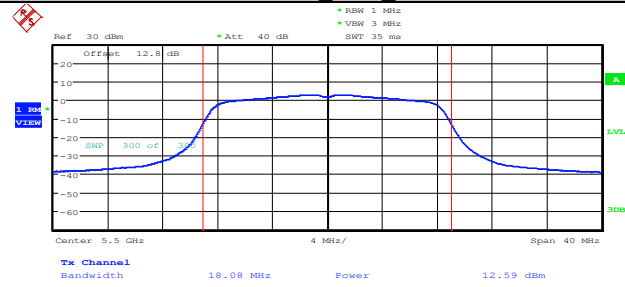
Date: 26.DEC.2024 14:40:28

11A Ant1 5320



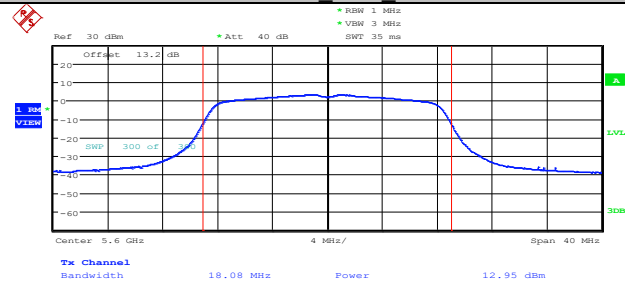
Date: 26.DEC.2024 14:44:38

11A Ant1 5500



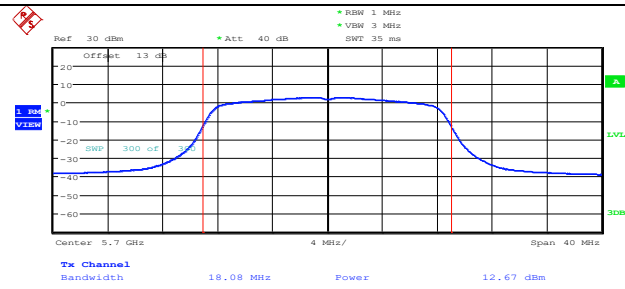
Date: 26.DEC.2024 14:52:45

11A Ant1 5600



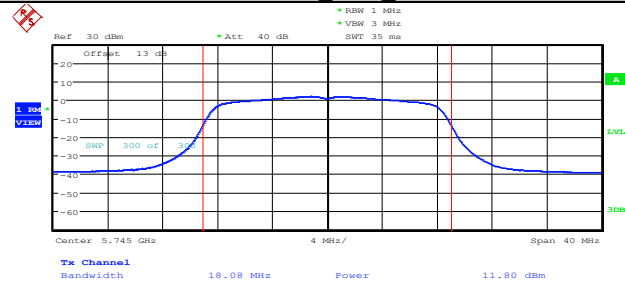
Date: 26.DEC.2024 14:56:33

11A Ant1 5700



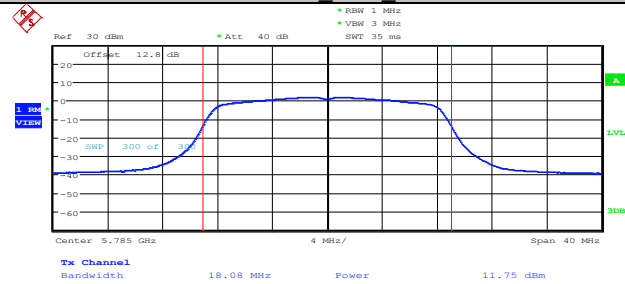
Date: 26.DEC.2024 15:05:54

11A Ant1 5745



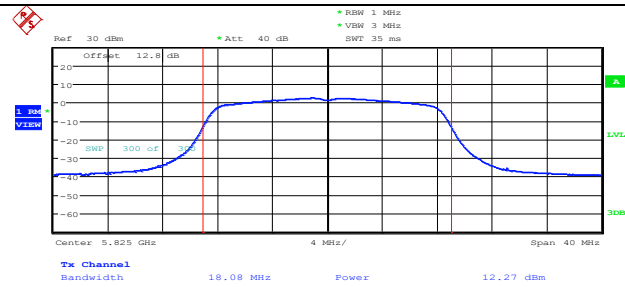
Date: 26.DEC.2024 15:12:14

11A Ant1 5785



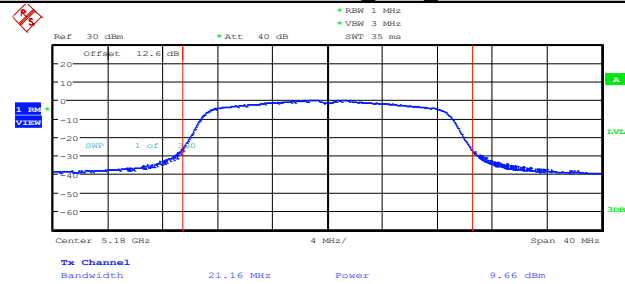
Date: 26.DEC.2024 15:27:05

11A Ant1 5825



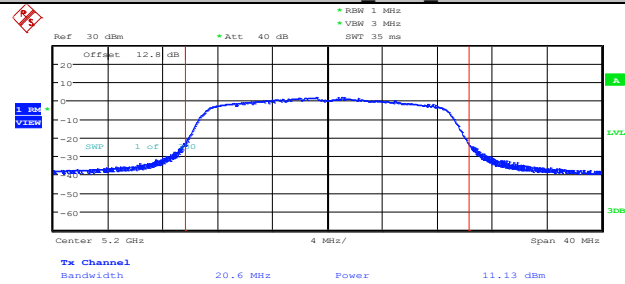
Date: 26.DEC.2024 15:33:33

11N20SISO_Ant1_5180



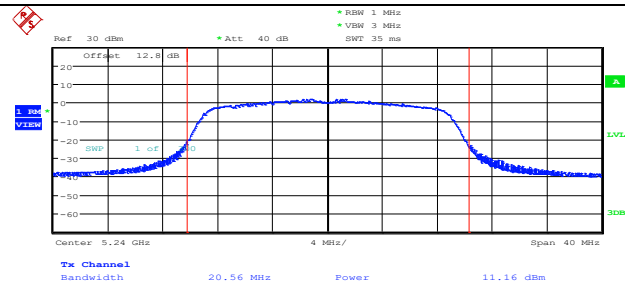
Date: 24.DEC.2024 08:55:38

11N20SISO_Ant1_5200



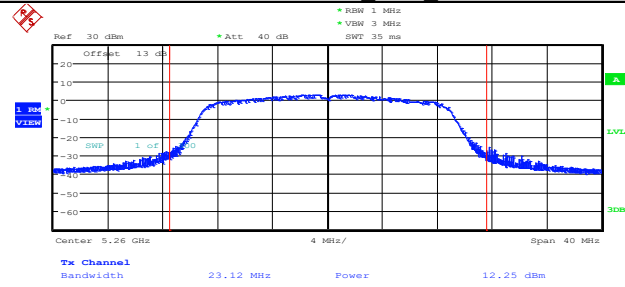
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11N20SISO_Ant1_5240



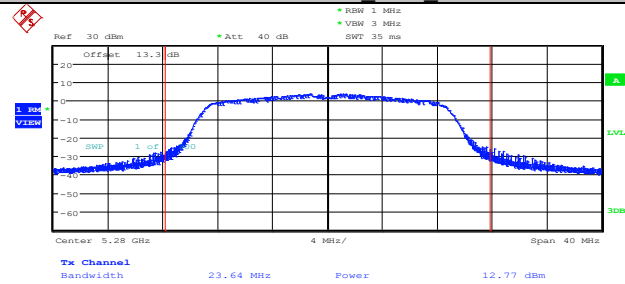
Date: 24.DEC.2024 09:01:37

11N20SISO_Ant1_5260



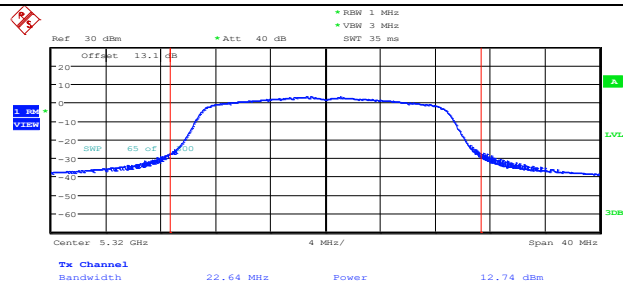
Date: 26.DEC.2024 15:37:18

11N20SISO_Ant1_5280



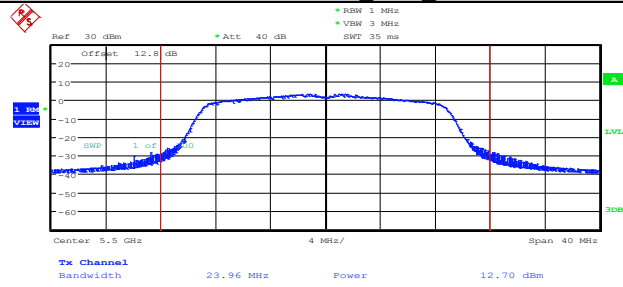
Date: 26.DEC.2024 15:50:02

11N20SISO_Ant1_5320



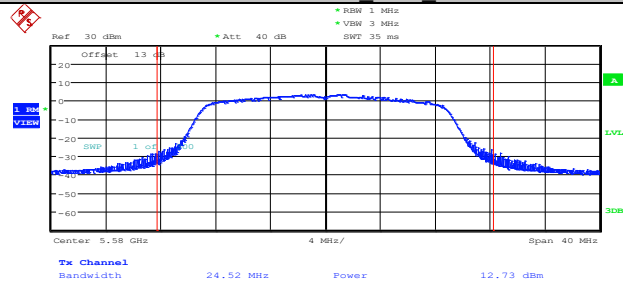
Date: 26.DEC.2024 15:51:54

11N20SISO_Ant1_5500



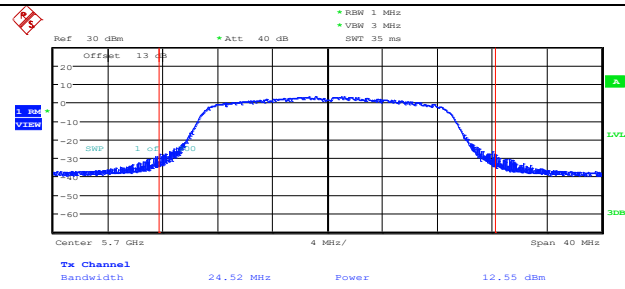
Date: 26.DEC.2024 15:54:50

11N20SISO_Ant1_5580



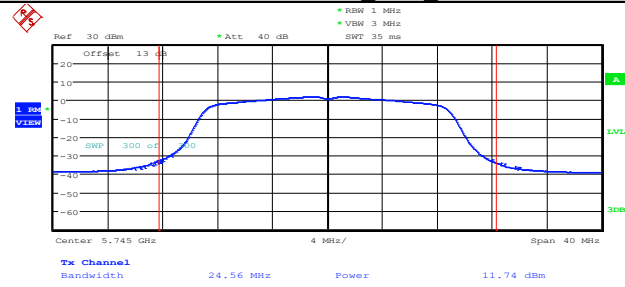
Date: 26.DEC.2024 15:57:10

11N20SISO_Ant1_5700



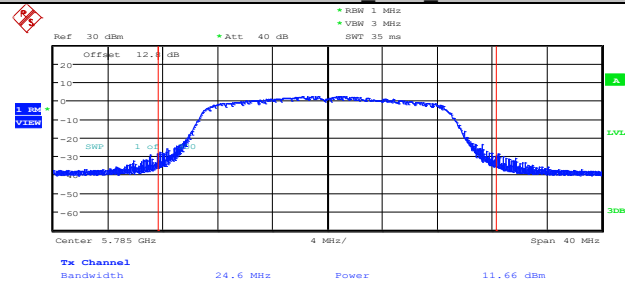
Date: 26.DEC.2024 15:58:57

11N20SISO_Ant1_5745



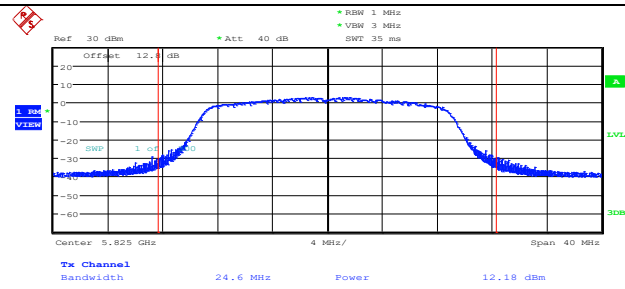
Date: 26.DEC.2024 16:02:36

11N20SISO_Ant1_5785



Date: 26.DEC.2024 16:08:15

11N20SISO_Ant1_5825



Date: 26.DEC.2024 16:10:44

10. MAXIMUM POWER SPECTRAL DENSITY LEVEL MEASUREMENT

10.1. Limits of Maximum Power Spectral Density Level Measurement

CFR 47 (FCC) part 15.407 (a)

For mobile and portable client devices in the 5.15-5.25 GHz band, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

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For the band 5.15–5.25 GHz.

The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band.

For the band 5.25–5.35 GHz.

The power spectral density shall not exceed 11 dBm in any 1.0 MHz band.

For the band 5470-5600 MHz and 5650-5725 MHzGHz.

The power spectral density shall not exceed 11 dBm in any 1.0 MHz band.

The maximum e.i.r.p. shall not exceed 1.0 W or $17 + 10 \log_{10}B$, dBm, whichever is less. B is the 99% emission bandwidth in megahertz.

For the band 5725-5850 MHz.

he output power spectral density shall not exceed 30 dBm in any 500 kHz band.

10.2. Test Procedure

1. Create an average power spectrum for the EUT operating mode being tested by following the instructions in section II.E.2. for measuring maximum conducted output power using a spectrum analyzer or EMI receiver: select the appropriate test method (SA-1, SA-2, SA-3, or alternatives to each) and apply it up to, but not including, the step labeled, "Compute power...." (This procedure is required even if the maximum conducted output power measurement was performed using a power meter, method PM.)

2. Use the peak search function on the instrument to find the peak of the spectrum and record its value.

3. Make the following adjustments to the peak value of the spectrum, if applicable:

- a) If Method SA-2 or SA-2 Alternative was used, add $10 \log (1/x)$, where x is the duty cycle, to the peak of the spectrum.
- b) If Method SA-3 Alternative was used and the linear mode was used in step II.E.2.g)(viii), add 1 dB to the final result to compensate for the difference between linear averaging and power averaging.
4. The result is the Maximum PSD over 1 MHz reference bandwidth.
5. For devices operating in the bands 5.15-5.25 GHz, 5.25-5.35 GHz, and 5.47-5.725 GHz, the above procedures make use of 1 MHz RBW to satisfy directly the 1 MHz reference bandwidth specified in § 15.407(a)(5). For devices operating in the band 5.725-5.85 GHz, the rules specify a measurement bandwidth of 500 kHz. Many spectrum analyzers do not have 500 kHz RBW, thus a narrower RBW may need to be used. The rules permit the use of a RBWs less than 1 MHz, or 500 kHz, "provided that the measured power is integrated over the full reference bandwidth" to show the total power over the specified measurement bandwidth (i.e., 1 MHz, or 500 kHz). If measurements are performed using a reduced resolution bandwidth (< 1 MHz, or < 500 kHz) and 789033 D02 General UNII Test Procedures New Rules v01r02 Page 10 integrated over 1 MHz, or 500 kHz bandwidth, the following adjustments to the procedures apply:
- a) Set $RBW \geq 1/T$, where T is defined in section II.B.I.a).
- b) Set $VBW \geq 3$ RBW.
- c) If measurement bandwidth of Maximum PSD is specified in 500 kHz, add $10 \log (500 \text{ kHz}/RBW)$ to the measured result, whereas $RBW (< 500 \text{ kHz})$ is the reduced resolution bandwidth of the spectrum analyzer set during measurement.
- d) If measurement bandwidth of Maximum PSD is specified in 1 MHz, add $10 \log (1\text{MHz}/RBW)$ to the measured result, whereas $RBW (< 1 \text{ MHz})$ is the reduced resolution bandwidth of spectrum analyzer set during measurement.
- e) Care must be taken to ensure that the measurements are performed during a period of continuous transmission or are corrected upward for duty cycle.
- Note: As a practical matter, it is recommended to use reduced RBW of 100 kHz for the sections 5.c) and 5.d) above, since $RBW=100 \text{ KHZ}$ is available on nearly all spectrum analyzers.

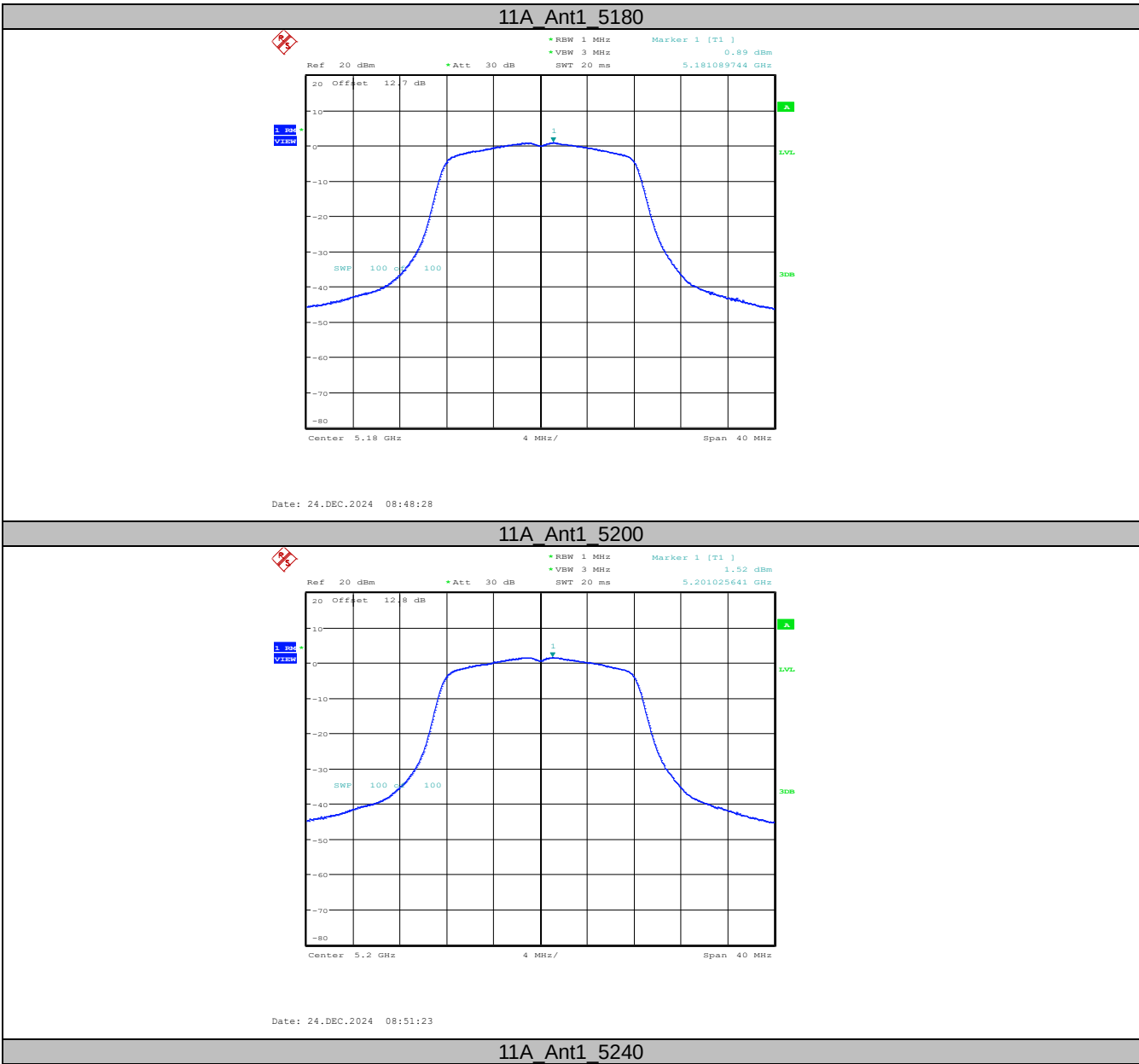
10.3. Test Data

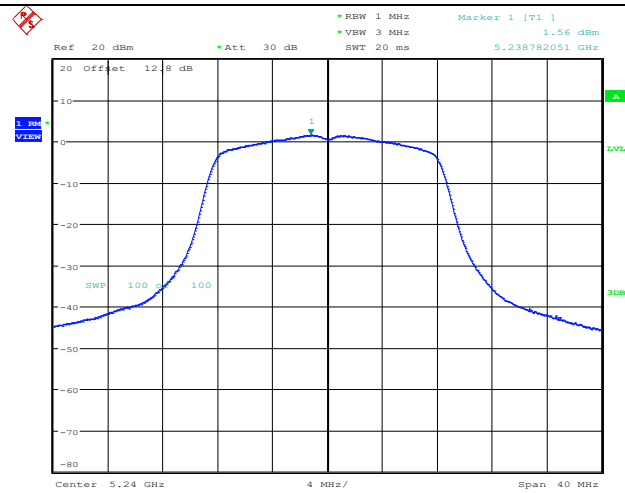
Maximum Power Spectral Density Level

TestMode	Antenna	Frequency [MHz]	Result[dBm]	FCC Limit[dBm]	IC Limit[dBm]	Verdict
11A	Ant1	5180	0.89	≤ 11.00	≤ 10.00	PASS
		5200	1.52	≤ 11.00	≤ 10.00	PASS
		5240	1.56	≤ 11.00	≤ 10.00	PASS
		5260	2.53	≤ 11.00	≤ 11.00	PASS
		5280	2.91	≤ 11.00	≤ 11.00	PASS
		5320	2.81	≤ 11.00	≤ 11.00	PASS
		5500	2.62	≤ 11.00	≤ 11.00	PASS
		5580	2.90	≤ 11.00	≤ 11.00	PASS
		5700	2.73	≤ 11.00	≤ 11.00	PASS
		5745	-0.88	≤ 30.00	≤ 30.00	PASS
		5785	-0.91	≤ 30.00	≤ 30.00	PASS
11N20SISO	Ant1	5825	-0.50	≤ 30.00	≤ 30.00	PASS
		5180	1.19	≤ 11.00	≤ 10.00	PASS
		5200	1.15	≤ 11.00	≤ 10.00	PASS
		5240	1.14	≤ 11.00	≤ 10.00	PASS
		5260	2.22	≤ 11.00	≤ 11.00	PASS
		5280	2.63	≤ 11.00	≤ 11.00	PASS
		5320	1.50	≤ 11.00	≤ 11.00	PASS

		5500	2.67	≤ 11.00	≤ 11.00	PASS
		5580	2.69	≤ 11.00	≤ 11.00	PASS
		5700	2.46	≤ 11.00	≤ 11.00	PASS
		5745	-1.09	≤ 30.00	≤ 30.00	PASS
		5785	-1.17	≤ 30.00	≤ 30.00	PASS
		5825	-0.65	≤ 30.00	≤ 30.00	PASS

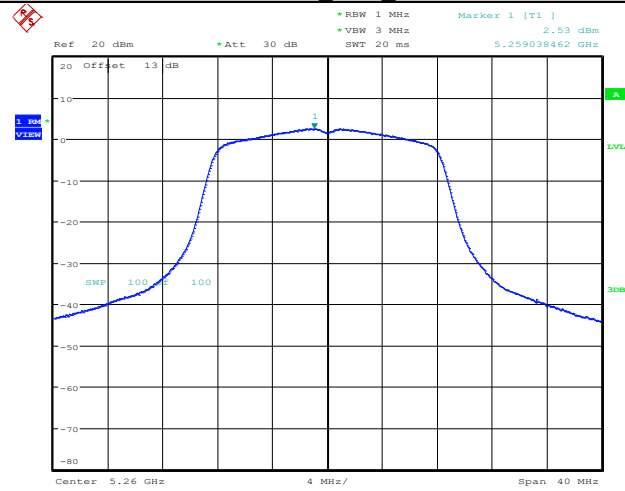
Note: The Duty Cycle Factor is compensated in the graph.





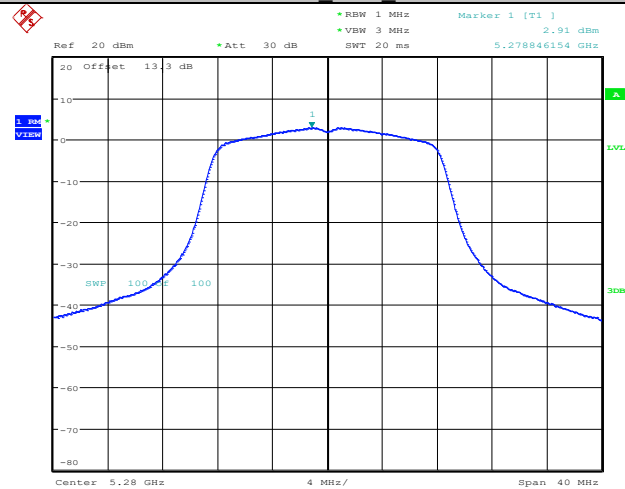
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11A Ant1 5260



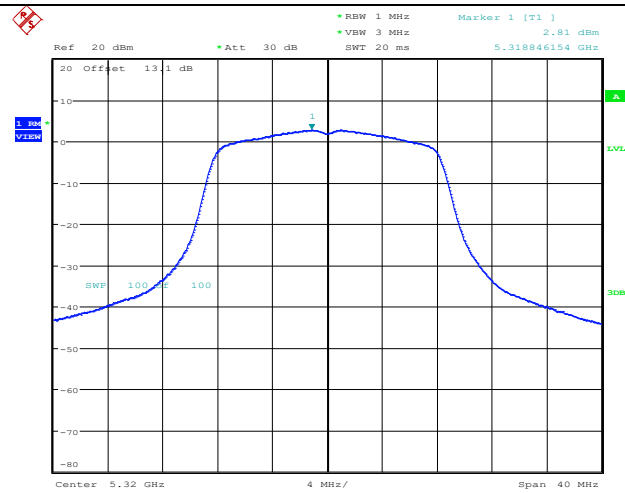
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11A Ant1 5280



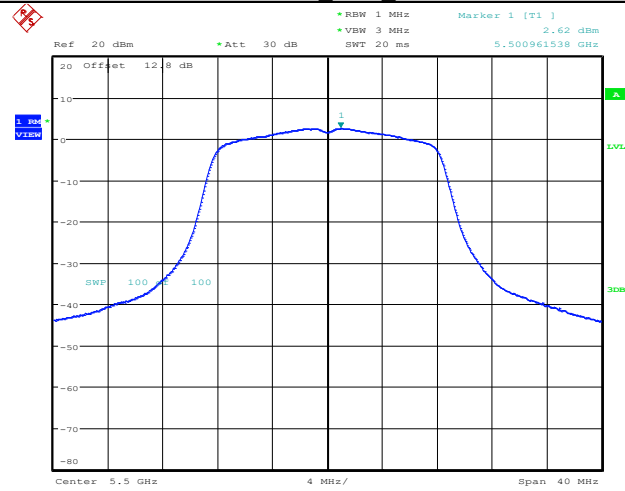
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11A Ant1 5320



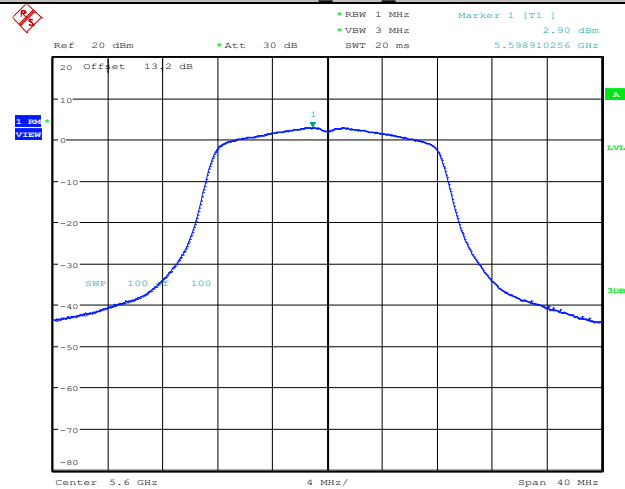
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11A Ant1 5500



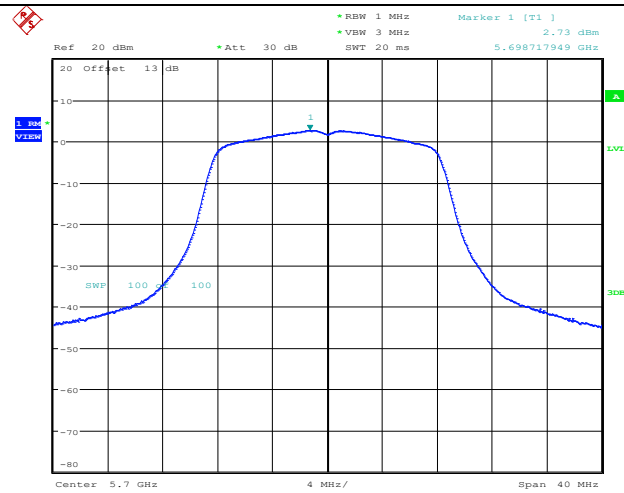
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11A Ant1 5600



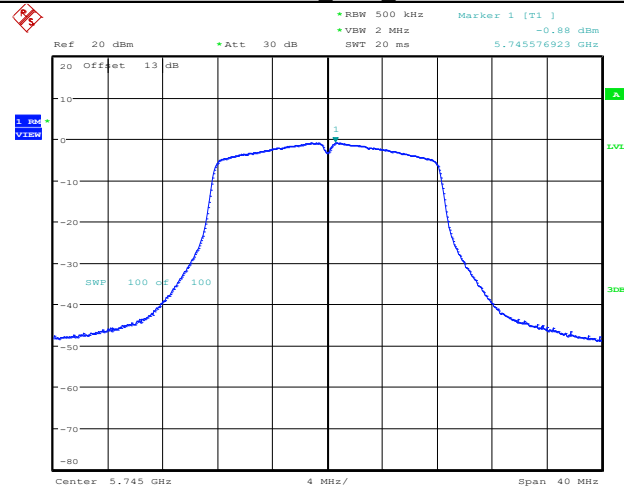
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11A Ant1 5700



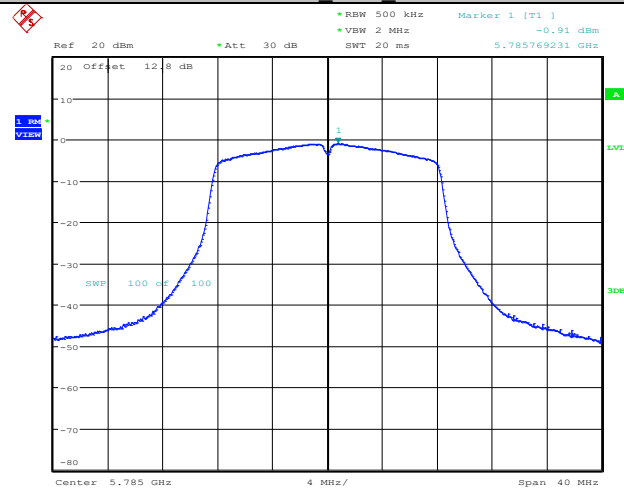
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11A Ant1_5745



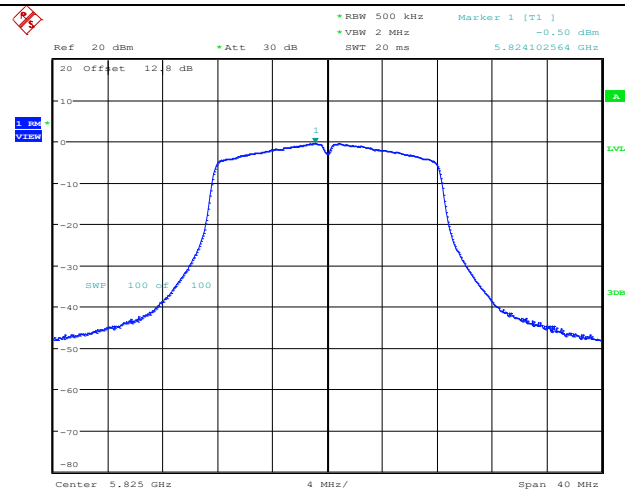
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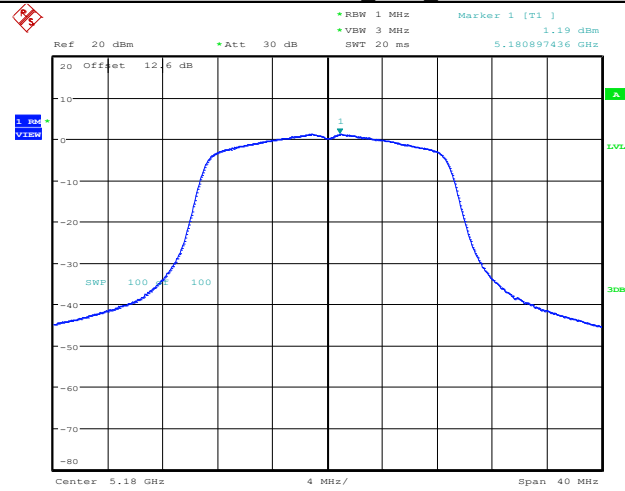
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11A Ant1_5825



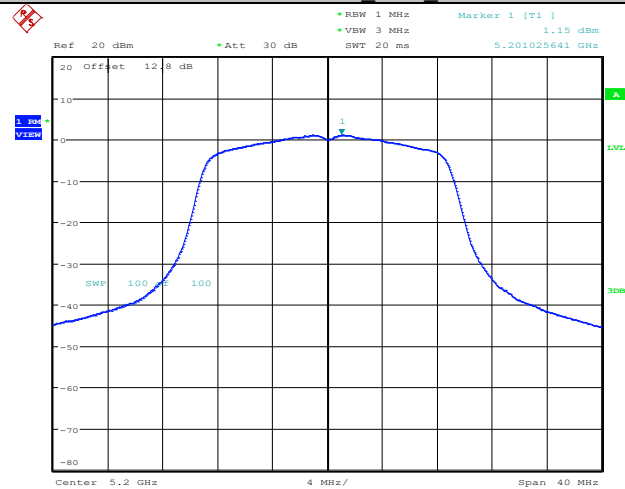
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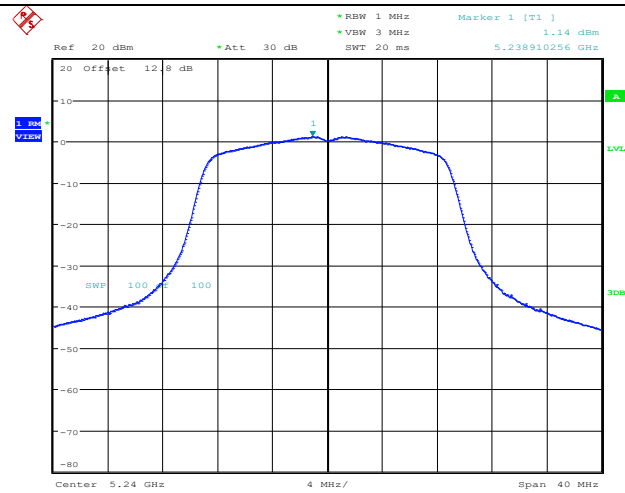
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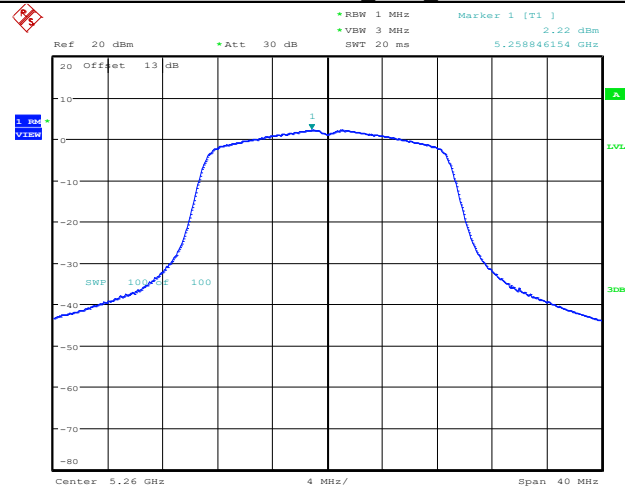
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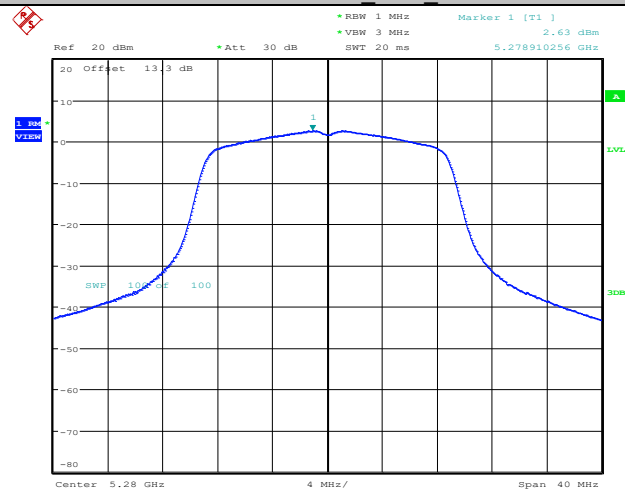
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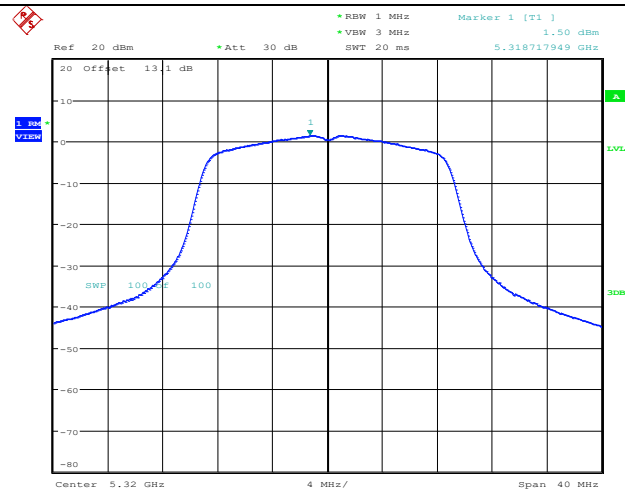
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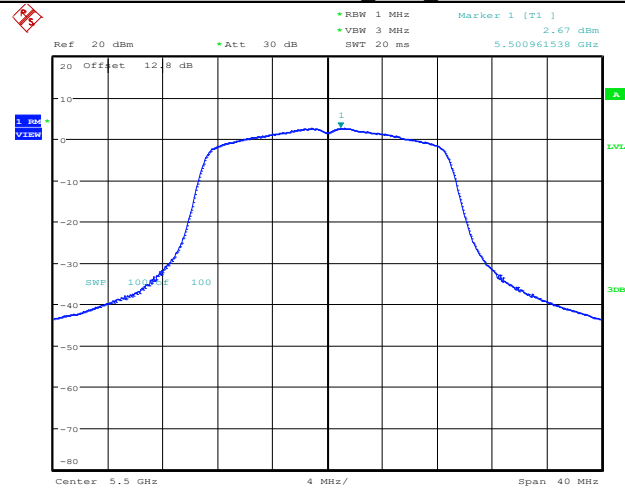
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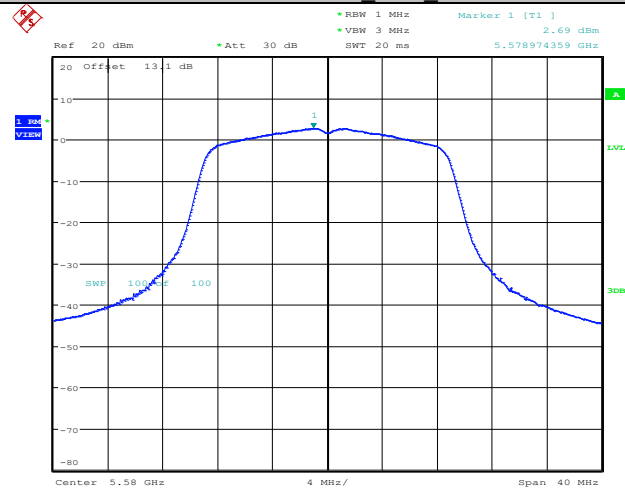
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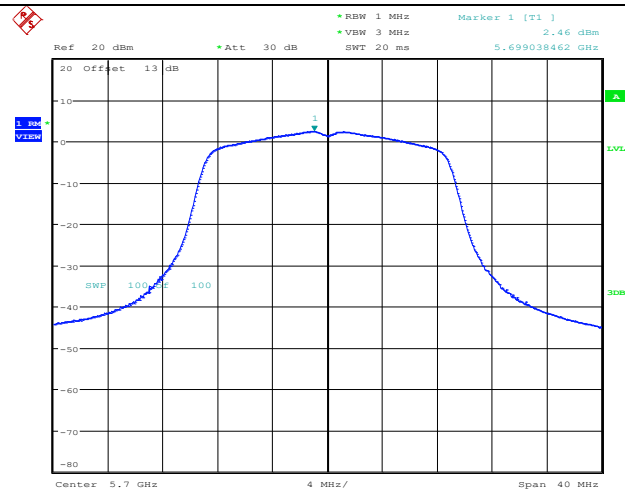
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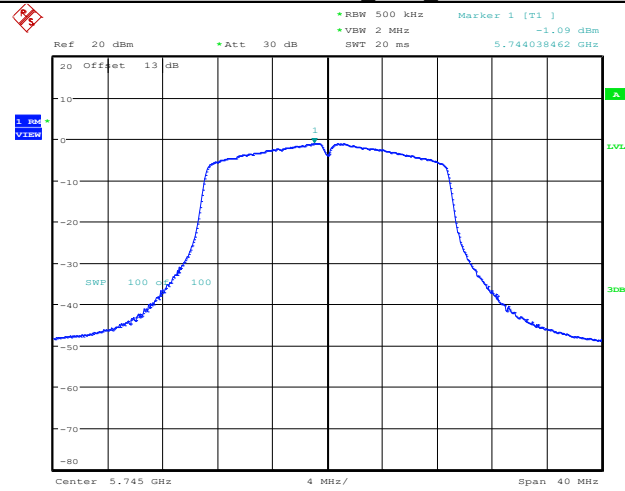
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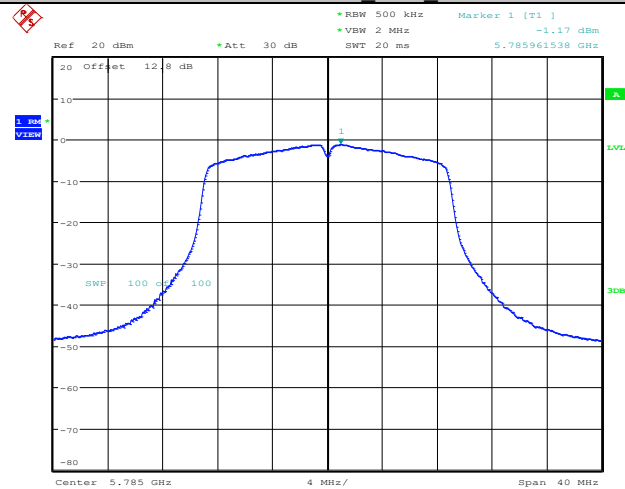
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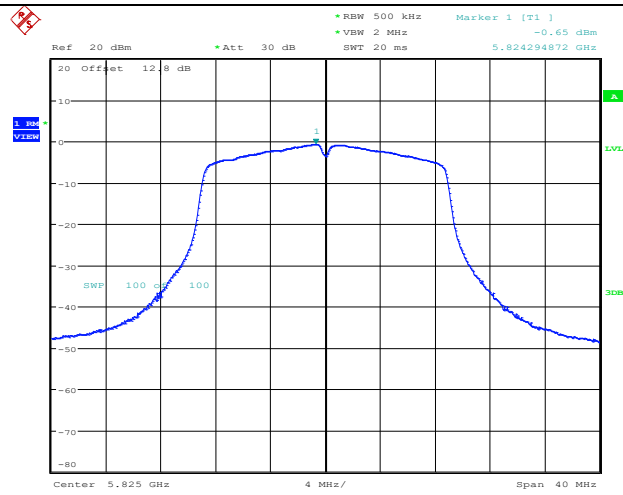
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Date: 26.DEC.2024 16:08:25

11N20SISO_Ant1_5825



Date: 26.DEC.2024 16:10:53

11. RADIATED BANDEDGE AND SPURIOUS MEASUREMENT

11.1. LIMITS OF Radiated Bandedge and Spurious Measurement

RSS-247 Clause 5.5.

RSS-GEN, Clause 8.9

FCC Part 15.205 and 15.209

Table 7 Radiation Emission Test Limit (9KHz-1GHz)

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
960~1000	500	3

Table 8 Radiation Emission Test Limit (Above 1G)

Frequency (MHz)	(dBuV/m) (at 3 meters)	
	PEAK	AVERAGE
Above 1000	74	54

Table 9 Restricted Band Radiated Emission Data

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
¹ 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	2483.5 - 2500	17.7-21.4
8.37625 - 8.38675	156.52525	2655 - 2900	22.01-23.12
8.41425 - 8.41475	156.7 - 156.9	3260 - 3267	23.6-24.0
12.29 - 12.293	162.0125 - 167.17	3332 - 3339	31.2-31.8
12.51975 -	167.72 - 173.2	3345.8 - 3358	36.43-36.5
12.52025	240 - 285	3600 - 4400	(²)
12.57675 -	322 - 335.4		
12.57725			
13.36 - 13.41			

¹ Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.

² Above 38.6

For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

For transmitters operating in the 5.725-5.85 GHz band: All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

11.2.TEST PROCEDURE

1. The testing follows the guidelines in ANSI C63.10-2013.
2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level.
3. For measurement below 1GHz, the EUT was placed on a turntable with 0.8 meter, above ground. For measurement above 1 GHz, test at FAR, the EUT is placed on a non-conductive table, which is 1.5 meter above ground.
4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
5. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level
6. For measurement below 1GHz, If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.
7. Use the following spectrum analyzer settings:
 - (1) Span shall wide enough to fully capture the emission being measured;
 - (2) Set RBW=100 kHz for $f < 1$ GHz; VBW $\geq$ RBW; Sweep = auto; Detector function = peak; Trace = max hold;
 - (3) Set RBW = 1 MHz, VBW= 3MHz for $f > 1$ GHz for peak measurement. Set RBW = 1 MHz, and VBW= 1/T (on time) for average measurement.

11.3.TEST DATA

9 kHz-30MHz

The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line per 15.31(o) was not reported.

Table 10 Radiated Emission Test Data 9k Hz-30MHz

Frequency (MHz)	Cable Loss +preamp (dB)	Antenna Factor (dB)	Reading (dBμV/m)	Level (dBμV/m)	Polarity (Horizontal/ Vertical)	Limit (dBμV/m)	Margin (dB)	Note
--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--

--	--	--	--	--	--	--	--	--
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30MHz-1GHz

Worst case is shown below for 30MHz-1GHz only.

The emissions don't show in following result tables are more than 20dB below the limits.

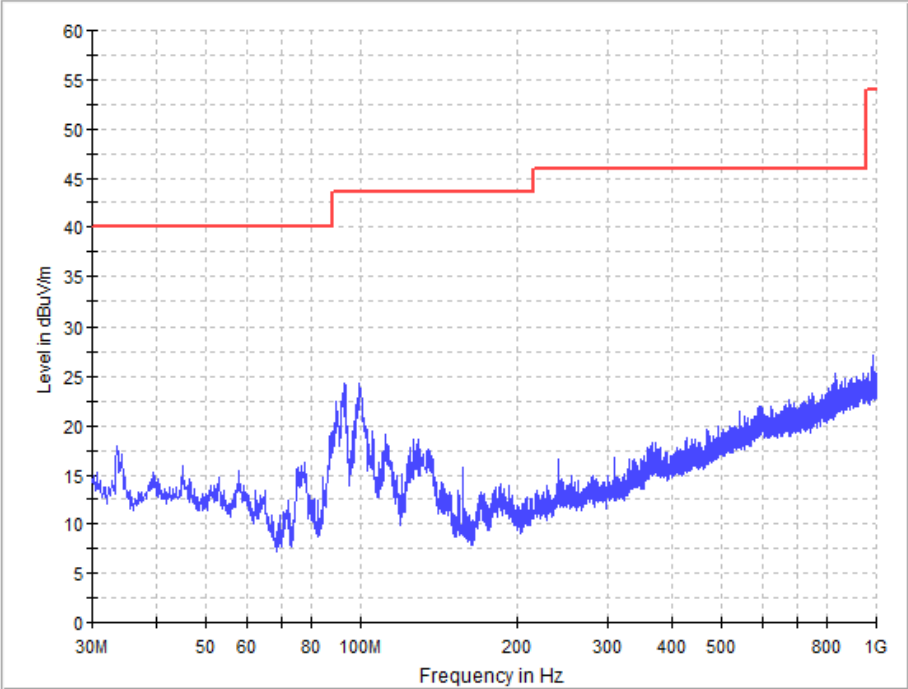
Table 11 Radiated Emission Test Data 30MHz-1GHz

Frequency (MHz)	Cable Loss +preamp (dB)	Antenna Factor (dB)	Reading (dB μ V/m)	Level (dB μ V/m)	Polarity (Horizontal/ Vertical)	Limit (dB μ V/m)	Margin (dB)	Note
33.449	0.7	12.3	14.7	27.7	Vertical	40.0	12.3	QP
57.806	0.8	13.0	13.7	27.5	Vertical	40.0	12.5	QP
78.284	1.1	7.8	16.2	25.1	Vertical	40.0	14.9	QP
92.511	1.1	11.9	17.2	30.2	Vertical	43.5	13.3	QP
99.517	1.1	12.8	10.4	24.3	Vertical	43.5	19.2	QP
180.566	1.6	9.7	8.4	19.7	Vertical	43.5	23.8	QP
33.448	0.7	12.3	2.3	15.3	Horizontal	40	24.7	QP
44.873	0.7	13.6	1.5	15.8	Horizontal	40	24.2	QP
77.745	1.0	7.8	3.5	12.3	Horizontal	40	27.7	QP
93.050	1.1	11.9	6.5	19.5	Horizontal	43.5	24.0	QP
99.516	1.1	12.8	9.0	22.9	Horizontal	43.5	20.6	QP
129.587	1.3	10.5	2.5	14.3	Horizontal	43.5	29.2	QP

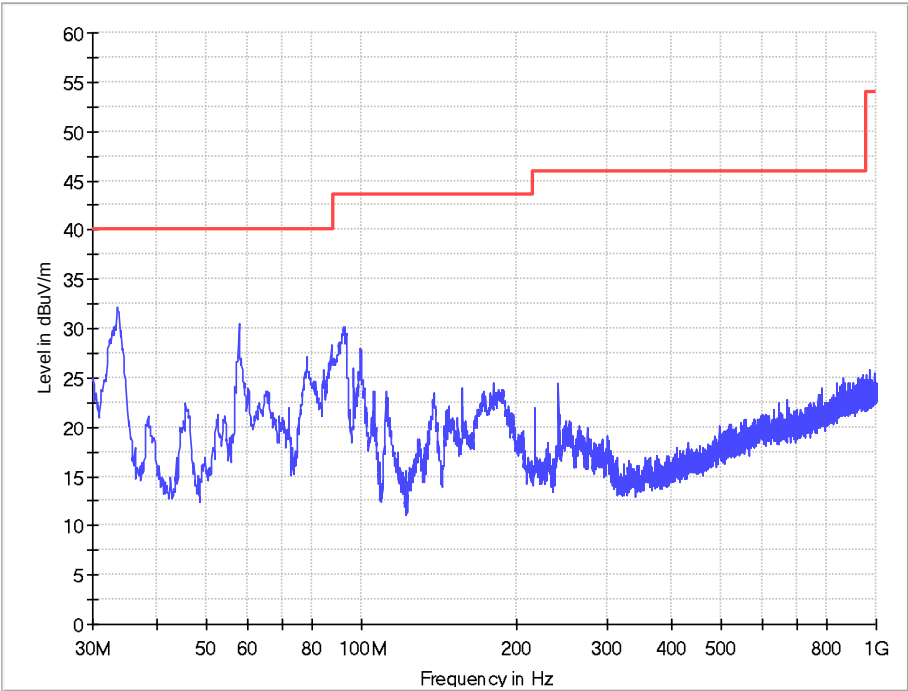
Remark: Emission level (dB μ V)=Read Value(dB μ V/m) + Antenna Factor(dB)+ Cable Loss +preamp(dB)

30MHz-1GHz

Horizontal



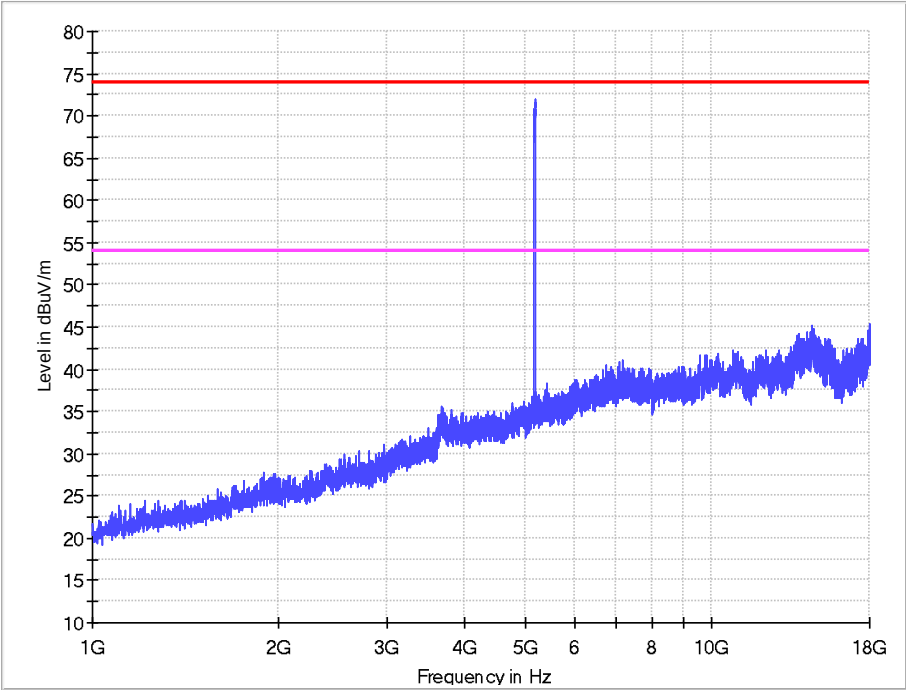
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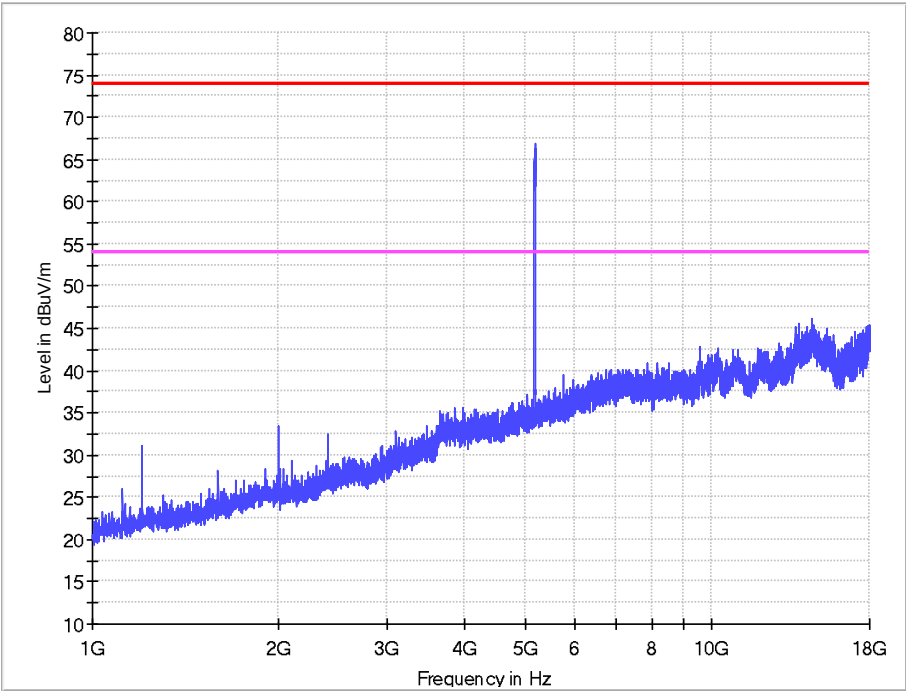
1-18G

11a IN THE 5.2GHz BAND
CH36

Horizontal



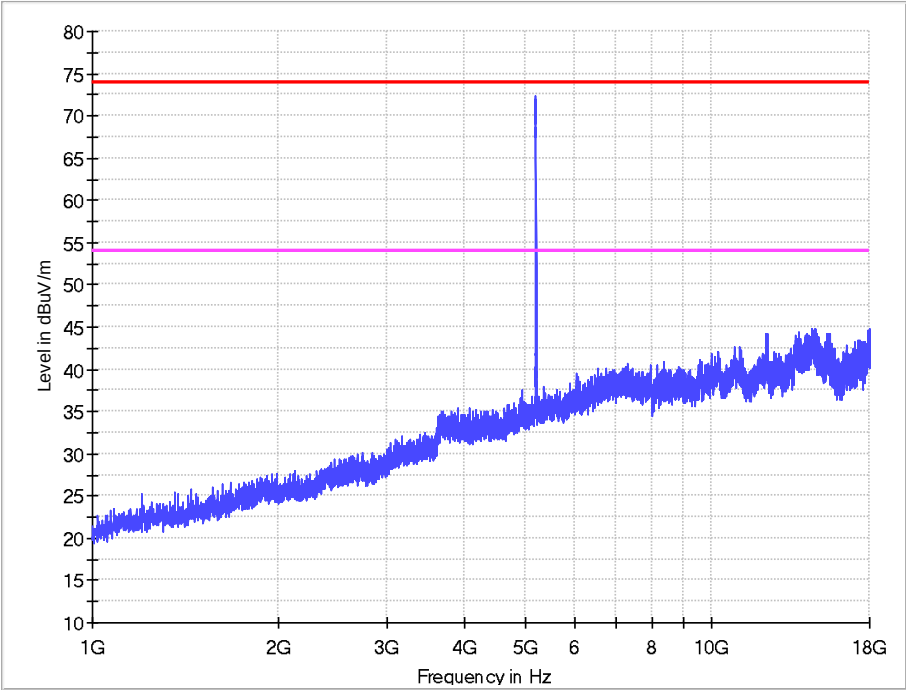
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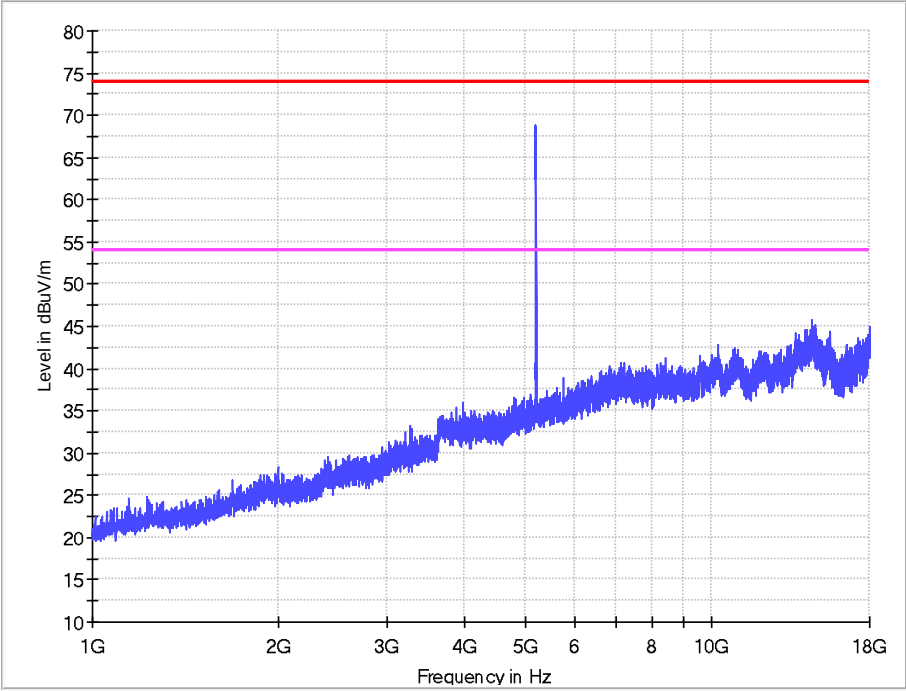
1-18G

11a IN THE 5.2GHz BAND
CH40

Horizontal



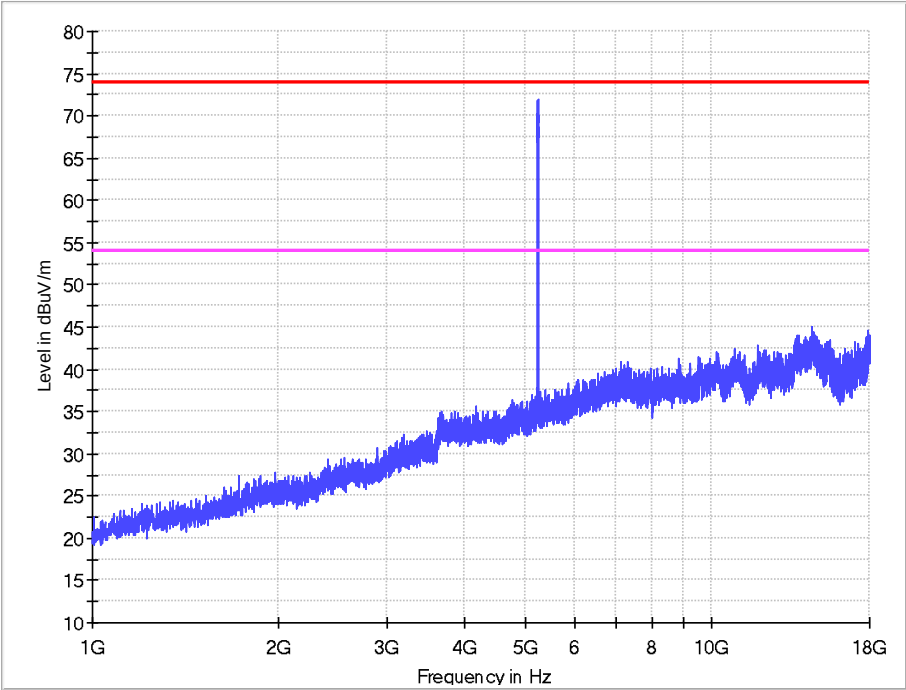
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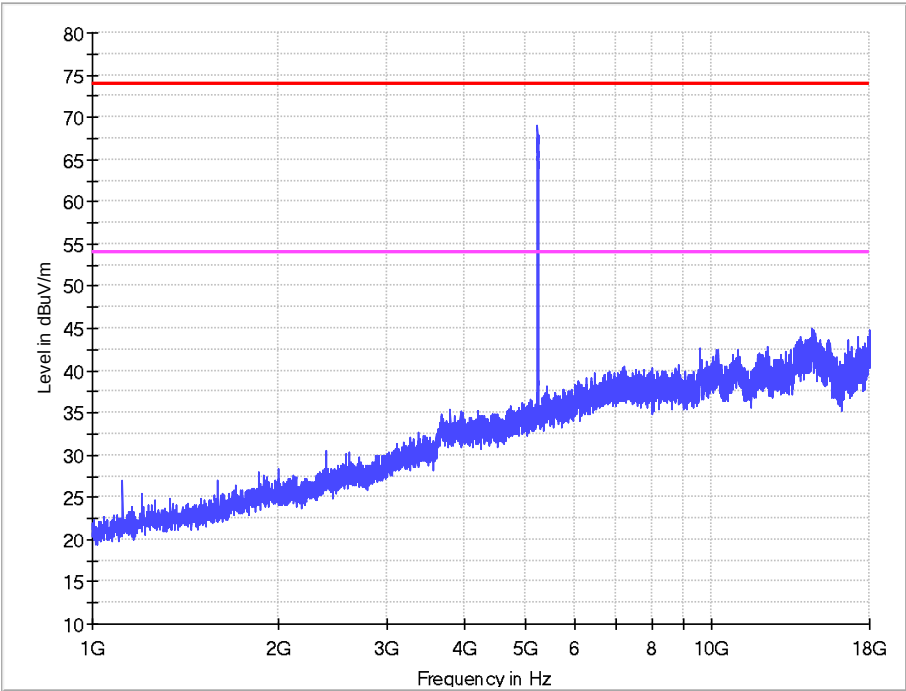
1-18G

11a IN THE 5.2GHz BAND
CH48

Horizontal



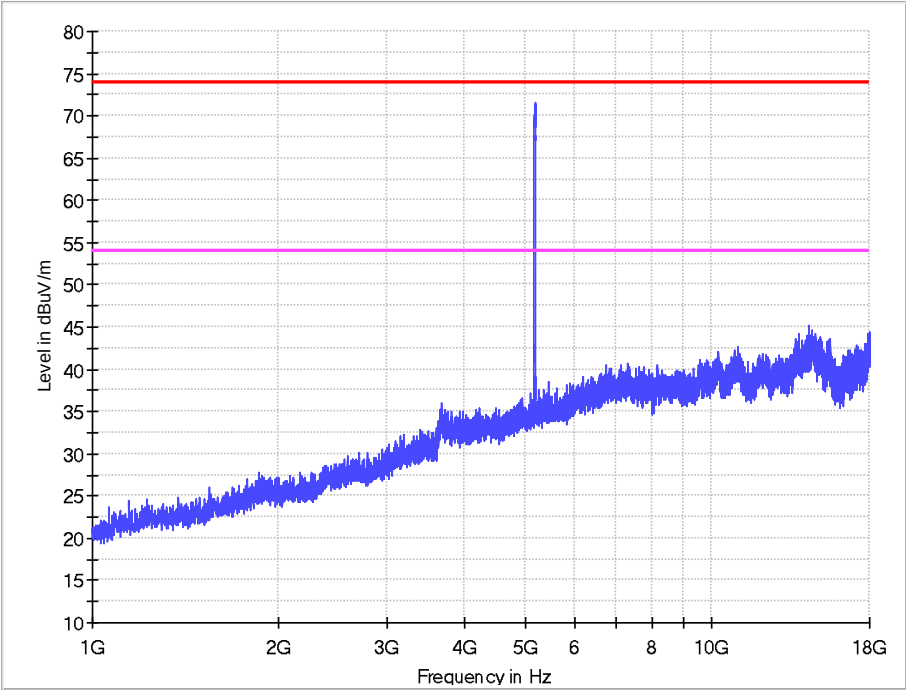
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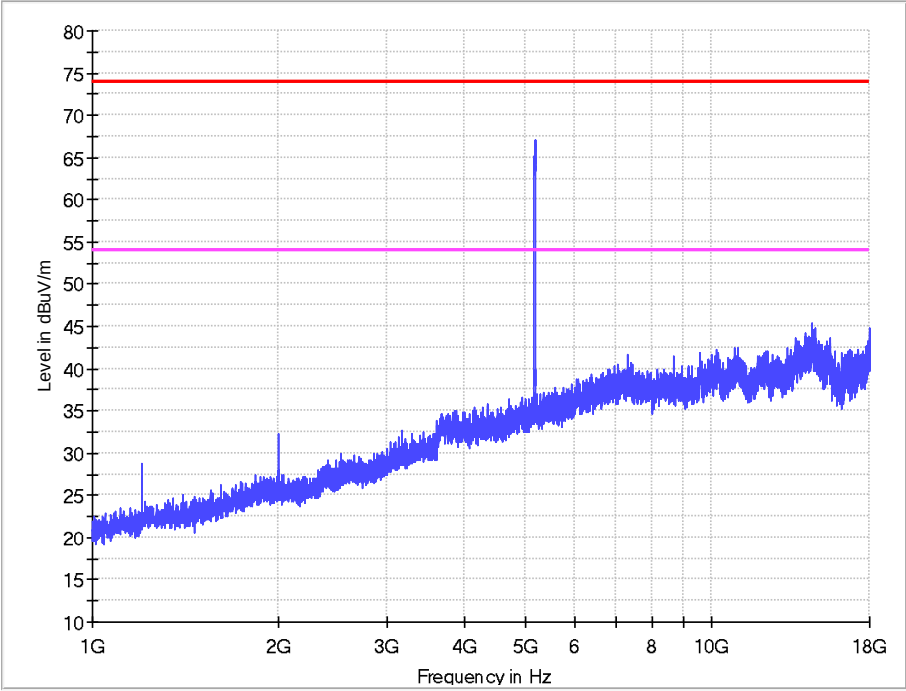
1-18G

11n HT20 IN THE 5.2GHz BAND
CH36

Horizontal



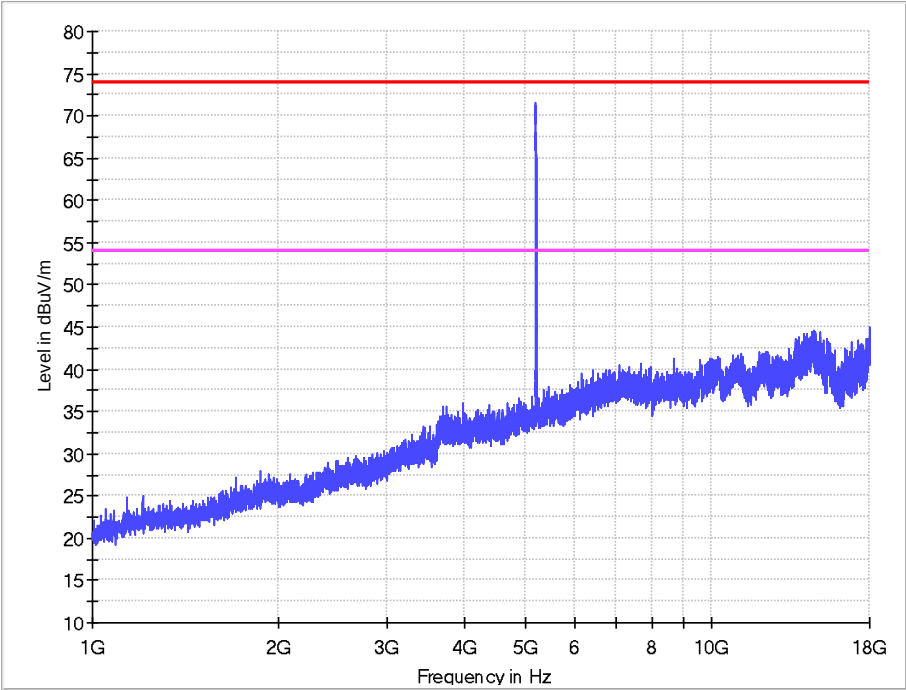
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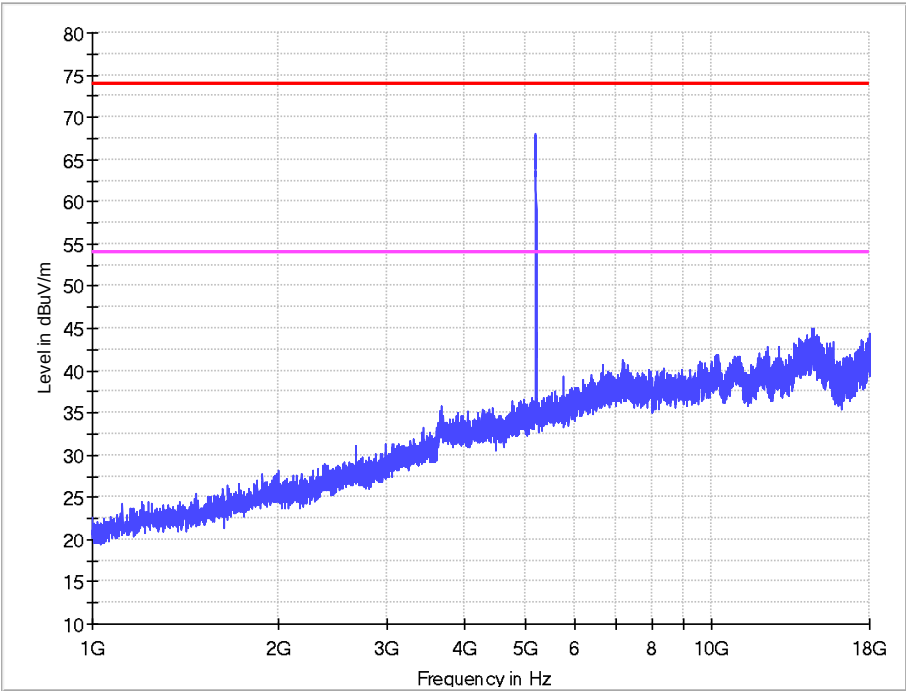
1-18G

11n HT20 IN THE 5.2GHz BAND
CH40

Horizontal



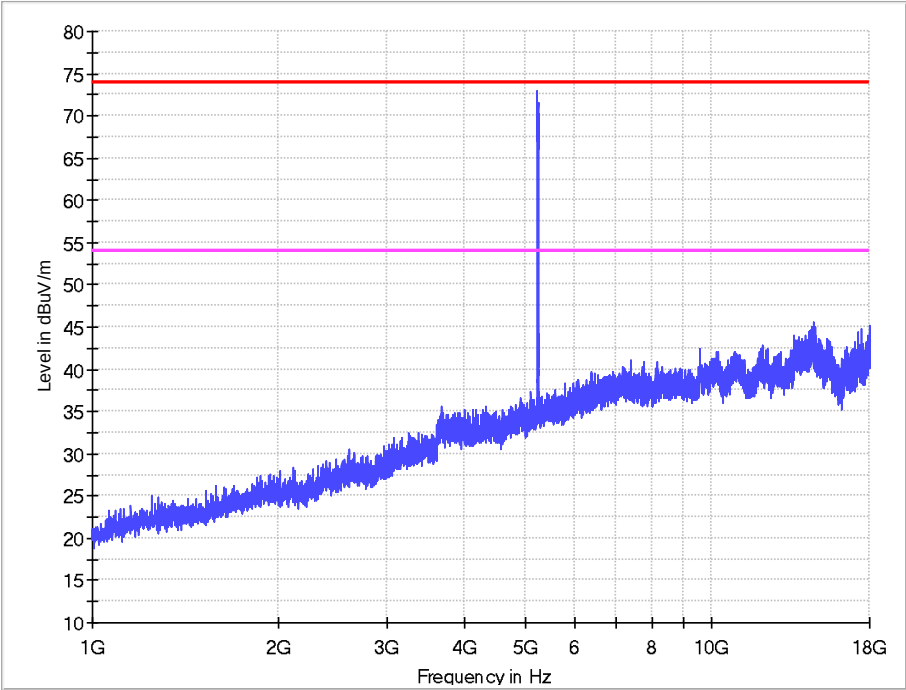
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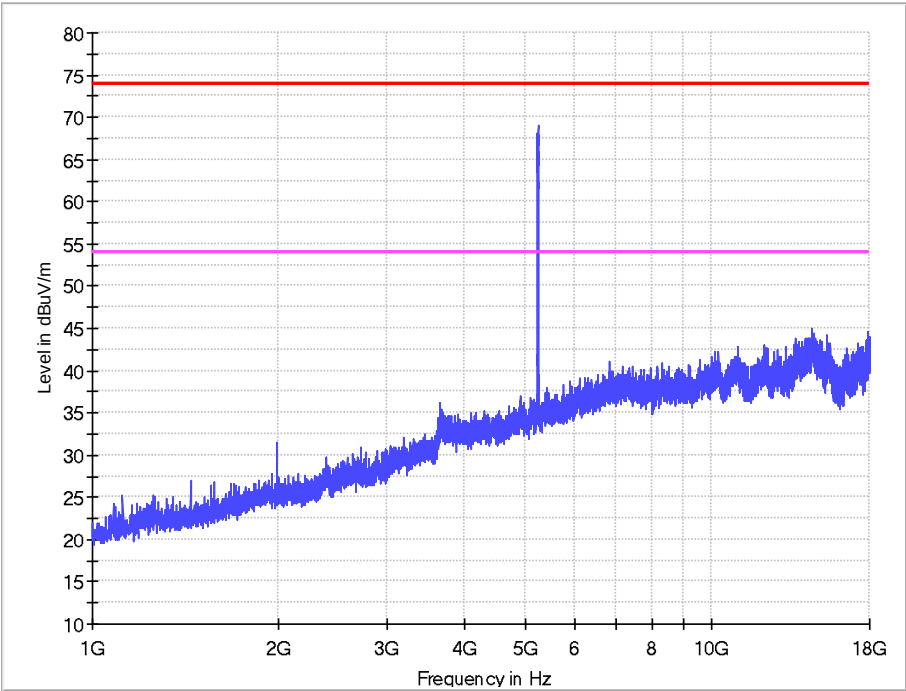
1-18G

11n HT20 IN THE 5.2GHz BAND
CH48

Horizontal



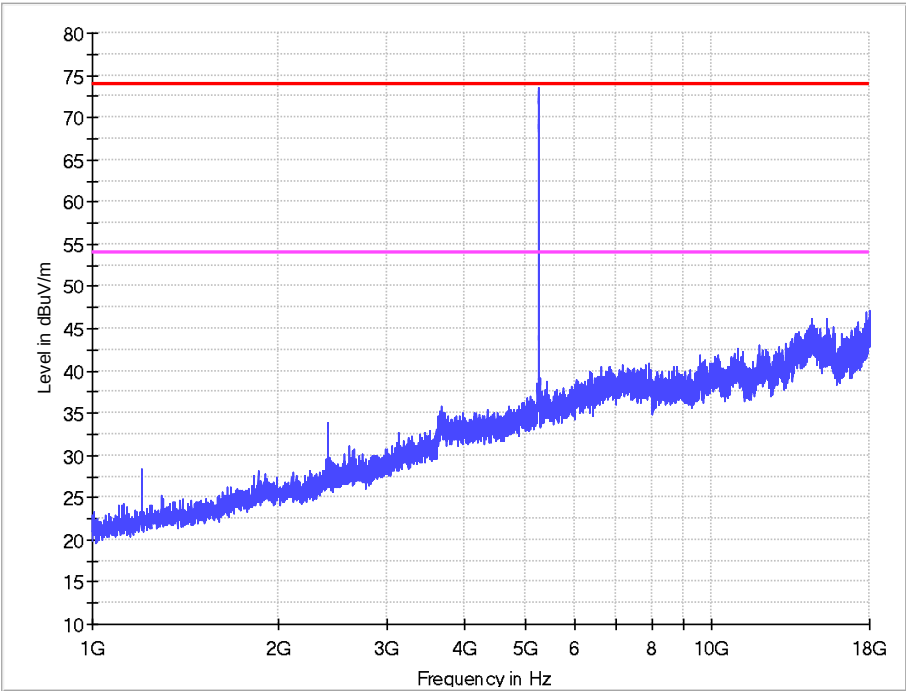
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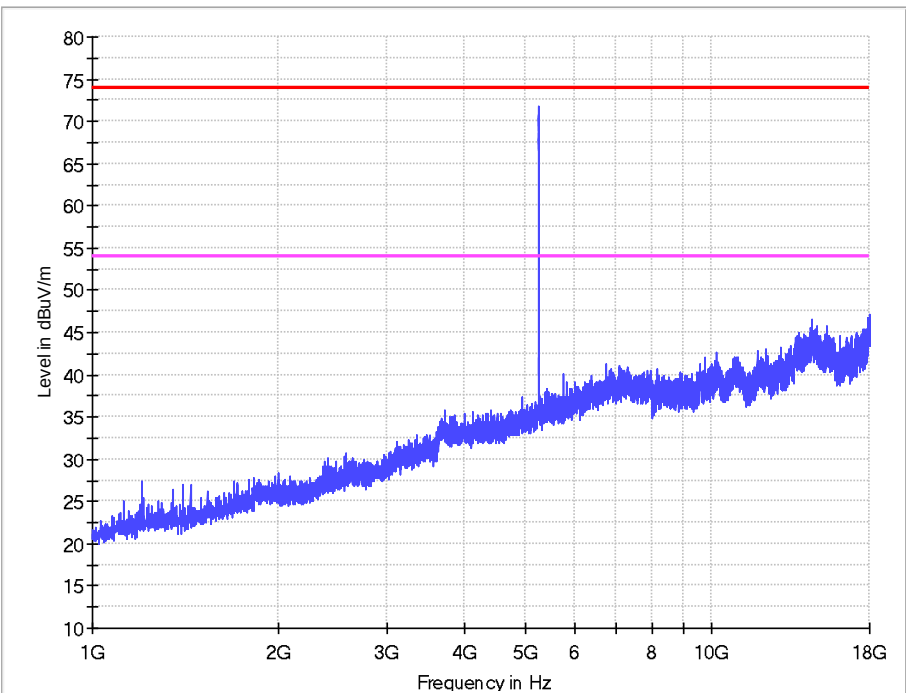
1-18G

11a IN THE 5.3GHz BAND
CH52

Horizontal



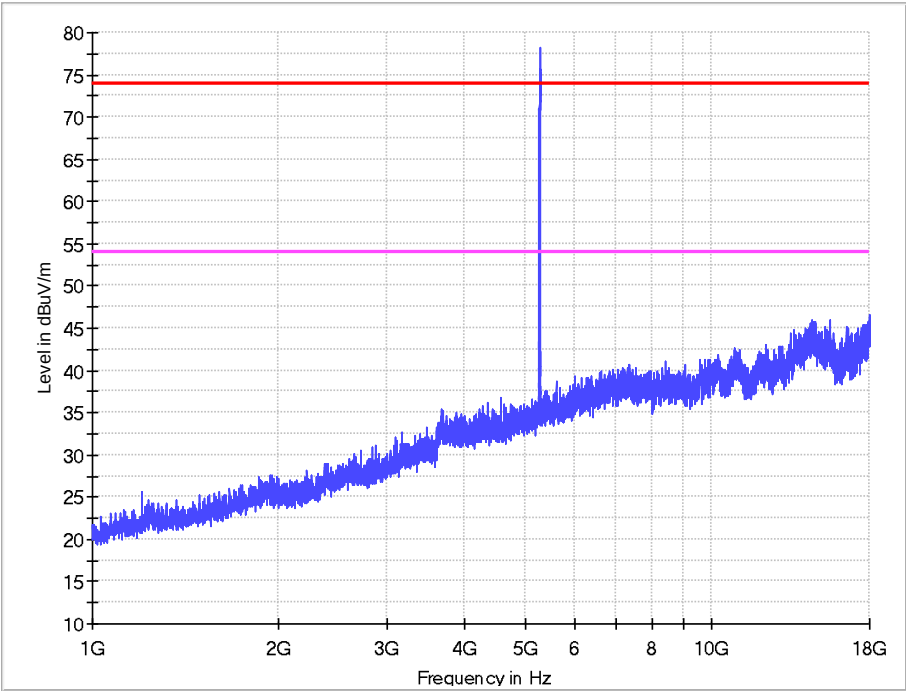
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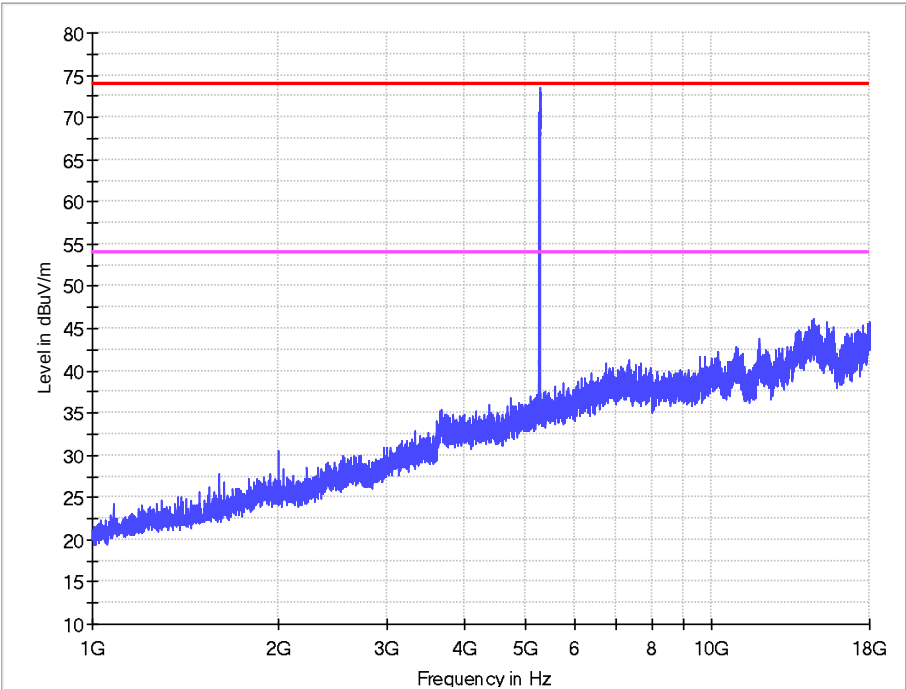
1-18G

11a IN THE 5.3GHz BAND
CH56

Horizontal



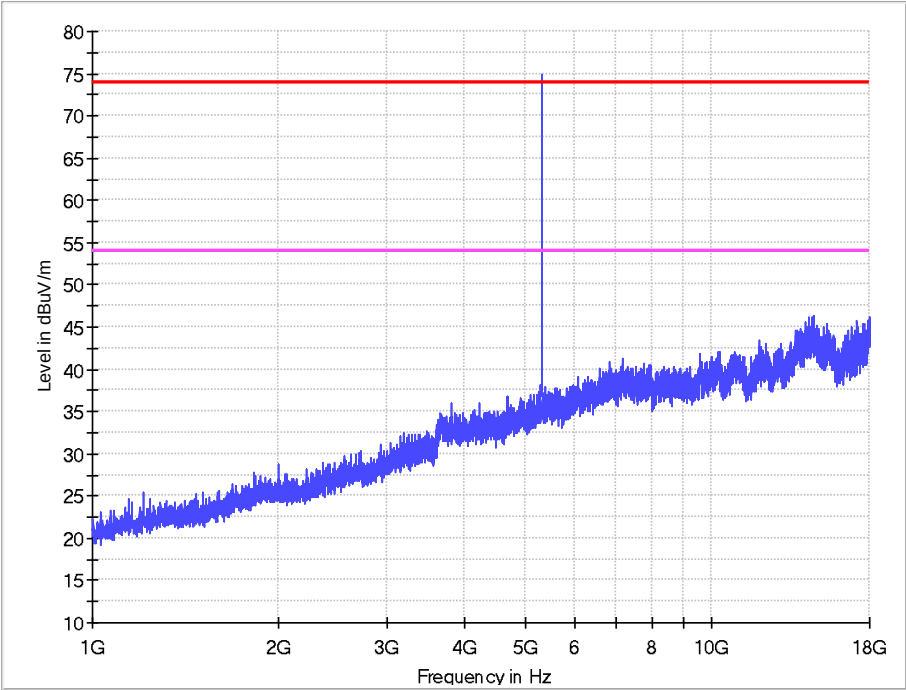
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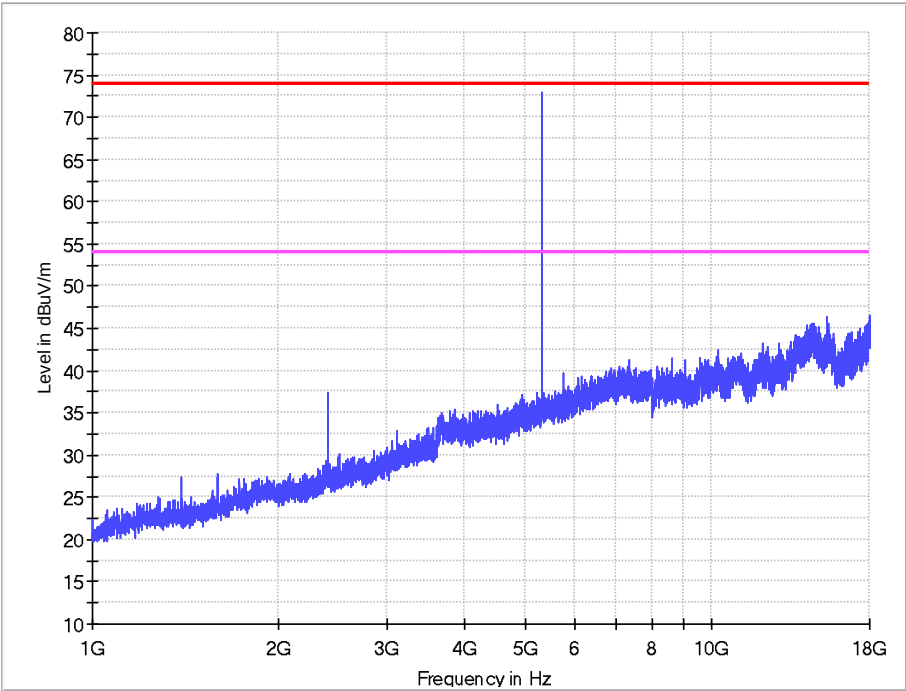
1-18G

11a IN THE 5.3GHz BAND
CH64

Horizontal



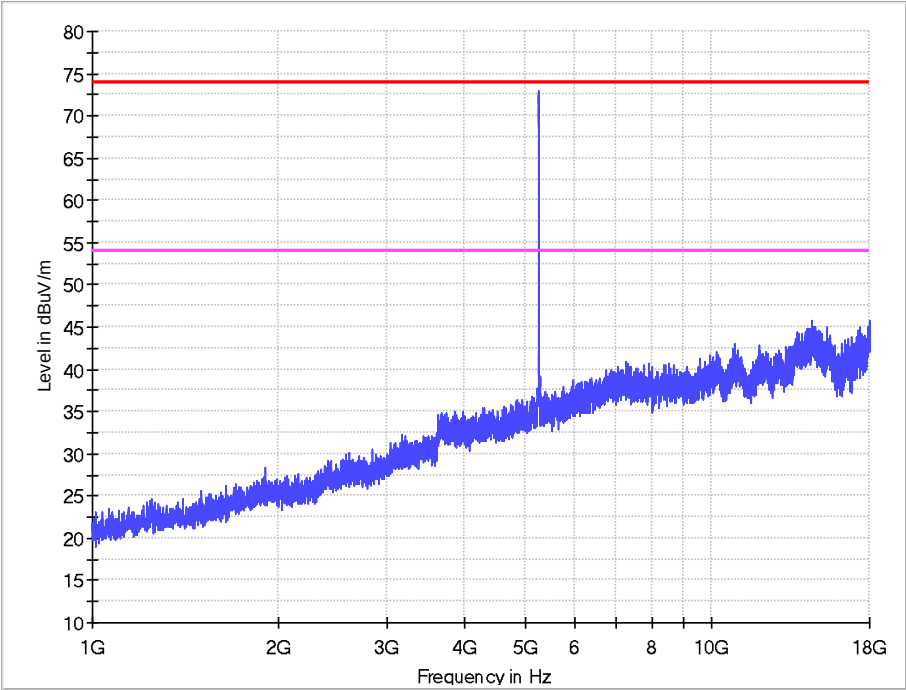
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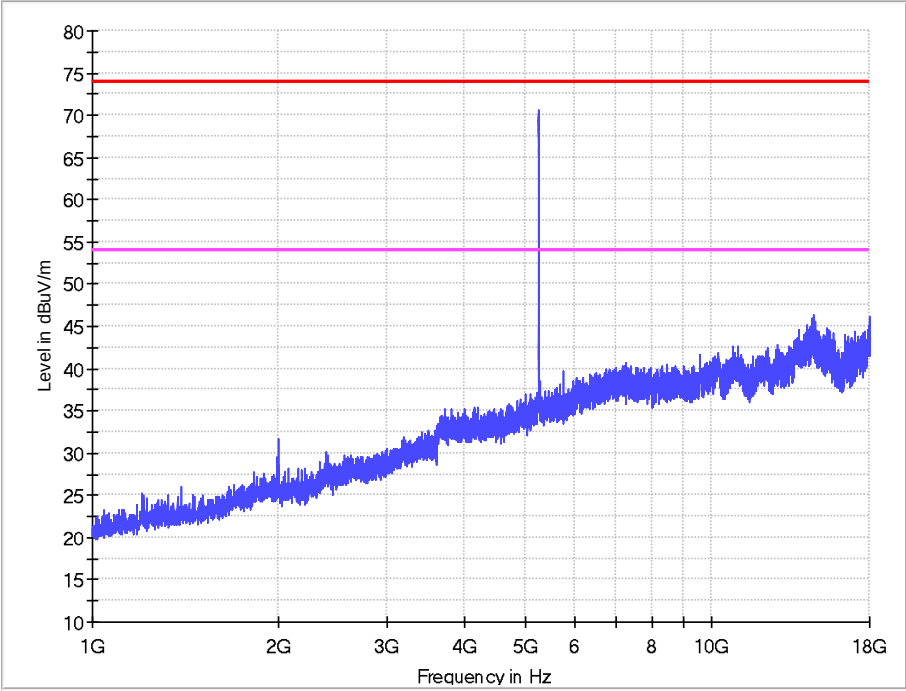
1-18G

11n HT20 IN THE 5.3GHz BAND
CH52

Horizontal



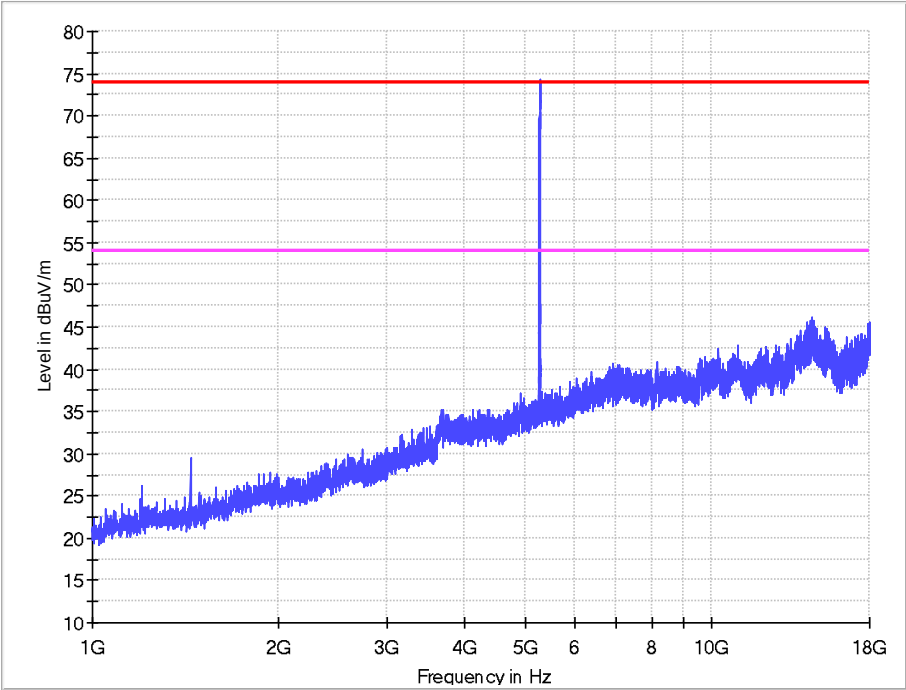
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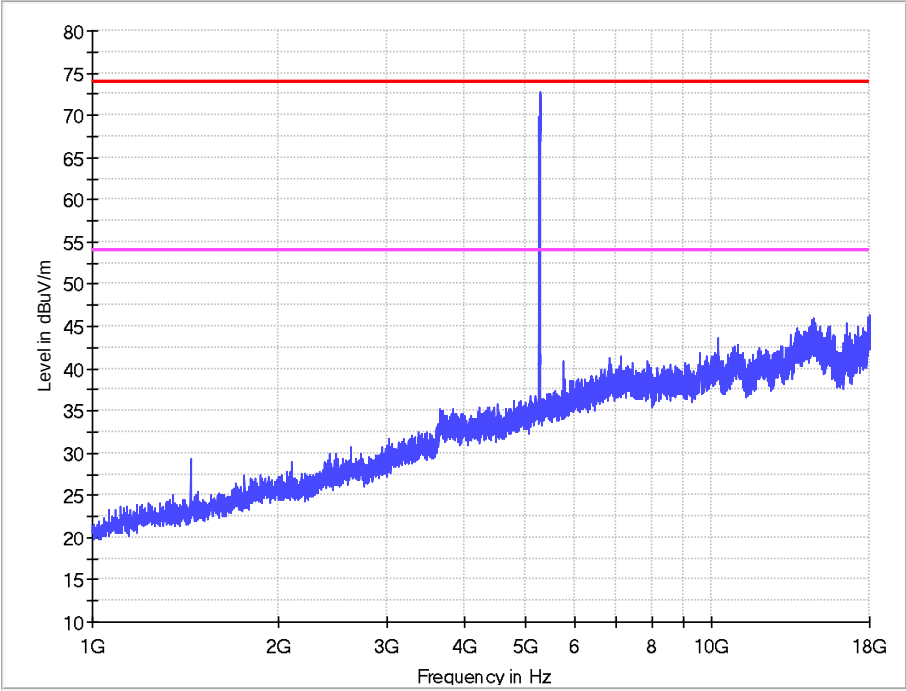
1-18G

11n HT20 IN THE 5.3GHz BAND
CH56

Horizontal



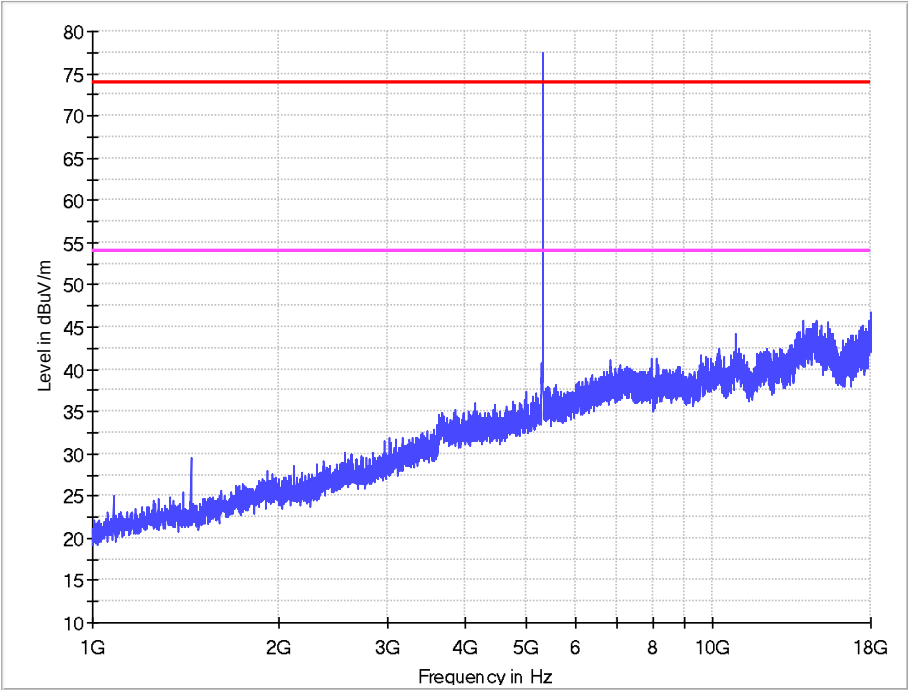
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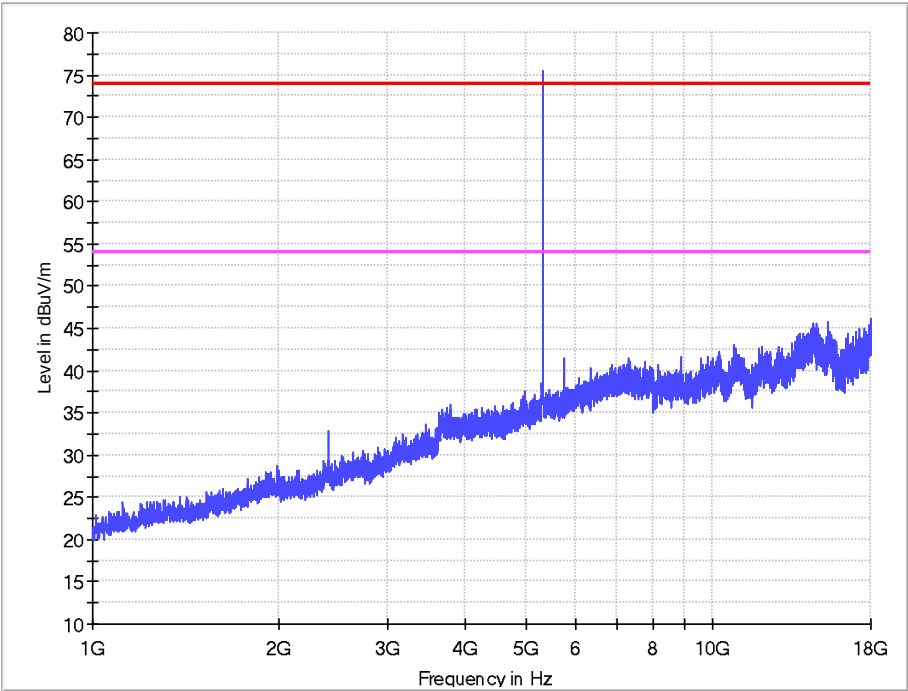
1-18G

11n HT20 IN THE 5.3GHz BAND
CH64

Horizontal



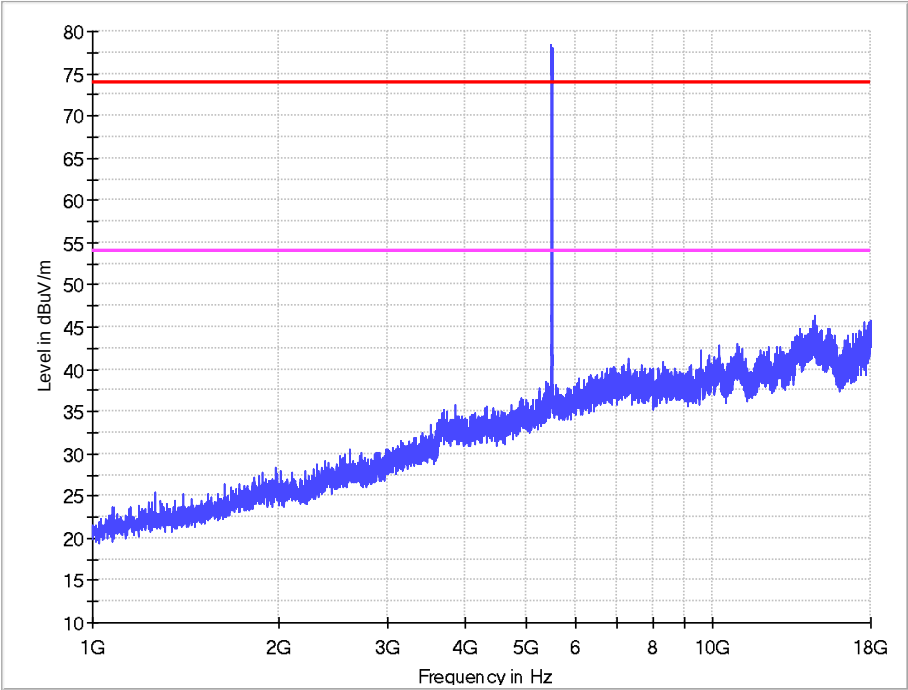
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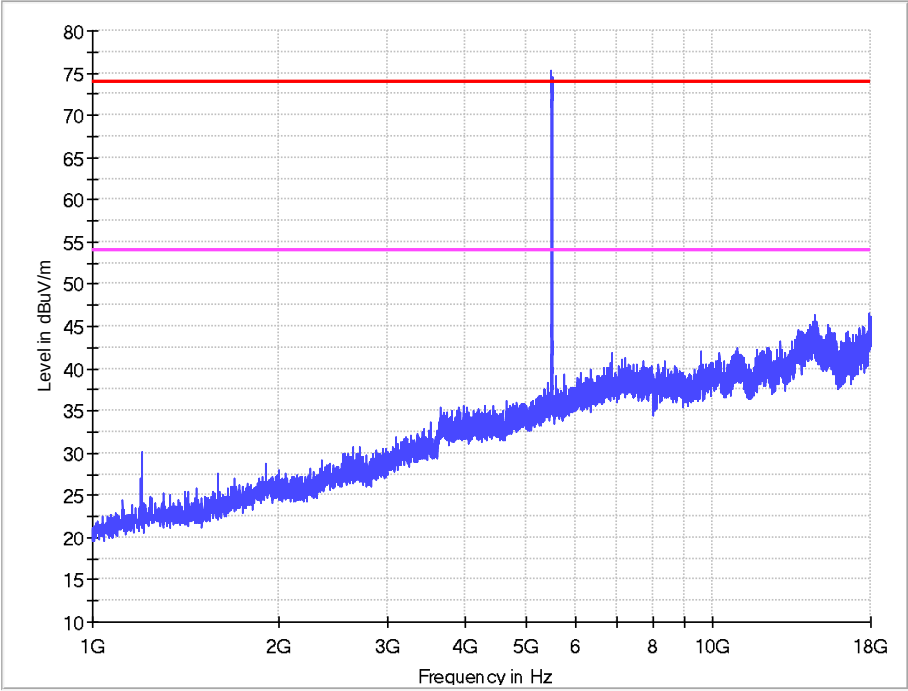
1-18G

11a IN THE 5.6GHz BAND
CH100

Horizontal



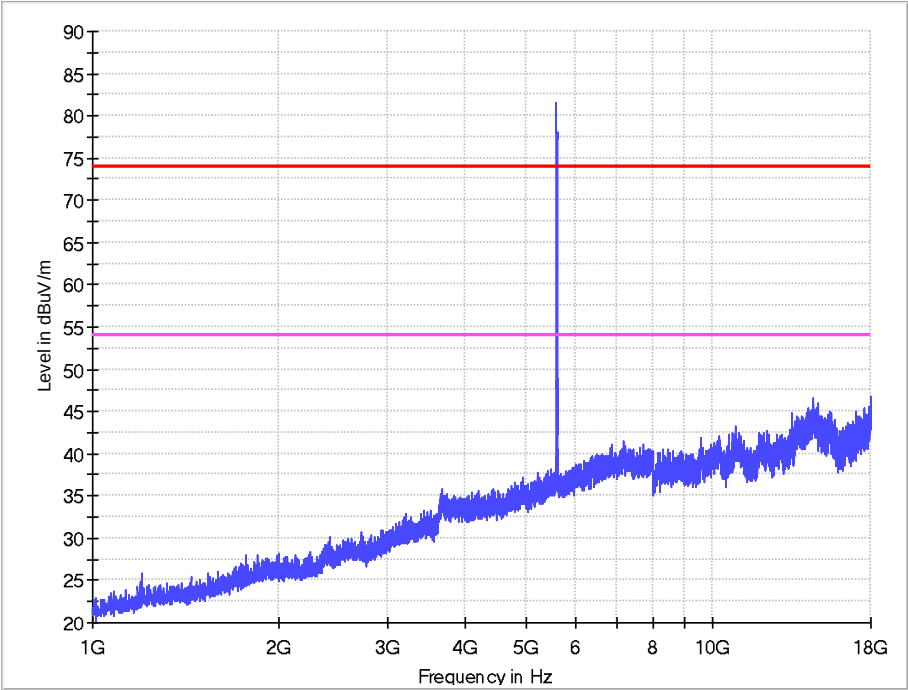
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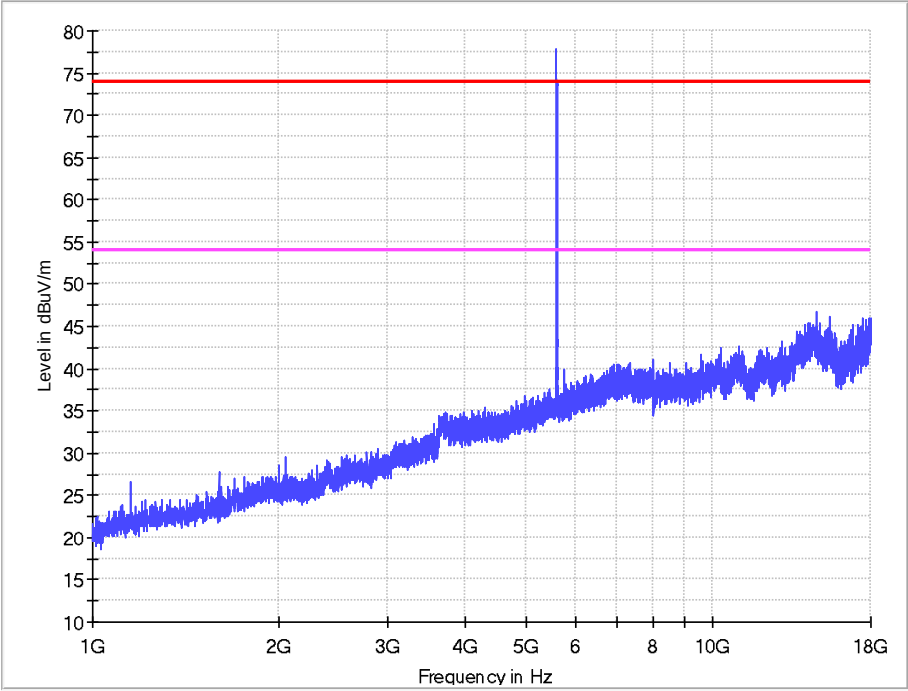
1-18G

11a IN THE 5.6GHz BAND
CH120

Horizontal



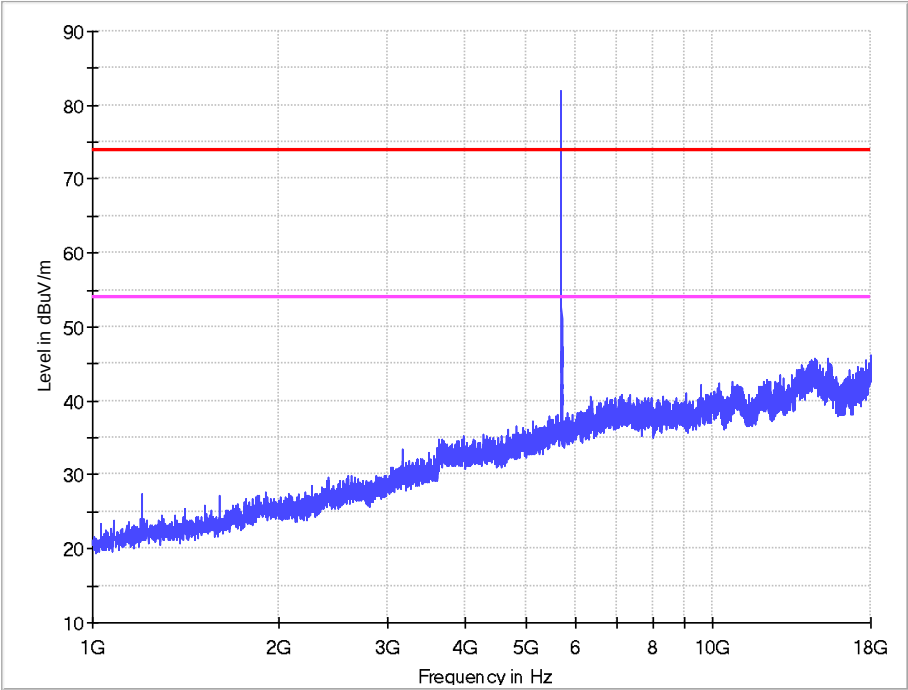
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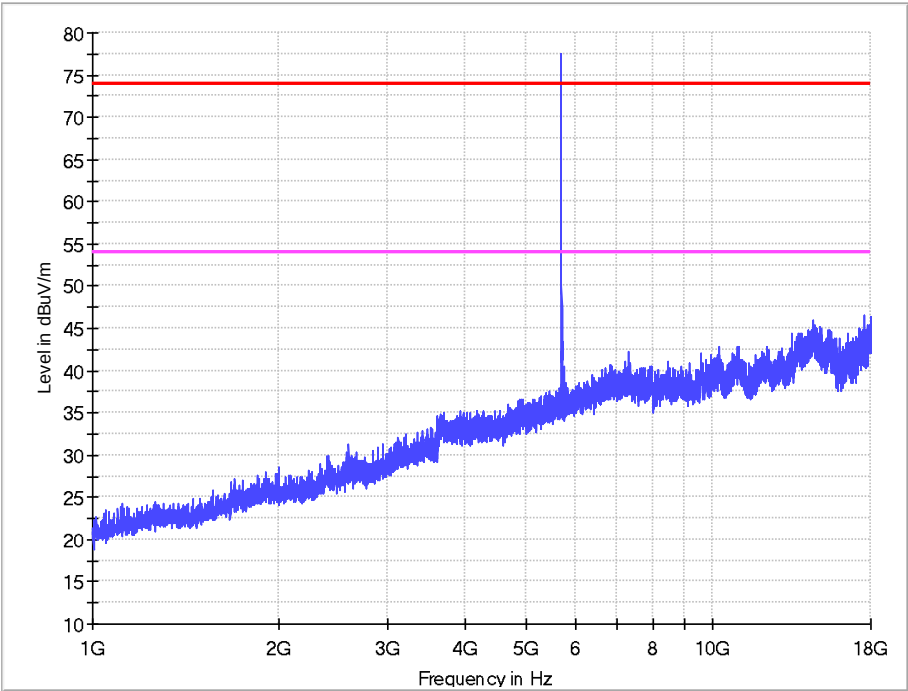
1-18G

11a IN THE 5.6GHz BAND
CH140

Horizontal



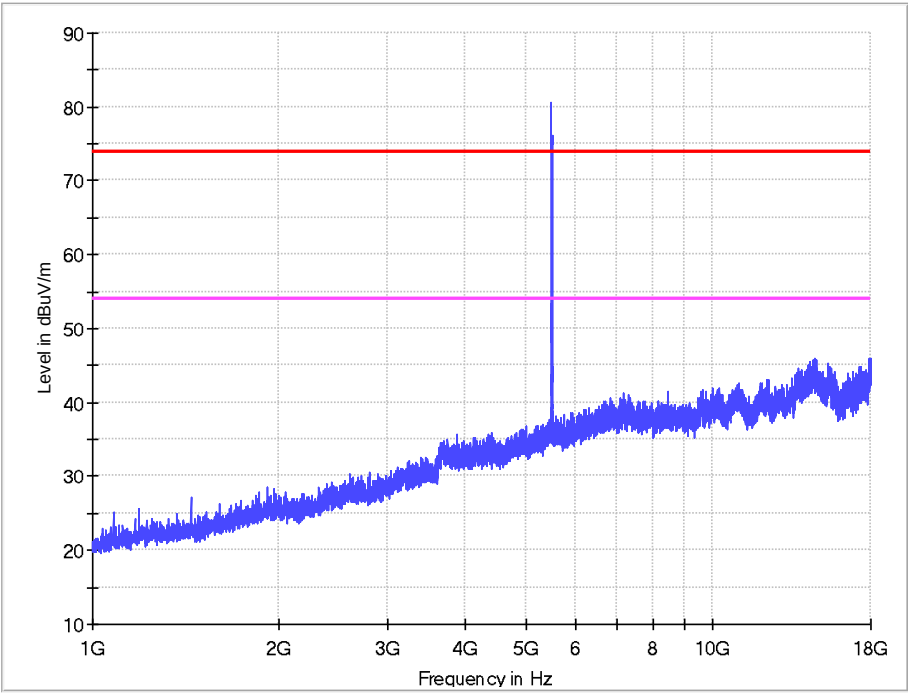
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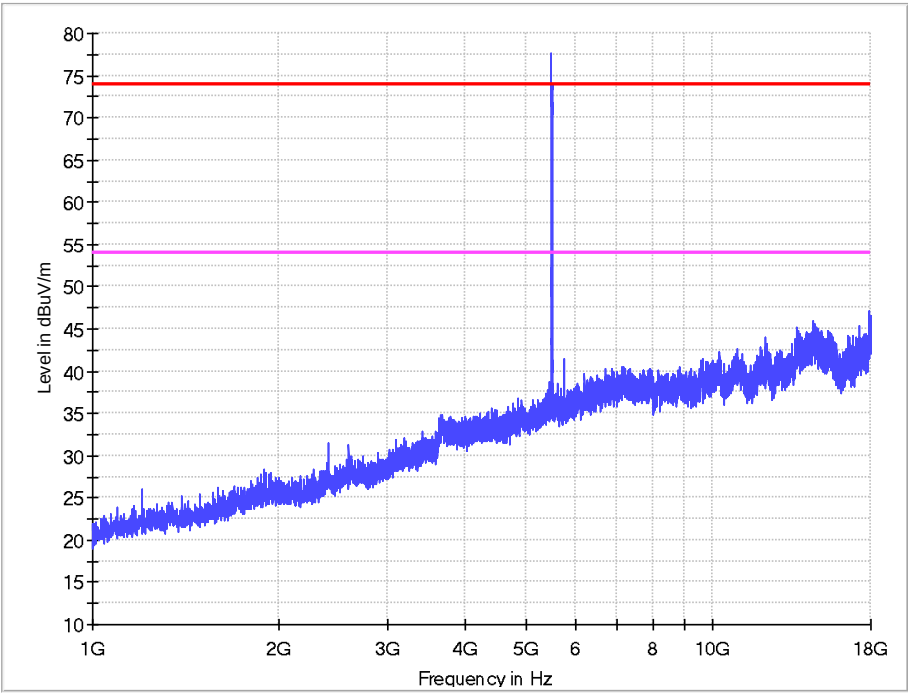
1-18G

11n HT20 IN THE 5.6GHz BAND
CH100

Horizontal



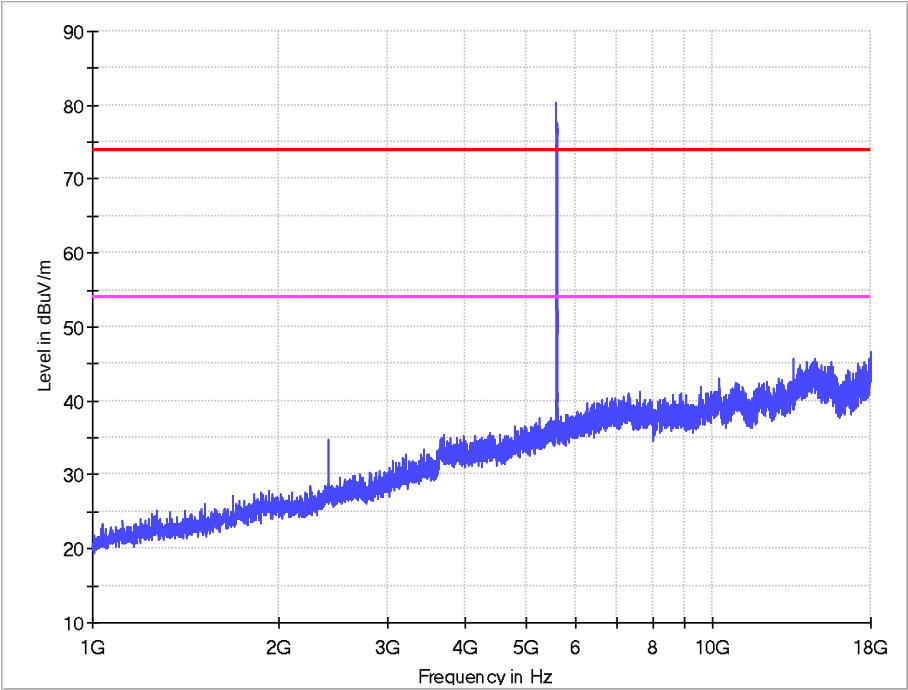
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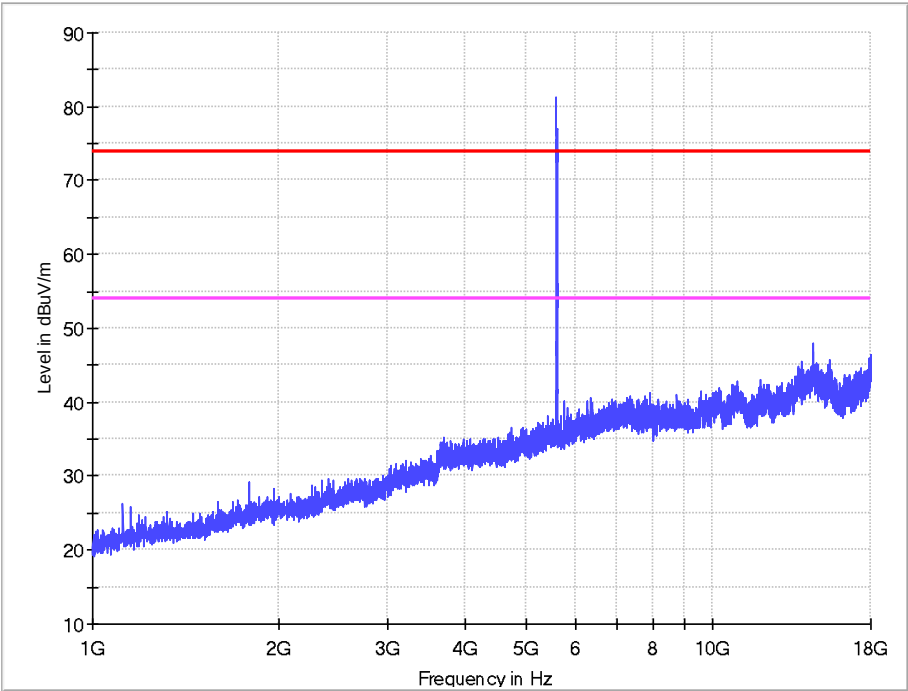
1-18G

11n HT20 IN THE 5.6GHz BAND
CH120

Horizontal



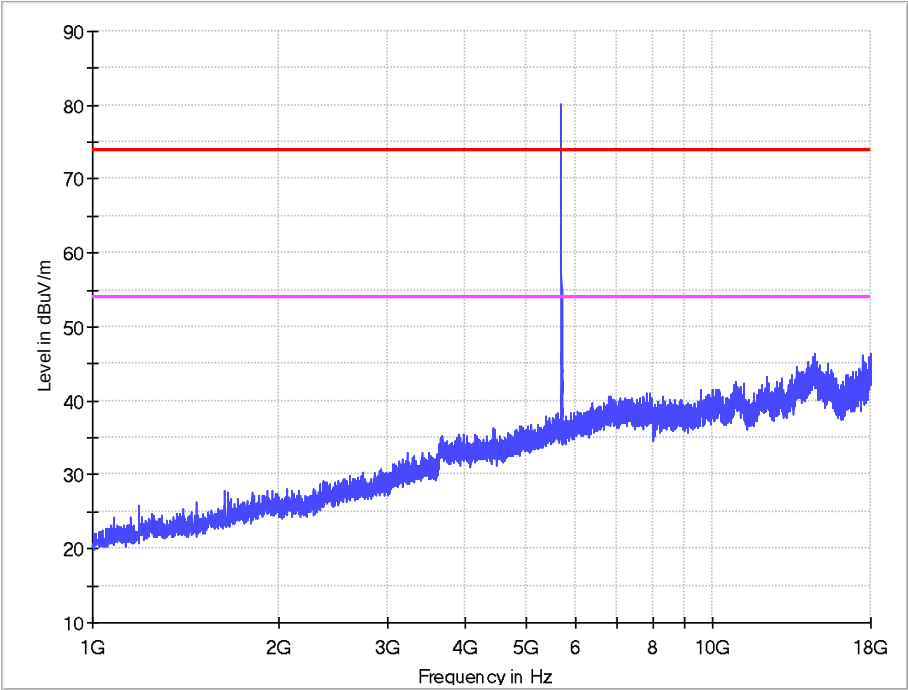
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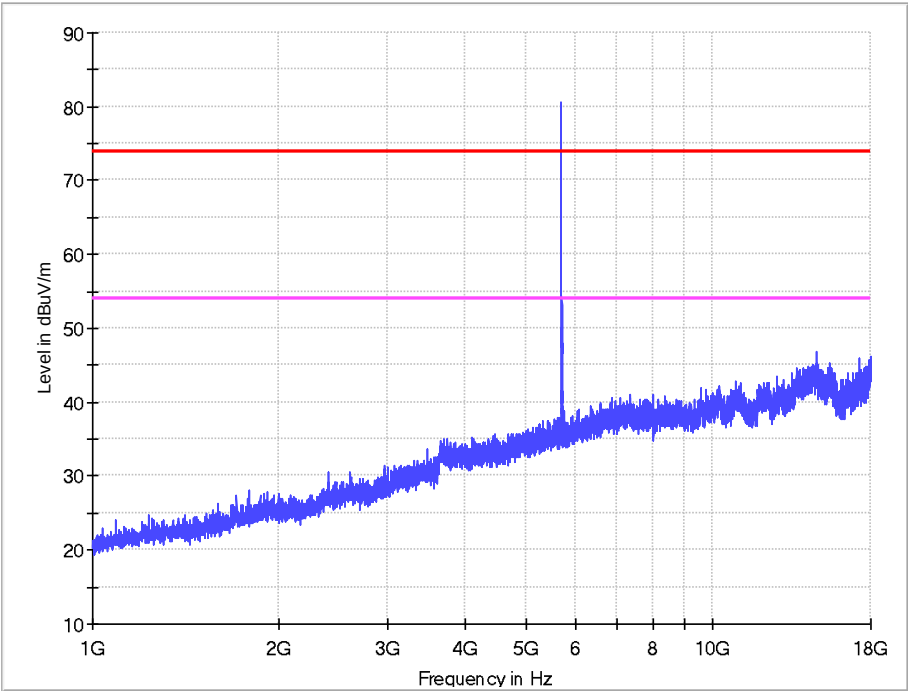
1-18G

11n HT20 IN THE 5.6GHz BAND
CH140

Horizontal



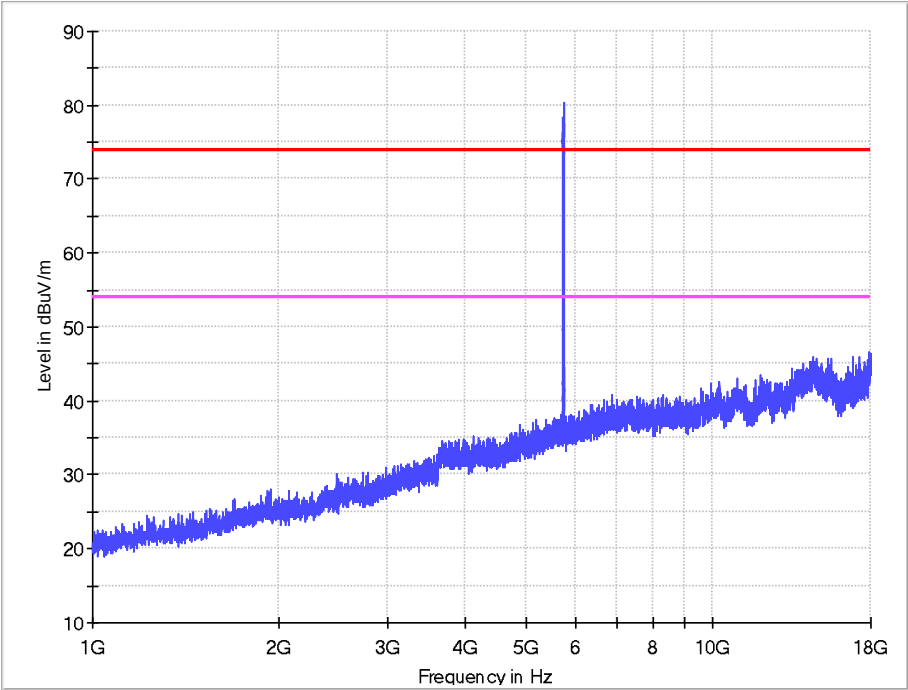
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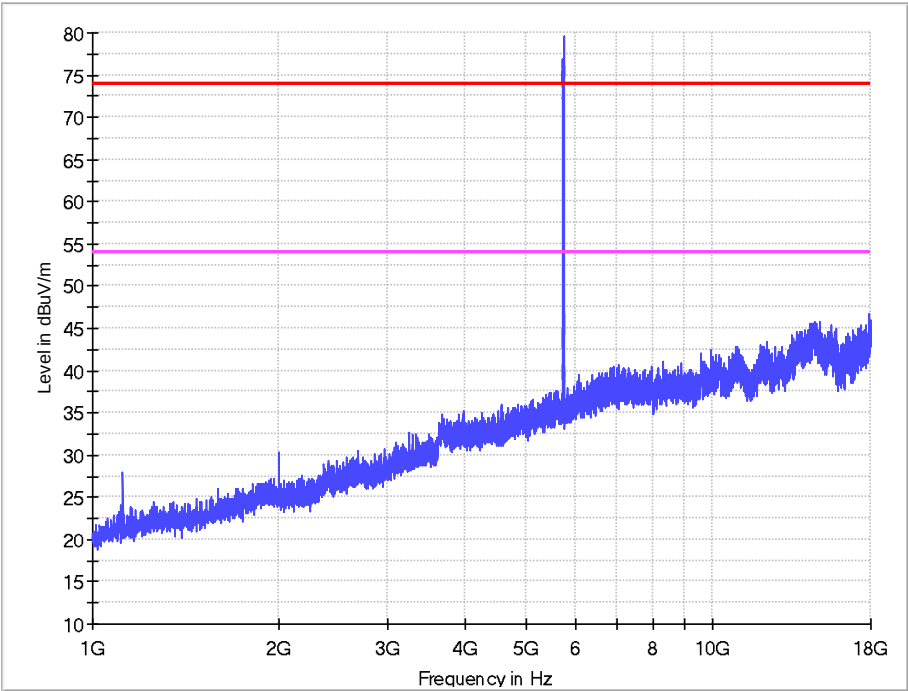
1-18G

11a IN THE 5.8GHz BAND
CH149

Horizontal



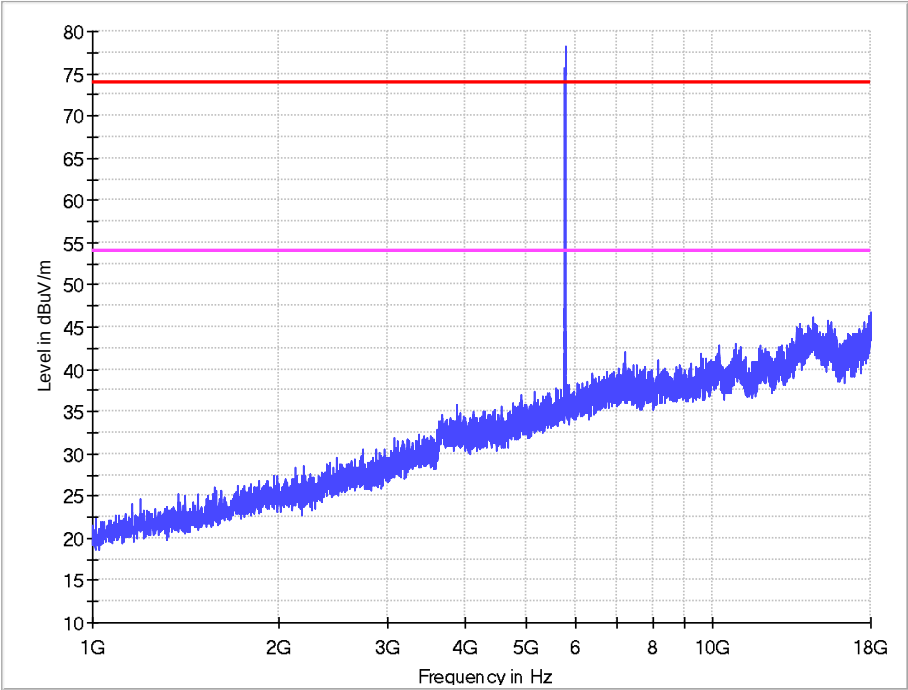
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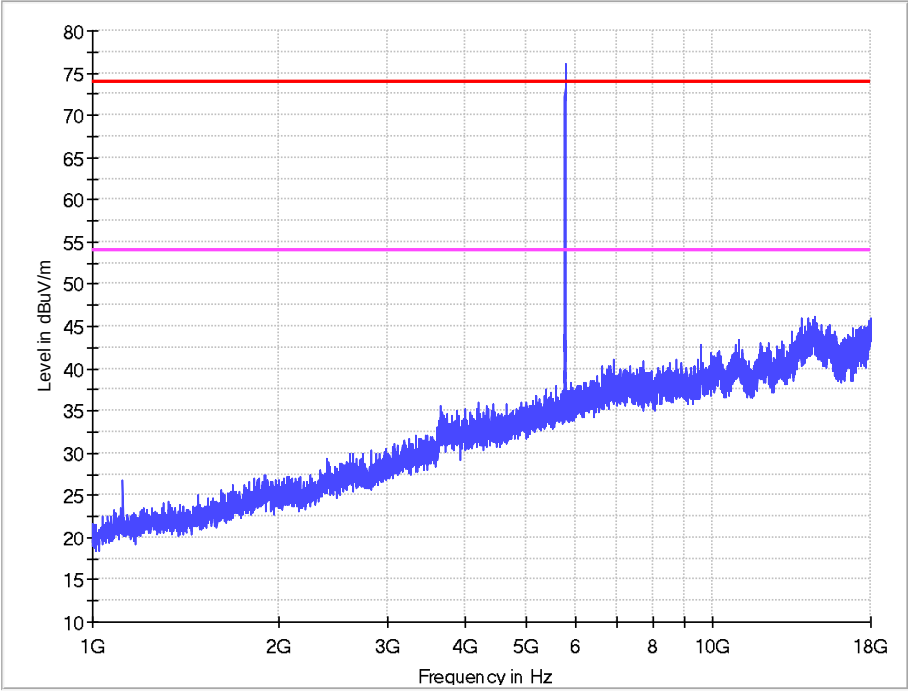
1-18G

11a IN THE 5.8GHz BAND
CH157

Horizontal



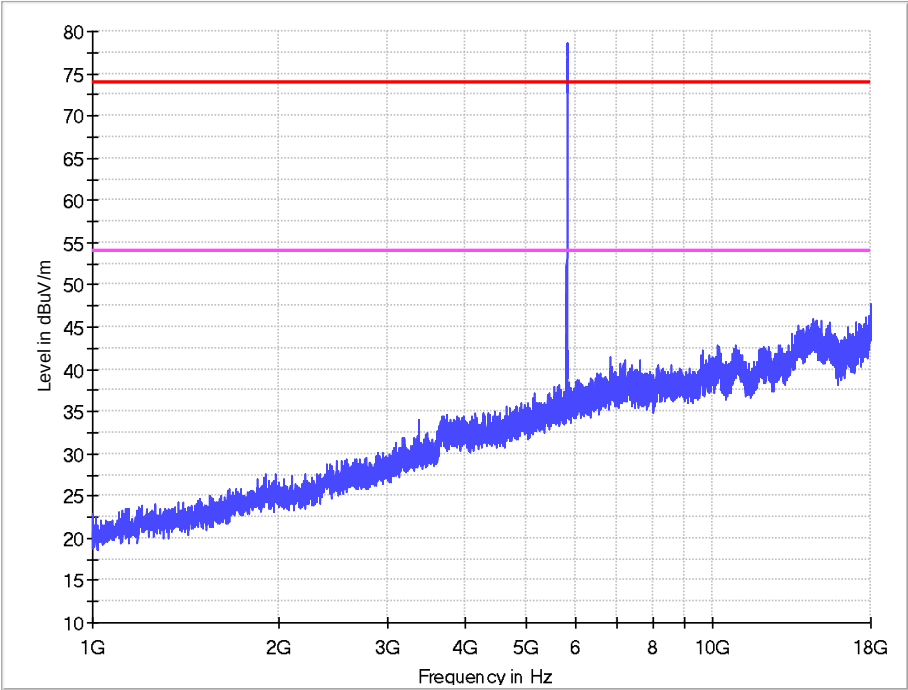
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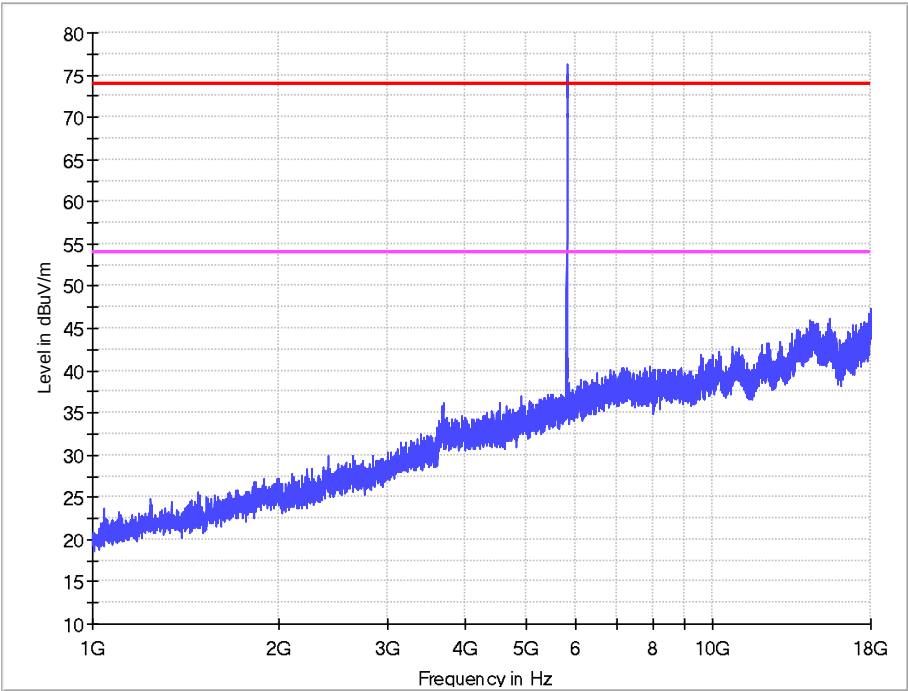
1-18G

11a IN THE 5.8GHz BAND
CH165

Horizontal



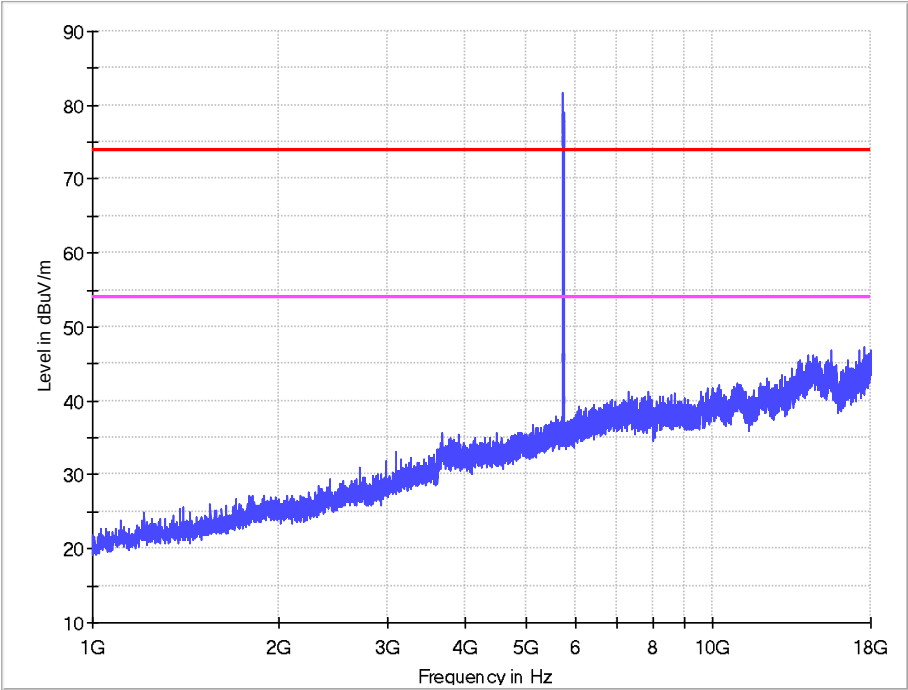
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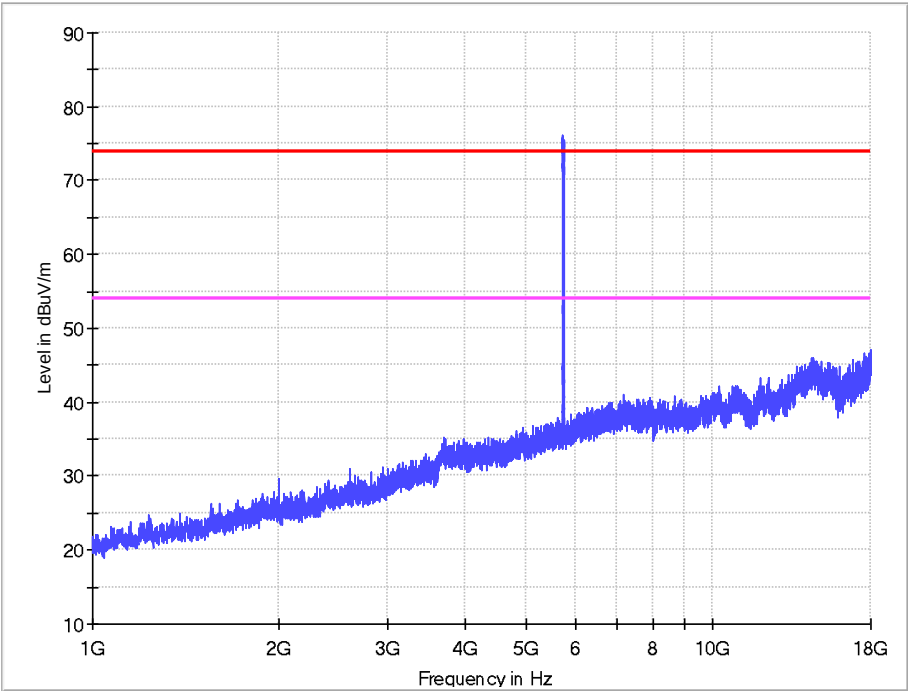
1-18G

11n HT20 IN THE 5.8GHz BAND
CH149

Horizontal



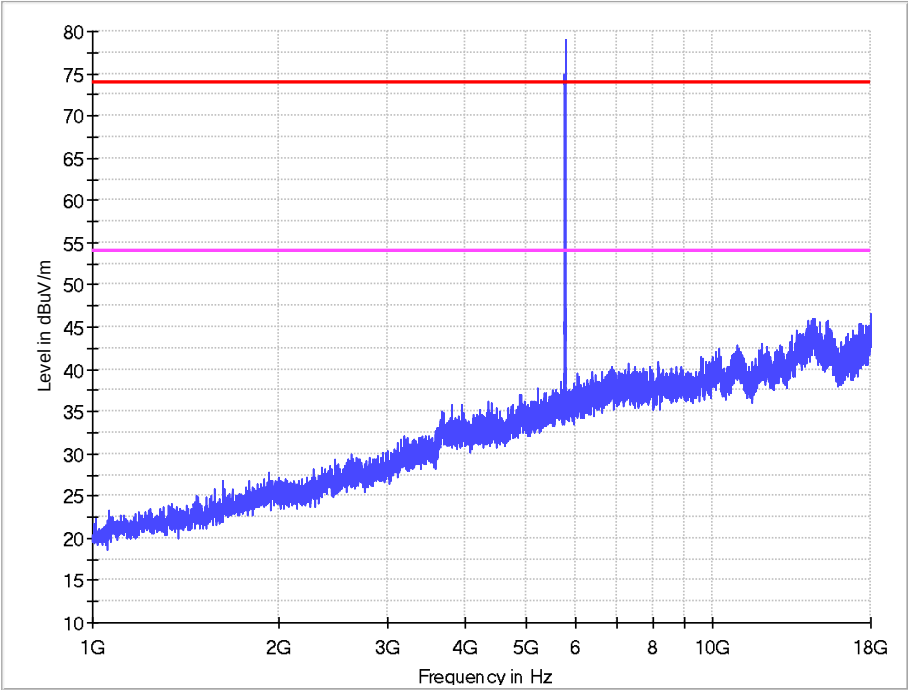
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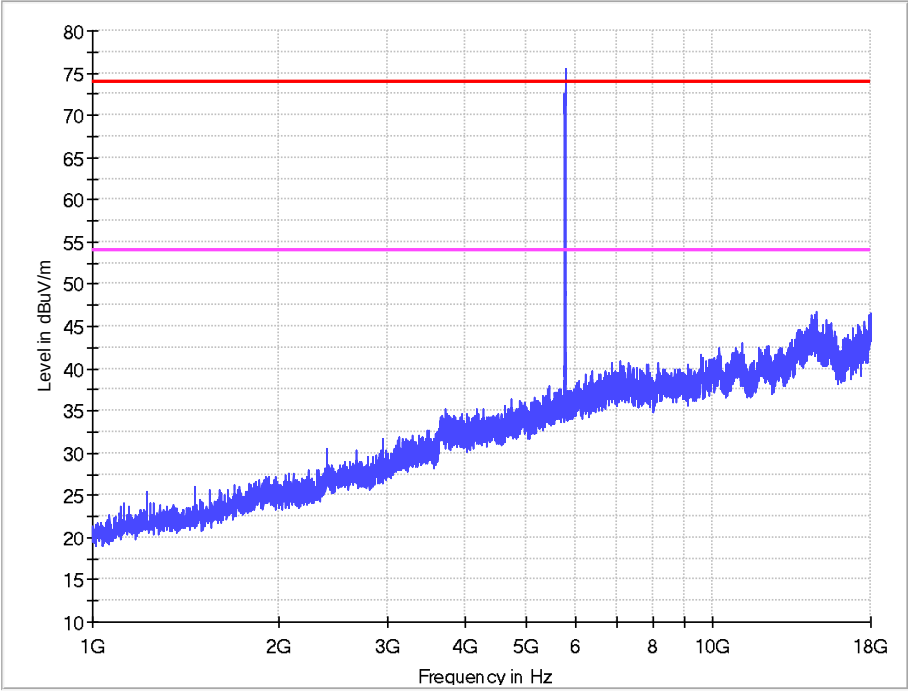
1-18G

11n HT20 IN THE 5.8GHz BAND
CH157

Horizontal



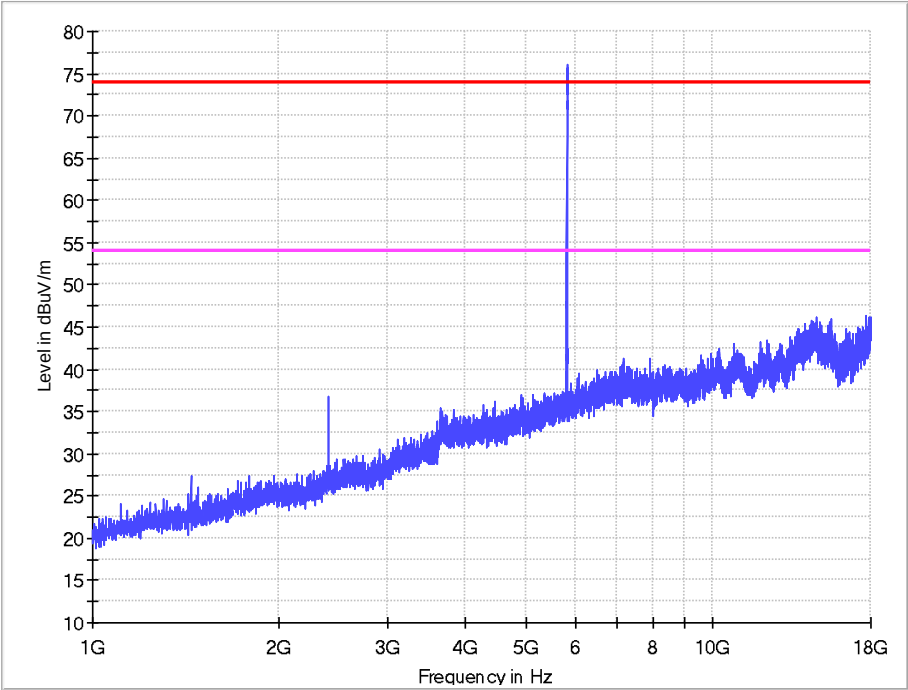
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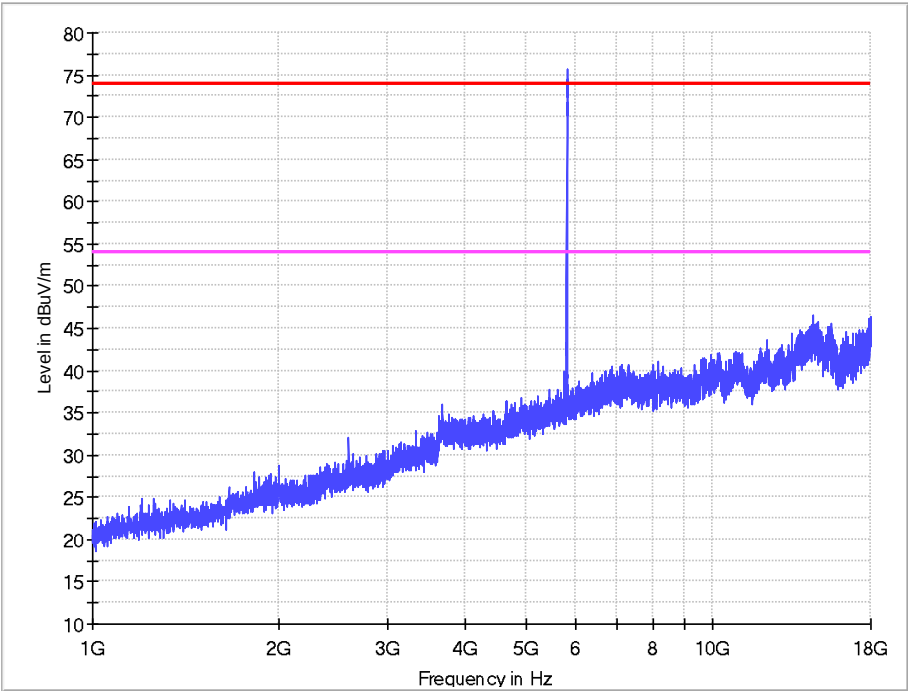
1-18G

11n HT20 IN THE 5.8GHz BAND
CH165

Horizontal

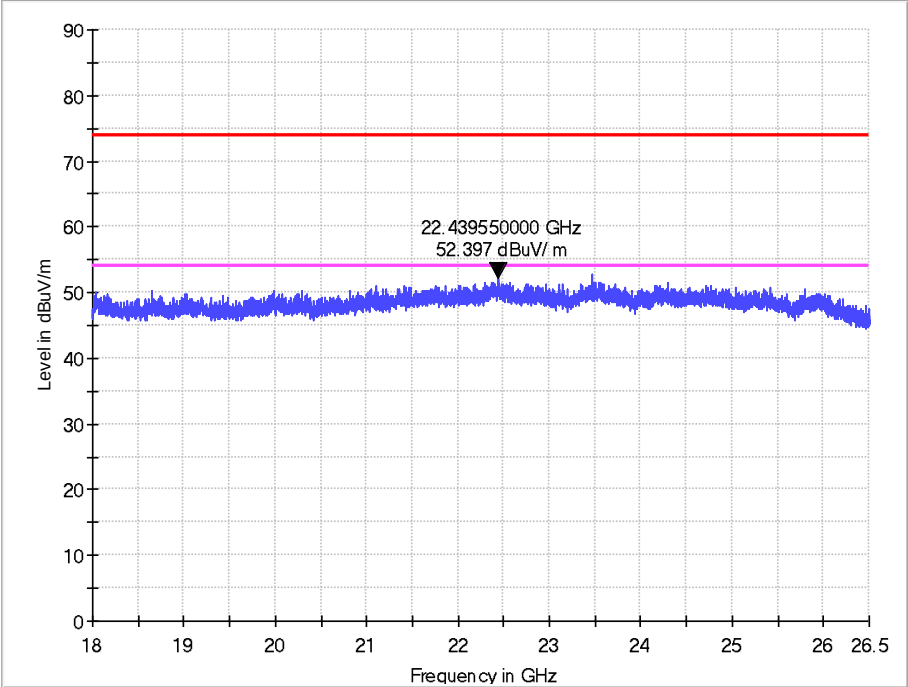


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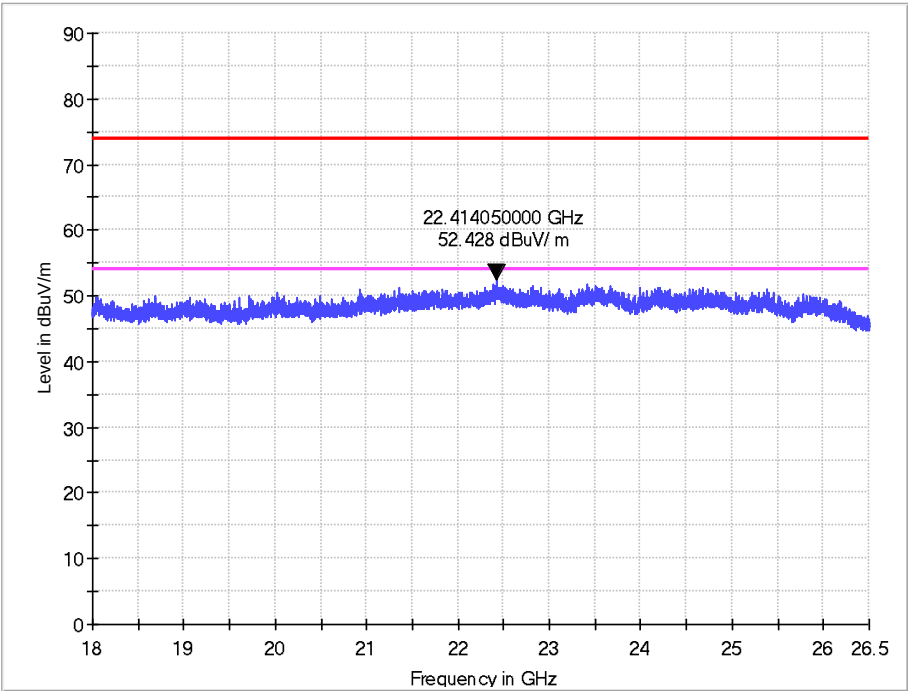


18GHz - 26.5GHz

(Worst Case)
Horizontal

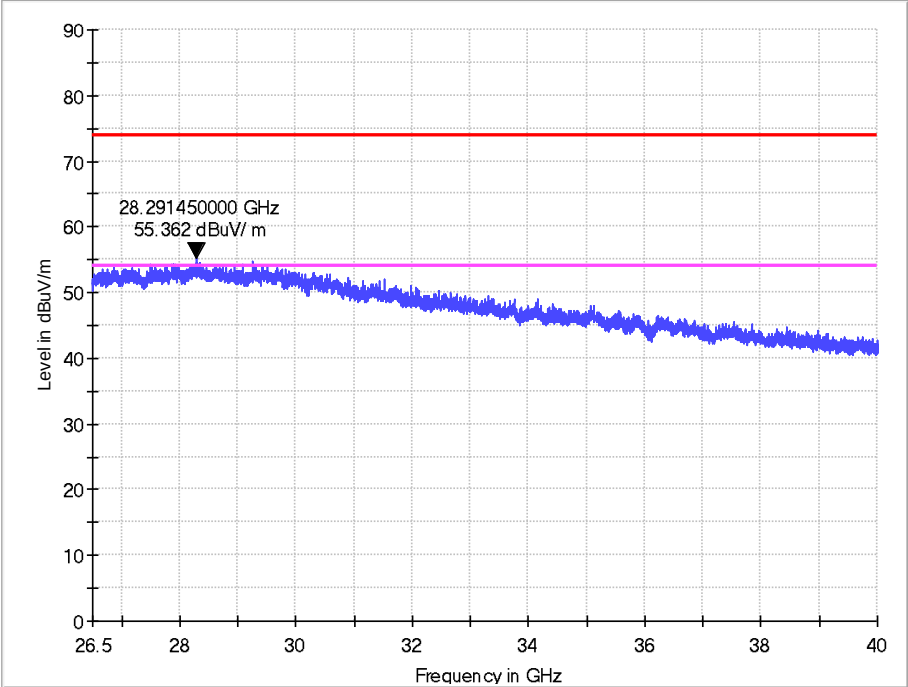


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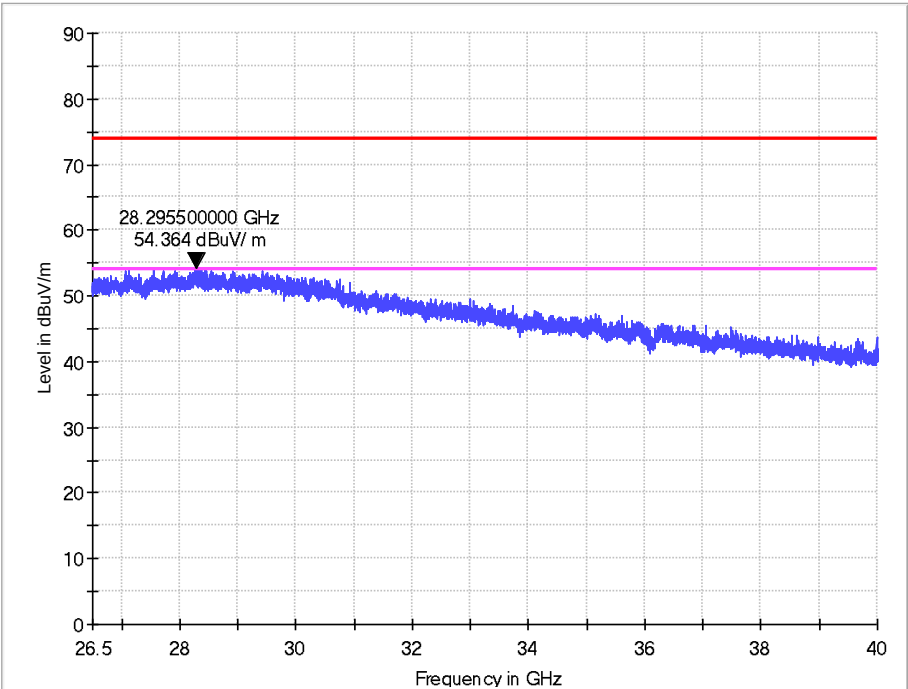


26.5 GHz - 40GHz

(Worst Case)
Horizontals



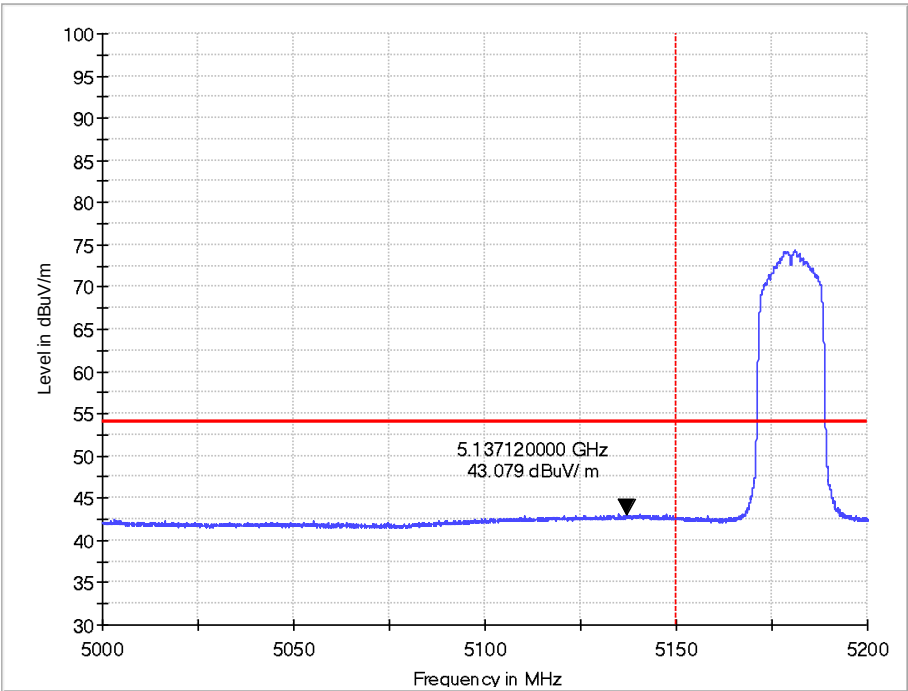
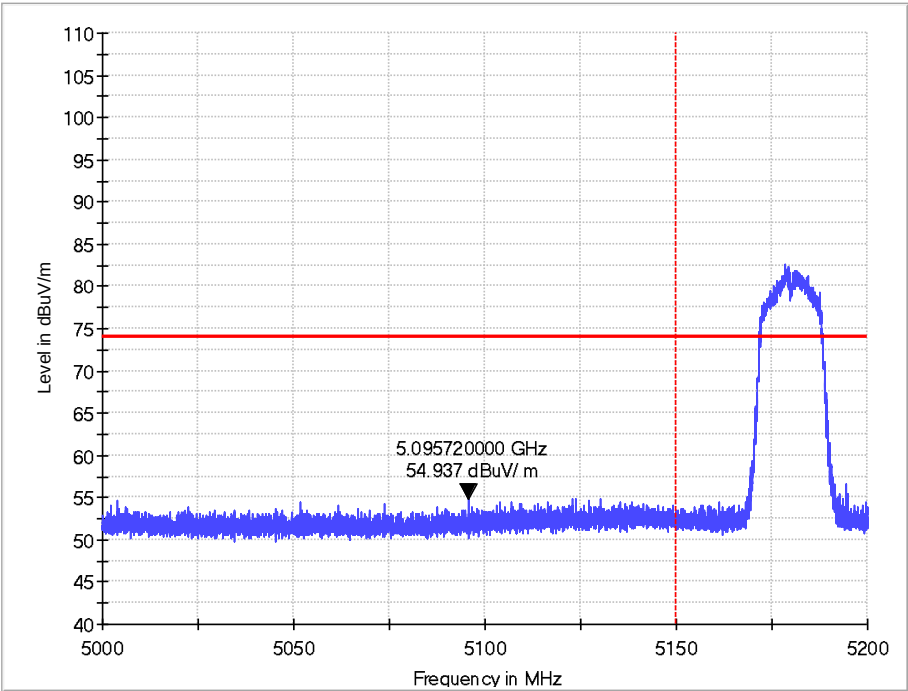
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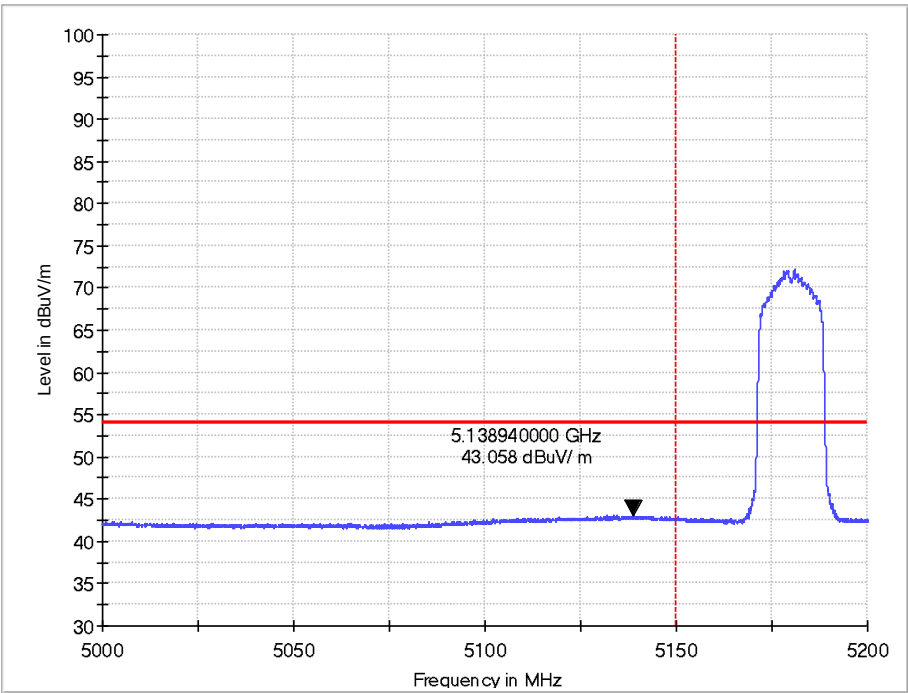
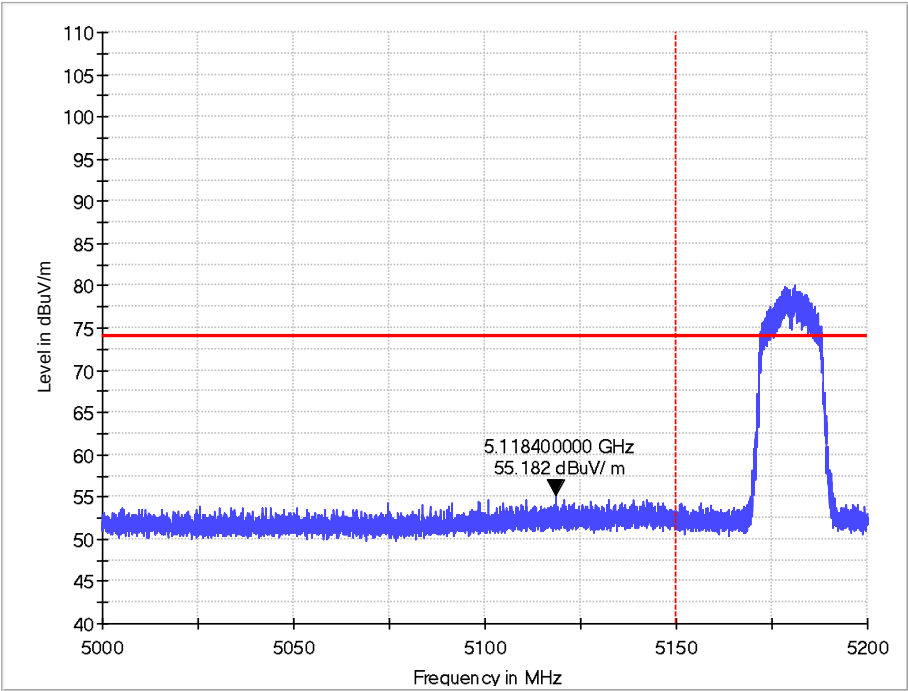
Band edge

11a IN THE 5.2GHz BAND
CH36

Horizontal



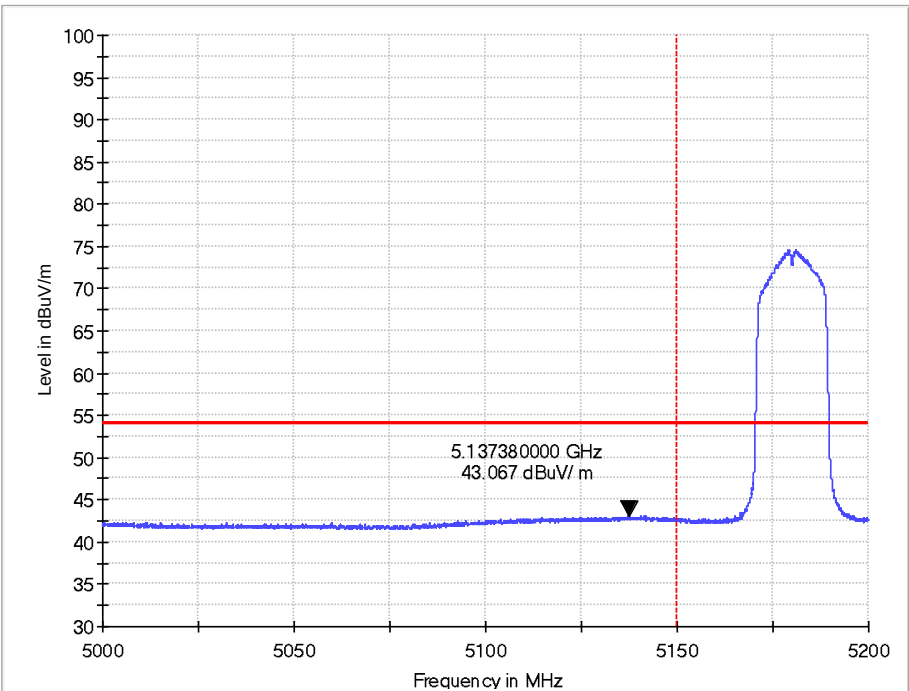
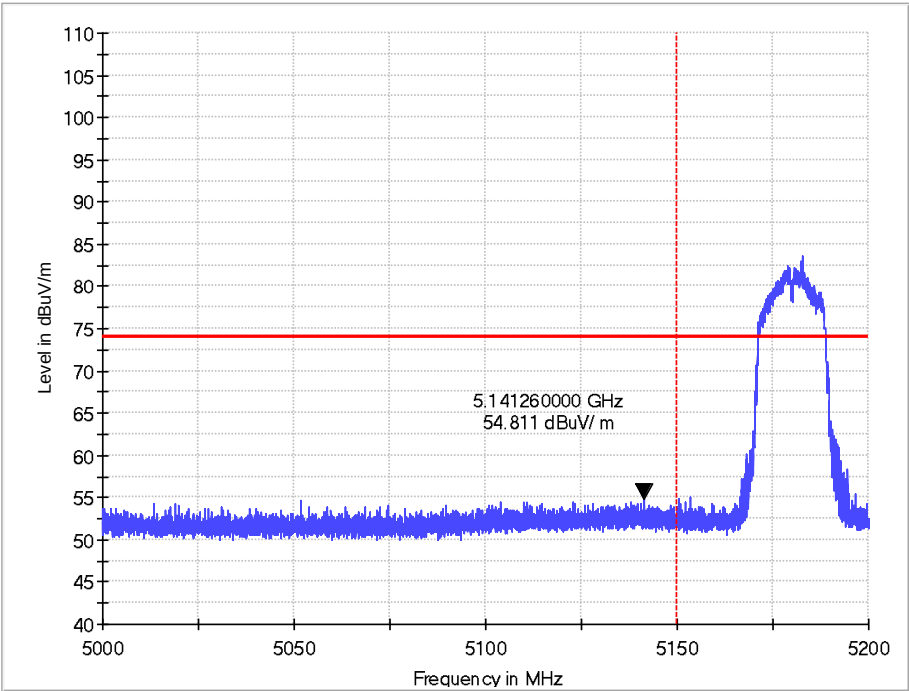
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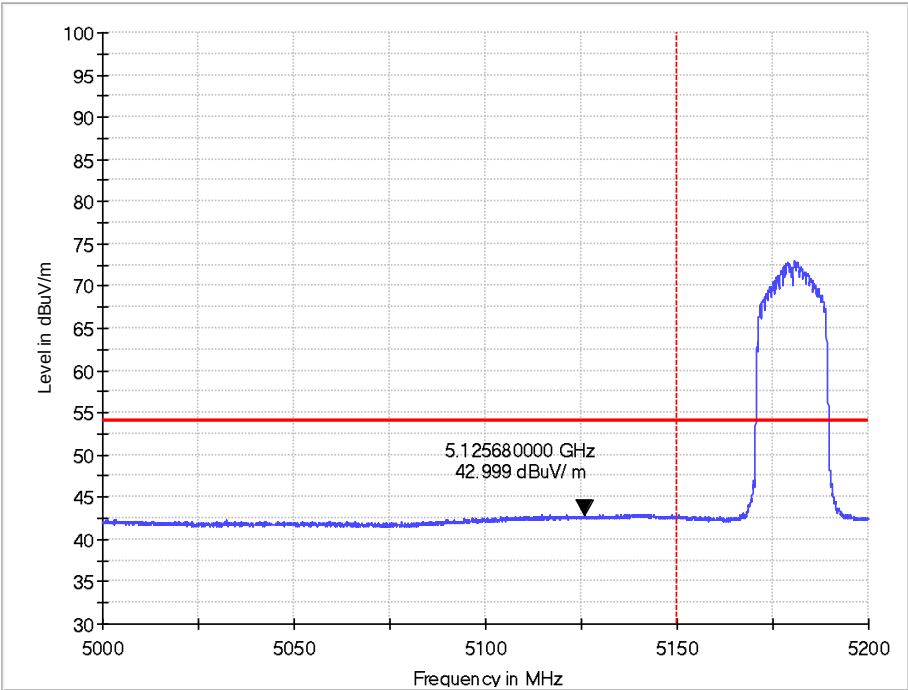
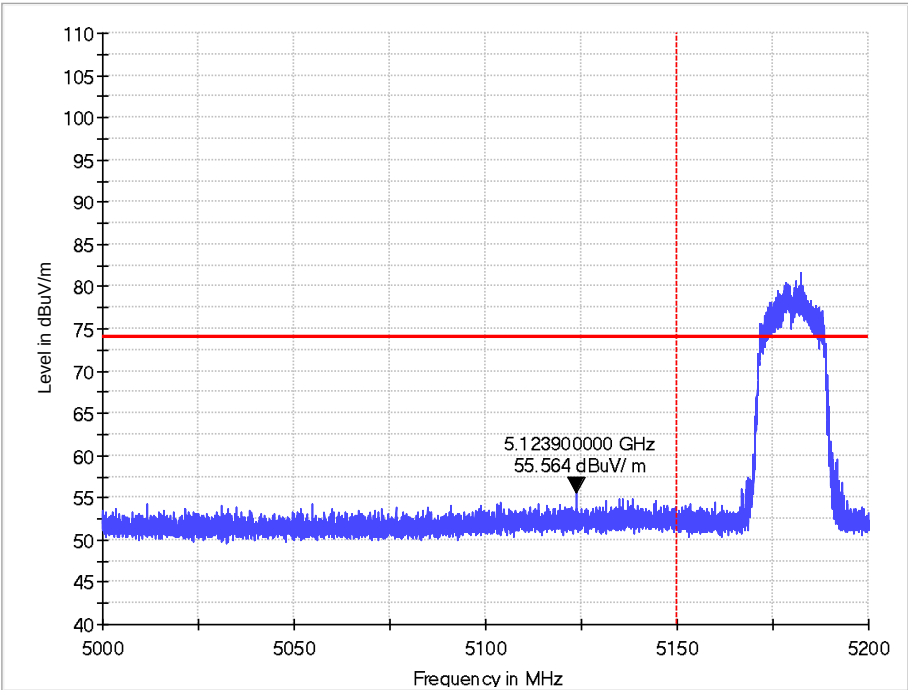
Band edge

11n HT20 IN THE 5.2GHz BAND
CH36

Horizontal



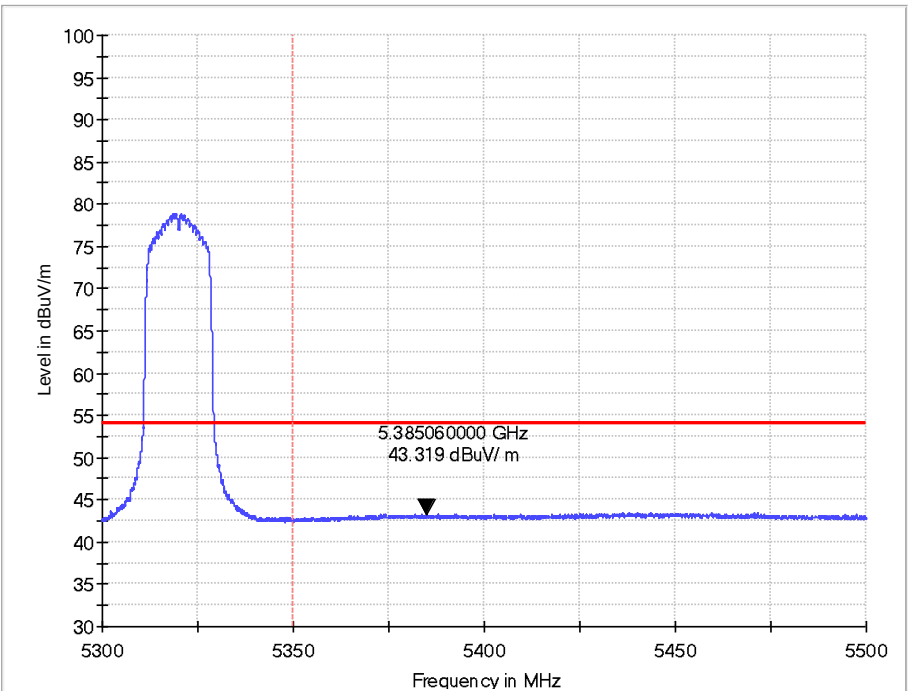
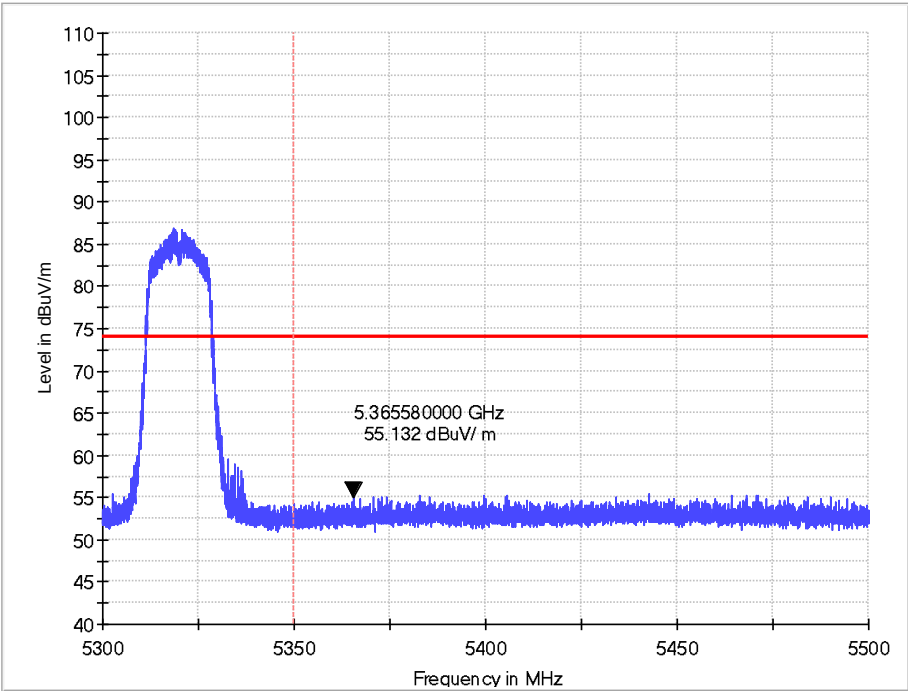
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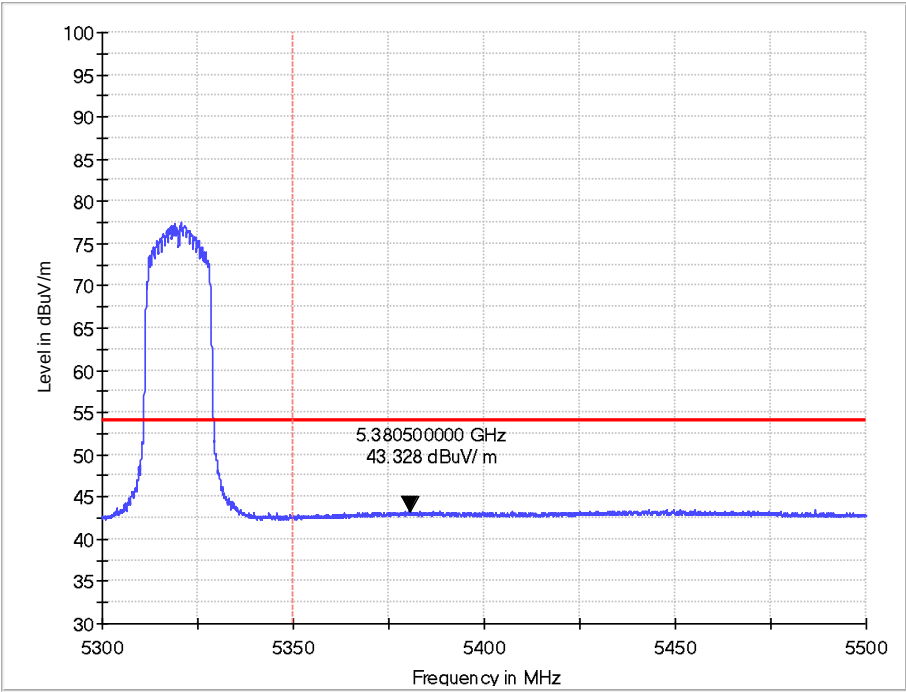
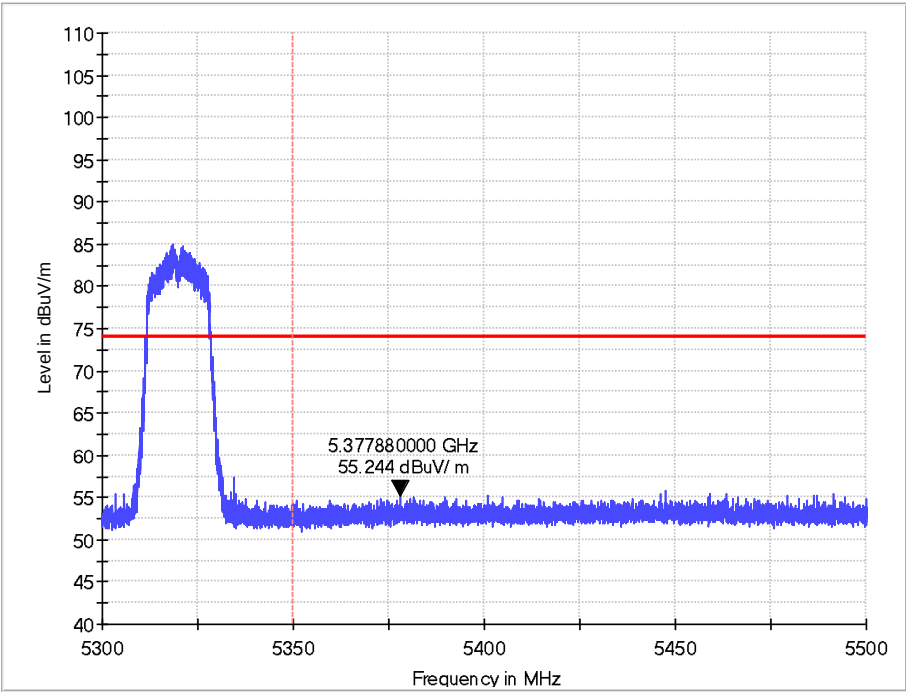
Band edge

11a IN THE 5.3GHz BAND
CH64

Horizontal



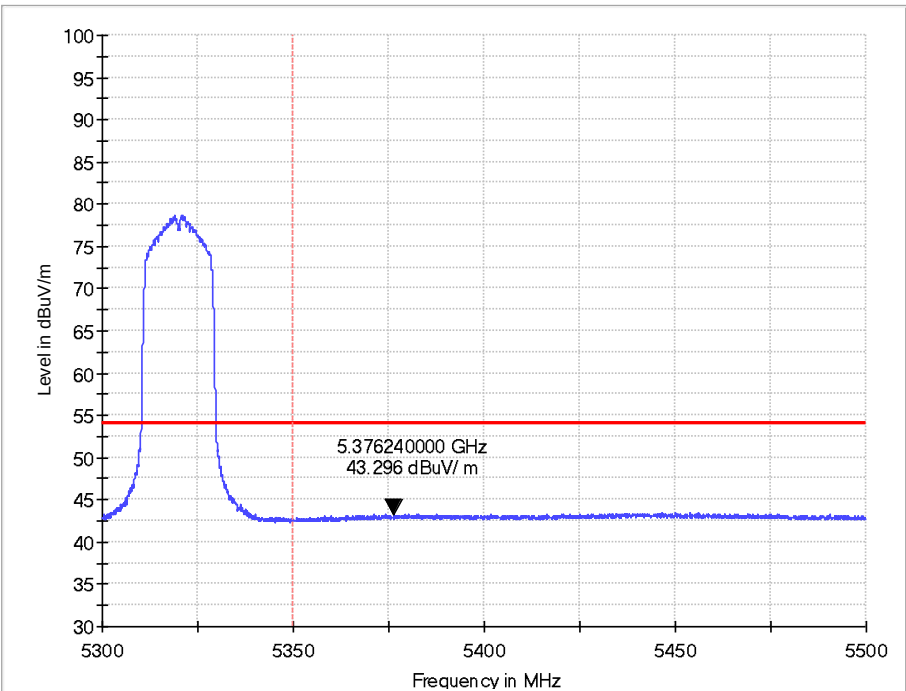
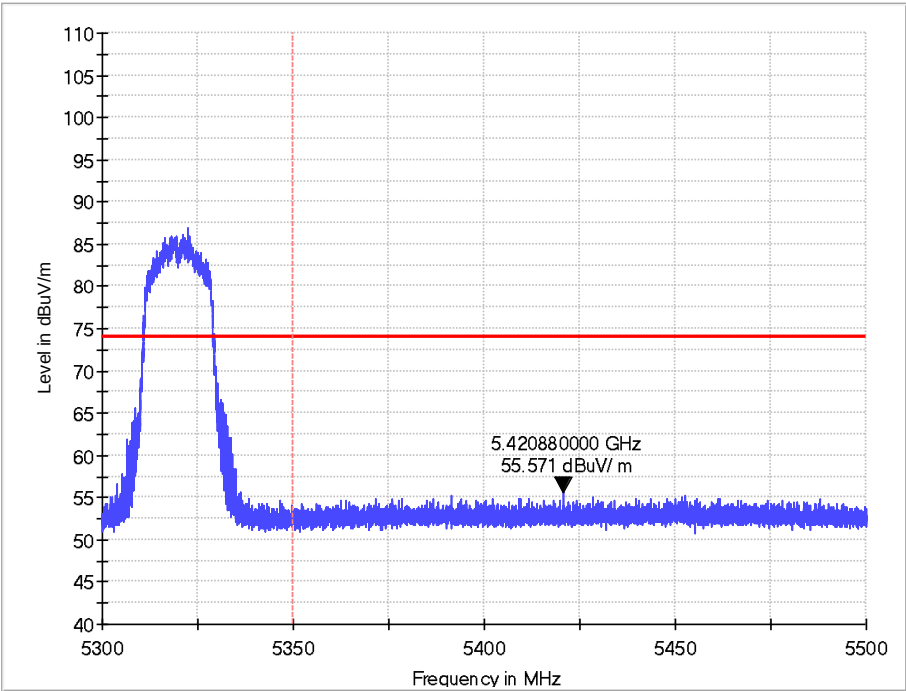
Vertical



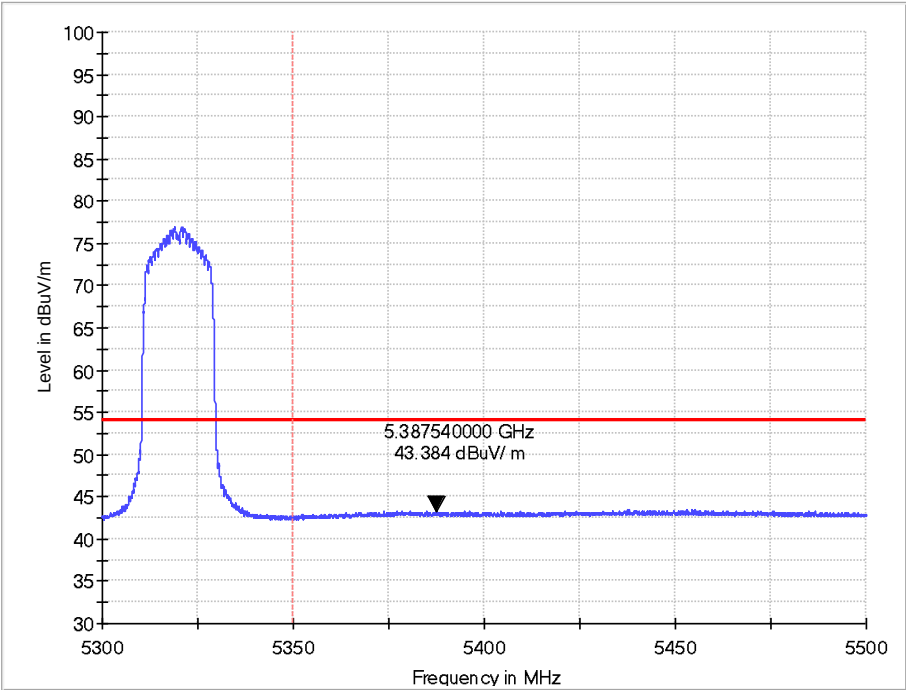
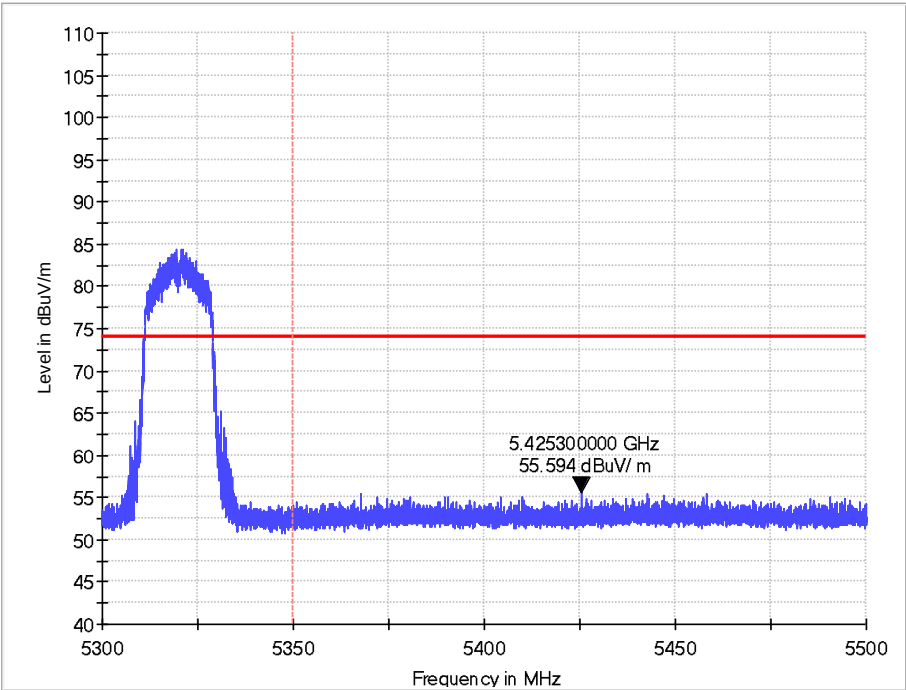
Band edge

11n HT20 IN THE 5.3GHz BAND
CH64

Horizontal



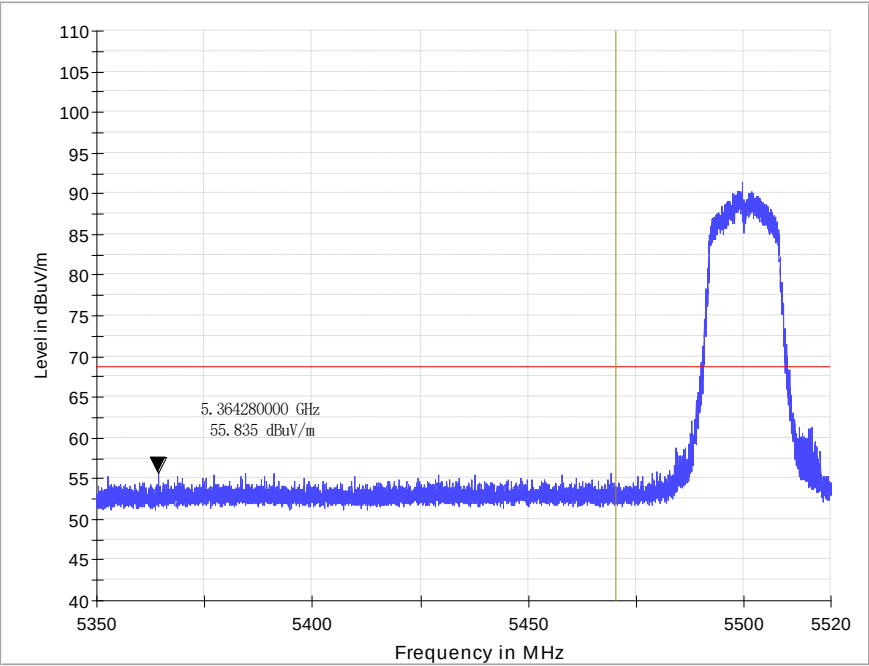
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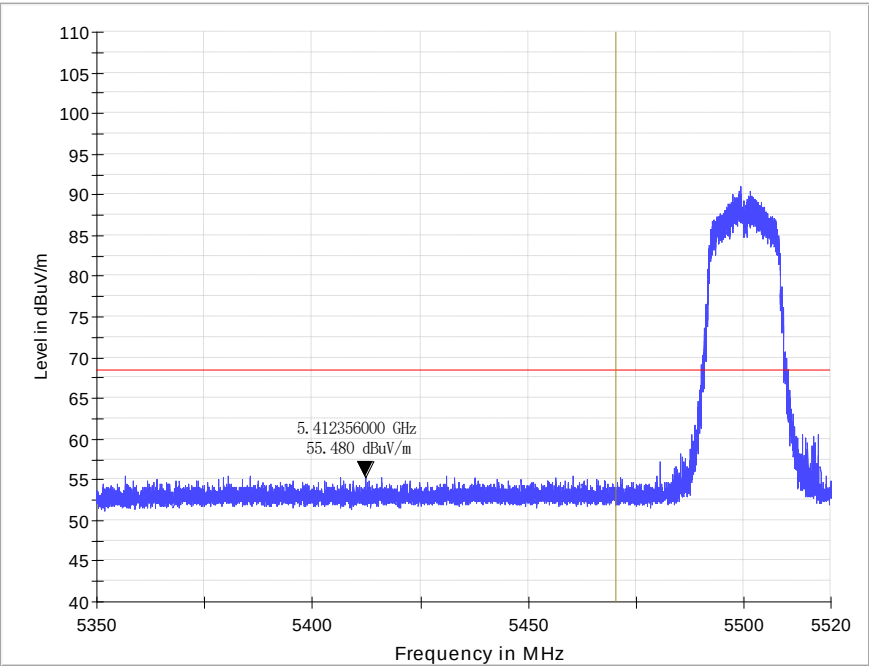
Band edge

11a IN THE 5.6GHz BAND
CH100

Horizontal



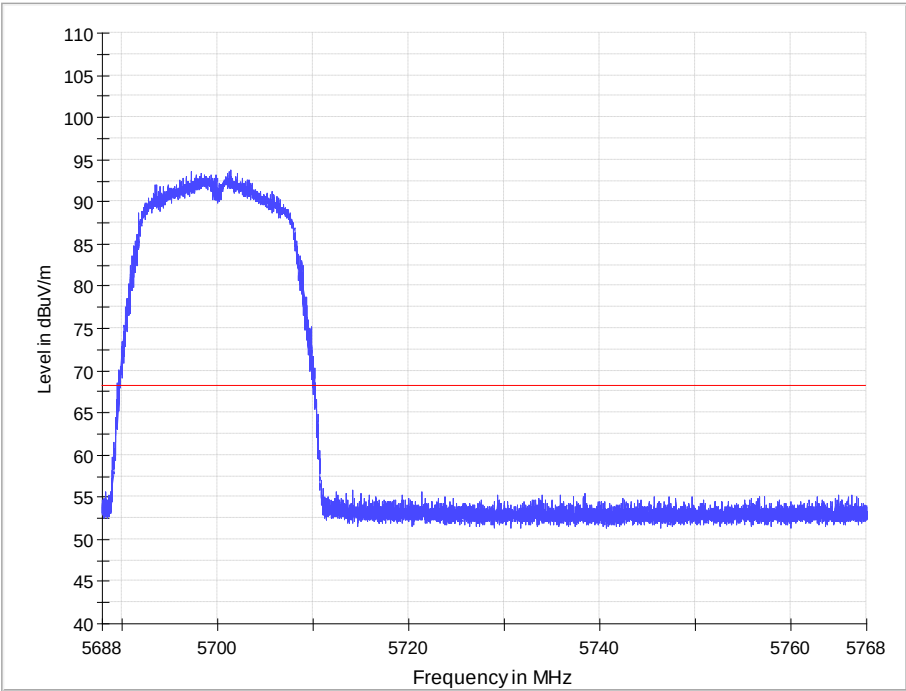
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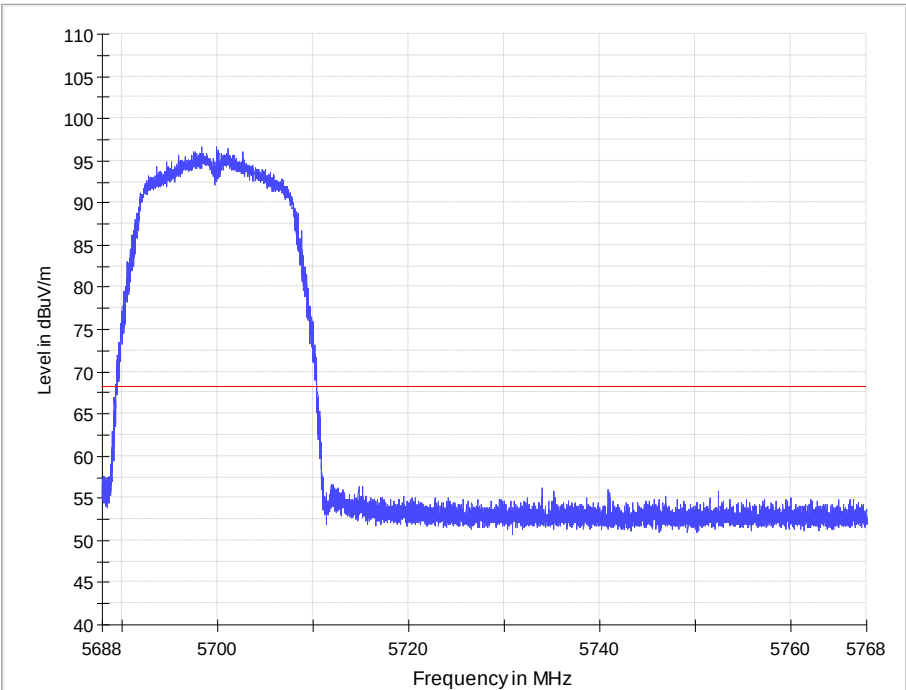
Band edge

11a IN THE 5.6GHz BAND
CH140

Horizontal



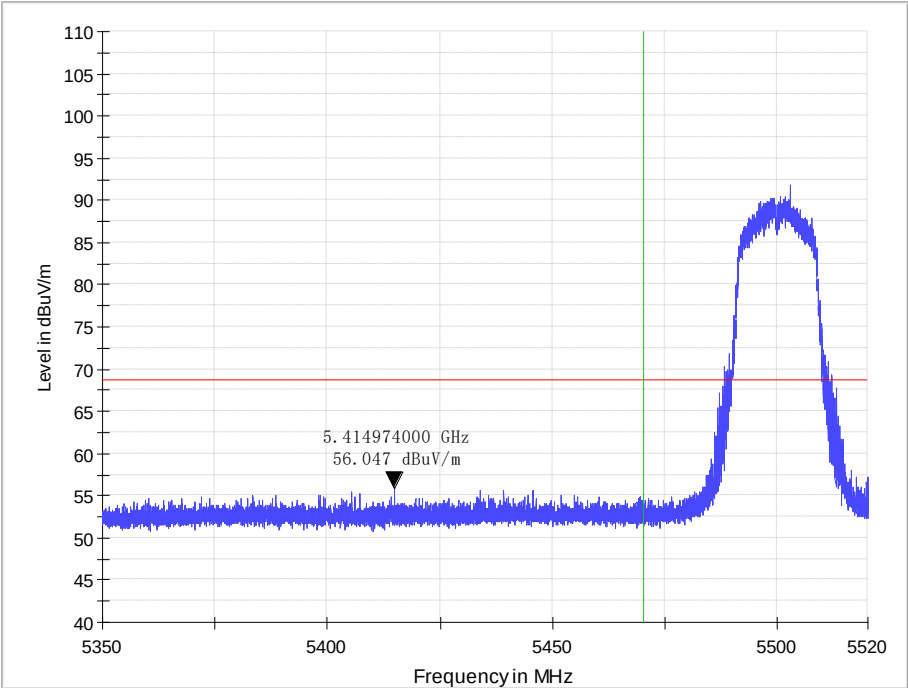
Vertical



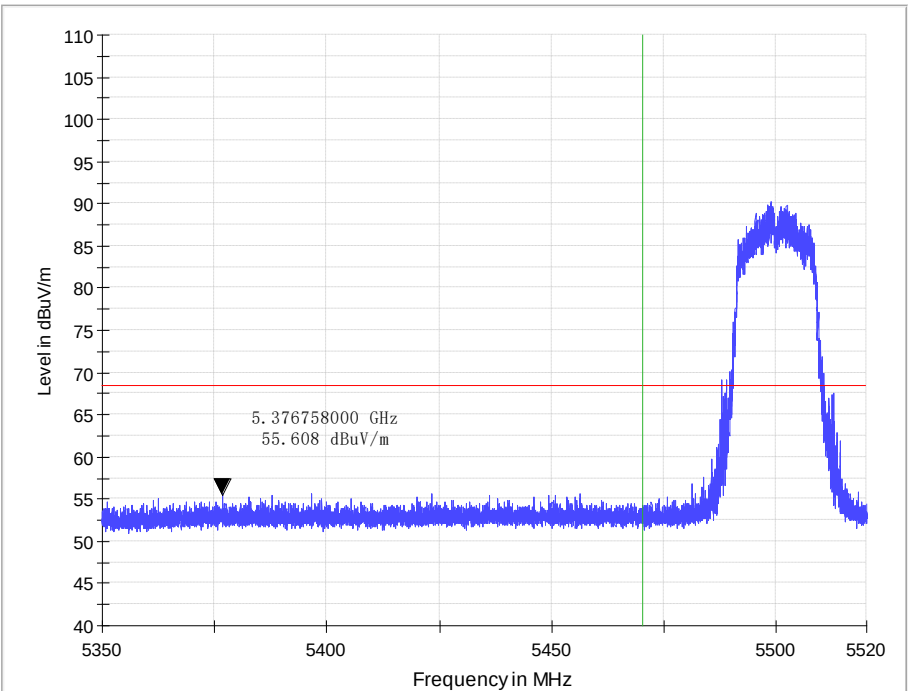
Band edge

11n HT20 IN THE 5.6GHz BAND
CH100

Horizontal



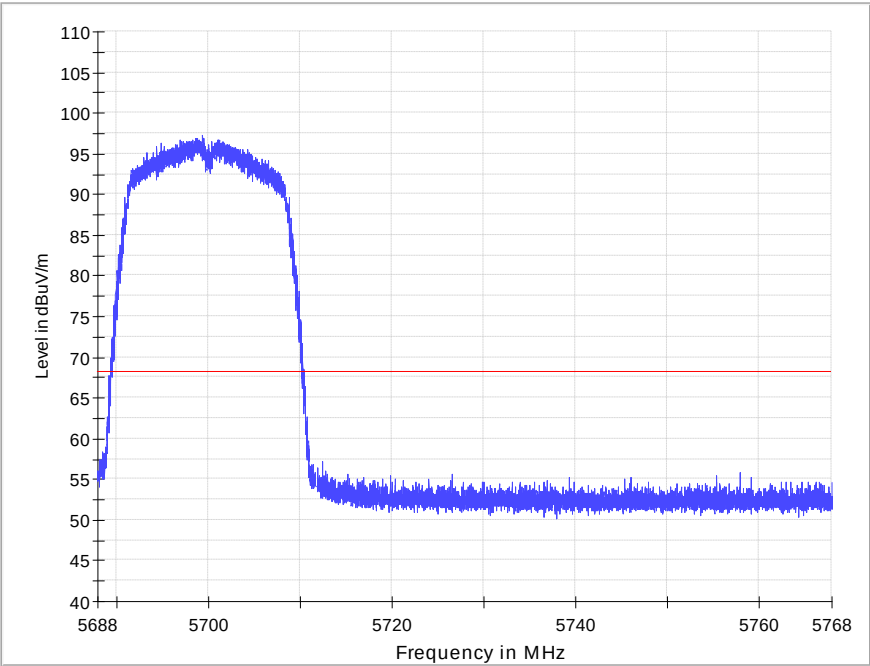
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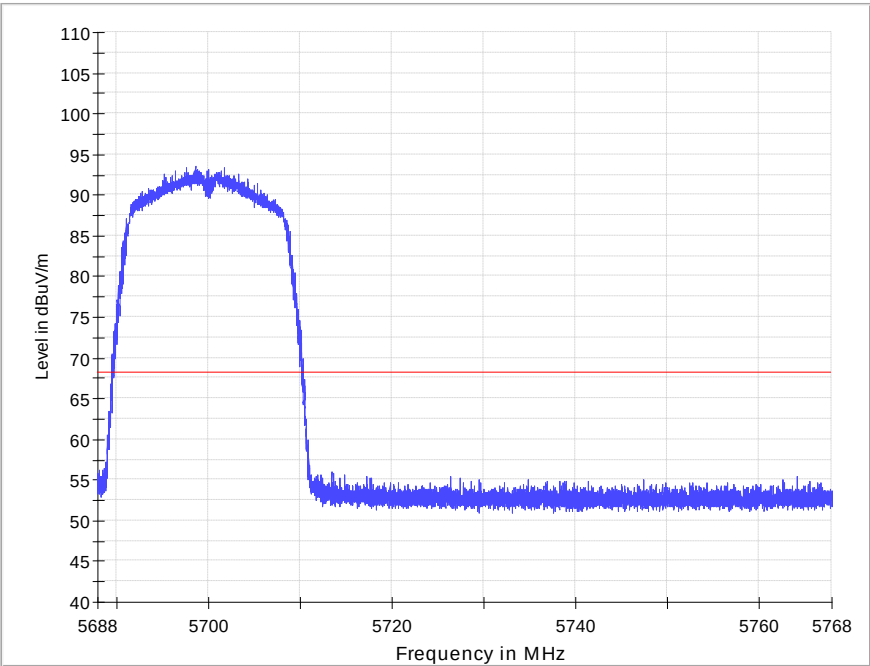
Band edge

11n HT20 IN THE 5.6GHz BAND
CH140

Horizontal



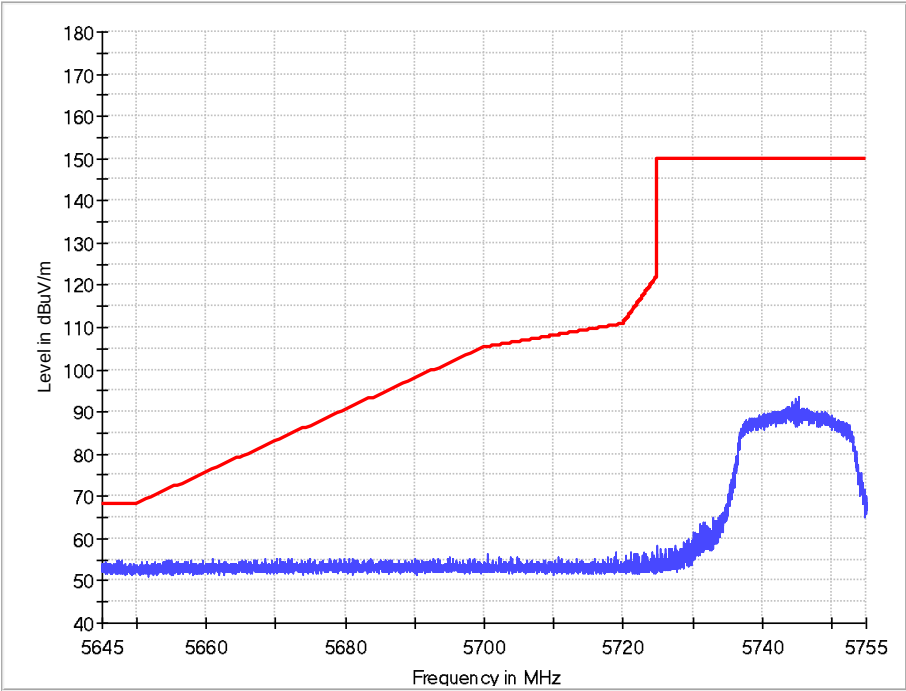
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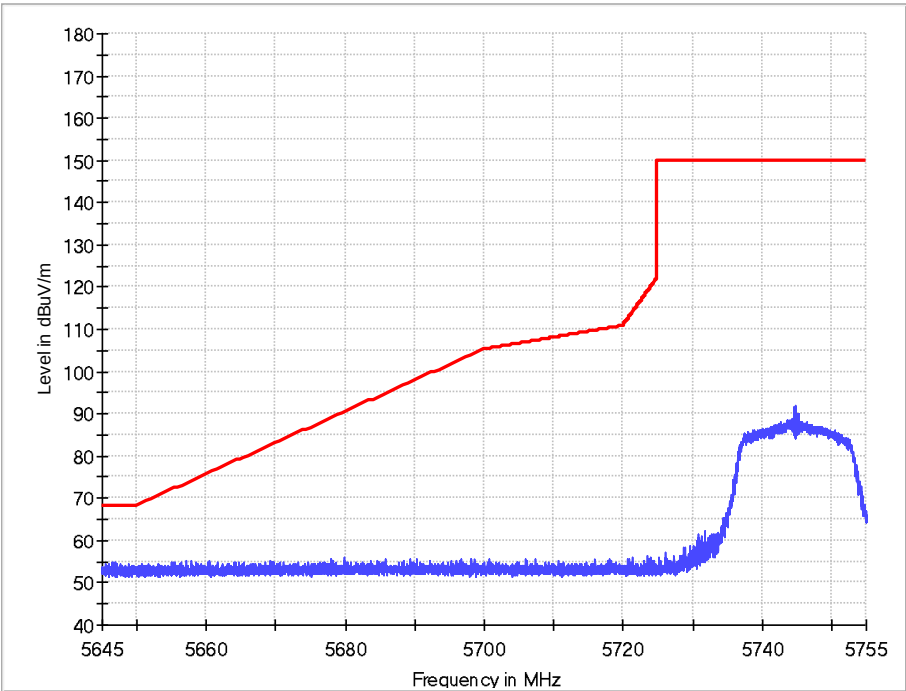
Band edge

11a IN THE 5.8GHz BAND
CH149

Horizontal



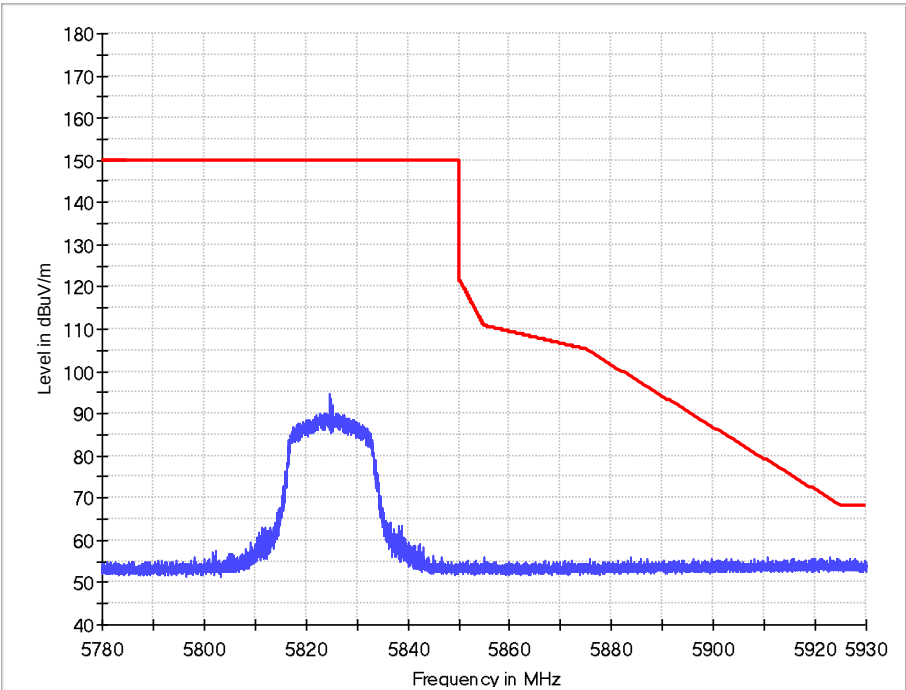
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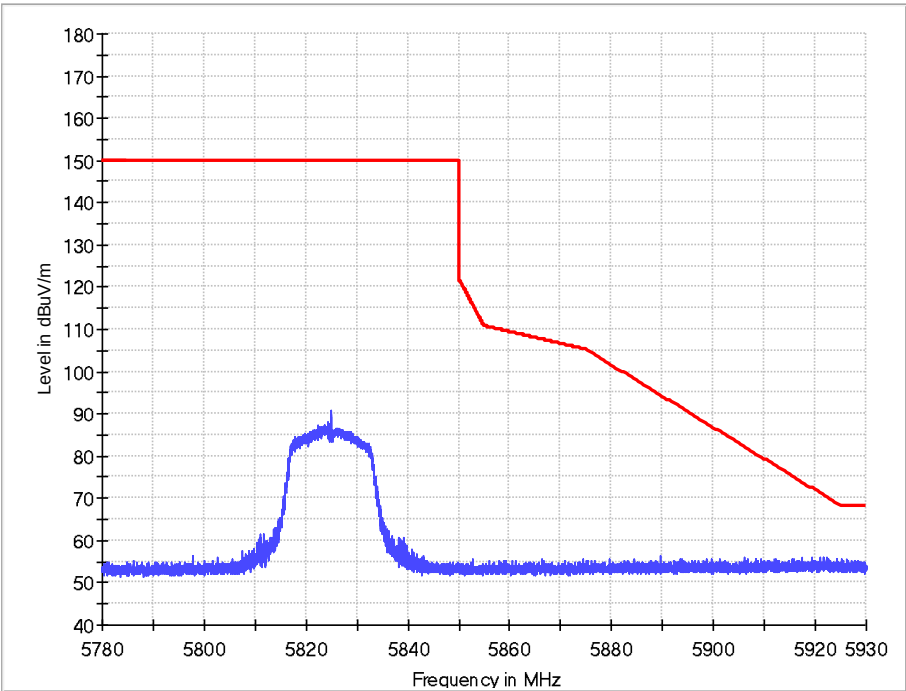
Band edge

11a IN THE 5.8GHz BAND
CH165

Horizontal



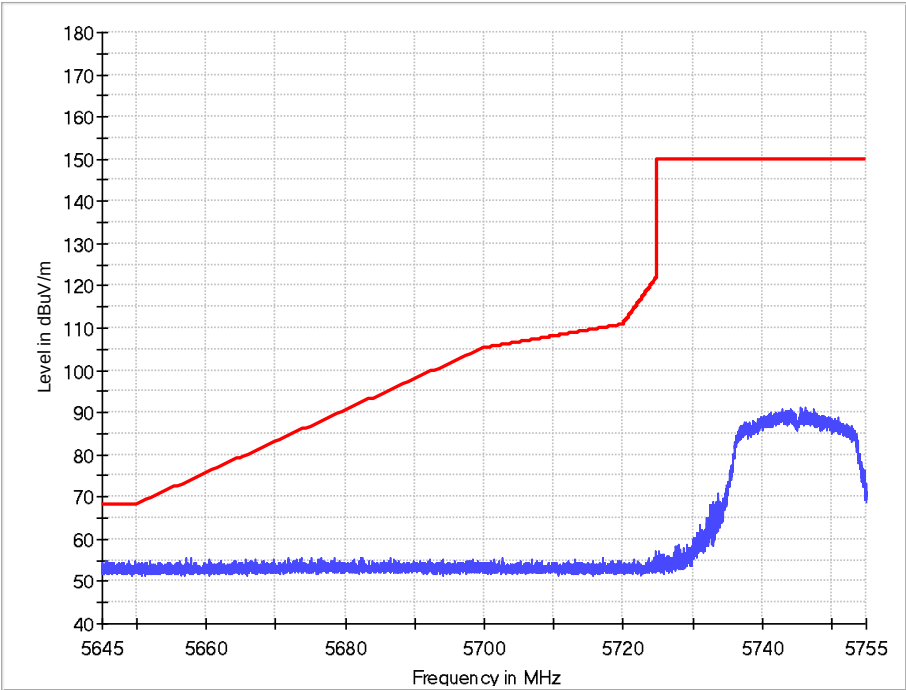
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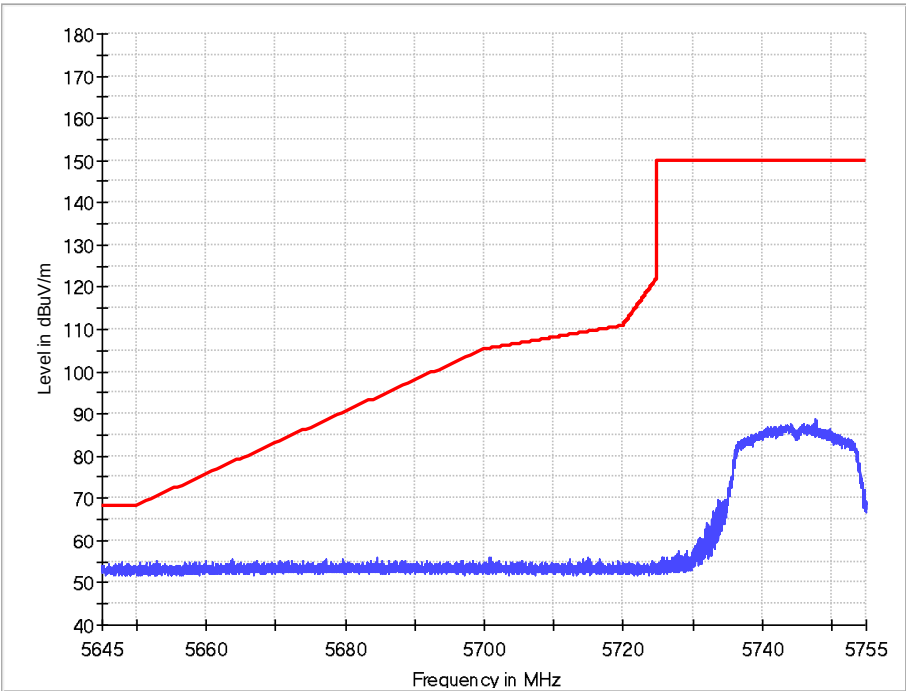
Band edge

11n HT20 IN THE 5.8GHz BAND
CH149

Horizontal



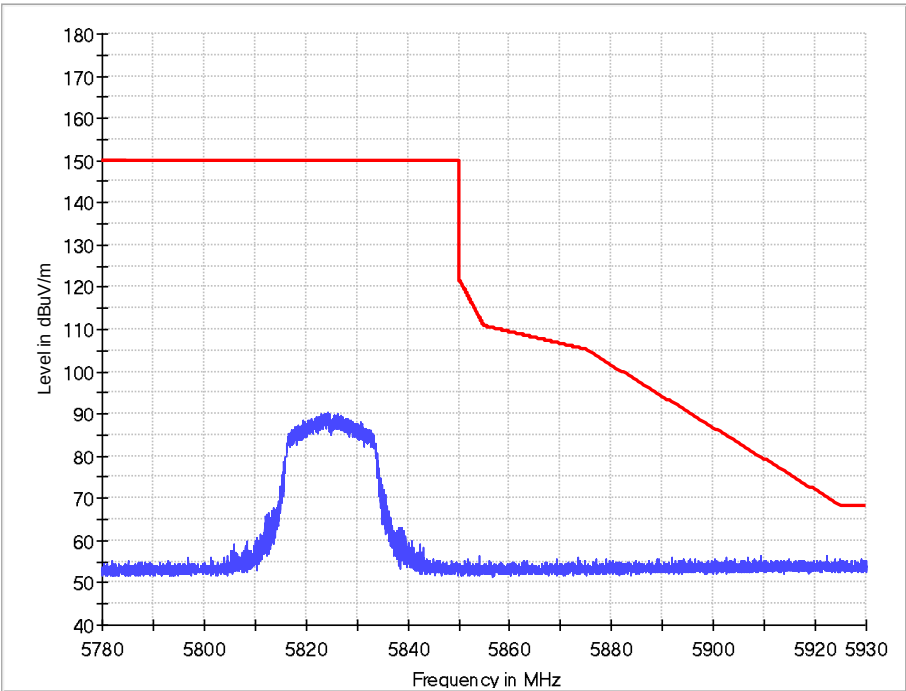
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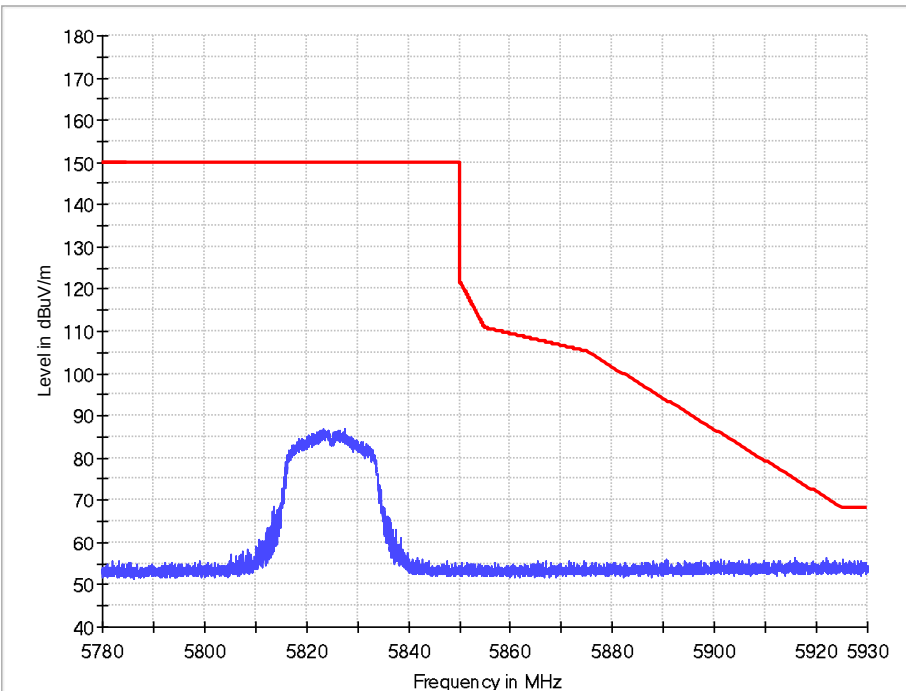
Band edge

11n HT20 IN THE 5.8GHz BAND
CH165

Horizontal



Vertical



12. CONDUCTED EMISSION TEST FOR AC POWER PORT MEASUREMENT

12.1. Test Standard and Limit

12.1.1. Test Standard

FCC Part 15 15.207
IC RSS-Gen Clause 8.8

12.1.2. Test Limit

Table 12 Conducted Disturbance Test Limit

Frequency	Maximum RF Line Voltage (dB μ V)	
	Quasi-peak Level	Average Level
150kHz~500kHz	66 ~ 56 *	56 ~ 46 *
500kHz~5MHz	56	46
5MHz~30MHz	60	50

* Decreasing linearly with logarithm of the frequency

* The lower limit shall apply at the transition frequency.

12.2. Test Procedure

The EUT is put on a table of non-conducting material that is 80cm high. The vertical conducting wall of shielding is located 40cm to the rear of the EUT. The power line of the EUT is connected to the AC mains through a Artificial Mains Network (A.M.N.). A EMI test receiver (R&S Test Receiver ESCS30) is used to test the emissions from both sides of AC line. According to the requirements of ANSI C63.10-2013. Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30MHz using CISPR Quasi-Peak and average detector mode.

The bandwidth of EMI test receiver is set at 9 kHz.

12.3. Test Arrangement

The arrangement of the equipment is installed to meet the standards and operating in a manner, which tends to maximize its emission characteristics in a normal application. The detailed information refers to test picture.

12.4. Test Data

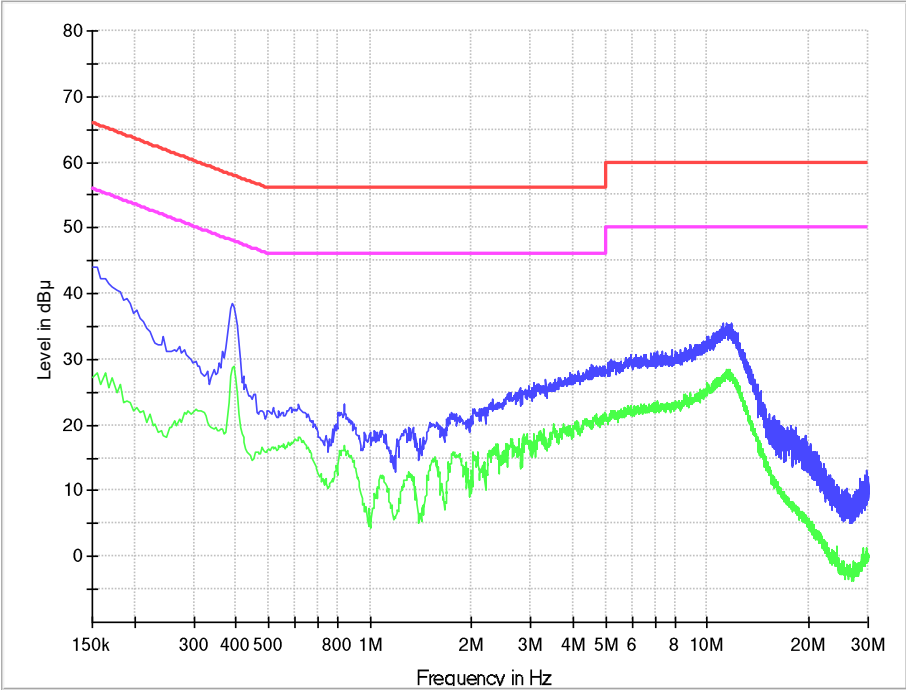
The emissions don't show in below are too low against the limits. Refer to the test curves.

Table 13 Conducted Disturbance Test Data

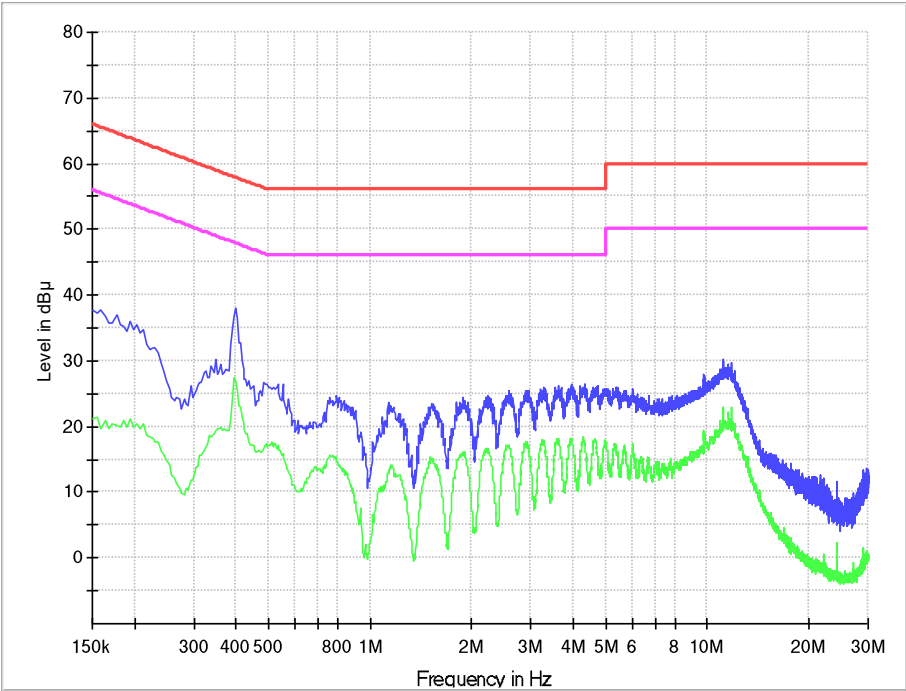
Test mode: Charging and Transmitting								
	Frequency (MHz)	Correction Factor (dB)	Quasi-Peak			Average		
			Reading (dB μ V)	Emission Level (dB μ V)	Limit (dB μ V)	Reading (dB μ V)	Emission Level (dB μ V)	Limit (dB μ V)
Line	0.15	9.7	32.0	41.7	66	19.0	28.7	56
	0.204	9.7	24.7	34.4	63.4	12.4	22.1	53.4
	0.388	9.7	26.5	36.2	58.1	19.2	28.9	48.1
	0.838	9.8	12.0	21.8	56	7.0	16.8	46
	3.795	9.9	15.3	25.2	56	10.3	20.2	46
	11.838	9.9	21.7	31.6	60	18.8	28.7	50
Neutral	0.150	9.7	25.2	34.9	66	10.5	20.2	56
	0.195	9.7	23.1	32.8	63.8	11.4	21.1	53.8
	0.397	9.7	25.7	35.4	57.9	17.3	27.0	47.9
	0.793	9.8	11.0	20.8	56	4.8	14.6	46
	1.172	9.8	10.3	20.1	56	4.4	14.2	46
	4.200	9.9	14.3	24.2	56	7.9	17.8	46

REMARKS: 1. Emission level(dBuV)=Read Value(dBuV) + Correction Factor(dB)
 2. Correction Factor(dB) =LISN Factor (dB) + Cable Factor (dB)+Limiter Factor(dB)
 3. The other emission levels were very low against the limit.

Line



Neutral



13. ANTENNA REQUIREMENTS

15.203 requirements:

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.

According to RSS-GEN Section 6.8, 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.

13.1. Antenna Connector

Antenna Connector is on the PCB within enclosure and not accessible to user.

13.2. Antenna Gain

The antenna gain of EUT is less than 6 dBi.

END OF REPORT