



FCC PART 74

TEST REPORT

For

Shenzhen Jiayz photo industrial.,Ltd

A16 Building, Intelligent Terminal Industrial Park of Silicon Valley Power, Guanlan, Longhua District, Shenzhen, China

FCC ID: 2ARN3-UWMIC9STX

Report Type: Original Report	Product Type: UHF Wireless Microphone System
Report Number: RSZ200624811-00	
Report Date: 2020-12-21	
Reviewed By: RF Engineer	Jacob Kong <i>Jacob Kong</i>
Prepared By: Bay Area Compliance Laboratories Corp. (Shenzhen) 6/F., West Wing, Third Phase of Wanli Industrial Building, Shihua Road, Futian Free Trade Zone, Shenzhen, Guangdong, China Tel: +86-755-33320018 Fax: +86-755-33320008 www.baclcorp.com.cn	

Note: This report may contain data that are not covered by the A2LA accreditation and are marked with an asterisk "★".

BACL is not responsible for the authenticity of any test data provided by the applicant. Data included from the applicant that may affect test results are marked with an asterisk '*'. Customer model name, addresses, names, trademarks etc. are not considered data.

This report cannot be reproduced except in full, without prior written approval of the Company. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This report is valid only with a valid digital signature. The digital signature may be available only under the Adobe software above version 7.0.

TABLE OF CONTENTS

GENERAL INFORMATION.....	4
PRODUCT DESCRIPTION FOR EQUIPMENT UNDER TEST (EUT)	4
OBJECTIVE	4
TEST METHODOLOGY	4
MEASUREMENT UNCERTAINTY.....	4
TEST FACILITY	5
SYSTEM TEST CONFIGURATION	6
DESCRIPTION OF TEST CONFIGURATION	6
EUT EXERCISE SOFTWARE	7
SPECIAL ACCESSORIES	8
EQUIPMENT MODIFICATIONS	8
SUPPORT EQUIPMENT LIST AND DETAILS	8
BLOCK DIAGRAM OF TEST SETUP	8
SUMMARY OF TEST RESULTS	9
TEST EQUIPMENT LIST	10
FCC§1.1307 (b) (1) &§2.1093 – RF EXPOSURE.....	11
APPLICABLE STANDARD	11
FCC§74.861(e)(1) - RF OUTPUT POWER.....	12
APPLICABLE STANDARD	12
TEST PROCEDURE	12
TEST DATA	12
FCC §74.861(e)(3) - MODULATION CHARACTERISTICS.....	23
APPLICABLE STANDARD	23
TEST PROCEDURE	23
TEST DATA	23
FCC §74.861(e)(5) (7) – OPERATING BANDWIDTH & EMISSION MASK.....	32
APPLICABLE STANDARD	32
TEST PROCEDURE	32
TEST DATA	32
FCC §74.861(e)(7) - SPURIOUS EMISSIONS AT THE ANTENNA PORT	61
APPLICABLE STANDARD	61
TEST PROCEDURE	61
TEST DATA	61
FCC §74.861(e)(7) - FIELD STRENGTH OF SPURIOUS EMISSION	68
APPLICABLE STANDARD	68
TEST PROCEDURE	68
TEST DATA	68

FCC §74.861(e)(4) - FREQUENCY STABILITY73
 APPLICABLE STANDARD73
 TEST PROCEDURE73
 TEST DATA73

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Product	UHF Wireless Microphone System
Tested Model	UwMic9S TX9S
Frequency Range	514.56-595.46MHz
Maximum conducted output power	10.69dBm
Antenna Specification	2dBi* (Assigned by manufacturer)
Voltage Range	DC 3.7V from battery
Date of Test	2020-11-17 to 2020-12-20
Sample serial number	RSZ200624811-RF (TX) (Assigned by BACL, Shenzhen)
Received date	2020-06-24
Sample/EUT Status	Good condition

Objective

This test report is prepared in accordance with Part 74 Subparts H of the Federal Communication Commissions rules.

The objective is to determine compliance with Part 74 of the Federal Communication Commissions rules, limits for RF output power, Modulation characteristics, Emission bandwidth, Field strength of spurious radiation and Frequency stability.

Test Methodology

All measurements contained in this report were conducted in accordance with ANSI C63.26-2015, fcc KDB 971168 D01 Power Meas License Digital Systems v03r01, and EN 300 442-1 v1.4.2 Elenctromagnetic compatibility and Radio Spectrum Matters; Wireless microphones in the 25MHz to 3GHz frquency reange.

All emissions measurement was performed at Bay Area Compliance Laboratories Corp. (Shenzhen).

Measurement Uncertainty

Parameter		Uncertainty
Occupied Channel Bandwidth		±5%
RF Output Power with Power meter		±0.73dB
RF conducted test with spectrum		±1.6dB
Emissions, Radiated	Below 1GHz	±4.0dB
	Above 1GHz	±4.0dB
Temperature		±1℃
Humidity		±6%
Supply voltages		±0.4%

Note: The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor K with the 95% confidence interval. Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty.

Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Shenzhen) to collect test data is located on the 6/F., West Wing, Third Phase of Wanli Industrial Building, Shihua Road, Futian Free Trade Zone, Shenzhen, Guangdong, China.

The test site has been approved by the FCC under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database, FCC Registration No. : 342867, the FCC Designation No. : CN1221.

The test site has been registered with ISED Canada under ISED Canada Registration Number 3062B.

SYSTEM TEST CONFIGURATION

Description of Test Configuration

The system was configured for testing in a in a normal mode.

Frequency list:

Channel Group A:

No.	Frequency	No.	Frequency	No.	Frequency
1	514.560MHz	33	527.680MHz	65	540.800MHz
2	514.970MHz	34	528.090MHz	66	541.210MHz
3	515.380MHz	35	528.500MHz	67	541.620MHz
4	515.790MHz	36	528.910MHz	68	542.030MHz
5	516.200MHz	37	529.320MHz	69	542.440MHz
6	516.610MHz	38	529.730MHz	70	542.850MHz
7	517.020MHz	39	530.140MHz	71	543.260MHz
8	517.430MHz	40	530.550MHz	72	543.670MHz
9	517.840MHz	41	530.960MHz	73	544.080MHz
10	518.250MHz	42	531.370MHz	74	544.490MHz
11	518.660MHz	43	531.780MHz	75	544.900MHz
12	519.070MHz	44	532.190MHz	76	545.310MHz
13	519.480MHz	45	532.600MHz	77	545.720MHz
14	519.890MHz	46	533.010MHz	78	546.130MHz
15	520.300MHz	47	533.420MHz	79	546.540MHz
16	520.710MHz	48	533.830MHz	80	546.950MHz
17	521.120MHz	49	534.240MHz	81	547.360MHz
18	521.530MHz	50	534.650MHz	82	547.770MHz
19	521.940MHz	51	535.060MHz	83	548.180MHz
20	522.350MHz	52	535.470MHz	84	548.590MHz
21	522.760MHz	53	535.880MHz	85	549.000MHz
22	523.170MHz	54	536.290MHz	86	549.410MHz
23	523.580MHz	55	536.700MHz	87	549.820MHz
24	523.990MHz	56	537.110MHz	88	550.230MHz
25	524.400MHz	57	537.520MHz	89	550.640MHz
26	524.810MHz	58	537.930MHz	90	551.050MHz
27	525.220MHz	59	538.340MHz	91	551.460MHz
28	525.630MHz	60	538.750MHz	92	551.870MHz
29	526.040MHz	61	539.160MHz	93	552.280MHz
30	526.450MHz	62	539.570MHz	94	552.690MHz
31	526.860MHz	63	539.980MHz	95	553.100MHz
32	527.270MHz	64	540.390MHz	96	553.510MHz

For group A, Channel 1, Channel 48 and Channel 96 was selected for test

Channel Group B:

No.	Frequency	No.	Frequency	No.	Frequency
1	556.510MHz	33	569.630MHz	65	582.750MHz
2	556.920MHz	34	570.040MHz	66	583.160MHz
3	557.330MHz	35	570.450MHz	67	583.570MHz
4	557.740MHz	36	570.860MHz	68	583.980MHz
5	558.150MHz	37	571.270MHz	69	584.390MHz
6	558.560MHz	38	571.680MHz	70	584.800MHz
7	558.970MHz	39	572.090MHz	71	585.210MHz
8	559.380MHz	40	572.500MHz	72	585.620MHz
9	559.790MHz	41	572.910MHz	73	586.030MHz
10	560.200MHz	42	573.320MHz	74	586.440MHz
11	560.610MHz	43	573.730MHz	75	586.850MHz
12	561.020MHz	44	574.140MHz	76	587.260MHz
13	561.430MHz	45	574.550MHz	77	587.670MHz
14	561.840MHz	46	574.960MHz	78	588.080MHz
15	562.250MHz	47	575.370MHz	79	588.490MHz
16	562.660MHz	48	575.780MHz	80	588.900MHz
17	563.070MHz	49	576.190MHz	81	589.310MHz
18	563.480MHz	50	576.600MHz	82	589.720MHz
19	563.890MHz	51	577.010MHz	83	590.130MHz
20	564.300MHz	52	577.420MHz	84	590.540MHz
21	564.710MHz	53	577.830MHz	85	590.950MHz
22	565.120MHz	54	578.240MHz	86	591.360MHz
23	565.530MHz	55	578.650MHz	87	591.770MHz
24	565.940MHz	56	579.060MHz	88	592.180MHz
25	566.350MHz	57	579.470MHz	89	592.590MHz
26	566.760MHz	58	579.880MHz	90	593.000MHz
27	567.170MHz	59	580.290MHz	91	593.410MHz
28	567.580MHz	60	580.700MHz	92	593.820MHz
29	567.990MHz	61	581.110MHz	93	594.230MHz
30	568.400MHz	62	581.520MHz	94	594.640MHz
31	568.810MHz	63	581.930MHz	95	595.050MHz
32	569.220MHz	64	582.340MHz	96	595.460MHz

For group B, Channel 1, Channel 48 and Channel 96 was selected for test

EUT Exercise Software

No exercise software was used.

Special Accessories

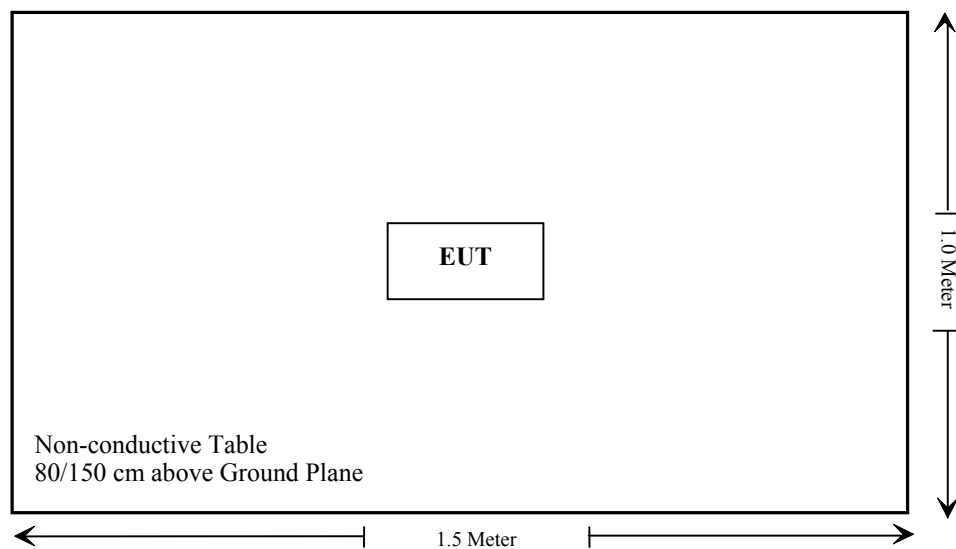
No special accessory was used.

Equipment Modifications

No modification was made to the EUT tested.

Support Equipment List and Details

Manufacturer	Description	Model	Serial Number
/	/	/	/

Block Diagram of Test Setup

SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Results
§2.1093	RF Exposure	Compliance
§ 74.861(e)(1)	RF Output Power	Compliance
§ 74.861(e)(3)	Modulation Characteristics	Compliance
§ 74.861(e)(5)(7)	Operating bandwidth & Emission mask	Compliance
§ 74.861(e)(7)	Spurious Emission at Antenna Port	Compliance
§ 74.861(e)(7)	Field strength of spurious emission	Compliance
§ 74.861(e)(4)	Frequency Stability	Compliance

TEST EQUIPMENT LIST

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Radiated Emission Test					
R&S	EMI Test Receiver	ESR3	102455	2020/08/04	2021/08/03
Sonoma instrument	Pre-amplifier	310 N	186238	2020/4/20	2021/4/20
Sunol Sciences	Broadband Antenna	JB1	A040904-1	2017/12/22	2020/12/21
COM-POWER	Dipole Antenna	AD-100	721027	NCR	NCR
Unknown	Cable	Chamber Cable 1	F-03-EM236	2020/11/29	2021/11/28
Unknown	Cable	Chamber Cable 4	EC-007	2020/11/29	2021/11/28
Rohde & Schwarz	Spectrum Analyzer	FSV40-N	102259	2020/08/04	2021/08/03
Sunol Sciences	Horn Antenna	DRH-118	A052604	2017/12/22	2020/12/21
A.H.System	Horn Antenna	SAS-200/571	135	2018/9/1	2021/8/31
Insulted Wire Inc.	RF Cable	SPS-2503-3150	02222010	2020/11/29	2021/11/28
Unknown	RF Cable	W1101-EQ1 OUT	F-19-EM005	2020/11/29	2021/11/28
Agilent	Signal Generator	N5183A	MY51040755	2020/01/14	2021/01/13
RF Conducted Test					
Unknown	RF Cable	Unknown	8082176/W6111	2020/11/29	2021/11/28
Rohde & Schwarz	SPECTRUM ANALYZER	FSU26	200120	2020/3/2	2021/3/1
HP Agilent	RF Communication test set	8920B	3325U00859	2020/1/15	2021/1/15
WEINSCHL	3dB Attenuator	Unknown	F-03-EM230	2020/11/29	2021/11/28
WEINSCHL	10dB Attenuator	5324	AU3842	2020/11/29	2021/11/28

* **Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Shenzhen) attests that all calibrations have been performed in accordance to requirements that traceable to National Primary Standards and International System of Units (SI).

FCC§1.1307 (b) (1) &§2.1093 – RF EXPOSURE

Applicable Standard

According to FCC §2.1093 and §1.1307(b) (1), systems operating under the provisions of this section shall be operated in a manner that ensure that the public is not exposed to radio frequency energy level in excess of the Commission's guideline.

According to KDB 447498 D01 General RF Exposure Guidance

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

$[(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$ for 1-g SAR and ≤ 7.5 for 10-g extremity SAR, where

1. $f(\text{GHz})$ is the RF channel transmit frequency in GHz.
2. Power and distance are rounded to the nearest mW and mm before calculation.
3. The result is rounded to one decimal place for comparison.
4. When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test Exclusion.

For worst case:

Frequency (MHz)	Maximum Tune-up power		Calculated Distance (mm)	Calculated Value	Threshold (1-g SAR)	SAR Test Exclusion
	(dBm)	(mW)				
595.46	11	12.59	5	1.94	3.0	Yes

Result: No Standalone SAR test is required

FCC § 74.861(e)(1) - RF OUTPUT POWER

Applicable Standard

According to FCC§74.861(e)(1): The power may not exceed the following values.

- (i) 54-72, 76-88, and 174-216 MHz bands: 50 mW EIRP
- (ii) 470-608 and 614-698: 250 mW conducted power
- (iii) 600 MHz duplex gap: 20 mW EIRP

Test Procedure

KDB 971168 D01 v03r01

Test Data**Environmental Conditions**

Temperature:	25 °C
Relative Humidity:	58 %
ATM Pressure:	101.0 kPa

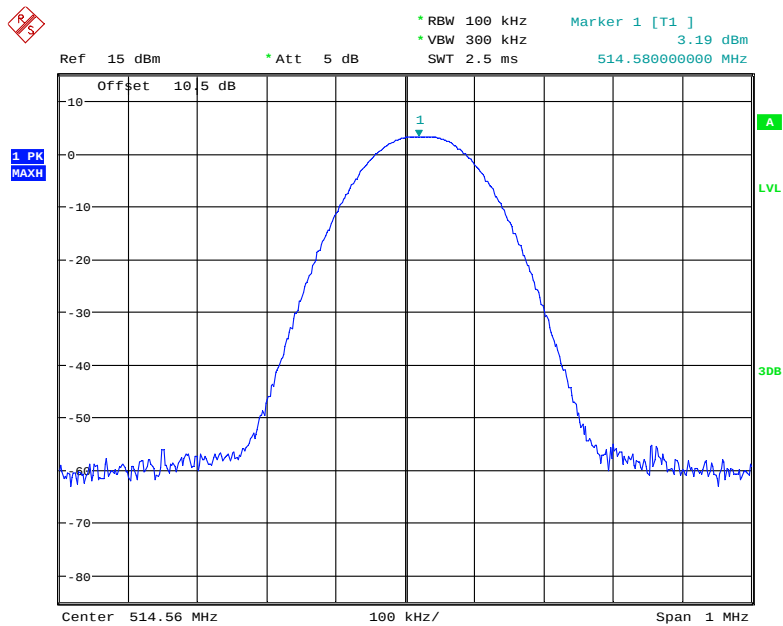
The testing was performed by Nancy Wang from 2020-12-14 to 2020-12-15.

Test Mode: Transmitting

Test Result: Compliance.

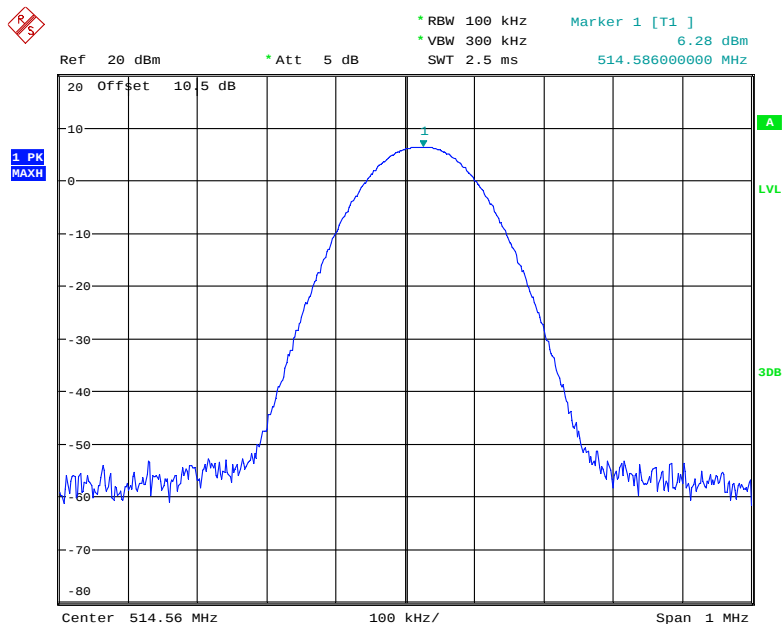
Channel	Frequency (MHz)	Power level	Output Power (dBm)	Output Power (mW)	Limit (mW)
Group A					
1	514.56	High	9.93	9.84	250
		Middle	6.28	4.25	250
		Low	3.19	2.08	250
48	533.83	High	9.50	8.91	250
		Middle	6.34	4.31	250
		Low	2.84	1.92	250
96	553.51	High	10.69	11.72	250
		Middle	6.16	4.13	250
		Low	2.80	1.91	250
Group B					
1	556.51	High	10.36	10.86	250
		Middle	6.62	4.59	250
		Low	3.51	2.24	250
48	575.78	High	10.07	10.16	250
		Middle	6.53	4.50	250
		Low	3.42	2.20	250
96	595.46	High	9.81	9.57	250
		Middle	5.91	3.90	250
		Low	2.66	1.85	250

Low Power,514.56MHz



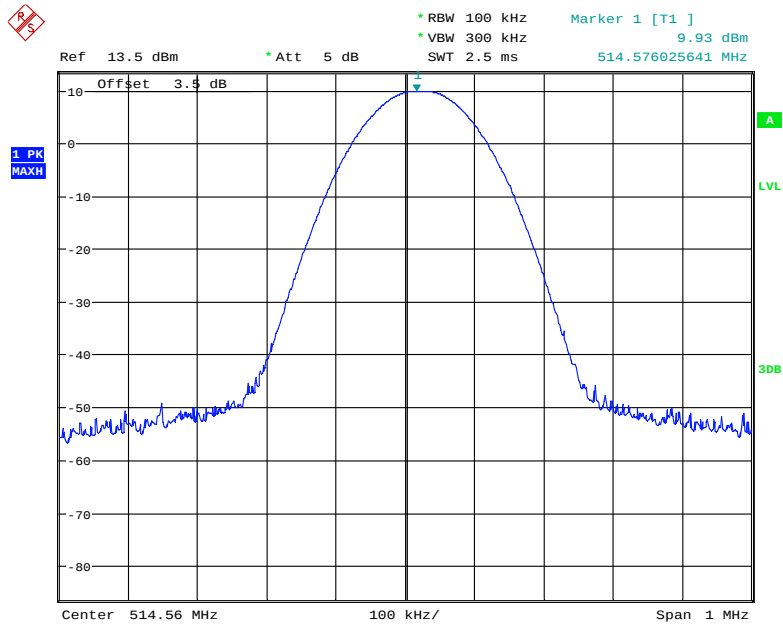
Date: 15.DEC.2020 13:57:43

Middle Power,514.56MHz



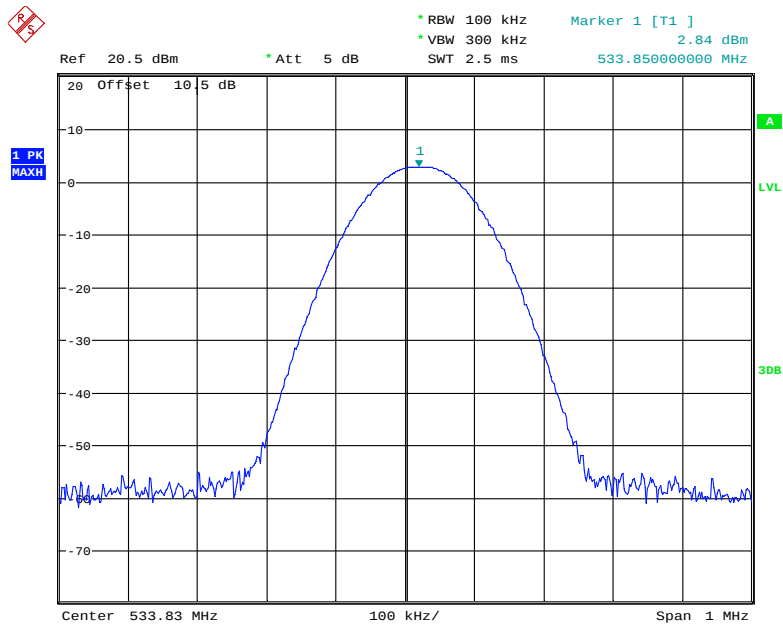
Date: 15.DEC.2020 13:42:35

High Power,514.56MHz



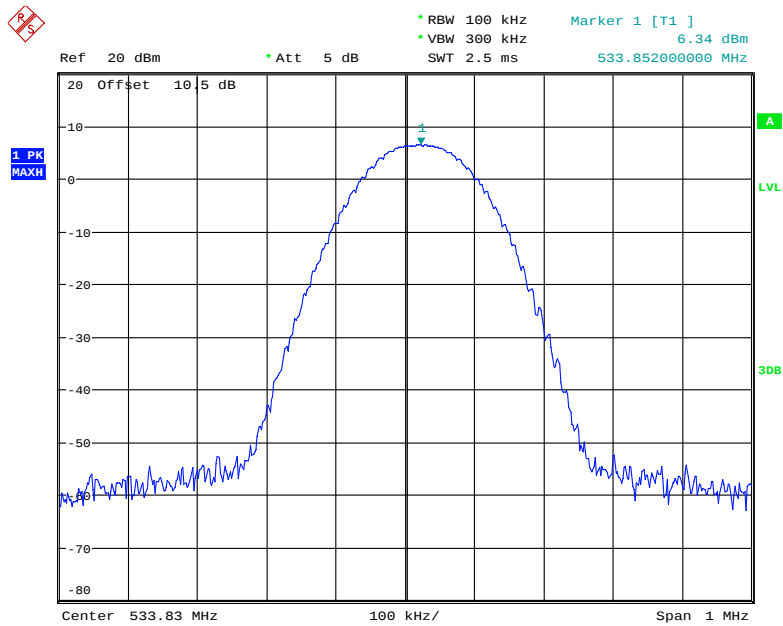
Date: 14.DEC.2020 16:14:44

Low Power,533.83MHz



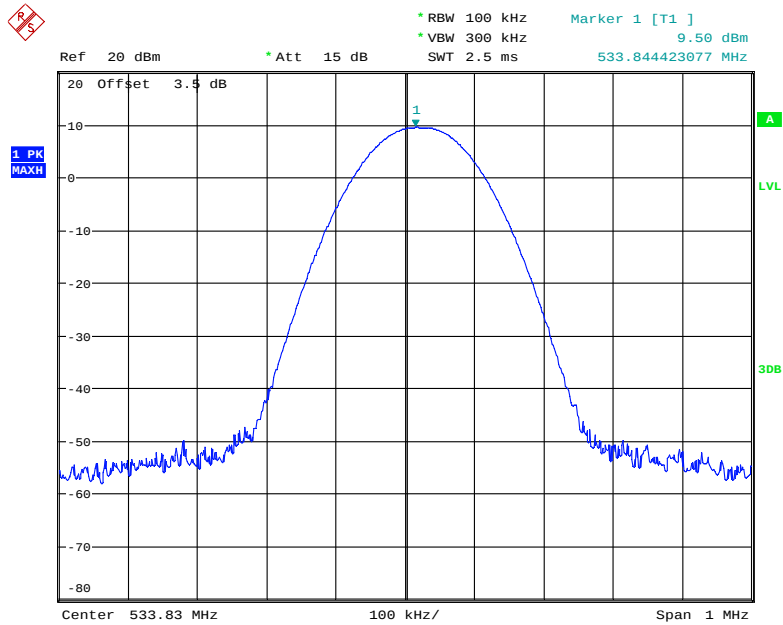
Date: 15.DEC.2020 14:27:18

Middle Power,533.83MHz



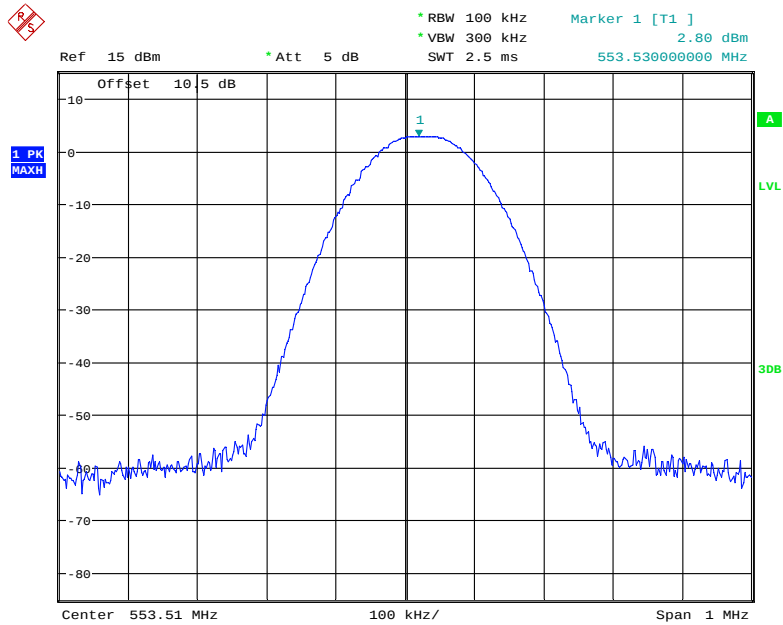
Date: 15.DEC.2020 14:10:11

High Power,533.83MHz



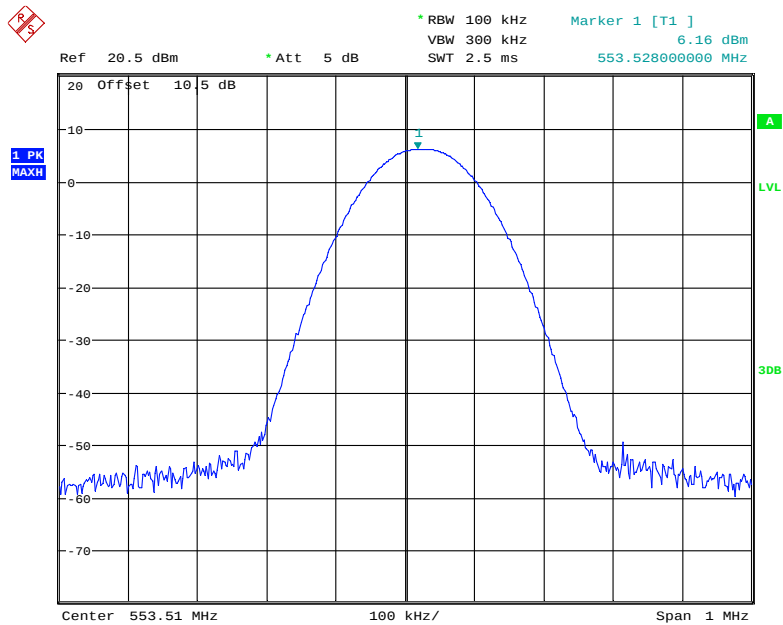
Date: 14.DEC.2020 13:36:28

Low Power,553.51MHz



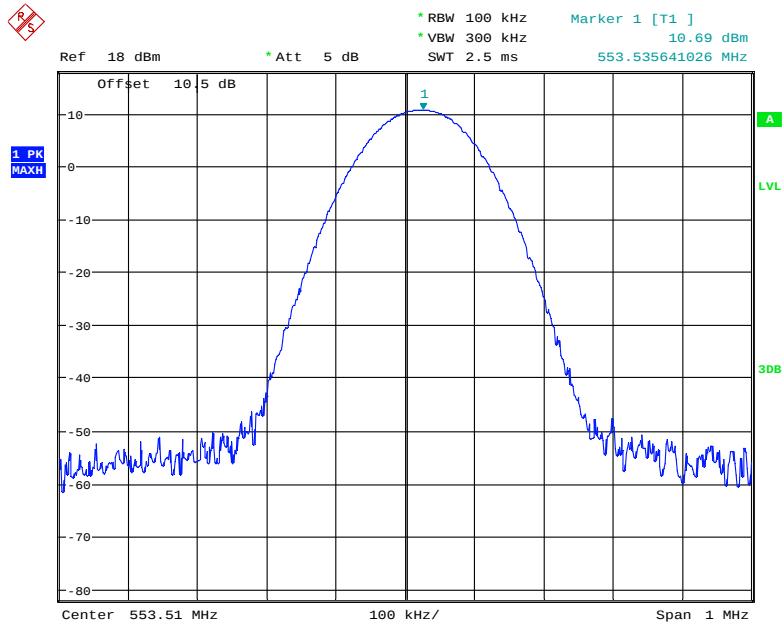
Date: 15.DEC.2020 13:32:31

Middle Power,553.51MHz



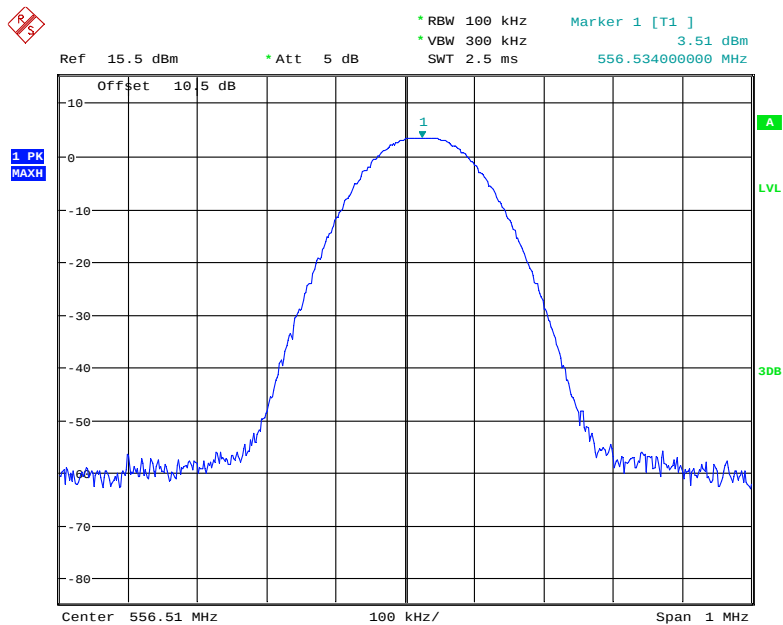
Date: 15.DEC.2020 13:15:20

High Power,553.51MHz



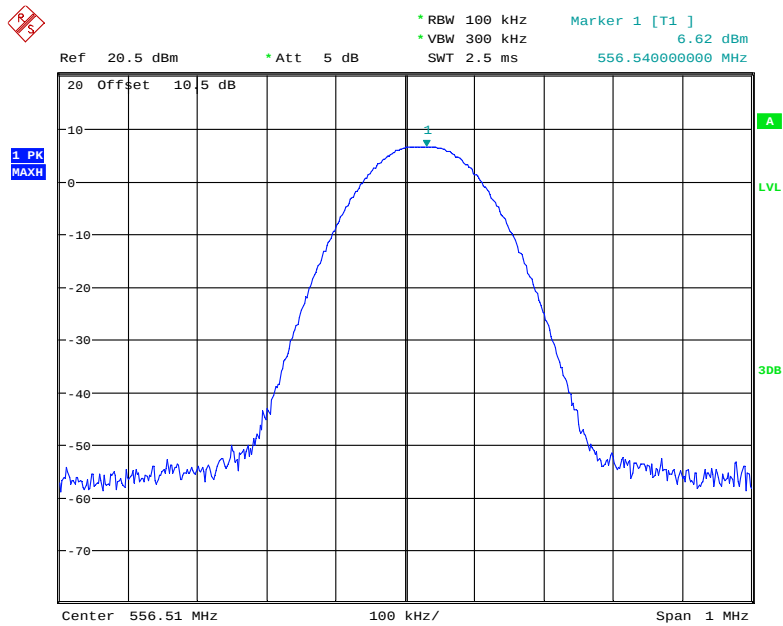
Date: 14.DEC.2020 16:35:27

Low Power,556.51MHz



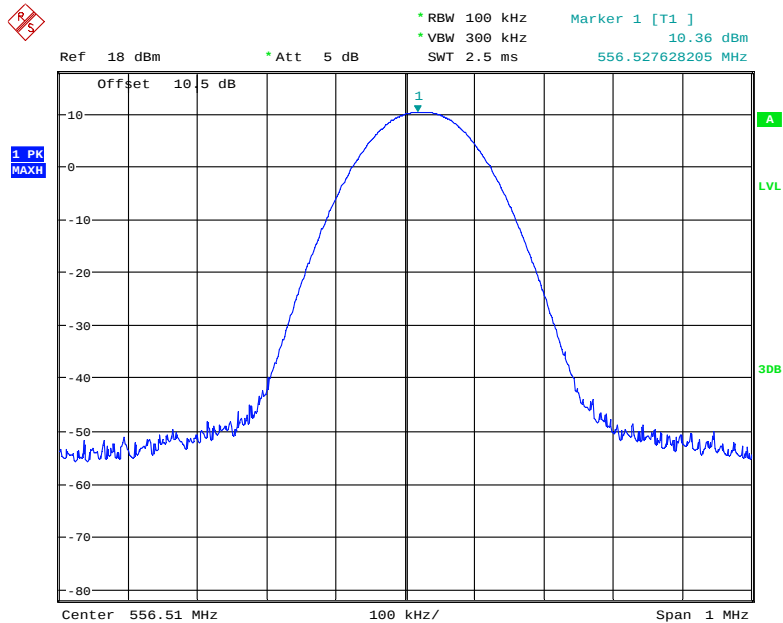
Date: 15.DEC.2020 11:07:51

Middle Power, 556.51 MHz



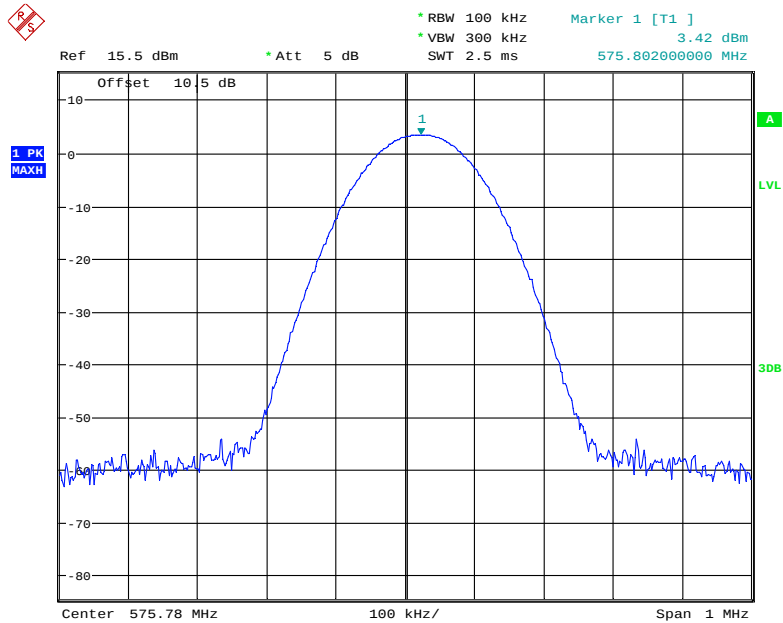
Date: 15.DEC.2020 10:44:23

High Power, 556.51 MHz



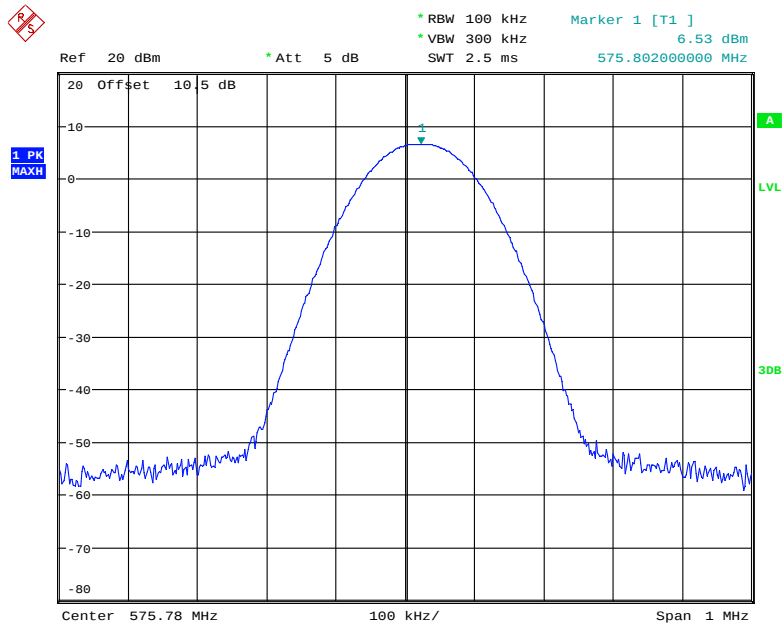
Date: 14.DEC.2020 17:21:28

Low Power,575.78MHz



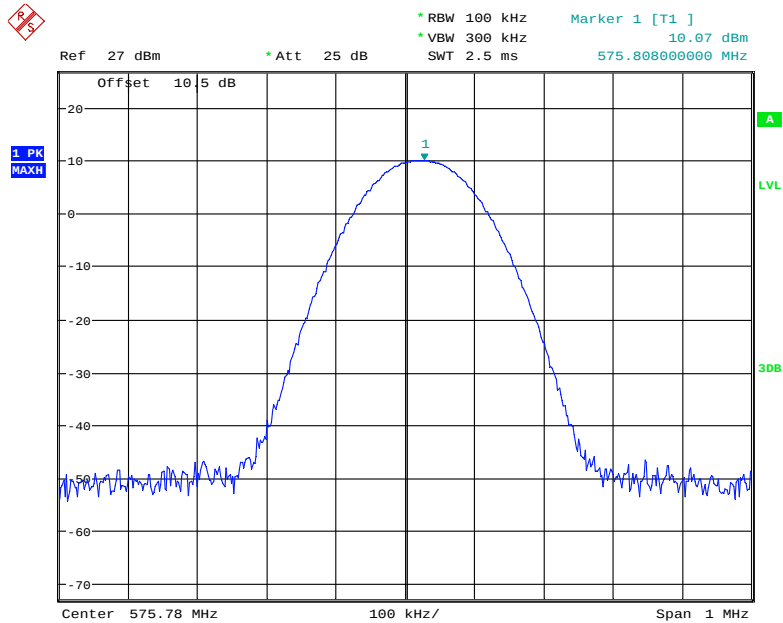
Date: 15.DEC.2020 10:22:14

Middle Power,575.78MHz



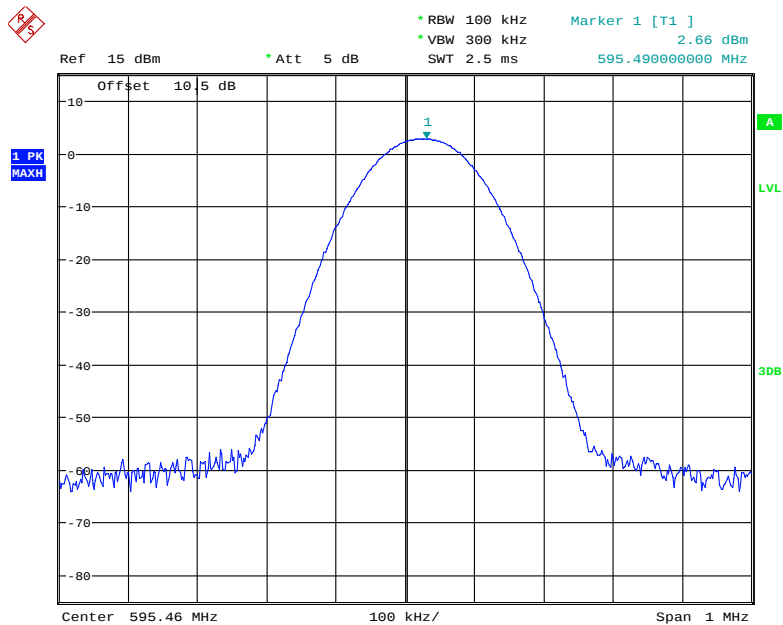
Date: 15.DEC.2020 10:11:31

High Power,575.78MHz



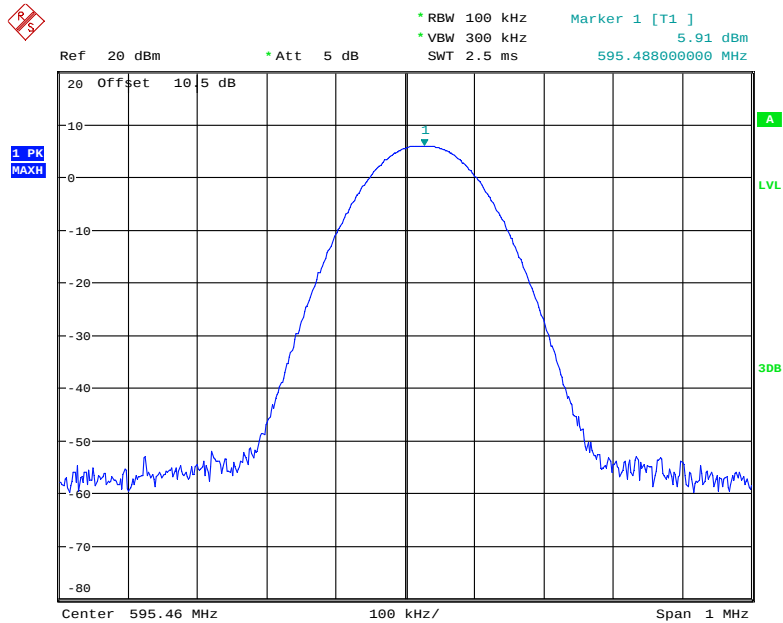
Date: 15.DEC.2020 09:39:28

Low Power,595.46MHz



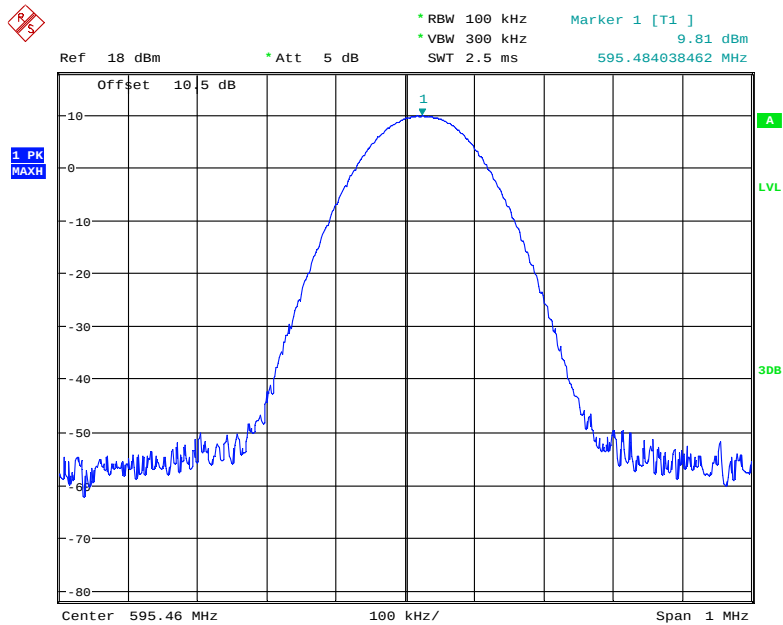
Date: 15.DEC.2020 11:45:50

Middle Power, 595.46 MHz



Date: 15.DEC.2020 11:36:10

High Power, 595.46 MHz



Date: 14.DEC.2020 17:06:58

FCC § 74.861(e)(3) - MODULATION CHARACTERISTICS

Applicable Standard

According to FCC§74.861(e)(3): Any form of modulation may be used. A maximum deviation of ± 75 kHz is permitted when frequency modulation is employed.

Test Procedure

Test Method: TIA/EIA-603-E

Test Data

Environmental Conditions

Temperature:	25 °C
Relative Humidity:	52 %
ATM Pressure:	101.0 kPa

The testing was performed by Nancy Wang on 2020-12-18.

Note: Manufacture declared the rated system deviation is 50 kHz.

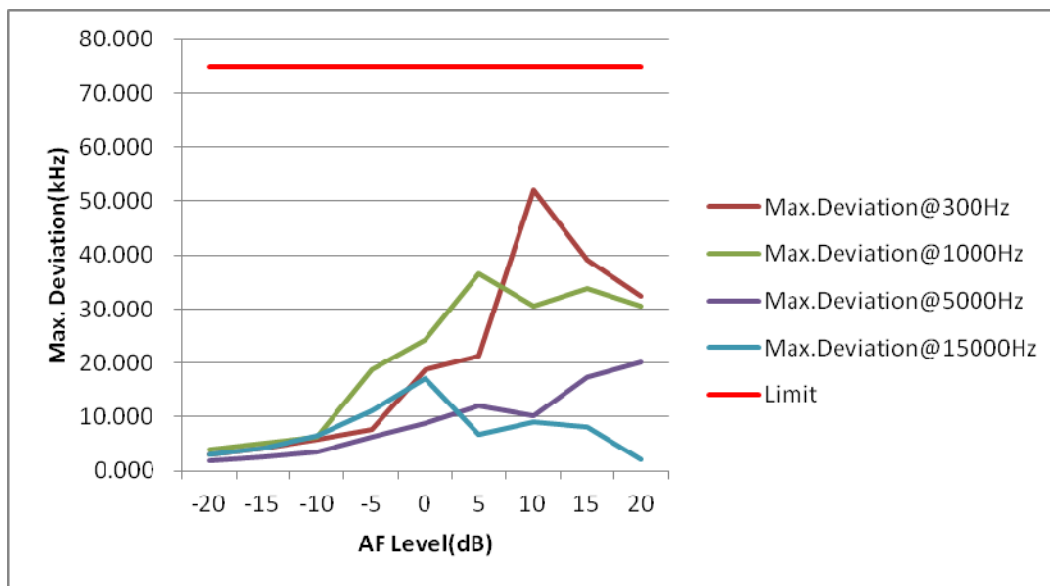
Please refer to the following tables and plots.

MODULATION LIMITING

Carrier Frequency: 533.83 MHz

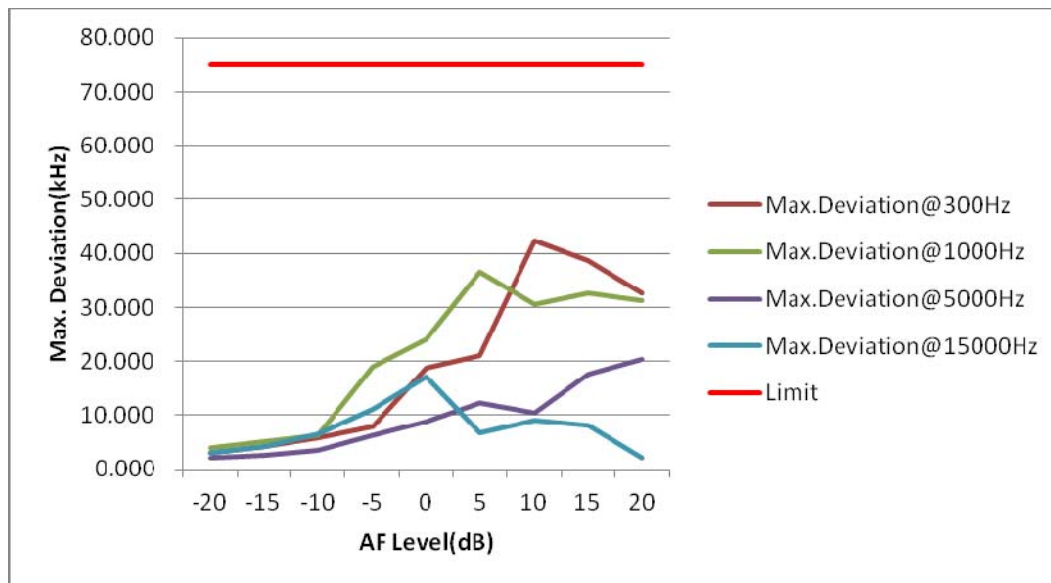
Positive:

AF Level (dB)	AF Frequency(Hz) /Max. Deviation(kHz)				Limit (kHz)
	300	1000	5000	15000	
-20	3.032	4.037	1.907	3.107	75
-15	4.218	5.211	2.586	4.169	75
-10	5.885	6.257	3.500	6.611	75
-5	7.721	18.86	6.269	11.26	75
0	18.83	24.44	8.95	17.11	75
5	21.43	36.63	12.13	6.65	75
10	52.00	30.53	10.27	8.96	75
15	39.20	33.88	17.46	8.19	75
20	32.43	30.68	20.28	2.06	75



Negative:

AF Level (dB)	AF Frequency(Hz)/Max. Deviation(kHz)				Limit(kHz)
	300	1000	5000	15000	
-20	3.101	4.061	2.121	2.971	75
-15	4.132	5.203	2.605	4.017	75
-10	5.919	6.323	3.618	6.542	75
-5	7.977	18.96	6.383	10.94	75
0	18.87	24.17	8.766	16.29	75
5	21.09	36.63	12.29	6.355	75
10	42.25	30.53	10.36	8.699	75
15	38.76	32.62	17.54	8.282	75
20	32.58	31.28	20.42	2.065	75

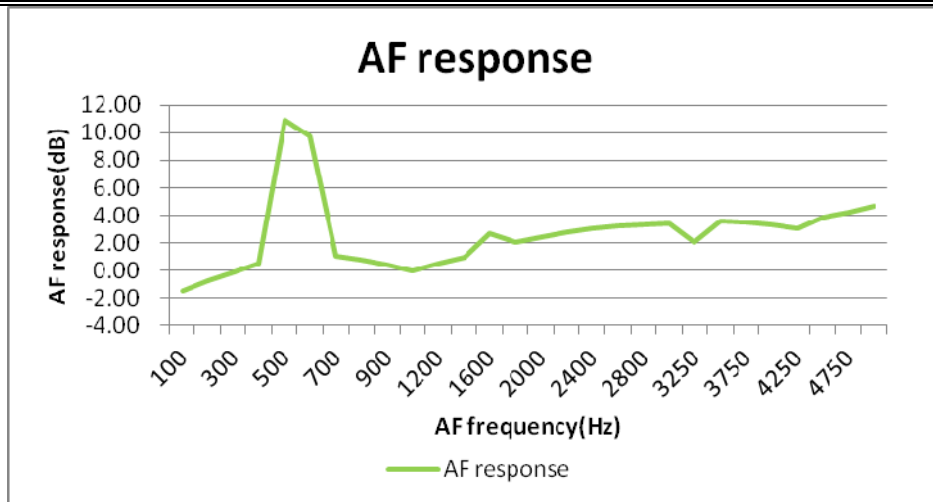


Audio Frequency Response

Carrier Frequency: 533.83 MHz

Audio Frequency (Hz)	Frequency Deviation(kHz)	Response Attenuation (dB)
100	6.825	-1.48
200	7.415	-0.76
300	7.931	-0.18
400	8.541	0.47
500	28.60	10.97
600	24.79	9.72
700	9.169	1.08
800	8.806	0.73
900	8.509	0.44
1000	8.092	0.00
1200	8.580	0.51
1400	8.990	0.91
1600	10.97	2.64
1800	10.29	2.09
2000	10.67	2.40
2200	11.14	2.77
2400	11.45	3.01
2600	11.74	3.23
2800	11.86	3.32
3000	11.91	3.36
3250	12.17	2.00
3500	12.19	3.56
3750	12.14	3.52
4000	11.81	3.28
4250	11.48	3.04
4500	12.64	3.88
4750	13.21	4.26
5000	13.86	4.67

Note: AF response= $20 \times \log(\text{Frequency Deviation} / \text{Frequency Deviation}@1\text{kHz})$

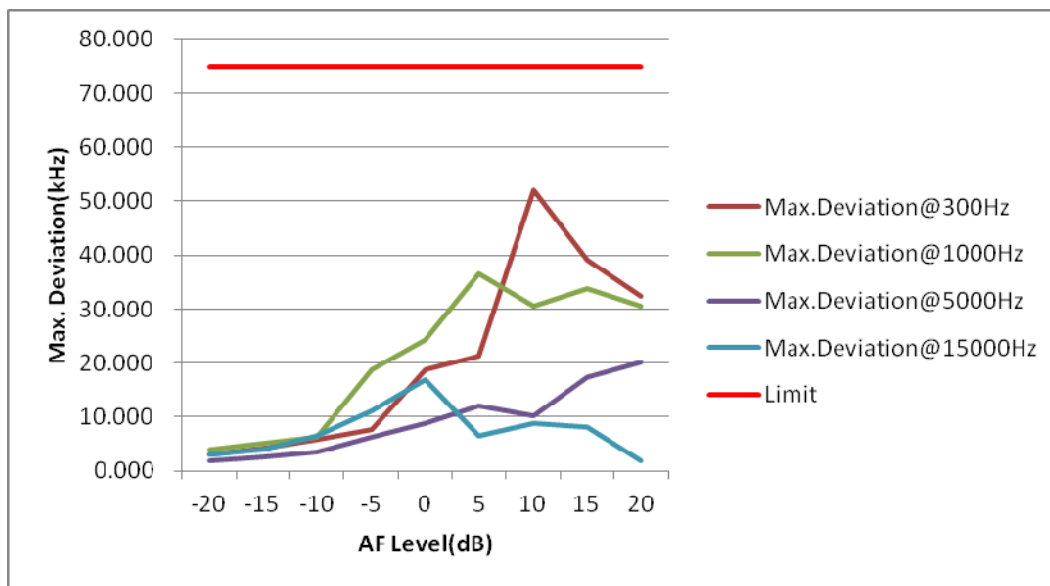


MODULATION LIMITING

Carrier Frequency: 575.78 MHz

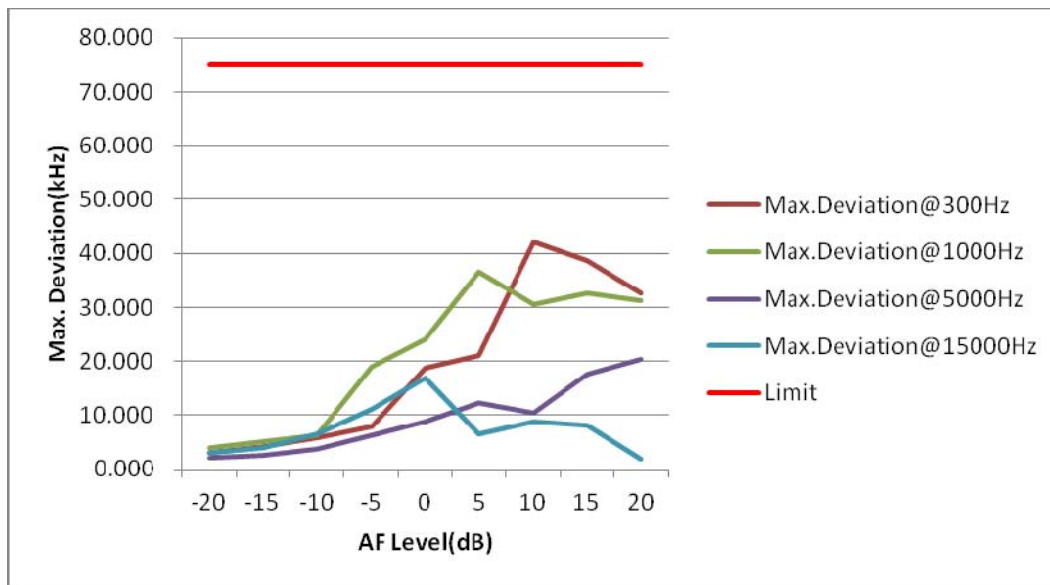
Positive:

AF Level (dB)	AF Frequency (Hz) /Max. Deviation (kHz)				Limit (kHz)
	300	1000	5000	15000	
-20	2.970	3.972	1.870	3.036	75
-15	4.139	5.179	2.520	4.099	75
-10	5.826	6.227	3.454	6.552	75
-5	7.675	18.80	6.205	11.23	75
0	18.80	24.39	8.89	17.03	75
5	21.35	36.55	12.07	6.59	75
10	51.98	30.50	10.23	8.94	75
15	39.14	33.84	17.40	8.17	75
20	32.36	30.64	20.24	1.99	75



Negative:

AF Level (dB)	AF Frequency(Hz)/Max. Deviation(kHz)				Limit(kHz)
	300	1000	5000	15000	
-20	3.077	4.069	2.092	2.955	75
-15	4.177	5.200	2.576	3.988	75
-10	5.883	6.293	3.644	6.501	75
-5	7.981	18.97	6.332	10.94	75
0	18.86	24.17	8.762	16.28	75
5	21.04	36.68	12.28	6.358	75
10	42.22	30.53	10.35	8.725	75
15	38.74	32.60	17.58	8.283	75
20	32.58	31.28	20.43	2.088	75

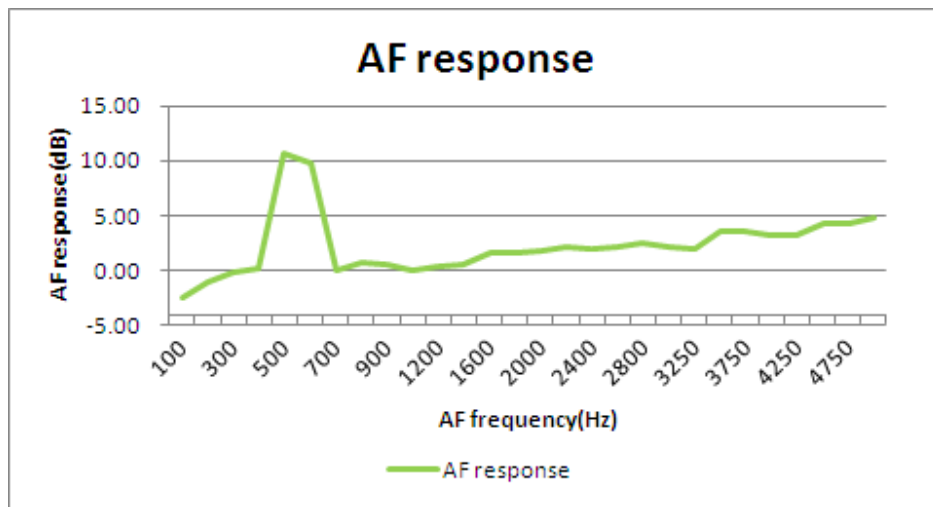


Audio Frequency Response

Carrier Frequency: 575.78 MHz

Audio Frequency (Hz)	Frequency Deviation(kHz)	Response Attenuation (dB)
100	6.032	-2.48
200	7.156	-0.99
300	7.834	-0.20
400	8.243	0.24
500	27.36	10.66
600	24.62	9.74
700	8.132	0.12
800	8.793	0.80
900	8.497	0.50
1000	8.021	0.00
1200	8.337	0.34
1400	8.634	0.64
1600	9.63	1.59
1800	9.66	1.61
2000	9.92	1.85
2200	10.28	2.16
2400	10.17	2.06
2600	10.36	2.22
2800	10.77	2.56
3000	10.26	2.14
3250	12.13	2.00
3500	12.18	3.63
3750	12.22	3.66
4000	11.62	3.22
4250	11.55	3.17
4500	13.18	4.31
4750	13.20	4.33
5000	13.86	4.75

Note: AF response= $20 \times \log(\text{Frequency Deviation} / \text{Frequency Deviation}@1\text{kHz})$



FCC § 74.861(e)(5) (7) – OPERATING BANDWIDTH & EMISSION MASK**Applicable Standard**

According to FCC§74.861(e)(5)(7):

The operating bandwidth shall not exceed 200 kHz.

Analog emissions within the band from one megahertz below to one megahertz above the carrier frequency shall comply with the emission mask in section 8.3.1.2 of the European Telecommunications Institute Standard ETSI EN 300 422-1 v1.4.2 (2011-08), Electromagnetic compatibility and Radio spectrum Matters (ERM); Wireless microphones in the 25 MHz to 3 GHz frequency range; part 1: Technical characteristics and methods of measurement. Digital emissions within the band from one megahertz below to one megahertz above the carrier frequency shall comply with the emission mask in section 8.3.2.2 (Figure 4) of the European Telecommunications Institute Standard ETSI EN 300 422-1 v1.4.2 (2011-08), Electromagnetic compatibility and Radio spectrum Matters (ERM); Wireless microphones in the 25 MHz to 3 GHz frequency range; part 1: Technical characteristics and methods of measurement. Beyond one megahertz below and above the carrier frequency, emissions shall comply with the limits specified in section 8.4 of ETSI EN 300 422-1 v1.4.2 (2011-08). The requirements of this paragraph (e)(7) shall not apply to applications for certification of equipment in these bands until nine months after release of the Commission's Channel Reassignment Public Notice, as defined in §73.3700(a)(2) of this chapter.

Test Procedure

The OBW is according to KDB 971168 D01 v03r01.

The Emission mask is according to sections 8.3 of ENSI EN 300 422-1 V1.4.2 (2011-08).

Test Data**Environmental Conditions**

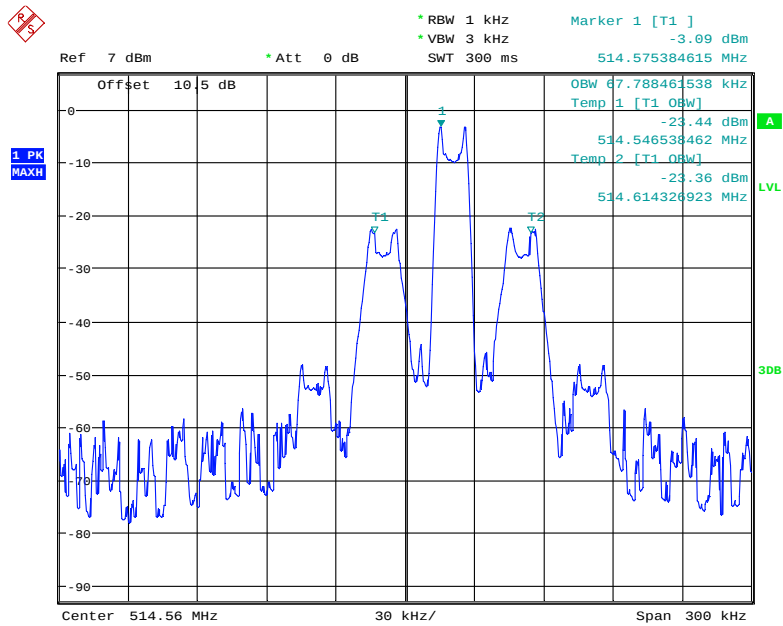
Temperature:	25 °C
Relative Humidity:	52%
ATM Pressure:	101.0 kPa

The testing was performed by Nancy Wang from 2020-12-14 to 2020-12-20.

Test mode: transmitting

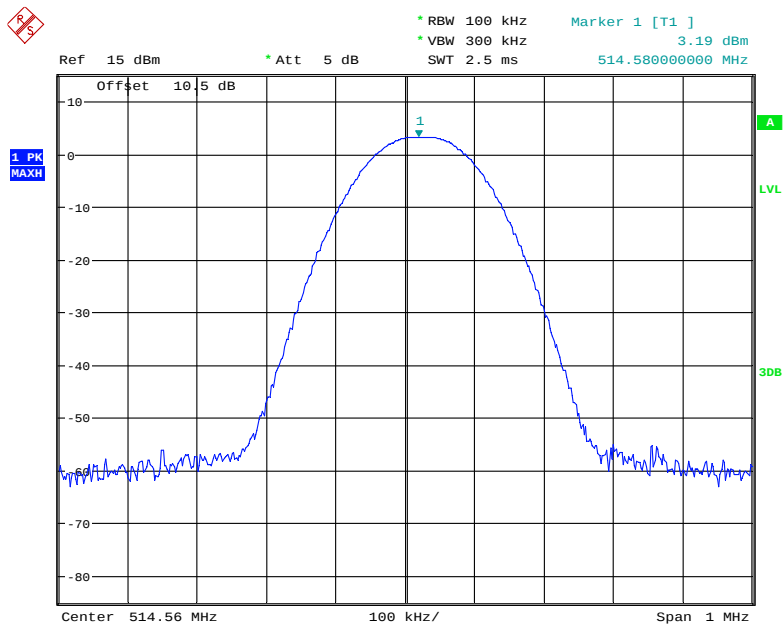
Channel	Frequency (MHz)	Power level	Emission Bandwidth (kHz)	Limit (kHz)
Group A				
1	514.56	High	67.79	200
		Middle	67.79	200
		Low	67.79	200
48	533.83	High	69.71	200
		Middle	69.71	200
		Low	69.71	200
96	553.51	High	67.79	200
		Middle	67.79	200
		Low	67.79	200
Group B				
1	556.51	High	67.79	200
		Middle	67.79	200
		Low	67.79	200
48	575.78	High	69.71	200
		Middle	69.71	200
		Low	69.71	200
96	595.46	High	67.79	200
		Middle	67.79	200
		Low	67.79	200

Low Power, Frequency 514.560 MHz: Emission Bandwidth

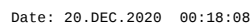


Date: 20.DEC.2020 00:15:14

Low Power, Frequency 514.560 MHz: Emission Mask

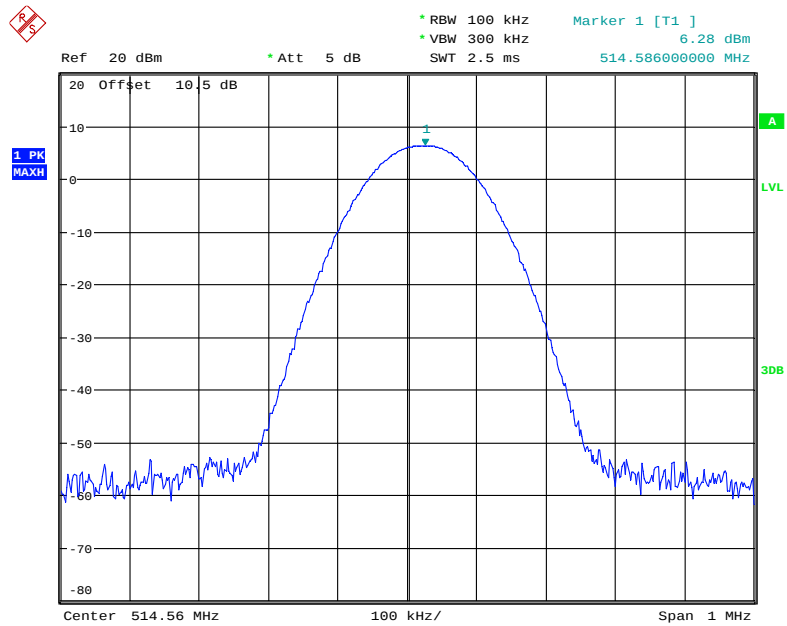


Date: 15.DEC.2020 13:57:43

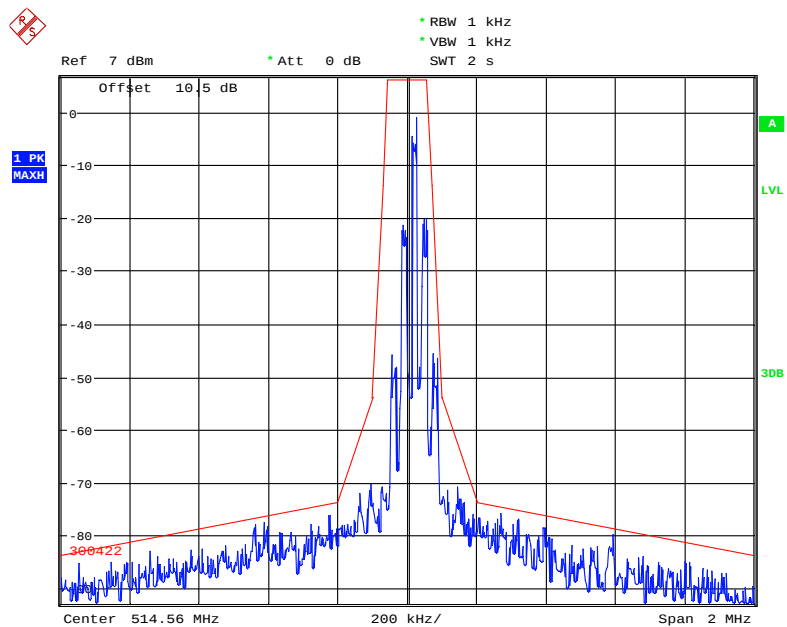


Date: 20.DEC.2020 00:13:31

Middle Power, Frequency 514.560 MHz: Emission Mask

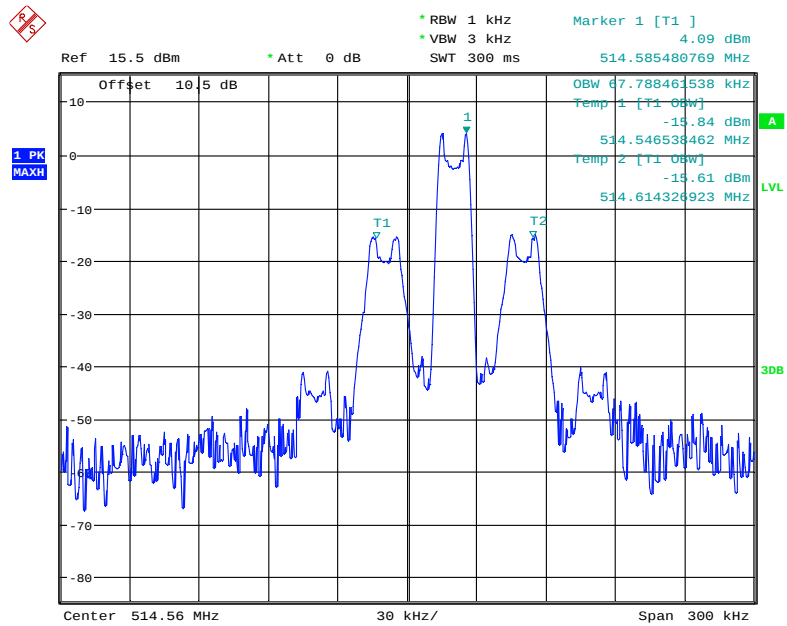


Date: 15.DEC.2020 13:42:35



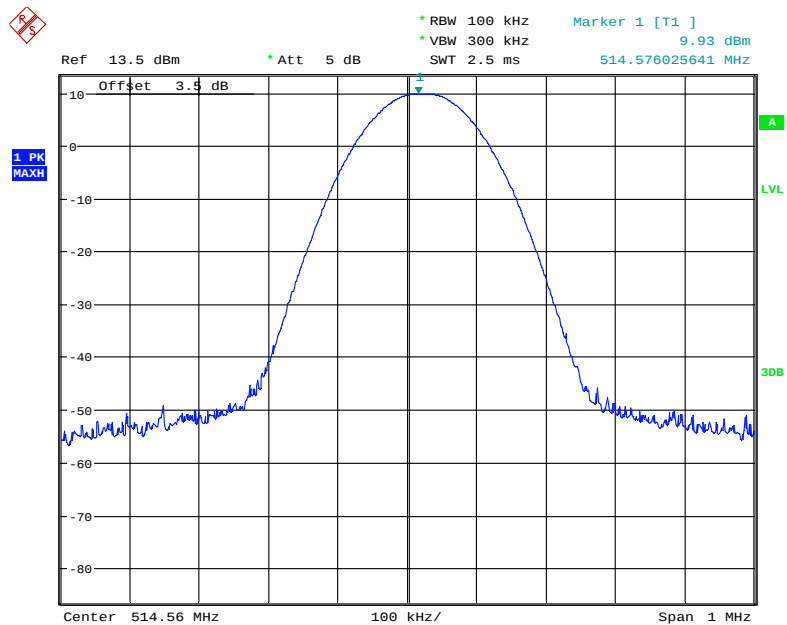
Date: 20.DEC.2020 00:11:52

High Power, Frequency 514.560 MHz: Emission Bandwidth

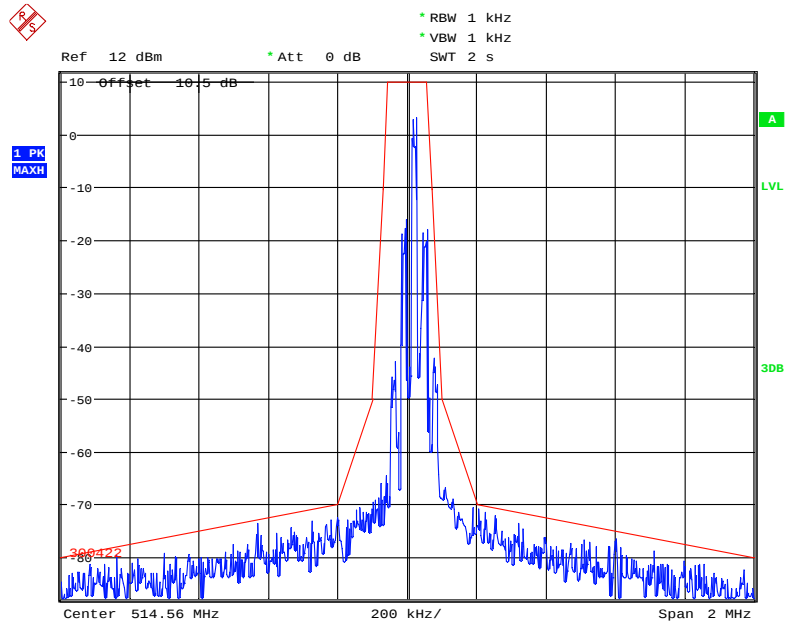


Date: 19.DEC.2020 23:57:42

High Power, Frequency 514.560 MHz: Emission Mask

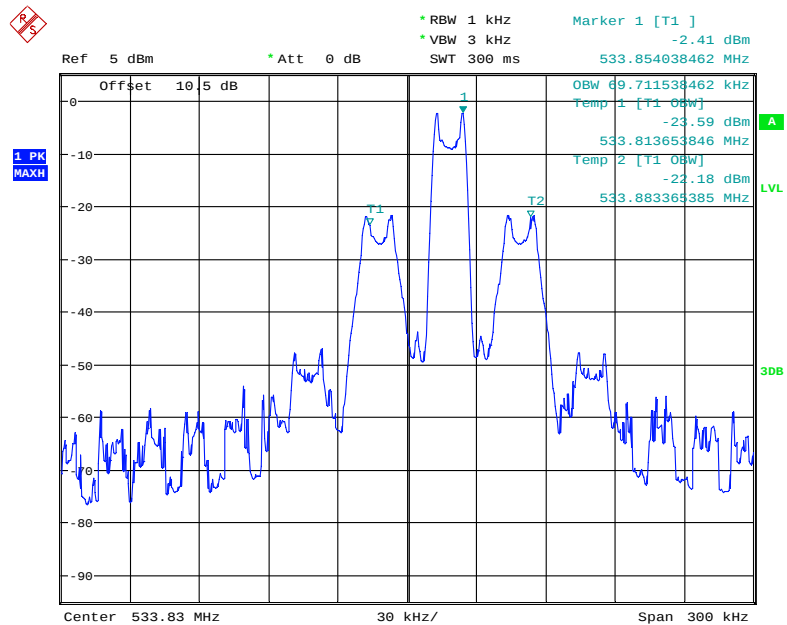


Date: 14.DEC.2020 16:14:44



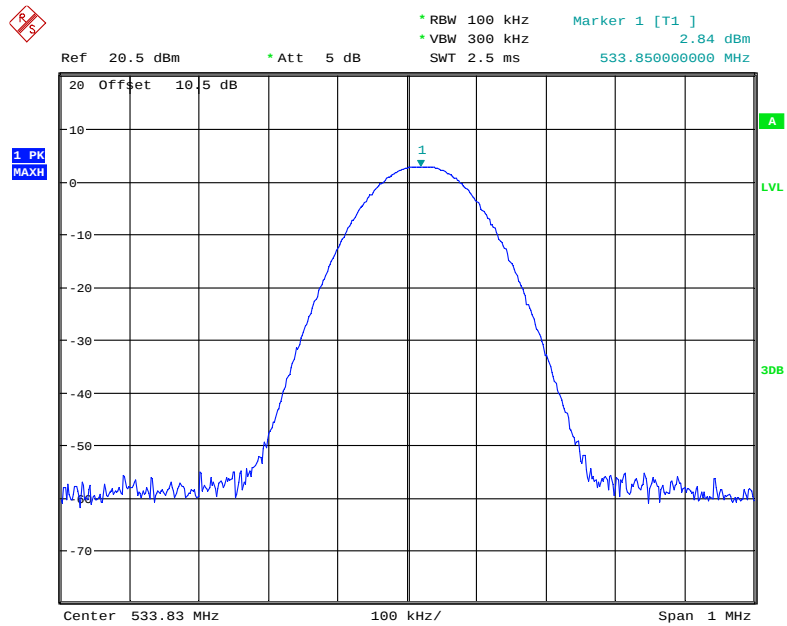
Date: 20.DEC.2020 00:06:58

Low Power, Frequency 533.83MHz: Emission Bandwidth

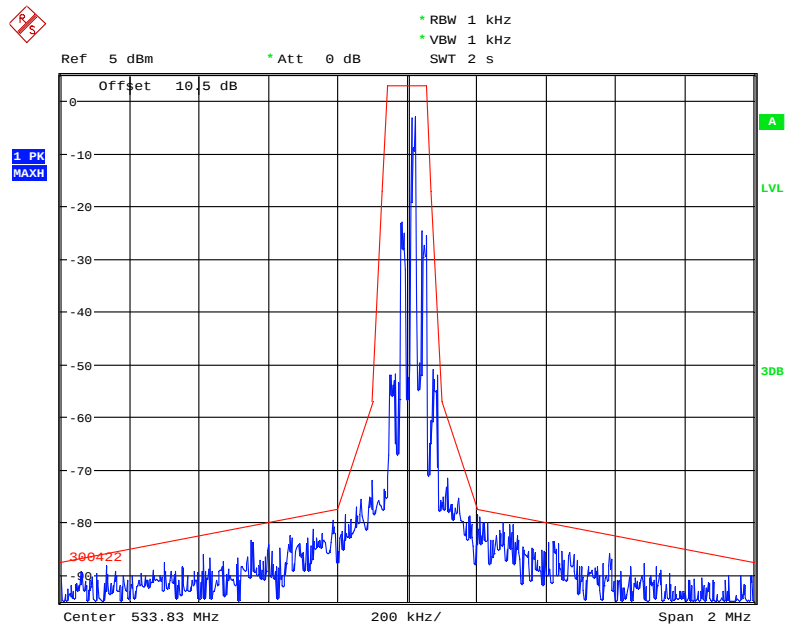


Date: 19.DEC.2020 23:53:34

Low Power, Frequency 533.83MHz: Emission Mask

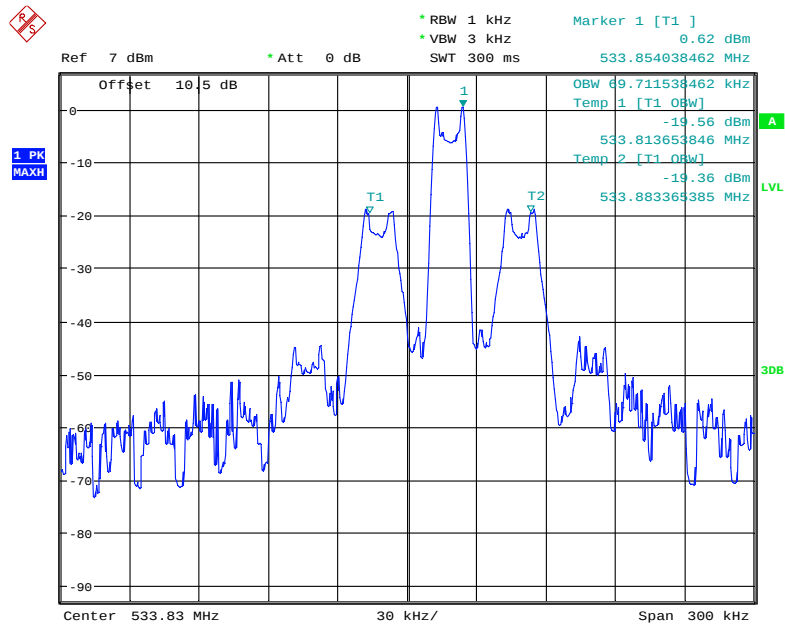


Date: 15.DEC.2020 14:27:18



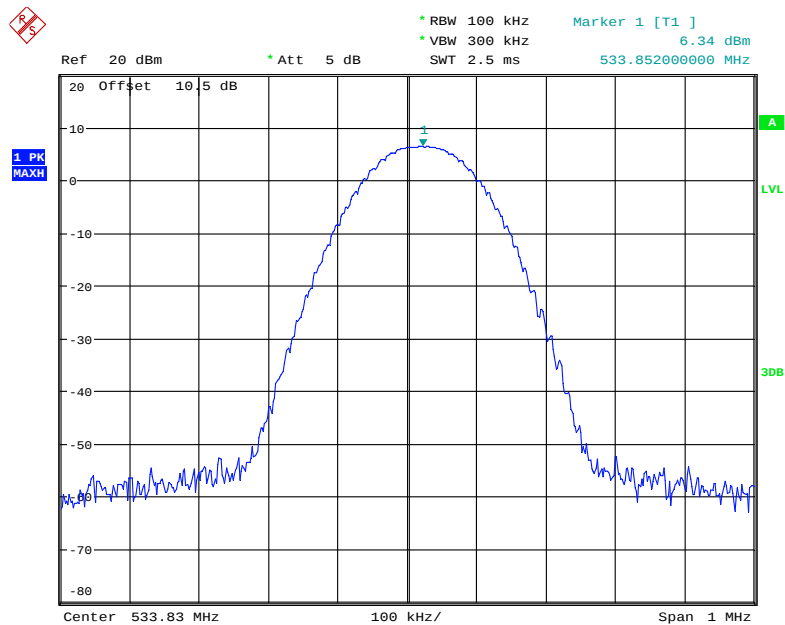
Date: 19.DEC.2020 23:52:33

Middle Power, Frequency 533.83MHz: Emission Bandwidth

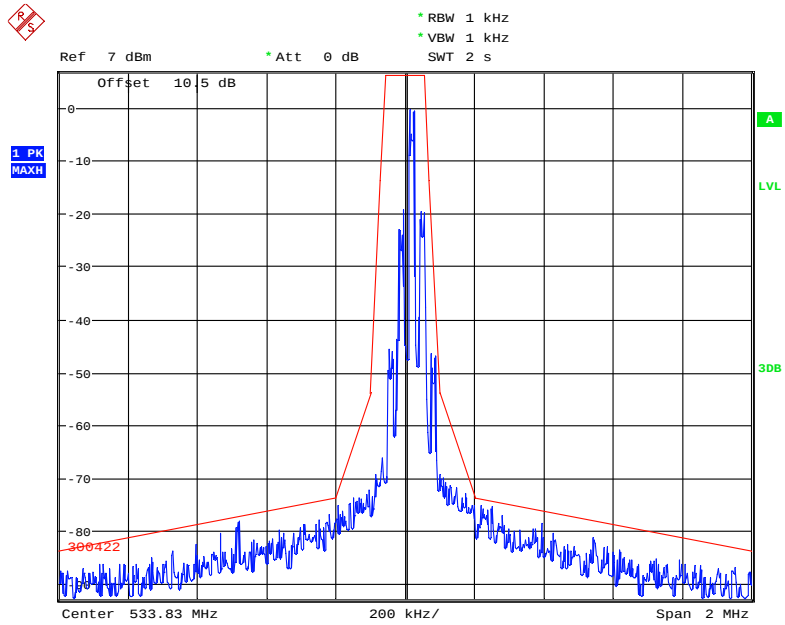


Date: 19.DEC.2020 23:47:26

Middle Power, Frequency 533.83MHz: Emission Mask

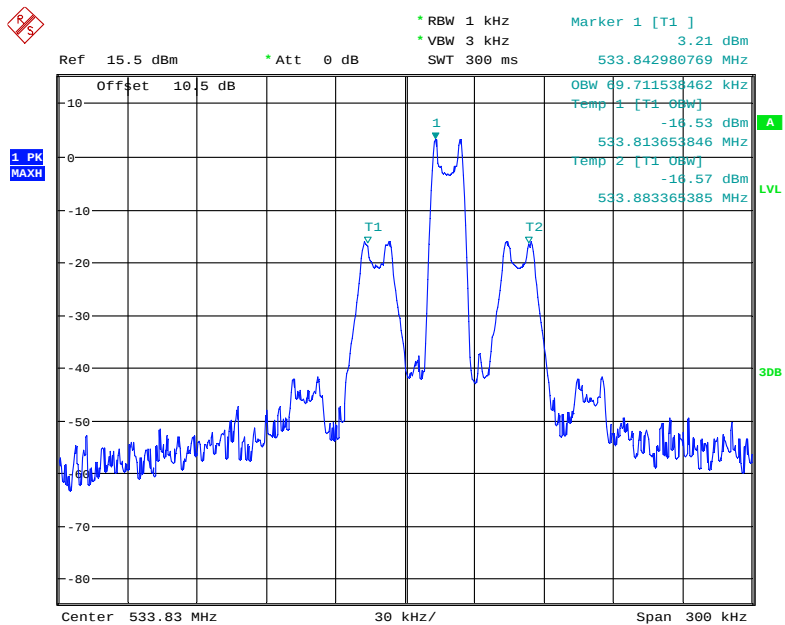


Date: 15.DEC.2020 14:10:11



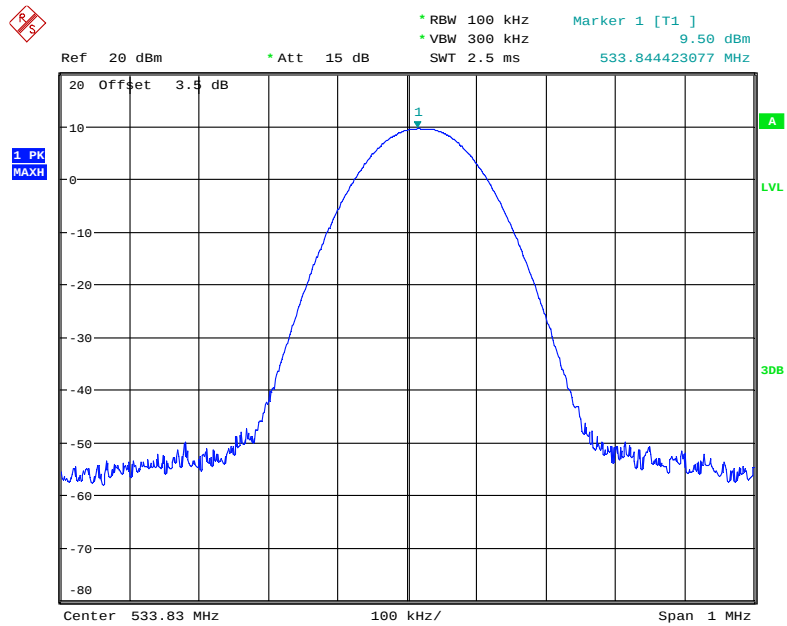
Date: 19.DEC.2020 23:46:03

High Power, Frequency 533.83 MHz: Emission Bandwidth

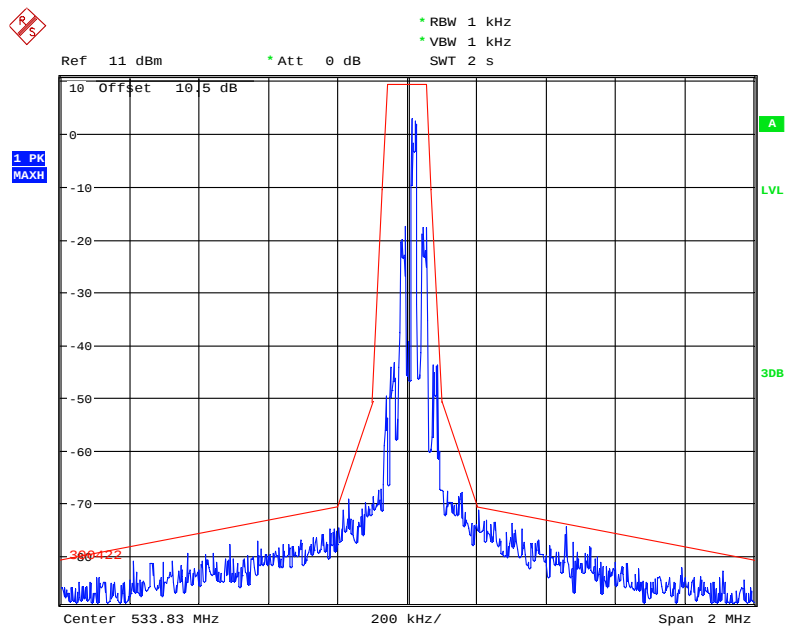


Date: 19.DEC.2020 23:25:08

High Power, Frequency 533.83 MHz: Emission Mask

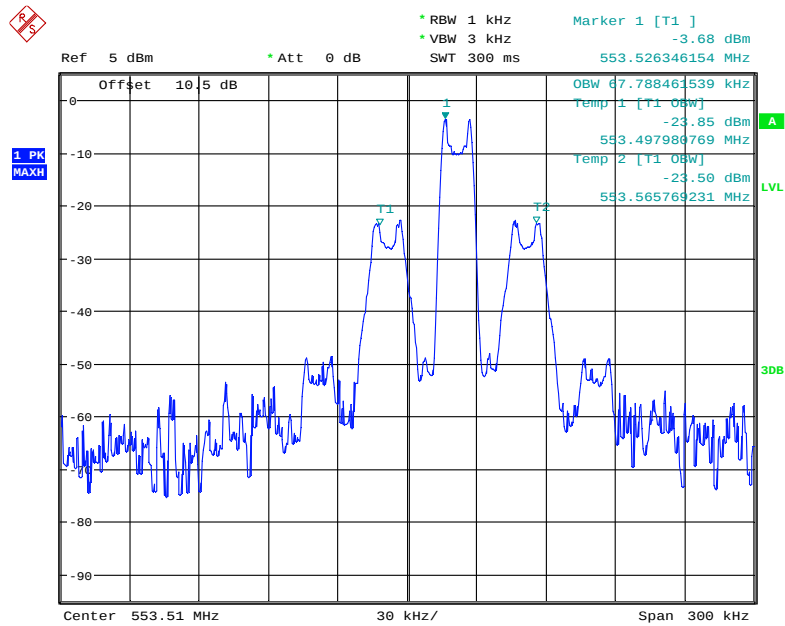


Date: 14.DEC.2020 13:36:28



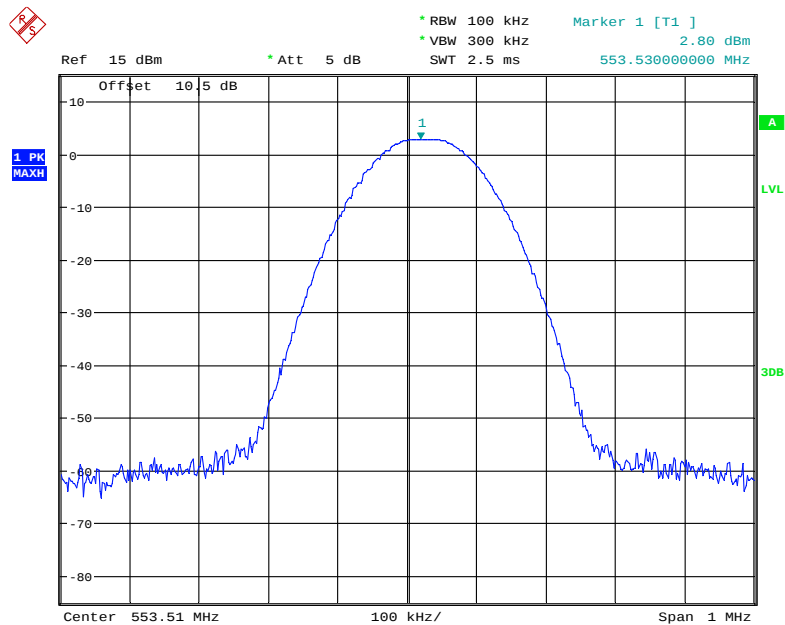
Date: 19.DEC.2020 23:30:23

Low Power, Frequency 553.51 MHz: Emission Bandwidth

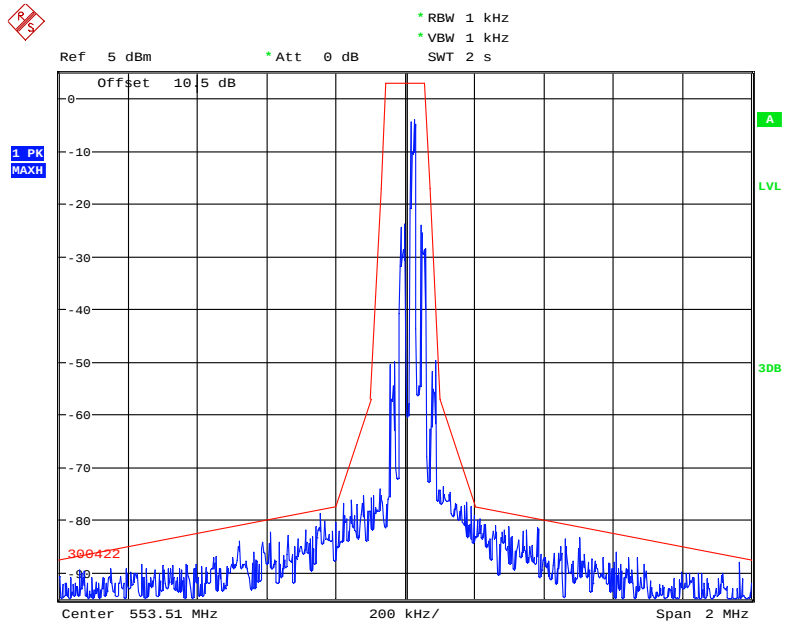


Date: 20.DEC.2020 00:29:54

Low Power, Frequency 553.51 MHz: Emission Mask

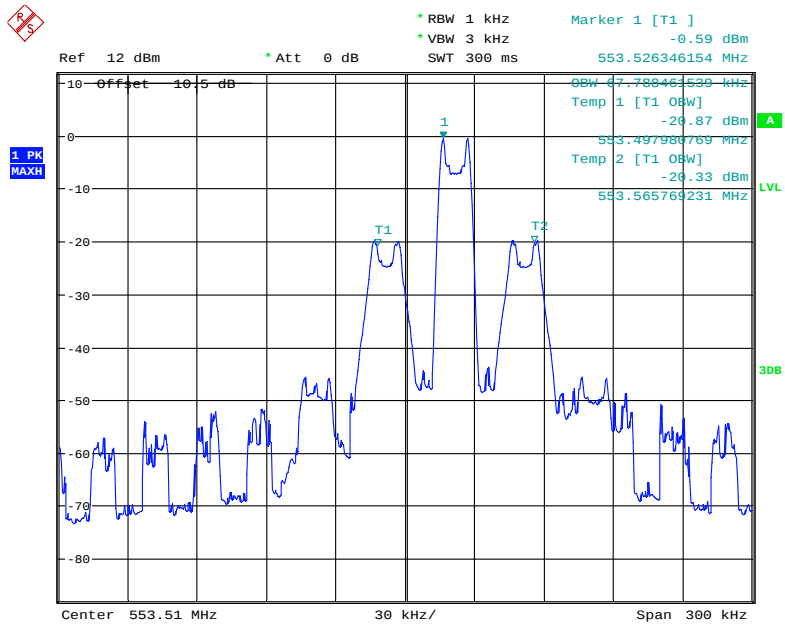


Date: 15.DEC.2020 13:32:31



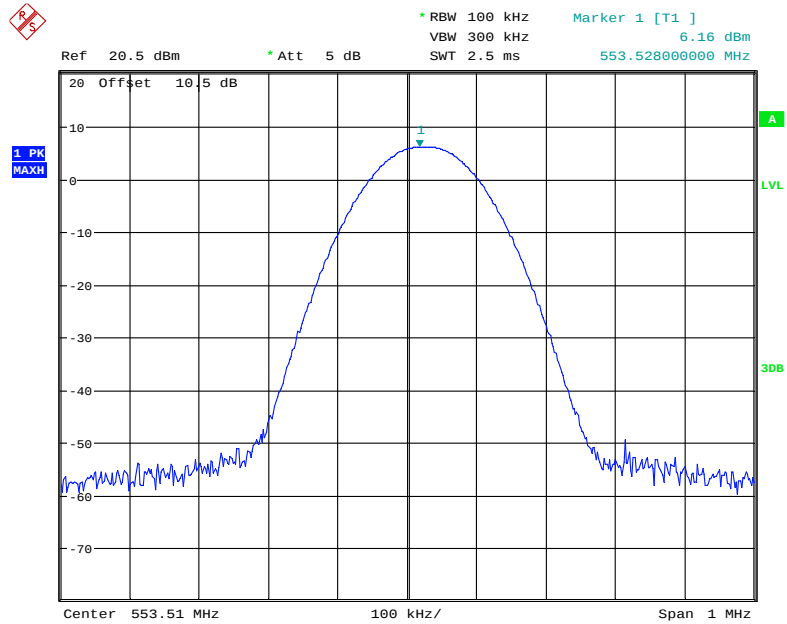
Date: 20.DEC.2020 00:28:50

Middle Power, Frequency 553.51MHz: Emission Bandwidth

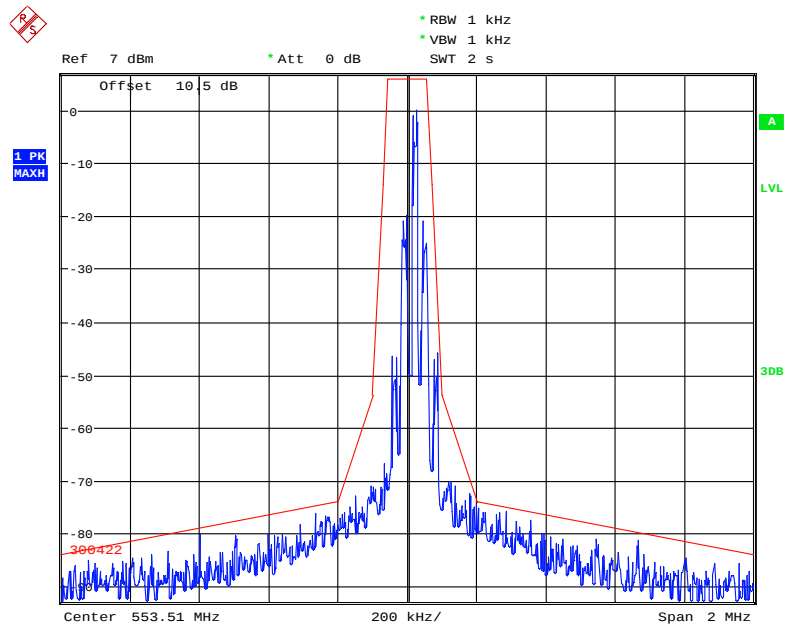


Date: 20.DEC.2020 00:32:09

Middle Power, Frequency 553.51 MHz: Emission Mask

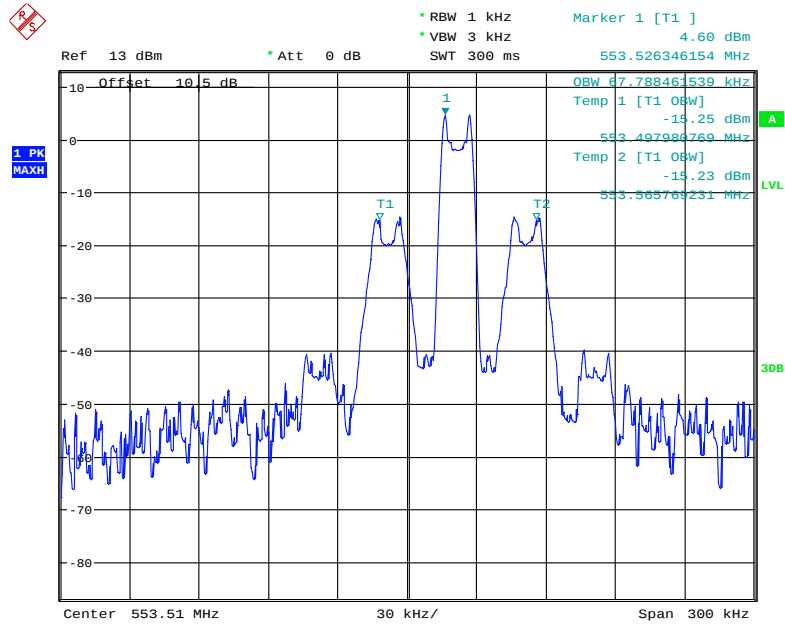


Date: 15.DEC.2020 13:15:20



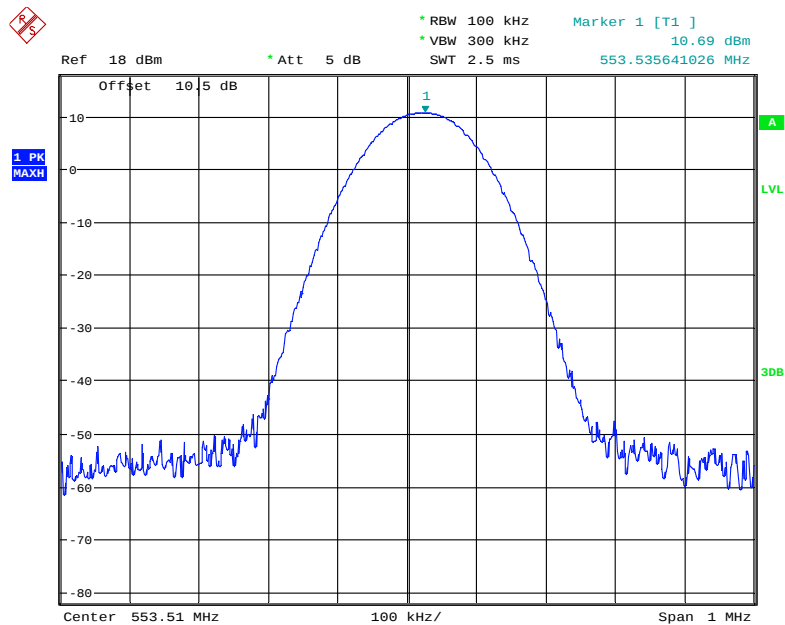
Date: 20.DEC.2020 00:34:15

High Power, Frequency 553.51 MHz: Emission Bandwidth

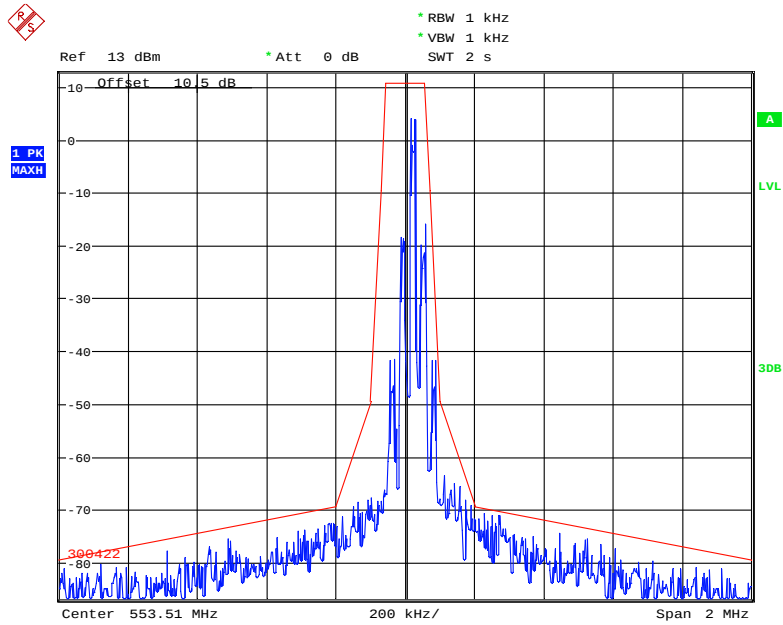


Date: 20.DEC.2020 00:39:07

High Power, Frequency 553.51 MHz: Emission Mask

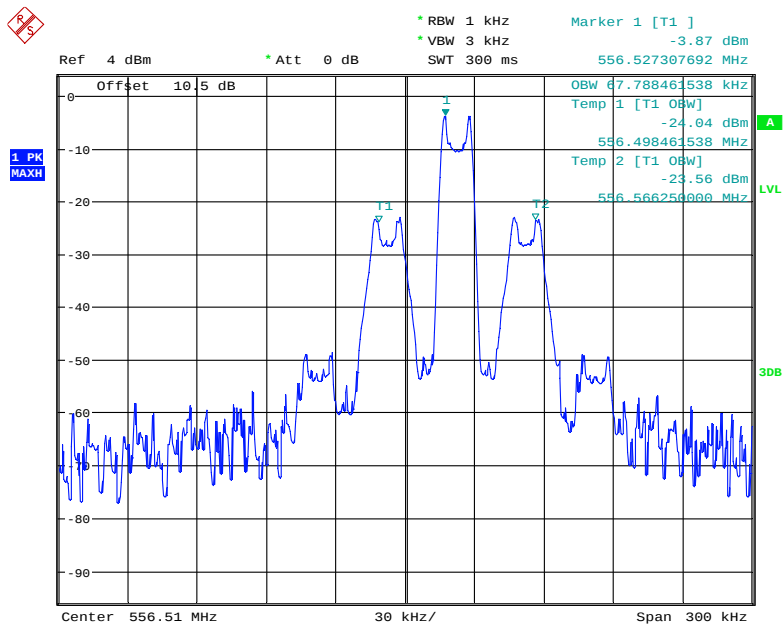


Date: 14.DEC.2020 16:35:27



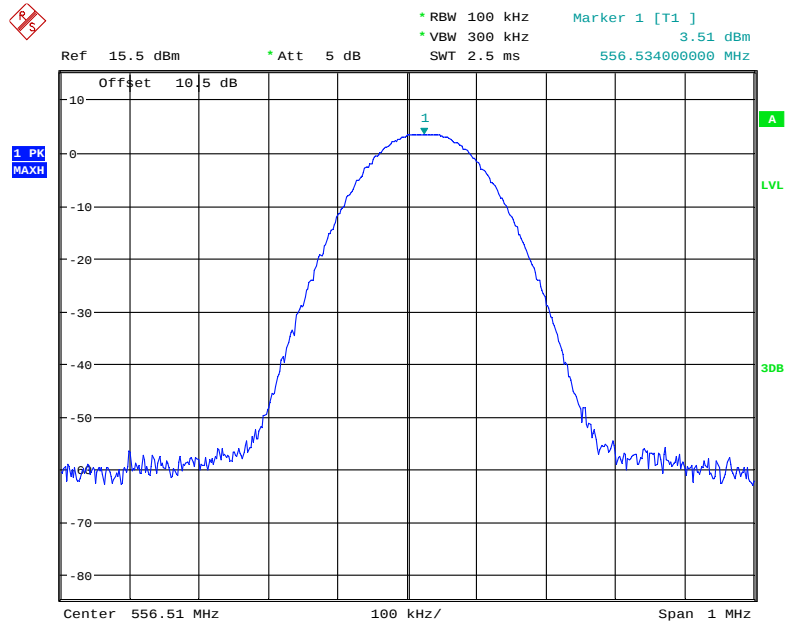
Date: 20.DEC.2020 00:36:27

Low Power, Frequency 556.51 MHz: Emission Bandwidth

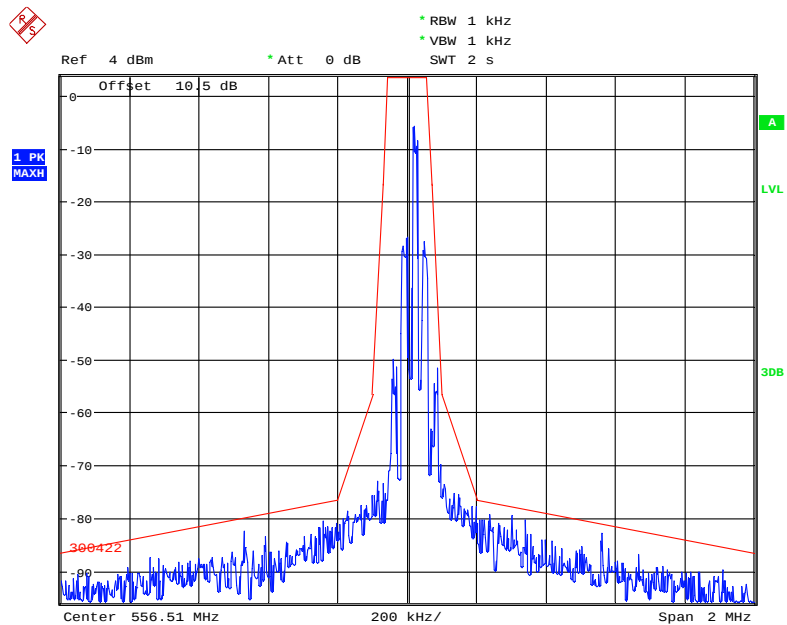


Date: 20.DEC.2020 01:27:52

Low Power, Frequency 556.51 MHz: Emission Mask

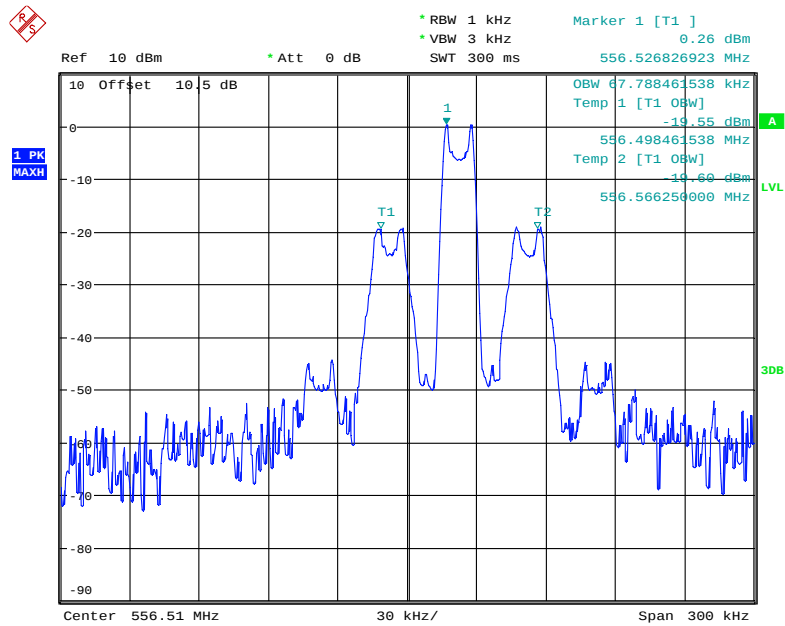


Date: 15.DEC.2020 11:07:51



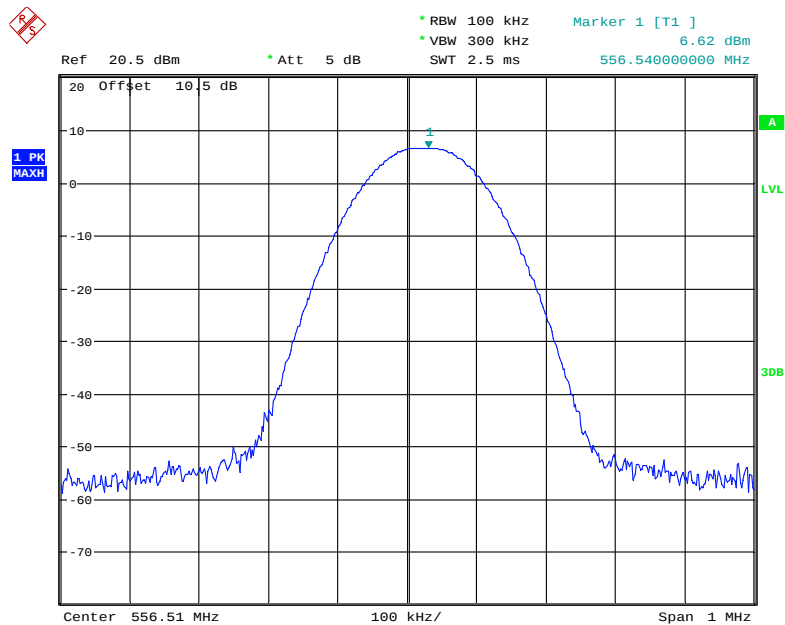
Date: 20.DEC.2020 01:26:14

Middle Power, Frequency 556.51 MHz: Emission Bandwidth

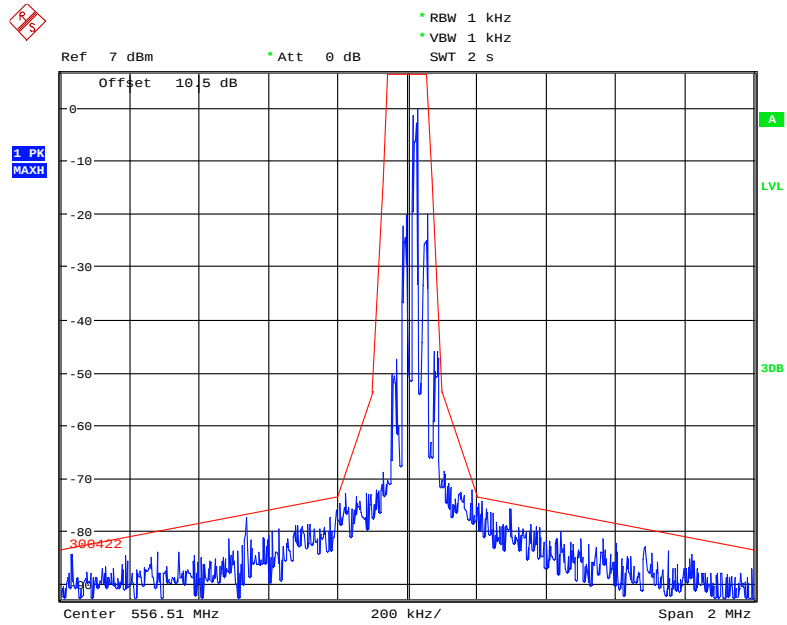


Date: 20.DEC.2020 01:29:10

Middle Power, Frequency 556.51 MHz: Emission Mask

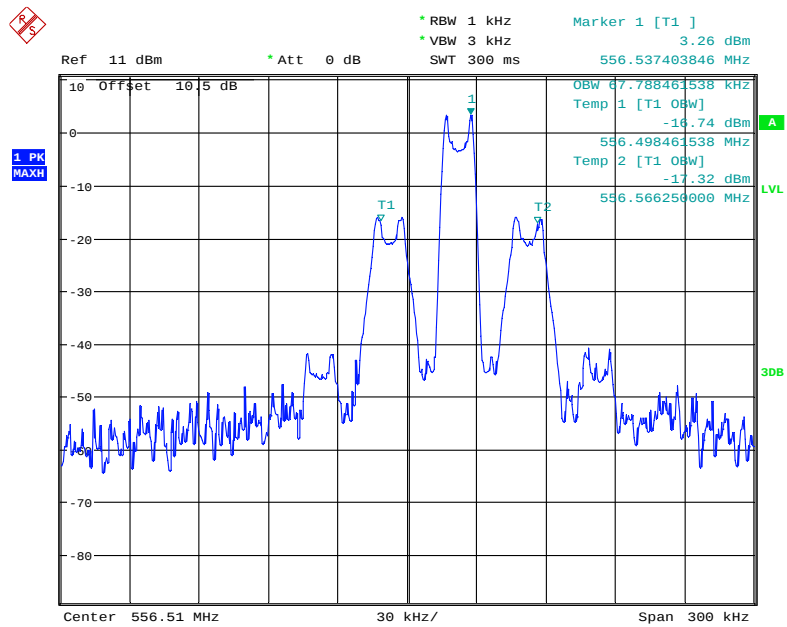


Date: 15.DEC.2020 10:44:23



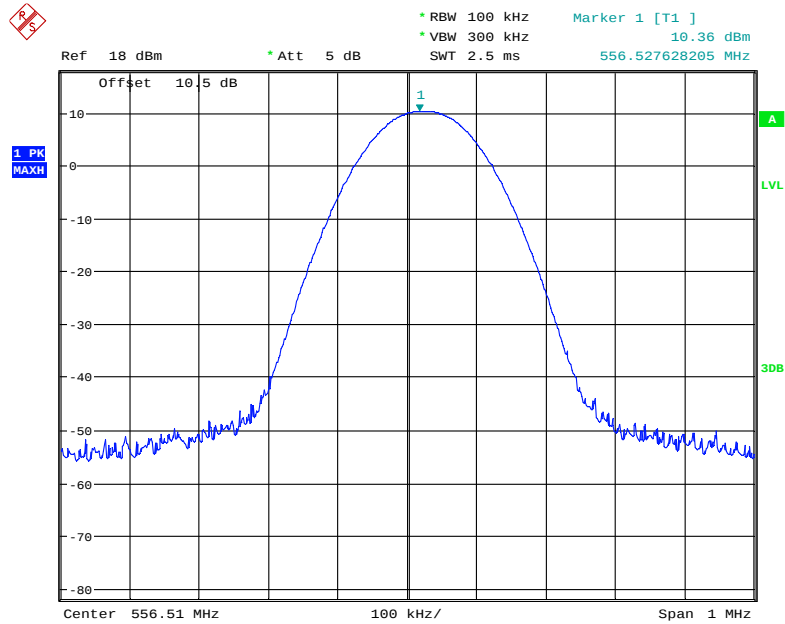
Date: 20.DEC.2020 01:36:11

High Power, Frequency 556.51 MHz: Emission Bandwidth

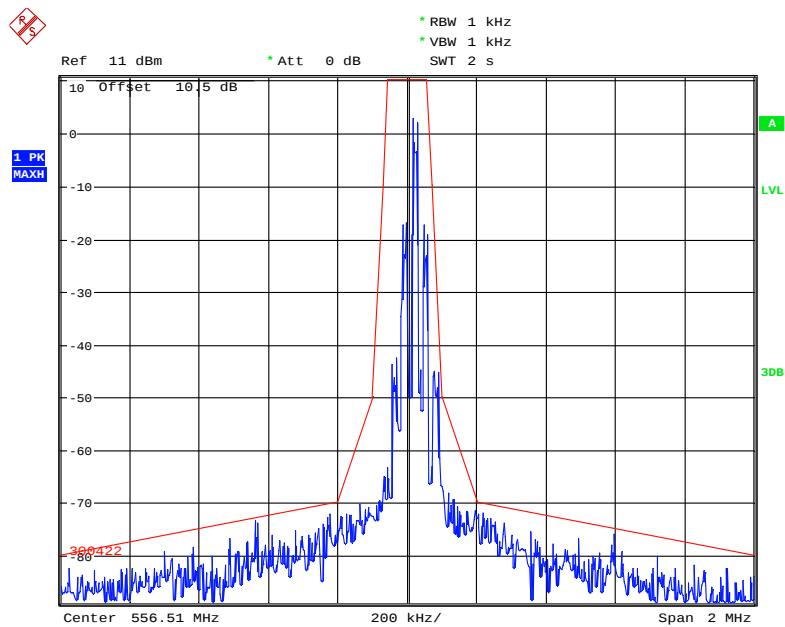


Date: 20.DEC.2020 01:56:33

High Power, Frequency 556.51 MHz: Emission Mask

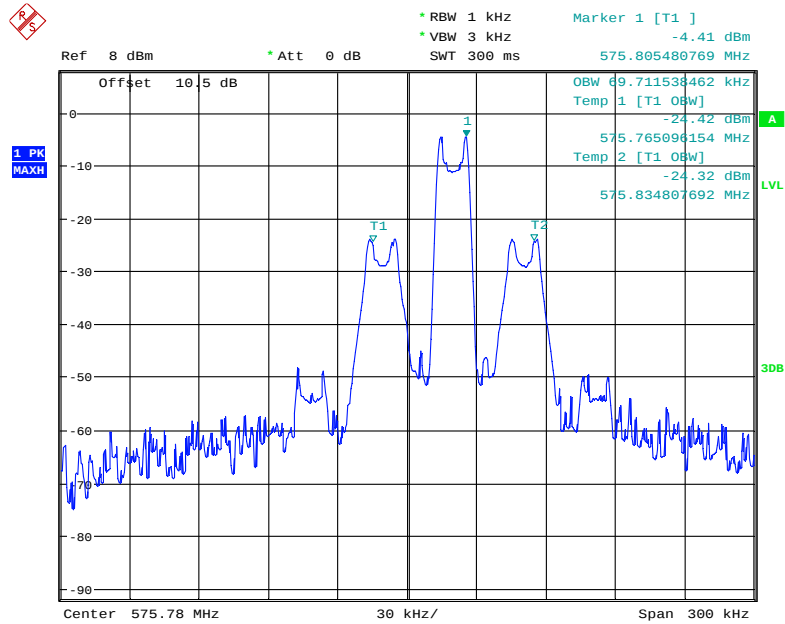


Date: 14.DEC.2020 17:21:28



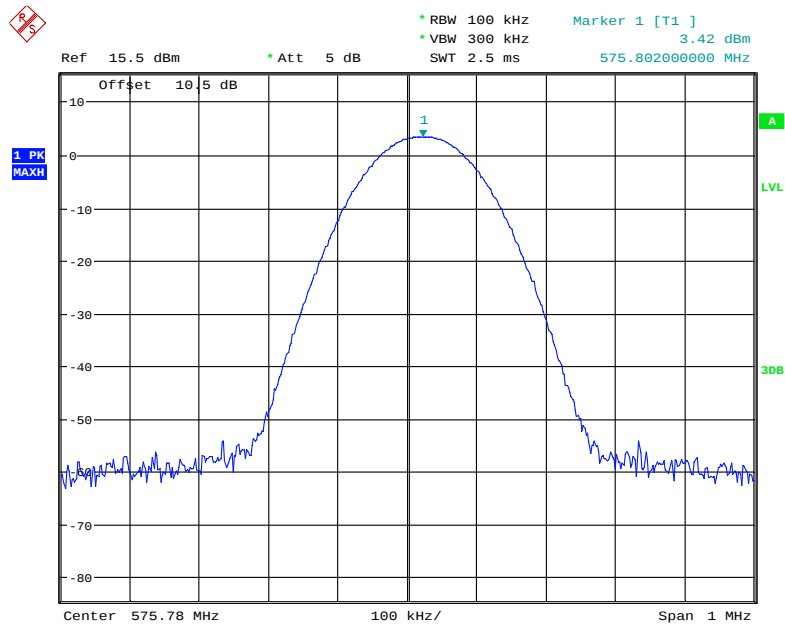
Date: 20.DEC.2020 01:54:53

Low Power, Frequency 575.78 MHz: Emission Bandwidth

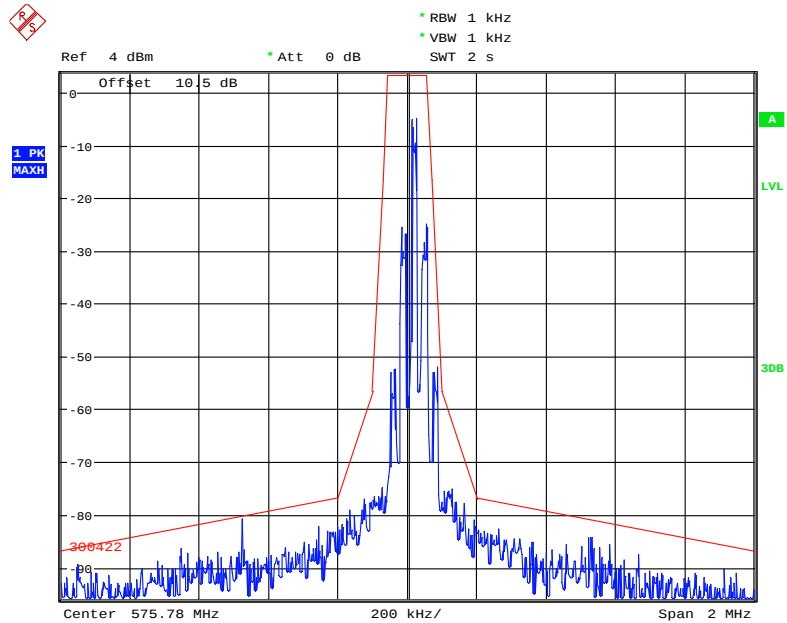


Date: 20.DEC.2020 02:52:40

Low Power, Frequency 575.78 MHz: Emission Mask

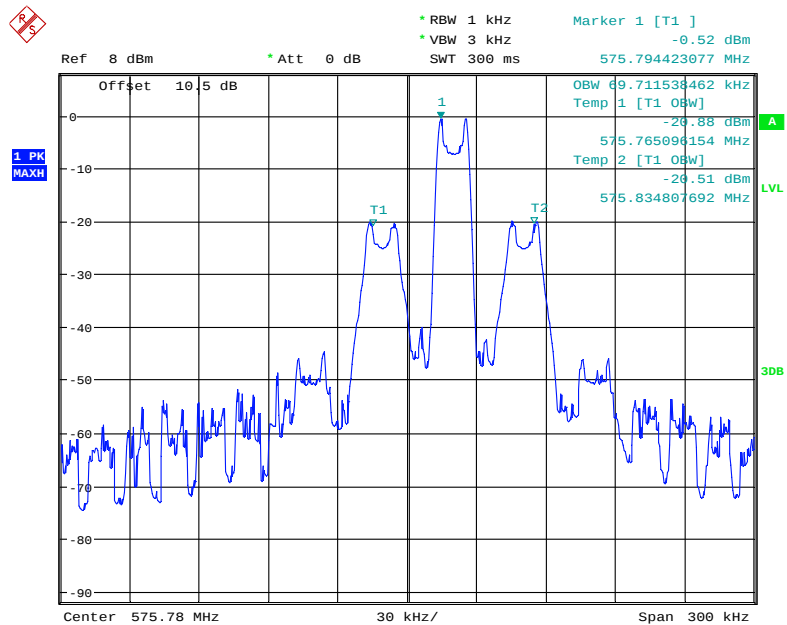


Date: 15.DEC.2020 10:22:14



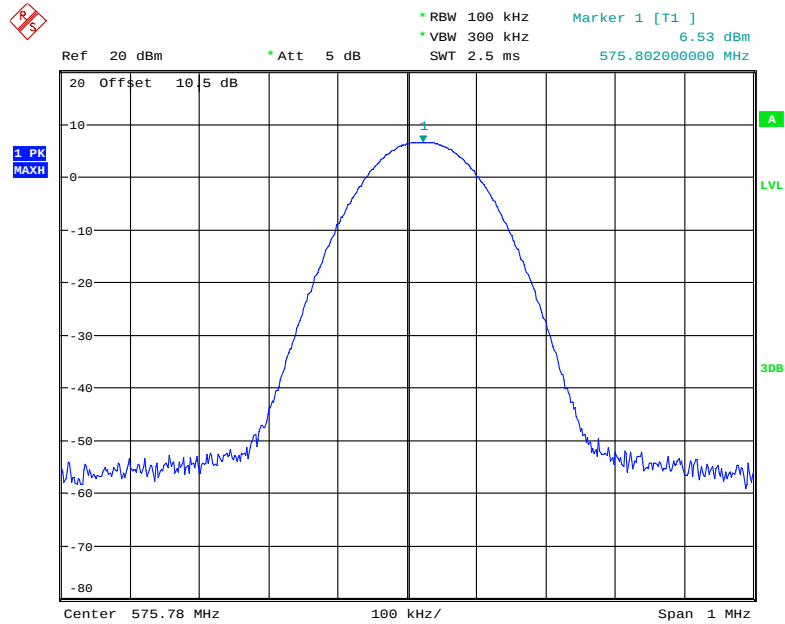
Date: 20.DEC.2020 02:54:06

Middle Power, Frequency 575.78 MHz: Emission Bandwidth

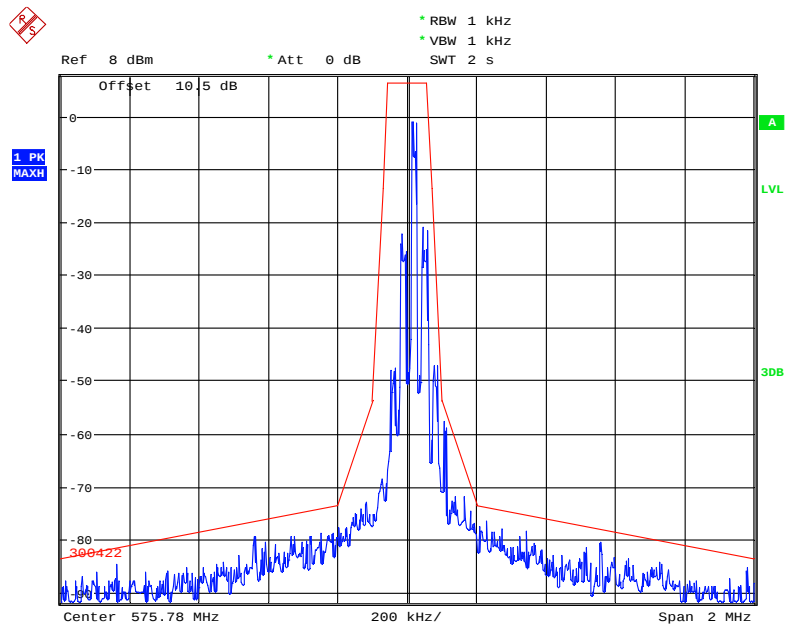


Date: 20.DEC.2020 02:48:26

Middle Power, Frequency 575.78 MHz: Emission Mask

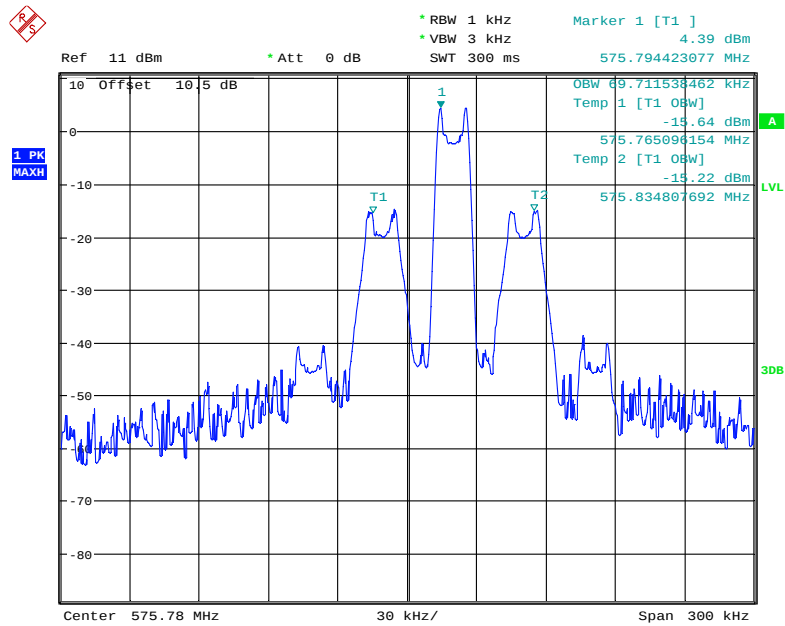


Date: 15.DEC.2020 10:11:31



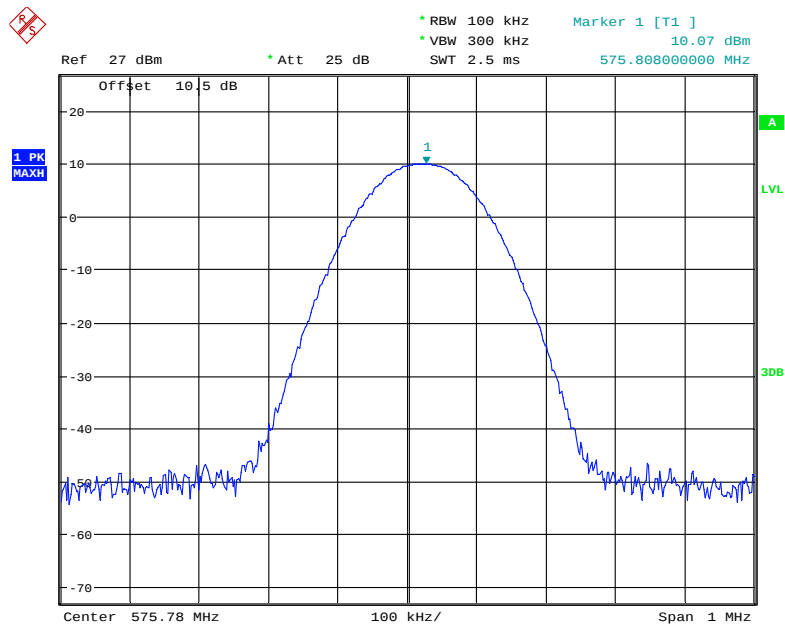
Date: 20.DEC.2020 02:47:06

High Power, Frequency 575.78 MHz: Emission Bandwidth

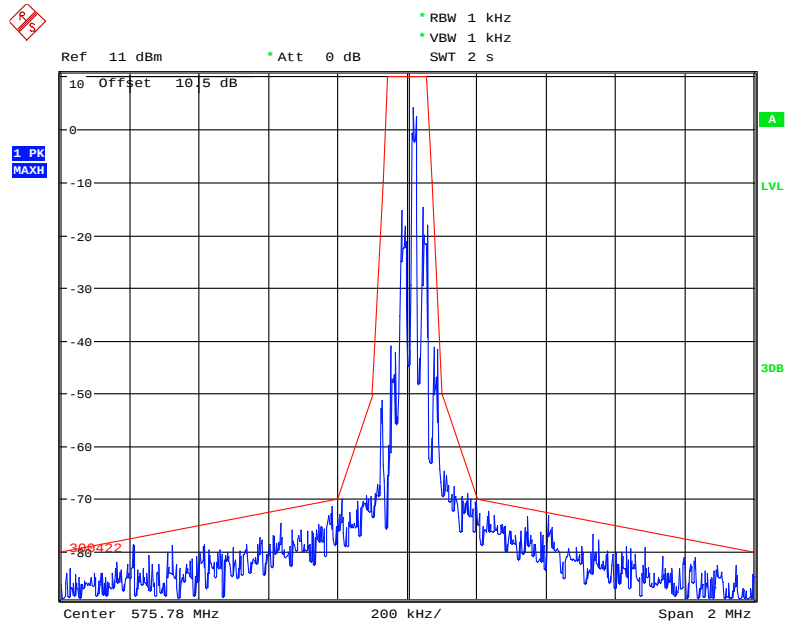


Date: 20.DEC.2020 01:58:30

High Power, Frequency 575.78MHz: Emission Mask

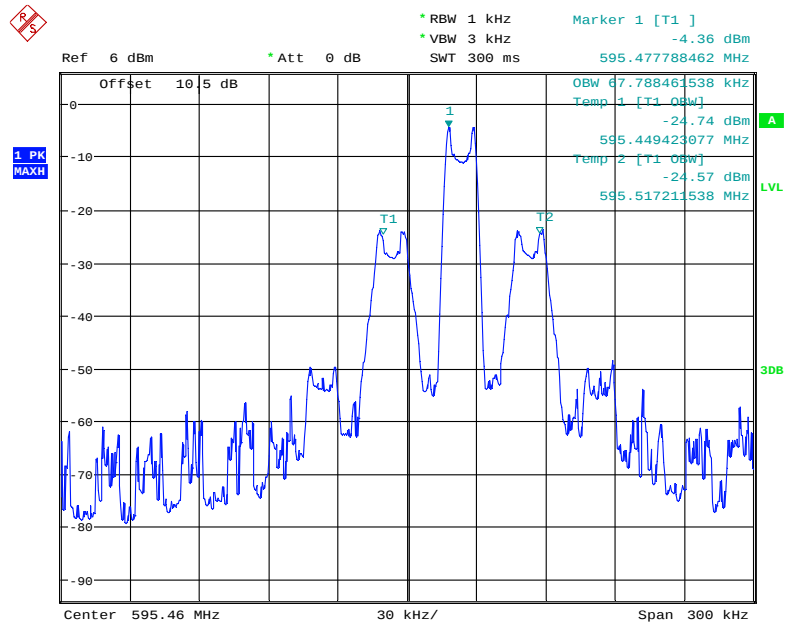


Date: 15.DEC.2020 09:39:28



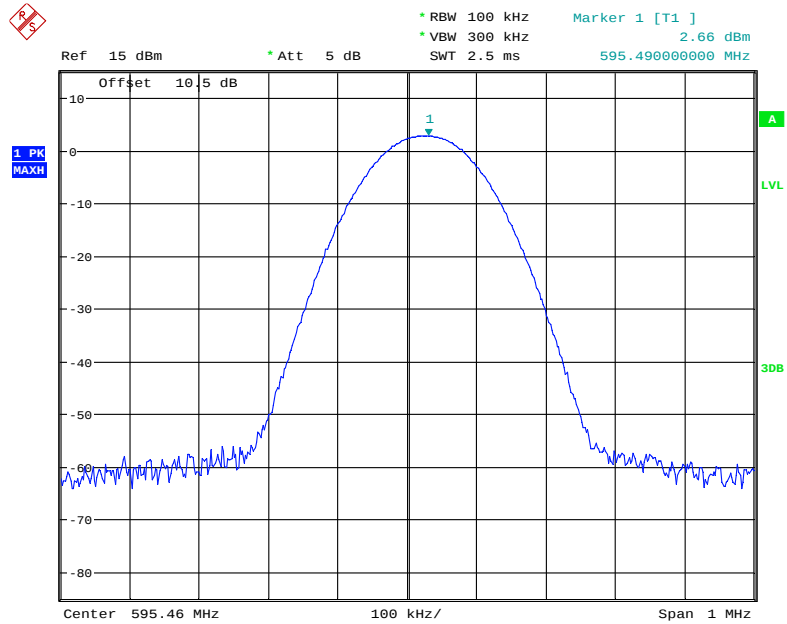
Date: 20.DEC.2020 02:56:00

Low Power, Frequency 595.46 MHz: Emission Bandwidth

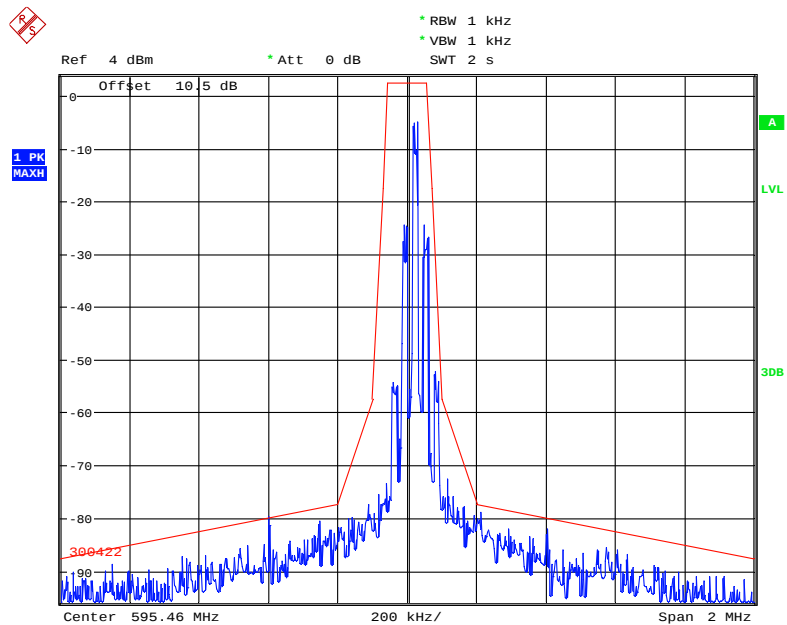


Date: 20.DEC.2020 01:19:31

Low Power, Frequency 595.46 MHz: Emission Mask

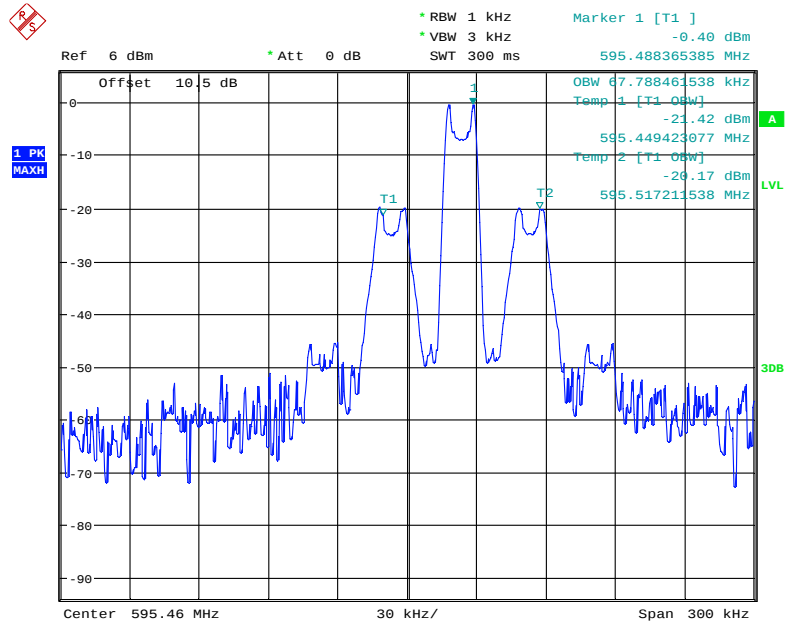


Date: 15.DEC.2020 11:45:50



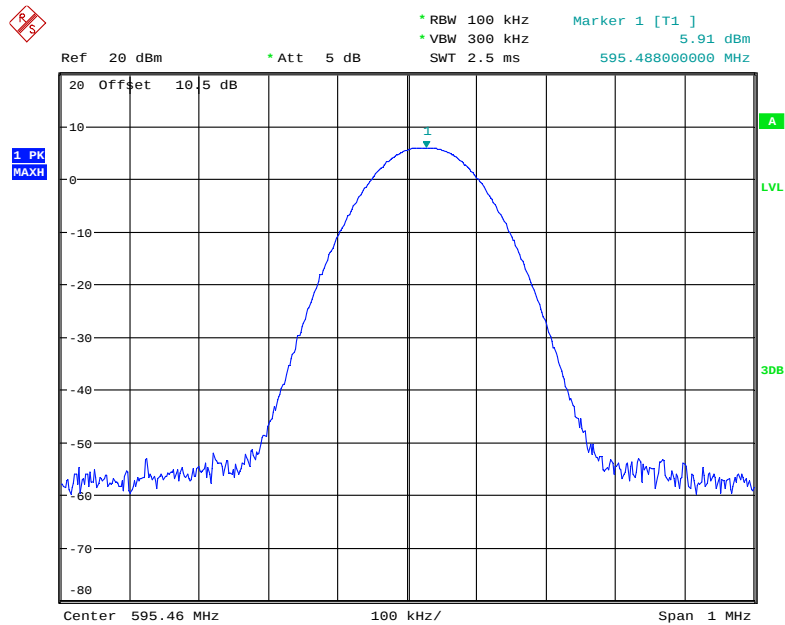
Date: 20.DEC.2020 01:21:28

Middle Power, Frequency 595.46MHz: Emission Bandwidth

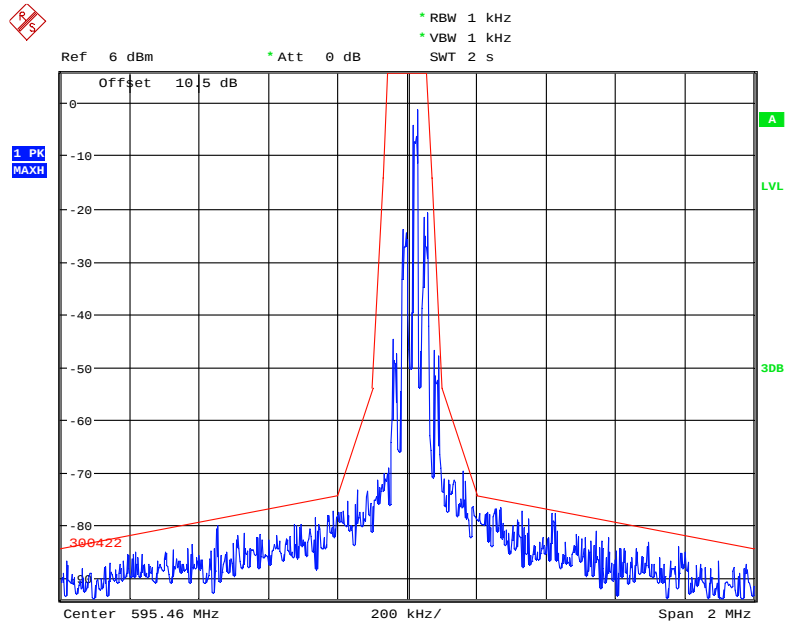


Date: 20.DEC.2020 01:18:24

Middle Power, Frequency 595.46 MHz: Emission Mask

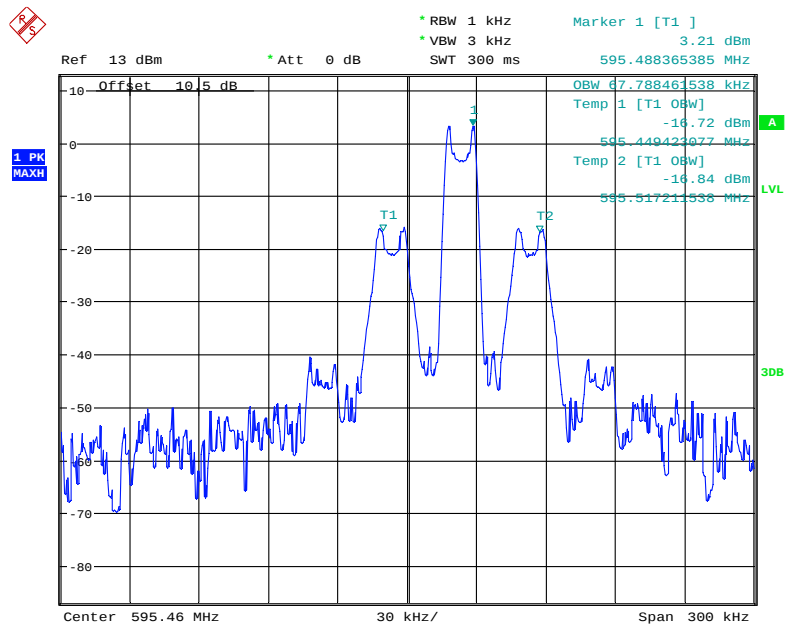


Date: 15.DEC.2020 11:36:10



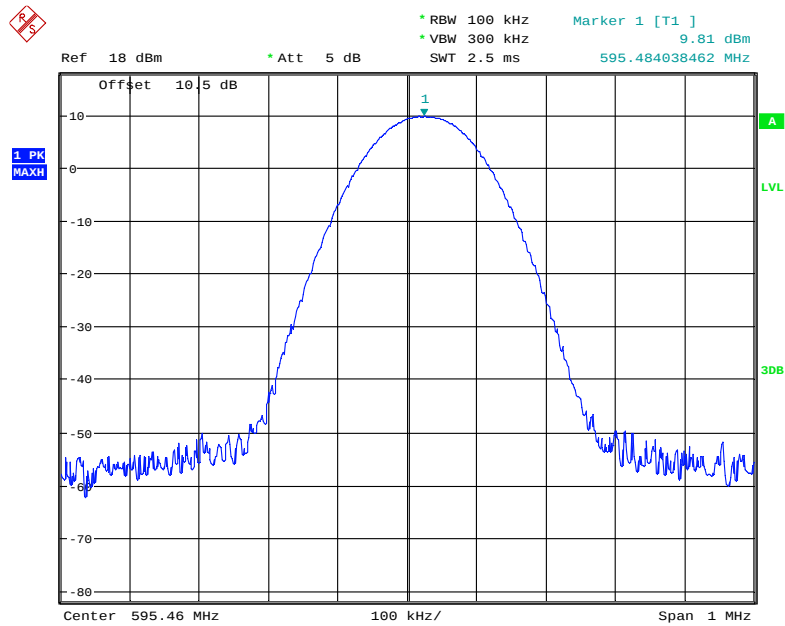
Date: 20.DEC.2020 01:17:15

High Power, Frequency 595.46 MHz: Emission Bandwidth

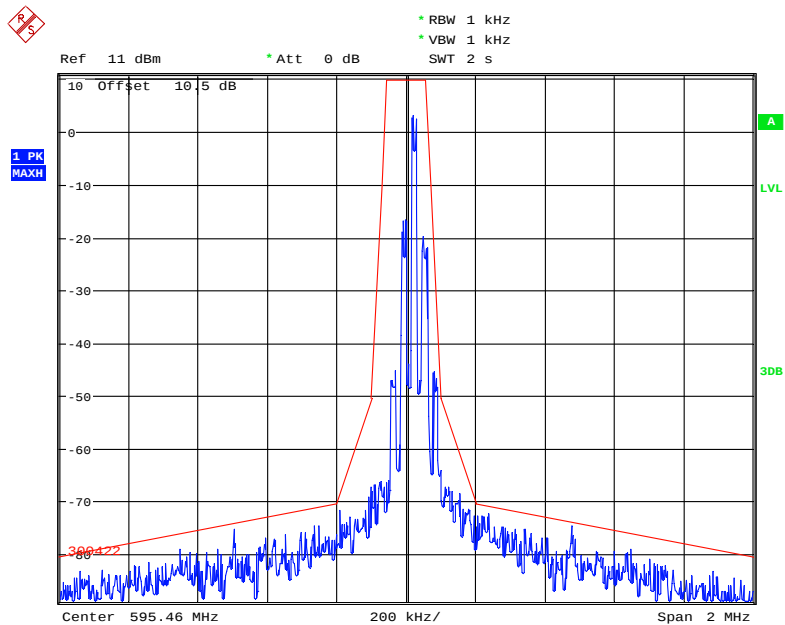


Date: 20.DEC.2020 00:41:48

High Power, Frequency 595.46 MHz: Emission Mask



Date: 14.DEC.2020 17:06:58



Date: 20.DEC.2020 01:07:00

FCC § 74.861(e)(7) - SPURIOUS EMISSIONS AT THE ANTENNA PORT

Applicable Standard

According to FCC §74.861(e)(7):

Analog emissions within the band from one megahertz below to one megahertz above the carrier frequency shall comply with the emission mask in section 8.3.1.2 of the European Telecommunications Institute Standard ETSI EN 300 422-1 v1.4.2 (2011-08), Electromagnetic compatibility and Radio spectrum Matters (ERM); Wireless microphones in the 25 MHz to 3 GHz frequency range; part 1: Technical characteristics and methods of measurement. Digital emissions within the band from one megahertz below to one megahertz above the carrier frequency shall comply with the emission mask in section 8.3.2.2 (Figure 4) of the European Telecommunications Institute Standard ETSI EN 300 422-1 v1.4.2 (2011-08), Electromagnetic compatibility and Radio spectrum Matters (ERM); Wireless microphones in the 25 MHz to 3 GHz frequency range; part 1: Technical characteristics and methods of measurement. Beyond one megahertz below and above the carrier frequency, emissions shall comply with the limits specified in section 8.4 of ETSI EN 300 422-1 v1.4.2 (2011-08). The requirements of this paragraph (e)(7) shall not apply to applications for certification of equipment in these bands until nine months after release of the Commission's Channel Reassignment Public Notice, as defined in §73.3700(a)(2) of this chapter.

Test Procedure

KDB 971168 D01 v03r01 and ETSI EN 300 422-1 v1.4.2 (2011-08).

Test Data

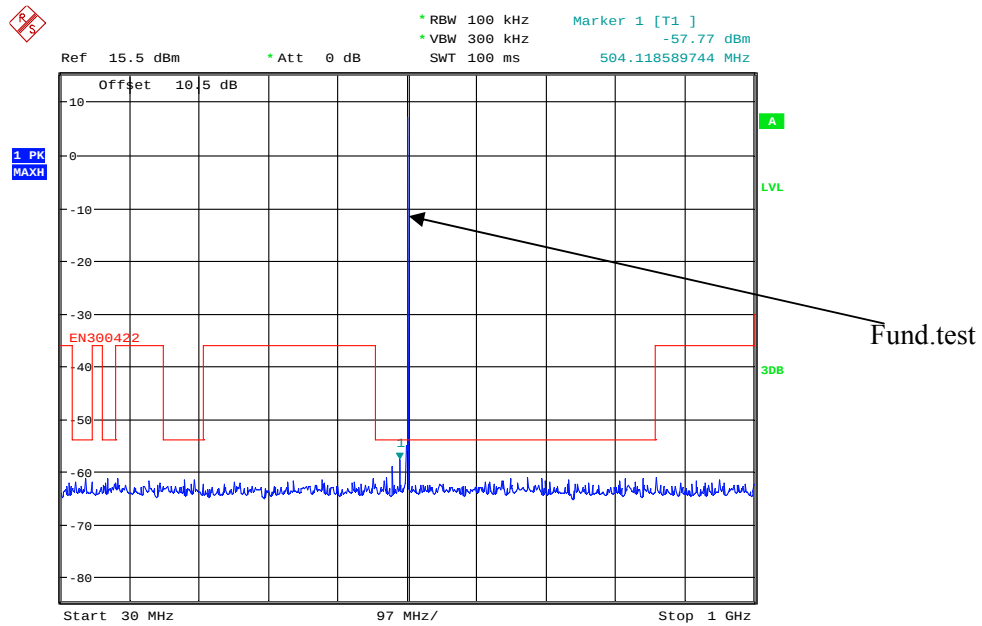
Environmental Conditions

Temperature:	25 °C
Relative Humidity:	52 %
ATM Pressure:	101.0 kPa

The testing was performed by Nancy Wang from 2020-11-19 to 2020-12-20.

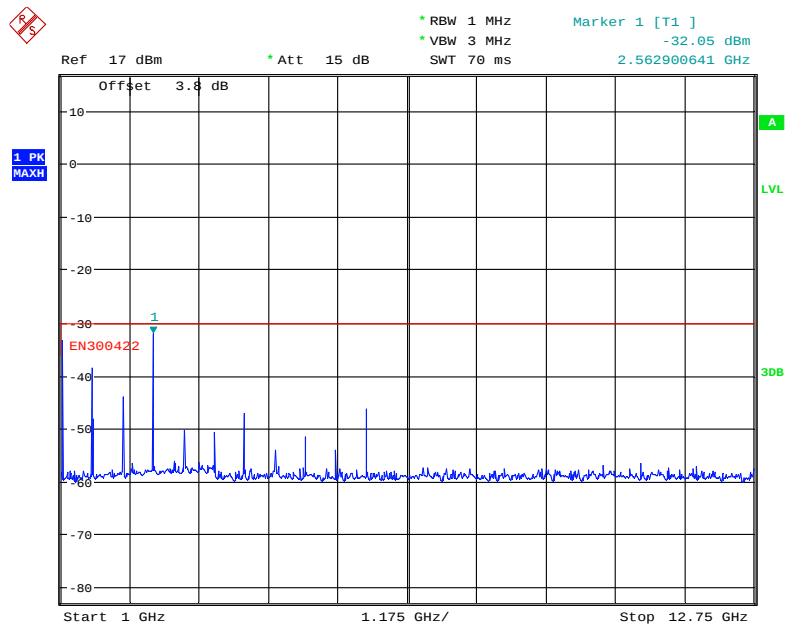
Test Mode: Transmitting(worst case at high power level)

30MHz – 1 GHz, 514.56 MHz



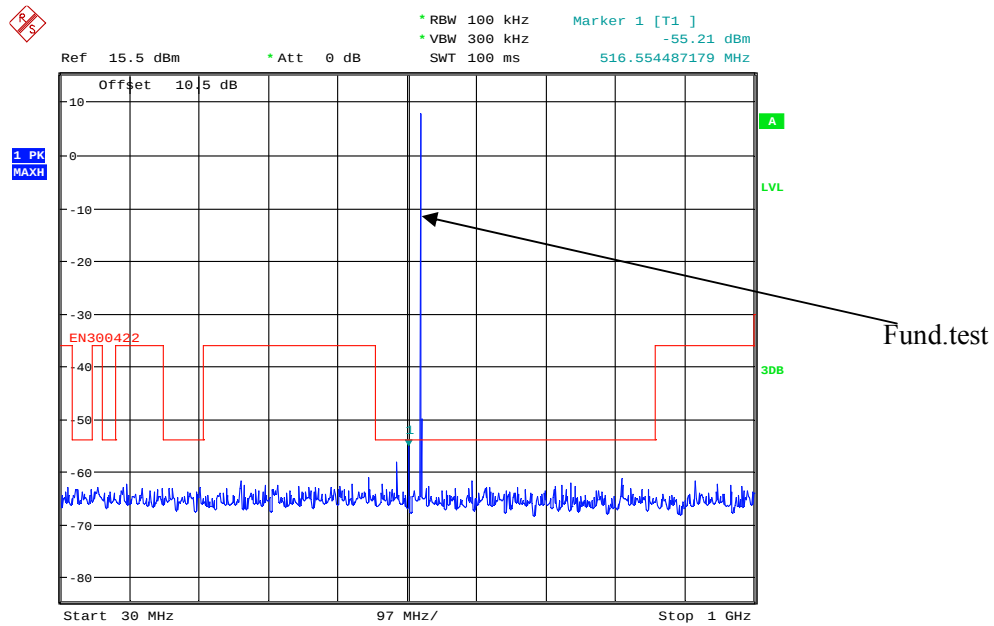
Date: 20.DEC.2020 03:07:08

1 GHz – 12.75 GHz, 514.56 MHz



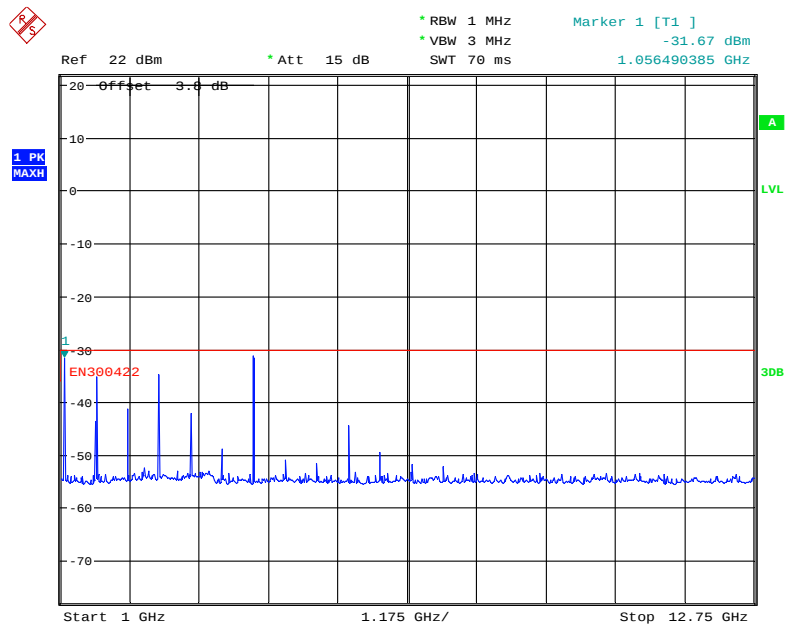
Date: 19.NOV.2020 11:54:13

30MHz – 1 GHz, 533.83 MHz



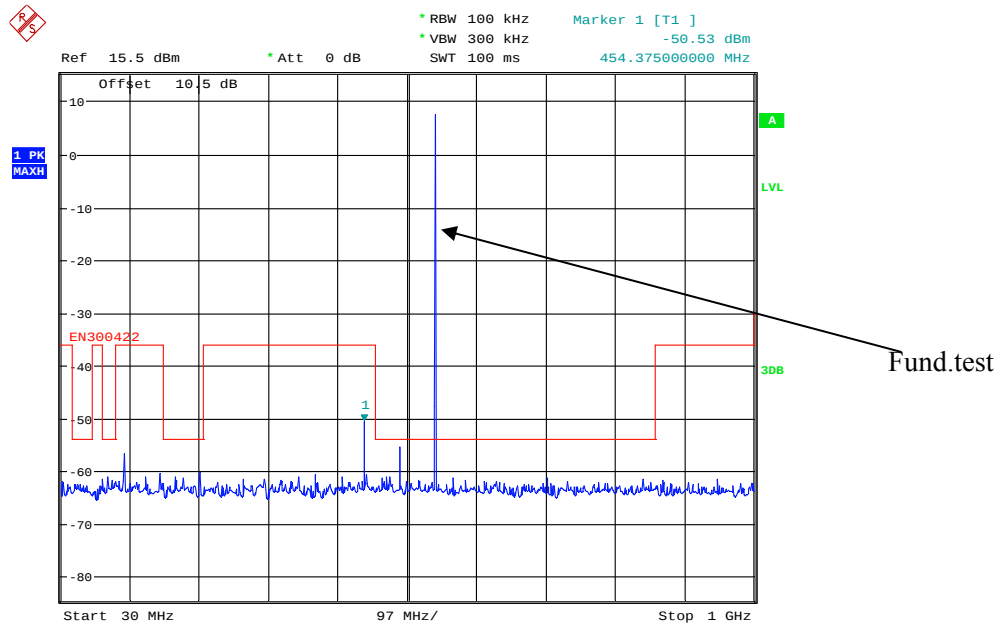
Date: 20.DEC.2020 03:05:30

1 GHz – 12.75 GHz, 533.83 MH



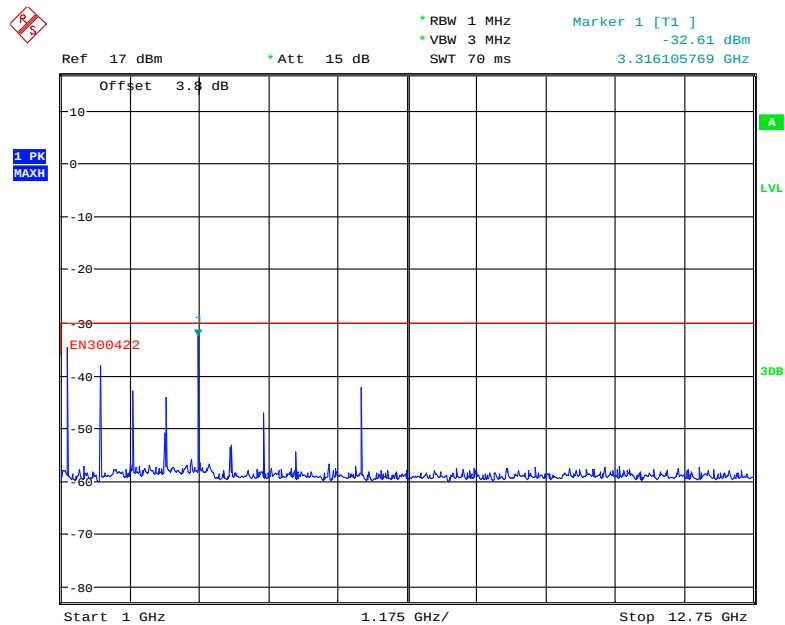
Date: 19.NOV.2020 11:30:40

30MHz – 1 GHz, 553.51 MHz



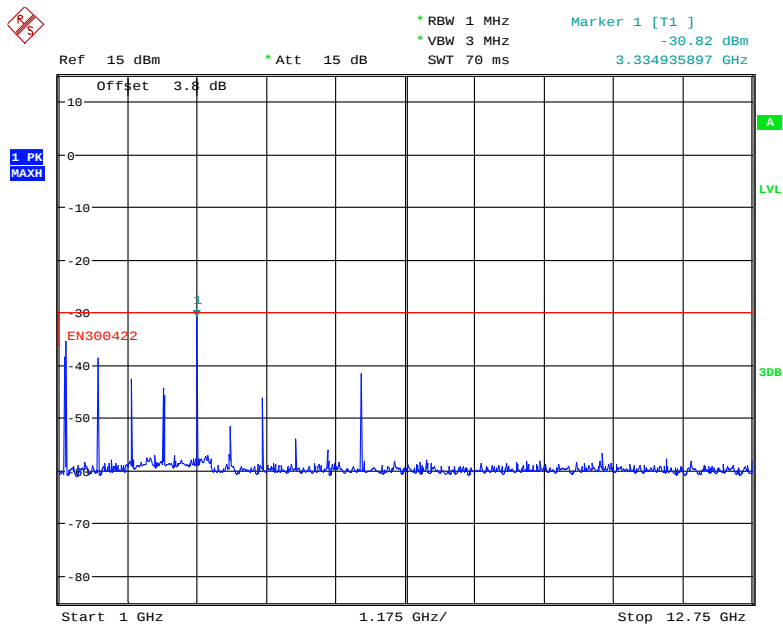
Date: 20.DEC.2020 03:13:07

1 GHz – 12.75 GHz, 553.51 MHz



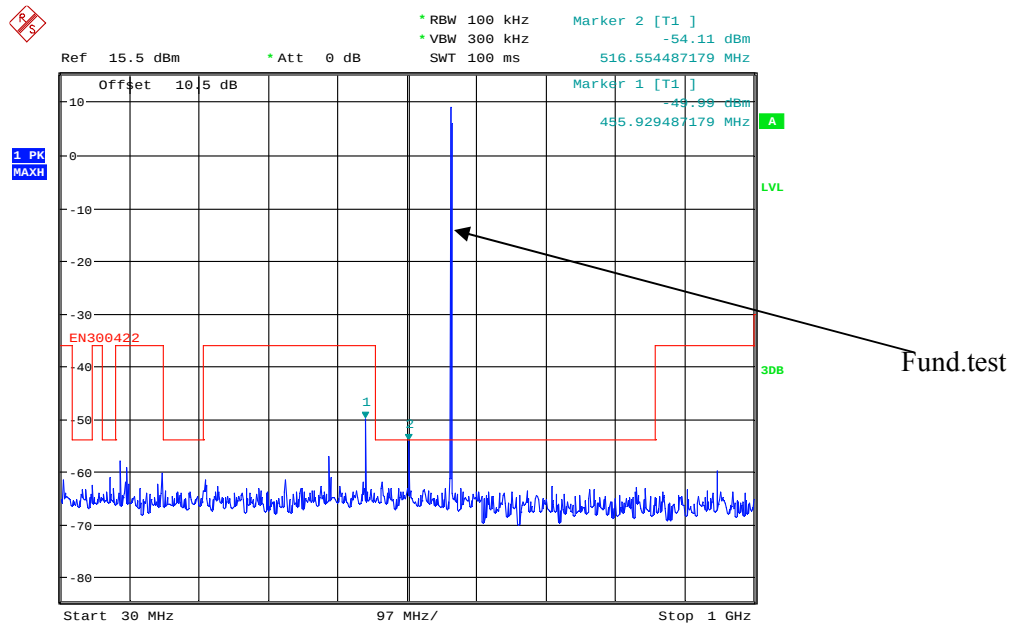
Date: 19.NOV.2020 11:52:51

1 GHz – 12.75 GHz, 556.51 MHz



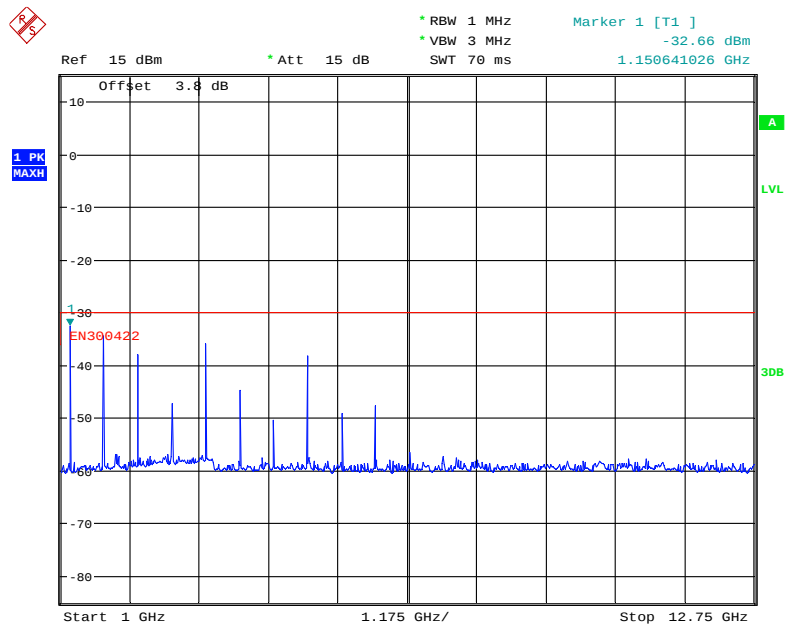
Page 65 of 74

30MHz – 1 GHz, 575.78 MHz



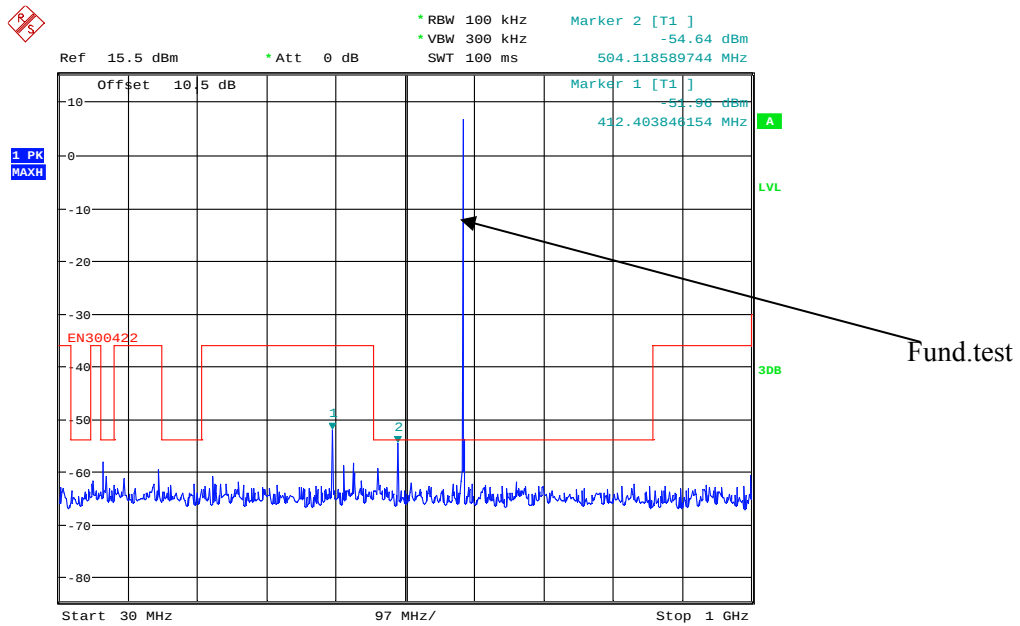
Date: 20.DEC.2020 03:00:32

1 GHz – 12.75 GHz, 575.78 MHz



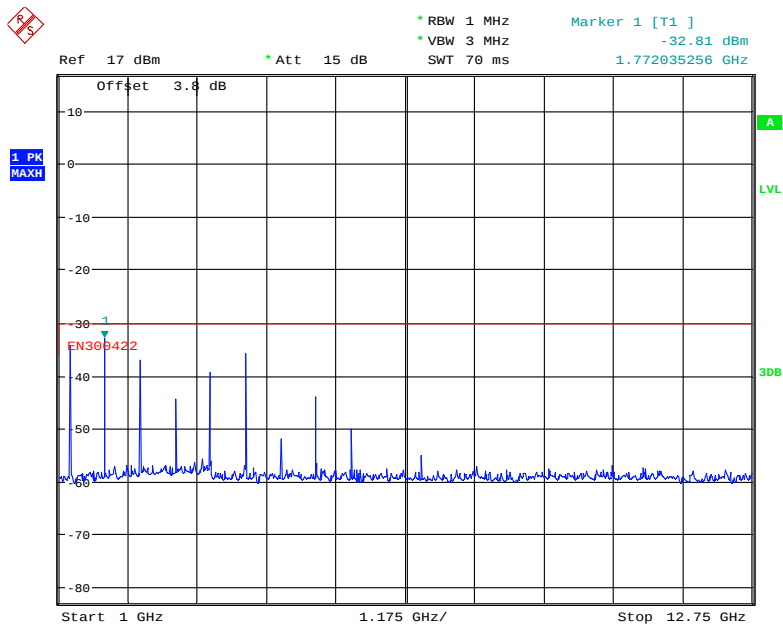
Date: 19.NOV.2020 11:38:34

30MHz – 1 GHz, 595.46 MHz



Date: 20.DEC.2020 03:11:46

1 GHz – 12.75 GHz, 595.46 MHz



Date: 19.NOV.2020 11:51:24

FCC § 74.861(e)(7) - FIELD STRENGTH OF SPURIOUS EMISSION**Applicable Standard**

According to FCC §74.861(e)(7):

Analog emissions within the band from one megahertz below to one megahertz above the carrier frequency shall comply with the emission mask in section 8.3.1.2 of the European Telecommunications Institute Standard ETSI EN 300 422-1 v1.4.2 (2011-08), Electromagnetic compatibility and Radio spectrum Matters (ERM); Wireless microphones in the 25 MHz to 3 GHz frequency range; part 1: Technical characteristics and methods of measurement. Digital emissions within the band from one megahertz below to one megahertz above the carrier frequency shall comply with the emission mask in section 8.3.2.2 (Figure 4) of the European Telecommunications Institute Standard ETSI EN 300 422-1 v1.4.2 (2011-08), Electromagnetic compatibility and Radio spectrum Matters (ERM); Wireless microphones in the 25 MHz to 3 GHz frequency range; part 1: Technical characteristics and methods of measurement. Beyond one megahertz below and above the carrier frequency, emissions shall comply with the limits specified in section 8.4 of ETSI EN 300 422-1 v1.4.2 (2011-08). The requirements of this paragraph (e)(7) shall not apply to applications for certification of equipment in these bands until nine months after release of the Commission's Channel Reassignment Public Notice, as defined in §73.3700(a)(2) of this chapter.

Test Procedure

KDB 971168 D01 v03r01 and ETSI EN 300 422-1 v1.4.2 (2011-08).

Test Data**Environmental Conditions**

Temperature:	25~27.2 °C
Relative Humidity:	42~62 %
ATM Pressure:	101.0 kPa

The testing was performed by Harris He on 2020-11-19 for below 1GHz and Leo Huang on 2020-11-27 for above 1GHz.

Test Mode: Transmitting

Frequency (MHz)	Receiver Reading (dBμV)	Turn Table Angle Degree	Rx Antenna		Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Height (m)	Polar (H/V)	Level (dBm)	Cable Loss (dB)	Antenna Gain (dBd/dBi)			
Group A										
Channel 1										
958.2	32.53	207	2.5	H	-64.0	1.36	0.0	-65.36	-36	29.36
958.2	33.83	88	2.4	V	-60.2	1.36	0.0	-61.56	-36	25.56
1029.12	66.73	65	2.4	H	-42.5	1.50	5.60	-38.40	-30	8.40
1029.12	75.38	315	2.2	V	-34.7	1.50	5.60	-30.60	-30	0.60
1543.68	65.04	232	2.0	H	-43.6	1.60	8.50	-36.70	-30	6.70
1543.68	71.28	118	1.2	V	-37.7	1.60	8.50	-30.80	-30	0.80
2058.24	50.45	214	1.8	H	-51.3	1.30	9.70	-42.90	-30	12.90
2058.24	53.57	201	1.9	V	-49.0	1.30	9.70	-40.60	-30	10.60
2572.80	51.08	35	1.5	H	-52.9	2.20	10.20	-44.90	-30	14.90
2572.80	55.34	275	2.2	V	-48.3	2.20	10.20	-40.30	-30	10.30
3087.36	52.61	107	1.5	H	-49.4	1.70	11.30	-39.80	-30	9.80
3087.36	55.46	147	2.1	V	-46.4	1.70	11.30	-36.80	-30	6.80
3601.92	47.23	91	2.0	H	-55.2	1.50	12.10	-44.60	-30	14.60
3601.92	49.57	127	2.5	V	-52.3	1.50	12.10	-41.70	-30	11.70
4116.48	50.38	35	1.0	H	-52.0	1.40	12.20	-41.20	-30	11.20
4116.48	54.21	76	1.8	V	-47.1	1.40	12.20	-36.30	-30	6.30
4631.04	48.62	229	2.3	H	-53.2	1.60	12.00	-42.80	-30	12.80
4631.04	51.17	16	2.5	V	-49.5	1.60	12.00	-39.10	-30	9.10
5145.60	48.24	1	1.9	H	-52.7	1.60	12.10	-42.20	-30	12.20
5145.60	50.37	318	1.8	V	-50.5	1.60	12.10	-40.00	-30	10.00

Frequency (MHz)	Receiver Reading (dBμV)	Turn Table Angle Degree	Rx Antenna		Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Height (m)	Polar (H/V)	Level (dBm)	Cable Loss (dB)	Antenna Gain (dBd/dBi)			
Channel 48										
962.7	32.27	225	1.2	H	-64.2	1.36	0.0	-65.56	-36	29.56
962.7	33.64	36	1.4	V	-60.4	1.36	0.0	-61.76	-36	25.76
1067.66	59.08	22	1.2	H	-49.7	1.60	6.20	-45.10	-30	15.10
1067.66	67.93	219	2.5	V	-41.6	1.60	6.20	-37.00	-30	7.00
1601.49	61.54	301	1.2	H	-46.8	1.40	8.70	-39.50	-30	9.50
1601.49	68.27	181	2.4	V	-39.9	1.40	8.70	-32.60	-30	2.60
2135.32	44.36	118	1.9	H	-57.4	1.30	9.70	-49.00	-30	19.00
2135.32	46.30	30	1.8	V	-56.3	1.30	9.70	-47.90	-30	17.90
2669.15	50.78	133	2.3	H	-52.9	2.00	10.40	-44.50	-30	14.50
2669.15	55.20	155	2.4	V	-48.1	2.00	10.40	-39.70	-30	9.70
3202.98	56.35	274	1.7	H	-44.5	1.60	11.50	-34.60	-30	4.60
3202.98	59.49	334	1.3	V	-41.6	1.60	11.50	-31.70	-30	1.70
3736.81	51.18	345	1.1	H	-51.6	1.60	11.90	-41.30	-30	11.30
3736.81	55.45	284	1.8	V	-46.7	1.60	11.90	-36.40	-30	6.40
4270.64	49.14	285	2.5	H	-52.4	1.50	11.70	-42.20	-30	12.20
4270.64	52.68	249	1.9	V	-48.2	1.50	11.70	-38.00	-30	8.00
4804.47	48.81	214	2.0	H	-52.9	1.60	12.10	-42.40	-30	12.40
4804.47	52.66	6	1.1	V	-48.0	1.60	12.10	-37.50	-30	7.50
5338.30	45.25	314	1.6	H	-55.5	1.60	12.20	-44.90	-30	14.90
5338.30	47.10	160	1.7	V	-53.1	1.60	12.20	-42.50	-30	12.50
Channel 96										
963.9	32.45	71	2.2	H	-64.1	1.36	0.0	-65.46	-36	29.46
963.9	33.77	136	2.1	V	-60.3	1.36	0.0	-61.66	-36	25.66
1107.02	55.73	43	1.4	H	-53.0	1.60	6.20	-48.40	-30	18.40
1107.02	57.26	86	2.0	V	-52.3	1.60	6.20	-47.70	-30	17.70
1660.53	57.36	148	1.9	H	-49.4	1.30	8.90	-41.80	-30	11.80
1660.53	61.32	248	2.1	V	-44.8	1.30	8.90	-37.20	-30	7.20
2214.04	53.14	146	2.0	H	-50.4	1.30	9.80	-41.90	-30	11.90
2214.04	55.05	235	1.8	V	-49.1	1.30	9.80	-40.60	-30	10.60
2767.55	56.33	320	2.2	H	-48.2	1.80	10.50	-39.50	-30	9.50
2767.55	59.25	285	1.2	V	-45.0	1.80	10.50	-36.30	-30	6.30
3321.06	52.43	92	1.4	H	-48.5	1.50	11.70	-38.30	-30	8.30
3321.06	56.59	254	1.4	V	-44.4	1.50	11.70	-34.20	-30	4.20
3874.57	54.12	268	2.4	H	-48.3	1.60	11.90	-38.00	-30	8.00
3874.57	56.30	239	2.0	V	-46.0	1.60	11.90	-35.70	-30	5.70
4428.08	46.28	186	2.3	H	-55.0	1.50	12.00	-44.50	-30	14.50
4428.08	49.61	163	1.3	V	-51.5	1.50	12.00	-41.00	-30	11.00
4981.59	48.52	199	1.1	H	-53.0	1.70	12.00	-42.70	-30	12.70
4981.59	51.46	317	1.2	V	-49.5	1.70	12.00	-39.20	-30	9.20
5535.10	44.90	273	1.6	H	-56.4	1.60	12.40	-45.60	-30	15.60
5535.10	46.40	314	1.7	V	-54.6	1.60	12.40	-43.80	-30	13.80

Frequency (MHz)	Receiver Reading (dBμV)	Turn Table Angle Degree	Rx Antenna		Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Height (m)	Polar (H/V)	Level (dBm)	Cable Loss (dB)	Antenna Gain (dBd/dBi)			
Group B										
Channel 1										
959.6	32.61	158	2.4	H	-63.9	1.36	0.0	-65.26	-36	29.26
959.6	33.89	326	1.3	V	-60.2	1.36	0.0	-61.56	-36	25.56
1113.02	56.11	110	1.3	H	-52.6	1.60	6.20	-48.00	-30	18.00
1113.02	61.33	126	2.4	V	-48.2	1.60	6.20	-43.60	-30	13.60
1669.53	57.43	38	2.3	H	-49.3	1.30	8.90	-41.70	-30	11.70
1669.53	60.84	358	1.1	V	-45.3	1.30	8.90	-37.70	-30	7.70
2226.04	52.47	307	2.2	H	-51.1	1.30	9.80	-42.60	-30	12.60
2226.04	56.63	203	1.5	V	-47.6	1.30	9.80	-39.10	-30	9.10
2782.55	55.28	53	2.2	H	-49.3	1.80	10.50	-40.60	-30	10.60
2782.55	58.40	184	2.5	V	-45.8	1.80	10.50	-37.10	-30	7.10
3339.06	51.56	311	2.4	H	-49.4	1.50	11.70	-39.20	-30	9.20
3339.06	55.29	163	1.5	V	-45.7	1.50	11.70	-35.50	-30	5.50
3895.57	53.14	242	2.2	H	-49.3	1.60	11.90	-39.00	-30	9.00
3895.57	55.57	247	2.4	V	-46.7	1.60	11.90	-36.40	-30	6.40
4452.08	47.38	144	2.3	H	-54.5	1.50	12.10	-43.90	-30	13.90
4452.08	50.56	144	1.6	V	-50.7	1.50	12.10	-40.10	-30	10.10
5008.59	46.33	268	2.3	H	-55.2	1.70	12.00	-44.90	-30	14.90
5008.59	48.71	347	2.0	V	-52.2	1.70	12.00	-41.90	-30	11.90
5565.10	44.05	40	2.2	H	-56.4	1.70	12.40	-45.70	-30	15.70
5565.10	45.51	59	1.5	V	-54.6	1.70	12.40	-43.90	-30	13.90

Frequency (MHz)	Receiver Reading (dBμV)	Turn Table Angle Degree	Rx Antenna		Substituted			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Height (m)	Polar (H/V)	Level (dBm)	Cable Loss (dB)	Antenna Gain (dBd/dBi)			
Channel 48										
961.8	32.46	273	1.8	H	-64.0	1.36	0.0	-65.36	-36	29.36
961.8	33.69	318	1.6	V	-60.4	1.36	0.0	-61.76	-36	25.76
1151.56	58.83	325	1.8	H	-49.2	1.50	6.80	-43.90	-30	13.90
1151.56	62.10	248	2.1	V	-45.6	1.50	6.80	-40.30	-30	10.30
1727.34	57.04	36	2.5	H	-49.7	1.30	8.90	-42.10	-30	12.10
1727.34	60.08	110	1.2	V	-46.1	1.30	8.90	-38.50	-30	8.50
2303.12	55.23	299	1.7	H	-50.8	1.30	10.00	-42.10	-30	12.10
2303.12	57.95	342	1.3	V	-47.9	1.30	10.00	-39.20	-30	9.20
2878.90	62.64	114	1.8	H	-42.4	1.70	10.70	-33.40	-30	3.40
2878.90	64.50	231	2.0	V	-40.6	1.70	10.70	-31.60	-30	1.60
3454.68	47.34	22	1.9	H	-54.1	1.50	12.00	-43.60	-30	13.60
3454.68	50.04	301	1.1	V	-52.2	1.50	12.00	-41.70	-30	11.70
4030.46	52.08	180	1.1	H	-49.6	1.70	12.00	-39.30	-30	9.30
4030.46	54.14	59	1.7	V	-46.7	1.70	12.00	-36.40	-30	6.40
4606.24	44.51	182	1.2	H	-57.3	1.60	12.00	-46.90	-30	16.90
4606.24	46.98	287	2.3	V	-53.7	1.60	12.00	-43.30	-30	13.30
5182.00	46.34	295	1.1	H	-54.6	1.60	12.10	-44.10	-30	14.10
5182.00	48.70	70	1.8	V	-51.8	1.60	12.10	-41.30	-30	11.30
5757.80	44.28	282	1.3	H	-56.5	1.70	12.10	-46.10	-30	16.10
5757.80	45.62	206	2.4	V	-54.6	1.70	12.10	-44.20	-30	14.20
Channel 96										
960.3	32.39	258	1.4	H	-64.1	1.36	0.0	-65.46	-36	29.46
960.3	33.57	137	1.4	V	-60.5	1.36	0.0	-61.86	-36	25.86
1190.92	65.18	159	2.3	H	-42.9	1.50	6.80	-37.60	-30	7.60
1190.92	67.27	68	1.7	V	-40.5	1.50	6.80	-35.20	-30	5.20
1786.38	53.42	205	1.3	H	-52.0	1.30	9.30	-44.00	-30	14.00
1786.38	56.79	349	1.7	V	-48.2	1.30	9.30	-40.20	-30	10.20
2381.84	56.33	156	1.7	H	-48.7	2.30	10.10	-40.90	-30	10.90
2381.84	58.61	235	1.5	V	-45.5	2.30	10.10	-37.70	-30	7.70
2977.30	55.27	336	1.7	H	-48.5	1.60	10.80	-39.30	-30	9.30
2977.30	58.39	193	1.2	V	-45.1	1.60	10.80	-35.90	-30	5.90
3572.76	45.71	229	2.4	H	-56.7	1.50	12.10	-46.10	-30	16.10
3572.76	48.07	103	1.7	V	-53.8	1.50	12.10	-43.20	-30	13.20
4168.22	48.86	236	2.3	H	-53.3	1.50	11.80	-43.00	-30	13.00
4168.22	52.71	348	2.1	V	-48.7	1.50	11.80	-38.40	-30	8.40
4763.68	46.38	31	1.1	H	-55.3	1.60	12.10	-44.80	-30	14.80
4763.68	48.50	114	1.2	V	-52.1	1.60	12.10	-41.60	-30	11.60
5359.14	44.37	314	1.4	H	-56.6	1.60	12.30	-45.90	-30	15.90
5359.14	45.24	57	2.0	V	-55.0	1.60	12.30	-44.30	-30	14.30
5954.60	47.52	223	1.4	H	-53.5	1.70	12.30	-42.90	-30	12.90
5954.60	49.35	161	2.0	V	-51.4	1.70	12.30	-40.80	-30	10.80

Note:

Absolute Level = Substituted Level - Cable loss + Antenna Gain

Margin = Limit- Absolute Level

FCC § 74.861(e)(4) - FREQUENCY STABILITY

Applicable Standard

According to § 74.861(e)(4):

The frequency tolerance of the transmitter shall be 0.005 percent.

Test Procedure

According to FCC 2.1055, (a) the frequency stability shall be measured with variation of ambient temperature as follows:

(1) From -30° to +50° centigrade for all equipment except that specified paragraphs (a)(2) and (3) of this section.

(2) From -20° to +50° centigrade for all equipment to be licensed for use in the Maritime Services under part 80 of this chapter, except for Class A, B and S Emergency Position Indicating Radio beacons (EPIRBs), and equipment to be licensed for use above 952 MHz at operation fixed stations in all services, stations in the Local Television Service and Point-to-Point Microwave Radio Service under part 21 of this chapter, equipment licensed for use aboard aircraft in the Aviation Service under part 87 of this chapter, and equipment authorized for use in the Family Radio Service under part 95 of this chapter.

(3) From 0° to +50° centigrade for equipment to be licensed for use in the Radio Broadcast Services under part 73 of this chapter

(b) Frequency measurements shall be made at the extremes of the specified temperature range and at intervals of not more than 10° centigrade through the range. A period of time sufficient to stabilize all of components of the oscillator circuit at each temperature level shall be allowed prior to frequency measurement. The short term transient effects on frequency of due to keying (except for broadcast transmitters) and any heating element cycling normally occurring at each ambient temperature level also shall be shown. Only the portion or portions of the transmitter containing the frequency determining and stabilizing circuitry need be subjected to the temperature variation test.

(d) The frequency stability shall be measured with variation of primary supply voltage as follows:

(1) Vary primary supply voltage from 85 to 115 percent of the nominal value for other than hand carried battery equipment.

(2) The supply voltage shall be measured at the input to the cable normally provided with the equipment, or at the power supply terminals if cables are not normally provided. Effects on frequency of transmitter keying (except for broadcast transmitters) and any heating element cycling at the normally supply voltage and at each extreme also shall be shown.

If an unmodulated carrier is not available, the measurement method shall be described in the test report.

Test Data

Environmental Conditions

Temperature:	25 °C
Relative Humidity:	52 %
ATM Pressure:	101.0 kPa

The testing was performed by Nancy Wang on 2020-11-19.

Test Mode: Transmitting

Group A - Middle channel , $f_0=533.83\text{MHz}$				
Temperature (°C)	Power Supplied (DC V)	Measured frequency (MHz)	Error(ppm)	Limit (ppm)
-30	3.7	533.848339	34.35	50
-20		533.848192	34.08	50
-10		533.848252	34.19	50
0		533.848141	33.98	50
10		533.848268	34.22	50
20		533.848269	34.22	50
30		533.848336	34.35	50
40		533.848407	34.48	50
50		533.848291	34.26	50
20	3.2	533.848515	34.68	50
20	4.2	533.848602	34.85	50

Group B - Middle channel , $f_0=575.78\text{MHz}$				
Temperature (°C)	Power Supplied (DC V)	Measured frequency (MHz)	Error(ppm)	Limit (ppm)
-30	3.7	575.799932	34.62	50
-20		575.799435	33.75	50
-10		575.799329	33.57	50
0		575.799527	33.91	50
10		575.799500	33.87	50
20		575.799551	33.96	50
30		575.799564	33.98	50
40		575.799701	34.22	50
50		575.799818	34.42	50
20	3.2	575.800014	34.76	50
20	4.2	575.799735	34.27	50

***** END OF REPORT *****