



JAPAN MIC  
TEST REPORT  
For  
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Nanshan, Shenzhen, Guangdong, China

**Tested Model: M210 RTK V2**  
**Multiple Models: M200 V2, M210 V2**

<b>This Report Concerns:</b>	<b>Equipment Type:</b>
<input checked="" type="checkbox"/> Original Report	Remote Aircraft
<b>Report Number:</b>	RDG181113003-07A
<b>Report Date:</b>	2018-11-28
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**Note:** This test report is prepared for the customer shown above and for the device described herein. It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp. (Dongguan).

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## GENERAL INFORMATION

### Product Description for Equipment Under Test (EUT)

Equipment Type	Remote Aircraft
Product Name	Matrice 200 V2, Matrice 210 V2, Matrice 210 RTK V2
Tested Model Number	M210 RTK V2
Multiple Model Number	M200 V2, M210 V2
Radio Type	1.4M/10M/20M Mode
SDR Technical Parameters	Support Technical 1.4M/10M/20M Mode
	Modulation Type GFSK, OFDM
	Emission Type G1D, D1D, X7W
	Frequency Range 1.4M: 2403.5-2477.5MHz, 10M: 2406.5-2476.5MHz, 20M: 2411.5-2471.5MHz
	Output Power 1.4M: 0.1mW/MHz 10M: 1.4mW/MHz for 2411.5-2476.5MHz, 0.3mW/MHz for 2406.5-2410.5MHz 20M : 0.95mW/MHz
	Antenna Gain 2.29dBi
Nominal Power Supply:	DC 22.8V from battery
Voltage Range	20.5V to 25.1V DC
External Dimension	883mm (L) x 886mm (W) x 427mm (H)
Serial Number	181113003 (Assigned by BACL, Dongguan)
Received Date	2018-11-13

Note: The series product, Matrice 200 V2(Model: M200 V2), Matrice 210 V2(Model: M210 V2) are electrically identical with Matrice 210 RTK V2(Model: M210 RTK V2), we selected M210 RTK V2 for full testing. The difference between them was explained in the declaration letter.

### Objective

The objective of the manufacturer is to demonstrate compliance with Radio Law of Japan item 19 of Article 2 Paragraph 1.

### Test Methodology

All measurements contained in this report were conducted with technical regulations of the Radio Law of Japan.

## EUT TEST CONFIGURATION

### Description of Test Configuration

The system was configured for testing in engineering mode which was selected by manufacturer. The EUT has 2 antennas, the system configures 1T1R depending on better performance by the system automatically recognizes.

For 10M mode, 71 channels are provided for testing:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2406.5	37	2442.5
2	2407.5	...	...
...	...	...	...
...	...	70	2475.5
..	...	71	2476.5
36	2441.5	/	/

EUT was tested with channel 1, 36 and 71.

For 20M mode, 61 channels are provided for testing:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2411.5	32	2442.5
2	2412.5	...	...
...	...	...	...
...	...	60	2470.5
..	...	61	2471.5
31	2441.5	/	/

EUT was tested with channel 1, 31 and 61.

The extreme voltage test conditions which were declared by the manufacturer and the normal conditions are as below:

NV: Normal Voltage 22.8V<sub>DC</sub>

LV: Low Voltage 20.5V<sub>DC</sub>

HV: High Voltage 25.1V<sub>DC</sub>

### EUT Exercise Software

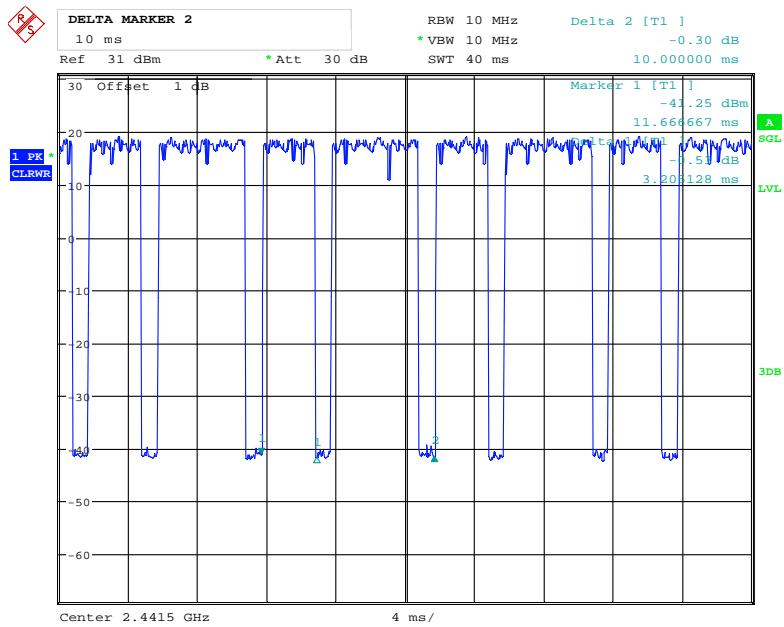
The software ‘DjiSdrConsole\_1.3.1.50.exe’ was used in test for 10M and 20M mode, which was provided by manufacturer. The maximum power with maximum duty cycle was configured as default setting. Per pretest the conducted output power, 10MHz mode’s power in difference power level, all test items performed at Low, Middle and High Channel, transmitter spurious for frequency range: 2387-2400MHz and output power were tested with additional channels according to the pretest output power test results.

Duty cycle and Duty cycle factor:

Mode	T <sub>on</sub> (ms)	T <sub>on+off</sub> (ms)	Duty Cycle (%)	Duty Cycle Factor (dB)
10M	8.397	10.000	83.97	0.76
20M	8.461	10.064	84.07	0.75

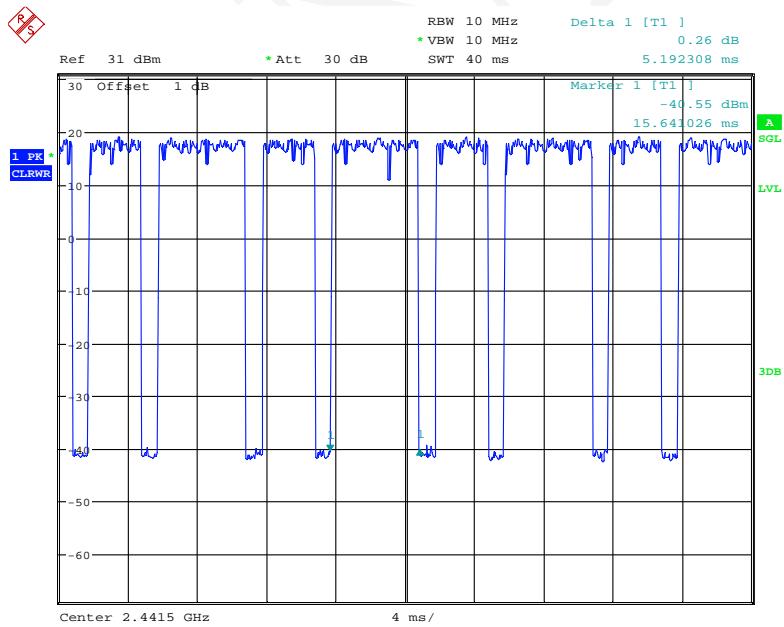
Note: Duty Cycle Factor =  $10 \times \log(1/\text{Duty Cycle})$

## 10M-1



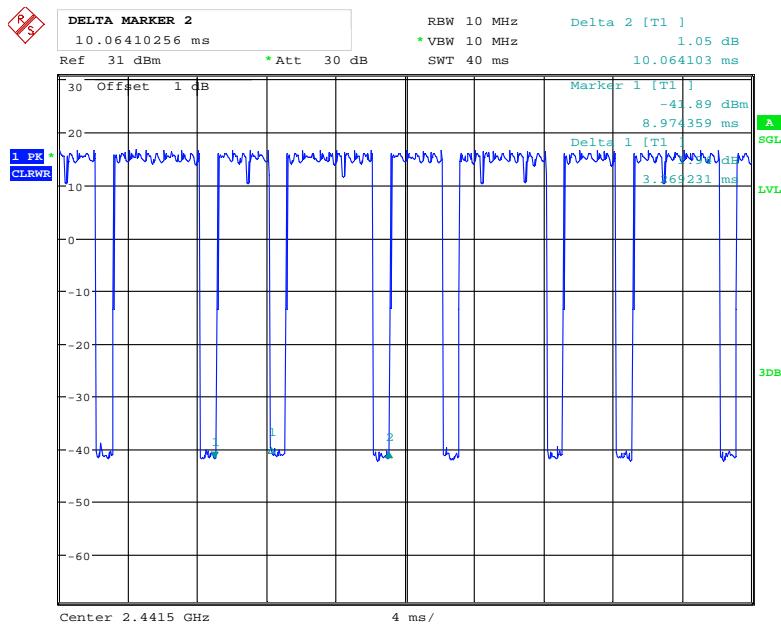
Date: 23.NOV.2018 17:23:09

## 10M-2



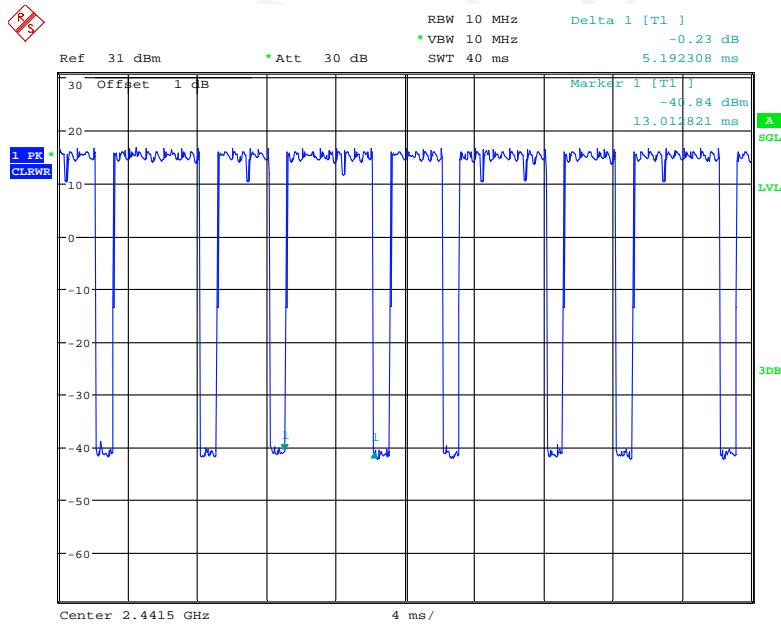
Date: 23.NOV.2018 17:23:39

## 20M-1



Date: 23.NOV.2018 17:24:24

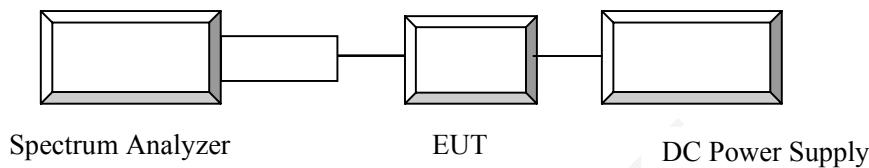
## 20M-2



Date: 23.NOV.2018 17:24:48

**Support Equipment List and Details**

Manufacturer	Description	Model	Serial Number
Pro instrument	DC Power Supply	pps3300	3300012

**Configuration of Test Setup****Test Equipment List and Details**

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSU 26	200256	2018-01-04	2019-01-04
Unknown	Coaxial Cable	C-SJ00-0010	C0010/02	Each time	N/A
UNI-T	Multimeter	UT39A	M130199938	2018-07-24	2019-07-24
Pro instrument	DC Power Supply	pps3300	3300012	N/A	N/A

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

## SUMMARY OF TEST RESULTS

MIC Notice No.88 Appendix No.43 Article 2, Paragraph 1, Item 19 Rules Section	Description of Test	Result
3	Frequency Error	Compliance
4	Occupied Bandwidth and Spreading Bandwidth	Compliance
5	Transmitter Spurious Emission and Unwanted Emission Intensity	Compliance
6	Antenna Output Power and Output Power Tolerance	Compliance
7	Receiver Spurious Emission and Unwanted Emission Intensity	Compliance
8	Transmission Antenna Gain	Not Applicable
9	Transmission Radiation Angle Width	Not Applicable
10	Carrier sense capability	Not Applicable**
11	Frequency Hopping Dwell Time	Not Applicable*
12	Interference Prevention Function	Compliance
Note 1	Construction Protection Confirmation	Compliance

Note:

Not Applicable: Please refer to 'Note 3' of Antenna Output Power and Output Power Tolerance section.

Not Applicable\*: Testing is only required for FHSS system devices.

Not Applicable\*\*: This item only required for bandwidth which more than 26MHz and less than 38MHz.

## FREQUENCY ERROR

### Limit

50ppm or below

### Test Procedure

Set the EUT to the measurement frequency without modulation.

Setting of SA is following as: RBW: 300 kHz / VBW: 300 kHz / Sweep time: Auto / Sweep Mode:

Continuous sweep / Detect mode: Positive peak / Trace mode: Max hold.

Record the peak spot frequency.

If the EUT can't set at un-modulation mode, measure the 10dBc center frequency.

### Test Data

#### Environmental Conditions

<b>Temperature:</b>	25.4~25.9 °C
<b>Relative Humidity:</b>	40~52 %
<b>ATM Pressure:</b>	100.4~100.8 kPa

The testing was performed by Elena Lei on 2018-11-22~2018-11-28.

**Test Result:** Compliance

*Test Mode: Transmitting*

Chain 0

10M:

Frequency (MHz)	Voltage	Measure Frequency (MHz)		Result	Tolerance	Limit
		F1	F2			
2406.5	LV	2401.856	2411.196	2406.526	10.80	<50ppm
	NV	2401.885	2411.212	2406.549	20.15	
	HV	2401.905	2411.167	2406.536	14.96	
2441.5	LV	2436.883	2446.189	2441.536	14.75	
	NV	2436.917	2446.212	2441.565	26.42	
	HV	2436.947	2446.182	2441.565	26.42	
2476.5	LV	2471.822	2481.188	2476.505	2.02	
	NV	2471.821	2481.212	2476.517	6.66	
	HV	2471.844	2481.181	2476.513	5.05	

20M:

Frequency (MHz)	Voltage	Measure Frequency (MHz)		Result	Tolerance	Limit
		F1	F2			
2411.5	LV	2402.451	2420.655	2411.553	21.98	<50ppm
	NV	2402.462	2420.667	2411.565	26.75	
	HV	2402.432	2420.632	2411.532	13.27	
2441.5	LV	2432.441	2450.704	2441.573	29.69	
	NV	2432.397	2450.731	2441.564	26.21	
	HV	2432.357	2450.715	2441.536	14.75	
2471.5	LV	2462.417	2480.582	2471.500	-0.20	
	NV	2462.397	2480.603	2471.500	0.00	
	HV	2462.377	2480.560	2471.469	-12.75	

Chain 1

10M:

Frequency (MHz)	Voltage	Measure Frequency (MHz)		Result	Tolerance	Limit
		F1	F2			
2406.5	LV	2401.745	2411.224	2406.485	-6.44	<50ppm
	NV	2401.817	2411.173	2406.495	-2.08	
	HV	2401.803	2411.240	2406.522	8.93	
2441.5	LV	2436.935	2446.258	2441.597	39.52	
	NV	2436.886	2446.212	2441.549	20.07	
	HV	2436.931	2446.219	2441.575	30.72	
2476.5	LV	2471.888	2481.216	2476.552	21.00	
	NV	2471.851	2481.178	2476.515	5.86	
	HV	2471.838	2481.236	2476.537	14.94	

20M:

Frequency (MHz)	Voltage	Measure Frequency (MHz)		Result	Tolerance	Limit
		F1	F2			
2411.5	LV	2402.369	2420.685	2411.527	11.20	<50ppm
	NV	2402.406	2420.724	2411.565	26.95	
	HV	2402.411	2420.629	2411.520	8.29	
2441.5	LV	2432.327	2450.699	2441.513	5.32	
	NV	2432.320	2450.711	2441.516	6.35	
	HV	2432.362	2450.673	2441.518	7.17	
2471.5	LV	2462.250	2480.749	2471.500	-0.20	
	NV	2462.379	2480.603	2471.491	-3.64	
	HV	2462.218	2480.705	2471.462	-15.58	

Note:

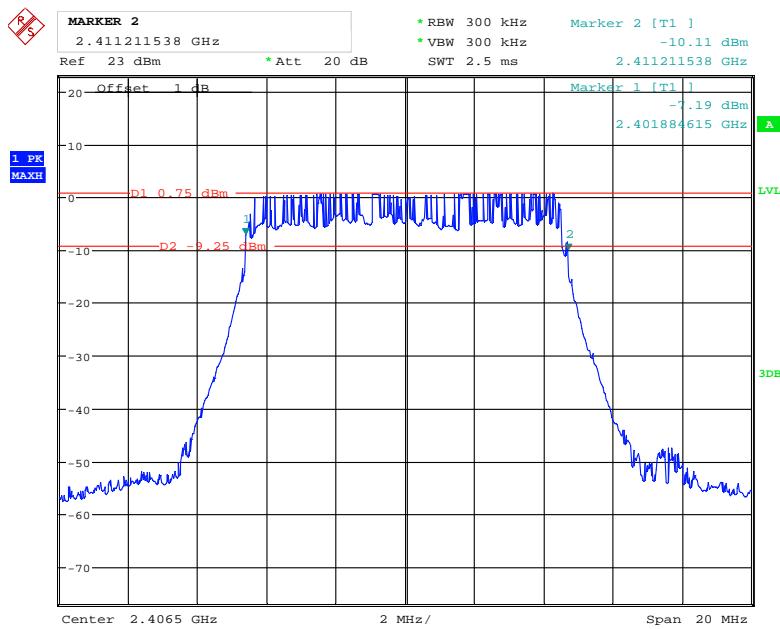
$$\text{Result} = (F1+F2)/2$$

$$\text{Tolerance} = (\text{Result} - \text{Test Frequency})/\text{Test Frequency} \times 10^6$$

Please refer to the following plots for normal voltage:

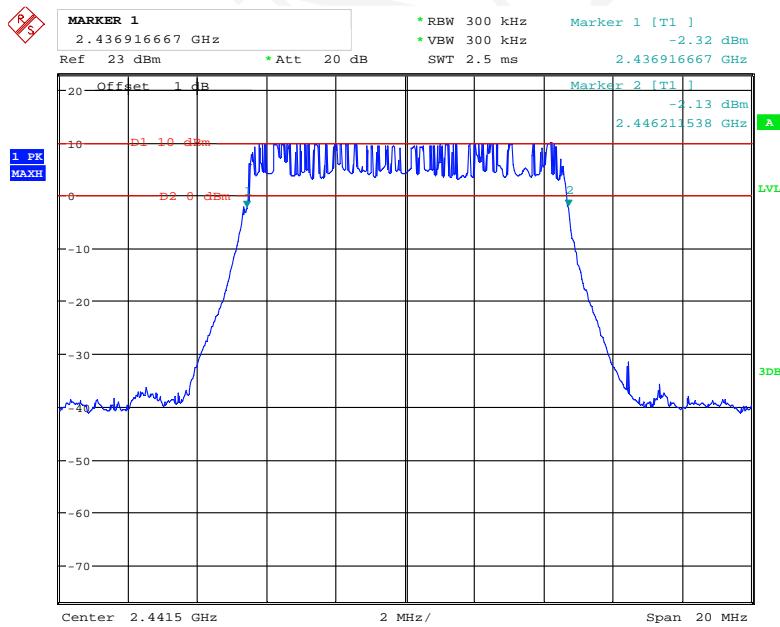
Chain 0

10M-Test Frequency:2406.5MHz



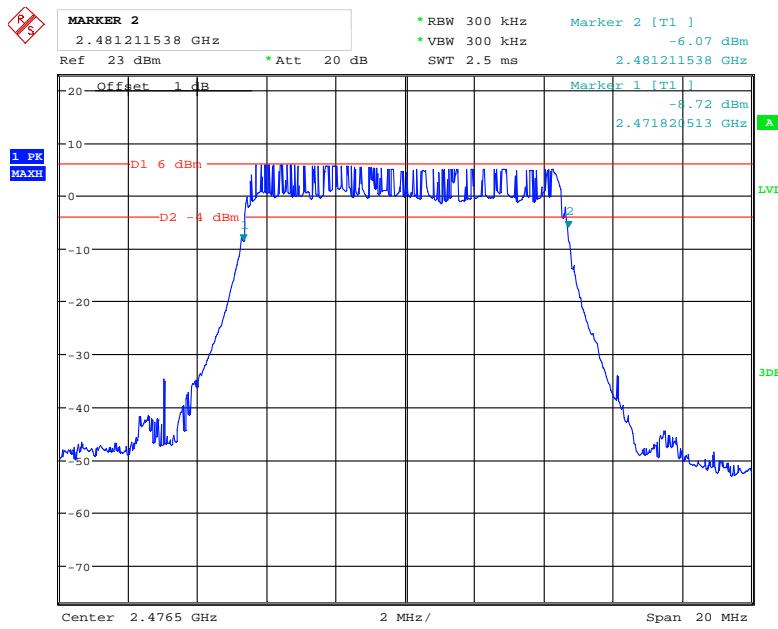
Date: 23.NOV.2018 17:38:34

10M-Test Frequency:2441.5MHz



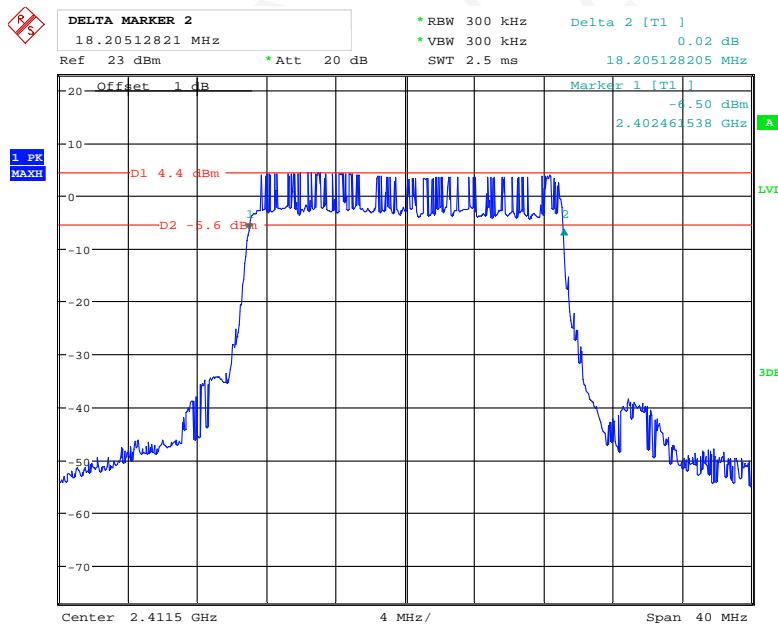
Date: 23.NOV.2018 17:36:28

## 10M-Test Frequency:2476.5MHz



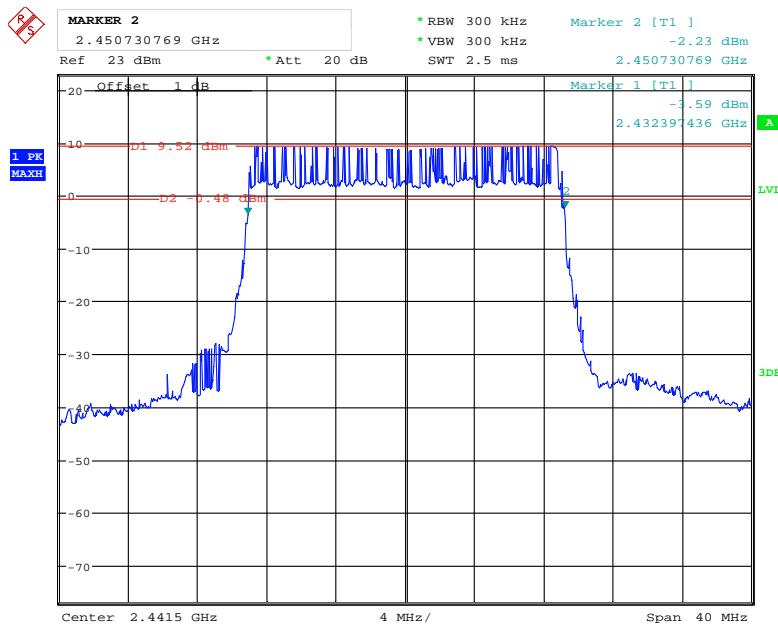
Date: 23.NOV.2018 17:37:31

## 20M-Test Frequency:2411.5MHz



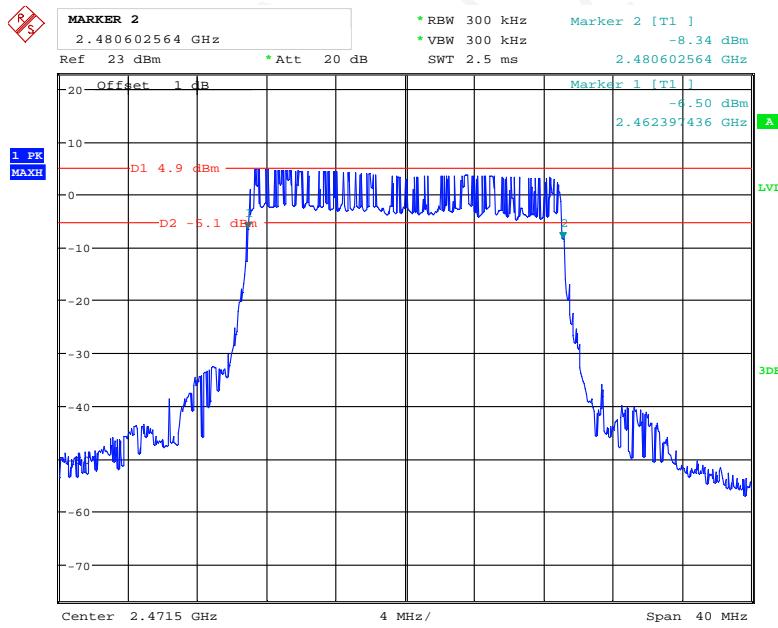
Date: 23.NOV.2018 17:33:33

## 20M-Test Frequency:2441.5MHz



Date: 23.NOV.2018 17:35:21

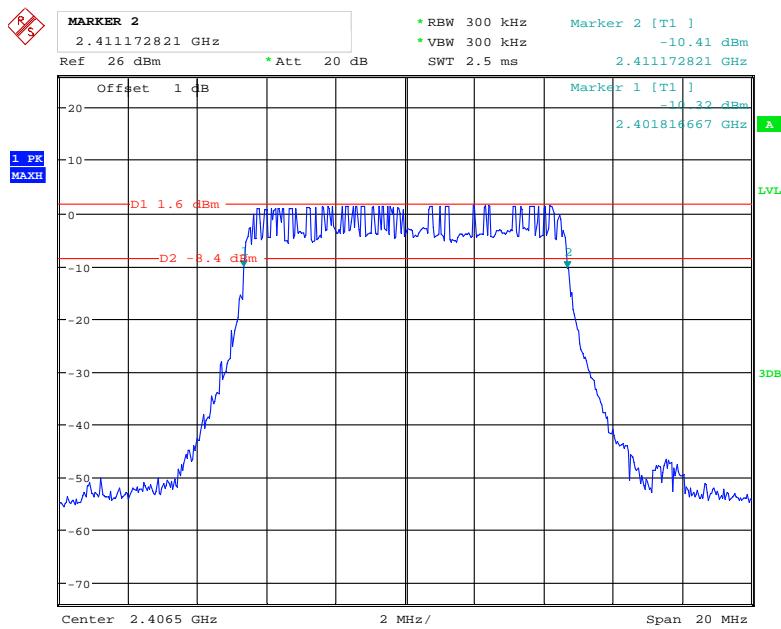
## 20M-Test Frequency:2471.5MHz



Date: 23.NOV.2018 17:34:31

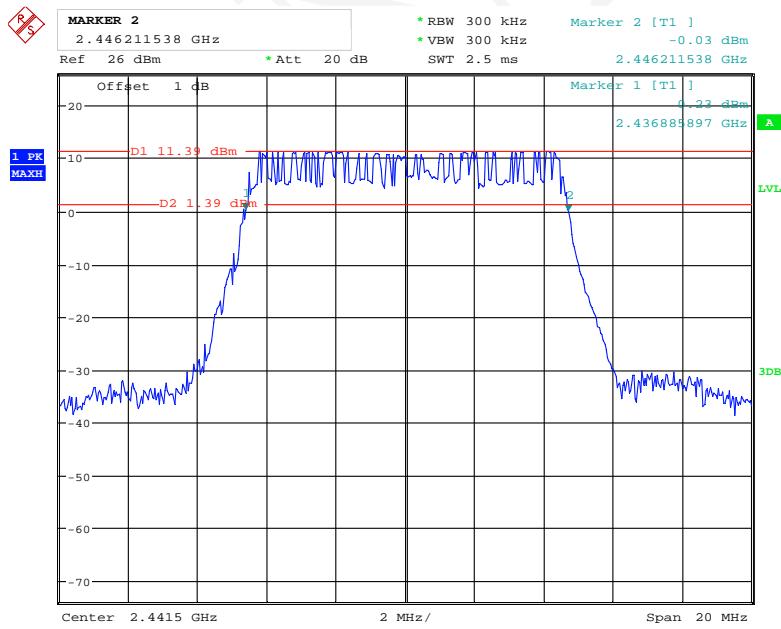
## Chain 1

10M-Test Frequency:2406.5MHz



Date: 28.NOV.2018 18:09:46

10M-Test Frequency:2441.5MHz



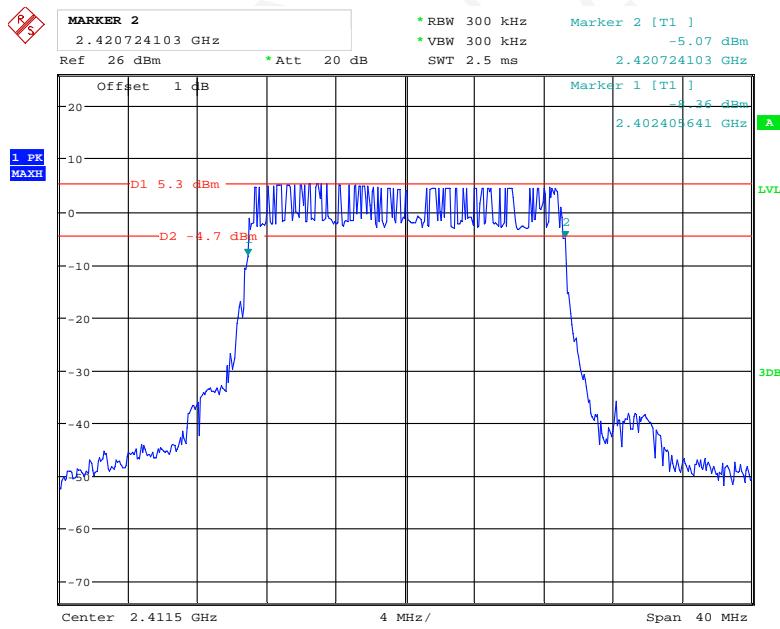
Date: 22.NOV.2018 15:04:57

## 10M-Test Frequency:2476.5MHz



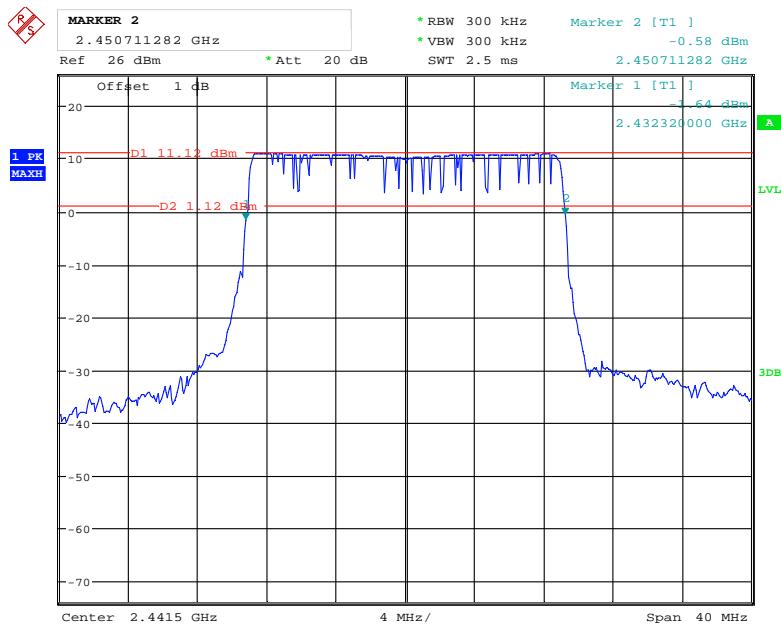
Date: 28.NOV.2018 18:08:34

## 20M-Test Frequency:2411.5MHz



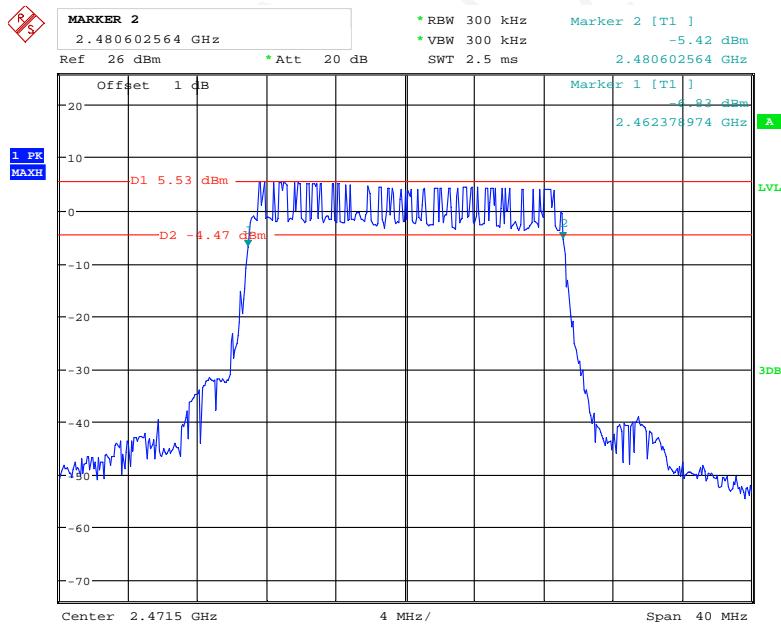
Date: 28.NOV.2018 18:11:14

## 20M-Test Frequency:2441.5MHz



Date: 22.NOV.2018 14:58:15

## 20M-Test Frequency:2471.5MHz



Date: 28.NOV.2018 18:12:02

## OCCUPIED BANDWIDTH AND SPREADING BANDWIDTH

### Limit

- Occupied bandwidth: FH≤83.5 MHz; DS≤26 MHz; OFDM≤38 MHz, Others≤26 MHz
- Spread Bandwidth: ≥ 500 kHz(FH,DS), Spread factor>5.

### Test Procedure

- Setting of SA is following as: RBW: 300 kHz / VBW: 300 kHz / Sweep time: Auto / Sweep Mode: Continuous sweep / Detect mode: Positive peak / Trace mode: Max hold
- EUT have transmitted the maximum modulation signal and fixed channelize. SA set to 99% of occupied bandwidth to measure occupied bandwidth.

### Test Data

#### Environmental Conditions

<b>Temperature:</b>	25.8~25.9 °C
<b>Relative Humidity:</b>	40~43 %
<b>ATM Pressure:</b>	100.5~100.8 kPa

The testing was performed by Elena Lei on 2018-11-22~2018-11-23.

**Test Result:** Compliance

*Test Mode: Transmitting*

### Chain 0

Mode	Frequency	Low Channel			Middle Channel			High Channel			Limit
		Voltage	LV	NV	HV	LV	NV	HV	LV	NV	HV
10M	Occupied Bandwidth (MHz)	9.085	9.135	9.165	9.101	9.071	9.071	9.031	9.071	9.111	≤26MHz
20M	Occupied Bandwidth (MHz)	17.989	17.949	17.979	18.079	17.949	18.009	17.861	17.821	17.631	≤26MHz

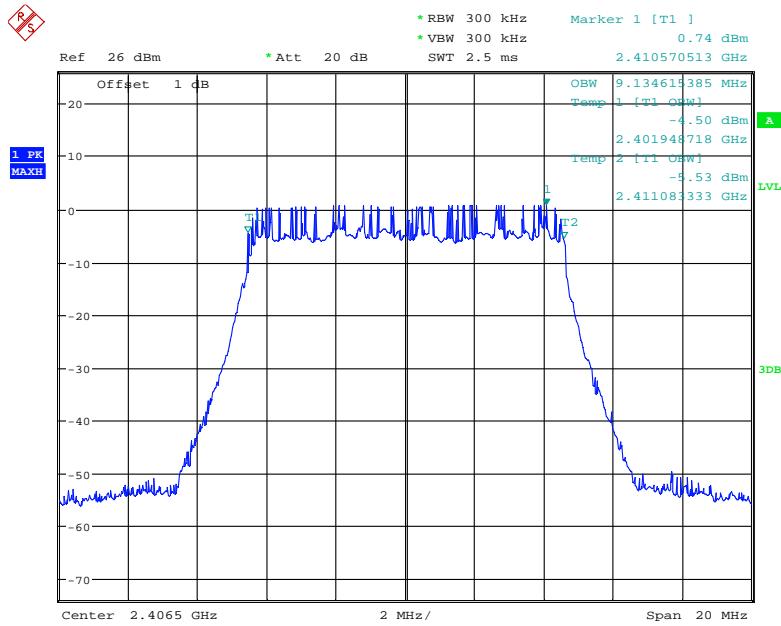
### Chain 1

Mode	Frequency	Low Channel			Middle Channel			High Channel			Limit
		Voltage	LV	NV	HV	LV	NV	HV	LV	NV	HV
10M	Occupied Bandwidth (MHz)	9.110	9.080	8.920	9.080	9.040	9.130	9.110	9.040	9.250	≤26MHz
20M	Occupied Bandwidth (MHz)	18.070	17.920	18.020	17.830	17.920	17.920	17.620	17.760	17.660	≤26MHz

Note: for OFDM modulation, Spread Bandwidth and Spread factor was not requirement.

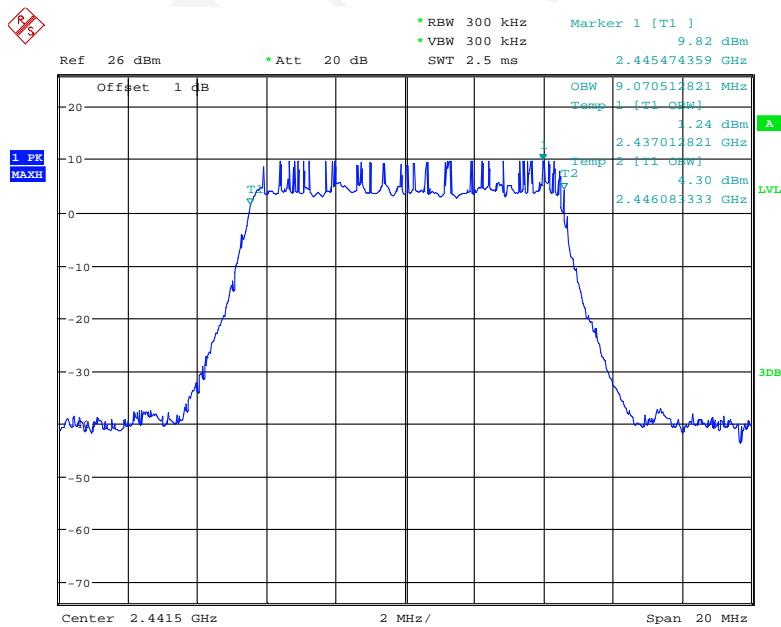
Please refer to the following plots for normal voltage:  
**Chain 0 Occupied Bandwidth:**

10M - Test Frequency:2406.5MHz



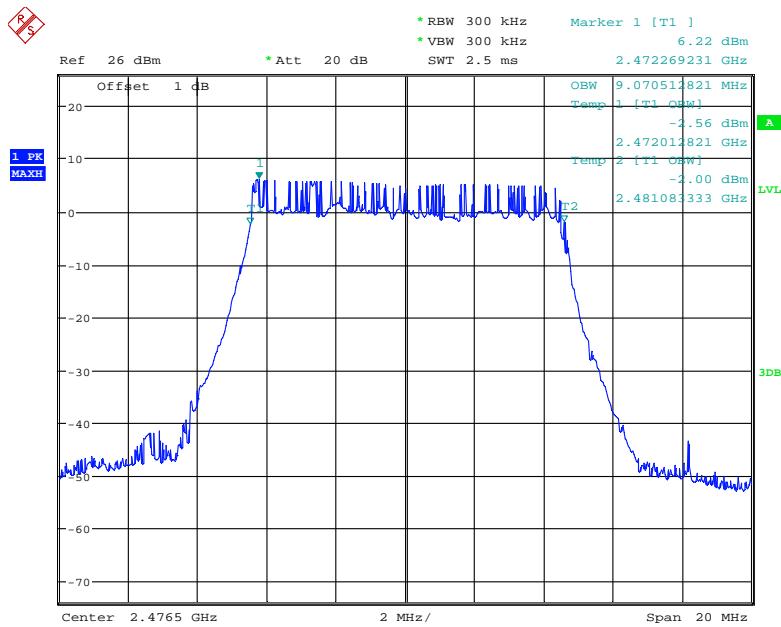
Date: 23.NOV.2018 17:51:08

10M - Test Frequency:2441.5MHz



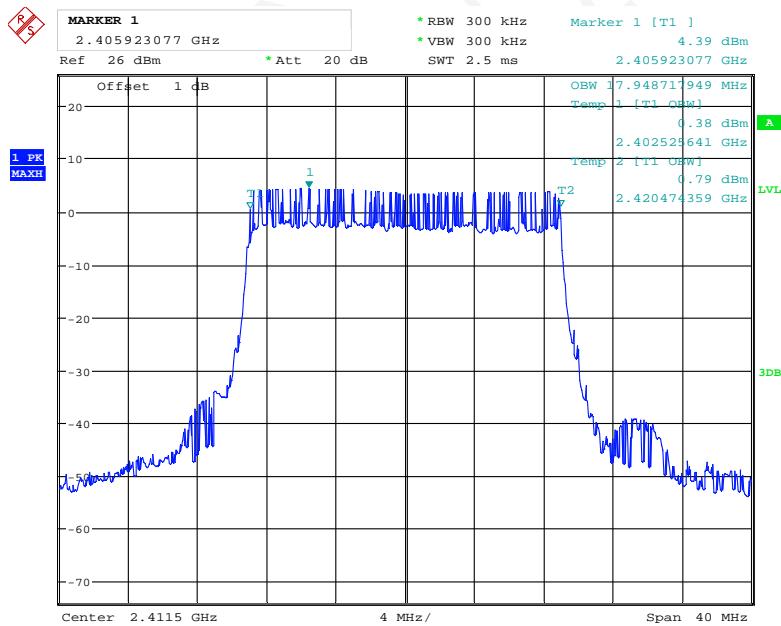
Date: 23.NOV.2018 17:50:20

## 10M - Test Frequency:2476.5MHz



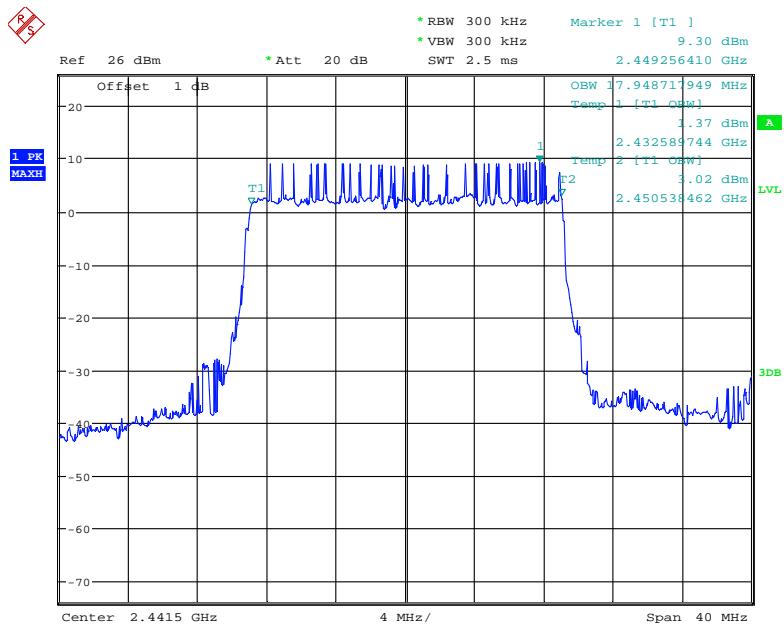
Date: 23.NOV.2018 17:51:41

## 20M - Test Frequency:2411.5MHz



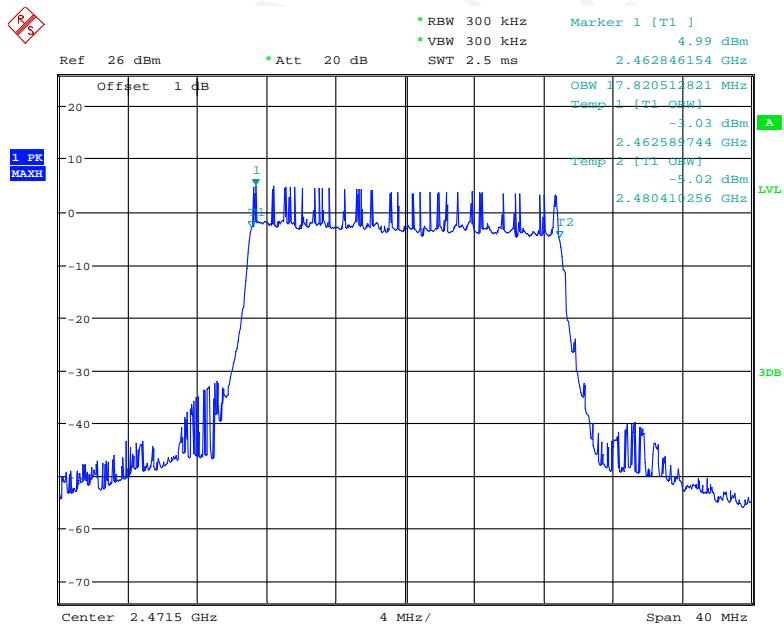
Date: 23.NOV.2018 17:49:07

## 20M - Test Frequency:2441.5MHz



Date: 23.NOV.2018 17:47:24

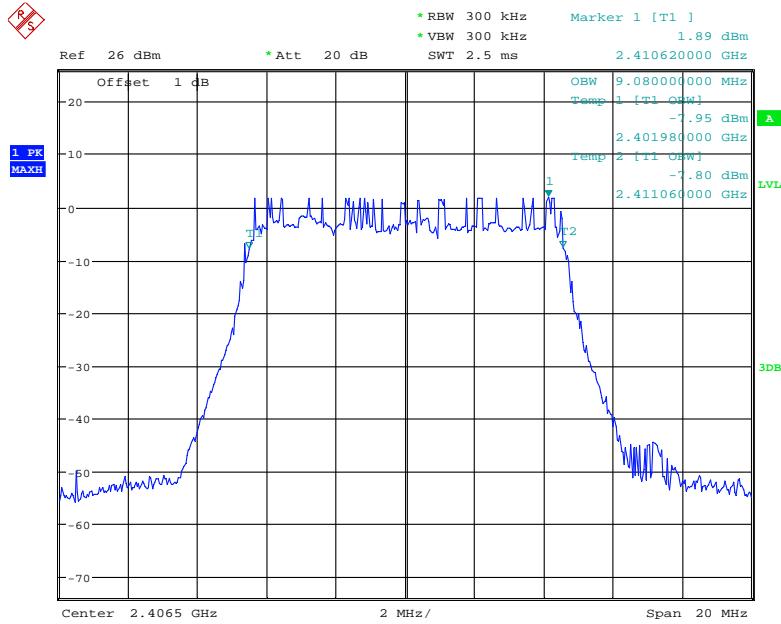
## 20M - Test Frequency:2471.5MHz



Date: 23.NOV.2018 17:47:55

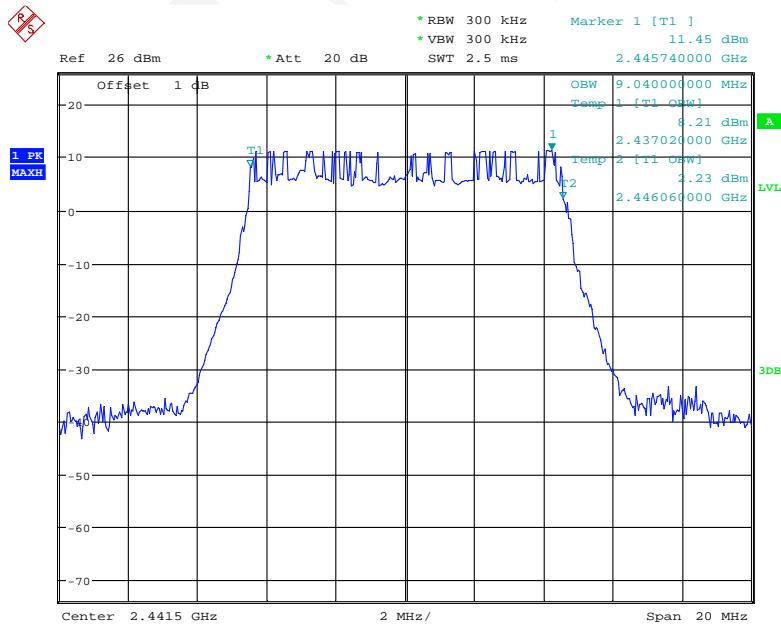
**Chain 1**  
**Occupied Bandwidth:**

10M - Test Frequency:2406.5MHz



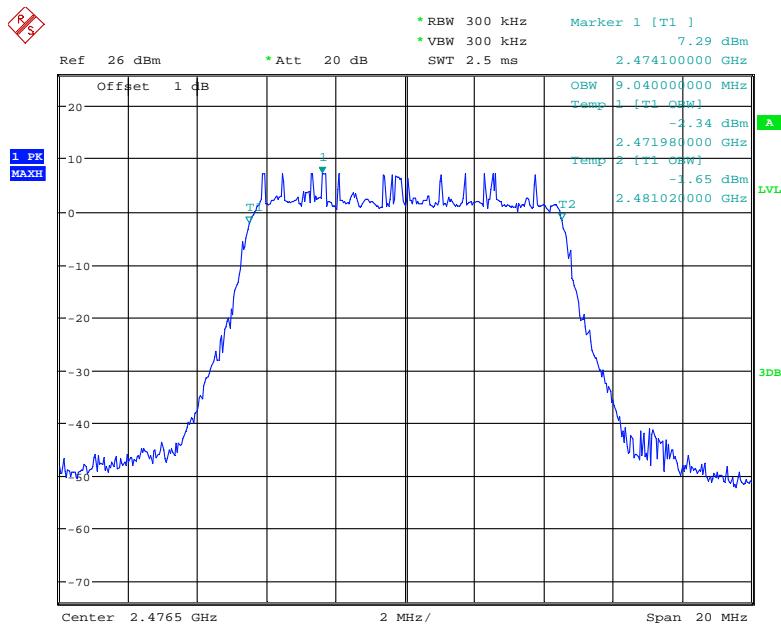
Date: 22.NOV.2018 15:11:19

10M - Test Frequency:2441.5MHz



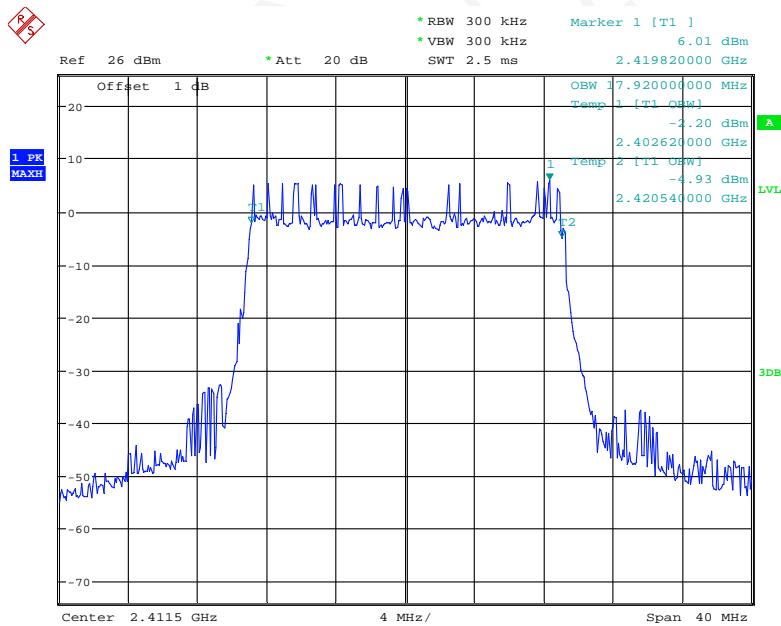
Date: 22.NOV.2018 15:10:25

## 10M - Test Frequency:2476.5MHz



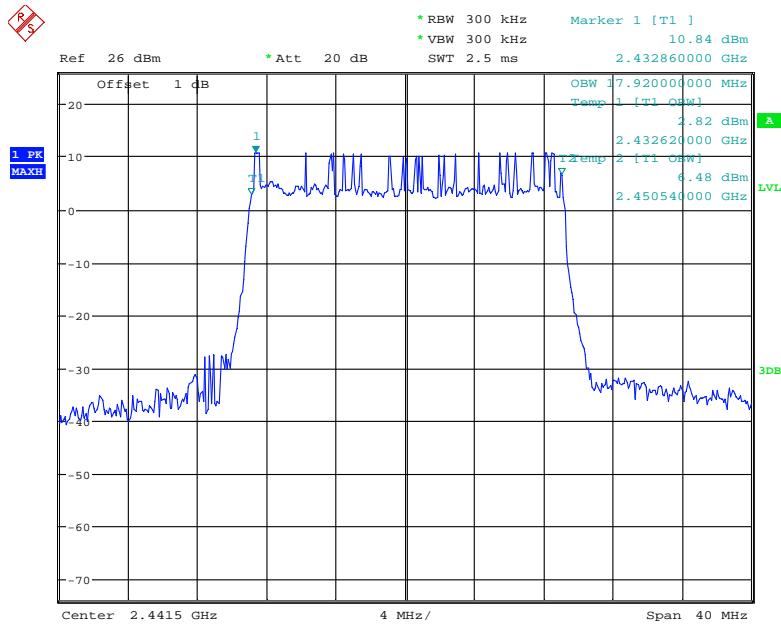
Date: 22.NOV.2018 15:10:47

## 20M - Test Frequency:2411.5MHz



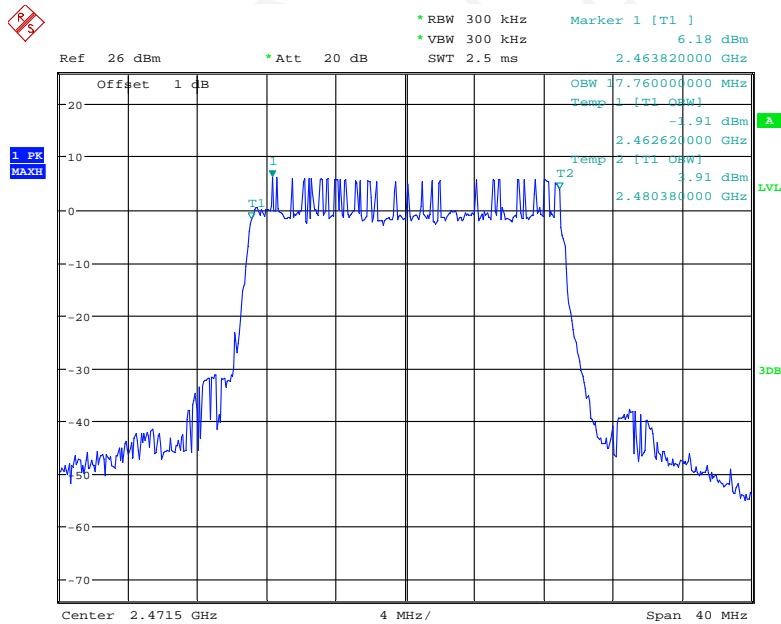
Date: 22.NOV.2018 15:12:38

## 20M - Test Frequency:2441.5MHz



Date: 22.NOV.2018 15:12:04

## 20M - Test Frequency:2471.5MHz



Date: 22.NOV.2018 15:13:08

## TRANSMITTER SPURIOUS EMISSION STRENGTH AND UNWANTED EMISSION INTENSITY

### Limit

- $f < 1000 \text{ MHz}$ :  $\leq 0.25\mu\text{W}/100\text{kHz}$
- $1000 \text{ MHz} < f < 2387 \text{ MHz}$ ,  $f > 2496.5 \text{ MHz}$ :  $\leq 2.5\mu\text{W}/\text{MHz}$
- $2387 \text{ MHz} \leq f \leq 2400 \text{ MHz}$ ;  $2483.5 \text{ MHz} < f \leq 2496.5 \text{ MHz}$ :  $\leq 25\mu\text{W}/\text{MHz}$

### Test Procedure

- ❖ Conditions of Application Equipment (EUT)
  - The modulation state shall be in continuously transmitting mode.
- ❖ Spectrum Analyzer Conditions
  - Setting of SA start 30MHz and stop frequency 1000MHz, RB:100kHz/VB:100kHz,Sweep time: Auto. Sweep mode: continuous sweep .Detect mode: Positive peak/Trace mode: max hold. Then to mark peak. reading value + cable loss shall be less than  $0.25\mu\text{W}/100\text{kHz}$ .
  - Setting of SA start 1000MHz and stop frequency 2387MHz, RB:1MHz/VB:1MHz,Sweep time: Auto. Sweep mode: continuous sweep .Detect mode: Positive peak/Trace mode: max hold. Then to mark peak. reading value + cable loss shall be less than  $2.5\mu\text{W}/\text{MHz}$ .
  - Setting of SA start 2387MHz and stop frequency 2400MHz, RB:1MHz/VB:1MHz,Sweep time: Auto. Sweep mode: continuous sweep .Detect mode: Positive peak/Trace mode: max hold. Then to mark peak. reading value + cable loss shall be less than  $25\mu\text{W}/\text{MHz}$ .
  - Setting of SA start 2483.5MHz and stop frequency 2496.5MHz, RB:1MHz/VB:1MHz,Sweep time: Auto. Sweep mode: continuous sweep .Detect mode: Positive peak/Trace mode: max hold. Then to mark peak. reading value + cable loss shall be less than  $25\mu\text{W}/\text{MHz}$ .
  - Setting of SA start 2496.5MHz and stop frequency 12500MHz, RB:1MHz/VB:1MHz,Sweep time: Auto. Sweep mode: continuous sweep .Detect mode: Positive peak/Trace mode: max hold. Then to mark peak. reading value + cable loss shall be less than  $2.5\mu\text{W}/\text{MHz}$ .

## Test Data

### Environmental Conditions

<b>Temperature:</b>	25.8~25.9 °C
<b>Relative Humidity:</b>	40~43 %
<b>ATM Pressure:</b>	100.5~100.8 kPa

The testing was performed by Elena Lei on 2018-11-23~2018-11-24.

Test Mode: Transmitting,

**Test Result:** Compliance, Please refer to the below plots

10M Mode:

	Frequency Band	2406.5 MHz			2441.5 MHz			2476.5 MHz			Limit
		LV	NV	HV	LV	NV	HV	LV	NV	HV	
Raw data Chain 0	Band I (dBm/100kHz)	-54.14	-53.94	-53.68	-54.59	-54.90	-54.82	-55.89	-55.74	-55.92	-36dBm/100kHz
	Band II (dBm/MHz)	-47.63	-47.86	-48.13	-49.92	-49.64	-49.54	-49.49	-49.24	-49.69	-26dBm/MHz
	Band III (dBm/MHz)	-29.22	-29.57	-30.36	-48.37	-48.61	-48.90	-48.17	-48.46	-48.58	-16dBm/MHz
	Band IV (dBm/MHz)	-48.72	-48.61	-48.24	-48.00	-48.24	-48.83	-30.12	-29.45	-30.33	-16dBm/MHz
	Band V (dBm/MHz)	-45.55	-45.84	-45.45	-47.02	-47.33	-47.19	-47.08	-47.38	-47.23	-26dBm/MHz
Raw data Chain 1	Band I (dBm/100kHz)	-56.22	-56.52	-56.62	-56.59	-56.73	-56.37	-56.25	-56.67	-56.89	-36dBm/100kHz
	Band II (dBm/MHz)	-49.36	-49.07	-48.85	-49.57	-49.33	-49.17	-49.04	-49.18	-49.42	-26dBm/MHz
	Band III (dBm/MHz)	-37.83	-37.56	-37.38	-48.15	-48.25	-48.68	-48.04	-48.18	-47.91	-16dBm/MHz
	Band IV (dBm/MHz)	-47.05	-47.29	-47.64	-48.01	-48.23	-48.42	-36.88	-36.32	-36.53	-16dBm/MHz
	Band V (dBm/MHz)	-46.84	-46.98	-46.29	-45.29	-45.14	-44.86	-45.59	-45.89	-46.15	-26dBm/MHz
Unwanted Emission Intensity Chain 0	Band I (μW/100kHz)	0.0039	0.0040	0.0043	0.0035	0.0032	0.0033	0.0026	0.0027	0.0026	0.25 μW/100kHz
	Band II (μW/MHz)	0.0173	0.0164	0.0154	0.0102	0.0109	0.0111	0.0112	0.0119	0.0107	2.5 μW/MHz
	Band III (μW/MHz)	1.19674	1.10408	0.92045	0.01455	0.01377	0.01288	0.01524	0.01426	0.01387	25 μW/MHz
	Band IV (μW/MHz)	0.01343	0.01377	0.01500	0.01585	0.01500	0.01309	0.97275	1.13501	0.92683	25 μW/MHz
	Band V (μW/MHz)	0.02786	0.02606	0.02851	0.01986	0.01849	0.01910	0.01959	0.01828	0.01892	2.5 μW/MHz
Unwanted Emission Intensity Chain 1	Band I (μW/100kHz)	0.0024	0.0022	0.0022	0.0022	0.0021	0.0023	0.0024	0.0022	0.0020	0.25 μW/100kHz
	Band II (μW/MHz)	0.0116	0.0124	0.0130	0.0110	0.0117	0.0121	0.0125	0.0121	0.0114	2.5 μW/MHz
	Band III (μW/MHz)	0.16482	0.17539	0.18281	0.01531	0.01496	0.01355	0.01570	0.01521	0.01618	25 μW/MHz
	Band IV (μW/MHz)	0.01972	0.01866	0.01722	0.01581	0.01503	0.01439	0.20512	0.23335	0.22233	25 μW/MHz
	Band V (μW/MHz)	0.02070	0.02004	0.02350	0.02958	0.03062	0.03266	0.02761	0.02576	0.02427	2.5 μW/MHz

Frequency		2411.5 MHz			Limit
Voltage		LV	NV	HV	
<b>Raw data Chain 0</b>	Band III (dBm/MHz)	-39.21	-38.87	-39.11	- 16dBm/MHz
<b>Raw data Chain 1</b>	Band III (dBm/MHz)	-38.47	-37.91	-38.01	- 16dBm/MHz
<b>Unwanted Emission Intensity Chain 0</b>	Band III (μW/MHz)	0.11995	0.12972	0.12274	25 μW/MHz
<b>Unwanted Emission Intensity Chain 1</b>	Band III (μW/MHz)	0.14223	0.16181	0.15812	25 μW/MHz

20M:

	Frequency Band	2411.5 MHz			2441.5 MHz			2471.5 MHz			Limit
		LV	NV	HV	LV	NV	HV	LV	NV	HV	
Raw data Chain 0	Band I (dBm/100kHz)	-55.68	-55.21	-55.20	-55.28	-55.79	-55.53	-56.57	-56.96	-56.68	-36dBm/100kHz
	Band II (dBm/MHz)	-49.02	-49.31	-49.54	-48.42	-48.56	-48.65	-49.96	-50.09	-50.14	-26dBm/MHz
	Band III (dBm/MHz)	-25.61	-25.83	-25.45	-47.90	-47.81	-48.06	-49.22	-48.99	-48.88	-16dBm/MHz
	Band IV (dBm/MHz)	-48.50	-48.26	-48.04	-46.69	-46.58	-46.70	-28.42	-28.18	-28.25	-16dBm/MHz
	Band V (dBm/MHz)	-48.64	-48.01	-48.28	-44.44	-44.79	-45.08	-41.02	-41.11	-41.33	-26dBm/MHz
Raw data Chain 1	Band I (dBm/100kHz)	-56.68	-56.96	-57.11	-56.61	-56.32	-56.17	-56.57	-56.76	-56.67	-36dBm/100kHz
	Band II (dBm/MHz)	-49.19	-48.99	-49.23	-49.02	-49.24	-49.63	-47.81	-48.01	-47.93	-26dBm/MHz
	Band III (dBm/MHz)	-31.31	-31.47	-31.76	-48.57	-48.76	-48.96	-48.40	-48.59	-48.28	-16dBm/MHz
	Band IV (dBm/MHz)	-47.84	-48.10	-48.40	-47.43	-47.13	-47.77	-35.31	-35.72	-35.86	-16dBm/MHz
	Band V (dBm/MHz)	-42.68	-42.56	-42.27	-47.33	-47.09	-47.64	-47.57	-47.48	-47.29	-26dBm/MHz
Unwanted Emission Intensity Chain 0	Band I (μW/100kHz)	0.0027	0.0030	0.0030	0.0030	0.0026	0.0028	0.0022	0.0020	0.0021	0.25 μW/100kHz
	Band II (μW/MHz)	0.0125	0.0117	0.0111	0.0144	0.0139	0.0136	0.0101	0.0098	0.0097	2.5 μW/MHz
	Band III (μW/MHz)	2.74789	2.61216	2.85102	0.01622	0.01656	0.01563	0.01197	0.01262	0.01294	25 μW/MHz
	Band IV (μW/MHz)	0.01413	0.01493	0.01570	0.02143	0.02198	0.02138	1.43880	1.52055	1.49624	25 μW/MHz
	Band V (μW/MHz)	0.01368	0.01581	0.01486	0.03597	0.03319	0.03105	0.07907	0.07745	0.07362	2.5 μW/MHz
Unwanted Emission Intensity Chain 1	Band I (μW/100kHz)	0.0021	0.0020	0.0019	0.0022	0.0023	0.0024	0.0022	0.0021	0.0022	0.25 μW/100kHz
	Band II (μW/MHz)	0.0121	0.0126	0.0119	0.0125	0.0119	0.0109	0.0166	0.0158	0.0161	2.5 μW/MHz
	Band III (μW/MHz)	0.73961	0.71285	0.66681	0.01390	0.01330	0.01271	0.01445	0.01384	0.01486	25 μW/MHz
	Band IV (μW/MHz)	0.01644	0.01549	0.01445	0.01807	0.01936	0.01671	0.29444	0.26792	0.25942	25 μW/MHz
	Band V (μW/MHz)	0.05395	0.05546	0.05929	0.01849	0.01954	0.01722	0.01750	0.01786	0.01866	2.5 μW/MHz

Note:

Band I: 30MHz ~ 1000MHz

Band II: 1000MHz ~ 2387MHz

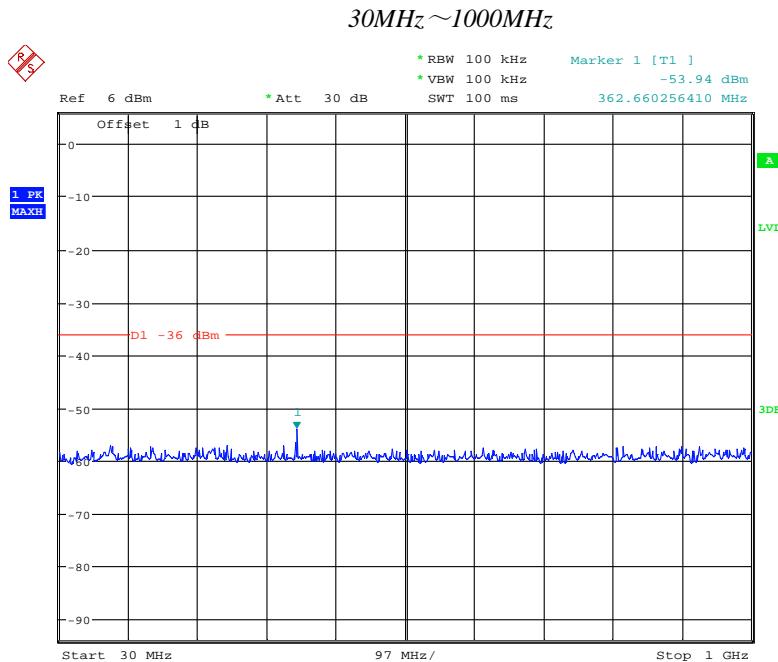
Band III: 2387MHz ~ 2400MHz

Band IV: 2483.5MHz ~ 2496.5MHz

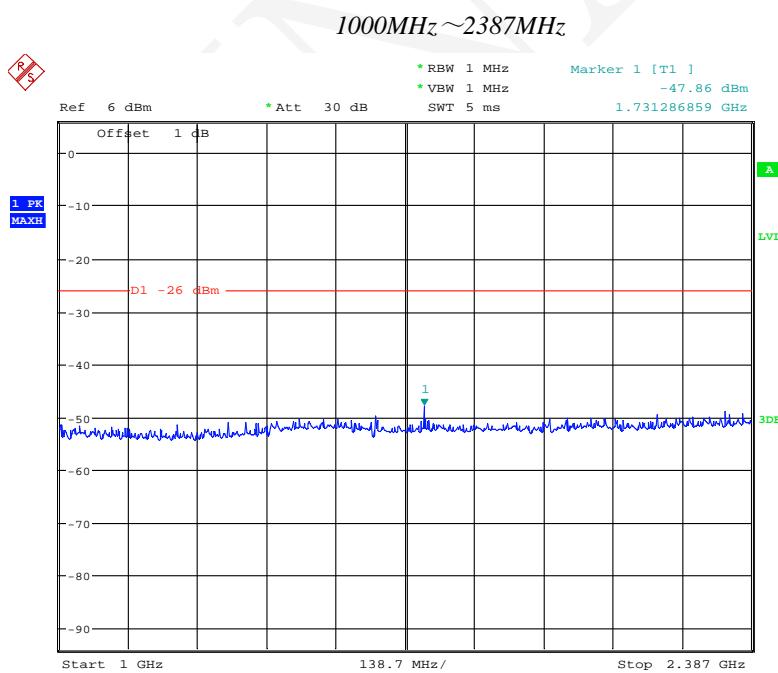
Band V: 2496.5MHz ~ 12500MHz

Please refer to the following plots for normal voltage:

**Chain 0 10M Low Channel:**

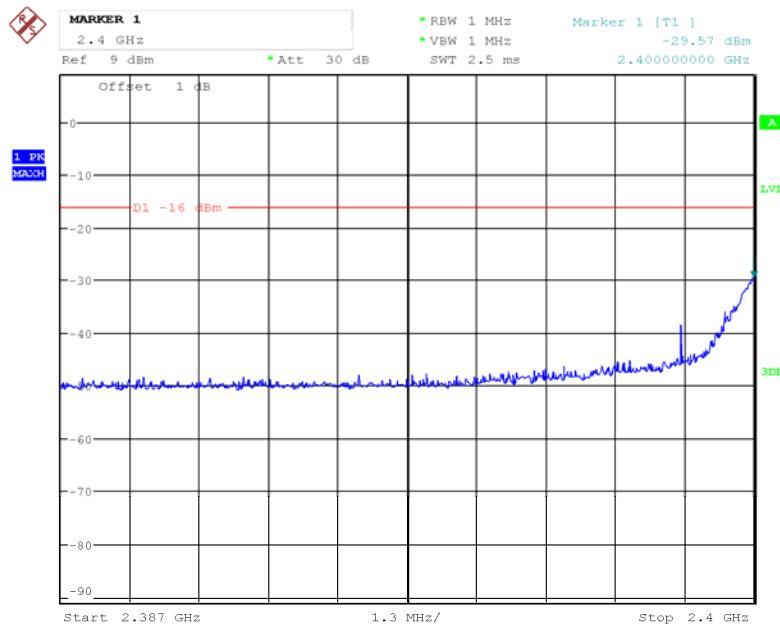


Date: 23.NOV.2018 09:26:14



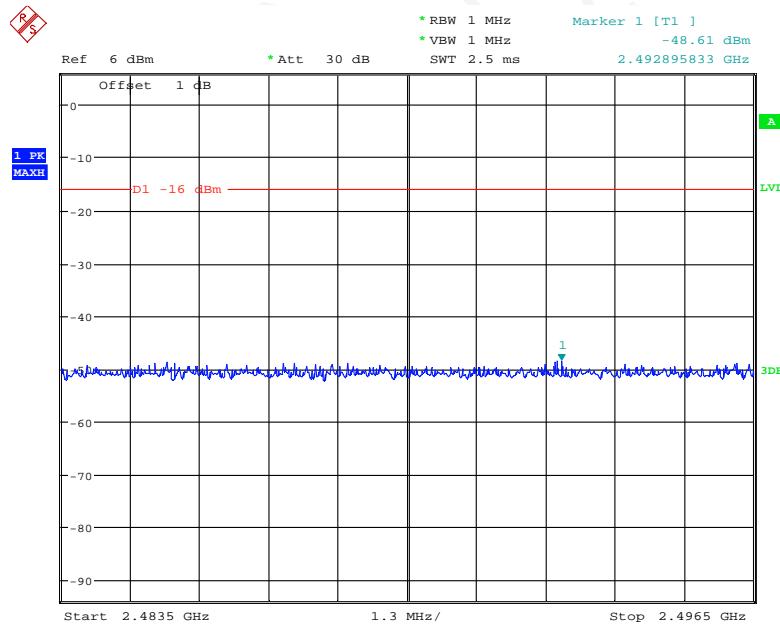
Date: 23.NOV.2018 09:35:02

2387MHz~2400MHz



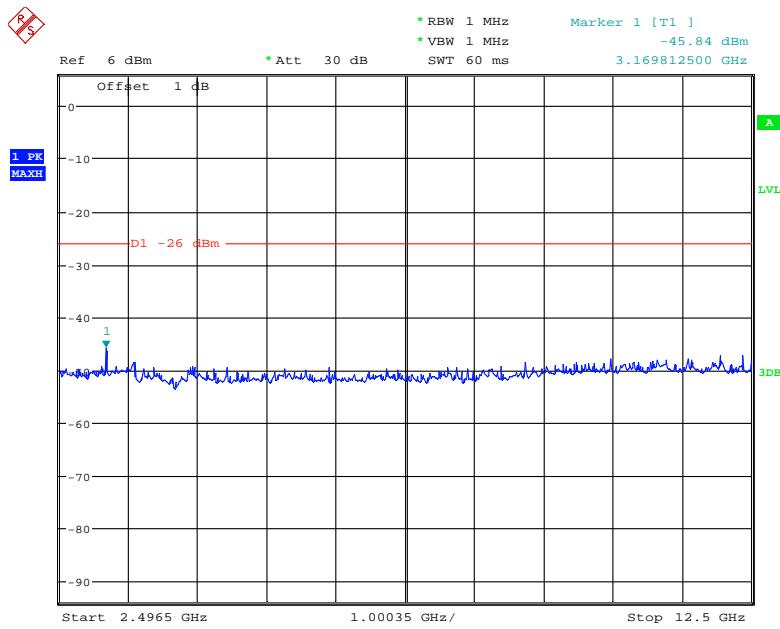
Date: 24.NOV.2018 16:31:27

2483.5MHz~2496.5MHz



Date: 23.NOV.2018 09:34:22

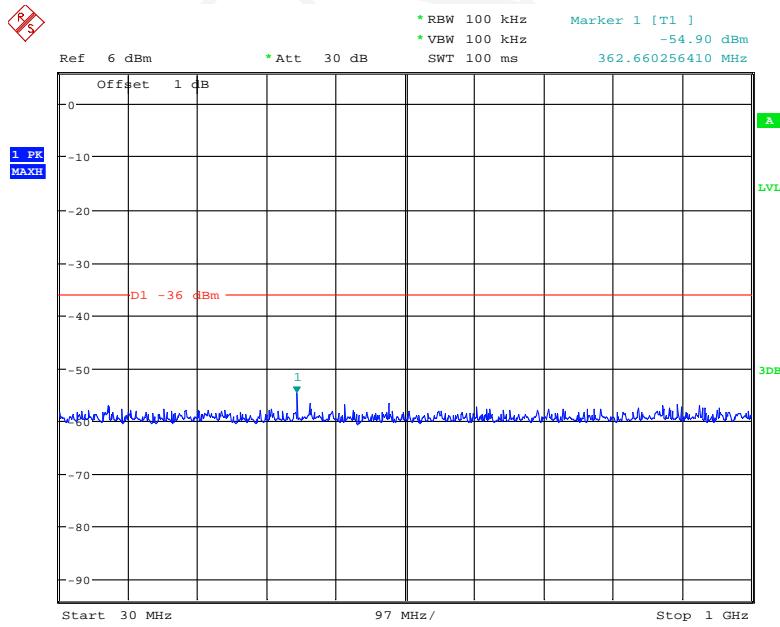
2496.5MHz ~ 12500MHz



Date: 23.NOV.2018 09:35:13

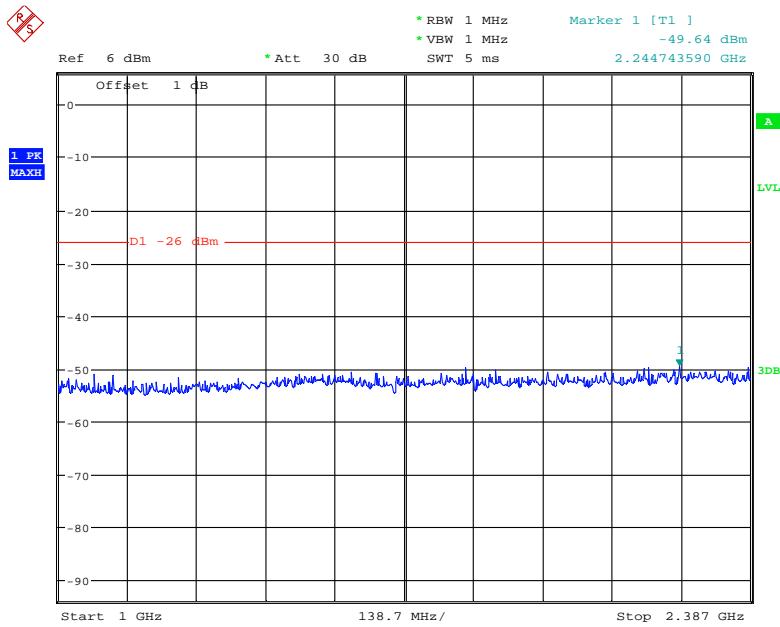
## Middle Channel:

30MHz ~ 1000MHz



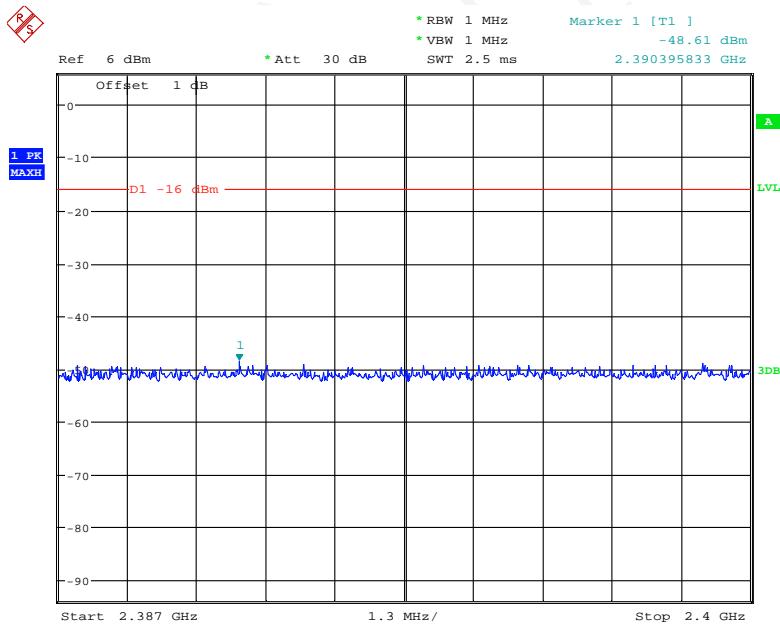
Date: 23.NOV.2018 09:25:23

## 1000MHz ~ 2387MHz



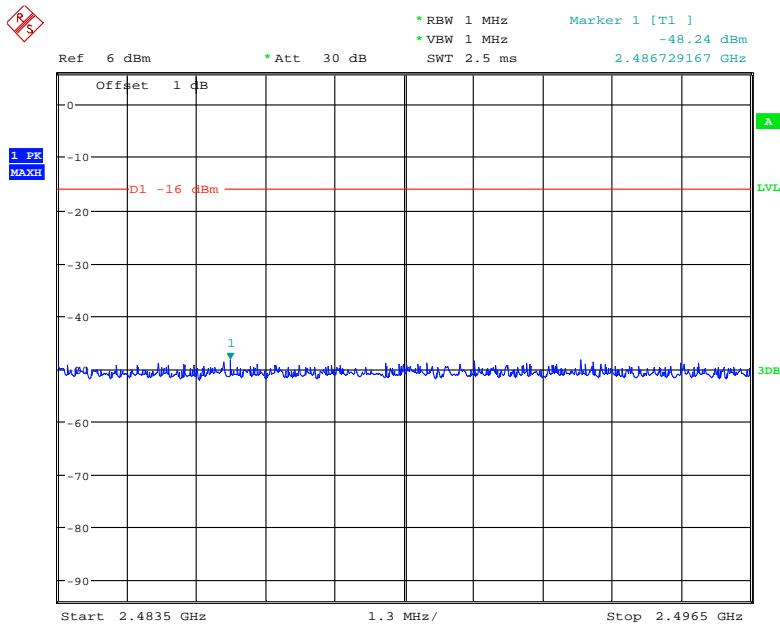
Date: 23.NOV.2018 09:22:49

## 2387MHz ~ 2400MHz



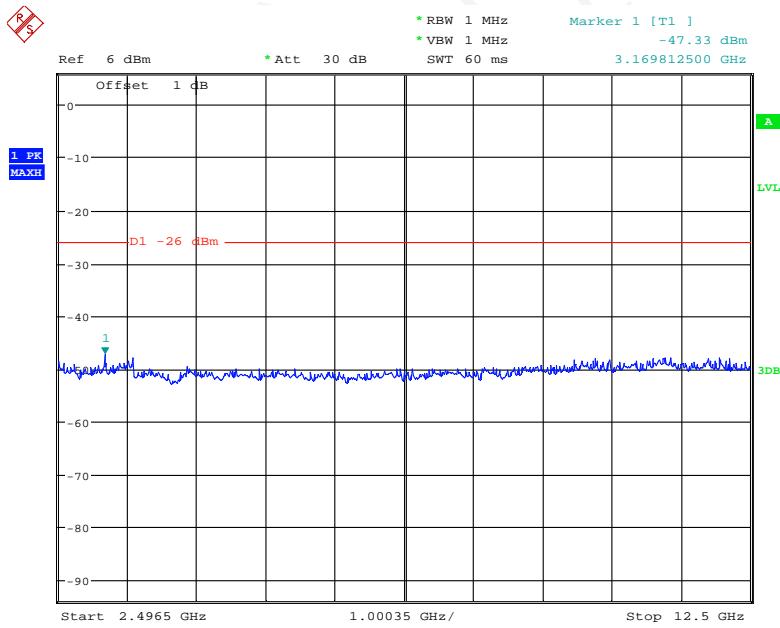
Date: 23.NOV.2018 09:22:17

2483.5MHz ~ 2496.5MHz



Date: 23.NOV.2018 09:22:06

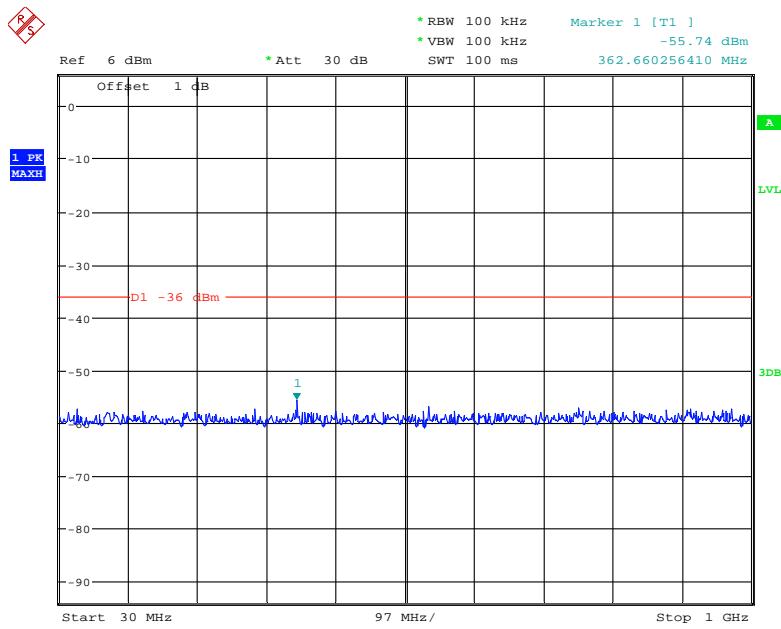
2496.5MHz ~ 12500MHz



Date: 23.NOV.2018 09:23:09

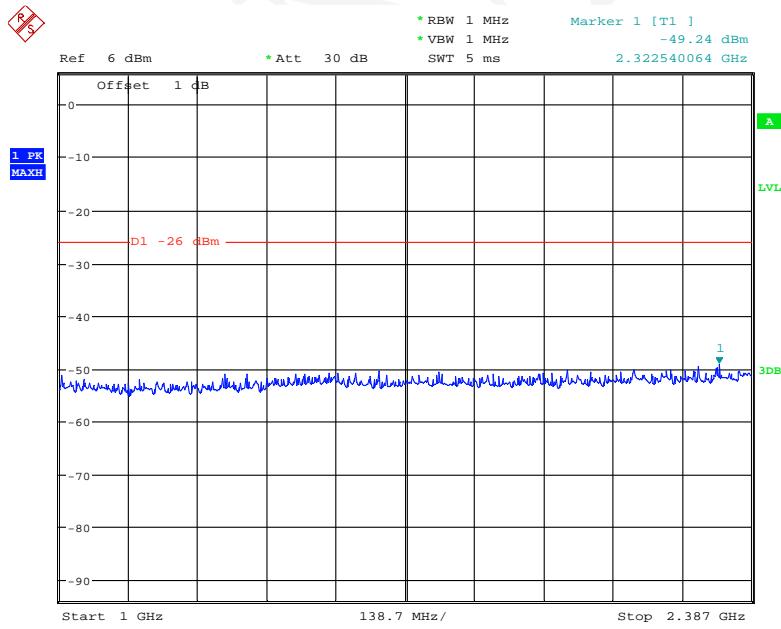
High Channel:

$30MHz \sim 1000MHz$



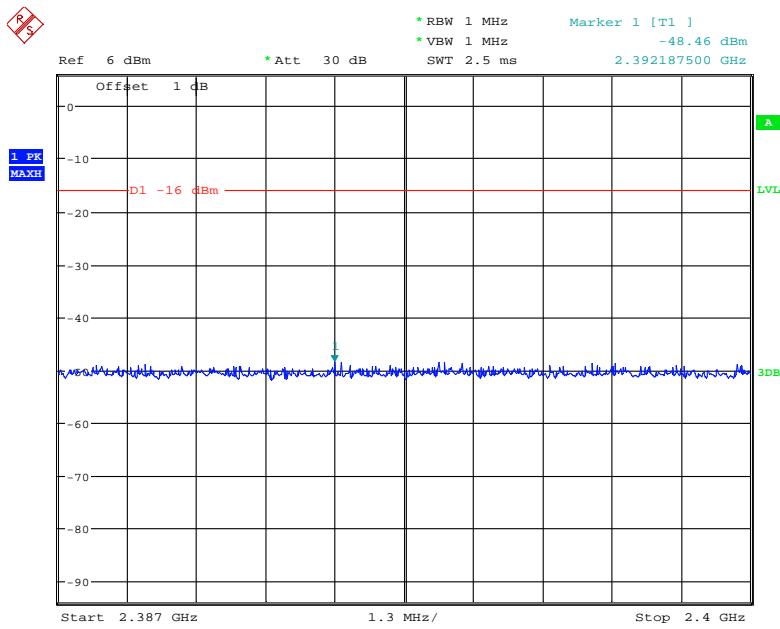
Date: 23.NOV.2018 09:27:49

$1000MHz \sim 2387MHz$



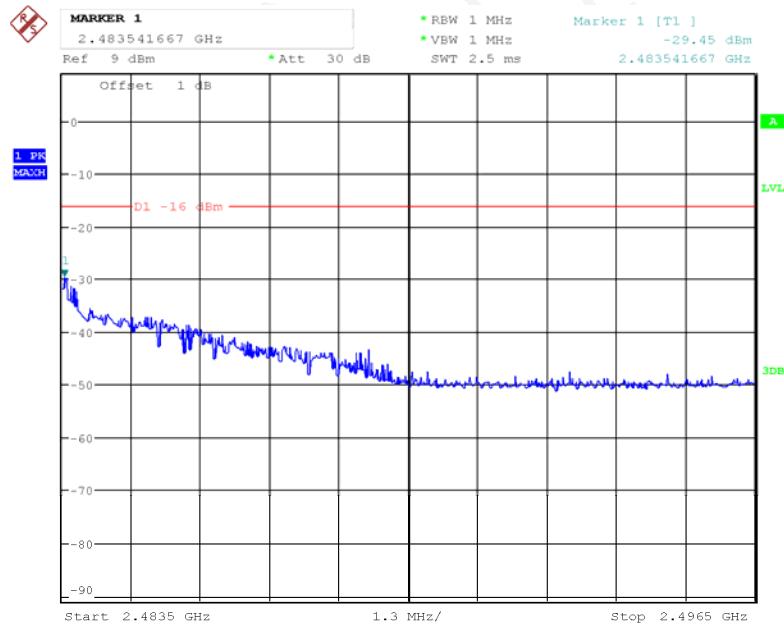
Date: 23.NOV.2018 09:28:43

2387MHz ~ 2400MHz



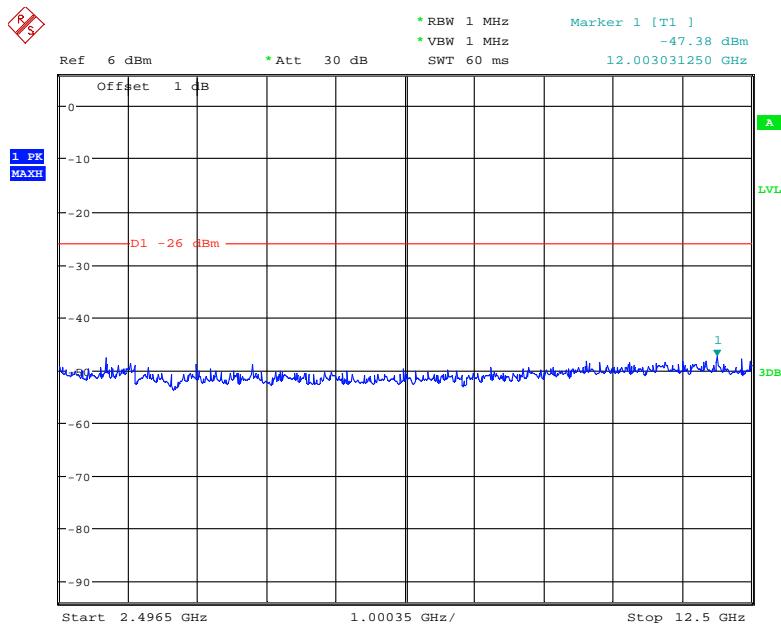
Date: 23.NOV.2018 09:29:26

2483.5MHz ~ 2496.5MHz



Date: 24.NOV.2018 16:32:28

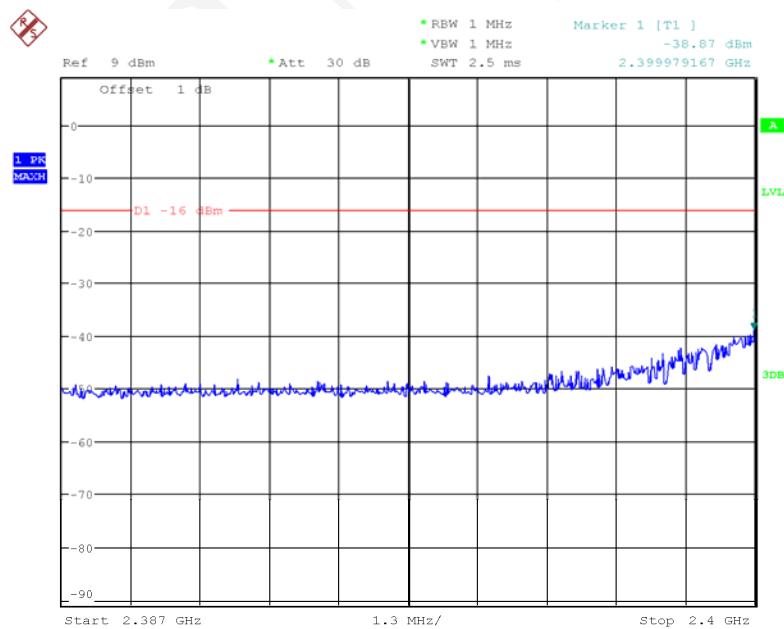
2496.5MHz ~ 12500MHz



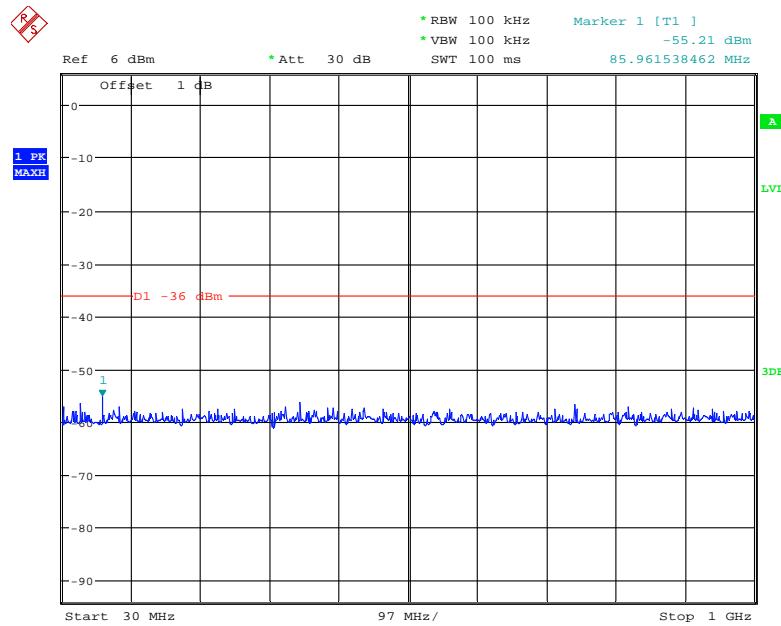
Date: 23.NOV.2018 09:29:03

2411.5MHz:

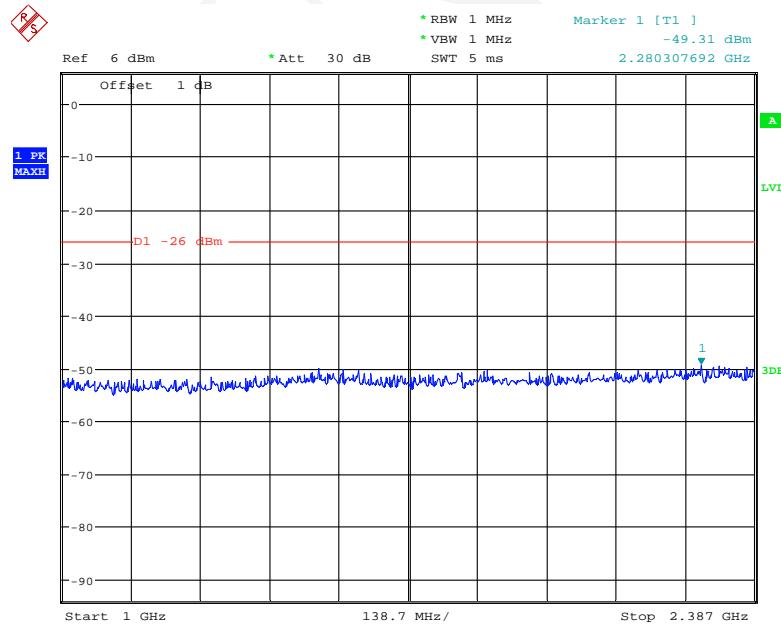
2387MHz ~ 2400MHz



Date: 24.NOV.2018 16:34:19

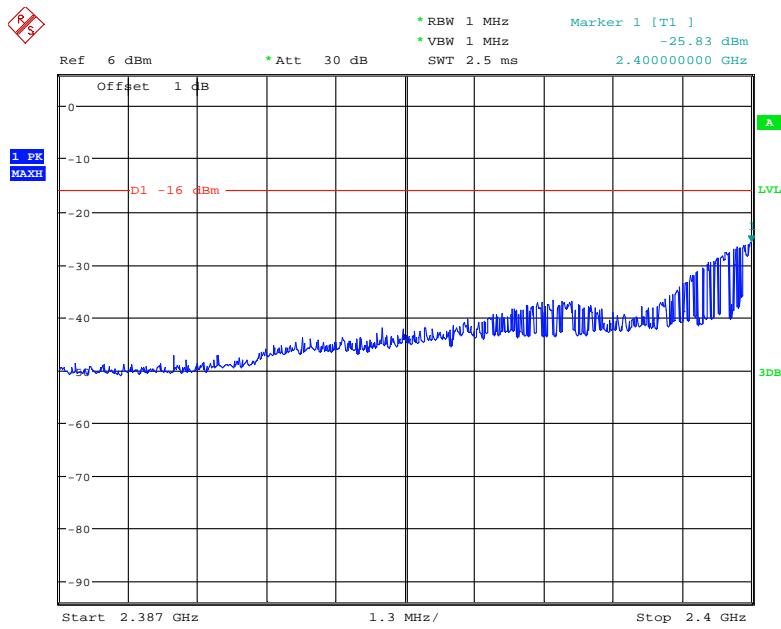
**20M***Low Channel:**30MHz ~ 1000MHz*

Date: 23.NOV.2018 10:06:11

*1000MHz ~ 2387MHz*

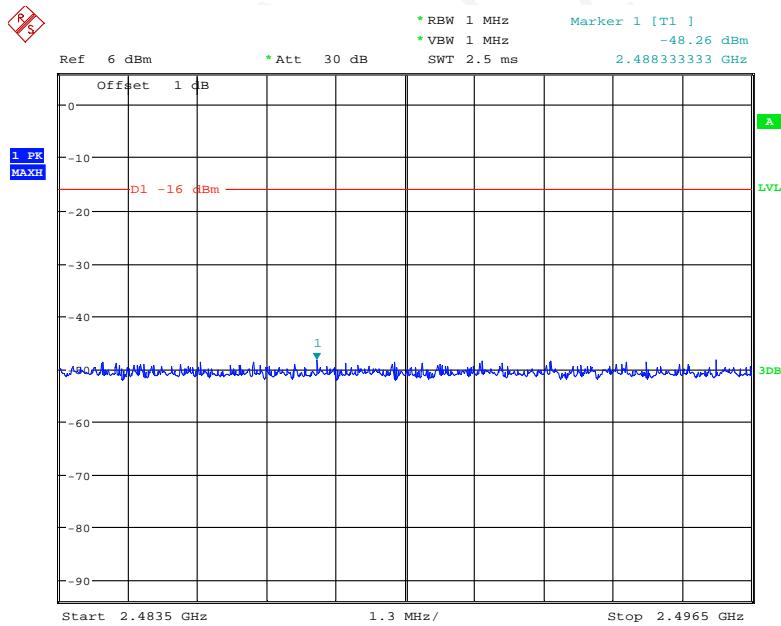
Date: 23.NOV.2018 10:02:00

2387MHz ~ 2400MHz



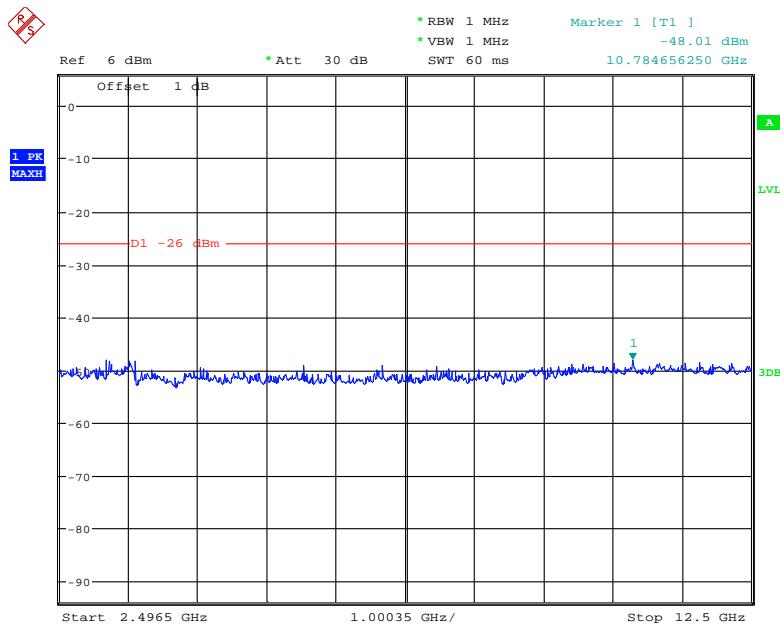
Date: 23.NOV.2018 10:17:45

2483.5MHz ~ 2496.5MHz



Date: 23.NOV.2018 09:54:52

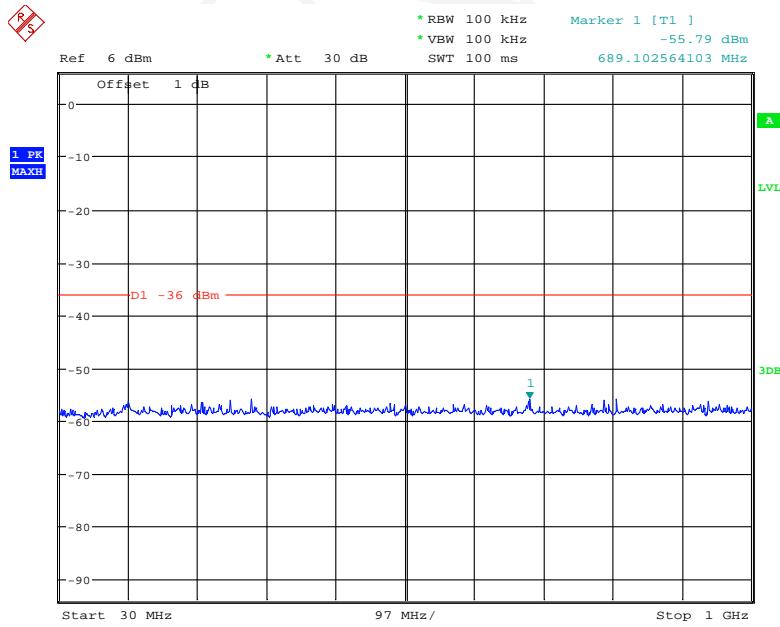
2496.5MHz ~ 12500MHz



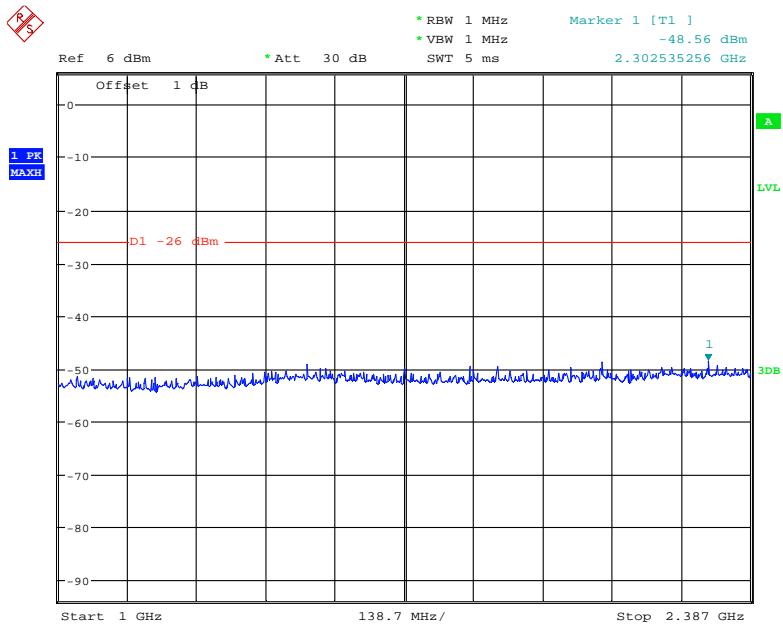
Date: 23.NOV.2018 10:02:26

## Middle Channel:

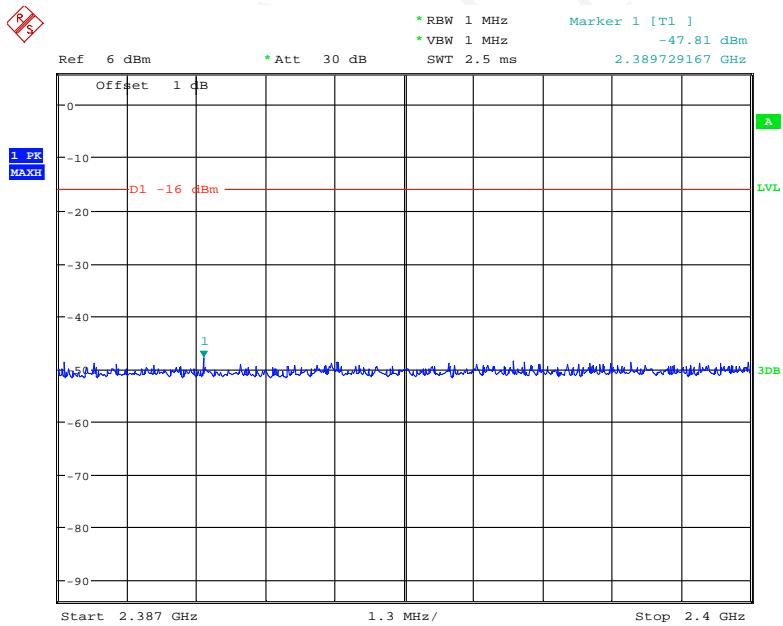
30MHz ~ 1000MHz



Date: 23.NOV.2018 10:10:41

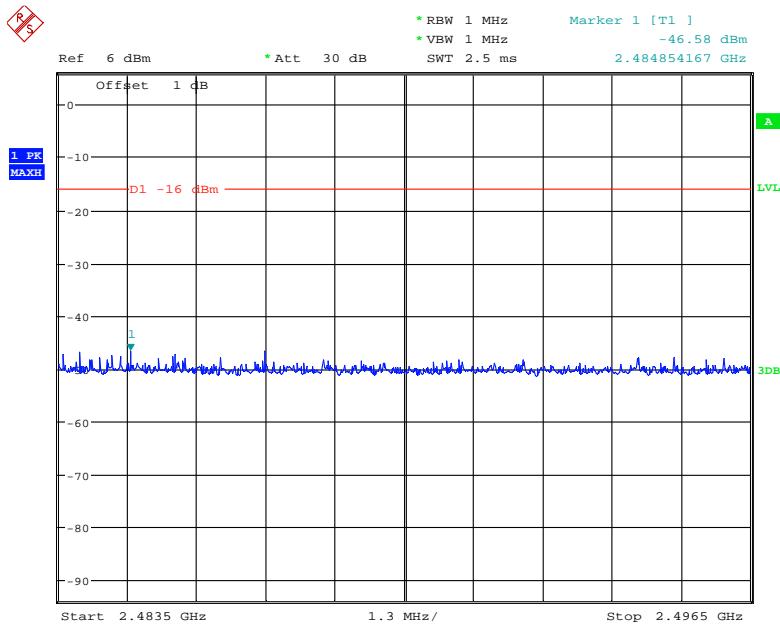
*1000MHz~2387MHz*

Date: 23.NOV.2018 10:13:44

*2387MHz~2400MHz*

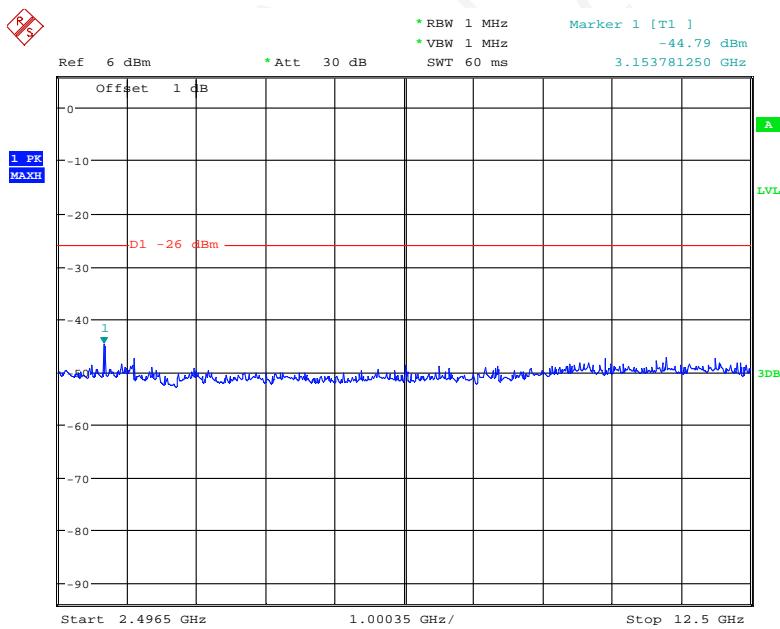
Date: 23.NOV.2018 10:14:12

2483.5MHz ~ 2496.5MHz



Date: 23.NOV.2018 10:14:30

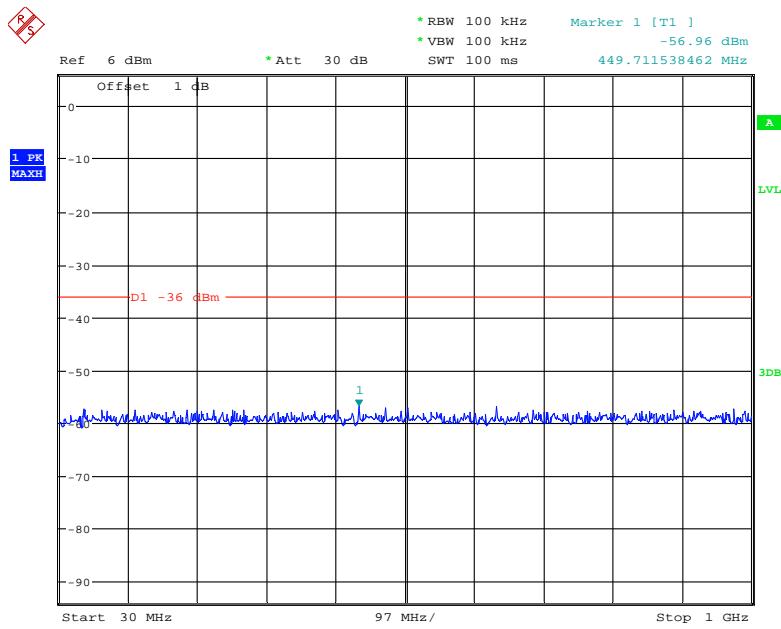
2496.5MHz ~ 12500MHz



Date: 23.NOV.2018 10:13:57

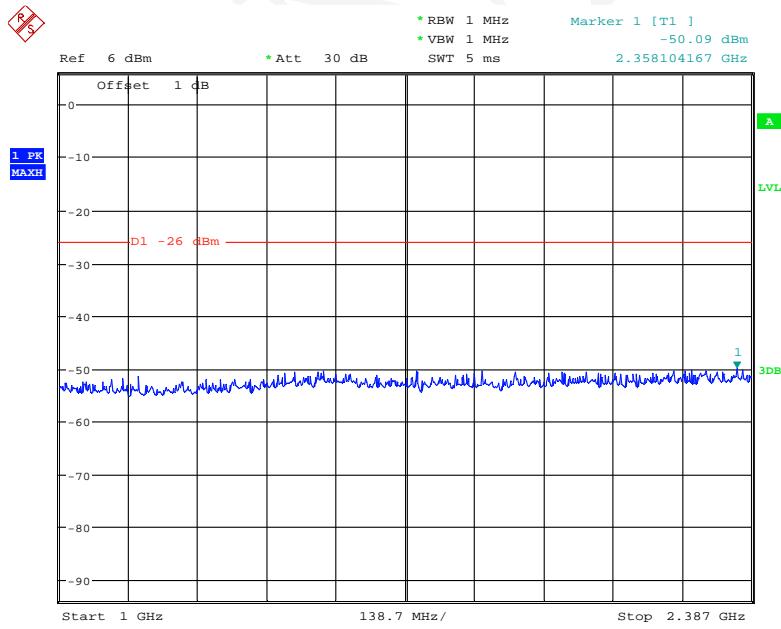
High Channel:

$30MHz \sim 1000MHz$



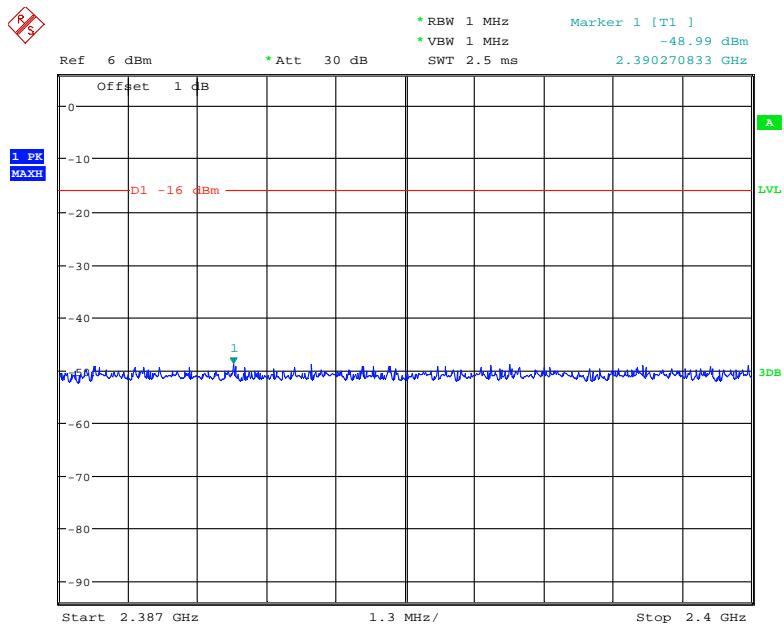
Date: 23.NOV.2018 10:11:21

$1000MHz \sim 2387MHz$



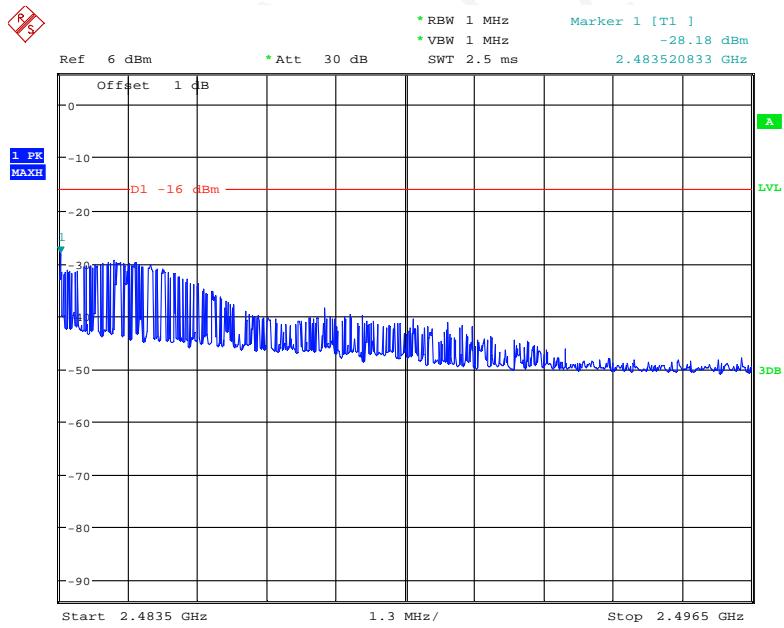
Date: 23.NOV.2018 10:19:23

2387MHz ~ 2400MHz



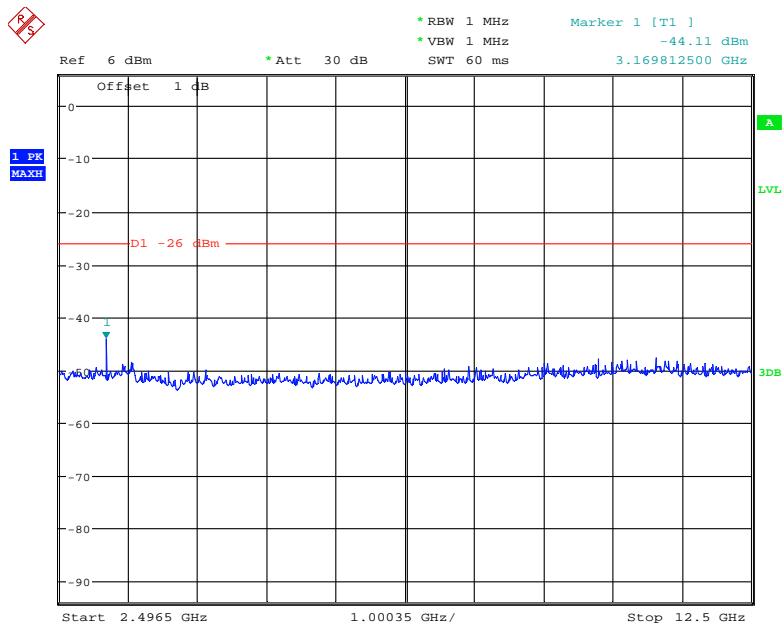
Date: 23.NOV.2018 10:19:05

2483.5MHz ~ 2496.5MHz



Date: 23.NOV.2018 10:18:52

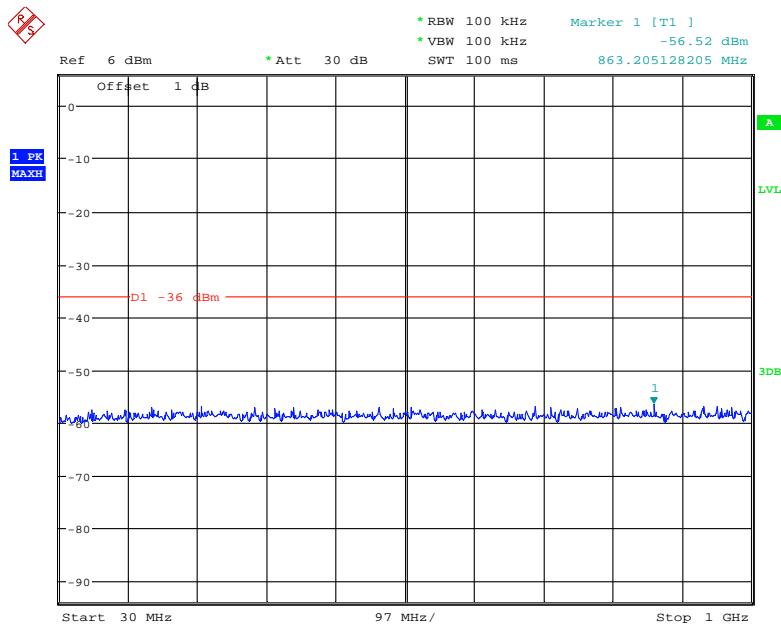
2496.5MHz ~12500MHz



Date: 23.NOV.2018 10:19:37

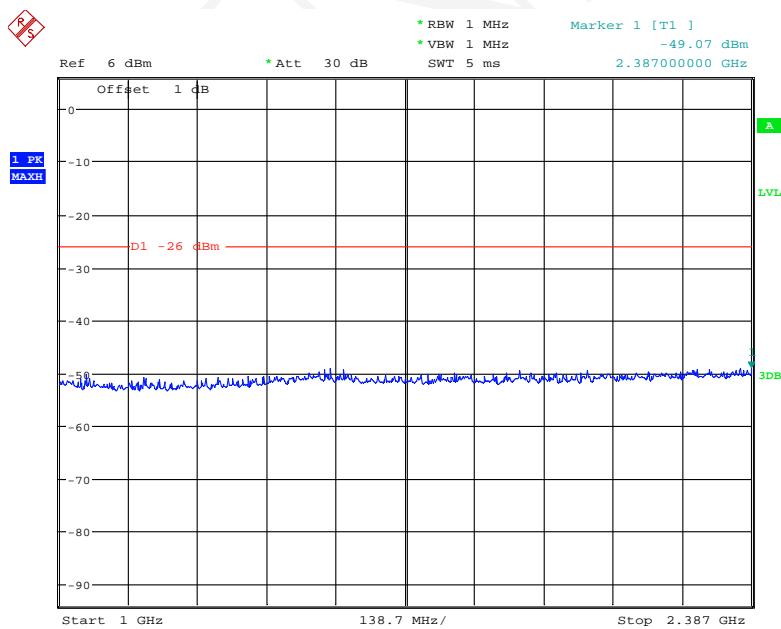
**Chain 1**  
**10M Low Channel:**

30MHz ~ 1000MHz



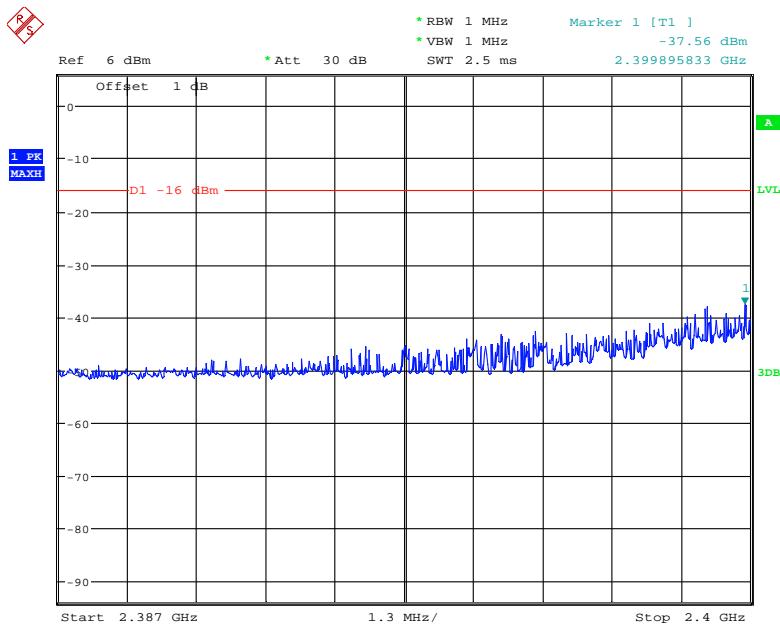
Date: 23.NOV.2018 08:32:48

1000MHz ~ 2387MHz



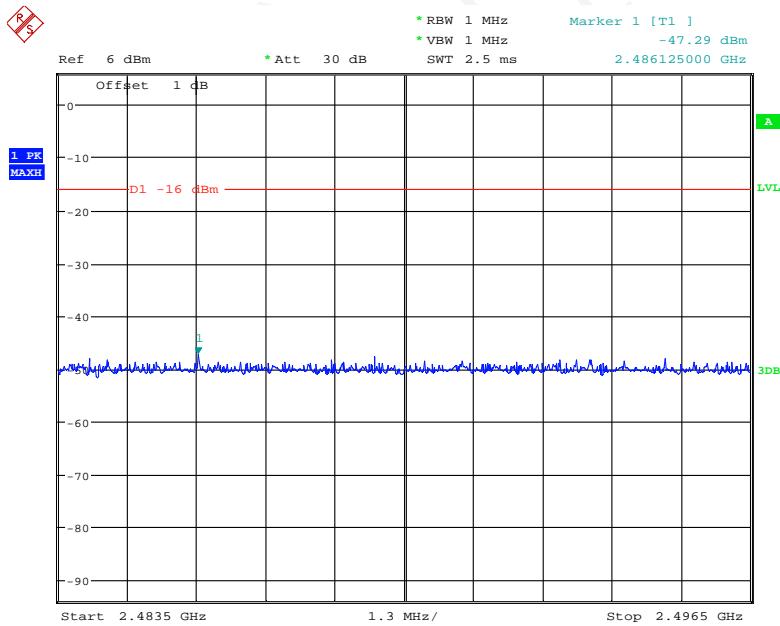
Date: 23.NOV.2018 08:34:07

2387MHz ~ 2400MHz



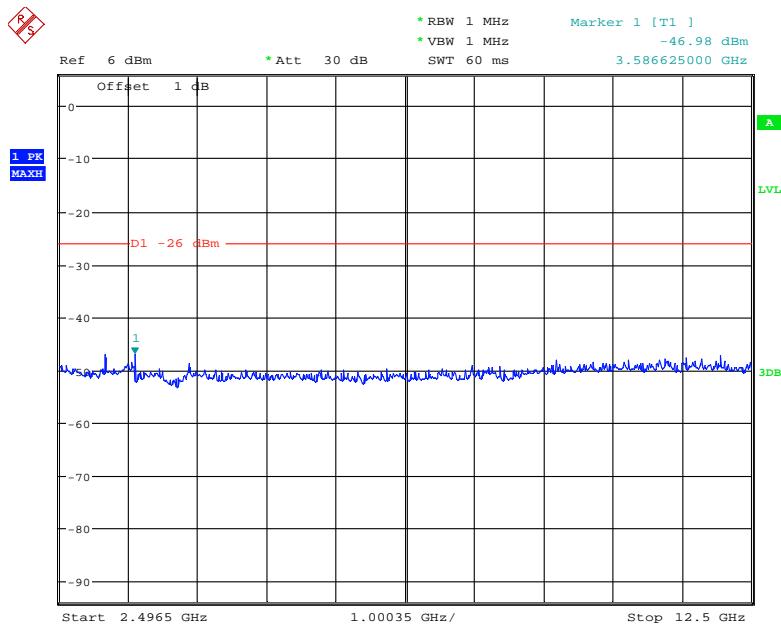
Date: 23.NOV.2018 09:10:15

2483.5MHz ~ 2496.5MHz



Date: 23.NOV.2018 08:35:35

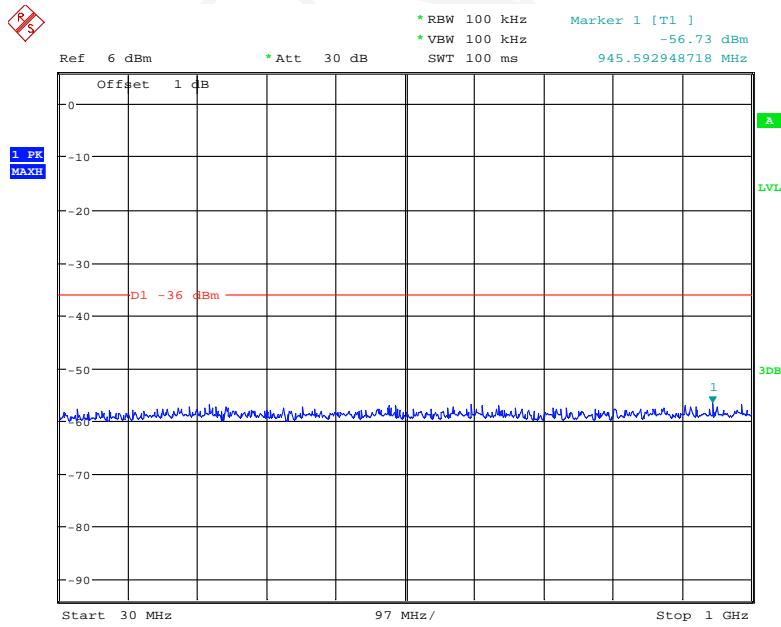
2496.5MHz~12500MHz



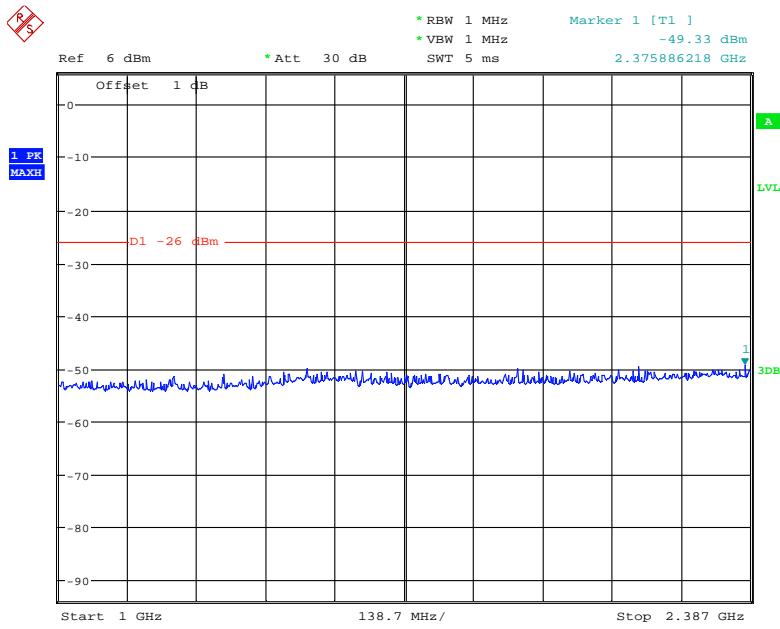
Date: 23.NOV.2018 08:34:25

## Middle Channel:

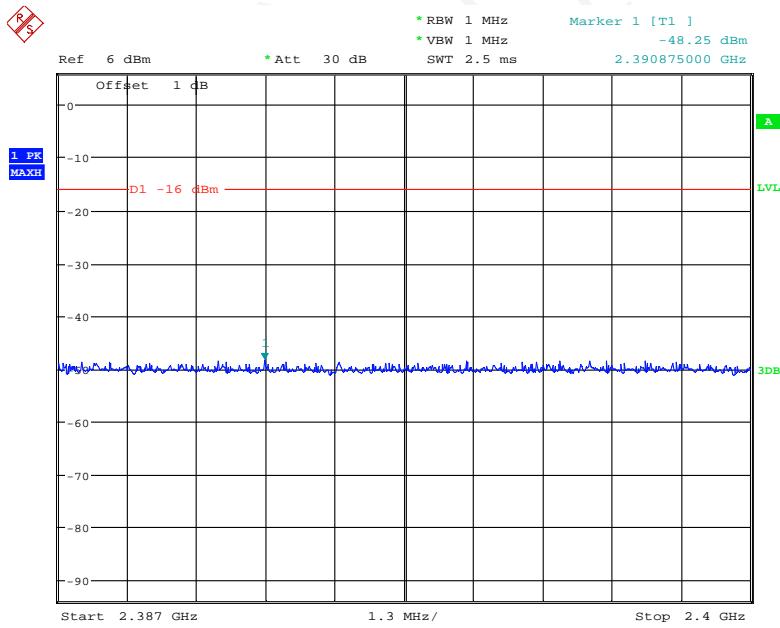
30MHz~1000MHz



Date: 23.NOV.2018 08:38:35

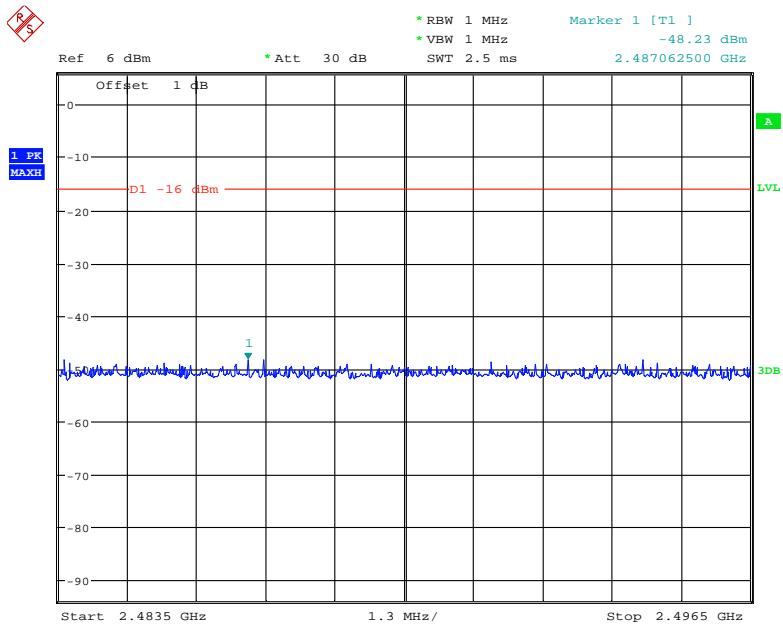
*1000MHz~2387MHz*

Date: 23.NOV.2018 08:37:23

*2387MHz~2400MHz*

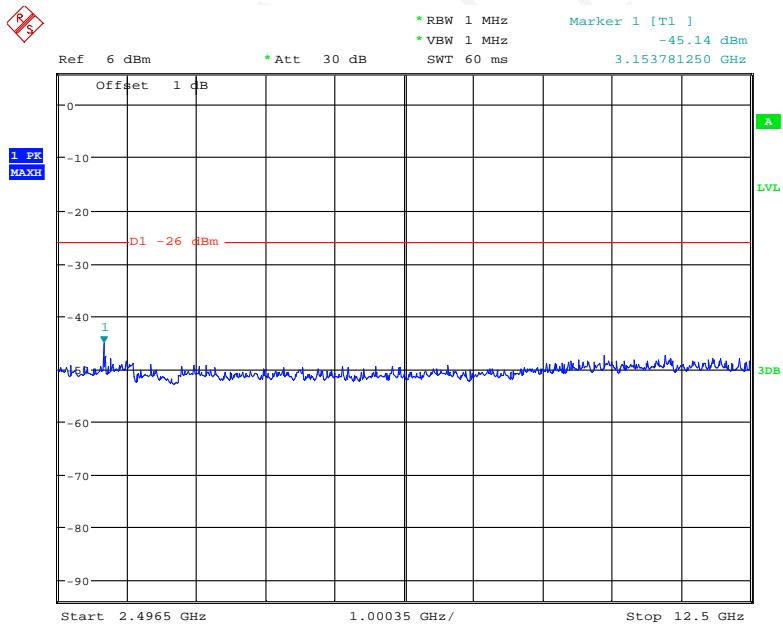
Date: 23.NOV.2018 08:37:02

2483.5MHz ~ 2496.5MHz



Date: 23.NOV.2018 08:35:57

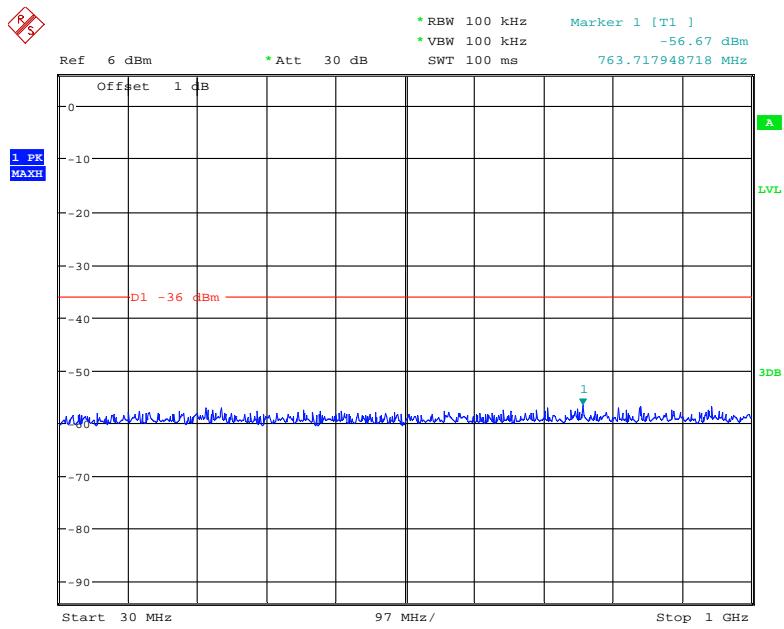
2496.5MHz ~ 12500MHz



Date: 23.NOV.2018 08:37:38

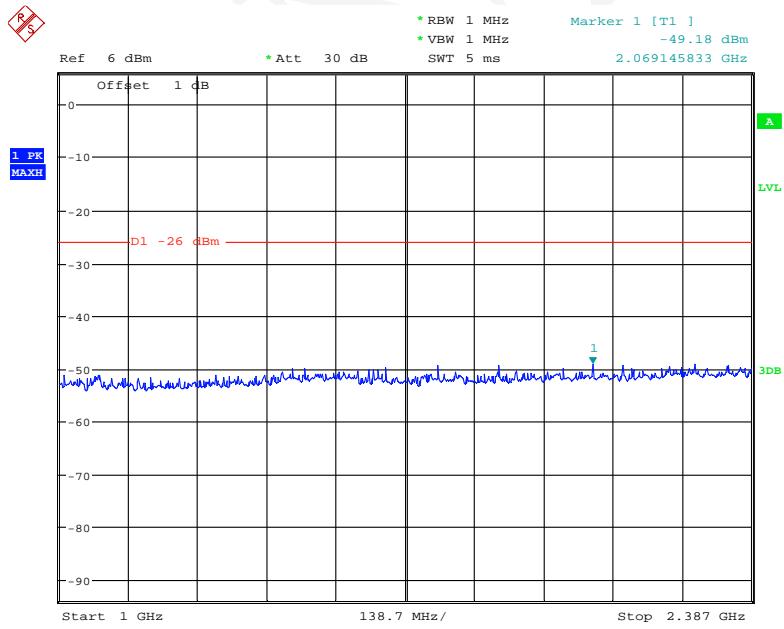
High Channel:

$30MHz \sim 1000MHz$



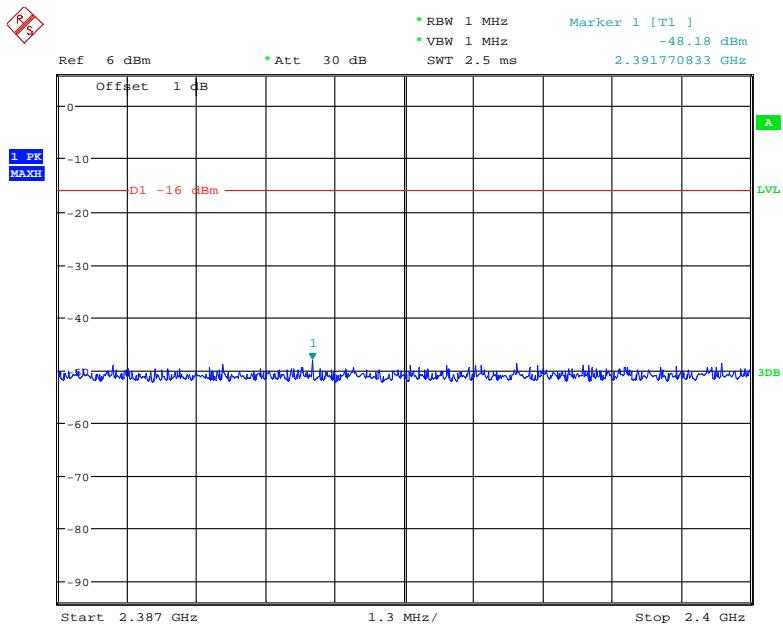
Date: 23.NOV.2018 08:38:59

$1000MHz \sim 2387MHz$



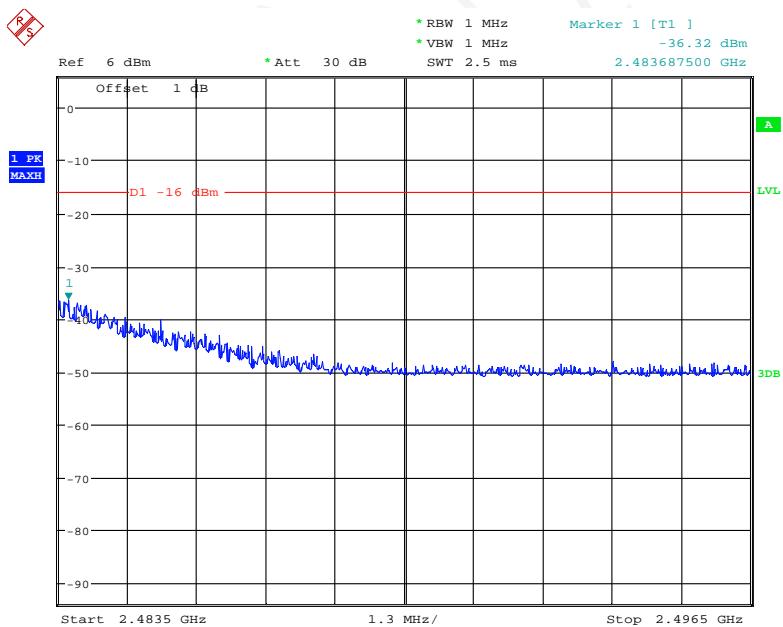
Date: 23.NOV.2018 08:44:35

2387MHz ~ 2400MHz



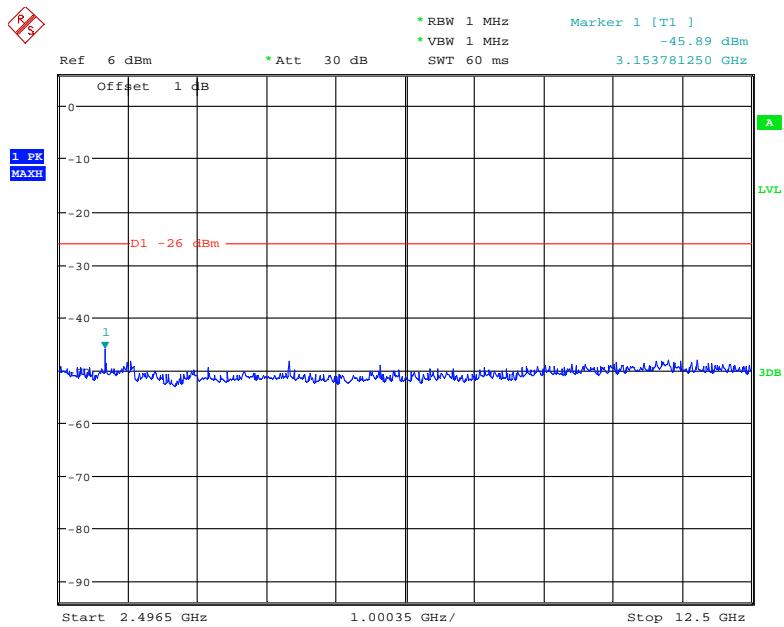
Date: 23.NOV.2018 08:44:05

2483.5MHz ~ 2496.5MHz



Date: 23.NOV.2018 09:09:26

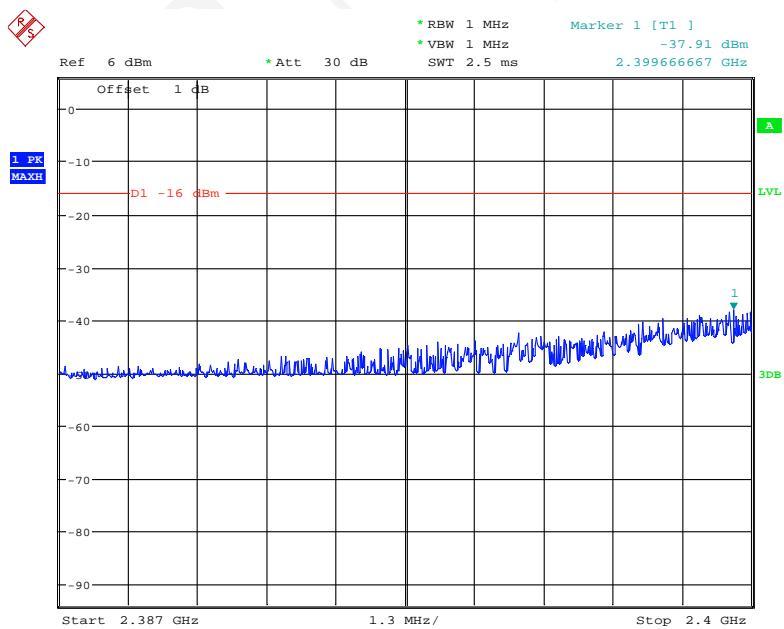
2496.5MHz ~ 12500MHz



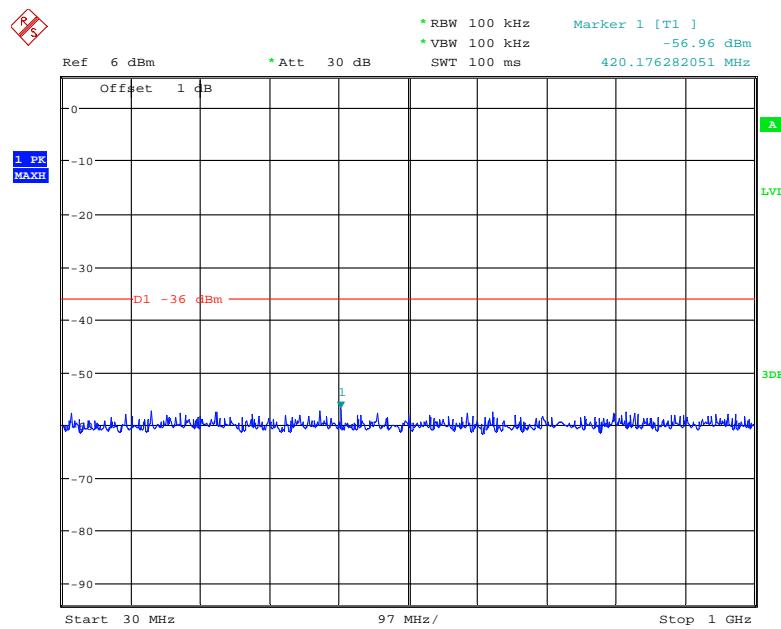
Date: 23.NOV.2018 08:44:51

2411.5MHz:

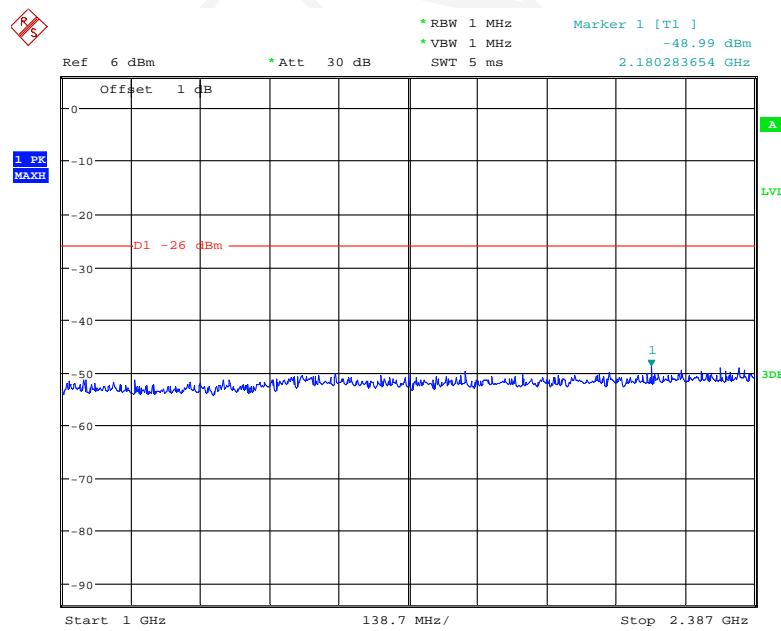
2387MHz ~ 2400MHz



Date: 23.NOV.2018 09:07:51

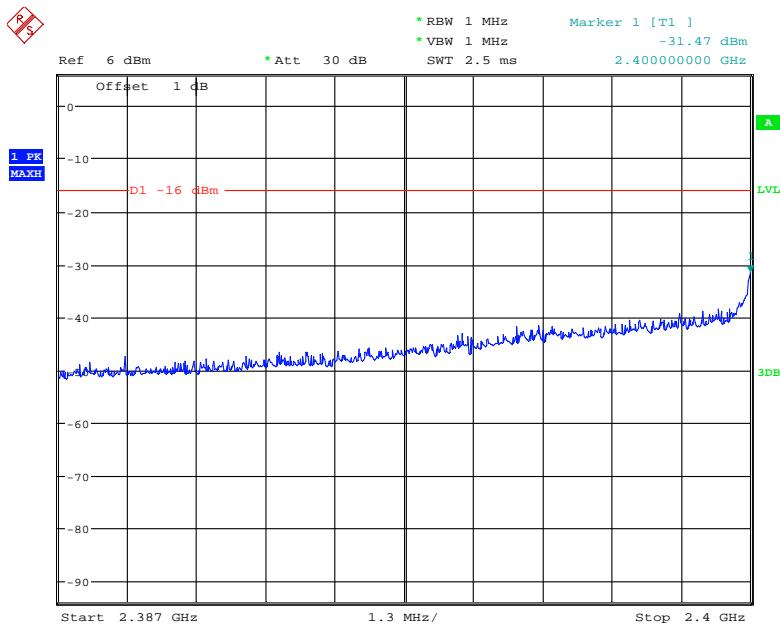
**20M***Low Channel:**30MHz ~ 1000MHz*

Date: 23.NOV.2018 08:58:00

*1000MHz ~ 2387MHz*

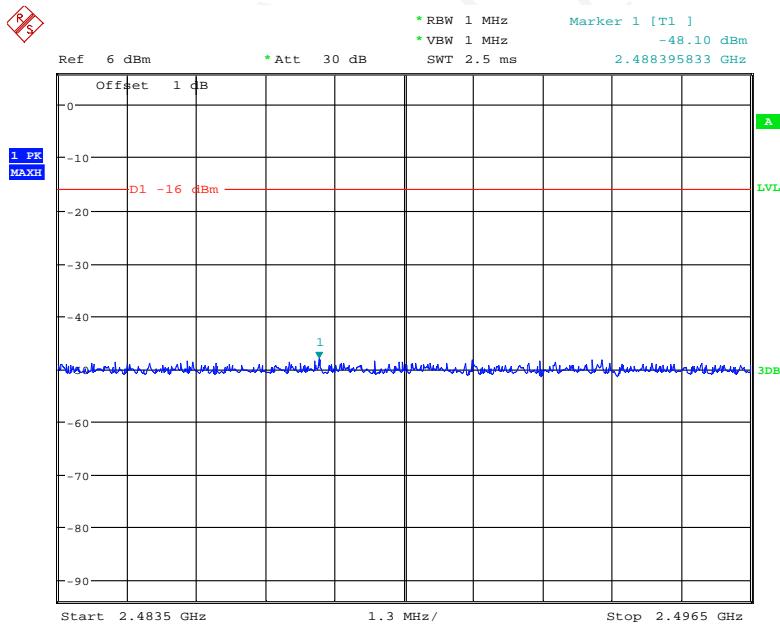
Date: 23.NOV.2018 08:59:51

2387MHz ~ 2400MHz



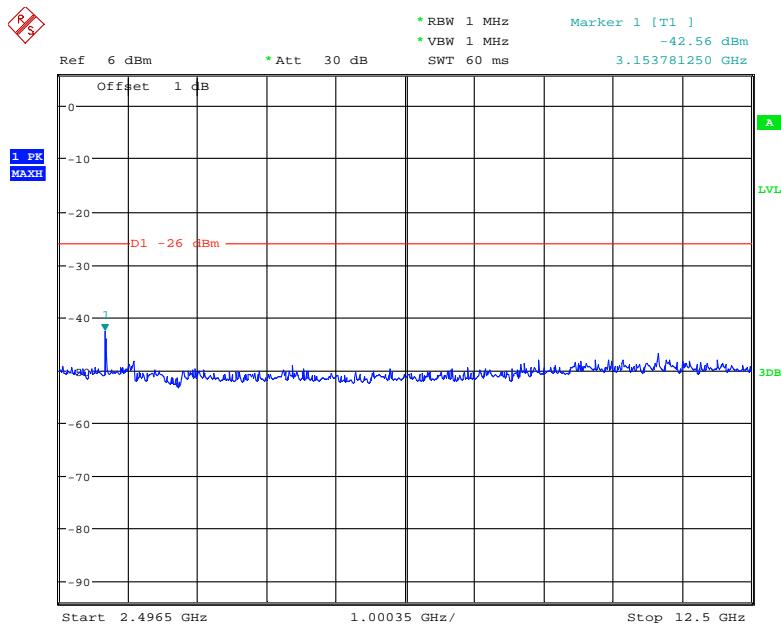
Date: 23.NOV.2018 09:00:54

2483.5MHz ~ 2496.5MHz



Date: 23.NOV.2018 09:00:39

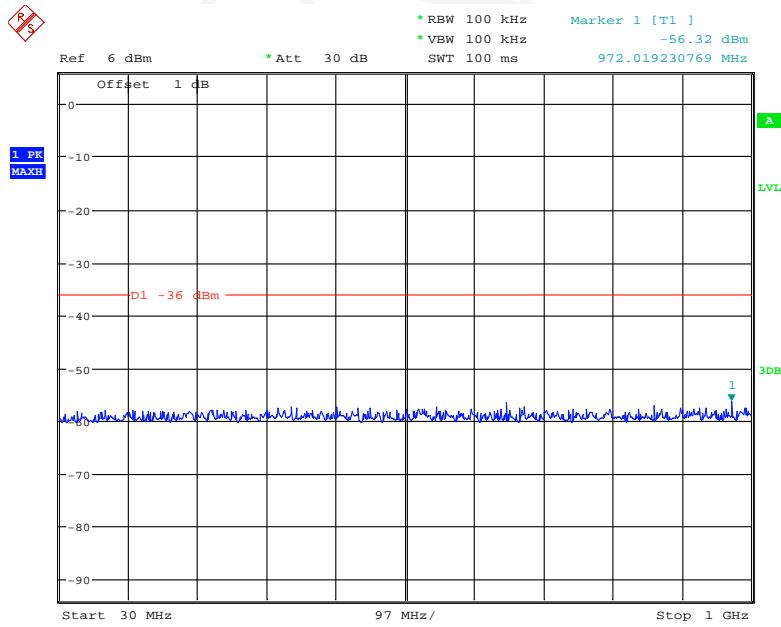
2496.5MHz ~ 12500MHz



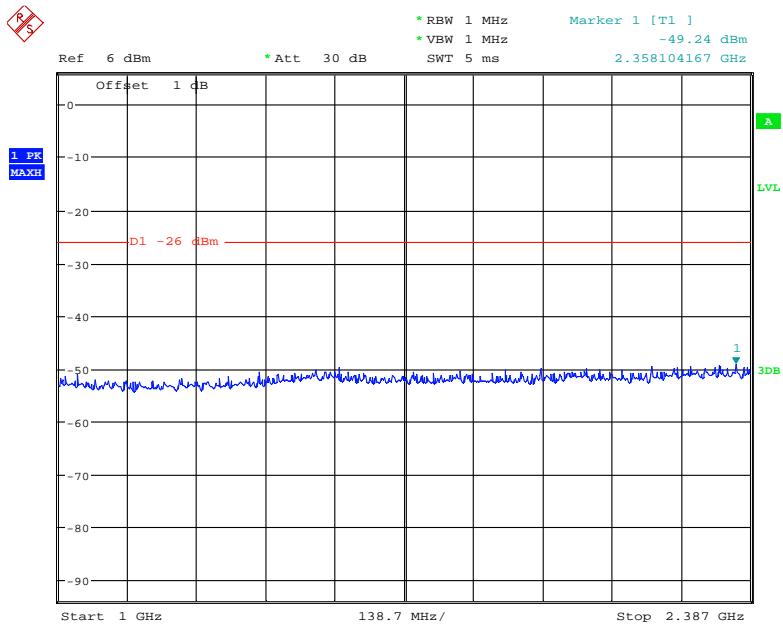
Date: 23.NOV.2018 09:00:04

## Middle Channel:

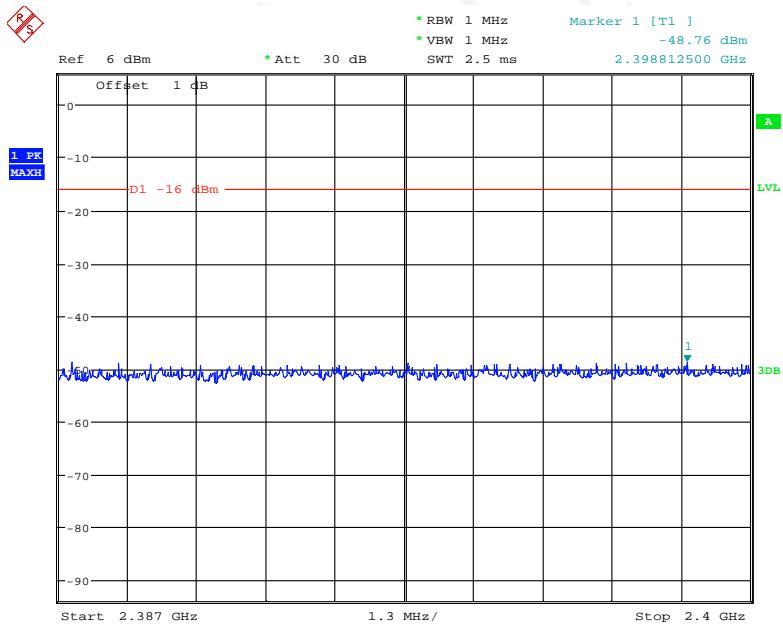
30MHz ~ 1000MHz



Date: 23.NOV.2018 08:57:46

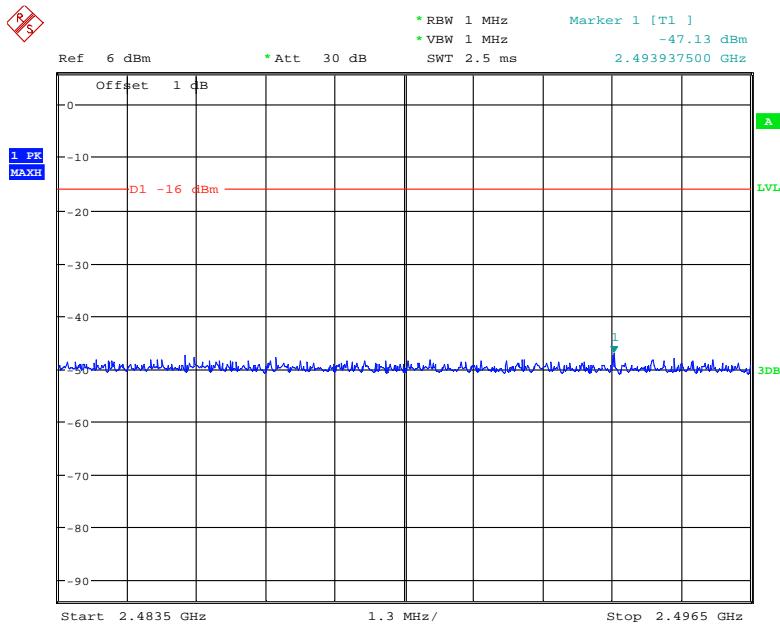
*1000MHz~2387MHz*

Date: 23.NOV.2018 08:56:26

*2387MHz~2400MHz*

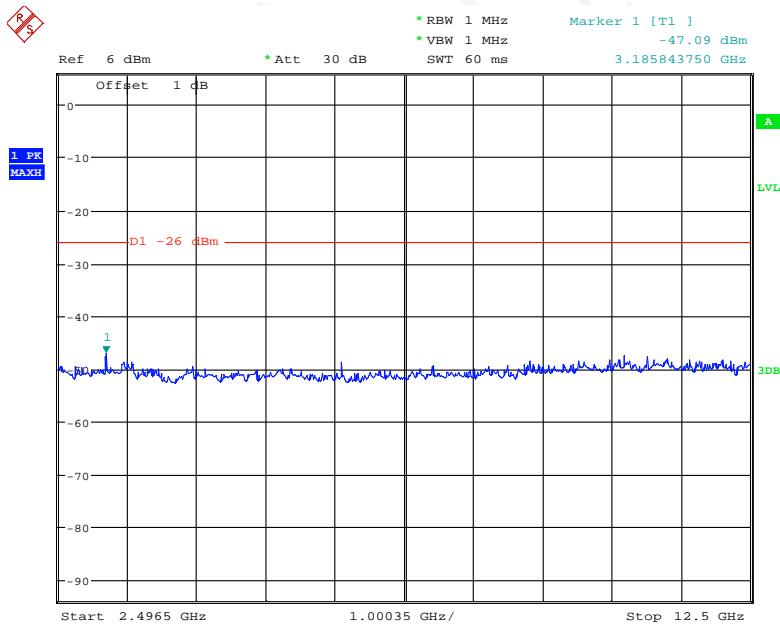
Date: 23.NOV.2018 08:56:10

2483.5MHz ~ 2496.5MHz



Date: 23.NOV.2018 08:55:47

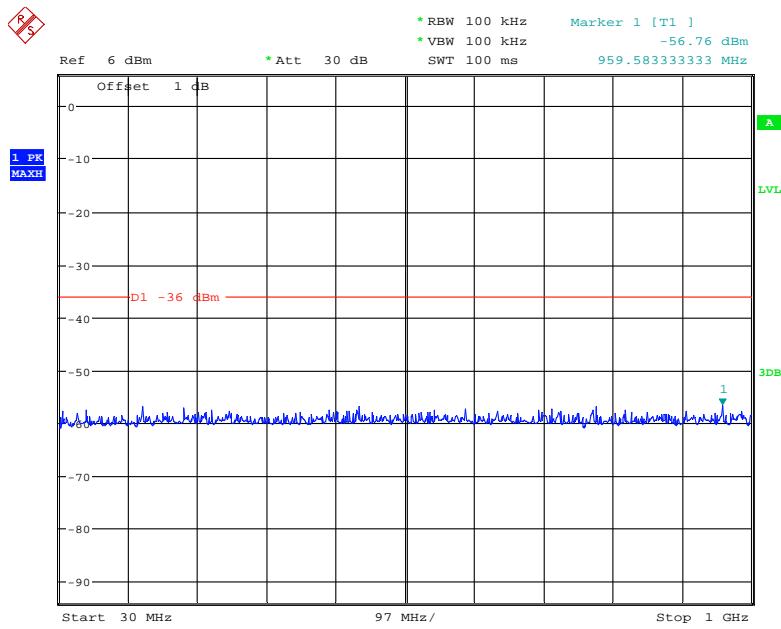
2496.5MHz ~ 12500MHz



Date: 23.NOV.2018 08:56:41

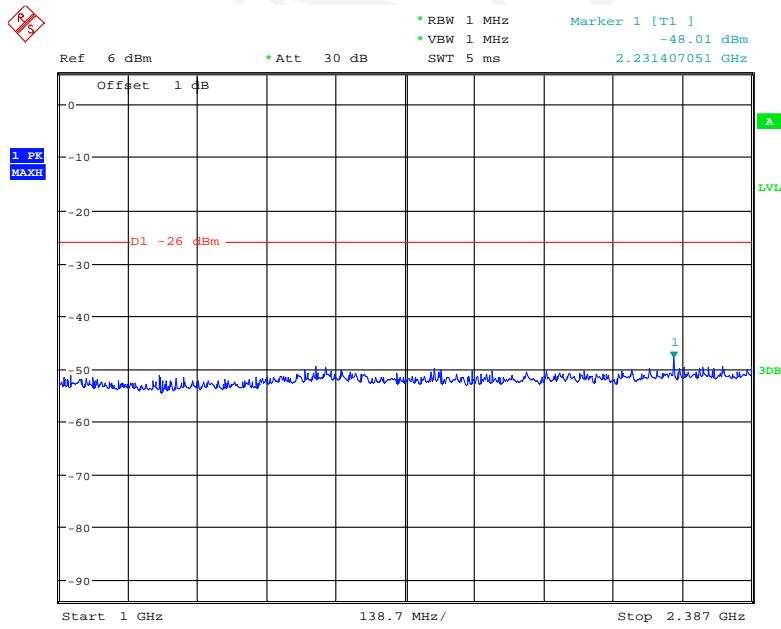
High Channel:

$30MHz \sim 1000MHz$

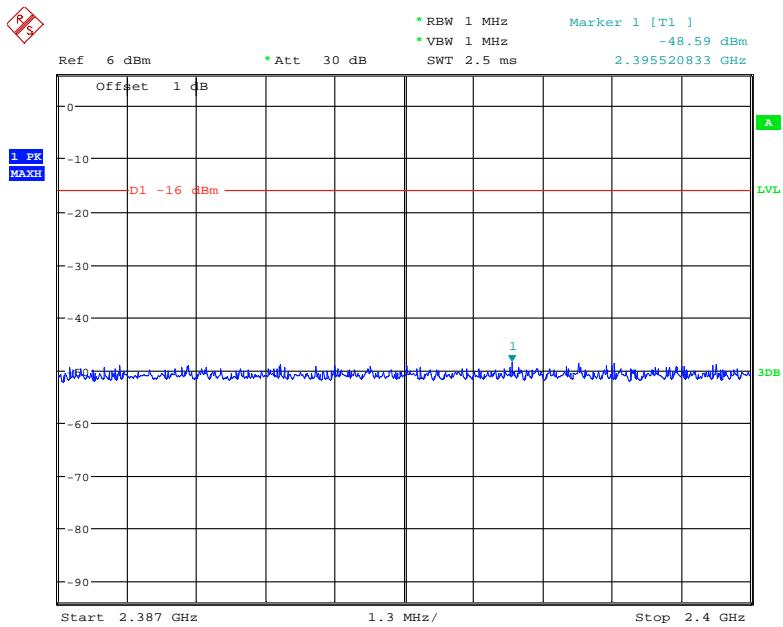


Date: 23.NOV.2018 08:58:22

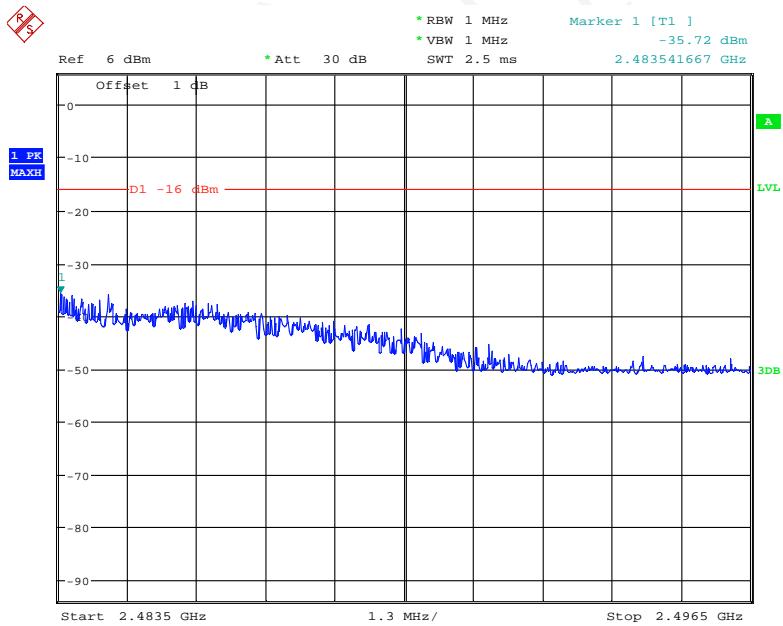
$1000MHz \sim 2387MHz$



Date: 23.NOV.2018 09:05:02

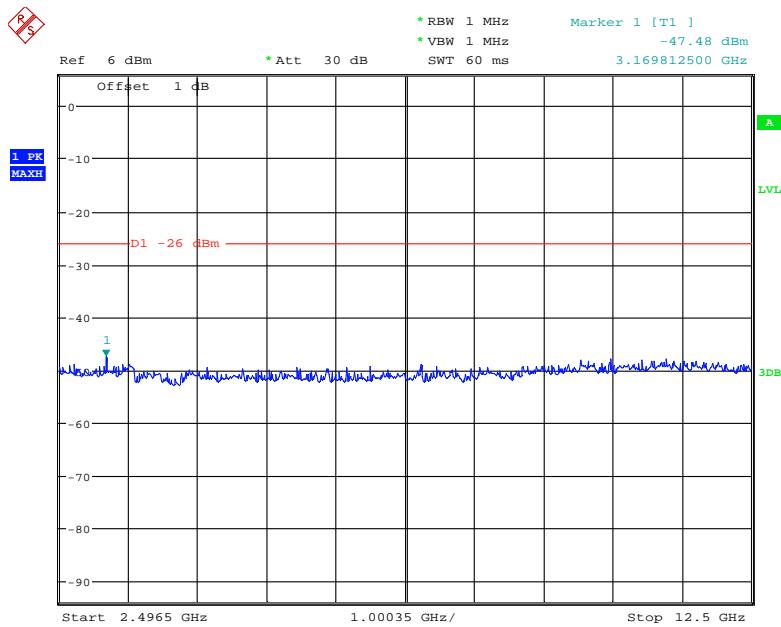
$2387MHz \sim 2400MHz$ 

Date: 23.NOV.2018 09:04:49

 $2483.5MHz \sim 2496.5MHz$ 

Date: 23.NOV.2018 09:04:37

2496.5MHz ~ 12500MHz



Date: 23.NOV.2018 09:05:15

## **ANTENNA OUTPUT POWER, ANTENNA POWER TOLERANCE AND TRANSMISSION ANTENNA GAIN**

### **Limit**

- $\leq 3 \text{ mW/MHz}$  (FHSS from 2400-2483.5 MHz)
- $\leq 10 \text{ mW/MHz}$  (OFDM/DSSS for bandwidth  $\leq 26\text{MHz}$ )
- $\leq 5 \text{ mW/MHz}$  (OFDM for bandwidth  $\leq 38\text{MHz}$ )
- $\leq 10 \text{ mW}$  (others)

The Output Power Tolerance must be within +20%, -80%.

E.i.r.p:

- $\leq 12.14 \text{ dBm/MHz}$  (OFDM, DS for 2400-2483.5 MHz)

Note: E.I.R.P will not be applied to the transmission antenna which has a gain of 2.14dBi or less.

### **Test Procedure**

For FHSS UUT:

Connect the UUT to the power meter

For OFDM, DSSS UUT:

Step 1:

Connect the UUT to the spectrum analyser and use the following settings:

- Centre Frequency: The centre frequency of the channel under test.
- RBW: 1 MHz.
- VBW: 1 MHz.
- Span: Wide enough to cover the complete power envelope of the signal of the UUT.
- Detector: Peak.
- Trace Mode: Max Hold.

Step 2:

When the trace is complete, find the peak value of the power envelope and record the frequency.

Step 3:

Make the following changes to the settings of the spectrum analyser:

- Centre Frequency: Equal to the frequency recorded in step 2.
- Span: 3 MHz.
- RBW: 1 MHz.
- VBW: 1 MHz.
- Detector: Average (see note).
- Trace Mode: Max Hold.

For other UUT:

Make the following changes to the settings of the spectrum analyser:

- Centre Frequency: The centre frequency of the channel under test.
- Span: 5MHz.
- RBW: 3 MHz.
- VBW: 10 MHz.
- Detector: Peak
- Trace Mode: Max Hold.

NOTE: The detector mode "Average" is often referred to as "RMS Average" or "Sample" but do not use Video Average.

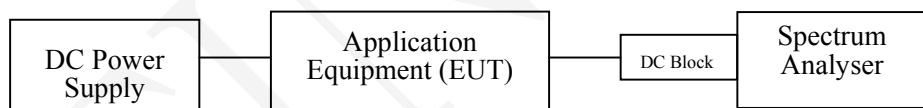
When the trace is complete, capture the trace, for example using the "View" option on the spectrum analyser. For Find the peak value of the trace and place the analyser marker on this peak. This level is recorded as D.

D shall be recorded in the test report.

The maximum PD, which is e.i.r.p. PSD (spectral density power) or power, is calculated from the above measured value D, and the applicable antenna assembly gain "G" in dBi, according to the formula below. If more than one antenna assembly is intended for this power setting, the gain of the antenna assembly with the highest gain shall be used.

$$PD = D + G$$

#### Test Setup Block diagram



## Test Data

### Environmental Conditions

<b>Temperature:</b>	25.5~25.9 °C
<b>Relative Humidity:</b>	40~45 %
<b>ATM Pressure:</b>	100.5~100.8 kPa

The testing was performed by Elena Lei on 2018-11-22~2018-11-24.

**Test Result:** Compliance

*Test Mode: Transmitting*

### 10M:

Frequency		2411.5MHz			2441.5MHz			2476.5MHz			Limit
Voltage		LV	NV	HV	LV	NV	HV	LV	NV	HV	
Reading Chain 0	dBm/MHz	-1.38	-1.27	-1.42	0.08	0.24	-0.03	-3.25	-3.48	-3.75	10dBm/MHz
Reading Chain 1	dBm/MHz	-0.28	-0.40	-0.14	1.79	1.84	1.67	-1.98	-1.87	-1.81	10dBm/MHz
Antenna power Chain 0	mW/MHz	0.87	0.89	0.86	1.21	1.26	1.18	0.56	0.53	0.50	10mW/MHz
Antenna power Chain 1	mW/MHz	1.12	1.09	1.15	1.80	1.82	1.75	0.76	0.77	0.79	10mW/MHz
Duty Cycle Factor	dB	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	/
Antenna Power Error Chain 0	%	-37.86	-36.43	-38.57	-13.57	-10.00	-15.71	-60.00	-62.14	-64.29	+20% ~ -80%
Antenna Power Error Chain 1	%	12.00	9.00	15.00	28.57	30.00	25.00	-45.71	-45.00	-43.57	+20% ~ -80%
EIRP Chain 0	dBm/MHz	1.67	1.78	1.63	3.13	3.29	3.02	-0.20	-0.43	-0.70	12.14dBm/MHz
EIRP Chain 1	dBm/MHz	2.77	2.65	2.91	4.84	4.89	4.72	1.07	1.18	1.24	12.14dBm/MHz

Frequency		2406.5MHz			Limit
Voltage		LV	NV	HV	
Reading Chain 0	dBm/ MHz	-8.41	-8.67	-8.56	10dBm/MHz
Reading Chain 1	dBm/ MHz	-7.14	-7.33	-7.27	10dBm/MHz
Antenna power Chain 0	mW/ MHz	0.17	0.16	0.17	10mW/MHz
Antenna power Chain 1	mW/ MHz	0.23	0.22	0.22	10mW/MHz
Duty Cycle Factor	dB	0.76	0.76	0.76	/
Antenna Power Error Chain 0	%	-43.33	-46.67	-43.33	+20% ~ -80%
Antenna Power Error Chain 1	%	-23.33	-26.67	-26.67	+20% ~ -80%
EIRP Chain 0	dBm/ MHz	-5.36	-5.62	-5.51	12.14dBm/MHz
EIRP Chain 1	dBm/ MHz	-4.09	-4.28	-4.22	12.14dBm/MHz

Note 1: the antenna gain is 2.29dBi for 10M.

Note 2: the nominal Output power is 1.4mW/MHz for 2411.5-2476.5MHz, 0.3mW/MHz for 2406.5-2410.5MHz.

Note 3: Transmission Antenna Gain and Transmission Radiation Angle Width are not required since EIRP less than 12.14dBm/MHz.

Note 4:Antenna output power (mW/MHz) =  $10^{((\text{Reading}(dBm/MHz)/10)+\text{Duty cycle factor})}$

**20M:**

Frequency		2411.5MHz			2441.5MHz			2471.5MHz			Limit
Voltage		LV	NV	HV	LV	NV	HV	LV	NV	HV	
Reading power Chain 0	dBm/MHz	-6.32	-6.40	-6.52	-1.26	-1.40	-1.11	-5.91	-5.88	-6.09	10dBm/MHz
Reading power Chain 1	dBm/MHz	-5.16	-5.26	-5.09	0.15	0.05	-0.21	-4.42	-4.66	-4.58	10dBm/MHz
Antenna power Chain 0	mW/MHz	0.28	0.27	0.27	0.89	0.86	0.92	0.31	0.31	0.29	10mW/MHz
Antenna power Chain 1	mW/MHz	0.36	0.35	0.37	1.23	1.20	1.13	0.43	0.41	0.41	10mW/MHz
Duty Cycle Factor	dB	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	/
Antenna Power Error Chain 0	%	-70.53	-71.58	-71.58	-6.32	-9.47	-3.16	-67.37	-67.37	-69.47	+20% ~ -80%
Antenna Power Error Chain 1	%	-62.11	-63.16	-61.05	29.47	26.32	18.95	-54.74	-56.84	-56.84	+20% ~ -80%
EIRP Chain 0	dBm/MHz	-3.28	-3.36	-3.48	1.78	1.64	1.93	-2.87	-2.84	-3.05	12.14dBm/MHz
EIRP Chain 1	dBm/MHz	-2.12	-2.22	-2.05	3.19	3.09	2.83	-1.38	-1.62	-1.54	12.14dBm/MHz

Note 1: the antenna gain is 2.29dBi for 20M.

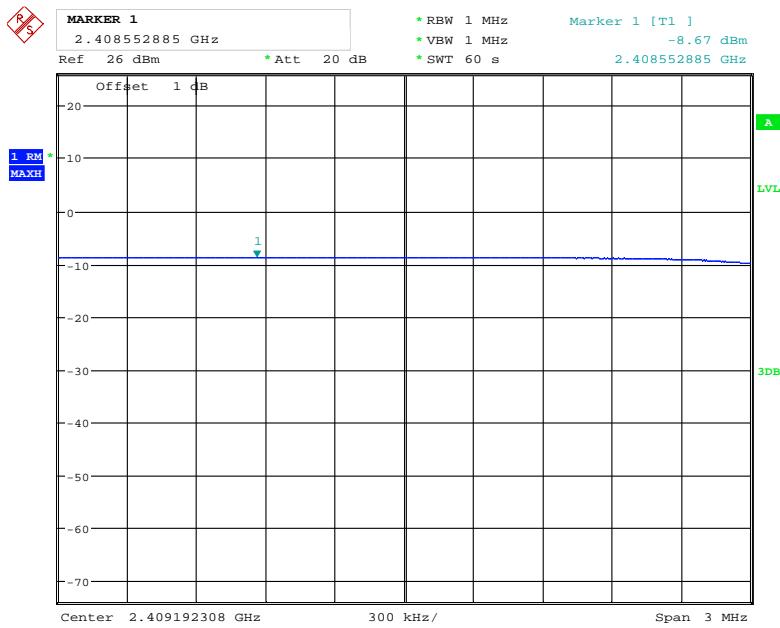
Note 2: the nominal Output power is 0.95mW/MHz for 2411.5-2471.5MHz.

Note 3: Transmission Antenna Gain and Transmission Radiation Angle Width are not required since EIRP less than 12.14dBm/MHz.

Note 4: Antenna output power (mW/MHz) =  $10^{((\text{Reading(dBm/MHz)})/10)+\text{Duty cycle factor}}$

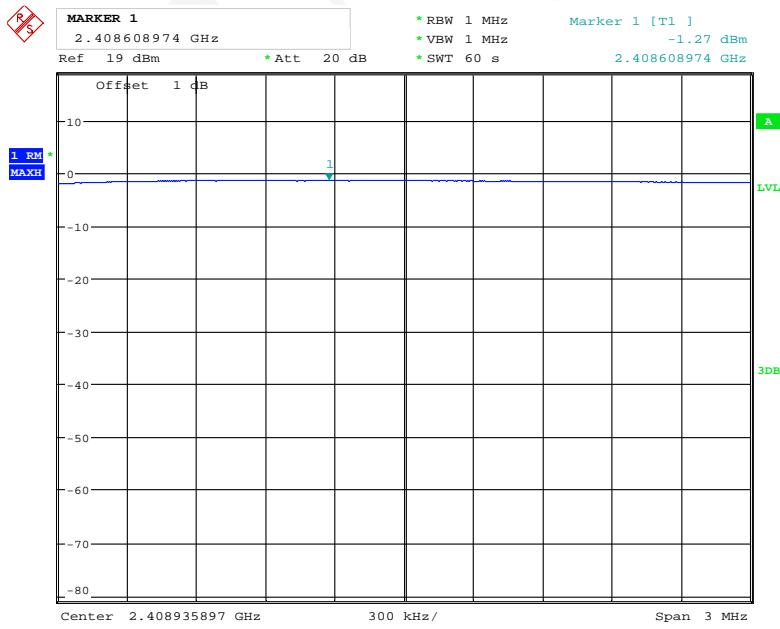
Please refer to the plots below for normal voltage.  
**Chain 0**  
**10M**

### 2406.5MHz

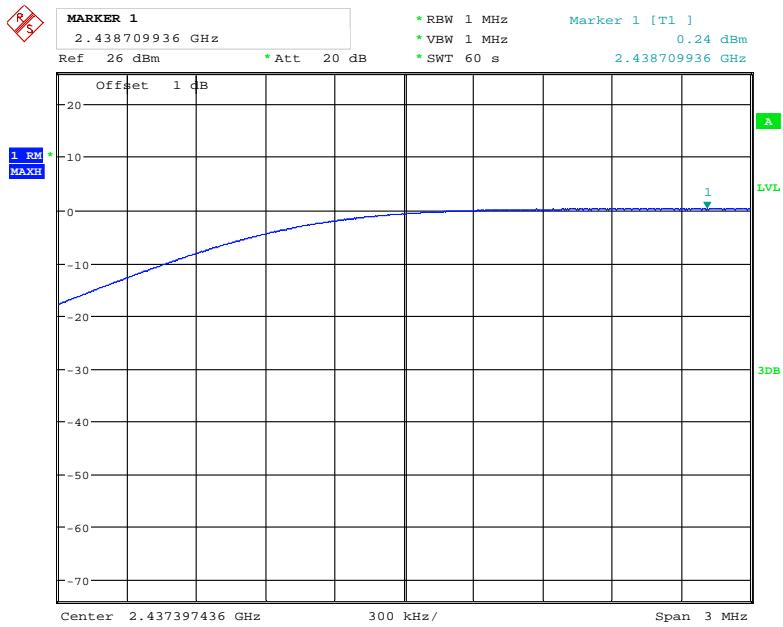


Date: 23.NOV.2018 18:23:43

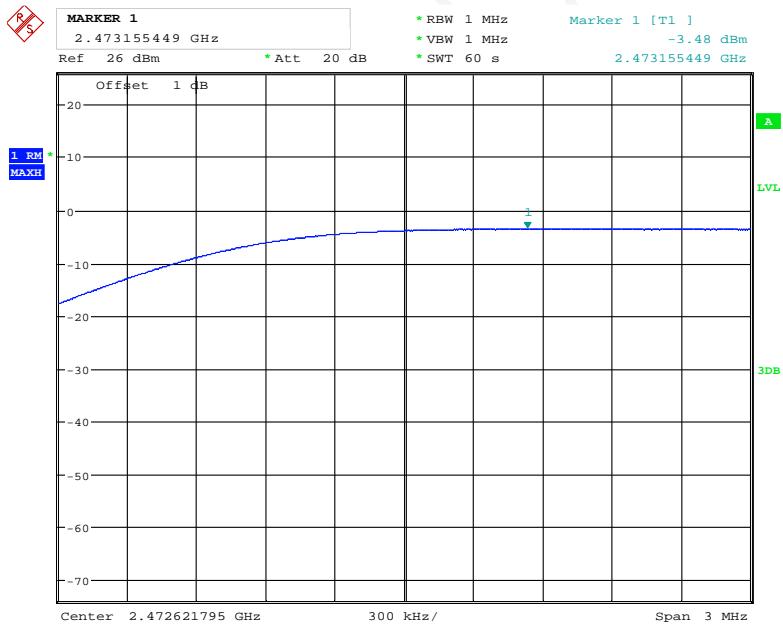
### 2411.5MHz



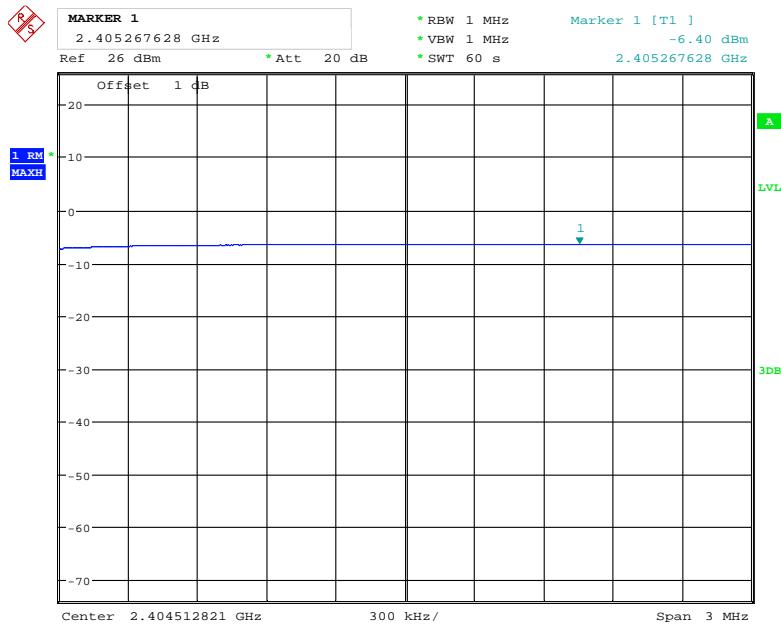
Date: 23.NOV.2018 19:22:58

**2441.5MHz**

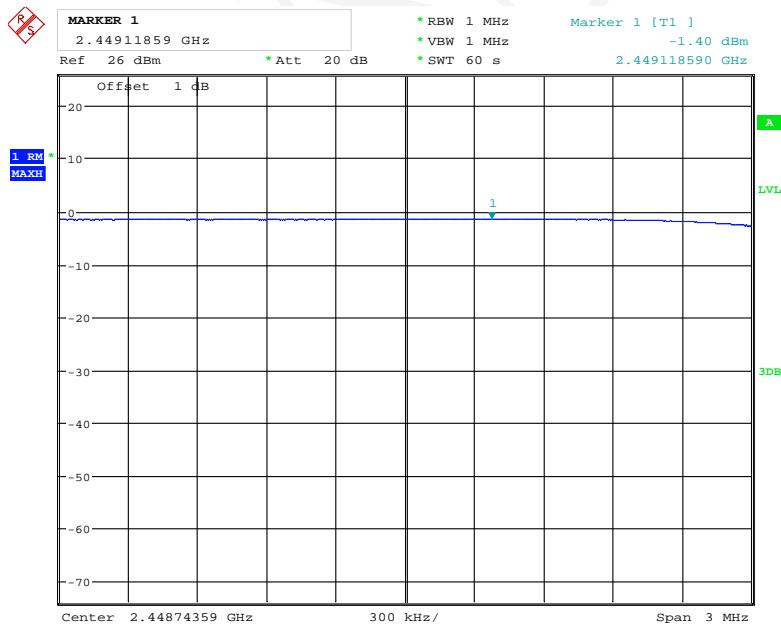
Date: 23.NOV.2018 18:11:44

**2476.5MHz**

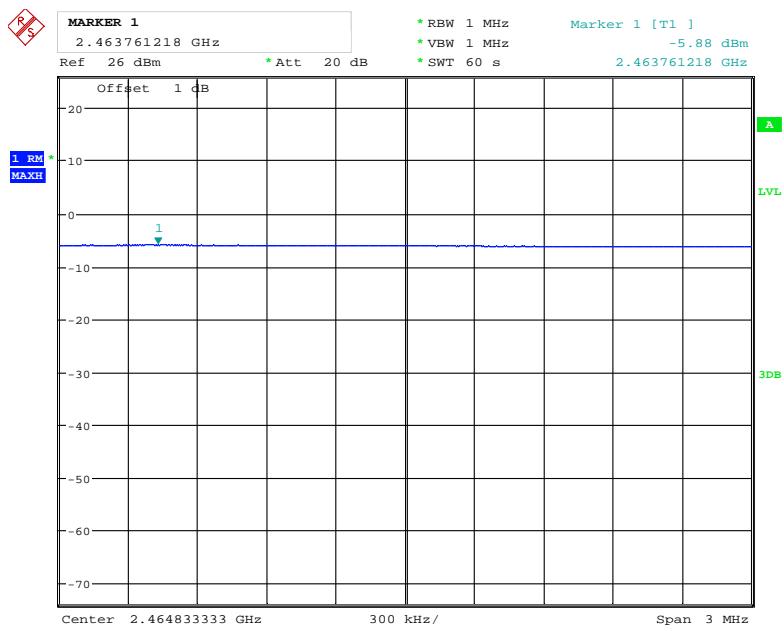
Date: 23.NOV.2018 18:22:09

**20M:****2411.5MHz**

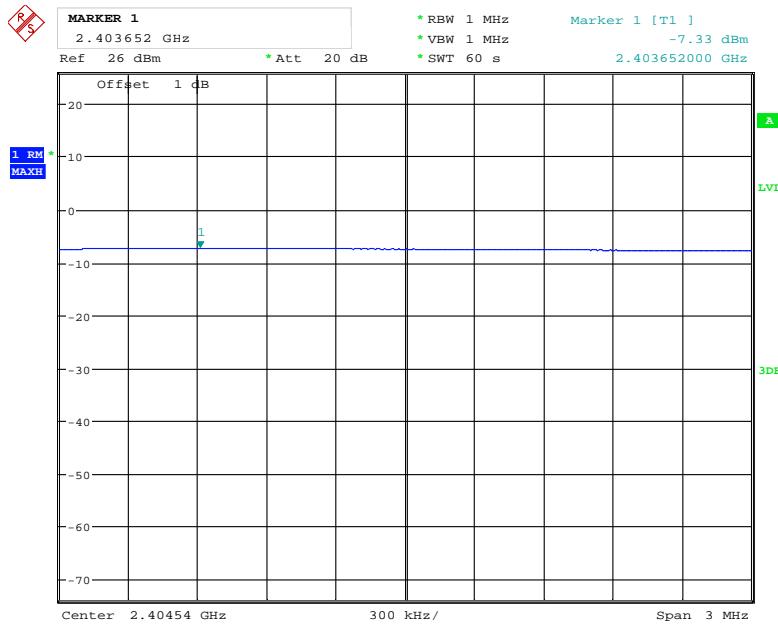
Date: 23.NOV.2018 18:16:59

**2441.5MHz**

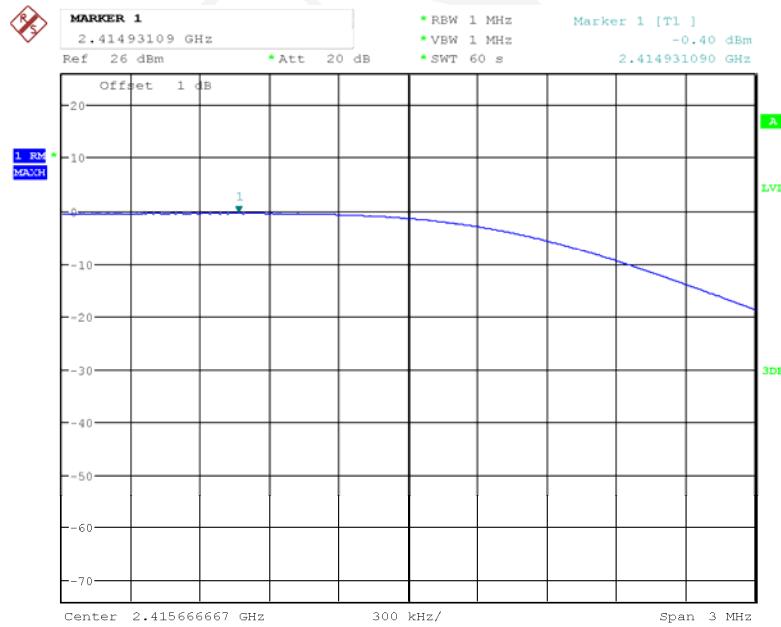
Date: 23.NOV.2018 18:19:03

**2471.5MHz**

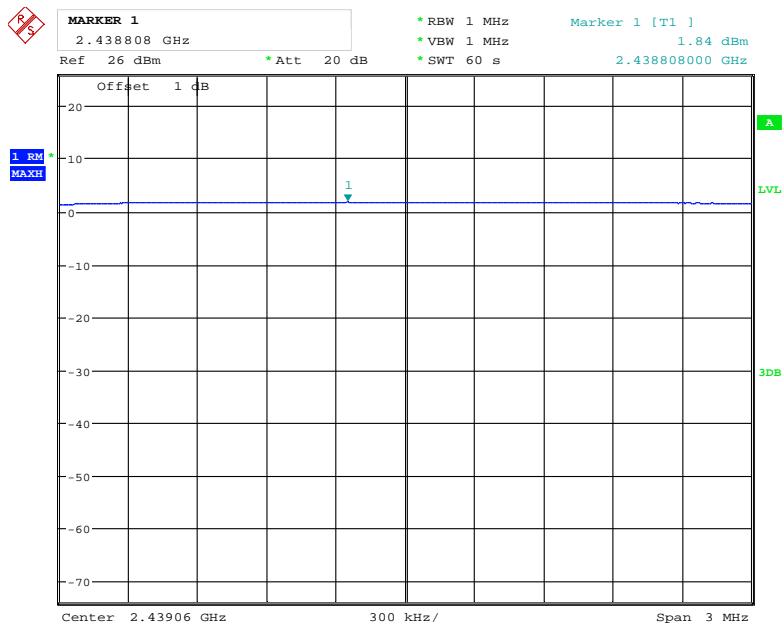
Date: 23.NOV.2018 18:13:49

**Chain 1  
10M**
**2406.5MHz**

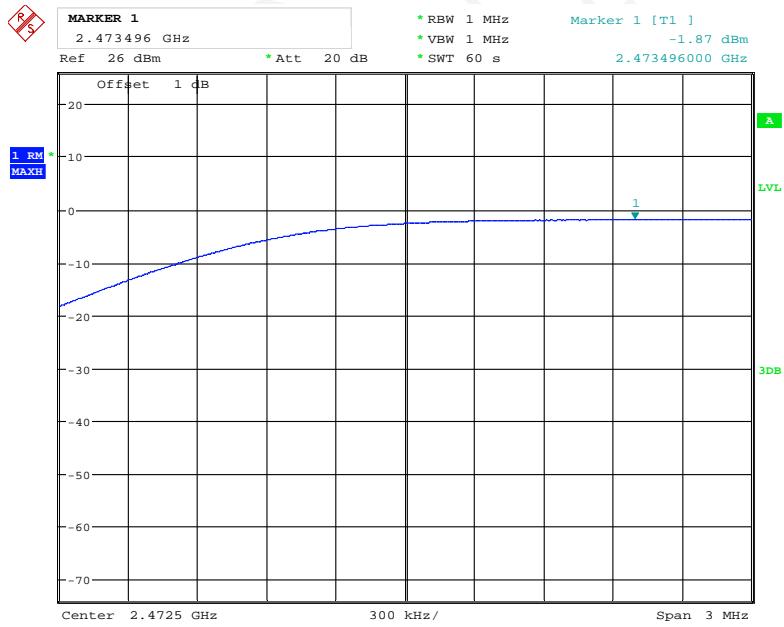
Date: 22.NOV.2018 15:22:25

**2411.5MHz**

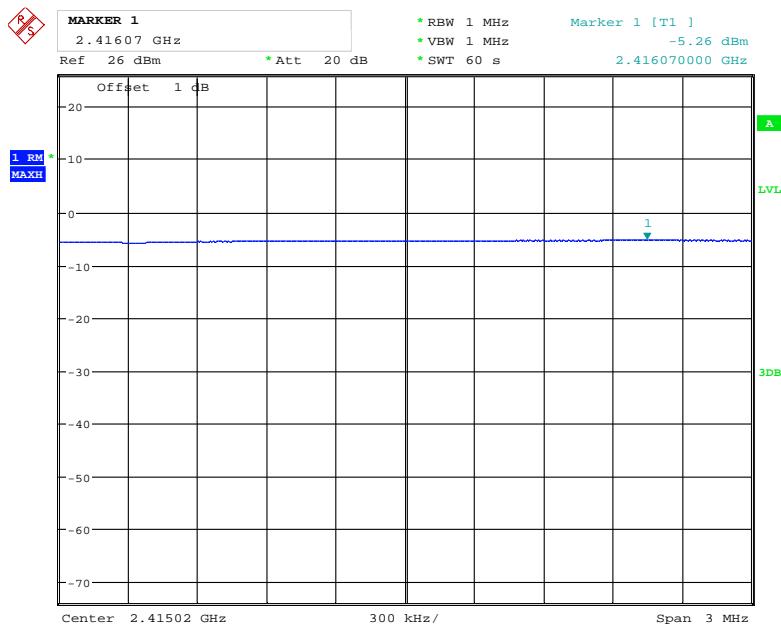
Date: 24.NOV.2018 17:03:02

**2441.5MHz**

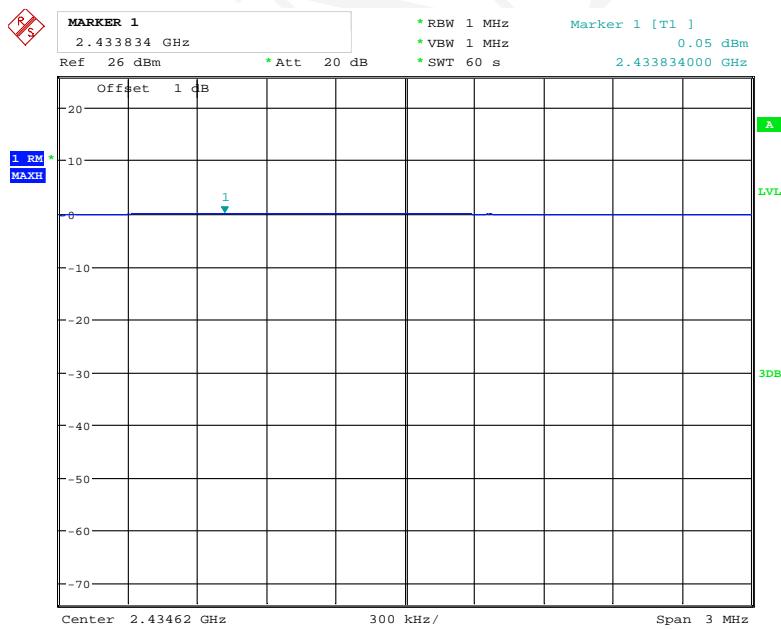
Date: 22.NOV.2018 15:20:42

**2476.5MHz**

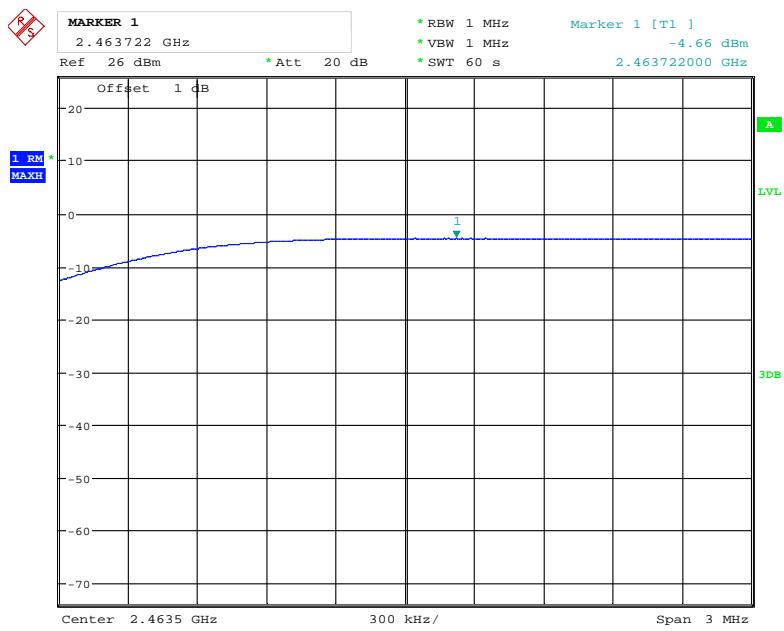
Date: 22.NOV.2018 15:24:07

**20M:****2411.5MHz**

Date: 22.NOV.2018 15:17:33

**2441.5MHz**

Date: 22.NOV.2018 15:19:12

**2471.5MHz**

Date: 22.NOV.2018 15:15:36

## **RECEIVER SPURIOUS EMISSION AND UNWANTED EMISSION INTENSITY**

### **Limit**

- $\leq 4 \text{ nW}$  ( $30 \text{ MHz} \leq f \leq 1000 \text{ MHz}$ )
- $\leq 20 \text{ nW}$  ( $1 \text{ GHz} \leq f \leq 12.5 \text{ GHz}$ )

### **Test Procedure**

- ❖ Conditions of Application Equipment (EUT)
  - The modulation state shall be “continuous receiving mode”.
- ❖ Spectrum Analyzer Conditions
  - Start Frequency: Start Frequency of frequency range to measure (30MHz or 1GHz)
  - Stop Frequency: Stop Frequency of frequency range to measure (1GHz or 12.5GHz)
  - Span: AUTO (Measurement Range)
  - RBW: 100 kHz, VBW: 100 kHz for Frequency < 1 GHz
  - RBW: 1MHz, VBW: 1MHz for Frequency > 1 GHz
  - Sweep time: AUTO or more
  - Sweep mode: Auto Sweep
  - Detection: Positive Peak
  - Reference Level: Enough level for maximum dynamic range

## Measurement Result

### Environmental Conditions

<b>Temperature:</b>	25.5°C
<b>Relative Humidity:</b>	45 %
<b>ATM Pressure:</b>	100.6 kPa

The testing was performed by Elena Lei on 2018-11-22.

**Test Result:** Compliant, please see the below tables and plots

*Test Mode: Receiving*

Chain 0

*10M mode:*

	Frequency band	Low Channel			Middle Channel			High Channel			Limit
		LV	NV	HV	LV	NV	HV	LV	NV	HV	
<b>Raw data Chain 0</b>	Band VI dBm	-70.34	-70.62	-70.92	-70.49	-70.71	-70.86	-69.38	-69.69	-69.73	- 54dBm
	Band VII dBm	-68.31	-68.85	-68.92	-70.82	-70.31	-70.60	-70.53	-70.68	-70.45	- 47dBm
<b>Unwanted Emission Intensity Chain 0</b>	Band VI nW	0.09247	0.08670	0.08091	0.08933	0.08492	0.08204	0.11535	0.10740	0.10641	4nW
	Band VII nW	0.14757	0.13032	0.12823	0.08279	0.09311	0.08710	0.08851	0.08551	0.09016	20nW

*20M mode:*

	Frequency band	Low Channel			Middle Channel			High Channel			Limit
		LV	NV	HV	LV	NV	HV	LV	NV	HV	
<b>Raw data Chain 0</b>	Band VI dBm	-69.93	-69.76	-70.04	-70.66	-70.13	-70.34	-70.08	-70.28	-70.72	- 54dBm
	Band VII dBm	-70.66	-70.22	-70.07	-70.21	-70.73	-70.46	-71.31	-71.12	-70.82	- 47dBm
<b>Unwanted Emission Intensity Chain 0</b>	Band VI nW	0.10162	0.10568	0.09908	0.08590	0.09705	0.09247	0.09817	0.09376	0.08472	4nW
	Band VII nW	0.08590	0.09506	0.09840	0.09528	0.08453	0.08995	0.07396	0.07727	0.08279	20nW

Chain 1

10M mode:

	Frequency band	Low Channel			Middle Channel			High Channel			Limit
		LV	NV	HV	LV	NV	HV	LV	NV	HV	
<b>Raw data Chain 1</b>	Band VI dBm	-70.45	-69.99	-70.18	-70.56	-70.79	-71.08	-69.96	-70.08	-70.41	- 54dBm
	Band VII dBm	-70.41	-70.19	-70.06	-69.55	-69.82	-69.95	-57.47	-57.66	-57.25	- 47dBm
<b>Unwanted Emission Intensity Chain 1</b>	Band VI nW	0.09016	0.10023	0.09594	0.08790	0.08337	0.07798	0.10093	0.09817	0.09099	4nW
	Band VII nW	0.09099	0.09572	0.09863	0.11092	0.10423	0.10116	1.79061	1.71396	1.88365	20nW

20M mode:

	Frequency band	Low Channel			Middle Channel			High Channel			Limit
		LV	NV	HV	LV	NV	HV	LV	NV	HV	
<b>Raw data Chain 1</b>	Band VI dBm	-70.38	-70.15	-70.00	-69.72	-69.60	-69.57	-69.85	-69.92	-69.69	- 54dBm
	Band VII dBm	-69.26	-69.07	-69.36	-70.17	-69.89	-69.64	-68.57	-68.48	-68.70	- 47dBm
<b>Unwanted Emission Intensity Chain 1</b>	Band VI nW	0.09162	0.09661	0.10000	0.10666	0.10965	0.11041	0.10351	0.10186	0.10740	4nW
	Band VII nW	0.11858	0.12388	0.11588	0.09616	0.10257	0.10864	0.13900	0.14191	0.13490	20nW

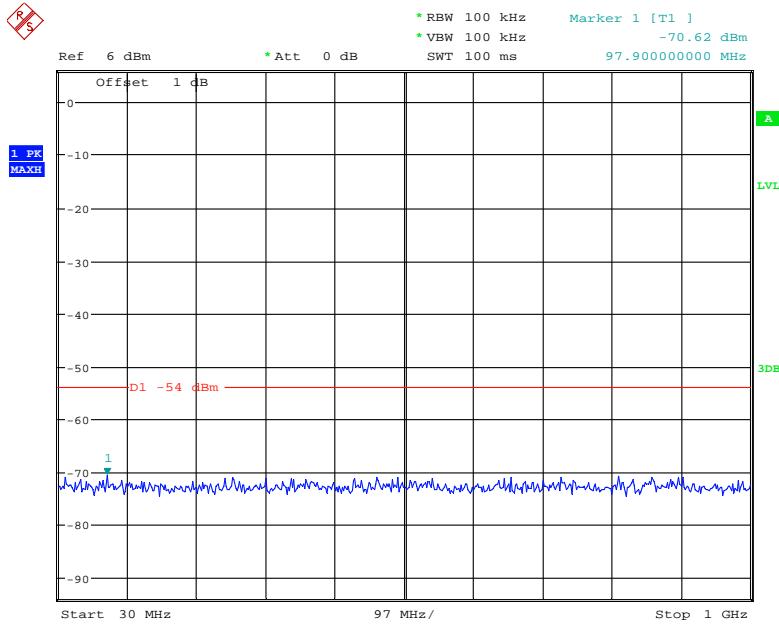
Note: Band VI: 30MHz~1000MHz Band VII: 1000MHz~12500MHz

Please refer to the plots below for normal voltage.

**Chain 0: 10M mode,**

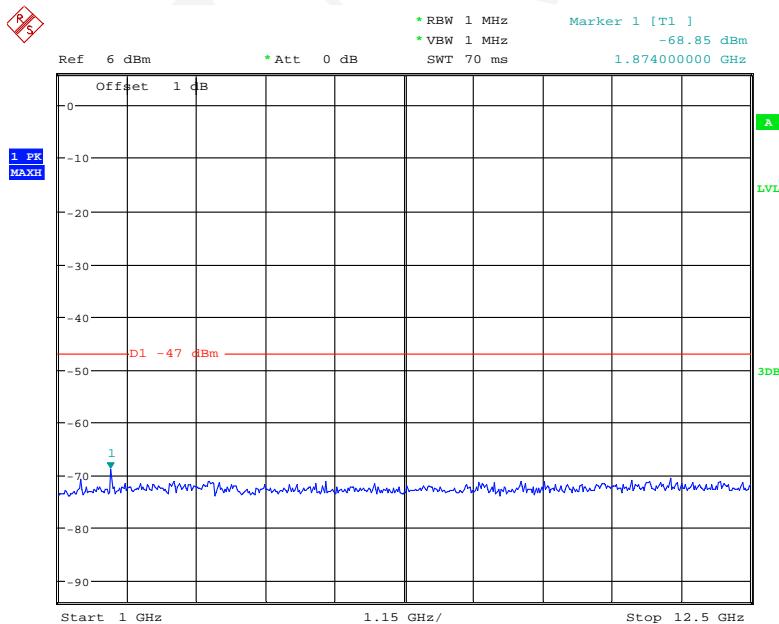
**Test Frequency: 2406.5MHz**

**30MHz ~ 1000MHz**



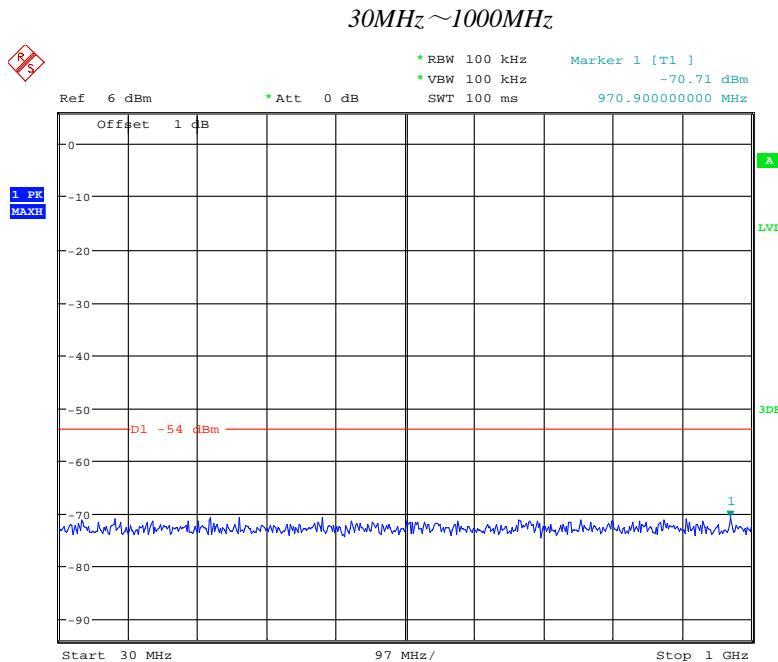
Date: 22.NOV.2018 16:04:10

**1000MHz ~ 12500MHz**

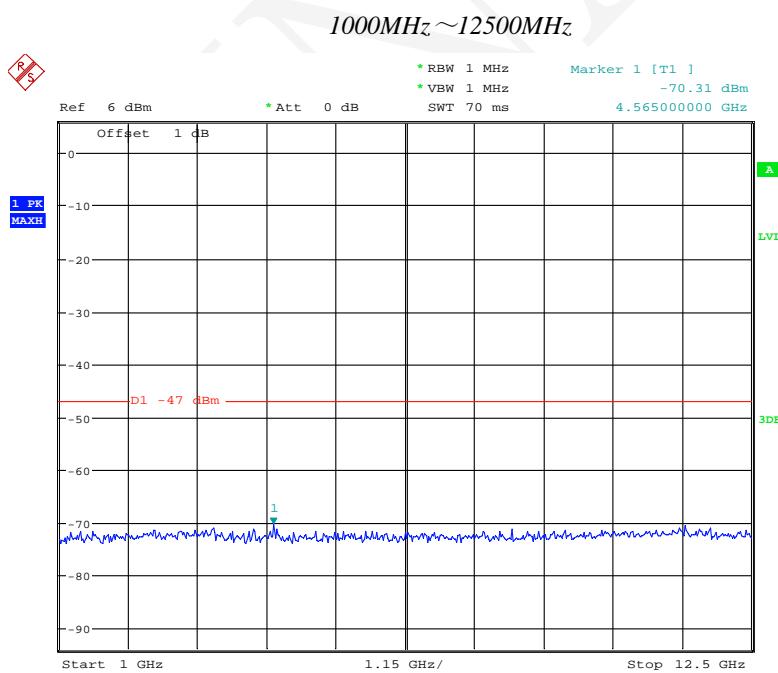


Date: 22.NOV.2018 15:54:42

Test Frequency: 2441.5MHz:

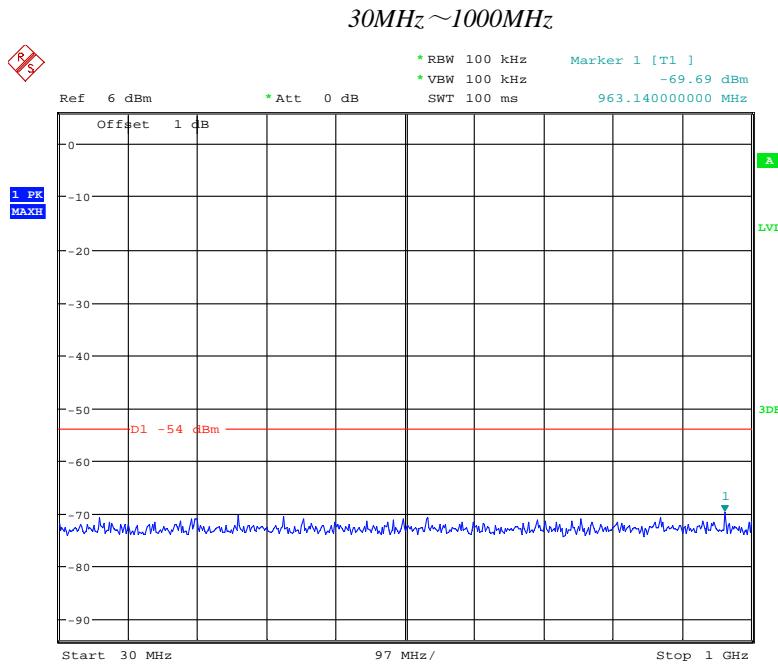


Date: 22.NOV.2018 16:03:24

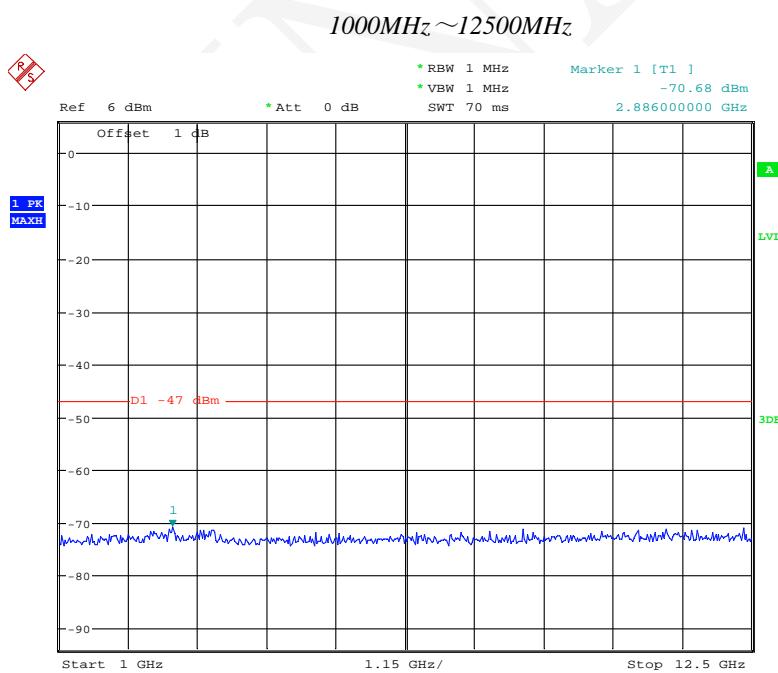


Date: 22.NOV.2018 15:54:25

Test Frequency: 2476.5MHz:



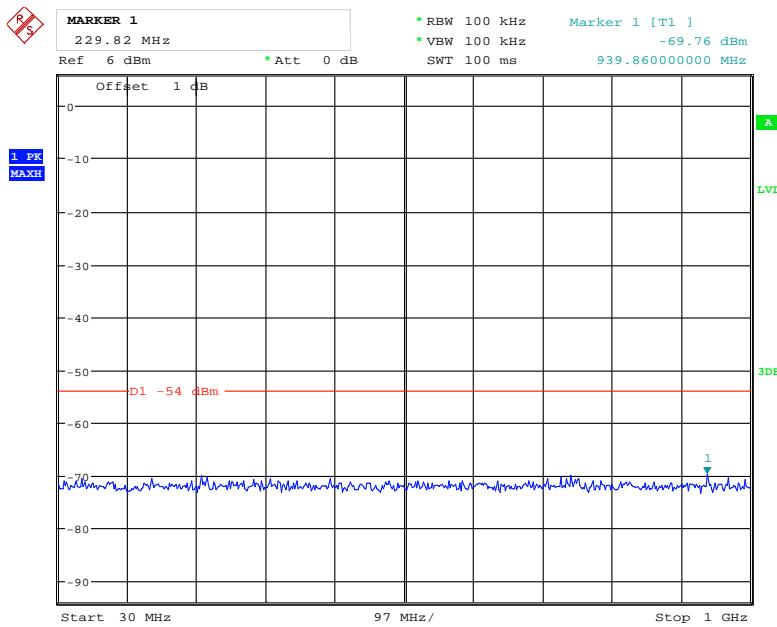
Date: 22.NOV.2018 16:03:16



Date: 22.NOV.2018 15:54:16

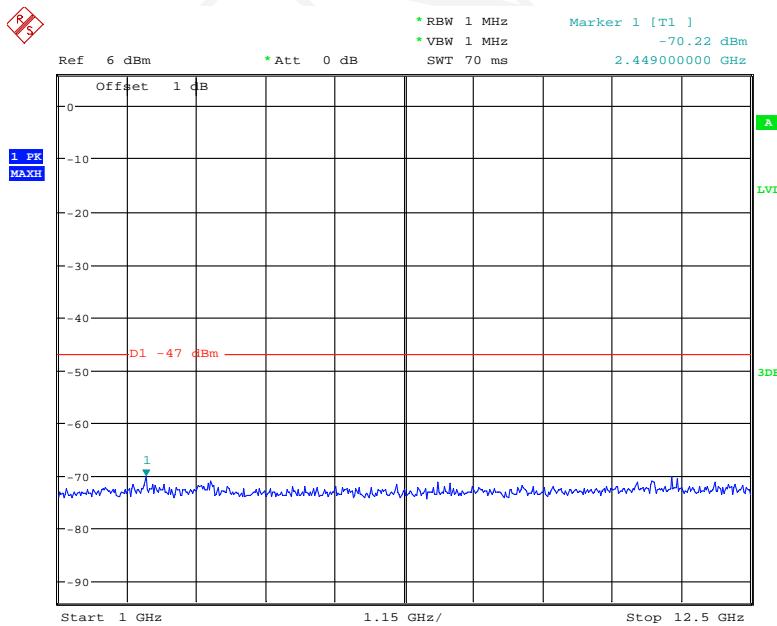
**20M mode,**  
Test Frequency: 2411.5MHz

30MHz ~ 1000MHz



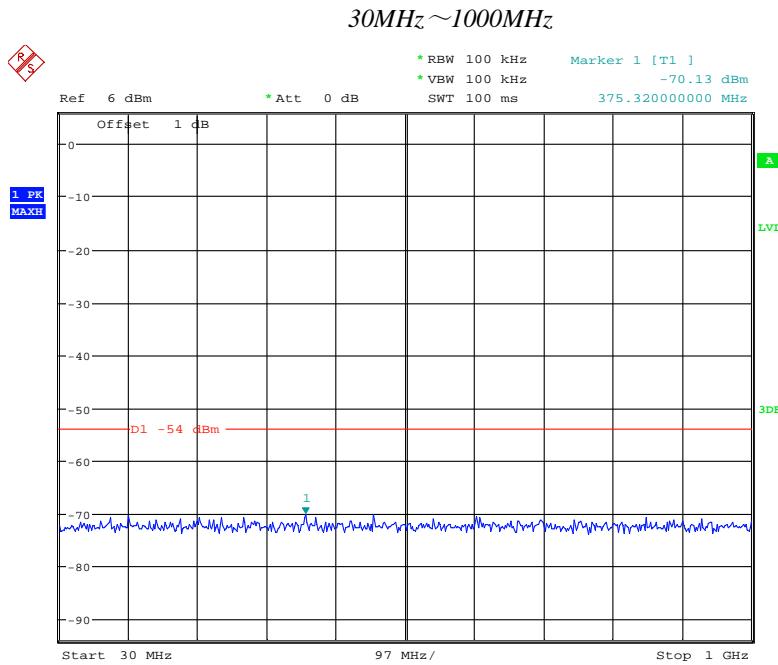
Date: 22.NOV.2018 16:02:04

1000MHz ~ 12500MHz

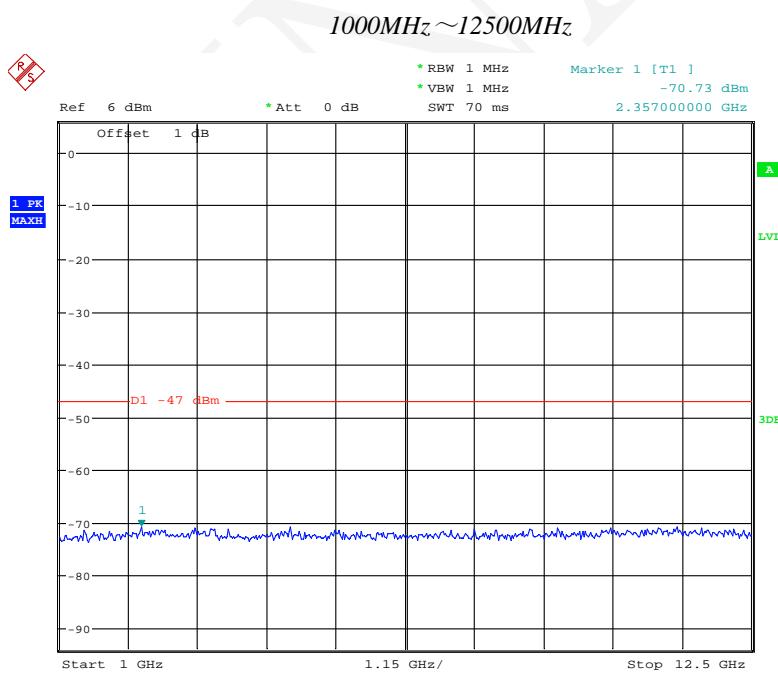


Date: 22.NOV.2018 16:00:03

Test Frequency: 2441.5MHz:

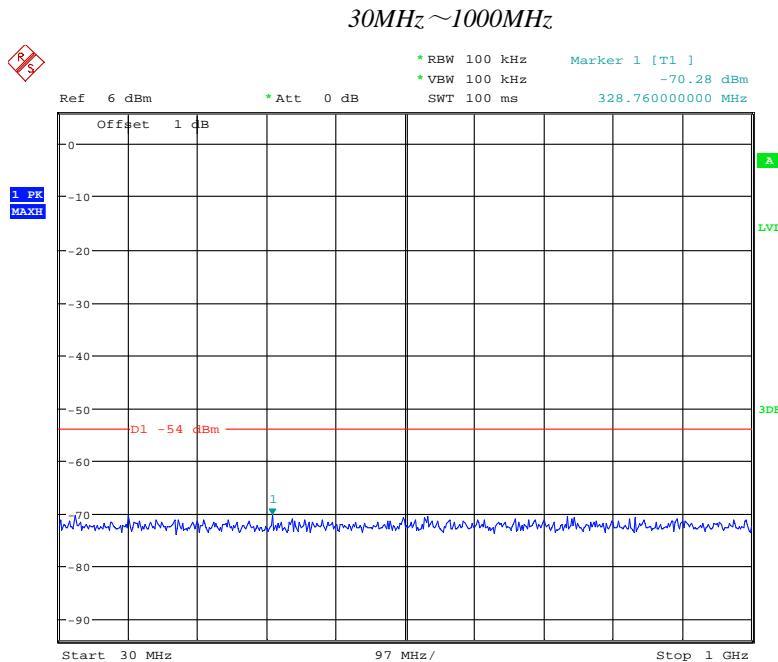


Date: 22.NOV.2018 16:02:37

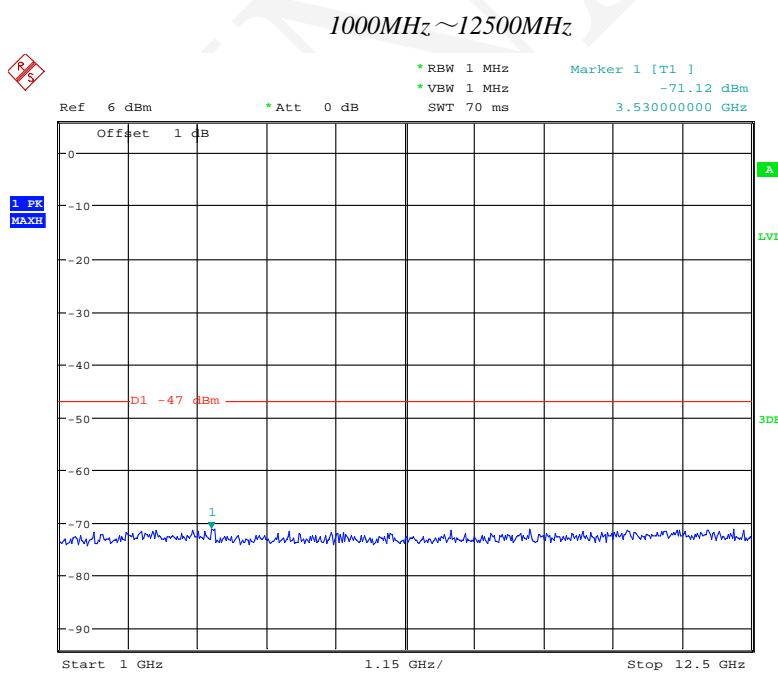


Date: 22.NOV.2018 15:59:50

Test Frequency: 2471.5MHz:



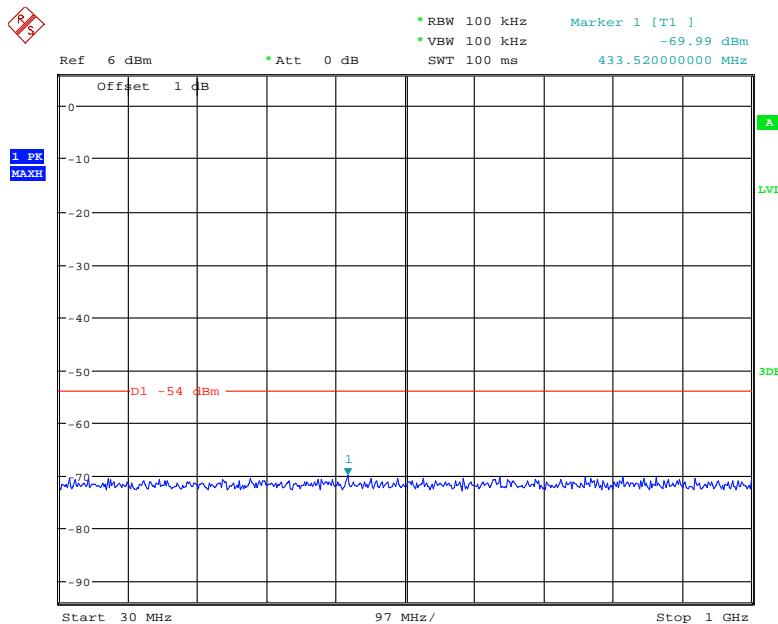
Date: 22.NOV.2018 16:02:48



Date: 22.NOV.2018 15:59:41

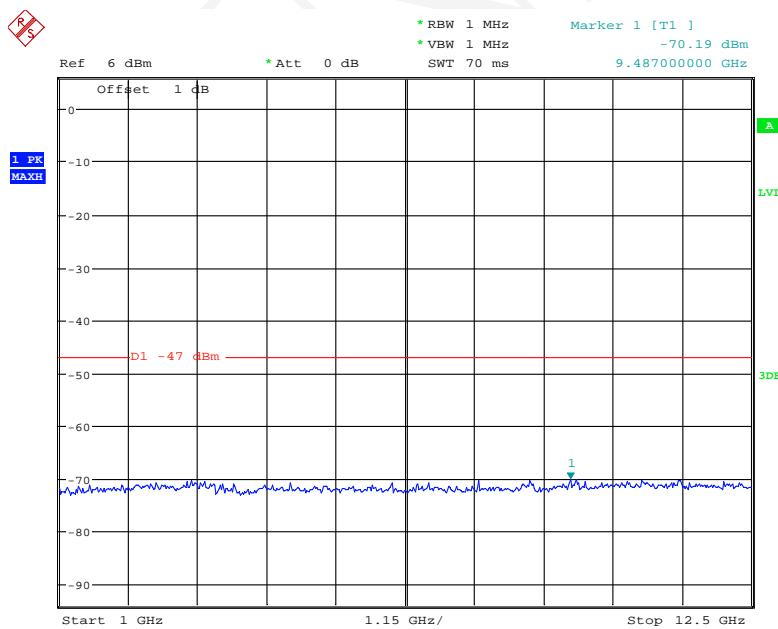
**Chain 1: 10M mode,**  
**Test Frequency: 2406.5MHz**

30MHz ~ 1000MHz



Date: 22.NOV.2018 16:04:01

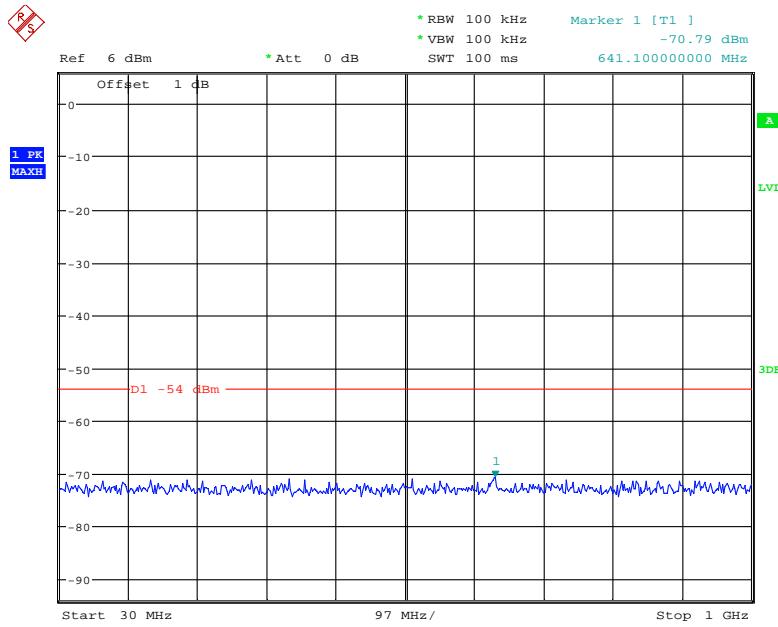
1000MHz ~ 12500MHz



Date: 22.NOV.2018 15:53:36

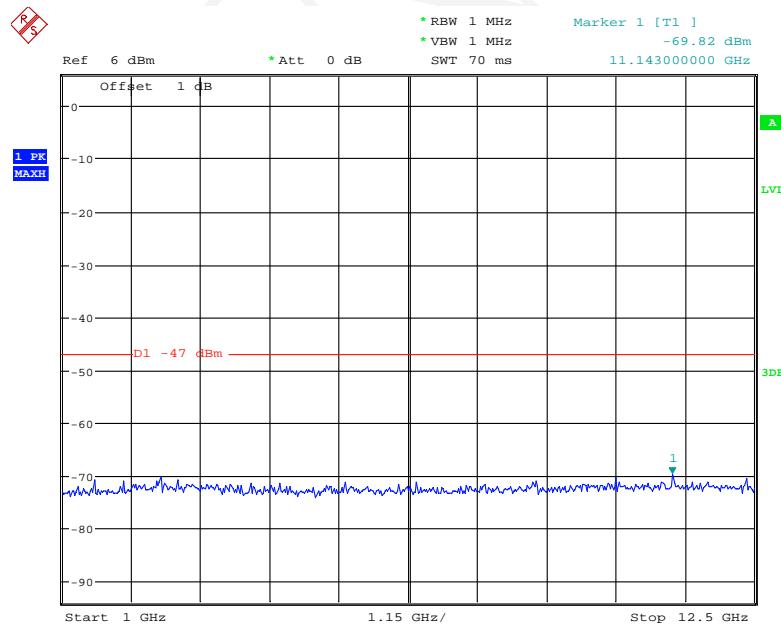
Test Frequency: 2441.5MHz:

*30MHz ~ 1000MHz*



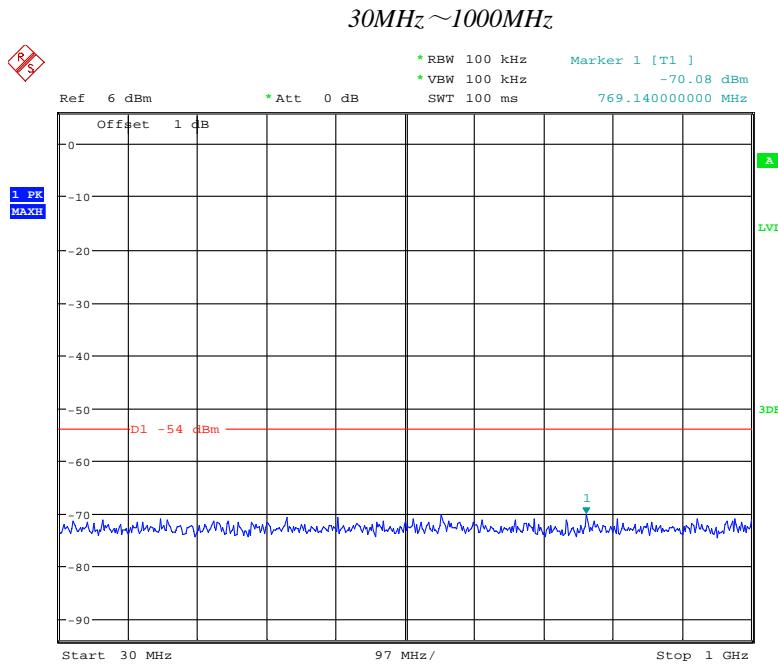
Date: 22.NOV.2018 16:03:33

*1000MHz ~ 12500MHz*

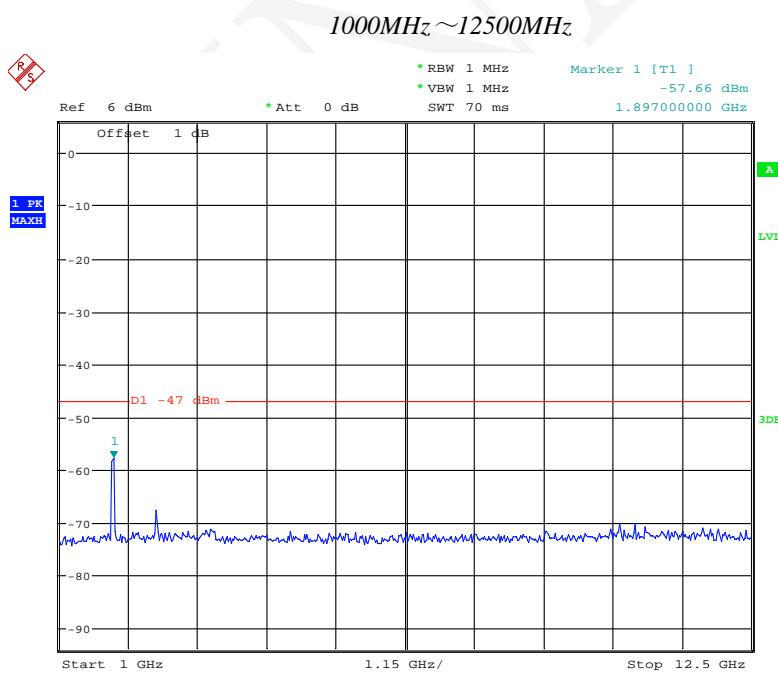


Date: 22.NOV.2018 15:53:46

Test Frequency: 2476.5MHz:



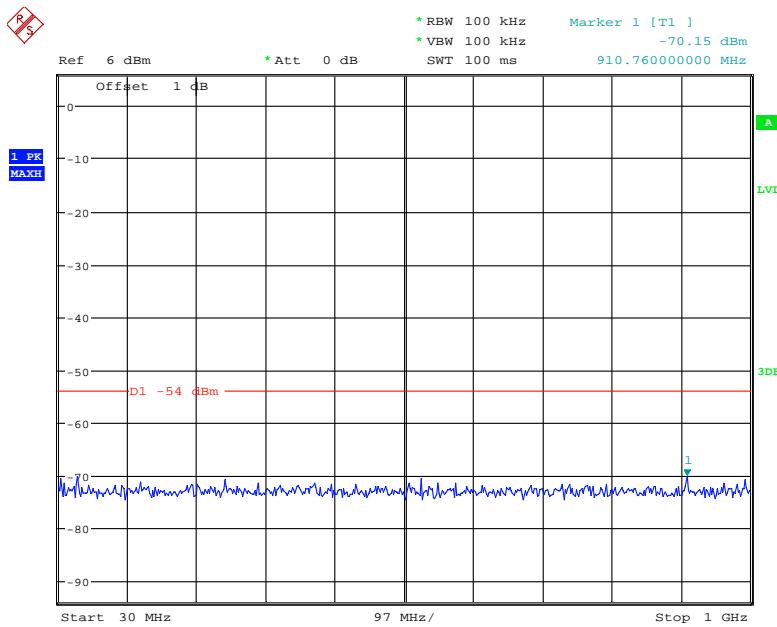
Date: 22.NOV.2018 16:03:08



Date: 22.NOV.2018 15:53:58

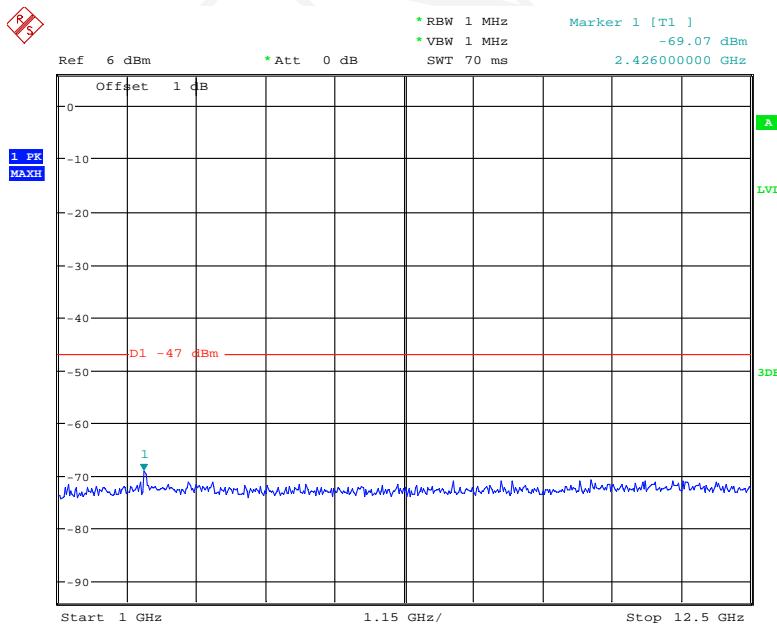
**20M mode,**  
Test Frequency: 2411.5MHz

30MHz ~ 1000MHz



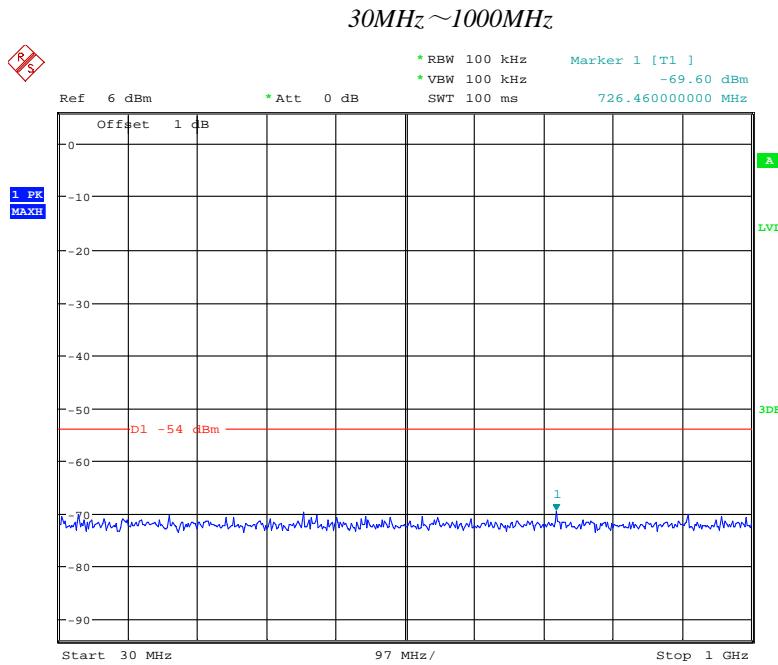
Date: 22.NOV.2018 16:02:17

1000MHz ~ 12500MHz

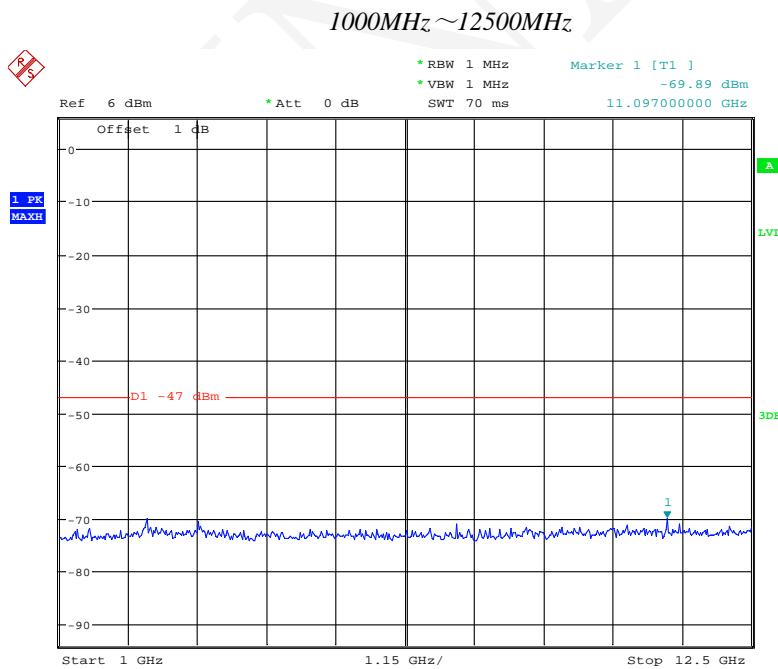


Date: 22.NOV.2018 15:59:03

Test Frequency: 2441.5MHz:



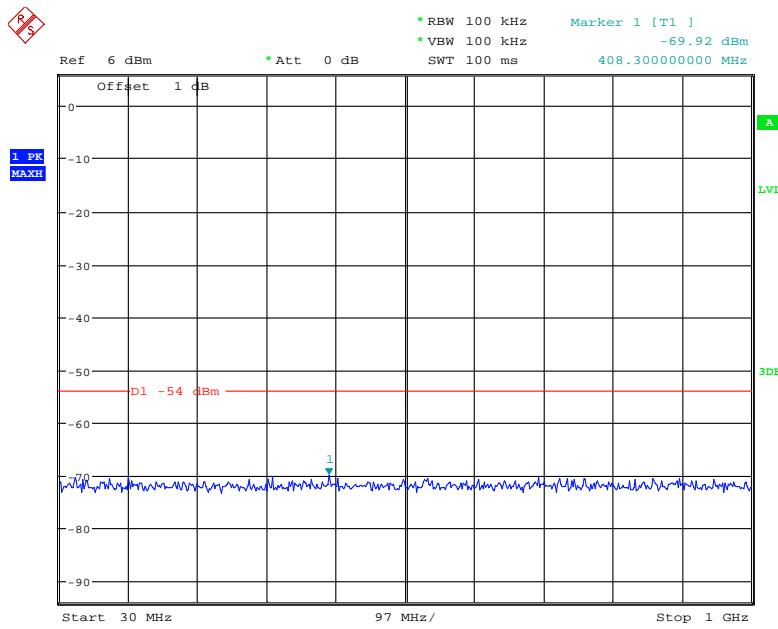
Date: 22.NOV.2018 16:02:28



Date: 22.NOV.2018 15:59:17

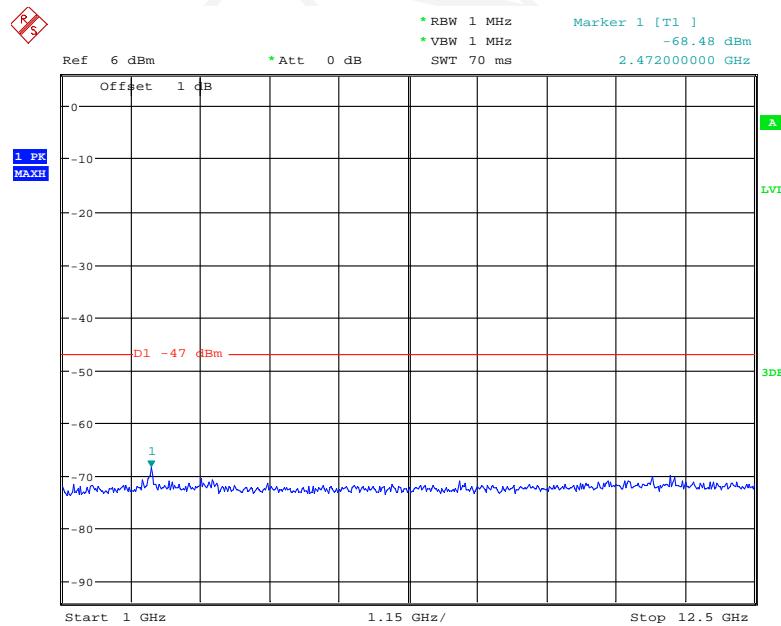
Test Frequency: 2471.5MHz:

*30MHz ~1000MHz*



Date: 22.NOV.2018 16:02:58

*1000MHz ~12500MHz*



Date: 22.NOV.2018 15:59:28

## **INTERFERENCE PREVENTION FUNCTION**

### **Requirement**

The EUT shall have the interference prevention capability to transmit or to receive the identification automatically, so that sender and receiver shall exclude other equipment.

### **Test Procedure**

In the case that the EUT has the function of automatically transmitting the identification code:

1. Transmit the predetermined identification codes from EUT
2. Check the transmitted identification codes with the demodulator.

In the case of receiving the identification codes:

1. Transmit the predetermined identification codes from the counterpart.
2. Check if communication is normal
3. Transmit the signal other than predetermined ID codes from the counterpart.
4. Check if the EUT stops the transmission, or if it displays that identification codes are different from the predetermined ones.

### **Measurement Result**

#### **Environmental Conditions**

<b>Temperature:</b>	25.5°C
<b>Relative Humidity:</b>	45 %
<b>ATM Pressure:</b>	100.6 kPa

*The testing was performed by Elena Lei on 2018-11-22.*

**Test Result:** Good

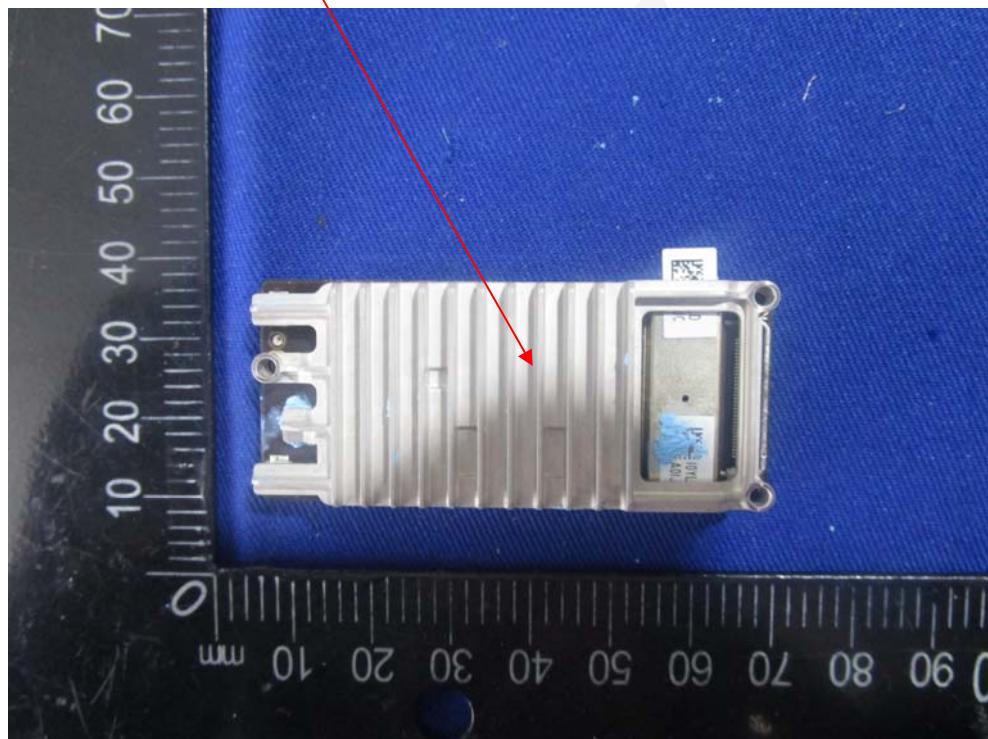
## **CONSTRUCTION PROTECTION CONFIRMATION**

### **Limit**

The high-frequency section and modulation section of the radio equipment except for the antenna system shall not be capable of being opened easily.

### **Confirmation Method**

The EUT has shielding cover the high-frequency section except for the antenna system, the shielding can't be opened easily. Please refer the EUT photo.



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