TESTING LABORATORY
CERTIFICATE #4820.01

FCC PART 15.407

RSS-GEN, ISSUE 5, AMENDMENT 1, MARCH 2019

RSS-247, ISSUE 2, FEBRUARY 2017

TEST REPORT

For

SZ DJI TECHNOLOGY CO., LTD

14th floor, West Wing, Skyworth Semiconductor Design Building NO.18 Gaoxin South 4th Ave, Nanshan, Shenzhen, Guangdong, China

FCC ID: SS3-M3001910
IC: 11805A-M3001910

Report Type:	**Product Type:**
Original Report	Matrice 300 RTK

Report Number: RDG191226014-00B

Report Date: 2020-02-28

Reviewed By: Ivan Cao
Assistant Manager

Test Laboratory: Bay Area Compliance Laboratories Corp. (Dongguan)
No.69 Pulongcun, Puxinhu Industry Area,
Tangxia, Dongguan, Guangdong, China
Tel: +86-769-86858888
Fax: +86-769-86858891
www.baclcorp.com.cn

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GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

EUT Name:	Matrice 300 RTK
EUT Model:	M300
Operation Frequency:	1.4M: 5728.5-5846.5 MHz 3M:5730.5-5844.5 MHz 10M: 5730.5-5844.5 MHz 20M: 5735.5-5839.5 MHz 40M: 5745.5-5829.5 MHz
Maximum Peak Output Power (Conducted):	1.4M:26.12 dBm 3M: 25.86 dBm 10M:25.99 dBm 20M: 26.30 dBm 40M: 26.21 dBm
Modulation Type:	OFDM
Rated Input Voltage:	52.8Vdc from battery
Serial Number:	RDG191226014-RF-S4
EUT Received Date:	2020.12.25
EUT Received Status:	Good

Objective

This type approval report is prepared on behalf of ***SZ DJI TECHNOLOGY CO., LTD*** in accordance with Part 2-Subpart J, Part 15-Subparts A, and E of the Federal Communications Commission's rules. And RSS-247, Issue 2, February 2017, RSS-Gen Issue 5, Amendment 1, March 2019 of the Innovation, Science and Economic Development Canada.

The tests were performed in order to determine compliance with FCC Rules Part 15, Subpart E, section 15.203, 15.205, 15.207, 15.209 and 15.407 rules and RSS-247, Issue 2, February 2017, RSS-Gen Issue 5, Amendment 1, March 2019 of the Innovation, Science and Economic Development Canada.

Related Submittal(s)/Grant(s)

FCC Part 15C DTS submissions with FCC ID: SS3-M3001910
RSS-247 submissions with IC: 11805A-M3001910
Part of system submissions with FCC ID: SS3-RM500E1910, IC: 11805A- RM500E1910.

Test Methodology

All measurements contained in this report were conducted with ANSI C63.10-2013, American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices. And KDB 789033 D02 General U-NII Test Procedures New Rules v02r01, and RSS-247, Issue 2, February 2017, RSS-Gen Issue 5, Amendment 1, March 2019 of the Innovation, Science and Economic Development Canada.

All emissions measurement was performed and Bay Area Compliance Laboratories Corp. (Dongguan).

Measurement Uncertainty

Parameter	Measurement Uncertainty
Occupied Channel Bandwidth	±5 %
RF output power, conducted	±0.61dB
Power Spectral Density, conducted	±0.61 dB
Unwanted Emissions, radiated	30M~200MHz: 4.58 dB for Horizontal, 4.59 dB for Vertical 200M~1GHz: 4.83 dB for Horizontal, 5.85 dB for Vertical 1G~6GHz: 4.45 dB, 6G~40GHz: 5.23 dB
Unwanted Emissions,conducted	±1.5 dB
Temperature	±1℃
Humidity	±5%
DC and low frequency voltages	±0.4%
Duty Cycle	1%
AC Power Lines Conducted Emission	3.12 dB (150 kHz to 30 MHz)

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

Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Dongguan) to collect test data is located on the No.69 Pulongcun, Puxinhu Industry Area, Tangxia, Dongguan, Guangdong, China.

The lab has been recognized as the FCC accredited lab under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database, FCC Registration No. : 897218, the FCC Designation No. : CN1220.

The lab has been recognized by Innovation, Science and Economic Development Canada to test to Canadian radio equipment requirements, the CAB identifier: CN0022.

Declarations

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 a triangle symbol "△". Customer model name, addresses, names, trademarks etc. are not considered data.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

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SYSTEM TEST CONFIGURATION

Description of Test Configuration

The EUT was configured for testing in an engineering mode which was provided by the manufacturer.

The EUT has 2 antennas, for 1.4MHz, 3MHz modes, the system configure 1T1R depending on better performance by the system automatically recognizes.

For 1.4M mode, 60 channels are provided to testing:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	5728.5	31	5788.5
2	5730.5	…	…
…	…	…	…
…	…		
29	5784.5	59	5844.5
30	5786.5	60	5846.5

3 channels were tested:5728.5MHz, 5784.5MHz and 5846.5MHz

For 3M mode, 39 channels are provided to testing:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	5730.5	21	5790.5
2	5733.5	…	…
…	…	…	…
…	…	38	5841.5
…	…	39	5844.5
20	5787.5	/	/

3 channels were tested: 5730.5MHz, 5787.5MHz and 5844.5MHz

For 10MHz, 20MHz, 40MHz modes, All modes support SISO and MIMO. All test item test with SISO and MIMO mode except bandwidth test.

For 10M mode, 115 channels are provided for testing:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	5730.5	59	5788.5
2	5731.5	…	…
…	…	…	…
…	…	114	5843.5
..	…	115	5844.5
58	5787.5	/	/

3 channels were tested:5730.5MHz, 5787.5MHz and 5844.5MHz

For 20M mode, 105 channels are provided for testing:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	5735.5	54	5788.5
2	5736.5	…	…
…	…	…	…
…	…	104	5838.5
..	…	105	5839.5
53	5787.5	/	/

3 channels were tested:5735.5MHz, 5787.5MHz and 5839.5MHz

For 40M mode, 85 channels are provided for testing:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	5745.5	44	5788.5
2	5746.5	…	…
…	…	…	…
…	…	84	5828.5
..	…	85	5829.5
43	5787.5	/	/

3 channels were tested:5745.5MHz, 5787.5MHz and 5829.5MHz

Equipment Modifications

No modification was made to the EUT tested.

EUT Exercise Software

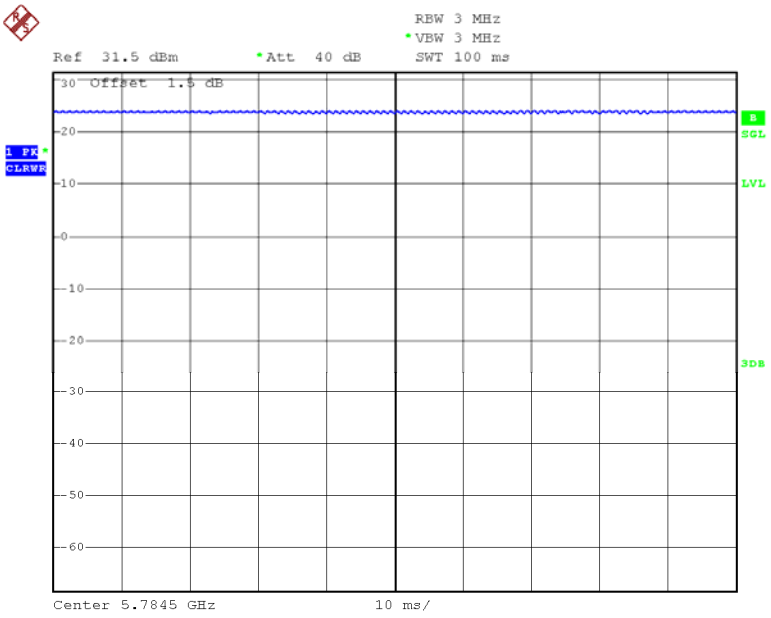
The software “DjiSdrConsole.exe” was used for testing, which was provided by manufacturer. The maximum power with maximum duty cycle was configured as following setting:

Mode	Channel	Test Frequency (MHz)	SISO Mode		MIMO Mode
			Chain 0	Chain 1	Chain 0&1
1.4M	Low	5728.5	13	13	/
	Middle	5784.5	13	13	/
	High	5846.5	13	13	/
3M	Low	5730.5	13	12	/
	Middle	5787.5	13	12	/
	High	5844.5	14	13	/
10M	Low	5730.5	4	3	1
	Middle	5787.5	4	4	1
	High	5844.5	5	5	2
20M	Low	5735.5	5	3	2
	Middle	5787.5	4	3	3
	High	5839.5	4	2	2
40M	Low	5745.5	4	4	2
	Middle	5787.5	4	4	2
	High	5829.5	4	5	3

The maximum duty cycle as following table:

Test mode	T_{on} (ms)	T_{on+off} (ms)	Duty Cycle (%)
1.4M	100	100	100
3M	1.54	2.00	77
10M	100	100	100
20M	100	100	100
40M	100	100	100

1.4M



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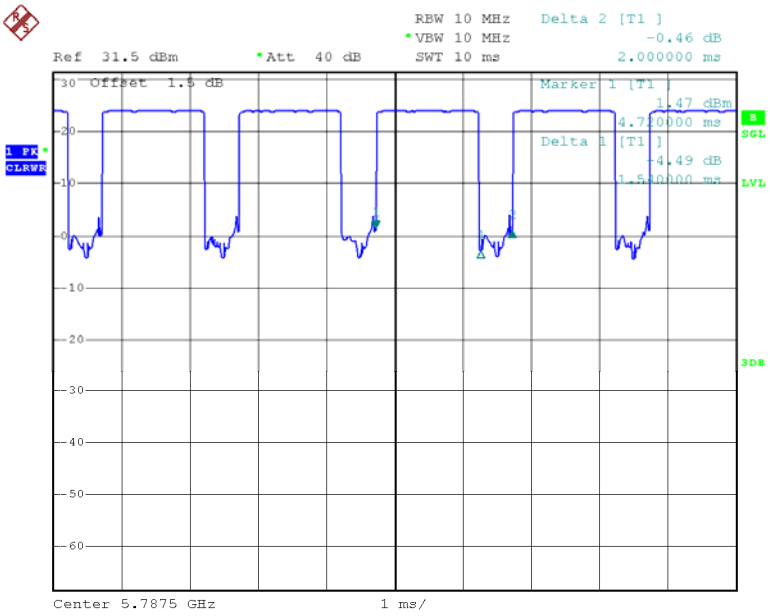
3M



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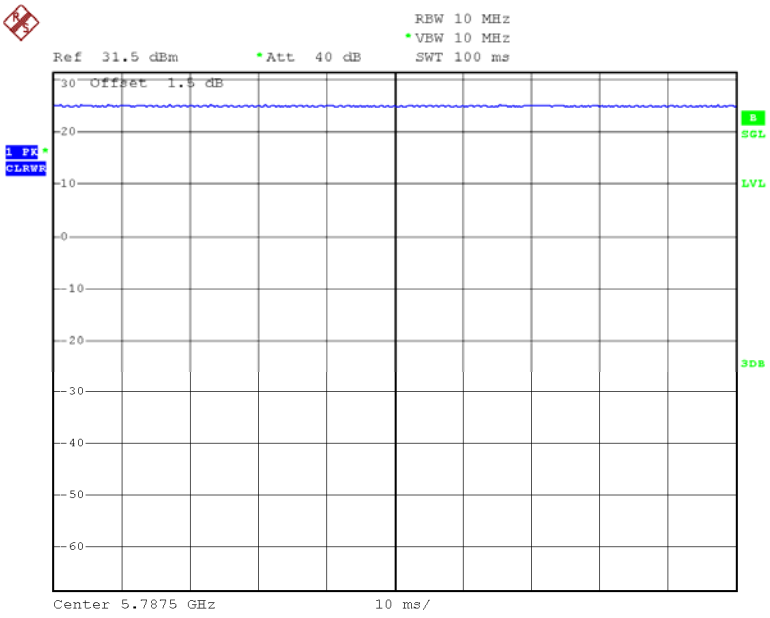
10M



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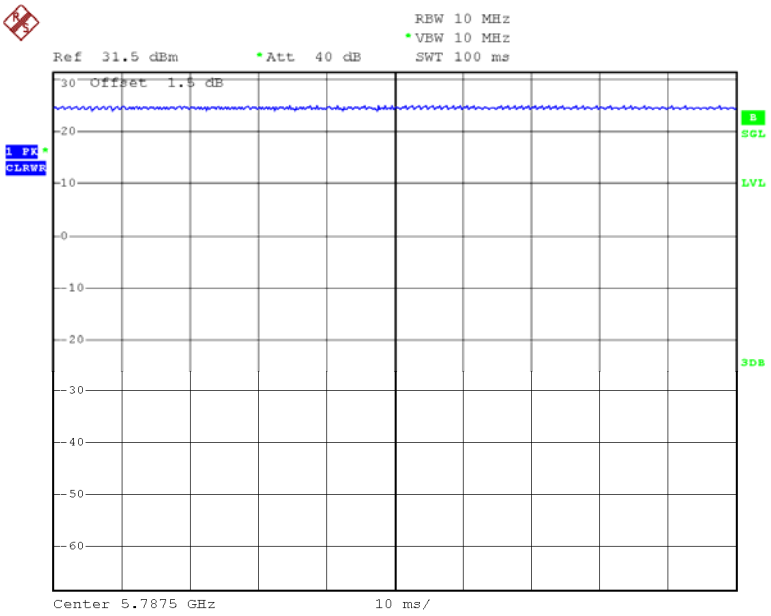
20M



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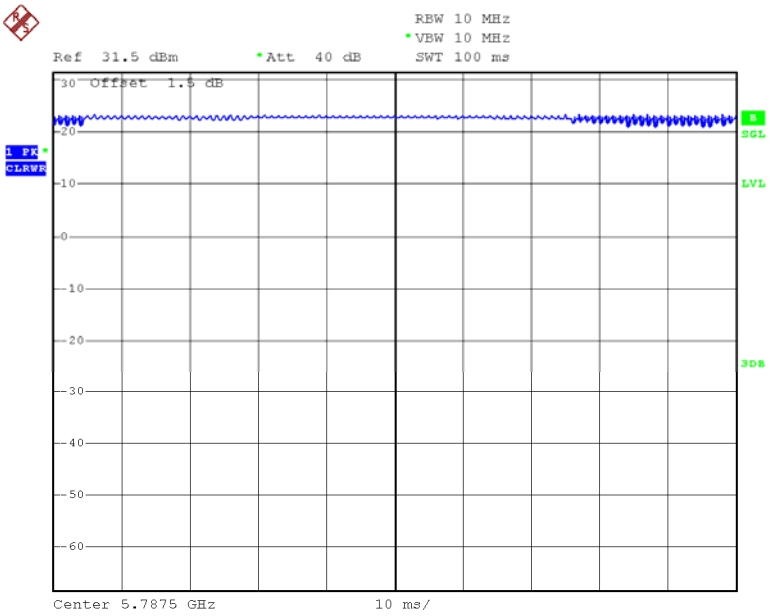
40M



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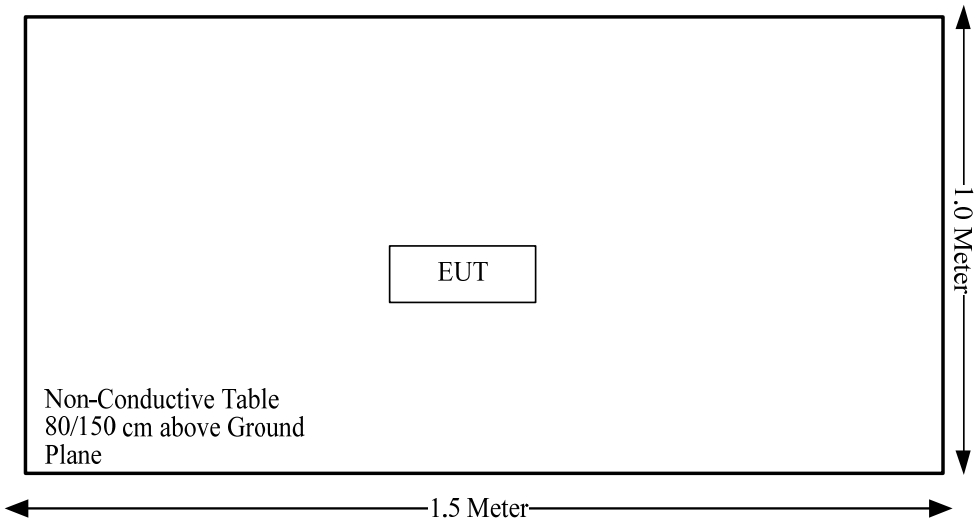
Block Diagram of Test Setup



SUMMARY OF TEST RESULTS

Rules	Description of Test	Result
§15.407 (f) & §1.1310 & §2.1091	Maximum Permissable Exposure (MPE)	Compliance
RSS-102 § 2.5.2	Exemption Limits For Routine Evaluation-RF Exposure Evaluation	Compliance
FCC§15.203, RSS-Gen Clause 6.8	Antenna Requirement	Compliance
FCC§15.407(b)(6)& §15.207(a), RSS-Gen Clause 8.8	Conducted Emissions	Not applicable
FCC§15.205& §15.209 &§15.407(b), RSS-247 Clause 6.2	Undesirable Emission& Restricted Bands	Compliance
FCC§15.407(a) (e), RSS-247 Clause 6.2 RSS-Gen Clause 6.7	Emission Bandwidth	Compliance
FCC§15.407(a) RSS-247 Clause 6.2	Conducted Transmitter Output Power	Compliance
FCC§15.407 (a), RSS-247 Clause 6.2	Power Spectral Density	Compliance

Not Applicable: the device was powered by battery when operation.

FCC §15.407 (f) & §1.1310 & §2.1091- MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Applicable Standard

According to subpart 15.407(f)and subpart §1.1310, systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

Limits for Maximum Permissible Exposure (MPE) (§1.1310, §2.1091)

(B) Limits for General Population/Uncontrolled Exposure				
Frequency Range (MHz)	**Electric Field Strength (V/m)**	**Magnetic Field Strength (A/m)**	**Power Density (mW/cm^2)**	**Averaging Time (minutes)**
0.3–1.34	614	1.63	*(100)	30
1.34–30	824/f	2.19/f	*(180/f^2)	30
30–300	27.5	0.073	0.2	30
300–1500	/	/	f/1500	30
1500–100,000	/	/	1.0	30

f = frequency in MHz; * = Plane-wave equivalent power density;

According to §1.1310 and §2.1091 RF exposure is calculated.

Calculation formula:

Prediction of power density at the distance of the applicable MPE limit
$S = PG/4\pi R^2$ = power density (in appropriate units, e.g. mW/cm^2);
P = power input to the antenna (in appropriate units, e.g., mW);
G = power gain of the antenna in the direction of interest relative to an isotropic radiator, the power gain factor, is normally numeric gain;
R = distance to the center of radiation of the antenna (appropriate units, e.g., cm);

Calculated Data:

Modes	**Frequency (MHz)**	**Antenna Gain**		**Conducted output power including Tune-up Tolerance**		**Evaluation Distance (cm)**	**Power Density (mW/cm^2)**	**MPE Limit (mW/cm^2)**
		(dBi)	**(numeric)**	**(dBm)**	**(mW)**			
1.4M	5728.5-5846.5	2.44	1.75	27	501.19	20.00	0.17	1.0
3M	5730.5-5844.5	2.44	1.75	26	398.11	20.00	0.14	1.0
10M	5730.5-5844.5	2.44	1.75	26	398.11	20.00	0.14	1.0
20M	5735.5-5839.5	2.44	1.75	27	501.19	20.00	0.17	1.0
40M	5745.5-5829.5	2.44	1.75	27	501.19	20.00	0.17	1.0

Note:
The Max. Target Power including Tolerance was declared by manufacturer.
None of these 2.4GHz band or 5.8GHz band modes can transmit Simultaneously.

Result: Compliance, The device meets MPE requirement for Devices Used by the General Public (Uncontrolled Environment) at distance ≥20 cm.

RSS-102 § 2.5.2 - EXEMPTION LIMITS FOR ROUTINE EVALUATION – RF EXPOSURE EVALUATION

Applicable Standard

According to RSS-102 § (2.5.2):

RF exposure evaluation is required if the separation distance between the user and/or bystander and the device's radiating element is greater than 20 cm, except when the device operates as follows:

- below 20 MHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than 1 W (adjusted for tune-up tolerance);
- at or above 20 MHz and below 48 MHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than $4.49/f^{0.5}$ W (adjusted for tune-up tolerance), where f is in MHz;
- at or above 48 MHz and below 300 MHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than 0.6 W (adjusted for tune-up tolerance);
- at or above 300 MHz and below 6 GHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than $1.31 \times 10^{-2}\ f^{0.6834}$ W (adjusted for tune-up tolerance), where f is in MHz;
- at or above 6 GHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than 5 W (adjusted for tune-up tolerance).

In these cases, the information contained in the RF exposure technical brief may be limited to information that demonstrates how the e.i.r.p. was derived.

Calculated Data:

Mode	Frequency (MHz)	Antenna Gain	Conducted output power including Tune-up Tolerance	EIRP		Exemption limits (W)
		(dBi)	(dBm)	(dBm)	(W)	
1.4M	5728.5-5846.5	2.44	27	29.44	0.88	9.69
3M	5730.5-5844.5	2.44	26	28.44	0.70	9.69
10M	5730.5-5844.5	2.44	26	28.44	0.70	9.69
20M	5735.5-5839.5	2.44	27	29.44	0.88	9.70
40M	5745.5-5829.5	2.44	27	29.44	0.88	9.71

Note:
The Max. Target Power including Tolerance was declared by manufacturer.
None of these 2.4GHz band or 5.8GHz band modes can transmit Simultaneously.

So the device is compliance exemption from Routine Evaluation Limits –RF exposure Evaluation.

Result: Compliance

FCC §15.203& RSS-GEN CLAUSE 6.8 - ANTENNA REQUIREMENT

Applicable Standard

According to FCC§ 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the user of a standard antenna jack or electrical connector is prohibited. The structure and application of the EUT were analyzed to determine compliance with section §15.203 of the rules. §15.203 state that the subject device must meet the following criteria:

a. Antenna must be permanently attached to the unit.
b. Antenna must use a unique type of connector to attach to the EUT.
c. Unit must be professionally installed, and installer shall be responsible for verifying that the correct antenna is employed with the unit.

According to RSS-Gen Clause 6.8, The applicant for equipment certification shall provide a list of all antenna types that may be used with the transmitter, where applicable (i.e. for transmitters with detachable antenna), indicating the maximum permissible antenna gain (in dBi) and the required impedance for each antenna. The test report shall demonstrate the compliance of the transmitter with the limit for maximum equivalent isotropically radiated power (e.i.r.p.) specified in the applicable RSS, when the transmitter is equipped with any antenna type, selected from this list.

For expediting the testing, measurements may be performed using only the antenna with highest gain of each combination of transmitter and antenna type, with the transmitter output power set at the maximum level. However, the transmitter shall comply with the applicable requirements under all operational conditions and when in combination with any type of antenna from the list provided in the test report (and in the notice to be included in the user manual, provided below).

When measurements at the antenna port are used to determine the RF output power, the effective gain of the device's antenna shall be stated, based on a measurement or on data from the antenna's manufacturer.

The test report shall state the RF power, output power setting and spurious emission measurements with each antenna type that is used with the transmitter being tested.

For licence-exempt equipment with detachable antennas, the user manual shall also contain the following notice in a conspicuous location:

This radio transmitter [enter the device's ISED certification number] has been approved by Innovation, Science and Economic Development Canada to operate with the antenna types listed below, with the maximum permissible gain indicated. Antenna types not included in this list that have a gain greater than the maximum gain indicated for any type listed are strictly prohibited for use with this device.

Immediately following the above notice, the manufacturer shall provide a list of all antenna types which can be used with the transmitter, indicating the maximum permissible antenna gain (in dBi) and the required impedance for each antenna type.

Antenna Information And Connector Construction

The EUT has two internal PCB antenna arrangement , fulfill the requirement of this section. Please refer to the EUT photos.

Antenna Chain	Antenna Type	input impedance (Ohm)	Antenna Gain /Frequency Range
0	PCB	50	2.32 dBi/2.4~2.5GHz 2.44 dBi/5.15~5.85GHz
1	PCB	50	2.32 dBi/2.4~2.5GHz 2.44 dBi/5.15~5.85GHz

Result: Compliance.

FCC §15.209, §15.205 , §15.407(b) &RSS-247 CLAUSE 6.2, RSS-GEN CLAUSE 8.10 –UNWANTED EMISSION

Applicable Standard

FCC §15.407; §15.209; §15.205;

(b) Undesirable emission limits. Except as shown in paragraph (b)(7) of this section, the maximum emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:

(4) For transmitters operating in the 5.725-5.85 GHz band:

(i) All emissions shall be limited to a level of −27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

(ii) Devices certified before March 2, 2017 with antenna gain greater than 10 dBi may demonstrate compliance with the emission limits in §15.247(d), but manufacturing, marketing and importing of devices certified under this alternative must cease by March 2, 2018. Devices certified before March 2, 2018 with antenna gain of 10 dBi or less may demonstrate compliance with the emission limits in §15.247(d), but manufacturing, marketing and importing of devices certified under this alternative must cease before March 2, 2020.

(5) The emission measurements shall be performed using a minimum resolution bandwidth of 1 MHz. A lower resolution bandwidth may be employed near the band edge, when necessary, provided the measured energy is integrated to show the total power over 1 MHz.

(6) Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in §15.209. Further, any U-NII devices using an AC power line are required to comply also with the conducted limits set forth in §15.207.

(7) The provisions of §15.205 apply to intentional radiators operating under this section.

According to RSS-247 Clause 6.2

Frequency band 5725-5850 MHz

6.2.4.2 Unwanted emission limits

Devices operating in the band 5725-5850 MHz with antenna gain greater than 10 dBi can have unwanted emissions that comply with either the limits in this section or in section 5.5 until six (6) months after the publication date of this standard for certification. Certified devices that do not comply with emission limits in this section shall not be manufactured, imported, distributed, leased, offered for sale or sold after April 1, 2018.

Devices operating in the band 5725-5850 MHz with antenna gain of 10 dBi or less can have unwanted emissions that comply with either the limits in this section or in section 5.5 until April 1, 2018 for certification. Certified devices that do not comply with emission limits in this section shall not be manufactured, imported, distributed, leased, offered for sale or sold after April 1, 2020.

Devices operating in the band 5725-5850 MHz shall have e.i.r.p. of unwanted emissions comply with the following:

a) 27 dBm/MHz at frequencies from the band edges decreasing linearly to 15.6 dBm/MHz at 5 MHz above or below the band edges;

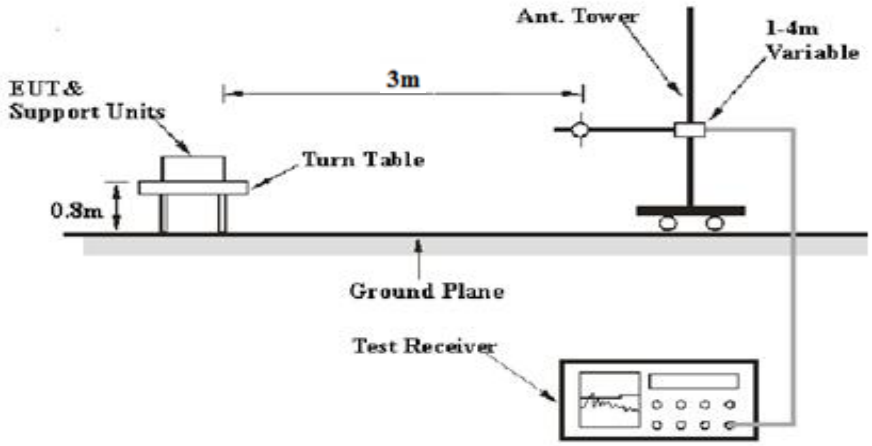
b) 15.6 dBm/MHz at 5 MHz above or below the band edges decreasing linearly to 10 dBm/MHz at 25 MHz above or below the band edges;

c) 10 dBm/MHz at 25 MHz above or below the band edges decreasing linearly to -27 dBm/MHz at 75 MHz above or below the band edges; and

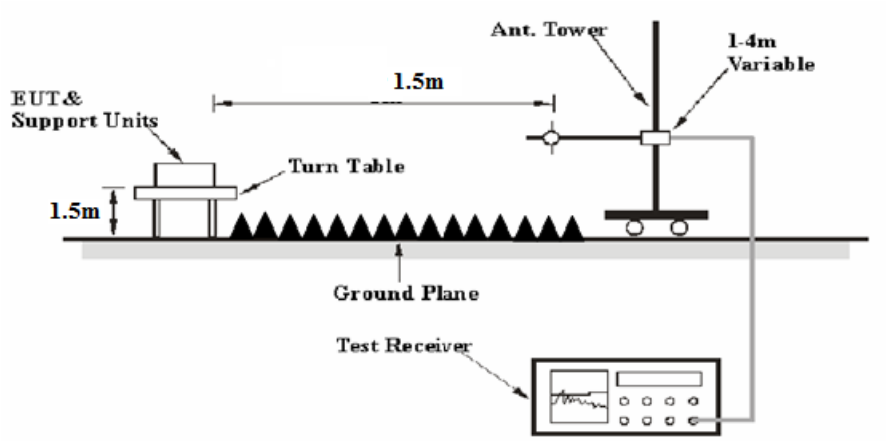
d) -27 dBm/MHz at frequencies more than 75 MHz above or below the band edges.

EUT Setup

Below 1 GHz:



1-40 GHz:



The radiated emission below 1GHz tests were performed in the 3 meters chamber test site A, above 1GHz tests were performed in the 3 meters chamber test site B, using the setup accordance with the ANSI C63.10-2013. The specification used was the FCC 15.209, and FCC 15.407 and RSS-247, RSS-Gen limits.

The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

The spacing between the peripherals was 10 cm.

EMI Test Receiver & Spectrum Analyzer Setup

The system was investigated from 30 MHz to 40 GHz.

During the radiated emission test, the EMI test receiver & Spectrum Analyzer Setup were set with the following configurations:

30-1000MHz:

Measurement	RBW	Video B/W	IF B/W
QP	120 kHz	300 kHz	120kHz

1GHz- 40GHz:

Measurement	Duty cycle	RBW	Video B/W
PK	Any	1MHz	3 MHz
Ave.	>98%	1MHz	10 Hz
	<98%	1MHz	1/T

Note: T is minimum transmission duration

If the maximized peak measured value complies with under the QP/Average limit more than 6dB, then it is unnecessary to perform an QP/Average measurement.

Test Procedure

During the radiated emission test, the adapter was connected to the first AC floor outlet.

Data was recorded in Quasi-peak detection mode for frequency range of 30 MHz-1GHz, peak and Average detection modes for frequencies above 1GHz.

According to KDB 789033 D02 General UNII Test Procedures New Rules v02r01, emission shall be computed as: E [dBμV/m] = EIRP[dBm] + 95.2, for d = 3 meters.

According to C63.10, the above 1G test result shall be extrapolated to the specified distance using an extrapolation factor of 20dB/decade from 3m to 1.5m
Distance extrapolation factor =20 log (specific distance [3m]/test distance [1.5m]) dB= 6.02 dB

All emissions under the average limit and under the noise floor have not recorded in the report.

Corrected Amplitude & Margin Calculation

For the range 30MHz-1GHz, the Corrected Amplitude is calculated by adding the Antenna Factor and Cable Loss, and subtracting the Amplifier Gain from the Meter Reading. The basic equation is as follows:

Corrected Amplitude = Meter Reading + Antenna Factor + Cable Loss - Amplifier Gain

The "**Margin**" column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of 7dB means the emission is 7dB below the limit. The equation for margin calculation is as follows:

Margin = Limit - Corrected Amplitude

For the range 1GHz-40GHz, Test performed at 1.5m, the Corrected Amplitude is calculated by adding the Antenna Factor and Cable Loss, and subtracting the Amplifier Gain from the Meter Reading and the Distance extrapolation factor. The basic equation is as follows:

Extrapolation result
= Meter Reading + Antenna Factor + Cable Loss - Amplifier Gain-Distance extrapolation factor

The "**Margin**" column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of 7dB means the emission is 7dB below the limit. The equation for margin calculation is as follows:

Margin = Limit-Extrapolation result

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	EMI Test Receiver	ESR3	102453	2019-09-12	2020-09-12
Farad	Test Software	EZ-EMC	V1.1.4.2	N/A	N/A
Sunol Sciences	Antenna	JB3	A060611-1	2017-11-10	2020-11-10
Unknown	Coaxial Cable	C-NJNJ-50	C-0400-01	2019-09-05	2020-09-05
Unknown	Coaxial Cable	C-NJNJ-50	C-0075-01	2019-09-05	2020-09-05
Unknown	Coaxial Cable	C-NJNJ-50	C-1400-01	2019-05-06	2020-05-06
HP	Amplifier	8447D	2727A05902	2019-09-05	2020-09-05
Agilent	Spectrum Analyzer	E4440A	SG43360054	2019-05-09	2020-05-09
R&S	Spectrum Analyzer	FSP 38	100478	2019-05-09	2020-05-09
Farad	Test Software	EZ-EMC	V1.1.4.2	N/A	N/A
ETS-Lindgren	Horn Antenna	3115	000 527 35	2018-10-12	2021-10-12
Ducommun Technolagies	Horn Antenna	ARH-4223-02	1007726-01 1304	2017-12-06	2020-12-05
Ducommun Technolagies	Horn Antenna	ARH-2823-02	1007726-01 1302	2017-12-06	2020-12-05
Unknown	Coaxial Cable	C-SJSJ-50	C-0800-01	2019-09-05	2020-09-05
Unknown	Coaxial Cable	C-2.4J2.4J-50	C-0700-02	2019-06-27	2020-06-27
Mini-Circuit	Amplifier	ZVA-213-S+	54201245	2019-09-05	2020-09-05
Quinstar	Amplifier	QLW-18405536-JO	15964001001	2019-06-27	2020-06-27
Sinoscite	Bandstop Filters	BSF5150-5850MN-0899-003	0899003	2019-05-06	2020-05-06

*** 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).

Test Data

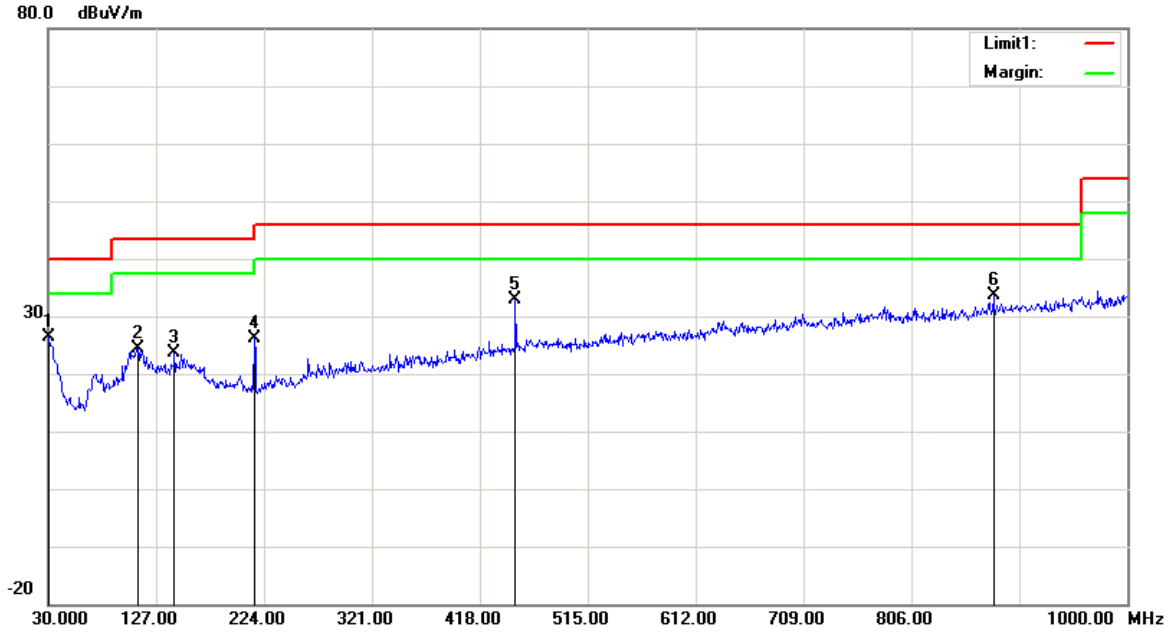
Environmental Conditions

Test Items	Radiation Below 1GHz	Radiation Above 1GHz
Temperature:	21.1℃	25℃
Relative Humidity:	54%	46%
ATM Pressure:	101.0kPa	101.7 kPa
Tester:	*Chris Mo*	*Fixel Zhang*
Test Date:	*2020-02-16*	*2020-01-08*

Test Mode: Transmitting

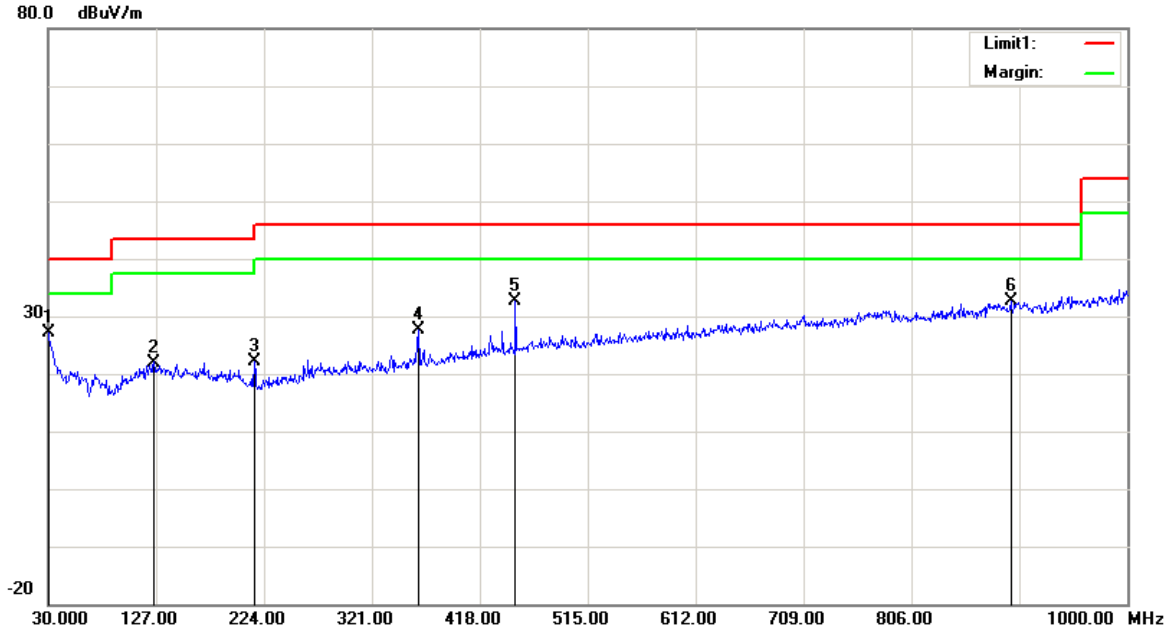
1) 30MHz-1GHz *(10M MIMO High channel was the worst)*

Horizontal



Frequency (MHz)	Receiver Reading (dBµV)	Detector	Correction Factor (dB/m)	Cord. Amp. (dBµV/m)	Limit (dBµV/m)	Margin (dB)
30.9700	25.48	peak	0.91	26.39	40.00	13.61
110.5100	30.65	peak	-6.24	24.41	43.50	19.09
143.4900	29.49	peak	-5.95	23.54	43.50	19.96
215.2700	33.41	peak	-7.20	26.21	43.50	17.29
450.0100	34.17	peak	-1.17	33.00	46.00	13.00
879.7200	34.02	peak	-0.47	33.55	46.00	12.45

Vertical



Frequency (MHz)	Receiver Reading (dBµV)	Detector	Correction Factor (dB/m)	Cord. Amp. (dBµV/m)	Limit (dBµV/m)	Margin (dB)
30.0000	25.37	peak	1.72	27.09	40.00	12.91
125.0600	26.64	peak	-4.64	22.00	43.50	21.50
215.2700	29.36	peak	-7.20	22.16	43.50	21.34
362.7100	30.33	peak	-2.81	27.52	46.00	18.48
450.0100	33.80	peak	-1.17	32.63	46.00	13.37
895.2400	32.64	peak	-0.01	32.63	46.00	13.37

2) 1GHz-40GHz:

1.4MHz Chain 0 :

Frequency (MHz)	Receiver		Rx Antenna		Cable loss (dB)	Amplifier Gain (dB)	Corrected Amplitude (dBμV/m)	Extrapolation result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector	Polar (H/V)	Factor (dB/m)						
Low Channel: 5728.5 MHz										
5728.50	84.67	PK	H	34.19	3.69	0.00	122.55	116.53	N/A	N/A
5728.50	75.09	AV	H	34.19	3.69	0.00	112.97	106.95	N/A	N/A
5728.50	94.61	PK	V	34.19	3.69	0.00	132.49	126.47	N/A	N/A
5728.50	85.35	AV	V	34.19	3.69	0.00	123.23	117.21	N/A	N/A
5725.00	59.03	PK	V	34.19	3.69	0.00	96.91	90.89	122.20	31.31
5720.00	42.31	PK	V	34.19	3.69	0.00	80.19	74.17	110.80	36.63
5700.00	30.76	PK	V	34.18	3.68	0.00	68.62	62.6	105.20	42.60
5650.00	28.51	PK	V	34.16	3.63	0.00	66.30	60.28	68.20	7.92
11457.00	46.93	PK	V	38.96	6.59	25.50	66.98	60.96	74.00	13.04
11457.00	32.94	AV	V	38.96	6.59	25.50	52.99	46.97	54.00	7.03
17185.50	34.85	PK	V	41.28	8.77	23.77	61.13	55.11	68.20	13.09
Middle Channel: 5784.5 MHz										
5784.50	83.98	PK	H	34.21	3.71	0.00	121.90	115.88	N/A	N/A
5784.50	74.53	AV	H	34.21	3.71	0.00	112.45	106.43	N/A	N/A
5784.50	94.02	PK	V	34.21	3.71	0.00	131.94	125.92	N/A	N/A
5784.50	84.90	AV	V	34.21	3.71	0.00	122.82	116.8	N/A	N/A
11569.00	47.97	PK	V	39.00	6.61	25.46	68.12	62.1	74.00	11.90
11569.00	34.77	AV	V	39.00	6.61	25.46	54.92	48.9	54.00	5.10
17353.50	34.31	PK	V	42.25	8.81	23.60	61.77	55.75	68.20	12.45
High Channel: 5846.5 MHz										
5846.50	83.47	PK	H	34.24	3.75	0.00	121.46	115.44	N/A	N/A
5846.50	73.92	AV	H	34.24	3.75	0.00	111.91	105.89	N/A	N/A
5846.50	93.61	PK	V	34.24	3.75	0.00	131.60	125.58	N/A	N/A
5846.50	84.04	AV	V	34.24	3.75	0.00	122.03	116.01	N/A	N/A
5850.00	55.99	PK	V	34.24	3.75	0.00	93.98	87.96	122.20	34.24
5855.00	39.86	PK	V	34.24	3.75	0.00	77.85	71.83	110.80	38.97
5875.00	31.28	PK	V	34.25	3.77	0.00	69.30	63.28	105.20	41.92
5925.00	26.77	PK	V	34.27	3.80	0.00	64.84	58.82	68.20	9.38
11693.00	48.97	PK	V	39.00	6.65	25.38	69.24	63.22	74.00	10.78
11693.00	35.34	AV	V	39.00	6.65	25.38	55.61	49.59	54.00	4.41
17539.50	34.52	PK	V	43.34	8.85	23.44	63.27	57.25	68.20	10.95

1.4MHz Chain 1:

Frequency (MHz)	Receiver		Rx Antenna		Cable loss (dB)	Amplifier Gain (dB)	Corrected Amplitude (dBµV/m)	Extrapolation result (dBµV/m)	Limit (dBµV/m)	Margin (dB)
	Reading (dBµV)	Detector	Polar (H/V)	Factor (dB/m)						
Low Channel: 5728.5 MHz										
5728.50	84.71	PK	H	34.19	3.69	0.00	122.59	116.57	N/A	N/A
5728.50	77.53	AV	H	34.19	3.69	0.00	115.41	109.39	N/A	N/A
5728.50	94.58	PK	V	34.19	3.69	0.00	132.46	126.44	N/A	N/A
5728.50	87.72	AV	V	34.19	3.69	0.00	125.60	119.58	N/A	N/A
5725.00	56.80	PK	V	34.19	3.69	0.00	94.68	88.66	122.20	33.54
5720.00	40.93	PK	V	34.19	3.69	0.00	78.81	72.79	110.80	38.01
5700.00	32.85	PK	V	34.18	3.68	0.00	70.71	64.69	105.20	40.51
5650.00	32.76	PK	V	34.16	3.63	0.00	70.55	64.53	68.20	3.67
11457.00	39.54	PK	V	38.96	6.59	25.50	59.59	53.57	74.00	20.43
11457.00	29.27	AV	V	38.96	6.59	25.50	49.32	43.3	54.00	10.70
17185.50	34.29	PK	V	41.28	8.77	23.77	60.57	54.55	68.20	13.65
Middle Channel: 5784.5 MHz										
5784.50	83.45	PK	H	34.21	3.71	0.00	121.37	115.35	N/A	N/A
5784.50	76.41	AV	H	34.21	3.71	0.00	114.33	108.31	N/A	N/A
5784.50	93.23	PK	V	34.21	3.71	0.00	131.15	125.13	N/A	N/A
5784.50	86.84	AV	V	34.21	3.71	0.00	124.76	118.74	N/A	N/A
11569.00	37.91	PK	V	39.00	6.61	25.46	58.06	52.04	74.00	21.96
11569.00	25.37	AV	V	39.00	6.61	25.46	45.52	39.5	54.00	14.50
17353.50	34.32	PK	V	42.25	8.81	23.60	61.78	55.76	68.20	12.44
High Channel: 5846.5 MHz										
5846.50	84.57	PK	H	34.24	3.75	0.00	122.56	116.54	N/A	N/A
5846.50	77.56	AV	H	34.24	3.75	0.00	115.55	109.53	N/A	N/A
5846.50	94.43	PK	V	34.24	3.75	0.00	132.42	126.4	N/A	N/A
5846.50	87.70	AV	V	34.24	3.75	0.00	125.69	119.67	N/A	N/A
5850.00	56.31	PK	V	34.24	3.75	0.00	94.30	88.28	122.20	33.92
5855.00	40.02	PK	V	34.24	3.75	0.00	78.01	71.99	110.80	38.81
5875.00	32.10	PK	V	34.25	3.77	0.00	70.12	64.1	105.20	41.10
5925.00	27.55	PK	V	34.27	3.80	0.00	65.62	59.6	68.20	8.60
11693.00	41.61	PK	V	39.00	6.65	25.38	61.88	55.86	74.00	18.14
11693.00	28.52	AV	V	39.00	6.65	25.38	48.79	42.77	54.00	11.23
17539.50	34.21	PK	V	43.34	8.85	23.44	62.96	56.94	68.20	11.26

3MHz Chain 0 :

Frequency (MHz)	Receiver		Rx Antenna		Cable loss (dB)	Amplifier Gain (dB)	Corrected Amplitude (dBµV/m)	Extrapolation result (dBµV/m)	Limit (dBµV/m)	Margin (dB)
	Reading (dBµV)	Detector	Polar (H/V)	Factor (dB/m)						
Low Channel: 5730.5 MHz										
5730.50	84.95	PK	H	34.19	3.69	0.00	122.83	116.81	N/A	N/A
5730.50	74.41	AV	H	34.19	3.69	0.00	112.29	106.27	N/A	N/A
5730.50	92.79	PK	V	34.19	3.69	0.00	130.67	124.65	N/A	N/A
5730.50	82.13	AV	V	34.19	3.69	0.00	120.01	113.99	N/A	N/A
5725.00	56.79	PK	V	34.19	3.69	0.00	94.67	88.65	122.20	33.55
5720.00	43.51	PK	V	34.19	3.69	0.00	81.39	75.37	110.80	35.43
5700.00	29.93	PK	V	34.18	3.68	0.00	67.79	61.77	105.20	43.43
5650.00	29.52	PK	V	34.16	3.63	0.00	67.31	61.29	68.20	6.91
11461.00	47.07	PK	V	38.96	6.59	25.51	67.11	61.09	74.00	12.91
11461.00	34.76	AV	V	38.96	6.59	25.51	54.80	48.78	54.00	5.22
17191.50	34.22	PK	V	41.31	8.77	23.76	60.54	54.52	68.20	13.68
Middle Channel: 5787.5 MHz										
5787.50	84.62	PK	H	34.22	3.71	0.00	122.55	116.53	N/A	N/A
5787.50	74.16	AV	H	34.22	3.71	0.00	112.09	106.07	N/A	N/A
5787.50	92.89	PK	V	34.22	3.71	0.00	130.82	124.8	N/A	N/A
5787.50	82.53	AV	V	34.22	3.71	0.00	120.46	114.44	N/A	N/A
11575.00	46.33	PK	V	39.00	6.61	25.46	66.48	60.46	74.00	13.54
11575.00	34.12	AV	V	39.00	6.61	25.46	54.27	48.25	54.00	5.75
17362.50	34.42	PK	V	42.30	8.81	23.59	61.94	55.92	68.20	12.28
High Channel: 5844.5 MHz										
5844.50	84.45	PK	H	34.24	3.75	0.00	122.44	116.42	N/A	N/A
5844.50	74.31	AV	H	34.24	3.75	0.00	112.30	106.28	N/A	N/A
5844.50	92.63	PK	V	34.24	3.75	0.00	130.62	124.6	N/A	N/A
5844.50	82.74	AV	V	34.24	3.75	0.00	120.73	114.71	N/A	N/A
5850.00	56.73	PK	V	34.24	3.75	0.00	94.72	88.7	122.20	33.50
5855.00	46.43	PK	V	34.24	3.75	0.00	84.42	78.4	110.80	32.40
5875.00	29.43	PK	V	34.25	3.77	0.00	67.45	61.43	105.20	43.77
5925.00	27.99	PK	V	34.27	3.80	0.00	66.06	60.04	68.20	8.16
11689.00	46.72	PK	V	39.00	6.65	25.38	66.99	60.97	74.00	13.03
11689.00	34.01	AV	V	39.00	6.65	25.38	54.28	48.26	54.00	5.74
17533.50	34.12	PK	V	43.31	8.85	23.44	62.84	56.82	68.20	11.38

3MHz Chain 1:

Frequency (MHz)	Receiver		Rx Antenna		Cable loss (dB)	Amplifier Gain (dB)	Corrected Amplitude (dBμV/m)	Extrapolation result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector	Polar (H/V)	Factor (dB/m)						
Low Channel: 5730.5 MHz										
5730.50	83.87	PK	H	34.19	3.69	0.00	121.75	115.73	N/A	N/A
5730.50	74.82	AV	H	34.19	3.69	0.00	112.70	106.68	N/A	N/A
5730.50	93.06	PK	V	34.19	3.69	0.00	130.94	124.92	N/A	N/A
5730.50	84.45	AV	V	34.19	3.69	0.00	122.33	116.31	N/A	N/A
5725.00	52.29	PK	V	34.19	3.69	0.00	90.17	84.15	122.20	38.05
5720.00	39.00	PK	V	34.19	3.69	0.00	76.88	70.86	110.80	39.94
5700.00	34.51	PK	V	34.18	3.68	0.00	72.37	66.35	105.20	38.85
5650.00	33.23	PK	V	34.16	3.63	0.00	71.02	65	68.20	3.20
11461.00	37.30	PK	V	38.96	6.59	25.51	57.34	51.32	74.00	22.68
11461.00	26.54	AV	V	38.96	6.59	25.51	46.58	40.56	54.00	13.44
17191.50	34.26	PK	V	41.31	8.77	23.76	60.58	54.56	68.20	13.64
Middle Channel: 5787.5 MHz										
5787.50	84.82	PK	H	34.22	3.71	0.00	122.75	116.73	N/A	N/A
5787.50	77.54	AV	H	34.22	3.71	0.00	115.47	109.45	N/A	N/A
5787.50	93.84	PK	V	34.22	3.71	0.00	131.77	125.75	N/A	N/A
5787.50	86.20	AV	V	34.22	3.71	0.00	124.13	118.11	N/A	N/A
11575.00	42.03	PK	V	39.00	6.61	25.46	62.18	56.16	74.00	17.84
11575.00	30.09	AV	V	39.00	6.61	25.46	50.24	44.22	54.00	9.78
17362.50	34.55	PK	V	42.30	8.81	23.59	62.07	56.05	68.20	12.15
High Channel: 5844.5 MHz										
5844.50	84.85	PK	H	34.24	3.75	0.00	122.84	116.82	N/A	N/A
5844.50	77.25	AV	H	34.24	3.75	0.00	115.24	109.22	N/A	N/A
5844.50	93.88	PK	V	34.24	3.75	0.00	131.87	125.85	N/A	N/A
5844.50	86.00	AV	V	34.24	3.75	0.00	123.99	117.97	N/A	N/A
5850.00	53.33	PK	V	34.24	3.75	0.00	91.32	85.3	122.20	36.90
5855.00	42.21	PK	V	34.24	3.75	0.00	80.20	74.18	110.80	36.62
5875.00	29.84	PK	V	34.25	3.77	0.00	67.86	61.84	105.20	43.36
5925.00	27.78	PK	V	34.27	3.80	0.00	65.85	59.83	68.20	8.37
11689.00	41.87	PK	V	39.00	6.65	25.38	62.14	56.12	74.00	17.88
11689.00	29.52	AV	V	39.00	6.65	25.38	49.79	43.77	54.00	10.23
17533.50	34.58	PK	V	43.31	8.85	23.44	63.30	57.28	68.20	10.92

10MHz Chain 0 :

Frequency (MHz)	Receiver		Rx Antenna		Cable loss (dB)	Amplifier Gain (dB)	Corrected Amplitude (dBµV/m)	Extrapolation result (dBµV/m)	Limit (dBµV/m)	Margin (dB)
	Reading (dBµV)	Detector	Polar (H/V)	Factor (dB/m)						
Low Channel: 5730.5 MHz										
5730.50	82.11	PK	H	34.19	3.69	0.00	119.99	113.97	N/A	N/A
5730.50	70.89	AV	H	34.19	3.69	0.00	108.77	102.75	N/A	N/A
5730.50	93.48	PK	V	34.19	3.69	0.00	131.36	125.34	N/A	N/A
5730.50	82.07	AV	V	34.19	3.69	0.00	119.95	113.93	N/A	N/A
5725.00	78.34	PK	V	34.19	3.69	0.00	116.22	110.2	122.20	12.00
5720.00	71.61	PK	V	34.19	3.69	0.00	109.49	103.47	110.80	7.33
5700.00	44.79	PK	V	34.18	3.68	0.00	82.65	76.63	105.20	28.57
5650.00	29.28	PK	V	34.16	3.63	0.00	67.07	61.05	68.20	7.15
11461.00	45.15	PK	V	38.96	6.59	25.51	65.19	59.17	74.00	14.83
11461.00	35.26	AV	V	38.96	6.59	25.51	55.30	49.28	54.00	4.72
17191.50	34.18	PK	V	41.31	8.77	23.76	60.50	54.48	68.20	13.72
Middle Channel: 5787.5 MHz										
5787.50	78.37	PK	H	34.22	3.71	0.00	116.30	110.28	N/A	N/A
5787.50	67.22	AV	H	34.22	3.71	0.00	105.15	99.13	N/A	N/A
5787.50	89.86	PK	V	34.22	3.71	0.00	127.79	121.77	N/A	N/A
5787.50	77.93	AV	V	34.22	3.71	0.00	115.86	109.84	N/A	N/A
11575.00	44.29	PK	V	39.00	6.61	25.46	64.44	58.42	74.00	15.58
11575.00	33.24	AV	V	39.00	6.61	25.46	53.39	47.37	54.00	6.63
17362.50	34.26	PK	V	42.30	8.81	23.59	61.78	55.76	68.20	12.44
High Channel: 5844.5 MHz										
5844.50	80.40	PK	H	34.24	3.75	0.00	118.39	112.37	N/A	N/A
5844.50	69.35	AV	H	34.24	3.75	0.00	107.34	101.32	N/A	N/A
5844.50	92.01	PK	V	34.24	3.75	0.00	130.00	123.98	N/A	N/A
5844.50	80.25	AV	V	34.24	3.75	0.00	118.24	112.22	N/A	N/A
5850.00	75.31	PK	V	34.24	3.75	0.00	113.30	107.28	122.20	14.92
5855.00	69.76	PK	V	34.24	3.75	0.00	107.75	101.73	110.80	9.07
5875.00	40.15	PK	V	34.25	3.77	0.00	78.17	72.15	105.20	33.05
5925.00	28.26	PK	V	34.27	3.80	0.00	66.33	60.31	68.20	7.89
11689.00	45.49	PK	V	39.00	6.65	25.38	65.76	59.74	74.00	14.26
11689.00	33.88	AV	V	39.00	6.65	25.38	54.15	48.13	54.00	5.87
17533.50	34.42	PK	V	43.31	8.85	23.44	63.14	57.12	68.20	11.08

10MHz Chain 1 :

Frequency (MHz)	Receiver		Rx Antenna		Cable loss (dB)	Amplifier Gain (dB)	Corrected Amplitude (dBµV/m)	Extrapolation result (dBµV/m)	Limit (dBµV/m)	Margin (dB)
	Reading (dBµV)	Detector	Polar (H/V)	Factor (dB/m)						
Low Channel: 5730.5 MHz										
5730.50	80.84	PK	H	34.19	3.69	0.00	118.72	112.7	N/A	N/A
5730.50	68.57	AV	H	34.19	3.69	0.00	106.45	100.43	N/A	N/A
5730.50	92.15	PK	V	34.19	3.69	0.00	130.03	124.01	N/A	N/A
5730.50	79.87	AV	V	34.19	3.69	0.00	117.75	111.73	N/A	N/A
5725.00	75.40	PK	V	34.19	3.69	0.00	113.28	107.26	122.20	14.94
5720.00	67.34	PK	V	34.19	3.69	0.00	105.22	99.2	110.80	11.60
5700.00	40.95	PK	V	34.18	3.68	0.00	78.81	72.79	105.20	32.41
5650.00	32.63	PK	V	34.16	3.63	0.00	70.42	64.4	68.20	3.80
11461.00	36.28	PK	V	38.96	6.59	25.51	56.32	50.3	74.00	23.70
11461.00	26.11	AV	V	38.96	6.59	25.51	46.15	40.13	54.00	13.87
17191.50	34.15	PK	V	41.31	8.77	23.76	60.47	54.45	68.20	13.75
Middle Channel: 5787.5 MHz										
5787.50	83.18	PK	H	34.22	3.71	0.00	121.11	115.09	N/A	N/A
5787.50	70.32	AV	H	34.22	3.71	0.00	108.25	102.23	N/A	N/A
5787.50	93.09	PK	V	34.22	3.71	0.00	131.02	125	N/A	N/A
5787.50	80.75	AV	V	34.22	3.71	0.00	118.68	112.66	N/A	N/A
11575.00	36.36	PK	V	39.00	6.61	25.46	56.51	50.49	74.00	23.51
11575.00	26.52	AV	V	39.00	6.61	25.46	46.67	40.65	54.00	13.35
17362.50	34.19	PK	V	42.30	8.81	23.59	61.71	55.69	68.20	12.51
High Channel: 5844.5 MHz										
5844.50	81.70	PK	H	34.24	3.75	0.00	119.69	113.67	N/A	N/A
5844.50	69.00	AV	H	34.24	3.75	0.00	106.99	100.97	N/A	N/A
5844.50	87.30	PK	V	34.24	3.75	0.00	125.29	119.27	N/A	N/A
5844.50	74.87	AV	V	34.24	3.75	0.00	112.86	106.84	N/A	N/A
5850.00	69.52	PK	V	34.24	3.75	0.00	107.51	101.49	122.20	20.71
5855.00	66.34	PK	V	34.24	3.75	0.00	104.33	98.31	110.80	12.49
5875.00	38.92	PK	V	34.25	3.77	0.00	76.94	70.92	105.20	34.28
5925.00	28.10	PK	V	34.27	3.80	0.00	66.17	60.15	68.20	8.05
11689.00	35.68	PK	V	39.00	6.65	25.38	55.95	49.93	74.00	24.07
11689.00	25.36	AV	V	39.00	6.65	25.38	45.63	39.61	54.00	14.39
17533.50	34.21	PK	V	43.31	8.85	23.44	62.93	56.91	68.20	11.29

10M MIMO:

Frequency (MHz)	Receiver		Rx Antenna		Cable loss (dB)	Amplifier Gain (dB)	Corrected Amplitude (dBµV/m)	Extrapolation result (dBµV/m)	Limit (dBµV/m)	Margin (dB)
	Reading (dBµV)	Detector	Polar (H/V)	Factor (dB/m)						
Low Channel: 5730.5 MHz										
5730.50	83.72	PK	H	34.19	3.69	0.00	121.60	115.58	N/A	N/A
5730.50	70.68	AV	H	34.19	3.69	0.00	108.56	102.54	N/A	N/A
5730.50	92.67	PK	V	34.19	3.69	0.00	130.55	124.53	N/A	N/A
5730.50	79.48	AV	V	34.19	3.69	0.00	117.36	111.34	N/A	N/A
5725.00	70.91	PK	V	34.19	3.69	0.00	108.79	102.77	122.20	19.43
5720.00	59.29	PK	V	34.19	3.69	0.00	97.17	91.15	110.80	19.65
5700.00	34.39	PK	V	34.18	3.68	0.00	72.25	66.23	105.20	38.97
5650.00	30.93	PK	V	34.16	3.63	0.00	68.72	62.7	68.20	5.50
11461.00	42.39	PK	V	38.97	6.59	25.51	62.44	56.42	74.00	17.58
11461.00	34.87	AV	V	38.97	6.59	25.51	54.92	48.9	54.00	5.10
17191.50	34.18	PK	V	41.35	8.77	23.76	60.54	54.52	68.20	13.68
Middle Channel: 5787.5 MHz										
5787.50	83.06	PK	H	34.22	3.71	0.00	120.99	114.97	N/A	N/A
5787.50	69.89	AV	H	34.22	3.71	0.00	107.82	101.8	N/A	N/A
5787.50	92.15	PK	V	34.22	3.71	0.00	130.08	124.06	N/A	N/A
5787.50	80.25	AV	V	34.22	3.71	0.00	118.18	112.16	N/A	N/A
11575.00	43.62	PK	V	39.00	6.61	25.46	63.77	57.75	74.00	16.25
11575.00	35.82	AV	V	39.00	6.61	25.46	55.97	49.95	54.00	4.05
17362.50	34.08	PK	V	42.30	8.81	23.59	61.60	55.58	68.20	12.62
High Channel: 5844.5 MHz										
5844.50	83.47	PK	H	34.24	3.75	0.00	121.46	115.44	N/A	N/A
5844.50	70.23	AV	H	34.24	3.75	0.00	108.22	102.2	N/A	N/A
5844.50	92.55	PK	V	34.24	3.75	0.00	130.54	124.52	N/A	N/A
5844.50	80.78	AV	V	34.24	3.75	0.00	118.77	112.75	N/A	N/A
5850.00	75.80	PK	V	34.24	3.75	0.00	113.79	107.77	122.20	14.43
5855.00	72.27	PK	V	34.24	3.75	0.00	110.26	104.24	110.80	6.56
5875.00	46.56	PK	V	34.25	3.77	0.00	84.58	78.56	105.20	26.64
5925.00	28.49	PK	V	34.27	3.80	0.00	66.56	60.54	68.20	7.66
11689.00	45.16	PK	V	39.00	6.65	25.38	65.43	59.41	74.00	14.59
11689.00	37.42	AV	V	39.00	6.65	25.38	57.69	51.67	54.00	**2.33**
17533.50	34.13	PK	V	43.31	8.85	23.44	62.85	56.83	68.20	11.37

20MHz Chain 0:

Frequency (MHz)	Receiver		Rx Antenna		Cable loss (dB)	Amplifier Gain (dB)	Corrected Amplitude (dBµV/m)	Extrapolation result (dBµV/m)	Limit (dBµV/m)	Margin (dB)
	Reading (dBµV)	Detector	Polar (H/V)	Factor (dB/m)						
Low Channel: 5735.5 MHz										
5735.50	83.48	PK	H	34.19	3.69	0.00	121.36	115.34	N/A	N/A
5735.50	69.54	AV	H	34.19	3.69	0.00	107.42	101.4	N/A	N/A
5735.50	92.93	PK	V	34.19	3.69	0.00	130.81	124.79	N/A	N/A
5735.50	78.98	AV	V	34.19	3.69	0.00	116.86	110.84	N/A	N/A
5725.00	72.89	PK	V	34.19	3.69	0.00	110.77	104.75	122.20	17.45
5720.00	69.60	PK	V	34.19	3.69	0.00	107.48	101.46	110.80	9.34
5700.00	47.90	PK	V	34.18	3.68	0.00	85.76	79.74	105.20	25.46
5650.00	30.10	PK	V	34.16	3.63	0.00	67.89	61.87	68.20	6.33
11471.00	44.29	PK	V	38.97	6.59	25.51	64.34	58.32	74.00	15.68
11471.00	34.84	AV	V	38.97	6.59	25.51	54.89	48.87	54.00	5.13
17206.50	34.26	PK	V	41.40	8.77	23.75	60.68	54.66	68.20	13.54
Middle Channel: 5787.5 MHz										
5787.50	82.38	PK	H	34.22	3.71	0.00	120.31	114.29	N/A	N/A
5787.50	68.41	AV	H	34.22	3.71	0.00	106.34	100.32	N/A	N/A
5787.50	91.88	PK	V	34.22	3.71	0.00	129.81	123.79	N/A	N/A
5787.50	77.89	AV	V	34.22	3.71	0.00	115.82	109.8	N/A	N/A
11575.00	45.15	PK	V	39.00	6.61	25.46	65.30	59.28	74.00	14.72
11575.00	34.75	AV	V	39.00	6.61	25.46	54.90	48.88	54.00	5.12
17362.50	34.37	PK	V	42.30	8.81	23.59	61.89	55.87	68.20	12.33
High Channel: 5839.5 MHz										
5839.50	81.88	PK	H	34.24	3.74	0.00	119.86	113.84	N/A	N/A
5839.50	67.93	AV	H	34.24	3.74	0.00	105.91	99.89	N/A	N/A
5839.50	91.48	PK	V	34.24	3.74	0.00	129.46	123.44	N/A	N/A
5839.50	77.42	AV	V	34.24	3.74	0.00	115.40	109.38	N/A	N/A
5850.00	70.68	PK	V	34.24	3.75	0.00	108.67	102.65	122.20	19.55
5855.00	68.59	PK	V	34.24	3.75	0.00	106.58	100.56	110.80	10.24
5875.00	48.59	PK	V	34.25	3.77	0.00	86.61	80.59	105.20	24.61
5925.00	26.65	PK	V	34.27	3.80	0.00	64.72	58.7	68.20	9.50
11679.00	45.14	PK	V	39.00	6.65	25.39	65.40	59.38	74.00	14.62
11679.00	32.78	AV	V	39.00	6.65	25.39	53.04	47.02	54.00	6.98
17518.50	34.24	PK	V	43.21	8.85	23.45	62.85	56.83	68.20	11.37

20MHz Chain 1 :

Frequency (MHz)	Receiver		Rx Antenna		Cable loss (dB)	Amplifier Gain (dB)	Corrected Amplitude (dBµV/m)	Extrapolation result (dBµV/m)	Limit (dBµV/m)	Margin (dB)
	Reading (dBµV)	Detector	Polar (H/V)	Factor (dB/m)						
Low Channel: 5735.5 MHz										
5735.50	82.12	PK	H	34.19	3.69	0.00	120.00	113.98	N/A	N/A
5735.50	68.78	AV	H	34.19	3.69	0.00	106.66	100.64	N/A	N/A
5735.50	91.18	PK	V	34.19	3.69	0.00	129.06	123.04	N/A	N/A
5735.50	77.27	AV	V	34.19	3.69	0.00	115.15	109.13	N/A	N/A
5725.00	69.22	PK	V	34.19	3.69	0.00	107.10	101.08	122.20	21.12
5720.00	68.33	PK	V	34.19	3.69	0.00	106.21	100.19	110.80	10.61
5700.00	45.62	PK	V	34.18	3.68	0.00	83.48	77.46	105.20	27.74
5650.00	31.50	PK	V	34.16	3.63	0.00	69.29	63.27	68.20	4.93
11471.00	35.69	PK	V	38.97	6.59	25.51	55.74	49.72	74.00	24.28
11471.00	25.41	AV	V	38.97	6.59	25.51	45.46	39.44	54.00	14.56
17206.50	34.17	PK	V	41.40	8.77	23.75	60.59	54.57	68.20	13.63
Middle Channel: 5787.5 MHz										
5787.50	82.27	PK	H	34.22	3.71	0.00	120.20	114.18	N/A	N/A
5787.50	68.37	AV	H	34.22	3.71	0.00	106.30	100.28	N/A	N/A
5787.50	91.85	PK	V	34.22	3.71	0.00	129.78	123.76	N/A	N/A
5787.50	77.84	AV	V	34.22	3.71	0.00	115.77	109.75	N/A	N/A
11575.00	35.93	PK	V	39.00	6.61	25.46	56.08	50.06	74.00	23.94
11575.00	24.57	AV	V	39.00	6.61	25.46	44.72	38.7	54.00	15.30
17362.50	34.32	PK	V	42.30	8.81	23.59	61.84	55.82	68.20	12.38
High Channel: 5839.5 MHz										
5839.50	82.55	PK	H	34.24	3.74	0.00	120.53	114.51	N/A	N/A
5839.50	68.54	AV	H	34.24	3.74	0.00	106.52	100.5	N/A	N/A
5839.50	91.88	PK	V	34.24	3.74	0.00	129.86	123.84	N/A	N/A
5839.50	77.80	AV	V	34.24	3.74	0.00	115.78	109.76	N/A	N/A
5850.00	70.93	PK	V	34.24	3.75	0.00	108.92	102.9	122.20	19.30
5855.00	67.52	PK	V	34.24	3.75	0.00	105.51	99.49	110.80	11.31
5875.00	50.11	PK	V	34.25	3.77	0.00	88.13	82.11	105.20	23.09
5925.00	32.30	PK	V	34.27	3.80	0.00	70.37	64.35	68.20	3.85
11679.00	35.67	PK	V	39.00	6.65	25.39	55.93	49.91	74.00	24.09
11679.00	24.84	AV	V	39.00	6.65	25.39	45.10	39.08	54.00	14.92
17518.50	34.26	PK	V	43.21	8.85	23.45	62.87	56.85	68.20	11.35

20M MIMO:

Frequency (MHz)	Receiver		Rx Antenna		Cable loss (dB)	Amplifier Gain (dB)	Corrected Amplitude (dBμV/m)	Extrapolation result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector	Polar (H/V)	Factor (dB/m)						
Low Channel: 5735.5 MHz										
5735.50	84.79	PK	H	34.19	3.69	0.00	122.67	116.65	N/A	N/A
5735.50	70.32	AV	H	34.19	3.69	0.00	108.20	102.18	N/A	N/A
5735.50	91.19	PK	V	34.19	3.69	0.00	129.07	123.05	N/A	N/A
5735.50	76.77	AV	V	34.19	3.69	0.00	114.65	108.63	N/A	N/A
5725.00	67.80	PK	V	34.19	3.69	0.00	105.68	99.66	122.20	22.54
5720.00	65.74	PK	V	34.19	3.69	0.00	103.62	97.6	110.80	13.20
5700.00	43.74	PK	V	34.18	3.68	0.00	81.60	75.58	105.20	29.62
5650.00	30.49	PK	V	34.16	3.63	0.00	68.28	62.26	68.20	5.94
11471.00	41.73	PK	V	38.97	6.59	25.51	61.78	55.76	74.00	18.24
11471.00	33.15	AV	V	38.97	6.59	25.51	53.20	47.18	54.00	6.82
17206.50	34.20	PK	V	41.40	8.77	23.75	60.62	54.6	68.20	13.60
Middle Channel: 5787.5 MHz										
5787.50	87.85	PK	H	34.22	3.71	0.00	125.78	119.76	N/A	N/A
5787.50	73.56	AV	H	34.22	3.71	0.00	111.49	105.47	N/A	N/A
5787.50	94.38	PK	V	34.22	3.71	0.00	132.31	126.29	N/A	N/A
5787.50	78.83	AV	V	34.22	3.71	0.00	116.76	110.74	N/A	N/A
11575.00	44.23	PK	V	39.00	6.61	25.46	64.38	58.36	74.00	15.64
11575.00	36.26	AV	V	39.00	6.61	25.46	56.41	50.39	54.00	3.61
17362.50	34.15	PK	V	42.30	8.81	23.59	61.67	55.65	68.20	12.55
High Channel: 5839.5 MHz										
5839.50	86.81	PK	H	34.24	3.74	0.00	124.79	118.77	N/A	N/A
5839.50	72.77	AV	H	34.24	3.74	0.00	110.75	104.73	N/A	N/A
5839.50	93.89	PK	V	34.24	3.74	0.00	131.87	125.85	N/A	N/A
5839.50	78.53	AV	V	34.24	3.74	0.00	116.51	110.49	N/A	N/A
5850.00	72.82	PK	V	34.24	3.75	0.00	110.81	104.79	122.20	17.41
5855.00	72.06	PK	V	34.24	3.75	0.00	110.05	104.03	110.80	6.77
5875.00	52.66	PK	V	34.25	3.77	0.00	90.68	84.66	105.20	20.54
5925.00	27.74	PK	V	34.27	3.80	0.00	65.81	59.79	68.20	8.41
11679.00	46.71	PK	V	39.00	6.65	25.39	66.97	60.95	74.00	13.05
11679.00	35.97	AV	V	39.00	6.65	25.39	56.23	50.21	54.00	3.79
17518.50	34.21	PK	V	43.21	8.85	23.45	62.82	56.8	68.20	11.40

40MHz Chain 0 :

Frequency (MHz)	Receiver		Rx Antenna		Cable loss (dB)	Amplifier Gain (dB)	Corrected Amplitude (dBμV/m)	Extrapolation result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector	Polar (H/V)	Factor (dB/m)						
Low Channel: 5745.5 MHz										
5745.50	79.95	PK	H	34.20	3.69	0.00	117.84	111.82	N/A	N/A
5745.50	66.16	AV	H	34.20	3.69	0.00	104.05	98.03	N/A	N/A
5745.50	89.50	PK	V	34.20	3.69	0.00	127.39	121.37	N/A	N/A
5745.50	75.75	AV	V	34.20	3.69	0.00	113.64	107.62	N/A	N/A
5725.00	68.45	PK	V	34.19	3.69	0.00	106.33	100.31	122.20	21.89
5720.00	66.76	PK	V	34.19	3.69	0.00	104.64	98.62	110.80	12.18
5700.00	54.46	PK	V	34.18	3.68	0.00	92.32	86.3	105.20	18.90
5650.00	34.83	PK	V	34.16	3.63	0.00	72.62	66.6	68.20	1.60
11491.00	40.76	PK	V	38.99	6.59	25.51	60.83	54.81	74.00	19.19
11491.00	34.24	AV	V	38.99	6.59	25.51	54.31	48.29	54.00	5.71
17236.50	34.33	PK	V	41.57	8.78	23.72	60.96	54.94	68.20	13.26
Middle Channel: 5787.5 MHz										
5787.50	77.86	PK	H	34.22	3.71	0.00	115.79	109.77	N/A	N/A
5787.50	64.08	AV	H	34.22	3.71	0.00	102.01	95.99	N/A	N/A
5787.50	87.43	PK	V	34.22	3.71	0.00	125.36	119.34	N/A	N/A
5787.50	73.58	AV	V	34.22	3.71	0.00	111.51	105.49	N/A	N/A
11575.00	42.42	PK	V	39.00	6.61	25.46	62.57	56.55	74.00	17.45
11575.00	30.07	AV	V	39.00	6.61	25.46	50.22	44.2	54.00	9.80
17362.50	34.23	PK	V	42.30	8.81	23.59	61.75	55.73	68.20	12.47
High Channel: 5829.5 MHz										
5829.50	79.63	PK	H	34.23	3.73	0.00	117.59	111.57	N/A	N/A
5829.50	65.59	AV	H	34.23	3.73	0.00	103.55	97.53	N/A	N/A
5829.50	89.26	PK	V	34.23	3.73	0.00	127.22	121.2	N/A	N/A
5829.50	75.33	AV	V	34.23	3.73	0.00	113.29	107.27	N/A	N/A
5850.00	69.16	PK	V	34.24	3.75	0.00	107.15	101.13	122.20	21.07
5855.00	67.41	PK	V	34.24	3.75	0.00	105.40	99.38	110.80	11.42
5875.00	55.27	PK	V	34.25	3.77	0.00	93.29	87.27	105.20	17.93
5925.00	33.71	PK	V	34.27	3.80	0.00	71.78	65.76	68.20	2.44
11659.00	40.29	PK	V	39.00	6.64	25.40	60.53	54.51	74.00	19.49
11659.00	29.68	AV	V	39.00	6.64	25.40	49.92	43.9	54.00	10.10
17488.50	34.17	PK	V	43.03	8.85	23.47	62.58	56.56	68.20	11.64

40MHz Chain 1:

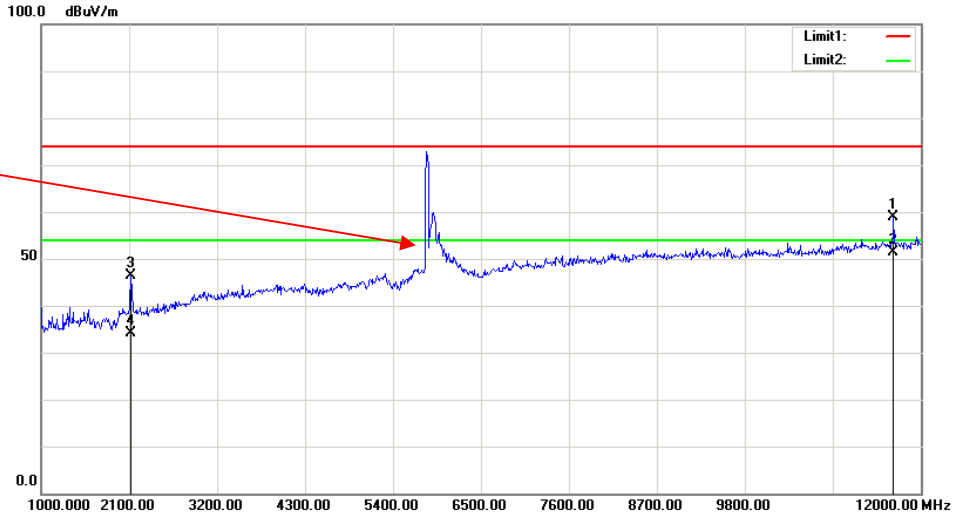
Frequency (MHz)	Receiver		Rx Antenna		Cable loss (dB)	Amplifier Gain (dB)	Corrected Amplitude (dBμV/m)	Extrapolation result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector	Polar (H/V)	Factor (dB/m)						
Low Channel: 5745.5 MHz										
5745.50	76.06	PK	H	34.20	3.69	0.00	113.95	107.93	N/A	N/A
5745.50	63.54	AV	H	34.20	3.69	0.00	101.43	95.41	N/A	N/A
5745.50	85.92	PK	V	34.20	3.69	0.00	123.81	117.79	N/A	N/A
5745.50	71.14	AV	V	34.20	3.69	0.00	109.03	103.01	N/A	N/A
5725.00	61.15	PK	V	34.19	3.69	0.00	99.03	93.01	122.20	29.19
5720.00	61.23	PK	V	34.19	3.69	0.00	99.11	93.09	110.80	17.71
5700.00	49.78	PK	V	34.18	3.68	0.00	87.64	81.62	105.20	23.58
5650.00	33.01	PK	V	34.16	3.63	0.00	70.80	64.78	68.20	3.42
11491.00	35.66	PK	V	38.99	6.59	25.51	55.73	49.71	74.00	24.29
11491.00	23.64	AV	V	38.99	6.59	25.51	43.71	37.69	54.00	16.31
17236.50	34.27	PK	V	41.57	8.78	23.72	60.90	54.88	68.20	13.32
Middle Channel: 5787.5 MHz										
5787.50	78.28	PK	H	34.22	3.71	0.00	116.21	110.19	N/A	N/A
5787.50	64.54	AV	H	34.22	3.71	0.00	102.47	96.45	N/A	N/A
5787.50	88.54	PK	V	34.22	3.71	0.00	126.47	120.45	N/A	N/A
5787.50	73.87	AV	V	34.22	3.71	0.00	111.80	105.78	N/A	N/A
11575.00	35.25	PK	V	39.00	6.61	25.46	55.40	49.38	74.00	24.62
11575.00	24.16	AV	V	39.00	6.61	25.46	44.31	38.29	54.00	15.71
17362.50	34.41	PK	V	42.30	8.81	23.59	61.93	55.91	68.20	12.29
High Channel: 5829.5 MHz										
5829.50	76.58	PK	H	34.23	3.73	0.00	114.54	108.52	N/A	N/A
5829.50	63.25	AV	H	34.23	3.73	0.00	101.21	95.187	N/A	N/A
5829.50	86.34	PK	V	34.23	3.73	0.00	124.30	118.28	N/A	N/A
5829.50	72.45	AV	V	34.23	3.73	0.00	110.41	104.39	N/A	N/A
5850.00	64.09	PK	V	34.24	3.75	0.00	102.08	96.06	122.20	26.14
5855.00	61.44	PK	V	34.24	3.75	0.00	99.43	93.41	110.80	17.39
5875.00	51.04	PK	V	34.25	3.77	0.00	89.06	83.04	105.20	22.16
5925.00	30.76	PK	V	34.27	3.80	0.00	68.83	62.81	68.20	5.39
11659.00	35.15	PK	V	39.00	6.64	25.40	55.39	49.37	74.00	24.63
11659.00	24.76	AV	V	39.00	6.64	25.40	45.00	38.98	54.00	15.02
17488.50	34.51	PK	V	43.03	8.85	23.47	62.92	56.9	68.20	11.30

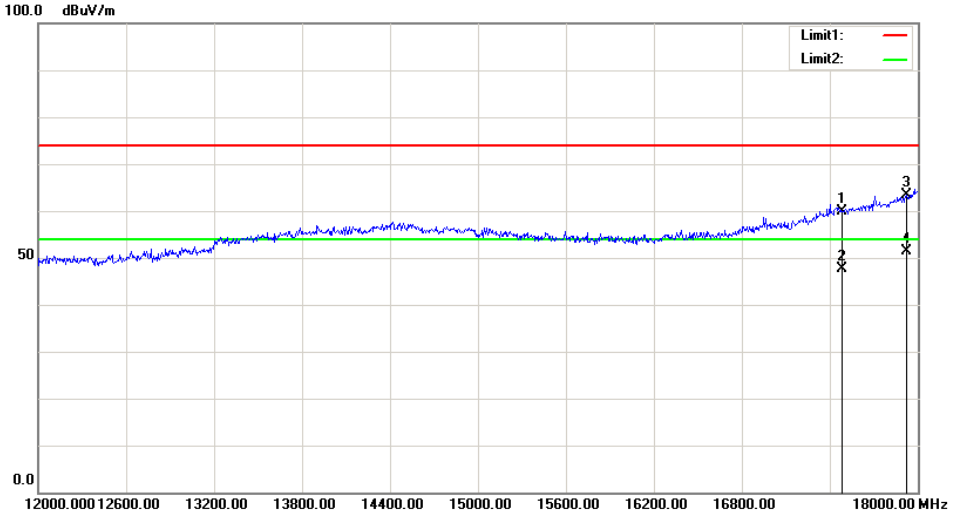
40MHz MIMO:

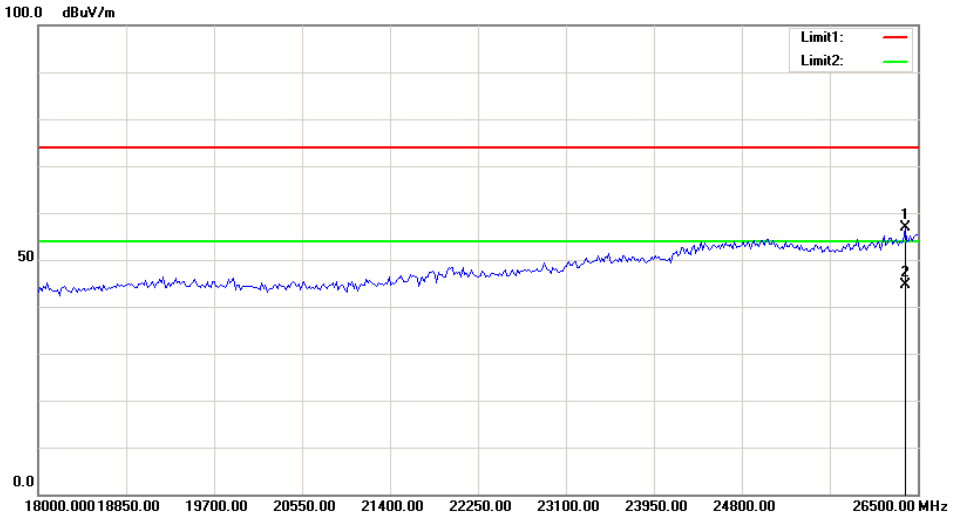
Frequency (MHz)	Receiver		Rx Antenna		Cable loss (dB)	Amplifier Gain (dB)	Corrected Amplitude (dBµV/m)	Extrapolation result (dBµV/m)	Limit (dBµV/m)	Margin (dB)
	Reading (dBµV)	Detector	Polar (H/V)	Factor (dB/m)						
Low Channel: 5745.5 MHz										
5745.50	80.44	PK	H	34.20	3.69	0.00	118.33	112.31	N/A	N/A
5745.50	65.11	AV	H	34.20	3.69	0.00	103.00	96.98	N/A	N/A
5745.50	89.17	PK	V	34.20	3.69	0.00	127.06	121.04	N/A	N/A
5745.50	73.85	AV	V	34.20	3.69	0.00	111.74	105.72	N/A	N/A
5725.00	66.70	PK	V	34.19	3.69	0.00	104.58	98.56	122.20	23.64
5720.00	67.90	PK	V	34.19	3.69	0.00	105.78	99.76	110.80	11.04
5700.00	53.80	PK	V	34.18	3.68	0.00	91.66	85.64	105.20	19.56
5650.00	36.36	PK	V	34.16	3.63	0.00	74.15	68.13	68.20	0.07
11491.00	41.59	PK	V	38.99	6.59	25.51	61.66	55.64	74.00	18.36
11491.00	34.02	AV	V	38.99	6.59	25.51	54.09	48.07	54.00	5.93
17236.50	34.25	PK	V	41.57	8.78	23.72	60.88	54.86	68.20	13.34
Middle Channel: 5787.5 MHz										
5787.50	80.01	PK	H	34.22	3.71	0.00	117.94	111.92	N/A	N/A
5787.50	65.22	AV	H	34.22	3.71	0.00	103.15	97.13	N/A	N/A
5787.50	89.08	PK	V	34.22	3.71	0.00	127.01	120.99	N/A	N/A
5787.50	74.21	AV	V	34.22	3.71	0.00	112.14	106.12	N/A	N/A
11575.00	43.92	PK	V	39.00	6.61	25.46	64.07	58.05	74.00	15.95
11575.00	35.45	AV	V	39.00	6.61	25.46	55.60	49.58	54.00	4.42
17362.50	34.11	PK	V	42.30	8.81	23.59	61.63	55.61	68.20	12.59
High Channel: 5829.5 MHz										
5829.50	80.37	PK	H	34.23	3.73	0.00	118.33	112.31	N/A	N/A
5829.50	65.51	AV	H	34.23	3.73	0.00	103.47	97.45	N/A	N/A
5829.50	89.55	PK	V	34.23	3.73	0.00	127.51	121.49	N/A	N/A
5829.50	74.71	AV	V	34.23	3.73	0.00	112.67	106.65	N/A	N/A
5850.00	72.77	PK	V	34.24	3.75	0.00	110.76	104.74	122.20	17.46
5855.00	71.73	PK	V	34.24	3.75	0.00	109.72	103.7	110.80	7.10
5875.00	59.26	PK	V	34.25	3.77	0.00	97.28	91.26	105.20	13.94
5925.00	36.06	PK	V	34.27	3.80	0.00	74.13	68.11	68.20	0.09
11659.00	43.46	PK	V	39.00	6.64	25.40	63.70	57.68	74.00	16.32
11659.00	36.27	AV	V	39.00	6.64	25.40	56.51	50.49	54.00	3.51
17488.50	34.29	PK	V	43.03	8.85	23.47	62.70	56.68	68.20	11.52

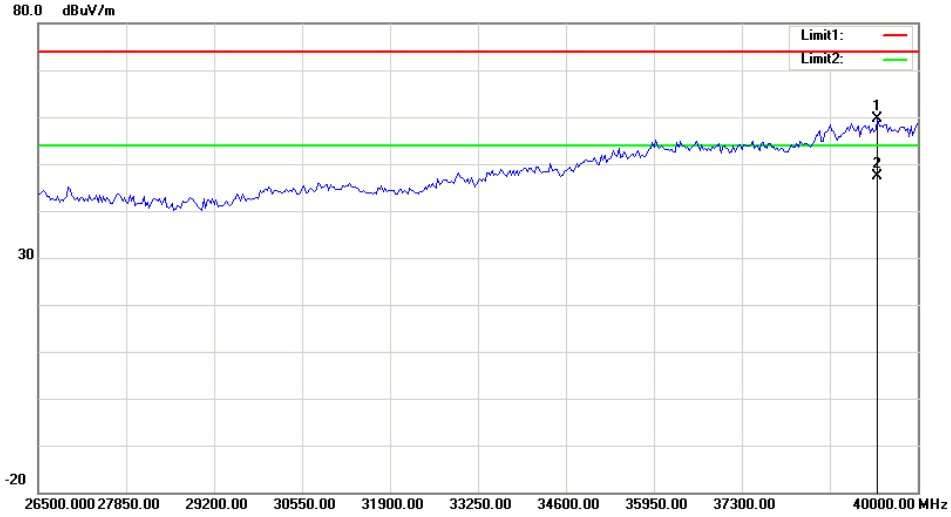
Test Plots *(10M MIMO high channel was the worst)*
Horizontal

Fundamental Test with Band Rejection Filter



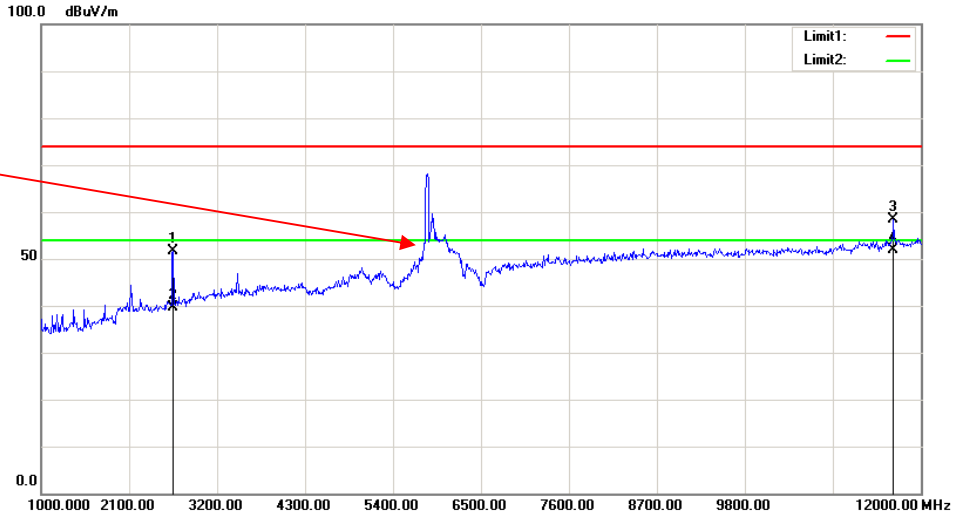


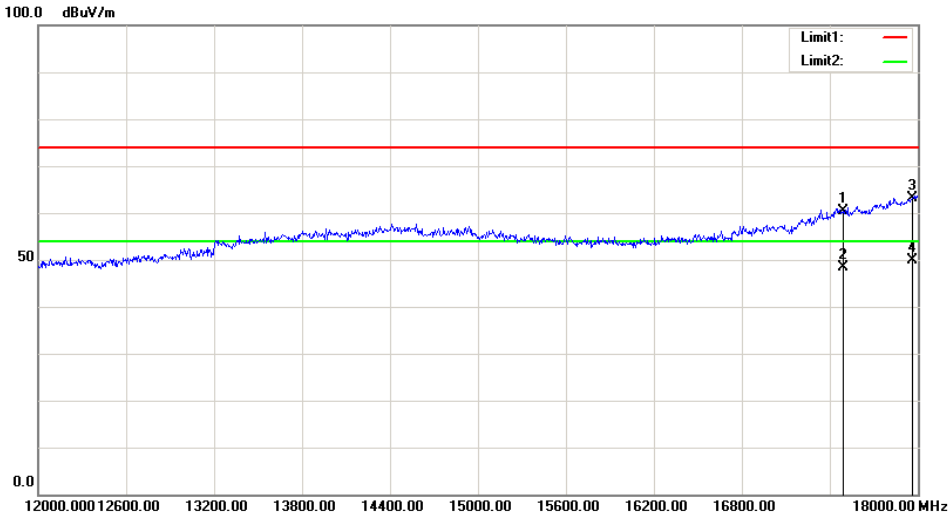


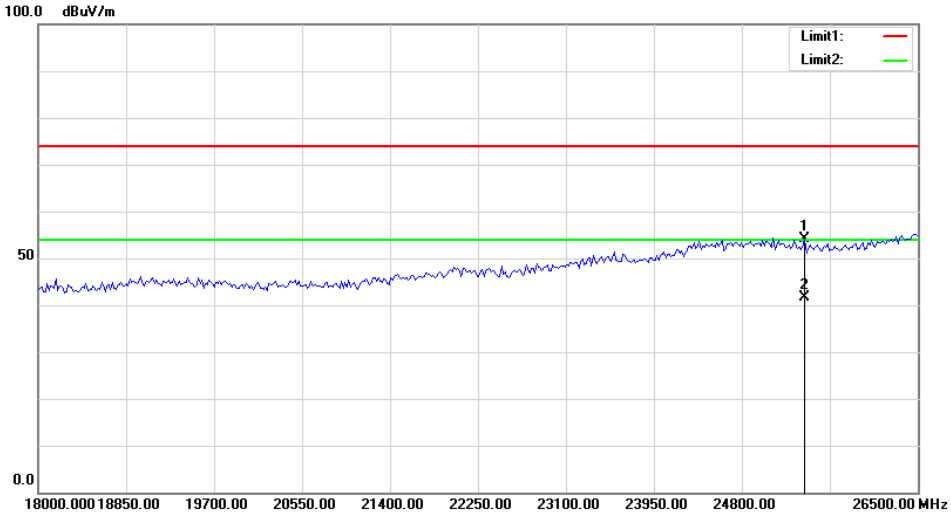


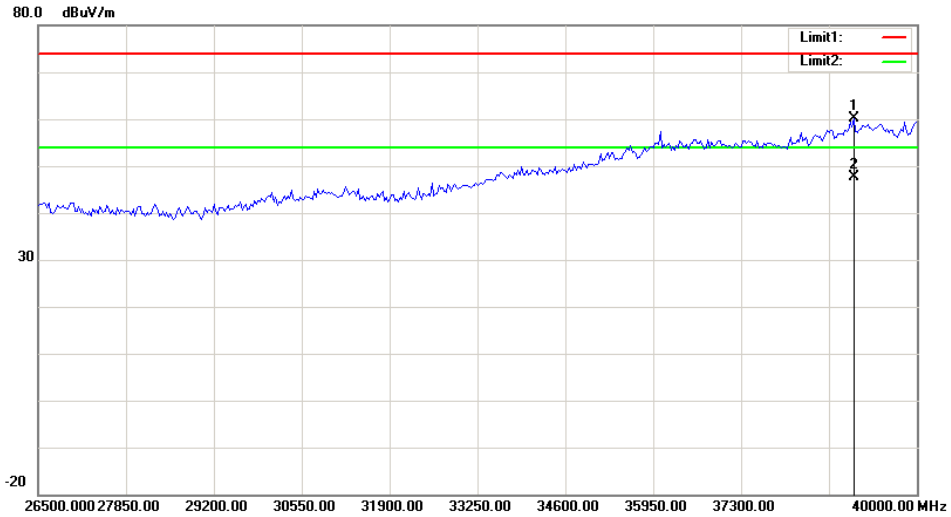
Vertical

Fundamental Test with Band Rejection Filter






100.0 dBuV/m
Limit1:
Limit2:
50
0.0
1
2
18000.000 18850.00 19700.00 20550.00 21400.00 22250.00 23100.00 23950.00 24800.00 26500.00 MHz


80.0 dBuV/m
Limit1:
Limit2:
30
-20
1
2
26500.000 27850.00 29200.00 30550.00 31900.00 33250.00 34600.00 35950.00 37300.00 40000.00 MHz

FCC §15.407(a)(e) & RSS-247 CLAUSE 6.2,RSS-Gen CLAUSE 6.7– EMISSION BANDWIDTH AND OCCUPIED BANDWIDTH

Applicable Standard

15.407(a) (e), RSS-247 Clause 6.2 and RSS-Gen Clause 6.7

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSP 38	100478	2019-05-09	2020-05-09
yzjingcheng	Coaxial Cable	KTRFBU-141-50	41010013	Each time	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).

Test Procedure

According to KDB 789033 D02 General UNII Test Procedures New Rules v02r01.

Test Data

Environmental Conditions

Temperature:	23.2~24.8 °C
Relative Humidity:	40~49%
ATM Pressure:	101.2~102.2kPa

** The testing was performed by Lily Xie from 2020-01-09 to2020-01-17.*

Test Result: Compliance. Please refer to the following tables and plots.

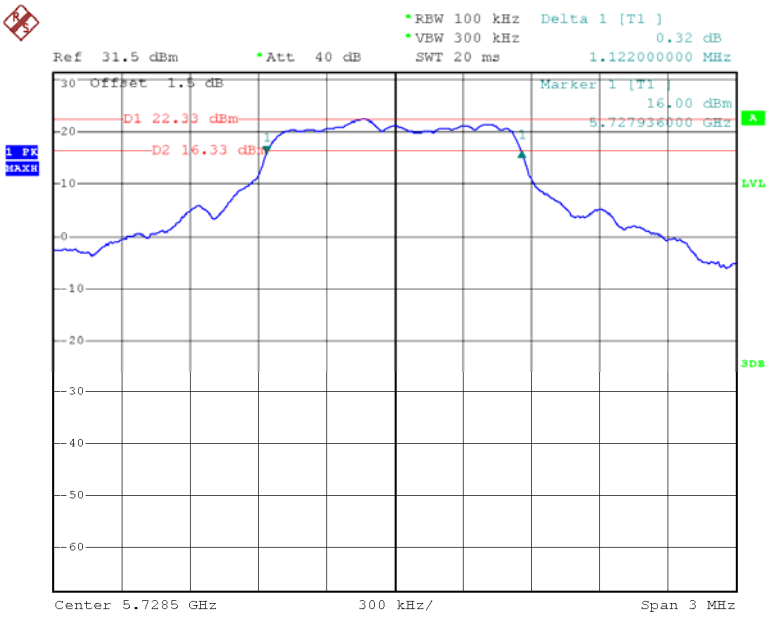
Test mode: Transmitting(Test only performed at chain 0)

Mode	Channel	Frequency (MHz)	6 dB Emission Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	6 dB Emission Bandwidth Limit (MHz)
1.4M	Low	5728.5	1.122	1.350	≥0.5
	Middle	5784.5	1.116	1.392	
	High	5846.5	1.122	1.396	
3M	Low	5730.5	2.174	2.580	
	Middle	5787.5	2.184	2.724	
	High	5844.5	2.184	2.988	
10M	Low	5730.5	9.040	9.200	
	Middle	5787.5	9.040	9.200	
	High	5844.5	9.040	9.240	
20M	Low	5735.5	18.080	17.840	
	Middle	5787.5	18.080	18.000	
	High	5839.5	18.080	17.840	
40M	Low	5745.5	35.840	36.160	
	Middle	5787.5	35.920	36.160	
	High	5829.5	35.840	36.320	

Note: the 99% Occupied Bandwidth has not fallen into the band 5470-5725MHz.

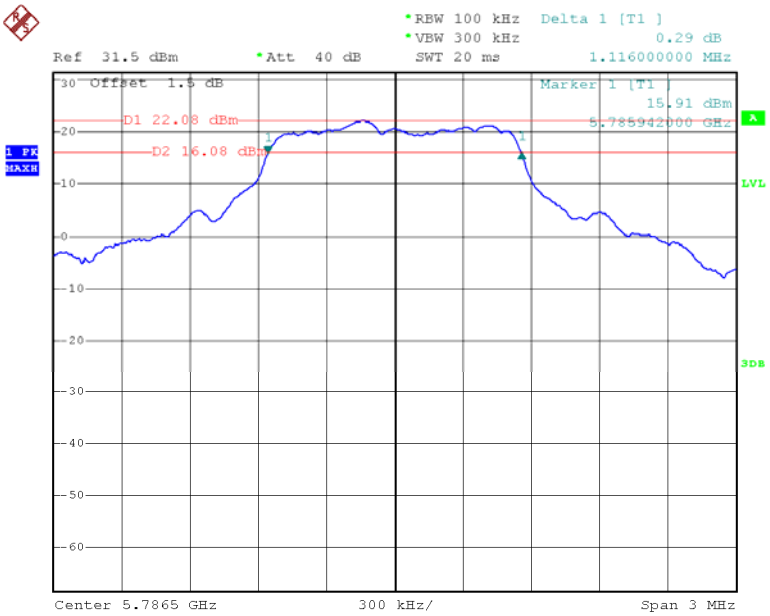
6dB Emission Bandwidth:

1.4M Low Channel



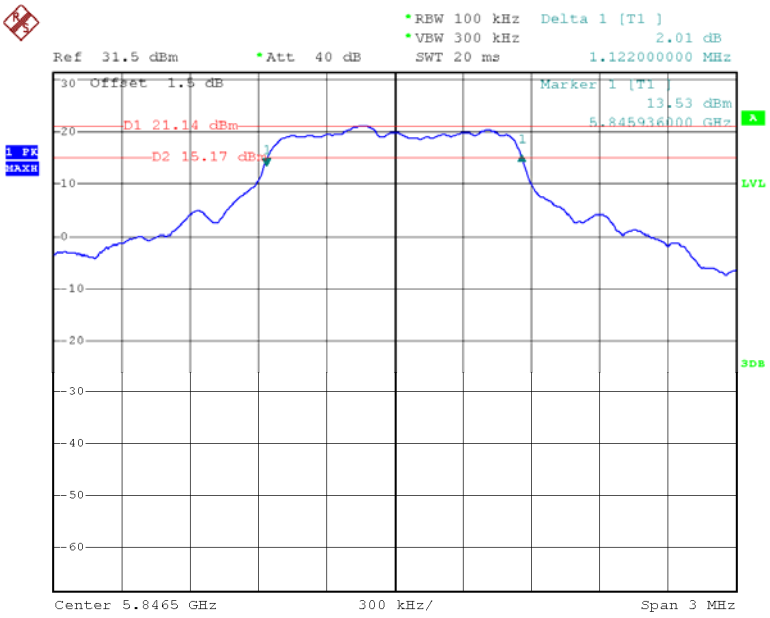
Date: 9.JAN.2020 13:55:46

1.4M Middle Channel



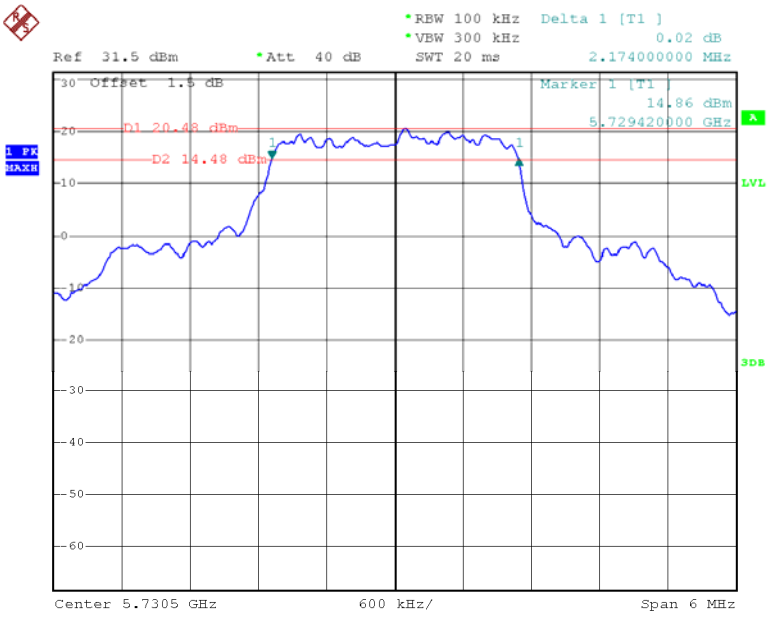
Date: 9.JAN.2020 13:57:26

1.4M High Channel



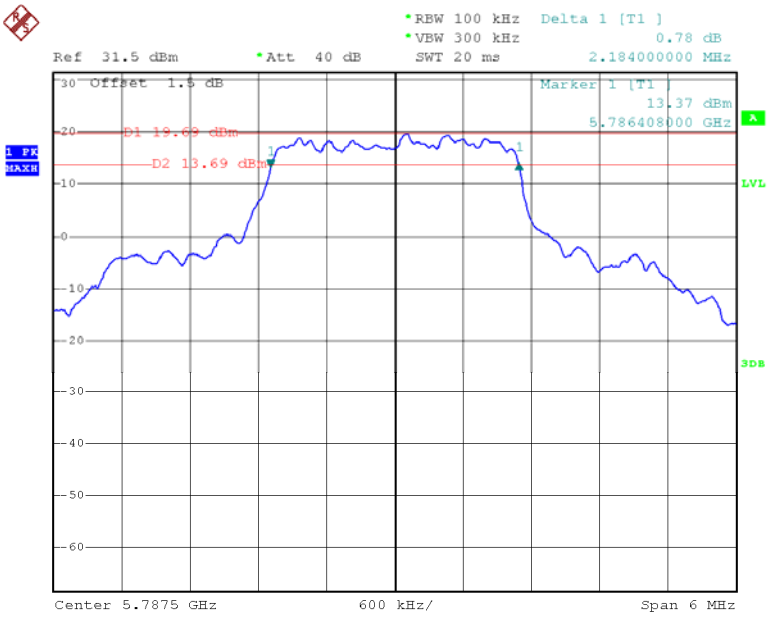
Date: 9.JAN.2020 13:58:51

3M Low Channel



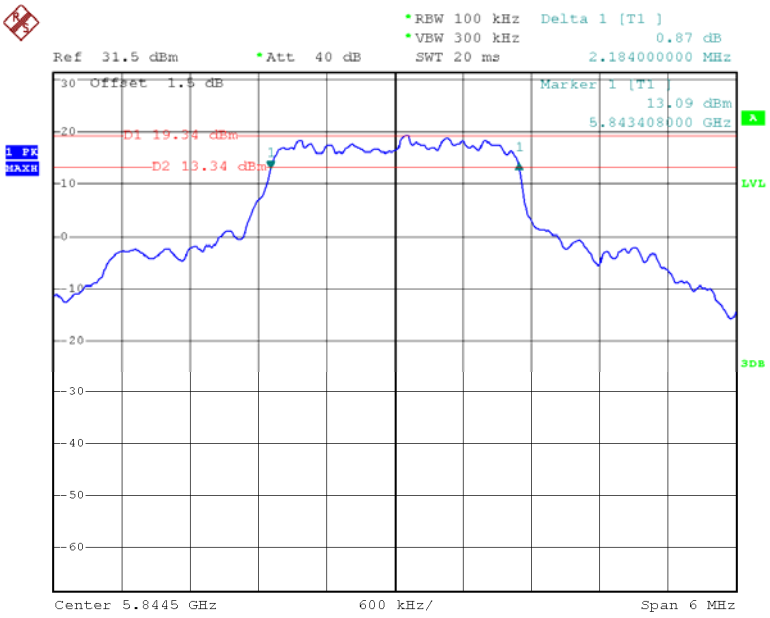
Date: 9.JAN.2020 14:00:58

3M Middle Channel



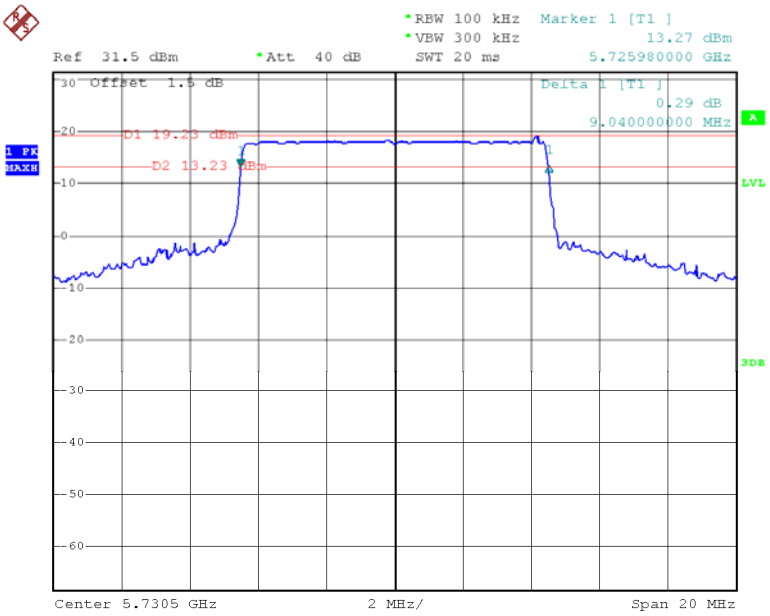
Date: 9.JAN.2020 14:02:56

3M High Channel



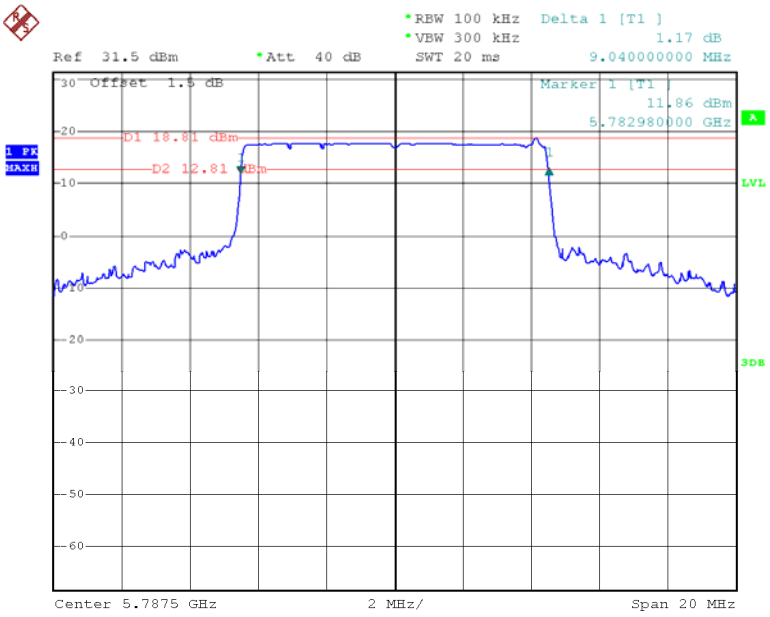
Date: 9.JAN.2020 14:04:19

10M Low Channel



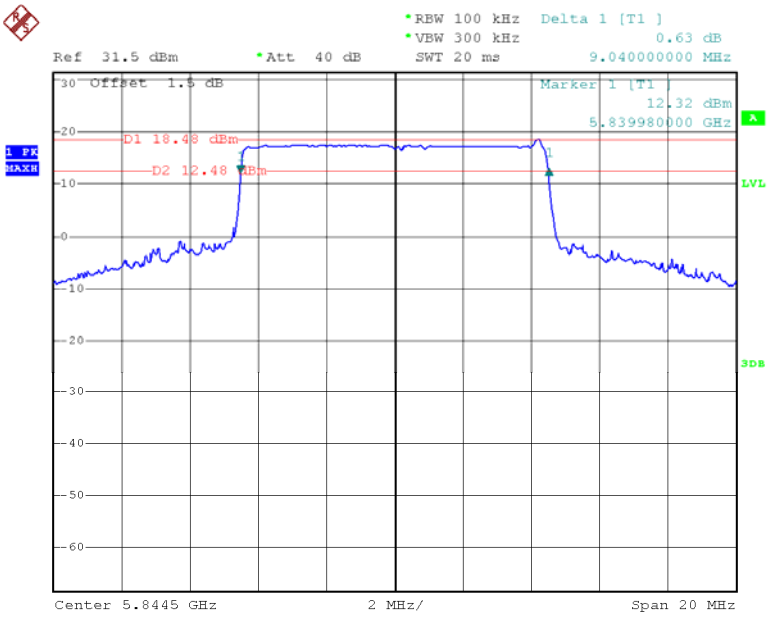
Date: 9.JAN.2020 14:09:22

10M Middle Channel



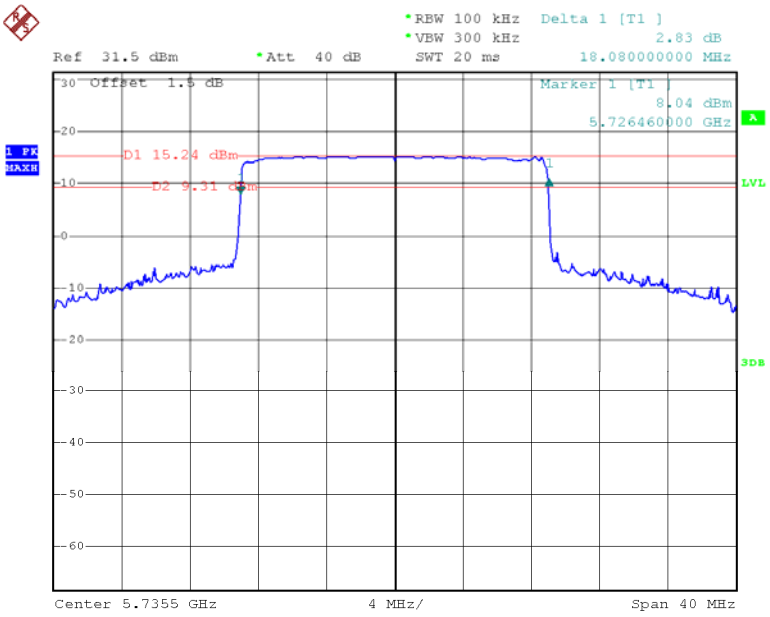
Date: 9.JAN.2020 14:11:08

10M High Channel



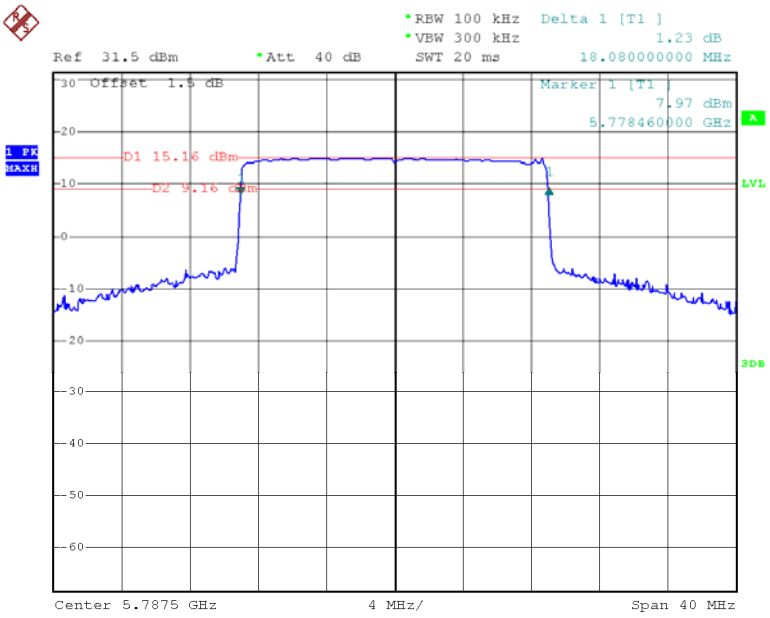
Date: 9.JAN.2020 14:13:32

20M Low Channel



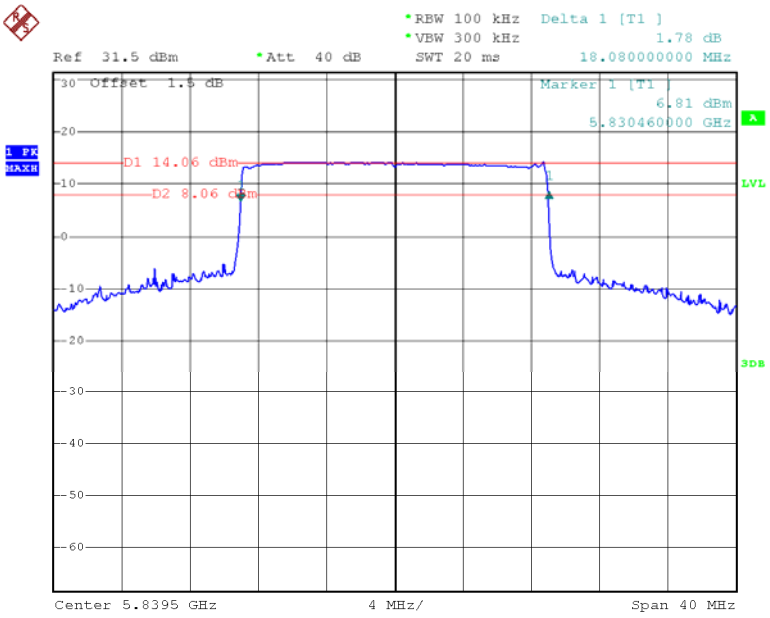
Date: 9.JAN.2020 14:17:01

20M Middle Channel



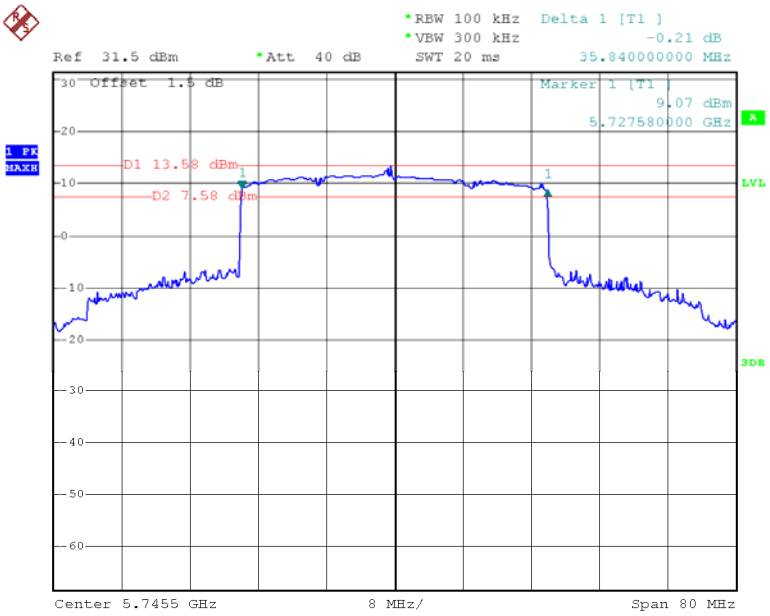
Date: 9.JAN.2020 14:19:24

20M High Channel



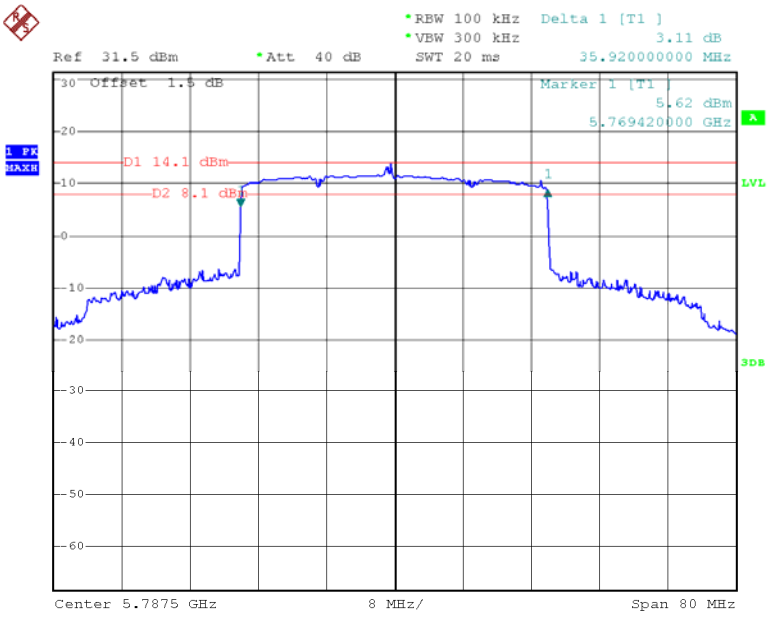
Date: 9.JAN.2020 14:21:22

40M Low Channel



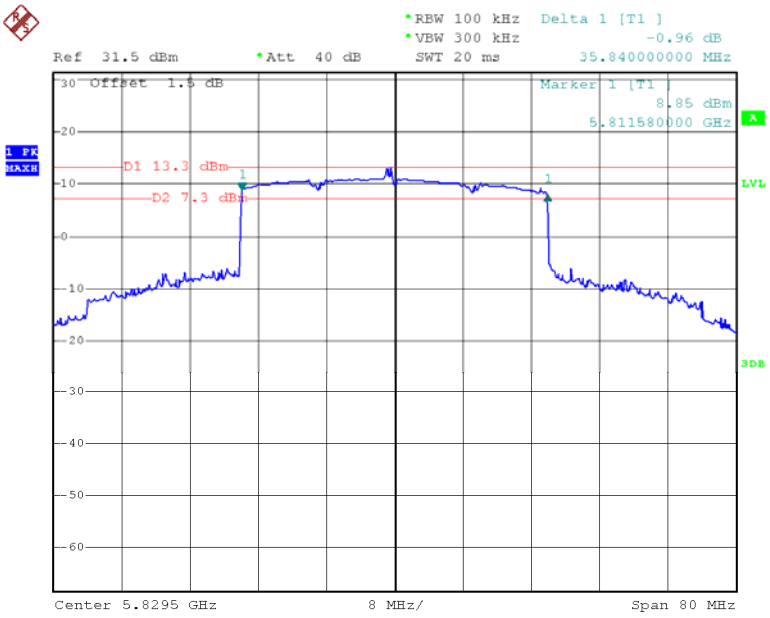
Date: 9.JAN.2020 14:26:27

40M Middle Channel



Date: 9.JAN.2020 14:35:19

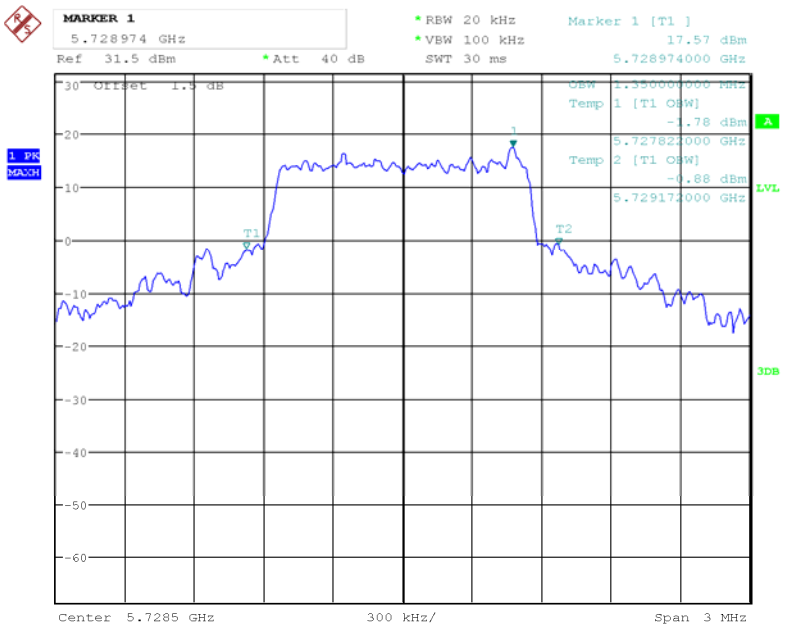
40M High Channel



Date: 9.JAN.2020 14:40:11

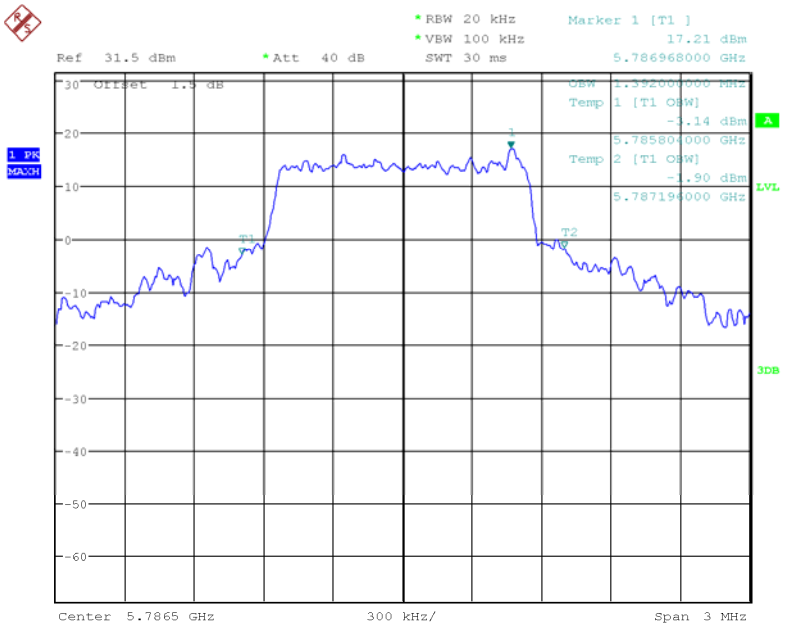
99% Occupied bandwidth:

1.4M Low Channel



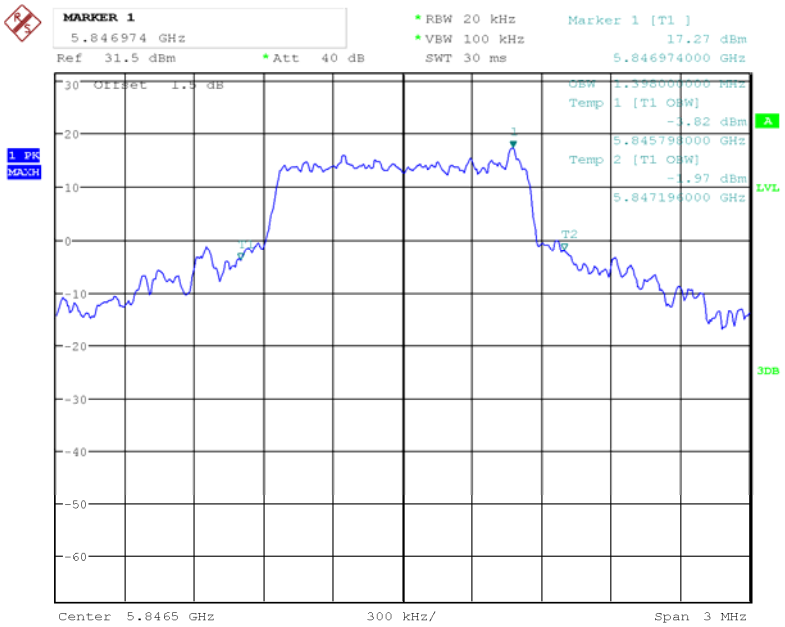
Date: 9.JAN.2020 17:10:57

1.4M Middle Channel



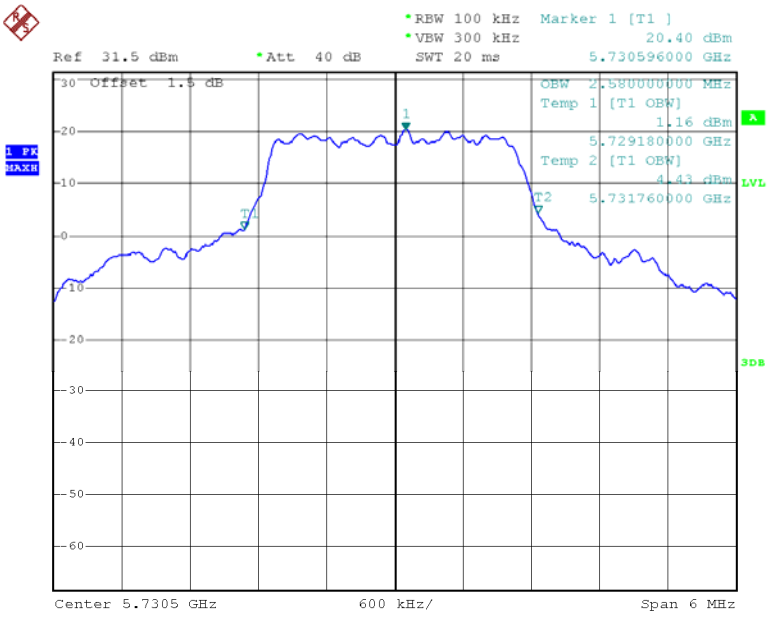
Date: 9.JAN.2020 17:10:18

1.4M High Channel



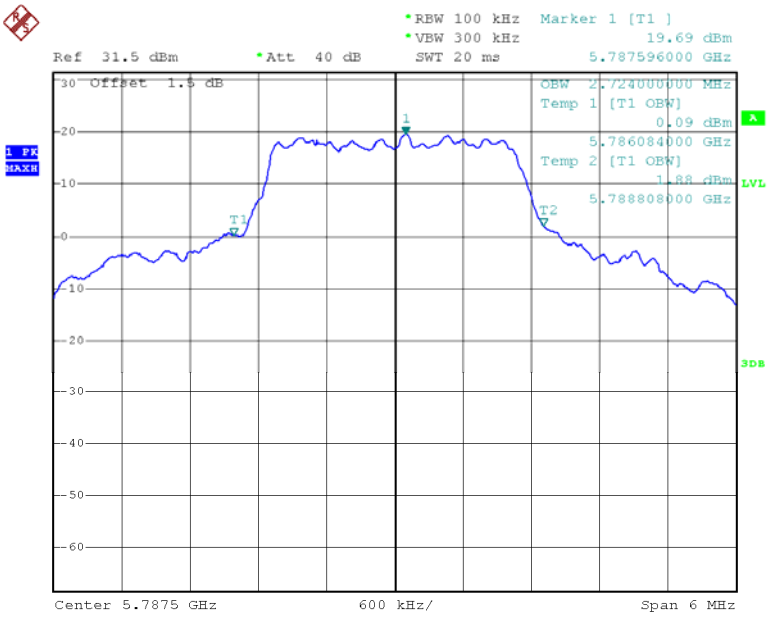
Date: 9.JAN.2020 17:11:33

3M Low Channel



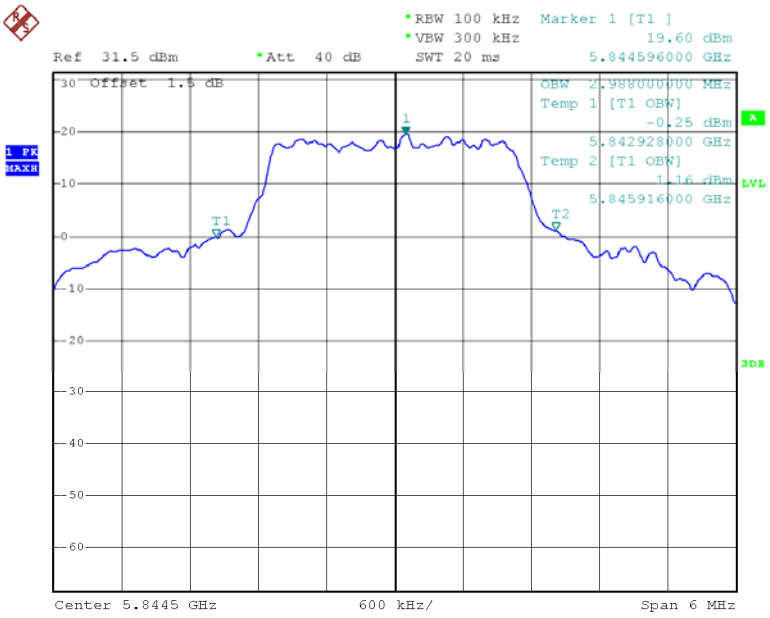
Date: 9.JAN.2020 15:50:03

3M Middle Channel



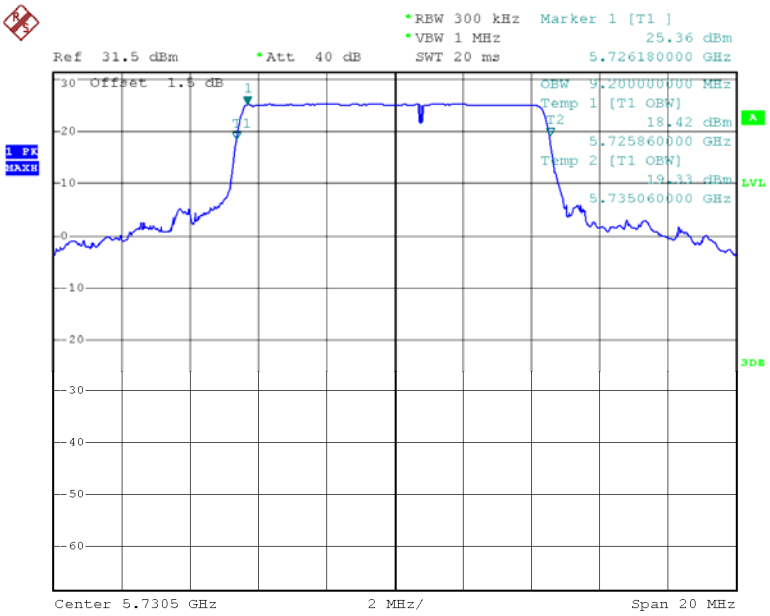
Date: 9.JAN.2020 15:49:35

3M High Channel



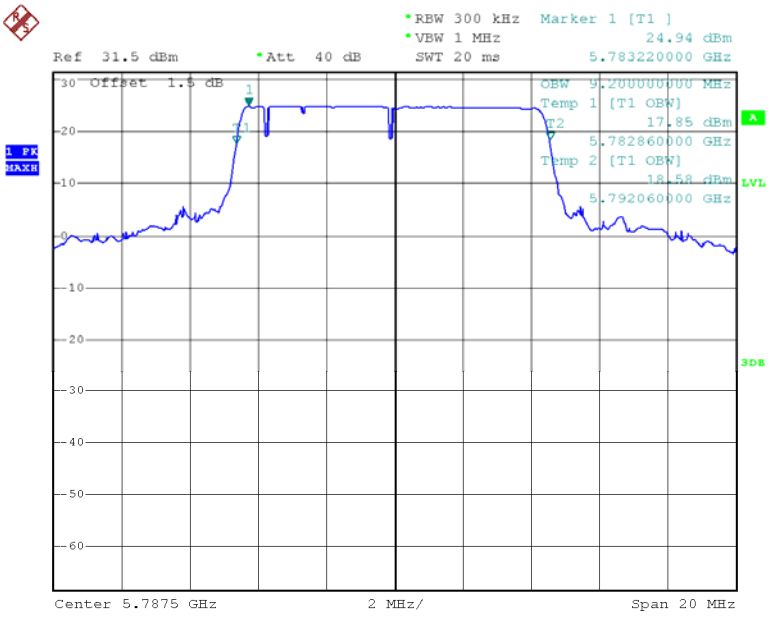
Date: 9.JAN.2020 15:49:08

10M Low Channel



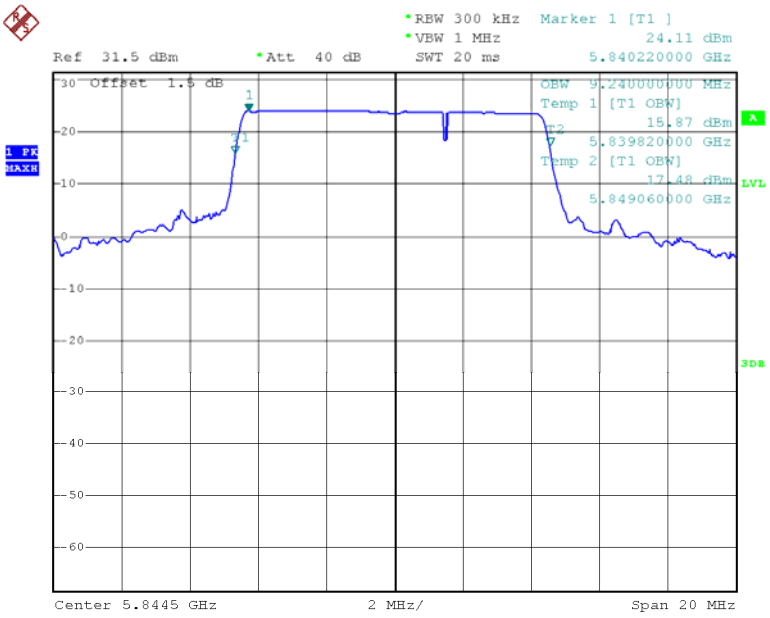
Date: 9.JAN.2020 15:47:41

10M Middle Channel



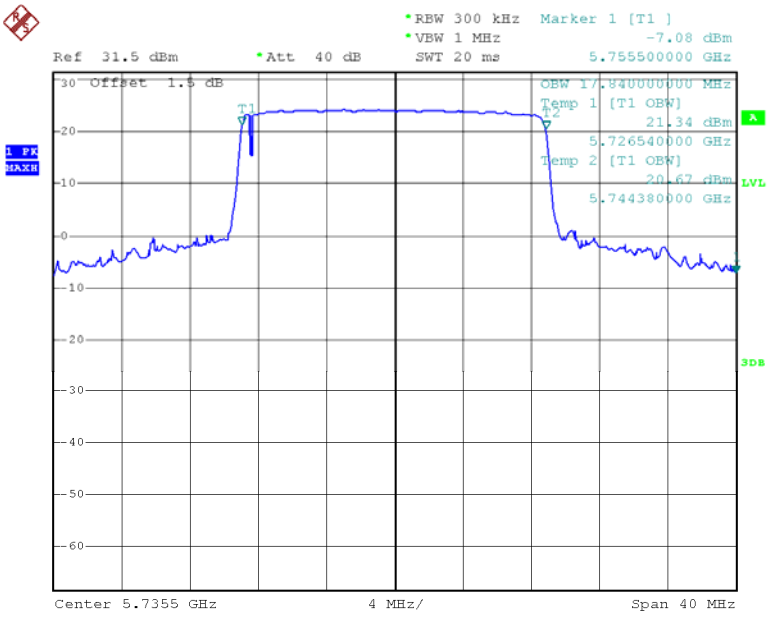
Date: 9.JAN.2020 15:46:02

10M High Channel



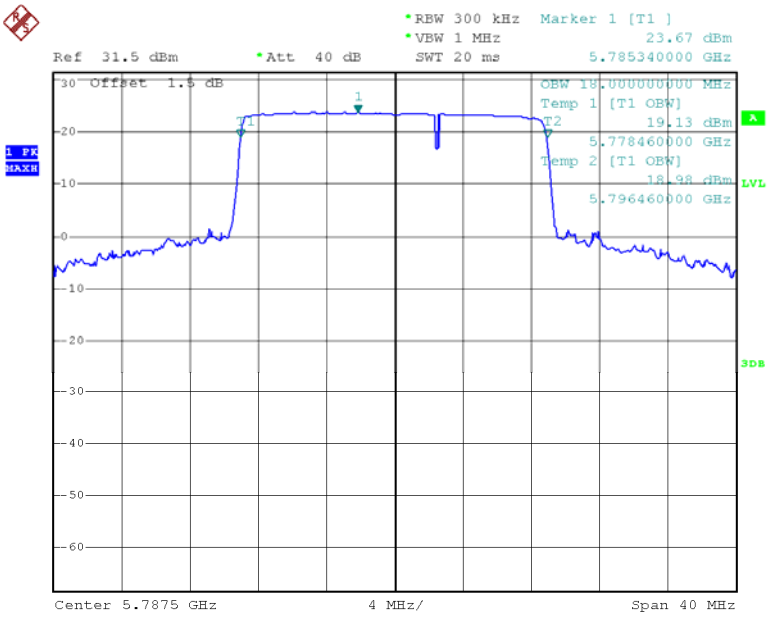
Date: 9.JAN.2020 15:44:18

20M Low Channel



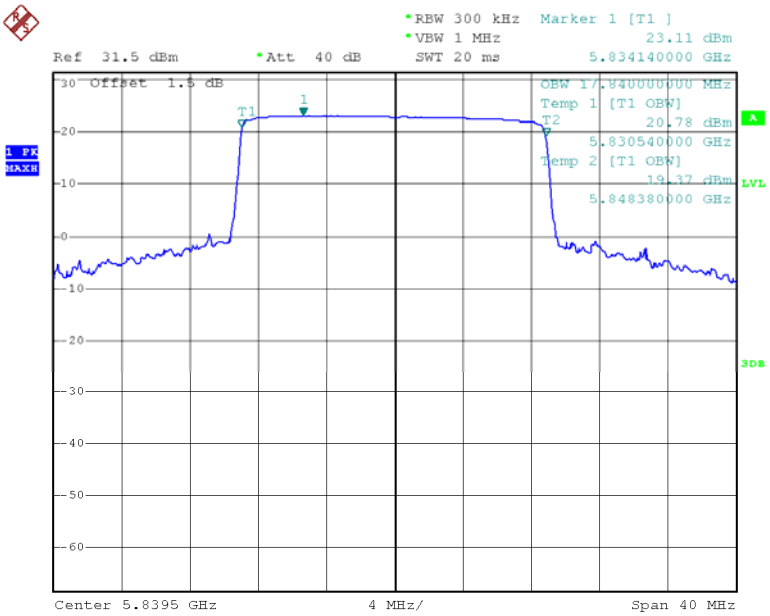
Date: 9.JAN.2020 15:41:08

20M Middle Channel



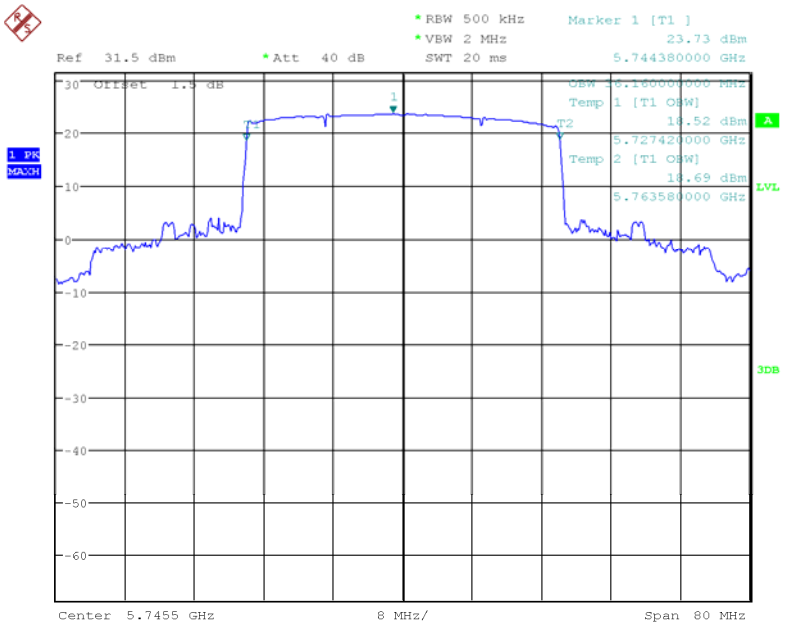
Date: 9.JAN.2020 15:39:31

20M High Channel



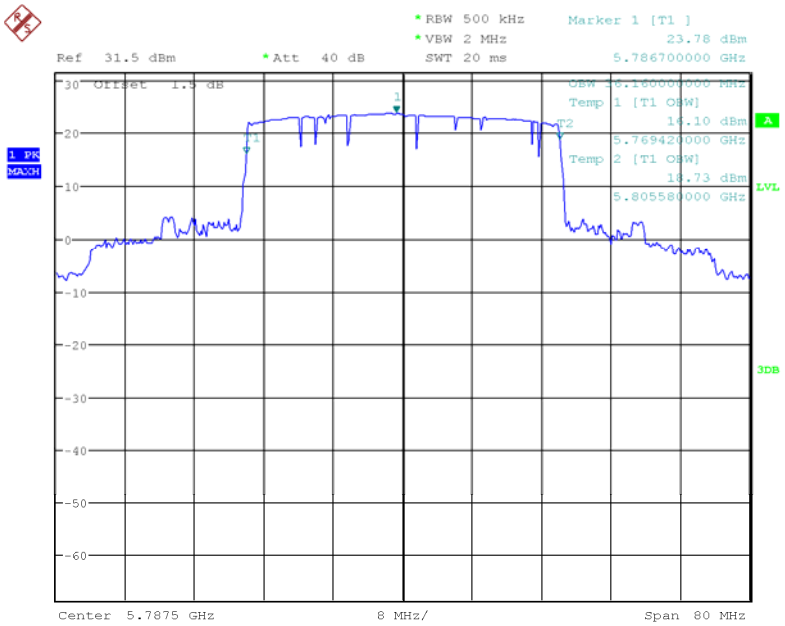
Date: 9.JAN.2020 15:36:38

40M Low Channel



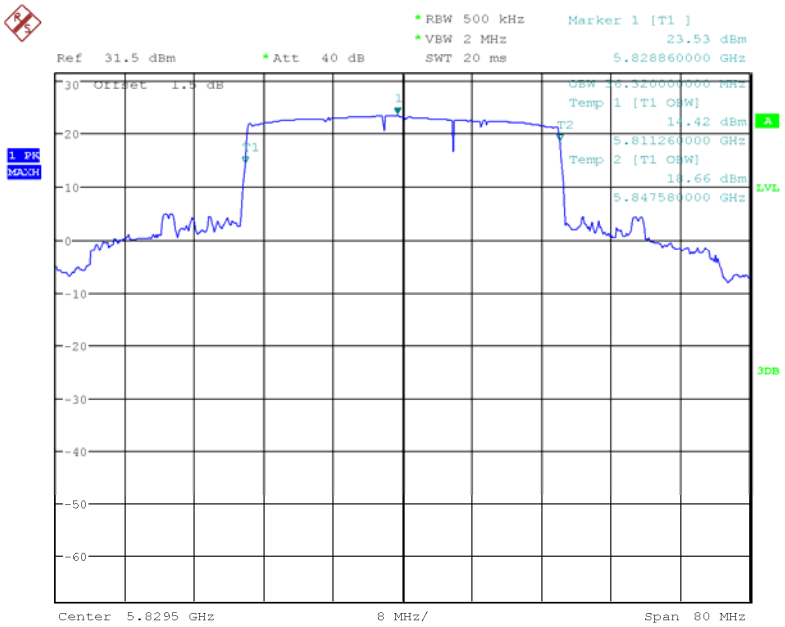
Date: 9.JAN.2020 16:35:14

40M Middle Channel



Date: 9.JAN.2020 16:33:21

40M High Channel



Date: 9.JAN.2020 16:31:40

FCC §15.407(a) & RSS-247 CLAUSE 6.2 –MAXIMUM CONDUCTED OUTPUT POWER

Applicable Standard

According to FCC §15.407(a)

(a) Power limits:

(3) For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

(4) The maximum conducted output power must be measured over any interval of continuous transmission using instrumentation calibrated in terms of an rms-equivalent voltage.

According to RSS-247 Clause 6.2:

Frequency band 5725-5850 MHz

6.2.4.1 Power limits

For equipment operating in the band 5725-5850 MHz, the minimum 6 dB bandwidth shall be at least 500 kHz.

The maximum conducted output power shall not exceed 1 W. The output power spectral density shall not exceed 30 dBm in any 500 kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the output power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed point-to-point operations exclude the use of point-to-multipoint[3] systems, omnidirectional applications and multiple collocated transmitters transmitting the same information.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Unknown	Coaxial Cable	C-SJ00-0010	C0010/02	Each time	N/A
Weinschel	Coaxial Attenuators	53-20-34	LN749	Each time	N/A
Agilent	USB Wideband Power Sensor	U2021XA	MY5425009	2019-05-09	2020-05-09

*** 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).

Test Procedure

According to KDB 789033 D02 General UNII Test Procedures New Rules v02r01.

Test Data

Environmental Conditions

Temperature:	23.2~24.8 °C
Relative Humidity:	40~49%
ATM Pressure:	101.2~102.2kPa

** The testing was performed by Lily Xie from 2020-01-09 to2020-01-17.*

Test Mode: Transmitting

SISO Mode:

Mode	Test Frequency (MHz)	Conducted Average Output Power (dBm)		
		Chain 0	Chain 1	Limit
1.4M	5728.5	25.68	26.12	30
	5784.5	25.72	25.91	
	5846.5	25.26	25.95	
3M	5730.5	25.62	25.86	
	5787.5	25.86	25.58	
	5844.5	25.56	25.74	
10M	5730.5	25.84	25.77	
	5787.5	25.97	25.99	
	5844.5	25.79	25.98	
20M	5735.5	25.63	25.54	
	5787.5	25.81	25.59	
	5839.5	25.25	25.75	
40M	5745.5	25.27	25.79	
	5787.5	25.65	25.76	
	5829.5	25.21	26.02	

MIMO Mode:

Mode	Test Frequency (MHz)	Conducted Average Output Power (dBm)			
		Chain 0	Chain 1	Total	Limit
10M	5730.5	22.66	22.35	25.52	30
	5787.5	22.23	22.24	25.25	
	5844.5	22.14	22.56	25.37	
20M	5735.5	21.33	23.22	25.39	
	5787.5	22.59	23.89	26.30	
	5839.5	22.53	22.58	25.57	
40M	5745.5	22.47	23.36	25.95	
	5787.5	22.63	23.71	26.21	
	5829.5	21.93	23.97	26.08	

Note:
The duty cycle was calculated into the reading already.
Note: the test performed at antenna port, the antenna gain is 2.44dBi, meet the EIRP limit of ISED. the duty cycle factor have been calculated into average power result.

FCC §15.407(a)& RSS-247 CLAUSE 6.2- POWER SPECTRAL DENSITY

Applicable Standard

According to FCC §15.407(a)

(a) Power limits:

(3) For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

According to RSS-247 Clause 6.2:

Frequency band 5725-5850 MHz

6.2.4.1 Power limits

For equipment operating in the band 5725-5850 MHz, the minimum 6 dB bandwidth shall be at least 500 kHz.

The maximum conducted output power shall not exceed 1 W. The output power spectral density shall not exceed 30 dBm in any 500 kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the output power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed point-to-point operations exclude the use of point-to-multipoint[3] systems, omnidirectional applications and multiple collocated transmitters transmitting the same information.

Test Procedure

According to KDB 789033 D02 General UNII Test Procedures New Rules v02r01.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSP 38	100478	2019-05-09	2020-05-09
yzjingcheng	Coaxial Cable	KTRFBU-141-50	41010013	Each time	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).

Test Data

Environmental Conditions

Temperature:	23.2~24.8 °C
Relative Humidity:	40~49%
ATM Pressure:	101.2~102.2kPa

** The testing was performed by Lily Xie from 2020-01-09 to2020-01-17.*

Test Result:Compliance.

Test Mode: Transmitting

SISO mode:

Mode	Channel	Frequency (MHz)	Reading (dBm/300kHz)		Maximum Conducted Power Spectral Density (dBm/500kHz)		
			Chain 0	Chain 1	Chain 0	Chain 1	Limit
1.4M	Low	5728.5	20.65	18.22	22.87	20.44	≤30
	Middle	5784.5	20.06	17.41	22.28	19.63	
	High	5846.5	19.27	18.19	21.49	20.41	
3M	Low	5730.5	17.88	15.49	20.1	17.71	
	Middle	5787.5	17.38	15.14	19.6	17.36	
	High	5844.5	17.29	15.55	19.51	17.77	
10M	Low	5730.5	14.78	13.37	17	15.59	
	Middle	5787.5	14.79	13.06	17.01	15.28	
	High	5844.5	14.58	13.47	16.8	15.69	
20M	Low	5735.5	12.41	10.01	14.63	12.23	
	Middle	5787.5	11.45	9.22	13.67	11.44	
	High	5839.5	11.14	9.5	13.36	11.72	
40M	Low	5745.5	9.62	8.01	11.84	10.23	
	Middle	5787.5	8.97	7.59	11.19	9.81	
	High	5829.5	8.76	7.53	10.98	9.75	

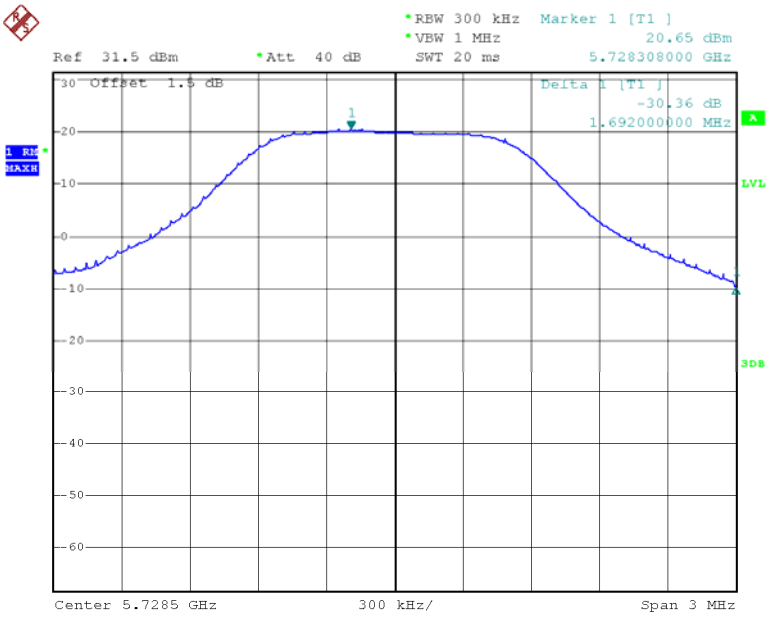
MIMO mode:

Mode	Channel	Frequency (MHz)	Reading (dBm/300kHz)		Maximum Conducted Power Spectral Density (dBm/500kHz)			
			Chain 0	Chain 1	Chain 0	Chain 1	Total	Limit
10M	Low	5730.5	10.86	11.54	13.08	13.76	16.44	30
	Middle	5787.5	10.25	10.67	12.47	12.89	15.70	
	High	5844.5	9.23	10.6	11.45	12.82	15.20	
20M	Low	5735.5	7.52	8.37	9.74	10.59	13.20	
	Middle	5787.5	7.94	8.54	10.16	10.76	13.48	
	High	5839.5	7.12	8.11	9.34	10.33	12.87	
40M	Low	5745.5	4.07	4.49	6.29	6.71	9.52	
	Middle	5787.5	4.04	4.67	6.26	6.89	9.60	
	High	5829.5	5.05	4.49	7.27	6.71	10.01	

Note:
1. The maximum antenna gain is 2.44 dBi in 5GHz band.
2. Method SA-3 in KDB 789033 D02 General UNII Test Procedures New Rules v02r01was used for PSD test.
3. For 5.8GHz band, If measurement bandwidth of Maximum PSD is specified in 500 kHz, add 10log(500kHz/RBW) to the measured result, whereas RBW (< 500 KHz) is the reduced resolution bandwidth of the spectrum analyzer set during measurement.

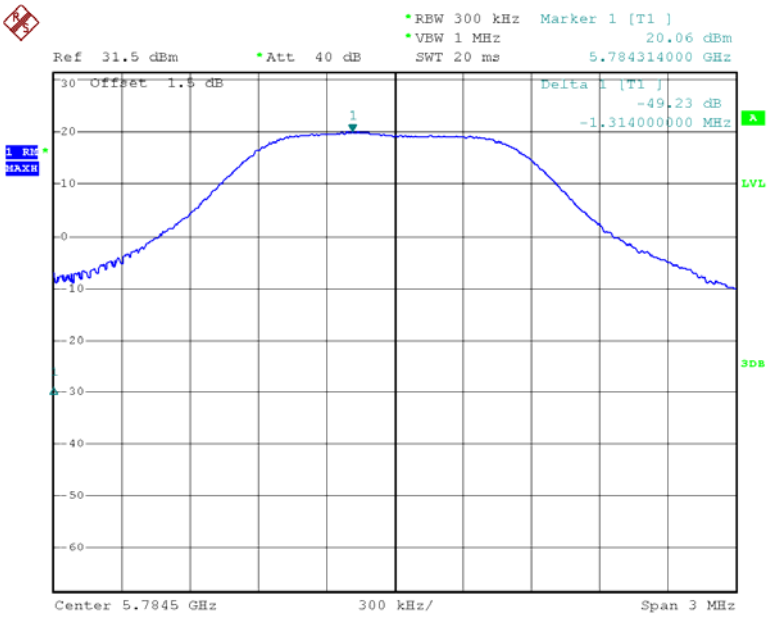
SISO mode Chain 0:

1.4M Low Channel



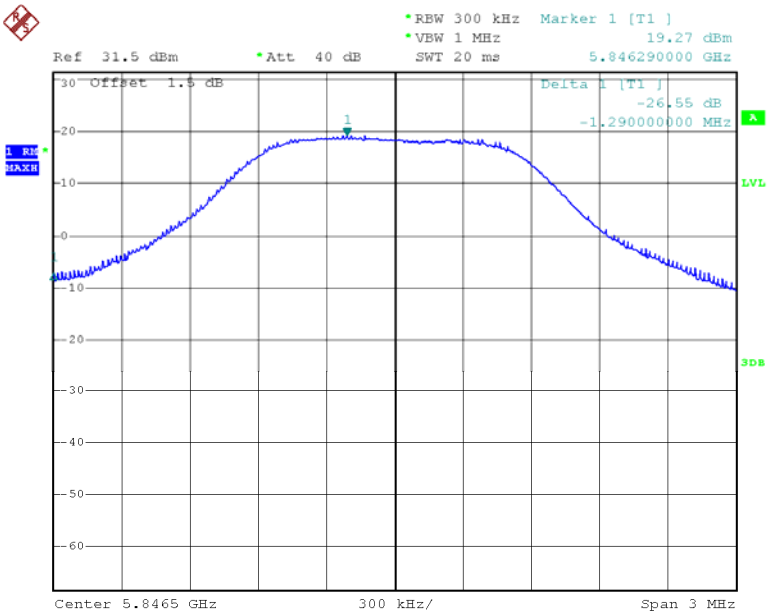
Date: 9.JAN.2020 14:58:47

1.4M Middle Channel



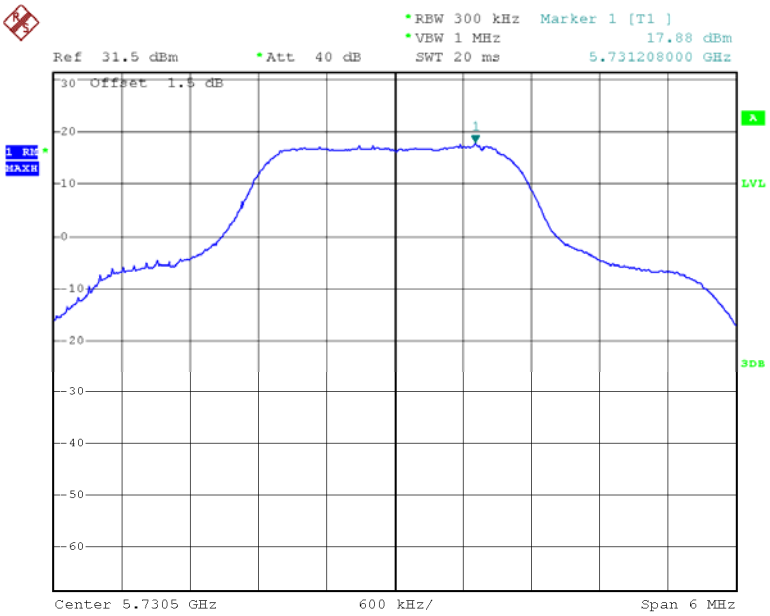
Date: 9.JAN.2020 14:59:18

1.4M High Channel



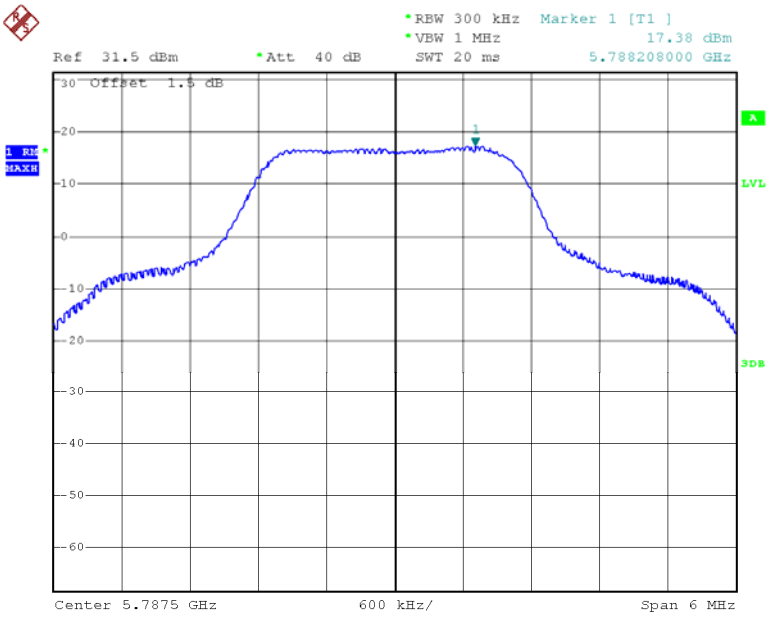
Date: 9.JAN.2020 15:01:11

3M Low Channel



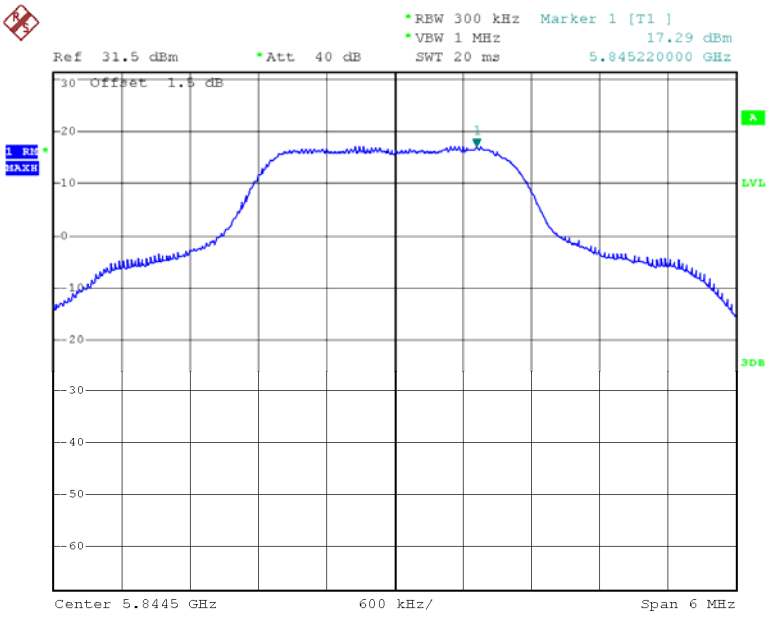
Date: 9.JAN.2020 15:01:59

3M Middle Channel



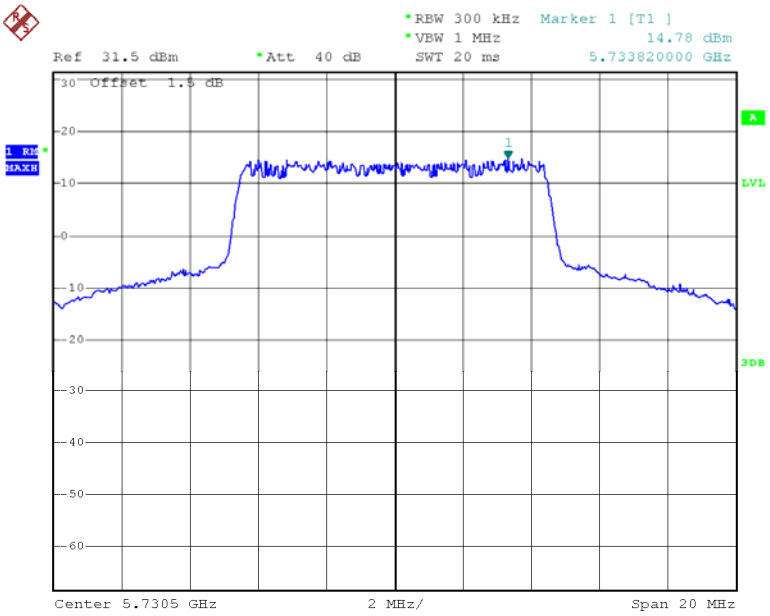
Date: 9.JAN.2020 15:02:30

3M High Channel



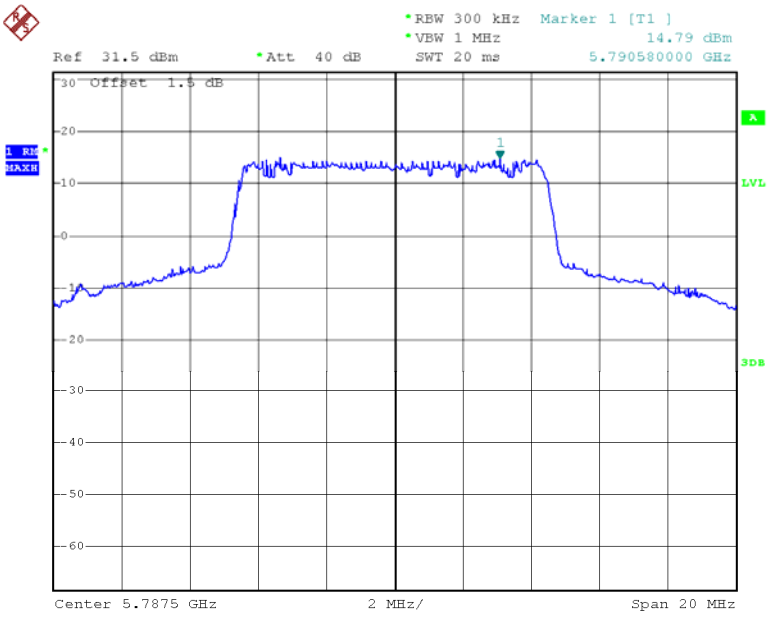
Date: 9.JAN.2020 15:03:16

10M Low Channel



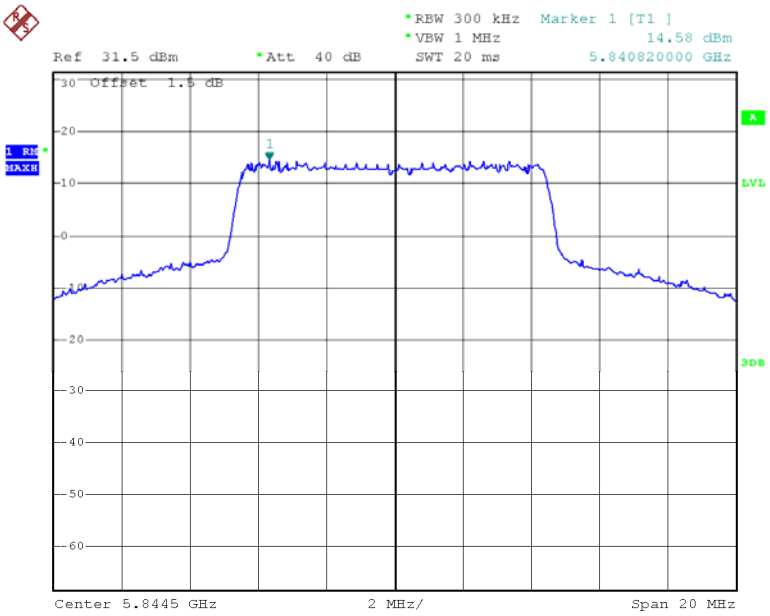
Date: 9.JAN.2020 15:04:39

10M Middle Channel



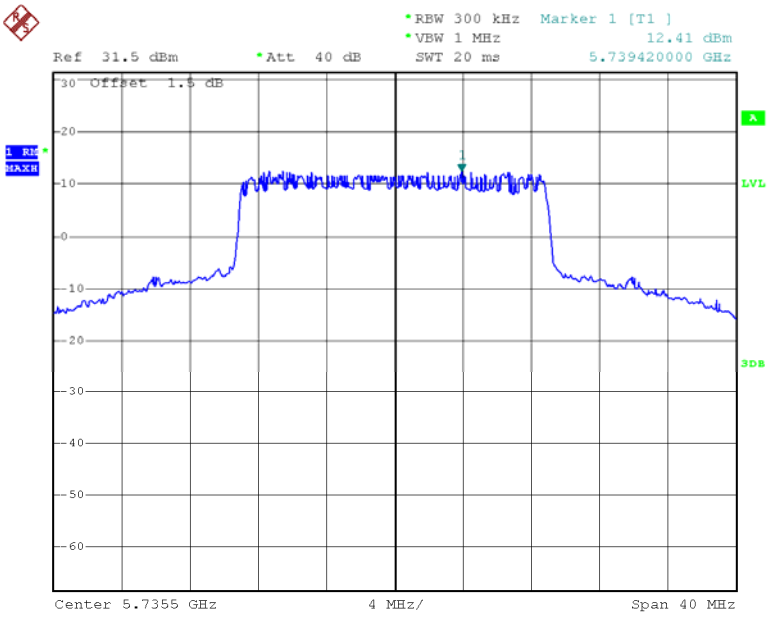
Date: 9.JAN.2020 15:05:25

10M High Channel



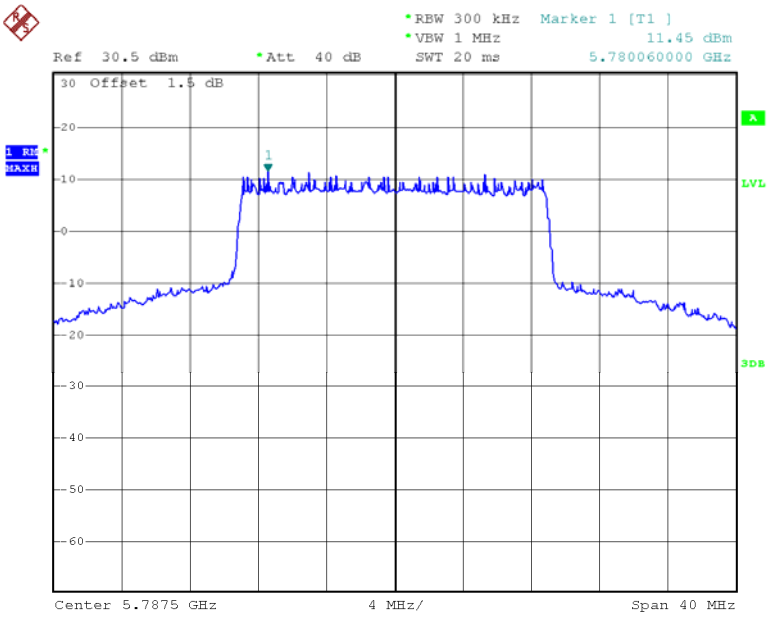
Date: 9.JAN.2020 15:08:29

20M Low Channel



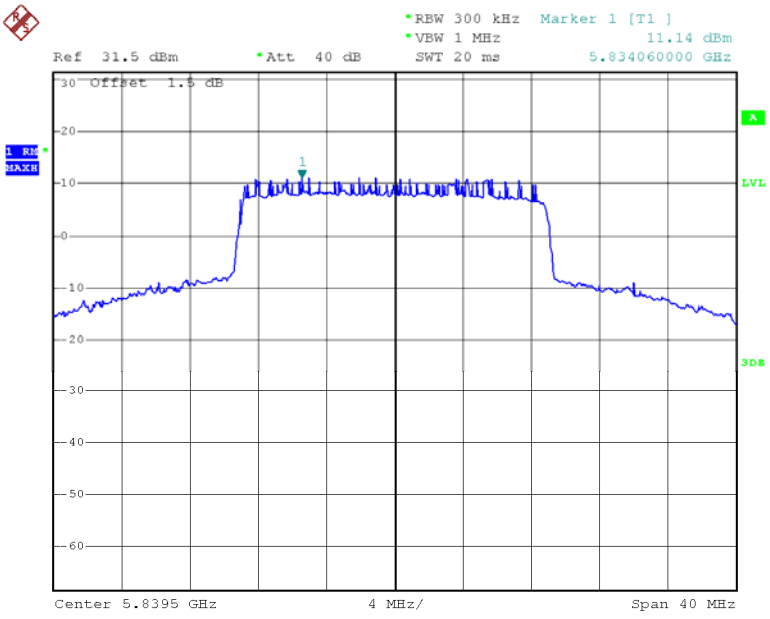
Date: 9.JAN.2020 15:09:08

20M Middle Channel



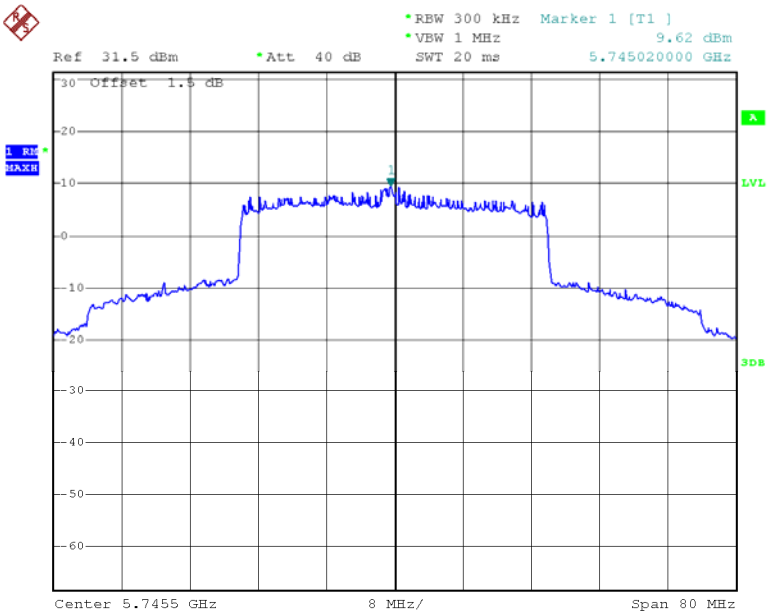
Date: 15.JAN.2020 16:34:45

20M High Channel



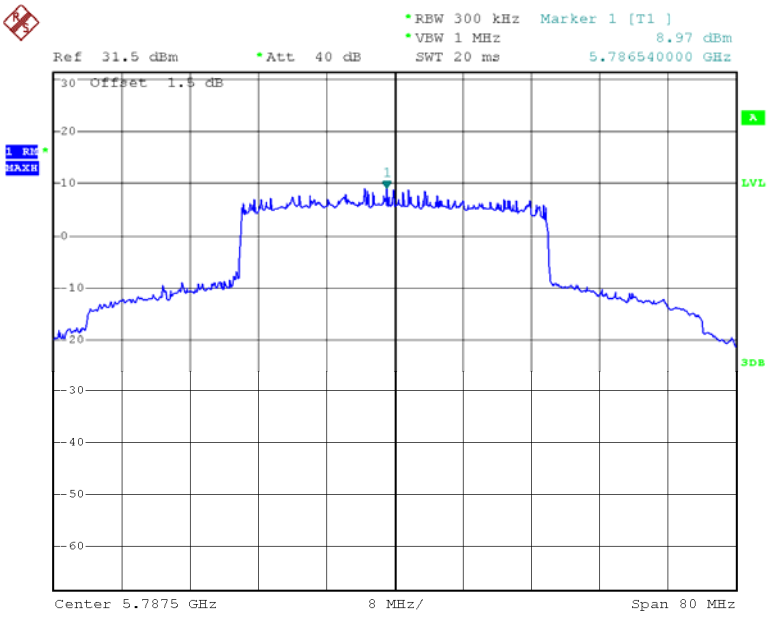
Date: 9.JAN.2020 15:10:15

40M Low Channel



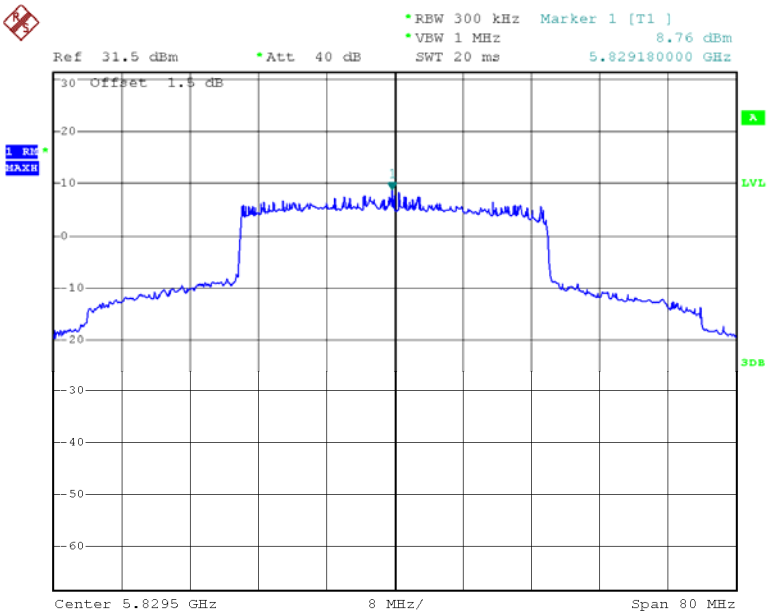
Date: 9.JAN.2020 15:10:42

40M Middle Channel



Date: 9.JAN.2020 15:11:19

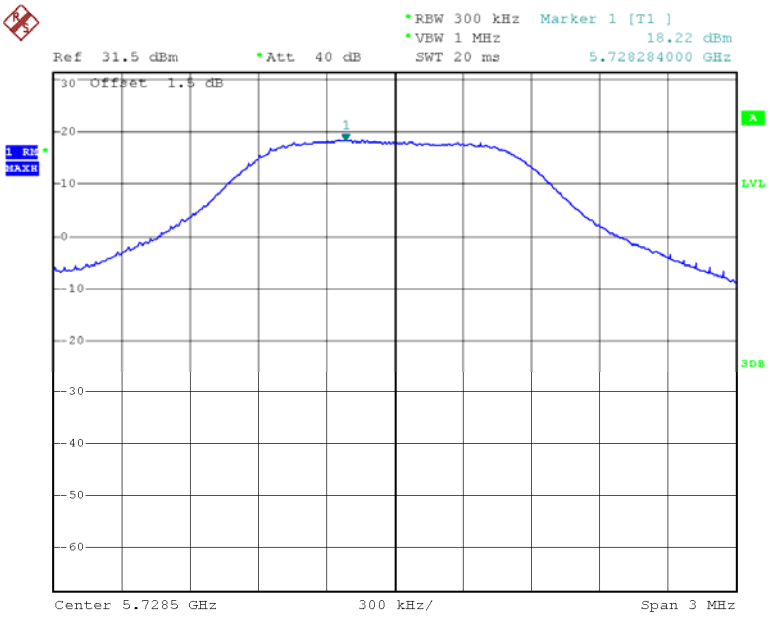
40M High Channel



Date: 9.JAN.2020 15:11:54

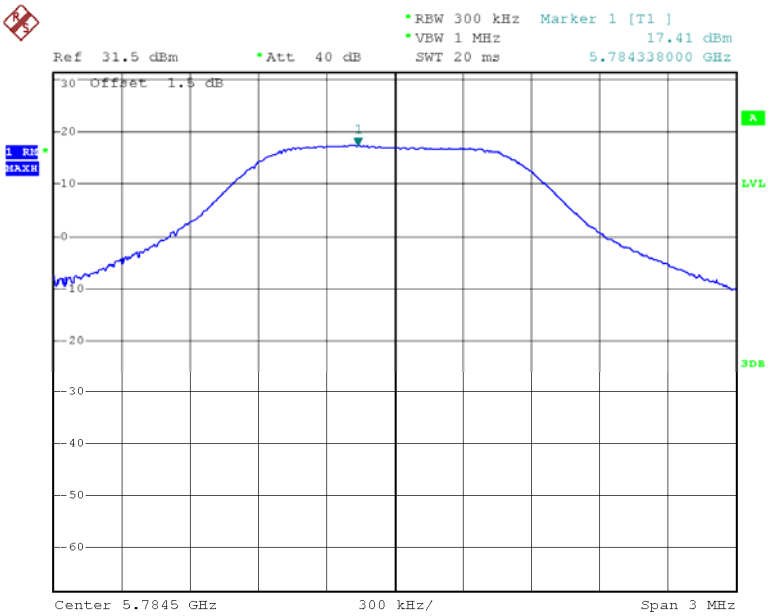
Chain 1:

1.4M Low Channel



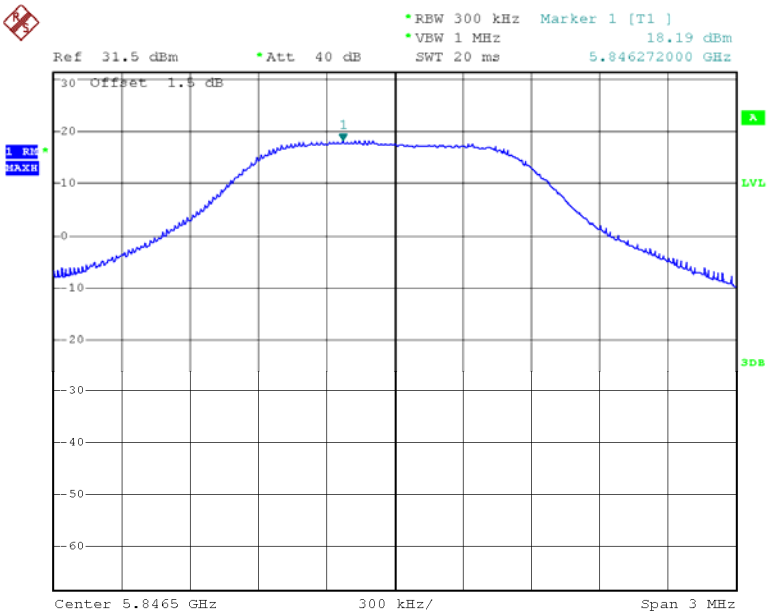
Date: 15.JAN.2020 15:29:36

1.4M Middle Channel



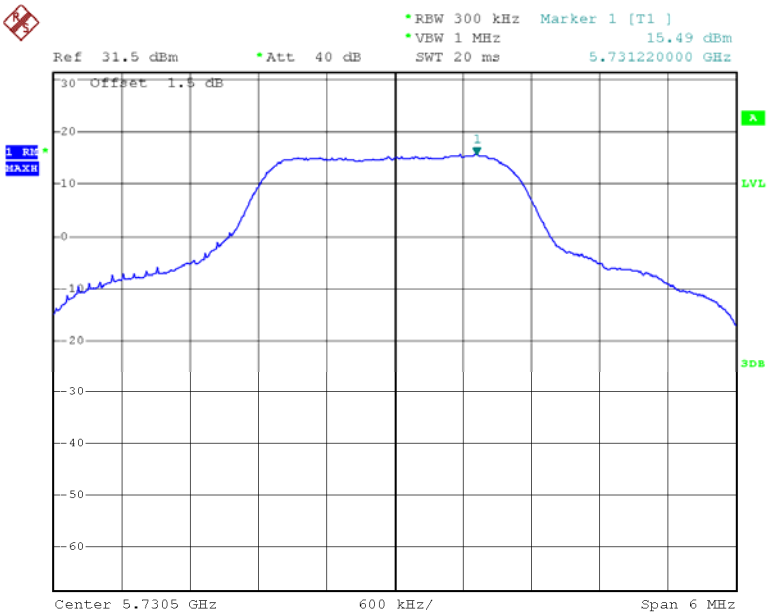
Date: 15.JAN.2020 15:30:01

1.4M High Channel



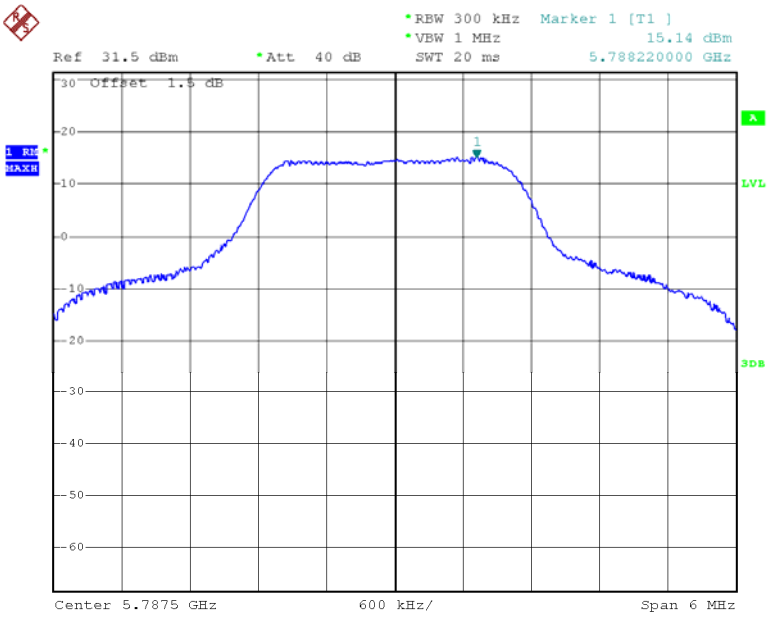
Date: 15.JAN.2020 15:31:04

3M Low Channel



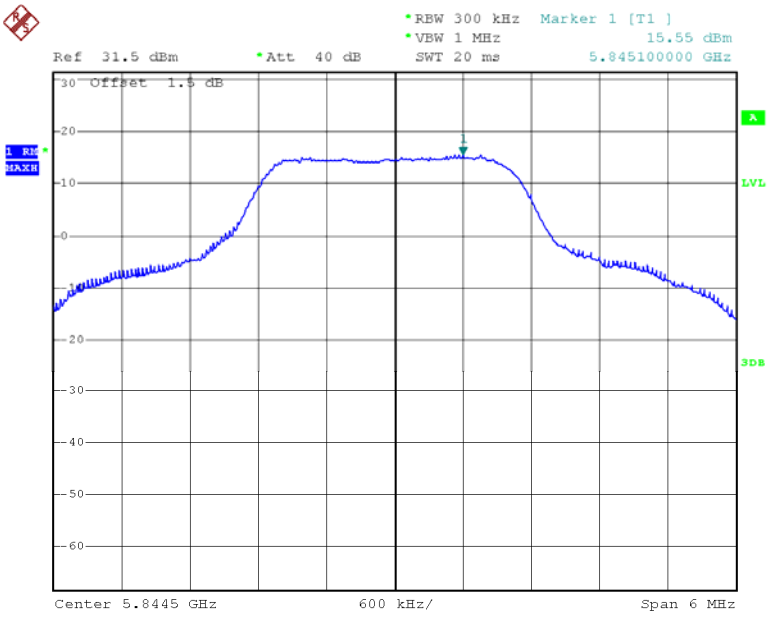
Date: 15.JAN.2020 15:26:56

3M Middle Channel



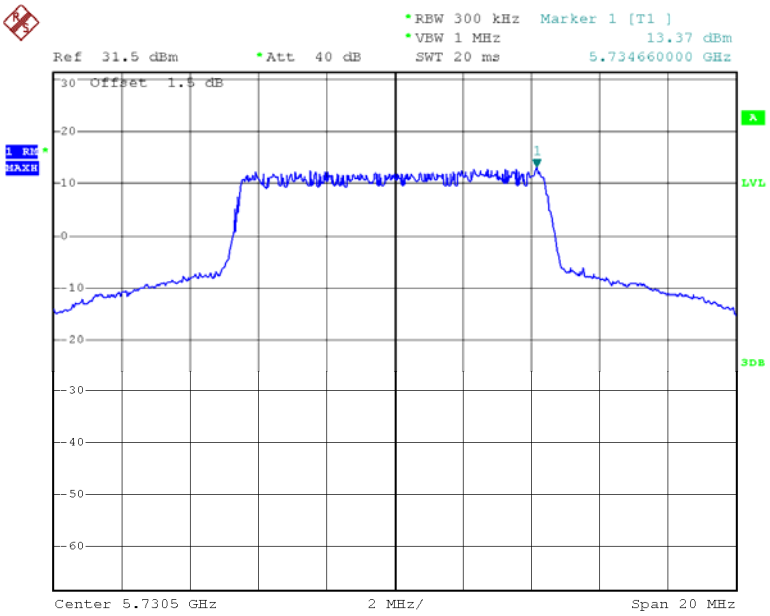
Date: 15.JAN.2020 15:27:19

3M High Channel



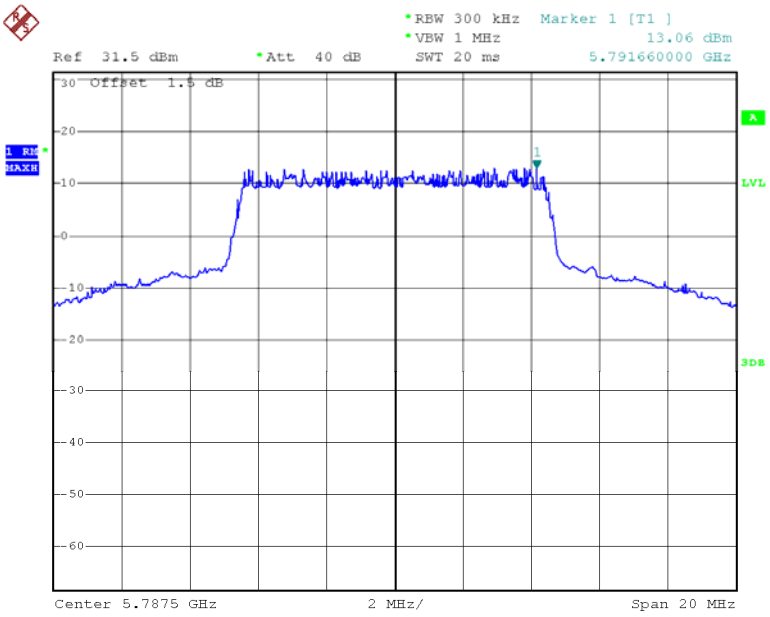
Date: 15.JAN.2020 15:29:03

10M Low Channel



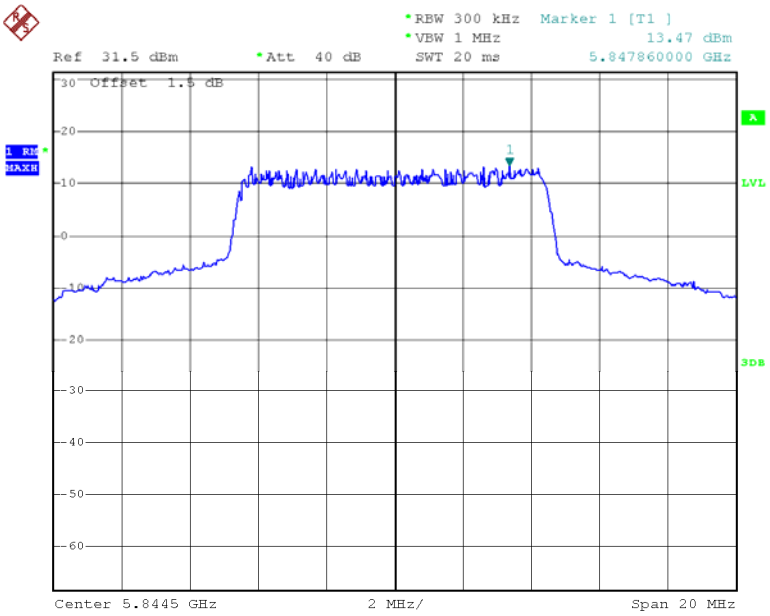
Date: 15.JAN.2020 15:24:33

10M Middle Channel



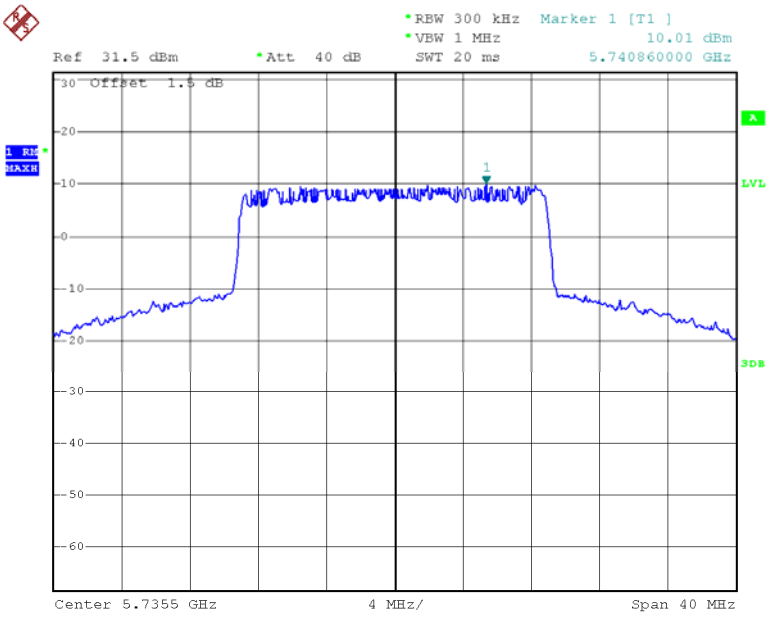
Date: 15.JAN.2020 15:24:57

10M High Channel



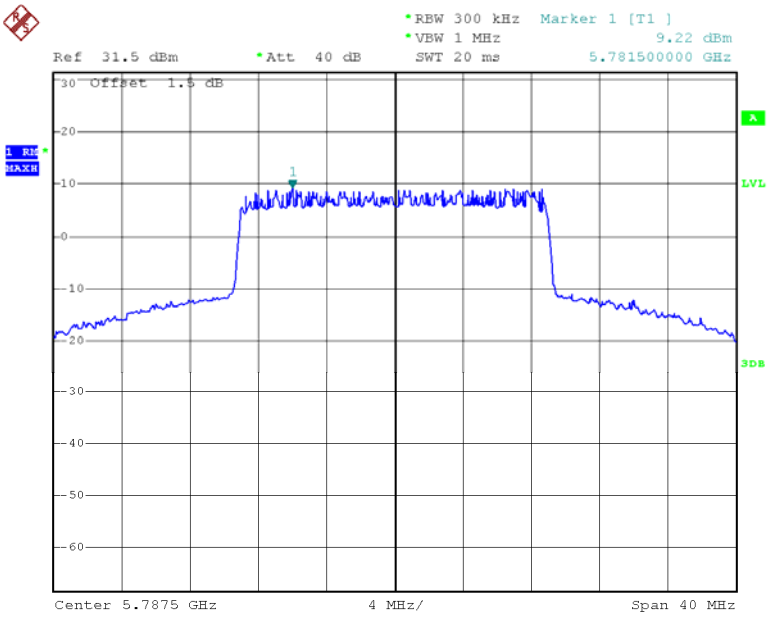
Date: 15.JAN.2020 15:25:50

20M Low Channel



Date: 15.JAN.2020 15:22:27

20M Middle Channel



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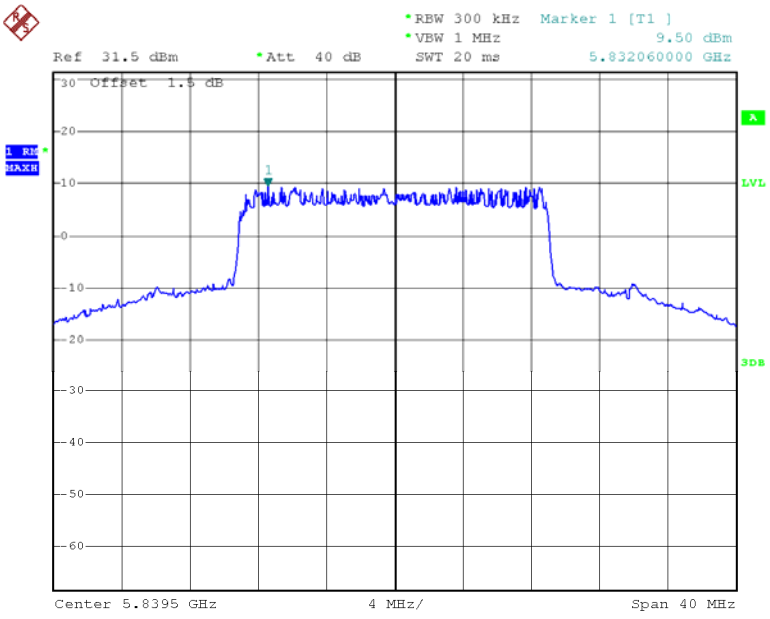
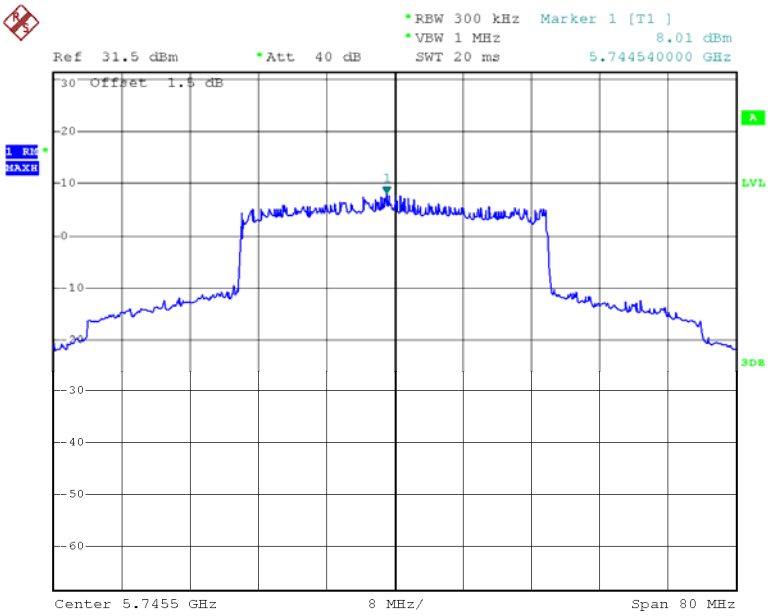
20M High Channel



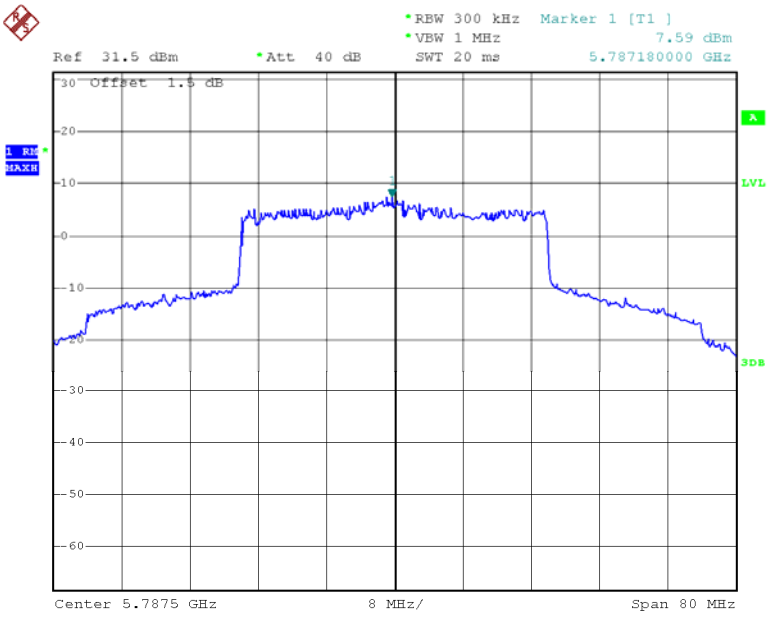
Date: 15.JAN.2020 15:23:51

40M Low Channel



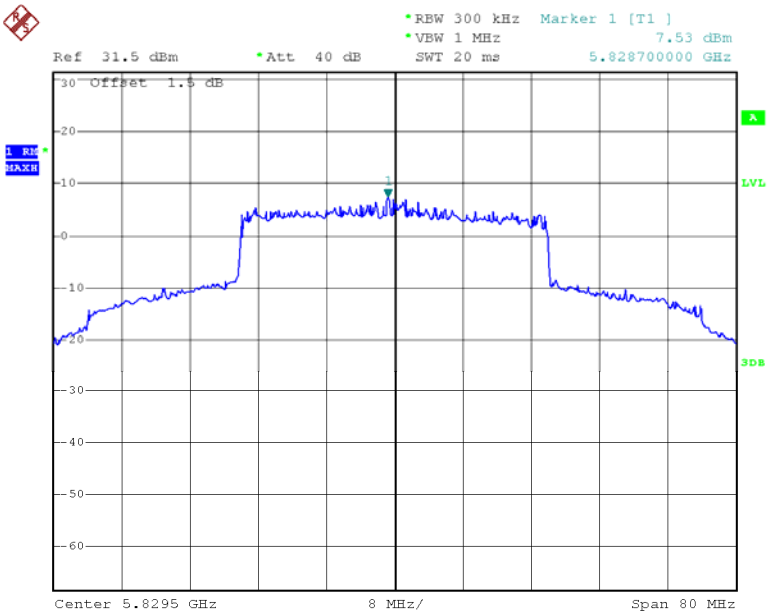
Date: 15.JAN.2020 15:21:45

40M Middle Channel



Date: 15.JAN.2020 15:18:22

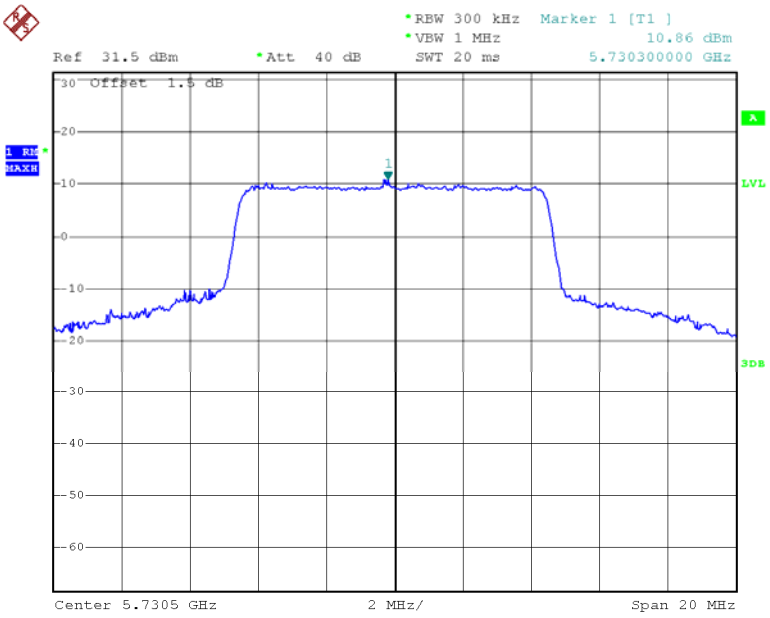
40M High Channel



Date: 15.JAN.2020 15:17:27

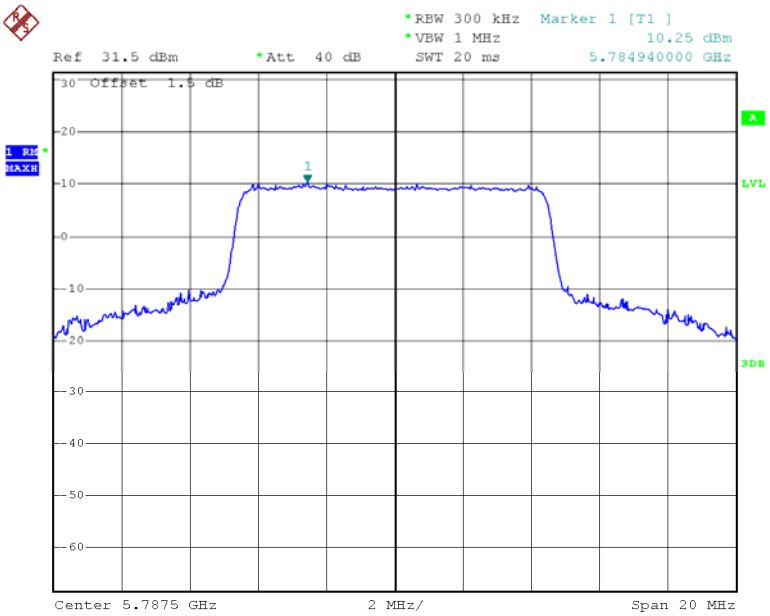
MIMO mode Chain 0：

10M Low Channel



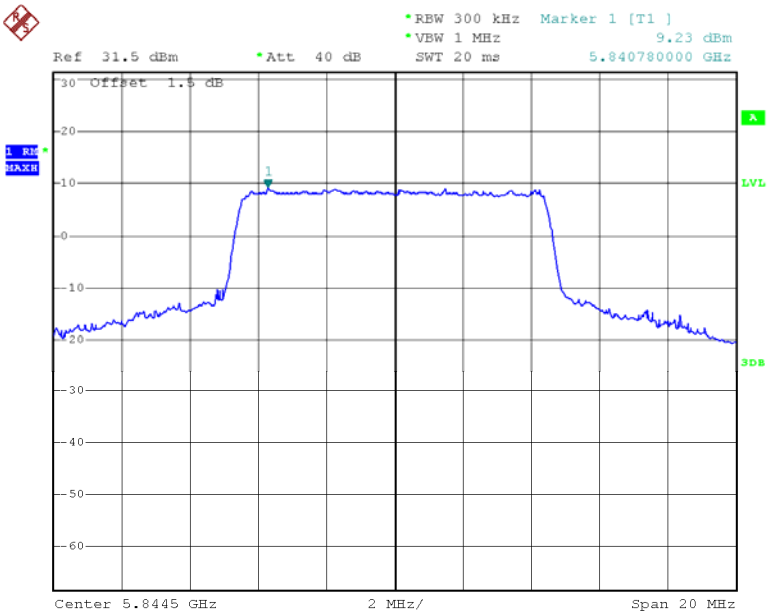
Date: 17.JAN.2020 10:51:48

10M Middle Channel



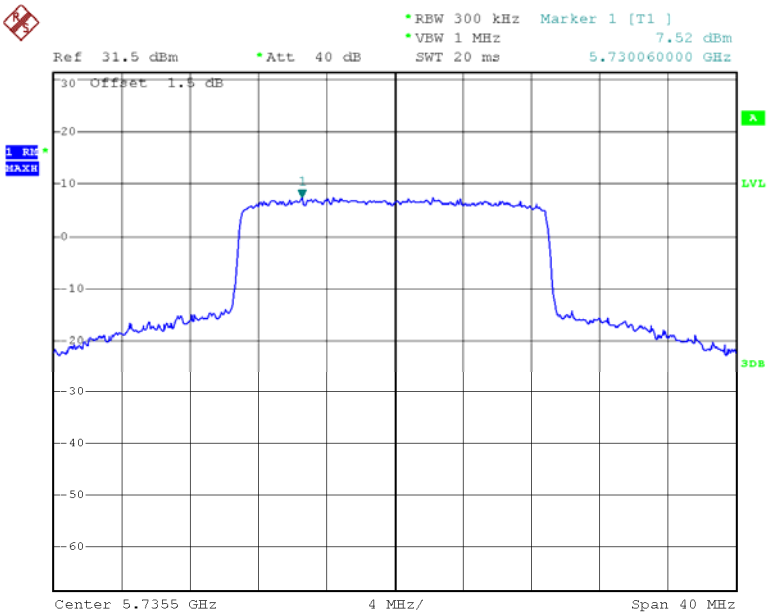
Date: 17.JAN.2020 10:53:38

10M High Channel



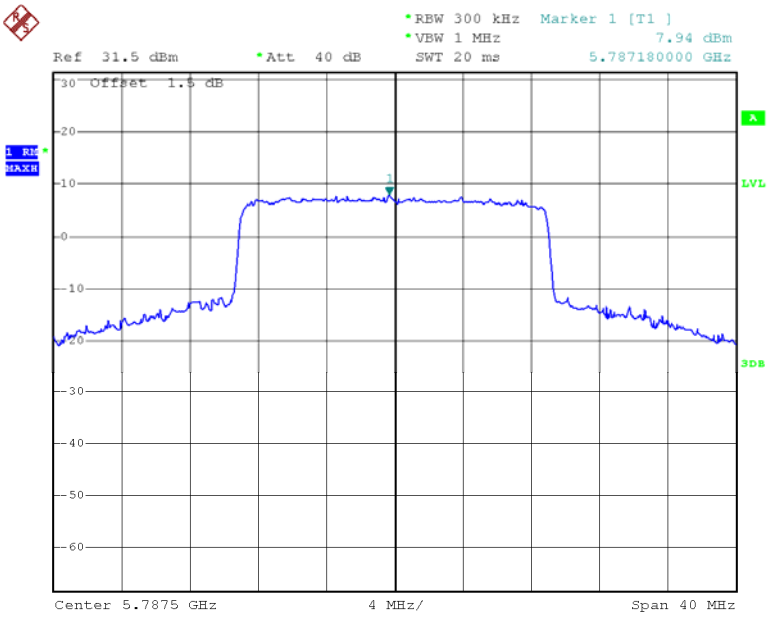
Date: 17.JAN.2020 10:54:35

20M Low Channel



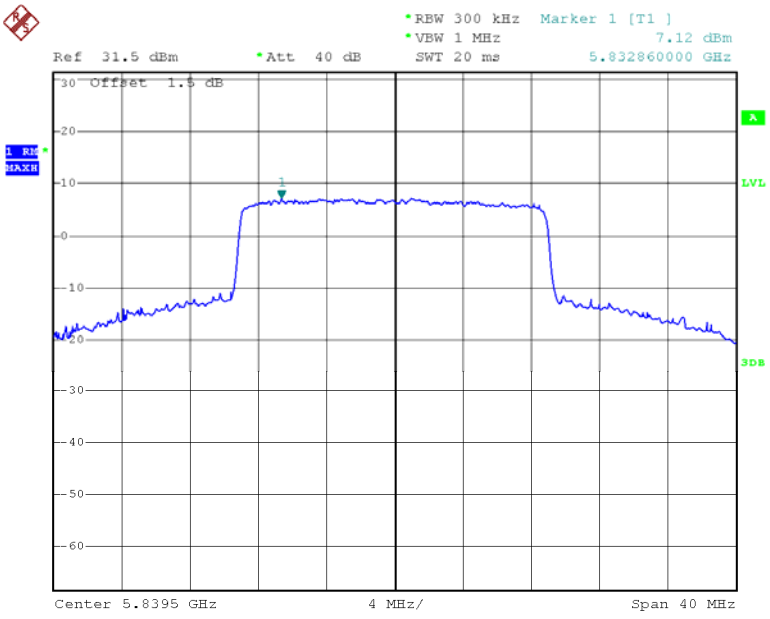
Date: 17.JAN.2020 10:47:32

20M Middle Channel



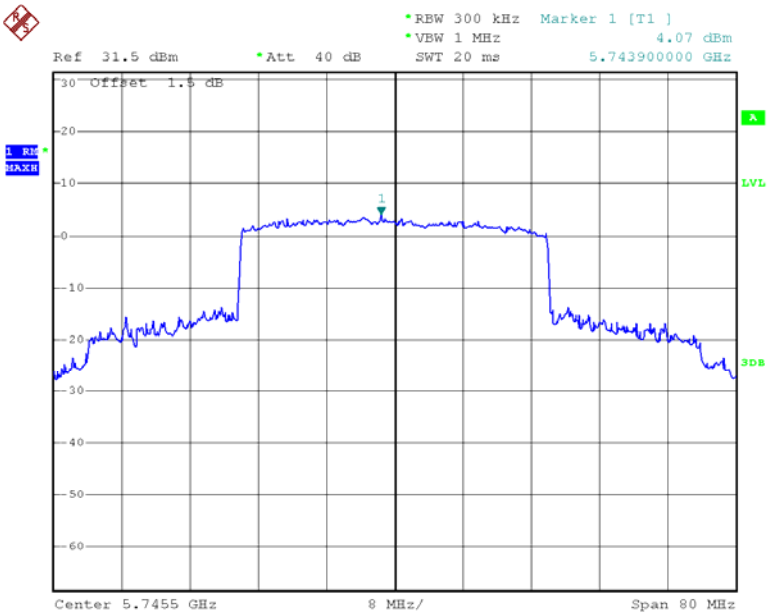
Date: 17.JAN.2020 10:48:05

20M High Channel



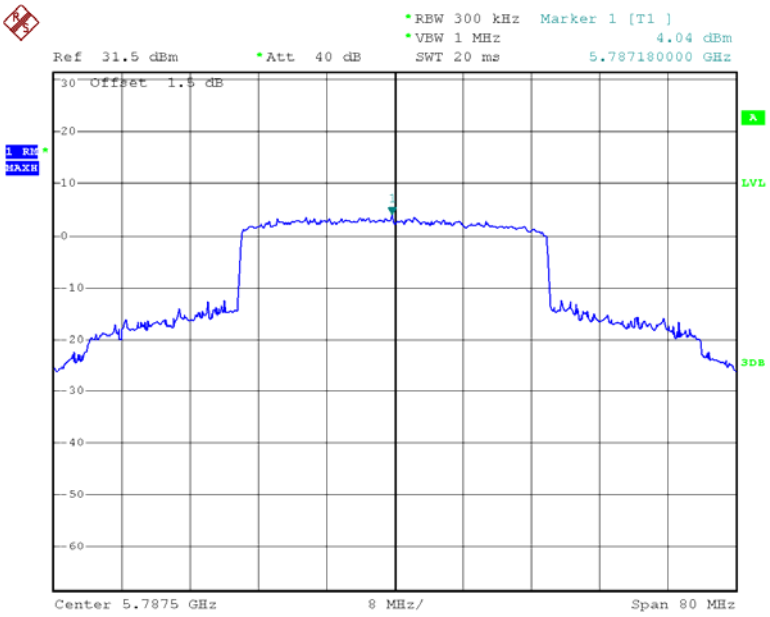
Date: 17.JAN.2020 10:51:03

40M Low Channel



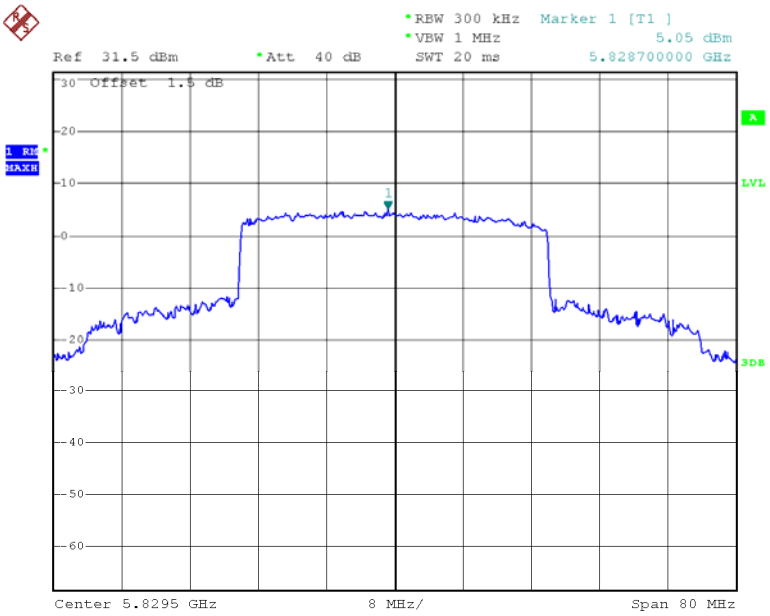
Date: 17.JAN.2020 10:44:38

40M Middle Channel



Date: 17.JAN.2020 10:42:56

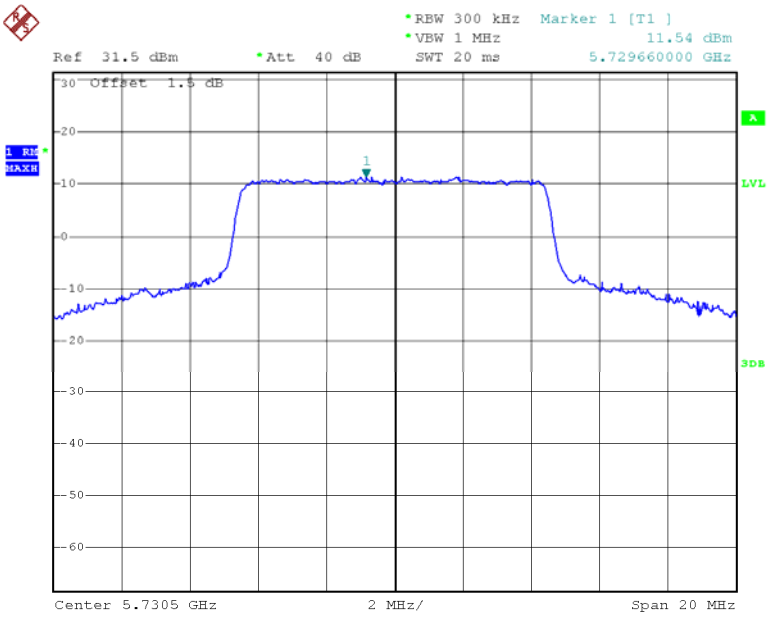
40M High Channel



Date: 17.JAN.2020 10:38:29

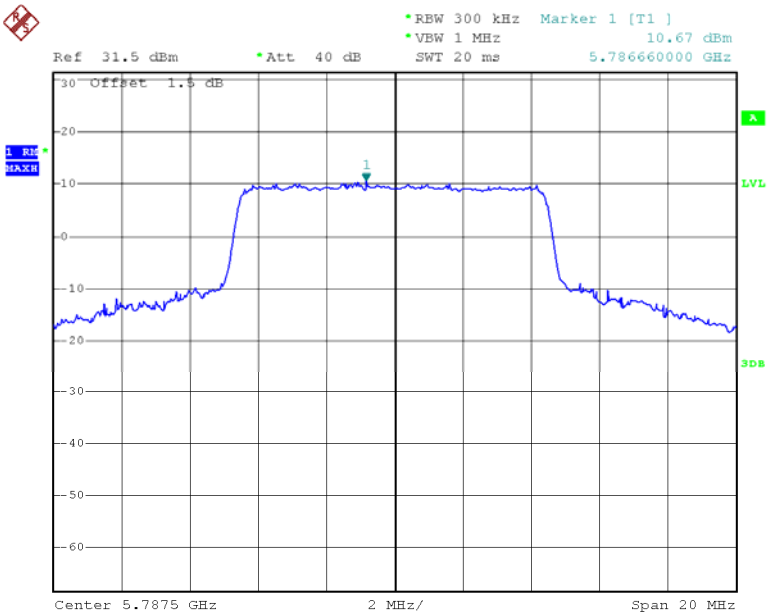
Chain 1：

10M Low Channel



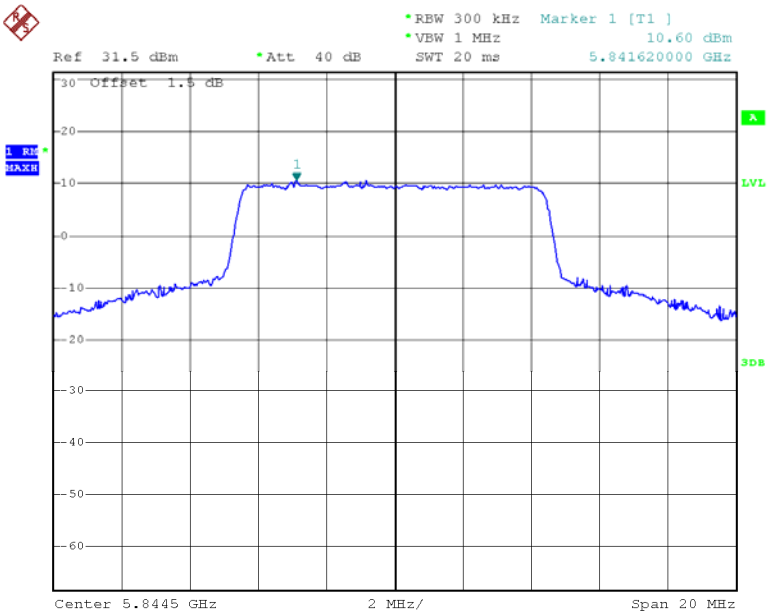
Date: 17.JAN.2020 10:52:19

10M Middle Channel



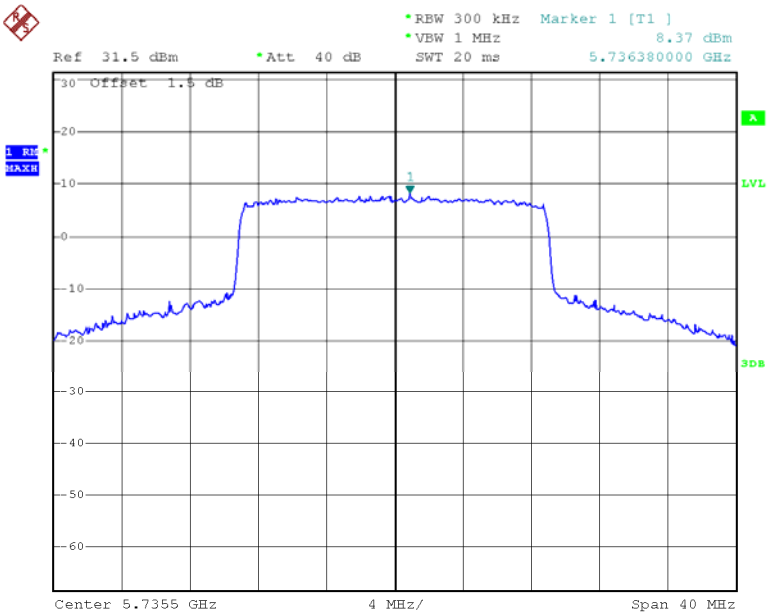
Date: 17.JAN.2020 10:52:44

10M High Channel



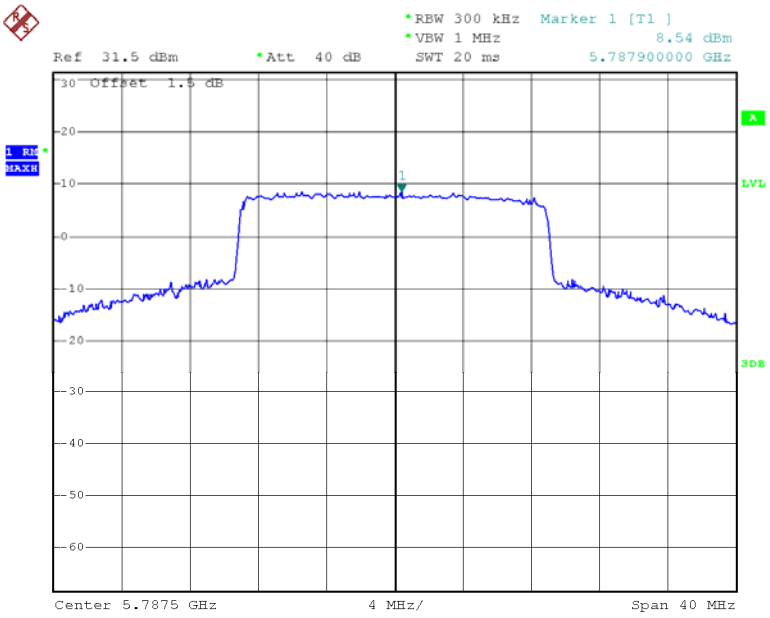
Date: 17.JAN.2020 10:55:00

20M Low Channel



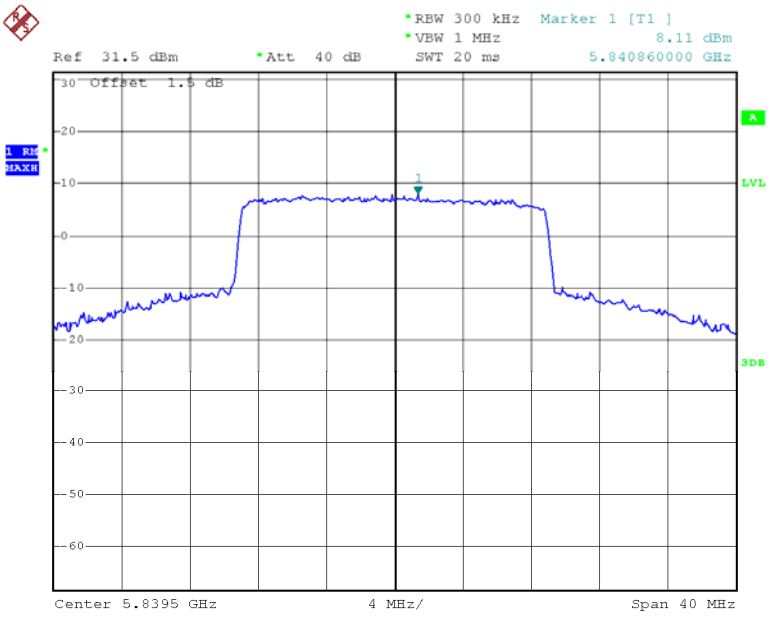
Date: 17.JAN.2020 10:46:44

20M Middle Channel



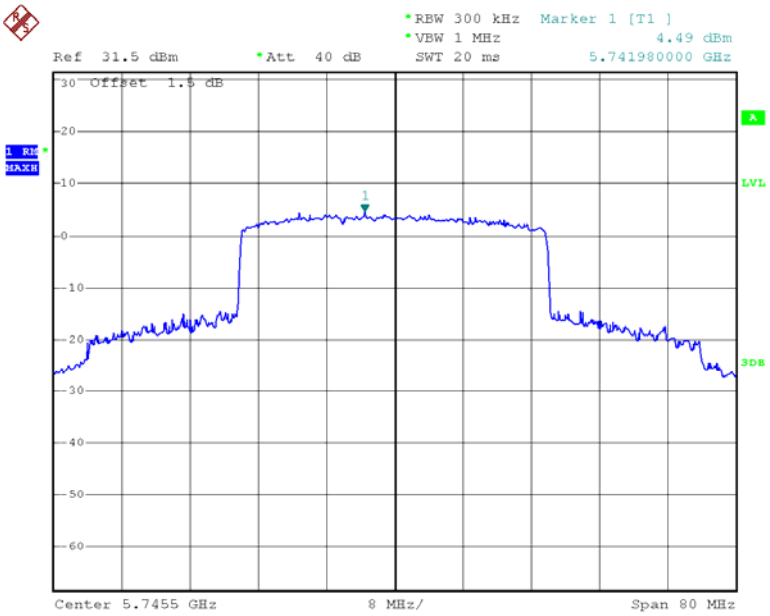
Date: 17.JAN.2020 10:48:32

20M High Channel



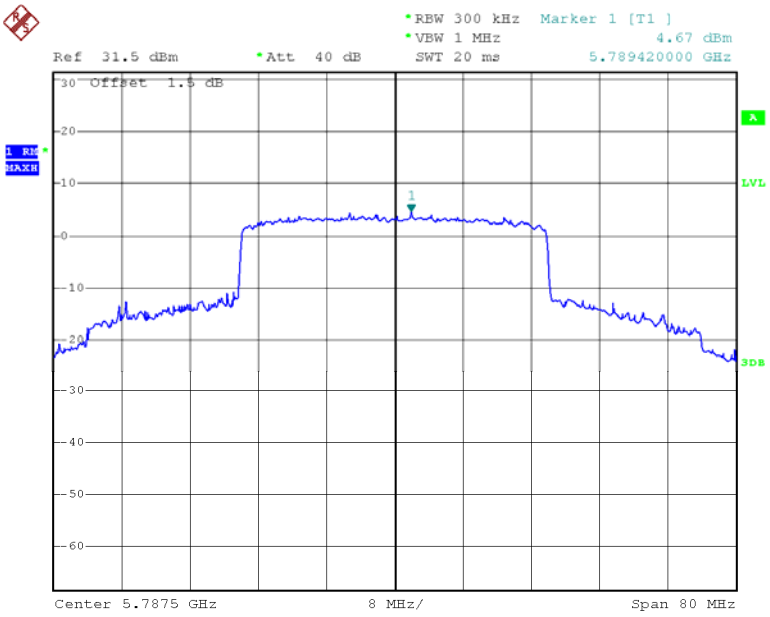
Date: 17.JAN.2020 10:49:15

40M Low Channel



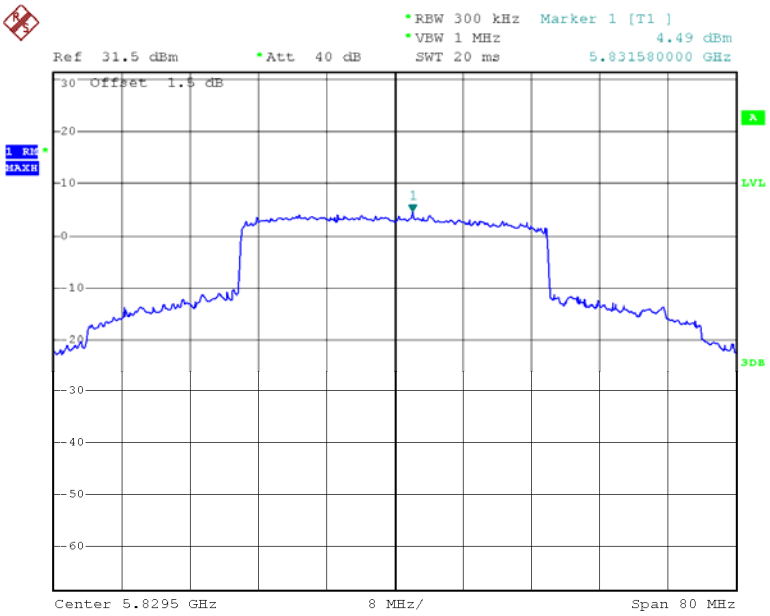
Date: 17.JAN.2020 10:45:50

40M Middle Channel



Date: 17.JAN.2020 10:41:25

40M High Channel



Date: 17.JAN.2020 10:40:02

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