FCC Test Report

Product Name	UNIT ASSY DA
Model No	AH2001
FCC ID	ACJ932AH2001

Applicant	Panasonic Corporation
Address	4261 Ikonobe-cho, Tsuzuki-ku, Yokohama-shi, Kanagawa-ken, 224-8520, Japan

Date of Receipt	Oct. 26, 2018
Issued Date	Oct. 31, 2019
Report No.	18A0361R-RFUSP42V00
Report Version	V1.0

Testing Laboratory
3023

The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standard through the calibration report of the equipment and evaluated measurement uncertainty herein.

This report must not be used to claim product endorsement by TAF or any agency of the government.

The test report shall not be reproduced without the written approval of DEKRA Testing and Certification Co., Ltd.

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Product Name	UNIT ASSY DA
Applicant	Panasonic Corporation
Address	4261 Ikonobe-cho, Tsuzuki-ku, Yokohama-shi, Kanagawa-ken, 224-8520, Japan
Manufacturer	Panasonic Corporation
Model No.	AH2001
FCC ID.	ACJ932AH2001
EUT Rated Voltage	DC 10.8V-16V
EUT Test Voltage	DC 13.2V
Trade Name	Panasonic Corporation
Applicable Standard	FCC CFR Title 47 Part 15 Subpart E: 2018 ANSI C63.4: 2014, ANSI C63.10: 2013 789033 D02 General UNII Test Procedures New Rules v02
Test Result	Complied

Documented By : Jinn Chen

(Senior Adm. Specialist / Jinn Chen)

Tested By : Steven Tsai

(Senior Engineer / Steven Tsai)

Approved By :

(Director / Vincent Lin)

TABLE OF CONTENTS

Description Page

1. GENERAL INFORMATION 5

1.1. EUT Description 5
1.2. Operational Description 7
1.3. Tested System Datails 8
1.4. Configuration of tested System 8
1.5. EUT Exercise Software 9
1.6. Test Facility 10
1.7. List of Test Equipment 11

2. Conducted Emission 12

2.1. Test Setup 12
2.2. Limits 12
2.3. Test Procedure 13
2.4. Uncertainty 13
2.5. Test Result of Conducted Emission 14

3. Maximun conducted output power 15

3.1. Test Setup 15
3.2. Limits 16
3.3. Test Procedure 17
3.4. Uncertainty 17
3.5. Test Result of Maximum conducted output power 18

4. Peak Power Spectral Density 60

4.1. Test Setup 60
4.2. Limits 60
4.3. Test Procedure 61
4.4. Uncertainty 61
4.5. Test Result of Peak Power Spectral Density 62

5. Radiated Emission 106

5.1. Test Setup 106
5.2. Limits 107
5.3. Test Procedure 108
5.4. Uncertainty 109
5.5. Test Result of Radiated Emission 110

6. Band Edge 224

6.1. Test Setup 224
6.2. Limits 225
6.3. Test Procedure 225

6.4. Uncertainty 227
6.5. Test Result of Band Edge 228

7. Occupied Bandwidth 301

7.1. Test Setup 301
7.2. Limits 301
7.3. .Test Procedure 301
7.4. Uncertainty 301
7.5. Test Result of Occupied Bandwidth 302

8. Duty Cycle 315

8.1. Test Setup 315
8.2. Test Procedure 315
8.3. Uncertainty 315
8.4. Test Result of Duty Cycle 316

9. EMI Reduction Method During Compliance Testing 319

Attachment 1: EUT Test Photographs
Attachment 2: EUT Detailed Photographs

1. GENERAL INFORMATION

1.1. EUT Description

Product Name	UNIT ASSY DA
Trade Name	Panasonic Corporation
FCC ID.	ACJ932AH2001
Model No.	AH2001
Frequency Range	802.11a/n-20MHz: 5180-5320MHz, 5500-5700MHz, 5745-5825MHz 802.11n-40MHz: 5190-5310, 5510-5670MHz, 5755-5795MHz 802.11ac-80MHz: 5210-5290MHz, 5530-5610MHz, 5775MHz
Number of Channels	802.11a/n-20MHz: 24, 802.11n-40MHz: 11, 802.11ac-80MHz: 5
Data Rate	802.11a: 6 - 54Mbps 802.11n: up to 300Mbps 802.11ac-80MHz: up to 866.7Mbps
Channel Control	Auto
Type of Modulation	802.11a/n/ac: OFDM, BPSK, QPSK, 16QAM, 64QAM, 256QAM
Antenna type	PIFA Antenna
Antenna Gain	Refer to the table “Antenna List”

Antenna List

No.	Manufacturer	Part No.	Antenna Type	Peak Gain
1	Panasonic	Antenna0 Antenna1	PIFA Antenna	-1.1dBi For 5.15~5.25GHz -0.5dBi For 5.25~5.35GHz -0.7dBi for 5.47~5.725GHz -1.2dBi for 5.725~5.825GHz

Note: The antenna of EUT is conforming to FCC 15.203.

802.11a/n-20MHz Center Working Frequency of Each Channel:

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
Channel 36:	5180 MHz	Channel 40:	5200 MHz	Channel 44:	5220 MHz	Channel 48:	5240 MHz
Channel 52:	5260 MHz	Channel 56:	5280 MHz	Channel 60:	5300 MHz	Channel 64:	5320 MHz
Channel 100:	5500 MHz	Channel 104:	5520 MHz	Channel 108:	5540 MHz	Channel 112:	5560 MHz
Channel 116:	5580 MHz	Channel 120:	5600 MHz	Channel 124:	5620 MHz	Channel 128:	5640 MHz
Channel 132:	5660 MHz	Channel 136:	5680 MHz	Channel 140:	5700 MHz	Channel 149:	5745 MHz
Channel 153:	5765 MHz	Channel 157:	5785 MHz	Channel 161:	5805 MHz	Channel 165:	5825 MHz

802.11n-40MHz Center Working Frequency of Each Channel:

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
Channel 38:	5190 MHz	Channel 46:	5230 MHz	Channel 54:	5270 MHz	Channel 62:	5310 MHz
Channel 102:	5510 MHz	Channel 110:	5550 MHz	Channel 118:	5590 MHz	Channel 126:	5630 MHz
Channel 134:	5670 MHz	Channel 151:	5755 MHz	Channel 159:	5795 MHz		

802.11ac-80MHz Center Working Frequency of Each Channel:

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
Channel 42:	5210 MHz	Channel 58:	5290 MHz	Channel 106:	5530 MHz	Channel 122:	5610 MHz
Channel 155:	5775 MHz						

Note:

1. This device is an UNIT ASSY DA with a built-in WLAN and Bluetooth transceiver, this report for 5GHz WLAN.
2. The EUT is installed in vehicle.
3. Regarding to the operation frequency, the lowest, middle and highest frequency are selected to perform the test.
4. Lowest and highest data rates are tested in each mode. Only worst case is shown in the report (Chain A(Antenna1 port)、Chain B(Antenna0 port)).
5. These tests were conducted on a sample of the equipment for the purpose of demonstrating compliance of transmitter with Part 15 Subpart E for Unlicensed National Information Infrastructure devices.

Test Mode	Mode 1: Transmit (802.11a 6Mbps) Mode 2: Transmit (802.11n-20BW 14.4Mbps) Mode 3: Transmit (802.11n-40BW 30Mbps) Mode 4: Transmit (802.11ac-80BW 65Mbps)

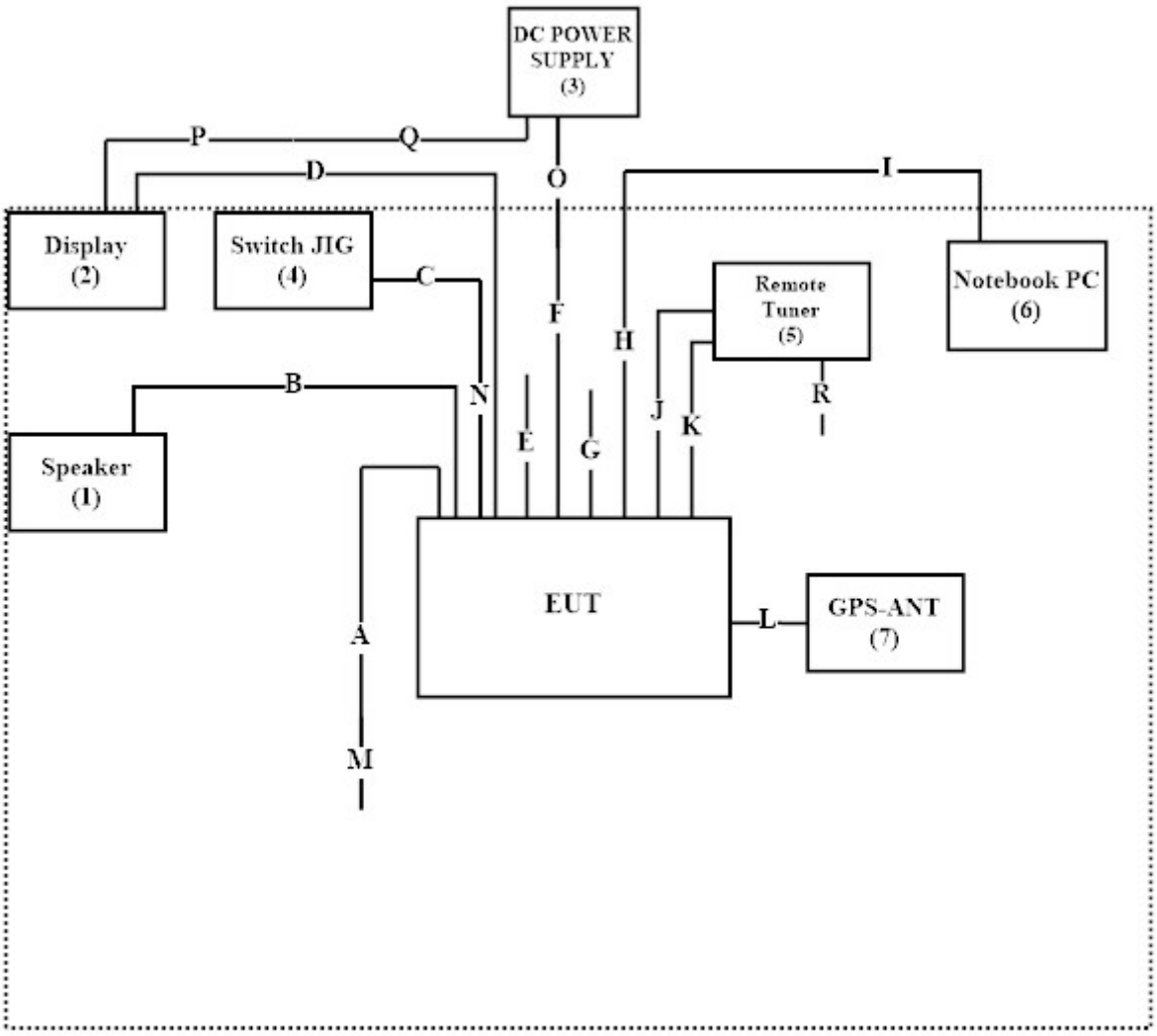
1.3. Tested System Datails

The types for all equipment, plus descriptions of all cables used in the tested system (including inserted cards) are:

	Product	Manufacturer	Model No.	Serial No.	Power Cord
1	Speaker	Panasonic	N/A	N/A	N/A
2	Display	Honda	39710-TVA-A110-M1	N/A	N/A
3	DC POWER SUPPLY	GWInstek	SPD-3606	GEQ820915	Non-shielded, 1.8m
4	Switch JIG	N/A	N/A	N/A	N/A
5	Remote Tuner	Panasonic	N/A	N/A	N/A
6	Notebook PC	Fujitsu	FMVNP5NE	N/A	Non-shielded, 0.9m
7	GPS-ANT	Honda	N/A	N/A	N/A

Signal Cable Type		Signal cable Description
A	USB Cable	Shielded, 1.0m
B	Main Cable	Non-shielded, 1.0m
C	Signal Cable	Non-shielded, 0.5m
D	LVDS Cable	Non-shielded, 1.0m
E	EXT2 Cable	Non-shielded, 0.5m
F	Main Cable	Non-shielded, 1.0m
G	EXT1 Cable	Non-shielded, 0.5m
H	USB Cable	Shielded, 1.0m
I	USB Cable	Shielded, 1.0m
J	RS485 Cable	Non-shielded, 1.0m
K	S/PDIF Cable	Non-shielded, 1.0m
L	GPS ANT Cable	Non-shielded, 0.6m
M	USB Cable	Non-shielded, 0.15m
N	Power Cable	Non-shielded, 0.8m
O	Power Cable	Non-shielded, 1.8m
P	Power Cable	Non-shielded, 0.85m
Q	Power Cable	Non-shielded, 1.8m
R	ANT Cable	Non-shielded, 0.17m

1.4. Configuration of tested System



1.5. EUT Exercise Software

1. Setup the EUT as shown in Section 1.4.
2. Execute built-in software program on the EUT.
3. Configure the test mode, the test channel, and the data rate.
4. Press “OK” to start the continuous Transmit.
5. Verify that the EUT works properly.

1.6. Test Facility

Ambient conditions in the laboratory:

Items	Required (IEC 68-1)	Actual
Temperature (°C)	15-35	20-35
Humidity (%RH)	25-75	50-65
Barometric pressure (mbar)	860-1060	950-1000

USA : FCC Registration Number: TW0023

Canada : IC Registration Number: 4075A

Site Description : Accredited by TAF
Accredited Number: 3023

Test Laboratory : DEKRA Testing and Certification Co., Ltd
Address : No.159, Sec. 2, Wenhua 1st Rd., Linkou Dist.,
New Taipei City 24457, Taiwan, R.O.C.
Phone number : 886-2-2602-7968
Fax number : 866-2-2602-3286
Email address : info.tw@dekra.com
Website : http://www.dekra.com.tw

1.7. List of Test Equipment

For Conducted measurements /ASR2

	Equipment	Manufacturer	Model No.	Serial No.	Cali. Data	Due. Data
X	Spectrum Analyzer	R&S	FSV30	103464	2019.01.25	2020.01.24
X	Power Meter	Anritsu	ML2496A	1548003	2018.12.19	2019.12.18
X	Power Sensor	Anritsu	MA2411B	1531024	2018.12.19	2019.12.18
X	Power Sensor	Anritsu	MA2411B	1531025	2018.12.19	2019.12.18
	Bluetooth Tester	R&S	CBT	101238	2019.01.21	2020.01.20

Note:
1. All equipments are calibrated every one year.
2. The test instruments marked with “X” are used to measure the final test results.
3. Test Software version : DEKRA Conduction Test System V9.0.5

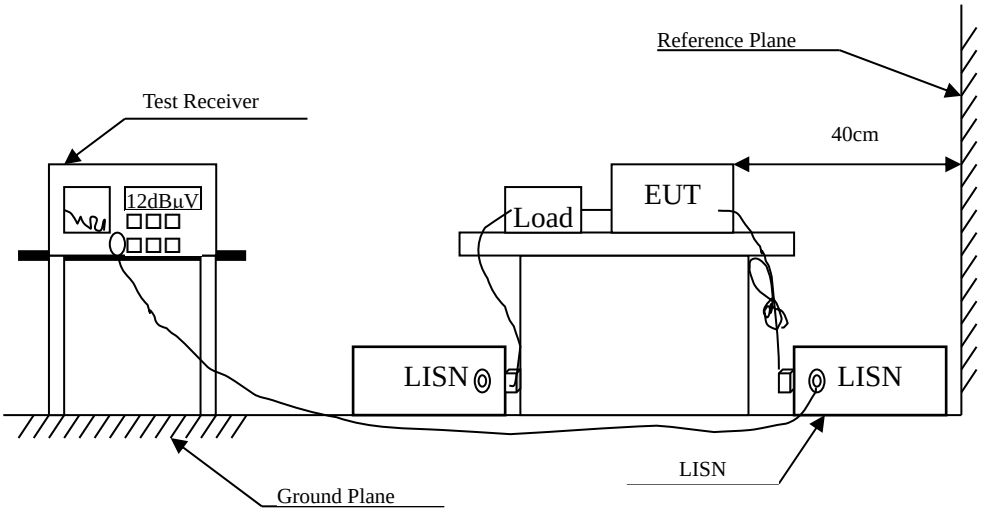
For Radiated measurements /ACB1

	Equipment	Manufacturer	Model No.	Serial No.	Cali. Data	Due. Data
X	Loop Antenna	AMETEK	HLA6121	49611	2019.02.22	2020.02.21
X	Bi-Log Antenna	SCHWARZBECK	VULB9168	9168-674	2019.04.23	2020.04.22
X	Horn Antenna	ETS-Lindgren	3117	00203800	2018.12.11	2019.12.10
X	Horn Antenna	Com-Power	AH-840	101087	2019.05.30	2020.05.29
X	Pre-Amplifier	EMCI	EMC001330	980316	2019.06.14	2020.06.13
X	Pre-Amplifier	EMCI	EMC051835SE	980311	2019.06.13	2020.06.12
X	Pre-Amplifier	EMCI	EMC05820SE	980310	2019.06.24	2020.06.23
X	Pre-Amplifier	EMCI	EMC184045SE	980314	2019.05.28	2020.05.27
	Filter	MICRO TRONICS	BRM50702	G251	2019.09.03	2020.09.02
X	Filter	MICRO TRONICS	BRM50716	G188	2019.09.03	2020.09.02
X	EMI Test Receiver	R&S	ESR7	101602	2018.12.17	2019.12.16
X	Spectrum Analyzer	R&S	FSV40	101148	2019.02.20	2020.02.19
X	Coaxial Cable	SUHNER	SUCOFLEX 106	RF002	2019.05.25	2020.05.24
X	Mircoflex Cable	HUBER SUHNER	SUCOFLEX 102	MY3381/2	2019.05.28	2020.05.27

Note:
1. All equipments are calibrated every one year.
2. The test instruments marked with “X” are used to measure the final test results.
3. Test Software version : QuieTek EMI System V2.1.113

2. Conducted Emission

2.1. Test Setup



2.2. Limits

FCC Part 15 Subpart C Paragraph 15.207 (dBµV) Limit		
Frequency MHz	Limits	
	QP	AV
0.15 - 0.50	66-56	56-46
0.50-5.0	56	46
5.0 - 30	60	50

Remarks : In the above table, the tighter limit applies at the band edges.

2.3. Test Procedure

The EUT and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm /50uH coupling impedance with 50ohm termination. (Please refers to the block diagram of the test setup and photographs.)
Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.4:2014 on conducted measurement.
Conducted emissions were invested over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9kHz.

2.4. Uncertainty

±2.35dB

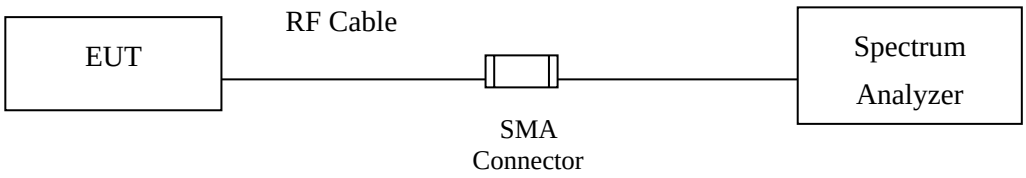
2.5. Test Result of Conducted Emission

Owing to the DC operation of EUT, this test item is not performed.

3. Maximun conducted output power

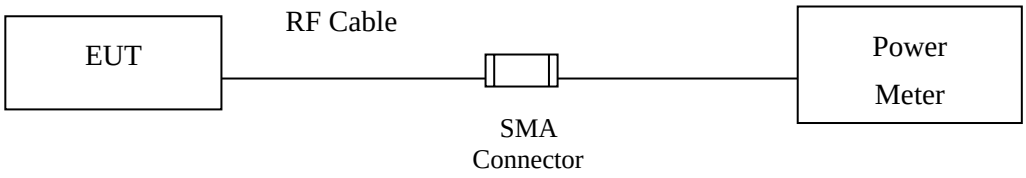
3.1. Test Setup

99% Occupied Bandwidth and 26dB Bandwidth

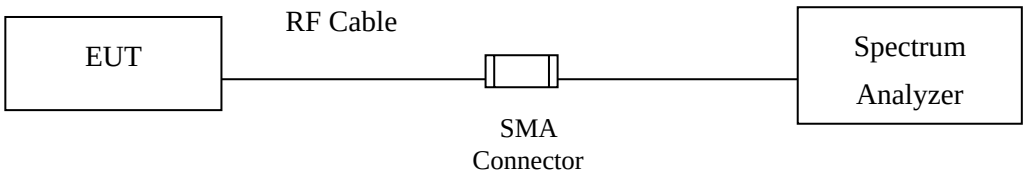


Conduction Power Measurement

Conduction Power Measurement (for 802.11an)



Conduction Power Measurement (for 802.11ac)



3.2. Limits

For the band 5.15-5.25 GHz,

(i) For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. provided the maximum antenna gain does not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).

(ii) For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(iii) For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. Fixed point-topoint U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power is required for each 1 dB of antenna gain in excess of 23 dBi. 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.

(iv) For mobile and portable client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm 10 log B, where B is the 99% emission bandwidth in megahertz. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point UNII 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.

3.3. Test Procedure

As an alternative to FCC KDB-789033, the EUT maximum conducted output power was measured with an average power meter employing a video bandwidth greater the 6dB BW of the emission under test. Maximum conducted output power was read directly from the meter across all data rates, and across three channels within each sub-band. Special care was used to make sure that the EUT was transmitting in continuous mode. This method exceeds the limitations of FCC KDB-789033, and provides more accurate measurements.

802.11an (BW≦40MHz) Maximum conducted output power using KDB 789033 section E)3)b) Method PM-G (Measurement using a gated RF average power meter)
Note: the power meter have a video bandwidth that is greater than or equal to the measurement bandwidth, (Anritsu/ MA2411B video bandwidth: 65MHz)

802.11ac (BW=80MHz) Maximum conducted output power using KDB 789033 section E)2)b) Method SA-1 (trace averaging with the EUT transmitting at full power throughout each sweep).

When transmitted signals consist of two or more non-contiguous spectrum segments (e.g., 80+80 MHz mode) or when a single spectrum segment of a transmission crosses the boundary between two adjacent U-NII bands, KDB 644545 D03 section D) procedure is used for measurements.

3.4. Uncertainty

Power Meter: ±0.95dB
Spectrum Analyzer: ±1.30dB

3.5. Test Result of Maximum conducted output power

Product : UNIT ASSY DA
Test Item : Maximum conducted output power
Test Mode : Mode 1: Transmit (802.11a 6Mbps)
Test Date : 2019/10/31

Chain A

Cable loss=1.5dB		Maximum conducted output power							
Channel No.	Frequency (MHz)	Data Rate (Mbps)							
		6	9	12	18	24	36	48	54
		Measurement Level (dBm)							
36	5180	8.21	--	--	--	--	--	--	--
44	5220	9.11	9.05	9.01	8.95	8.90	8.66	8.61	8.57
48	5240	8.25	--	--	--	--	--	--	--
52	5260	8.24	--	--	--	--	--	--	--
60	5300	8.23	8.19	8.14	8.08	8.02	7.97	7.92	7.88
64	5320	8.26	--	--	--	--	--	--	--
100	5500	9.36	--	--	--	--	--	--	--
116	5580	9.54	9.49	9.45	9.40	9.36	9.32	9.27	9.22
140	5700	9.67	--	--	--	--	--	--	--
149	5745	9.41	--	--	--	--	--	--	--
157	5785	9.54	9.49	9.45	9.39	9.34	9.29	9.22	9.18
165	5825	9.55	--	--	--	--	--	--	--

Note: Maximum conducted output power Value =Reading value on average power meter + cable loss

Chain B

Cable loss=1.5dB		Maximum conducted output power							
Channel No.	Frequency (MHz)	Data Rate (Mbps)							
		6	9	12	18	24	36	48	54
		Measurement Level (dBm)							
36	5180	6.74	--	--	--	--	--	--	--
44	5220	6.65	6.59	6.55	6.51	6.45	6.39	6.32	6.27
48	5240	6.61	--	--	--	--	--	--	--
52	5260	6.59	--	--	--	--	--	--	--
60	5300	6.67	6.62	6.57	6.52	6.48	6.43	6.37	6.32
64	5320	6.72	--	--	--	--	--	--	--
100	5500	7.59	--	--	--	--	--	--	--
116	5580	8.53	8.48	8.42	8.37	8.31	8.27	8.22	8.16
140	5700	9.54	--	--	--	--	--	--	--
149	5745	9.65	--	--	--	--	--	--	--
157	5785	10.83	10.77	10.72	10.68	10.64	10.59	10.55	10.48
165	5825	9.72	--	--	--	--	--	--	--

Note: Maximum conducted output power Value =Reading value on average power meter + cable loss

Maximum conducted output power Measurement:

(Chain A+ B)

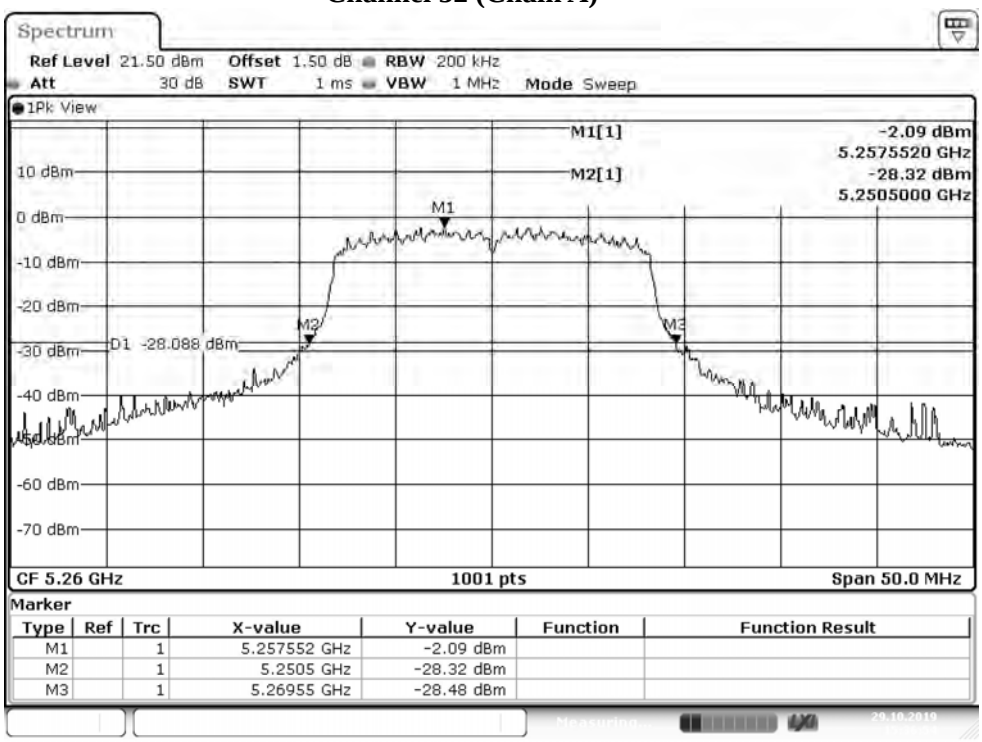
Channel Number	Frequency (MHz)	26dB Bandwidth (MHz)	Chain A Power (dBm)	Chain B Power (dBm)	Output Power (dBm)	Output Power Limit		Result
						(dBm)	dBm+10log(BW)	
36	5180	--	8.21	6.74	10.55	24	--	Pass
44	5220	--	9.11	6.65	11.06	24	--	Pass
48	5240	--	8.25	6.61	10.52	24	--	Pass
52	5260	19.050	8.24	6.59	10.50	24	23.80	Pass
60	5300	19.050	8.23	6.67	10.53	24	23.80	Pass
64	5320	19.050	8.26	6.72	10.57	24	23.80	Pass
100	5500	18.800	9.36	7.59	11.57	24	23.74	Pass
116	5580	18.850	9.54	8.53	12.07	24	23.75	Pass
140	5700	18.850	9.67	9.54	12.62	24	23.75	Pass
149	5745	--	9.41	9.65	12.54	30	--	Pass
157	5785	--	9.54	10.83	13.24	30	--	Pass
165	5825	--	9.55	9.72	12.65	30	--	Pass

Note:

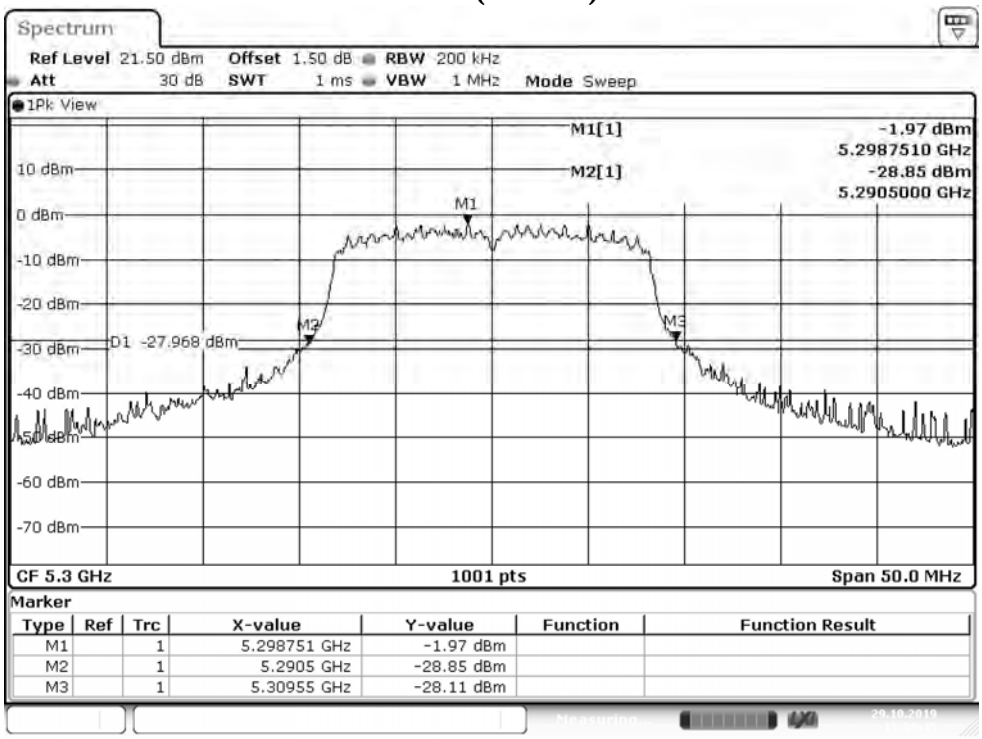
1. Output Power (dBm) = 10LOG (Chain A Power (mW)+ Chain B Power (mW))
2. 26dB Bandwidth is the bandwidth of chain A or chain Bwhichever is less bandwidth, output power limitation is more stringent.

26dB Bandwidth:

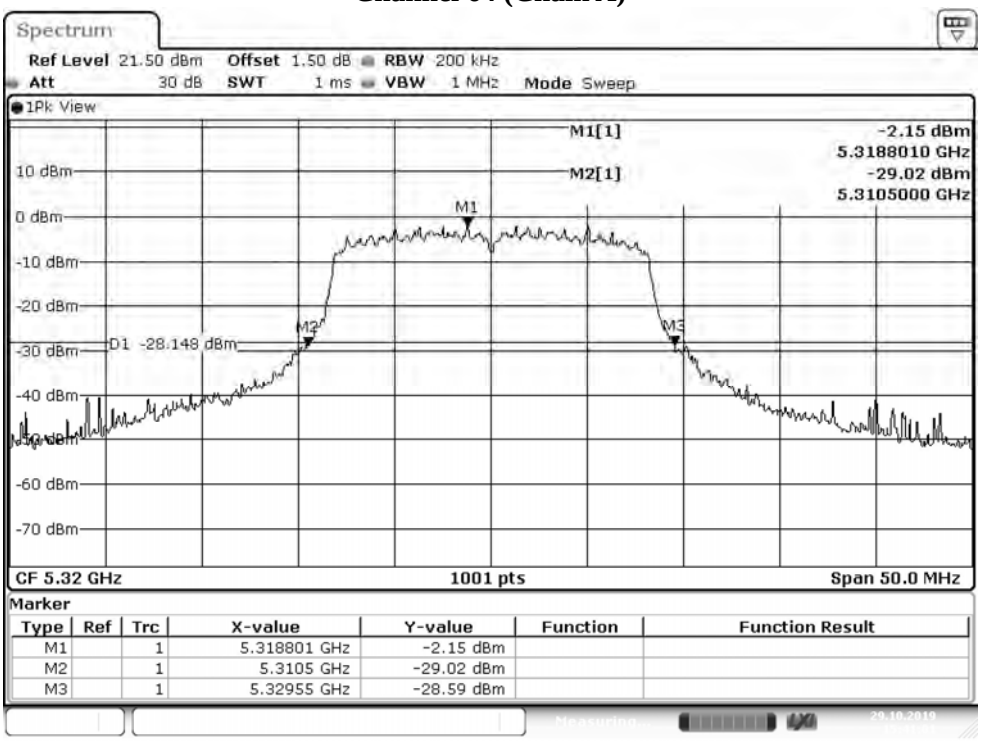
Channel 52 (Chain A)



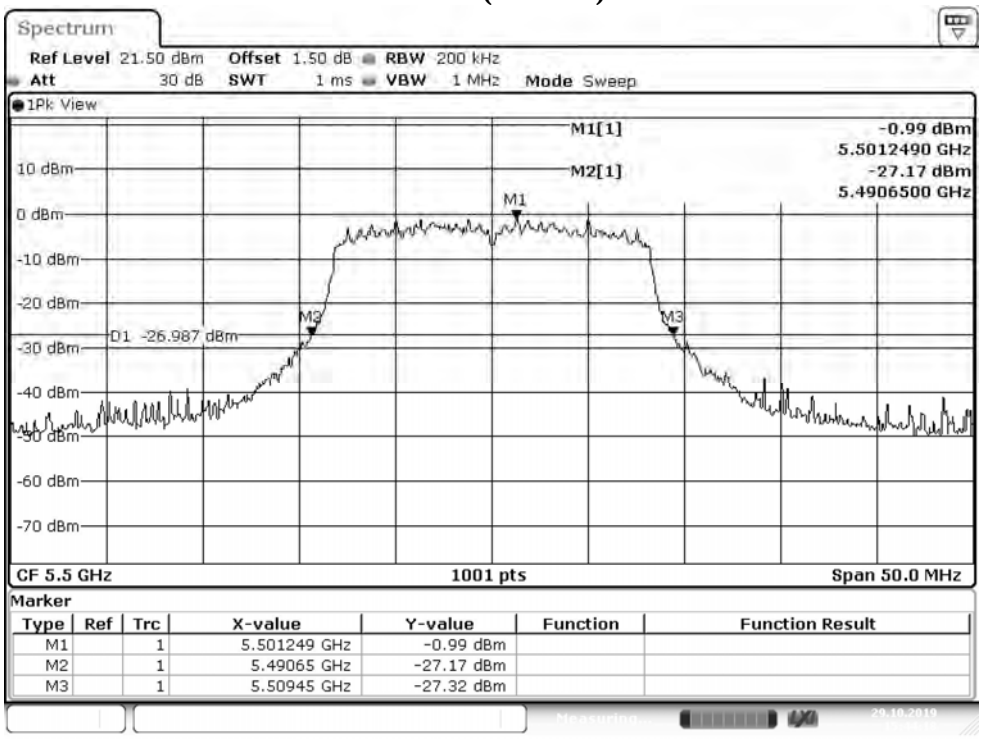
Channel 60 (Chain A)



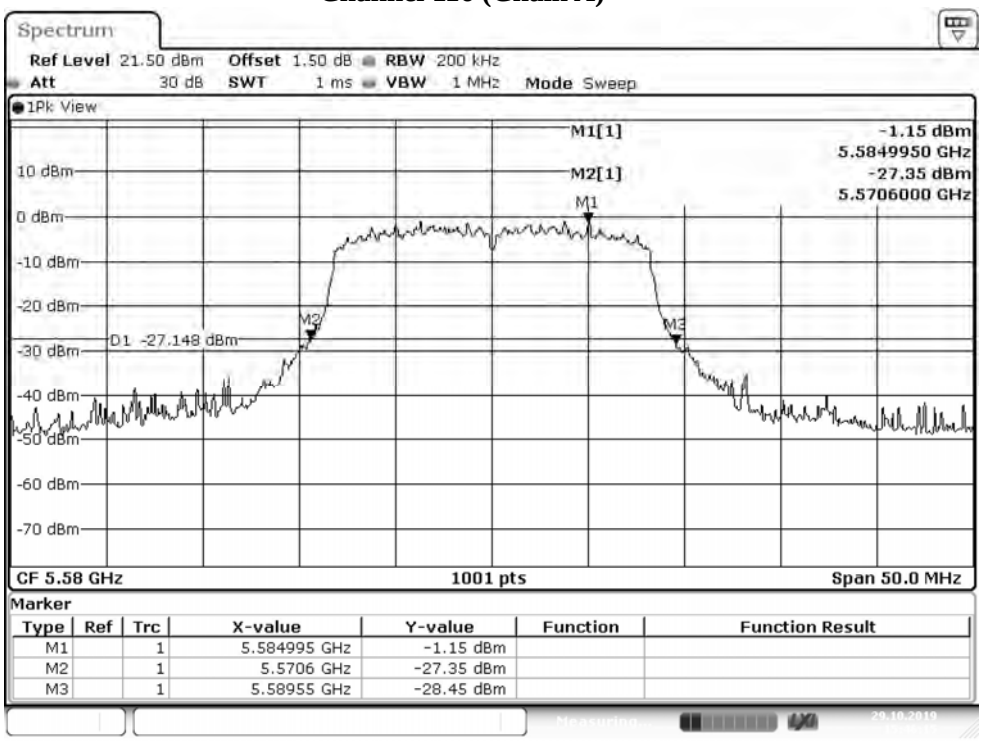
Channel 64 (Chain A)



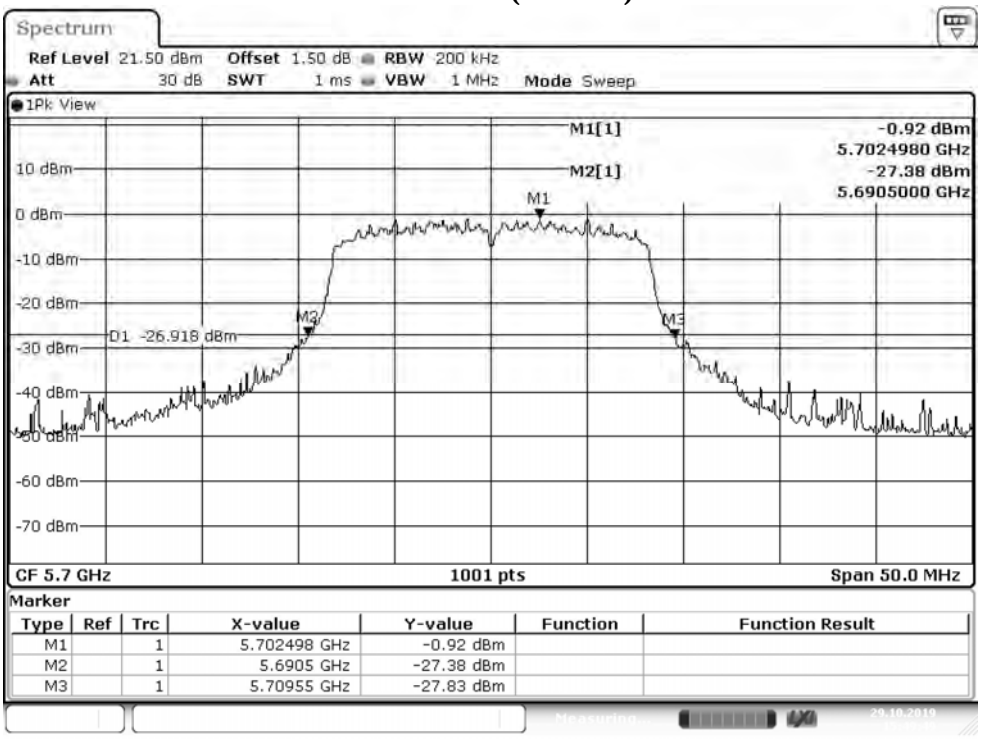
Channel 100 (Chain A)



Channel 116 (Chain A)

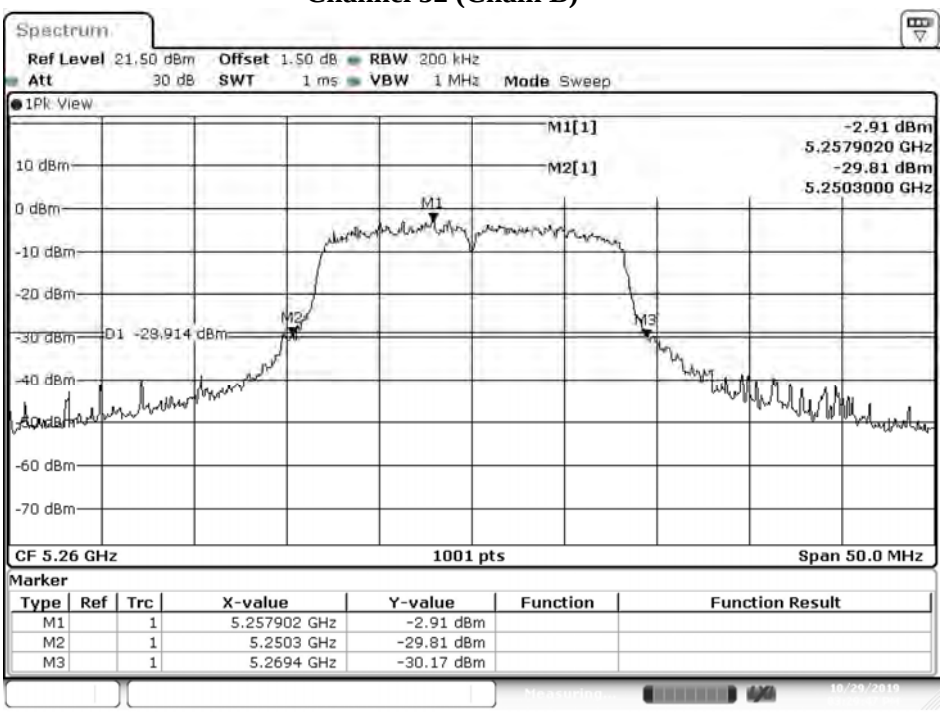


Channel 140 (Chain A)



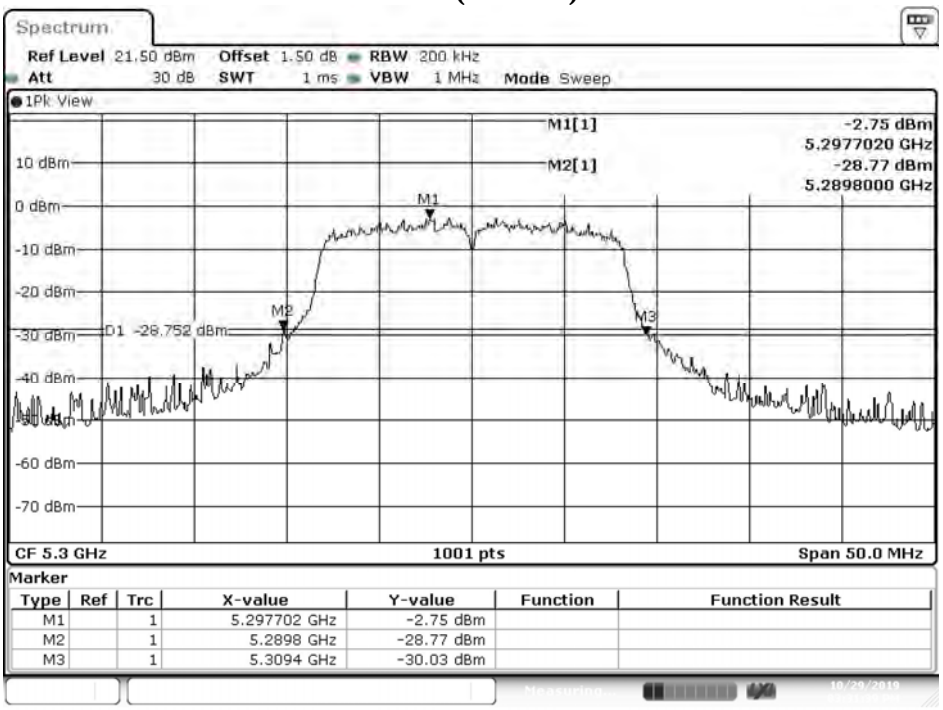
26dB Bandwidth:

Channel 52 (Chain B)



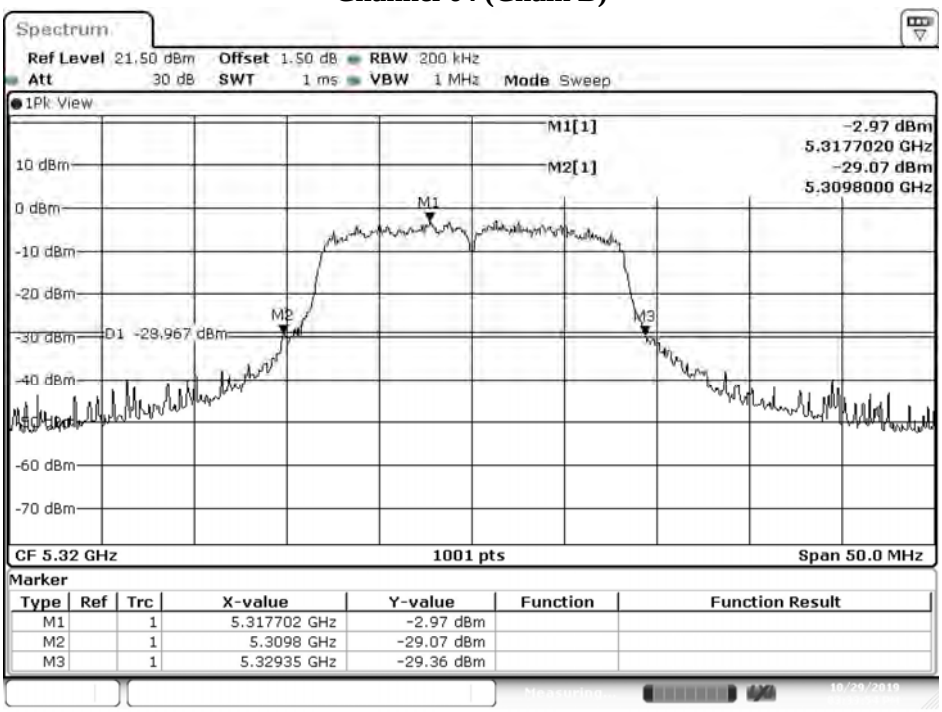
Date: 29.OCT.2019 15:29:47

Channel 60 (Chain B)



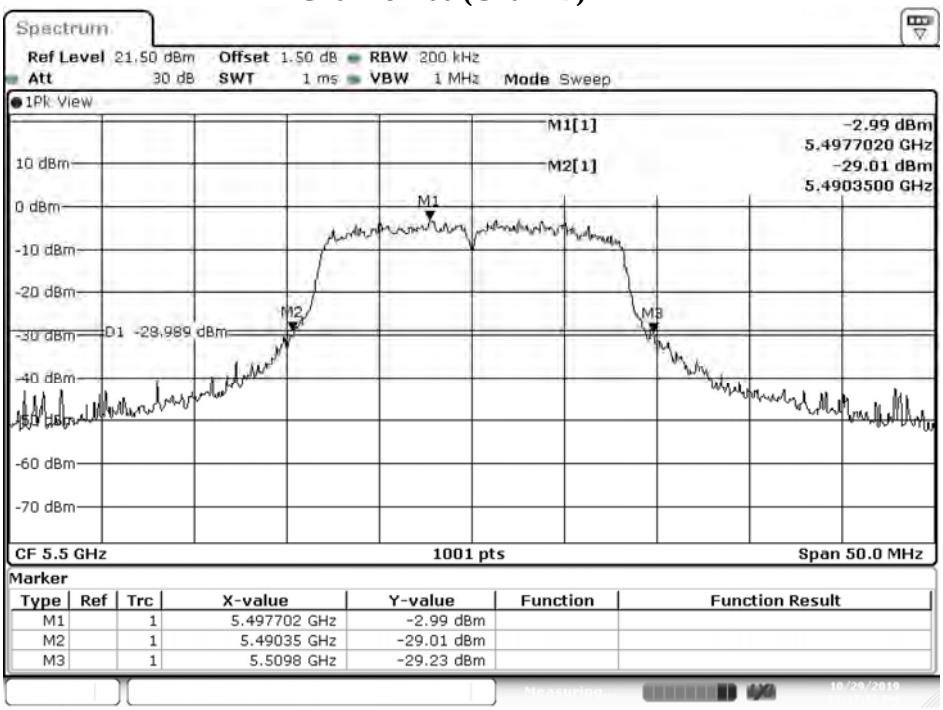
Date: 29.OCT.2019 15:31:39

Channel 64 (Chain B)



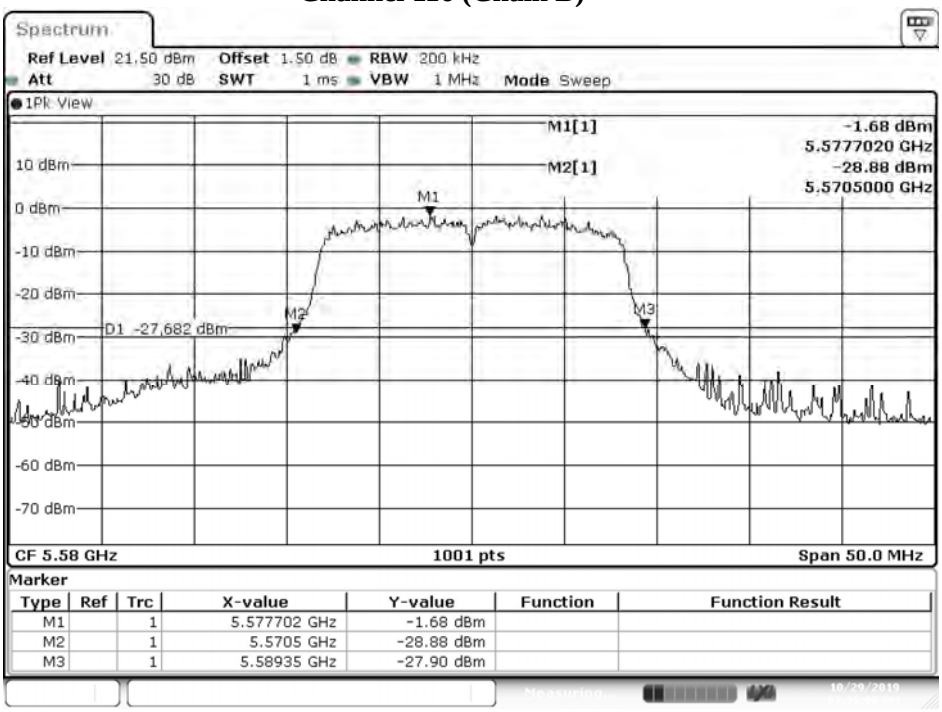
Date: 29.OCT.2019 15:33:55

Channel 100 (Chain B)



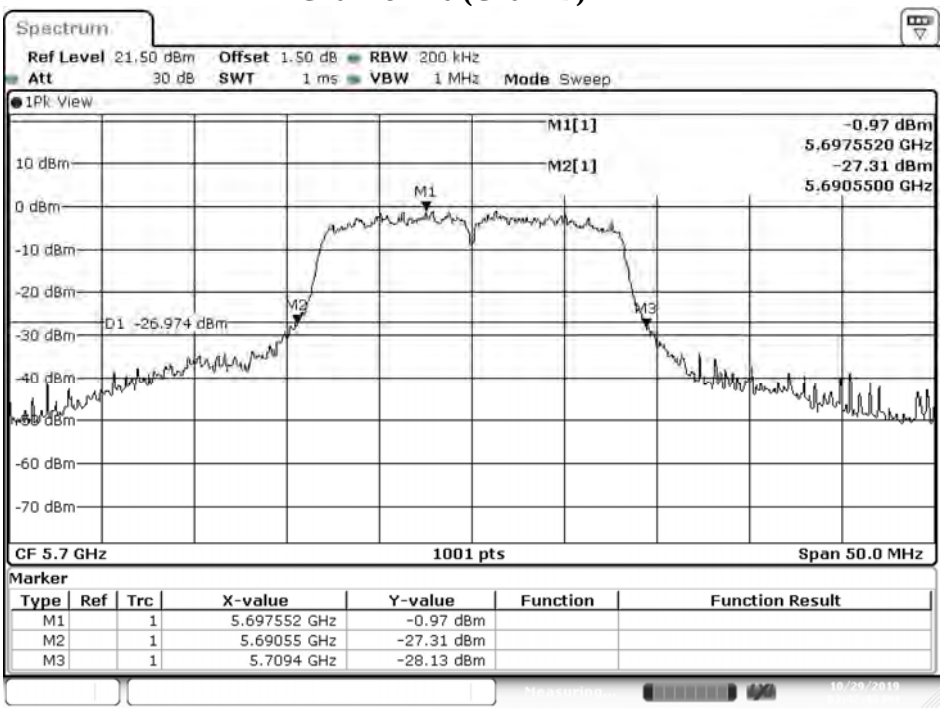
Date: 29.OCT.2019 15:37:13

Channel 116 (Chain B)



Date: 29.OCT.2019 15:39:09

Channel 140 (Chain B)



Date: 29.OCT.2019 15:42:44

Product : UNIT ASSY DA
Test Item : Maximum conducted output power
Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps)
Test Date : 2019/10/31

Chain A

Cable loss=1.5dB		Maximum conducted output power							
Channel No.	Frequency (MHz)	Data Rate (Mbps)							
		14.4	28.9	43.3	57.8	86.7	115.6	130	144.4
		Measurement Level (dBm)							
36	5180	7.02	--	--	--	--	--	--	--
44	5220	6.91	6.86	6.81	6.74	6.68	6.63	6.59	6.54
48	5240	6.89	--	--	--	--	--	--	--
52	5260	6.92	--	--	--	--	--	--	--
60	5300	6.88	6.83	6.77	6.72	6.68	6.63	6.57	6.52
64	5320	6.9	--	--	--	--	--	--	--
100	5500	8.91	--	--	--	--	--	--	--
116	5580	8.45	8.41	8.36	8.31	8.26	8.22	8.16	8.11
140	5700	8.17	--	--	--	--	--	--	--
149	5745	8.45	--	--	--	--	--	--	--
157	5785	8.46	8.41	8.35	8.29	8.24	8.18	8.14	8.08
165	5825	8.47	--	--	--	--	--	--	--

Note: Maximum conducted output power Value =Reading value on average power meter + cable loss

Chain B

Cable loss=1.5dB		Maximum conducted output power							
Channel No.	Frequency (MHz)	Data Rate (Mbps)							
		14.4	28.9	43.3	57.8	86.7	115.6	130	144.4
		Measurement Level (dBm)							
36	5180	5.61	--	--	--	--	--	--	--
44	5220	5.54	5.49	5.43	5.39	5.33	5.28	5.24	5.19
48	5240	5.51	--	--	--	--	--	--	--
52	5260	5.52	--	--	--	--	--	--	--
60	5300	5.71	5.68	5.63	5.57	5.52	5.47	5.43	5.38
64	5320	5.68	--	--	--	--	--	--	--
100	5500	6.25	--	--	--	--	--	--	--
116	5580	7.45	7.40	7.34	7.28	7.24	7.19	7.13	7.08
140	5700	8.06	--	--	--	--	--	--	--
149	5745	8.57	--	--	--	--	--	--	--
157	5785	8.87	8.82	8.77	8.72	8.68	8.62	8.57	8.51
165	5825	8.14	--	--	--	--	--	--	--

Note: Maximum conducted output power Value =Reading value on average power meter + cable loss

Maximum conducted output power Measurement:

(Chain A+ B)

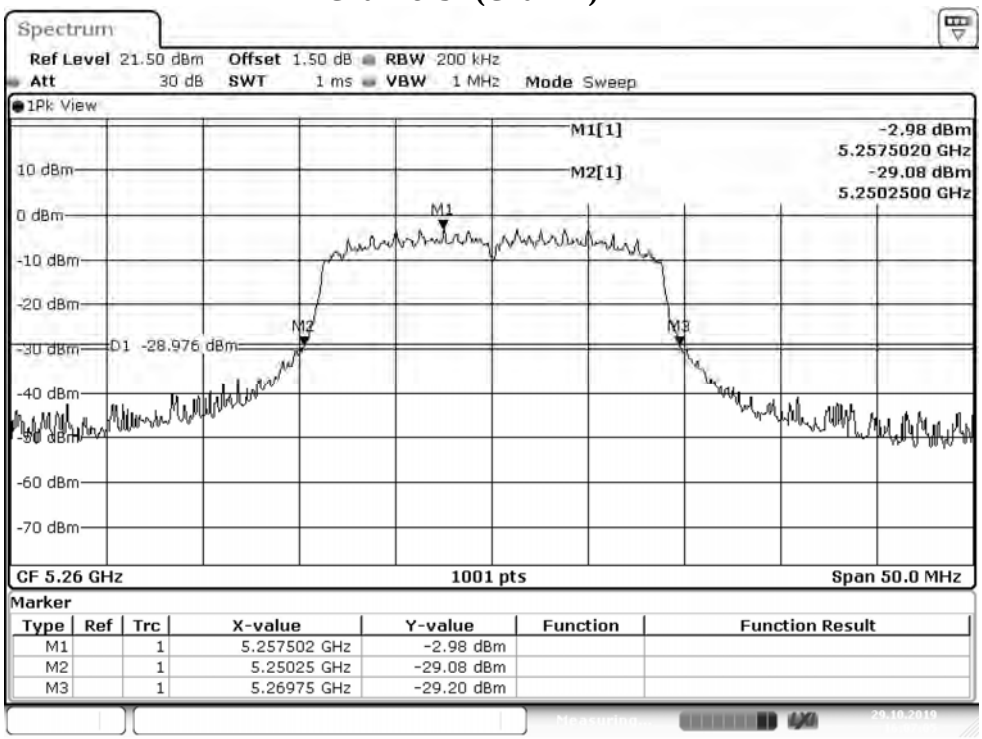
Channel Number	Frequency (MHz)	26dB Bandwidth: (MHz)	Chain A Power (dBm)	Chain B Power (dBm)	Output Power (dBm)	Output Power Limit		Result
						(dBm)	dBm+10log(BW)	
36	5180	--	7.02	5.61	9.38	24	--	Pass
44	5220	--	6.91	5.54	9.29	24	--	Pass
48	5240	--	6.89	5.51	9.26	24	--	Pass
52	5260	19.500	6.92	5.52	9.29	24	23.90	Pass
60	5300	19.600	6.88	5.71	9.34	24	23.92	Pass
64	5320	19.650	6.90	5.68	9.34	24	23.93	Pass
100	5500	19.500	8.91	6.25	10.79	24	23.90	Pass
116	5580	19.550	8.45	7.45	10.99	24	23.91	Pass
140	5700	19.550	8.17	8.06	11.13	24	23.91	Pass
149	5745	--	8.45	8.57	11.52	30	--	Pass
157	5785	--	8.46	8.87	11.68	30	--	Pass
165	5825	--	8.47	8.14	11.32	30	--	Pass

Note:

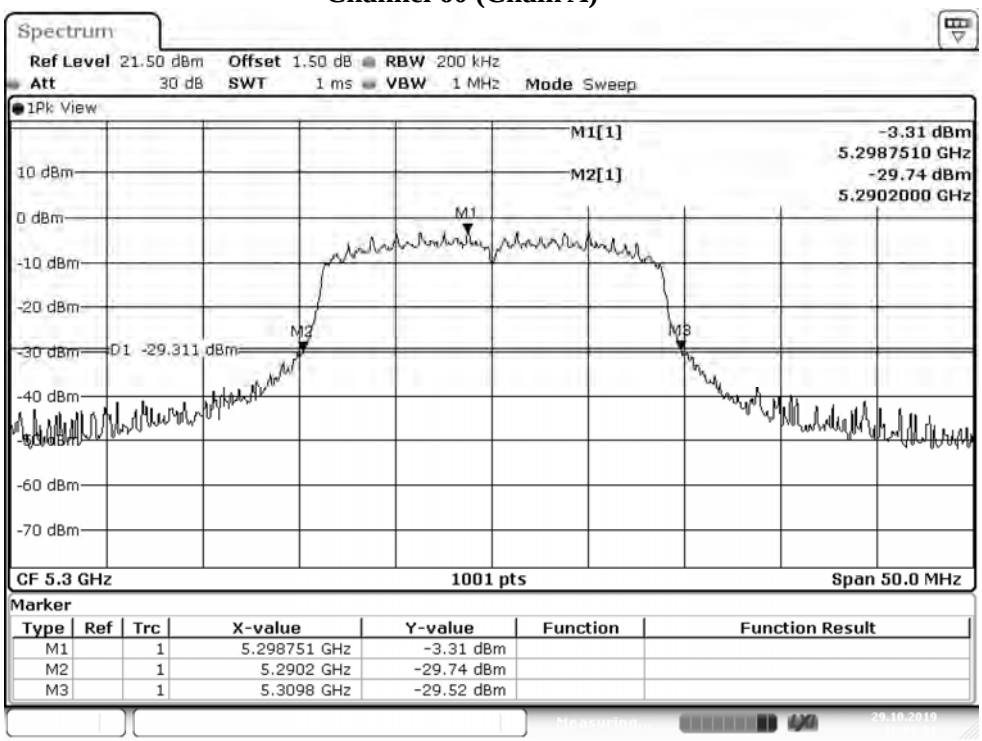
1. Output Power (dBm) = 10LOG (Chain A Power (mW)+ Chain B Power (mW))
2. 26dB Bandwidth is the bandwidth of chain A or chain Bwhichever is less bandwidth, output power limitation is more stringent.

26dB Bandwidth:

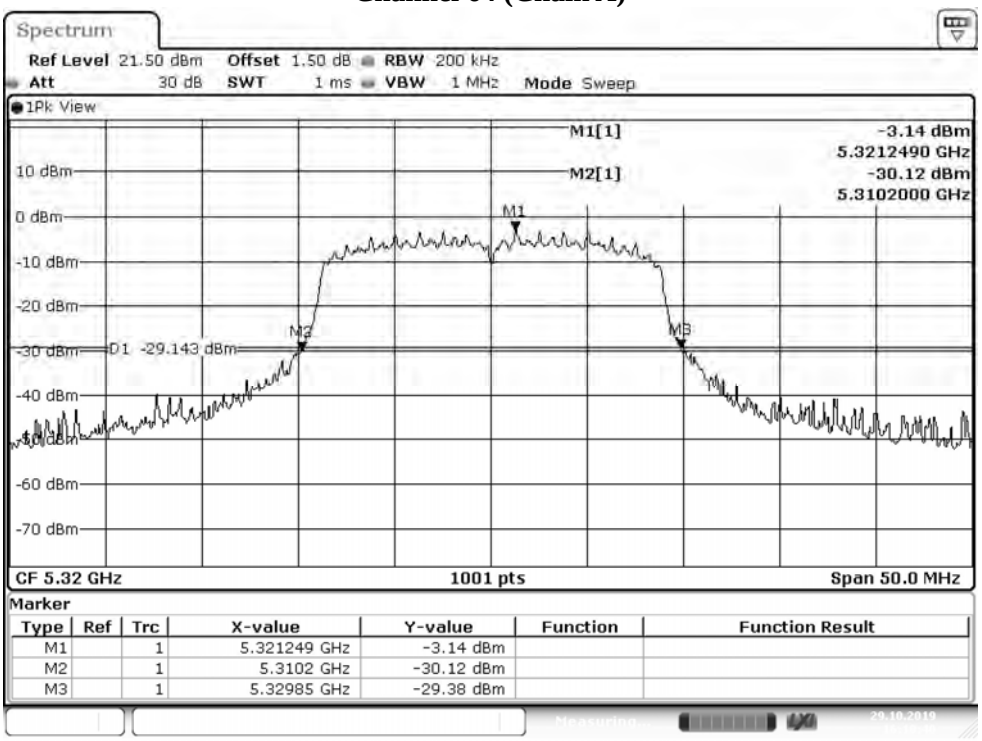
Channel 52 (Chain A)



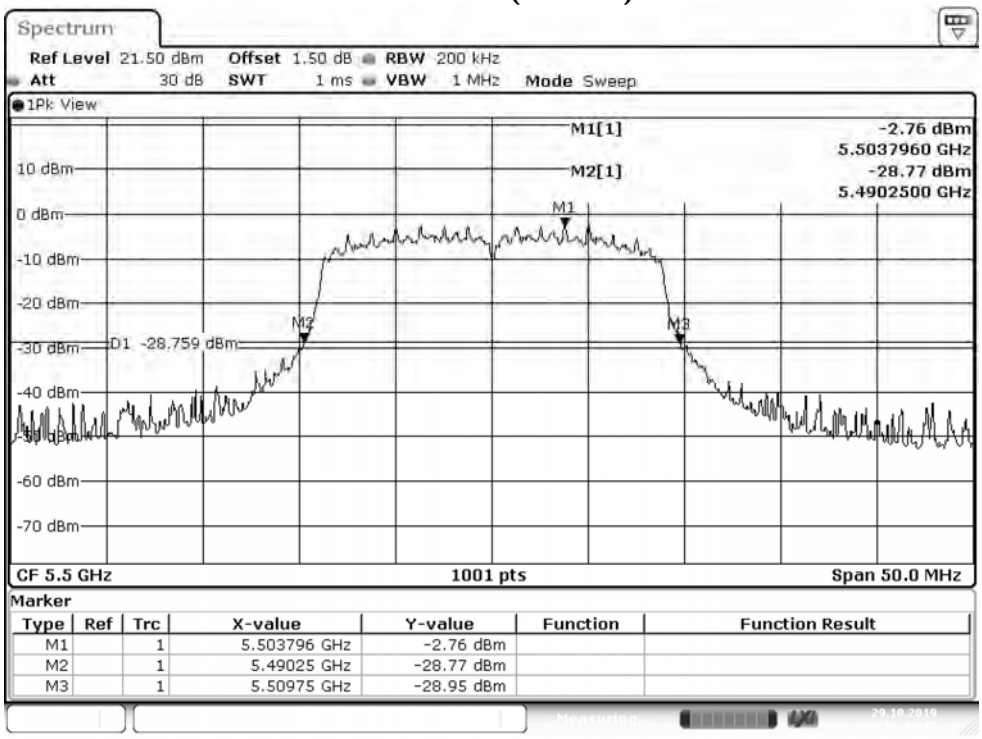
Channel 60 (Chain A)



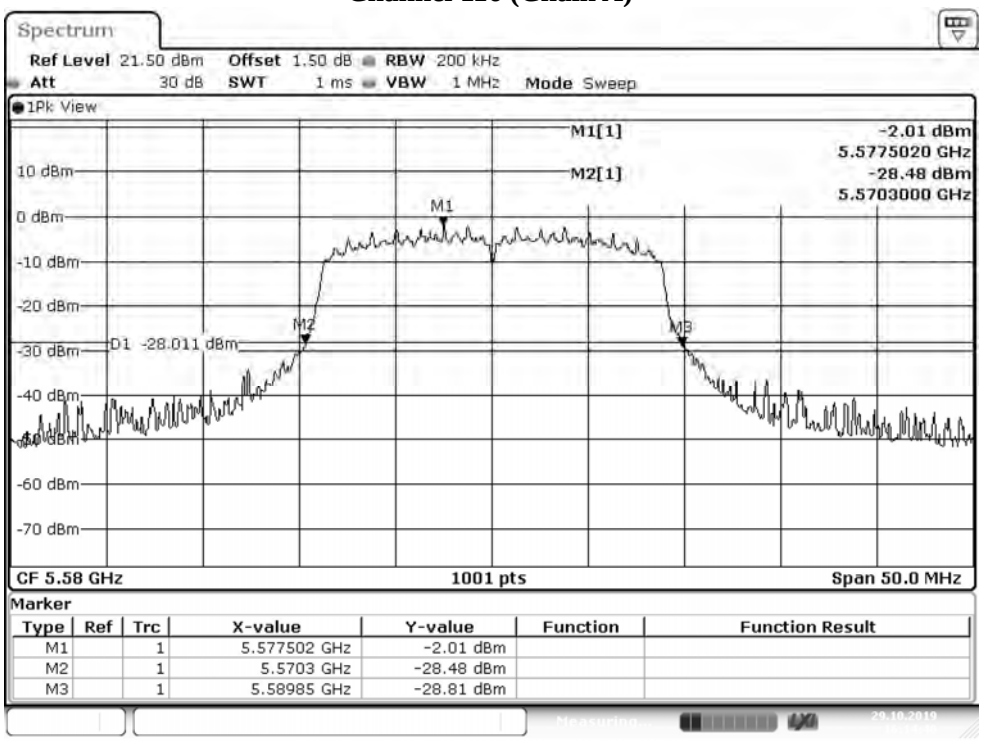
Channel 64 (Chain A)



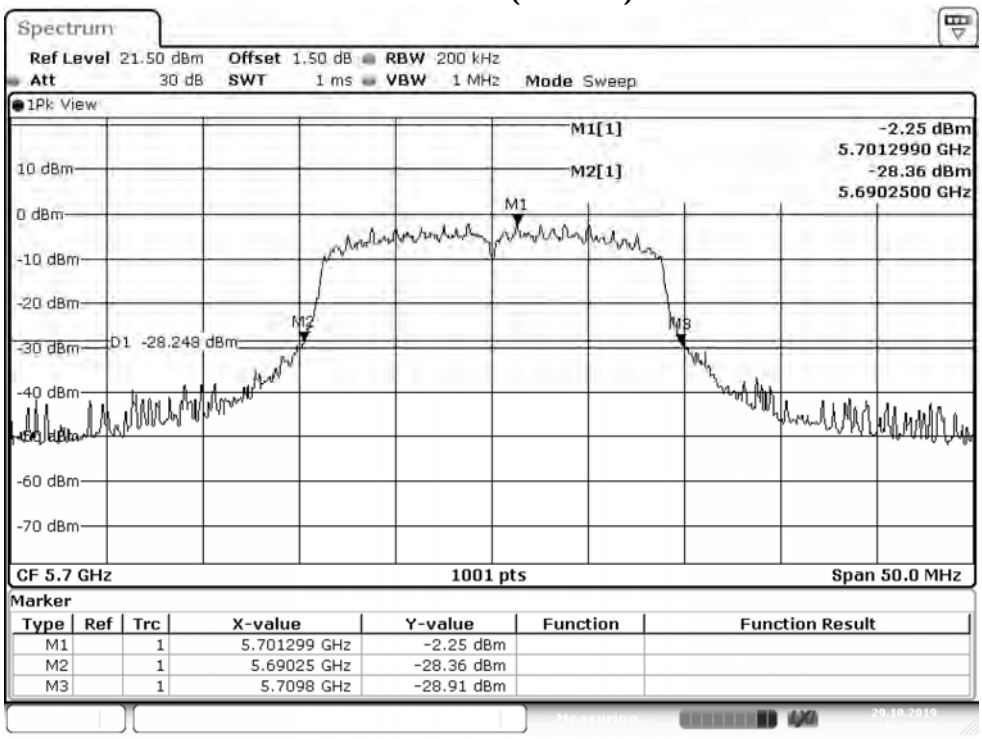
Channel 100 (Chain A)



Channel 116 (Chain A)

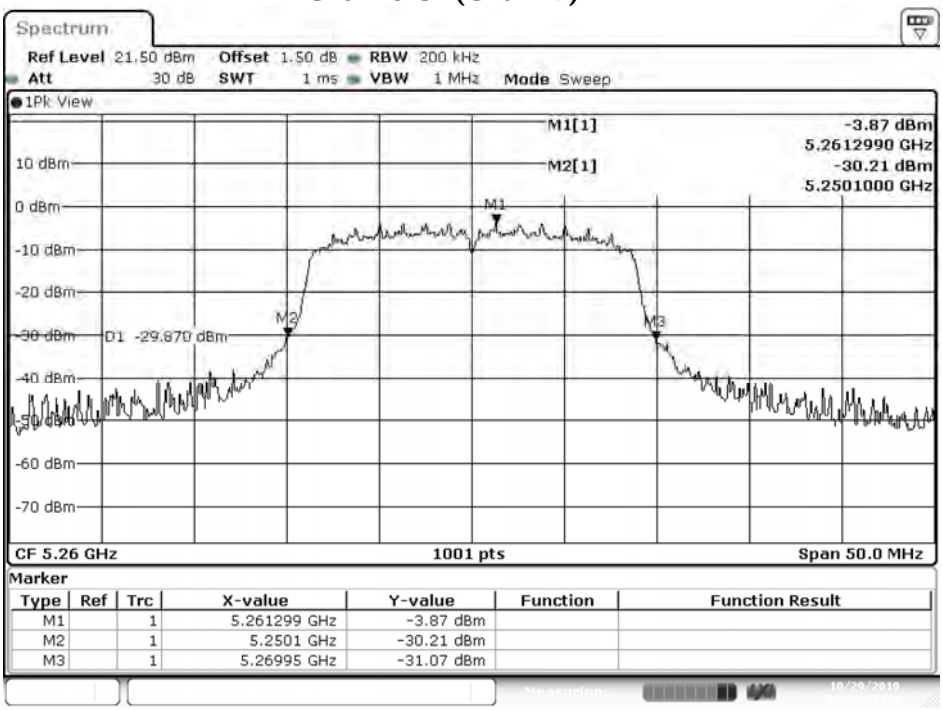


Channel 140 (Chain A)



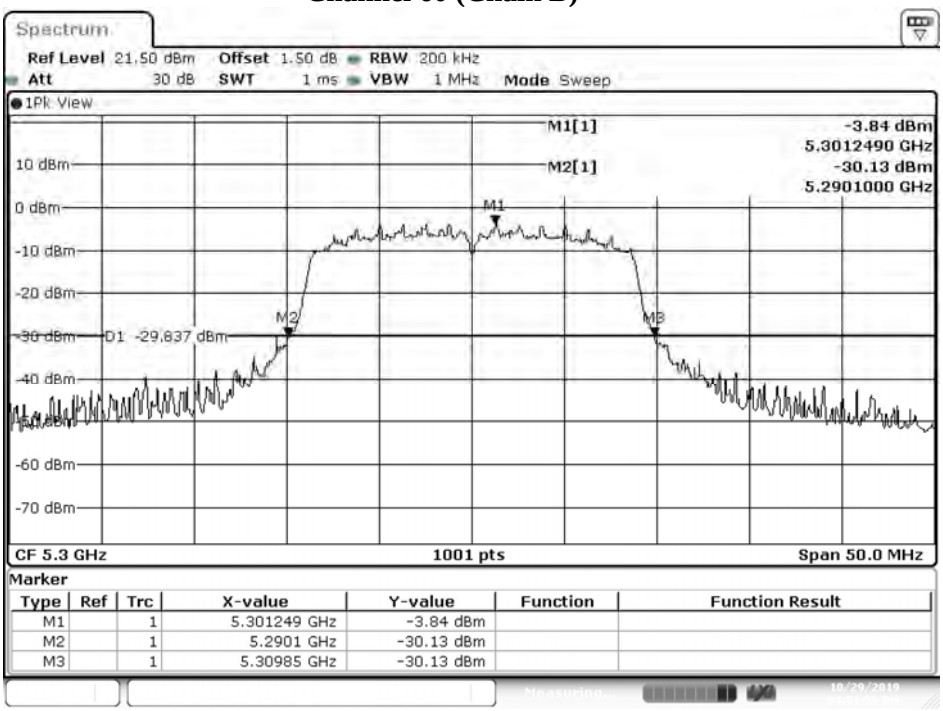
26dB Bandwidth:

Channel 52 (Chain B)



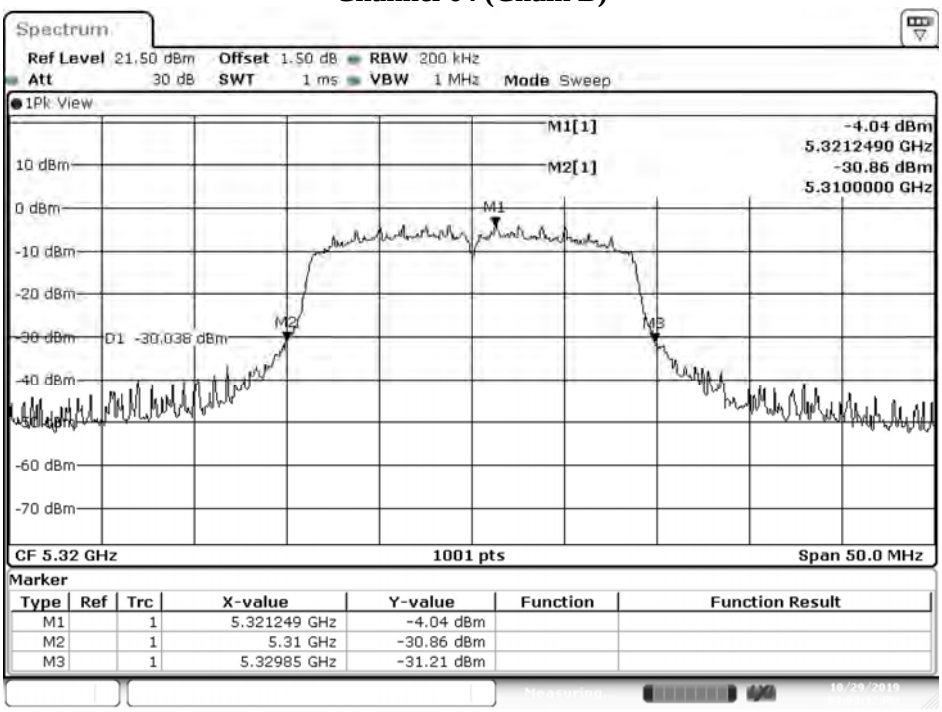
Date: 29.OCT.2019 15:59:57

Channel 60 (Chain B)



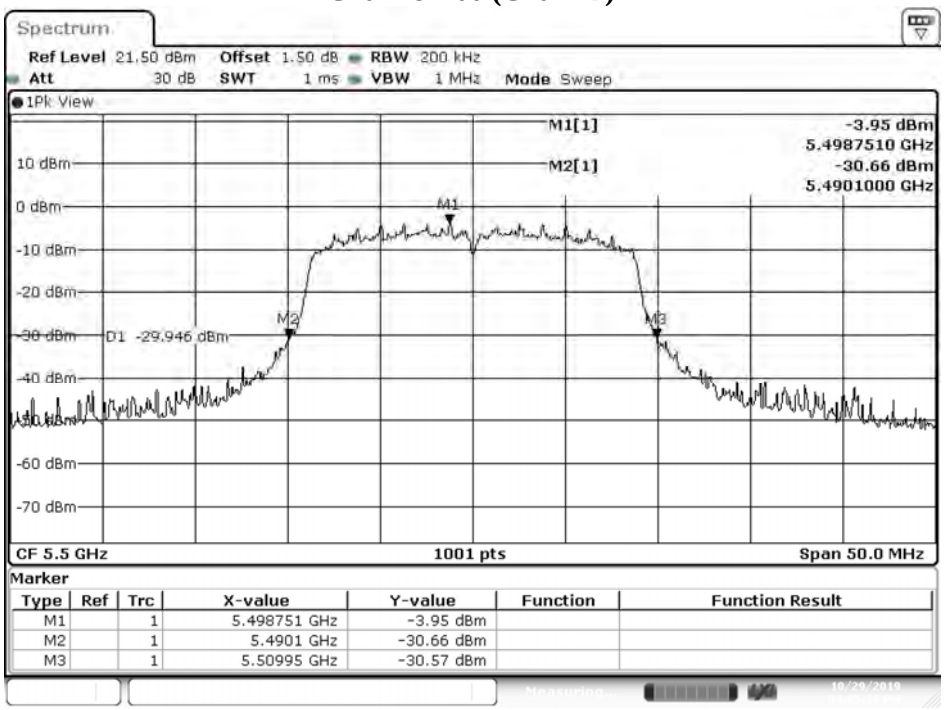
Date: 29.OCT.2019 16:01:55

Channel 64 (Chain B)



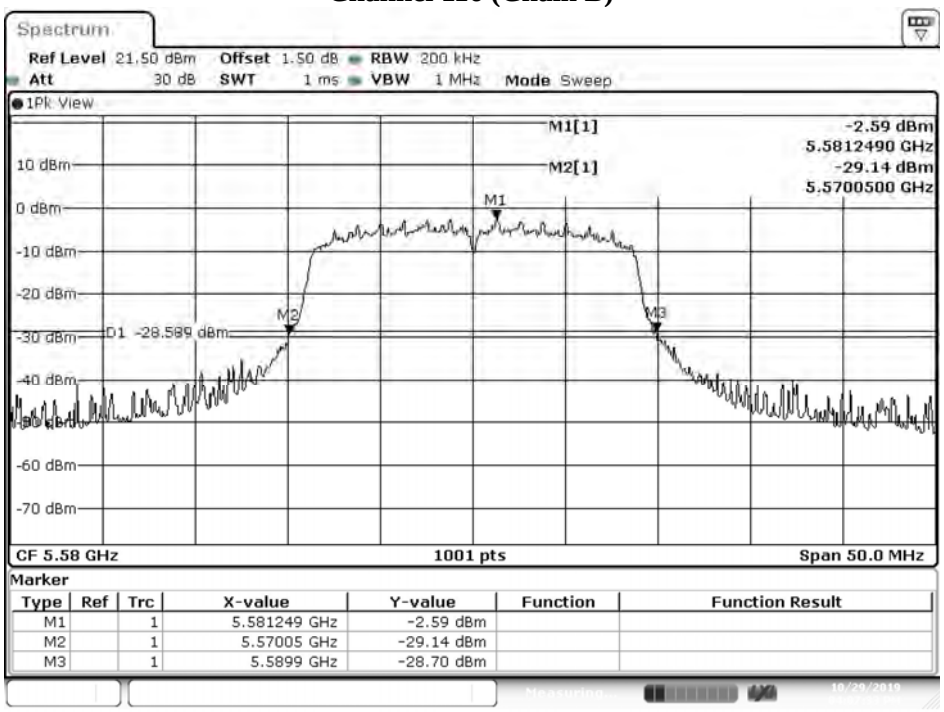
Date: 29.OCT.2019 16:03:32

Channel 100 (Chain B)



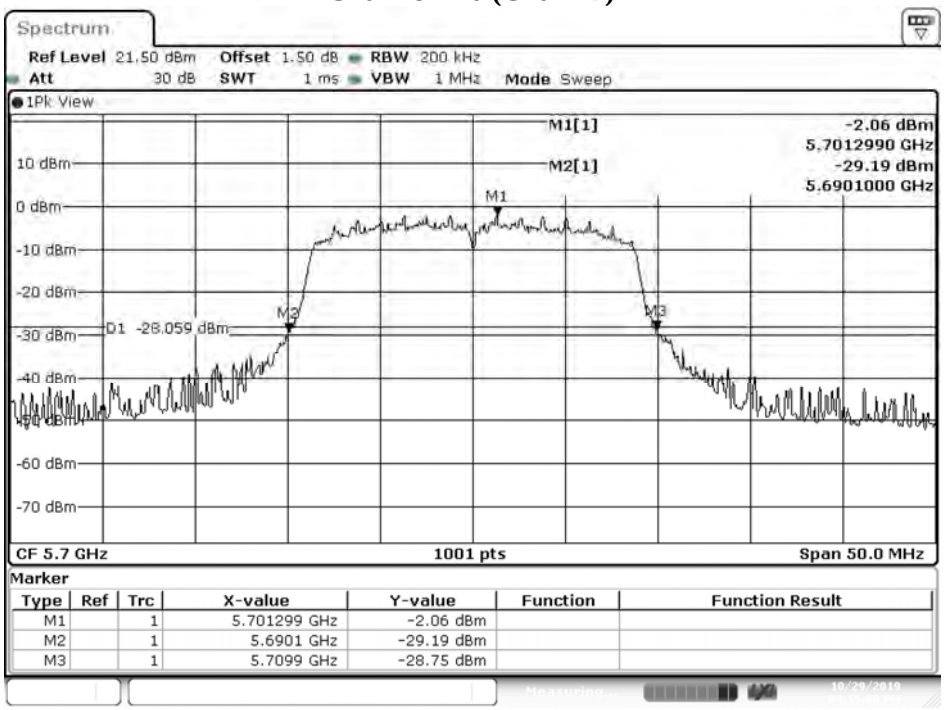
Date: 29.OCT.2019 16:05:38

Channel 116 (Chain B)



Date: 29.OCT.2019 16:07:34

Channel 140 (Chain B)



Date: 29.OCT.2019 16:15:01

Product : UNIT ASSY DA
Test Item : Maximum conducted output power
Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps)
Test Date : 2019/10/31

Chain A

Cable loss=1.5dB		Maximum conducted output power							
Channel No.	Frequency (MHz)	Data Rate (Mbps)							
		30	60	90	120	180	240	270	300
		Measurement Level (dBm)							
38	5190	7.34	--	--	--	--	--	--	--
46	5230	7.31	7.27	7.22	7.17	7.11	7.04	6.99	6.93
54	5270	7.39	--	--	--	--	--	--	--
62	5310	7.41	7.37	7.32	7.26	7.21	7.16	7.11	7.05
102	5510	8.62	--	--	--	--	--	--	--
110	5550	8.64	8.59	8.55	8.49	8.43	8.37	8.31	8.26
134	5670	8.97	--	--	--	--	--	--	--
151	5755	8.93	--	--	--	--	--	--	--
159	5795	9.02	8.97	8.92	8.87	8.82	8.77	8.72	8.67

Note: Maximum conducted output power Value =Reading value on average power meter + cable loss

Chain B

Cable loss=1.5dB		Maximum conducted output power							
Channel No.	Frequency (MHz)	Data Rate (Mbps)							
		30	60	90	120	180	240	270	300
		Measurement Level (dBm)							
38	5190	6.28	--	--	--	--	--	--	--
46	5230	6.24	6.19	6.12	6.08	6.03	5.98	5.93	5.88
54	5270	6.22	--	--	--	--	--	--	--
62	5310	6.36	6.31	6.27	6.22	6.17	6.11	6.08	6.03
102	5510	6.92	--	--	--	--	--	--	--
110	5550	7.14	7.09	7.02	6.98	6.94	6.89	6.83	6.77
134	5670	8.18	--	--	--	--	--	--	--
151	5755	9.11	--	--	--	--	--	--	--
159	5795	8.77	8.72	8.68	8.62	8.57	8.53	8.49	8.43

Note: Maximum conducted output power Value =Reading value on average power meter + cable loss

Maximum conducted output power Measurement:

(Chain A+ B)

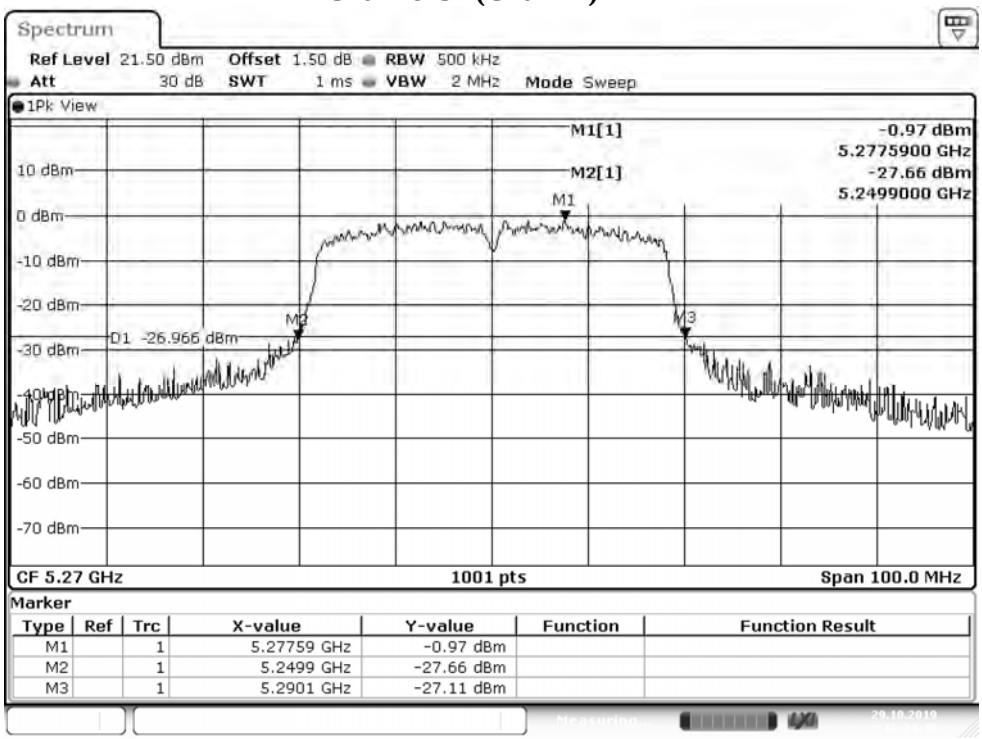
Channel Number	Frequency (MHz)	26dB Bandwidth (MHz)	Chain A Power (dBm)	Chain B Power (dBm)	Output Power (dBm)	Output Power Limit		Result
						(dBm)	dBm+10log(BW)	
38	5190	--	7.34	6.28	9.85	24	--	Pass
46	5230	--	7.31	6.24	9.82	24	--	Pass
54	5270	40.200	7.39	6.22	9.85	24	27.04	Pass
62	5310	41.800	7.41	6.36	9.93	24	27.21	Pass
102	5510	41.100	8.62	6.92	10.86	24	27.14	Pass
110	5550	40.200	8.64	7.14	10.96	24	27.04	Pass
134	5670	42.900	8.97	8.18	11.60	24	27.32	Pass
151	5755	--	8.93	9.11	12.03	30	--	Pass
159	5795	--	9.02	8.77	11.91	30	--	Pass

Note:

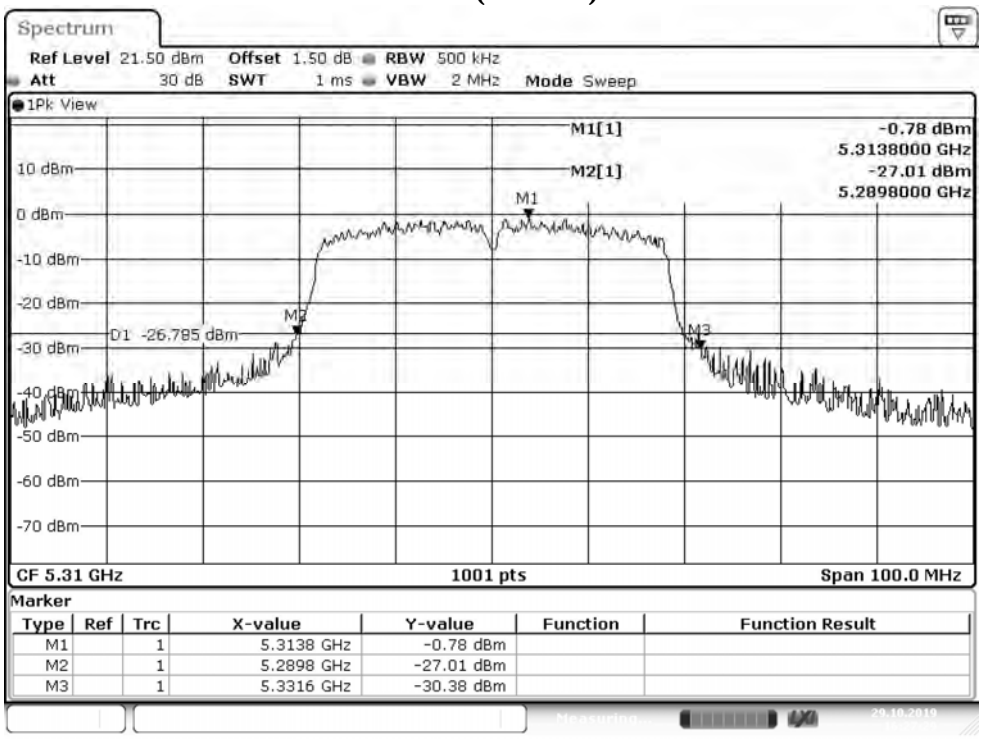
1. Output Power (dBm) = 10LOG (Chain A Power (mW)+ Chain B Power (mW))
2. 26dB Bandwidth is the bandwidth of chain A or chain Bwhichever is less bandwidth, output power limitation is more stringent.

26dB Bandwidth:

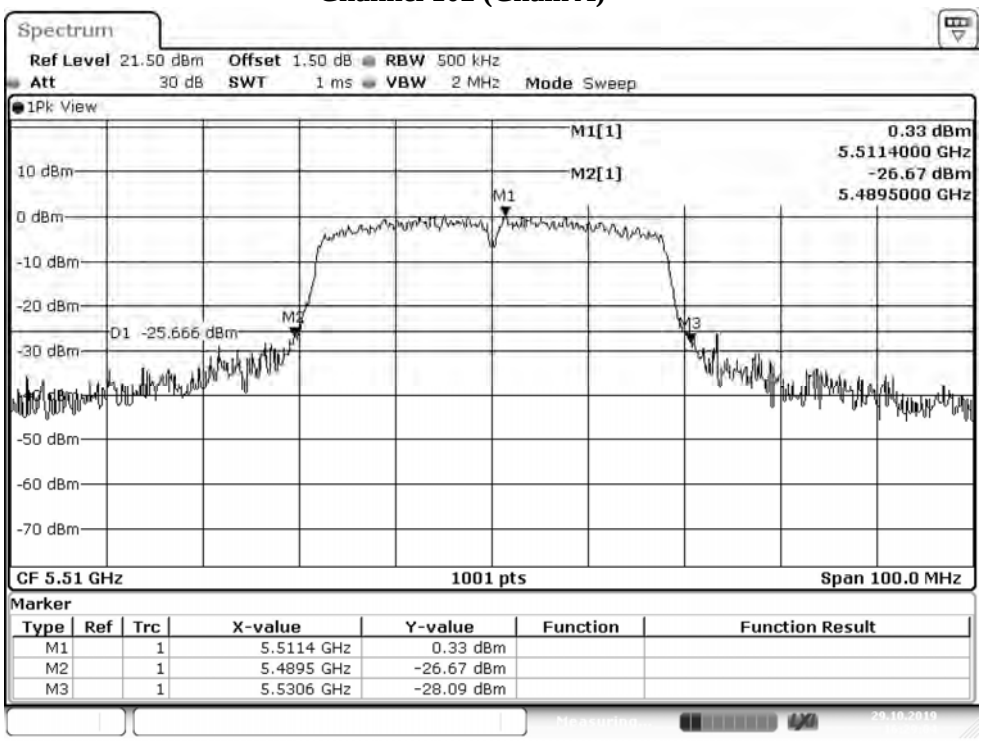
Channel 54 (Chain A)



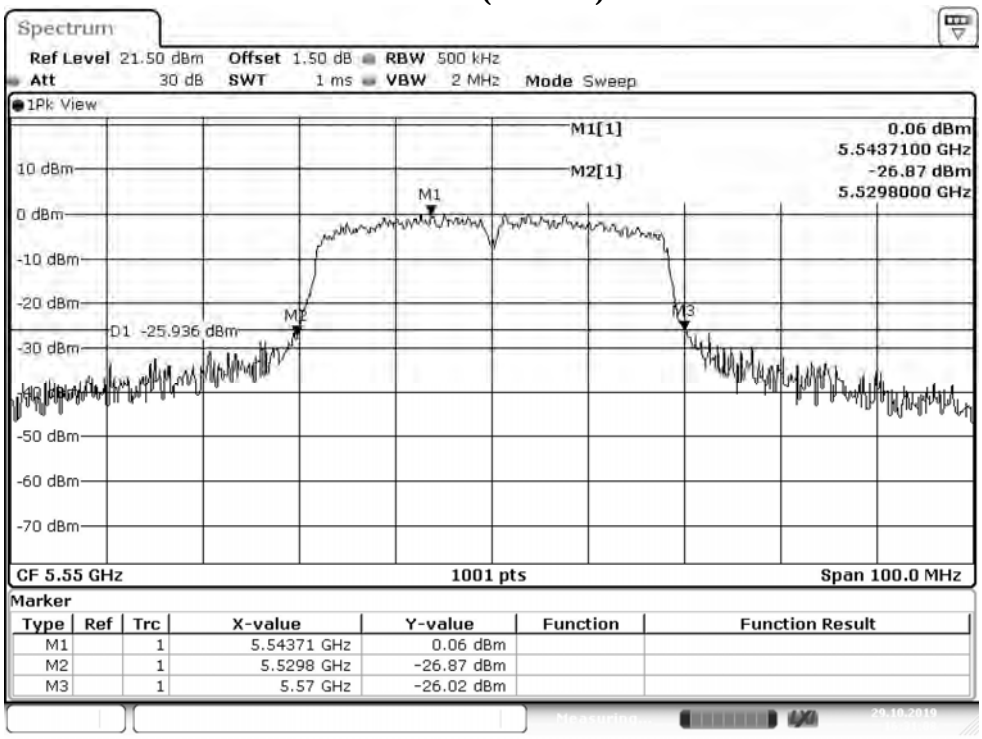
Channel 62 (Chain A)



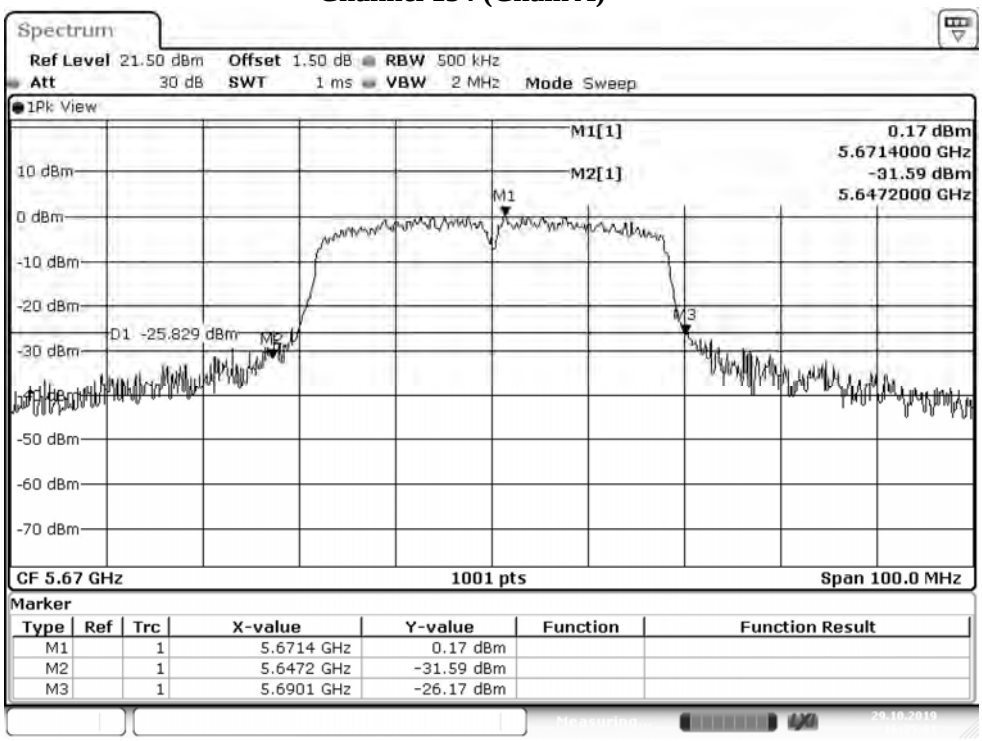
Channel 102 (Chain A)



Channel 110 (Chain A)

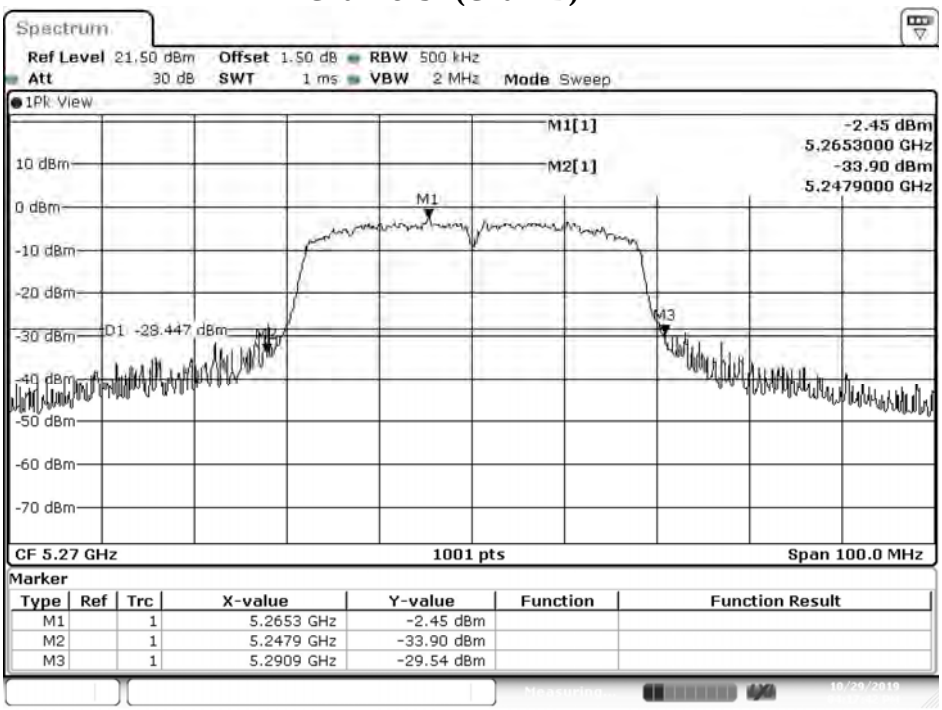


Channel 134 (Chain A)



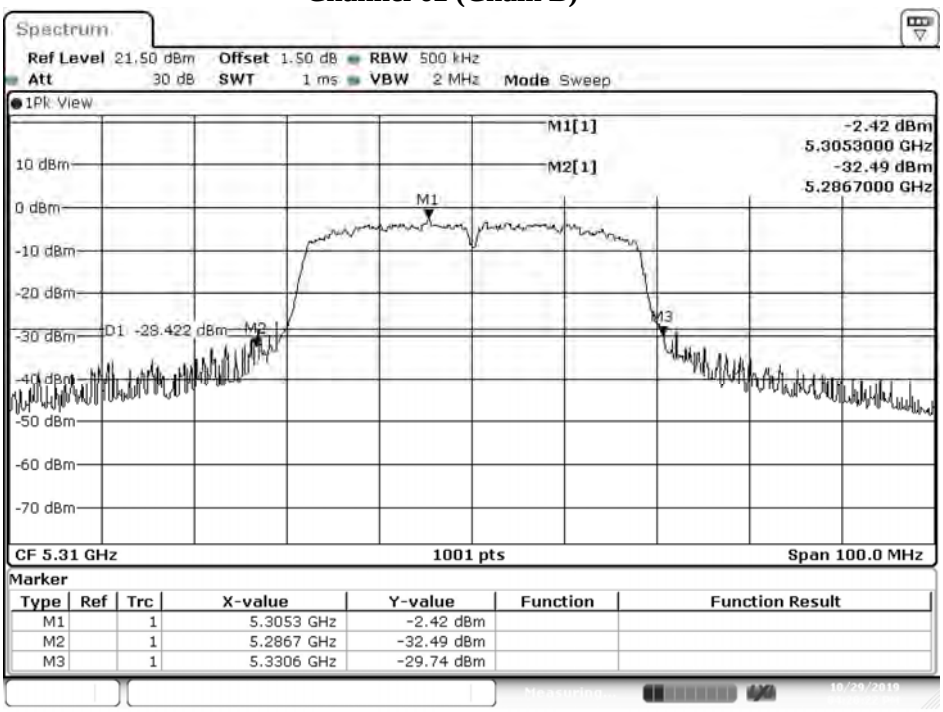
26dB Bandwidth:

Channel 54 (Chain B)



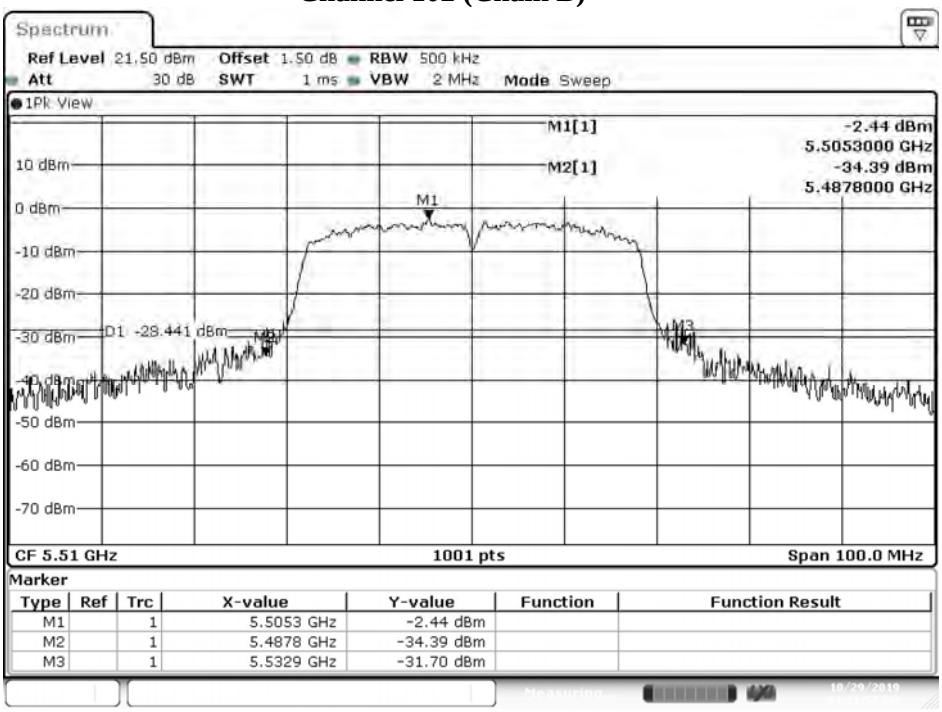
Date: 29.OCT.2019 16:17:42

Channel 62 (Chain B)



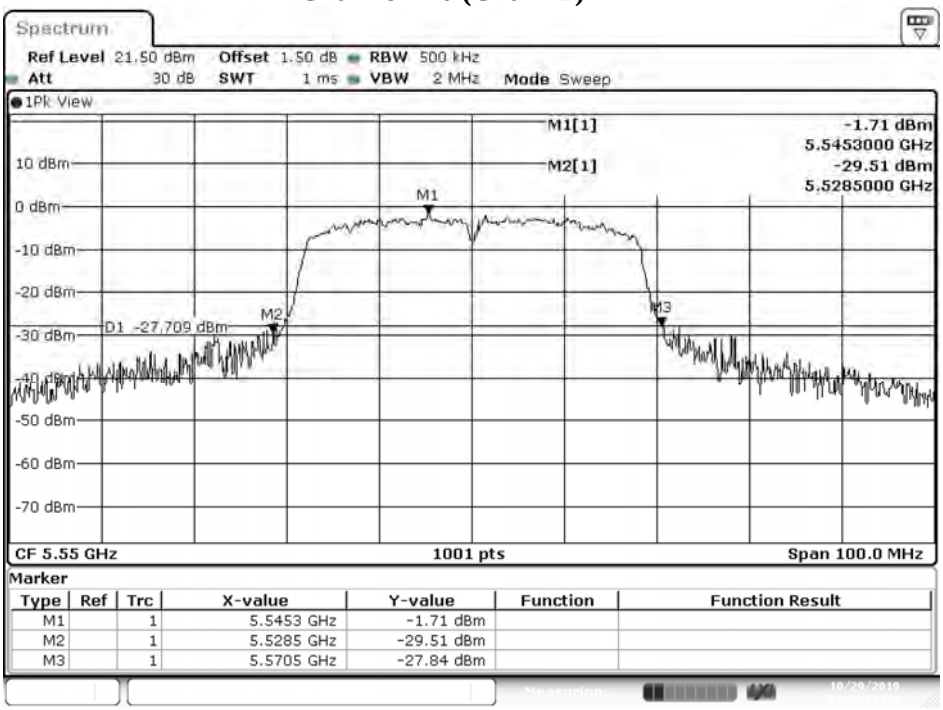
Date: 29.OCT.2019 16:20:22

Channel 102 (Chain B)



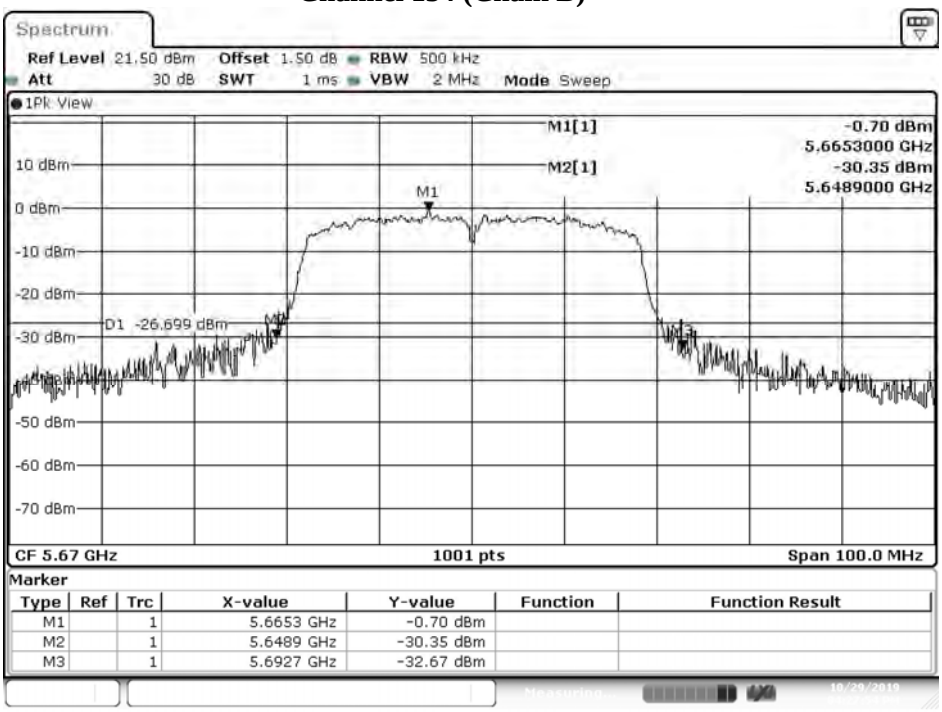
Date: 29.OCT.2019 16:21:58

Channel 110 (Chain B)



Date: 29.OCT.2019 16:24:01

Channel 134 (Chain B)



Product : UNIT ASSY DA
Test Item : Maximum conducted output power
Test Mode : Mode 4: Transmit (802.11ac-80BW 65Mbps)
Test Date : 2019/10/31

Chain A

Cable loss=1.5dB		Maximum conducted output power									
Channel No	Frequency (MHz)	Data Rate (Mbps)									
		VTH0	VTH1	VTH2	VTH3	VTH4	VTH5	VTH6	VTH7	VTH8	VTH9
42	5210	5.67	5.62	5.57	5.51	5.47	5.42	5.38	5.33	5.29	5.23
58	5290	5.72	5.67	5.62	5.58	5.53	5.49	5.42	5.37	5.32	5.27
106	5530	6.96	--	--	--	--	--	--	--	--	--
122	5610	7.13	7.08	7.02	6.97	6.91	6.85	6.79	6.72	6.67	6.61
155	5775	7.35	7.29	7.25	7.20	7.16	7.11	7.07	7.02	6.98	6.92

Note: Maximum conducted output power Value =Reading value on Spectrum Analyzer + cable loss

Chain B

Cable loss=1.5dB		Maximum conducted output power									
Channel No	Frequency (MHz)	Data Rate (Mbps)									
		VTH0	VTH1	VTH2	VTH3	VTH4	VTH5	VTH6	VTH7	VTH8	VTH9
42	5210	5.23	5.18	5.13	5.09	5.03	4.98	4.93	4.89	4.84	4.79
58	5290	5.1	5.04	4.99	4.95	4.90	4.86	4.81	4.77	4.72	4.68
106	5530	6.17	--	--	--	--	--	--	--	--	--
122	5610	5.56	5.51	5.47	5.41	5.37	5.33	5.26	5.21	5.17	5.11
155	5775	6.92	6.88	6.82	6.77	6.71	6.67	6.62	6.58	6.51	6.46

Note: Maximum conducted output power Value =Reading value on Spectrum Analyzer + cable loss

Maximum conducted output power Measurement

(Chain A+ B)

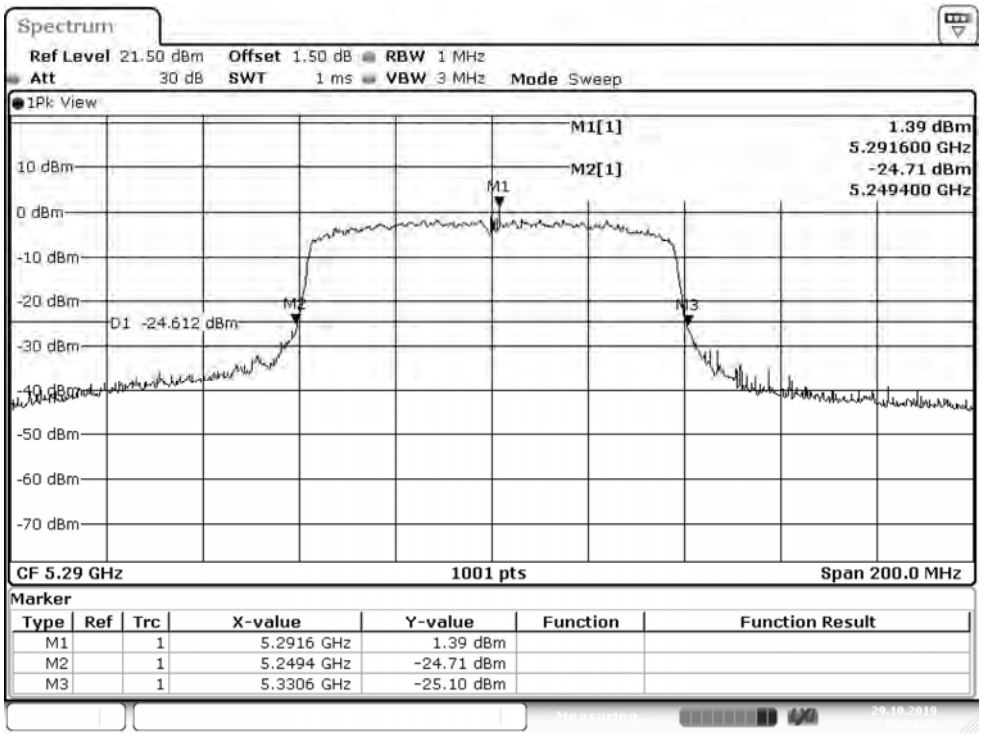
Channel Number	Frequency (MHz)	26dB Bandwidth (MHz)	Chain A Power (dBm)	Chain B Power (dBm)	Output Power (dBm)	Output Power Limit		Result
						(dBm)	dBm+10log(BW)	
42	5210	--	5.67	5.23	8.47	24	--	Pass
58	5290	81.200	5.72	5.10	8.43	24	30.10	Pass
106	5530	82.400	6.96	6.17	9.59	24	30.16	Pass
122	5610	82.200	7.13	5.56	9.43	24	30.15	Pass
155	5775	--	7.35	6.92	10.15	30	--	Pass

Note:

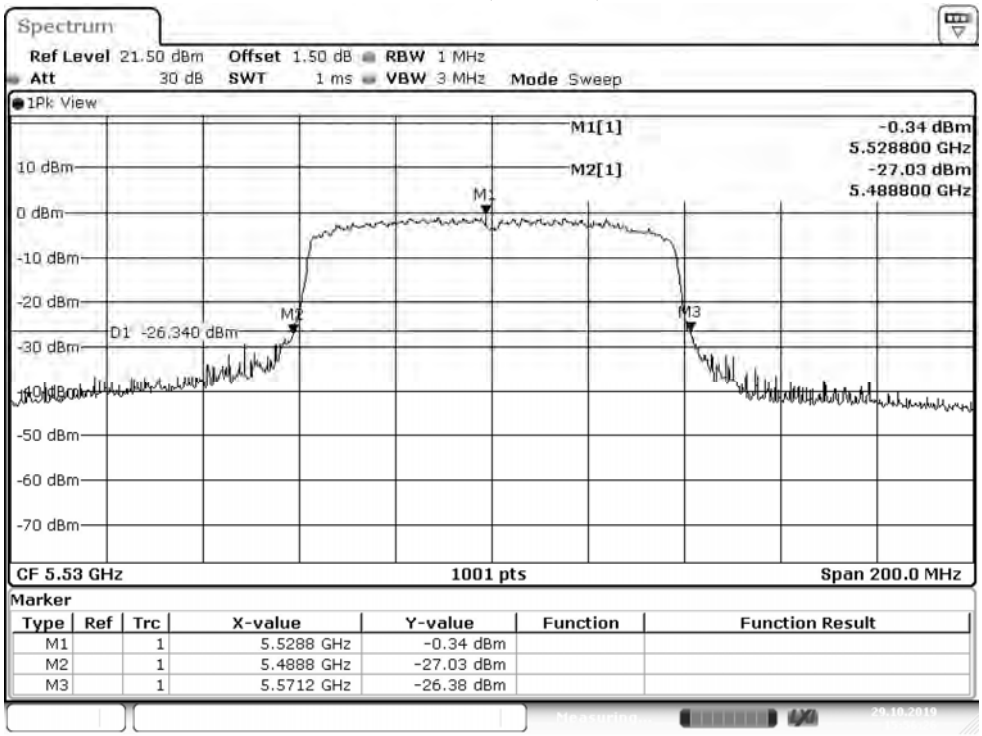
1. Output Power (dBm) = 10LOG (Chain A Power (mW)+ Chain B Power (mW))
2. 26dB Bandwidth is the bandwidth of chain A or chain Bwhichever is less bandwidth, output power limitation is more stringent.

26dB Bandwidth:

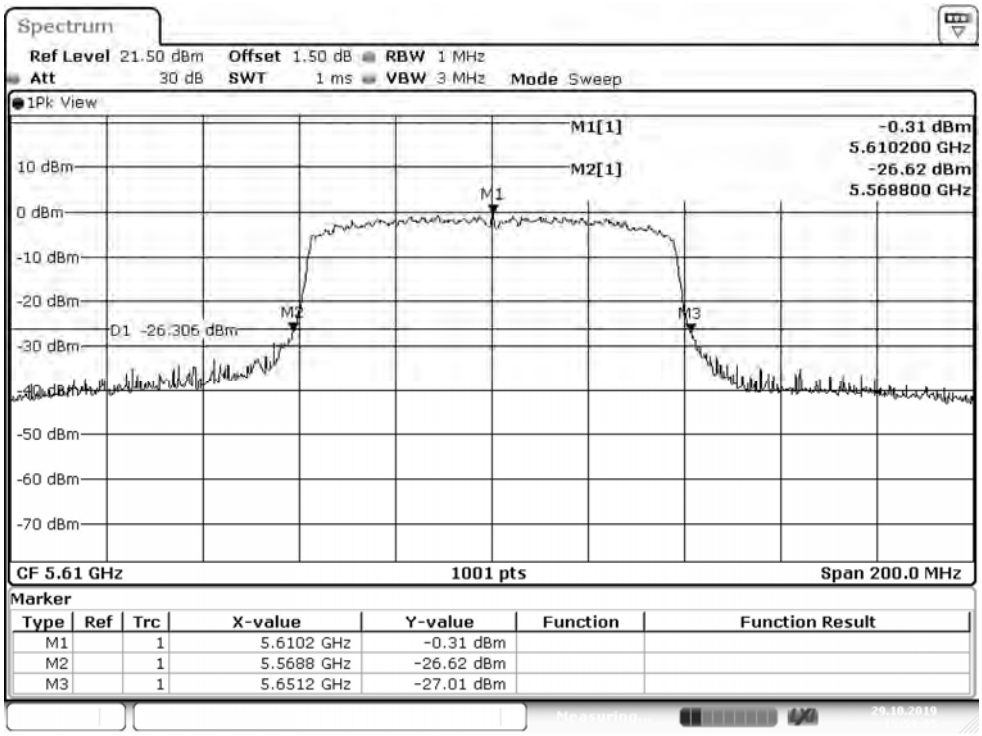
Channel 58 (Chain A)



Channel 106 (Chain A)

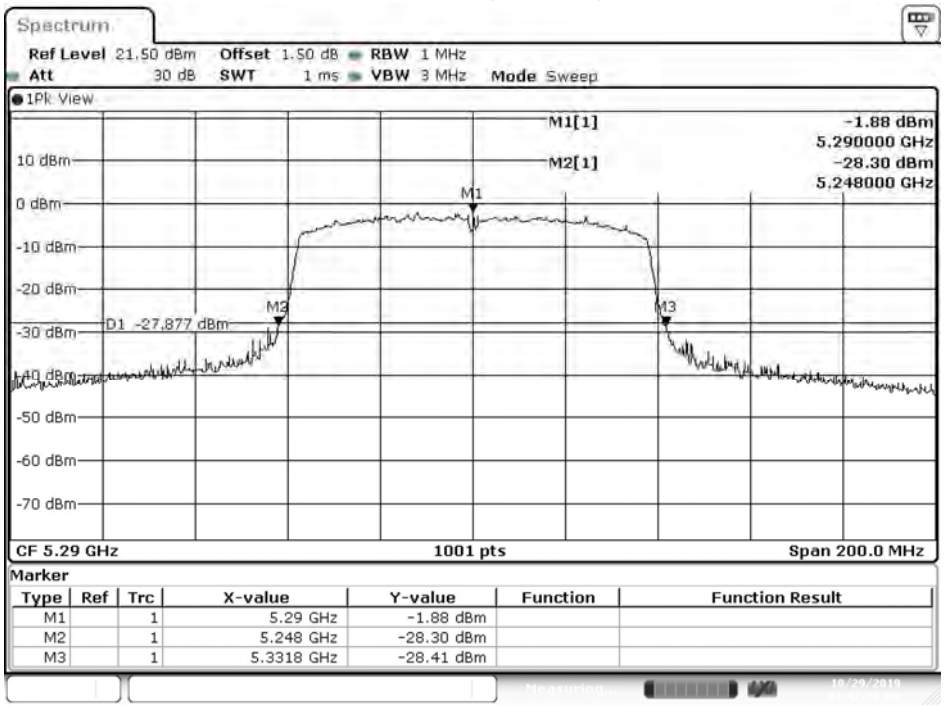


Channel 122 (Chain A)



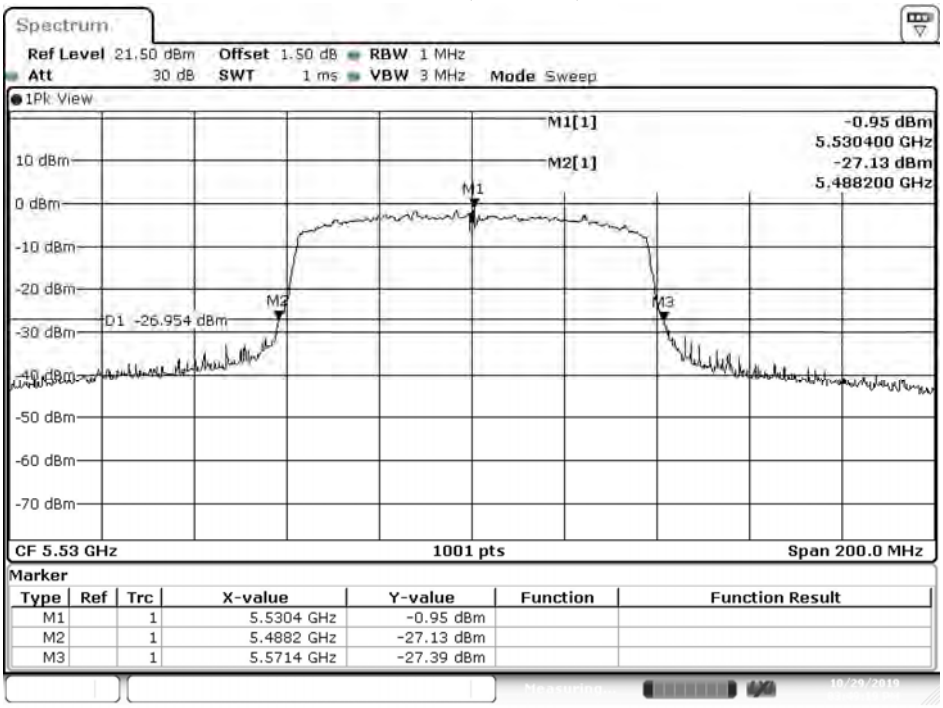
26dB Bandwidth:

Channel 58 (Chain B)



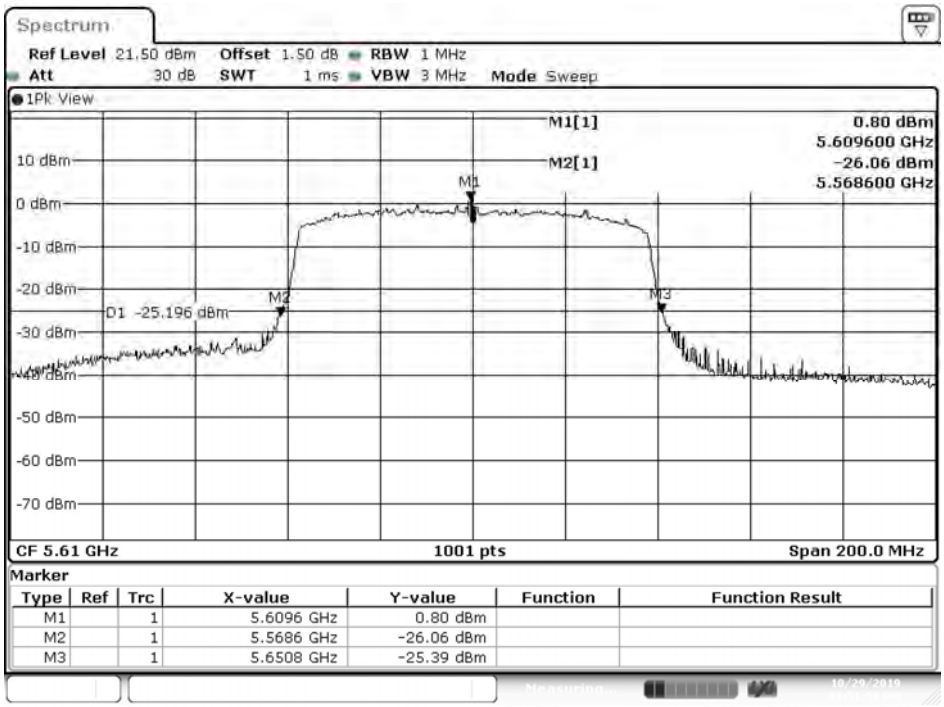
Date: 29.OCT.2019 15:47:29

Channel 106 (Chain B)



Date: 29.OCT.2019 15:49:20

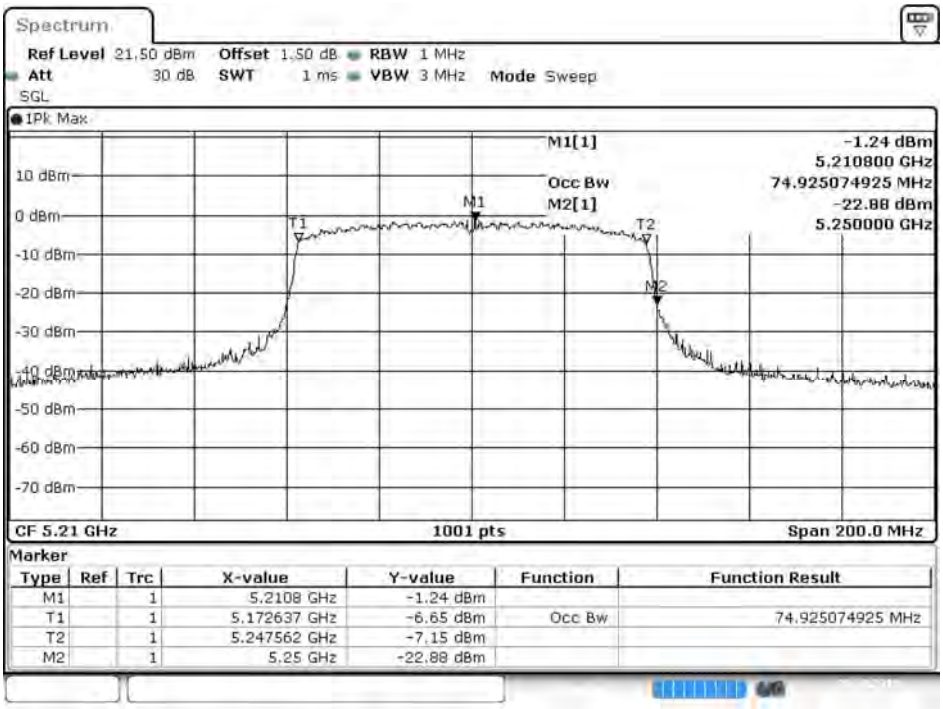
Channel 122 (Chain B)



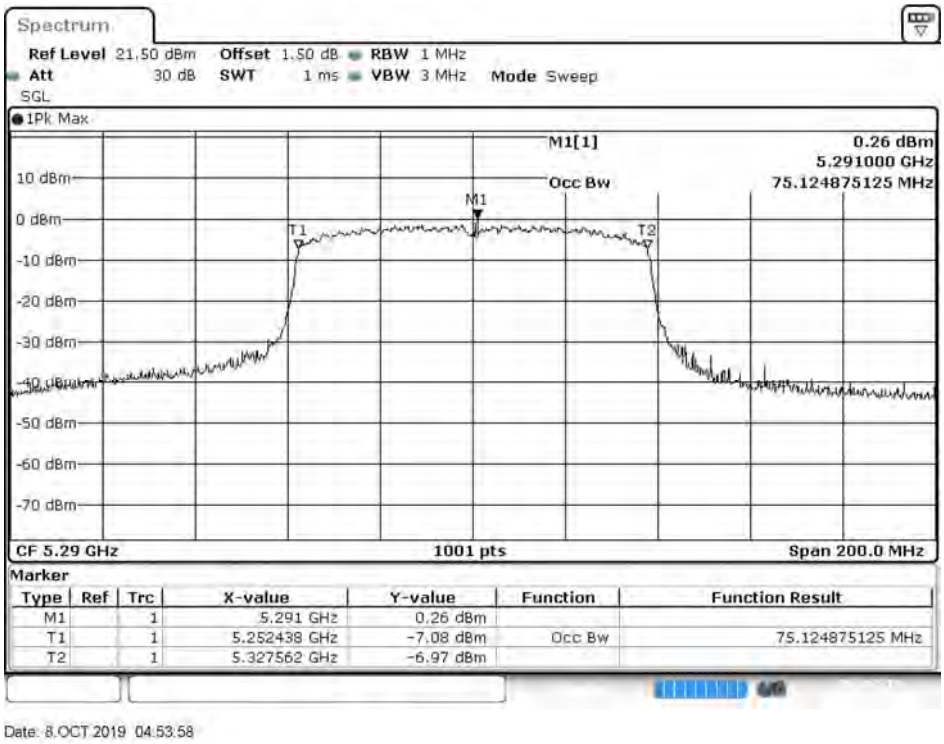
Date: 29.OCT.2019 15:51:58

99% Occupied Bandwidth:

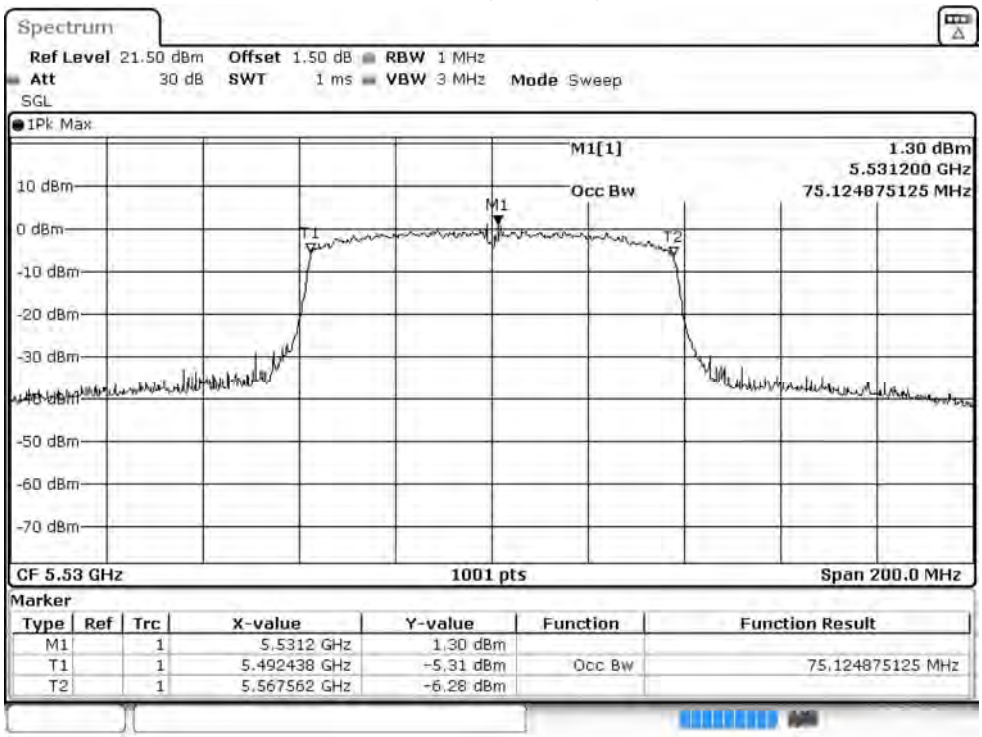
Channel 42 (Chain A)



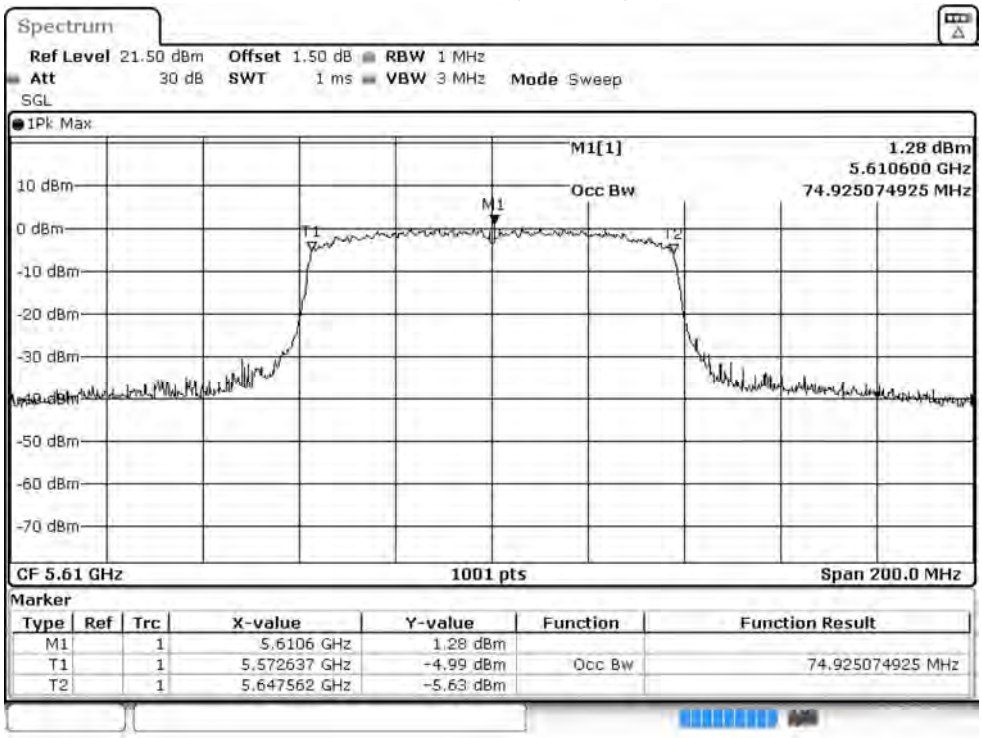
Channel 58 (Chain A)



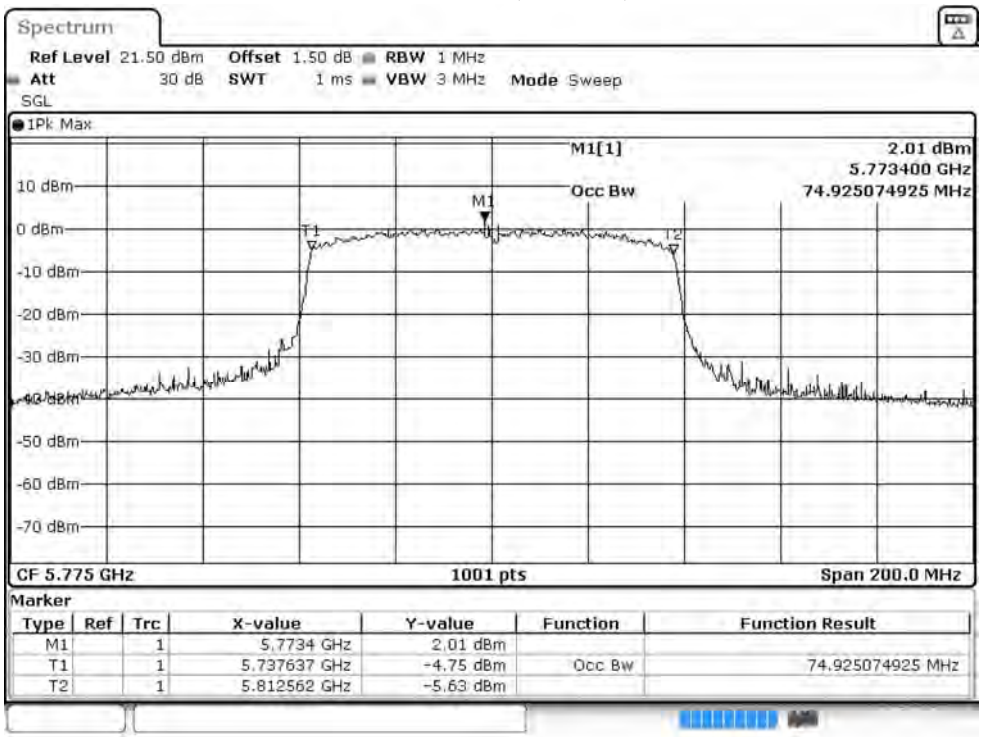
Channel 106 (Chain A)



Channel 122 (Chain A)

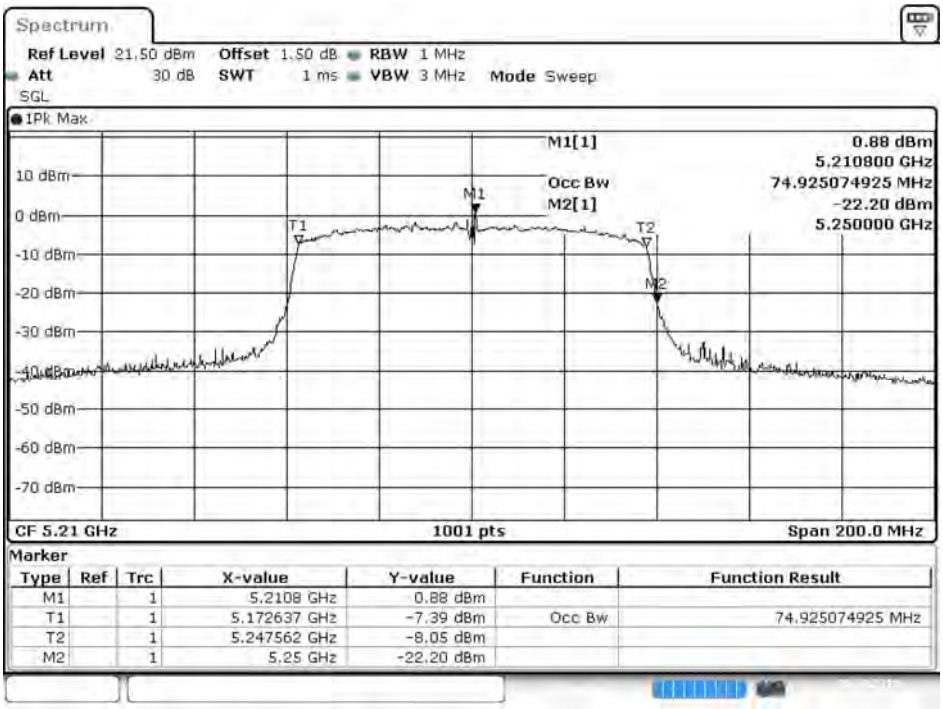


Channel 155 (Chain A)

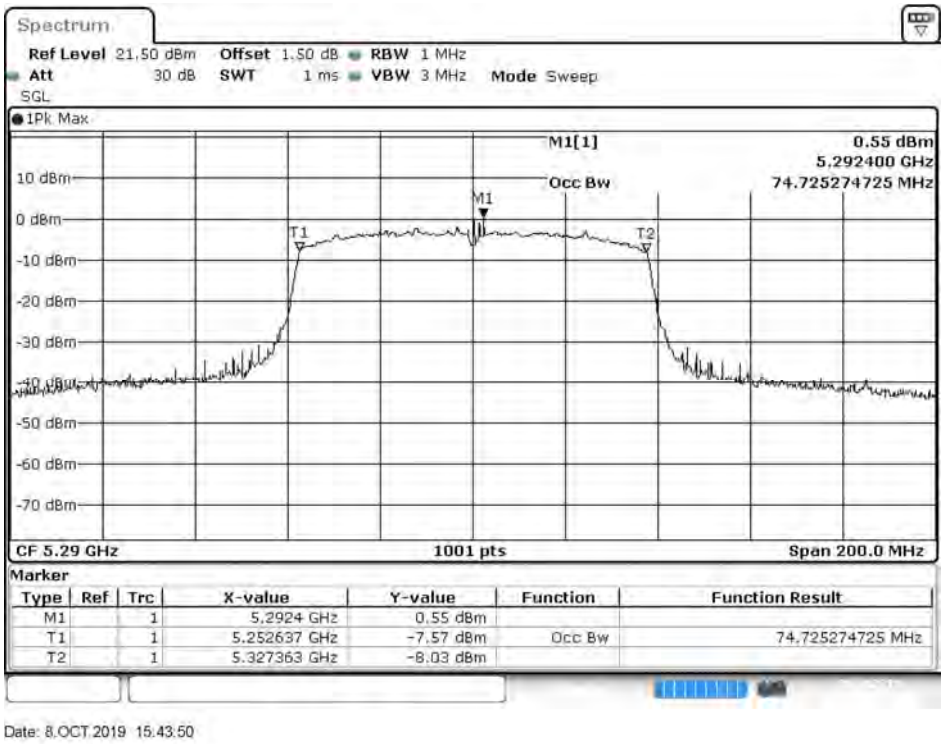


99% Occupied Bandwidth:

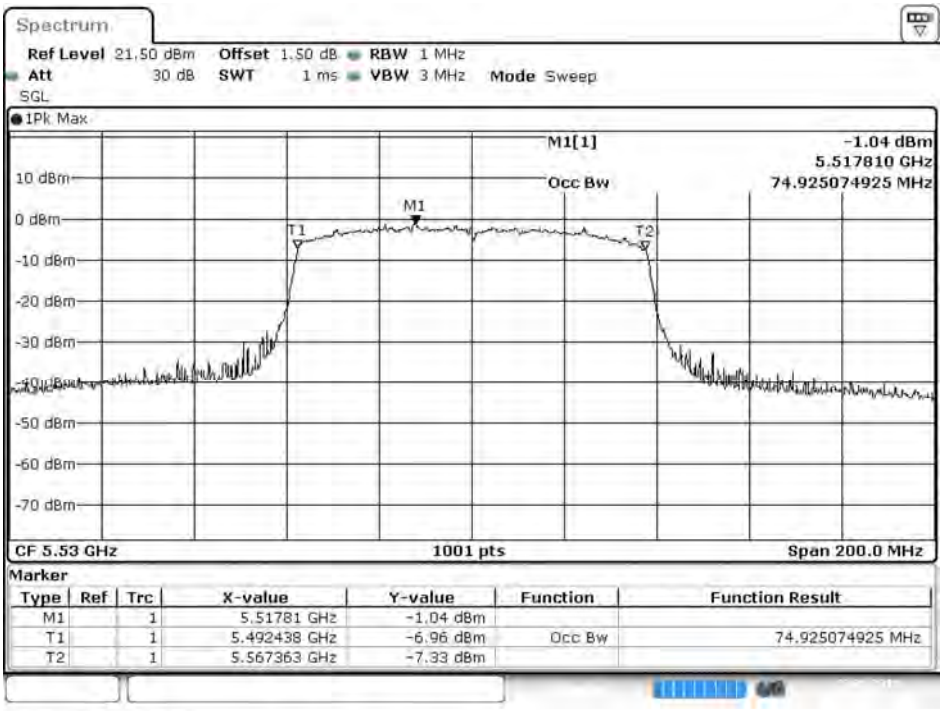
Channel 42 (Chain B)



Channel 58 (Chain B)

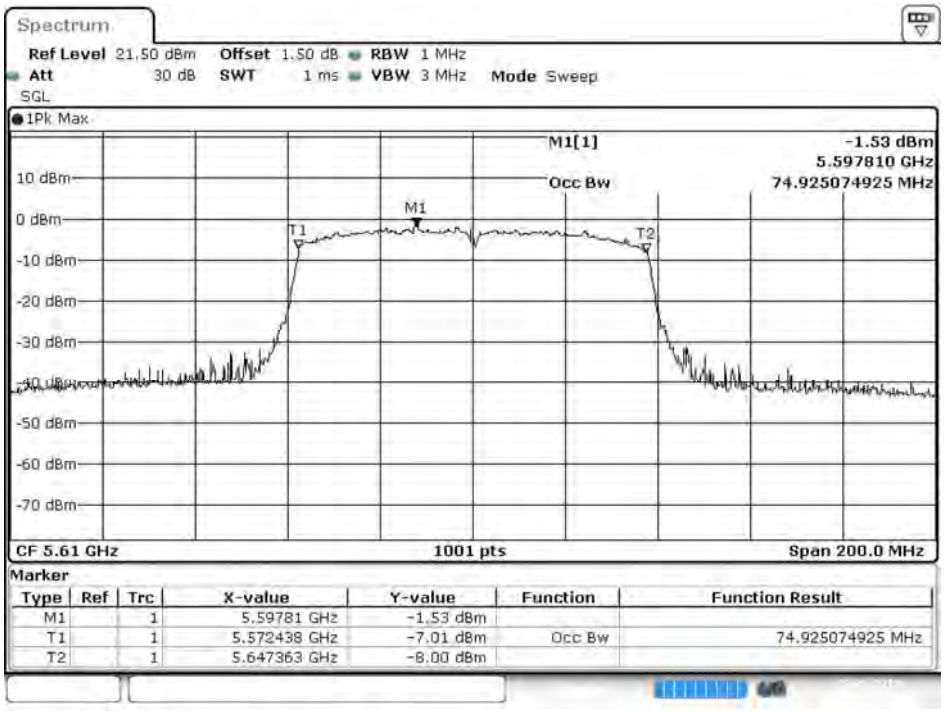


Channel 106 (Chain B)



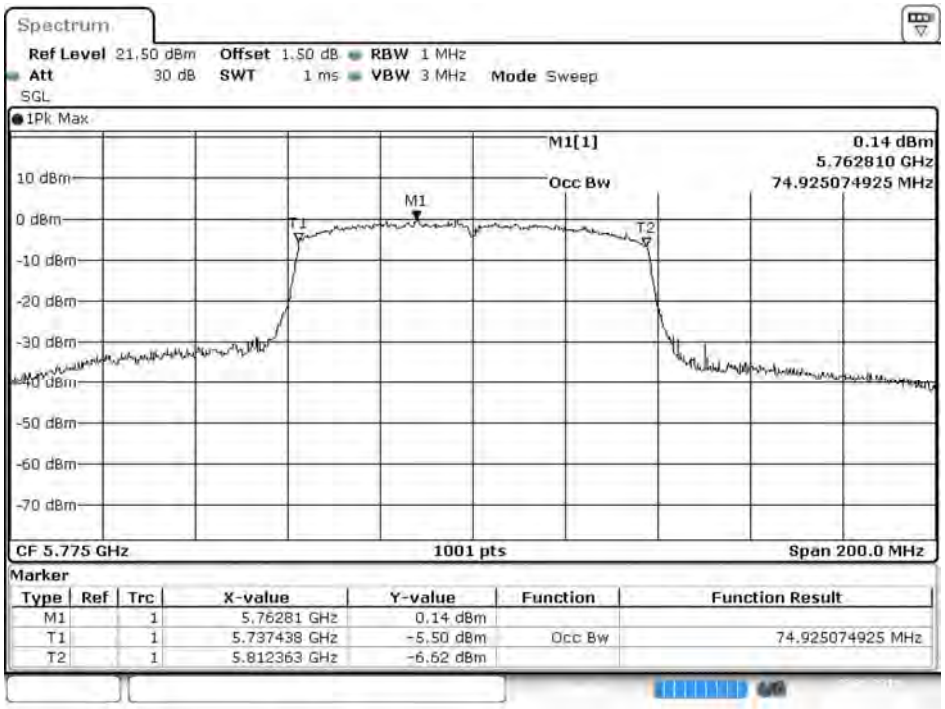
Date: 3.MAY.2019 10:14:49

Channel 122 (Chain B)



Date: 3.MAY.2019 10:17:29

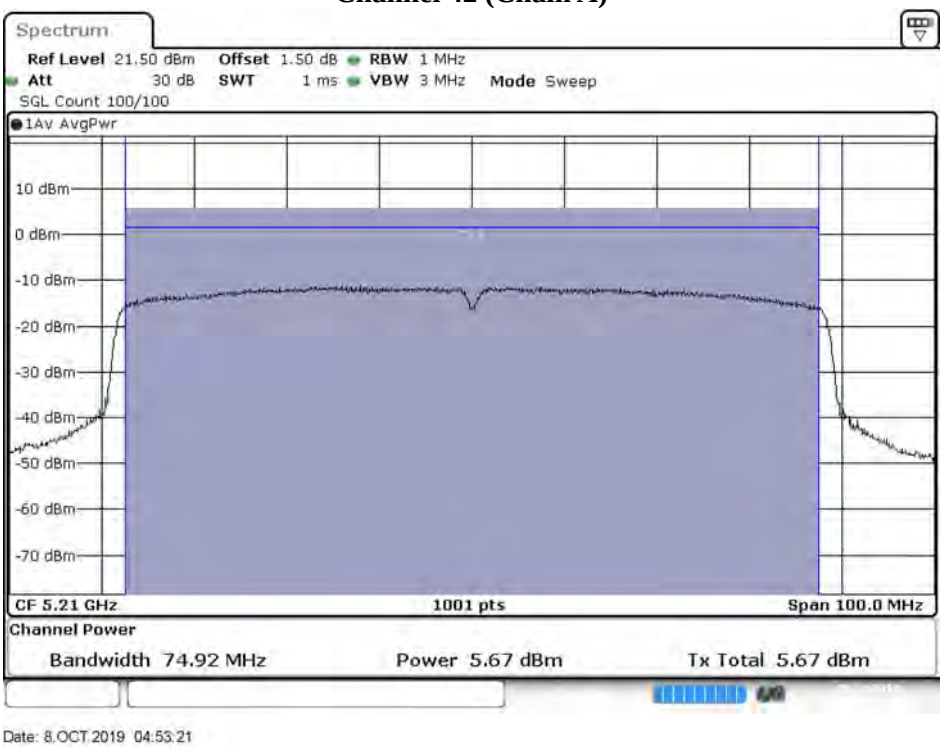
Channel 155 (Chain B)



Date: 3.MAY.2019 10:46:39

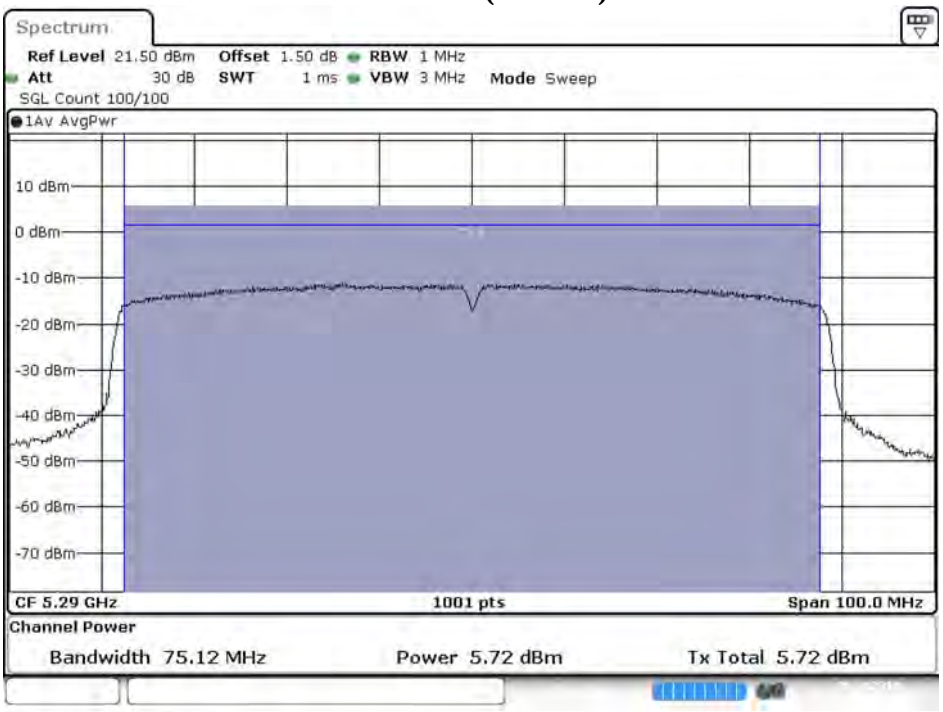
Maximum conducted output power:

Channel 42 (Chain A)



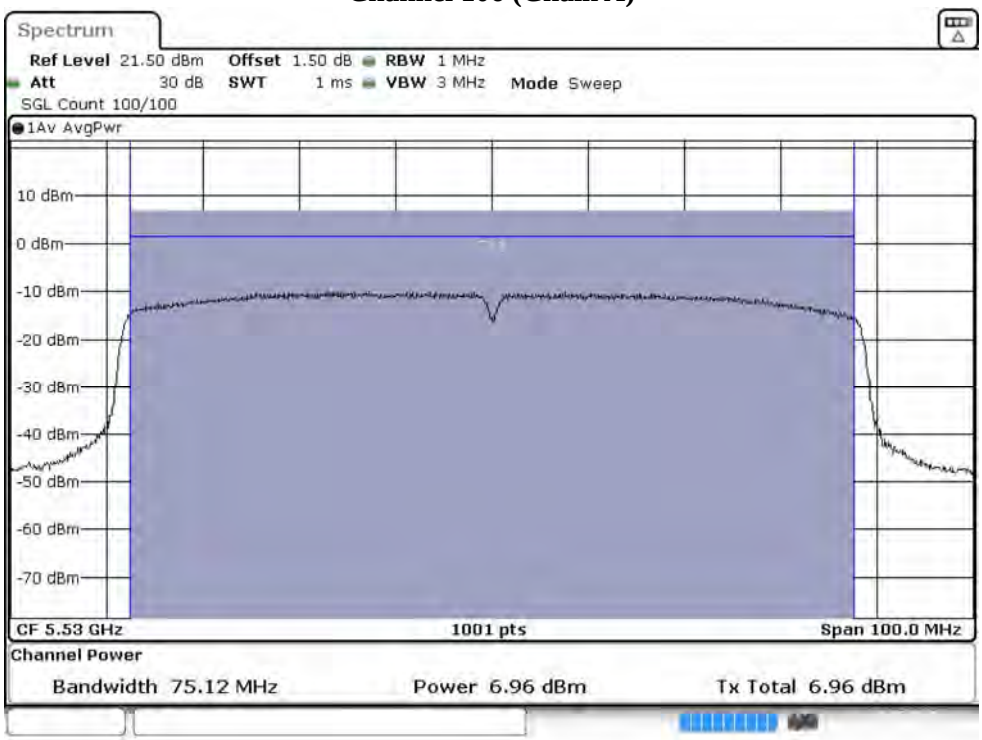
Date: 8.OCT.2019 04:53:21

Channel 58 (Chain A)

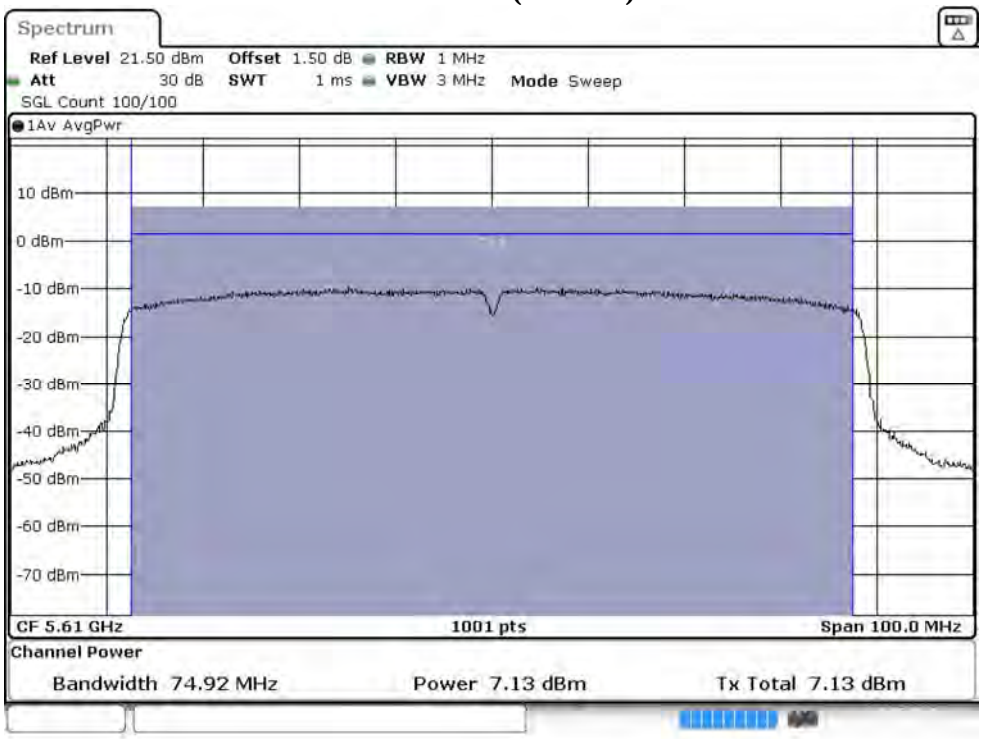


Date: 8.OCT.2019 04:56:01

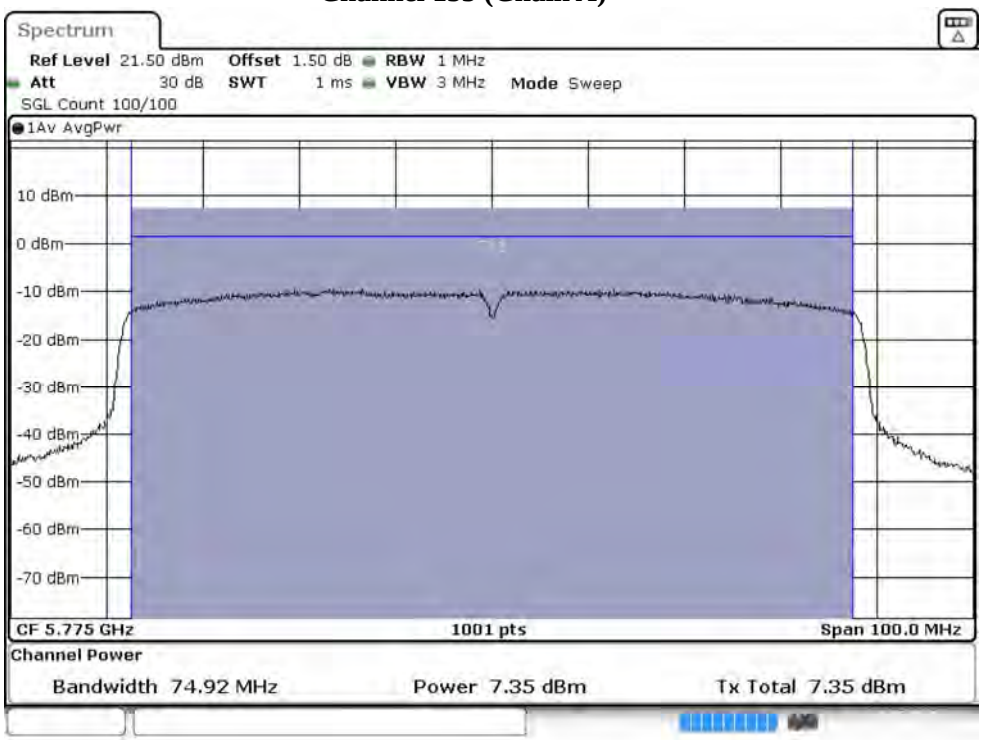
Channel 106 (Chain A)



Channel 122 (Chain A)

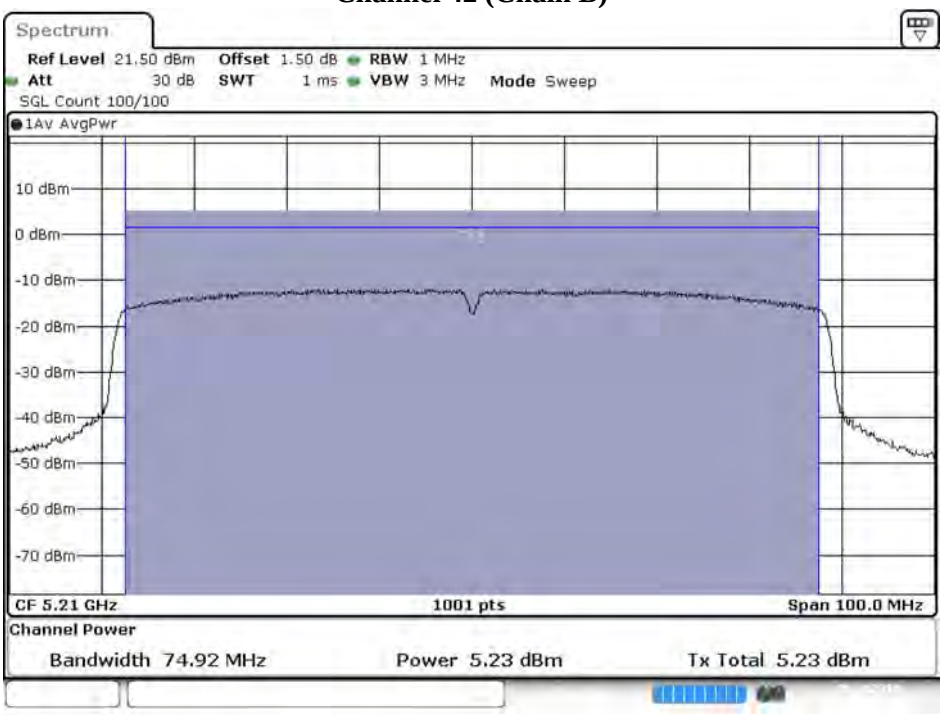


Channel 155 (Chain A)



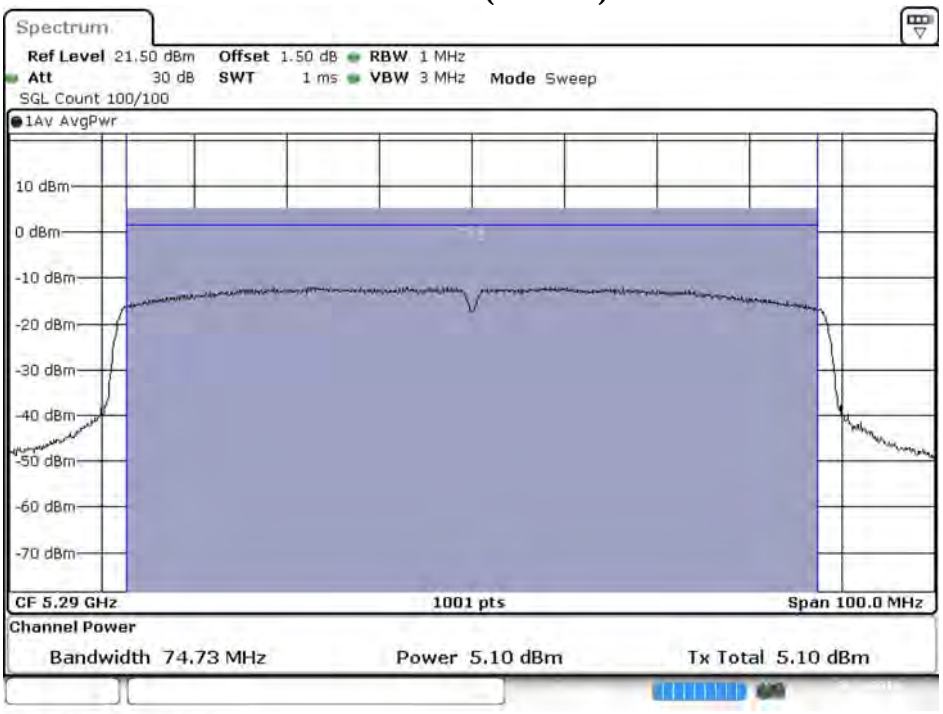
Maximum conducted output power:

Channel 42 (Chain B)



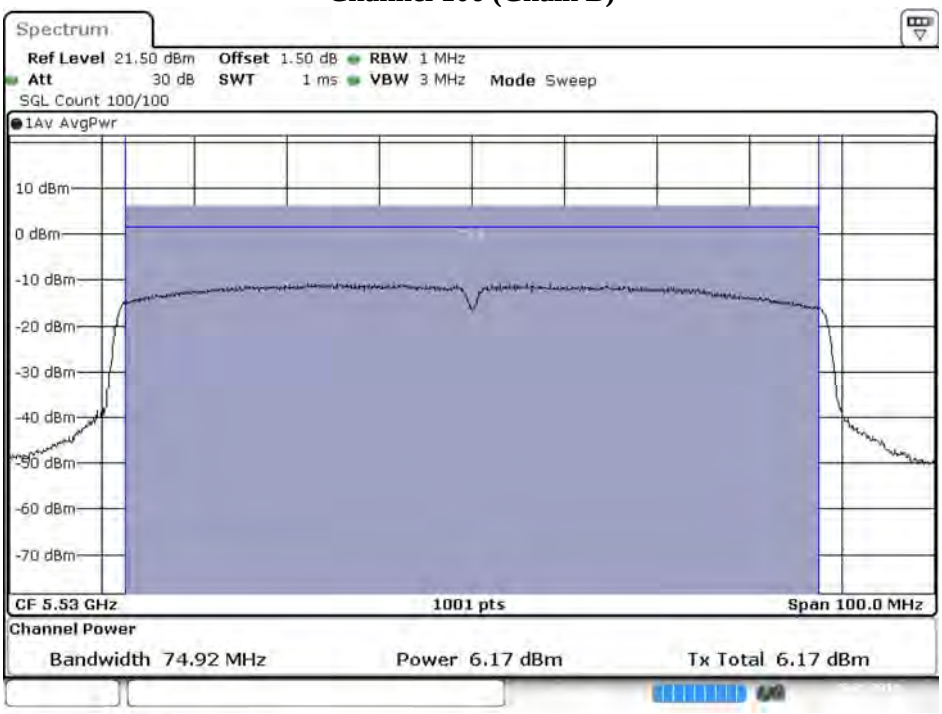
Date: 8.OCT.2019 15:43:13

Channel 58 (Chain B)



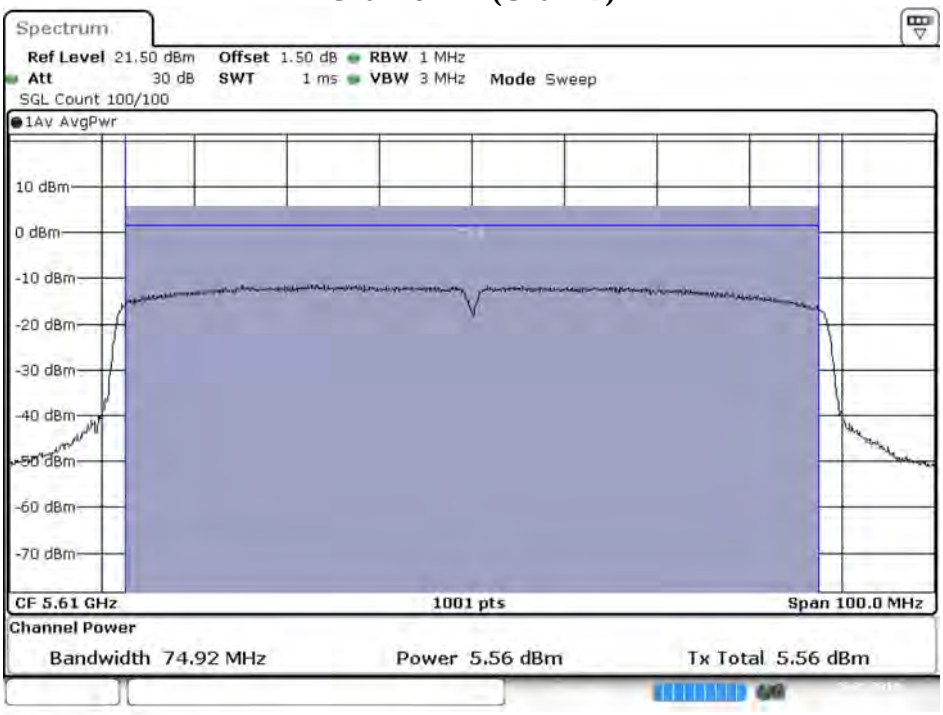
Date: 8.OCT.2019 15:45:54

Channel 106 (Chain B)



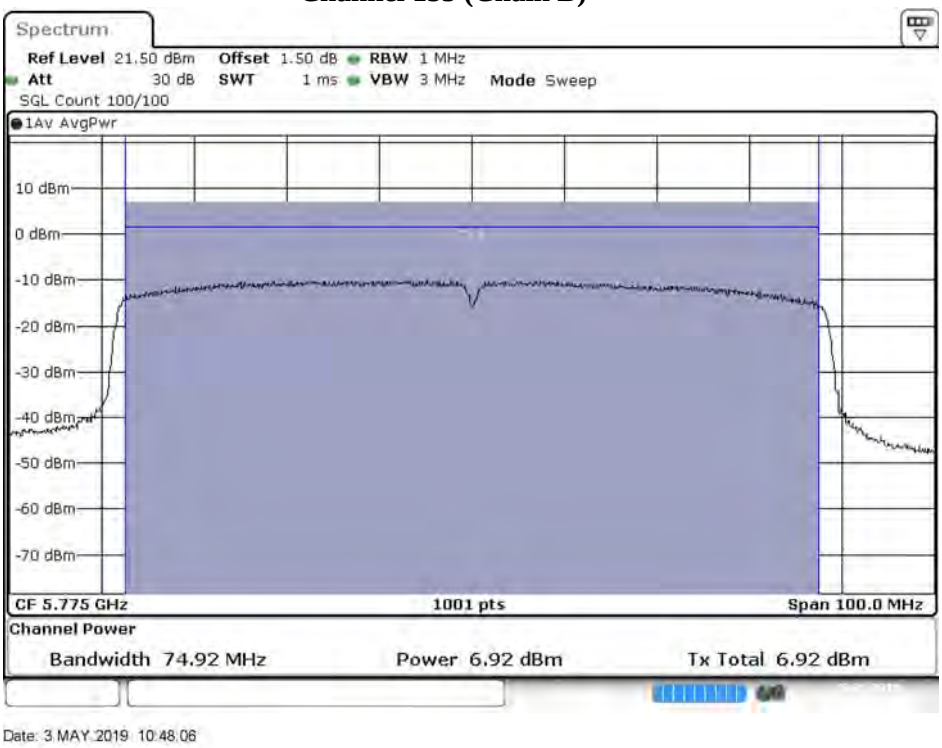
Date: 3 MAY 2019 10:16:51

Channel 122 (Chain B)



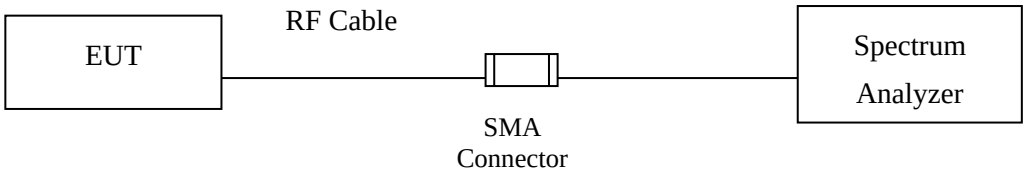
Date: 3 MAY 2019 10:19:32

Channel 155 (Chain B)



4. Peak Power Spectral Density

4.1. Test Setup



4.2. Limits

For the band 5.15-5.25 GHz,

(i) For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(ii) For an indoor access point operating in the band 5.15-5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(iii) For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. Fixed point-topoint U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power or maximum power spectral density. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power and maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi. 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.

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

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

For the band 5.725-5.85 GHz, the maximum 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, 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 UNII 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.

4.3. Test Procedure

The EUT was setup to ANSI C63.10, 2013; tested to UNII test procedure of FCC KDB-789033 for compliance to FCC 47CFR Subpart E requirements.
The Peak Power Spectral Density using KDB 789033 section F) procedure, Create an average power spectrum for the EUT operating mode being tested by following the instructions in section E)2) for measuring maximum conducted output power using a spectrum analyzer.
SA-1 method is selected to run the test.
For the band 5.725-5.85 GHz, Scale the observed power level to an equivalent value in 500 kHz by adjusting (increase) the measured power by a bandwidth correction factor (BWCF) where BWCF = 10log (500 kHz/100 kHz) = 6.98 dB.

4.4. Uncertainty

±1.30dB

4.5. Test Result of Peak Power Spectral Density

Product : UNIT ASSY DA
Test Item : Peak Power Spectral Density
Test Mode : Mode 1: Transmit (802.11a 6Mbps)
Test Date : 2019/10/08

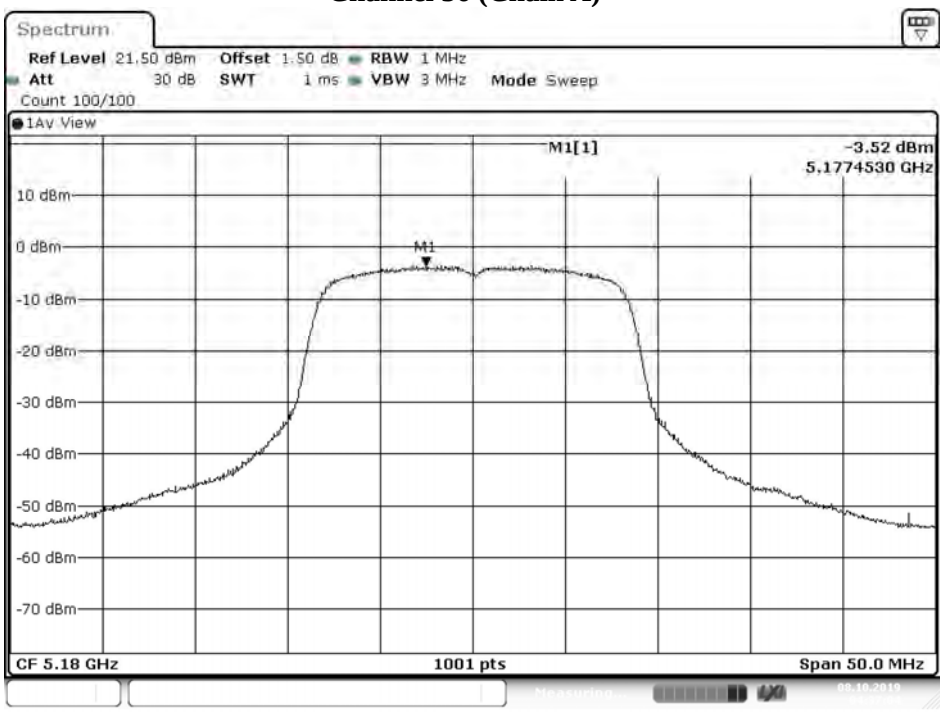
Channel Number	Frequency (MHz)	Chain	Measurement Level (dBm)	Total PPSD (dBm)	Required Limit (dBm)	Result
36	5180	A	-3.52	-0.51	<11	Pass
		B	-4.67	-1.66	<11	Pass
44	5220	A	-3.56	-0.55	<11	Pass
		B	-4.70	-1.69	<11	Pass
48	5240	A	-3.75	-0.74	<11	Pass
		B	-4.83	-1.82	<11	Pass
52	5260	A	-3.66	-0.65	<11	Pass
		B	-4.77	-1.76	<11	Pass
60	5300	A	-3.75	-0.74	<11	Pass
		B	-4.44	-1.43	<11	Pass
64	5320	A	-3.69	-0.68	<11	Pass
		B	-4.93	-1.92	<11	Pass
100	5500	A	-2.34	0.67	<11	Pass
		B	-4.02	-1.01	<11	Pass
116	5580	A	-2.48	0.53	<11	Pass
		B	-3.84	-0.83	<11	Pass
140	5700	A	-1.83	1.18	<11	Pass
		B	-3.02	-0.01	<11	Pass

Note: The quantity 10*log 2 (two antennas) is added to the spectrum peak value according to document 662911 D01.

Channel Number	Frequency (MHz)	Chain	Measurement Level (dBm)	BWCF (dB)	Total PPSD (dBm)	Required Limit (dBm)	Result
149	5745	A	-10.87	6.98	-0.88	<30	Pass
		B	-11.38	6.98	-1.39	<30	Pass
157	5785	A	-10.62	6.98	-0.63	<30	Pass
		B	-11.40	6.98	-1.41	<30	Pass
165	5825	A	-10.65	6.98	-0.66	<30	Pass
		B	-10.50	6.98	-0.51	<30	Pass

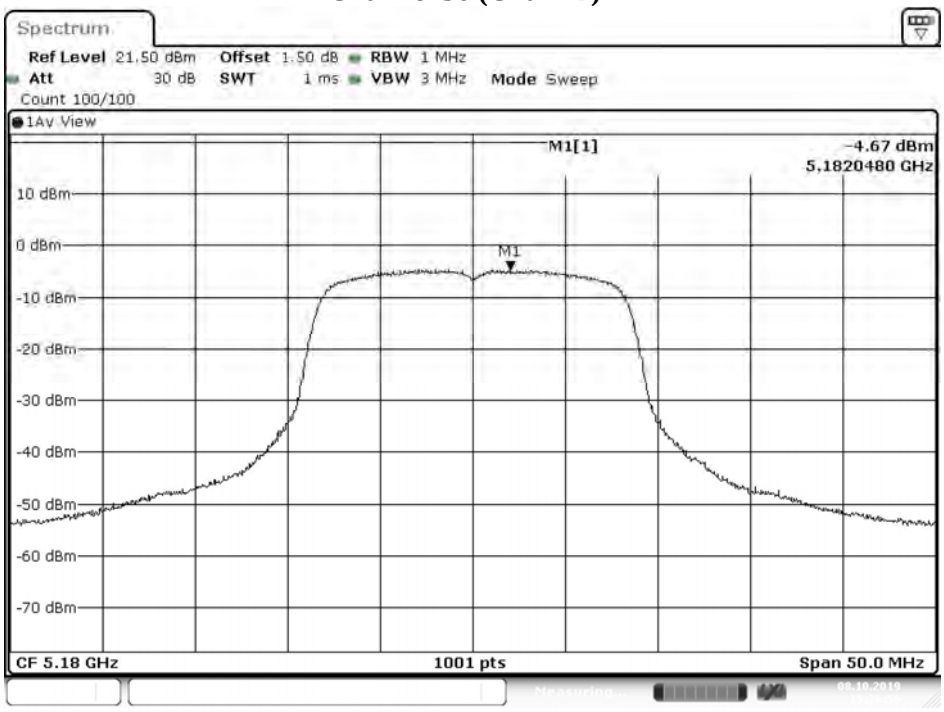
Note: The quantity 10*log 2 (two antennas) is added to the spectrum peak value according to document 662911 D01.

Channel 36 (Chain A)



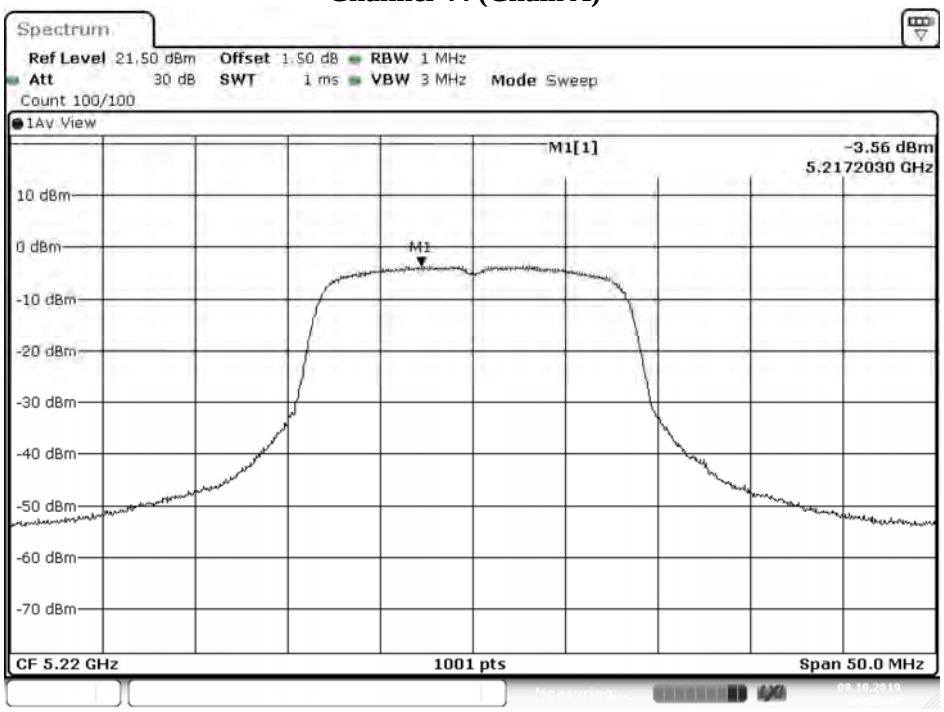
Date: 8.OCT.2019 04:37:04

Channel 36 (Chain B)



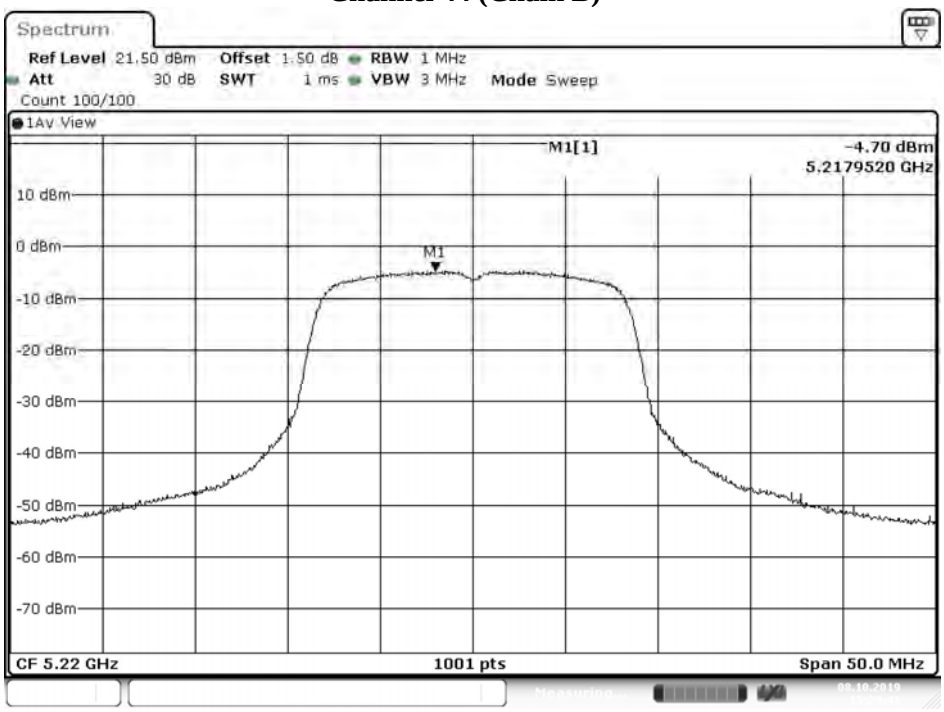
Date: 8.OCT.2019 15:26:56

Channel 44 (Chain A)



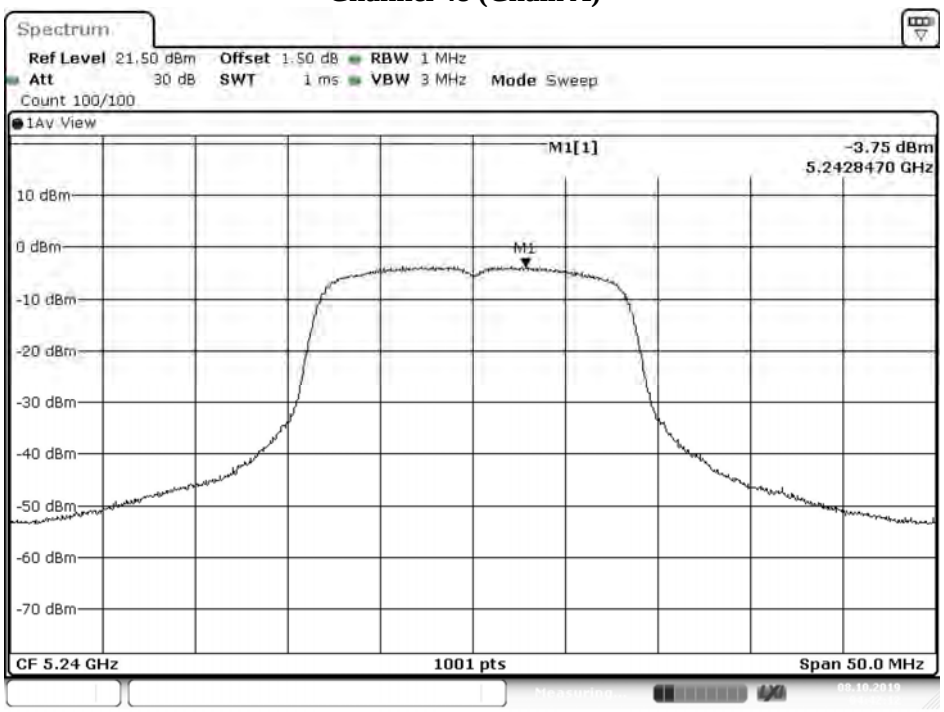
Date: 8.OCT.2019 04:39:49

Channel 44 (Chain B)



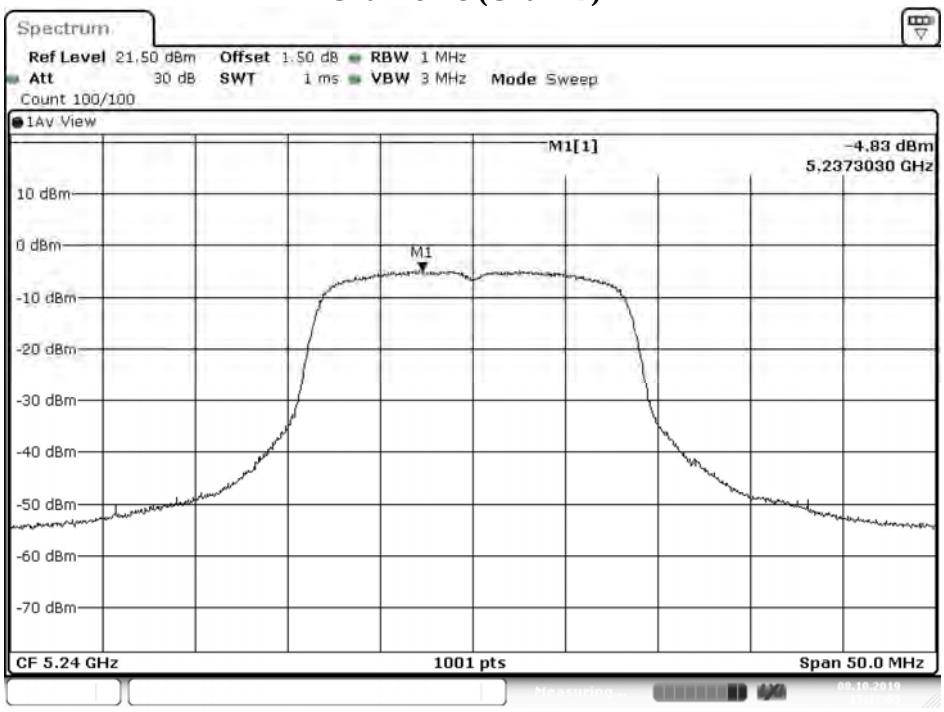
Date: 8.OCT.2019 15:29:41

Channel 48 (Chain A)



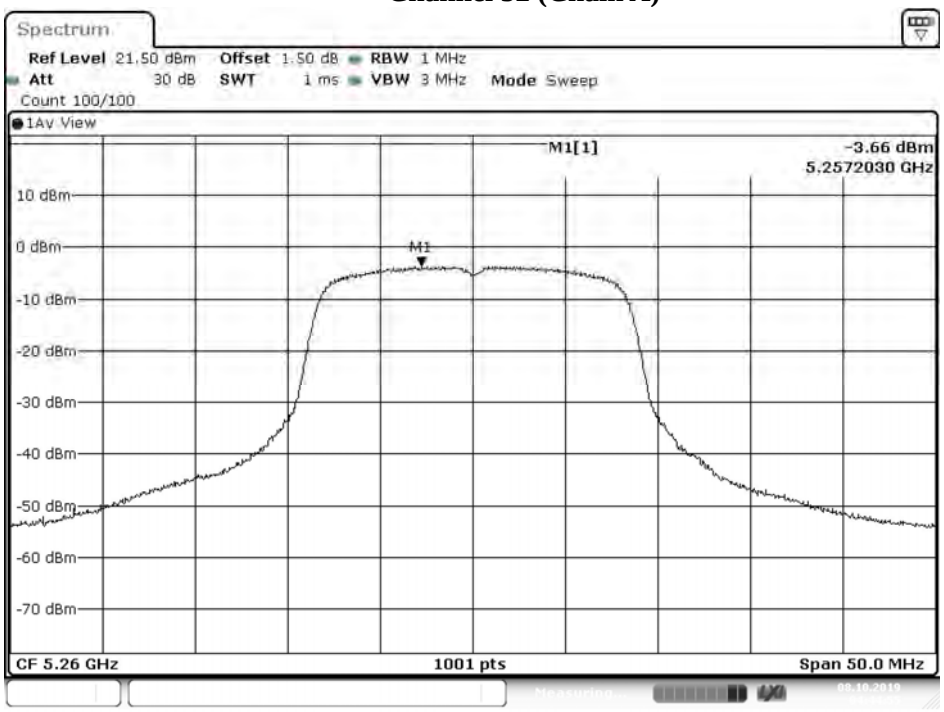
Date: 8.OCT.2019 04:42:13

Channel 48 (Chain B)



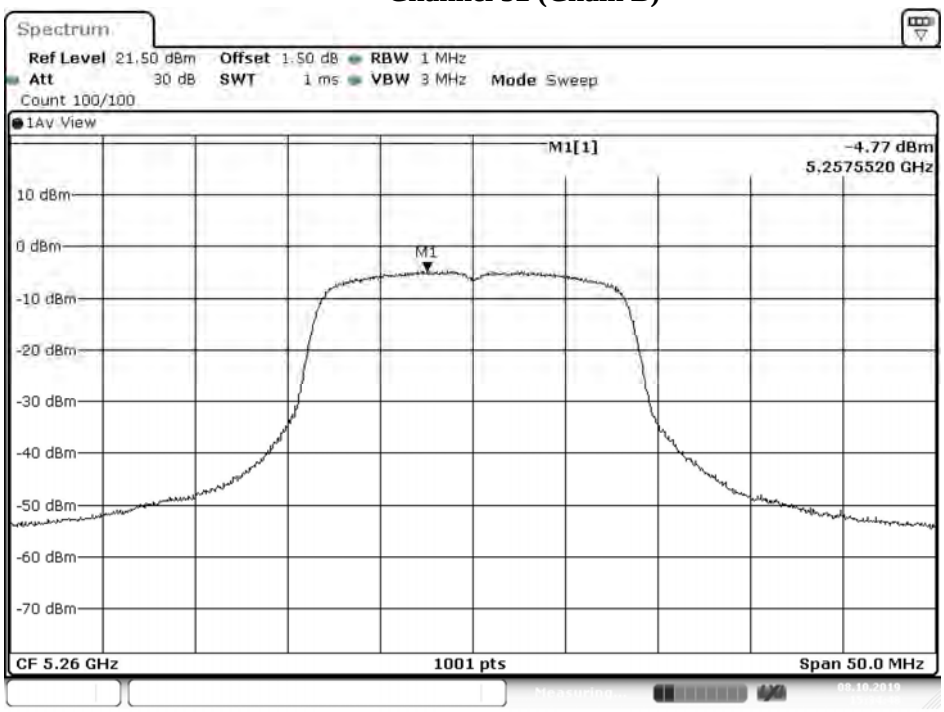
Date: 8.OCT.2019 15:32:05

Channel 52 (Chain A)



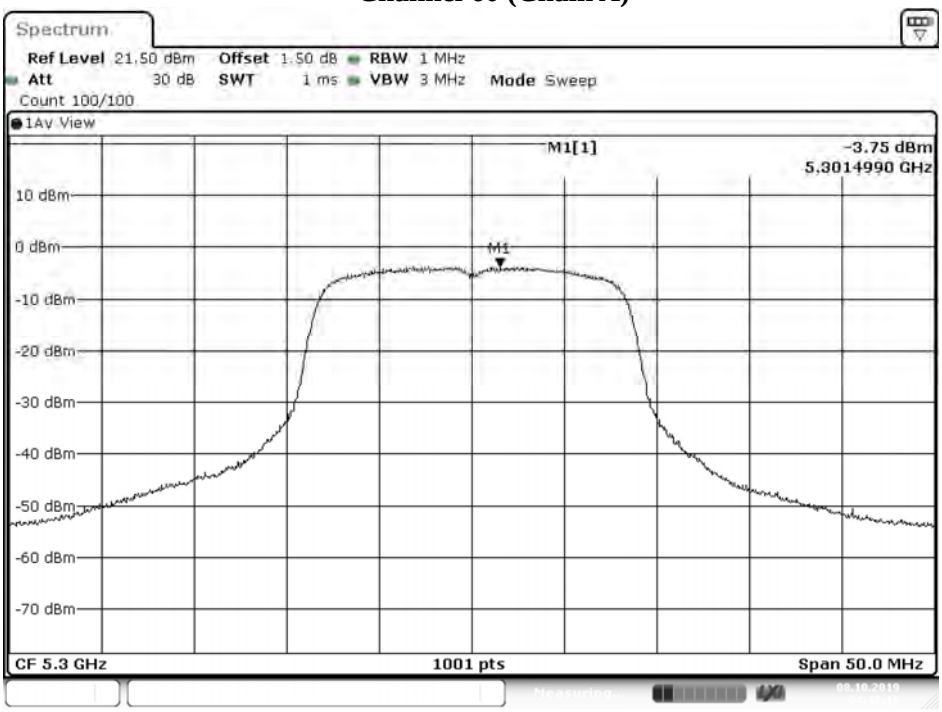
Date: 8.OCT.2019 04:44:56

Channel 52 (Chain B)



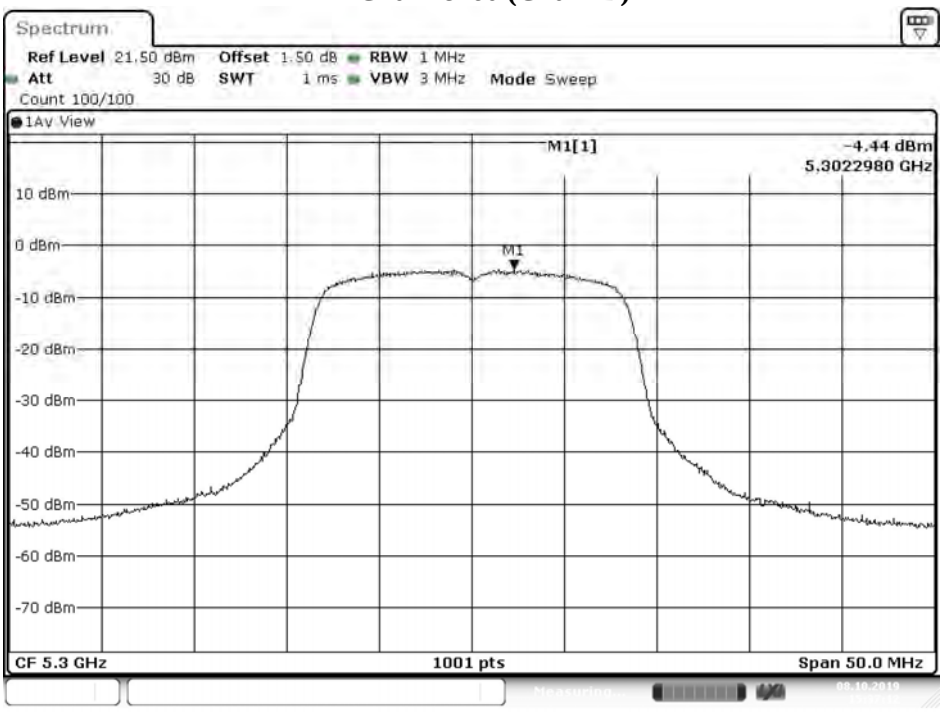
Date: 8.OCT.2019 15:34:48

Channel 60 (Chain A)



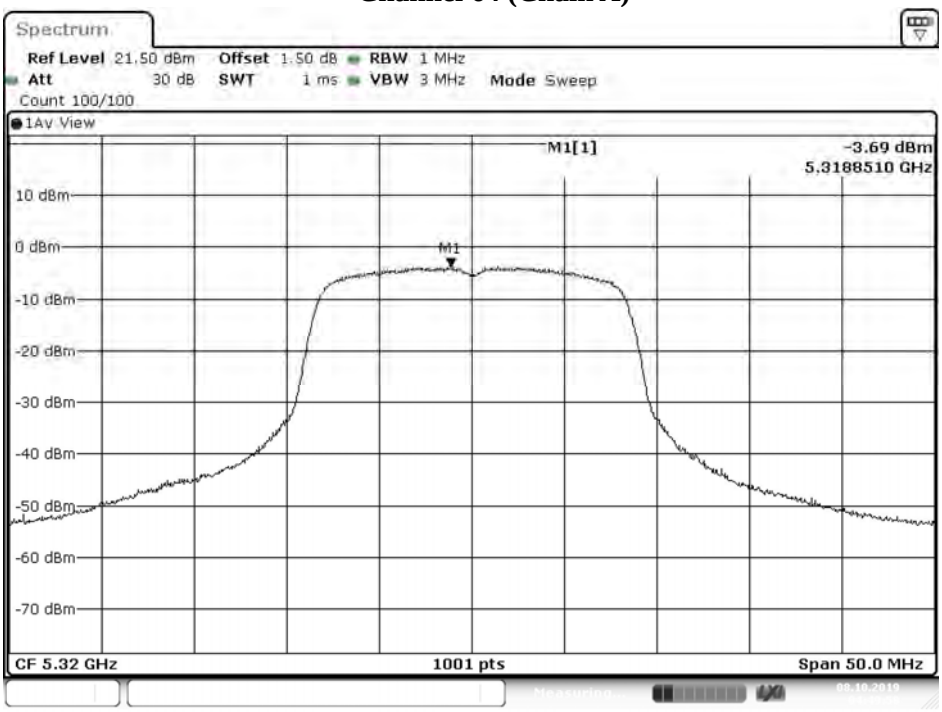
Date: 8.OCT.2019 04:47:20

Channel 60 (Chain B)



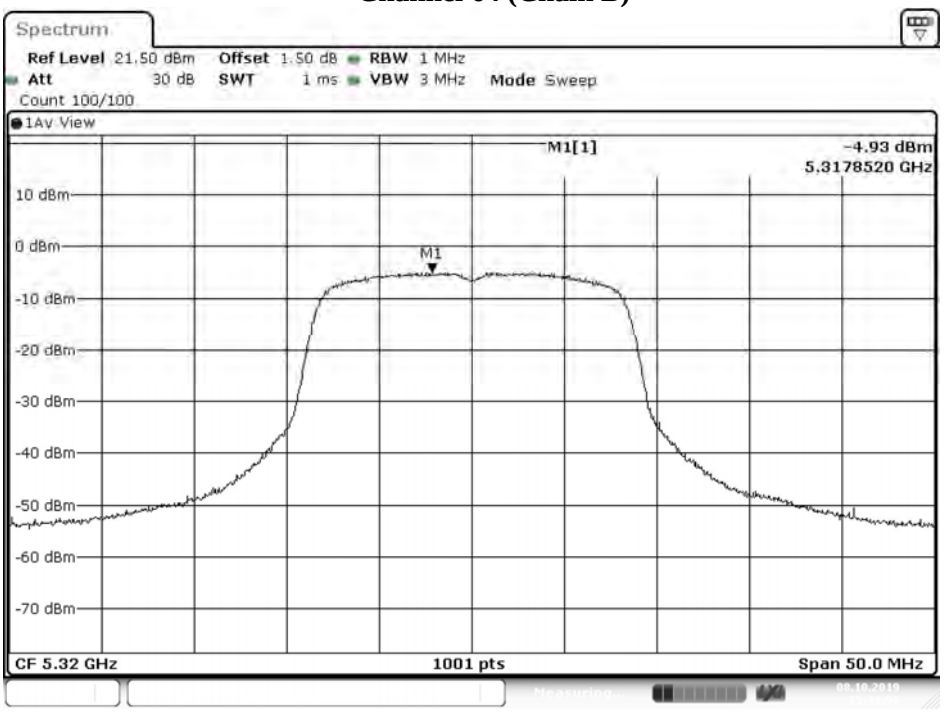
Date: 8.OCT.2019 15:37:12

Channel 64 (Chain A)



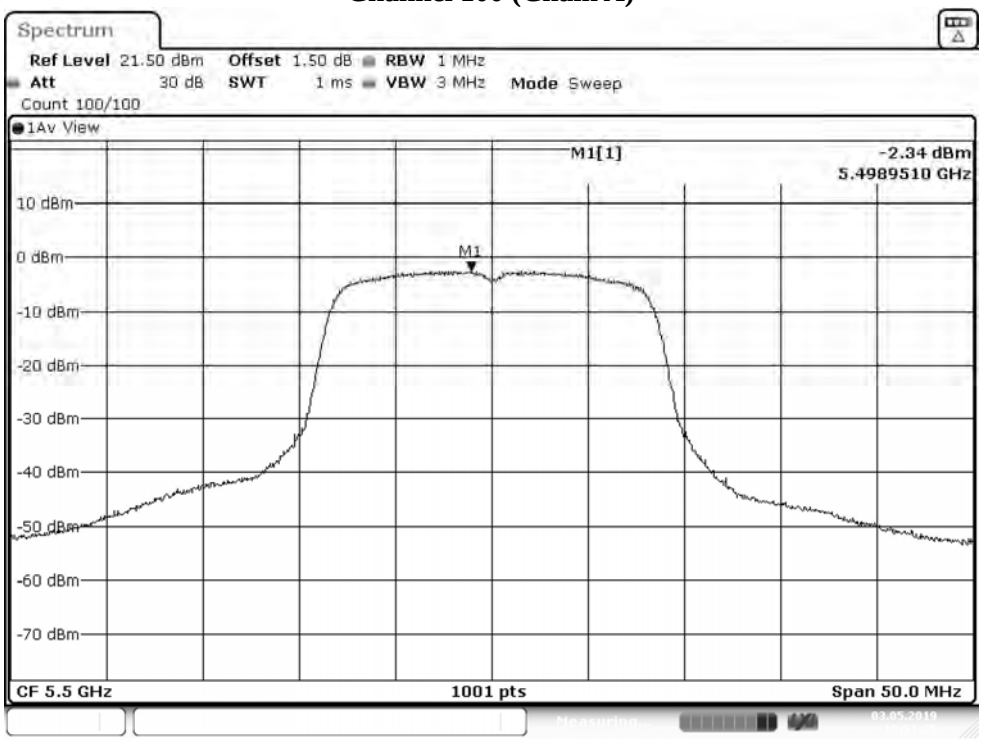
Date: 8.OCT.2019 04:49:58

Channel 64 (Chain B)

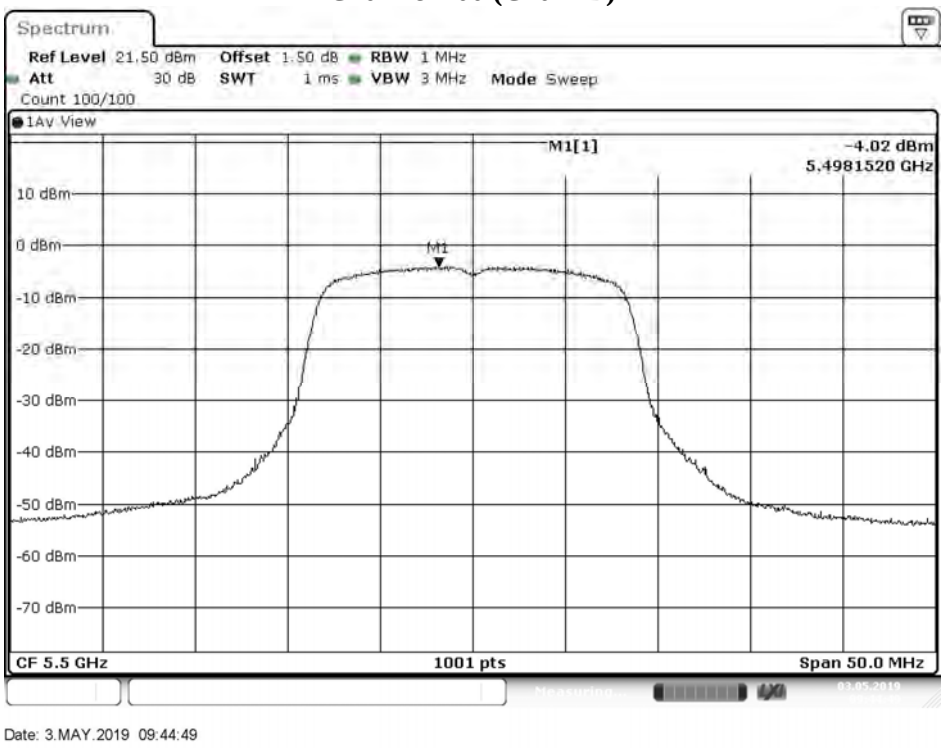


Date: 8.OCT.2019 15:39:51

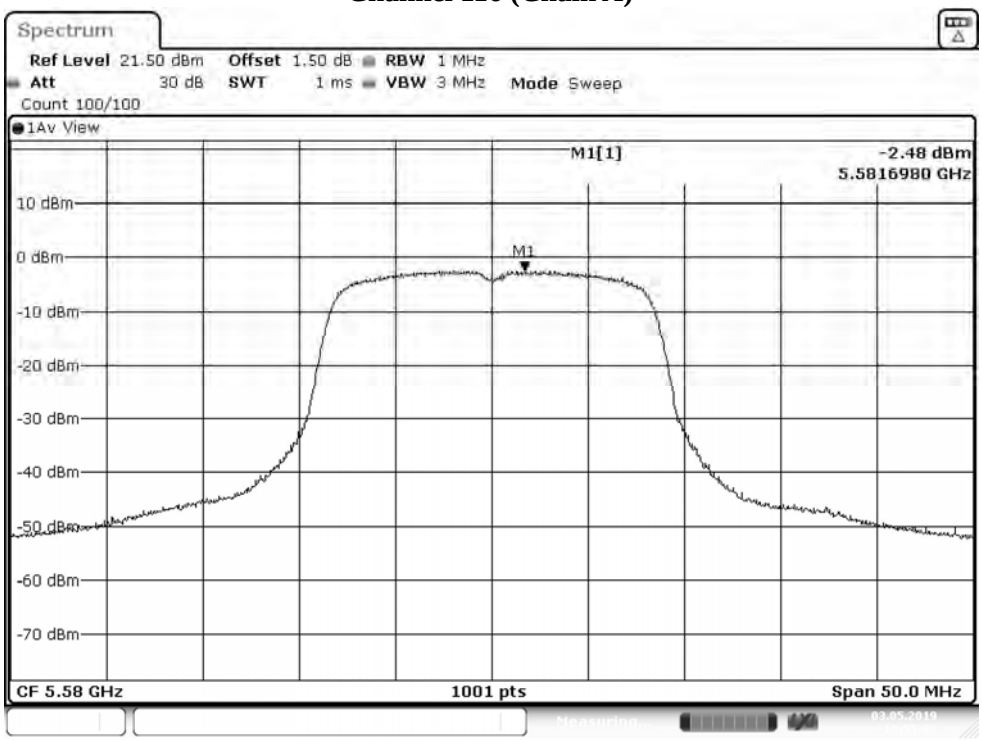
Channel 100 (Chain A)



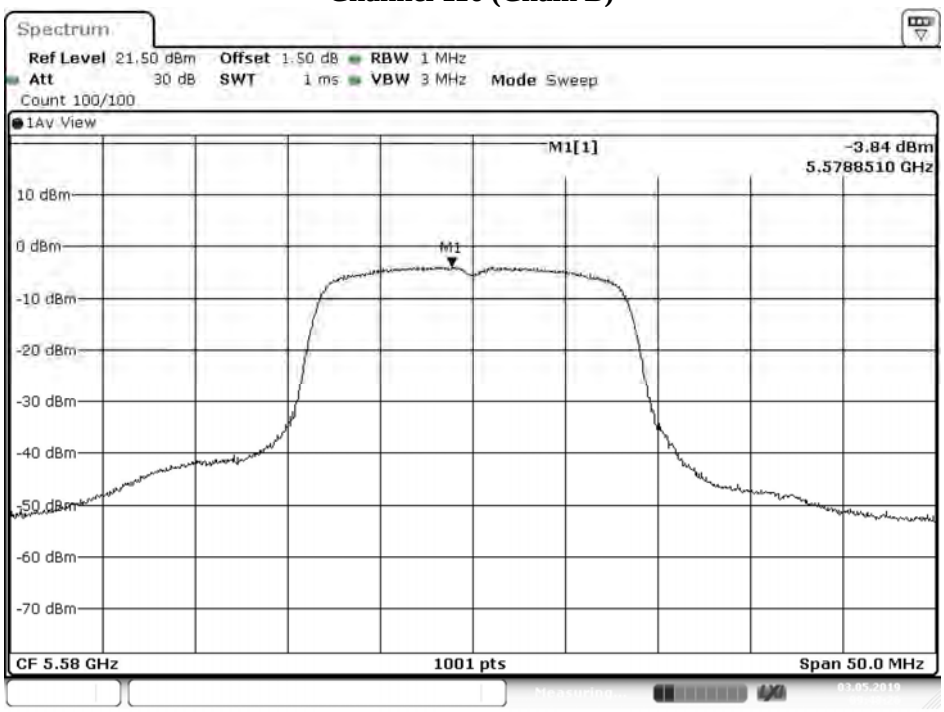
Channel 100 (Chain B)



Channel 116 (Chain A)

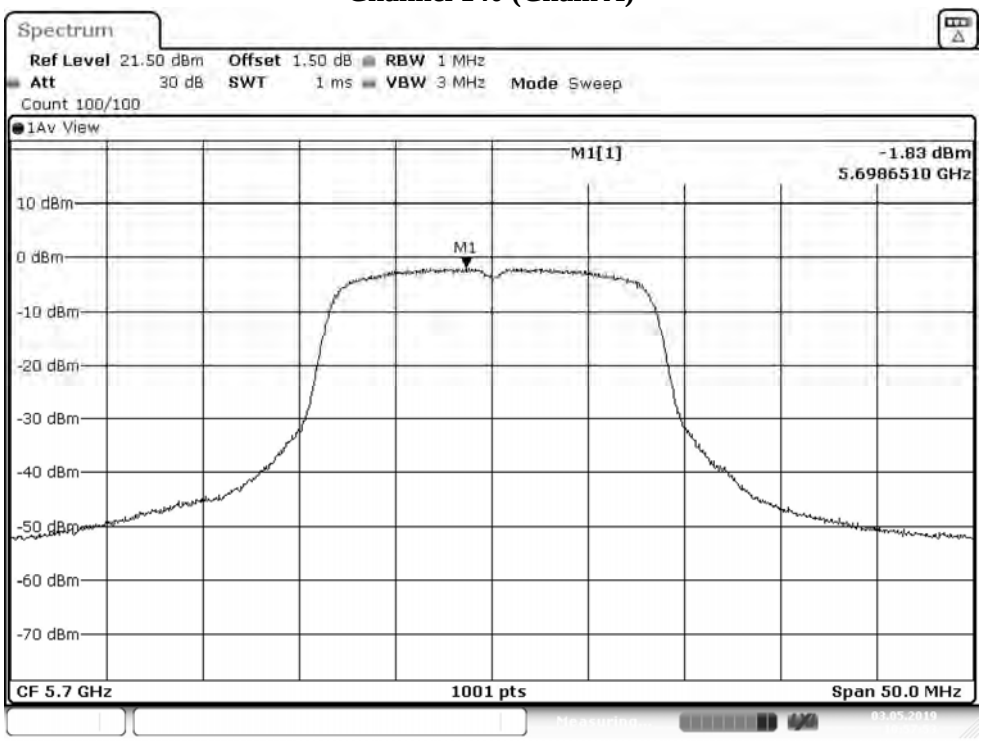


Channel 116 (Chain B)

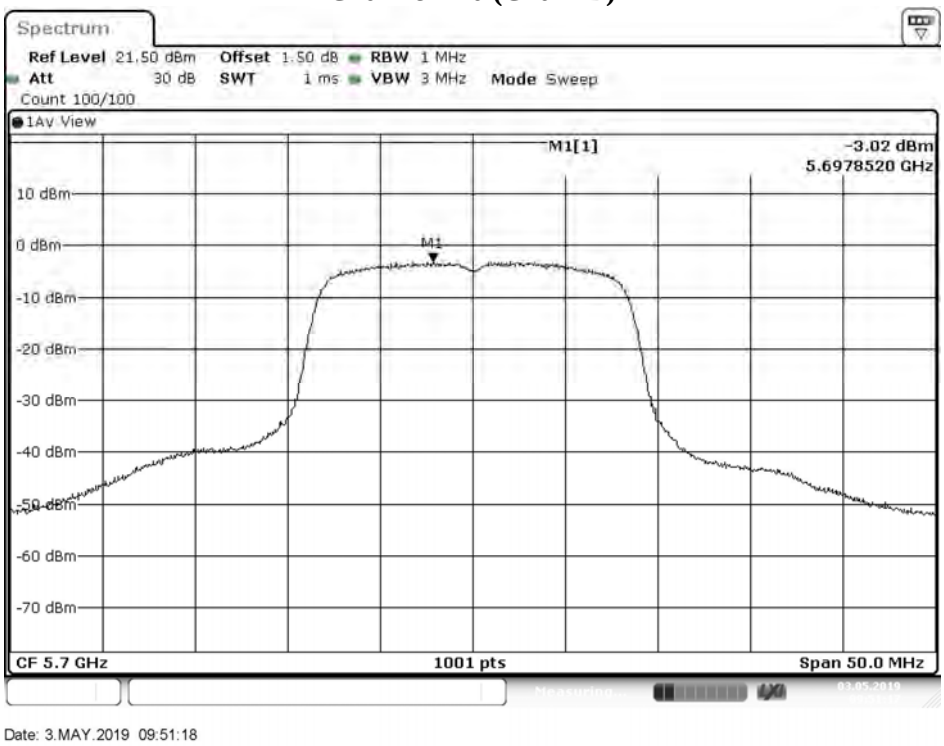


Date: 3.MAY.2019 09:48:26

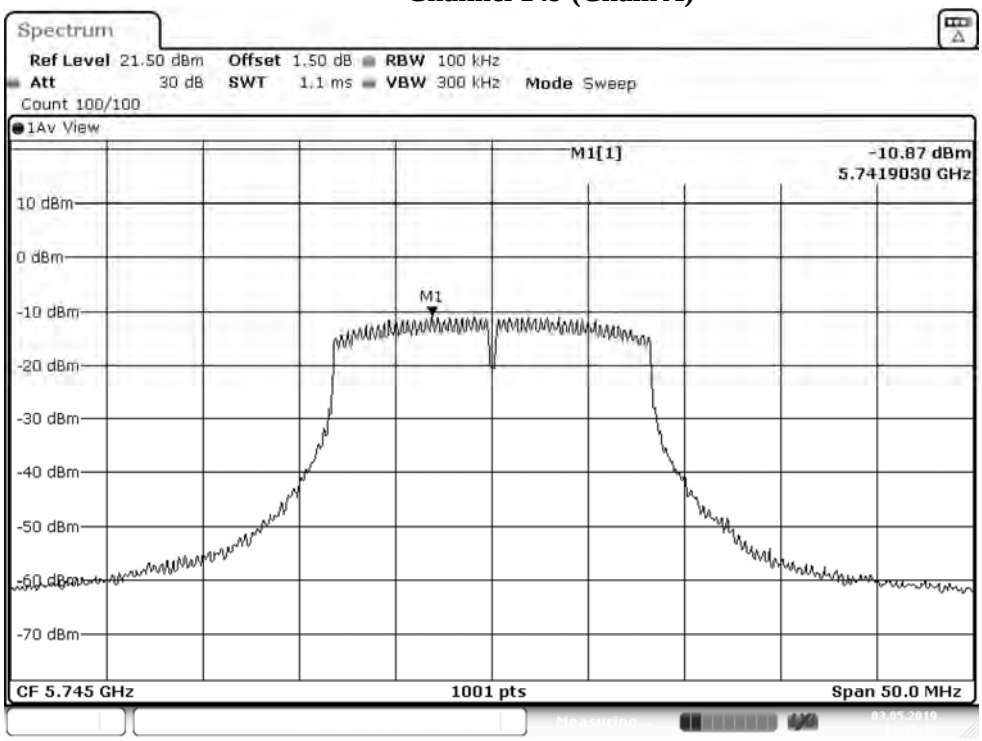
Channel 140 (Chain A)



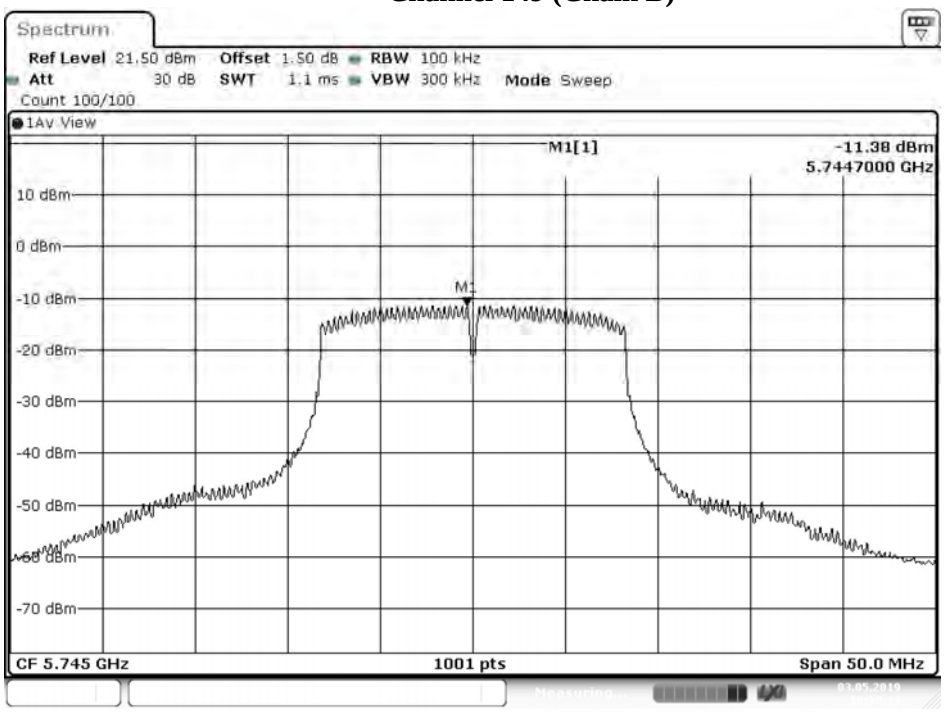
Channel 140 (Chain B)



Channel 149 (Chain A)

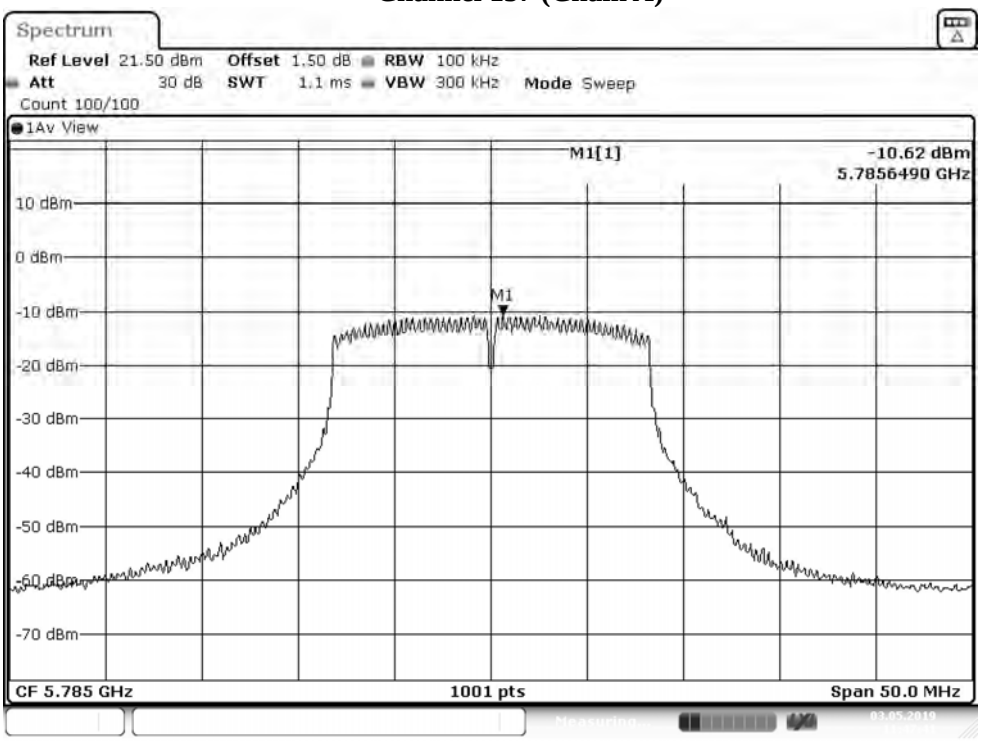


Channel 149 (Chain B)

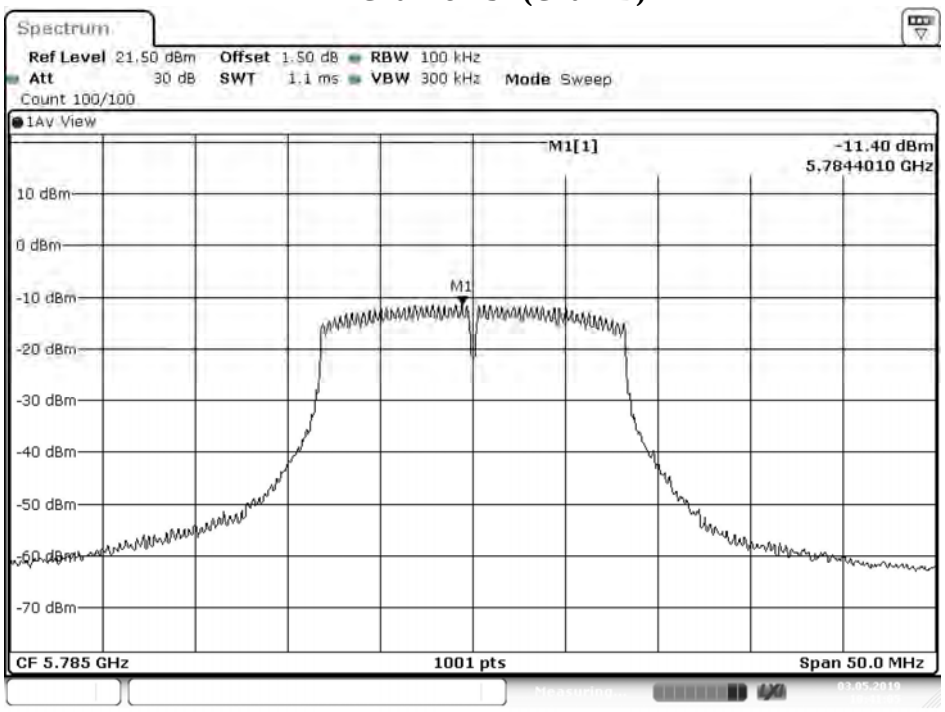


Date: 3.MAY.2019 10:39:14

Channel 157 (Chain A)

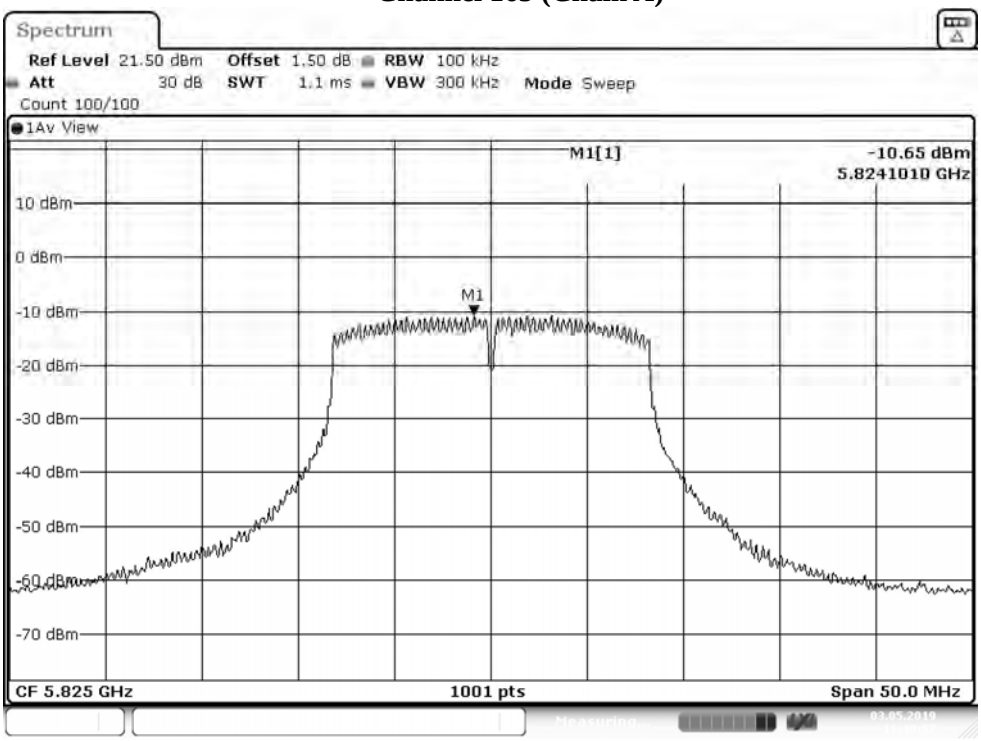


Channel 157 (Chain B)

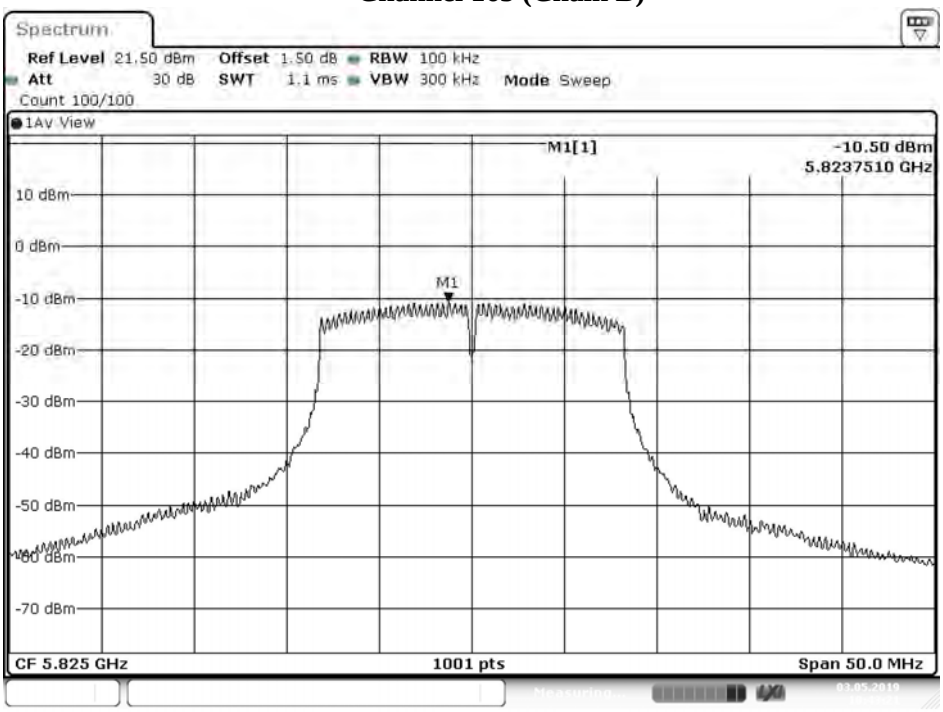


Date: 3.MAY.2019 10:41:06

Channel 165 (Chain A)



Channel 165 (Chain B)



Date: 3.MAY.2019 10:43:22

Product : UNIT ASSY DA
Test Item : Peak Power Spectral Density
Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps)
Test Date : 2019/10/08

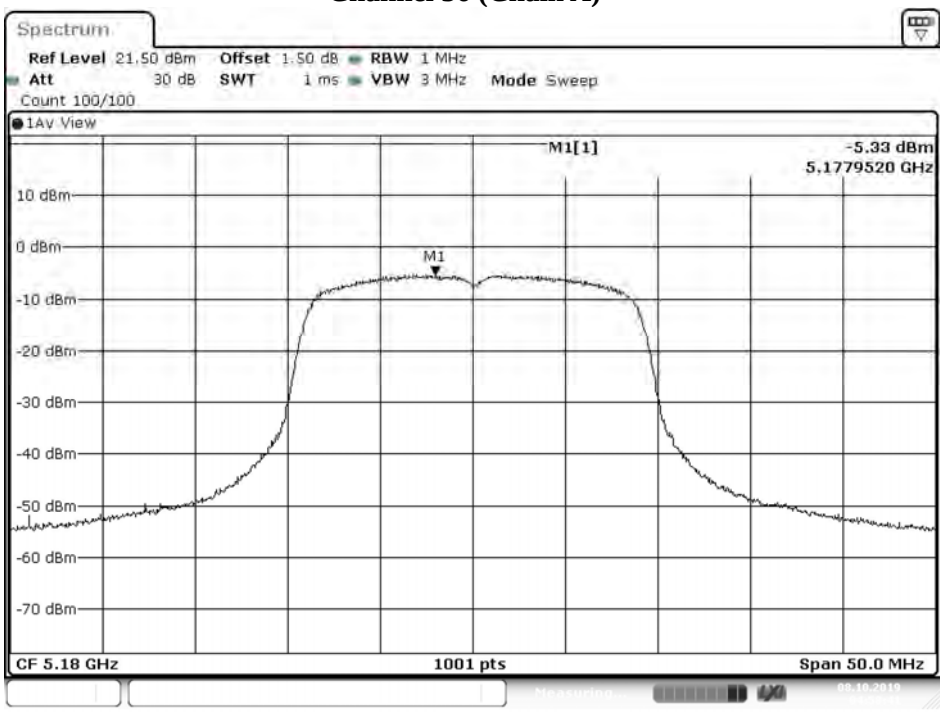
Channel Number	Frequency (MHz)	Chain	Measurement Level (dBm)	Total PPSD (dBm)	Required Limit (dBm)	Result
36	5180	A	-5.33	-2.32	<11	Pass
		B	-6.02	-3.01	<11	Pass
44	5220	A	-5.29	-2.28	<11	Pass
		B	-6.02	-3.01	<11	Pass
48	5240	A	-5.32	-2.31	<11	Pass
		B	-5.96	-2.95	<11	Pass
52	5260	A	-5.39	-2.38	<11	Pass
		B	-5.99	-2.98	<11	Pass
60	5300	A	-5.35	-2.34	<11	Pass
		B	-5.78	-2.77	<11	Pass
64	5320	A	-5.35	-2.34	<11	Pass
		B	-6.03	-3.02	<11	Pass
100	5500	A	-4.45	-1.44	<11	Pass
		B	-5.51	-2.50	<11	Pass
116	5580	A	-4.06	-1.05	<11	Pass
		B	-4.70	-1.69	<11	Pass
140	5700	A	-3.61	-0.60	<11	Pass
		B	-4.36	-1.35	<11	Pass

Note: The quantity 10*log 2 (two antennas) is added to the spectrum peak value according to document 662911 D01.

Channel Number	Frequency (MHz)	Chain	Measurement Level (dBm)	BWCF (dB)	Total PPSD (dBm)	Required Limit (dBm)	Result
149	5745	A	-12.06	6.98	-2.07	<30	Pass
		B	-13.14	6.98	-3.15	<30	Pass
157	5785	A	-12.24	6.98	-2.25	<30	Pass
		B	-12.53	6.98	-2.54	<30	Pass
165	5825	A	-12.21	6.98	-2.22	<30	Pass
		B	-12.57	6.98	-2.58	<30	Pass

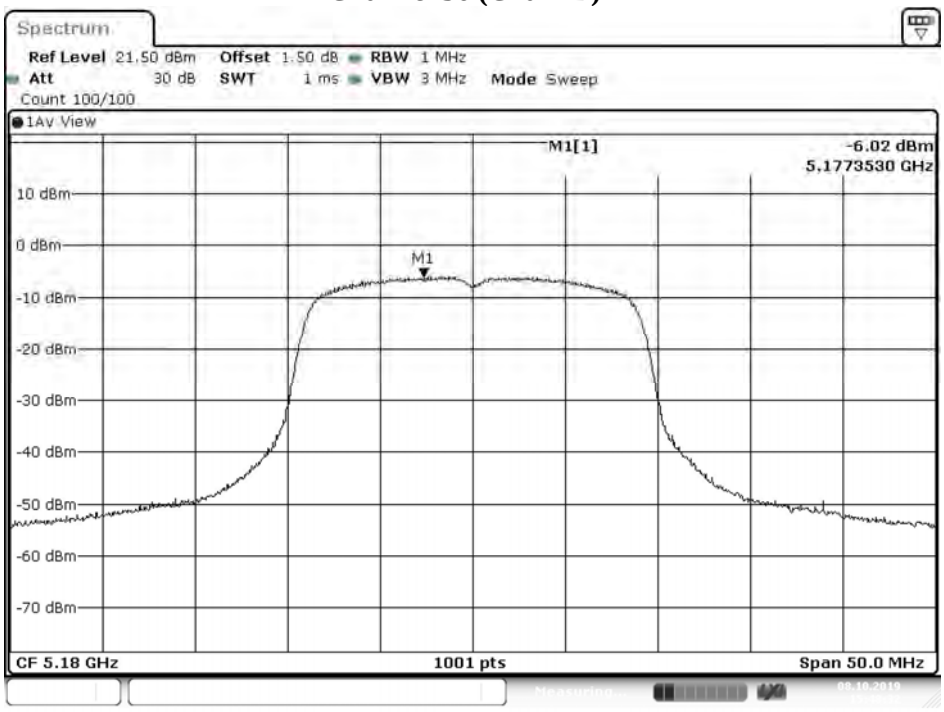
Note: The quantity 10*log 2 (two antennas) is added to the spectrum peak value according to document 662911 D01.

Channel 36 (Chain A)



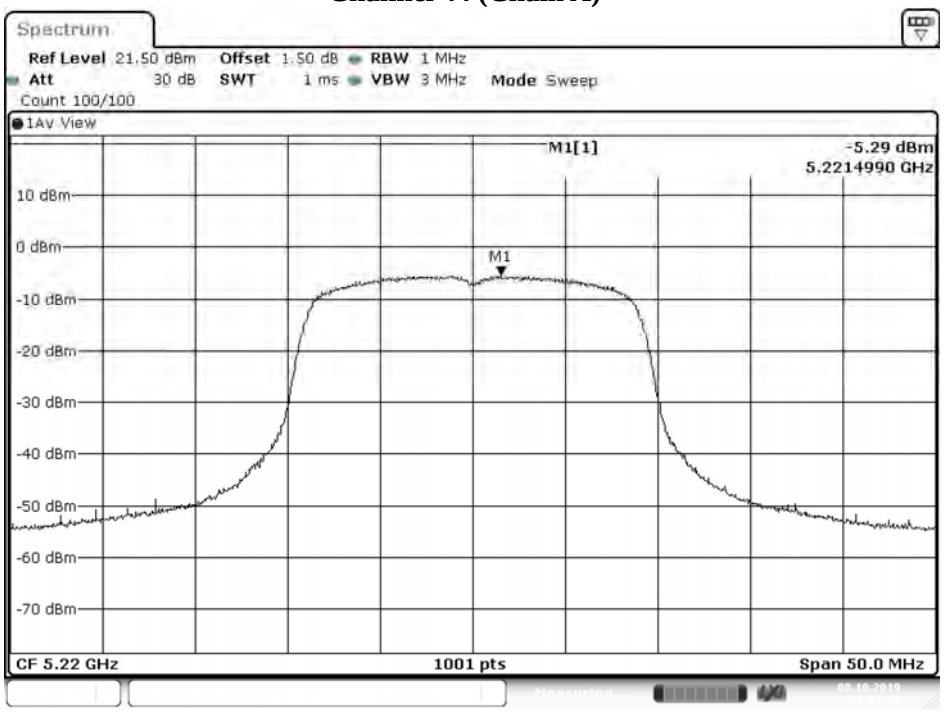
Date: 8.OCT.2019 04:58:41

Channel 36 (Chain B)



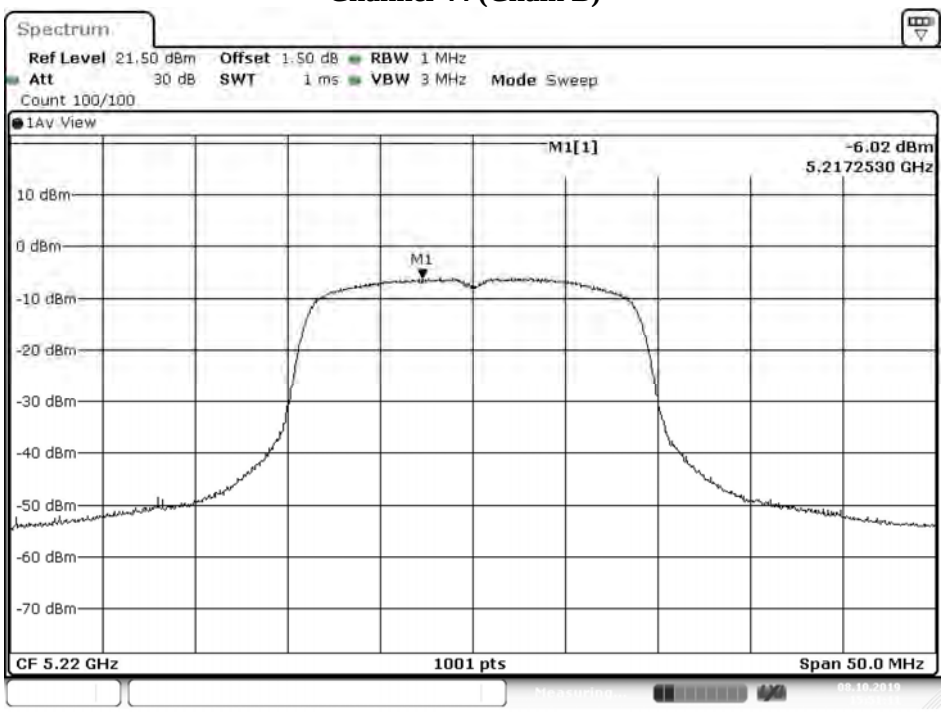
Date: 8.OCT.2019 15:48:33

Channel 44 (Chain A)



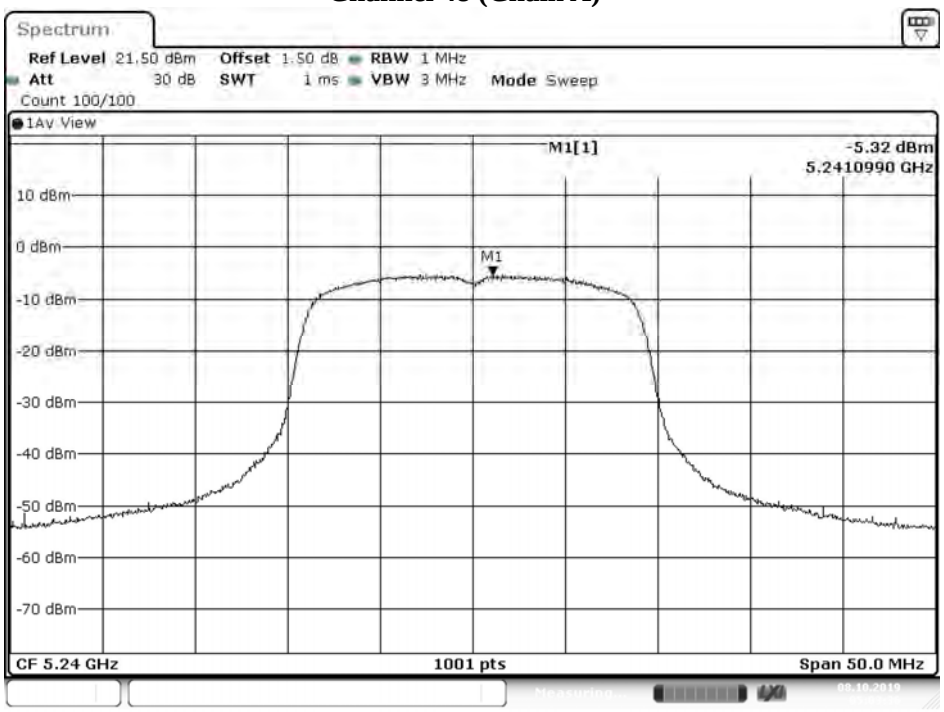
Date: 8.OCT.2019 05:01:19

Channel 44 (Chain B)



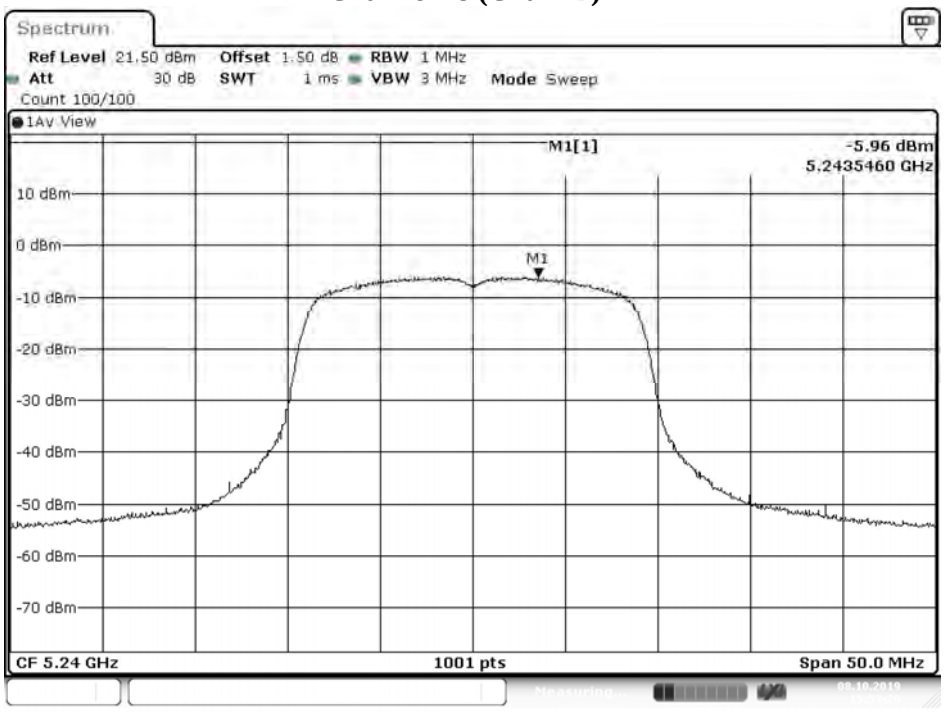
Date: 8.OCT.2019 15:51:11

Channel 48 (Chain A)



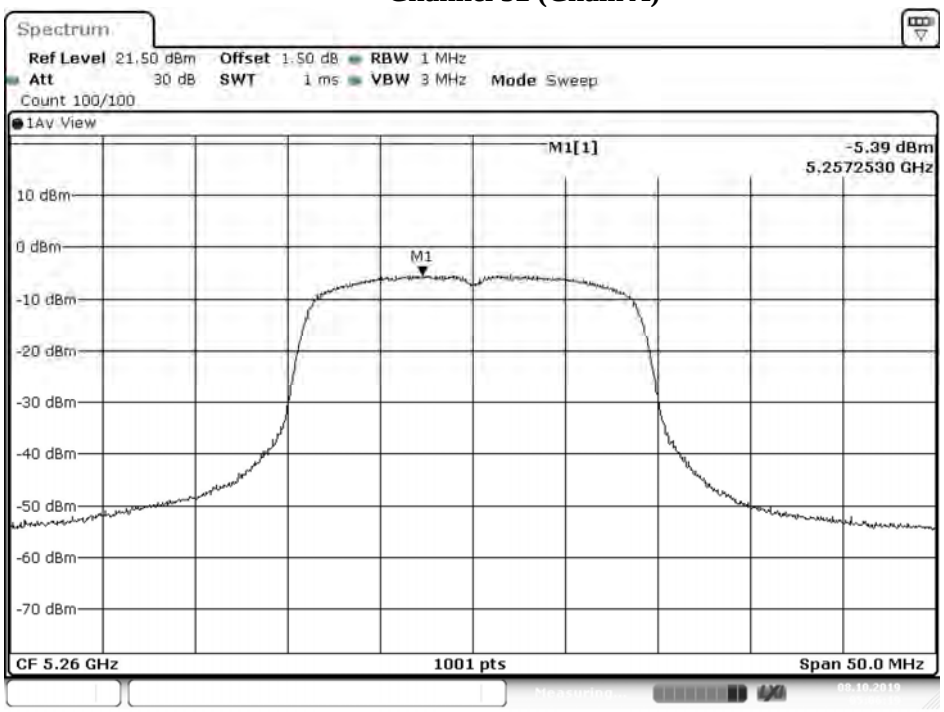
Date: 8.OCT.2019 05:03:36

Channel 48 (Chain B)



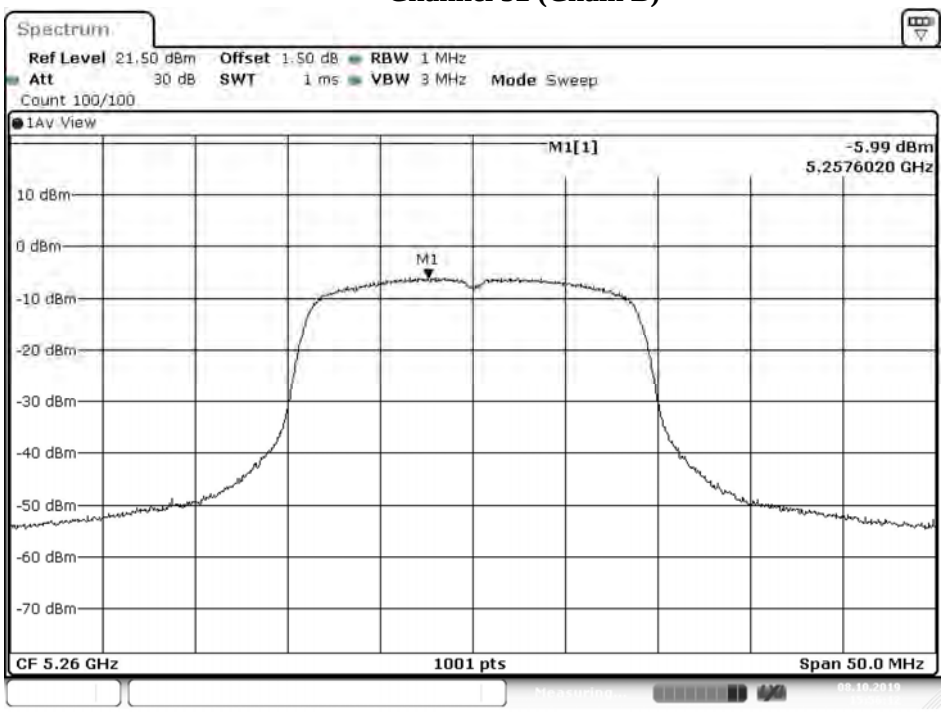
Date: 8.OCT.2019 15:53:29

Channel 52 (Chain A)



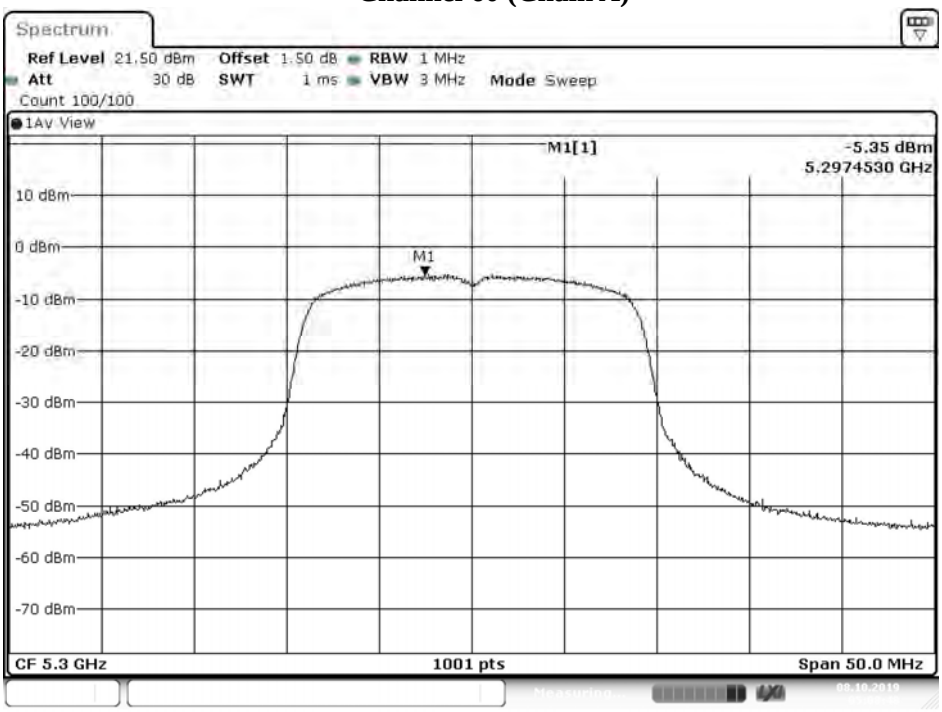
Date: 8.OCT.2019 05:06:20

Channel 52 (Chain B)



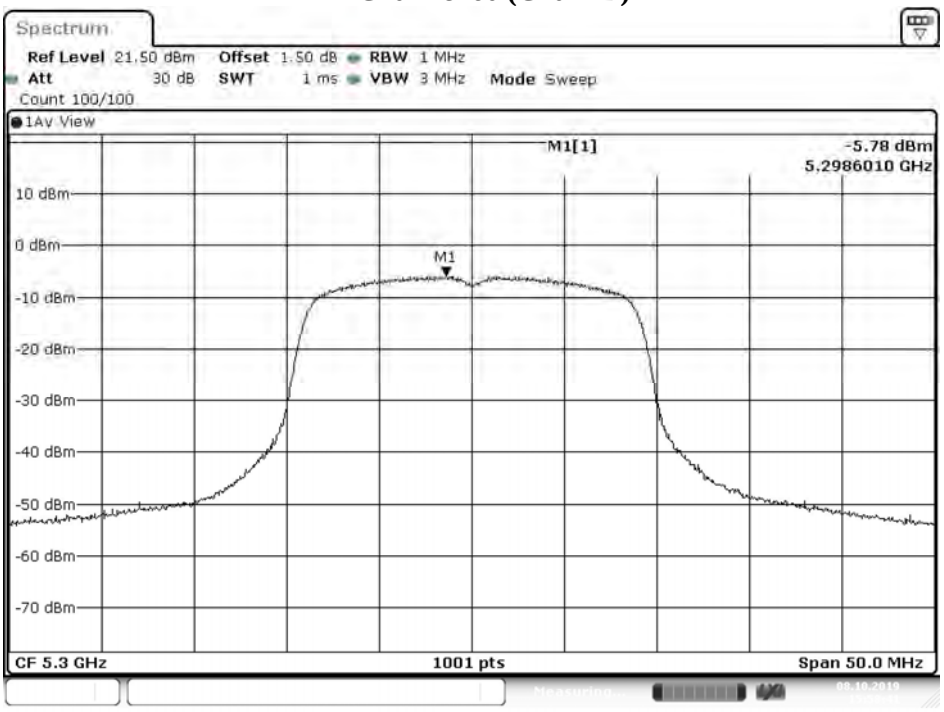
Date: 8.OCT.2019 15:56:12

Channel 60 (Chain A)



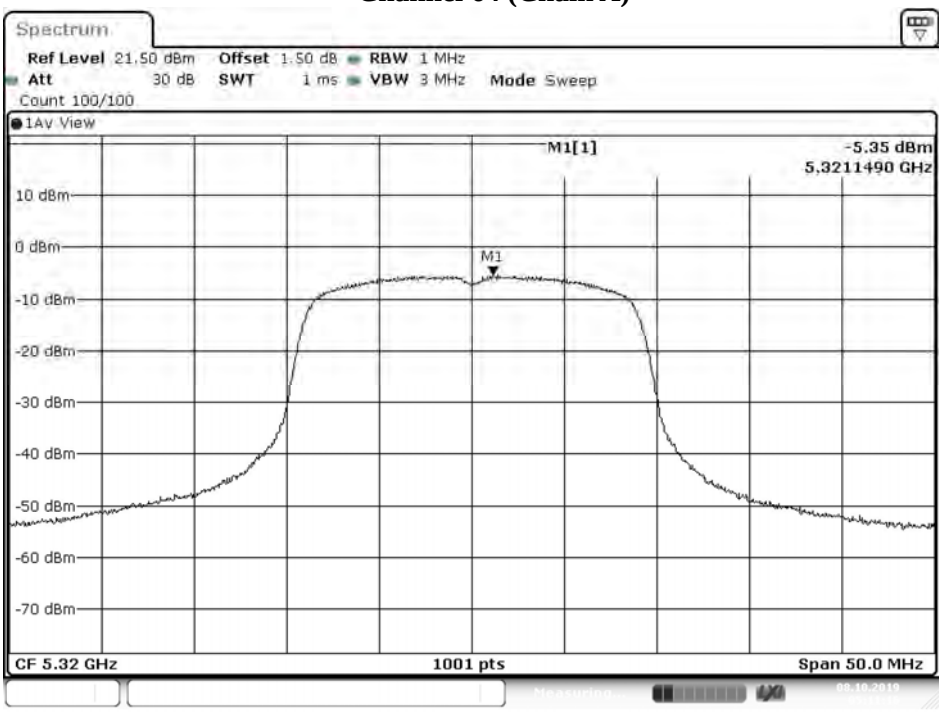
Date: 8.OCT.2019 05:08:49

Channel 60 (Chain B)



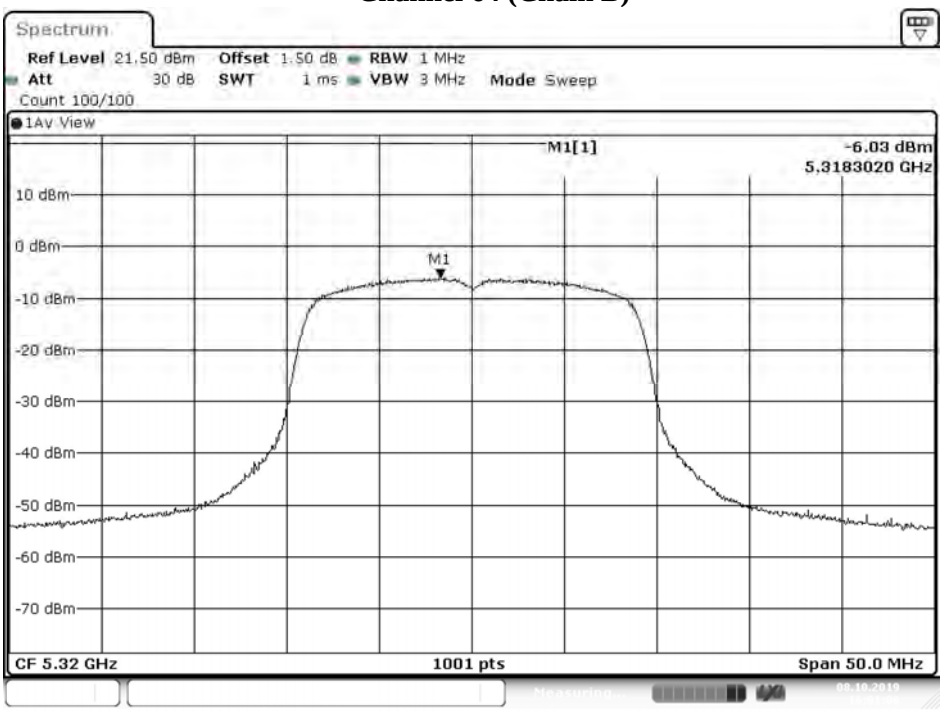
Date: 8.OCT.2019 15:58:41

Channel 64 (Chain A)



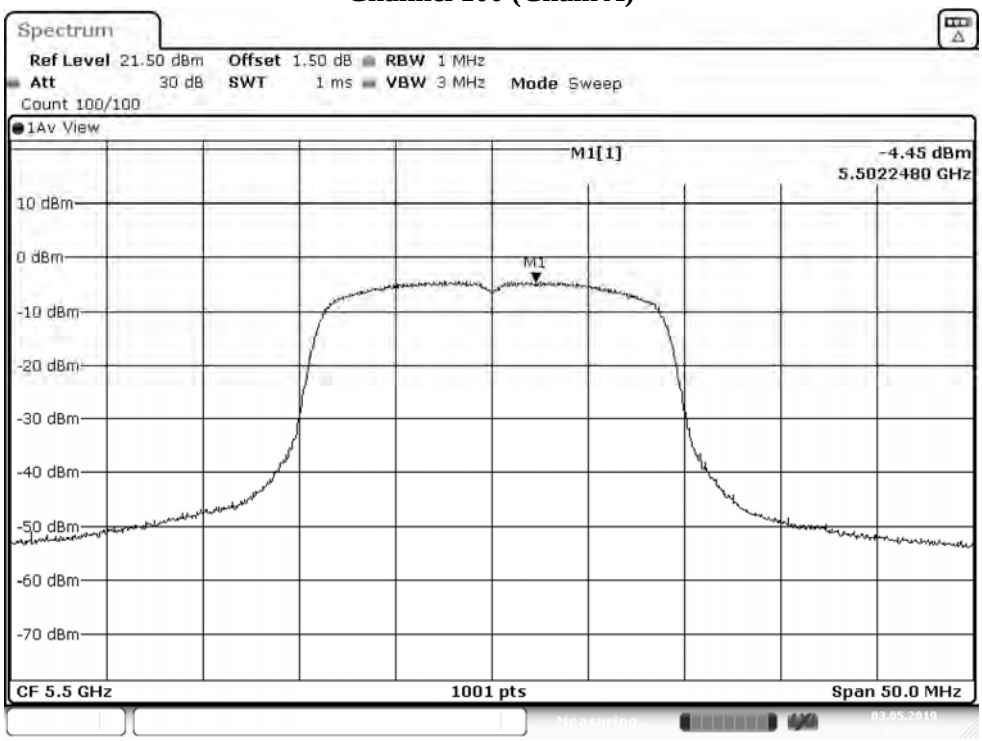
Date: 8.OCT.2019 05:11:16

Channel 64 (Chain B)

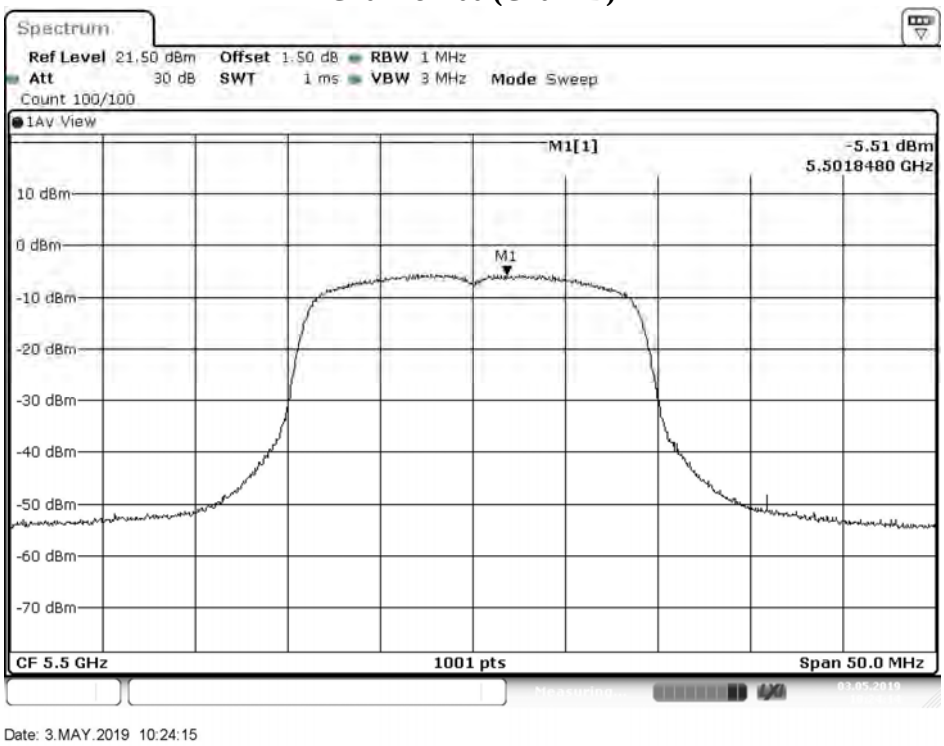


Date: 8.OCT.2019 16:01:09

Channel 100 (Chain A)

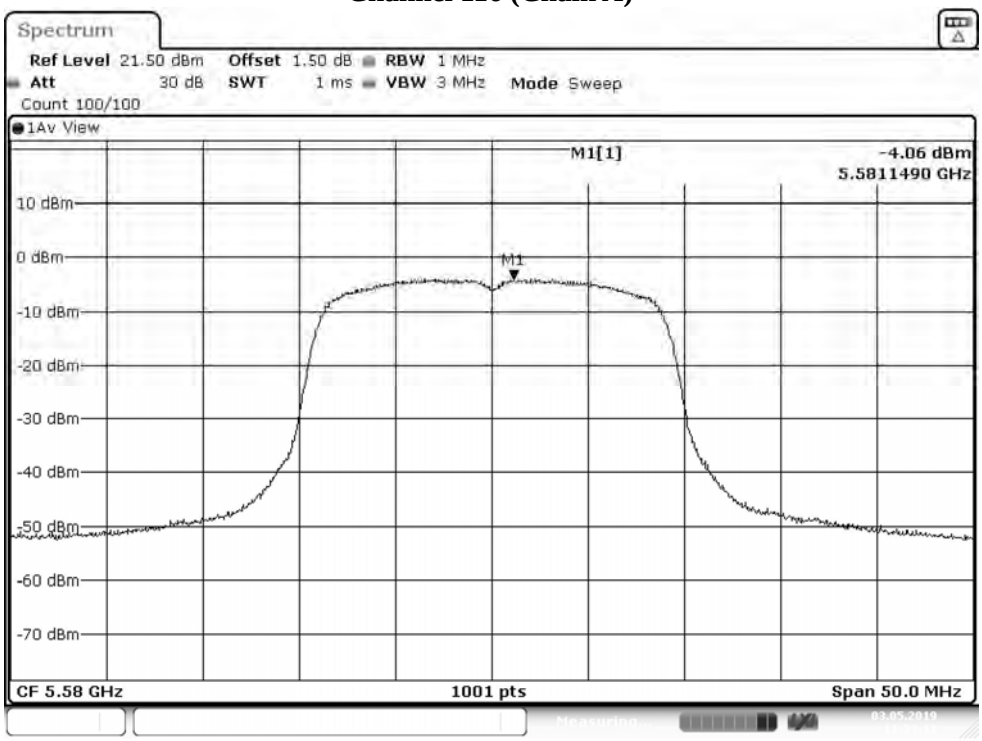


Channel 100 (Chain B)

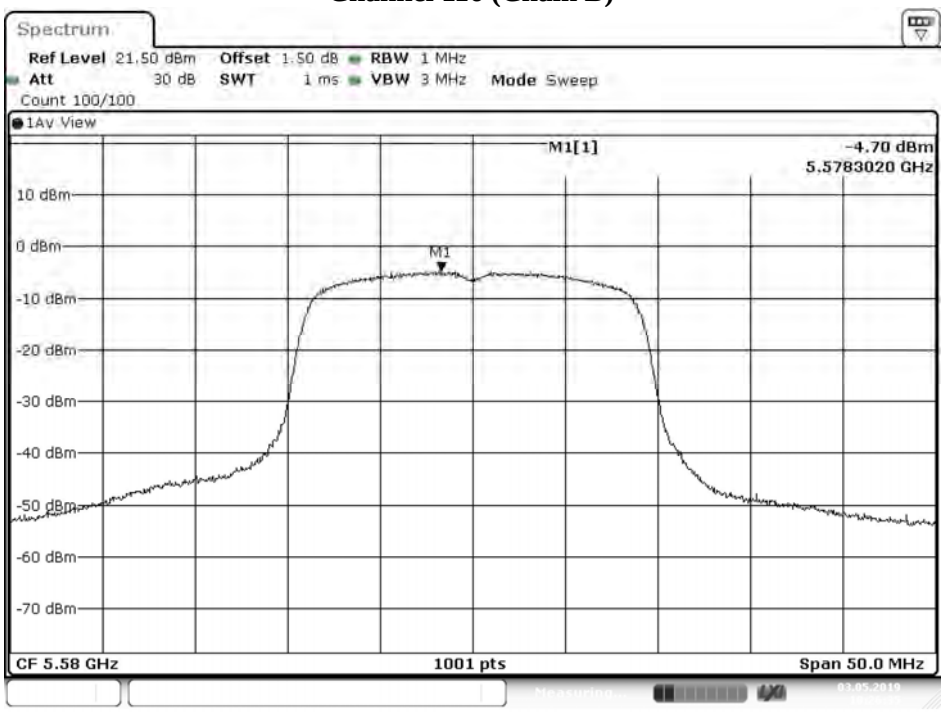


Date: 3.MAY.2019 10:24:15

Channel 116 (Chain A)

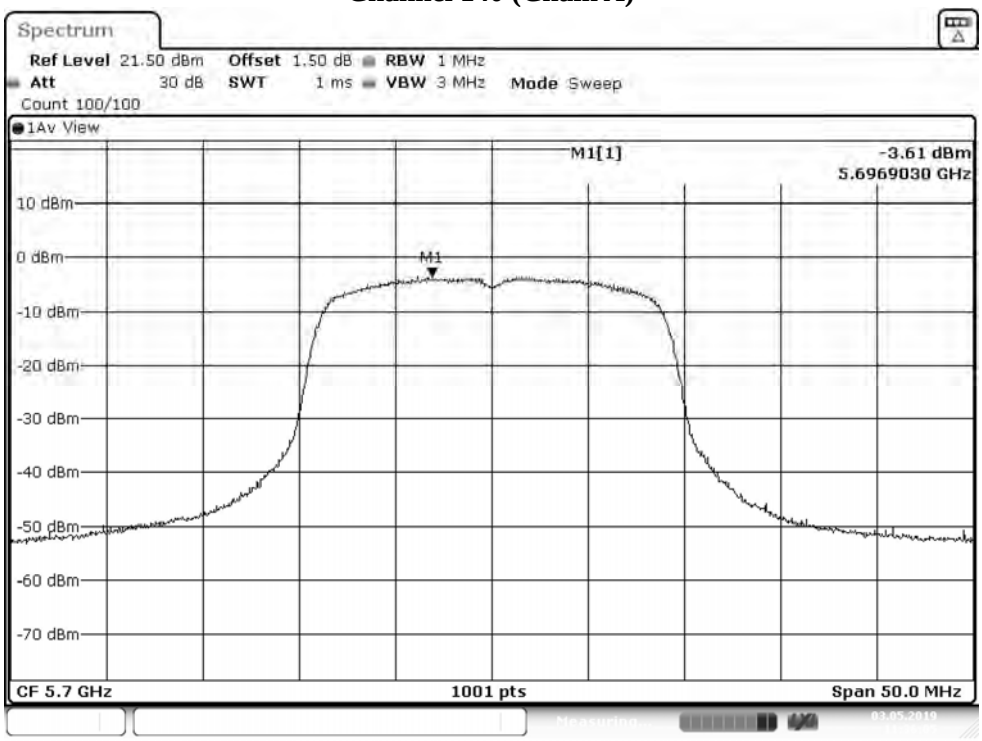


Channel 116 (Chain B)

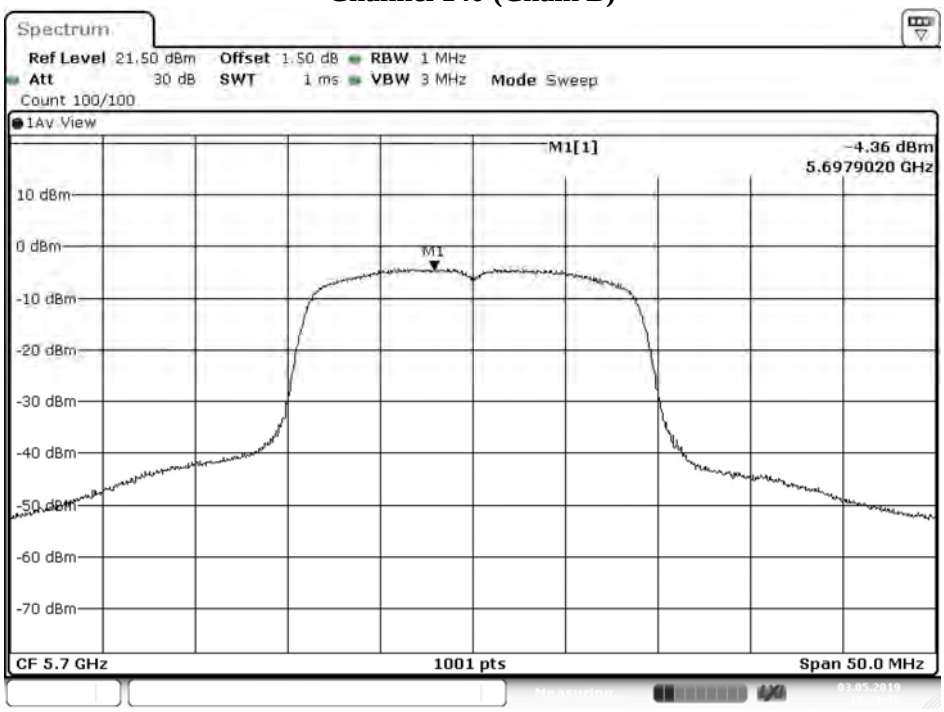


Date: 3.MAY.2019 10:26:36

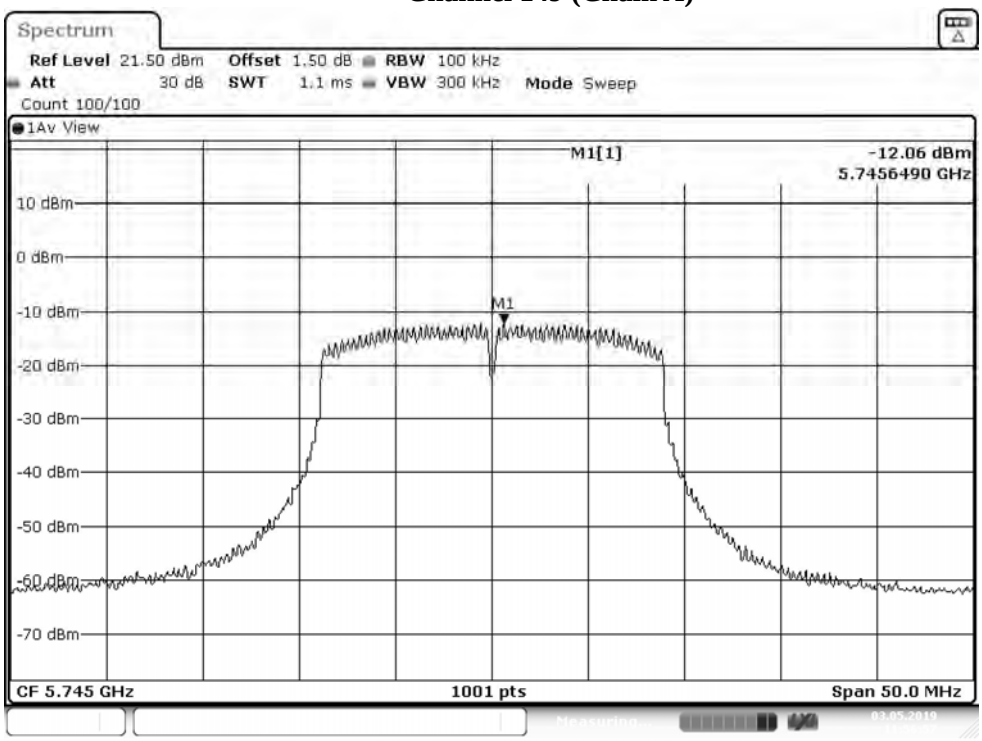
Channel 140 (Chain A)



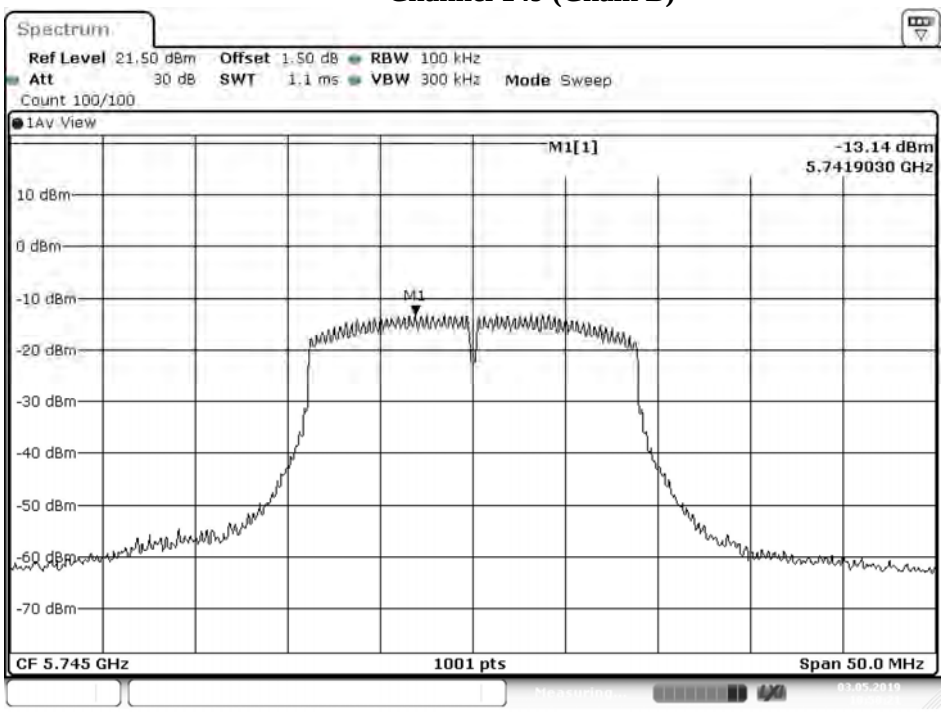
Channel 140 (Chain B)



Channel 149 (Chain A)

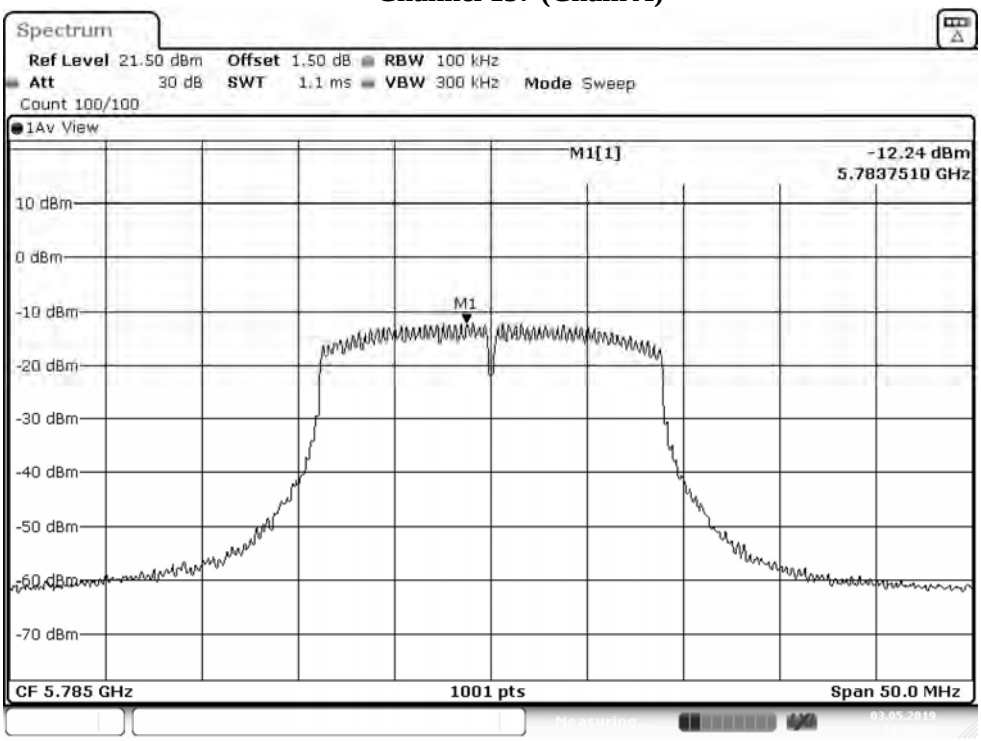


Channel 149 (Chain B)

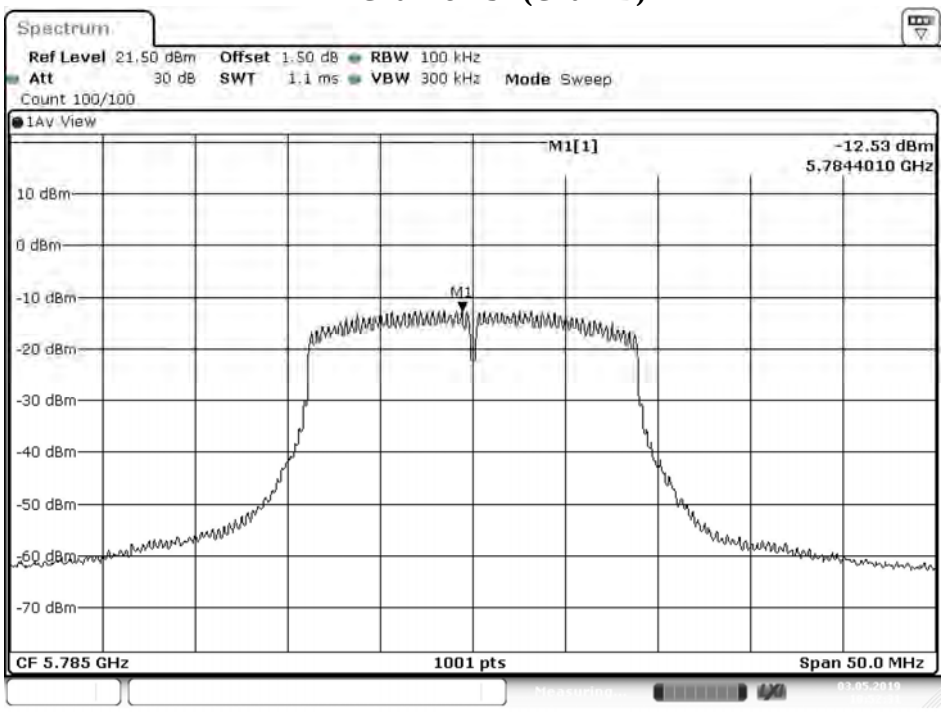


Date: 3.MAY.2019 10:50:21

Channel 157 (Chain A)

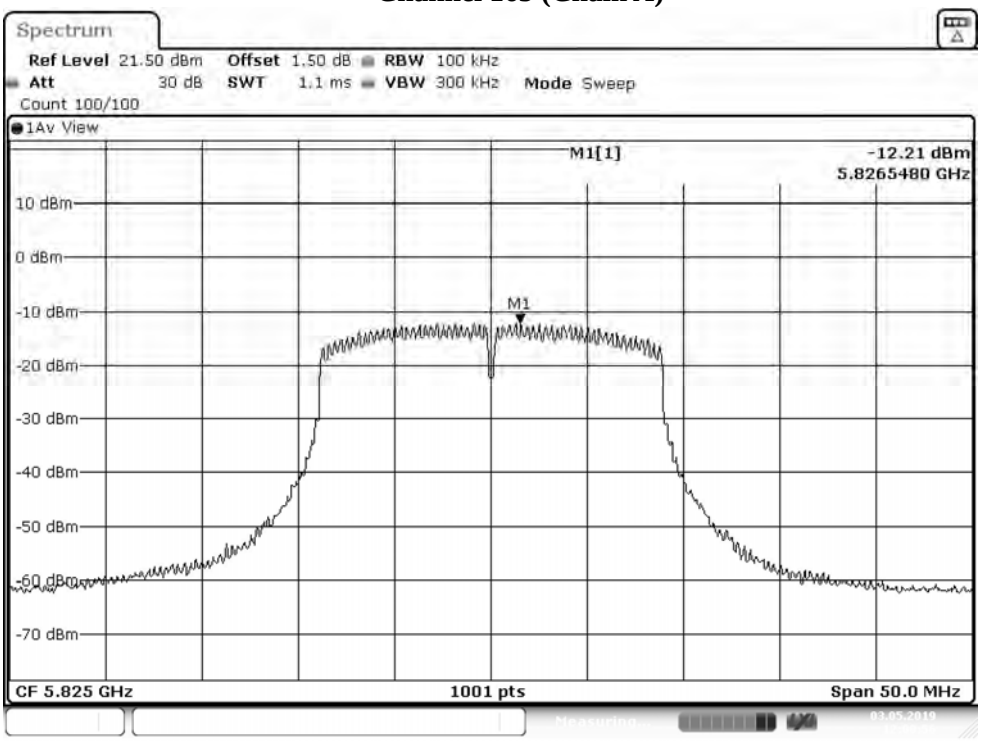


Channel 157 (Chain B)

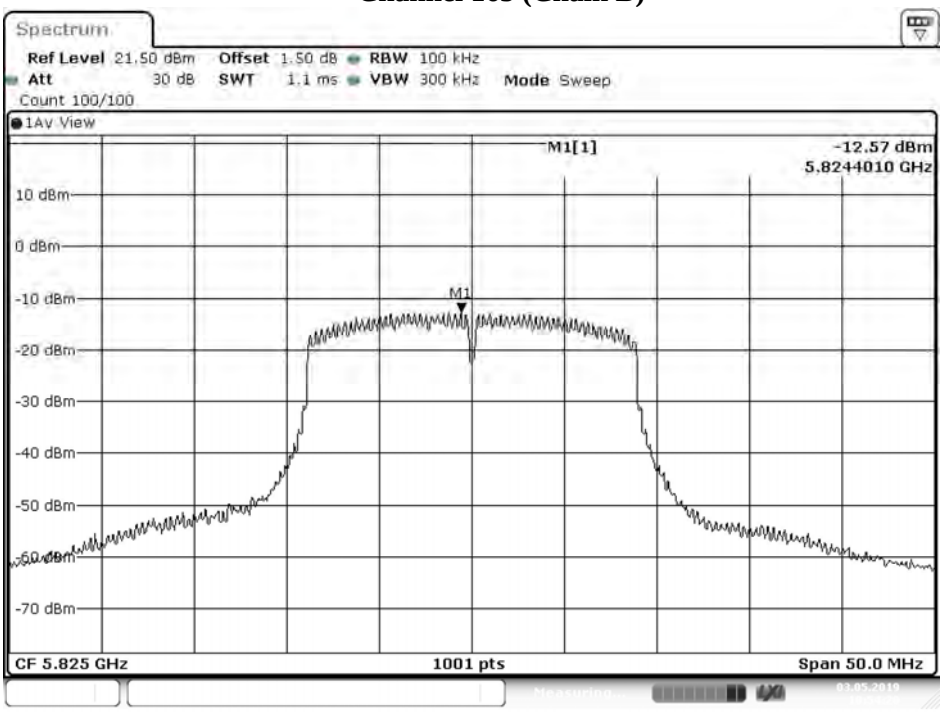


Date: 3.MAY.2019 10:52:31

Channel 165 (Chain A)



Channel 165 (Chain B)



Date: 3.MAY.2019 10:54:21

Product : UNIT ASSY DA
Test Item : Peak Power Spectral Density
Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps)
Test Date : 2019/10/08

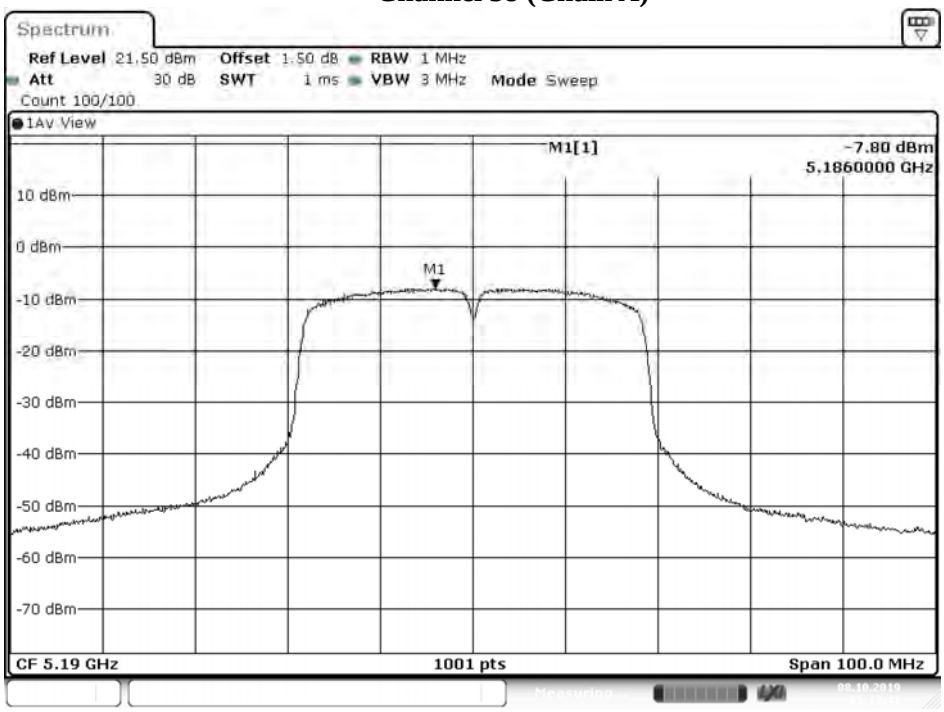
Channel Number	Frequency (MHz)	Chain	Measurement Level (dBm)	Total PPSD (dBm)	Required Limit (dBm)	Result
38	5190	A	-7.80	-4.79	<11	Pass
		B	-8.48	-5.47	<11	Pass
46	5230	A	-7.92	-4.91	<11	Pass
		B	-8.52	-5.51	<11	Pass
54	5270	A	-7.84	-4.83	<11	Pass
		B	-8.44	-5.43	<11	Pass
62	5310	A	-8.00	-4.99	<11	Pass
		B	-8.45	-5.44	<11	Pass
102	5510	A	-6.81	-3.80	<11	Pass
		B	-8.05	-5.04	<11	Pass
110	5550	A	-6.76	-3.75	<11	Pass
		B	-7.80	-4.79	<11	Pass
134	5670	A	-6.40	-3.39	<11	Pass
		B	-7.35	-4.34	<11	Pass

Note: The quantity 10*log 2 (two antennas) is added to the spectrum peak value according to document 662911 D01.

Channel Number	Frequency (MHz)	Chain	Measurement Level (dBm)	BWCF (dB)	Total PPSD (dBm)	Required Limit (dBm)	Result
151	5755	A	-14.69	6.98	-4.70	<30	Pass
		B	-14.95	6.98	-4.96	<30	Pass
159	5795	A	-14.42	6.98	-4.43	<30	Pass
		B	-14.90	6.98	-4.91	<30	Pass

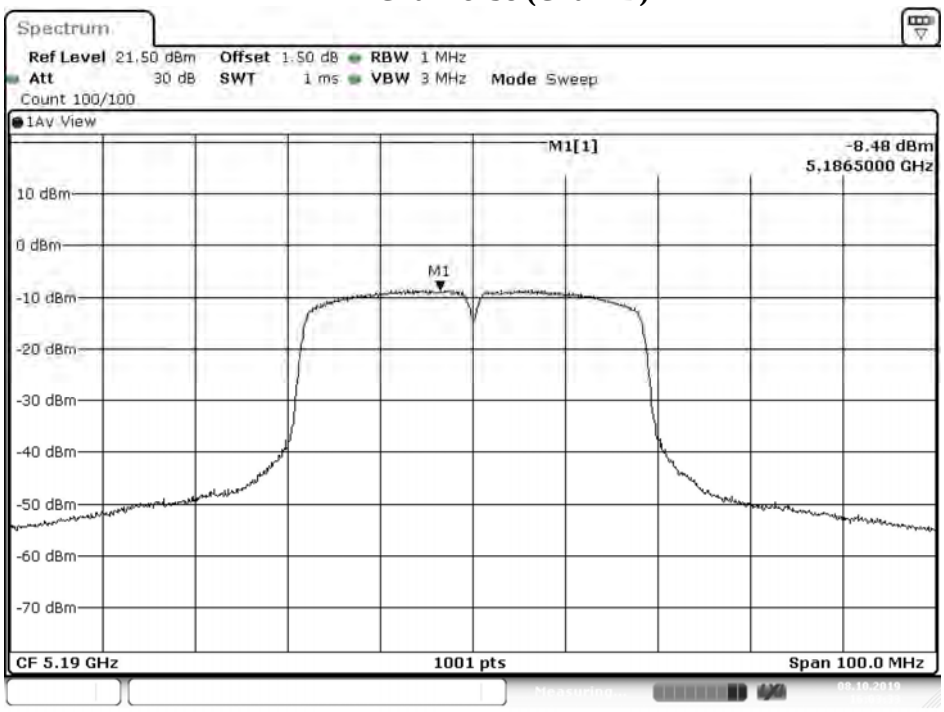
Note: The quantity 10*log 2 (two antennas) is added to the spectrum peak value according to document 662911 D01.

Channel 38 (Chain A)



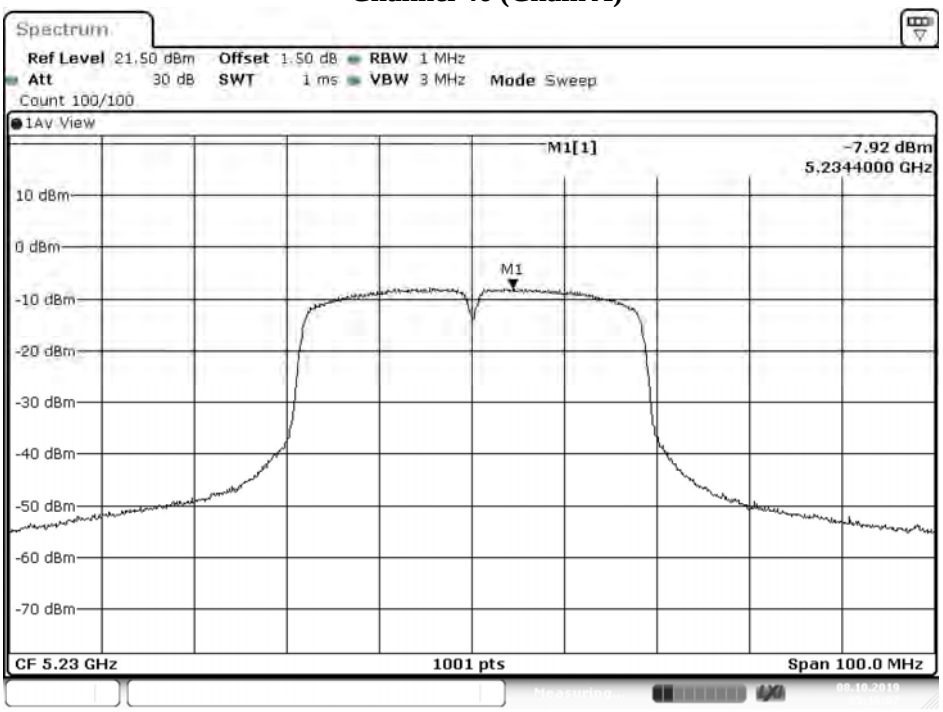
Date: 8.OCT.2019 05:13:41

Channel 38 (Chain B)



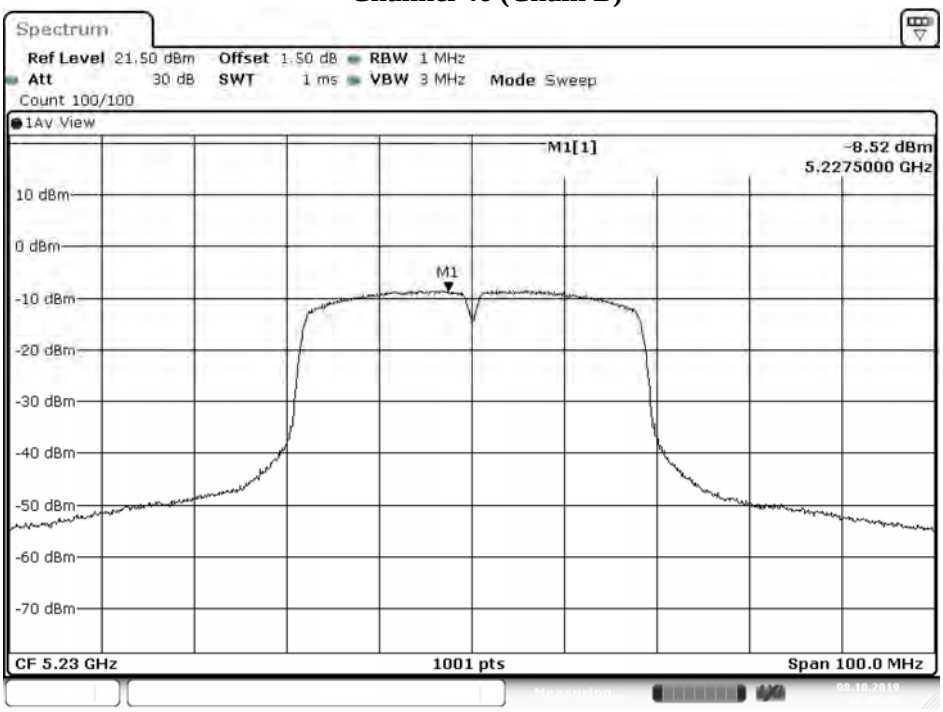
Date: 8.OCT.2019 16:03:34

Channel 46 (Chain A)



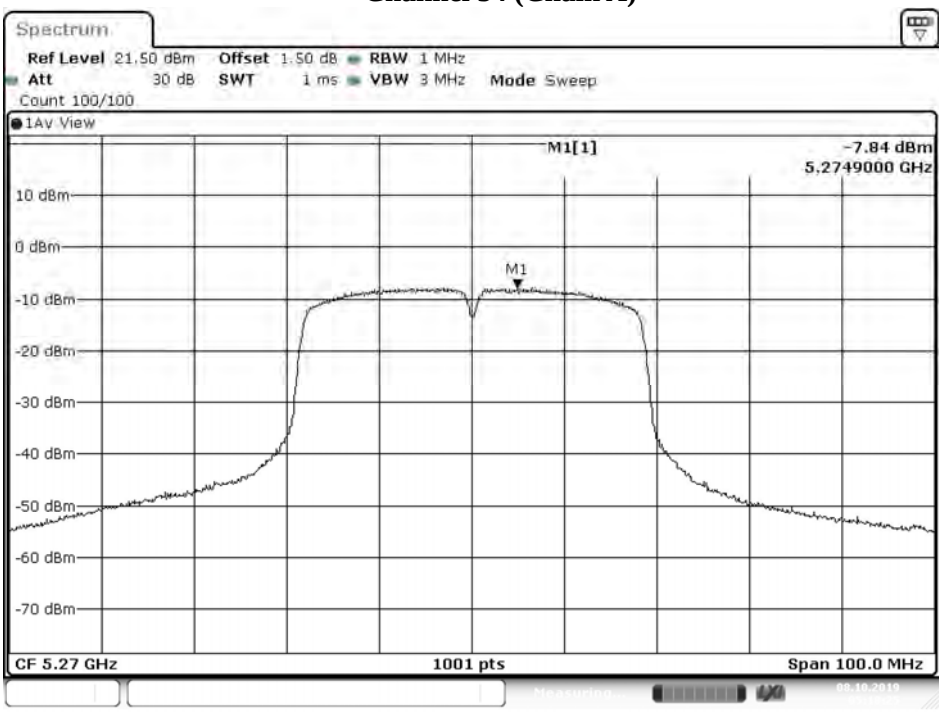
Date: 8.OCT.2019 05:16:07

Channel 46 (Chain B)



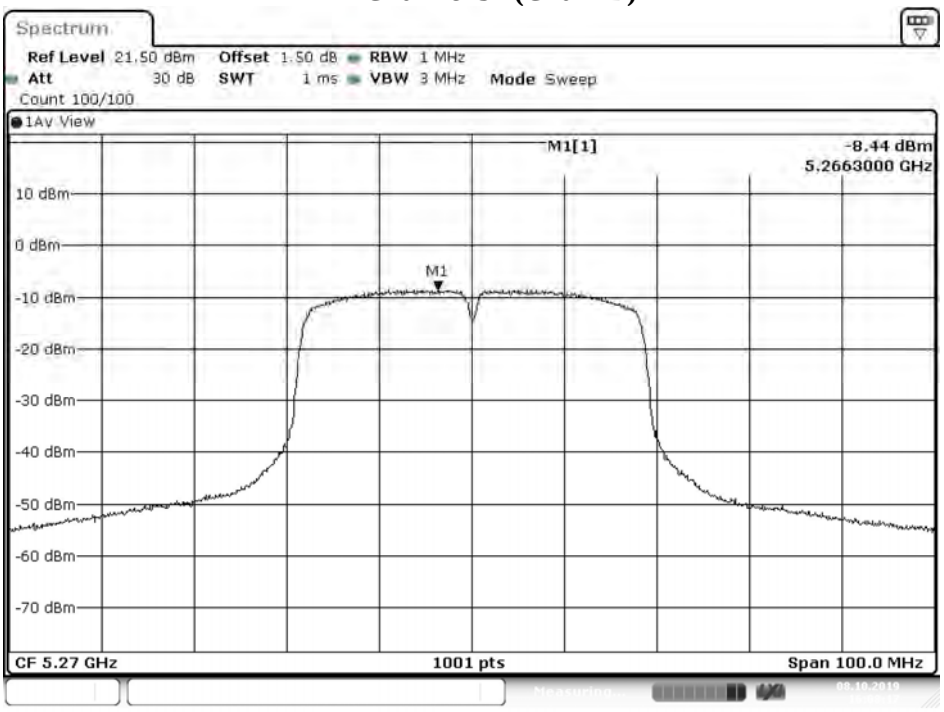
Date: 8.OCT.2019 16:05:59

Channel 54 (Chain A)



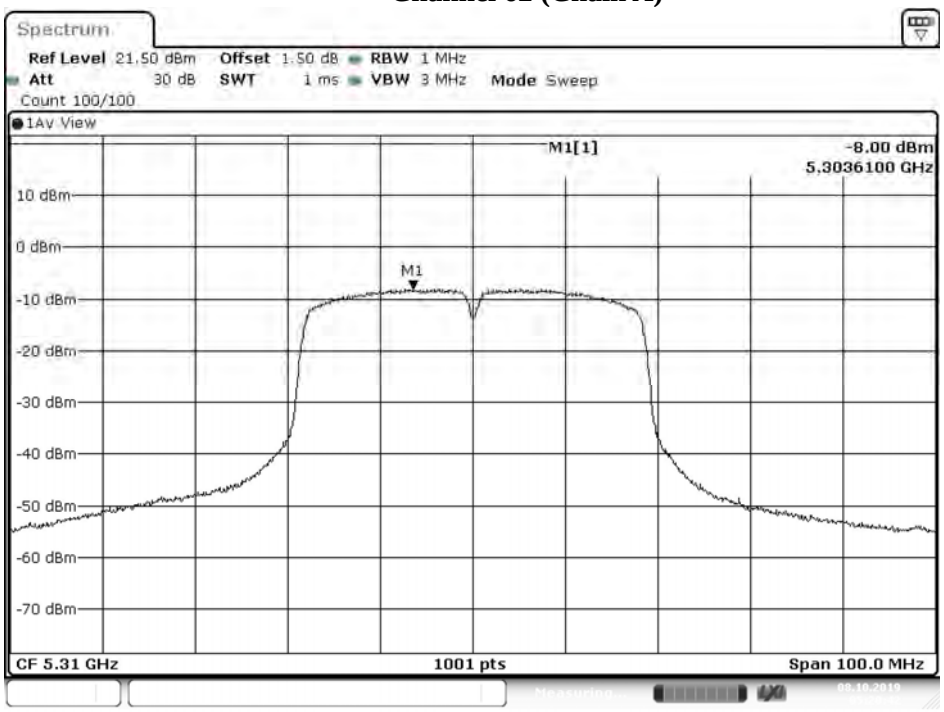
Date: 8.OCT.2019 05:18:25

Channel 54 (Chain B)



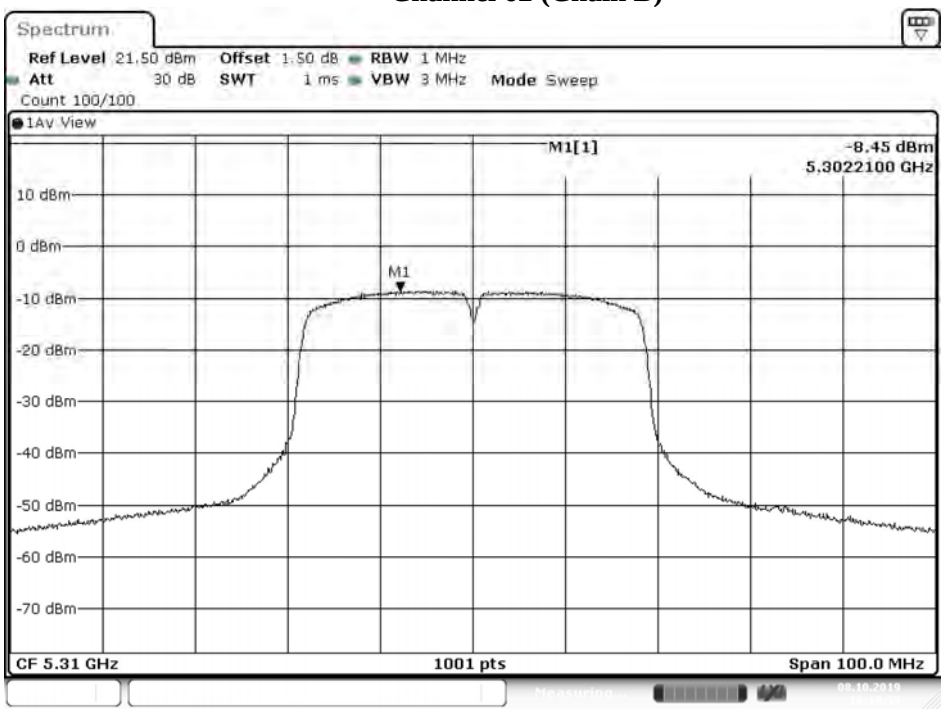
Date: 8.OCT.2019 16:08:18

Channel 62 (Chain A)



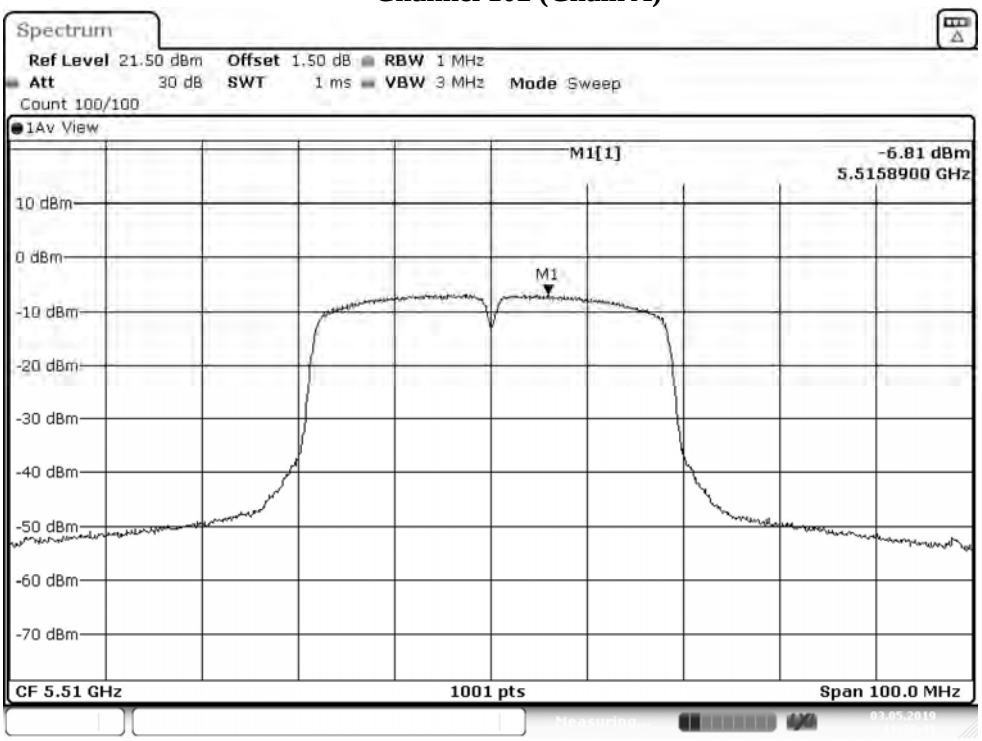
Date: 8.OCT.2019 05:20:42

Channel 62 (Chain B)

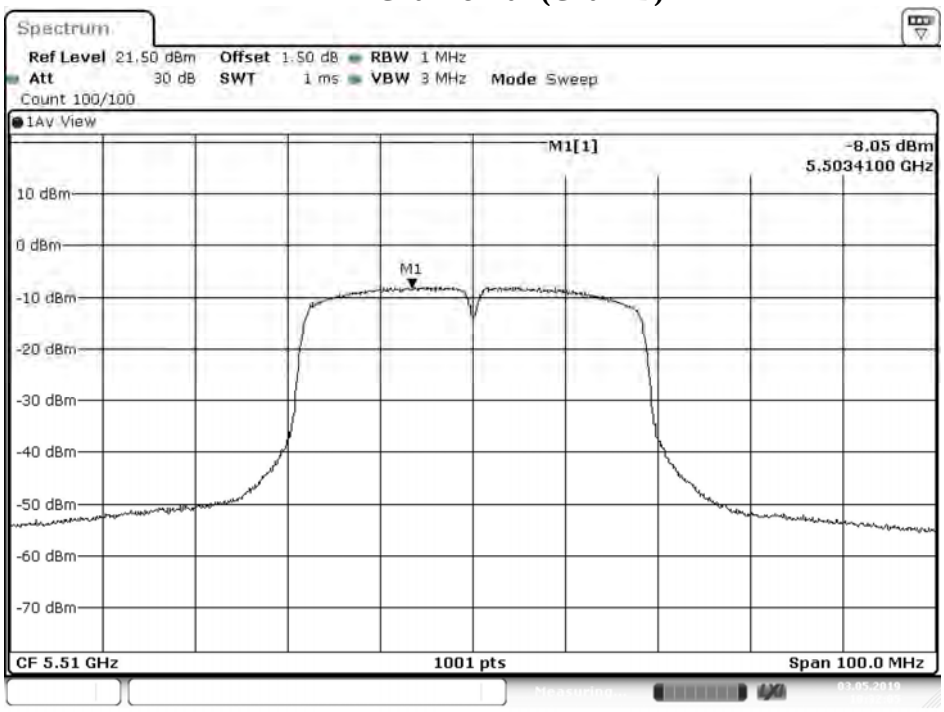


Date: 8.OCT.2019 16:10:35

Channel 102 (Chain A)

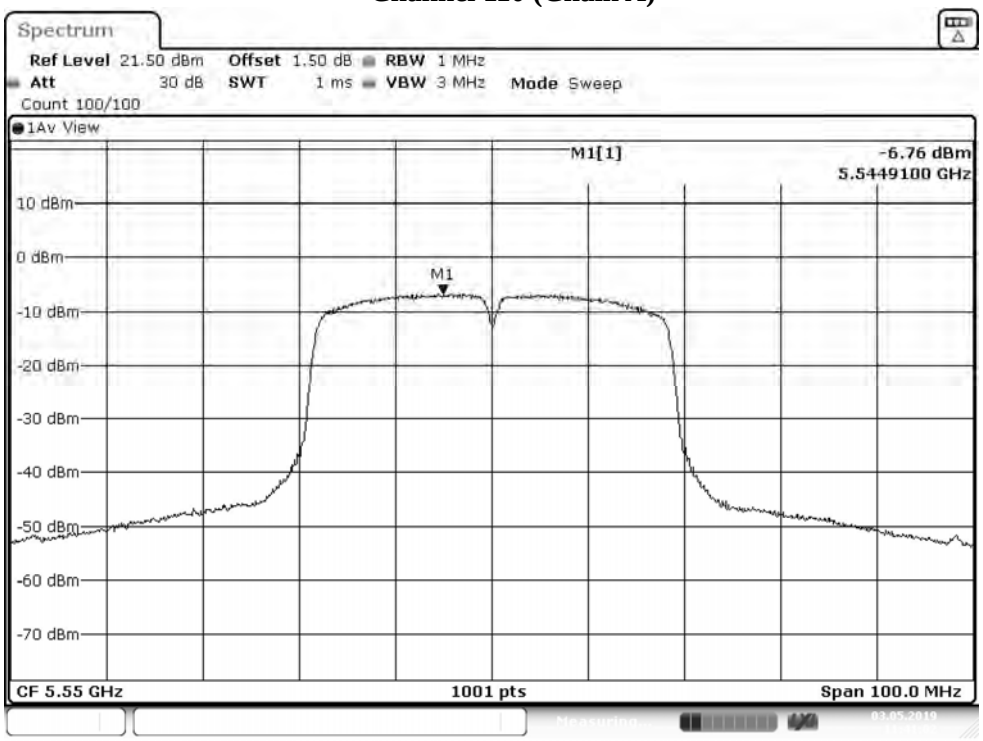


Channel 102 (Chain B)

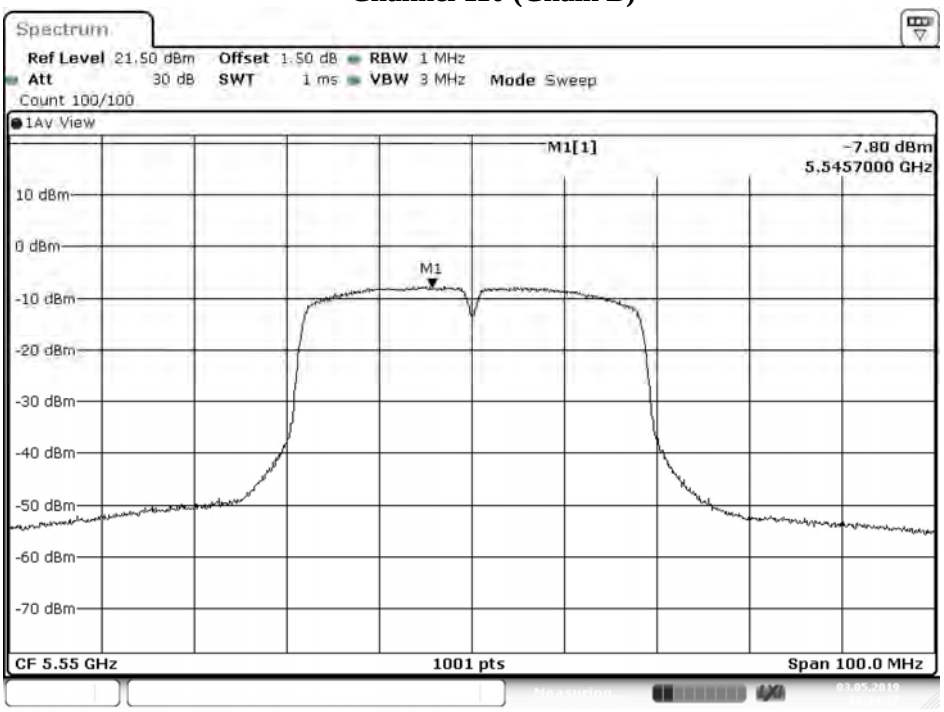


Date: 3.MAY.2019 10:32:06

Channel 110 (Chain A)

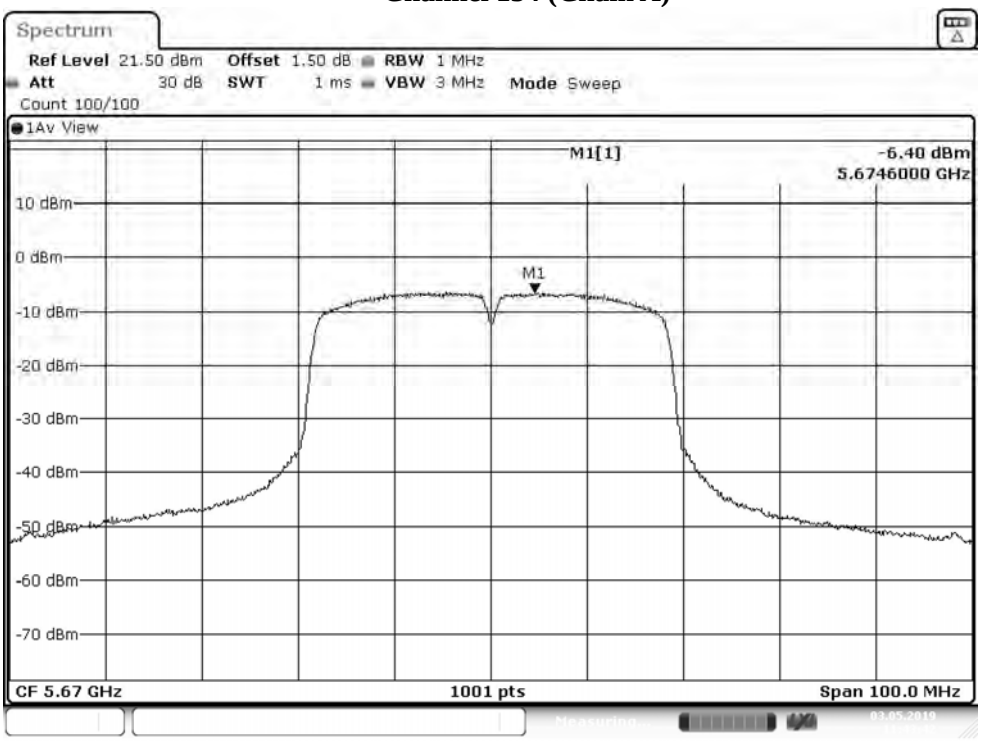


Channel 110 (Chain B)

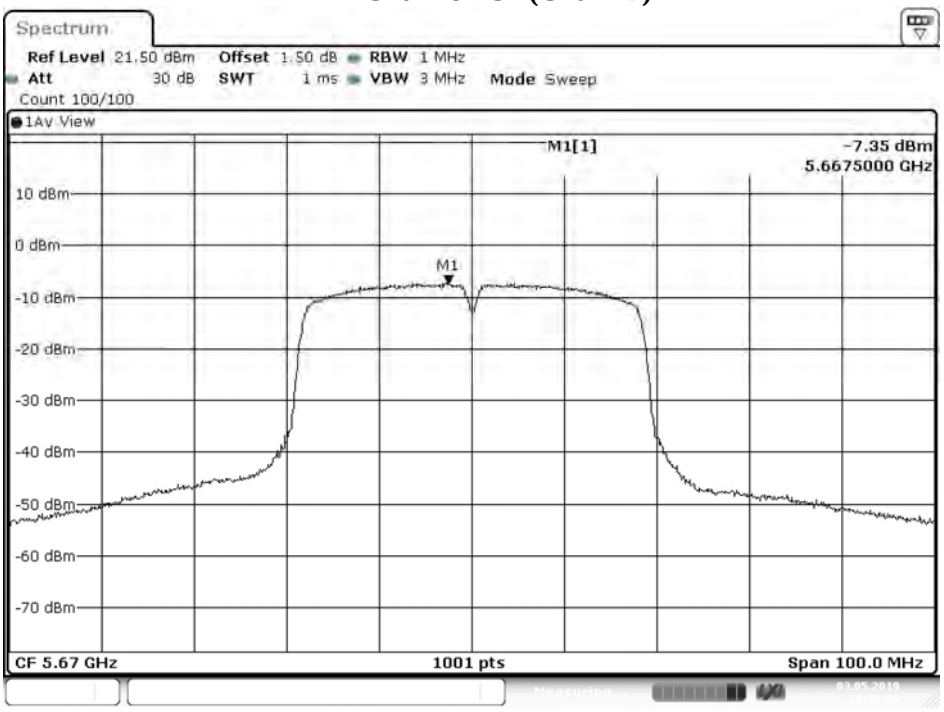


Date: 3.MAY.2019 10:34:27

Channel 134 (Chain A)

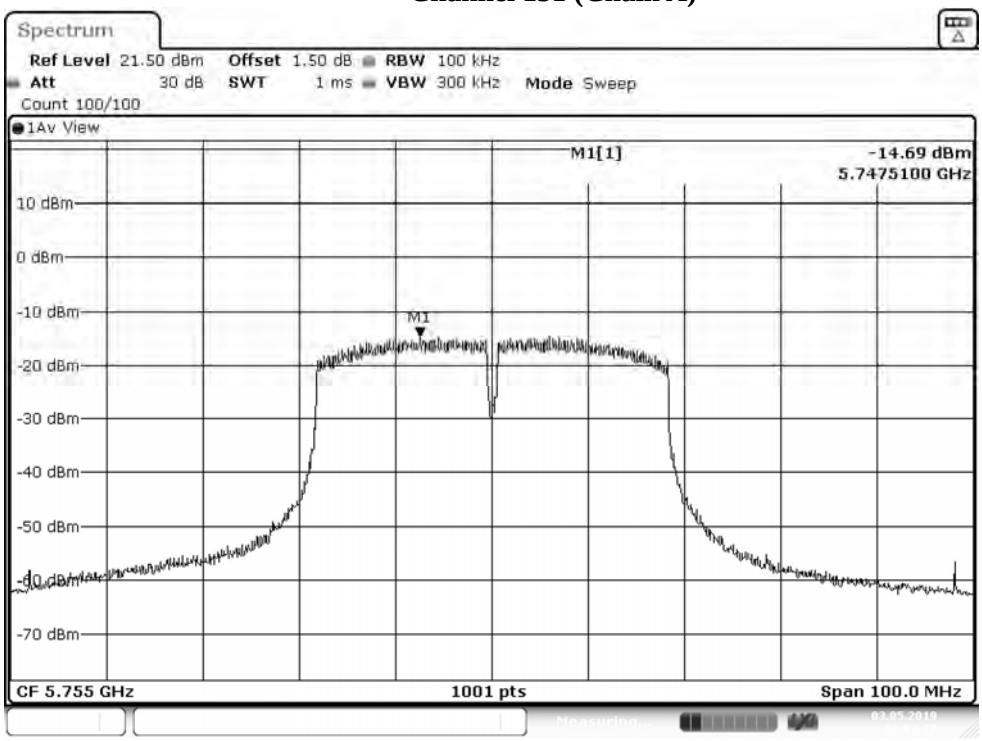


Channel 134 (Chain B)

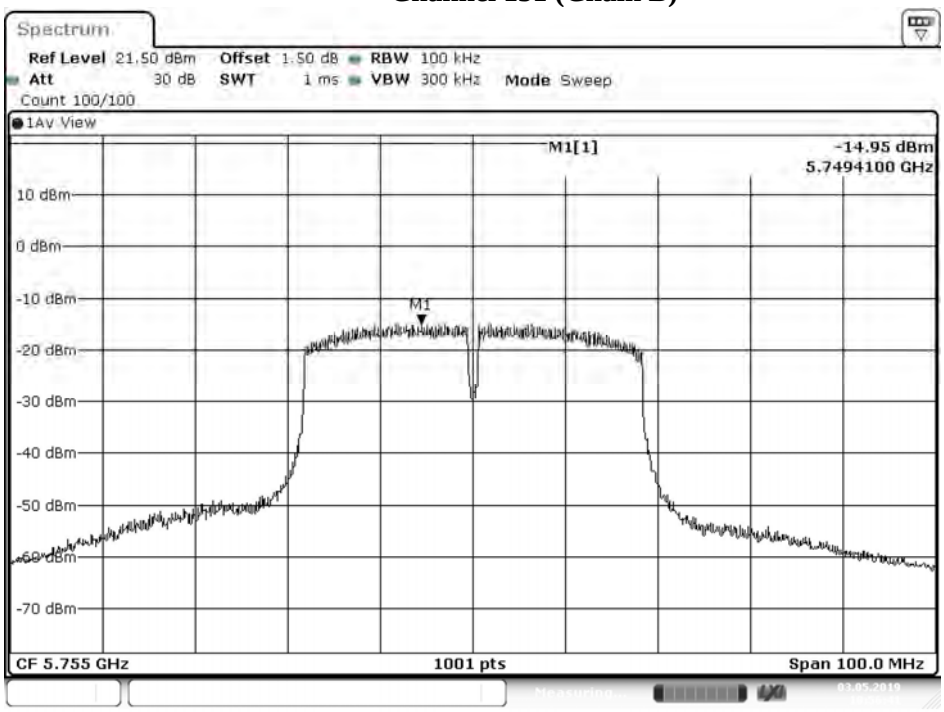


Date: 3.MAY.2019 10:37:07

Channel 151 (Chain A)

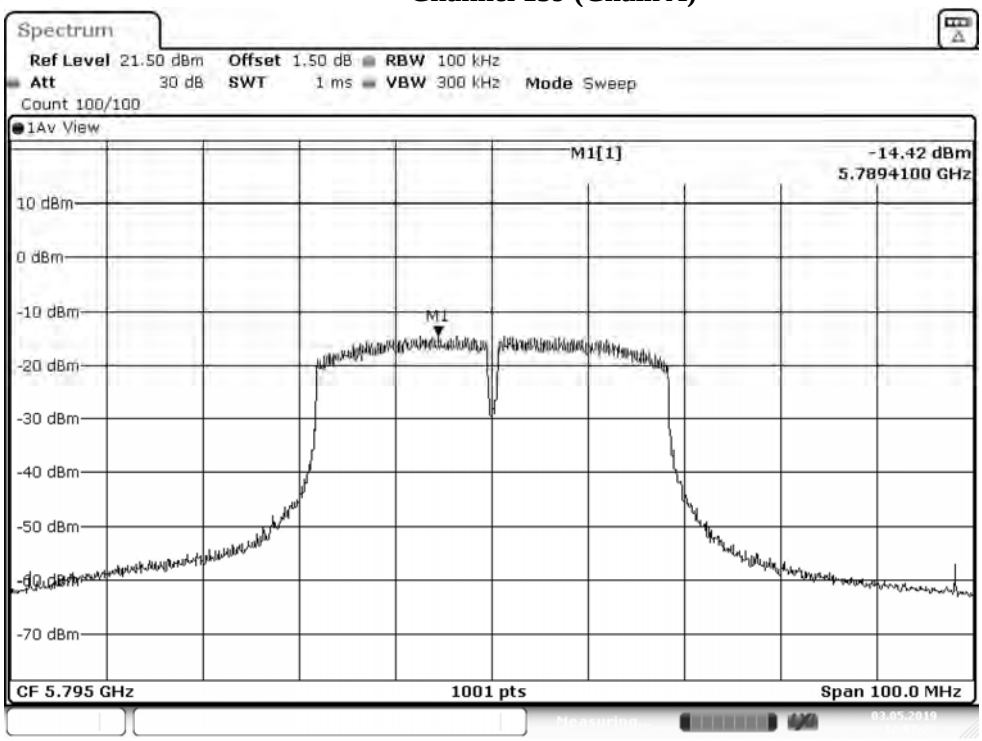


Channel 151 (Chain B)

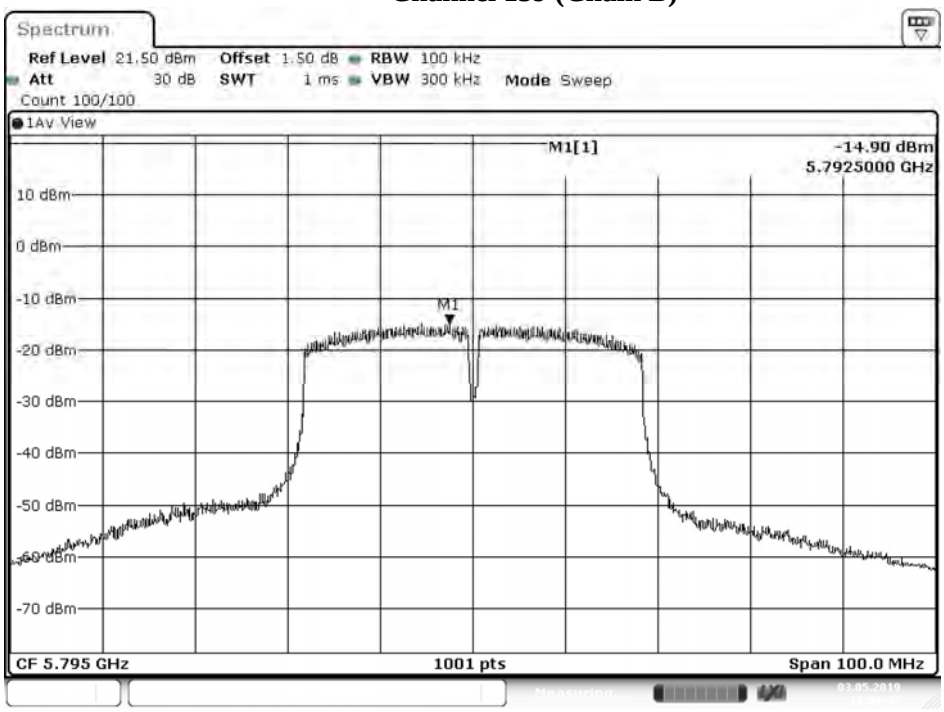


Date: 3.MAY.2019 10:56:42

Channel 159 (Chain A)



Channel 159 (Chain B)



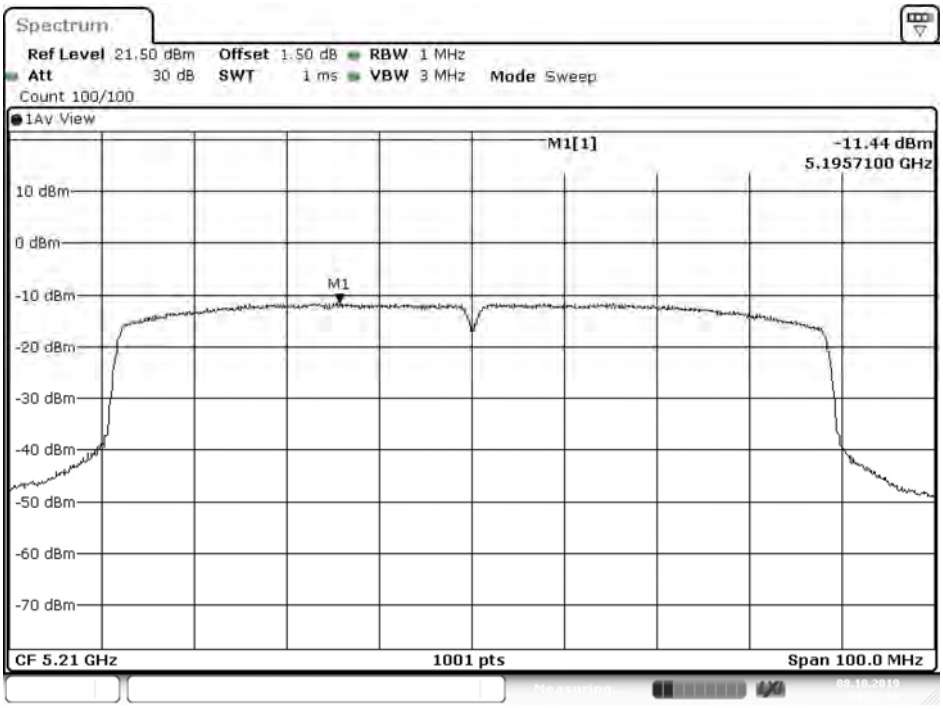
Date: 3.MAY.2019 11:00:47

Product : UNIT ASSY DA
Test Item : Peak Power Spectral Density
Test Mode : Mode 4: Transmit (802.11ac-80BW 65Mbps)
Test Date : 2019/10/08

Channel Number	Frequency (MHz)	Chain	PPSD (dBm)	BWCF (dB)	Total PPSD (dBm)1	Required Limit (dBm)	Result
42	5210	A	-11.44	--	-8.43	<11	Pass
		B	-12.00	--	-8.99	<11	Pass
58	5290	A	-11.50	--	-8.49	<11	Pass
		B	-11.99	--	-8.98	<11	Pass
106	5530	A	-10.25	--	-7.24	<11	Pass
		B	-10.90	--	-7.89	<11	Pass
122	5610	A	-9.97	--	-6.96	<11	Pass
		B	-11.68	--	-8.67	<11	Pass
155	5775	A	-17.96	6.98	-7.97	<30	Pass
		B	-18.34	6.98	-8.35	<30	Pass

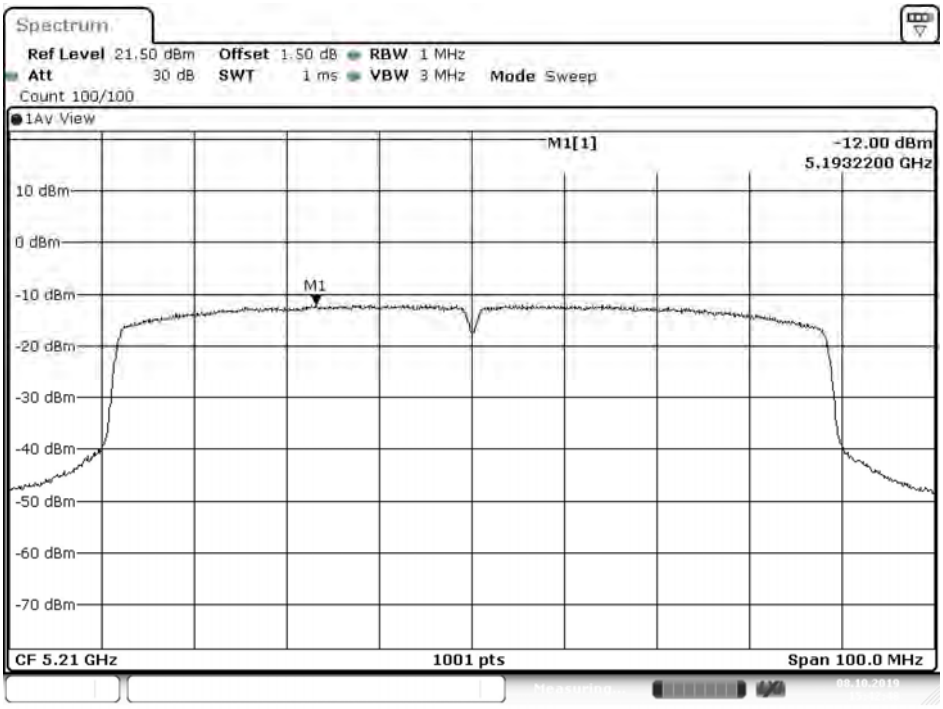
Note: The quantity 10*log 2 (two antennas) is added to the spectrum peak value according to document 662911 D01.

Channel 42 (Chain A)



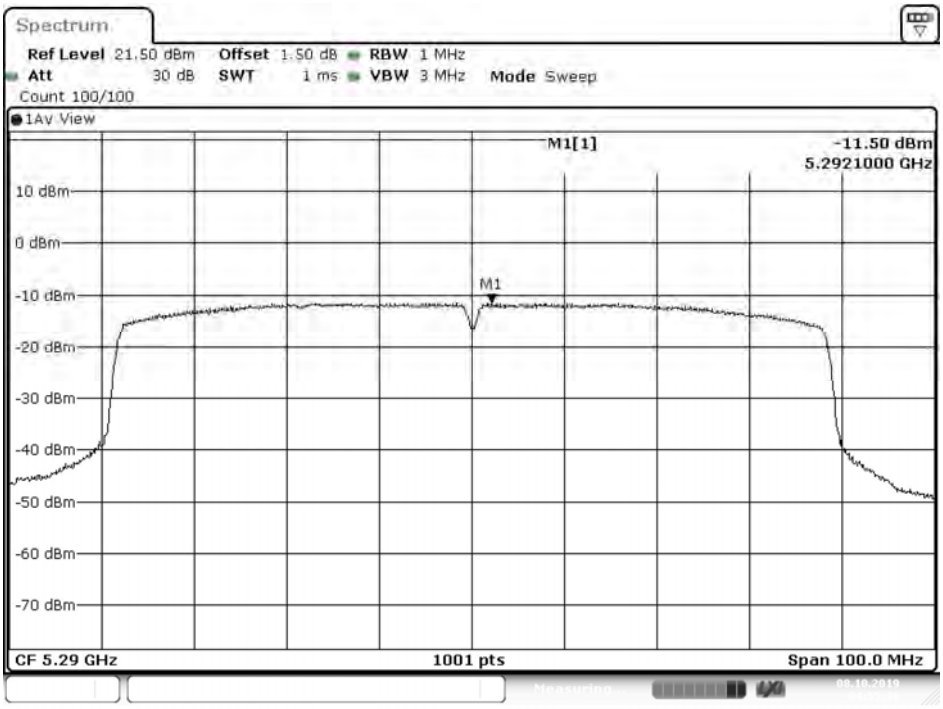
Date: 8.OCT.2019 04:52:56

Channel 42 (Chain B)



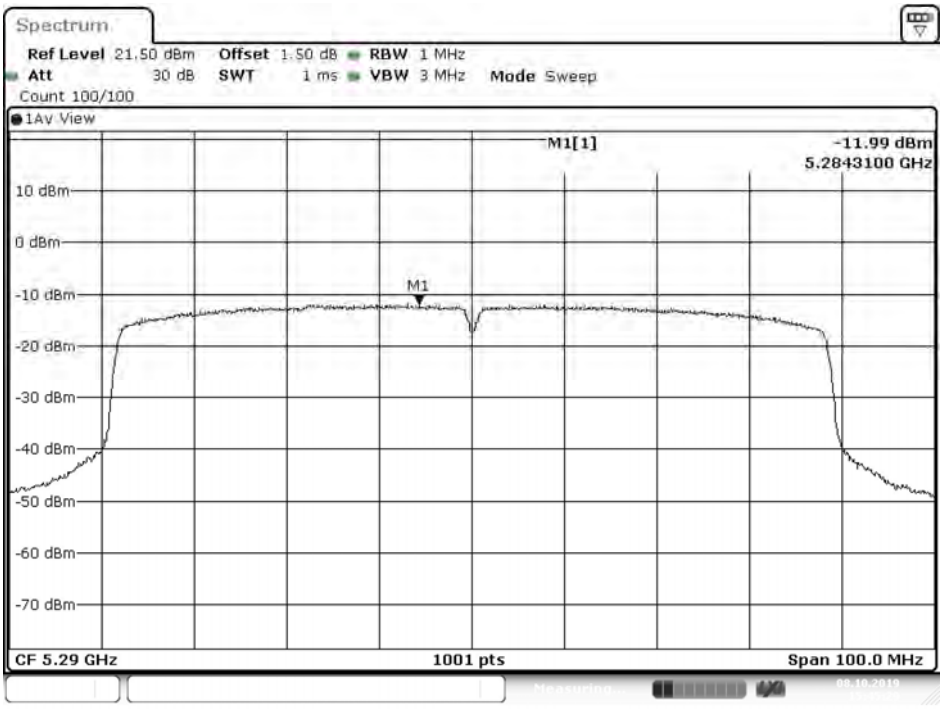
Date: 8.OCT.2019 15:42:49

Channel 58 (Chain A)



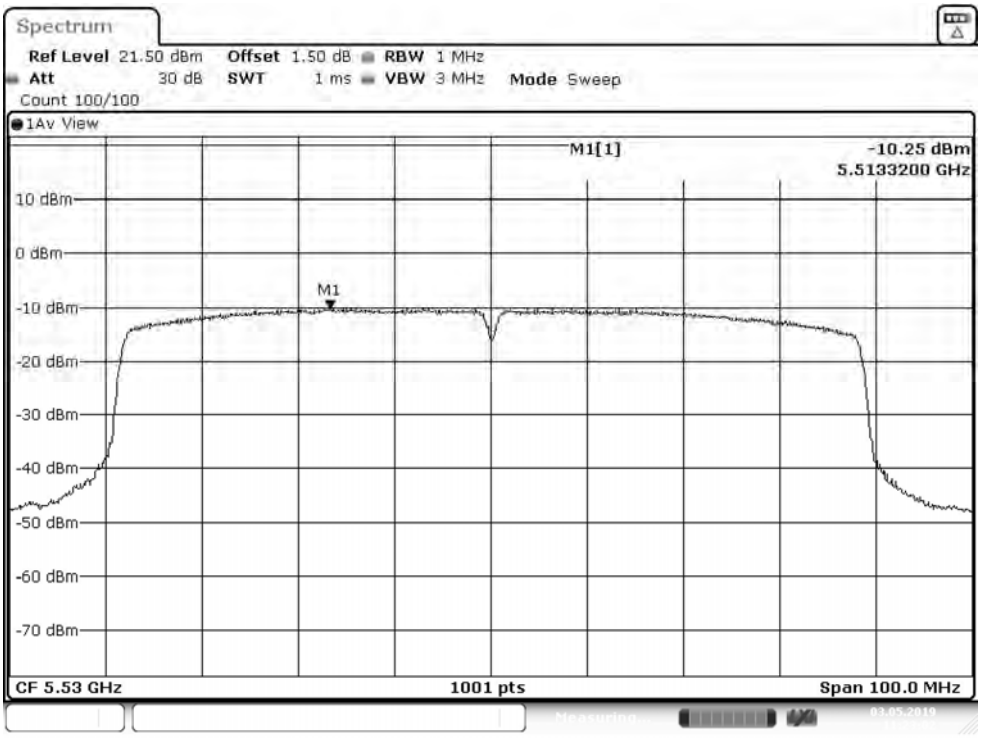
Date: 8.OCT.2019 04:55:37

Channel 58 (Chain B)

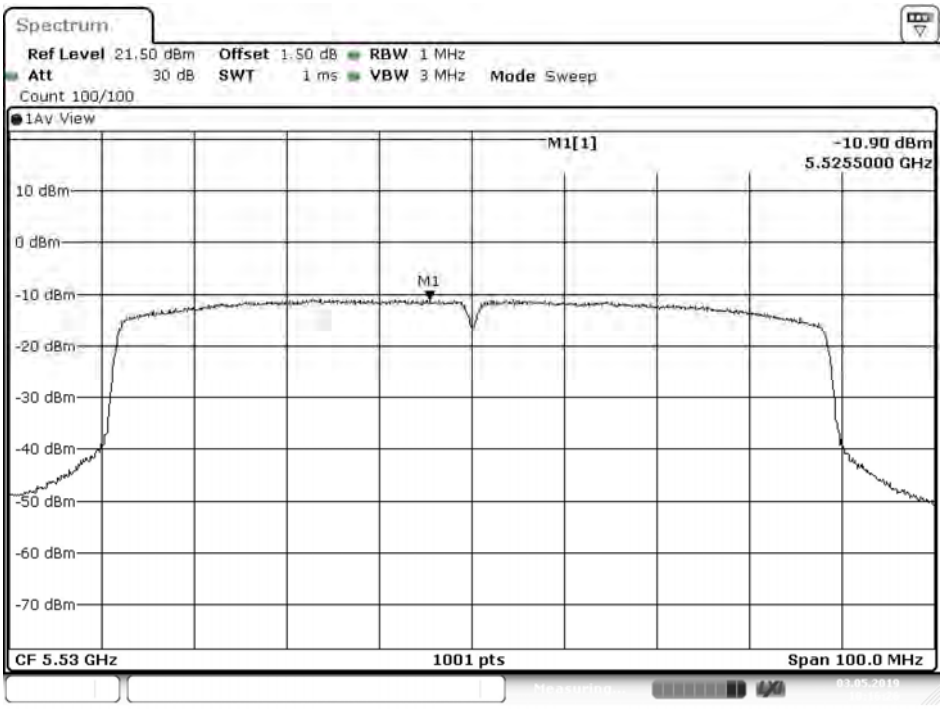


Date: 8.OCT.2019 15:45:29

Channel 106 (Chain A)

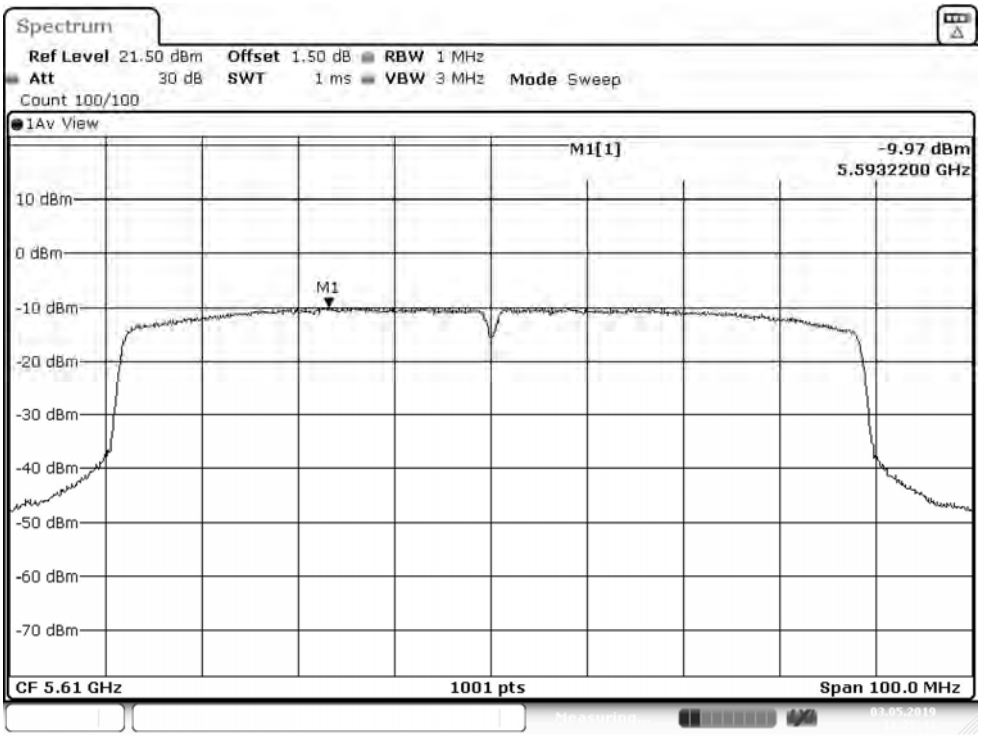


Channel 106 (Chain B)

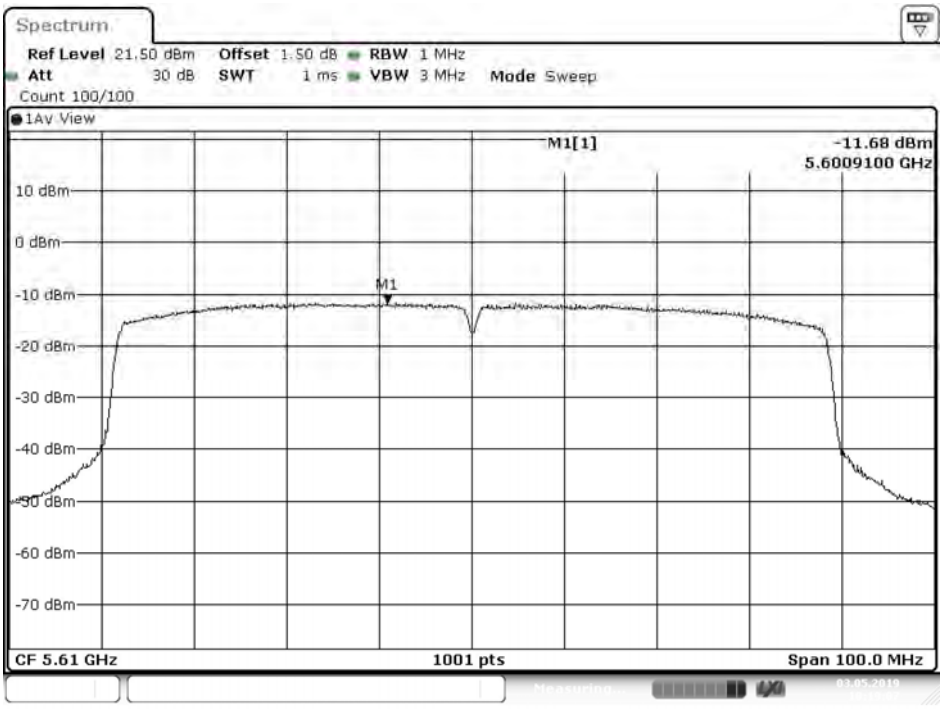


Date: 3.MAY.2019 10:16:27

Channel 122 (Chain A)

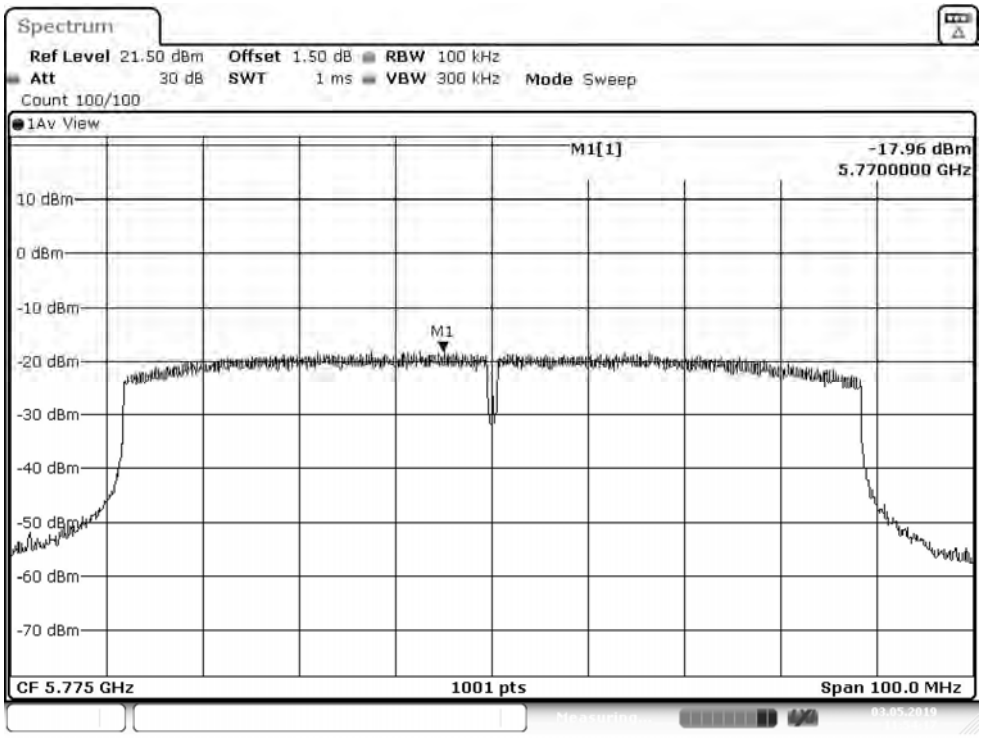


Channel 122 (Chain B)

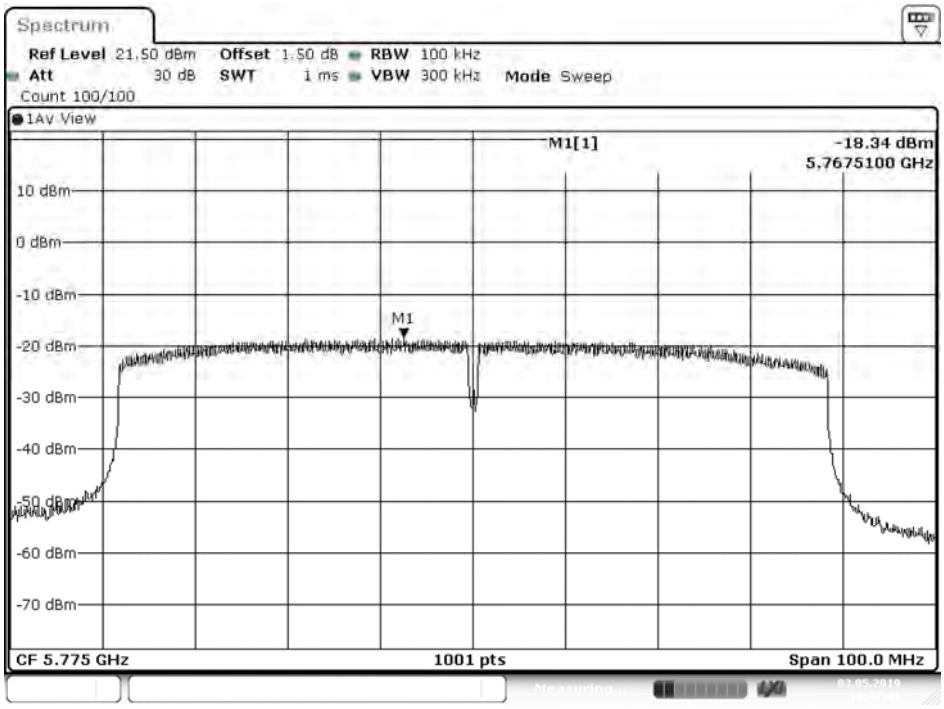


Date: 3.MAY.2019 10:19:07

Channel 155 (Chain A)



Channel 155 (Chain B)

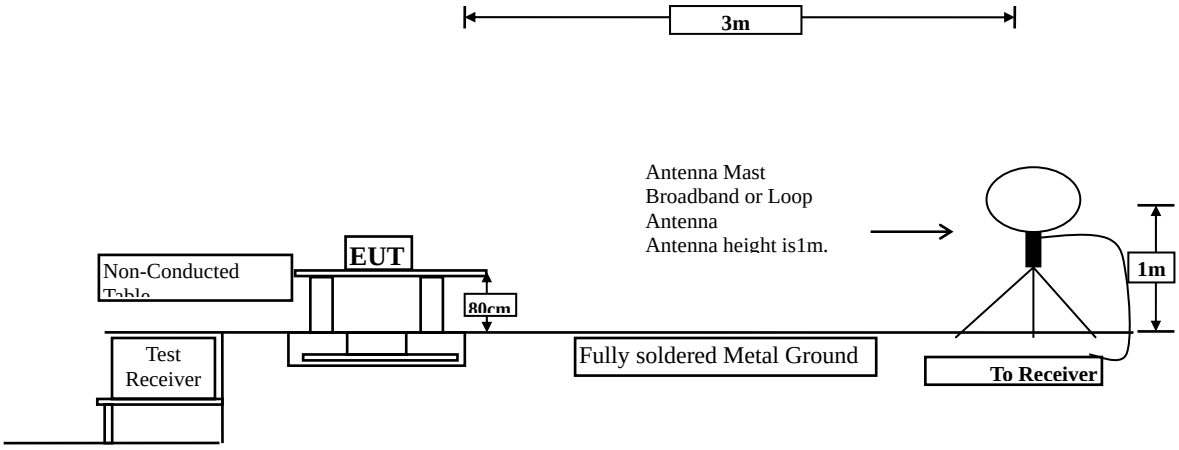


Date: 3.MAY.2019 10:47:41

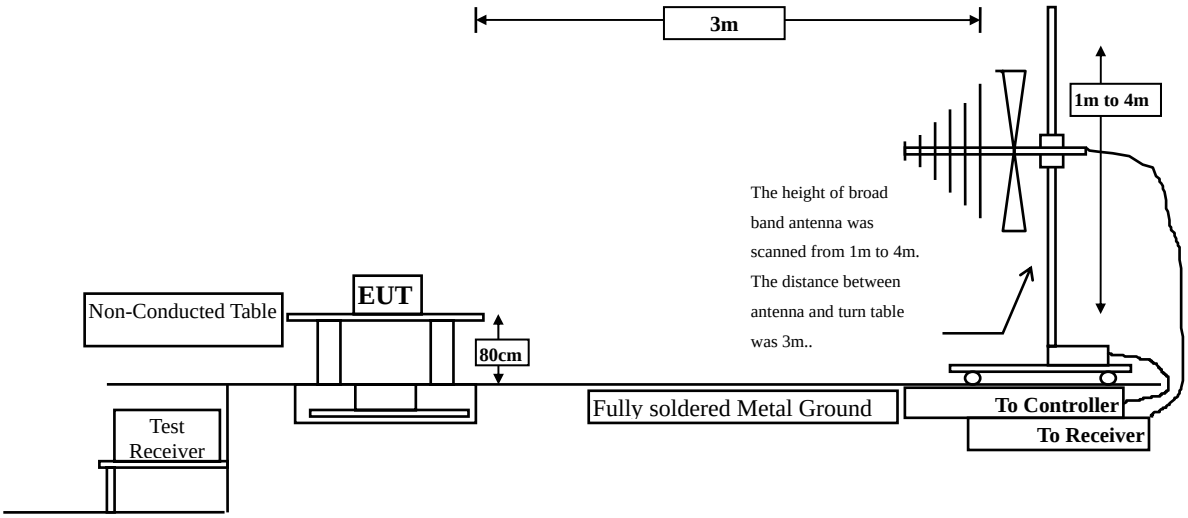
5. Radiated Emission

5.1. Test Setup

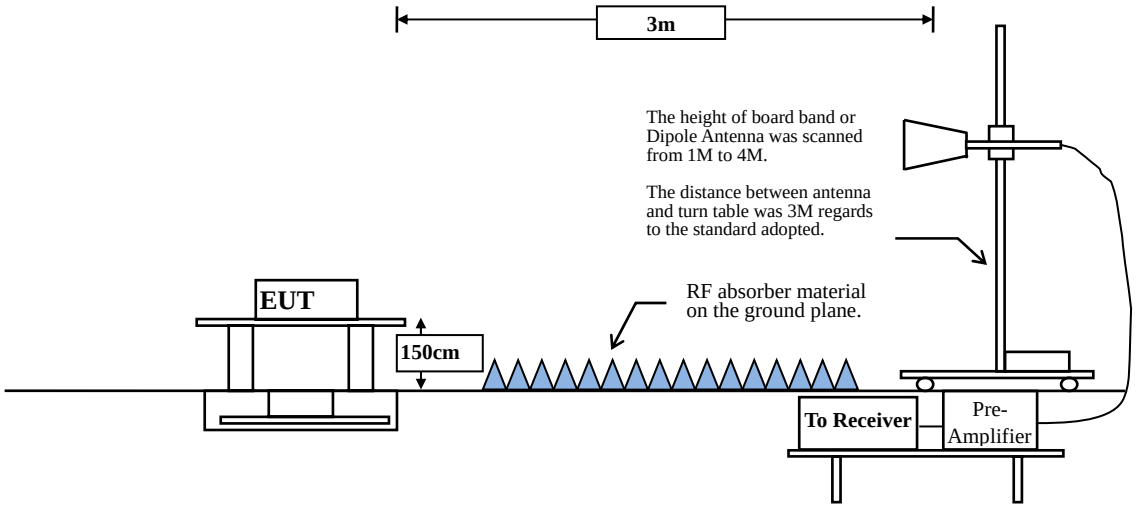
Radiated Emission Under 30MHz



Radiated Emission Below 1GHz



Radiated Emission Above 1GHz



5.2. Limits

The provisions of Section 15.205 of this part apply to intentional radiators operating under this section.

Radiated emissions which fall in the restricted bands, as defined in Section 15.205, must also comply with the radiated emission limits specified in Section 15.209:

FCC Part 15 Subpart C Paragraph 15.209 Limits		
Frequency MHz	uV/m @3m	dBμV/m@3m
30-88	100	40
88-216	150	43.5
216-960	200	46
Above 960	500	54

Remarks : 1. RF Voltage (dBμV) = 20 log RF Voltage (uV)

2. In the Above Table, the tighter limit applies at the band edges.

3. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

Undesirable emission limits. Except as the provisions of §15.205 apply to intentional radiators operating under this section, the maximum emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:

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

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

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

(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.

5.3. Test Procedure

The EUT was setup according to ANSI C63.10, 2013 and tested according to FCC KDB-789033 test procedure for compliance to FCC 47CFR 15. 407 requirements.

Measuring the frequency range below 1GHz, the EUT is placed on a turn table which is 0.8 meter above ground,when measuring the frequency range above 1GHz, the EUT is placed on a turn table which is 1.5 meter above ground.

The turn table is rotated 360 degrees to determine the position of the maximum emission level.

The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

The antenna is scanned between 1 meter and 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.10: 2013 on radiated measurement.

The resolution bandwidth below 30MHz setting on the field strength meter is 9kHz and 30MHz~1GHz is 120kHz and above 1GHz is 1MHz.

Radiated emission measurements below 30MHz are made using Loop Antenna and 30MHz~1GHz are made using broadband Bilog antenna and above 1GHz are made using Horn Antennas.

The measurement is divided into the Preliminary Measurement and the Final Measurement.

The suspected frequencies are searched for in Preliminary Measurement with the measurement antenna kept pointed at the source of the emission both in azimuth and elevation, with the polarization of the antenna oriented for maximum response. The antenna is pointed at an angle towards the source of the emission, and the EUT is rotated in both height and polarization to maximize the measured emission. The emission is kept within the illumination area of the 3 dB bandwidth of the antenna.

The measurement frequency range form 9kHz - 10th Harmonic of fundamental was investigated.

RBW and VBW Parameter setting:

According to KDB 789033 section II.G.5 Procedure for Unwanted Maximum Emissions Measurements above 1000 MHz.

RBW = 1MHz.

VBW ≥ 3MHz.

According to KDB 789033 section II.G.6 Procedures for Average Unwanted Emissions Measurements above 1000 MHz.

RBW = 1MHz.

VBW = 10Hz, when duty cycle ≥ 98 %

VBW ≥ 1/T, when duty cycle < 98 %

(T refers to the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.)

5GHz band	Duty Cycle (%)	T (ms)	1/T (Hz)	VBW (Hz)
802.11a	96.44	3.5290	283	300
802.11n20	92.51	1.7899	559	1k
802.11n40	88.93	1.7464	573	1k
802.11ac80	89.59	1.7464	573	1k

Note: Duty Cycle Refer to Section 8

5.4. Uncertainty

Horizontal polarization：

30-300MHz: ±4.08dB；300M-1GHz: ±3.86dB；1-18GHz: ±3.77dB；18-40GHz: ±3.98dB

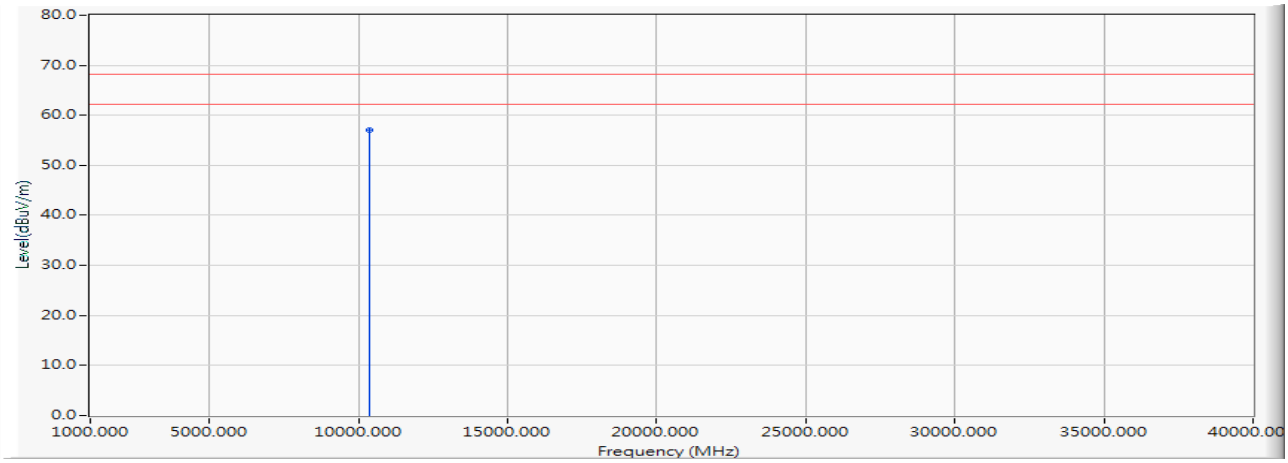
Vertical polarization：

30-300MHz: ±4.81dB；300M-1GHz: ±3.87dB；1-18GHz：±3.83dB；18-40GHz: ±3.98dB

5.5. Test Result of Radiated Emission

Product : UNIT ASSY DA
Test Item : Harmonic Radiated Emission Data
Test Mode : Mode 1: Transmit (802.11a 6Mbps) (5180MHz)
Test Date : 2019/10/30

Horizontal



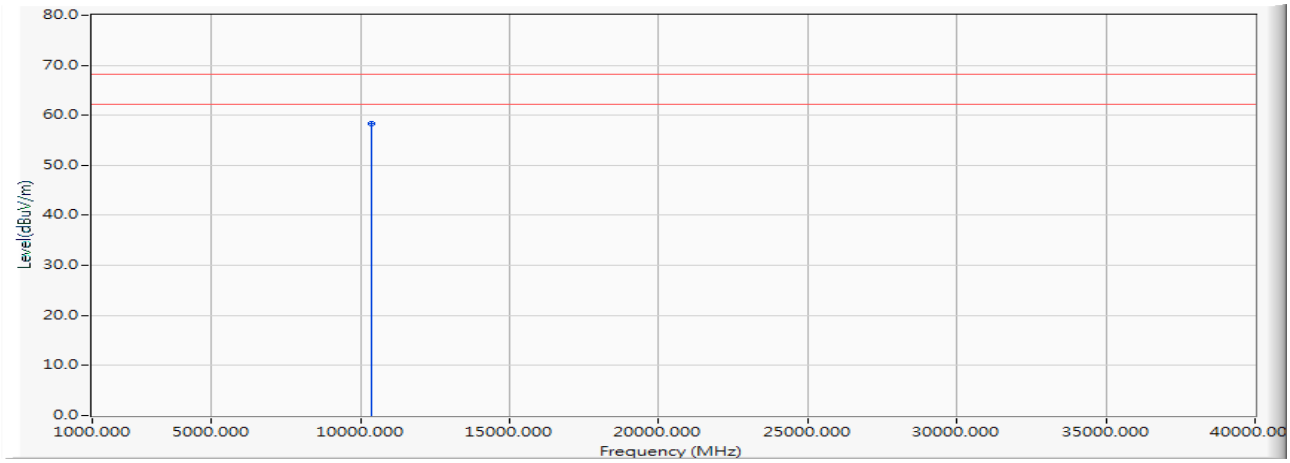
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10360.000	0.180	56.910	57.090	-11.130	68.220	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 1: Transmit (802.11a 6Mbps) (5180MHz)
Test Date	:	2019/10/30

Vertical



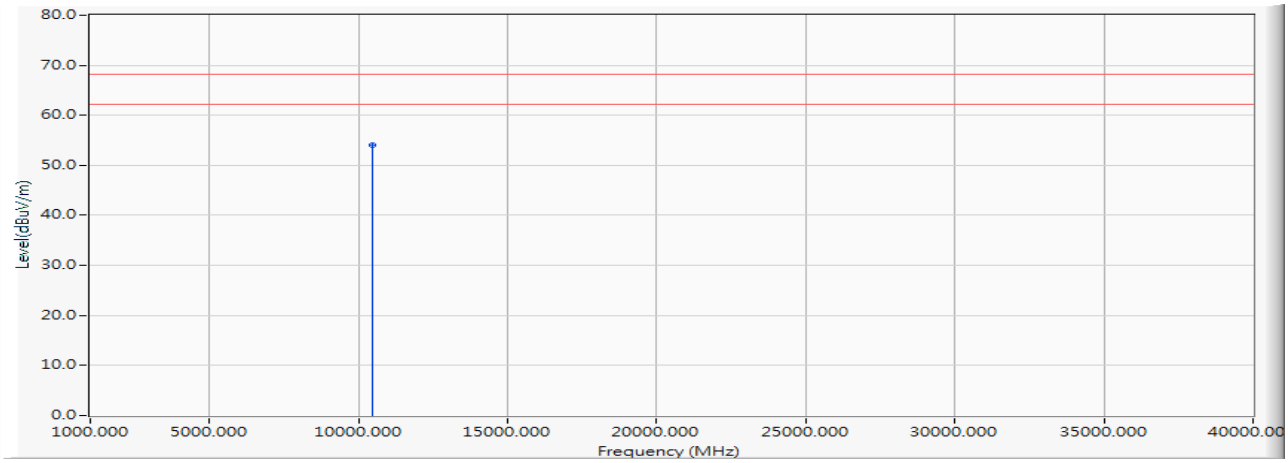
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10360.000	0.180	58.230	58.410	-9.810	68.220	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 1: Transmit (802.11a 6Mbps) (5220MHz)
Test Date	:	2019/10/30

Horizontal



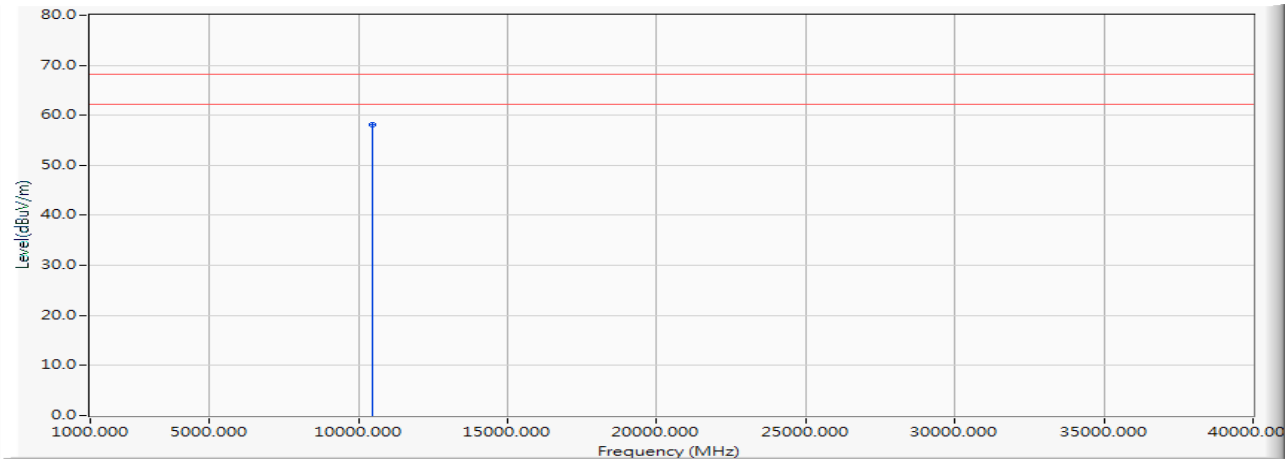
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10440.000	0.233	53.910	54.144	-14.076	68.220	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 1: Transmit (802.11a 6Mbps) (5220MHz)
Test Date	:	2019/10/30

Vertical



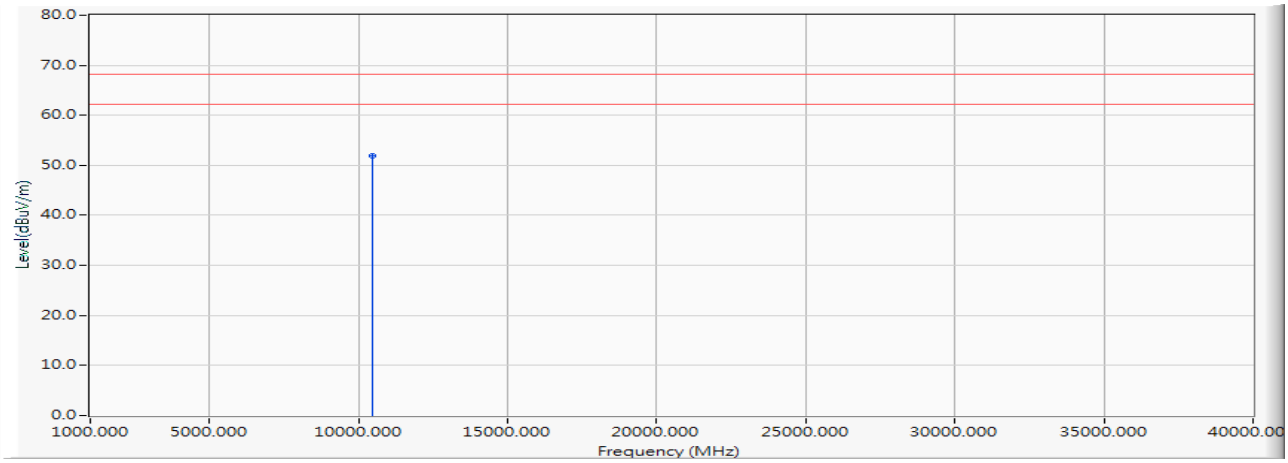
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10440.000	0.233	57.980	58.214	-10.006	68.220	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 1: Transmit (802.11a 6Mbps) (5240MHz)
Test Date	:	2019/10/30

Horizontal



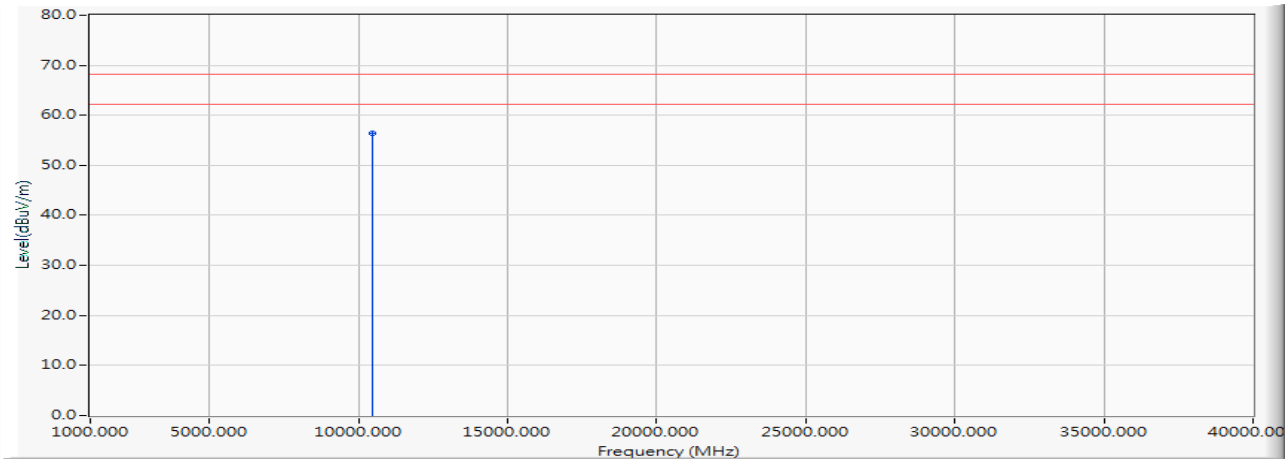
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10480.000	0.269	51.610	51.879	-16.341	68.220	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 1: Transmit (802.11a 6Mbps) (5240MHz)
Test Date	:	2019/10/30

Vertical



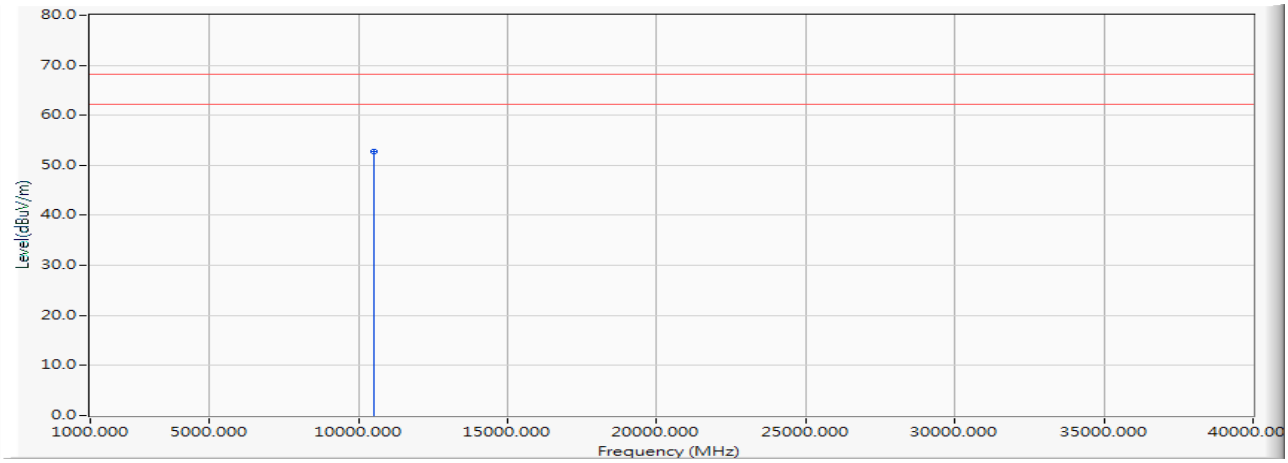
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10480.000	0.269	56.070	56.339	-11.881	68.220	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 1: Transmit (802.11a 6Mbps) (5260MHz)
Test Date	:	2019/10/30

Horizontal



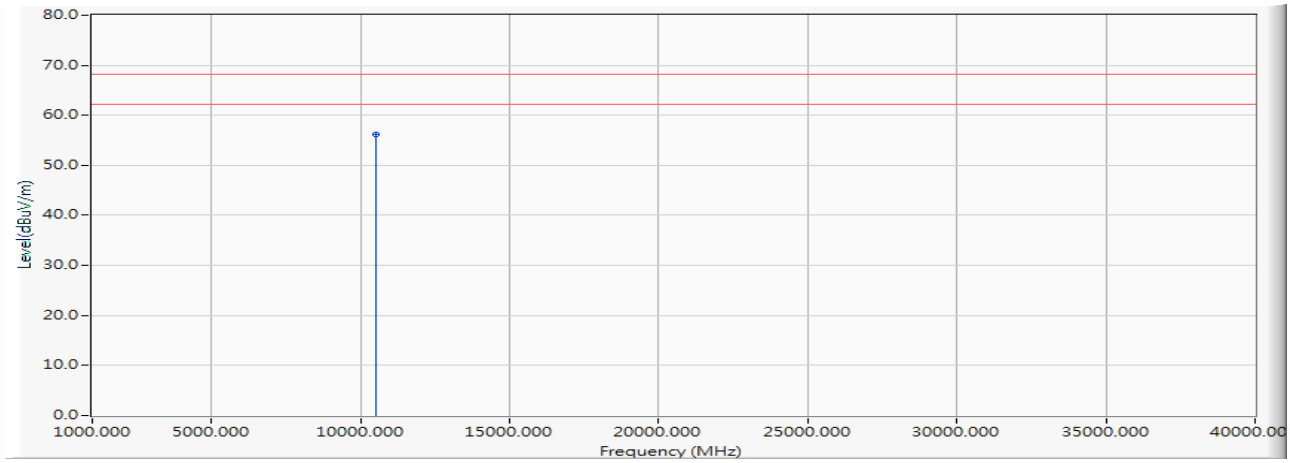
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10520.000	0.293	52.430	52.723	-15.497	68.220	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 1: Transmit (802.11a 6Mbps) (5260MHz)
Test Date	:	2019/10/30

Vertical



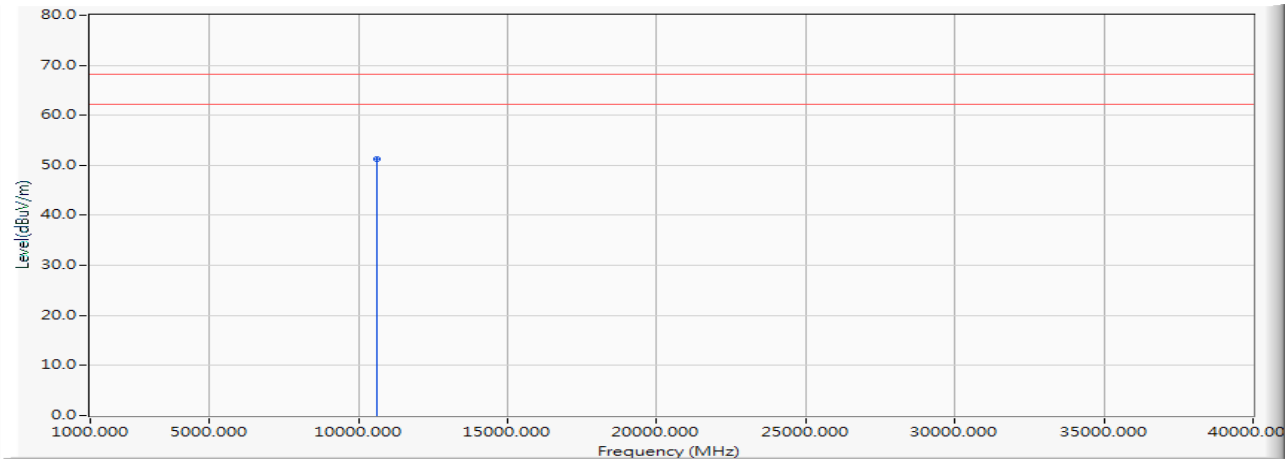
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10520.000	0.293	55.950	56.243	-11.977	68.220	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 1: Transmit (802.11a 6Mbps) (5300MHz)
Test Date	:	2019/10/30

Horizontal



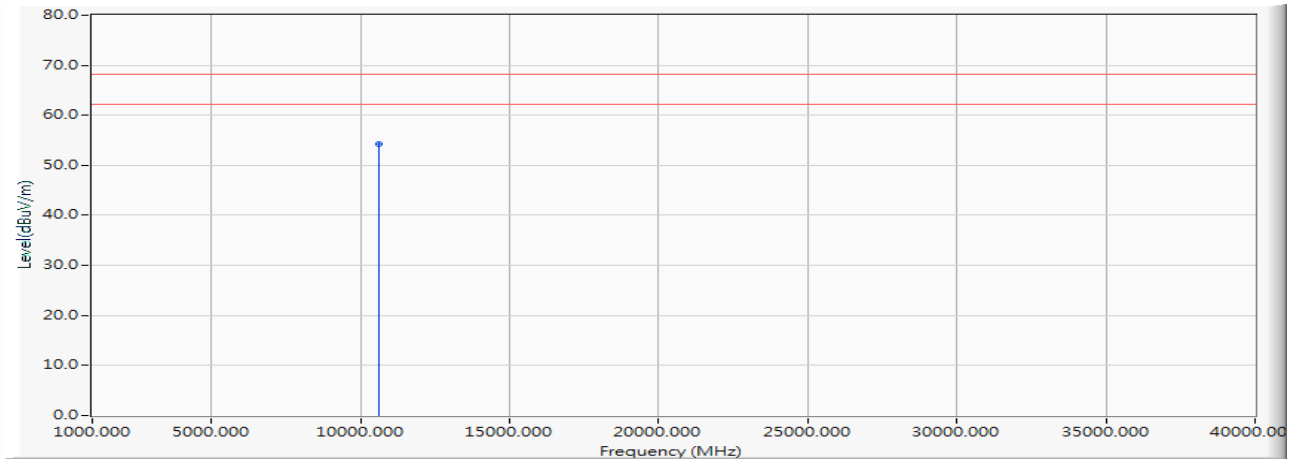
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10600.000	0.462	50.850	51.312	-16.908	68.220	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 1: Transmit (802.11a 6Mbps) (5300MHz)
Test Date	:	2019/10/30

Vertical



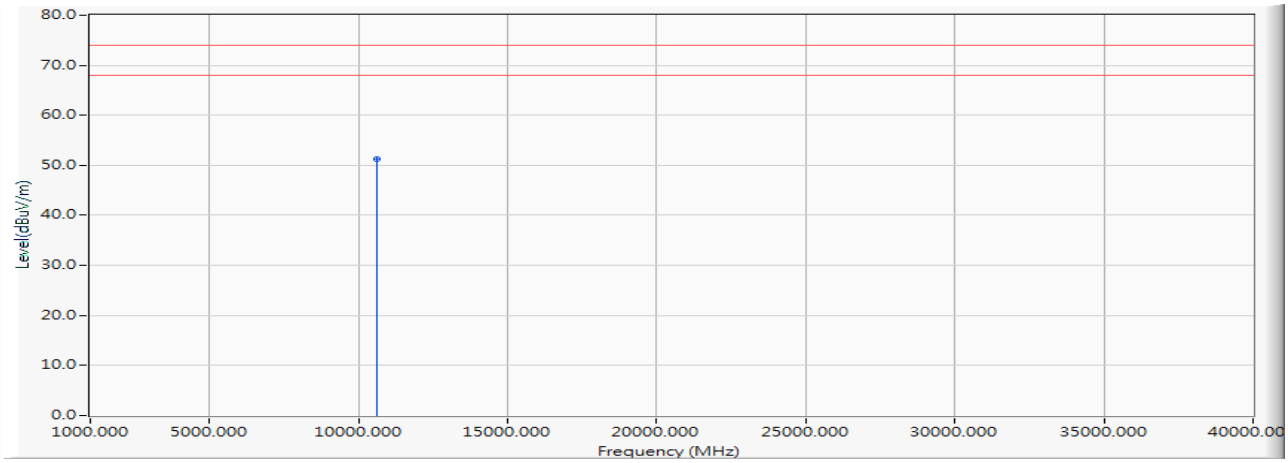
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10600.000	0.462	53.760	54.222	-13.998	68.220	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 1: Transmit (802.11a 6Mbps) (5300MHz)
Test Date	:	2019/10/08

Horizontal



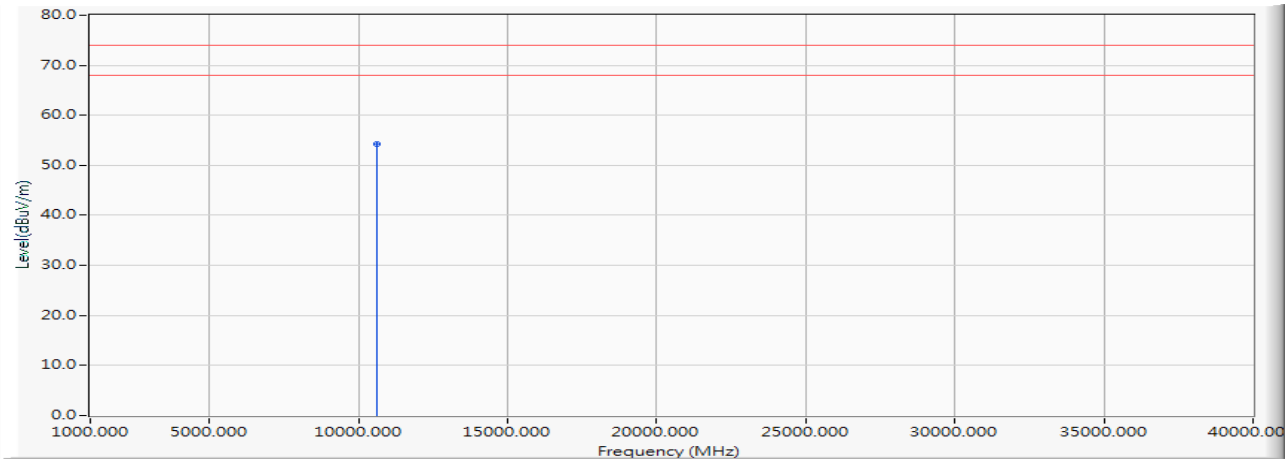
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10600.000	0.462	50.850	51.312	-22.688	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 1: Transmit (802.11a 6Mbps) (5300MHz)
Test Date	:	2019/10/08

Vertical



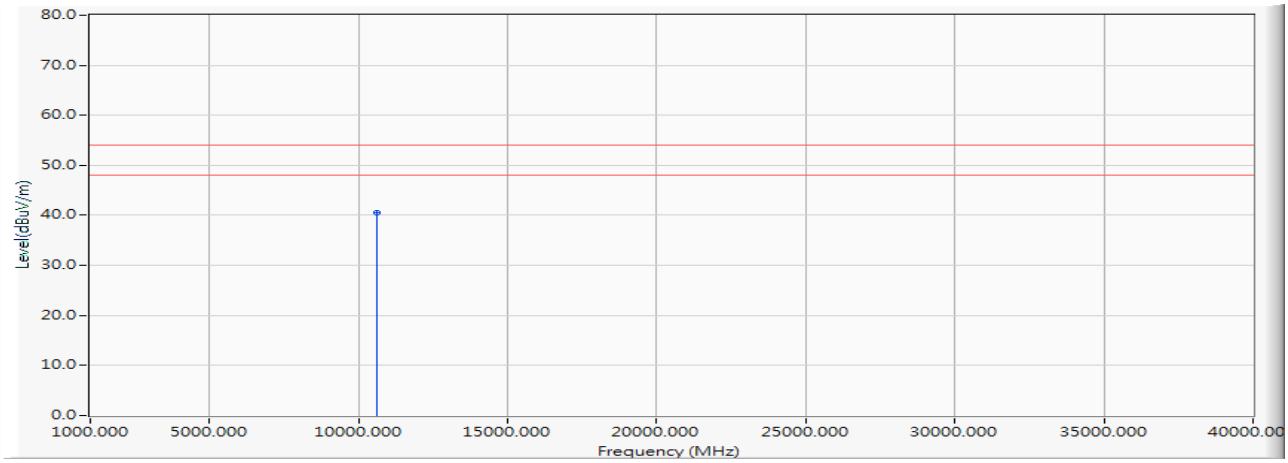
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10600.000	0.462	53.760	54.222	-19.778	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 1: Transmit (802.11a 6Mbps) (5300MHz)
Test Date	:	2019/10/08

Vertical



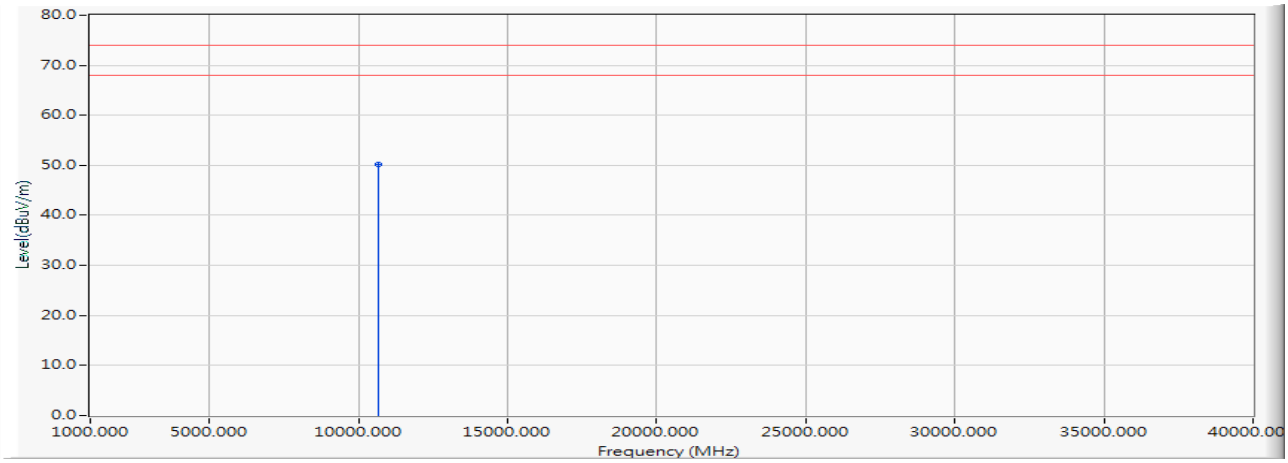
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10600.000	0.462	40.150	40.612	-13.388	54.000	AVERAGE

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 1: Transmit (802.11a 6Mbps) (5320MHz)
Test Date	:	2019/10/08

Horizontal



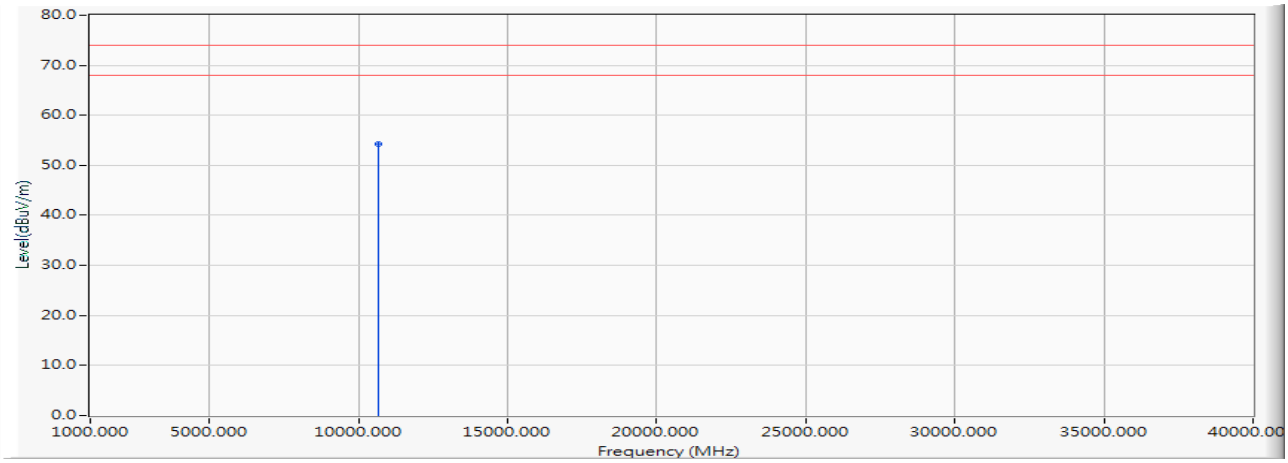
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10640.000	0.598	49.540	50.138	-23.862	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 1: Transmit (802.11a 6Mbps) (5320MHz)
Test Date	:	2019/10/08

Vertical



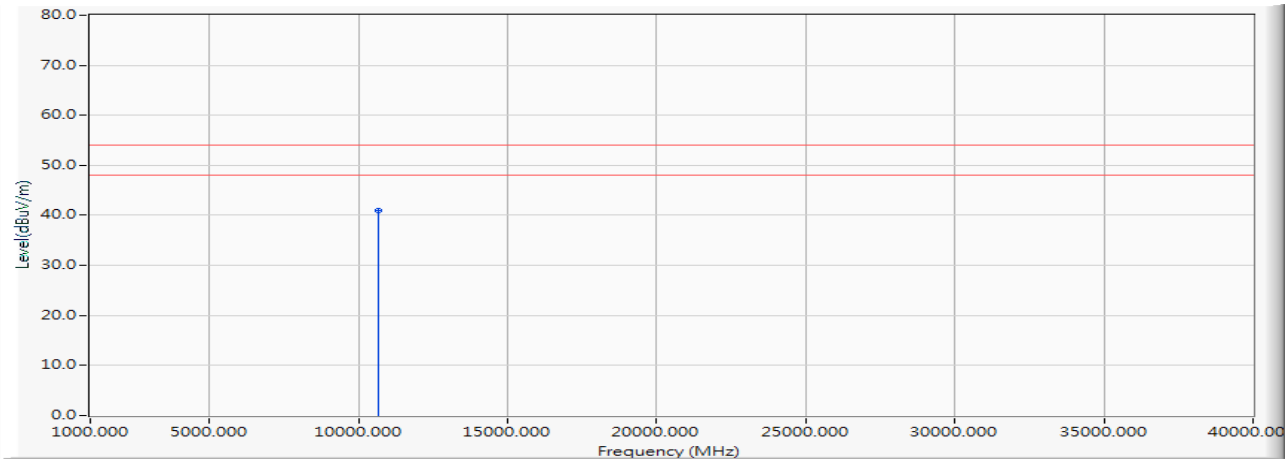
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10640.000	0.598	53.710	54.308	-19.692	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 1: Transmit (802.11a 6Mbps) (5320MHz)
Test Date	:	2019/10/08

Vertical



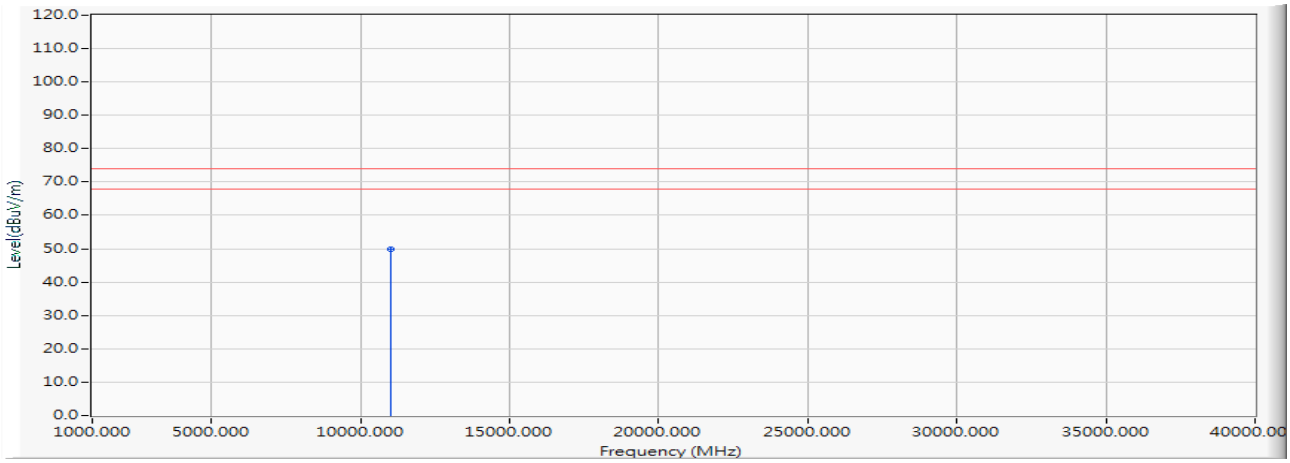
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10640.000	0.598	40.460	41.058	-12.942	54.000	AVERAGE

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : UNIT ASSY DA
Test Item : Harmonic Radiated Emission Data
Test Mode : Mode 1: Transmit (802.11a 6Mbps) (5500MHz)
Test Date : 2019/05/10

Horizontal



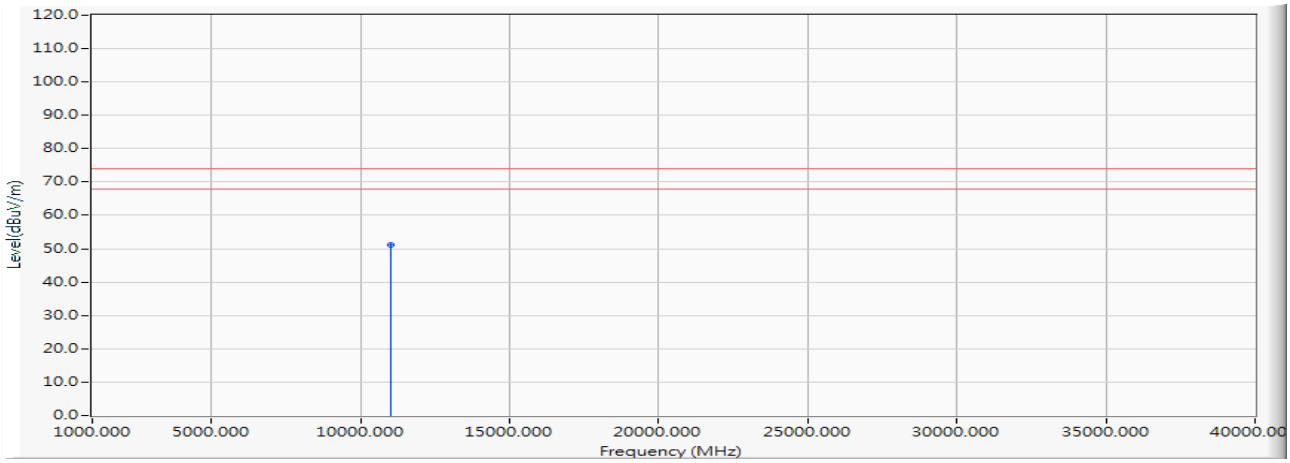
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11000.000	1.166	48.630	49.796	-24.204	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 1: Transmit (802.11a 6Mbps) (5500MHz)
Test Date	:	2019/05/10

Vertical



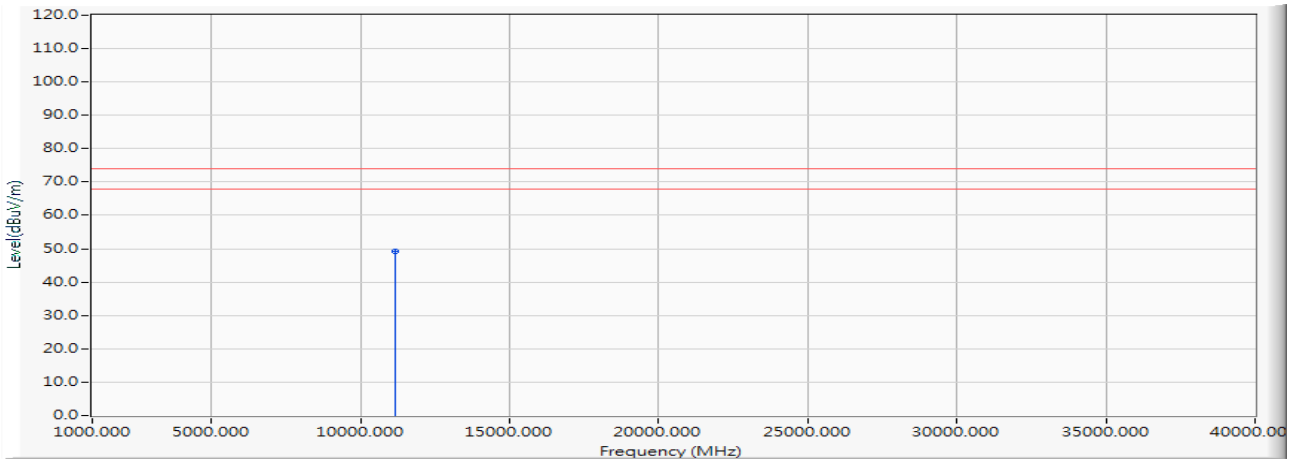
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11000.000	1.166	50.090	51.256	-22.744	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : UNIT ASSY DA
Test Item : Harmonic Radiated Emission Data
Test Mode : Mode 1: Transmit (802.11a 6Mbps) (5580MHz)
Test Date : 2019/05/10

Horizontal



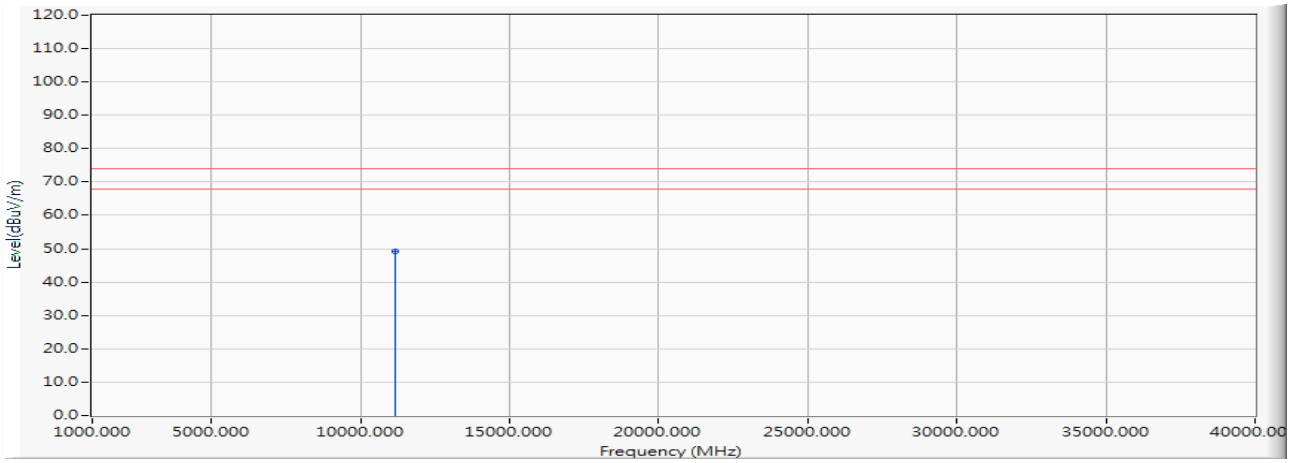
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11160.000	1.203	47.870	49.073	-24.927	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 1: Transmit (802.11a 6Mbps) (5580MHz)
Test Date	:	2019/05/10

Vertical



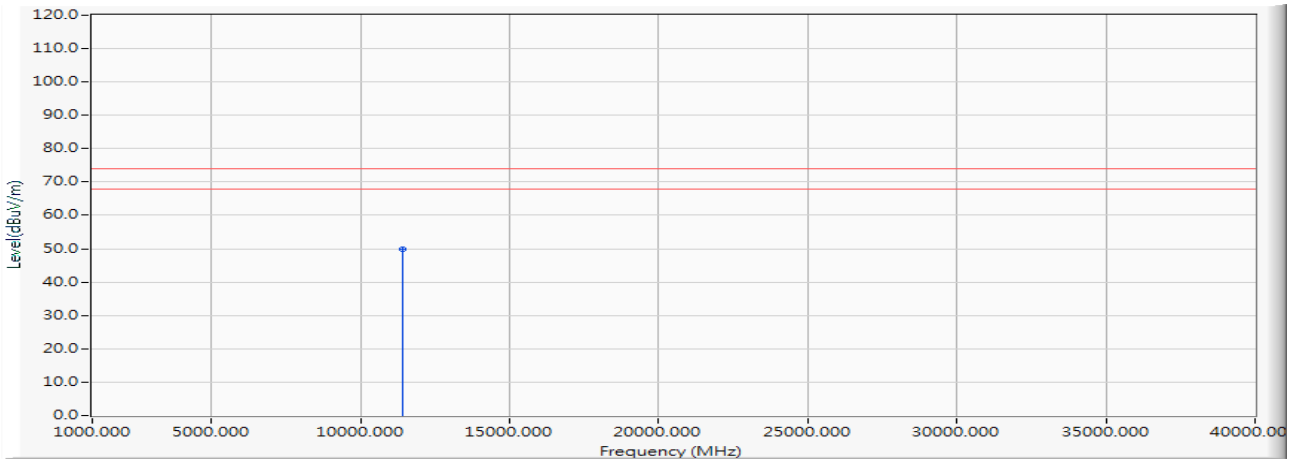
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11160.000	1.203	47.940	49.143	-24.857	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : UNIT ASSY DA
Test Item : Harmonic Radiated Emission Data
Test Mode : Mode 1: Transmit (802.11a 6Mbps) (5700MHz)
Test Date : 2019/05/10

Horizontal



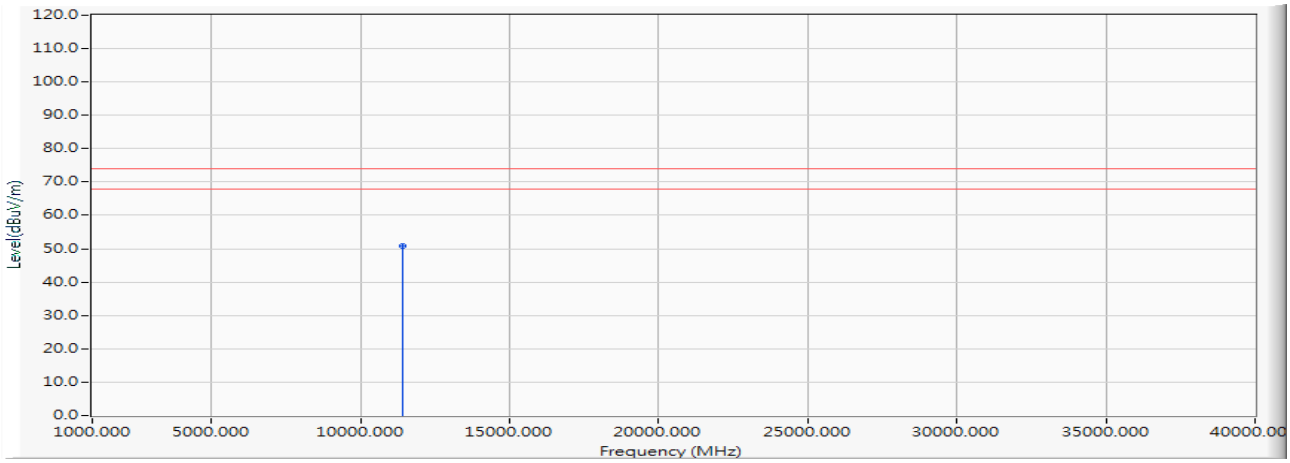
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11400.000	1.624	48.220	49.844	-24.156	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 1: Transmit (802.11a 6Mbps) (5700MHz)
Test Date	:	2019/05/10

Vertical



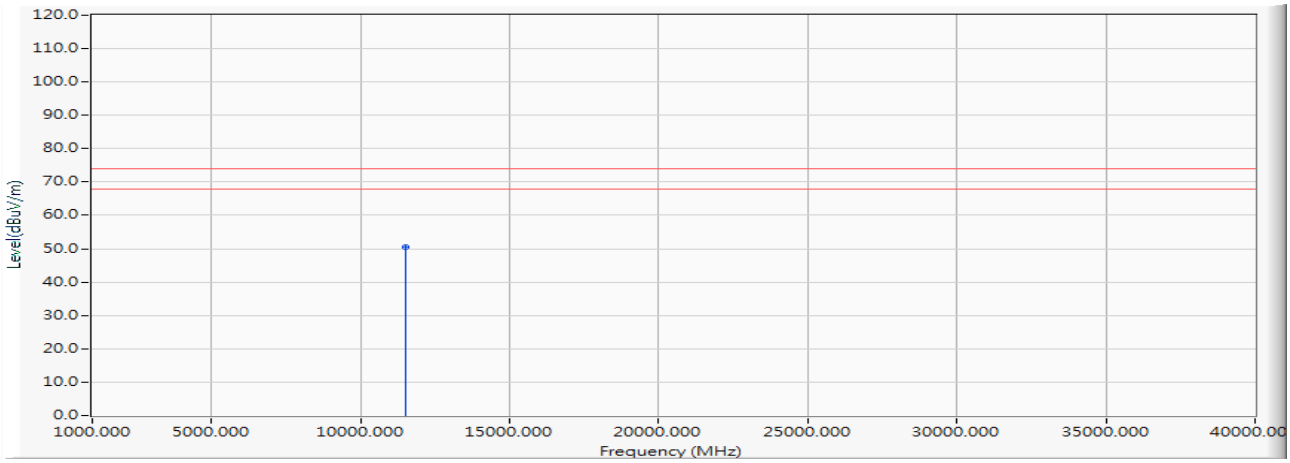
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11400.000	1.624	49.210	50.834	-23.166	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 1: Transmit (802.11a 6Mbps) (5745MHz)
Test Date	:	2019/05/10

Horizontal



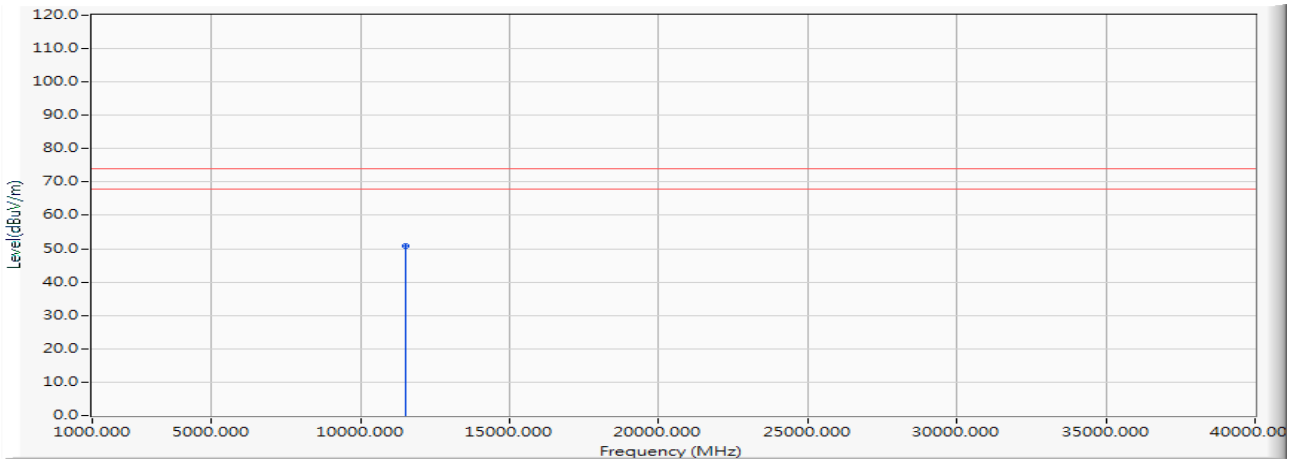
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11490.000	1.894	48.760	50.654	-23.346	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 1: Transmit (802.11a 6Mbps) (5745MHz)
Test Date	:	2019/05/10

Vertical



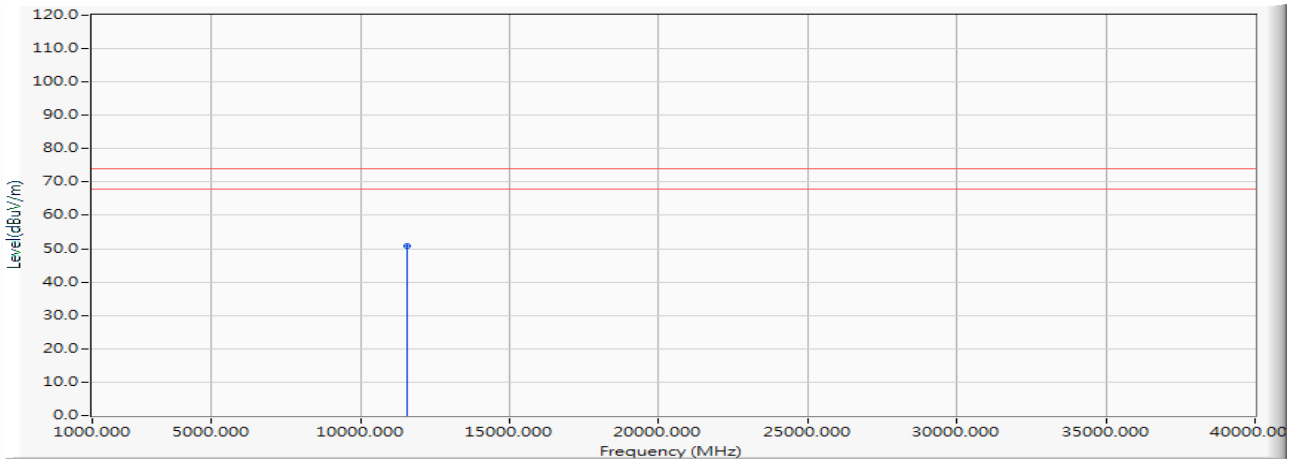
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11490.000	1.894	48.910	50.804	-23.196	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 1: Transmit (802.11a 6Mbps) (5785MHz)
Test Date	:	2019/05/10

Horizontal



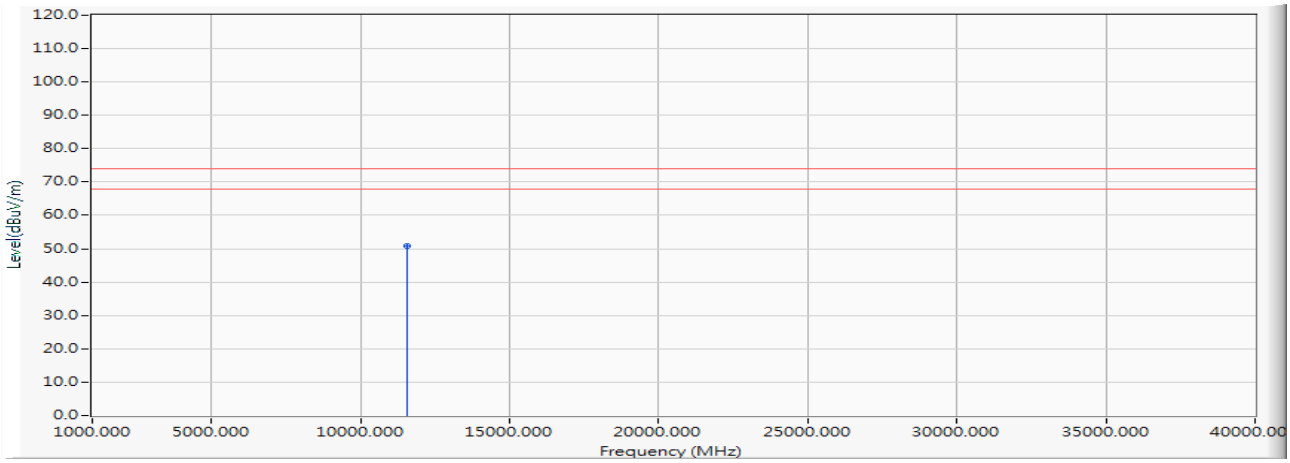
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11570.000	1.993	48.690	50.683	-23.317	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 1: Transmit (802.11a 6Mbps) (5785MHz)
Test Date	:	2019/05/10

Vertical



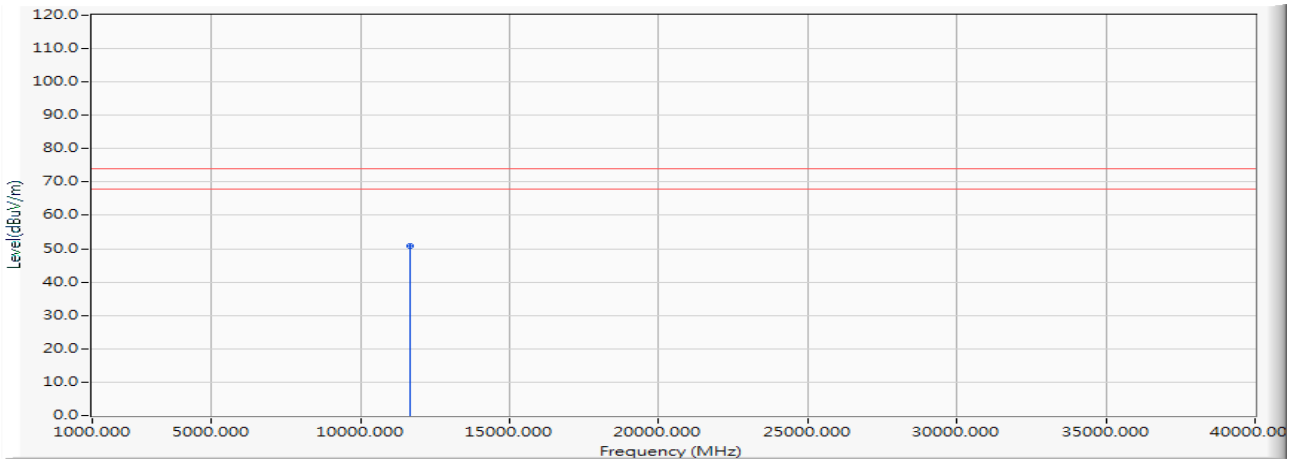
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11570.000	1.993	48.850	50.843	-23.157	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 1: Transmit (802.11a 6Mbps) (5825MHz)
Test Date	:	2019/05/10

Horizontal



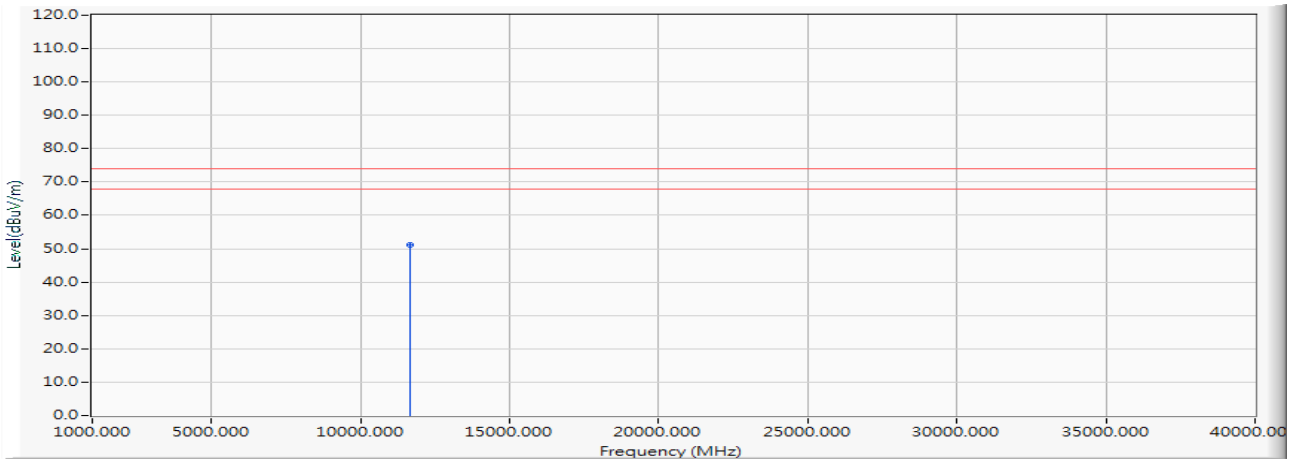
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11650.000	2.093	48.760	50.853	-23.147	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 1: Transmit (802.11a 6Mbps) (5825MHz)
Test Date	:	2019/05/10

Vertical



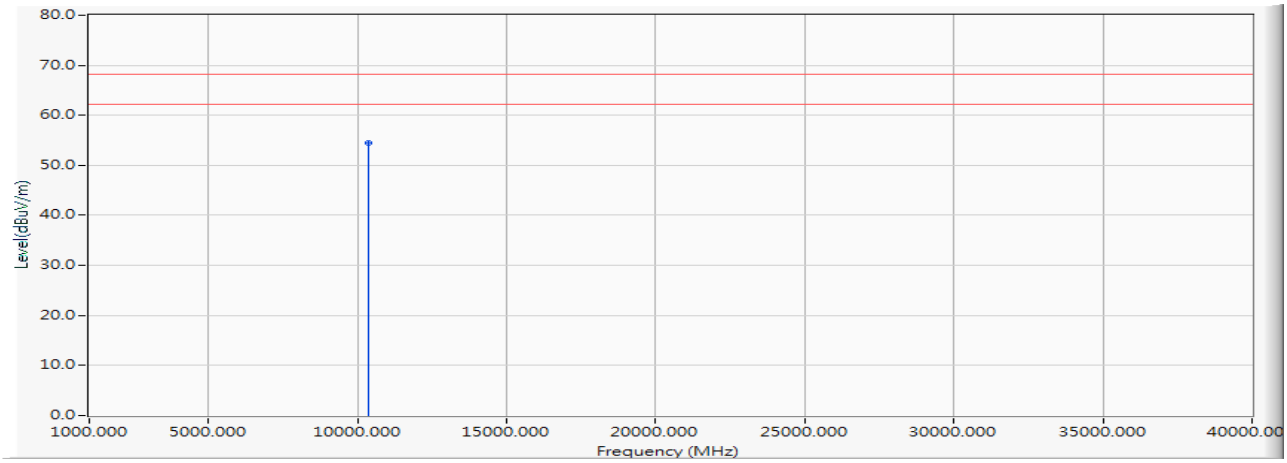
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11650.000	2.093	49.010	51.103	-22.897	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : UNIT ASSY DA
Test Item : Harmonic Radiated Emission Data
Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5180MHz)
Test Date : 2019/10/30

Horizontal



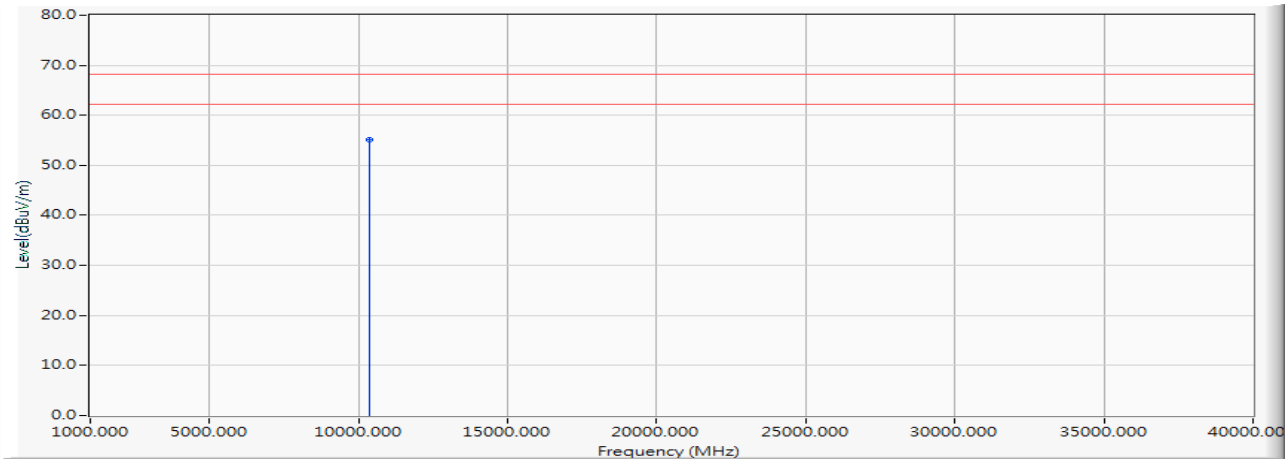
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10360.000	0.180	54.330	54.510	-13.710	68.220	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5180MHz)
Test Date	:	2019/10/30

Vertical



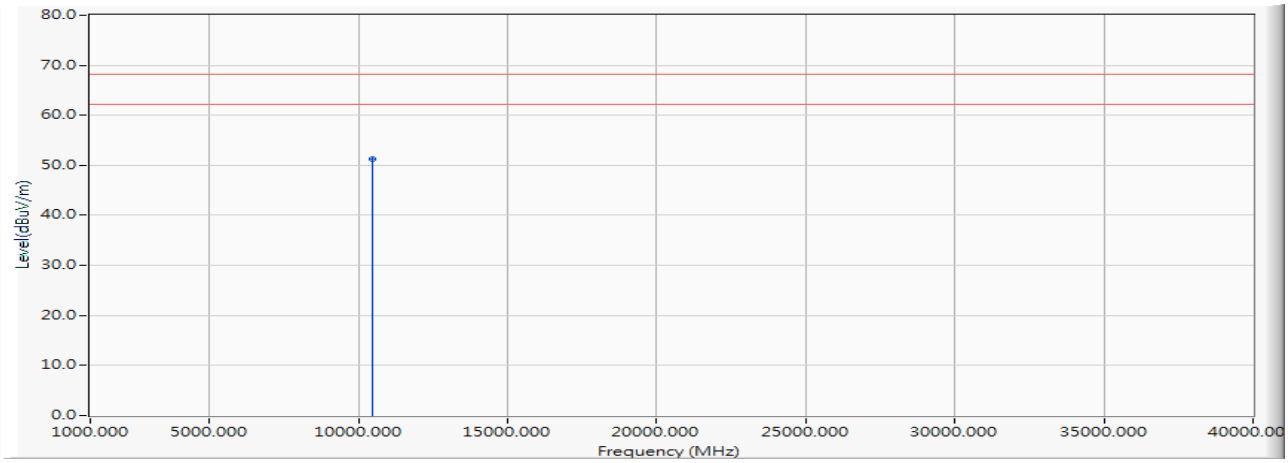
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10360.000	0.180	54.910	55.090	-13.130	68.220	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5220MHz)
Test Date	:	2019/10/30

Horizontal



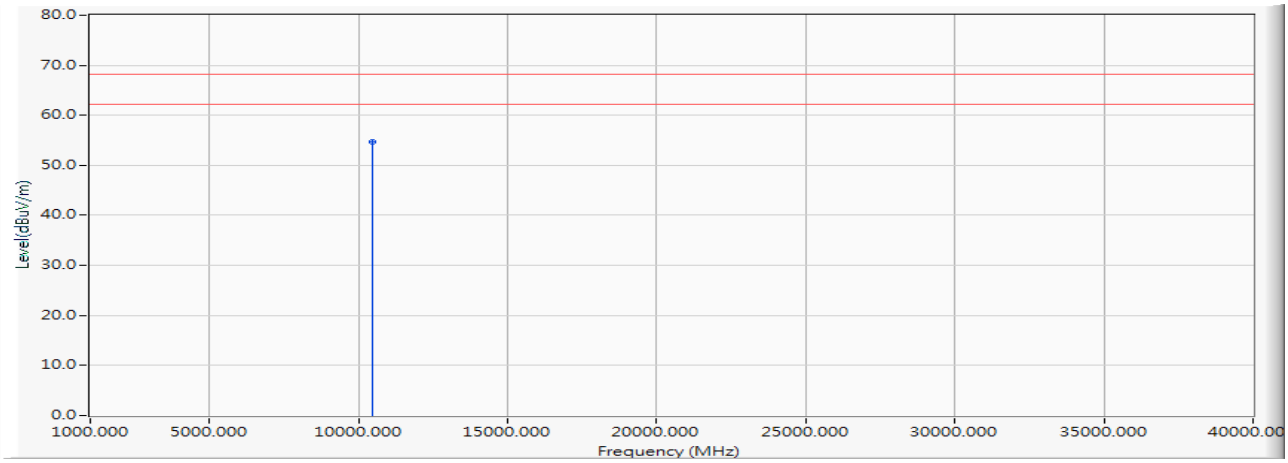
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10440.000	0.233	50.990	51.224	-16.996	68.220	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5220MHz)
Test Date	:	2019/10/30

Vertical



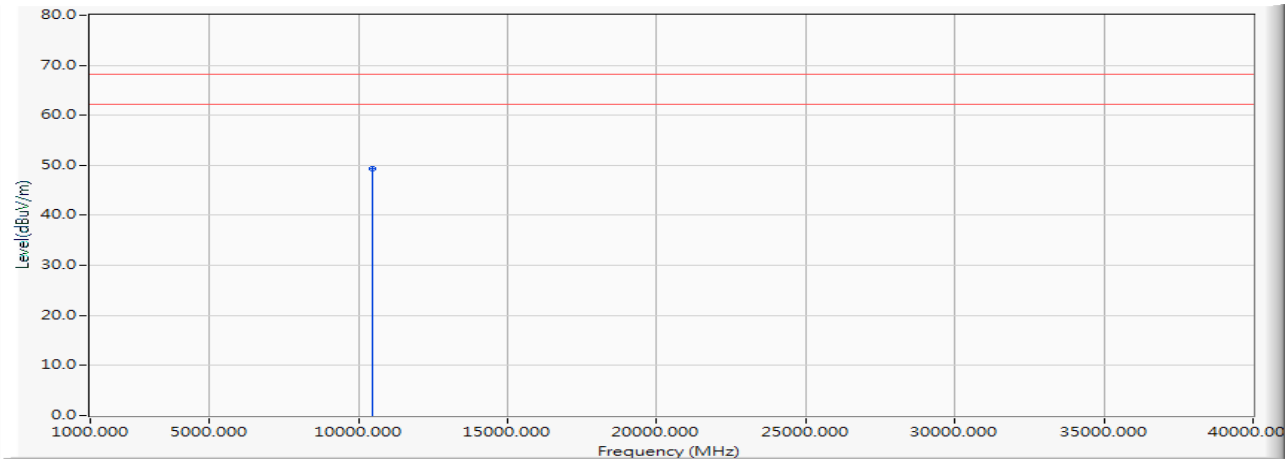
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10440.000	0.233	54.460	54.694	-13.526	68.220	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5240MHz)
Test Date	:	2019/10/30

Horizontal



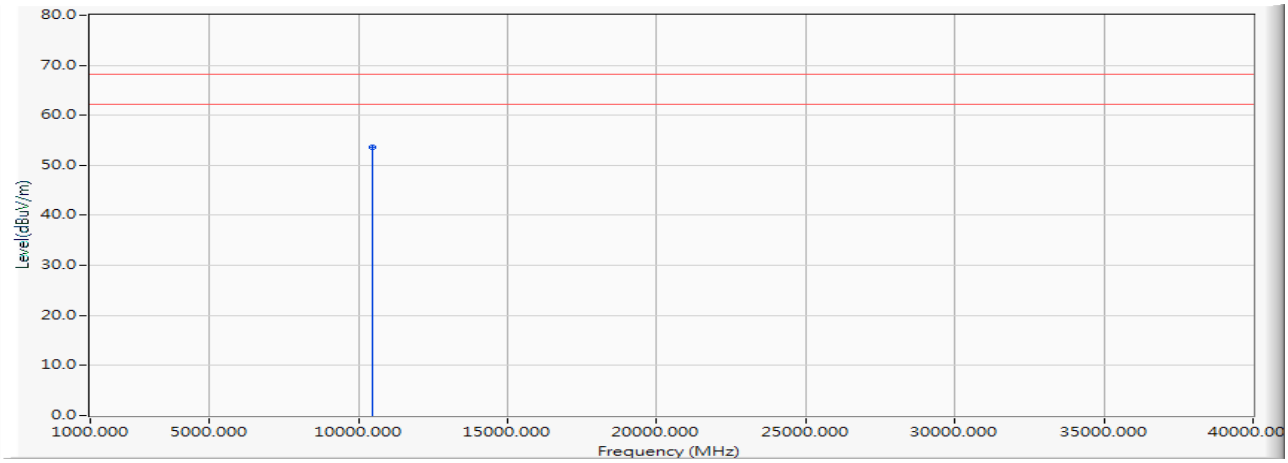
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10480.000	0.269	49.130	49.399	-18.821	68.220	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5240MHz)
Test Date	:	2019/10/30

Vertical



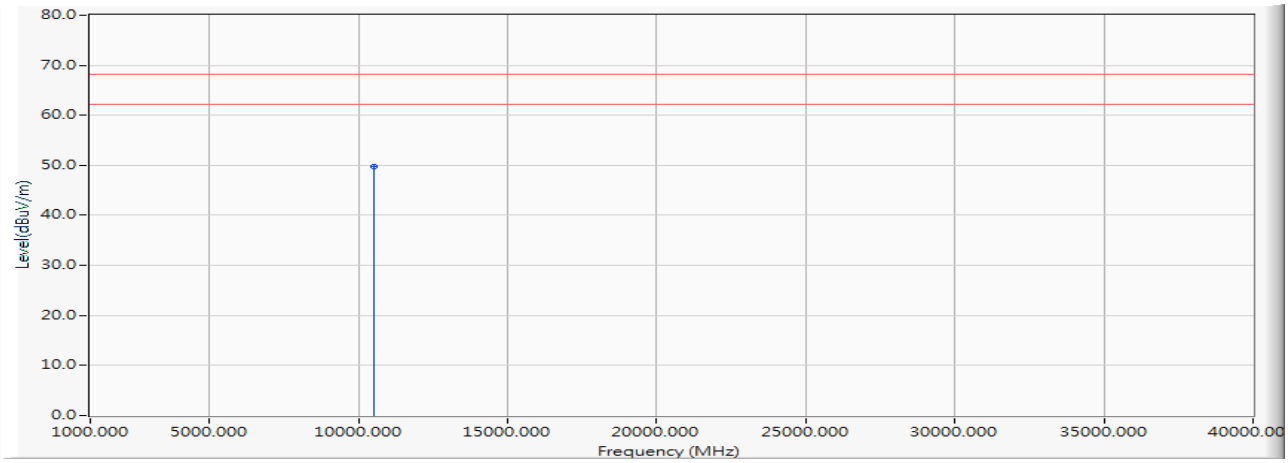
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10480.000	0.269	53.280	53.549	-14.671	68.220	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5260MHz)
Test Date	:	2019/10/30

Horizontal



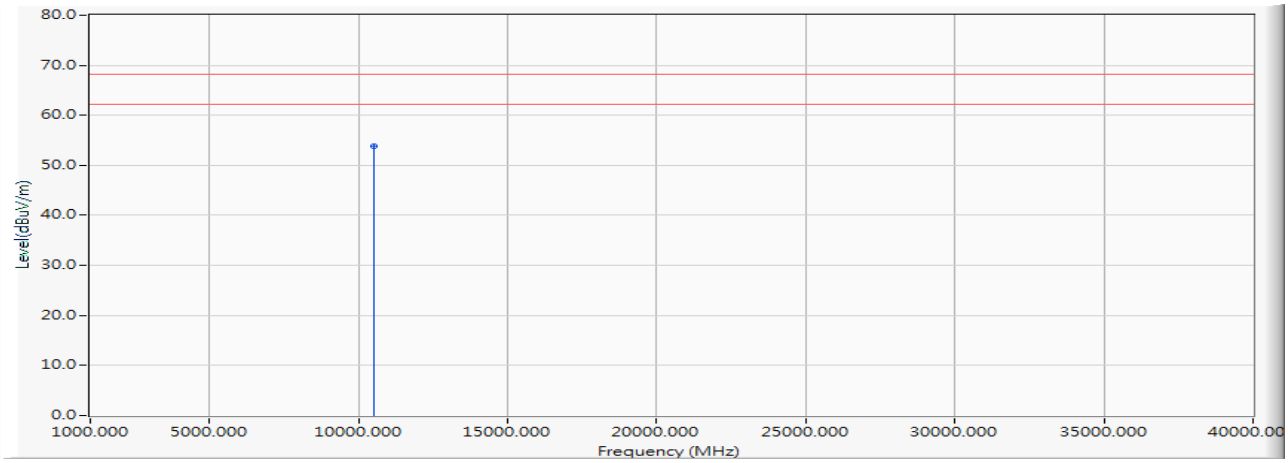
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10520.000	0.293	49.400	49.693	-18.527	68.220	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5260MHz)
Test Date	:	2019/10/30

Vertical



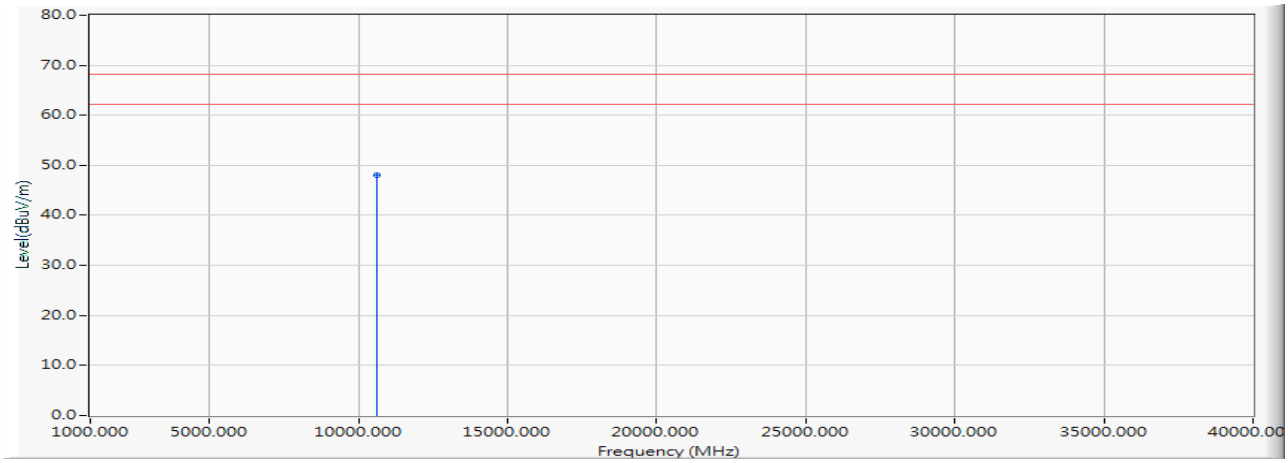
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10520.000	0.293	53.580	53.873	-14.347	68.220	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5300MHz)
Test Date	:	2019/10/30

Horizontal



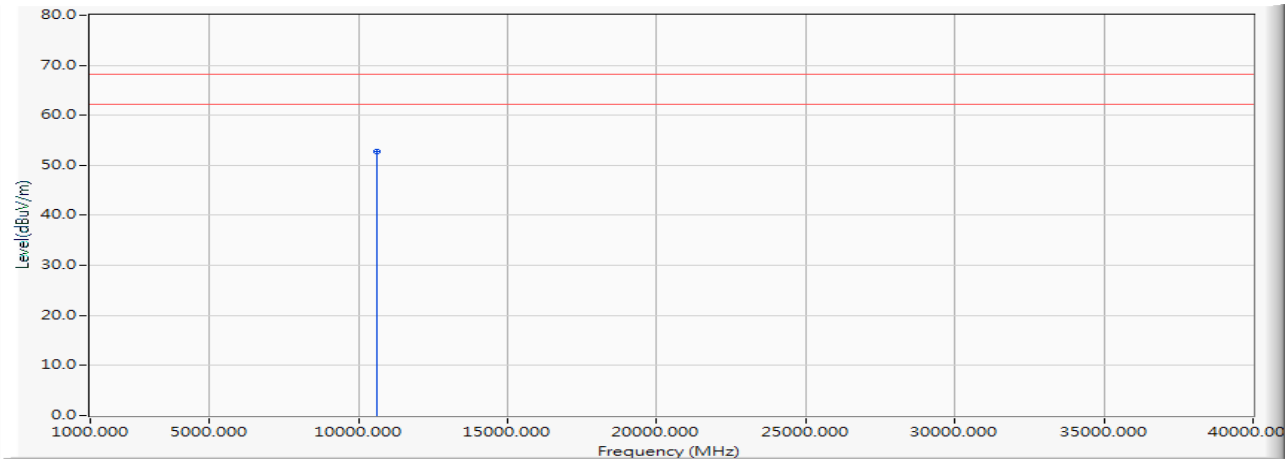
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10600.000	0.462	47.530	47.992	-20.228	68.220	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5300MHz)
Test Date	:	2019/10/30

Vertical



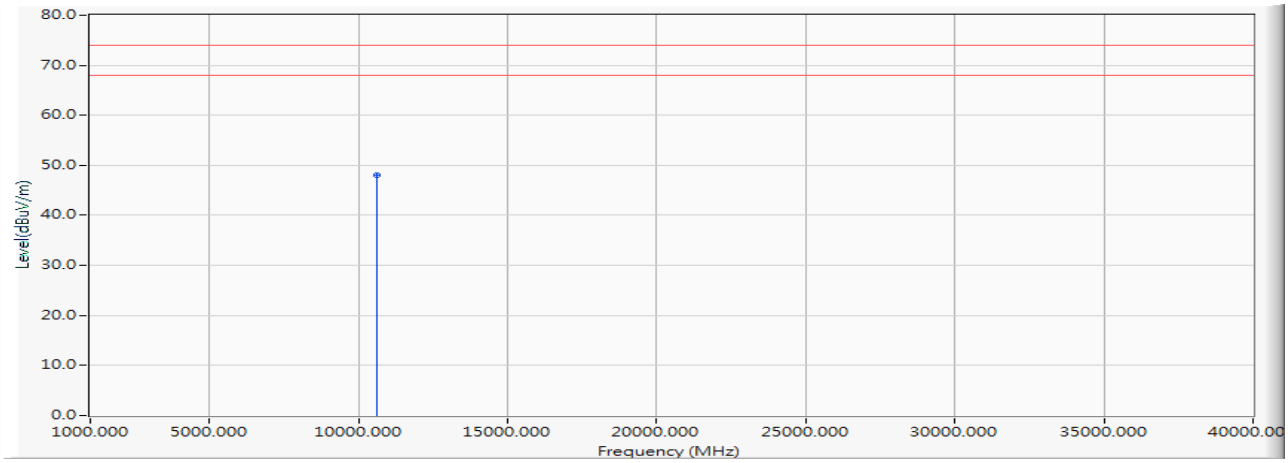
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10600.000	0.462	52.210	52.672	-15.548	68.220	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5300MHz)
Test Date	:	2019/10/09

Horizontal



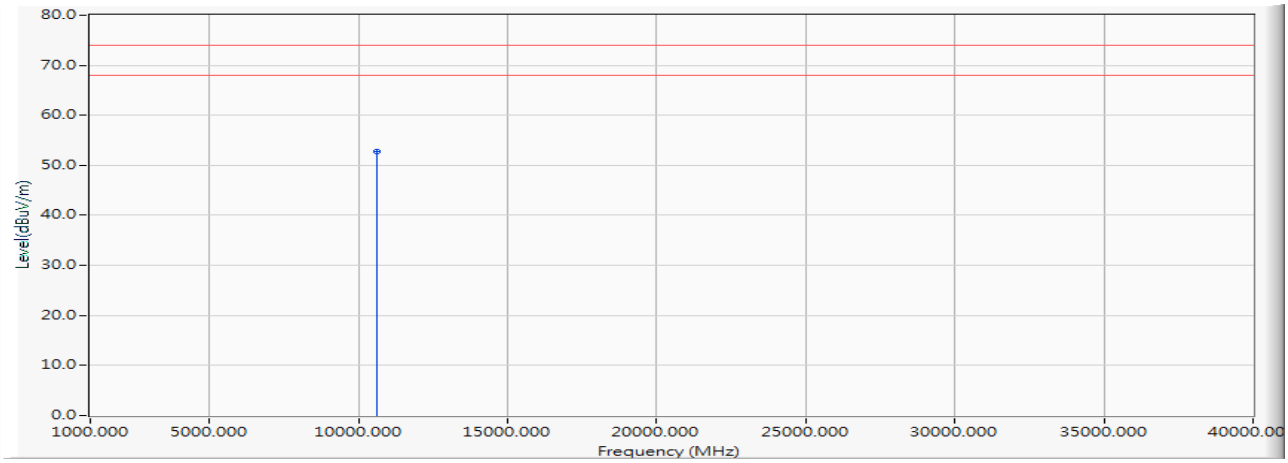
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10600.000	0.462	47.530	47.992	-26.008	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5300MHz)
Test Date	:	2019/10/09

Vertical



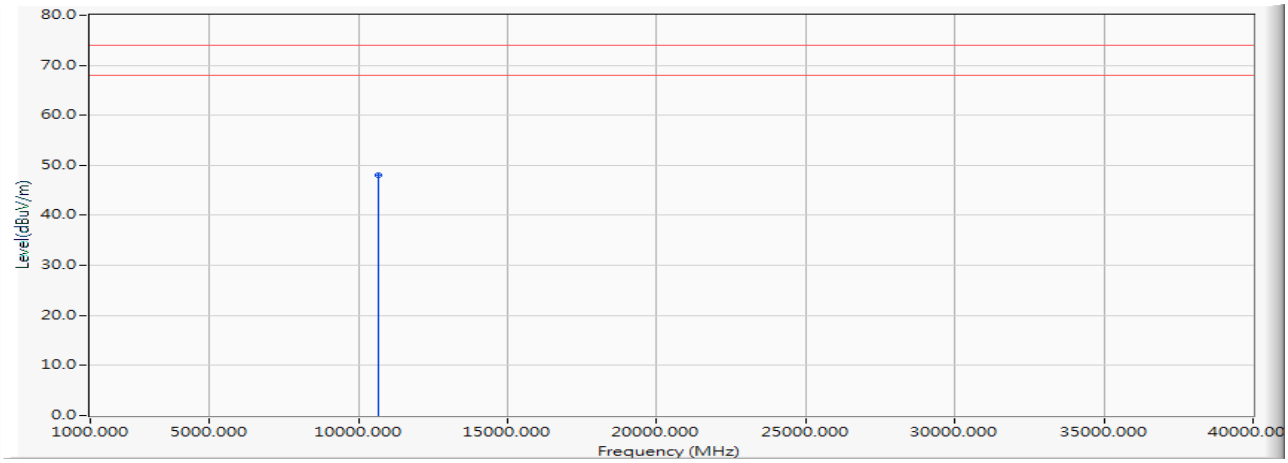
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10600.000	0.462	52.210	52.672	-21.328	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5320MHz)
Test Date	:	2019/10/09

Horizontal



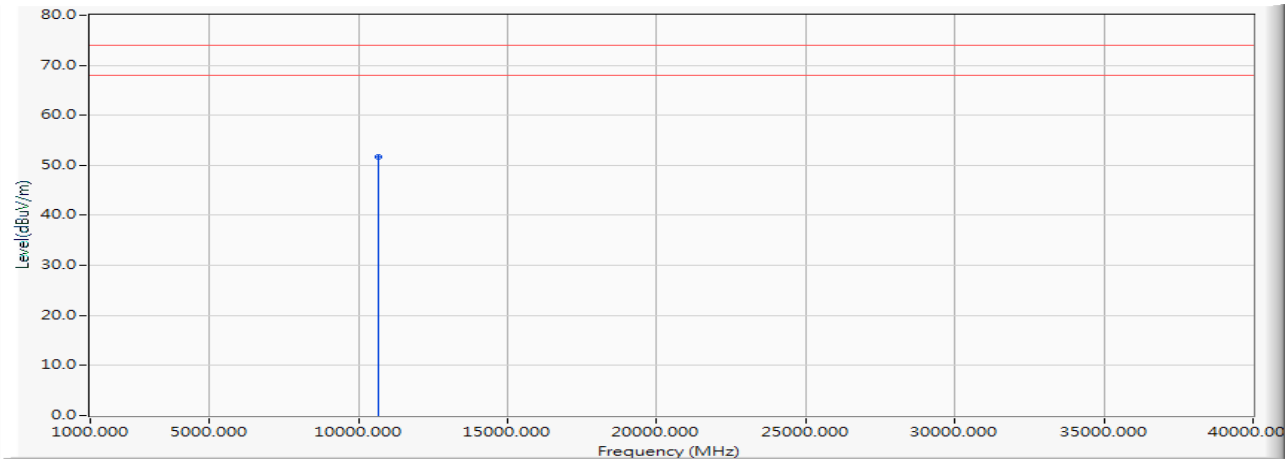
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10640.000	0.598	47.350	47.948	-26.052	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5320MHz)
Test Date	:	2019/10/09

Vertical



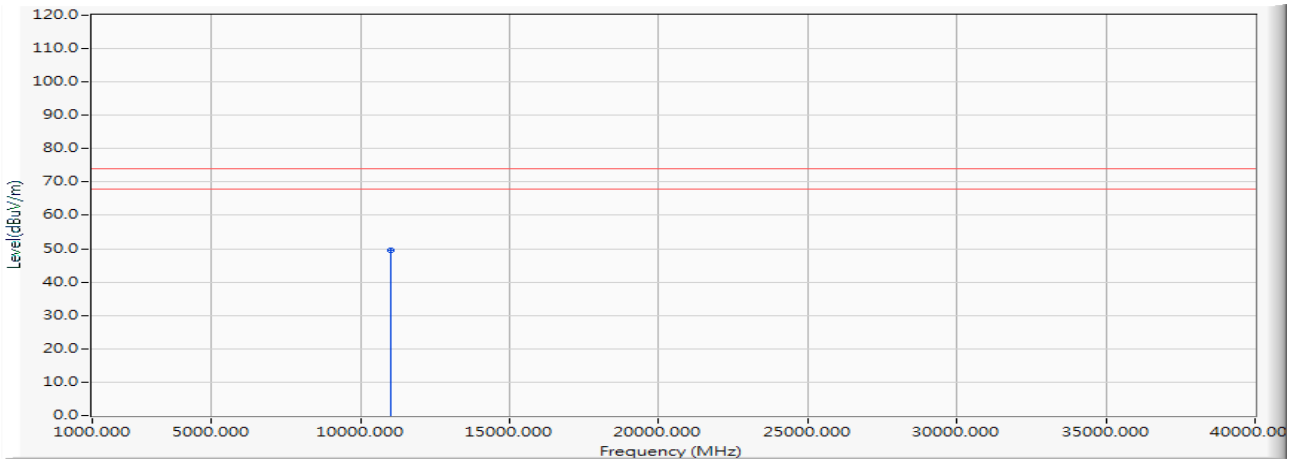
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10640.000	0.598	51.000	51.598	-22.402	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5500MHz)
Test Date	:	2019/05/10

Horizontal



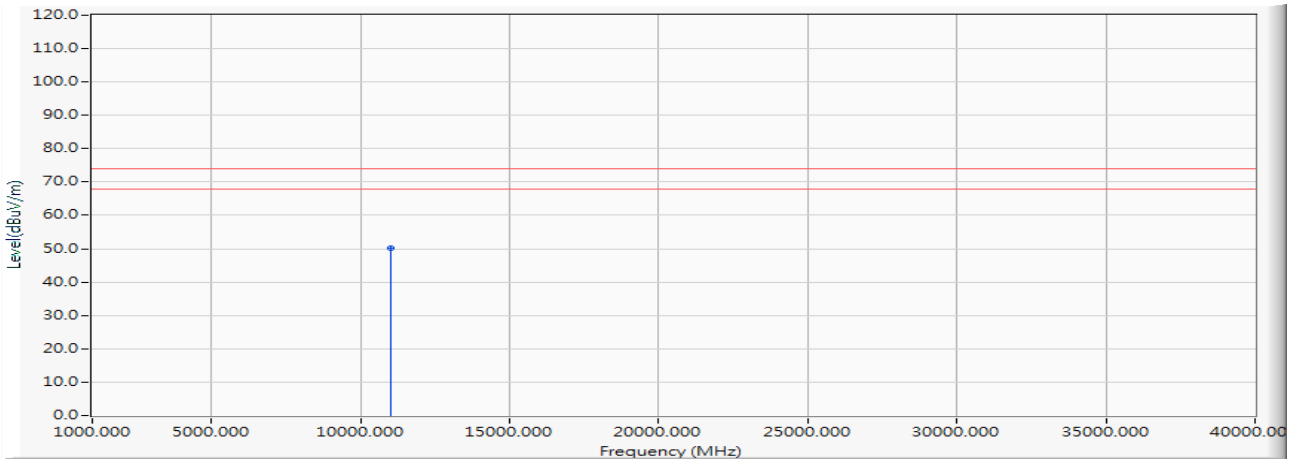
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11000.000	1.166	48.520	49.686	-24.314	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5500MHz)
Test Date	:	2019/05/10

Vertical



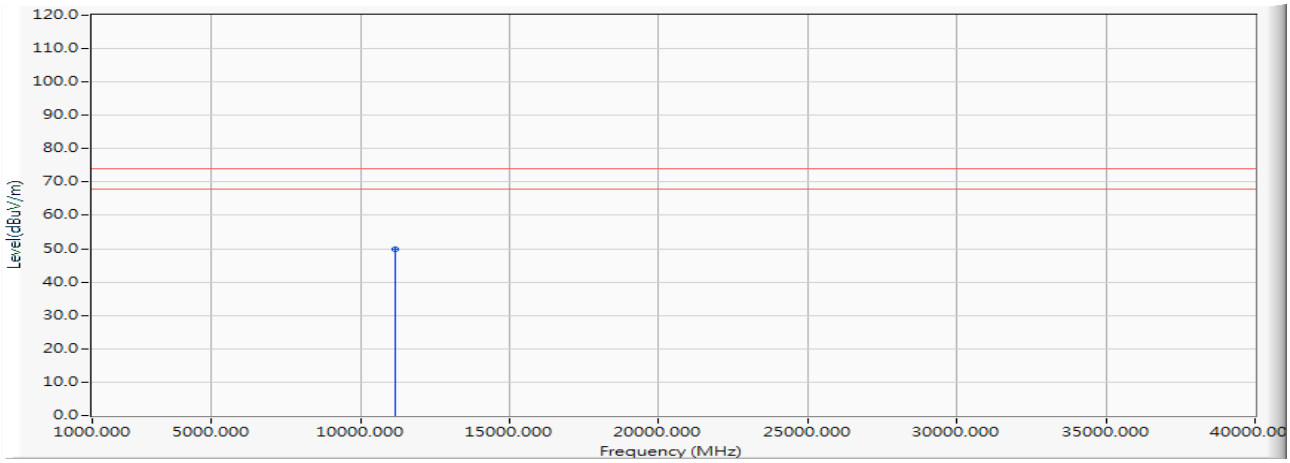
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11000.000	1.166	48.960	50.126	-23.874	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5580MHz)
Test Date	:	2019/05/10

Horizontal



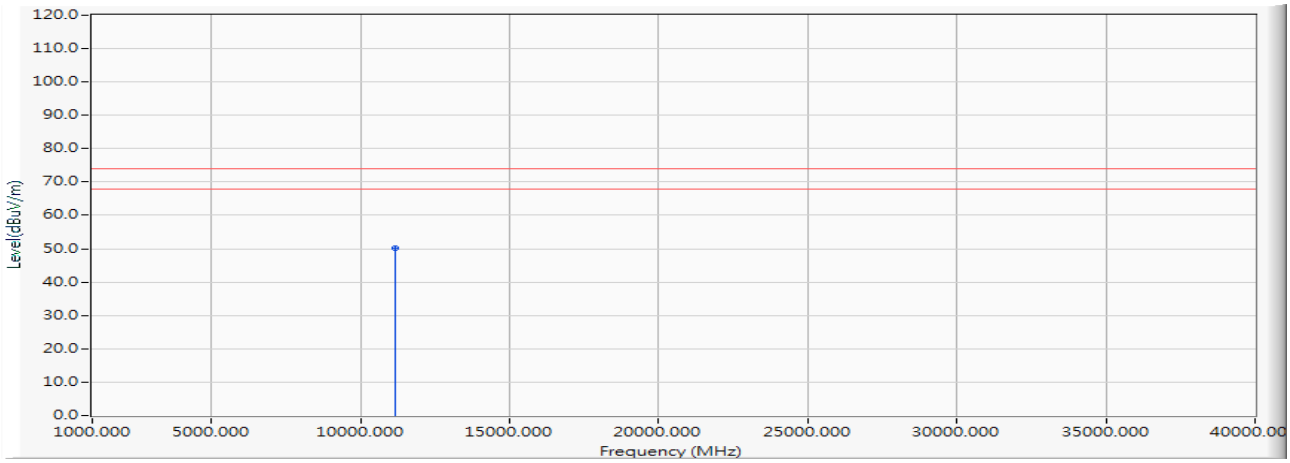
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11160.000	1.203	48.550	49.753	-24.247	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5580MHz)
Test Date	:	2019/05/10

Vertical



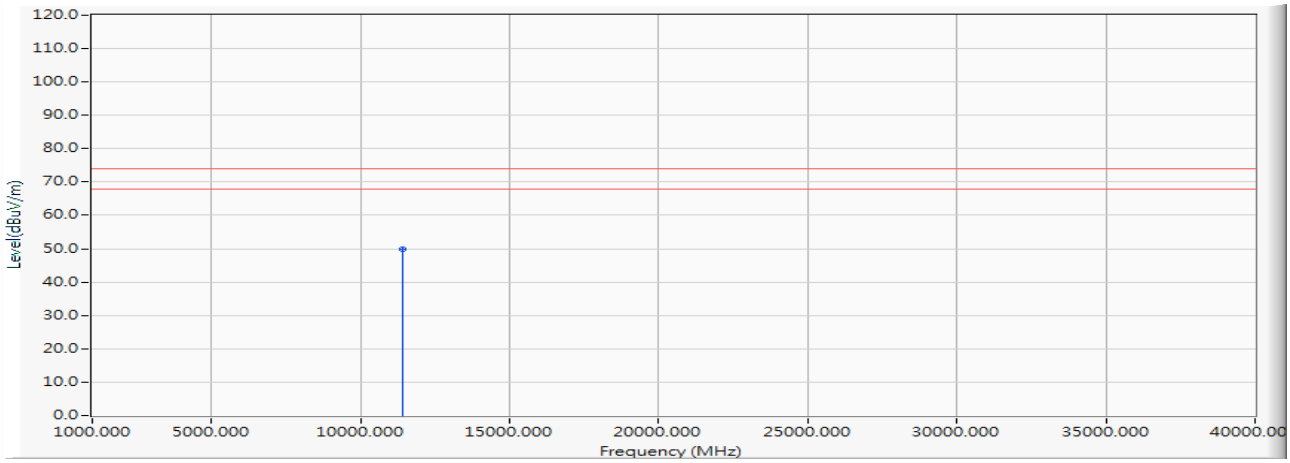
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11160.000	1.203	48.970	50.173	-23.827	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5700MHz)
Test Date	:	2019/05/10

Horizontal



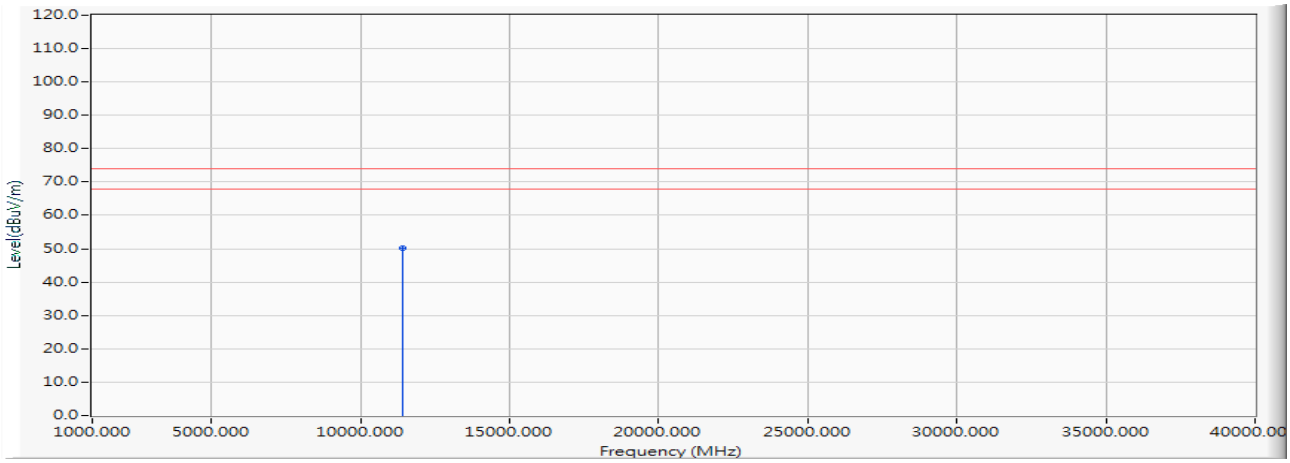
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11400.000	1.624	48.310	49.934	-24.066	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5700MHz)
Test Date	:	2019/05/10

Vertical



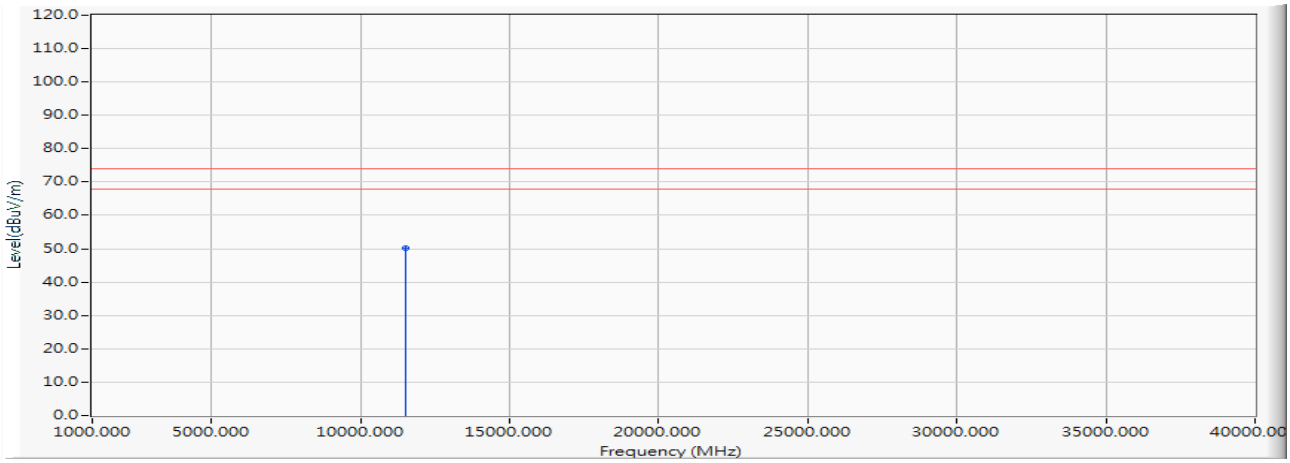
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11400.000	1.624	48.660	50.284	-23.716	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5745MHz)
Test Date	:	2019/05/10

Horizontal



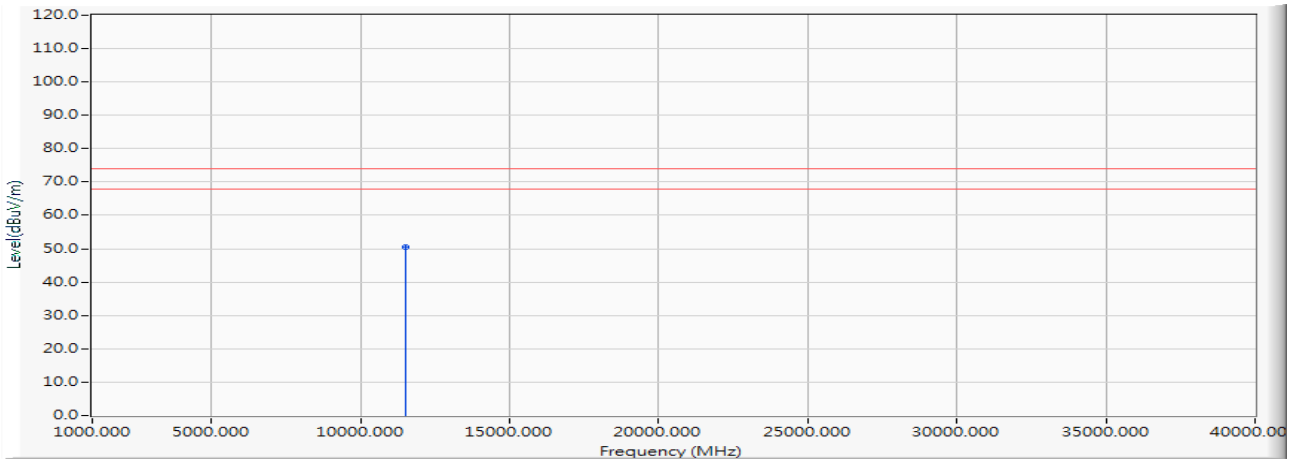
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11490.000	1.894	48.330	50.224	-23.776	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5745MHz)
Test Date	:	2019/05/10

Vertical



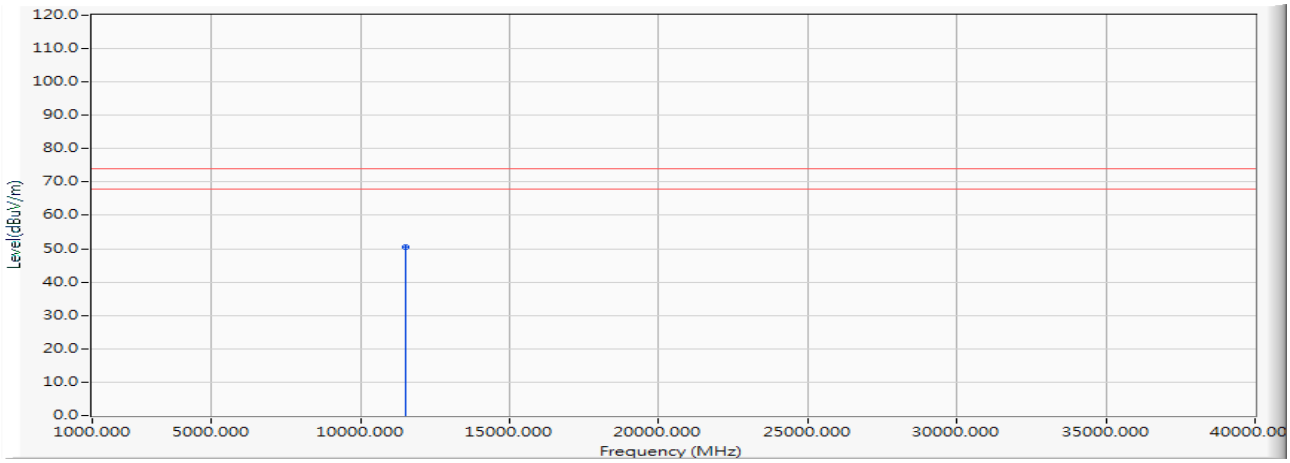
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11490.000	1.894	48.770	50.664	-23.336	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5785MHz)
Test Date	:	2019/05/10

Horizontal



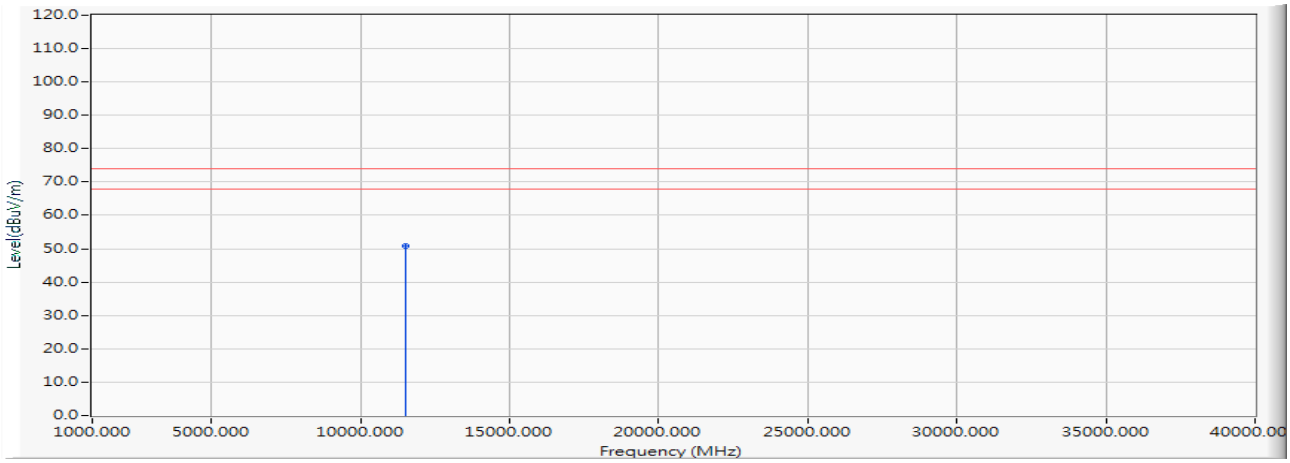
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11530.000	1.966	48.420	50.387	-23.613	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5785MHz)
Test Date	:	2019/05/10

Vertical



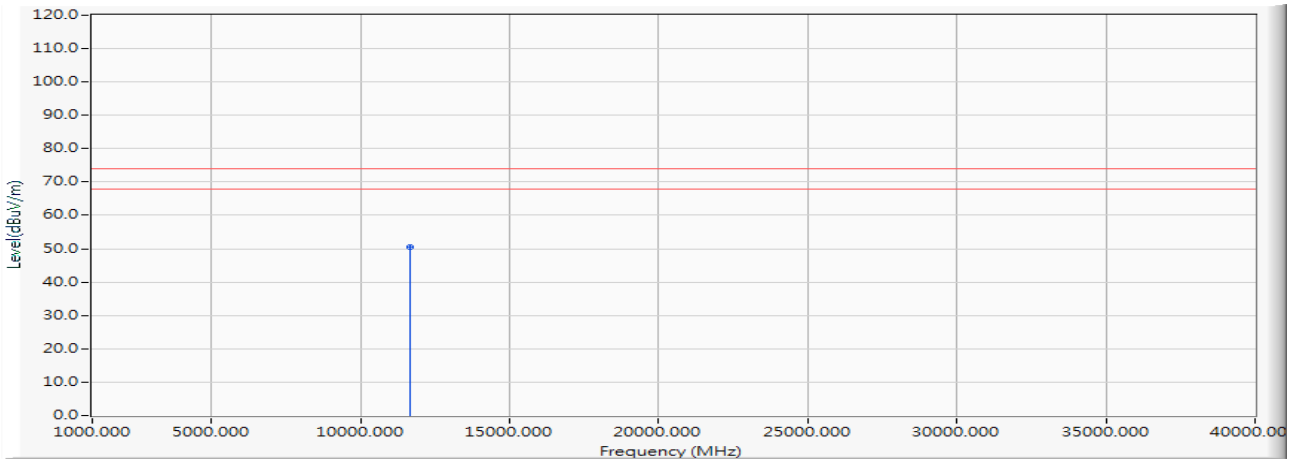
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11530.000	1.966	48.810	50.777	-23.223	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5825MHz)
Test Date	:	2019/05/10

Horizontal



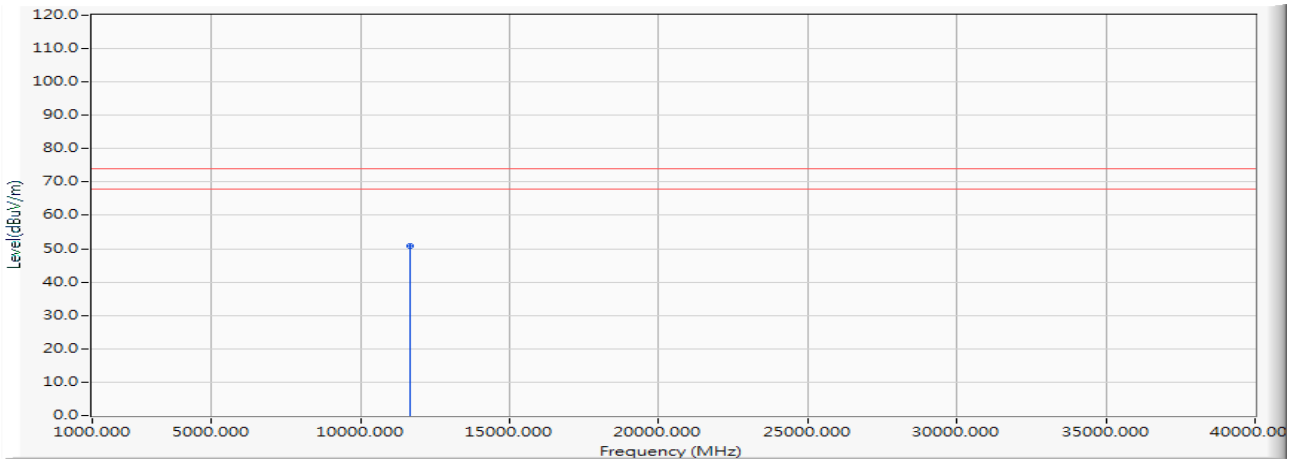
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11650.000	2.093	48.560	50.653	-23.347	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5825MHz)
Test Date	:	2019/05/10

Vertical



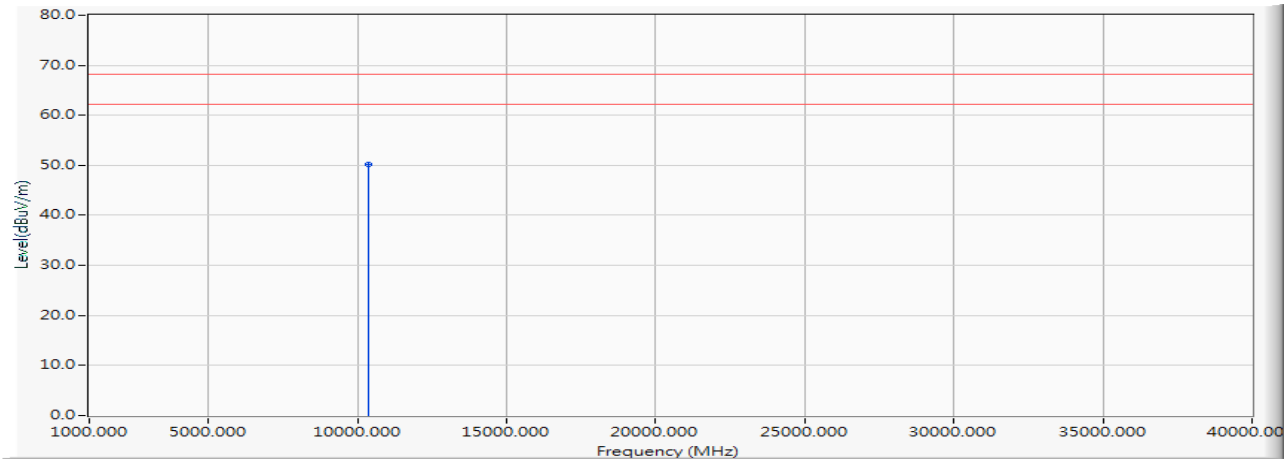
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11650.000	2.093	48.690	50.783	-23.217	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : UNIT ASSY DA
Test Item : Harmonic Radiated Emission Data
Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) (5190MHz)
Test Date : 2019/10/30

Horizontal



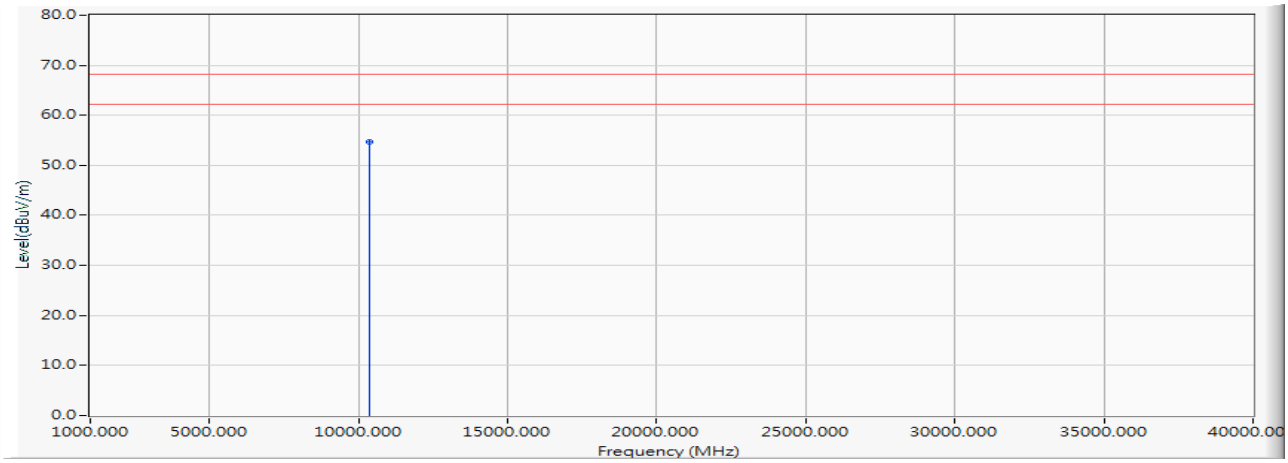
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10380.000	0.211	49.990	50.201	-18.019	68.220	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 3: Transmit (802.11n-40BW 30Mbps) (5190MHz)
Test Date	:	2019/10/30

Vertical



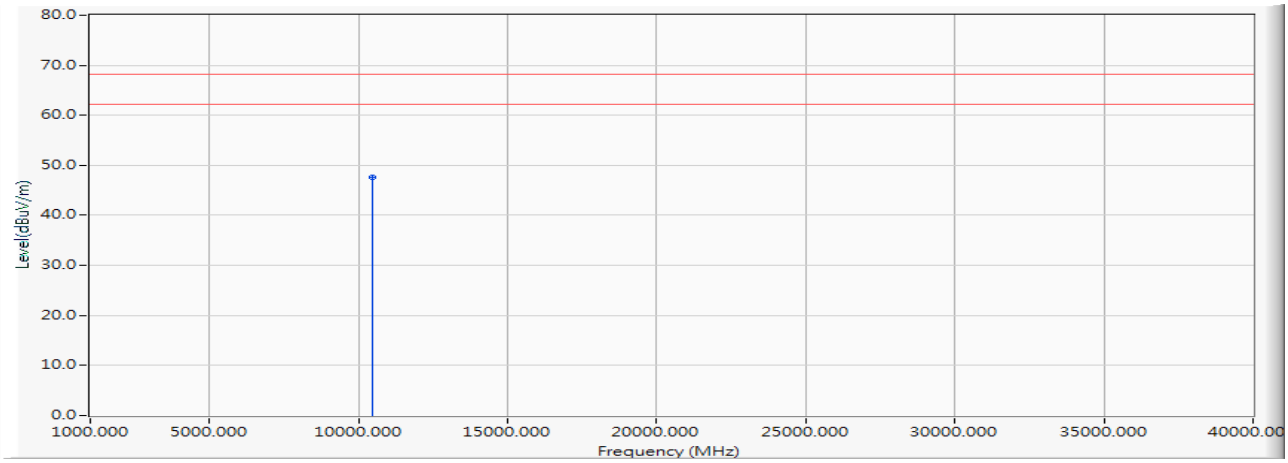
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10380.000	0.211	54.480	54.691	-13.529	68.220	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 3: Transmit (802.11n-40BW 30Mbps) (5230MHz)
Test Date	:	2019/10/30

Horizontal



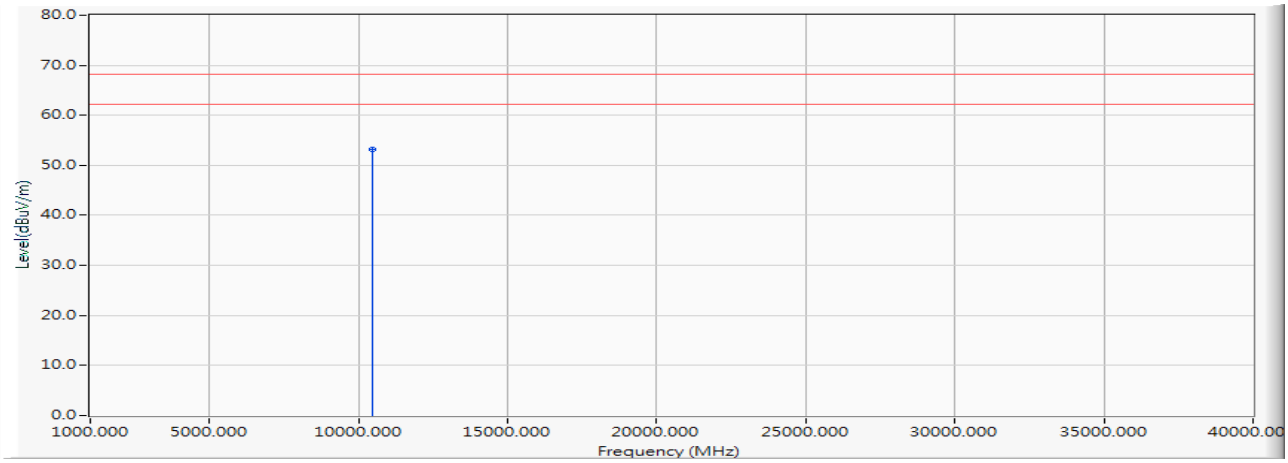
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10460.000	0.236	47.470	47.706	-20.514	68.220	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 3: Transmit (802.11n-40BW 30Mbps) (5230MHz)
Test Date	:	2019/10/30

Vertical



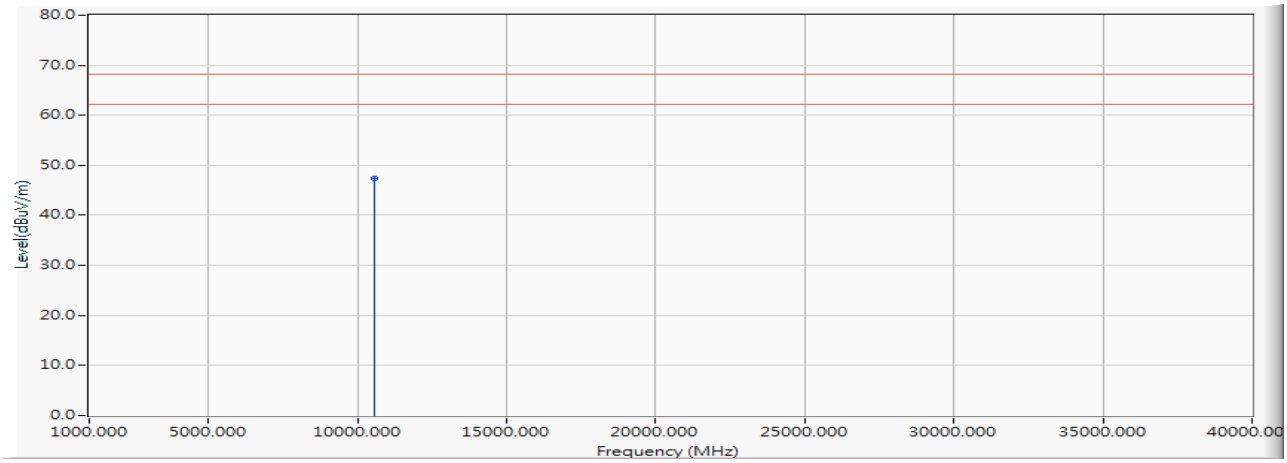
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10460.000	0.236	52.910	53.146	-15.074	68.220	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 3: Transmit (802.11n-40BW 30Mbps) (5270MHz)
Test Date	:	2019/10/30

Horizontal



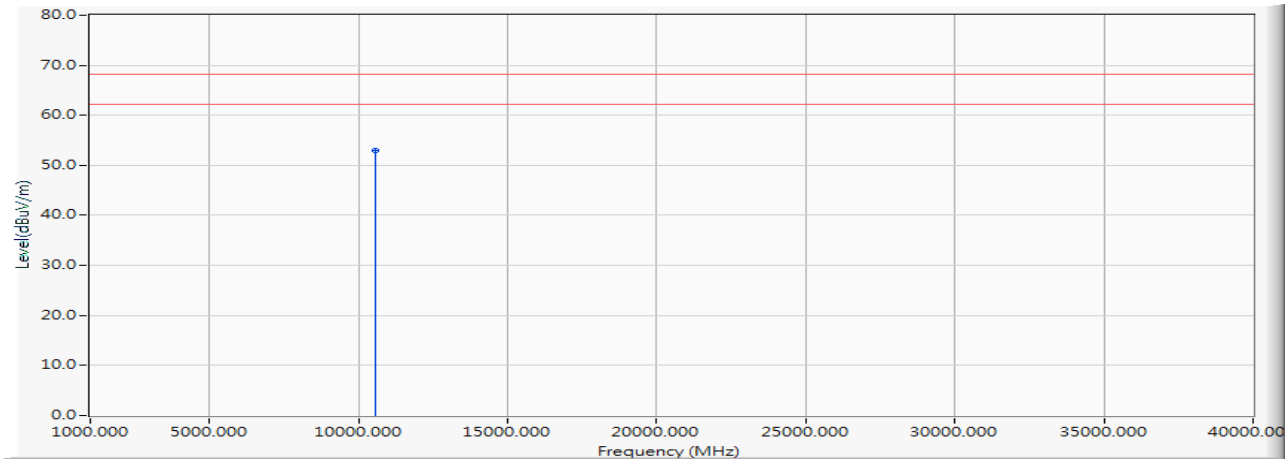
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10540.000	0.382	47.060	47.442	-20.778	68.220	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 3: Transmit (802.11n-40BW 30Mbps) (5270MHz)
Test Date	:	2019/10/30

Vertical



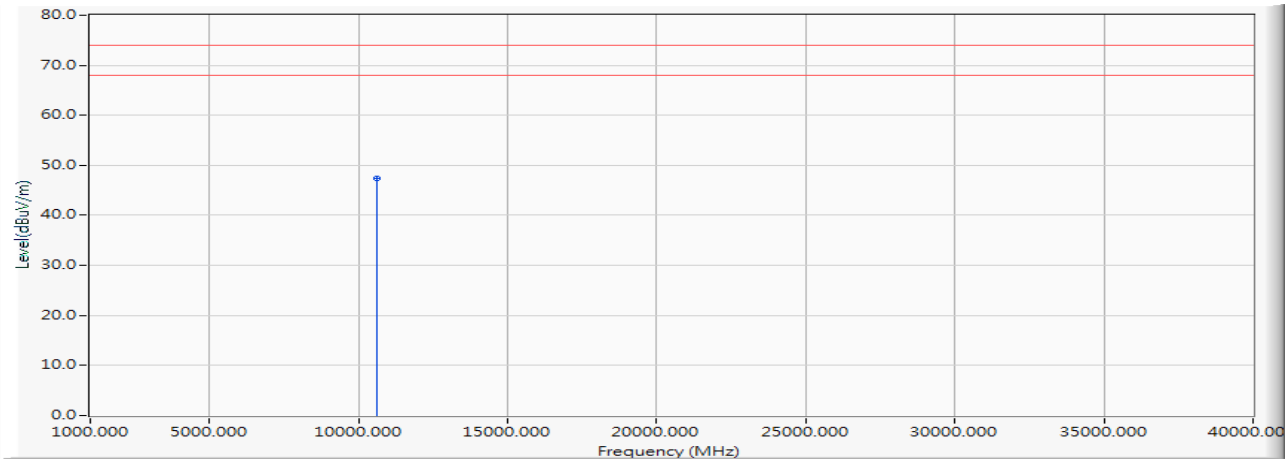
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10540.000	0.382	52.670	53.052	-15.168	68.220	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 3: Transmit (802.11n-40BW 30Mbps) (5310MHz)
Test Date	:	2019/10/09

Horizontal



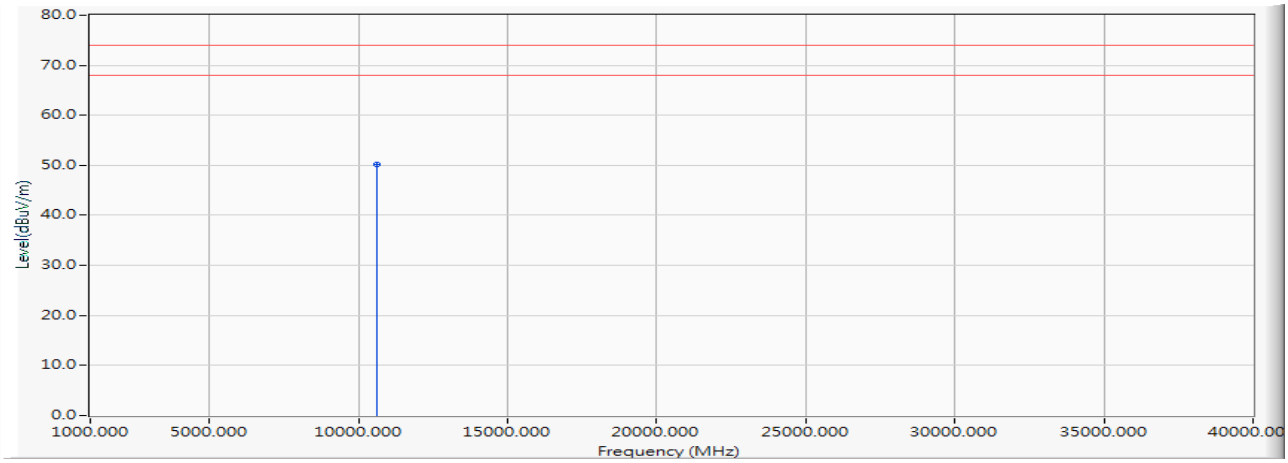
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10620.000	0.527	46.860	47.387	-26.613	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 3: Transmit (802.11n-40BW 30Mbps) (5310MHz)
Test Date	:	2019/10/09

Vertical



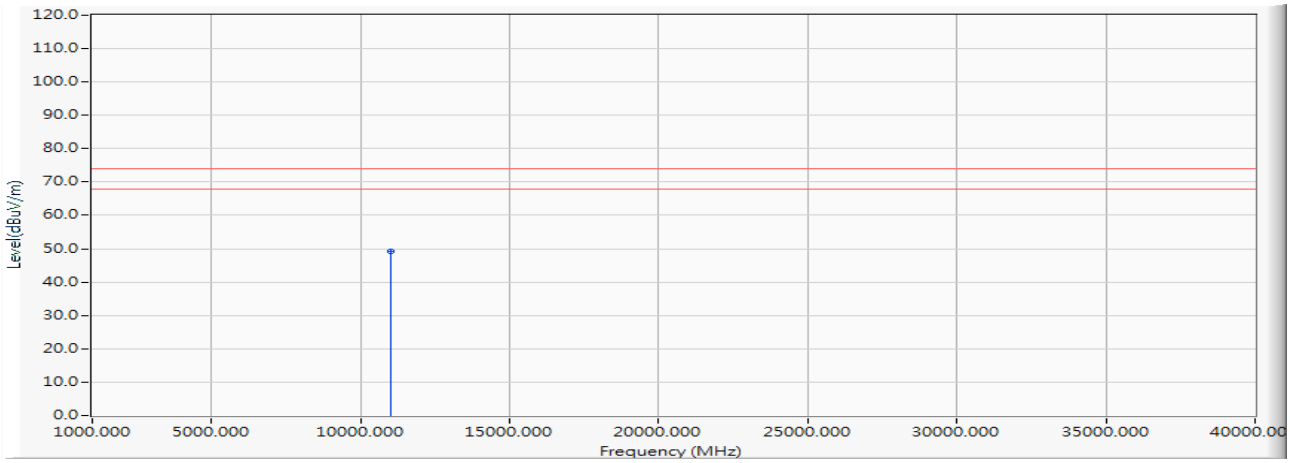
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10620.000	0.527	49.760	50.287	-23.713	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 3: Transmit (802.11n-40BW 30Mbps) (5510MHz)
Test Date	:	2019/05/10

Horizontal



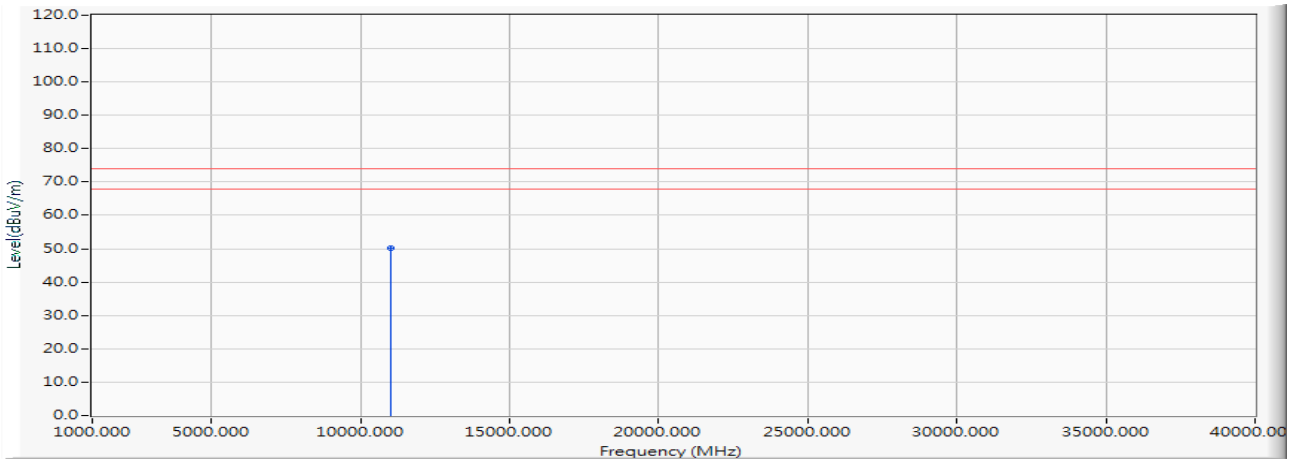
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11020.000	1.170	48.020	49.190	-24.810	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 3: Transmit (802.11n-40BW 30Mbps) (5510MHz)
Test Date	:	2019/05/10

Vertical



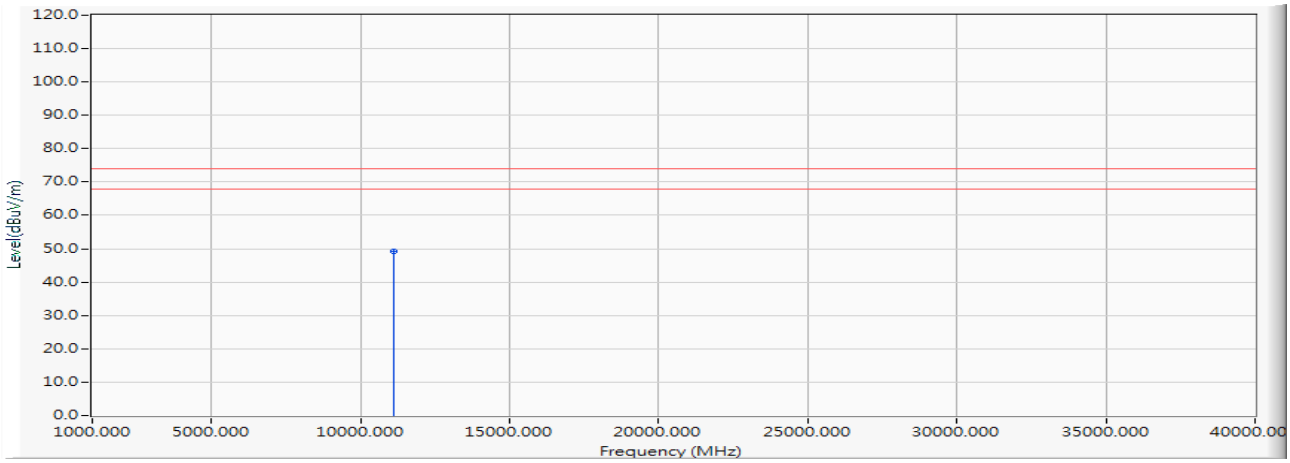
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11020.000	1.170	48.990	50.160	-23.840	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 3: Transmit (802.11n-40BW 30Mbps) (5550MHz)
Test Date	:	2019/05/10

Horizontal



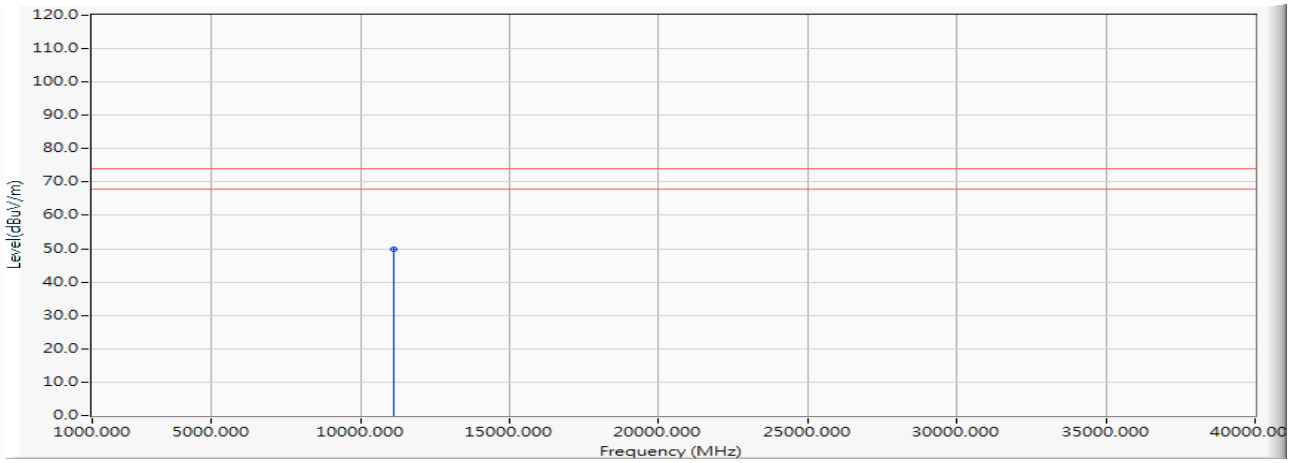
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11100.000	1.190	47.960	49.150	-24.850	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 3: Transmit (802.11n-40BW 30Mbps) (5550MHz)
Test Date	:	2019/05/10

Vertical



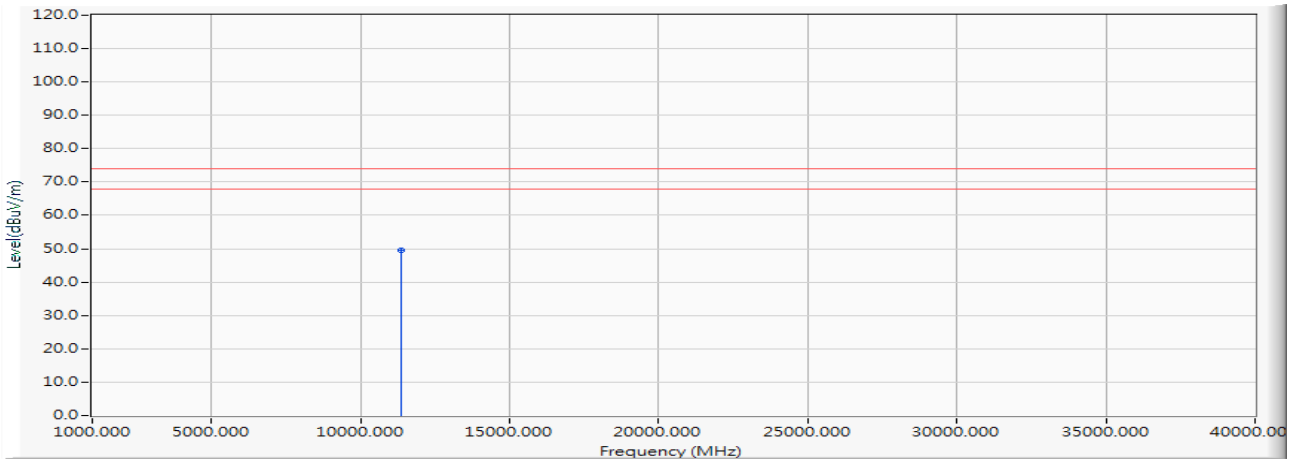
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11100.000	1.190	48.550	49.740	-24.260	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 3: Transmit (802.11n-40BW 30Mbps) (5670MHz)
Test Date	:	2019/05/10

Horizontal



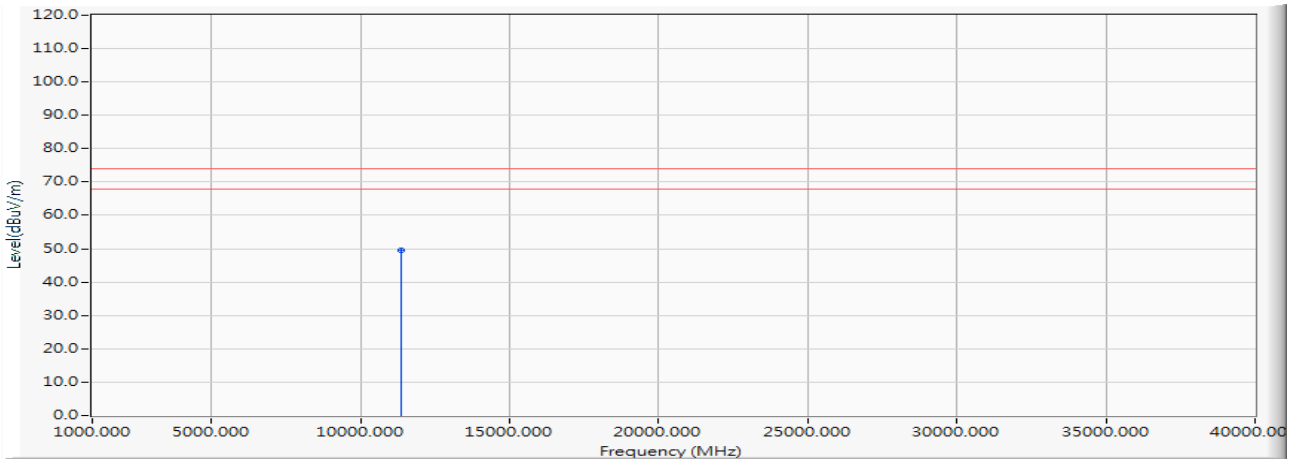
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11340.000	1.482	47.980	49.461	-24.539	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 3: Transmit (802.11n-40BW 30Mbps) (5670MHz)
Test Date	:	2019/05/10

Vertical



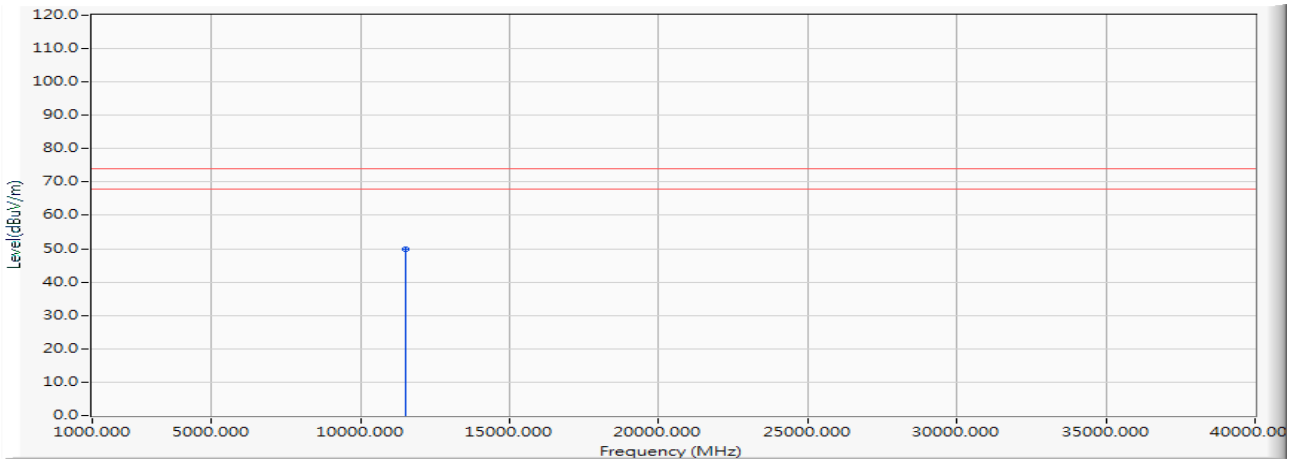
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11340.000	1.482	48.210	49.691	-24.309	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 3: Transmit (802.11n-40BW 30Mbps) (5755MHz)
Test Date	:	2019/05/10

Horizontal



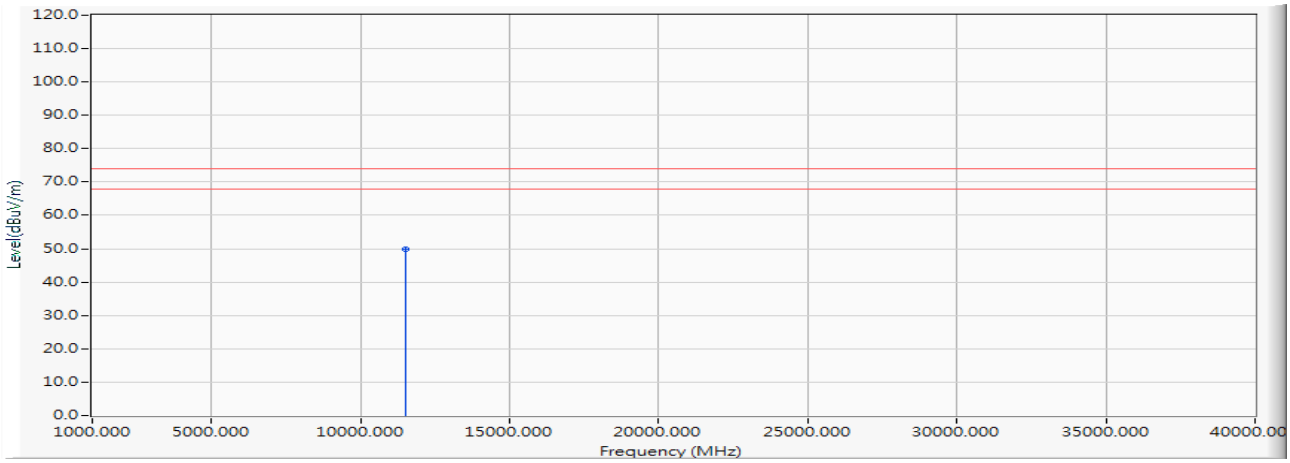
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11510.000	1.898	48.110	50.009	-23.991	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 3: Transmit (802.11n-40BW 30Mbps) (5755MHz)
Test Date	:	2019/05/10

Vertical



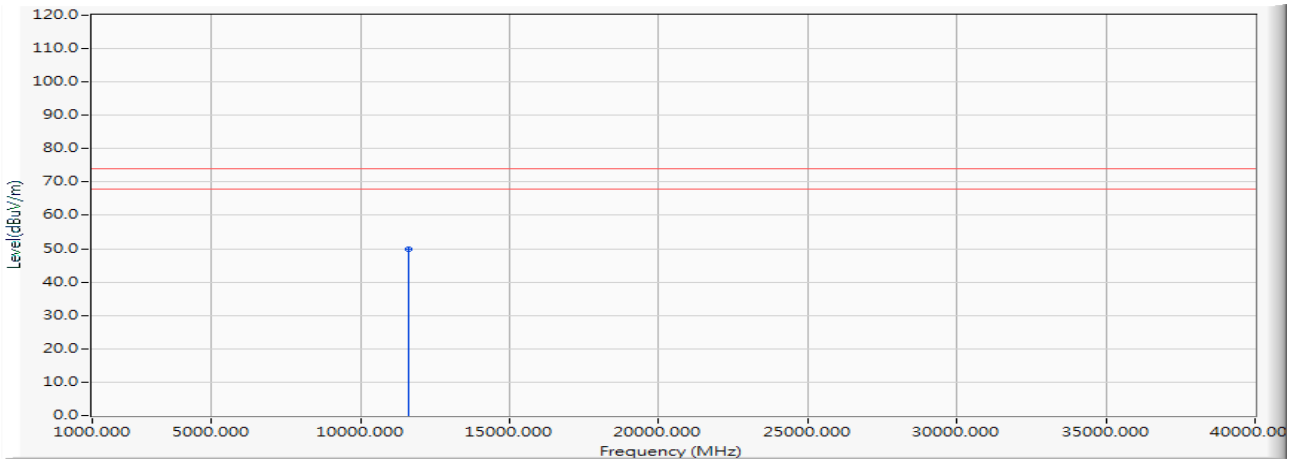
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11510.000	1.898	47.940	49.839	-24.161	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 3: Transmit (802.11n-40BW 30Mbps) (5795MHz)
Test Date	:	2019/05/10

Horizontal



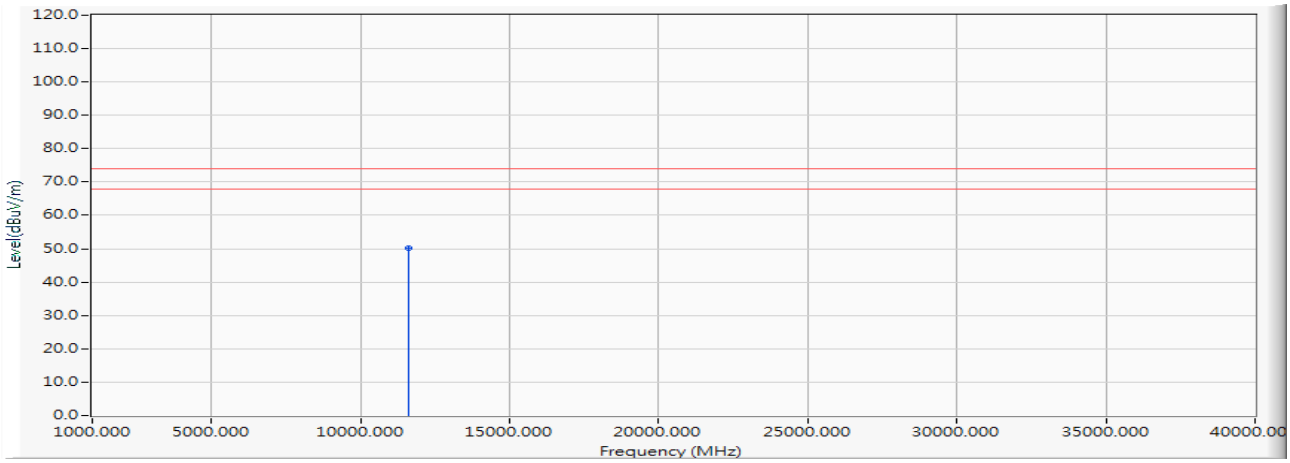
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11590.000	2.014	47.880	49.893	-24.107	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 3: Transmit (802.11n-40BW 30Mbps) (5795MHz)
Test Date	:	2019/05/10

Vertical



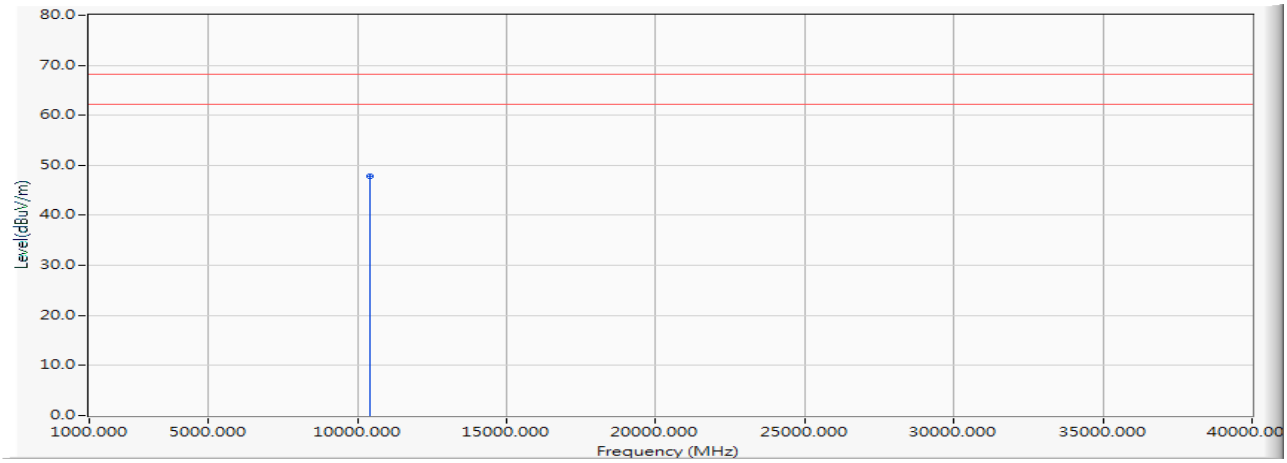
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11590.000	2.014	48.130	50.143	-23.857	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 4: Transmit (802.11ac-80BW 65Mbps) (5210MHz)
Test Date	:	2019/10/30

Horizontal



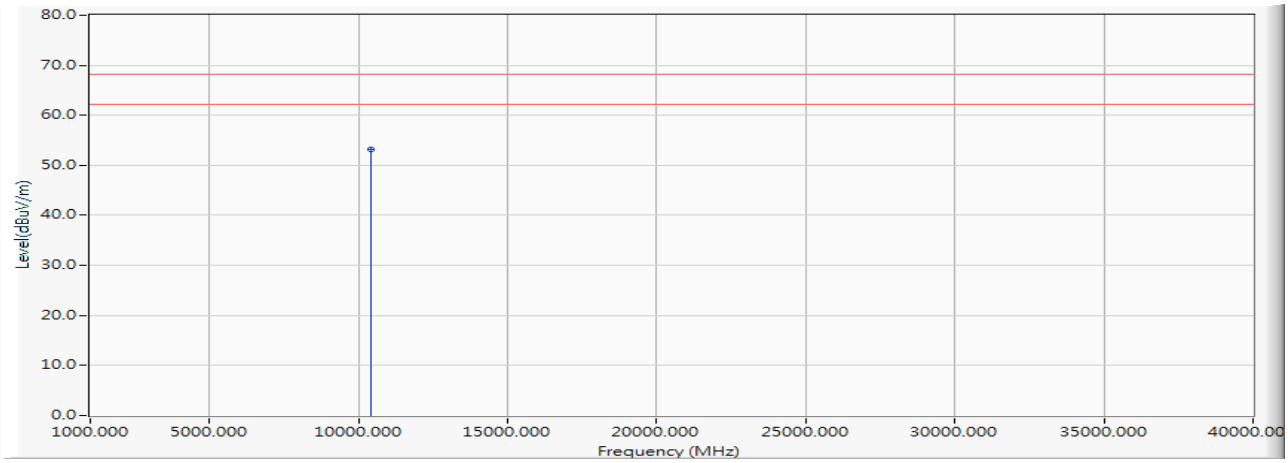
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10420.000	0.191	47.560	47.751	-20.469	68.220	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 4: Transmit (802.11ac-80BW 65Mbps) (5210MHz)
Test Date	:	2019/10/30

Vertical



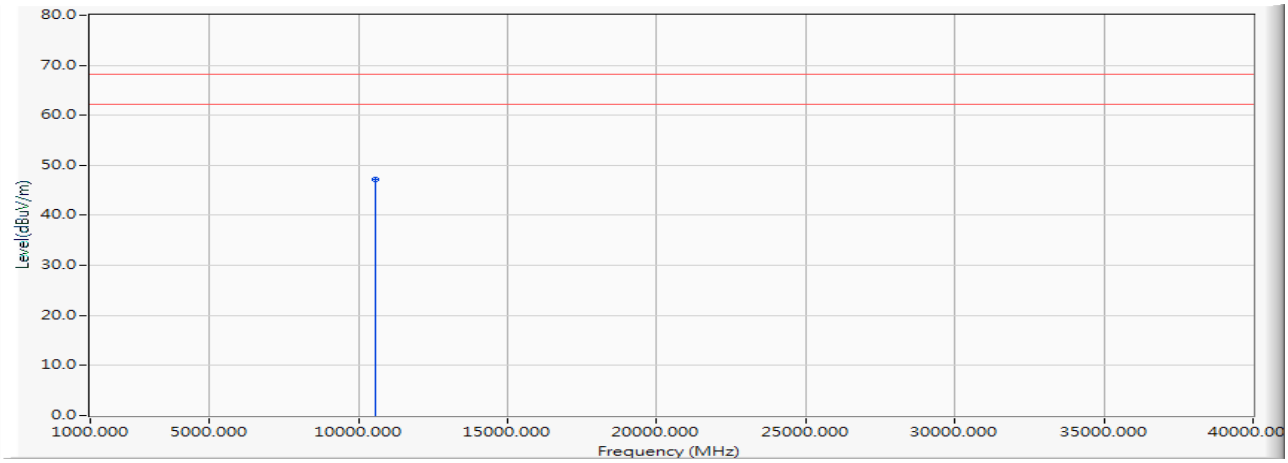
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10420.000	0.191	52.910	53.101	-15.119	68.220	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 4: Transmit (802.11ac-80BW 65Mbps) (5290MHz)
Test Date	:	2019/10/30

Horizontal



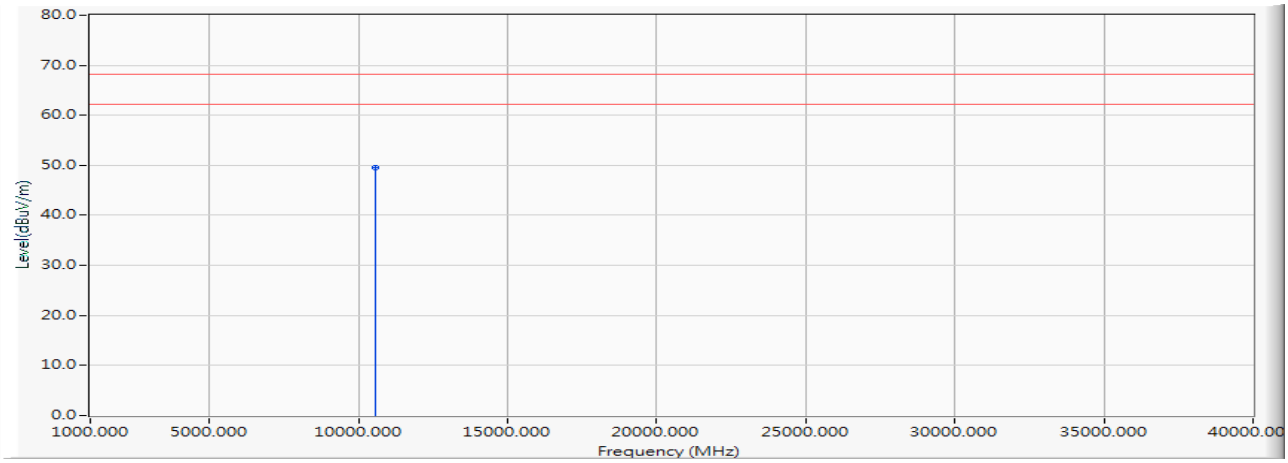
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10580.000	0.463	46.720	47.183	-21.037	68.220	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 4: Transmit (802.11ac-80BW 65Mbps) (5290MHz)
Test Date	:	2019/10/30

Vertical



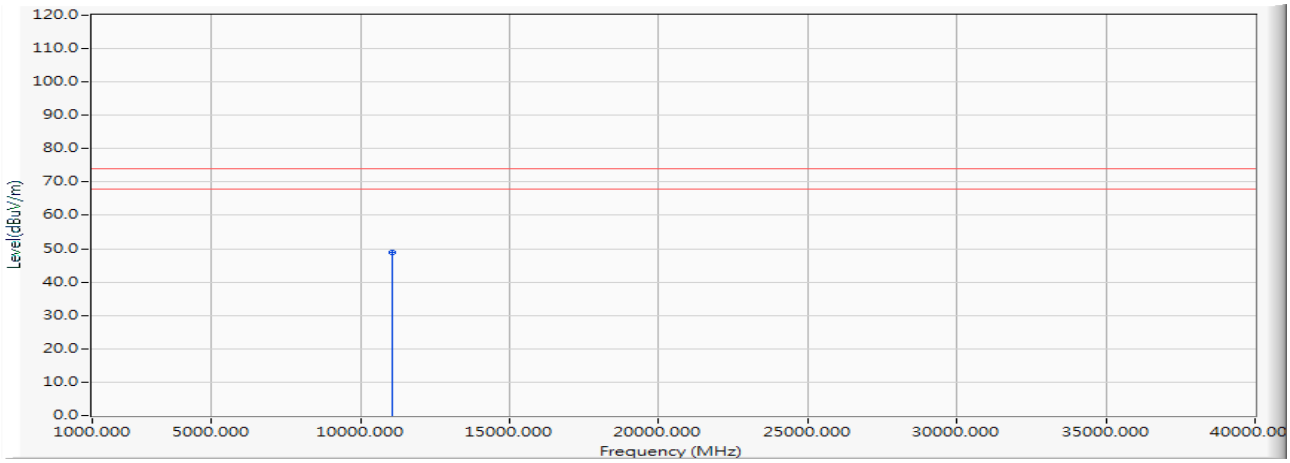
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10580.000	0.463	49.070	49.533	-18.687	68.220	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 4: Transmit (802.11ac-80BW 65Mbps) (5530MHz)
Test Date	:	2019/05/10

Horizontal



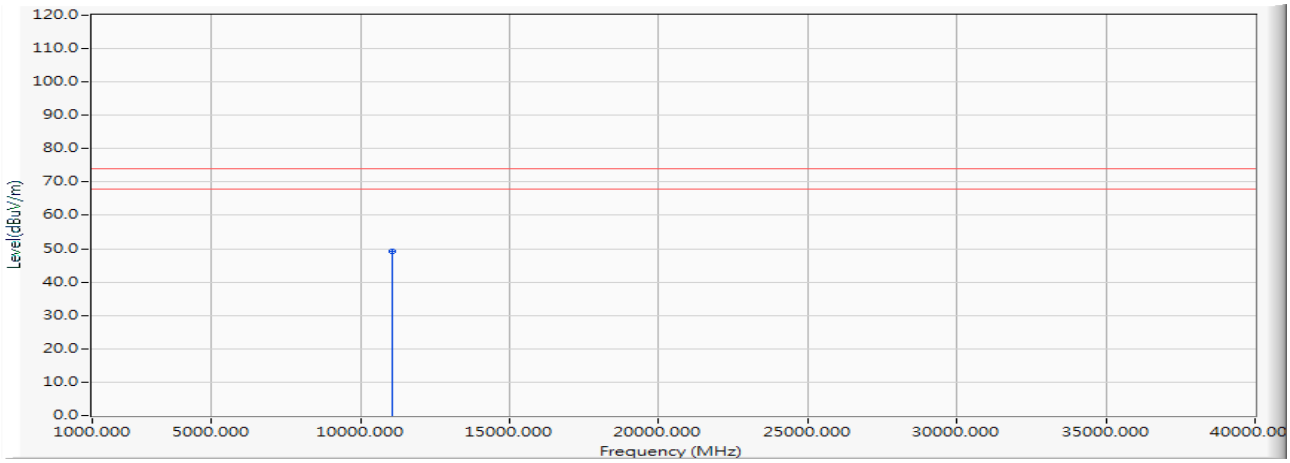
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11060.000	1.130	47.790	48.921	-25.079	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 4: Transmit (802.11ac-80BW 65Mbps) (5530MHz)
Test Date	:	2019/05/10

Vertical



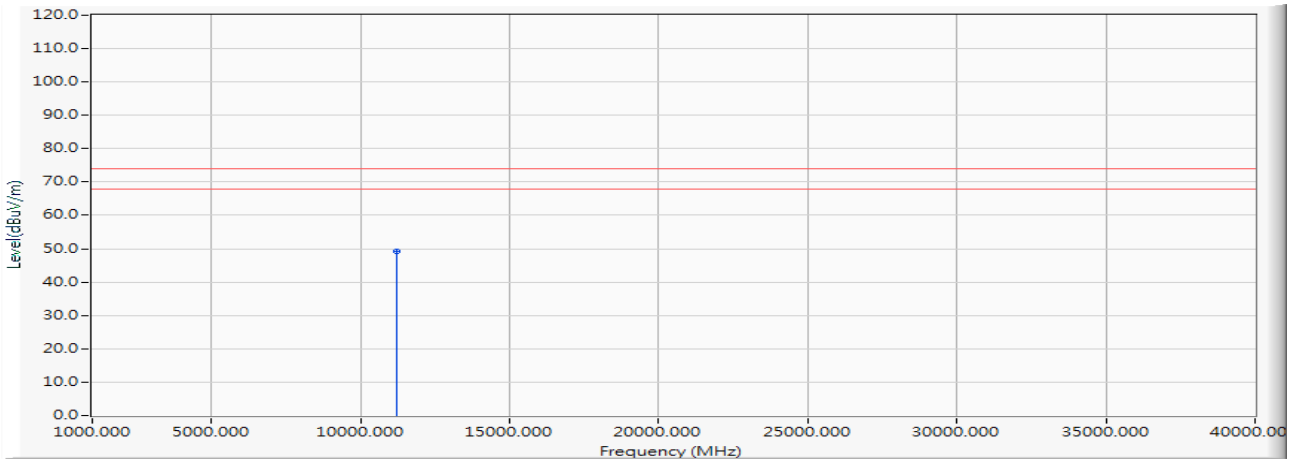
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11060.000	1.130	48.190	49.321	-24.679	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 4: Transmit (802.11ac-80BW 65Mbps) (5610MHz)
Test Date	:	2019/05/10

Horizontal



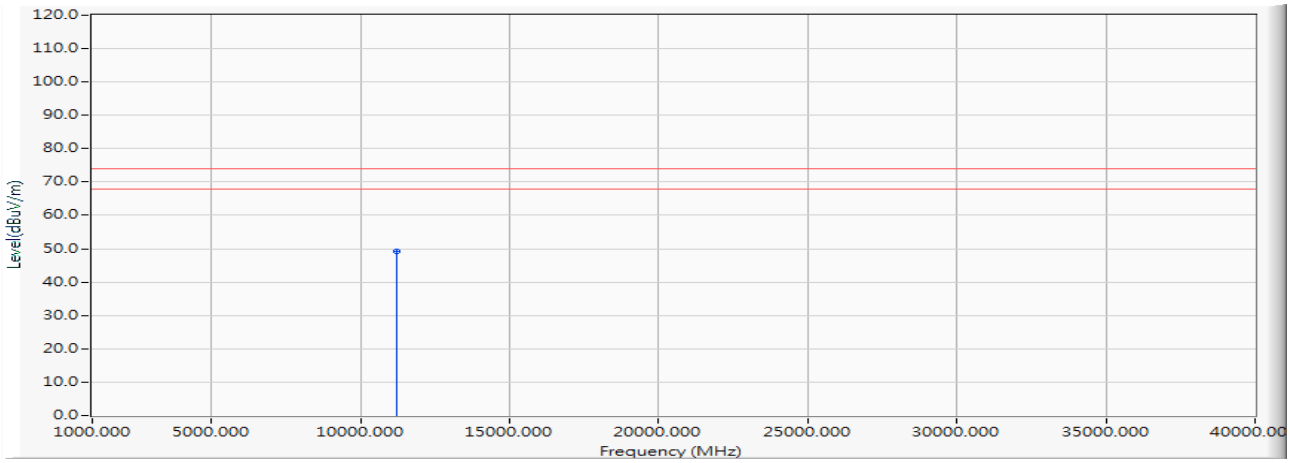
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11220.000	1.247	47.890	49.137	-24.863	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 4: Transmit (802.11ac-80BW 65Mbps) (5610MHz)
Test Date	:	2019/05/10

Vertical



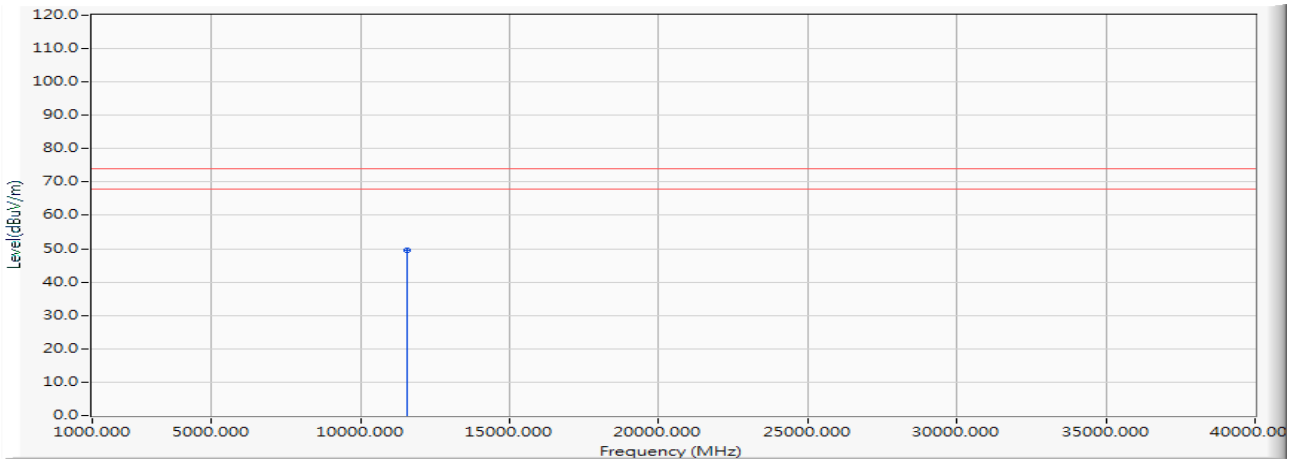
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11220.000	1.247	47.990	49.237	-24.763	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 4: Transmit (802.11ac-80BW 65Mbps) (5775MHz)
Test Date	:	2019/05/10

Horizontal



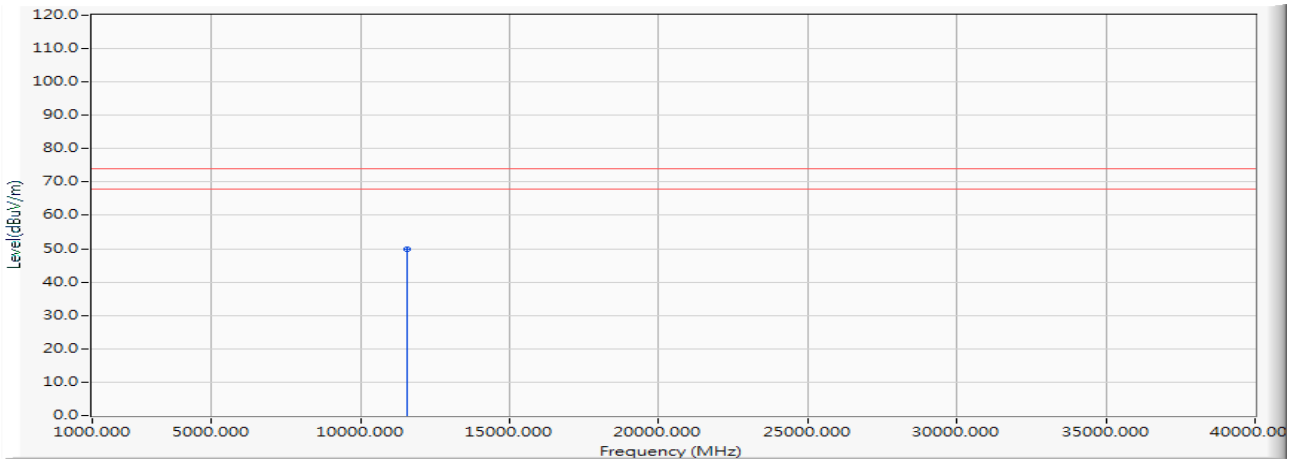
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11550.000	1.987	47.640	49.627	-24.373	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 4: Transmit (802.11ac-80BW 65Mbps) (5775MHz)
Test Date	:	2019/05/10

Vertical



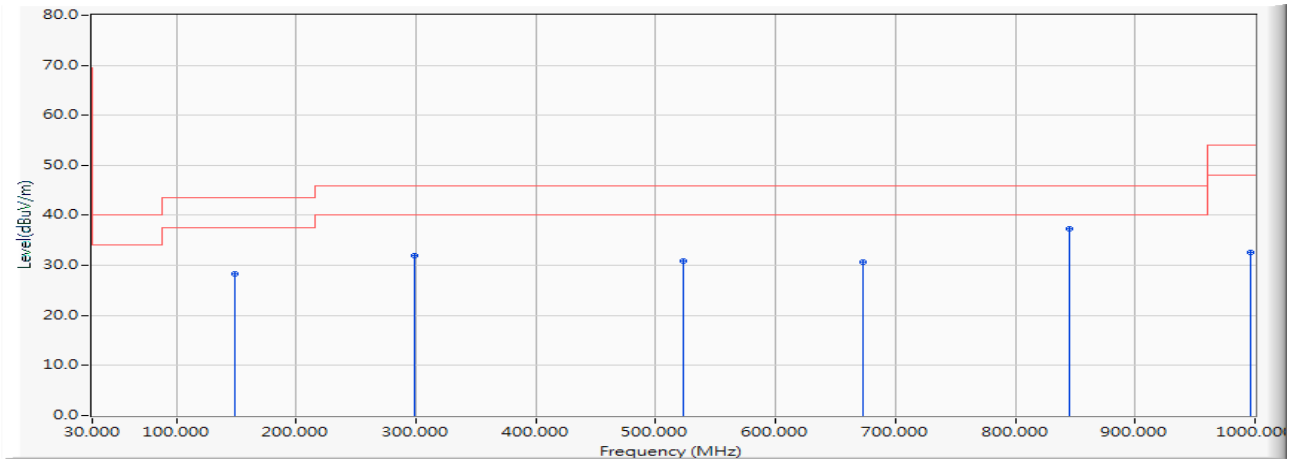
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11550.000	1.987	48.010	49.997	-24.003	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	UNIT ASSY DA
Test Item	:	General Radiated Emission
Test Mode	:	Mode 1: Transmit (802.11a 6Mbps) (5220MHz)
Test Date	:	2019/10/09

Horizontal



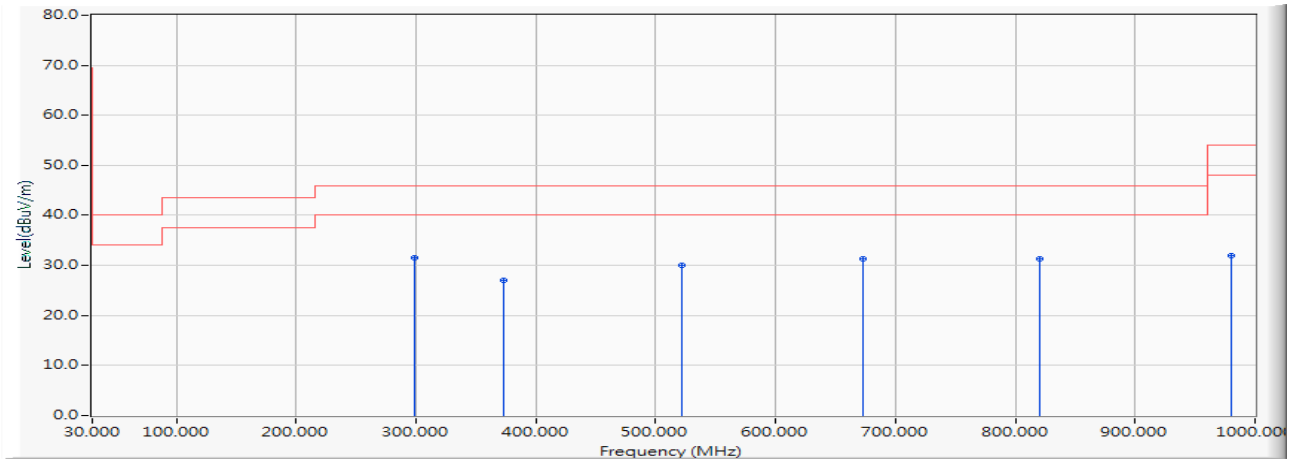
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		149.493	-11.097	39.327	28.230	-15.270	43.500	QUASIPEAK
2		298.507	-10.388	42.301	31.912	-14.088	46.000	QUASIPEAK
3		523.435	-5.592	36.460	30.868	-15.132	46.000	QUASIPEAK
4		672.449	-3.380	34.064	30.684	-15.316	46.000	QUASIPEAK
5	*	845.362	-0.949	38.375	37.426	-8.574	46.000	QUASIPEAK
6		995.783	0.952	31.716	32.668	-21.332	54.000	QUASIPEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The emission levels of other frequencies are very lower than the limit and not show in test report.
5. No emission found between lowest internal used/generated frequency to 30MHz.

Product	:	UNIT ASSY DA
Test Item	:	General Radiated Emission
Test Mode	:	Mode 1: Transmit (802.11a 6Mbps) (5220MHz)
Test Date	:	2019/10/09

Vertical



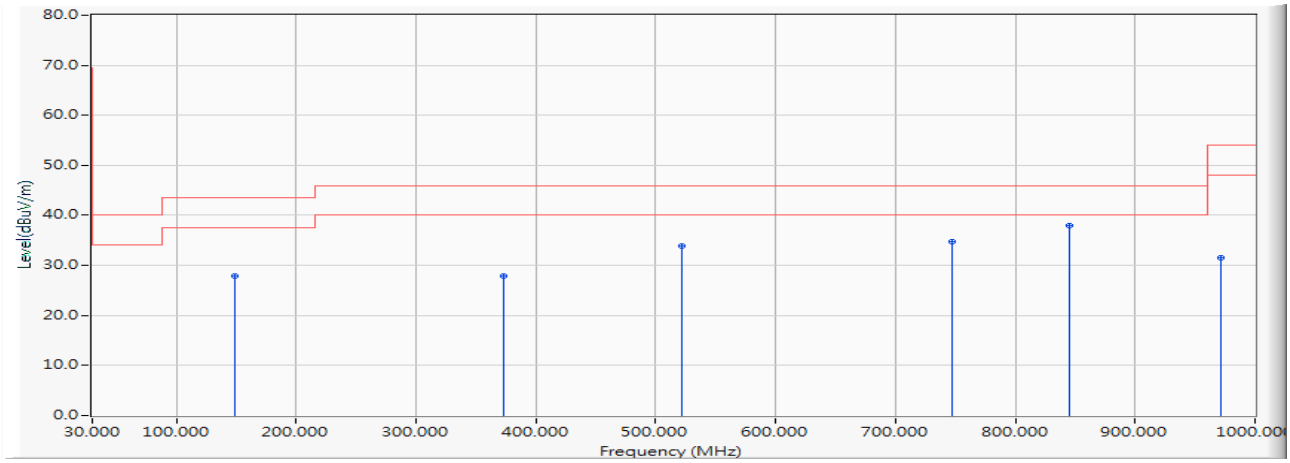
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	298.507	-10.388	41.997	31.608	-14.392	46.000	QUASIPEAK
2		373.014	-8.655	35.769	27.114	-18.886	46.000	QUASIPEAK
3		522.029	-5.614	35.587	29.973	-16.027	46.000	QUASIPEAK
4		672.449	-3.380	34.665	31.285	-14.715	46.000	QUASIPEAK
5		820.058	-1.344	32.761	31.417	-14.583	46.000	QUASIPEAK
6		980.319	0.751	31.260	32.011	-21.989	54.000	QUASIPEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The emission levels of other frequencies are very lower than the limit and not show in test report.
5. No emission found between lowest internal used/generated frequency to 30MHz.

Product	:	UNIT ASSY DA
Test Item	:	General Radiated Emission
Test Mode	:	Mode 1: Transmit (802.11a 6Mbps) (5300MHz)
Test Date	:	2019/10/09

Horizontal



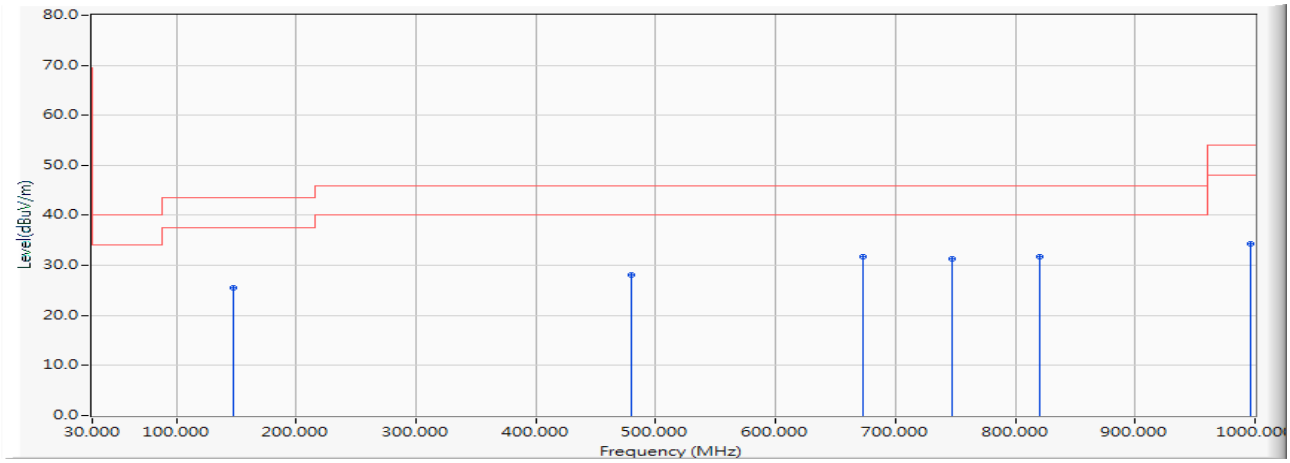
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		149.493	-11.097	39.027	27.930	-15.570	43.500	QUASIPEAK
2		373.014	-8.655	36.445	27.790	-18.210	46.000	QUASIPEAK
3		522.029	-5.614	39.531	33.917	-12.083	46.000	QUASIPEAK
4		746.957	-2.082	36.729	34.647	-11.353	46.000	QUASIPEAK
5	*	845.362	-0.949	38.875	37.926	-8.074	46.000	QUASIPEAK
6		971.884	0.639	30.810	31.449	-22.551	54.000	QUASIPEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The emission levels of other frequencies are very lower than the limit and not show in test report.
5. No emission found between lowest internal used/generated frequency to 30MHz.

Product	:	UNIT ASSY DA
Test Item	:	General Radiated Emission
Test Mode	:	Mode 1: Transmit (802.11a 6Mbps) (5300MHz)
Test Date	:	2019/10/09

Vertical



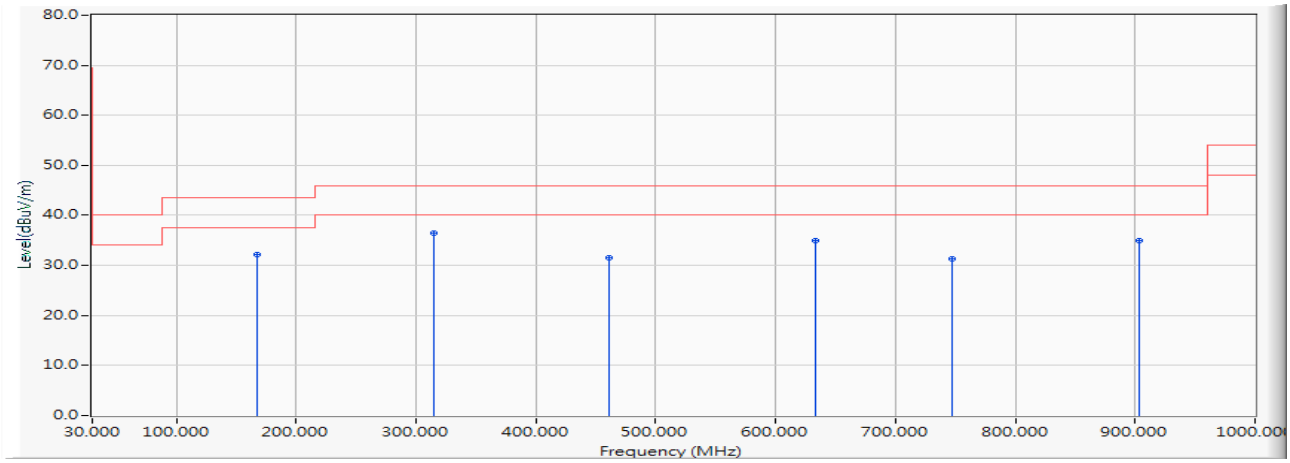
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		148.087	-11.146	36.747	25.601	-17.899	43.500	QUASIPEAK
2		479.855	-6.292	34.392	28.100	-17.900	46.000	QUASIPEAK
3		672.449	-3.380	35.065	31.685	-14.315	46.000	QUASIPEAK
4		746.957	-2.082	33.298	31.216	-14.784	46.000	QUASIPEAK
5	*	820.058	-1.344	33.061	31.717	-14.283	46.000	QUASIPEAK
6		995.783	0.952	33.264	34.216	-19.784	54.000	QUASIPEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The emission levels of other frequencies are very lower than the limit and not show in test report.
5. No emission found between lowest internal used/generated frequency to 30MHz.

Product	:	UNIT ASSY DA
Test Item	:	General Radiated Emission
Test Mode	:	Mode 1: Transmit (802.11a 6Mbps) (5580MHz)
Test Date	:	2019/05/13

Horizontal



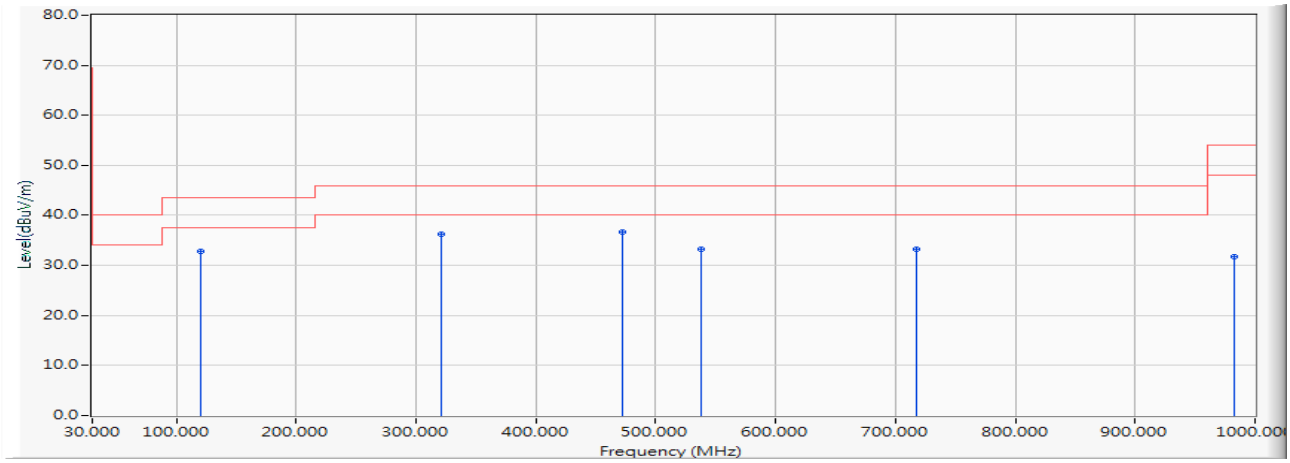
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		167.768	-10.521	42.593	32.072	-11.428	43.500	QUASIPEAK
2	*	315.377	-9.252	45.629	36.377	-9.623	46.000	QUASIPEAK
3		461.580	-5.654	37.128	31.474	-14.526	46.000	QUASIPEAK
4		633.087	-2.465	37.374	34.910	-11.090	46.000	QUASIPEAK
5		746.957	-0.662	32.034	31.372	-14.628	46.000	QUASIPEAK
6		903.000	1.248	33.736	34.984	-11.016	46.000	QUASIPEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The emission levels of other frequencies are very lower than the limit and not show in test report.
5. No emission found between lowest internal used/generated frequency to 30MHz.

Product	:	UNIT ASSY DA
Test Item	:	General Radiated Emission
Test Mode	:	Mode 1: Transmit (802.11a 6Mbps) (5580MHz)
Test Date	:	2019/05/13

Vertical



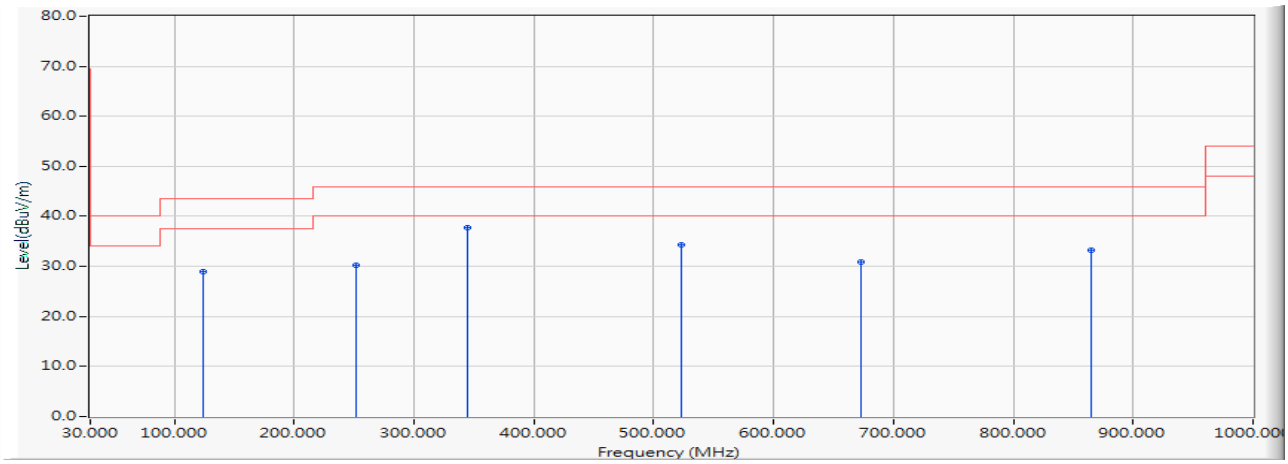
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		119.971	-12.805	45.637	32.831	-10.669	43.500	QUASIPEAK
2		321.000	-9.130	45.281	36.151	-9.849	46.000	QUASIPEAK
3	*	472.826	-5.452	42.064	36.613	-9.387	46.000	QUASIPEAK
4		537.493	-4.216	37.374	33.158	-12.842	46.000	QUASIPEAK
5		717.435	-1.130	34.384	33.254	-12.746	46.000	QUASIPEAK
6		983.130	2.262	29.480	31.742	-22.258	54.000	QUASIPEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The emission levels of other frequencies are very lower than the limit and not show in test report.
5. No emission found between lowest internal used/generated frequency to 30MHz.

Product	:	UNIT ASSY DA
Test Item	:	General Radiated Emission
Test Mode	:	Mode 1: Transmit (802.11a 6Mbps) (5785MHz)
Test Date	:	2019/05/13

Horizontal



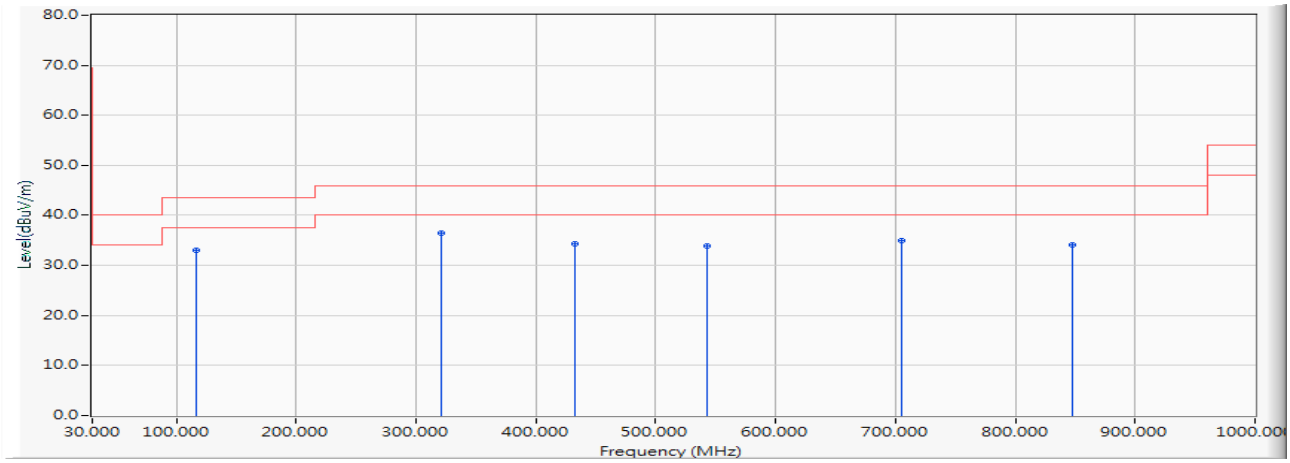
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		124.188	-12.355	41.364	29.008	-14.492	43.500	QUASIPEAK
2		252.116	-11.311	41.577	30.266	-15.734	46.000	QUASIPEAK
3	*	344.899	-8.578	46.377	37.799	-8.201	46.000	QUASIPEAK
4		523.435	-4.494	38.882	34.388	-11.612	46.000	QUASIPEAK
5		672.449	-1.915	32.820	30.906	-15.094	46.000	QUASIPEAK
6		865.043	0.787	32.386	33.172	-12.828	46.000	QUASIPEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The emission levels of other frequencies are very lower than the limit and not show in test report.
5. No emission found between lowest internal used/generated frequency to 30MHz.

Product	:	UNIT ASSY DA
Test Item	:	General Radiated Emission
Test Mode	:	Mode 1: Transmit (802.11a 6Mbps) (5785MHz)
Test Date	:	2019/05/13

Vertical



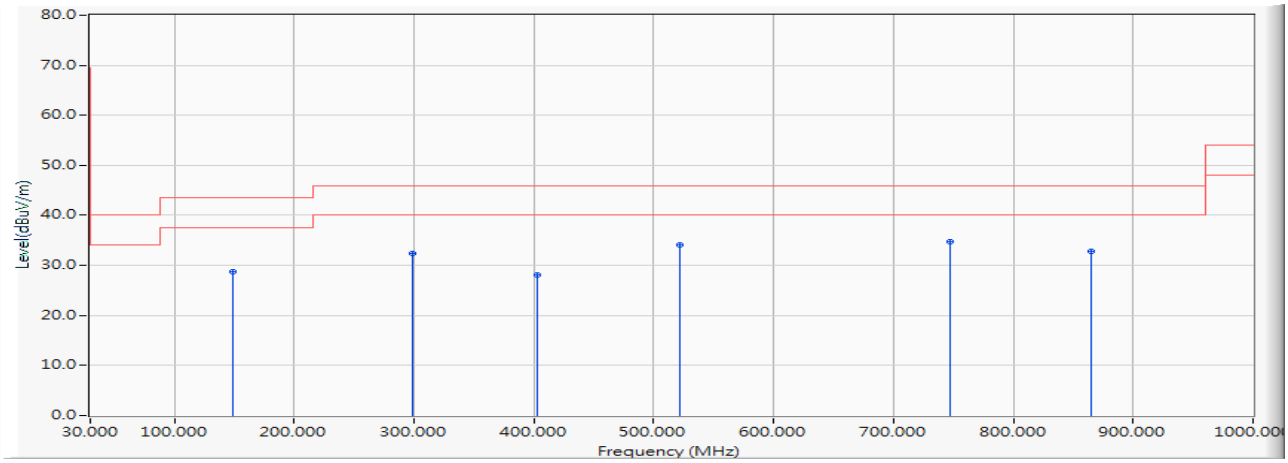
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		117.159	-13.114	46.079	32.965	-10.535	43.500	QUASIPEAK
2	*	321.000	-9.130	45.581	36.451	-9.549	46.000	QUASIPEAK
3		432.058	-6.290	40.512	34.222	-11.778	46.000	QUASIPEAK
4		543.116	-4.105	37.932	33.827	-12.173	46.000	QUASIPEAK
5		704.783	-1.332	36.253	34.921	-11.079	46.000	QUASIPEAK
6		848.174	0.575	33.613	34.188	-11.812	46.000	QUASIPEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The emission levels of other frequencies are very lower than the limit and not show in test report.
5. No emission found between lowest internal used/generated frequency to 30MHz.

Product	:	UNIT ASSY DA
Test Item	:	General Radiated Emission
Test Mode	:	Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5220MHz)
Test Date	:	2019/10/09

Horizontal



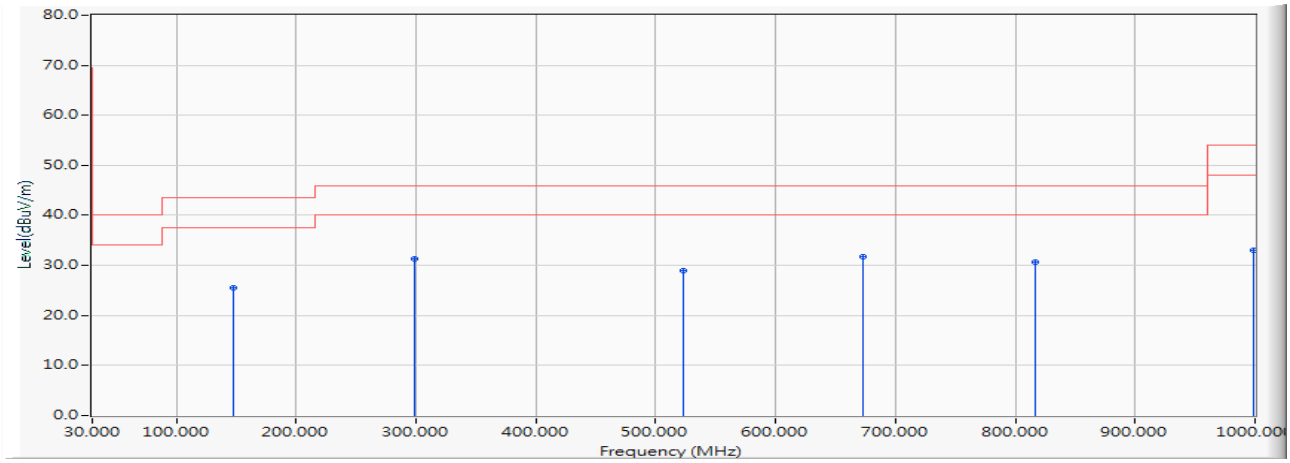
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		149.493	-11.097	39.827	28.730	-14.770	43.500	QUASIPEAK
2		298.507	-10.388	42.701	32.312	-13.688	46.000	QUASIPEAK
3		402.536	-7.973	36.011	28.038	-17.962	46.000	QUASIPEAK
4		522.029	-5.614	39.631	34.017	-11.983	46.000	QUASIPEAK
5	*	746.957	-2.082	36.729	34.647	-11.353	46.000	QUASIPEAK
6		865.043	-0.673	33.440	32.767	-13.233	46.000	QUASIPEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The emission levels of other frequencies are very lower than the limit and not show in test report.
5. No emission found between lowest internal used/generated frequency to 30MHz.

Product	:	UNIT ASSY DA
Test Item	:	General Radiated Emission
Test Mode	:	Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5220MHz)
Test Date	:	2019/10/09

Vertical



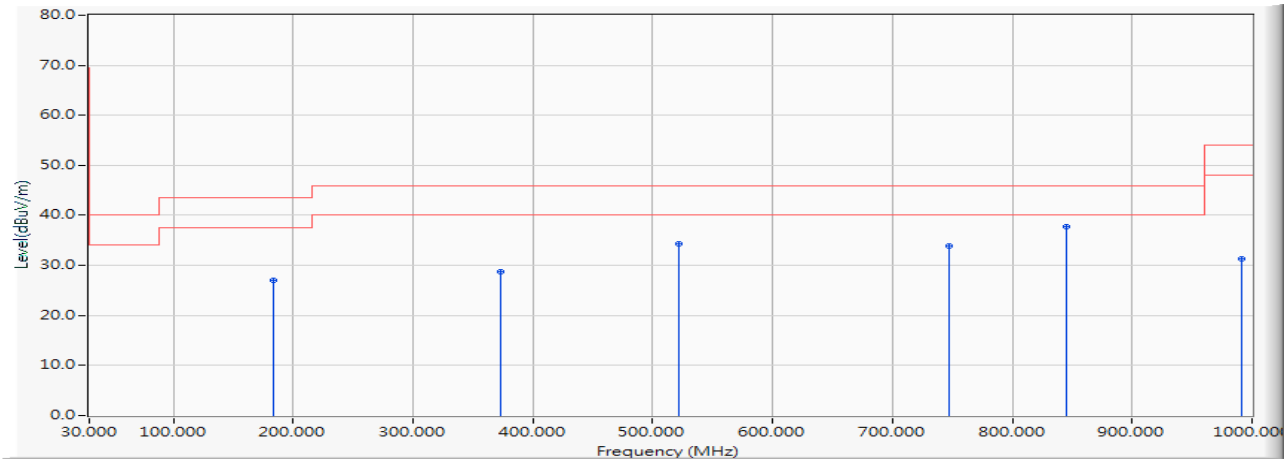
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		148.087	-11.146	36.747	25.601	-17.899	43.500	QUASIPEAK
2		298.507	-10.388	41.697	31.308	-14.692	46.000	QUASIPEAK
3		523.435	-5.592	34.650	29.058	-16.942	46.000	QUASIPEAK
4	*	672.449	-3.380	35.065	31.685	-14.315	46.000	QUASIPEAK
5		817.246	-1.389	32.060	30.672	-15.328	46.000	QUASIPEAK
6		998.594	0.988	32.033	33.021	-20.979	54.000	QUASIPEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The emission levels of other frequencies are very lower than the limit and not show in test report.
5. No emission found between lowest internal used/generated frequency to 30MHz.

Product	:	UNIT ASSY DA
Test Item	:	General Radiated Emission
Test Mode	:	Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5300MHz)
Test Date	:	2019/10/09

Horizontal



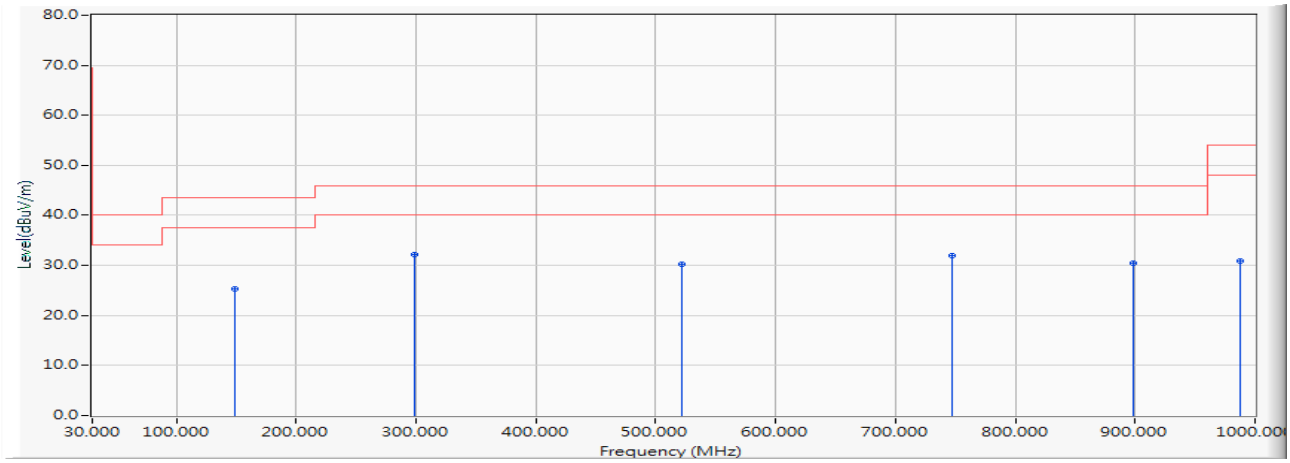
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		183.232	-12.869	39.983	27.115	-16.385	43.500	QUASIPEAK
2		373.014	-8.655	37.445	28.790	-17.210	46.000	QUASIPEAK
3		522.029	-5.614	39.831	34.217	-11.783	46.000	QUASIPEAK
4		746.957	-2.082	36.029	33.947	-12.053	46.000	QUASIPEAK
5	*	845.362	-0.949	38.675	37.726	-8.274	46.000	QUASIPEAK
6		991.565	0.897	30.369	31.266	-22.734	54.000	QUASIPEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The emission levels of other frequencies are very lower than the limit and not show in test report.
5. No emission found between lowest internal used/generated frequency to 30MHz.

Product	:	UNIT ASSY DA
Test Item	:	General Radiated Emission
Test Mode	:	Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5300MHz)
Test Date	:	2019/10/09

Vertical



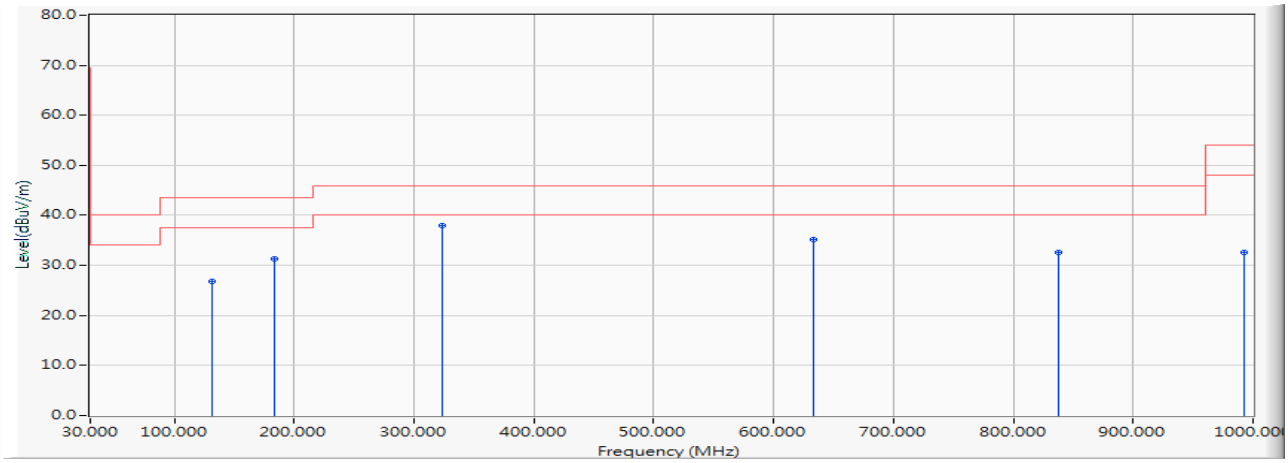
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		149.493	-11.097	36.352	25.255	-18.245	43.500	QUASIPEAK
2	*	298.507	-10.388	42.597	32.208	-13.792	46.000	QUASIPEAK
3		522.029	-5.614	35.787	30.173	-15.827	46.000	QUASIPEAK
4		746.957	-2.082	34.098	32.016	-13.984	46.000	QUASIPEAK
5		898.783	-0.218	30.761	30.543	-15.457	46.000	QUASIPEAK
6		987.348	0.842	30.050	30.893	-23.107	54.000	QUASIPEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The emission levels of other frequencies are very lower than the limit and not show in test report.
5. No emission found between lowest internal used/generated frequency to 30MHz.

Product	:	UNIT ASSY DA
Test Item	:	General Radiated Emission
Test Mode	:	Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5580MHz)
Test Date	:	2019/05/13

Horizontal



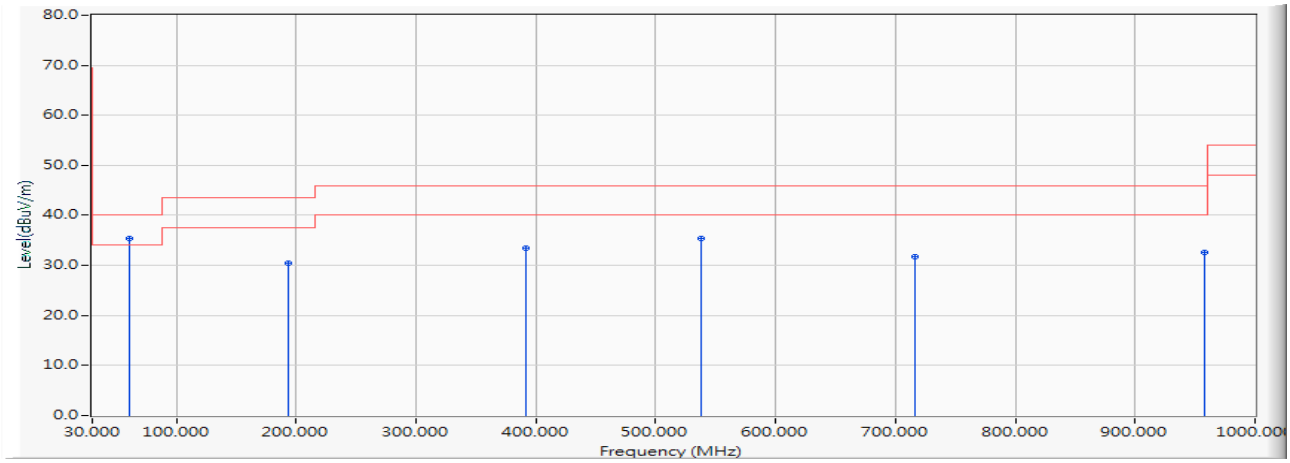
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		131.217	-11.611	38.340	26.729	-16.771	43.500	QUASIPEAK
2		183.232	-12.317	43.612	31.296	-12.204	43.500	QUASIPEAK
3	*	323.812	-9.073	47.109	38.036	-7.964	46.000	QUASIPEAK
4		633.087	-2.465	37.653	35.189	-10.811	46.000	QUASIPEAK
5		838.333	0.453	32.171	32.625	-13.375	46.000	QUASIPEAK
6		992.971	2.405	30.176	32.581	-21.419	54.000	QUASIPEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The emission levels of other frequencies are very lower than the limit and not show in test report.
5. No emission found between lowest internal used/generated frequency to 30MHz.

Product	:	UNIT ASSY DA
Test Item	:	General Radiated Emission
Test Mode	:	Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5580MHz)
Test Date	:	2019/05/13

Vertical



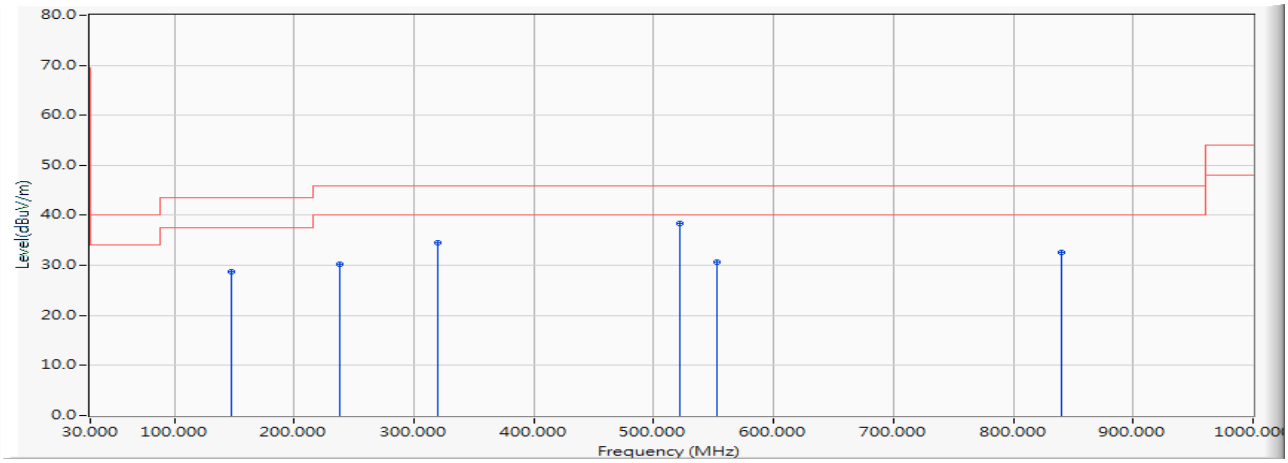
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	60.928	-11.804	47.274	35.470	-4.530	40.000	QUASIPEAK
2		193.072	-13.135	43.692	30.556	-12.944	43.500	QUASIPEAK
3		391.290	-7.306	40.781	33.475	-12.525	46.000	QUASIPEAK
4		537.493	-4.216	39.525	35.309	-10.691	46.000	QUASIPEAK
5		716.029	-1.143	32.823	31.680	-14.320	46.000	QUASIPEAK
6		957.826	1.880	30.669	32.549	-13.451	46.000	QUASIPEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The emission levels of other frequencies are very lower than the limit and not show in test report.
5. No emission found between lowest internal used/generated frequency to 30MHz.

Product	:	UNIT ASSY DA
Test Item	:	General Radiated Emission
Test Mode	:	Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5785MHz)
Test Date	:	2019/05/13

Horizontal



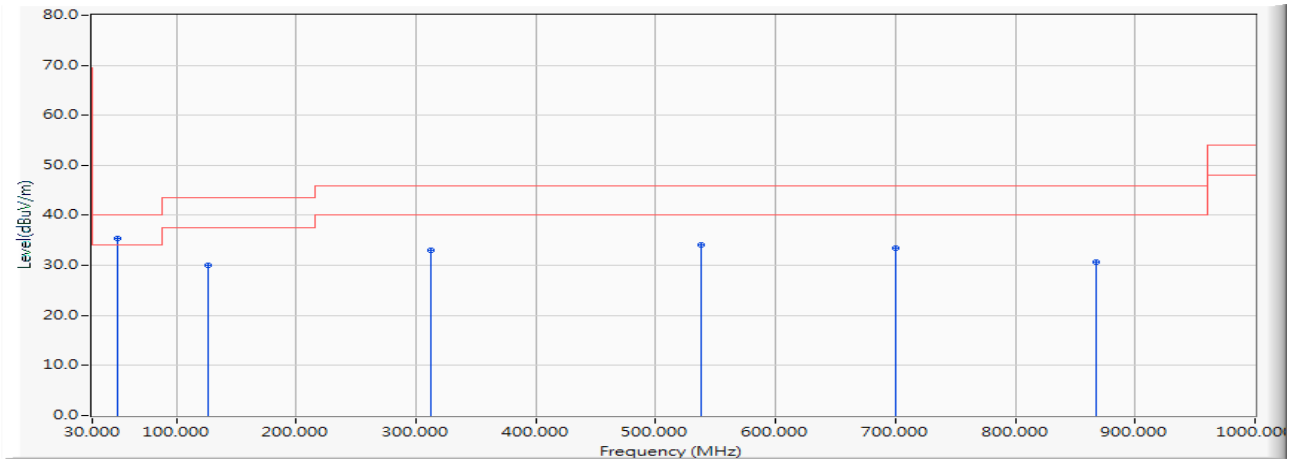
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		148.087	-10.440	39.233	28.794	-14.706	43.500	QUASIPEAK
2		238.058	-11.715	41.893	30.178	-15.822	46.000	QUASIPEAK
3		319.594	-9.168	43.788	34.620	-11.380	46.000	QUASIPEAK
4	*	522.029	-4.520	42.843	38.323	-7.677	46.000	QUASIPEAK
5		552.957	-3.885	34.637	30.752	-15.248	46.000	QUASIPEAK
6		839.739	0.475	32.108	32.583	-13.417	46.000	QUASIPEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The emission levels of other frequencies are very lower than the limit and not show in test report.
5. No emission found between lowest internal used/generated frequency to 30MHz.

Product	:	UNIT ASSY DA
Test Item	:	General Radiated Emission
Test Mode	:	Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5785MHz)
Test Date	:	2019/05/13

Vertical



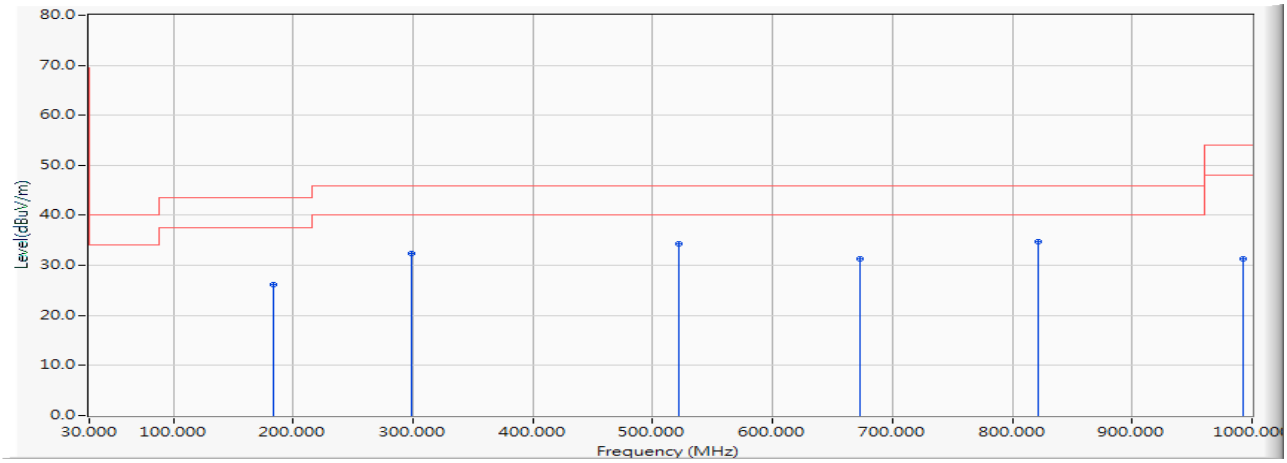
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	51.087	-10.737	46.039	35.302	-4.698	40.000	QUASIPEAK
2		127.000	-12.046	42.036	29.990	-13.510	43.500	QUASIPEAK
3		312.565	-9.326	42.415	33.089	-12.911	46.000	QUASIPEAK
4		537.493	-4.216	38.325	34.109	-11.891	46.000	QUASIPEAK
5		700.565	-1.403	34.879	33.476	-12.524	46.000	QUASIPEAK
6		867.855	0.825	29.820	30.644	-15.356	46.000	QUASIPEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The emission levels of other frequencies are very lower than the limit and not show in test report.
5. No emission found between lowest internal used/generated frequency to 30MHz.

Product	:	UNIT ASSY DA
Test Item	:	General Radiated Emission
Test Mode	:	Mode 3: Transmit (802.11n-40BW 30Mbps) (5190MHz)
Test Date	:	2019/10/09

Horizontal



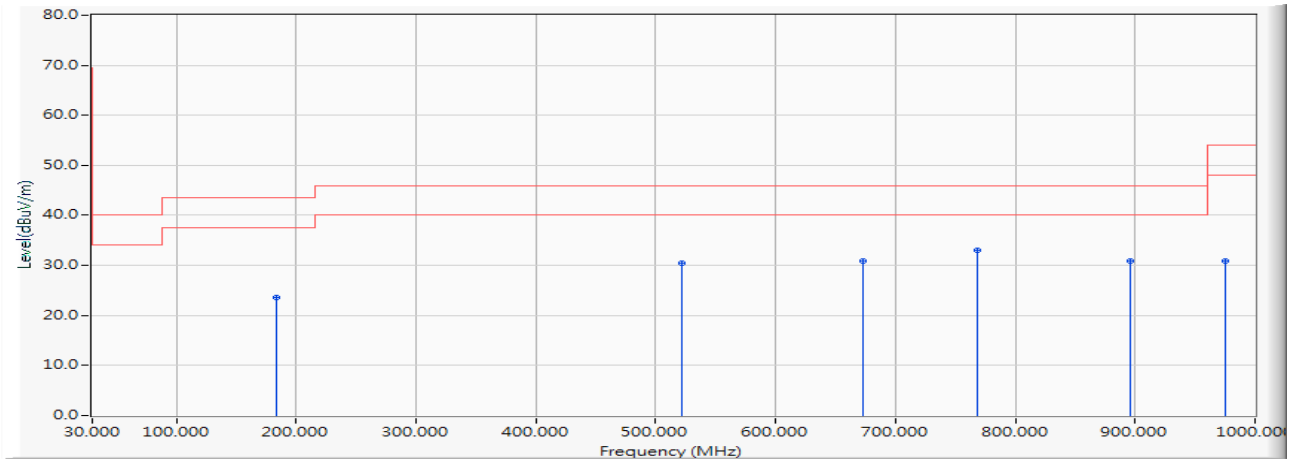
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		183.232	-12.869	38.983	26.115	-17.385	43.500	QUASIPEAK
2		298.507	-10.388	42.701	32.312	-13.688	46.000	QUASIPEAK
3		522.029	-5.614	39.831	34.217	-11.783	46.000	QUASIPEAK
4		672.449	-3.380	34.664	31.284	-14.716	46.000	QUASIPEAK
5	*	821.464	-1.322	36.112	34.790	-11.210	46.000	QUASIPEAK
6		992.971	0.915	30.428	31.343	-22.657	54.000	QUASIPEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The emission levels of other frequencies are very lower than the limit and not show in test report.
5. No emission found between lowest internal used/generated frequency to 30MHz.

Product	:	UNIT ASSY DA
Test Item	:	General Radiated Emission
Test Mode	:	Mode 3: Transmit (802.11n-40BW 30Mbps) (5190MHz)
Test Date	:	2019/10/09

Vertical



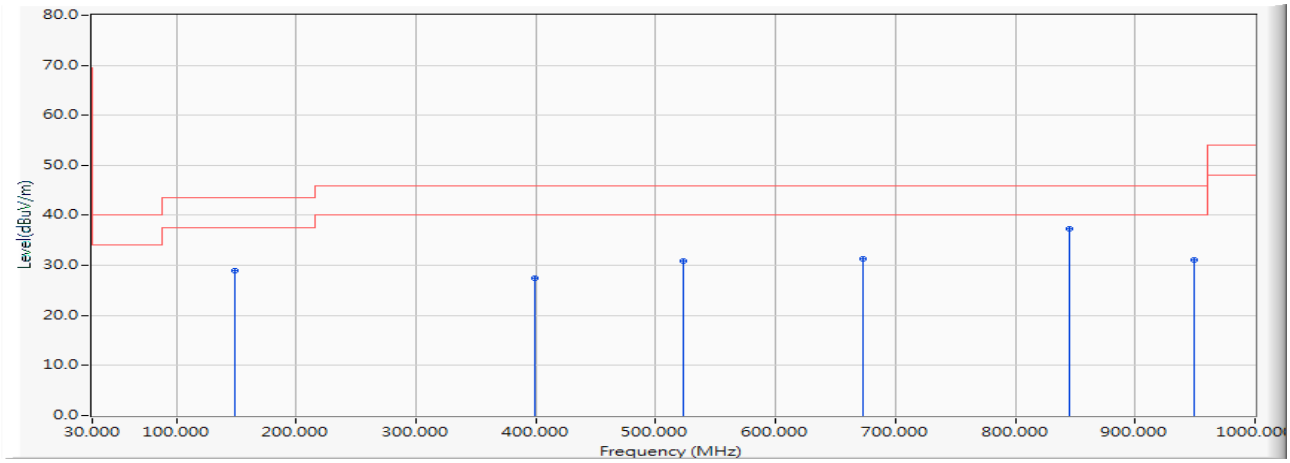
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		183.232	-12.869	36.398	23.530	-19.970	43.500	QUASIPEAK
2		522.029	-5.614	35.987	30.373	-15.627	46.000	QUASIPEAK
3		672.449	-3.380	34.365	30.985	-15.015	46.000	QUASIPEAK
4	*	768.043	-1.897	34.925	33.028	-12.972	46.000	QUASIPEAK
5		895.971	-0.254	31.081	30.827	-15.173	46.000	QUASIPEAK
6		974.696	0.677	30.110	30.787	-23.213	54.000	QUASIPEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The emission levels of other frequencies are very lower than the limit and not show in test report.
5. No emission found between lowest internal used/generated frequency to 30MHz.

Product	:	UNIT ASSY DA
Test Item	:	General Radiated Emission
Test Mode	:	Mode 3: Transmit (802.11n-40BW 30Mbps) (5270MHz)
Test Date	:	2019/10/09

Horizontal



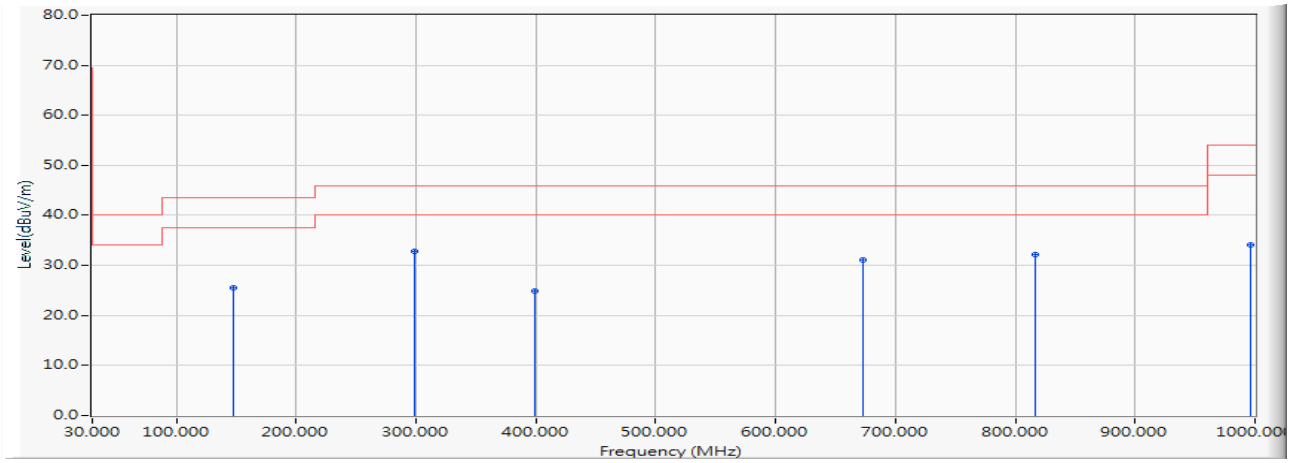
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		149.493	-11.097	40.127	29.030	-14.470	43.500	QUASIPEAK
2		399.725	-8.042	35.546	27.504	-18.496	46.000	QUASIPEAK
3		523.435	-5.592	36.460	30.868	-15.132	46.000	QUASIPEAK
4		672.449	-3.380	34.664	31.284	-14.716	46.000	QUASIPEAK
5	*	845.362	-0.949	38.175	37.226	-8.774	46.000	QUASIPEAK
6		949.391	0.342	30.660	31.003	-14.997	46.000	QUASIPEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The emission levels of other frequencies are very lower than the limit and not show in test report.
5. No emission found between lowest internal used/generated frequency to 30MHz.

Product	:	UNIT ASSY DA
Test Item	:	General Radiated Emission
Test Mode	:	Mode 3: Transmit (802.11n-40BW 30Mbps) (5270MHz)
Test Date	:	2019/10/09

Vertical



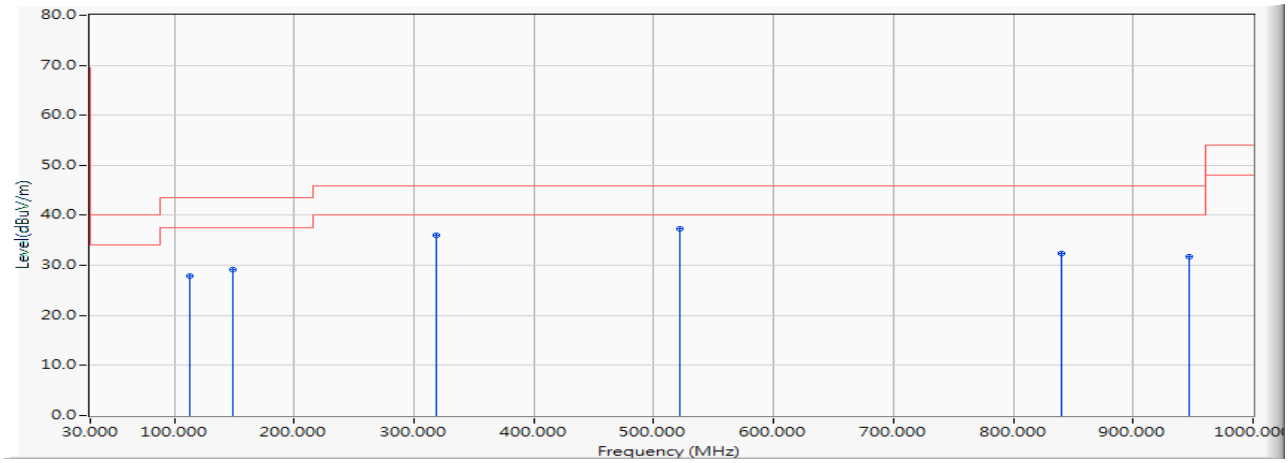
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		148.087	-11.146	36.747	25.601	-17.899	43.500	QUASIPEAK
2	*	298.507	-10.388	43.097	32.708	-13.292	46.000	QUASIPEAK
3		399.725	-8.042	32.823	24.781	-21.219	46.000	QUASIPEAK
4		672.449	-3.380	34.565	31.185	-14.815	46.000	QUASIPEAK
5		817.246	-1.389	33.460	32.072	-13.928	46.000	QUASIPEAK
6		995.783	0.952	33.064	34.016	-19.984	54.000	QUASIPEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The emission levels of other frequencies are very lower than the limit and not show in test report.
5. No emission found between lowest internal used/generated frequency to 30MHz.

Product	:	UNIT ASSY DA
Test Item	:	General Radiated Emission
Test Mode	:	Mode 3: Transmit (802.11n-40BW 30Mbps) (5550MHz)
Test Date	:	2019/05/13

Horizontal



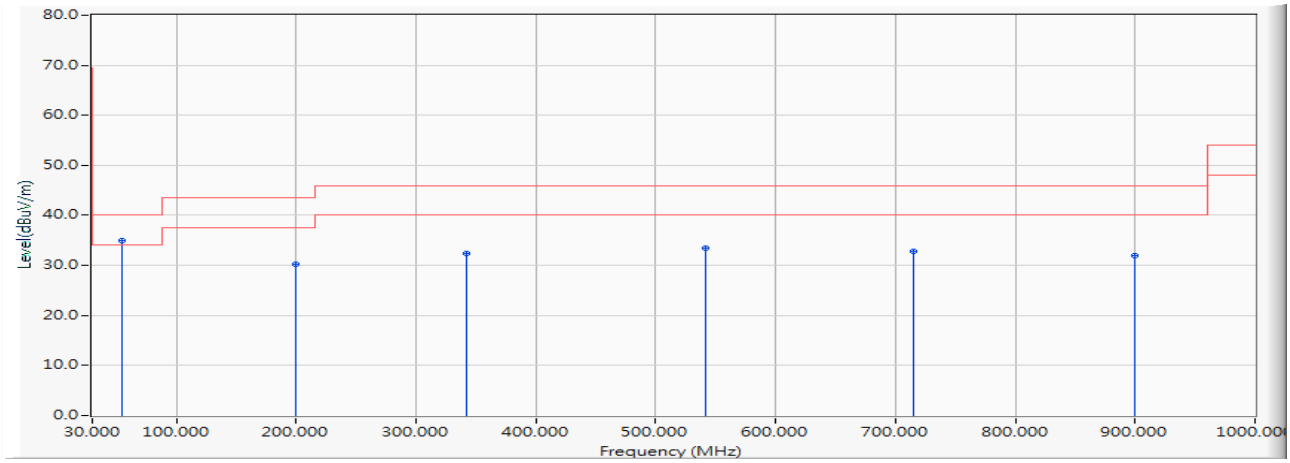
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		112.942	-13.566	41.466	27.900	-15.600	43.500	QUASIPEAK
2		149.493	-10.381	39.513	29.131	-14.369	43.500	QUASIPEAK
3		318.188	-9.205	45.316	36.111	-9.889	46.000	QUASIPEAK
4	*	522.029	-4.520	41.943	37.423	-8.577	46.000	QUASIPEAK
5		839.739	0.475	31.908	32.383	-13.617	46.000	QUASIPEAK
6		946.580	1.721	30.048	31.770	-14.230	46.000	QUASIPEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The emission levels of other frequencies are very lower than the limit and not show in test report.
5. No emission found between lowest internal used/generated frequency to 30MHz.

Product	:	UNIT ASSY DA
Test Item	:	General Radiated Emission
Test Mode	:	Mode 3: Transmit (802.11n-40BW 30Mbps) (5550MHz)
Test Date	:	2019/05/13

Vertical



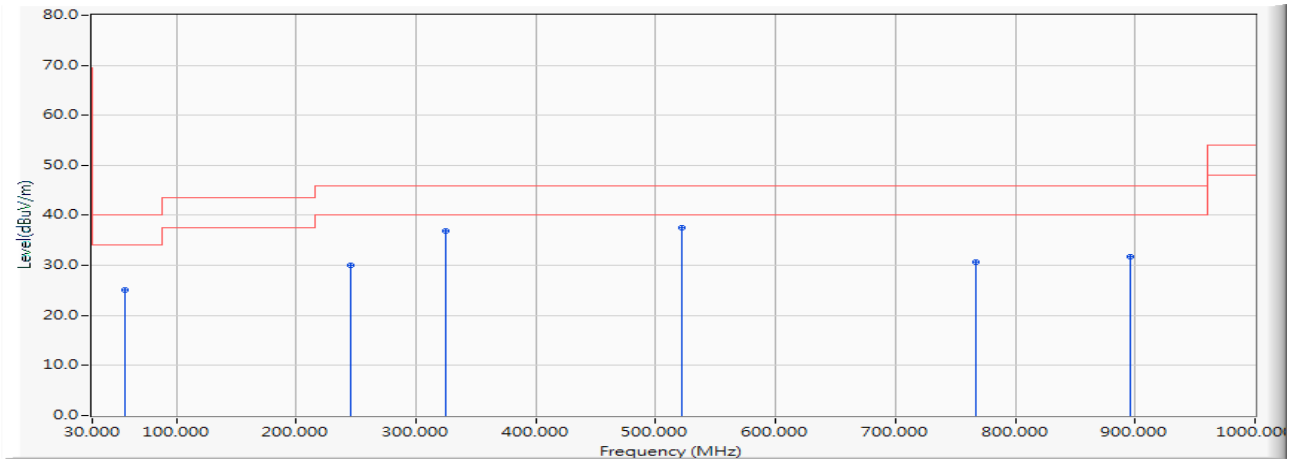
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	55.304	-11.161	46.020	34.859	-5.141	40.000	QUASIPEAK
2		200.101	-13.218	43.559	30.340	-13.160	43.500	QUASIPEAK
3		342.087	-8.651	40.962	32.311	-13.689	46.000	QUASIPEAK
4		541.710	-4.130	37.596	33.465	-12.535	46.000	QUASIPEAK
5		714.623	-1.173	34.054	32.881	-13.119	46.000	QUASIPEAK
6		900.188	1.222	30.652	31.874	-14.126	46.000	QUASIPEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The emission levels of other frequencies are very lower than the limit and not show in test report.
5. No emission found between lowest internal used/generated frequency to 30MHz.

Product	:	UNIT ASSY DA
Test Item	:	General Radiated Emission
Test Mode	:	Mode 3: Transmit (802.11n-40BW 30Mbps) (5795MHz)
Test Date	:	2019/05/13

Horizontal



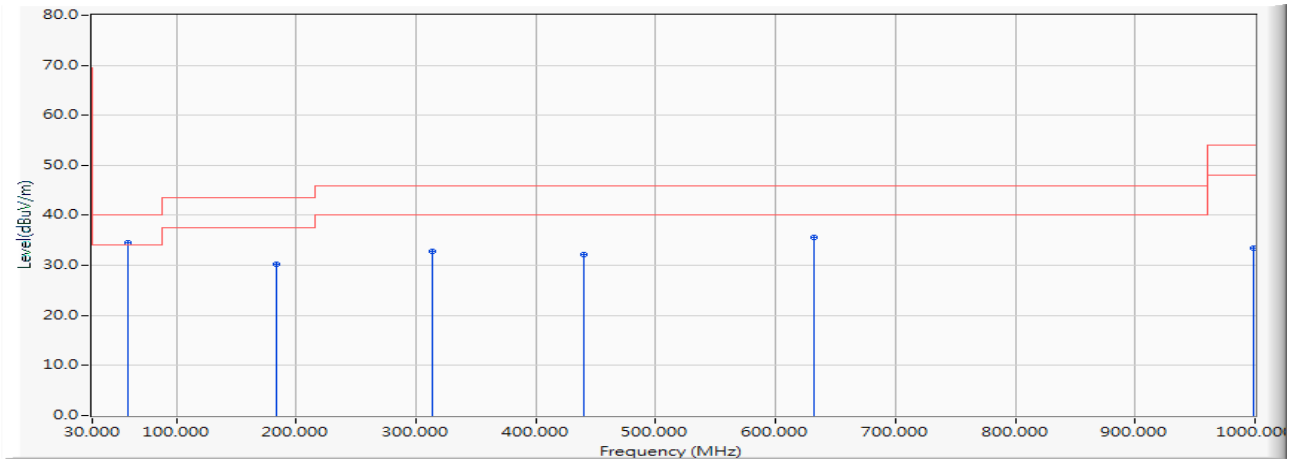
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		56.710	-11.308	36.307	24.999	-15.001	40.000	QUASIPEAK
2		245.087	-11.477	41.439	29.962	-16.038	46.000	QUASIPEAK
3		325.217	-9.045	45.877	36.832	-9.168	46.000	QUASIPEAK
4	*	522.029	-4.520	42.143	37.623	-8.377	46.000	QUASIPEAK
5		766.638	-0.410	31.037	30.627	-15.373	46.000	QUASIPEAK
6		895.971	1.167	30.537	31.704	-14.296	46.000	QUASIPEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The emission levels of other frequencies are very lower than the limit and not show in test report.
5. No emission found between lowest internal used/generated frequency to 30MHz.

Product	:	UNIT ASSY DA
Test Item	:	General Radiated Emission
Test Mode	:	Mode 3: Transmit (802.11n-40BW 30Mbps) (5795MHz)
Test Date	:	2019/05/13

Vertical



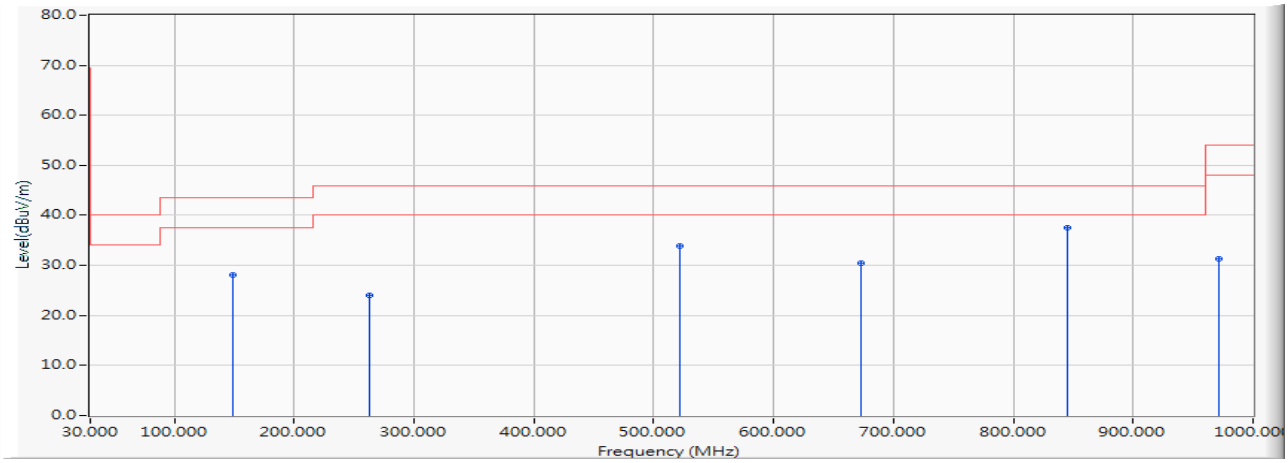
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	59.522	-11.598	46.082	34.484	-5.516	40.000	QUASIPEAK
2		183.232	-12.317	42.568	30.252	-13.248	43.500	QUASIPEAK
3		313.971	-9.283	42.203	32.920	-13.080	46.000	QUASIPEAK
4		440.493	-6.081	38.154	32.073	-13.927	46.000	QUASIPEAK
5		631.681	-2.481	38.113	35.632	-10.368	46.000	QUASIPEAK
6		998.594	2.490	30.964	33.454	-20.546	54.000	QUASIPEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The emission levels of other frequencies are very lower than the limit and not show in test report.
5. No emission found between lowest internal used/generated frequency to 30MHz.

Product	:	UNIT ASSY DA
Test Item	:	General Radiated Emission
Test Mode	:	Mode 4: Transmit (802.11ac-80BW 65Mbps) (5210MHz)
Test Date	:	2019/10/09

Horizontal



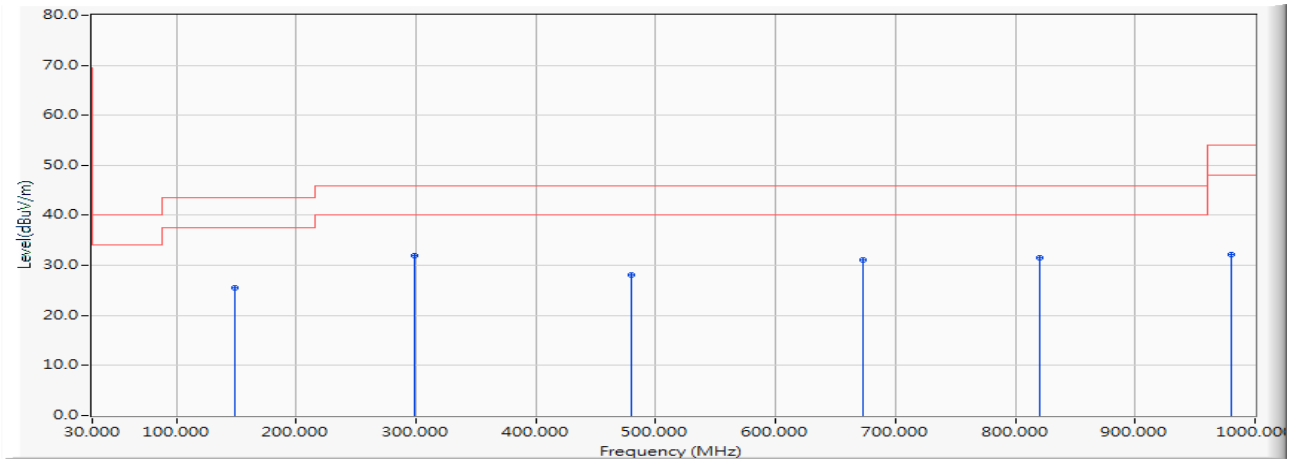
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		149.493	-11.097	39.227	28.130	-15.370	43.500	QUASIPEAK
2		263.362	-11.738	35.770	24.031	-21.969	46.000	QUASIPEAK
3		522.029	-5.614	39.531	33.917	-12.083	46.000	QUASIPEAK
4		672.449	-3.380	33.864	30.484	-15.516	46.000	QUASIPEAK
5	*	845.362	-0.949	38.475	37.526	-8.474	46.000	QUASIPEAK
6		971.884	0.639	30.610	31.249	-22.751	54.000	QUASIPEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The emission levels of other frequencies are very lower than the limit and not show in test report.
5. No emission found between lowest internal used/generated frequency to 30MHz.

Product	:	UNIT ASSY DA
Test Item	:	General Radiated Emission
Test Mode	:	Mode 4: Transmit (802.11ac-80BW 65Mbps) (5210MHz)
Test Date	:	2019/10/09

Vertical



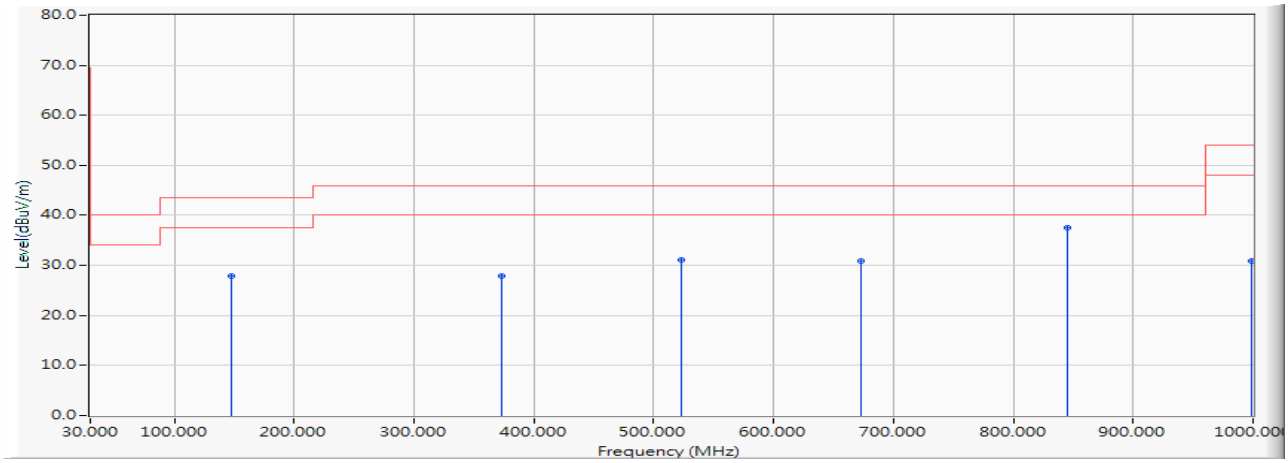
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		149.493	-11.097	36.552	25.455	-18.045	43.500	QUASIPEAK
2	*	298.507	-10.388	42.397	32.008	-13.992	46.000	QUASIPEAK
3		479.855	-6.292	34.292	28.000	-18.000	46.000	QUASIPEAK
4		672.449	-3.380	34.565	31.185	-14.815	46.000	QUASIPEAK
5		820.058	-1.344	32.961	31.617	-14.383	46.000	QUASIPEAK
6		980.319	0.751	31.460	32.211	-21.789	54.000	QUASIPEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The emission levels of other frequencies are very lower than the limit and not show in test report.
5. No emission found between lowest internal used/generated frequency to 30MHz.

Product : UNIT ASSY DA
Test Item : General Radiated Emission
Test Mode : Mode 4: Transmit (802.11ac-80BW 65Mbps) (5290MHz)
Test Date : 2019/10/09

Horizontal



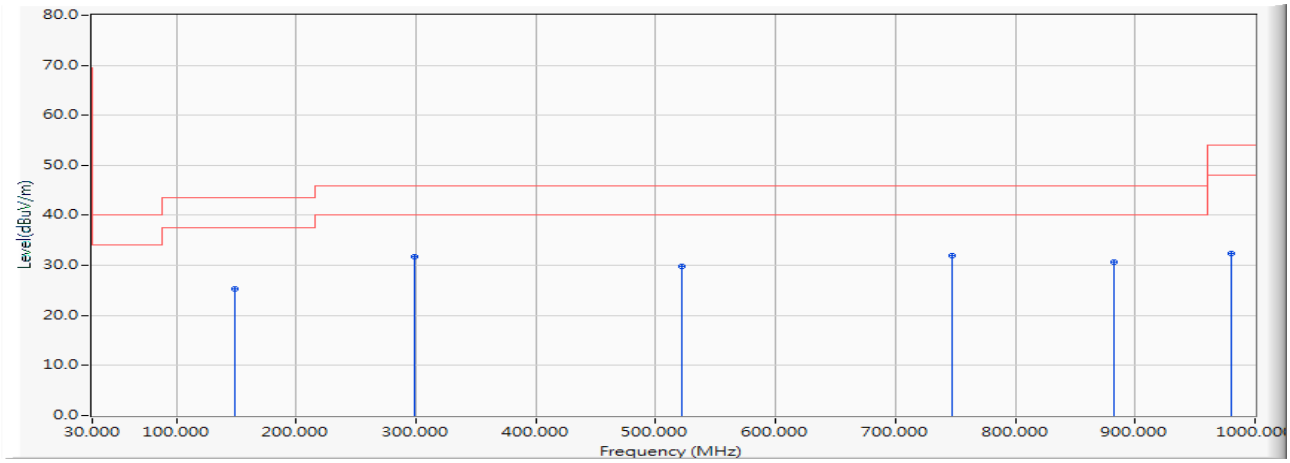
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		148.087	-11.146	39.083	27.937	-15.563	43.500	QUASIPEAK
2		373.014	-8.655	36.545	27.890	-18.110	46.000	QUASIPEAK
3		523.435	-5.592	36.660	31.068	-14.932	46.000	QUASIPEAK
4		672.449	-3.380	34.364	30.984	-15.016	46.000	QUASIPEAK
5	*	845.362	-0.949	38.475	37.526	-8.474	46.000	QUASIPEAK
6		998.594	0.988	29.859	30.847	-23.153	54.000	QUASIPEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The emission levels of other frequencies are very lower than the limit and not show in test report.
5. No emission found between lowest internal used/generated frequency to 30MHz.

Product	:	UNIT ASSY DA
Test Item	:	General Radiated Emission
Test Mode	:	Mode 4: Transmit (802.11ac-80BW 65Mbps) (5290MHz)
Test Date	:	2019/10/09

Vertical



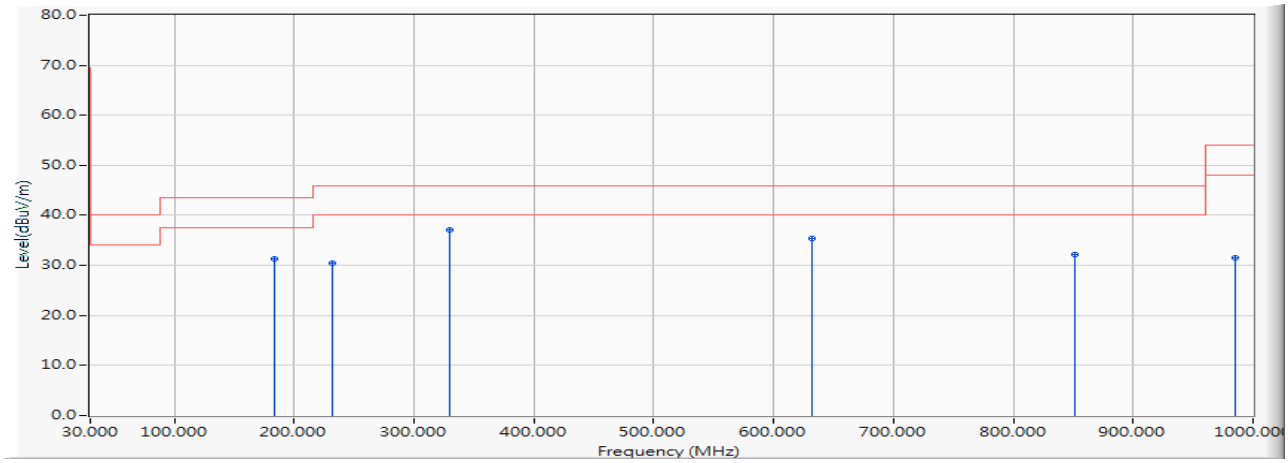
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		149.493	-11.097	36.452	25.355	-18.145	43.500	QUASIPEAK
2		298.507	-10.388	42.197	31.808	-14.192	46.000	QUASIPEAK
3		522.029	-5.614	35.387	29.773	-16.227	46.000	QUASIPEAK
4	*	746.957	-2.082	33.998	31.916	-14.084	46.000	QUASIPEAK
5		881.913	-0.445	31.132	30.687	-15.313	46.000	QUASIPEAK
6		980.319	0.751	31.560	32.311	-21.689	54.000	QUASIPEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The emission levels of other frequencies are very lower than the limit and not show in test report.
5. No emission found between lowest internal used/generated frequency to 30MHz.

Product	:	UNIT ASSY DA
Test Item	:	General Radiated Emission
Test Mode	:	Mode 4: Transmit (802.11ac-80BW 65Mbps) (5530MHz)
Test Date	:	2019/05/13

Horizontal



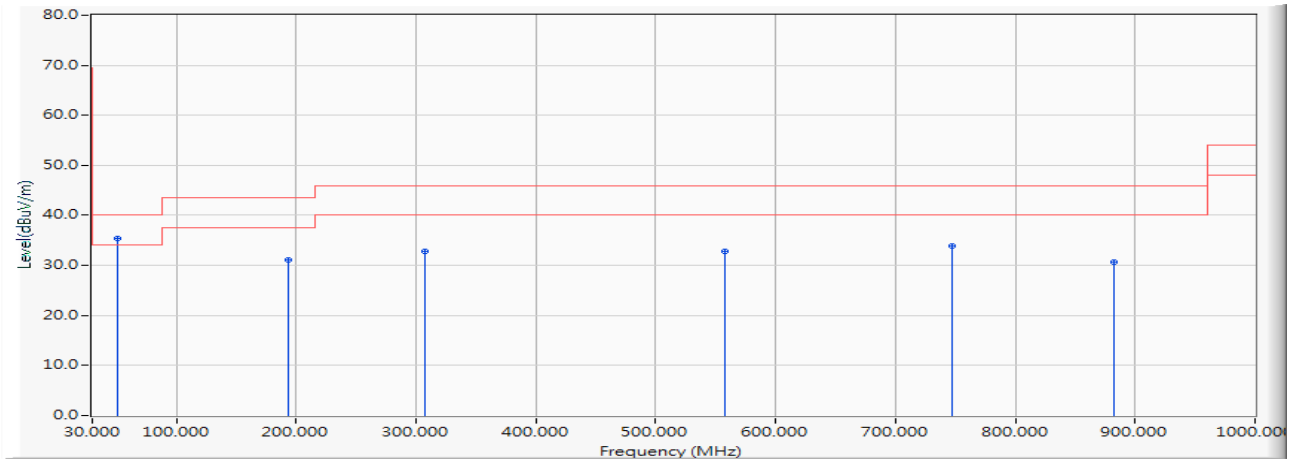
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		183.232	-12.317	43.612	31.296	-12.204	43.500	QUASIPEAK
2		232.435	-12.075	42.632	30.558	-15.442	46.000	QUASIPEAK
3	*	329.435	-8.921	46.032	37.111	-8.889	46.000	QUASIPEAK
4		631.681	-2.481	37.903	35.422	-10.578	46.000	QUASIPEAK
5		850.986	0.605	31.486	32.091	-13.909	46.000	QUASIPEAK
6		984.536	2.282	29.176	31.457	-22.543	54.000	QUASIPEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The emission levels of other frequencies are very lower than the limit and not show in test report.
5. No emission found between lowest internal used/generated frequency to 30MHz.

Product	:	UNIT ASSY DA
Test Item	:	General Radiated Emission
Test Mode	:	Mode 4: Transmit (802.11ac-80BW 65Mbps) (5530MHz)
Test Date	:	2019/05/13

Vertical



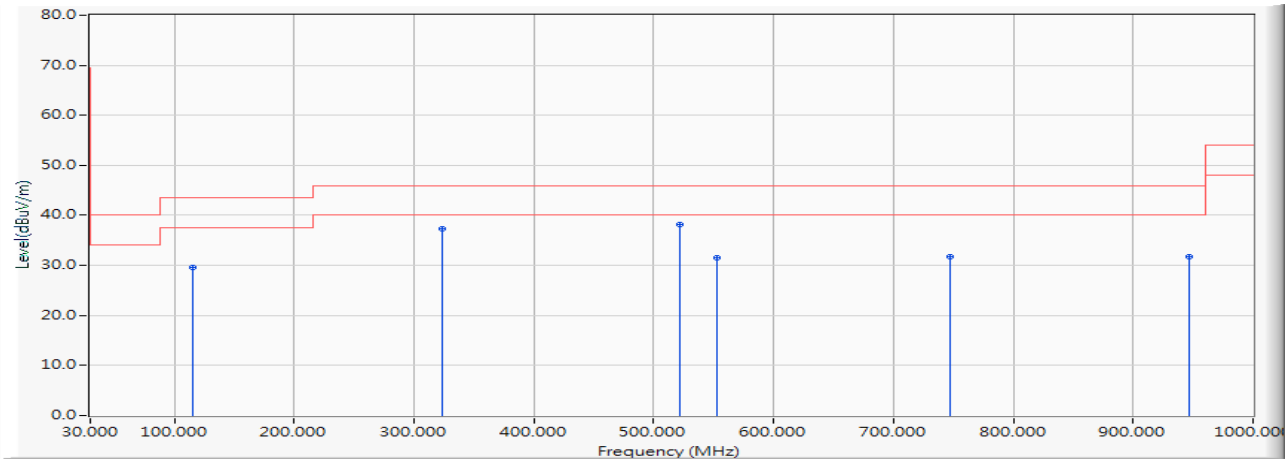
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	51.087	-10.737	46.039	35.302	-4.698	40.000	QUASIPEAK
2		193.072	-13.135	44.192	31.056	-12.444	43.500	QUASIPEAK
3		306.942	-9.446	42.247	32.801	-13.199	46.000	QUASIPEAK
4		557.174	-3.785	36.615	32.830	-13.170	46.000	QUASIPEAK
5		746.957	-0.662	34.466	33.804	-12.196	46.000	QUASIPEAK
6		881.913	0.986	29.730	30.716	-15.284	46.000	QUASIPEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The emission levels of other frequencies are very lower than the limit and not show in test report.
5. No emission found between lowest internal used/generated frequency to 30MHz.

Product	:	UNIT ASSY DA
Test Item	:	General Radiated Emission
Test Mode	:	Mode 4: Transmit (802.11ac-80BW 65Mbps) (5775MHz)
Test Date	:	2019/05/13

Horizontal



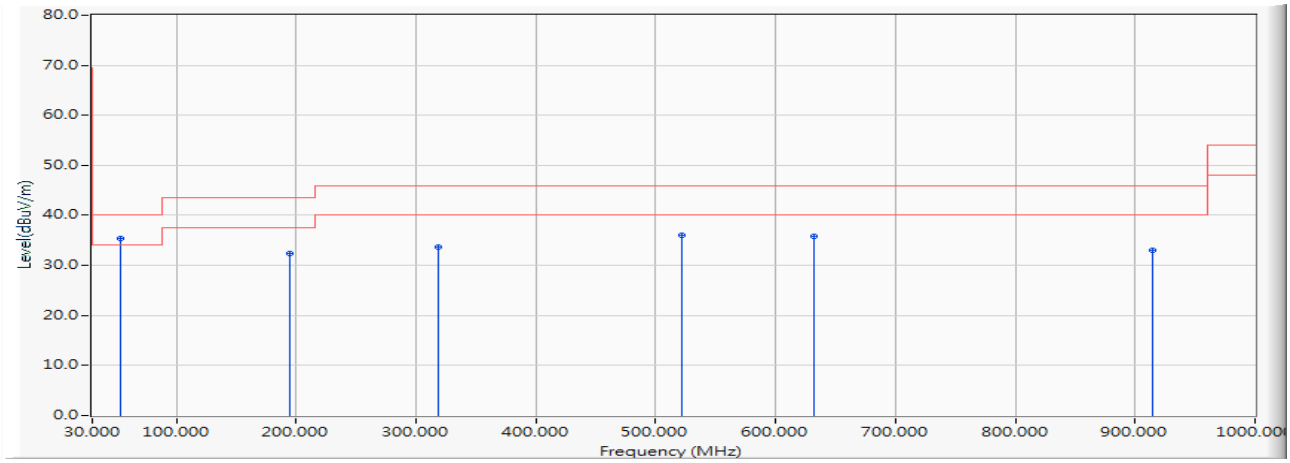
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		115.754	-13.260	42.850	29.590	-13.910	43.500	QUASIPEAK
2		323.812	-9.073	46.409	37.336	-8.664	46.000	QUASIPEAK
3	*	522.029	-4.520	42.743	38.223	-7.777	46.000	QUASIPEAK
4		552.957	-3.885	35.437	31.552	-14.448	46.000	QUASIPEAK
5		746.957	-0.662	32.444	31.782	-14.218	46.000	QUASIPEAK
6		946.580	1.721	30.048	31.770	-14.230	46.000	QUASIPEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The emission levels of other frequencies are very lower than the limit and not show in test report.
5. No emission found between lowest internal used/generated frequency to 30MHz.

Product	:	UNIT ASSY DA
Test Item	:	General Radiated Emission
Test Mode	:	Mode 4: Transmit (802.11ac-80BW 65Mbps) (5775MHz)
Test Date	:	2019/05/13

Vertical



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	53.899	-11.024	46.426	35.402	-4.598	40.000	QUASIPEAK
2		194.478	-13.159	45.541	32.382	-11.118	43.500	QUASIPEAK
3		318.188	-9.205	42.923	33.718	-12.282	46.000	QUASIPEAK
4		522.029	-4.520	40.459	35.939	-10.061	46.000	QUASIPEAK
5		631.681	-2.481	38.313	35.832	-10.168	46.000	QUASIPEAK
6		914.246	1.365	31.560	32.925	-13.075	46.000	QUASIPEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The emission levels of other frequencies are very lower than the limit and not show in test report.
5. No emission found between lowest internal used/generated frequency to 30MHz.