FCC Test Report

Product Name	Wireless module
Model No	WAPC003
FCC ID	SLE-WAPC003

Applicant	Moxa Inc.
Address	No. 1111, Heping Rd., Bade Dist., Taoyuan City 334004, Taiwan

Date of Receipt	Jan. 18, 2021
Issued Date	Mar. 08, 2021
Report No.	2110552R-E3032110128
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.
Measurement uncertainties evaluated for each testing system and associated connections are given here to provide the system information for reference. Compliance determinations do not take into account measurement uncertainties for each testing system, but are based on the results of the compliance measurement.

Test Report

Issued Date: Mar. 08, 2021
Report No.: 2110552R-E3032110128

Product Name	Wireless module
Applicant	Moxa Inc.
Address	No. 1111, Heping Rd., Bade Dist., Taoyuan City 334004, Taiwan
Manufacturer	Moxa Inc.
Model No.	WAPC003
FCC ID.	SLE-WAPC003
EUT Rated Voltage	DC 3.3V
EUT Test Voltage	AC 120V/60Hz
Trade Name	MOXA
Applicable Standard	FCC CFR Title 47 Part 15 Subpart E ANSI C63.4: 2014, ANSI C63.10: 2013 KDB Publication 789033
Test Result	Complied

Documented By : Rita Huang

(Senior Adm. Specialist / Rita Huang)

Tested By : Ivan Chuang

(Senior Engineer / Ivan Chuang)

Approved By :

(Director / Vincent Lin)

TABLE OF CONTENTS

Revision History

Report No.	Version	Description	Issued Date
2110552R-E3032110128	V1.0	Initial issue of report.	2021-03-08

1. GENERAL INFORMATION

1.1. EUT Description

Product Name	Wireless module
Trade Name	MOXA
FCC ID.	SLE-WAPC003
Model No.	WAPC003
Frequency Range	802.11a/n/ac-20MHz: 5180-5320MHz, 5500-5700MHz, 5745-5825MHz 802.11n/ac-40MHz: 5190-5310 MHz, 5510-5670MHz, 5755-5795MHz 802.11ac-20MHz: 5720 MHz, 802.11ac-40MHz: 5710 MHz 802.11ac-80MHz: 5210-5290MHz, 5530-5690MHz, 5775MHz
Number of Channels	802.11a/n/ac-20MHz: 24; 802.11n/ac-40MHz: 11, 802.11ac-80MHz: 6
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	Dipole Antenna, Panel Antenna
Antenna Gain	Refer to the table “Antenna List”

Antenna List

No.	Manufacturer	Part No.	Antenna Type	Peak Gain
1	MOXA	ANT-WDB-ANM-0306	Dipole	5.7dBi For 5.15~5.25GHz 5.7dBi For 5.25~5.35GHz 6.3dBi For 5.47~5.725GHz 6.3dBi For 5.725~5.825GHz
2	MOXA	ANT-WDB-ANM-0502	Dipole	1.41dBi For 5GHz
3	MOXA	ANT-WDB-ARM-02	Dipole	0.81dBi For 5.15~5.25GHz 0.36Bi For 5.25~5.35GHz 0.36dBi For 5.47~5.725GHz -0.39dBi For 5.725~5.825GHz
4	MOXA	ANT-WDB-ARM-0202	Dipole	1.8dBi For 5GHz
5	MOXA	MAT-WDB-CA-RM-2-0205	Dipole	5.7dBi For 5.15~5.25GHz 5.76Bi For 5.25~5.35GHz 5.7dBi For 5.47~5.725GHz 5.2dBi For 5.725~5.825GHz
6	MOXA	MAT-WDB-DA-RM-2-0203-1m	Dipole	2.72dBi For 5.15~5.25GHz 2.72dBi For 5.25~5.35GHz 2.72dBi For 5.47~5.725GHz 2.34dBi For 5.725~5.825GHz
7	MOXA	MAT-WDB-PA-NF-2-0708	Panel	8.77dBi For 5.15~5.25GHz 8.77dBi For 5.25~5.35GHz 8.61dBi For 5.47~5.725GHz 8.18dBi For 5.725~5.825GHz
8	MOXA	ANT-WDB-PNF-1011	Panel	12.04dBi For 5.15~5.25GHz 12.04dBi For 5.25~5.35GHz 11.06dBi For 5.47~5.725GHz 11.06dBi For 5.725~5.825GHz
9	MOXA	ANT-WDB-ONM-0707	Dipole	7.3dBi For 5.15~5.25GHz 7.3dBi For 5.25~5.35GHz 7.5dBi For 5.47~5.725GHz 7.6dBi For 5.725~5.825GHz
10	MOXA	ANT-WDB-ONF-0709	Dipole	8.61dBi For 5.15~5.25GHz 8.15dBi For 5.25~5.35GHz 8.87dBi For 5.47~5.725GHz 8.87dBi For 5.725~5.825GHz
11	MOXA	ANT-WSB5-PNF-16	Panel	16.38dBi For 5.15~5.25GHz 16.38dBi For 5.25~5.35GHz 16.94dBi For 5.47~5.725GHz 16.94dBi For 5.725~5.825GHz

Note:

1. The antenna of EUT is conforming to FCC 15.203.
2. The Panel antenna and Sector antenna is directional antenna.
3. Each antenna has been evaluated and only the worst case (higher gain antenna) is presented in the report.

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

Channel	Frequency
Channel 144:	5720 MHz

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

Channel	Frequency
Channel 142:	5710 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 138:	5690 MHz	Channel 155:	5775 MHz				

Note:

1. This device is an Wireless module with a built-in WLAN (802.11a/b/g/n/ac), this report for 5GHz WLAN.
2. Regarding to the operation frequency, the lowest, middle and highest frequency are selected to perform the test.
3. At result of pretests, module supports dual-channel transmission, only the worst case is shown in the report. (802.11a is chain A)
4. Lowest and highest data rates are tested in each mode. Only worst case is shown in the report.
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 7.2Mbps)
	Mode 3: Transmit (802.11n-40BW 15Mbps)
	Mode 4: Transmit (802.11ac-20BW 7.2Mbps)
	Mode 5: Transmit (802.11ac-40BW 15Mbps)
	Mode 6: Transmit (802.11ac-80BW 32.5Mbps)

1.2. Summary of Test Item

Test Condition			Test Item					
			Conducted			Radiated		
Antenna No.	Antenna Type	Antenna Gain	Conducted Power	Power Density	Occupied Bandwidth	Radiated Emission	Band Edge	DFS
1	Dipole	5.7dBi For 5.150~5.250GHz 5.7dBi For 5.250~5.350GHz 6.3dBi For 5.470~5.725GHz 6.3dBi For 5.725~5.825GHz						
2	Dipole	1.41dBi For 5GHz						
3	Dipole	0.81dBi For 5.150~5.250GHz 0.36dBi For 5.250~5.350GHz 0.36dBi For 5.470~5.725GHz -0.39dBi For 5.725~5.825GHz						
4	Dipole	1.8dBi For 5GHz						
5	Dipole	5.7dBi For 5.150~5.250GHz 5.76Bi For 5.250~5.350GHz 5.7dBi For 5.470~5.725GHz 5.2dBi For 5.725~5.825GHz						
6	Dipole	2.72dBi For 5.150~5.250GHz 2.72dBi For 5.250~5.350GHz 2.72dBi For 5.470~5.725GHz 2.34dBi For 5.725~5.825GHz						
7	Panel	8.77dBi For 5.15~5.25GHz 8.77dBi For 5.25~5.35GHz 8.61dBi For 5.47~5.725GHz 8.18dBi For 5.725~5.825GHz						
8	Panel	12.04dBi For 5.150~5.250GHz 12.04dBi For 5.250~5.350GHz 11.06dBi For 5.470~5.725GHz 11.06dBi For 5.725~5.825GHz						
9	Dipole	7.3dBi For 5.150~5.250GHz 7.3dBi For 5.250~5.350GHz 7.5dBi For 5.470~5.725GHz 7.6dBi For 5.725~5.825GHz						
10	Dipole	8.61dBi For 5.150~5.250GHz 8.15dBi For 5.250~5.350GHz 8.87dBi For 5.470~5.725GHz 8.87dBi For 5.725~5.825GHz	✓	✓	✓	✓	✓	✓
11	Panel	16.38dBi For 5.15~5.25GHz 16.38dBi For 5.25~5.35GHz 16.94dBi For 5.47~5.725GHz 16.94dBi For 5.725~5.825GHz	✓	✓	✓	✓	✓	

Note:

1. Transmitting antennas of directional gain greater than 6 dBi ,the conducted output power from the intentional radiator shall be reduced belowthe limit.

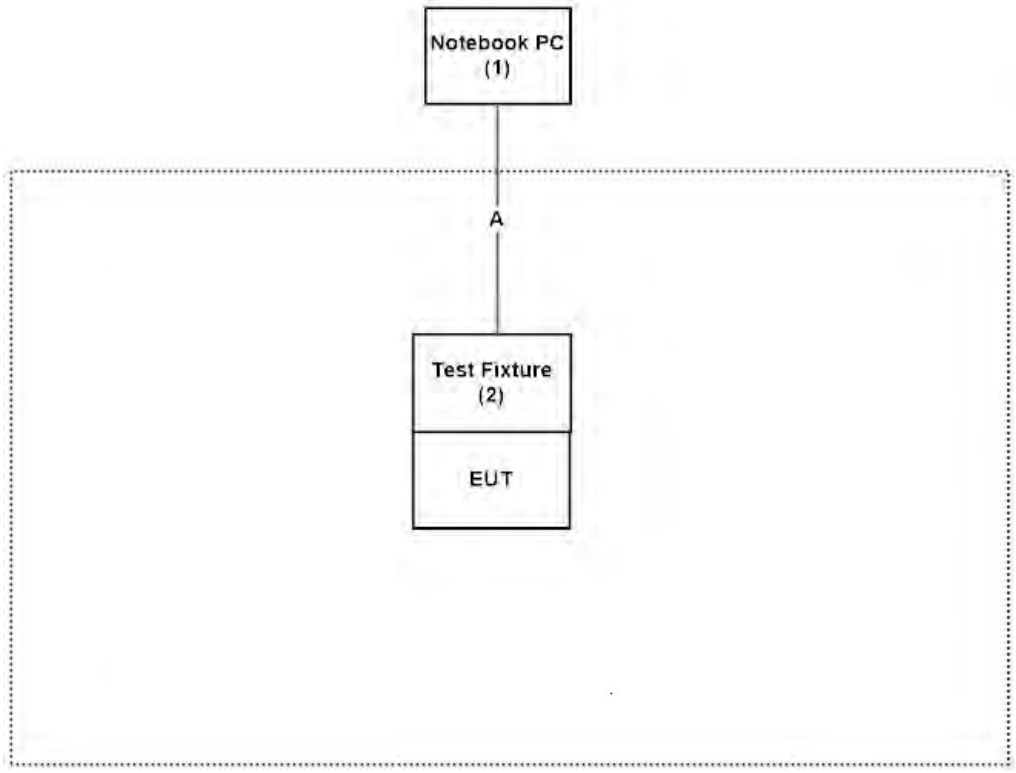
1.3. Tested System Datails

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	Notebook PC	DELL	Latitude E5440	74BTK32	Non-Shielded, 0.8m
2	Test Fixture	Moxa	WAPC003	N/A	N/A

Signal Cable Type		Signal cable Description
A	LAN Cable	Non-Shielded, 2.0m

1.4. Configuration of tested System



1.5. EUT Exercise Software

1. Setup the EUT as shown in Section 1.4.
2. Execute software “QCARCT V3.0.295.0” on the Notebook PC.
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:

Performed Item	Items	Required	Actual
Conducted Emission	Temperature (°C)	10~40 °C	24.3 °C
	Humidity (%RH)	10~90 %	55.7 %
Radiated Emission	Temperature (°C)	10~40 °C	22.9 °C
	Humidity (%RH)	10~90 %	64 %
Conductive	Temperature (°C)	10~40 °C	26.2 °C
	Humidity (%RH)	10~90 %	45.7 %

USA : FCC Registration Number: TW0023

Canada : IC Registration Number: 25880

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 Conduction measurements /ASR1

	Equipment	Manufacturer	Model No.	Serial No.	Cali. Data	Due. Data
X	EMI Test Receiver	R&S	ESR7	101601	2020.05.28	2021.05.27
X	Two-Line V-Network	R&S	ENV216	101306	2020.03.25	2021.03.24
X	Two-Line V-Network	R&S	ENV216	101307	2020.04.17	2021.04.16
X	Coaxial Cable	DEKRA	RG400_BNC	RF001	2020.05.24	2021.05.23

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 Testing System V2.0

For Conducted measurements /ASR2

	Equipment	Manufacturer	Model No.	Serial No.	Cali. Data	Due. Data
X	Spectrum Analyzer	Agilent	N9010A	MY55150401	2020.09.15	2021.09.14
X	Spectrum Analyzer	R&S	FSV30	103466	2020.12.28	2021.12.27
X	Power Meter	Anritsu	ML2496A	MY51000539	2020.05.13	2021.05.12
X	Power Sensor	Anritsu	MA2411B	MY59240002	2020.05.22	2021.05.21
X	Power Sensor	Anritsu	MA2411B	MY59240003	2020.05.22	2021.05.21

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	2020.03.16	2021.03.15
X	Bi-Log Antenna	SCHWARZBECK	VULB9168	9168-675	2020.07.20	2021.07.19
X	Horn Antenna	ETS-Lindgren	3117	00201366	2020.09.21	2021.09.20
X	Horn Antenna	Com-Power	AH-840	101088	2020.09.11	2021.09.10
X	Pre-Amplifier	EMCI	EMC001330	980301	2020.06.04	2021.06.03
X	Pre-Amplifier	EMCI	EMC051845SE	980632	2020.08.21	2021.08.20
X	Pre-Amplifier	EMCI	EMC05820SE	980308	2020.09.18	2021.09.17
X	Pre-Amplifier	EMCI	EMC184045SE	980314	2020.06.10	2021.06.09
X	Filter	MICRO TRONICS	BRM50702	G251	2020.09.17	2021.09.16
	Filter	MICRO TRONICS	BRM50716	G188	2020.09.17	2021.09.16
X	EMI Test Receiver	R&S	ESR7	101601	2020.05.21	2021.05.20
X	Spectrum Analyzer	R&S	FSV40	101147	2020.04.20	2021.04.19
X	Coaxial Cable	SUHNER	SUCOFLEX 106	RF002	2020.07.03	2021.07.02
X	Mircoflex Cable	HUBER SUHNER	SUCOFLEX 102	MY3381/2	2020.06.10	2021.06.09

Note:
1. Loop Antenna is calibrated every two years, the other 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 Testing System V2.0

1.8. Uncertainty

Uncertainties have been calculated according to the DEKRA internal document, and is described in each test chapter of this report.

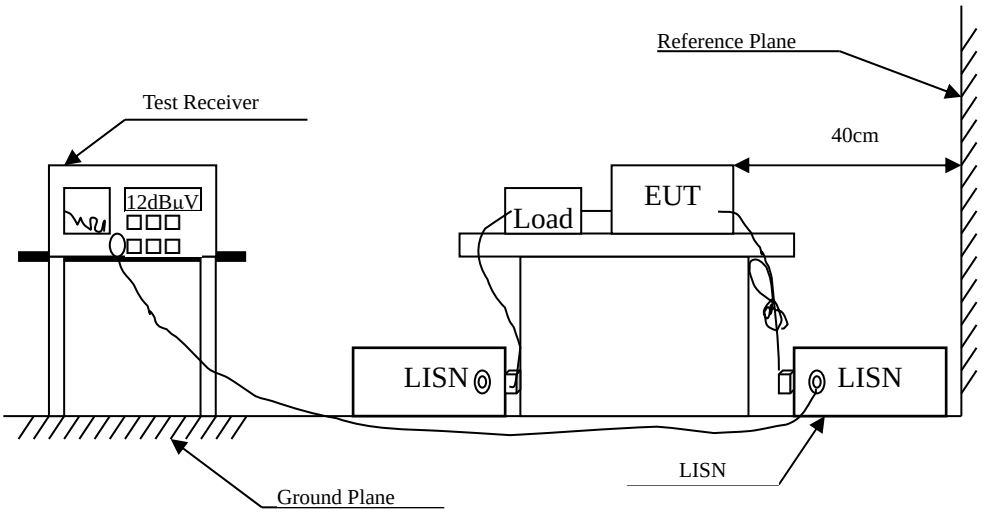
The reported expanded uncertainties are based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95%.

Measurement uncertainties evaluated for each testing system and associated connections are given here to provide the system information for reference. Compliance determinations do not take into account measurement uncertainties for each testing system, but are based on the results of the compliance measurement.

Test item	Uncertainty	
Conducted Emission	±3.42 dB	
Maximun conducted output power	Power Meter ±0.91 dB	
Peak Power Spectral Density	±2.53 dB	
Radiated Emission	Under 1GHz ±4.06 dB	Above 1GHz ±3.73 dB
Band Edge	±2.53 dB	
Occupied Bandwidth	±682.83 Hz	
Duty Cycle	±2.31 ms	

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.)

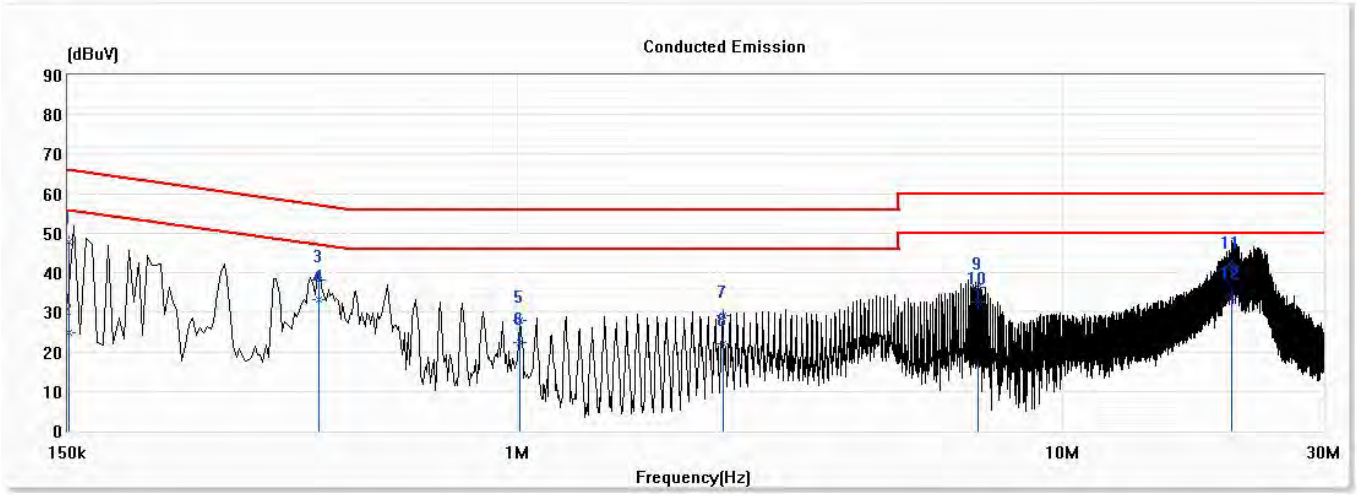
Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.4:2014 on conducted measurement.

Conducted emissions were invested over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9kHz.

2.4. Test Result of Conducted Emission

Product : Wireless module
Test Item : Conducted Emission Test
Power Line : L1
Test Mode : Mode 6: Transmit (802.11ac-80BW 32.5Mbps) (5210MHz)
Test Date : 2021/02/25

L1



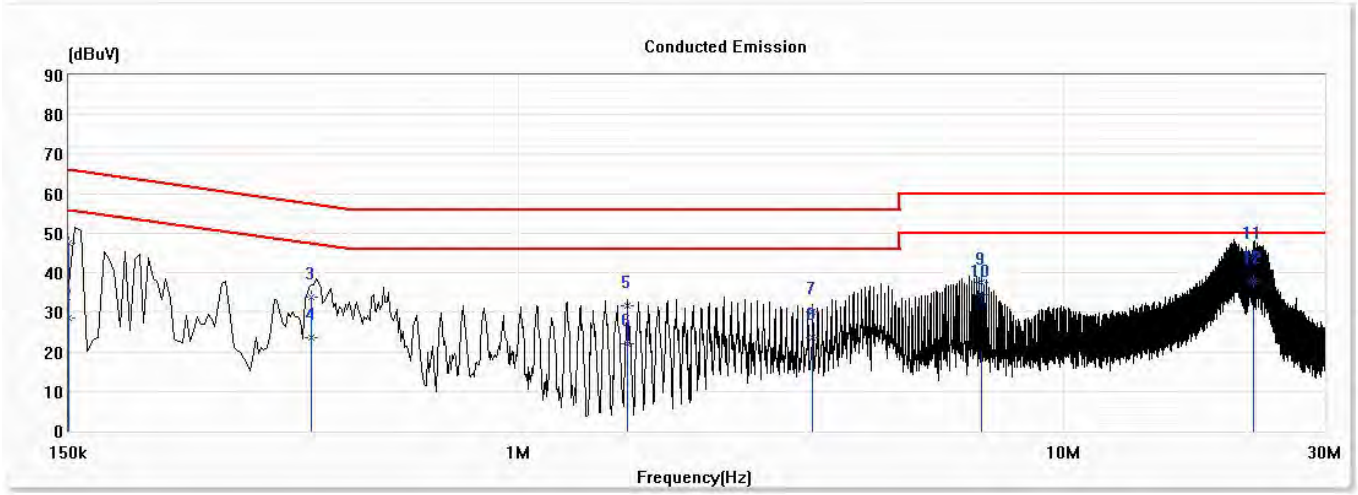
No	Frequency (MHz)	Emission Level (dBuV)	Limit (dBuV)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	0.151	47.82	65.95	-18.13	38.16	9.66	QP
2	0.151	24.72	55.95	-31.22	15.06	9.66	AV
3	0.432	38.17	57.21	-19.04	28.52	9.66	QP
*4	0.432	33.26	47.21	-13.95	23.60	9.66	AV
5	1.011	27.86	56.00	-28.14	18.17	9.69	QP
6	1.011	22.27	46.00	-23.73	12.58	9.69	AV
7	2.381	29.24	56.00	-26.76	19.51	9.73	QP
8	2.381	22.08	46.00	-23.92	12.35	9.73	AV
9	6.999	36.23	60.00	-23.77	26.39	9.83	QP
10	6.999	32.67	50.00	-17.33	22.84	9.83	AV
11	20.351	41.73	60.00	-18.27	31.76	9.97	QP
12	20.351	33.94	50.00	-16.06	23.97	9.97	AV

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " * " means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Product	:	Wireless module
Test Item	:	Conducted Emission Test
Power Line	:	N
Test Mode	:	Mode 6: Transmit (802.11ac-80BW 32.5Mbps) (5210MHz)
Test Date	:	2021/02/25

N



No	Frequency (MHz)	Emission Level (dBuV)	Limit (dBuV)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	0.150	47.44	65.99	-18.54	37.77	9.67	QP
2	0.150	28.55	55.99	-27.43	18.88	9.67	AV
3	0.417	33.81	57.51	-23.70	24.14	9.67	QP
4	0.417	23.72	47.51	-23.79	14.05	9.67	AV
5	1.586	31.81	56.00	-24.19	22.10	9.72	QP
6	1.586	22.00	46.00	-24.00	12.29	9.72	AV
7	3.462	30.13	56.00	-25.87	20.37	9.77	QP
8	3.462	23.58	46.00	-22.42	13.82	9.77	AV
9	7.066	37.70	60.00	-22.30	27.85	9.85	QP
10	7.066	34.37	50.00	-15.63	24.52	9.85	AV
11	22.278	44.02	60.00	-15.98	33.96	10.06	QP
*12	22.278	37.77	50.00	-12.23	27.71	10.06	AV

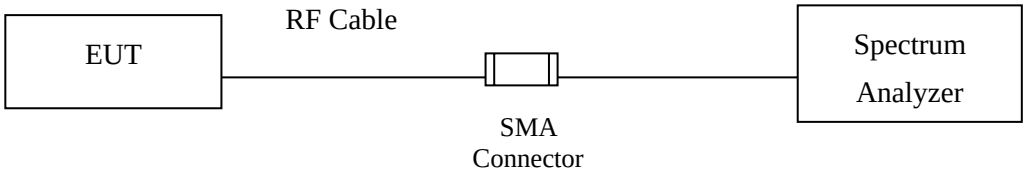
Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " * " means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

3. Maximun conducted output power

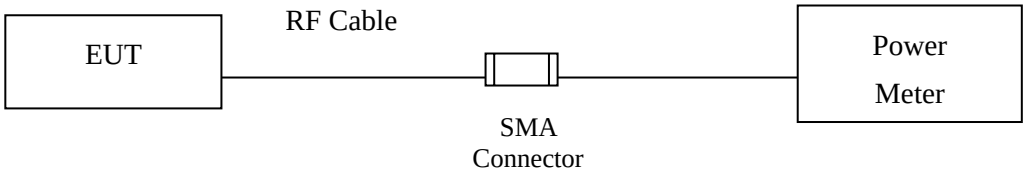
3.1. Test Setup

99% Occupied Bandwidth

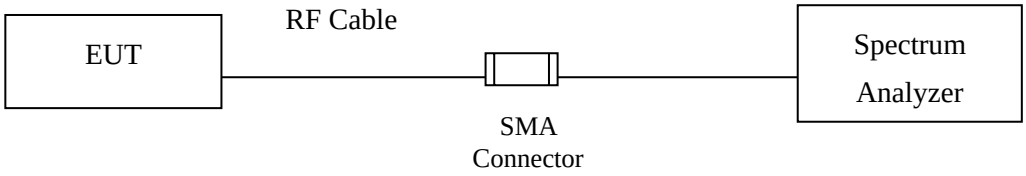


Conduction Power Measurement

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. Test Result of Maximum conducted output power

Product : Wireless module
Test Item : Maximum conducted output power
Test Mode : Mode 1: Transmit (802.11a 6Mbps) – Dipole Antenna
Test Date : 2021/02/19

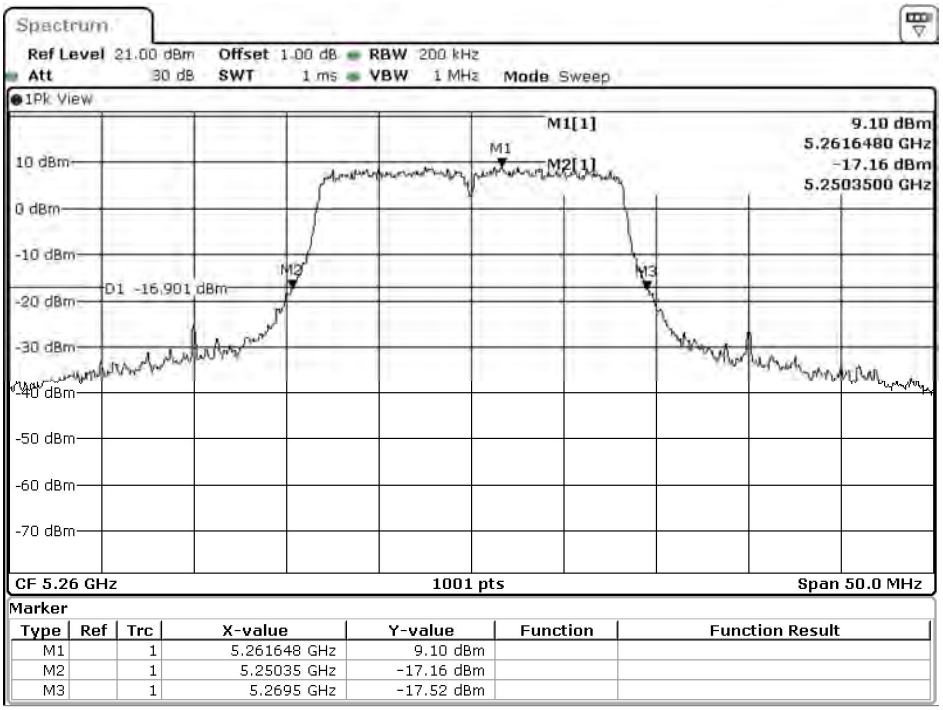
Cable loss=1dB		Maximum conducted output power							
Channel No.	Frequency (MHz)	Data Rate (Mbps)							
		6	9	12	18	24	36	48	54
		Measurement Level (dBm)							
36	5180	18.91	--	--	--	--	--	--	--
44	5220	19.5	19.45	19.39	19.34	19.24	19.2	19.12	19.08
48	5240	19.4	--	--	--	--	--	--	--
52	5260	19.88	--	--	--	--	--	--	--
60	5300	19.79	19.7	19.62	19.59	19.54	19.47	19.4	19.33
64	5320	18.94	--	--	--	--	--	--	--
100	5500	17.8	--	--	--	--	--	--	--
116	5580	19.48	19.45	19.37	19.28	19.20	19.10	19.04	18.96
140	5700	15.89	--	--	--	--	--	--	--
149	5745	21.97	--	--	--	--	--	--	--
157	5785	23.61	23.53	23.45	23.38	23.34	23.27	23.21	23.16
165	5825	21.85	--	--	--	--	--	--	--

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

Maximum conducted output power Measurement:

Channel No	Frequency Range (MHz)	26dB Bandwidth (MHz)	Output Power (dBm)	Output Power Limit	
				(dBm)	dBm+10log(BW)
36	5180	--	18.91	21.39	--
44	5220	--	19.50	21.39	--
48	5240	--	19.40	21.39	--
52	5260	19.15	19.88	21.85	23.82
60	5300	19.20	19.79	21.85	23.83
64	5320	19.20	18.94	21.85	23.83
100	5500	19.00	17.80	21.13	23.79
116	5580	19.20	19.48	21.13	23.83
140	5700	19.20	15.89	21.13	23.83
149	5745	--	21.97	30	--
157	5785	--	23.61	30	--
165	5825	--	21.85	30	--

26dB Occupied Bandwidth:
Channel 52:

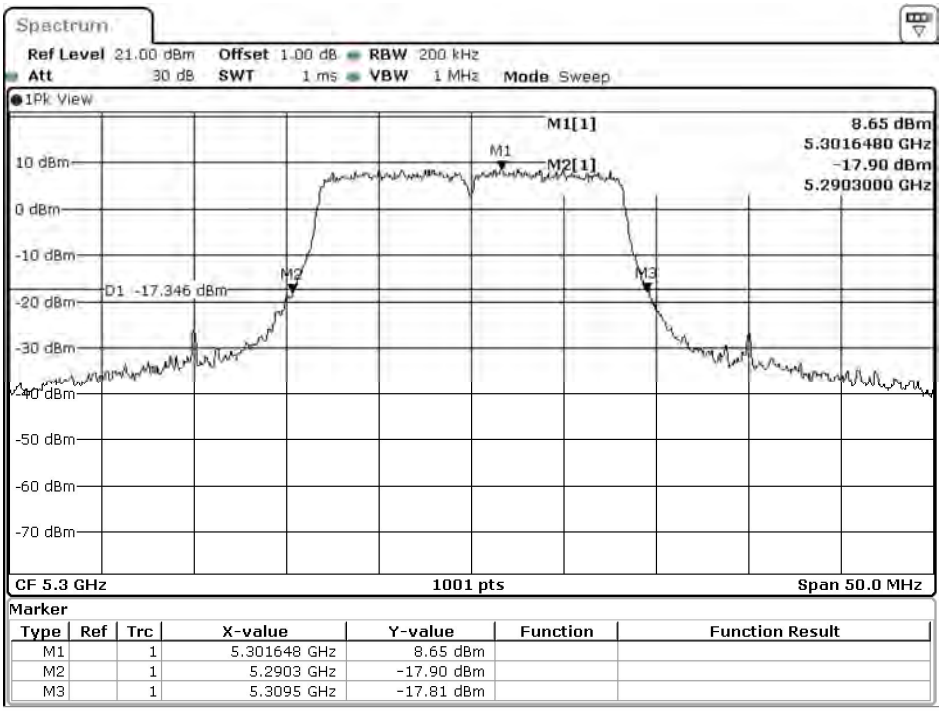


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.261648 GHz	9.10 dBm		
M2		1	5.25035 GHz	-17.16 dBm		
M3		1	5.2695 GHz	-17.52 dBm		

Date: 22.FEB.2021 03:43:41

Channel 60:

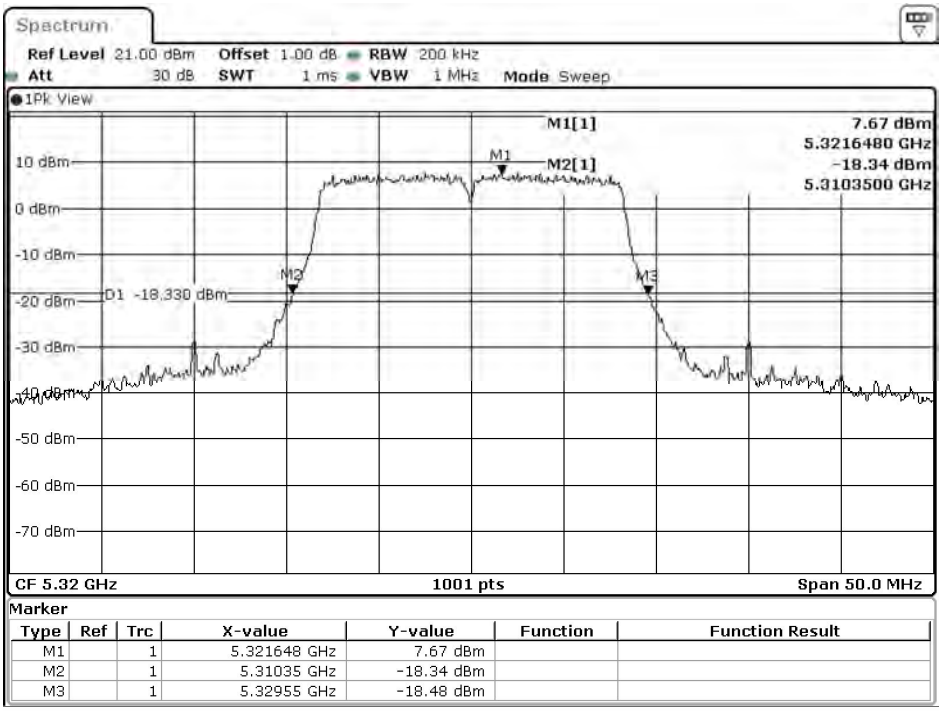


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.301648 GHz	8.65 dBm		
M2		1	5.2903 GHz	-17.90 dBm		
M3		1	5.3095 GHz	-17.81 dBm		

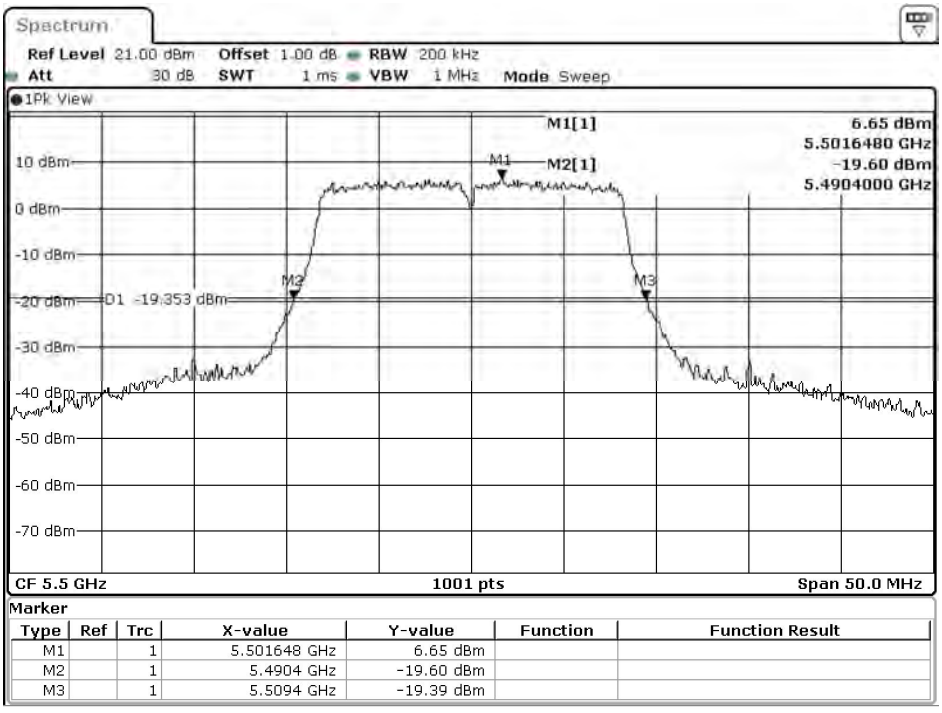
Date: 22.FEB.2021 03:45:16

Channel 64:



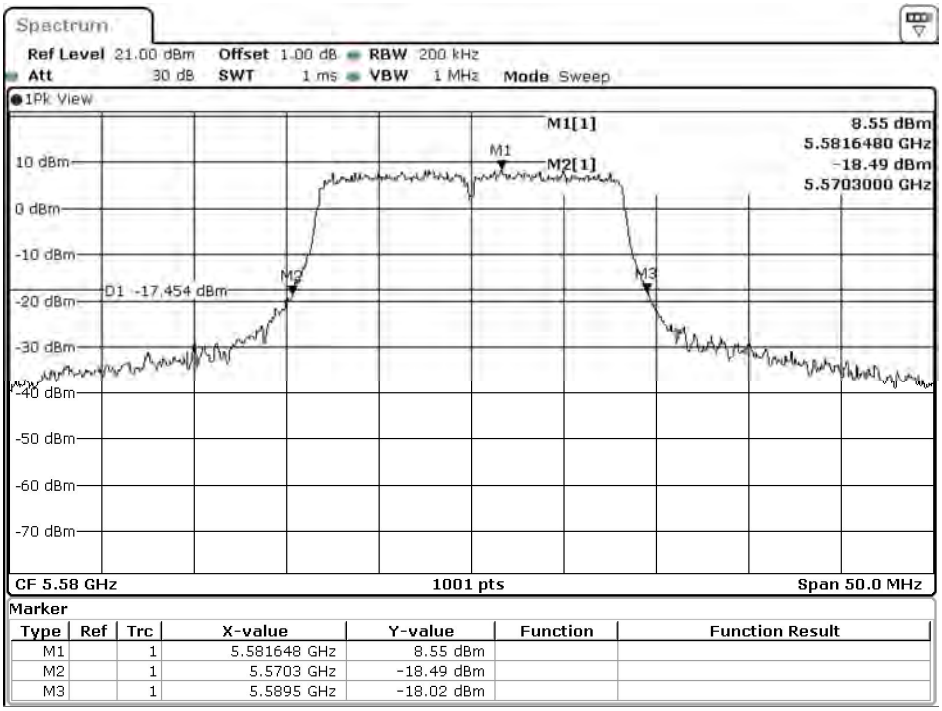
Date: 22.FEB.2021 03:46:54

Channel 100:



Date: 22.FEB.2021 03:49:10

Channel 116:

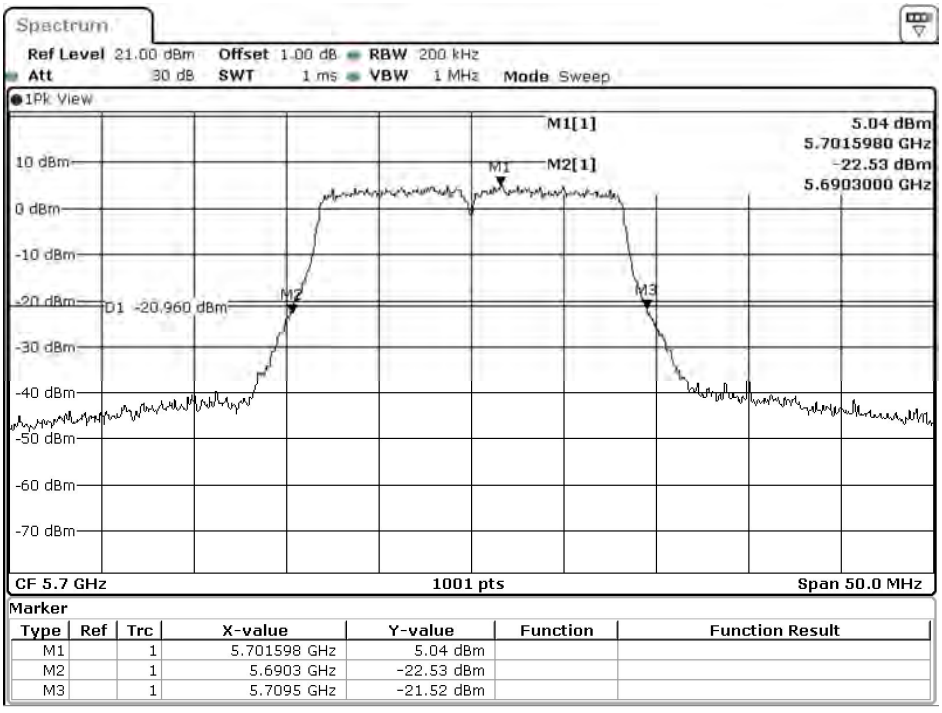


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.581648 GHz	8.55 dBm		
M2		1	5.5703 GHz	-18.49 dBm		
M3		1	5.5895 GHz	-18.02 dBm		

Date: 22.FEB.2021 03:50:47

Channel 140:



Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.701598 GHz	5.04 dBm		
M2		1	5.6903 GHz	-22.53 dBm		
M3		1	5.7095 GHz	-21.52 dBm		

Date: 22.FEB.2021 03:52:33

Product : Wireless module
Test Item : Maximum conducted output power
Test Mode : Mode 2: Transmit (802.11n-20BW 7.2Mbps) – Dipole Antenna
Test Date : 2021/02/19

Chain A

Cable loss=1dB		Maximum conducted output power							
Channel No.	Frequency (MHz)	Data Rate (Mbps)							
		HT8	HT9	HT10	HT11	HT12	HT13	HT14	HT15
		Measurement Level (dBm)							
36	5180	16.7	--	--	--	--	--	--	--
44	5220	16.87	16.78	16.75	16.67	16.61	16.53	16.5	16.47
48	5240	16.85	--	--	--	--	--	--	--
52	5260	17.29	--	--	--	--	--	--	--
60	5300	17.27	17.22	17.14	17.04	16.98	16.94	16.9	16.84
64	5320	14.83	--	--	--	--	--	--	--
100	5500	13.85	--	--	--	--	--	--	--
116	5580	16.43	16.35	16.29	16.24	16.21	16.16	16.07	15.98
140	5700	12.3	--	--	--	--	--	--	--
144	5720(band3)	15.48	15.38	15.34	15.25	15.17	15.07	15.04	14.98
144	5720(band4)	9.33	9.29	9.19	9.15	9.11	9.02	8.94	8.87
149	5745	21.8	--	--	--	--	--	--	--
157	5785	23.73	23.64	23.55	23.48	23.45	23.35	23.28	23.19
165	5825	21.64	--	--	--	--	--	--	--

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

Chain B

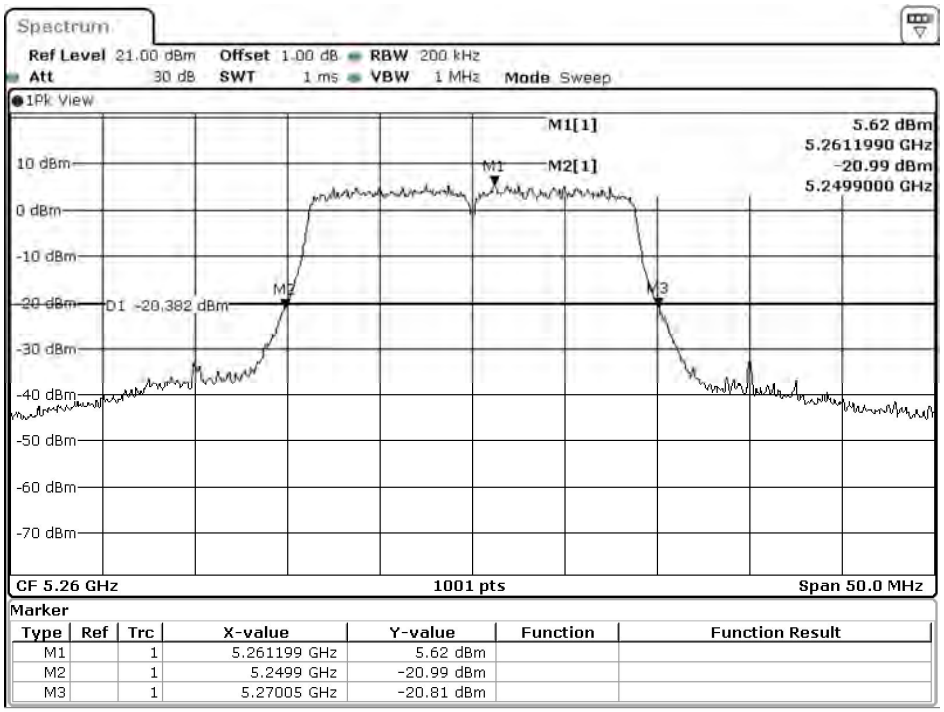
Cable loss=1dB		Maximum conducted output power							
Channel No.	Frequency (MHz)	Data Rate (Mbps)							
		HT8	HT9	HT10	HT11	HT12	HT13	HT14	HT15
		Measurement Level (dBm)							
36	5180	16.84	--	--	--	--	--	--	--
44	5220	16.8	16.77	16.7	16.64	16.56	16.53	16.44	16.38
48	5240	16.84	--	--	--	--	--	--	--
52	5260	17.15	--	--	--	--	--	--	--
60	5300	16.94	16.89	16.82	16.73	16.66	16.57	16.52	16.47
64	5320	14.35	--	--	--	--	--	--	--
100	5500	14.07	--	--	--	--	--	--	--
116	5580	17.05	17.02	16.95	16.87	16.84	16.77	16.71	16.63
140	5700	12.92	--	--	--	--	--	--	--
144	5720(band3)	16.17	16.14	16.04	15.94	15.88	15.84	15.8	15.7
144	5720(band4)	10.23	10.2	10.15	10.12	10.05	9.99	9.94	9.9
149	5745	22.54	--	--	--	--	--	--	--
157	5785	23.8	23.77	23.7	23.6	23.52	23.46	23.36	23.3
165	5825	22.31	--	--	--	--	--	--	--

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

Maximum conducted output power Measurement:

Channel No	Frequency Range (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	--	16.70	16.84	19.78	21.39	--	Pass
44	5220	--	16.87	16.80	19.85	21.39	--	Pass
48	5240	--	16.85	16.84	19.86	21.39	--	Pass
52	5260	20.15	17.29	17.15	20.23	21.85	24.04	Pass
60	5300	19.95	17.27	16.94	20.12	21.85	24.00	Pass
64	5320	19.80	14.83	14.35	17.61	21.85	23.97	Pass
100	5500	19.85	13.85	14.07	16.97	21.13	23.98	Pass
116	5580	20.00	16.43	17.05	19.76	21.13	24.01	Pass
140	5700	19.85	12.30	12.92	15.63	21.13	23.98	Pass
144(Band3)	5720	15.00	15.48	16.17	19.02	21.13	22.76	Pass
144(Band4)	5720	--	9.33	10.23	12.98	27.43	--	Pass
149	5745	--	21.80	22.54	25.20	30	--	Pass
157	5785	--	23.73	23.80	26.78	30	--	Pass
165	5825	--	21.64	22.31	25.00	30	--	Pass

26dB Occupied Bandwidth:
Channel 52 - Chain A

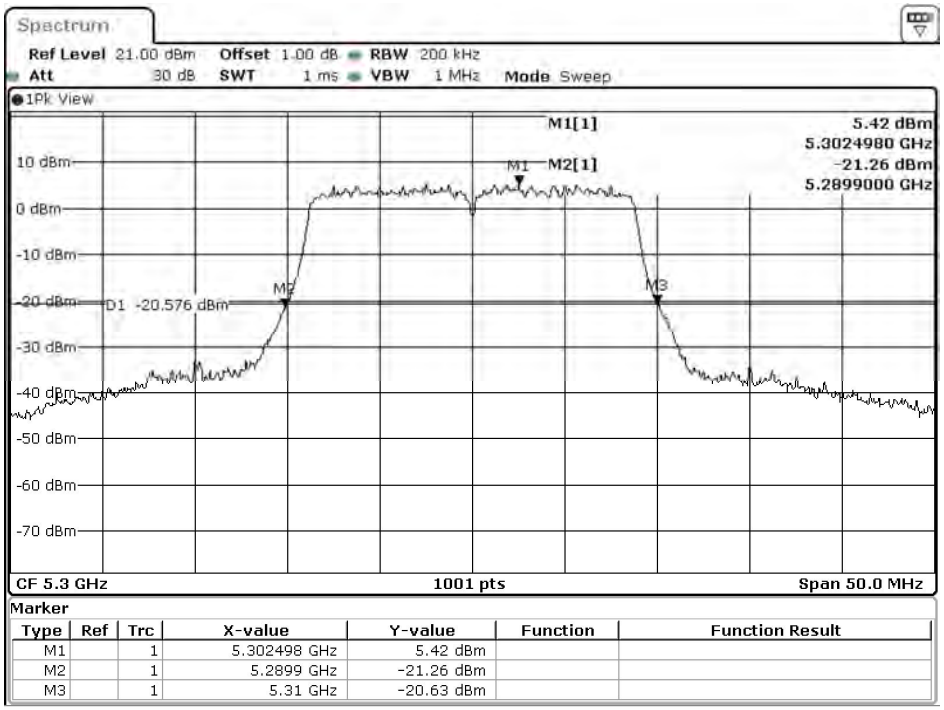


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.261199 GHz	5.62 dBm		
M2		1	5.2499 GHz	-20.99 dBm		
M3		1	5.27005 GHz	-20.81 dBm		

Date: 10.MAR.2021 03:59:46

Channel 60 - Chain A

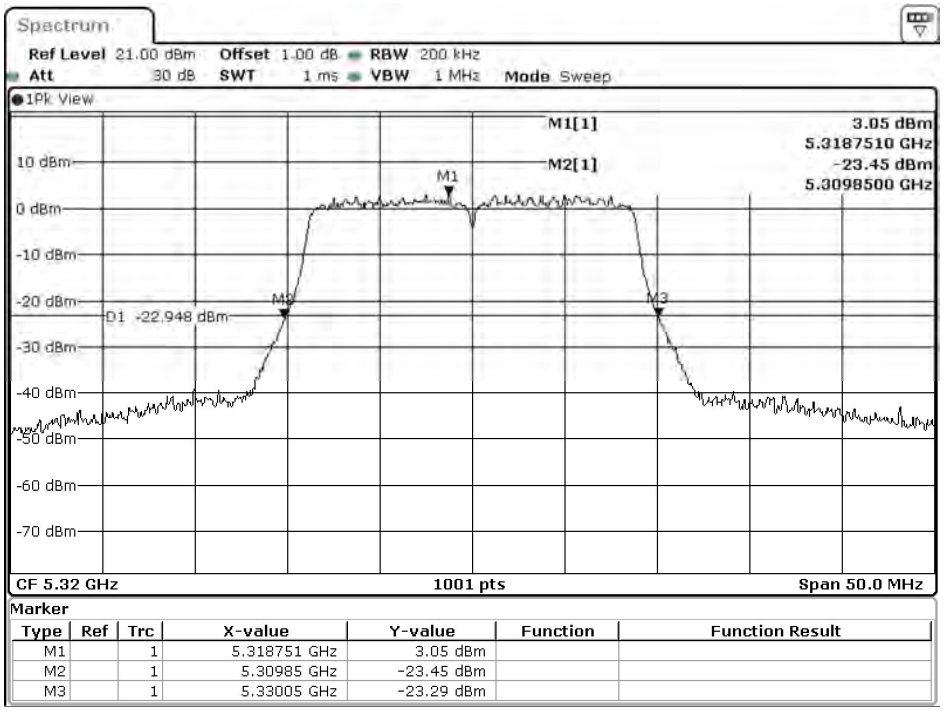


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.302498 GHz	5.42 dBm		
M2		1	5.2899 GHz	-21.26 dBm		
M3		1	5.31 GHz	-20.63 dBm		

Date: 10.MAR.2021 05:12:00

Channel 64 - Chain A

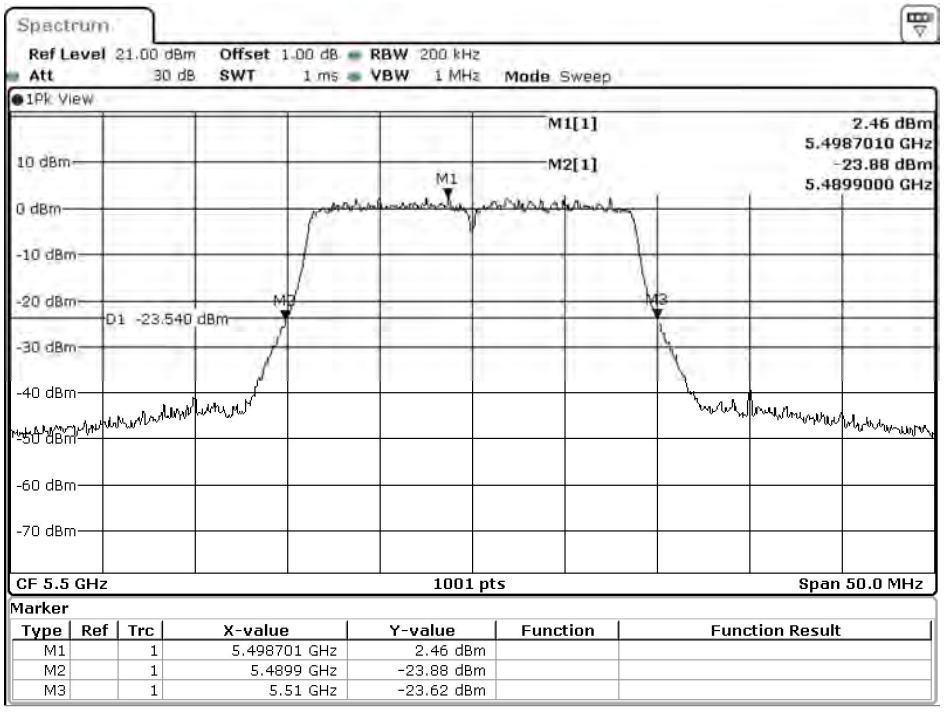


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.318751 GHz	3.05 dBm		
M2		1	5.30985 GHz	-23.45 dBm		
M3		1	5.33005 GHz	-23.29 dBm		

Date: 10.MAR.2021 05:13:45

Channel 100 - Chain A

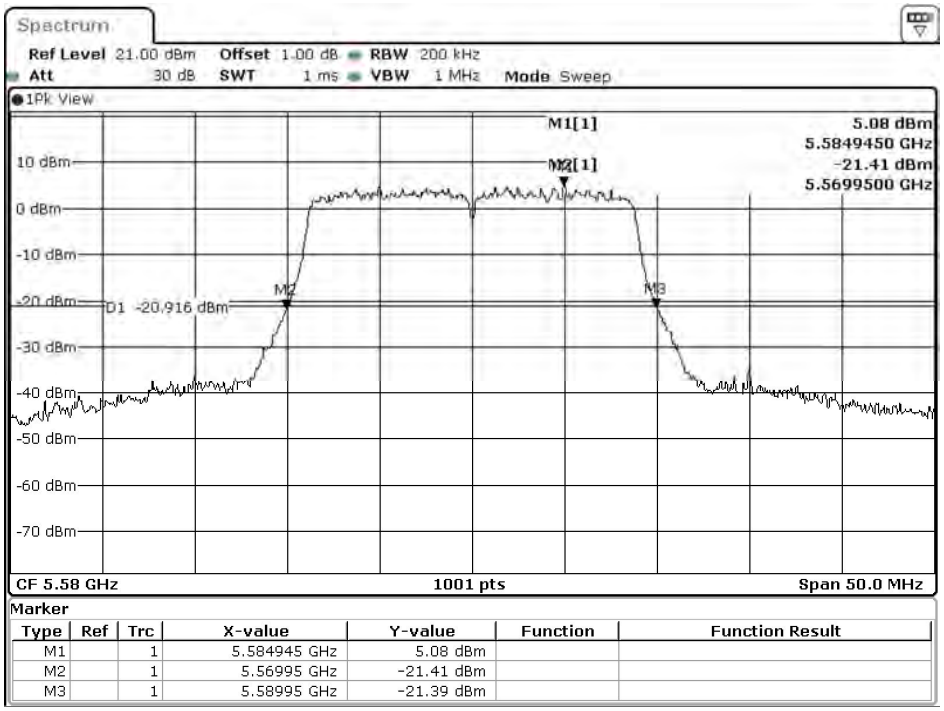


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.498701 GHz	2.46 dBm		
M2		1	5.4899 GHz	-23.88 dBm		
M3		1	5.51 GHz	-23.62 dBm		

Date: 10.MAR.2021 05:16:27

Channel 116 - Chain A

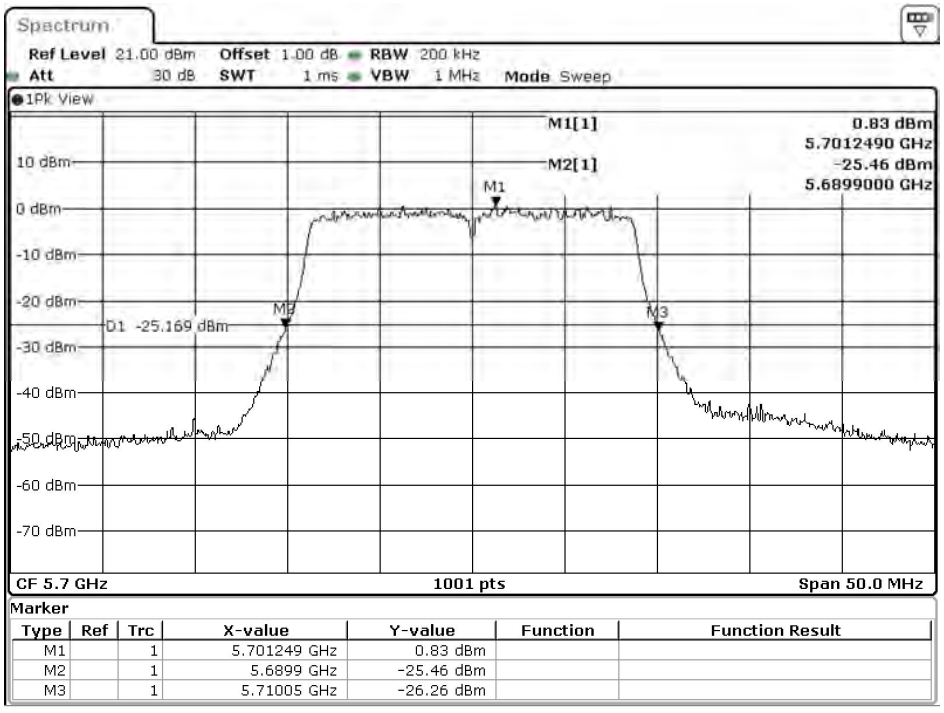


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.584945 GHz	5.08 dBm		
M2		1	5.56995 GHz	-21.41 dBm		
M3		1	5.58995 GHz	-21.39 dBm		

Date: 10.MAR.2021 05:17:57

Channel 140 - Chain A

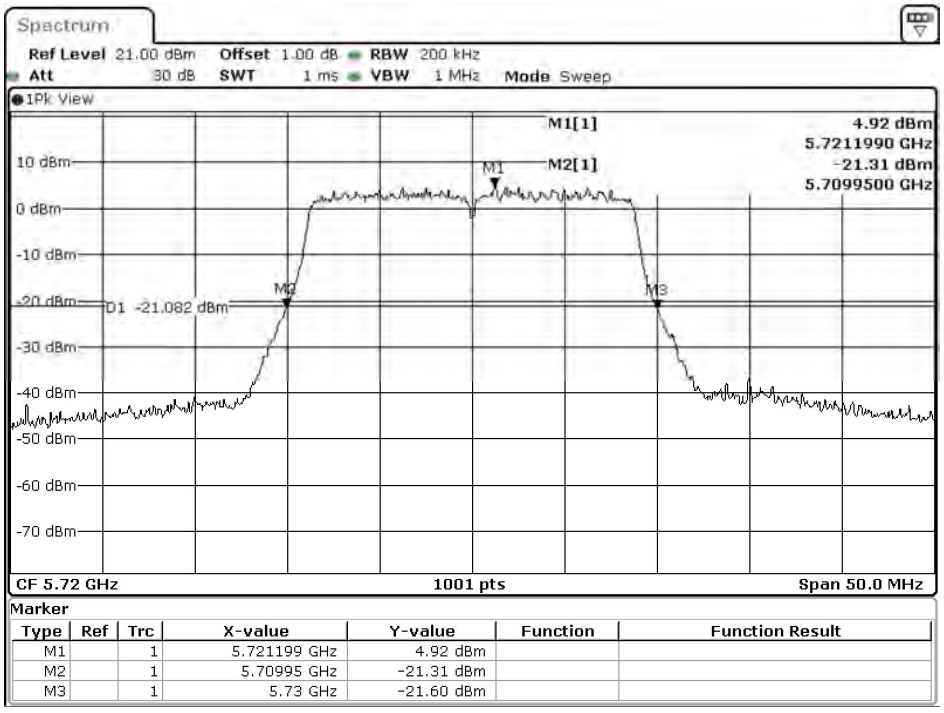


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.701249 GHz	0.83 dBm		
M2		1	5.6899 GHz	-25.46 dBm		
M3		1	5.71005 GHz	-26.26 dBm		

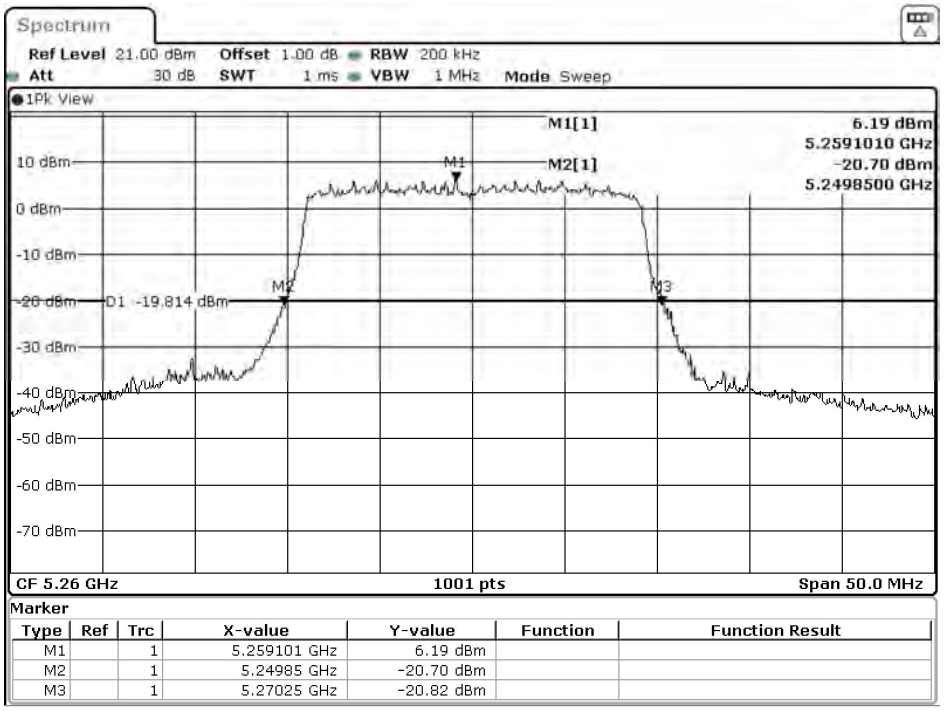
Date: 10.MAR.2021 05:32:32

Channel 144 - Chain A



Date: 10.MAR.2021 03:53:46

26dB Occupied Bandwidth:
Channel 52 - Chain B

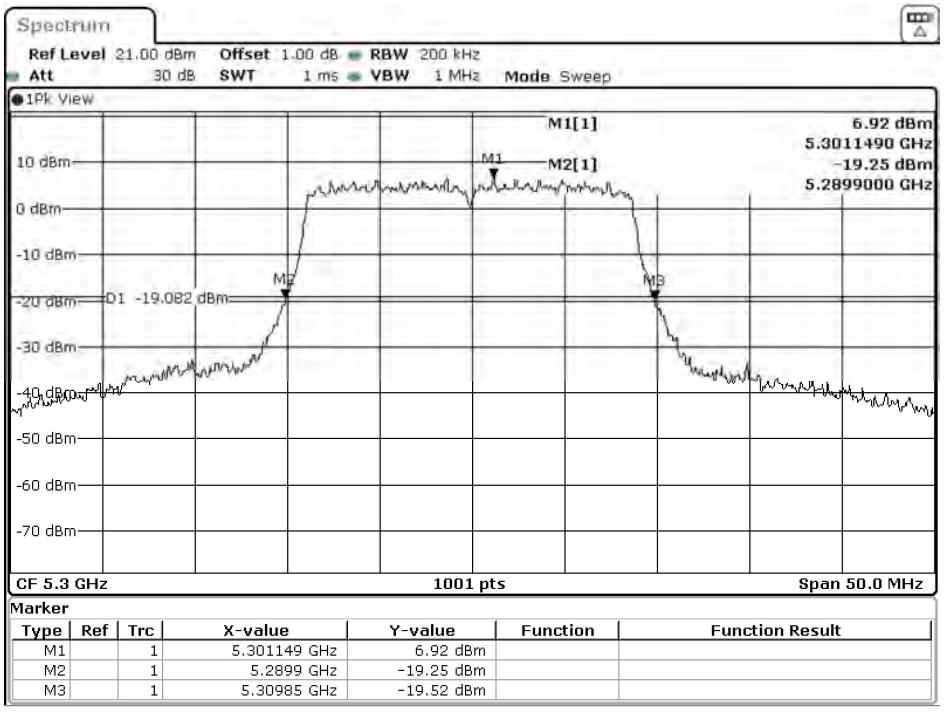


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.259101 GHz	6.19 dBm		
M2		1	5.24985 GHz	-20.70 dBm		
M3		1	5.27025 GHz	-20.82 dBm		

Date: 10.MAR.2021 04:59:09

Channel 60 - Chain B

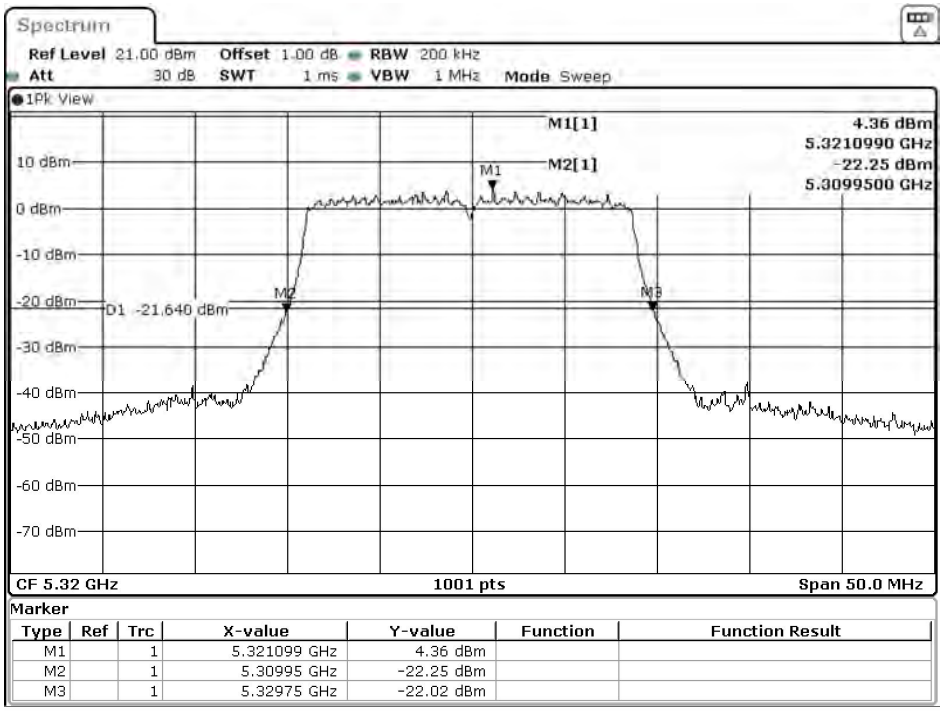


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.301149 GHz	6.92 dBm		
M2		1	5.2899 GHz	-19.25 dBm		
M3		1	5.30985 GHz	-19.52 dBm		

Date: 10.MAR.2021 06:11:23

Channel 64 - Chain B

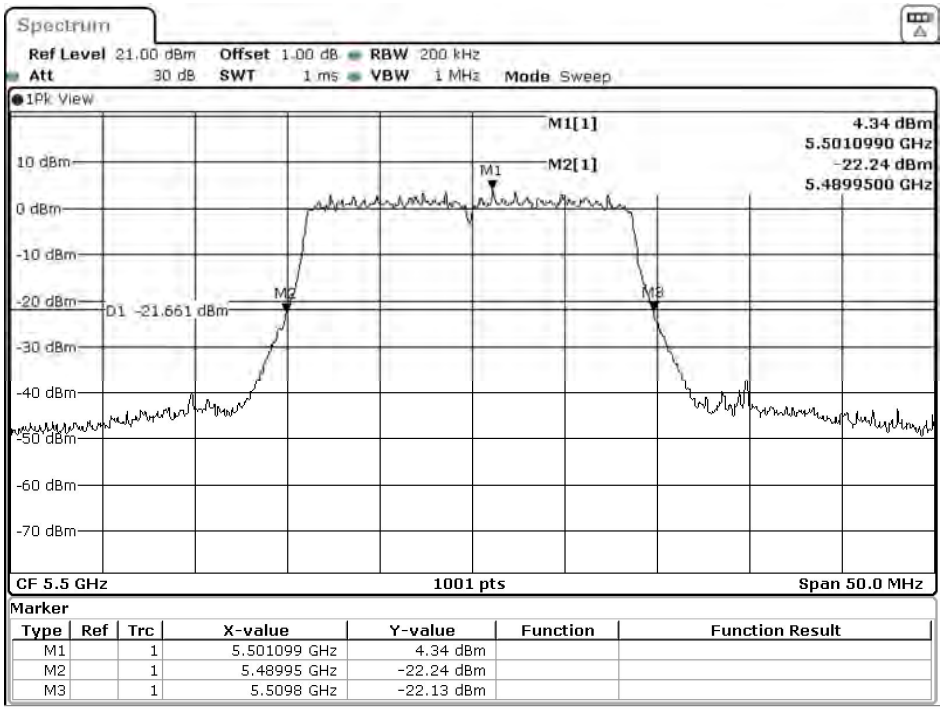


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.321099 GHz	4.36 dBm		
M2		1	5.30995 GHz	-22.25 dBm		
M3		1	5.32975 GHz	-22.02 dBm		

Date: 10.MAR.2021 06:13:08

Channel 100 - Chain B

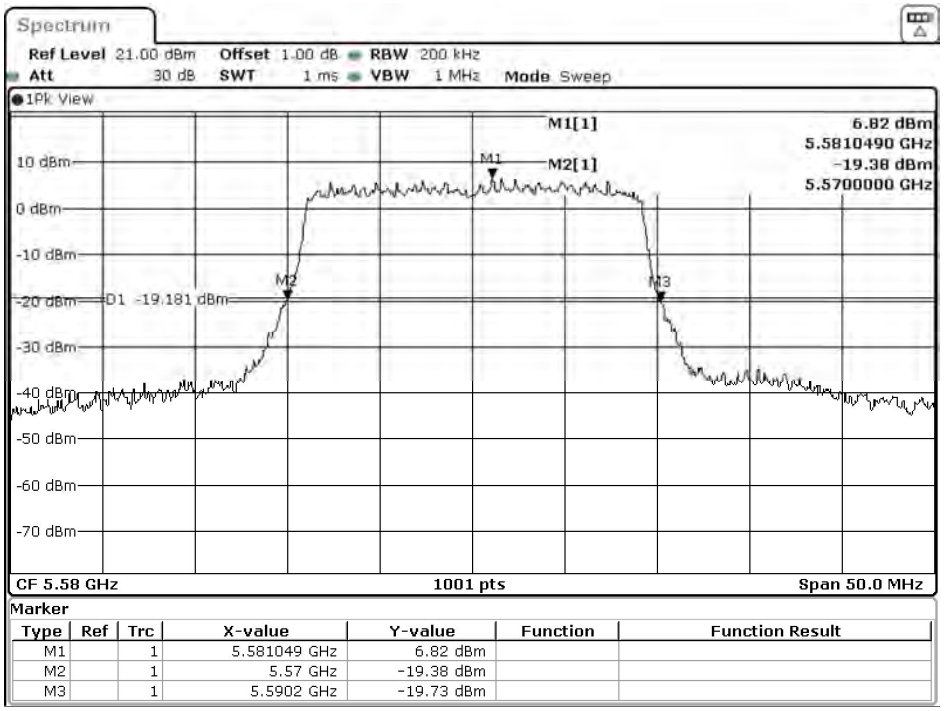


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.501099 GHz	4.34 dBm		
M2		1	5.48995 GHz	-22.24 dBm		
M3		1	5.5098 GHz	-22.13 dBm		

Date: 10.MAR.2021 06:15:50

Channel 116 - Chain B

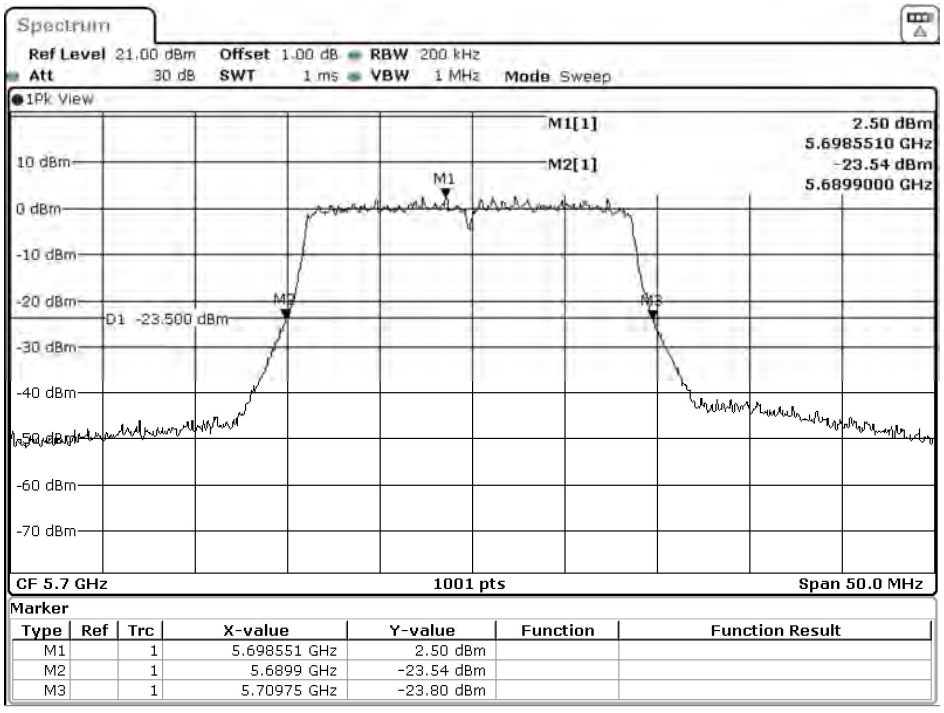


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.581049 GHz	6.82 dBm		
M2		1	5.57 GHz	-19.38 dBm		
M3		1	5.5902 GHz	-19.73 dBm		

Date: 10.MAR.2021 06:17:20

Channel 140 - Chain B

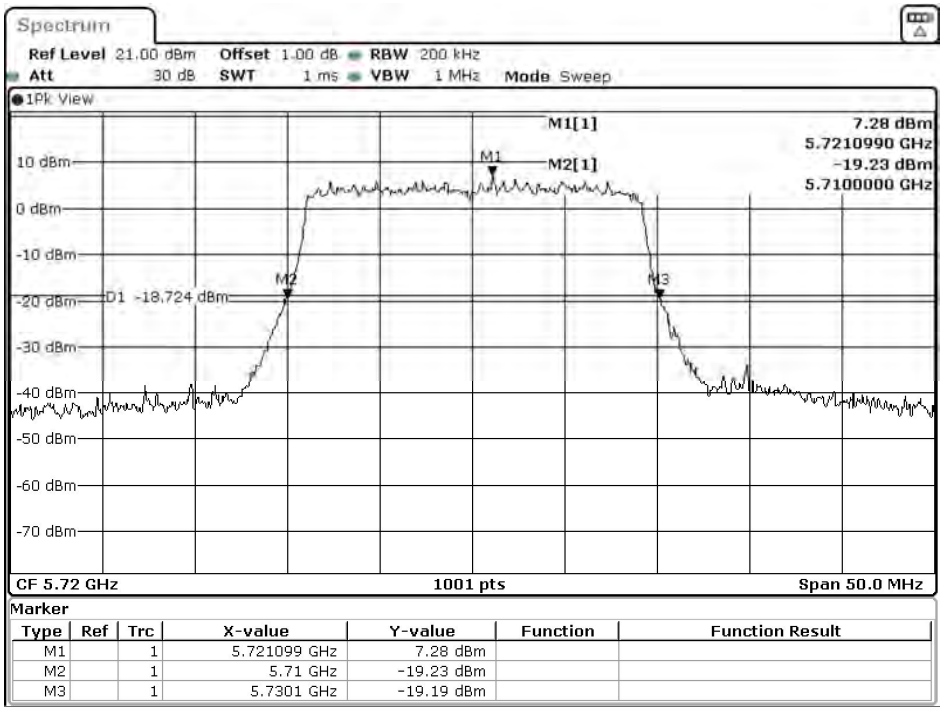


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.698551 GHz	2.50 dBm		
M2		1	5.6899 GHz	-23.54 dBm		
M3		1	5.70975 GHz	-23.80 dBm		

Date: 10.MAR.2021 06:31:54

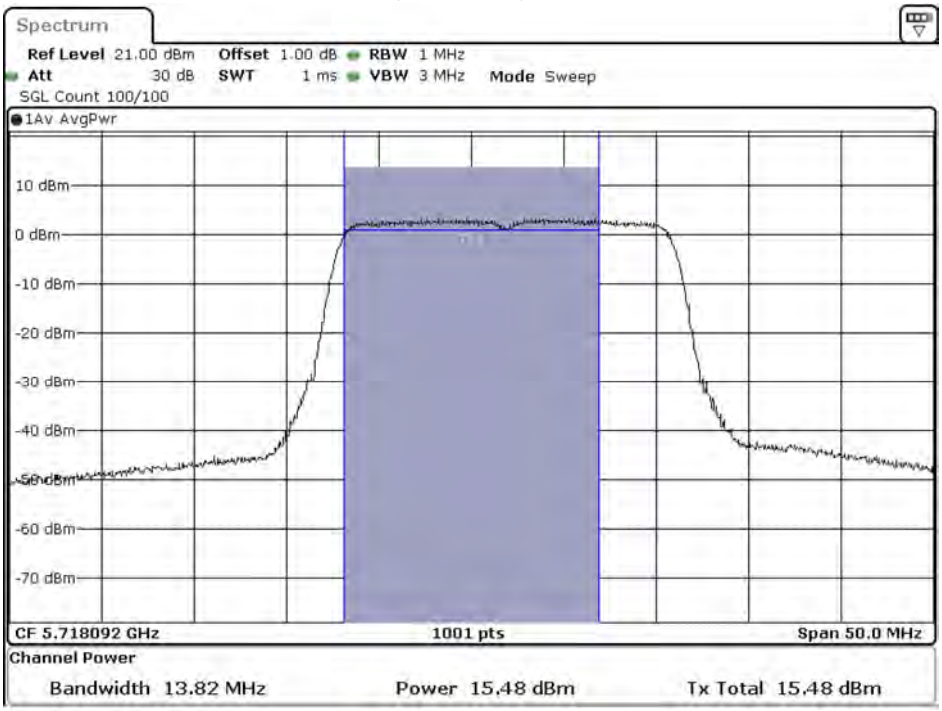
Channel 144 - Chain B



Date: 10.MAR.2021 04:53:09

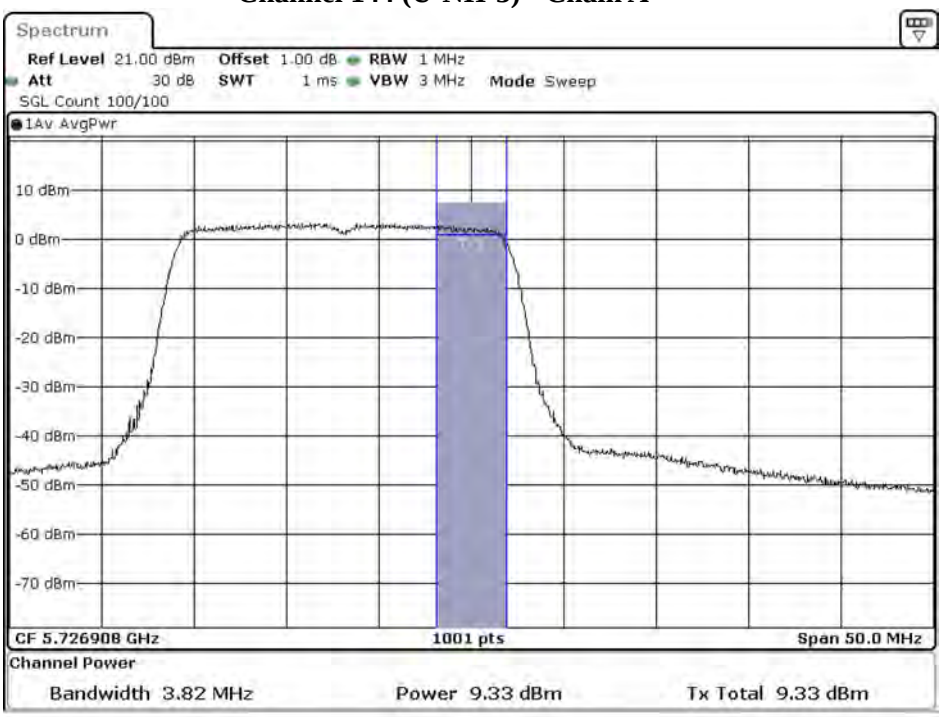
Maximum conducted output power:

Channel 144 (U-NII-2C) - Chain A



Date: 10.MAR.2021 03:54:11

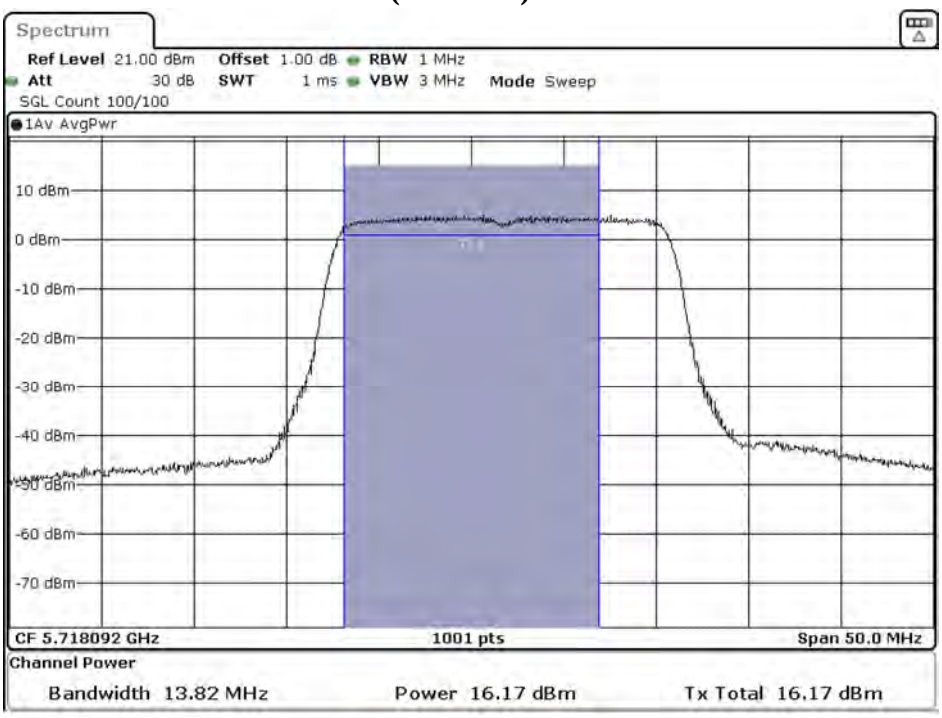
Channel 144 (U-NII-3) - Chain A



Date: 10.MAR.2021 03:54:33

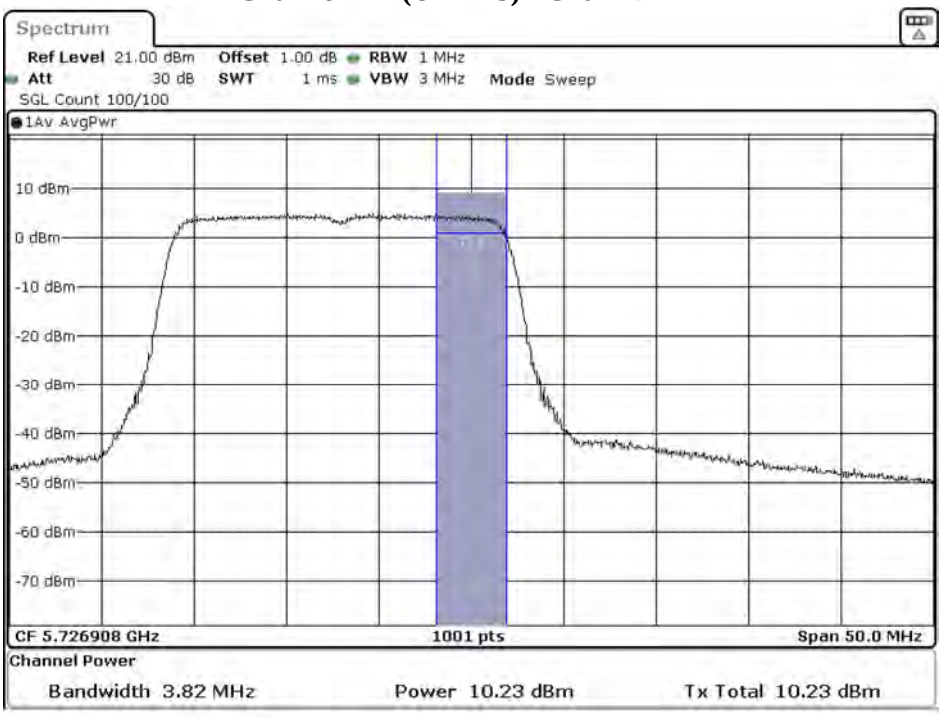
Maximum conducted output power:

Channel 144 (U-NII-2C) - Chain B



Date: 10.MAR.2021 04:53:33

Channel 144 (U-NII-3) - Chain B



Date: 10.MAR.2021 04:53:50

Product : Wireless module
Test Item : Maximum conducted output power
Test Mode : Mode 3: Transmit (802.11n-40BW 15Mbps) – Dipole Antenna
Test Date : 2021/02/19

Chain A

Cable loss=1dB		Maximum conducted output power							
Channel No.	Frequency (MHz)	Data Rate (Mbps)							
		HT8	HT9	HT10	HT11	HT12	HT13	HT14	HT15
		Measurement Level (dBm)							
38	5190	17.87	--	--	--	--	--	--	--
46	5230	18.03	17.99	17.91	17.87	17.79	17.74	17.69	17.65
54	5270	18.37	--	--	--	--	--	--	--
62	5310	15.9	15.83	15.74	15.64	15.6	15.56	15.52	15.42
102	5510	14.02	--	--	--	--	--	--	--
110	5550	17.53	17.47	17.37	17.27	17.17	17.14	17.06	16.96
134	5670	13.92	--	--	--	--	--	--	--
142	5710(band3)	16.93	16.85	16.8	16.73	16.66	16.61	16.55	16.45
142	5710(band3)	4.99	4.96	4.88	4.82	4.79	4.7	4.63	4.56
151	5755	19.4	--	--	--	--	--	--	--
159	5795	20.23	20.15	20.09	19.99	19.9	19.87	19.78	19.74

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

Chain B

Cable loss=1dB		Maximum conducted output power							
Channel No.	Frequency (MHz)	Data Rate (Mbps)							
		HT8	HT9	HT10	HT11	HT12	HT13	HT14	HT15
		Measurement Level (dBm)							
38	5190	18.06	--	--	--	--	--	--	--
46	5230	18.02	17.98	17.92	17.85	17.76	17.72	17.63	17.59
54	5270	18.52	--	--	--	--	--	--	--
62	5310	15.81	15.71	15.68	15.62	15.59	15.52	15.49	15.45
102	5510	14.41	--	--	--	--	--	--	--
110	5550	18.05	18.02	17.95	17.86	17.83	17.8	17.73	17.68
134	5670	14.95	--	--	--	--	--	--	--
142	5710(band3)	17.94	17.86	17.77	17.7	17.6	17.54	17.51	17.41
142	5710(band3)	6.33	6.28	6.2	6.17	6.14	6.06	5.96	5.92
151	5755	20.29	--	--	--	--	--	--	--
159	5795	20.91	20.81	20.74	20.67	20.61	20.53	20.44	20.36

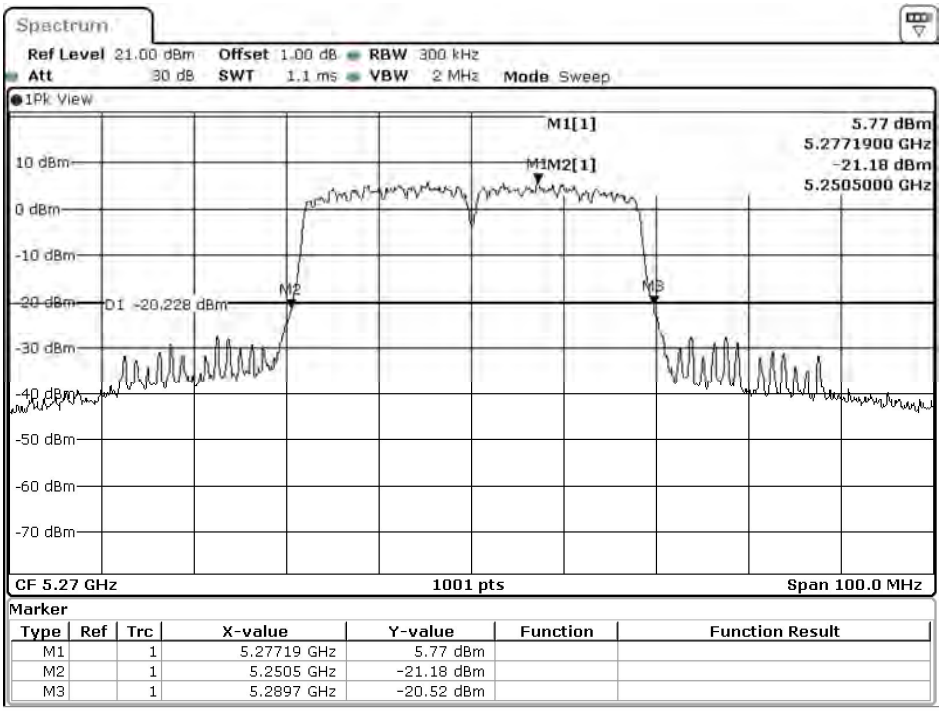
Note: Maximum conducted output power Value =Reading value on average power meter + cable loss

Maximum conducted output power Measurement:

Channel No	Frequency Range	26dB Bandwidth	Chain A Power	Chain B Power	Output Power	Output Power Limit	
	(MHz)	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	dBm+10log(BW)
38	5190	--	17.87	18.06	20.98	21.39	--
46	5230	--	18.03	18.02	21.04	21.39	--
54	5270	38.80	18.37	18.52	21.46	21.85	26.89
62	5310	38.80	15.90	15.81	18.87	21.85	26.89
102	5510	38.80	14.02	14.41	17.23	21.13	26.89
110	5550	39.00	17.53	18.05	20.81	21.13	26.91
134	5670	38.90	13.92	14.95	17.48	21.13	26.90
142F(Band3)	5710	34.80	16.93	17.94	20.72	21.13	26.42
142F(Band4)	5710	--	4.99	6.33	8.97	30	--
151	5755	--	19.40	20.29	22.88	30	--
159	5795	--	20.23	20.91	23.59	30	--

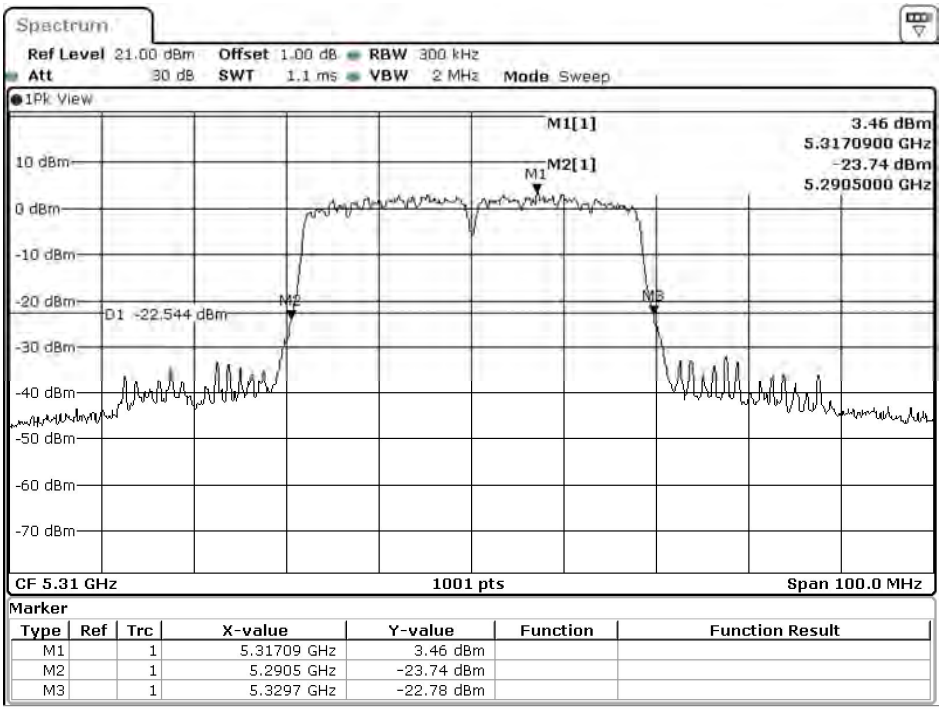
26dB Occupied Bandwidth:

Channel 54 - Chain A



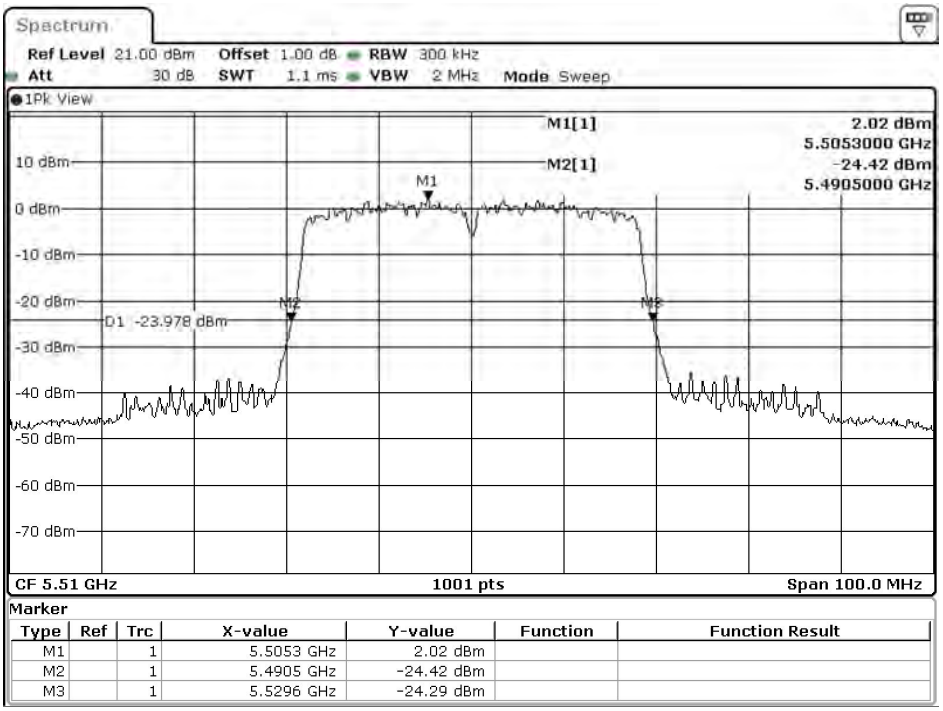
Date: 10.MAR.2021 05:35:36

Channel 62 - Chain A



Date: 10.MAR.2021 05:36:58

Channel 102 - Chain A

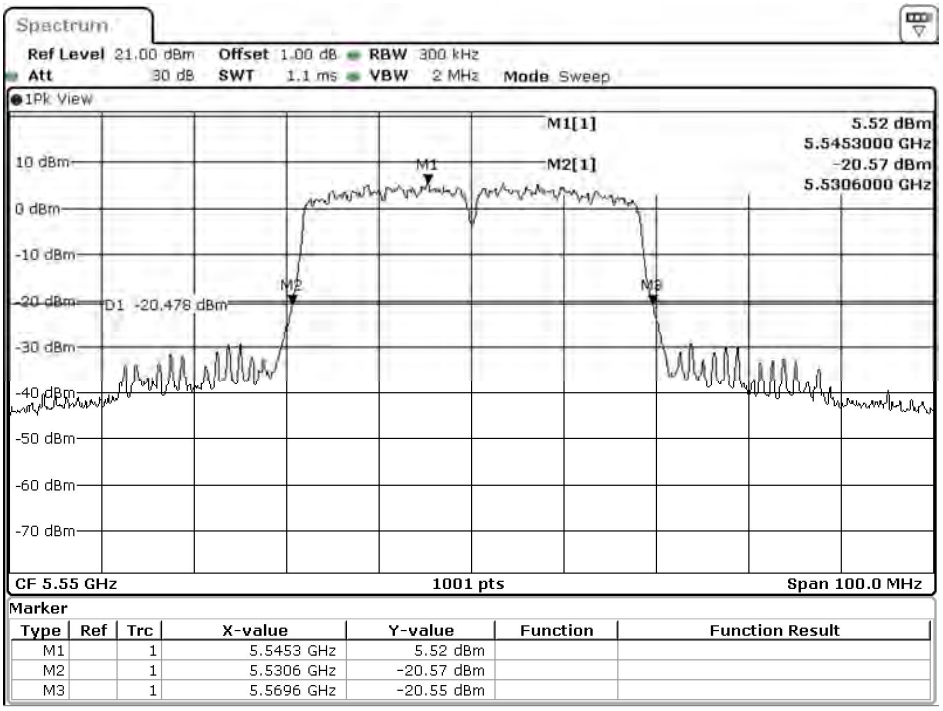


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.5053 GHz	2.02 dBm		
M2		1	5.4905 GHz	-24.42 dBm		
M3		1	5.5296 GHz	-24.29 dBm		

Date: 10.MAR.2021 05:38:18

Channel 110 - Chain A

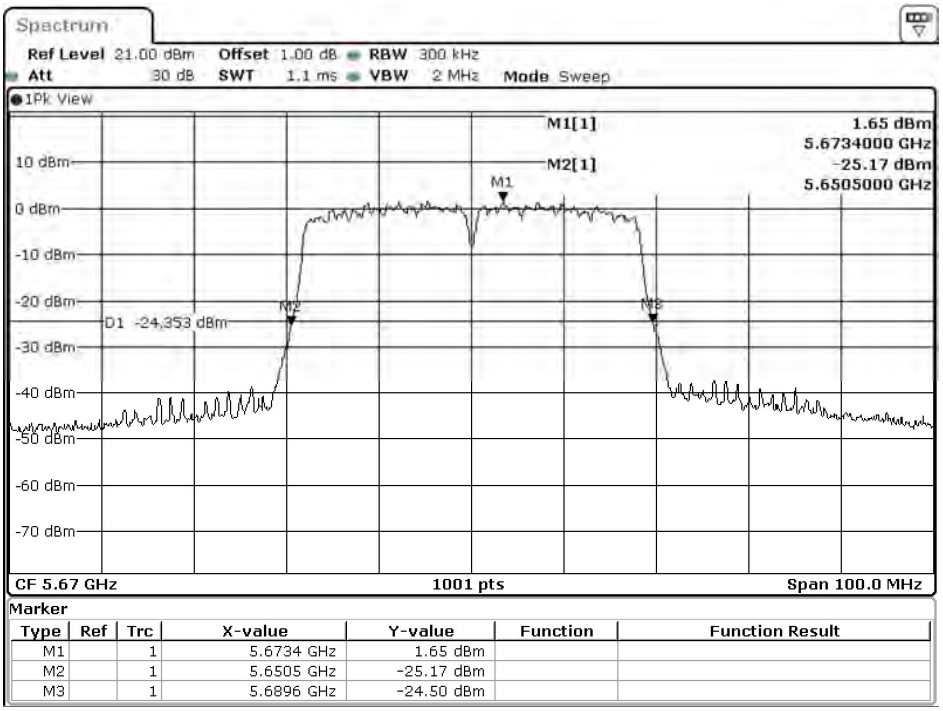


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.5453 GHz	5.52 dBm		
M2		1	5.5306 GHz	-20.57 dBm		
M3		1	5.5696 GHz	-20.55 dBm		

Date: 10.MAR.2021 05:39:38

Channel 134 - Chain A

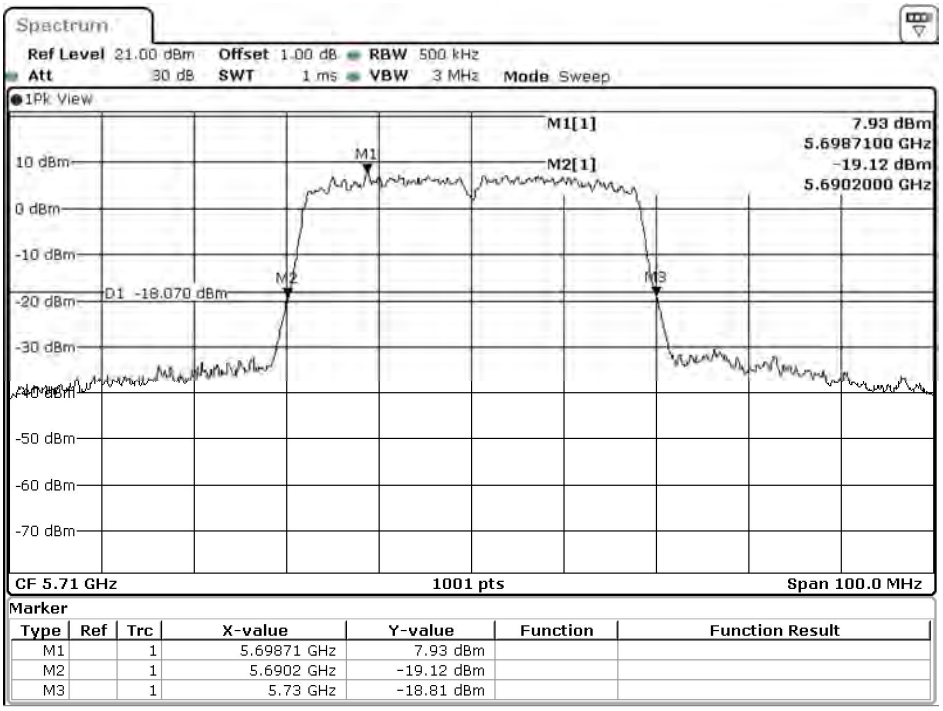


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.6734 GHz	1.65 dBm		
M2		1	5.6505 GHz	-25.17 dBm		
M3		1	5.6896 GHz	-24.50 dBm		

Date: 10.MAR.2021 05:41:25

Channel 142 - Chain A



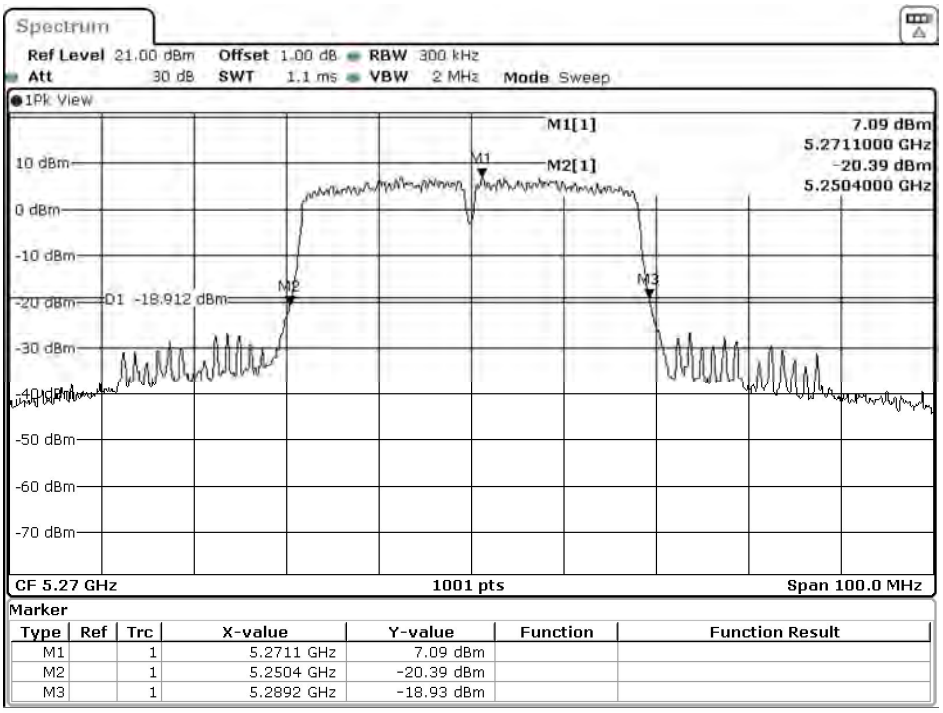
Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.69871 GHz	7.93 dBm		
M2		1	5.6902 GHz	-19.12 dBm		
M3		1	5.73 GHz	-18.81 dBm		

Date: 10.MAR.2021 03:57:06

26dB Occupied Bandwidth:

Channel 54 - Chain B

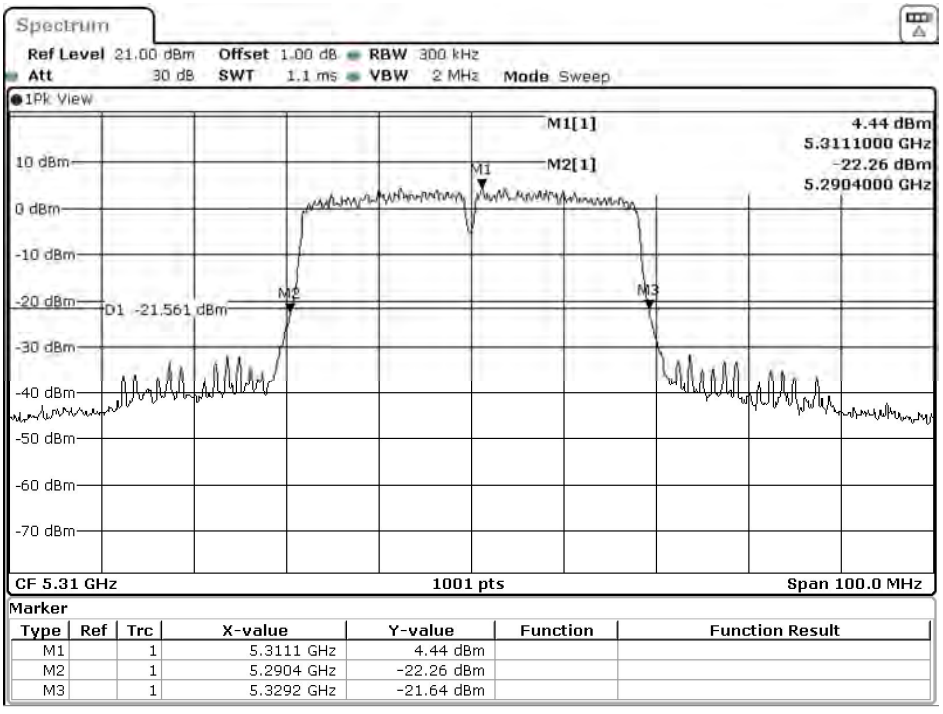


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.2711 GHz	7.09 dBm		
M2		1	5.2504 GHz	-20.39 dBm		
M3		1	5.2892 GHz	-18.93 dBm		

Date: 10.MAR.2021 06:34:59

Channel 62 - Chain B

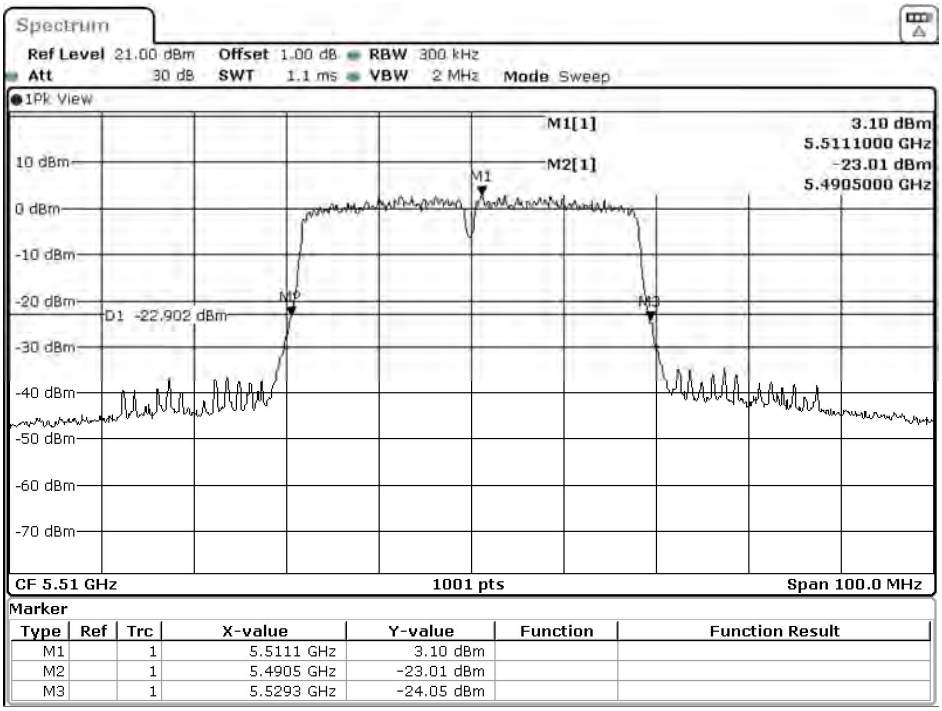


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.3111 GHz	4.44 dBm		
M2		1	5.2904 GHz	-22.26 dBm		
M3		1	5.3292 GHz	-21.64 dBm		

Date: 10.MAR.2021 06:36:21

Channel 102 - Chain B

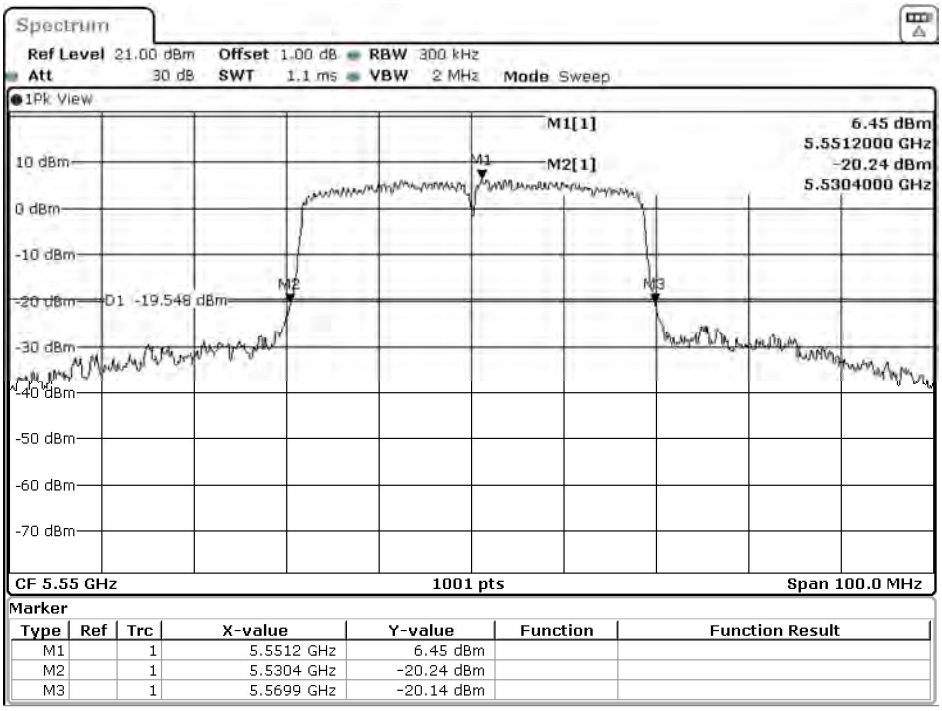


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.5111 GHz	3.10 dBm		
M2		1	5.4905 GHz	-23.01 dBm		
M3		1	5.5293 GHz	-24.05 dBm		

Date: 10.MAR.2021 06:37:41

Channel 110 - Chain B

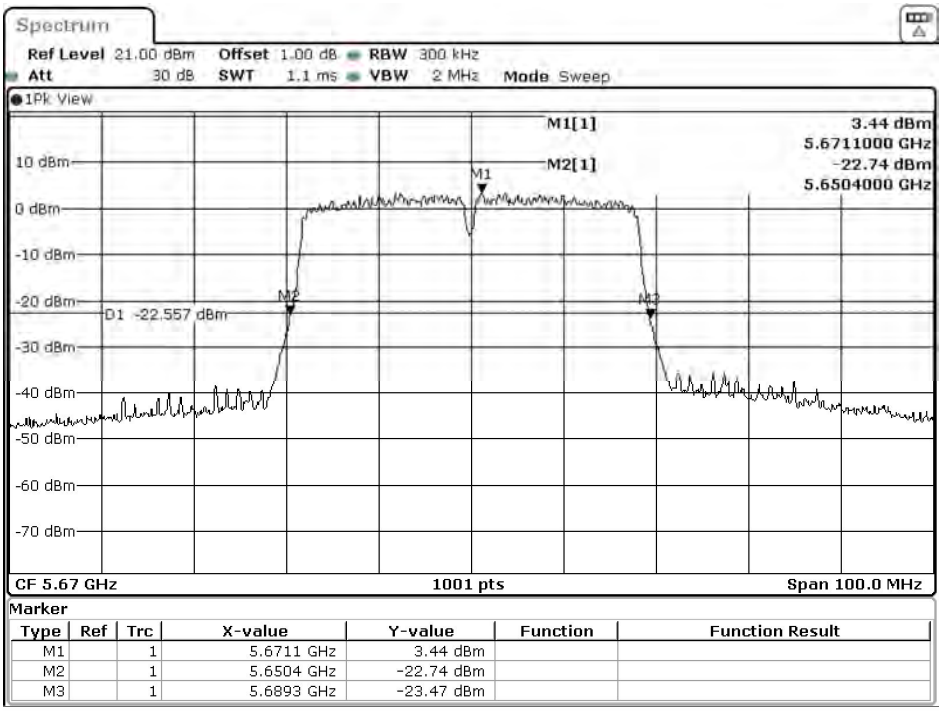


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.5512 GHz	6.45 dBm		
M2		1	5.5304 GHz	-20.24 dBm		
M3		1	5.5699 GHz	-20.14 dBm		

Date: 10.MAR.2021 06:39:00

Channel 134 - Chain B

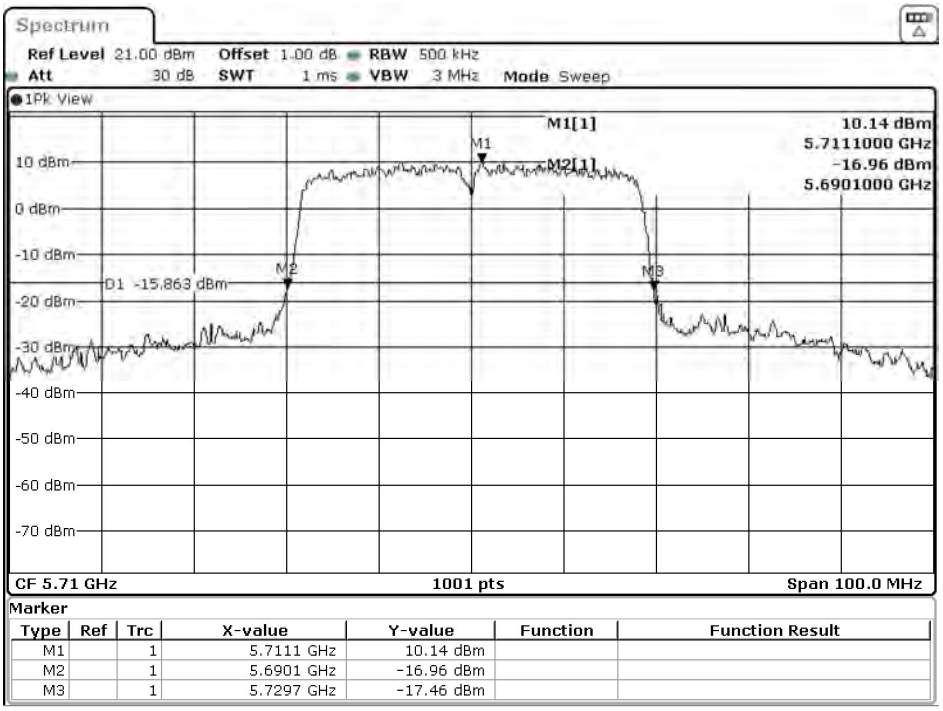


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.6711 GHz	3.44 dBm		
M2		1	5.6504 GHz	-22.74 dBm		
M3		1	5.6893 GHz	-23.47 dBm		

Date: 10.MAR.2021 06:40:47

Channel 142 - Chain B



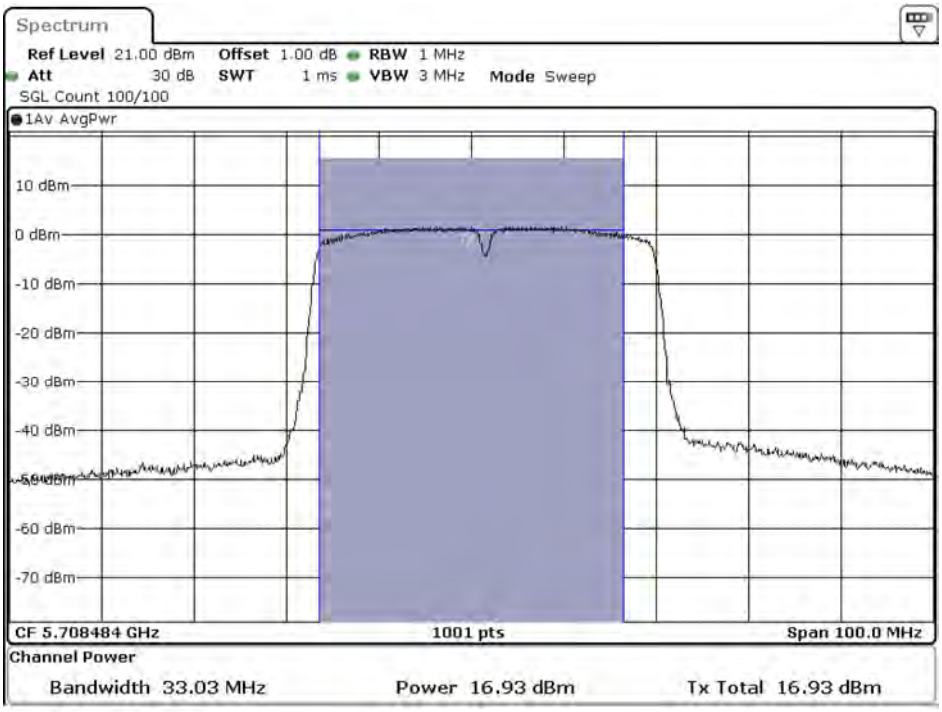
Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.7111 GHz	10.14 dBm		
M2		1	5.6901 GHz	-16.96 dBm		
M3		1	5.7297 GHz	-17.46 dBm		

Date: 10.MAR.2021 04:56:29

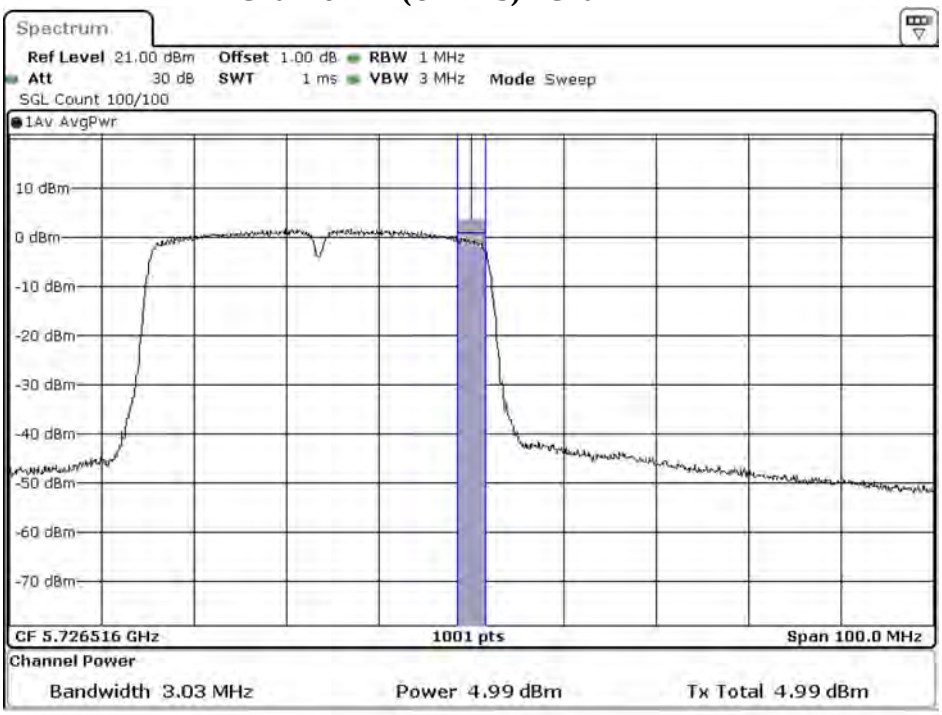
Maximum conducted output power:

Channel 142 (U-NII-2C) - Chain A



Date: 10.MAR.2021 03:57:31

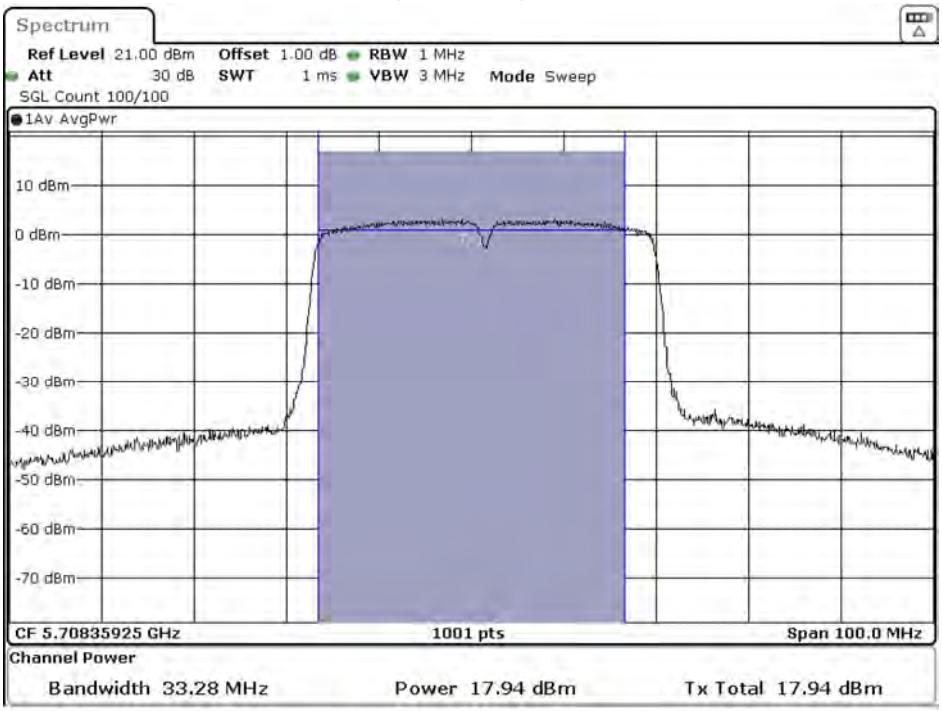
Channel 142 (U-NII-3) - Chain A



Date: 10.MAR.2021 03:57:53

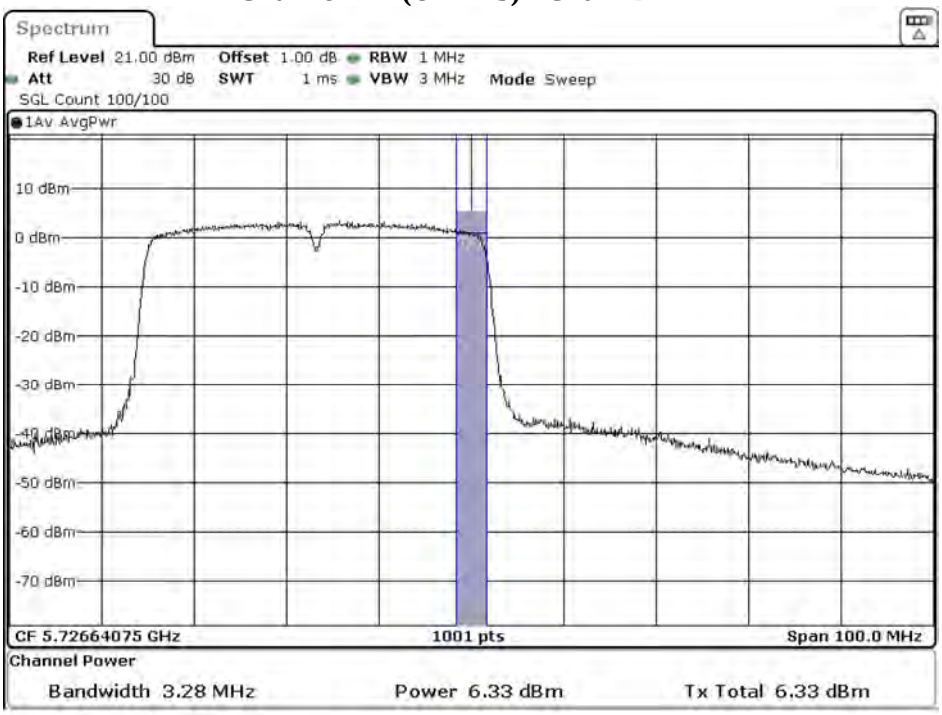
Maximum conducted output power:

Channel 142 (U-NII-2C) - Chain B



Date: 10.MAR.2021 04:56:54

Channel 142 (U-NII-3) - Chain B



Date: 10.MAR.2021 04:57:16

Product : Wireless module
Test Item : Maximum conducted output power
Test Mode : Mode 4: Transmit (802.11ac-20BW 7.2Mbps) – Dipole Antenna
Test Date : 2021/02/19

Chain A

Cable loss=1dB		Maximum conducted output power								
Channel No.	Frequency (MHz)	Data Rate (Mbps)								
		MCS8	MCS9	MCS10	MCS11	MCS12	MCS13	MCS14	MCS15	MCS16
		Measurement Level (dBm)								
36	5180	16.73	--	--	--	--	--	--	--	--
44	5220	16.91	16.87	16.79	16.76	16.67	16.58	16.52	16.44	16.39
48	5240	16.89	--	--	--	--	--	--	--	--
52	5260	17.31	--	--	--	--	--	--	--	--
60	5300	17.31	17.28	17.2	17.17	17.14	17.08	17.04	16.96	16.91
64	5320	14.88	--	--	--	--	--	--	--	--
100	5500	13.88	--	--	--	--	--	--	--	--
116	5580	16.49	16.45	16.39	16.33	16.27	16.23	16.14	16.09	16.05
140	5700	12.32	--	--	--	--	--	--	--	--
144	5720(band3)	15.42	15.32	15.26	15.17	15.13	15.03	15	14.91	14.87
144	5720(band4)	9.63	9.57	9.53	9.43	9.38	9.32	9.25	9.22	9.13
149	5745	21.81	--	--	--	--	--	--	--	--
157	5785	23.8	23.76	23.73	23.64	23.56	23.5	23.44	23.36	23.31
165	5825	21.65	--	--	--	--	--	--	--	--

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

Chain B

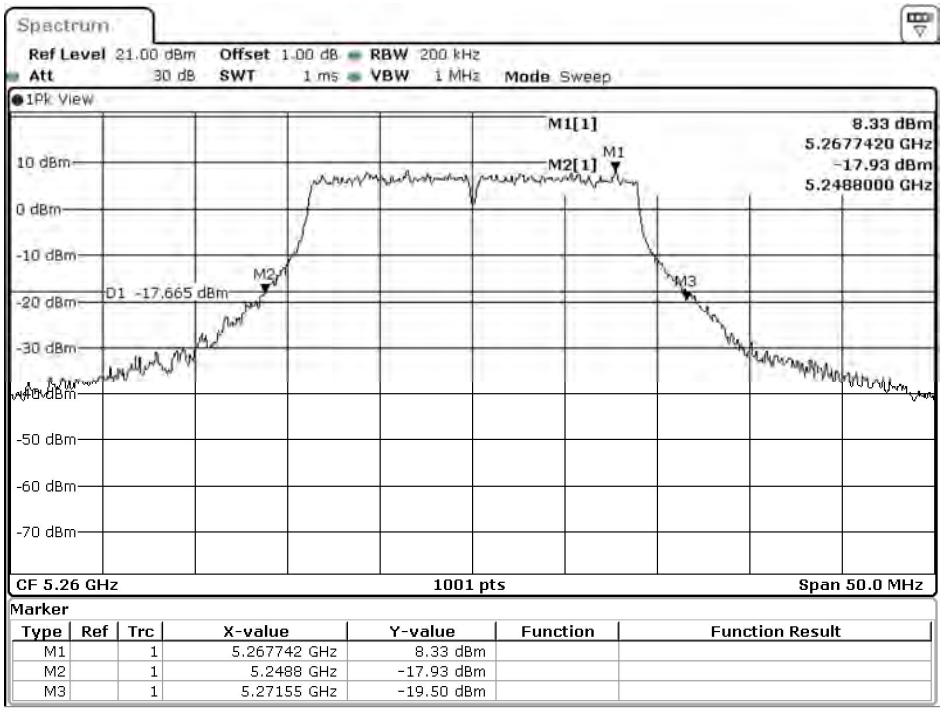
Cable loss=1dB		Maximum conducted output power								
Channel No.	Frequency (MHz)	Data Rate (Mbps)								
		MCS8	MCS9	MCS10	MCS11	MCS12	MCS13	MCS14	MCS15	MCS16
		Measurement Level (dBm)								
36	5180	16.87	--	--	--	--	--	--	--	--
44	5220	16.82	16.78	16.71	16.64	16.58	16.49	16.4	16.36	16.26
48	5240	16.89	--	--	--	--	--	--	--	--
52	5260	17.2	--	--	--	--	--	--	--	--
60	5300	16.97	16.94	16.87	16.77	16.7	16.62	16.58	16.48	16.38
64	5320	14.38	--	--	--	--	--	--	--	--
100	5500	14.1	--	--	--	--	--	--	--	--
116	5580	17.07	16.99	16.93	16.83	16.78	16.69	16.61	16.57	16.49
140	5700	12.95	--	--	--	--	--	--	--	--
144	5720(band3)	16.08	16.04	15.98	15.9	15.83	15.75	15.65	15.58	15.50
144	5720(band4)	10.7	10.64	10.55	10.5	10.45	10.41	10.37	10.29	10.20
149	5745	22.57	--	--	--	--	--	--	--	--
157	5785	23.83	23.74	23.67	23.64	23.55	23.48	23.43	23.36	23.28
165	5825	22.32	--	--	--	--	--	--	--	--

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

Maximum conducted output power Measurement:

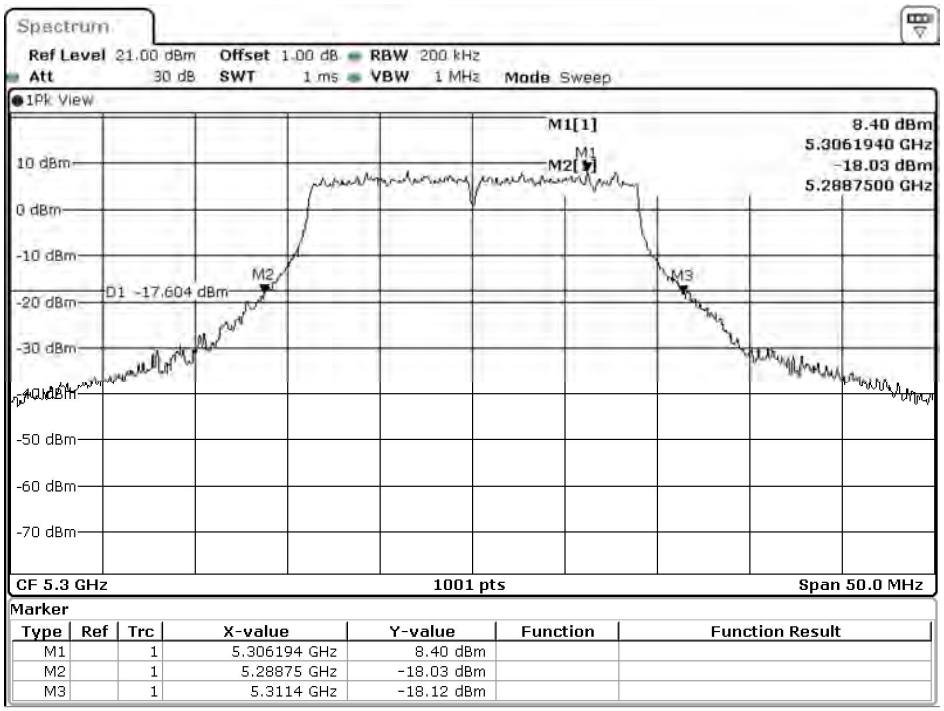
Channel No	Frequency Range (MHz)	26dB Bandwidth (MHz)	Chain A Power (dBm)	Chain B Power (dBm)	Output Power (dBm)	Output Power Limit		Result
						(dBm)	dBm+10log(BW)	
36	5180	--	16.73	16.87	19.81	21.39	--	Pass
44	5220	--	16.91	16.82	19.88	21.39	--	Pass
48	5240	--	16.89	16.89	19.90	21.39	--	Pass
52	5260	22.55	17.31	17.20	20.27	21.85	24.53	Pass
60	5300	22.65	17.31	16.97	20.15	21.85	24.55	Pass
64	5320	22.60	14.88	14.38	17.65	21.85	24.54	Pass
100	5500	22.45	13.88	14.10	17.00	21.13	24.51	Pass
116	5580	22.55	16.49	17.07	19.80	21.13	24.53	Pass
140	5700	22.45	12.32	12.95	15.66	21.13	24.51	Pass
144(Band3)	5720	15.95	15.42	16.08	18.90	21.13	23.03	Pass
144(Band4)	5720	--	9.63	10.70	13.34	27.43	--	Pass
149	5745	--	21.81	22.57	25.22	30	--	Pass
157	5785	--	23.80	23.83	26.83	30	--	Pass
165	5825	--	21.65	22.32	25.01	30	--	Pass

26dB Occupied Bandwidth:
Channel 52 - Chain A



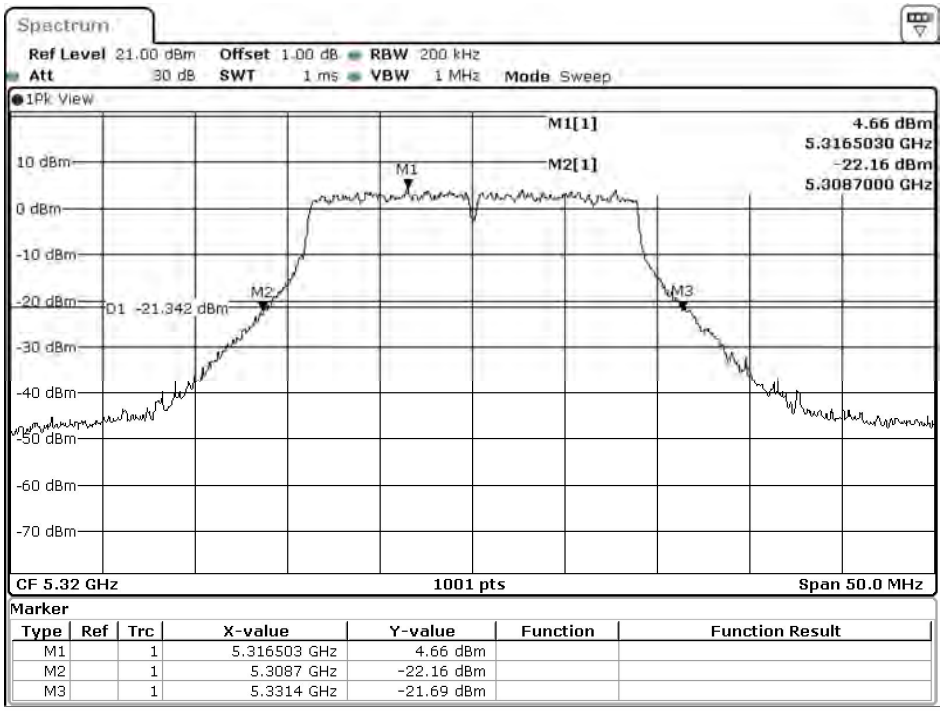
Date: 22.FEB.2021 04:23:32

Channel 60 - Chain A



Date: 22.FEB.2021 04:25:20

Channel 64 - Chain A

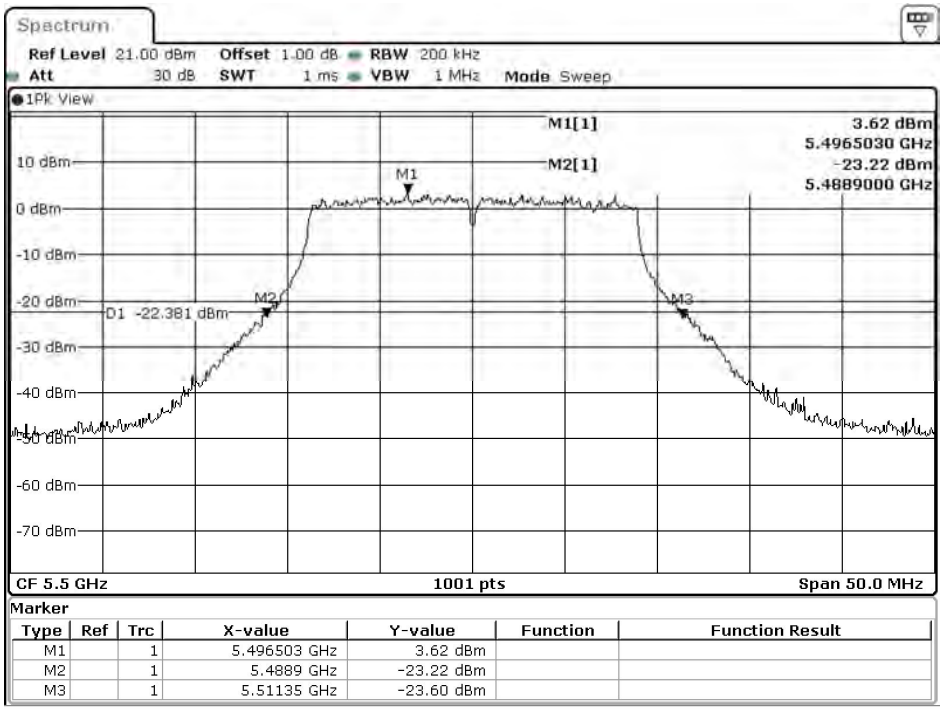


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.316503 GHz	4.66 dBm		
M2		1	5.3087 GHz	-22.16 dBm		
M3		1	5.3314 GHz	-21.69 dBm		

Date: 22.FEB.2021 04:27:03

Channel 100 - Chain A

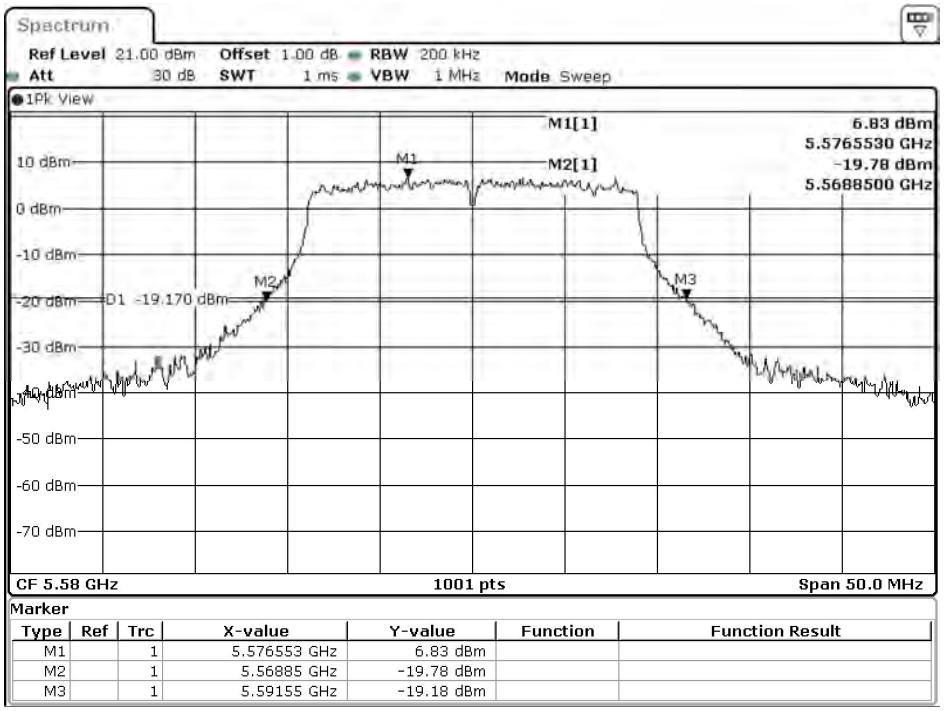


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.496503 GHz	3.62 dBm		
M2		1	5.4889 GHz	-23.22 dBm		
M3		1	5.51135 GHz	-23.60 dBm		

Date: 22.FEB.2021 04:30:47

Channel 116 - Chain A

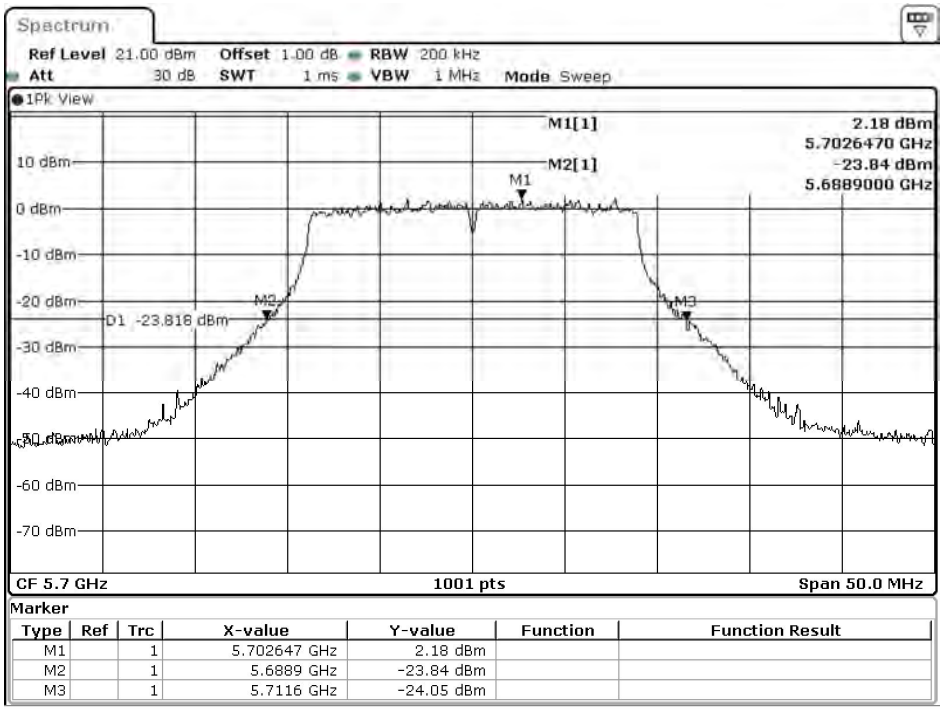


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.576553 GHz	6.83 dBm		
M2		1	5.56885 GHz	-19.78 dBm		
M3		1	5.59155 GHz	-19.18 dBm		

Date: 22.FEB.2021 04:32:30

Channel 140 - Chain A

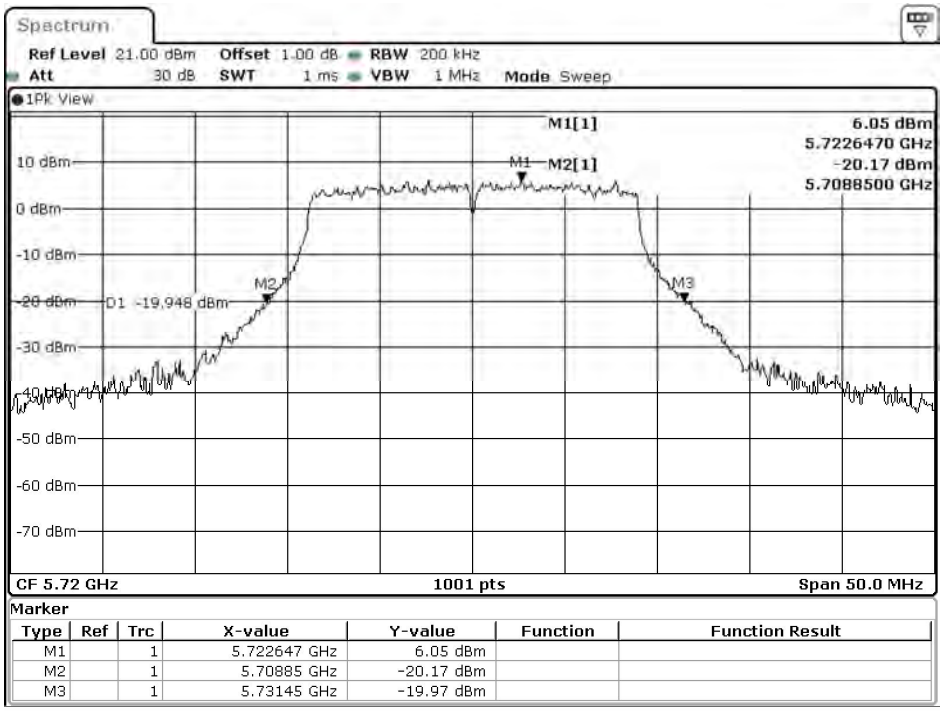


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.702647 GHz	2.18 dBm		
M2		1	5.6889 GHz	-23.84 dBm		
M3		1	5.7116 GHz	-24.05 dBm		

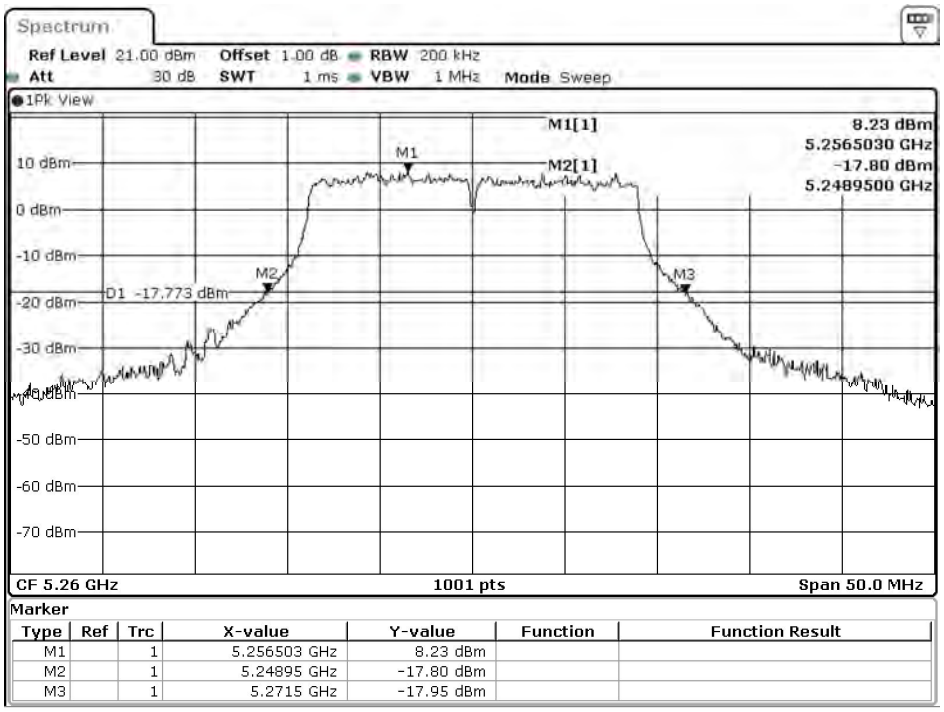
Date: 22.FEB.2021 04:34:16

Channel 144 - Chain A



Date: 22.FEB.2021 05:23:08

26dB Occupied Bandwidth:
Channel 52 - Chain B

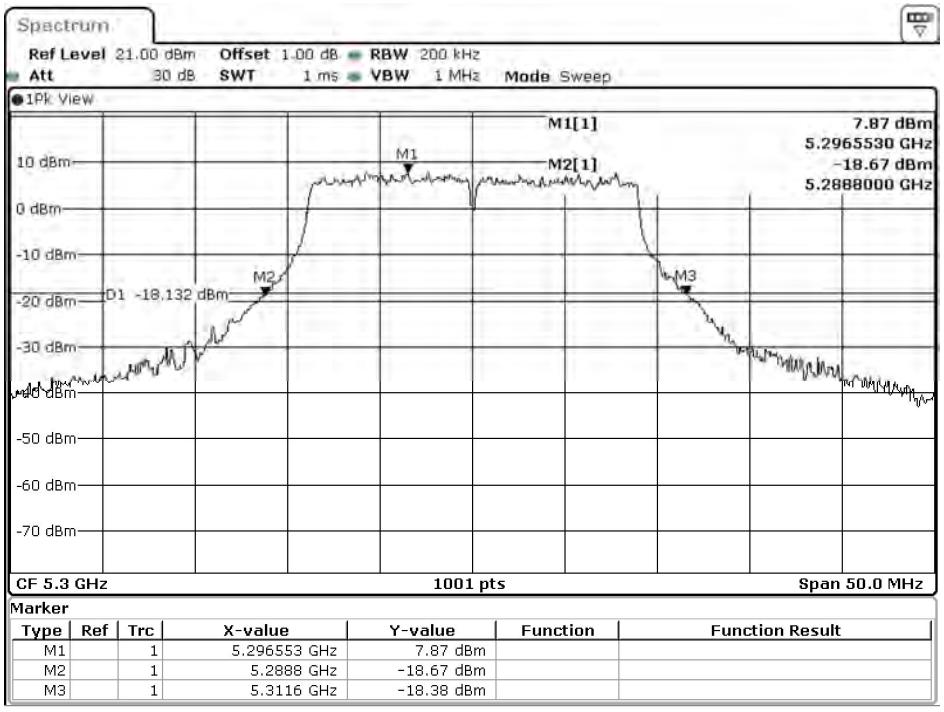


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.256503 GHz	8.23 dBm		
M2		1	5.24895 GHz	-17.80 dBm		
M3		1	5.2715 GHz	-17.95 dBm		

Date: 22.FEB.2021 06:28:54

Channel 60 - Chain B

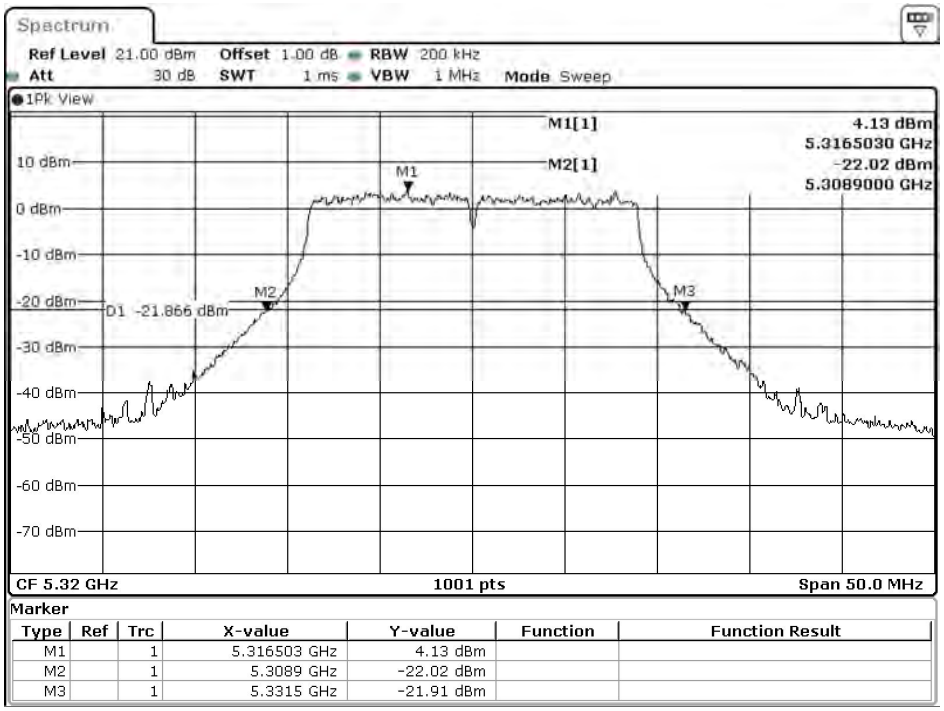


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.296553 GHz	7.87 dBm		
M2		1	5.2888 GHz	-18.67 dBm		
M3		1	5.3116 GHz	-18.38 dBm		

Date: 22.FEB.2021 06:30:42

Channel 64 - Chain B

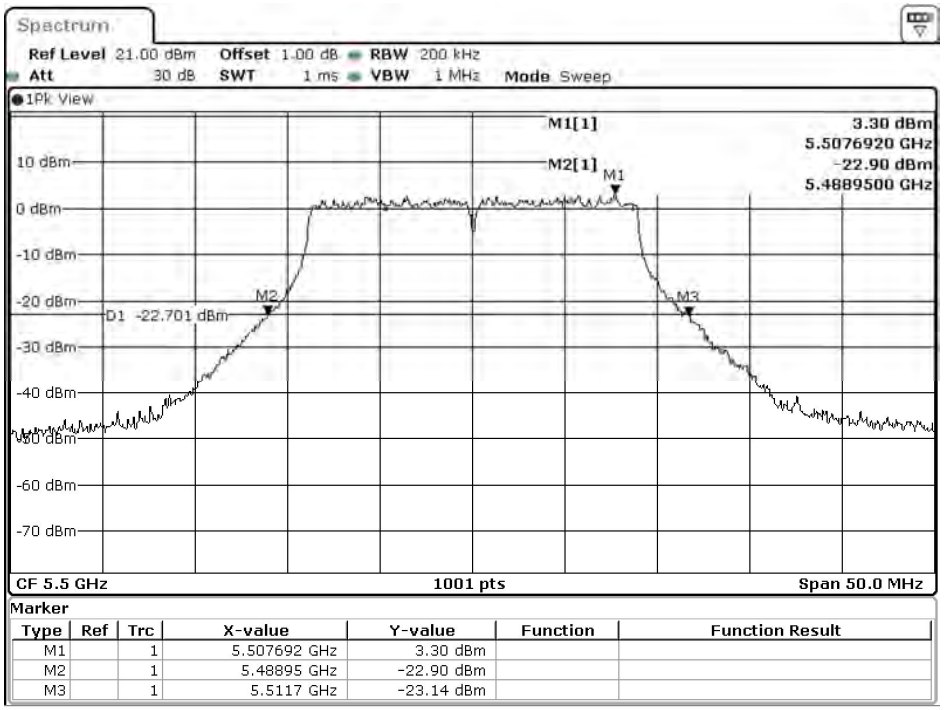


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.316503 GHz	4.13 dBm		
M2		1	5.3089 GHz	-22.02 dBm		
M3		1	5.3315 GHz	-21.91 dBm		

Date: 22.FEB.2021 06:32:25

Channel 100 - Chain B

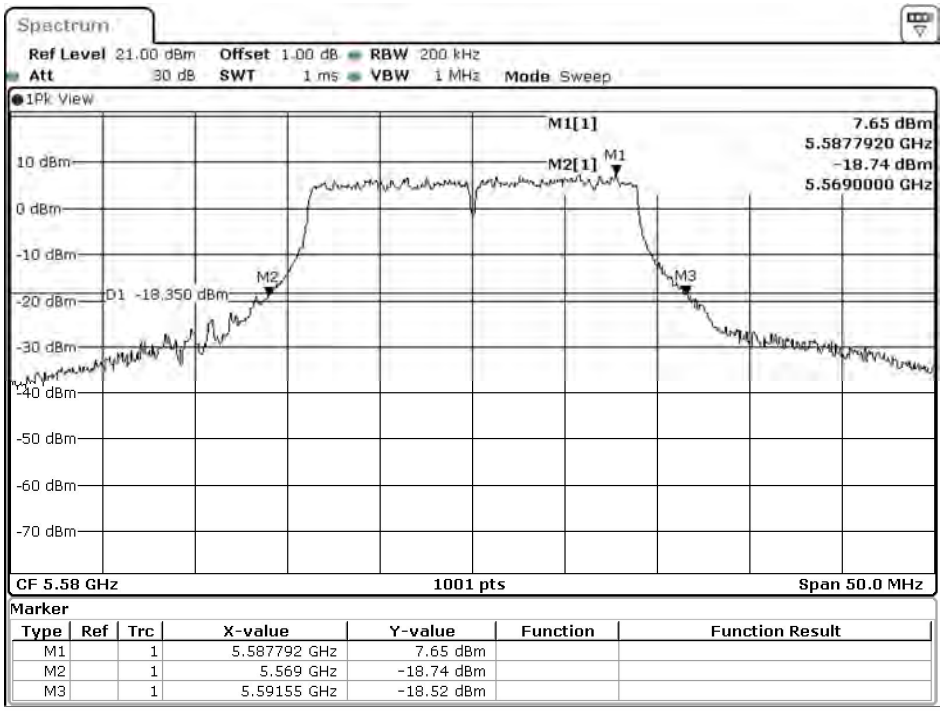


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.507692 GHz	3.30 dBm		
M2		1	5.48895 GHz	-22.90 dBm		
M3		1	5.5117 GHz	-23.14 dBm		

Date: 22.FEB.2021 06:36:09

Channel 116 - Chain B

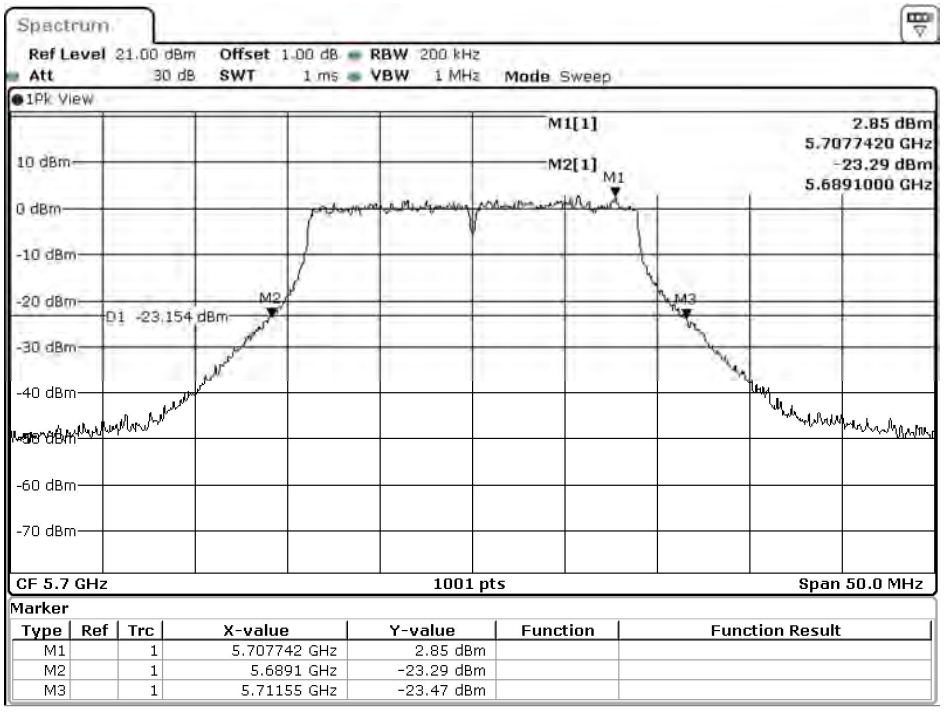


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.587792 GHz	7.65 dBm		
M2		1	5.569 GHz	-18.74 dBm		
M3		1	5.59155 GHz	-18.52 dBm		

Date: 22.FEB.2021 06:37:52

Channel 140 - Chain B

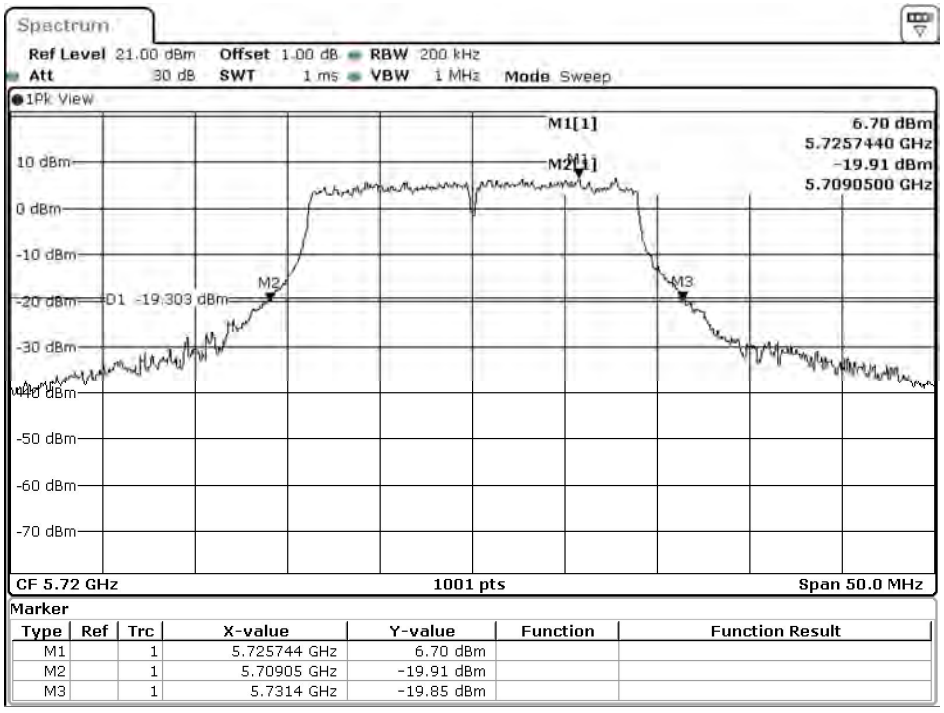


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.707742 GHz	2.85 dBm		
M2		1	5.6891 GHz	-23.29 dBm		
M3		1	5.71155 GHz	-23.47 dBm		

Date: 22.FEB.2021 06:39:38

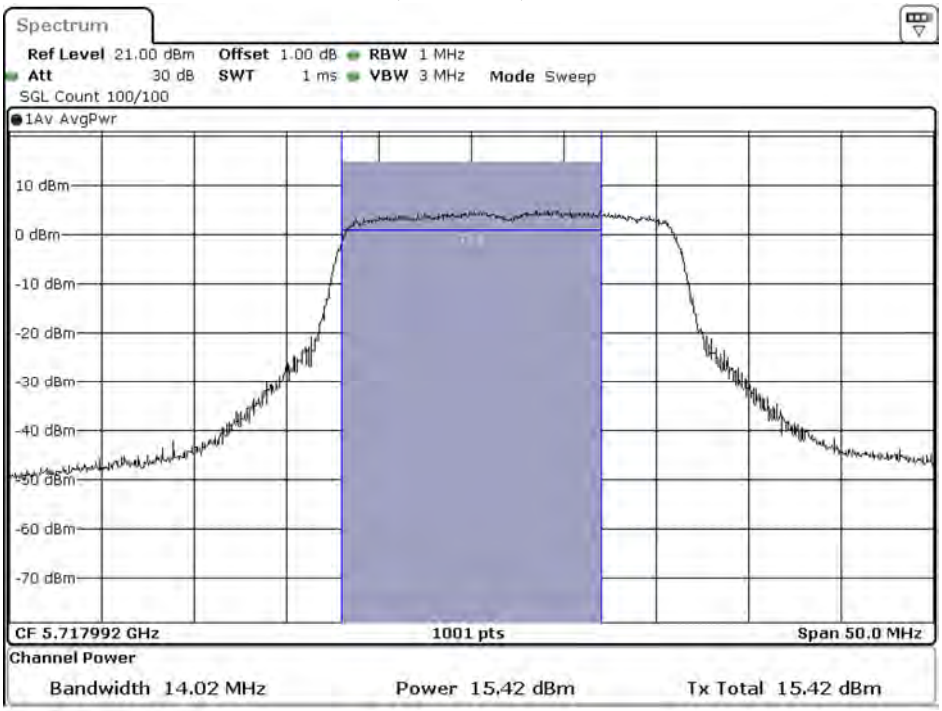
Channel 144 - Chain B



Date: 22.FEB.2021 07:28:30

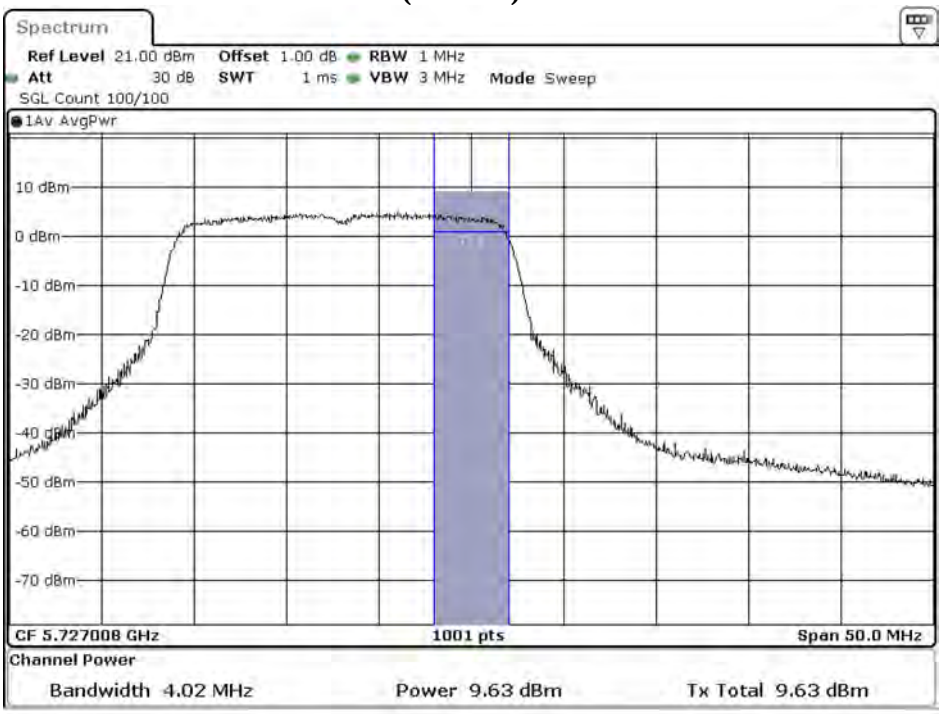
Maximum conducted output power:

Channel 144 (U-NII-2C) - Chain A



Date: 22.FEB.2021 05:24:16

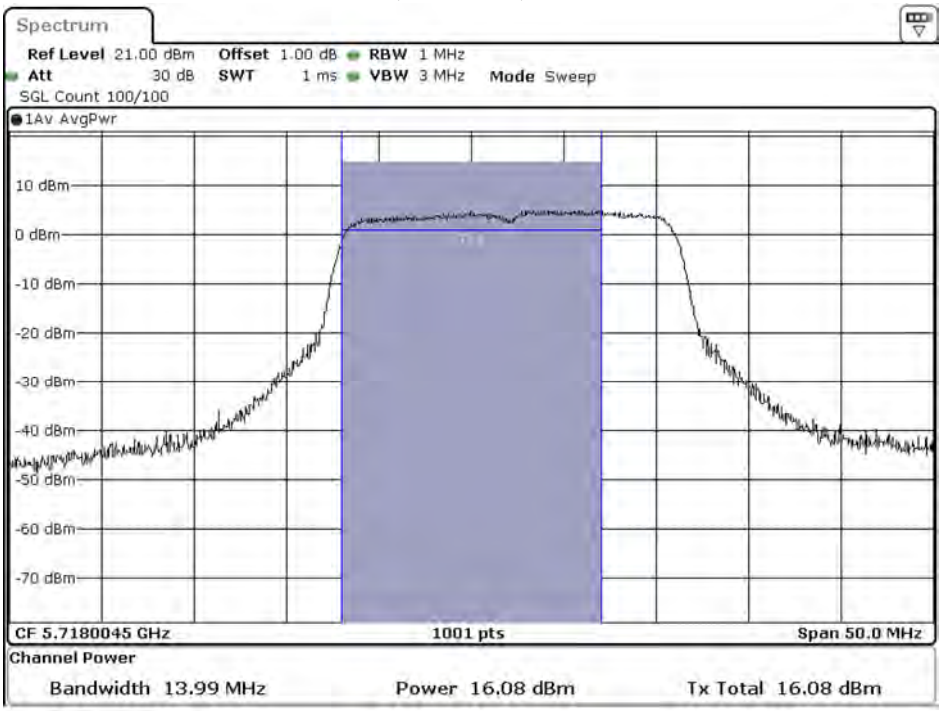
Channel 144 (U-NII-3) - Chain A



Date: 22.FEB.2021 05:24:39

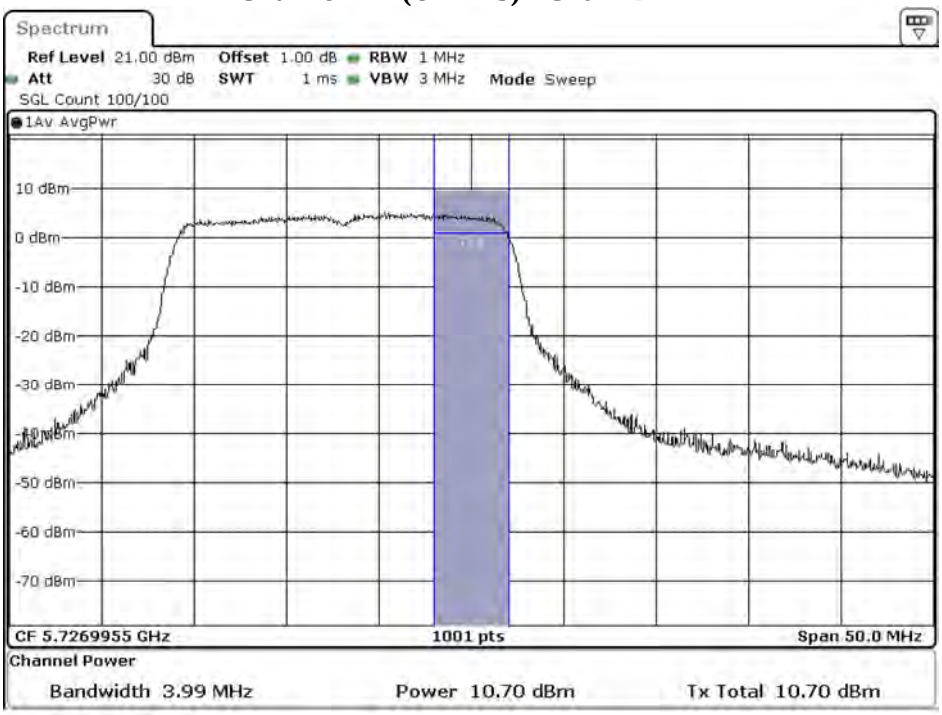
Maximum conducted output power:

Channel 144 (U-NII-2C) - Chain B



Date: 22.FEB.2021 07:29:38

Channel 144 (U-NII-3) - Chain B



Date: 22.FEB.2021 07:30:01

Product : Wireless module
Test Item : Maximum conducted output power
Test Mode : Mode 5: Transmit (802.11ac-40BW 15Mbps) – Dipole Antenna
Test Date : 2021/02/19

Chain A

Cable loss=1dB		Maximum conducted output power								
Channel No.	Frequency (MHz)	Data Rate (Mbps)								
		MCS8	MCS9	MCS10	MCS11	MCS12	MCS13	MCS14	MCS15	MCS16
		Measurement Level (dBm)								
38	5190	17.88	--	--	--	--	--	--	--	--
46	5230	18.07	17.99	17.91	17.88	17.83	17.73	17.64	17.55	17.51
54	5270	18.4	--	--	--	--	--	--	--	--
62	5310	15.92	15.84	15.8	15.76	15.73	15.63	15.54	15.48	15.38
102	5510	14.04	--	--	--	--	--	--	--	--
110	5550	17.57	17.54	17.46	17.39	17.29	17.25	17.16	17.06	16.96
134	5670	13.94	--	--	--	--	--	--	--	--
142	5710(band3)	16.88	16.81	16.76	16.7	16.62	16.52	16.47	16.41	16.32
142	5710(band3)	6.22	6.12	6.09	6.05	6.01	5.95	5.91	5.81	5.74
151	5755	19.41	--	--	--	--	--	--	--	--
159	5795	20.25	20.17	20.09	20.03	19.94	19.84	19.81	19.75	19.69

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

Chain B

Cable loss=1dB		Maximum conducted output power								
Channel No.	Frequency (MHz)	Data Rate (Mbps)								
		MCS8	MCS9	MCS10	MCS11	MCS12	MCS13	MCS14	MCS15	MCS16
		Measurement Level (dBm)								
38	5190	18.08	--	--	--	--	--	--	--	--
46	5230	18.05	17.95	17.86	17.8	17.77	17.74	17.66	17.59	17.56
54	5270	18.54	--	--	--	--	--	--	--	--
62	5310	15.84	15.81	15.77	15.71	15.64	15.57	15.48	15.41	15.35
102	5510	14.48	--	--	--	--	--	--	--	--
110	5550	18.08	17.98	17.9	17.86	17.77	17.71	17.62	17.55	17.47
134	5670	14.96	--	--	--	--	--	--	--	--
142	5710(band3)	17.88	17.79	17.72	17.68	17.62	17.59	17.54	17.51	17.44
142	5710(band3)	7.4	7.3	7.2	7.16	7.12	7.03	6.96	6.88	6.85
151	5755	20.32	--	--	--	--	--	--	--	--
159	5795	20.95	20.89	20.81	20.71	20.66	20.61	20.52	20.49	20.42

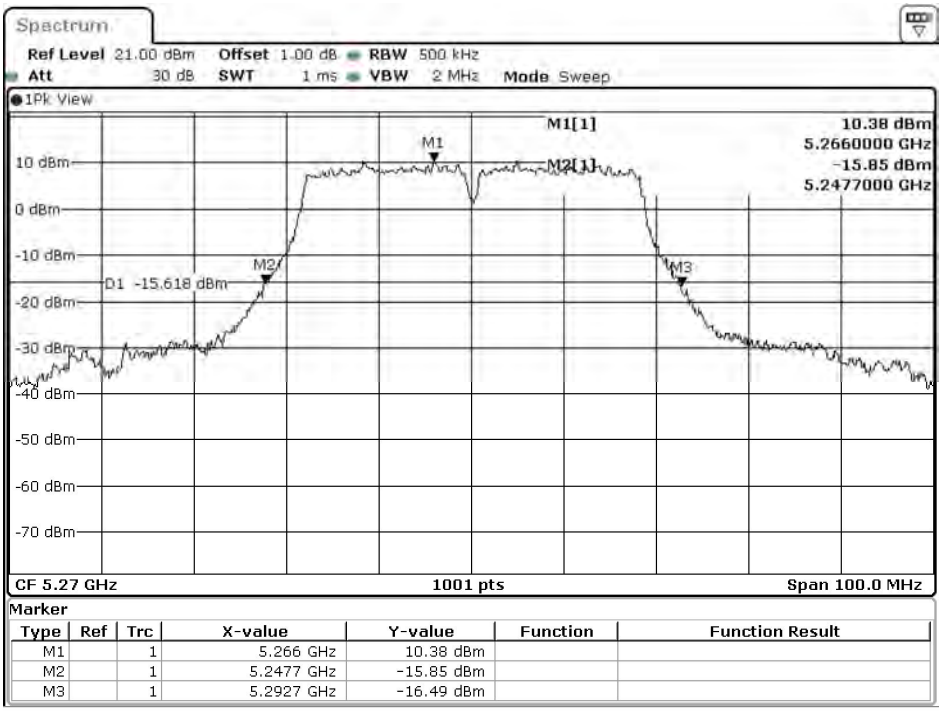
Note: Maximum conducted output power Value =Reading value on average power meter + cable loss

Maximum conducted output power Measurement:

Channel No	Frequency Range	26dB Bandwidth	Chain A Power	Chain B Power	Output Power	Output Power Limit	
	(MHz)	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	dBm+10log(BW)
38	5190	--	17.88	18.08	20.99	21.39	--
46	5230	--	18.07	18.05	21.07	21.39	--
54	5270	44.50	18.40	18.54	21.48	21.85	27.48
62	5310	44.70	15.92	15.84	18.89	21.85	27.50
102	5510	45.10	14.04	14.48	17.28	21.13	27.54
110	5550	44.80	17.57	18.08	20.84	21.13	27.51
134	5670	45.00	13.94	14.96	17.49	21.13	27.53
142F(Band3)	5710	37.10	16.88	17.88	20.66	21.13	26.69
142F(Band4)	5710	--	6.22	7.40	10.10	30	--
151	5755	--	19.41	20.32	22.90	30	--
159	5795	--	20.25	20.95	23.62	30	--

26dB Occupied Bandwidth:

Channel 54 - Chain A

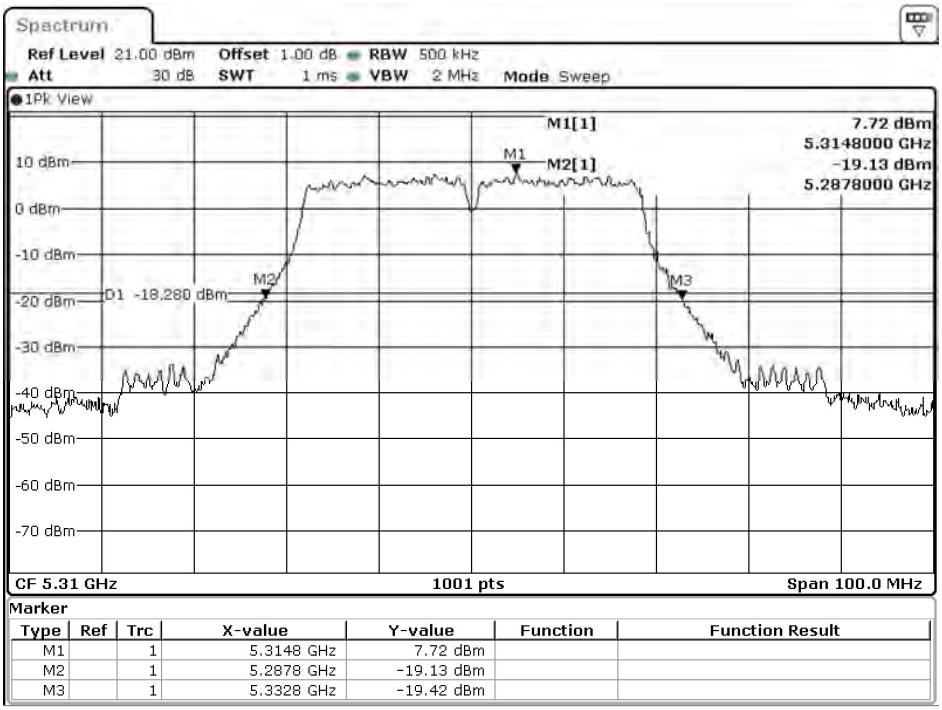


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.266 GHz	10.38 dBm		
M2		1	5.2477 GHz	-15.85 dBm		
M3		1	5.2927 GHz	-16.49 dBm		

Date: 22.FEB.2021 05:51:43

Channel 62 - Chain A

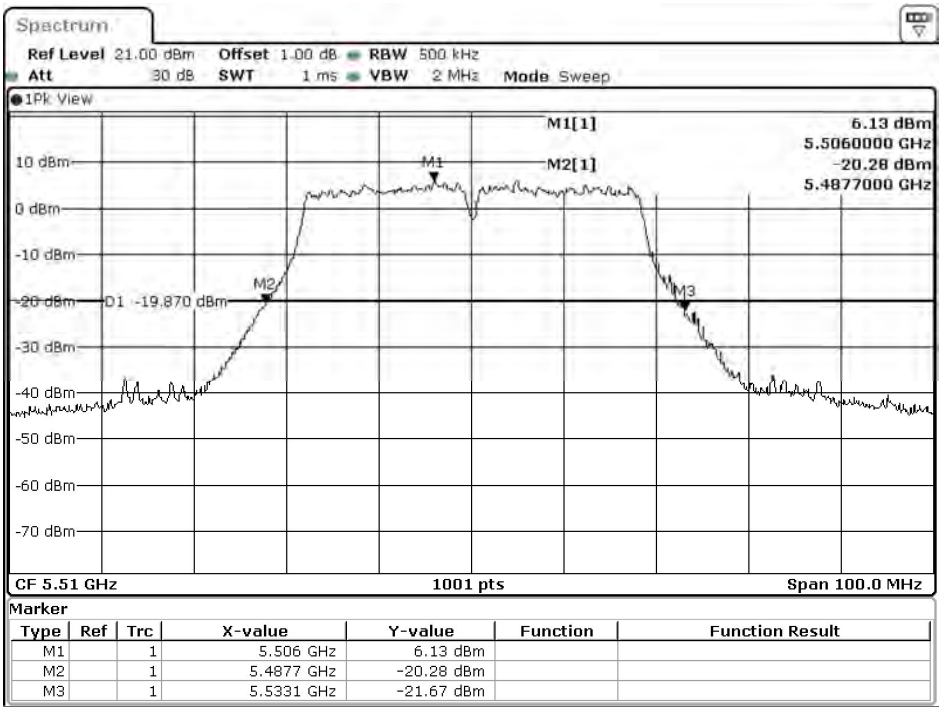


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.3148 GHz	7.72 dBm		
M2		1	5.2878 GHz	-19.13 dBm		
M3		1	5.3328 GHz	-19.42 dBm		

Date: 22.FEB.2021 05:53:28

Channel 102 - Chain A

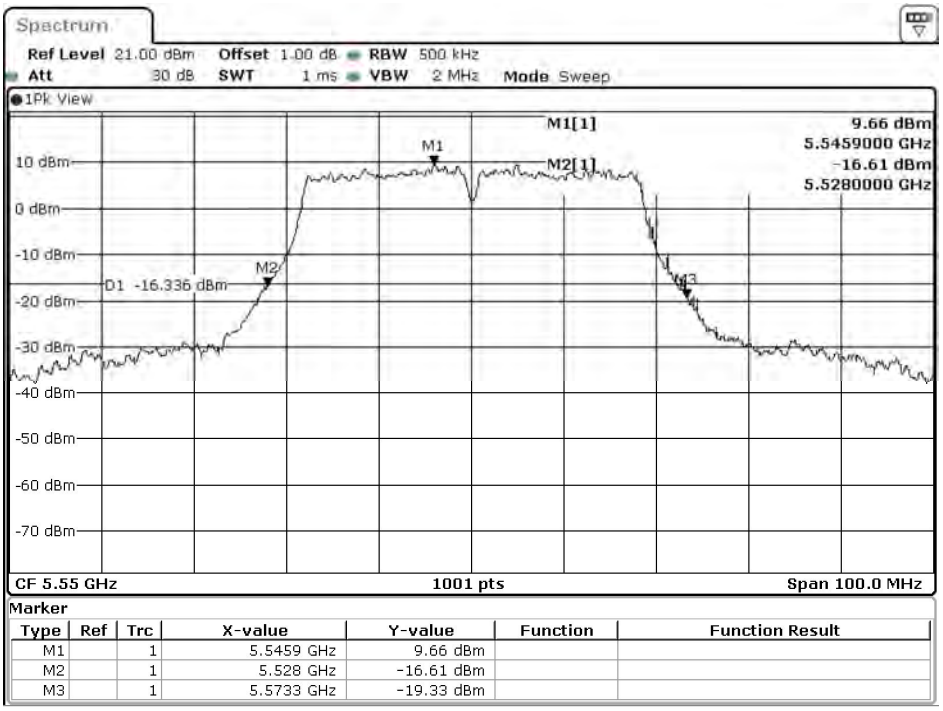


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.506 GHz	6.13 dBm		
M2		1	5.4877 GHz	-20.28 dBm		
M3		1	5.5331 GHz	-21.67 dBm		

Date: 22.FEB.2021 05:55:11

Channel 110 - Chain A

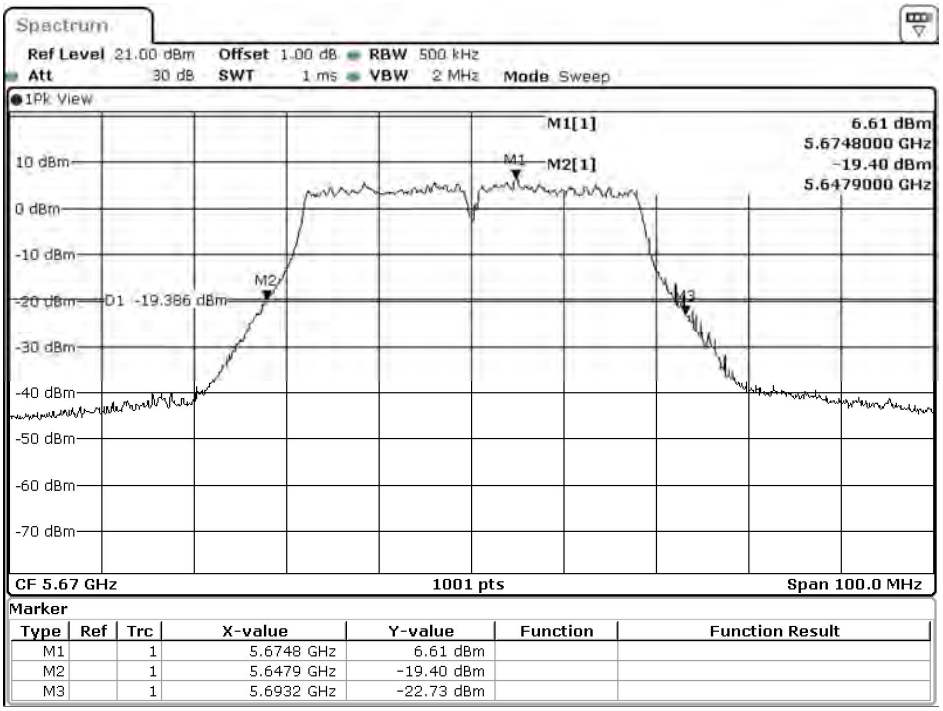


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.5459 GHz	9.66 dBm		
M2		1	5.528 GHz	-16.61 dBm		
M3		1	5.5733 GHz	-19.33 dBm		

Date: 22.FEB.2021 05:56:52

Channel 134 - Chain A

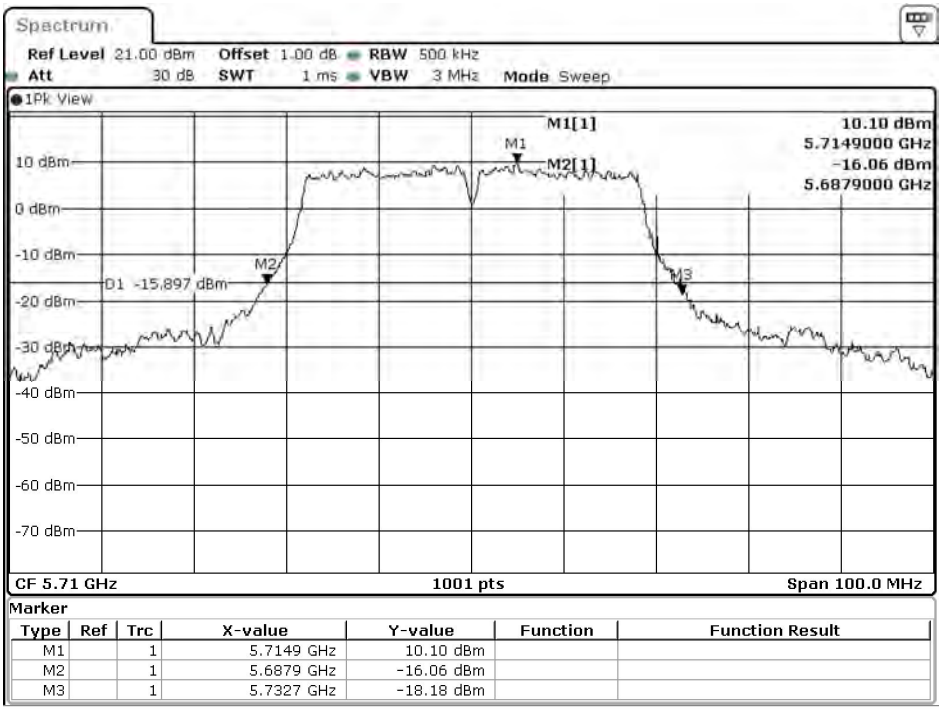


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.6748 GHz	6.61 dBm		
M2		1	5.6479 GHz	-19.40 dBm		
M3		1	5.6932 GHz	-22.73 dBm		

Date: 22.FEB.2021 05:58:39

Channel 142 - Chain A



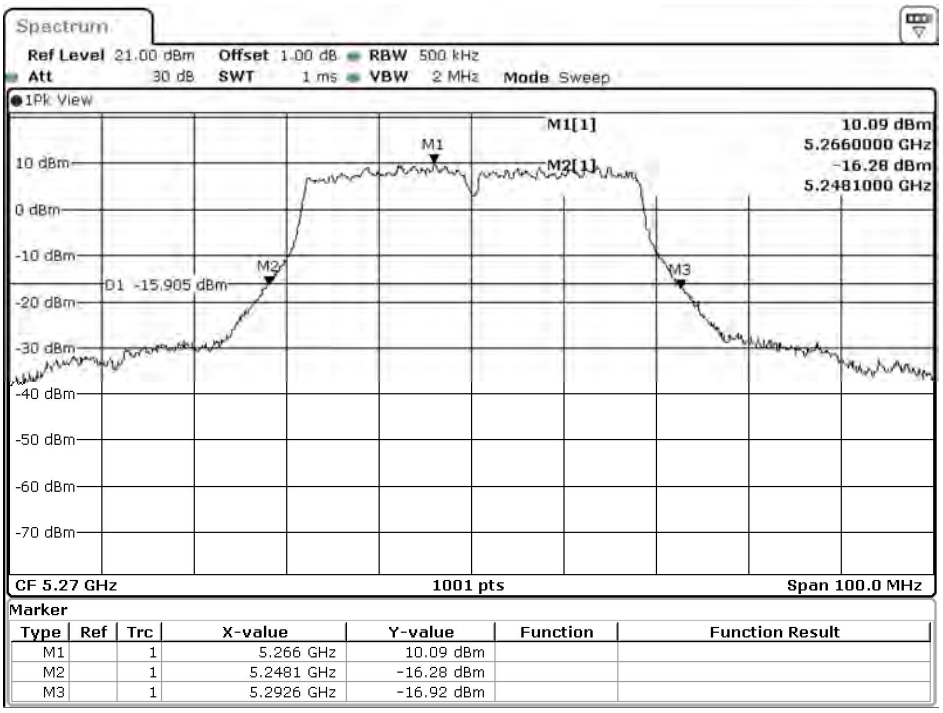
Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.7149 GHz	10.10 dBm		
M2		1	5.6879 GHz	-16.06 dBm		
M3		1	5.7327 GHz	-18.18 dBm		

Date: 22.FEB.2021 05:44:02

26dB Occupied Bandwidth:

Channel 54 - Chain B

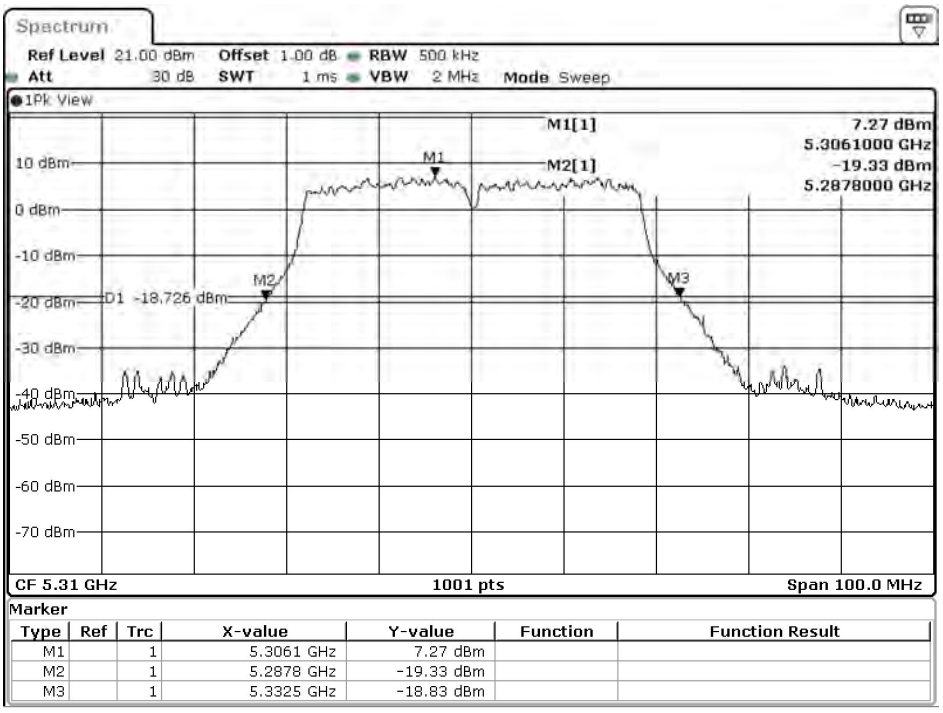


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.266 GHz	10.09 dBm		
M2		1	5.2481 GHz	-16.28 dBm		
M3		1	5.2926 GHz	-16.92 dBm		

Date: 22.FEB.2021 07:57:05

Channel 62 - Chain B

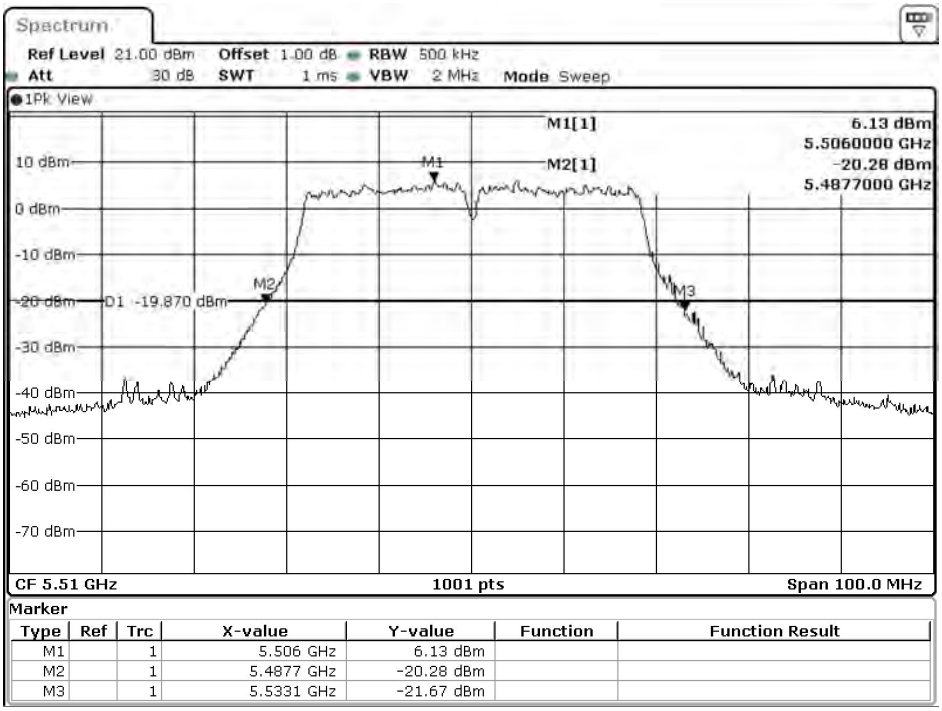


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.3061 GHz	7.27 dBm		
M2		1	5.2878 GHz	-19.33 dBm		
M3		1	5.3325 GHz	-18.83 dBm		

Date: 22.FEB.2021 07:58:50

Channel 102 - Chain B

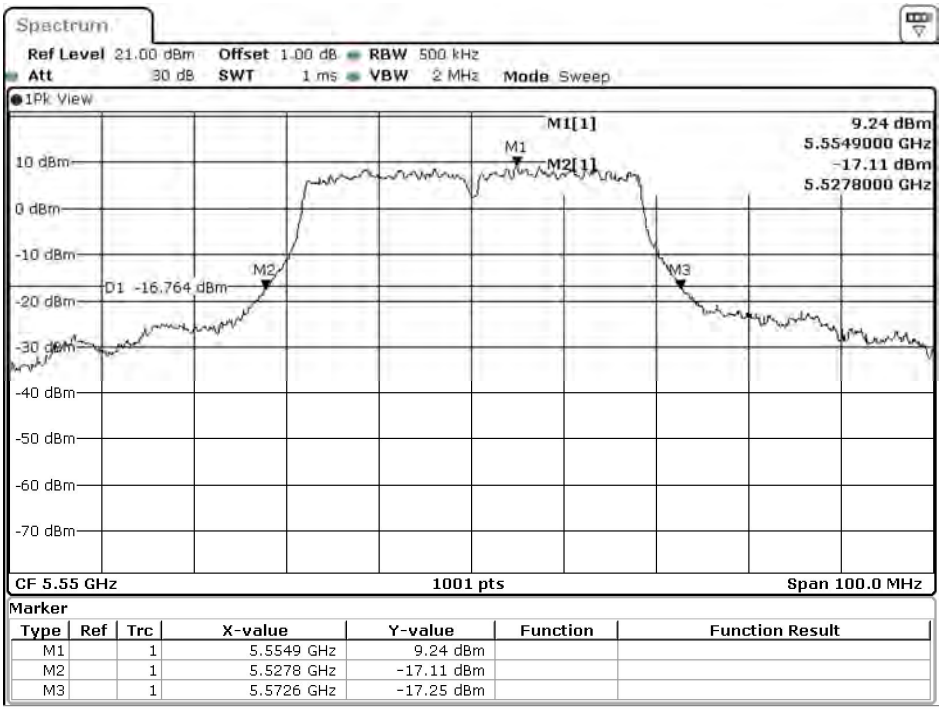


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.506 GHz	6.13 dBm		
M2		1	5.4877 GHz	-20.28 dBm		
M3		1	5.5331 GHz	-21.67 dBm		

Date: 22.FEB.2021 05:55:11

Channel 110 - Chain B

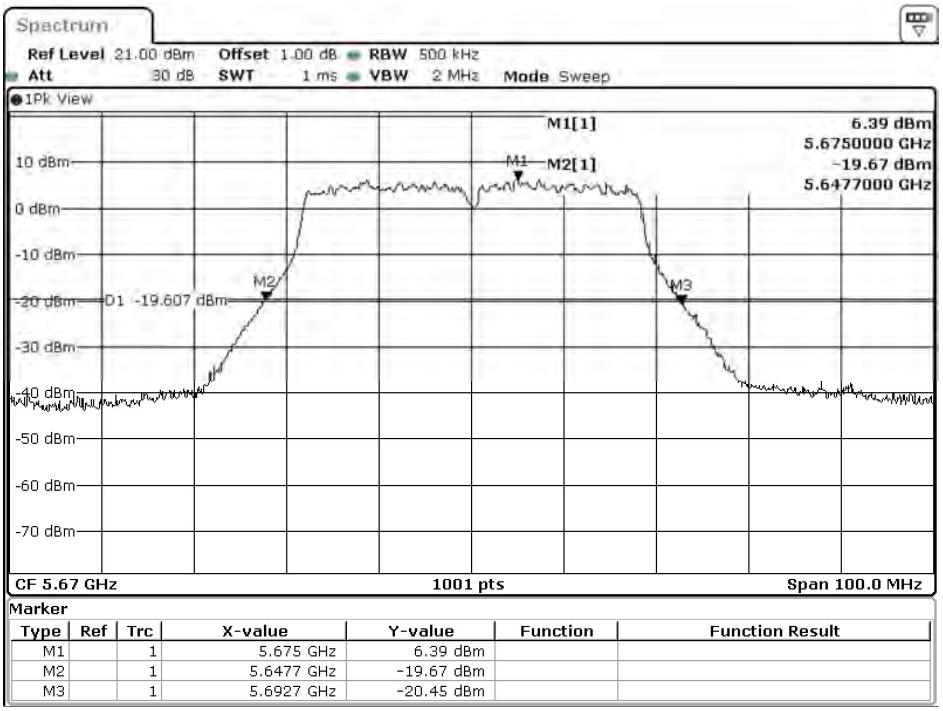


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.5549 GHz	9.24 dBm		
M2		1	5.5278 GHz	-17.11 dBm		
M3		1	5.5726 GHz	-17.25 dBm		

Date: 22.FEB.2021 08:02:14

Channel 134 - Chain B

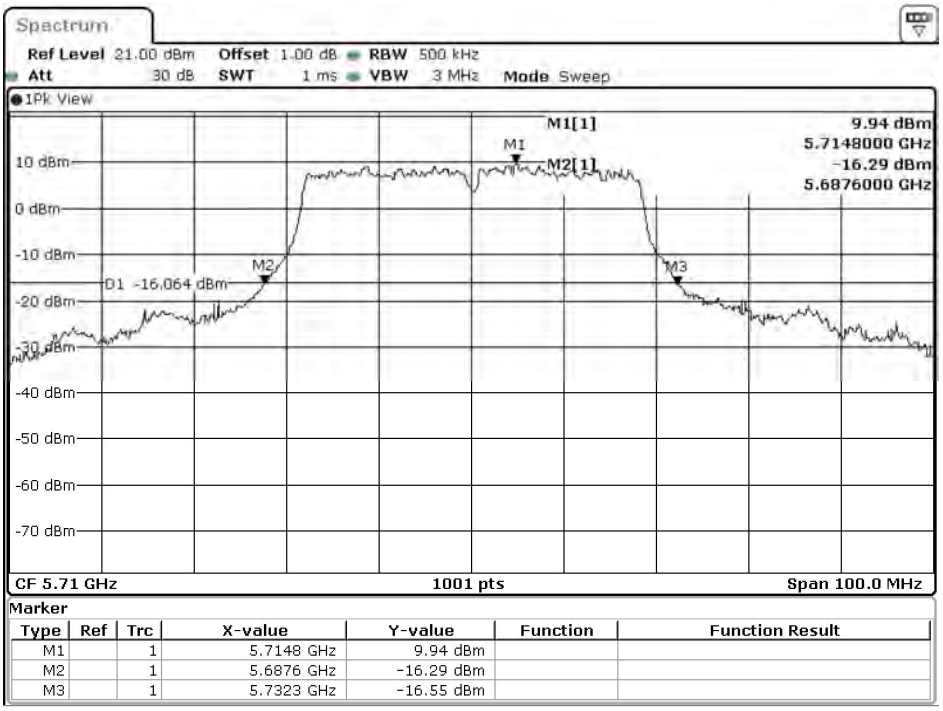


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.675 GHz	6.39 dBm		
M2		1	5.6477 GHz	-19.67 dBm		
M3		1	5.6927 GHz	-20.45 dBm		

Date: 22.FEB.2021 08:04:01

Channel 142 - Chain B



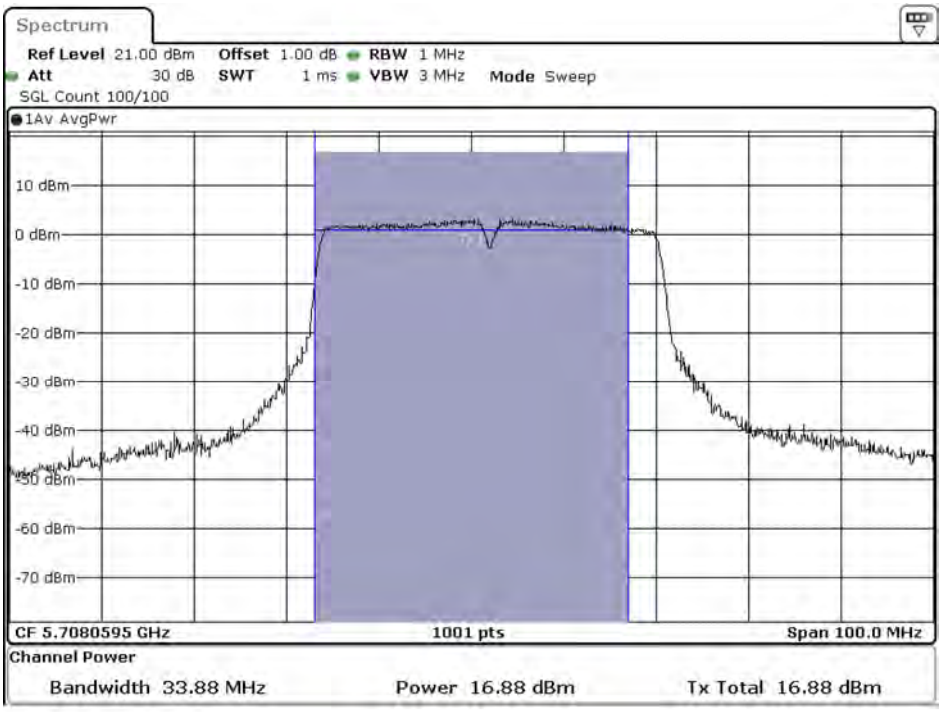
Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.7148 GHz	9.94 dBm		
M2		1	5.6876 GHz	-16.29 dBm		
M3		1	5.7323 GHz	-16.55 dBm		

Date: 22.FEB.2021 07:49:24

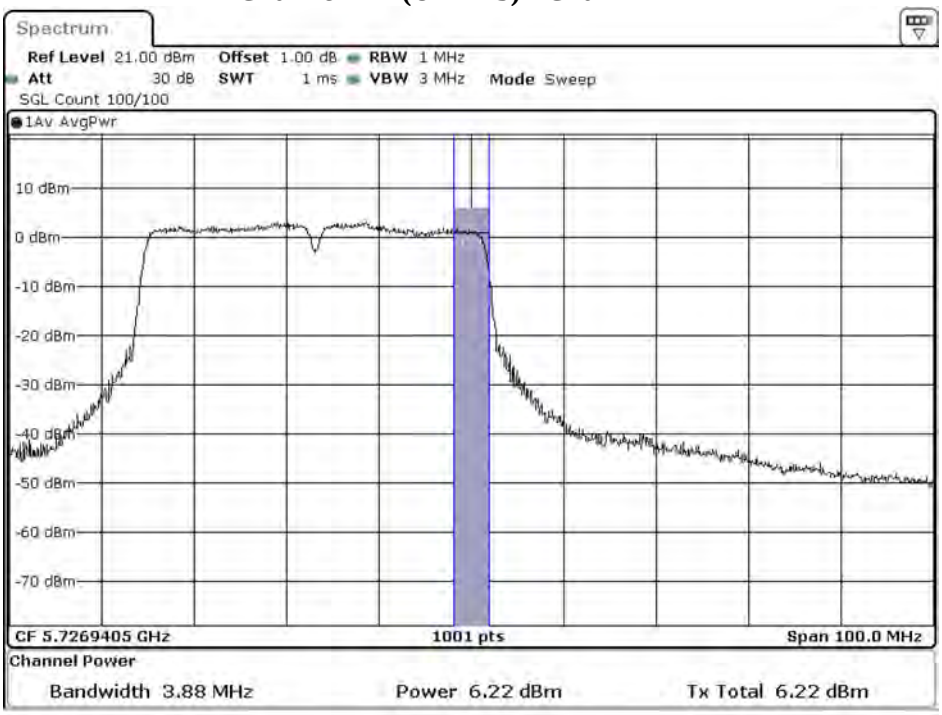
Maximum conducted output power:

Channel 142 (U-NII-2C) - Chain A



Date: 22.FEB.2021 05:45:10

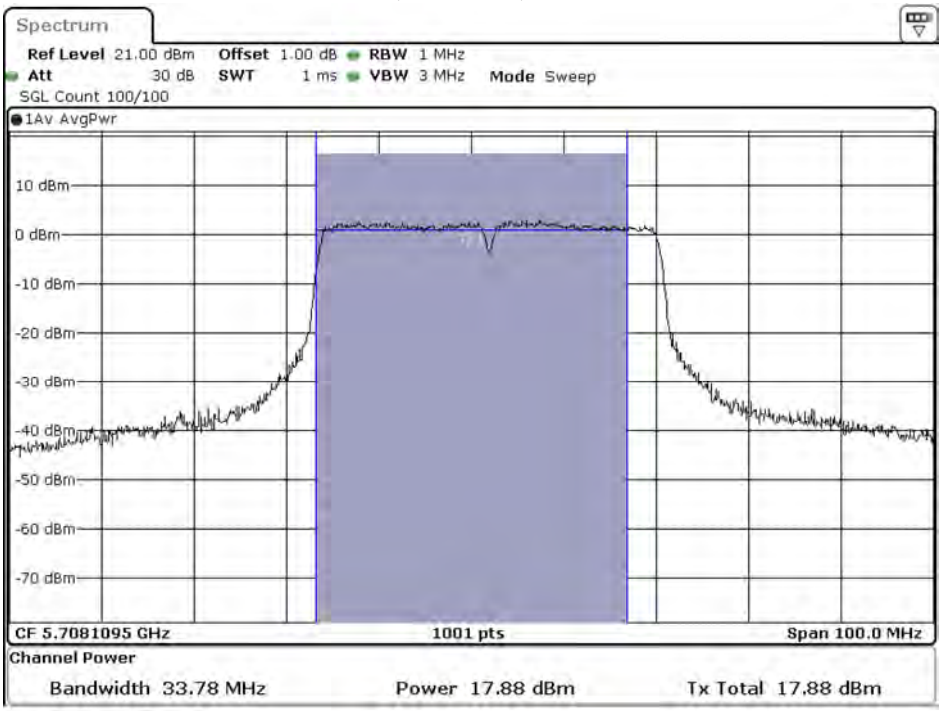
Channel 142 (U-NII-3) - Chain A



Date: 22.FEB.2021 05:45:32

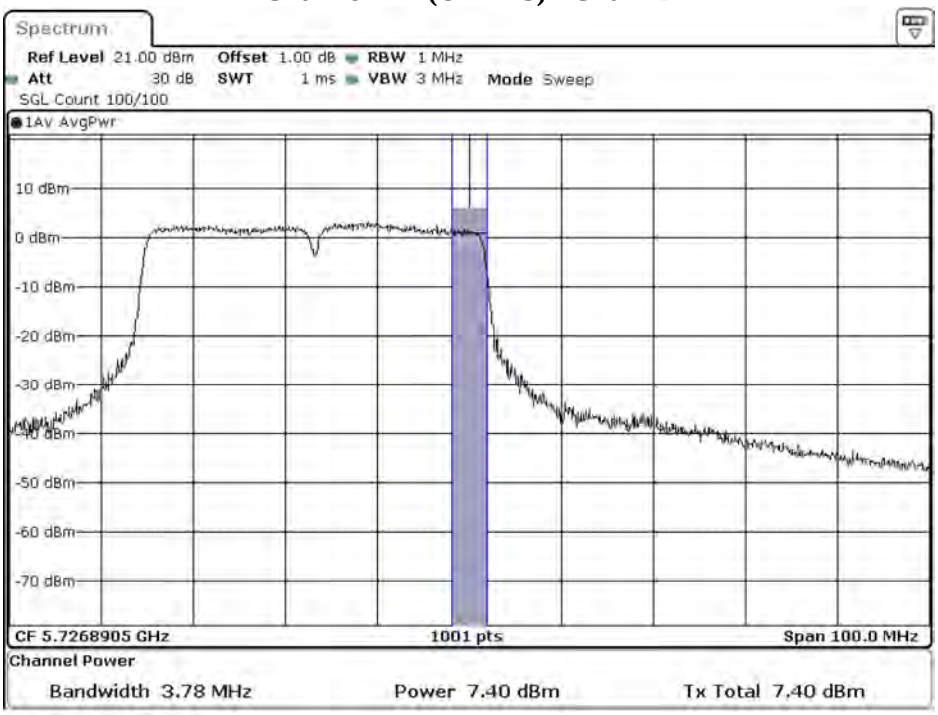
Maximum conducted output power:

Channel 142 (U-NII-2C) - Chain B



Date: 22.FEB.2021 07:50:32

Channel 142 (U-NII-3) - Chain B



Date: 22.FEB.2021 07:50:54

Product : Wireless module
Test Item : Maximum conducted output power
Test Mode : Mode 6: Transmit (802.11ac-80BW 32.5Mbps) – Dipole Antenna
Test Date : 2021/02/19

Chain A

Cable loss=1dB		Maximum conducted output power									
Channel No	Frequency (MHz)	Data Rate (Mbps)									
		MCS8	MCS9	MCS10	MCS11	MCS12	MCS13	MCS14	MCS15	MCS16	MCS17
42	5210	14.3	--	--	--	--	--	--	--	--	--
58	5290	13.52	13.49	13.46	13.37	13.3	13.27	13.2	13.13	13.06	13.03
106	5530	14.18	--	--	--	--	--	--	--		
122	5610	17.65	17.62	17.58	17.49	17.43	17.36	17.3	17.22	17.14	17.1
138ac80(Band3)	5690	16.37	--	--	--	--	--	--	--	--	--
138ac80(Band4)	5690	2.5	--	--	--	--	--	--	--	--	--
155	5775	16.08	16.03	15.98	15.95	15.9	15.81	15.78	15.68	15.59	15.5

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

Chain B

Cable loss=1dB		Maximum conducted output power									
Channel No	Frequency (MHz)	Data Rate (Mbps)									
		MCS8	MCS9	MCS10	MCS11	MCS12	MCS13	MCS14	MCS15	MCS16	MCS17
42	5210	14.42	--	--	--	--	--	--	--	--	--
58	5290	13.67	13.61	13.56	13.52	13.42	13.33	13.25	13.17	13.08	13.02
106	5530	14.74	--	--	--	--	--	--	--	--	--
122	5610	18.54	18.47	18.44	18.41	18.35	18.29	18.19	18.11	18.02	17.97
138ac80(Band3)	5690	17.32	--	--	--	--	--	--	--	--	--
138ac80(Band4)	5690	3.01	--	--	--	--	--	--	--	--	--
155	5775	17.02	16.99	16.93	16.87	16.78	16.75	16.69	16.63	16.57	16.53

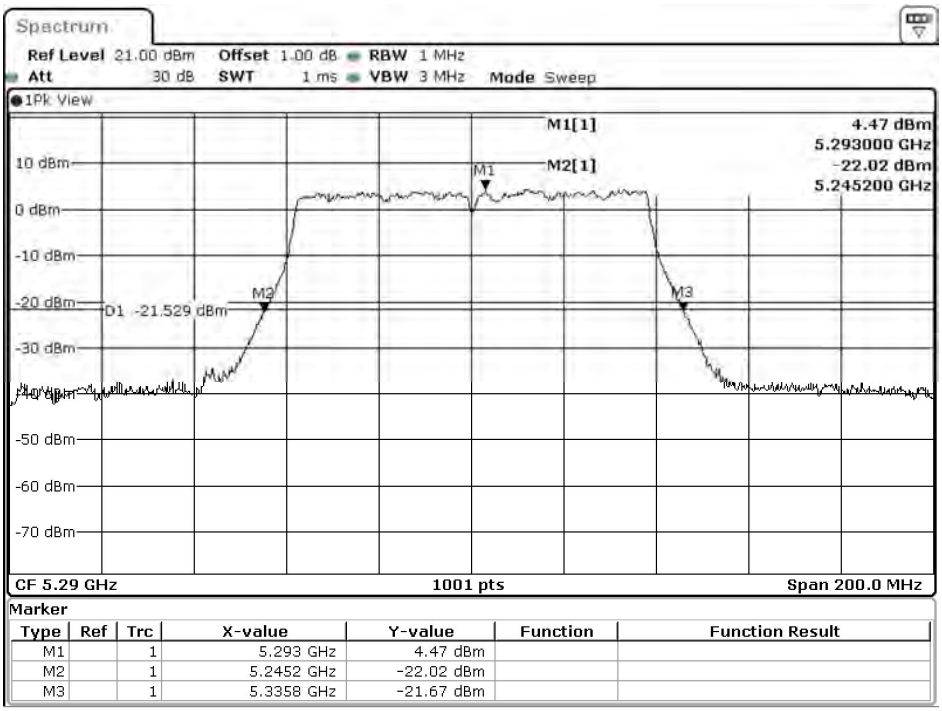
Note: Maximum conducted output power Value =Reading value on Spectrum Analyzer + cable loss

Maximum conducted output power Measurement

Channel No	Frequency Range (MHz)	26dB Bandwidth (MHz)	Chain A Power (dBm)	Chain B Power (dBm)	Output Power (dBm)	Output Power Limit	
						(dBm)	dBm+10log(BW)
42	5210	--	14.30	14.42	17.37	21.39	--
58	5290	88.60	13.52	13.67	16.61	21.85	--
106	5530	87.80	14.18	14.74	17.48	21.13	30.43
122	5610	88.20	17.65	18.54	21.13	21.13	30.45
138F(Band3)	5690	79.20	16.37	17.32	20.54	21.13	29.99
138F(Band4)	5690	--	2.50	3.01	6.43	30	--
155	5775	--	16.08	17.02	19.59	30	--

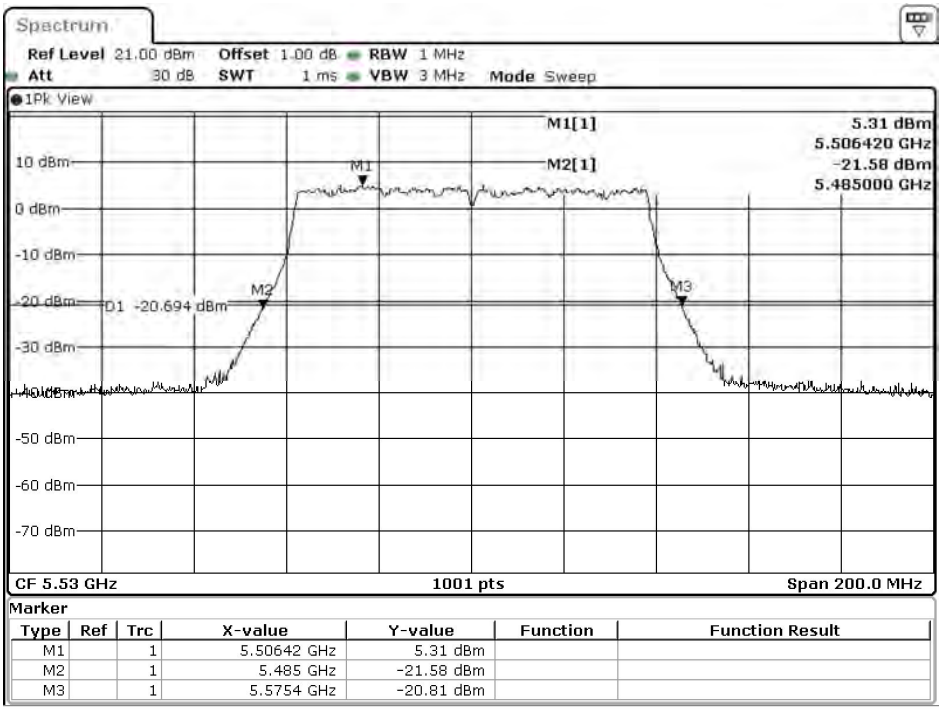
26dB Occupied Bandwidth:

Channel 58 - Chain A



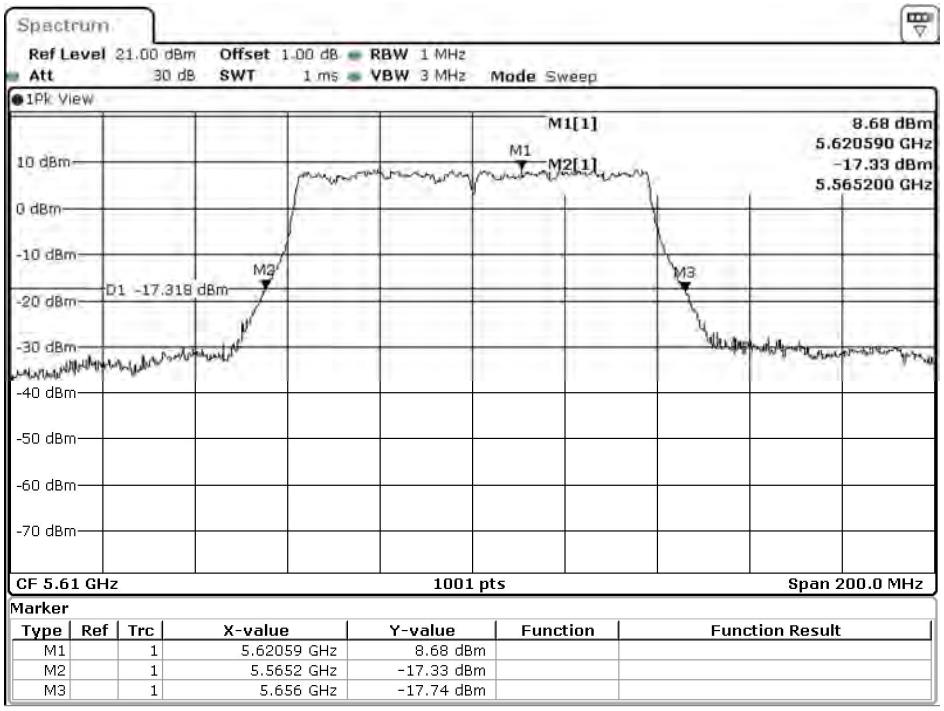
Date: 22.FEB.2021 06:15:50

Channel 106 - Chain A



Date: 22.FEB.2021 06:17:38

Channel 122 - Chain A

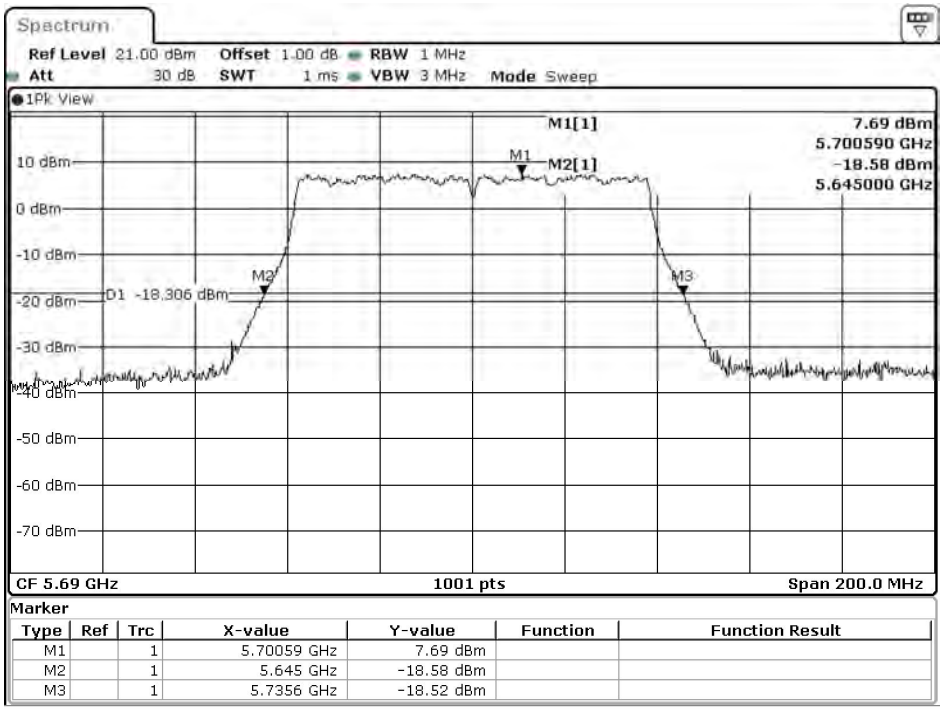


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.62059 GHz	8.68 dBm		
M2		1	5.5652 GHz	-17.33 dBm		
M3		1	5.656 GHz	-17.74 dBm		

Date: 22.FEB.2021 06:19:26

Channel 138 - Chain A



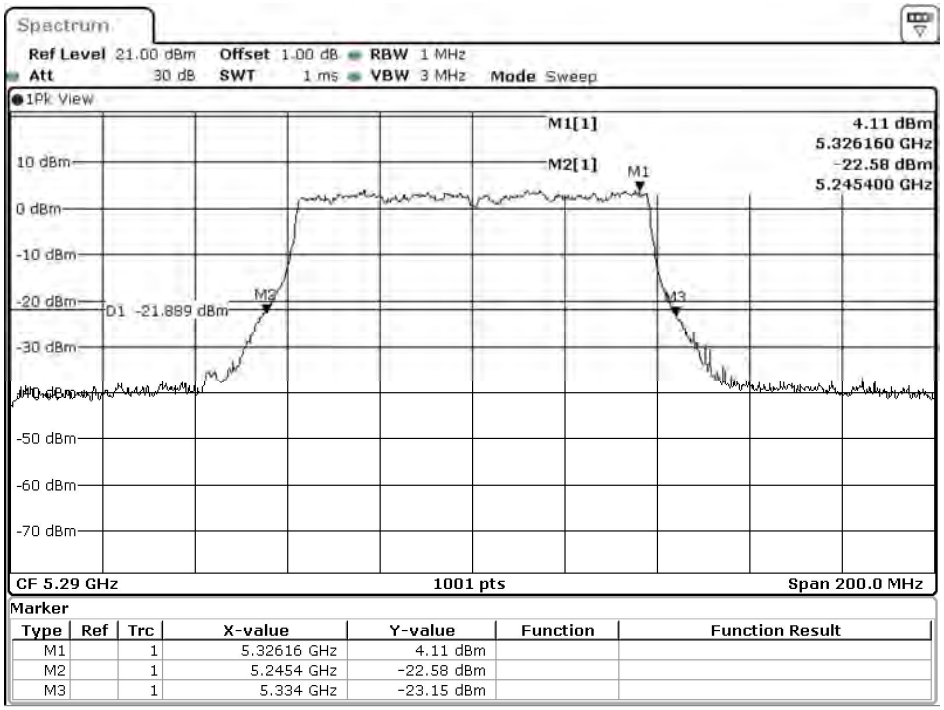
Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.70059 GHz	7.69 dBm		
M2		1	5.645 GHz	-18.58 dBm		
M3		1	5.7356 GHz	-18.52 dBm		

Date: 22.FEB.2021 06:21:14

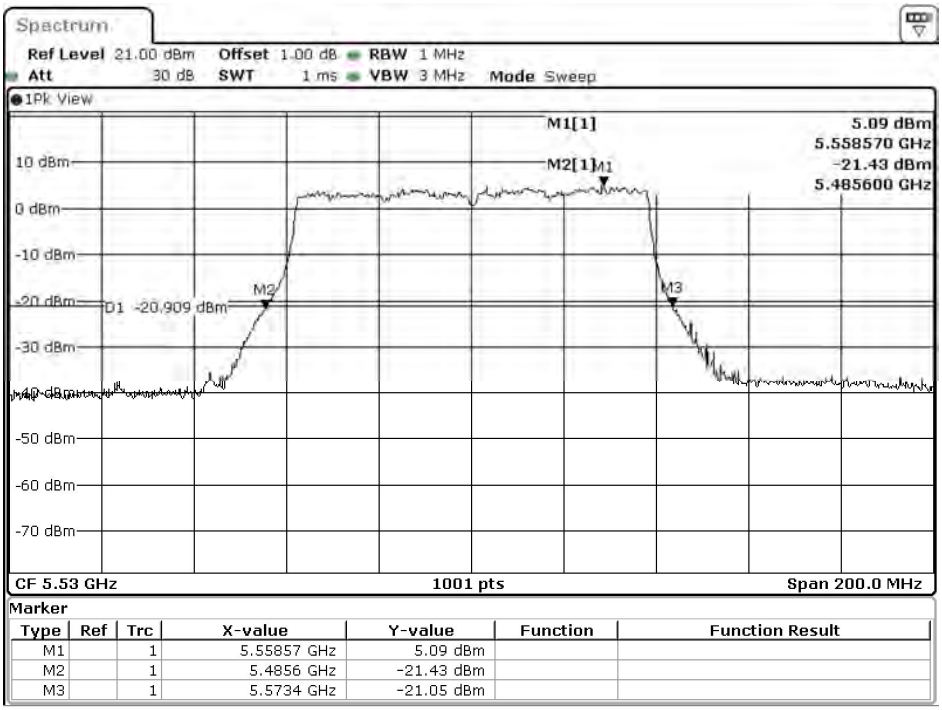
26dB Occupied Bandwidth:

Channel 58 - Chain B



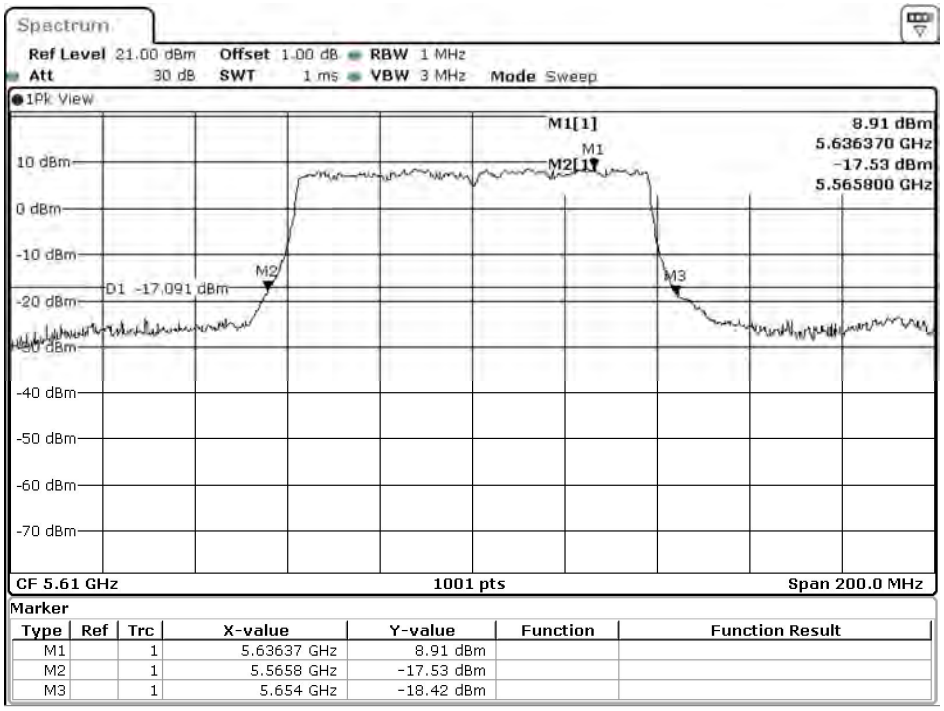
Date: 22.FEB.2021 08:21:13

Channel 106 - Chain B



Date: 22.FEB.2021 08:23:00

Channel 122 - Chain B

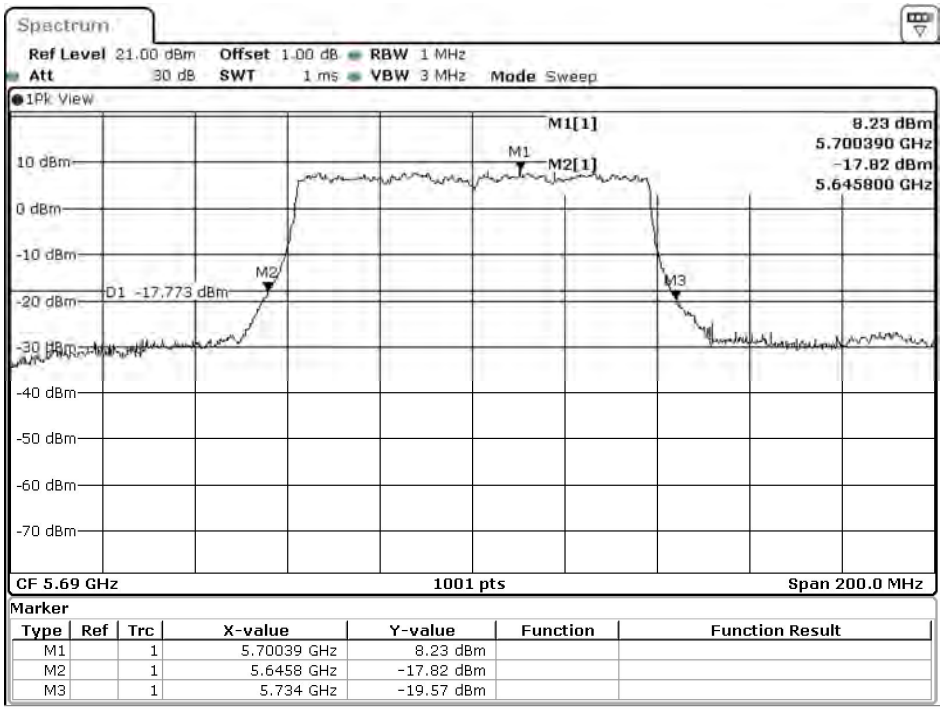


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.63637 GHz	8.91 dBm		
M2		1	5.5658 GHz	-17.53 dBm		
M3		1	5.654 GHz	-18.42 dBm		

Date: 22.FEB.2021 08:24:48

Channel 138 - Chain B



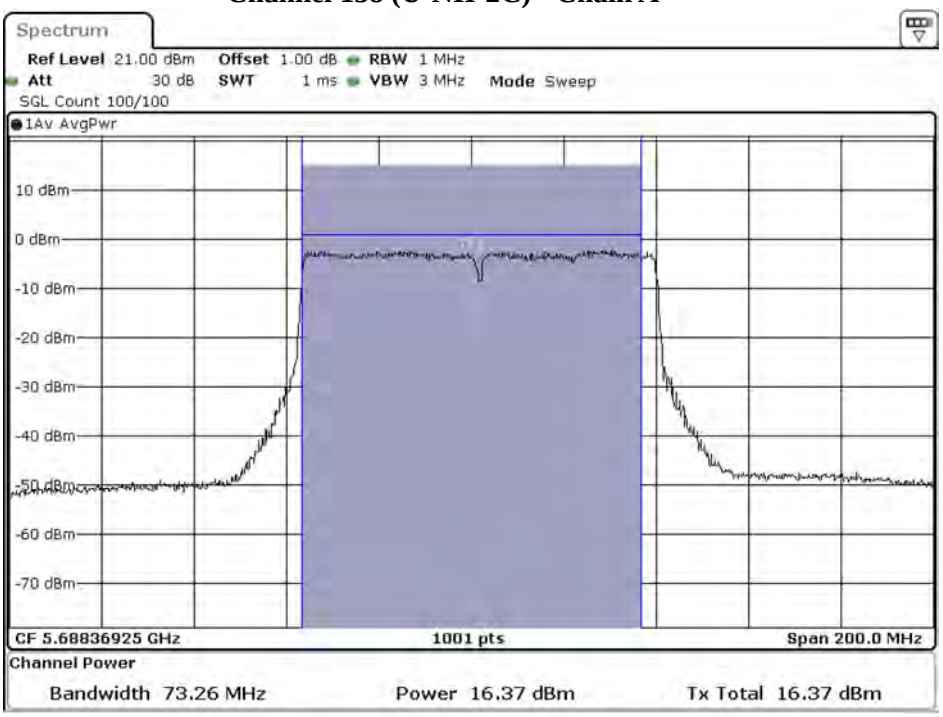
Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.70039 GHz	8.23 dBm		
M2		1	5.6458 GHz	-17.82 dBm		
M3		1	5.734 GHz	-19.57 dBm		

Date: 22.FEB.2021 08:26:36

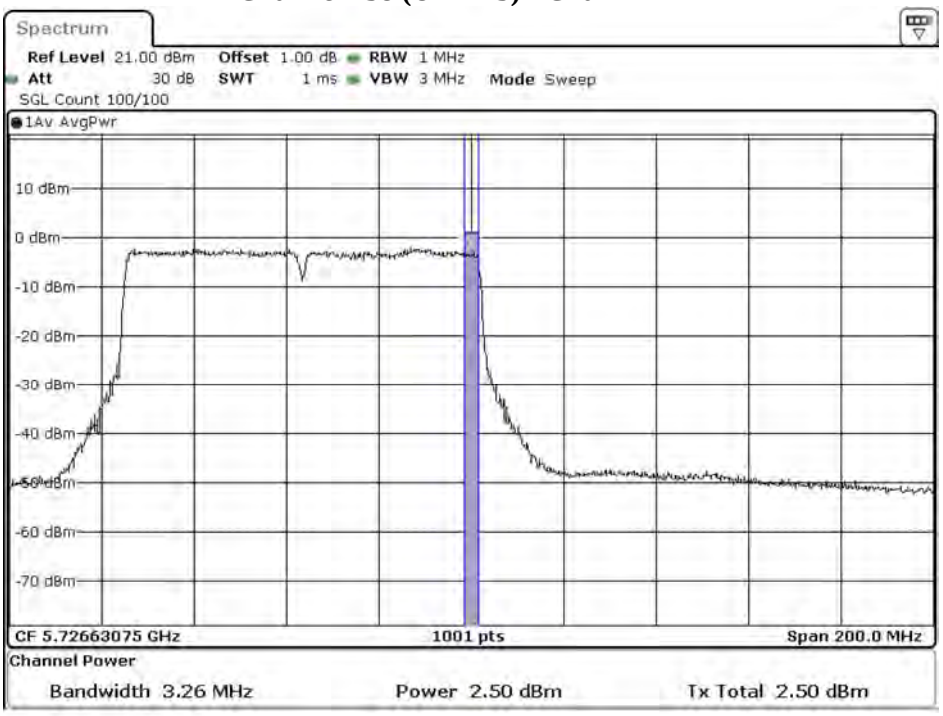
Maximum conducted output power:

Channel 138 (U-NII-2C) - Chain A



Date: 22.FEB.2021 06:22:21

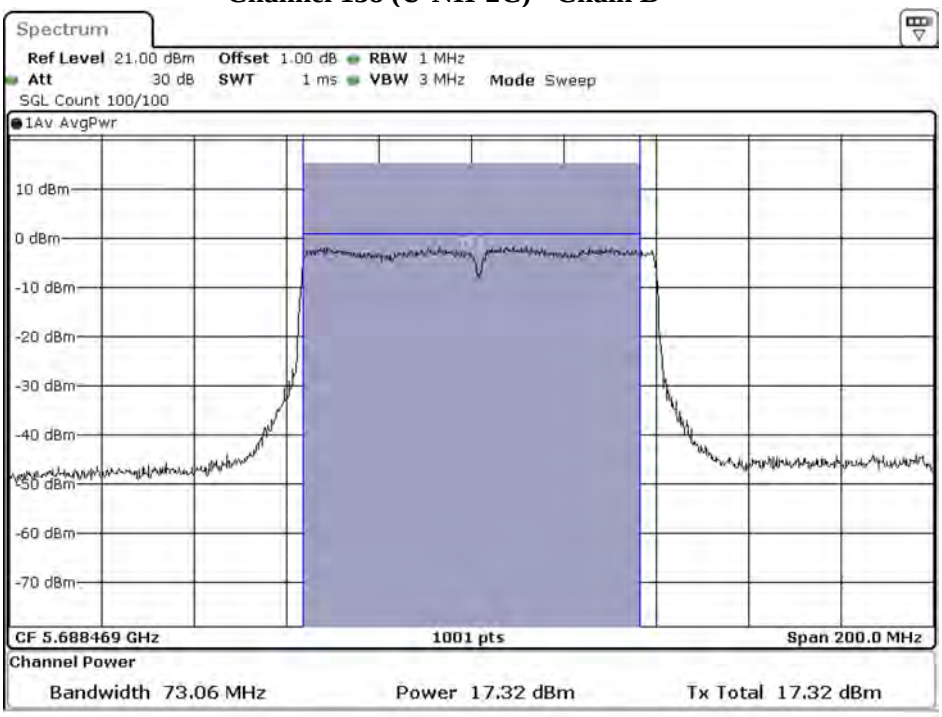
Channel 138 (U-NII-3) - Chain A



Date: 22.FEB.2021 06:22:44

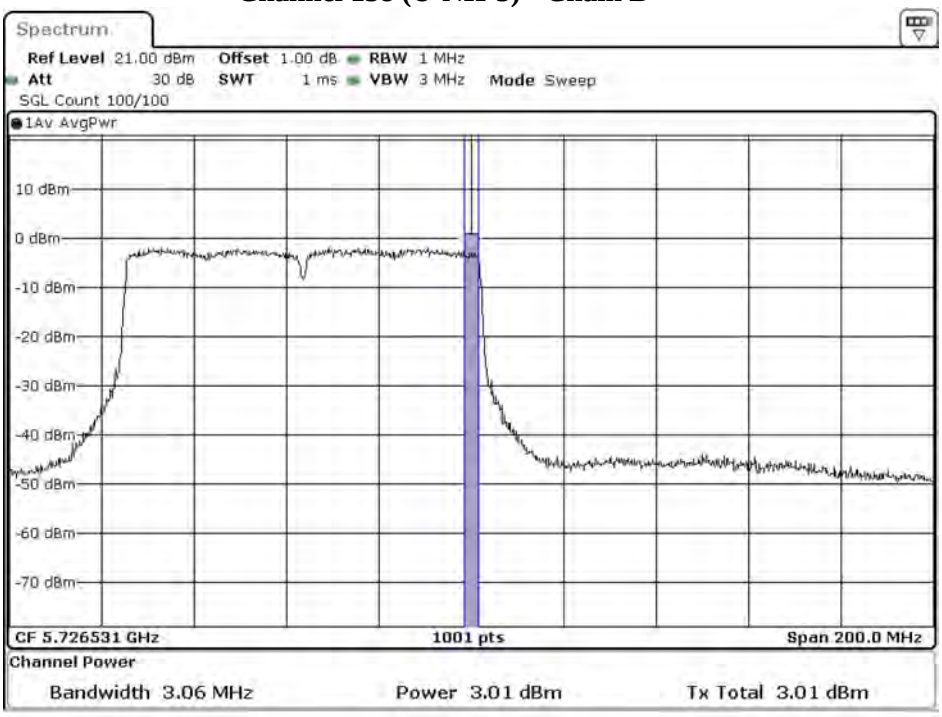
Maximum conducted output power:

Channel 138 (U-NII-2C) - Chain B



Date: 22.FEB.2021 08:27:44

Channel 138 (U-NII-3) - Chain B



Date: 22.FEB.2021 08:28:06

Product : Wireless module
Test Item : Maximum conducted output power
Test Mode : Mode 1: Transmit (802.11a 6Mbps) – Panel Antenna
Test Date : 2021/02/19

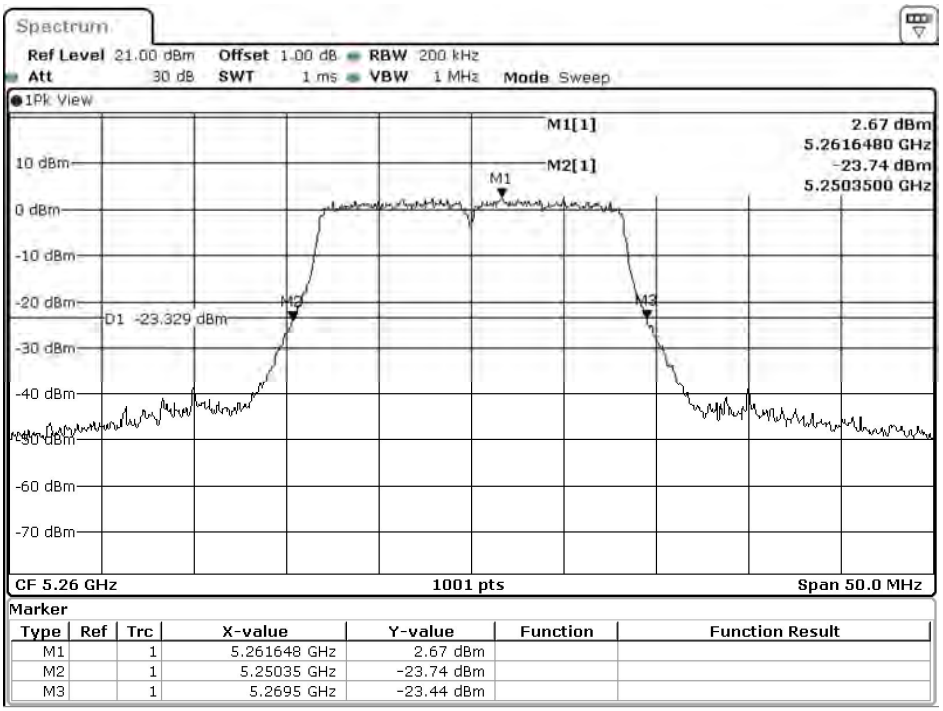
Cable loss=1dB		Maximum conducted output power							
Channel No.	Frequency (MHz)	Data Rate (Mbps)							
		6	9	12	18	24	36	48	54
		Measurement Level (dBm)							
36	5180	11.31	--	--	--	--	--	--	--
44	5220	11.6	11.5	11.43	11.38	11.32	11.26	11.23	11.2
48	5240	11.64	--	--	--	--	--	--	--
52	5260	11.64	--	--	--	--	--	--	--
60	5300	11.44	11.37	11.31	11.28	11.22	11.13	11.07	10.97
64	5320	11.71	--	--	--	--	--	--	--
100	5500	11.2	--	--	--	--	--	--	--
116	5580	11.27	11.24	11.15	11.07	10.98	10.95	10.86	10.82
140	5700	11.18	--	--	--	--	--	--	--
149	5745	21.97	--	--	--	--	--	--	--
157	5785	23.61	23.54	23.48	23.4	23.36	23.33	23.29	23.24
165	5825	21.85	--	--	--	--	--	--	--

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

Maximum conducted output power Measurement:

Channel No	Frequency Range (MHz)	26dB Bandwidth (MHz)	Output Power (dBm)	Output Power Limit	
				(dBm)	dBm+10log(BW)
36	5180	--	11.31	13.62	--
44	5220	--	11.60	13.62	--
48	5240	--	11.64	13.62	--
52	5260	19.15	11.64	13.62	23.82
60	5300	19.15	11.44	13.62	23.82
64	5320	19.25	11.71	13.62	23.84
100	5500	19.20	11.20	13.06	23.83
116	5580	19.20	11.27	13.06	23.83
140	5700	19.20	11.18	13.06	23.83
149	5745	--	21.97	30	--
157	5785	--	23.61	30	--
165	5825	--	21.85	30	--

26dB Occupied Bandwidth:
Channel 52:

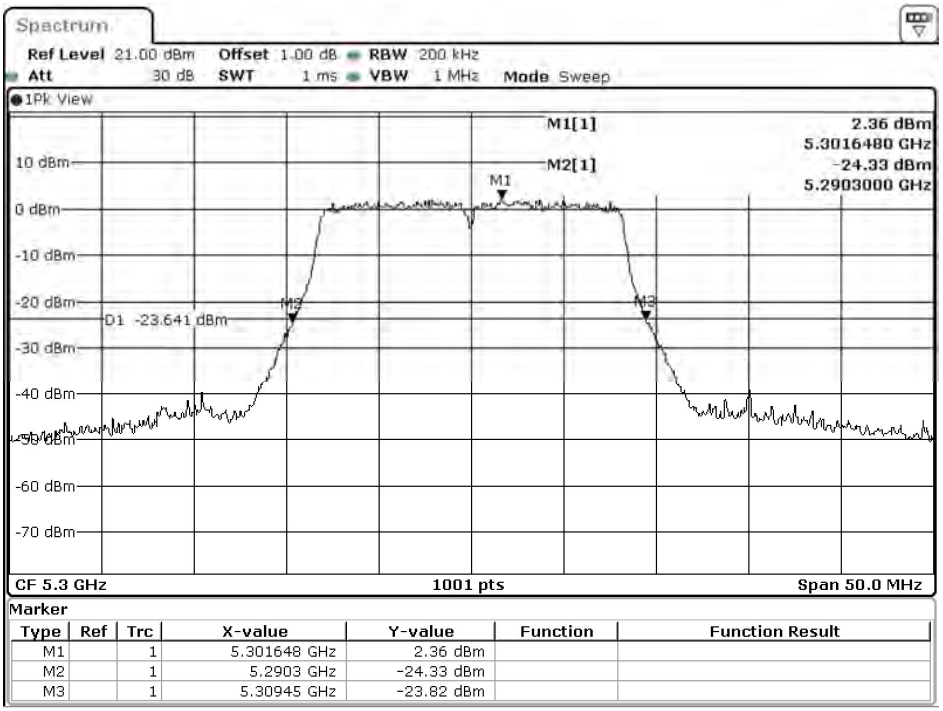


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.261648 GHz	2.67 dBm		
M2		1	5.25035 GHz	-23.74 dBm		
M3		1	5.2695 GHz	-23.44 dBm		

Date: 22.FEB.2021 06:57:12

Channel 60:

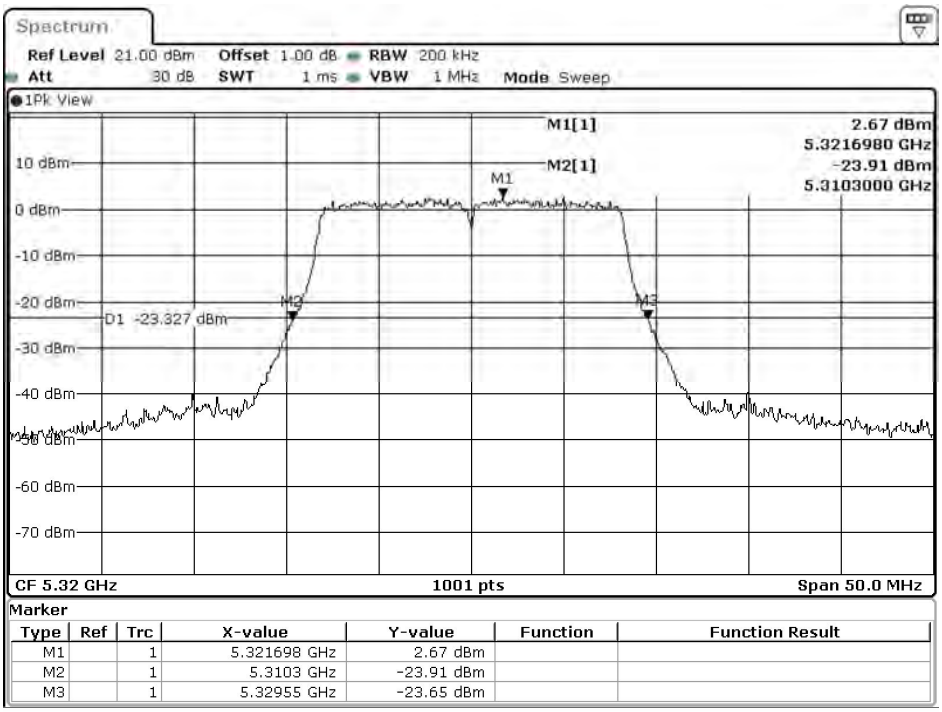


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.301648 GHz	2.36 dBm		
M2		1	5.2903 GHz	-24.33 dBm		
M3		1	5.30945 GHz	-23.82 dBm		

Date: 22.FEB.2021 06:58:47

Channel 64:

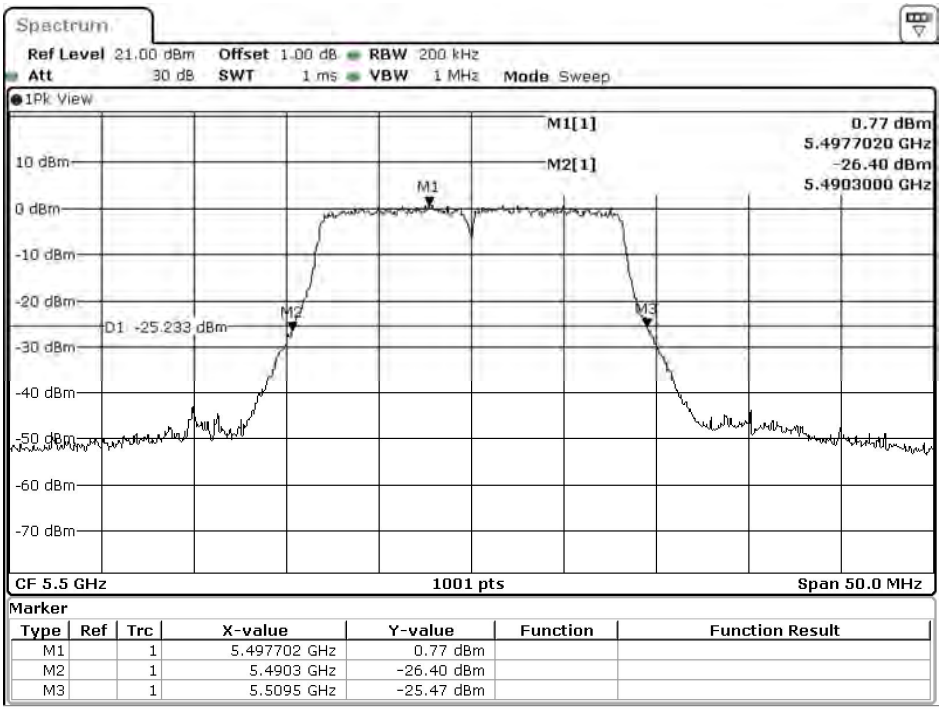


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.321698 GHz	2.67 dBm		
M2		1	5.3103 GHz	-23.91 dBm		
M3		1	5.32955 GHz	-23.65 dBm		

Date: 22.FEB.2021 07:00:25

Channel 100:

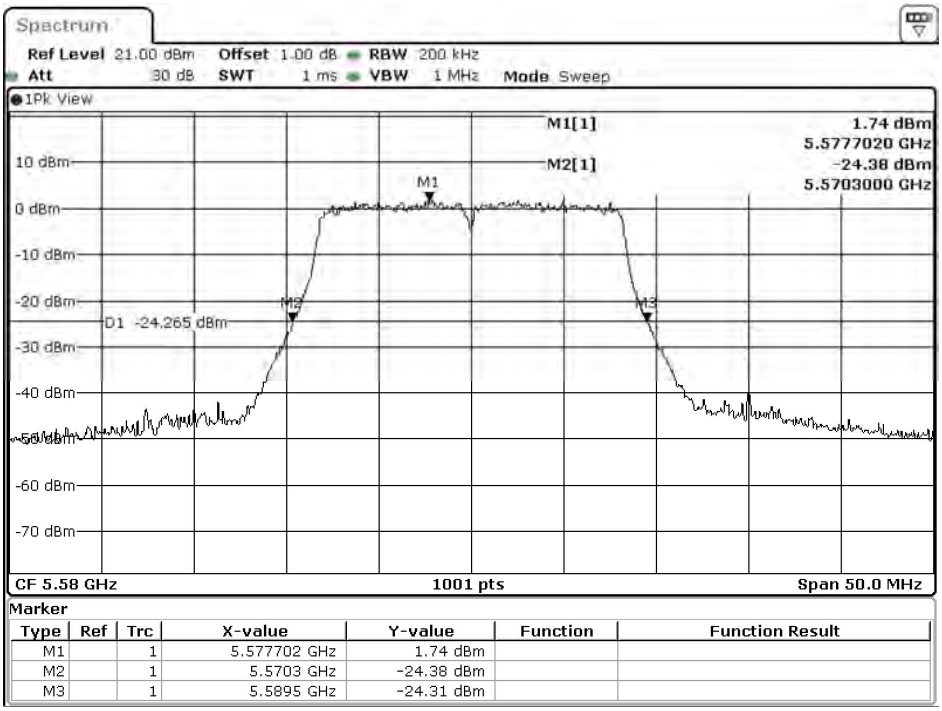


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.497702 GHz	0.77 dBm		
M2		1	5.4903 GHz	-26.40 dBm		
M3		1	5.5095 GHz	-25.47 dBm		

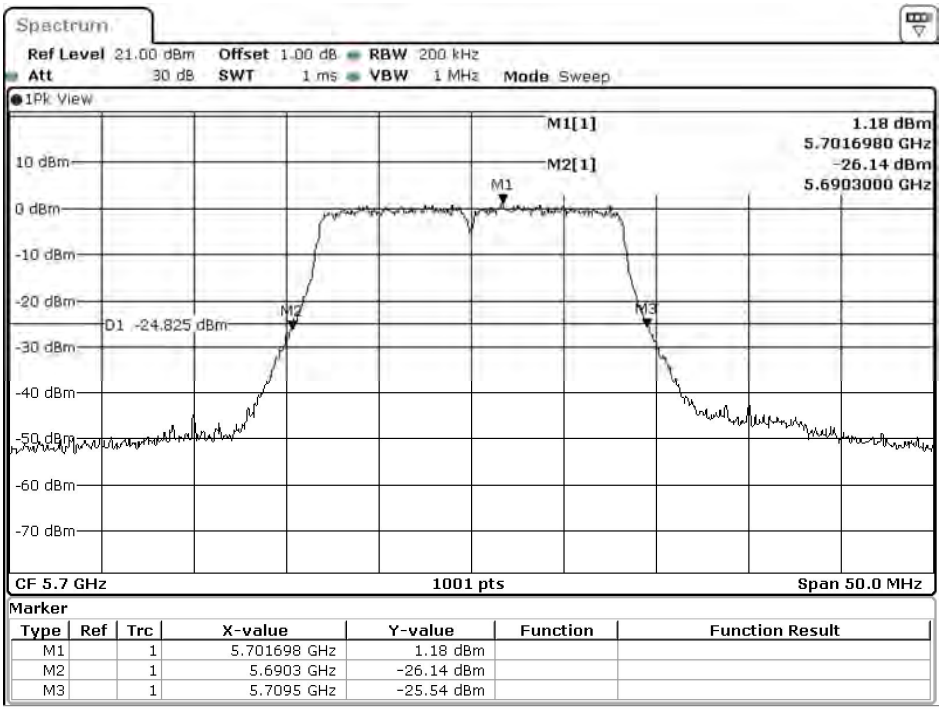
Date: 22.FEB.2021 07:02:16

Channel 116:



Date: 22.FEB.2021 07:29:10

Channel 140:



Date: 22.FEB.2021 07:30:53

Product : Wireless module
Test Item : Maximum conducted output power
Test Mode : Mode 2: Transmit (802.11n-20BW 7.2Mbps) – Panel Antenna
Test Date : 2021/02/19

Chain A

Cable loss=1dB		Maximum conducted output power							
Channel No.	Frequency (MHz)	Data Rate (Mbps)							
		HT8	HT9	HT10	HT11	HT12	HT13	HT14	HT15
		Measurement Level (dBm)							
36	5180	8.55	--	--	--	--	--	--	--
44	5220	8.76	8.67	8.6	8.57	8.47	8.41	8.31	8.27
48	5240	8.56	--	--	--	--	--	--	--
52	5260	8.44	--	--	--	--	--	--	--
60	5300	8.78	8.73	8.67	8.58	8.55	8.46	8.37	8.31
64	5320	8.99	--	--	--	--	--	--	--
100	5500	8.49	--	--	--	--	--	--	--
116	5580	8.75	8.72	8.65	8.57	8.54	8.49	8.39	8.3
140	5700	8.28	--	--	--	--	--	--	--
144	5720(band3)	7.59	7.51	7.47	7.39	7.36	7.29	7.23	7.17
144	5720(band4)	1.76	1.66	1.62	1.56	1.48	1.43	1.34	1.24
149	5745	17.26	--	--	--	--	--	--	--
157	5785	23.74	23.68	23.62	23.58	23.55	23.46	23.43	23.39
165	5825	18.12	--	--	--	--	--	--	--

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

Chain B

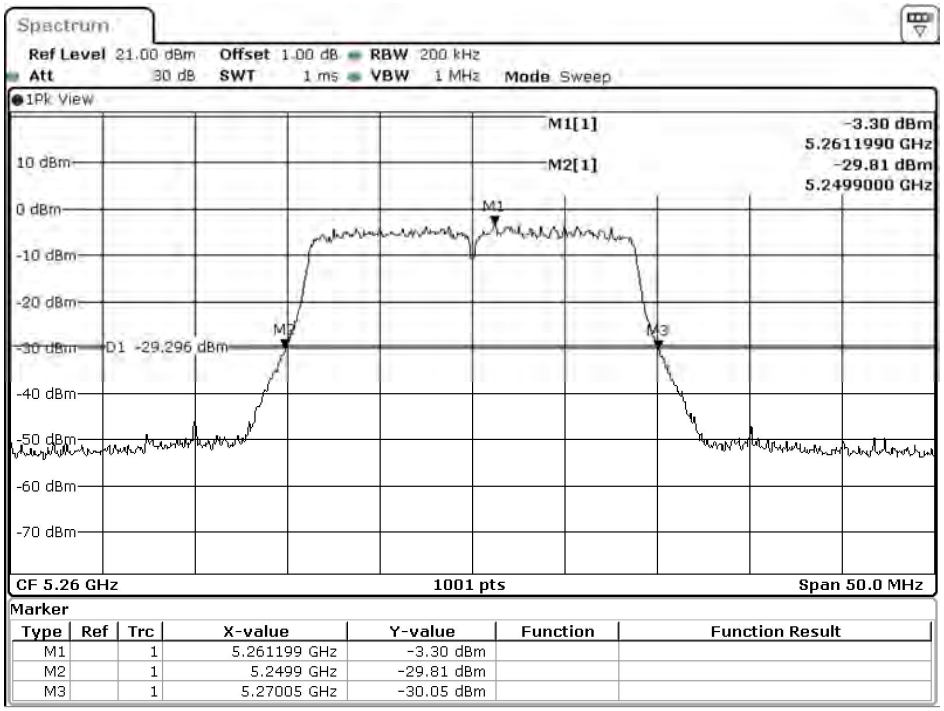
Cable loss=1dB		Maximum conducted output power							
Channel No.	Frequency (MHz)	Data Rate (Mbps)							
		HT8	HT9	HT10	HT11	HT12	HT13	HT14	HT15
		Measurement Level (dBm)							
36	5180	8.79	--	--	--	--	--	--	--
44	5220	8.74	8.69	8.66	8.6	8.53	8.43	8.38	8.28
48	5240	9.18	--	--	--	--	--	--	--
52	5260	9.1	--	--	--	--	--	--	--
60	5300	9.29	9.23	9.14	9.07	9	8.94	8.86	8.81
64	5320	9.2	--	--	--	--	--	--	--
100	5500	8.68	--	--	--	--	--	--	--
116	5580	9.14	9.1	9.02	8.99	8.93	8.87	8.77	8.68
140	5700	8.73	--	--	--	--	--	--	--
144	5720(band3)	8	7.95	7.87	7.84	7.77	7.69	7.66	7.61
144	5720(band4)	2.01	1.98	1.91	1.83	1.76	1.69	1.6	1.52
149	5745	18.18	--	--	--	--	--	--	--
157	5785	23.8	23.72	23.69	23.64	23.58	23.5	23.45	23.35
165	5825	18.68	--	--	--	--	--	--	--

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

Maximum conducted output power Measurement:

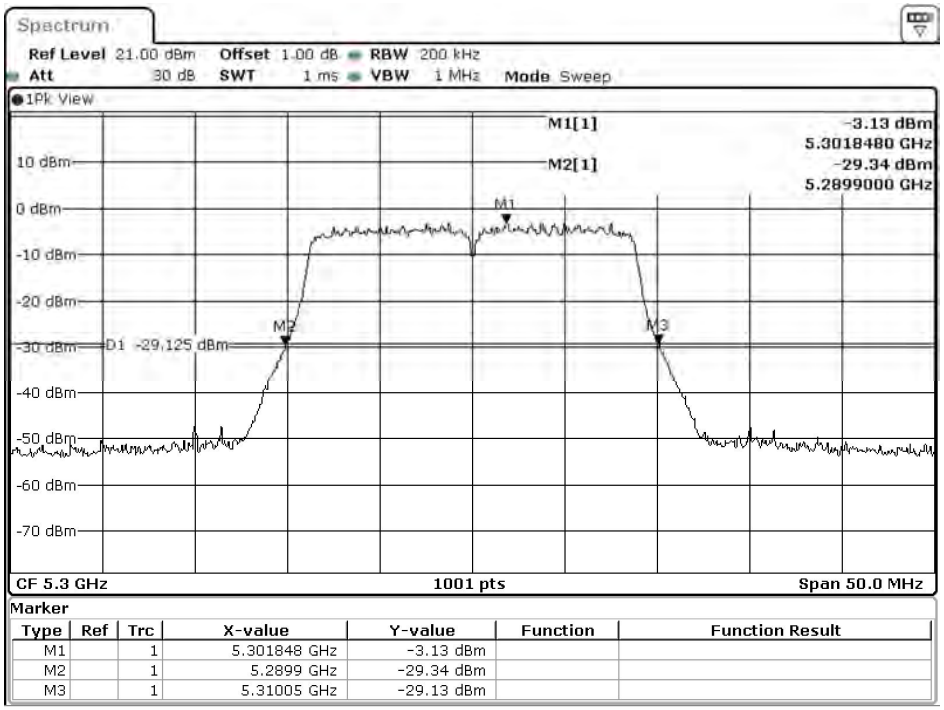
Channel No	Frequency Range (MHz)	26dB Bandwidth (MHz)	Chain A Power (dBm)	Chain B Power (dBm)	Output Power (dBm)	Output Power Limit		Result
						(dBm)	dBm+10log(BW)	
36	5180	--	8.55	8.79	11.68	13.62	--	Pass
44	5220	--	8.76	8.74	11.76	13.62	--	Pass
48	5240	--	8.56	9.18	11.89	13.62	--	Pass
52	5260	20.10	8.44	9.10	11.79	13.62	24.03	Pass
60	5300	20.10	8.78	9.29	12.05	13.62	24.03	Pass
64	5320	20.20	8.99	9.20	12.11	13.62	24.05	Pass
100	5500	20.05	8.49	8.68	11.60	13.06	24.02	Pass
116	5580	20.10	8.75	9.14	11.96	13.06	24.03	Pass
140	5700	20.10	8.28	8.73	11.52	13.06	24.03	Pass
144(Band3)	5720	15.00	7.59	8.00	10.98	13.06	22.76	Pass
144(Band4)	5720	--	1.76	2.01	5.07	30	--	Pass
149	5745	--	17.26	18.18	20.75	30	--	Pass
157	5785	--	23.74	23.80	26.78	30	--	Pass
165	5825	--	18.12	18.68	21.42	30	--	Pass

26dB Occupied Bandwidth:
Channel 52 - Chain A



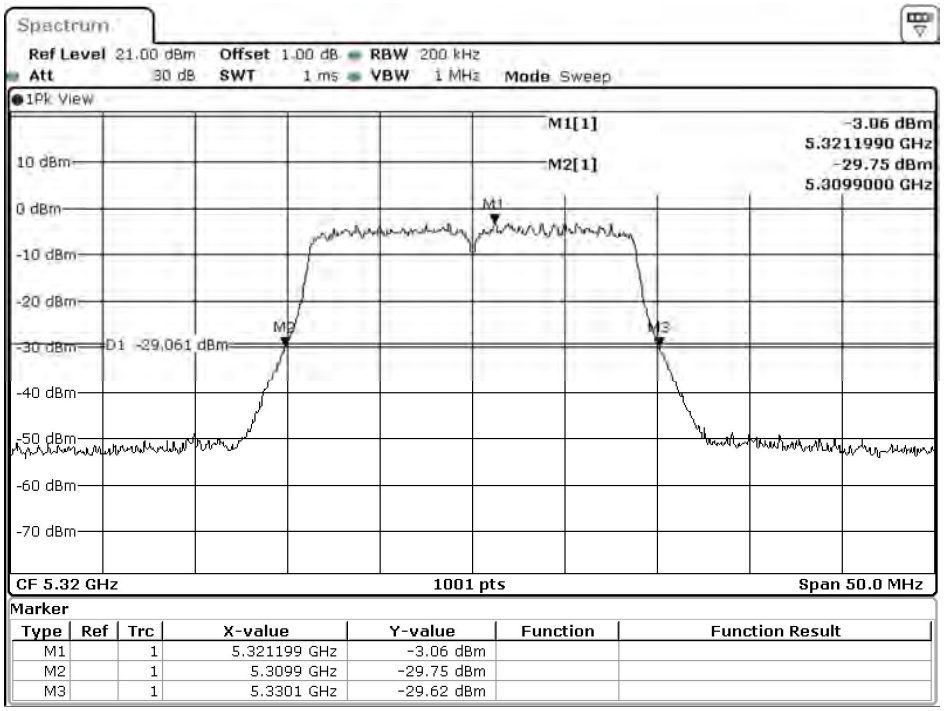
Date: 10.MAR.2021 05:55:11

Channel 60 - Chain A



Date: 10.MAR.2021 06:05:32

Channel 64 - Chain A

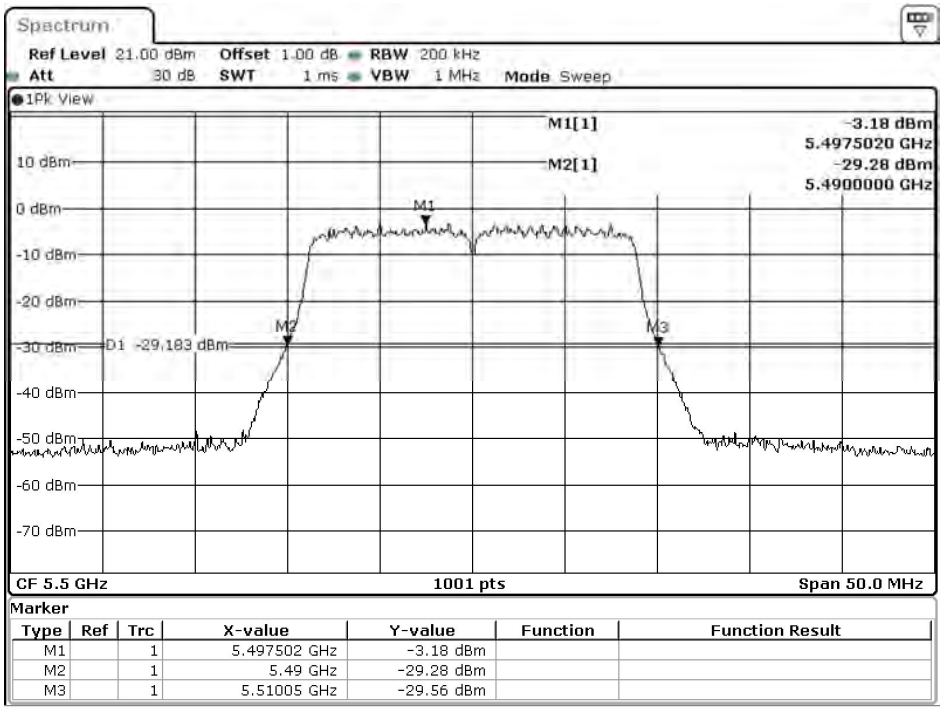


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.321199 GHz	-3.06 dBm		
M2		1	5.3099 GHz	-29.75 dBm		
M3		1	5.3301 GHz	-29.62 dBm		

Date: 10.MAR.2021 06:08:31

Channel 100 - Chain A

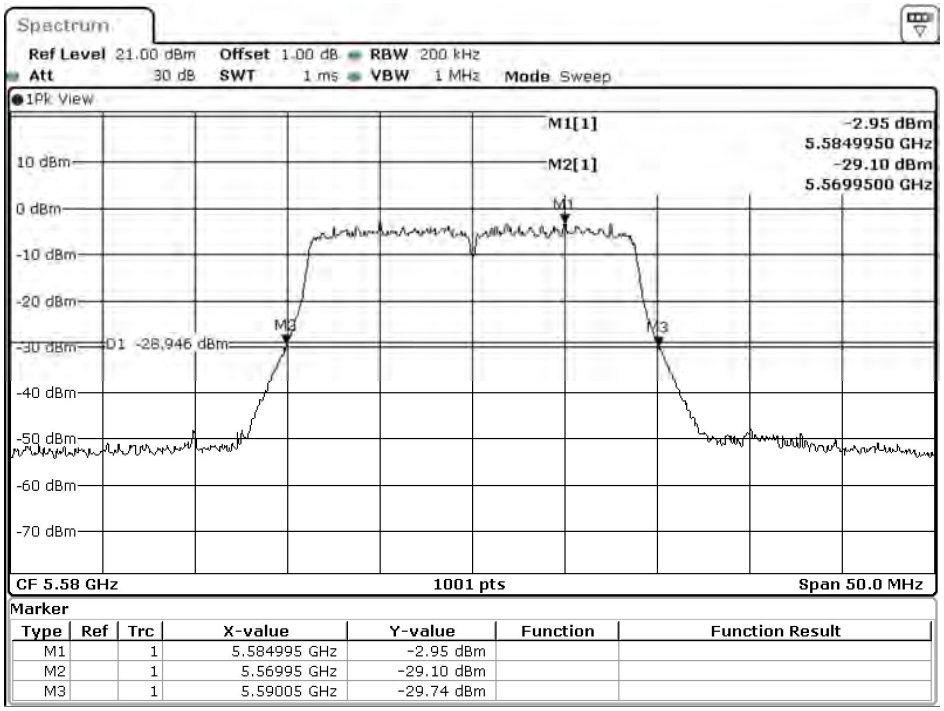


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.497502 GHz	-3.18 dBm		
M2		1	5.49 GHz	-29.28 dBm		
M3		1	5.51005 GHz	-29.56 dBm		

Date: 10.MAR.2021 06:10:40

Channel 116 - Chain A

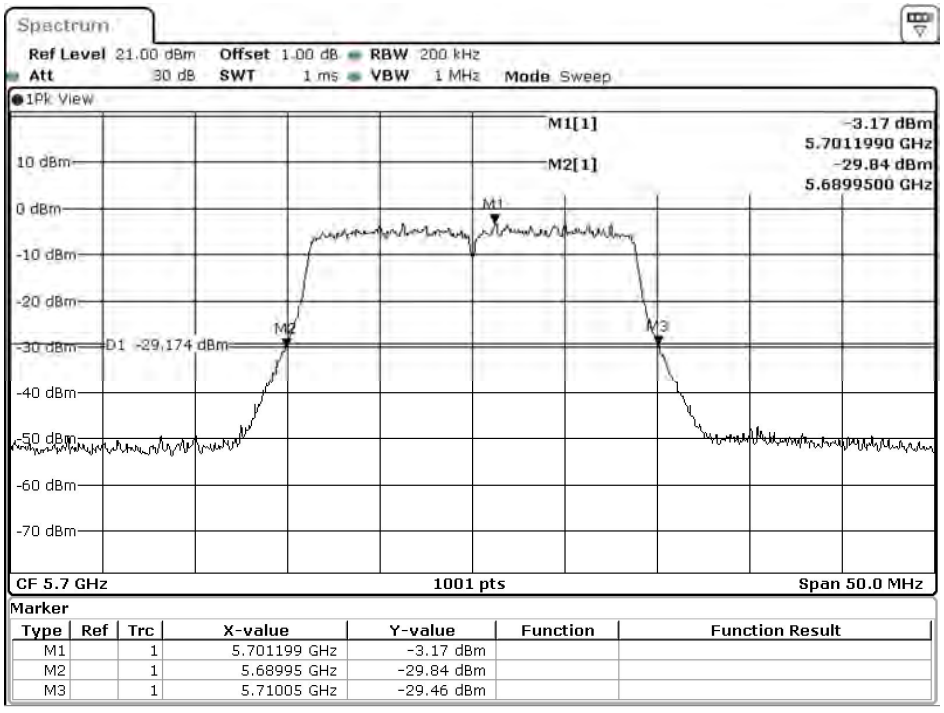


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.584995 GHz	-2.95 dBm		
M2		1	5.56995 GHz	-29.10 dBm		
M3		1	5.59005 GHz	-29.74 dBm		

Date: 10.MAR.2021 06:13:34

Channel 140 - Chain A



Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.701199 GHz	-3.17 dBm		
M2		1	5.68995 GHz	-29.84 dBm		
M3		1	5.71005 GHz	-29.46 dBm		

Date: 10.MAR.2021 06:15:27