

TEST REPORT

FCC UNII Test for ETWMCBSL01
Certification

APPLICANT
LG Electronics Inc.

REPORT NO.
HCT-RF-2605-FC022

DATE OF ISSUE
July 20, 2026

Tested by
Jin Gwan Lee



Technical Manager
Jong Seok Lee



Accredited by KOLAS, Republic of KOREA

HCT CO., LTD.
BongJai Huh
BongJai Huh / CEO

**HCT CO.,LTD.**

2-6, 73, 74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, Republic of Korea
Tel. +82 31 645 6300 Fax. +82 31 645 6401

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Applicant

LG Electronics Inc.

128, Yeoui-daero, Yeongdeungpo-gu, Seoul, Republic of Korea

Product Name

RF Module

Model Name

ETWMCBSL01

FCC ID

2B03LETWMCBSL01

Date of Test

April 06, 2026 ~ July 20, 2026

FCC Classification

Unlicensed National Information Infrastructure(NII)

Test Standard Used

FCC Rule Part(s): Part 15.407

Test Results

PASS

Location of Test

☒ Permanent Testing Lab ☐ On Site Testing Lab

(Address: 74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, Republic of Korea)

Brand

LG

REVISION HISTORY

The revision history for this test report is shown in table.

Revision No.	Date of Issue	Description
0	July 20, 2026	Initial Release

Notice

Content

Engineering Statement:

The measurements shown in this report were made in accordance with the procedures indicated, and the emissions from this equipment were found to be within the limits applicable. I assume full responsibility for the accuracy and completeness of these measurements, and for the qualifications of all persons taking them. It is further stated that upon the basis of the measurements made, the equipment tested is capable of operation in accordance with the requirements of the FCC Rules under normal use and maintenance.

The results shown in this test report only apply to the sample(s), as received, provided by the applicant, unless otherwise stated.

The test results have only been applied with the test methods required by the standard(s).

The laboratory is not accredited for the test results marked *.

Information provided by the applicant is marked **.

Test results provided by external providers are marked ***.

When confirmation of authenticity of this test report is required, please contact www.hct.co.kr

This test report provides test result(s) under the scope accredited by the Korea Laboratory Accreditation Scheme (KOLAS), which signed the ILAC-MRA.
(KOLAS (KS Q ISO/IEC 17025) Accreditation No. KT197)

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1. GENERAL INFORMATION

EUT DESCRIPTION

Model	ETWMCBSL01	
EUT Type	RF Module	
Power Supply	DC 3.30 V	
Modulation Type	OFDM : 802.11a, 802.11n(HT20/40), 802.11ac(VHT20/40/80)	
Frequency Range (MHz)	U-NII-1	20 MHz BW : 5180 - 5240 40 MHz BW : 5190 - 5230 80 MHz BW : 5210
	U-NII-2A	20 MHz BW : 5260 - 5320 40 MHz BW : 5270 - 5310 80 MHz BW : 5290
	U-NII-2C	20 MHz BW : 5500 - 5720 40 MHz BW : 5510 - 5710 80 MHz BW : 5530 - 5690
	U-NII-3	20 MHz BW : 5745 - 5825 40 MHz BW : 5755 - 5795 80 MHz BW : 5775
Straddle channel	Supported	
TDWR Band	Supported	
Dynamic Frequency Selection	Slave without radar detection	
Antenna Information	Please refer to the Antenna Specification document.	
Serial number	Conducted : ETWMCBSL01-03 Radiated : ETWMCBSL01-02	
Factory	LG INNOTEK Vietnam HAIPHONG COMPAY LIMITED Lot I-4, Trang Due Industrial Park, a part of Dinh Vu - Cat Hai Economic Zone, Hong Phong Commune, An Duong district, Hai Phong City, Vietnam	

ANTENNA CONFIGURATIONS

1. Antenna configuration

Configurations	SISO		MIMO	
	Ant.1	Ant.2	CDD	SDM
802.11a	O	O	X	X
802.11n	O	O	O	O
802.11ac	O	O	O	O

Note:

- (1) O = Support, X = Not Support
- (2) SISO = Single Input Single Output
- (3) SDM = Spatial Diversity Multiplexing
- (4) CDD = Cyclic Delay Diversity

2.This device supports simultaneous transmission operation, which allows for two channels to operate independent of one another in the 2.4 GHz and 5 GHz Bands simultaneously on each antenna.

Simultaneous transmission Scenario	2.4 GHz WiFi Ant.1	2.4 GHz WiFi Ant.2	5 GHz WiFi Ant.1	5 GHz WiFi Ant.2	BLE	Thread	Test Case
5 GHz WiFi MIMO + BLE	-	-	on	on	on		Scenario 1
5 GHz WiFi Ant1 + BLE	-	-	on	-	on		-
5 GHz WiFi Ant2 + BLE	-	-	-	on	on		-
5 GHz WiFi MIMO + Thread	-	-	on	on		on	Scenario 2
5 GHz WiFi Ant1 + Thread	-	-	on	-		on	-
5 GHz WiFi Ant2 + Thread	-	-	-	on		on	-

3. Directional Gain Calculation

According to KDB 662911 D01 Multiple Transmitter Output v02r01 F) 2) e) (iii), f) ii)

$$\text{Directional Gain(CDD)} = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left(\sum_{k=1}^{N_{ANT}} g_{j,k} \right)^2}{N_{ANT}} \right]$$

$$\text{Directional gain(SDM)} = G_{\max} + 10 \cdot \text{LOG}(N_{ANT} / N_{SS})$$

Band	Ant Gain (dBi)		N _{ANT} / N _{SS}	Directional Gain (dBi)	
	ANT1	ANT2		CDD	SDM
UNII 1	1.00	0.50	2 / 2	3.76	1.00
UNII 2A	0.50	0.60		3.56	0.60
UNII 2C	0.80	0.90		3.86	0.90
UNII 3	0.80	1.00		3.91	1.00

Note

According to Ansi C63.10-2020 section 14.6.3, the directional gain is calculated using the formula, where GN is the gain of the nth antenna and NANT is the total number of antennas used.

$$\text{Directional gain(CDD)} = 10 \cdot \log \left(\left(10^{(\text{ANT1 Gain}/20)} + 10^{(\text{ANT2 Gain}/20)} \right)^2 / 2 \right) \text{ dBi}$$

$$\text{Directional gain(SDM)} = G_{\max} + 10 \cdot \text{LOG}(N_{ANT} / N_{SS})$$

Sample Calculation (Conducted Power, MIMO):

Ex) Ant 1 : 11.58 dBm Ant 2 : 12.08 dBm

$$\text{Ant1} + \text{Ant 2} = \text{MIMO}$$

$$(11.58 \text{ dBm} + 12.08 \text{ dBm}) = (14.387 \text{ mW} + 16.143 \text{ mW}) = 30.53 \text{ mW} = 14.88 \text{ dBm}$$

Sample Calculation (E.I.R.P & E.I.R.P Spectral Density, MIMO):

Ex) ANT1 : 15.35 dBm , ANT2 : 15.12 dBm, Directional Gain : 3 dBi

$$\text{Conducted Power} = (15.35 \text{ dBm} + 15.12 \text{ dBm}) = (34.276 \text{ mW} + 32.508 \text{ mW}) = 66.784 \text{ mW} = 18.25 \text{ dBm}$$

$$\text{E.I.R.P} = 18.25 \text{ dBm} + 3 \text{ dBi} = 21.25 \text{ dBm}$$

2. MAXIMUM OUTPUT POWER

The transmitter has a maximum total conducted average output power as follows:

Band	Mode	Ant.1 Power		Ant.2 Power		MIMO_CDD (Ant.1 + Ant.2) Power	
		(dBm)	(W)	(dBm)	(W)	(dBm)	(W)
UNII1	802.11a	18.06	0.064	15.50	0.035	N/A	N/A
	802.11n (HT20)	12.33	0.017	12.41	0.017	15.38	0.034
	802.11n (HT40)	12.77	0.019	12.37	0.017	15.59	0.036
	802.11ac (VHT20)	12.40	0.017	12.41	0.017	15.41	0.035
	802.11ac (VHT40)	12.82	0.019	12.18	0.017	15.53	0.036
	802.11ac (VHT80)	12.34	0.017	12.00	0.016	15.18	0.033
UNII2A	802.11a	18.17	0.066	17.38	0.055	N/A	N/A
	802.11n (HT20)	17.24	0.053	17.62	0.058	20.44	0.111
	802.11n (HT40)	12.44	0.018	11.86	0.015	15.17	0.033
	802.11ac (VHT20)	17.27	0.053	17.62	0.058	20.46	0.111
	802.11ac (VHT40)	12.50	0.018	11.97	0.016	15.25	0.034
	802.11ac (VHT80)	12.34	0.017	11.57	0.014	14.98	0.031
UNII2C	802.11a	13.16	0.021	13.98	0.025	N/A	N/A
	802.11n (HT20)	12.79	0.019	13.47	0.022	16.16	0.041
	802.11n (HT40)	12.20	0.017	12.07	0.016	15.15	0.033
	802.11ac (VHT20)	18.25	0.067	17.92	0.062	20.37	0.109
	802.11ac (VHT40)	17.17	0.052	17.25	0.053	20.20	0.105
	802.11ac (VHT80)	10.66	0.012	11.51	0.014	14.12	0.026
UNII3	802.11a	20.56	0.114	19.72	0.094	N/A	N/A
	802.11n (HT20)	18.10	0.065	18.64	0.073	21.39	0.138
	802.11n (HT40)	18.57	0.072	18.13	0.065	21.37	0.137
	802.11ac (VHT20)	18.25	0.067	18.51	0.071	21.39	0.138
	802.11ac (VHT40)	18.57	0.072	17.99	0.063	21.30	0.135
	802.11ac (VHT80)	15.73	0.037	17.08	0.051	19.47	0.088

3. TEST METHODOLOGY

Unlicensed wireless device were tested using the following measurement procedure.

[1] KDB 789033 D02 15.407 Meas Guidance v02r01.

[2] ANSI C63.10-2020 + Cor. 1-2023

Note : Here in after, ANSI C63.10-2020 + Cor. 1-2023 will be referred to as ANSI C63.10-2020

EUT CONFIGURATION

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner that intends to maximize its emission characteristics in a continuous normal application.

EUT EXERCISE

The EUT was operated in the engineering mode to fix the Tx frequency that was for the purpose of the measurements. According to its specifications, the EUT must comply with the requirements of the Section 15.207, 15.209 and 15.407 under the FCC Rules Part 15 Subpart E.

GENERAL TEST PROCEDURES

Conducted Emissions

The EUT is placed on the turntable, which is 0.8 m above ground plane. According to the requirements in Section 6.2 of ANSI C63.10-2020 Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30 MHz using CISPR Quasi-peak and average detector modes.

Radiated Emissions

According to the requirements in Section 6.3 ~ Section 6.6 of ANSI C63.10-2020

The EUT is placed on a turn table, which is 0.8 m above ground plane below 1 GHz. Above 1 GHz with 1.5 m using absorbers between the EUT and receive antenna. The turntable shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3 m away from the receiving antenna, which varied from 1 m to 4 m to find out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. In order to find out the max. emission, the relative positions of this hand-held transmitter (EUT) was rotated through three orthogonal axes.

DESCRIPTION OF TEST MODES

The EUT has been tested under operating condition. Test program used to control the EUT for staying in continuous transmitting and receiving mode is programmed.

4. INSTRUMENT CALIBRATION

The measuring equipment, which was utilized in performing the tests documented herein, has been calibrated in accordance with the manufacturer's recommendations for utilizing calibration equipment's, which is traceable to recognized national standards.

Especially, all antenna for measurement is calibrated in accordance with the requirements of ANSI C63.5-2017.

5. FACILITIES AND ACCREDITATIONS

5.1 FACILITIES

The SAC(Semi-Anechoic Chamber) and conducted measurement facility used to collect the radiated data are located at the 74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, Republic of Korea. The site is constructed in conformance with the requirements of ANSI C63.4-2014 and CISPR Publication 22.

Detailed description of test facility was submitted to the Commission and accepted dated February 26, 2026 (Registration Number: KR0032).

5.2 EQUIPMENT

Radiated emissions are measured with one or more of the following types of Linearly polarized antennas: tuned dipole, bi-conical, log periodic, bi-log, and/or ridged waveguide, horn. Spectrum analyzers with pre-selectors and quasi-peak detectors are used to perform radiated measurements. Conducted emissions are measured with Line Impedance Stabilization Networks and EMI Test Receivers. Calibrated wideband preamplifiers, coaxial cables, and coaxial attenuators are also used for making measurements.

All receiving equipment conforms to ANSI/USEMCSC C63.2-2023, "American National Standard for Specifications of Electromagnetic Interference and Field Strength Measuring Instrumentation in the Frequency Range 9 kHz to 40 GHz".

6. ANTENNA REQUIREMENTS

According to FCC 47 CFR § 15.203, § 15.407:

“An intentional radiator antenna shall be designed to ensure that no antenna other than that furnished by the responsible party can be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.”

7. MEASUREMENT UNCERTAINTY

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI C63.10-2020.

All measurement uncertainty values are shown with a coverage factor of $k=2$ to indicate a 95 % level of confidence.

The measurement data shown herein meets or exceeds the U_{CISPR} measurement uncertainty values specified in CISPR 16-4-2 and, thus, can be compared directly to specified limits to determine compliance.

Parameter	Expanded Uncertainty ($\pm$ kHz)
X dB, 99% Bandwidth	95 (Confidence level about 95 %, $k=2$)
Frequency stability	28 (Confidence level about 95 %, $k=2$)

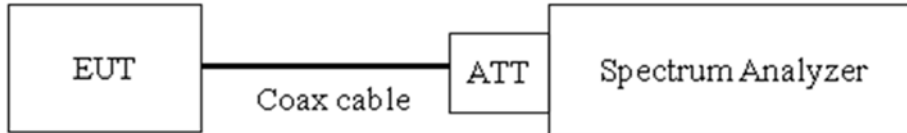
Parameter	Expanded Uncertainty ($\pm$ dB)
Conducted Disturbance (150 kHz ~ 30 MHz)	1.96 (Confidence level about 95 %, $k=2$)
Conducted Output Power(Power Meter)	0.54 (Confidence level about 95 %, $k=2$)
Conducted Output Power(Signal Analyzer)	0.73 (Confidence level about 95 %, $k=2$)
Power Spectral Density	0.98 (Confidence level about 95 %, $k=2$)
Radiated Disturbance (9 kHz ~ 30 MHz)	4.54 (Confidence level about 95 %, $k=2$)
Radiated Disturbance (30 MHz ~ 1 GHz)	5.74 (Confidence level about 95 %, $k=2$)
Radiated Disturbance (1 GHz ~ 18 GHz)	5.80 (Confidence level about 95 %, $k=2$)
Radiated Disturbance (18 GHz ~ 40 GHz)	5.86 (Confidence level about 95 %, $k=2$)
Radiated Disturbance (Above 40 GHz)	5.44 (Confidence level about 95 %, $k=2$)

8. DESCRIPTION OF TESTS

Test Item	Test Procedure
Duty Cycle	- KDB 789033 D02 – Section B.2
6 dB Bandwidth & 26dB Bandwidth	- KDB 789033 D02 - Section C - KDB 291074 D02 – Section 2.11
Output Power	- KDB 789033 D02 - Section E
Power Spectral Density	- KDB 789033 D02 - Section F
Frequency Stability	- ANSI C63.10-2020 - Section 6.8
AC Power line Conducted Emissions	- ANSI C63.10-2020– Section 6.2
Radiated Test	- KDB 789033 D02 – Section II.G - KDB 291074 D02 – Section 2.10 - ANSI C63.10-2020 – Section 6.4 (Below 30 MHz) - ANSI C63.10-2020 – Section 6.5 (30 MHz to 1000 MHz) - ANSI C63.10-2020 – Section 6.6 (1 GHz to 40 GHz) - ANSI C63.10-2020 – Section 6.10 & 12.7 (Unwanted emissions)

8.1. Duty Cycle

Test Configuration



Test Procedure

The transmitter output is connected to the Spectrum Analyzer.

The Spectrum Analyzer is set to

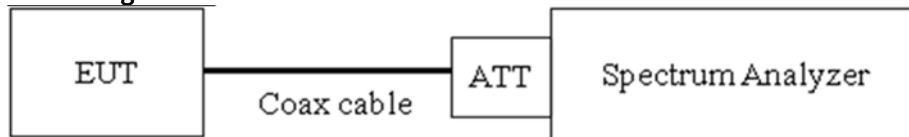
1. RBW = 8 MHz (the largest available value)
2. VBW = 8 MHz ($\geq$ RBW)
3. SPAN = 0 Hz
4. Detector = Average
5. Number of points in sweep > 100
6. Trace mode = Clear write
7. Measure T_{total} and T_{on}
8. Calculate Duty Cycle = T_{on} / T_{total} and Duty Cycle Factor = $10\log(1/\text{Duty Cycle})$

8.2. 6 dB Bandwidth & 26 dB Bandwidth

Limit

Within the 5.725-5.85 GHz(NII-3) band, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz.

Test Configuration



Test Procedure (26 dB Bandwidth)

The transmitter output is connected to the Spectrum Analyzer.

The Spectrum Analyzer is set to

1. RBW = approximately 1 % of the emission bandwidth
2. VBW > RBW
3. Detector = Peak
4. Trace mode = max hold
5. Measure the maximum width of the emission that is 26 dB down from the maximum of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1 %.

Test Procedure (6 dB Bandwidth)

The transmitter output is connected to the Spectrum Analyzer.

The Spectrum Analyzer is set to

1. RBW = 100 kHz
2. VBW $\geq 3 \times$ RBW
3. Detector = Peak
4. Trace mode = max hold
5. Allow the trace to stabilize
6. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points(upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

Note:

1. We tested X dB bandwidth using the automatic bandwidth measurement capability of a spectrum analyzer.
2. DFS test channels should be defined. So, we performed the OBW test to prove that no part of the fundamental emissions of any channels belong to UNII1 and UNII3 band for DFS.
3. The 26 dB bandwidth is used to determine the conducted power limits.

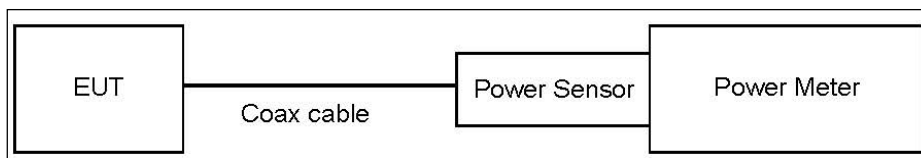
8.3. Output Power Measurement

Limit

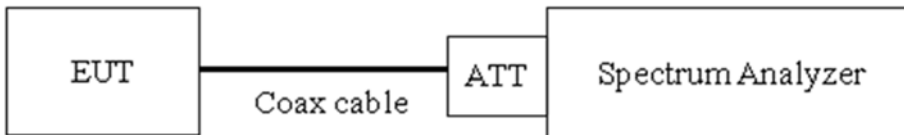
Band	Limit
UNII 1	- Master : Not exceed 1 W(=30 dBm) - Slave : Not exceed 250 mW(=23.98 dBm)
UNII 2A, 2C	Not exceed the lesser of 250 mW or 11 dBm + 10 log B, (where B is the 26 dB emission bandwidth in megahertz.)
UNII 3	Not exceed 1 W(=30 dBm)

Test Configuration

Power Meter



Spectrum Analyzer(Only Straddle Channel)



Test Procedure(Power Meter)

The transmitter output is connected to the Power Meter.

1. Measure the duty cycle.
2. Measure the average power of the transmitter. This measurement is an average over both the on and off periods of the transmitter.
3. Add 10 log (1/x), where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times.

Test Procedure (Spectrum Analyzer)

We use the spectrum analyzer's integrated band power measurement function

The transmitter output is connected to the Spectrum Analyzer.

The Spectrum Analyzer is set to

1. Measure the duty cycle.
2. Set span to encompass the 26 dB EBW of the signal.
3. RBW = 1 MHz.
4. VBW $\geq$ 3 MHz.
5. Number of points in sweep $\geq 2 \times \text{span/RBW}$.
6. Sweep time = auto.
7. Measurement Type or = RMS.
8. Do not use sweep triggering. Allow the sweep to "free run".
9. Trace average at least 100 traces in power averaging(RMS) mode
10. Integrated bandwidth = OBW
11. Add $10\log(1/x)$, where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times.

Sample Calculation

Total Power(dBm) = Measured Value(dBm) + ATT loss(dB) + Cable loss(dB) + Duty Cycle Factor(dB)

Note

1. Spectrum Measured Levels are not plot data.

The power results in plot is already including the actual values of loss for the attenuator and cable combination.

2. Actual value of loss for the attenuator and cable combination is below table.

Band	Loss(dB)
UNII 1	11.95
UNII 2A	11.95
UNII 2C	11.95
UNII 3	11.95

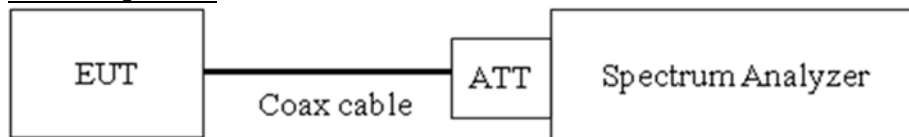
(Actual value of loss for the attenuator and cable combination)

8.4. Power Spectral Density

Limit

Band	Limit
UNII 1	11 dBm/MHz
UNII 2A, 2C	11 dBm/MHz
UNII 3	30 dBm/500 kHz

Test Configuration



Test Procedure

The transmitter output is connected to the Spectrum Analyzer.

The Spectrum Analyzer is set to

1. Set span to encompass the entire emission bandwidth(EBW) of the signal.
2. RBW = 1 MHz(510 kHz for UNII 3)
→For portion within the NII-3 be used RBW 510kHz
3. VBW $\geq$ 3 MHz
4. Number of points in sweep $\geq$ 2 x span/RBW.
5. Sweep time = auto.
6. Measurement Typeor = RMS(i.e., power averaging), if available. Otherwise, use sample Measurement Typeor mode.
7. Do not use sweep triggering. Allow the sweep to “free run”.
8. Trace average at least 100 traces in power averaging(RMS) mode
9. Use the peak search function on the spectrum analyzer to find the peak of the spectrum.
10. If Method SA-2 was used, add $10 \log(1/x)$, where x is the duty cycle, to the peak of the spectrum.

Sample Calculation

Total PSD(dBm) = Measured Value(dBm) + ATT loss(dB) + Cable loss(dB) + Duty Cycle Factor(dB)

Note

1. Spectrum Measured Levels are not plot data.

The PSD results in plot is already including the actual values of loss for the attenuator and cable combination.

2. Actual value of loss for the attenuator and cable combination is below table.

Band	Loss(dB)
UNII 1	11.95
UNII 2A	11.95
UNII 2C	11.95
UNII 3	11.95

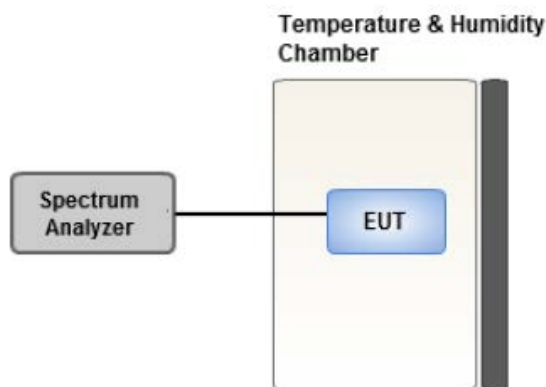
(Actual value of loss for the attenuator and cable combination)

8.5. Frequency Stability

Limit

Maintained within the band

Test Configuration



Test Procedure

1. The EUT was placed inside an environmental chamber as the temperature in the chamber was varied between -30 °C and 50 °C.
2. The temperature was incremented by 10 °C intervals and the unit was allowed to stabilize at each temperature before each measurement. The center frequency of the transmitting channel was evaluated at each temperature and the frequency deviation from the channel's center frequency was recorded.
3. The primary supply voltage is varied from 85% to 115% of the nominal value for non hand-carried battery and AC powered equipment. For hand-carried, battery-powered equipment, primary supply voltage is reduced to the battery operating end point which shall be specified by the manufacturer.
4. While maintaining a constant temperature inside the environmental chamber, turn the EUT ON and record the operating frequency at startup, and at 2 minutes, 5 minutes, and 10 minutes after the EUT is energized. Four measurements in total are made.

8.6. AC Power line Conducted Emissions

Limit

For an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table, as measured using a 50 μ H/50 ohms line impedance stabilization network (LISN).

Frequency Range (MHz)	Limits (dB μ V)	
	Quasi-peak	Average
0.15 to 0.50	66 to 56 ^(a)	56 to 46 ^(a)
0.50 to 5	56	46
5 to 30	60	50

^(a)Decreases with the logarithm of the frequency.

Compliance with this provision shall be based on the measurement of the radio frequency voltage between each power line (LINE and NEUTRAL) and ground at the power terminals.

Test Configuration

See test photographs attached in Annex A for the actual connections between EUT and support equipment.

Test Procedure

1. The EUT is placed on a wooden table 80 cm above the reference ground plane.
2. The EUT is connected via LISN to a test power supply.
3. The measurement results are obtained as described below:
4. Detectors : Quasi Peak and Average Detector.

Sample Calculation

Quasi-peak(Final Result) = Measured Value + Correction Factor

8.7. Radiated Test

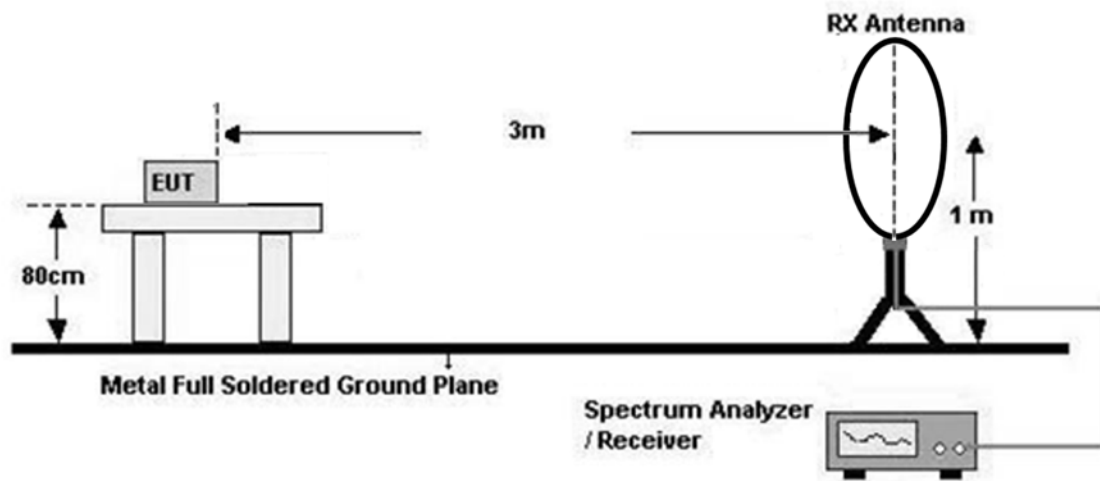
Limit

1. UNII 1: All emissions outside of the 5.15-5.35 GHz band shall not exceed an EIRP of -27 dBm/MHz.
2. UNII 2A, 2C: All emissions outside of the 5.47-5.725 GHz band shall not exceed an EIRP of -27 dBm/MHz.
3. UNII 3: 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.
4. All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47 CFR must not exceed the limits shown in Section 15.209.

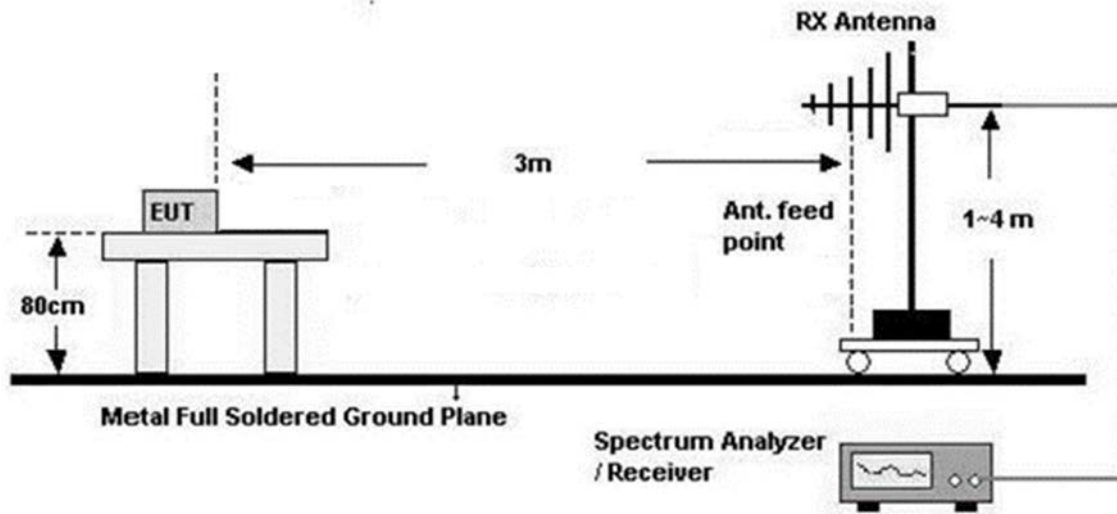
Frequency (MHz)	Field Strength ($\mu\text{V/m}$)	Measurement Distance (m)
0.009 – 0.490	$2400/F(\text{kHz})$	300
0.490 – 1.705	$24000/F(\text{kHz})$	30
1.705 – 30	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

Test Configuration

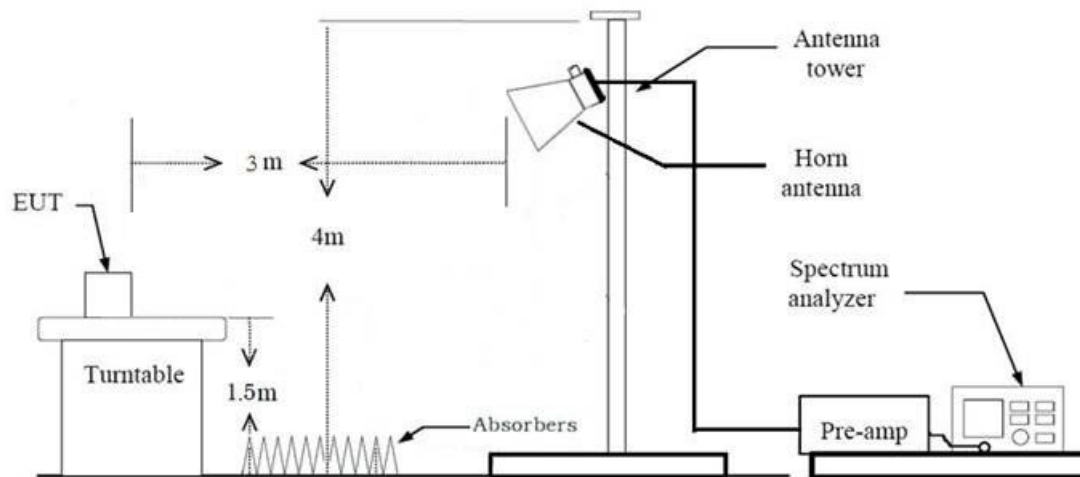
Below 30 MHz



30 MHz - 1 GHz



Above 1 GHz



Test Procedure of Radiated spurious emissions (Below 30 MHz)

1. The EUT was placed on a non-conductive table located on semi-anechoic chamber.
2. The loop antenna was placed at a location 3 m from the EUT
3. The EUT is placed on a turntable, which is 0.8m above ground plane.
4. We have done x, y, z planes in EUT and horizontal and vertical polarization and Parallel to the ground plane in detecting antenna.
5. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
6. Distance Correction Factor(0.009 MHz – 0.490 MHz) = $40\log(3\text{ m}/300\text{ m}) = -80\text{ dB}$
Measurement Distance : 3 m
7. Distance Correction Factor(0.490 MHz – 30 MHz) = $40\log(3\text{ m}/30\text{ m}) = -40\text{ dB}$
Measurement Distance : 3 m
8. Spectrum Analyzer Setting
Measurement Type(Peak) :
 - Frequency Range = 9 kHz ~ 30 MHz
 - Detector = Peak
 - Trace = Max Hold
 - RBW = 9 kHz
 - VBW $\geq 3 \times$ RBW
9. Total = Measured Value + Antenna Factor(A.F) + Cable Loss(C.L) + Distance Factor(D.F)
10. Measurement value only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.

KDB 414788 OFS and Chamber Correlation Justification

Base on FCC 15.31 (f) (2): measurements may be performed at a distance closer than that specified in the regulations; however, an attempt should be made to avoid making measurements in the near field.

OFS and chamber correlation testing had been performed and chamber measured test result is the worst case test result.

Test Procedure of Radiated spurious emissions (Below 1 GHz)

1. The EUT was placed on a non-conductive table located on semi-anechoic chamber.
2. The EUT is placed on a turntable, which is 0.8m above ground plane.
3. The Hybrid antenna was placed at a location 3 m from the EUT, which is varied from 1 m to 4 m to find out the highest emissions.
4. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.
5. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.

6. Spectrum Analyzer Setting**(1) Measurement Type(Peak) :**

- Measured Frequency Range : 30 MHz – 1 GHz
- Detector = Peak
- Trace = Max Hold
- RBW = 100 kHz
- VBW $\geq$ 3 x RBW

(2) Measurement Type(Quasi-peak) :

- Measured Frequency Range : 30 MHz – 1 GHz
- Detector = Quasi-Peak
- RBW = 120 kHz

※In general, (1) is used mainly

7. Total = Measured Value + Antenna Factor(A.F) + Cable Loss(C.L)
8. Measurement value only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.

Test Procedure of Radiated spurious emissions (Above 1 GHz)

1. The EUT is placed on a turntable, which is 1.5 m above ground plane.
2. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.
3. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
4. EUT is set 3 m away from the receiving antenna, which is varied from 1 m to 4 m to find out the highest emissions.
5. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
6. Each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.

7. Spectrum Analyzer Setting**(1) Measurement Type (Peak) :**

- RBW = 1 MHz
- VBW $\geq$ 3 MHz
- Detector = Peak
- Sweep Time = auto
- Trace mode = Max Hold
- Allow sweeps to continue until the trace stabilizes.

Note that if the transmission is not continuous, the time required for the trace to stabilize will increase by a factor of approximately $1/x$, where x is the duty cycle.

(2) Measurement Type (Average) :

- RBW = 1 MHz
- VBW(Duty cycle $\geq$ 98 percent) = VBW $\leq$ RBW/100(i.e., 10 kHz) but not less than 10 Hz.
- VBW(Duty cycle is < 98 percent) = VBW $\geq$ $1/T$, where T is the minimum transmission duration.
- The analyzer is set to linear detector mode.
- Detector = Peak.
- Sweep time = auto.
- Trace mode = Max Hold.
- Allow Max Hold to run for at least 50 traces if the transmitted signal is continuous or has at least 98 percent duty cycle. For lower duty cycles, increase the minimum number of traces by a factor of $1/x$, where x is the duty cycle.

8. Measurement value only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor
9. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency
10. Distance extrapolation factor = $20\log(\text{test distance} / \text{specific distance})$ (dB)
11. Total = Measured Value + Antenna Factor(A.F) + Cable Loss(C.L) - Amp Gain(A.G)
+ Distance Factor(D.F)

Test Procedure of Radiated Restricted Band Edge

1. The EUT is placed on a turntable, which is 1.5 m above ground plane.
2. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.
3. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
4. EUT is set 3 m away from the receiving antenna, which is varied from 1 m to 4 m to find out the highest emissions.
5. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
6. Each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.

7. Spectrum Analyzer Setting**(1) Measurement Type (Peak) :**

- RBW = 1 MHz
- VBW $\geq$ 3 MHz
- Detector = Peak
- Sweep Time = auto
- Trace mode = Max Hold
- Allow sweeps to continue until the trace stabilizes.

Note that if the transmission is not continuous, the time required for the trace to stabilize will increase by a factor of approximately $1/x$, where x is the duty cycle.

(2) Measurement Type (Average) :

- RBW = 1 MHz
- VBW(Duty cycle $\geq$ 98 percent) = VBW $\leq$ RBW/100(i.e., 10 kHz) but not less than 10 Hz.
- VBW(Duty cycle is < 98 percent) = VBW $\geq$ $1/T$, where T is the minimum transmission duration.
- The analyzer is set to linear detector mode.
- Detector = Peak.
- Sweep time = auto.
- Trace mode = Max Hold.
- Allow Max Hold to run for at least 50 traces if the transmitted signal is continuous or has at least 98 percent duty cycle. For lower duty cycles, increase the minimum number of traces by a factor of $1/x$, where x is the duty cycle.

8. Measured Frequency Range :

- 4 500 MHz ~ 5 150 MHz
- 5 350 MHz ~ 5 460 MHz
- 5 460 MHz ~ 5 470 MHz
- (75 MHz or more below the 5 725 MHz) ~ 5 725 MHz
- 5 850 MHz ~ (75 MHz or more above the 5 850 MHz)

9. Distance extrapolation factor = $20\log$ (test distance / specific distance) (dB)**10. Total****(1) Measurement(Peak)**

= Measured Value(Peak)

(2) Measurement(Avg)

= Measured Value (Avg)

- We apply to the offset in the range 1 GHz - 18 GHz.
- The offset = Antenna Factor(A.F) + Cable Loss(C.L) + Distance Factor(D.F) – Amp. Gain(A.G) + Attenuator (ATT)

The actual setting value of VBW

Mode	Worst Data rate (Mbps)	Duty Cycle	Duty Cycle Factor (dB)	The actual setting value of VBW (Hz)
802.11a	6M	0.934	0.296	1 000
802.11n(HT20)	MCS0	0.930	0.316	1 000
802.11n(HT40)	MCS0	0.869	0.609	2 000
802.11ac(VHT20)	MCS0	0.930	0.315	1 000
802.11ac(VHT40)	MCS0	0.870	0.606	2 000
802.11ac(VHT80)	MCS0	0.769	1.142	5 000

8.8. Worst case configuration and mode

Conducted test

1. All datarate of operation were investigated and the worst case datarate results are reported.

Radiated test

1. All modes of operation were investigated and the worst case configuration results are reported.
 - Mode : Stand alone + Notebook Computer
 - Worstcase : Stand alone + Notebook Computer
2. All Antennas of operation were investigated and the worst case results are reported
 - Antenna Operation Type : SISO, MIMO_CDD(Ant.1+Ant.2), MIMO_SDM(Ant.1+Ant.2)
 - Worstcase : MIMO_CDD(Ant.1+Ant.2)
3. EUT Axis
 - Radiated Spurious Emissions : Z, Y
 - Radiated Restricted Band Edge : X
4. All datarate of operation were investigated and the worst case datarate results are reported.
 - 802.11a : 6 Mbps
 - 802.11n_HT20 : MCS0
 - 802.11n_HT40 : MCS0
 - 802.11ac_VHT20 : MCS0
 - 802.11ac_VHT40 : MCS0
 - 802.11ac_VHT80 : MCS0
5. Radiated Spurious Emission
 - All modulations of operation were investigated and the worst case modulation results are reported.
 - Worst-case : 802.11a_6M (SISO), 802.11n(HT20)_MCS0(MIMO)
6. All position of loop antenna were investigated and the test result is a no critical peak found at all positions.
 - Position: Horizontal, Vertical, Parallel to the ground plane
7. All antenna set variants were investigated, and the test results are reported for the worst case antenna set.
 - Antenna set variants : Door Bell Set, Outdoor Set
 - Worst case : Door Bell Set

AC Power line Conducted Emissions

1. All modes of operation were investigated and the worst case configuration results are reported.
 - Mode : Stand alone + Notebook Computer
 - Worstcase : Stand alone + Notebook Computer

Radiated test(Simultaneous transmission Scenario)

1. All modes of operation were investigated and the worst case configuration results are reported.
 - Mode : Stand alone + Notebook Computer
 - Worstcase : Stand alone + Notebook Computer
2. EUT Axis
 - Radiated Spurious Emissions : Y, Z
3. All of Simultaneous transmission Scenario were investigated and the worst case configuration results are reported.

Simultaneous transmission Scenario	2.4 GHz WiFi Ant.1	2.4 GHz WiFi Ant.2	5 GHz WiFi Ant.1	5 GHz WiFi Ant.2	BLE Ant.1	Thread Ant.1	Test Case
5 GHz WiFi MIMO + BLE	-	-	on	on	on		Scenario 1
5 GHz WiFi Ant1 + BLE	-	-	on	-	on		-
5 GHz WiFi Ant2 + BLE	-	-	-	on	on		-
5 GHz WiFi MIMO + Thread	-	-	on	on		on	Scenario 2
5 GHz WiFi Ant1 + Thread	-	-	on	-		on	-
5 GHz WiFi Ant2 + Thread	-	-	-	on		on	-

4. The Simultaneous transmission Scenario mode test investigated both intermodulation and radiated spurious emissions.
 - Worst result: Radiated spurious emissions(cf. Section 10.8)
 - Intermodulation: No signals are generated.

5. The following tables show the worst case configurations determined during testing.

(Worst case : The lowest margin condition the channels and modes were selected for test.)

Scenario 1	Description	BTLE Emission	5 GHz Emission
5 GHz WiFi MIMO + BLE	Antenna	ANT 1	ANT ALL
	Channel	37	52
	Data Rate	1 Mbps	MCS0
	Mode	1M 37 Bytes	802.11n

Note : BLE Simultaneous transmission Data refer to [BT LE] Test Report

Scenario 2	Description	Thread Emission	5 GHz Emission
5 GHz WiFi MIMO + Thread	Antenna	ANT1	ANT ALL
	Channel	18	52
	Data Rate	250 kbps	MCS0
	Mode	O-QPSK	802.11n

Note : Thread Simultaneous transmission Data refer to [Thread] Test Report

9. SUMMARY OF TEST RESULTS

Test Item	FCC Part Section(s)	Test Limit	Test Condition	Test Result
26 dB Bandwidth	§ 15.407 (for Power Measurement)	N/A	Conducted	PASS
6 dB Bandwidth	§ 15.407(e)	>500 kHz (5725-5850 MHz)(UNII-3)		PASS
Maximum Conducted Output Power	§ 15.407(a)(1),(2),(3)	< 250 mW(5150-5250 MHz) < 250 mW or 11+10log ₁₀ (BW) dBm (5250-5350 MHz) < 250 mW or 11+10log ₁₀ (BW) dBm (5470-5725 MHz) <1 W (5725-5850 MHz)		PASS
Maximum Power Spectral Density	§ 15.407(a)(1),(2),(3)	<11 dBm/ MHz (5150-5250 MHz) <11 dBm/ MHz (5250-5350 MHz) <11 dBm/ MHz (5470-5725 MHz) <30 dBm/500 kHz(5725-5850 MHz)		PASS
Frequency Stability	§ 15.407(g) § 2.1055	Maintained within the band		PASS
AC Conducted Emissions 150 kHz-30 MHz	15.207 15.407(b)(9)	<FCC 15.207 limits		PASS
Undesirable Emissions	§ 15.407(b) (1),(2),(3),(4) § 15.35(b)	<-27 dBm/MHz EIRP (UNII1, 2A, 2C) cf. Section 8.7 (UNII 3)	Radiated	PASS
General Field Strength Limits(Restricted Bands and Radiated Emission Limits)	15.205, 15.407(b)(9),(10)	Emissions in restricted bands must meet the radiated limits detailed in 15.209		PASS

Note:

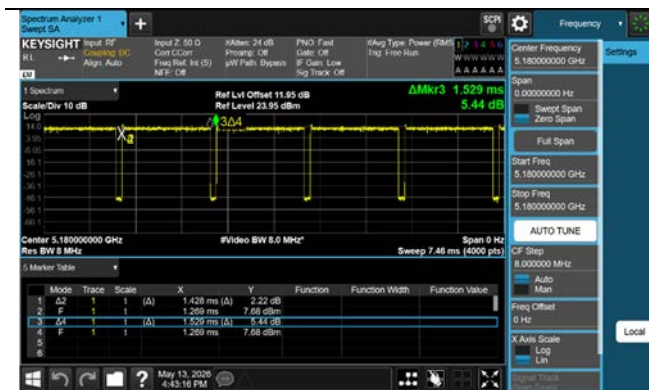
- UNII 2A, 2C: TPC mechanism is not required for systems with an e.i.r.p. of less than 500 mW.
- The decision rule applies 'simple acceptance'

10. TEST RESULT

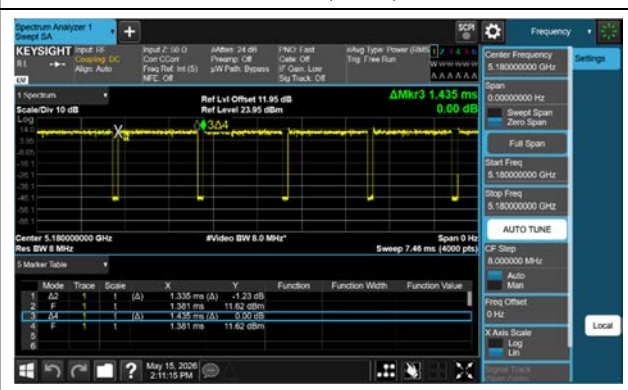
10.1 DUTY CYCLE

Mode	Data Rate (Mbps)	T _{on} (ms)	T _{total} (ms)	Duty Cycle	Duty Cycle Factor(dB)
802.11a	6M	1.428	1.529	0.934	0.296
802.11n(HT20)	MCS0	1.335	1.435	0.930	0.316
802.11n(HT40)	MCS0	0.664	0.764	0.869	0.609
802.11ac(VHT20)	MCS0	1.342	1.443	0.930	0.315
802.11ac(VHT40)	MCS0	0.668	0.768	0.870	0.606
802.11ac(VHT80)	MCS0	0.333	0.433	0.769	1.142

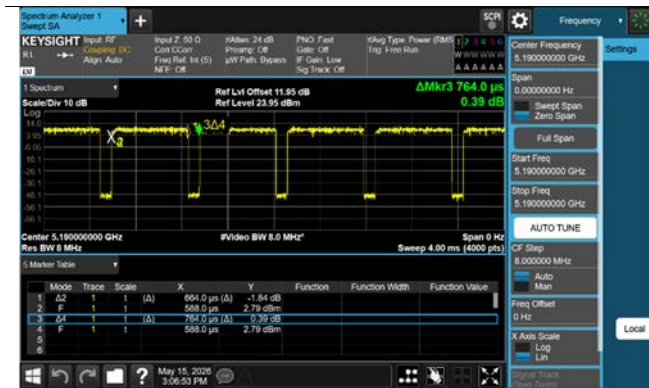
802.11a



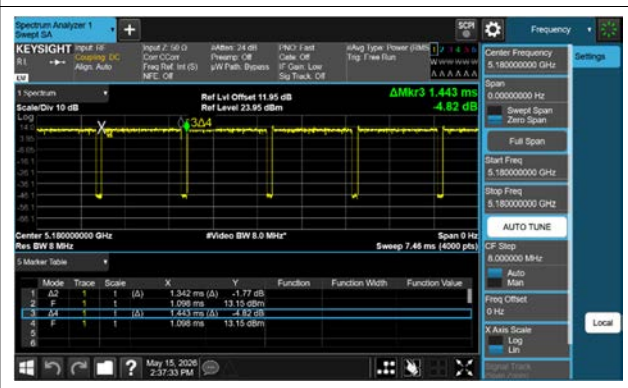
802.11n(HT20)



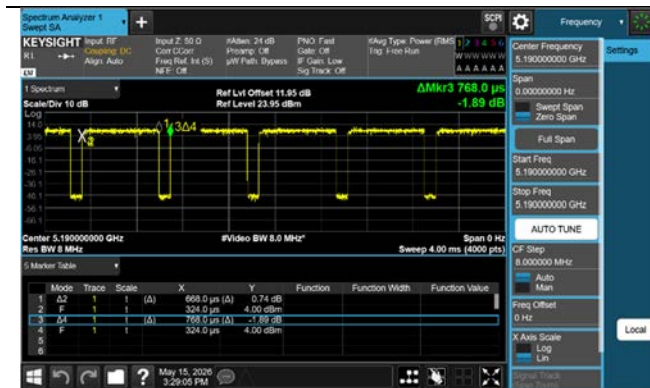
802.11n(HT40)



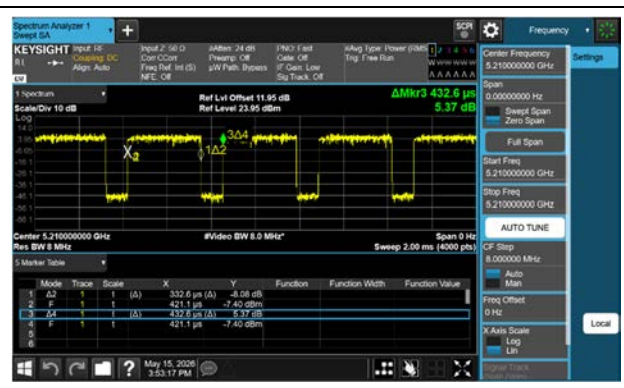
802.11ac(VHT20)



802.11ac(VHT40)



802.11ac(VHT80)



10.2 26 dB Bandwidth

Note:

Straddle channel data in the table below are for reporting purposes only. Straddle channel data were added in section 10.7

[Ant.1]

Mode : 802.11a				
BAND	Freq. [MHz]	CH.	26 dB Bandwidth [MHz]	99% Occupied Bandwidth [MHz]
UNII1	5180	36	20.79	16.550
	5200	40	20.77	16.538
	5240	48	20.80	16.545
UNII2A	5260	52	30.23	16.839
	5300	60	30.24	16.848
	5320	64	30.22	16.851
UNII2C	5500	100	20.87	16.575
	5600	120	20.86	16.586
	5720	144	20.84	16.594
UNII3	5745	149	35.19	21.668
	5785	157	37.19	22.629
	5825	165	37.63	23.058

Mode : 802.11n(HT20)				
BAND	Freq. [MHz]	CH.	26 dB Bandwidth [MHz]	99% Occupied Bandwidth [MHz]
UNII1	5180	36	21.16	17.653
	5200	40	21.18	17.631
	5240	48	21.12	17.660
UNII2A	5260	52	25.76	17.896
	5300	60	25.81	17.872
	5320	64	25.66	17.819
UNII2C	5500	100	21.21	17.713
	5600	120	21.29	17.740
	5720	144	21.21	17.745
UNII3	5745	149	21.05	17.729
	5785	157	21.17	17.722
	5825	165	21.29	17.704

Mode : 802.11ac(VHT20)				
BAND	Freq. [MHz]	CH.	26 dB Bandwidth [MHz]	99% Occupied Bandwidth [MHz]
UNII1	5180	36	21.09	17.685
	5200	40	21.10	17.654
	5240	48	21.11	17.658
UNII2A	5260	52	30.08	17.880
	5300	60	25.89	17.888
	5320	64	25.73	17.888
UNII2C	5500	100	21.40	17.713
	5520	104	30.25	18.024
	5600	120	30.16	17.936
	5680	136	30.25	18.012
	5700	140	21.24	17.690
	5720	144	30.27	18.051
UNII3	5745	149	21.22	17.738
	5785	157	21.20	17.712
	5825	165	21.29	17.723

Mode : 802.11n(HT40)				
BAND	Freq. [MHz]	CH.	26 dB Bandwidth [MHz]	99% Occupied Bandwidth [MHz]
UNII1	5190	38	40.53	36.321
	5230	46	40.58	36.345
UNII2A	5270	54	40.04	36.315
	5310	62	40.12	36.335
UNII2C	5510	102	40.08	36.370
	5590	118	40.30	36.330
	5710	142	40.38	36.356
UNII3	5755	151	40.54	36.342
	5795	159	40.38	36.319

Mode : 802.11ac(VHT40)				
BAND	Freq. [MHz]	CH.	26 dB Bandwidth [MHz]	99% Occupied Bandwidth [MHz]
UNII1	5190	38	40.17	36.282
	5230	46	40.25	36.292
UNII2A	5270	54	40.37	36.307
	5310	62	40.36	36.309
UNII2C	5510	102	40.43	36.352
	5550	110	40.21	36.371
	5590	118	40.38	36.328
	5630	126	40.33	36.361
	5670	134	40.67	36.372
	5710	142	40.21	36.349
UNII3	5755	151	40.24	36.303
	5795	159	40.34	36.260

Mode : 802.11ac(VHT80)				
BAND	Freq. [MHz]	CH.	26 dB Bandwidth [MHz]	99% Occupied Bandwidth [MHz]
UNII1	5210	42	82.01	75.743
UNII2A	5290	58	81.62	75.689
UNII2C	5530	106	82.07	75.699
	5610	122	81.58	75.773
	5690	138	81.80	75.891
UNII3	5775	155	81.76	75.738

[Ant.2]

Mode : 802.11a				
BAND	Freq. [MHz]	CH.	26 dB Bandwidth [MHz]	99% Occupied Bandwidth [MHz]
UNII1	5180	36	20.88	16.544
	5200	40	20.72	16.517
	5240	48	20.75	16.527
UNII2A	5260	52	35.29	22.762
	5300	60	35.49	22.870
	5320	64	35.26	22.205
UNII2C	5500	100	20.91	16.624
	5600	120	20.80	16.614
	5720	144	20.95	16.598
UNII3	5745	149	35.11	18.842
	5785	157	35.15	18.722
	5825	165	35.15	19.329

Mode : 802.11n(HT20)				
BAND	Freq. [MHz]	CH.	26 dB Bandwidth [MHz]	99% Occupied Bandwidth [MHz]
UNII1	5180	36	21.01	17.651
	5200	40	21.01	17.673
	5240	48	20.82	17.639
UNII2A	5260	52	33.91	20.592
	5300	60	34.18	20.984
	5320	64	33.91	20.424
UNII2C	5500	100	21.24	17.701
	5600	120	21.27	17.707
	5720	144	20.97	17.694
UNII3	5745	149	36.38	18.924
	5785	157	36.36	18.845
	5825	165	36.39	19.189

Mode : 802.11ac(VHT20)				
BAND	Freq. [MHz]	CH.	26 dB Bandwidth [MHz]	99% Occupied Bandwidth [MHz]
UNII1	5180	36	20.90	17.652
	5200	40	21.17	17.658
	5240	48	21.17	17.640
UNII2A	5260	52	35.12	21.270
	5300	60	33.94	21.147
	5320	64	34.45	20.592
UNII2C	5500	100	21.03	17.697
	5520	104	32.66	19.336
	5600	120	31.44	18.325
	5680	136	30.25	18.109
	5700	140	21.19	17.704
	5720	144	30.25	17.996
UNII3	5745	149	36.38	18.690
	5785	157	36.34	18.662
	5825	165	36.38	18.971

Mode : 802.11n(HT40)				
BAND	Freq. [MHz]	CH.	26 dB Bandwidth [MHz]	99% Occupied Bandwidth [MHz]
UNII1	5190	38	40.12	36.233
	5230	46	40.11	36.205
UNII2A	5270	54	39.81	36.194
	5310	62	39.75	36.235
UNII2C	5510	102	39.76	36.237
	5590	118	39.98	36.223
	5710	142	39.82	36.234
UNII3	5755	151	39.77	36.372
	5795	159	40.23	36.340

Mode : 802.11ac(VHT40)				
BAND	Freq. [MHz]	CH.	26 dB Bandwidth [MHz]	99% Occupied Bandwidth [MHz]
UNII1	5190	38	39.86	36.221
	5230	46	39.76	36.222
UNII2A	5270	54	39.85	36.208
	5310	62	39.75	36.200
UNII2C	5510	102	39.69	36.190
	5550	110	40.03	36.334
	5590	118	40.10	36.316
	5630	126	40.03	36.287
	5670	134	39.92	36.282
	5710	142	39.93	36.272
UNII3	5755	151	40.21	36.371
	5795	159	39.78	36.325

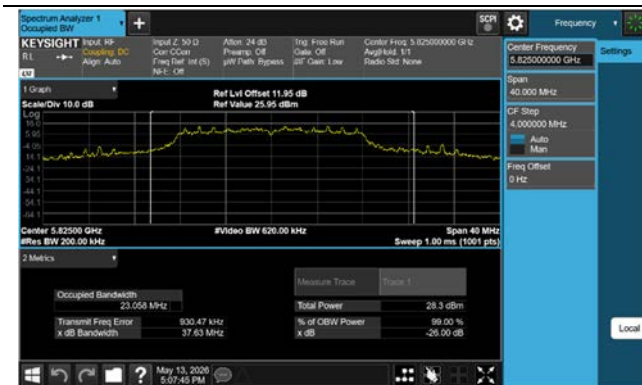
Mode : 802.11ac(VHT80)				
BAND	Freq. [MHz]	CH.	26 dB Bandwidth [MHz]	99% Occupied Bandwidth [MHz]
UNII1	5210	42	81.17	75.589
UNII2A	5290	58	81.26	75.583
UNII2C	5530	106	81.23	75.610
	5610	122	81.17	75.672
	5690	138	81.15	75.751
UNII3	5775	155	81.41	75.605

Test Plots

Note:In order to simplify the report, attached plots were only the widest channel per channel bandwidth.

[ANT. 1]

Bandwidth 20M, 802.11a Ch.165



Bandwidth 40M, 802.11ac(VHT40) Ch.134

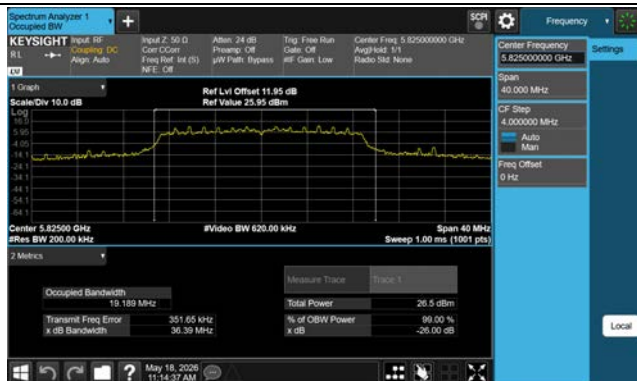


Bandwidth 80M, 802.11ac(VHT80) Ch.106



[ANT. 2]

Bandwidth 20M, 802.11n(HT20) Ch.165



Bandwidth 40M, 802.11n(HT40) Ch.159



Bandwidth 80M, 802.11ac(VHT80) Ch.155



10.3 6 dB BANDWIDTH

[Ant.1]

Mode : 802.11a				
BAND	Freq. [MHz]	CH.	6 dB Bandwidth [MHz]	Limit [MHz]
UNII3	5745	149	15.19	> 0.5
	5785	157	15.15	> 0.5
	5825	165	15.18	> 0.5
Mode : 802.11n(HT20)				
BAND	Freq. [MHz]	CH.	6 dB Bandwidth [MHz]	Limit [MHz]
UNII3	5745	149	15.21	> 0.5
	5785	157	15.21	> 0.5
	5825	165	15.21	> 0.5
Mode : 802.11ac(VHT20)				
BAND	Freq. [MHz]	CH.	6 dB Bandwidth [MHz]	Limit [MHz]
UNII3	5745	149	15.21	> 0.5
	5785	157	15.20	> 0.5
	5825	165	15.18	> 0.5
Mode : 802.11n(HT40)				
BAND	Freq. [MHz]	CH.	6 dB Bandwidth [MHz]	Limit [MHz]
UNII3	5755	151	35.47	> 0.5
	5795	159	35.51	> 0.5
Mode : 802.11ac(VHT40)				
BAND	Freq. [MHz]	CH.	6 dB Bandwidth [MHz]	Limit [MHz]
UNII3	5755	151	36.05	> 0.5
	5795	159	35.24	> 0.5
Mode : 802.11ac(VHT80)				
BAND	Freq. [MHz]	CH.	6 dB Bandwidth [MHz]	Limit [MHz]
UNII3	5775	155	75.47	> 0.5

[Ant.2]

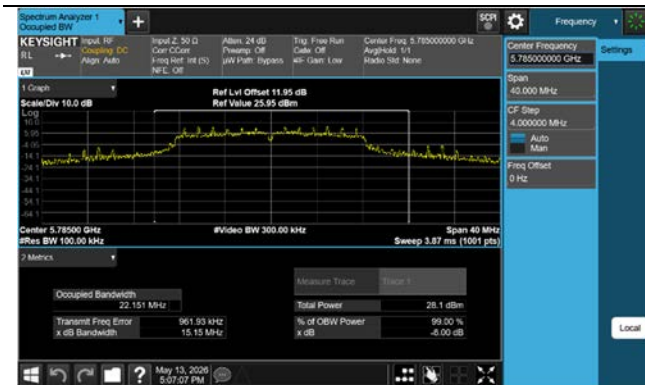
Mode : 802.11a				
BAND	Freq. [MHz]	CH.	6 dB Bandwidth [MHz]	Limit [MHz]
UNII3	5745	149	15.19	> 0.5
	5785	157	15.19	> 0.5
	5825	165	15.18	> 0.5
Mode : 802.11n(HT20)				
BAND	Freq. [MHz]	CH.	6 dB Bandwidth [MHz]	Limit [MHz]
UNII3	5745	149	15.18	> 0.5
	5785	157	15.11	> 0.5
	5825	165	15.19	> 0.5
Mode : 802.11ac(VHT20)				
BAND	Freq. [MHz]	CH.	6 dB Bandwidth [MHz]	Limit [MHz]
UNII3	5745	149	15.72	> 0.5
	5785	157	15.16	> 0.5
	5825	165	15.17	> 0.5
Mode : 802.11n(HT40)				
BAND	Freq. [MHz]	CH.	6 dB Bandwidth [MHz]	Limit [MHz]
UNII3	5755	151	36.34	> 0.5
	5795	159	36.02	> 0.5
Mode : 802.11ac(VHT40)				
BAND	Freq. [MHz]	CH.	6 dB Bandwidth [MHz]	Limit [MHz]
UNII3	5755	151	36.35	> 0.5
	5795	159	36.27	> 0.5
Mode : 802.11ac(VHT80)				
BAND	Freq. [MHz]	CH.	6 dB Bandwidth [MHz]	Limit [MHz]
UNII3	5775	155	75.47	> 0.5

Test Plots

Note: In order to simplify the report, attached plots were only the narrowest channel.

[Ant.1]

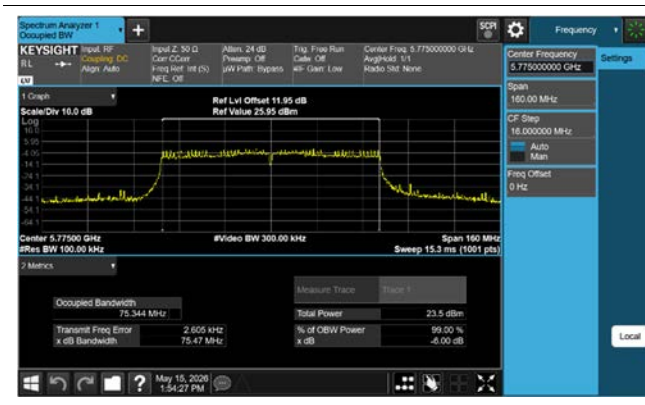
Bandwidth 20M, 802.11a Ch.157



Bandwidth 40M, 802.11ac(VHT40) Ch.159

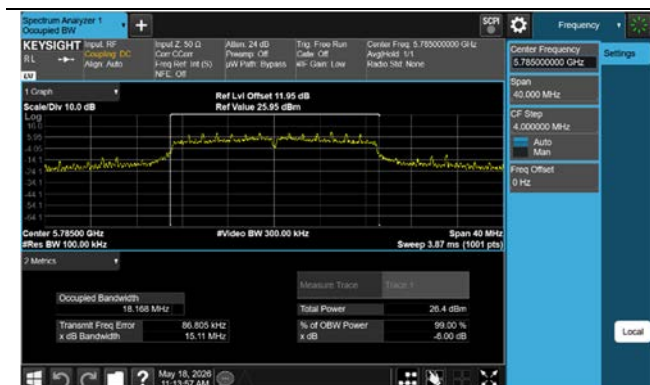


Bandwidth 80M, 802.11ac(VHT80) Ch.155

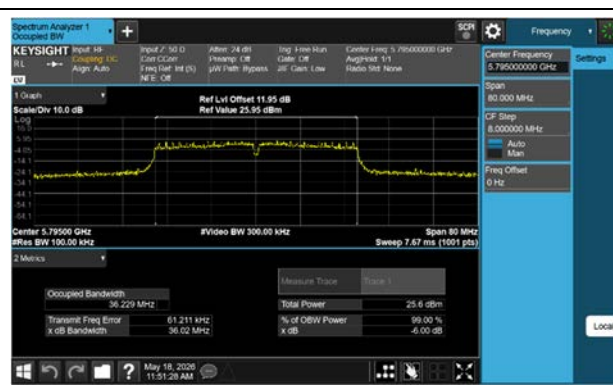


[Ant.2]

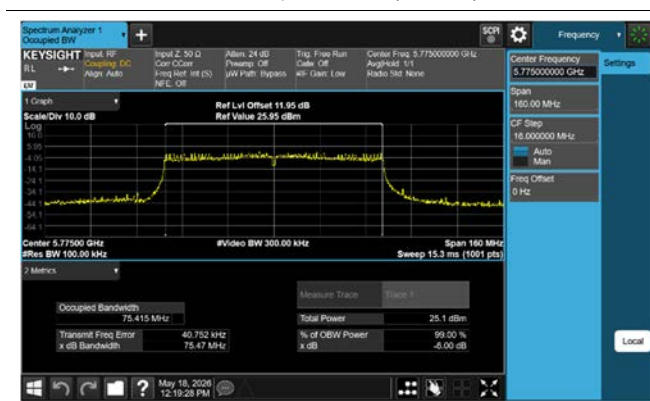
Bandwidth 20M, 802.11n(HT20) Ch.157



Bandwidth 40M, 802.11n(HT40) Ch.159



Bandwidth 80M, 802.11ac(VHT80) Ch.155



10.4 OUTPUT POWER MEASUREMENT

Straddle channel data in the table below are for reporting purposes only.

Straddle channel data were added in section 10.7

Limit

(UNII 1) : 23.98 dBm

(UNII 2A, 2C) : 23.98 dBm or 11 dBm + 10 log B, (where B is the 26 dB emission bandwidth in megahertz.)

(UNII 3) : 30.00 dBm

[Ant.1]

Mode : 802.11a							
Band	Freq. [MHz]	CH.	Worstcase Datarate	Measured Power [dBm]	Duty cycle Factor [dB]	Total Power [dBm]	Limit [dBm]
UNII1	5180	36	6M	17.77	0.30	18.06	23.98
	5200	40	6M	17.76	0.30	18.05	23.98
	5240	48	6M	17.71	0.30	18.00	23.98
UNII2A	5260	52	6M	17.71	0.30	18.00	23.98
	5300	60	6M	17.81	0.30	18.10	23.98
	5320	64	6M	17.87	0.30	18.17	23.98
UNII2C	5500	100	6M	12.62	0.30	12.91	23.98
	5600	120	6M	12.86	0.30	13.16	23.98
	5720	144	6M	12.63	0.30	12.93	23.98
UNII3	5745	149	6M	20.11	0.30	20.40	30.00
	5785	157	6M	20.15	0.30	20.45	30.00
	5825	165	6M	20.27	0.30	20.56	30.00

Mode : 802.11n(HT20)							
Band	Freq. [MHz]	CH.	Worstcase Datarate	Measured Power [dBm]	Duty cycle Factor [dB]	Total Power [dBm]	Limit [dBm]
UNII1	5180	36	MCS0	11.83	0.32	12.15	23.98
	5200	40	MCS0	11.84	0.32	12.15	23.98
	5240	48	MCS0	12.01	0.32	12.33	23.98
UNII2A	5260	52	MCS0	16.79	0.32	17.10	23.98
	5300	60	MCS0	16.79	0.32	17.10	23.98
	5320	64	MCS0	16.92	0.32	17.24	23.98
UNII2C	5500	100	MCS0	12.18	0.32	12.50	23.98
	5600	120	MCS0	12.48	0.32	12.79	23.98
	5720	144	MCS0	12.15	0.32	12.46	23.98
UNII3	5745	149	MCS0	17.78	0.32	18.10	30.00
	5785	157	MCS0	17.77	0.32	18.09	30.00
	5825	165	MCS0	17.65	0.32	17.97	30.00

Mode : 802.11ac(VHT20)							
Band	Freq. [MHz]	CH.	Worstcase Datarate	Measured Power [dBm]	Duty cycle Factor [dB]	Total Power [dBm]	Limit [dBm]
UNII1	5180	36	MCS0	12.09	0.31	12.40	23.98
	5200	40	MCS0	11.90	0.31	12.22	23.98
	5240	48	MCS0	11.81	0.31	12.13	23.98
UNII2A	5260	52	MCS0	16.77	0.31	17.08	23.98
	5300	60	MCS0	16.80	0.31	17.11	23.98
	5320	64	MCS0	16.96	0.31	17.27	23.98
UNII2C	5500	100	MCS0	15.28	0.31	15.59	23.98
	5520	104	MCS0	16.40	0.31	16.71	23.98
	5600	120	MCS0	16.51	0.31	16.83	23.98
	5680	136	MCS0	16.41	0.31	16.73	23.98
	5700	140	MCS0	13.04	0.31	13.35	23.98
	5720	144	MCS0	16.18	0.31	16.49	23.98
UNII3	5745	149	MCS0	17.93	0.31	18.25	30.00
	5785	157	MCS0	17.73	0.31	18.04	30.00
	5825	165	MCS0	17.64	0.31	17.96	30.00

Mode : 802.11n(HT40)							
Band	Freq. [MHz]	CH.	Worstcase Datarate	Measured Power [dBm]	Duty cycle Factor [dB]	Total Power [dBm]	Limit [dBm]
UNII1	5190	38	MCS0	11.97	0.61	12.58	23.98
	5230	46	MCS0	12.16	0.61	12.77	23.98
UNII2A	5270	54	MCS0	11.68	0.61	12.29	23.98
	5310	62	MCS0	11.83	0.61	12.44	23.98
UNII2C	5510	102	MCS0	11.40	0.61	12.01	23.98
	5590	118	MCS0	11.60	0.61	12.20	23.98
	5710	142	MCS0	11.37	0.61	11.98	23.98
UNII3	5755	151	MCS0	17.96	0.61	18.57	30.00
	5795	159	MCS0	17.79	0.61	18.40	30.00

Mode : 802.11ac(VHT40)							
Band	Freq. [MHz]	CH.	Worstcase Datarate	Measured Power [dBm]	Duty cycle Factor [dB]	Total Power [dBm]	Limit [dBm]
UNII1	5190	38	MCS0	12.08	0.61	12.69	23.98
	5230	46	MCS0	12.22	0.61	12.82	23.98
UNII2A	5270	54	MCS0	11.76	0.61	12.36	23.98
	5310	62	MCS0	11.89	0.61	12.50	23.98
UNII2C	5510	102	MCS0	11.35	0.61	11.96	23.98
	5550	110	MCS0	16.53	0.61	17.14	23.98
	5590	118	MCS0	16.38	0.61	16.99	23.98
	5630	126	MCS0	16.56	0.61	17.17	23.98
	5670	134	MCS0	16.38	0.61	16.99	23.98
	5710	142	MCS0	16.28	0.61	16.89	23.98
UNII3	5755	151	MCS0	17.97	0.61	18.57	30.00
	5795	159	MCS0	17.71	0.61	18.31	30.00

Mode : 802.11ac(VHT80)							
Band	Freq. [MHz]	CH.	Worstcase Datarate	Measured Power [dBm]	Duty cycle Factor [dB]	Total Power [dBm]	Limit [dBm]
UNII1	5210	42	MCS0	11.19	1.14	12.34	23.98
UNII2A	5290	58	MCS0	11.20	1.14	12.34	23.98
UNII2C	5530	106	MCS0	9.56	1.14	10.70	23.98
	5610	122	MCS0	9.59	1.14	10.73	23.98
	5690	138	MCS0	9.52	1.14	10.66	23.98
UNII3	5775	155	MCS0	14.59	1.14	15.73	30.00

[Ant.2]

Mode : 802.11a							
Band	Freq. [MHz]	CH.	Worstcase Datarate	Measured Power [dBm]	Duty cycle Factor [dB]	Total Power [dBm]	Limit [dBm]
UNII1	5180	36	6M	15.07	0.30	15.37	23.98
	5200	40	6M	15.16	0.30	15.46	23.98
	5240	48	6M	15.20	0.30	15.50	23.98
UNII2A	5260	52	6M	16.76	0.30	17.06	23.98
	5300	60	6M	16.96	0.30	17.26	23.98
	5320	64	6M	17.09	0.30	17.38	23.98
UNII2C	5500	100	6M	13.04	0.30	13.33	23.98
	5600	120	6M	13.59	0.30	13.89	23.98
	5720	144	6M	13.68	0.30	13.98	23.98
UNII3	5745	149	6M	19.36	0.30	19.66	30.00
	5785	157	6M	19.25	0.30	19.54	30.00
	5825	165	6M	19.42	0.30	19.72	30.00

Mode : 802.11n(HT20)							
Band	Freq. [MHz]	CH.	Worstcase Datarate	Measured Power [dBm]	Duty cycle Factor [dB]	Total Power [dBm]	Limit [dBm]
UNII1	5180	36	MCS0	12.19	0.32	12.50	23.98
	5200	40	MCS0	11.99	0.32	12.31	23.98
	5240	48	MCS0	12.09	0.32	12.41	23.98
UNII2A	5260	52	MCS0	17.04	0.32	17.35	23.98
	5300	60	MCS0	17.15	0.32	17.46	23.98
	5320	64	MCS0	17.30	0.32	17.62	23.98
UNII2C	5500	100	MCS0	12.68	0.32	12.99	23.98
	5600	120	MCS0	13.16	0.32	13.47	23.98
	5720	144	MCS0	13.21	0.32	13.53	23.98
UNII3	5745	149	MCS0	18.33	0.32	18.64	30.00
	5785	157	MCS0	18.23	0.32	18.55	30.00
	5825	165	MCS0	18.43	0.32	18.74	30.00

Mode : 802.11ac(VHT20)							
Band	Freq. [MHz]	CH.	Worstcase Datarate	Measured Power [dBm]	Duty cycle Factor [dB]	Total Power [dBm]	Limit [dBm]
UNII1	5180	36	MCS0	12.09	0.31	12.41	23.98
	5200	40	MCS0	12.14	0.31	12.45	23.98
	5240	48	MCS0	12.17	0.31	12.48	23.98
UNII2A	5260	52	MCS0	16.92	0.31	17.24	23.98
	5300	60	MCS0	17.14	0.31	17.45	23.98
	5320	64	MCS0	17.30	0.31	17.62	23.98
UNII2C	5500	100	MCS0	15.52	0.31	15.83	23.98
	5520	104	MCS0	17.11	0.31	17.42	23.98
	5600	120	MCS0	17.47	0.31	17.78	23.98
	5680	136	MCS0	17.61	0.31	17.92	23.98
	5700	140	MCS0	13.88	0.31	14.19	23.98
	5720	144	MCS0	17.07	0.31	17.38	23.98
UNII3	5745	149	MCS0	18.20	0.31	18.51	30.00
	5785	157	MCS0	18.10	0.31	18.42	30.00
	5825	165	MCS0	18.33	0.31	18.65	30.00

Mode : 802.11n(HT40)							
Band	Freq. [MHz]	CH.	Worstcase Datarate	Measured Power [dBm]	Duty cycle Factor [dB]	Total Power [dBm]	Limit [dBm]
UNII1	5190	38	MCS0	11.66	0.61	12.27	23.98
	5230	46	MCS0	11.76	0.61	12.37	23.98
UNII2A	5270	54	MCS0	11.38	0.61	11.99	23.98
	5310	62	MCS0	11.25	0.61	11.86	23.98
UNII2C	5510	102	MCS0	11.08	0.61	11.69	23.98
	5590	118	MCS0	11.46	0.61	12.07	23.98
	5710	142	MCS0	11.42	0.61	12.03	23.98
UNII3	5755	151	MCS0	17.52	0.61	18.13	30.00
	5795	159	MCS0	17.46	0.61	18.07	30.00

Mode : 802.11ac(VHT40)							
Band	Freq. [MHz]	CH.	Worstcase Datarate	Measured Power [dBm]	Duty cycle Factor [dB]	Total Power [dBm]	Limit [dBm]
UNII1	5190	38	MCS0	11.43	0.61	12.04	23.98
	5230	46	MCS0	11.58	0.61	12.18	23.98
UNII2A	5270	54	MCS0	11.09	0.61	11.69	23.98
	5310	62	MCS0	11.36	0.61	11.97	23.98
UNII2C	5510	102	MCS0	11.23	0.61	11.84	23.98
	5550	110	MCS0	16.64	0.61	17.25	23.98
	5590	118	MCS0	16.10	0.61	16.71	23.98
	5630	126	MCS0	16.19	0.61	16.80	23.98
	5670	134	MCS0	15.75	0.61	16.36	23.98
	5710	142	MCS0	15.60	0.61	16.21	23.98
UNII3	5755	151	MCS0	17.38	0.61	17.99	30.00
	5795	159	MCS0	17.58	0.61	18.19	30.00

Mode : 802.11ac(VHT80)							
Band	Freq. [MHz]	CH.	Worstcase Datarate	Measured Power [dBm]	Duty cycle Factor [dB]	Total Power [dBm]	Limit [dBm]
UNII1	5210	42	MCS0	10.85	1.14	12.00	23.98
UNII2A	5290	58	MCS0	10.43	1.14	11.57	23.98
UNII2C	5530	106	MCS0	9.68	1.14	10.82	23.98
	5610	122	MCS0	10.05	1.14	11.19	23.98
	5690	138	MCS0	10.37	1.14	11.51	23.98
UNII3	5775	155	MCS0	15.94	1.14	17.08	30.00

[MIMO_CDD(Ant.1+ Ant.2)]

Ant Total Power [dBm] = Measured Power [dBm] + Duty Cycle Factor [dB]

MIMO_CDD(Ant.1+ Ant.2) Total Power [dBm] = Ant.1 Total Power [dBm] + Ant.2 Total Power [dBm]

Mode : 802.11n(HT20)

BAND	Freq. [MHz]	CH.	Datarate	Total Average Power [dBm]			Limit [dBm]
				ANT1	ANT2	MIMO	
UNII1	5180	36	MCS0	12.15	12.50	15.34	23.98
	5200	40	MCS0	12.15	12.31	15.24	23.98
	5240	48	MCS0	12.33	12.41	15.38	23.98
UNII2A	5260	52	MCS0	17.10	17.35	20.24	23.98
	5300	60	MCS0	17.10	17.46	20.30	23.98
	5320	64	MCS0	17.24	17.62	20.44	23.98
UNII2C	5500	100	MCS0	12.50	12.99	15.76	23.98
	5600	120	MCS0	12.79	13.47	16.16	23.98
	5720	144	MCS0	12.46	13.53	16.04	23.98
UNII3	5745	149	MCS0	18.10	18.64	21.39	30.00
	5785	157	MCS0	18.09	18.55	21.34	30.00
	5825	165	MCS0	17.97	18.74	21.38	30.00

Mode : 802.11ac(VHT20)

BAND	Freq. [MHz]	CH.	Datarate	Total Average Power [dBm]			Limit [dBm]
				ANT1	ANT2	MIMO	
UNII1	5180	36	MCS0	12.40	12.41	15.41	23.98
	5200	40	MCS0	12.22	12.45	15.35	23.98
	5240	48	MCS0	12.13	12.48	15.32	23.98
UNII2A	5260	52	MCS0	17.08	17.24	20.17	23.98
	5300	60	MCS0	17.11	17.45	20.30	23.98
	5320	64	MCS0	17.27	17.62	20.46	23.98
UNII2C	5500	100	MCS0	15.59	15.83	18.72	23.98
	5520	104	MCS0	16.71	17.42	20.09	23.98
	5600	120	MCS0	16.83	17.78	20.34	23.98
	5680	136	MCS0	16.73	17.92	20.38	23.98
	5700	140	MCS0	13.35	14.19	16.80	23.98
	5720	144	MCS0	16.49	17.38	19.97	23.98
UNII3	5745	149	MCS0	18.25	18.51	21.39	30.00
	5785	157	MCS0	18.04	18.42	21.24	30.00
	5825	165	MCS0	17.96	18.65	21.33	30.00

Mode : 802.11n(HT40)							
BAND	Freq. [MHz]	CH.	Datarate	Total Average Power [dBm]			Limit [dBm]
				ANT1	ANT2	MIMO	
UNII1	5190	38	MCS0	12.58	12.27	15.44	23.98
	5230	46	MCS0	12.77	12.37	15.59	23.98
UNII2A	5270	54	MCS0	12.29	11.99	15.15	23.98
	5310	62	MCS0	12.44	11.86	15.17	23.98
UNII2C	5510	102	MCS0	12.01	11.69	14.87	23.98
	5590	118	MCS0	12.20	12.07	15.15	23.98
	5710	142	MCS0	11.98	12.03	15.02	23.98
UNII3	5755	151	MCS0	18.57	18.13	21.37	30.00
	5795	159	MCS0	18.40	18.07	21.25	30.00

Mode : 802.11ac(VHT40)							
BAND	Freq. [MHz]	CH.	Datarate	Total Average Power [dBm]			Limit [dBm]
				ANT1	ANT2	MIMO	
UNII1	5190	38	MCS0	12.69	12.04	15.39	23.98
	5230	46	MCS0	12.82	12.18	15.53	23.98
UNII2A	5270	54	MCS0	12.36	11.69	15.05	23.98
	5310	62	MCS0	12.50	11.97	15.25	23.98
UNII2C	5510	102	MCS0	11.96	11.84	14.91	23.98
	5550	110	MCS0	17.14	17.25	20.20	23.98
	5590	118	MCS0	16.99	16.71	19.86	23.98
	5630	126	MCS0	17.17	16.80	20.00	23.98
	5670	134	MCS0	16.99	16.36	19.69	23.98
	5710	142	MCS0	16.89	16.21	19.57	23.98
UNII3	5755	151	MCS0	18.57	17.99	21.30	30.00
	5795	159	MCS0	18.31	18.19	21.26	30.00

Mode : 802.11ac(VHT80)							
BAND	Freq. [MHz]	CH.	Datarate	Total Average Power [dBm]			Limit [dBm]
				ANT1	ANT2	MIMO	
UNII1	5210	42	MCS0	12.34	12.00	15.18	23.98
UNII2A	5290	58	MCS0	12.34	11.57	14.98	23.98
	5530	106	MCS0	10.70	10.82	13.77	23.98
UNII2C	5610	122	MCS0	10.73	11.19	13.97	23.98
	5690	138	MCS0	10.66	11.51	14.12	23.98
UNII3	5775	155	MCS0	15.73	17.08	19.47	30.00

10.5 POWER SPECTRAL DENSITY

Note :

1. UNII3 Measured PSD, Total PSD Unit : [dBm/500kHz]

[Ant.1]

Mode : 802.11a							
Band	Freq. [MHz]	CH.	Worstcase Datarate	Measured PSD [dBm/MHz]	Duty cycle Factor [dB]	Total PSD [dBm/MHz]	Limit [dBm/MHz]
UNII1	5180	36	6M	7.790	0.296	8.086	11
	5200	40	6M	7.683	0.296	7.979	11
	5240	48	6M	7.816	0.296	8.112	11
UNII2A	5260	52	6M	7.950	0.296	8.246	11
	5300	60	6M	7.880	0.296	8.176	11
	5320	64	6M	7.734	0.296	8.030	11
UNII2C	5500	100	6M	2.737	0.296	3.033	11
	5600	120	6M	3.048	0.296	3.344	11
	5720	144	6M	2.768	0.296	3.064	11
UNII3	5745	149	6M	7.274	0.296	7.570	30 dBm/500kHz
	5785	157	6M	7.708	0.296	8.004	30 dBm/500kHz
	5825	165	6M	7.873	0.296	8.169	30 dBm/500kHz

Mode : 802.11n(HT20)							
Band	Freq. [MHz]	CH.	Worstcase Datarate	Measured PSD [dBm/MHz]	Duty cycle Factor [dB]	Total PSD [dBm/MHz]	Limit [dBm/MHz]
UNII1	5180	36	MCS0	1.492	0.316	1.808	11
	5200	40	MCS0	1.630	0.316	1.946	11
	5240	48	MCS0	1.645	0.316	1.961	11
UNII2A	5260	52	MCS0	6.548	0.316	6.864	11
	5300	60	MCS0	6.642	0.316	6.958	11
	5320	64	MCS0	6.939	0.316	7.255	11
UNII2C	5500	100	MCS0	2.164	0.316	2.480	11
	5600	120	MCS0	2.350	0.316	2.666	11
	5720	144	MCS0	2.086	0.316	2.402	11
UNII3	5745	149	MCS0	4.896	0.316	5.212	30 dBm/500kHz
	5785	157	MCS0	4.712	0.316	5.028	30 dBm/500kHz
	5825	165	MCS0	4.828	0.316	5.144	30 dBm/500kHz

Mode : 802.11ac(VHT20)							
Band	Freq. [MHz]	CH.	Worstcase Datarate	Measured PSD [dBm/MHz]	Duty cycle Factor [dB]	Total PSD [dBm/MHz]	Limit [dBm/MHz]
UNII1	5180	36	MCS0	2.143	0.315	2.458	11
	5200	40	MCS0	1.537	0.315	1.852	11
	5240	48	MCS0	1.661	0.315	1.976	11
UNII2A	5260	52	MCS0	6.683	0.315	6.998	11
	5300	60	MCS0	6.669	0.315	6.984	11
	5320	64	MCS0	6.944	0.315	7.259	11
UNII2C	5500	100	MCS0	5.425	0.315	5.740	11
	5520	104	MCS0	6.374	0.315	6.689	11
	5600	120	MCS0	6.479	0.315	6.794	11
	5680	136	MCS0	6.236	0.315	6.551	11
	5700	140	MCS0	2.259	0.315	2.574	11
	5720	144	MCS0	6.037	0.315	6.352	11
UNII3	5745	149	MCS0	4.931	0.315	5.246	30 dBm/500kHz
	5785	157	MCS0	4.902	0.315	5.217	30 dBm/500kHz
	5825	165	MCS0	4.594	0.315	4.909	30 dBm/500kHz

Mode : 802.11n(HT40)							
Band	Freq. [MHz]	CH.	Worstcase Datarate	Measured PSD [dBm/MHz]	Duty cycle Factor [dB]	Total PSD [dBm/MHz]	Limit [dBm/MHz]
UNII1	5190	38	MCS0	-0.812	0.609	-0.203	11
	5230	46	MCS0	-0.956	0.609	-0.347	11
UNII2A	5270	54	MCS0	-1.403	0.609	-0.794	11
	5310	62	MCS0	-1.060	0.609	-0.451	11
UNII2C	5510	102	MCS0	-1.337	0.609	-0.728	11
	5590	118	MCS0	-1.608	0.609	-0.999	11
	5710	142	MCS0	-1.923	0.609	-1.314	11
UNII3	5755	151	MCS0	1.784	0.609	2.393	30 dBm/500kHz
	5795	159	MCS0	1.863	0.609	2.472	30 dBm/500kHz

Mode : 802.11ac(VHT40)							
Band	Freq. [MHz]	CH.	Worstcase Datarate	Measured PSD [dBm/MHz]	Duty cycle Factor [dB]	Total PSD [dBm/MHz]	Limit [dBm/MHz]
UNII1	5190	38	MCS0	-1.294	0.606	2.329	11
	5230	46	MCS0	-1.058	0.606	2.570	11
UNII2A	5270	54	MCS0	-1.318	0.606	3.923	11
	5310	62	MCS0	-0.953	0.606	3.694	11
UNII2C	5510	102	MCS0	-1.676	0.606	-1.070	11
	5550	110	MCS0	3.400	0.606	4.006	11
	5590	118	MCS0	3.397	0.606	4.003	11
	5630	126	MCS0	3.583	0.606	4.189	11
	5670	134	MCS0	3.434	0.606	4.040	11
	5710	142	MCS0	3.388	0.606	3.994	11
	5755	151	MCS0	2.220	0.606	6.461	30 dBm/500kHz
UNII3	5795	159	MCS0	2.024	0.606	6.758	30 dBm/500kHz

Mode : 802.11ac(VHT80)							
Band	Freq. [MHz]	CH.	Worstcase Datarate	Measured PSD [dBm/MHz]	Duty cycle Factor [dB]	Total PSD [dBm/MHz]	Limit [dBm/MHz]
UNII1	5210	42	MCS0	-4.967	1.142	-3.825	11
UNII2A	5290	58	MCS0	-5.103	1.142	-3.961	11
UNII2C	5530	106	MCS0	-6.419	1.142	-5.277	11
	5610	122	MCS0	-6.468	1.142	-5.326	11
	5690	138	MCS0	-6.781	1.142	-5.639	11
UNII3	5775	155	MCS0	-4.788	1.142	-3.646	30 dBm/500kHz

[Ant.2]

Mode : 802.11a							
Band	Freq. [MHz]	CH.	Worstcase Datarate	Measured PSD [dBm/MHz]	Duty cycle Factor [dB]	Total PSD [dBm/MHz]	Limit [dBm/MHz]
UNII1	5180	36	6M	5.168	0.296	5.464	11
	5200	40	6M	5.245	0.296	5.541	11
	5240	48	6M	5.170	0.296	5.466	11
UNII2A	5260	52	6M	6.618	0.296	6.914	11
	5300	60	6M	7.074	0.296	7.370	11
	5320	64	6M	7.340	0.296	7.636	11
UNII2C	5500	100	6M	3.070	0.296	3.366	11
	5600	120	6M	3.628	0.296	3.924	11
	5720	144	6M	4.016	0.296	4.312	11
UNII3	5745	149	6M	6.745	0.296	7.041	30 dBm/500kHz
	5785	157	6M	6.310	0.296	6.606	30 dBm/500kHz
	5825	165	6M	6.820	0.296	7.116	30 dBm/500kHz

Mode : 802.11n(HT20)							
Band	Freq. [MHz]	CH.	Worstcase Datarate	Measured PSD [dBm/MHz]	Duty cycle Factor [dB]	Total PSD [dBm/MHz]	Limit [dBm/MHz]
UNII1	5180	36	MCS0	1.848	0.316	2.164	11
	5200	40	MCS0	1.726	0.316	2.042	11
	5240	48	MCS0	2.155	0.316	2.471	11
UNII2A	5260	52	MCS0	7.088	0.316	7.404	11
	5300	60	MCS0	6.963	0.316	7.279	11
	5320	64	MCS0	7.272	0.316	7.588	11
UNII2C	5500	100	MCS0	2.550	0.316	2.866	11
	5600	120	MCS0	3.063	0.316	3.379	11
	5720	144	MCS0	2.796	0.316	3.112	11
UNII3	5745	149	MCS0	5.524	0.316	5.840	30 dBm/500kHz
	5785	157	MCS0	5.422	0.316	5.738	30 dBm/500kHz
	5825	165	MCS0	5.536	0.316	5.852	30 dBm/500kHz

Mode : 802.11ac(VHT20)							
Band	Freq. [MHz]	CH.	Worstcase Datarate	Measured PSD [dBm/MHz]	Duty cycle Factor [dB]	Total PSD [dBm/MHz]	Limit [dBm/MHz]
UNII1	5180	36	MCS0	1.912	0.315	2.227	11
	5200	40	MCS0	1.873	0.315	2.188	11
	5240	48	MCS0	2.007	0.315	2.322	11
UNII2A	5260	52	MCS0	6.778	0.315	7.093	11
	5300	60	MCS0	6.961	0.315	7.276	11
	5320	64	MCS0	7.184	0.315	7.499	11
UNII2C	5500	100	MCS0	5.659	0.315	5.974	11
	5520	104	MCS0	6.878	0.315	7.193	11
	5600	120	MCS0	7.454	0.315	7.769	11
	5680	136	MCS0	7.466	0.315	7.781	11
	5700	140	MCS0	3.294	0.315	3.609	11
	5720	144	MCS0	6.910	0.315	7.225	11
UNII3	5745	149	MCS0	5.132	0.315	5.447	30 dBm/500kHz
	5785	157	MCS0	5.109	0.315	5.424	30 dBm/500kHz
	5825	165	MCS0	5.237	0.315	5.552	30 dBm/500kHz

Mode : 802.11n(HT40)							
Band	Freq. [MHz]	CH.	Worstcase Datarate	Measured PSD [dBm/MHz]	Duty cycle Factor [dB]	Total PSD [dBm/MHz]	Limit [dBm/MHz]
UNII1	5190	38	MCS0	-1.568	0.609	-0.959	11
	5230	46	MCS0	-1.016	0.609	-0.407	11
UNII2A	5270	54	MCS0	-1.916	0.609	-1.307	11
	5310	62	MCS0	-1.747	0.609	-1.138	11
UNII2C	5510	102	MCS0	-2.193	0.609	-1.584	11
	5590	118	MCS0	-1.676	0.609	-1.067	11
	5710	142	MCS0	-1.709	0.609	-1.100	11
UNII3	5755	151	MCS0	1.708	0.609	2.317	30 dBm/500kHz
	5795	159	MCS0	1.638	0.609	2.247	30 dBm/500kHz

Mode : 802.11ac(VHT40)							
Band	Freq. [MHz]	CH.	Worstcase Datarate	Measured PSD [dBm/MHz]	Duty cycle Factor [dB]	Total PSD [dBm/MHz]	Limit [dBm/MHz]
UNII1	5190	38	MCS0	-1.695	0.606	-1.089	11
	5230	46	MCS0	-1.603	0.606	-0.997	11
UNII2A	5270	54	MCS0	-1.867	0.606	-1.261	11
	5310	62	MCS0	-1.796	0.606	-1.190	11
UNII2C	5510	102	MCS0	-1.723	0.606	-1.117	11
	5550	110	MCS0	3.154	0.606	3.760	11
	5590	118	MCS0	2.724	0.606	3.330	11
	5630	126	MCS0	2.683	0.606	3.289	11
	5670	134	MCS0	2.398	0.606	3.004	11
	5710	142	MCS0	2.644	0.606	3.250	11
	5755	151	MCS0	1.125	0.606	1.731	30 dBm/500kHz
UNII3	5795	159	MCS0	1.782	0.606	2.388	30 dBm/500kHz

Mode : 802.11ac(VHT80)							
Band	Freq. [MHz]	CH.	Worstcase Datarate	Measured PSD [dBm/MHz]	Duty Cycle Factor [dB]	Total PSD [dBm/MHz]	Limit [dBm/MHz]
UNII1	5210	42	MCS0	-5.369	1.142	-4.227	11
UNII2A	5290	58	MCS0	-5.319	1.142	-4.177	11
	5530	106	MCS0	-6.048	1.142	-4.906	11
UNII2C	5610	122	MCS0	-6.060	1.142	-4.918	11
	5690	138	MCS0	-5.726	1.142	-4.584	11
UNII3	5775	155	MCS0	-3.025	1.142	-1.883	30 dBm/500kHz

[MIMO_CDD(Ant.1+ Ant.2)]

Ant Total PSD [dBm] = Measured PSD [dBm/MHz] + Duty Cycle Factor [dB]

MIMO_CDD(Ant.1+ Ant.2)Total PSD [dBm/MHz] = Ant.1 Total PSD [dBm/MHz] + Ant.2 Total PSD [dB]

Mode : 802.11n(HT20)							
BAND	Freq. [MHz]	CH.	Datarate	Total Power Spectral Density [dBm/MHz] Note.1			Limit [dBm/MHz]
				ANT1	ANT2	MIMO	
UNII1	5180	36	MCS0	1.808	2.164	5.000	11.00
	5200	40	MCS0	1.946	2.042	5.005	11.00
	5240	48	MCS0	1.961	2.471	5.234	11.00
UNII2A	5260	52	MCS0	6.864	7.404	10.153	11.00
	5300	60	MCS0	6.958	7.279	10.132	11.00
	5320	64	MCS0	7.255	7.588	10.435	11.00
UNII2C	5500	100	MCS0	2.480	2.866	5.688	11.00
	5600	120	MCS0	2.666	3.379	6.048	11.00
	5720	144	MCS0	2.402	3.112	5.782	11.00
UNII3	5745	149	MCS0	5.212	5.840	8.548	30 dBm/500kHz
	5785	157	MCS0	5.028	5.738	8.408	30 dBm/500kHz
	5825	165	MCS0	5.144	5.852	8.523	30 dBm/500kHz

Mode : 802.11ac(VHT20)							
BAND	Freq. [MHz]	CH.	Datarate	Total Power Spectral Density [dBm/MHz] Note.1			Limit [dBm/MHz]
				ANT1	ANT2	MIMO	
UNII1	5180	36	MCS0	2.458	2.227	5.354	11.00
	5200	40	MCS0	1.852	2.188	5.033	11.00
	5240	48	MCS0	1.976	2.322	5.162	11.00
UNII2A	5260	52	MCS0	6.998	7.093	10.056	11.00
	5300	60	MCS0	6.984	7.276	10.142	11.00
	5320	64	MCS0	7.259	7.499	10.390	11.00
UNII2C	5500	100	MCS0	5.740	5.974	8.868	11.00
	5520	104	MCS0	6.689	7.193	9.958	11.00
	5600	120	MCS0	6.794	7.769	10.319	11.00
	5680	136	MCS0	6.551	7.781	10.219	11.00
	5700	140	MCS0	2.574	3.609	6.132	11.00
	5720	144	MCS0	6.352	7.225	9.820	11.00
UNII3	5745	149	MCS0	5.246	5.447	8.357	30 dBm/500kHz
	5785	157	MCS0	5.217	5.424	8.332	30 dBm/500kHz
	5825	165	MCS0	4.909	5.552	8.252	30 dBm/500kHz

Mode : 802.11n(HT40)							
BAND	Freq. [MHz]	CH.	Datarate	Total Power Spectral Density [dBm/MHz] Note.1			Limit [dBm/MHz]
				ANT1	ANT2	MIMO	
UNII1	5190	38	MCS0	-0.203	-0.959	2.446	11.00
	5230	46	MCS0	-0.347	-0.407	2.634	11.00
UNII2A	5270	54	MCS0	-0.794	-1.307	1.968	11.00
	5310	62	MCS0	-0.451	-1.138	2.230	11.00
UNII2C	5510	102	MCS0	-0.728	-1.584	1.876	11.00
	5590	118	MCS0	-0.999	-1.067	1.978	11.00
	5710	142	MCS0	-1.314	-1.100	1.805	11.00
UNII3	5755	151	MCS0	2.393	2.317	5.366	30 dBm/500kHz
	5795	159	MCS0	2.472	2.247	5.372	30 dBm/500kHz

Mode : 802.11ac(VHT40)							
BAND	Freq. [MHz]	CH.	Datarate	Total Power Spectral Density [dBm/MHz] Note.1			Limit
				ANT1	ANT2	MIMO	[dBm/MHz]
UNII1	5190	38	MCS0	-0.688	-1.089	2.126	11.00
	5230	46	MCS0	-0.452	-0.997	2.294	11.00
UNII2A	5270	54	MCS0	-0.712	-1.261	2.032	11.00
	5310	62	MCS0	-0.347	-1.190	2.262	11.00
UNII2C	5510	102	MCS0	-1.070	-1.117	1.917	11.00
	5550	110	MCS0	4.006	3.760	6.895	11.00
	5590	118	MCS0	4.003	3.330	6.690	11.00
	5630	126	MCS0	4.189	3.289	6.772	11.00
	5670	134	MCS0	4.040	3.004	6.563	11.00
	5710	142	MCS0	3.994	3.250	6.648	11.00
UNII3	5755	151	MCS0	2.826	1.731	5.323	30 dBm/500kHz
	5795	159	MCS0	2.630	2.388	5.521	30 dBm/500kHz

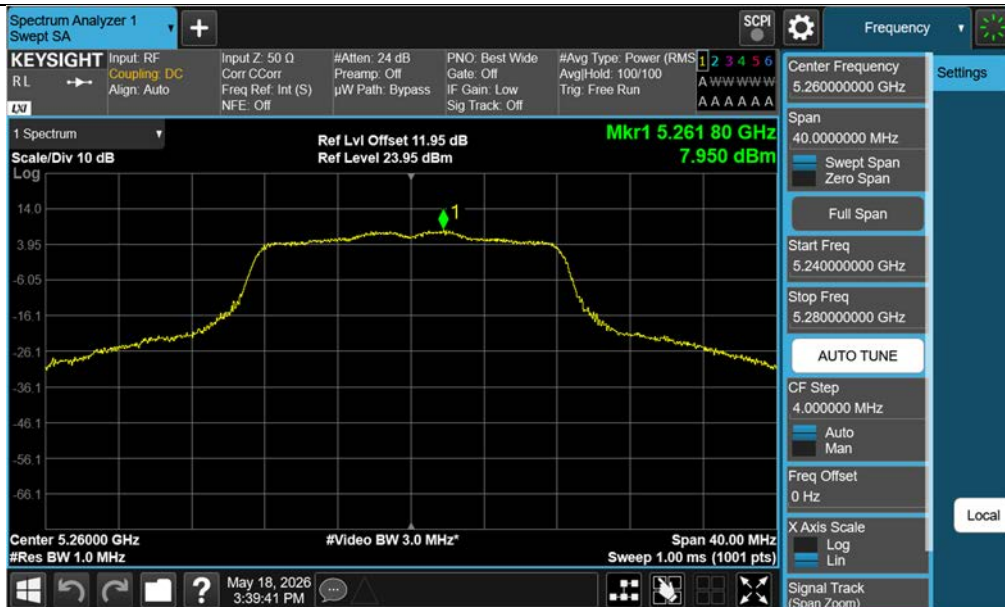
Mode : 802.11ac(VHT80)							
BAND	Freq. [MHz]	CH.	Datarate	Total Power Spectral Density [dBm/MHz] Note.1			Limit
				ANT1	ANT2	MIMO	[dBm/MHz]
UNII1	5210	42	MCS0	-3.825	-4.227	-1.011	11.00
UNII2A	5290	58	MCS0	-3.961	-4.177	-1.057	11.00
UNII2C	5530	106	MCS0	-5.277	-4.906	-2.077	11.00
	5610	122	MCS0	-5.326	-4.918	-2.107	11.00
	5690	138	MCS0	-5.639	-4.584	-2.069	11.00
UNII3	5775	155	MCS0	-3.646	-1.883	0.335	30 dBm/500kHz

Test Plots

Note: In order to simplify the report, attached plots were only channel of the highest PSD.

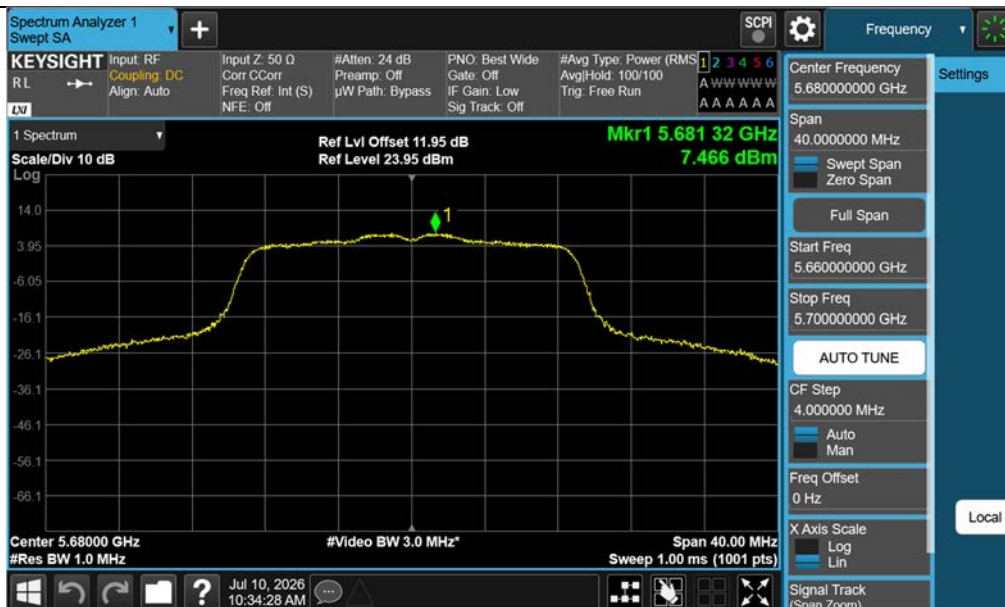
[Ant.1]

Bandwidth 20M, 802.11a (Ch. 52)



[Ant.2]

Bandwidth 20M, 802.11ac (Ch. 136)

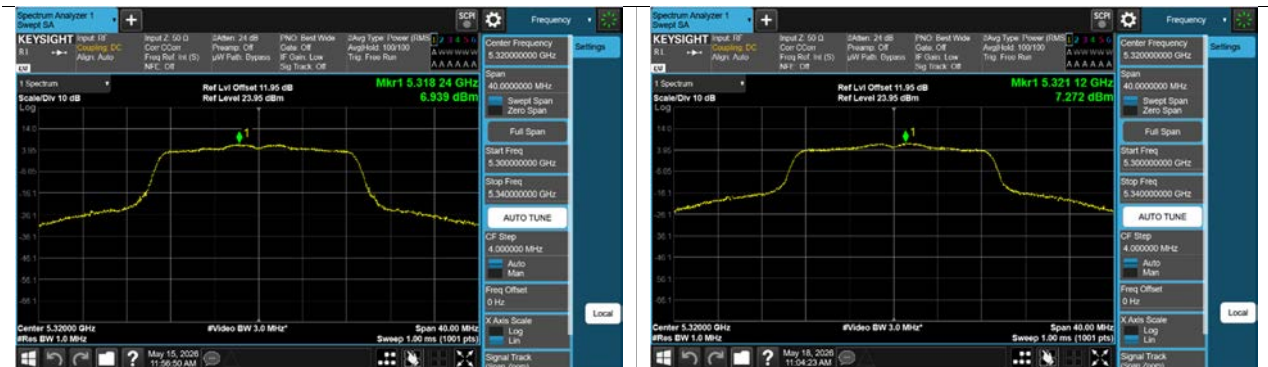


[MIMO_CDD(Ant.1+ Ant.2)]

ANT. 1

ANT. 2

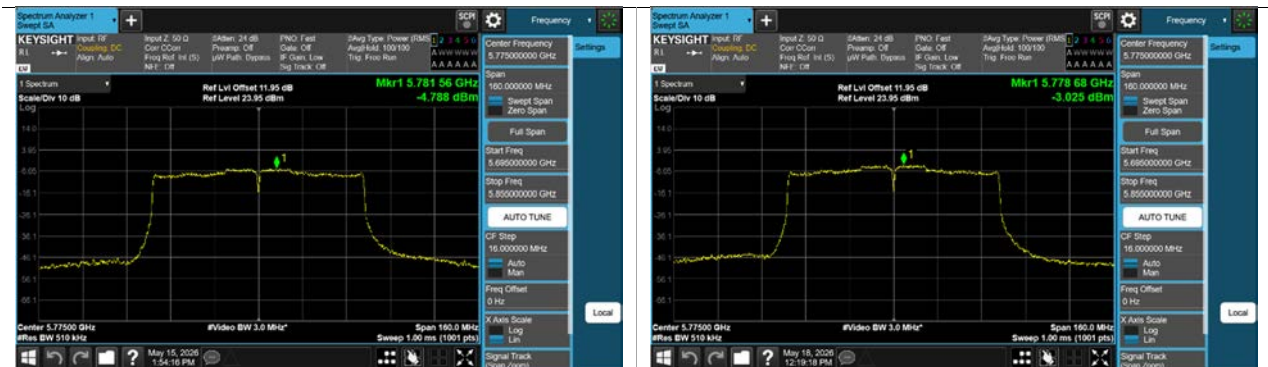
Bandwidth 20M, 802.11n(HT20) (Ch. 64)



Bandwidth 40M, 802.11ac(VHT40) (Ch. 110)



Bandwidth 80M, 802.11ac(VHT80) (Ch. 155)



10.6 FREQUENCY STABILITY

Note:

1. All modes of operation were investigated and the worst case configuration results are reported.
2. Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

10.6.1 802.11ac 80 MHz BW

[MIMO_CDD(Ant1+Ant2)]

REFERENCE VOLTAGE: 3.30 VDC

Startup after the EUT is energized

OPERATING BAND:			UNII Band 1		UNII Band 2A		UNII Band 2C		UNII Band 3	
OPERATING FREQUENCY:			5,210,000,000 Hz		5,290,000,000 Hz		5,530,000,000 Hz		5,775,000,000 Hz	
CHANNEL:			42		58		106		155	
Voltage	Power	Temp.	Frequency	Frequency Error	Frequency	Frequency Error	Frequency	Frequency Error	Frequency	Frequency Error
(%)	(VDC)	(°C)	(kHz)	(kHz)	(kHz)	(kHz)	(kHz)	(kHz)	(kHz)	(kHz)
100%	3.30	+20(Ref)	5210056.64	56.64	5290042.54	42.54	5530069.44	69.44	5775067.40	67.40
100%		-30	5210052.67	52.67	5290030.34	30.34	5530052.59	52.59	5775058.57	58.57
100%		-20	5210032.46	32.46	5290030.38	30.38	5530050.59	50.59	5775069.35	69.35
100%		-10	5210055.50	55.50	5290034.46	34.46	5530058.34	58.34	5775052.47	52.47
100%		0	5210040.50	40.50	5290041.45	41.45	5530044.42	44.42	5775066.63	66.63
100%		+10	5210043.55	43.55	5290062.45	62.45	5530046.67	46.67	5775047.62	47.62
100%		+30	5210041.39	41.39	5290032.45	32.45	5530070.66	70.66	5775034.39	34.39
100%		+40	5210038.50	38.50	5290068.49	68.49	5530052.51	52.51	5775057.51	57.51
100%		+50	5210066.52	66.52	5290054.52	54.52	5530036.59	36.59	5775055.32	55.32
High	3.45	+20	5210068.66	68.66	5290037.46	37.46	5530042.68	42.68	5775050.36	50.36
Low	3.15	+20	5210064.55	64.55	5290065.65	65.65	5530043.52	43.52	5775048.36	48.36

2 minutes after the EUT is energized

OPERATING BAND:			UNII Band 1		UNII Band 2A		UNII Band 2C		UNII Band 3	
OPERATING FREQUENCY:			5,210,000,000 Hz		5,290,000,000 Hz		5,530,000,000 Hz		5,775,000,000 Hz	
CHANNEL:			42		58		106		155	
Voltage	Power	Temp.	Frequency	Frequency Error	Frequency	Frequency Error	Frequency	Frequency Error	Frequency	Frequency Error
(%)	(VDC)	(°C)	(kHz)	(kHz)	(kHz)	(kHz)	(kHz)	(kHz)	(kHz)	(kHz)
100%	3.30	+20(Ref)	5210059.44	59.44	5290036.45	36.45	5530060.37	60.37	5775042.42	42.42
100%		-30	5210053.33	53.33	5290038.32	38.32	5530060.38	60.38	5775051.68	51.68
100%		-20	5210033.59	33.59	5290069.51	69.51	5530049.63	49.63	5775067.69	67.69
100%		-10	5210067.61	67.61	5290054.48	54.48	5530036.41	36.41	5775056.43	56.43
100%		0	5210044.43	44.43	5290064.47	64.47	5530061.51	61.51	5775045.42	45.42
100%		+10	5210057.57	57.57	5290052.36	52.36	5530050.61	50.61	5775060.64	60.64
100%		+30	5210056.31	56.31	5290047.58	47.58	5530049.55	49.55	5775060.51	60.51
100%		+40	5210042.31	42.31	5290039.54	39.54	5530042.32	42.32	5775049.45	49.45
100%		+50	5210037.32	37.32	5290031.45	31.45	5530070.32	70.32	5775054.31	54.31
High	3.45	+20	5210040.38	40.38	5290053.35	53.35	5530070.32	70.32	5775050.45	50.45
Low	3.15	+20	5210061.63	61.63	5290045.43	45.43	5530053.68	53.68	5775056.34	56.34

5 minutes after the EUT is energized

OPERATING BAND:			UNII Band 1		UNII Band 2A		UNII Band 2C		UNII Band 3	
OPERATING FREQUENCY:			5,210,000,000 Hz		5,290,000,000 Hz		5,530,000,000 Hz		5,775,000,000 Hz	
CHANNEL:			42		58		106		155	
Voltage	Power	Temp.	Frequency	Frequency Error	Frequency	Frequency Error	Frequency	Frequency Error	Frequency	Frequency Error
(%)	(VDC)	(°C)	(kHz)	(kHz)	(kHz)	(kHz)	(kHz)	(kHz)	(kHz)	(kHz)
100%	3.30	+20(Ref)	5210069.44	69.44	5290030.47	30.47	5530033.47	33.47	5775033.56	33.56
100%		-30	5210061.36	61.36	5290047.43	47.43	5530049.40	49.40	5775058.57	58.57
100%		-20	5210066.50	66.50	5290059.48	59.48	5530044.45	44.45	5775065.39	65.39
100%		-10	5210039.62	39.62	5290039.68	39.68	5530047.32	47.32	5775034.37	34.37
100%		0	5210053.57	53.57	5290060.60	60.60	5530034.44	34.44	5775046.35	46.35
100%		+10	5210065.58	65.58	5290065.32	65.32	5530034.41	34.41	5775054.52	54.52
100%		+30	5210052.60	52.60	5290042.69	42.69	5530062.47	62.47	5775060.53	60.53
100%		+40	5210064.47	64.47	5290055.61	55.61	5530059.56	59.56	5775049.56	49.56
100%		+50	5210054.67	54.67	5290056.34	56.34	5530032.57	32.57	5775043.41	43.41
High	3.45	+20	5210052.40	52.40	5290061.46	61.46	5530049.40	49.40	5775054.54	54.54
Low	3.15	+20	5210050.59	50.59	5290066.48	66.48	5530056.52	56.52	5775061.61	61.61

10 minutes after the EUT is energized

OPERATING BAND:			UNII Band 1		UNII Band 2A		UNII Band 2C		UNII Band 3	
OPERATING FREQUENCY:			5,210,000,000 Hz		5,290,000,000 Hz		5,530,000,000 Hz		5,775,000,000 Hz	
CHANNEL:			42		58		106		155	
Voltage	Power	Temp.	Frequency	Frequency Error	Frequency	Frequency Error	Frequency	Frequency Error	Frequency	Frequency Error
(%)	(VDC)	(°C)	(kHz)	(kHz)	(kHz)	(kHz)	(kHz)	(kHz)	(kHz)	(kHz)
100%	3.30	+20(Ref)	5210032.48	32.48	5290048.56	48.56	5530055.68	55.68	5775054.58	54.58
100%		-30	5210030.68	30.68	5290060.44	60.44	5530033.41	33.41	5775043.63	43.63
100%		-20	5210033.48	33.48	5290054.61	54.61	5530042.44	42.44	5775040.44	40.44
100%		-10	5210059.39	59.39	5290058.65	58.65	5530058.55	58.55	5775058.56	58.56
100%		0	5210070.38	70.38	5290070.59	70.59	5530039.31	39.31	5775040.65	40.65
100%		+10	5210031.51	31.51	5290032.60	32.60	5530055.43	55.43	5775030.53	30.53
100%		+30	5210067.58	67.58	5290065.50	65.50	5530070.36	70.36	5775063.53	63.53
100%		+40	5210052.42	52.42	5290061.35	61.35	5530058.59	58.59	5775053.57	53.57
100%		+50	5210056.41	56.41	5290069.58	69.58	5530065.54	65.54	5775067.37	67.37
High	3.45	+20	5210041.53	41.53	5290046.40	46.40	5530056.69	56.69	5775062.54	62.54
Low	3.15	+20	5210041.42	41.42	5290042.68	42.68	5530032.53	32.53	5775047.38	47.38

10.7 STRADDLE CHANNEL

Test Description	Note
26 dB Bandwidth	[UNII 2C] 26 dB Bandwidth = 5725 MHz - Measured Frequency[MHz] [UNII 3] 26 dB Bandwidth = Measured Frequency[MHz] - 5725 MHz
6 dB Bandwidth	6 dB Bandwidth = Measured Frequency[MHz] – 5725 MHz - Limit : > 0.5 MHz
Output Power	- Limit(UNII2C) : 23.98 dBm or 11 dBm + 10 log B, (where B is the 26 dB emission bandwidth in megahertz.) - Limit(UNII 3) : 30.00 dBm - Total Power (dBm) = Measured Value (dBm) + Duty Cycle Factor (dB)
Power Spectral Density	- Limit(UNII 2C) : 11.0 dBm/MHz - Limit(UNII 3) : 30.0 dBm/500kHz - Total PSD (dBm/MHz) = Measured Value (dBm/MHz) + Duty Cycle Factor (dB)

[Ant.1]

Mode	Band	Freq. [MHz]	CH.	26dB BW [MHz]	6dB BW [MHz]	Total Power [dBm]	Output Power Limit [dBm]	Total PSD [dBm]
802.11a	UNII2C	5720	144	15.48	-	12.1	22.90	2.753
802.11n(HT20)				15.72	-	11.4	22.96	2.118
802.11ac(VHT20)				20.20	-	17.1	23.98	7.745
802.11a	UNII3	5720	144	5.52	2.56	4.7	30.00	-2.215
802.11n(HT20)				5.64	2.60	4.6	30.00	-2.950
802.11ac(VHT20)				10.12	2.56	10.2	30.00	2.928

Mode	Band	Freq. [MHz]	Channel	26dB BW [MHz]	6dB BW [MHz]	Total Power [dBm]	Output Power Limit [dBm]	Total PSD [dBm]
802.11n(HT40)	UNII2C	5710	142	35.32	-	11.4	23.98	-1.643
802.11ac(VHT40)				35.40	-	16.5	23.98	3.709
802.11n(HT40)	UNII3	5710	142	5.32	3.16	-0.1	30.00	-7.430
802.11ac(VHT40)				5.16	2.92	5.1	30.00	-2.027

Mode	Band	Freq. [MHz]	Channel	26dB BW [MHz]	6dB BW [MHz]	Total Power [dBm]	Output Power Limit [dBm]	Total PSD [dBm]
802.11ac(VHT80)	UNII2C	5690	138	76.12	-	10.4	23.98	-5.904
802.11ac(VHT80)	UNII3	5690	138	6.12	2.76	-4.4	30.00	-11.388

[Ant.2]

Mode	Band	Freq. [MHz]	CH.	26dB BW [MHz]	6dB BW [MHz]	Total Power [dBm]	Output Power Limit [dBm]	Total PSD [dBm]
802.11a	UNII2C	5720	144	15.48	-	13.2	22.90	3.815
802.11n(HT20)				15.56	-	12.4	22.92	3.117
802.11ac(VHT20)				20.16	-	16.1	23.98	6.762
802.11a	UNII3	5720	144	5.56	2.56	5.7	30.00	-1.086
802.11n(HT20)				5.68	2.64	5.6	30.00	-2.094
802.11ac(VHT20)				10.08	2.56	9.2	30.00	1.641

Mode	Band	Freq. [MHz]	Channel	26dB BW [MHz]	6dB BW [MHz]	Total Power [dBm]	Output Power Limit [dBm]	Total PSD [dBm]
802.11n(HT40)	UNII2C	5710	142	35.00	-	11.5	23.98	-1.429
802.11ac(VHT40)				35.08	-	15.7	23.98	2.614
802.11n(HT40)	UNII3	5710	142	5.00	3.24	0.0	30.00	-6.993
802.11ac(VHT40)				4.84	3.24	4.1	30.00	-3.524

Mode	Band	Freq. [MHz]	Channel	26dB BW [MHz]	6dB BW [MHz]	Total Power [dBm]	Output Power Limit [dBm]	Total PSD [dBm]
802.11ac(VHT80)	UNII2C	5690	138	75.80	-	11.2	23.98	-5.106
802.11ac(VHT80)	UNII3	5690	138	5.96	2.76	-3.5	30.00	-10.542

☐ Test Plots (26 dB Bandwidth)
[Ant.1]

802.11a UNII Band



802.11n(HT20) UNII Band



802.11ac(VHT20) UNII Band



802.11n(HT40) UNII Band



802.11ac(VHT40) UNII Band



802.11ac(VHT80) UNII Band



[Ant.2]

802.11a UNII Band



802.11n(HT20) UNII Band



802.11ac(VHT20) UNII Band



802.11n(HT40) UNII Band



802.11ac(VHT40) UNII Band



802.11ac(VHT80) UNII Band



Test Plots(UNII 3 Band 6 dB Bandwidth)
 [Ant.1]

802.11a UNII Band



802.11n(HT20) UNII Band



802.11ac(VHT20) UNII Band



802.11n(HT40) UNII Band



802.11ac(VHT40) UNII Band



802.11ac(VHT80) UNII Band



[Ant.2]

802.11a UNII Band



802.11n(HT20) UNII Band



802.11ac(VHT20) UNII Band



802.11n(HT40) UNII Band



802.11ac(VHT40) UNII Band



802.11ac(VHT80) UNII Band



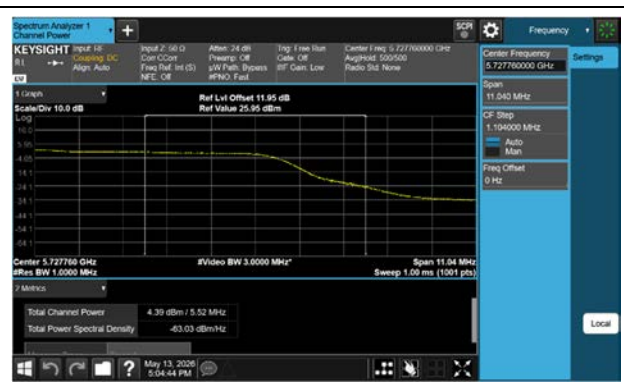
Test Plots(Output Power)

[Ant.1]

802.11a UNII 2C Band



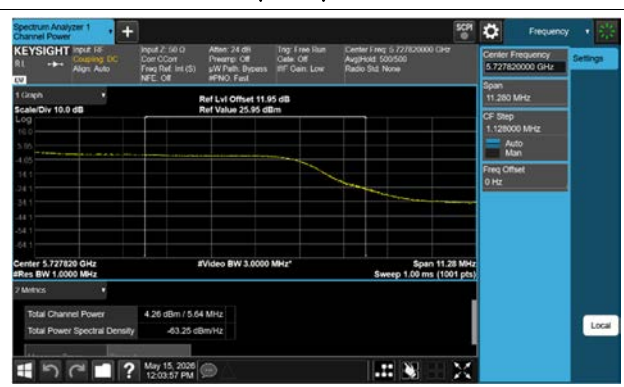
802.11a UNII 3 Band



802.11n(HT20) UNII 2C Band



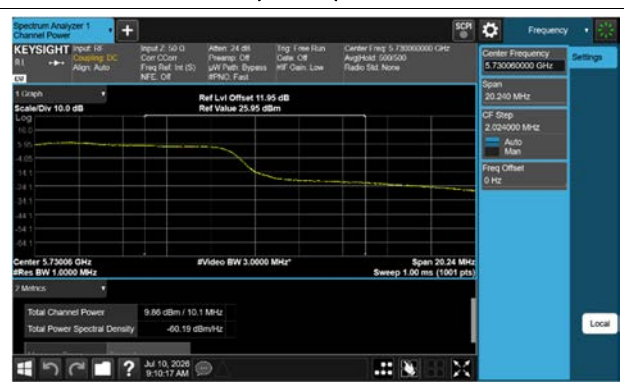
802.11n(HT20) UNII 3 Band



802.11ac(VHT20) UNII 2C Band



802.11ac(VHT20) UNII 3 Band



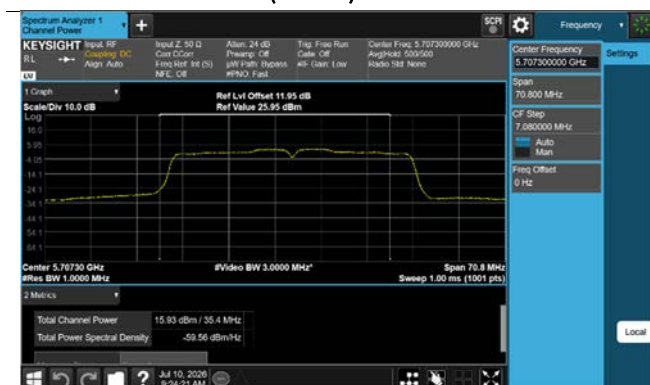
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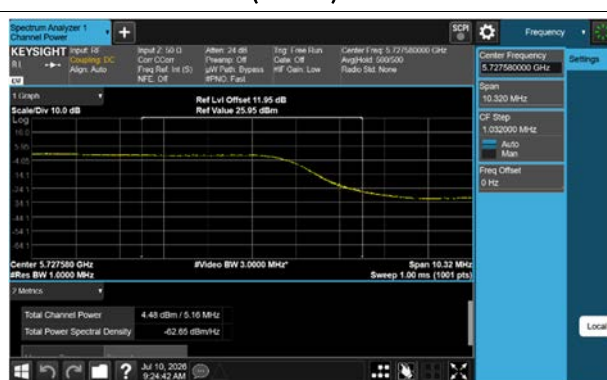
802.11n(HT40) UNII 3 Band



802.11ac(VHT40) UNII 2C Band



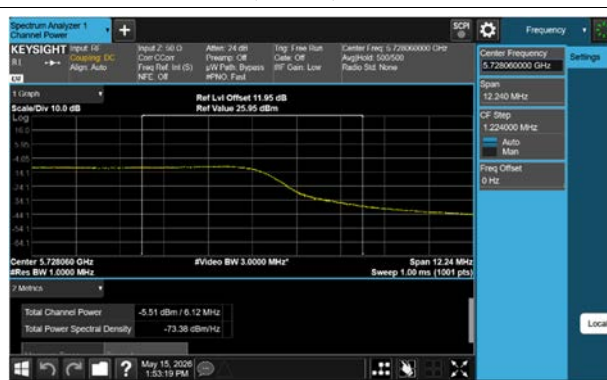
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802.11ac(VHT80) UNII 2C Band



802.11ac(VHT80) UNII 3 Band

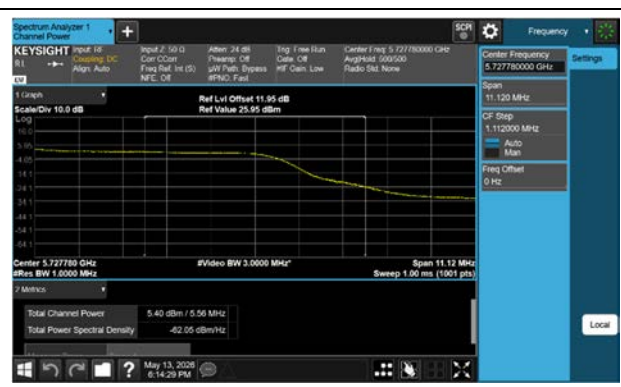


[Ant.2]

802.11a UNII 2C Band



802.11a UNII 3 Band



802.11n(HT20) UNII 2C Band



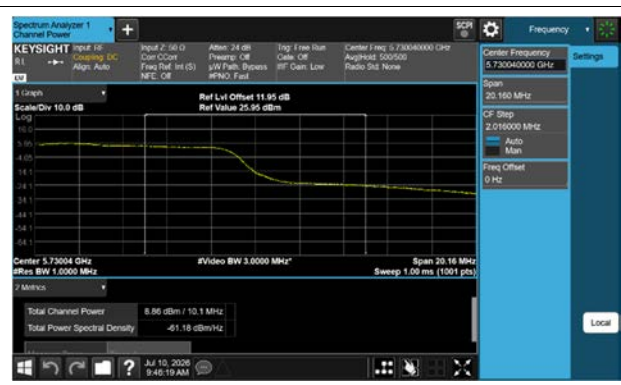
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802.11ac(VHT20) UNII 2C Band



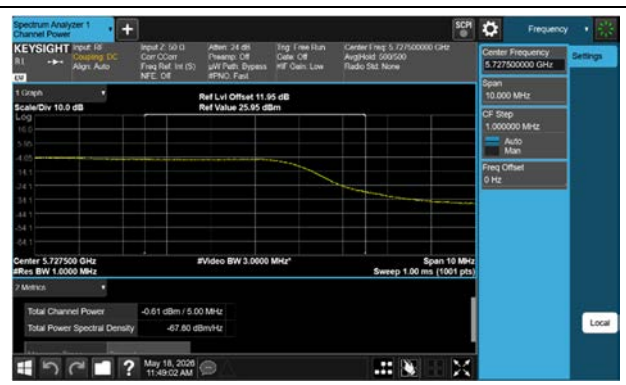
802.11ac(VHT20) UNII 3 Band



802.11n(HT40) UNII 2C Band



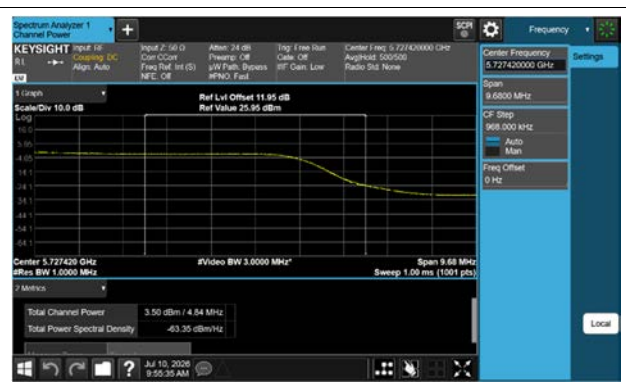
802.11n(HT40) UNII 3 Band



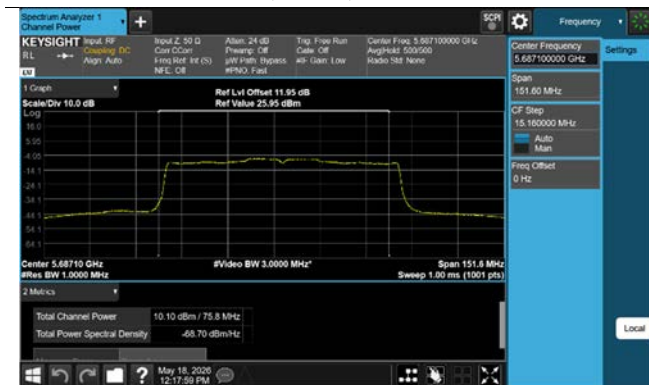
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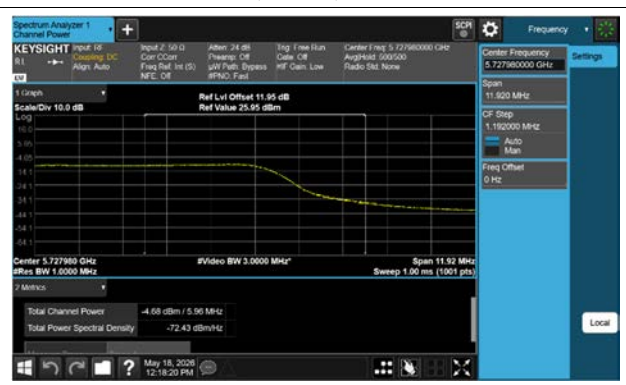
802.11ac(VHT40) UNII 3 Band



802.11ac(VHT80) UNII 2C Band



802.11ac(VHT80) UNII 3 Band

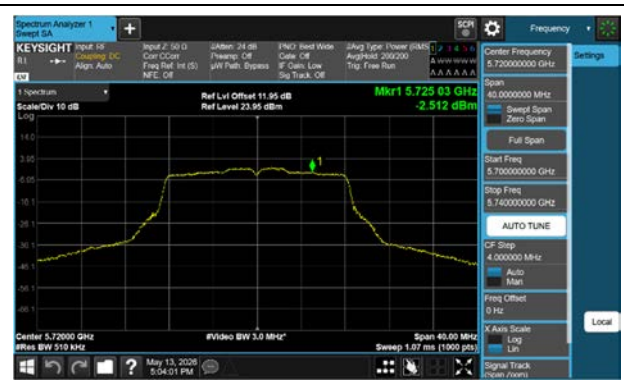


Test Plots(Power Spectral Density)
 [Ant.1]

802.11a UNII 2C Band



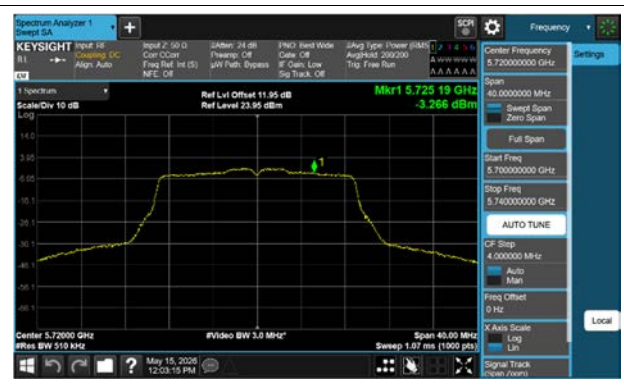
802.11a UNII 3 Band



802.11n(HT20) UNII 2C Band



802.11n(HT20) UNII 3 Band



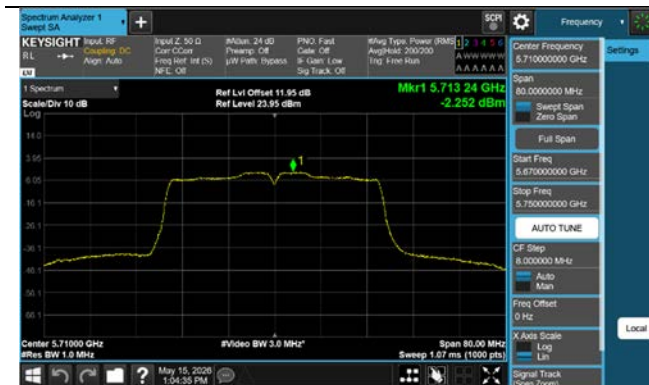
802.11ac(VHT20) UNII 2C Band



802.11ac(VHT20) UNII 3 Band



802.11n(HT40) UNII 2C Band



802.11n(HT40) UNII 3 Band



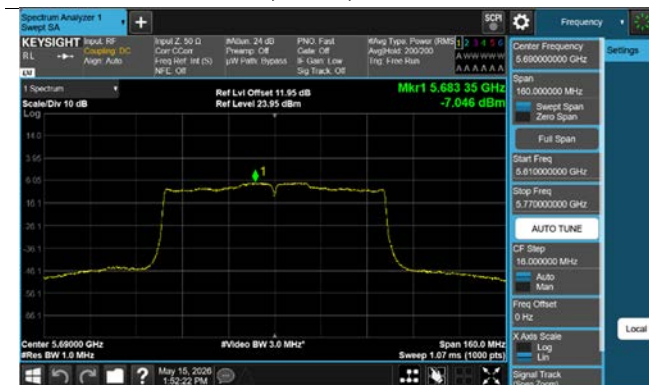
802.11ac(VHT40) UNII 2C Band



802.11ac(VHT40) UNII 3 Band



802.11ac(VHT80) UNII 2C Band



802.11ac(VHT80) UNII 3 Band



[Ant.2]

802.11a UNII 2C Band



802.11a UNII 3 Band



802.11n(HT20) UNII 2C Band



802.11n(HT20) UNII 3 Band



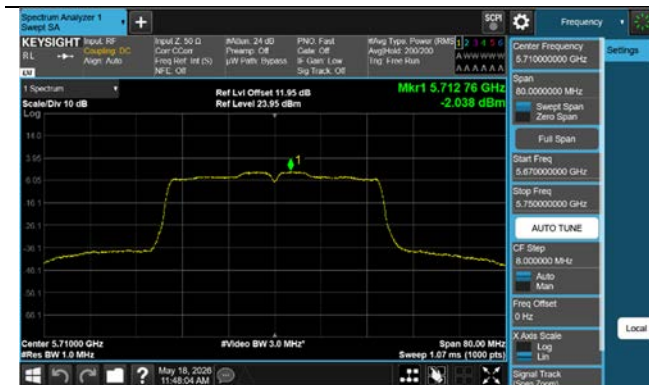
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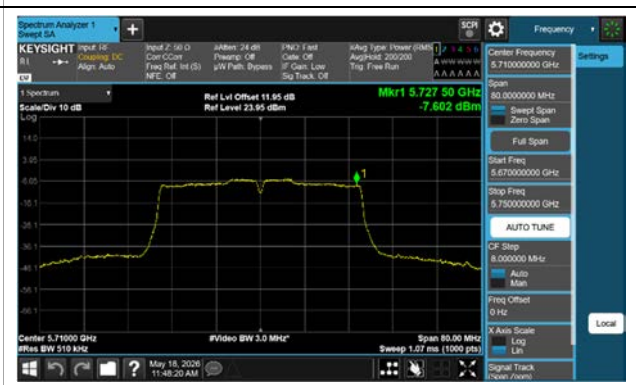
802.11ac(VHT20) UNII 3 Band



802.11n(HT40) UNII 2C Band



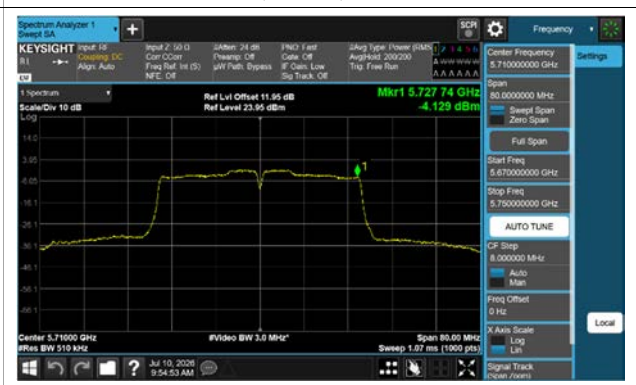
802.11n(HT40) UNII 3 Band



802.11ac(VHT40) UNII 2C Band



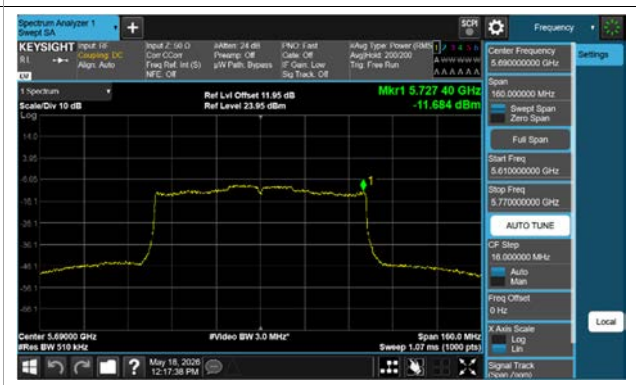
802.11ac(VHT40) UNII 3 Band



802.11ac(VHT80) UNII 2C Band



802.11ac(VHT80) UNII 3 Band



10.8 RADIATED SPURIOUS EMISSIONS

Frequency Range : 9 kHz – 30 MHz

Frequency	Measured Value	CL+AF+DF-AG	ANT. POL	Total	Limit	Margin
[MHz]	[dB μ V]	[dB/m]	[H/V]	[dB μ V/m]	[dB μ V/m]	[dB]

No Critical peaks found

Note:

1. The Measured Value of emissions are attenuated more than 20 dB below the permissible limits or the field strength is too small to be measured.
2. Distance extrapolation factor = $40\log(\text{specific distance} / \text{test distance})$ (dB)
3. Limit line = specific Limits (dB μ V) + Distance extrapolation factor

Frequency Range : Below 1 GHz

Frequency	Measured Value	A.F+C.L	ANT. POL	Total	Limit	Margin
[MHz]	[dB μ V]	[dB/m]	[H/V]	[dB μ V/m]	[dB μ V/m]	[dB]

No Critical peaks found

Note:

1. Radiated emissions measured in frequency range from 30 MHz to 1000 MHz were made with an instrument using Quasi peak detector mode

Frequency Range : Above 1 GHz

[SISO_Ant.1]

[UNII-1]

[802.11a]

Band : UNII 1			Operation Mode : 802.11a 6M				
CH.36 5180 MHz			Transfer Rate : 6M				
Frequency [MHz]	Measured value [dBμV]	CL+AF+DF-AG [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
10360	57.34	-2.98	V	54.36	68.20	13.84	PK
15540	54.01	-2.53	V	51.48	73.98	22.50	PK
15540	42.02	-2.53	V	39.49	53.98	14.49	AV
10360	57.02	-2.98	H	54.04	68.20	14.16	PK
15540	56.90	-2.53	H	54.37	73.98	19.61	PK
15540	43.84	-2.53	H	41.31	53.98	12.67	AV

Band : UNII 1			Operation Mode : 802.11a 6M				
CH.40 5200 MHz			Transfer Rate : 6M				
Frequency [MHz]	Measured value [dBμV]	CL+AF+DF-AG [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
10400	57.81	-2.73	V	55.08	68.20	13.12	PK
15600	54.73	-2.77	V	51.96	73.98	22.02	PK
15600	42.27	-2.77	V	39.50	53.98	14.48	AV
10400	57.63	-2.73	H	54.90	68.20	13.30	PK
15600	56.19	-2.77	H	53.42	73.98	20.56	PK
15600	43.51	-2.77	H	40.74	53.98	13.24	AV

Band : UNII 1			Operation Mode : 802.11a 6M				
CH.48 5240 MHz			Transfer Rate : 6M				
Frequency [MHz]	Measured value [dBμV]	CL+AF+DF-AG [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
10480	57.34	-2.36	V	54.98	68.20	13.22	PK
15720	55.53	-3.42	V	52.11	73.98	21.87	PK
15720	43.32	-3.42	V	39.90	53.98	14.08	AV
10480	58.22	-2.36	H	55.86	68.20	12.34	PK
15720	56.76	-3.42	H	53.34	73.98	20.64	PK
15720	44.24	-3.42	H	40.82	53.98	13.16	AV

[UNII-2A]

[802.11a]

Band : UNII 2A			Operation Mode : 802.11a 6M				
CH.52 5260 MHz			Transfer Rate : 6M				
Frequency [MHz]	Measured value [dBμV]	CL+AF+DF-AG [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
10520	56.36	-2.32	V	54.04	68.20	14.16	PK
15780	54.72	-3.68	V	51.04	73.98	22.94	PK
15780	42.36	-3.68	V	38.68	53.98	15.30	AV
10520	56.80	-2.32	H	54.48	68.20	13.72	PK
15780	55.13	-3.68	H	51.45	73.98	22.53	PK
15780	42.55	-3.68	H	38.87	53.98	15.11	AV

Band : UNII 2A			Operation Mode : 802.11a 6M				
CH.60 5300 MHz			Transfer Rate : 6M				
Frequency [MHz]	Measured value [dBμV]	CL+AF+DF-AG [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
10600	56.15	-2.23	V	53.92	73.98	20.06	PK
10600	43.35	-2.23	V	41.12	53.98	12.86	AV
15900	54.35	-3.64	V	50.71	73.98	23.27	PK
15900	41.42	-3.64	V	37.78	53.98	16.20	AV
10600	56.55	-2.23	H	54.32	73.98	19.66	PK
10600	43.64	-2.23	H	41.41	53.98	12.57	AV
15900	54.77	-3.64	H	51.13	73.98	22.85	PK
15900	41.92	-3.64	H	38.28	53.98	15.70	AV

Band : UNII 2A			Operation Mode : 802.11a 6M				
CH.64 5320 MHz			Transfer Rate : 6M				
Frequency [MHz]	Measured value [dBμV]	CL+AF+DF-AG [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
10640	55.33	-2.39	V	52.94	73.98	21.04	PK
10640	43.16	-2.39	V	40.77	53.98	13.21	AV
15960	53.73	-4.30	V	49.43	73.98	24.55	PK
15960	41.69	-4.30	V	37.39	53.98	16.59	AV
10640	55.56	-2.39	H	53.17	73.98	20.81	PK
10640	43.21	-2.39	H	40.82	53.98	13.16	AV
15960	54.14	-4.30	H	49.84	73.98	24.14	PK
15960	41.82	-4.30	H	37.52	53.98	16.46	AV

[UNII-2C]

[802.11a]

Band : UNII 2C			Operation Mode : 802.11a 6M				
CH.100	5500	MHz	Transfer Rate : 6M				
Frequency [MHz]	Measured value [dBμV]	CL+AF+DF-AG [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
11000	55.11	-2.24	V	52.87	73.98	21.11	PK
11000	42.58	-2.24	V	40.34	53.98	13.64	AV
16500	54.35	-2.93	V	51.42	68.20	16.78	PK
11000	56.11	-2.24	H	53.87	73.98	20.11	PK
11000	42.63	-2.24	H	40.39	53.98	13.59	AV
16500	54.51	-2.93	H	51.58	68.20	16.62	PK

Band : UNII 2C			Operation Mode : 802.11a 6M				
CH.120	5600	MHz	Transfer Rate : 6M				
Frequency [MHz]	Measured value [dBμV]	CL+AF+DF-AG [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
11200	54.75	-2.80	V	51.95	73.98	22.03	PK
11200	41.62	-2.80	V	38.82	53.98	15.16	AV
16800	54.54	-1.69	V	52.85	68.20	15.35	PK
11200	54.09	-2.80	H	51.29	73.98	22.69	PK
11200	41.46	-2.80	H	38.66	53.98	15.32	AV
16800	54.69	-1.69	H	53.00	68.20	15.20	PK

Band : UNII 2C			Operation Mode : 802.11a 6M				
CH.144	5720	MHz	Transfer Rate : 6M				
Frequency [MHz]	Measured value [dBμV]	CL+AF+DF-AG [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
11440	54.00	-2.66	V	51.34	73.98	22.64	PK
11440	40.87	-2.66	V	38.21	53.98	15.77	AV
17160	54.96	-2.80	V	52.16	68.20	16.04	PK
11440	53.88	-2.66	H	51.22	73.98	22.76	PK
11440	41.13	-2.66	H	38.47	53.98	15.51	AV
17160	55.34	-2.80	H	52.54	68.20	15.66	PK

[UNII-3]

[802.11a]

Band : UNII 3			Operation Mode : 802.11a 6M				
CH.149 5745 MHz			Transfer Rate : 6M				
Frequency [MHz]	Measured value [dBμV]	CL+AF+DF-AG [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
11490	53.54	-2.46	V	51.08	73.98	22.90	PK
11490	40.88	-2.46	V	38.42	53.98	15.56	AV
17235	54.65	-2.93	V	51.72	68.20	16.48	PK
11490	53.08	-2.46	H	50.62	73.98	23.36	PK
11490	41.00	-2.46	H	38.54	53.98	15.44	AV
17235	54.90	-2.93	H	51.97	68.20	16.23	PK

Band : UNII 3			Operation Mode : 802.11a 6M				
CH.157 5785 MHz			Transfer Rate : 6M				
Frequency [MHz]	Measured value [dBμV]	CL+AF+DF-AG [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
11570	54.16	-2.21	V	51.95	73.98	22.03	PK
11570	41.12	-2.21	V	38.91	53.98	15.07	AV
17355	55.11	-1.25	V	53.86	68.20	14.34	PK
11570	54.36	-2.21	H	52.15	73.98	21.83	PK
11570	41.86	-2.21	H	39.65	53.98	14.33	AV
17355	55.14	-1.25	H	53.89	68.20	14.31	PK

Band : UNII 3			Operation Mode : 802.11a 6M				
CH.165 5825 MHz			Transfer Rate : 6M				
Frequency [MHz]	Measured value [dBμV]	CL+AF+DF-AG [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
11650	54.12	-2.67	V	51.45	73.98	22.53	PK
11650	41.80	-2.67	V	39.13	53.98	14.85	AV
17475	55.71	-0.66	V	55.05	68.20	13.15	PK
11650	54.97	-2.67	H	52.30	73.98	21.68	PK
11650	42.69	-2.67	H	40.02	53.98	13.96	AV
17475	55.45	-0.66	H	54.79	68.20	13.41	PK

[SISO_Ant.2]

[UNII-1]

[802.11a]

Band : UNII 1			Operation Mode : 802.11a 6M				
CH.36 5180 MHz			Transfer Rate : 6M				
Frequency [MHz]	Measured value [dBμV]	CL+AF+DF-AG [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
10360	57.51	-2.98	V	54.53	68.20	13.67	PK
15540	54.16	-2.53	V	51.63	73.98	22.35	PK
15540	40.66	-2.53	V	38.13	53.98	15.85	AV
10360	56.34	-2.98	H	53.36	68.20	14.84	PK
15540	54.33	-2.53	H	51.80	73.98	22.18	PK
15540	40.75	-2.53	H	38.22	53.98	15.76	AV

Band : UNII 1			Operation Mode : 802.11a 6M				
CH.40 5200 MHz			Transfer Rate : 6M				
Frequency [MHz]	Measured value [dBμV]	CL+AF+DF-AG [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
10400	57.15	-2.73	V	54.42	68.20	13.78	PK
15600	54.91	-2.77	V	52.14	73.98	21.84	PK
15600	41.67	-2.77	V	38.90	53.98	15.08	AV
10400	56.32	-2.73	H	53.59	68.20	14.61	PK
15600	54.59	-2.77	H	51.82	73.98	22.16	PK
15600	41.63	-2.77	H	38.86	53.98	15.12	AV

Band : UNII 1			Operation Mode : 802.11a 6M				
CH.48 5240 MHz			Transfer Rate : 6M				
Frequency [MHz]	Measured value [dBμV]	CL+AF+DF-AG [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
10480	56.46	-2.36	V	54.10	68.20	14.10	PK
15720	55.30	-3.42	V	51.88	73.98	22.10	PK
15720	42.04	-3.42	V	38.62	53.98	15.36	AV
10480	56.61	-2.36	H	54.25	68.20	13.95	PK
15720	55.52	-3.42	H	52.10	73.98	21.88	PK
15720	42.05	-3.42	H	38.63	53.98	15.35	AV

[UNII-2A]

[802.11a]

Band : UNII 2A			Operation Mode : 802.11a 6M				
CH.52 5260 MHz			Transfer Rate : 6M				
Frequency [MHz]	Measured value [dBμV]	CL+AF+DF-AG [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
10520	55.50	-2.32	V	53.18	68.20	15.02	PK
15780	55.38	-3.68	V	51.70	73.98	22.28	PK
15780	41.08	-3.68	V	37.40	53.98	16.58	AV
10520	55.45	-2.32	H	53.13	68.20	15.07	PK
15780	55.75	-3.68	H	52.07	73.98	21.91	PK
15780	41.25	-3.68	H	37.57	53.98	16.41	AV

Band : UNII 2A			Operation Mode : 802.11a 6M				
CH.60 5300 MHz			Transfer Rate : 6M				
Frequency [MHz]	Measured value [dBμV]	CL+AF+DF-AG [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
10600	55.64	-2.23	V	53.41	73.98	20.57	PK
10600	41.95	-2.23	V	39.72	53.98	14.26	AV
15900	53.82	-3.64	V	50.18	73.98	23.80	PK
15900	40.80	-3.64	V	37.16	53.98	16.82	AV
10600	55.26	-2.23	H	53.03	73.98	20.95	PK
10600	41.98	-2.23	H	39.75	53.98	14.23	AV
15900	53.57	-3.64	H	49.93	73.98	24.05	PK
15900	40.86	-3.64	H	37.22	53.98	16.76	AV

Band : UNII 2A			Operation Mode : 802.11a 6M				
CH.64 5320 MHz			Transfer Rate : 6M				
Frequency [MHz]	Measured value [dBμV]	CL+AF+DF-AG [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
10640	54.89	-2.39	V	52.50	73.98	21.48	PK
10640	42.10	-2.39	V	39.71	53.98	14.27	AV
15960	53.93	-4.30	V	49.63	73.98	24.35	PK
15960	40.32	-4.30	V	36.02	53.98	17.96	AV
10640	56.11	-2.39	H	53.72	73.98	20.26	PK
10640	42.03	-2.39	H	39.64	53.98	14.34	AV
15960	53.86	-4.30	H	49.56	73.98	24.42	PK
15960	40.23	-4.30	H	35.93	53.98	18.05	AV

[UNII-2C]

[802.11a]

Band : UNII 2C			Operation Mode : 802.11a 6M				
CH.100 5500 MHz			Transfer Rate : 6M				
Frequency [MHz]	Measured value [dBμV]	CL+AF+DF-AG [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
11000	55.10	-2.24	V	52.86	73.98	21.12	PK
11000	41.92	-2.24	V	39.68	53.98	14.30	AV
16500	53.71	-2.93	V	50.78	68.20	17.42	PK
11000	55.52	-2.24	H	53.28	73.98	20.70	PK
11000	42.12	-2.24	H	39.88	53.98	14.10	AV
16500	53.84	-2.93	H	50.91	68.20	17.29	PK

Band : UNII 2C			Operation Mode : 802.11a 6M				
CH.120 5600 MHz			Transfer Rate : 6M				
Frequency [MHz]	Measured value [dBμV]	CL+AF+DF-AG [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
11200	54.63	-2.80	V	51.83	73.98	22.15	PK
11200	40.79	-2.80	V	37.99	53.98	15.99	AV
16800	55.18	-1.69	V	53.49	68.20	14.71	PK
11200	53.80	-2.80	H	51.00	73.98	22.98	PK
11200	40.87	-2.80	H	38.07	53.98	15.91	AV
16800	54.68	-1.69	H	52.99	68.20	15.21	PK

Band : UNII 2C			Operation Mode : 802.11a 6M				
CH.144 5720 MHz			Transfer Rate : 6M				
Frequency [MHz]	Measured value [dBμV]	CL+AF+DF-AG [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
11440	53.67	-2.66	V	51.01	73.98	22.97	PK
11440	40.26	-2.66	V	37.60	53.98	16.38	AV
17160	55.00	-2.80	V	52.20	68.20	16.00	PK
11440	53.59	-2.66	H	50.93	73.98	23.05	PK
11440	40.27	-2.66	H	37.61	53.98	16.37	AV
17160	55.11	-2.80	H	52.31	68.20	15.89	PK

[UNII-3]

[802.11a]

Band : UNII 3			Operation Mode : 802.11a 6M				
CH.149 5745 MHz			Transfer Rate : 6M				
Frequency [MHz]	Measured value [dBμV]	CL+AF+DF-AG [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
11490	53.82	-2.46	V	51.36	73.98	22.62	PK
11490	39.97	-2.46	V	37.51	53.98	16.47	AV
17235	54.83	-2.93	V	51.90	68.20	16.30	PK
11490	53.13	-2.46	H	50.67	73.98	23.31	PK
11490	40.01	-2.46	H	37.55	53.98	16.43	AV
17235	55.29	-2.93	H	52.36	68.20	15.84	PK

Band : UNII 3			Operation Mode : 802.11a 6M				
CH.157 5785 MHz			Transfer Rate : 6M				
Frequency [MHz]	Measured value [dBμV]	CL+AF+DF-AG [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
11570	54.32	-2.21	V	52.11	73.98	21.87	PK
11570	40.59	-2.21	V	38.38	53.98	15.60	AV
17355	55.11	-1.25	V	53.86	68.20	14.34	PK
11570	54.69	-2.21	H	52.48	73.98	21.50	PK
11570	40.59	-2.21	H	38.38	53.98	15.60	AV
17355	55.00	-1.25	H	53.75	68.20	14.45	PK

Band : UNII 3			Operation Mode : 802.11a 6M				
CH.165 5825 MHz			Transfer Rate : 6M				
Frequency [MHz]	Measured value [dBμV]	CL+AF+DF-AG [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
11650	54.50	-2.67	V	51.83	73.98	22.15	PK
11650	41.19	-2.67	V	38.52	53.98	15.46	AV
17475	55.35	-0.66	V	54.69	68.20	13.51	PK
11650	55.45	-2.67	H	52.78	73.98	21.20	PK
11650	41.27	-2.67	H	38.60	53.98	15.38	AV
17475	55.00	-0.66	H	54.34	68.20	13.86	PK

[MIMO_CDD(Ant1+Ant2)]

[UNII 1]

[802.11n_HT20]

Band : UNII 1			Operation Mode : 802.11n_HT20				
CH.36 5180 MHz			Transfer Rate : MCS0				
Frequency [MHz]	Measured value [dBμV]	CL+AF+DF-AG [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
10360	57.54	-2.98	V	54.56	68.20	13.64	PK
15540	54.17	-2.53	V	51.64	73.98	22.34	PK
15540	41.25	-2.53	V	38.72	53.98	15.26	AV
10360	58.75	-2.98	H	55.77	68.20	12.43	PK
15540	54.98	-2.53	H	52.45	73.98	21.53	PK
15540	41.73	-2.53	H	39.20	53.98	14.78	AV

Band : UNII 1			Operation Mode : 802.11n_HT20				
CH.40 5200 MHz			Transfer Rate : MCS0				
Frequency [MHz]	Measured value [dBμV]	CL+AF+DF-AG [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
10400	58.78	-2.73	V	56.05	68.20	12.15	PK
15600	55.16	-2.77	V	52.39	73.98	21.59	PK
15600	41.98	-2.77	V	39.21	53.98	14.77	AV
10400	59.60	-2.73	H	56.87	68.20	11.33	PK
15600	54.81	-2.77	H	52.04	73.98	21.94	PK
15600	41.90	-2.77	H	39.13	53.98	14.85	AV

Band : UNII 1			Operation Mode : 802.11n_HT20				
CH.48 5240 MHz			Transfer Rate : MCS0				
Frequency [MHz]	Measured value [dBμV]	CL+AF+DF-AG [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
10480	58.56	-2.36	V	56.20	68.20	12.00	PK
15720	55.10	-3.42	V	51.68	73.98	22.30	PK
15720	42.24	-3.42	V	38.82	53.98	15.16	AV
10480	60.56	-2.36	H	58.20	68.20	10.00	PK
15720	55.66	-3.42	H	52.24	73.98	21.74	PK
15720	42.98	-3.42	H	39.56	53.98	14.42	AV

[UNII 2A]

[802.11n_HT20]

Band : UNII 2A			Operation Mode : 802.11n_HT20				
CH.52 5260 MHz			Transfer Rate : MCS0				
Frequency [MHz]	Measured value [dBμV]	CL+AF+DF-AG [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
10520	61.35	-2.32	V	59.03	68.20	9.17	PK
15780	54.57	-3.68	V	50.89	73.98	23.09	PK
15780	42.04	-3.68	V	38.36	53.98	15.62	AV
10520	63.04	-2.32	H	60.72	68.20	7.48	PK
15780	55.27	-3.68	H	51.59	73.98	22.39	PK
15780	43.16	-3.68	H	39.48	53.98	14.50	AV

Band : UNII 2A			Operation Mode : 802.11n_HT20				
CH.60 5300 MHz			Transfer Rate : MCS0				
Frequency [MHz]	Measured value [dBμV]	CL+AF+DF-AG [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
10600	59.85	-2.23	V	57.62	73.98	16.36	PK
10600	45.57	-2.23	V	43.34	53.98	10.64	AV
15900	53.78	-3.64	V	50.14	73.98	23.84	PK
15900	41.42	-3.64	V	37.78	53.98	16.20	AV
10600	61.87	-2.23	H	59.64	73.98	14.34	PK
10600	48.09	-2.23	H	45.86	53.98	8.12	AV
15900	56.03	-3.64	H	52.39	73.98	21.59	PK
15900	42.97	-3.64	H	39.33	53.98	14.65	AV

Band : UNII 2A			Operation Mode : 802.11n_HT20				
CH.64 5320 MHz			Transfer Rate : MCS0				
Frequency [MHz]	Measured value [dBμV]	CL+AF+DF-AG [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
10640	59.23	-2.39	V	56.84	73.98	17.14	PK
10640	45.61	-2.39	V	43.22	53.98	10.76	AV
15960	54.09	-4.30	V	49.79	73.98	24.19	PK
15960	41.51	-4.30	V	37.21	53.98	16.77	AV
10640	61.62	-2.39	H	59.23	73.98	14.75	PK
10640	47.89	-2.39	H	45.50	53.98	8.48	AV
15960	55.63	-4.30	H	51.33	73.98	22.65	PK
15960	42.79	-4.30	H	38.49	53.98	15.49	AV

[UNII 2C]

[802.11ac_VHT20]

Band : UNII 2C			Operation Mode : 802.11ac_VHT20				
CH.100 5500MHz			Transfer Rate : MCS0				
Frequency [MHz]	Measured value [dBμV]	CL+AF+DF-AG [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
11000	55.97	-2.24	V	53.73	73.98	20.25	PK
11000	42.71	-2.24	V	40.47	53.98	13.51	AV
16500	54.63	-2.93	V	51.70	68.20	16.50	PK
11000	55.92	-2.24	H	53.68	73.98	20.30	PK
11000	43.14	-2.24	H	40.90	53.98	13.08	AV
16500	55.81	-2.93	H	52.88	68.20	15.32	PK

Band : UNII 2C			Operation Mode : 802.11ac_VHT20				
CH.104 5520MHz			Transfer Rate : MCS0				
Frequency [MHz]	Measured value [dBμV]	CL+AF+DF-AG [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
11040	55.78	-2.22	V	53.56	73.98	20.42	PK
11040	42.74	-2.22	V	40.52	53.98	13.46	AV
16560	55.20	-2.57	V	52.63	68.20	15.57	PK
11040	56.15	-2.22	H	53.93	73.98	20.05	PK
11040	43.24	-2.22	H	41.02	53.98	12.96	AV
16560	55.97	-2.57	H	53.40	68.20	14.80	PK

Band : UNII 2C			Operation Mode : 802.11ac_VHT20				
CH.120 5600MHz			Transfer Rate : MCS0				
Frequency [MHz]	Measured value [dBμV]	CL+AF+DF-AG [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
11200	54.88	-2.80	V	52.08	73.98	21.90	PK
11200	42.55	-2.80	V	39.75	53.98	14.23	AV
16800	55.47	-1.69	V	53.78	68.20	14.42	PK
11200	55.64	-2.80	H	52.84	73.98	21.14	PK
11200	42.75	-2.80	H	39.95	53.98	14.03	AV
16800	55.27	-1.69	H	53.58	68.20	14.62	PK

Band : UNII 2C			Operation Mode : 802.11ac_VHT20				
CH.136 5680MHz			Transfer Rate : MCS0				
Frequency [MHz]	Measured value [dBμV]	CL+AF+DF-AG [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
11360	54.01	-2.81	V	51.20	73.98	22.78	PK
11360	41.55	-2.81	V	38.74	53.98	15.24	AV
17040	56.20	-2.58	V	53.62	68.20	14.58	PK
11360	54.73	-2.81	H	51.92	73.98	22.06	PK
11360	41.43	-2.81	H	38.62	53.98	15.36	AV
17040	56.18	-2.58	H	53.60	68.20	14.60	PK

Band : UNII 2C			Operation Mode : 802.11ac_VHT20				
CH.140 5700MHz			Transfer Rate : MCS0				
Frequency [MHz]	Measured value [dBμV]	CL+AF+DF-AG [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
11400	53.97	-2.66	V	51.31	73.98	22.67	PK
11400	41.01	-2.66	V	38.35	53.98	15.63	AV
17100	55.24	-2.48	V	52.76	68.20	15.44	PK
11400	54.50	-2.66	H	51.84	73.98	22.14	PK
11400	41.26	-2.66	H	38.60	53.98	15.38	AV
17100	55.36	-2.48	H	52.88	68.20	15.32	PK

Band : UNII 2C			Operation Mode : 802.11ac_VHT20				
CH.144 5720MHz			Transfer Rate : MCS0				
Frequency [MHz]	Measured value [dBμV]	CL+AF+DF-AG [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
11440	54.16	-2.66	V	51.50	73.98	22.48	PK
11440	41.22	-2.66	V	38.56	53.98	15.42	AV
17160	55.47	-2.80	V	52.67	68.20	15.53	PK
11440	54.09	-2.66	H	51.43	73.98	22.55	PK
11440	41.22	-2.66	H	38.56	53.98	15.42	AV
17160	56.28	-2.80	H	53.48	68.20	14.72	PK

[UNII 2C]

[802.11ac_VHT40]

Band : UNII 2C			Operation Mode : 802.11ac_VHT40				
CH.102 5510MHz			Transfer Rate : MCS0				
Frequency [MHz]	Measured value [dBμV]	CL+AF+DF-AG [dB]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
11020	55.61	-2.16	V	53.45	73.98	20.53	PK
11020	43.23	-2.16	V	41.07	53.98	12.91	AV
16530	53.59	-2.39	V	51.20	68.20	17.00	PK
11020	55.63	-2.16	H	53.47	73.98	20.51	PK
11020	43.33	-2.16	H	41.17	53.98	12.81	AV
16530	53.92	-2.39	H	51.53	68.20	16.67	PK

Band : UNII 2C			Operation Mode : 802.11ac_VHT40				
CH.110 5550MHz			Transfer Rate : MCS0				
Frequency [MHz]	Measured value [dBμV]	CL+AF+DF-AG [dB]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
11100	54.51	-2.34	V	52.17	73.98	21.81	PK
11100	42.38	-2.34	V	40.04	53.98	13.94	AV
16650	53.92	-2.63	V	51.29	68.20	16.91	PK
11100	54.92	-2.34	H	52.58	73.98	21.40	PK
11100	42.47	-2.34	H	40.13	53.98	13.85	AV
16650	54.35	-2.63	H	51.72	68.20	16.48	PK

Band : UNII 2C			Operation Mode : 802.11ac_VHT40				
CH.118 5590MHz			Transfer Rate : MCS0				
Frequency [MHz]	Measured value [dBμV]	CL+AF+DF-AG [dB]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
11180	54.08	-2.59	V	51.49	73.98	22.49	PK
11180	42.14	-2.59	V	39.55	53.98	14.43	AV
16770	54.95	-1.91	V	53.04	68.20	15.16	PK
11180	55.88	-2.59	H	53.29	73.98	20.69	PK
11180	42.83	-2.59	H	40.24	53.98	13.74	AV
16770	54.53	-1.91	H	52.62	68.20	15.58	PK

Band : UNII 2C			Operation Mode : 802.11ac_VHT40				
CH.126 5630MHz			Transfer Rate : MCS0				
Frequency [MHz]	Measured value [dBμV]	CL+AF+DF-AG [dB]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
11260	53.70	-3.07	V	50.63	73.98	23.35	PK
11260	41.15	-3.07	V	38.08	53.98	15.90	AV
16890	55.15	-2.11	V	53.04	68.20	15.16	PK
11260	53.79	-3.07	H	50.72	73.98	23.26	PK
11260	41.31	-3.07	H	38.24	53.98	15.74	AV
16890	55.53	-2.11	H	53.42	68.20	14.78	PK

Band : UNII 2C			Operation Mode : 802.11ac_VHT40				
CH.134 5670MHz			Transfer Rate : MCS0				
Frequency [MHz]	Measured value [dBμV]	CL+AF+DF-AG [dB]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
11340	53.51	-2.87	V	50.64	73.98	23.34	PK
11340	41.24	-2.87	V	38.37	53.98	15.61	AV
17010	55.54	-2.97	V	52.57	68.20	15.63	PK
11340	54.01	-2.87	H	51.14	73.98	22.84	PK
11340	41.13	-2.87	H	38.26	53.98	15.72	AV
17010	55.81	-2.97	H	52.84	68.20	15.36	PK

Band : UNII 2C			Operation Mode : 802.11ac_VHT40				
CH.142 5710MHz			Transfer Rate : MCS0				
Frequency [MHz]	Measured value [dBμV]	CL+AF+DF-AG [dB]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
11420	53.88	-2.71	V	51.17	73.98	22.81	PK
11420	41.24	-2.71	V	38.53	53.98	15.45	AV
17130	54.13	-2.18	V	51.95	68.20	16.25	PK
11420	53.82	-2.71	H	51.11	73.98	22.87	PK
11420	41.11	-2.71	H	38.40	53.98	15.58	AV
17130	55.00	-2.18	H	52.82	68.20	15.38	PK

[UNII 3]
[802.11n_HT20]

Band : UNII 3			Operation Mode : 802.11n_HT20				
CH.149 5745 MHz			Transfer Rate : MCS0				
Frequency [MHz]	Measured value [dBμV]	CL+AF+DF-AG [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
11490	53.60	-2.46	V	51.14	73.98	22.84	PK
11490	40.60	-2.46	V	38.14	53.98	15.84	AV
17235	56.09	-2.93	V	53.16	68.20	15.04	PK
11490	54.31	-2.46	H	51.85	73.98	22.13	PK
11490	41.65	-2.46	H	39.19	53.98	14.79	AV
17235	58.02	-2.93	H	55.09	68.20	13.11	PK

Band : UNII 3			Operation Mode : 802.11n_HT20				
CH.157 5785 MHz			Transfer Rate : MCS0				
Frequency [MHz]	Measured value [dBμV]	CL+AF+DF-AG [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
11570	54.81	-2.21	V	52.60	73.98	21.38	PK
11570	41.46	-2.21	V	39.25	53.98	14.73	AV
17355	56.14	-1.25	V	54.89	68.20	13.31	PK
11570	55.42	-2.21	H	53.21	73.98	20.77	PK
11570	42.27	-2.21	H	40.06	53.98	13.92	AV
17355	57.24	-1.25	H	55.99	68.20	12.21	PK

Band : UNII 3			Operation Mode : 802.11n_HT20				
CH.165 5825 MHz			Transfer Rate : MCS0				
Frequency [MHz]	Measured value [dBμV]	CL+AF+DF-AG [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
11650	54.65	-2.67	V	51.98	73.98	22.00	PK
11650	41.79	-2.67	V	39.12	53.98	14.86	AV
17475	55.42	-0.66	V	54.76	68.20	13.44	PK
11650	55.38	-2.67	H	52.71	73.98	21.27	PK
11650	42.84	-2.67	H	40.17	53.98	13.81	AV
17475	56.39	-0.66	H	55.73	68.20	12.47	PK

[Simultaneous transmission Scenario]

Scenario 1

ANT ALL(MIMO) 5 GHz 802.11n(HT20) Ch. 52_MCS0 + ANT1_BTLE 1M 37 Bytes Ch. 37

Band : UNII 2A			Operation Mode : Wi-Fi 5G MIMO_Thread (11n20_Ch.52 + BTLE)				
CH.52 5260MHz			Transfer Rate : MCS0				
Frequency [MHz]	Measured value [dBμV]	CL+AF+DF-AG [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
10520	59.79	-2.32	V	57.47	68.20	10.73	PK
15780	56.03	-3.68	V	52.35	73.98	21.63	PK
15780	42.95	-3.68	V	39.27	53.98	14.71	AV
10520	61.89	-2.32	H	59.57	68.20	8.63	PK
15780	56.56	-3.68	H	52.88	73.98	21.10	PK
15780	43.31	-3.68	H	39.63	53.98	14.35	AV

Scenario 2

ANT ALL(MIMO) 5 GHz 802.11n(HT20) Ch. 52_MCS0 + ANT1_Thread 250 kpbs Ch. 18

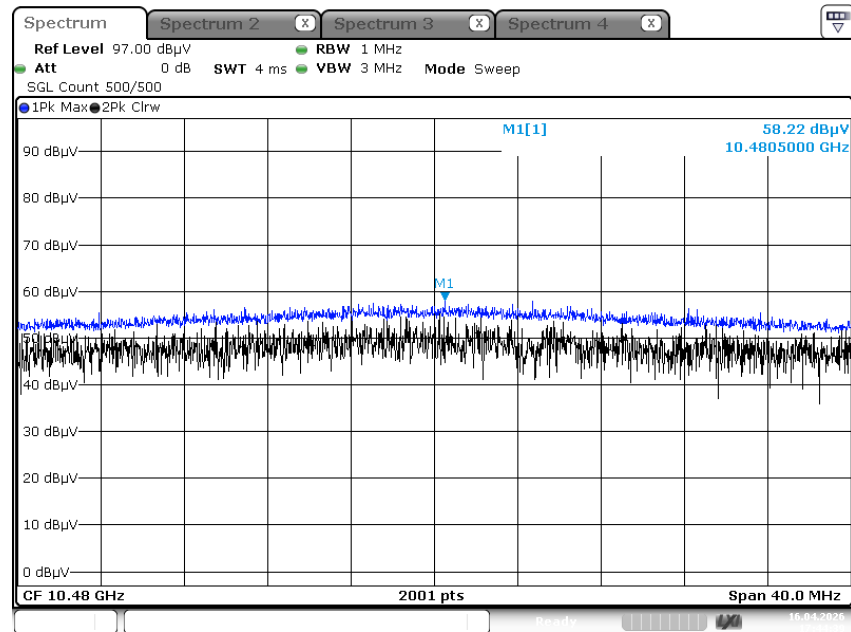
Band : UNII 2A			Operation Mode : Wi-Fi 5G MIMO_Thread (11n20_Ch.52 + Thread)				
CH.52 5260MHz			Transfer Rate : MCS0				
Frequency [MHz]	Measured value [dBμV]	CL+AF+DF-AG [dB/m]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
10520	60.87	-2.32	V	58.55	68.20	9.65	PK
15780	55.88	-3.68	V	52.20	73.98	21.78	PK
15780	42.54	-3.68	V	38.86	53.98	15.12	AV
10520	60.46	-2.32	H	58.14	68.20	10.06	PK
15780	56.35	-3.68	H	52.67	73.98	21.31	PK
15780	42.99	-3.68	H	39.31	53.98	14.67	AV

Test Plots

Note: Only the worst case plot for Radiated Spurious Emissions.

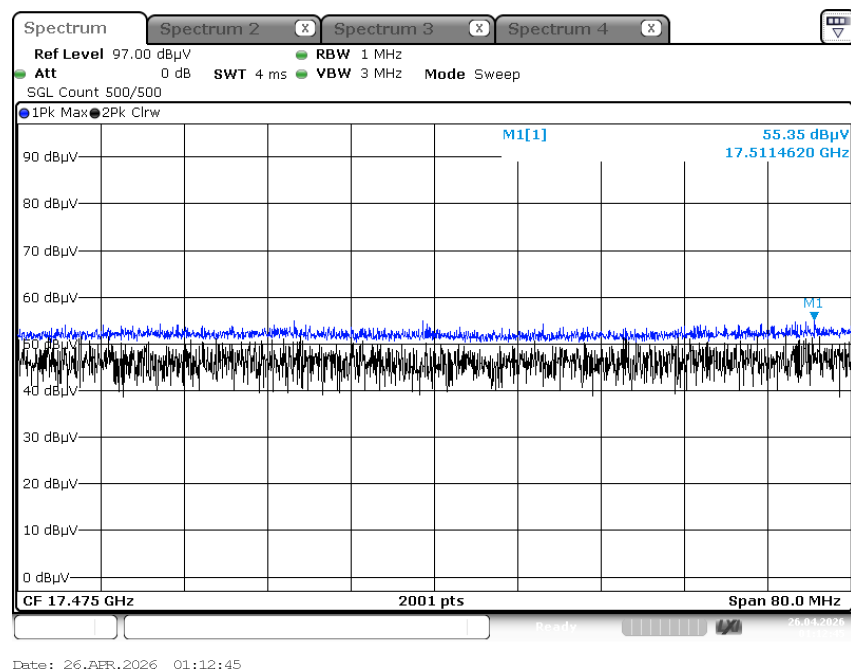
[SISO_Ant.1]

Radiated Spurious Emissions plot – Peak Result (802.11a, Ch.48 Spurious Emissions, Y-H)



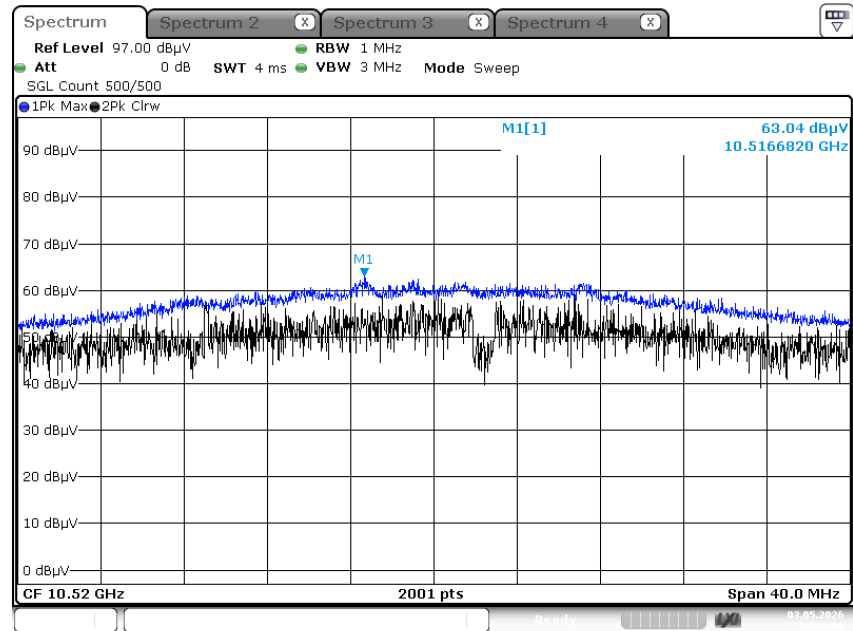
[SISO_Ant.2]

Radiated Spurious Emissions plot – Peak Result (802.11a, Ch.165 Spurious Emissions, Y-V)



[MIMO_CDD(Ant1+Ant2)]

Radiated Spurious Emissions plot – Peak Result (802.11n(HT20), Ch.52 Spurious Emissions, Z-H)



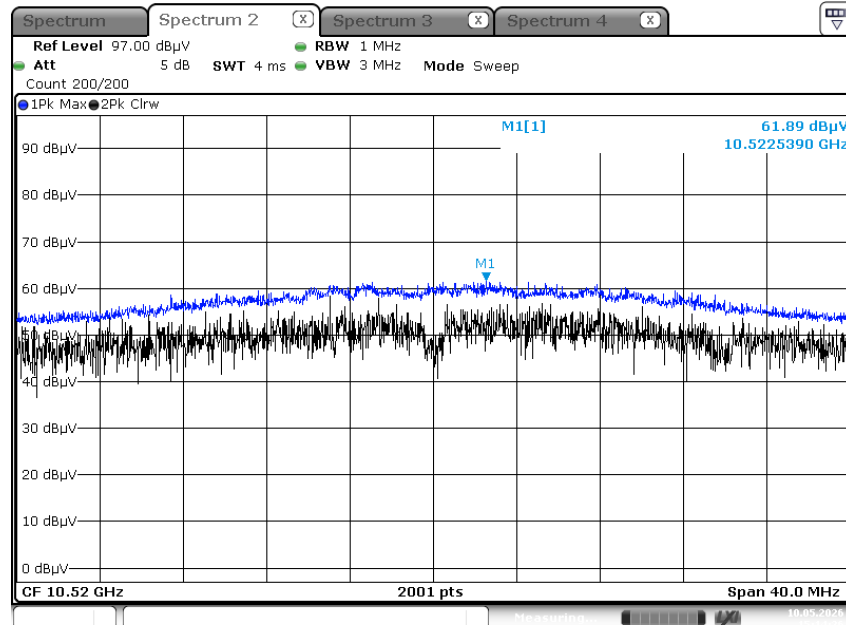
Date: 3.MAY.2026 16:43:06

[Simultaneous transmission Scenario]

Scenario 1

ANT ALL(MIMO) 5 GHz 802.11n(HT20) Ch. 52_MCS0 + ANT1_BTLE 1M 37 Bytes Ch. 37

Radiated Spurious Emissions plot – Peak Result (Spurious Emissions, Y-H)

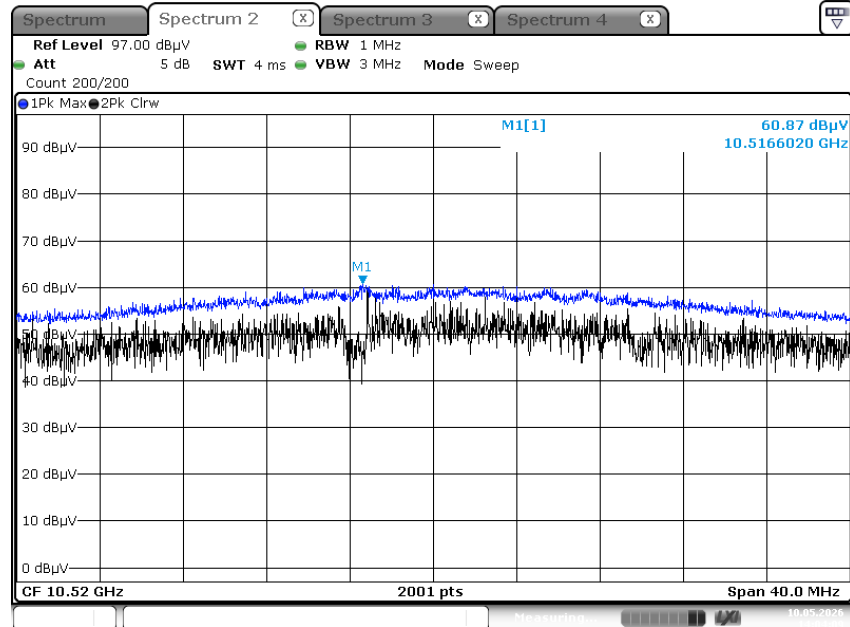


Date: 10.MAY.2026 15:14:27

Scenario 2

ANT ALL(MIMO) 5 GHz 802.11n(HT20) Ch. 52_MCS0 + ANT1_Thread 250 kpbs Ch. 18

Radiated Spurious Emissions plot – Peak Result (Spurious Emissions, Z-V)



Date: 10.MAY.2026 14:04:09

10.9 RADIATED RESTRICTED BAND EDGE

[SISO_Ant.1]

[802.11a]

[UNII-1]

Operation Mode : 802.11a_20		Tone & RU Index : -		Transfer Rate : 6M		
Channel No. : 36		Frequency : 5180 MHz		Band : UNII-1		
Frequency [MHz]	Measured Value [dBμV]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
4500 - 5150	67.53	V	67.53	73.98	6.45	PK
4500 - 5150	50.49	V	50.49	53.98	3.49	AV

[UNII-2A]

Operation Mode : 802.11a_20		Tone & RU Index : -		Transfer Rate : 6M		
Channel No. : 64		Frequency : 5320 MHz		Band : UNII-2A		
Frequency [MHz]	Measured Value [dBμV]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
5350 - 5460	64.55	V	64.55	73.98	9.43	PK
5350 - 5460	49.28	V	49.28	53.98	4.70	AV

[UNII-2C]

Operation Mode : 802.11a_20		Tone & RU Index : -		Transfer Rate : 6M		
Channel No. : 100		Frequency : 5500 MHz		Band : UNII-2C		
Frequency [MHz]	Measured Value [dBμV]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
5350 - 5460	56.76	V	56.76	73.98	17.22	PK
5350 - 5460	43.26	V	43.26	53.98	10.72	AV
5460 - 5470	61.49	V	61.49	68.23	6.74	PK

Operation Mode : 802.11a_20		Tone & RU Index : -		Transfer Rate : 6M		
Channel No. : 104		Frequency : 5520 MHz		Band : UNII-2C		
Frequency [MHz]	Measured Value [dBμV]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
5350 - 5460	55.23	V	55.23	73.98	18.75	PK
5350 - 5460	42.02	V	42.02	53.98	11.96	AV
5460 - 5470	56.29	V	56.29	68.23	11.94	PK

[SISO_Ant.2]

[802.11a]

[UNII-1]

Operation Mode :		802.11a_20		Tone & RU Index :		-		Transfer Rate :		6M	
Channel No. :		36		Frequency :		5180 MHz		Band :		UNII-1	
Frequency [MHz]		Measured Value [dBμV]		ANT. POL [H/V]		Total [dBμV/m]		Limit [dBμV/m]		Margin [dB] Measurement Type	
4500 - 5150		63.87		V		63.87		73.98		10.11 PK	
4500 - 5150		49.12		V		49.12		53.98		4.86 AV	

[UNII-2A]

Operation Mode : 802.11a_20		Tone & RU Index : -		Transfer Rate : 6M		
Channel No. : 64		Frequency : 5320 MHz		Band : UNII-2A		
Frequency [MHz]	Measured Value [dBμV]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
5350 - 5460	66.24	V	66.24	73.98	7.74	PK
5350 - 5460	49.63	V	49.63	53.98	4.35	AV

[UNII-2C]

Operation Mode :		802.11a_20	Tone & RU Index :		-	Transfer Rate :		6M
Channel No. :		100	Frequency :		5500 MHz	Band :		UNII-2C
Frequency [MHz]	Measured Value [dBμV]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type		
5350 - 5460	55.29	V	55.29	73.98	18.69	PK		
5350 - 5460	42.22	V	42.22	53.98	11.76	AV		
5460 - 5470	61.96	V	61.96	68.23	6.27	PK		

Operation Mode : 802.11a_20		Tone & RU Index : -		Transfer Rate : 6M		
Channel No. : 104		Frequency : 5520 MHz		Band : UNII-2C		
Frequency [MHz]	Measured Value [dBμV]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
5350 - 5460	54.57	V	54.57	73.98	19.41	PK
5350 - 5460	41.79	V	41.79	53.98	12.19	AV
5460 - 5470	54.60	V	54.60	68.23	13.63	PK

[MIMO_CDD(Ant1+Ant2)]

[UNII-1]

[802.11n(HT20)]

Operation Mode :		802.11n_20	Tone & RU Index :		-	MCS index :		MCS0
Channel No. :		36	Frequency :		5180 MHz	Band :		UNII-1
Frequency [MHz]	Measured Value [dBμV]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type		
4500 - 5150	63.16	H	63.16	73.98	10.82	PK		
4500 - 5150	50.67	H	50.67	53.98	3.31	AV		

[802.11ac(VHT20)]

Operation Mode :		802.11ac_20	Tone & RU Index :		-	MCS index :		MCS0
Channel No. :		36	Frequency :		5180 MHz	Band :		UNII-1
Frequency [MHz]	Measured Value [dBμV]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type		
4500 - 5150	59.67	H	59.67	73.98	14.31	PK		
4500 - 5150	48.27	H	48.27	53.98	5.71	AV		

[802.11n(HT40)]

Operation Mode :		802.11n_40	Tone & RU Index :		-	MCS index :		MCS0
Channel No. :		38	Frequency :		5190 MHz	Band :		UNII-1
Frequency [MHz]	Measured Value [dBμV]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type		
4500 - 5150	59.22	H	59.22	73.98	14.76	PK		
4500 - 5150	47.40	H	47.40	53.98	6.58	AV		

[802.11ac(VHT40)]

Operation Mode :		802.11ac_40	Tone & RU Index :		-	MCS index :		MCS0
Channel No. :		38	Frequency :		5190 MHz	Band :		UNII-1
Frequency [MHz]	Measured Value [dBμV]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type		
4500 - 5150	59.85	H	59.85	73.98	14.13	PK		
4500 - 5150	47.79	H	47.79	53.98	6.19	AV		

[802.11ac(VHT80)]

Operation Mode :		802.11ac_80	Tone & RU Index :		-	MCS index :		MCS0
Channel No. :		42	Frequency :		5210 MHz	Band :		UNII-1
Frequency [MHz]	Measured Value [dBμV]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type		
4500 - 5150	60.74	H	60.74	73.98	13.24	PK		
4500 - 5150	46.81	H	46.81	53.98	7.17	AV		

[UNII-2A]
[802.11n(HT20)]

Operation Mode :		802.11n_20	Tone & RU Index :		-	MCS index :		MCS0
Channel No. :		64	Frequency :		5320 MHz	Band :		UNII-2A
Frequency [MHz]	Measured Value [dBμV]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type		
5350 - 5460	68.27	H	68.27	73.98	5.71	PK		
5350 - 5460	49.62	H	49.62	53.98	4.36	AV		

[802.11ac(VHT20)]

Operation Mode :		802.11ac_20		Tone & RU Index :		-		MCS index :		MCS0	
Channel No. :		64		Frequency :		5320 MHz		Band :		UNII-2A	
Frequency [MHz]	Measured Value [dBμV]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type					
5350 - 5460	69.36	H	69.36	73.98	4.62	PK					
5350 - 5460	50.27	H	50.27	53.98	3.71	AV					

[802.11n(HT40)]

Operation Mode :		802.11n_40		Tone & RU Index :		-		MCS index :		MCS0	
Channel No. :		62		Frequency :		5310 MHz		Band :		UNII-2A	
Frequency [MHz]	Measured Value [dBμV]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type					
5350 - 5460	60.69	H	60.69	73.98	13.29	PK					
5350 - 5460	47.80	H	47.80	53.98	6.18	AV					

[802.11ac(VHT40)]

Operation Mode :		802.11ac_40		Tone & RU Index :		-		MCS index :		MCS0	
Channel No. :		62		Frequency :		5310 MHz		Band :		UNII-2A	
Frequency [MHz]	Measured Value [dBμV]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type					
5350 - 5460	61.72	H	61.72	73.98	12.26	PK					
5350 - 5460	48.19	H	48.19	53.98	5.79	AV					

[802.11ac(VHT80)]

Operation Mode :		802.11ac_80		Tone & RU Index :		-		MCS index :		MCS0	
Channel No. :		58		Frequency :		5290 MHz		Band :		UNII-2A	
Frequency [MHz]	Measured Value [dBμV]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type					
5350 - 5460	62.03	H	62.03	73.98	11.95	PK					
5350 - 5460	50.08	H	50.08	53.98	3.90	AV					

**[UNII-2C]
[802.11n(HT20)]**

Operation Mode :		802.11n_20		Tone & RU Index :		-		MCS index :		MCS0	
Channel No. :		100		Frequency :		5500 MHz		Band :		UNII-2C	
Frequency [MHz]		Measured Value [dBμV]		ANT. POL [H/V]		Total [dBμV/m]		Limit [dBμV/m]		Margin [dB] Measurement Type	
5350 - 5460		55.74		H		55.74		73.98		18.24 PK	
5350 - 5460		41.68		H		41.68		53.98		12.30 AV	
5460 - 5470		54.92		H		54.92		68.23		13.31 PK	

[802.11ac(VHT20)]

Operation Mode :		802.11ac_20		Tone & RU Index :		-		MCS index :		MCS0	
Channel No. :		100		Frequency :		5500 MHz		Band :		UNII-2C	
Frequency [MHz]	Measured Value [dBμV]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type					
5350 - 5460	57.45	V	57.45	73.98	16.53	PK					
5350 - 5460	43.99	V	43.99	53.98	9.99	AV					
5460 - 5470	63.73	V	63.73	68.23	4.50	PK					

Operation Mode :		802.11ac_20	Tone & RU Index :		-	MCS index :	MCS0
Channel No. :		104	Frequency :		5520 MHz	Band :	UNII-2C
Frequency [MHz]	Measured Value [dBμV]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type	
5350 - 5460	57.30	V	57.30	73.98	16.68	PK	
5350 - 5460	43.72	V	43.72	53.98	10.26	AV	
5460 - 5470	56.82	V	56.82	68.23	11.41	PK	

[802.11n(HT40)]

Operation Mode :		802.11n_40	Tone & RU Index :		-	MCS index :		MCS0
Channel No. :		102	Frequency :		5510 MHz	Band :		UNII-2C
Frequency [MHz]	Measured Value [dBμV]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type		
5350 - 5460	57.05	H	57.05	73.98	16.93	PK		
5350 - 5460	44.11	H	44.11	53.98	9.87	AV		
5460 - 5470	63.91	H	63.91	68.23	4.32	PK		

[802.11ac(VHT40)]

Operation Mode :		802.11ac_40	Tone & RU Index :		-	MCS index :		MCS0
Channel No. :		102	Frequency :		5510 MHz	Band :		UNII-2C
Frequency [MHz]	Measured Value [dBμV]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type		
5350 - 5460	58.73	V	58.73	73.98	15.25	PK		
5350 - 5460	44.31	V	44.31	53.98	9.67	AV		
5460 - 5470	63.73	V	63.73	68.23	4.50	PK		

Operation Mode : 802.11ac_40		Tone & RU Index : -		MCS index : MCS0		
Channel No. : 110		Frequency : 5550 MHz		Band : UNII-2C		
Frequency [MHz]	Measured Value [dBμV]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
5350 - 5460	57.15	V	57.15	73.98	16.83	PK
5350 - 5460	44.19	V	44.19	53.98	9.79	AV
5460 - 5470	57.08	V	57.08	68.23	11.15	PK

[802.11ac(VHT80)]

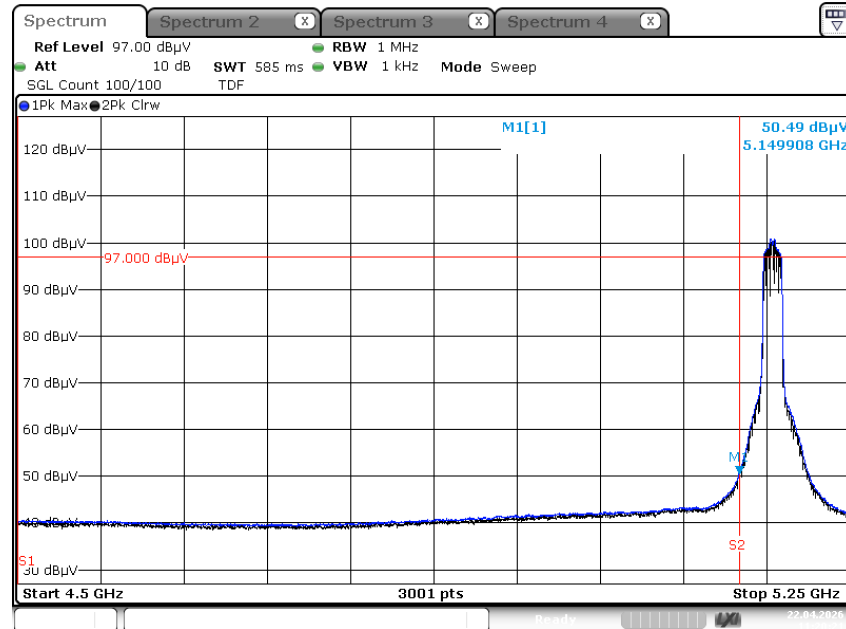
Operation Mode : 802.11ac_80		Tone & RU Index : -		MCS index : MCS0		
Channel No. : 106		Frequency : 5530 MHz		Band : UNII-2C		
Frequency [MHz]	Measured Value [dBμV]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
5350 - 5460	61.22	H	61.22	73.98	12.76	PK
5350 - 5460	50.29	H	50.29	53.98	3.69	AV
5460 - 5470	63.01	H	63.01	68.23	5.22	PK

Operation Mode : 802.11ac_80		Tone & RU Index : -		MCS index : MCS0		
Channel No. : 122		Frequency : 5610 MHz		Band : UNII-2C		
Frequency [MHz]	Measured Value [dBμV]	ANT. POL [H/V]	Total [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Measurement Type
5350 - 5460	54.49	H	54.49	73.98	19.49	PK
5350 - 5460	42.62	H	42.62	53.98	11.36	AV
5460 - 5470	53.64	H	53.64	68.23	14.59	PK

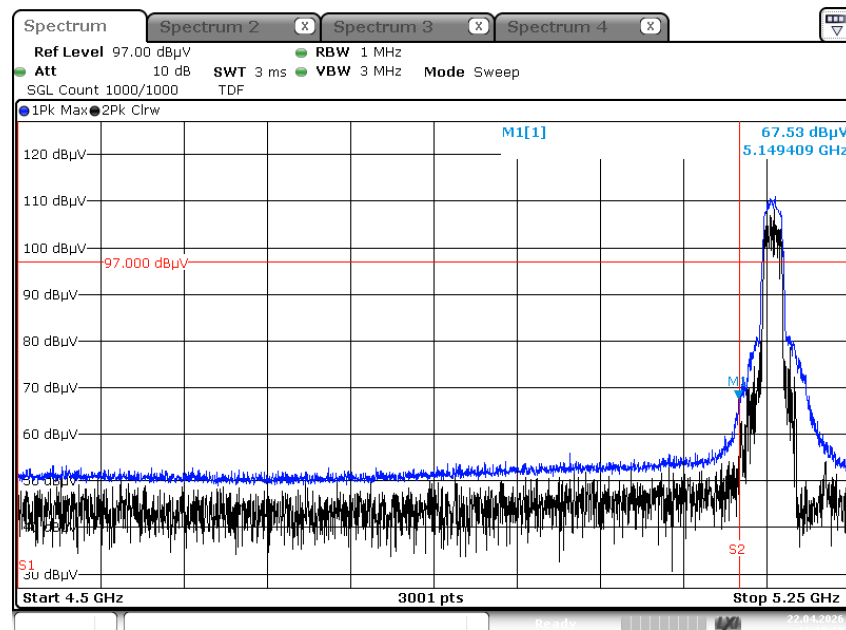
Test Plots(UNII 1, 2A, 2C)

[SISO_Ant.1]

Average Result (802.11a_20_6M, Ch. 64, Z-V)

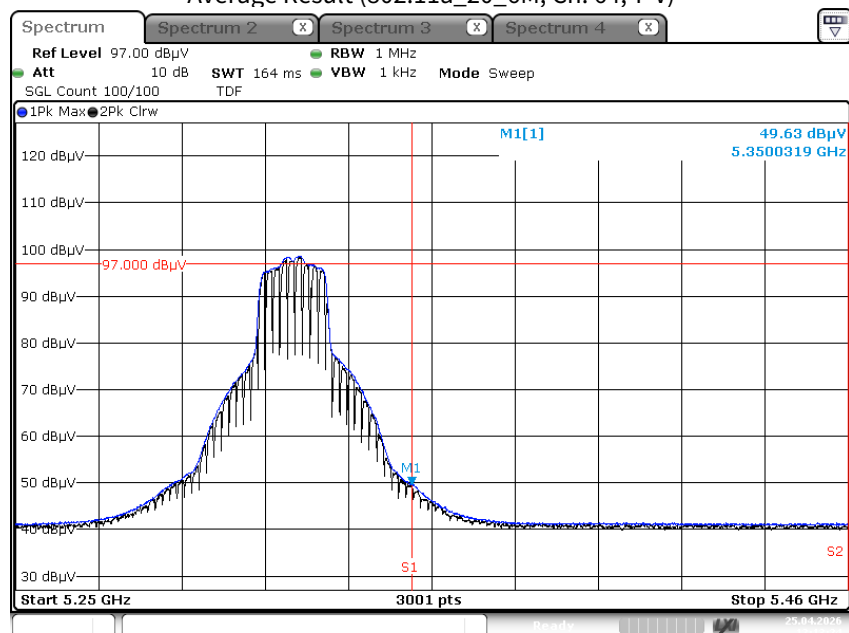


Peak Result (802.11a_20_6M, Ch. 64, Z-V)

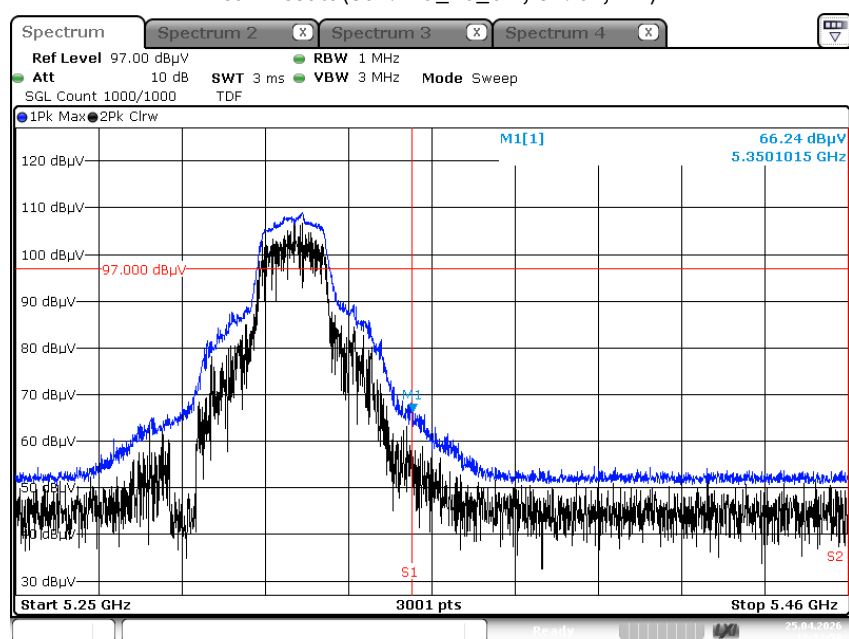


[SISO_Ant.2]

Average Result (802.11a_20_6M, Ch. 64, Y-V)

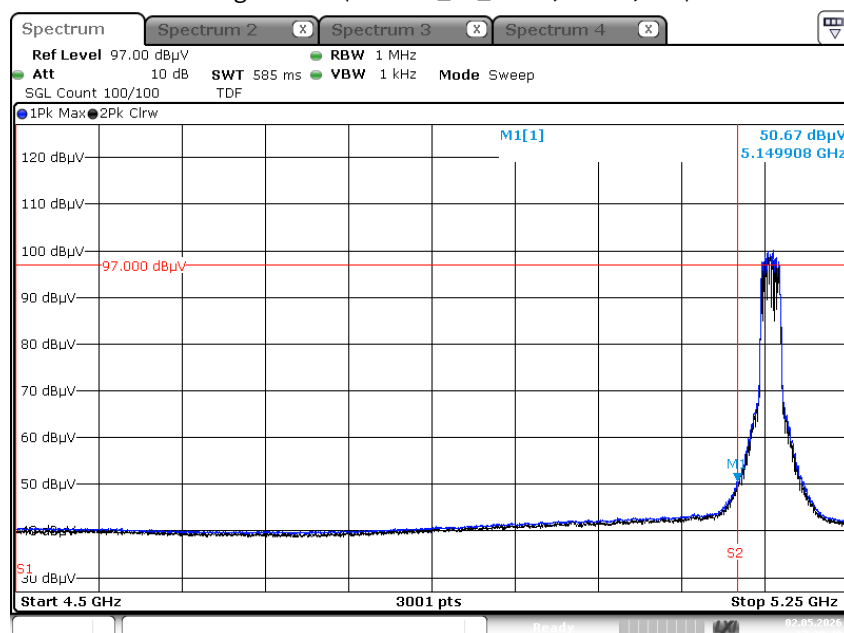


Peak Result (802.11a_20_6M, Ch. 64, Y-V)



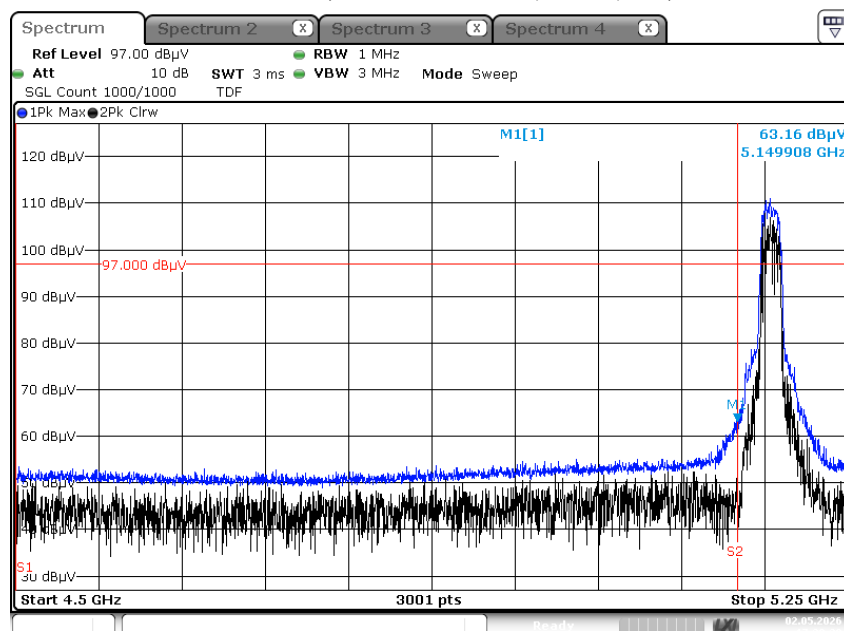
[MIMO_CDD(Ant1+Ant2)]

Average Result (802.11n_20_MCS0, Ch. 36, X-H)



Date: 2.MAY.2026 17:29:49

Peak Result (802.11n_20_MCS0, Ch. 36, X-H)

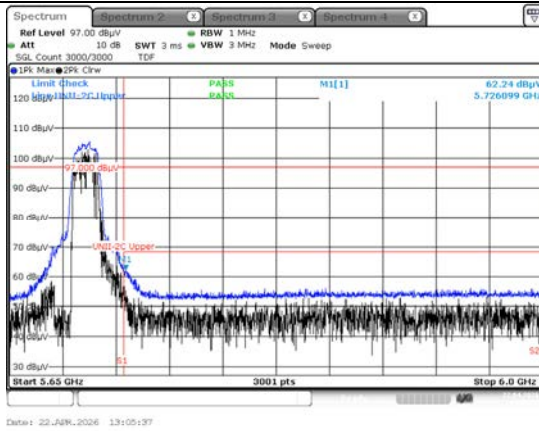


Date: 2.MAY.2026 17:28:38

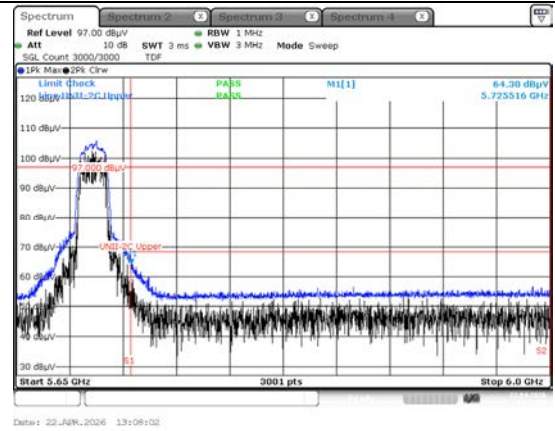
Note: Only the worst case plots for Radiated Restricted Band Edge.

Test Plots(UNII2C_Upper)
[SISO_Ant.1]

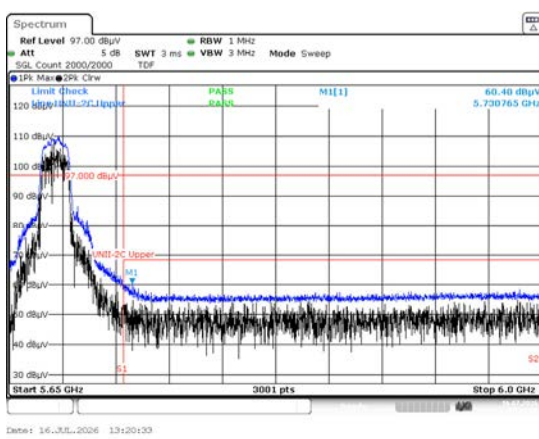
Peak Result (802.11a, Ch.140, Z-V)



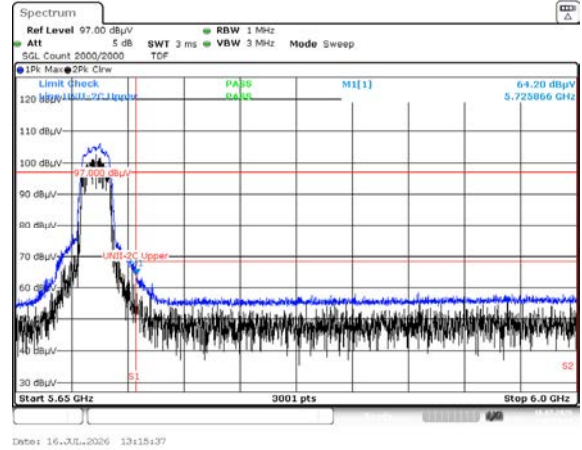
Peak Result (802.11n_HT20, Ch.140, Z-V)



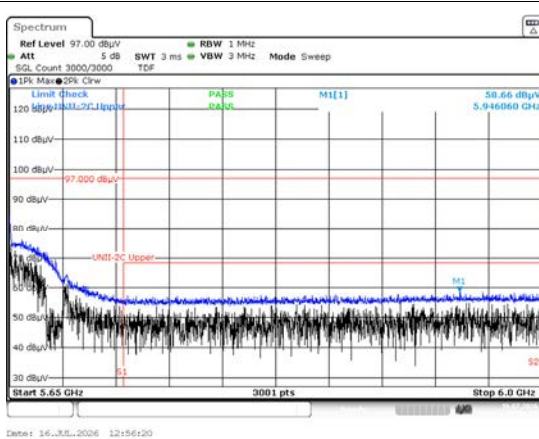
Peak Result (802.11ac_VHT20, Ch.136, Z-V)



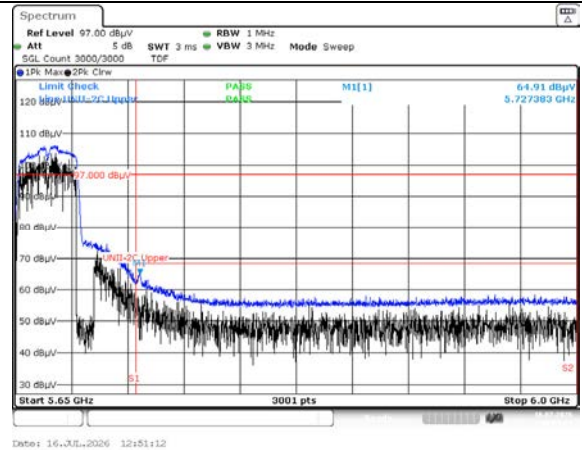
Peak Result (802.11ac_VHT20, Ch.140, Z-V)



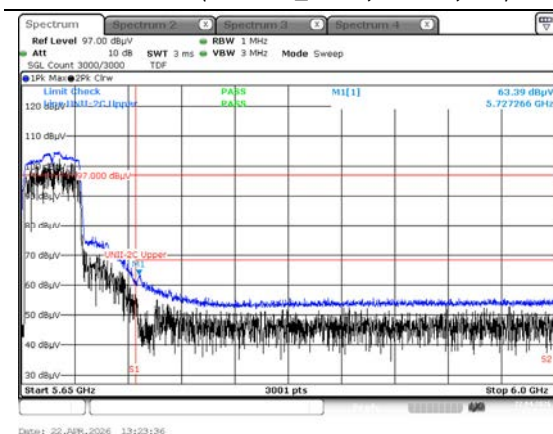
Peak Result (802.11ac_VHT40, Ch.126, Z-V)



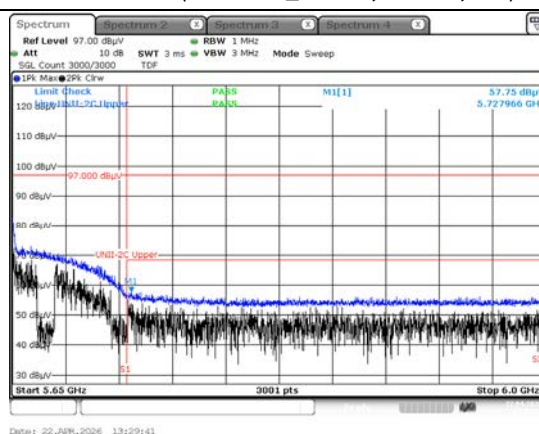
Peak Result (802.11ac_VHT40, Ch.134, Z-V)



Peak Result (802.11n_HT40, Ch.134, Z-V)

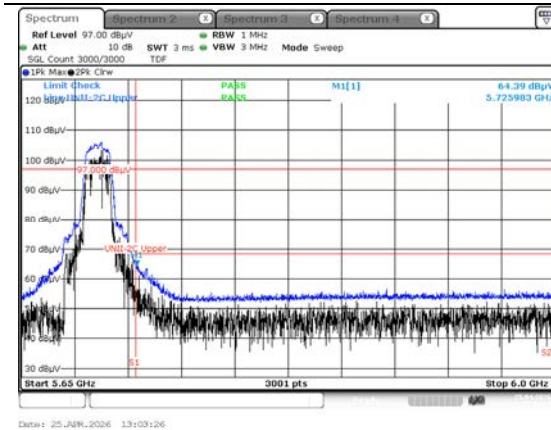


Peak Result (802.11ac_VHT80, Ch.122, Z-V)

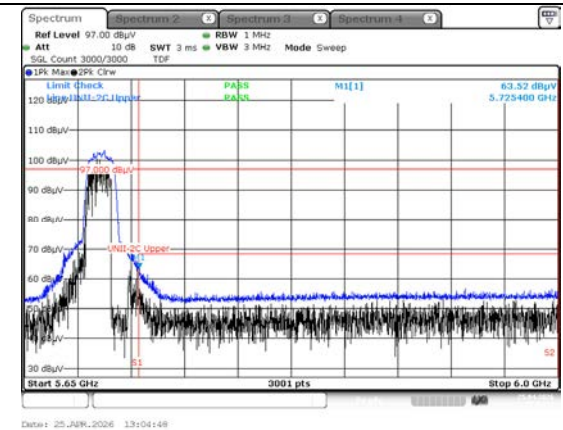


[SISO_Ant.2]

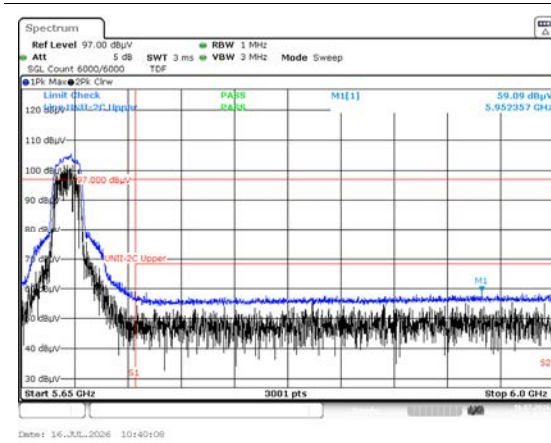
Peak Result (802.11a, Ch.140, Y-V)



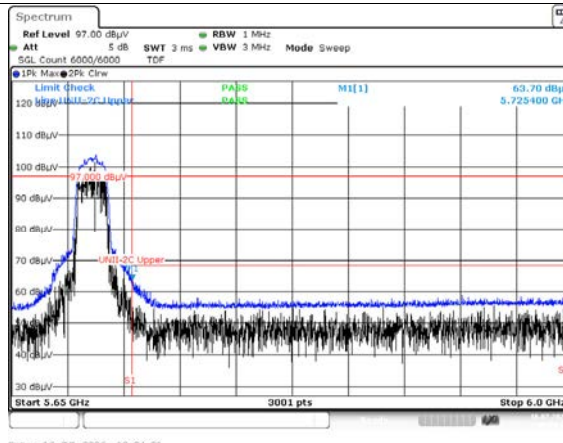
Peak Result (802.11n_HT20, Ch.140, Y-V)



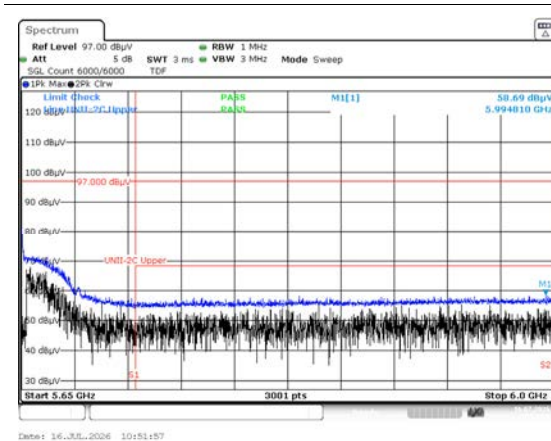
Peak Result (802.11ac_VHT20, Ch.136, Y-V)



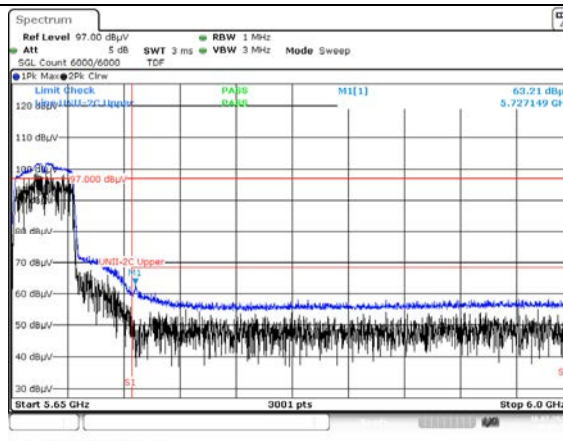
Peak Result (802.11ac_VHT20, Ch.140, Y-V)



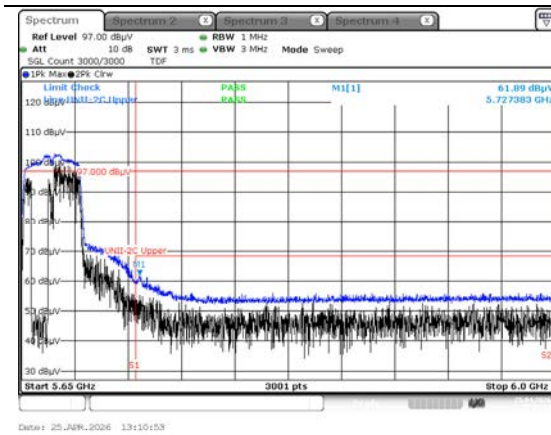
Peak Result (802.11ac_VHT40, Ch.126, Y-V)



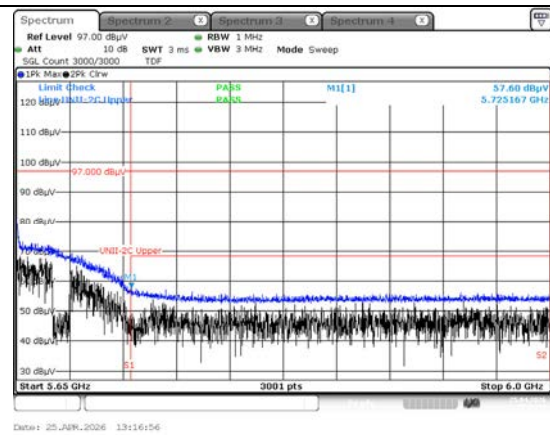
Peak Result (802.11ac_VHT40, Ch.134, Y-V)



Peak Result (802.11n_HT40, Ch.134, Y-V)

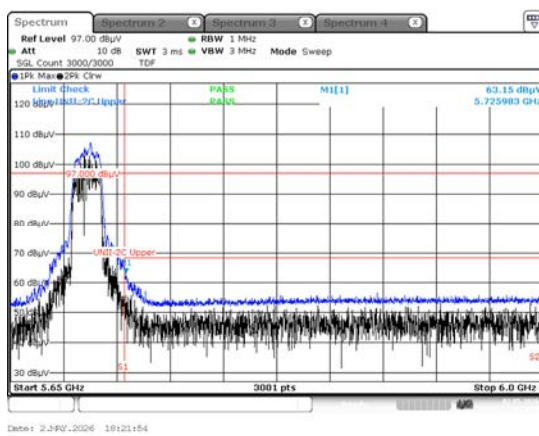


Peak Result (802.11ac_VHT80, Ch.122, Y-V)

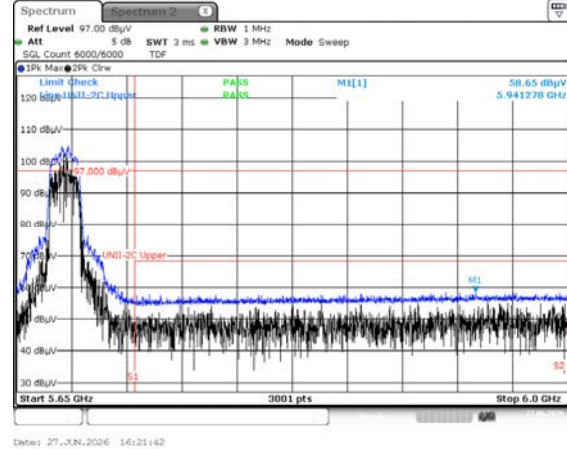


[MIMO_CDD(Ant1+Ant2)]

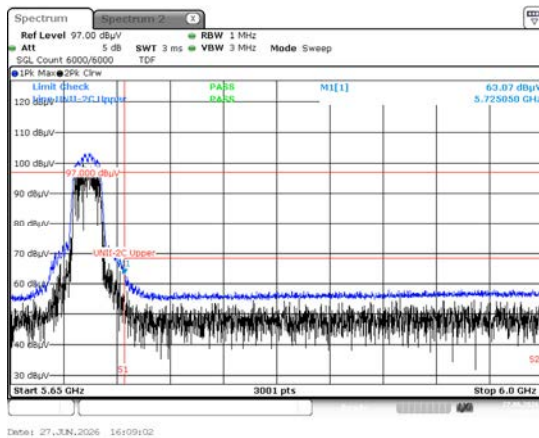
Peak Result (802.11n_HT20, Ch.140, X-H)



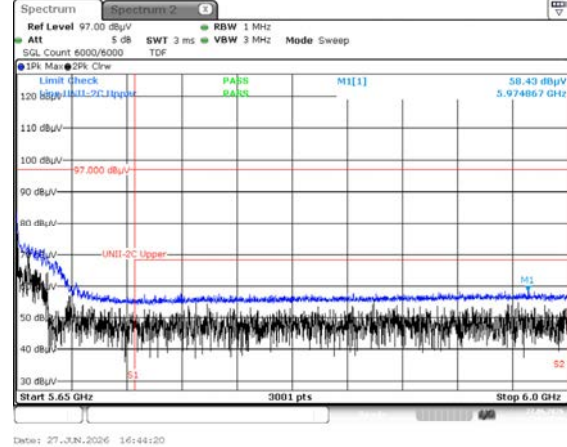
Peak Result (802.11ac_VHT20, Ch.136, X-H)



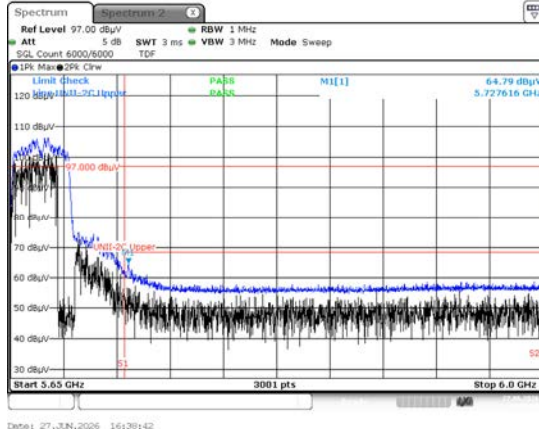
Peak Result (802.11ac_VHT20, Ch.140, X-H)



Peak Result (802.11ac_VHT40, Ch.126, X-H)



Peak Result (802.11ac_VHT40, Ch.134, X-H)



Peak Result (802.11n_HT40, Ch.134, X-H)

