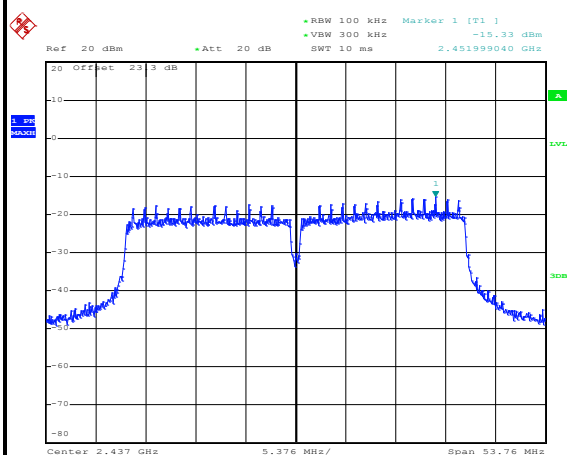




Number of TX	2	Ant. :	2
Test Mode :	802.11ac VHT40	Temperature :	21~25°C
Test Band :	2.4GHz Mid	Relative Humidity :	51~54%
Test Channel :	06	Test Engineer :	Bill Kuo

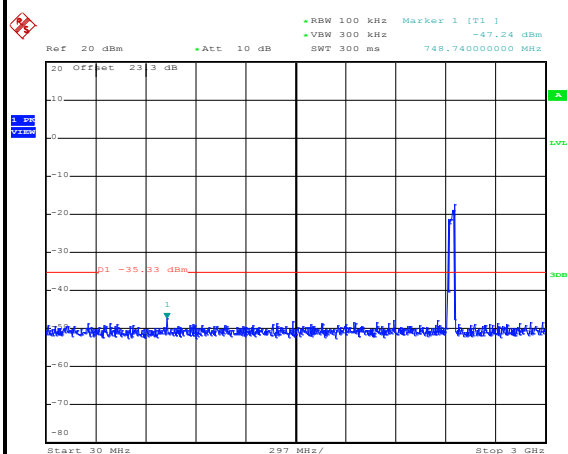
WLAN 802.11ac VHT40 Channel 06

100kHz PSD reference Level



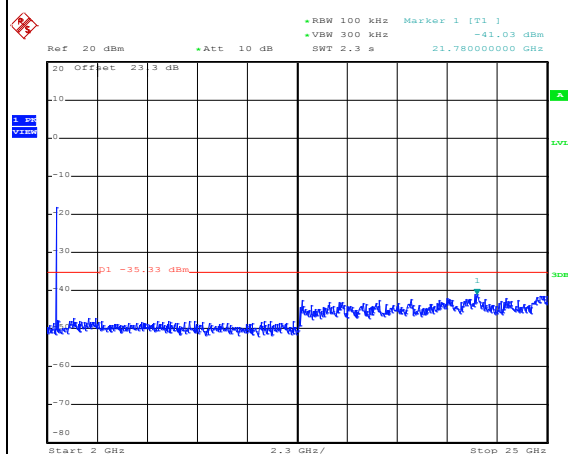
Date: 20.JUL.2016 12:03:32

Spurious Emission 30MHz~3GHz



Date: 20.JUL.2016 13:36:12

Spurious Emission 2GHz~25GHz



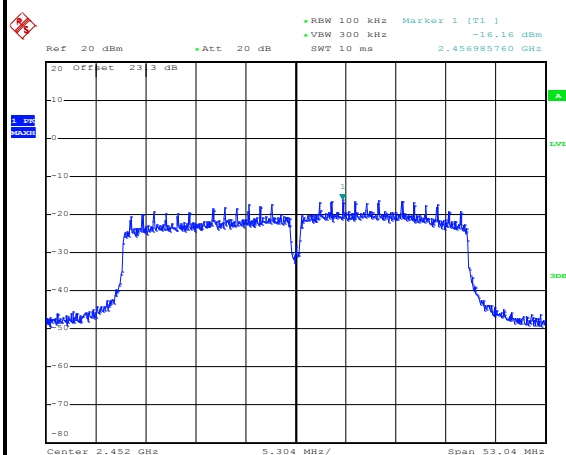
Date: 20.JUL.2016 13:36:21



Number of TX	2	Ant. :	2
Test Mode :	802.11ac VHT40	Temperature :	21~25°C
Test Band :	2.4GHz High	Relative Humidity :	51~54%
Test Channel :	09	Test Engineer :	Bill Kuo

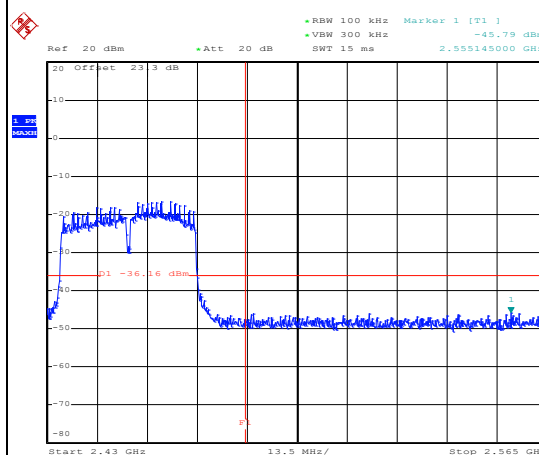
WLAN 802.11ac VHT40 Channel 09

100kHz PSD reference Level



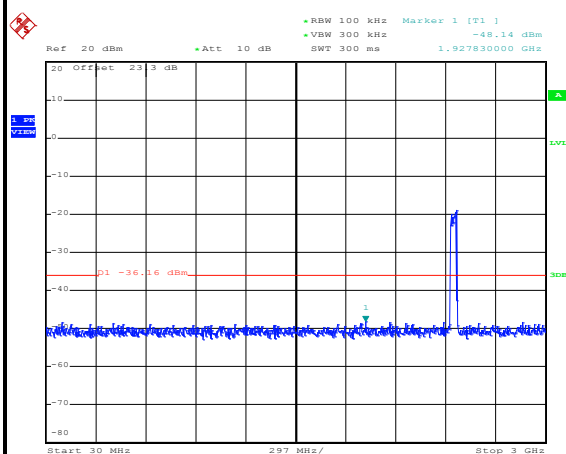
Date: 20.JUL.2016 13:38:25

High Channel Plot



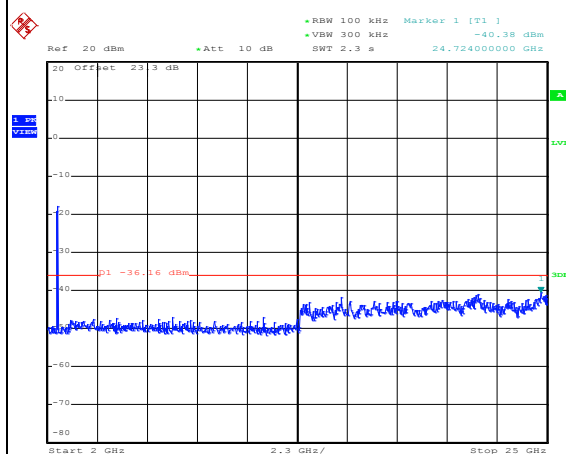
Date: 20.JUL.2016 13:38:38

Spurious Emission 30MHz~3GHz



Date: 20.JUL.2016 13:38:49

Spurious Emission 2GHz~25GHz



Date: 20.JUL.2016 13:38:58

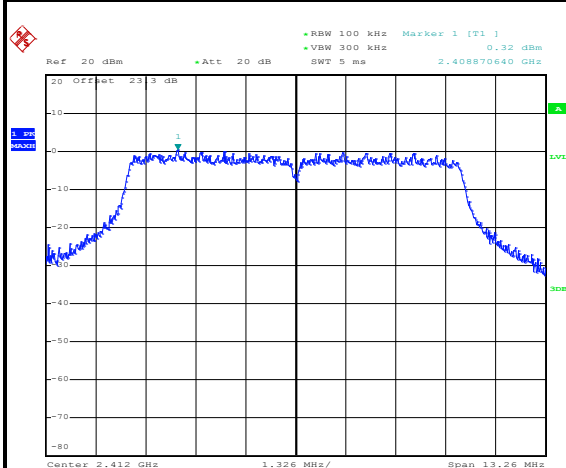


<Ant. Type 3>

Number of TX	2	Ant. :	1
Test Mode :	802.11ac VHT10	Temperature :	21~25°C
Test Band :	2.4GHz Low	Relative Humidity :	51~54%
Test Channel :	01	Test Engineer :	Bill Kuo

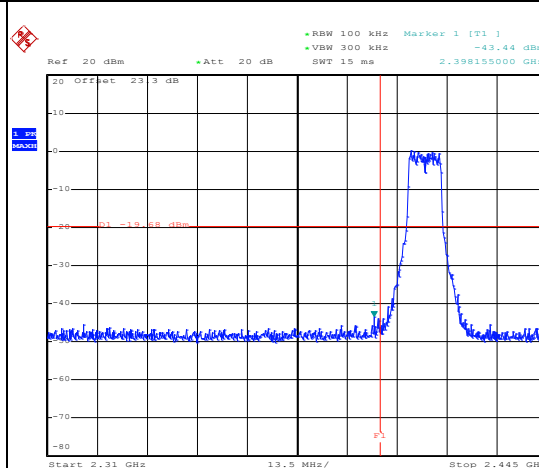
WLAN 802.11n HT20 Channel 01

100kHz PSD reference Level



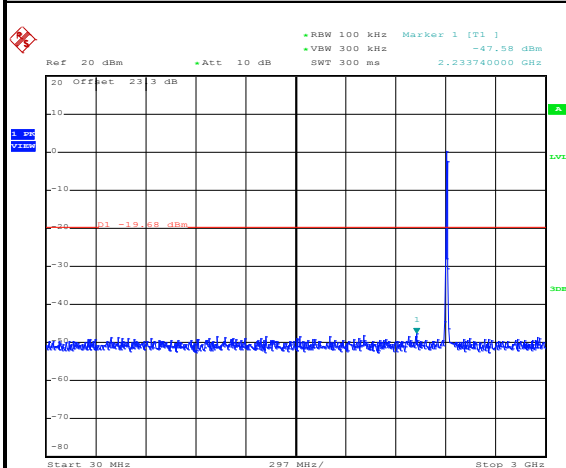
Date: 20.JUL.2016 15:11:48

Low Channel Plot



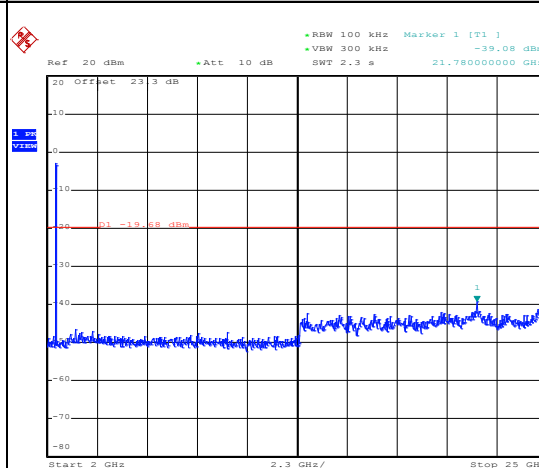
Date: 20.JUL.2016 15:12:02

Spurious Emission 30MHz~3GHz



Date: 20.JUL.2016 15:12:13

Spurious Emission 2GHz~25GHz



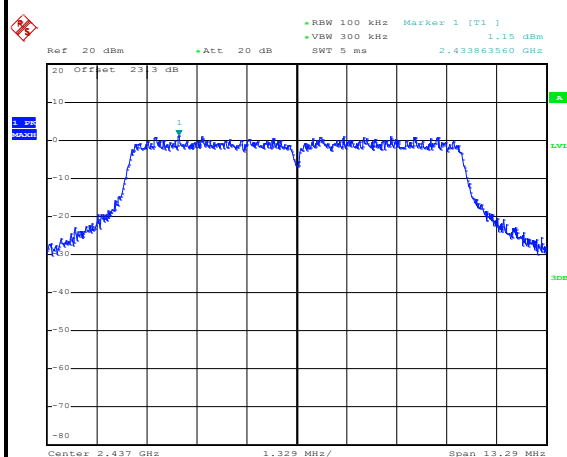
Date: 20.JUL.2016 15:12:22



Number of TX	2	Ant. :	1
Test Mode :	802.11ac VHT10	Temperature :	21~25°C
Test Band :	2.4GHz Mid	Relative Humidity :	51~54%
Test Channel :	06	Test Engineer :	Bill Kuo

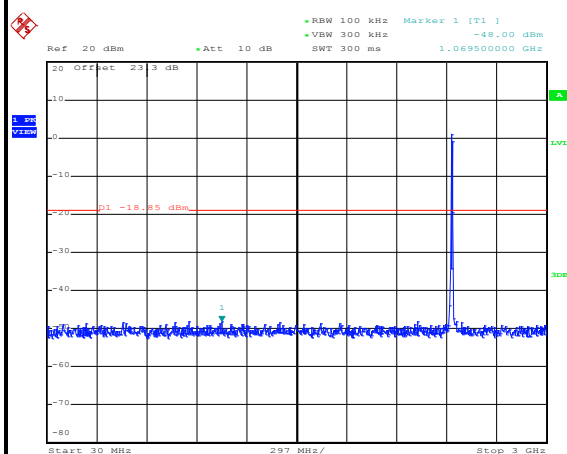
WLAN 802.11n HT20 Channel 06

100kHz PSD reference Level



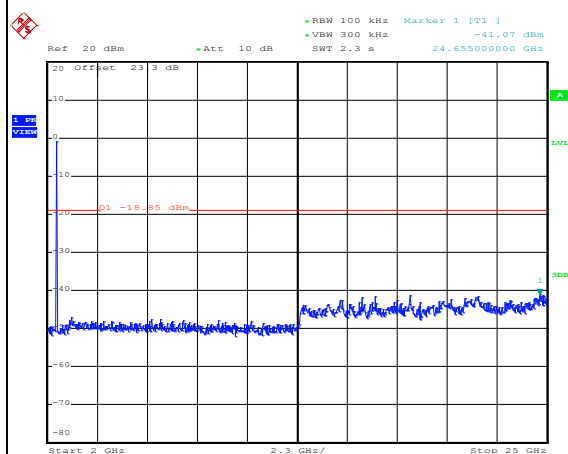
Date: 20.JUL.2016 15:22:17

Spurious Emission 30MHz~3GHz



Date: 20.JUL.2016 15:22:52

Spurious Emission 2GHz~25GHz



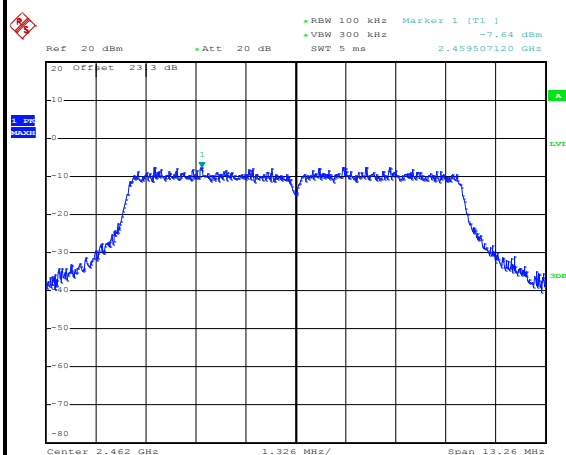
Date: 20.JUL.2016 15:23:01



Number of TX	2	Ant. :	1
Test Mode :	802.11ac VHT10	Temperature :	21~25°C
Test Band :	2.4GHz High	Relative Humidity :	51~54%
Test Channel :	11	Test Engineer :	Bill Kuo

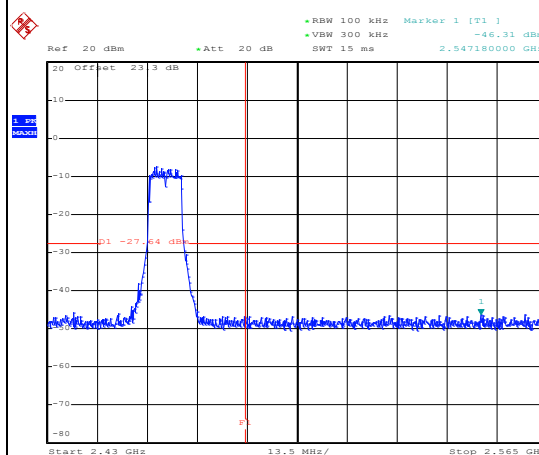
WLAN 802.11n HT20 Channel 11

100kHz PSD reference Level



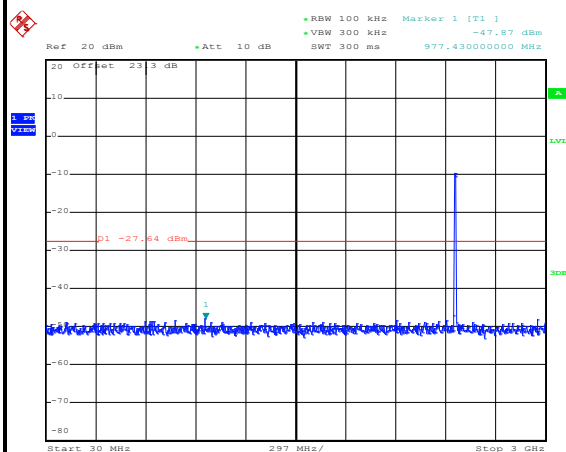
Date: 20.JUL.2016 10:59:52

High Channel Plot



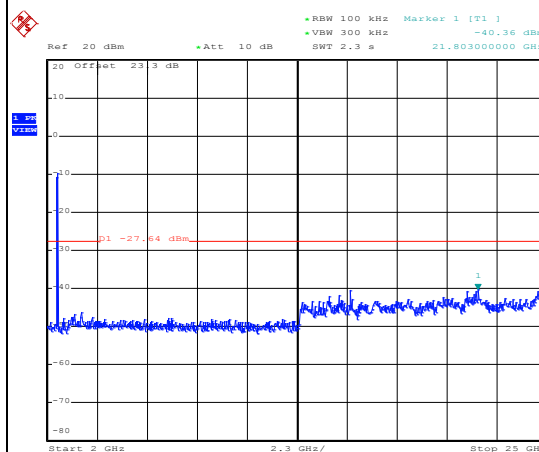
Date: 20.JUL.2016 11:00:05

Spurious Emission 30MHz~3GHz



Date: 20.JUL.2016 11:00:18

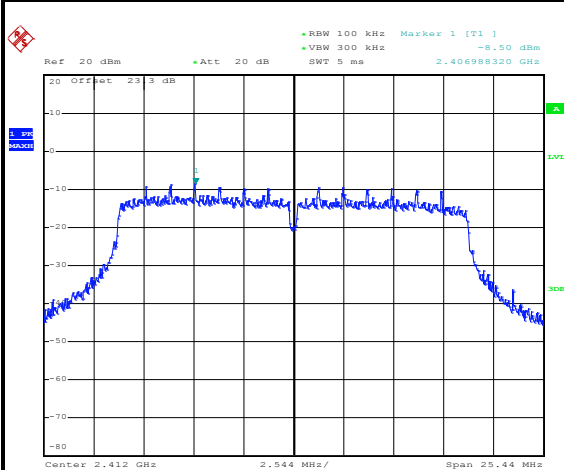
Spurious Emission 2GHz~25GHz



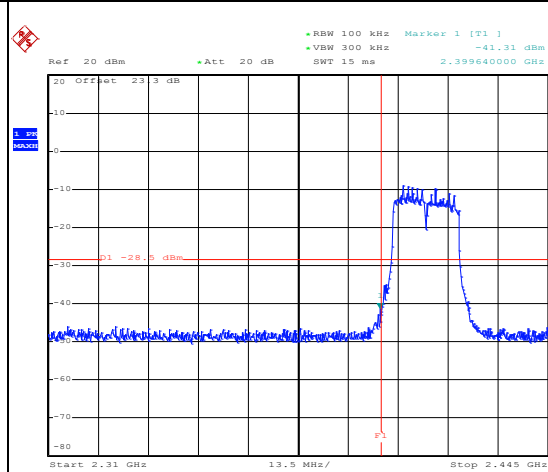
Date: 20.JUL.2016 11:00:26



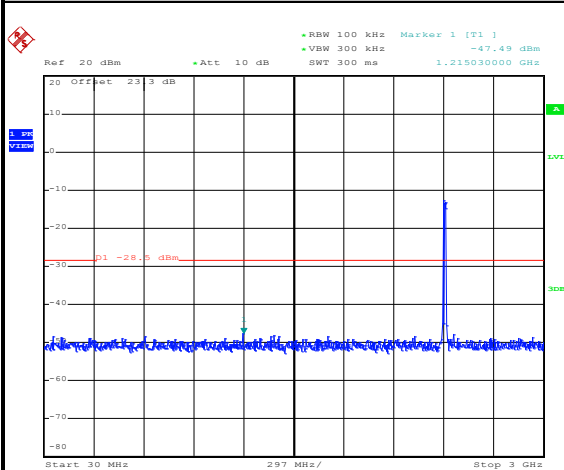
Number of TX	2	Ant. :	1
Test Mode :	802.11ac VHT20	Temperature :	21~25°C
Test Band :	2.4GHz Low	Relative Humidity :	51~54%
Test Channel :	01	Test Engineer :	Bill Kuo

WLAN 802.11ac VHT20 Channel 01**100kHz PSD reference Level**

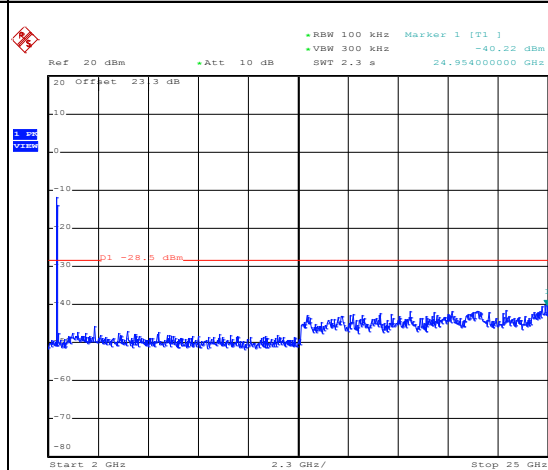
Date: 20.JUL.2016 14:24:26

Low Channel Plot

Date: 20.JUL.2016 14:24:50

Spurious Emission 30MHz~3GHz

Date: 20.JUL.2016 14:27:01

Spurious Emission 2GHz~25GHz

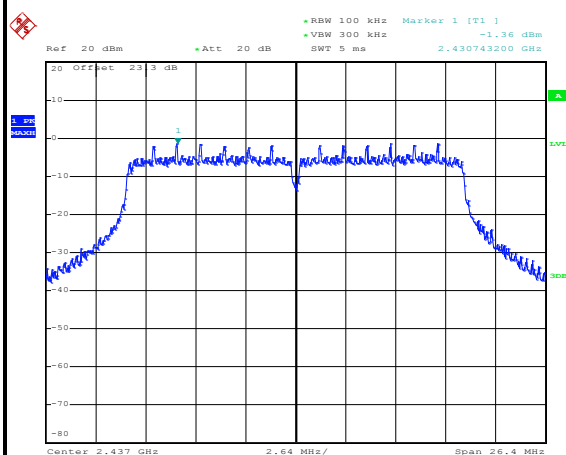
Date: 20.JUL.2016 14:27:09



Number of TX	2	Ant. :	1
Test Mode :	802.11ac VHT20	Temperature :	21~25°C
Test Band :	2.4GHz Mid	Relative Humidity :	51~54%
Test Channel :	06	Test Engineer :	Bill Kuo

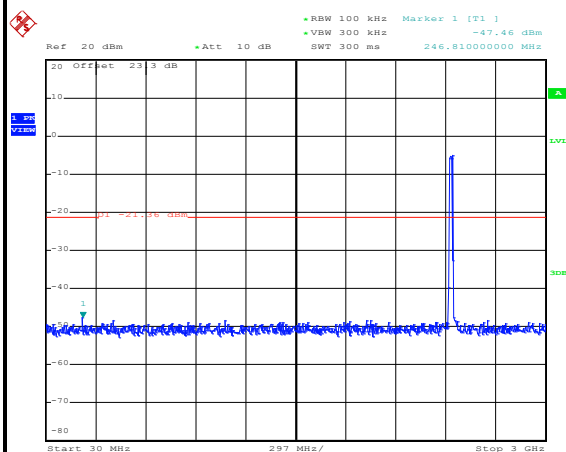
WLAN 802.11ac VHT20 Channel 06

100kHz PSD reference Level



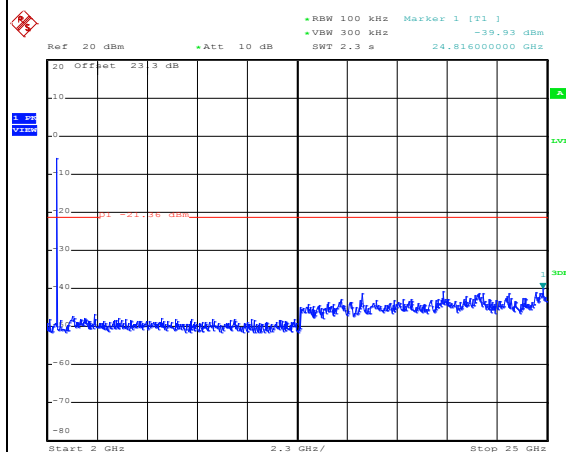
Date: 20.JUL.2016 15:33:52

Spurious Emission 30MHz~3GHz



Date: 20.JUL.2016 15:34:03

Spurious Emission 2GHz~25GHz



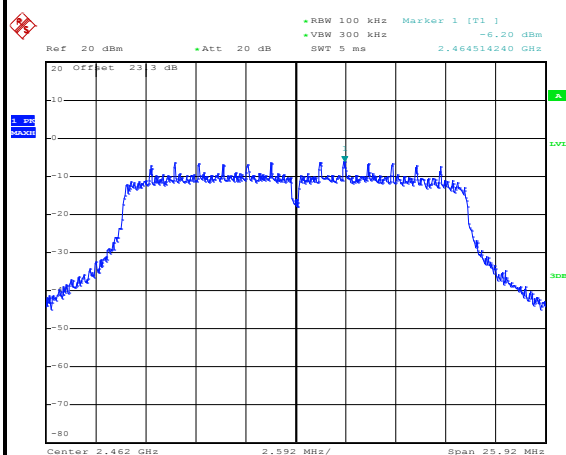
Date: 20.JUL.2016 15:34:12



Number of TX	2	Ant. :	1
Test Mode :	802.11ac VHT20	Temperature :	21~25°C
Test Band :	2.4GHz High	Relative Humidity :	51~54%
Test Channel :	11	Test Engineer :	Bill Kuo

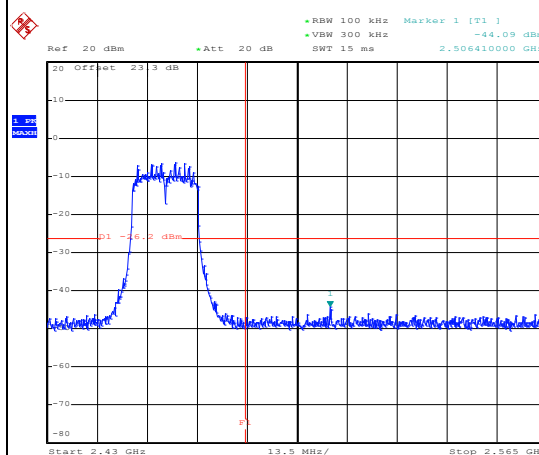
WLAN 802.11ac VHT20 Channel 11

100kHz PSD reference Level



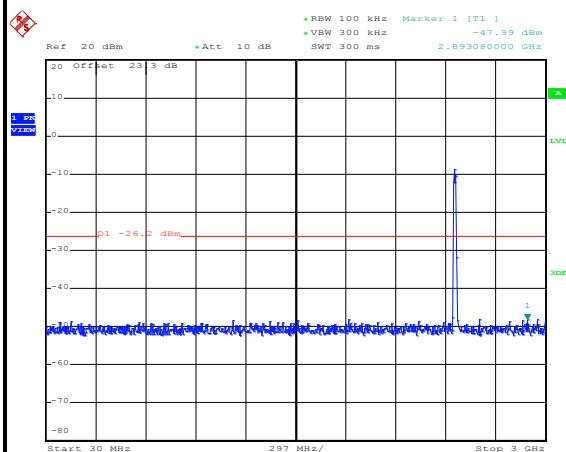
Date: 20.JUL.2016 15:39:59

High Channel Plot



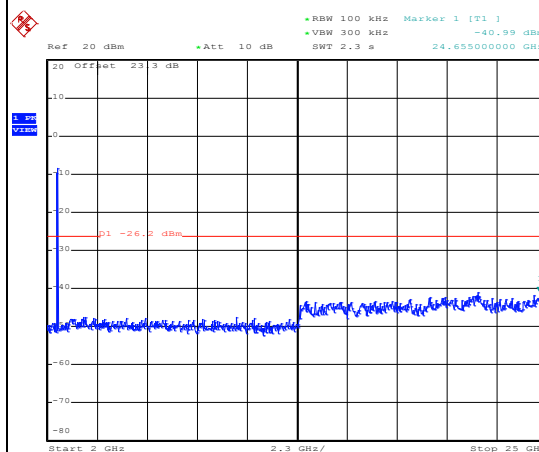
Date: 20.JUL.2016 15:40:12

Spurious Emission 30MHz~3GHz



Date: 20.JUL.2016 15:40:23

Spurious Emission 2GHz~25GHz

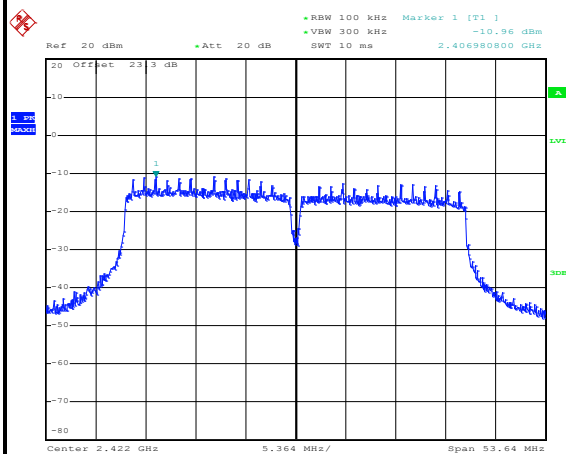


Date: 20.JUL.2016 15:40:31

Number of TX	2	Ant. :	1
Test Mode :	802.11ac VHT40	Temperature :	21~25℃
Test Band :	2.4GHz Low	Relative Humidity :	51~54%
Test Channel :	03	Test Engineer :	Bill Kuo

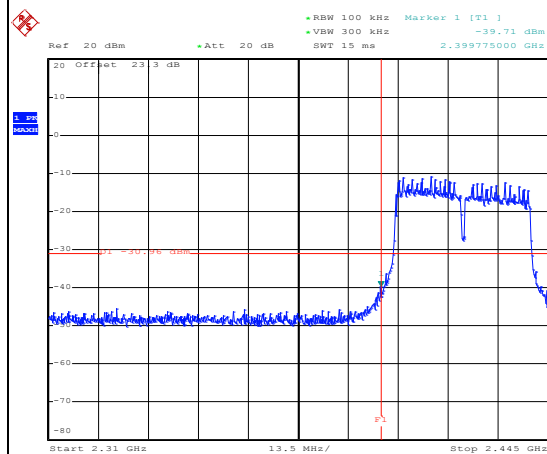
WLAN 802.11ac VHT40 Channel 03

100kHz PSD reference Level



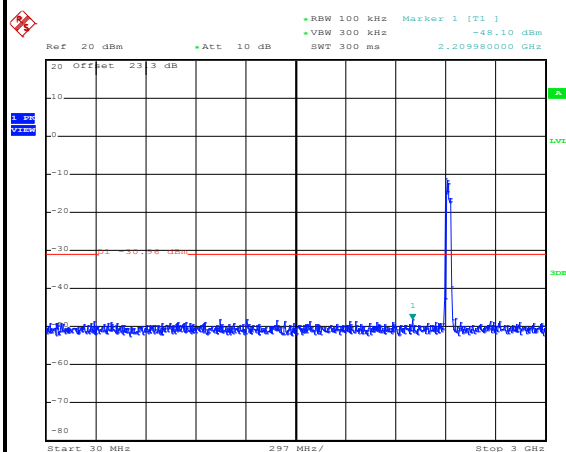
Date: 20.JUL.2016 16:24:07

Low Channel Plot



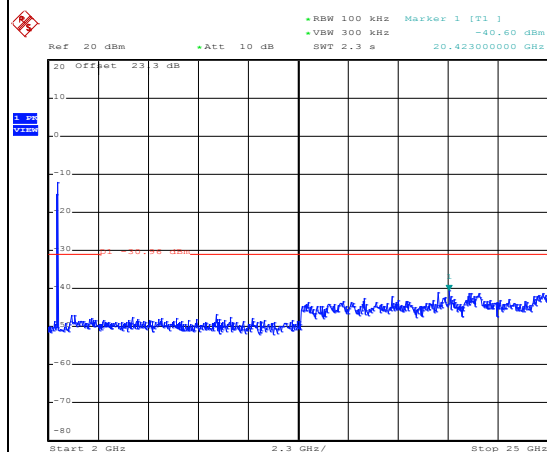
Date: 20.JUL.2016 16:24:20

Spurious Emission 30MHz~3GHz



Date: 20.JUL.2016 16:25:18

Spurious Emission 2GHz~25GHz



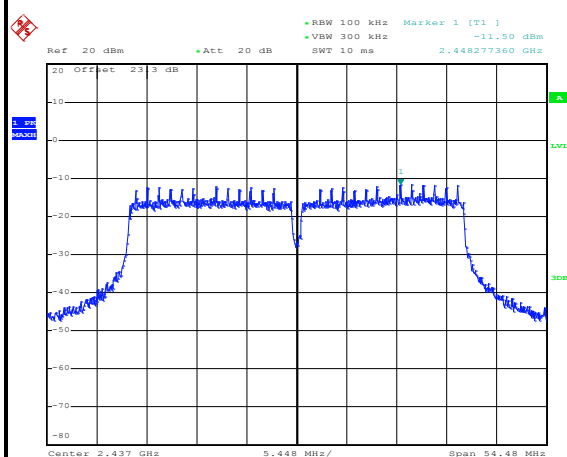
Date: 20.JUL.2016 16:24:40



Number of TX	2	Ant. :	1
Test Mode :	802.11ac VHT40	Temperature :	21~25°C
Test Band :	2.4GHz Mid	Relative Humidity :	51~54%
Test Channel :	06	Test Engineer :	Bill Kuo

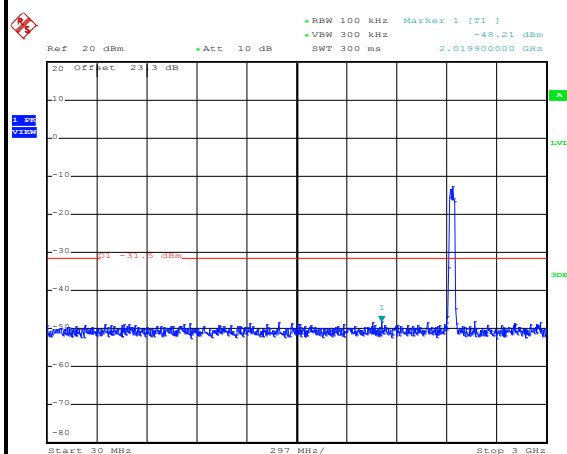
WLAN 802.11ac VHT40 Channel 06

100kHz PSD reference Level



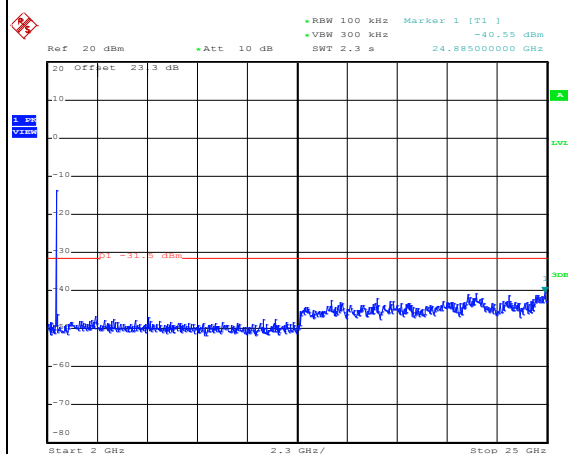
Date: 20.JUL.2016 14:47:13

Spurious Emission 30MHz~3GHz



Date: 20.JUL.2016 14:49:15

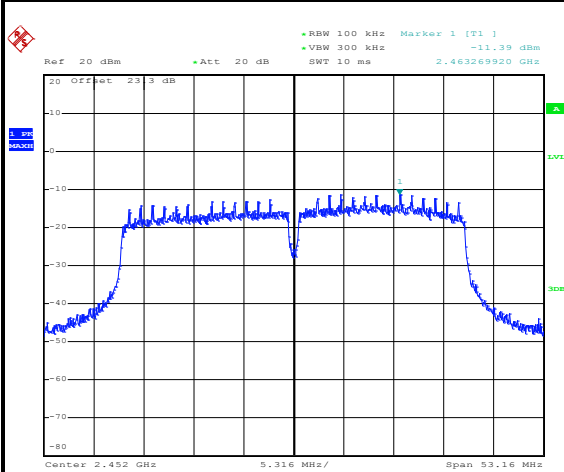
Spurious Emission 2GHz~25GHz



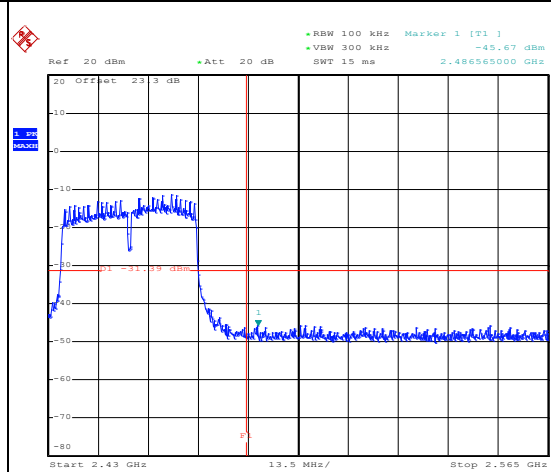
Date: 20.JUL.2016 14:49:23



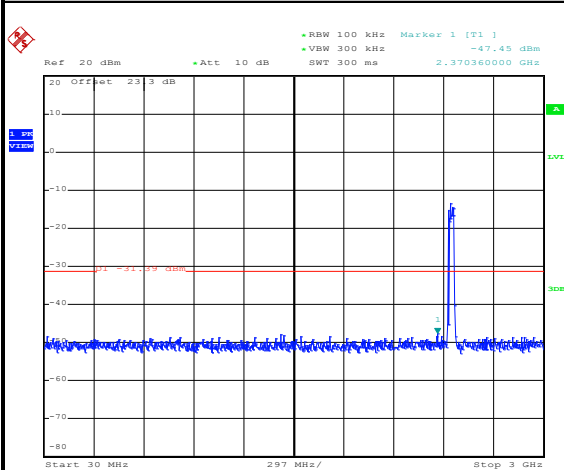
Number of TX	2	Ant. :	1
Test Mode :	802.11ac VHT40	Temperature :	21~25°C
Test Band :	2.4GHz High	Relative Humidity :	51~54%
Test Channel :	09	Test Engineer :	Bill Kuo

WLAN 802.11ac VHT40 Channel 09**100kHz PSD reference Level**

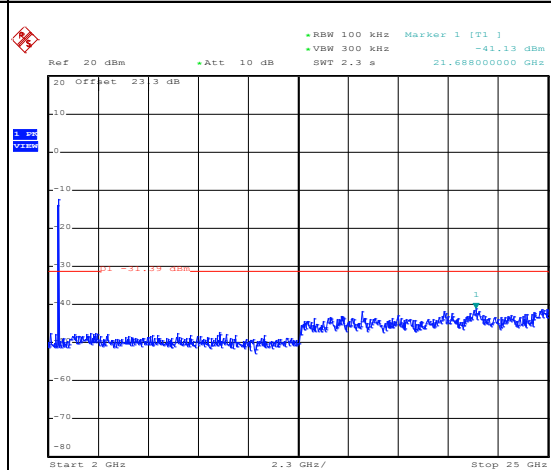
Date: 20.JUL.2016 14:51:32

High Channel Plot

Date: 20.JUL.2016 14:51:46

Spurious Emission 30MHz~3GHz

Date: 20.JUL.2016 14:51:57

Spurious Emission 2GHz~25GHz

Date: 20.JUL.2016 14:52:05

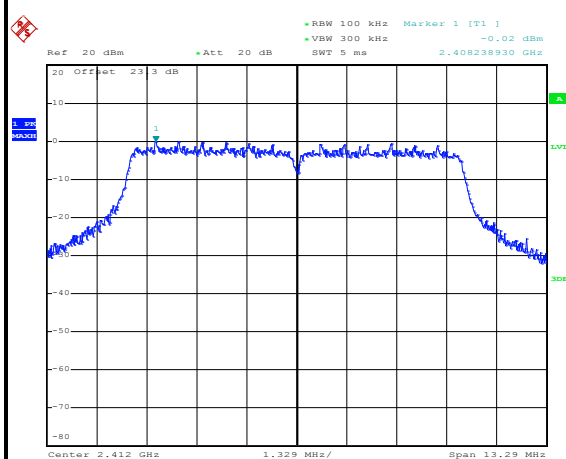


Number of TX = 2, Ant. 2 (Measured)

Number of TX	2	Ant. :	2
Test Mode :	802.11ac VHT10	Temperature :	21~25°C
Test Band :	2.4GHz Low	Relative Humidity :	51~54%
Test Channel :	01	Test Engineer :	Bill Kuo

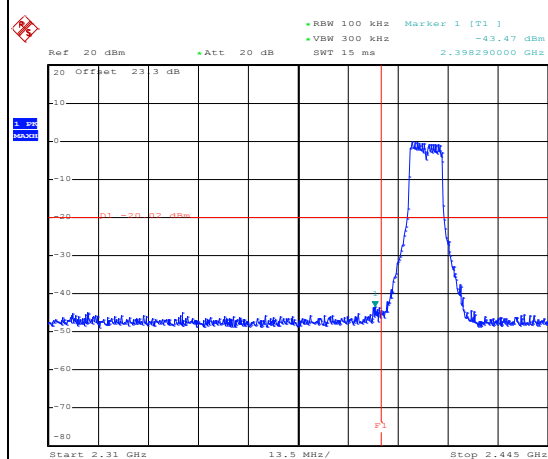
WLAN 802.11n HT20 Channel 01

100kHz PSD reference Level



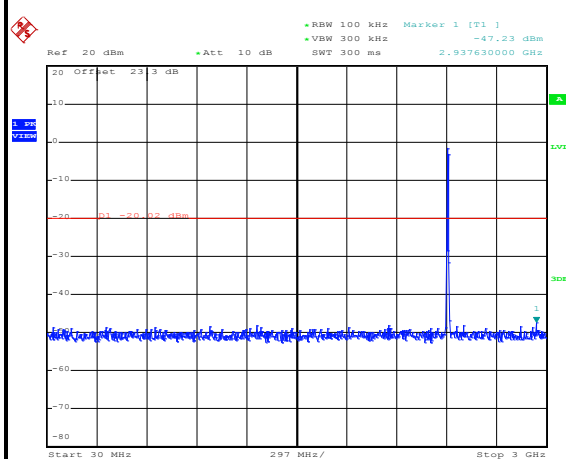
Date: 20.JUL.2016 15:14:58

Low Channel Plot



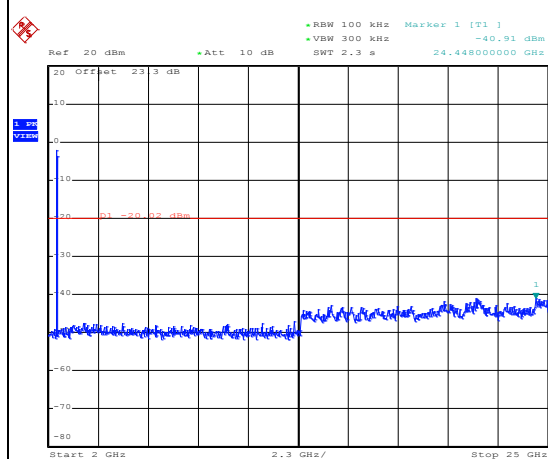
Date: 20.JUL.2016 15:15:40

Spurious Emission 30MHz~3GHz



Date: 20.JUL.2016 15:15:53

Spurious Emission 2GHz~25GHz



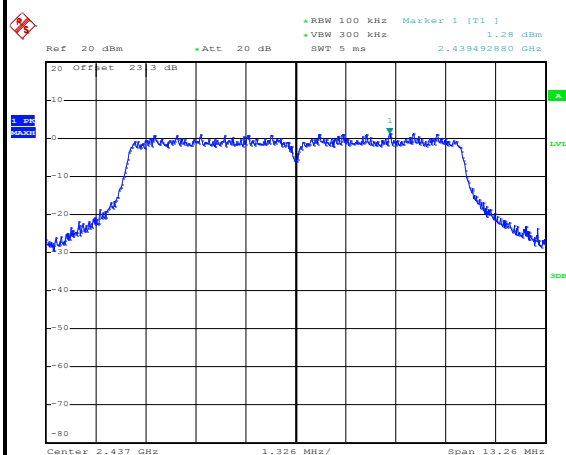
Date: 20.JUL.2016 15:16:01



Number of TX	2	Ant. :	2
Test Mode :	802.11ac VHT10	Temperature :	21~25°C
Test Band :	2.4GHz Mid	Relative Humidity :	51~54%
Test Channel :	06	Test Engineer :	Bill Kuo

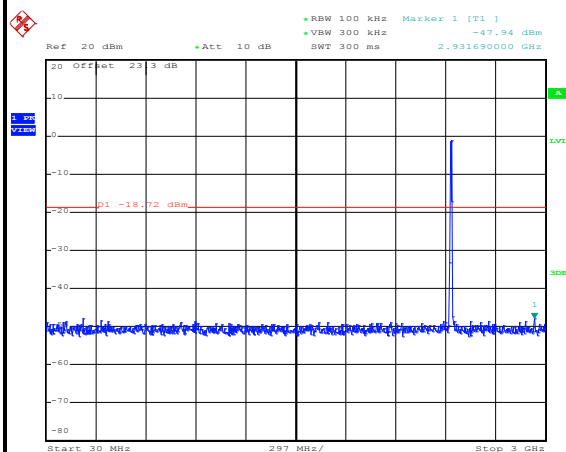
WLAN 802.11n HT20 Channel 06

100kHz PSD reference Level



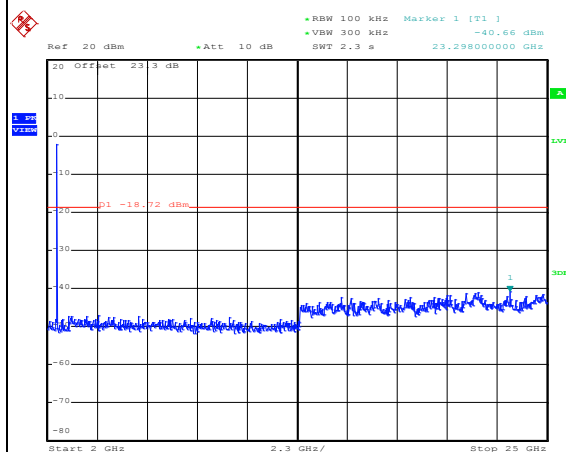
Date: 20.JUL.2016 15:19:25

Spurious Emission 30MHz~3GHz



Date: 20.JUL.2016 15:20:09

Spurious Emission 2GHz~25GHz



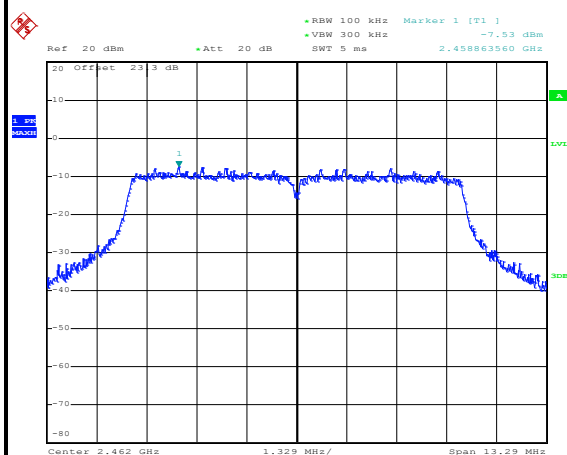
Date: 20.JUL.2016 15:20:17



Number of TX	2	Ant. :	2
Test Mode :	802.11ac VHT10	Temperature :	21~25°C
Test Band :	2.4GHz High	Relative Humidity :	51~54%
Test Channel :	11	Test Engineer :	Bill Kuo

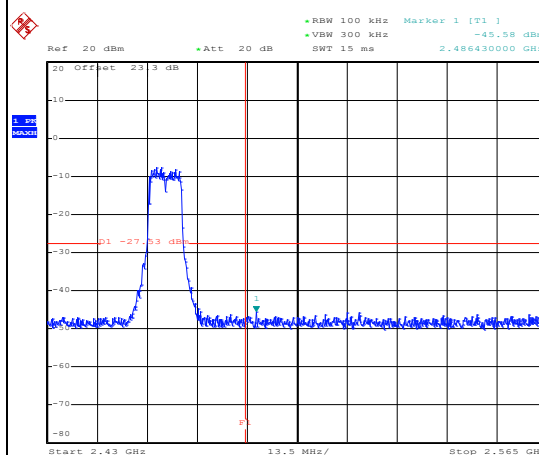
WLAN 802.11n HT20 Channel 11

100kHz PSD reference Level



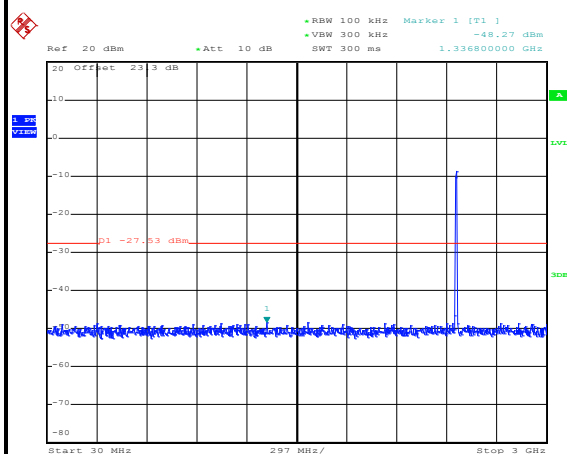
Date: 20.JUL.2016 11:04:40

High Channel Plot



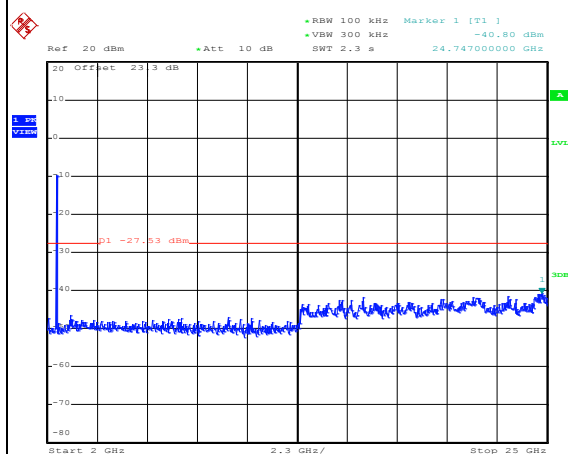
Date: 20.JUL.2016 11:04:55

Spurious Emission 30MHz~3GHz



Date: 20.JUL.2016 11:05:07

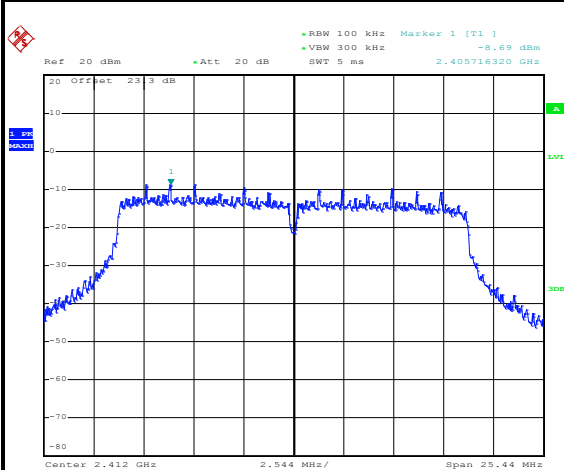
Spurious Emission 2GHz~25GHz



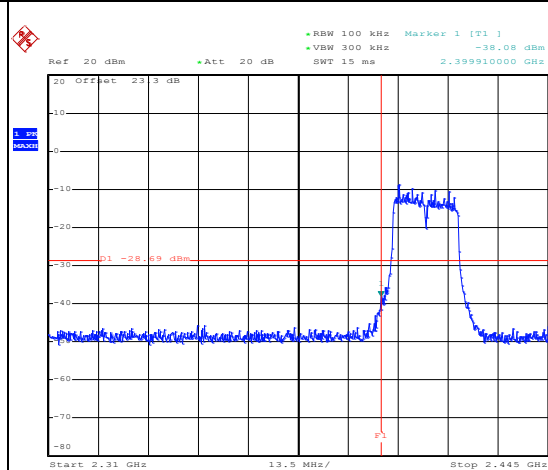
Date: 20.JUL.2016 11:05:15



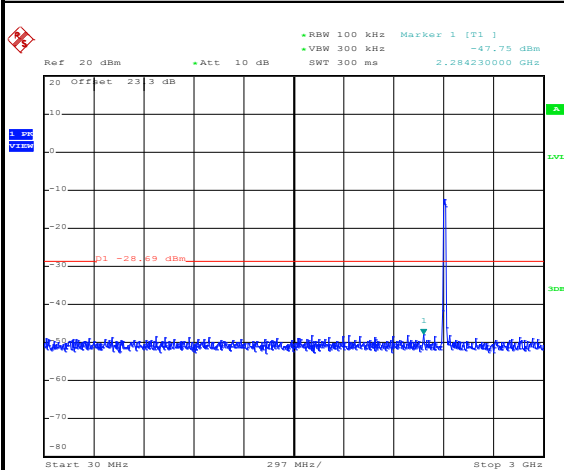
Number of TX	2	Ant. :	2
Test Mode :	802.11ac VHT20	Temperature :	21~25°C
Test Band :	2.4GHz Low	Relative Humidity :	51~54%
Test Channel :	01	Test Engineer :	Bill Kuo

WLAN 802.11ac VHT20 Channel 01**100kHz PSD reference Level**

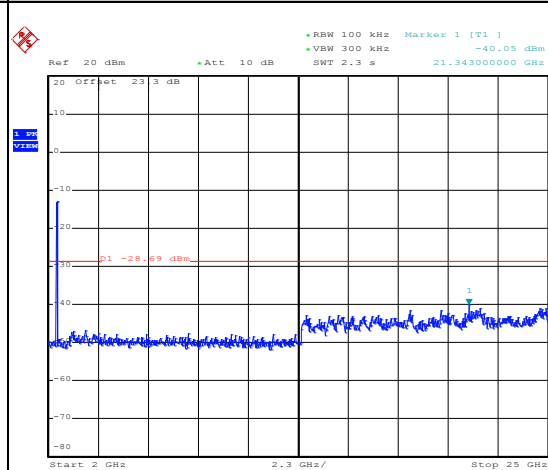
Date: 20.JUL.2016 14:29:03

Low Channel Plot

Date: 20.JUL.2016 14:29:14

Spurious Emission 30MHz~3GHz

Date: 20.JUL.2016 14:31:10

Spurious Emission 2GHz~25GHz

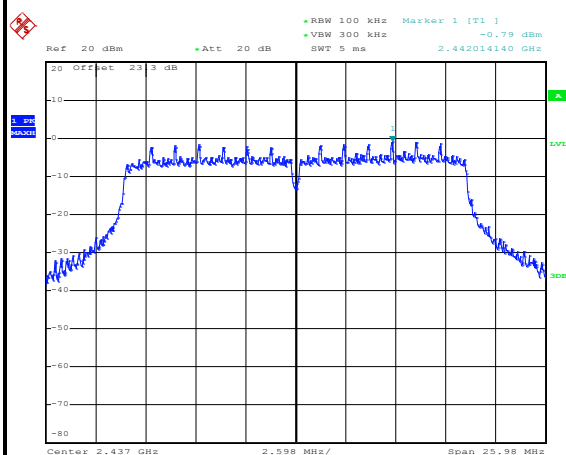
Date: 20.JUL.2016 14:31:18



Number of TX	2	Ant. :	2
Test Mode :	802.11ac VHT20	Temperature :	21~25°C
Test Band :	2.4GHz Mid	Relative Humidity :	51~54%
Test Channel :	06	Test Engineer :	Bill Kuo

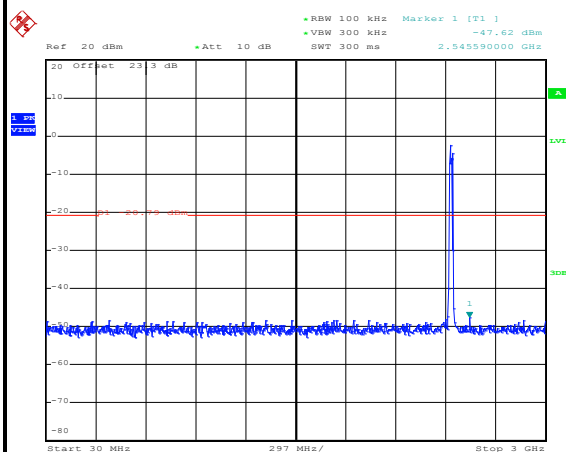
WLAN 802.11ac VHT20 Channel 06

100kHz PSD reference Level



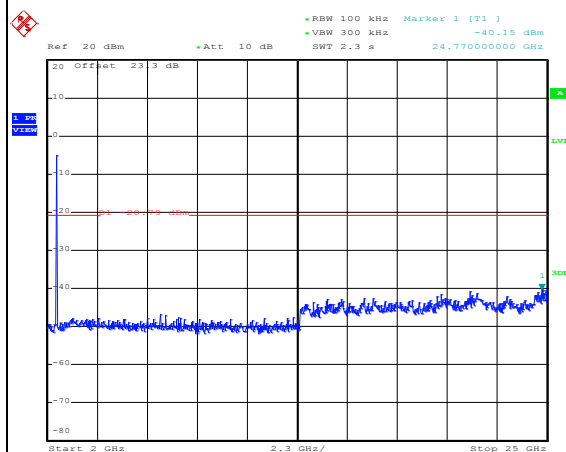
Date: 20.JUL.2016 15:31:56

Spurious Emission 30MHz~3GHz



Date: 20.JUL.2016 15:32:08

Spurious Emission 2GHz~25GHz



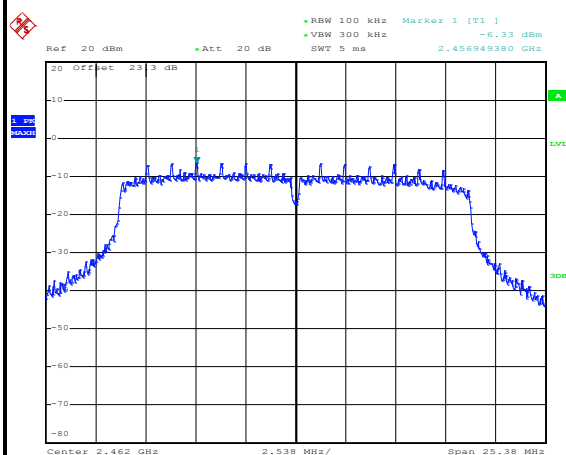
Date: 20.JUL.2016 15:32:17



Number of TX	2	Ant. :	2
Test Mode :	802.11ac VHT20	Temperature :	21~25°C
Test Band :	2.4GHz High	Relative Humidity :	51~54%
Test Channel :	11	Test Engineer :	Bill Kuo

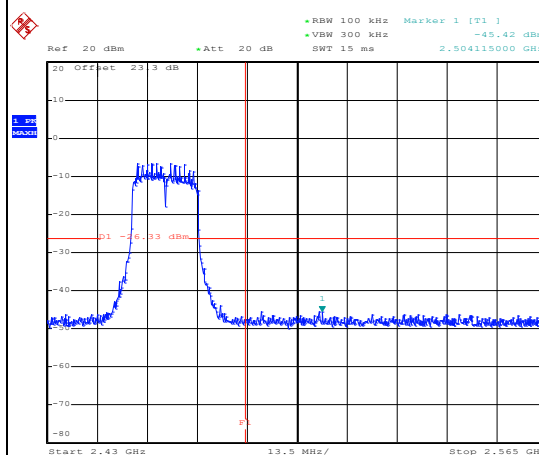
WLAN 802.11ac VHT20 Channel 11

100kHz PSD reference Level



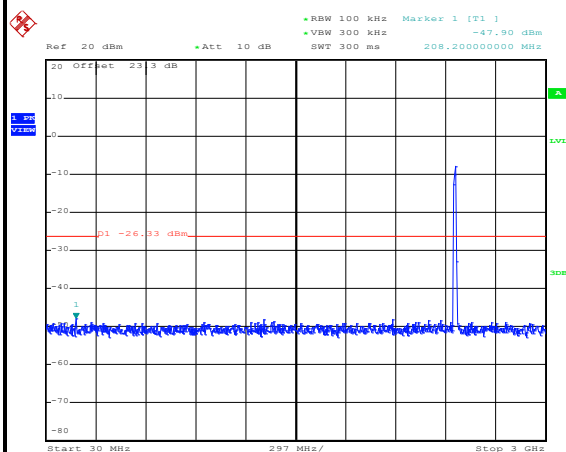
Date: 20.JUL.2016 15:37:46

High Channel Plot



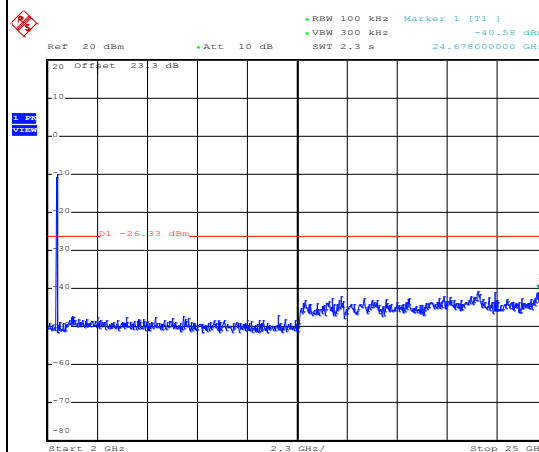
Date: 20.JUL.2016 15:38:06

Spurious Emission 30MHz~3GHz



Date: 20.JUL.2016 15:38:17

Spurious Emission 2GHz~25GHz



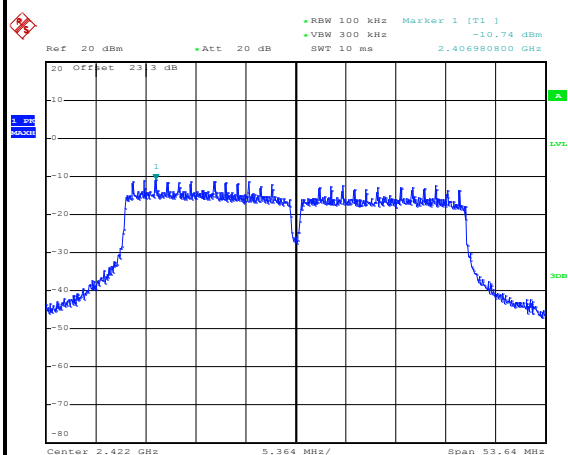
Date: 20.JUL.2016 15:38:26



Number of TX	2	Ant. :	2
Test Mode :	802.11ac VHT40	Temperature :	21~25°C
Test Band :	2.4GHz Low	Relative Humidity :	51~54%
Test Channel :	03	Test Engineer :	Bill Kuo

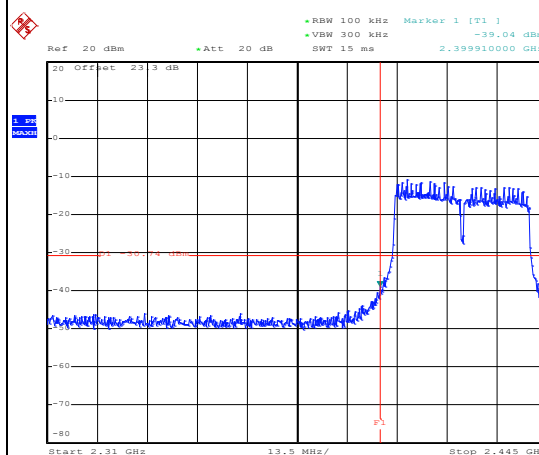
WLAN 802.11ac VHT40 Channel 03

100kHz PSD reference Level



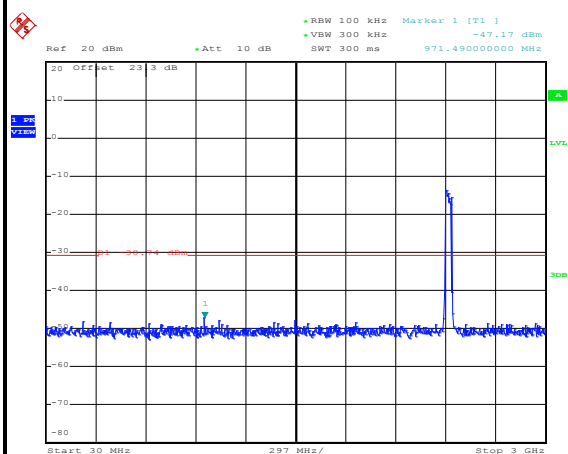
Date: 20.JUL.2016 16:21:17

Low Channel Plot



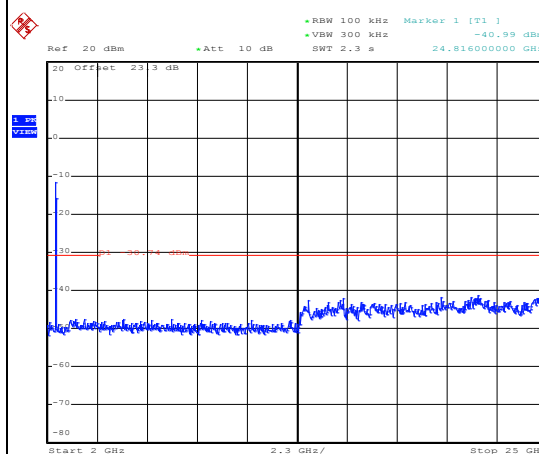
Date: 20.JUL.2016 16:21:36

Spurious Emission 30MHz~3GHz



Date: 20.JUL.2016 16:22:09

Spurious Emission 2GHz~25GHz



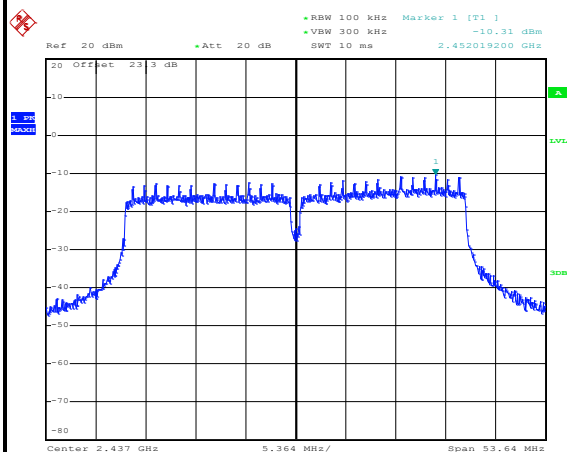
Date: 20.JUL.2016 16:22:17



Number of TX	2	Ant. :	2
Test Mode :	802.11ac VHT40	Temperature :	21~25°C
Test Band :	2.4GHz Mid	Relative Humidity :	51~54%
Test Channel :	06	Test Engineer :	Bill Kuo

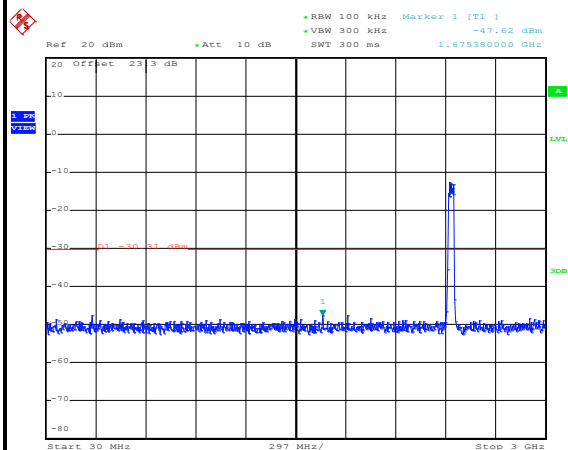
WLAN 802.11ac VHT40 Channel 06

100kHz PSD reference Level



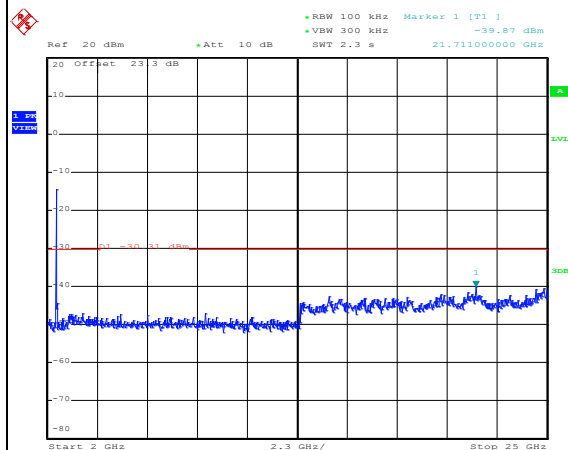
Date: 20.JUL.2016 14:44:21

Spurious Emission 30MHz~3GHz



Date: 20.JUL.2016 14:44:52

Spurious Emission 2GHz~25GHz



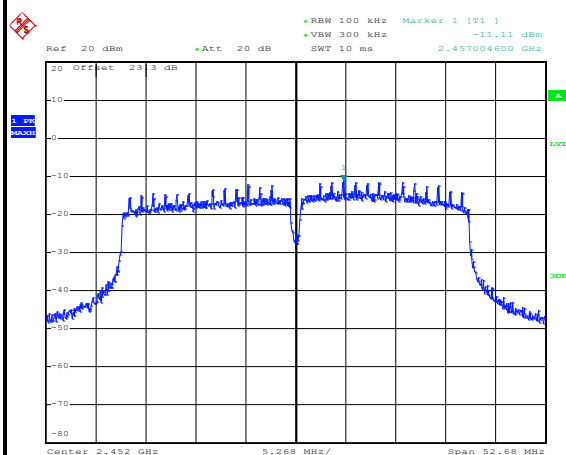
Date: 20.JUL.2016 14:45:00



Number of TX	2	Ant. :	2
Test Mode :	802.11ac VHT40	Temperature :	21~25°C
Test Band :	2.4GHz High	Relative Humidity :	51~54%
Test Channel :	09	Test Engineer :	Bill Kuo

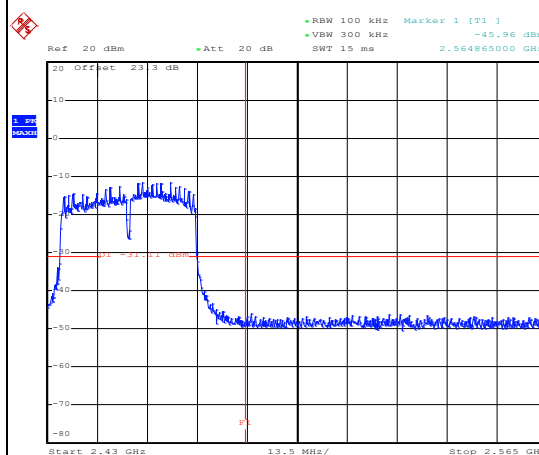
WLAN 802.11ac VHT40 Channel 09

100kHz PSD reference Level



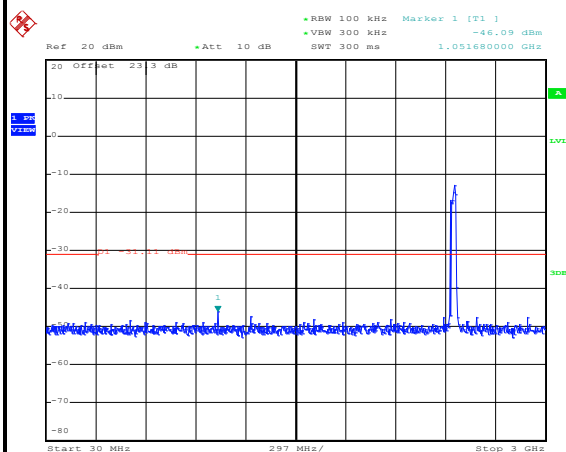
Date: 20.JUL.2016 14:53:35

High Channel Plot



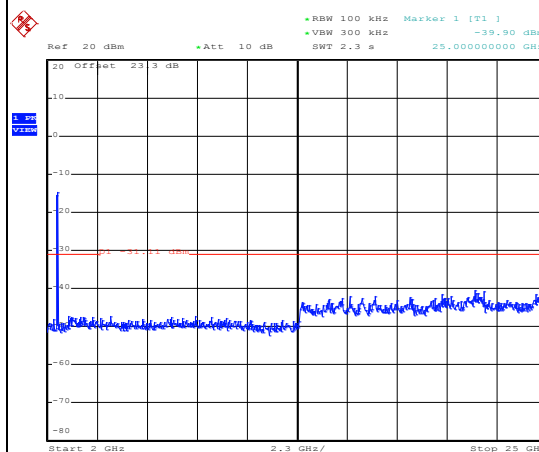
Date: 20.JUL.2016 14:53:48

Spurious Emission 30MHz~3GHz



Date: 20.JUL.2016 14:53:59

Spurious Emission 2GHz~25GHz



Date: 20.JUL.2016 14:54:07



3.5 Radiated Band Edges and Spurious Emission Measurement

3.5.1 Limit of Radiated band edge and Spurious Emission Measurement

In any 100 kHz bandwidth outside the intentional radiator frequency band, all harmonics/spurious must be at least 20 dB below the highest emission level within the authorized band. If the output power of this device was measured by spectrum analyzer, the attenuation under this paragraph shall be 30 dB instead of 20 dB. In addition, radiated emissions which fall in the restricted bands must also comply with the FCC section 15.209 limits as below.

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009 – 0.490	2400/F(kHz)	300
0.490 – 1.705	24000/F(kHz)	30
1.705 – 30.0	30	30
30 – 88	100	3
88 – 216	150	3
216 - 960	200	3
Above 960	500	3

3.5.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.5.3 Test Procedure

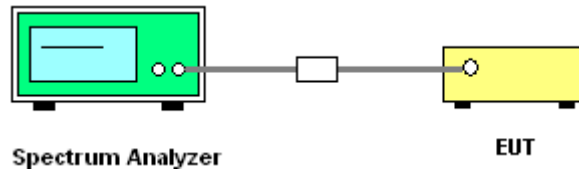
1. The testing follows FCC KDB Publication No. 558074 D01 DTS Meas. Guidance v03r05.
2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level.
3. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
5. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level
6. For measurement below 1GHz, If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.
7. Use the following spectrum analyzer settings:
 - (1) Span shall wide enough to fully capture the emission being measured;
 - (2) Set RBW=100 kHz for $f < 1$ GHz; VBW $\geq$ RBW; Sweep = auto; Detector function = peak; Trace = max hold;
 - (3) Set RBW = 1 MHz, VBW= 3MHz for $f \geq 1$ GHz for peak measurement.

For average measurement:

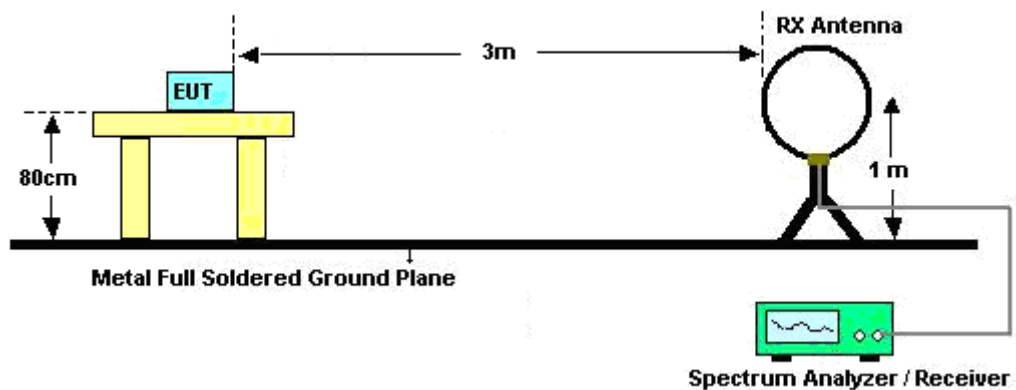
 - VBW = 10 Hz, when duty cycle is no less than 98 percent.
 - VBW $\geq 1/T$, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.

3.5.4 Test Setup

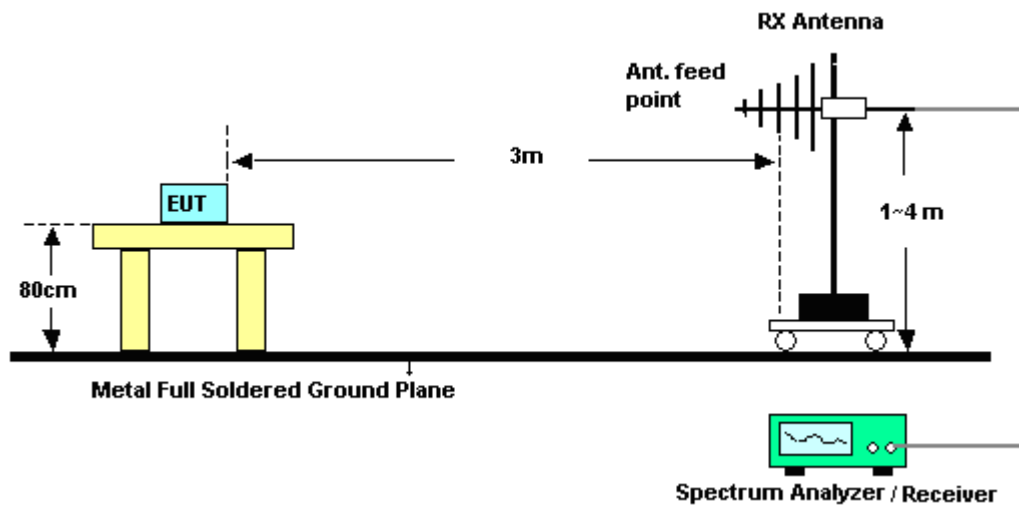
For Conducted Measurement Setup:



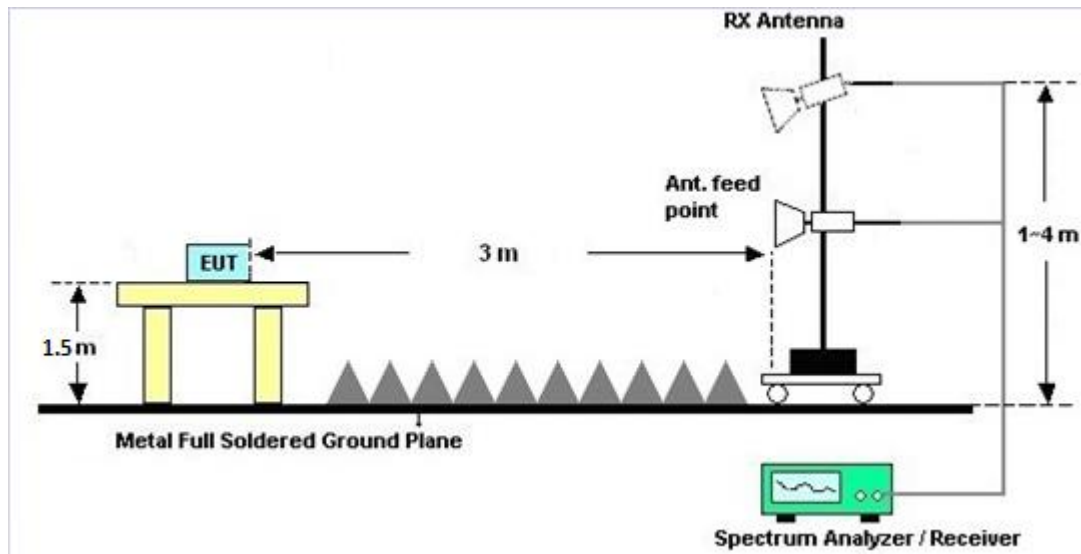
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



3.5.5 Test Results of Radiated Emissions (9kHz ~ 30MHz)

The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line per 15.31(o) was not reported.

3.5.6 Test Result of Radiated Spurious at Band Edges

Please refer to Appendix B and C of this report.

3.5.7 Duty Cycle

Please refer to Appendix D.

3.5.8 Test Result of Radiated Spurious Emission (30MHz ~ 10th Harmonic)

Please refer to Appendix B and C.

3.6 AC Conducted Emission Measurement

3.6.1 Limit of AC Conducted Emission

For equipment 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.

Frequency of Emission (MHz)	Conducted Limit (dB μ V)	
	Quasi-Peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

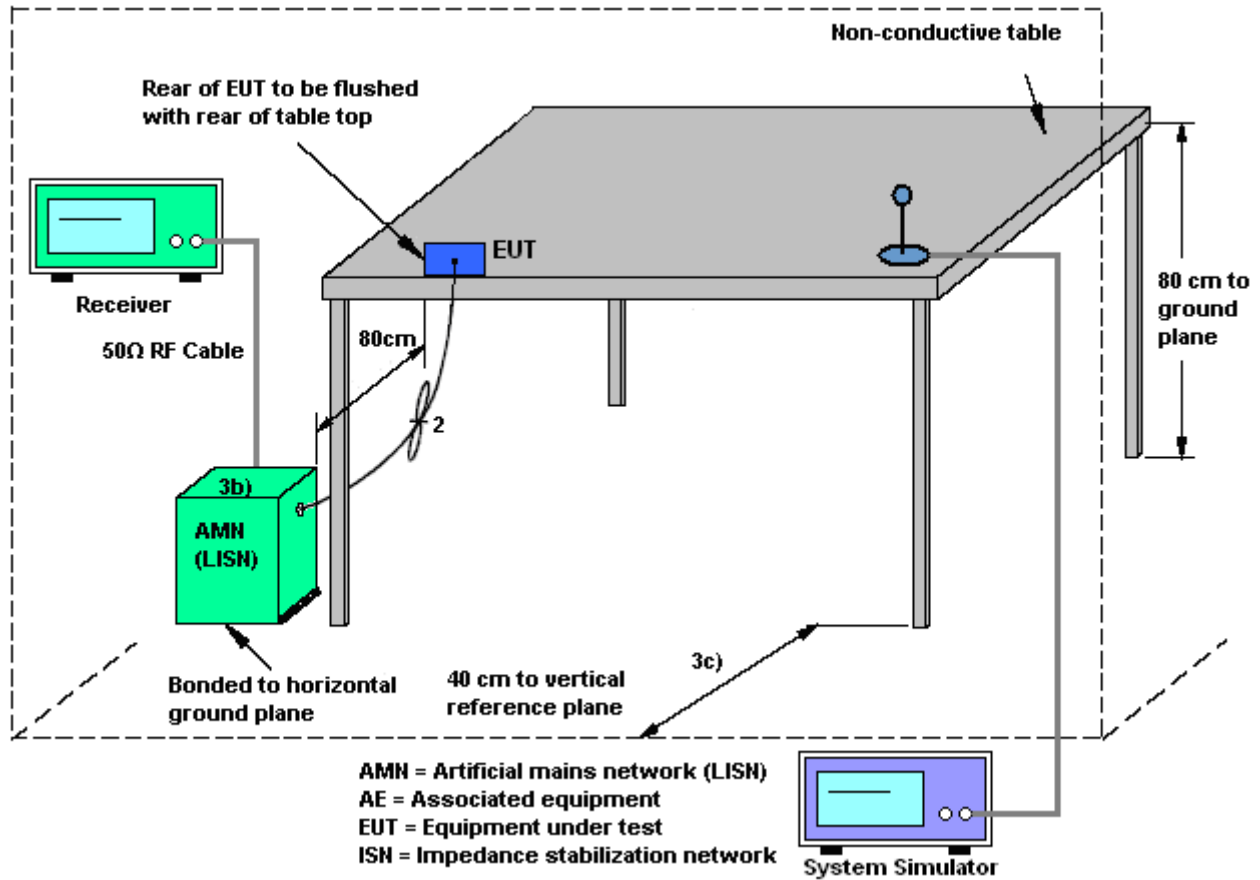
3.6.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.6.3 Test Procedures

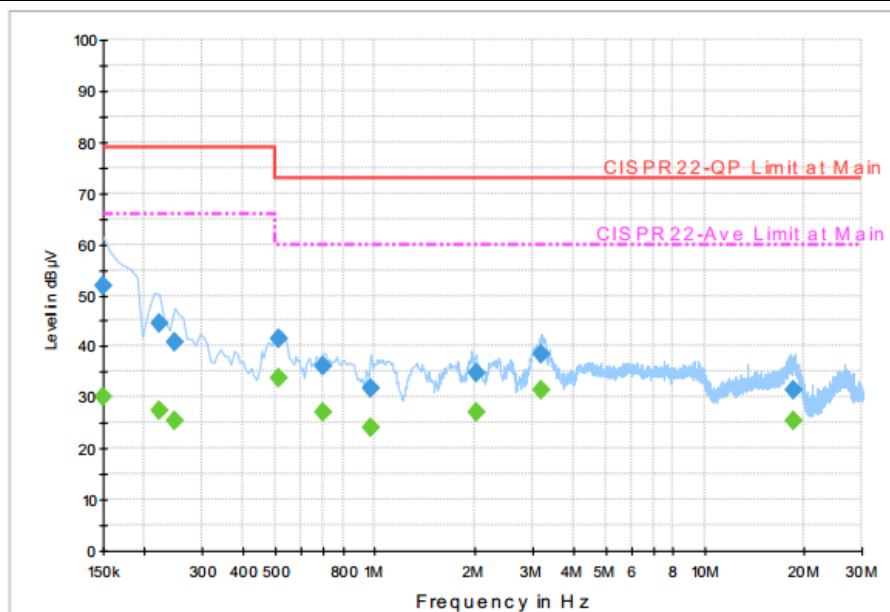
1. The EUT was placed 0.4 meter from the conducting wall of the shielding room, and it was kept at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other LISN.
4. The LISN provides 50 ohm coupling impedance for the measuring instrument.
5. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
6. Both sides of AC line were checked for maximum conducted interference.
7. The frequency range from 150 kHz to 30 MHz was searched.
8. Set the test-receiver system to Peak Detect Function and specified bandwidth (IF bandwidth = 9kHz) with Maximum Hold Mode.

3.6.4 Test Setup



3.6.5 Test Result of AC Conducted Emission

Test Mode :	Mode 2	Temperature :	23~24°C
Test Engineer :	Arthur Hsieh	Relative Humidity :	47~48%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	WLAN Link + PoE Adapter + LAN Link + Antenna 3 + GPS		



Final Result : QuasiPeak

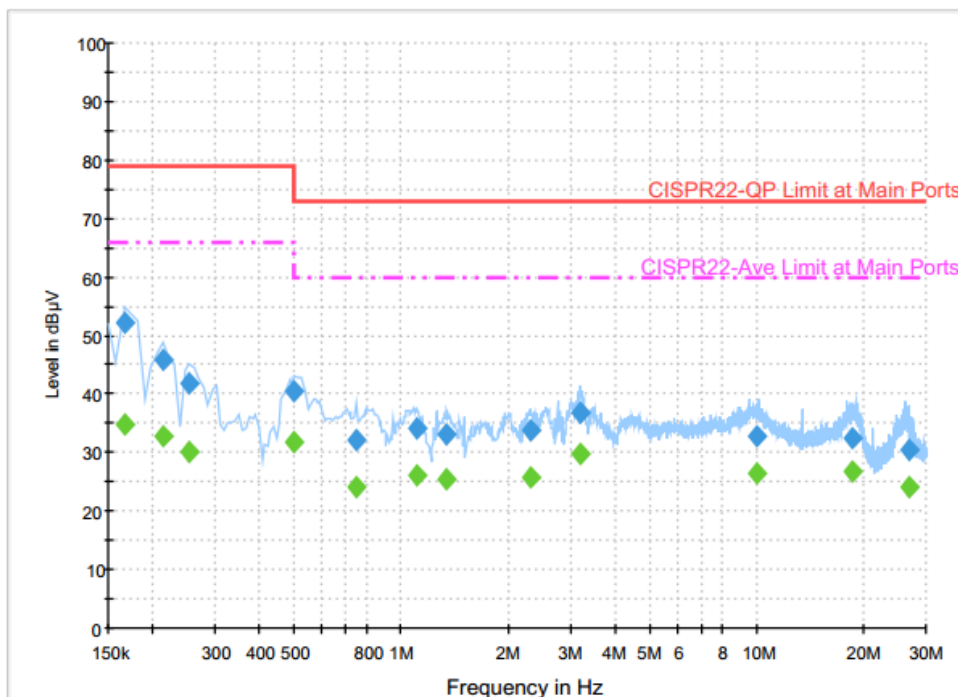
Frequency (MHz)	QuasiPeak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	51.8	Off	L1	19.6	27.2	79.0
0.222000	44.5	Off	L1	19.6	34.5	79.0
0.246000	40.7	Off	L1	19.6	38.3	79.0
0.510000	41.4	Off	L1	19.6	31.6	73.0
0.694000	36.0	Off	L1	19.6	37.0	73.0
0.974000	31.9	Off	L1	19.7	41.1	73.0
2.030000	34.8	Off	L1	19.6	38.2	73.0
3.190000	38.5	Off	L1	19.7	34.5	73.0
18.662000	31.5	Off	L1	20.6	41.5	73.0

Final Result : Average

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	30.1	Off	L1	19.6	35.9	66.0
0.222000	27.3	Off	L1	19.6	38.7	66.0
0.246000	25.6	Off	L1	19.6	40.4	66.0
0.510000	33.6	Off	L1	19.6	26.4	60.0
0.694000	27.1	Off	L1	19.6	32.9	60.0
0.974000	24.0	Off	L1	19.7	36.0	60.0
2.030000	27.1	Off	L1	19.6	32.9	60.0
3.190000	31.6	Off	L1	19.7	28.4	60.0
18.662000	25.5	Off	L1	20.6	34.5	60.0



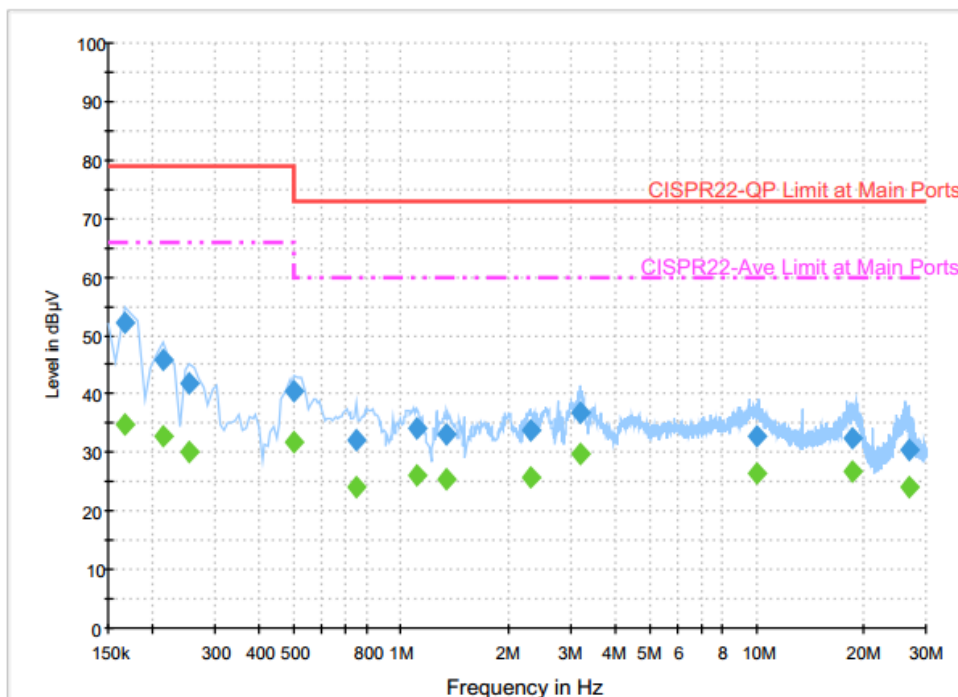
Test Mode :	Mode 2	Temperature :	23~24°C
Test Engineer :	Arthur Hsieh	Relative Humidity :	47~48%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	WLAN Link + PoE Adapter + LAN Link + Antenna 3 + GPS		



Final Result : QuasiPeak

Frequency (MHz)	QuasiPeak (dBμV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.166000	52.2	Off	N	19.6	26.8	79.0
0.214000	45.8	Off	N	19.6	33.2	79.0
0.254000	41.8	Off	N	19.6	37.2	79.0
0.502000	40.6	Off	N	19.6	32.4	73.0
0.750000	32.1	Off	N	19.6	40.9	73.0
1.110000	34.1	Off	N	19.6	38.9	73.0
1.342000	33.3	Off	N	19.7	39.7	73.0
2.318000	33.8	Off	N	18.7	39.2	73.0
3.206000	36.7	Off	N	19.7	36.3	73.0
10.054000	32.9	Off	N	20.1	40.1	73.0
18.742000	32.5	Off	N	20.7	40.5	73.0
26.798000	30.4	Off	N	21.2	42.6	73.0

Test Mode :	Mode 2	Temperature :	23~24°C
Test Engineer :	Arthur Hsieh	Relative Humidity :	47~48%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	WLAN Link + PoE Adapter + LAN Link + Antenna 3 + GPS		


Final Result : Average

Frequency (MHz)	Average (dBμV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.166000	34.8	Off	N	19.6	31.2	66.0
0.214000	32.9	Off	N	19.6	33.1	66.0
0.254000	30.0	Off	N	19.6	36.0	66.0
0.502000	31.8	Off	N	19.6	28.2	60.0
0.750000	24.0	Off	N	19.6	36.0	60.0
1.110000	26.0	Off	N	19.6	34.0	60.0
1.342000	25.4	Off	N	19.7	34.6	60.0
2.318000	25.9	Off	N	18.7	34.1	60.0
3.206000	29.8	Off	N	19.7	30.2	60.0
10.054000	26.5	Off	N	20.1	33.5	60.0
18.742000	26.7	Off	N	20.7	33.3	60.0
26.798000	24.0	Off	N	21.2	36.0	60.0



3.7 Antenna Requirements

3.7.1 Standard Applicable

If directional gain of transmitting Antennas is greater than 6dBi, the power shall be reduced by the same level in dB comparing to gain minus 6dBi. For the fixed point-to-point operation, the power shall be reduced by one dB for every 3 dB that the directional gain of the Antenna exceeds 6 dBi. 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 FCC rule.

3.7.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

3.7.3 Antenna Gain

FCC KDB 662911 D01 Multiple Transmitter Output v02r01.

For CDD transmissions, directional gain is calculated as

Directional gain = G_{ANT} + Array Gain, where Array Gain is as follows.

For power spectral density (PSD) measurements on all devices,

Array Gain = $10 \log(N_{ANT}/N_{SS}=1)$ dB.

For power measurements on IEEE 802.11 devices,

Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$.

Directional gain may be calculated by using the formulas applicable to equal gain antennas with G_{ANT} set equal to the gain of the antenna having the highest gain;

The EUT supports CDD mode.

The power and PSD limit should be modified if the directional gain of EUT is over 6 dBi,

The directional gain "DG" is calculated as following table.

<PTP>

<Ant. Type 1>

			DG for	DG for	Power Limit	PSD Limit
	Ant. 1 (dBi)	Ant. 2 (dBi)	Power (dBi)	PSD (dBi)	Reduction (dB)	Reduction (dB)
2.4 GHz	17.00	17.00	17.00	20.01	3.00	4.00

<Ant. Type 2>

			DG for	DG for	Power Limit	PSD Limit
	Ant. 1 (dBi)	Ant. 2 (dBi)	Power (dBi)	PSD (dBi)	Reduction (dB)	Reduction (dB)
2.4 GHz	24.00	24.00	24.00	27.01	6.00	7.00

<Ant. Type 3>

			DG for	DG for	Power Limit	PSD Limit
	Ant. 1 (dBi)	Ant. 2 (dBi)	Power (dBi)	PSD (dBi)	Reduction (dB)	Reduction (dB)
2.4 GHz	13.00	13.00	13.00	16.01	2.00	3.00



<PTMP>

<Ant. Type 1>

			DG	DG	Power	PSD
			for	for	Limit	Limit
	Ant. 1	Ant. 2	Power	PSD	Reduction	Reduction
	(dBi)	(dBi)	(dBi)	(dBi)	(dB)	(dB)
2.4 GHz	17.00	17.00	17.00	20.01	11.00	14.01

<Ant. Type 2>

			DG	DG	Power	PSD
			for	for	Limit	Limit
	Ant. 1	Ant. 2	Power	PSD	Reduction	Reduction
	(dBi)	(dBi)	(dBi)	(dBi)	(dB)	(dB)
2.4 GHz	24.00	24.00	24.00	27.01	18.00	21.01

<Ant. Type 3>

			DG	DG	Power	PSD
			for	for	Limit	Limit
	Ant. 1	Ant. 2	Power	PSD	Reduction	Reduction
	(dBi)	(dBi)	(dBi)	(dBi)	(dB)	(dB)
2.4 GHz	13.00	13.00	13.00	16.01	7.00	10.01

Power Limit Reduction = DG(Power) – 6dBi, (min = 0)

PSD Limit Reduction = DG(PSD) – 6dBi, (min = 0)



4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Power Meter	Anritsu	ML2495A	1218006	300MHz~40GHz	Oct. 07, 2015	Mar. 03, 2016 ~ Aug. 04, 2016	Oct. 06, 2016	Conducted (TH05-HY)
Power Sensor	Anritsu	MA2411B	0846202	300MHz~40GHz	Oct. 05, 2015	Mar. 03, 2016 ~ Aug. 04, 2016	Oct. 04, 2016	Conducted (TH05-HY)
Spectrum Analyzer	Rohde & Schwarz	FSP40	100057	9kHz-40GHz	Nov. 23, 2015	Mar. 03, 2016 ~ Aug. 04, 2016	Nov. 22, 2016	Conducted (TH05-HY)
AC Power Source	ChainTek	APC-1000W	N/A	N/A	N/A	Jul. 18, 2016 ~ Jul. 19, 2016	N/A	Conduction (CO05-HY)
EMI Test Receiver	Rohde & Schwarz	ESCI 7	100724	9kHz~7GHz	Aug. 26, 2015	Jul. 18, 2016 ~ Jul. 19, 2016	Aug. 25, 2016	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100080	9kHz~30MHz	Dec. 02, 2015	Jul. 18, 2016 ~ Jul. 19, 2016	Dec. 01, 2016	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100081	9kHz~30MHz	Dec. 14, 2015	Jul. 18, 2016 ~ Jul. 19, 2016	Dec. 13, 2016	Conduction (CO05-HY)
Bilog Antenna	Schaffner	CBL6111C	2725	30MHz~1GHz	Nov. 17, 2015	Jul. 20, 2016 ~ Jul. 21, 2016	Nov. 16, 2016	Radiation (03CH06-HY)
EMI Test Receiver	Rohde & Schwarz	ESU26	100472	20Hz~26.5GHz	Jan. 07, 2016	Jul. 20, 2016 ~ Jul. 21, 2016	Jan. 06, 2017	Radiation (03CH06-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-1156	1GHz~18GHz	Aug. 21, 2015	Jul. 20, 2016 ~ Jul. 21, 2016	Aug. 20, 2016	Radiation (03CH06-HY)
Preamplifier	Agilent	8449B	3008A01917	1GHz~26.5GHz	Apr. 18, 2016	Jul. 20, 2016 ~ Jul. 21, 2016	Apr. 17, 2017	Radiation (03CH06-HY)
Preamplifier	SONOMA	310N	186713	9kHz~1GHz	Apr. 19, 2016	Jul. 20, 2016 ~ Jul. 21, 2016	Apr. 18, 2017	Radiation (03CH06-HY)
Preamplifier	MITEQ	AMF-7D-0010 1800-30-10P	1850117	1GHz ~ 18GHz	Jun. 22, 2016	Jul. 20, 2016 ~ Jul. 21, 2016	Jun. 21, 2017	Radiation (03CH06-HY)
Antenna Mast	MF	MF-7802	MF78020821 2	1m~4m	N/A	Jul. 20, 2016 ~ Jul. 21, 2016	N/A	Radiation (03CH06-HY)
Turn Table	INN-CO	DS2000	420/650/00	0-360 degree	N/A	Jul. 20, 2016 ~ Jul. 21, 2016	N/A	Radiation (03CH06-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100315	9 kHz~30 MHz	Sep. 02, 2015	Jul. 20, 2016 ~ Jul. 21, 2016	Sep. 01, 2016	Radiation (03CH06-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA91702 51	18GHz- 40GHz	Oct. 12, 2015	Jul. 20, 2016 ~ Jul. 21, 2016	Oct. 11, 2016	Radiation (03CH06-HY)
Preamplifier	Agilent	8449B	3008A02375	1GHz~26.5GHz	Jan. 05, 2016	Jul. 06, 2016 ~ Jul. 20, 2016	Jan. 04, 2017	Radiation (03CH13-HY)
Preamplifier	MITEQ	TTA 0204	1872107	2GHz ~ 40GHz	Feb. 15, 2016	Jul. 06, 2016 ~ Jul. 20, 2016	Feb. 14, 2017	Radiation (03CH13-HY)
Spectrum Analyzer	Keysight	N9010A	MY55370526	10Hz~44GHz	Mar. 14, 2016	Jul. 06, 2016 ~ Jul. 20, 2016	Mar. 13, 2017	Radiation (03CH13-HY)
Preamplifier	SONOMA	310N	187282	10MHz~1GHz	Dec. 31, 2015	Jul. 06, 2016 ~ Jul. 20, 2016	Dec. 30, 2016	Radiation (03CH13-HY)



5 Uncertainty of Evaluation

Uncertainty of Conducted Emission Measurement (150kHz ~ 30MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	2.26
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Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	4.9
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Uncertainty of Radiated Emission Measurement (1000 MHz ~ 40 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	4.3
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Appendix A. Conducted Test Results

<Antenna Type 1 with PTP Mode>

Report Number : FR581010

Test Engineer:	Bill Kuo	Temperature:	21~25	°C
Test Date:	2016/03/03~2016/08/04	Relative Humidity:	51~54	%

TEST RESULTS DATA
6dB and 99% Occupied Bandwidth

2.4GHz Band										
Mod.	Data Rate	NTx	CH.	Freq. (MHz)	99% Occupied BW (MHz)		6dB BW (MHz)		6dB BW Limit (MHz)	Pass/Fail
					Ant 1	Ant 2	Ant 1	Ant 2		
VHT10	MCS0	2	1	2412	10.28	10.23	8.84	8.86	0.50	Pass
VHT10	MCS0	2	6	2437	10.23	10.22	8.86	8.84	0.50	Pass
VHT10	MCS0	2	11	2462	10.17	10.17	8.84	8.86	0.50	Pass
VHT20	MCS0	2	1	2412	18.55	18.65	16.96	16.96	0.50	Pass
VHT20	MCS0	2	6	2437	18.85	18.80	17.60	17.32	0.50	Pass
VHT20	MCS0	2	11	2462	18.35	18.25	17.28	16.92	0.50	Pass
VHT40	MCS0	2	3	2422	36.80	37.00	35.76	35.76	0.50	Pass
VHT40	MCS0	2	6	2437	37.10	37.10	36.32	35.76	0.50	Pass
VHT40	MCS0	2	9	2452	36.50	36.30	35.12	35.12	0.50	Pass

TEST RESULTS DATA
Peak Output Power

2.4GHz Band														
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Peak Conducted Power (dBm)			Conducted Power Limit (dBm)		DG (dBi)		EIRP Power (dBm)		Pass /Fail
					Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	
HT10	MCS0	2	1	2412	15.65	15.80	18.74	27.00		17.00		35.74		Pass
HT10	MCS0	2	6	2437	16.02	15.81	18.93	27.00		17.00		35.93		Pass
HT10	MCS0	2	11	2462	8.88	8.76	11.83	27.00		17.00		28.83		Pass
HT20	MCS0	2	1	2412	9.54	9.72	12.64	27.00		17.00		29.64		Pass
HT20	MCS0	2	6	2437	15.86	15.80	18.84	27.00		17.00		35.84		Pass
HT20	MCS0	2	11	2462	11.85	11.40	14.64	27.00		17.00		31.64		Pass
HT40	MCS0	2	3	2422	7.00	6.76	9.89	27.00		17.00		26.89		Pass
HT40	MCS0	2	6	2437	11.10	11.54	14.34	27.00		17.00		31.34		Pass
HT40	MCS0	2	9	2452	9.30	9.21	12.27	27.00		17.00		29.27		Pass
VHT10	MCS0	2	1	2412	16.10	15.82	18.97	27.00		17.00		35.97		Pass
VHT10	MCS0	2	6	2437	16.12	15.83	18.99	27.00		17.00		35.99		Pass
VHT10	MCS0	2	11	2462	8.98	8.89	11.95	27.00		17.00		28.95		Pass
VHT20	MCS0	2	1	2412	9.69	9.72	12.72	27.00		17.00		29.72		Pass
VHT20	MCS0	2	6	2437	15.99	15.95	18.98	27.00		17.00		35.98		Pass
VHT20	MCS0	2	11	2462	11.95	11.49	14.74	27.00		17.00		31.74		Pass
VHT40	MCS0	2	3	2422	7.05	6.85	9.96	27.00		17.00		26.96		Pass
VHT40	MCS0	2	6	2437	11.12	11.72	14.44	27.00		17.00		31.44		Pass
VHT40	MCS0	2	9	2452	9.36	9.39	12.39	27.00		17.00		29.39		Pass

Note: Measured power (dBm) has offset with cable loss.

TEST RESULTS DATA
Average Output Power

2.4GHz Band									
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)		Average Conducted Power (dBm)		
					Ant 1	Ant 2	Ant 1	Ant 2	SUM
HT10	MCS0	2	1	2412	0.39	0.33	10.69	10.09	13.41
HT10	MCS0	2	6	2437	0.39	0.33	11.70	11.65	14.68
HT10	MCS0	2	11	2462	0.39	0.33	2.85	2.75	5.81
HT20	MCS0	2	1	2412	0.48	0.45	3.60	3.09	6.37
HT20	MCS0	2	6	2437	0.48	0.45	10.35	9.96	13.17
HT20	MCS0	2	11	2462	0.48	0.45	5.29	4.91	8.12
HT40	MCS0	2	3	2422	0.93	0.85	0.92	0.15	3.56
HT40	MCS0	2	6	2437	0.93	0.85	4.99	5.90	8.48
HT40	MCS0	2	9	2452	0.93	0.85	2.56	2.57	5.58
VHT10	MCS0	2	1	2412	96.15	96.18	10.56	10.26	13.42
VHT10	MCS0	2	6	2437	96.15	96.18	11.76	11.69	14.74
VHT10	MCS0	2	11	2462	96.15	96.18	2.93	2.90	5.92
VHT20	MCS0	2	1	2412	0.23	0.23	3.52	3.42	6.48
VHT20	MCS0	2	6	2437	0.23	0.23	10.22	10.22	13.23
VHT20	MCS0	2	11	2462	0.23	0.23	5.35	5.08	8.23
VHT40	MCS0	2	3	2422	0.47	0.47	0.66	0.62	3.65
VHT40	MCS0	2	6	2437	0.47	0.47	5.39	5.59	8.51
VHT40	MCS0	2	9	2452	0.47	0.47	2.63	2.59	5.62

Note: Measured power (dBm) has offset with cable loss.

TEST RESULTS DATA
Peak Power Spectral Density

2.4GHz Band												
Mod.	Data Rate	NTx	CH.	Freq. (MHz)	Peak PSD (dBm/3kHz)			DG (dBi)		Peak PSD Limit (dBm/3kHz)		Pass/Fail
					Ant 1	Ant 2	Worse + 3.01	Ant 1	Ant 2	Ant 1	Ant 2	
VHT10	MCS0	2	1	2412	-11.68	-12.97	-8.67	20.01		4.00		Pass
VHT10	MCS0	2	6	2437	-10.57	-10.88	-7.56	20.01		4.00		Pass
VHT10	MCS0	2	11	2462	-19.99	-20.96	-16.98	20.01		4.00		Pass
VHT20	MCS0	2	1	2412	-21.59	-21.88	-18.58	20.01		4.00		Pass
VHT20	MCS0	2	6	2437	-15.93	-16.00	-12.92	20.01		4.00		Pass
VHT20	MCS0	2	11	2462	-20.31	-20.81	-17.30	20.01		4.00		Pass
VHT40	MCS0	2	3	2422	-27.42	-26.64	-23.63	20.01		4.00		Pass
VHT40	MCS0	2	6	2437	-23.70	-23.09	-20.08	20.01		4.00		Pass
VHT40	MCS0	2	9	2452	-25.86	-26.49	-22.85	20.01		4.00		Pass

Measured power density (dBm) has offset with cable loss.



<Antenna Type 1 with PTMP Mode>

TEST RESULTS DATA
6dB and 99% Occupied Bandwidth

2.4GHz Band										
Mod.	Data Rate	NTx	CH.	Freq. (MHz)	99% Occupied BW (MHz)		6dB BW (MHz)		6dB BW Limit (MHz)	Pass/Fail
					Ant 1	Ant 2	Ant 1	Ant 2		
VHT10	MCS0	2	1	2412	10.26	10.22	8.86	8.84	0.50	Pass
VHT10	MCS0	2	6	2437	10.32	10.23	8.86	8.84	0.50	Pass
VHT10	MCS0	2	11	2462	10.17	10.17	8.84	8.86	0.50	Pass
VHT20	MCS0	2	1	2412	18.60	18.70	16.96	16.96	0.50	Pass
VHT20	MCS0	2	6	2437	18.70	18.60	17.60	17.20	0.50	Pass
VHT20	MCS0	2	11	2462	18.50	18.30	17.32	16.96	0.50	Pass
VHT40	MCS0	2	3	2422	37.40	37.20	35.76	35.76	0.50	Pass
VHT40	MCS0	2	6	2437	37.10	37.20	36.32	35.76	0.50	Pass
VHT40	MCS0	2	9	2452	36.60	36.30	35.44	35.12	0.50	Pass

TEST RESULTS DATA
Peak Output Power

2.4GHz Band																
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Peak Conducted Power (dBm)			Conducted Power Limit (dBm)		DG (dBi)		EIRP Power (dBm)		EIRP Power Limit (dBm)		Pass /Fail
					Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	
HT10	MCS0	2	1	2412	8.34	8.10	11.23	19.00		17.00		28.23		36.00		Pass
HT10	MCS0	2	6	2437	8.43	8.46	11.46	19.00		17.00		28.46		36.00		Pass
HT10	MCS0	2	11	2462	8.88	8.76	11.83	19.00		17.00		28.83		36.00		Pass
HT20	MCS0	2	1	2412	8.67	8.50	11.60	19.00		17.00		28.60		36.00		Pass
HT20	MCS0	2	6	2437	8.42	8.50	11.47	19.00		17.00		28.47		36.00		Pass
HT20	MCS0	2	11	2462	8.98	8.81	11.91	19.00		17.00		28.91		36.00		Pass
HT40	MCS0	2	3	2422	7.10	7.02	10.07	19.00		17.00		27.07		36.00		Pass
HT40	MCS0	2	6	2437	8.10	8.51	11.32	19.00		17.00		28.32		36.00		Pass
HT40	MCS0	2	9	2452	8.76	8.88	11.83	19.00		17.00		28.83		36.00		Pass
VHT10	MCS0	2	1	2412	8.44	8.15	11.31	19.00		17.00		28.31		36.00		Pass
VHT10	MCS0	2	6	2437	8.55	8.52	11.55	19.00		17.00		28.55		36.00		Pass
VHT10	MCS0	2	11	2462	8.98	8.89	11.95	19.00		17.00		28.95		36.00		Pass
VHT20	MCS0	2	1	2412	8.73	8.54	11.65	19.00		17.00		28.65		36.00		Pass
VHT20	MCS0	2	6	2437	8.57	8.52	11.56	19.00		17.00		28.56		36.00		Pass
VHT20	MCS0	2	11	2462	9.00	8.94	11.98	19.00		17.00		28.98		36.00		Pass
VHT40	MCS0	2	3	2422	7.12	7.09	10.12	19.00		17.00		27.12		36.00		Pass
VHT40	MCS0	2	6	2437	8.14	8.63	11.40	19.00		17.00		28.40		36.00		Pass
VHT40	MCS0	2	9	2452	8.82	9.08	11.96	19.00		17.00		28.96		36.00		Pass

Note: Measured power (dBm) has offset with cable loss.

TEST RESULTS DATA
Average Output Power

2.4GHz Band									
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)		Average Conducted Power (dBm)		
					Ant 1	Ant 2	Ant 1	Ant 2	SUM
HT10	MCS0	2	1	2412	0.39	0.33	2.39	2.13	5.27
HT10	MCS0	2	6	2437	0.39	0.33	2.51	2.55	5.54
HT10	MCS0	2	11	2462	0.39	0.33	2.94	2.98	5.97
HT20	MCS0	2	1	2412	0.48	0.45	2.44	2.21	5.34
HT20	MCS0	2	6	2437	0.48	0.45	2.57	2.51	5.55
HT20	MCS0	2	11	2462	0.48	0.45	2.73	2.57	5.66
HT40	MCS0	2	3	2422	0.93	0.85	1.13	0.90	4.03
HT40	MCS0	2	6	2437	0.93	0.85	2.79	2.97	5.89
HT40	MCS0	2	9	2452	0.93	0.85	2.53	2.61	5.58
VHT10	MCS0	2	1	2412	96.15	96.18	2.19	2.05	5.13
VHT10	MCS0	2	6	2437	96.15	96.18	2.34	2.46	5.41
VHT10	MCS0	2	11	2462	96.15	96.18	2.93	2.90	5.92
VHT20	MCS0	2	1	2412	0.23	0.23	2.23	2.12	5.19
VHT20	MCS0	2	6	2437	0.23	0.23	2.36	2.34	5.36
VHT20	MCS0	2	11	2462	0.23	0.23	2.58	2.46	5.53
VHT40	MCS0	2	3	2422	0.47	0.47	0.70	0.56	3.64
VHT40	MCS0	2	6	2437	0.47	0.47	2.40	2.65	5.54
VHT40	MCS0	2	9	2452	0.47	0.47	2.13	2.27	5.21

Note: Measured power (dBm) has offset with cable loss.

TEST RESULTS DATA
Peak Power Spectral Density

2.4GHz Band												
Mod.	Data Rate	NTx	CH.	Freq. (MHz)	Peak PSD (dBm/3kHz)			DG (dBi)		Peak PSD Limit (dBm/3kHz)		Pass/Fail
					Ant 1	Ant 2	Worse + 3.01	Ant 1	Ant 2	Ant 1	Ant 2	
VHT10	MCS0	2	1	2412	-19.63	-20.27	-16.62	20.01		-6.01		Pass
VHT10	MCS0	2	6	2437	-18.92	-20.25	-15.91	20.01		-6.01		Pass
VHT10	MCS0	2	11	2462	-19.99	-20.96	-16.98	20.01		-6.01		Pass
VHT20	MCS0	2	1	2412	-23.88	-23.43	-20.42	20.01		-6.01		Pass
VHT20	MCS0	2	6	2437	-22.06	-22.03	-19.02	20.01		-6.01		Pass
VHT20	MCS0	2	11	2462	-22.42	-23.42	-19.41	20.01		-6.01		Pass
VHT40	MCS0	2	3	2422	-28.70	-27.68	-24.67	20.01		-6.01		Pass
VHT40	MCS0	2	6	2437	-25.89	-25.56	-22.55	20.01		-6.01		Pass
VHT40	MCS0	2	9	2452	-25.48	-25.81	-22.47	20.01		-6.01		Pass

Measured power density (dBm) has offset with cable loss.



<Antenna Type 2 with PTP Mode>

TEST RESULTS DATA
6dB and 99% Occupied Bandwidth

2.4GHz Band										
Mod.	Data Rate	NTx	CH.	Freq. (MHz)	99% Occupied BW (MHz)		6dB BW (MHz)		6dB BW Limit (MHz)	Pass/Fail
					Ant 1	Ant 2	Ant 1	Ant 2		
VHT10	MCS0	2	1	2412	10.26	10.22	8.86	8.84	0.50	Pass
VHT10	MCS0	2	6	2437	10.32	10.23	8.86	8.84	0.50	Pass
VHT10	MCS0	2	11	2462	10.17	10.17	8.84	8.86	0.50	Pass
VHT20	MCS0	2	1	2412	18.60	18.70	16.96	17.00	0.50	Pass
VHT20	MCS0	2	6	2437	18.70	18.60	17.60	17.20	0.50	Pass
VHT20	MCS0	2	11	2462	18.50	18.30	17.32	16.96	0.50	Pass
VHT40	MCS0	2	3	2422	37.40	37.20	35.76	35.76	0.50	Pass
VHT40	MCS0	2	6	2437	37.10	37.20	36.36	35.84	0.50	Pass
VHT40	MCS0	2	9	2452	36.60	36.30	35.36	35.36	0.50	Pass

TEST RESULTS DATA
Peak Output Power

2.4GHz Band														
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Peak Conducted Power (dBm)			Conducted Power Limit (dBm)		DG (dBi)		EIRP Power (dBm)		Pass /Fail
					Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	
HT10	MCS0	2	1	2412	8.34	8.10	11.23	24.00		24.00		35.23		Pass
HT10	MCS0	2	6	2437	8.43	8.46	11.46	24.00		24.00		35.46		Pass
HT10	MCS0	2	11	2462	8.88	8.76	11.83	24.00		24.00		35.83		Pass
HT20	MCS0	2	1	2412	4.42	4.21	7.33	24.00		24.00		31.33		Pass
HT20	MCS0	2	6	2437	8.42	8.50	11.47	24.00		24.00		35.47		Pass
HT20	MCS0	2	11	2462	8.98	8.81	11.91	24.00		24.00		35.91		Pass
HT40	MCS0	2	3	2422	2.40	2.46	5.44	24.00		24.00		29.44		Pass
HT40	MCS0	2	6	2437	4.46	4.59	7.54	24.00		24.00		31.54		Pass
HT40	MCS0	2	9	2452	4.52	5.05	7.80	24.00		24.00		31.80		Pass
VHT10	MCS0	2	1	2412	8.44	8.15	11.31	24.00		24.00		35.31		Pass
VHT10	MCS0	2	6	2437	8.55	8.52	11.55	24.00		24.00		35.55		Pass
VHT10	MCS0	2	11	2462	8.98	8.89	11.95	24.00		24.00		35.95		Pass
VHT20	MCS0	2	1	2412	4.49	4.45	7.48	24.00		24.00		31.48		Pass
VHT20	MCS0	2	6	2437	8.57	8.52	11.56	24.00		24.00		35.56		Pass
VHT20	MCS0	2	11	2462	9.00	8.94	11.98	24.00		24.00		35.98		Pass
VHT40	MCS0	2	3	2422	2.45	2.49	5.48	24.00		24.00		29.48		Pass
VHT40	MCS0	2	6	2437	4.59	4.59	7.60	24.00		24.00		31.60		Pass
VHT40	MCS0	2	9	2452	4.57	5.09	7.85	24.00		24.00		31.85		Pass

Note: Measured power (dBm) has offset with cable loss.

TEST RESULTS DATA
Average Output Power

2.4GHz Band									
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)		Average Conducted Power (dBm)		
					Ant 1	Ant 2	Ant 1	Ant 2	SUM
HT10	MCS0	2	1	2412	0.39	0.33	2.39	2.13	5.27
HT10	MCS0	2	6	2437	0.39	0.33	2.51	2.55	5.54
HT10	MCS0	2	11	2462	0.39	0.33	2.94	2.98	5.97
HT20	MCS0	2	1	2412	0.48	0.45	-2.22	-2.57	0.62
HT20	MCS0	2	6	2437	0.48	0.45	2.57	2.51	5.55
HT20	MCS0	2	11	2462	0.48	0.45	2.73	2.57	5.66
HT40	MCS0	2	3	2422	0.93	0.85	-5.08	-5.11	-2.08
HT40	MCS0	2	6	2437	0.93	0.85	-1.87	-1.95	1.10
HT40	MCS0	2	9	2452	0.93	0.85	-1.86	-1.93	1.12
VHT10	MCS0	2	1	2412	96.15	96.18	2.19	2.05	5.13
VHT10	MCS0	2	6	2437	96.15	96.18	2.34	2.46	5.41
VHT10	MCS0	2	11	2462	96.15	96.18	2.93	2.90	5.92
VHT20	MCS0	2	1	2412	0.23	0.23	-2.52	-2.72	0.39
VHT20	MCS0	2	6	2437	0.23	0.23	2.36	2.34	5.36
VHT20	MCS0	2	11	2462	0.23	0.23	2.58	2.46	5.53
VHT40	MCS0	2	3	2422	0.47	0.47	-5.48	-5.44	-2.45
VHT40	MCS0	2	6	2437	0.47	0.47	-2.26	-2.28	0.74
VHT40	MCS0	2	9	2452	0.47	0.47	-2.24	-2.27	0.76

Note: Measured power (dBm) has offset with cable loss.

TEST RESULTS DATA
Peak Power Spectral Density

2.4GHz Band												
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Peak PSD (dBm/3kHz)			DG (dBi)		Peak PSD Limit (dBm/3kHz)		Pass/Fail
					Ant 1	Ant 2	Worse + 3.01	Ant 1	Ant 2	Ant 1	Ant 2	
VHT10	MCS0	2	1	2412	-19.63	-20.27	-16.62	27.01		1.00		Pass
VHT10	MCS0	2	6	2437	-18.92	-20.25	-15.91	27.01		1.00		Pass
VHT10	MCS0	2	11	2462	-19.99	-20.96	-16.98	27.01		1.00		Pass
VHT20	MCS0	2	1	2412	-28.62	-28.53	-25.52	27.01		1.00		Pass
VHT20	MCS0	2	6	2437	-22.06	-22.03	-19.02	27.01		1.00		Pass
VHT20	MCS0	2	11	2462	-22.42	-23.42	-19.41	27.01		1.00		Pass
VHT40	MCS0	2	3	2422	-35.06	-34.29	-31.28	27.01		1.00		Pass
VHT40	MCS0	2	6	2437	-30.93	-30.85	-27.84	27.01		1.00		Pass
VHT40	MCS0	2	9	2452	-31.26	-31.27	-28.25	27.01		1.00		Pass

Measured power density (dBm) has offset with cable loss.



<Antenna Type 2 with PTMP Mode>

TEST RESULTS DATA
6dB and 99% Occupied Bandwidth

2.4GHz Band										
Mod.	Data Rate	NTx	CH.	Freq. (MHz)	99% Occupied BW (MHz)		6dB BW (MHz)		6dB BW Limit (MHz)	Pass/Fail
					Ant 1	Ant 2	Ant 1	Ant 2		
VHT10	MCS0	2	1	2412	10.26	10.22	8.86	8.84	0.50	Pass
VHT10	MCS0	2	6	2437	10.32	10.23	8.86	8.84	0.50	Pass
VHT10	MCS0	2	11	2462	10.17	10.17	8.84	8.86	0.50	Pass
VHT20	MCS0	2	1	2412	18.60	18.70	16.96	17.00	0.50	Pass
VHT20	MCS0	2	6	2437	18.70	18.60	17.60	17.20	0.50	Pass
VHT20	MCS0	2	11	2462	18.50	18.30	17.32	16.96	0.50	Pass
VHT40	MCS0	2	3	2422	37.40	37.20	35.76	35.76	0.50	Pass
VHT40	MCS0	2	6	2437	37.10	37.20	36.36	35.84	0.50	Pass
VHT40	MCS0	2	9	2452	36.60	36.30	35.36	35.36	0.50	Pass

TEST RESULTS DATA
Peak Output Power

2.4GHz Band																
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Peak Conducted Power (dBm)			Conducted Power Limit (dBm)		DG (dBi)		EIRP Power (dBm)		EIRP Power Limit (dBm)		Pass /Fail
					Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	
HT10	MCS0	2	1	2412	8.34	8.10	11.23	12.00		24.00		35.23		36.00		Pass
HT10	MCS0	2	6	2437	8.43	8.46	11.46	12.00		24.00		35.46		36.00		Pass
HT10	MCS0	2	11	2462	8.88	8.76	11.83	12.00		24.00		35.83		36.00		Pass
HT20	MCS0	2	1	2412	4.42	4.21	7.33	12.00		24.00		31.33		36.00		Pass
HT20	MCS0	2	6	2437	8.42	8.50	11.47	12.00		24.00		35.47		36.00		Pass
HT20	MCS0	2	11	2462	8.98	8.81	11.91	12.00		24.00		35.91		36.00		Pass
HT40	MCS0	2	3	2422	2.40	2.46	5.44	12.00		24.00		29.44		36.00		Pass
HT40	MCS0	2	6	2437	4.46	4.59	7.54	12.00		24.00		31.54		36.00		Pass
HT40	MCS0	2	9	2452	4.52	5.05	7.80	12.00		24.00		31.80		36.00		Pass
VHT10	MCS0	2	1	2412	8.44	8.15	11.31	12.00		24.00		35.31		36.00		Pass
VHT10	MCS0	2	6	2437	8.55	8.52	11.55	12.00		24.00		35.55		36.00		Pass
VHT10	MCS0	2	11	2462	8.98	8.89	11.95	12.00		24.00		35.95		36.00		Pass
VHT20	MCS0	2	1	2412	4.49	4.45	7.48	12.00		24.00		31.48		36.00		Pass
VHT20	MCS0	2	6	2437	8.57	8.52	11.56	12.00		24.00		35.56		36.00		Pass
VHT20	MCS0	2	11	2462	9.00	8.94	11.98	12.00		24.00		35.98		36.00		Pass
VHT40	MCS0	2	3	2422	2.45	2.49	5.48	12.00		24.00		29.48		36.00		Pass
VHT40	MCS0	2	6	2437	4.59	4.59	7.60	12.00		24.00		31.60		36.00		Pass
VHT40	MCS0	2	9	2452	4.57	5.09	7.85	12.00		24.00		31.85		36.00		Pass

Note: Measured power (dBm) has offset with cable loss.

TEST RESULTS DATA
Average Output Power

2.4GHz Band									
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)		Average Conducted Power (dBm)		
					Ant 1	Ant 2	Ant 1	Ant 2	SUM
HT10	MCS0	2	1	2412	0.39	0.33	2.39	2.13	5.27
HT10	MCS0	2	6	2437	0.39	0.33	2.51	2.55	5.54
HT10	MCS0	2	11	2462	0.39	0.33	2.94	2.98	5.97
HT20	MCS0	2	1	2412	0.48	0.45	-2.22	-2.57	0.62
HT20	MCS0	2	6	2437	0.48	0.45	2.57	2.51	5.55
HT20	MCS0	2	11	2462	0.48	0.45	2.73	2.57	5.66
HT40	MCS0	2	3	2422	0.93	0.85	-5.08	-5.11	-2.08
HT40	MCS0	2	6	2437	0.93	0.85	-1.87	-1.95	1.10
HT40	MCS0	2	9	2452	0.93	0.85	-1.86	-1.93	1.12
VHT10	MCS0	2	1	2412	96.15	96.18	2.19	2.05	5.13
VHT10	MCS0	2	6	2437	96.15	96.18	2.34	2.46	5.41
VHT10	MCS0	2	11	2462	96.15	96.18	2.93	2.90	5.92
VHT20	MCS0	2	1	2412	0.23	0.23	-2.52	-2.72	0.39
VHT20	MCS0	2	6	2437	0.23	0.23	2.36	2.34	5.36
VHT20	MCS0	2	11	2462	0.23	0.23	2.58	2.46	5.53
VHT40	MCS0	2	3	2422	0.47	0.47	-5.48	-5.44	-2.45
VHT40	MCS0	2	6	2437	0.47	0.47	-2.26	-2.28	0.74
VHT40	MCS0	2	9	2452	0.47	0.47	-2.24	-2.27	0.76

Note: Measured power (dBm) has offset with cable loss.

TEST RESULTS DATA
Peak Power Spectral Density

2.4GHz Band												
Mod.	Data Rate	NTx	CH.	Freq. (MHz)	Peak PSD (dBm/3kHz)			DG (dBi)		Peak PSD Limit (dBm/3kHz)		Pass/Fail
					Ant 1	Ant 2	Worse + 3.01	Ant 1	Ant 2	Ant 1	Ant 2	
VHT10	MCS0	2	1	2412	-19.63	-20.27	-16.62	27.01		-13.01		Pass
VHT10	MCS0	2	6	2437	-18.92	-20.25	-15.91	27.01		-13.01		Pass
VHT10	MCS0	2	11	2462	-19.99	-20.96	-16.98	27.01		-13.01		Pass
VHT20	MCS0	2	1	2412	-28.62	-28.53	-25.52	27.01		-13.01		Pass
VHT20	MCS0	2	6	2437	-22.06	-22.03	-19.02	27.01		-13.01		Pass
VHT20	MCS0	2	11	2462	-22.42	-23.42	-19.41	27.01		-13.01		Pass
VHT40	MCS0	2	3	2422	-35.06	-34.29	-31.28	27.01		-13.01		Pass
VHT40	MCS0	2	6	2437	-30.93	-30.85	-27.84	27.01		-13.01		Pass
VHT40	MCS0	2	9	2452	-31.26	-31.27	-28.25	27.01		-13.01		Pass

Measured power density (dBm) has offset with cable loss.



<Antenna Type 3 with PTP Mode>

TEST RESULTS DATA
6dB and 99% Occupied Bandwidth

2.4GHz Band										
Mod.	Data Rate	NTx	CH.	Freq. (MHz)	99% Occupied BW (MHz)		6dB BW (MHz)		6dB BW Limit (MHz)	Pass/Fail
					Ant 1	Ant 2	Ant 1	Ant 2		
VHT10	MCS0	2	1	2412	10.29	10.17	8.86	8.86	0.50	Pass
VHT10	MCS0	2	6	2437	10.22	10.26	8.86	8.84	0.50	Pass
VHT10	MCS0	2	11	2462	10.22	10.20	8.82	8.84	0.50	Pass
VHT20	MCS0	2	1	2412	18.55	18.55	16.96	16.96	0.50	Pass
VHT20	MCS0	2	6	2437	18.60	18.65	17.60	17.32	0.50	Pass
VHT20	MCS0	2	11	2462	18.50	18.50	17.32	16.68	0.50	Pass
VHT40	MCS0	2	3	2422	36.70	36.80	35.76	35.76	0.50	Pass
VHT40	MCS0	2	6	2437	37.10	37.10	36.32	35.76	0.50	Pass
VHT40	MCS0	2	9	2452	36.40	36.30	35.24	35.12	0.50	Pass

TEST RESULTS DATA
Peak Output Power

2.4GHz Band														
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Peak Conducted Power (dBm)			Conducted Power Limit (dBm)		DG (dBi)		EIRP Power (dBm)		Pass /Fail
					Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	
HT10	MCS0	2	1	2412	19.70	19.65	22.69	28.00		13.00		35.69		Pass
HT10	MCS0	2	6	2437	19.99	19.92	22.97	28.00		13.00		35.97		Pass
HT10	MCS0	2	11	2462	20.03	19.79	22.92	28.00		13.00		35.92		Pass
HT20	MCS0	2	1	2412	11.69	11.51	14.61	28.00		13.00		27.61		Pass
HT20	MCS0	2	6	2437	20.10	19.46	22.80	28.00		13.00		35.80		Pass
HT20	MCS0	2	11	2462	13.65	13.10	16.39	28.00		13.00		29.39		Pass
HT40	MCS0	2	3	2422	19.94	19.66	22.81	28.00		13.00		35.81		Pass
HT40	MCS0	2	6	2437	12.10	12.64	15.39	28.00		13.00		28.39		Pass
HT40	MCS0	2	9	2452	10.86	10.76	13.82	28.00		13.00		26.82		Pass
VHT10	MCS0	2	1	2412	19.79	19.69	22.75	28.00		13.00		35.75		Pass
VHT10	MCS0	2	6	2437	20.02	19.92	22.98	28.00		13.00		35.98		Pass
VHT10	MCS0	2	11	2462	20.10	19.81	22.97	28.00		13.00		35.97		Pass
VHT20	MCS0	2	1	2412	11.79	11.55	14.68	28.00		13.00		27.68		Pass
VHT20	MCS0	2	6	2437	20.01	19.95	22.99	28.00		13.00		35.99		Pass
VHT20	MCS0	2	11	2462	13.72	13.22	16.49	28.00		13.00		29.49		Pass
VHT40	MCS0	2	3	2422	20.05	19.91	22.99	28.00		13.00		35.99		Pass
VHT40	MCS0	2	6	2437	12.19	12.85	15.54	28.00		13.00		28.54		Pass
VHT40	MCS0	2	9	2452	11.09	10.99	14.05	28.00		13.00		27.05		Pass

Note: Measured power (dBm) has offset with cable loss.

TEST RESULTS DATA
Average Output Power

2.4GHz Band									
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)		Average Conducted Power (dBm)		
					Ant 1	Ant 2	Ant 1	Ant 2	SUM
HT10	MCS0	2	1	2412	0.39	0.33	14.93	14.44	17.70
HT10	MCS0	2	6	2437	0.39	0.33	15.09	15.09	18.10
HT10	MCS0	2	11	2462	0.39	0.33	15.47	14.79	18.15
HT20	MCS0	2	1	2412	0.48	0.45	5.28	5.21	8.26
HT20	MCS0	2	6	2437	0.48	0.45	15.13	15.05	18.10
HT20	MCS0	2	11	2462	0.48	0.45	7.31	6.90	10.12
HT40	MCS0	2	3	2422	0.93	0.85	14.18	13.40	16.82
HT40	MCS0	2	6	2437	0.93	0.85	6.24	6.28	9.27
HT40	MCS0	2	9	2452	0.93	0.85	4.05	4.01	7.04
VHT10	MCS0	2	1	2412	96.15	96.18	15.06	14.62	17.86
VHT10	MCS0	2	6	2437	96.15	96.18	15.22	15.26	18.25
VHT10	MCS0	2	11	2462	96.15	96.18	15.56	14.93	18.27
VHT20	MCS0	2	1	2412	0.23	0.23	5.32	5.22	8.28
VHT20	MCS0	2	6	2437	0.23	0.23	15.28	15.24	18.27
VHT20	MCS0	2	11	2462	0.23	0.23	7.35	6.88	10.14
VHT40	MCS0	2	3	2422	0.47	0.47	14.26	14.16	17.22
VHT40	MCS0	2	6	2437	0.47	0.47	6.36	6.66	9.53
VHT40	MCS0	2	9	2452	0.47	0.47	4.16	4.11	7.15

Note: Measured power (dBm) has offset with cable loss.

TEST RESULTS DATA
Peak Power Spectral Density

2.4GHz Band												
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Peak PSD (dBm/3kHz)			DG (dBi)		Peak PSD Limit (dBm/3kHz)		Pass/Fail
					Ant 1	Ant 2	Worse + 3.01	Ant 1	Ant 2	Ant 1	Ant 2	
VHT10	MCS0	2	1	2412	-7.30	-8.24	-4.29	16.01		5.00		Pass
VHT10	MCS0	2	6	2437	-7.64	-6.97	-3.96	16.01		5.00		Pass
VHT10	MCS0	2	11	2462	-6.65	-7.68	-3.64	16.01		5.00		Pass
VHT20	MCS0	2	1	2412	-20.89	-20.75	-17.74	16.01		5.00		Pass
VHT20	MCS0	2	6	2437	-9.88	-10.06	-6.87	16.01		5.00		Pass
VHT20	MCS0	2	11	2462	-17.92	-18.16	-14.91	16.01		5.00		Pass
VHT40	MCS0	2	3	2422	-13.74	-14.62	-10.73	16.01		5.00		Pass
VHT40	MCS0	2	6	2437	-22.80	-20.94	-17.93	16.01		5.00		Pass
VHT40	MCS0	2	9	2452	-24.22	-23.70	-20.69	16.01		5.00		Pass

Measured power density (dBm) has offset with cable loss.



<Antenna Type 3 with PTMP Mode>

TEST RESULTS DATA
6dB and 99% Occupied Bandwidth

2.4GHz Band										
Mod.	Data Rate	NTx	CH.	Freq. (MHz)	99% Occupied BW (MHz)		6dB BW (MHz)		6dB BW Limit (MHz)	Pass/Fail
					Ant 1	Ant 2	Ant 1	Ant 2		
VHT10	MCS0	2	1	2412	10.26	10.22	8.86	8.84	0.50	Pass
VHT10	MCS0	2	6	2437	10.32	10.23	8.86	8.84	0.50	Pass
VHT10	MCS0	2	11	2462	10.17	10.17	8.84	8.86	0.50	Pass
VHT20	MCS0	2	1	2412	18.60	18.70	16.96	16.96	0.50	Pass
VHT20	MCS0	2	6	2437	18.70	18.60	17.60	17.20	0.50	Pass
VHT20	MCS0	2	11	2462	18.50	18.30	17.32	16.96	0.50	Pass
VHT40	MCS0	2	3	2422	36.80	37.00	35.76	35.76	0.50	Pass
VHT40	MCS0	2	6	2437	37.10	37.20	36.32	35.76	0.50	Pass
VHT40	MCS0	2	9	2452	36.60	36.30	35.44	35.12	0.50	Pass

TEST RESULTS DATA
Peak Output Power

2.4GHz Band																
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Peak Conducted Power (dBm)			Conducted Power Limit (dBm)		DG (dBi)		EIRP Power (dBm)		EIRP Power Limit (dBm)		Pass /Fail
					Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	
HT10	MCS0	2	1	2412	8.34	8.10	11.23	23.00		13.00		24.23		36.00		Pass
HT10	MCS0	2	6	2437	8.43	8.46	11.46	23.00		13.00		24.46		36.00		Pass
HT10	MCS0	2	11	2462	8.88	8.76	11.83	23.00		13.00		24.83		36.00		Pass
HT20	MCS0	2	1	2412	8.67	8.50	11.60	23.00		13.00		24.60		36.00		Pass
HT20	MCS0	2	6	2437	8.42	8.50	11.47	23.00		13.00		24.47		36.00		Pass
HT20	MCS0	2	11	2462	8.98	8.81	11.91	23.00		13.00		24.91		36.00		Pass
HT40	MCS0	2	3	2422	9.15	9.05	12.11	23.00		13.00		25.11		36.00		Pass
HT40	MCS0	2	6	2437	8.10	8.51	11.32	23.00		13.00		24.32		36.00		Pass
HT40	MCS0	2	9	2452	8.76	8.88	11.83	23.00		13.00		24.83		36.00		Pass
VHT10	MCS0	2	1	2412	8.44	8.15	11.31	23.00		13.00		24.31		36.00		Pass
VHT10	MCS0	2	6	2437	8.55	8.52	11.55	23.00		13.00		24.55		36.00		Pass
VHT10	MCS0	2	11	2462	8.98	8.89	11.95	23.00		13.00		24.95		36.00		Pass
VHT20	MCS0	2	1	2412	8.73	8.54	11.65	23.00		13.00		24.65		36.00		Pass
VHT20	MCS0	2	6	2437	8.57	8.52	11.56	23.00		13.00		24.56		36.00		Pass
VHT20	MCS0	2	11	2462	9.00	8.94	11.98	23.00		13.00		24.98		36.00		Pass
VHT40	MCS0	2	3	2422	9.29	9.09	12.20	23.00		13.00		25.20		36.00		Pass
VHT40	MCS0	2	6	2437	8.14	8.63	11.40	23.00		13.00		24.40		36.00		Pass
VHT40	MCS0	2	9	2452	8.82	9.08	11.96	23.00		13.00		24.96		36.00		Pass

Note: Measured power (dBm) has offset with cable loss.

TEST RESULTS DATA
Average Output Power

2.4GHz Band									
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)		Average Conducted Power (dBm)		
					Ant 1	Ant 2	Ant 1	Ant 2	SUM
HT10	MCS0	2	1	2412	0.39	0.33	2.39	2.13	5.27
HT10	MCS0	2	6	2437	0.39	0.33	2.51	2.55	5.54
HT10	MCS0	2	11	2462	0.39	0.33	2.94	2.98	5.97
HT20	MCS0	2	1	2412	0.48	0.45	2.44	2.21	5.34
HT20	MCS0	2	6	2437	0.48	0.45	2.57	2.51	5.55
HT20	MCS0	2	11	2462	0.48	0.45	2.73	2.57	5.66
HT40	MCS0	2	3	2422	0.93	0.85	3.43	3.35	6.40
HT40	MCS0	2	6	2437	0.93	0.85	2.79	2.97	5.89
HT40	MCS0	2	9	2452	0.93	0.85	2.53	2.61	5.58
VHT10	MCS0	2	1	2412	96.15	96.18	2.19	2.05	5.13
VHT10	MCS0	2	6	2437	96.15	96.18	2.34	2.46	5.41
VHT10	MCS0	2	11	2462	96.15	96.18	2.93	2.90	5.92
VHT20	MCS0	2	1	2412	0.23	0.23	2.23	2.12	5.19
VHT20	MCS0	2	6	2437	0.23	0.23	2.36	2.34	5.36
VHT20	MCS0	2	11	2462	0.23	0.23	2.58	2.46	5.53
VHT40	MCS0	2	3	2422	0.47	0.47	3.02	3.06	6.05
VHT40	MCS0	2	6	2437	0.47	0.47	2.40	2.65	5.54
VHT40	MCS0	2	9	2452	0.47	0.47	2.13	2.27	5.21

Note: Measured power (dBm) has offset with cable loss.

TEST RESULTS DATA
Peak Power Spectral Density

2.4GHz Band												
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Peak PSD (dBm/3kHz)			DG (dBi)		Peak PSD Limit (dBm/3kHz)		Pass/Fail
					Ant 1	Ant 2	Worse + 3.01	Ant 1	Ant 2	Ant 1	Ant 2	
VHT10	MCS0	2	1	2412	-19.63	-20.27	-16.62	16.01		-2.01		Pass
VHT10	MCS0	2	6	2437	-18.92	-20.25	-15.91	16.01		-2.01		Pass
VHT10	MCS0	2	11	2462	-19.99	-20.96	-16.98	16.01		-2.01		Pass
VHT20	MCS0	2	1	2412	-23.88	-23.43	-20.42	16.01		-2.01		Pass
VHT20	MCS0	2	6	2437	-22.06	-22.03	-19.02	16.01		-2.01		Pass
VHT20	MCS0	2	11	2462	-22.42	-23.42	-19.41	16.01		-2.01		Pass
VHT40	MCS0	2	3	2422	-26.07	-25.39	-22.38	16.01		-2.01		Pass
VHT40	MCS0	2	6	2437	-25.89	-25.56	-22.55	16.01		-2.01		Pass
VHT40	MCS0	2	9	2452	-25.48	-25.81	-22.47	16.01		-2.01		Pass

Measured power density (dBm) has offset with cable loss.



Appendix B. Radiated Spurious Emission

Test Engineer :	Donny Tang	Temperature :	23~24°C
		Relative Humidity :	47~49%

2.4GHz 2400~2483.5MHz

WIFI 802.11ac VHT20 (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT20 CH 01 2412MHz		2330.58	47.21	-26.79	74	48.08	27.02	6.67	34.56	104	296	P	H
		2374.785	35.46	-18.54	54	36.18	27.13	6.71	34.56	104	296	A	H
		2412	80.8	-50.5	131.3	81.4	27.21	6.75	34.56	104	296	P	H
		2412	71.18	-60.12	131.3	71.78	27.21	6.75	34.56	104	296	A	H
		2355.885	47.34	-26.66	74	48.09	27.1	6.71	34.56	100	332	P	H
		2383.185	35.4	-18.6	54	36.12	27.13	6.71	34.56	100	332	A	H
		2412	77.06	-54.24	131.3	77.66	27.21	6.75	34.56	100	332	P	V
		2412	66.79	-64.51	131.3	67.39	27.21	6.75	34.56	100	332	A	V
													V
													V
													V
													V
802.11ac VHT20 CH 06 2437MHz		2345.56	46.92	-27.08	74	47.71	27.06	6.71	34.56	122	297	P	H
		2375.24	35.46	-18.54	54	36.18	27.13	6.71	34.56	122	297	A	H
		2437	81.15	-50.15	131.3	81.57	27.29	6.84	34.55	122	297	P	H
		2437	71.45	-59.85	131.3	71.87	27.29	6.84	34.55	122	297	A	H
		2498.95	47.29	-26.71	74	47.5	27.4	6.94	34.55	122	297	P	H
		2499.93	36.59	-17.41	54	36.8	27.4	6.94	34.55	122	297	A	H
		2350.18	47.08	-26.92	74	47.87	27.06	6.71	34.56	100	332	P	V
		2372.86	35.45	-18.55	54	36.17	27.13	6.71	34.56	100	332	A	V
		2437	77.03	-54.27	131.3	77.45	27.29	6.84	34.55	100	332	P	V
		2437	67.03	-64.27	131.3	67.45	27.29	6.84	34.55	100	332	A	V
		2499.93	47.41	-26.59	74	47.62	27.4	6.94	34.55	100	332	P	V
		2500	36.26	-17.74	54	36.47	27.4	6.94	34.55	100	332	A	V



802.11ac VHT20 CH 11 2462MHz		2462	80.4	-50.9	131.3	80.79	27.32	6.84	34.55	150	298	P	H
		2462	71.32	-59.98	131.3	71.71	27.32	6.84	34.55	150	298	A	H
		2497.8	47.63	-26.37	74	47.84	27.4	6.94	34.55	150	298	P	H
		2499.96	36.69	-17.31	54	36.9	27.4	6.94	34.55	150	298	A	H
		2462	76.54	-54.76	131.3	76.93	27.32	6.84	34.55	118	330	P	H
		2462	67.98	-63.32	131.3	68.37	27.32	6.84	34.55	118	330	A	H
		2499.6	40.81	-33.19	74	41.02	27.4	6.94	34.55	118	330	P	V
		2499.76	31.04	-22.96	54	31.25	27.4	6.94	34.55	118	330	A	V
													V
													V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



2.4GHz 2400~2483.5MHz

WIFI 802.11ac VHT20 (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT20 CH 01 2412MHz		4824	38.47	-35.53	74	56.49	31.22	11.01	60.25	100	0	P	H
													H
													H
													H
		4824	39.02	-34.98	74	57.04	31.22	11.01	60.25	100	0	P	V
													V
													V
802.11ac VHT20 CH 06 2437MHz		4874	39.05	-34.95	74	56.77	31.31	11.06	60.09	100	0	P	H
		7311	41.88	-32.12	74	54.33	35.98	11.71	60.14	100	0	P	H
													H
													H
		4874	39.08	-34.92	74	56.8	31.31	11.06	60.09	100	0	P	V
		7311	41.77	-32.23	74	54.22	35.98	11.71	60.14	100	0	P	V
													V
802.11ac VHT20 CH 11 2462MHz		4924	40.93	-33.07	74	58.29	31.39	11.17	59.92	100	0	P	H
		7386	42.73	-31.27	74	55.13	36.17	11.55	60.12	100	0	P	H
													H
													H
		4924	40.65	-33.35	74	58.01	31.39	11.17	59.92	100	0	P	V
		7386	42.11	-31.89	74	54.51	36.17	11.55	60.12	100	0	P	V
													V
Remark	1. No other spurious found.												
	2. All results are PASS against Peak and Average limit line.												



Emission below 1GHz

2.4GHz WIFI 802.11ac VHT20 (LF)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
2.4GHz 802.11ac VHT20 LF		125.04	38.72	-4.78	43.5	50.53	17.85	2.05	31.71			P	H
		189.84	40.38	-3.12	43.5	54.84	15.3	1.96	31.72	100	213	P	H
		300	36.78	-9.22	46	46.69	19.5	2.28	31.69			P	H
		750.1	31.87	-14.13	46	32.68	27.8	3.4	32.01			P	H
		874.7	32.01	-13.99	46	31.04	29.25	3.35	31.63			P	H
		899.9	34.21	-11.79	46	32.95	29.4	3.39	31.53			P	H
													H
													H
													H
													H
													H
													H
		30.54	38.64	-1.36	40	43.4	25.14	1.9	31.8	100	123	Q	V
		34.86	37.33	-2.67	40	44.3	22.9	1.92	31.79	100	197	Q	V
		41.88	38.31	-1.69	40	49.46	18.88	1.75	31.78			P	V
		500.2	30.99	-15.01	46	35.88	24.1	2.9	31.89			P	V
		599.6	33.01	-12.99	46	36.3	25.59	3.11	31.99			P	V
		953.8	32.86	-13.14	46	30.12	30.7	3.06	31.02			P	V
													V
													V
													V
													V
													V
													V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												



Note symbol

*	Fundamental Frequency which can be ignored. However, the level of any unwanted emissions shall not exceed the level of the fundamental frequency.
!	Test result is over limit line.
P/A	Peak or Average
H/V	Horizontal or Vertical



A calculation example for radiated spurious emission is shown as below:

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11b		2390	55.45	-18.55	74	54.51	32.22	4.58	35.86	103	308	P	H
CH 01													
2412MHz		2390	43.54	-10.46	54	42.6	32.22	4.58	35.86	103	308	A	H

1. Level(dBμV/m) =

Antenna Factor(dB/m) + Cable Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)

2. Over Limit(dB) = Level(dBμV/m) – Limit Line(dBμV/m)

For Peak Limit @ 2390MHz:

1. Level(dBμV/m)

= Antenna Factor(dB/m) + Cable Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)

= 32.22(dB/m) + 4.58(dB) + 54.51(dBμV) – 35.86 (dB)

= 55.45 (dBμV/m)

2. Over Limit(dB)

= Level(dBμV/m) – Limit Line(dBμV/m)

= 55.45(dBμV/m) – 74(dBμV/m)

= -18.55(dB)

For Average Limit @ 2390MHz:

1. Level(dBμV/m)

= Antenna Factor(dB/m) + Cable Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)

= 32.22(dB/m) + 4.58(dB) + 42.6(dBμV) – 35.86 (dB)

= 43.54 (dBμV/m)

2. Over Limit(dB)

= Level(dBμV/m) – Limit Line(dBμV/m)

= 43.54(dBμV/m) – 54(dBμV/m)

= -10.46(dB)

Both peak and average measured complies with the limit line, so test result is “PASS”.

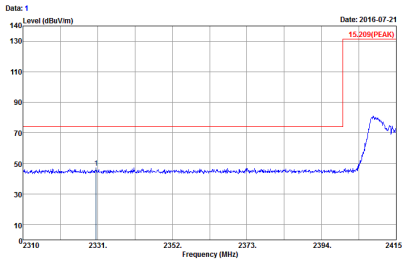
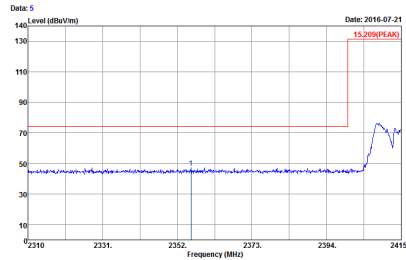
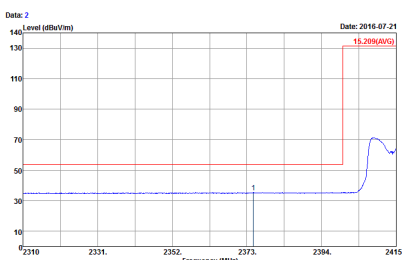
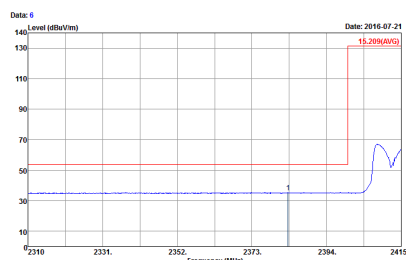


Appendix C. Radiated Spurious Emission Plots

Note symbol

-L	Low channel location
-R	High channel location

2.4GHz 2400~2483.5MHz
WIFI 802.11ac VHT20 (Band Edge @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH01 2412MHz	
1+2	Horizontal	Vertical
Peak	Date: 1 Level (dBuV/m) Date: 2016-07-21 15.209(PK)  Site : 03CH06-HY Condition : 15.209(PK) 3m 91200_1156_150827 HORIZONTAL Detector : Peak Project : 581010 Mode : Mode 1	Date: 5 Level (dBuV/m) Date: 2016-07-21 15.209(PK)  Site : 03CH06-HY Condition : 15.209(PK) 3m 91200_1156_150827 VERTICAL Detector : Peak Project : 581010 Mode : Mode 1
Avg.	Date: 2 Level (dBuV/m) Date: 2016-07-21 15.209(AVG)  Site : 03CH06-HY Condition : 15.209(AVG) 3m 91200_1156_150827 HORIZONTAL Detector : Peak Project : 581010 Mode : Mode 1	Date: 6 Level (dBuV/m) Date: 2016-07-21 15.209(AVG)  Site : 03CH06-HY Condition : 15.209(AVG) 3m 91200_1156_150827 VERTICAL Detector : Peak Project : 581010 Mode : Mode 1



WIFI	2.4GHz 2400~2483.5MHz Fundamental @ 3m	
ANT	802.11ac VHT20 CH01 2412MHz	
1+2	Horizontal	Vertical
Peak	Date: 3 Level (dBuV/m) Frequency (MHz) Site : 03CH06-HY Condition : 15.209(PEAK) 3m 91200_1156_150827 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 581010 Mode : Mode 1	Date: 7 Level (dBuV/m) Frequency (MHz) Site : 03CH06-HY Condition : 15.209(PEAK) 3m 91200_1156_150827 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 581010 Mode : Mode 1
Avg.	Date: 4 Level (dBuV/m) Frequency (MHz) Site : 03CH06-HY Condition : 15.209(AVG) 3m 91200_1156_150827 HORIZONTAL RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 581010 Mode : Mode 1	Date: 8 Level (dBuV/m) Frequency (MHz) Site : 03CH06-HY Condition : 15.209(AVG) 3m 91200_1156_150827 VERTICAL RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 581010 Mode : Mode 1



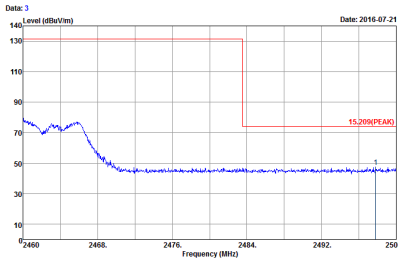
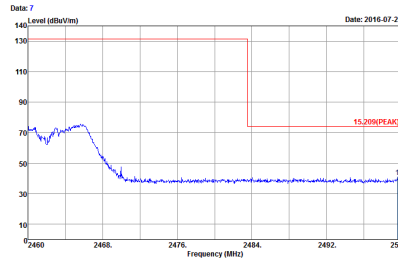
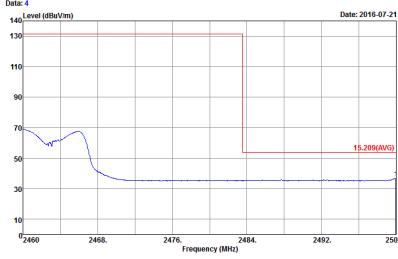
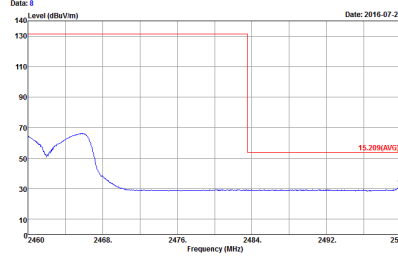
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH06 2437MHz - L	
1+2	Horizontal	Vertical
Peak	Date: 1 Level (dBuV/m) 140 130 110 90 70 50 30 10 0 Frequency (MHz) 2310 2338 2366 2394 2422 2450 Site : 03CH06-HY Condition : 15.209(PEAK) 3m 91200_1156_150827 HORIZONTAL Detector : Peak Project : 581010 Mode : Mode 2 15.209(PEAK)	Date: 7 Level (dBuV/m) 140 130 110 90 70 50 30 10 0 Frequency (MHz) 2310 2338 2366 2394 2422 2450 Site : 03CH06-HY Condition : 15.209(PEAK) 3m 91200_1156_150827 VERTICAL Detector : Peak Project : 581010 Mode : Mode 2 15.209(PEAK)
Avg.	Date: 2 Level (dBuV/m) 140 130 110 90 70 50 30 10 0 Frequency (MHz) 2310 2338 2366 2394 2422 2450 Site : 03CH06-HY Condition : 15.209(AVG) 3m 91200_1156_150827 HORIZONTAL Detector : Peak Project : 581010 Mode : Mode 2 15.209(AVG)	Date: 8 Level (dBuV/m) 140 130 110 90 70 50 30 10 0 Frequency (MHz) 2310 2338 2366 2394 2422 2450 Site : 03CH06-HY Condition : 15.209(AVG) 3m 91200_1156_150827 VERTICAL Detector : Peak Project : 581010 Mode : Mode 2 15.209(AVG)



WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH06 2437MHz - R	
1+2	Horizontal	Vertical
Peak	Date: 5 Level (dBuV/m) 140 130 110 90 70 50 30 10 Frequency (MHz) 2430 2444 2458 2472 2486 2500 Site : 03CH06-HY Condition : 15.209(PEAK) 3m 91200_1156_150827 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 581010 Mode : Mode 2	Date: 11 Level (dBuV/m) 140 130 110 90 70 50 30 10 Frequency (MHz) 2430 2444 2458 2472 2486 2500 Site : 03CH06-HY Condition : 15.209(PEAK) 3m 91200_1156_150827 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 581010 Mode : Mode 2
Avg.	Date: 6 Level (dBuV/m) 140 130 110 90 70 50 30 10 Frequency (MHz) 2430 2444 2458 2472 2486 2500 Site : 03CH06-HY Condition : 15.209(AVG) 3m 91200_1156_150827 HORIZONTAL RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 581010 Mode : Mode 2	Date: 12 Level (dBuV/m) 140 130 110 90 70 50 30 10 Frequency (MHz) 2430 2444 2458 2472 2486 2500 Site : 03CH06-HY Condition : 15.209(AVG) 3m 91200_1156_150827 VERTICAL RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 581010 Mode : Mode 2



WIFI	2.4GHz 2400~2483.5MHz Fundamental @ 3m	
ANT	802.11ac VHT20 CH06 2437MHz	
1+2	Horizontal	Vertical
Peak	Date: 3 Level (dBuV/m) 140 130 110 90 70 50 30 10 0 Frequency (MHz) 1000 1400 1800 2200 2600 3000 Site : 03CH06-HY Condition : 15.209(PEAK) 3m 91200_1156_150827 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 581010 Mode : Mode 2	Date: 9 Level (dBuV/m) 140 130 110 90 70 50 30 10 0 Frequency (MHz) 1000 1400 1800 2200 2600 3000 Site : 03CH06-HY Condition : 15.209(PEAK) 3m 91200_1156_150827 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 581010 Mode : Mode 2
Avg.	Date: 4 Level (dBuV/m) 140 130 110 90 70 50 30 10 0 Frequency (MHz) 1000 1400 1800 2200 2600 3000 Site : 03CH06-HY Condition : 15.209(AVG) 3m 91200_1156_150827 HORIZONTAL RBW:1000.000KHz VBW:1000KHz SWT:Auto Detector : Peak Project : 581010 Mode : Mode 2	Date: 10 Level (dBuV/m) 140 130 110 90 70 50 30 10 0 Frequency (MHz) 1000 1400 1800 2200 2600 3000 Site : 03CH06-HY Condition : 15.209(AVG) 3m 91200_1156_150827 VERTICAL RBW:1000.000KHz VBW:1000KHz SWT:Auto Detector : Peak Project : 581010 Mode : Mode 2

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH11 2462MHz	
1+2	Horizontal	Vertical
Peak	 Date: 3 Level (dBuV/m) 140 130 110 90 70 50 30 10 2460 2468 2476 2484 2492 2500 Frequency (MHz) 15.209(PEAK) 1 Site : 03CH06-HY Condition : 15.209(PEAK) 3m 91200_1156_150827 HORIZONTAL Detector : Peak Project : 581010 Mode : Mode 3	 Date: 7 Level (dBuV/m) 140 130 110 90 70 50 30 10 2460 2468 2476 2484 2492 2500 Frequency (MHz) 15.209(PEAK) 1 Site : 03CH06-HY Condition : 15.209(PEAK) 3m 91200_1156_150827 VERTICAL Detector : Peak Project : 581010 Mode : Mode 3
Avg.	 Date: 4 Level (dBuV/m) 140 130 110 90 70 50 30 10 2460 2468 2476 2484 2492 2500 Frequency (MHz) 15.209(AVG) 1 Site : 03CH06-HY Condition : 15.209(AVG) 3m 91200_1156_150827 HORIZONTAL Detector : Peak Project : 581010 Mode : Mode 3	 Date: 8 Level (dBuV/m) 140 130 110 90 70 50 30 10 2460 2468 2476 2484 2492 2500 Frequency (MHz) 15.209(AVG) 1 Site : 03CH06-HY Condition : 15.209(AVG) 3m 91200_1156_150827 VERTICAL Detector : Peak Project : 581010 Mode : Mode 3



WIFI	2.4GHz 2400~2483.5MHz Fundamental @ 3m	
ANT	802.11ac VHT20 CH11 2462MHz	
1+2	Horizontal	Vertical
Peak	Date: 1 Level (dBuV/m) Frequency (MHz) Site : 03CH06-HY Condition : 15.209(PEAK) 3m 91200_1156_150827 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 581010 Mode : Mode 3	Date: 5 Level (dBuV/m) Frequency (MHz) Site : 03CH06-HY Condition : 15.209(PEAK) 3m 91200_1156_150827 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 581010 Mode : Mode 3
Avg.	Date: 2 Level (dBuV/m) Frequency (MHz) Site : 03CH06-HY Condition : 15.209(AVG) 3m 91200_1156_150827 HORIZONTAL RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 581010 Mode : Mode 3	Date: 6 Level (dBuV/m) Frequency (MHz) Site : 03CH06-HY Condition : 15.209(AVG) 3m 91200_1156_150827 VERTICAL RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 581010 Mode : Mode 3



2.4GHz 2400~2483.5MHz

WIFI 802.11ac VHT20 (Harmonic @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11ac VHT20 CH01 2412MHz	
1+2	Horizontal	Vertical
Peak Avg.	Graph 5: Horizontal Spectrum Site : 03CH06-HY Condition : 15.209(Peak) 3m SHF-EHF HORN HORIZONTAL Detector : Peak Project : 581010 Mode : Mode 1	Graph 6: Vertical Spectrum Site : 03CH06-HY Condition : 15.209(Peak) 3m SHF-EHF HORN VERTICAL Detector : Peak Project : 581010 Mode : Mode 1

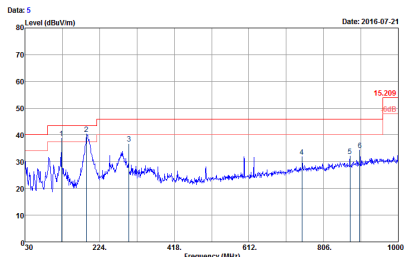
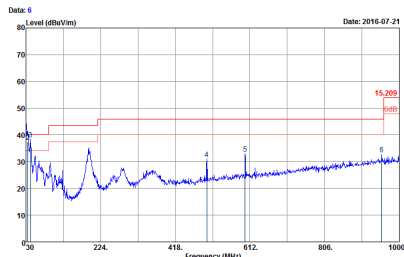


WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11ac VHT20 CH06 2437MHz	
1+2	Horizontal	Vertical
Peak Avg.	Data: 5 Site : 03CH06-HY Condition : 15,209(Peak) 3m SHF-EHF HORN HORIZONTAL Detector : Peak Project : 581010 Mode : Mode 2	Data: 6 Site : 03CH06-HY Condition : 15,209(Peak) 3m SHF-EHF HORN VERTICAL Detector : Peak Project : 581010 Mode : Mode 2



WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11ac VHT20 CH11 2462MHz	
1+2	Horizontal	Vertical
Peak Avg.	Data: 5 Site : 03CH06-HY Condition : 15.209(PK) 3m SHF-EHF HORN HORIZONTAL Detector : Peak Project : 581010 Mode : Mode 3	Data: 6 Site : 03CH06-HY Condition : 15.209(PK) 3m SHF-EHF HORN VERTICAL Detector : Peak Project : 581010 Mode : Mode 3

Emission below 1GHz
2.4GHz WIFI 802.11ac VHT20 (LF)

WIFI	2.4GHz 2400~2483.5MHz	
ANT	802.11ac VHT20 LF	
1+2	Horizontal	Vertical
QP / Peak	 Date: 5 Site : 03CH06-HY Condition : 15.209 3m LF_ANT_2725 HORIZONTAL Detector : Peak Project : 581010 Mode : Mode 4	 Date: 6 Site : 03CH06-HY Condition : 15.209 3m LF_ANT_2725 VERTICAL Detector : Peak Project : 581010 Mode : Mode 4



Appendix D. Conducted Spurious Emission

2.4GHz 2400~2483.5MHz

WIFI 802.11ac VHT10 (Band Edge)

WIFI Ant. 1+2(1)	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Preamp Factor (dB)	Grounding Factor (dB)	MIMO Gain (dBi)	Peak Avg. (P/A)
802.11ac VHT10 CH 01 2412MHz		2390	-24.03	-2.83	-21.2	-8.55	13	2.5	33.99	0	3.01	P
		2390	-45.59	-4.39	-41.2	-30.11	13	2.5	33.99	0	3.01	A
	*	2410	24.87	-	-	40.35	13	2.5	33.99	0	3.01	P
	*	2408	14.97	-	-	30.45	13	2.5	33.99	0	3.01	A
802.11ac VHT10 CH 06 2437MHz		2390	-34.76	-13.56	-21.2	-19.28	13	2.5	33.99	0	3.01	P
		2390	-44.43	-3.23	-41.2	-28.95	13	2.5	33.99	0	3.01	A
	*	2440	14.55	-	-	30.06	13	2.5	34.02	0	3.01	P
	*	2440	6.88	-	-	22.39	13	2.5	34.02	0	3.01	A
		2483.5	-37.4	-16.2	-21.2	-21.84	13	2.5	34.07	0	3.01	P
		2483.5	-48.94	-7.74	-41.2	-33.38	13	2.5	34.07	0	3.01	A



802.11ac VHT10 CH 11 2462MHz	*	2464	25.32	-	-	36.86	17	2.5	34.05	0	3.01	P	H
	*	2458	17.04	-	-	28.58	17	2.5	34.05	0	3.01	A	H
		2483.5	-21.38	-0.18	-21.2	-9.82	17	2.5	34.07	0	3.01	P	H
		2483.5	-45.13	-3.93	-41.2	-33.57	17	2.5	34.07	0	3.01	A	H
													H
													H
													V
													V
													V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



2.4GHz 2400~2483.5MHz
WIFI 802.11ac VHT10 (Harmonic)

WIFI Ant. 1+2(1)	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Preamp Factor (dB)	Grounding Factor (dB)	MIMO Gain (dBi)	Peak Avg. (P/A)
802.11ac VHT10 CH 01 2412MHz		4824	-79.92	-58.72	-21.2	-64.38	13	2.5	34.05	0	3.01	P
802.11ac VHT10 CH 06 2437MHz		4875	-80.53	-59.33	-21.2	-64.96	13	2.5	34.08	0	3.01	P
		7311	-71.25	-50.05	-21.2	-55.11	13	2.5	34.65	0	3.01	P
802.11ac VHT10 CH 11 2462MHz		4925	-77.09	-55.89	-21.2	-65.48	17	2.5	34.12	0	3.01	P
		7386	-69.4	-48.2	-21.2	-57.24	17	2.5	34.67	0	3.01	P
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



2.4GHz 2400~2483.5MHz
WIFI 802.11ac VHT20 (Band Edge)

WIFI Ant. 1+2(1)	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Preamp Factor (dB)	Grounding Factor (dB)	MIMO Gain (dBi)	Peak Avg. (P/A)
802.11ac VHT20 CH 01 2412MHz		2390	-28.45	-7.25	-21.2	-12.97	13	2.5	33.99	0	3.01	P
		2390	-41.68	-0.48	-41.2	-26.2	13	2.5	33.99	0	3.01	A
	*	2406	13.77	-	-	29.25	13	2.5	33.99	0	3.01	P
	*	2406	5.63	-	-	21.11	13	2.5	33.99	0	3.01	A
802.11ac VHT20 CH 06 2437MHz		2390	-27.18	-5.98	-21.2	-11.7	13	2.5	33.99	0	3.01	P
		2390	-42.69	-1.49	-41.2	-27.21	13	2.5	33.99	0	3.01	A
	*	2442	13.62	-	-	29.16	13	2.5	34.05	0	3.01	P
	*	2444	5.48	-	-	21.02	13	2.5	34.05	0	3.01	A
		2483.5	-27.5	-6.3	-21.2	-11.94	13	2.5	34.07	0	3.01	P
		2483.5	-43.27	-2.07	-41.2	-27.71	13	2.5	34.07	0	3.01	A



802.11ac VHT20 CH 11 2462MHz	*	2458	14.2	-	-	29.74	13	2.5	34.05	0	3.01	P
	*	2460	6.34	-	-	21.88	13	2.5	34.05	0	3.01	A
		2483.5	-25.09	-3.89	-21.2	-9.53	13	2.5	34.07	0	3.01	P
		2483.5	-41.6	-0.4	-41.2	-26.04	13	2.5	34.07	0	3.01	A
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



2.4GHz 2400~2483.5MHz
WIFI 802.11ac VHT20 (Harmonic)

WIFI Ant. 1+2(1)	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Preamp Factor (dB)	Grounding Factor (dB)	MIMO Gain (dBi)	Peak Avg. (P/A)
802.11ac VHT20 CH 01 2412MHz		4825	-81.67	-60.47	-21.2	-66.13	13	2.5	34.05	0	3.01	P
802.11ac VHT20 CH 06 2437MHz		4875	-81.84	-60.64	-21.2	-66.27	13	2.5	34.08	0	3.01	P
		7311	-81.42	-60.22	-21.2	-65.28	13	2.5	34.65	0	3.01	P
802.11ac VHT20 CH 11 2462MHz		4925	-81.76	-60.56	-21.2	-66.15	13	2.5	34.12	0	3.01	P
		7386	-79.96	-58.76	-21.2	-63.8	13	2.5	34.67	0	3.01	P
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



2.4GHz 2400~2483.5MHz
WIFI 802.11ac VHT40 (Band Edge)

WIFI Ant. 1+2(1)	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Preamp Factor (dB)	Grounding Factor (dB)	MIMO Gain (dBi)	Peak Avg. (P/A)
802.11ac VHT40 CH 03 2422MHz		2389.38	-28.25	-7.05	-21.2	-12.79	13	2.5	33.97	0	3.01	P
		2389.785	-41.45	-0.25	-41.2	-25.97	13	2.5	33.99	0	3.01	A
	*	2422	9.28	-	-	24.79	13	2.5	34.02	0	3.01	P
	*	2422	0.25	-	-	15.76	13	2.5	34.02	0	3.01	A
		2495.52	-42.73	-21.53	-21.2	-27.14	13	2.5	34.1	0	3.01	P
		2497.34	-53.8	-12.6	-41.2	-38.21	13	2.5	34.1	0	3.01	A
802.11ac VHT40 CH 06 2437MHz		2390	-30.22	-9.02	-21.2	-14.74	13	2.5	33.99	0	3.01	P
		2390	-43.34	-2.14	-41.2	-27.86	13	2.5	33.99	0	3.01	A
	*	2426	10.68	-	-	26.19	13	2.5	34.02	0	3.01	P
	*	2454	2.65	-	-	18.19	13	2.5	34.05	0	3.01	A
		2483.5	-29.91	-8.71	-21.2	-14.35	13	2.5	34.07	0	3.01	P
		2483.5	-42.59	-1.39	-41.2	-27.03	13	2.5	34.07	0	3.01	A



802.11ac VHT40 CH 09 2452MHz		2390	-42.11	-20.91	-21.2	-26.63	13	2.5	33.99	0	3.01	P
		2390	-53.29	-12.09	-41.2	-37.81	13	2.5	33.99	0	3.01	A
	*	2460	8.39	-	-	23.93	13	2.5	34.05	0	3.01	P
	*	2462	0.78	-	-	16.32	13	2.5	34.05	0	3.01	A
		2483.5	-28.86	-7.66	-21.2	-13.3	13	2.5	34.07	0	3.01	P
		2483.5	-41.55	-0.35	-41.2	-25.99	13	2.5	34.07	0	3.01	A
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



2.4GHz 2400~2483.5MHz
WIFI 802.11ac VHT40 (Harmonic)

WIFI Ant. 1+2(1)	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Preamp Factor (dB)	Grounding Factor (dB)	MIMO Gain (dBi)	Peak Avg. (P/A)
802.11ac VHT40 CH 03 2422MHz		4850	-81.63	-60.43	-21.2	-66.08	13	2.5	34.06	0	3.01	P
		7266	-77.99	-56.79	-21.2	-61.85	13	2.5	34.65	0	3.01	P
802.11ac VHT40 CH 06 2437MHz		4875	-80.96	-59.76	-21.2	-65.39	13	2.5	34.08	0	3.01	P
		7311	-77.63	-56.43	-21.2	-61.49	13	2.5	34.65	0	3.01	P
802.11ac VHT40 CH 09 2452MHz		4900	-81.67	-60.47	-21.2	-66.08	13	2.5	34.1	0	3.01	P
		7356	-80.56	-59.36	-21.2	-64.4	13	2.5	34.67	0	3.01	P
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



Emission below 1GHz

2.4GHz WIFI 802.11ac VHT10 (LF)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Grounding	MIMO	Peak
Ant.				Limit	Line	Level	Gain	Loss	Factor	Factor	Gain	Avg.
1+2(1)		(MHz)	(dBm)	(dB)	(dBm)	(dBm)	(dBi)	(dB)	(dB)	(dB)	(dBi)	(P/A)
2.4GHz 802.11ac VHT10 LF		59.1	-87.75	-32.55	-55.2	-78.71	13	2.5	32.25	4.7	3.01	P
		136.7	-84.69	-32.99	-51.7	-75.7	13	2.5	32.2	4.7	3.01	P
		234.67	-84.68	-35.48	-49.2	-75.72	13	2.5	32.17	4.7	3.01	P
		369.5	-79.5	-30.3	-49.2	-70.61	13	2.5	32.1	4.7	3.01	P
		535.37	-77.63	-28.43	-49.2	-68.65	13	2.5	32.19	4.7	3.01	P
		827.34	-62.46	-13.26	-49.2	-53.86	13	2.5	31.81	4.7	3.01	P
Remark	1. No other spurious found. 2. All results are PASS against limit line.											



2.4GHz 2400~2483.5MHz
WIFI 802.11ac VHT10 (Band Edge)

WIFI Ant. 1+2(2)	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Preamp Factor (dB)	Grounding Factor (dB)	MIMO Gain (dBi)	Peak Avg. (P/A)
802.11ac VHT10 CH 01 2412MHz		2390	-24.03	-2.83	-21.2	-8.55	13	2.5	33.99	0	3.01	P
		2390	-45.59	-4.39	-41.2	-30.11	13	2.5	33.99	0	3.01	A
	*	2410	24.87	-	-	40.35	13	2.5	33.99	0	3.01	P
	*	2408	14.97	-	-	30.45	13	2.5	33.99	0	3.01	A
802.11ac VHT10 CH 06 2437MHz		2390	-34.26	-13.06	-21.2	-18.78	13	2.5	33.99	0	3.01	P
		2390	-43.55	-2.35	-41.2	-28.07	13	2.5	33.99	0	3.01	A
	*	2440	14.54	-	-	30.05	13	2.5	34.02	0	3.01	P
	*	2440	6.15	-	-	21.66	13	2.5	34.02	0	3.01	A
		2486.56	-38.04	-16.84	-21.2	-22.48	13	2.5	34.07	0	3.01	P
		2483.5	-49.3	-8.1	-41.2	-33.74	13	2.5	34.07	0	3.01	A



802.11ac VHT10 CH 11 2462MHz	*	2460	23.53	-	-	39.07	13	2.5	34.05	0	3.01	P	H
	*	2458	15.02	-	-	30.56	13	2.5	34.05	0	3.01	A	H
		2483.5	-24.69	-3.49	-21.2	-9.13	13	2.5	34.07	0	3.01	P	H
		2483.5	-49.35	-8.15	-41.2	-33.79	13	2.5	34.07	0	3.01	A	H
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Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



2.4GHz 2400~2483.5MHz

WIFI 802.11ac VHT10 (Harmonic)

WIFI Ant. 1+2(2)	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Preamp Factor (dB)	Grounding Factor (dB)	MIMO Gain (dBi)	Peak Avg. (P/A)
802.11ac VHT10 CH 01 2412MHz		4825	-81.45	-60.25	-21.2	-65.91	13	2.5	34.05	0	3.01	P
802.11ac VHT10 CH 06 2437MHz		4875	-81.36	-60.16	-21.2	-65.79	13	2.5	34.08	0	3.01	P
		7266	-82.26	-61.06	-21.2	-66.12	13	2.5	34.65	0	3.01	P
802.11ac VHT10 CH 11 2462MHz		4925	-81.88	-60.68	-21.2	-66.27	13	2.5	34.12	0	3.01	P
		7386	-76.64	-55.44	-21.2	-60.48	13	2.5	34.67	0	3.01	P
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



2.4GHz 2400~2483.5MHz
WIFI 802.11ac VHT20 (Band Edge)

WIFI Ant. 1+2(2)	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Preamp Factor (dB)	Grounding Factor (dB)	MIMO Gain (dBi)	Peak Avg. (P/A)
802.11ac VHT20 CH 01 2412MHz		2390	-28.25	-7.05	-21.2	-12.77	13	2.5	33.99	0	3.01	P
		2390	-41.64	-0.44	-41.2	-26.16	13	2.5	33.99	0	3.01	A
	*	2406	13.88	-	-	29.36	13	2.5	33.99	0	3.01	P
	*	2406	5.59	-	-	21.07	13	2.5	33.99	0	3.01	A
802.11ac VHT20 CH 06 2437MHz		2389.65	-34.41	-13.21	-21.2	-18.95	13	2.5	33.97	0	3.01	P
		2389.515	-44.27	-3.07	-41.2	-28.81	13	2.5	33.97	0	3.01	P
	*	2430	14.3	-	-	29.81	13	2.5	34.02	0	3.01	P
	*	2446	5.49	-	-	21.03	13	2.5	34.05	0	3.01	A
		2484.46	-38.92	-17.72	-21.2	-23.36	13	2.5	34.07	0	3.01	P
		2484.18	-48.95	-7.75	-41.2	-33.39	13	2.5	34.07	0	3.01	P



802.11ac VHT20 CH 11 2462MHz	*	2458	14.09	-	-	29.63	13	2.5	34.05	0	3.01	P
	*	2456	6.23	-	-	21.77	13	2.5	34.05	0	3.01	A
		2483.5	-26.5	-5.3	-21.2	-10.94	13	2.5	34.07	0	3.01	P
		2483.5	-41.32	-0.12	-41.2	-25.76	13	2.5	34.07	0	3.01	A
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



2.4GHz 2400~2483.5MHz
WIFI 802.11ac VHT20 (Harmonic)

WIFI Ant. 1+2(2)	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Preamp Factor (dB)	Grounding Factor (dB)	MIMO Gain (dBi)	Peak Avg. (P/A)
802.11ac VHT20 CH 01 2412MHz		4825	-81.24	-60.04	-21.2	-65.7	13	2.5	34.05	0	3.01	P
802.11ac VHT20 CH 06 2437MHz		4875	-82.07	-60.87	-21.2	-66.5	13	2.5	34.08	0	3.01	P
		7311	-76.1	-54.9	-21.2	-59.96	13	2.5	34.65	0	3.01	P
802.11ac VHT20 CH 11 2462MHz		4925	-81.2	-60	-21.2	-65.59	13	2.5	34.12	0	3.01	P
		7386	-82.2	-61	-21.2	-66.04	13	2.5	34.67	0	3.01	P
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



2.4GHz 2400~2483.5MHz
WIFI 802.11ac VHT40 (Band Edge)

WIFI Ant. 1+2(2)	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Preamp Factor (dB)	Grounding Factor (dB)	MIMO Gain (dBi)	Peak Avg. (P/A)
802.11ac VHT40 CH 03 2422MHz		2390	-27.89	-6.69	-21.2	-12.41	13	2.5	33.99	0	3.01	P
		2390	-41.96	-0.76	-41.2	-26.48	13	2.5	33.99	0	3.01	A
	*	2422	9.09	-	-	24.6	13	2.5	34.02	0	3.01	P
	*	2422	0.27	-	-	15.78	13	2.5	34.02	0	3.01	A
		2496.89	-43.09	-21.89	-21.2	-27.5	13	2.5	34.1	0	3.01	P
		2496.71	-54.27	-13.07	-41.2	-38.68	13	2.5	34.1	0	3.01	A
802.11ac VHT40 CH 06 2437MHz		2386.68	-31.71	-10.51	-21.2	-16.25	13	2.5	33.97	0	3.01	P
		2390	-44.02	-2.82	-41.2	-28.54	13	2.5	33.99	0	3.01	A
	*	2437	11.24			26.75	13	2.5	34.02	0	3.01	P
	*	2437	3.02			18.53	13	2.5	34.02	0	3.01	A
		2483.5	-28.77	-7.57	-21.2	-13.21	13	2.5	34.07	0	3.01	P
		2483.5	-41.45	-0.25	-41.2	-25.89	13	2.5	34.07	0	3.01	A



802.11ac VHT40 CH 09 2452MHz		2390	-42.7	-21.5	-21.2	-27.22	13	2.5	33.99	0	3.01	P
		2390	-52.68	-11.48	-41.2	-37.2	13	2.5	33.99	0	3.01	A
	*	2462	8.96	-	-	24.5	13	2.5	34.05	0	3.01	P
	*	2456	0.76	-	-	16.3	13	2.5	34.05	0	3.01	A
		2483.5	-29.8	-8.6	-21.2	-14.24	13	2.5	34.07	0	3.01	P
		2483.5	-41.48	-0.28	-41.2	-25.92	13	2.5	34.07	0	3.01	A
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



2.4GHz 2400~2483.5MHz
WIFI 802.11ac VHT40 (Harmonic)

WIFI Ant. 1+2(2)	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Preamp Factor (dB)	Grounding Factor (dB)	MIMO Gain (dBi)	Peak Avg. (P/A)
802.11ac VHT40 CH 03 2422MHz		4850	-82.11	-60.91	-21.2	-66.56	13	2.5	34.06	0	3.01	P
		7311	-79.55	-58.35	-21.2	-63.41	13	2.5	34.65	0	3.01	P
802.11ac VHT40 CH 06 2437MHz		4875	-81.84	-60.64	-21.2	-66.27	13	2.5	34.08	0	3.01	P
		7311	-82.16	-60.96	-21.2	-66.02	13	2.5	34.65	0	3.01	P
802.11ac VHT40 CH 09 2452MHz		4900	-81.56	-60.36	-21.2	-65.97	13	2.5	34.1	0	3.01	P
		7356	-82.54	-61.34	-21.2	-66.38	13	2.5	34.67	0	3.01	P
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



Emission below 1GHz

2.4GHz WIFI 802.11ac VHT10 (LF)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Grounding	MIMO	Peak
Ant.				Limit	Line	Level	Gain	Loss	Factor	Factor	Gain	Avg.
1+2(2)		(MHz)	(dBm)	(dB)	(dBm)	(dBm)	(dBi)	(dB)	(dB)	(dB)	(dBi)	(P/A)
2.4GHz 802.11ac VHT10 LF		101.78	-82.19	-30.49	-51.7	-73.21	13	2.5	32.19	4.7	3.01	P
		199.75	-83.13	-31.43	-51.7	-74.11	13	2.5	32.23	4.7	3.01	P
		267.65	-83.57	-34.37	-49.2	-74.66	13	2.5	32.12	4.7	3.01	P
		470.38	-73.24	-24.04	-49.2	-64.29	13	2.5	32.16	4.7	3.01	P
		607.15	-66.78	-17.58	-49.2	-57.78	13	2.5	32.21	4.7	3.01	P
		823.46	-67.75	-18.55	-49.2	-59.13	13	2.5	31.83	4.7	3.01	P
Remark	1. No other spurious found. 2. All results are PASS against limit line.											



Note symbol

*	Fundamental Frequency which can be ignored. However, the level of any unwanted emissions shall not exceed the level of the fundamental frequency.
!	Test result is over limit line.
P/A	Peak or Average

Both peak and average measured complies with the limit line, so test result is “PASS”.



2.4GHz 2400~2483.5MHz
WIFI 802.11ac VHT10 (Band Edge)

WIFI Ant. 1+2(1)	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Preamp Factor (dB)	Grounding Factor (dB)	MIMO Gain (dBi)	Peak Avg. (P/A)
802.11ac VHT10 CH 01 2412MHz		2390	-42.32	-21.12	-21.2	-26.84	13	2.5	33.99	0	3.01	P
		2390	-52.3	-11.1	-41.2	-36.82	13	2.5	33.99	0	3.01	A
	*	2410	15.35	-	-	30.83	13	2.5	33.99	0	3.01	P
	*	2408	5.73	-	-	21.21	13	2.5	33.99	0	3.01	A
802.11ac VHT10 CH 06 2437MHz		2390	-34.76	-13.56	-21.2	-19.28	13	2.5	33.99	0	3.01	P
		2390	-44.43	-3.23	-41.2	-28.95	13	2.5	33.99	0	3.01	A
	*	2440	14.55	-	-	30.06	13	2.5	34.02	0	3.01	P
	*	2440	6.88	-	-	22.39	13	2.5	34.02	0	3.01	A
		2485.09	-37.4	-16.2	-21.2	-21.84	13	2.5	34.07	0	3.01	P
		2483.5	-48.94	-7.74	-41.2	-33.38	13	2.5	34.07	0	3.01	A



802.11ac VHT10 CH 11 2462MHz	*	2464	15.31	-	-	30.85	13	2.5	34.05	0	3.01	P	H
	*	2466	5.57	-	-	21.11	13	2.5	34.05	0	3.01	A	H
		2483.7	-36.58	-15.38	-21.2	-21.02	13	2.5	34.07	0	3.01	P	H
		2497.7	-54.85	-13.65	-41.2	-39.26	13	2.5	34.1	0	3.01	A	H
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Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



2.4GHz 2400~2483.5MHz

WIFI 802.11ac VHT10 (Harmonic)

WIFI Ant. 1+2(1)	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Preamp Factor (dB)	Grounding Factor (dB)	MIMO Gain (dBi)	Peak Avg. (P/A)
802.11ac VHT10 CH 01 2412MHz		4825	-81.58	-60.38	-21.2	-66.04	13	2.5	34.05	0	3.01	P
802.11ac VHT10 CH 06 2437MHz		4875	-80.53	-59.33	-21.2	-64.96	13	2.5	34.08	0	3.01	P
		7311	-71.25	-50.05	-21.2	-55.11	13	2.5	34.65	0	3.01	P
802.11ac VHT10 CH 11 2462MHz		4925	-81.15	-59.95	-21.2	-65.54	13	2.5	34.12	0	3.01	P
		7386	-81.67	-60.47	-21.2	-65.51	13	2.5	34.67	0	3.01	P
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



2.4GHz 2400~2483.5MHz
WIFI 802.11ac VHT20 (Band Edge)

WIFI Ant. 1+2(1)	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Preamp Factor (dB)	Grounding Factor (dB)	MIMO Gain (dBi)	Peak Avg. (P/A)
802.11ac VHT20 CH 01 2412MHz		2389.92	-35.2	-14	-21.2	-19.72	13	2.5	33.99	0	3.01	P
		2389.8	-48.7	-7.5	-41.2	-33.22	13	2.5	33.99	0	3.01	A
	*	2406	10.43	-	-	25.91	13	2.5	33.99	0	3.01	P
	*	2406	2.68	-	-	18.16	13	2.5	33.99	0	3.01	A
802.11ac VHT20 CH 06 2437MHz		2388.705	-39.78	-18.58	-21.2	-24.32	13	2.5	33.97	0	3.01	P
		2389.785	-49.87	-8.67	-41.2	-34.39	13	2.5	33.99	0	3.01	A
	*	2444	9.86	-	-	25.4	13	2.5	34.05	0	3.01	P
	*	2444	2.01	-	-	17.55	13	2.5	34.05	0	3.01	A
		2484.74	-43.34	-22.14	-21.2	-27.78	13	2.5	34.07	0	3.01	P
		2483.62	-53.5	-12.3	-41.2	-37.94	13	2.5	34.07	0	3.01	A



802.11ac VHT20 CH 11 2462MHz	*	2464	10.16	-	-	25.7	13	2.5	34.05	0	3.01	P
	*	2460	2.18	-	-	17.72	13	2.5	34.05	0	3.01	A
		2483.5	-36.15	-14.95	-21.2	-20.59	13	2.5	34.07	0	3.01	P
		2483.5	-50.45	-9.25	-41.2	-34.89	13	2.5	34.07	0	3.01	A
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



2.4GHz 2400~2483.5MHz

WIFI 802.11ac VHT20 (Harmonic)

WIFI Ant. 1+2(1)	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Preamp Factor (dB)	Grounding Factor (dB)	MIMO Gain (dBi)	Peak Avg. (P/A)
802.11ac VHT20 CH 01 2412MHz		4825	-81.38	-60.18	-21.2	-65.84	13	2.5	34.05	0	3.01	P
802.11ac VHT20 CH 06 2437MHz		4875	-80.1	-58.9	-21.2	-64.53	13	2.5	34.08	0	3.01	P
		7311	-82.36	-61.16	-21.2	-66.22	13	2.5	34.65	0	3.01	P
802.11ac VHT20 CH 11 2462MHz		4925	-82.01	-60.81	-21.2	-66.4	13	2.5	34.12	0	3.01	P
		7386	-81.6	-60.4	-21.2	-65.44	13	2.5	34.67	0	3.01	P
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



2.4GHz 2400~2483.5MHz
WIFI 802.11ac VHT40 (Band Edge)

WIFI Ant. 1+2(1)	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Preamp Factor (dB)	Grounding Factor (dB)	MIMO Gain (dBi)	Peak Avg. (P/A)
802.11ac VHT40 CH 03 2422MHz		2389.785	-30.25	-9.05	-21.2	-14.77	13	2.5	33.99	0	3.01	P
		2389.92	-41.37	-0.17	-41.2	-25.89	13	2.5	33.99	0	3.01	A
	*	2412	8.79	-	-	24.27	13	2.5	33.99	0	3.01	P
	*	2410	0.35	-	-	15.83	13	2.5	33.99	0	3.01	A
		2498.04	-46.66	-25.46	-21.2	-31.07	13	2.5	34.1	0	3.01	P
		2495.94	-56.64	-15.44	-41.2	-41.05	13	2.5	34.1	0	3.01	A
802.11ac VHT40 CH 06 2437MHz		2389.515	-38.55	-17.35	-21.2	-23.09	13	2.5	33.97	0	3.01	P
		2390	-50.38	-9.18	-41.2	-34.9	13	2.5	33.99	0	3.01	A
	*	2450	8.81	-	-	24.35	13	2.5	34.05	0	3.01	P
	*	2452	-0.31	-	-	15.23	13	2.5	34.05	0	3.01	A
		2484.39	-38.6	-17.4	-21.2	-23.04	13	2.5	34.07	0	3.01	P
		2483.62	-51.55	-10.35	-41.2	-35.99	13	2.5	34.07	0	3.01	A



802.11ac VHT40 CH 09 2452MHz		2380.74	-43.04	-21.84	-21.2	-27.58	13	2.5	33.97	0	3.01	P
		2389.785	-53.48	-12.28	-41.2	-38	13	2.5	33.99	0	3.01	A
	*	2464	7.83	-	-	23.37	13	2.5	34.05	0	3.01	P
	*	2460	-0.36	-	-	15.18	13	2.5	34.05	0	3.01	A
		2484.04	-32.84	-11.64	-21.2	-17.28	13	2.5	34.07	0	3.01	P
		2483.62	-43.72	-2.52	-41.2	-28.16	13	2.5	34.07	0	3.01	A
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



2.4GHz 2400~2483.5MHz
WIFI 802.11ac VHT40 (Harmonic)

WIFI Ant. 1+2(1)	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Preamp Factor (dB)	Grounding Factor (dB)	MIMO Gain (dBi)	Peak Avg. (P/A)
802.11ac VHT40 CH 03 2422MHz		4850	-82.22	-61.02	-21.2	-66.67	13	2.5	34.06	0	3.01	P
		7266	-81.69	-60.49	-21.2	-65.55	13	2.5	34.65	0	3.01	P
802.11ac VHT40 CH 06 2437MHz		4875	-80.53	-59.33	-21.2	-64.96	13	2.5	34.08	0	3.01	P
		7311	-81.98	-60.78	-21.2	-65.84	13	2.5	34.65	0	3.01	P
802.11ac VHT40 CH 09 2452MHz		4900	-81.99	-60.79	-21.2	-66.4	13	2.5	34.1	0	3.01	P
		7356	-81.85	-60.65	-21.2	-65.69	13	2.5	34.67	0	3.01	P
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



Emission below 1GHz

2.4GHz WIFI 802.11ac VHT10 (LF)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Grounding	MIMO	Peak
Ant.				Limit	Line	Level	Gain	Loss	Factor	Factor	Gain	Avg.
1+2(1)		(MHz)	(dBm)	(dB)	(dBm)	(dBm)	(dBi)	(dB)	(dB)	(dB)	(dBi)	(P/A)
2.4GHz 802.11ac VHT10 LF		101.78	-83.3	-31.6	-51.7	-74.32	13	2.5	32.19	4.7	3.01	P
		142.52	-84.71	-33.01	-51.7	-75.71	13	2.5	32.21	4.7	3.01	P
		236.61	-84.03	-34.83	-49.2	-75.07	13	2.5	32.17	4.7	3.01	P
		401.51	-80.2	-31	-49.2	-71.3	13	2.5	32.11	4.7	3.01	P
		470.38	-78.15	-28.95	-49.2	-69.2	13	2.5	32.16	4.7	3.01	P
		826.37	-62.03	-12.83	-49.2	-53.42	13	2.5	31.82	4.7	3.01	P
Remark	1. No other spurious found. 2. All results are PASS against limit line.											



2.4GHz 2400~2483.5MHz
WIFI 802.11ac VHT10 (Band Edge)

WIFI Ant. 1+2(2)	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Preamp Factor (dB)	Grounding Factor (dB)	MIMO Gain (dBi)	Peak Avg. (P/A)
802.11ac VHT10 CH 01 2412MHz		2390	-37.12	-15.92	-21.2	-21.64	13	2.5	33.99	0	3.01	P
		2390	-51.74	-10.54	-41.2	-36.26	13	2.5	33.99	0	3.01	A
	*	2408	15.14	-	-	30.62	13	2.5	33.99	0	3.01	P
	*	2408	5.78	-	-	21.26	13	2.5	33.99	0	3.01	A
802.11ac VHT10 CH 06 2437MHz		2390.055	-34.26	-13.06	-21.2	-18.78	13	2.5	33.99	0	3.01	P
		2390.055	-43.55	-2.35	-41.2	-28.07	13	2.5	33.99	0	3.01	A
	*	2440	14.54	-	-	30.05	13	2.5	34.02	0	3.01	P
	*	2440	6.15	-	-	21.66	13	2.5	34.02	0	3.01	A
		2486.56	-38.04	-16.84	-21.2	-22.48	13	2.5	34.07	0	3.01	P
		2483.5	-49.3	-8.1	-41.2	-33.74	13	2.5	34.07	0	3.01	A



802.11ac VHT10 CH 11 2462MHz	*	2458	16.03	-	-	31.57	13	2.5	34.05	0	3.01	P	H
	*	2458	5.63	-	-	21.17	13	2.5	34.05	0	3.01	A	H
		2483.65	-37.01	-15.81	-21.2	-21.45	13	2.5	34.07	0	3.01	P	H
		2496.4	-54.68	-13.48	-41.2	-39.09	13	2.5	34.1	0	3.01	A	H
													H
													H
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													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



2.4GHz 2400~2483.5MHz
WIFI 802.11ac VHT10 (Harmonic)

WIFI Ant. 1+2(2)	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Preamp Factor (dB)	Grounding Factor (dB)	MIMO Gain (dBi)	Peak Avg. (P/A)
802.11g CH 01 2412MHz		4825	-81.08	-59.88	-21.2	-65.54	13	2.5	34.05	0	3.01	P
802.11g CH 06 2437MHz		4875	-82.06	-60.86	-21.2	-66.49	13	2.5	34.08	0	3.01	P
		7311	-82.88	-61.68	-21.2	-66.74	13	2.5	34.65	0	3.01	P
802.11g CH 11 2462MHz		4925	-81.88	-60.68	-21.2	-66.27	13	2.5	34.12	0	3.01	P
		7386	-82.9	-61.7	-21.2	-66.74	13	2.5	34.67	0	3.01	P
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



2.4GHz 2400~2483.5MHz
WIFI 802.11ac VHT20 (Band Edge)

WIFI Ant. 1+2(2)	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Preamp Factor (dB)	Grounding Factor (dB)	MIMO Gain (dBi)	Peak Avg. (P/A)
802.11ac VHT20 CH 01 2412MHz		2389.68	-35.86	-14.66	-21.2	-20.4	13	2.5	33.97	0	3.01	P
		2390	-48.08	-6.88	-41.2	-32.6	13	2.5	33.99	0	3.01	A
	*	2408	10.53	-	-	26.01	13	2.5	33.99	0	3.01	P
	*	2406	2.81	-	-	18.29	13	2.5	33.99	0	3.01	A
802.11ac VHT20 CH 06 2437MHz		2385.465	-39.34	-18.14	-21.2	-23.88	13	2.5	33.97	0	3.01	P
		2389.92	-49.15	-7.95	-41.2	-33.67	13	2.5	33.99	0	3.01	A
	*	2442	10.4	-	-	25.94	13	2.5	34.05	0	3.01	P
	*	2444	2.79	-	-	18.33	13	2.5	34.05	0	3.01	A
		2486	-43.44	-22.24	-21.2	-27.88	13	2.5	34.07	0	3.01	P
		2484.95	-53.75	-12.55	-41.2	-38.19	13	2.5	34.07	0	3.01	A



802.11ac VHT20 CH 11 2462MHz	*	2458	10.66	-	-	26.2	13	2.5	34.05	0	3.01	P
	*	2456	2.52	-	-	18.06	13	2.5	34.05	0	3.01	A
		2485.05	-38.24	-17.04	-21.2	-22.68	13	2.5	34.07	0	3.01	P
		2483.5	-51.5	-10.3	-41.2	-35.94	13	2.5	34.07	0	3.01	A
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



2.4GHz 2400~2483.5MHz
WIFI 802.11ac VHT20 (Harmonic)

WIFI Ant. 1+2(2)	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Preamp Factor (dB)	Grounding Factor (dB)	MIMO Gain (dBi)	Peak Avg. (P/A)
802.11ac VHT20 CH 01 2412MHz		4825	-80.26	-59.06	-21.2	-64.72	13	2.5	34.05	0	3.01	P
802.11ac VHT20 CH 06 2437MHz		4875	-81.9	-60.7	-21.2	-66.33	13	2.5	34.08	0	3.01	P
		7311	-81.37	-60.17	-21.2	-65.23	13	2.5	34.65	0	3.01	P
802.11ac VHT20 CH 11 2462MHz		4925	-81.15	-59.95	-21.2	-65.54	13	2.5	34.12	0	3.01	P
		7386	-80.59	-59.39	-21.2	-64.43	13	2.5	34.67	0	3.01	P
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



2.4GHz 2400~2483.5MHz
WIFI 802.11ac VHT40 (Band Edge)

WIFI Ant. 1+2(2)	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Preamp Factor (dB)	Grounding Factor (dB)	MIMO Gain (dBi)	Peak Avg. (P/A)
802.11ac VHT40 CH 03 2422MHz		2389.38	-28.25	-7.05	-21.2	-12.79	13	2.5	33.97	0	3.01	P
		2389.785	-41.45	-0.25	-41.2	-25.97	13	2.5	33.99	0	3.01	A
	*	2422	9.28	-	-	24.79	13	2.5	34.02	0	3.01	P
	*	2422	0.25	-	-	15.76	13	2.5	34.02	0	3.01	A
		2495.52	-42.73	-21.53	-21.2	-27.14	13	2.5	34.1	0	3.01	P
		2497.34	-53.8	-12.6	-41.2	-38.21	13	2.5	34.1	0	3.01	A
802.11ac VHT40 CH 06 2437MHz		2390	-37.81	-16.61	-21.2	-22.33	13	2.5	33.99	0	3.01	P
		2390	-49.47	-8.27	-41.2	-33.99	13	2.5	33.99	0	3.01	A
	*	2437	8.5	-	-	24.01	13	2.5	34.02	0	3.01	P
	*	2437	0.66	-	-	16.17	13	2.5	34.02	0	3.01	A
		2483.97	-37.33	-16.13	-21.2	-21.77	13	2.5	34.07	0	3.01	P
		2483.5	-50.04	-8.84	-41.2	-34.48	13	2.5	34.07	0	3.01	A



802.11ac VHT40 CH 09 2452MHz		2389.92	-38.7	-17.5	-21.2	-23.22	13	2.5	33.99	0	3.01	P
		2389.785	-49.7	-8.5	-41.2	-34.22	13	2.5	33.99	0	3.01	A
	*	2452	8.45	-	-	23.99	13	2.5	34.05	0	3.01	P
	*	2450	0.59	-	-	16.13	13	2.5	34.05	0	3.01	A
		2483.5	-35.98	-14.78	-21.2	-20.42	13	2.5	34.07	0	3.01	P
		2483.69	-50.11	-8.91	-41.2	-34.55	13	2.5	34.07	0	3.01	A
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



2.4GHz 2400~2483.5MHz
WIFI 802.11ac VHT40 (Harmonic)

WIFI Ant. 1+2(2)	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Preamp Factor (dB)	Grounding Factor (dB)	MIMO Gain (dBi)	Peak Avg. (P/A)
802.11ac VHT40 CH 03 2422MHz		4850	-81.16	-59.96	-21.2	-65.61	13	2.5	34.06	0	3.01	P
		7266	-82.58	-61.38	-21.2	-66.44	13	2.5	34.65	0	3.01	P
802.11ac VHT40 CH 06 2437MHz		4875	-81.15	-59.95	-21.2	-65.58	13	2.5	34.08	0	3.01	P
		7311	-82.37	-61.17	-21.2	-66.23	13	2.5	34.65	0	3.01	P
802.11ac VHT40 CH 09 2452MHz		4900	-81.32	-60.12	-21.2	-65.73	13	2.5	34.1	0	3.01	P
		7356	-81.33	-60.13	-21.2	-65.17	13	2.5	34.67	0	3.01	P
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



Emission below 1GHz

2.4GHz WIFI 802.11ac VHT10 (LF)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Grounding	MIMO	Peak
Ant.				Limit	Line	Level	Gain	Loss	Factor	Factor	Gain	Avg.
1+2(2)		(MHz)	(dBm)	(dB)	(dBm)	(dBm)	(dBi)	(dB)	(dB)	(dB)	(dBi)	(P/A)
2.4GHz 802.11ac VHT10 LF		102.75	-83.36	-31.66	-51.7	-74.38	13	2.5	32.19	4.7	3.01	P
		165.8	-83.7	-32	-51.7	-74.69	13	2.5	32.22	4.7	3.01	P
		266.68	-83.19	-33.99	-49.2	-74.28	13	2.5	32.12	4.7	3.01	P
		469.41	-75.01	-25.81	-49.2	-66.06	13	2.5	32.16	4.7	3.01	P
		604.24	-67.23	-18.03	-49.2	-58.23	13	2.5	32.21	4.7	3.01	P
		826.37	-66.2	-17	-49.2	-57.59	13	2.5	31.82	4.7	3.01	P
Remark	1. No other spurious found. 2. All results are PASS against limit line.											



Note symbol

*	Fundamental Frequency which can be ignored. However, the level of any unwanted emissions shall not exceed the level of the fundamental frequency.
!	Test result is over limit line.
P/A	Peak or Average

Both peak and average measured complies with the limit line, so test result is “PASS”.



2.4GHz 2400~2483.5MHz
WIFI 802.11ac VHT10 (Band Edge)

WIFI Ant. 1+2(1)	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Preamp Factor (dB)	Grounding Factor (dB)	MIMO Gain (dBi)	Peak Avg. (P/A)
802.11ac VHT10 CH 01 2412MHz		2388	-27.6	-6.4	-21.2	-23.14	24	2.5	33.97	0	3.01	P
		2390	-41.59	-0.39	-41.2	-37.11	24	2.5	33.99	0	3.01	A
	*	2410	23.29	-	-	27.77	24	2.5	33.99	0	3.01	P
	*	2408	14.48	-	-	18.96	24	2.5	33.99	0	3.01	A
802.11ac VHT10 CH 06 2437MHz		2388.975	-30.8	-9.6	-21.2	-26.34	24	2.5	33.97	0	3.01	P
		2390	-41.94	-0.74	-41.2	-37.46	24	2.5	33.99	0	3.01	A
	*	2436	21.86	-	-	26.37	24	2.5	34.02	0	3.01	P
	*	2440	13.37	-	-	17.88	24	2.5	34.02	0	3.01	A
		2484.04	-34.12	-12.92	-21.2	-29.56	24	2.5	34.07	0	3.01	P
		2484.32	-43.65	-2.45	-41.2	-39.09	24	2.5	34.07	0	3.01	A



802.11ac VHT10 CH 11 2462MHz	*	2466	23.09	-	-	27.63	24	2.5	34.05	0	3.01	P	H
	*	2460	14.47	-	-	19.01	24	2.5	34.05	0	3.01	A	H
		2483.55	-24.7	-3.5	-21.2	-20.14	24	2.5	34.07	0	3.01	P	H
		2497.4	-44.34	-3.14	-41.2	-39.75	24	2.5	34.1	0	3.01	A	H
													H
													H
													V
													V
													V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



2.4GHz 2400~2483.5MHz

WIFI 802.11ac VHT10 (Harmonic)

WIFI Ant. 1+2(1)	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Preamp Factor (dB)	Grounding Factor (dB)	MIMO Gain (dBi)	Peak Avg. (P/A)
802.11ac VHT10 CH 01 2412MHz		4825	-69.33	-48.13	-21.2	-64.79	24	2.5	34.05	0	3.01	P
802.11ac VHT10 CH 06 2437MHz		4875	-71.7	-50.5	-21.2	-67.13	24	2.5	34.08	0	3.01	P
		7311	-71.36	-50.16	-21.2	-66.22	24	2.5	34.65	0	3.01	P
802.11ac VHT10 CH 11 2462MHz		4925	-70.82	-49.62	-21.2	-66.21	24	2.5	34.12	0	3.01	P
		7386	-69.91	-48.71	-21.2	-64.75	24	2.5	34.67	0	3.01	P
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



2.4GHz 2400~2483.5MHz
WIFI 802.11ac VHT20 (Band Edge)

WIFI Ant. 1+2(1)	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Preamp Factor (dB)	Grounding Factor (dB)	MIMO Gain (dBi)	Peak Avg. (P/A)
802.11ac VHT20 CH 01 2412MHz		2390	-30.49	-9.29	-21.2	-26.01	24	2.5	33.99	0	3.01	P
		2389.56	-41.69	-0.49	-41.2	-37.23	24	2.5	33.97	0	3.01	A
	*	2412	14.14	-	-	18.62	24	2.5	33.99	0	3.01	P
	*	2412	6.98	-	-	11.46	24	2.5	33.99	0	3.01	A
802.11ac VHT20 CH 06 2437MHz		2387.085	-31.46	-10.26	-21.2	-27	24	2.5	33.97	0	3.01	P
		2390	-41.44	-0.24	-41.2	-36.96	24	2.5	33.99	0	3.01	A
	*	2437	18.72	-	-	23.23	24	2.5	34.02	0	3.01	P
	*	2437	10.79	-	-	15.3	24	2.5	34.02	0	3.01	A
		2485.09	-34.26	-13.06	-21.2	-29.7	24	2.5	34.07	0	3.01	P
		2483.55	-44.19	-2.99	-41.2	-39.63	24	2.5	34.07	0	3.01	A



802.11ac VHT20 CH 11 2462MHz	*	2464	19.24	-	-	23.78	24	2.5	34.05	0	3.01	P
	*	2466	11.43	-	-	15.97	24	2.5	34.05	0	3.01	A
		2484.45	-28.6	-7.4	-21.2	-24.04	24	2.5	34.07	0	3.01	P
		2483.5	-41.56	-0.36	-41.2	-37	24	2.5	34.07	0	3.01	A
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



2.4GHz 2400~2483.5MHz
WIFI 802.11ac VHT20 (Harmonic)

WIFI Ant. 1+2(1)	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Preamp Factor (dB)	Grounding Factor (dB)	MIMO Gain (dBi)	Peak Avg. (P/A)
802.11ac VHT20 CH 01 2412MHz		4825	-70.2	-49	-21.2	-65.66	24	2.5	34.05	0	3.01	P
802.11ac VHT20 CH 06 2437MHz		4875	-70.66	-49.46	-21.2	-66.09	24	2.5	34.08	0	3.01	P
		7311	-71.26	-50.06	-21.2	-66.12	24	2.5	34.65	0	3.01	P
802.11ac VHT20 CH 11 2462MHz		4925	-71.14	-49.94	-21.2	-66.53	24	2.5	34.12	0	3.01	P
		7386	-70.66	-49.46	-21.2	-65.5	24	2.5	34.67	0	3.01	P
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



2.4GHz 2400~2483.5MHz
WIFI 802.11ac VHT40 (Band Edge)

WIFI Ant. 1+2(1)	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Preamp Factor (dB)	Grounding Factor (dB)	MIMO Gain (dBi)	Peak Avg. (P/A)
802.11ac VHT40 CH 03 2422MHz		2389.515	-30.39	-9.19	-21.2	-25.93	24	2.5	33.97	0	3.01	P
		2390	-41.66	-0.46	-41.2	-37.18	24	2.5	33.99	0	3.01	A
	*	2422	8.23	-	-	12.74	24	2.5	34.02	0	3.01	P
	*	2422	0.37	-	-	4.88	24	2.5	34.02	0	3.01	A
		2484.46	-34.93	-13.73	-21.2	-30.37	24	2.5	34.07	0	3.01	P
		2499.23	-45.73	-4.53	-41.2	-41.14	24	2.5	34.1	0	3.01	A
802.11ac VHT40 CH 06 2437MHz		2389.92	-32.26	-11.06	-21.2	-27.78	24	2.5	33.99	0	3.01	P
		2389.92	-42.29	-1.09	-41.2	-37.81	24	2.5	33.99	0	3.01	A
	*	2437	11.12	-	-	15.63	24	2.5	34.02	0	3.01	P
	*	2437	2.83	-	-	7.34	24	2.5	34.02	0	3.01	A
		2499.93	-34.9	-13.7	-21.2	-30.31	24	2.5	34.1	0	3.01	P
		2483.62	-45.69	-4.49	-41.2	-41.13	24	2.5	34.07	0	3.01	A



802.11ac VHT40 CH 09 2452MHz		2388.03	-32.33	-11.13	-21.2	-27.87	24	2.5	33.97	0	3.01	P
		2390.055	-42.27	-1.07	-41.2	-37.79	24	2.5	33.99	0	3.01	A
	*	2452	11.88	-	-	16.42	24	2.5	34.05	0	3.01	P
	*	2452	3.28	-	-	7.82	24	2.5	34.05	0	3.01	A
		2483.9	-30.73	-9.53	-21.2	-26.17	24	2.5	34.07	0	3.01	P
		2483.5	-41.98	-0.78	-41.2	-37.42	24	2.5	34.07	0	3.01	A
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



2.4GHz 2400~2483.5MHz
WIFI 802.11ac VHT40 (Harmonic)

WIFI Ant. 1+2(1)	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Preamp Factor (dB)	Grounding Factor (dB)	MIMO Gain (dBi)	Peak Avg. (P/A)
802.11ac VHT40 CH 03 2422MHz		4850	-70.3	-49.1	-21.2	-65.75	24	2.5	34.06	0	3.01	P
		7266	-70.76	-49.56	-21.2	-65.62	24	2.5	34.65	0	3.01	P
802.11ac VHT40 CH 06 2437MHz		4875	-70.98	-49.78	-21.2	-66.41	24	2.5	34.08	0	3.01	P
		7311	-71.67	-50.47	-21.2	-66.53	24	2.5	34.65	0	3.01	P
802.11ac VHT40 CH 09 2452MHz		4900	-69.08	-47.88	-21.2	-64.49	24	2.5	34.1	0	3.01	P
		7356	-71.43	-50.23	-21.2	-66.27	24	2.5	34.67	0	3.01	P
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



Emission below 1GHz

2.4GHz WIFI 802.11ac VHT10 (LF)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Grounding	MIMO	Peak
Ant.				Limit	Line	Level	Gain	Loss	Factor	Factor	Gain	Avg.
1+2(1)		(MHz)	(dBm)	(dB)	(dBm)	(dBm)	(dBi)	(dB)	(dB)	(dB)	(dBi)	(P/A)
2.4GHz 802.11ac VHT10 LF		70.74	-67.04	-11.84	-55.2	-72.82	24	6.3	32.23	4.7	3.01	P
		199.75	-69.11	-17.41	-51.7	-74.89	24	6.3	32.23	4.7	3.01	P
		369.5	-66.78	-17.58	-49.2	-72.69	24	6.3	32.1	4.7	3.01	P
		594.54	-50.91	-1.71	-49.2	-56.71	24	6.3	32.21	4.7	3.01	P
		827.34	-52.51	-3.31	-49.2	-58.71	24	6.3	31.81	4.7	3.01	P
		916.58	-53.22	-4.02	-49.2	-59.92	24	6.3	31.31	4.7	3.01	P
Remark	1. No other spurious found. 2. All results are PASS against limit line.											



2.4GHz 2400~2483.5MHz
WIFI 802.11ac VHT10 (Band Edge)

WIFI Ant. 1+2(2)	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Preamp Factor (dB)	Grounding Factor (dB)	MIMO Gain (dBi)	Peak Avg. (P/A)
802.11ac VHT10 CH 01 2412MHz		2386.08	-27.51	-6.31	-21.2	-23.05	24	2.5	33.97	0	3.01	P
		2390	-42.17	-0.97	-41.2	-37.69	24	2.5	33.99	0	3.01	A
	*	2410	23.89	-	-	28.37	24	2.5	33.99	0	3.01	P
	*	2408	14.38	-	-	18.86	24	2.5	33.99	0	3.01	A
802.11ac VHT10 CH 06 2437MHz		2390	-29.84	-8.64	-21.2	-25.36	24	2.5	33.99	0	3.01	P
		2390	-42.18	-0.98	-41.2	-37.7	24	2.5	33.99	0	3.01	A
	*	2436	21.46	-	-	25.97	24	2.5	34.02	0	3.01	P
	*	2440	13.14	-	-	17.65	24	2.5	34.02	0	3.01	A
		2483.69	-34.56	-13.36	-21.2	-30	24	2.5	34.07	0	3.01	P
		2484.46	-44.65	-3.45	-41.2	-40.09	24	2.5	34.07	0	3.01	A



802.11ac VHT10 CH 11 2462MHz	*	2460	24.01	-	-	28.55	24	2.5	34.05	0	3.01	P	H
	*	2458	14.64	-	-	19.18	24	2.5	34.05	0	3.01	A	H
		2483.95	-26.81	-5.61	-21.2	-22.25	24	2.5	34.07	0	3.01	P	H
		2498.8	-44.26	-3.06	-41.2	-39.67	24	2.5	34.1	0	3.01	A	H
													H
													H
													V
													V
													V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



2.4GHz 2400~2483.5MHz

WIFI 802.11ac VHT10 (Harmonic)

WIFI Ant. 1+2(2)	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Preamp Factor (dB)	Grounding Factor (dB)	MIMO Gain (dBi)	Peak Avg. (P/A)
802.11ac VHT10 CH 01 2412MHz		4825	-71.11	-49.91	-21.2	-66.57	24	2.5	34.05	0	3.01	P
802.11ac VHT10 CH 06 2437MHz		4875	-70.9	-49.7	-21.2	-66.33	24	2.5	34.08	0	3.01	P
		7311	-71.9	-50.7	-21.2	-66.76	24	2.5	34.65	0	3.01	P
802.11ac VHT10 CH 11 2462MHz		4925	-70.76	-49.56	-21.2	-66.15	24	2.5	34.12	0	3.01	P
		7386	-70.34	-49.14	-21.2	-65.18	24	2.5	34.67	0	3.01	P
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



2.4GHz 2400~2483.5MHz
WIFI 802.11ac VHT20 (Band Edge)

WIFI Ant. 1+2(2)	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Preamp Factor (dB)	Grounding Factor (dB)	MIMO Gain (dBi)	Peak Avg. (P/A)
802.11ac VHT20 CH 01 2412MHz		2389.8	-31.51	-10.31	-21.2	-27.03	24	2.5	33.99	0	3.01	P
		2390	-41.74	-0.54	-41.2	-37.26	24	2.5	33.99	0	3.01	A
	*	2412	14.59	-	-	19.07	24	2.5	33.99	0	3.01	P
	*	2412	6.71	-	-	11.19	24	2.5	33.99	0	3.01	A
802.11ac VHT20 CH 06 2437MHz		2388.57	-31.45	-10.25	-21.2	-26.99	24	2.5	33.97	0	3.01	P
		2390	-41.56	-0.36	-41.2	-37.08	24	2.5	33.99	0	3.01	A
	*	2437	18.86	-	-	23.37	24	2.5	34.02	0	3.01	P
	*	2437	10.92	-	-	15.43	24	2.5	34.02	0	3.01	A
		2488.94	-34.7	-13.5	-21.2	-30.14	24	2.5	34.07	0	3.01	P
		2485.16	-45.08	-3.88	-41.2	-40.52	24	2.5	34.07	0	3.01	A



802.11ac VHT20 CH 11 2462MHz	*	2458	19.3	-	-	23.84	24	2.5	34.05	0	3.01	P
	*	2458	11.42	-	-	15.96	24	2.5	34.05	0	3.01	A
		2483.55	-29.8	-8.6	-21.2	-25.24	24	2.5	34.07	0	3.01	P
		2483.5	-42.19	-0.99	-41.2	-37.63	24	2.5	34.07	0	3.01	A
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



2.4GHz 2400~2483.5MHz
WIFI 802.11ac VHT20 (Harmonic)

WIFI Ant. 1+2(2)	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Preamp Factor (dB)	Grounding Factor (dB)	MIMO Gain (dBi)	Peak Avg. (P/A)
802.11ac VHT20 CH 01 2412MHz		4825	-70.07	-48.87	-21.2	-65.53	24	2.5	34.05	0	3.01	P
802.11ac VHT20 CH 06 2437MHz		4875	-69.86	-48.66	-21.2	-65.29	24	2.5	34.08	0	3.01	P
		7311	-70.17	-48.97	-21.2	-65.03	24	2.5	34.65	0	3.01	P
802.11ac VHT20 CH 11 2462MHz		4925	-70.99	-49.79	-21.2	-66.38	24	2.5	34.12	0	3.01	P
		7386	-70.79	-49.59	-21.2	-65.63	24	2.5	34.67	0	3.01	P
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



2.4GHz 2400~2483.5MHz
WIFI 802.11ac VHT40 (Band Edge)

WIFI Ant. 1+2(2)	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Preamp Factor (dB)	Grounding Factor (dB)	MIMO Gain (dBi)	Peak Avg. (P/A)
802.11ac VHT40 CH 03 2422MHz		2389.92	-30.36	-9.16	-21.2	-25.88	24	2.5	33.99	0	3.01	P
		2390	-41.42	-0.22	-41.2	-36.94	24	2.5	33.99	0	3.01	A
	*	2422	8.49	-	-	13	24	2.5	34.02	0	3.01	P
	*	2422	0.04	-	-	4.55	24	2.5	34.02	0	3.01	A
		2496.92	-34.42	-13.22	-21.2	-29.83	24	2.5	34.1	0	3.01	P
		2500	-45.36	-4.16	-41.2	-40.77	24	2.5	34.1	0	3.01	A
802.11ac VHT40 CH 06 2437MHz		2388.975	-31.09	-9.89	-21.2	-26.63	24	2.5	33.97	0	3.01	P
		2390	-41.57	-0.37	-41.2	-37.09	24	2.5	33.99	0	3.01	A
	*	2437	12.51	-	-	17.02	24	2.5	34.02	0	3.01	P
	*	2437	4.39	-	-	8.9	24	2.5	34.02	0	3.01	A
		2500	-34.04	-12.84	-21.2	-29.45	24	2.5	34.1	0	3.01	P
		2499.79	-44.95	-3.75	-41.2	-40.36	24	2.5	34.1	0	3.01	A



802.11ac VHT40 CH 09 2452MHz		2386.68	-30.36	-9.16	-21.2	-25.9	24	2.5	33.97	0	3.01	P
		2390	-41.57	-0.37	-41.2	-37.09	24	2.5	33.99	0	3.01	A
	*	2460	13.18	-	-	17.72	24	2.5	34.05	0	3.01	P
	*	2460	4.38	-	-	8.92	24	2.5	34.05	0	3.01	A
		2483.62	-30.41	-9.21	-21.2	-25.85	24	2.5	34.07	0	3.01	P
		2483.69	-42.11	-0.91	-41.2	-37.55	24	2.5	34.07	0	3.01	A
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



2.4GHz 2400~2483.5MHz

WIFI 802.11ac VHT40 (Harmonic)

WIFI Ant. 1+2(2)	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Preamp Factor (dB)	Grounding Factor (dB)	MIMO Gain (dBi)	Peak Avg. (P/A)
802.11ac VHT40 CH 03 2422MHz		4850	-70.1	-48.9	-21.2	-65.55	24	2.5	34.06	0	3.01	P
		7266	-70.95	-49.75	-21.2	-65.81	24	2.5	34.65	0	3.01	P
802.11ac VHT40 CH 06 2437MHz		4875	-69.85	-48.65	-21.2	-65.28	24	2.5	34.08	0	3.01	P
		7311	-71.47	-50.27	-21.2	-66.33	24	2.5	34.65	0	3.01	P
802.11ac VHT40 CH 09 2452MHz		4900	-70.62	-49.42	-21.2	-66.03	24	2.5	34.1	0	3.01	P
		7356	-70.43	-49.23	-21.2	-65.27	24	2.5	34.67	0	3.01	P
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



Emission below 1GHz

2.4GHz WIFI 802.11ac VHT10 (LF)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Grounding	MIMO	Peak
Ant.				Limit	Line	Level	Gain	Loss	Factor	Factor	Gain	Avg.
1+2(2)		(MHz)	(dBm)	(dB)	(dBm)	(dBm)	(dBi)	(dB)	(dB)	(dB)	(dBi)	(P/A)
2.4GHz 802.11ac VHT10 LF		70.74	-69.04	-13.84	-55.2	-74.82	24	6.3	32.23	4.7	3.01	P
		168.71	-68.5	-16.8	-51.7	-74.29	24	6.3	32.22	4.7	3.01	P
		236.61	-68.27	-19.07	-49.2	-74.11	24	6.3	32.17	4.7	3.01	P
		499.48	-58.36	-9.16	-49.2	-64.19	24	6.3	32.18	4.7	3.01	P
		628.49	-52.73	-3.53	-49.2	-58.54	24	6.3	32.2	4.7	3.01	P
		826.37	-52.78	-3.58	-49.2	-58.97	24	6.3	31.82	4.7	3.01	P
Remark	1. No other spurious found. 2. All results are PASS against limit line.											



Note symbol

*	Fundamental Frequency which can be ignored. However, the level of any unwanted emissions shall not exceed the level of the fundamental frequency.
!	Test result is over limit line.
P/A	Peak or Average

Both peak and average measured complies with the limit line, so test result is “PASS”.



2.4GHz 2400~2483.5MHz
WIFI 802.11ac VHT10 (Band Edge)

WIFI Ant. 1+2(1)	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Preamp Factor (dB)	Grounding Factor (dB)	MIMO Gain (dBi)	Peak Avg. (P/A)
802.11ac VHT10 CH 01 2412MHz		2388	-27.6	-6.4	-21.2	-23.14	24	2.5	33.97	0	3.01	P
		2390	-41.59	-0.39	-41.2	-37.11	24	2.5	33.99	0	3.01	A
	*	2410	23.29	-	-	27.77	24	2.5	33.99	0	3.01	P
	*	2408	14.48	-	-	18.96	24	2.5	33.99	0	3.01	A
802.11ac VHT10 CH 06 2437MHz		2388.975	-30.8	-9.6	-21.2	-26.34	24	2.5	33.97	0	3.01	P
		2390	-41.94	-0.74	-41.2	-37.46	24	2.5	33.99	0	3.01	A
	*	2436	21.86	-	-	26.37	24	2.5	34.02	0	3.01	P
	*	2440	13.37	-	-	17.88	24	2.5	34.02	0	3.01	A
		2484.04	-34.12	-12.92	-21.2	-29.56	24	2.5	34.07	0	3.01	P
		2484.32	-43.65	-2.45	-41.2	-39.09	24	2.5	34.07	0	3.01	A



802.11ac VHT10 CH 11 2462MHz	*	2466	23.09	-	-	27.63	24	2.5	34.05	0	3.01	P	H
	*	2460	14.47	-	-	19.01	24	2.5	34.05	0	3.01	A	H
		2483.55	-24.7	-3.5	-21.2	-20.14	24	2.5	34.07	0	3.01	P	H
		2497.4	-44.34	-3.14	-41.2	-39.75	24	2.5	34.1	0	3.01	A	H
													H
													H
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													V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



2.4GHz 2400~2483.5MHz
WIFI 802.11ac VHT10 (Harmonic)

WIFI Ant. 1+2(1)	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Preamp Factor (dB)	Grounding Factor (dB)	MIMO Gain (dBi)	Peak Avg. (P/A)
802.11ac VHT10 CH 01 2412MHz		4825	-70.1	-48.9	-21.2	-65.56	24	2.5	34.05	0	3.01	P
802.11ac VHT10 CH 06 2437MHz		4875	-70.21	-49.01	-21.2	-65.64	24	2.5	34.08	0	3.01	P
		7311	-70.03	-48.83	-21.2	-64.89	24	2.5	34.65	0	3.01	P
802.11ac VHT10 CH 11 2462MHz		4925	-70.4	-49.2	-21.2	-65.79	24	2.5	34.12	0	3.01	P
		7386	-70.65	-49.45	-21.2	-65.49	24	2.5	34.67	0	3.01	P
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



2.4GHz 2400~2483.5MHz
WIFI 802.11ac VHT20 (Band Edge)

WIFI Ant. 1+2(1)	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Preamp Factor (dB)	Grounding Factor (dB)	MIMO Gain (dBi)	Peak Avg. (P/A)
802.11ac VHT20 CH 01 2412MHz		2390	-30.49	-9.29	-21.2	-26.01	24	2.5	33.99	0	3.01	P
		2389.56	-41.69	-0.49	-41.2	-37.23	24	2.5	33.97	0	3.01	A
	*	2412	14.14	-	-	18.62	24	2.5	33.99	0	3.01	P
	*	2412	6.98	-	-	11.46	24	2.5	33.99	0	3.01	A
802.11ac VHT20 CH 06 2437MHz		2387.085	-31.46	-10.26	-21.2	-27	24	2.5	33.97	0	3.01	P
		2390	-41.44	-0.24	-41.2	-36.96	24	2.5	33.99	0	3.01	A
	*	2437	18.72	-	-	23.23	24	2.5	34.02	0	3.01	P
	*	2437	10.79	-	-	15.3	24	2.5	34.02	0	3.01	A
		2485.09	-34.26	-13.06	-21.2	-29.7	24	2.5	34.07	0	3.01	P
		2483.55	-44.19	-2.99	-41.2	-39.63	24	2.5	34.07	0	3.01	A



802.11ac VHT20 CH 11 2462MHz	*	2464	19.24	-	-	23.78	24	2.5	34.05	0	3.01	P
	*	2466	11.43	-	-	15.97	24	2.5	34.05	0	3.01	A
		2484.45	-28.6	-7.4	-21.2	-24.04	24	2.5	34.07	0	3.01	P
		2483.5	-41.56	-0.36	-41.2	-37	24	2.5	34.07	0	3.01	A
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



2.4GHz 2400~2483.5MHz
WIFI 802.11ac VHT20 (Harmonic)

WIFI Ant. 1+2(1)	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Preamp Factor (dB)	Grounding Factor (dB)	MIMO Gain (dBi)	Peak Avg. (P/A)
802.11ac VHT20 CH 01 2412MHz		4825	-70.62	-49.42	-21.2	-66.08	24	2.5	34.05	0	3.01	P
802.11ac VHT20 CH 06 2437MHz		4875	-69.67	-48.47	-21.2	-65.1	24	2.5	34.08	0	3.01	P
		7311	-71.02	-49.82	-21.2	-65.88	24	2.5	34.65	0	3.01	P
802.11ac VHT20 CH 11 2462MHz		4925	-70.59	-49.39	-21.2	-65.98	24	2.5	34.12	0	3.01	P
		7386	-70.48	-49.28	-21.2	-65.32	24	2.5	34.67	0	3.01	P
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



2.4GHz 2400~2483.5MHz
WIFI 802.11ac VHT40 (Band Edge)

WIFI Ant. 1+2(1)	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Preamp Factor (dB)	Grounding Factor (dB)	MIMO Gain (dBi)	Peak Avg. (P/A)
802.11ac VHT40 CH 03 2422MHz		2389.515	-30.39	-9.19	-21.2	-25.93	24	2.5	33.97	0	3.01	P
		2390	-41.66	-0.46	-41.2	-37.18	24	2.5	33.99	0	3.01	A
	*	2422	8.23	-	-	12.74	24	2.5	34.02	0	3.01	P
	*	2422	0.37	-	-	4.88	24	2.5	34.02	0	3.01	A
		2484.46	-34.93	-13.73	-21.2	-30.37	24	2.5	34.07	0	3.01	P
		2499.23	-45.73	-4.53	-41.2	-41.14	24	2.5	34.1	0	3.01	A
802.11ac VHT40 CH 06 2437MHz		2389.92	-32.26	-11.06	-21.2	-27.78	24	2.5	33.99	0	3.01	P
		2389.92	-42.29	-1.09	-41.2	-37.81	24	2.5	33.99	0	3.01	A
	*	2437	11.12	-	-	15.63	24	2.5	34.02	0	3.01	P
	*	2437	2.83	-	-	7.34	24	2.5	34.02	0	3.01	A
		2499.93	-34.9	-13.7	-21.2	-30.31	24	2.5	34.1	0	3.01	P
		2483.62	-45.69	-4.49	-41.2	-41.13	24	2.5	34.07	0	3.01	A



802.11ac VHT40 CH 09 2452MHz		2388.03	-32.33	-11.13	-21.2	-27.87	24	2.5	33.97	0	3.01	P
		2390.055	-42.27	-1.07	-41.2	-37.79	24	2.5	33.99	0	3.01	A
	*	2452	11.88	-	-	16.42	24	2.5	34.05	0	3.01	P
	*	2452	3.28	-	-	7.82	24	2.5	34.05	0	3.01	A
		2483.9	-30.73	-9.53	-21.2	-26.17	24	2.5	34.07	0	3.01	P
		2483.5	-41.98	-0.78	-41.2	-37.42	24	2.5	34.07	0	3.01	A
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



2.4GHz 2400~2483.5MHz
WIFI 802.11ac VHT40 (Harmonic)

WIFI Ant. 1+2(1)	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Preamp Factor (dB)	Grounding Factor (dB)	MIMO Gain (dBi)	Peak Avg. (P/A)
802.11ac VHT40 CH 03 2422MHz		4850	-69.86	-48.66	-21.2	-65.31	24	2.5	34.06	0	3.01	P
		7266	-71.06	-49.86	-21.2	-65.92	24	2.5	34.65	0	3.01	P
802.11ac VHT40 CH 06 2437MHz		4875	-69.98	-48.78	-21.2	-65.41	24	2.5	34.08	0	3.01	P
		7311	-71.15	-49.95	-21.2	-66.01	24	2.5	34.65	0	3.01	P
802.11ac VHT40 CH 09 2452MHz		4900	-70.21	-49.01	-21.2	-65.62	24	2.5	34.1	0	3.01	P
		7356	-70.19	-48.99	-21.2	-65.03	24	2.5	34.67	0	3.01	P
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



Emission below 1GHz

2.4GHz WIFI 802.11ac VHT10 (LF)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Grounding	MIMO	Peak
Ant.				Limit	Line	Level	Gain	Loss	Factor	Factor	Gain	Avg.
1+2(1)		(MHz)	(dBm)	(dB)	(dBm)	(dBm)	(dBi)	(dB)	(dB)	(dB)	(dBi)	(P/A)
2.4GHz 802.11ac VHT10 LF		69.77	-67.28	-12.08	-55.2	-73.06	24	6.3	32.23	4.7	3.01	P
		199.75	-68.65	-16.95	-51.7	-74.43	24	6.3	32.23	4.7	3.01	P
		266.68	-66.66	-17.46	-49.2	-72.55	24	6.3	32.12	4.7	3.01	P
		401.51	-65.68	-16.48	-49.2	-71.58	24	6.3	32.11	4.7	3.01	P
		536.34	-52.82	-3.62	-49.2	-58.64	24	6.3	32.19	4.7	3.01	P
		696.39	-51.59	-2.39	-49.2	-57.44	24	6.3	32.16	4.7	3.01	P
Remark	1. No other spurious found. 2. All results are PASS against limit line.											



2.4GHz 2400~2483.5MHz
WIFI 802.11ac VHT10 (Band Edge)

WIFI Ant. 1+2(2)	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Preamp Factor (dB)	Grounding Factor (dB)	MIMO Gain (dBi)	Peak Avg. (P/A)
802.11ac VHT10 CH 01 2412MHz		2386.08	-27.51	-6.31	-21.2	-23.05	24	2.5	33.97	0	3.01	P
		2390	-42.17	-0.97	-41.2	-37.69	24	2.5	33.99	0	3.01	A
	*	2410	23.89	-	-	28.37	24	2.5	33.99	0	3.01	P
	*	2408	14.38	-	-	18.86	24	2.5	33.99	0	3.01	A
802.11ac VHT10 CH 06 2437MHz		2390	-29.84	-8.64	-21.2	-25.36	24	2.5	33.99	0	3.01	P
		2390	-42.18	-0.98	-41.2	-37.7	24	2.5	33.99	0	3.01	A
	*	2436	21.46	-	-	25.97	24	2.5	34.02	0	3.01	P
	*	2440	13.14	-	-	17.65	24	2.5	34.02	0	3.01	A
		2483.69	-34.56	-13.36	-21.2	-30	24	2.5	34.07	0	3.01	P
		2484.46	-44.65	-3.45	-41.2	-40.09	24	2.5	34.07	0	3.01	A



802.11ac VHT10 CH 11 2462MHz	*	2460	24.01	-	-	28.55	24	2.5	34.05	0	3.01	P	H
	*	2458	14.64	-	-	19.18	24	2.5	34.05	0	3.01	A	H
		2483.95	-26.81	-5.61	-21.2	-22.25	24	2.5	34.07	0	3.01	P	H
		2498.8	-44.26	-3.06	-41.2	-39.67	24	2.5	34.1	0	3.01	A	H
													H
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													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



2.4GHz 2400~2483.5MHz
WIFI 802.11ac VHT10 (Harmonic)

WIFI Ant. 1+2(2)	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Preamp Factor (dB)	Grounding Factor (dB)	MIMO Gain (dBi)	Peak Avg. (P/A)
802.11ac VHT10 CH 01 2412MHz		4825	-70.77	-49.57	-21.2	-66.23	24	2.5	34.05	0	3.01	P
802.11ac VHT10 CH 06 2437MHz		4875	-70.74	-49.54	-21.2	-66.17	24	2.5	34.08	0	3.01	P
		7311	-71.4	-50.2	-21.2	-66.26	24	2.5	34.65	0	3.01	P
802.11ac VHT10 CH 11 2462MHz		4925	-71.75	-50.55	-21.2	-67.14	24	2.5	34.12	0	3.01	P
		7386	-70.93	-49.73	-21.2	-65.77	24	2.5	34.67	0	3.01	P
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



2.4GHz 2400~2483.5MHz
WIFI 802.11ac VHT20 (Band Edge)

WIFI Ant. 1+2(2)	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Preamp Factor (dB)	Grounding Factor (dB)	MIMO Gain (dBi)	Peak Avg. (P/A)
802.11ac VHT20 CH 01 2412MHz		2389.8	-31.51	-10.31	-21.2	-27.03	24	2.5	33.99	0	3.01	P
		2390	-41.74	-0.54	-41.2	-37.26	24	2.5	33.99	0	3.01	A
	*	2412	14.59	-	-	19.07	24	2.5	33.99	0	3.01	P
	*	2412	6.71	-	-	11.19	24	2.5	33.99	0	3.01	A
802.11ac VHT20 CH 06 2437MHz		2388.57	-31.45	-10.25	-21.2	-26.99	24	2.5	33.97	0	3.01	P
		2390	-41.56	-0.36	-41.2	-37.08	24	2.5	33.99	0	3.01	A
	*	2437	18.86	-	-	23.37	24	2.5	34.02	0	3.01	P
	*	2437	10.92	-	-	15.43	24	2.5	34.02	0	3.01	A
		2488.94	-34.7	-13.5	-21.2	-30.14	24	2.5	34.07	0	3.01	P
		2485.16	-45.08	-3.88	-41.2	-40.52	24	2.5	34.07	0	3.01	A



802.11ac VHT20 CH 11 2462MHz	*	2458	19.3	-	-	23.84	24	2.5	34.05	0	3.01	P
	*	2458	11.42	-	-	15.96	24	2.5	34.05	0	3.01	A
		2483.55	-29.8	-8.6	-21.2	-25.24	24	2.5	34.07	0	3.01	P
		2483.5	-42.19	-0.99	-41.2	-37.63	24	2.5	34.07	0	3.01	A
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



2.4GHz 2400~2483.5MHz
WIFI 802.11ac VHT20 (Harmonic)

WIFI Ant. 1+2(2)	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Preamp Factor (dB)	Grounding Factor (dB)	MIMO Gain (dBi)	Peak Avg. (P/A)
802.11ac VHT20 CH 01 2412MHz		4825	-69.81	-48.61	-21.2	-65.27	24	2.5	34.05	0	3.01	P
802.11ac VHT20 CH 06 2437MHz		4875	-70.34	-49.14	-21.2	-65.77	24	2.5	34.08	0	3.01	P
		7311	-71.57	-50.37	-21.2	-66.43	24	2.5	34.65	0	3.01	P
802.11ac VHT20 CH 11 2462MHz		4925	-70.56	-49.36	-21.2	-65.95	24	2.5	34.12	0	3.01	P
		7386	-70.25	-49.05	-21.2	-65.09	24	2.5	34.67	0	3.01	P
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



2.4GHz 2400~2483.5MHz
WIFI 802.11ac VHT40 (Band Edge)

WIFI Ant. 1+2(2)	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Preamp Factor (dB)	Grounding Factor (dB)	MIMO Gain (dBi)	Peak Avg. (P/A)
802.11ac VHT40 CH 03 2422MHz		2389.92	-30.36	-9.16	-21.2	-25.88	24	2.5	33.99	0	3.01	P
		2390	-41.42	-0.22	-41.2	-36.94	24	2.5	33.99	0	3.01	A
	*	2422	8.49	-	-	13	24	2.5	34.02	0	3.01	P
	*	2422	0.04	-	-	4.55	24	2.5	34.02	0	3.01	A
		2496.92	-34.42	-13.22	-21.2	-29.83	24	2.5	34.1	0	3.01	P
		2500	-45.36	-4.16	-41.2	-40.77	24	2.5	34.1	0	3.01	A
802.11ac VHT40 CH 06 2437MHz		2388.975	-31.09	-9.89	-21.2	-26.63	24	2.5	33.97	0	3.01	P
		2390	-41.57	-0.37	-41.2	-37.09	24	2.5	33.99	0	3.01	A
		2437	12.51			17.02	24	2.5	34.02	0	3.01	P
		2437	4.39			8.9	24	2.5	34.02	0	3.01	A
		2500	-34.04	-12.84	-21.2	-29.45	24	2.5	34.1	0	3.01	P
		2499.79	-44.95	-3.75	-41.2	-40.36	24	2.5	34.1	0	3.01	A



802.11ac VHT40 CH 09 2452MHz		2386.68	-30.36	-9.16	-21.2	-25.9	24	2.5	33.97	0	3.01	P
		2390	-41.57	-0.37	-41.2	-37.09	24	2.5	33.99	0	3.01	A
		2460	13.18			17.72	24	2.5	34.05	0	3.01	P
		2460	4.38			8.92	24	2.5	34.05	0	3.01	A
		2483.62	-30.41	-9.21	-21.2	-25.85	24	2.5	34.07	0	3.01	P
		2483.69	-42.11	-0.91	-41.2	-37.55	24	2.5	34.07	0	3.01	A
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



2.4GHz 2400~2483.5MHz
WIFI 802.11ac VHT40 (Harmonic)

WIFI Ant. 1+2(2)	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Preamp Factor (dB)	Grounding Factor (dB)	MIMO Gain (dBi)	Peak Avg. (P/A)
802.11ac VHT40 CH 03 2422MHz		4850	-70.87	-49.67	-21.2	-66.32	24	2.5	34.06	0	3.01	P
		7266	-70.83	-49.63	-21.2	-65.69	24	2.5	34.65	0	3.01	P
802.11ac VHT40 CH 06 2437MHz		4875	-70.28	-49.08	-21.2	-65.71	24	2.5	34.08	0	3.01	P
		7311	-71.98	-50.78	-21.2	-66.84	24	2.5	34.65	0	3.01	P
802.11ac VHT40 CH 09 2452MHz		4900	-69.61	-48.41	-21.2	-65.02	24	2.5	34.1	0	3.01	P
		7356	-71.61	-50.41	-21.2	-66.45	24	2.5	34.67	0	3.01	P
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



Emission below 1GHz

2.4GHz WIFI 802.11ac VHT10 (LF)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Grounding	MIMO	Peak
Ant.				Limit	Line	Level	Gain	Loss	Factor	Factor	Gain	Avg.
1+2(2)		(MHz)	(dBm)	(dB)	(dBm)	(dBm)	(dBi)	(dB)	(dB)	(dB)	(dBi)	(P/A)
2.4GHz 802.11ac VHT10 LF		82.38	-69.96	-14.76	-55.2	-75.75	24	6.3	32.22	4.7	3.01	P
		200.72	-68.35	-16.65	-51.7	-74.13	24	6.3	32.23	4.7	3.01	P
		266.68	-67.72	-18.52	-49.2	-73.61	24	6.3	32.12	4.7	3.01	P
		507.24	-55.77	-6.57	-49.2	-61.6	24	6.3	32.18	4.7	3.01	P
		594.54	-52.91	-3.71	-49.2	-58.71	24	6.3	32.21	4.7	3.01	P
		824.43	-52.63	-3.43	-49.2	-58.81	24	6.3	31.83	4.7	3.01	P
Remark	1. No other spurious found. 2. All results are PASS against limit line.											



Note symbol

*	Fundamental Frequency which can be ignored. However, the level of any unwanted emissions shall not exceed the level of the fundamental frequency.
!	Test result is over limit line.
P/A	Peak or Average

Both peak and average measured complies with the limit line, so test result is “PASS”.



2.4GHz 2400~2483.5MHz
WIFI 802.11ac VHT10 (Band Edge)

WIFI Ant. 1+2(1)	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Preamp Factor (dB)	Grounding Factor (dB)	MIMO Gain (dBi)	Peak Avg. (P/A)
802.11ac VHT10 CH 01 2412MHz		2389.56	-24.02	-2.82	-21.2	-12.56	17	2.5	33.97	0	3.01	P
		2387.88	-44.58	-3.38	-41.2	-33.12	17	2.5	33.97	0	3.01	A
	*	2410	25.82	-	-	37.3	17	2.5	33.99	0	3.01	P
	*	2408	16.83	-	-	28.31	17	2.5	33.99	0	3.01	A
802.11ac VHT10 CH 06 2437MHz		2390	-32.57	-11.37	-21.2	-21.09	17	2.5	33.99	0	3.01	P
		2389.92	-41.51	-0.31	-41.2	-30.03	17	2.5	33.99	0	3.01	A
	*	2440	18.32	-	-	29.83	17	2.5	34.02	0	3.01	P
	*	2440	10.21	-	-	21.72	17	2.5	34.02	0	3.01	A
		2486.21	-36.19	-14.99	-21.2	-24.63	17	2.5	34.07	0	3.01	P
		2483.55	-47.38	-6.18	-41.2	-35.82	17	2.5	34.07	0	3.01	A



802.11ac VHT10 CH 11 2462MHz	*	2464	27.32	-	-	38.86	17	2.5	34.05	0	3.01	P	H
	*	2458	19.04	-	-	30.58	17	2.5	34.05	0	3.01	A	H
		2483.6	-21.76	-0.56	-21.2	-10.2	17	2.5	34.07	0	3.01	P	H
		2483.5	-45.13	-3.93	-41.2	-33.57	17	2.5	34.07	0	3.01	A	H
													H
													H
													V
													V
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													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



2.4GHz 2400~2483.5MHz
WIFI 802.11ac VHT10 (Harmonic)

WIFI Ant. 1+2(1)	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Preamp Factor (dB)	Grounding Factor (dB)	MIMO Gain (dBi)	Peak Avg. (P/A)
802.11ac VHT10 CH 01 2412MHz		4825	-77.27	-56.07	-21.2	-65.73	17	2.5	34.05	0	3.01	P
802.11ac VHT10 CH 06 2437MHz		4875	-66.61	-45.41	-21.2	-55.04	17	2.5	34.08	0	3.01	P
		7311	-71.71	-50.51	-21.2	-59.57	17	2.5	34.65	0	3.01	P
802.11ac VHT10 CH 11 2462MHz		4925	-77.29	-56.09	-21.2	-65.68	17	2.5	34.12	0	3.01	P
		7386	-77.87	-56.67	-21.2	-65.71	17	2.5	34.67	0	3.01	P
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



2.4GHz 2400~2483.5MHz
WIFI 802.11ac VHT20 (Band Edge)

WIFI Ant. 1+2(1)	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Preamp Factor (dB)	Grounding Factor (dB)	MIMO Gain (dBi)	Peak Avg. (P/A)
802.11ac VHT20 CH 01 2412MHz		2390	-30.55	-9.35	-21.2	-19.07	17	2.5	33.99	0	3.01	P
		2390	-43.31	-2.11	-41.2	-31.83	17	2.5	33.99	0	3.01	A
	*	2404	15.14	-	-	26.62	17	2.5	33.99	0	3.01	P
	*	2406	7.72	-	-	19.2	17	2.5	33.99	0	3.01	A
802.11ac VHT20 CH 06 2437MHz		2390	-31.8	-10.6	-21.2	-20.32	17	2.5	33.99	0	3.01	P
		2389.11	-42.28	-1.08	-41.2	-30.82	17	2.5	33.97	0	3.01	A
	*	2420	17.01	-	-	28.52	17	2.5	34.02	0	3.01	P
	*	2434	9	-	-	20.51	17	2.5	34.02	0	3.01	A
		2495.38	-39.09	-17.89	-21.2	-27.5	17	2.5	34.1	0	3.01	P
		2495.59	-50.06	-8.86	-41.2	-38.47	17	2.5	34.1	0	3.01	A



802.11ac VHT20 CH 11 2462MHz	*	2464	16.91	-	-	28.45	17	2.5	34.05	0	3.01	P
	*	2458	8.55	-	-	20.09	17	2.5	34.05	0	3.01	A
		2484.3	-27.02	-5.82	-21.2	-15.46	17	2.5	34.07	0	3.01	P
		2483.5	-41.37	-0.17	-41.2	-29.81	17	2.5	34.07	0	3.01	P
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



2.4GHz 2400~2483.5MHz
WIFI 802.11ac VHT20 (Harmonic)

WIFI Ant. 1+2(1)	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Preamp Factor (dB)	Grounding Factor (dB)	MIMO Gain (dBi)	Peak Avg. (P/A)
802.11ac VHT20 CH 01 2412MHz		4825	-77.6	-56.4	-21.2	-66.06	17	2.5	34.05	0	3.01	P
802.11ac VHT20 CH 06 2437MHz		4875	-78.25	-57.05	-21.2	-66.68	17	2.5	34.08	0	3.01	P
		7311	-74.19	-52.99	-21.2	-62.05	17	2.5	34.65	0	3.01	P
802.11ac VHT20 CH 11 2462MHz		4925	-78.19	-56.99	-21.2	-66.58	17	2.5	34.12	0	3.01	P
		7386	-76.78	-55.58	-21.2	-64.62	17	2.5	34.67	0	3.01	P
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



2.4GHz 2400~2483.5MHz
WIFI 802.11ac VHT40 (Band Edge)

WIFI Ant. 1+2(1)	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Preamp Factor (dB)	Grounding Factor (dB)	MIMO Gain (dBi)	Peak Avg. (P/A)
802.11ac VHT40 CH 03 2422MHz		2389.245	-30.49	-9.29	-21.2	-19.03	17	2.5	33.97	0	3.01	P
		2390	-42.06	-0.86	-41.2	-30.58	17	2.5	33.99	0	3.01	A
	*	2418	10.62	-	-	22.13	17	2.5	34.02	0	3.01	P
	*	2412	1.92	-	-	13.4	17	2.5	33.99	0	3.01	A
		2490.13	-41.84	-20.64	-21.2	-30.28	17	2.5	34.07	0	3.01	P
		2497.76	-52.96	-11.76	-41.2	-41.37	17	2.5	34.1	0	3.01	A
802.11ac VHT40 CH 06 2437MHz		2388.57	-29.76	-8.56	-21.2	-18.3	17	2.5	33.97	0	3.01	P
		2390	-41.4	-0.2	-41.2	-29.92	17	2.5	33.99	0	3.01	A
	*	2437	14.09	35.29	-21.2	25.6	17	2.5	34.02	0	3.01	P
	*	2437	5.89	47.09	-41.2	17.4	17	2.5	34.02	0	3.01	A
		2484.53	-28.4	-7.2	-21.2	-16.84	17	2.5	34.07	0	3.01	P
		2483.9	-41.78	-0.58	-41.2	-30.22	17	2.5	34.07	0	3.01	A



802.11ac VHT40 CH 09 2452MHz		2389.38	-40.02	-18.82	-21.2	-28.56	17	2.5	33.97	0	3.01	P
		2389.92	-50.43	-9.23	-41.2	-38.95	17	2.5	33.99	0	3.01	A
	*	2458	10.83	-	-	22.37	17	2.5	34.05	0	3.01	P
	*	2458	2.45	-	-	13.99	17	2.5	34.05	0	3.01	A
		2484.39	-29.94	-8.74	-21.2	-18.38	17	2.5	34.07	0	3.01	P
		2483.5	-42.54	-1.34	-41.2	-30.98	17	2.5	34.07	0	3.01	A
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



2.4GHz 2400~2483.5MHz

WIFI 802.11ac VHT40 (Harmonic)

WIFI Ant. 1+2(1)	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Preamp Factor (dB)	Grounding Factor (dB)	MIMO Gain (dBi)	Peak Avg. (P/A)
802.11ac VHT40 CH 03 2422MHz		4850	-77.15	-55.95	-21.2	-65.6	17	2.5	34.06	0	3.01	P
		7266	-78.18	-56.98	-21.2	-66.04	17	2.5	34.65	0	3.01	P
802.11ac VHT40 CH 06 2437MHz		4875	-77.9	-56.7	-21.2	-66.33	17	2.5	34.08	0	3.01	P
		7311	-78.07	-56.87	-21.2	-65.93	17	2.5	34.65	0	3.01	P
802.11ac VHT40 CH 09 2452MHz		4900	-77.85	-56.65	-21.2	-66.26	17	2.5	34.1	0	3.01	P
		7356	-79.24	-58.04	-21.2	-67.08	17	2.5	34.67	0	3.01	P
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



Emission below 1GHz

2.4GHz WIFI 802.11ac VHT10 (LF)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Grounding	MIMO	Peak
Ant.				Limit	Line	Level	Gain	Loss	Factor	Factor	Gain	Avg.
1+2(1)		(MHz)	(dBm)	(dB)	(dBm)	(dBm)	(dBi)	(dB)	(dB)	(dB)	(dBi)	(P/A)
2.4GHz 802.11ac VHT10 LF		70.74	-80.9	-25.7	-55.2	-75.88	17	2.5	32.23	4.7	3.01	P
		162.89	-80.25	-28.55	-51.7	-75.24	17	2.5	32.22	4.7	3.01	P
		266.68	-79.43	-30.23	-49.2	-74.52	17	2.5	32.12	4.7	3.01	P
		401.51	-76.72	-27.52	-49.2	-71.82	17	2.5	32.11	4.7	3.01	P
		627.52	-68.1	-18.9	-49.2	-63.11	17	2.5	32.2	4.7	3.01	P
		730.34	-51.18	-1.98	-49.2	-46.3	17	2.5	32.09	4.7	3.01	P
Remark	1. No other spurious found. 2. All results are PASS against limit line.											



2.4GHz 2400~2483.5MHz
WIFI 802.11ac VHT10 (Band Edge)

WIFI Ant. 1+2(2)	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Preamp Factor (dB)	Grounding Factor (dB)	MIMO Gain (dBi)	Peak Avg. (P/A)
802.11ac VHT10 CH 01 2412MHz		2389.2	-23.92	-2.72	-21.2	-12.46	17	2.5	33.97	0	3.01	P
		2389.32	-43.83	-2.63	-41.2	-32.37	17	2.5	33.97	0	3.01	A
	*	2414	25.33	-	-	36.81	17	2.5	33.99	0	3.01	P
	*	2410	16.46	-	-	27.94	17	2.5	33.99	0	3.01	A
802.11ac VHT10 CH 06 2437MHz		2390	-32.57	-11.37	-21.2	-21.09	17	2.5	33.99	0	3.01	P
		2389.92	-41.51	-0.31	-41.2	-30.03	17	2.5	33.99	0	3.01	A
	*	2440	18.32	-	-	29.83	17	2.5	34.02	0	3.01	P
	*	2440	10.21	-	-	21.72	17	2.5	34.02	0	3.01	A
		2486.21	-36.19	-14.99	-21.2	-24.63	17	2.5	34.07	0	3.01	P
		2483.55	-47.38	-6.18	-41.2	-35.82	17	2.5	34.07	0	3.01	A



802.11ac VHT10 CH 11 2462MHz	*	2458	18.92	-	-	30.46	17	2.5	34.05	0	3.01	P	H
	*	2458	9.48	-	-	21.02	17	2.5	34.05	0	3.01	A	H
		2483.55	-33.24	-12.04	-21.2	-21.68	17	2.5	34.07	0	3.01	P	H
		2495.95	-50.63	-9.43	-41.2	-39.04	17	2.5	34.1	0	3.01	A	H
													H
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													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



2.4GHz 2400~2483.5MHz
WIFI 802.11ac VHT10 (Harmonic)

WIFI Ant. 1+2(2)	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Preamp Factor (dB)	Grounding Factor (dB)	MIMO Gain (dBi)	Peak Avg. (P/A)
802.11ac VHT10 CH 01 2412MHz		4825	-77.47	-56.27	-21.2	-65.93	17	2.5	34.05	0	3.01	P
802.11ac VHT10 CH 06 2437MHz		4875	-77.81	-56.61	-21.2	-66.24	17	2.5	34.08	0	3.01	P
		7311	-76.52	-55.32	-21.2	-64.38	17	2.5	34.65	0	3.01	P
802.11ac VHT10 CH 11 2462MHz		4925	-77.38	-56.18	-21.2	-65.77	17	2.5	34.12	0	3.01	P
		7386	-78.34	-57.14	-21.2	-66.18	17	2.5	34.67	0	3.01	P
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



2.4GHz 2400~2483.5MHz
WIFI 802.11ac VHT20 (Band Edge)

WIFI Ant. 1+2(2)	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Preamp Factor (dB)	Grounding Factor (dB)	MIMO Gain (dBi)	Peak Avg. (P/A)
802.11ac VHT20 CH 01 2412MHz		2389.2	-28.49	-7.29	-21.2	-17.03	17	2.5	33.97	0	3.01	P
		2390	-41.45	-0.25	-41.2	-29.97	17	2.5	33.99	0	3.01	A
	*	2408	15.76	-	-	27.24	17	2.5	33.99	0	3.01	P
	*	2404	7.61	-	-	19.09	17	2.5	33.99	0	3.01	A
802.11ac VHT20 CH 06 2437MHz		2390	-31.8	-10.6	-21.2	-20.32	17	2.5	33.99	0	3.01	P
		2389.11	-42.28	-1.08	-41.2	-30.82	17	2.5	33.97	0	3.01	A
	*	2420	17.01	-	-	28.52	17	2.5	34.02	0	3.01	P
	*	2434	9	-	-	20.51	17	2.5	34.02	0	3.01	A
		2495.38	-39.09	-17.89	-21.2	-27.5	17	2.5	34.1	0	3.01	P
		2495.59	-50.06	-8.86	-41.2	-38.47	17	2.5	34.1	0	3.01	A



802.11ac VHT20 CH 11 2462MHz	*	2458	16.23	-	-	27.77	17	2.5	34.05	0	3.01	P
	*	2458	8.25	-	-	19.79	17	2.5	34.05	0	3.01	A
		2483.65	-28.36	-7.16	-21.2	-16.8	17	2.5	34.07	0	3.01	P
		2483.5	-42.02	-0.82	-41.2	-30.46	17	2.5	34.07	0	3.01	A
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



2.4GHz 2400~2483.5MHz
WIFI 802.11ac VHT20 (Harmonic)

WIFI Ant. 1+2(2)	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Preamp Factor (dB)	Grounding Factor (dB)	MIMO Gain (dBi)	Peak Avg. (P/A)
802.11ac VHT20 CH 01 2412MHz		4825	-78.2	-57	-21.2	-66.66	17	2.5	34.05	0	3.01	P
802.11ac VHT20 CH 06 2437MHz		4875	-77.24	-56.04	-21.2	-65.67	17	2.5	34.08	0	3.01	P
		7311	-78.52	-57.32	-21.2	-66.38	17	2.5	34.65	0	3.01	P
802.11ac VHT20 CH 11 2462MHz		4925	-77.83	-56.63	-21.2	-66.22	17	2.5	34.12	0	3.01	P
		7386	-77.97	-56.77	-21.2	-65.81	17	2.5	34.67	0	3.01	P
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



2.4GHz 2400~2483.5MHz
WIFI 802.11ac VHT40 (Band Edge)

WIFI Ant. 1+2(2)	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Preamp Factor (dB)	Grounding Factor (dB)	MIMO Gain (dBi)	Peak Avg. (P/A)
802.11ac VHT40 CH 03 2422MHz		2389.785	-30.85	-9.65	-21.2	-19.37	17	2.5	33.99	0	3.01	P
		2389.92	-41.61	-0.41	-41.2	-30.13	17	2.5	33.99	0	3.01	A
	*	2412	10.39	-	-	21.87	17	2.5	33.99	0	3.01	P
	*	2410	1.57	-	-	13.05	17	2.5	33.99	0	3.01	A
		2495.03	-42.33	-21.13	-21.2	-30.74	17	2.5	34.1	0	3.01	P
		2497.27	-52.61	-11.41	-41.2	-41.02	17	2.5	34.1	0	3.01	A
802.11ac VHT40 CH 06 2437MHz		2389.11	-31	-9.8	-21.2	-19.54	17	2.5	33.97	0	3.01	P
		2390	-42.92	-1.72	-41.2	-31.44	17	2.5	33.99	0	3.01	A
	*	2452	13.83	-	-	25.37	17	2.5	34.05	0	3.01	P
	*	2452	5.77	-	-	17.31	17	2.5	34.05	0	3.01	A
		2483.5	-28.31	-7.11	-21.2	-16.75	17	2.5	34.07	0	3.01	P
		2483.83	-42.07	-0.87	-41.2	-30.51	17	2.5	34.07	0	3.01	A



802.11ac VHT40 CH 09 2452MHz		2389.245	-39.96	-18.76	-21.2	-28.5	17	2.5	33.97	0	3.01	P
		2389.92	-49.98	-8.78	-41.2	-38.5	17	2.5	33.99	0	3.01	A
	*	2460	11.05	-	-	22.59	17	2.5	34.05	0	3.01	P
	*	2456	2.57	-	-	14.11	17	2.5	34.05	0	3.01	A
		2484.6	-30.89	-9.69	-21.2	-19.33	17	2.5	34.07	0	3.01	P
		2483.5	-42.43	-1.23	-41.2	-30.87	17	2.5	34.07	0	3.01	A
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



2.4GHz 2400~2483.5MHz
WIFI 802.11ac VHT40 (Harmonic)

WIFI Ant. 1+2(2)	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Preamp Factor (dB)	Grounding Factor (dB)	MIMO Gain (dBi)	Peak Avg. (P/A)
802.11ac VHT40 CH 03 2422MHz		4850	-76.49	-55.29	-21.2	-64.94	17	2.5	34.06	0	3.01	P
		7266	-78.48	-57.28	-21.2	-66.34	17	2.5	34.65	0	3.01	P
802.11ac VHT40 CH 06 2437MHz		4875	-77.47	-56.27	-21.2	-65.9	17	2.5	34.08	0	3.01	P
		7311	-78.39	-57.19	-21.2	-66.25	17	2.5	34.65	0	3.01	P
802.11ac VHT40 CH 09 2452MHz		4900	-78.42	-57.22	-21.2	-66.83	17	2.5	34.1	0	3.01	P
		7356	-79.23	-58.03	-21.2	-67.07	17	2.5	34.67	0	3.01	P
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											

**Emission below 1GHz****2.4GHz WIFI 802.11ac VHT10 (LF)**

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Grounding	MIMO	Peak
Ant.				Limit	Line	Level	Gain	Loss	Factor	Factor	Gain	Avg.
1+2(2)		(MHz)	(dBm)	(dB)	(dBm)	(dBm)	(dBi)	(dB)	(dB)	(dB)	(dBi)	(P/A)
2.4GHz 802.11ac VHT10 LF		101.78	-80.24	-28.54	-51.7	-75.26	17	2.5	32.19	4.7	3.01	P
		166.77	-79.92	-28.22	-51.7	-74.91	17	2.5	32.22	4.7	3.01	P
		267.65	-79.83	-30.63	-49.2	-74.92	17	2.5	32.12	4.7	3.01	P
		500.45	-67.09	-17.89	-49.2	-62.12	17	2.5	32.18	4.7	3.01	P
		628.49	-63.5	-14.3	-49.2	-58.51	17	2.5	32.2	4.7	3.01	P
		824.43	-63.85	-14.65	-49.2	-59.23	17	2.5	31.83	4.7	3.01	P
Remark	1. No other spurious found. 2. All results are PASS against limit line.											



Note symbol

*	Fundamental Frequency which can be ignored. However, the level of any unwanted emissions shall not exceed the level of the fundamental frequency.
!	Test result is over limit line.
P/A	Peak or Average

Both peak and average measured complies with the limit line, so test result is “PASS”.



2.4GHz 2400~2483.5MHz
WIFI 802.11ac VHT10 (Band Edge)

WIFI Ant. 1+2(1)	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Preamp Factor (dB)	Grounding Factor (dB)	MIMO Gain (dBi)	Peak Avg. (P/A)
802.11ac VHT10 CH 01 2412MHz		2388	-32.59	-11.39	-21.2	-21.13	17	2.5	33.97	0	3.01	P
		2390	-48.25	-7.05	-41.2	-36.77	17	2.5	33.99	0	3.01	A
	*	2414	18.68	-	-	30.16	17	2.5	33.99	0	3.01	P
	*	2408	9.67	-	-	21.15	17	2.5	33.99	0	3.01	A
802.11ac VHT10 CH 06 2437MHz		2389.245	-35.27	-14.07	-21.2	-23.81	17	2.5	33.97	0	3.01	P
		2389.785	-45.01	-3.81	-41.2	-33.53	17	2.5	33.99	0	3.01	A
	*	2434	17.13	-	-	28.64	17	2.5	34.02	0	3.01	P
	*	2434	8.14	-	-	19.65	17	2.5	34.02	0	3.01	A
		2484.67	-38.68	-17.48	-21.2	-27.12	17	2.5	34.07	0	3.01	P
		2483.9	-49	-7.8	-41.2	-37.44	17	2.5	34.07	0	3.01	A



802.11ac VHT10 CH 11 2462MHz	*	2464	27.32	-	-	38.86	17	2.5	34.05	0	3.01	P	H
	*	2458	19.04	-	-	30.58	17	2.5	34.05	0	3.01	A	H
		2483.6	-21.76	-0.56	-21.2	-10.2	17	2.5	34.07	0	3.01	P	H
		2483.5	-45.13	-3.93	-41.2	-33.57	17	2.5	34.07	0	3.01	A	H
													H
													H
													V
													V
													V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



2.4GHz 2400~2483.5MHz
WIFI 802.11ac VHT10 (Harmonic)

WIFI Ant. 1+2(1)	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Preamp Factor (dB)	Grounding Factor (dB)	MIMO Gain (dBi)	Peak Avg. (P/A)
802.11ac VHT10 CH 01 2412MHz		4825	-77.56	-56.36	-21.2	-66.02	17	2.5	34.05	0	3.01	P
802.11ac VHT10 CH 06 2437MHz		4875	-76.82	-55.62	-21.2	-65.25	17	2.5	34.08	0	3.01	P
		7311	-77.96	-56.76	-21.2	-65.82	17	2.5	34.65	0	3.01	P
802.11ac VHT10 CH 11 2462MHz		4925	-78	-56.8	-21.2	-66.39	17	2.5	34.12	0	3.01	P
		7386	-78.53	-57.33	-21.2	-66.37	17	2.5	34.67	0	3.01	P
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



2.4GHz 2400~2483.5MHz
WIFI 802.11ac VHT20 (Band Edge)

WIFI Ant. 1+2(1)	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Preamp Factor (dB)	Grounding Factor (dB)	MIMO Gain (dBi)	Peak Avg. (P/A)
802.11ac VHT20 CH 01 2412MHz		2389.56	-34.06	-12.86	-21.2	-22.6	17	2.5	33.97	0	3.01	P
		2390	-44.84	-3.64	-41.2	-33.36	17	2.5	33.99	0	3.01	A
	*	2406	15.01	-	-	26.49	17	2.5	33.99	0	3.01	P
	*	2406	6.52	-	-	18	17	2.5	33.99	0	3.01	A
802.11ac VHT20 CH 06 2437MHz		2388.03	-35.92	-14.72	-21.2	-24.46	17	2.5	33.97	0	3.01	P
		2389.11	-45.82	-4.62	-41.2	-34.36	17	2.5	33.97	0	3.01	A
	*	2444	13.31	-	-	24.85	17	2.5	34.05	0	3.01	P
	*	2444	5.78	-	-	17.32	17	2.5	34.05	0	3.01	A
		2483.5	-38.77	-17.57	-21.2	-27.21	17	2.5	34.07	0	3.01	P
		2483.55	-49.51	-8.31	-41.2	-37.95	17	2.5	34.07	0	3.01	A



802.11ac VHT20 CH 11 2462MHz	*	2460	15.1	-	-	26.64	17	2.5	34.05	0	3.01	P
	*	2458	6.07	-	-	17.61	17	2.5	34.05	0	3.01	A
		2484.55	-33.89	-12.69	-21.2	-22.33	17	2.5	34.07	0	3.01	P
		2483.55	-47.09	-5.89	-41.2	-35.53	17	2.5	34.07	0	3.01	A
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



2.4GHz 2400~2483.5MHz
WIFI 802.11ac VHT20 (Harmonic)

WIFI Ant. 1+2(1)	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Preamp Factor (dB)	Grounding Factor (dB)	MIMO Gain (dBi)	Peak Avg. (P/A)
802.11ac VHT20 CH 01 2412MHz		4825	-76.36	-55.16	-21.2	-64.82	17	2.5	34.05	0	3.01	P
802.11ac VHT20 CH 06 2437MHz		4875	-77.35	-56.15	-21.2	-65.78	17	2.5	34.08	0	3.01	P
		7311	-78.59	-57.39	-21.2	-66.45	17	2.5	34.65	0	3.01	P
802.11ac VHT20 CH 11 2462MHz		4925	-76.36	-55.16	-21.2	-64.75	17	2.5	34.12	0	3.01	P
		7386	-77.96	-56.76	-21.2	-65.8	17	2.5	34.67	0	3.01	P
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



2.4GHz 2400~2483.5MHz
WIFI 802.11ac VHT40 (Band Edge)

WIFI Ant. 1+2(1)	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Preamp Factor (dB)	Grounding Factor (dB)	MIMO Gain (dBi)	Peak Avg. (P/A)
802.11ac VHT40 CH 03 2422MHz		2389.245	-30.49	-9.29	-21.2	-19.03	17	2.5	33.97	0	3.01	P
		2390	-42.06	-0.86	-41.2	-30.58	17	2.5	33.99	0	3.01	A
	*	2418	10.62	-	-	22.13	17	2.5	34.02	0	3.01	P
	*	2412	1.92	-	-	13.4	17	2.5	33.99	0	3.01	A
		2490.13	-41.84	-20.64	-21.2	-30.28	17	2.5	34.07	0	3.01	P
		2497.76	-52.96	-11.76	-41.2	-41.37	17	2.5	34.1	0	3.01	A
802.11ac VHT40 CH 06 2437MHz		2388.57	-31.85	-10.65	-21.2	-20.39	17	2.5	33.97	0	3.01	P
		2390	-43.45	-2.25	-41.2	-31.97	17	2.5	33.99	0	3.01	A
	*	2437	11.97	-	-	23.48	17	2.5	34.02	0	3.01	P
	*	2437	3.73	-	-	15.24	17	2.5	34.02	0	3.01	A
		2483.5	-30.49	-9.29	-21.2	-18.93	17	2.5	34.07	0	3.01	P
		2483.9	-42.86	-1.66	-41.2	-31.3	17	2.5	34.07	0	3.01	A



802.11ac VHT40 CH 09 2452MHz		2389.38	-40.02	-18.82	-21.2	-28.56	17	2.5	33.97	0	3.01	P
		2389.92	-50.43	-9.23	-41.2	-38.95	17	2.5	33.99	0	3.01	A
	*	2458	10.83	-	-	22.37	17	2.5	34.05	0	3.01	P
	*	2458	2.45	-	-	13.99	17	2.5	34.05	0	3.01	A
		2484.39	-29.94	-8.74	-21.2	-18.38	17	2.5	34.07	0	3.01	P
		2483.5	-42.54	-1.34	-41.2	-30.98	17	2.5	34.07	0	3.01	A
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



2.4GHz 2400~2483.5MHz
WIFI 802.11ac VHT40 (Harmonic)

WIFI Ant. 1+2(1)	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Preamp Factor (dB)	Grounding Factor (dB)	MIMO Gain (dBi)	Peak Avg. (P/A)
802.11ac VHT40 CH 03 2422MHz		4850	-75.8	-54.6	-21.2	-64.25	17	2.5	34.06	0	3.01	P
		7266	-78.74	-57.54	-21.2	-66.6	17	2.5	34.65	0	3.01	P
802.11ac VHT40 CH 06 2437MHz		4875	-78.35	-57.15	-21.2	-66.78	17	2.5	34.08	0	3.01	P
		7311	-77.93	-56.73	-21.2	-65.79	17	2.5	34.65	0	3.01	P
802.11ac VHT40 CH 09 2452MHz		4900	-77.72	-56.52	-21.2	-66.13	17	2.5	34.1	0	3.01	P
		7356	-79.24	-58.04	-21.2	-67.08	17	2.5	34.67	0	3.01	P
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



Emission below 1GHz

2.4GHz WIFI 802.11ac VHT10 (LF)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Grounding	MIMO	Peak
Ant.				Limit	Line	Level	Gain	Loss	Factor	Factor	Gain	Avg.
1+2(1)		(MHz)	(dBm)	(dB)	(dBm)	(dBm)	(dBi)	(dB)	(dB)	(dB)	(dBi)	(P/A)
2.4GHz 802.11ac VHT10 LF		71.71	-79.96	-24.76	-55.2	-74.94	17	2.5	32.23	4.7	3.01	P
		167.74	-79.93	-28.23	-51.7	-74.92	17	2.5	32.22	4.7	3.01	P
		267.65	-79.24	-30.04	-49.2	-74.33	17	2.5	32.12	4.7	3.01	P
		401.51	-76	-26.8	-49.2	-71.1	17	2.5	32.11	4.7	3.01	P
		667.29	-63.81	-14.61	-49.2	-58.84	17	2.5	32.18	4.7	3.01	P
		822.49	-59.57	-10.37	-49.2	-54.94	17	2.5	31.84	4.7	3.01	P
Remark	1. No other spurious found. 2. All results are PASS against limit line.											



2.4GHz 2400~2483.5MHz
WIFI 802.11ac VHT10 (Band Edge)

WIFI Ant. 1+2(2)	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Preamp Factor (dB)	Grounding Factor (dB)	MIMO Gain (dBi)	Peak Avg. (P/A)
802.11ac VHT10 CH 01 2412MHz		2387.16	-34.45	-13.25	-21.2	-22.99	17	2.5	33.97	0	3.01	P
		2388.84	-47.84	-6.64	-41.2	-36.38	17	2.5	33.97	0	3.01	A
	*	2414	18.23	-	-	29.71	17	2.5	33.99	0	3.01	P
	*	2408	9.67	-	-	21.15	17	2.5	33.99	0	3.01	A
802.11ac VHT10 CH 06 2437MHz		2389.92	-35.25	-14.05	-21.2	-23.77	17	2.5	33.99	0	3.01	P
		2389.65	-44.9	-3.7	-41.2	-33.44	17	2.5	33.97	0	3.01	A
	*	2436	16.82	-	-	28.33	17	2.5	34.02	0	3.01	P
	*	2440	8.74	-	-	20.25	17	2.5	34.02	0	3.01	A
		2484.25	-38.62	-17.42	-21.2	-27.06	17	2.5	34.07	0	3.01	P
		2483.76	-49.46	-8.26	-41.2	-37.9	17	2.5	34.07	0	3.01	A



802.11ac VHT10 CH 11 2462MHz	*	2458	18.92	-	-	30.46	17	2.5	34.05	0	3.01	P	H
	*	2458	9.48	-	-	21.02	17	2.5	34.05	0	3.01	A	H
		2483.55	-33.24	-12.04	-21.2	-21.68	17	2.5	34.07	0	3.01	P	H
		2495.95	-50.63	-9.43	-41.2	-39.04	17	2.5	34.1	0	3.01	A	H
													H
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													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



2.4GHz 2400~2483.5MHz
WIFI 802.11ac VHT10 (Harmonic)

WIFI Ant. 1+2(2)	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Preamp Factor (dB)	Grounding Factor (dB)	MIMO Gain (dBi)	Peak Avg. (P/A)
802.11ac VHT10 CH 01 2412MHz		4825	-77.53	-56.33	-21.2	-65.99	17	2.5	34.05	0	3.01	P
802.11ac VHT10 CH 06 2437MHz		4875	-78.01	-56.81	-21.2	-66.44	17	2.5	34.08	0	3.01	P
		7311	-77.83	-56.63	-21.2	-65.69	17	2.5	34.65	0	3.01	P
802.11ac VHT10 CH 11 2462MHz		4925	-76.13	-54.93	-21.2	-64.52	17	2.5	34.12	0	3.01	P
		7386	-76.62	-55.42	-21.2	-64.46	17	2.5	34.67	0	3.01	P
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



2.4GHz 2400~2483.5MHz
WIFI 802.11ac VHT20 (Band Edge)

WIFI Ant. 1+2(2)	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Preamp Factor (dB)	Grounding Factor (dB)	MIMO Gain (dBi)	Peak Avg. (P/A)
802.11ac VHT20 CH 01 2412MHz		2390	-32.73	-11.53	-21.2	-21.25	17	2.5	33.99	0	3.01	P
		2390	-44.45	-3.25	-41.2	-32.97	17	2.5	33.99	0	3.01	A
	*	2408	14.7	-	-	26.18	17	2.5	33.99	0	3.01	P
	*	2406	6.72	-	-	18.2	17	2.5	33.99	0	3.01	A
802.11ac VHT20 CH 06 2437MHz		2389.785	-34	-12.8	-21.2	-22.52	17	2.5	33.99	0	3.01	P
		2389.38	-45.62	-4.42	-41.2	-34.16	17	2.5	33.97	0	3.01	A
	*	2442	14.08	-	-	25.62	17	2.5	34.05	0	3.01	P
	*	2444	6.55	-	-	18.09	17	2.5	34.05	0	3.01	A
		2486.21	-39.25	-18.05	-21.2	-27.69	17	2.5	34.07	0	3.01	P
		2484.39	-49.69	-8.49	-41.2	-38.13	17	2.5	34.07	0	3.01	A



802.11ac VHT20 CH 11 2462MHz	*	2460	15.1	-	-	26.64	17	2.5	34.05	0	3.01	P
	*	2458	6.07	-	-	17.61	17	2.5	34.05	0	3.01	A
		2484.55	-33.89	-12.69	-21.2	-22.33	17	2.5	34.07	0	3.01	P
		2483.55	-47.09	-5.89	-41.2	-35.53	17	2.5	34.07	0	3.01	A
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



2.4GHz 2400~2483.5MHz
WIFI 802.11ac VHT20 (Harmonic)

WIFI Ant. 1+2(2)	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Preamp Factor (dB)	Grounding Factor (dB)	MIMO Gain (dBi)	Peak Avg. (P/A)
802.11ac VHT20 CH 01 2412MHz		4825	-77.39	-56.19	-21.2	-65.85	17	2.5	34.05	0	3.01	P
802.11ac VHT20 CH 06 2437MHz		4875	-76.25	-55.05	-21.2	-64.68	17	2.5	34.08	0	3.01	P
		7311	-79.43	-58.23	-21.2	-67.29	17	2.5	34.65	0	3.01	P
802.11ac VHT20 CH 11 2462MHz		4925	-76.16	-54.96	-21.2	-64.55	17	2.5	34.12	0	3.01	P
		7386	-77.51	-56.31	-21.2	-65.35	17	2.5	34.67	0	3.01	P
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



2.4GHz 2400~2483.5MHz
WIFI 802.11ac VHT40 (Band Edge)

WIFI Ant. 1+2(2)	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Preamp Factor (dB)	Grounding Factor (dB)	MIMO Gain (dBi)	Peak Avg. (P/A)
802.11ac VHT40 CH 03 2422MHz		2389.785	-30.85	-9.65	-21.2	-19.37	17	2.5	33.99	0	3.01	P
		2389.92	-41.61	-0.41	-41.2	-30.13	17	2.5	33.99	0	3.01	A
	*	2412	10.39	-	-	21.87	17	2.5	33.99	0	3.01	P
	*	2410	1.57	-	-	13.05	17	2.5	33.99	0	3.01	A
		2495.03	-42.33	-21.13	-21.2	-30.74	17	2.5	34.1	0	3.01	P
		2497.27	-52.61	-11.41	-41.2	-41.02	17	2.5	34.1	0	3.01	A
802.11ac VHT40 CH 06 2437MHz		2389.11	-33.08	-11.88	-21.2	-21.62	17	2.5	33.97	0	3.01	P
		2390	-45.11	-3.91	-41.2	-33.63	17	2.5	33.99	0	3.01	A
	*	2437	11.75	-	-	23.26	17	2.5	34.02	0	3.01	P
	*	2437	3.5	-	-	15.01	17	2.5	34.02	0	3.01	A
		2485.3	-30.35	-9.15	-21.2	-18.79	17	2.5	34.07	0	3.01	P
		2483.83	-44.33	-3.13	-41.2	-32.77	17	2.5	34.07	0	3.01	A



802.11ac VHT40 CH 09 2452MHz		2389.245	-39.96	-18.76	-21.2	-28.5	17	2.5	33.97	0	3.01	P
		2389.92	-49.98	-8.78	-41.2	-38.5	17	2.5	33.99	0	3.01	A
	*	2460	11.05	-	-	22.59	17	2.5	34.05	0	3.01	P
	*	2456	2.57	-	-	14.11	17	2.5	34.05	0	3.01	A
		2484.6	-30.89	-9.69	-21.2	-19.33	17	2.5	34.07	0	3.01	P
		2483.5	-42.43	-1.23	-41.2	-30.87	17	2.5	34.07	0	3.01	A
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



2.4GHz 2400~2483.5MHz
WIFI 802.11ac VHT40 (Harmonic)

WIFI Ant. 1+2(2)	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Preamp Factor (dB)	Grounding Factor (dB)	MIMO Gain (dBi)	Peak Avg. (P/A)
802.11ac VHT40 CH 03 2422MHz		4850	-77.34	-56.14	-21.2	-65.79	17	2.5	34.06	0	3.01	P
		7266	-78.8	-57.6	-21.2	-66.66	17	2.5	34.65	0	3.01	P
802.11ac VHT40 CH 06 2437MHz		4875	-78.41	-57.21	-21.2	-66.84	17	2.5	34.08	0	3.01	P
		7311	-78.51	-57.31	-21.2	-66.37	17	2.5	34.65	0	3.01	P
802.11ac VHT40 CH 09 2452MHz		4900	-77.31	-56.11	-21.2	-65.72	17	2.5	34.1	0	3.01	P
		7356	-77.55	-56.35	-21.2	-65.39	17	2.5	34.67	0	3.01	P
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



Emission below 1GHz

2.4GHz WIFI 802.11ac VHT10 (LF)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Grounding	MIMO	Peak
Ant.				Limit	Line	Level	Gain	Loss	Factor	Factor	Gain	Avg.
1+2(2)		(MHz)	(dBm)	(dB)	(dBm)	(dBm)	(dBi)	(dB)	(dB)	(dB)	(dBi)	(P/A)
2.4GHz 802.11ac VHT10 LF		105.66	-79.96	-28.26	-51.7	-74.98	17	2.5	32.19	4.7	3.01	P
		167.74	-79.94	-28.24	-51.7	-74.93	17	2.5	32.22	4.7	3.01	P
		267.65	-80.23	-31.03	-49.2	-75.32	17	2.5	32.12	4.7	3.01	P
		505.3	-67.63	-18.43	-49.2	-62.66	17	2.5	32.18	4.7	3.01	P
		633.34	-63.53	-14.33	-49.2	-58.55	17	2.5	32.19	4.7	3.01	P
		729.37	-53.15	-3.95	-49.2	-48.26	17	2.5	32.1	4.7	3.01	P
Remark	1. No other spurious found. 2. All results are PASS against limit line.											



Note symbol

*	Fundamental Frequency which can be ignored. However, the level of any unwanted emissions shall not exceed the level of the fundamental frequency.
!	Test result is over limit line.
P/A	Peak or Average

Both peak and average measured complies with the limit line, so test result is “PASS”.

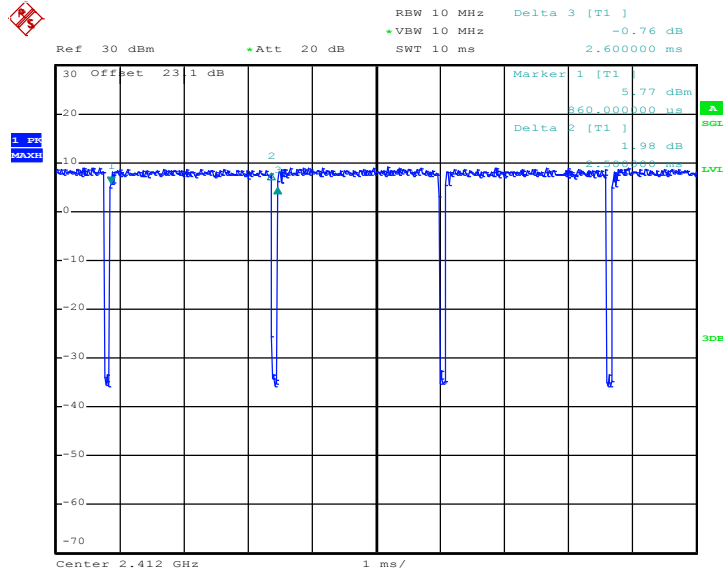
Appendix E. Duty Cycle Plots

Antenna	Band	Duty Cycle(%)	T(us)	1/T(kHz)	VBW Setting
1+2	802.11ac VHT10 for Ant. 1	96.15	2500	0.4	1kHz
1+2	802.11ac VHT10 for Ant. 2	96.18	2520	0.396825397	1kHz
1+2	802.11ac VHT20 for Ant. 1	94.78	1270	0.787401575	1kHz
1+2	802.11ac VHT20 for Ant. 2	94.76	1265	0.790513834	1kHz
1+2	802.11ac VHT40 for Ant. 1	89.67	624	1.602564103	3kHz
1+2	802.11ac VHT40 for Ant. 2	89.66	624	1.602564103	3kHz



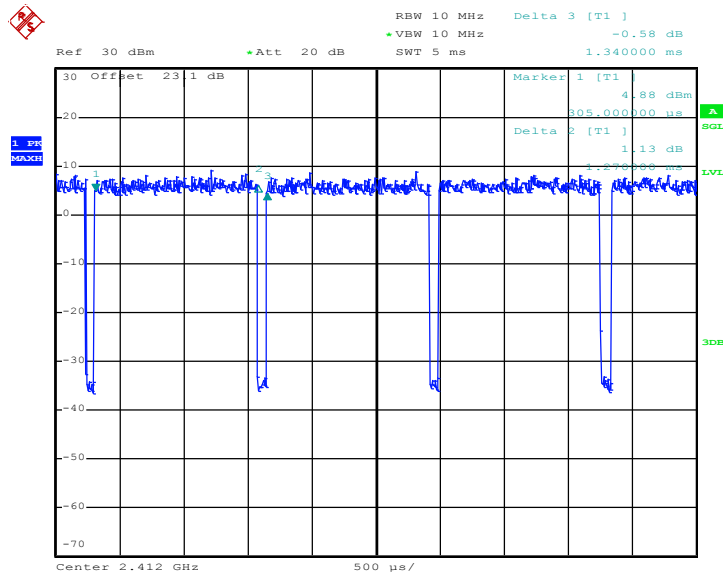
MIMO <Ant. 1+2(1)>

802.11ac VHT10



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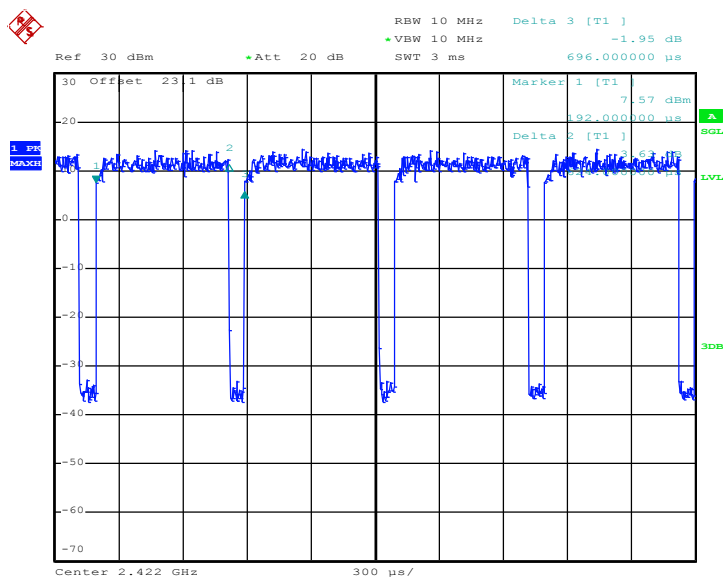
802.11ac VHT20



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802.11ac VHT40

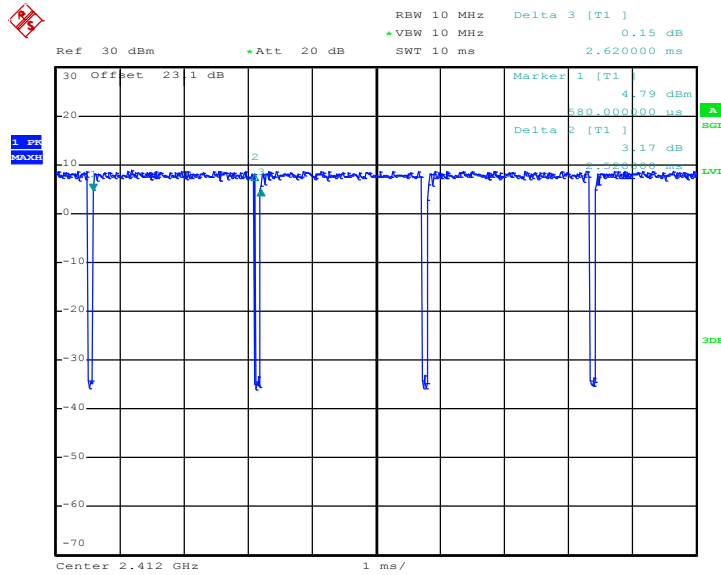


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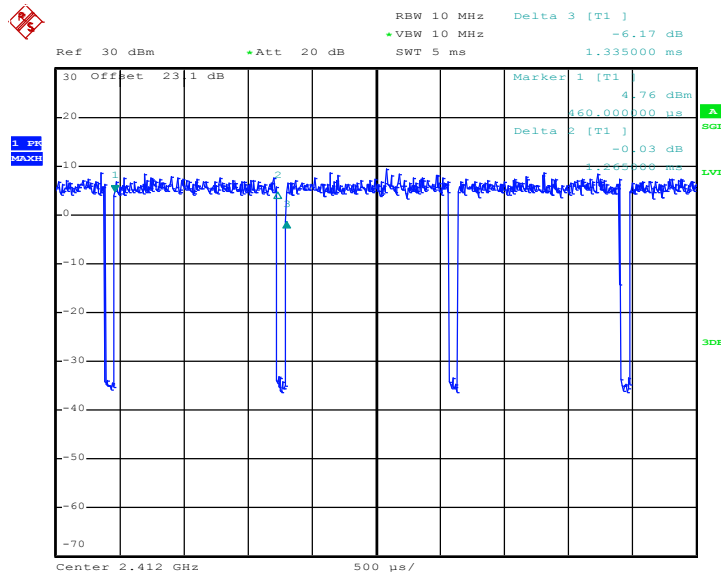
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802.11ac VHT10



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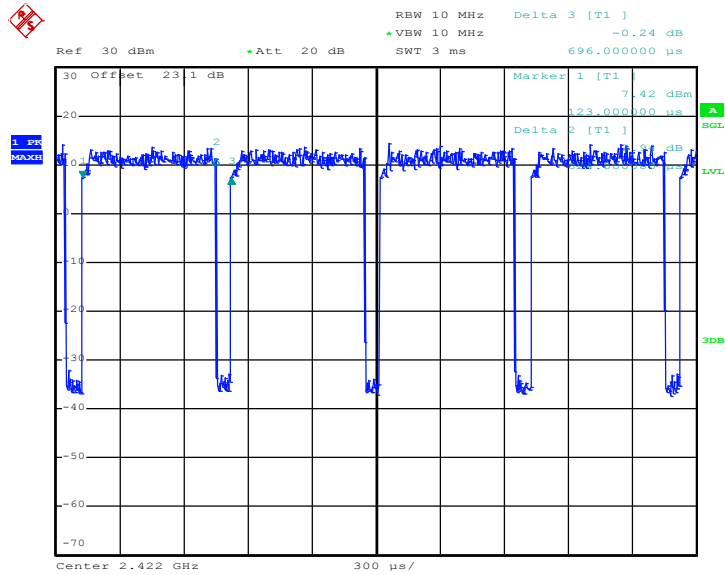
802.11ac VHT20



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802.11ac VHT40



Date: 3.MAR.2016 00:32:06