

3.4 Peak Excursion Ratio Measurement

3.4.1 Limit of Peak Excursion Ratio

The ratio of the peak excursion of the modulation envelope (measured using a peak hold function) to the maximum conducted output power (measured as specified above) shall not exceed 13 dB across any 1 MHz bandwidth or the emission bandwidth whichever is less.

3.4.2 Measuring Instruments

See list of measuring instruments of this test report.

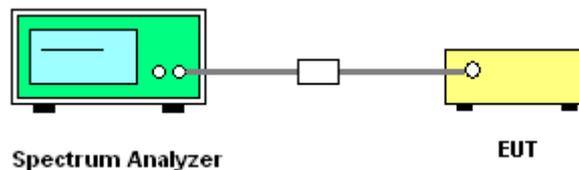
3.4.3 Test Procedures

The testing follows FCC KDB 789033 D01 General UNII Test Procedures v01r02.

Section F) Peak excursion measurement

1. The transmitter output is connected to the spectrum analyzer.
2. Set the spectrum analyzer span to view the entire emission bandwidth.
3. Find the maximum of the peak-max-hold spectrum.
 - *Set RBW = 1MHz.
 - *Set VBW \geq 3MHz.
 - *Detector = peak.
 - *Trace mode = max-hold.
 - *Allow the sweeps to continue until the trace stabilizes.
 - *Use the peak search function to find the peak of the spectrum.
4. Use the procedure found under section 3.3 to measure the PPSD.
5. Compute the ratio of the maximum of the peak-max-hold spectrum to the PPSD.

3.4.4 Test Setup



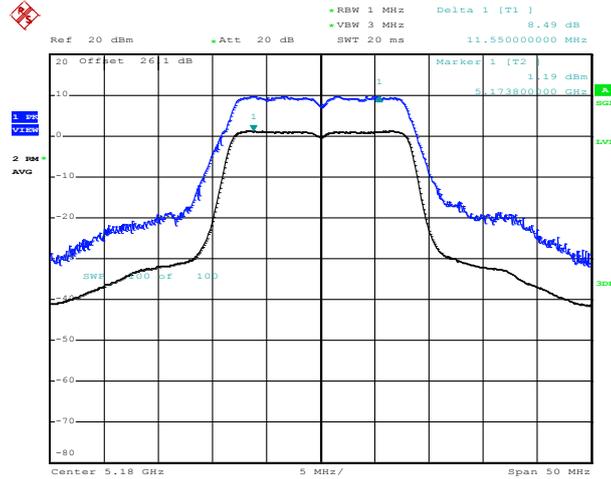


3.4.5 Test Result of Peak Excursion Ratio

Test Mode :	802.11a	Temperature :	24~26°C
Test Engineer :	Kenny Chen and Bill Kuo	Relative Humidity :	45~49%

802.11a - Ant. 1

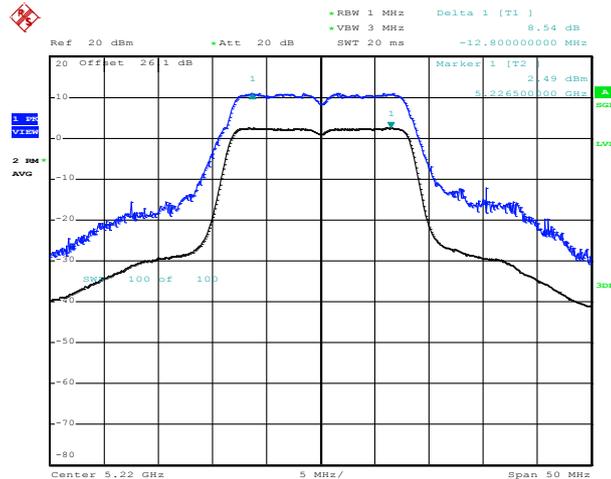
Peak Excursion Ratio Plot on Channel 36



Date: 5.MAR.2013 14:25:06

802.11a - Ant. 1

Peak Excursion Ratio Plot on Channel 44

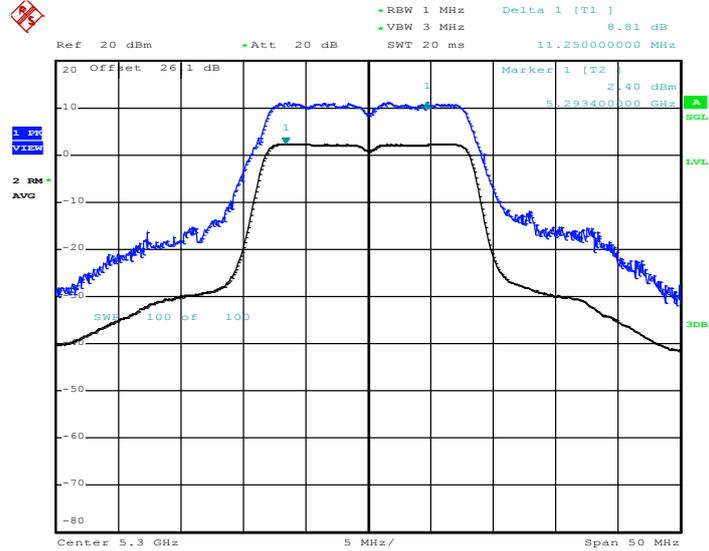


Date: 5.MAR.2013 14:33:18



802.11a - Ant. 1

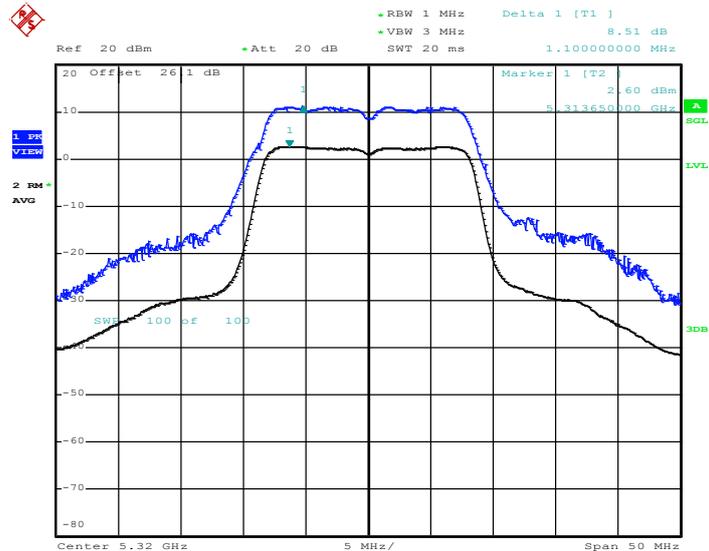
Peak Excursion Ratio Plot on Channel 60



Date: 5.MAR.2013 14:42:04

802.11a - Ant. 1

Peak Excursion Ratio Plot on Channel 64

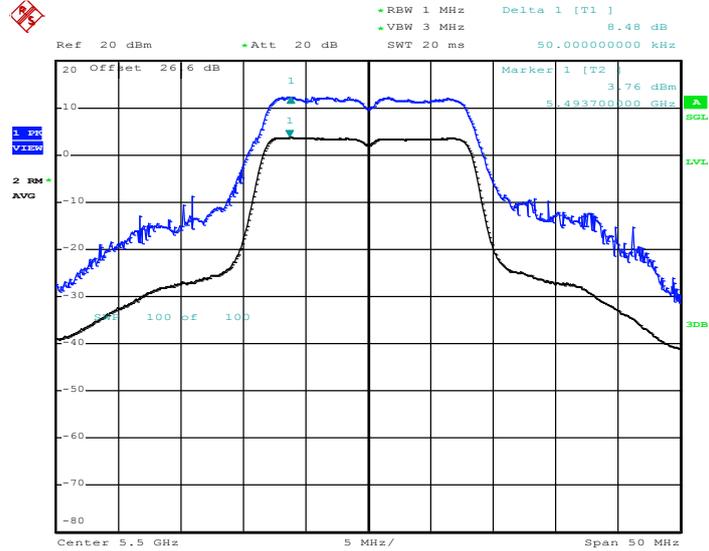


Date: 5.MAR.2013 14:45:01



802.11a - Ant. 1

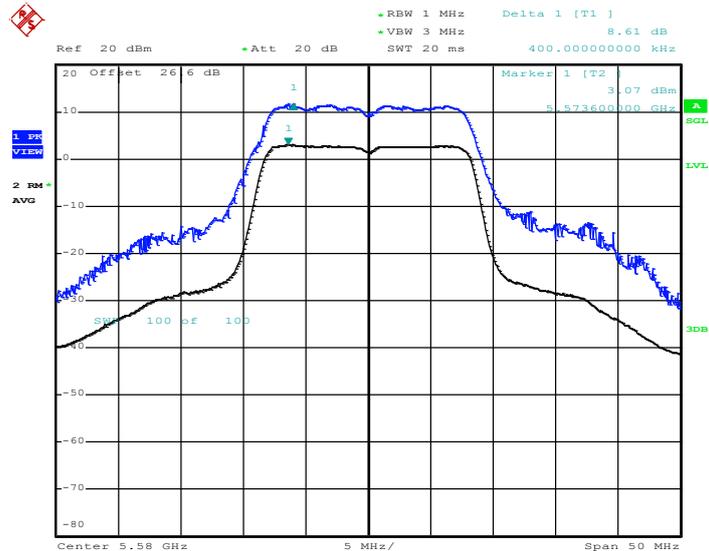
Peak Excursion Ratio Plot on Channel 100



Date: 5.MAR.2013 14:48:46

802.11a - Ant. 1

Peak Excursion Ratio Plot on Channel 116

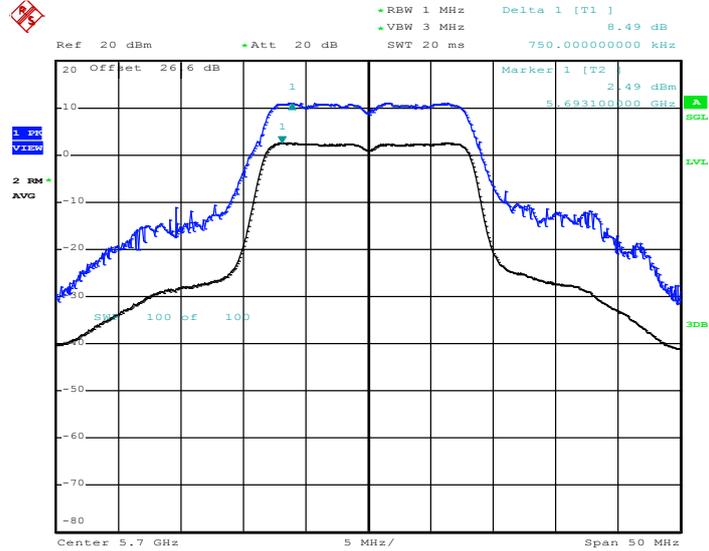


Date: 5.MAR.2013 14:55:09



802.11a - Ant. 1

Peak Excursion Ratio Plot on Channel 140



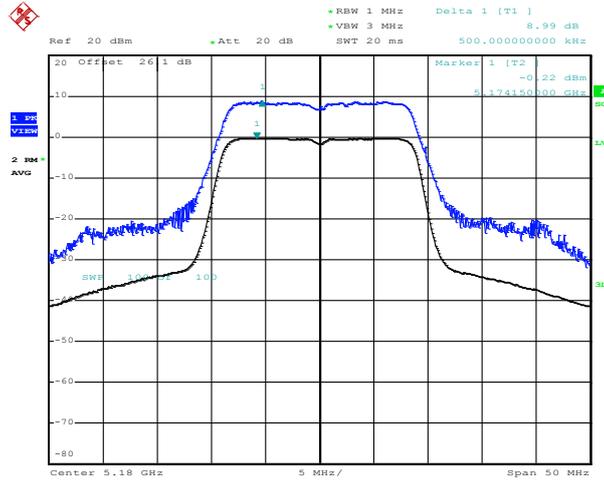
Date: 5.MAR.2013 14:59:02



Test Mode :	802.11n HT20	Temperature :	24~26°C
Test Engineer :	Kenny Chen and Bill Kuo	Relative Humidity :	45~49%

802.11n HT20 - SISO Ant. 1

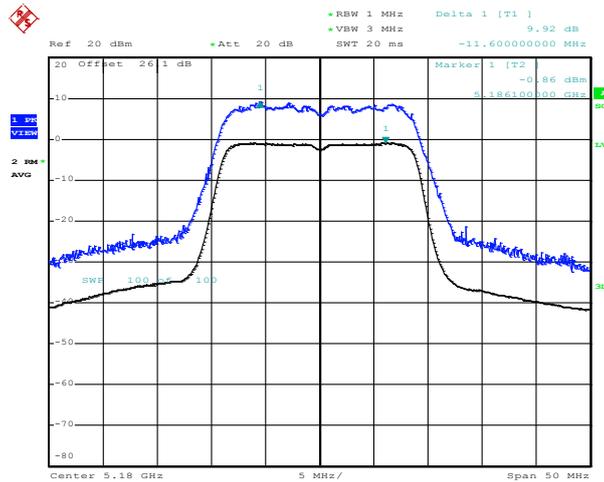
Peak Excursion Ratio Plot on Channel 36



Date: 5.MAR.2013 15:33:17

802.11n HT20 - MIMO Ant. 1

Peak Excursion Ratio Plot on Channel 36

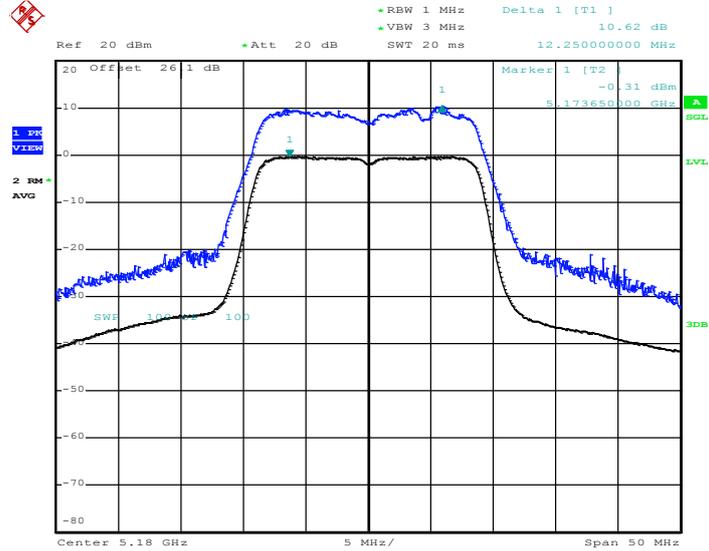


Date: 5.MAR.2013 15:43:44



802.11n HT20 - MIMO Ant. 2

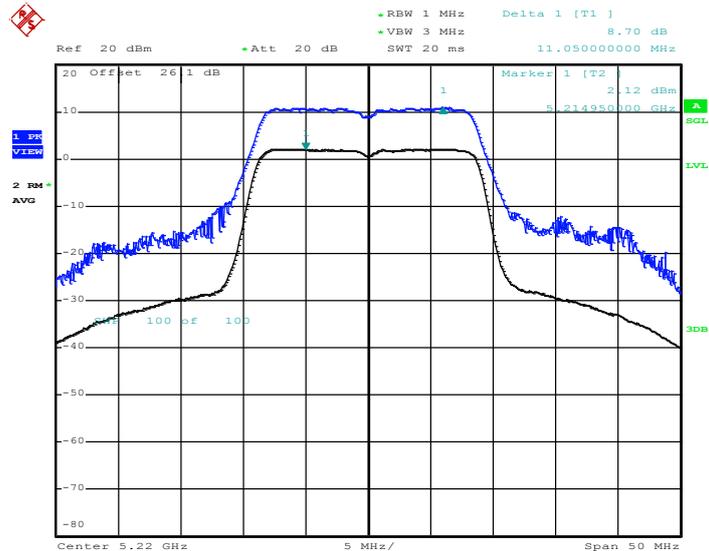
Peak Excursion Ratio Plot on Channel 36



Date: 5.MAR.2013 15:49:11

802.11n HT20 - SISO Ant. 1

Peak Excursion Ratio Plot on Channel 44

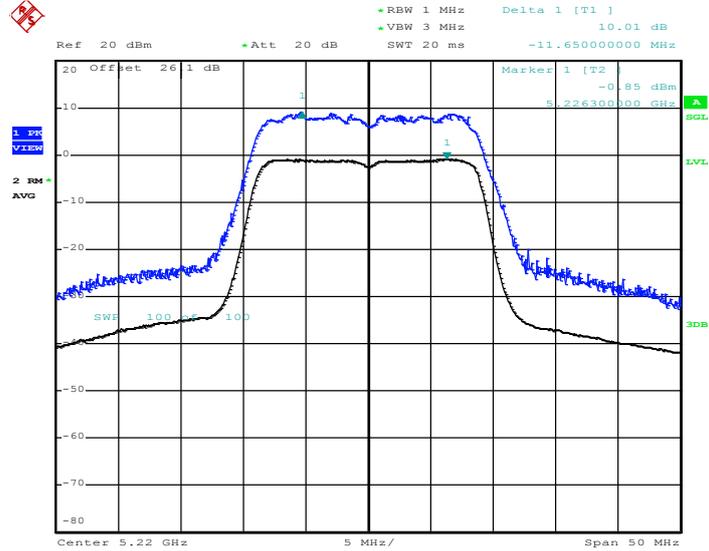


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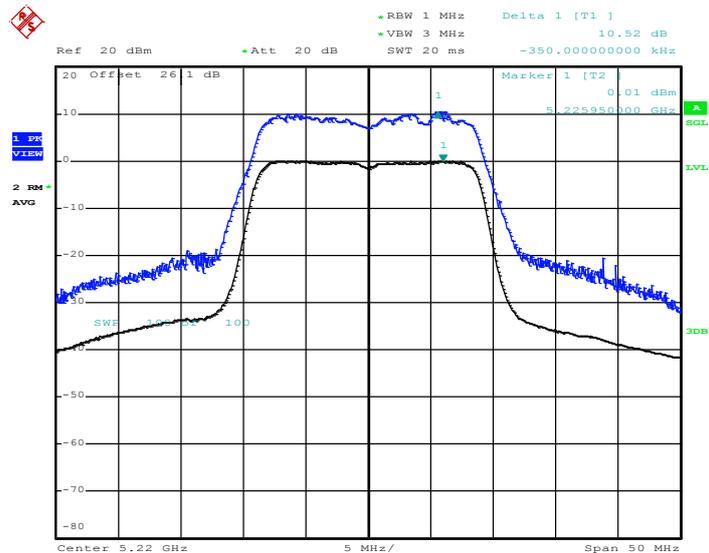
Peak Excursion Ratio Plot on Channel 44



Date: 5.MAR.2013 15:55:51

802.11n HT20 - MIMO Ant. 2

Peak Excursion Ratio Plot on Channel 44

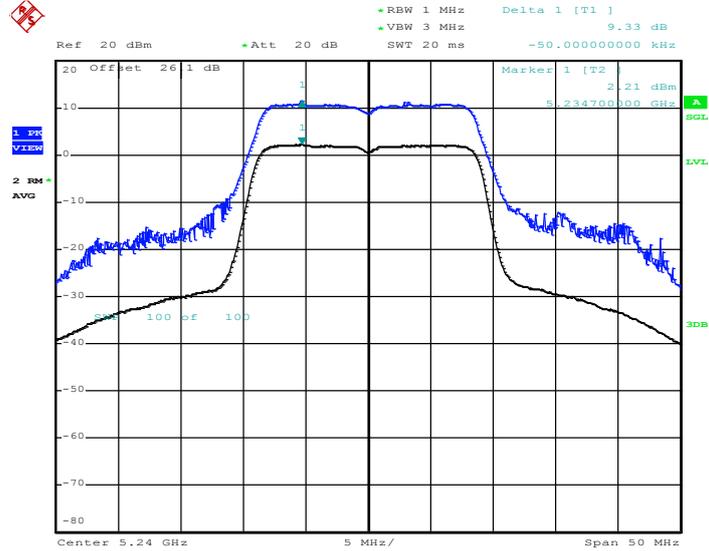


Date: 5.MAR.2013 15:58:30



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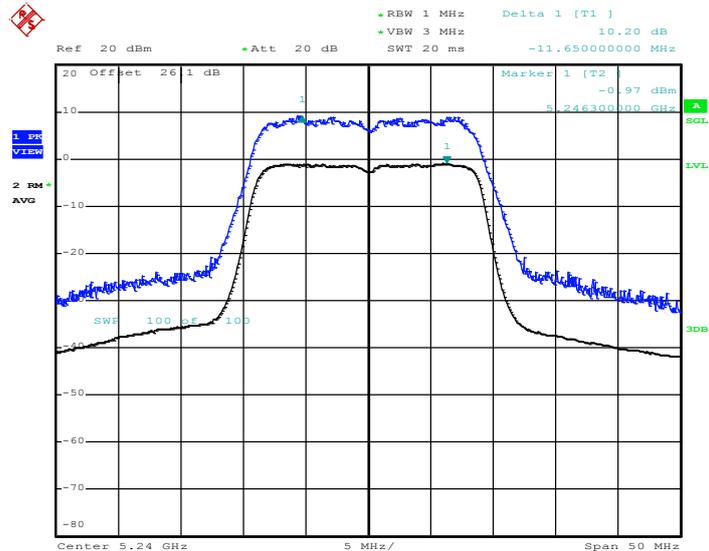
Peak Excursion Ratio Plot on Channel 48



Date: 5.MAR.2013 15:27:16

802.11n HT20 - MIMO Ant. 1

Peak Excursion Ratio Plot on Channel 48

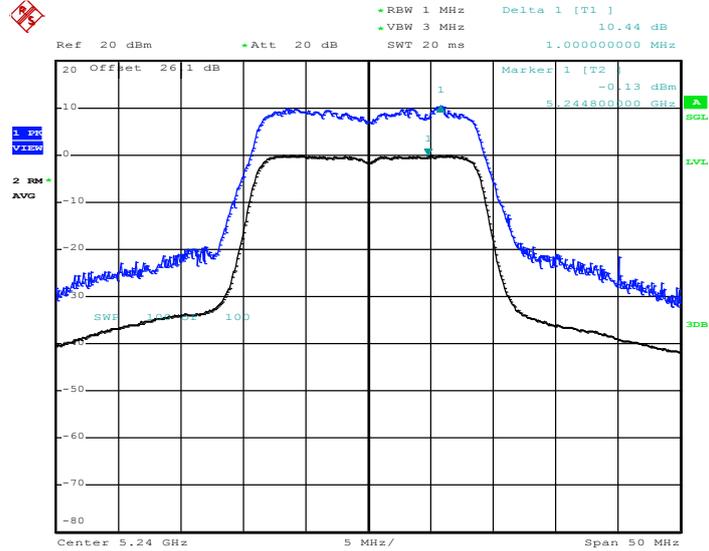


Date: 5.MAR.2013 15:59:50



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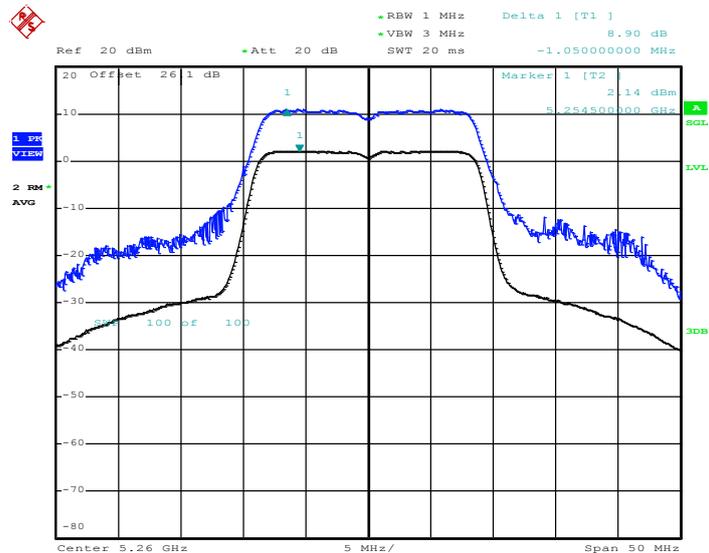
Peak Excursion Ratio Plot on Channel 48



Date: 5.MAR.2013 16:02:54

802.11n HT20 - SISO Ant. 1

Peak Excursion Ratio Plot on Channel 52

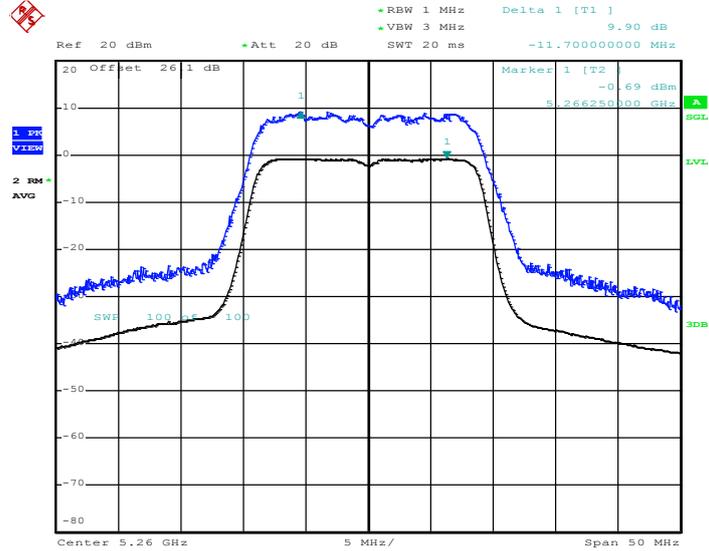


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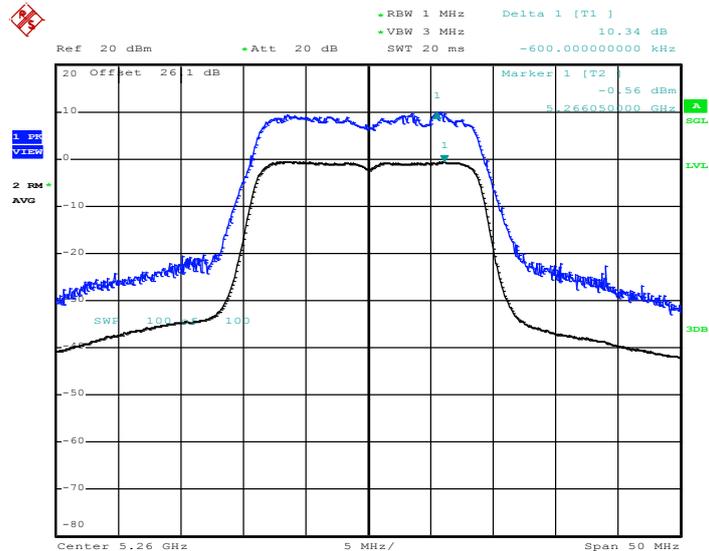
Peak Excursion Ratio Plot on Channel 52



Date: 5.MAR.2013 16:05:52

802.11n HT20 - MIMO Ant. 2

Peak Excursion Ratio Plot on Channel 52

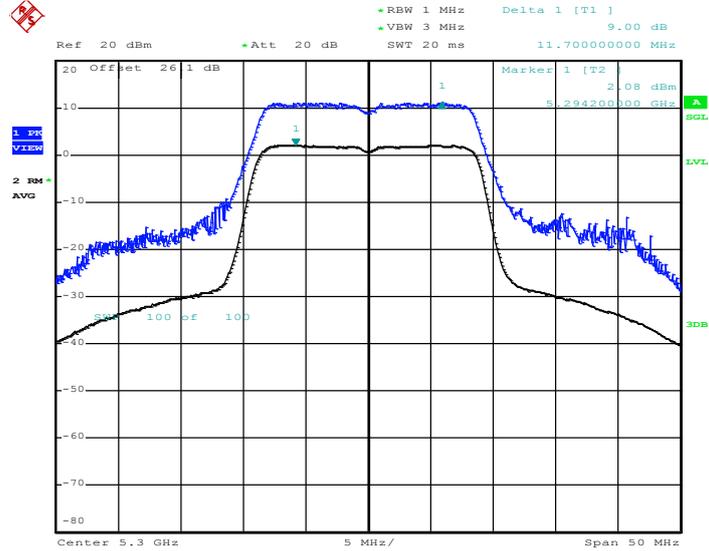


Date: 5.MAR.2013 16:09:15



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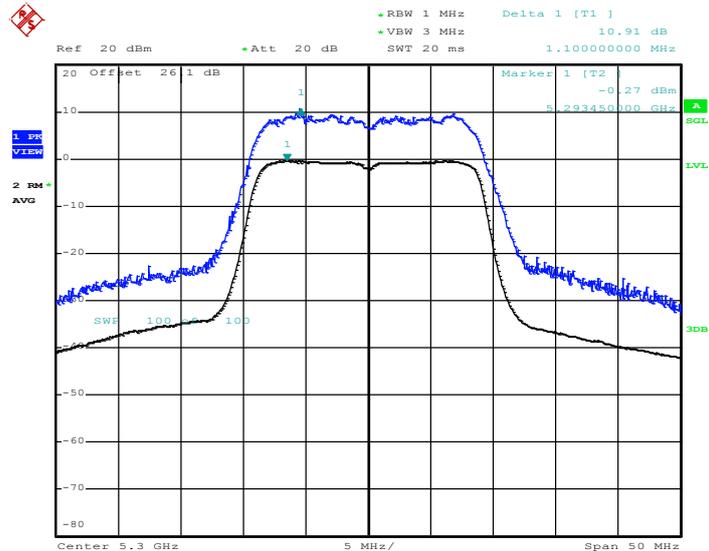
Peak Excursion Ratio Plot on Channel 60



Date: 5.MAR.2013 15:22:00

802.11n HT20 - MIMO Ant. 1

Peak Excursion Ratio Plot on Channel 60

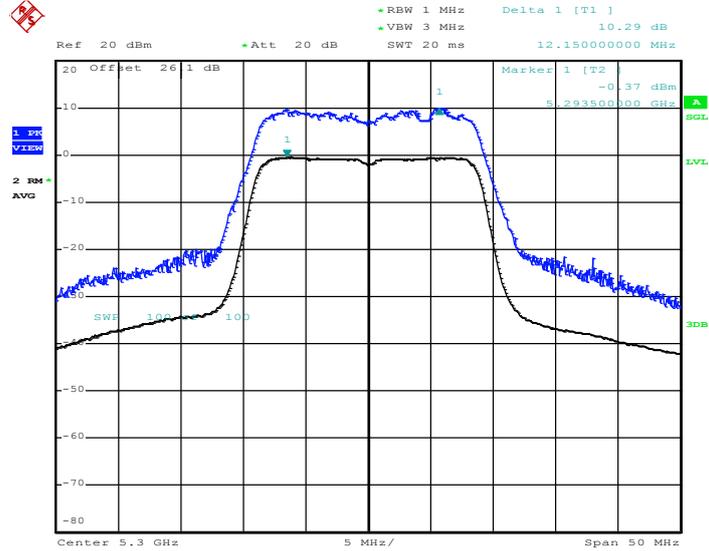


Date: 5.MAR.2013 16:11:47



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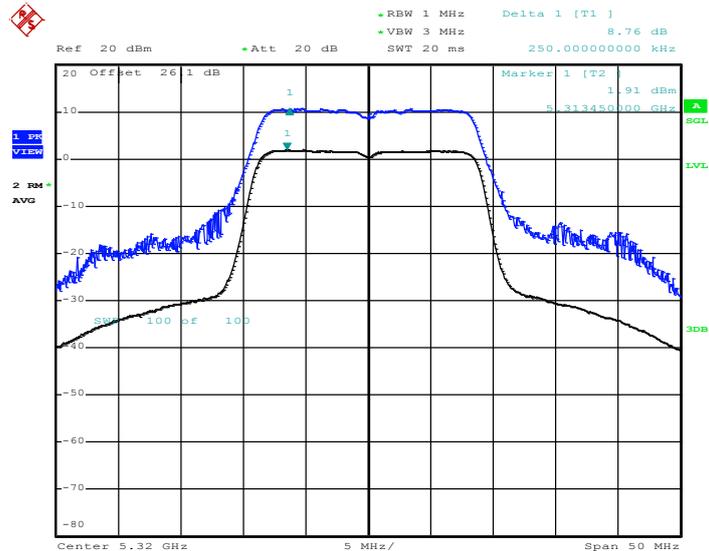
Peak Excursion Ratio Plot on Channel 60



Date: 5.MAR.2013 16:14:49

802.11n HT20 - SISO Ant. 1

Peak Excursion Ratio Plot on Channel 64

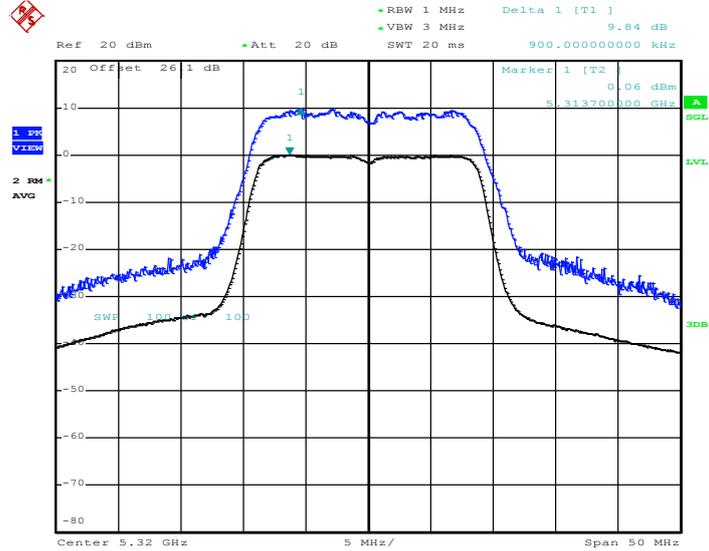


Date: 5.MAR.2013 15:18:56



802.11n HT20 - MIMO Ant. 1

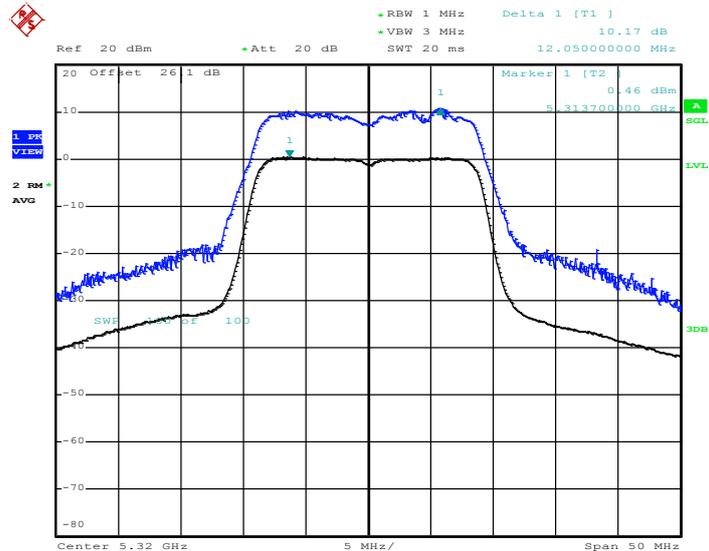
Peak Excursion Ratio Plot on Channel 64



Date: 5.MAR.2013 16:17:08

802.11n HT20 - MIMO Ant. 2

Peak Excursion Ratio Plot on Channel 64

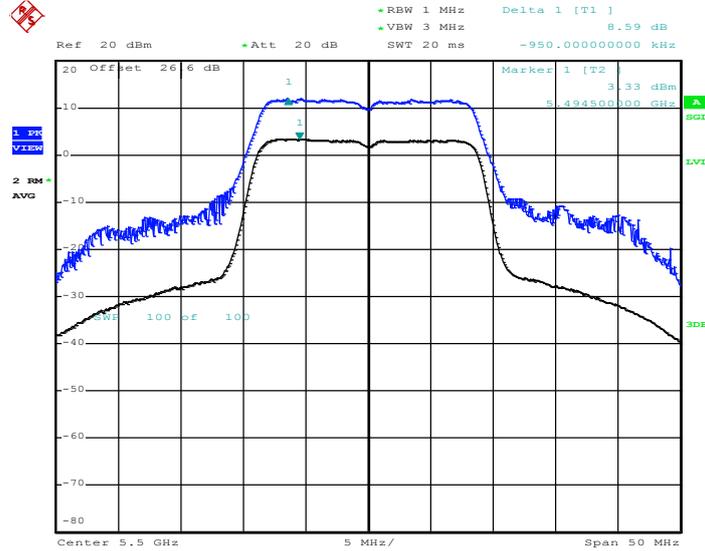


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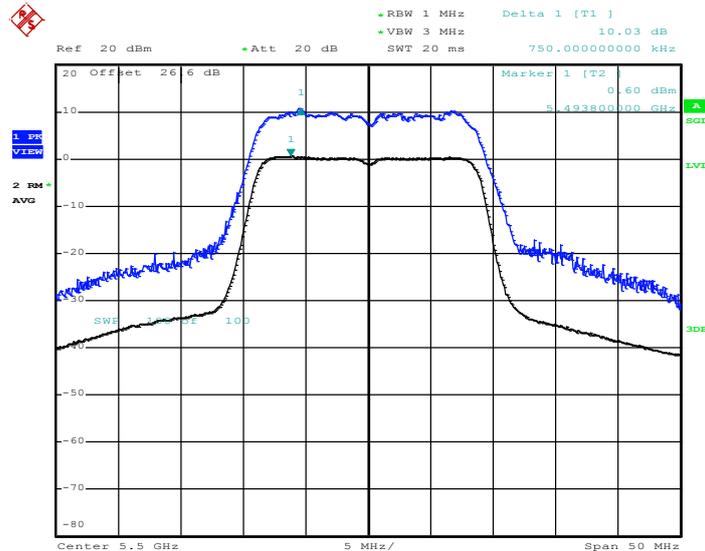
Peak Excursion Ratio Plot on Channel 100



Date: 5.MAR.2013 15:16:20

802.11n HT20 - MIMO Ant. 1

Peak Excursion Ratio Plot on Channel 100

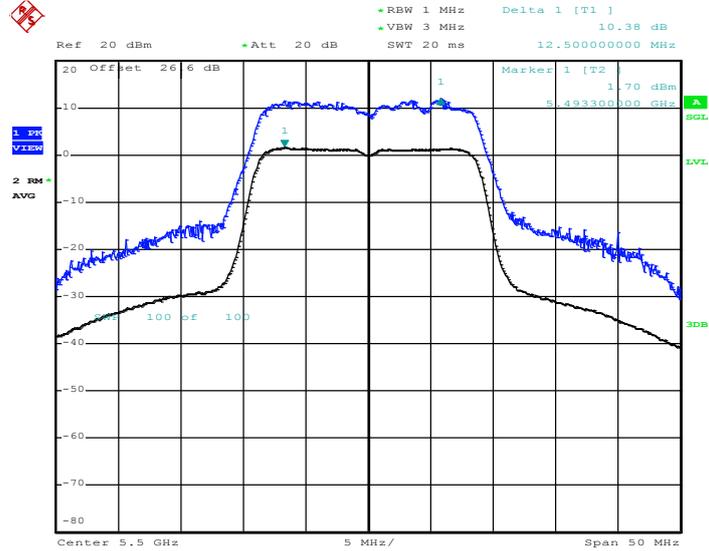


Date: 5.MAR.2013 16:22:49



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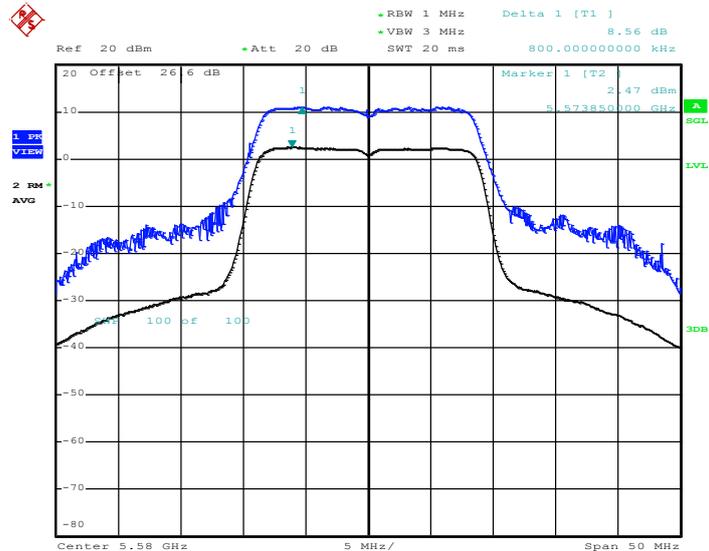
Peak Excursion Ratio Plot on Channel 100



Date: 5.MAR.2013 16:25:57

802.11n HT20 - SISO Ant. 1

Peak Excursion Ratio Plot on Channel 116

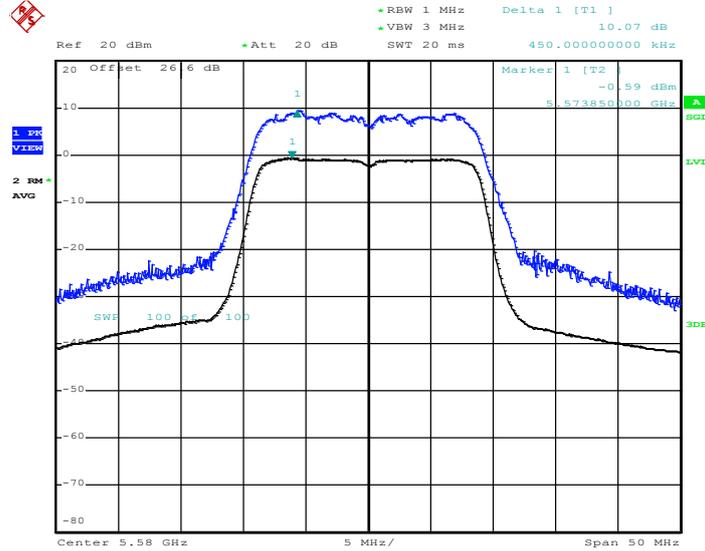


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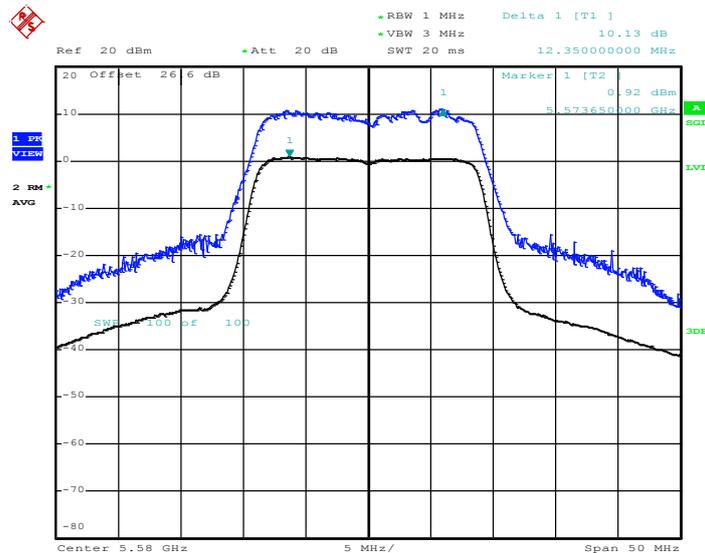
Peak Excursion Ratio Plot on Channel 116



Date: 5.MAR.2013 16:28:31

802.11n HT20 - MIMO Ant. 2

Peak Excursion Ratio Plot on Channel 116

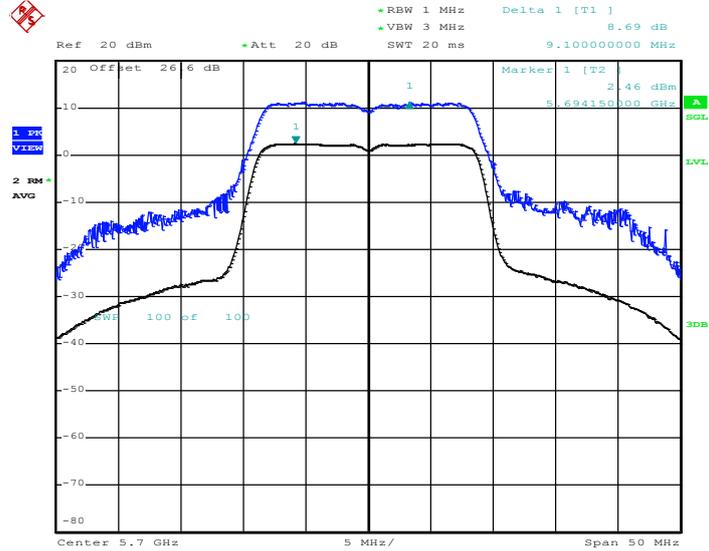


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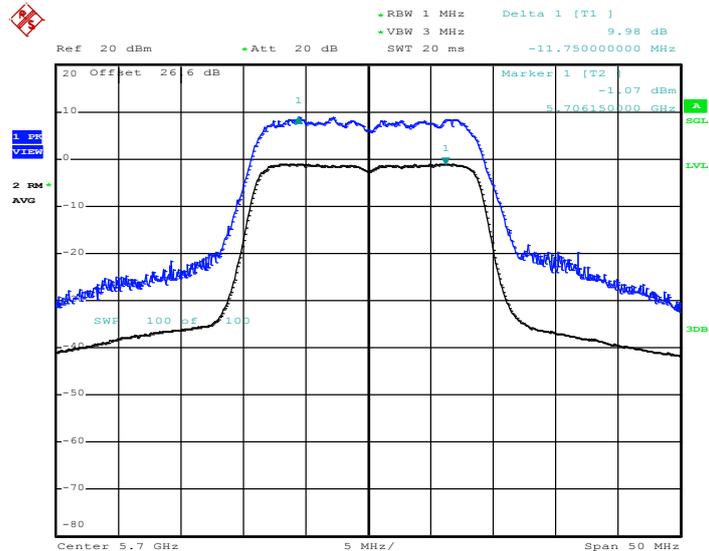
Peak Excursion Ratio Plot on Channel 140



Date: 5.MAR.2013 15:08:44

802.11n HT20 - MIMO Ant. 1

Peak Excursion Ratio Plot on Channel 140

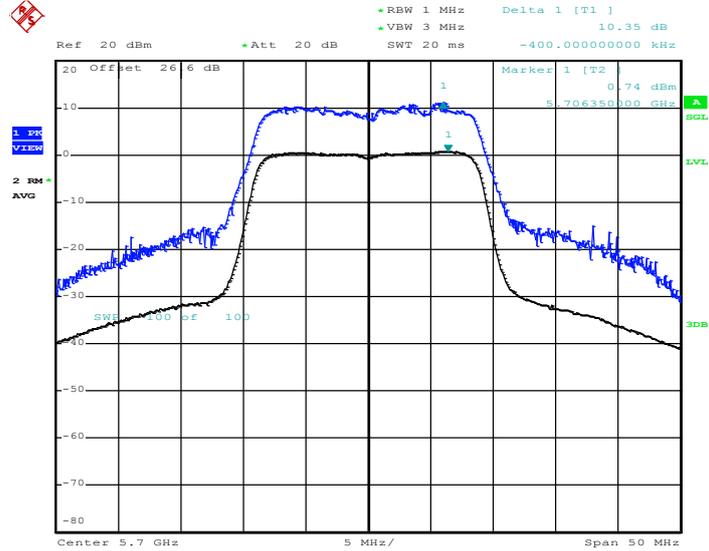


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802.11n HT20 - MIMO Ant. 2

Peak Excursion Ratio Plot on Channel 140



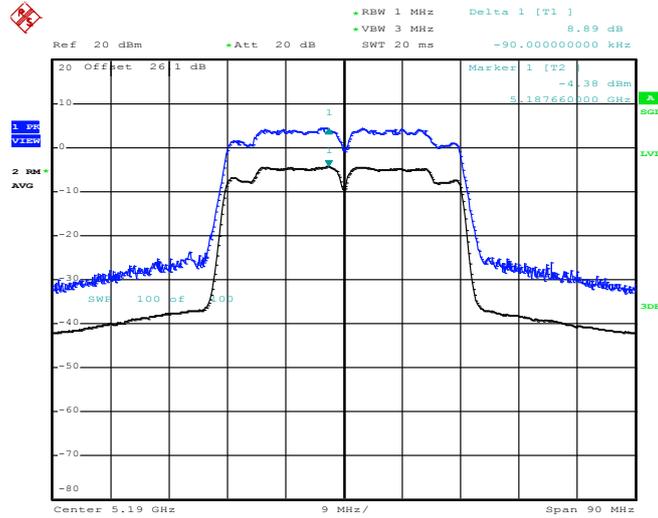
Date: 5.MAR.2013 16:36:52



Test Mode :	802.11n HT40	Temperature :	24~26°C
Test Engineer :	Kenny Chen and Bill Kuo	Relative Humidity :	45~49%

802.11n HT40 - SISO Ant. 1

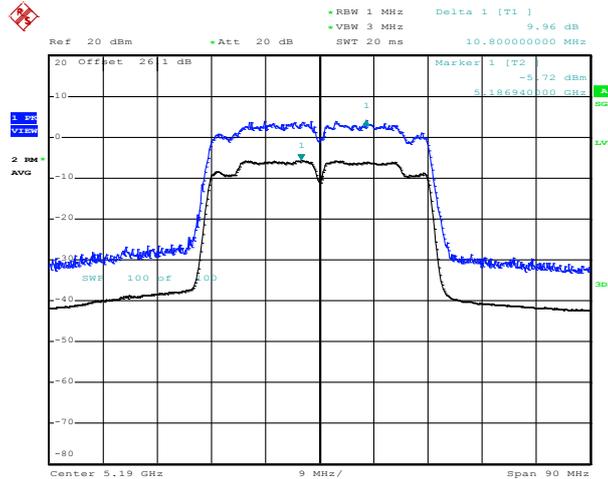
Peak Excursion Ratio Plot on Channel 38



Date: 5.MAR.2013 17:09:25

802.11n HT40 - MIMO Ant. 1

Peak Excursion Ratio Plot on Channel 38

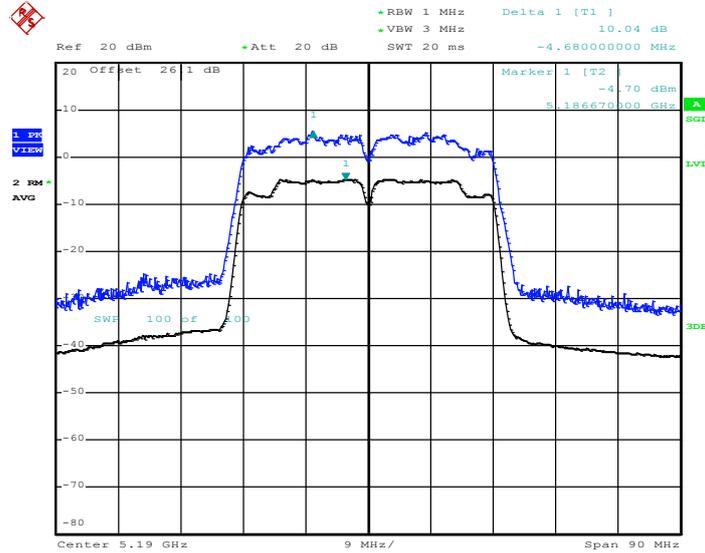


Date: 5.MAR.2013 17:12:44



802.11n HT40 - MIMO Ant. 2

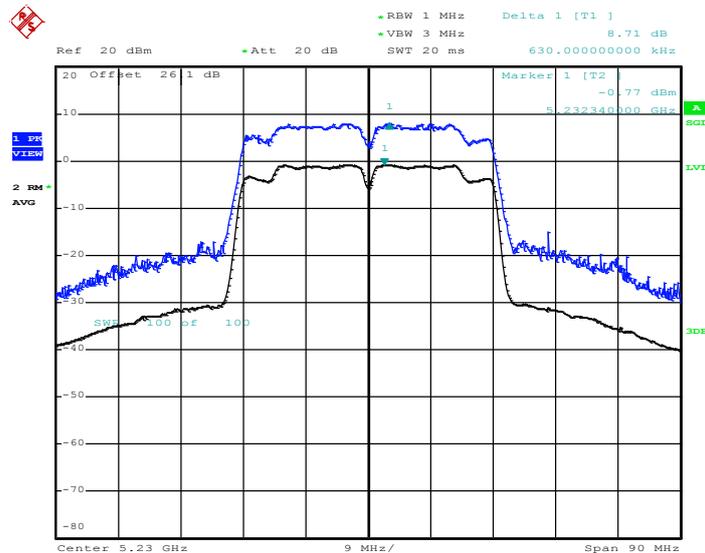
Peak Excursion Ratio Plot on Channel 38



Date: 5.MAR.2013 17:18:04

802.11n HT40 - SISO Ant. 1

Peak Excursion Ratio Plot on Channel 46

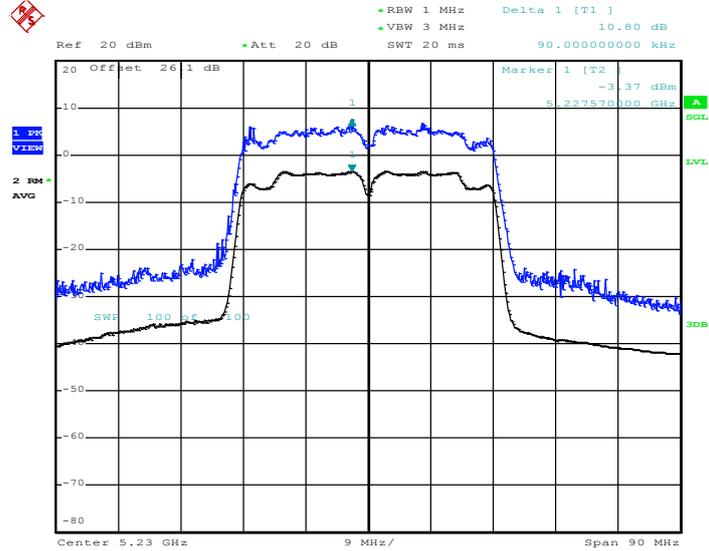


Date: 5.MAR.2013 17:06:31



802.11n HT40 - MIMO Ant. 1

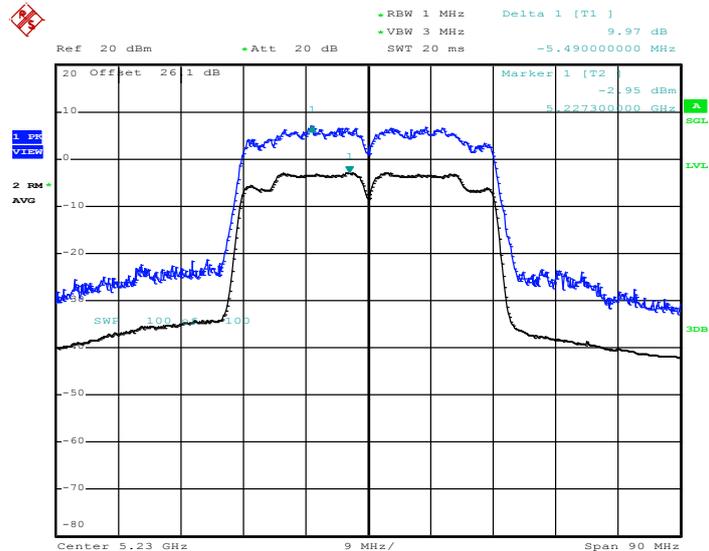
Peak Excursion Ratio Plot on Channel 46



Date: 5.MAR.2013 17:20:23

802.11n HT40 - MIMO Ant. 2

Peak Excursion Ratio Plot on Channel 46

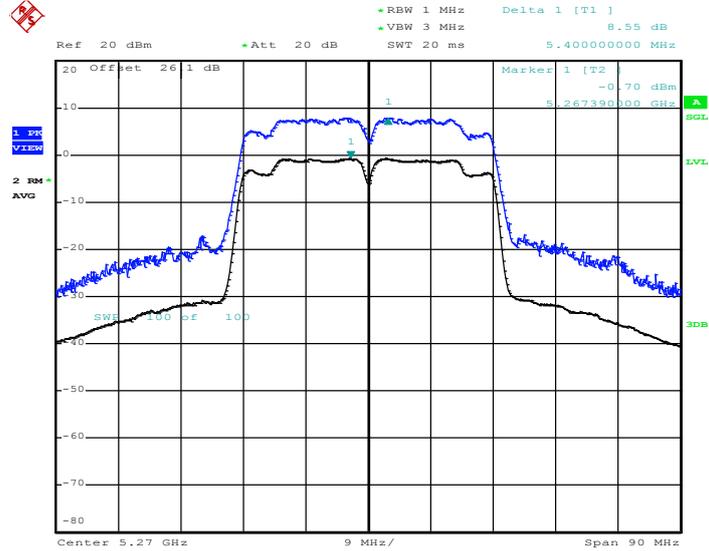


Date: 5.MAR.2013 17:23:32



802.11n HT40 - SISO Ant. 1

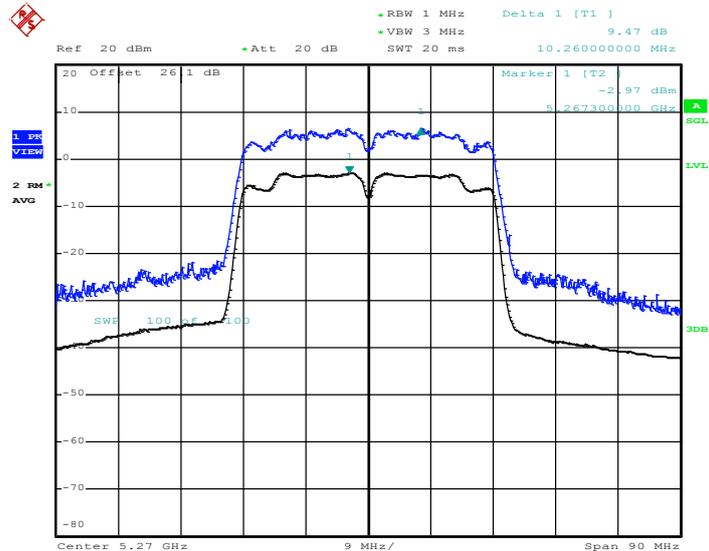
Peak Excursion Ratio Plot on Channel 54



Date: 5.MAR.2013 16:59:34

802.11n HT40 - MIMO Ant. 1

Peak Excursion Ratio Plot on Channel 54

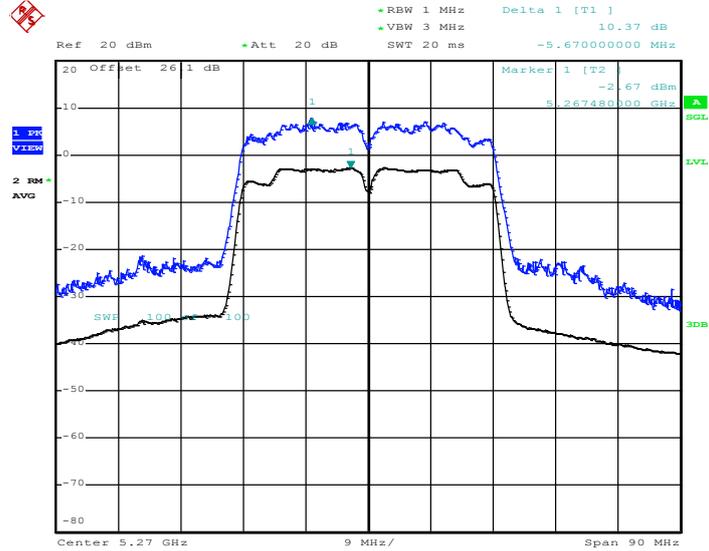


Date: 5.MAR.2013 17:25:57



802.11n HT40 - MIMO Ant. 2

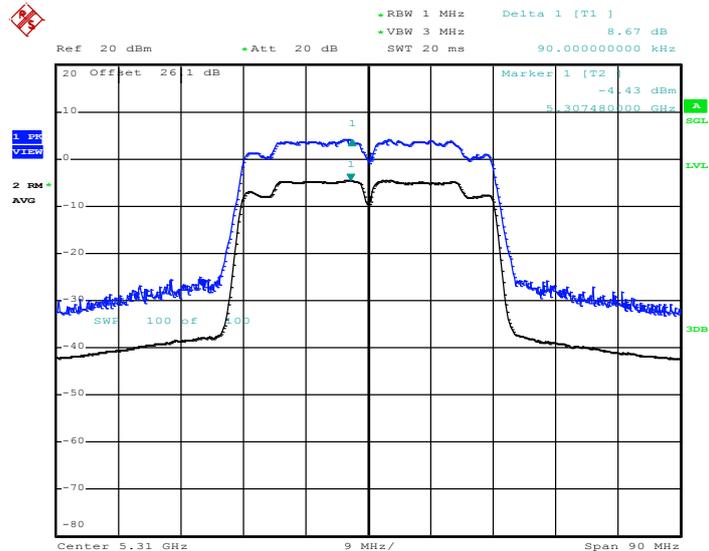
Peak Excursion Ratio Plot on Channel 54



Date: 5.MAR.2013 17:29:23

802.11n HT40 - SISO Ant. 1

Peak Excursion Ratio Plot on Channel 62

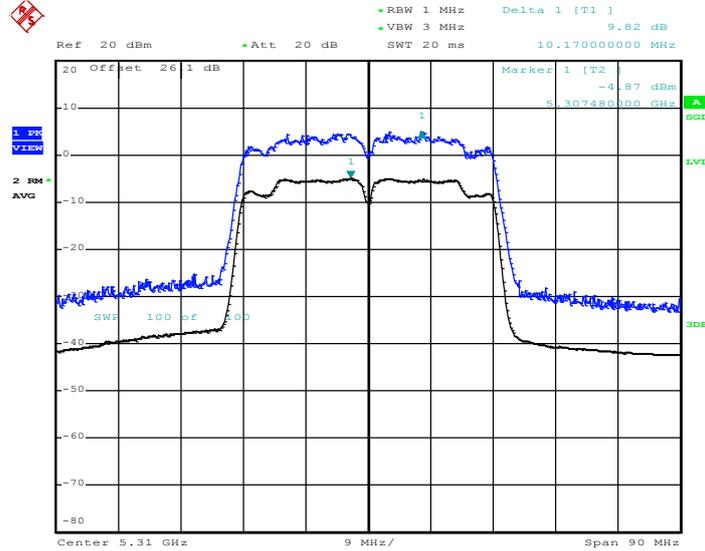


Date: 5.MAR.2013 16:56:28



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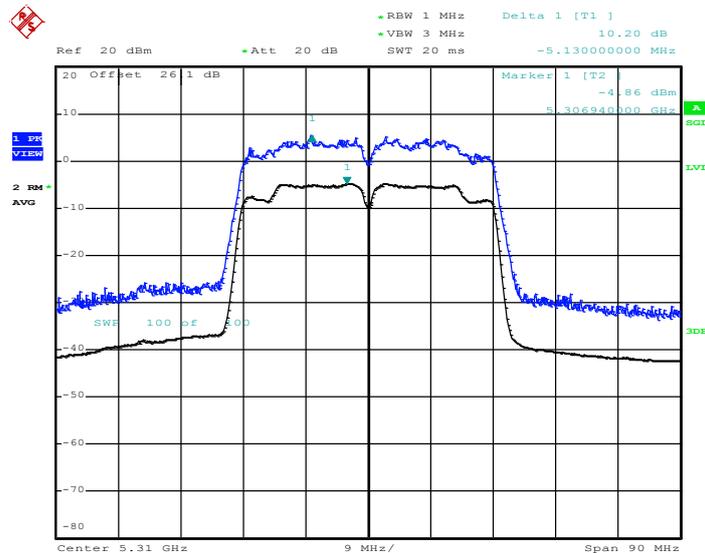
Peak Excursion Ratio Plot on Channel 62



Date: 5.MAR.2013 17:32:12

802.11n HT40 - MIMO Ant. 2

Peak Excursion Ratio Plot on Channel 62

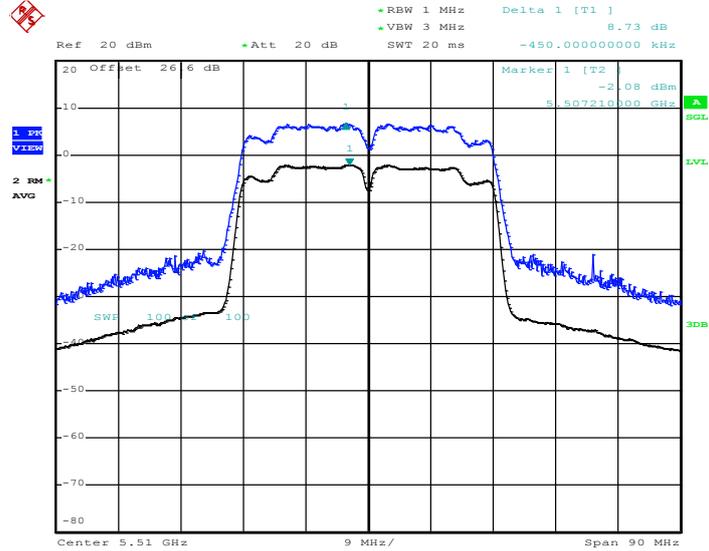


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802.11n HT40 - SISO Ant. 1

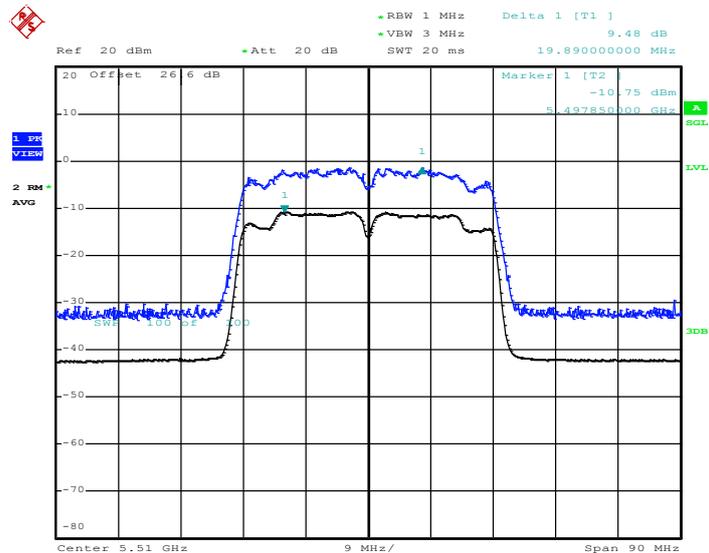
Peak Excursion Ratio Plot on Channel 102



Date: 5.MAR.2013 16:52:58

802.11n HT40 - MIMO Ant. 1

Peak Excursion Ratio Plot on Channel 102

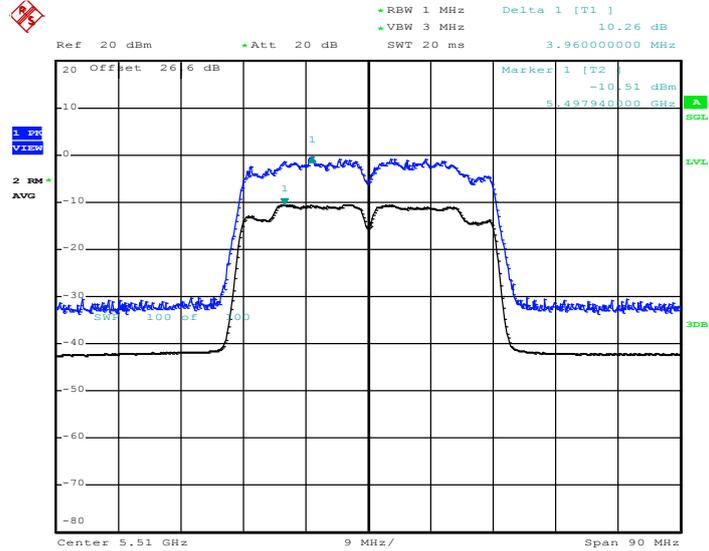


Date: 5.MAR.2013 17:39:37



802.11n HT40 - MIMO Ant. 2

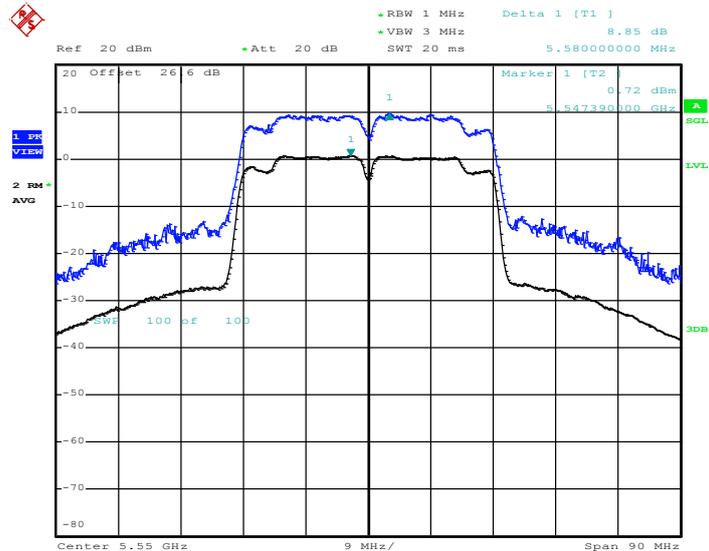
Peak Excursion Ratio Plot on Channel 102



Date: 5.MAR.2013 17:43:48

802.11n HT40 - SISO Ant. 1

Peak Excursion Ratio Plot on Channel 110

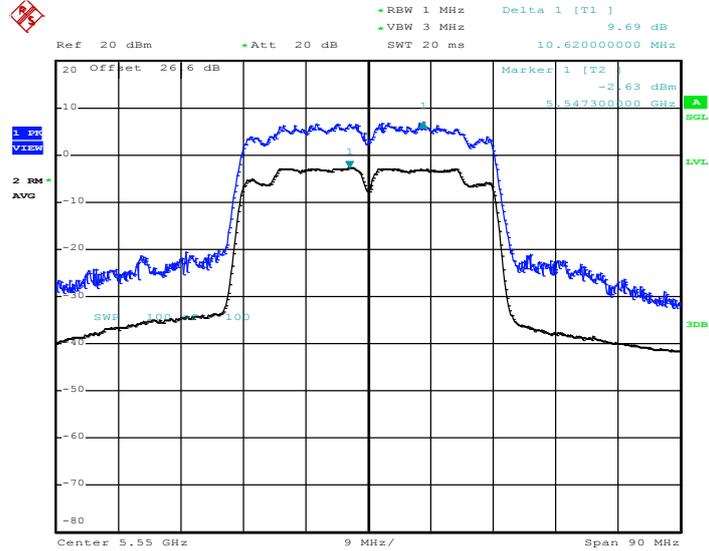


Date: 5.MAR.2013 16:50:13



802.11n HT40 - MIMO Ant. 1

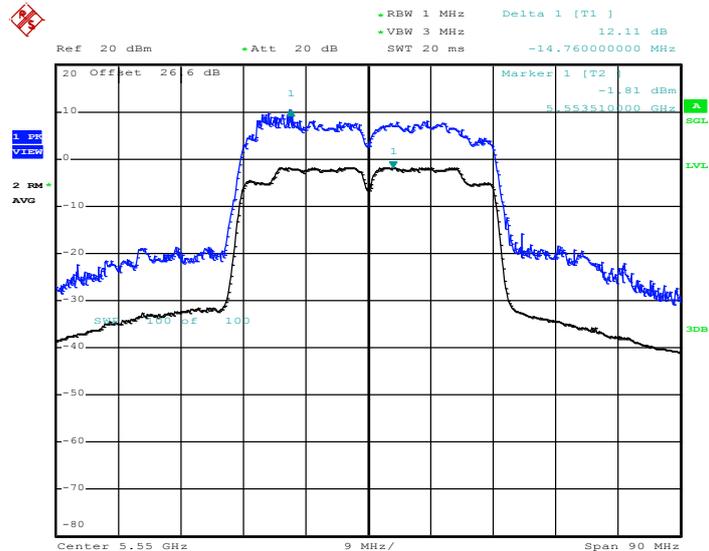
Peak Excursion Ratio Plot on Channel 110



Date: 5.MAR.2013 19:20:13

802.11n HT40 - MIMO Ant. 2

Peak Excursion Ratio Plot on Channel 110

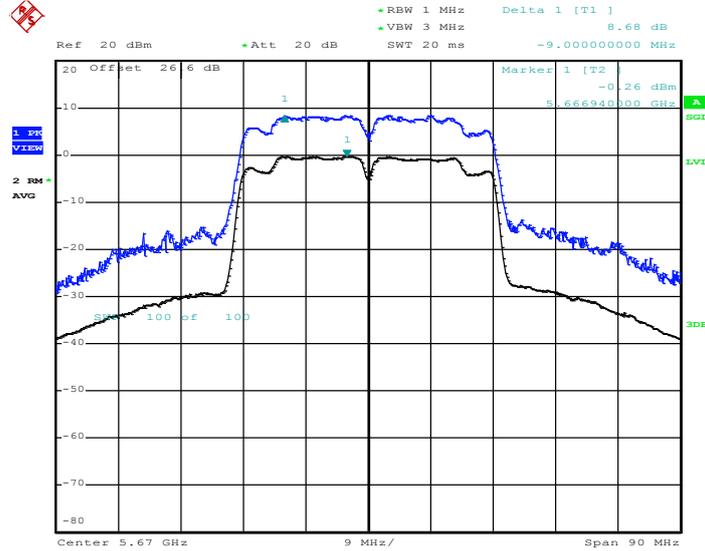


Date: 5.MAR.2013 19:23:13



802.11n HT40 - SISO Ant. 1

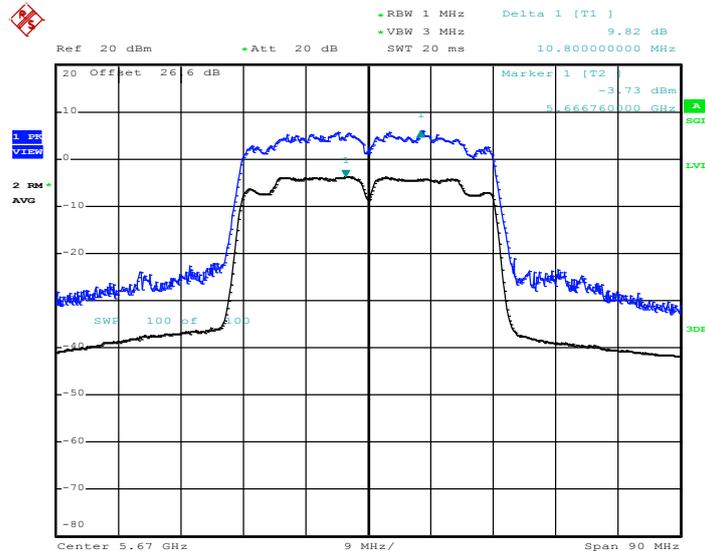
Peak Excursion Ratio Plot on Channel 134



Date: 5.MAR.2013 16:47:25

802.11n HT40 - MIMO Ant. 1

Peak Excursion Ratio Plot on Channel 134

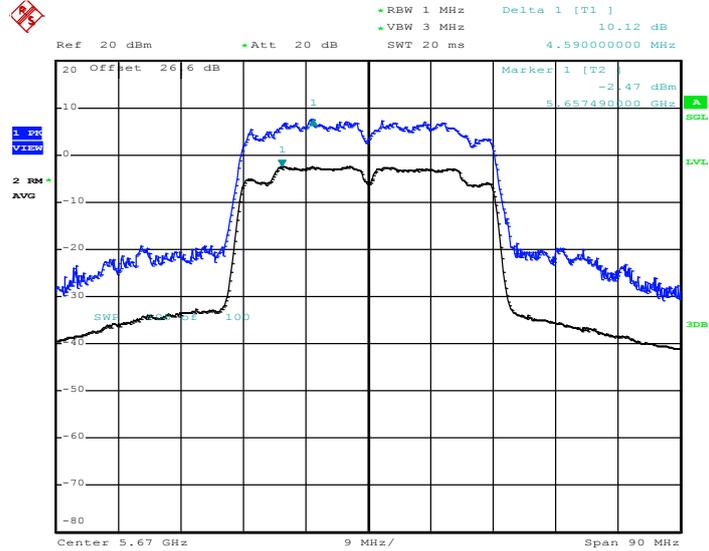


Date: 5.MAR.2013 19:26:38



802.11n HT40 - MIMO Ant. 2

Peak Excursion Ratio Plot on Channel 134



Date: 5.MAR.2013 19:28:38

3.5 Unwanted Emissions Measurement

This section as specified in FCC Part 15.407(b) is to measure unwanted emissions through radiated measurement for band edge spurious emissions and out of band emissions measurement. The unwanted emissions shall comply with 15.407(b)(1) to (6), and restricted bands per FCC Part15.205.

3.5.1 Limit of Unwanted Emissions

(1) For transmitters operating in the 5150-5250 MHz band: all emissions outside of the 5150-5350 MHz band shall not exceed an EIRP of -27dBm/MHz.

For transmitters operating in the 5250-5350 MHz band: all emissions outside of the 5150-5350 MHz band shall not exceed an EIRP of -27 dBm/MHz. Devices operating in the 5250-5350 MHz band that generate emissions in the 5150-5250 MHz band must meet all applicable technical requirements for operation in the 5150-5250 MHz band (including indoor use) or alternatively meet an out-of-band emission EIRP limit of -27 dBm/MHz in the 5150-5250 MHz band.

For transmitters operating in the 5470-5600 MHz and 5650-5725MHz band: all emissions outside of the 5470-5600 MHz and 5650-5725MHz band shall not exceed an EIRP of -27 dBm/MHz.

(2) Unwanted spurious emissions fallen in restricted bands per FCC Part15.205 shall comply with the general field strength limits set forth in § 15.209 as below table,

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

Note: The following formula is used to convert the EIRP to field strength.

$$E = \frac{1000000\sqrt{30P}}{3} \mu\text{V/m, where P is the eirp (Watts)}$$



EIRP (dBm)	Field Strength at 3m (dBμV/m)
-17	78.3
- 27	68.3

(3) KDB789033 v01r02 G)2)c(i) As specified in 15.407(b), emissions above 1000 MHz that are outside of the restricted bands are subject to a peak emission limit of -27 dBm/MHz (or -17 dBm/MHz as specified in 15.407(b)(4)). However, an out-of-band emission that complies with both the average and peak limits of 15.209 is not required to satisfy the -27 dBm/MHz or -17 dBm/MHz peak emission limit.

3.5.2 Measuring Instruments

See list of measuring instruments of this test report.

3.5.3 Test Procedures

1. The testing follows the guidelines in ANSI C63.10-2009 test site requirement and FCC KDB 789033 D01 General UNII Test Procedures v01r02.

Section G) Unwanted emissions measurement.

(1) Procedure for Unwanted Emissions Measurements Below 1000MHz

- RBW = 120 KHz
- VBW = 300 KHz
- Detector = Peak
- Trace mode = max hold

(2) Procedure for Peak Unwanted Emissions Measurements Above 1000 MHz

- The setting follows the G) 5) of FCC KDB 789033.
- RBW = 1 MHz
- VBW ≥ 3 MHz
- Detector = Peak
- Sweep time = auto
- Trace mode = max hold

(3) Procedures for Average Unwanted Emissions Measurements Above 1000MHz

- The setting follows G) 6) of FCC KDB 789033.
- RBW = 1 MHz
- VBW = 10 Hz, when duty cycle is no less than 98 percent.
- VBW ≥ 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.

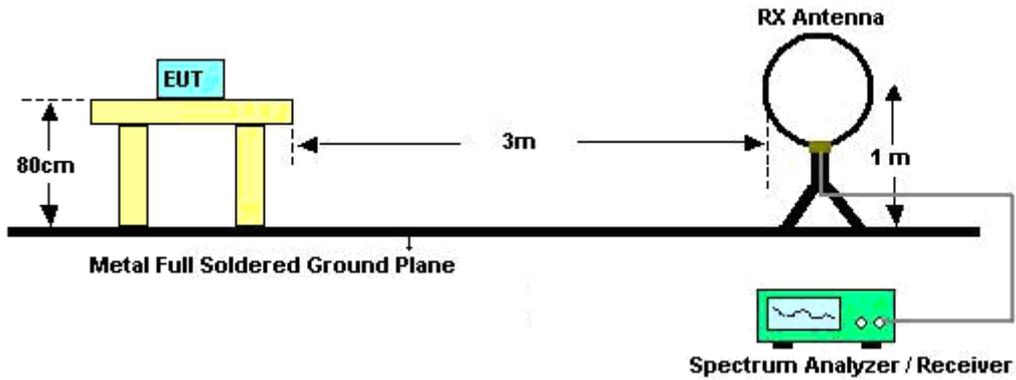


Antenna	Band	Duty Cycle(%)	T(us)	1/T(KHz)	VBW Setting
1	802.11a	98.48	-	-	10Hz
1	802.11n HT20	98.61	-	-	10Hz
1+2	802.11n HT20 for Ant. 1	97.65	996.795	1.003	3KHz
1+2	802.11n HT20 for Ant. 2	97.46	994.231	1.006	
1	802.11n HT40	97.55	957.692	1.044	3KHz
2	802.11n HT40	97.05	950.000	1.052	3KHz
1+2	802.11n HT40 for Ant. 1	94.55	500.000	2.000	3KHz
1+2	802.11n HT40 for Ant. 2	95.39	497.115	2.012	

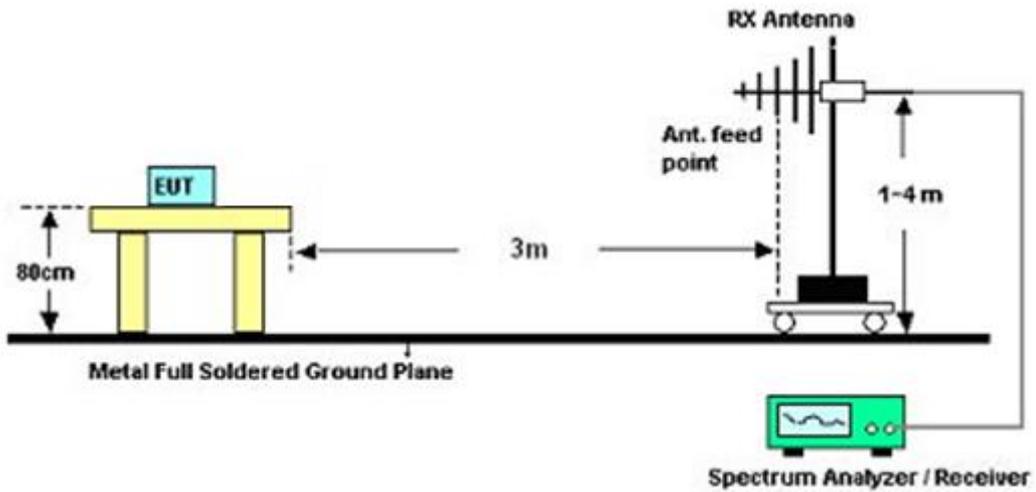
2. The EUT was placed on a rotatable table top 0.8 meter above ground.
3. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
4. The antenna is a broadband antenna and its height is adjusted between one meter and four meters above ground to find the maximum value of the field strength for both horizontal polarization and vertical polarization of the antenna.
5. For each suspected emission, the EUT was arranged to its worst case and then adjust the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading.
6. For testing below 1GHz, if the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then peak values of EUT will be reported, otherwise, the emissions will be repeated one by one using the CISPR quasi-peak method and reported.
7. For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission level in average mode also complies with the limit in average mode), then peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.

3.5.4 Test Setup

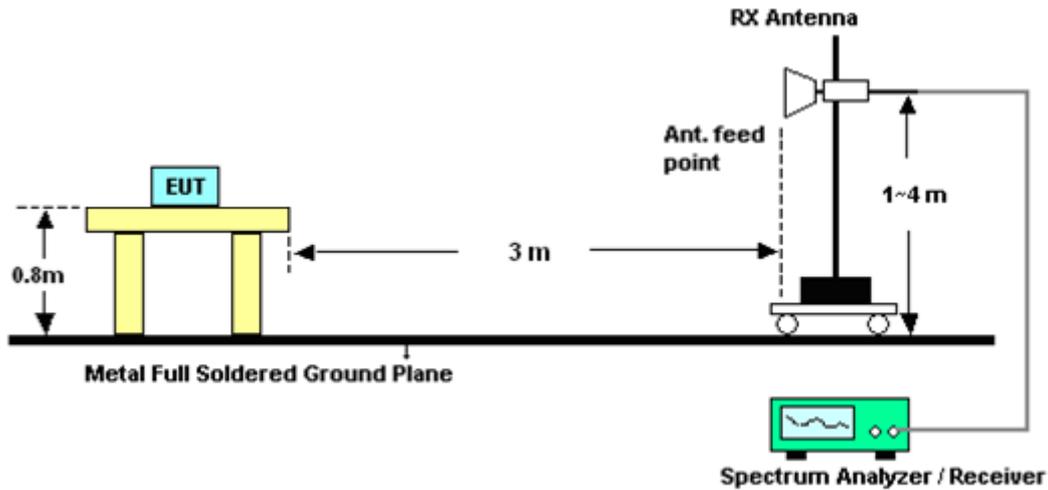
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



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

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 Band Edges

Test Mode :	802.11a – Ant. 1	Temperature :	22~24°C
Test Channel :	36	Relative Humidity :	53~55%
Test Engineer :	Eric Shih		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5149.1	65.19	-8.81	74	54.17	34.29	9.22	32.49	136	224	Peak
5150	45.22	-8.78	54	34.2	34.29	9.22	32.49	136	224	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5148.8	61.42	-12.58	74	50.4	34.29	9.22	32.49	134	290	Peak
5150	43.2	-10.8	54	32.18	34.29	9.22	32.49	134	290	Average

Test Mode :	802.11a – Ant. 1	Temperature :	22~24°C
Test Channel :	48	Relative Humidity :	53~55%
Test Engineer :	Eric Shih		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5119.4	56.23	-17.77	74	45.3	34.2	9.18	32.45	107	255	Peak
5150	41.57	-12.43	54	30.55	34.29	9.22	32.49	107	255	Average
5356.93	54.78	-19.22	74	43.54	34.81	9.61	33.18	107	255	Peak
5353.74	41.65	-12.35	54	30.46	34.81	9.56	33.18	107	255	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5016.2	53.81	-20.19	74	43.19	33.94	8.97	32.29	133	267	Peak
5019.8	40.59	-13.41	54	30	33.94	8.97	32.32	133	267	Average
5359.46	54.1	-19.9	74	42.86	34.81	9.61	33.18	133	267	Peak
5353.85	41.19	-12.81	54	30	34.81	9.56	33.18	133	267	Average



Test Mode :	802.11a – Ant. 1	Temperature :	22~24°C
Test Channel :	52	Relative Humidity :	53~55%
Test Engineer :	Eric Shih		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5037.65	54.15	-19.85	74	43.43	34.03	9.01	32.32	130	256	Peak
5140.25	41.5	-12.5	54	30.44	34.29	9.22	32.45	130	256	Average
5406.65	55.15	-18.85	74	43.91	34.94	9.69	33.39	130	256	Peak
5351.87	42.03	-11.97	54	30.84	34.81	9.56	33.18	130	256	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5117.9	53.98	-20.02	74	43.02	34.2	9.18	32.42	135	267	Peak
5018.75	40.59	-13.41	54	30	33.94	8.97	32.32	135	267	Average
5351.21	54.03	-19.97	74	42.84	34.81	9.56	33.18	135	267	Peak
5353.74	41.08	-12.92	54	29.89	34.81	9.56	33.18	135	267	Average

Test Mode :	802.11a – Ant. 1	Temperature :	22~24°C
Test Channel :	64	Relative Humidity :	53~55%
Test Engineer :	Eric Shih		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5352.31	63.8	-10.2	74	52.61	34.81	9.56	33.18	116	256	Peak
5350	46.78	-7.22	54	35.59	34.81	9.56	33.18	116	256	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5352.42	60.68	-13.32	74	49.49	34.81	9.56	33.18	120	269	Peak
5350	44.14	-9.86	54	32.95	34.81	9.56	33.18	120	269	Average



Test Mode :	802.11a – Ant. 1	Temperature :	22~24°C
Test Channel :	100	Relative Humidity :	53~55%
Test Engineer :	Eric Shih		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5469.04	67.2	-6.8	74	55.88	35.11	9.78	33.57	122	264	Peak
5470	47.75	-6.25	54	36.43	35.11	9.78	33.57	122	264	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5469.36	64.65	-9.35	74	53.33	35.11	9.78	33.57	105	244	Peak
5470	46.04	-7.96	54	34.72	35.11	9.78	33.57	105	244	Average

Test Mode :	802.11a – Ant. 1	Temperature :	22~24°C
Test Channel :	140	Relative Humidity :	53~55%
Test Engineer :	Eric Shih		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5727.24	66.63	-7.37	74	55.41	35.33	10.04	34.15	166	262	Peak
5725	48.67	-5.33	54	37.45	35.33	10.04	34.15	166	262	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5725.16	65.5	-8.5	74	54.28	35.33	10.04	34.15	111	246	Peak
5725	47.91	-6.09	54	36.69	35.33	10.04	34.15	111	246	Average



Test Mode :	802.11n HT20 – SISO Ant. 1	Temperature :	22~24°C
Test Channel :	36	Relative Humidity :	53~55%
Test Engineer :	Eric Shih		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5147.6	63.57	-10.43	74	52.55	34.29	9.22	32.49	108	255	Peak
5150	44.31	-9.69	54	33.29	34.29	9.22	32.49	108	255	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5145.95	59.8	-14.2	74	48.78	34.29	9.22	32.49	123	282	Peak
5150	42.74	-11.26	54	31.72	34.29	9.22	32.49	123	282	Average

Test Mode :	802.11n HT20 – SISO Ant. 1	Temperature :	22~24°C
Test Channel :	48	Relative Humidity :	53~55%
Test Engineer :	Eric Shih		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5036.6	54.62	-19.38	74	43.94	33.99	9.01	32.32	106	256	Peak
5150	41.3	-12.7	54	30.28	34.29	9.22	32.49	106	256	Average
5394.66	54.98	-19.02	74	43.67	34.94	9.65	33.28	106	256	Peak
5353.19	41.64	-12.36	54	30.45	34.81	9.56	33.18	106	256	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5142.95	53.74	-20.26	74	42.68	34.29	9.22	32.45	169	91	Peak
5001.05	40.24	-13.76	54	29.66	33.9	8.97	32.29	169	91	Average
5407.09	53.91	-20.09	74	42.67	34.94	9.69	33.39	169	91	Peak
5353.3	40.83	-13.17	54	29.64	34.81	9.56	33.18	169	91	Average



Test Mode :	802.11n HT20 – SISO Ant. 1	Temperature :	22~24°C
Test Channel :	52	Relative Humidity :	53~55%
Test Engineer :	Eric Shih		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5042.9	54.43	-19.57	74	43.74	34.03	9.01	32.35	131	255	Peak
5148.35	41.4	-12.6	54	30.38	34.29	9.22	32.49	131	255	Average
5392.35	54.88	-19.12	74	43.61	34.9	9.65	33.28	131	255	Peak
5353.19	41.72	-12.28	54	30.53	34.81	9.56	33.18	131	255	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5133.35	53.72	-20.28	74	42.74	34.25	9.18	32.45	109	295	Peak
5046.5	40.48	-13.52	54	29.75	34.03	9.05	32.35	109	295	Average
5375.63	55.29	-18.71	74	44.11	34.85	9.61	33.28	109	295	Peak
5353.74	40.89	-13.11	54	29.7	34.81	9.56	33.18	109	295	Average

Test Mode :	802.11n HT20 – SISO Ant. 1	Temperature :	22~24°C
Test Channel :	64	Relative Humidity :	53~55%
Test Engineer :	Eric Shih		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5354.29	64.99	-9.01	74	53.8	34.81	9.56	33.18	129	256	Peak
5350	47.64	-6.36	54	36.45	34.81	9.56	33.18	129	256	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5354.84	61.81	-12.19	74	50.62	34.81	9.56	33.18	121	267	Peak
5350	44.83	-9.17	54	33.64	34.81	9.56	33.18	121	267	Average



Test Mode :	802.11n HT20 – SISO Ant. 1	Temperature :	22~24°C
Test Channel :	100	Relative Humidity :	53~55%
Test Engineer :	Eric Shih		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5468.56	68.23	-5.77	74	56.91	35.11	9.78	33.57	135	253	Peak
5470	48.67	-5.33	54	37.35	35.11	9.78	33.57	135	253	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5465.68	62.43	-11.57	74	51.11	35.11	9.78	33.57	120	230	Peak
5470	43.53	-10.47	54	32.21	35.11	9.78	33.57	120	230	Average

Test Mode :	802.11n HT20 – SISO Ant. 1	Temperature :	22~24°C
Test Channel :	140	Relative Humidity :	53~55%
Test Engineer :	Eric Shih		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5725	72.5	-1.5	74	61.28	35.33	10.04	34.15	120	247	Peak
5725	52.29	-1.71	54	41.07	35.33	10.04	34.15	120	247	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5725	71.23	-2.77	74	60.01	35.33	10.04	34.15	111	246	Peak
5725	52.2	-1.8	54	40.98	35.33	10.04	34.15	111	246	Average



Test Mode :	802.11n HT40 – SISO Ant. 1	Temperature :	22~24°C
Test Channel :	38	Relative Humidity :	53~55%
Test Engineer :	Eric Shih		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5148.95	67.76	-6.24	74	56.74	34.29	9.22	32.49	146	256	Peak
5150	51.92	-2.08	54	40.9	34.29	9.22	32.49	146	256	Average
5354.51	54.69	-19.31	74	43.5	34.81	9.56	33.18	146	256	Peak
5375.63	42.8	-11.2	54	31.62	34.85	9.61	33.28	146	256	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5149.55	57.82	-16.18	74	46.8	34.29	9.22	32.49	155	224	Peak
5149.7	44.89	-9.11	54	33.87	34.29	9.22	32.49	155	224	Average
5351.54	53.86	-20.14	74	42.67	34.81	9.56	33.18	155	224	Peak
5353.52	41.92	-12.08	54	30.73	34.81	9.56	33.18	155	224	Average



Test Mode :	802.11n HT40 – SISO Ant. 1	Temperature :	22~24°C
Test Channel :	46	Relative Humidity :	53~55%
Test Engineer :	Eric Shih		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5148.8	56.26	-17.74	74	45.24	34.29	9.22	32.49	132	255	Peak
5147.3	43.4	-10.6	54	32.38	34.29	9.22	32.49	132	255	Average
5354.95	54.95	-19.05	74	43.76	34.81	9.56	33.18	132	255	Peak
5356.38	42.98	-11.02	54	31.74	34.81	9.61	33.18	132	255	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5117.45	53.55	-20.45	74	42.59	34.2	9.18	32.42	100	245	Peak
5044.1	41.71	-12.29	54	30.98	34.03	9.05	32.35	100	245	Average
5360.12	53.9	-20.1	74	42.66	34.81	9.61	33.18	100	245	Peak
5358.69	42.09	-11.91	54	30.85	34.81	9.61	33.18	100	245	Average



Test Mode :	802.11n HT40 – SISO Ant. 1	Temperature :	22~24°C
Test Channel :	54	Relative Humidity :	53~55%
Test Engineer :	Eric Shih		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5133.5	54.63	-19.37	74	43.65	34.25	9.18	32.45	106	259	Peak
5150	42.62	-11.38	54	31.6	34.29	9.22	32.49	106	259	Average
5353.74	55.19	-18.81	74	44	34.81	9.56	33.18	106	259	Peak
5350.66	43.4	-10.6	54	32.21	34.81	9.56	33.18	106	259	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5017.7	54.08	-19.92	74	43.49	33.94	8.97	32.32	132	267	Peak
5037.05	41.93	-12.07	54	31.25	33.99	9.01	32.32	132	267	Average
5355.61	54.1	-19.9	74	42.91	34.81	9.56	33.18	132	267	Peak
5350.22	42.48	-11.52	54	31.29	34.81	9.56	33.18	132	267	Average



Test Mode :	802.11n HT40 – SISO Ant. 1	Temperature :	22~24°C
Test Channel :	62	Relative Humidity :	53~55%
Test Engineer :	Eric Shih		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5028.35	54.4	-19.6	74	43.72	33.99	9.01	32.32	141	253	Peak
5061.5	42.73	-11.27	54	31.96	34.07	9.05	32.35	141	253	Average
5350.22	64.51	-9.49	74	53.32	34.81	9.56	33.18	141	253	Peak
5350.22	50.42	-3.58	54	39.23	34.81	9.56	33.18	141	253	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5042.45	54.31	-19.69	74	43.62	34.03	9.01	32.35	132	262	Peak
5030.6	42.21	-11.79	54	31.53	33.99	9.01	32.32	132	262	Average
5350.55	62.31	-11.69	74	51.12	34.81	9.56	33.18	132	262	Peak
5350	48.03	-5.97	54	36.84	34.81	9.56	33.18	132	262	Average



Test Mode :	802.11n HT40 – SISO Ant. 1	Temperature :	22~24°C
Test Channel :	102	Relative Humidity :	53~55%
Test Engineer :	Eric Shih		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5469.84	67.58	-6.42	74	56.26	35.11	9.78	33.57	148	255	Peak
5470	53.64	-0.36	54	42.32	35.11	9.78	33.57	148	255	Average
5758.92	54.1	-19.9	74	42.88	35.36	10.06	34.2	148	255	Peak
5759.56	41.29	-12.71	54	30.07	35.36	10.06	34.2	148	255	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5470	63.56	-10.44	74	52.24	35.11	9.78	33.57	113	258	Peak
5469.68	49.82	-4.18	54	38.5	35.11	9.78	33.57	113	258	Average
5762.44	53.67	-20.33	74	42.45	35.36	10.06	34.2	113	258	Peak
5759.24	41.53	-12.47	54	30.31	35.36	10.06	34.2	113	258	Average



Test Mode :	802.11n HT40 – SISO Ant. 1	Temperature :	22~24°C
Test Channel :	110	Relative Humidity :	53~55%
Test Engineer :	Eric Shih		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5465.04	56.4	-17.6	74	45.08	35.11	9.78	33.57	122	253	Peak
5469.52	43.54	-10.46	54	32.22	35.11	9.78	33.57	122	253	Average
5761.4	53.97	-20.03	74	42.75	35.36	10.06	34.2	122	253	Peak
5758.2	41.76	-12.24	54	30.54	35.36	10.06	34.2	122	253	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5422.8	53.99	-20.01	74	42.71	34.98	9.69	33.39	121	206	Peak
5469.52	41.91	-12.09	54	30.59	35.11	9.78	33.57	121	206	Average
5755.8	53.63	-20.37	74	42.41	35.36	10.06	34.2	121	206	Peak
5744.44	41.6	-12.4	54	30.37	35.34	10.06	34.17	121	206	Average



Test Mode :	802.11n HT40 – SISO Ant. 1	Temperature :	22~24°C
Test Channel :	134	Relative Humidity :	53~55%
Test Engineer :	Eric Shih		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5369.04	54.3	-19.7	74	43.02	34.85	9.61	33.18	146	250	Peak
5433.52	42.3	-11.7	54	31.02	35.03	9.73	33.48	146	250	Average
5725.08	59.09	-14.91	74	47.87	35.33	10.04	34.15	146	250	Peak
5725	46.01	-7.99	54	34.79	35.33	10.04	34.15	146	250	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5364.4	54.12	-19.88	74	42.84	34.85	9.61	33.18	134	250	Peak
5433.84	41.67	-12.33	54	30.39	35.03	9.73	33.48	134	250	Average
5726.52	59.24	-14.76	74	48.02	35.33	10.04	34.15	134	250	Peak
5725.64	45.16	-8.84	54	33.94	35.33	10.04	34.15	134	250	Average



Test Mode :	802.11n HT40 – SISO Ant. 2	Temperature :	22~24°C
Test Channel :	102	Relative Humidity :	53~55%
Test Engineer :	Eric Shih		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5470	67.58	-6.42	74	56.26	35.11	9.78	33.57	100	256	Peak
5470	53.39	-0.61	54	42.07	35.11	9.78	33.57	100	256	Average
5749	54.14	-19.86	74	42.91	35.34	10.06	34.17	100	256	Peak
5740.04	41.66	-12.34	54	30.43	35.34	10.06	34.17	100	256	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5470	63.68	-10.32	74	52.36	35.11	9.78	33.57	100	329	Peak
5470	50.46	-3.54	54	39.14	35.11	9.78	33.57	100	329	Average
5743.4	53.72	-20.28	74	42.49	35.34	10.06	34.17	100	329	Peak
5738.52	41.69	-12.31	54	30.48	35.34	10.04	34.17	100	329	Average



Test Mode :	802.11n HT20 – MIMO Ant. 1+2	Temperature :	22~24°C
Test Channel :	36	Relative Humidity :	53~55%
Test Engineer :	Eric Shih		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5149.25	61.38	-12.62	74	50.36	34.29	9.22	32.49	106	300	Peak
5149.7	48.58	-5.42	54	37.56	34.29	9.22	32.49	106	300	Average
5403.02	54.72	-19.28	74	43.52	34.94	9.65	33.39	106	300	Peak
5374.31	42.15	-11.85	54	30.97	34.85	9.61	33.28	106	300	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5149.55	64.41	-9.59	74	53.39	34.29	9.22	32.49	100	252	Peak
5149.85	50.43	-3.57	54	39.41	34.29	9.22	32.49	100	252	Average
5420.62	53.99	-20.01	74	42.71	34.98	9.69	33.39	100	252	Peak
5357.04	42.38	-11.62	54	31.14	34.81	9.61	33.18	100	252	Average



Test Mode :	802.11n HT20 – MIMO Ant. 1+2	Temperature :	22~24°C
Test Channel :	48	Relative Humidity :	53~55%
Test Engineer :	Eric Shih		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5017.25	54.43	-19.57	74	43.84	33.94	8.97	32.32	103	301	Peak
5002.4	41.91	-12.09	54	31.33	33.9	8.97	32.29	103	301	Average
5360.78	54.63	-19.37	74	43.35	34.85	9.61	33.18	103	301	Peak
5358.03	42.16	-11.84	54	30.92	34.81	9.61	33.18	103	301	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5078.15	53.34	-20.66	74	42.51	34.12	9.1	32.39	125	237	Peak
5019.5	41.72	-12.28	54	31.13	33.94	8.97	32.32	125	237	Average
5386.63	54.67	-19.33	74	43.4	34.9	9.65	33.28	125	237	Peak
5371.45	42.45	-11.55	54	31.17	34.85	9.61	33.18	125	237	Average



Test Mode :	802.11n HT20 – MIMO Ant. 1+2	Temperature :	22~24°C
Test Channel :	52	Relative Humidity :	53~55%
Test Engineer :	Eric Shih		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5012	53.89	-20.11	74	43.27	33.94	8.97	32.29	102	302	Peak
5032.4	42.14	-11.86	54	31.46	33.99	9.01	32.32	102	302	Average
5413.03	53.96	-20.04	74	42.68	34.98	9.69	33.39	102	302	Peak
5355.94	42.38	-11.62	54	31.19	34.81	9.56	33.18	102	302	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5003.9	54.34	-19.66	74	43.72	33.94	8.97	32.29	115	239	Peak
5060.15	42.01	-11.99	54	31.24	34.07	9.05	32.35	115	239	Average
5399.61	54.37	-19.63	74	43.17	34.94	9.65	33.39	115	239	Peak
5355.28	42.31	-11.69	54	31.12	34.81	9.56	33.18	115	239	Average



Test Mode :	802.11n HT20 – MIMO Ant. 1+2	Temperature :	22~24°C
Test Channel :	64	Relative Humidity :	53~55%
Test Engineer :	Eric Shih		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5147.3	54.35	-19.65	74	43.33	34.29	9.22	32.49	102	301	Peak
5020.4	41.86	-12.14	54	31.23	33.94	9.01	32.32	102	301	Average
5351.32	56.55	-17.45	74	45.36	34.81	9.56	33.18	102	301	Peak
5350.55	44.98	-9.02	54	33.79	34.81	9.56	33.18	102	301	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5044.4	53.58	-20.42	74	42.85	34.03	9.05	32.35	124	238	Peak
5131.1	41.7	-12.3	54	30.72	34.25	9.18	32.45	124	238	Average
5350.33	59.94	-14.06	74	48.75	34.81	9.56	33.18	124	238	Peak
5350	47.21	-6.79	54	36.02	34.81	9.56	33.18	124	238	Average



Test Mode :	802.11n HT20 – MIMO Ant. 1+2	Temperature :	22~24°C
Test Channel :	100	Relative Humidity :	53~55%
Test Engineer :	Eric Shih		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5469.2	62.02	-11.98	74	50.7	35.11	9.78	33.57	145	300	Peak
5469.36	48.4	-5.6	54	37.08	35.11	9.78	33.57	145	300	Average
5756.92	53.49	-20.51	74	42.27	35.36	10.06	34.2	145	300	Peak
5761.4	41.5	-12.5	54	30.28	35.36	10.06	34.2	145	300	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5469.84	64.36	-9.64	74	53.04	35.11	9.78	33.57	108	262	Peak
5469.68	49.89	-4.11	54	38.57	35.11	9.78	33.57	108	262	Average
5742.68	53.69	-20.31	74	42.46	35.34	10.06	34.17	108	262	Peak
5762.04	41.54	-12.46	54	30.32	35.36	10.06	34.2	108	262	Average



Test Mode :	802.11n HT20 – MIMO Ant. 1+2	Temperature :	22~24°C
Test Channel :	140	Relative Humidity :	53~55%
Test Engineer :	Eric Shih		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5365.2	54.18	-19.82	74	42.9	34.85	9.61	33.18	100	358	Peak
5431.12	41.72	-12.28	54	30.44	35.03	9.73	33.48	100	358	Average
5725	64.52	-9.48	74	53.3	35.33	10.04	34.15	100	358	Peak
5725	48.35	-5.65	54	37.13	35.33	10.04	34.15	100	358	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5436.72	53.93	-20.07	74	42.65	35.03	9.73	33.48	113	253	Peak
5456.56	41.74	-12.26	54	30.46	35.07	9.78	33.57	113	253	Average
5725.08	64.41	-9.59	74	53.19	35.33	10.04	34.15	113	253	Peak
5725	49.87	-4.13	54	38.65	35.33	10.04	34.15	113	253	Average



Test Mode :	802.11n HT40 – MIMO Ant. 1+2	Temperature :	22~24°C
Test Channel :	38	Relative Humidity :	53~55%
Test Engineer :	Eric Shih		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5149.4	63.01	-10.99	74	51.99	34.29	9.22	32.49	100	173	Peak
5150	50.51	-3.49	54	39.49	34.29	9.22	32.49	100	173	Average
5377.94	53.83	-20.17	74	42.6	34.9	9.61	33.28	100	173	Peak
5372.22	42.08	-11.92	54	30.8	34.85	9.61	33.18	100	173	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5148.2	69.75	-4.25	74	58.73	34.29	9.22	32.49	100	247	Peak
5149.85	52.9	-1.1	54	41.88	34.29	9.22	32.49	100	247	Average
5353.52	54.16	-19.84	74	42.97	34.81	9.56	33.18	100	247	Peak
5387.29	42.37	-11.63	54	31.1	34.9	9.65	33.28	100	247	Average



Test Mode :	802.11n HT40 – MIMO Ant. 1+2	Temperature :	22~24°C
Test Channel :	46	Relative Humidity :	53~55%
Test Engineer :	Eric Shih		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5056.4	53.49	-20.51	74	42.72	34.07	9.05	32.35	100	173	Peak
5027.3	41.67	-12.33	54	30.99	33.99	9.01	32.32	100	173	Average
5351.54	54.45	-19.55	74	43.26	34.81	9.56	33.18	100	173	Peak
5357.7	42.19	-11.81	54	30.95	34.81	9.61	33.18	100	173	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5144.9	56.05	-17.95	74	45.03	34.29	9.22	32.49	100	246	Peak
5150	43.04	-10.96	54	32.02	34.29	9.22	32.49	100	246	Average
5356.71	53.98	-20.02	74	42.74	34.81	9.61	33.18	100	246	Peak
5359.24	42.23	-11.77	54	30.99	34.81	9.61	33.18	100	246	Average



Test Mode :	802.11n HT40 – MIMO Ant. 1+2	Temperature :	22~24°C
Test Channel :	54	Relative Humidity :	53~55%
Test Engineer :	Eric Shih		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5126.9	53.8	-20.2	74	42.82	34.25	9.18	32.45	102	301	Peak
5039.9	42.08	-11.92	54	31.36	34.03	9.01	32.32	102	301	Average
5351.98	54.64	-19.36	74	43.45	34.81	9.56	33.18	102	301	Peak
5350.99	42.44	-11.56	54	31.25	34.81	9.56	33.18	102	301	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5037.65	54.2	-19.8	74	43.48	34.03	9.01	32.32	114	239	Peak
5041.25	41.91	-12.09	54	31.19	34.03	9.01	32.32	114	239	Average
5395.65	54.17	-19.83	74	42.86	34.94	9.65	33.28	114	239	Peak
5353.74	42.53	-11.47	54	31.34	34.81	9.56	33.18	114	239	Average



Test Mode :	802.11n HT40 – MIMO Ant. 1+2	Temperature :	22~24°C
Test Channel :	62	Relative Humidity :	53~55%
Test Engineer :	Eric Shih		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5013.35	54.65	-19.35	74	44.03	33.94	8.97	32.29	124	303	Peak
5018.75	42.11	-11.89	54	31.52	33.94	8.97	32.32	124	303	Average
5350.44	59.69	-14.31	74	48.5	34.81	9.56	33.18	124	303	Peak
5350	47.12	-6.88	54	35.93	34.81	9.56	33.18	124	303	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5011.1	53.83	-20.17	74	43.21	33.94	8.97	32.29	109	256	Peak
5140.4	42.01	-11.99	54	30.95	34.29	9.22	32.45	109	256	Average
5350	60.7	-13.3	74	49.51	34.81	9.56	33.18	109	256	Peak
5350	49.05	-4.95	54	37.86	34.81	9.56	33.18	109	256	Average



Test Mode :	802.11n HT40 – MIMO Ant. 1+2	Temperature :	22~24°C
Test Channel :	102	Relative Humidity :	53~55%
Test Engineer :	Eric Shih		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5468.88	60.03	-13.97	74	48.71	35.11	9.78	33.57	151	302	Peak
5469.52	46.04	-7.96	54	34.72	35.11	9.78	33.57	151	302	Average
5747.32	53.61	-20.39	74	42.38	35.34	10.06	34.17	151	302	Peak
5741	41.59	-12.41	54	30.36	35.34	10.06	34.17	151	302	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5469.36	61.34	-12.66	74	50.02	35.11	9.78	33.57	130	248	Peak
5470	48.26	-5.74	54	36.94	35.11	9.78	33.57	130	248	Average
5725.16	53.77	-20.23	74	42.55	35.33	10.04	34.15	130	248	Peak
5748.04	41.54	-12.46	54	30.31	35.34	10.06	34.17	130	248	Average



Test Mode :	802.11n HT40 – MIMO Ant. 1+2	Temperature :	22~24°C
Test Channel :	110	Relative Humidity :	53~55%
Test Engineer :	Eric Shih		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5468.72	54.13	-19.87	74	42.81	35.11	9.78	33.57	113	352	Peak
5467.92	41.85	-12.15	54	30.53	35.11	9.78	33.57	113	352	Average
5757.4	53.77	-20.23	74	42.55	35.36	10.06	34.2	113	352	Peak
5746.04	41.48	-12.52	54	30.25	35.34	10.06	34.17	113	352	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5459.12	56.54	-17.46	74	45.26	35.07	9.78	33.57	128	264	Peak
5469.04	42.91	-11.09	54	31.59	35.11	9.78	33.57	128	264	Average
5764.36	53.85	-20.15	74	42.62	35.36	10.07	34.2	128	264	Peak
5747.96	41.44	-12.56	54	30.21	35.34	10.06	34.17	128	264	Average



Test Mode :	802.11n HT40 – MIMO Ant. 1+2	Temperature :	22~24°C
Test Channel :	134	Relative Humidity :	53~55%
Test Engineer :	Eric Shih		

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5402.48	54.04	-19.96	74	42.84	34.94	9.65	33.39	110	354	Peak
5452.4	41.54	-12.46	54	30.26	35.07	9.78	33.57	110	354	Average
5725	55.36	-18.64	74	44.14	35.33	10.04	34.15	110	354	Peak
5725.48	43.28	-10.72	54	32.06	35.33	10.04	34.15	110	354	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5376.56	53.96	-20.04	74	42.78	34.85	9.61	33.28	113	263	Peak
5433.04	41.67	-12.33	54	30.39	35.03	9.73	33.48	113	263	Average
5727.96	61.17	-12.83	74	49.95	35.33	10.04	34.15	113	263	Peak
5727.64	45.76	-8.24	54	34.54	35.33	10.04	34.15	113	263	Average

3.5.7 Test Result of Unwanted Radiated Emission (30MHz ~ 10th Harmonic)

Test Mode :	802.11a – Ant. 1	Temperature :	22~24°C
Test Channel :	36	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Horizontal
Remark :	1. 5178 MHz is fundamental signal which can be ignored. 2. 3188 MHz and 10359 MHz are not within a restricted band and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
1596	32.74	-21.26	54	33.17	28.46	5.48	34.37	136	340	Average
1596	56.09	-17.91	74	56.52	28.46	5.48	34.37	136	340	Peak
3188	35.91	-18.09	54	31.14	32.76	6.85	34.84	124	316	Average
3188	55.47	-18.53	74	50.7	32.76	6.85	34.84	124	316	Peak
5178	97.19	-	-	86.06	34.38	9.27	32.52	136	224	Average
5178	108.5	-	-	97.37	34.38	9.27	32.52	136	224	Peak
10359	44.59	-29.41	74	52.15	37.29	13.71	58.56	100	0	Peak

Test Mode :	802.11a – Ant. 1	Temperature :	22~24°C
Test Channel :	36	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Vertical
Remark :	1. 5182 MHz is fundamental signal which can be ignored. 2. 3188 MHz and 10359 MHz are not within a restricted band and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
1594	32.74	-21.26	54	33.17	28.46	5.48	34.37	128	298	Average
1594	52.89	-21.11	74	53.32	28.46	5.48	34.37	128	298	Peak
3188	36.34	-17.66	54	31.57	32.76	6.85	34.84	142	308	Average
3188	55.79	-18.21	74	51.02	32.76	6.85	34.84	142	308	Peak
5182	95.93	-	-	84.8	34.38	9.27	32.52	134	290	Average
5182	107.17	-	-	96.04	34.38	9.27	32.52	134	290	Peak
10359	44.94	-29.06	74	52.5	37.29	13.71	58.56	100	0	Peak



Test Mode :	802.11a – Ant. 1	Temperature :	22~24°C
Test Channel :	44	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Horizontal
Remark :	1. 5222 MHz is fundamental signal which can be ignored. 2. 3198 MHz and 10440 MHz are not within a restricted band and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
1596	33.36	-20.64	54	33.79	28.46	5.48	34.37	134	286	Average
1596	53.47	-20.53	74	53.9	28.46	5.48	34.37	134	286	Peak
3198	36.27	-17.73	54	31.46	32.76	6.89	34.84	118	291	Average
3198	55.37	-18.63	74	50.56	32.76	6.89	34.84	118	291	Peak
5222	99.42	-	-	88.26	34.46	9.35	32.65	118	256	Average
5222	110.85	-	-	99.69	34.46	9.35	32.65	118	256	Peak
10440	45	-29	74	52.56	37.35	13.71	58.62	100	0	Peak

Test Mode :	802.11a – Ant. 1	Temperature :	22~24°C
Test Channel :	44	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Vertical
Remark :	1. 5222 MHz is fundamental signal which can be ignored. 2. 3192 MHz and 10440 MHz are not within a restricted band and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
1598	30.04	-23.96	54	30.47	28.46	5.48	34.37	148	310	Average
1598	49.98	-24.02	74	50.41	28.46	5.48	34.37	148	310	Peak
3192	35.57	-18.43	54	30.8	32.76	6.85	34.84	138	308	Average
3192	55.21	-18.79	74	50.44	32.76	6.85	34.84	138	308	Peak
5222	96.89	-	-	85.73	34.46	9.35	32.65	159	287	Average
5222	107.96	-	-	96.8	34.46	9.35	32.65	159	287	Peak
10440	44.3	-29.7	74	51.86	37.35	13.71	58.62	100	0	Peak



Test Mode :	802.11a – Ant. 1	Temperature :	22~24°C
Test Channel :	48	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Horizontal
Remark :	1. 5238 MHz is fundamental signal which can be ignored. 2. 3196 MHz and 10479 MHz are not within a restricted band and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
1594	31.2	-22.8	54	31.63	28.46	5.48	34.37	143	311	Average
1594	51.15	-22.85	74	51.58	28.46	5.48	34.37	143	311	Peak
3196	34.93	-19.07	54	30.12	32.76	6.89	34.84	153	296	Average
3196	54.7	-19.3	74	49.89	32.76	6.89	34.84	153	296	Peak
5238	99.47	-	-	88.22	34.51	9.39	32.65	107	255	Average
5238	110.53	-	-	99.28	34.51	9.39	32.65	107	255	Peak
10479	44.34	-29.66	74	51.89	37.39	13.72	58.66	100	0	Peak

Test Mode :	802.11a – Ant. 1	Temperature :	22~24°C
Test Channel :	48	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Vertical
Remark :	1. 5242 MHz is fundamental signal which can be ignored. 2. 3198 MHz and 10479 MHz are not within a restricted band and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
1598	32.54	-21.46	54	32.97	28.46	5.48	34.37	137	268	Average
1598	53.41	-20.59	74	53.84	28.46	5.48	34.37	137	268	Peak
3198	36.99	-17.01	54	32.18	32.76	6.89	34.84	134	286	Average
3198	56.24	-17.76	74	51.43	32.76	6.89	34.84	134	286	Peak
5242	96.26	-	-	84.97	34.55	9.39	32.65	133	267	Average
5242	107.33	-	-	96.04	34.55	9.39	32.65	133	267	Peak
10479	44.15	-29.85	74	51.7	37.39	13.72	58.66	100	0	Peak



Test Mode :	802.11a – Ant. 1	Temperature :	22~24°C
Test Channel :	52	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Horizontal
Remark :	1. 5262 MHz is fundamental signal which can be ignored. 2. 3186 MHz and 10521 MHz are not within a restricted band and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
1598	33.86	-20.14	54	34.29	28.46	5.48	34.37	142	298	Average
1598	53.91	-20.09	74	54.34	28.46	5.48	34.37	142	298	Peak
3186	35.21	-18.79	54	30.44	32.76	6.85	34.84	141	304	Average
3186	54.55	-19.45	74	49.78	32.76	6.85	34.84	141	304	Peak
5262	99.32	-	-	88.05	34.59	9.44	32.76	130	256	Average
5262	110.22	-	-	98.95	34.59	9.44	32.76	130	256	Peak
10521	44.18	-29.82	74	51.71	37.42	13.72	58.67	100	0	Peak

Test Mode :	802.11a – Ant. 1	Temperature :	22~24°C
Test Channel :	52	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Vertical
Remark :	1. 5262 MHz is fundamental signal which can be ignored. 2. 3194 MHz and 10521 MHz are not within a restricted band and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
1596	30.28	-23.72	54	30.71	28.46	5.48	34.37	141	295	Average
1596	50.32	-23.68	74	50.75	28.46	5.48	34.37	141	295	Peak
3194	36.21	-17.79	54	31.44	32.76	6.85	34.84	127	296	Average
3194	55.68	-18.32	74	50.91	32.76	6.85	34.84	127	296	Peak
5262	96.89	-	-	85.62	34.59	9.44	32.76	135	267	Average
5262	107.83	-	-	96.56	34.59	9.44	32.76	135	267	Peak
10521	44.62	-29.38	74	52.15	37.42	13.72	58.67	100	0	Peak



Test Mode :	802.11a – Ant. 1	Temperature :	22~24°C
Test Channel :	60	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Horizontal
Remark :	1. 5298 MHz is fundamental signal which can be ignored. 2. 3192 MHz and 10599 MHz are not within a restricted band and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
1596	35.1	-18.9	54	35.53	28.46	5.48	34.37	134	296	Average
1596	54.2	-19.8	74	54.63	28.46	5.48	34.37	134	296	Peak
3192	36.9	-17.1	54	32.13	32.76	6.85	34.84	161	307	Average
3192	55.67	-18.33	74	50.9	32.76	6.85	34.84	161	307	Peak
5298	99.58	-	-	88.39	34.68	9.48	32.97	106	256	Average
5298	110.44	-	-	99.17	34.59	9.44	32.76	106	256	Peak
10599	43.22	-30.78	74	50.63	37.5	13.73	58.64	100	0	Peak

Test Mode :	802.11a – Ant. 1	Temperature :	22~24°C
Test Channel :	60	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Vertical
Remark :	1. 5298 MHz is fundamental signal which can be ignored. 2. 3198 MHz and 10599 MHz are not within a restricted band and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
1596	35.86	-18.14	54	36.29	28.46	5.48	34.37	134	293	Average
1596	54.85	-19.15	74	55.28	28.46	5.48	34.37	134	293	Peak
3198	38.27	-15.73	54	33.46	32.76	6.89	34.84	151	312	Average
3198	56.58	-17.42	74	51.77	32.76	6.89	34.84	151	312	Peak
5298	95.78	-	-	84.59	34.68	9.48	32.97	120	267	Average
5298	107.13	-	-	95.94	34.68	9.48	32.97	120	267	Peak
10599	43.17	-30.83	74	50.58	37.5	13.73	58.64	100	0	Peak



Test Mode :	802.11a – Ant. 1	Temperature :	22~24°C
Test Channel :	64	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Horizontal
Remark :	1. 5322 MHz is fundamental signal which can be ignored. 2. 3196 MHz is not within a restricted band and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
1598	33.55	-20.45	54	33.98	28.46	5.48	34.37	137	316	Average
1598	51.99	-22.01	74	52.42	28.46	5.48	34.37	137	316	Peak
3196	34.9	-19.1	54	30.09	32.76	6.89	34.84	164	340	Average
3196	55	-19	74	50.19	32.76	6.89	34.84	164	340	Peak
5322	99.26	-	-	87.99	34.72	9.52	32.97	116	256	Average
5322	110.69	-	-	99.42	34.72	9.52	32.97	116	256	Peak
10641	44.2	-29.8	74	51.56	37.54	13.73	58.63	100	0	Peak



Test Mode :	802.11a – Ant. 1	Temperature :	22~24°C
Test Channel :	64	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Vertical
Remark :	<ol style="list-style-type: none"> 1. 5322 MHz is fundamental signal which can be ignored. 2. 3198 MHz is not within a restricted band and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit. 		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
1600	33.75	-20.25	54	34.19	28.46	5.48	34.38	149	309	Average
1600	53.72	-20.28	74	54.16	28.46	5.48	34.38	149	309	Peak
3198	38.3	-15.7	54	33.49	32.76	6.89	34.84	134	297	Average
3198	57.38	-16.62	74	52.57	32.76	6.89	34.84	134	297	Peak
5322	96.88	-	-	85.61	34.72	9.52	32.97	120	269	Average
5322	107.74	-	-	96.47	34.72	9.52	32.97	120	269	Peak
10641	44.28	-29.72	74	51.64	37.54	13.73	58.63	100	0	Peak



Test Mode :	802.11a – Ant. 1	Temperature :	22~24°C
Test Channel :	100	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Horizontal
Remark :	<ol style="list-style-type: none"> 1. 5502 MHz is fundamental signal which can be ignored. 2. 3190 MHz is not within a restricted band and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit. 		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
1596	29.7	-24.3	54	30.13	28.46	5.48	34.37	138	297	Average
1596	48.85	-25.15	74	49.28	28.46	5.48	34.37	138	297	Peak
3190	35.51	-18.49	54	30.74	32.76	6.85	34.84	146	316	Average
3190	54.19	-19.81	74	49.42	32.76	6.85	34.84	146	316	Peak
5502	99	-	-	87.6	35.2	9.86	33.66	122	264	Average
5502	110.45	-	-	99.05	35.2	9.86	33.66	122	264	Peak
11001	43.8	-30.2	74	50.68	37.9	13.76	58.54	100	0	Peak



Test Mode :	802.11a – Ant. 1	Temperature :	22~24°C
Test Channel :	100	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Vertical
Remark :	1. 5502 MHz is fundamental signal which can be ignored. 2. 3190 MHz is not within a restricted band and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
1598	32.76	-21.24	54	33.19	28.46	5.48	34.37	129	326	Average
1598	53.34	-20.66	74	53.77	28.46	5.48	34.37	129	326	Peak
3190	38.87	-15.13	54	34.1	32.76	6.85	34.84	146	328	Average
3190	57.85	-16.15	74	53.08	32.76	6.85	34.84	146	328	Peak
5502	95.75	-	-	84.43	35.2	9.86	33.74	105	244	Average
5502	107.29	-	-	95.97	35.2	9.86	33.74	105	244	Peak
11001	43.72	-30.28	74	50.6	37.9	13.76	58.54	100	0	Peak



Test Mode :	802.11a – Ant. 1	Temperature :	22~24°C
Test Channel :	116	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Horizontal
Remark :	1. 5582 MHz is fundamental signal which can be ignored. 2. 3188 MHz is not within a restricted band and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
1596	32.76	-21.24	54	33.19	28.46	5.48	34.37	134	306	Average
1596	52.86	-21.14	74	53.29	28.46	5.48	34.37	134	306	Peak
3188	37.74	-16.26	54	32.97	32.76	6.85	34.84	128	284	Average
3188	55.96	-18.04	74	51.19	32.76	6.85	34.84	128	284	Peak
5582	97.6	-	-	86.44	35.25	9.92	34.01	133	253	Average
5582	109.38	-	-	98.22	35.25	9.92	34.01	133	253	Peak
11160	43.25	-30.75	74	49.79	38.07	13.93	58.54	100	0	Peak



Test Mode :	802.11a – Ant. 1	Temperature :	22~24°C
Test Channel :	116	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Vertical
Remark :	1. 5578 MHz is fundamental signal which can be ignored. 2. 3190 MHz is not within a restricted band and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
1598	35.06	-18.94	54	35.49	28.46	5.48	34.37	164	295	Average
1598	55.34	-18.66	74	55.77	28.46	5.48	34.37	164	295	Peak
3190	37.97	-16.03	54	33.2	32.76	6.85	34.84	137	294	Average
3190	57.57	-16.43	74	52.8	32.76	6.85	34.84	137	294	Peak
5578	97.31	-	-	86.16	35.24	9.92	34.01	138	250	Average
5578	108.94	-	-	97.79	35.24	9.92	34.01	138	250	Peak
11160	43.24	-30.76	74	49.78	38.07	13.93	58.54	100	0	Peak



Test Mode :	802.11a – Ant. 1	Temperature :	22~24°C
Test Channel :	140	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Horizontal
Remark :	1. 5702 MHz is fundamental signal which can be ignored. 2. 3196 MHz is not within a restricted band and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
52.14	29.64	-10.36	40	52.88	7.7	0.71	31.65	-	-	Peak
119.91	36.29	-7.21	43.5	55.11	11.7	1.1	31.62	105	227	Peak
183.36	33.28	-10.22	43.5	54.31	8.93	1.26	31.22	-	-	Peak
484.8	34.72	-11.28	46	45.48	17.78	2.4	30.94	-	-	Peak
755.7	35.52	-10.48	46	41.51	21.43	3.07	30.49	-	-	Peak
799.8	35.69	-10.31	46	40.61	22.1	3.14	30.16	-	-	Peak
1594	36.36	-17.64	54	36.79	28.46	5.48	34.37	126	332	Average
1594	55.84	-18.16	74	56.27	28.46	5.48	34.37	126	332	Peak
3196	34.79	-19.21	54	29.98	32.76	6.89	34.84	124	348	Average
3196	55.8	-18.2	74	50.99	32.76	6.89	34.84	124	348	Peak
5702	98.61	-	-	87.39	35.32	10.02	34.12	166	262	Average
5702	109.69	-	-	98.47	35.32	10.02	34.12	166	262	Peak
11400	43.4	-30.6	74	49.43	38.3	14.21	58.54	100	0	Peak



Test Mode :	802.11a – Ant. 1	Temperature :	22~24°C
Test Channel :	140	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Vertical
Remark :	1. 5698 MHz is fundamental signal which can be ignored. 2. 3186 MHz is not within a restricted band and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
51.87	30.96	-9.04	40	54.2	7.7	0.71	31.65	-	-	Peak
81.3	31.23	-8.77	40	54.27	7.79	0.89	31.72	126	248	Peak
119.1	32.41	-11.09	43.5	51.33	11.61	1.1	31.63	-	-	Peak
513.5	36.32	-9.68	46	46.52	18.31	2.48	30.99	-	-	Peak
649.3	35.76	-10.24	46	43.08	20.19	2.84	30.35	-	-	Peak
754.3	36.54	-9.46	46	42.55	21.42	3.07	30.5	-	-	Peak
1600	31.02	-22.98	54	31.46	28.46	5.48	34.38	156	346	Average
1600	49.72	-24.28	74	50.16	28.46	5.48	34.38	156	346	Peak
3186	35.97	-18.03	54	31.2	32.76	6.85	34.84	124	309	Average
3186	57.45	-16.55	74	52.68	32.76	6.85	34.84	124	309	Peak
5698	97.26	-	-	86.05	35.31	10.02	34.12	111	246	Average
5698	108.07	-	-	96.86	35.31	10.02	34.12	111	246	Peak
11403	49.64	-24.36	74	55.67	38.3	14.21	58.54	100	0	Peak



Test Mode :	802.11n HT20 – SISO Ant. 1	Temperature :	22~24°C
Test Channel :	36	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Horizontal
Remark :	1. 5182 MHz is fundamental signal which can be ignored. 2. 3192 MHz and 10359 MHz are not within a restricted band and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
1594	33.51	-20.49	54	33.94	28.46	5.48	34.37	136	278	Average
1594	54.14	-19.86	74	54.57	28.46	5.48	34.37	136	278	Peak
3192	36.51	-17.49	54	31.74	32.76	6.85	34.84	141	284	Average
3192	55.64	-18.36	74	50.87	32.76	6.85	34.84	141	284	Peak
5182	96.92	-	-	85.79	34.38	9.27	32.52	108	255	Average
5182	108.94	-	-	97.81	34.38	9.27	32.52	108	255	Peak
10359	44.39	-29.61	74	51.95	37.29	13.71	58.56	100	0	Peak

Test Mode :	802.11n HT20 – SISO Ant. 1	Temperature :	22~24°C
Test Channel :	36	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Vertical
Remark :	1. 5182 MHz is fundamental signal which can be ignored. 2. 3186 MHz and 10359 MHz are not within a restricted band and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
1594	30.83	-23.17	54	31.26	28.46	5.48	34.37	139	341	Average
1594	50.4	-23.6	74	50.83	28.46	5.48	34.37	139	341	Peak
3186	38.67	-15.33	54	33.9	32.76	6.85	34.84	162	339	Average
3186	59.07	-14.93	74	54.3	32.76	6.85	34.84	162	339	Peak
5182	94.78	-	-	83.65	34.38	9.27	32.52	123	282	Average
5182	106.58	-	-	95.45	34.38	9.27	32.52	123	282	Peak
10359	44.51	-29.49	74	52.07	37.29	13.71	58.56	100	0	Peak



Test Mode :	802.11n HT20 – SISO Ant. 1	Temperature :	22~24°C
Test Channel :	44	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Horizontal
Remark :	1. 5222 MHz is fundamental signal which can be ignored. 2. 3188MHz and 10440 MHz are not within a restricted band and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
1596	34.65	-19.35	54	35.08	28.46	5.48	34.37	151	296	Average
1596	53.64	-20.36	74	54.07	28.46	5.48	34.37	151	296	Peak
3188	36.62	-17.38	54	31.85	32.76	6.85	34.84	120	307	Average
3188	55.77	-18.23	74	51	32.76	6.85	34.84	120	307	Peak
5222	99.05	-	-	87.89	34.46	9.35	32.65	156	255	Average
5222	111.03	-	-	99.87	34.46	9.35	32.65	156	255	Peak
10440	45.46	-28.54	74	53.02	37.35	13.71	58.62	100	0	Peak

Test Mode :	802.11n HT20 – SISO Ant. 1	Temperature :	22~24°C
Test Channel :	44	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Vertical
Remark :	1. 5222 MHz is fundamental signal which can be ignored. 2. 3190 MHz and 10440 MHz are not within a restricted band and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
1600	36.05	-17.95	54	36.49	28.46	5.48	34.38	137	266	Average
1600	54.66	-19.34	74	55.1	28.46	5.48	34.38	137	266	Peak
3190	36.27	-17.73	54	31.5	32.76	6.85	34.84	148	297	Average
3190	54.85	-19.15	74	50.08	32.76	6.85	34.84	148	297	Peak
5222	94.51	-	-	83.35	34.46	9.35	32.65	186	92	Average
5222	105.88	-	-	94.72	34.46	9.35	32.65	186	92	Peak
10440	45.72	-28.28	74	53.28	37.35	13.71	58.62	100	0	Peak



Test Mode :	802.11n HT20 – SISO Ant. 1	Temperature :	22~24°C
Test Channel :	48	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Horizontal
Remark :	1. 5242 MHz is fundamental signal which can be ignored. 2. 3192 MHz and 10479 MHz are not within a restricted band and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
1594	31.73	-22.27	54	32.16	28.46	5.48	34.37	155	314	Average
1594	50.54	-23.46	74	50.97	28.46	5.48	34.37	155	314	Peak
3192	36.45	-17.55	54	31.68	32.76	6.85	34.84	145	299	Average
3192	55.35	-18.65	74	50.58	32.76	6.85	34.84	145	299	Peak
5242	99.42	-	-	88.13	34.55	9.39	32.65	106	256	Average
5242	110.74	-	-	99.45	34.55	9.39	32.65	106	256	Peak
10479	44.8	-29.2	74	52.35	37.39	13.72	58.66	100	0	Peak

Test Mode :	802.11n HT20 – SISO Ant. 1	Temperature :	22~24°C
Test Channel :	48	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Vertical
Remark :	1. 5238 MHz is fundamental signal which can be ignored. 2. 3186 and 10479 MHz are not within a restricted band and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
1592	33.93	-20.07	54	34.36	28.46	5.48	34.37	164	299	Average
1592	53.23	-20.77	74	53.66	28.46	5.48	34.37	164	299	Peak
3186	38.27	-15.73	54	33.5	32.76	6.85	34.84	144	316	Average
3186	58.53	-15.47	74	53.76	32.76	6.85	34.84	144	316	Peak
5238	93.96	-	-	82.71	34.51	9.39	32.65	169	91	Average
5238	105.83	-	-	94.58	34.51	9.39	32.65	169	91	Peak
10479	45.49	-28.51	74	53.04	37.39	13.72	58.66	100	0	Peak



Test Mode :	802.11n HT20 – SISO Ant. 1	Temperature :	22~24°C
Test Channel :	52	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Horizontal
Remark :	1. 5262 MHz is fundamental signal which can be ignored. 2. 3192 MHz and 10521 MHz are not within a restricted band and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
1600	35.35	-18.65	54	35.79	28.46	5.48	34.38	122	351	Average
1600	54.29	-19.71	74	54.73	28.46	5.48	34.38	122	351	Peak
3192	36.24	-17.76	54	31.47	32.76	6.85	34.84	142	295	Average
3192	55.48	-18.52	74	50.71	32.76	6.85	34.84	142	295	Peak
5262	99.67	-	-	88.4	34.59	9.44	32.76	131	255	Average
5262	111.23	-	-	99.96	34.59	9.44	32.76	131	255	Peak
10521	45.15	-28.85	74	52.68	37.42	13.72	58.67	100	0	Peak

Test Mode :	802.11n HT20 – SISO Ant. 1	Temperature :	22~24°C
Test Channel :	52	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Vertical
Remark :	1. 5262 MHz is fundamental signal which can be ignored. 2. 3194 MHz and 10521 MHz are not within a restricted band and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
1596	31.03	-22.97	54	31.46	28.46	5.48	34.37	128	295	Average
1596	50.33	-23.67	74	50.76	28.46	5.48	34.37	128	295	Peak
3194	36.62	-17.38	54	31.85	32.76	6.85	34.84	160	273	Average
3194	55.47	-18.53	74	50.7	32.76	6.85	34.84	160	273	Peak
5262	95.04	-	-	83.77	34.59	9.44	32.76	109	295	Average
5262	106.56	-	-	95.29	34.59	9.44	32.76	109	295	Peak
10521	43.87	-30.13	74	51.4	37.42	13.72	58.67	100	0	Peak



Test Mode :	802.11n HT20 – SISO Ant. 1	Temperature :	22~24°C
Test Channel :	60	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Horizontal
Remark :	1. 5298 MHz is fundamental signal which can be ignored. 2. 3194 MHz and 10599 MHz are not within a restricted band and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
1598	35.36	-18.64	54	35.79	28.46	5.48	34.37	155	284	Average
1598	53.66	-20.34	74	54.09	28.46	5.48	34.37	155	284	Peak
3194	35.24	-18.76	54	30.47	32.76	6.85	34.84	157	289	Average
3194	54.41	-19.59	74	49.64	32.76	6.85	34.84	157	289	Peak
5298	99.44	-	-	88.25	34.68	9.48	32.97	117	253	Average
5298	111	-	-	99.81	34.68	9.48	32.97	117	253	Peak
10599	42.62	-31.38	74	50.03	37.5	13.73	58.64	100	0	Peak

Test Mode :	802.11n HT20 – SISO Ant. 1	Temperature :	22~24°C
Test Channel :	60	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Vertical
Remark :	1. 5302 MHz is fundamental signal which can be ignored. 2. 3190 MHz and 10599 MHz are not within a restricted band and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
1594	34.13	-19.87	54	34.56	28.46	5.48	34.37	134	305	Average
1594	52.63	-21.37	74	53.06	28.46	5.48	34.37	134	305	Peak
3190	37.36	-16.64	54	32.59	32.76	6.85	34.84	135	332	Average
3190	56.71	-17.29	74	51.94	32.76	6.85	34.84	135	332	Peak
5302	96.09	-	-	84.9	34.68	9.48	32.97	120	284	Average
5302	107.35	-	-	96.16	34.68	9.48	32.97	120	284	Peak
10599	43.27	-30.73	74	50.68	37.5	13.73	58.64	100	0	Peak



Test Mode :	802.11n HT20 – SISO Ant. 1	Temperature :	22~24°C
Test Channel :	64	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Horizontal
Remark :	<ol style="list-style-type: none"> 1. 5318 MHz is fundamental signal which can be ignored. 2. 3188 MHz is not within a restricted band and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit. 		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
1598	30.06	-23.94	54	30.49	28.46	5.48	34.37	146	318	Average
1598	49.36	-24.64	74	49.79	28.46	5.48	34.37	146	318	Peak
3188	39.67	-14.33	54	34.9	32.76	6.85	34.84	129	336	Average
3188	58.04	-15.96	74	53.27	32.76	6.85	34.84	129	336	Peak
5318	99.62	-	-	88.35	34.72	9.52	32.97	129	256	Average
5318	111.19	-	-	99.92	34.72	9.52	32.97	129	256	Peak
10641	43.85	-30.15	74	51.21	37.54	13.73	58.63	100	0	Peak



Test Mode :	802.11n HT20 – SISO Ant. 1	Temperature :	22~24°C
Test Channel :	64	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Vertical
Remark :	1. 5322 MHz is fundamental signal which can be ignored. 2. 3194 MHz is not within a restricted band and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
1596	30.9	-23.1	54	31.33	28.46	5.48	34.37	156	329	Average
1596	51.26	-22.74	74	51.69	28.46	5.48	34.37	156	329	Peak
3194	37.37	-16.63	54	32.6	32.76	6.85	34.84	131	324	Average
3194	56.03	-17.97	74	51.26	32.76	6.85	34.84	131	324	Peak
5322	96.79	-	-	85.52	34.72	9.52	32.97	121	267	Average
5322	107.76	-	-	96.49	34.72	9.52	32.97	121	267	Peak
10641	44.28	-29.72	74	51.64	37.54	13.73	58.63	100	0	Peak



Test Mode :	802.11n HT20 – SISO Ant. 1	Temperature :	22~24°C
Test Channel :	100	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Horizontal
Remark :	<ol style="list-style-type: none"> 5498 MHz is fundamental signal which can be ignored. 3192 MHz is not within a restricted band and satisfies both the average and peak limits of 15.209. Average measurement was not performed if peak level went lower than the average limit. 		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
1598	36.06	-17.94	54	36.49	28.46	5.48	34.37	166	309	Average
1598	54.84	-19.16	74	55.27	28.46	5.48	34.37	166	309	Peak
3192	37.67	-16.33	54	32.9	32.76	6.85	34.84	183	301	Average
3192	56.06	-17.94	74	51.29	32.76	6.85	34.84	183	301	Peak
5498	98.48	-	-	87.12	35.2	9.82	33.66	135	253	Average
5498	109.75	-	-	98.39	35.2	9.82	33.66	135	253	Peak
11001	43.76	-30.24	74	50.64	37.9	13.76	58.54	100	0	Peak



Test Mode :	802.11n HT20 – SISO Ant. 1	Temperature :	22~24°C
Test Channel :	100	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Vertical
Remark :	1. 5498 MHz is fundamental signal which can be ignored. 2. 3192 MHz is not within a restricted band and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
1598	35.81	-18.19	54	36.24	28.46	5.48	34.37	138	296	Average
1598	54.64	-19.36	74	55.07	28.46	5.48	34.37	138	296	Peak
3192	29.77	-24.23	54	25	32.76	6.85	34.84	139	278	Average
3192	58.98	-15.02	74	54.21	32.76	6.85	34.84	139	278	Peak
5498	94.36	-	-	83	35.2	9.82	33.66	120	230	Average
5498	105.36	-	-	94	35.2	9.82	33.66	120	230	Peak
11001	43.94	-30.06	74	50.82	37.9	13.76	58.54	100	0	Peak



Test Mode :	802.11n HT20 – SISO Ant. 1	Temperature :	22~24°C
Test Channel :	116	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Horizontal
Remark :	1. 5578 MHz is fundamental signal which can be ignored. 2. 3198 MHz is not within a restricted band and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
1596	35.21	-18.79	54	35.64	28.46	5.48	34.37	127	334	Average
1596	54.58	-19.42	74	55.01	28.46	5.48	34.37	127	334	Peak
3198	36.54	-17.46	54	31.73	32.76	6.89	34.84	131	287	Average
3198	55.89	-18.11	74	51.08	32.76	6.89	34.84	131	287	Peak
5578	98.74	-	-	87.59	35.24	9.92	34.01	121	253	Average
5578	110.34	-	-	99.19	35.24	9.92	34.01	121	253	Peak
11160	43.4	-30.6	74	49.94	38.07	13.93	58.54	100	0	Peak



Test Mode :	802.11n HT20 – SISO Ant. 1	Temperature :	22~24°C
Test Channel :	116	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Vertical
Remark :	1. 5578 MHz is fundamental signal which can be ignored. 2. 3190 MHz is not within a restricted band and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
1594	32.53	-21.47	54	32.96	28.46	5.48	34.37	132	342	Average
1594	53.28	-20.72	74	53.71	28.46	5.48	34.37	132	342	Peak
3190	37.72	-16.28	54	32.95	32.76	6.85	34.84	143	308	Average
3190	57.81	-16.19	74	53.04	32.76	6.85	34.84	143	308	Peak
5578	97.03	-	-	85.88	35.24	9.92	34.01	125	254	Average
5578	108.39	-	-	97.24	35.24	9.92	34.01	125	254	Peak
11160	44.23	-29.77	74	50.77	38.07	13.93	58.54	100	0	Peak



Test Mode :	802.11n HT20 – SISO Ant. 1	Temperature :	22~24°C
Test Channel :	140	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Horizontal
Remark :	1. 5698 MHz is fundamental signal which can be ignored. 2. 3186 MHz is not within a restricted band and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
51.33	30.93	-9.07	40	53.95	7.9	0.71	31.63	-	-	Peak
119.91	36.21	-7.29	43.5	55.03	11.7	1.1	31.62	116	280	Peak
183.09	32.34	-11.16	43.5	53.37	8.93	1.26	31.22	-	-	Peak
486.9	35.81	-10.19	46	46.52	17.82	2.4	30.93	-	-	Peak
757.1	36.68	-9.32	46	42.63	21.46	3.07	30.48	-	-	Peak
799.8	35.62	-10.38	46	40.54	22.1	3.14	30.16	-	-	Peak
1600	35.84	-18.16	54	36.28	28.46	5.48	34.38	126	322	Average
1600	56.25	-17.75	74	56.69	28.46	5.48	34.38	126	322	Peak
3186	34.96	-19.04	54	30.19	32.76	6.85	34.84	139	264	Average
3186	54.63	-19.37	74	49.86	32.76	6.85	34.84	139	264	Peak
5698	98.28	-	-	87.07	35.31	10.02	34.12	120	247	Average
5698	109.47	-	-	98.26	35.31	10.02	34.12	120	247	Peak
11400	43.36	-30.64	74	49.39	38.3	14.21	58.54	100	0	Peak



Test Mode :	802.11n HT20 – SISO Ant. 1	Temperature :	22~24°C
Test Channel :	140	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Vertical
Remark :	1. 5698 MHz is fundamental signal which can be ignored. 2. 3190 MHz is not within a restricted band and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
51.6	30.81	-9.19	40	53.85	7.9	0.71	31.65	109	183	Peak
117.75	32.16	-11.34	43.5	51.29	11.43	1.09	31.65	-	-	Peak
270.57	34.35	-11.65	46	51.13	12.89	1.64	31.31	-	-	Peak
324.5	32.61	-13.39	46	47.98	13.98	1.83	31.18	-	-	Peak
649.3	36.09	-9.91	46	43.41	20.19	2.84	30.35	-	-	Peak
754.3	35.22	-10.78	46	41.23	21.42	3.07	30.5	-	-	Peak
1594	25.76	-28.24	54	26.19	28.46	5.48	34.37	140	283	Average
1594	45.22	-28.78	74	45.65	28.46	5.48	34.37	140	283	Peak
3190	38.51	-15.49	54	33.74	32.76	6.85	34.84	130	311	Average
3190	57.26	-16.74	74	52.49	32.76	6.85	34.84	130	311	Peak
5698	97.4	-	-	86.19	35.31	10.02	34.12	111	246	Average
5698	108.26	-	-	97.05	35.31	10.02	34.12	111	246	Peak
11400	48.81	-25.19	74	54.84	38.3	14.21	58.54	100	0	Peak



Test Mode :	802.11n HT40 – SISO Ant. 1	Temperature :	22~24°C
Test Channel :	38	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Horizontal
Remark :	1. 5188 MHz is fundamental signal which can be ignored. 2. 3196 MHz and 10380 MHz are not within a restricted band and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
1594	34.85	-19.15	54	35.28	28.46	5.48	34.37	152	313	Average
1594	54.36	-19.64	74	54.79	28.46	5.48	34.37	152	313	Peak
3196	36.47	-17.53	54	31.66	32.76	6.89	34.84	125	340	Average
3196	55.76	-18.24	74	50.95	32.76	6.89	34.84	125	340	Peak
5188	94.26	-	-	83.13	34.38	9.27	32.52	146	256	Average
5188	103.99	-	-	92.86	34.38	9.27	32.52	146	256	Peak
10380	44.56	-29.44	74	52.11	37.31	13.71	58.57	100	0	Peak

Test Mode :	802.11n HT40 – SISO Ant. 1	Temperature :	22~24°C
Test Channel :	38	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Vertical
Remark :	1. 5192 MHz is fundamental signal which can be ignored. 2. 3188 MHz and 10380 MHz are not within a restricted band and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
1600	35.7	-18.3	54	36.14	28.46	5.48	34.38	121	335	Average
1600	54.59	-19.41	74	55.03	28.46	5.48	34.38	121	335	Peak
3188	38.05	-15.95	54	33.28	32.76	6.85	34.84	138	296	Average
3188	57.47	-16.53	74	52.7	32.76	6.85	34.84	138	296	Peak
5192	91.04	-	-	79.83	34.42	9.31	32.52	155	224	Average
5192	101.06	-	-	89.85	34.42	9.31	32.52	155	224	Peak
10380	44.39	-29.61	74	51.94	37.31	13.71	58.57	100	0	Peak



Test Mode :	802.11n HT40 – SISO Ant. 1	Temperature :	22~24°C
Test Channel :	46	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Horizontal
Remark :	1. 5228 MHz is fundamental signal which can be ignored. 2. 3188 MHz and 10461 MHz are not within a restricted band and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
1594	37	-17	54	37.43	28.46	5.48	34.37	144	296	Average
1594	56.5	-17.5	74	56.93	28.46	5.48	34.37	144	296	Peak
3188	34.89	-19.11	54	30.12	32.76	6.85	34.84	142	297	Average
3188	54.1	-19.9	74	49.33	32.76	6.85	34.84	142	297	Peak
5228	98.5	-	-	87.29	34.51	9.35	32.65	132	255	Average
5228	108.11	-	-	96.9	34.51	9.35	32.65	132	255	Peak
10461	45.18	-28.82	74	52.73	37.37	13.72	58.64	100	0	Peak

Test Mode :	802.11n HT40 – SISO Ant. 1	Temperature :	22~24°C
Test Channel :	46	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Vertical
Remark :	1. 5232 MHz is fundamental signal which can be ignored. 2. 3196 MHz and 10461 MHz are not within a restricted band and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
1598	34.12	-19.88	54	34.55	28.46	5.48	34.37	176	293	Average
1598	53.94	-20.06	74	54.37	28.46	5.48	34.37	176	293	Peak
3196	35.29	-18.71	54	30.48	32.76	6.89	34.84	163	326	Average
3196	55.95	-18.05	74	51.14	32.76	6.89	34.84	163	326	Peak
5232	95.86	-	-	84.65	34.51	9.35	32.65	100	245	Average
5232	105.97	-	-	94.76	34.51	9.35	32.65	100	245	Peak
10461	44.36	-29.64	74	51.91	37.37	13.72	58.64	100	0	Peak



Test Mode :	802.11n HT40 – SISO Ant. 1	Temperature :	22~24°C
Test Channel :	54	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Horizontal
Remark :	1. 5272 MHz is fundamental signal which can be ignored. 2. 3186 MHz 10539 MHz are not within a restricted band and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
1598	35.93	-18.07	54	36.36	28.46	5.48	34.37	166	287	Average
1598	55.42	-18.58	74	55.85	28.46	5.48	34.37	166	287	Peak
3186	35.74	-18.26	54	30.97	32.76	6.85	34.84	125	301	Average
3186	55.1	-18.9	74	50.33	32.76	6.85	34.84	125	301	Peak
5272	97.77	-	-	86.6	34.59	9.44	32.86	106	259	Average
5272	107.82	-	-	96.65	34.59	9.44	32.86	106	259	Peak
10539	42.1	-31.9	74	49.61	37.43	13.72	58.66	100	0	Peak

Test Mode :	802.11n HT40 – SISO Ant. 1	Temperature :	22~24°C
Test Channel :	54	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Vertical
Remark :	1. 5272 MHz is fundamental signal which can be ignored. 2. 3192 MHz and 10539 MHz are not within a restricted band and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
1598	34.07	-19.93	54	34.5	28.46	5.48	34.37	140	306	Average
1598	52.85	-21.15	74	53.28	28.46	5.48	34.37	140	306	Peak
3192	39.29	-14.71	54	34.52	32.76	6.85	34.84	152	310	Average
3192	58.16	-15.84	74	53.39	32.76	6.85	34.84	152	310	Peak
5272	94.99	-	-	83.82	34.59	9.44	32.86	132	267	Average
5272	105.13	-	-	93.96	34.59	9.44	32.86	132	267	Peak
10539	42.84	-31.16	74	50.35	37.43	13.72	58.66	100	0	Peak



Test Mode :	802.11n HT40 – SISO Ant. 1	Temperature :	22~24°C
Test Channel :	62	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Horizontal
Remark :	1. 5312 MHz is fundamental signal which can be ignored. 2. 3186 MHz is not within a restricted band and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
1592	32.53	-21.47	54	32.96	28.46	5.48	34.37	162	276	Average
1592	51.97	-22.03	74	52.4	28.46	5.48	34.37	162	276	Peak
3186	36.29	-17.71	54	31.52	32.76	6.85	34.84	134	316	Average
3186	55.3	-18.7	74	50.53	32.76	6.85	34.84	134	316	Peak
5312	94.13	-	-	82.86	34.72	9.52	32.97	141	253	Average
5312	103.84	-	-	92.57	34.72	9.52	32.97	141	253	Peak
10620	43.66	-30.34	74	51.05	37.52	13.73	58.64	100	0	Peak



Test Mode :	802.11n HT40 – SISO Ant. 1	Temperature :	22~24°C
Test Channel :	62	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Vertical
Remark :	1. 5308 MHz is fundamental signal which can be ignored. 2. 3188 MHz is not within a restricted band and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
1594	33.86	-20.14	54	34.29	28.46	5.48	34.37	131	268	Average
1594	52.8	-21.2	74	53.23	28.46	5.48	34.37	131	268	Peak
3188	39.36	-14.64	54	34.59	32.76	6.85	34.84	124	306	Average
3188	57.32	-16.68	74	52.55	32.76	6.85	34.84	124	306	Peak
5308	91.88	-	-	80.65	34.68	9.52	32.97	132	262	Average
5308	101.65	-	-	90.42	34.68	9.52	32.97	132	262	Peak
10620	44.26	-29.74	74	51.65	37.52	13.73	58.64	100	0	Peak



Test Mode :	802.11n HT40 – SISO Ant. 1	Temperature :	22~24°C
Test Channel :	102	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Horizontal
Remark :	1. 5508 MHz is fundamental signal which can be ignored. 2. 3196 MHz is not within a restricted band and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
51.87	31.17	-8.83	40	54.41	7.7	0.71	31.65	-	-	Peak
119.1	36.01	-7.49	43.5	54.93	11.61	1.1	31.63	117	264	Peak
167.97	33.4	-10.1	43.5	53.72	9.75	1.23	31.3	-	-	Peak
484.8	35.25	-10.75	46	46.01	17.78	2.4	30.94	-	-	Peak
754.3	35.02	-10.98	46	41.03	21.42	3.07	30.5	-	-	Peak
811.7	34.74	-11.26	46	39.6	22.22	3.17	30.25	-	-	Peak
1598	33.42	-20.58	54	33.85	28.46	5.48	34.37	145	296	Average
1598	52.27	-21.73	74	52.7	28.46	5.48	34.37	145	296	Peak
3196	39.03	-14.97	54	34.22	32.76	6.89	34.84	160	307	Average
3196	57.86	-16.14	74	53.05	32.76	6.89	34.84	160	307	Peak
5508	94.97	-	-	83.65	35.2	9.86	33.74	124	264	Average
5508	104.71	-	-	93.39	35.2	9.86	33.74	124	264	Peak
11019	43.63	-30.37	74	50.49	37.92	13.76	58.54	100	0	Peak



Test Mode :	802.11n HT40 – SISO Ant. 1	Temperature :	22~24°C
Test Channel :	102	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Vertical
Remark :	1. 5512 MHz is fundamental signal which can be ignored. 2. 3188 MHz is not within a restricted band and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
51.6	30.87	-9.13	40	53.91	7.9	0.71	31.65	108	176	Peak
107.76	32.22	-11.28	43.5	52.39	10.52	1.04	31.73	-	-	Peak
118.02	32.26	-11.24	43.5	51.3	11.52	1.09	31.65	-	-	Peak
324.5	33.19	-12.81	46	48.56	13.98	1.83	31.18	-	-	Peak
649.3	35.46	-10.54	46	42.78	20.19	2.84	30.35	-	-	Peak
755.7	35.69	-10.31	46	41.68	21.43	3.07	30.49	-	-	Peak
1600	33.85	-20.15	54	34.29	28.46	5.48	34.38	134	326	Average
1600	52.69	-21.31	74	53.13	28.46	5.48	34.38	134	326	Peak
3188	35.24	-18.76	54	30.47	32.76	6.85	34.84	134	314	Average
3188	54.9	-19.1	74	50.13	32.76	6.85	34.84	134	314	Peak
5512	90.76	-	-	79.44	35.2	9.86	33.74	100	206	Average
5512	100.8	-	-	89.48	35.2	9.86	33.74	100	206	Peak
11019	43.46	-30.54	74	50.32	37.92	13.76	58.54	100	0	Peak



Test Mode :	802.11n HT40 – SISO Ant. 1	Temperature :	22~24°C
Test Channel :	110	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Horizontal
Remark :	1. 5548 MHz is fundamental signal which can be ignored. 2. 3196 MHz is not within a restricted band and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
1594	36.82	-17.18	54	37.25	28.46	5.48	34.37	169	258	Average
1594	51.17	-22.83	74	51.6	28.46	5.48	34.37	169	258	Peak
3196	34.4	-19.6	54	29.59	32.76	6.89	34.84	120	286	Average
3196	55.87	-18.13	74	51.06	32.76	6.89	34.84	120	286	Peak
5548	98.26	-	-	86.96	35.23	9.9	33.83	122	253	Average
5548	108.01	-	-	96.71	35.23	9.9	33.83	122	253	Peak
11100	43.9	-30.1	74	50.57	38	13.87	58.54	100	0	Peak



Test Mode :	802.11n HT40 – SISO Ant. 1	Temperature :	22~24°C
Test Channel :	110	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Vertical
Remark :	1. 5552 MHz is fundamental signal which can be ignored. 2. 3192 MHz is not within a restricted band and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
1596	36.83	-17.17	54	37.26	28.46	5.48	34.37	139	301	Average
1596	54.61	-19.39	74	55.04	28.46	5.48	34.37	139	301	Peak
3192	34.03	-19.97	54	29.26	32.76	6.85	34.84	140	267	Average
3192	54.6	-19.4	74	49.83	32.76	6.85	34.84	140	267	Peak
5552	93.48	-	-	82.27	35.23	9.9	33.92	121	206	Average
5552	103.38	-	-	92.17	35.23	9.9	33.92	121	206	Peak
11100	43.07	-30.93	74	49.74	38	13.87	58.54	100	0	Peak



Test Mode :	802.11n HT40 – SISO Ant. 1	Temperature :	22~24°C
Test Channel :	134	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Horizontal
Remark :	1. 5668 MHz is fundamental signal which can be ignored. 2. 3192 MHz is not within a restricted band and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
1596	33.44	-20.56	54	33.87	28.46	5.48	34.37	158	275	Average
1596	52.88	-21.12	74	53.31	28.46	5.48	34.37	158	275	Peak
3192	35.95	-18.05	54	31.18	32.76	6.85	34.84	128	299	Average
3192	55.93	-18.07	74	51.16	32.76	6.85	34.84	128	299	Peak
5668	96.81	-	-	85.62	35.3	9.98	34.09	146	250	Average
5668	106.26	-	-	95.07	35.3	9.98	34.09	146	250	Peak
11340	43.49	-30.51	74	49.64	38.23	14.16	58.54	100	0	Peak



Test Mode :	802.11n HT40 – SISO Ant. 1	Temperature :	22~24°C
Test Channel :	134	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Vertical
Remark :	<ol style="list-style-type: none"> 1. 5672 MHz is fundamental signal which can be ignored. 2. 3190 MHz is not within a restricted band and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit. 		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
1596	30.16	-23.84	54	30.59	28.46	5.48	34.37	127	293	Average
1596	49.09	-24.91	74	49.52	28.46	5.48	34.37	127	293	Peak
3190	35.36	-18.64	54	30.59	32.76	6.85	34.84	133	267	Average
3190	55.95	-18.05	74	51.18	32.76	6.85	34.84	133	267	Peak
5672	96.43	-	-	85.22	35.3	10	34.09	134	250	Average
5672	105.87	-	-	94.66	35.3	10	34.09	134	250	Peak
11337	46.56	-27.44	74	52.71	38.23	14.16	58.54	100	0	Peak



Test Mode :	802.11n HT40 – SISO Ant. 2	Temperature :	22~24°C
Test Channel :	102	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Horizontal
Remark :	1. 5512 MHz is fundamental signal which can be ignored. 2. 3194 MHz is not within a restricted band and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
49.71	31.29	-8.71	40	53.71	8.5	0.69	31.61	-	-	Peak
108.3	31.97	-11.53	43.5	52.05	10.61	1.04	31.73	-	-	Peak
215.49	35.92	-7.58	43.5	55.67	10.18	1.39	31.32	108	193	Peak
646.5	34.55	-11.45	46	41.92	20.17	2.83	30.37	-	-	Peak
798.4	32.88	-13.12	46	37.84	22.07	3.14	30.17	-	-	Peak
922.3	34.67	-11.33	46	38.68	23.43	3.39	30.83	-	-	Peak
1600	31.71	-22.29	54	32.15	28.46	5.48	34.38	100	50	Average
1600	49.4	-24.6	74	49.84	28.46	5.48	34.38	100	50	Peak
3194	37.67	-16.33	54	32.9	32.76	6.85	34.84	100	191	Average
3194	57.26	-16.74	74	52.49	32.76	6.85	34.84	100	191	Peak
5512	94.19	-	-	82.87	35.2	9.86	33.74	100	256	Average
5512	101.65	-	-	90.33	35.2	9.86	33.74	100	256	Peak
11019	47.48	-26.52	74	54.34	37.92	13.76	58.54	100	0	Peak



Test Mode :	802.11n HT40 – SISO Ant. 2	Temperature :	22~24°C
Test Channel :	102	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Vertical
Remark :	1. 5512 MHz is fundamental signal which can be ignored. 2. 3192 MHz is not within a restricted band and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
51.33	30.37	-9.63	40	53.39	7.9	0.71	31.63	116	308	Peak
105.6	29.63	-13.87	43.5	49.97	10.34	1.03	31.71	-	-	Peak
269.49	32.18	-13.82	46	48.97	12.87	1.64	31.3	-	-	Peak
486.9	36.26	-9.74	46	46.97	17.82	2.4	30.93	-	-	Peak
649.3	35.44	-10.56	46	42.76	20.19	2.84	30.35	-	-	Peak
912.5	35.29	-10.71	46	39.46	23.29	3.37	30.83	-	-	Peak
1592	31.05	-22.95	54	31.48	28.46	5.48	34.37	105	278	Average
1592	50.32	-23.68	74	50.75	28.46	5.48	34.37	105	278	Peak
3192	37.44	-16.56	54	32.67	32.76	6.85	34.84	106	305	Average
3192	56.08	-17.92	74	51.31	32.76	6.85	34.84	106	305	Peak
5512	88.54	-	-	77.22	35.2	9.86	33.74	100	329	Average
5512	98.34	-	-	87.02	35.2	9.86	33.74	100	329	Peak
11019	49.33	-24.67	74	56.19	37.92	13.76	58.54	100	0	Peak



Test Mode :	802.11n HT20 – MIMO Ant. 1+2	Temperature :	22~24°C
Test Channel :	36	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Horizontal
Remark :	1. 5178 MHz is fundamental signal which can be ignored. 2. 3192 MHz and 10359 MHz are not within a restricted band and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
51.6	29.36	-10.64	40	52.4	7.9	0.71	31.65	109	217	Peak
182.82	30.76	-12.74	43.5	51.79	8.93	1.26	31.22	-	-	Peak
221.97	33.47	-12.53	46	52.61	10.65	1.43	31.22	-	-	Peak
703.2	33.75	-12.25	46	40.65	20.64	2.95	30.49	-	-	Peak
755.7	34.15	-11.85	46	40.14	21.43	3.07	30.49	-	-	Peak
811.7	34.58	-11.42	46	39.44	22.22	3.17	30.25	-	-	Peak
1594	35.29	-18.71	54	35.72	28.46	5.48	34.37	183	333	Average
1594	56.84	-17.16	74	57.27	28.46	5.48	34.37	183	333	Peak
2398	38.36	-15.64	54	33.45	32.3	6.91	34.3	121	39	Average
2398	55.69	-18.31	74	50.78	32.3	6.91	34.3	121	39	Peak
3192	39.54	-14.46	54	34.77	32.76	6.85	34.84	100	54	Average
3192	60.11	-13.89	74	55.34	32.76	6.85	34.84	100	54	Peak
5178	97.69	-	-	86.56	34.38	9.27	32.52	106	300	Average
5178	108.32	-	-	97.19	34.38	9.27	32.52	106	300	Peak
10359	44.06	-29.94	74	51.62	37.29	13.71	58.56	100	0	Peak



Test Mode :	802.11n HT20 – MIMO Ant. 1+2	Temperature :	22~24°C
Test Channel :	36	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Vertical
Remark :	1. 5178 MHz is fundamental signal which can be ignored. 2. 3186 MHz and 10359 MHz are not within a restricted band and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
51.6	30.57	-9.43	40	53.61	7.9	0.71	31.65	-	-	Peak
183.09	26.27	-17.23	43.5	47.3	8.93	1.26	31.22	-	-	Peak
270.57	32.61	-13.39	46	49.39	12.89	1.64	31.31	-	-	Peak
484.8	36.68	-9.32	46	47.44	17.78	2.4	30.94	-	-	Peak
649.3	36.96	-9.04	46	44.28	20.19	2.84	30.35	100	159	Peak
877.5	35.67	-10.33	46	40.18	22.88	3.31	30.7	-	-	Peak
1402	33.72	-20.28	54	34.99	27.91	5.08	34.26	108	296	Average
1402	51.51	-22.49	74	52.78	27.91	5.08	34.26	108	296	Peak
2390	36.36	-17.64	54	31.45	32.3	6.91	34.3	176	315	Average
2390	53.01	-20.99	74	48.1	32.3	6.91	34.3	176	315	Peak
3186	39.99	-14.01	54	35.22	32.76	6.85	34.84	100	340	Average
3186	59.8	-14.2	74	55.03	32.76	6.85	34.84	100	340	Peak
5178	99.32	-	-	88.19	34.38	9.27	32.52	100	252	Average
5178	110	-	-	98.87	34.38	9.27	32.52	100	252	Peak
10359	43.74	-30.26	74	51.3	37.29	13.71	58.56	100	0	Peak



Test Mode :	802.11n HT20 – MIMO Ant. 1+2	Temperature :	22~24°C
Test Channel :	44	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Horizontal
Remark :	1. 5218 MHz is fundamental signal which can be ignored. 2. 2400 MHz and 3190MHz and 10440 MHz are not within a restricted band and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
1594	39.19	-14.81	54	34.28	32.3	6.91	34.3	179	328	Average
1594	50.28	-23.72	74	50.71	28.46	5.48	34.37	179	328	Peak
2400	39.06	-14.94	54	34.15	32.3	6.91	34.3	118	30	Average
2400	53.89	-20.11	74	48.98	32.3	6.91	34.3	118	30	Peak
3190	38.8	-15.2	54	34.03	32.76	6.85	34.84	100	46	Average
3190	63.09	-10.91	74	58.32	32.76	6.85	34.84	100	46	Peak
5218	97.35	-	-	86.09	34.46	9.35	32.55	105	301	Average
5218	107.08	-	-	95.82	34.46	9.35	32.55	105	301	Peak
10440	44.61	-29.39	74	52.17	37.35	13.71	58.62	100	0	Peak



Test Mode :	802.11n HT20 – MIMO Ant. 1+2	Temperature :	22~24°C
Test Channel :	44	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Vertical
Remark :	1. 5222 MHz is fundamental signal which can be ignored. 2. 3188 MHz and 10440 MHz are not within a restricted band and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
1594	36.38	-17.62	54	36.81	28.46	5.48	34.37	100	349	Average
1594	57.96	-16.04	74	58.39	28.46	5.48	34.37	100	349	Peak
3188	38.66	-15.34	54	33.89	32.76	6.85	34.84	100	325	Average
3188	54.48	-19.52	74	49.71	32.76	6.85	34.84	100	325	Peak
5222	98.54	-	-	87.38	34.46	9.35	32.65	107	241	Average
5222	109.21	-	-	98.05	34.46	9.35	32.65	107	241	Peak
10440	44.58	-29.42	74	52.14	37.35	13.71	58.62	100	0	Peak



Test Mode :	802.11n HT20 – MIMO Ant. 1+2	Temperature :	22~24°C
Test Channel :	48	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Horizontal
Remark :	1. 5238 MHz is fundamental signal which can be ignored. 2. 2394 MHz and 3194 MHz and 10479 MHz are not within a restricted band and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
1600	33.61	-20.39	54	34.05	28.46	5.48	34.38	176	329	Average
1600	53.97	-20.03	74	54.41	28.46	5.48	34.38	176	329	Peak
2394	37.09	-16.91	54	32.18	32.3	6.91	34.3	115	29	Average
2394	52.5	-21.5	74	47.59	32.3	6.91	34.3	115	29	Peak
3194	39.34	-14.66	54	34.57	32.76	6.85	34.84	107	58	Average
3194	59.72	-14.28	74	54.95	32.76	6.85	34.84	107	58	Peak
5238	96.43	-	-	85.18	34.51	9.39	32.65	103	301	Average
5238	107.13	-	-	95.88	34.51	9.39	32.65	103	301	Peak
10479	45.43	-28.57	74	52.98	37.39	13.72	58.66	100	0	Peak



Test Mode :	802.11n HT20 – MIMO Ant. 1+2	Temperature :	22~24°C
Test Channel :	48	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Vertical
Remark :	1. 5238 MHz is fundamental signal which can be ignored. 2. 3188 and 10479 MHz are not within a restricted band and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
1598	34.67	-19.33	54	35.1	28.46	5.48	34.37	100	330	Average
1598	49.91	-24.09	74	50.34	28.46	5.48	34.37	100	330	Peak
3188	40.76	-13.24	54	35.99	32.76	6.85	34.84	100	320	Average
3188	60.33	-13.67	74	55.56	32.76	6.85	34.84	100	320	Peak
5238	98.57	-	-	87.32	34.51	9.39	32.65	125	237	Average
5238	108.77	-	-	97.52	34.51	9.39	32.65	125	237	Peak
10479	44.06	-29.94	74	51.61	37.39	13.72	58.66	100	0	Peak



Test Mode :	802.11n HT20 – MIMO Ant. 1+2	Temperature :	22~24°C
Test Channel :	52	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Horizontal
Remark :	1. 5262 MHz is fundamental signal which can be ignored. 2. 2392 MHz and 3190 MHz and 10521 MHz are not within a restricted band and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
1598	34.79	-19.21	54	35.22	28.46	5.48	34.37	172	318	Average
1598	55.52	-18.48	74	55.95	28.46	5.48	34.37	172	318	Peak
2392	37.87	-16.13	54	32.96	32.3	6.91	34.3	110	42	Average
2392	51.94	-22.06	74	47.03	32.3	6.91	34.3	100	42	Peak
3190	38.87	-15.13	54	34.1	32.76	6.85	34.84	100	68	Average
3190	62.99	-11.01	74	58.22	32.76	6.85	34.84	100	68	Peak
5262	97.04	-	-	85.77	34.59	9.44	32.76	102	302	Average
5262	106.87	-	-	95.6	34.59	9.44	32.76	102	302	Peak
10521	44.2	-29.8	74	51.73	37.42	13.72	58.67	100	0	Peak



Test Mode :	802.11n HT20 – MIMO Ant. 1+2	Temperature :	22~24°C
Test Channel :	52	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Vertical
Remark :	1. 5262 MHz is fundamental signal which can be ignored. 2. 2400 MHz and 3192 MHz and 10521 MHz are not within a restricted band and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
1594	35.25	-18.75	54	35.68	28.46	5.48	34.37	100	356	Average
1594	51.81	-22.19	74	52.24	28.46	5.48	34.37	100	356	Peak
2400	37.2	-16.8	54	32.29	32.3	6.91	34.3	180	301	Average
2400	53.85	-20.15	74	48.94	32.3	6.91	34.3	180	301	Peak
3192	41.26	-12.74	54	36.49	32.76	6.85	34.84	100	327	Average
3192	60.65	-13.35	74	55.88	32.76	6.85	34.84	100	327	Peak
5262	98.74	-	-	87.47	34.59	9.44	32.76	115	239	Average
5262	109.26	-	-	97.99	34.59	9.44	32.76	115	239	Peak
10521	43.56	-30.44	74	51.09	37.42	13.72	58.67	100	0	Peak



Test Mode :	802.11n HT20 – MIMO Ant. 1+2	Temperature :	22~24°C
Test Channel :	60	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Horizontal
Remark :	1. 5298 MHz is fundamental signal which can be ignored. 2. 2396 MHz and 3188 MHz and 10599 MHz are not within a restricted band and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
1594	33.74	-20.26	54	34.17	28.46	5.48	34.37	171	291	Average
1594	50.66	-23.34	74	51.09	28.46	5.48	34.37	171	291	Peak
2396	39.89	-14.11	54	34.98	32.3	6.91	34.3	114	65	Average
2396	51.19	-22.81	74	46.28	32.3	6.91	34.3	114	65	Peak
3188	40.55	-13.45	54	35.78	32.76	6.85	34.84	100	37	Average
3188	62.15	-11.85	74	57.38	32.76	6.85	34.84	100	37	Peak
5298	97.2	-	-	86.01	34.68	9.48	32.97	102	301	Average
5298	107.68	-	-	96.49	34.68	9.48	32.97	102	301	Peak
10599	43.2	-30.8	74	50.61	37.5	13.73	58.64	100	0	Peak



Test Mode :	802.11n HT20 – MIMO Ant. 1+2	Temperature :	22~24°C
Test Channel :	60	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Vertical
Remark :	1. 5302 MHz is fundamental signal which can be ignored. 2. 2392 MHz and 3194 MHz and 10599 MHz are not within a restricted band and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
1596	33.28	-20.72	54	33.71	28.46	5.48	34.37	105	328	Average
1596	49.05	-24.95	74	49.48	28.46	5.48	34.37	105	328	Peak
2392	38.65	-15.35	54	33.74	32.3	6.91	34.3	169	268	Average
2392	57.11	-16.89	74	52.2	32.3	6.91	34.3	169	268	Peak
3194	41.07	-12.93	54	36.3	32.76	6.85	34.84	110	357	Average
3194	59.82	-14.18	74	55.05	32.76	6.85	34.84	110	357	Peak
5302	99.29	-	-	88.1	34.68	9.48	32.97	106	249	Average
5302	109.96	-	-	98.77	34.68	9.48	32.97	106	249	Peak
10599	43.32	-30.68	74	50.73	37.5	13.73	58.64	100	0	Peak



Test Mode :	802.11n HT20 – MIMO Ant. 1+2	Temperature :	22~24°C
Test Channel :	64	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Horizontal
Remark :	<ol style="list-style-type: none"> 5318 MHz is fundamental signal which can be ignored. 2400MHz and 3198 MHz are not within a restricted band and satisfies both the average and peak limits of 15.209. Average measurement was not performed if peak level went lower than the average limit. 		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
1594	33.39	-20.61	54	33.82	28.46	5.48	34.37	190	317	Average
1594	56.52	-17.48	74	56.95	28.46	5.48	34.37	190	317	Peak
2400	39.27	-14.73	54	34.36	32.3	6.91	34.3	130	72	Average
2400	53.84	-20.16	74	48.93	32.3	6.91	34.3	130	72	Peak
3198	39.09	-14.91	54	34.28	32.76	6.89	34.84	100	36	Average
3198	62.25	-11.75	74	57.44	32.76	6.89	34.84	100	36	Peak
5318	96.86	-	-	85.59	34.72	9.52	32.97	102	301	Average
5318	107.51	-	-	96.24	34.72	9.52	32.97	102	301	Peak
10644	46.68	-27.32	74	54.04	37.54	13.73	58.63	100	0	Peak



Test Mode :	802.11n HT20 – MIMO Ant. 1+2	Temperature :	22~24°C
Test Channel :	64	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Vertical
Remark :	1. 5318 MHz is fundamental signal which can be ignored. 2. 3188 MHz is not within a restricted band and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
1594	35.2	-18.8	54	35.63	28.46	5.48	34.37	109	337	Average
1594	51.47	-22.53	74	51.9	28.46	5.48	34.37	109	337	Peak
2388	37.79	-16.21	54	32.85	32.3	6.91	34.27	161	328	Average
2388	52.19	-21.81	74	47.25	32.3	6.91	34.27	161	328	Peak
3188	38.86	-15.14	54	34.09	32.76	6.85	34.84	105	348	Average
3188	59.33	-14.67	74	54.56	32.76	6.85	34.84	105	348	Peak
5318	99.23	-	-	87.96	34.72	9.52	32.97	124	238	Average
5318	109.64	-	-	98.37	34.72	9.52	32.97	124	238	Peak
10641	44.4	-29.6	74	51.76	37.54	13.73	58.63	100	0	Peak



Test Mode :	802.11n HT20 – MIMO Ant. 1+2	Temperature :	22~24°C
Test Channel :	100	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Horizontal
Remark :	1. 5498 MHz is fundamental signal which can be ignored. 2. 3198 MHz and 16500 MHz are not within a restricted band and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2390	37.5	-16.5	54	32.59	32.3	6.91	34.3	118	58	Average
2390	53.67	-20.33	74	48.76	32.3	6.91	34.3	118	58	Peak
3198	40.09	-13.91	54	35.28	32.76	6.89	34.84	126	89	Average
3198	64.54	-9.46	74	59.73	32.76	6.89	34.84	126	89	Peak
5498	96.42	-	-	85.06	35.2	9.82	33.66	145	300	Average
5498	106.56	-	-	95.2	35.2	9.82	33.66	145	300	Peak
11001	49.34	-24.66	74	56.22	37.9	13.76	58.54	100	0	Peak
16500	43.33	-10.67	54	42.49	41.5	16.13	56.79	145	83	Average
16500	53.24	-20.76	74	52.4	41.5	16.13	56.79	145	83	Peak



Test Mode :	802.11n HT20 – MIMO Ant. 1+2	Temperature :	22~24°C
Test Channel :	100	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Vertical
Remark :	<ol style="list-style-type: none"> 5498 MHz is fundamental signal which can be ignored. 3188 MHz and 16500 MHz are not within a restricted band and satisfies both the average and peak limits of 15.209. Average measurement was not performed if peak level went lower than the average limit. 		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
3188	38.95	-15.05	54	34.18	32.76	6.85	34.84	116	307	Average
3188	59.33	-14.67	74	54.56	32.76	6.85	34.84	116	307	Peak
5498	98.28	-	-	86.92	35.2	9.82	33.66	108	262	Average
5498	109.32	-	-	97.96	35.2	9.82	33.66	108	262	Peak
11001	44.42	-29.58	74	51.3	37.9	13.76	58.54	100	0	Peak
16500	48.54	-25.46	74	47.7	41.5	16.13	56.79	100	0	Peak



Test Mode :	802.11n HT20 – MIMO Ant. 1+2	Temperature :	22~24°C
Test Channel :	116	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Horizontal
Remark :	1. 5578 MHz is fundamental signal which can be ignored. 2. 2398 MHz and 3196 MHz are not within a restricted band and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
1596	34.75	-19.25	54	35.18	28.46	5.48	34.37	172	341	Average
1596	55.11	-18.89	74	55.54	28.46	5.48	34.37	172	341	Peak
2398	37.2	-16.8	54	32.29	32.3	6.91	34.3	135	81	Average
2398	52.52	-21.48	74	47.61	32.3	6.91	34.3	135	81	Peak
3196	38.43	-15.57	54	33.62	32.76	6.89	34.84	112	36	Average
3196	55.99	-18.01	74	51.18	32.76	6.89	34.84	112	36	Peak
5578	96.29	-	-	85.14	35.24	9.92	34.01	102	360	Average
5578	106.24	-	-	95.09	35.24	9.92	34.01	102	360	Peak
11163	50.33	-23.67	74	56.87	38.07	13.93	58.54	100	0	Peak



Test Mode :	802.11n HT20 – MIMO Ant. 1+2	Temperature :	22~24°C
Test Channel :	116	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Vertical
Remark :	1. 5578 MHz is fundamental signal which can be ignored. 2. 2392 MHz and 3192 MHz are not within a restricted band and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2392	37.65	-16.35	54	32.74	32.3	6.91	34.3	159	260	Average
2392	53.04	-20.96	74	48.13	32.3	6.91	34.3	159	260	Peak
3192	39	-15	54	34.23	32.76	6.85	34.84	104	339	Average
3192	57.21	-16.79	74	52.44	32.76	6.85	34.84	104	339	Peak
5578	97.46	-	-	86.31	35.24	9.92	34.01	100	250	Average
5578	108.24	-	-	97.09	35.24	9.92	34.01	100	250	Peak
11160	44.39	-29.61	74	50.93	38.07	13.93	58.54	100	0	Peak



Test Mode :	802.11n HT20 – MIMO Ant. 1+2	Temperature :	22~24°C
Test Channel :	140	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Horizontal
Remark :	1. 5698 MHz is fundamental signal which can be ignored. 2. 3190 MHz is not within a restricted band and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
1598	35.71	-18.29	54	36.14	28.46	5.48	34.37	157	251	Average
1598	53.56	-20.44	74	53.99	28.46	5.48	34.37	157	251	Peak
2390	39.65	-14.35	54	34.74	32.3	6.91	34.3	135	86	Average
2390	53.61	-20.39	74	48.7	32.3	6.91	34.3	135	86	Peak
3190	40.49	-13.51	54	35.72	32.76	6.85	34.84	113	74	Average
3190	61.25	-12.75	74	56.48	32.76	6.85	34.84	113	74	Peak
5698	96.9	-	-	85.69	35.31	10.02	34.12	100	358	Average
5698	107.72	-	-	96.51	35.31	10.02	34.12	100	358	Peak
11403	42.94	-11.06	54	48.97	38.3	14.21	58.54	115	66	Average
11403	53.74	-20.26	74	59.77	38.3	14.21	58.54	115	66	Peak



Test Mode :	802.11n HT20 – MIMO Ant. 1+2	Temperature :	22~24°C
Test Channel :	140	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Vertical
Remark :	1. 5702 MHz is fundamental signal which can be ignored. 2. 2394 MHz and 3196 MHz are not within a restricted band and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
1596	34.78	-19.22	54	35.21	28.46	5.48	34.37	107	324	Average
1596	54.45	-19.55	74	54.88	28.46	5.48	34.37	107	324	Peak
2394	37.54	-16.46	54	32.63	32.3	6.91	34.3	164	308	Average
2394	56.46	-17.54	74	51.55	32.3	6.91	34.3	164	308	Peak
3196	38.3	-15.7	54	33.49	32.76	6.89	34.84	103	351	Average
3196	59.72	-14.28	74	54.91	32.76	6.89	34.84	103	351	Peak
5702	98.54	-	-	87.32	35.32	10.02	34.12	113	253	Average
5702	109.06	-	-	97.84	35.32	10.02	34.12	113	253	Peak
11400	46.07	-27.93	74	52.1	38.3	14.21	58.54	100	0	Peak



Test Mode :	802.11n HT40 – MIMO Ant. 1+2	Temperature :	22~24°C
Test Channel :	38	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Horizontal
Remark :	1. 5192 MHz is fundamental signal which can be ignored. 2. 2396 MHz and 3188 MHz and 10380 MHz are not within a restricted band and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
51.6	32.22	-7.78	40	55.26	7.9	0.71	31.65	110	221	Peak
216.3	33.86	-12.14	46	53.52	10.24	1.4	31.3	-	-	Peak
269.49	33.96	-12.04	46	50.75	12.87	1.64	31.3	-	-	Peak
646.5	33.64	-12.36	46	41.01	20.17	2.83	30.37	-	-	Peak
703.2	34.19	-11.81	46	41.09	20.64	2.95	30.49	-	-	Peak
755.7	34.17	-11.83	46	40.16	21.43	3.07	30.49	-	-	Peak
1596	34.71	-19.29	54	35.14	28.46	5.48	34.37	191	317	Average
1596	49.11	-24.89	74	49.54	28.46	5.48	34.37	191	317	Peak
2396	39.87	-14.13	54	34.96	32.3	6.91	34.3	110	49	Average
2396	54.33	-19.67	74	49.42	32.3	6.91	34.3	110	49	Peak
3188	40.95	-13.05	54	36.18	32.76	6.85	34.84	118	62	Average
3188	63.47	-10.53	74	58.7	32.76	6.85	34.84	118	62	Peak
5192	91.09	-	-	79.88	34.42	9.31	32.52	100	173	Average
5192	101.55	-	-	90.34	34.42	9.31	32.52	100	173	Peak
10380	44.39	-29.61	74	51.94	37.31	13.71	58.57	100	0	Peak



Test Mode :	802.11n HT40 – MIMO Ant. 1+2	Temperature :	22~24°C
Test Channel :	38	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Vertical
Remark :	1. 5192 MHz is fundamental signal which can be ignored. 2. 2394 MHz and 3196 MHz and 10380 MHz are not within a restricted band and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
51.33	30.6	-9.4	40	53.62	7.9	0.71	31.63	-	-	Peak
183.36	25.98	-17.52	43.5	47.01	8.93	1.26	31.22	-	-	Peak
270.3	31.5	-14.5	46	48.27	12.89	1.64	31.3	-	-	Peak
484.8	38.27	-7.73	46	49.03	17.78	2.4	30.94	117	305	Peak
646.5	35.21	-10.79	46	42.58	20.17	2.83	30.37	-	-	Peak
919.5	37.46	-8.54	46	41.51	23.39	3.39	30.83	-	-	Peak
1596	33.74	-20.26	54	34.17	28.46	5.48	34.37	108	327	Average
1596	56	-18	74	56.43	28.46	5.48	34.37	108	327	Peak
2394	38.58	-15.42	54	33.67	32.3	6.91	34.3	169	272	Average
2394	54.24	-19.76	74	49.33	32.3	6.91	34.3	169	272	Peak
3196	38.99	-15.01	54	34.18	32.76	6.89	34.84	106	312	Average
3196	59.07	-14.93	74	54.26	32.76	6.89	34.84	106	312	Peak
5188	94.35	-	-	83.22	34.38	9.27	32.52	100	247	Average
5188	104.88	-	-	93.75	34.38	9.27	32.52	100	247	Peak
10380	44.27	-29.73	74	51.82	37.31	13.71	58.57	100	0	Peak



Test Mode :	802.11n HT40 – MIMO Ant. 1+2	Temperature :	22~24°C
Test Channel :	46	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Horizontal
Remark :	1. 5228 MHz is fundamental signal which can be ignored. 2. 3194 MHz and 10461 MHz are not within a restricted band and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
3194	37.67	-16.33	54	32.9	32.76	6.85	34.84	115	94	Average
3194	61.67	-12.33	74	56.9	32.76	6.85	34.84	115	94	Peak
5228	92.46	-	-	81.25	34.51	9.35	32.65	100	173	Average
5228	103.11	-	-	91.9	34.51	9.35	32.65	100	173	Peak
10461	45.47	-28.53	74	53.02	37.37	13.72	58.64	100	0	Peak



Test Mode :	802.11n HT40 – MIMO Ant. 1+2	Temperature :	22~24°C
Test Channel :	46	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Vertical
Remark :	1. 5228 MHz is fundamental signal which can be ignored. 2. 2400MHz and 3198 MHz and 10461 MHz are not within a restricted band and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
1594	35.12	-18.88	54	35.55	28.46	5.48	34.37	108	319	Average
1594	59.38	-14.62	74	59.81	28.46	5.48	34.37	108	319	Peak
2400	36.47	-17.53	54	31.56	32.3	6.91	34.3	154	249	Average
2400	54.71	-19.29	74	49.8	32.3	6.91	34.3	154	249	Peak
3198	38.84	-15.16	54	34.03	32.76	6.89	34.84	100	329	Average
3198	62.26	-11.74	74	57.45	32.76	6.89	34.84	100	329	Peak
5228	95.49	-	-	84.28	34.51	9.35	32.65	100	246	Average
5228	105.79	-	-	94.58	34.51	9.35	32.65	100	246	Peak
10461	44.97	-29.03	74	52.52	37.37	13.72	58.64	100	0	Peak



Test Mode :	802.11n HT40 – MIMO Ant. 1+2	Temperature :	22~24°C
Test Channel :	54	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Horizontal
Remark :	1. 5268 MHz is fundamental signal which can be ignored. 2. 3186 MHz 10539 MHz are not within a restricted band and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
1596	35.68	-18.32	54	36.11	28.46	5.48	34.37	173	342	Average
1596	53.25	-20.75	74	53.68	28.46	5.48	34.37	173	342	Peak
3186	39.71	-14.29	54	34.94	32.76	6.85	34.84	102	66	Average
3186	64.56	-9.44	74	59.79	32.76	6.85	34.84	102	66	Peak
5268	94.52	-	-	83.25	34.59	9.44	32.76	102	301	Average
5268	105.02	-	-	93.75	34.59	9.44	32.76	102	301	Peak
10539	43.62	-30.38	74	51.13	37.43	13.72	58.66	100	0	Peak



Test Mode :	802.11n HT40 – MIMO Ant. 1+2	Temperature :	22~24°C
Test Channel :	54	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Vertical
Remark :	1. 5268 MHz is fundamental signal which can be ignored. 2. 2392 MHz and 3192 MHz and 10539 MHz are not within a restricted band and satisfies both the average and peak limits of 15.209.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
1594	33.82	-20.18	54	34.25	28.46	5.48	34.37	113	322	Average
1594	58.97	-15.03	74	59.4	28.46	5.48	34.37	113	322	Peak
2392	37.59	-16.41	54	32.68	32.3	6.91	34.3	160	285	Average
2392	51.12	-22.88	74	46.21	32.3	6.91	34.3	160	285	Peak
3192	38.12	-15.88	54	33.35	32.76	6.85	34.84	109	338	Average
3192	61.64	-12.36	74	56.87	32.76	6.85	34.84	109	338	Peak
5268	96.53	-	-	85.26	34.59	9.44	32.76	114	239	Average
5268	106.53	-	-	95.26	34.59	9.44	32.76	114	239	Peak
10539	43.89	-30.11	74	51.4	37.43	13.72	58.66	100	0	Peak



Test Mode :	802.11n HT40 – MIMO Ant. 1+2	Temperature :	22~24°C
Test Channel :	62	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Horizontal
Remark :	1. 5308 MHz is fundamental signal which can be ignored. 2. 2402MHz and 3188 MHz are not within a restricted band and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
1594	34.53	-19.47	54	34.96	28.46	5.48	34.37	165	342	Average
1594	52.53	-21.47	74	52.96	28.46	5.48	34.37	165	342	Peak
2402	37.68	-16.32	54	32.77	32.3	6.91	34.3	111	58	Average
2402	55.09	-18.91	74	50.18	32.3	6.91	34.3	111	58	Peak
3188	40.04	-13.96	54	35.27	32.76	6.85	34.84	106	73	Average
3188	60.1	-13.9	74	55.33	32.76	6.85	34.84	106	73	Peak
5308	92.52	-	-	81.29	34.68	9.52	32.97	124	303	Average
5308	103.37	-	-	92.14	34.68	9.52	32.97	124	303	Peak
10620	44.3	-29.7	74	51.69	37.52	13.73	58.64	100	0	Peak



Test Mode :	802.11n HT40 – MIMO Ant. 1+2	Temperature :	22~24°C
Test Channel :	62	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Vertical
Remark :	1. 5308 MHz is fundamental signal which can be ignored. 2. 2400MHz and 3186 MHz are not within a restricted band and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
1600	35.77	-18.23	54	36.21	28.46	5.48	34.38	117	308	Average
1600	58.99	-15.01	74	59.43	28.46	5.48	34.38	117	308	Peak
2400	37.17	-16.83	54	32.26	32.3	6.91	34.3	152	340	Average
2400	52.48	-21.52	74	47.57	32.3	6.91	34.3	152	340	Peak
3186	38.52	-15.48	54	33.75	32.76	6.85	34.84	108	301	Average
3186	60.01	-13.99	74	55.24	32.76	6.85	34.84	108	301	Peak
5308	94.43	-	-	83.2	34.68	9.52	32.97	109	256	Average
5308	104.78	-	-	93.55	34.68	9.52	32.97	109	256	Peak
10620	44.06	-29.94	74	51.45	37.52	13.73	58.64	100	0	Peak



Test Mode :	802.11n HT40 – MIMO Ant. 1+2	Temperature :	22~24°C
Test Channel :	102	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Horizontal
Remark :	<ol style="list-style-type: none"> 1. 5512 MHz is fundamental signal which can be ignored. 2. 3196 MHz is not within a restricted band and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit. 		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
1594	33.44	-20.56	54	33.87	28.46	5.48	34.37	176	315	Average
1594	53.13	-20.87	74	53.56	28.46	5.48	34.37	176	315	Peak
3196	38.66	-15.34	54	33.85	32.76	6.89	34.84	114	98	Average
3196	61.04	-12.96	74	56.23	32.76	6.89	34.84	114	98	Peak
5512	87.83	-	-	76.51	35.2	9.86	33.74	151	302	Average
5512	99.51	-	-	88.19	35.2	9.86	33.74	151	302	Peak
11019	43.73	-30.27	74	50.59	37.92	13.76	58.54	100	0	Peak



Test Mode :	802.11n HT40 – MIMO Ant. 1+2	Temperature :	22~24°C
Test Channel :	102	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Vertical
Remark :	<ol style="list-style-type: none"> 5512 MHz is fundamental signal which can be ignored. 2402MHz and 3192 MHz are not within a restricted band and satisfies both the average and peak limits of 15.209. Average measurement was not performed if peak level went lower than the average limit. 		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
1598	36.55	-17.45	54	36.98	28.46	5.48	34.37	110	275	Average
1598	59.29	-14.71	74	59.72	28.46	5.48	34.37	110	275	Peak
2402	37.79	-16.21	54	32.88	32.3	6.91	34.3	165	337	Average
2402	52.76	-21.24	74	47.85	32.3	6.91	34.3	165	337	Peak
3192	41.56	-12.44	54	36.79	32.76	6.85	34.84	115	326	Average
3192	60.42	-13.58	74	55.65	32.76	6.85	34.84	115	326	Peak
5512	89.4	-	-	78.08	35.2	9.86	33.74	130	248	Average
5512	100.71	-	-	89.39	35.2	9.86	33.74	130	248	Peak
11019	43.13	-30.87	74	49.99	37.92	13.76	58.54	100	0	Peak



Test Mode :	802.11n HT40 – MIMO Ant. 1+2	Temperature :	22~24°C
Test Channel :	110	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Horizontal
Remark :	1. 5552 MHz is fundamental signal which can be ignored. 2. 2398 MHz and 3196 MHz are not within a restricted band and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
1598	33.78	-20.22	54	34.21	28.46	5.48	34.37	174	310	Average
1598	55.31	-18.69	74	55.74	28.46	5.48	34.37	174	310	Peak
2398	37.62	-16.38	54	32.71	32.3	6.91	34.3	113	72	Average
2398	57.85	-16.15	74	52.94	32.3	6.91	34.3	113	72	Peak
3196	39.09	-14.91	54	34.28	32.76	6.89	34.84	103	102	Average
3196	60.94	-13.06	74	56.13	32.76	6.89	34.84	103	102	Peak
5552	92.86	-	-	81.65	35.23	9.9	33.92	113	352	Average
5552	103.03	-	-	91.82	35.23	9.9	33.92	113	352	Peak
11100	49.94	-24.06	74	56.61	38	13.87	58.54	100	0	Peak



Test Mode :	802.11n HT40 – MIMO Ant. 1+2	Temperature :	22~24°C
Test Channel :	110	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Vertical
Remark :	1. 5552 MHz is fundamental signal which can be ignored. 2. 3192 MHz is not within a restricted band and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
1600	34.51	-19.49	54	34.95	28.46	5.48	34.38	114	351	Average
1600	56.73	-17.27	74	57.17	28.46	5.48	34.38	114	351	Peak
3192	38.67	-15.33	54	33.9	32.76	6.85	34.84	106	319	Average
3192	58.85	-15.15	74	54.08	32.76	6.85	34.84	106	319	Peak
5552	96	-	-	84.79	35.23	9.9	33.92	128	264	Average
5552	106.28	-	-	95.07	35.23	9.9	33.92	128	264	Peak
11100	43.55	-30.45	74	50.22	38	13.87	58.54	100	0	Peak



Test Mode :	802.11n HT40 – MIMO Ant. 1+2	Temperature :	22~24°C
Test Channel :	134	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Horizontal
Remark :	1. 5672 MHz is fundamental signal which can be ignored. 2. 2396 MHz and 3190 MHz are not within a restricted band and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
1594	35.15	-18.85	54	35.58	28.46	5.48	34.37	171	301	Average
1594	56.11	-17.89	74	56.54	28.46	5.48	34.37	171	301	Peak
2396	38.38	-15.62	54	33.47	32.3	6.91	34.3	114	58	Average
2396	53.61	-20.39	74	48.7	32.3	6.91	34.3	114	58	Peak
3190	38.7	-15.3	54	33.93	32.76	6.85	34.84	108	64	Average
3190	58.38	-15.62	74	53.61	32.76	6.85	34.84	108	64	Peak
5672	95.25	-	-	84.04	35.3	10	34.09	110	354	Average
5672	105.92	-	-	94.71	35.3	10	34.09	110	354	Peak
11340	39.81	-14.19	54	45.96	38.23	14.16	58.54	100	60	Average
11340	54.14	-19.86	74	60.29	38.23	14.16	58.54	100	60	Peak



Test Mode :	802.11n HT40 – MIMO Ant. 1+2	Temperature :	22~24°C
Test Channel :	134	Relative Humidity :	53~55%
Test Engineer :	Eric Shih	Polarization :	Vertical
Remark :	1. 5672 MHz is fundamental signal which can be ignored. 2. 2392 MHz and 3188 MHz are not within a restricted band and satisfies both the average and peak limits of 15.209. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
1596	35.25	-18.75	54	35.68	28.46	5.48	34.37	112	306	Average
1596	59.72	-14.28	74	60.15	28.46	5.48	34.37	112	306	Peak
2392	37.67	-16.33	54	32.76	32.3	6.91	34.3	161	284	Average
2392	53.43	-20.57	74	48.52	32.3	6.91	34.3	161	284	Peak
3188	39.4	-14.6	54	34.63	32.76	6.85	34.84	101	43	Average
3188	60.21	-13.79	74	55.44	32.76	6.85	34.84	101	43	Peak
5672	95.86	-	-	84.65	35.3	10	34.09	113	263	Average
5672	107.06	-	-	95.85	35.3	10	34.09	113	263	Peak
11340	44.21	-29.79	74	50.36	38.23	14.16	58.54	100	0	Peak

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.

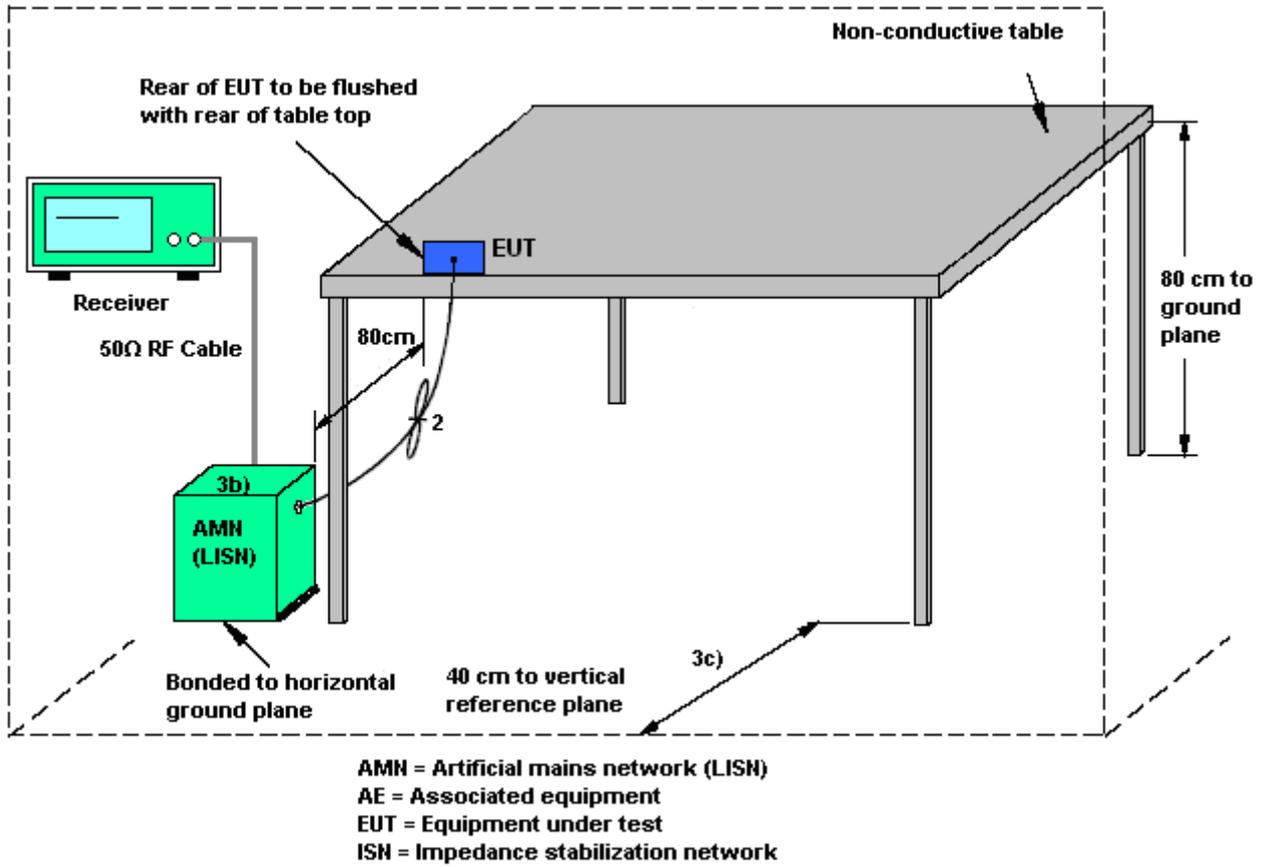
3.6.2 Measuring Instruments

See list of measuring instruments of this test report.

3.6.3 Test Procedures

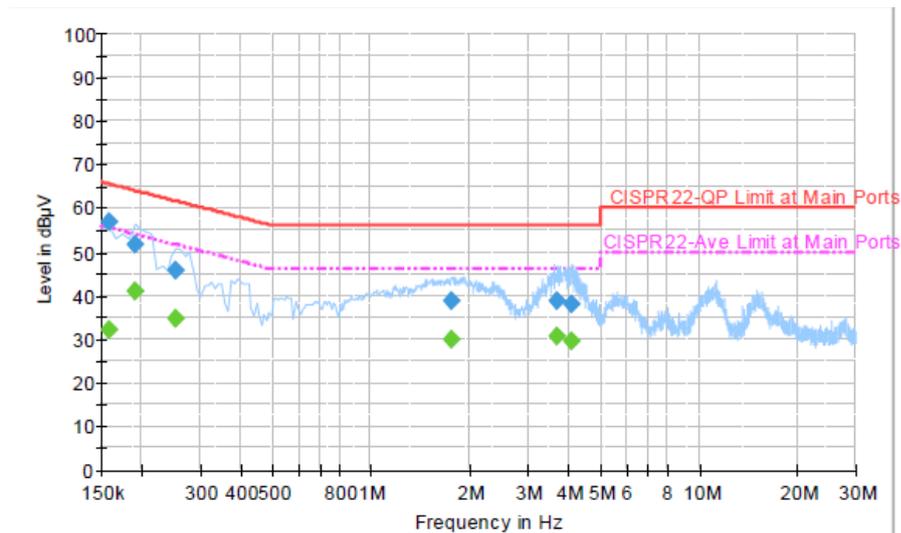
1. The testing follows the guidelines in ANSI C63.4-2003 test site requirement.
2. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
3. Connect EUT to the power mains through a line impedance stabilization network (LISN).
4. All the support units are connecting to the other LISN.
5. The LISN provides 50 ohm coupling impedance for the measuring instrument.
6. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
7. Both sides of AC line were checked for maximum conducted interference.
8. The frequency range from 150 kHz to 30 MHz was searched.
9. Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode.

3.6.4 Test Setup



3.6.5 Test Result of AC Conducted Emission

Test Mode :	Mode 1	Temperature :	20~22°C
Test Engineer :	Slash Huang	Relative Humidity :	45~47%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	WLAN (5G) Link + Bluetooth Link + Camera + H Pattern + MPEG4 + Adapter + RJ-45 Link + USB3.0 HD + SD Card + Earphone		
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		



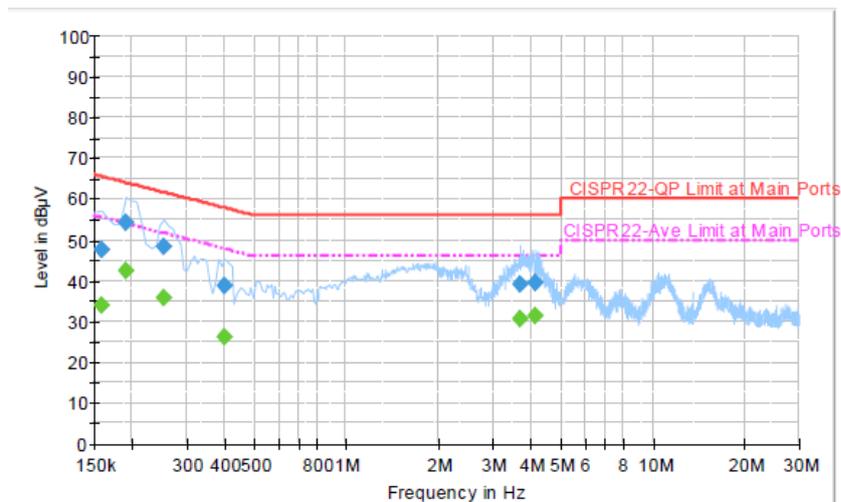
Final Result : QuasiPeak

Frequency (MHz)	QuasiPeak (dBμV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.158000	56.7	Off	L1	19.4	8.9	65.6
0.190000	51.7	Off	L1	19.4	12.3	64.0
0.254000	45.8	Off	L1	19.4	15.8	61.6
1.750000	38.9	Off	L1	19.5	17.1	56.0
3.678000	38.9	Off	L1	19.6	17.1	56.0
4.062000	37.9	Off	L1	19.6	18.1	56.0

Final Result : Average

Frequency (MHz)	Average (dBμV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.158000	32.0	Off	L1	19.4	23.6	55.6
0.190000	41.1	Off	L1	19.4	12.9	54.0
0.254000	34.8	Off	L1	19.4	16.8	51.6
1.750000	30.0	Off	L1	19.5	16.0	46.0
3.678000	30.6	Off	L1	19.6	15.4	46.0
4.062000	29.7	Off	L1	19.6	16.3	46.0

Test Mode :	Mode 1	Temperature :	20~22°C
Test Engineer :	Slash Huang	Relative Humidity :	45~47%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	WLAN (5G) Link + Bluetooth Link + Camera + H Pattern + MPEG4 + Adapter + RJ-45 Link + USB3.0 HD + SD Card + Earphone		
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		



Final Result : QuasiPeak

Frequency (MHz)	QuasiPeak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.158000	47.6	Off	N	19.4	18.0	65.6
0.190000	54.4	Off	N	19.4	9.6	64.0
0.254000	48.3	Off	N	19.4	13.3	61.6
0.398000	38.6	Off	N	19.5	19.3	57.9
3.678000	39.0	Off	N	19.6	17.0	56.0
4.118000	39.4	Off	N	19.6	16.6	56.0

Final Result : Average

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.158000	33.9	Off	N	19.4	21.7	55.6
0.190000	42.3	Off	N	19.4	11.7	54.0
0.254000	35.8	Off	N	19.4	15.8	51.6
0.398000	26.3	Off	N	19.5	21.6	47.9
3.678000	30.8	Off	N	19.6	15.2	46.0
4.118000	31.4	Off	N	19.6	14.6	46.0

3.7 Frequency Stability Measurement

3.7.1 Limit of Frequency Stability

Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

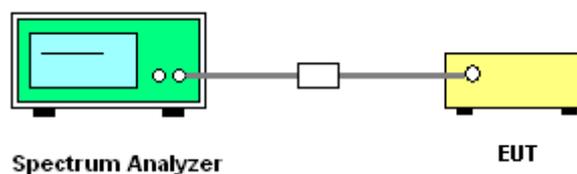
3.7.2 Measuring Instruments

See list of measuring instruments of this test report.

3.7.3 Test Procedures

1. To ensure emission at the band edge is maintained within the authorized band, those values shall be measured by radiation emissions at upper and lower frequency points, and finally compensated by frequency deviation as procedures below.
2. The EUT was operated at the maximum output power, and connected to the spectrum analyzer, which is set to maximum hold function and peak detector. The peak value of the power envelope was measured and noted. The upper and lower frequency points were respectively measured relatively 10dB lower than the measured peak value.
3. The frequency deviation was calculated by adding the upper frequency point and the lower frequency point divided by two. Those detailed values of frequency deviation are provided in table below.

3.7.4 Test Setup





3.7.5 Test Result of Frequency Stability

Test Mode :	802.11a – Ant. 1	Temperature :	24~26°C
Test Engineer :	Kenny Chen and Bill Kuo	Relative Humidity :	45~49%

Band	Channel	Frequency (MHz)	Low Frequency (Fl)	High Frequency (Fh)	Frequency Stability (ppm)
NII Band 1	36	5180	5171.70	5188.20	-9.65
	44	5220	5211.65	5228.25	-9.58
	48	5240	5231.65	5248.20	-14.31
NII Band 2	52	5260	5251.70	5268.25	-4.75
	60	5300	5291.70	5308.20	-9.43
	64	5320	5311.70	5328.20	-9.40
NII Band 3	100	5500	5491.70	5508.20	-9.09
	116	5580	5571.65	5588.25	-8.96
	140	5700	5691.70	5708.20	-8.77

Test Mode :	802.11n HT20 - SISO Ant. 1	Temperature :	24~26°C
Test Engineer :	Kenny Chen and Bill Kuo	Relative Humidity :	45~49%

Band	Channel	Frequency (MHz)	Low Frequency (Fl)	High Frequency (Fh)	Frequency Stability (ppm)
NII Band 1	36	5180	5171.05	5188.90	-4.83
	44	5220	5211.05	5228.85	-9.58
	48	5240	5231.05	5248.85	-9.54
NII Band 2	52	5260	5251.05	5268.90	-4.75
	60	5300	5291.10	5308.80	-9.43
	64	5320	5311.10	5328.80	-9.40
NII Band 3	100	5500	5491.15	5508.80	-4.55
	116	5580	5571.10	5588.90	0.00
	140	5700	5691.05	5708.85	-8.77



Test Mode :	802.11n HT20 - MIMO Ant. 1	Temperature :	24~26°C
Test Engineer :	Kenny Chen and Bill Kuo	Relative Humidity :	45~49%

Band	Channel	Frequency (MHz)	Low Frequency (Fl)	High Frequency (Fh)	Frequency Stability (ppm)
NII Band 1	36	5180	5171.10	5188.90	0.00
	44	5220	5211.15	5228.85	0.00
	48	5240	5231.10	5248.85	-4.77
NII Band 2	52	5260	5251.10	5268.85	-4.75
	60	5300	5291.15	5308.85	0.00
	64	5320	5311.05	5328.85	-9.40
NII Band 3	100	5500	5491.10	5508.90	0.00
	116	5580	5571.15	5588.90	4.48
	140	5700	5691.15	5708.85	0.00

Test Mode :	802.11n HT20 - MIMO Ant. 2	Temperature :	24~26°C
Test Engineer :	Kenny Chen and Bill Kuo	Relative Humidity :	45~49%

Band	Channel	Frequency (MHz)	Low Frequency (Fl)	High Frequency (Fh)	Frequency Stability (ppm)
NII Band 1	36	5180	5171.10	5188.90	0.00
	44	5220	5211.10	5228.90	0.00
	48	5240	5231.10	5248.90	0.00
NII Band 2	52	5260	5251.10	5268.90	0.00
	60	5300	5291.10	5308.90	0.00
	64	5320	5311.10	5328.85	-4.70
NII Band 3	100	5500	5491.15	5508.85	0.00
	116	5580	5571.10	5588.90	0.00
	140	5700	5691.10	5708.90	0.00



Test Mode :	802.11n HT40 - SISO Ant. 1	Temperature :	24~26°C
Test Engineer :	Kenny Chen and Bill Kuo	Relative Humidity :	45~49%

Band	Channel	Frequency (MHz)	Low Frequency (Fl)	High Frequency (Fh)	Frequency Stability (ppm)
NII Band 1	38	5190	5171.82	5208.18	0.00
	46	5230	5211.82	5248.18	0.00
NII Band 2	54	5270	5251.64	5288.18	-17.08
	62	5310	5291.82	5328.18	0.00
NII Band 3	102	5510	5491.82	5528.18	0.00
	110	5550	5531.82	5568.18	0.00
	134	5670	5651.82	5688.00	-15.87

Test Mode :	802.11n HT40 - MIMO Ant. 1	Temperature :	24~26°C
Test Engineer :	Kenny Chen and Bill Kuo	Relative Humidity :	45~49%

Band	Channel	Frequency (MHz)	Low Frequency (Fl)	High Frequency (Fh)	Frequency Stability (ppm)
NII Band 1	38	5190	5171.82	5208.18	0.00
	46	5230	5211.82	5248.18	0.00
NII Band 2	54	5270	5251.73	5288.27	0.00
	62	5310	5291.82	5328.18	0.00
NII Band 3	102	5510	5491.82	5528.18	0.00
	110	5550	5531.82	5568.27	8.11
	134	5670	5651.82	5688.18	0.00

Test Mode :	802.11n HT40 - MIMO Ant. 2	Temperature :	24~26°C
Test Engineer :	Kenny Chen and Bill Kuo	Relative Humidity :	45~49%

Band	Channel	Frequency (MHz)	Low Frequency (Fl)	High Frequency (Fh)	Frequency Stability (ppm)
NII Band 1	38	5190	5171.82	5208.18	0.00
	46	5230	5211.82	5248.18	0.00
NII Band 2	54	5270	5251.91	5288.09	0.00
	62	5310	5291.82	5328.18	0.00
NII Band 3	102	5510	5491.82	5528.18	0.00
	110	5550	5531.82	5568.18	0.00
	134	5670	5651.82	5688.18	0.00



3.8 Automatically Discontinue Transmission

3.8.1 Limit of Automatically Discontinue Transmission

The device shall automatically discontinue transmission in case of either absence of information to transmit or operational failure. These provisions are not intended to preclude the transmission of control or signaling information or the use of repetitive codes used by certain digital technologies to complete frame or burst intervals. Applicants shall include in their application for equipment authorization to describe how this requirement is met.

3.8.2 Measuring Instruments

See list of measuring instruments of this test report.

3.8.3 Test Result of Automatically Discontinue Transmission

During no any information transmission, the EUT can automatically discontinue transmission and become standby mode for power saving. The EUT can detect the controlling signal of ACK message transmitting from remote device and verify whether it shall resend or discontinue transmission.

3.9 Antenna Requirements

3.9.1 Standard Applicable

According to FCC 47 CFR Section 15.407(a)(1)(2), if transmitting antenna directional gain is greater than 6 dBi, both the peak transmit power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

3.9.2 Antenna Connected Construction

Non-standard connector used.

3.9.3 Antenna Gain

The antenna peak gain of EUT is less than 6 dBi. Therefore, it is not necessary to reduce maximum peak output power limit. The EUT supports MIMO mode. The composite antenna gain is as following table.

When the antenna gain of EUT is over 6 dBi, the maximum peak output power and PSD limit should be reduced as following table.

	5180 MHz ~ 5240 MHz	5260 MHz ~ 5320 MHz	5500 MHz ~ 5580 MHz and 5660 MHz ~ 5700 MHz
Composite gain (dBi)	1.54	1.54	1.26
PSD Array gain (dBi)	0.00	0.00	0.00
Power limit reduction (dBi)	0.00	0.00	0.00
PSD limit reduction	0.00	0.00	0.00

Power limit reduction = Composite gain – 6dBi, (min = 0)

PSD limit reduction = Composite gain + PSD Array gain – 6dBi, (min = 0)

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For CDD transmissions, directional gain is calculated as

Directional gain = $G_{ANT} + \text{Array Gain}$, 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 $N_{ANT} \leq 4$;

4 List of Measuring Equipments

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSP40	100055	9kHz~40GHz	Jun. 06, 2012	Feb. 20, 2013 ~ Mar. 05, 2013	Jun. 05, 2013	Conducted (TH02-HY)
Power Meter	Anritsu	ML2495A	1036004	300MHz~40GHz	Sep. 08, 2012	Feb. 20, 2013~ Mar. 05, 2013	Sep. 07, 2013	Conducted (TH02-HY)
Power Sensor	Anritsu	MA2411B	1027253	300MHz~40GHz	Sep. 08, 2012	Feb. 20, 2013 ~ Mar. 05, 2013	Sep. 07, 2013	Conducted (TH02-HY)
EMI Test Receiver	Rohde & Schwarz	ESCS 30	100356	9KHz ~ 2.75GHz	Nov. 13, 2012	Feb. 28, 2013	Nov. 12, 2013	Conduction (CO05-HY)
Two-LISN	Rohde & Schwarz	ENV216	100081	9KHz ~ 30MHz	Dec. 12, 2012	Feb. 28, 2013	Dec. 11, 2013	Conduction (CO05-HY)
Two-LISN	Rohde & Schwarz	ENV216	100080	9KHz ~ 30MHz	Dec. 06, 2012	Feb. 28, 2013	Dec. 05, 2013	Conduction (CO05-HY)
AC Power Source	APC	APC-1000W	N/A	N/A	N/A	Feb. 28, 2013	N/A	Conduction (CO05-HY)
Bilog Antenna	Schaffner	CBL6111C	2726	30MHz ~ 1GHz	Oct. 06, 2012	Feb. 28, 2013	Oct. 05, 2013	Radiation (03CH07-HY)
Spectrum Analyzer	Rohde & Schwarz	FSP30	101067	9KHz ~ 30GHz	Nov. 30, 2012	Feb. 28, 2013	Nov. 29, 2013	Radiation (03CH07-HY)
Double Ridge Horn Antenna	ESCO	3117	00075962	1GHz ~ 18GHz	Aug. 22, 2012	Feb. 28, 2013 ~ Mer. 02, 2013	Aug. 21, 2013	Radiation (03CH07-HY)
Preamplifier	Agilent	8449B	3008A02362	1GHz~ 26.5GHz	Dec. 01, 2012	Feb. 28, 2013 ~ Mer. 02, 2013	Nov. 30, 2013	Radiation (03CH07-HY)
Pre Amplifier	MITEQ	AMF-7D-0010 1800-30-10P	159088	1GHz ~ 18GHz	Mar. 10, 2012	Feb. 28, 2013 ~ Mer. 02, 2013	Mar. 09, 2013	Radiation (03CH07-HY)
Preamplifier	COM-POWER	PA-103A	161241	10-1000MHz. 32dB.GAIN	Feb. 26, 2013	Feb. 28, 2013 ~ Mer. 02, 2013	Feb. 25, 2014	Radiation (03CH07-HY)
EMI Test Receiver	Rohde & Schwarz	ESCI 7	100724	9kHz~7GHz	Sep. 03, 2012	Feb. 28, 2013 ~ Mer. 02, 2013	Sep. 02, 2013	Radiation (03CH07-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA917025 1	15GHz ~ 40GHz	Sep. 28, 2012	Feb. 28, 2013 ~ Mer. 02, 2013	Sep. 27, 2013	Radiation (03CH07-HY)
Loop Antenna	R&S	HFH2-Z2	860004/001	9KHz ~ 30MHz	Jul. 03, 2012	Feb. 28, 2013 ~ Mer. 02, 2013	Jul. 02, 2013	Radiation (03CH07-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 (30MHz ~ 1000MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	2.54
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Uncertainty of Radiated Emission Measurement (1GHz ~ 40GHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	4.72
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Appendix A. Photographs of EUT

Please refer to Sporton report number EP322001 as below.