



## 3.5 Radiated Band Edges and Spurious Emission Measurement

### 3.5.1 Limit of Radiated band edge and Spurious Emission Measurement

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

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

### 3.5.2 Measuring Instruments

See list of measuring equipment of this test report.

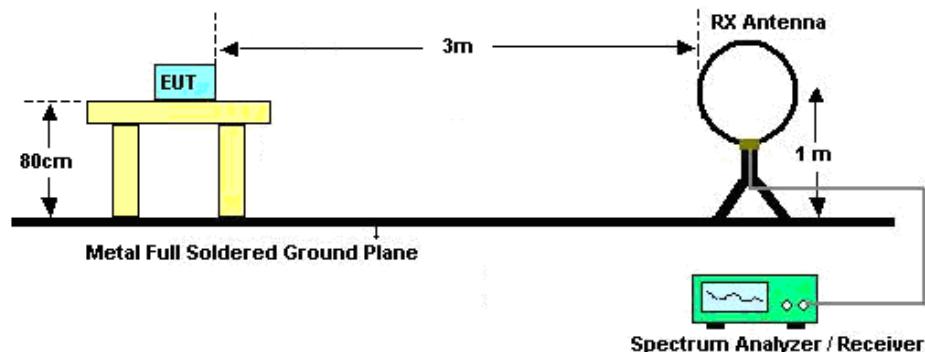


### 3.5.3 Test Procedures

1. The testing follows the ANSI C63.10 Section 11.12.1 Radiated emission measurements
  2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level.
  3. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
  4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
  5. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level
  6. For 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.
  8. Use the following spectrum analyzer settings:
    - (1) Span shall wide enough to fully capture the emission being measured;
    - (2) Set RBW=100 kHz for  $f < 1$  GHz; VBW  $\geq$  RBW; Sweep = auto; Detector function = peak;  
Trace = max hold;
    - (3) Set RBW = 1 MHz, VBW= 3MHz for  $f \geq 1$  GHz for peak measurement.
- For average measurement:
- VBW = 10 Hz, when duty cycle is no less than 98 percent.
  - VBW  $\geq 1/T$ , when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.

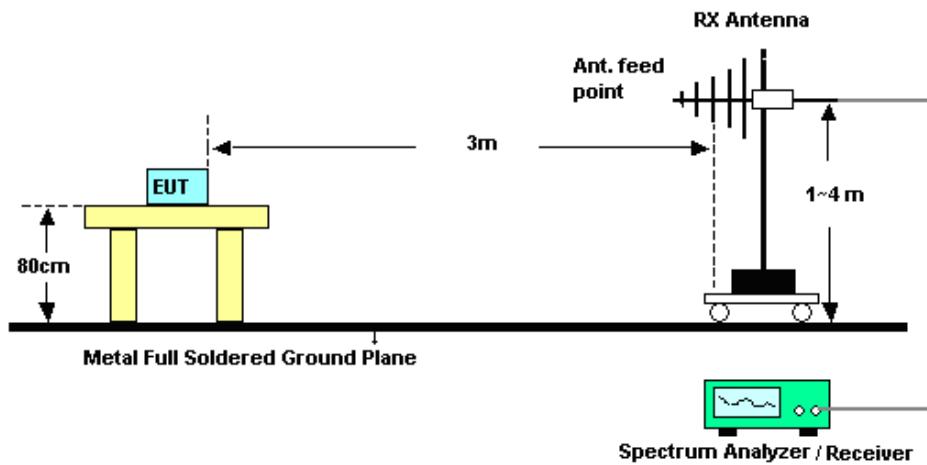
### 3.5.4 Test Setup

For radiated emissions below 30MHz

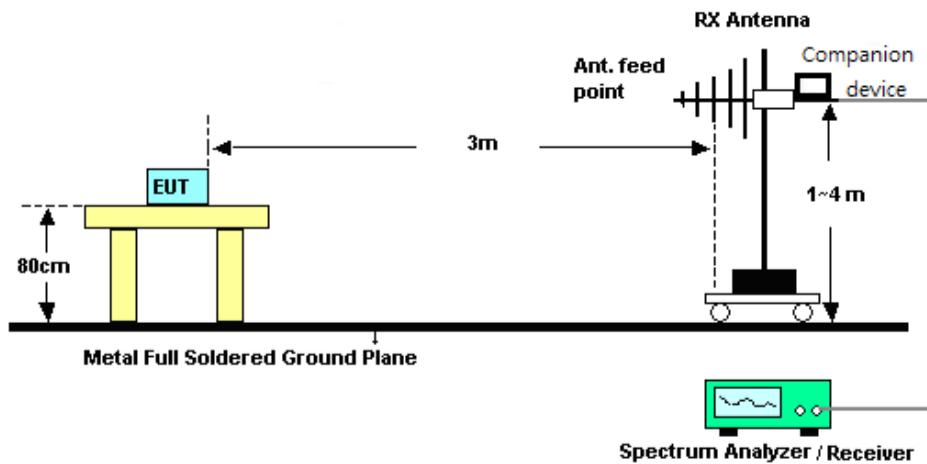


For radiated emissions from 30MHz to 1GHz

<CDD Mode>

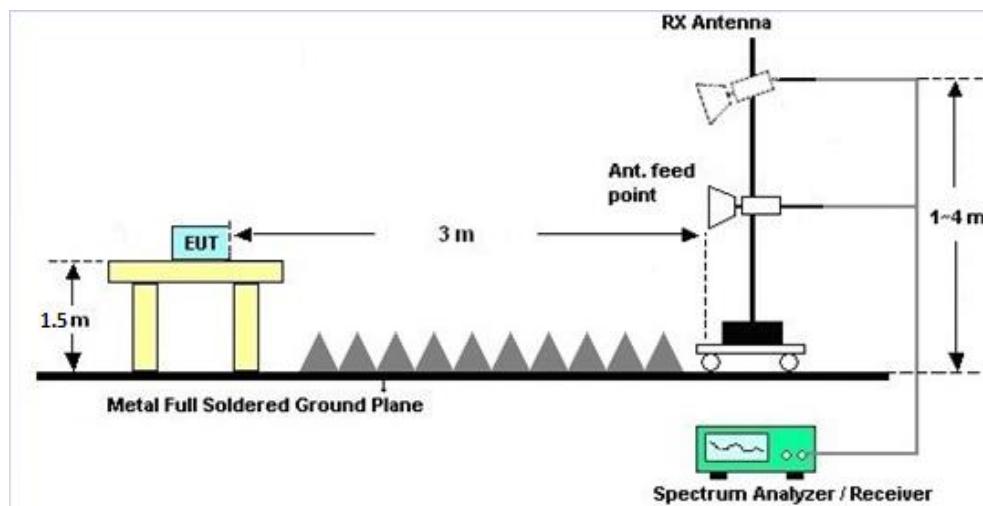


<TXBF Modes>

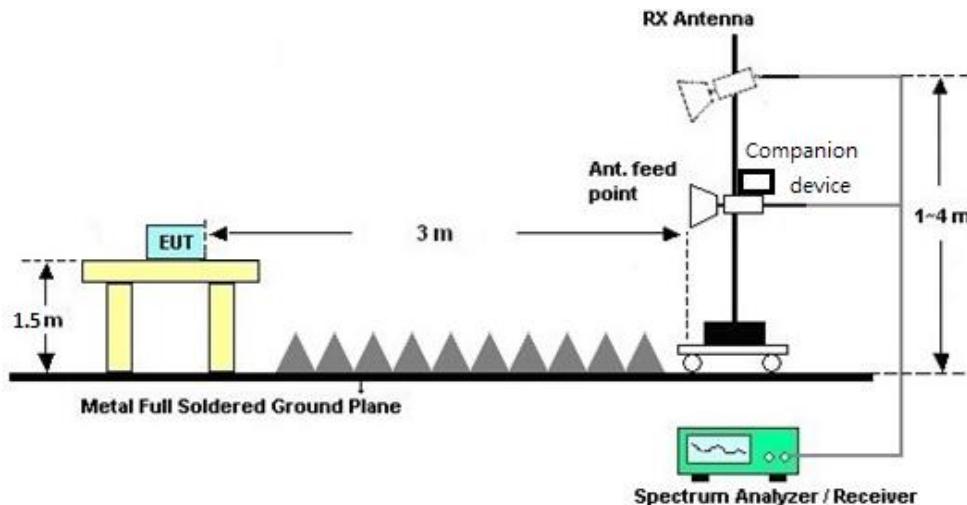


For radiated emissions above 1GHz

<CDD Mode>



<TXBF Modes>





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

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

There is a comparison data of both open-field test site and alternative test site - semi-Anechoic chamber according to 414788 D01 Radiated Test Site v01r01, and the result came out very similar.

### 3.5.6 Test Result of Radiated Spurious at Band Edges

Please refer to Appendix B and C.

### 3.5.7 Duty Cycle

Please refer to Appendix D.

### 3.5.8 Test Result of Radiated Spurious Emission (30MHz ~ 10<sup>th</sup> Harmonic)

Please refer to Appendix B and C.



## 3.6 AC Conducted Emission Measurement

### 3.6.1 Limit of AC Conducted Emission

For equipment that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table.

Frequency of Emission (MHz)	Conducted Limit (dB $\mu$ 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.

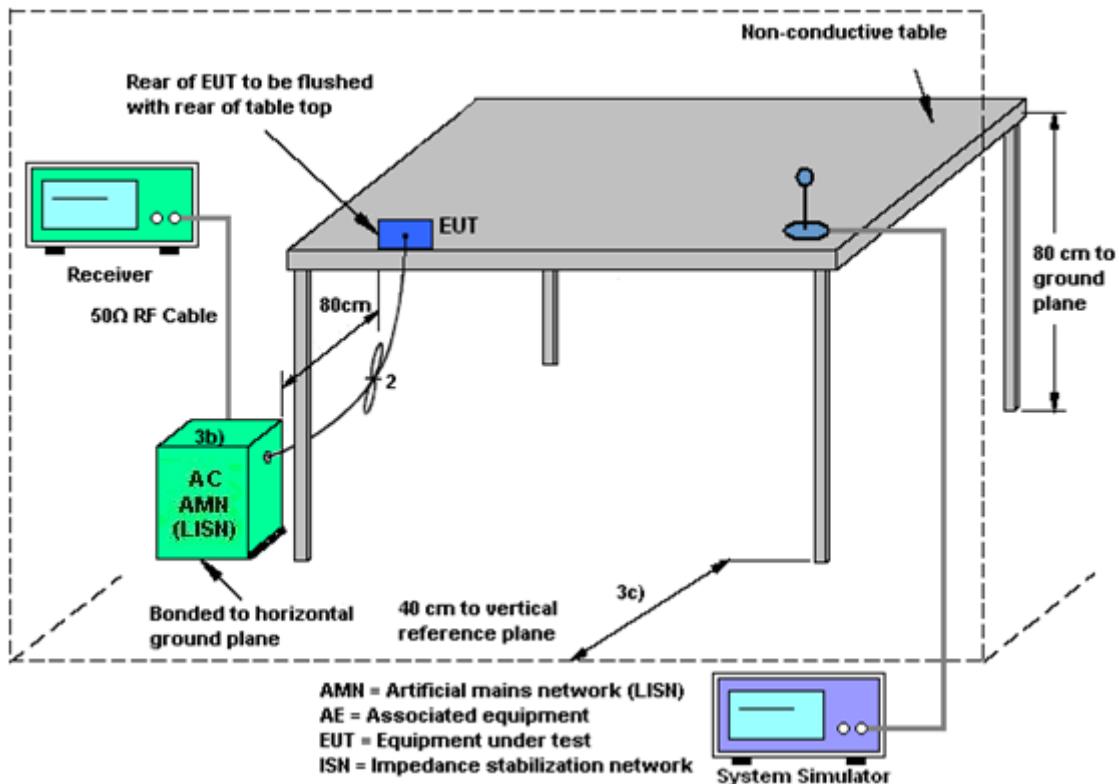
### 3.6.2 Measuring Instruments

See list of measuring equipment of this test report.

### 3.6.3 Test Procedures

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

### 3.6.4 Test Setup



### 3.6.5 Test Result of AC Conducted Emission

Please refer to Appendix A.



## 3.7 Antenna Requirements

### 3.7.1 Standard Applicable

If directional gain of transmitting Antennas is greater than 6dBi, the power shall be reduced by the same level in dB comparing to gain minus 6dBi. The use of a permanently attached Antenna or of an Antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the rule.

### 3.7.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

### 3.7.3 Antenna Gain

<CDD Modes >

FCC KDB 662911 D01 Multiple Transmitter Output v02r01

For CDD transmissions, directional gain is calculated as

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

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

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

For power measurements on IEEE 802.11 devices,

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

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

The EUT supports CDD mode.

For power, the directional gain  $G_{ANT}$  is set equal to the antenna having the highest gain, i.e., F)2)f)i).

For PSD, the directional gain calculation is following F)2)f)ii) of KDB 662911 D01 v02r01.

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

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

<CDD Modes>				DG	DG	Power	PSD
		Ant. 1	Ant. 2	for Power	for PSD	Limit	Limit
		(dBi)	(dBi)	(dBi)	(dBi)	(dB)	(dB)
2.4 GHz		1.24	2.46	2.46	4.88	0.00	0.00

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

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

**TXBF modes**

FCC KDB 662911 D01 Multiple Transmitter Output v02r01

For CDD transmissions, directional gain is calculated as

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

where

Each antenna is driven by no more than one spatial stream;

 $N_{SS}$  = the number of independent spatial streams of data; $N_{ANT}$  = the total number of antennas
$$g_{j,k} = 10^{G_k / 20} \quad \text{if the } k\text{th antenna is being fed by spatial stream } j, \text{ or zero if it is not;} \\ G_k \text{ is the gain in dBi of the } k\text{th antenna.}$$

The EUT supports beamforming for 802.11ac modes.

The directional gain calculation is following F)2)e)ii) of KDB 662911 D01 v02r01.

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

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

	Ant. 1 (dBi)	Ant. 2 (dBi)	for Power (dBi)	for PSD (dBi)	Limit Reduction (dB)	Limit Reduction (dB)
<b>2.4 GHz</b>	1.24	2.46	4.88	4.88	0.00	0.00

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

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



## 4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
AC Power Source	ChainTek	APC-1000W	N/A	N/A	N/A	Jun. 23, 2019	N/A	Conduction (CO05-HY)
EMI Test Receiver	Rohde & Schwarz	ESR3	102388	9kHz~3.6GHz	Nov. 12, 2018	Jun. 23, 2019	Nov. 11, 2019	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100080	9kHz~30MHz	Nov. 14, 2018	Jun. 23, 2019	Nov. 13, 2019	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100081	9kHz~30MHz	Nov. 09, 2018	Jun. 23, 2019	Nov. 08, 2019	Conduction (CO05-HY)
Software	Rohde & Schwarz	EMC32 V10.30	N/A	N/A	N/A	Jun. 23, 2019	N/A	Conduction (CO05-HY)
LF Cable	HUBER + SUHNER	RG-214/U	LF01	N/A	Dec. 31, 2018	Jun. 23, 2019	Dec. 30, 2019	Conduction (CO05-HY)
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100851	N/A	Dec. 31, 2018	Jun. 23, 2019	Dec. 30, 2019	Conduction (CO05-HY)
Hygrometer	Testo	DTM-303A	TP157075	N/A	Nov. 05, 2018	Jun. 23, 2019~Jul. 27, 2019	Nov. 04, 2019	Conducted (TH05-HY)
Power Sensor	DARE	RPR3006W	13I00030S NO32	9kHz~6GHz	Dec. 03, 2018	Jun. 23, 2019~Jul. 27, 2019	Dec. 02, 2019	Conducted (TH05-HY)
Spectrum Analyzer	Rohde & Schwarz	FSP40	100057	9kHz-40GHz	Nov. 21, 2018	Jun. 23, 2019~Jul. 27, 2019	Nov. 20, 2019	Conducted (TH05-HY)
Switch Box & RF Cable	Burgeon	ETF-058	EC120838 2	N/A	Mar. 27, 2019	Jun. 23, 2019~Jul. 27, 2019	Mar. 26, 2020	Conducted (TH05-HY)
Power Sensor	DARE	RPR3006W	16I00054S NO10	10MHz~6GHz	Dec. 19, 2018	Jun. 23, 2019~Jul. 27, 2019	Dec. 18, 2019	Conducted (TH05-HY)
Spectrum Analyzer	Rohde & Schwarz	FSP40	100057	9kHz-40GHz	Nov. 21, 2018	Jun. 23, 2019~Jul. 27, 2019	Nov. 20, 2019	Conducted (TH05-HY)
Switch Box & RF Cable	EM	EMSW18	SW107090 3	N/A	Dec 19, 2018	Jun. 23, 2019~Jul. 27, 2019	Dec 18, 2019	Conducted (TH05-HY)



## FCC RADIO TEST REPORT

Report No. : FR911635C

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100488	9 kHz~30 MHz	Jan. 07, 2019	Jun. 29, 2019~Jul. 15, 2019	Jan. 06, 2020	Radiation (03CH13-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-1212	1GHz ~ 18GHz	May 14, 2019	Jun. 29, 2019~Jul. 15, 2019	May 13, 2020	Radiation (03CH13-HY)
Bilog Antenna	TESEQ	CBL 6111D&00800 N1D01N-06	37059&01	30MHz~1GHz	Oct. 13, 2018	Jun. 29, 2019~Jul. 15, 2019	Oct. 12, 2019	Radiation (03CH13-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170 584	18GHz- 40GHz	Dec. 05, 2018	Jun. 29, 2019~Jul. 15, 2019	Dec. 04, 2019	Radiation (03CH13-HY)
Preamplifier	Keysight	83017A	MY532700 80	1GHz~26.5GHz	Nov. 14, 2018	Jun. 29, 2019~Jul. 15, 2019	Nov. 13, 2020	Radiation (03CH13-HY)
Preamplifier	MITEQ	AMF-7D-0010 1800-30-10P	1590074	1GHz~18GHz	May 20, 2019	Jun. 29, 2019~Jul. 15, 2019	May 19, 2020	Radiation (03CH13-HY)
Amplifier	Sonoma-Instrument	310 N	187282	9KHz~1GHz	Dec. 18, 2018	Jun. 29, 2019~Jul. 15, 2019	Dec. 17, 2019	Radiation (03CH13-HY)
Preamplifier	EMEC	EM18G40G	060715	18GHz~40GHz	Dec. 06, 2018	Jun. 29, 2019~Jul. 15, 2019	Dec. 05, 2019	Radiation (03CH13-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 126E	0030/126E	30M-18G	Feb. 13, 2019	Jun. 29, 2019~Jul. 15, 2019	Feb. 12, 2020	Radiation (03CH13-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	804793/4	30M-18G	Feb. 13, 2019	Jun. 29, 2019~Jul. 15, 2019	Feb. 12, 2020	Radiation (03CH13-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY24961/4	30M-18G	Feb. 13, 2019	Jun. 29, 2019~Jul. 15, 2019	Feb. 12, 2020	Radiation (03CH13-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	MY2859/2	30M~40GHz	Mar. 13, 2019	Jun. 29, 2019~Jul. 15, 2019	Mar. 12, 2020	Radiation (03CH13-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	MY4274/2	30M~40GHz	Mar. 13, 2019	Jun. 29, 2019~Jul. 15, 2019	Mar. 12, 2020	Radiation (03CH13-HY)
Spectrum Analyzer	Keysight	N9010A	MY553705 26	10Hz~44GHz	Mar. 19, 2019	Jun. 29, 2019~Jul. 15, 2019	Mar. 18, 2020	Radiation (03CH13-HY)
Antenna Mast	EMEC	AM-BS-4500-B	N/A	1m~4m	N/A	Jun. 29, 2019~Jul. 15, 2019	N/A	Radiation (03CH13-HY)
Turn Table	EMEC	TT2000	N/A	0~360 Degree	N/A	Jun. 29, 2019~Jul. 15, 2019	N/A	Radiation (03CH13-HY)
Software	AUDIX	E3 6.2009-8-24c	RK-001124	N/A	N/A	Jun. 29, 2019~Jul. 15, 2019	N/A	Radiation (03CH13-HY)
EMI Test Receiver	Keysight	N9038A (MXE)	MY541300 85	20Hz ~ 8.4GHz	Nov. 01, 2018	Jun. 29, 2019~Jul. 15, 2019	Oct. 31, 2019	Radiation (03CH13-HY)
Filter	Woken	WHKX8-5272.5-6750-18000-40ST	SN5	6.75G Highpass	Mar.13, 2019	Jun. 29, 2019~Jul. 15, 2019	Mar. 12, 2020	Radiation (03CH13-HY)
Filter	Wainwright	WLKS1200-8 SS	SN3	1.2G Low Pass	Nov. 02, 2018	Jun. 29, 2019~Jul. 15, 2019	Nov. 01, 2019	Radiation (03CH13-HY)
Filter	Wainwright	WHKX12-280 5-3000-18000-40ST	SN1	3G High Pass	Nov. 14, 2018	Jun. 29, 2019~Jul. 15, 2019	Nov. 13, 2019	Radiation (03CH13-HY)



## 5 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2U_{c(y)}$ )	2.20
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### Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2U_{c(y)}$ )	4.90
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### Uncertainty of Radiated Emission Measurement (1000 MHz ~ 18000 MHz)

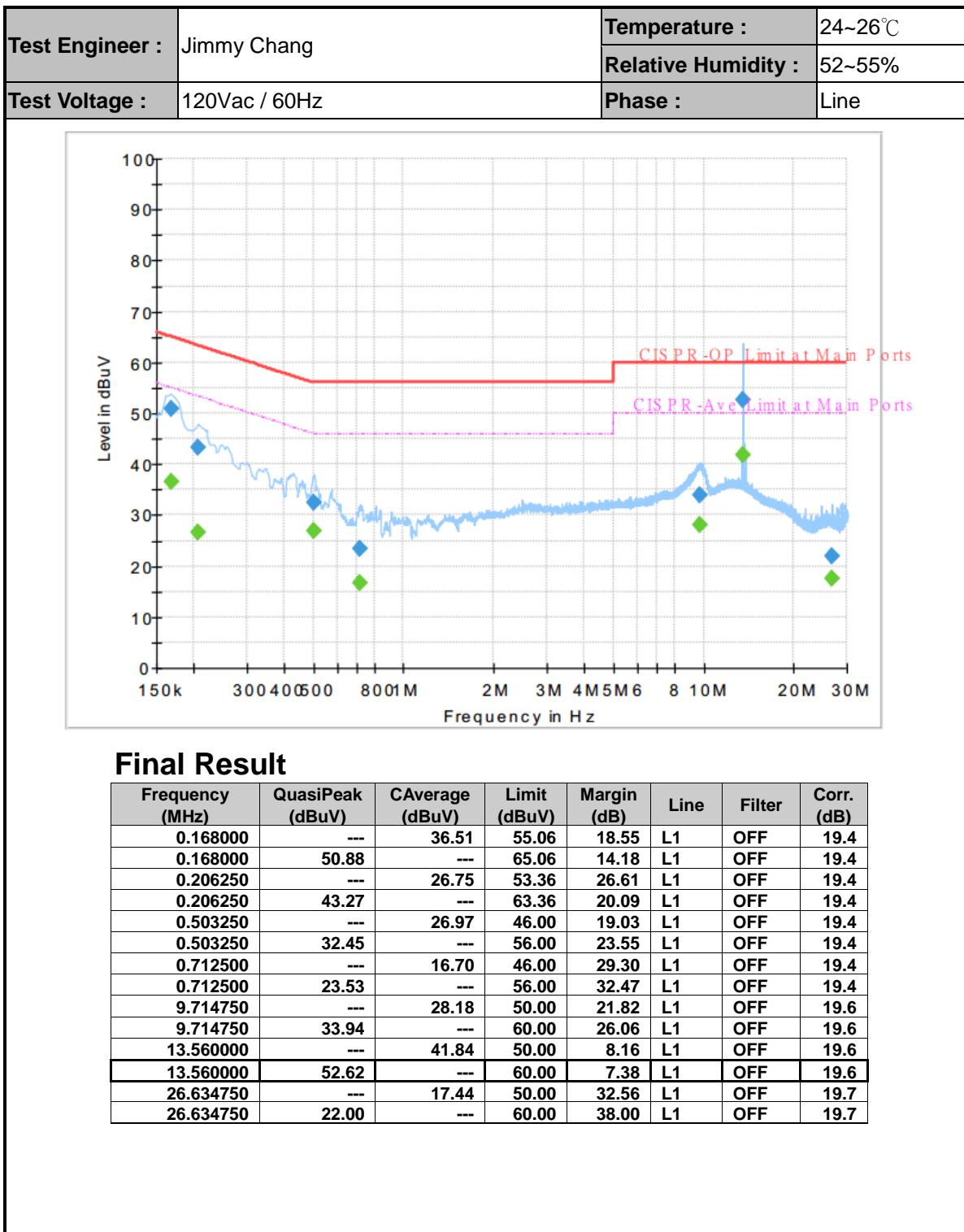
Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2U_{c(y)}$ )	5.40
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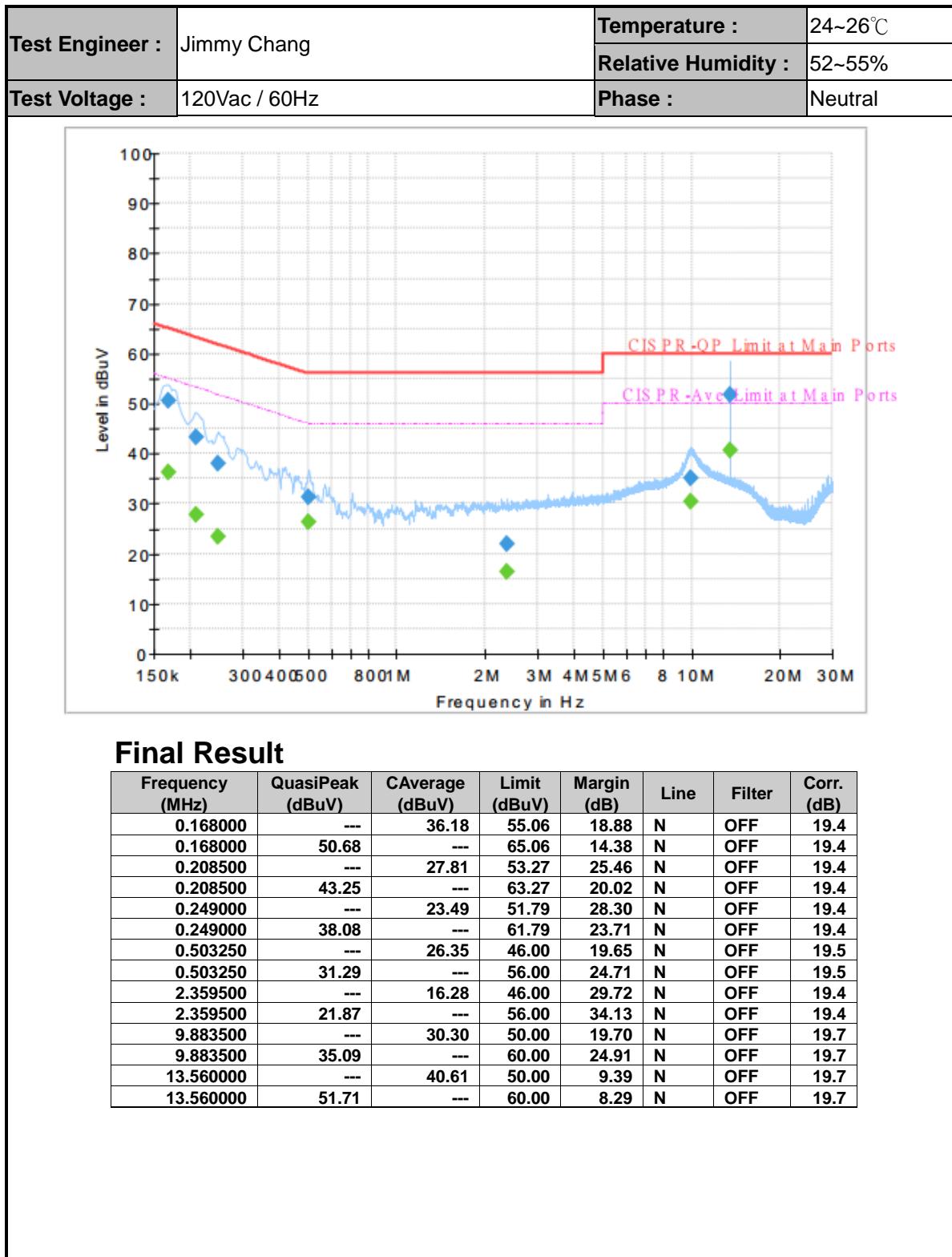
### Uncertainty of Radiated Emission Measurement (18000 MHz ~ 40000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2U_{c(y)}$ )	4.30
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## Appendix A. AC Conducted Emission Test Results







## Appendix B. Radiated Spurious Emission

Test Engineer :	Ryan Lin, JC Liang, Wilson Wu	Temperature :	21.5~23.5°C
		Relative Humidity :	46.5~49.5%

&lt;CCD Mode&gt;

2.4GHz 2400~2483.5MHz

WIFI 802.11b (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.		( MHz )	( dB $\mu$ V/m )	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1				( dB )	( dB $\mu$ V/m )	( dB $\mu$ V )	( dB/m )	( dB )	( dB )	( cm )	( deg )	(P/A)	(H/V)
802.11b CH 01 2412MHz		2379.615	52.74	-21.26	74	40.77	27.64	13.91	29.58	138	300	P	H
		2389.275	42.24	-11.76	54	30.28	27.62	13.92	29.58	138	300	A	H
	*	2412	108.86	-	-	96.92	27.58	13.94	29.58	138	300	P	H
	*	2412	105.67	-	-	93.73	27.58	13.94	29.58	138	300	A	H
													H
													H
		2331.315	52.98	-21.02	74	40.84	27.85	13.88	29.59	394	354	P	V
		2389.065	41.95	-12.05	54	29.99	27.62	13.92	29.58	394	354	A	V
	*	2412	106.46	-	-	94.52	27.58	13.94	29.58	394	354	P	V
	*	2412	103.15	-	-	91.21	27.58	13.94	29.58	394	354	A	V
802.11b CH 06 2437MHz		2331.98	52.89	-21.11	74	40.76	27.84	13.88	29.59	111	303	P	H
		2389.94	42.27	-11.73	54	30.31	27.62	13.92	29.58	111	303	A	H
	*	2437	114.43	-	-	102.52	27.53	13.96	29.58	111	303	P	H
	*	2437	111.29	-	-	99.38	27.53	13.96	29.58	111	303	A	H
		2485.09	52.78	-21.22	74	40.85	27.5	14	29.57	111	303	P	H
		2483.97	42.19	-11.81	54	30.26	27.5	14	29.57	111	303	A	H
		2386.3	52.69	-21.31	74	40.72	27.63	13.92	29.58	387	0	P	V
		2389.94	41.76	-12.24	54	29.8	27.62	13.92	29.58	387	0	A	V
	*	2437	112.56	-	-	100.65	27.53	13.96	29.58	387	0	P	V
	*	2437	109.36	-	-	97.45	27.53	13.96	29.58	387	0	A	V
		2494.47	52.26	-21.74	74	40.32	27.5	14.01	29.57	387	0	P	V
		2485.3	41.82	-12.18	54	29.89	27.5	14	29.57	387	0	A	V



802.11b CH 11 2462MHz	*	2462	114.36	-	-	102.45	27.5	13.98	29.57	125	308	P	H
	*	2462	111.19	-	-	99.28	27.5	13.98	29.57	125	308	A	H
		2484.84	55.92	-18.08	74	43.99	27.5	14	29.57	125	308	P	H
		2484.8	48.41	-5.59	54	36.48	27.5	14	29.57	125	308	A	H
													H
													H
	*	2462	112.15	-	-	100.24	27.5	13.98	29.57	379	2	P	V
	*	2462	109.05	-	-	97.14	27.5	13.98	29.57	379	2	A	V
		2484.6	54.77	-19.23	74	42.84	27.5	14	29.57	379	2	P	V
		2484.76	46.48	-7.52	54	34.55	27.5	14	29.57	379	2	A	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## 2.4GHz 2400~2483.5MHz

## WIFI 802.11b (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level ( dB $\mu$ V )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11b CH 01 2412MHz		4824	44.35	-29.65	74	64.18	31.3	6.42	57.55	100	0	P	H
													H
													H
													H
		4824	44.34	-29.66	74	64.17	31.3	6.42	57.55	100	0	P	V
													V
													V
													V
802.11b CH 06 2437MHz		4874	42.04	-31.96	74	61.68	31.25	6.56	57.45	100	0	P	H
		7311	43.27	-30.73	74	55.64	36.7	8.2	57.27	100	0	P	H
													H
		4874	42.7	-31.3	74	62.34	31.25	6.56	57.45	100	0	P	V
		7311	42.75	-31.25	74	55.12	36.7	8.2	57.27	100	0	P	V
													V
													V
													V
802.11b CH 11 2462MHz		4924	43.21	-30.79	74	62.56	31.3	6.7	57.35	100	0	P	H
		7386	43.5	-30.5	74	56.09	36.63	8.14	57.36	100	0	P	H
													H
		4924	42.7	-31.3	74	62.05	31.3	6.7	57.35	100	0	P	V
		7386	43.48	-30.52	74	56.07	36.63	8.14	57.36	100	0	P	V
													V
													V
	Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



## 2.4GHz 2400~2483.5MHz

## WIFI 802.11g (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level ( dB $\mu$ V )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11g CH 01 2412MHz		2390	61.56	-12.44	74	49.6	27.62	13.92	29.58	100	308	P	H
		2390	52.13	-1.87	54	40.17	27.62	13.92	29.58	100	308	A	H
	*	2412	109.83	-	-	97.89	27.58	13.94	29.58	100	308	P	H
	*	2412	102.31	-	-	90.37	27.58	13.94	29.58	100	308	A	H
													H
													H
		2390	60.7	-13.3	74	48.74	27.62	13.92	29.58	395	356	P	V
		2390	50.4	-3.6	54	38.44	27.62	13.92	29.58	395	356	A	V
	*	2412	108.99	-	-	97.05	27.58	13.94	29.58	395	356	P	V
	*	2412	100.91	-	-	88.97	27.58	13.94	29.58	395	356	A	V
													V
													V
802.11g CH 06 2437MHz		2387.7	56.04	-17.96	74	44.08	27.62	13.92	29.58	129	309	P	H
		2389.8	44.43	-9.57	54	32.47	27.62	13.92	29.58	129	309	A	H
	*	2437	113.02	-	-	101.11	27.53	13.96	29.58	129	309	P	H
	*	2437	105.43	-	-	93.52	27.53	13.96	29.58	129	309	A	H
		2487.89	54.58	-19.42	74	42.65	27.5	14	29.57	129	309	P	H
		2483.52	44.89	-9.11	54	32.96	27.5	14	29.57	129	309	A	H
		2385.04	52.77	-21.23	74	40.8	27.63	13.92	29.58	385	0	P	V
		2389.94	43.28	-10.72	54	31.32	27.62	13.92	29.58	385	0	A	V
	*	2437	111.58	-	-	99.67	27.53	13.96	29.58	385	0	P	V
	*	2437	103.65	-	-	91.74	27.53	13.96	29.58	385	0	A	V
		2486.98	53.37	-20.63	74	41.44	27.5	14	29.57	385	0	P	V
		2483.9	43.36	-10.64	54	31.43	27.5	14	29.57	385	0	A	V



## FCC RADIO TEST REPORT

Report No. : FR911635C

802.11g CH 11 2462MHz	*	2462	109.59	-	-	97.68	27.5	13.98	29.57	350	294	P	H
	*	2462	101.45	-	-	89.54	27.5	13.98	29.57	350	294	A	H
		2484.56	61.52	-12.48	74	49.59	27.5	14	29.57	350	294	P	H
		2483.52	50.6	-3.4	54	38.67	27.5	14	29.57	350	294	A	H
													H
													H
	*	2462	110.5	-	-	98.59	27.5	13.98	29.57	384	16	P	V
	*	2462	102.72	-	-	90.81	27.5	13.98	29.57	384	16	A	V
		2483.6	60.33	-13.67	74	48.4	27.5	14	29.57	384	16	P	V
		2483.52	49.38	-4.62	54	37.45	27.5	14	29.57	384	16	A	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## 2.4GHz 2400~2483.5MHz

## WIFI 802.11g (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level ( dB $\mu$ V )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11g CH 01 2412MHz		4824	37.64	-36.36	74	57.47	31.3	6.42	57.55	100	0	P	H
													H
													H
													H
		4824	37.94	-36.06	74	57.77	31.3	6.42	57.55	100	0	P	V
													V
													V
													V
802.11g CH 06 2437MHz		4874	38.12	-35.88	74	57.76	31.25	6.56	57.45	100	0	P	H
		7311	43.56	-30.44	74	55.93	36.7	8.2	57.27	100	0	P	H
													H
		4874	38.77	-35.23	74	58.41	31.25	6.56	57.45	100	0	P	V
		7311	42.82	-31.18	74	55.19	36.7	8.2	57.27	100	0	P	V
													V
													V
													V
802.11g CH 11 2462MHz		4924	38.27	-35.73	74	57.62	31.3	6.7	57.35	100	0	P	H
		7386	43.82	-30.18	74	56.41	36.63	8.14	57.36	100	0	P	H
													H
		4924	38.47	-35.53	74	57.82	31.3	6.7	57.35	100	0	P	V
		7386	42.95	-31.05	74	55.54	36.63	8.14	57.36	100	0	P	V
													V
													V
	Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



## 2.4GHz 2400~2483.5MHz

## WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level ( dB $\mu$ V )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 01 2412MHz		2389.905	62.87	-11.13	74	50.91	27.62	13.92	29.58	140	301	P	H
		2390	52.35	-1.65	54	40.39	27.62	13.92	29.58	140	301	A	H
	*	2412	108.91	-	-	96.97	27.58	13.94	29.58	140	301	P	H
	*	2412	101.18	-	-	89.24	27.58	13.94	29.58	140	301	A	H
													H
													H
		2389.8	61.42	-12.58	74	49.46	27.62	13.92	29.58	393	353	P	V
		2390	50.85	-3.15	54	38.89	27.62	13.92	29.58	393	353	A	V
	*	2412	106.94	-	-	95	27.58	13.94	29.58	393	353	P	V
	*	2412	99	-	-	87.06	27.58	13.94	29.58	393	353	A	V
													V
													V
802.11n HT20 CH 06 2437MHz		2389.8	53.4	-20.6	74	41.44	27.62	13.92	29.58	134	300	P	H
		2388.82	43.84	-10.16	54	31.88	27.62	13.92	29.58	134	300	A	H
	*	2437	111.71	-	-	99.8	27.53	13.96	29.58	134	300	P	H
	*	2437	103.84	-	-	91.93	27.53	13.96	29.58	134	300	A	H
		2483.52	53.88	-20.12	74	41.95	27.5	14	29.57	134	300	P	H
		2483.62	43.72	-10.28	54	31.79	27.5	14	29.57	134	300	A	H
		2339.68	52.94	-21.06	74	40.87	27.78	13.88	29.59	387	360	P	V
		2388.68	42.97	-11.03	54	31.01	27.62	13.92	29.58	387	360	A	V
	*	2437	110.08	-	-	98.17	27.53	13.96	29.58	387	360	P	V
	*	2437	102.15	-	-	90.24	27.53	13.96	29.58	387	360	A	V
		2499.72	52.67	-21.33	74	40.73	27.5	14.01	29.57	387	360	P	V
		2487.47	42.88	-11.12	54	30.95	27.5	14	29.57	387	360	A	V



## FCC RADIO TEST REPORT

Report No. : FR911635C

802.11n HT20 CH 11 2462MHz	*	2462	111.04	-	-	99.13	27.5	13.98	29.57	131	300	P	H
	*	2462	103.31	-	-	91.4	27.5	13.98	29.57	131	300	A	H
		2484.2	61.91	-12.09	74	49.98	27.5	14	29.57	131	300	P	H
		2483.52	52.02	-1.98	54	40.09	27.5	14	29.57	131	300	A	H
													H
													H
	*	2462	109.12	-	-	97.21	27.5	13.98	29.57	378	0	P	V
	*	2462	101.15	-	-	89.24	27.5	13.98	29.57	378	0	A	V
		2484	59.25	-14.75	74	47.32	27.5	14	29.57	378	0	P	V
		2483.52	49.79	-4.21	54	37.86	27.5	14	29.57	378	0	A	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## 2.4GHz 2400~2483.5MHz

## WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level ( dB $\mu$ V )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 01 2412MHz		4824	37.99	-36.01	74	57.82	31.3	6.42	57.55	100	0	P	H
		4824	37.64	-36.36	74	57.47	31.3	6.42	57.55	100	0	P	V
													H
													H
		4824	37.99	-36.01	74	57.82	31.3	6.42	57.55	100	0	P	H
		4824	37.64	-36.36	74	57.47	31.3	6.42	57.55	100	0	P	V
													V
													V
802.11n HT20 CH 06 2437MHz		4874	37.63	-36.37	74	57.27	31.25	6.56	57.45	100	0	P	H
		7311	43.59	-30.41	74	55.96	36.7	8.2	57.27	100	0	P	H
													H
													H
		4874	37.39	-36.61	74	57.03	31.25	6.56	57.45	100	0	P	V
		7311	44.23	-29.77	74	56.6	36.7	8.2	57.27	100	0	P	V
													V
													V
802.11n HT20 CH 11 2462MHz		4924	37.87	-36.13	74	57.22	31.3	6.7	57.35	100	0	P	H
		7386	43.02	-30.98	74	55.61	36.63	8.14	57.36	100	0	P	H
													H
													H
		4924	37.77	-36.23	74	57.12	31.3	6.7	57.35	100	0	P	V
		7386	43.47	-30.53	74	56.06	36.63	8.14	57.36	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## 2.4GHz 2400~2483.5MHz

## WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level ( dB $\mu$ V )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 03 2422MHz		2389.38	60.88	-13.12	74	48.92	27.62	13.92	29.58	112	302	P	H
		2389.66	52.71	-1.29	54	40.75	27.62	13.92	29.58	112	302	A	H
	*	2422	107.1	-	-	95.17	27.56	13.95	29.58	112	302	P	H
	*	2422	98.87	-	-	86.94	27.56	13.95	29.58	112	302	A	H
		2486.07	56.14	-17.86	74	44.21	27.5	14	29.57	112	302	P	H
		2486.14	43.24	-10.76	54	31.31	27.5	14	29.57	112	302	A	H
		2389.94	58.58	-15.42	74	46.62	27.62	13.92	29.58	392	5	P	V
		2389.52	50.08	-3.92	54	38.12	27.62	13.92	29.58	392	5	A	V
	*	2422	104.84	-	-	92.91	27.56	13.95	29.58	392	5	P	V
	*	2422	96.54	-	-	84.61	27.56	13.95	29.58	392	5	A	V
802.11n HT40 CH 06 2437MHz		2486.14	52.14	-21.86	74	40.21	27.5	14	29.57	392	5	P	V
		2485.23	42.59	-11.41	54	30.66	27.5	14	29.57	392	5	A	V
		2389.66	59.32	-14.68	74	47.36	27.62	13.92	29.58	110	302	P	H
		2389.94	49.45	-4.55	54	37.49	27.62	13.92	29.58	110	302	A	H
	*	2437	110.08	-	-	98.17	27.53	13.96	29.58	110	302	P	H
	*	2437	102.14	-	-	90.23	27.53	13.96	29.58	110	302	A	H
		2483.83	62.79	-11.21	74	50.86	27.5	14	29.57	110	302	P	H
		2483.55	52.88	-1.12	54	40.95	27.5	14	29.57	110	302	A	H
		2389.66	54.82	-19.18	74	42.86	27.62	13.92	29.58	381	5	P	V
		2389.94	45.48	-8.52	54	33.52	27.62	13.92	29.58	381	5	A	V
	*	2437	108.33	-	-	96.42	27.53	13.96	29.58	381	5	P	V
	*	2437	99.98	-	-	88.07	27.53	13.96	29.58	381	5	A	V
		2483.5	58.43	-15.57	74	46.5	27.5	14	29.57	381	5	P	V
		2483.62	47.9	-6.1	54	35.97	27.5	14	29.57	381	5	A	V



## FCC RADIO TEST REPORT

Report No. : FR911635C

	2330.58	53.83	-20.17	74	41.69	27.86	13.87	29.59	100	309	P	H
	2389.66	43.64	-10.36	54	31.68	27.62	13.92	29.58	100	309	A	H
*	2452	105.02	-	-	93.13	27.5	13.97	29.58	100	309	P	H
*	2452	96.48	-	-	84.59	27.5	13.97	29.58	100	309	A	H
<b>802.11n</b>	2485.72	60.67	-13.33	74	48.74	27.5	14	29.57	100	309	P	H
<b>HT40</b>	2483.62	52.1	-1.9	54	40.17	27.5	14	29.57	100	309	A	H
<b>CH 09</b>	2342.2	52.75	-21.25	74	40.7	27.76	13.88	29.59	382	3	P	V
<b>2452MHz</b>	2389.94	42.89	-11.11	54	30.93	27.62	13.92	29.58	382	3	A	V
*	2452	102.98	-	-	91.09	27.5	13.97	29.58	382	3	P	V
*	2452	94.47	-	-	82.58	27.5	13.97	29.58	382	3	A	V
	2483.83	56.32	-17.68	74	44.39	27.5	14	29.57	382	3	P	V
	2483.83	46.58	-7.42	54	34.65	27.5	14	29.57	382	3	A	V
<b>Remark</b>	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



## 2.4GHz 2400~2483.5MHz

## WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level ( dB $\mu$ V )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 03 2422MHz		4844	38	-36	74	57.74	31.3	6.47	57.51	100	0	P	H
		7266	43.24	-30.76	74	55.53	36.7	8.23	57.22	100	0	P	H
													H
													H
		4844	37.67	-36.33	74	57.41	31.3	6.47	57.51	100	0	P	V
		7266	44.49	-29.51	74	56.78	36.7	8.23	57.22	100	0	P	V
													V
802.11n HT40 CH 06 2437MHz		4874	39.52	-34.48	74	59.16	31.25	6.56	57.45	100	0	P	H
		7311	42.55	-31.45	74	54.92	36.7	8.2	57.27	100	0	P	H
													H
													H
		4874	36.45	-37.55	74	56.09	31.25	6.56	57.45	100	0	P	V
		7311	41.86	-32.14	74	54.23	36.7	8.2	57.27	100	0	P	V
													V
802.11n HT40 CH 09 2452MHz		4904	37.1	-36.9	74	56.63	31.22	6.64	57.39	100	0	P	H
		7356	42.15	-31.85	74	54.62	36.69	8.17	57.33	100	0	P	H
													H
													H
		4904	36.6	-37.4	74	56.13	31.22	6.64	57.39	100	0	P	V
		7356	42.36	-31.64	74	54.83	36.69	8.17	57.33	100	0	P	V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Emission below 1GHz

## 2.4GHz WIFI 802.11n HT40 (LF)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		( MHz )	( dB $\mu$ V/m )	( dB )	( dB $\mu$ V/m )	(dB $\mu$ V)	( dB/m )	( dB )	( dB )	( cm )	( deg )	(P/A)	(H/V)
2.4GHz 802.11n HT40 LF		30.97	24.3	-15.7	40	31.82	24.31	0.46	32.29	-	-	P	H
		60.07	25.61	-14.39	40	45.68	11.6	0.6	32.27	-	-	P	H
		135.73	23.97	-19.53	43.5	37.91	17.23	1.01	32.18	-	-	P	H
		303.54	28.65	-17.35	46	40.43	18.9	1.47	32.15	-	-	P	H
		878.75	31.79	-14.21	46	32.06	28.62	2.62	31.51	-	-	P	H
		943.74	33.42	-12.58	46	31.66	30.15	2.65	31.04	100	0	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
Remark	1.	No other spurious found.											
	2.	All results are PASS against limit line.											



## 2.4GHz 2400~2483.5MHz

## WIFI 802.11b (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
2		( MHz )	( dB $\mu$ V/m )	( dB )	( dB $\mu$ V/m )	( dB $\mu$ V )	( dB/m )	( dB )	( dB )	( cm )	( deg )	( P/A )	( H/V )
802.11b CH 01 2412MHz		2389.065	55.58	-18.42	74	43.62	27.62	13.92	29.58	104	250	P	H
		2382.975	47.87	-6.13	54	35.9	27.63	13.92	29.58	104	250	A	H
	*	2412	115.38	-	-	103.44	27.58	13.94	29.58	104	250	P	H
	*	2412	112.3	-	-	100.36	27.58	13.94	29.58	104	250	A	H
													H
													H
		2386.86	53.48	-20.52	74	41.51	27.63	13.92	29.58	295	221	P	V
		2387.7	43.64	-10.36	54	31.68	27.62	13.92	29.58	295	221	A	V
	*	2412	109.35	-	-	97.41	27.58	13.94	29.58	295	221	P	V
	*	2412	106.28	-	-	94.34	27.58	13.94	29.58	295	221	A	V
802.11b CH 06 2437MHz		2388.26	52.49	-21.51	74	40.53	27.62	13.92	29.58	101	249	P	H
		2389.94	42.28	-11.72	54	30.32	27.62	13.92	29.58	101	249	A	H
	*	2437	115.72	-	-	103.81	27.53	13.96	29.58	101	249	P	H
	*	2437	112.45	-	-	100.54	27.53	13.96	29.58	101	249	A	H
		2498.81	52.38	-21.62	74	40.44	27.5	14.01	29.57	101	249	P	H
		2484.11	42.2	-11.8	54	30.27	27.5	14	29.57	101	249	A	H
		2350.46	52.59	-21.41	74	40.59	27.7	13.89	29.59	288	212	P	V
		2389.94	41.4	-12.6	54	29.44	27.62	13.92	29.58	288	212	A	V
	*	2437	109.14	-	-	97.23	27.53	13.96	29.58	288	212	P	V
	*	2437	105.92	-	-	94.01	27.53	13.96	29.58	288	212	A	V
		2483.9	52.63	-21.37	74	40.7	27.5	14	29.57	288	212	P	V
		2484.67	41.48	-12.52	54	29.55	27.5	14	29.57	288	212	A	V



## FCC RADIO TEST REPORT

Report No. : FR911635C

802.11b CH 11 2462MHz	*	2462	115.03	-	-	103.12	27.5	13.98	29.57	100	249	P	H
	*	2462	111.67	-	-	99.76	27.5	13.98	29.57	100	249	A	H
		2483.56	56.27	-17.73	74	44.34	27.5	14	29.57	100	249	P	H
		2483.52	49.63	-4.37	54	37.7	27.5	14	29.57	100	249	A	H
													H
													H
	*	2462	108.79	-	-	96.88	27.5	13.98	29.57	282	213	P	V
	*	2462	105.56	-	-	93.65	27.5	13.98	29.57	282	213	A	V
		2485.24	54.46	-19.54	74	42.53	27.5	14	29.57	282	213	P	V
		2483.52	44.85	-9.15	54	32.92	27.5	14	29.57	282	213	A	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## 2.4GHz 2400~2483.5MHz

## WIFI 802.11b (Harmonic @ 3m)

WIFI Ant. 2	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level ( dB $\mu$ V )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11b CH 01 2412MHz		4824	42.97	-31.03	74	62.8	31.3	6.42	57.55	100	0	P	H
													H
													H
													H
		4824	39.7	-34.3	74	59.53	31.3	6.42	57.55	100	0	P	V
													V
													V
													V
802.11b CH 06 2437MHz		4874	40.92	-33.08	74	60.56	31.25	6.56	57.45	100	0	P	H
		7311	43.37	-30.63	74	55.74	36.7	8.2	57.27	100	0	P	H
													H
		4874	39.25	-34.75	74	58.89	31.25	6.56	57.45	100	0	P	V
		7311	45.88	-28.12	74	58.25	36.7	8.2	57.27	100	0	P	V
													V
													V
													V
802.11b CH 11 2462MHz		4924	44.72	-29.28	74	64.07	31.3	6.7	57.35	100	0	P	H
		7386	44.21	-29.79	74	56.8	36.63	8.14	57.36	100	0	P	H
													H
		4924	41.22	-32.78	74	60.57	31.3	6.7	57.35	100	0	P	V
		7386	45.76	-28.24	74	58.35	36.63	8.14	57.36	100	0	P	V
													V
													V
	Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



## 2.4GHz 2400~2483.5MHz

## WIFI 802.11g (Band Edge @ 3m)

WIFI Ant. 2	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level ( dB $\mu$ V )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11g CH 01 2412MHz		2390	63.31	-10.69	74	51.35	27.62	13.92	29.58	101	249	P	H
		2390	52.29	-1.71	54	40.33	27.62	13.92	29.58	101	249	A	H
	*	2412	111.84	-	-	99.9	27.58	13.94	29.58	101	249	P	H
	*	2412	104.11	-	-	92.17	27.58	13.94	29.58	101	249	A	H
													H
													H
		2390	56.94	-17.06	74	44.98	27.62	13.92	29.58	294	220	P	V
		2390	46.85	-7.15	54	34.89	27.62	13.92	29.58	294	220	A	V
	*	2412	106.34	-	-	94.4	27.58	13.94	29.58	294	220	P	V
	*	2412	98.4	-	-	86.46	27.58	13.94	29.58	294	220	A	V
													V
													V
802.11g CH 06 2437MHz		2389.52	54.62	-19.38	74	42.66	27.62	13.92	29.58	100	249	P	H
		2389.66	44.77	-9.23	54	32.81	27.62	13.92	29.58	100	249	A	H
	*	2437	114.28	-	-	102.37	27.53	13.96	29.58	100	249	P	H
	*	2437	106.41	-	-	94.5	27.53	13.96	29.58	100	249	A	H
		2484.39	53.99	-20.01	74	42.06	27.5	14	29.57	100	249	P	H
		2483.9	44.73	-9.27	54	32.8	27.5	14	29.57	100	249	A	H
		2371.88	52.84	-21.16	74	40.86	27.66	13.91	29.59	289	217	P	V
		2388.12	42.77	-11.23	54	30.81	27.62	13.92	29.58	289	217	A	V
	*	2437	107.41	-	-	95.5	27.53	13.96	29.58	289	217	P	V
	*	2437	99.79	-	-	87.88	27.53	13.96	29.58	289	217	A	V
		2494.19	52.2	-21.8	74	40.26	27.5	14.01	29.57	289	217	P	V
		2483.5	42.79	-11.21	54	30.86	27.5	14	29.57	289	217	A	V



802.11g CH 11 2462MHz	*	2462	112.01	-	-	100.1	27.5	13.98	29.57	100	253	P	H
	*	2462	103.88	-	-	91.97	27.5	13.98	29.57	100	253	A	H
		2484.08	62.53	-11.47	74	50.6	27.5	14	29.57	100	253	P	H
		2483.52	52.09	-1.91	54	40.16	27.5	14	29.57	100	253	A	H
													H
													H
	*	2462	106.25	-	-	94.34	27.5	13.98	29.57	282	212	P	V
	*	2462	98.32	-	-	86.41	27.5	13.98	29.57	282	212	A	V
		2484.4	57.32	-16.68	74	45.39	27.5	14	29.57	282	212	P	V
		2483.6	46.58	-7.42	54	34.65	27.5	14	29.57	282	212	A	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## 2.4GHz 2400~2483.5MHz

## WIFI 802.11g (Harmonic @ 3m)

WIFI Ant. 2	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level ( dB $\mu$ V )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11g CH 01 2412MHz		4824	36.74	-37.26	74	56.57	31.3	6.42	57.55	100	0	P	H
													H
													H
													H
		4824	37.16	-36.84	74	56.99	31.3	6.42	57.55	100	0	P	V
													V
													V
													V
802.11g CH 06 2437MHz		4874	37.42	-36.58	74	57.06	31.25	6.56	57.45	100	0	P	H
		7311	42.59	-31.41	74	54.96	36.7	8.2	57.27	100	0	P	H
													H
		4874	37.87	-36.13	74	57.51	31.25	6.56	57.45	100	0	P	V
		7311	43.6	-30.4	74	55.97	36.7	8.2	57.27	100	0	P	V
													V
													V
													V
802.11g CH 11 2462MHz		4924	37.6	-36.4	74	56.95	31.3	6.7	57.35	100	0	P	H
		7386	42.72	-31.28	74	55.31	36.63	8.14	57.36	100	0	P	H
													H
		4924	37.59	-36.41	74	56.94	31.3	6.7	57.35	100	0	P	V
		7386	43.14	-30.86	74	55.73	36.63	8.14	57.36	100	0	P	V
													V
													V
	Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



## 2.4GHz 2400~2483.5MHz

## WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI Ant. 2	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level ( dB $\mu$ V )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11n  HT20  CH 01  2412MHz		2390	63.95	-10.05	74	51.99	27.62	13.92	29.58	103	246	P	H
		2390	52.8	-1.2	54	40.84	27.62	13.92	29.58	103	246	A	H
	*	2412	110.33	-	-	98.39	27.58	13.94	29.58	103	246	P	H
	*	2412	102.67	-	-	90.73	27.58	13.94	29.58	103	246	A	H
													H
													H
		2389.485	56.87	-17.13	74	44.91	27.62	13.92	29.58	283	217	P	V
		2390	46.56	-7.44	54	34.6	27.62	13.92	29.58	283	217	A	V
	*	2412	104.34	-	-	92.4	27.58	13.94	29.58	283	217	P	V
	*	2412	96.85	-	-	84.91	27.58	13.94	29.58	283	217	A	V
													V
													V
802.11n  HT20  CH 06  2437MHz		2386.02	54.4	-19.6	74	42.43	27.63	13.92	29.58	101	270	P	H
		2388.96	44.56	-9.44	54	32.6	27.62	13.92	29.58	101	270	A	H
	*	2437	111.91	-	-	100	27.53	13.96	29.58	101	270	P	H
	*	2437	103.66	-	-	91.75	27.53	13.96	29.58	101	270	A	H
		2484.04	54.16	-19.84	74	42.23	27.5	14	29.57	101	270	P	H
		2484.74	44.43	-9.57	54	32.5	27.5	14	29.57	101	270	A	H
		2389.24	53.04	-20.96	74	41.08	27.62	13.92	29.58	295	246	P	V
		2389.94	43.02	-10.98	54	31.06	27.62	13.92	29.58	295	246	A	V
	*	2437	105.68	-	-	93.77	27.53	13.96	29.58	295	246	P	V
	*	2437	97.82	-	-	85.91	27.53	13.96	29.58	295	246	A	V
		2486.28	53.86	-20.14	74	41.93	27.5	14	29.57	295	246	P	V
		2485.65	42.82	-11.18	54	30.89	27.5	14	29.57	295	246	A	V



## FCC RADIO TEST REPORT

Report No. : FR911635C

802.11n HT20 CH 11 2462MHz	*	2462	109.19	-	-	97.28	27.5	13.98	29.57	100	220	P	H
	*	2462	101	-	-	89.09	27.5	13.98	29.57	100	220	A	H
		2483.56	62.59	-11.41	74	50.66	27.5	14	29.57	100	220	P	H
		2483.64	52.51	-1.49	54	40.58	27.5	14	29.57	100	220	A	H
													H
													H
	*	2462	107.45	-	-	95.54	27.5	13.98	29.57	369	156	P	V
	*	2462	99.08	-	-	87.17	27.5	13.98	29.57	369	156	A	V
		2483.52	60.5	-13.5	74	48.57	27.5	14	29.57	369	156	P	V
		2483.64	49.5	-4.5	54	37.57	27.5	14	29.57	369	156	A	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## 2.4GHz 2400~2483.5MHz

## WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI Ant. 2	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level ( dB $\mu$ V )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 01 2412MHz		4824	37.23	-36.77	74	57.06	31.3	6.42	57.55	100	0	P	H
													H
													H
													H
		4824	38.29	-35.71	74	58.12	31.3	6.42	57.55	100	0	P	V
													V
													V
													V
802.11n HT20 CH 06 2437MHz		4874	37.5	-36.5	74	57.14	31.25	6.56	57.45	100	0	P	H
		7311	43.24	-30.76	74	55.61	36.7	8.2	57.27	100	0	P	H
													H
													H
		4874	38.42	-35.58	74	58.06	31.25	6.56	57.45	100	0	P	V
		7311	42.3	-31.7	74	54.67	36.7	8.2	57.27	100	0	P	V
													V
													V
802.11n HT20 CH 11 2462MHz		4924	37.66	-36.34	74	57.01	31.3	6.7	57.35	100	0	P	H
		7386	43.6	-30.4	74	56.19	36.63	8.14	57.36	100	0	P	H
													H
													H
		4924	36.9	-37.1	74	56.25	31.3	6.7	57.35	100	0	P	V
		7386	43.23	-30.77	74	55.82	36.63	8.14	57.36	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## 2.4GHz 2400~2483.5MHz

## WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant. 2	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level ( dB $\mu$ V )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 03 2422MHz		2389.1	61.42	-12.58	74	49.46	27.62	13.92	29.58	101	221	P	H
		2389.38	52.72	-1.28	54	40.76	27.62	13.92	29.58	101	221	A	H
	*	2422	105.82	-	-	93.89	27.56	13.95	29.58	101	221	P	H
	*	2422	97.82	-	-	85.89	27.56	13.95	29.58	101	221	A	H
		2483.55	53.91	-20.09	74	41.98	27.5	14	29.57	101	221	P	H
		2484.32	43.63	-10.37	54	31.7	27.5	14	29.57	101	221	A	H
		2388.96	61.36	-12.64	74	49.4	27.62	13.92	29.58	388	152	P	V
		2389.52	51.87	-2.13	54	39.91	27.62	13.92	29.58	388	152	A	V
	*	2422	104.38	-	-	92.45	27.56	13.95	29.58	388	152	P	V
	*	2422	96.38	-	-	84.45	27.56	13.95	29.58	388	152	A	V
802.11n HT40 CH 06 2437MHz		2485.51	53.56	-20.44	74	41.63	27.5	14	29.57	388	152	P	V
		2484.32	42.76	-11.24	54	30.83	27.5	14	29.57	388	152	A	V
		2388.96	61.5	-12.5	74	49.54	27.62	13.92	29.58	101	214	P	H
		2389.94	51.3	-2.7	54	39.34	27.62	13.92	29.58	101	214	A	H
	*	2437	107.9	-	-	95.99	27.53	13.96	29.58	101	214	P	H
	*	2437	99.55	-	-	87.64	27.53	13.96	29.58	101	214	A	H
		2483.62	60.38	-13.62	74	48.45	27.5	14	29.57	101	214	P	H
		2483.76	50.96	-3.04	54	39.03	27.5	14	29.57	101	214	A	H
		2389.1	58.57	-15.43	74	46.61	27.62	13.92	29.58	383	150	P	V
		2389.94	48.65	-5.35	54	36.69	27.62	13.92	29.58	383	150	A	V



## FCC RADIO TEST REPORT

Report No. : FR911635C

	2389.24	53.13	-20.87	74	41.17	27.62	13.92	29.58	135	212	P	H
	2389.38	44.81	-9.19	54	32.85	27.62	13.92	29.58	135	212	A	H
*	2452	107.34	-	-	95.45	27.5	13.97	29.58	135	212	P	H
*	2452	99.94	-	-	88.05	27.5	13.97	29.58	135	212	A	H
<b>802.11n</b>	2484.11	61.62	-12.38	74	49.69	27.5	14	29.57	135	212	P	H
<b>HT40</b>	2483.69	52.13	-1.87	54	40.2	27.5	14	29.57	135	212	A	H
<b>CH 09</b>	2339.4	53.42	-20.58	74	41.35	27.78	13.88	29.59	374	158	P	V
<b>2452MHz</b>	2388.54	43.68	-10.32	54	31.72	27.62	13.92	29.58	374	158	A	V
*	2452	105.74	-	-	93.85	27.5	13.97	29.58	374	158	P	V
*	2452	97.51	-	-	85.62	27.5	13.97	29.58	374	158	A	V
	2484.04	58.55	-15.45	74	46.62	27.5	14	29.57	374	158	P	V
	2484.25	49.75	-4.25	54	37.82	27.5	14	29.57	374	158	A	V
<b>Remark</b>	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



## 2.4GHz 2400~2483.5MHz

## WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI Ant. 2	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level ( dB $\mu$ V )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 03 2422MHz		4844	37.17	-36.83	74	56.91	31.3	6.47	57.51	100	0	P	H
		7266	43.18	-30.82	74	55.47	36.7	8.23	57.22	100	0	P	H
													H
													H
		4844	37.45	-36.55	74	57.19	31.3	6.47	57.51	100	0	P	V
		7266	42.87	-31.13	74	55.16	36.7	8.23	57.22	100	0	P	V
													V
802.11n HT40 CH 06 2437MHz		4874	37.1	-36.9	74	56.74	31.25	6.56	57.45	100	0	P	H
		7311	44.71	-29.29	74	57.08	36.7	8.2	57.27	100	0	P	H
													H
													H
		4874	36.96	-37.04	74	56.6	31.25	6.56	57.45	100	0	P	V
		7311	43.2	-30.8	74	55.57	36.7	8.2	57.27	100	0	P	V
													V
802.11n HT40 CH 09 2452MHz		4904	37.26	-36.74	74	56.79	31.22	6.64	57.39	100	0	P	H
		7356	42.71	-31.29	74	55.18	36.69	8.17	57.33	100	0	P	H
													H
													H
		4904	38.54	-35.46	74	58.07	31.22	6.64	57.39	100	0	P	V
		7356	42.02	-31.98	74	54.49	36.69	8.17	57.33	100	0	P	V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Emission below 1GHz

## 2.4GHz WIFI 802.11n HT20 (LF)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
2		( MHz )	( dB $\mu$ V/m )	( dB )	( dB $\mu$ V/m )	(dB $\mu$ V)	( dB/m )	( dB )	( dB )	( cm )	( deg )	(P/A)	(H/V)
		30	23.24	-16.76	40	30.37	24.7	0.46	32.29	-	-	P	H
		60.07	22.6	-17.4	40	42.67	11.6	0.6	32.27	-	-	P	H
		132.82	24.49	-19.01	43.5	38.46	17.22	1	32.19	-	-	P	H
		292.87	28.27	-17.73	46	40.22	18.76	1.44	32.15	-	-	P	H
		899.12	36.53	-9.47	46	36.63	28.7	2.61	31.41	100	0	P	H
		955.38	33.57	-12.43	46	31.23	30.61	2.67	30.94	-	-	P	H
													H
													H
													H
													H
2.4GHz													H
802.11n													H
HT20		31.94	33.05	-6.95	40	41.24	23.64	0.46	32.29	100	0	P	V
LF		61.04	29.36	-10.64	40	49.44	11.59	0.6	32.27	-	-	P	V
		159.98	25.12	-18.38	43.5	40.11	16.1	1.08	32.17	-	-	P	V
		305.48	25.77	-20.23	46	37.54	18.91	1.47	32.15	-	-	P	V
		901.06	35.04	-10.96	46	35.11	28.72	2.61	31.4	-	-	P	V
		958.29	33.19	-12.81	46	30.75	30.67	2.68	30.91	-	-	P	V
													V
													V
													V
													V
													V
Remark		1. No other spurious found. 2. All results are PASS against limit line.											



## 2.4GHz 2400~2483.5MHz

## WIFI 802.11b (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		( MHz )	( dB $\mu$ V/m )	( dB )	( dB $\mu$ V/m )	( dB $\mu$ V )	( dB/m )	( dB )	( dB )	( cm )	( deg )	( P/A )	( H/V )
802.11b CH 01 2412MHz		2389.59	56.02	-17.98	74	44.06	27.62	13.92	29.58	100	187	P	H
		2389.17	49.17	-4.83	54	37.21	27.62	13.92	29.58	100	187	A	H
	*	2412	117.27	-	-	105.33	27.58	13.94	29.58	100	187	P	H
	*	2412	114.06	-	-	102.12	27.58	13.94	29.58	100	187	A	H
													H
													H
		2385.075	55.61	-18.39	74	43.64	27.63	13.92	29.58	392	346	P	V
		2386.65	48.16	-5.84	54	36.19	27.63	13.92	29.58	392	346	A	V
	*	2412	112.9	-	-	100.96	27.58	13.94	29.58	392	346	P	V
	*	2412	109.93	-	-	97.99	27.58	13.94	29.58	392	346	A	V
802.11b CH 06 2437MHz													V
		2355.36	54.02	-19.98	74	42.03	27.69	13.89	29.59	100	204	P	H
		2389.94	43.39	-10.61	54	31.43	27.62	13.92	29.58	100	204	A	H
	*	2437	117.99	-	-	106.08	27.53	13.96	29.58	100	204	P	H
	*	2437	114.83	-	-	102.92	27.53	13.96	29.58	100	204	A	H
		2485.02	53.26	-20.74	74	41.33	27.5	14	29.57	100	204	P	H
		2483.55	42.97	-11.03	54	31.04	27.5	14	29.57	100	204	A	H
		2381.96	53.78	-20.22	74	41.8	27.64	13.92	29.58	327	354	P	V
		2389.1	42.18	-11.82	54	30.22	27.62	13.92	29.58	327	354	A	V
	*	2437	112.03	-	-	100.12	27.53	13.96	29.58	327	354	P	V
	*	2437	109.04	-	-	97.13	27.53	13.96	29.58	327	354	A	V
		2496.57	53.7	-20.3	74	41.76	27.5	14.01	29.57	327	354	P	V
		2484.04	42.14	-11.86	54	30.21	27.5	14	29.57	327	354	A	V



## FCC RADIO TEST REPORT

Report No. : FR911635C

802.11b CH 11 2462MHz	*	2462	117.41	-	-	105.5	27.5	13.98	29.57	143	275	P	H
	*	2462	114.33	-	-	102.42	27.5	13.98	29.57	143	275	A	H
		2484.6	56.06	-17.94	74	44.13	27.5	14	29.57	143	275	P	H
		2483.52	48.02	-5.98	54	36.09	27.5	14	29.57	143	275	A	H
													H
													H
	*	2462	111.5	-	-	99.59	27.5	13.98	29.57	379	345	P	V
	*	2462	108.63	-	-	96.72	27.5	13.98	29.57	379	345	A	V
		2483.72	54.49	-19.51	74	42.56	27.5	14	29.57	379	345	P	V
		2483.52	46.43	-7.57	54	34.5	27.5	14	29.57	379	345	A	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## 2.4GHz 2400~2483.5MHz

## WIFI 802.11b (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level ( dB $\mu$ V )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11b  CH 01  2412MHz		4824	46.38	-27.62	74	66.21	31.3	6.42	57.55	100	0	P	H
													H
													H
													H
		4824	45.04	-28.96	74	64.87	31.3	6.42	57.55	100	0	P	V
													V
													V
													V
802.11b  CH 06  2437MHz		4874	45.92	-28.08	74	65.56	31.25	6.56	57.45	100	0	P	H
		7311	45.45	-28.55	74	57.82	36.7	8.2	57.27	100	0	P	H
													H
		4874	44.38	-29.62	74	64.02	31.25	6.56	57.45	100	0	P	V
		7311	45.8	-28.2	74	58.17	36.7	8.2	57.27	100	0	P	V
													V
													V
													V
802.11b  CH 11  2462MHz		4924	47.06	-26.94	74	66.41	31.3	6.7	57.35	100	0	P	H
		7386	43.87	-30.13	74	56.46	36.63	8.14	57.36	100	0	P	H
													H
		4924	45.49	-28.51	74	64.84	31.3	6.7	57.35	100	0	P	V
		7386	46.62	-27.38	74	59.21	36.63	8.14	57.36	100	0	P	V
													V
													V
	Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



## 2.4GHz 2400~2483.5MHz

## WIFI 802.11g (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level ( dB $\mu$ V )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11g CH 01 2412MHz		2389.905	62.82	-11.18	74	50.86	27.62	13.92	29.58	122	321	P	H
		2389.8	51.96	-2.04	54	40	27.62	13.92	29.58	122	321	A	H
	*	2412	113.23	-	-	101.29	27.58	13.94	29.58	122	321	P	H
	*	2412	105.45	-	-	93.51	27.58	13.94	29.58	122	321	A	H
													H
													H
		2390	57.18	-16.82	74	45.22	27.62	13.92	29.58	386	345	P	V
		2389.275	47.1	-6.9	54	35.14	27.62	13.92	29.58	386	345	A	V
	*	2412	109.33	-	-	97.39	27.58	13.94	29.58	386	345	P	V
	*	2412	101.88	-	-	89.94	27.58	13.94	29.58	386	345	A	V
													V
													V
802.11g CH 06 2437MHz		2389.1	55.54	-18.46	74	43.58	27.62	13.92	29.58	140	320	P	H
		2389.94	45.26	-8.74	54	33.3	27.62	13.92	29.58	140	320	A	H
	*	2437	115.8	-	-	103.89	27.53	13.96	29.58	140	320	P	H
	*	2437	108.47	-	-	96.56	27.53	13.96	29.58	140	320	A	H
		2483.76	53.72	-20.28	74	41.79	27.5	14	29.57	140	320	P	H
		2483.52	44.7	-9.3	54	32.77	27.5	14	29.57	140	320	A	H
		2357.32	53.75	-20.25	74	41.75	27.69	13.9	29.59	383	344	P	V
		2389.66	43.49	-10.51	54	31.53	27.62	13.92	29.58	383	344	A	V
	*	2437	111.78	-	-	99.87	27.53	13.96	29.58	383	344	P	V
	*	2437	104.25	-	-	92.34	27.53	13.96	29.58	383	344	A	V
		2486.56	52.51	-21.49	74	40.58	27.5	14	29.57	383	344	P	V
		2483.97	43.51	-10.49	54	31.58	27.5	14	29.57	383	344	A	V



## FCC RADIO TEST REPORT

Report No. : FR911635C

802.11g CH 11 2462MHz	*	2462	113.7	-	-	101.79	27.5	13.98	29.57	120	300	P	H
	*	2462	106.39	-	-	94.48	27.5	13.98	29.57	120	300	A	H
		2483.56	62.58	-11.42	74	50.65	27.5	14	29.57	120	300	P	H
		2483.52	52.3	-1.7	54	40.37	27.5	14	29.57	120	300	A	H
													H
													H
	*	2462	110.08	-	-	98.17	27.5	13.98	29.57	370	345	P	V
	*	2462	102.31	-	-	90.4	27.5	13.98	29.57	370	345	A	V
		2484.4	55.61	-18.39	74	43.68	27.5	14	29.57	370	345	P	V
		2484.56	45.02	-8.98	54	33.09	27.5	14	29.57	370	345	A	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## 2.4GHz 2400~2483.5MHz

## WIFI 802.11g (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level ( dB $\mu$ V )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11g CH 01 2412MHz		4824	38.54	-35.46	74	58.37	31.3	6.42	57.55	100	0	P	H
													H
													H
													H
		4824	38.65	-35.35	74	58.48	31.3	6.42	57.55	100	0	P	V
													V
													V
													V
802.11g CH 06 2437MHz		4874	37.54	-36.46	74	57.18	31.25	6.56	57.45	100	0	P	H
		7311	43.83	-30.17	74	56.2	36.7	8.2	57.27	100	0	P	H
													H
		4874	39.17	-34.83	74	58.81	31.25	6.56	57.45	100	0	P	V
		7311	43.08	-30.92	74	55.45	36.7	8.2	57.27	100	0	P	V
													V
													V
													V
802.11g CH 11 2462MHz		4924	37.88	-36.12	74	57.23	31.3	6.7	57.35	100	0	P	H
		7386	43.24	-30.76	74	55.83	36.63	8.14	57.36	100	0	P	H
													H
		4924	38.06	-35.94	74	57.41	31.3	6.7	57.35	100	0	P	V
		7386	44.29	-29.71	74	56.88	36.63	8.14	57.36	100	0	P	V
													V
													V
	Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



## 2.4GHz 2400~2483.5MHz

## WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level ( dB $\mu$ V )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11n  HT20  CH 01  2412MHz		2389.8	63.22	-10.78	74	51.26	27.62	13.92	29.58	124	321	P	H
		2390	52.56	-1.44	54	40.6	27.62	13.92	29.58	124	321	A	H
	*	2412	111.67	-	-	99.73	27.58	13.94	29.58	124	321	P	H
	*	2412	103.4	-	-	91.46	27.58	13.94	29.58	124	321	A	H
													H
													H
		2390	60.25	-13.75	74	48.29	27.62	13.92	29.58	393	0	P	V
		2390	49.08	-4.92	54	37.12	27.62	13.92	29.58	393	0	A	V
	*	2412	107.43	-	-	95.49	27.58	13.94	29.58	393	0	P	V
	*	2412	99.62	-	-	87.68	27.58	13.94	29.58	393	0	A	V
													V
													V
802.11n  HT20  CH 06  2437MHz		2388.4	54.09	-19.91	74	42.13	27.62	13.92	29.58	105	306	P	H
		2388.68	44.96	-9.04	54	33	27.62	13.92	29.58	105	306	A	H
	*	2437	114.99	-	-	103.08	27.53	13.96	29.58	105	306	P	H
	*	2437	107.04	-	-	95.13	27.53	13.96	29.58	105	306	A	H
		2483.52	55.34	-18.66	74	43.41	27.5	14	29.57	105	306	P	H
		2484.81	45.21	-8.79	54	33.28	27.5	14	29.57	105	306	A	H
		2376.36	52.94	-21.06	74	40.96	27.65	13.91	29.58	383	360	P	V
		2387	43.38	-10.62	54	31.41	27.63	13.92	29.58	383	360	A	V
	*	2437	111.97	-	-	100.06	27.53	13.96	29.58	383	360	P	V
	*	2437	103.92	-	-	92.01	27.53	13.96	29.58	383	360	A	V
		2493.49	53.11	-20.89	74	41.17	27.5	14.01	29.57	383	360	P	V
		2485.44	43.33	-10.67	54	31.4	27.5	14	29.57	383	360	A	V



## FCC RADIO TEST REPORT

Report No. : FR911635C

802.11n HT20 CH 11 2462MHz	*	2462	111.91	-	-	100	27.5	13.98	29.57	101	306	P	H
	*	2462	104.45	-	-	92.54	27.5	13.98	29.57	101	306	A	H
		2483.72	61.76	-12.24	74	49.83	27.5	14	29.57	101	306	P	H
		2483.52	52.05	-1.95	54	40.12	27.5	14	29.57	101	306	A	H
													H
													H
	*	2462	107.74	-	-	95.83	27.5	13.98	29.57	376	360	P	V
	*	2462	100.05	-	-	88.14	27.5	13.98	29.57	376	360	A	V
		2483.6	55.62	-18.38	74	43.69	27.5	14	29.57	376	360	P	V
		2483.64	45.85	-8.15	54	33.92	27.5	14	29.57	376	360	A	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## 2.4GHz 2400~2483.5MHz

## WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level ( dB $\mu$ V )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 01 2412MHz		4824	38.71	-35.29	74	58.54	31.3	6.42	57.55	100	0	P	H
													H
													H
													H
		4824	38.43	-35.57	74	58.26	31.3	6.42	57.55	100	0	P	V
													V
													V
802.11n HT20 CH 06 2437MHz		4874	38.35	-35.65	74	57.99	31.25	6.56	57.45	100	0	P	H
		7311	44.65	-29.35	74	57.02	36.7	8.2	57.27	100	0	P	H
													H
													H
		4874	37.53	-36.47	74	57.17	31.25	6.56	57.45	100	0	P	V
		7311	43	-31	74	55.37	36.7	8.2	57.27	100	0	P	V
													V
802.11n HT20 CH 11 2462MHz		4924	37.3	-36.7	74	56.65	31.3	6.7	57.35	100	0	P	H
		7386	44.51	-29.49	74	57.1	36.63	8.14	57.36	100	0	P	H
													H
													H
		4924	38.19	-35.81	74	57.54	31.3	6.7	57.35	100	0	P	V
		7386	44.2	-29.8	74	56.79	36.63	8.14	57.36	100	0	P	V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## 2.4GHz 2400~2483.5MHz

## WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level ( dB $\mu$ V )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 03 2422MHz		2389.1	60.65	-13.35	74	48.69	27.62	13.92	29.58	100	179	P	H
		2389.38	51.79	-2.21	54	39.83	27.62	13.92	29.58	100	179	A	H
	*	2422	106.77	-	-	94.84	27.56	13.95	29.58	100	179	P	H
	*	2422	98.39	-	-	86.46	27.56	13.95	29.58	100	179	A	H
		2489.78	53.3	-20.7	74	41.36	27.5	14.01	29.57	100	179	P	H
		2485.37	42.97	-11.03	54	31.04	27.5	14	29.57	100	179	A	H
		2386.3	56.58	-17.42	74	44.61	27.63	13.92	29.58	389	356	P	V
		2389.8	46.51	-7.49	54	34.55	27.62	13.92	29.58	389	356	A	V
	*	2422	104.27	-	-	92.34	27.56	13.95	29.58	389	356	P	V
	*	2422	96.48	-	-	84.55	27.56	13.95	29.58	389	356	A	V
802.11n HT40 CH 06 2437MHz		2490.2	53.02	-20.98	74	41.08	27.5	14.01	29.57	389	356	P	V
		2486.56	42.83	-11.17	54	30.9	27.5	14	29.57	389	356	A	V
		2389.94	62.17	-11.83	74	50.21	27.62	13.92	29.58	151	267	P	H
		2389.94	51.11	-2.89	54	39.15	27.62	13.92	29.58	151	267	A	H
	*	2437	112.1	-	-	100.19	27.53	13.96	29.58	151	267	P	H
	*	2437	104.01	-	-	92.1	27.53	13.96	29.58	151	267	A	H
		2483.5	62.93	-11.07	74	51	27.5	14	29.57	151	267	P	H
		2483.62	52.76	-1.24	54	40.83	27.5	14	29.57	151	267	A	H
		2388.82	56.83	-17.17	74	44.87	27.62	13.92	29.58	382	358	P	V
		2388.96	44.99	-9.01	54	33.03	27.62	13.92	29.58	382	358	A	V
	*	2437	109.02	-	-	97.11	27.53	13.96	29.58	382	358	P	V
	*	2437	100.58	-	-	88.67	27.53	13.96	29.58	382	358	A	V
		2483.55	60.57	-13.43	74	48.64	27.5	14	29.57	382	358	P	V
		2483.5	50.23	-3.77	54	38.3	27.5	14	29.57	382	358	A	V



## FCC RADIO TEST REPORT

Report No. : FR911635C

		2312.94	53.17	-20.83	74	40.9	28	13.86	29.59	121	262	P	H
		2389.8	43.05	-10.95	54	31.09	27.62	13.92	29.58	121	262	A	H
	*	2452	106.42	-	-	94.53	27.5	13.97	29.58	121	262	P	H
	*	2452	98.25	-	-	86.36	27.5	13.97	29.58	121	262	A	H
802.11n		2483.5	61.01	-12.99	74	49.08	27.5	14	29.57	121	262	P	H
HT40		2484.81	51.98	-2.02	54	40.05	27.5	14	29.57	121	262	A	H
CH 09		2336.6	53.38	-20.62	74	41.28	27.81	13.88	29.59	375	354	P	V
2452MHz		2389.94	42.45	-11.55	54	30.49	27.62	13.92	29.58	375	354	A	V
	*	2452	105.4	-	-	93.51	27.5	13.97	29.58	375	354	P	V
	*	2452	97.34	-	-	85.45	27.5	13.97	29.58	375	354	A	V
		2484.95	59.01	-14.99	74	47.08	27.5	14	29.57	375	354	P	V
		2483.5	49.79	-4.21	54	37.86	27.5	14	29.57	375	354	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## 2.4GHz 2400~2483.5MHz

## WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level ( dB $\mu$ V )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 03 2422MHz		4844	37.59	-36.41	74	57.33	31.3	6.47	57.51	100	0	P	H
		7266	44.47	-29.53	74	56.76	36.7	8.23	57.22	100	0	P	H
													H
													H
		4844	38.02	-35.98	74	57.76	31.3	6.47	57.51	100	0	P	V
		7266	42.72	-31.28	74	55.01	36.7	8.23	57.22	100	0	P	V
													V
802.11n HT40 CH 06 2437MHz		4874	38.28	-35.72	74	57.92	31.25	6.56	57.45	100	0	P	H
		7311	43.23	-30.77	74	55.6	36.7	8.2	57.27	100	0	P	H
													H
													H
		4874	37.28	-36.72	74	56.92	31.25	6.56	57.45	100	0	P	V
		7311	42.93	-31.07	74	55.3	36.7	8.2	57.27	100	0	P	V
													V
802.11n HT40 CH 09 2452MHz		4904	37.62	-36.38	74	57.15	31.22	6.64	57.39	100	0	P	H
		7356	42.96	-31.04	74	55.43	36.69	8.17	57.33	100	0	P	H
													H
													H
		4904	37.13	-36.87	74	56.66	31.22	6.64	57.39	100	0	P	V
		7356	42.56	-31.44	74	55.03	36.69	8.17	57.33	100	0	P	V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Emission below 1GHz

## 2.4GHz WIFI 802.11n HT40 (LF)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		( MHz )	( dB $\mu$ V/m )	( dB )	( dB $\mu$ V/m )	(dB $\mu$ V)	( dB/m )	( dB )	( dB )	( cm )	( deg )	(P/A)	(H/V)
2.4GHz 802.11n HT40 LF		31.94	22.51	-17.49	40	30.7	23.64	0.46	32.29	-	-	P	H
		133.79	24.08	-19.42	43.5	37.99	17.28	1	32.19	-	-	P	H
		159.98	23.78	-19.72	43.5	38.77	16.1	1.08	32.17	-	-	P	H
		305.48	28.78	-17.22	46	40.55	18.91	1.47	32.15	-	-	P	H
		846.74	31.61	-14.39	46	31.94	28.73	2.61	31.67	-	-	P	H
		959.26	33.38	-12.62	46	30.92	30.69	2.68	30.91	100	0	P	H
													H
													H
													H
													H
													H
													H
													H
													H
Remark	1. No other spurious found. 2. All results are PASS against limit line.												



&lt;TXBF Mode&gt;

2.4GHz 2400~2483.5MHz

WIFI 802.11ac VHT20 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		( MHz )	( dB $\mu$ V/m )	( dB )	( dB $\mu$ V/m )	( dB $\mu$ V )	( dB/m )	( dB )	( dB )	( cm )	( deg )	(P/A)	(H/V)
802.11ac VHT20 CH 01 2412MHz		2390	62.65	-11.35	74	50.69	27.62	13.92	29.58	296	230	P	H
		2390	52.83	-1.17	54	40.87	27.62	13.92	29.58	296	230	A	H
	*	2412	111.14	-	-	99.2	27.58	13.94	29.58	296	230	P	H
	*	2412	103.06	-	-	91.12	27.58	13.94	29.58	296	230	A	H
													H
													H
		2389.8	63.66	-10.34	74	51.7	27.62	13.92	29.58	398	15	P	V
		2390	51.78	-2.22	54	39.82	27.62	13.92	29.58	398	15	A	V
	*	2412	108.33	-	-	96.39	27.58	13.94	29.58	398	15	P	V
	*	2412	100.43	-	-	88.49	27.58	13.94	29.58	398	15	A	V
													V
													V
802.11ac VHT20 CH 06 2437MHz		2389.8	55.43	-18.57	74	43.47	27.62	13.92	29.58	139	331	P	H
		2389.66	45.07	-8.93	54	33.11	27.62	13.92	29.58	139	331	A	H
	*	2437	115.27	-	-	103.36	27.53	13.96	29.58	139	331	P	H
	*	2437	105.55	-	-	93.64	27.53	13.96	29.58	139	331	A	H
		2483.97	54.61	-19.39	74	42.68	27.5	14	29.57	139	331	P	H
		2483.55	44.21	-9.79	54	32.28	27.5	14	29.57	139	331	A	H
		2388.96	53.95	-20.05	74	41.99	27.62	13.92	29.58	309	76	P	V
		2389.94	43.56	-10.44	54	31.6	27.62	13.92	29.58	309	76	A	V
	*	2437	110.51	-	-	98.6	27.53	13.96	29.58	309	76	P	V
	*	2437	101.63	-	-	89.72	27.53	13.96	29.58	309	76	A	V
		2483.76	52.65	-21.35	74	40.72	27.5	14	29.57	309	76	P	V
		2483.5	42.34	-11.66	54	30.41	27.5	14	29.57	309	76	A	V



## FCC RADIO TEST REPORT

Report No. : FR911635C

802.11ac VHT20 CH 11 2462MHz	*	2462	111.27	-	-	99.36	27.5	13.98	29.57	276	222	P	H
	*	2462	105.09	-	-	93.18	27.5	13.98	29.57	276	222	A	H
		2483.68	64.04	-9.96	74	52.11	27.5	14	29.57	276	222	P	H
		2483.52	52.36	-1.64	54	40.43	27.5	14	29.57	276	222	A	H
													H
													H
	*	2462	107.97	-	-	96.06	27.5	13.98	29.57	368	354	P	V
	*	2462	101.27	-	-	89.36	27.5	13.98	29.57	368	354	A	V
		2484.8	58.7	-15.3	74	46.77	27.5	14	29.57	368	354	P	V
		2483.52	48.12	-5.88	54	36.19	27.5	14	29.57	368	354	A	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## 2.4GHz 2400~2483.5MHz

## WIFI 802.11ac VHT20 (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level ( dB $\mu$ V )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT20 CH 01 2412MHz		4824	38.16	-35.84	74	57.99	31.3	6.42	57.55	100	0	P	H
													H
													H
													H
		4824	39.25	-34.75	74	59.08	31.3	6.42	57.55	100	0	P	V
													V
													V
													V
802.11ac VHT20 CH 06 2437MHz		4874	36.8	-37.2	74	56.44	31.25	6.56	57.45	100	0	P	H
		7311	43.72	-30.28	74	56.09	36.7	8.2	57.27	100	0	P	H
													H
													H
		4874	37.7	-36.3	74	57.34	31.25	6.56	57.45	100	0	P	V
		7311	43.11	-30.89	74	55.48	36.7	8.2	57.27	100	0	P	V
													V
													V
802.11ac VHT20 CH 11 2462MHz		4924	37.45	-36.55	74	56.8	31.3	6.7	57.35	100	0	P	H
		7386	44.13	-29.87	74	56.72	36.63	8.14	57.36	100	0	P	H
													H
													H
		4924	38	-36	74	57.35	31.3	6.7	57.35	100	0	P	V
		7386	44.14	-29.86	74	56.73	36.63	8.14	57.36	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## 2.4GHz 2400~2483.5MHz

## WIFI 802.11ac VHT40 (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level ( dB $\mu$ V )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT40 CH 03 2422MHz		2388.4	65.35	-8.65	74	53.39	27.62	13.92	29.58	288	231	P	H
		2389.94	52.02	-1.98	54	40.06	27.62	13.92	29.58	288	231	A	H
	*	2422	108.55	-	-	96.62	27.56	13.95	29.58	288	231	P	H
	*	2422	98.02	-	-	86.09	27.56	13.95	29.58	288	231	A	H
		2484.25	54.01	-19.99	74	42.08	27.5	14	29.57	288	231	P	H
		2483.62	42.57	-11.43	54	30.64	27.5	14	29.57	288	231	A	H
		2389.94	63.35	-10.65	74	51.39	27.62	13.92	29.58	400	71	P	V
		2389.94	49.27	-4.73	54	37.31	27.62	13.92	29.58	400	71	A	V
	*	2422	105.46	-	-	93.53	27.56	13.95	29.58	400	71	P	V
	*	2422	97.03	-	-	85.1	27.56	13.95	29.58	400	71	A	V
802.11ac VHT40 CH 06 2437MHz		2498.74	52.72	-21.28	74	40.78	27.5	14.01	29.57	400	71	P	V
		2486	41.74	-12.26	54	29.81	27.5	14	29.57	400	71	A	V
		2387.28	63.98	-10.02	74	52.01	27.63	13.92	29.58	112	216	P	H
		2389.94	51.86	-2.14	54	39.9	27.62	13.92	29.58	112	216	A	H
	*	2437	110.53	-	-	98.62	27.53	13.96	29.58	112	216	P	H
	*	2437	102.33	-	-	90.42	27.53	13.96	29.58	112	216	A	H
		2484.25	62.57	-11.43	74	50.64	27.5	14	29.57	112	216	P	H
		2483.52	51.29	-2.71	54	39.36	27.5	14	29.57	112	216	A	H
		2389.38	60.12	-13.88	74	48.16	27.62	13.92	29.58	400	70	P	V
		2389.94	48.04	-5.96	54	36.08	27.62	13.92	29.58	400	70	A	V
	*	2437	106.95	-	-	95.04	27.53	13.96	29.58	400	70	P	V
	*	2437	98.19	-	-	86.28	27.53	13.96	29.58	400	70	P	V
		2483.62	54.85	-19.15	74	42.92	27.5	14	29.57	400	70	P	V
		2483.55	44.65	-9.35	54	32.72	27.5	14	29.57	400	70	A	V



## FCC RADIO TEST REPORT

Report No. : FR911635C

	2388.68	53.02	-20.98	74	41.06	27.62	13.92	29.58	320	233	P	H
	2389.94	43.15	-10.85	54	31.19	27.62	13.92	29.58	320	233	A	H
*	2452	107.84	-	-	95.95	27.5	13.97	29.58	320	233	P	H
*	2452	99.23	-	-	87.34	27.5	13.97	29.58	320	233	A	H
802.11ac	2484.25	66.5	-7.5	74	54.57	27.5	14	29.57	320	233	P	H
VHT40	2483.5	52.23	-1.77	54	40.3	27.5	14	29.57	320	233	A	H
CH 09	2386.02	52.4	-21.6	74	40.43	27.63	13.92	29.58	337	156	P	V
2452MHz	2389.8	42.37	-11.63	54	30.41	27.62	13.92	29.58	337	156	A	V
*	2452	103.85	-	-	91.96	27.5	13.97	29.58	337	156	P	V
*	2452	95.05	-	-	83.16	27.5	13.97	29.58	337	156	A	V
	2484.53	58.57	-15.43	74	46.64	27.5	14	29.57	337	156	P	V
	2484.11	48.14	-5.86	54	36.21	27.5	14	29.57	337	156	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



## 2.4GHz 2400~2483.5MHz

## WIFI 802.11ac VHT40 (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency ( MHz )	Level ( dB $\mu$ V/m )	Over Limit ( dB )	Limit Line ( dB $\mu$ V/m )	Read Level ( dB $\mu$ V )	Antenna Factor ( dB/m )	Path Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT40 CH 03 2422MHz		4844	39.4	-34.6	74	59.14	31.3	6.47	57.51	100	0	P	H
		7266	43.01	-30.99	74	55.3	36.7	8.23	57.22	100	0	P	H
													H
													H
		4844	38.3	-35.7	74	58.04	31.3	6.47	57.51	100	0	P	V
		7266	44.17	-29.83	74	56.46	36.7	8.23	57.22	100	0	P	V
													V
802.11ac VHT40 CH 06 2437MHz		4874	36.75	-37.25	74	56.39	31.25	6.56	57.45	100	0	P	H
		7311	43.81	-30.19	74	56.18	36.7	8.2	57.27	100	0	P	H
													H
													H
		4874	36.87	-37.13	74	56.51	31.25	6.56	57.45	100	0	P	V
		7311	43.89	-30.11	74	56.26	36.7	8.2	57.27	100	0	P	V
													V
802.11ac VHT40 CH 09 2452MHz		4904	36.71	-37.29	74	56.24	31.22	6.64	57.39	100	0	P	H
		7356	43.09	-30.91	74	55.56	36.69	8.17	57.33	100	0	P	H
													H
													H
		4904	36.96	-37.04	74	56.49	31.22	6.64	57.39	100	0	P	V
		7356	42.9	-31.1	74	55.37	36.69	8.17	57.33	100	0	P	V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



## Emission below 1GHz

## 2.4GHz WIFI 802.11ac VHT20 (LF)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		( MHz )	( dB $\mu$ V/m )	( dB )	( dB $\mu$ V/m )	(dB $\mu$ V)	( dB/m )	( dB )	( dB )	( cm )	( deg )	(P/A)	(H/V)
2.4GHz 802.11ac VHT20 LF		30	23.2	-16.8	40	30.33	24.7	0.45	32.29	-	-	P	H
		62.01	23.29	-16.71	40	43.54	11.4	0.59	32.27	-	-	P	H
		133.79	25.37	-18.13	43.5	39.28	17.28	0.92	32.19	-	-	P	H
		304.51	28.76	-17.24	46	40.54	18.9	1.38	32.15	-	-	P	H
		896.21	34.78	-11.22	46	34.9	28.7	2.44	31.43	100	0	P	H
		949.56	33.76	-12.24	46	31.62	30.47	2.45	30.99	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
Remark	1. No other spurious found. 2. All results are PASS against limit line.												

**Note symbol**

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



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

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

$$1. \text{ Path Loss(dB)} = \text{Cable loss(dB)} + \text{Filter loss(dB)} + \text{Attenuator loss(dB)}$$

$$2. \text{ Level(dB $\mu$ V/m)} =$$

$$\text{Antenna Factor(dB/m)} + \text{Path Loss(dB)} + \text{Read Level(dB $\mu$ V)} - \text{Preamp Factor(dB)}$$

$$3. \text{ Over Limit(dB)} = \text{Level(dB $\mu$ V/m)} - \text{Limit Line(dB $\mu$ V/m)}$$

#### For Peak Limit @ 2390MHz:

$$1. \text{ Level(dB $\mu$ V/m)}$$

$$= \text{Antenna Factor(dB/m)} + \text{Path Loss(dB)} + \text{Read Level(dB $\mu$ V)} - \text{Preamp Factor(dB)}$$

$$= 32.22(\text{dB/m}) + 4.58(\text{dB}) + 54.51(\text{dB $\mu$ V}) - 35.86 (\text{dB})$$

$$= 55.45 (\text{dB $\mu$ V/m})$$

$$2. \text{ Over Limit(dB)}$$

$$= \text{Level(dB $\mu$ V/m)} - \text{Limit Line(dB $\mu$ V/m)}$$

$$= 55.45(\text{dB $\mu$ V/m}) - 74(\text{dB $\mu$ V/m})$$

$$= -18.55(\text{dB})$$

#### For Average Limit @ 2390MHz:

$$1. \text{ Level(dB $\mu$ V/m)}$$

$$= \text{Antenna Factor(dB/m)} + \text{Path Loss(dB)} + \text{Read Level(dB $\mu$ V)} - \text{Preamp Factor(dB)}$$

$$= 32.22(\text{dB/m}) + 4.58(\text{dB}) + 42.6(\text{dB $\mu$ V}) - 35.86 (\text{dB})$$

$$= 43.54 (\text{dB $\mu$ V/m})$$

$$2. \text{ Over Limit(dB)}$$

$$= \text{Level(dB $\mu$ V/m)} - \text{Limit Line(dB $\mu$ V/m)}$$

$$= 43.54(\text{dB $\mu$ V/m}) - 54(\text{dB $\mu$ V/m})$$

$$= -10.46(\text{dB})$$

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



## Appendix C. Radiated Spurious Emission Plots

<b>Test Engineer :</b>	Ryan Lin, JC Liang, Wilson Wu	<b>Temperature :</b>	21.5~23.5°C
		<b>Relative Humidity :</b>	46.5~49.5%

### Note symbol

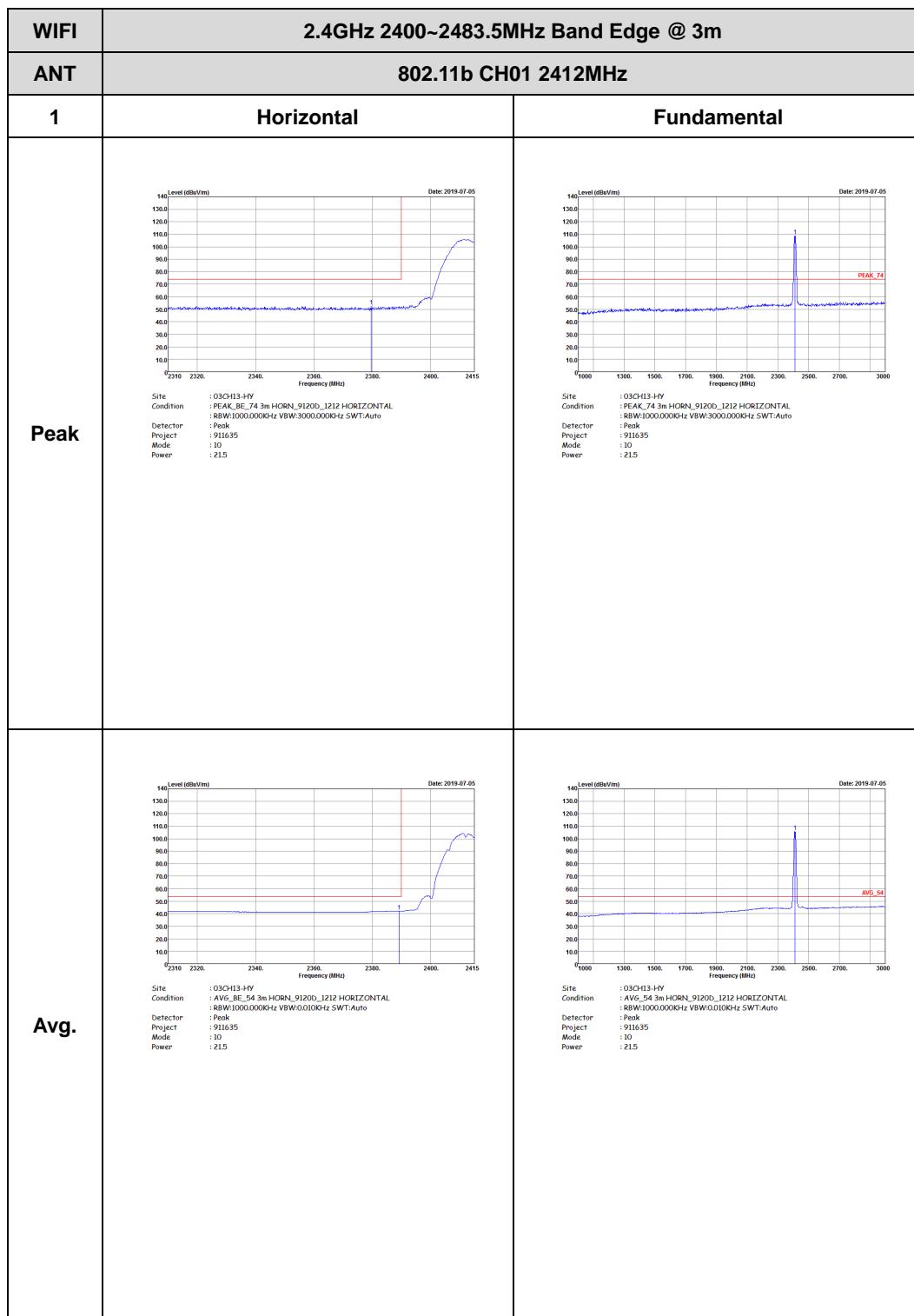
-L	Low channel location
-R	High channel location

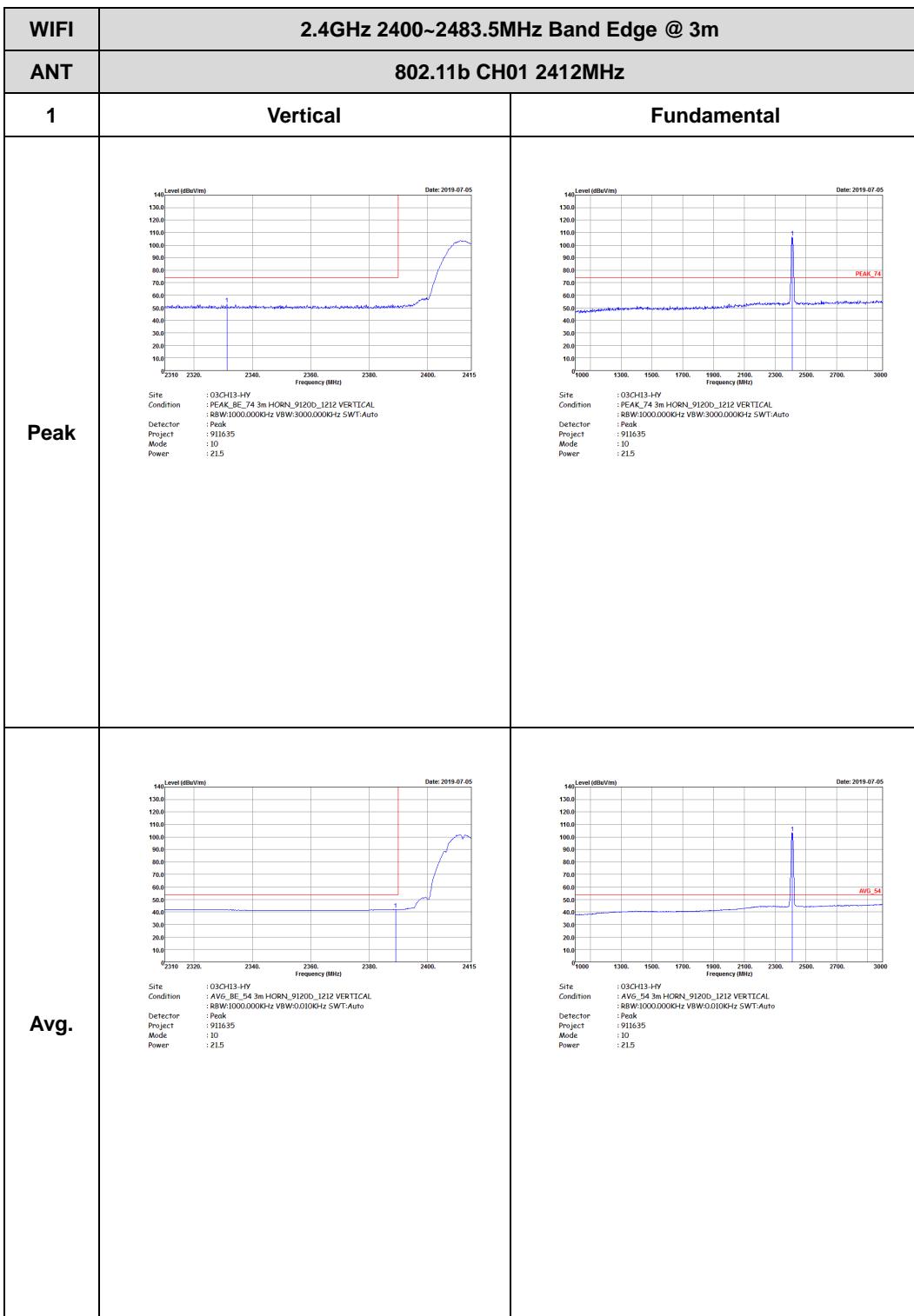


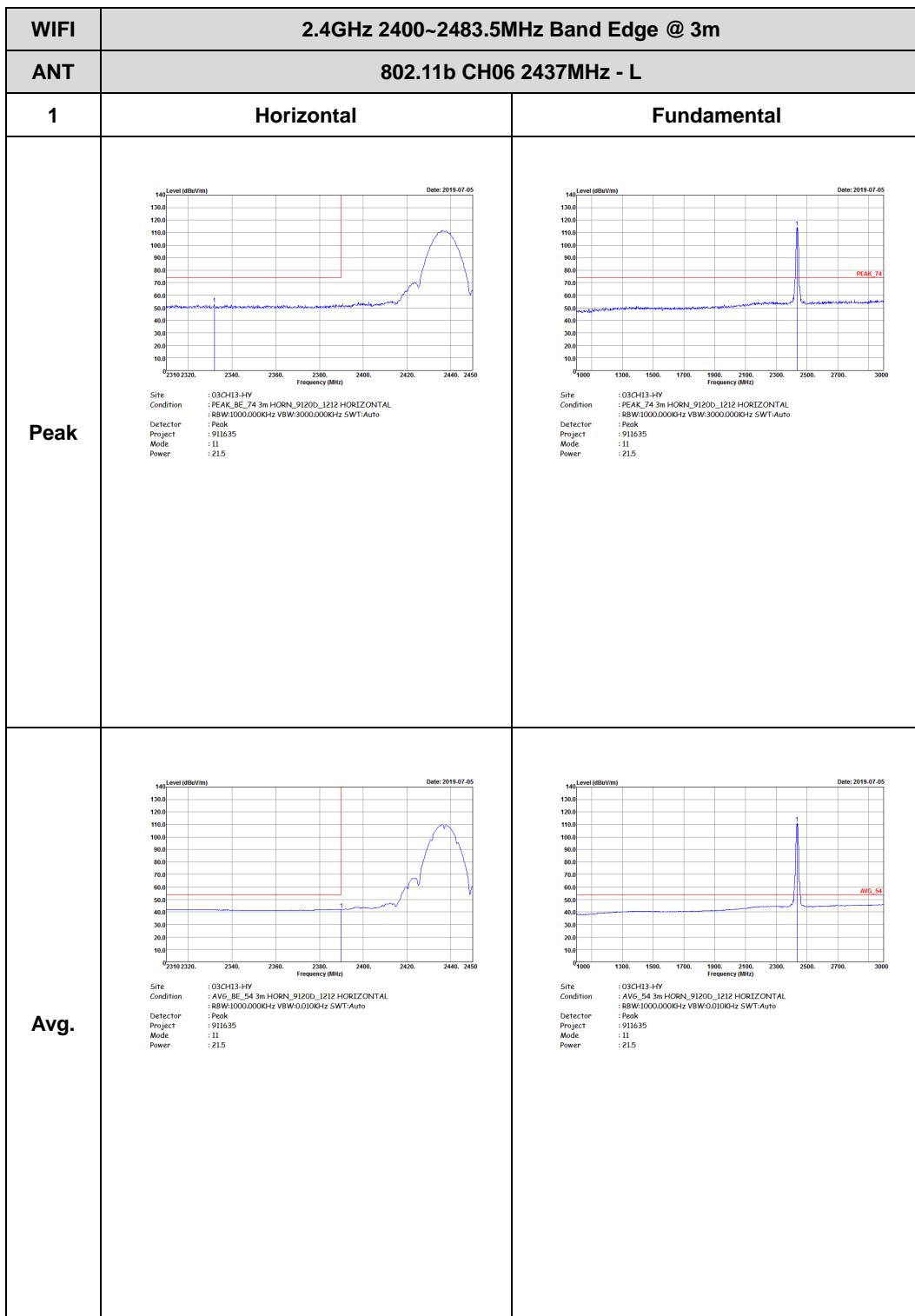
&lt;CCD Mode&gt;

2.4GHz 2400~2483.5MHz

WIFI 802.11b (Band Edge @ 3m)

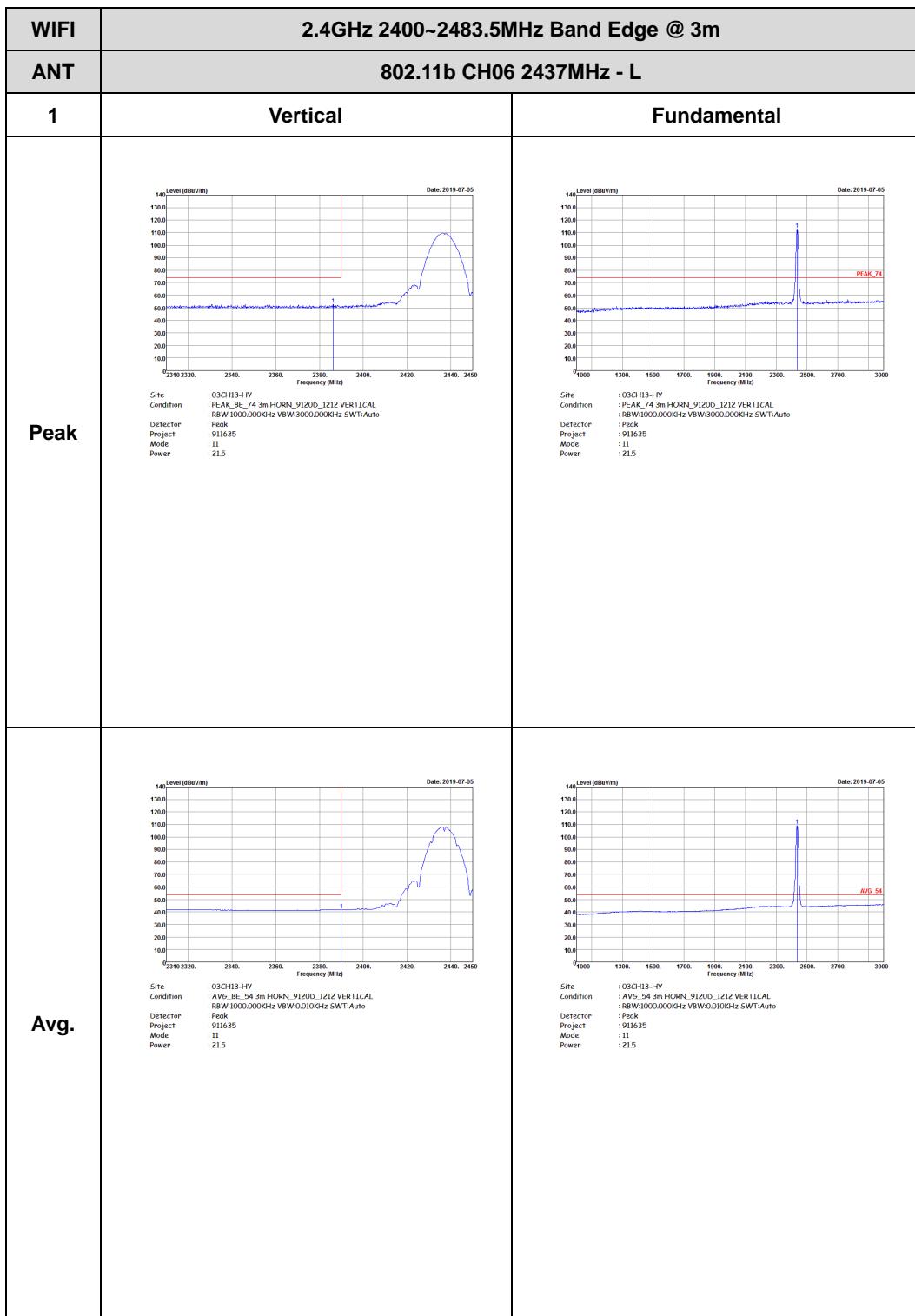




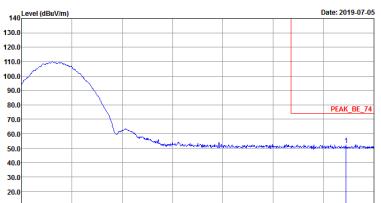


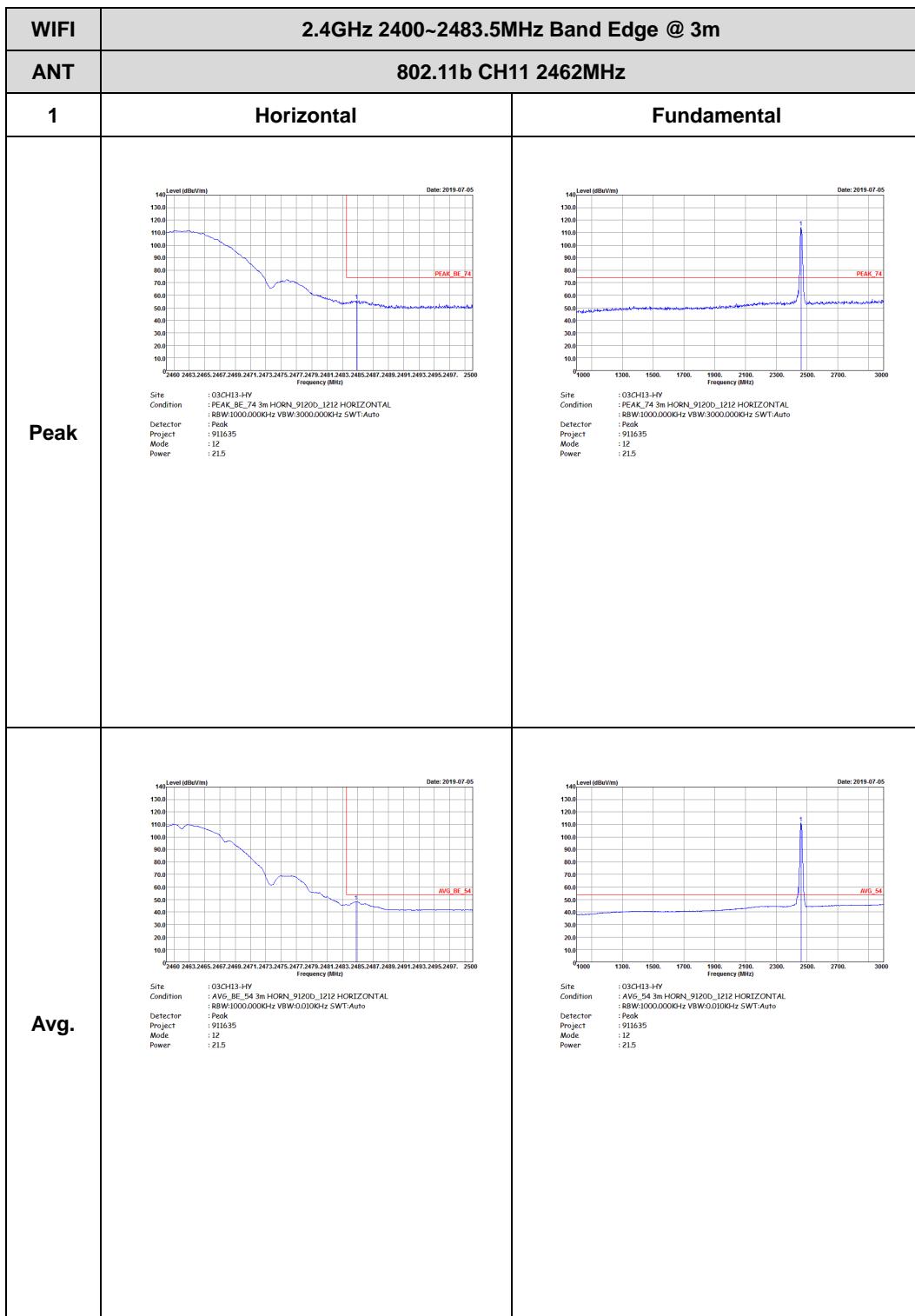


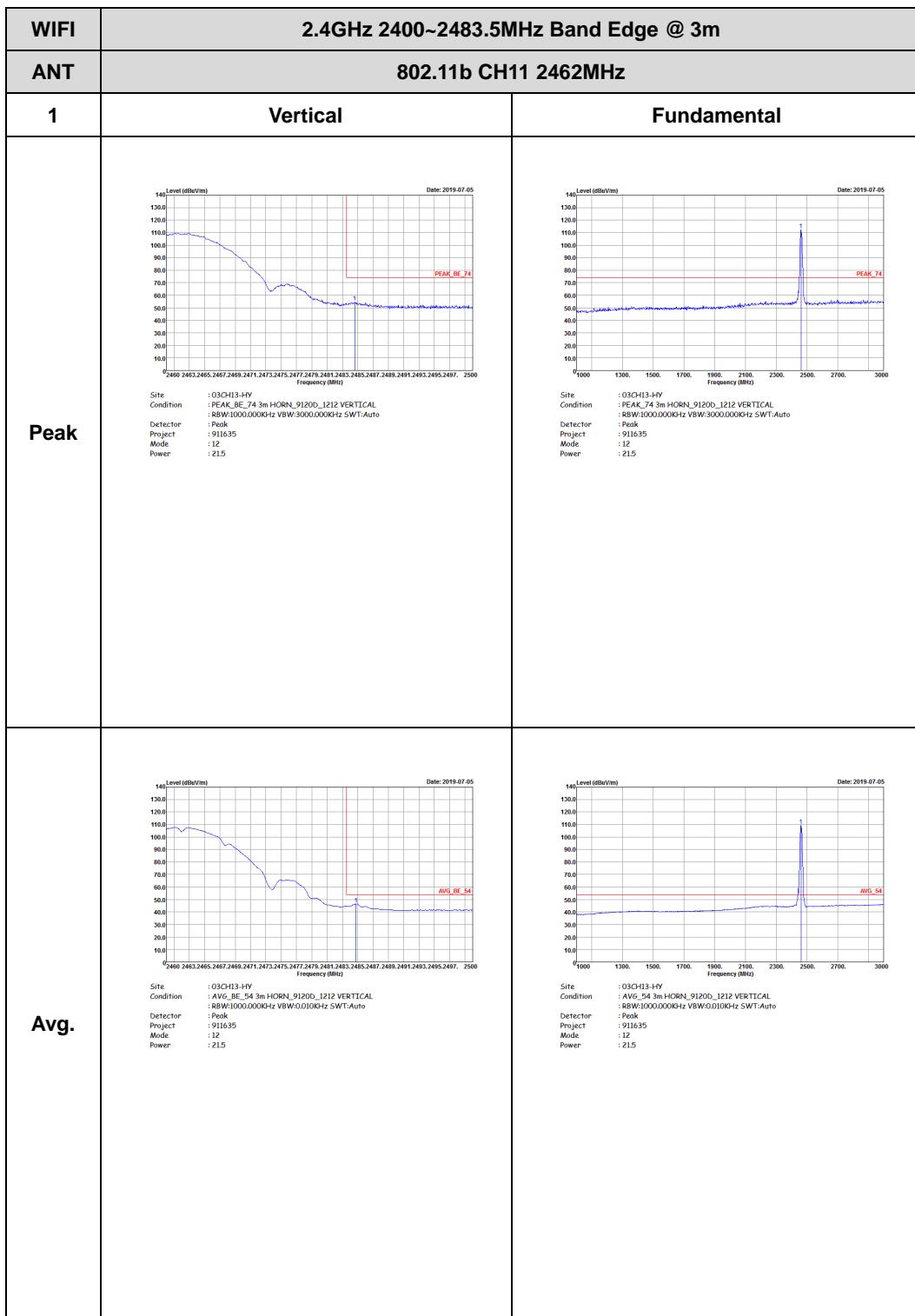
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - R	
1	Horizontal	Fundamental
Peak	<p>Graph showing Level (dBuV/m) vs Frequency (MHz) for Peak measurement. The graph shows a sharp peak at approximately 2437.4 MHz labeled 'PEAK BE_74'. The x-axis ranges from 2430 to 2500 MHz, and the y-axis ranges from 10.0 to 140.0 dBuV/m. The plot includes a red step function representing the band edge and a blue line representing the measured signal. The peak is indicated by a vertical line and a red box.</p> <p>Date: 2019-07-05</p> <p>Site : 03CH13-HY Condition : PCAK_BE_74 3m HORN_91200_1212 HORIZONTAL Detector : R8W:1000.000KHz VBW:3000.000KHz SWT:Auto Project : 911635 Mode : II Power : 21.5</p>	Left blank
Avg.	<p>Graph showing Level (dBuV/m) vs Frequency (MHz) for Average measurement. The graph shows a broad average level at approximately 2437.54 MHz labeled 'AVG BE_54'. The x-axis ranges from 2430 to 2500 MHz, and the y-axis ranges from 10.0 to 140.0 dBuV/m. The plot includes a red step function representing the band edge and a blue line representing the measured signal. The average level is indicated by a vertical line and a red box.</p> <p>Date: 2019-07-05</p> <p>Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1212 HORIZONTAL Detector : R8W:1000.000KHz VBW:0.010KHz SWT:Auto Project : 911635 Mode : II Power : 21.5</p>	Left blank





WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - R	
1	Vertical	Fundamental
Peak	 <p>Level (dBm/V/m) vs Frequency (MHz) from 2430 to 2500. The plot shows a sharp peak labeled "PEAK_BE_74" at approximately 2437 MHz. The y-axis ranges from 10.0 to 140.0 dBm/V/m. The x-axis ranges from 2430 to 2500 MHz.</p> <p>Date: 2019-07-05</p> <p>Site : 03CH13-HV Condition : PCAK_BE_74 3m HORN_91200_1212 VERTICAL Detector : R8W:1000.000KHz VBW:3000.000KHz SWT:Auto Project : Peak Mode : 911635 Power : 11 Power : 21.5</p>	Left blank
Avg.	 <p>Level (dBm/V/m) vs Frequency (MHz) from 2430 to 2500. The plot shows a broad average level labeled "AVG_BE_54" at approximately 2437 MHz. The y-axis ranges from 10.0 to 140.0 dBm/V/m. The x-axis ranges from 2430 to 2500 MHz.</p> <p>Date: 2019-07-05</p> <p>Site : 03CH13-HV Condition : AVG_BE_54 3m HORN_91200_1212 VERTICAL Detector : R8W:1000.000KHz VBW:0.010KHz SWT:Auto Project : Peak Mode : 911635 Power : 11 Power : 21.5</p>	Left blank



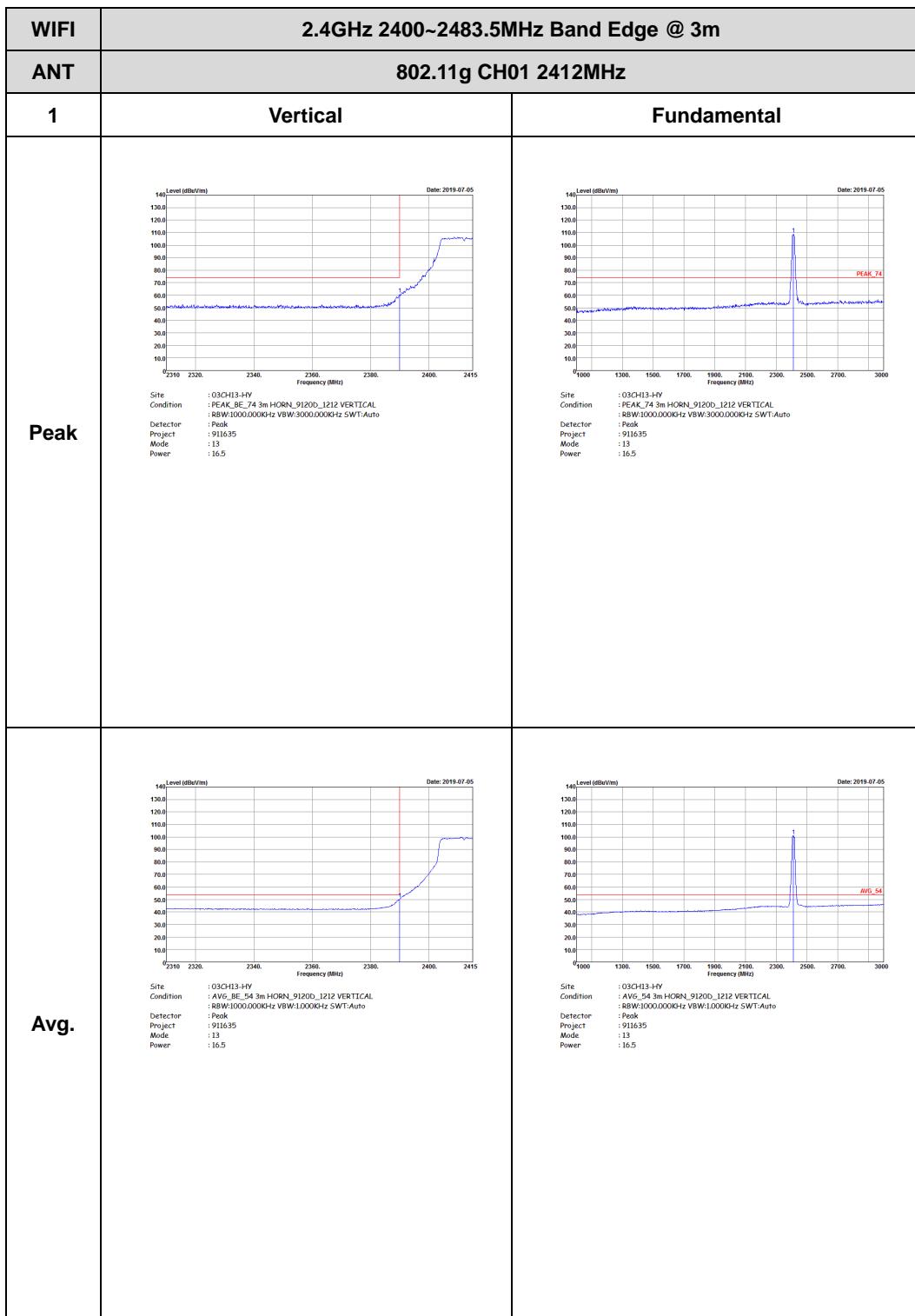


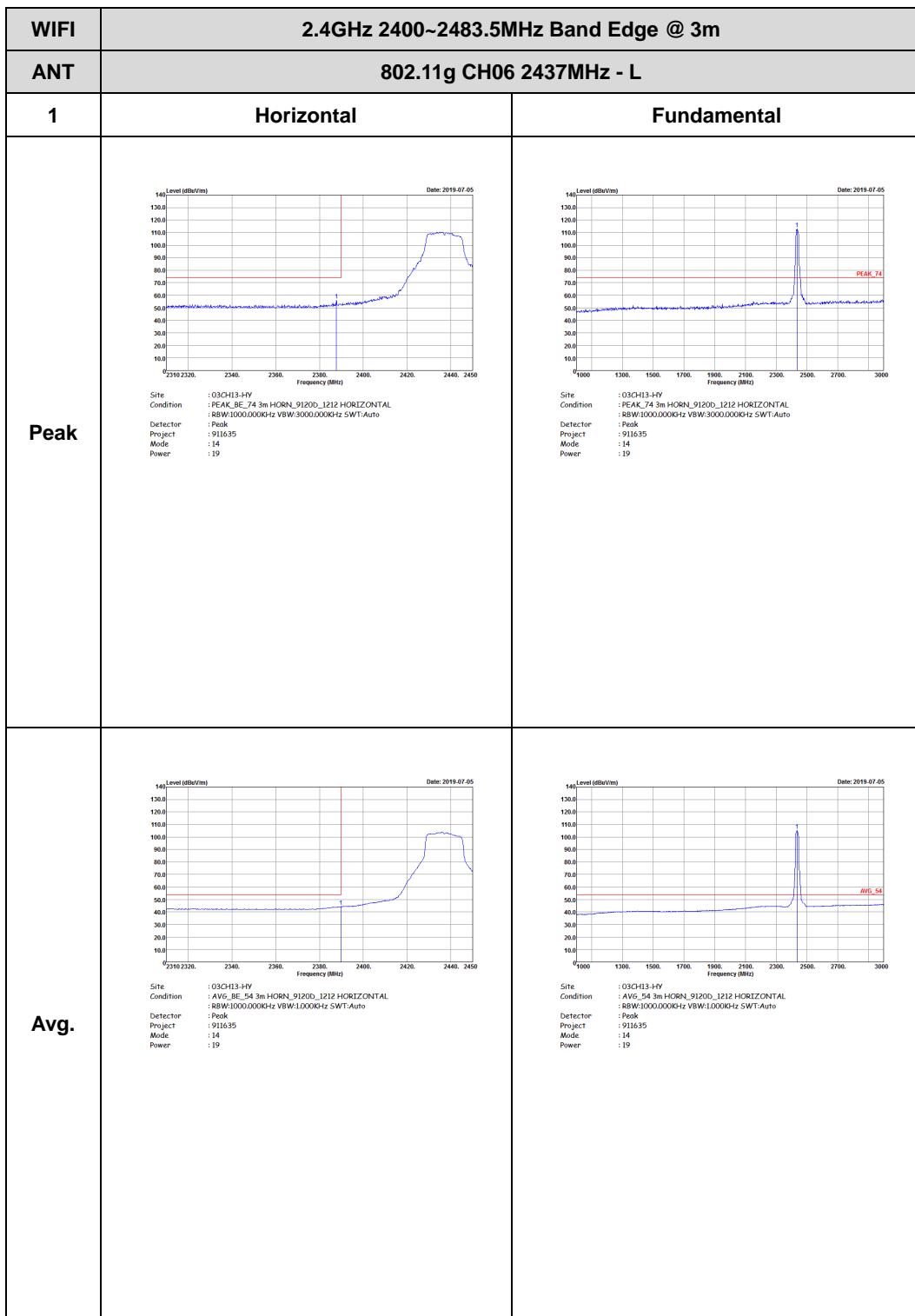


## 2.4GHz 2400~2483.5MHz

## WIFI 802.11g (Band Edge @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH01 2412MHz	
1	Horizontal	Fundamental
Peak	 Site : 03G13-HY Condition : PEAK_BE_74_3m_HORN_9120D_1212_HORIZONTAL Detector : R8W:1000.000KHz VBW:3000.000Hz SWT:Auto Project : 911635 Mode : 13 Power : 16.5   Site : 03G13-HY Condition : PEAK_74_3m_HORN_9120D_1212_HORIZONTAL Detector : R8W:1000.000KHz VBW:3000.000Hz SWT:Auto Project : 911635 Mode : 13 Power : 16.5	
Avg.	 Site : 03G13-HY Condition : AVG_BE_54_3m_HORN_9120D_1212_HORIZONTAL Detector : R8W:1000.000KHz VBW:1.000KHz SWT:Auto Project : 911635 Mode : 13 Power : 16.5   Site : 03G13-HY Condition : AVG_54_3m_HORN_9120D_1212_HORIZONTAL Detector : R8W:1000.000KHz VBW:1.000KHz SWT:Auto Project : 911635 Mode : 13 Power : 16.5	

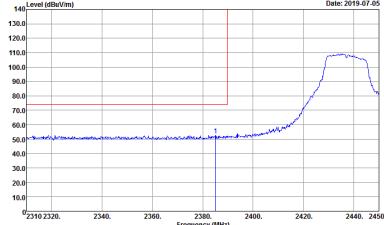
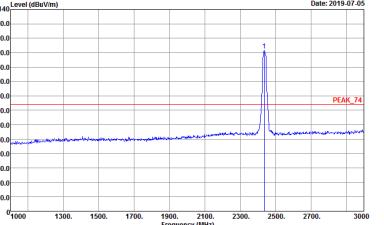
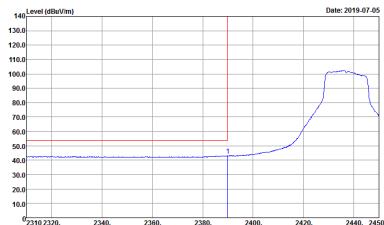






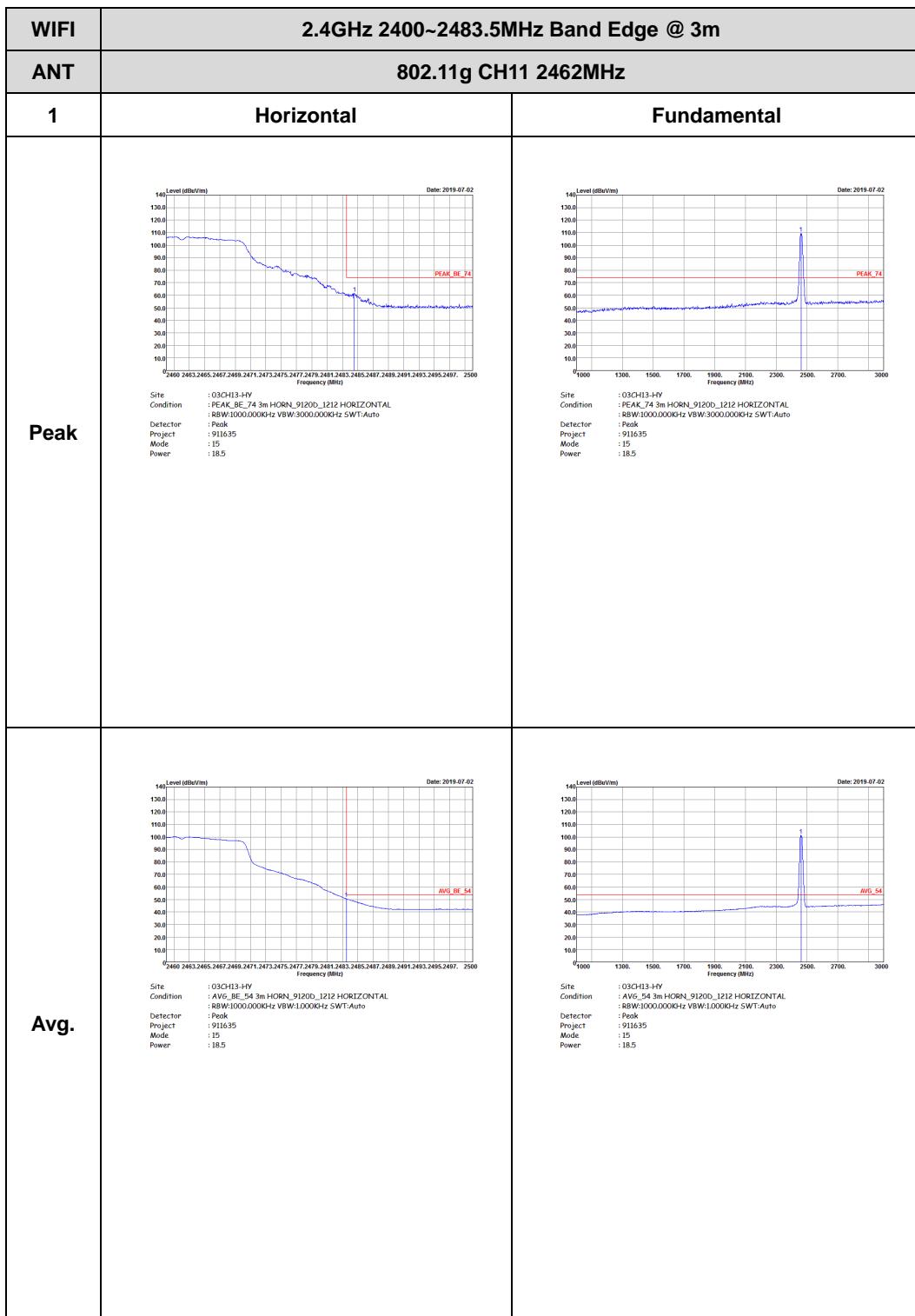
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - R	
1	Horizontal	Fundamental
Peak	<p>Graph showing Level (dBuV/m) vs Frequency (MHz) for Peak measurement. The graph shows a sharp peak at 2437 MHz labeled 'PEAK BE_74'. The Y-axis ranges from 10.0 to 140.0 dBuV/m. The X-axis ranges from 2430 to 2500 MHz. The plot includes a red step function and a blue line representing the signal level.</p> <p>Date: 2019-07-05</p> <p>Site : 03CH13-HY Condition : PCAK_BE_74 3m HORN_91200_1212 HORIZONTAL Detector : R8W1000.000KHz VBW:3000.000KHz SWT:Auto Project : 911635 Mode : 14 Power : 19</p>	Left blank
Avg.	<p>Graph showing Level (dBuV/m) vs Frequency (MHz) for Average measurement. The graph shows a peak at 2437 MHz labeled 'AVG BE_54'. The Y-axis ranges from 10.0 to 140.0 dBuV/m. The X-axis ranges from 2430 to 2500 MHz. The plot includes a red step function and a blue line representing the signal level.</p> <p>Date: 2019-07-05</p> <p>Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1212 HORIZONTAL Detector : R8W1000.000KHz VBW:1.000KHz SWT:Auto Project : 911635 Mode : 14 Power : 19</p>	Left blank

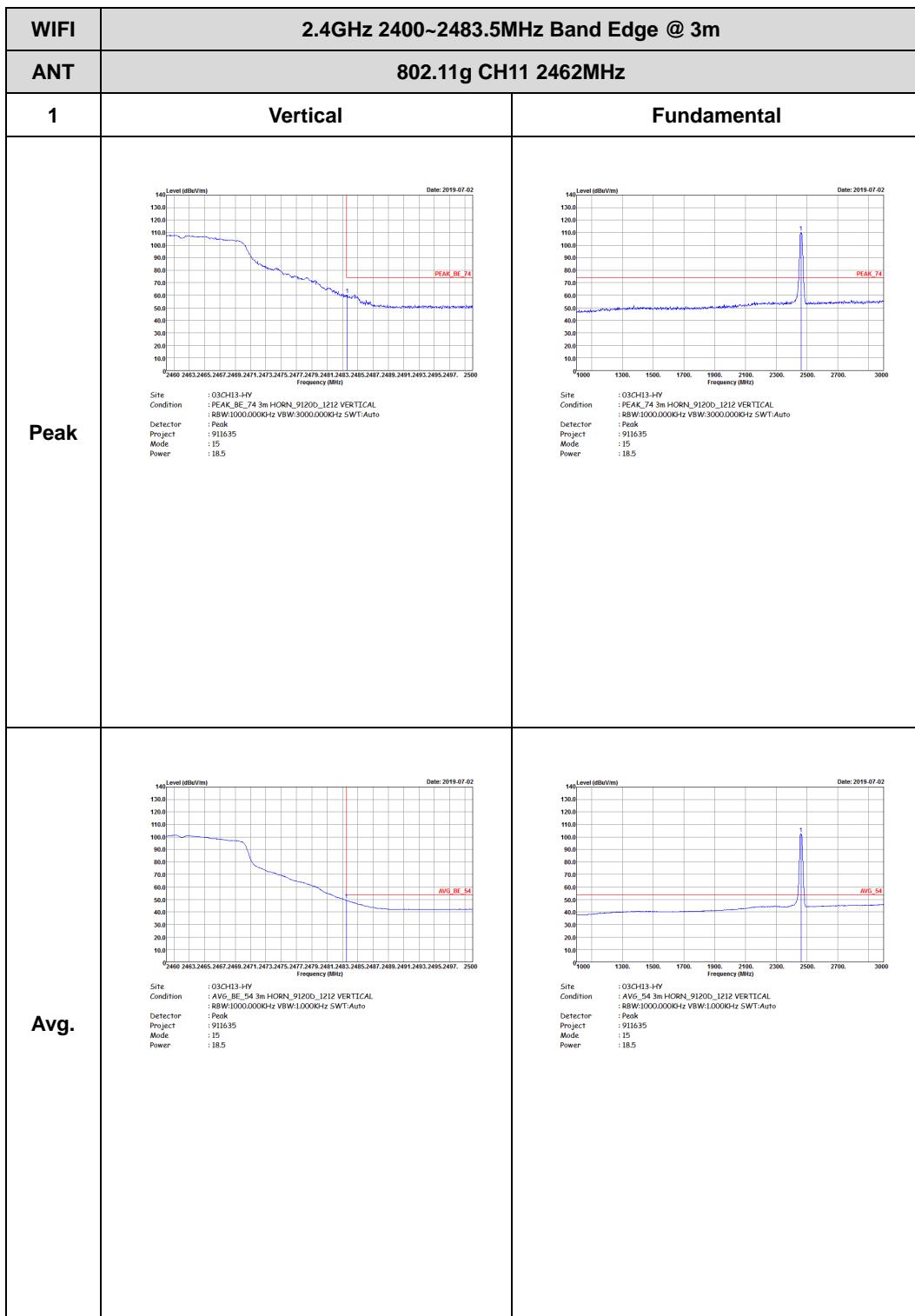


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - L	
1	Vertical	Fundamental
Peak	 Site : 03CH13-HY Condition : PCAK_BE_74 3m HORN_91200_1212 VERTICAL Detector : R8W:1000.000KHz VBW:3000.000KHz SWT:Auto Project : 911635 Mode : 14 Power : 19	 Site : 03CH13-HY Condition : PCAK_BE_74 3m HORN_91200_1212 VERTICAL Detector : R8W:1000.000KHz VBW:3000.000KHz SWT:Auto Project : 911635 Mode : 14 Power : 19
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1212 VERTICAL Detector : R8W:1000.000KHz VBW:1.000KHz SWT:Auto Project : 911635 Mode : 14 Power : 19	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1212 VERTICAL Detector : R8W:1000.000KHz VBW:1.000KHz SWT:Auto Project : 911635 Mode : 14 Power : 19



WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - R	
1	Vertical	Fundamental
Peak	<p>Site : 03CH13-HV Condition : PCAK_BE_74 3m HORN_91200_1212 VERTICAL Detector : R8W1000.000KHz VBW:3000.000KHz SWT:Auto Project : Peak Mode : 911635 Power : 14 Power : 19</p>	Left Blank
Avg.	<p>Site : 03CH13-HV Condition : AVG_BE_54 3m HORN_91200_1212 VERTICAL Detector : R8W1000.000KHz VBW:1.000KHz SWT:Auto Project : Peak Mode : 911635 Power : 14 Power : 19</p>	Left Blank



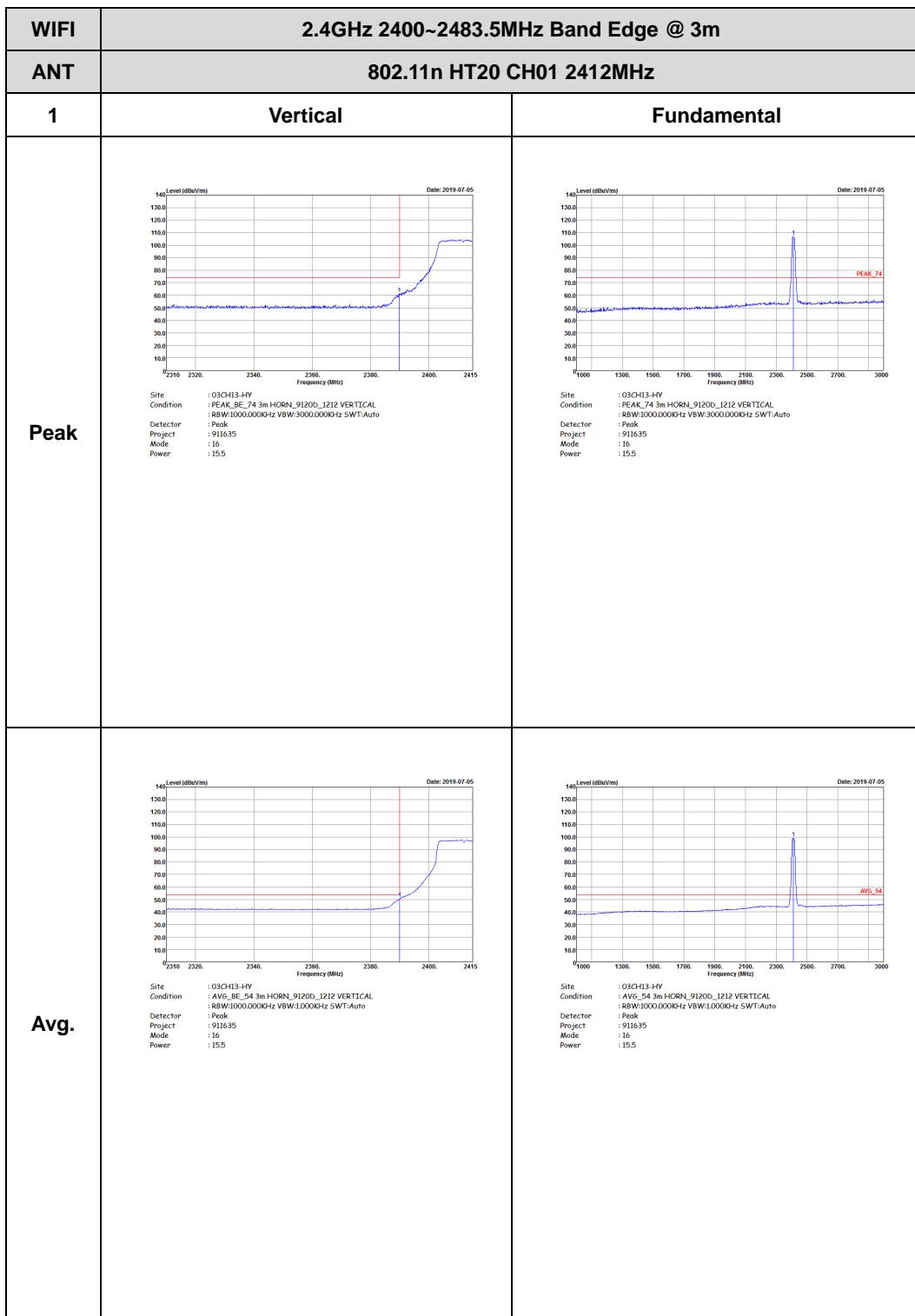


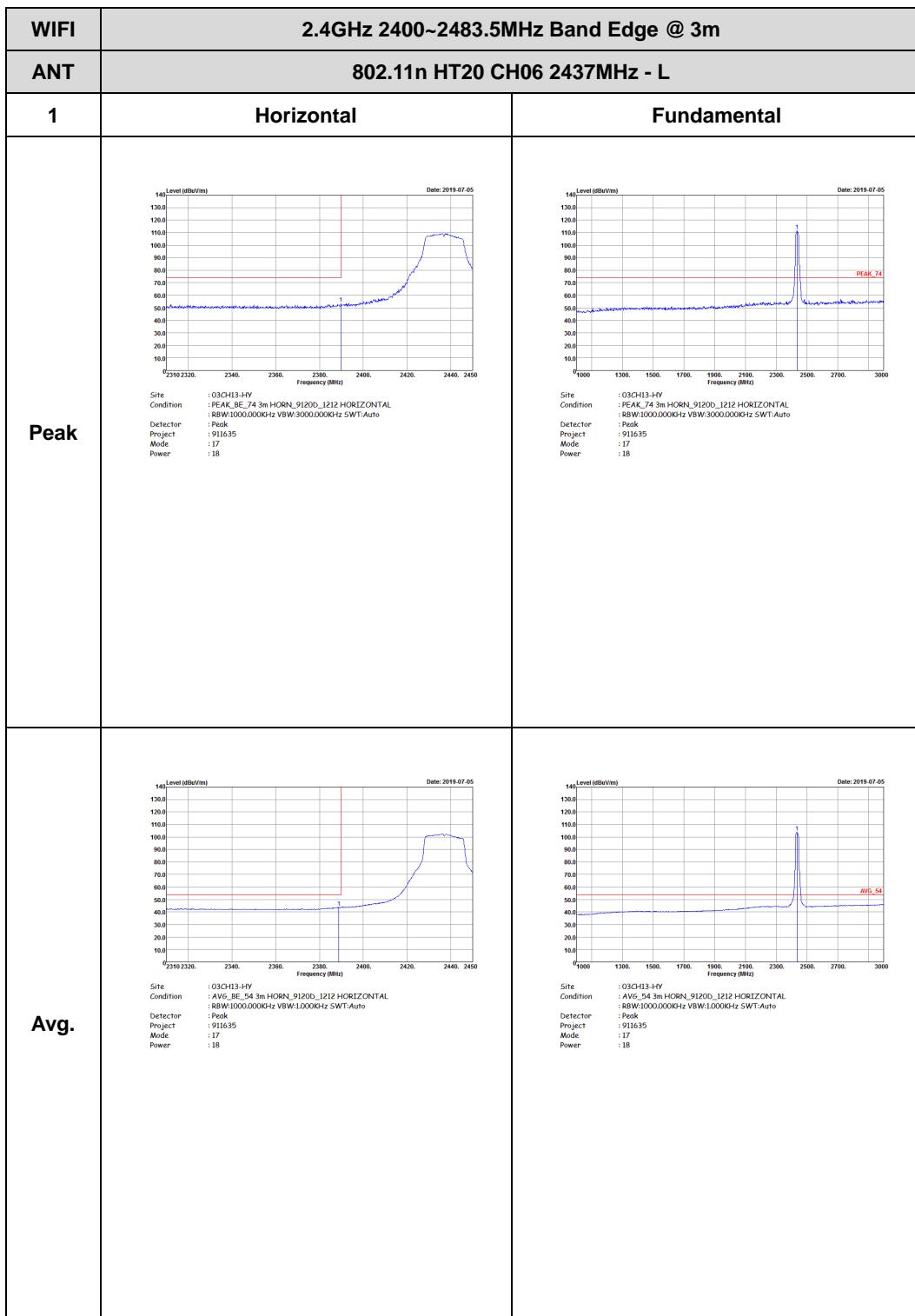


## 2.4GHz 2400~2483.5MHz

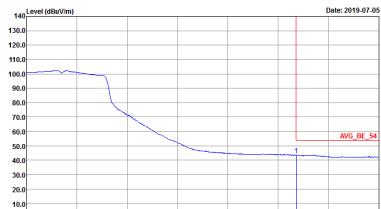
## WIFI 802.11n HT20 (Band Edge @ 3m)

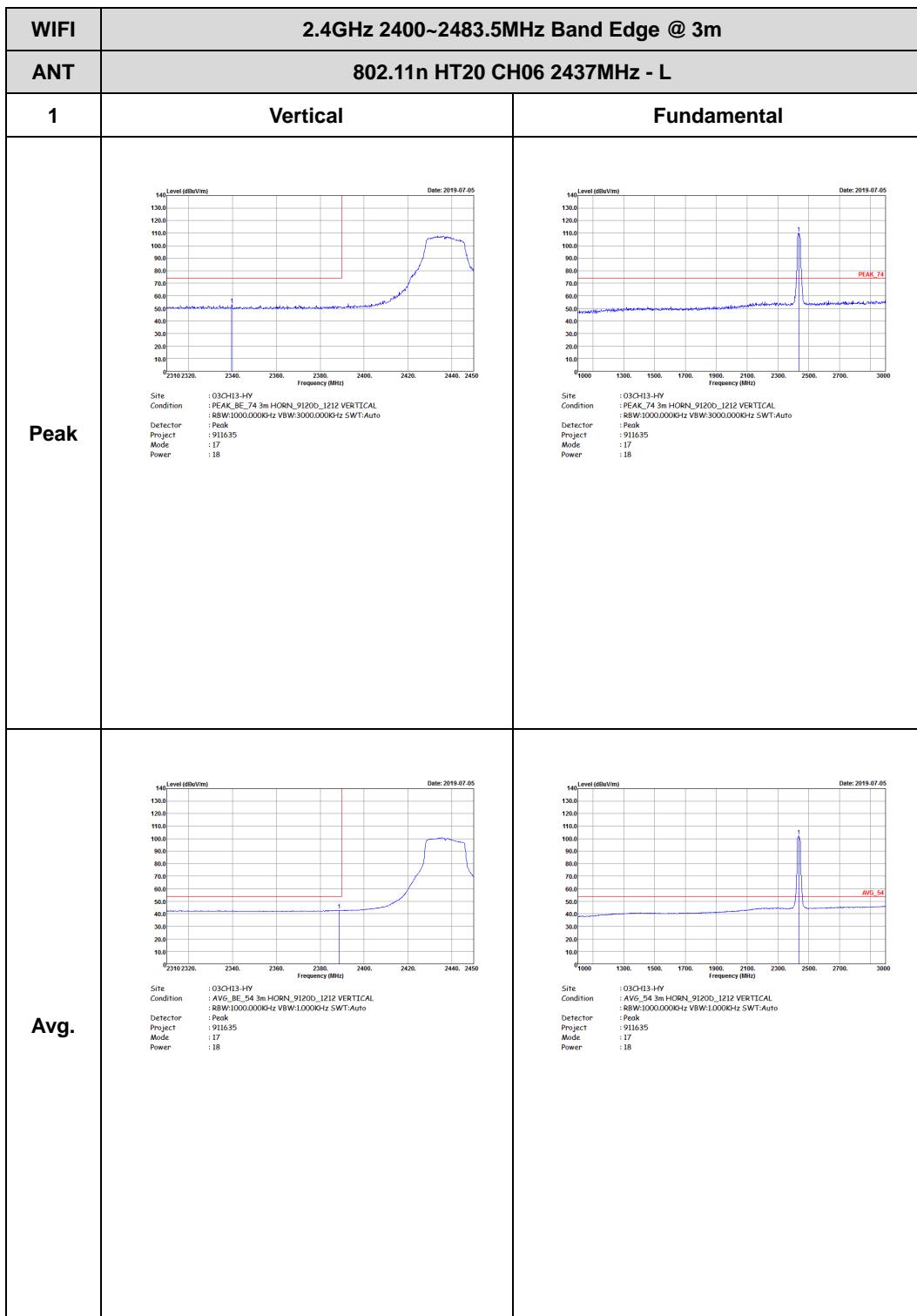
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH01 2412MHz	
1	Horizontal	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74_3m_HORN_9120D_1212_HORIZONTAL Detector : Peak Project : 911635 Mode : 16 Power : 15.5 Date: 2019-07-05	 Site : 03CH13-HY Condition : PEAK_74_3m_HORN_9120D_1212_HORIZONTAL Detector : Peak Project : 911635 Mode : 16 Power : 15.5 Date: 2019-07-05
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54_3m_HORN_9120D_1212_HORIZONTAL Detector : Peak Project : 911635 Mode : 16 Power : 15.5 Date: 2019-07-05	 Site : 03CH13-HY Condition : AVG_54_3m_HORN_9120D_1212_HORIZONTAL Detector : Peak Project : 911635 Mode : 16 Power : 15.5 Date: 2019-07-05





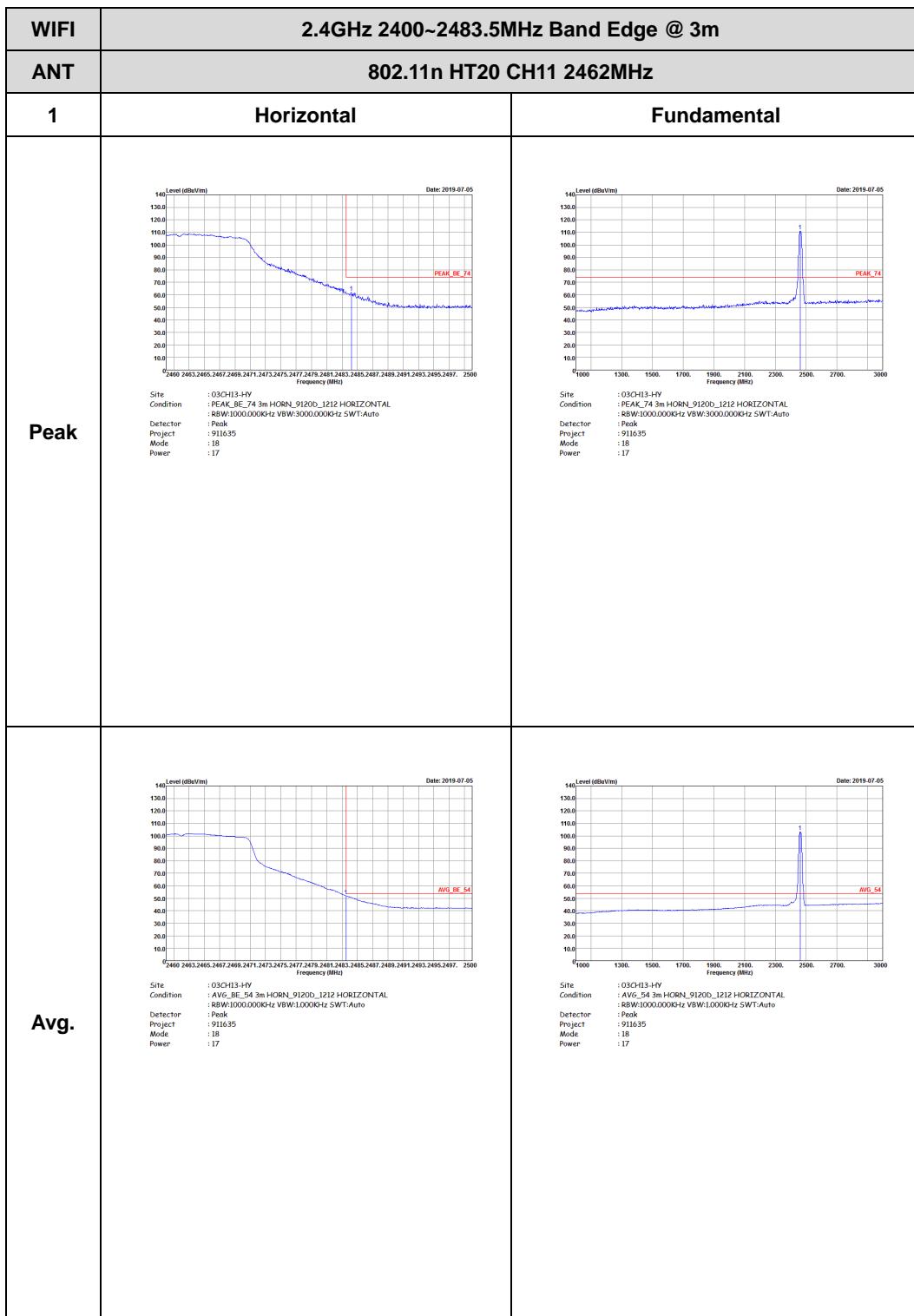


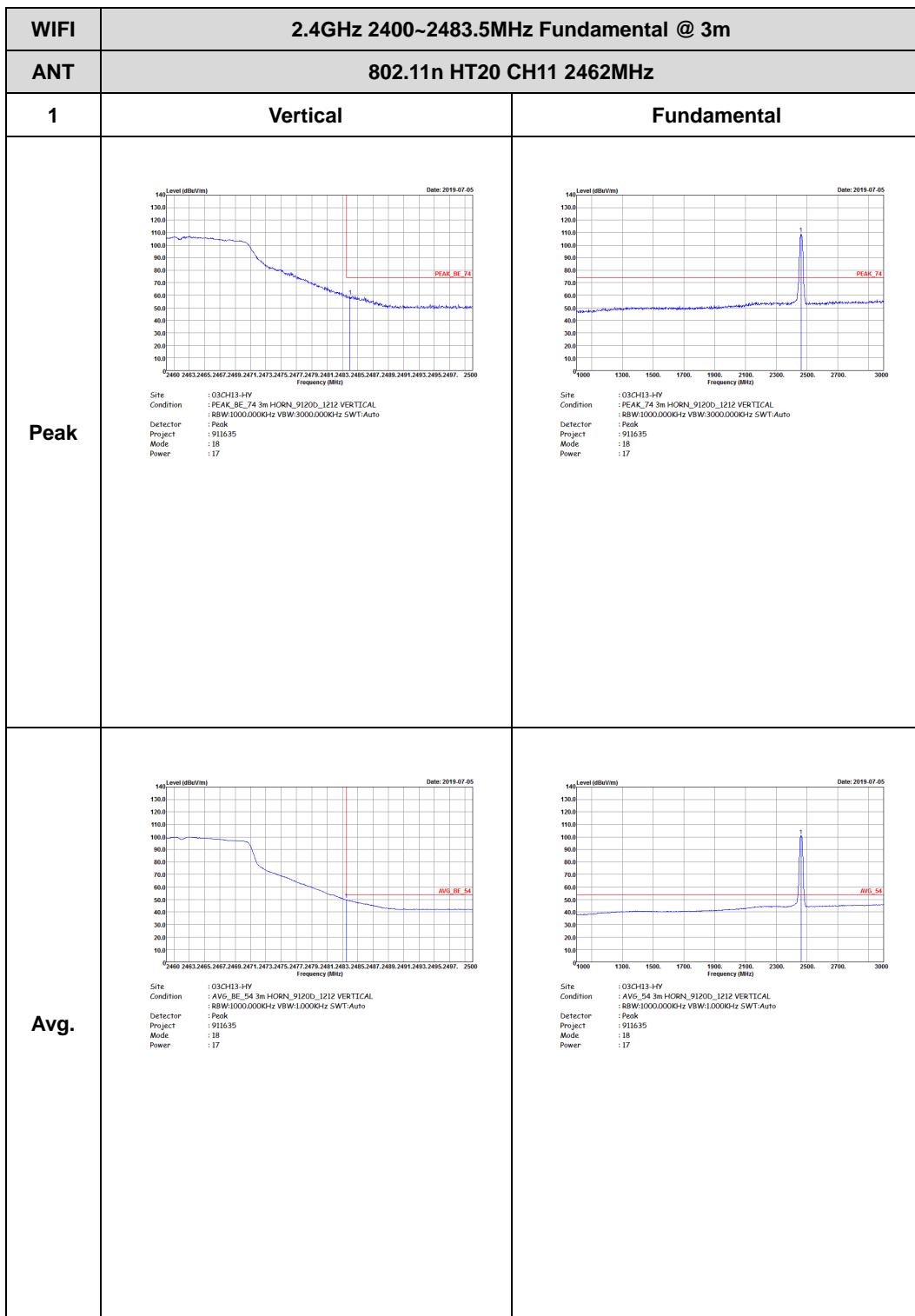
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH06 2437MHz - R	
1	Horizontal	Fundamental
Peak	 <p>Level (dBmV/m)</p> <p>Date: 2019-07-05</p> <p>Frequency (MHz)</p> <p>Site : 03CH13-HY Condition : PCAK_BE_74 3m HORN_91200_1212 HORIZONTAL Detector : R8W1000.000KHz VBW:3000.000KHz SWT:Auto Project : 911635 Mode : 17 Power : 18</p>	Left blank
Avg.	 <p>Level (dBmV/m)</p> <p>Date: 2019-07-05</p> <p>Frequency (MHz)</p> <p>Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1212 HORIZONTAL Detector : R8W1000.000KHz VBW:1.000KHz SWT:Auto Project : 911635 Mode : 17 Power : 18</p>	Left blank





WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH06 2437MHz - R	
1	Vertical	Fundamental
Peak	<p>Site : 03CH13-HV Condition : PCAK_BE_74 3m HORN_91200_1212 VERTICAL Detector : R8W1000.000KHz VBW:3000.000KHz SWT:Auto Project : 911635 Mode : 17 Power : 18</p>	Left Blank
Avg.	<p>Site : 03CH13-HV Condition : AVG_BE_54 3m HORN_91200_1212 VERTICAL Detector : R8W1000.000KHz VBW:1.000KHz SWT:Auto Project : 911635 Mode : 17 Power : 18</p>	Left Blank







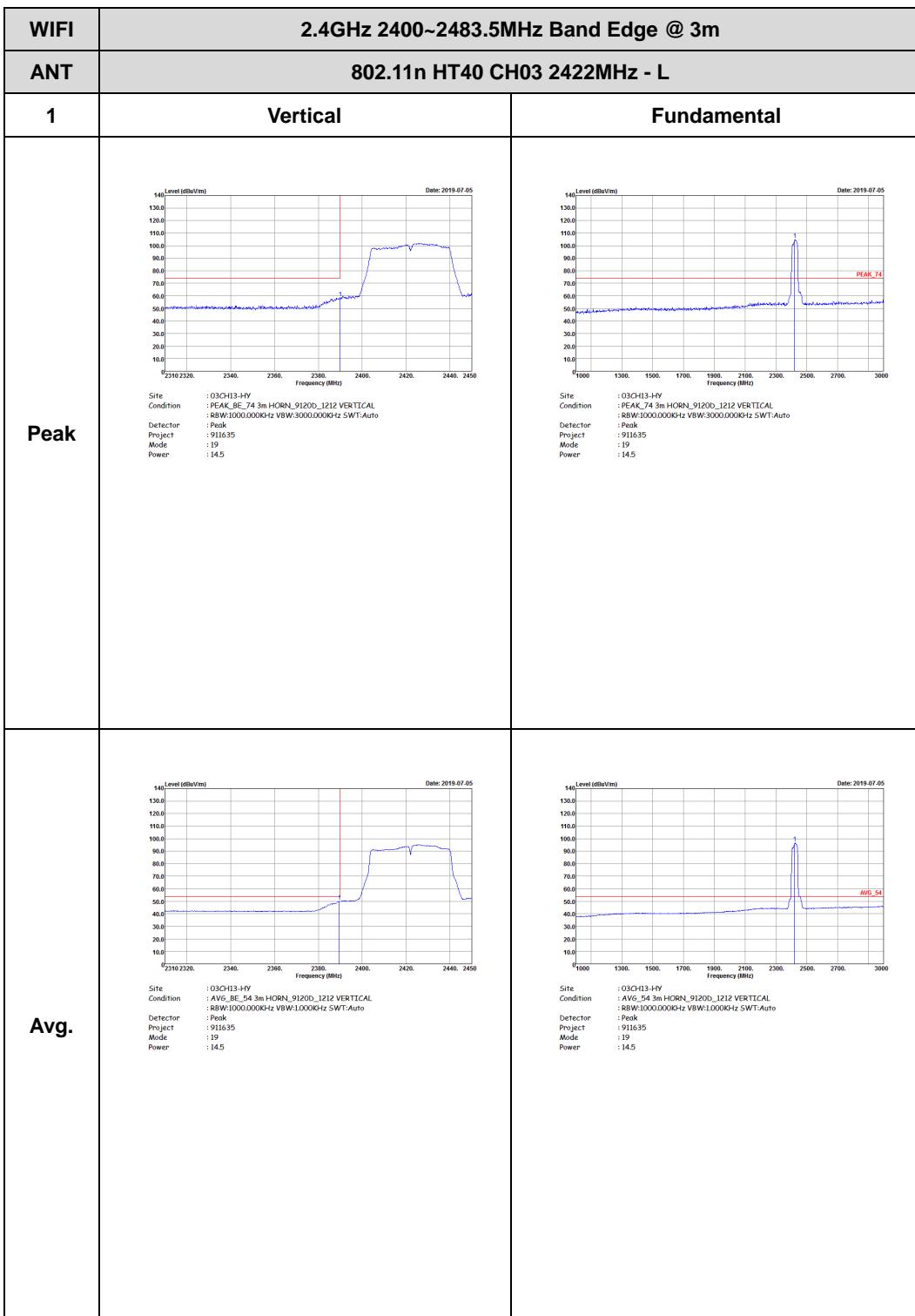
## 2.4GHz 2400~2483.5MHz

## WIFI 802.11n HT40 (Band Edge @ 3m)

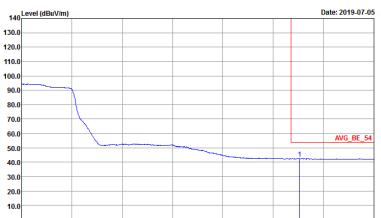
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH03 2422MHz - L	
1	Horizontal	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74_3m_HORN_91200_1212_HORIZONTAL Detector : R8W:1000.0000kHz VBW:3000.0000Hz SWT:Auto Project : 911635 Mode : 19 Power : 14.5	 Site : 03CH13-HY Condition : PEAK_74_3m_HORN_91200_1212_HORIZONTAL Detector : R8W:1000.0000kHz VBW:3000.0000Hz SWT:Auto Project : 911635 Mode : 19 Power : 14.5
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54_3m_HORN_91200_1212_HORIZONTAL Detector : R8W:1000.0000kHz VBW:1.0000Hz SWT:Auto Project : 911635 Mode : 19 Power : 14.5	 Site : 03CH13-HY Condition : AVG_54_3m_HORN_91200_1212_HORIZONTAL Detector : R8W:1000.0000kHz VBW:1.0000Hz SWT:Auto Project : 911635 Mode : 19 Power : 14.5

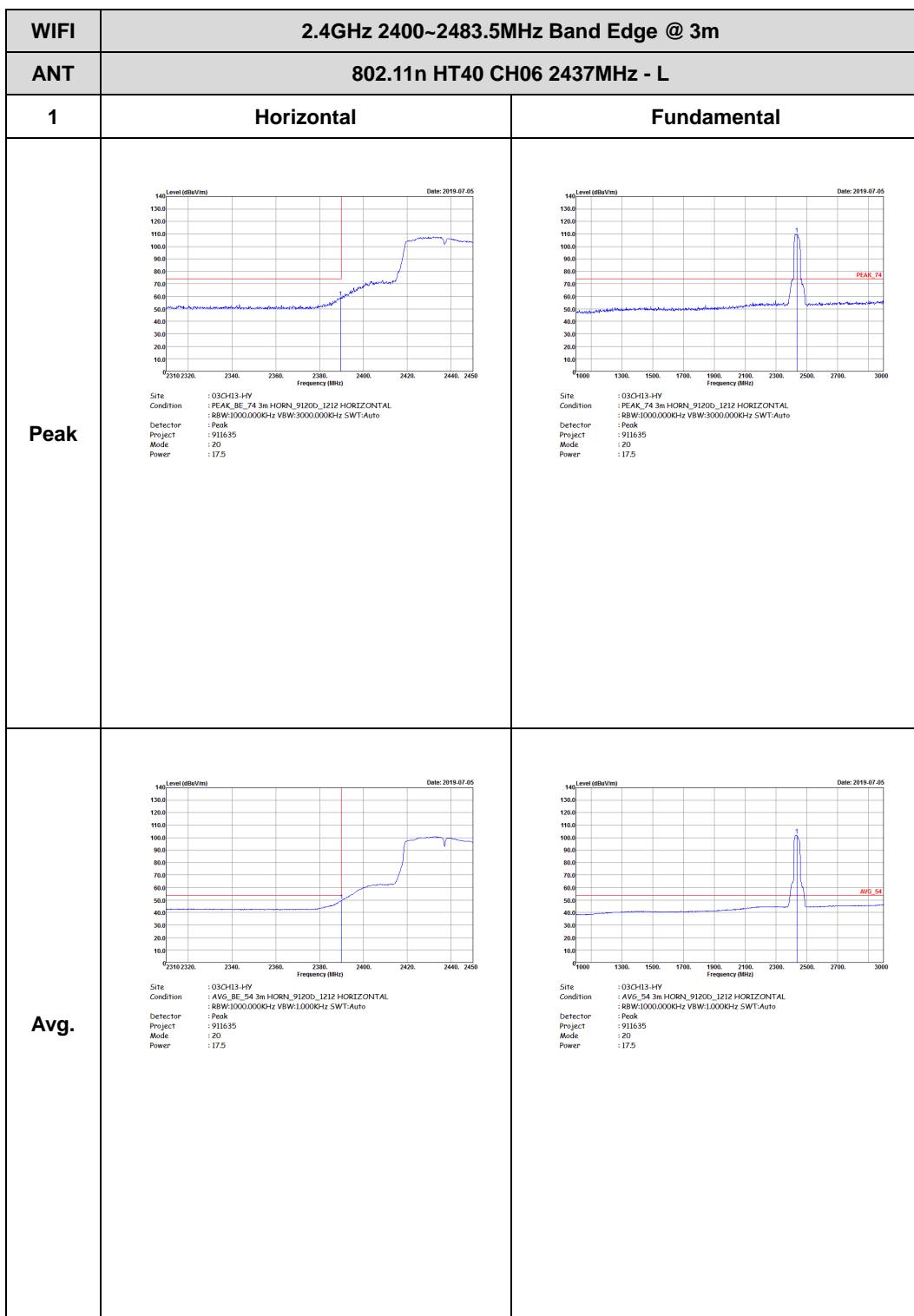


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH03 2422MHz - R	
1	Horizontal	Fundamental
Peak	<p>Site : 03CH13-HV Condition : PCMK_BE_74 3m HORN_91200_1212 HORIZONTAL Detector : R8W1000.000KHz VBW:3000.000KHz SWT:Auto Project : 911635 Mode : 19 Power : 14.5</p>	Left Blank
Avg.	<p>Site : 03CH13-HV Condition : AVG_BE_54 3m HORN_91200_1212 HORIZONTAL Detector : R8W1000.000KHz VBW:1.000KHz SWT:Auto Project : 911635 Mode : 19 Power : 14.5</p>	Left Blank



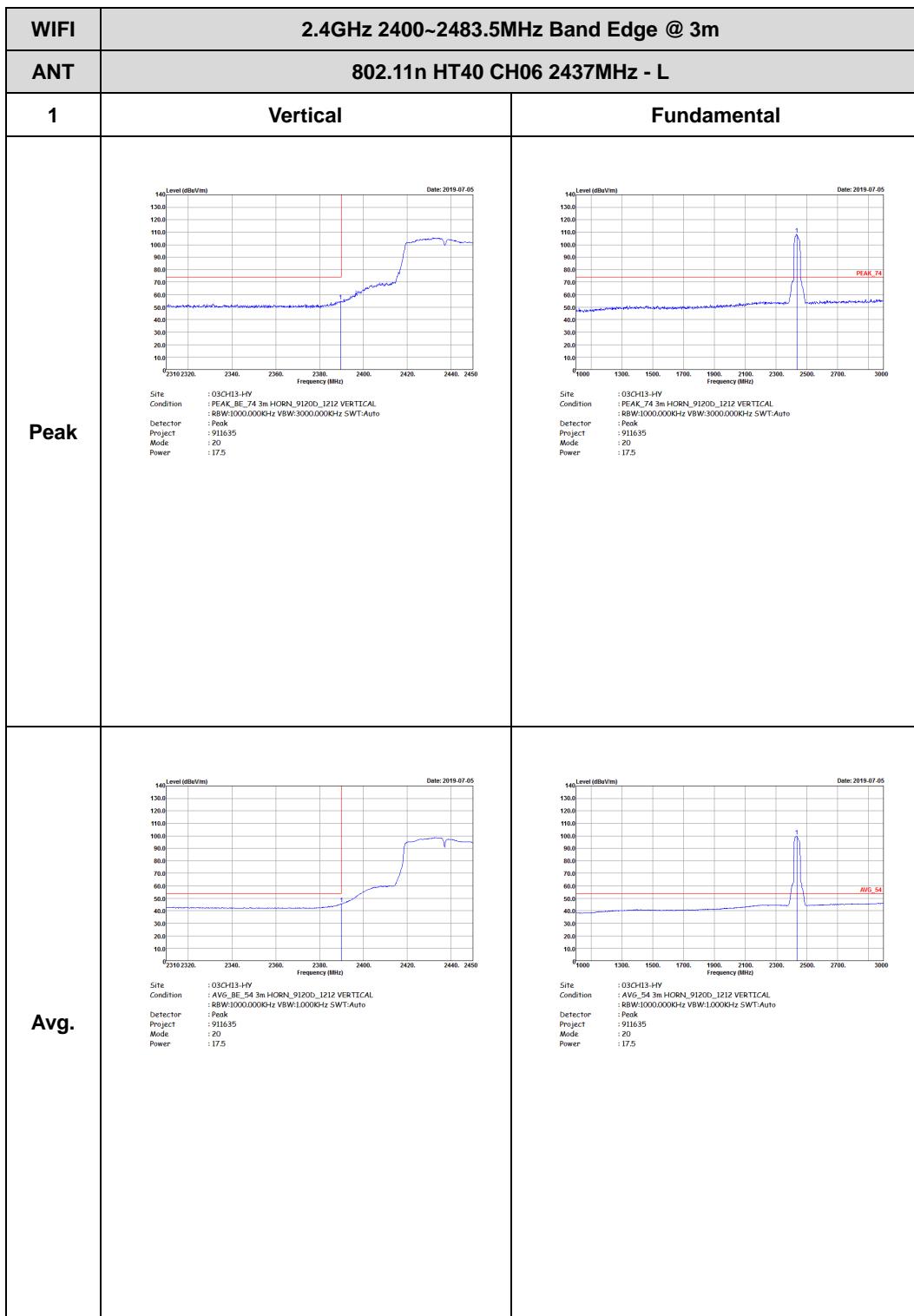


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH03 2422MHz - R	
1	Vertical	Fundamental
Peak	 <p>Level (dBm/V/m)</p> <p>Date: 2019-07-05</p> <p>Site : 03CH13-HV Condition : PCAK_BE_74 3m HORN_91200_1212 VERTICAL Detector : R8W1000.000KHz VBW:3000.000KHz SWT:Auto Project : 911635 Mode : 19 Power : 14.5</p>	Left blank
Avg.	 <p>Level (dBm/V/m)</p> <p>Date: 2019-07-05</p> <p>Site : AVG_BE_54 3m HORN_91200_1212 VERTICAL Condition : R8W1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 911635 Mode : 19 Power : 14.5</p>	Left blank

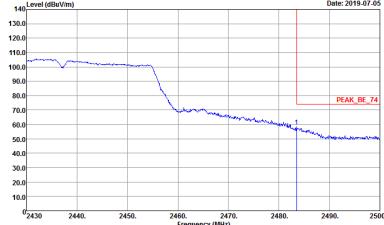


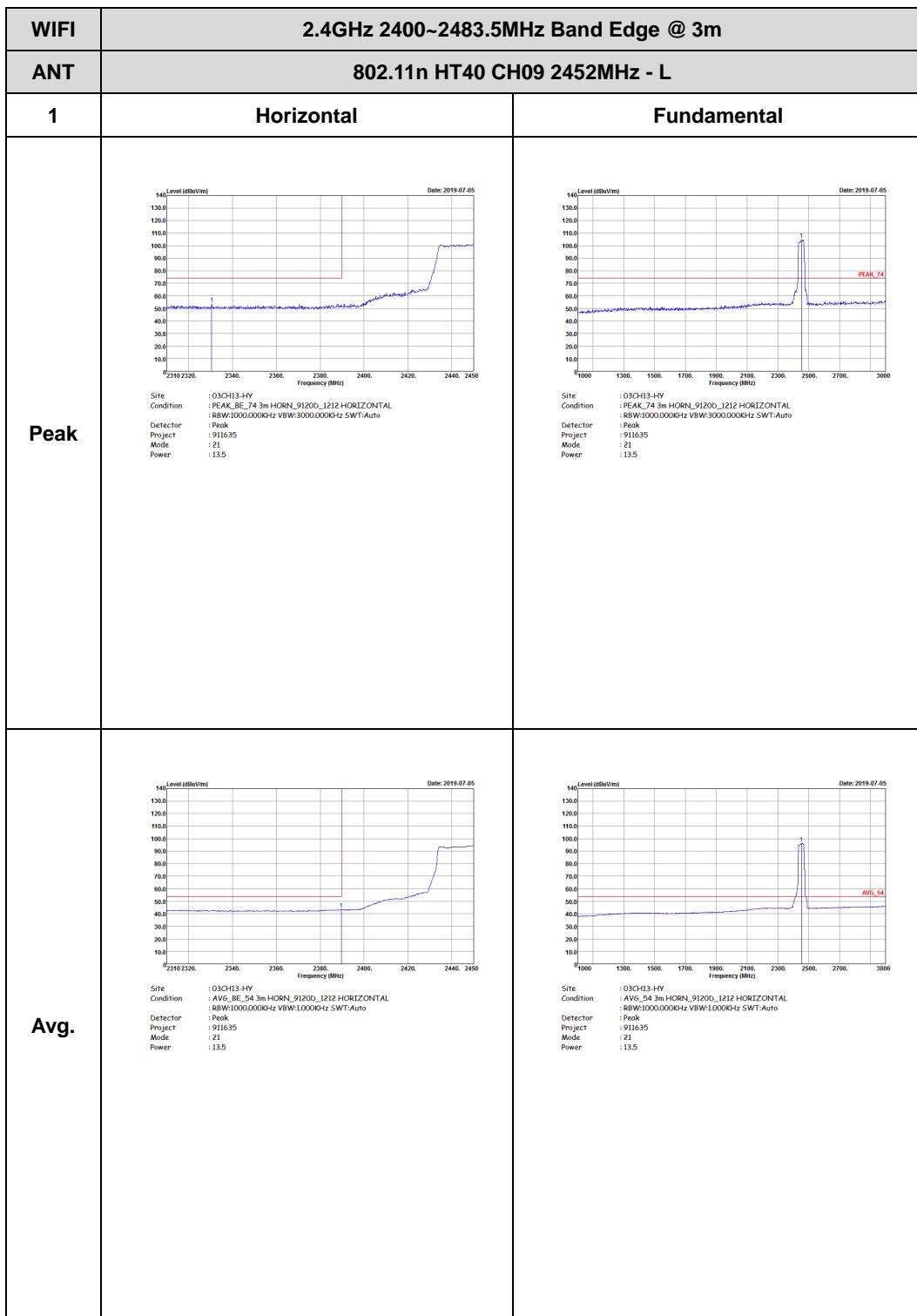


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH06 2437MHz - R	
1	Horizontal	Fundamental
Peak	 Date: 2019-07-05 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1212 HORIZONTAL Detector : R8W:1000.000KHz VBW:3000.000KHz SWT:Auto Project : 911635 Mode : 20 Power : 17.5 Left blank	
Avg.	 Date: 2019-07-05 Site : AVG_BE_54 3m HORN_91200_1212 HORIZONTAL Condition : R8W:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 911635 Mode : 20 Power : 17.5 Left blank	

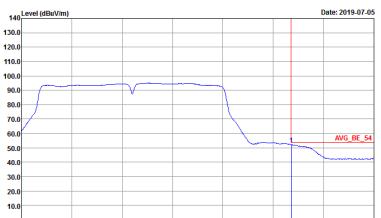


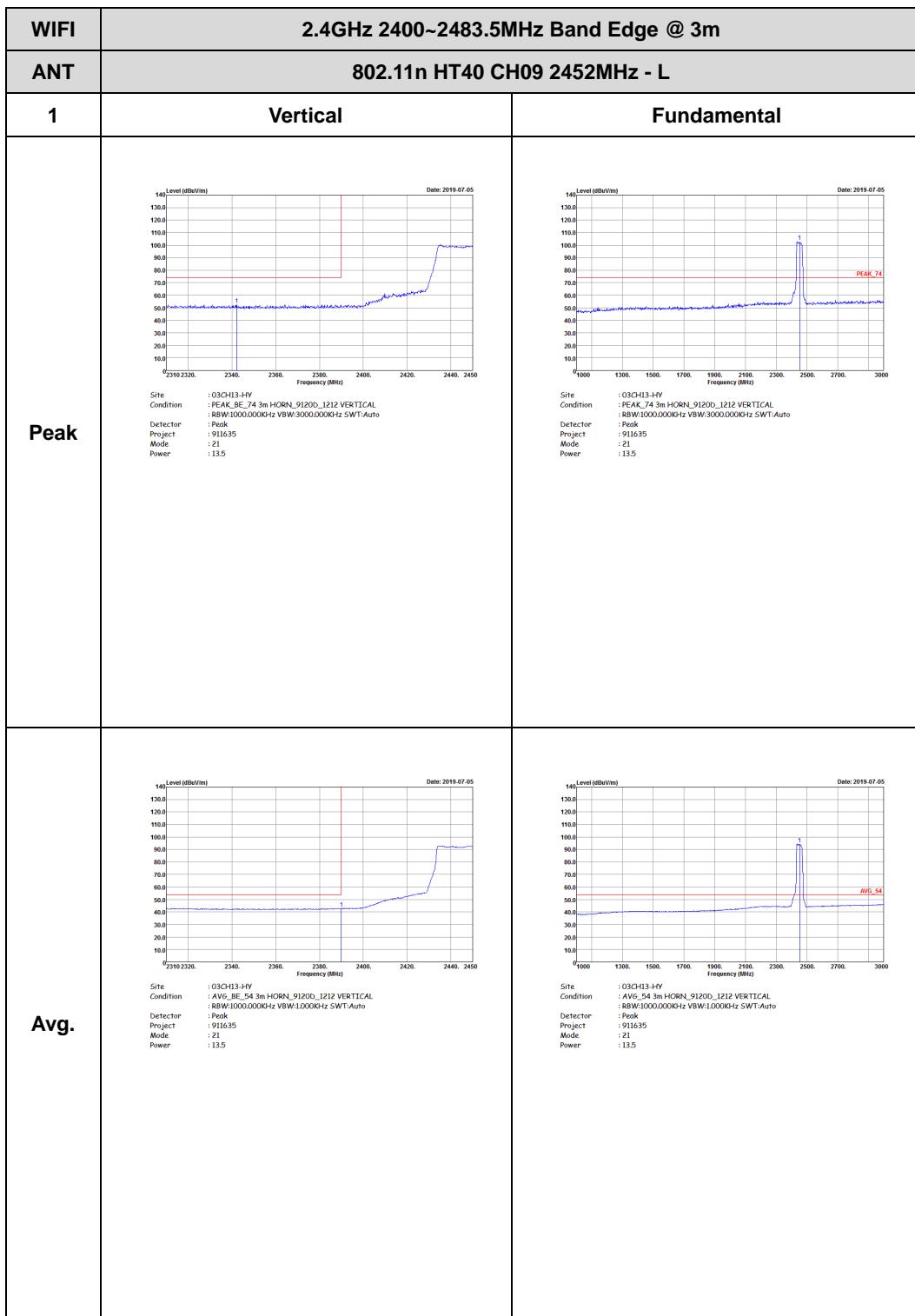


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH06 2437MHz - R	
1	Horizontal	Fundamental
Peak	 <p>Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_91200_1212 VERTICAL Detector : R8W:1000.000KHz VBW:3000.000KHz SWT:Auto Project : 911635 Mode : 20 Power : 17.5</p>	Left blank
Avg.	 <p>Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1212 VERTICAL Detector : R8W:1000.000KHz VBW:1000KHz SWT:Auto Project : 911635 Mode : 20 Power : 17.5</p>	Left blank

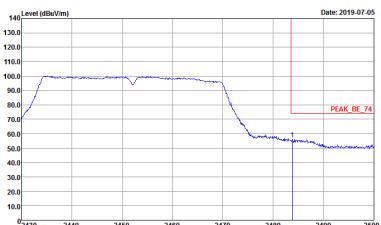
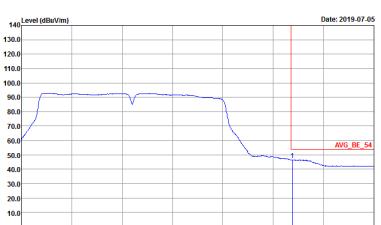




WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH09 2452MHz - R	
1	Horizontal	Fundamental
Peak	 <p>Level (dBm/V/m)</p> <p>Date: 2019-07-05</p> <p>Frequency (MHz)</p> <p>Site : 03CH13-HV Condition : PCMK_BE_74 3m HORN_91200_1212 HORIZONTAL Detector : R8W1000.000KHz VBW:3000.000KHz SWT:Auto Project : Peak Mode : 911635 Power : 21 Power : 13.5</p>	Left blank
Avg.	 <p>Level (dBm/V/m)</p> <p>Date: 2019-07-05</p> <p>Frequency (MHz)</p> <p>Site : 03CH13-HV Condition : AVG_BE_54 3m HORN_91200_1212 HORIZONTAL Detector : R8W1000.000KHz VBW:1.000KHz SWT:Auto Project : Peak Mode : 911635 Mode : 21 Power : 13.5</p>	Left blank



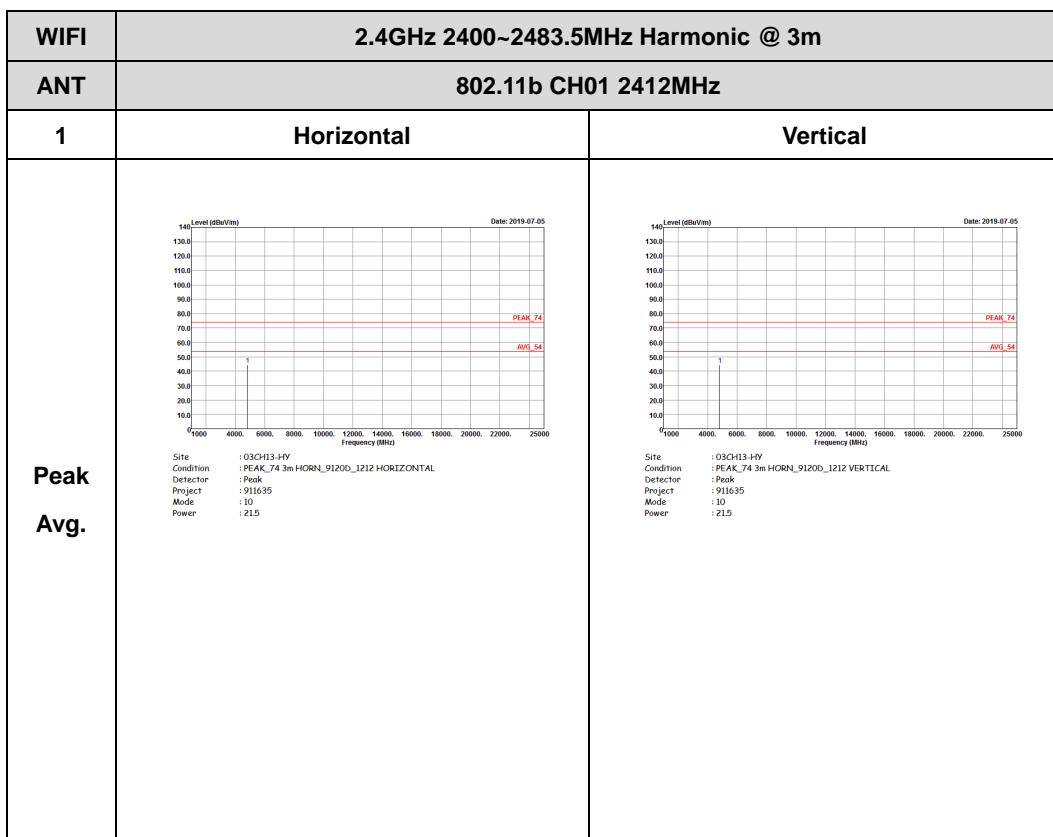


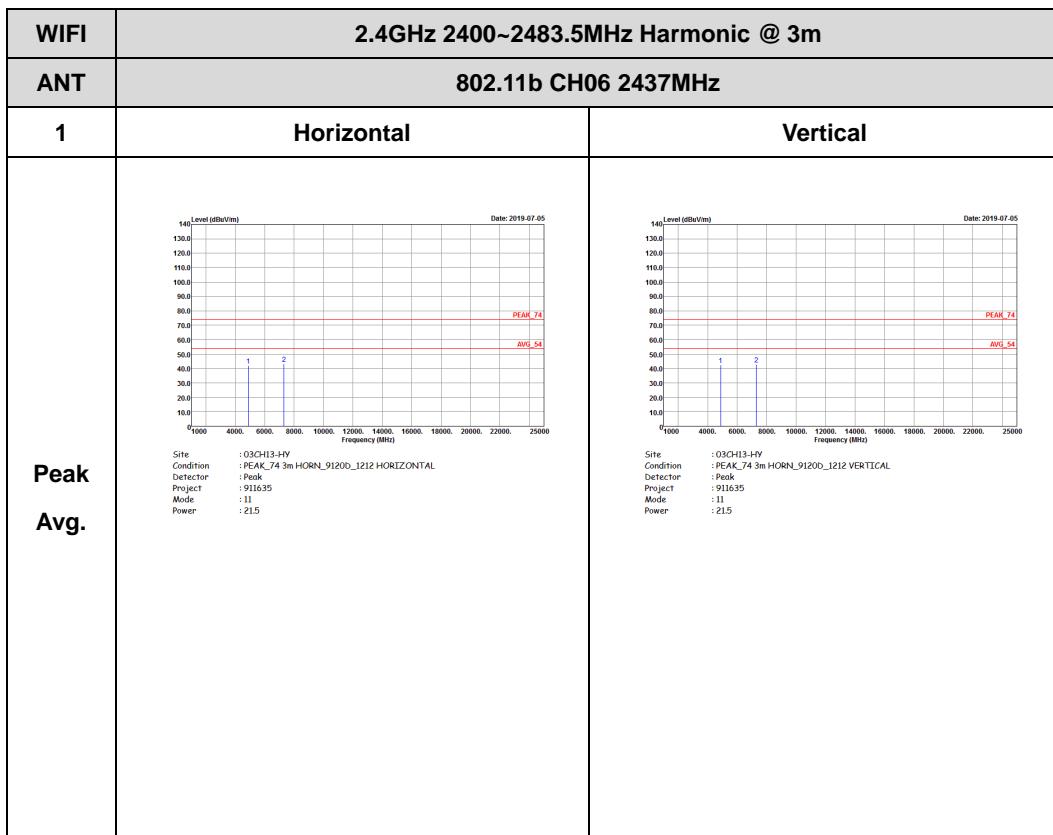
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH09 2452MHz - R	
1	Vertical	Fundamental
Peak	 <p>Level (dBmV/m)</p> <p>Date: 2019-07-05</p> <p>Site : 03CH13-HY Condition : PCAK_BE_74 3m HORN_91200_1212 VERTICAL Detector : R8W1000.000KHz VBW:3000.000KHz SWT:Auto Project : 911635 Mode : 21 Power : 13.5</p>	Left blank
Avg.	 <p>Level (dBmV/m)</p> <p>Date: 2019-07-05</p> <p>Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1212 VERTICAL Detector : R8W1000.000KHz VBW:1.000KHz SWT:Auto Project : 911635 Mode : 21 Power : 13.5</p>	Left blank

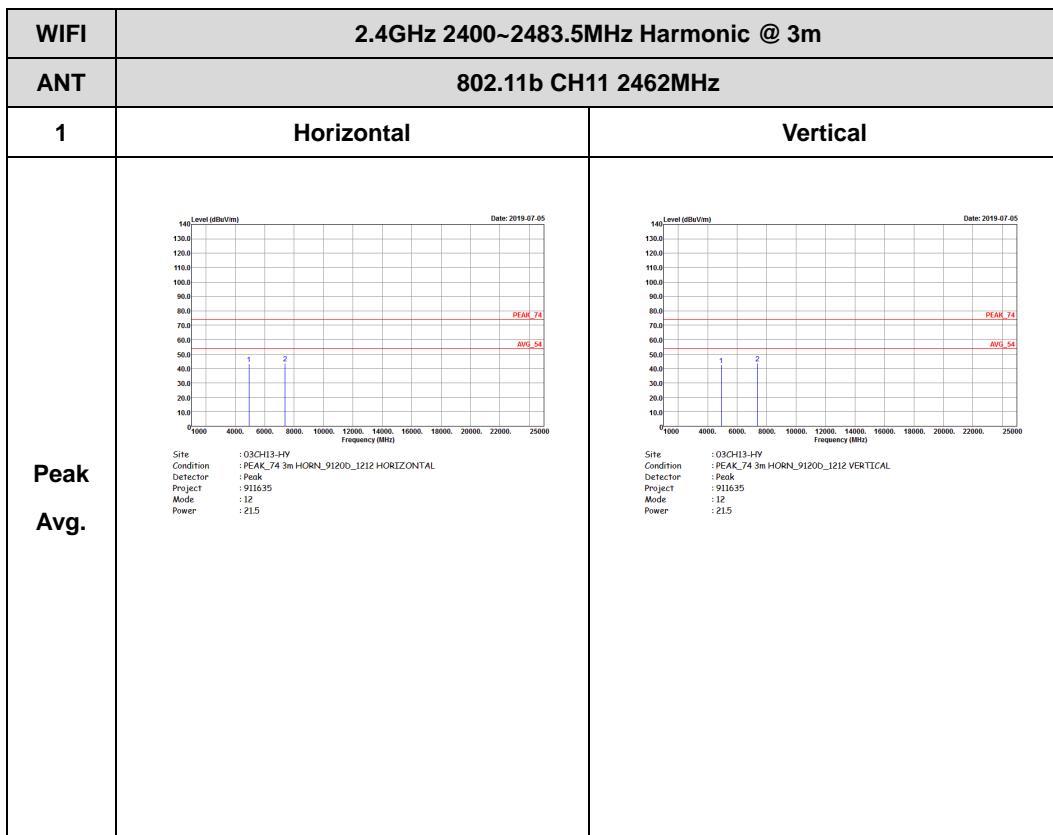


## 2.4GHz 2400~2483.5MHz

## WIFI 802.11b (Harmonic @ 3m)



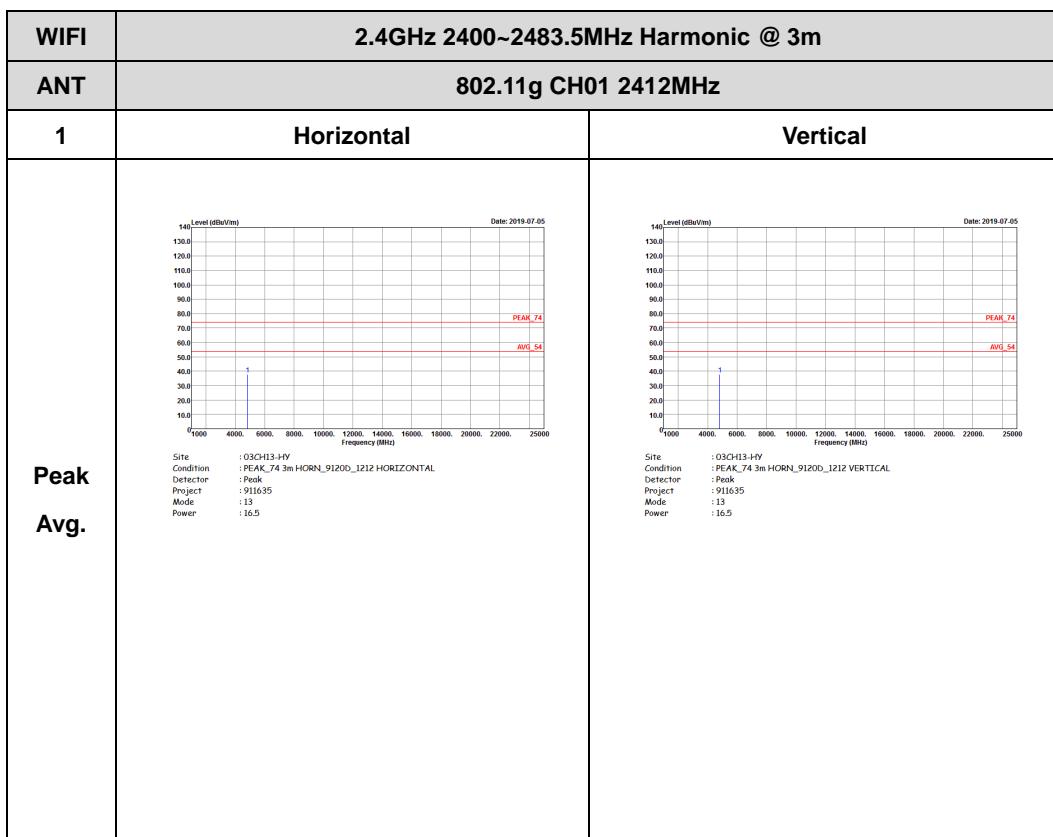


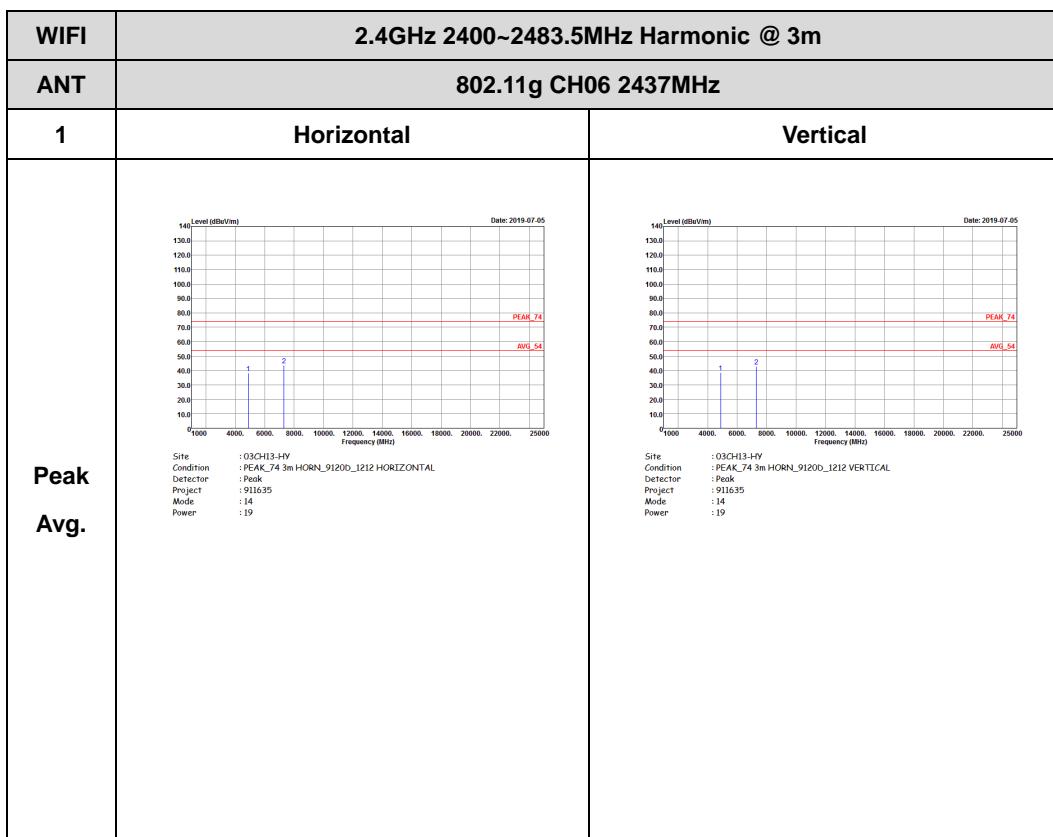


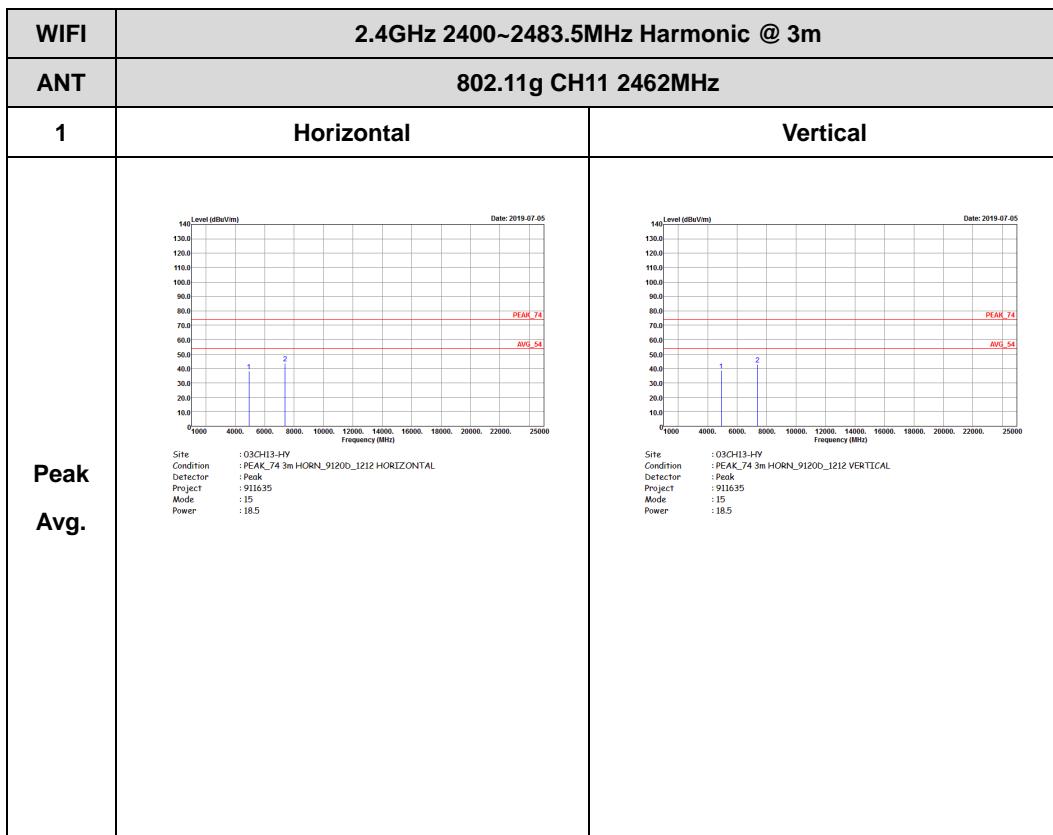


## 2.4GHz 2400~2483.5MHz

## WIFI 802.11g (Harmonic @ 3m)



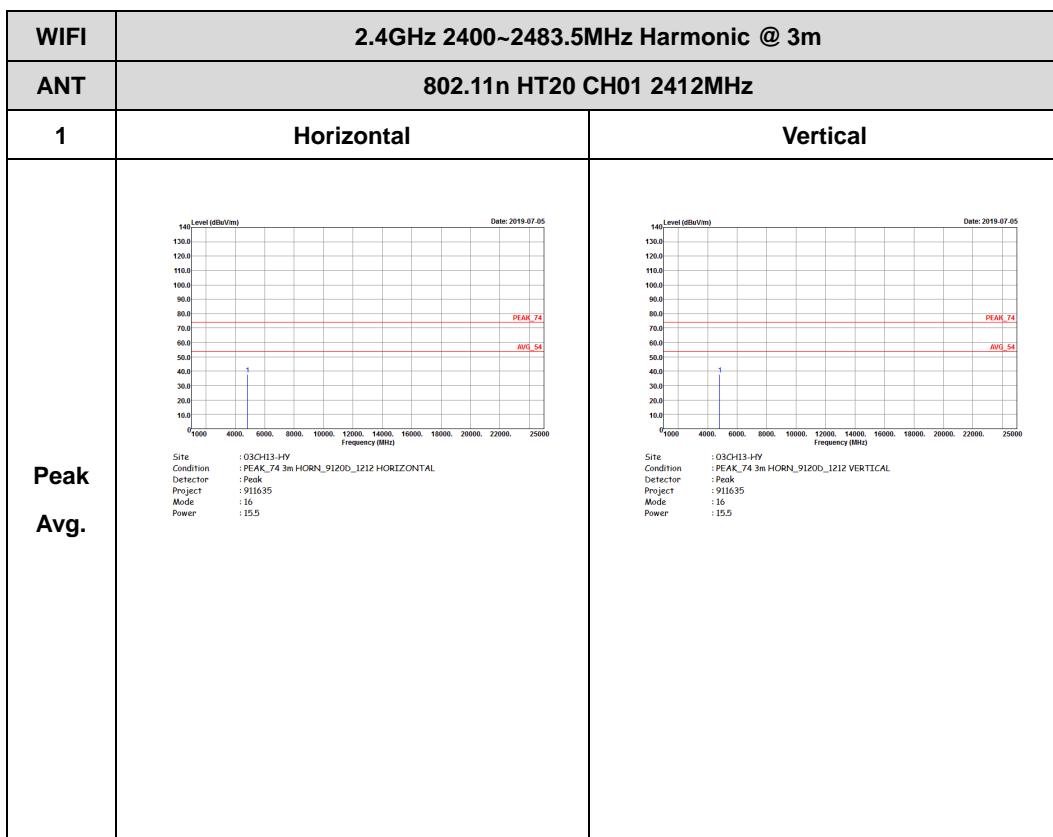


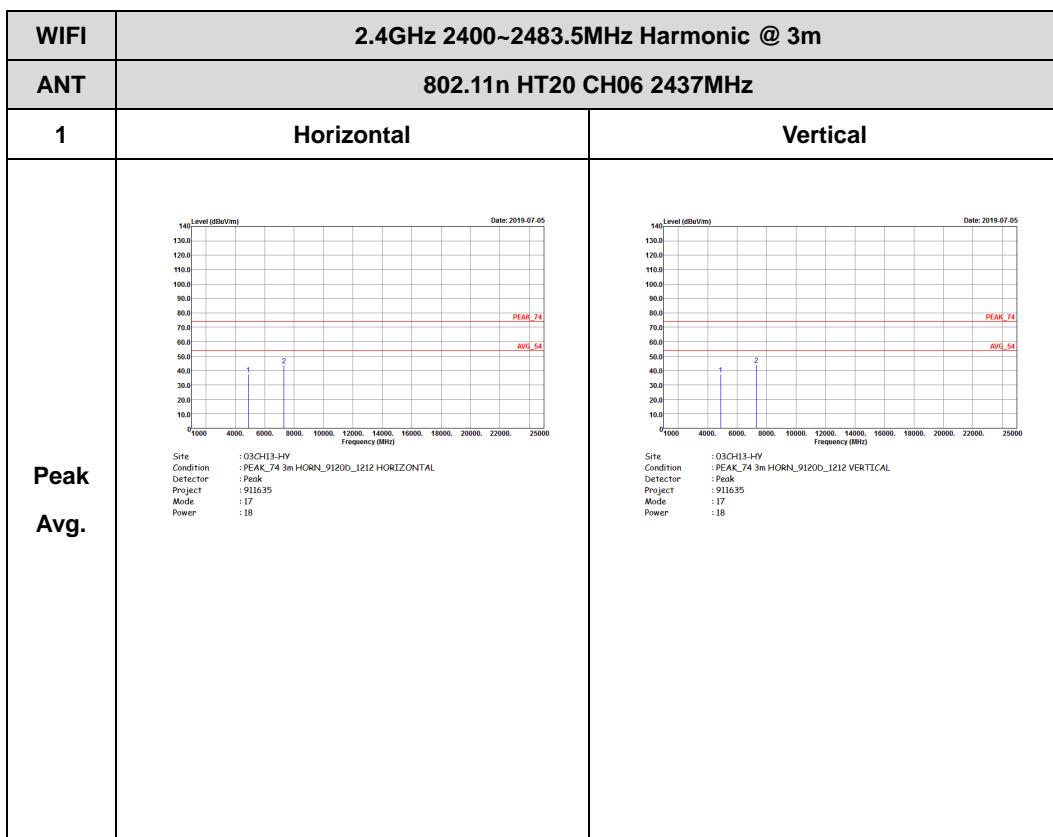


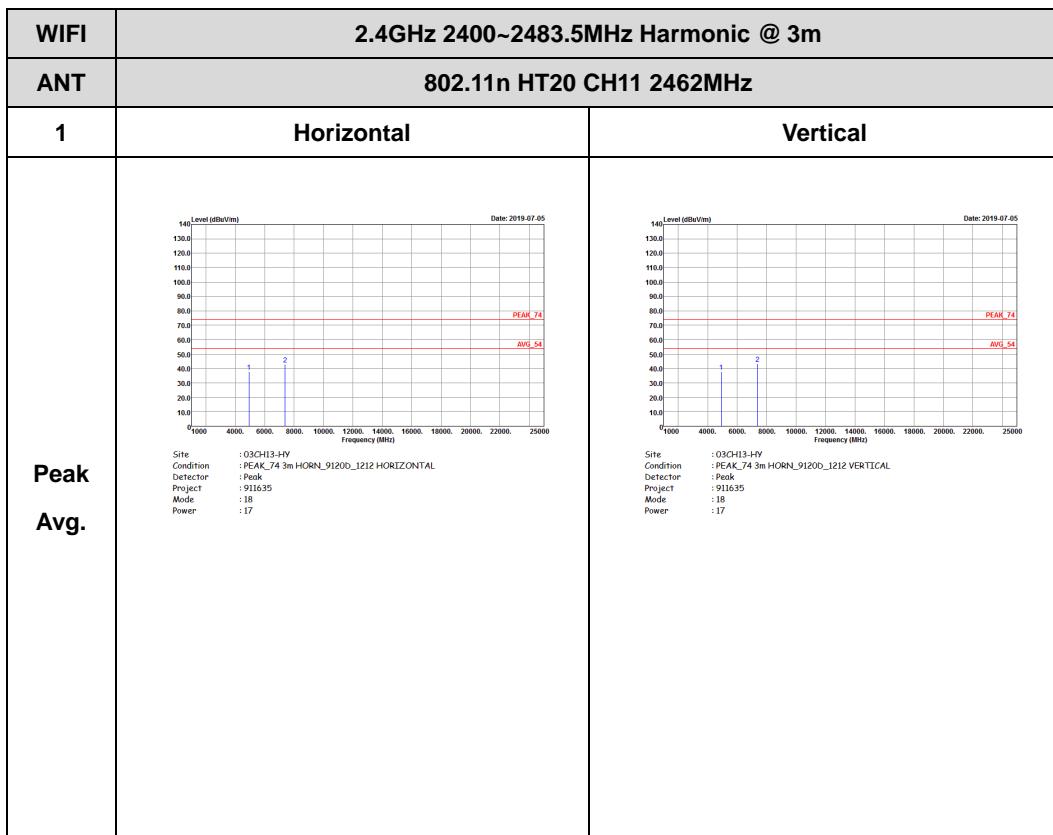


## 2.4GHz 2400~2483.5MHz

## WIFI 802.11n HT20 (Harmonic @ 3m)





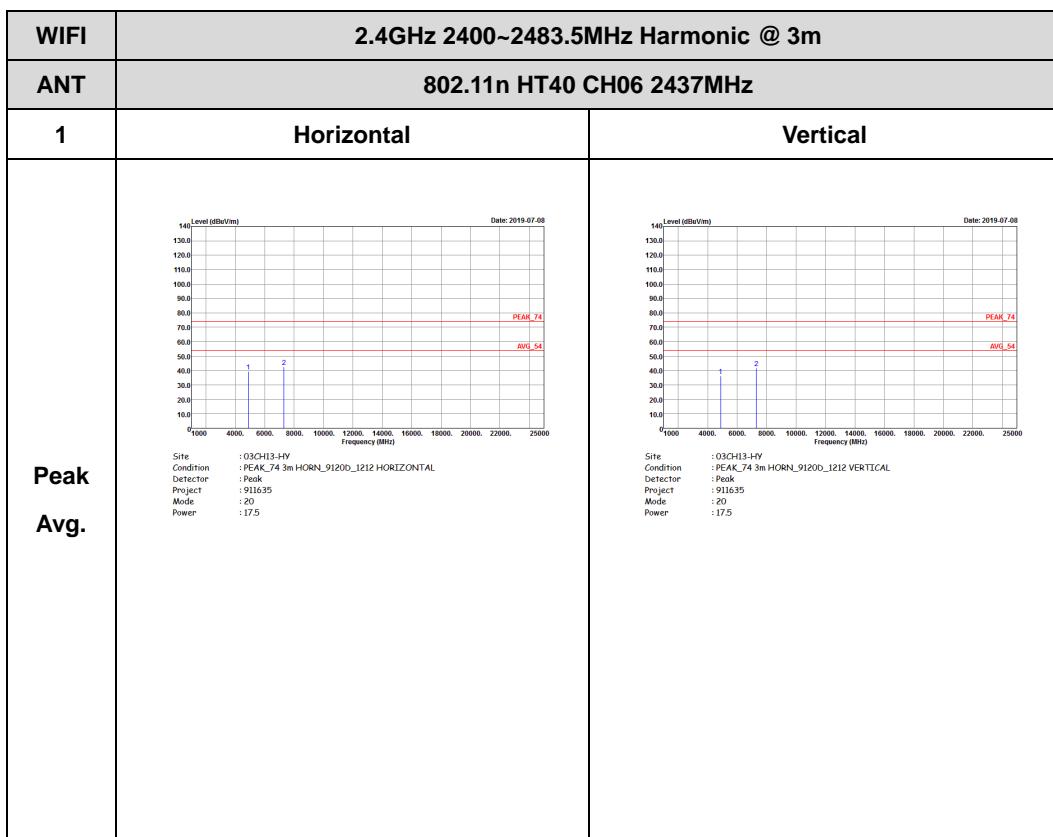


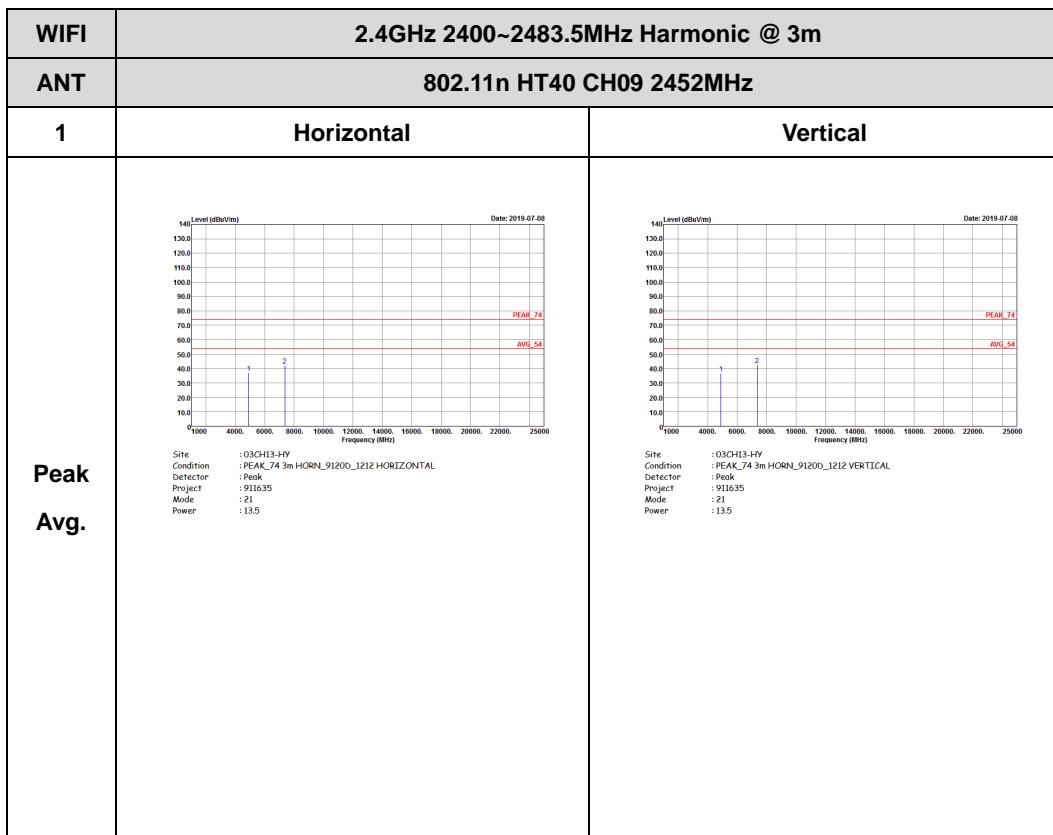


## 2.4GHz 2400~2483.5MHz

## WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT40 CH03 2422MHz	
1	Horizontal	Vertical
Peak Avg.	 Graph showing Level (dBuV/m) vs Frequency (MHz) from 1000 to 25000. Two sharp peaks are labeled: PEAK_74 at ~5400 MHz and AVG_54 at ~8000 MHz. The graph is dated 2019-07-05.  Site : 03C113-HY Condition : PEAK_74 3m HORN_91200_1212 HORIZONTAL. Detector : Peak Project : 911635 Mode : 19 Power : 14.5	 Graph showing Level (dBuV/m) vs Frequency (MHz) from 1000 to 25000. Two sharp peaks are labeled: PEAK_74 at ~5400 MHz and AVG_54 at ~8000 MHz. The graph is dated 2019-07-05.  Site : 03C113-HY Condition : PEAK_74 3m HORN_91200_1212 VERTICAL. Detector : Peak Project : 911635 Mode : 19 Power : 14.5

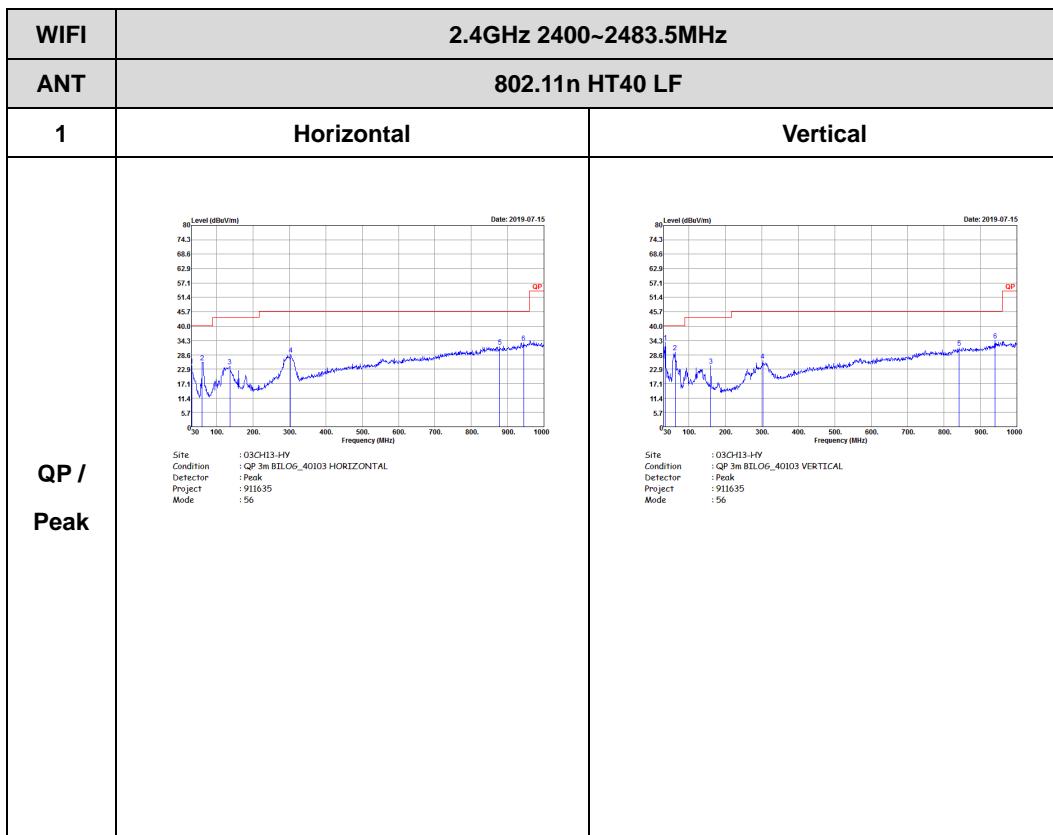






## Emission below 1GHz

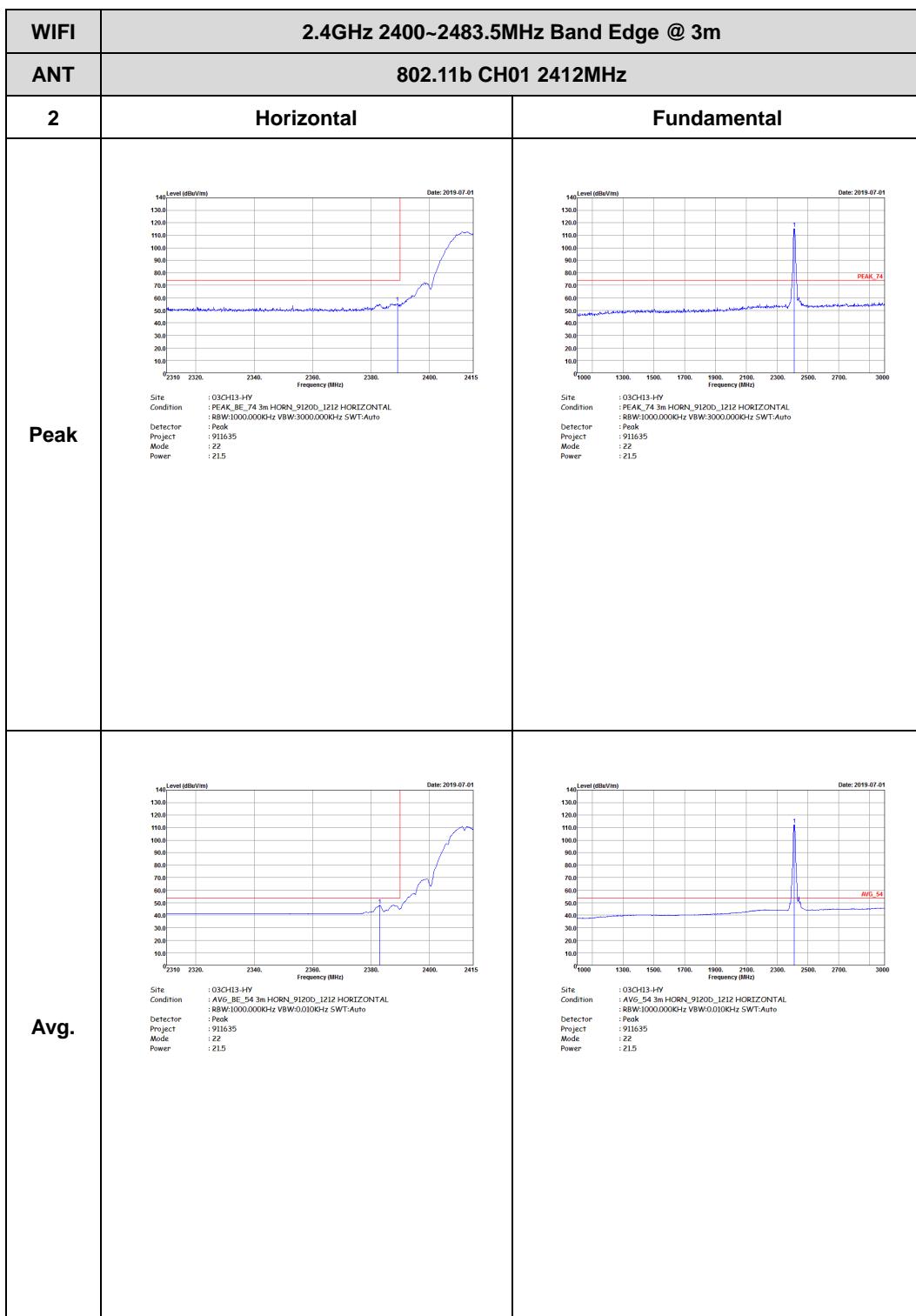
## 2.4GHz WIFI 802.11n HT40 (LF)

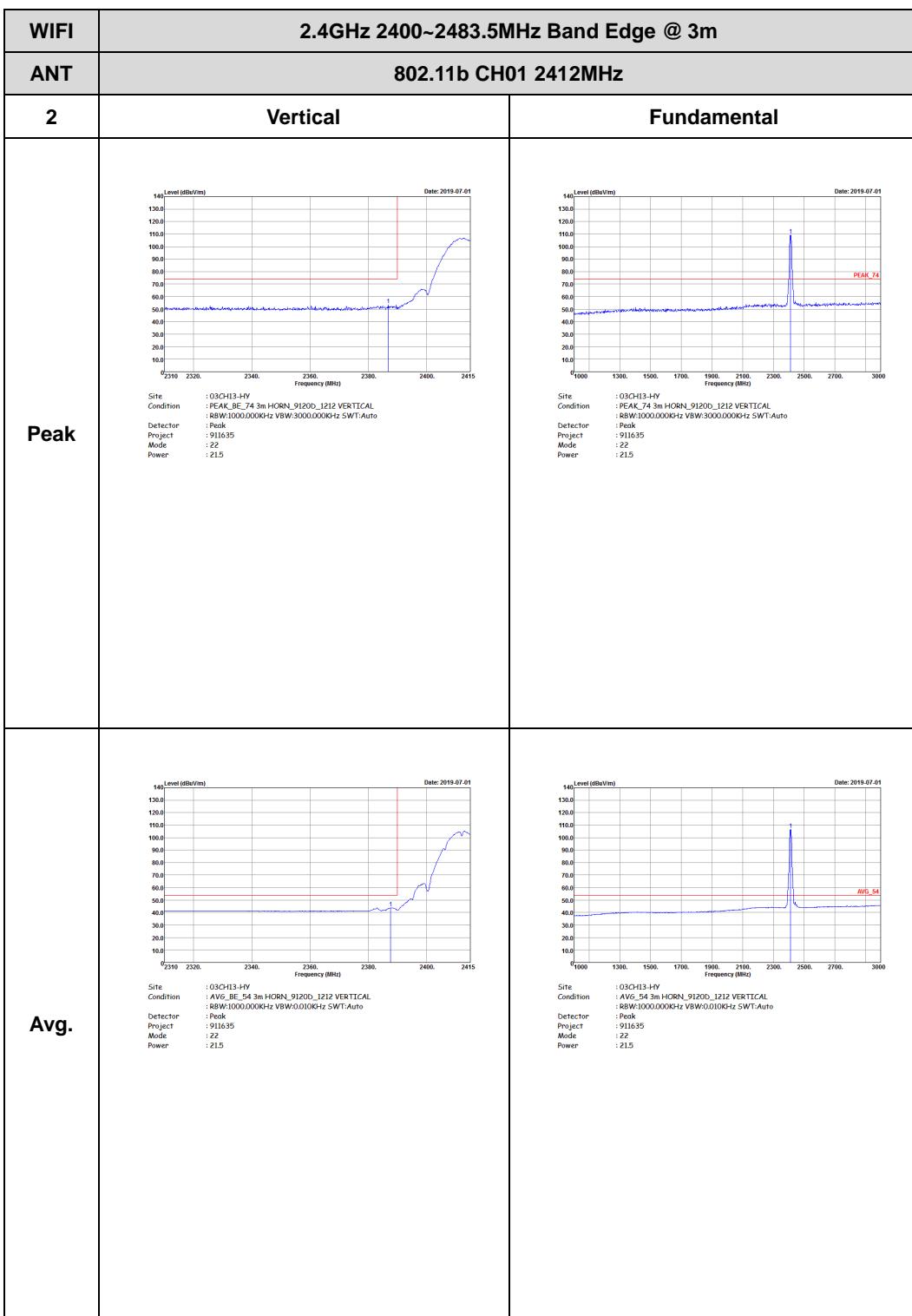


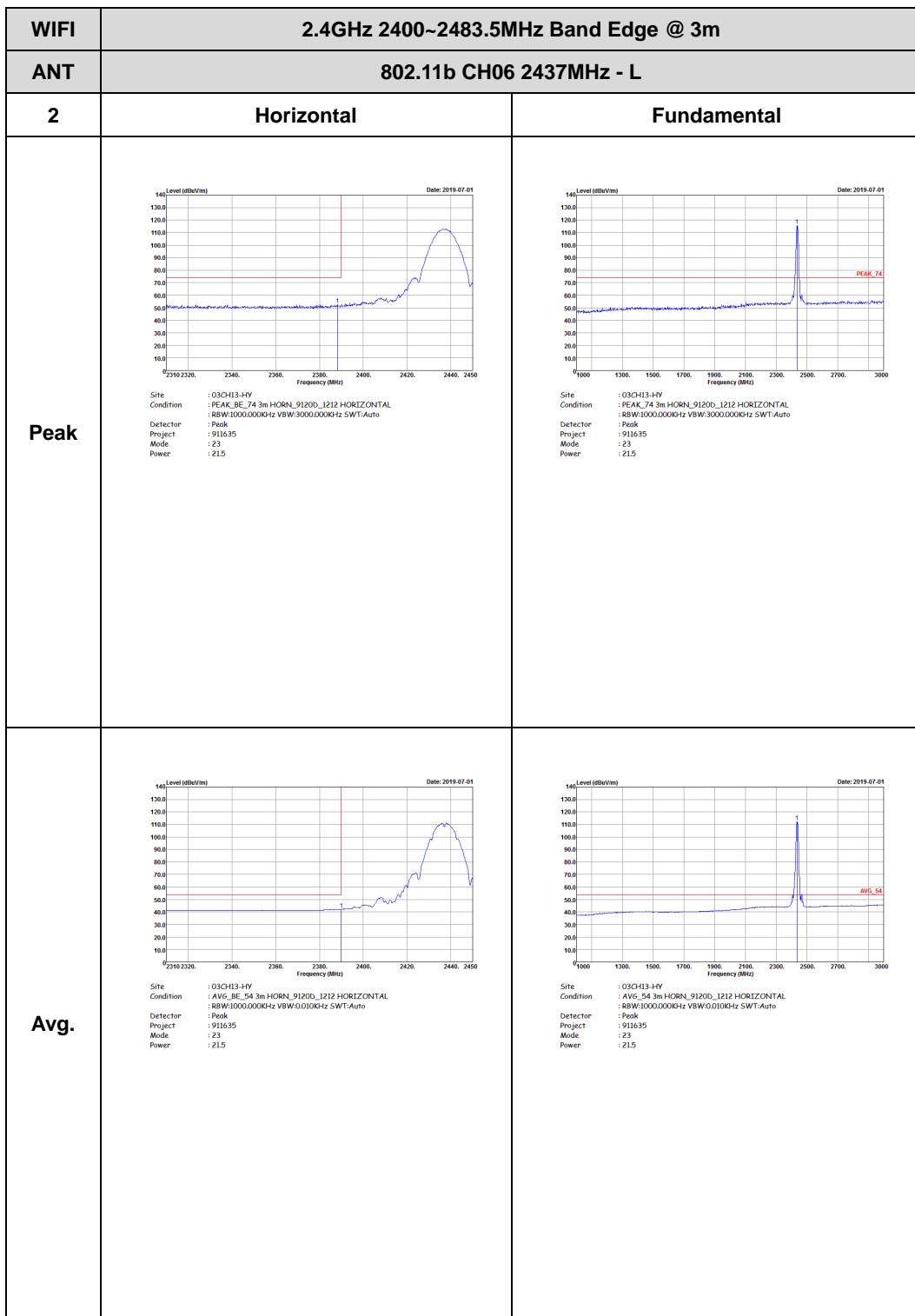


## 2.4GHz 2400~2483.5MHz

## WIFI 802.11b (Band Edge @ 3m)

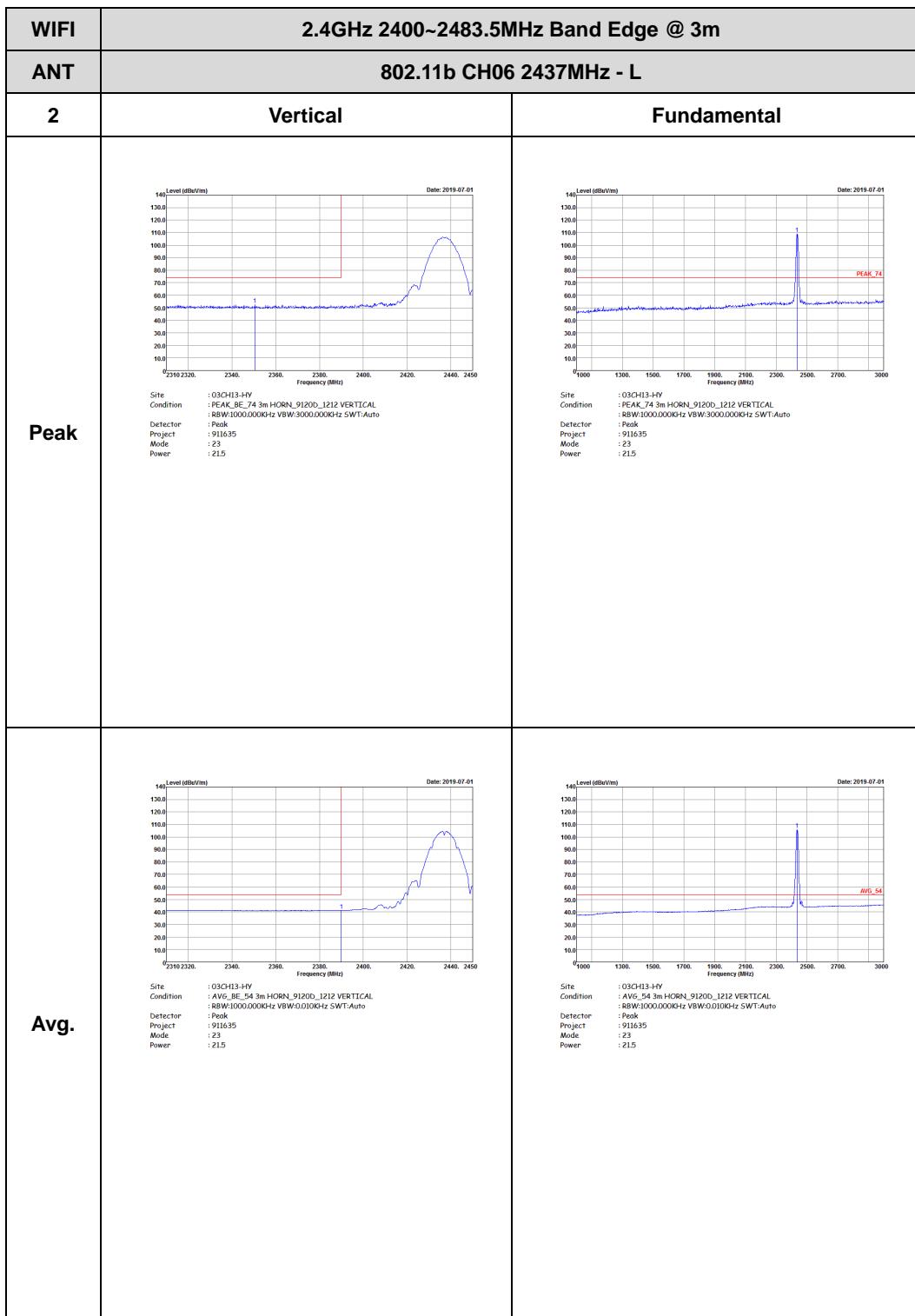




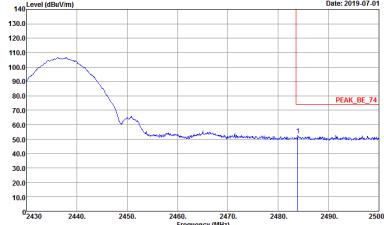


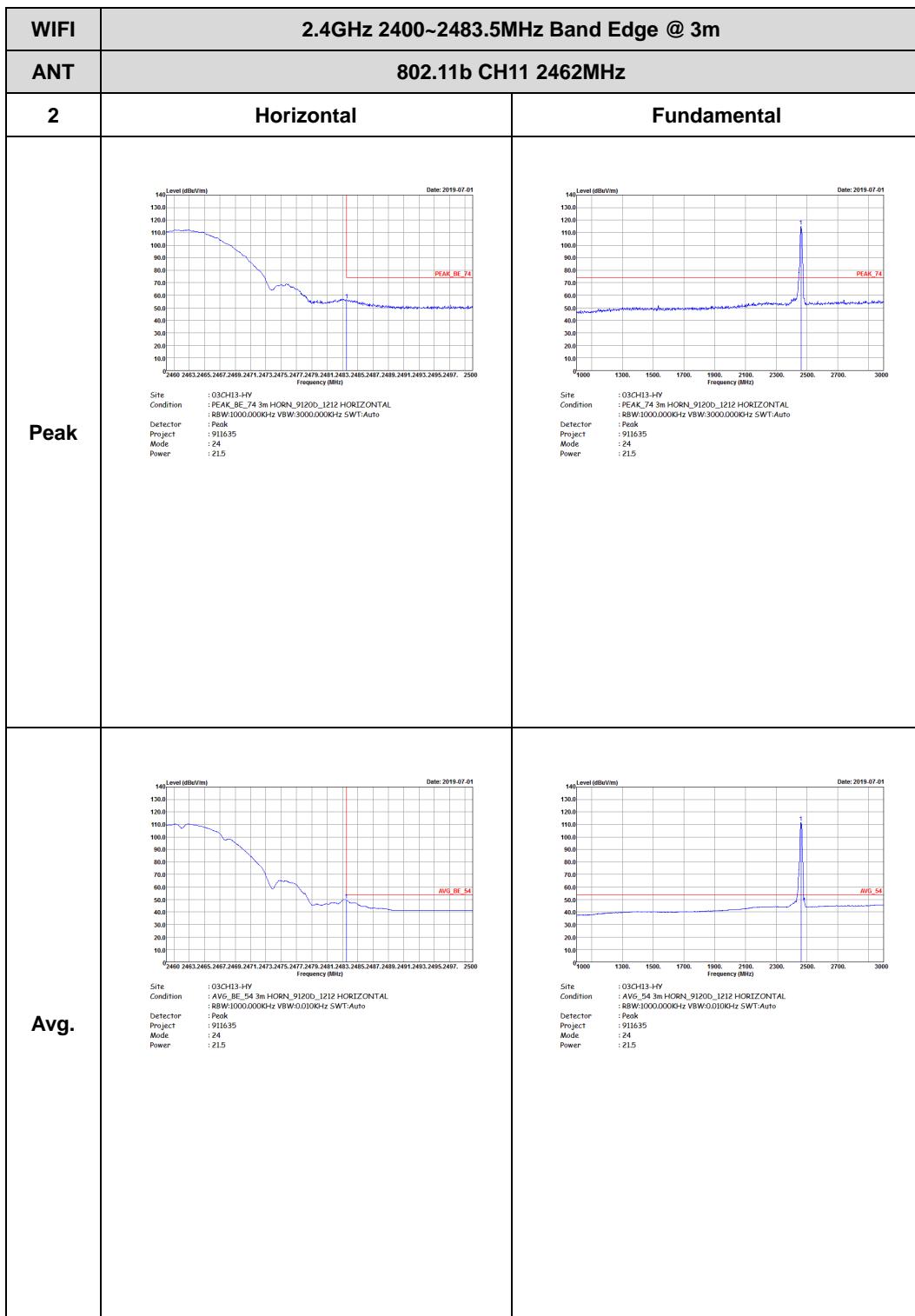


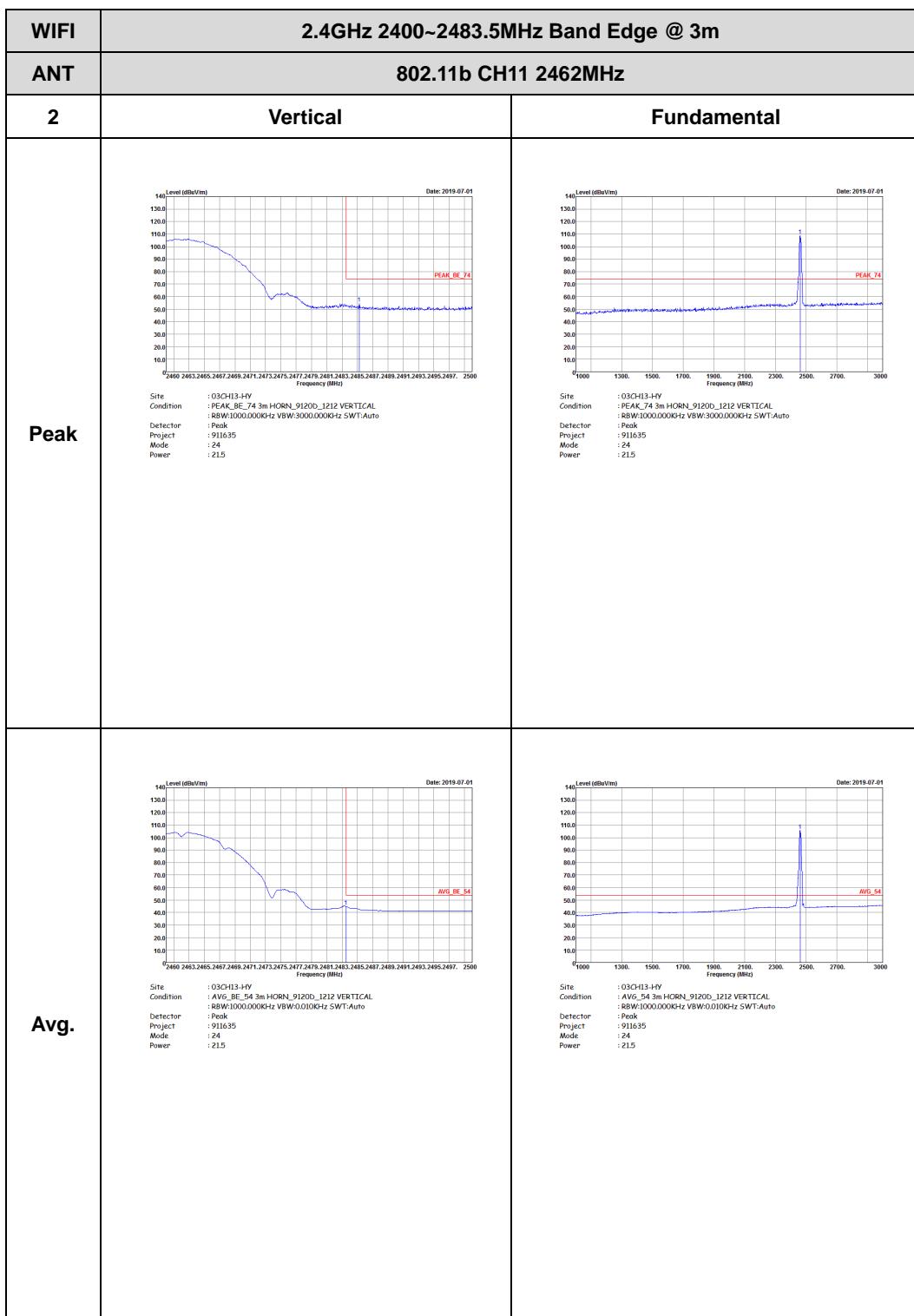
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - R	
2	Horizontal	Fundamental
Peak	<p>Level (dBmV/m)</p> <p>Date: 2019-07-01</p> <p>Frequency (MHz)</p> <p>PEAK_BE_74</p> <p>Site : 03CH13-HY Condition : PCMK_BE_74 3m HORN_91200_1212 HORIZONTAL Detector : R8W:1000.000KHz VBW:3000.000KHz SWT:Auto Project : 911635 Mode : 23 Power : 21.5</p>	Left blank
Avg.	<p>Level (dBmV/m)</p> <p>Date: 2019-07-01</p> <p>Frequency (MHz)</p> <p>AVG_BE_54</p> <p>Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1212 HORIZONTAL Detector : R8W:1000.000KHz VBW:0.010KHz SWT:Auto Project : 911635 Mode : 23 Power : 21.5</p>	Left blank





WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - R	
2	Vertical	Fundamental
Peak	 <p>Level (dBmV/m)</p> <p>Date: 2019-07-01</p> <p>Site : 03CH13-HY Condition : PCAK_BE_74 3m HORN_91200_1212 VERTICAL Detector : R8W:1000.000KHz VBW:3000.000KHz SWT:Auto Project : 911635 Mode : 23 Power : 21.5</p>	Left blank
Avg.	 <p>Level (dBmV/m)</p> <p>Date: 2019-07-01</p> <p>Site : AVG_BE_54 3m HORN_91200_1212 VERTICAL Condition : R8W:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 911635 Mode : 23 Power : 21.5</p>	Left blank

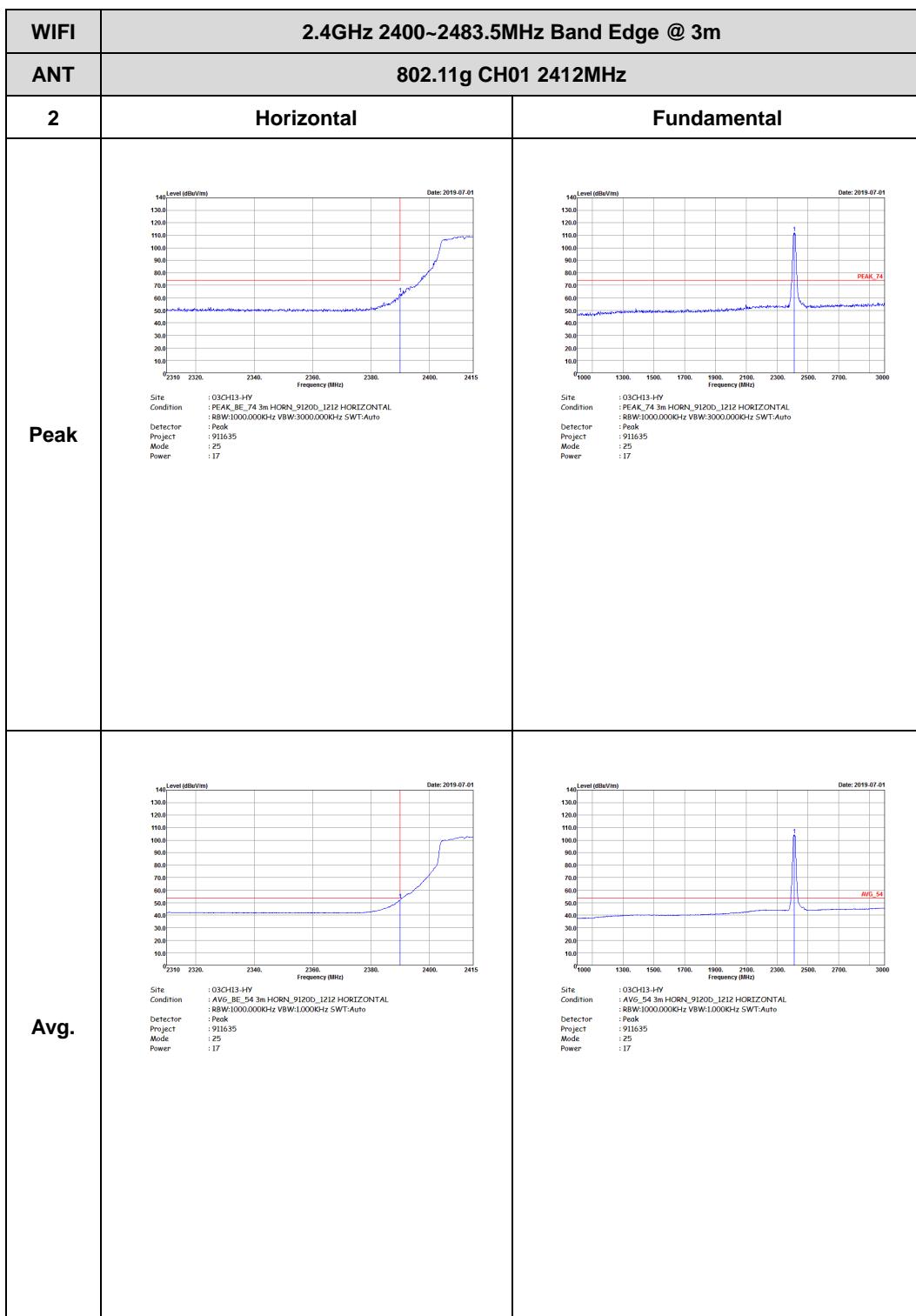


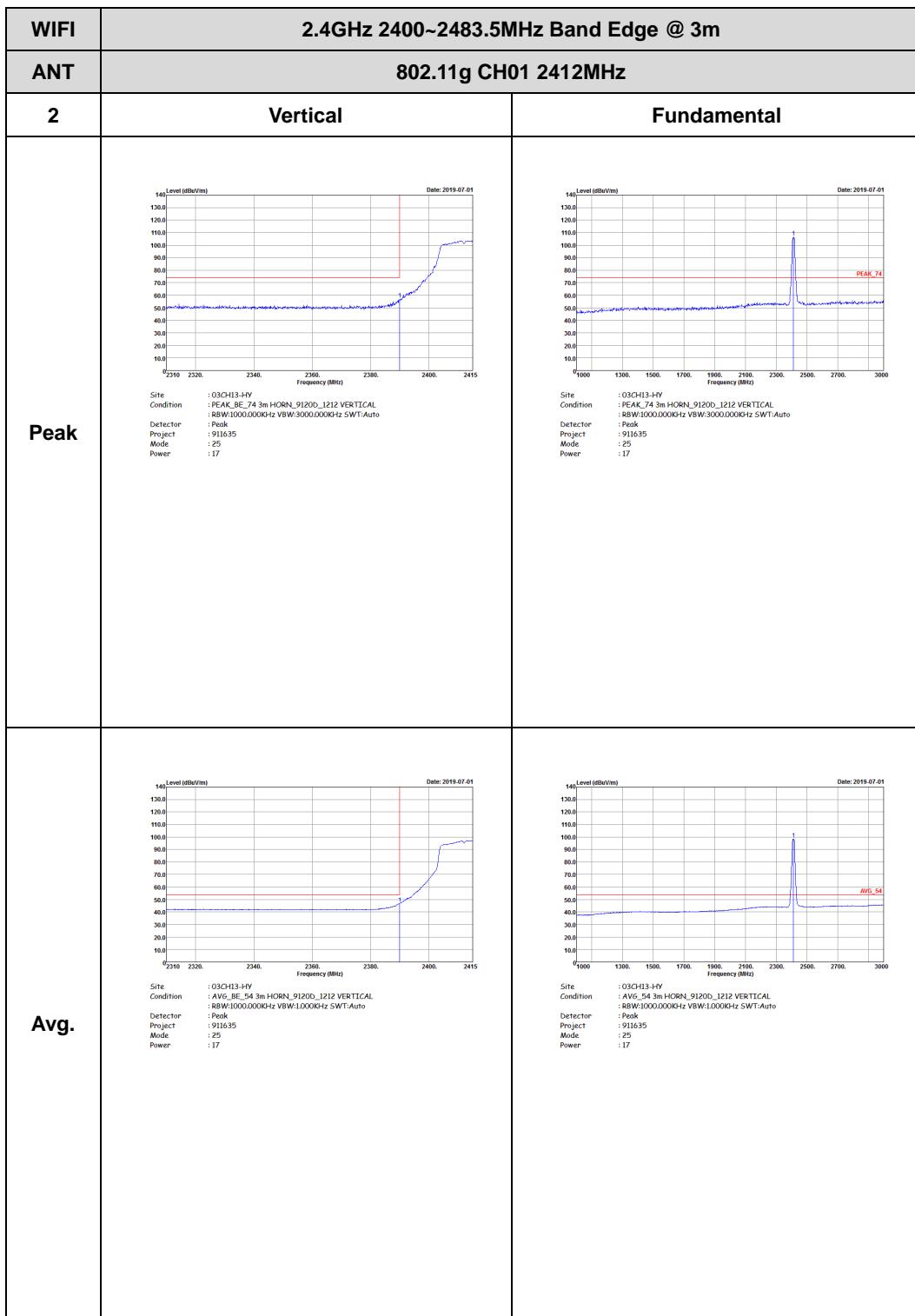


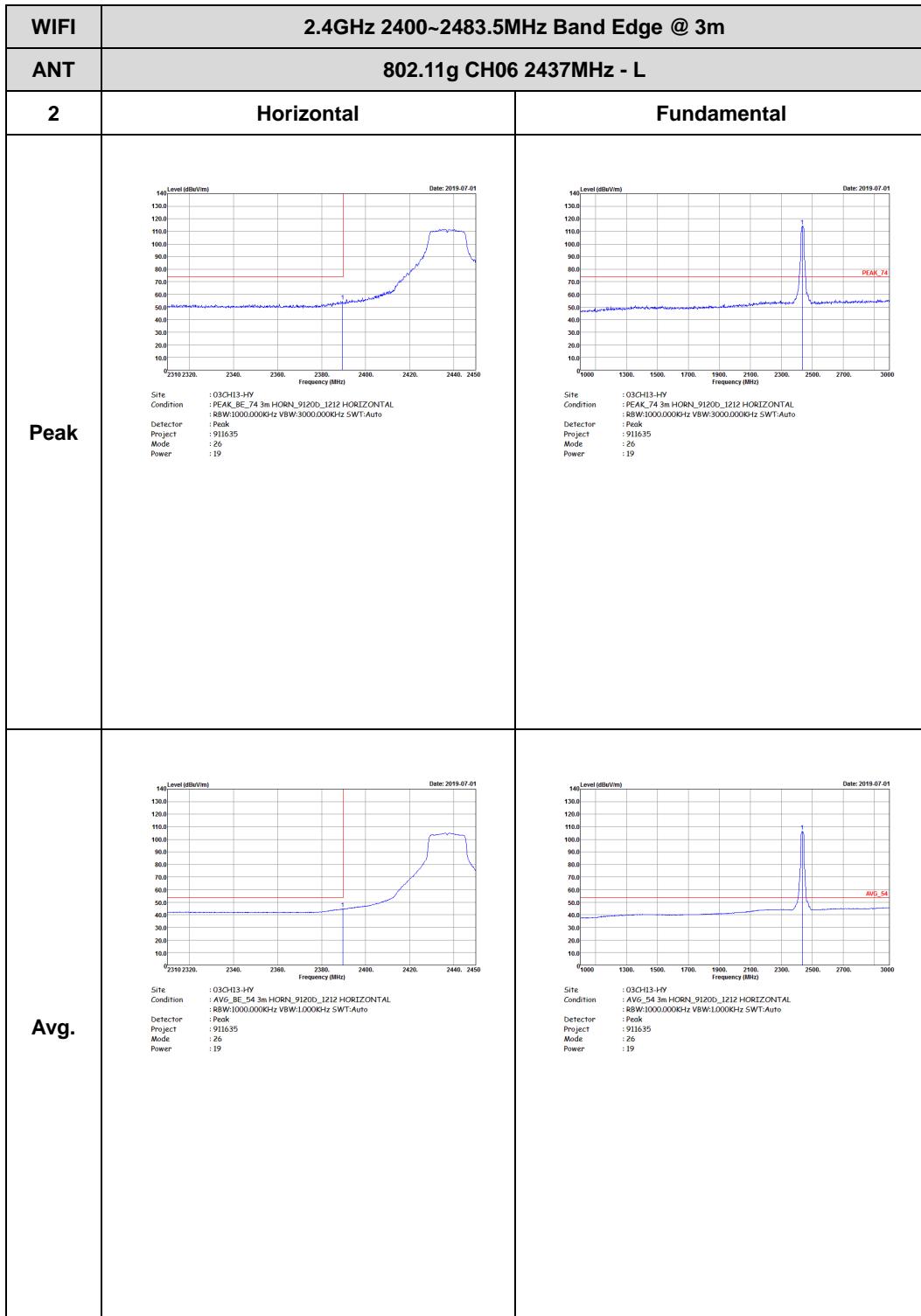


## 2.4GHz 2400~2483.5MHz

## WIFI 802.11g (Band Edge @ 3m)

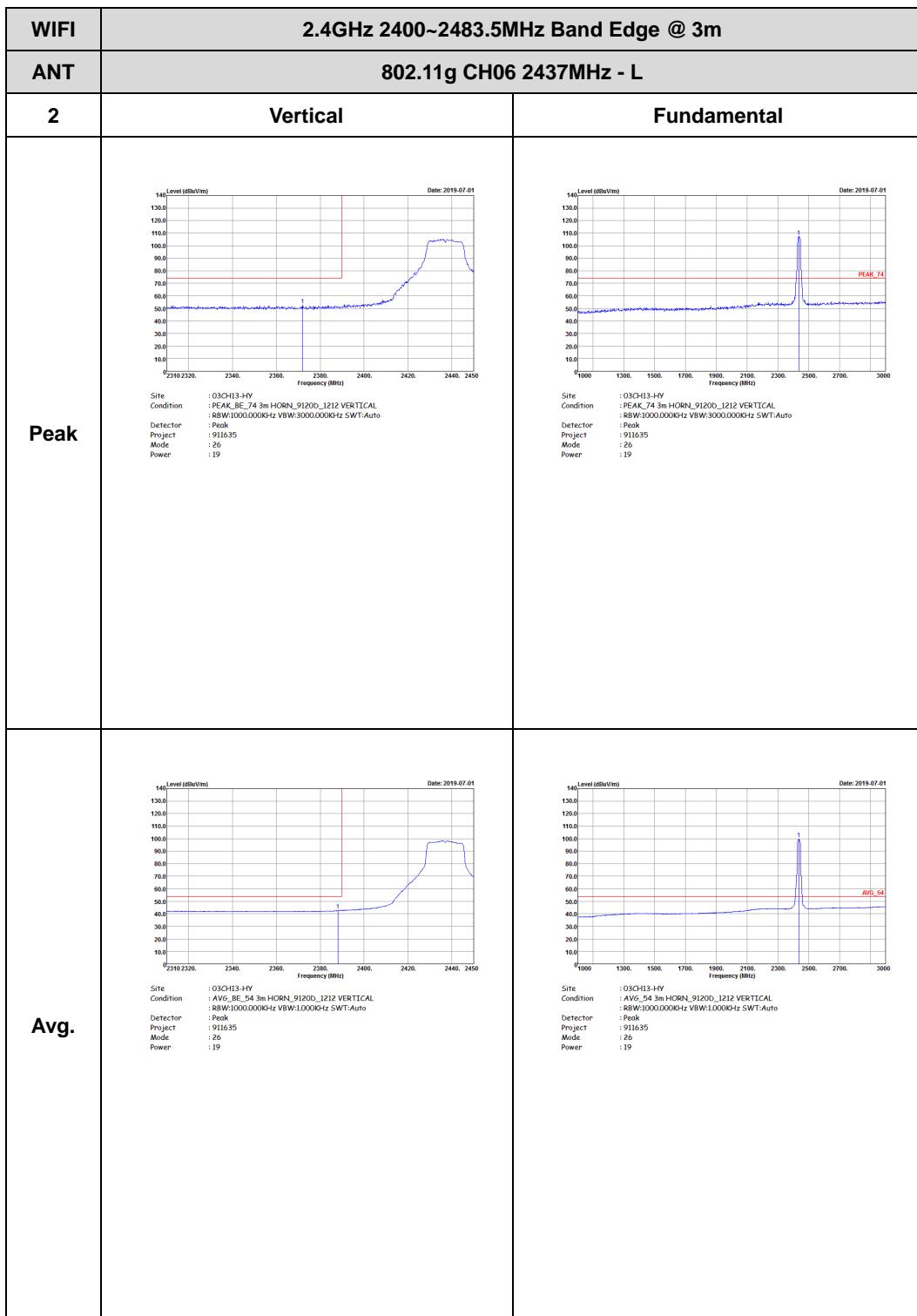






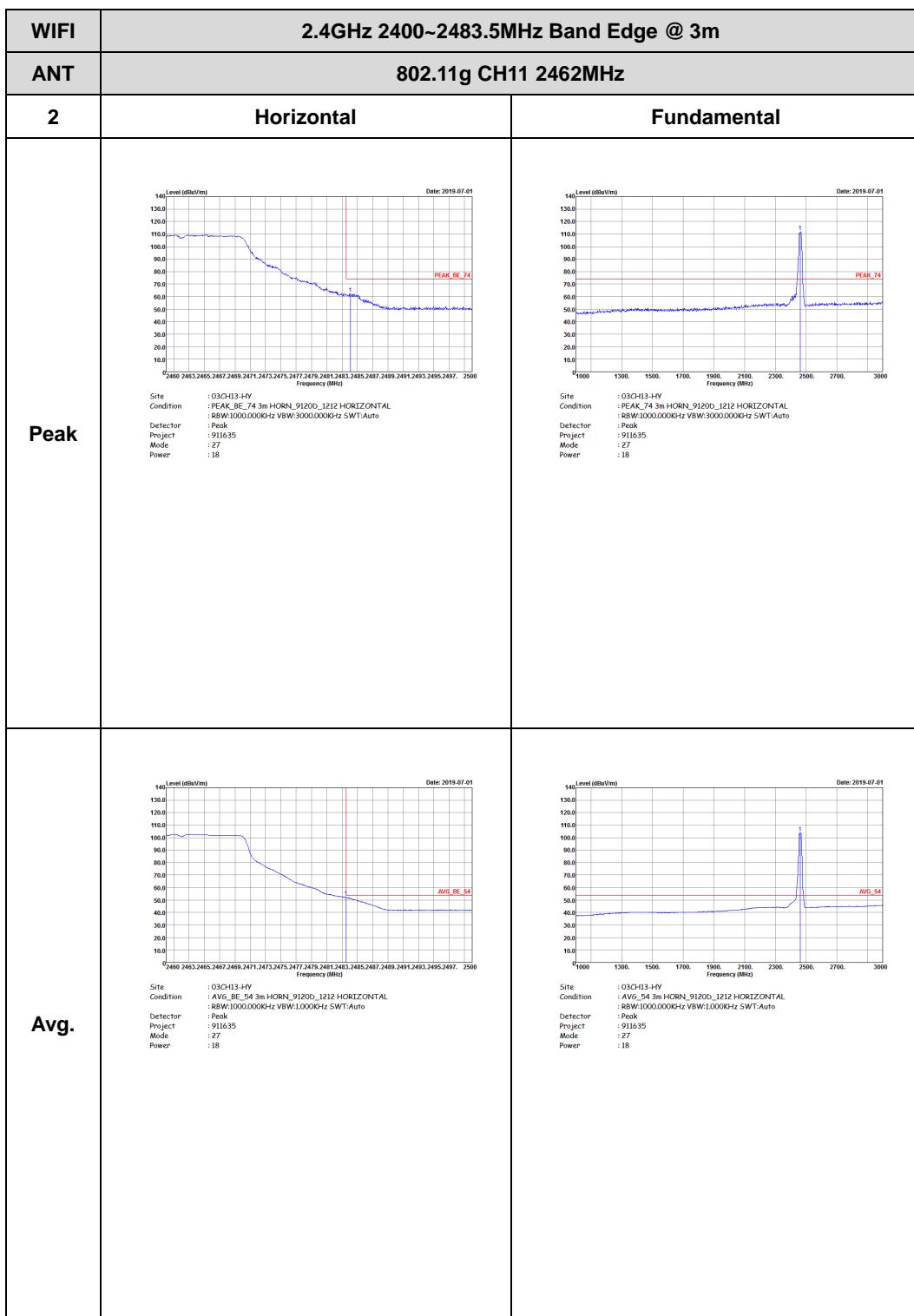


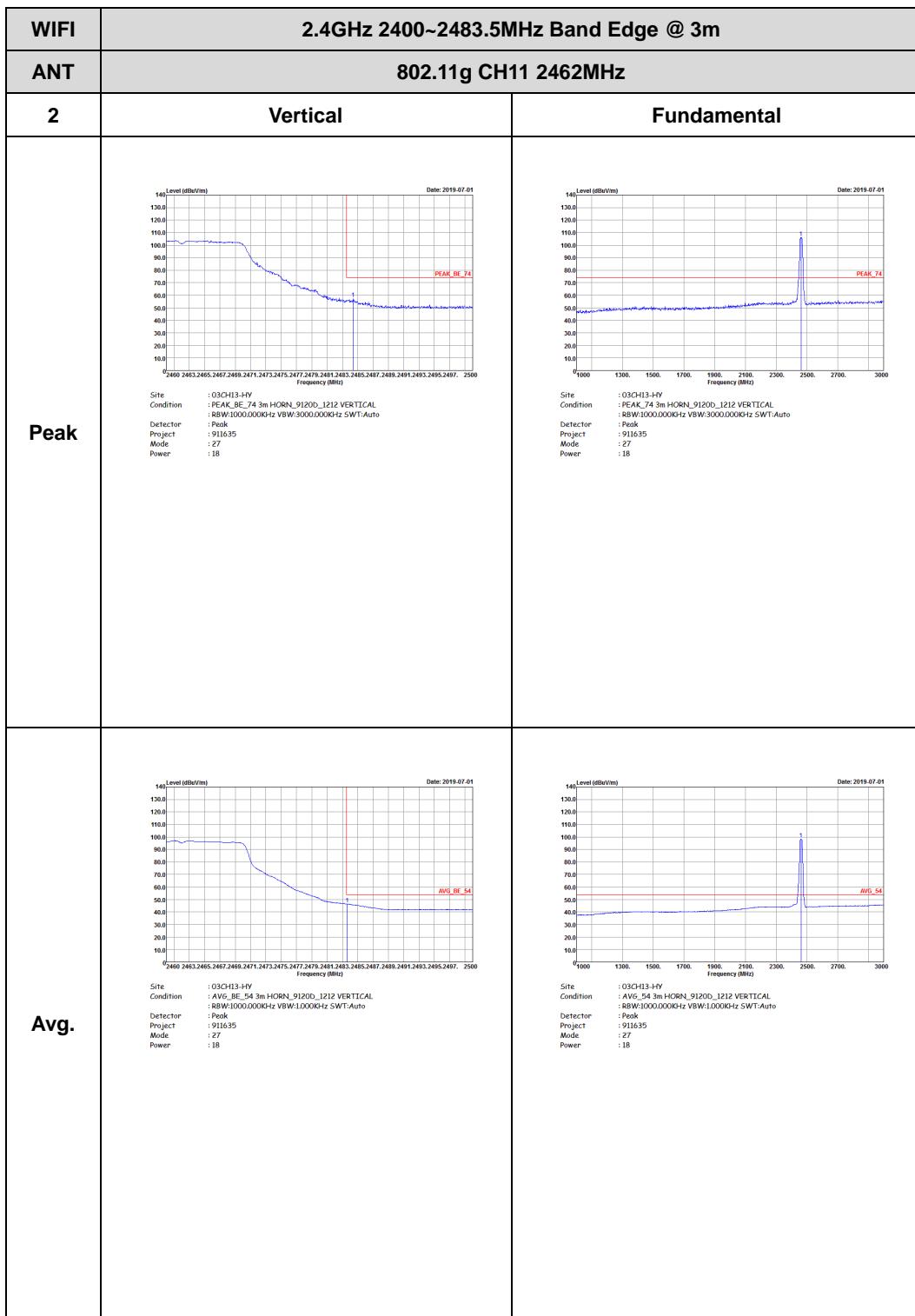
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - R	
2	Horizontal	Fundamental
Peak	<p>Level (dBm/V/m)</p> <p>Date: 2019-07-01</p> <p>Frequency (MHz)</p> <p>Site : 03CH13-HV Condition : PCAK_BE_74 3m HORN_91200_1212 HORIZONTAL Detector : R8W:1000.000KHz VBW:3000.000KHz SWT:Auto Project : 911635 Mode : 26 Power : 19</p>	Left blank
Avg.	<p>Level (dBm/V/m)</p> <p>Date: 2019-07-01</p> <p>Frequency (MHz)</p> <p>Site : 03CH13-HV Condition : AVG_BE_54 3m HORN_91200_1212 HORIZONTAL Detector : R8W:1000.000KHz VBW:1.000KHz SWT:Auto Project : 911635 Mode : 26 Power : 19</p>	Left blank





WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - R	
2	Vertical	Fundamental
Peak	<p>Site : 03CH13-HY Condition : PCAK_BE_74 3m HORN_91200_1212 VERTICAL Detector : R8W:1000.000KHz VBW:3000.000KHz SWT:Auto Project : 911635 Mode : 26 Power : 19</p>	Left Blank
Avg.	<p>Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1212 VERTICAL Detector : R8W:1000.000KHz VBW:1.000KHz SWT:Auto Project : 911635 Mode : 26 Power : 19</p>	Left Blank

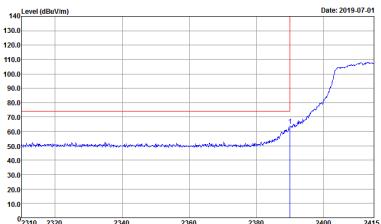
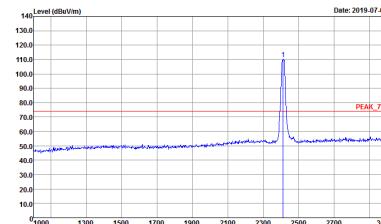
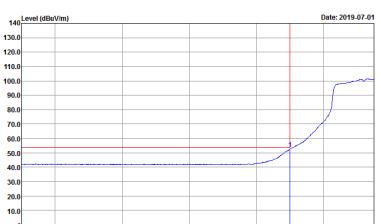
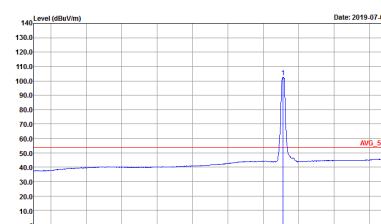


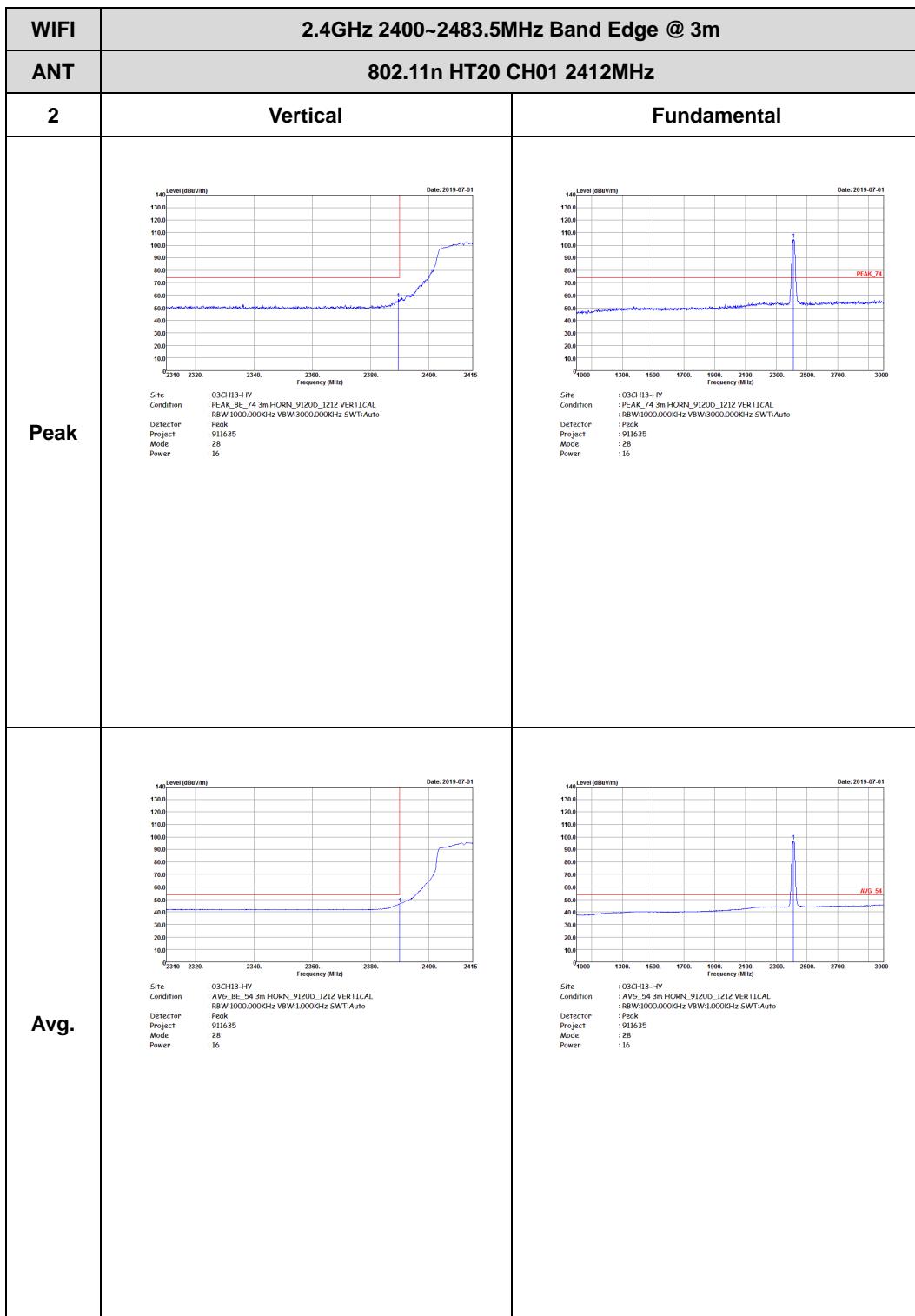


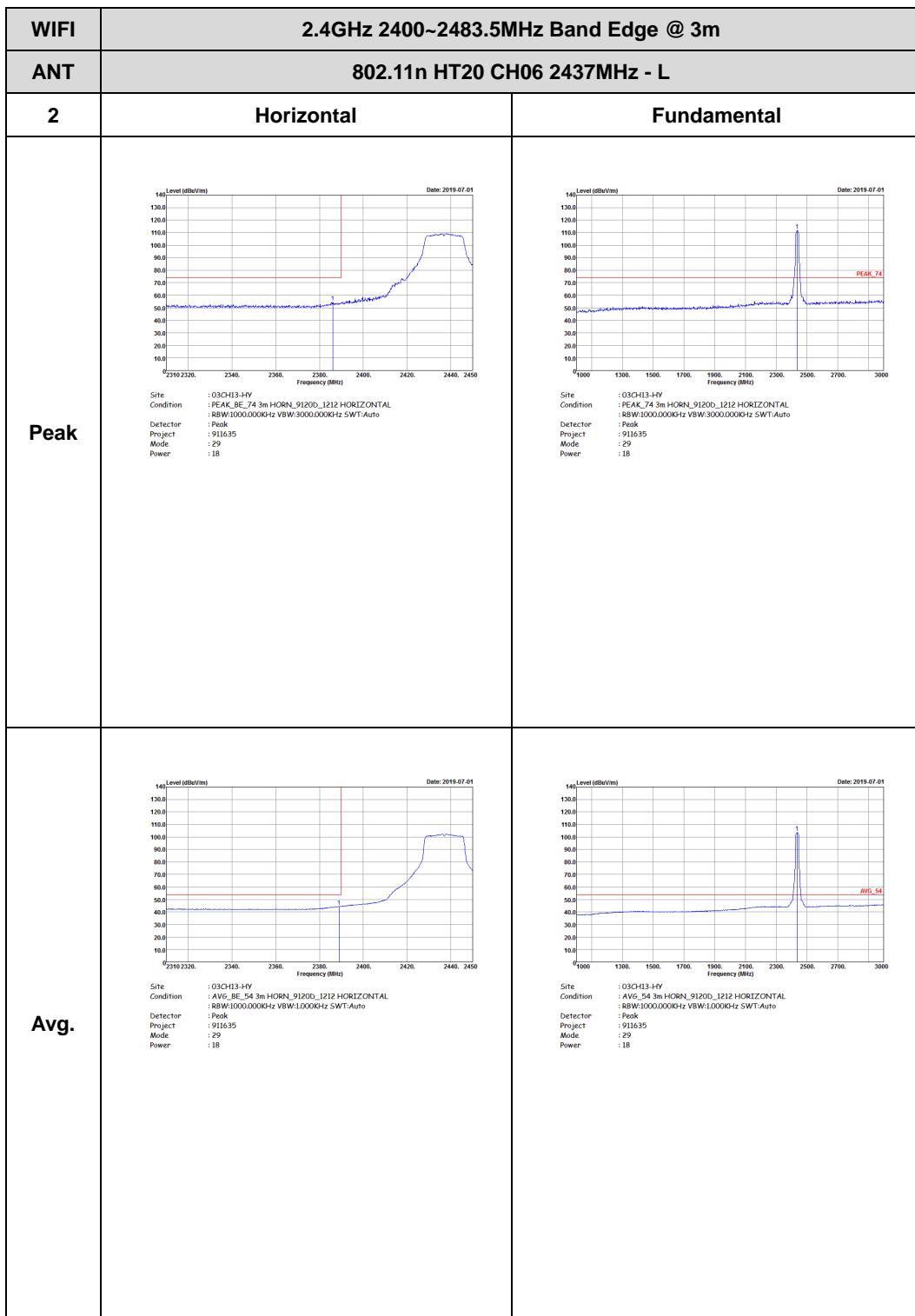


## 2.4GHz 2400~2483.5MHz

## WIFI 802.11n HT20 (Band Edge @ 3m)

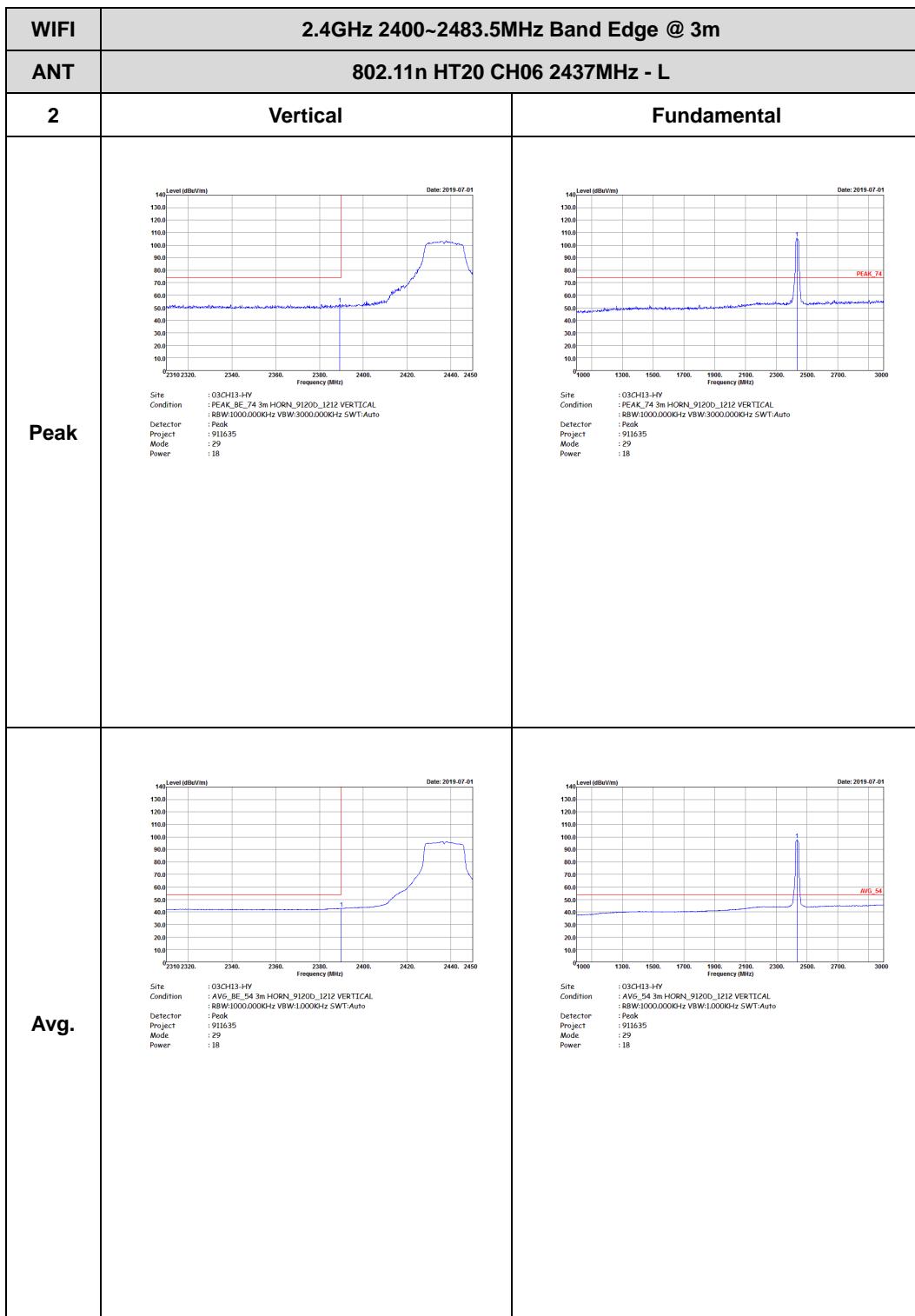
<b>WIFI</b>	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
<b>ANT</b>	802.11n HT20 CH01 2412MHz	
<b>2</b>	<b>Horizontal</b>	<b>Fundamental</b>
<b>Peak</b>	 Site : 03CH13-HY Condition : PEAK_BE_74_3m_HORN_9120D_1212_HORIZONTAL Detector : Peak Project : 911635 Mode : 28 Power : 16   Site : 03CH13-HY Condition : PEAK_74_3m_HORN_9120D_1212_HORIZONTAL Detector : Peak Project : 911635 Mode : 28 Power : 16	
<b>Avg.</b>	 Site : 03CH13-HY Condition : AVG_BE_54_3m_HORN_9120D_1212_HORIZONTAL Detector : Peak Project : 911635 Mode : 28 Power : 16   Site : 03CH13-HY Condition : AVG_54_3m_HORN_9120D_1212_HORIZONTAL Detector : Peak Project : 911635 Mode : 28 Power : 16	



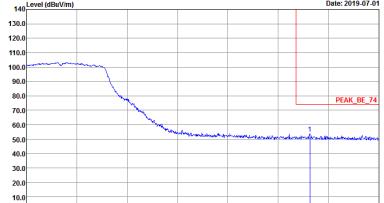
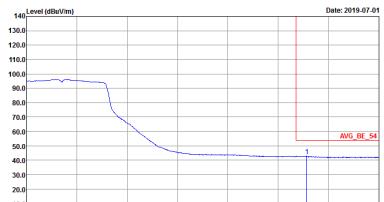


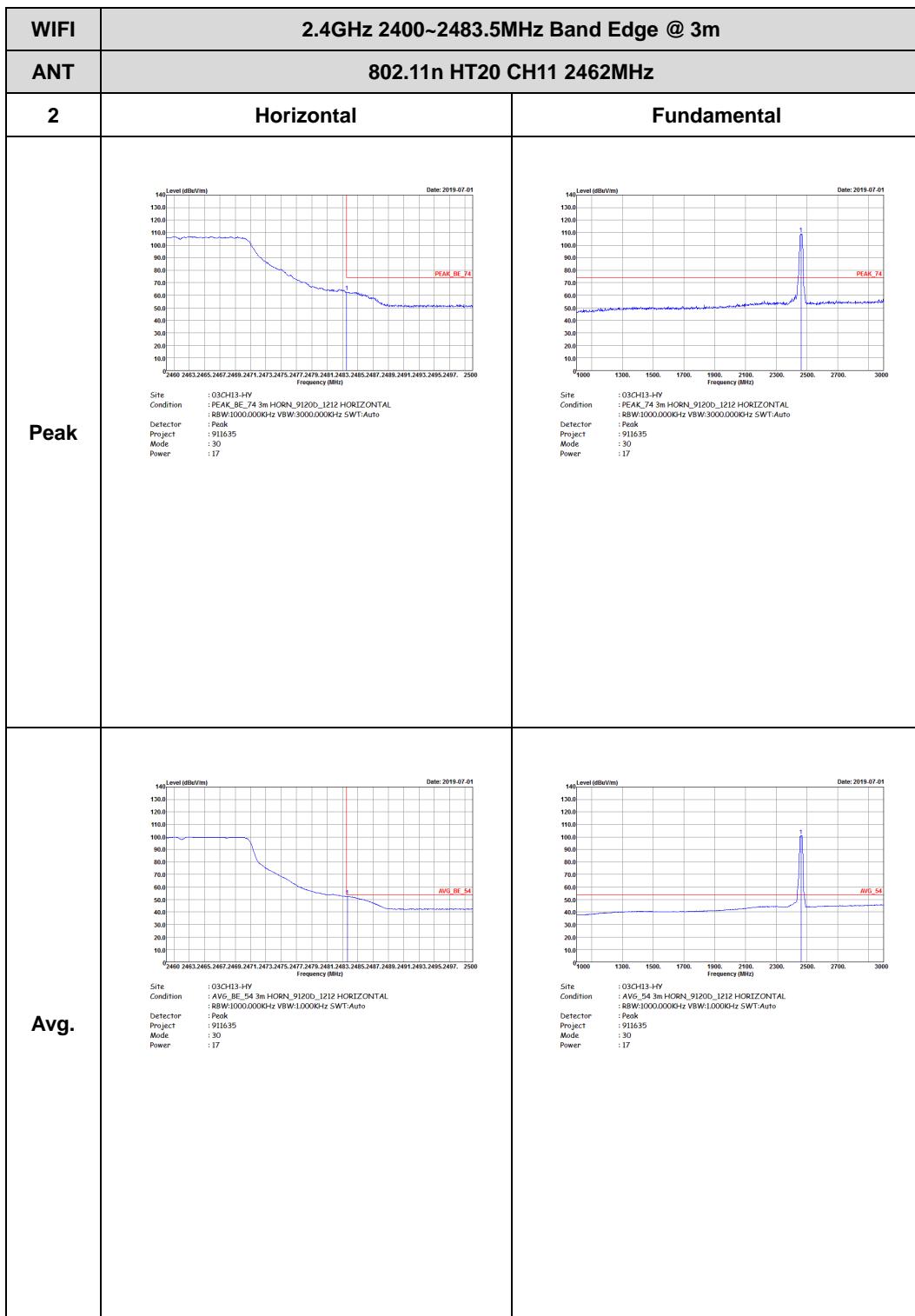


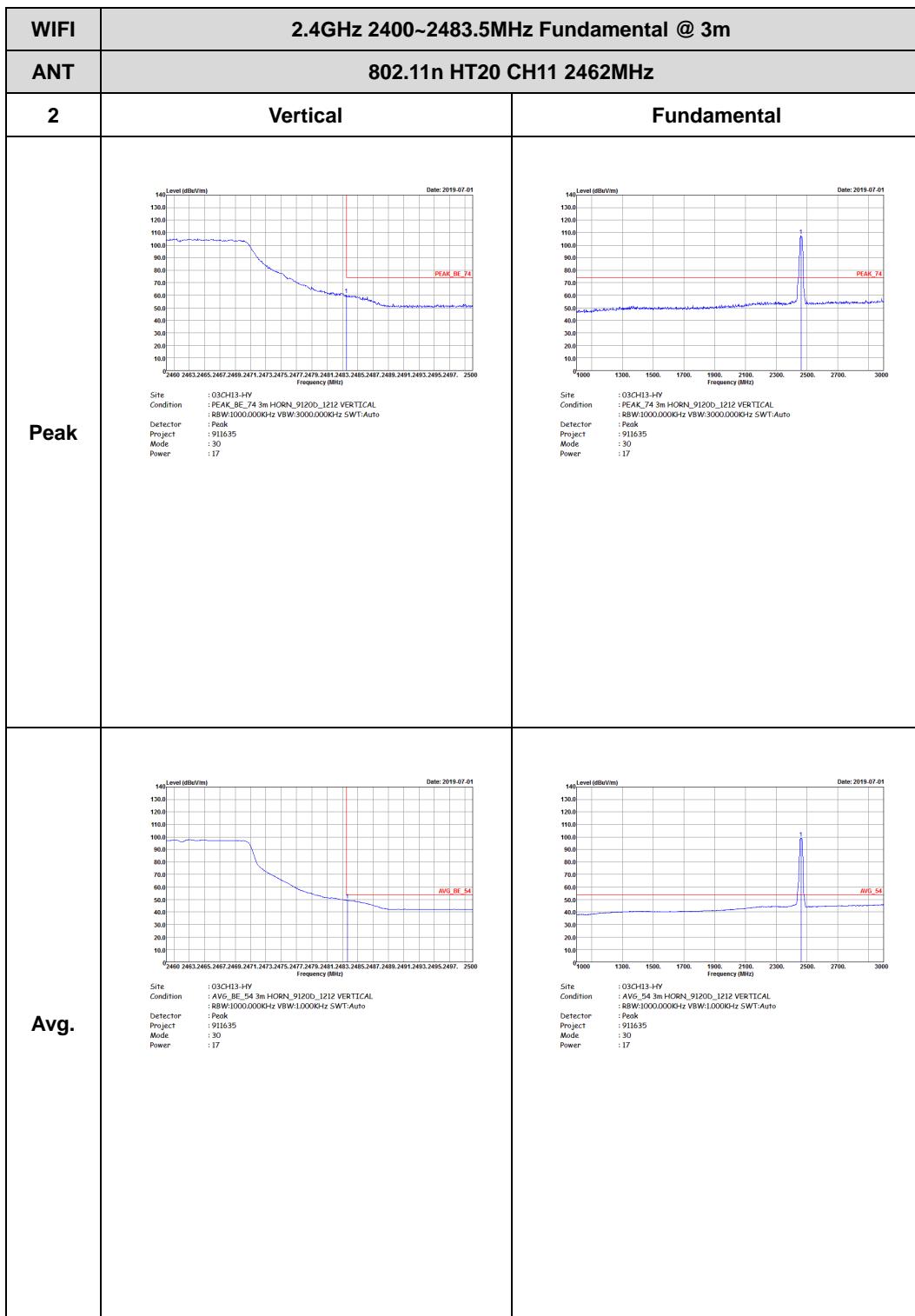
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH06 2437MHz - R	
2	Horizontal	Fundamental
Peak	 Date: 2019-07-01 Site : 03CH13-HV Condition : PCAK_BE_74 3m HORN_91200_1212 HORIZONTAL Detector : R8W:1000.000KHz VBW:3000.000KHz SWT:Auto Project : 911635 Mode : 29 Power : 18 Left blank	
Avg.	 Date: 2019-07-01 Site : AVG_BE_54 3m HORN_91200_1212 HORIZONTAL Condition : R8W:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 911635 Mode : 29 Power : 18 Left blank	





WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH06 2437MHz - R	
2	Vertical	Fundamental
Peak	 <p>Level (dBmV/m)</p> <p>Date: 2019-07-01</p> <p>Site : 03CH13-HY Condition : PCAK_BE_74 3m HORN_91200_1212 VERTICAL Detector : R8W1000.000KHz VBW:3000.000KHz SWT:Auto Project : 911635 Mode : 29 Power : 18</p>	Left Blank
Avg.	 <p>Level (dBmV/m)</p> <p>Date: 2019-07-01</p> <p>Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_91200_1212 VERTICAL Detector : R8W1000.000KHz VBW:1.000KHz SWT:Auto Project : 911635 Mode : 29 Power : 18</p>	Left Blank

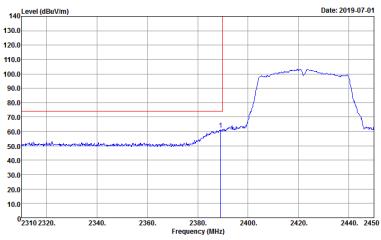
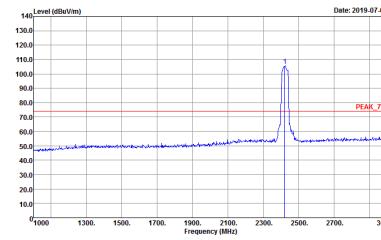
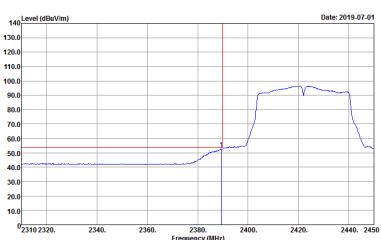
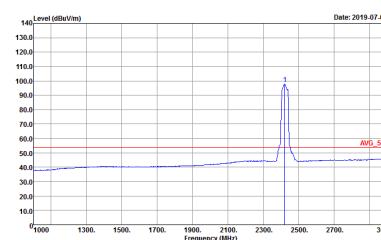






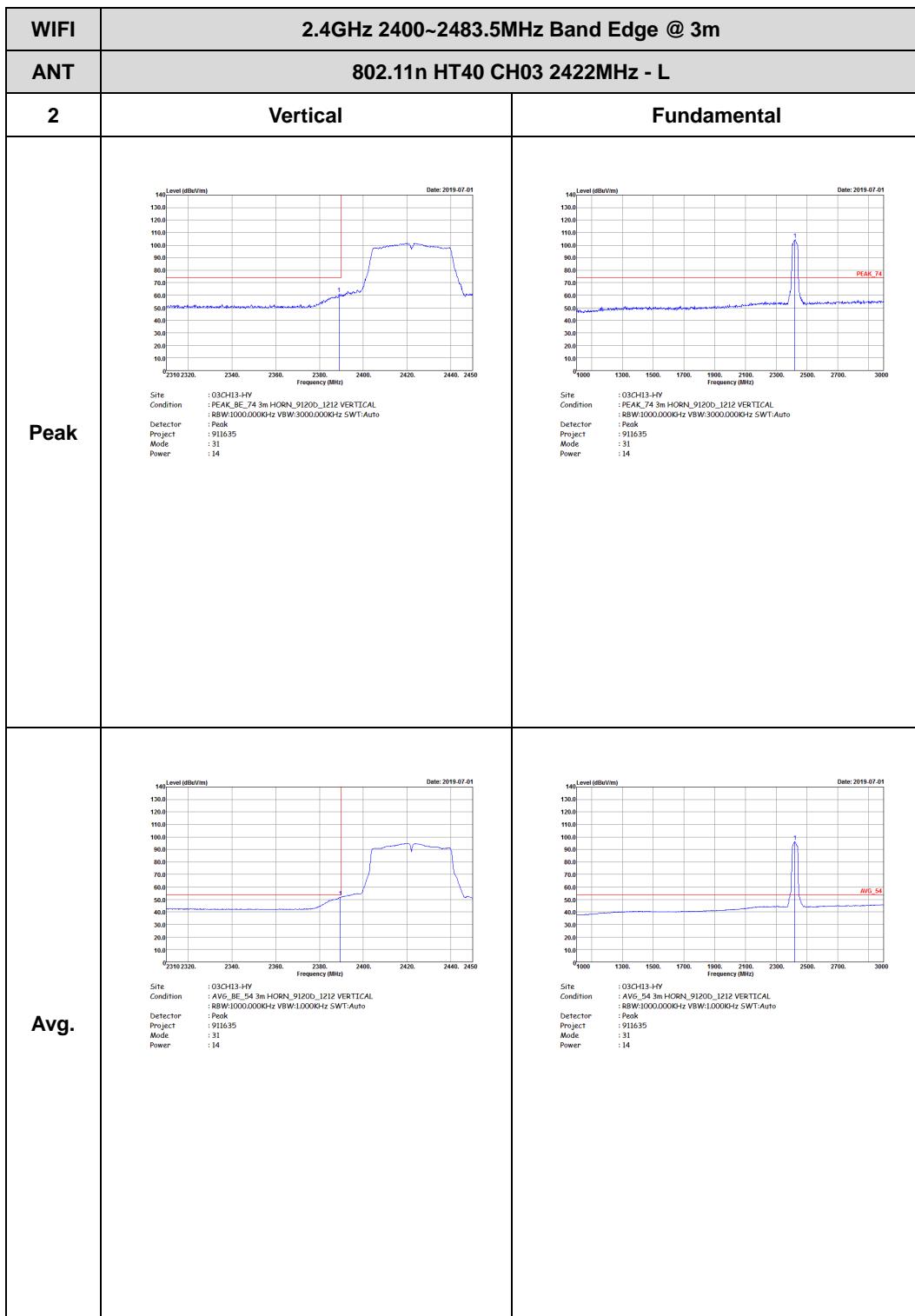
## 2.4GHz 2400~2483.5MHz

## WIFI 802.11n HT40 (Band Edge @ 3m)

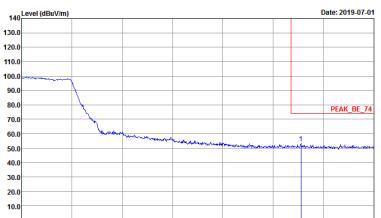
<b>WIFI</b>	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
<b>ANT</b>	802.11n HT40 CH03 2422MHz - L	
<b>2</b>	<b>Horizontal</b>	<b>Fundamental</b>
<b>Peak</b>	 Site : 03CH13-HY Condition : PEAK_BE_74.3m HORN_9120D_1212 HORIZONTAL Detector : Peak Project : 911635 Mode : 31 Power : 14   Site : 03CH13-HY Condition : PEAK_74.3m HORN_9120D_1212 HORIZONTAL Detector : Peak Project : 911635 Mode : 31 Power : 14	
<b>Avg.</b>	 Site : 03CH13-HY Condition : AVG_BE_54.3m HORN_9120D_1212 HORIZONTAL Detector : Peak Project : 911635 Mode : 31 Power : 14   Site : 03CH13-HY Condition : AVG_54.3m HORN_9120D_1212 HORIZONTAL Detector : Peak Project : 911635 Mode : 31 Power : 14	

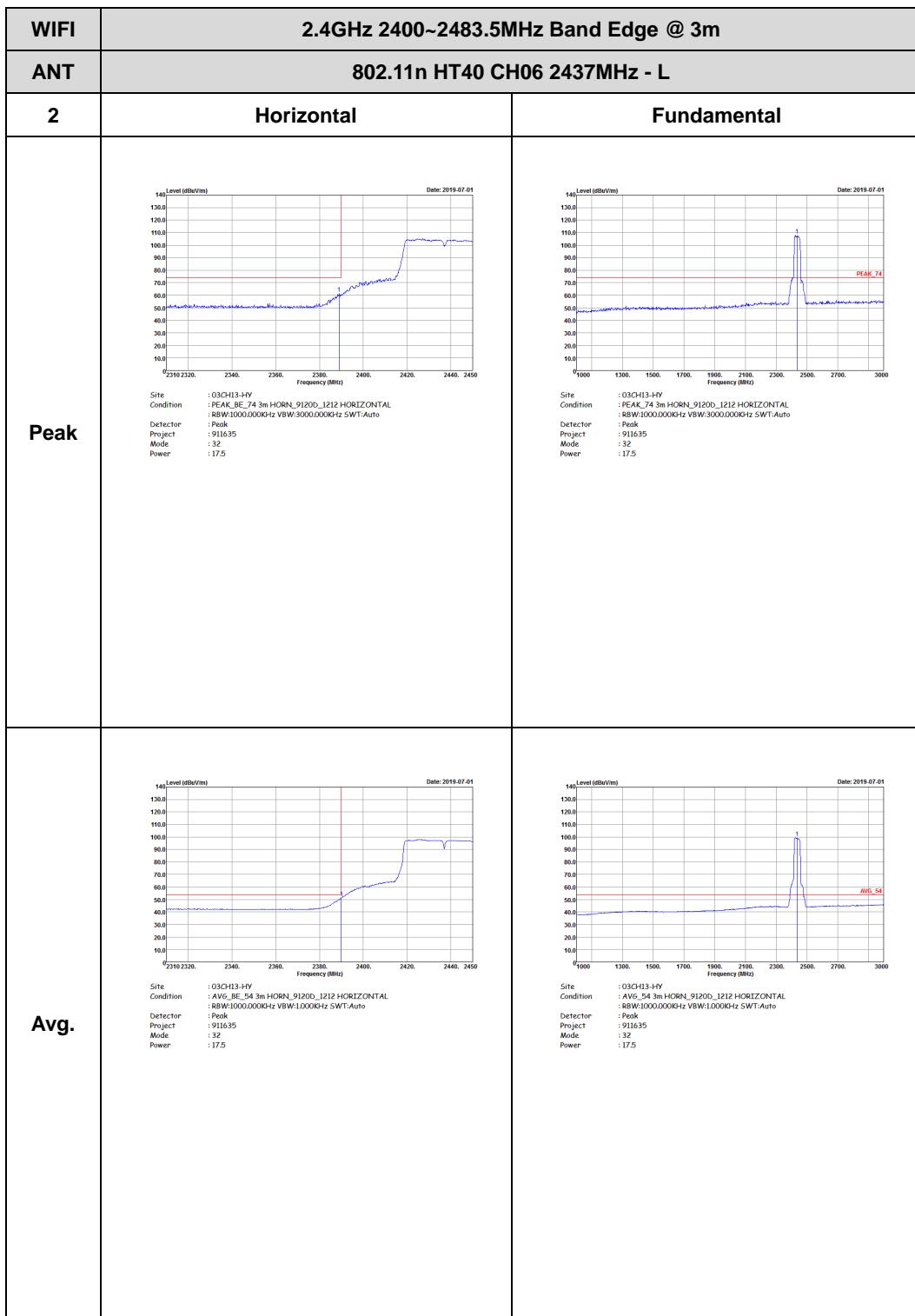


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH03 2422MHz - R	
2	Horizontal	Fundamental
Peak	<p>Date: 2019-07-01</p> <p>Site : 03CH13-HV Condition : PCAK_BE_74 3m HORN_91200_1212 HORIZONTAL Detector : R8W1000.000KHz VBW:3000.000KHz SWT:Auto Project : Peak Mode : 911635 Power : 14</p>	Left Blank
Avg.	<p>Date: 2019-07-01</p> <p>Site : 03CH13-HV Condition : AVG_BE_54 3m HORN_91200_1212 HORIZONTAL Detector : R8W1000.000KHz VBW:1.000KHz SWT:Auto Project : Peak Mode : 911635 Power : 14</p>	Left Blank



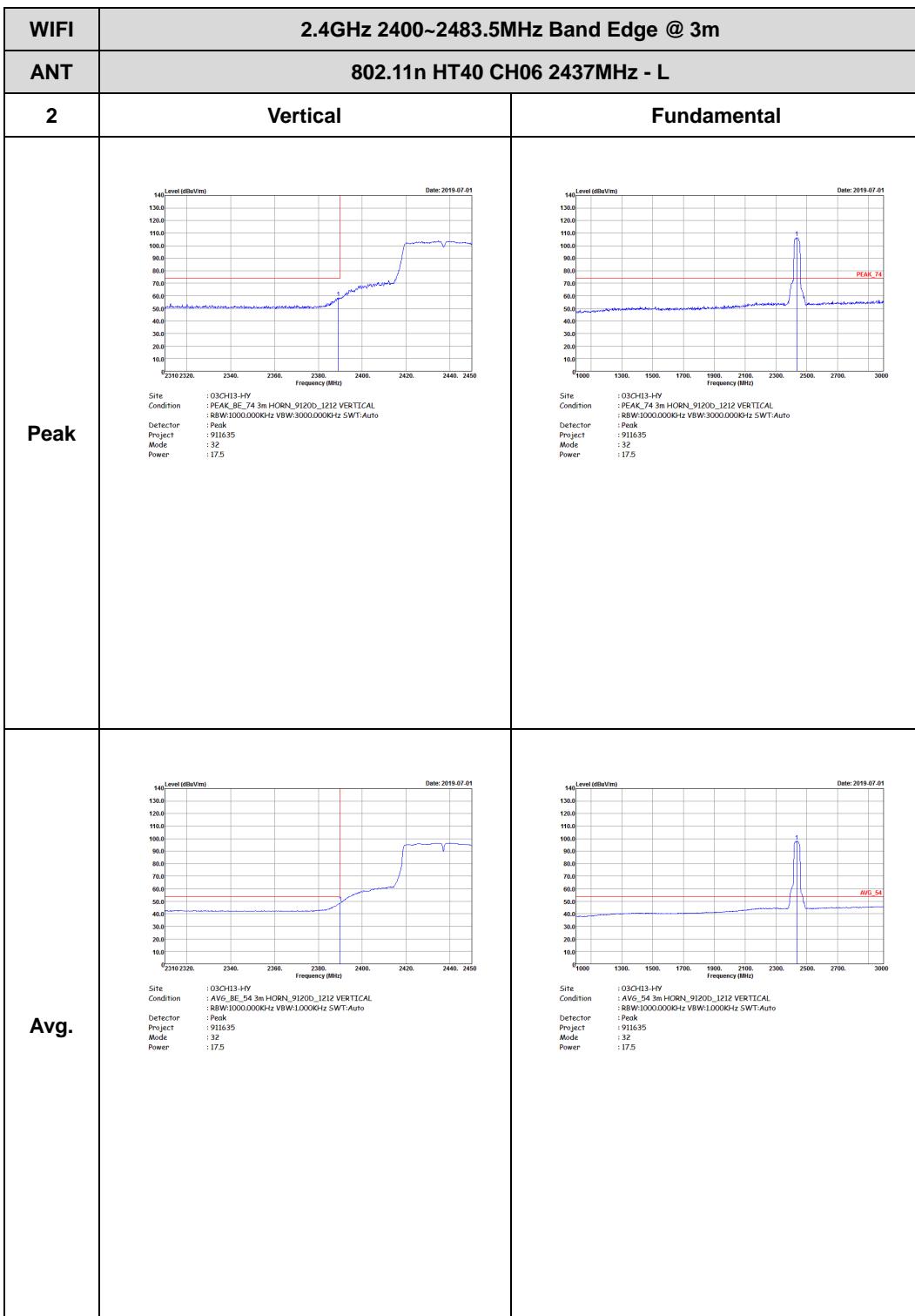


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH03 2422MHz - R	
2	Vertical	Fundamental
Peak	 <p>Level (dBm/V/m)</p> <p>Date: 2019-07-01</p> <p>Site : 03CH13-HV Condition : PCAK_BE_74 3m HORN_91200_1212 VERTICAL Detector : R8W1000.000KHz VBW:3000.000KHz SWT:Auto Project : 911635 Mode : 31 Power : 14</p>	Left blank
Avg.	 <p>Level (dBm/V/m)</p> <p>Date: 2019-07-01</p> <p>Site : AVG_BE_54 3m HORN_91200_1212 VERTICAL Condition : R8W1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 911635 Mode : 31 Power : 14</p>	Left blank



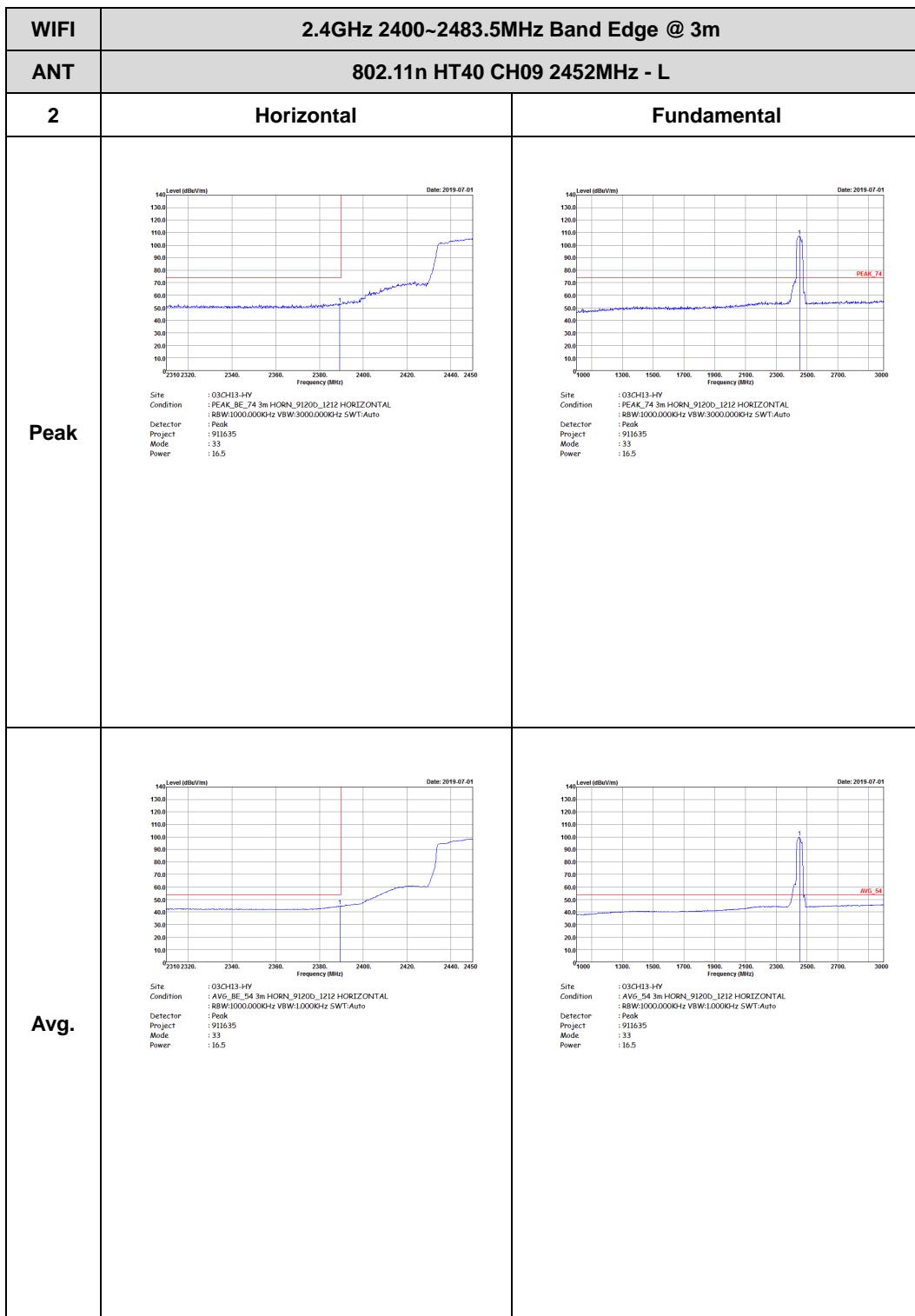


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH06 2437MHz - R	
2	Horizontal	Fundamental
Peak	 <p>Level (dBmV/m)</p> <p>Date: 2019-07-01</p> <p>Site : 03CH13-HY Condition : PCAK_BE_74 3m HORN_91200_1212 HORIZONTAL Detector : R8W:1000.000KHz VBW:3000.000KHz SWT:Auto Project : 911635 Mode : 32 Power : 17.5</p>	Left blank
Avg.	 <p>Level (dBmV/m)</p> <p>Date: 2019-07-01</p> <p>Site : AVG_BE_54 3m HORN_91200_1212 HORIZONTAL Condition : R8W:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 911635 Mode : 32 Power : 17.5</p>	Left blank

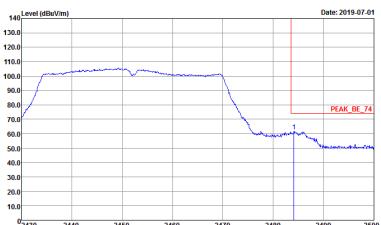
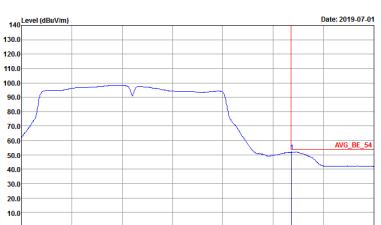


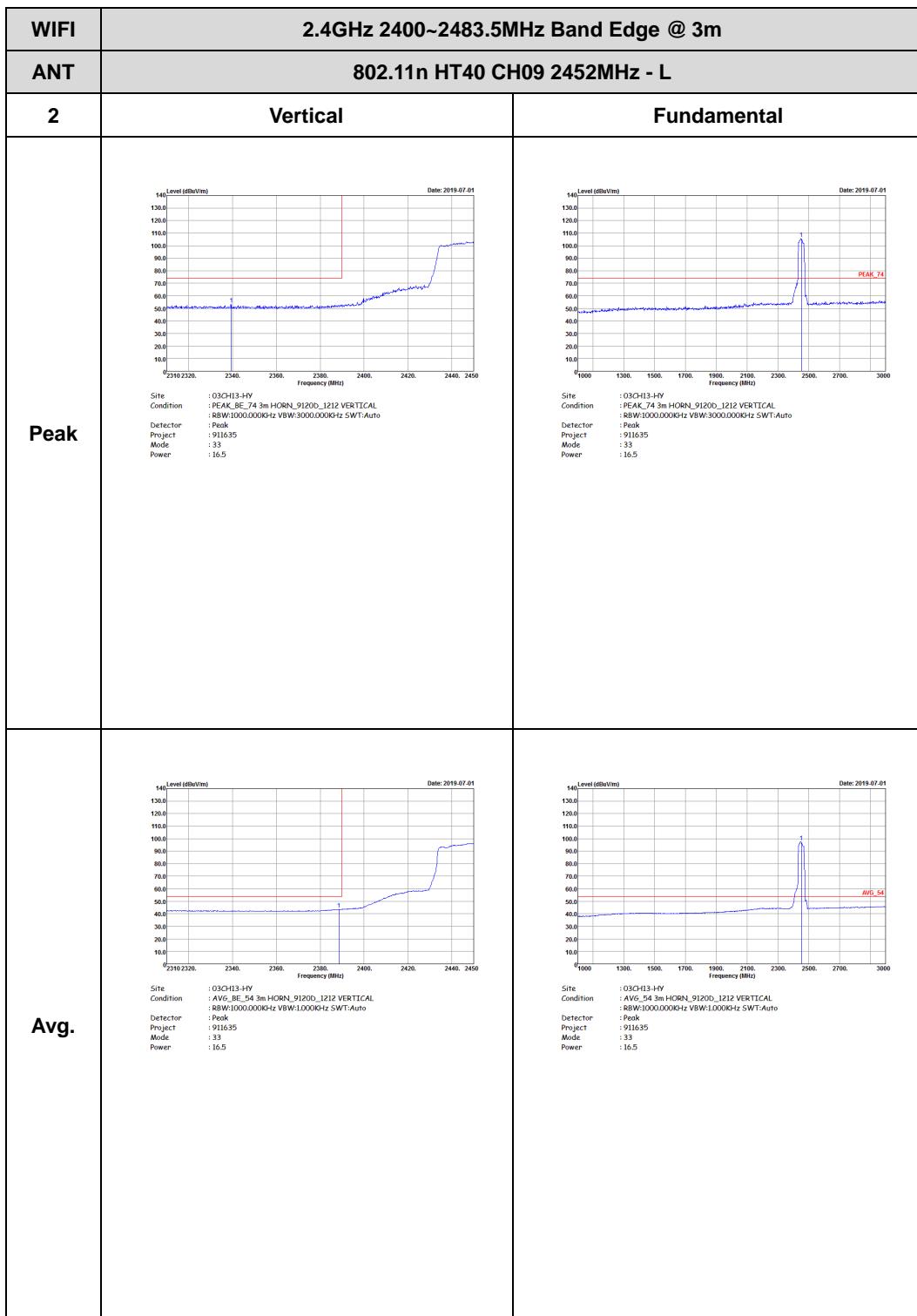


WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH06 2437MHz - R	
2	Horizontal	Fundamental
Peak	 <p>Level (dBm/m)</p> <p>Date: 2019-07-01</p> <p>Site : 03CH13-HV Condition : PCAK_BE_74 3m HORN_91200_1212 VERTICAL Detector : R8W1000.000KHz VBW:3000.000KHz SWT:Auto Project : 911635 Mode : 32 Power : 17.5</p>	Left blank
Avg.	 <p>Level (dBm/m)</p> <p>Date: 2019-07-01</p> <p>Site : AVG_BE_54 3m HORN_91200_1212 VERTICAL Condition : R8W1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 911635 Mode : 32 Power : 17.5</p>	Left blank

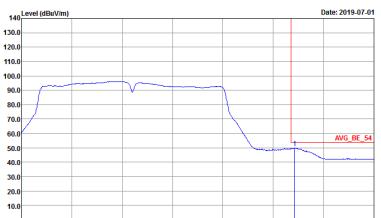




WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH09 2452MHz - R	
2	Horizontal	Fundamental
Peak	 <p>Level (dBm/V/m)</p> <p>Date: 2019-07-01</p> <p>Frequency (MHz)</p> <p>Site : 03CH13-HV Condition : PCAK_BE_74 3m HORN_91200_1212 HORIZONTAL Detector : R8W:1000.000KHz VBW:3000.000KHz SWT:Auto Project : Peak Mode : 33 Power : 16.5</p>	Left blank
Avg.	 <p>Level (dBm/V/m)</p> <p>Date: 2019-07-01</p> <p>Frequency (MHz)</p> <p>Site : 03CH13-HV Condition : AVG_BE_54 3m HORN_91200_1212 HORIZONTAL Detector : R8W:1000.000KHz VBW:1.000KHz SWT:Auto Project : Peak Mode : 33 Power : 16.5</p>	Left blank



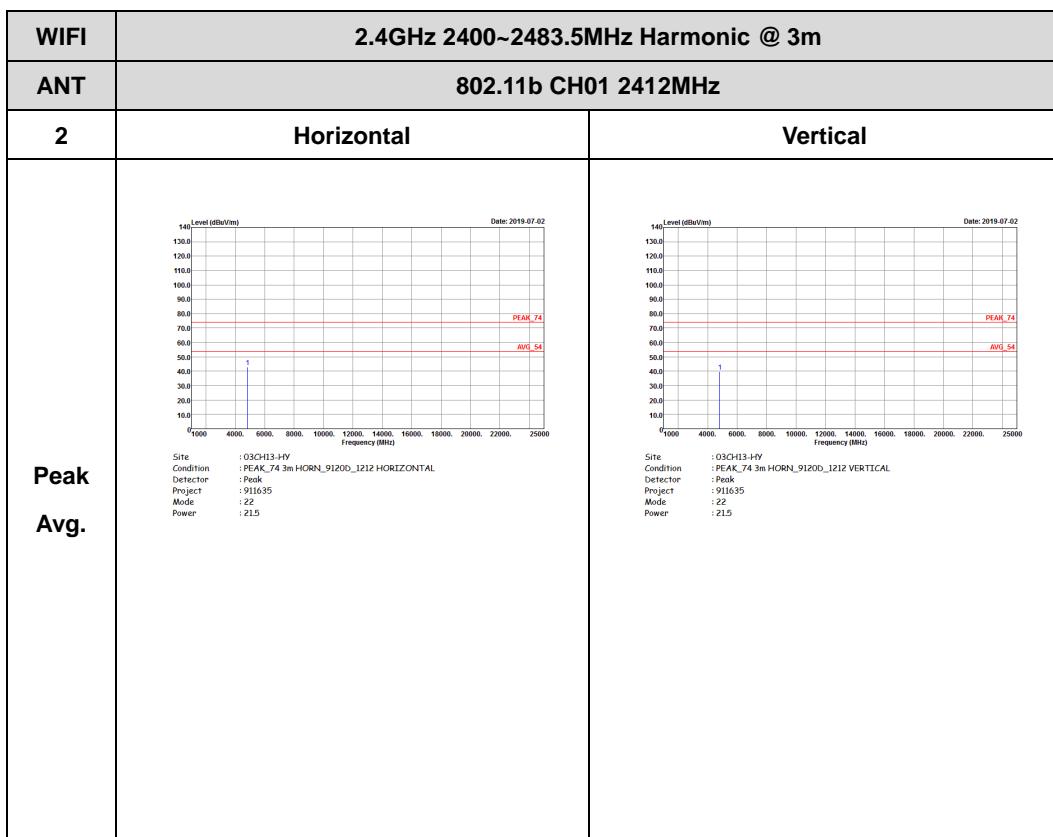


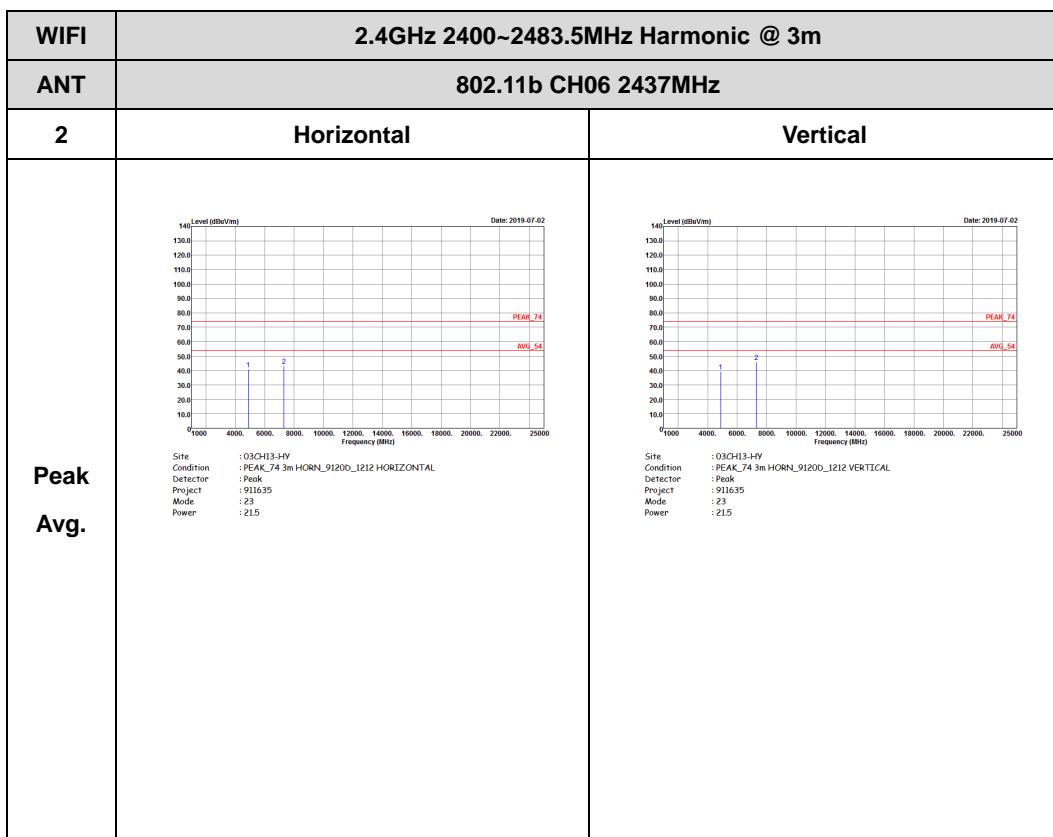
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH09 2452MHz - R	
2	Vertical	Fundamental
Peak	 <p>Level (dBm/V/m)</p> <p>Date: 2019-07-01</p> <p>Site : 03CH13-HV Condition : PCAK_BE_74 3m HORN_91200_1212 VERTICAL Detector : R8W1000.000KHz VBW:3000.000KHz SWT:Auto Project : Peak Mode : 911635 Power : 16.5</p>	Left blank
Avg.	 <p>Level (dBm/V/m)</p> <p>Date: 2019-07-01</p> <p>Site : AVG_BE_54 3m HORN_91200_1212 VERTICAL Condition : R8W1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 911635 Mode : 33 Power : 16.5</p>	Left blank

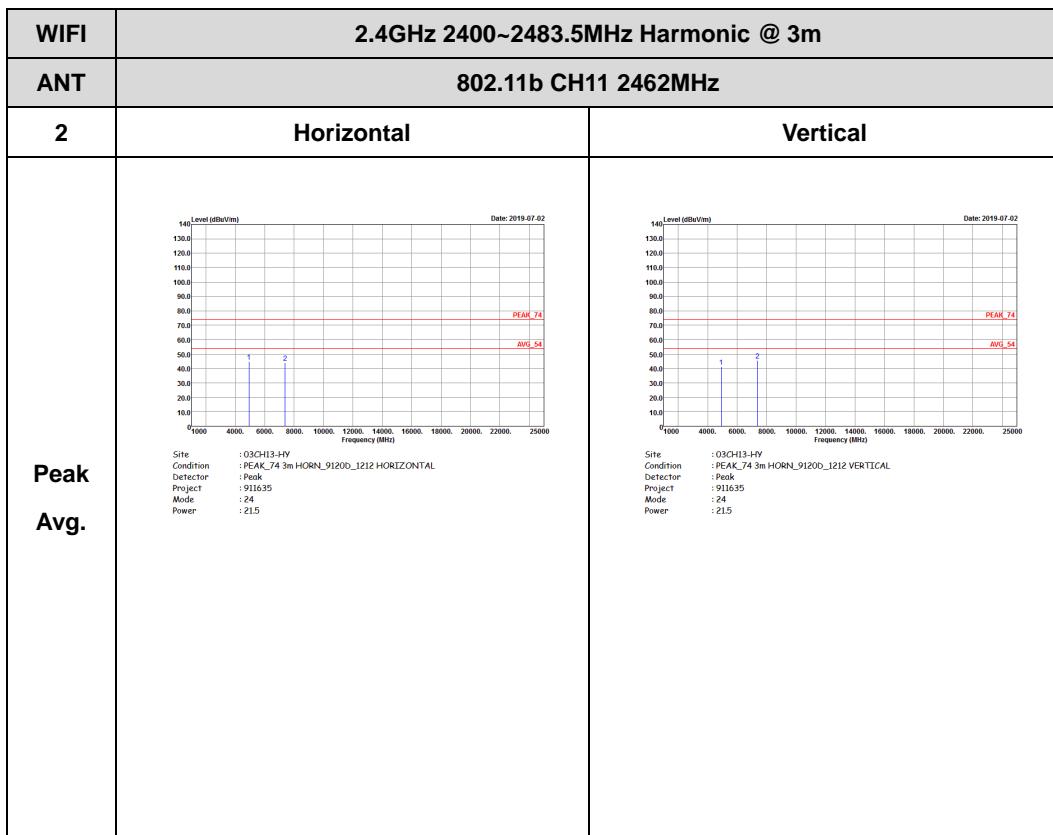


## 2.4GHz 2400~2483.5MHz

## WIFI 802.11b (Harmonic @ 3m)









## 2.4GHz 2400~2483.5MHz

## WIFI 802.11g (Harmonic @ 3m)

