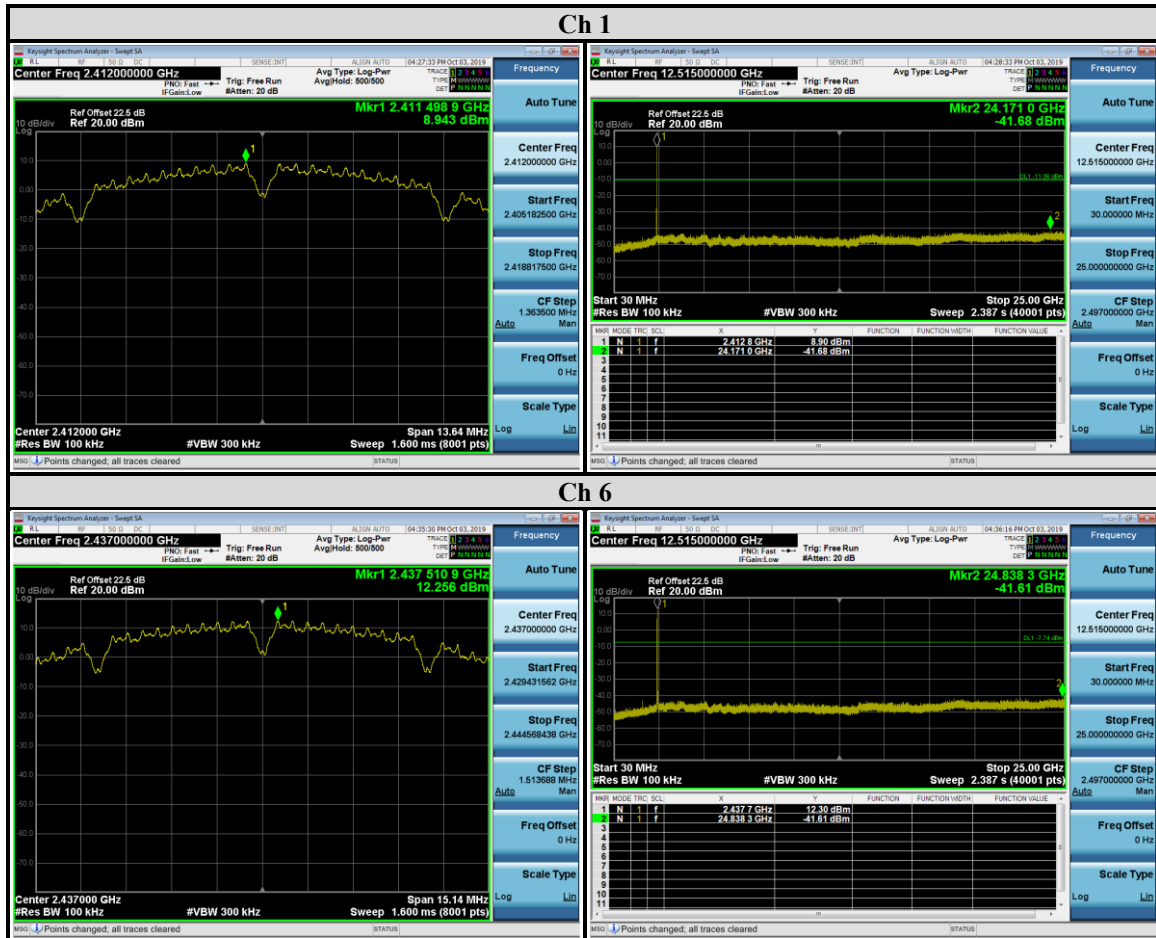




Test Data

802.11b

CHAIN 0



Underwriters Laboratories Taiwan Co., Ltd.

Building B and Building E, No. 372-7, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County, Taiwan

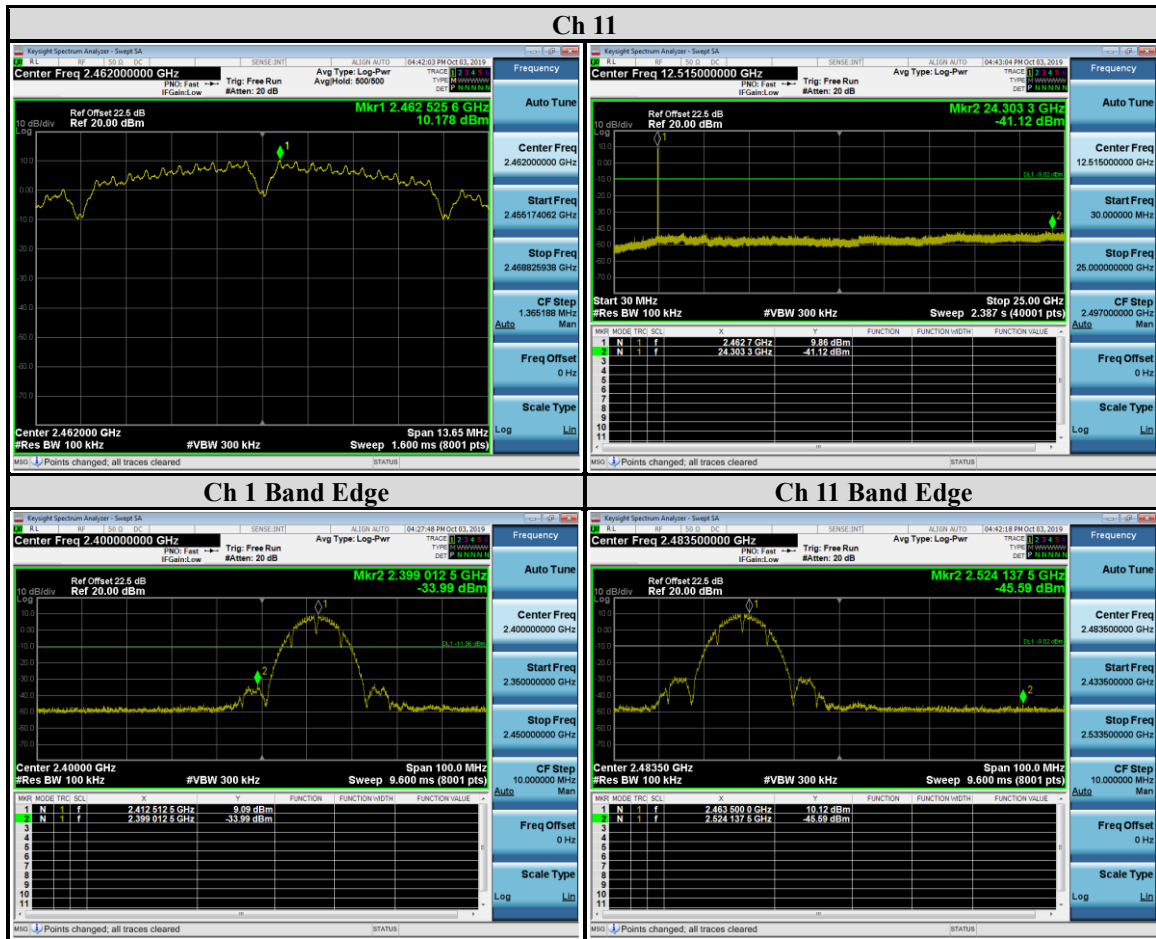
Telephone : +886-2-7737-3000

Facsimile (FAX) : +886-3-583-7948

Doc No: 17-EM-F0876 / 5.0



Test report No. : 4789166774-US-R0-V0
Page : 31 of 87
Issued date : Apr. 8, 2020
FCC ID : VGY2765



Underwriters Laboratories Taiwan Co., Ltd.

Building B and Building E, No. 372-7, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County, Taiwan

Telephone : +886-2-7737-3000

Facsimile (FAX) : +886-3-583-7948

Doc No: 17-EM-F0876 / 5.0



Test report No. : 4789166774-US-R0-V0
Page : 32 of 87
Issued date : Apr. 8, 2020
FCC ID : VGY2765

CHAIN 1



Underwriters Laboratories Taiwan Co., Ltd.

Building B and Building E, No. 372-7, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County, Taiwan

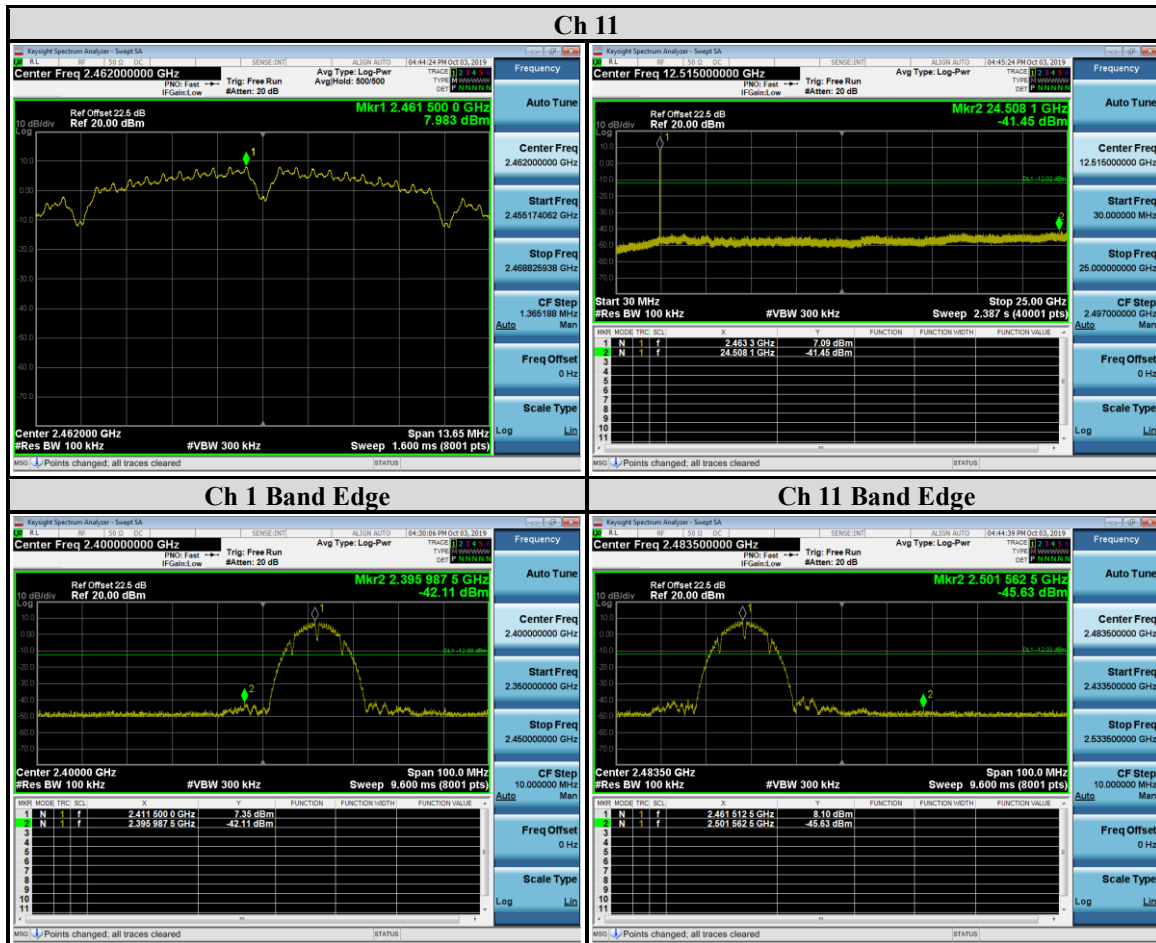
Telephone : +886-2-7737-3000

Facsimile (FAX) : +886-3-583-7948

Doc No: 17-EM-F0876 / 5.0



Test report No. : 4789166774-US-R0-V0
Page : 33 of 87
Issued date : Apr. 8, 2020
FCC ID : VGY2765



Underwriters Laboratories Taiwan Co., Ltd.

Building B and Building E, No. 372-7, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County, Taiwan

Telephone :+886-2-7737-3000

Facsimile (FAX) :+886-3-583-7948

Doc No: 17-EM-F0876 / 5.0



Test report No. : 4789166774-US-R0-V0
Page : 34 of 87
Issued date : Apr. 8, 2020
FCC ID : VGY2765

802.11g

CHAIN 0



Underwriters Laboratories Taiwan Co., Ltd.

Building B and Building E, No. 372-7, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County, Taiwan

Telephone : +886-2-7737-3000

Facsimile (FAX) : +886-3-583-7948

Doc No: 17-EM-F0876 / 5.0



Test report No. : 4789166774-US-R0-V0
Page : 35 of 87
Issued date : Apr. 8, 2020
FCC ID : VGY2765



Underwriters Laboratories Taiwan Co., Ltd.

Building B and Building E, No. 372-7, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County, Taiwan

Telephone : +886-2-7737-3000

Facsimile (FAX) : +886-3-583-7948

Doc No: 17-EM-F0876 / 5.0



Test report No. : 4789166774-US-R0-V0
Page : 36 of 87
Issued date : Apr. 8, 2020
FCC ID : VGY2765

CHAIN 1



Underwriters Laboratories Taiwan Co., Ltd.

Building B and Building E, No. 372-7, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County, Taiwan

Telephone : +886-2-7737-3000

Facsimile (FAX) : +886-3-583-7948

Doc No: 17-EM-F0876 / 5.0



Test report No. : 4789166774-US-R0-V0
Page : 37 of 87
Issued date : Apr. 8, 2020
FCC ID : VGY2765



Underwriters Laboratories Taiwan Co., Ltd.

Building B and Building E, No. 372-7, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County, Taiwan

Telephone : +886-2-7737-3000

Facsimile (FAX) : +886-3-583-7948

Doc No: 17-EM-F0876 / 5.0



Test report No. : 4789166774-US-R0-V0
Page : 38 of 87
Issued date : Apr. 8, 2020
FCC ID : VGY2765

802.11n (HT20)

CHAIN 0



Underwriters Laboratories Taiwan Co., Ltd.

Building B and Building E, No. 372-7, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County, Taiwan

Telephone : +886-2-7737-3000

Facsimile (FAX) : +886-3-583-7948

Doc No: 17-EM-F0876 / 5.0



Test report No. : 4789166774-US-R0-V0
Page : 39 of 87
Issued date : Apr. 8, 2020
FCC ID : VGY2765



Underwriters Laboratories Taiwan Co., Ltd.

Building B and Building E, No. 372-7, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County, Taiwan

Telephone : +886-2-7737-3000

Facsimile (FAX) : +886-3-583-7948

Doc No: 17-EM-F0876 / 5.0



Test report No. : 4789166774-US-R0-V0
Page : 40 of 87
Issued date : Apr. 8, 2020
FCC ID : VGY2765

CHAIN 1



Underwriters Laboratories Taiwan Co., Ltd.

Building B and Building E, No. 372-7, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County, Taiwan

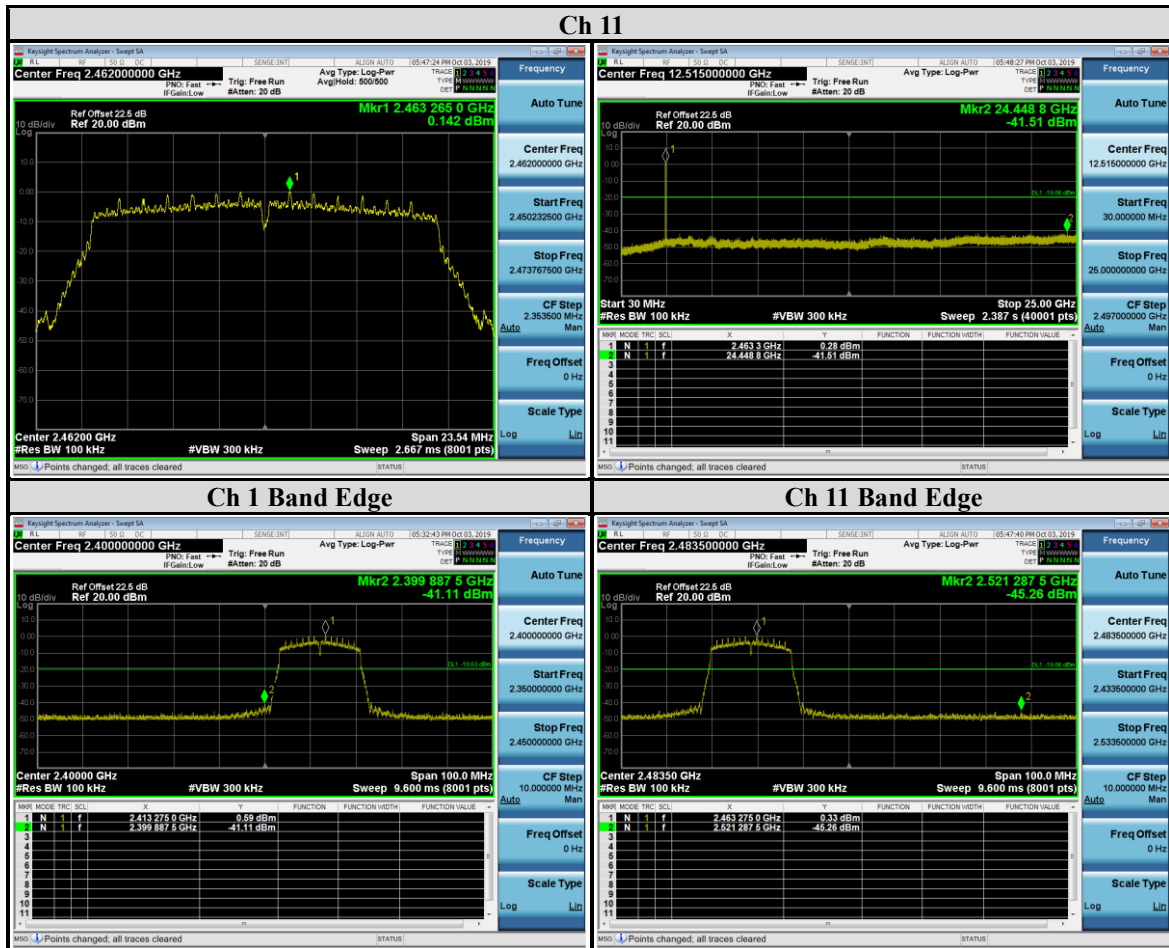
Telephone : +886-2-7737-3000

Facsimile (FAX) : +886-3-583-7948

Doc No: 17-EM-F0876 / 5.0



Test report No. : 4789166774-US-R0-V0
Page : 41 of 87
Issued date : Apr. 8, 2020
FCC ID : VGY2765



Underwriters Laboratories Taiwan Co., Ltd.

Building B and Building E, No. 372-7, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County, Taiwan

Telephone : +886-2-7737-3000

Facsimile (FAX) : +886-3-583-7948

Doc No: 17-EM-F0876 / 5.0



Test report No. : 4789166774-US-R0-V0
Page : 42 of 87
Issued date : Apr. 8, 2020
FCC ID : VGY2765

802.11n (HT40)

CHAIN 0



Underwriters Laboratories Taiwan Co., Ltd.

Building B and Building E, No. 372-7, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County, Taiwan

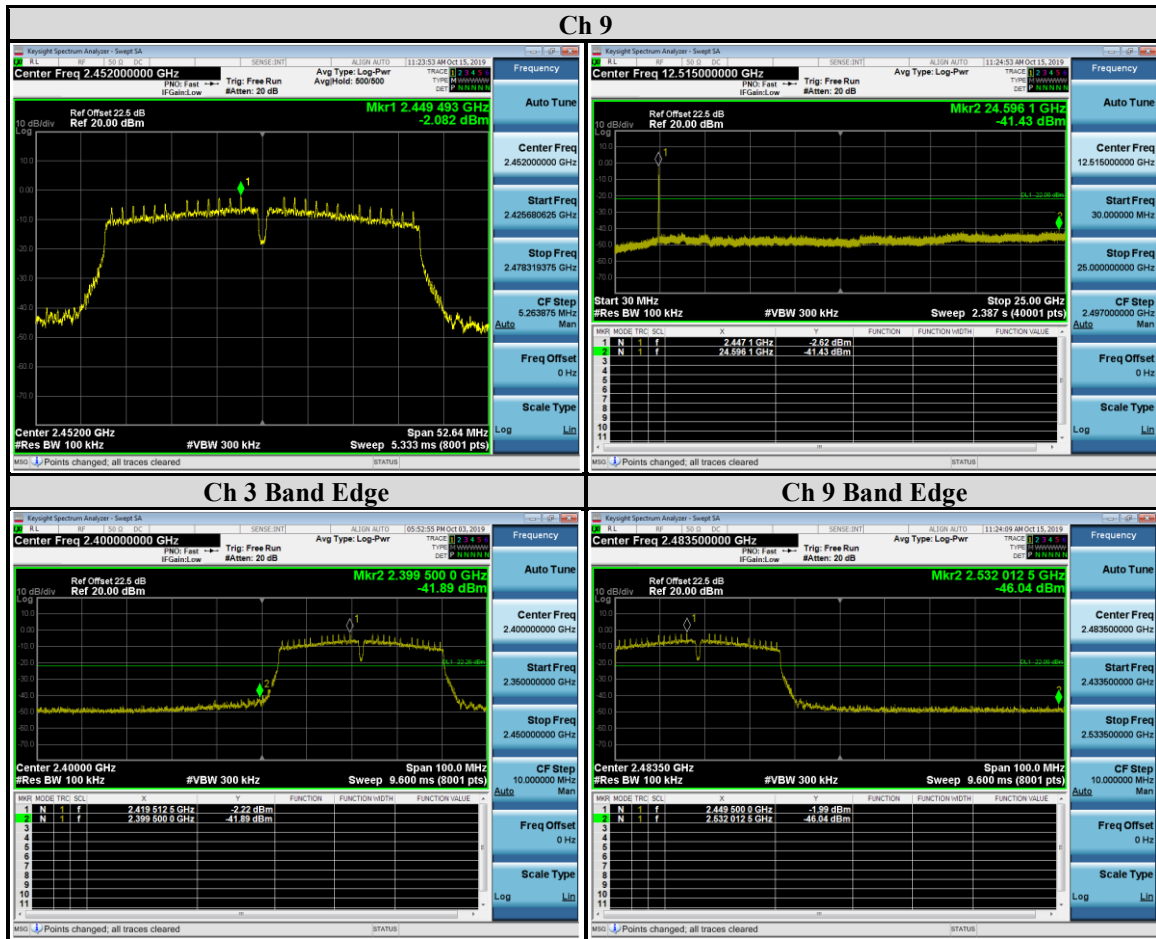
Telephone : +886-2-7737-3000

Facsimile (FAX) : +886-3-583-7948

Doc No: 17-EM-F0876 / 5.0



Test report No. : 4789166774-US-R0-V0
Page : 43 of 87
Issued date : Apr. 8, 2020
FCC ID : VGY2765



Underwriters Laboratories Taiwan Co., Ltd.

Building B and Building E, No. 372-7, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County, Taiwan

Telephone : +886-2-7737-3000

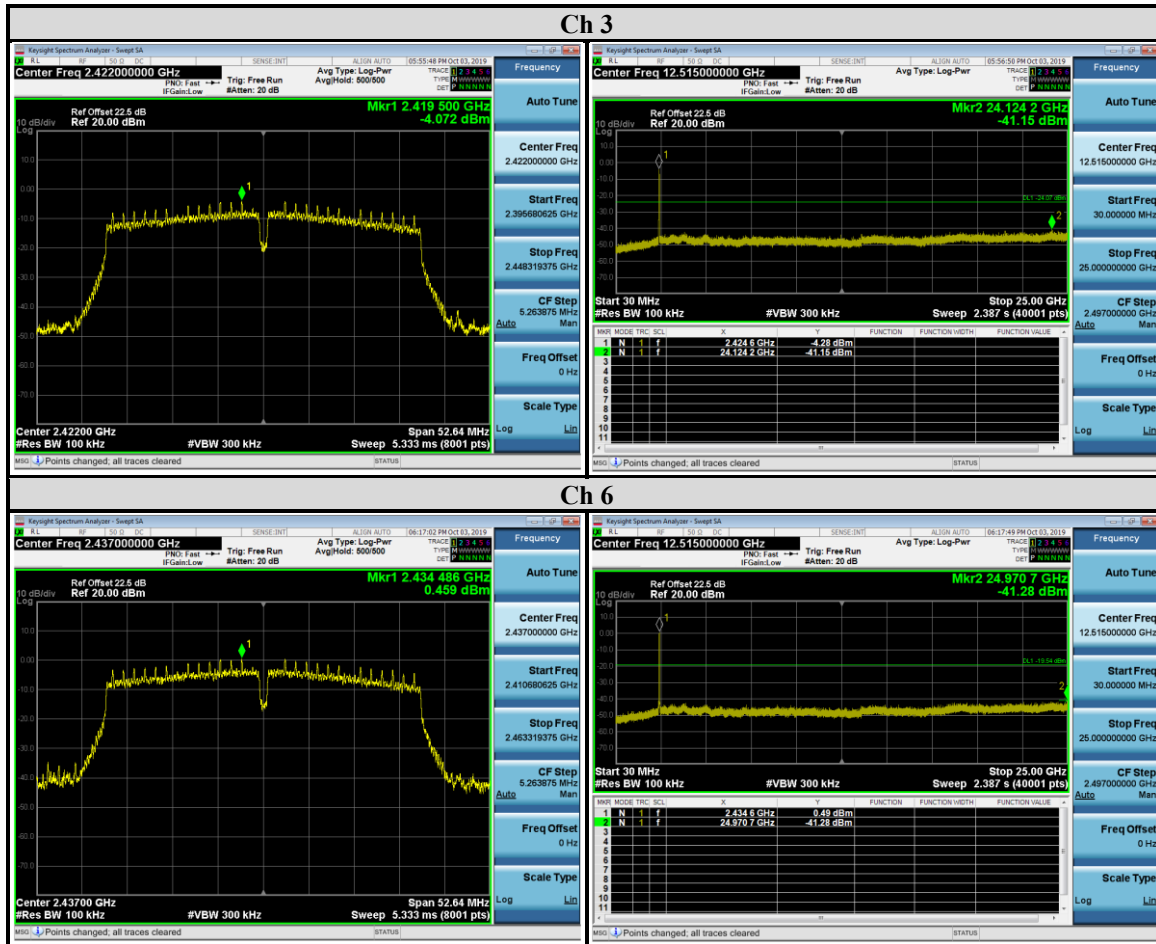
Facsimile (FAX) : +886-3-583-7948

Doc No: 17-EM-F0876 / 5.0



Test report No. : 4789166774-US-R0-V0
Page : 44 of 87
Issued date : Apr. 8, 2020
FCC ID : VGY2765

CHAIN 1



Underwriters Laboratories Taiwan Co., Ltd.

Building B and Building E, No. 372-7, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County, Taiwan

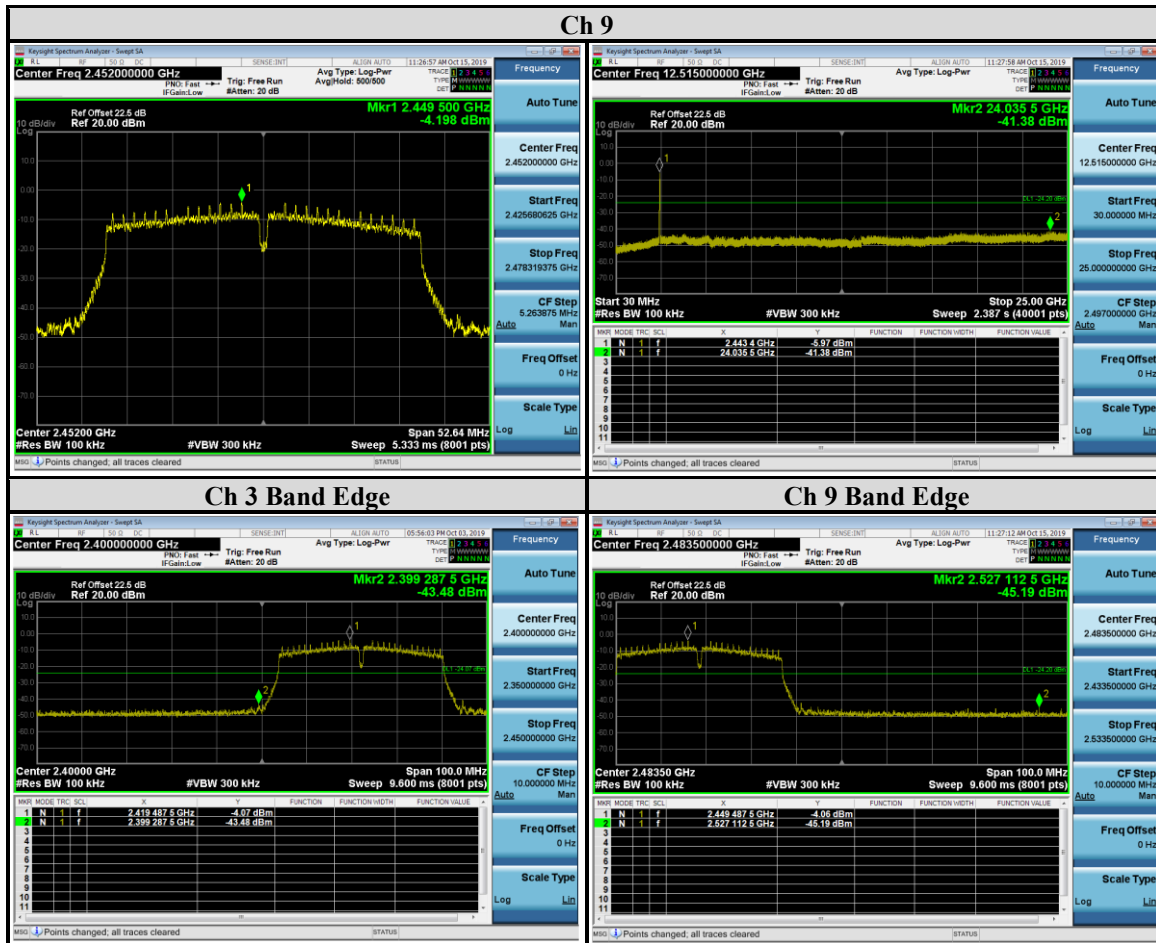
Telephone : +886-2-7737-3000

Facsimile (FAX) : +886-3-583-7948

Doc No: 17-EM-F0876 / 5.0



Test report No. : 4789166774-US-R0-V0
Page : 45 of 87
Issued date : Apr. 8, 2020
FCC ID : VGY2765



Underwriters Laboratories Taiwan Co., Ltd.

Building B and Building E, No. 372-7, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County, Taiwan

Telephone : +886-2-7737-3000

Facsimile (FAX) : +886-3-583-7948

Doc No: 17-EM-F0876 / 5.0



9.5. Radiated Spurious Emission

Requirements

Radiated emissions which fall in the restricted bands must comply with the radiated emission limits specified as below table. Other emissions shall be at least 20dB below the highest level of the desired power:

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

NOTE:

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
3. For frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.

Underwriters Laboratories Taiwan Co., Ltd.

Building B and Building E, No. 372-7, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County, Taiwan

Telephone :+886-2-7737-3000

Facsimile (FAX) :+886-3-583-7948

Doc No: 17-EM-F0876 / 5.0



Test Procedures

[For 9 kHz ~ 30 MHz]

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter chamber room. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. Parallel, perpendicular, and ground-parallel orientations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. For measurement below 30MHz, the initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured. If the emission level of the EUT measured by the peak detector is lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.

NOTE:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 9kHz at frequency below 30MHz.

[For above 30 MHz]

- a. The EUT was placed on the top of a rotating table 0.8 meters (for 30MHz ~ 1GHz) / 1.5 meters (for above 1GHz) above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. For measurement below 1GHz, the initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured. If the emission level of the EUT measured by the peak detector is lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.
- f. The test-receiver system was set to peak and average detects function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

Underwriters Laboratories Taiwan Co., Ltd.

Building B and Building E, No. 372-7, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County, Taiwan

Telephone : +886-2-7737-3000

Facsimile (FAX) : +886-3-583-7948

Doc No: 17-EM-F0876 / 5.0



Note:

- a. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
- b. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
- c. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is $\geq 1/T$ (Duty cycle < 98%) or 10Hz (Duty cycle $\geq 98\%$) for Average detection (AV) at frequency above 1GHz.

Configuration	Average	
	RBW	VBW
802.11b	1MHz	10 Hz
802.11g		1 kHz
802.11n (HT20)		2 kHz
802.11n (HT40)		3 kHz

Note: Refer to section 6.6 for duty cycle.

- d. All modes of operation were investigated (includes all external accessories) and the worst-case emissions are reported.

Underwriters Laboratories Taiwan Co., Ltd.

Building B and Building E, No. 372-7, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County, Taiwan

Telephone :+886-2-7737-3000

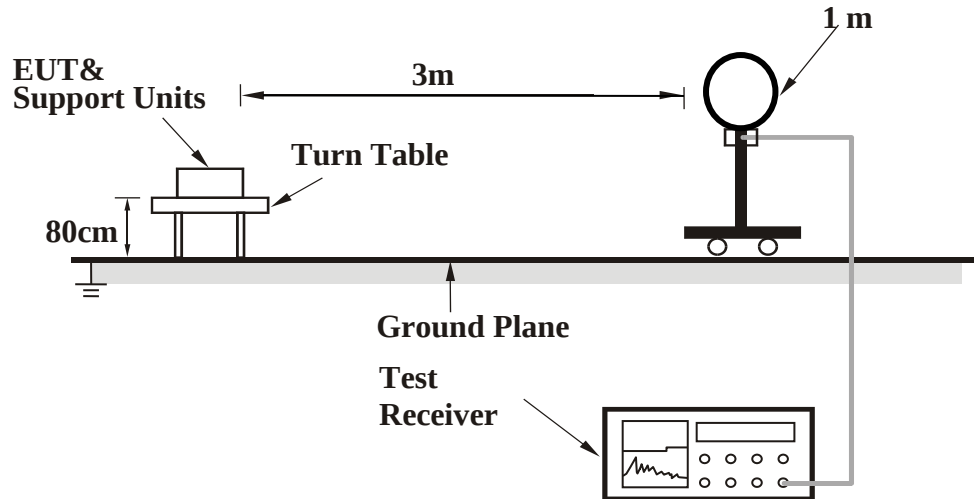
Facsimile (FAX) :+886-3-583-7948

Doc No: 17-EM-F0876 / 5.0

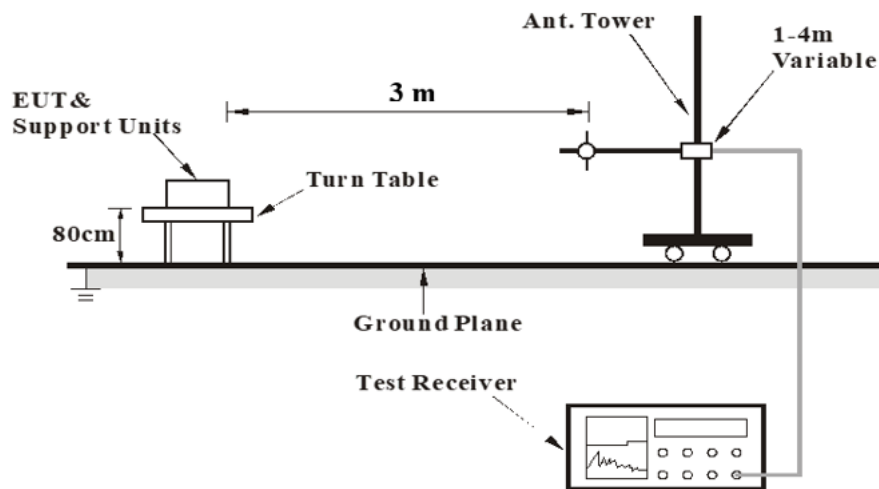


Test Setup

<Frequency Range 9 kHz ~ 30 MHz>



<Frequency Range 30 MHz ~ 1 GHz >



Underwriters Laboratories Taiwan Co., Ltd.

Building B and Building E, No. 372-7, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County, Taiwan

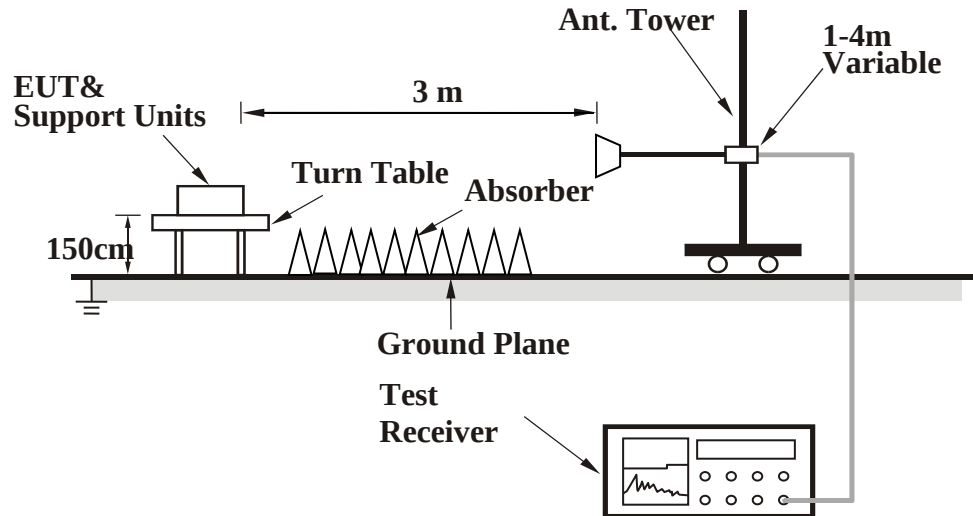
Telephone : +886-2-7737-3000

Facsimile (FAX) : +886-3-583-7948

Doc No: 17-EM-F0876 / 5.0



<Frequency Range above 1 GHz>



For the actual test configuration, please refer to the Setup Configurations.

Underwriters Laboratories Taiwan Co., Ltd.

Building B and Building E, No. 372-7, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County, Taiwan

Telephone : +886-2-7737-3000

Facsimile (FAX) : +886-3-583-7948

Doc No: 17-EM-F0876 / 5.0



Test Data

Above 1GHz Data

Non-Beamforming Mode

802.11b

EUT Test Condition		Measurement Detail	
Channel	Channel 1	Frequency Range	1 GHz ~ 26.5 GHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
Notation	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
-	2355.160	49.49	2.30	51.79	74.00	-22.21	peak
@	2412.000	99.92	2.39	102.31	-	-	peak
-	2390.000	37.27	2.40	39.67	54.00	-14.33	AVG
@	2412.000	96.92	2.39	99.31	-	-	AVG
*	4824.000	45.66	-3.04	42.62	74.00	-31.38	peak
*	12060.000	34.96	9.52	44.48	74.00	-29.52	peak
Antenna Polarity & Test Distance: Vertical at 3 m							
Notation	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
-	2386.353	53.92	2.38	56.30	74.00	-17.70	peak
@	2412.000	108.99	2.39	111.38	-	-	peak
-	2387.753	51.04	2.39	53.43	54.00	-0.57	AVG
@	2412.000	106.72	2.39	109.11	-	-	AVG
*	4824.000	53.76	-3.04	50.72	74.00	-23.28	peak
*	12060.000	36.37	9.52	45.89	74.00	-28.11	peak

Remarks:

1. Result value (dBuV/m) = Reading value (dBuV/m) + Correction Factor (dB/m).
2. Margin(dB) = Result value (dBuV/m) - Limit value (dBuV/m).
3. Correction Factor (dB/m) = Antenna Factor (dBuV/m) + Cable Loss (dB) - Preamp Factor (dB).
4. "@": Fundamental Frequency.
5. "* * ": The peak result complies with AVG limit, AVG result is deemed to comply with AVG limit.
6. The other emission levels were very low against the limit.

Underwriters Laboratories Taiwan Co., Ltd.

Building B and Building E, No. 372-7, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County, Taiwan

Telephone :+886-2-7737-3000

Facsimile (FAX) :+886-3-583-7948

Doc No: 17-EM-F0876 / 5.0



Test report No. : 4789166774-US-R0-V0
Page : 52 of 87
Issued date : Apr. 8, 2020
FCC ID : VGY2765

EUT Test Condition		Measurement Detail	
Channel	Channel 6	Frequency Range	1 GHz ~ 26.5 GHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
Notation	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
-	2374.780	48.98	2.35	51.33	74.00	-22.67	peak
@	2437.000	103.44	2.31	105.75	-	-	peak
-	2483.500	47.91	2.37	50.28	74.00	-23.72	peak
-	2359.620	37.84	2.31	40.15	54.00	-13.85	AVG
@	2437.000	100.47	2.31	102.78	-	-	AVG
-	2483.500	37.50	2.37	39.87	54.00	-14.13	AVG
*	4874.000	53.57	-3.02	50.55	74.00	-23.45	peak
*	7311.000	45.04	3.59	48.63	74.00	-25.37	peak
*	12185.000	41.80	9.71	51.51	74.00	-22.49	peak
Antenna Polarity & Test Distance: Vertical at 3 m							
Notation	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
-	2386.013	55.53	2.38	57.91	74.00	-16.09	peak
@	2437.000	111.00	2.31	113.31	-	-	peak
-	2483.500	53.25	2.37	55.62	74.00	-18.38	peak
-	2388.233	48.63	2.39	51.02	54.00	-2.98	AVG
@	2437.000	107.87	2.31	110.18	-	-	AVG
-	2483.500	45.57	2.37	47.94	54.00	-6.06	AVG
-	4874.000	57.94	-3.02	54.92	74.00	-19.08	peak
-	4874.000	56.29	-3.02	53.27	54.00	-0.73	AVG
-	7311.000	51.63	3.59	55.22	74.00	-18.78	peak
-	7311.000	48.77	3.59	52.36	54.00	-1.64	AVG
-	12185.000	44.86	9.71	54.57	74.00	-19.43	peak
-	12185.000	42.06	9.71	51.77	54.00	-2.23	AVG

Remarks:

1. Result value (dBuV/m) = Reading value (dBuV/m) + Correction Factor (dB/m).
2. Margin(dB) = Result value (dBuV/m) - Limit value (dBuV/m).
3. Correction Factor (dB/m) = Antenna Factor (dBuV/m) + Cable Loss (dB) - Preamp Factor (dB).
4. "@": Fundamental Frequency.
5. " * ": The peak result complies with AVG limit, AVG result is deemed to comply with AVG limit.
6. The other emission levels were very low against the limit.

Underwriters Laboratories Taiwan Co., Ltd.

Building B and Building E, No. 372-7, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County, Taiwan

Telephone : +886-2-7737-3000

Facsimile (FAX) : +886-3-583-7948

Doc No: 17-EM-F0876 / 5.0



Test report No. : 4789166774-US-R0-V0
Page : 53 of 87
Issued date : Apr. 8, 2020
FCC ID : VGY2765

EUT Test Condition		Measurement Detail	
Channel	Channel 11	Frequency Range	1 GHz ~ 26.5 GHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
Notation	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
@	2462.000	100.85	2.31	103.16	-	-	peak
-	2489.800	49.68	2.39	52.07	74.00	-21.93	peak
@	2462.000	98.11	2.31	100.42	-	-	AVG
-	2487.967	39.09	2.39	41.48	54.00	-12.52	AVG
*	4924.000	49.72	-3.00	46.72	74.00	-27.28	peak
*	7386.000	40.97	3.94	44.91	74.00	-29.09	peak
*	12310.000	38.82	9.68	48.50	74.00	-25.50	peak
Antenna Polarity & Test Distance: Vertical at 3 m							
Notation	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
@	2462.000	109.27	2.31	111.58	-	-	peak
-	2488.187	56.82	2.39	59.21	74.00	-14.79	peak
@	2462.000	106.25	2.31	108.56	-	-	AVG
-	2488.707	51.02	2.39	53.41	54.00	-0.59	AVG
*	4924.000	55.31	-3.00	52.31	74.00	-21.69	peak
*	7386.000	43.46	3.94	47.40	74.00	-26.60	peak
*	12310.000	38.73	9.68	48.41	74.00	-25.59	peak

Remarks:

1. Result value (dBuV/m) = Reading value (dBuV/m) + Correction Factor (dB/m).
2. Margin(dB) = Result value (dBuV/m) - Limit value (dBuV/m).
3. Correction Factor (dB/m) = Antenna Factor (dBuV/m) + Cable Loss (dB) - Preamp Factor (dB).
4. "@": Fundamental Frequency.
5. " * ": The peak result complies with AVG limit, AVG result is deemed to comply with AVG limit.
6. The other emission levels were very low against the limit.

Underwriters Laboratories Taiwan Co., Ltd.

Building B and Building E, No. 372-7, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County, Taiwan

Telephone : +886-2-7737-3000

Facsimile (FAX) : +886-3-583-7948

Doc No: 17-EM-F0876 / 5.0



Test report No. : 4789166774-US-R0-V0
Page : 54 of 87
Issued date : Apr. 8, 2020
FCC ID : VGY2765

802.11g

EUT Test Condition		Measurement Detail	
Channel	Channel 1	Frequency Range	1 GHz ~ 26.5 GHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
Notation	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
-	2382.353	49.89	2.37	52.26	74.00	-21.74	peak
@	2412.000	97.40	2.39	99.79	-	-	peak
-	2390.000	37.57	2.40	39.97	54.00	-14.03	AVG
@	2412.000	88.90	2.39	91.29	-	-	AVG
*	4824.000	41.54	-3.04	38.50	74.00	-35.50	peak
*	12060.000	34.99	9.52	44.51	74.00	-29.49	peak
Antenna Polarity & Test Distance: Vertical at 3 m							
Notation	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
-	2389.747	69.04	2.40	71.44	74.00	-2.56	peak
@	2412.000	108.30	2.39	110.69	-	-	peak
-	2390.000	50.98	2.40	53.38	54.00	-0.62	AVG
@	2412.000	100.03	2.39	102.42	-	-	AVG
*	4824.000	47.52	-3.04	44.48	74.00	-29.52	peak
*	12060.000	35.63	9.52	45.15	74.00	-28.85	peak

Remarks:

1. Result value (dBuV/m) = Reading value (dBuV/m) + Correction Factor (dB/m).
2. Margin(dB) = Result value (dBuV/m) - Limit value (dBuV/m).
3. Correction Factor (dB/m) = Antenna Factor (dBuV/m) + Cable Loss (dB) - Preamp Factor (dB).
4. "@": Fundamental Frequency.
5. "* * ": The peak result complies with AVG limit, AVG result is deemed to comply with AVG limit.
6. The other emission levels were very low against the limit.

Underwriters Laboratories Taiwan Co., Ltd.

Building B and Building E, No. 372-7, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County, Taiwan

Telephone :+886-2-7737-3000

Facsimile (FAX) :+886-3-583-7948

Doc No: 17-EM-F0876 / 5.0



Test report No. : 4789166774-US-R0-V0
Page : 55 of 87
Issued date : Apr. 8, 2020
FCC ID : VGY2765

EUT Test Condition		Measurement Detail	
Channel	Channel 6	Frequency Range	1 GHz ~ 26.5 GHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
Notation	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
-	2390.000	47.97	2.40	50.37	74.00	-23.63	peak
@	2437.000	104.64	2.31	106.95	-	-	peak
-	2485.920	51.34	2.37	53.71	74.00	-20.29	peak
-	2390.000	37.45	2.40	39.85	54.00	-14.15	AVG
@	2437.000	96.09	2.31	98.40	-	-	AVG
-	2483.500	37.95	2.37	40.32	54.00	-13.68	AVG
*	4874.000	47.28	-3.02	44.26	74.00	-29.74	peak
*	7311.000	45.77	3.59	49.36	74.00	-24.64	peak
*	12185.000	40.06	9.71	49.77	74.00	-24.23	peak
Antenna Polarity & Test Distance: Vertical at 3 m							
Notation	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
-	2390.000	65.48	2.40	67.88	74.00	-6.12	peak
@	2437.000	113.81	2.31	116.12	-	-	peak
-	2485.627	63.07	2.37	65.44	74.00	-8.56	peak
-	2390.000	46.84	2.40	49.24	54.00	-4.76	AVG
@	2437.000	105.67	2.31	107.98	-	-	AVG
-	2484.893	46.52	2.37	48.89	54.00	-5.11	AVG
*	4874.000	54.31	-3.02	51.29	74.00	-22.71	peak
-	7311.000	51.78	3.59	55.37	74.00	-18.63	peak
-	7311.000	45.50	3.59	49.09	54.00	-4.91	AVG
*	12185.000	42.55	9.71	52.26	74.00	-21.74	peak

Remarks:

1. Result value (dBuV/m) = Reading value (dBuV/m) + Correction Factor (dB/m).
2. Margin(dB) = Result value (dBuV/m) - Limit value (dBuV/m).
3. Correction Factor (dB/m) = Antenna Factor (dBuV/m) + Cable Loss (dB) - Preamp Factor (dB).
4. "@": Fundamental Frequency.
5. " * ": The peak result complies with AVG limit, AVG result is deemed to comply with AVG limit.
6. The other emission levels were very low against the limit.

Underwriters Laboratories Taiwan Co., Ltd.

Building B and Building E, No. 372-7, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County, Taiwan

Telephone :+886-2-7737-3000

Facsimile (FAX) :+886-3-583-7948

Doc No: 17-EM-F0876 / 5.0



Test report No. : 4789166774-US-R0-V0
Page : 56 of 87
Issued date : Apr. 8, 2020
FCC ID : VGY2765

EUT Test Condition		Measurement Detail	
Channel	Channel 11	Frequency Range	1 GHz ~ 26.5 GHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
Notation	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
@	2462.000	97.01	2.31	99.32	-	-	peak
-	2499.733	49.44	2.42	51.86	74.00	-22.14	peak
@	2462.000	88.71	2.31	91.02	-	-	AVG
-	2483.500	37.42	2.37	39.79	54.00	-14.21	AVG
*	4924.000	41.06	-3.00	38.06	74.00	-35.94	peak
*	7386.000	38.62	3.94	42.56	74.00	-31.44	peak
Antenna Polarity & Test Distance: Vertical at 3 m							
Notation	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
@	2462.000	108.39	2.31	110.70	-	-	peak
-	2484.220	68.54	2.37	70.91	74.00	-3.09	peak
@	2462.000	100.07	2.31	102.38	-	-	AVG
-	2483.500	50.93	2.37	53.30	54.00	-0.70	AVG
*	4924.000	45.52	-3.00	42.52	74.00	-31.48	peak
*	7386.000	38.40	3.94	42.34	74.00	-31.66	peak

Remarks:

1. Result value (dBuV/m) = Reading value (dBuV/m) + Correction Factor (dB/m).
2. Margin(dB) = Result value (dBuV/m) - Limit value (dBuV/m).
3. Correction Factor (dB/m) = Antenna Factor (dBuV/m) + Cable Loss (dB) - Preamp Factor (dB).
4. "@": Fundamental Frequency.
5. " * ": The peak result complies with AVG limit, AVG result is deemed to comply with AVG limit.
6. The other emission levels were very low against the limit.

Underwriters Laboratories Taiwan Co., Ltd.

Building B and Building E, No. 372-7, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County, Taiwan

Telephone :+886-2-7737-3000

Facsimile (FAX) :+886-3-583-7948

Doc No: 17-EM-F0876 / 5.0



Test report No. : 4789166774-US-R0-V0
Page : 57 of 87
Issued date : Apr. 8, 2020
FCC ID : VGY2765

802.11n (HT20)

EUT Test Condition		Measurement Detail	
Channel	Channel 1	Frequency Range	1 GHz ~ 26.5 GHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
Notation	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
-	2389.773	50.87	2.40	53.27	74.00	-20.73	peak
@	2412.000	95.66	2.39	98.05	-	-	peak
-	2390.000	38.17	2.40	40.57	54.00	-13.43	AVG
@	2412.000	86.44	2.39	88.83	-	-	AVG
*	4824.000	40.03	-3.04	36.99	74.00	-37.01	peak
*	12060.000	34.85	9.52	44.37	74.00	-29.63	peak
Antenna Polarity & Test Distance: Vertical at 3 m							
Notation	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
-	2390.000	66.09	2.40	68.49	74.00	-5.51	peak
@	2412.000	106.69	2.39	109.08	-	-	peak
-	2390.000	50.96	2.40	53.36	54.00	-0.64	AVG
@	2412.000	97.34	2.39	99.73	-	-	AVG
*	4824.000	44.59	-3.04	41.55	74.00	-32.45	peak
*	12060.000	35.20	9.52	44.72	74.00	-29.28	peak

Remarks:

1. Result value (dBuV/m) = Reading value (dBuV/m) + Correction Factor (dB/m).
2. Margin(dB) = Result value (dBuV/m) - Limit value (dBuV/m).
3. Correction Factor (dB/m) = Antenna Factor (dBuV/m) + Cable Loss (dB) - Preamp Factor (dB).
4. "@": Fundamental Frequency.
5. "* * ": The peak result complies with AVG limit, AVG result is deemed to comply with AVG limit.
6. The other emission levels were very low against the limit.

Underwriters Laboratories Taiwan Co., Ltd.

Building B and Building E, No. 372-7, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County, Taiwan

Telephone :+886-2-7737-3000

Facsimile (FAX) :+886-3-583-7948

Doc No: 17-EM-F0876 / 5.0



Test report No. : 4789166774-US-R0-V0
Page : 58 of 87
Issued date : Apr. 8, 2020
FCC ID : VGY2765

EUT Test Condition		Measurement Detail	
Channel	Channel 6	Frequency Range	1 GHz ~ 26.5 GHz

Antenna Polarity & Test Distance: Horizontal at 3 m							
Notation	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
-	2390.000	49.35	2.40	51.75	74.00	-22.25	peak
@	2437.000	101.06	2.31	103.37	-	-	peak
-	2487.987	50.22	2.39	52.61	74.00	-21.39	peak
-	2390.000	36.76	2.40	39.16	54.00	-14.84	AVG
@	2437.000	92.54	2.31	94.85	-	-	AVG
-	2483.500	37.44	2.37	39.81	54.00	-14.19	AVG
*	4874.000	45.22	-3.02	42.20	74.00	-31.80	peak
*	7311.000	42.28	3.59	45.87	74.00	-28.13	peak
*	12185.000	38.95	9.71	48.66	74.00	-25.34	peak
Antenna Polarity & Test Distance: Vertical at 3 m							
Notation	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
-	2388.433	61.19	2.39	63.58	74.00	-10.42	peak
@	2437.000	110.81	2.31	113.12	-	-	peak
-	2483.500	57.62	2.37	59.99	74.00	-14.01	peak
-	2390.000	44.34	2.40	46.74	54.00	-7.26	AVG
@	2437.000	102.35	2.31	104.66	-	-	AVG
-	2483.500	43.33	2.37	45.70	54.00	-8.30	AVG
*	4874.000	53.77	-3.02	50.75	74.00	-23.25	peak
*	7311.000	46.56	3.59	50.15	74.00	-23.85	peak
*	12185.000	41.95	9.71	51.66	74.00	-22.34	peak

Remarks:

1. Result value (dBuV/m) = Reading value (dBuV/m) + Correction Factor (dB/m).
2. Margin(dB) = Result value (dBuV/m) - Limit value (dBuV/m).
3. Correction Factor (dB/m) = Antenna Factor (dBuV/m) + Cable Loss (dB) - Preamp Factor (dB).
4. "@": Fundamental Frequency.
5. " * ": The peak result complies with AVG limit, AVG result is deemed to comply with AVG limit.
6. The other emission levels were very low against the limit.

Underwriters Laboratories Taiwan Co., Ltd.

Building B and Building E, No. 372-7, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County, Taiwan

Telephone :+886-2-7737-3000

Facsimile (FAX) :+886-3-583-7948

Doc No: 17-EM-F0876 / 5.0