



Test report No. : 4790038917B-US-R1-V0
Page : 106 of 123
Issued date : 2022/1/13
FCC ID : RYK-WUBT239ACND

Mode	802.11ac(VHT80)	Channel	42
------	-----------------	---------	----

Polarization	Notation	Frequency	Reading	Correct	Result	Limit	Margin	Remark
		(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
Horizontal		5052.5	42.95	13.32	56.27	74	-17.73	PK
		5144.9	30.56	13.43	43.99	54	-10.01	AVG
	@	5210	75.36	13.36	88.72	N/A	N/A	PK
	@	5210	69.8	13.36	83.16	N/A	N/A	AVG
		10420	31.29	17.6	48.89	68.2	-19.31	PK
Vertical		5081.2	43.01	13.4	56.41	74	-17.59	PK
		5148.05	30.91	13.42	44.33	54	-9.67	AVG
	@	5210	79.6	13.36	92.96	N/A	N/A	PK
	@	5210	73.63	13.36	86.99	N/A	N/A	AVG
		10420	31.86	17.6	49.46	68.2	-18.74	PK

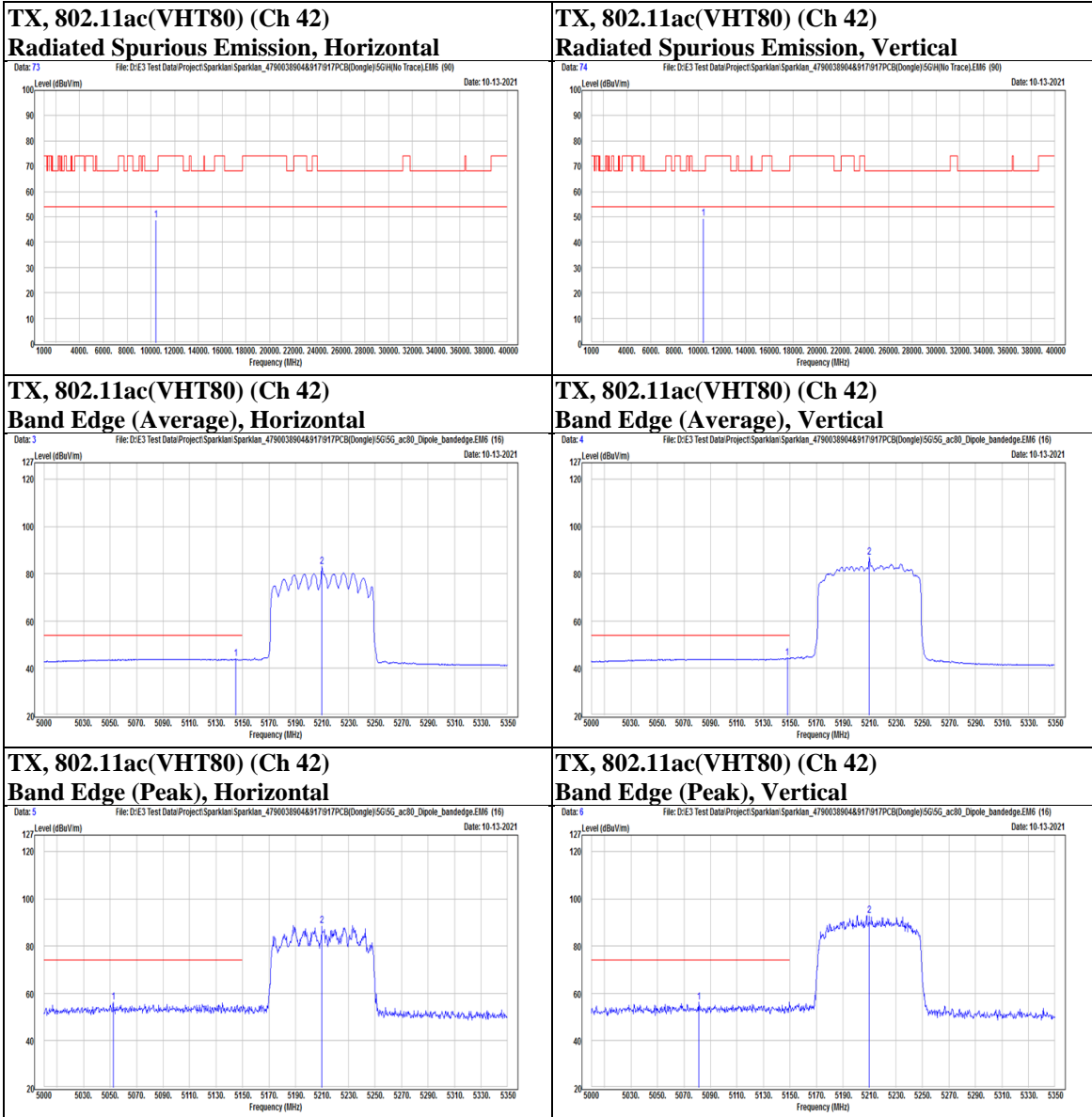
Underwriters Laboratories Taiwan Co., Ltd.

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-F0878 / 6.0





Test report No. : 4790038917B-US-R1-V0
Page : 108 of 123
Issued date : 2022/1/13
FCC ID : RYK-WUBT239ACND

Mode	802.11ac(VHT80)	Channel	58
------	-----------------	---------	----

Polarization	Notation	Frequency	Reading	Correct	Result	Limit	Margin	Remark
		(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
Horizontal	@	5290	77.37	13.21	90.58	N/A	N/A	PK
	@	5290	71.12	13.21	84.33	N/A	N/A	AVG
		5440.2	40.51	13.63	54.14	74	-19.86	PK
		5458.5	28.57	13.7	42.27	54	-11.73	AVG
		10580	31.2	17.73	48.93	68.2	-19.27	PK
Vertical	@	5290	78.32	13.21	91.53	N/A	N/A	PK
	@	5290	73.86	13.21	87.07	N/A	N/A	AVG
		5408.7	41.05	13.46	54.51	74	-19.49	PK
		5449.8	28.77	13.67	42.44	54	-11.56	AVG
		10580	31.16	17.73	48.89	68.2	-19.31	PK

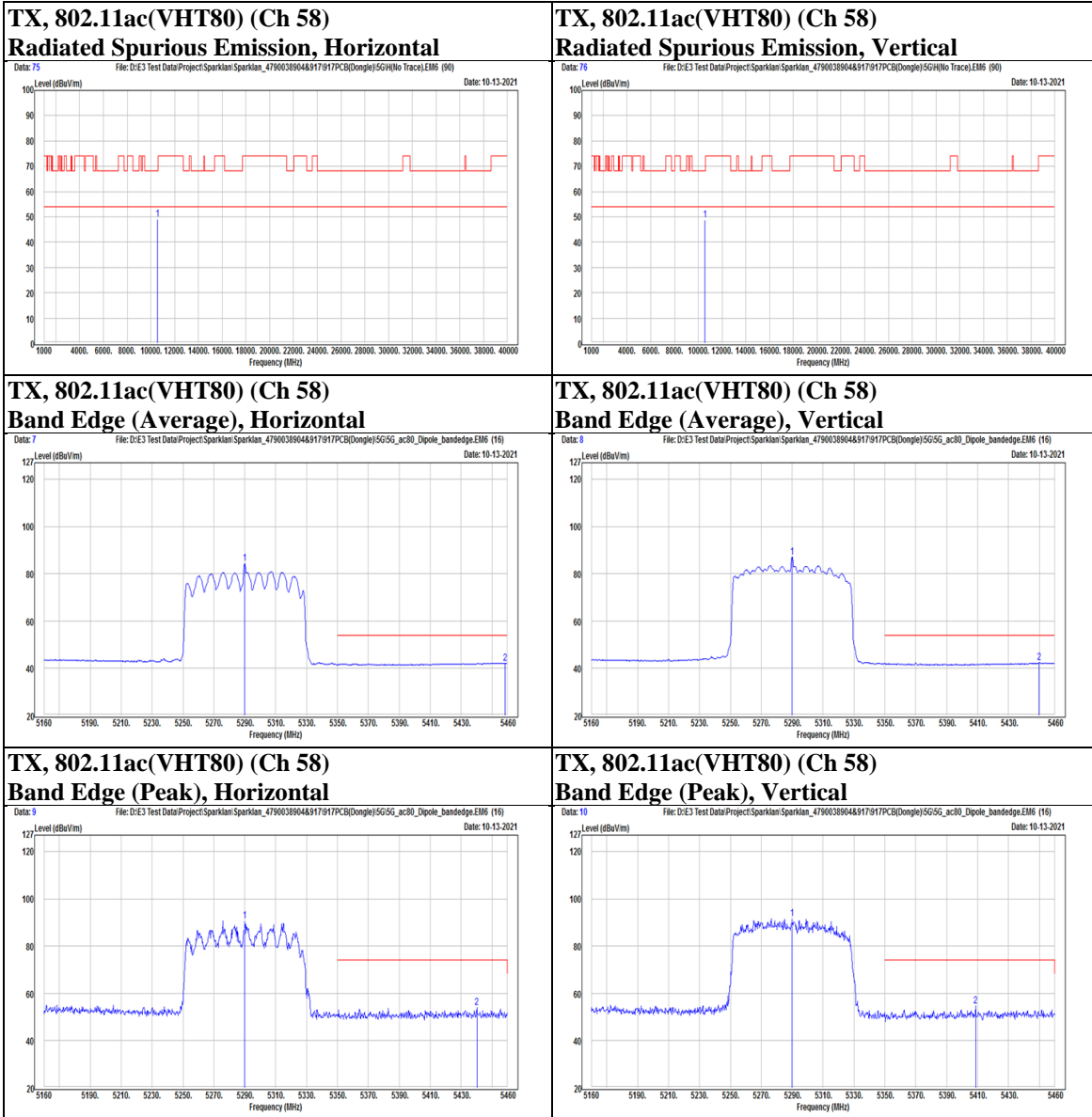
Underwriters Laboratories Taiwan Co., Ltd.

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-F0878 / 6.0





Mode	802.11ac(VHT80)	Channel	106
------	-----------------	---------	-----

Polarization	Notation	Frequency	Reading	Correct	Result	Limit	Margin	Remark
		(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
Horizontal		5426.95	39.46	13.56	53.02	74	-20.98	PK
		5426.95	28.1	13.56	41.66	54	-12.34	AVG
		5468.95	39.62	13.74	53.36	68.2	-14.84	PK
	@	5530	82.05	13.87	95.92	N/A	N/A	PK
	@	5530	72.09	13.87	85.96	N/A	N/A	AVG
	*	11060	30.88	18.41	49.29	74	-24.71	PK
Vertical		5452.15	40.1	13.67	53.77	74	-20.23	PK
		5452.15	27.91	13.67	41.58	54	-12.42	AVG
		5465.8	40.13	13.72	53.85	68.2	-14.35	PK
	@	5530	82.84	13.87	96.71	N/A	N/A	PK
	@	5530	72.09	13.87	85.96	N/A	N/A	AVG
		*	11060	31.28	18.41	49.69	74	-24.31

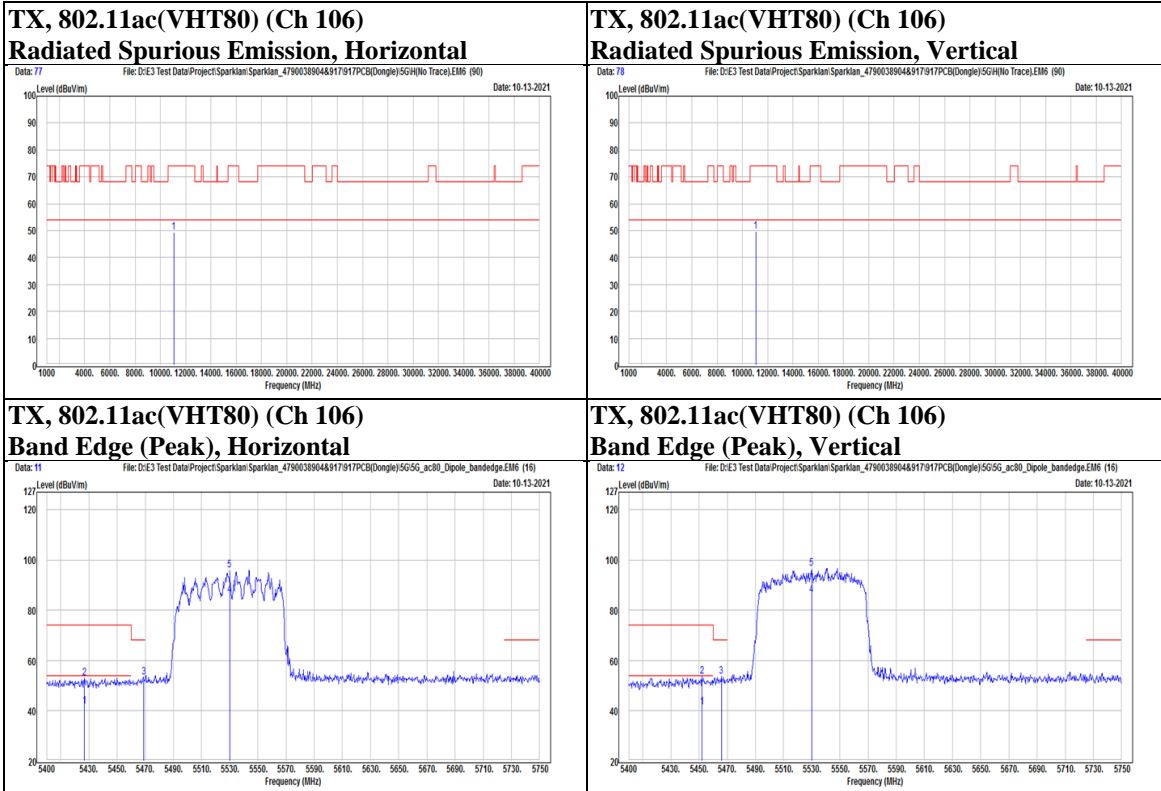
Underwriters Laboratories Taiwan Co., Ltd.

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-F0878 / 6.0





Mode	802.11ac(VHT80)	Channel	122
------	-----------------	---------	-----

Polarization	Notation	Frequency	Reading	Correct	Result	Limit	Margin	Remark
		(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
Horizontal		5451.45	39.82	13.67	53.49	74	-20.51	PK
		5451.45	27.91	13.67	41.58	54	-12.42	AVG
		5464.75	39.71	13.72	53.43	68.2	-14.77	PK
	@	5610	89.44	14.03	103.47	N/A	N/A	PK
	@	5610	79.3	14.03	93.33	N/A	N/A	AVG
		5728.65	40.84	14.19	55.03	68.2	-13.17	PK
Vertical	*	11220	30.76	18.25	49.01	74	-24.99	PK
		5431.15	41.15	13.57	54.72	74	-19.28	PK
		5431.15	28.41	13.57	41.98	54	-12.02	AVG
		5460.9	40.55	13.71	54.26	68.2	-13.94	PK
	@	5610	91.43	14.03	105.46	N/A	N/A	PK
	@	5610	81.2	14.03	95.23	N/A	N/A	AVG
	5725.15	41.71	14.18	55.89	68.2	-12.31	PK	
*	11220	30.99	18.25	49.24	74	-24.76	PK	

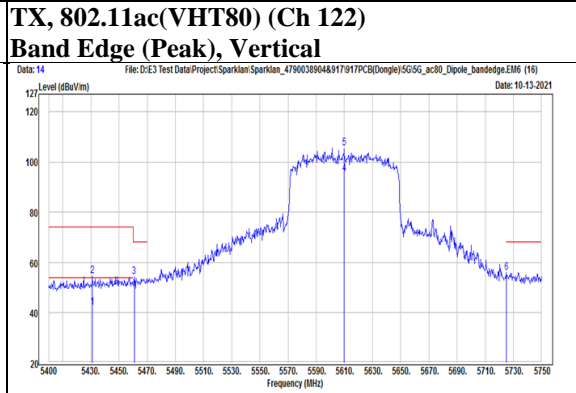
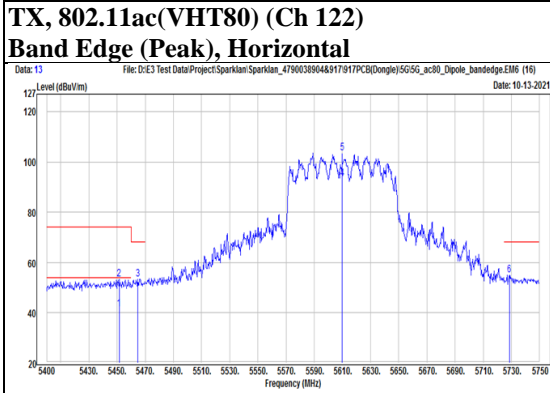
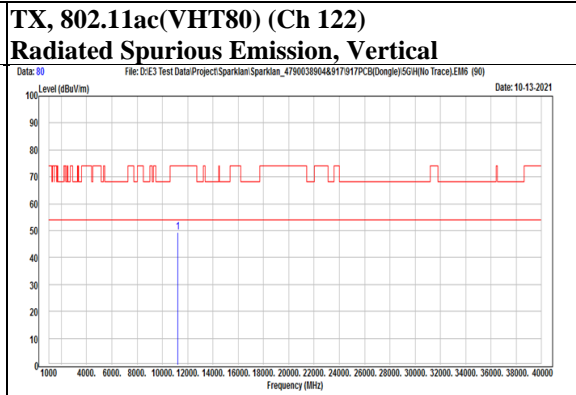
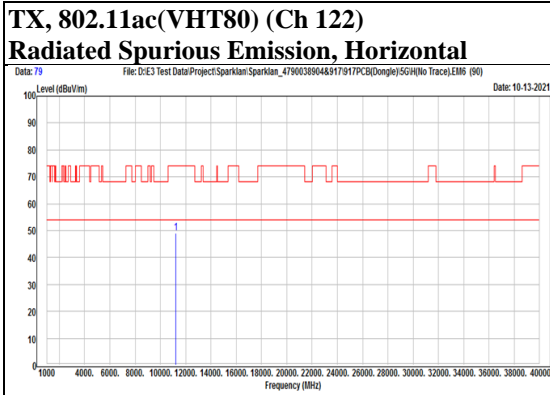
Underwriters Laboratories Taiwan Co., Ltd.

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-F0878 / 6.0





Test report No. : 4790038917B-US-R1-V0
Page : 114 of 123
Issued date : 2022/1/13
FCC ID : RYK-WUBT239ACND

Mode	802.11ac(VHT80)	Channel	138
------	-----------------	---------	-----

Polarization	Notation	Frequency	Reading	Correct	Result	Limit	Margin	Remark
		(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
Horizontal	*	11380	31	18.67	49.67	74	-24.33	PK
Vertical	*	11380	29.8	18.67	48.47	74	-25.53	PK

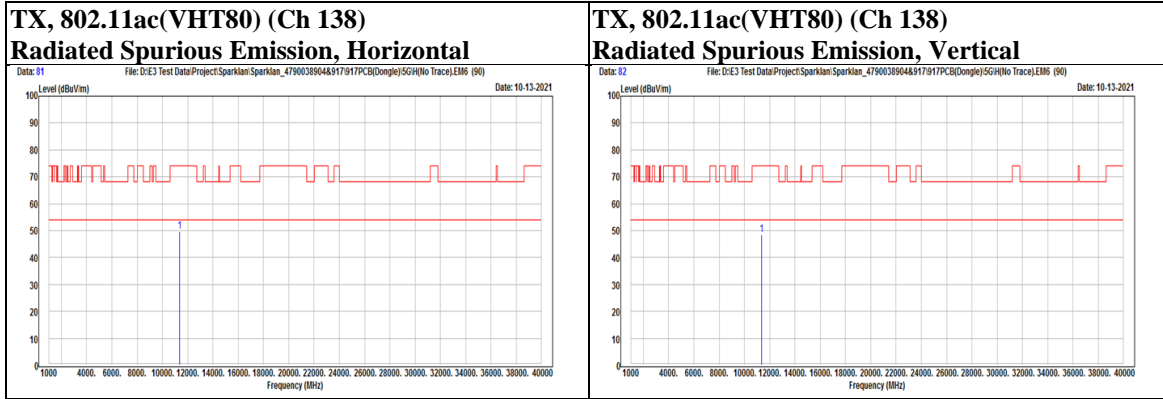
Underwriters Laboratories Taiwan Co., Ltd.

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-F0878 / 6.0



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-F0878 / 6.0



Mode	802.11ac(VHT80)	Channel	155
------	-----------------	---------	-----

Polarization	Notation	Frequency	Reading	Correct	Result	Limit	Margin	Remark
		(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
Horizontal		5630.5	43.57	14.02	57.59	68.2	-10.61	PK
		5699.5	57.63	14.05	71.68	104.83	-33.15	PK
	@	5775	89.17	14.44	103.61	N/A	N/A	PK
		5877.5	45.63	14.89	60.52	103.34	-42.82	PK
		5992.5	40.58	15.14	55.72	68.2	-12.48	PK
	*	11550	30.64	18.93	49.57	74	-24.43	PK
Vertical		5635.5	44.6	14.01	58.61	68.2	-9.59	PK
		5697.5	60.89	14.05	74.94	103.36	-28.42	PK
	@	5775	90.8	14.44	105.24	N/A	N/A	PK
		5878	47.05	14.9	61.95	102.97	-41.02	PK
		5933	42.06	15	57.06	68.2	-11.14	PK
	*	11550	30.52	18.93	49.45	74	-24.55	PK

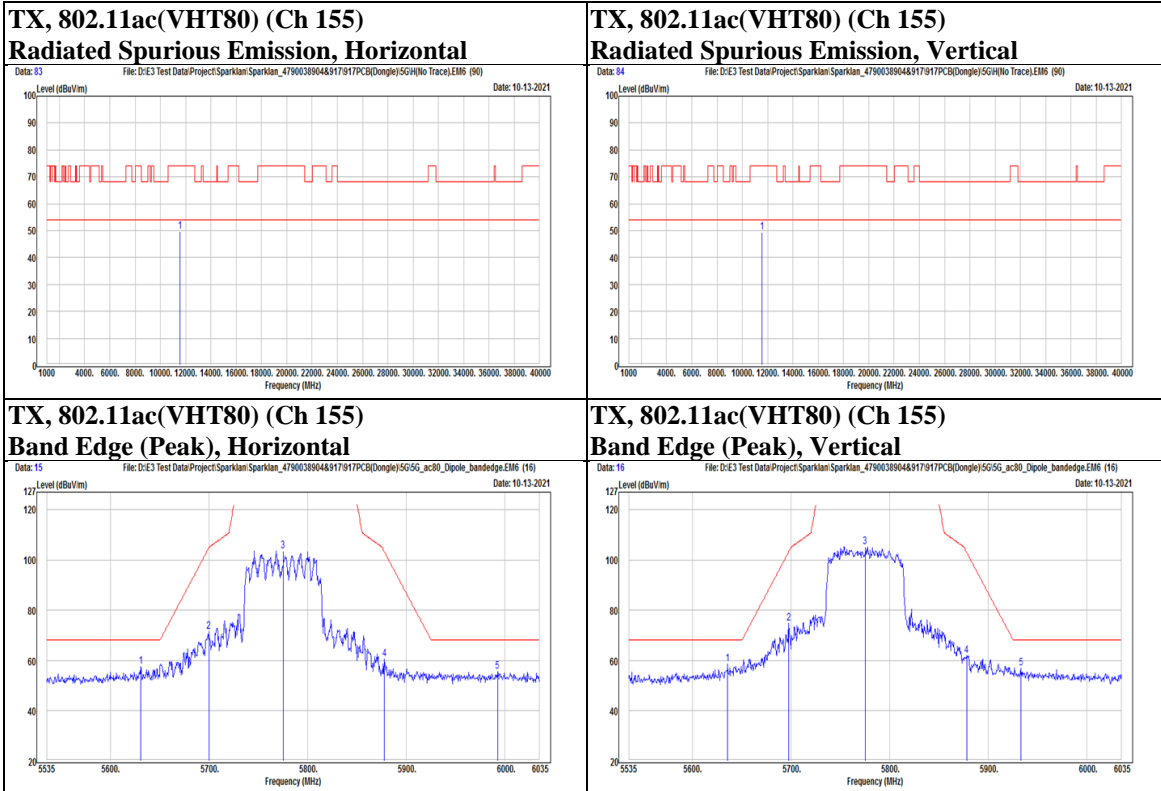
Underwriters Laboratories Taiwan Co., Ltd.

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-F0878 / 6.0





Below 1G

Mode	802.11ac(VHT20)	Channel	149
------	-----------------	---------	-----

Polarization	Notation	Frequency	Reading	Correct	Result	Limit	Margin	Remark
		(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
Horizontal		77.53	41.32	-15.76	25.56	40	-14.44	PK
		184.23	46.73	-12.74	33.99	43.5	-9.51	PK
		236.61	42.52	-12.2	30.32	46	-15.68	PK
		364.65	40.09	-8.01	32.08	46	-13.92	PK
		479.11	36.95	-5.18	31.77	46	-14.23	PK
		962.17	32.19	3.91	36.1	54	-17.9	PK
Vertical		78.5	41.41	-16	25.41	40	-14.59	PK
		165.8	34.91	-11.13	23.78	43.5	-19.72	PK
		296.75	39.2	-10.08	29.12	46	-16.88	PK
		481.05	42.33	-5.15	37.18	46	-8.82	PK
		668.26	32.7	-1.17	31.53	46	-14.47	PK
		961.2	33.36	3.9	37.26	54	-16.74	PK

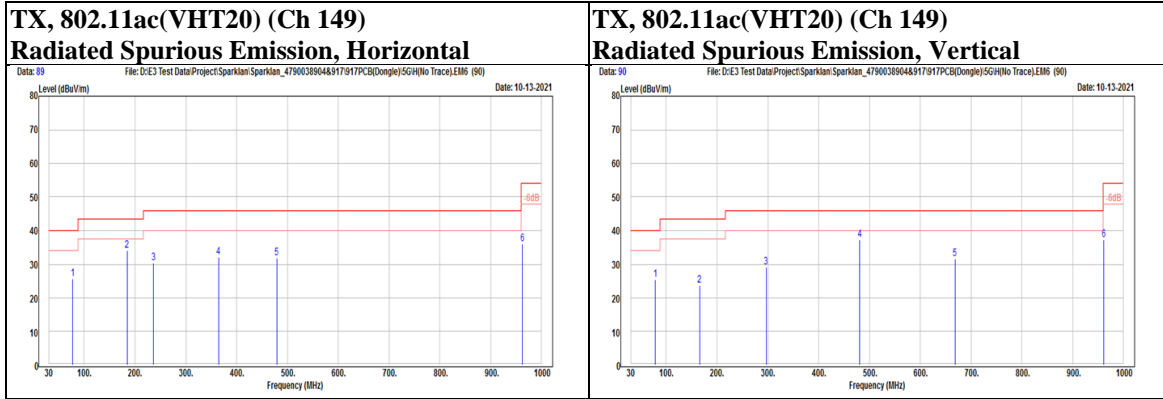
Underwriters Laboratories Taiwan Co., Ltd.

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-F0878 / 6.0



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



9.3. AC Power Line Conducted Emission

Requirements

Frequency (MHz)	Conducted limit (dB μ V)	
	Quasi-peak	Average
0.15 - 0.5	66 - 56	56 - 46
0.50 - 5.0	56	46
5.0 - 30	60	50

Note:

1. The lower limit shall apply at the transition frequencies.
2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

Test Procedures

- a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.
- b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
- c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

NOTE:

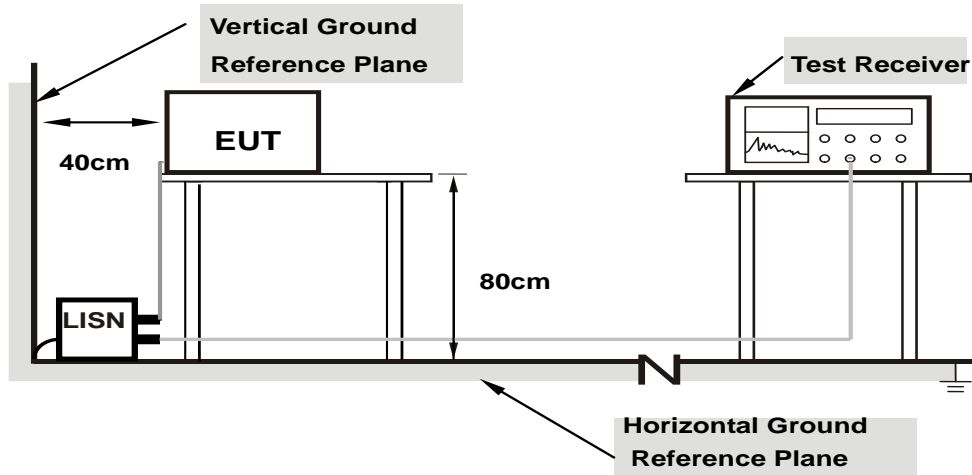
1. The resolution bandwidth and video bandwidth of test receiver is 9kHz for quasi-peak detection (QP) and average detection (AV) at frequency 0.15MHz-30MHz.
2. All modes of operation were investigated (includes all external accessories) and the worst-case emissions are reported, the other emission levels were low against the limit.
3. Test data of Result value (dBuV) = Reading value (dBuV) + Correction Factor (dB).
4. Test data of Margin(dB) = Result value (dBuV) - Limit value (dBuV).
5. Test data of Correction Factor (dB) = Insertion loss(dB) + Cable loss(dB).

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



Test Setup



Note: 1.Support units were connected to second LISN.

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

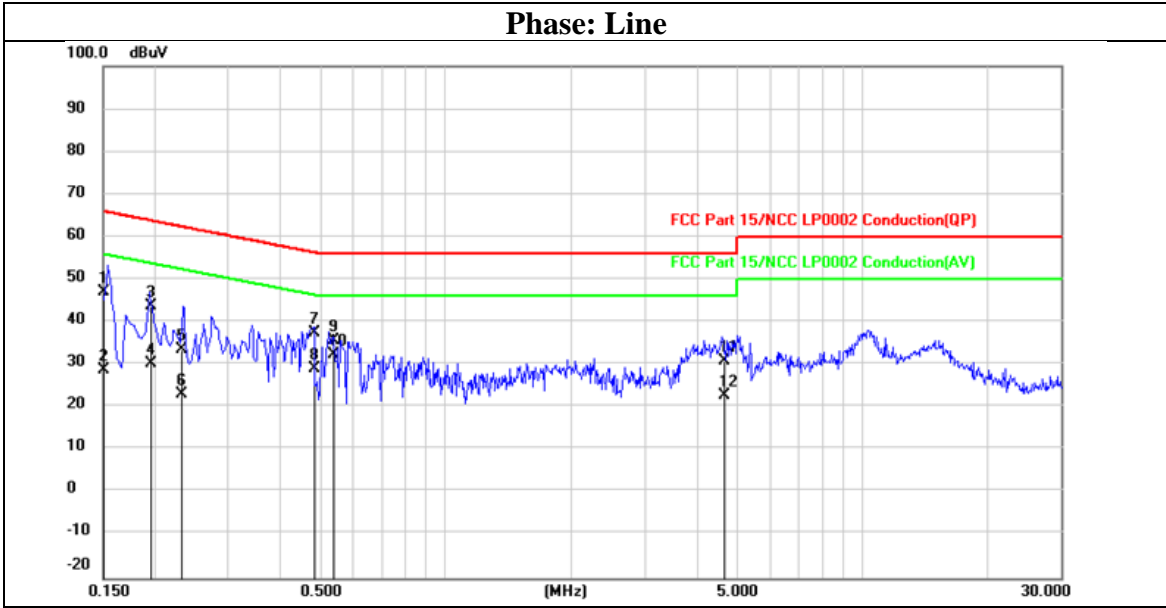
Facsimile (FAX) :+886-3-583-7948

Doc No: 17-EM-F0878 / 6.0



Test Data

Mode	802.11ac(VHT20)	Channel	149
------	-----------------	---------	-----



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1502	27.63	19.49	47.12	65.99	-18.87	QP
2	0.1502	9.31	19.49	28.80	55.99	-27.19	AVG
3	0.1955	24.29	19.49	43.78	63.80	-20.02	QP
4	0.1955	10.78	19.49	30.27	53.80	-23.53	AVG
5	0.2310	14.18	19.49	33.67	62.41	-28.74	QP
6	0.2310	3.51	19.49	23.00	52.41	-29.41	AVG
7	0.4821	18.09	19.49	37.58	56.30	-18.72	QP
8	0.4821	9.58	19.49	29.07	46.30	-17.23	AVG
9	0.5359	16.11	19.50	35.61	56.00	-20.39	QP
10	0.5359	12.73	19.50	32.23	46.00	-13.77	AVG
11	4.6506	11.24	19.59	30.83	56.00	-25.17	QP
12	4.6506	3.11	19.59	22.70	46.00	-23.30	AVG

Underwriters Laboratories Taiwan Co., Ltd.

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

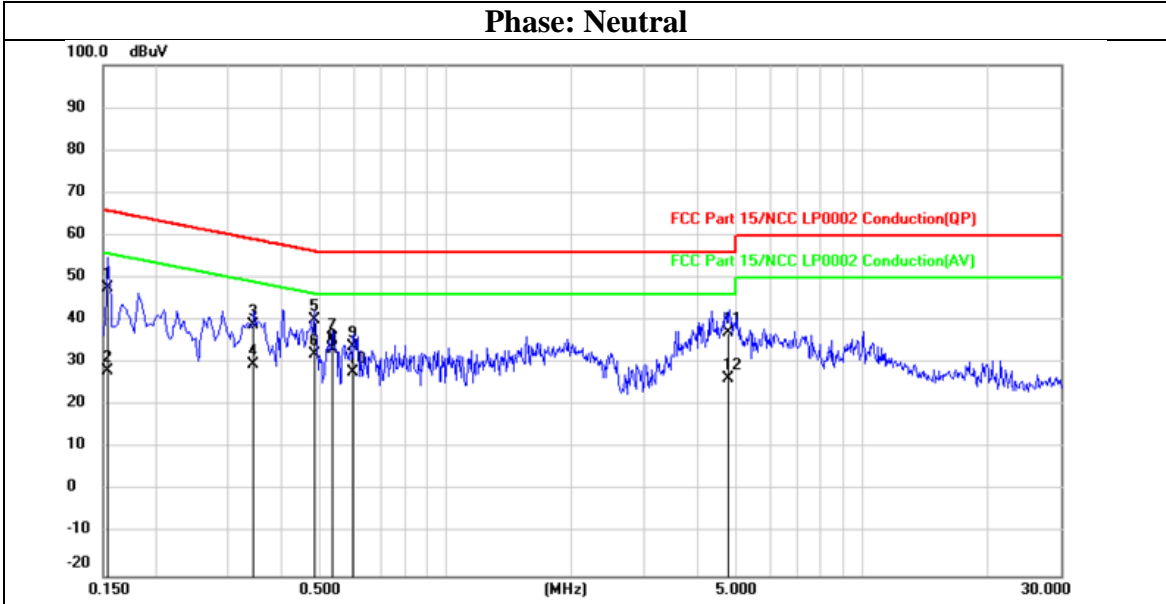
Telephone :+886-2-7737-3000

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

Doc No: 17-EM-F0878 / 6.0



Mode	802.11ac(VHT20)	Channel	149
------	-----------------	---------	-----



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1527	28.31	19.49	47.80	65.85	-18.05	QP
2	0.1527	8.55	19.49	28.04	55.85	-27.81	AVG
3	0.3444	19.39	19.49	38.88	59.10	-20.22	QP
4	0.3444	10.25	19.49	29.74	49.10	-19.36	AVG
5	0.4823	20.71	19.49	40.20	56.30	-16.10	QP
6	0.4823	12.50	19.49	31.99	46.30	-14.31	AVG
7	0.5324	16.14	19.50	35.64	56.00	-20.36	QP
8	0.5324	13.75	19.50	33.25	46.00	-12.75	AVG
9	0.5960	14.43	19.50	33.93	56.00	-22.07	QP
10	0.5960	8.47	19.50	27.97	46.00	-18.03	AVG
11	4.7837	17.61	19.60	37.21	56.00	-18.79	QP
12	4.7837	6.83	19.60	26.43	46.00	-19.57	AVG

END OF REPORT

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-F0878 / 6.0