# **Appendix H**

# **RF Test Data for 5.8G WLAN (Conducted Measurement)**

**Product Name: Two in one convertible notebook** 

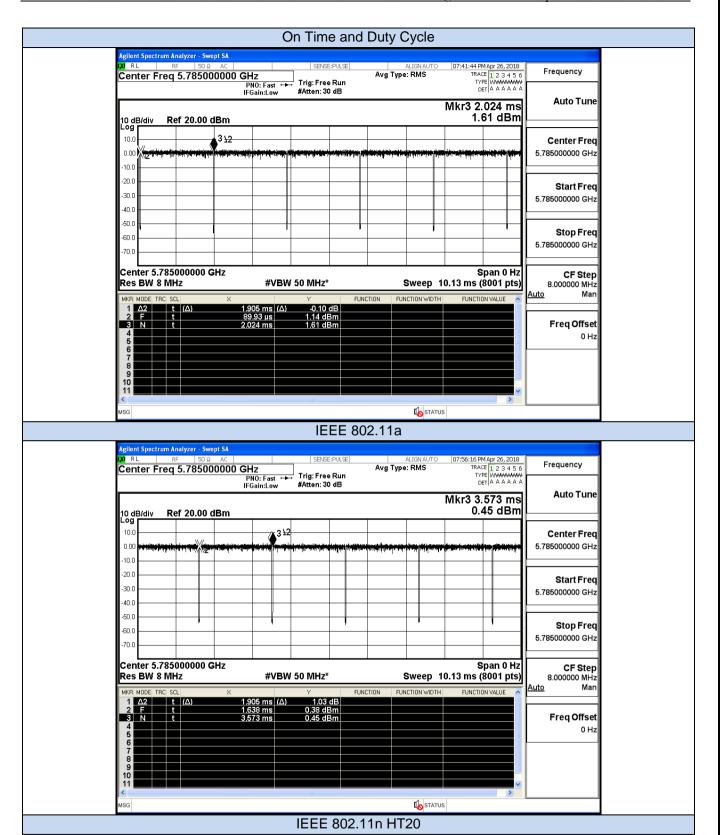
**Trade Mark: YUKO** Test Model: A1162

## **Environmental Conditions**

Temperature:	23.5 ° C
Relative Humidity:	52.3%
ATM Pressure:	100.0 kPa
Test Engineer:	Mina.xu
Supervised by:	Jayden.Zhuo

## **H.1 Duty Cycle**

Test Test Mode Frequency (MHz)		Duty Cycle (%)	10log(1/x) Factor (dB)	1/B Minimum VBW(KHz)
11A	5785	98.49	0.07	0.01
11N20 SISO	5785	98.43	0.07	0.01
11N40 SISO	5755	97.00	0.13	0.01
11AC20 SISO	5785	98.49	0.07	0.01
11AC40 SISO	5755	96.97	0.13	0.01
11AC80 SISO	5775	93.70	0.28	0.01

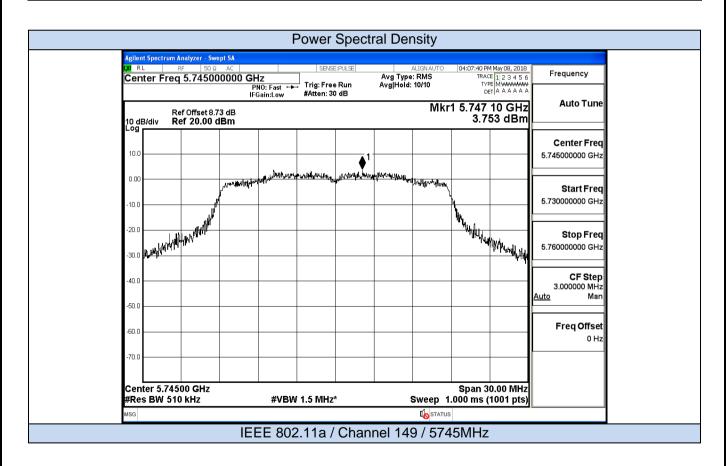


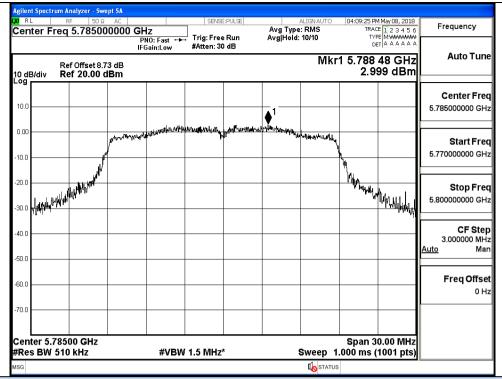
## **H.2 Maximum Conduct Output Power**

Test Mode	Channel	Frequency (MHz)	AVG Conducted Power (dBm)	Duty Cycle Factor(dB)	Report Conducted Power(dBm)	Limit (dBm)	Verdict
	149	5745	13.61	0.07	13.68		Pass
11A	157	5785	13.73	0.07	13.80	30	Pass
	165	5825	13.35	0.07	13.42		Pass
111120	149	5745	13.08	0.07	13.15		Pass
11N20 SISO	157	5785	13.87	0.07	13.94	30	Pass
3130	165	5825	13.83	0.07	13.90		Pass
11N40	151	5755	13.49	0.13	13.62	30	Pass
SISO	159	5795	13.68	0.13	13.81	30	Pass
11AC20	149	5745	13.61	0.07	13.68	- 30	Pass
SISO	157	5785	13.90	0.07	13.97	30	Pass
3130	165	5825	13.95	0.07	14.02		Pass
11AC40	151	5755	13.60	0.13	13.73	30	Pass
SISO	159	5795	13.98	0.13	14.11	1	Pass
11AC80 SISO	155	5775	12.18	0.28	12.46	30	Pass

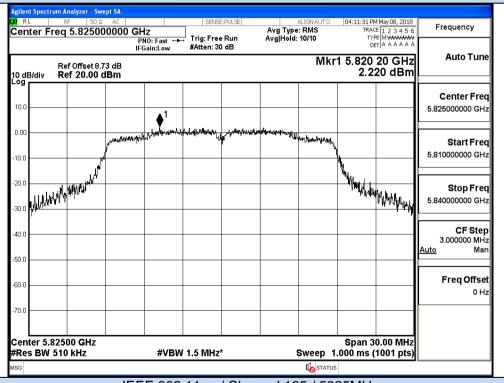
## **H.3 Power Spectral Density**

Test Mode	Channel	Frequency (MHz)	Power Density (dBm/300KHz)	Duty Cycle Factor (dB)	RBW Factor (dB)	Report Power Density (dBm/500KHz)	Limit (dBm/500KHz)	Verdict
	149	5745	3.75	0.07	0.0	3.75		Pass
11A	157	5785	3.00	0.07	0.0	3.00	30	Pass
	165	5825	2.22	0.07	0.0	2.22		Pass
11N20	149	5745	3.55	0.07	0.0	3.55		Pass
SISO	157	5785	3.75	0.07	0.0	3.75	30	Pass
0100	165	5825	3.24	0.07	0.0	3.24		Pass
11N40	151	5755	0.25	0.13	0.0	0.25	30	Pass
SISO	159	5795	0.89	0.13	0.0	0.89	30	Pass
11AC20	149	5745	3.50	0.07	0.0	3.50	30	Pass
SISO	157	5785	3.65	0.07	0.0	3.65	30	Pass
3130	165	5825	3.10	0.07	0.0	3.10		Pass
11AC40	151	5755	0.80	0.13	0.0	0.80	30	Pass
SISO	159	5795	0.79	0.13	0.0	0.79		Pass
11AC80 SISO	155	5775	-1.64	0.28	0.0	-1.64	30	Pass

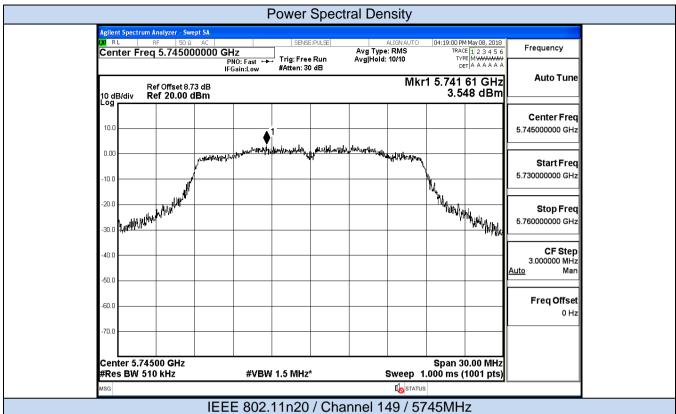


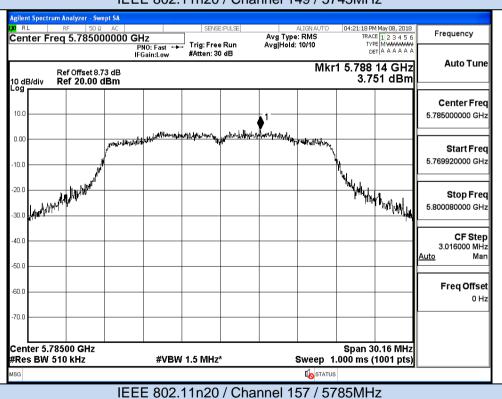


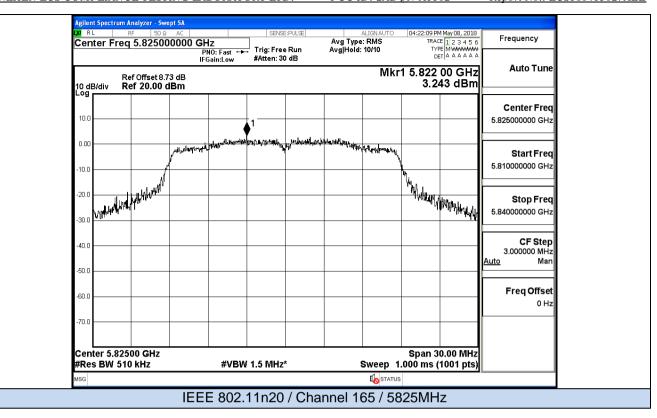
## IEEE 802.11na / Channel 157 / 5785MHz

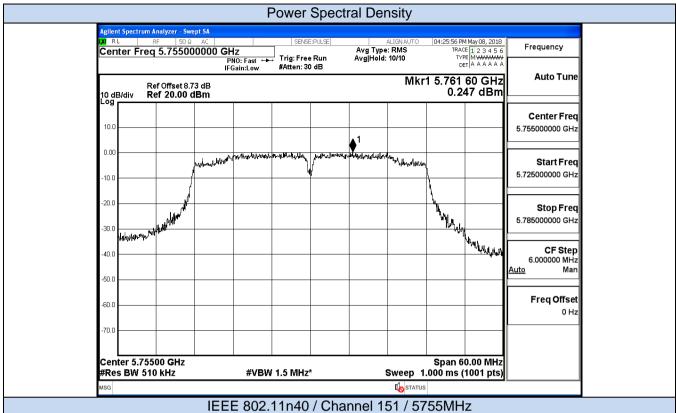


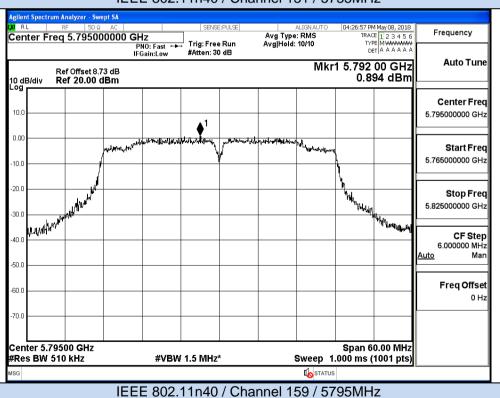
IEEE 802.11na / Channel 165 / 5825MHz

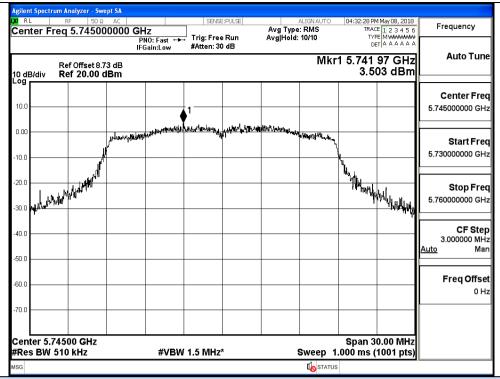




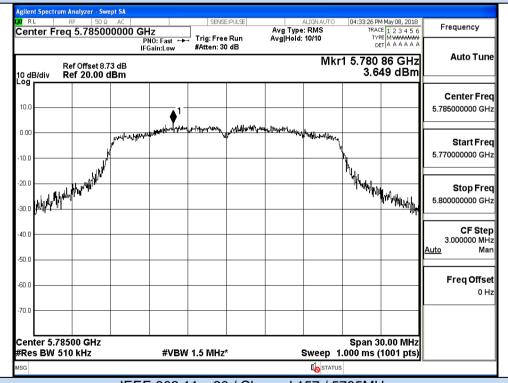








### IEEE 802.11ac20 / Channel 149 / 5745MHz



IEEE 802.11ac20 / Channel 157 / 5785MHz

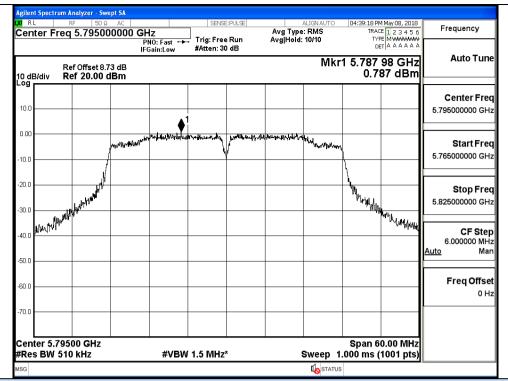
## Whitelest Commencer with the second s Stop Freq 5.785000000 GHz JUMPHARMA PRO CF Step 6.000000 MHz Auto Freq Offset 0 Hz Center 5.75500 GHz #Res BW 510 kHz Span 60.00 MHz Sweep 1.000 ms (1001 pts) #VBW 1.5 MHz\* STATUS IEEE 802.11ac40 / Channel 151 / 5755MHz

-40.0

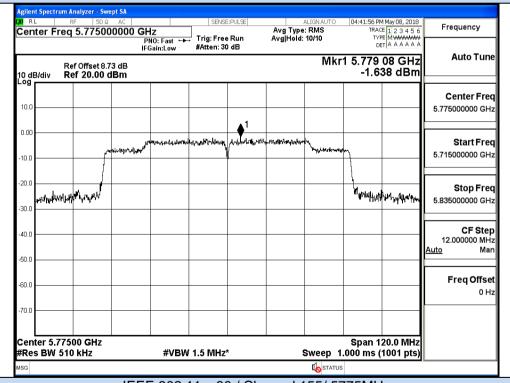
-50.0

-60.0

-70.0



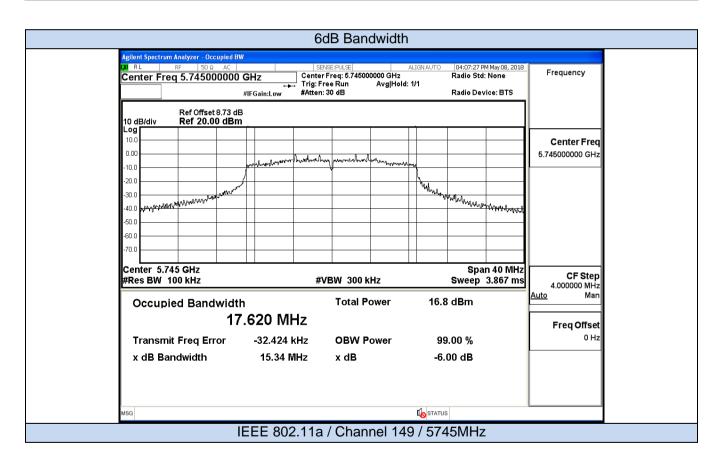
## IEEE 802.11ac40 / Channel 159 / 5795MHz

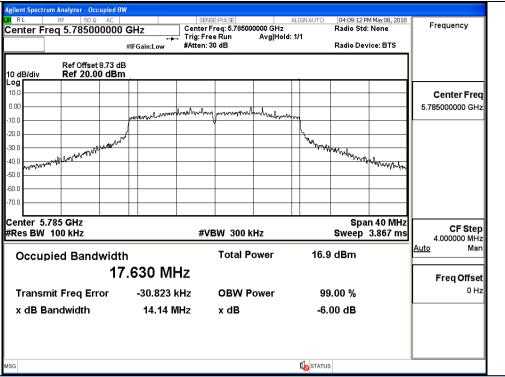


IEEE 802.11ac80 / Channel 155/ 5775MHz

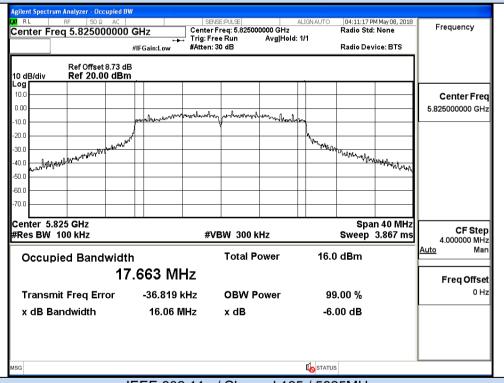
### **H.4 Emission Bandwidth**

Test Mode	Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)	Verdict
	149	5745	15.34		Pass
11A	157	5785	14.14	>=0.5	Pass
	165	5825	16.06		Pass
	149	5745	13.88		Pass
11N20 SISO	157	5785	15.08	>=0.5	Pass
	165	5825	13.17		Pass
11N40 SISO	151	5755	35.13	>=0.5	Pass
111140 5150	159	5795	35.17	>=0.5	Pass
	149	5745	14.15	. 0.5	Pass
11AC20SISO	157	5785	15.14	>=0.5	Pass
	165	5825	15.07		Pass
11AC40SISO	151	5755	35.09	>=0.5	Pass
1140403130	159	5795	35.20	]	Pass
11AC80SISO	155	5775	75.29	>=0.5	Pass

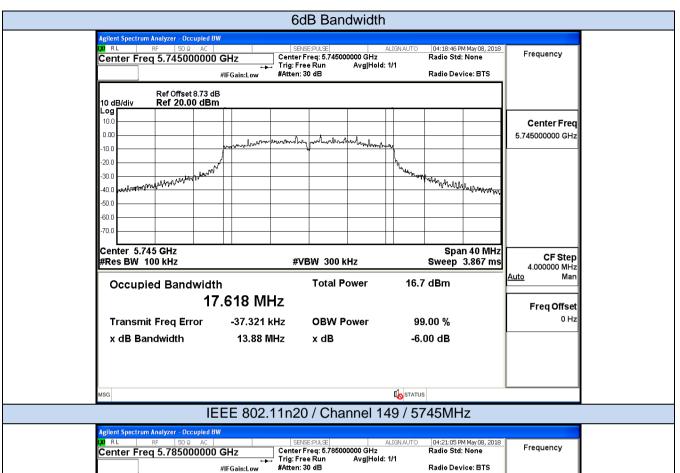


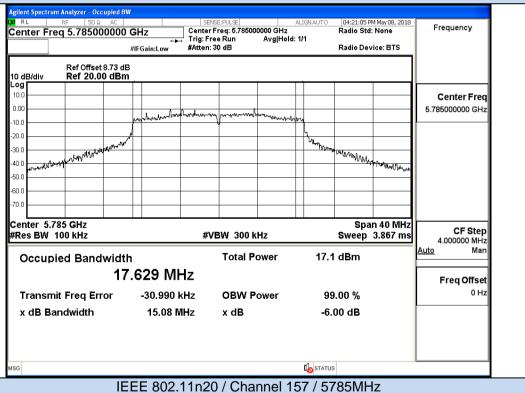


### IEEE 802.11a / Channel 157 / 5785MHz



IEEE 802.11a / Channel 165 / 5825MHz





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IEEE 802.11n20 / Channel 165 / 5825MHz

**OBW Power** 

x dB

99.00 %

-6.00 dB

STATUS

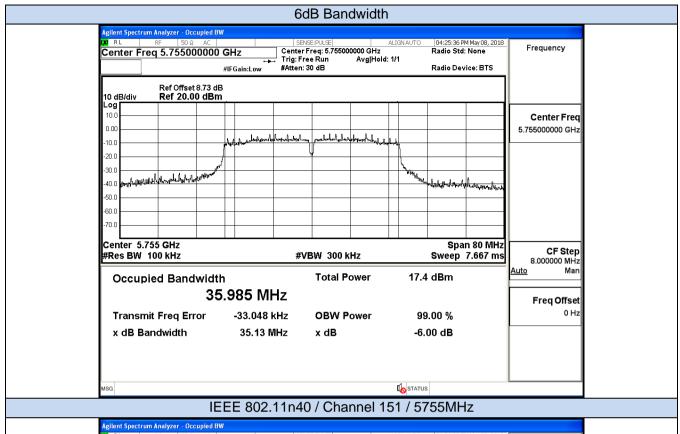
-41.540 kHz

13.17 MHz

Transmit Freq Error

x dB Bandwidth

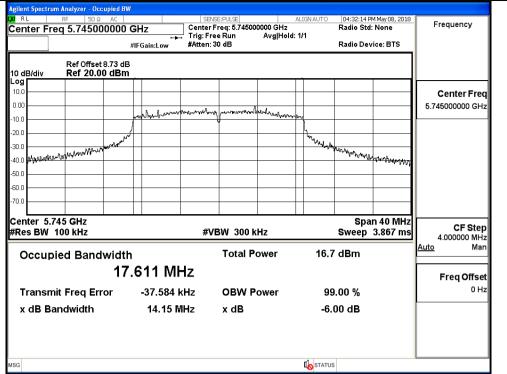
0 Hz



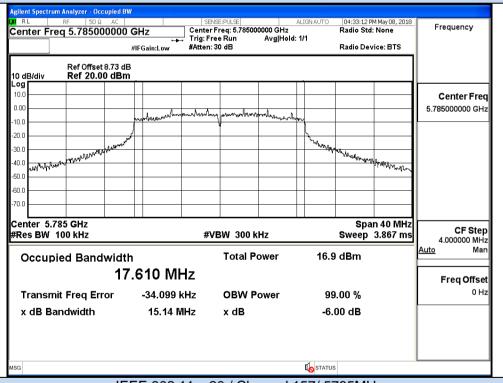
#### Center Freq: 5.795000000 GHz Trig: Free Run Avg|Hold: 1/1 #Atten: 30 dB 04:26:38 PM May 08, 2018 Radio Std: None Frequency Center Freq 5.795000000 GHz #IFGain:Low Radio Device: BTS Ref Offset 8.73 dB Ref 20.00 dBm 10 dB/div Center Freq 0.00 5.795000000 GHz 10.0 -20 f -30.0 apolishopallyat phaseataphilitud المالي المعين الموالة المن المعادلة المالية -50.0 Center 5.795 GHz Span 80 MHz CF Step Sweep 7.667 ms #Res BW 100 kHz #VBW 300 kHz 8.000000 MHz <u> Auto</u> Occupied Bandwidth **Total Power** 17.5 dBm 35.913 MHz Freq Offset 0 Hz Transmit Freq Error -64.734 kHz **OBW Power** 99.00 % x dB Bandwidth 35.17 MHz x dB -6.00 dB

IEEE 802.11n40 / Channel 159 / 5795MHz

STATUS



## IEEE 802.11ac20 / Channel 149 / 5745MHz



IEEE 802.11ac20 / Channel 157/ 5785MHz

**OBW Power** 

x dB

99.00 %

-6.00 dB

STATUS

Freq Offset

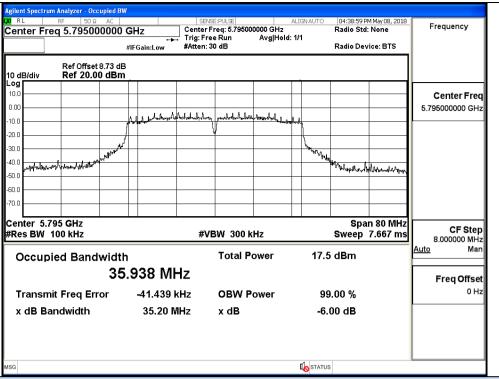
35.993 MHz

-32.230 kHz

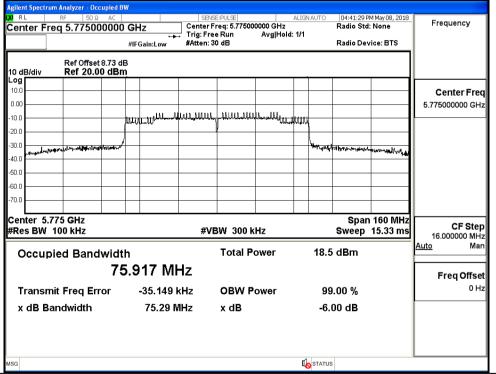
35.09 MHz

Transmit Freq Error

x dB Bandwidth



#### IEEE 802.11ac40 / Channel 159 / 5795MHz



IEEE 802.11ac80 / Channel 155 / 5775MHz

## **H.5 Undesirable Emissions Measurement**

Test	Channel	Frequency	Conducted Power	Antenna Gain	EIRP	Detector	Limit	Verdict
Mode	Chainei	(MHz)	(dBm)	(dBi)	(dBm/MHz)	Detector	(dBm/MHz)	verdict
	149	5650.0	-49.48	2.00	-47.48	Peak	27.0	Pass
		5700.0	-48.98	2.00	-46.98	Peak	15.6	Pass
	149	5720.0	-46.33	2.00	-44.33	Peak	10.0	Pass
11A		5725.0	-47.55	2.00	-45.55	Peak	-27.0	Pass
117		5850.0	-47.10	2.00	-45.10	Peak	-27.0	Pass
	165	5855.0	-47.93	2.00	-45.93	Peak	10.0	Pass
	103	5875.0	-48.82	2.00	-46.82	Peak	15.6	Pass
		5925.0	-49.33	2.00	-47.33	Peak	27.0	Pass
		5650.0	-49.31	2.00	-47.31	Peak	27.0	Pass
	149	5700.0	-48.95	2.00	-46.95	Peak	15.6	Pass
	149	5720.0	-47.56	2.00	-45.56	Peak	10.0	Pass
11N20		5725.0	-46.73	2.00	-44.73	Peak	-27.0	Pass
SISO		5850.0	-47.18	2.00	-45.18	Peak	-27.0	Pass
	165	5855.0	-48.50	2.00	-46.50	Peak	10.0	Pass
	105	5875.0	-48.46	2.00	-46.46	Peak	15.6	Pass
		5925.0	-49.31	2.00	-47.31	Peak	27.0	Pass
		5650.0	-49.19	2.00	-47.19	Peak	27.0	Pass
	151	5700.0	-49.27	2.00	-47.27	Peak	15.6	Pass
	151	5720.0	-47.55	2.00	-45.55	Peak	10.0	Pass
11N40		5725.0	-48.30	2.00	-46.30	Peak	-27.0	Pass
SISO		5850.0	-48.44	2.00	-46.44	Peak	-27.0	Pass
	450	5855.0	-47.34	2.00	-45.34	Peak	10.0	Pass
	159	5875.0	-48.54	2.00	-46.54	Peak	15.6	Pass
		5925.0	-49.53	2.00	-47.53	Peak	27.0	Pass
		5650.0	-49.81	2.00	-47.81	Peak	27.0	Pass
	149	5700.0	-48.18	2.00	-46.18	Peak	15.6	Pass
	149	5720.0	-46.47	2.00	-44.47	Peak	10.0	Pass
11AC20		5725.0	-46.61	2.00	-44.61	Peak	-27.0	Pass
SISO		5850.0	-47.37	2.00	-45.37	Peak	-27.0	Pass
	165	5855.0	-48.37	2.00	-46.37	Peak	10.0	Pass
	165	5875.0	-48.32	2.00	-46.32	Peak	15.6	Pass
		5925.0	-48.46	2.00	-46.46	Peak	27.0	Pass
		5650.0	-49.19	2.00	-47.19	Peak	27.0	Pass
	151	5700.0	-48.05	2.00	-46.05	Peak	15.6	Pass
	151	5720.0	-47.76	2.00	-45.76	Peak	10.0	Pass
11AC40		5725.0	-48.03	2.00	-46.03	Peak	-27.0	Pass
SISO		5850.0	-47.26	2.00	-45.26	Peak	-27.0	Pass
	159	5855.0	-47.91	2.00	-45.91	Peak	10.0	Pass
	159	5875.0	-49.04	2.00	-47.04	Peak	15.6	Pass
	<u>                                      </u>	5925.0	-47.64	2.00	-45.64	Peak	27.0	Pass
		5725.0	-46.98	2.00	-44.98	Peak	-27	Pass
	]	5700.0	-48.53	2.00	-46.53	Peak	15.6	Pass
	]	5725.0	-58.29	2.00	-56.29	Peak	-27	Pass
11AC80	155	5700.0	-59.75	2.00	-57.75	Peak	15.6	Pass
SISO	155	5850.0	-46.98	2.00	-44.98	Peak	-27	Pass
	]	5875.0	-48.53	2.00	-46.53	Peak	15.6	Pass
		5850.0	-58.29	2.00	-56.29	Peak	-27	Pass
	-	5875.0	-59.75	2.00	-57.75	Peak	15.6	Pass

