

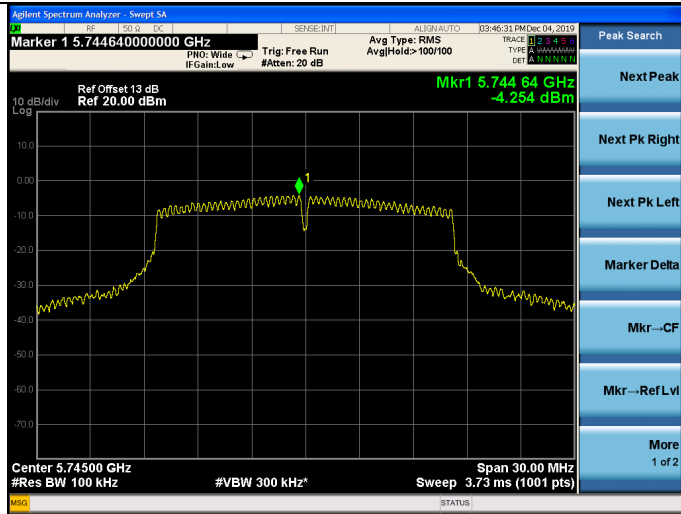
FCC ID: 2AU3BU9W42

U-NII-3 Band:

ANT A

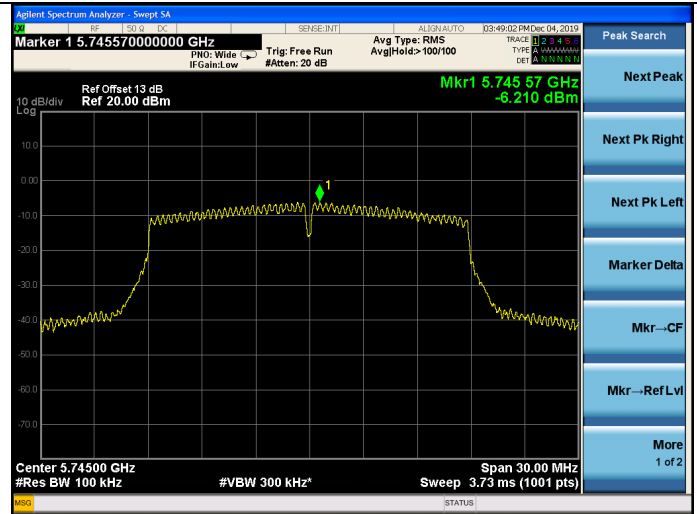
11a

5745MHz

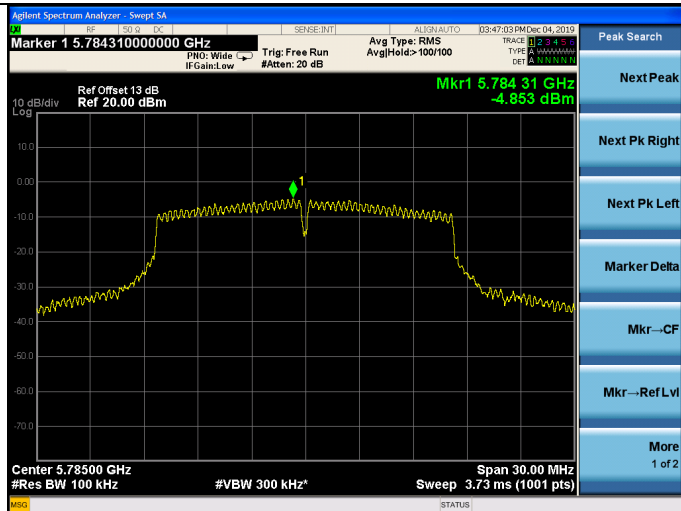


11n HT20

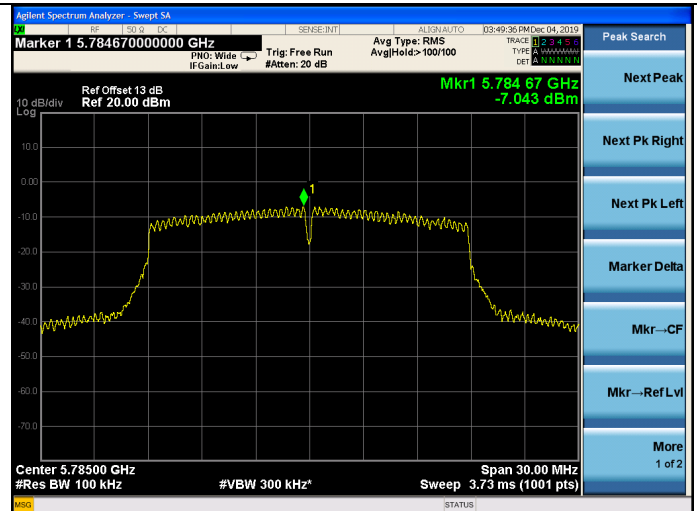
5745MHz



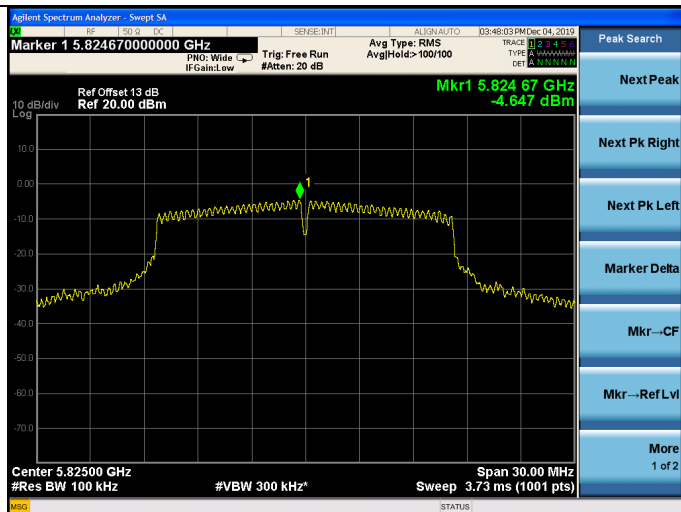
5785MHz



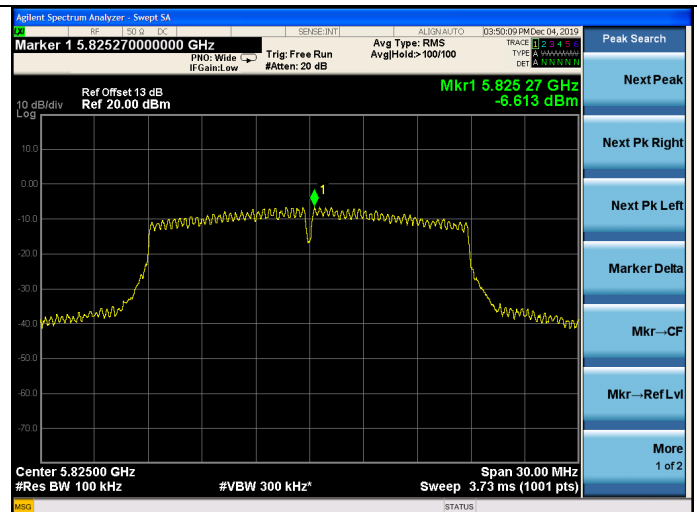
5785MHz



5825MHz



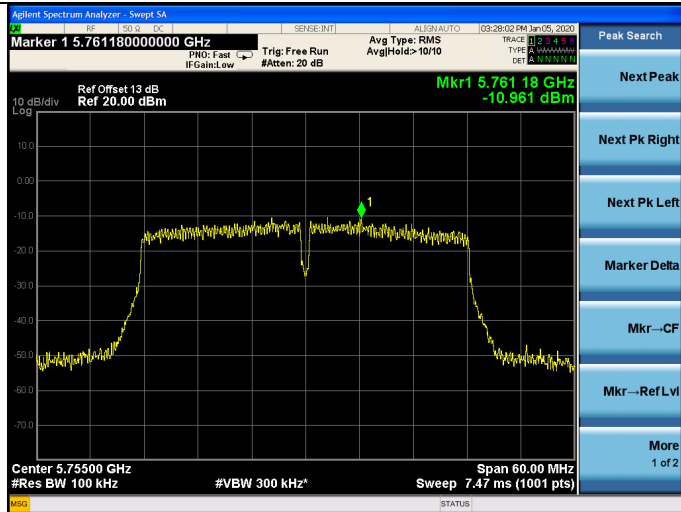
5825MHz



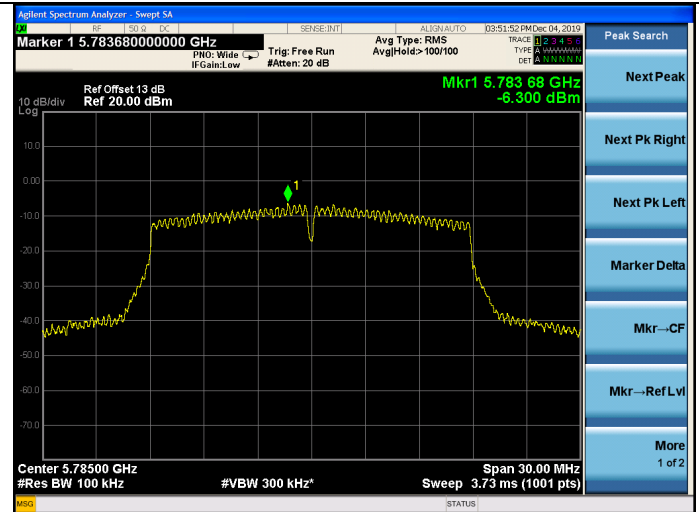
FCC ID: 2AU3BU9W42

11n HT40

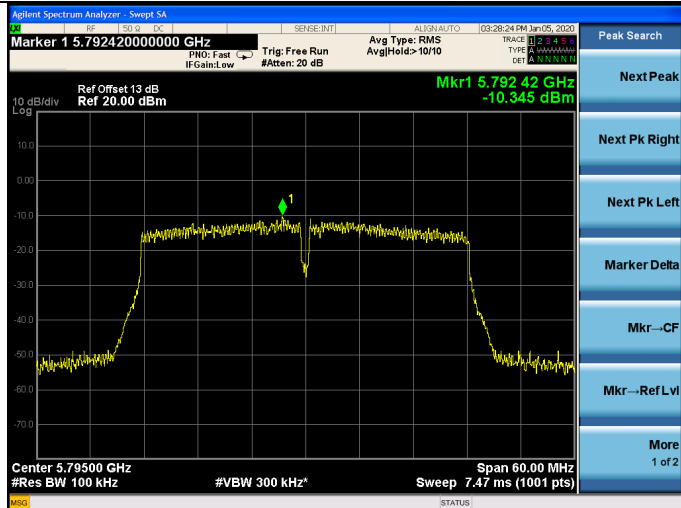
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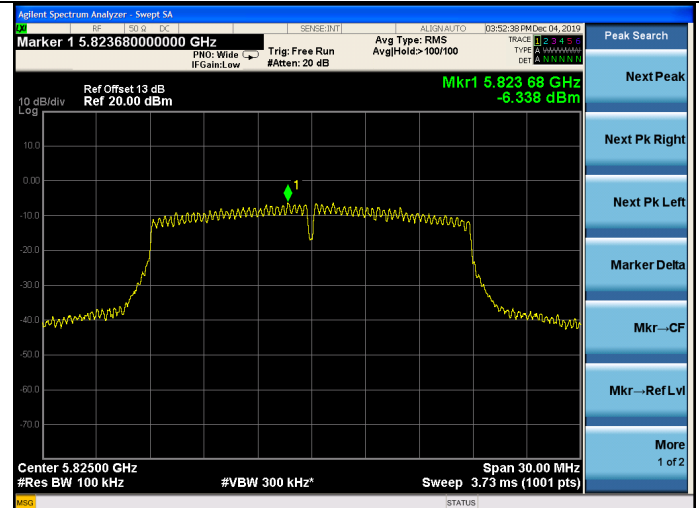
5785MHz



5795MHz

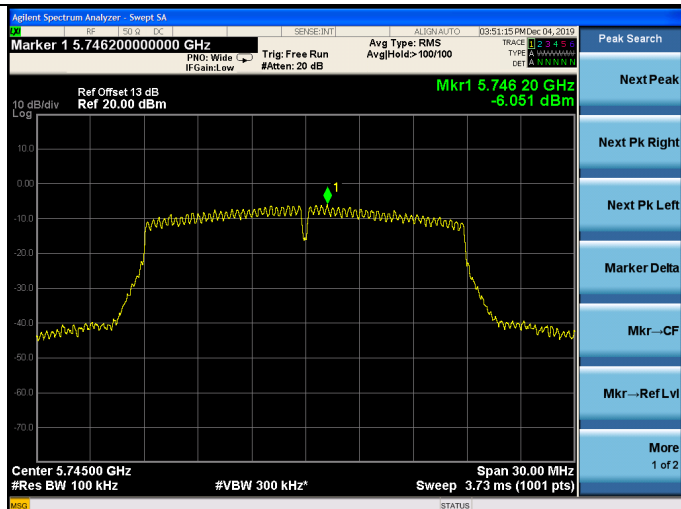


5825MHz



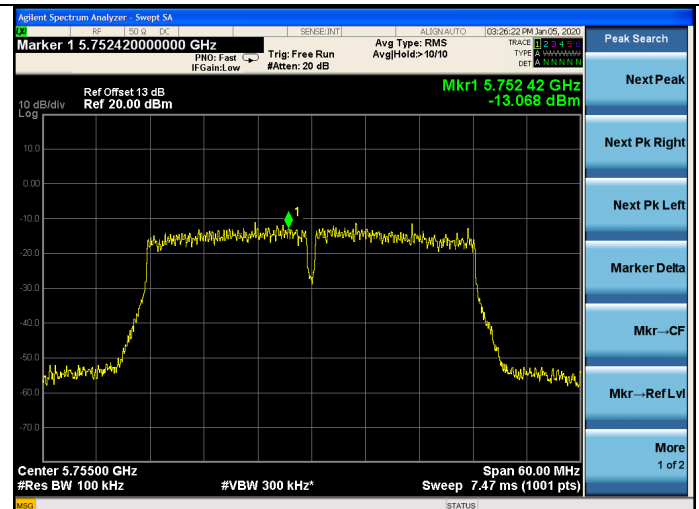
11ac VHT20

5745MHz

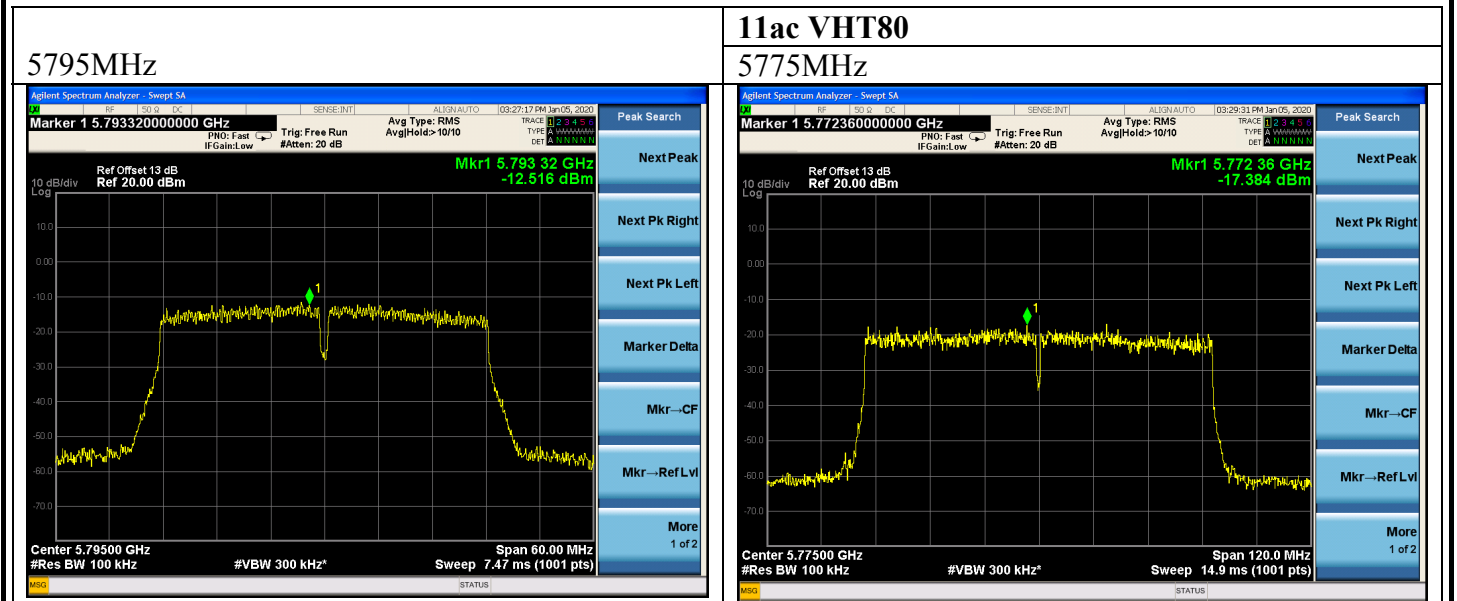


11ac VHT40

5755MHz



FCC ID: 2AU3BU9W42



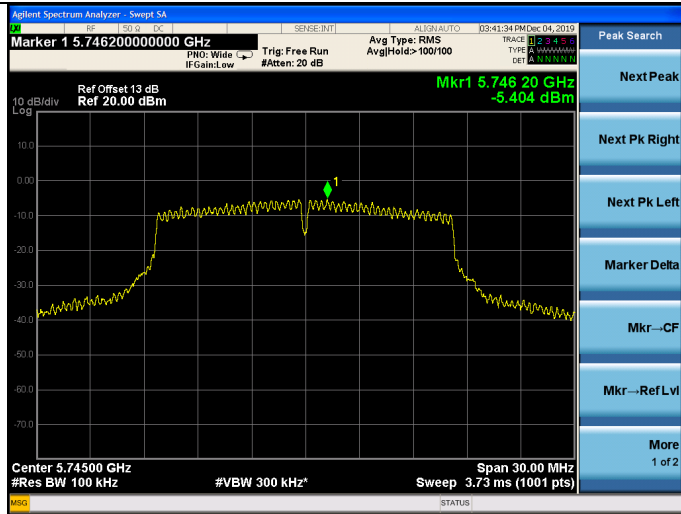
FCC ID: 2AU3BU9W42

U-NII-3 Band:

ANT B

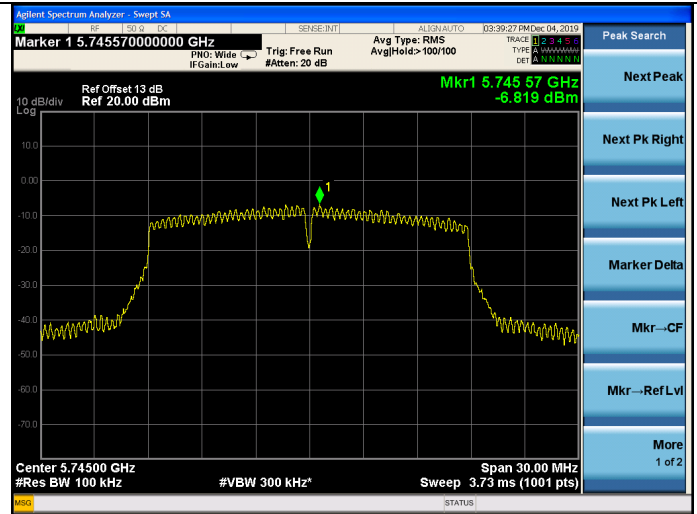
11a

5745MHz

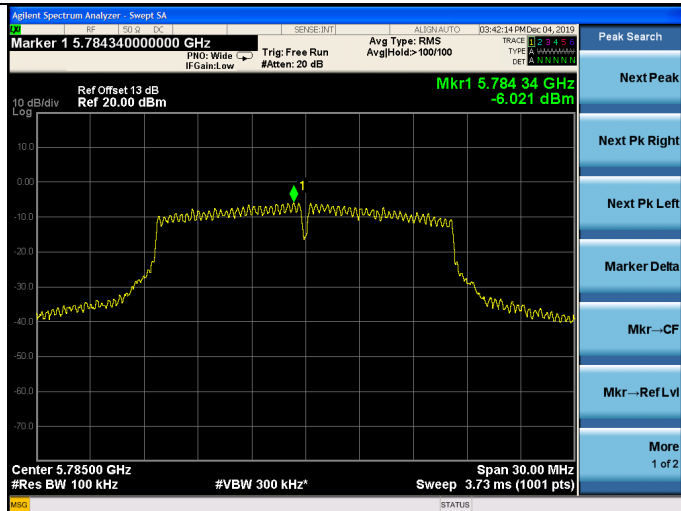


11n HT20

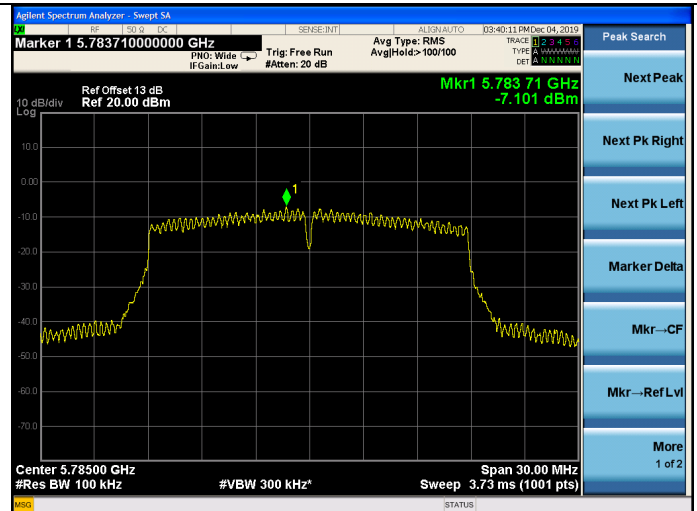
5745MHz



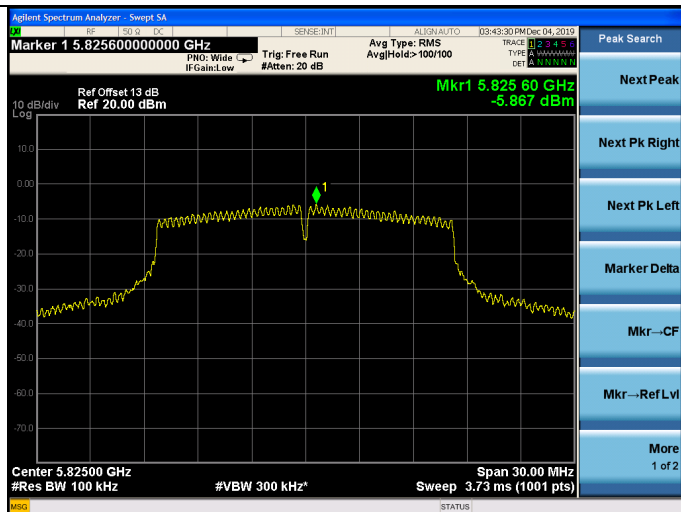
5785MHz



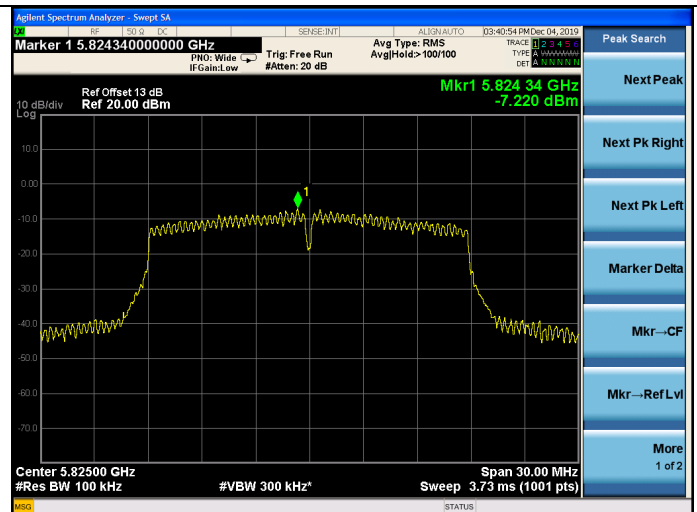
5785MHz



5825MHz



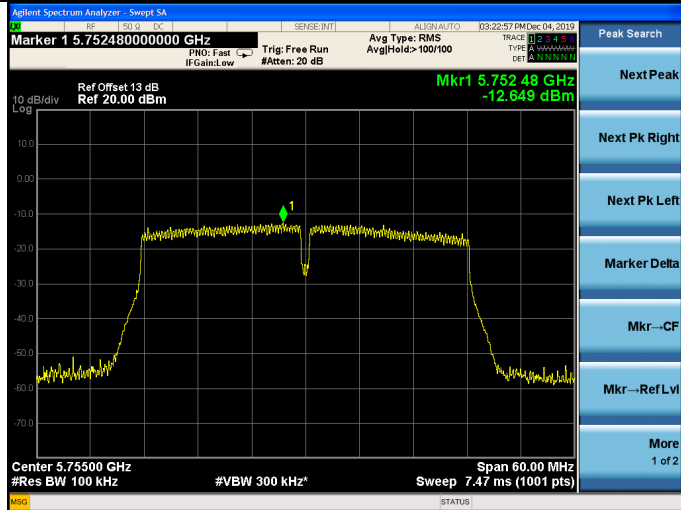
5825MHz



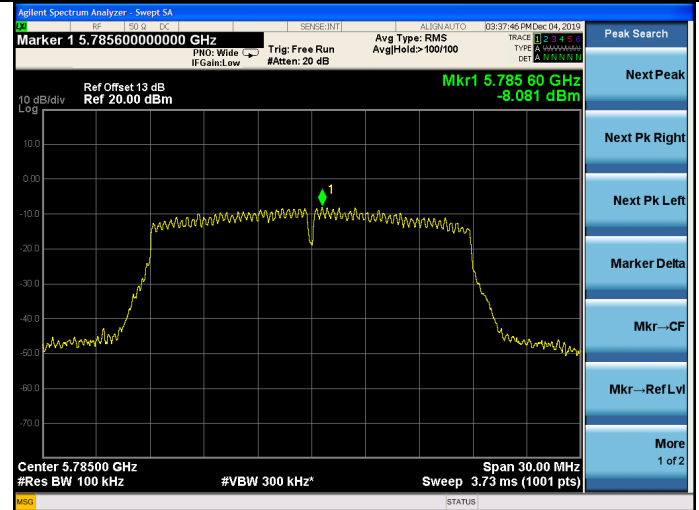
FCC ID: 2AU3BU9W42

11n HT40

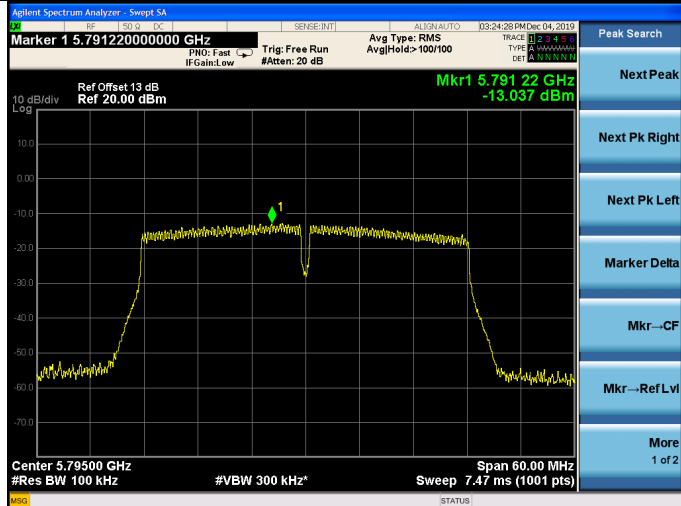
5755MHz



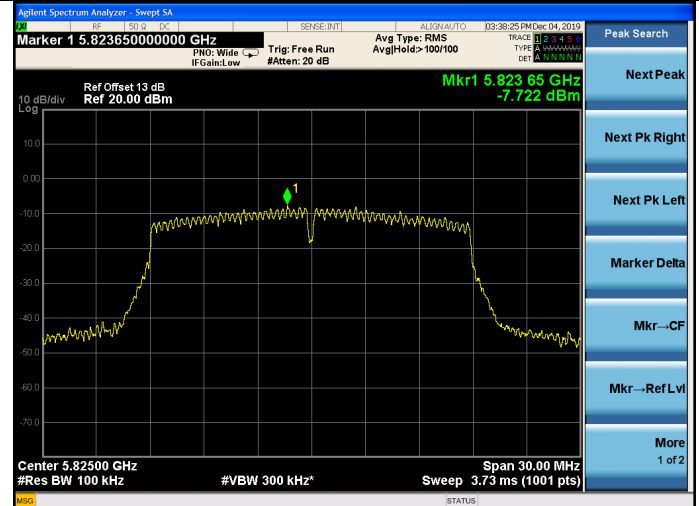
5785MHz



5795MHz

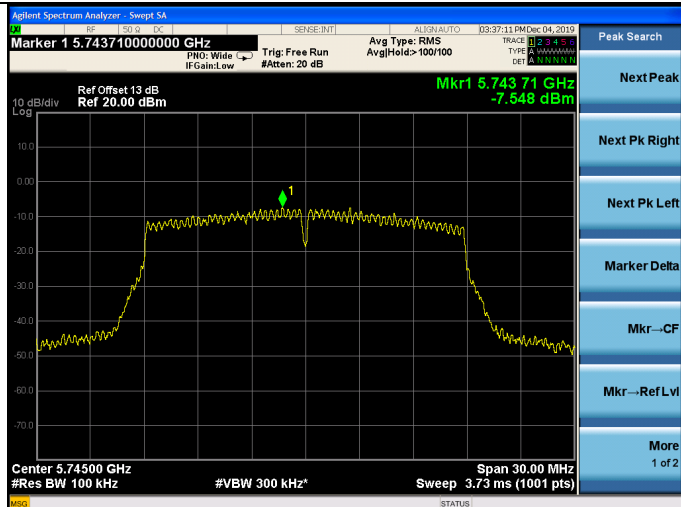


5825MHz



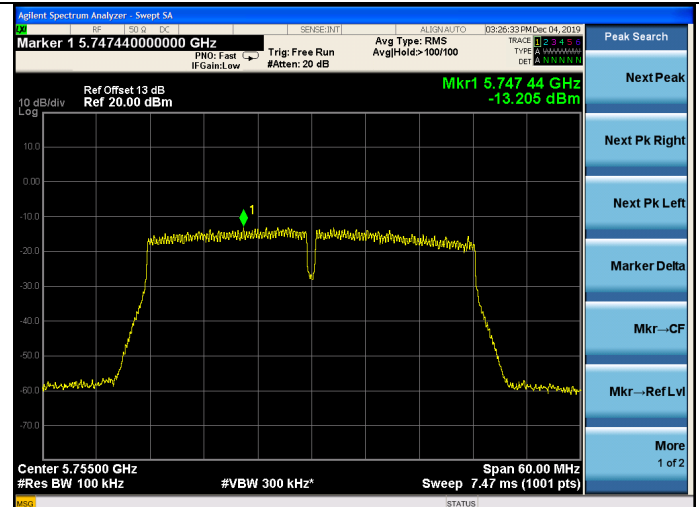
11ac VHT20

5745MHz

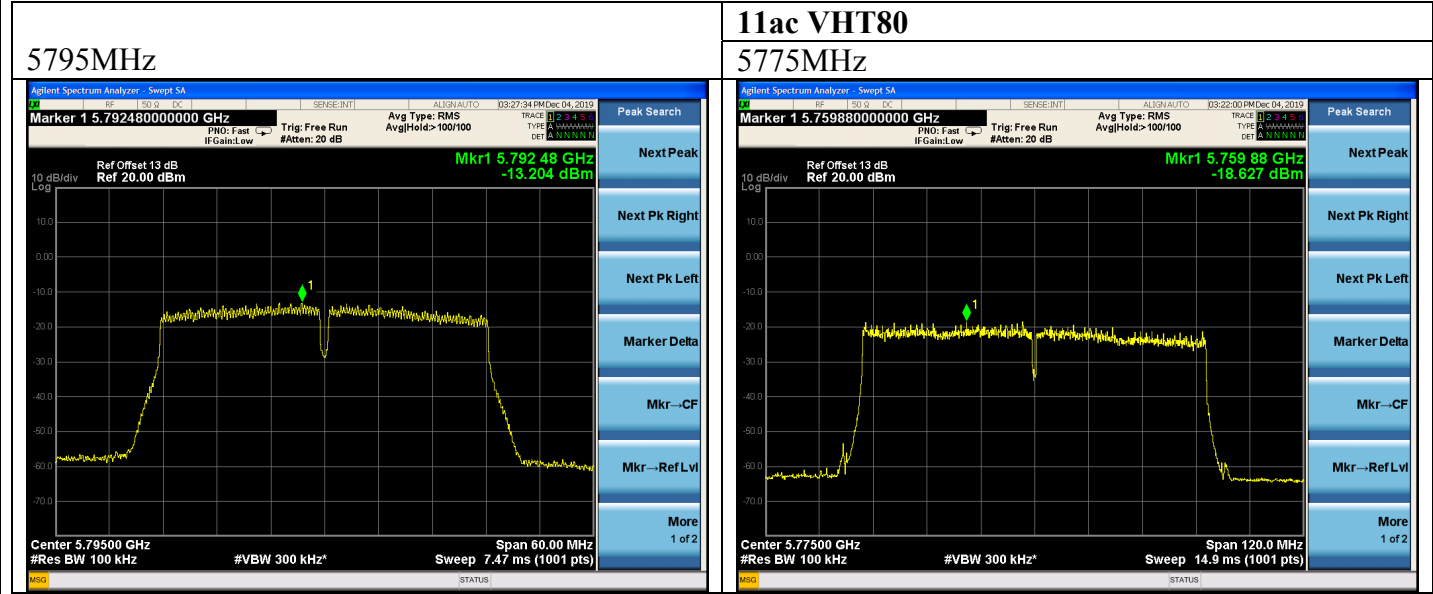


11ac VHT40

5755MHz



FCC ID: 2AU3BU9W42



10.FREQUENCY STABILITY MEASUREMENT

10.1.Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
4.	PXA Signal Analyzer	Agilent	N9030A	MY51380221	Jun.30,19	1 Year
5.	Attenuator	Agilent	8491B	MY39269201	Oct.13,19	1 Year
6.	RF Cable	EMCI	EMC102-KM-KM 3500	170702	May.13,19	1 Year

10.2.Limit

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

10.3.Test Procedure

1. The transmitter output (antenna port) was connected to the spectrum analyzer.
EUT have transmitted absence of modulation signal and fixed channelise. Set the spectrum analyzer span to view the entire absence of modulation emissions bandwidth. Set RBW = 10 kHz, VBW = 10 kHz with peak detector and maxhold settings. f_c is declaring of channel frequency. Then the frequency error formula is $(f_c - f) / f \times 10^{-6}$ ppm. The test extreme voltage is to change the primary supply voltage from 85 to 115 percent of the nominal value.
2. Extreme temperature rule is -30°C~50°C.

10.4.Test Result

EUT: WiFi module		
M/N: U9W42		
Test date: 2019-12-31	Pressure: 102.7±1.0 kpa	Humidity: 52.5±3.0%
Tested by: Garry	Test site: RF site	Temperature:22.7±0.6 °C

Frequency Stability vs.Voltage:

Test Voltage	Temperature	CH	Max. Reading (MHz)	Target Frequency (MHz)	Result (ppm)
DC 2.81V	20℃	CH36	5179.995	5180	-0.97
		CH38	5189.992	5190	-1.54
		CH40	5199.996	5200	-0.77
		CH42	5209.997	5210	-0.58
		CH46	5229.964	5230	-6.88
		CH48	5239.995	5240	-0.95
		CH149	5744.992	5745	-1.39
		CH151	5754.994	5755	-1.04
		CH155	5774.993	5775	-1.21
		CH157	5784.994	5785	-1.04
		CH159	5794.997	5795	-0.52
		CH165	5824.999	5825	-0.17
DC 3.3V	20℃	CH36	5179.994	5180	-1.16
		CH38	5189.993	5190	-1.35
		CH40	5199.992	5200	-1.54
		CH42	5209.996	5210	-0.77
		CH46	5229.962	5230	-7.27
		CH48	5239.992	5240	-1.53
		CH149	5744.992	5745	-1.39
		CH151	5754.996	5755	-0.70
		CH155	5774.993	5775	-1.21
		CH157	5784.996	5785	-0.69
		CH159	5794.991	5795	-1.55
		CH165	5824.991	5825	-1.55

DC 3.8V	20℃	CH36	5179.996	5180	-0.77
		CH38	5189.995	5190	-0.96
		CH40	5199.996	5200	-0.77
		CH42	5209.993	5210	-1.34
		CH46	5229.965	5230	-6.69
		CH48	5239.994	5240	-1.15
		CH149	5744.993	5745	-1.22
		CH151	5754.992	5755	-1.39
		CH155	5774.993	5775	-1.21
		CH157	5784.992	5785	-1.38
		CH159	5794.996	5795	-0.69
		CH165	5824.993	5825	-1.20

Frequency Stability vs. Temperature:

Test Voltage	Temperature	CH	Max. Reading (MHz)	Target Frequency (MHz)	Result (ppm)
DC 3.3V	0℃	CH36	5179.984	5180	-3.09
		CH38	5189.956	5190	-8.48
		CH40	5199.935	5200	-12.50
		CH42	5209.927	5210	-14.01
		CH46	5229.927	5230	-13.96
		CH48	5239.939	5240	-11.64
		CH149	5744.969	5745	-5.40
		CH151	5754.969	5755	-5.39
		CH155	5774.963	5775	-6.41
		CH157	5784.963	5785	-6.40
		CH159	5794.996	5795	-0.69
		CH165	5824.994	5825	-1.03
DC 3.3V	10℃	CH36	5179.989	5180	-2.12
		CH38	5189.989	5190	-2.12
		CH40	5199.996	5200	-0.77
		CH42	5209.987	5210	-2.50
		CH46	5229.987	5230	-2.49
		CH48	5239.985	5240	-2.86
		CH149	5744.991	5745	-1.57
		CH151	5754.991	5755	-1.56
		CH155	5774.993	5775	-1.21
		CH157	5784.998	5785	-0.35
		CH159	5794.992	5795	-1.38
		CH165	5824.992	5825	-1.37

DC 3.3V	20℃	CH36	5179.993	5180	-1.35
		CH38	5189.992	5190	-1.54
		CH40	5199.992	5200	-1.54
		CH42	5209.993	5210	-1.34
		CH46	5229.961	5230	-7.46
		CH48	5239.998	5240	-0.38
		CH149	5744.995	5745	-0.87
		CH151	5754.996	5755	-0.70
		CH155	5774.991	5775	-1.56
		CH157	5784.996	5785	-0.69
		CH159	5794.994	5795	-1.04
		CH165	5824.994	5825	-1.03
DC 3.3V	30℃	CH36	5179.996	5180	-0.77
		CH38	5189.992	5190	-1.54
		CH40	5199.996	5200	-0.77
		CH42	5209.994	5210	-1.15
		CH46	5229.965	5230	-6.69
		CH48	5239.991	5240	-1.72
		CH149	5744.996	5745	-0.70
		CH151	5754.997	5755	-0.52
		CH155	5774.996	5775	-0.69
		CH157	5784.992	5785	-1.38
		CH159	5794.994	5795	-1.04
		CH165	5824.996	5825	-0.69
DC 3.3V	40℃	CH36	5179.993	5180	-1.35
		CH38	5189.992	5190	-1.54
		CH40	5199.996	5200	-0.77
		CH42	5209.992	5210	-1.54
		CH46	5229.995	5230	-0.96
		CH48	5239.996	5240	-0.76
		CH149	5744.995	5745	-0.87
		CH151	5754.997	5755	-0.52
		CH155	5774.996	5775	-0.69
		CH157	5784.994	5785	-1.04
		CH159	5794.996	5795	-0.69
		CH165	5824.994	5825	-1.03

DC 3.3V	50℃	CH36	5179.997	5180	-0.58
		CH38	5189.996	5190	-0.77
		CH40	5199.994	5200	-1.15
		CH42	5209.992	5210	-1.54
		CH46	5229.995	5230	-0.96
		CH48	5239.992	5240	-1.53
		CH149	5744.999	5745	-0.17
		CH151	5754.993	5755	-1.22
		CH155	5774.994	5775	-1.04
		CH157	5784.992	5785	-1.38
		CH159	5794.993	5795	-1.21
		CH165	5824.994	5825	-1.03
DC 3.3V	60℃	CH36	5179.998	5180	-0.39
		CH38	5189.994	5190	-1.16
		CH40	5199.996	5200	-0.77
		CH42	5209.993	5210	-1.34
		CH46	5229.994	5230	-1.15
		CH48	5239.994	5240	-1.15
		CH149	5744.995	5745	-0.87
		CH151	5754.995	5755	-0.87
		CH155	5774.993	5775	-1.21
		CH157	5784.992	5785	-1.38
		CH159	5794.994	5795	-1.04
		CH165	5824.995	5825	-0.86

11. ANTENNA REQUIREMENT

11.1. Standard Applicable

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. And according to FCC 47 CFR Section 15.407 (a), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

11.2. Antenna Connected Construction

The antennas used for this product are PCB antenna that no antenna other than that furnished by the responsible party shall be used with the device, the maximum peak gain of the transmit antenna is **U-NII-1 Band:ANT A: 2.9dBi & ANT B: -3.8dBi; U-NII-3 Band:ANT A: -1.9dBi & ANT B: -4.5dBi.**

12. DEVIATION TO TEST SPECIFICATIONS

[NONE]

..... THE END