

11nHT40
5190MHz



5230MHz



11ac VHT20

5180MHz



5210MHz



5240MHz



11ac VHT40
5190MHz

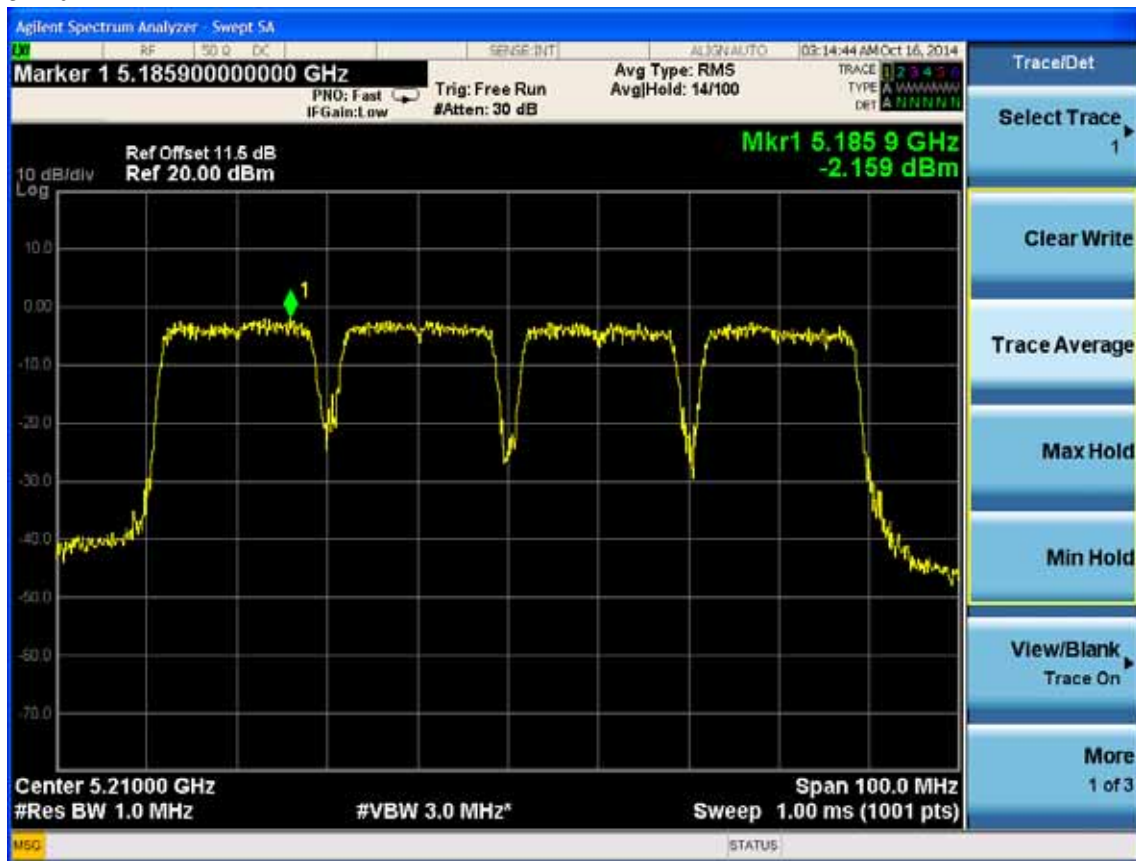


5230MHz

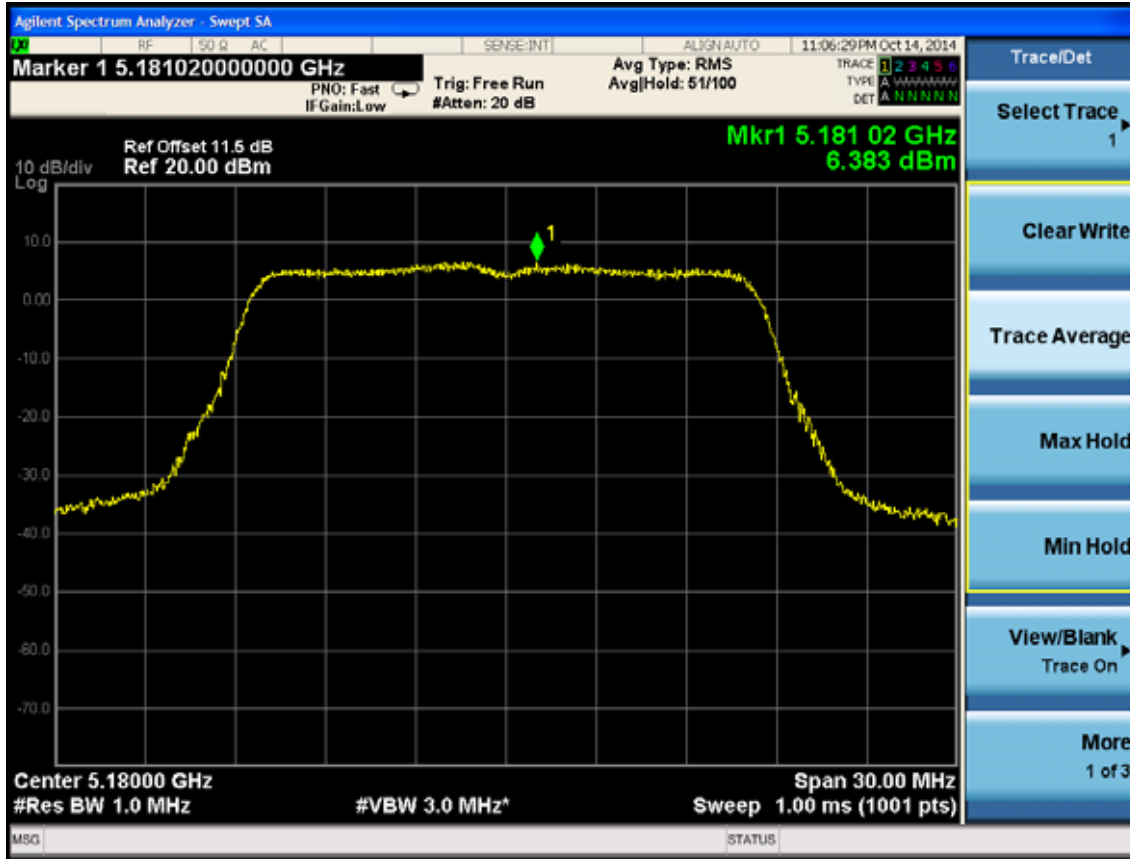


11ac VHT80

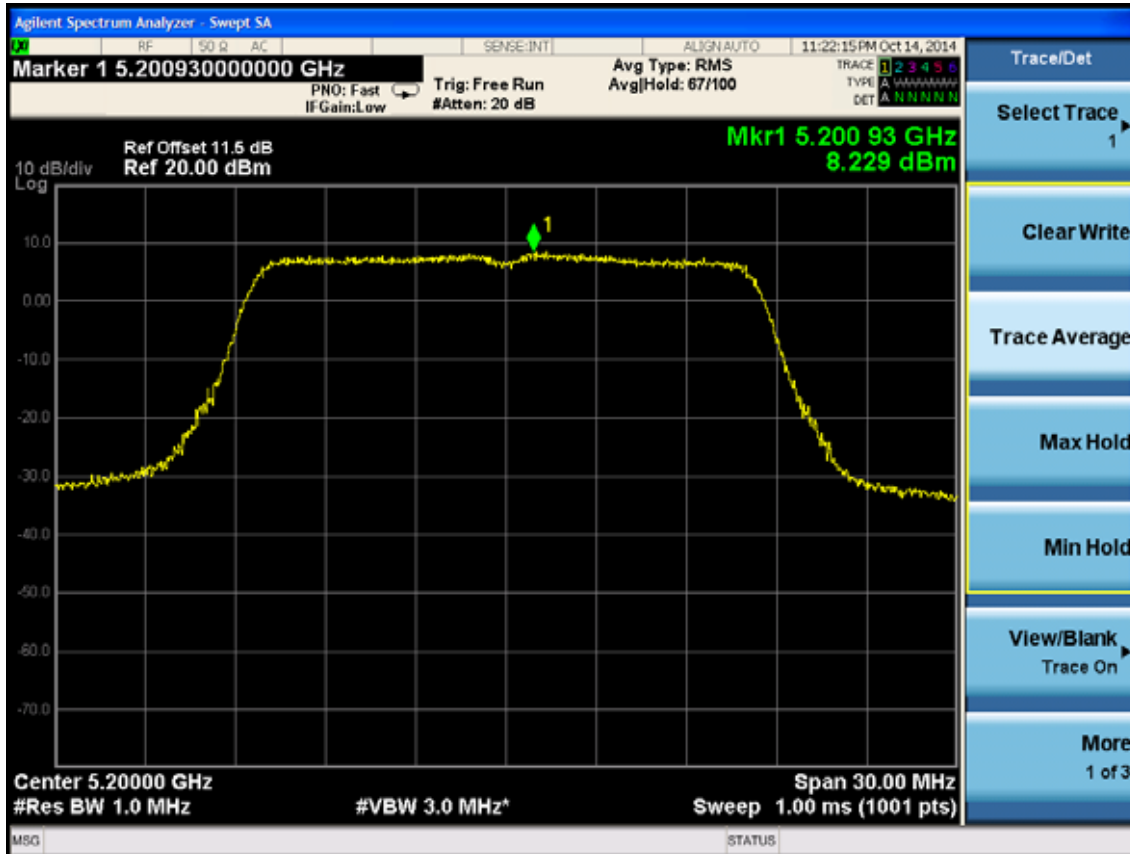
5210MHz



ANT1
11a
5180MHz



5210MHz



5240MHz



11nHT20

5180MHz



5210MHz



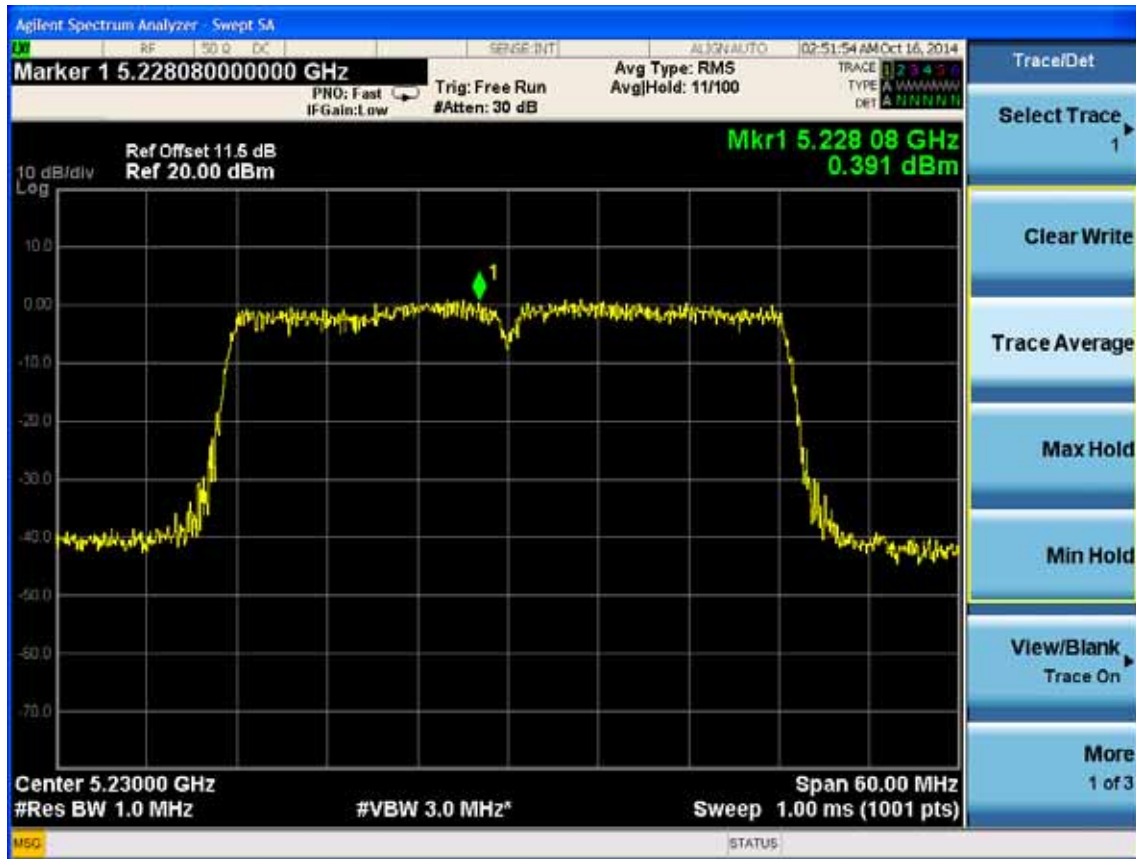
5240MHz



11nHT40
5190MHz



5230MHz

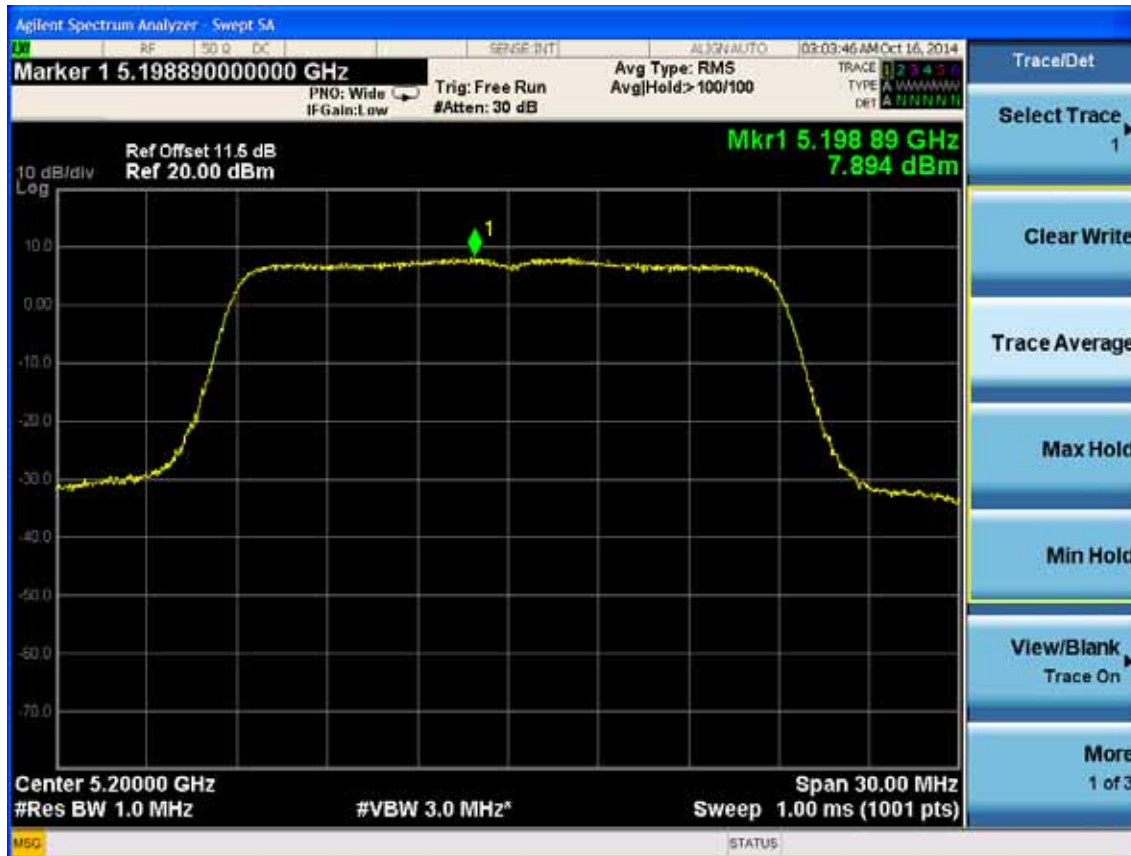


11ac VHT20

5180MHz



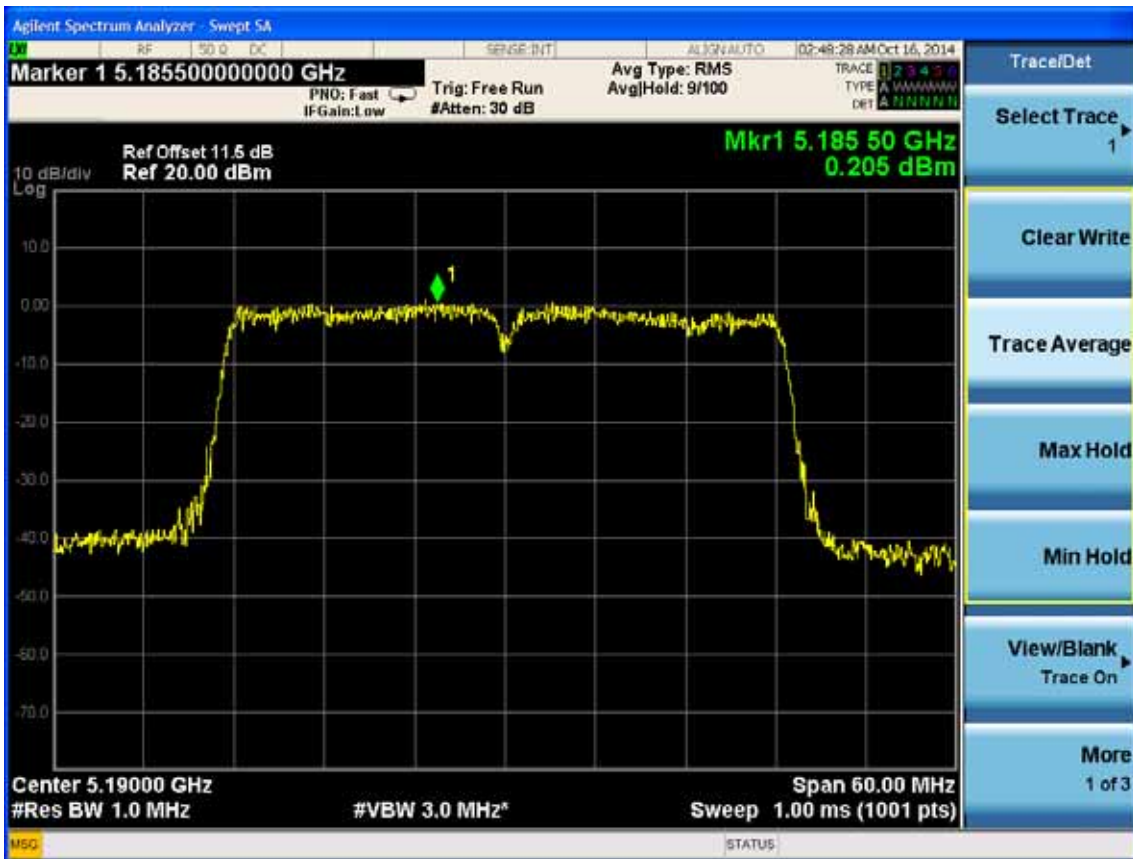
5210MHz



5240MHz



11ac VHT40
5190MHz

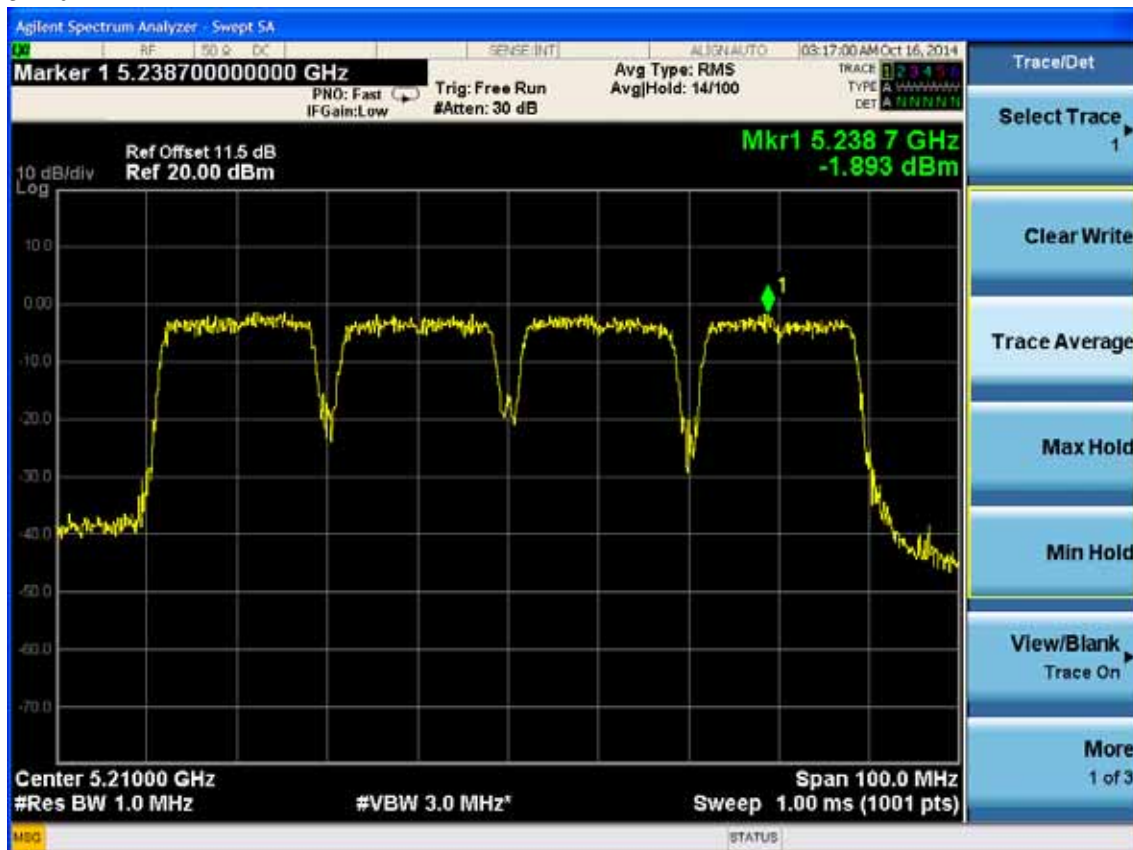


5230MHz

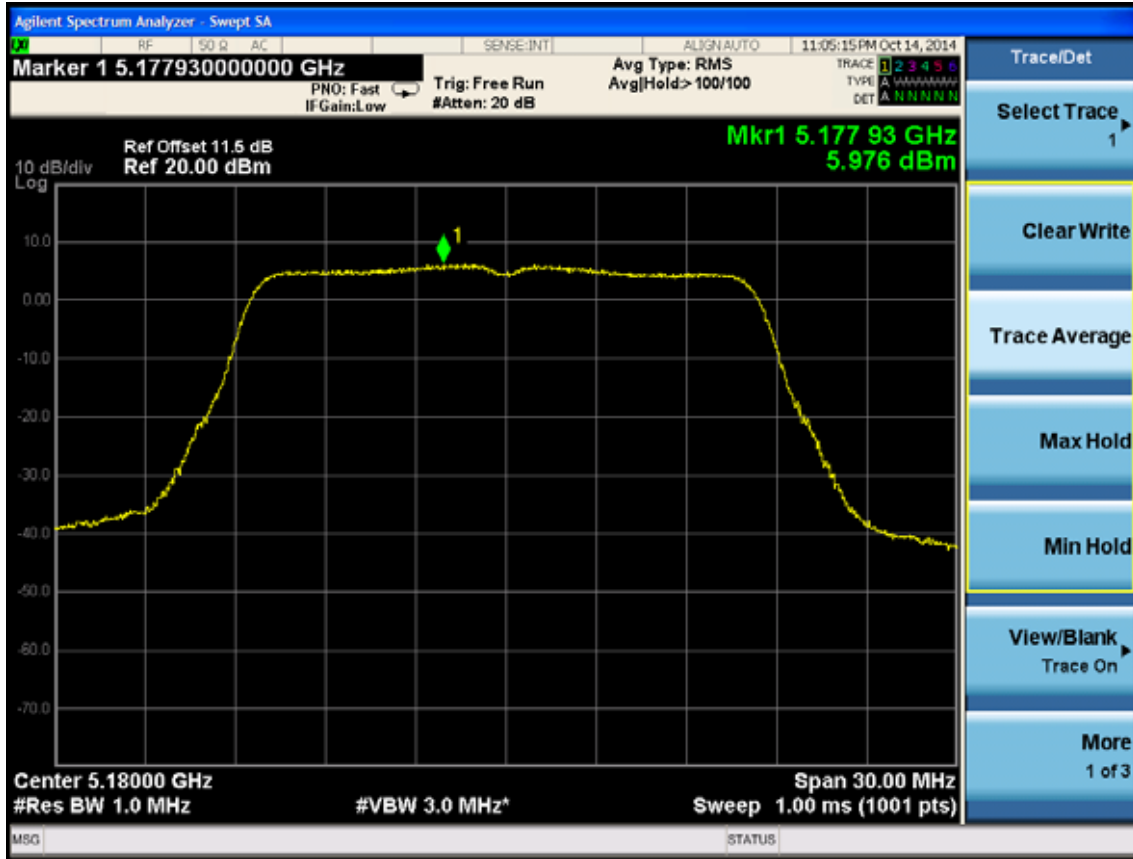


11ac VHT80

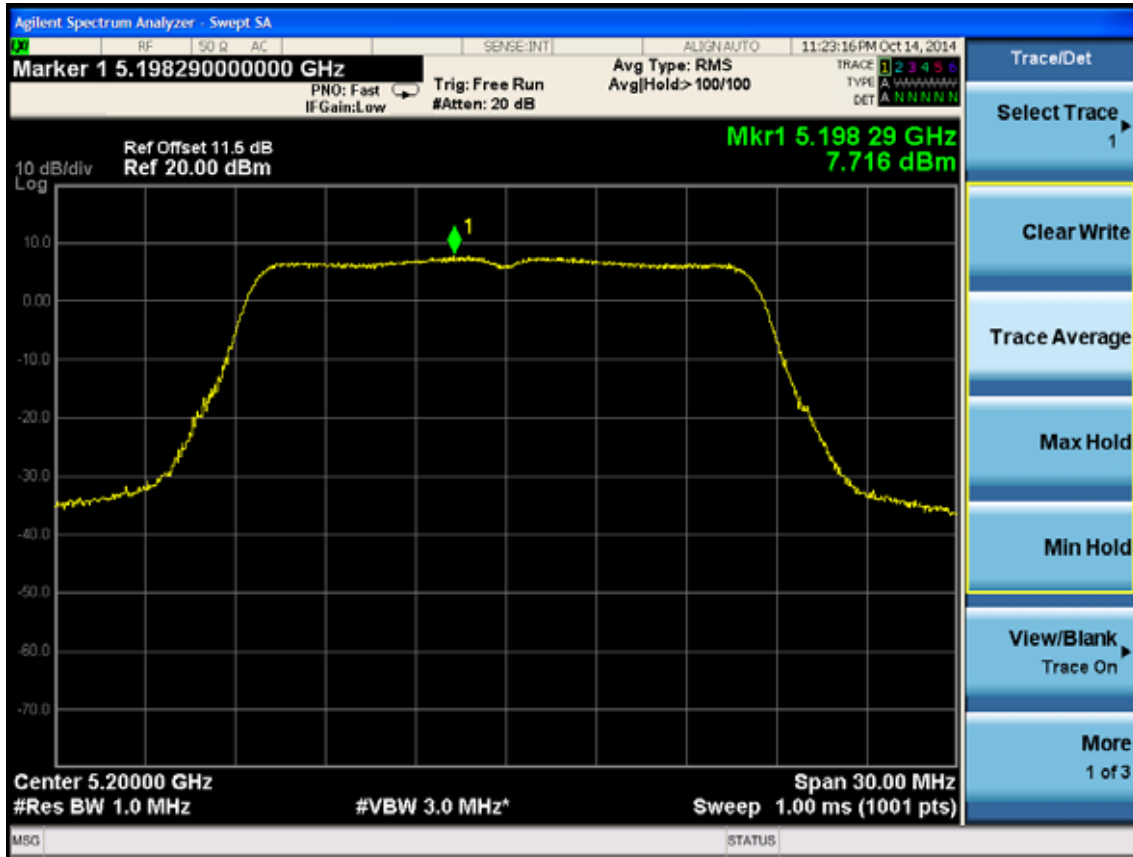
5210MHz



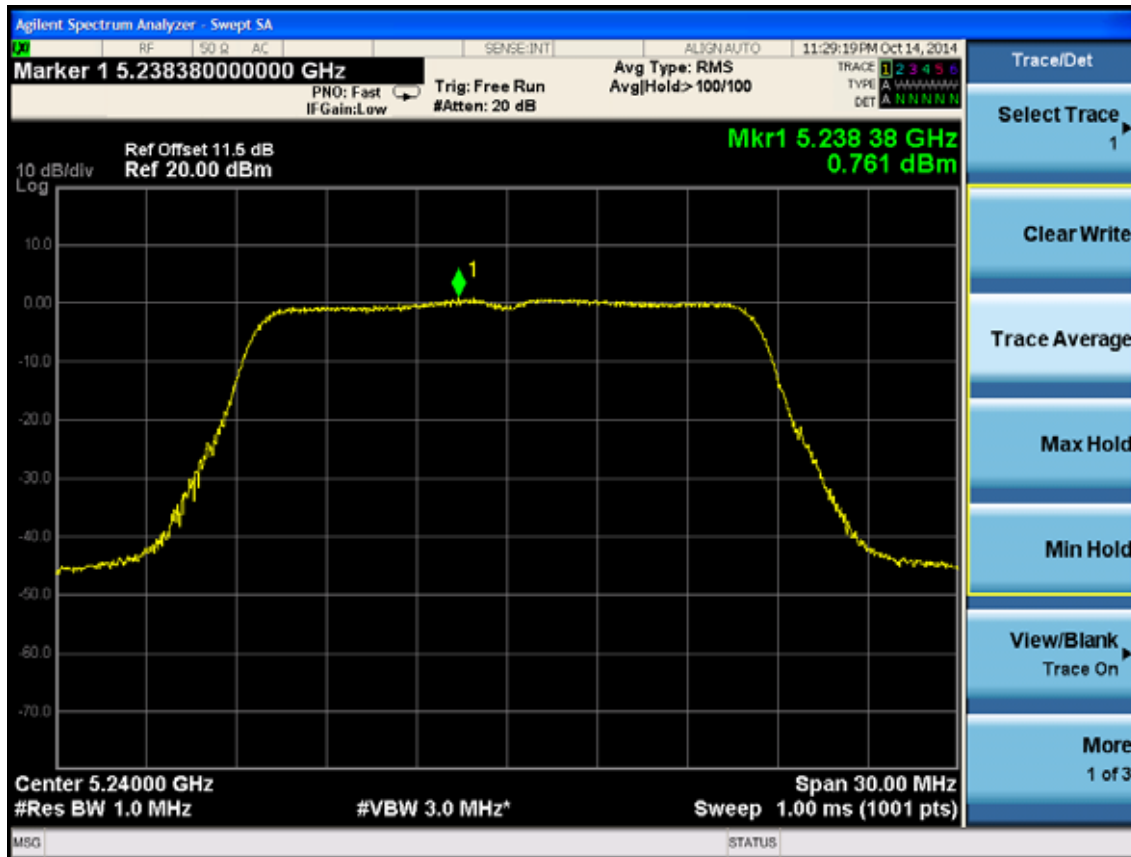
ANT2
11a
5180MHz



5210MHz



5240MHz



11nHT20

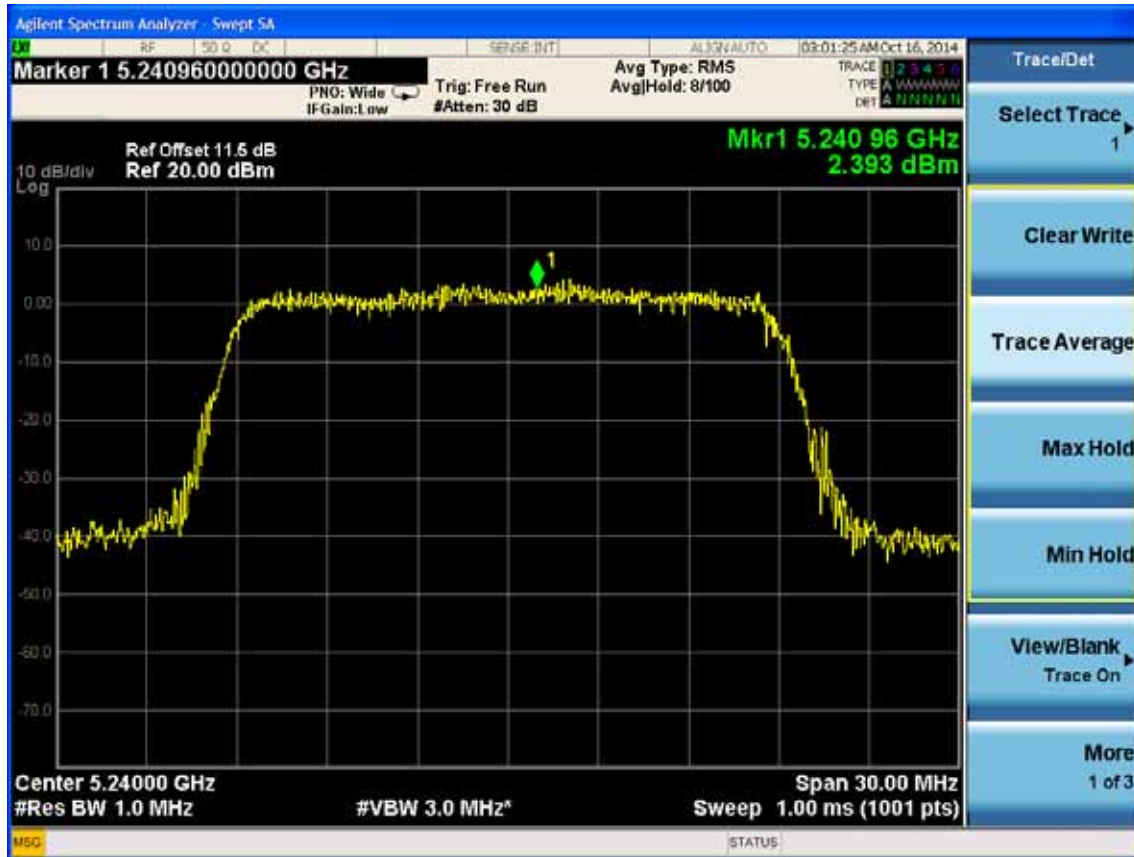
5180MHz



5210MHz



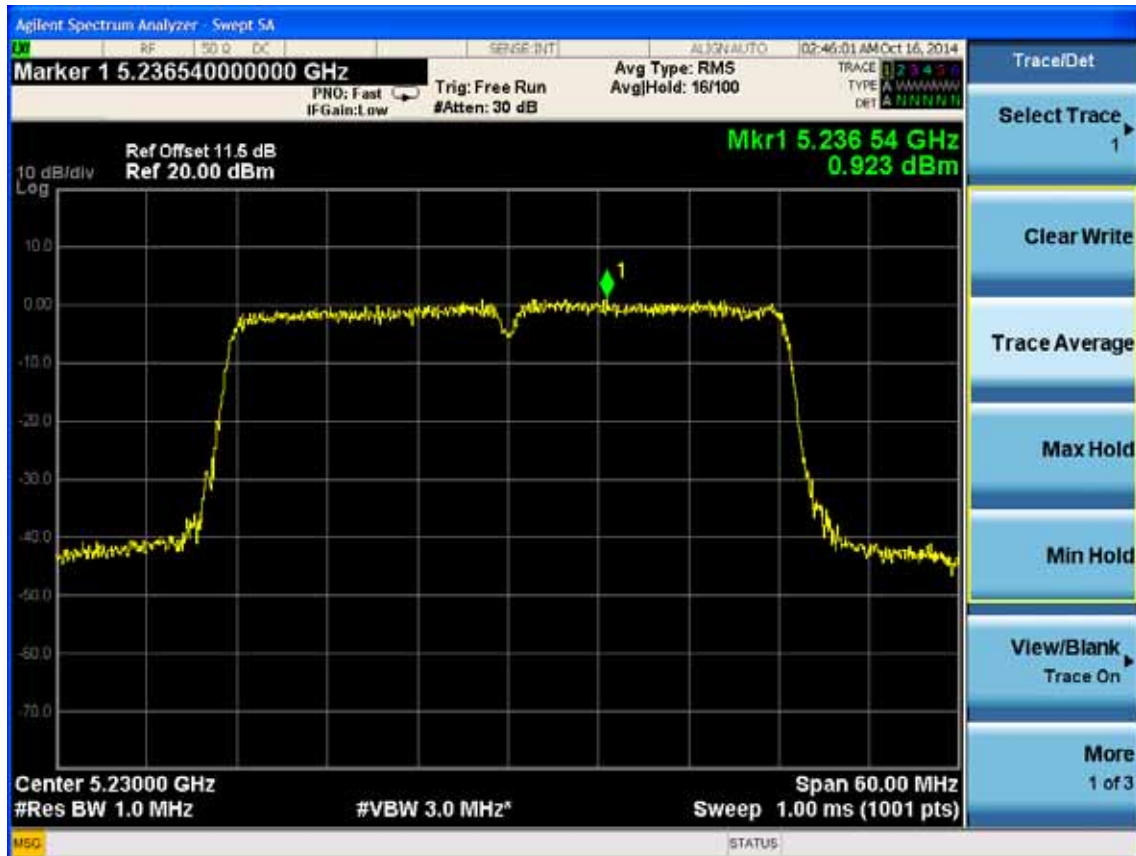
5240MHz



11nHT40
5190MHz

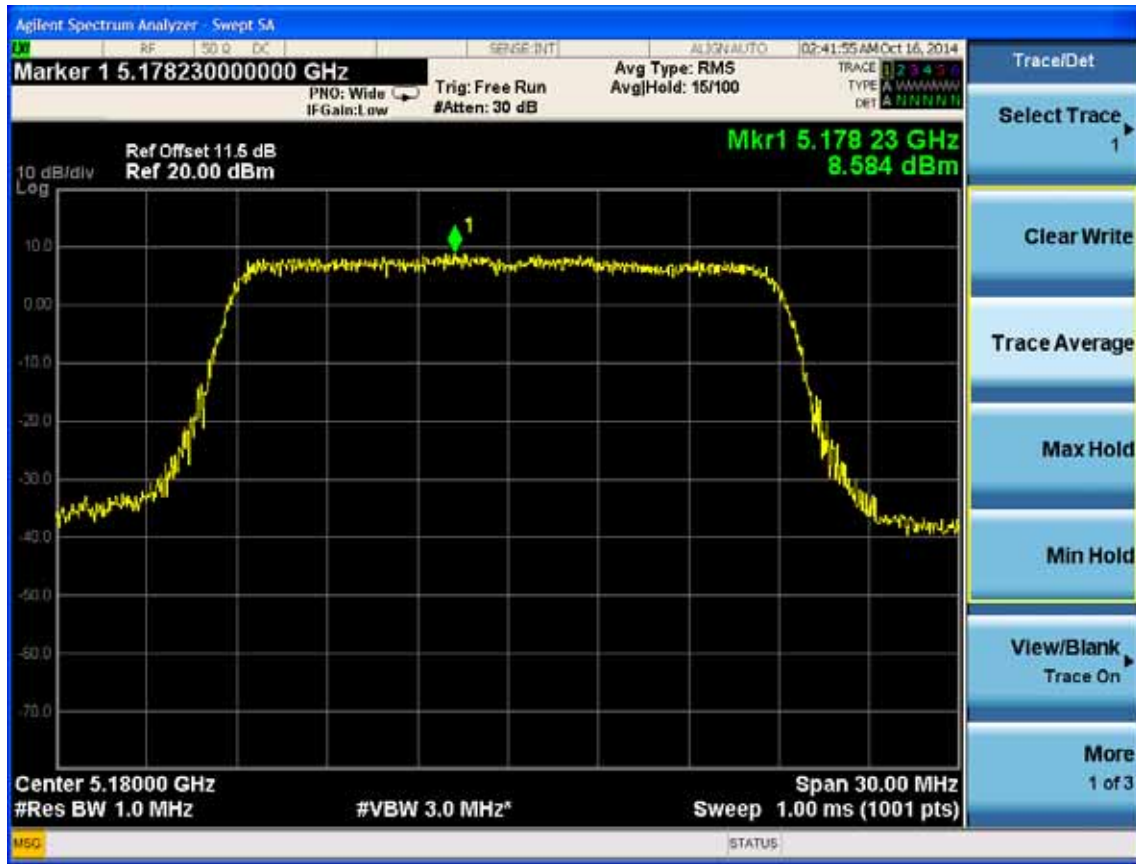


5230MHz



11ac VHT20

5180MHz



5210MHz



5240MHz



11ac VHT40
5190MHz

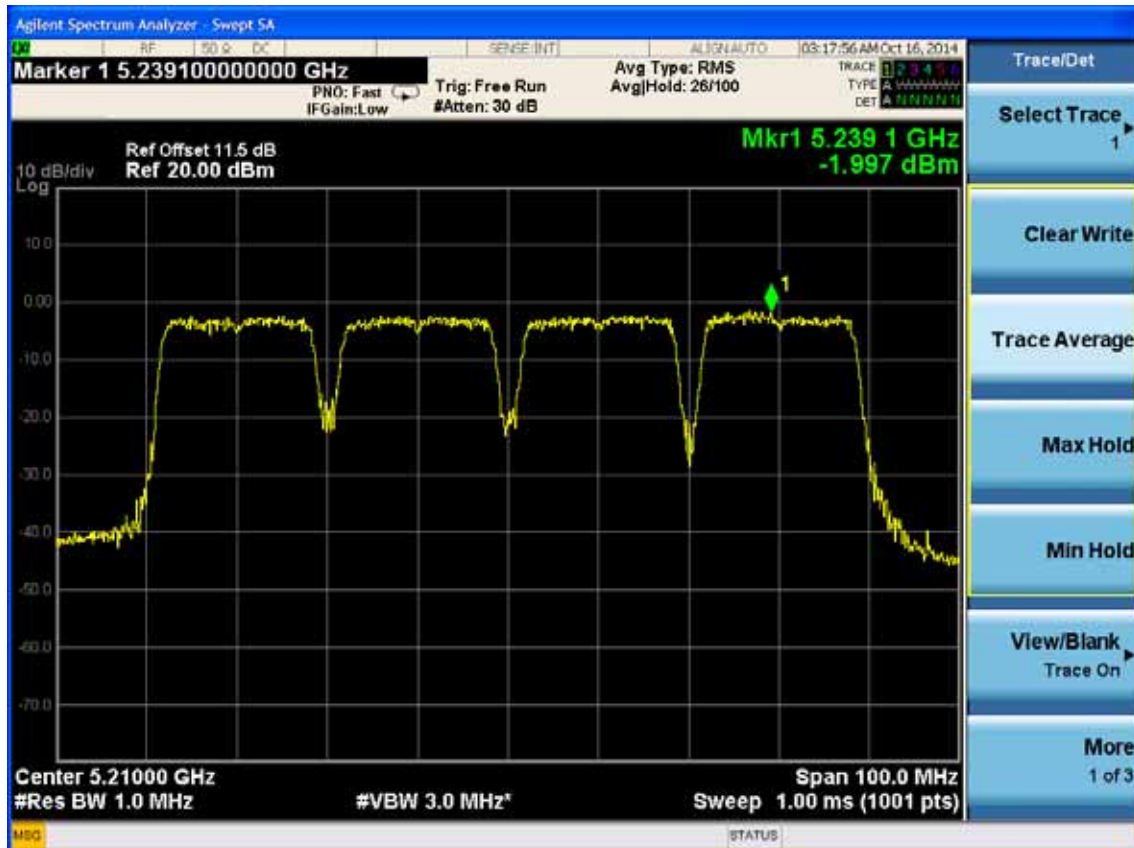


5230MHz



11ac VHT80

5210MHz

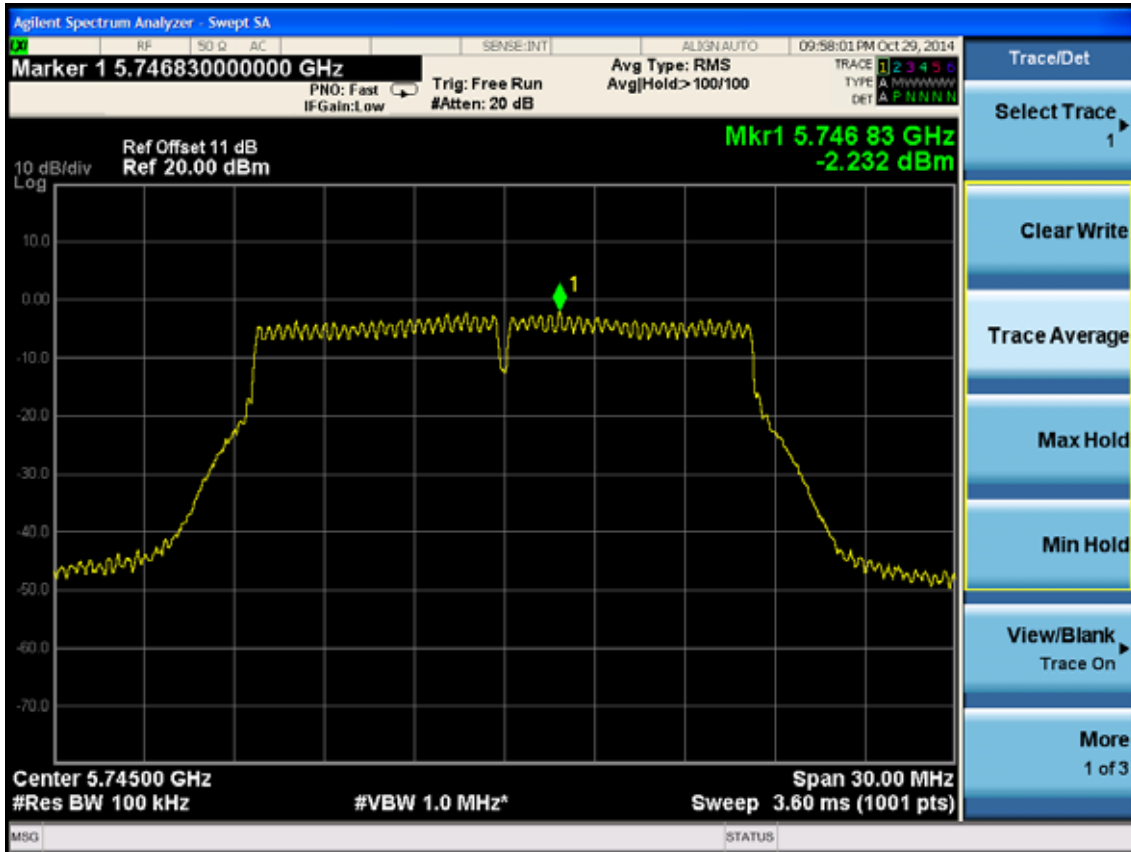


UNII Band4:

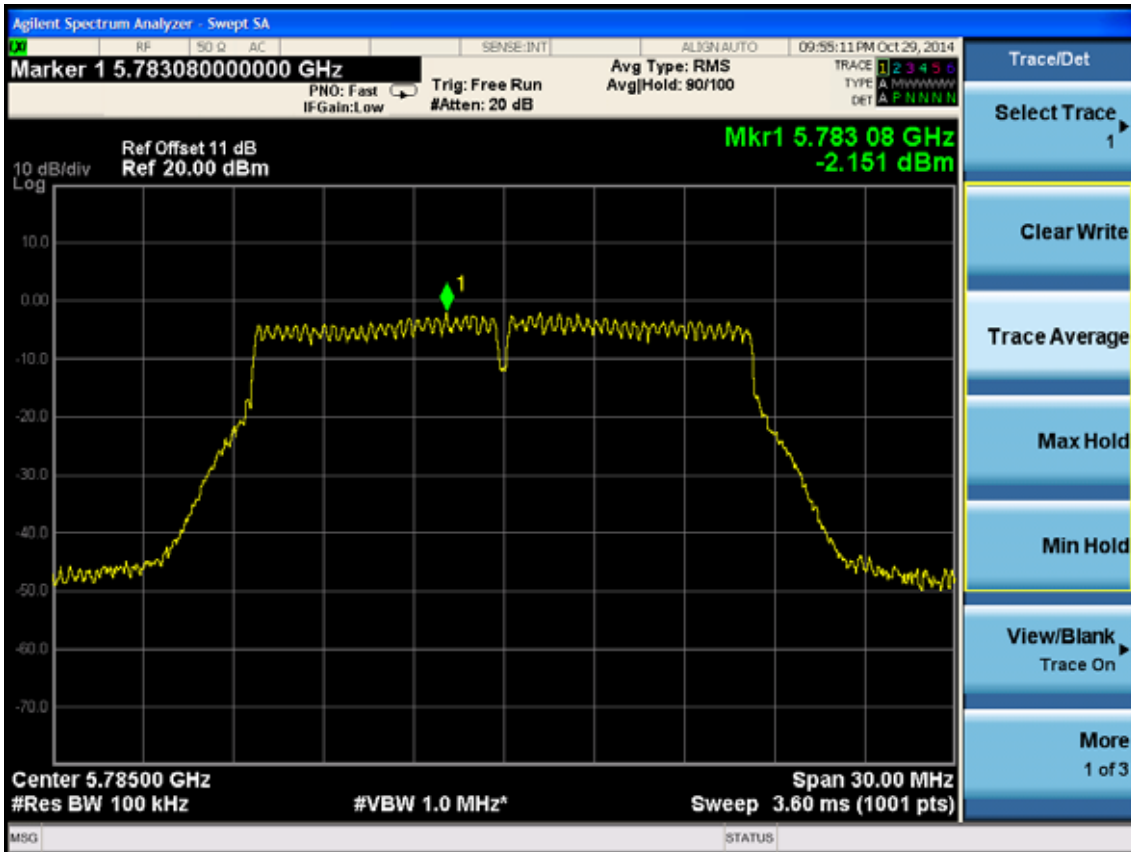
ANT 0:

Test Mode: IEEE 802.11a TX

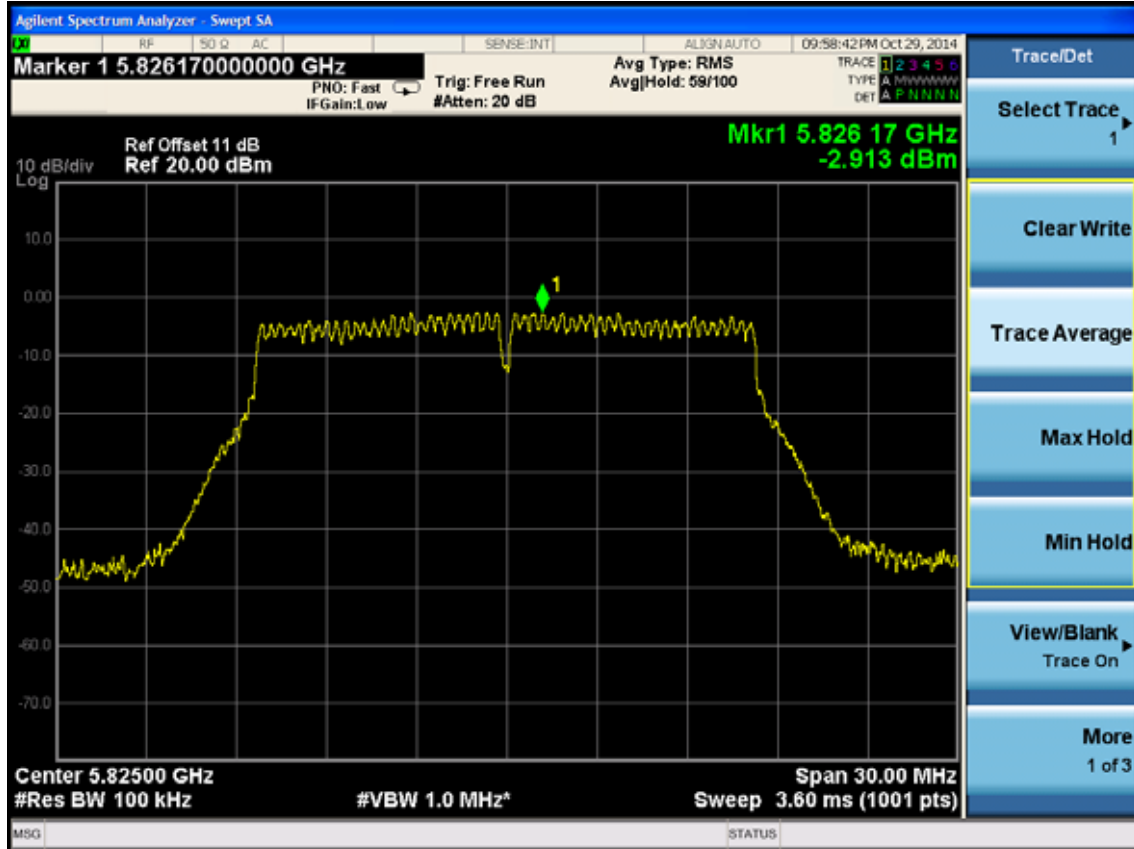
Test CH149: 5745MHz



Test CH157: 5785MHz

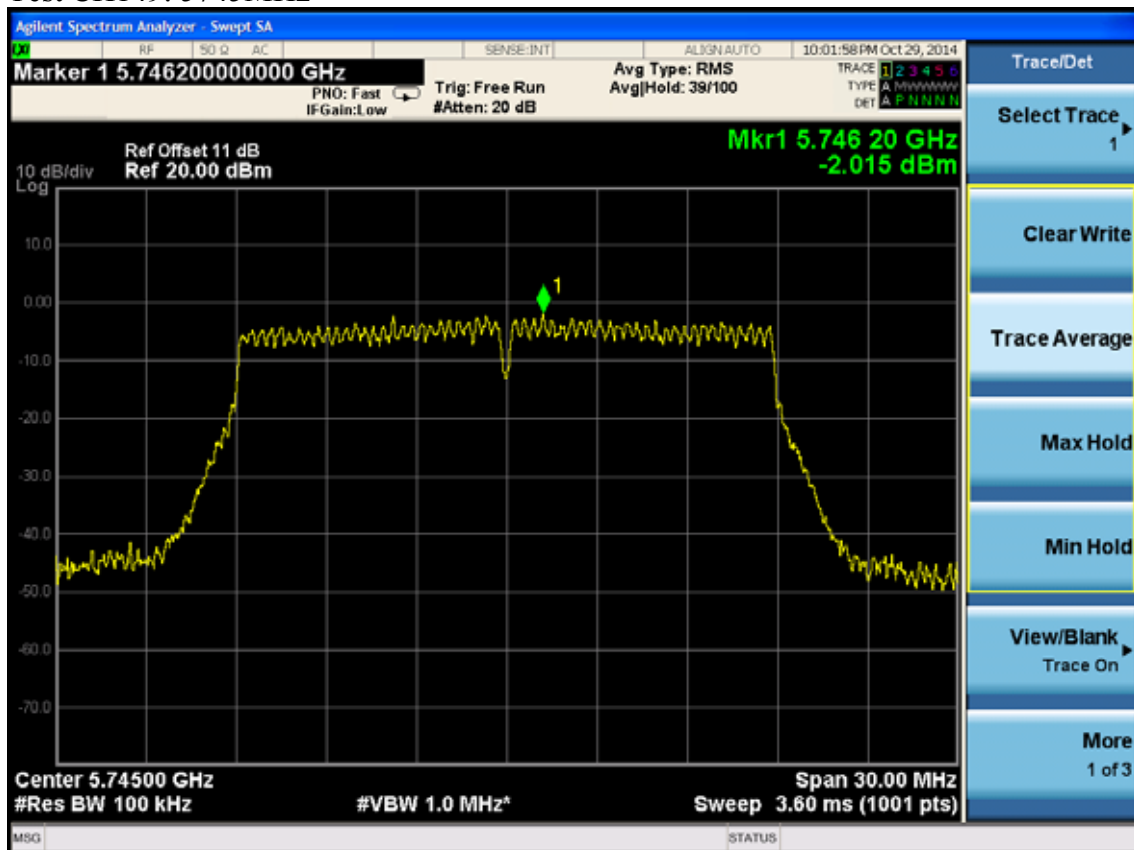


Test CH165: 5825MHz

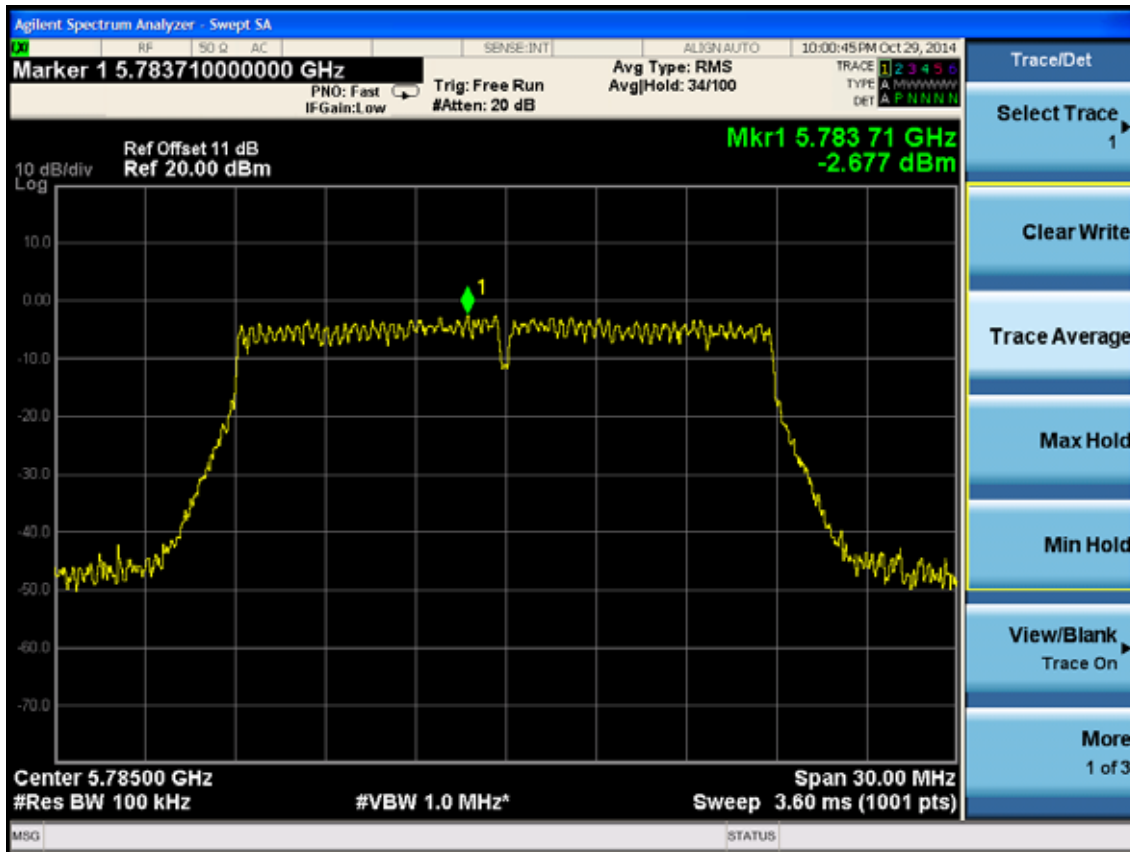


Test Mode: IEEE 802.11n HT20 TX

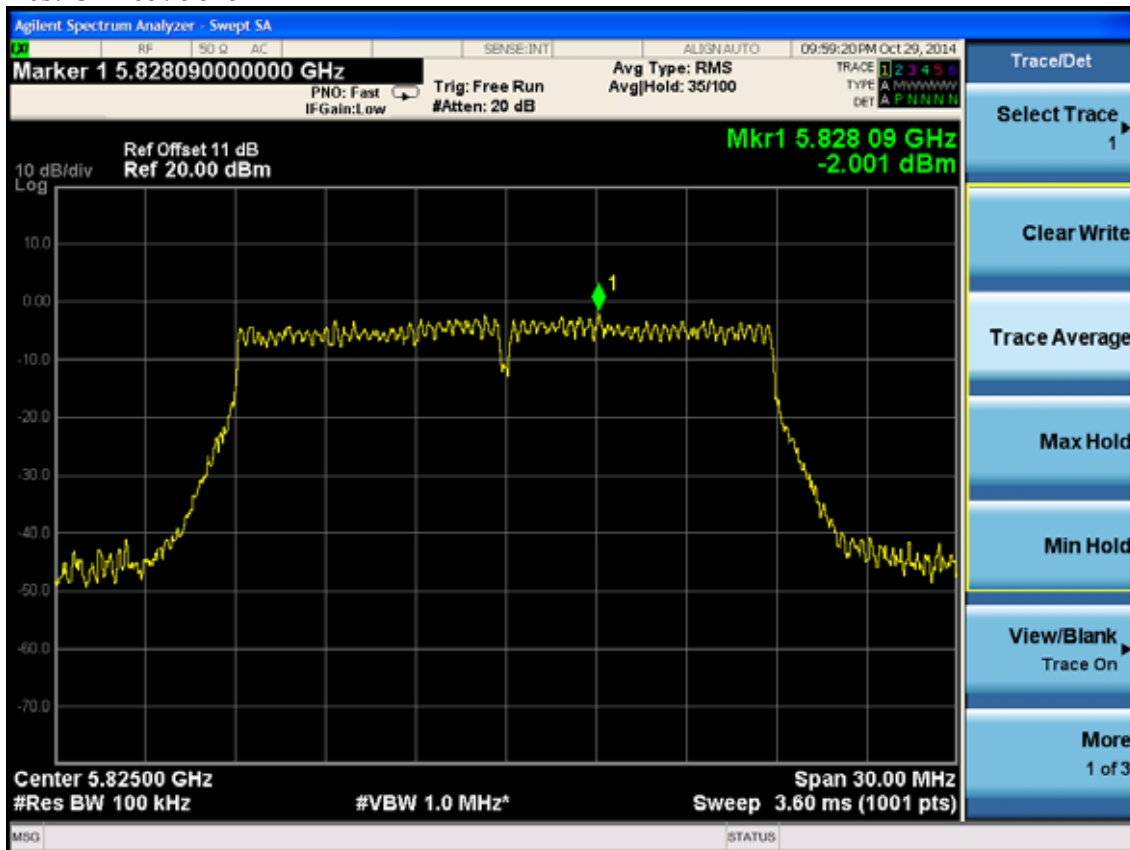
Test CH149: 5745MHz



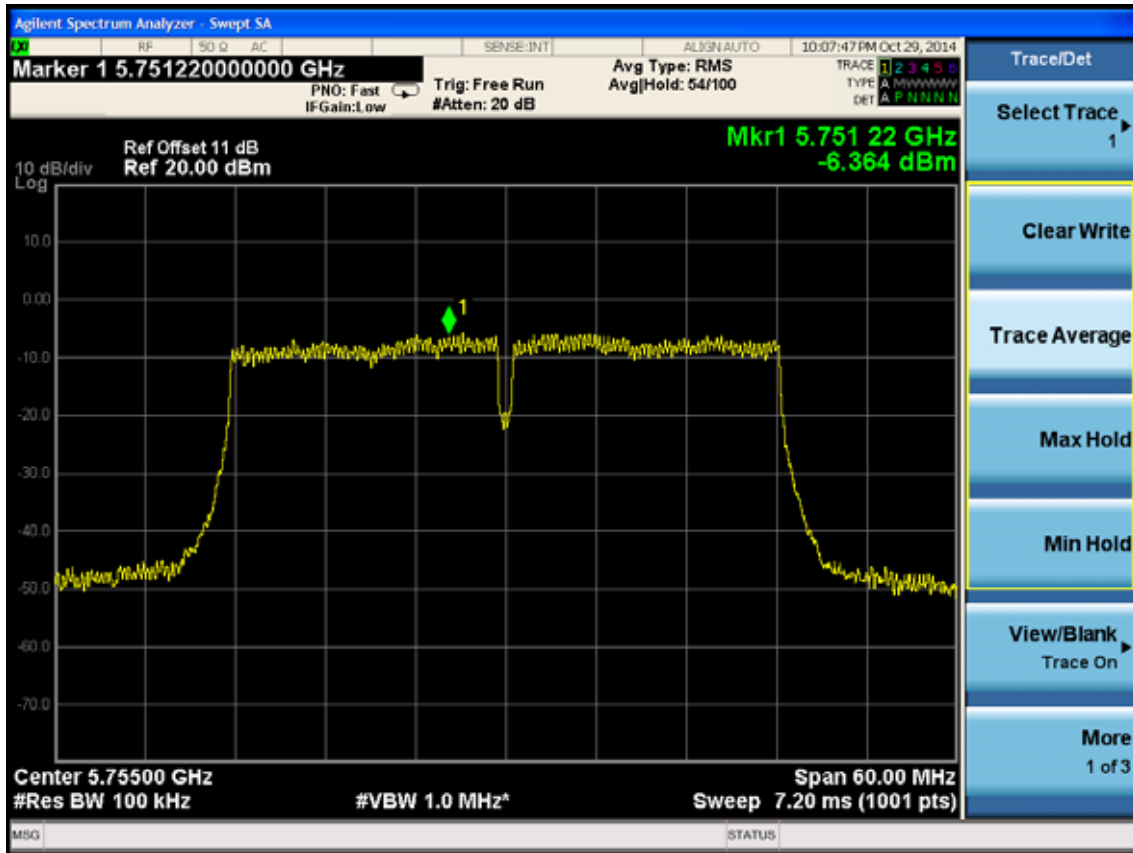
Test CH157: 5785MHz



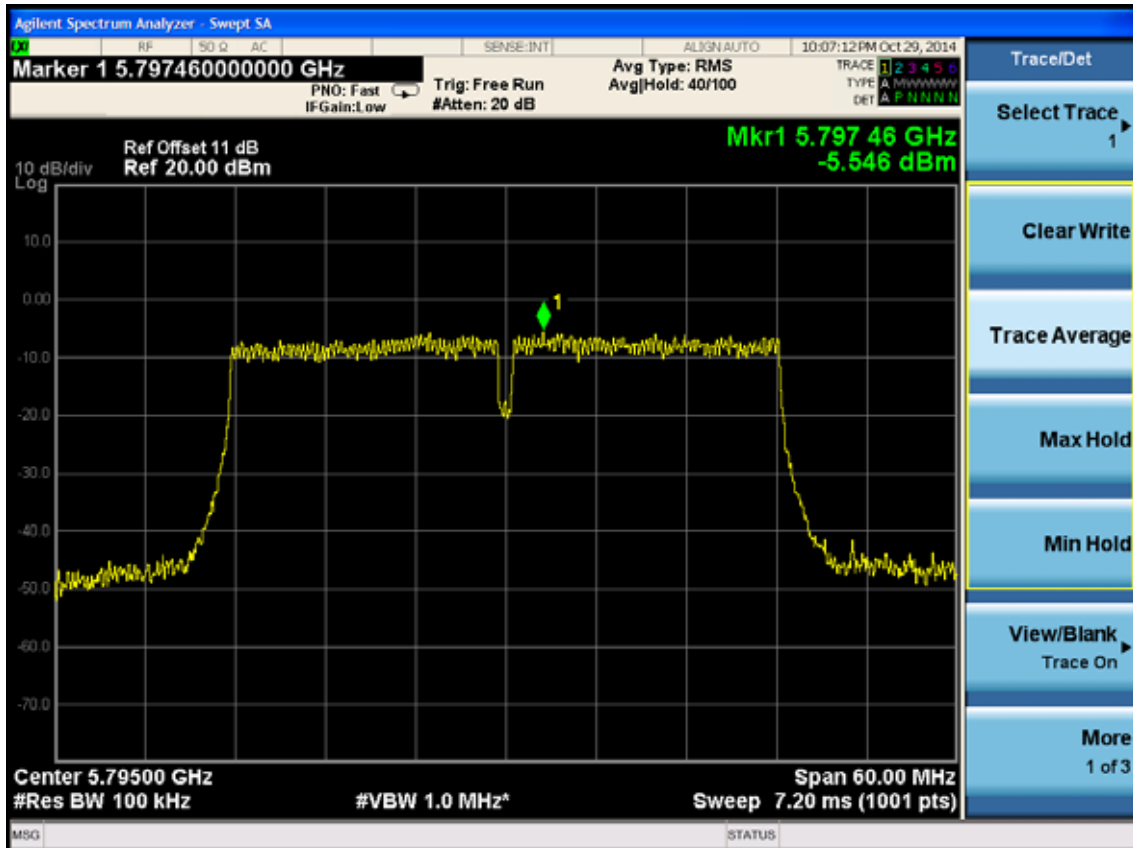
Test CH165: 5825MHz



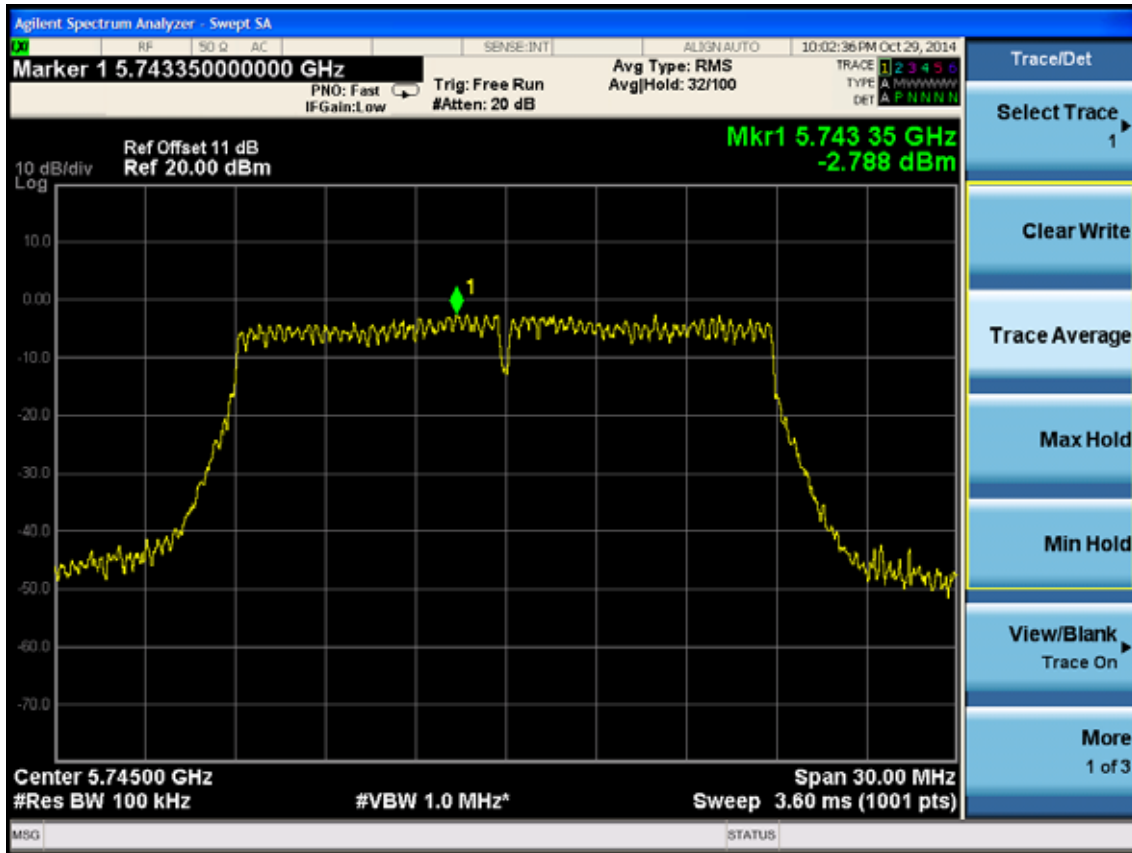
Test Mode: IEEE 802.11n HT40 TX
Test CH151: 5755MHz



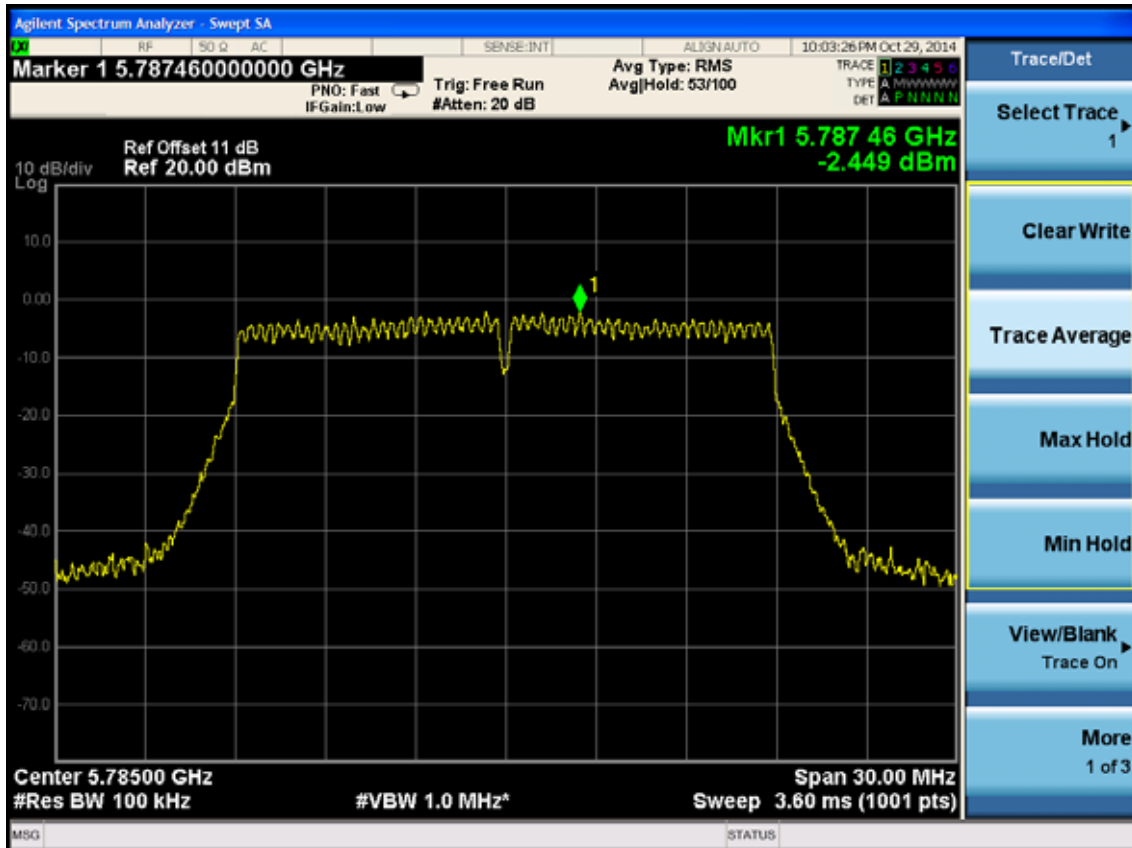
Test CH159: 5795MHz



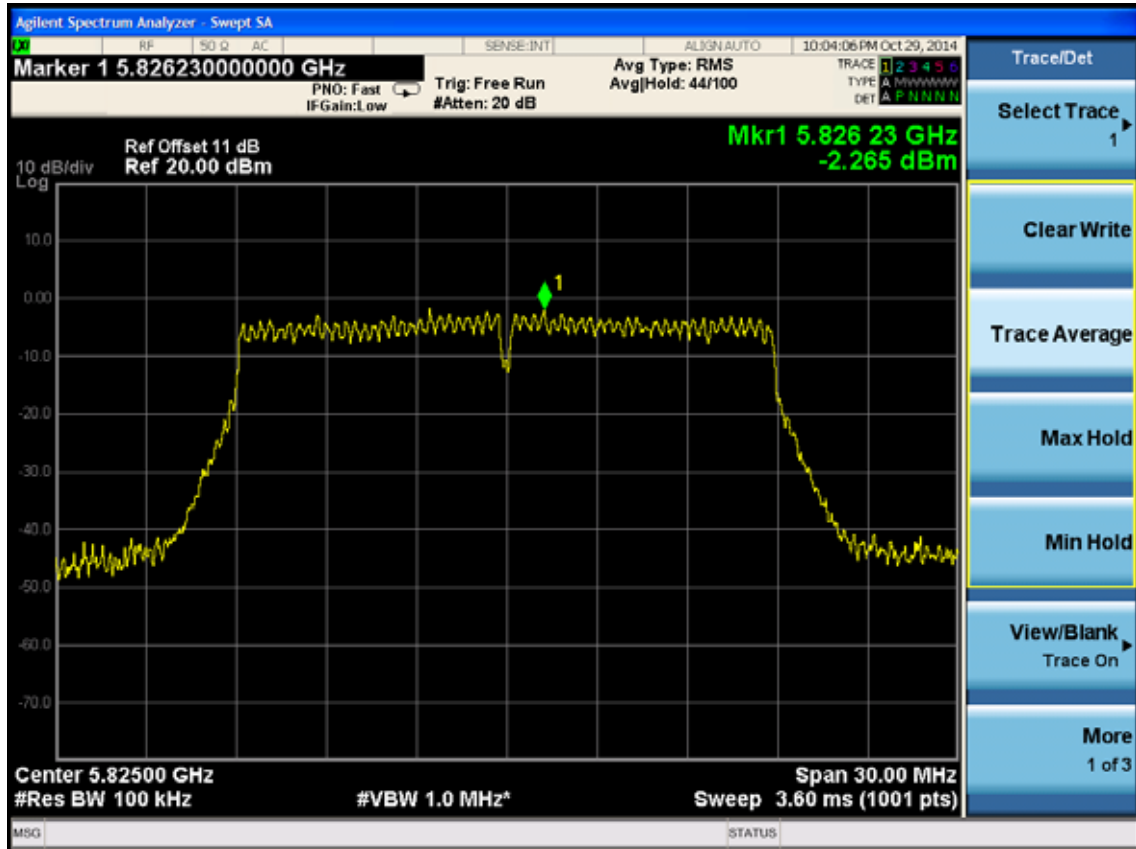
Test Mode: IEEE 802.11ac VHT20 TX
Test CH149: 5745MHz



Test CH157: 5785MHz

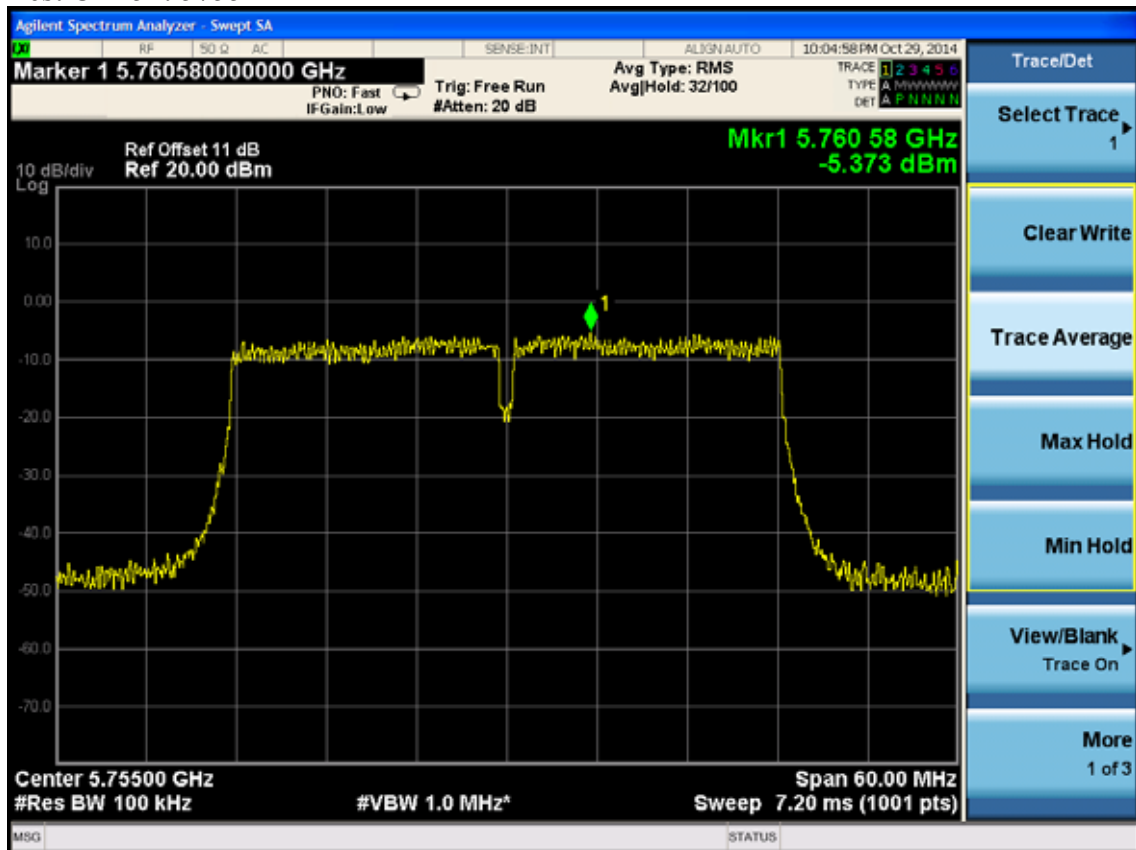


Test CH165: 5825MHz

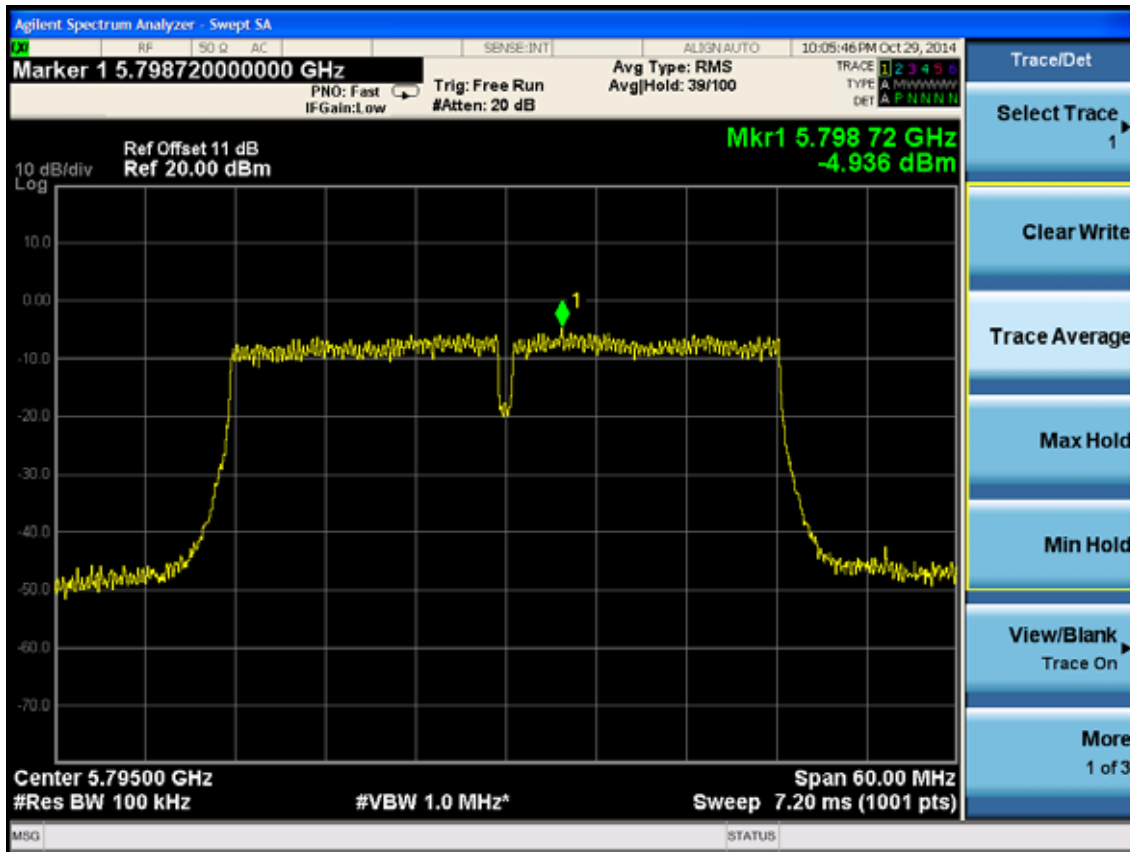


Test Mode: IEEE 802.11ac VHT40TX

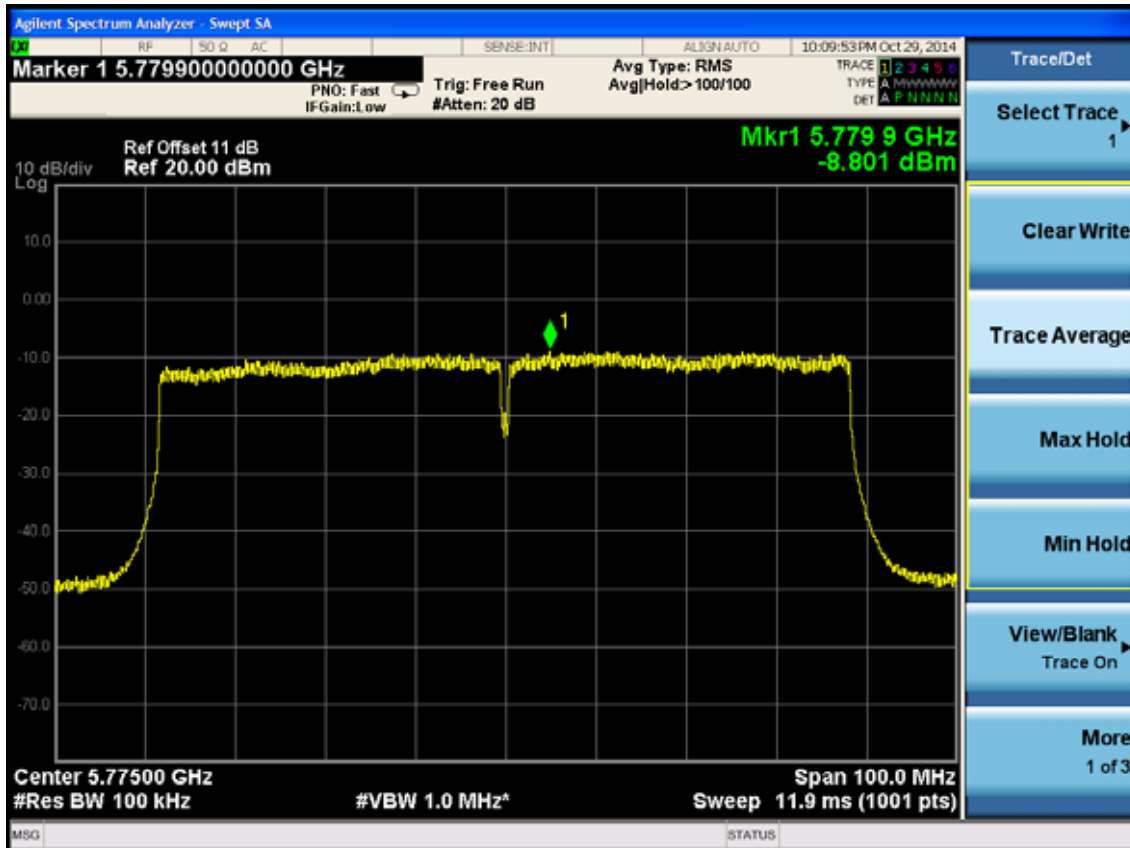
Test CH151: 5755MHz



Test CH159: 5795MHz



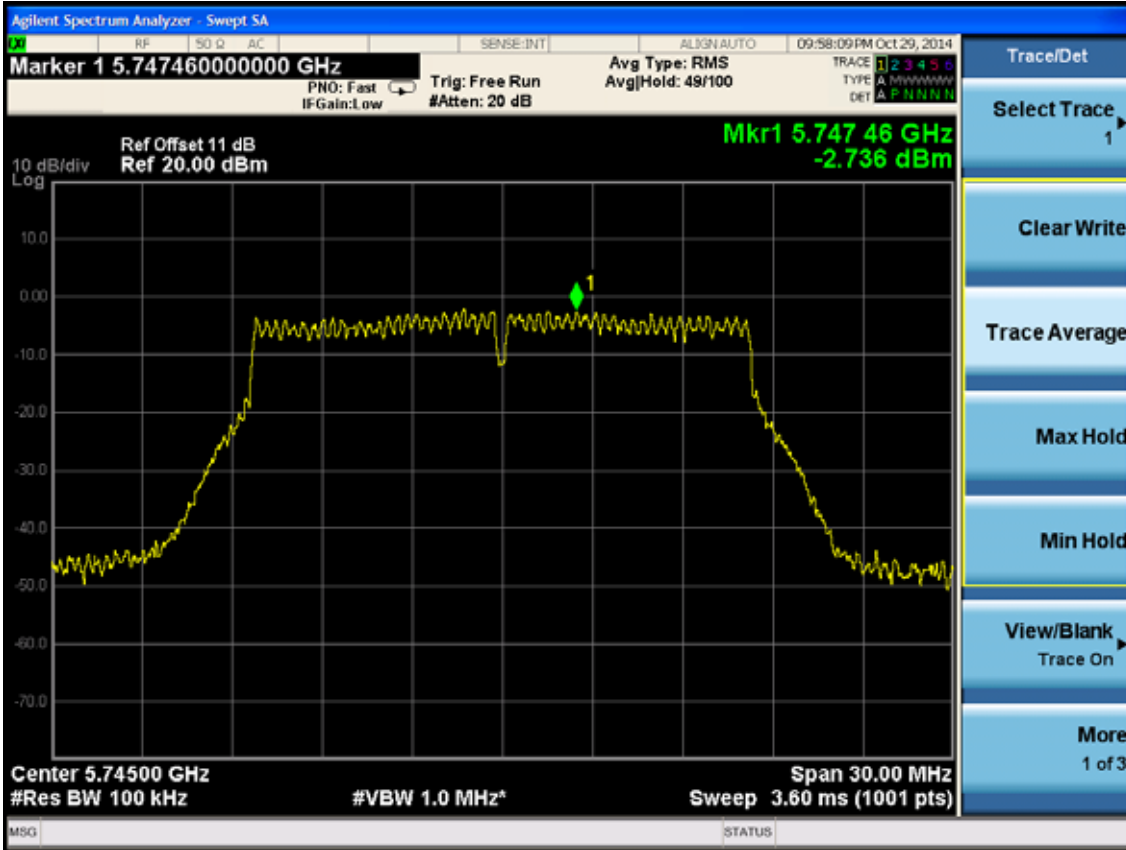
Test Mode: IEEE 802.11ac VHT80TX
Test CH155: 5775MHz



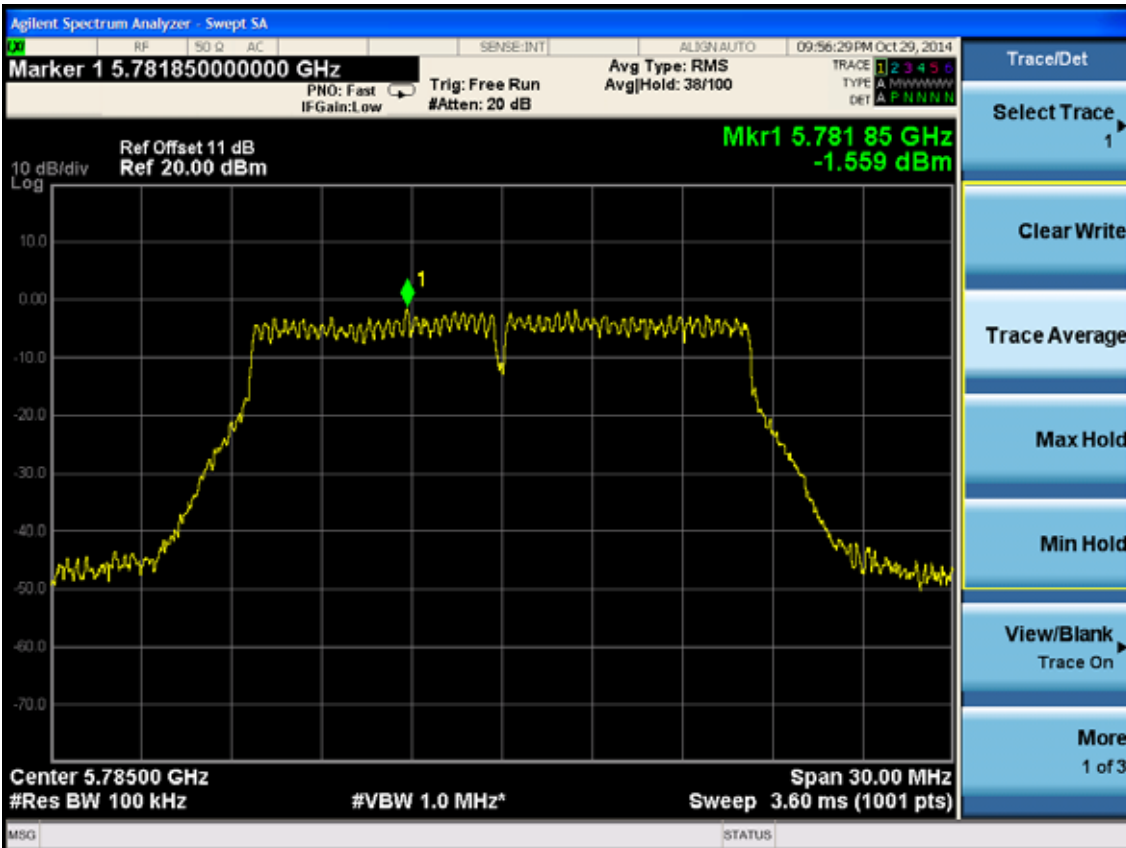
ANT 1:

Test Mode: IEEE 802.11a TX

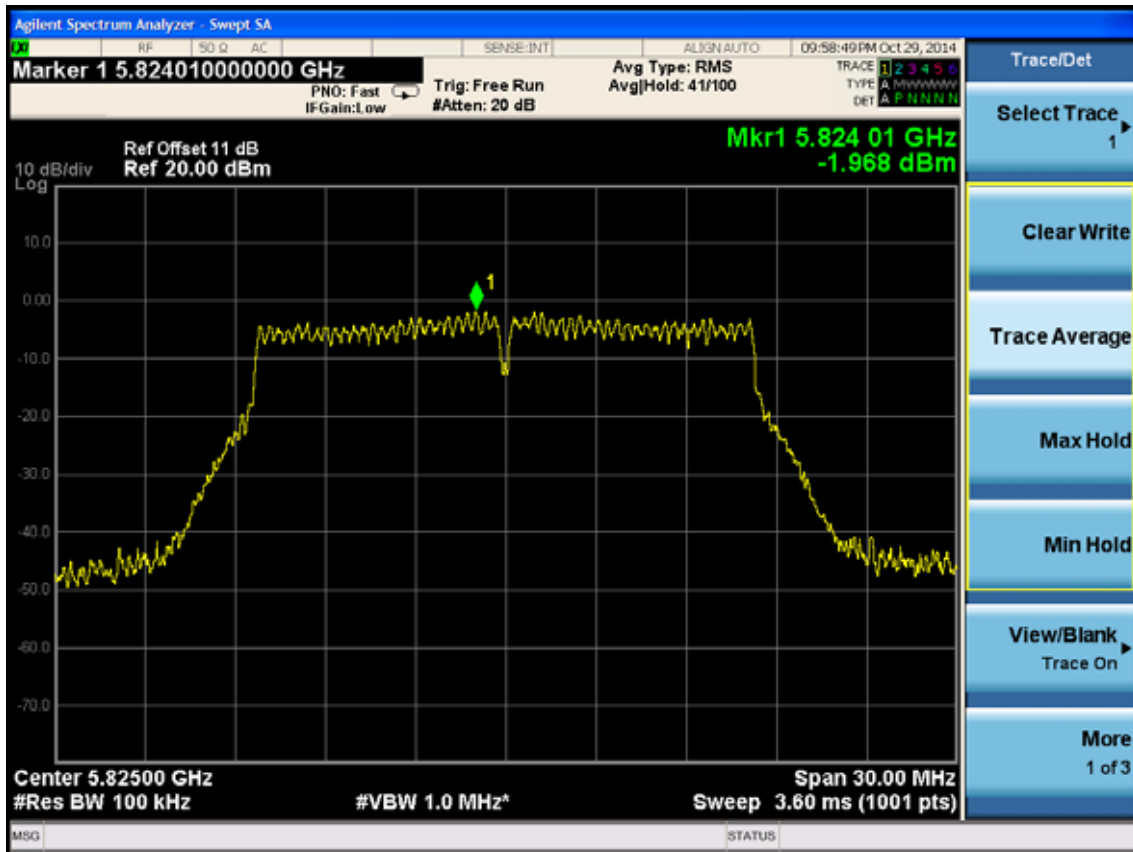
Test CH149: 5745MHz



Test CH157: 5785MHz

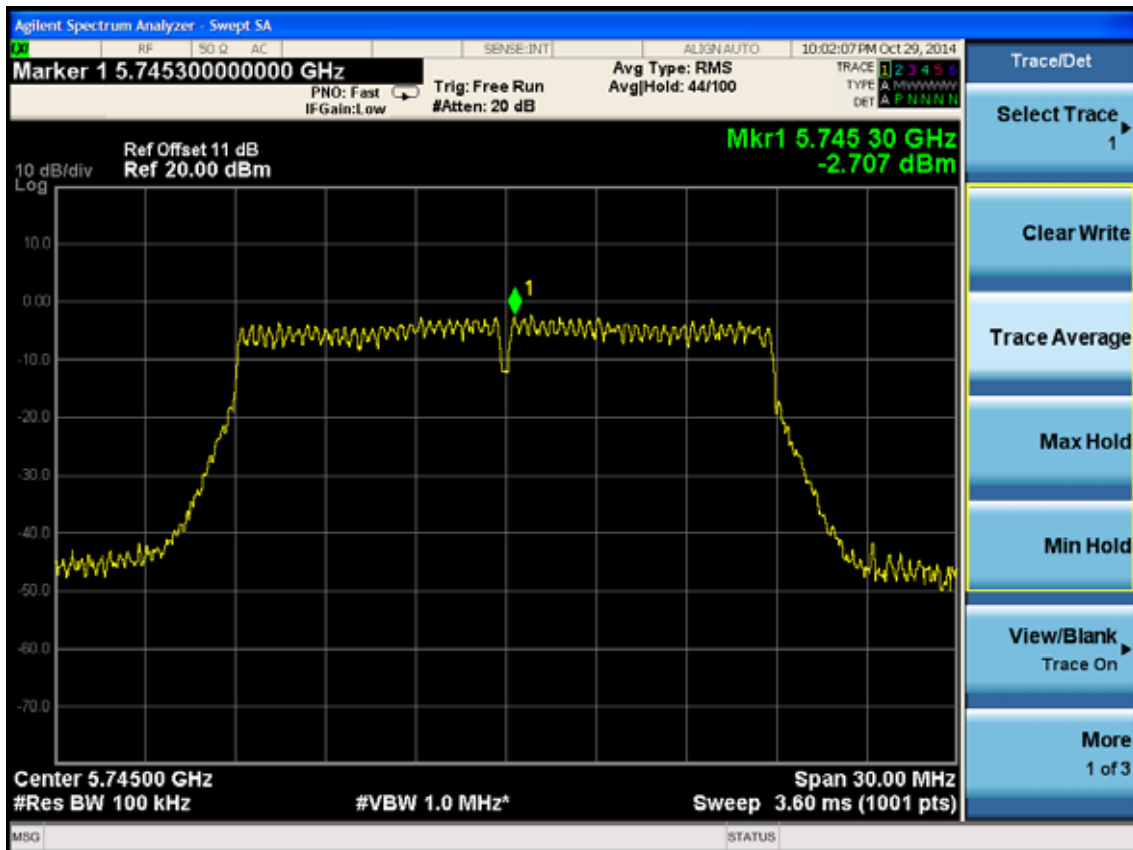


Test CH165: 5825MHz

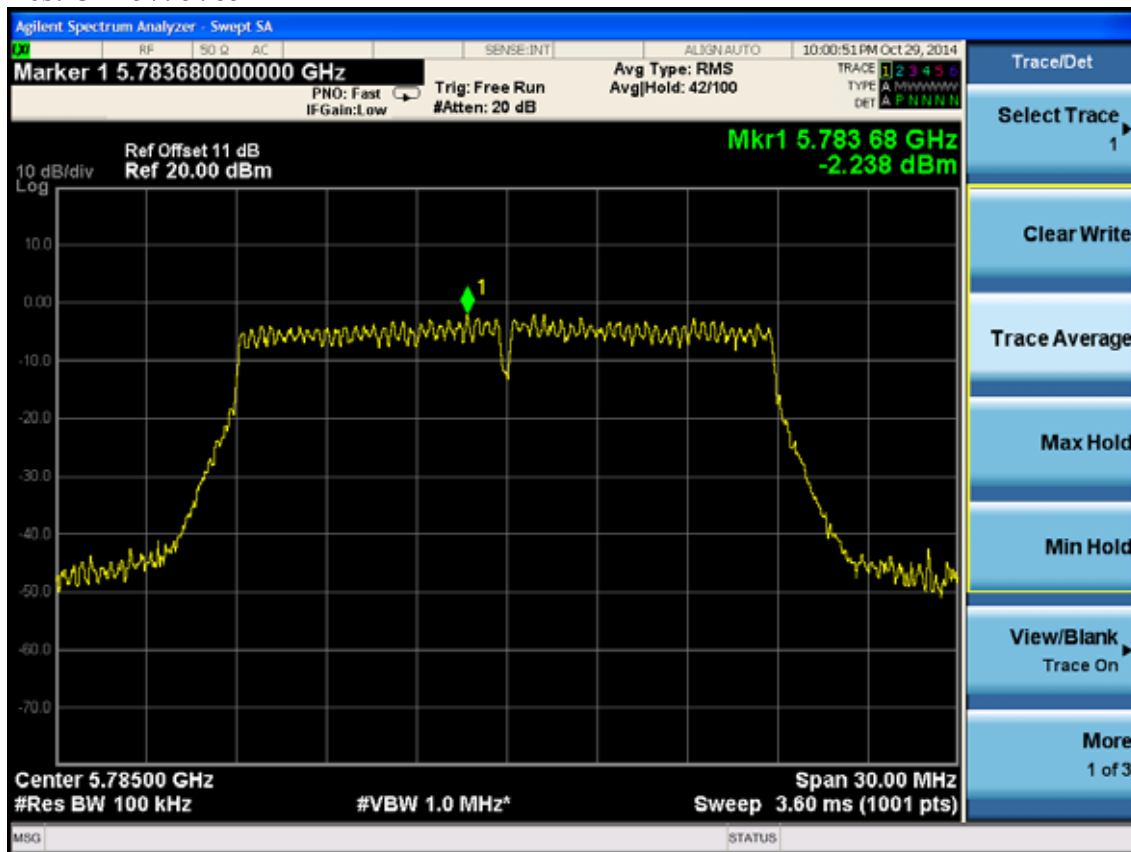


Test Mode: IEEE 802.11n HT20 TX

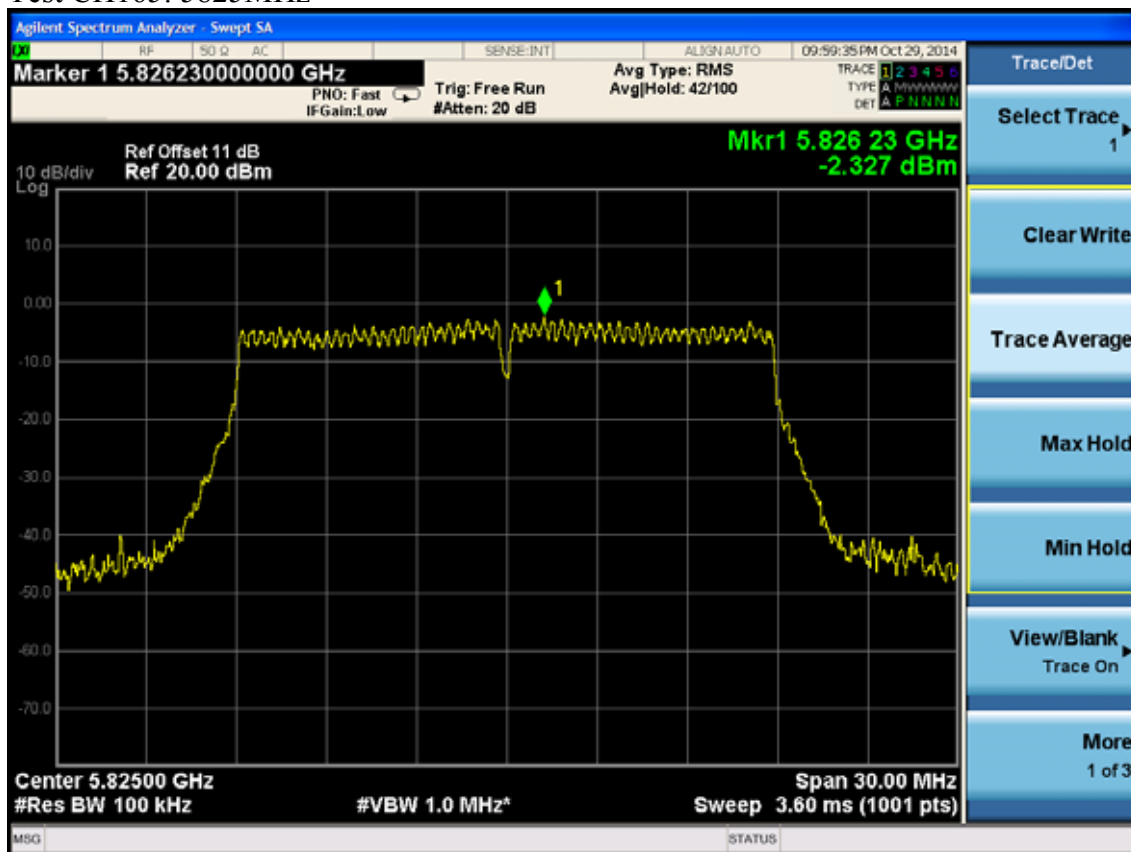
Test CH149: 5745MHz



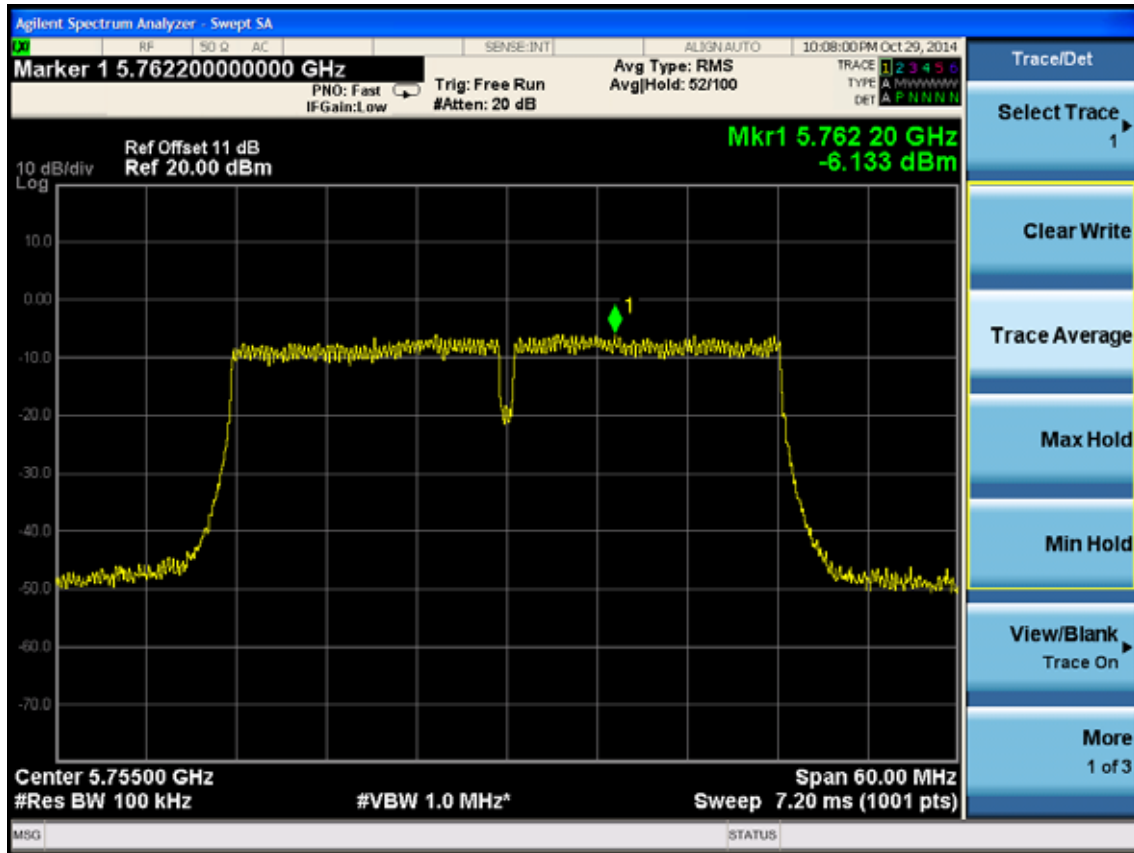
Test CH157: 5785MHz



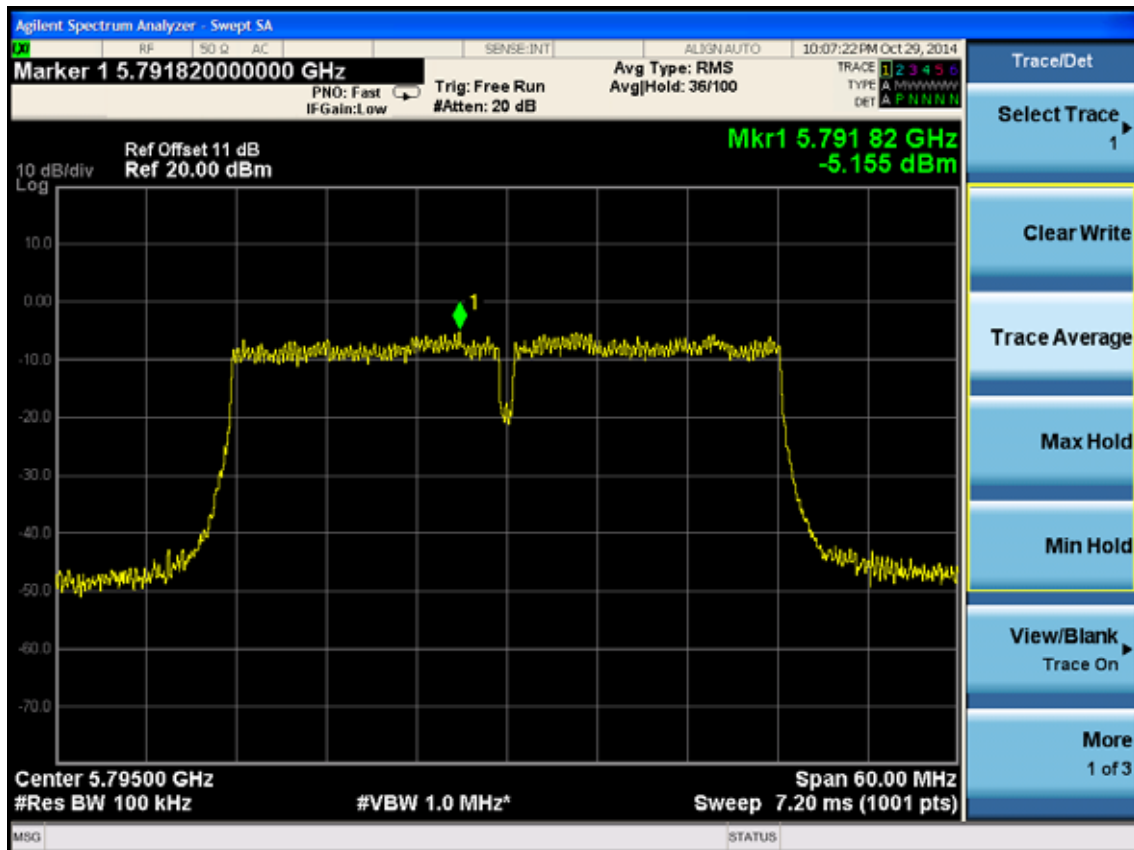
Test CH165: 5825MHz



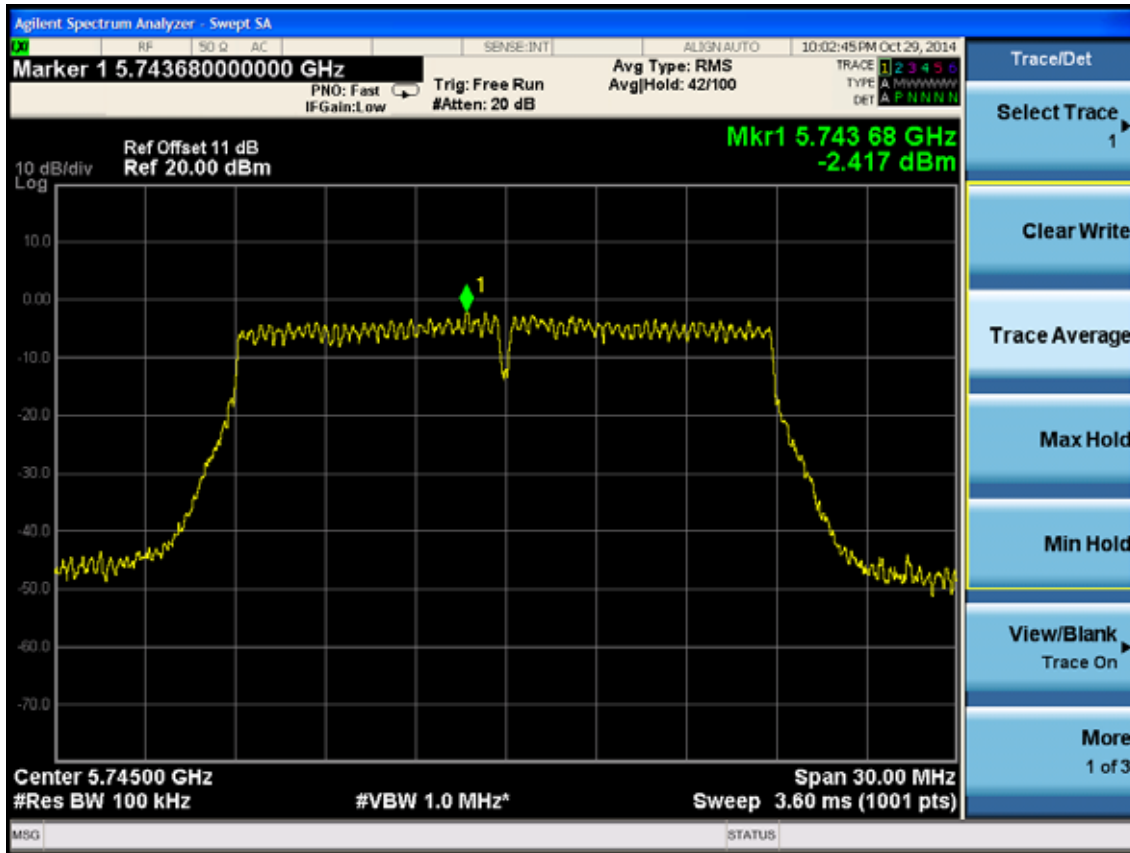
Test Mode: IEEE 802.11n HT40 TX
Test CH151: 5755MHz



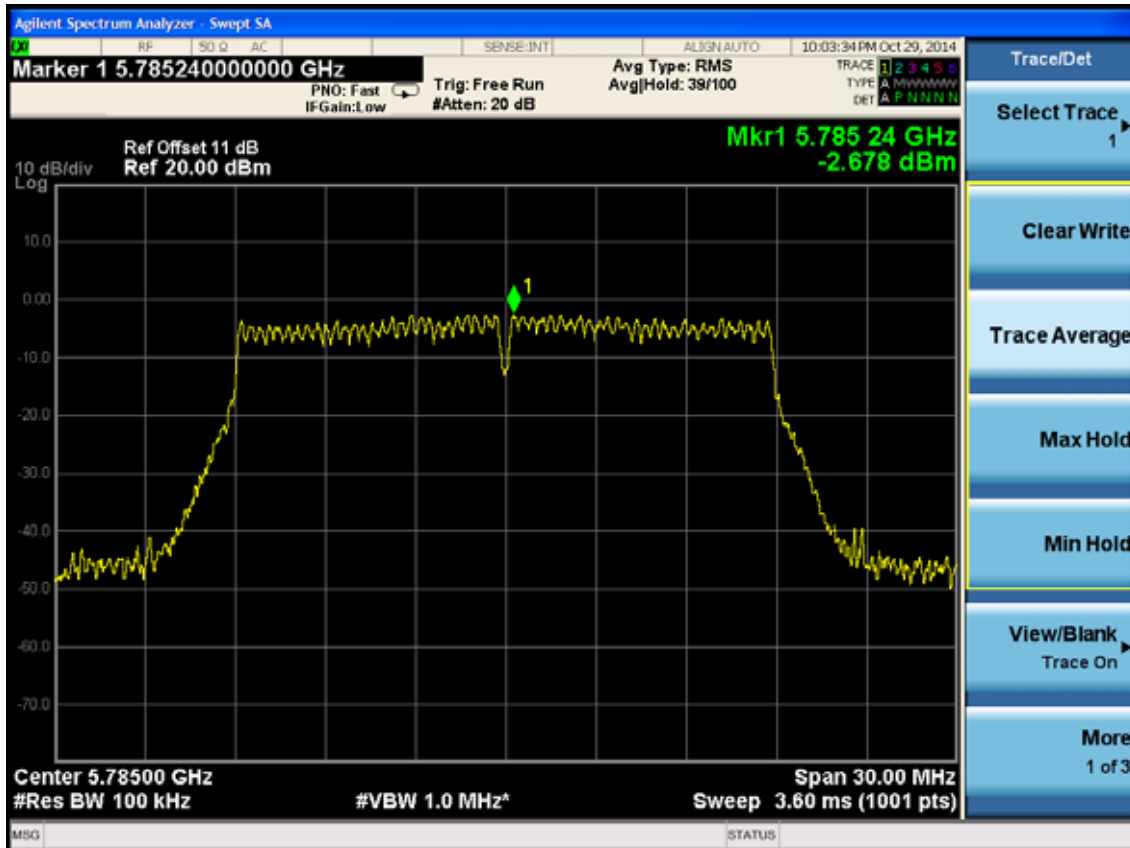
Test CH159: 5795MHz



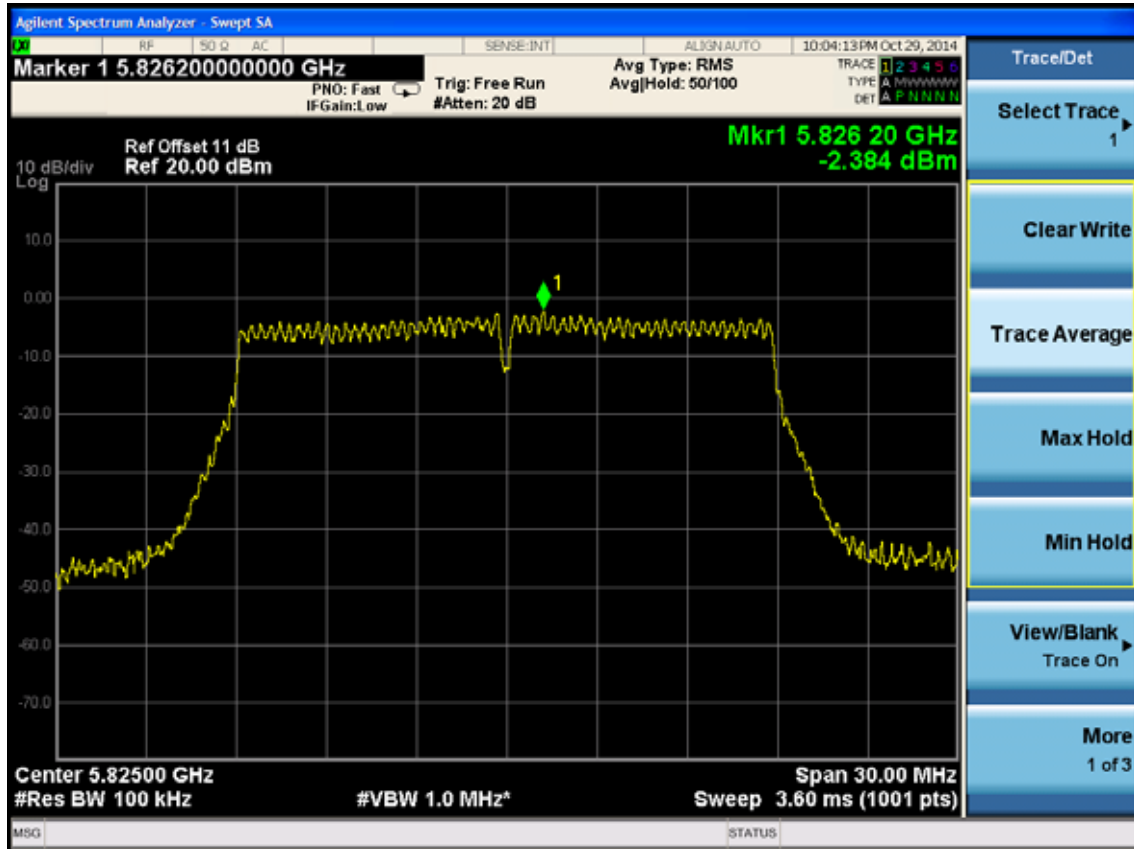
Test Mode: IEEE 802.11ac VHT20 TX
Test CH149: 5745MHz



Test CH157: 5785MHz

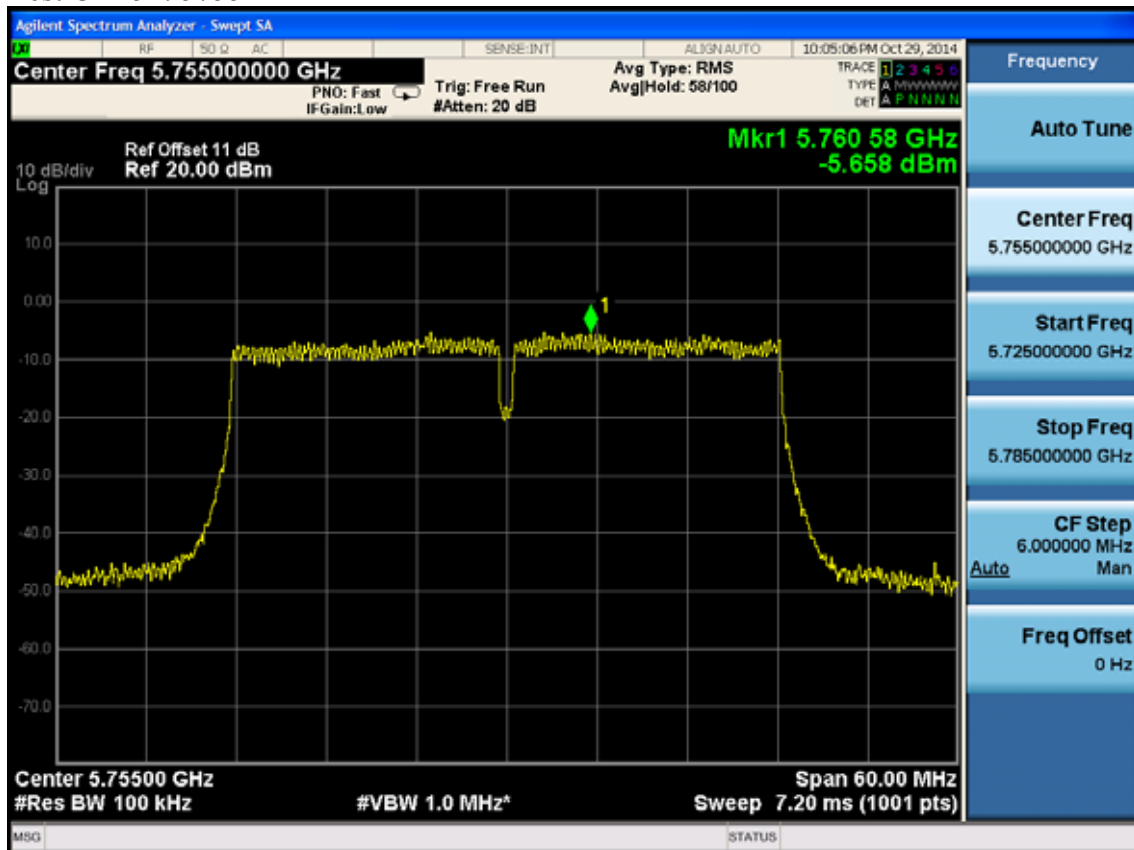


Test CH165: 5825MHz

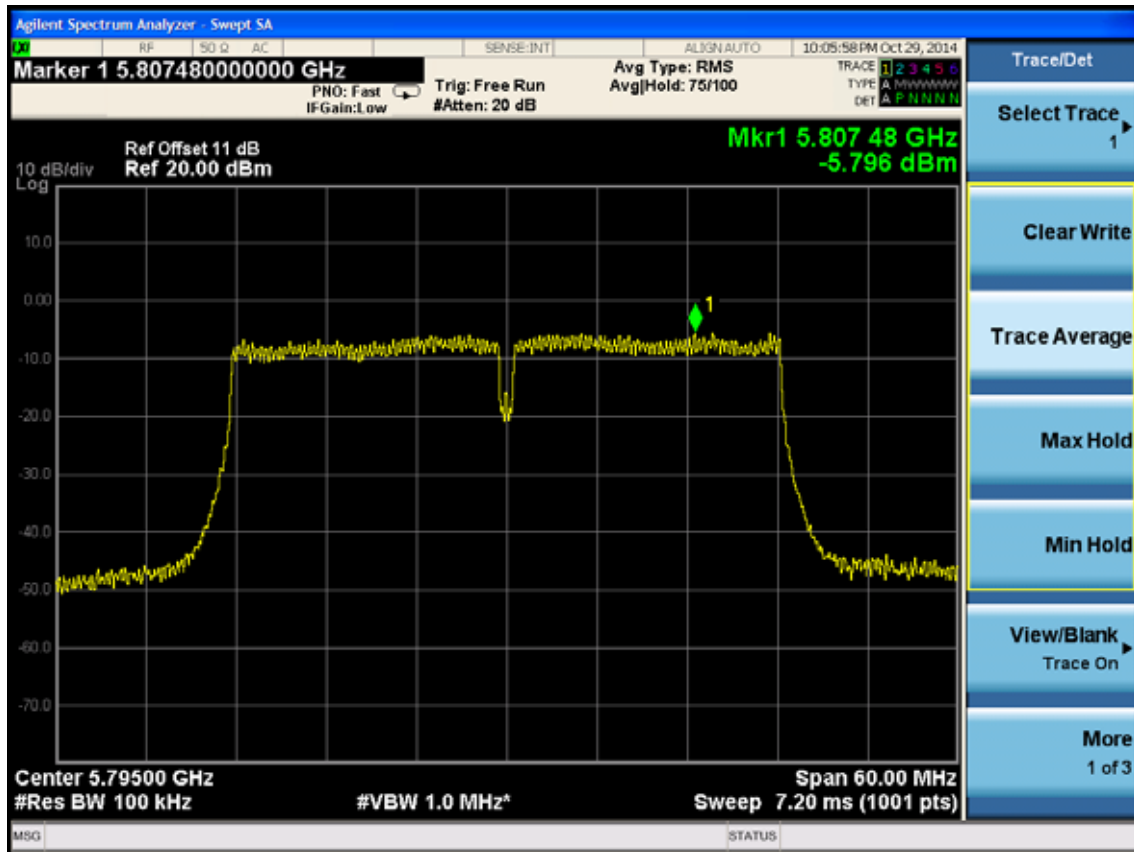


Test Mode: IEEE 802.11ac VHT40TX

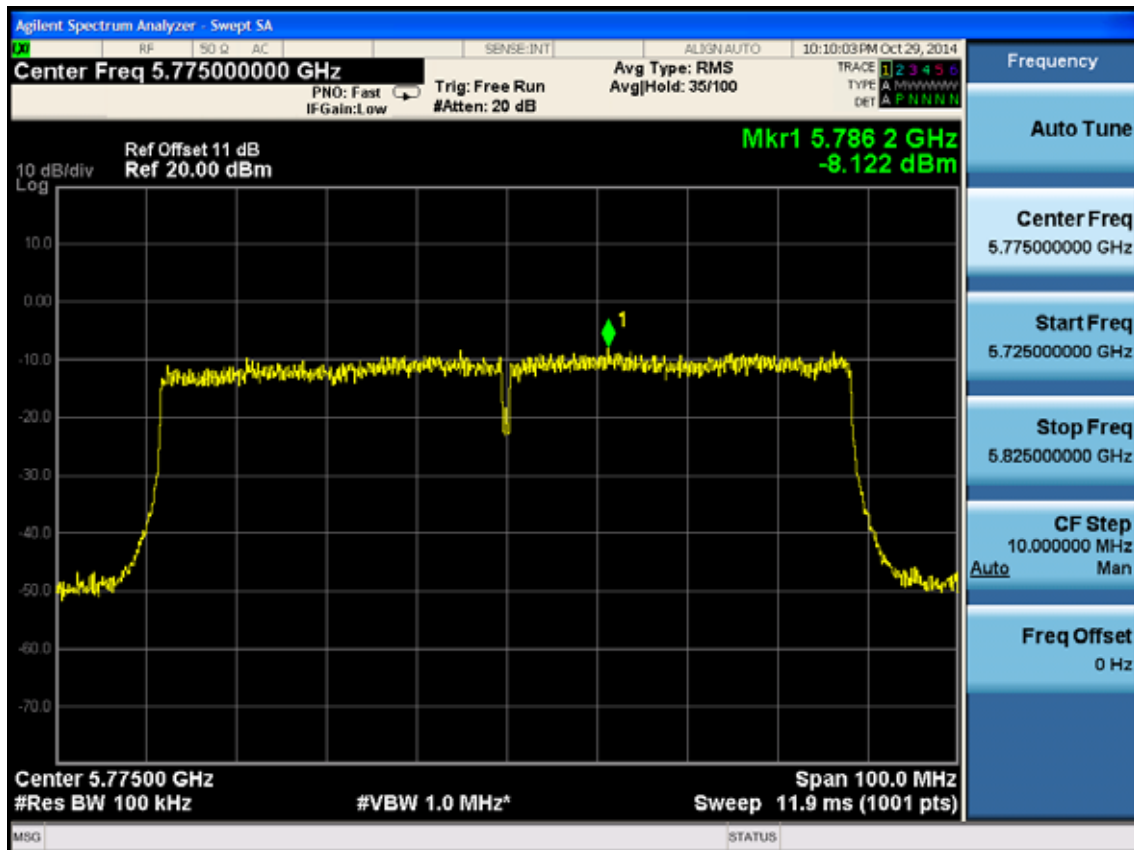
Test CH151: 5755MHz



Test CH159: 5795MHz



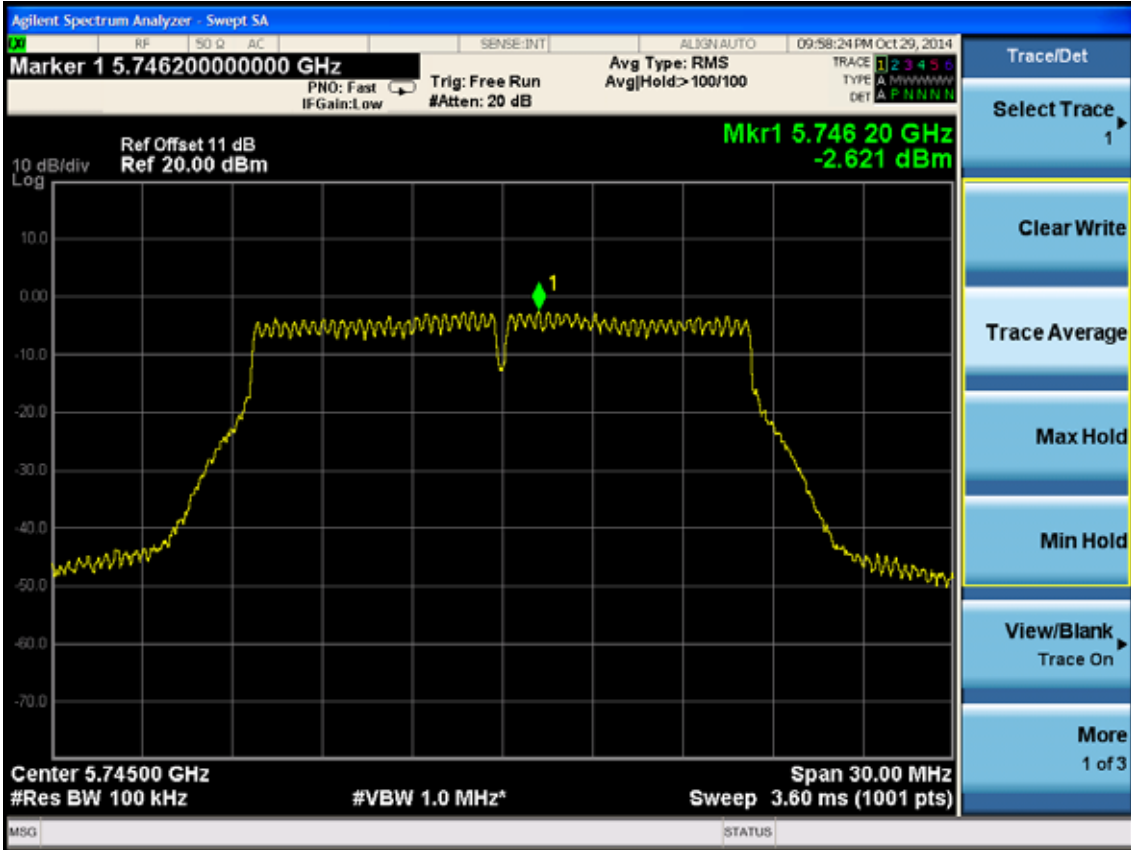
Test Mode: IEEE 802.11ac VHT80TX
Test CH155: 5775MHz



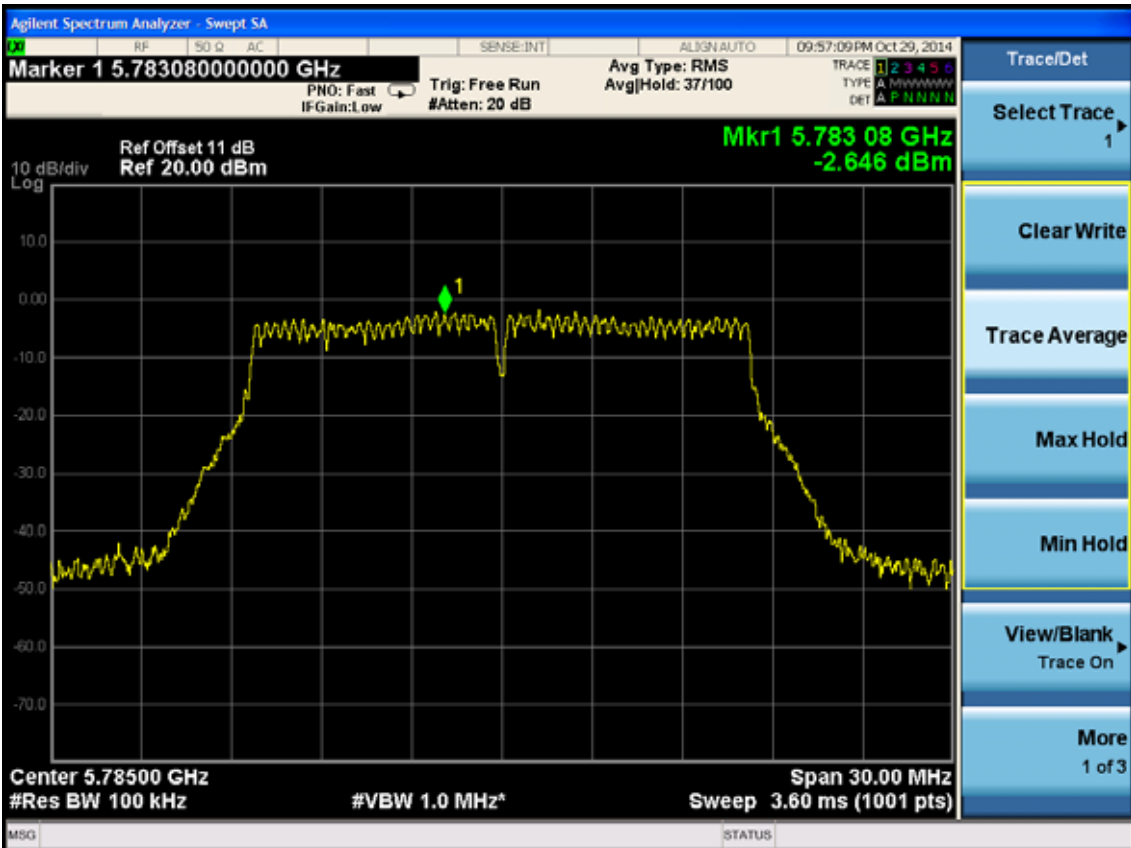
ANT 2:

Test Mode: IEEE 802.11a TX

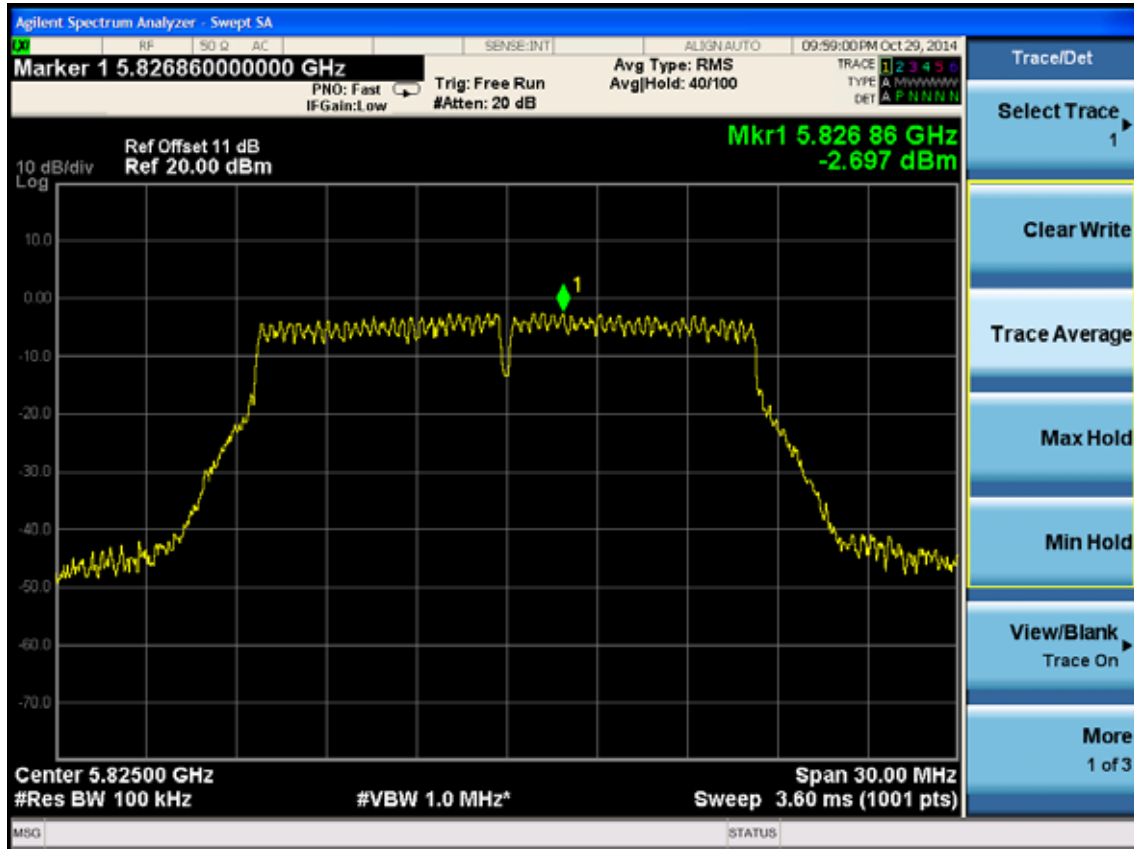
Test CH149: 5745MHz



Test CH157: 5785MHz

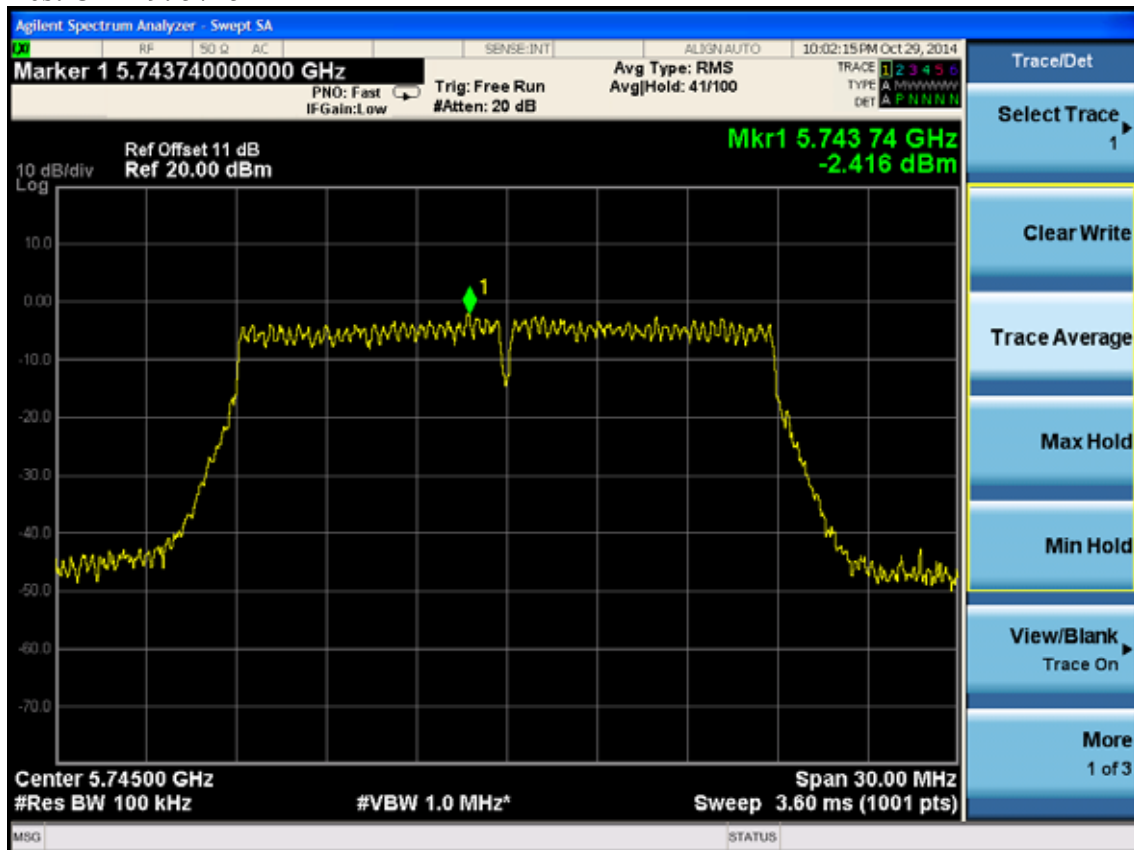


Test CH165: 5825MHz

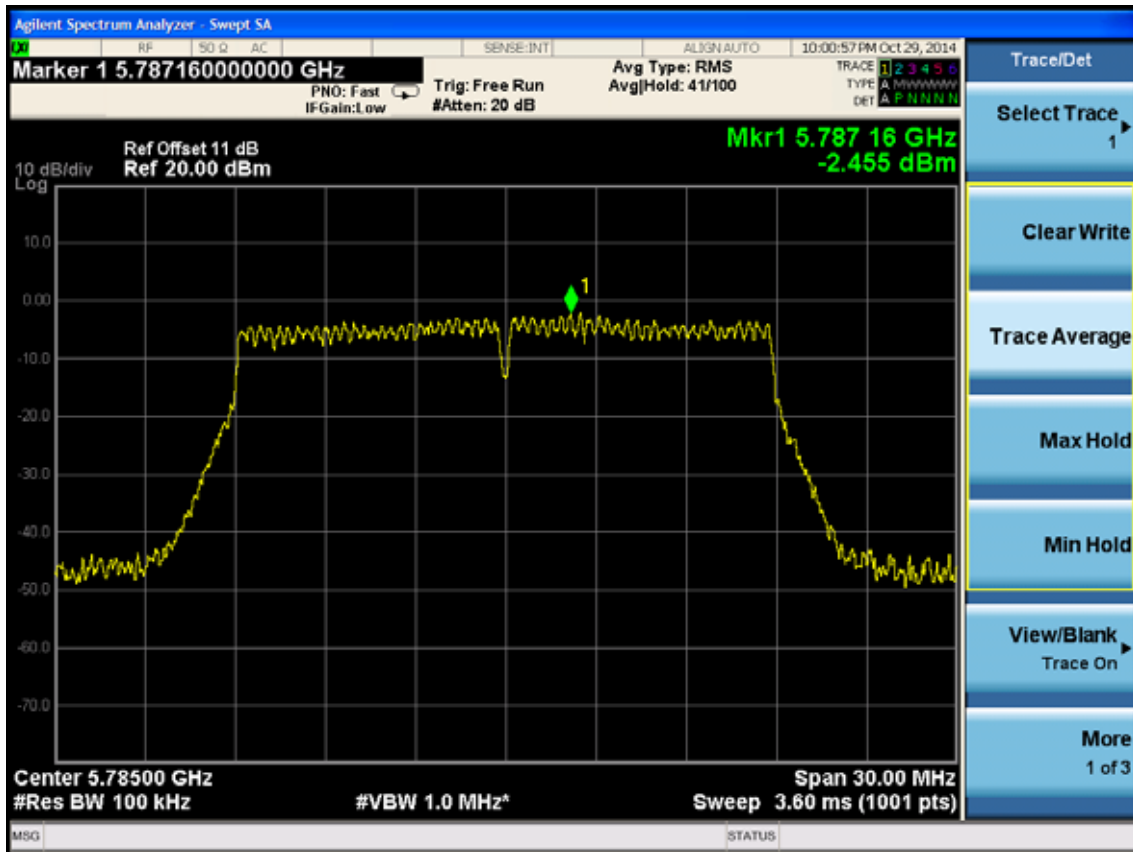


Test Mode: IEEE 802.11n HT20 TX

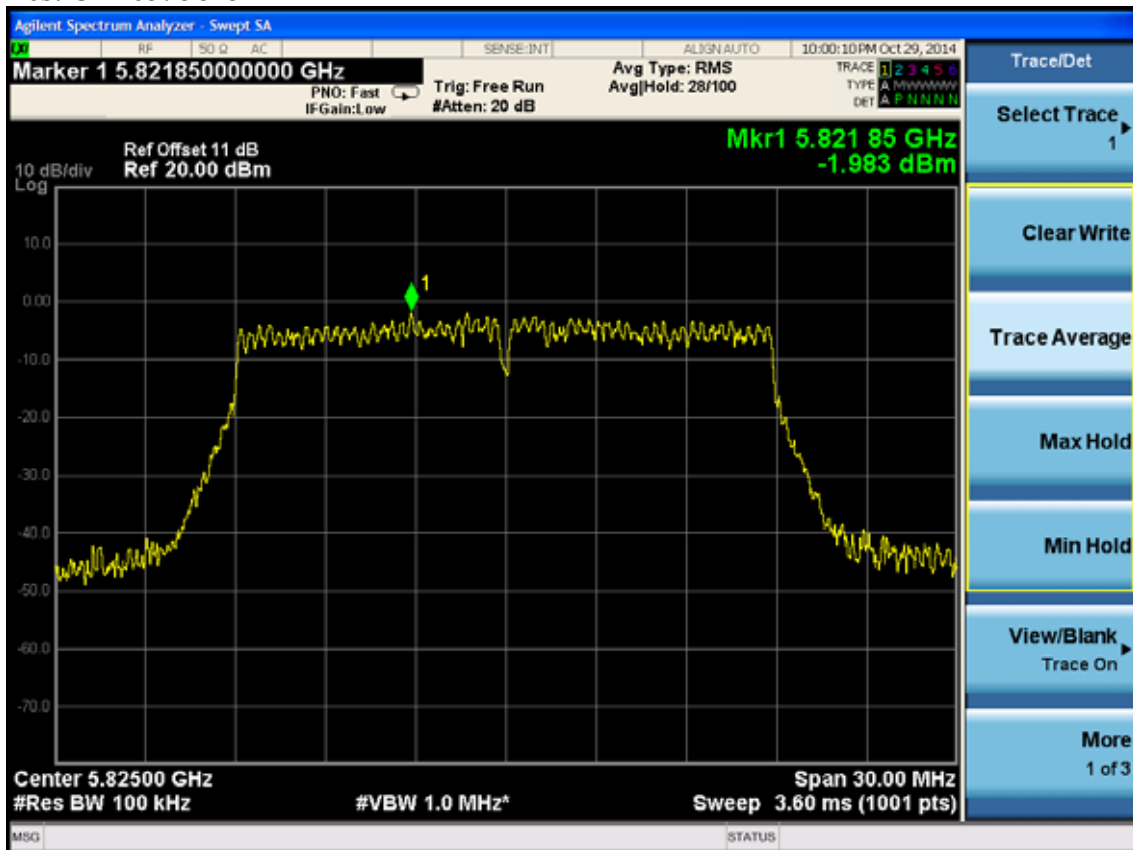
Test CH149: 5745MHz



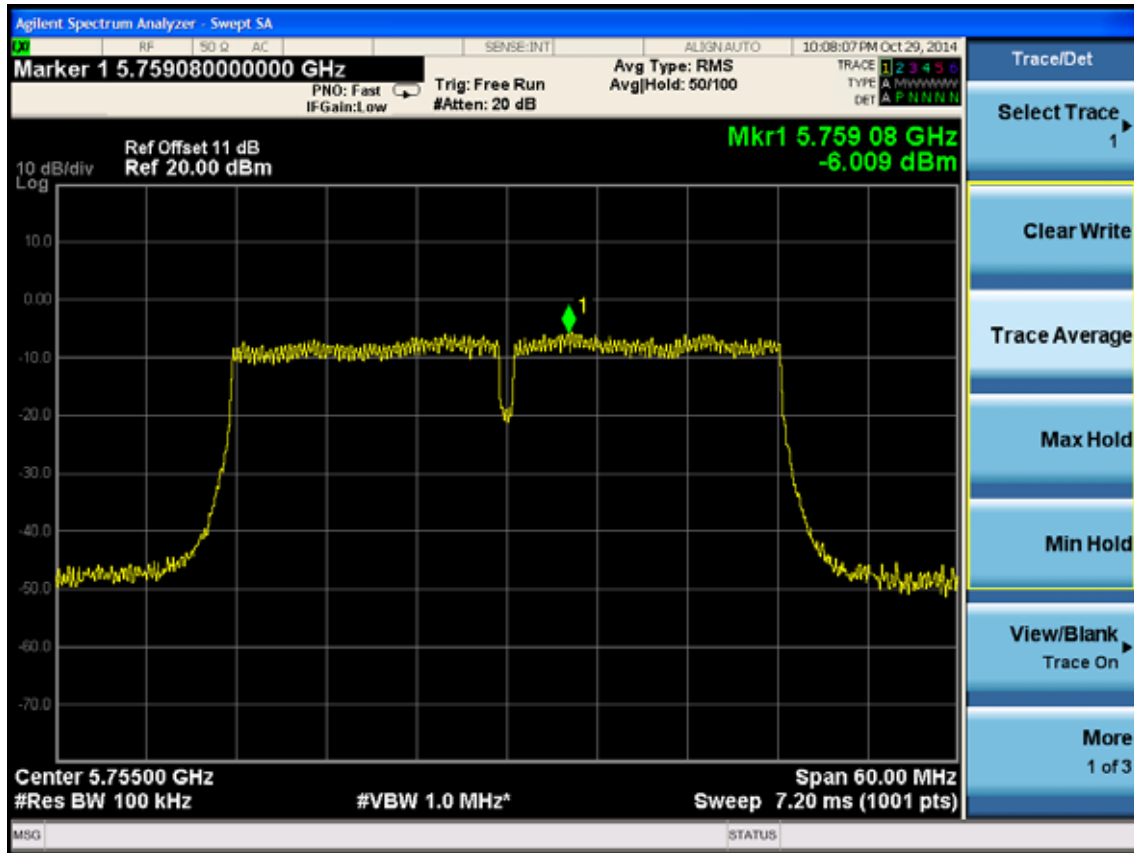
Test CH157: 5785MHz



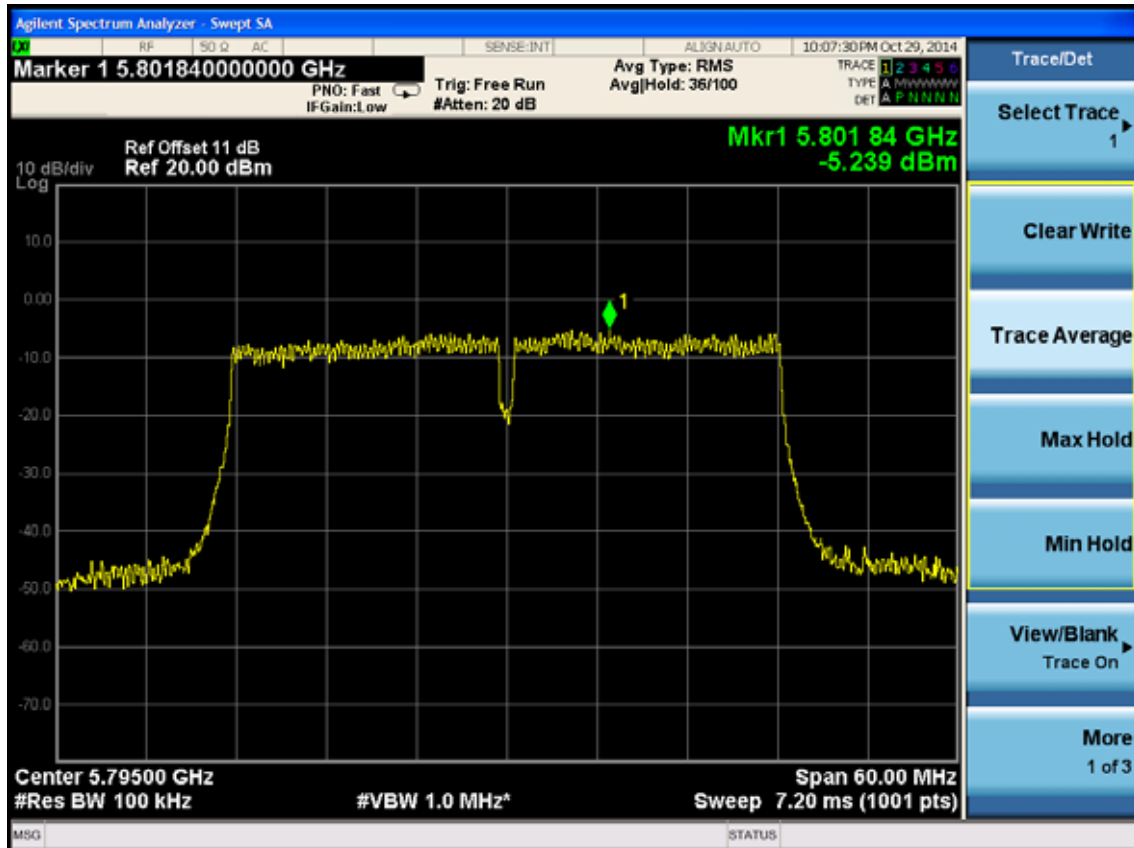
Test CH165: 5825MHz



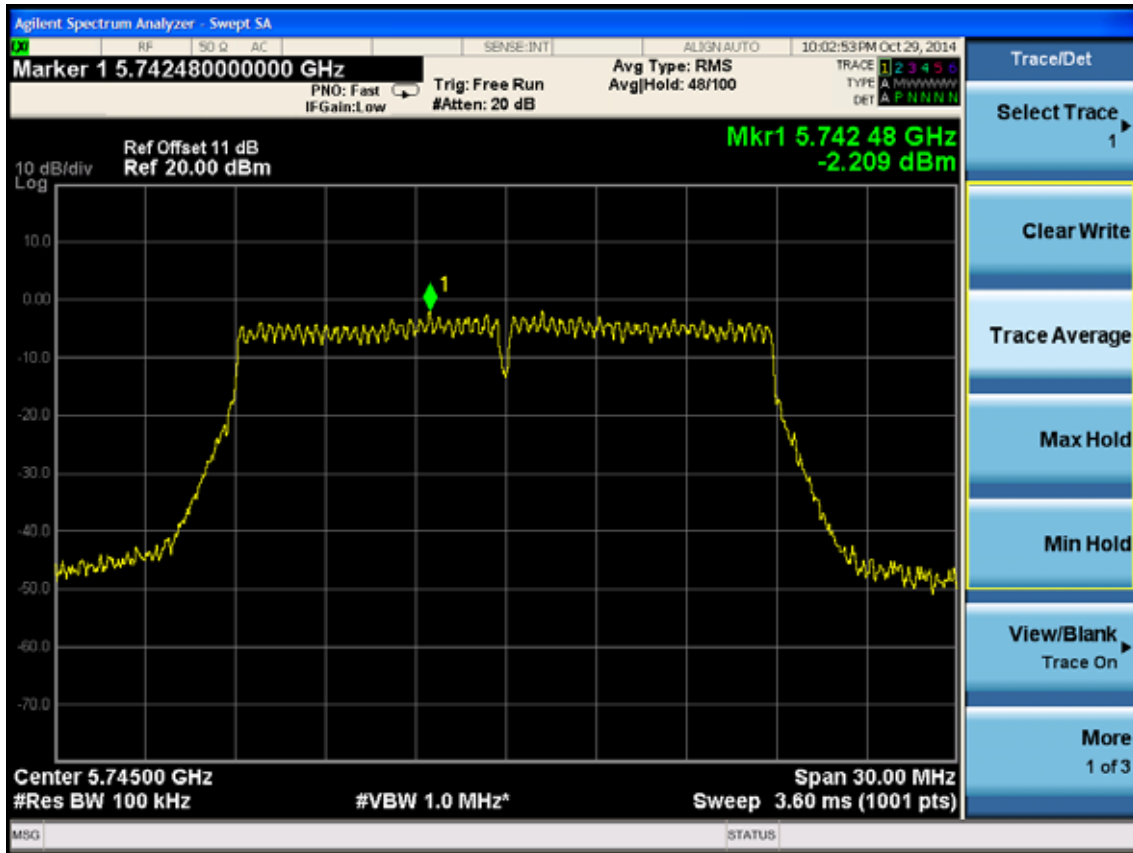
Test Mode: IEEE 802.11n HT40 TX
 Test CH151: 5755MHz



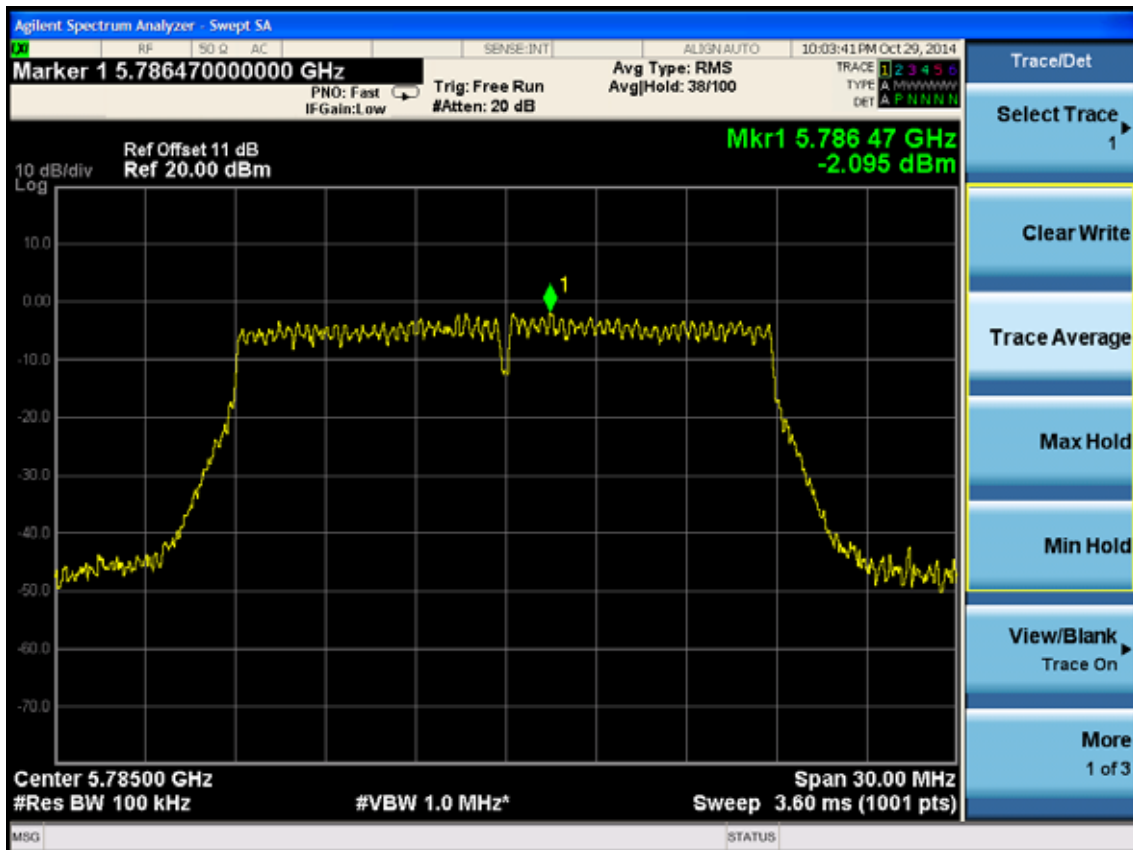
Test CH159: 5795MHz



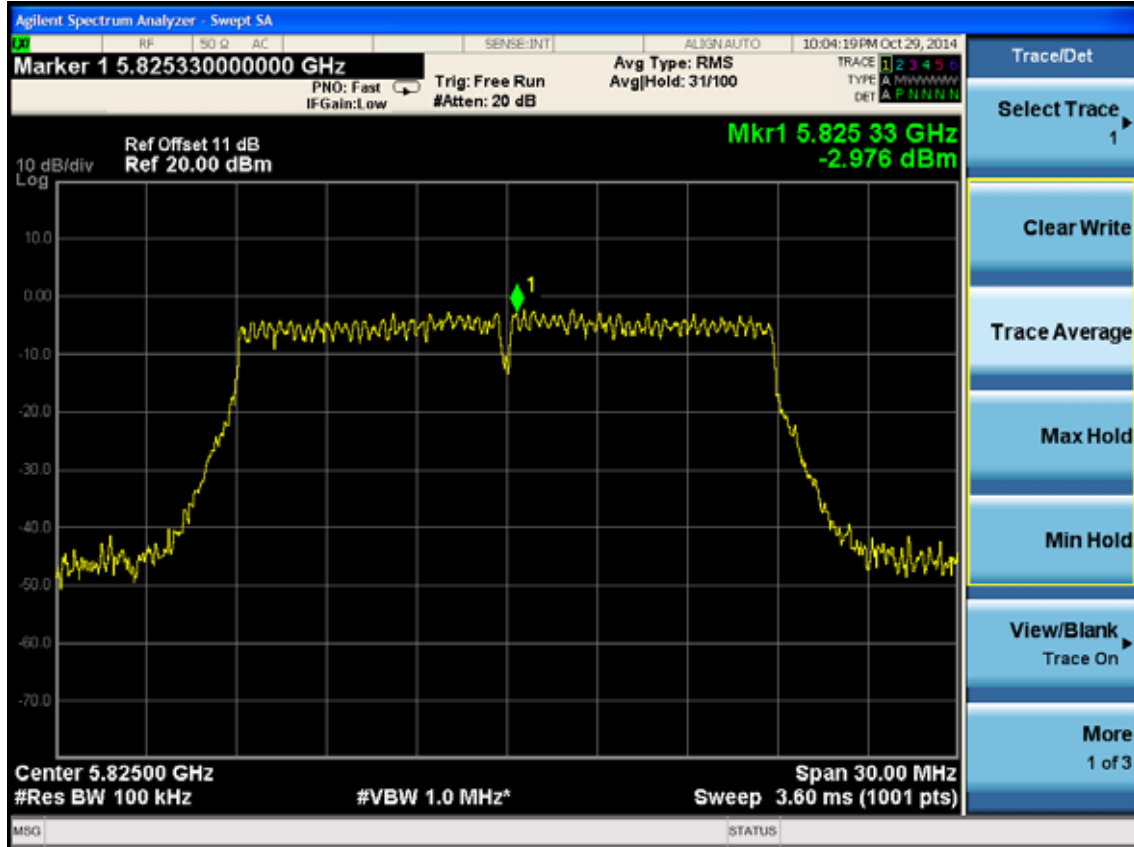
Test Mode: IEEE 802.11ac VHT20 TX
Test CH149: 5745MHz



Test CH157: 5785MHz

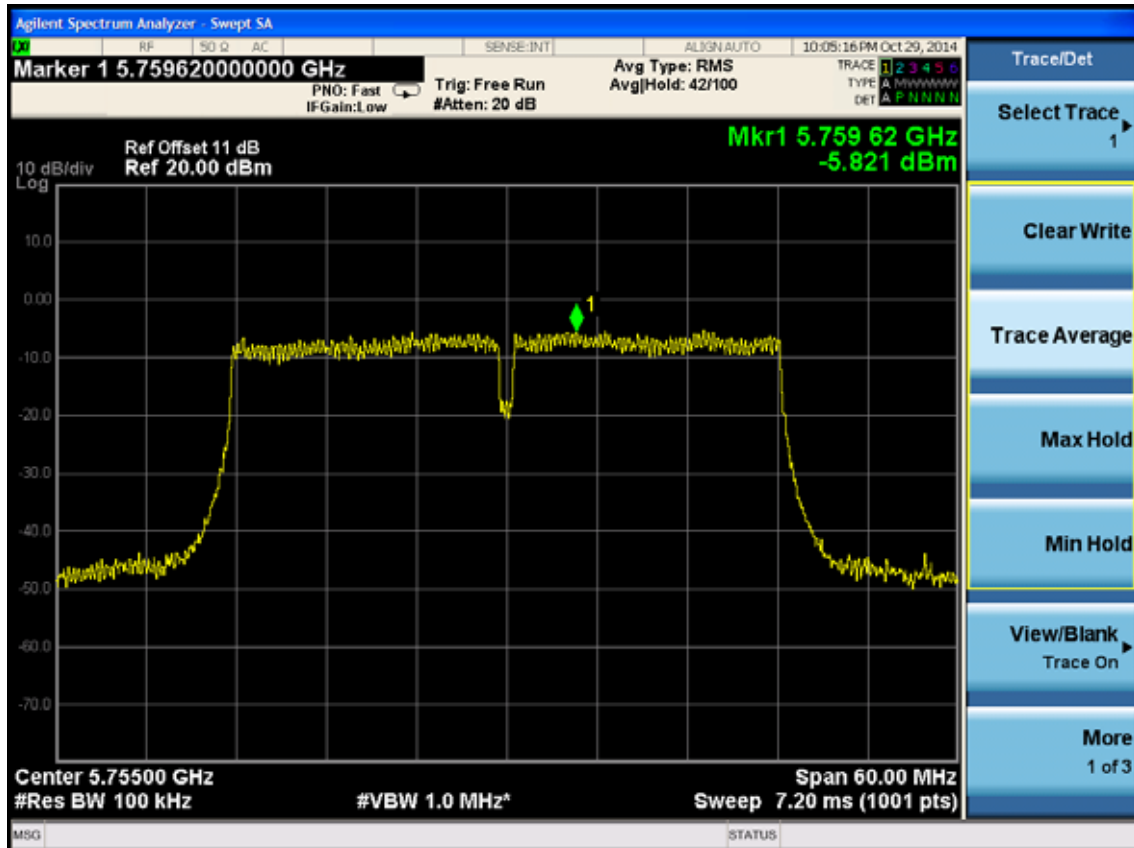


Test CH165: 5825MHz

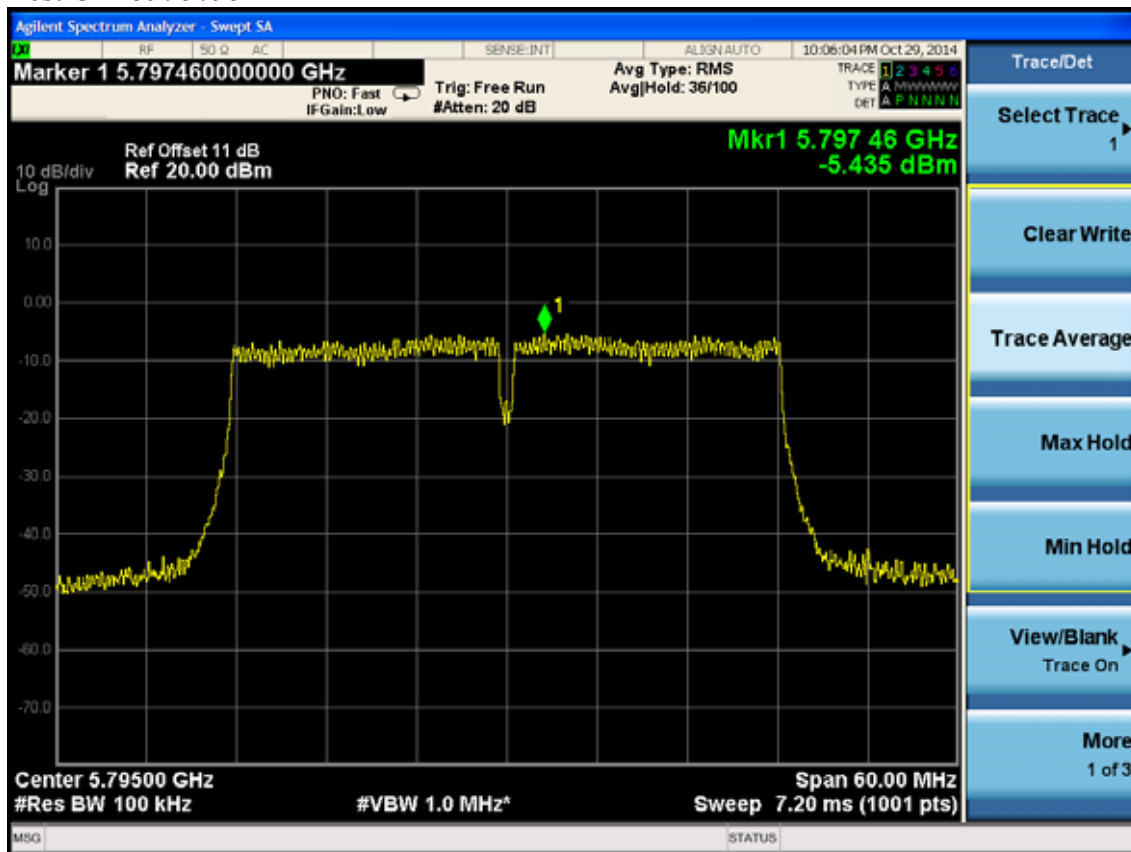


Test Mode: IEEE 802.11ac VHT40TX

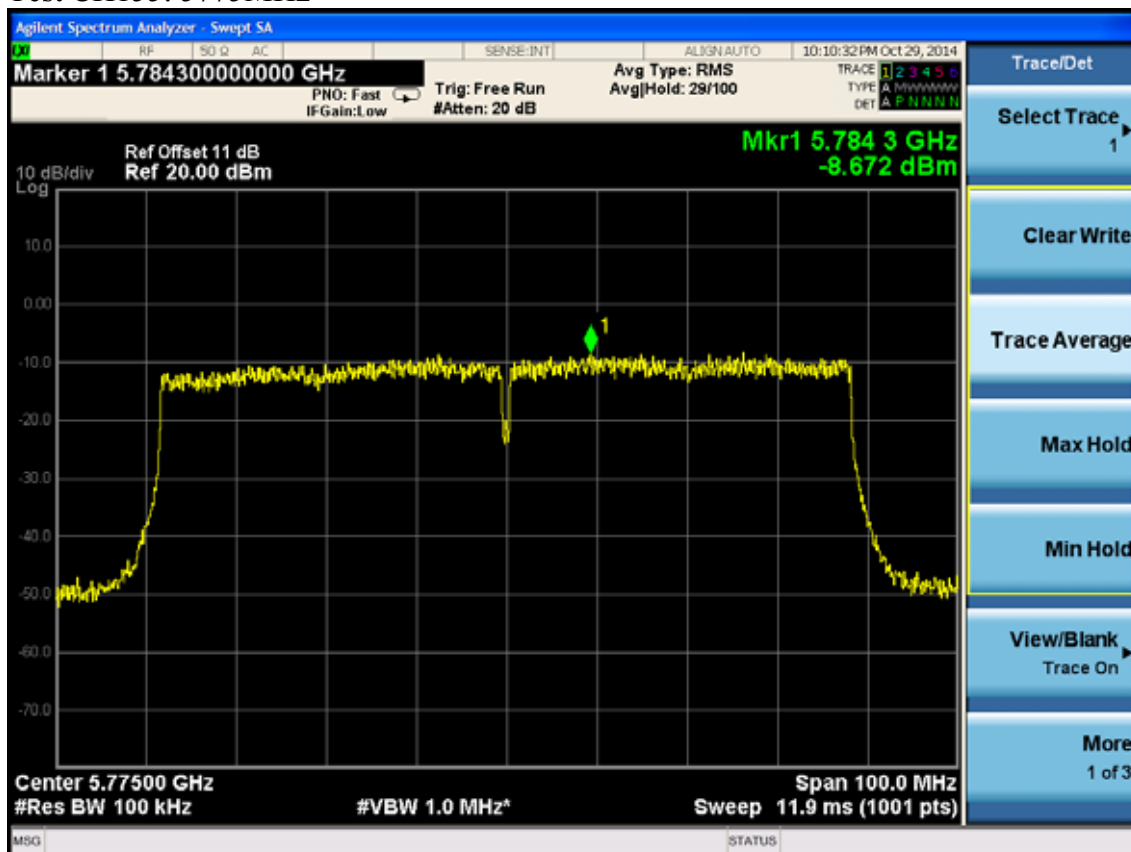
Test CH151: 5755MHz



Test CH159: 5795MHz



Test Mode: IEEE 802.11ac VHT80TX
Test CH155: 5775MHz



9. FREQUENCY STABILITY MEASUREMENT

9.1. Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum	Agilent	E4446A	US44300459	Apr. 28,14	1 Year
2.	Spectrum	Agilent	N9030A	MY51380221	Oct.31, 13	1Year
3.	Attenuator (20dB)	Agilent	8491B	MY39262165	Apr. 28,14	1 Year
4.	RF Cable	Hubersuhner	SUCOFLEX102	28610/2	Apr. 28,14	1 Year

9.2. Limit

Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emissions is maintained within the band of operation under all conditions of normal operation as specified in the user's manual or ± 20 ppm

9.3. Test Procedure

1. The transmitter output (antenna port) was connected to the spectrum analyser. EUT have transmitted absence of modulation signal and fixed channelize. 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 $(f_c - f) / f_c \times 10^6$ ppm and the limit is less than ± 20 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 0°C~50°C.

9.4. Test Result

EUT: AC1750 Wireless Dual Band PCI Express Adapter

M/N: Archer T8E

Test Date: 2014-10-21

Test site: RF Chamber

Tested by: Kobe_Huang

Ambient Temperature: 22.3±1.0°C

Relative Humidity: 52.1±1.0%

Pressure: 101.2±1.0 kpa

Frequency stability VS Voltage (Temperature: 20°C)

Supply Voltage (V)	Test frequency (MHz)	Test result (MHz)	Max Deviation (MHz)	Max Deviation (ppm)	Limit (ppm)	Conclusion
		ANT0				
102V	5180	5179.9810	0.019	-3.67	+/-20	PASS
120V	5180	5179.9815				
138V	5180	5179.9820				
102V	5200	5199.9820	0.018	-3.46	+/-20	
120V	5200	5199.9825				
138V	5200	5199.9835				
102V	5240	5239.9840	0.016	-3.05	+/-20	
120V	5240	5239.9850				
138V	5240	5239.9860				

Frequency stability VS Temperature (supply voltage AC 120V/60Hz)

Temperature (°C)	Test frequency (MHz)	Test result (MHz)	Max Deviation (MHz)	Max Deviation (ppm)	Limit (ppm)	Conclusion
		ANT0				
-30°C	5180	5179.9780	0.022	-4.23	+/-20	PASS
-20°C	5180	5179.9785				
-10°C	5180	5179.9795				
0°C	5180	5179.9800				
10°C	5180	5179.9810				
20°C	5180	5179.9815				
30°C	5180	5179.9825				
40°C	5180	5179.9830				
50°C	5180	5179.9840				

Frequency stability VS Temperature (supply voltage AC 120V/60Hz)						
Temperature (°C)	Test frequency (MHz)	Test result (MHz)	Max Deviation (MHz)	Max Deviation (ppm)	Limit (ppm)	Conclusion
		ANT0				
-30°C	5200	5199.9800	0.02	-3.85	+/-20	PASS
-20°C	5200	5199.9805				
-10°C	5200	5199.9810				
0°C	5200	5199.9815				
10°C	5200	5199.9820				
20°C	5200	5199.9825				
30°C	5200	5199.9830				
40°C	5200	5199.9835				
50°C	5200	5199.9840				

Frequency stability VS Temperature (supply voltage AC 120V/60Hz)						
Temperature (°C)	Test frequency (MHz)	Test result (MHz)	Max Deviation (MHz)	Max Deviation (ppm)	Limit (ppm)	Conclusion
		ANT0				
-30°C	5240	5239.9820	0.018	-3.44	+/-20	PASS
-20°C	5240	5239.9830				
-10°C	5240	5239.9840				
0°C	5240	5239.9845				
10°C	5240	5239.9845				
20°C	5240	5239.9850				
30°C	5240	5239.9855				
40°C	5240	5239.9865				
50°C	5240	5239.9870				

Supply Voltage (V)	Test frequency (MHz)	Test result (MHz)	Max Deviation (MHz)	Max Deviation (ppm)	Limit (ppm)	Conclusion
		ANT1				
102V	5180	5179.9830	0.017	-3.28	+/-20	PASS
120V	5180	5179.9840				
138V	5180	5179.9855				
102V	5200	5199.9850	0.015	-2.88	+/-20	
120V	5200	5199.9855				
138V	5200	5199.9865				



102V	5240	5239.9805	0.0195	-3.72	+/-20	
120V	5240	5239.9810				
138V	5240	5239.9815				

Frequency stability VS Temperature (supply voltage AC 120V/60Hz)

Temperature (°C)	Test frequency (MHz)	Test result (MHz)	Max Deviation (MHz)	Max Deviation (ppm)	Limit (ppm)	Conclusion
		ANT1				
-30°C	5180	5179.9815	0.0185	-3.57	+/-20	PASS
-20°C	5180	5179.9820				
-10°C	5180	5179.9825				
0°C	5180	5179.9830				
10°C	5180	5179.9835				
20°C	5180	5179.9840				
30°C	5180	5179.9850				
40°C	5180	5179.9855				
50°C	5180	5179.9860				

Frequency stability VS Temperature (supply voltage AC 120V/60Hz)

Temperature (°C)	Test frequency (MHz)	Test result (MHz)	Max Deviation (MHz)	Max Deviation (ppm)	Limit (ppm)	Conclusion
		ANT1				
-30°C	5200	5199.9825	0.0175	-3.66	+/-20	PASS
-20°C	5200	5199.9830				
-10°C	5200	5199.9835				
0°C	5200	5199.9840				
10°C	5200	5199.9845				
20°C	5200	5199.9855				
30°C	5200	5199.9860				
40°C	5200	5199.9865				
50°C	5200	5199.9875				

Frequency stability VS Temperature (supply voltage AC 120V/60Hz)

Temperature (°C)	Test frequency (MHz)	Test result (MHz)	Max Deviation (MHz)	Max Deviation (ppm)	Limit (ppm)	Conclusion
		ANT1				
-30°C	5240	5239.9780	0.022	-4.20	+/-20	PASS
-20°C	5240	5239.9785				
-10°C	5240	5239.9790				



0°C	5240	5239.9800				
10°C	5240	5239.9805				
20°C	5240	5239.9810				
30°C	5240	5239.9820				
40°C	5240	5239.9830				
50°C	5240	5239.9835				

Frequency stability VS Voltage (Temperature:20°C)						
Supply Voltage (V)	Test frequency (MHz)	Test result (MHz)	Max Deviation (MHz)	Max Deviation (ppm)	Limit (ppm)	Conclusion
		ANT2				
102V	5180	5179.9825	0.0175	-3.38	+/-20	PASS
120V	5180	5179.9830				
138V	5180	5179.9845				
102V	5200	5199.9830	0.017	-3.27	+/-20	
120V	5200	5199.9835				
138V	5200	5199.9845				
102V	5240	5239.9830	0.017	-3.27	+/-20	
120V	5240	5239.9840				
138V	5240	5239.9855				

Frequency stability VS Temperature (supply voltage AC 120V/60Hz)						
Temperature (°C)	Test frequency (MHz)	Test result (MHz)	Max Deviation (MHz)	Max Deviation (ppm)	Limit (ppm)	Conclusion
		ANT2				
-30°C	5180	5179.9810	0.019	-3.67	+/-20	PASS
-20°C	5180	5179.9815				
-10°C	5180	5179.9820				
0°C	5180	5179.9825				
10°C	5180	5179.9825				
20°C	5180	5179.9830				
30°C	5180	5179.9835				
40°C	5180	5179.9845				
50°C	5180	5179.9850				

Frequency stability VS Temperature (supply voltage AC 120V/60Hz)						
Temperature (°C)	Test frequency (MHz)	Test result (MHz)	Max Deviation (MHz)	Max Deviation (ppm)	Limit (ppm)	Conclusion
		ANT2				
-30°C	5200	5199.9805	0.0195	-3.75	+/-20	PASS
-20°C	5200	5199.9815				
-10°C	5200	5199.9820				
0°C	5200	5199.9820				
10°C	5200	5199.9830				
20°C	5200	5199.9835				



30°C	5200	5199.9845				
40°C	5200	5199.9850				
50°C	5200	5199.9860				

Frequency stability VS Temperature (supply voltage AC 120V/60Hz)						
Temperature (°C)	Test frequency (MHz)	Test result (MHz)	Max Deviation (MHz)	Max Deviation (ppm)	Limit (ppm)	Conclusion
		ANT2				
-30°C	5240	5239.9810	0.019	-3.63	+/-20	PASS
-20°C	5240	5239.9815				
-10°C	5240	5239.9820				
0°C	5240	5239.9830				
10°C	5240	5239.9835				
20°C	5240	5239.9840				
30°C	5240	5239.9850				
40°C	5240	5239.9855				
50°C	5240	5239.9865				

UNII Band4:

EUT:AC1750 Wireless Dual Band PCI Express Adapter						
M/N: Archer T8E						
Test Date: 2014-10-22		Test site: RF Chamber		Tested by: Kobe_Huang		
Ambient Temperature: 22.5±1.0°C		Relative Humidity: 51.3±1.0%		Pressure:101.1±1.0 kpa		
Frequency stability VS Voltage (Temperature:20°C)						
Supply Voltage (V)	Test frequency (MHz)	Test result (MHz)	Max Deviation (MHz)	Max Deviation (ppm)	Limit (ppm)	Conclusion
		ANT0				
102V	5745	5744.9870	0.013	-2.26	+/-20	PASS
120V	5745	5744.9875				
138V	5745	5744.9890				
102V	5785	5784.9825	0.0175	-3.03	+/-20	
120V	5785	5784.9840				
138V	5785	5784.9845				
102V	5825	5824.9840	0.016	-2.75	+/-20	
120V	5825	5824.9855				
138V	5825	5824.9865				
Frequency stability VS Temperature (supply voltage AC 120V/60Hz)						
Temperature (°C)	Test frequency (MHz)	Test result (MHz)	Max Deviation (MHz)	Max Deviation (ppm)	Limit (ppm)	Conclusion
		ANT0				

-30°C	5745	5744.9845	0.0155	-2.70	+/-20	PASS
-20°C	5745	5744.9850				
-10°C	5745	5744.9855				
0°C	5745	5744.9860				
10°C	5745	5744.9865				
20°C	5745	5744.9875				
30°C	5745	5744.9880				
40°C	5745	5744.9885				
50°C	5745	5744.9890				

Frequency stability VS Temperature (supply voltage AC 120V/60Hz)						
Temperature (°C)	Test frequency (MHz)	Test result (MHz)	Max Deviation (MHz)	Max Deviation (ppm)	Limit (ppm)	Conclusion
		ANT0				
-30°C	5785	5784.9815	0.0185	-3.20	+/-20	PASS
-20°C	5785	5784.9820				
-10°C	5785	5784.9825				
0°C	5785	5784.9830				
10°C	5785	5784.9835				
20°C	5785	5784.9840				
30°C	5785	5784.9845				
40°C	5785	5784.9850				
50°C	5785	5784.9855				

Frequency stability VS Temperature (supply voltage AC 120V/60Hz)						
Temperature (°C)	Test frequency (MHz)	Test result (MHz)	Max Deviation (MHz)	Max Deviation (ppm)	Limit (ppm)	Conclusion
		ANT0				
-30°C	5825	5824.9820	0.018	-3.09	+/-20	PASS
-20°C	5825	5824.9830				
-10°C	5825	5824.9840				
0°C	5825	5824.9845				
10°C	5825	5824.9850				
20°C	5825	5824.9855				

Supply Voltage (V)	Test frequency (MHz)	Test result (MHz) ANT1	Max Deviation (MHz)	Max Deviation (ppm)	Limit (ppm)	Conclusion
30°C	5825	5824.9855				
40°C	5825	5824.9865				
50°C	5825	5824.9870				
102V	5745	5744.9850	0.015	-2.61	+/-20	PASS
120V	5745	5744.9855				
138V	5745	5744.9865				
102V	5785	5784.9835	0.0165	-2.85	+/-20	
120V	5785	5784.9845				
138V	5785	5784.9855				
102V	5825	5824.9855	0.0145	-2.49	+/-20	
120V	5825	5824.9860				
138V	5825	5824.9870				
Frequency stability VS Temperature (supply voltage AC 120V/60Hz)						
Temperature (°C)	Test frequency (MHz)	Test result (MHz) ANT1	Max Deviation (MHz)	Max Deviation (ppm)	Limit (ppm)	Conclusion
-30°C	5745	5744.9815	0.0185	-3.22	+/-20	PASS
-20°C	5745	5744.9820				
-10°C	5745	5744.9835				
0°C	5745	5744.9845				
10°C	5745	5744.9850				
20°C	5745	5744.9855				
30°C	5745	5744.9860				
40°C	5745	5744.9865				
50°C	5745	5744.9875				

Frequency stability VS Temperature (supply voltage AC 120V/60Hz)						
Temperature (°C)	Test frequency (MHz)	Test result (MHz) ANT1	Max Deviation (MHz)	Max Deviation (ppm)	Limit (ppm)	Conclusion
-30°C	5785	5784.9825	0.0175	-3.03	+/-20	PASS
-20°C	5785	5784.9830				
-10°C	5785	5784.9830				
0°C	5785	5784.9840				

10°C	5785	5784.9840				
20°C	5785	5784.9845				
30°C	5785	5784.9855				
40°C	5785	5784.9860				
50°C	5785	5784.9870				

Frequency stability VS Temperature (supply voltage AC 120V/60Hz)

Temperature (°C)	Test frequency (MHz)	Test result (MHz)	Max Deviation (MHz)	Max Deviation (ppm)	Limit (ppm)	Conclusion
		ANT1				
-30°C	5825	5824.9830	0.017	-2.92	+/-20	PASS
-20°C	5825	5824.9835				
-10°C	5825	5824.9840				
0°C	5825	5824.9850				
10°C	5825	5824.9855				
20°C	5825	5824.9860				
30°C	5825	5824.9865				
40°C	5825	5824.9870				
50°C	5825	5824.9880				

Frequency stability VS Voltage (Temperature:20°C)

Supply Voltage (V)	Test frequency (MHz)	Test result (MHz)	Max Deviation (MHz)	Max Deviation (ppm)	Limit (ppm)	Conclusion
		ANT2				
102V	5745	5744.9845	0.0155	-2.70	+/-20	PASS
120V	5745	5744.9850				
138V	5745	5744.9860				
102V	5785	5784.9840	0.016	-2.77	+/-20	
120V	5785	5784.9845				
138V	5785	5784.9850				
102V	5825	5824.9855	0.0145	-2.49	+/-20	
120V	5825	5824.9860				
138V	5825	5824.9865				

Frequency stability VS Temperature (supply voltage AC 120V/60Hz)

Temperature (°C)	Test frequency (MHz)	Test result (MHz)	Max Deviation (MHz)	Max Deviation (ppm)	Limit (ppm)	Conclusion
		ANT2				
-30°C	5745	5744.9830	0.017	-2.96	+/-20	PASS
-20°C	5745	5744.9835				

-10°C	5745	5744.9835				
0°C	5745	5744.9840				
10°C	5745	5744.9845				
20°C	5745	5744.9850				
30°C	5745	5744.9855				
40°C	5745	5744.9865				
50°C	5745	5744.9870				

Frequency stability VS Temperature (supply voltage AC 120V/60Hz)						
Temperature (°C)	Test frequency (MHz)	Test result (MHz)	Max Deviation (MHz)	Max Deviation (ppm)	Limit (ppm)	Conclusion
		ANT2				
-30°C	5785	5784.9815	0.0185	-3.20	+/-20	PASS
-20°C	5785	5784.9820				
-10°C	5785	5784.9825				
0°C	5785	5784.9835				
10°C	5785	5784.9840				
20°C	5785	5784.9845				
30°C	5785	5784.9850				
40°C	5785	5784.9855				
50°C	5785	5784.9865				

Frequency stability VS Temperature (supply voltage AC 120V/60Hz)						
Temperature (°C)	Test frequency (MHz)	Test result (MHz)	Max Deviation (MHz)	Max Deviation (ppm)	Limit (ppm)	Conclusion
		ANT2				
-30°C	5825	5824.9825	0.0175	-3.00	+/-20	PASS
-20°C	5825	5824.9830				
-10°C	5825	5824.9840				
0°C	5825	5824.9850				
10°C	5825	5824.9855				
20°C	5825	5824.9860				
30°C	5825	5824.9865				
40°C	5825	5824.9875				
50°C	5825	5824.9885				

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 dipole 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 2dBi.

12. DEVIATION TO TEST SPECIFICATIONS

[NONE]