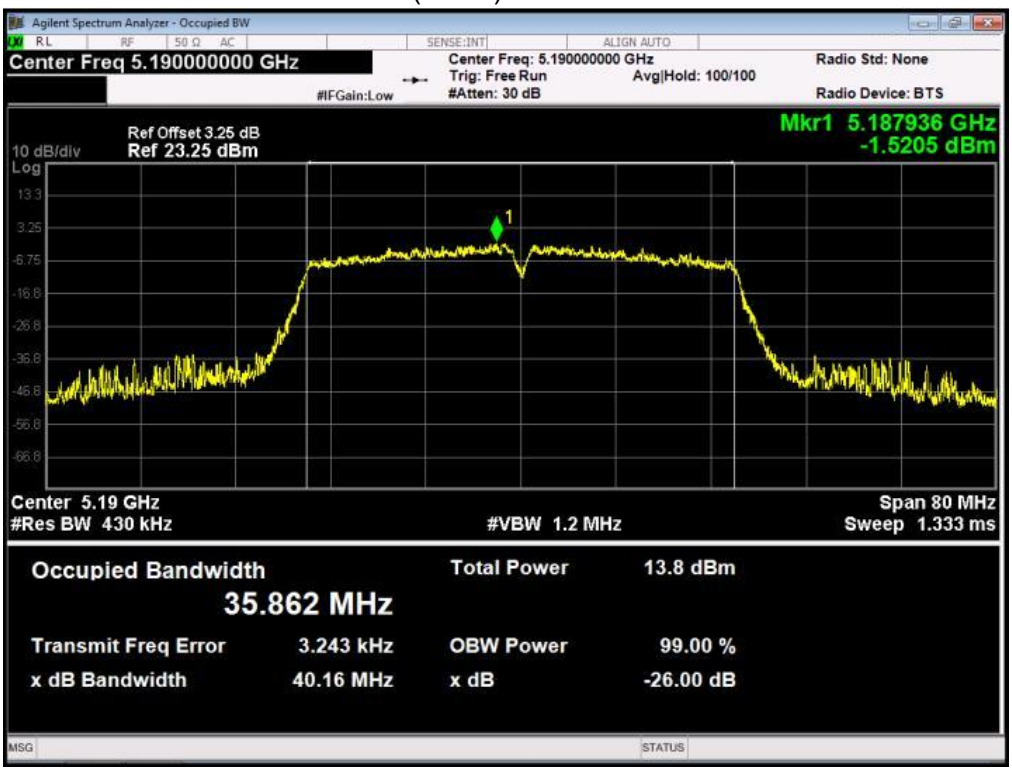
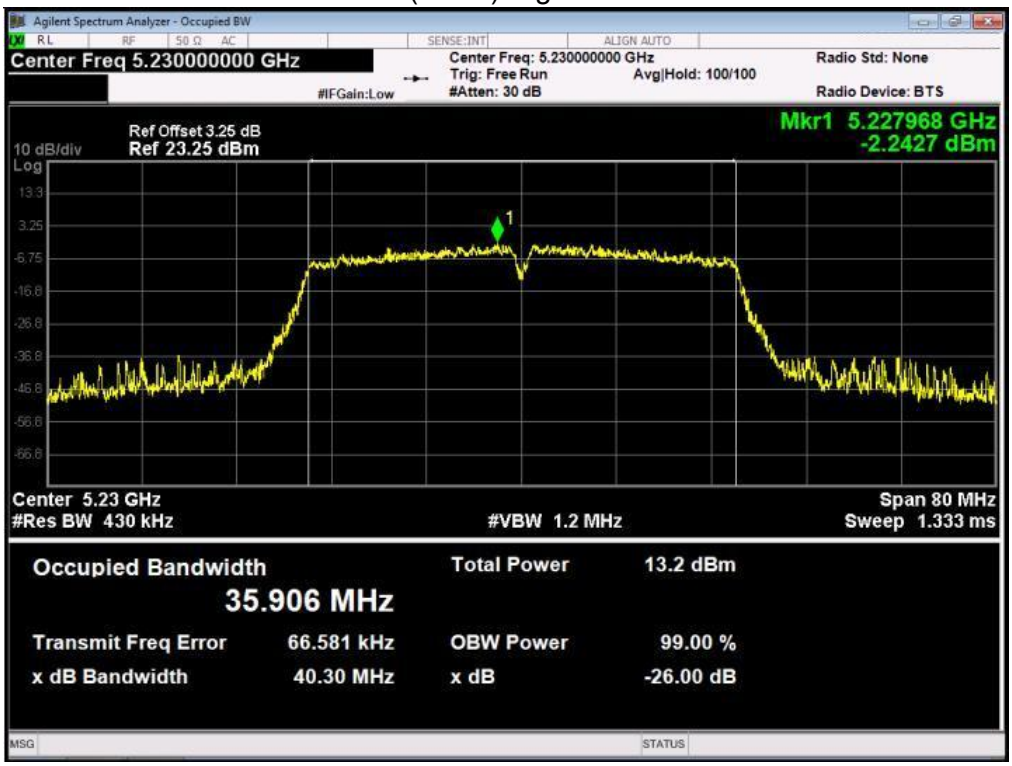
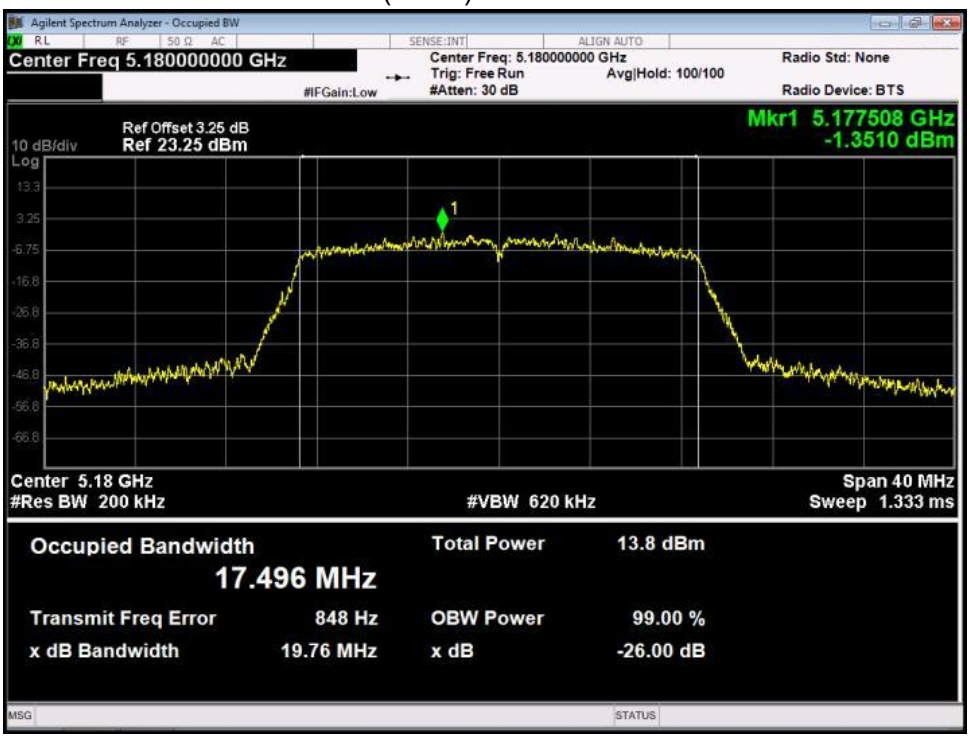
U-NII-1 11n(HT40) Low CH 5190MHZ



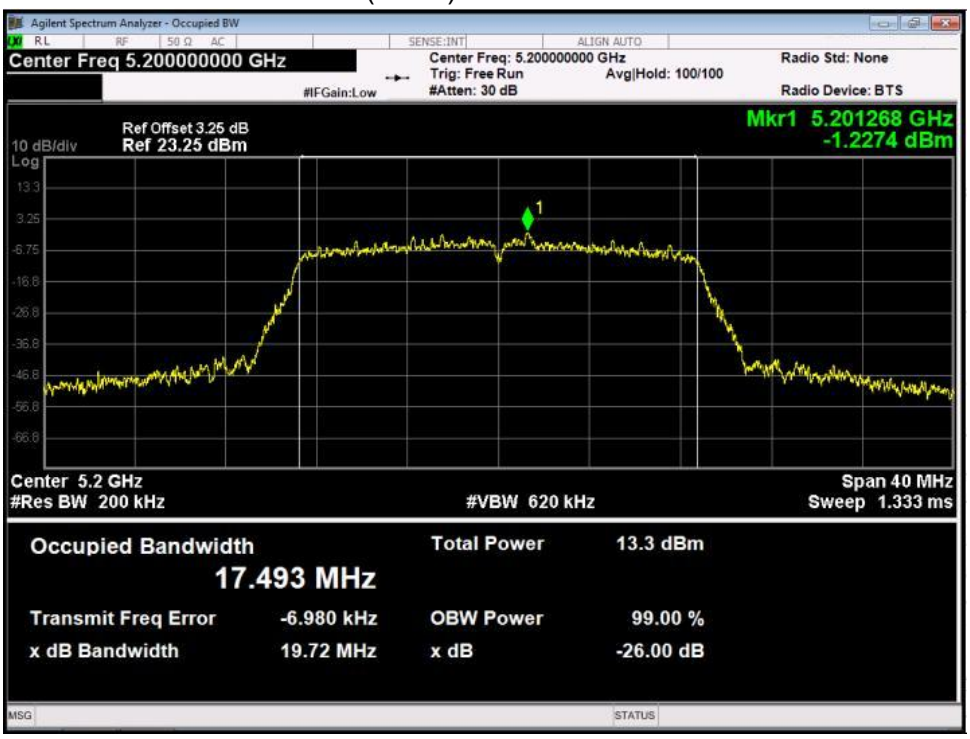
U-NII-1 11n(HT40) High CH 5230MHZ



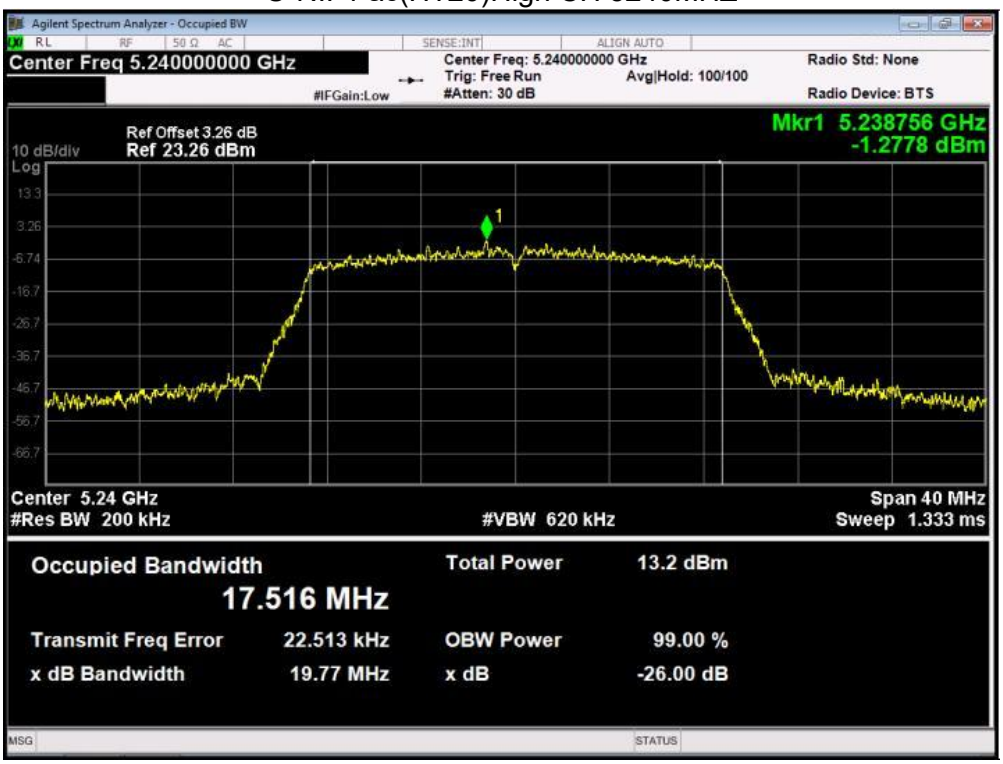
U-NII-1 ac(HT20) Low CH 5180MHZ



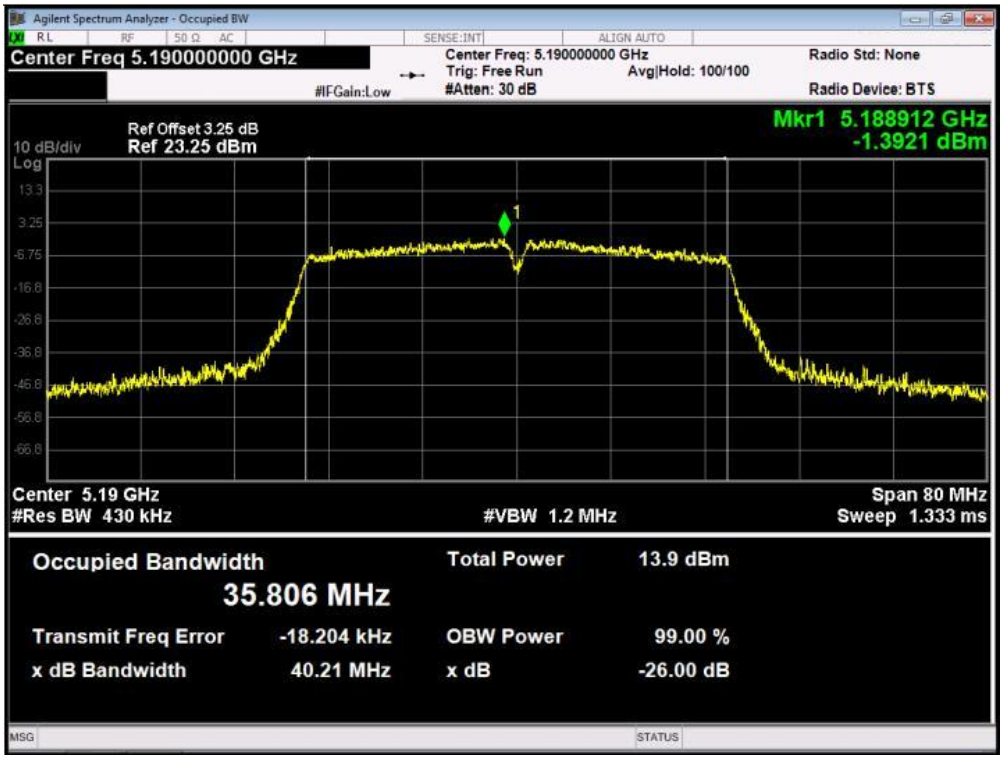
U-NII-1 ac(HT20) Middle CH 5200MHZ



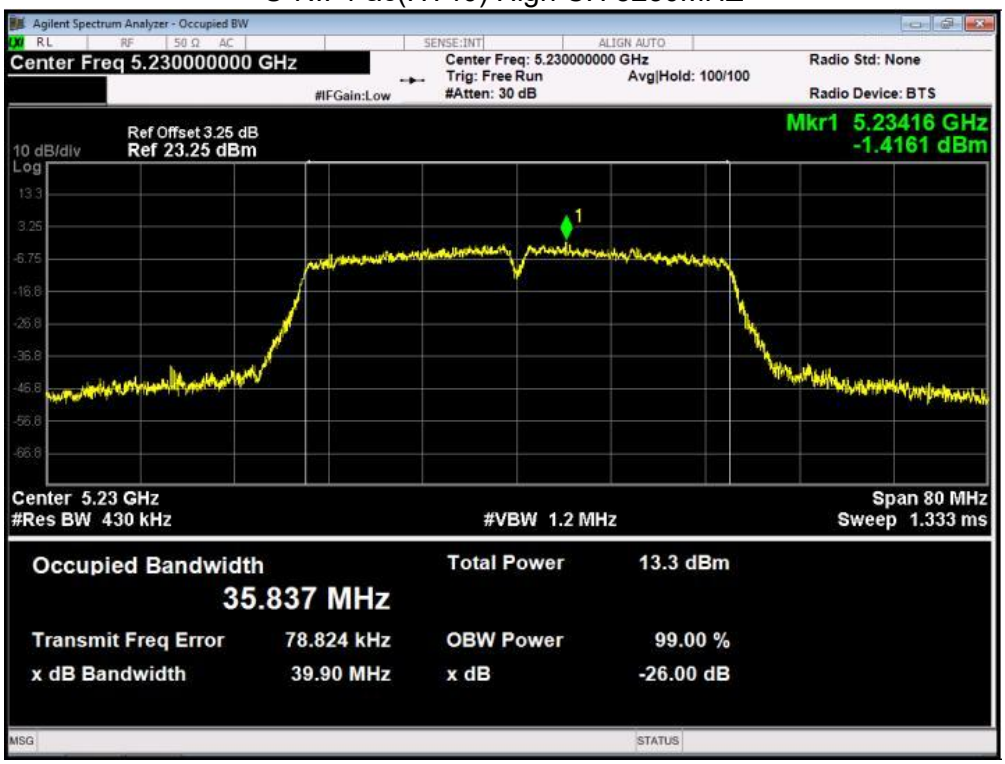
U-NII-1 ac(HT20)High CH 5240MHZ



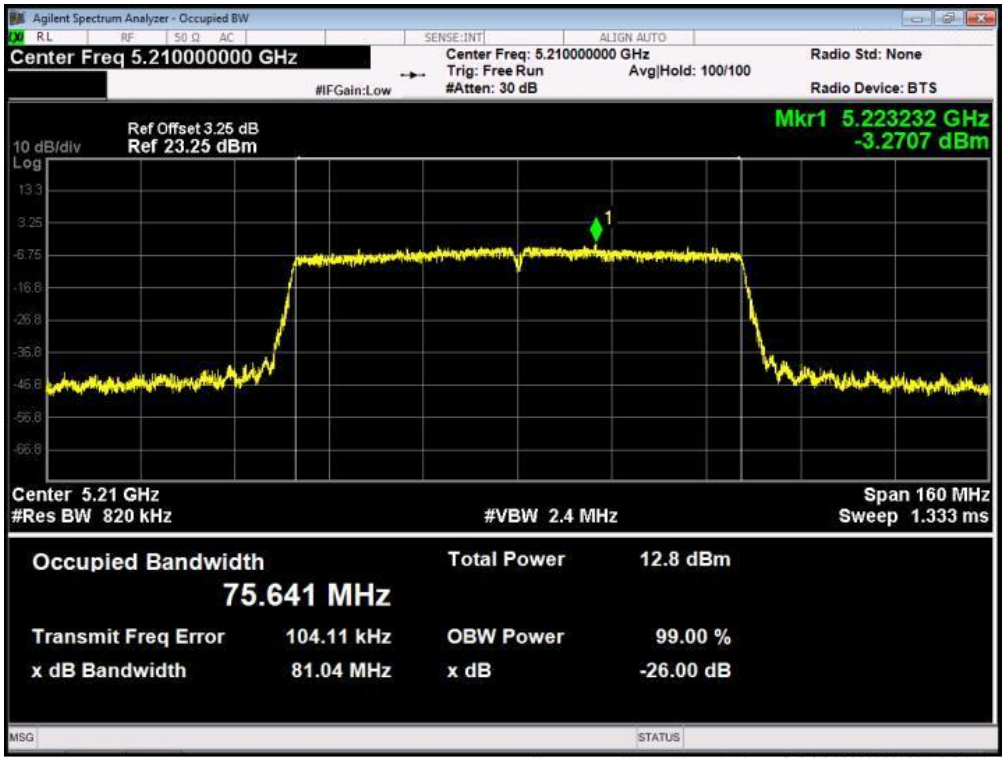
U-NII-1 ac(HT40) Low CH 5190MHZ



U-NII-1 ac(HT40) High CH 5230MHZ



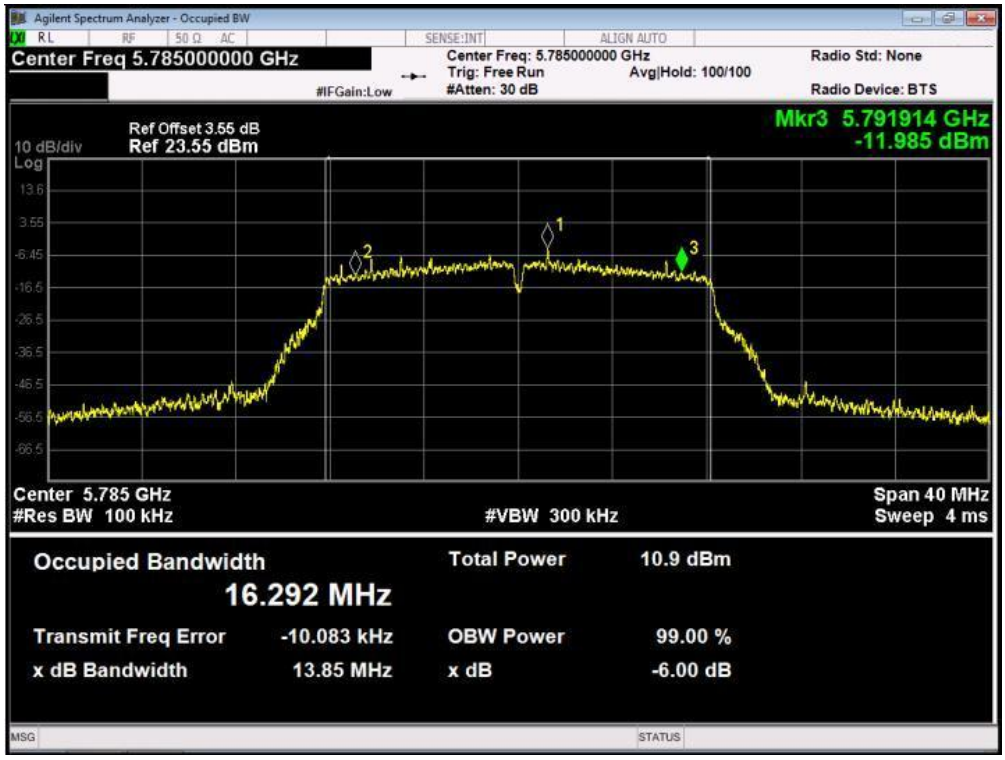
U-NII-1 ac(HT80) Low CH 5210MHZ



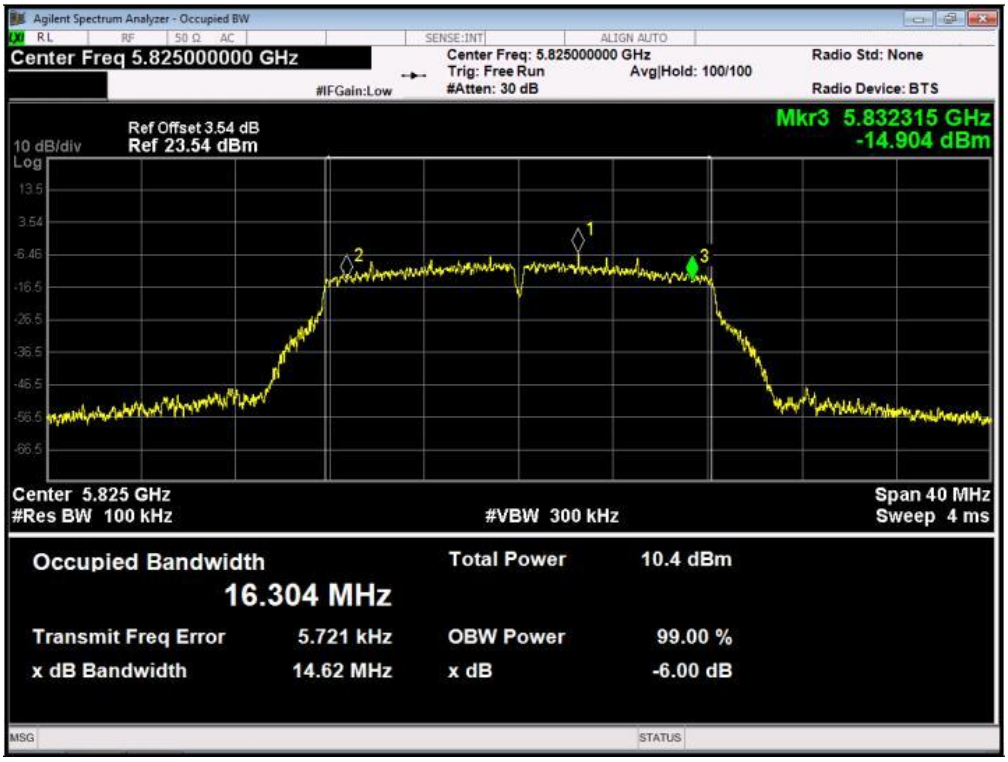
-6dB Bandwidth

U-NII-3 11a Low CH 5745MHZ

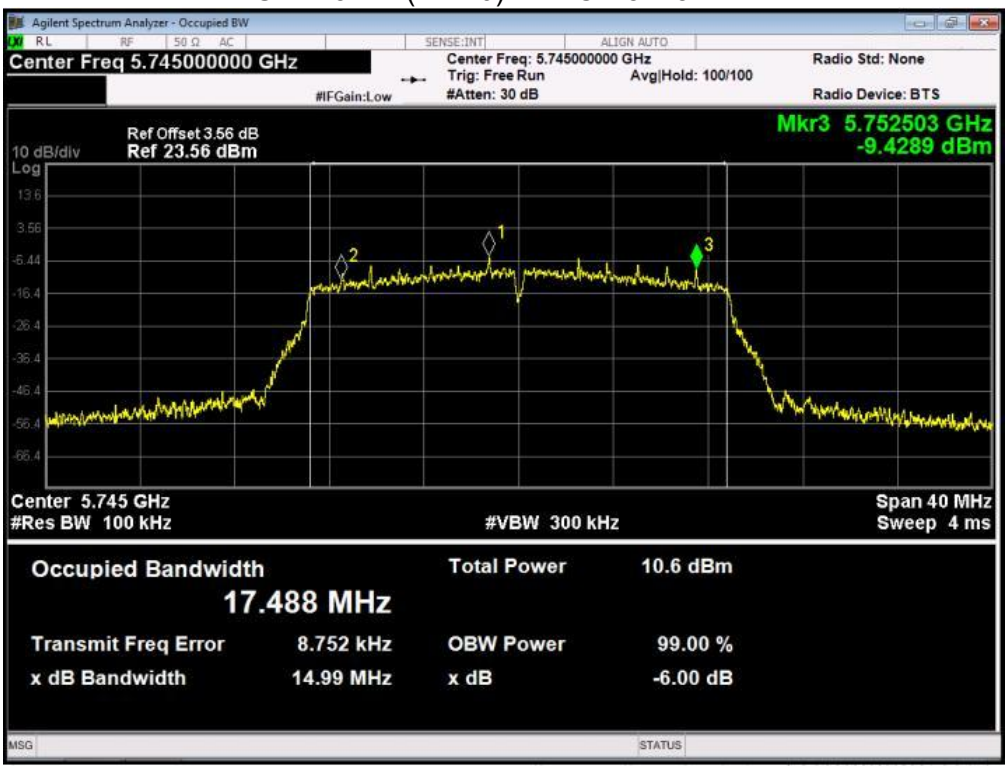
U-NII-3 11a Middle CH 5785MHZ



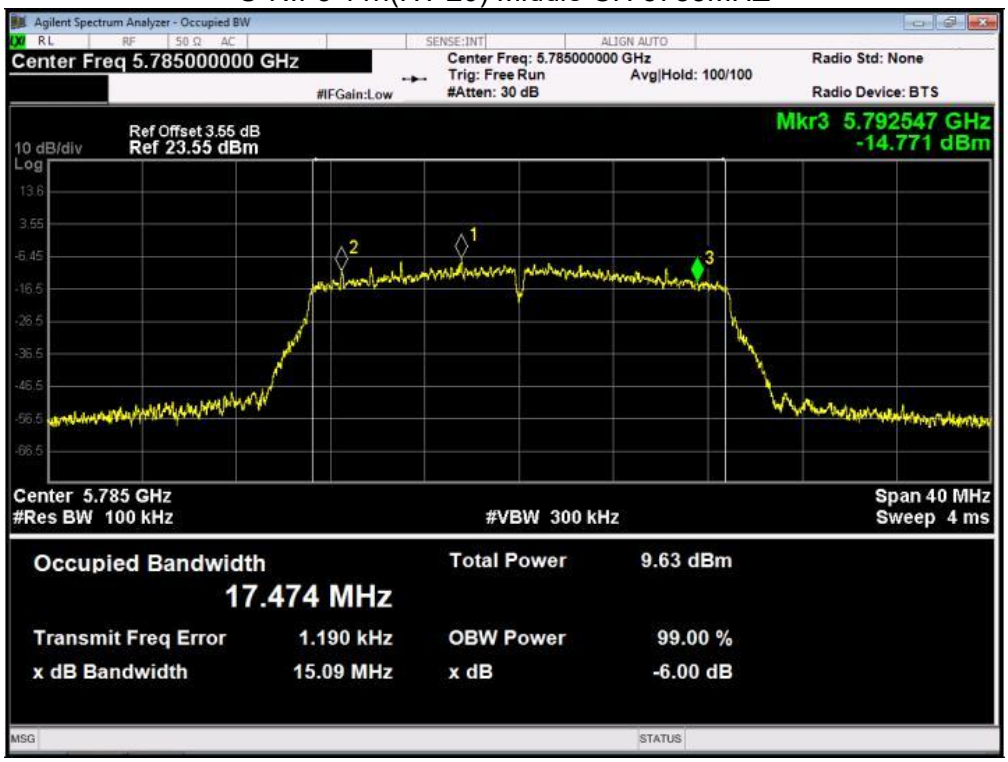
U-NII-3 11a High CH 5825MHZ



U-NII-3 11n(HT 20) Low CH 5745MHZ

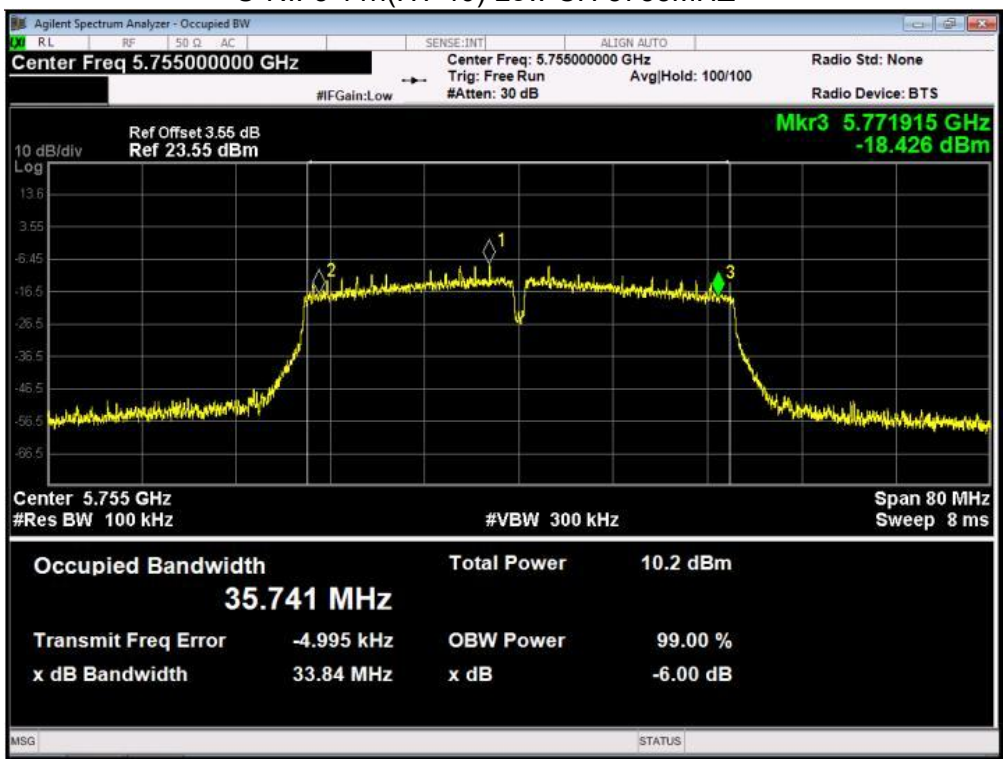


U-NII-3 11n(HT 20) Middle CH 5785MHZ

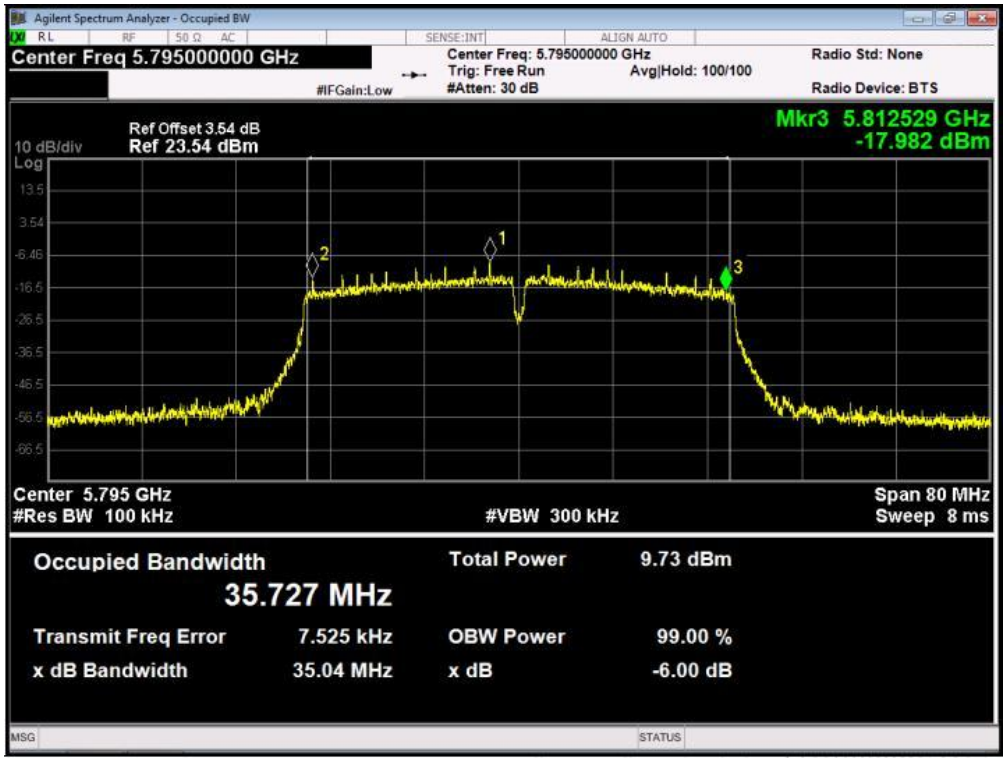


U-NII-3 11n(HT 20) High CH 5825MHZ

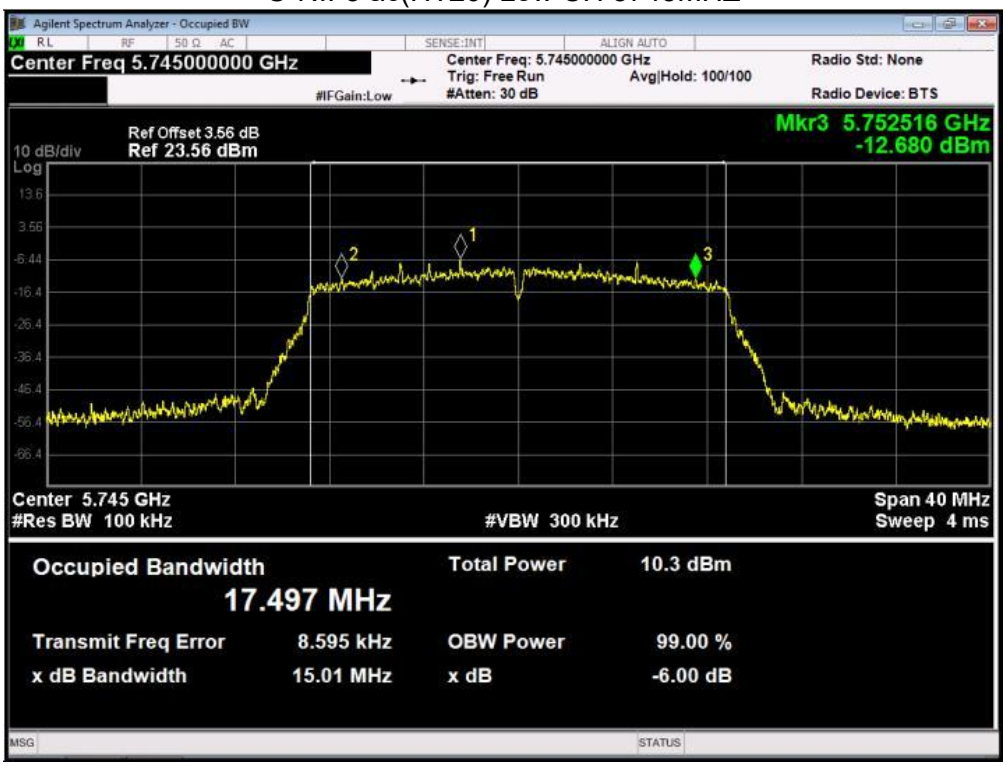
U-NII-3 11n(HT 40) Low CH 5755MHZ



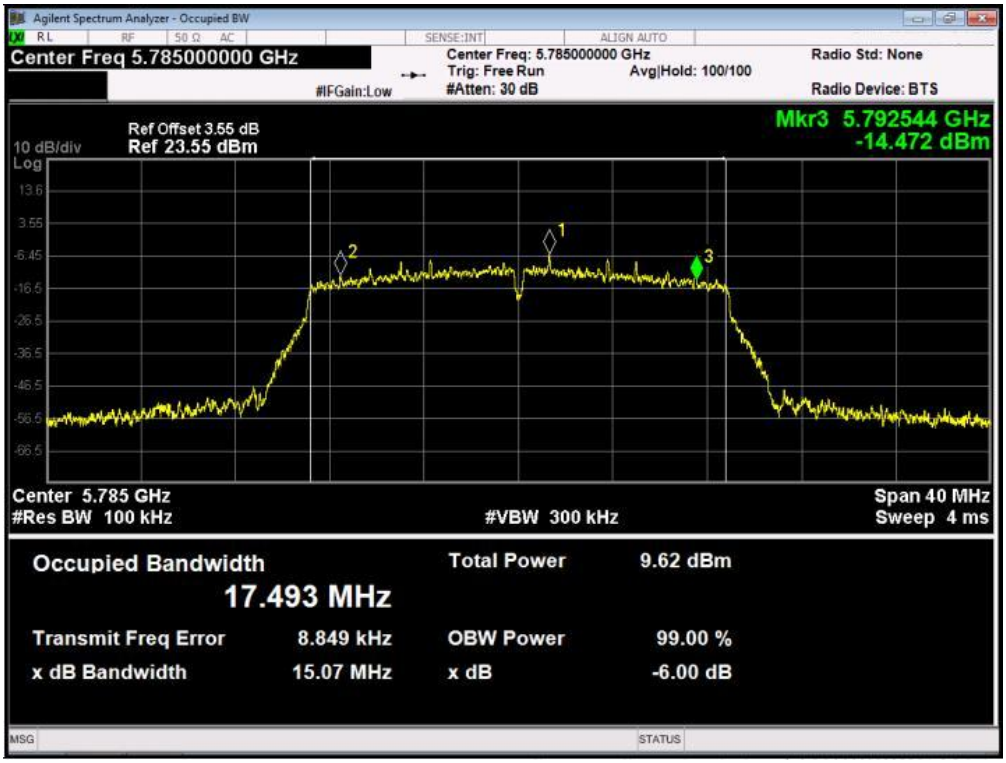
U-NII-3 11n(HT 40) High CH 5795MHZ



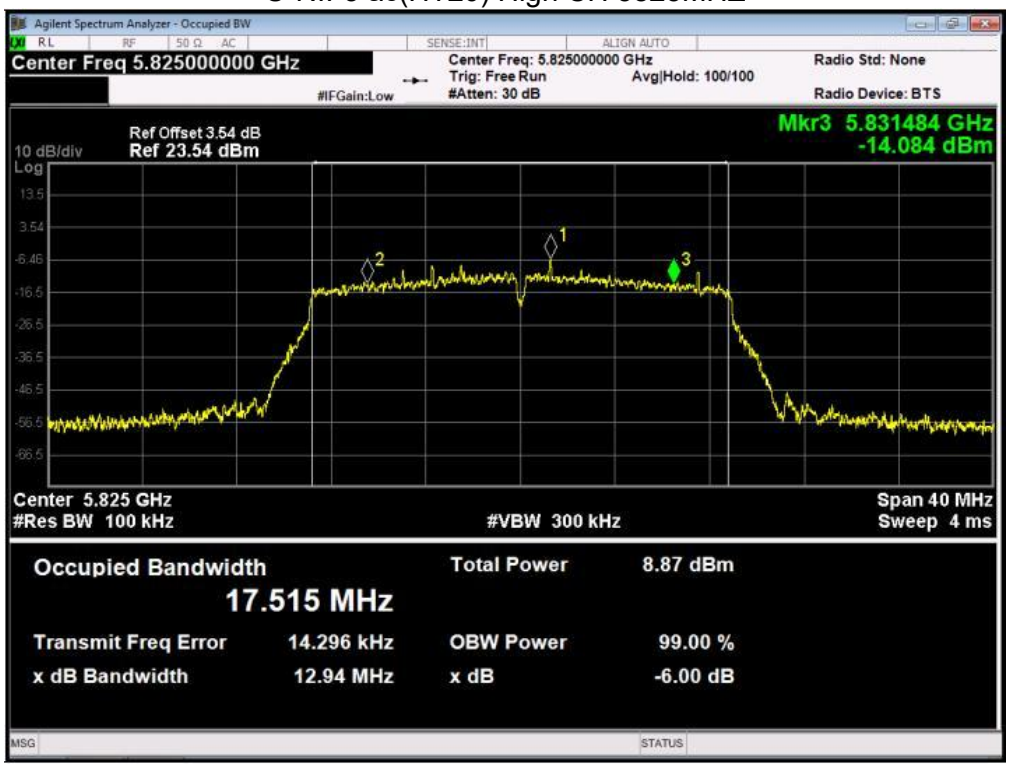
U-NII-3 ac(HT20) Low CH 5745MHZ



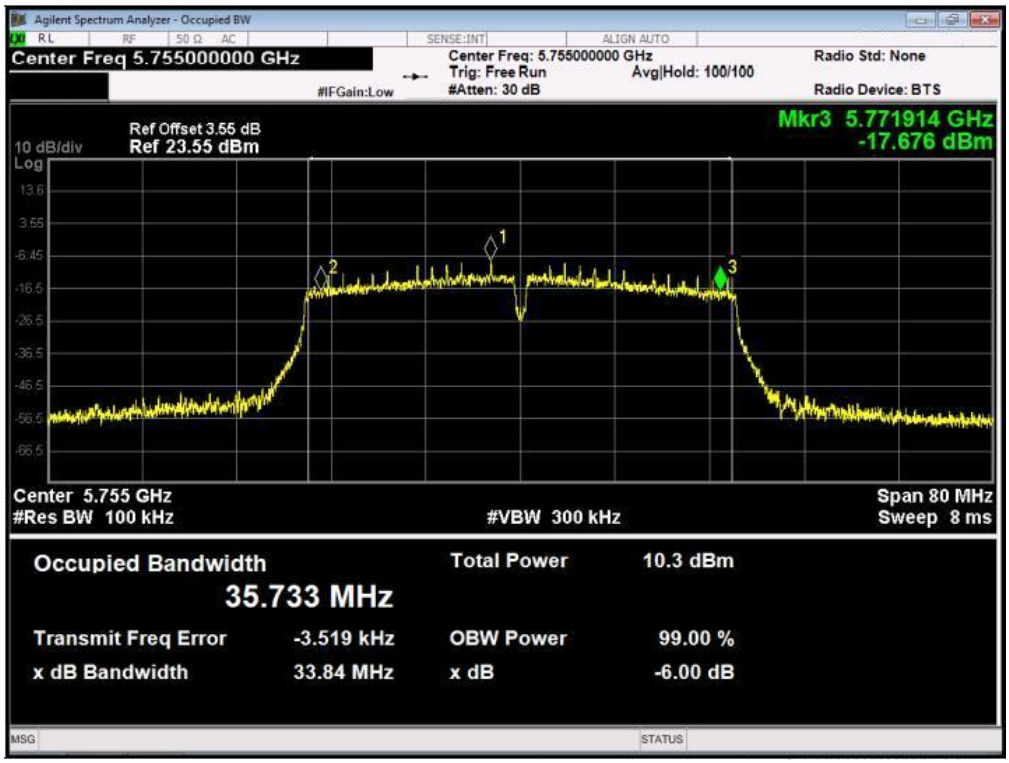
U-NII-3 ac(HT20) Middle CH 5785MHZ



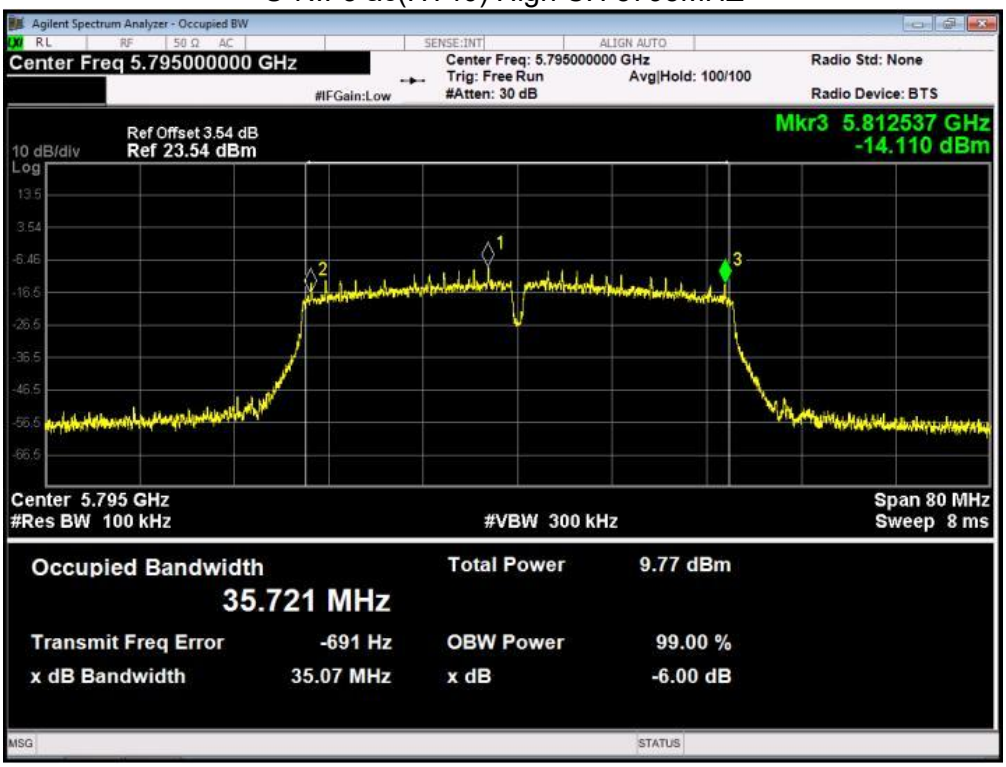
U-NII-3 ac(HT20) High CH 5825MHZ



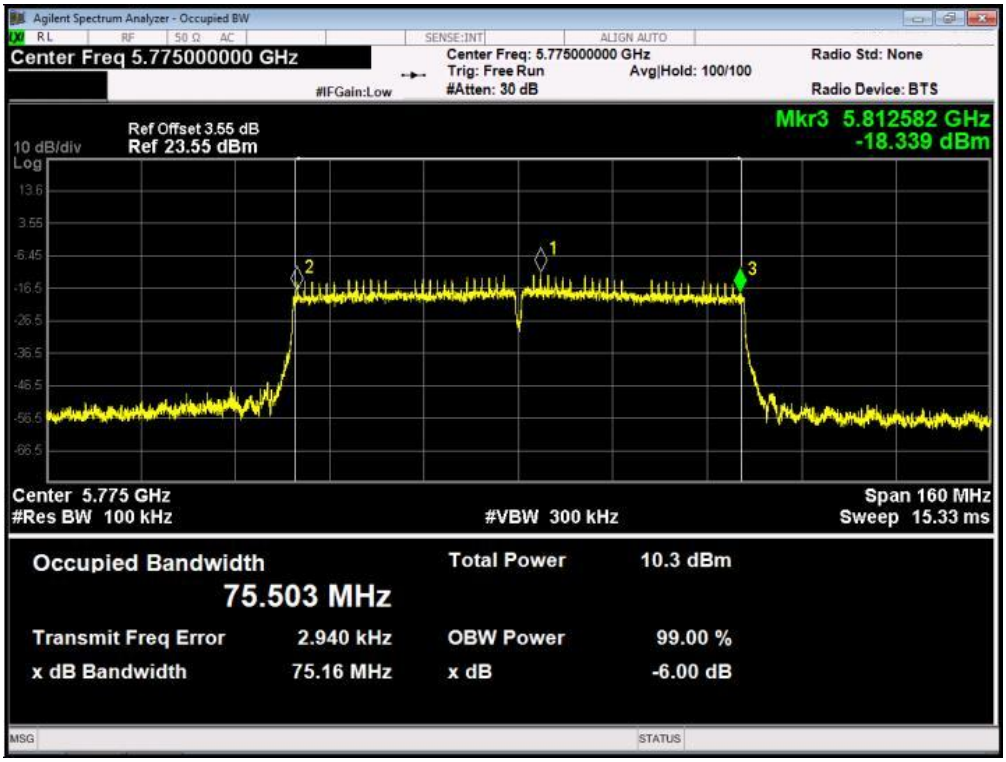
U-NII-3 ac(HT40) Low CH 5755MHZ



U-NII-3 ac(HT40) High CH 5795MHZ

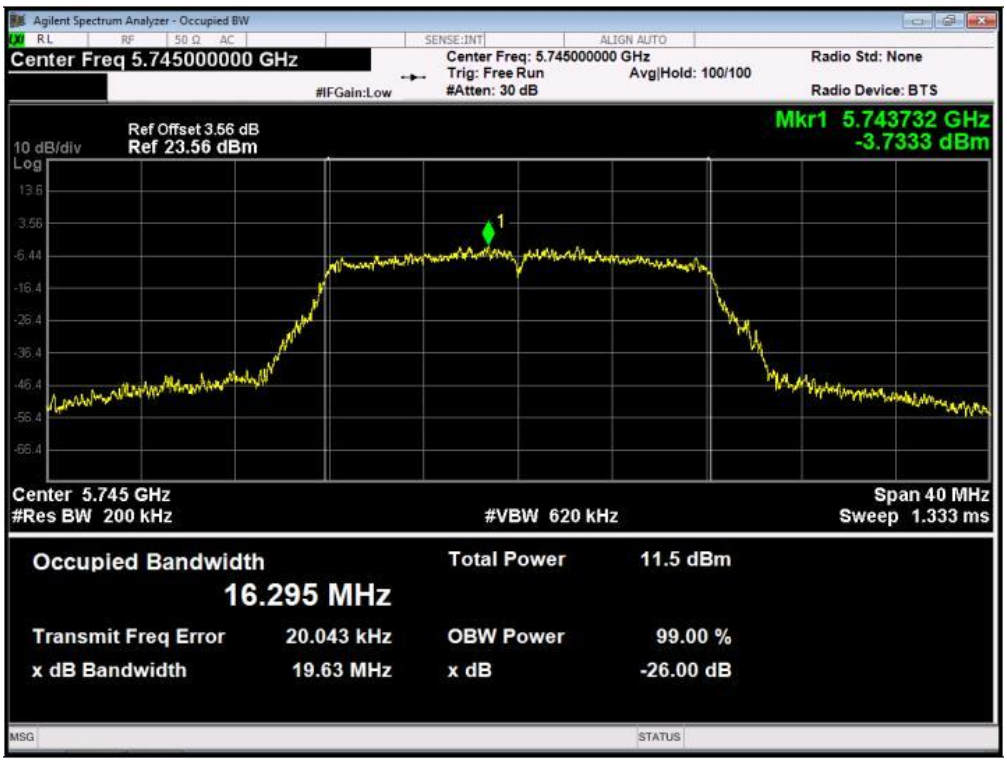


U-NII-3 ac(HT80) Low CH 5775MHZ

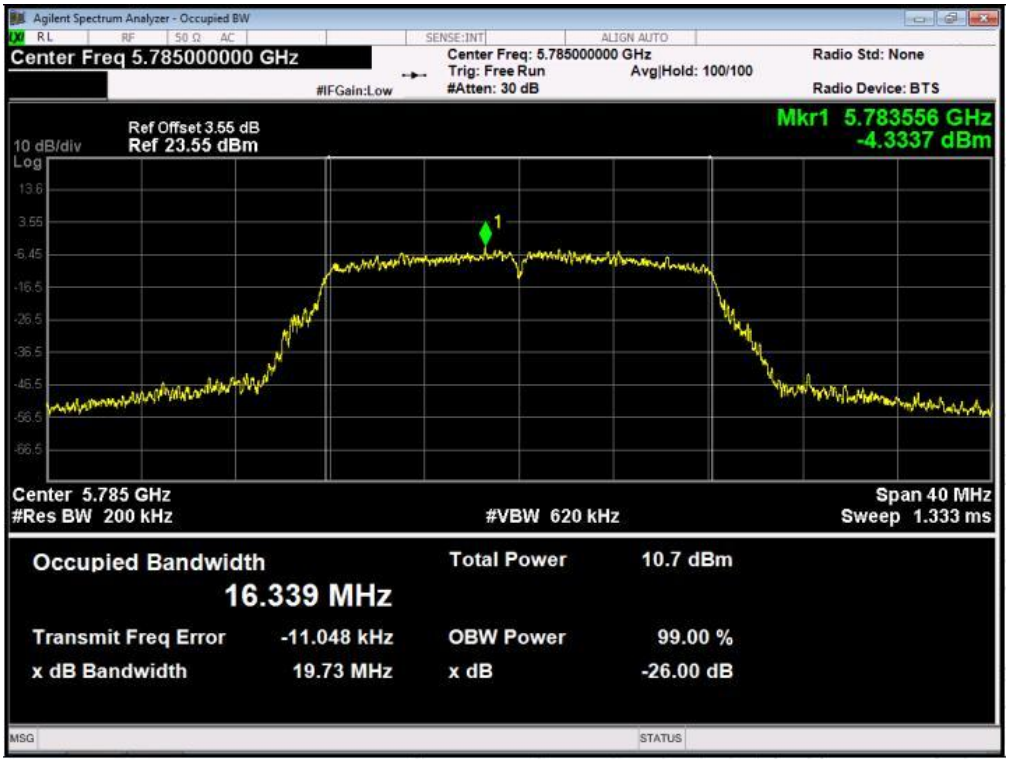


OBW

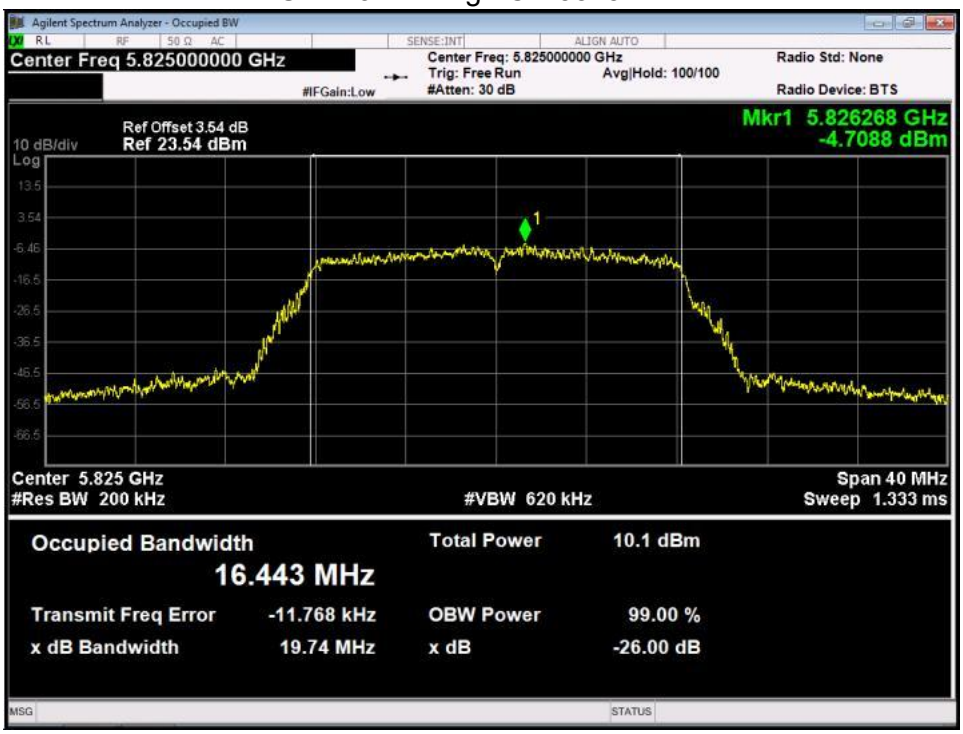
U-NII-3 11a Low CH 5745MHZ



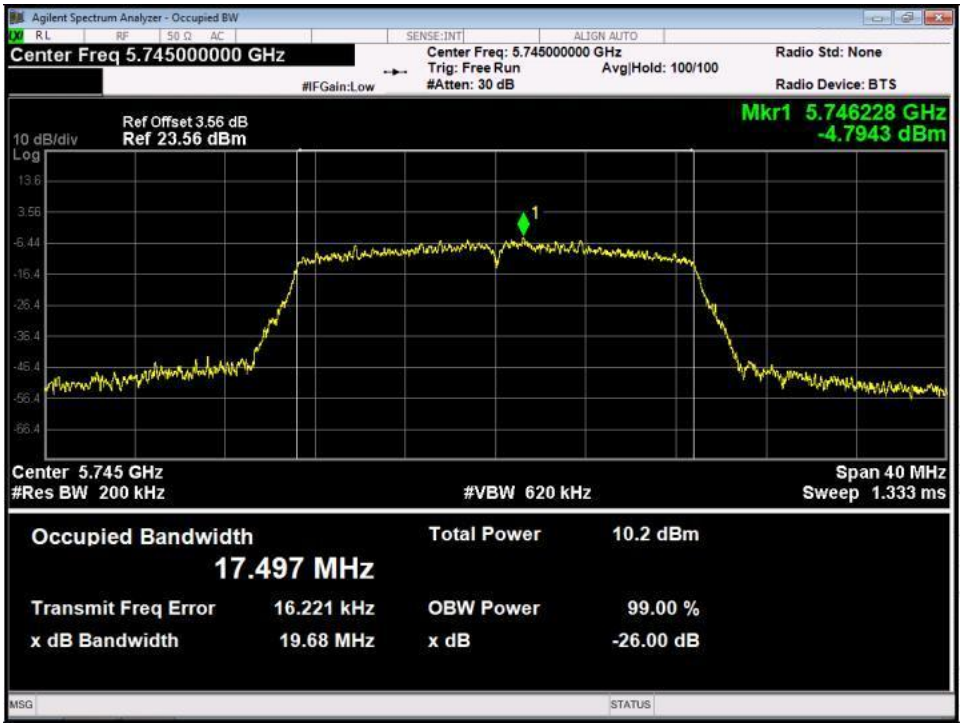
U-NII-3 11a Middle CH 5785MHZ



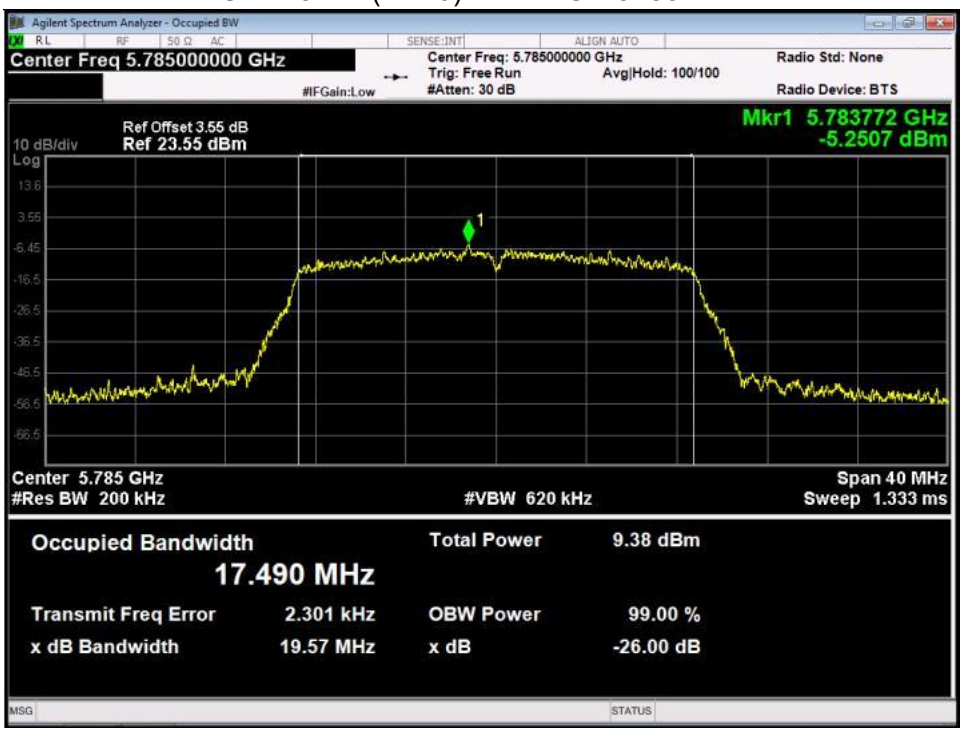
U-NII-3 11a High CH 5825MHZ



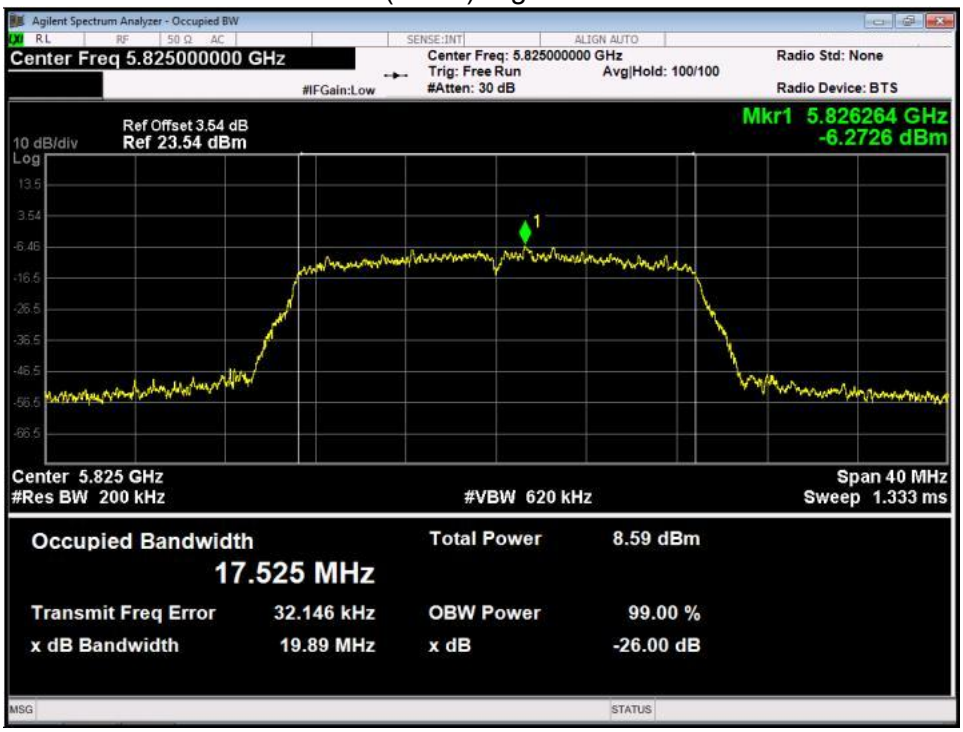
U-NII-3 11n(HT20) Low CH 5745MHZ



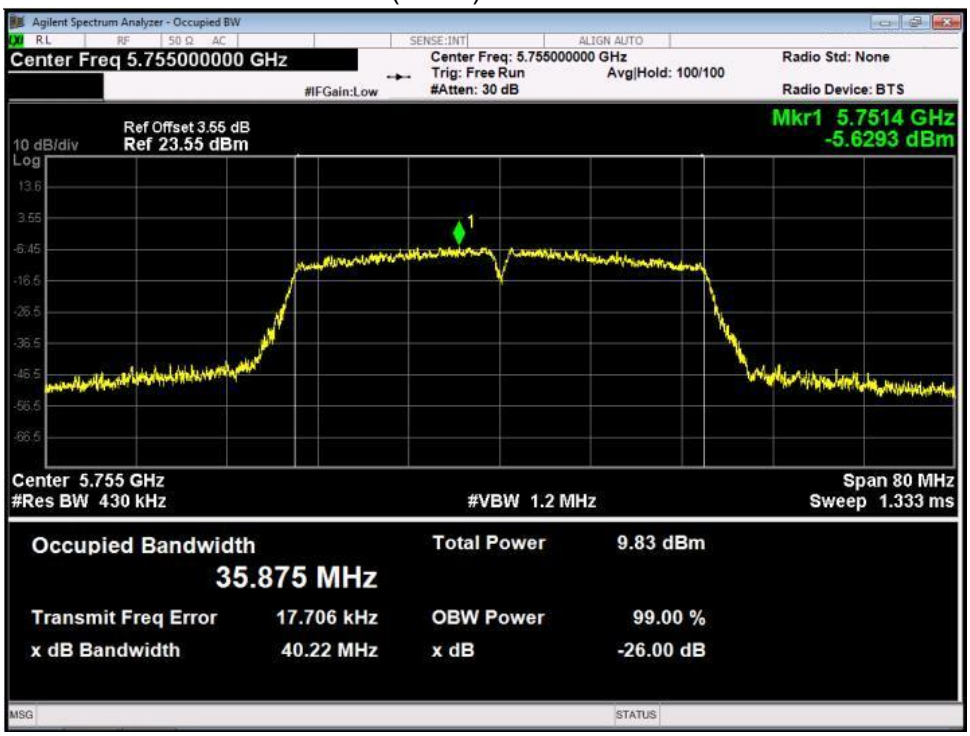
U-NII-3 11n(HT20) Middle CH 5785MHZ



U-NII-3 11n(HT20) High CH 5825MHZ

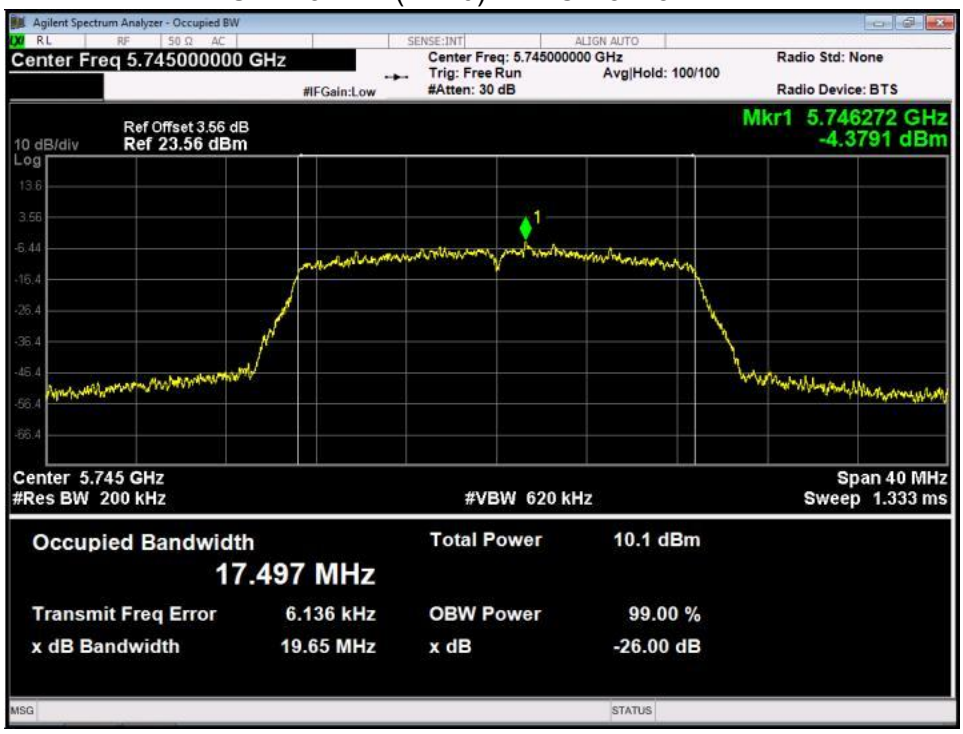


U-NII-3 11n(HT40) Low CH 5755MHZ

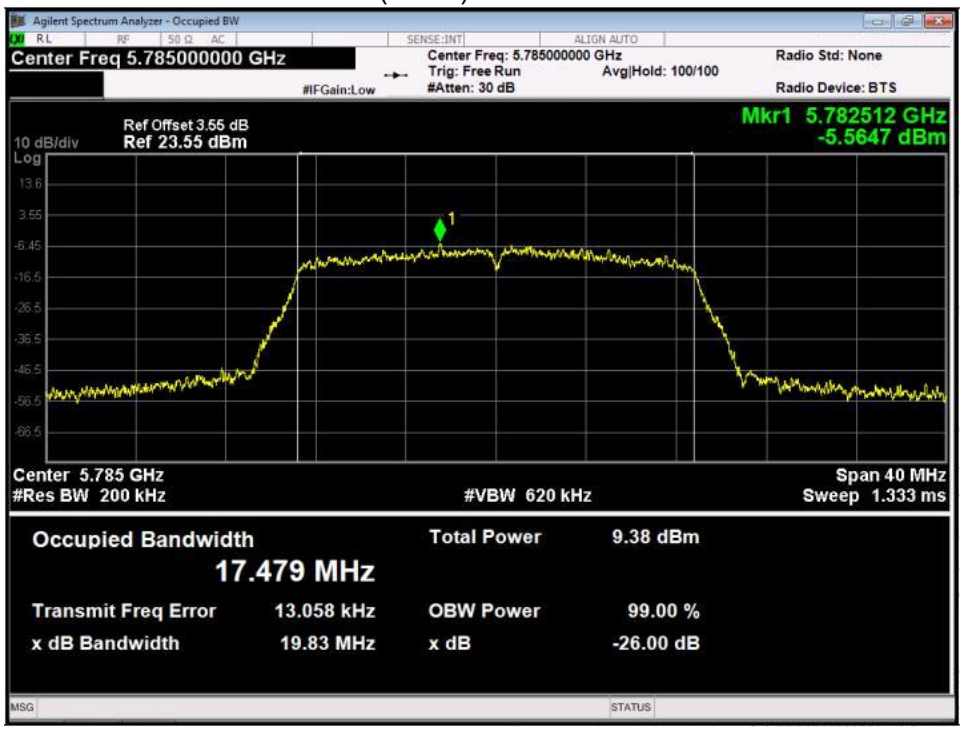


U-NII-3 11n(HT40) High CH 5795MHZ

U-NII-3 11ac(HT20) Low CH 5745MHZ

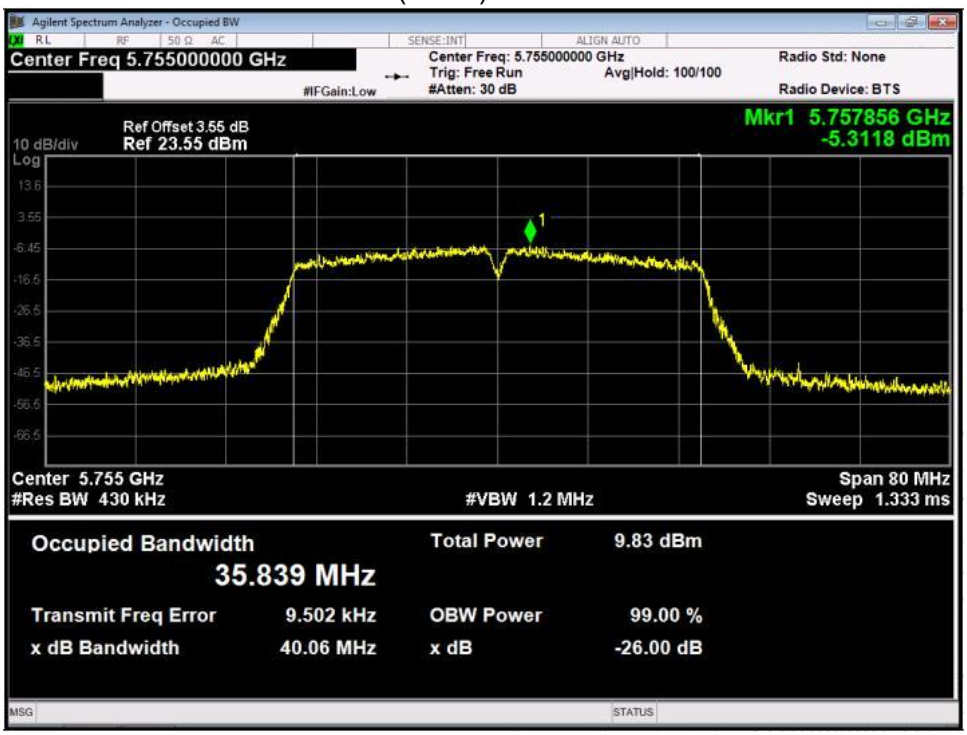


U-NII-3 11ac(HT20) Middle CH 5785MHZ

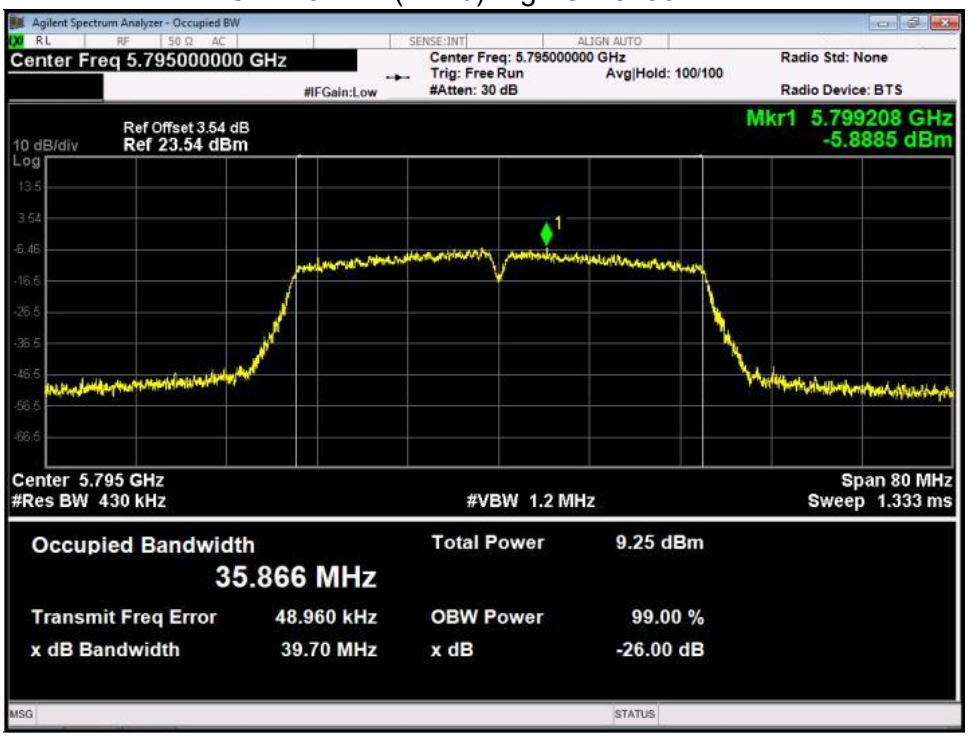


U-NII-3 11ac(HT20) High CH 5825MHZ

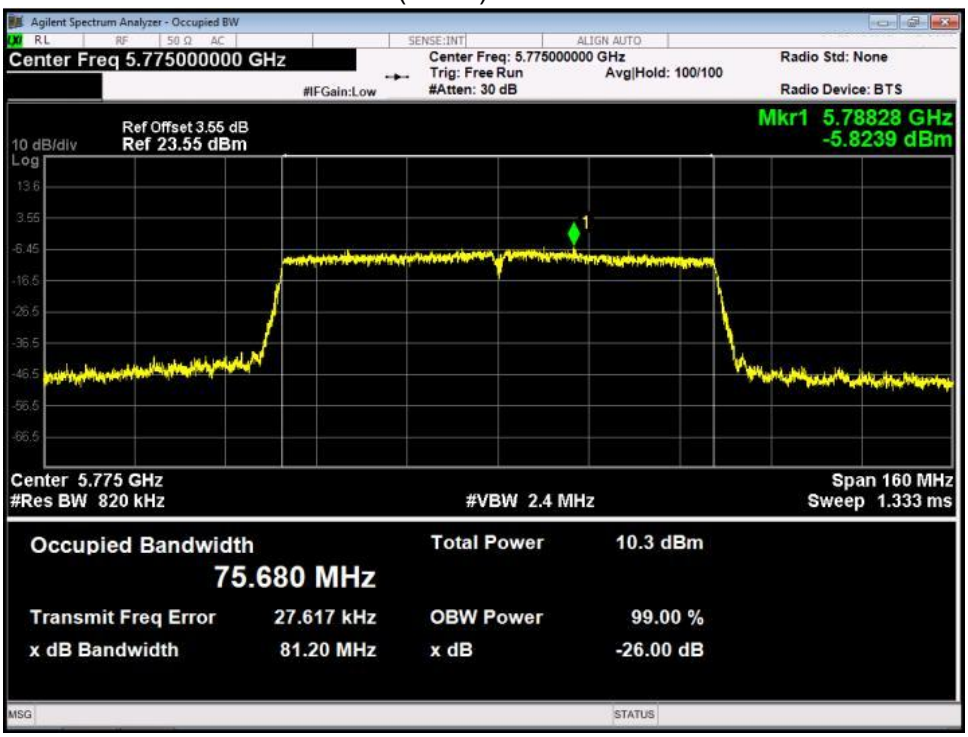
U-NII-3 11ac(HT40) Low CH 5755MHZ



U-NII-3 11ac(HT40) High CH 5795MHZ



U-NII-3 11ac(HT80) Low CH 5775MHZ



4 CONDUCTED OUTPUT POWER

4.1 limit

FCC Part15, Subpart E/ RSS-247		
Test Item	Limit	Frequency Range (MHz)
Conducted Output Power	For FCC client devices: 250mW (24dBm)	5150-5250
	For RSS: e.i.r.p. power: not exceed 200 mW(23dBm) or 10 + 10 log10 B	
	250mW (24dBm) or 11 + 10 log10 B	5250-5350
	250mW (24dBm) or 11 + 10 log10 B	For FCC:5470-5725 For IC:5470-5600 5650-5725
	1 Watt (30dBm)	5725-5850
Note: For ISED: B=99% bandwidth.		

4.2 test procedure

a. Connect each EUT's antenna output to power meter by RF cable and attenuator
b. Get each antenna port's output power of EUT.

4.3 TEST SETUP

4.4 test results

ANT 1

Band	Operation mode	Coneucted Output Power(dBm)		
		Low	Middle	High
U-NII-1	802.11a	17.75	18.11	18.51
	802.11 n(HT20)	16.31	16.99	16.81
	802.11 n(HT40)	16.65	/	17.18
	802.11ac(HT20)	15.95	16.17	15.85
	802.11ac(HT40)	14.69	/	13.97
	802.11ac(HT80)	14.30	/	/
U-NII-3	802.11a	15.59	14.51	15.94
	802.11 n(HT20)	13.57	12.73	13.57
	802.11 n(HT40)	13.17	/	13.86
	802.11ac(HT20)	12.46	13.37	13.59
	802.11ac(HT40)	10.32	/	10.94
	802.11ac(HT80)	10.50	/	/

5. POWER SPECTRAL DENSITY

5.1 LIMIT

FCC Part15, Subpart E/ RSS-247		
Test Item	Limit	Frequency Range (MHz)
Power Spectral Density	For FCC: Other than Mobile and portable:17dBm/MHz Mobile and portable:11dBm/MHz	5150-5250
	For RSS eirp:10dBm/MHz	
	11dBm/MHz	5250-5350
	11dBm/MHz	For FCC:5470-5725 For IC:5470-5600 5650-5725
	30dBm/500kHz	5725-5850

5.2 TEST PROCEDURE

The transmitter output was connected to a spectrum analyzer. Power density was measured by spectrum analyzer with 1MHz RBW and 3MHz VBW.

Connect the UUT to the spectrum analyser and use the following settings:

5725MHz-5850MHz

Note:

1. For UNII-3, according to KDB publication 789033 D02 General UNII Test Procedures New Rules v01, section II.F.5., it is acceptable to set RBW at 1MHz and VBW at 3MHz if the spectrum analyzer does not have 500kHz RBW.
2. The value measured with RBW=1MHz is to be added with 10log(500kHz/1MHz) which is - 3dB. For example, if the measured value is +10dBm using RBW=1MHz (that is +10dBm/MHz), then the converted value will be +7dBm/500kHz.

Allow trace to fully stabilize and use the peak marker function to determine the maximum amplitude level within the RBW.

5.3 TEST SETUP

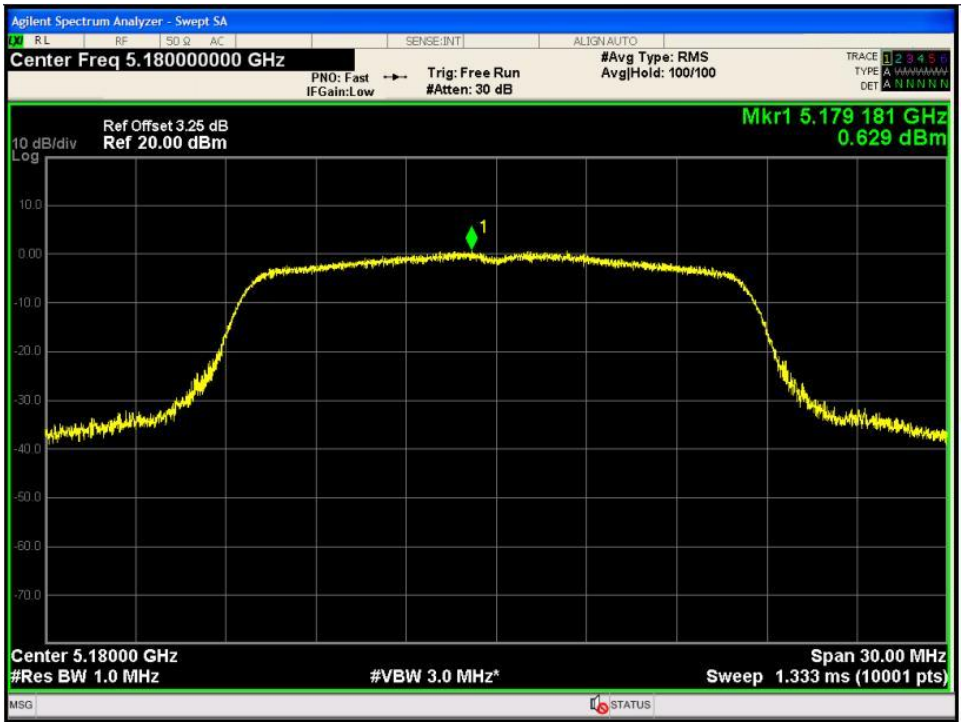
5.4 TEST RESULTS

Band	Operation mode	Power Spectral Density(dBm/MHz)		
		Low	Middle	High
U-NII-1	802.11a	0.63	1.42	2.91
	802.11 n(HT20)	-0.90	-1.12	-1.35
	802.11 n(HT40)	-4.25	/	-5.09
	802.11ac(HT20)	-1.50	-2.13	-1.81
	802.11ac(HT40)	-4.30	/	-5.01
	802.11ac(HT80)	-10.61	/	/

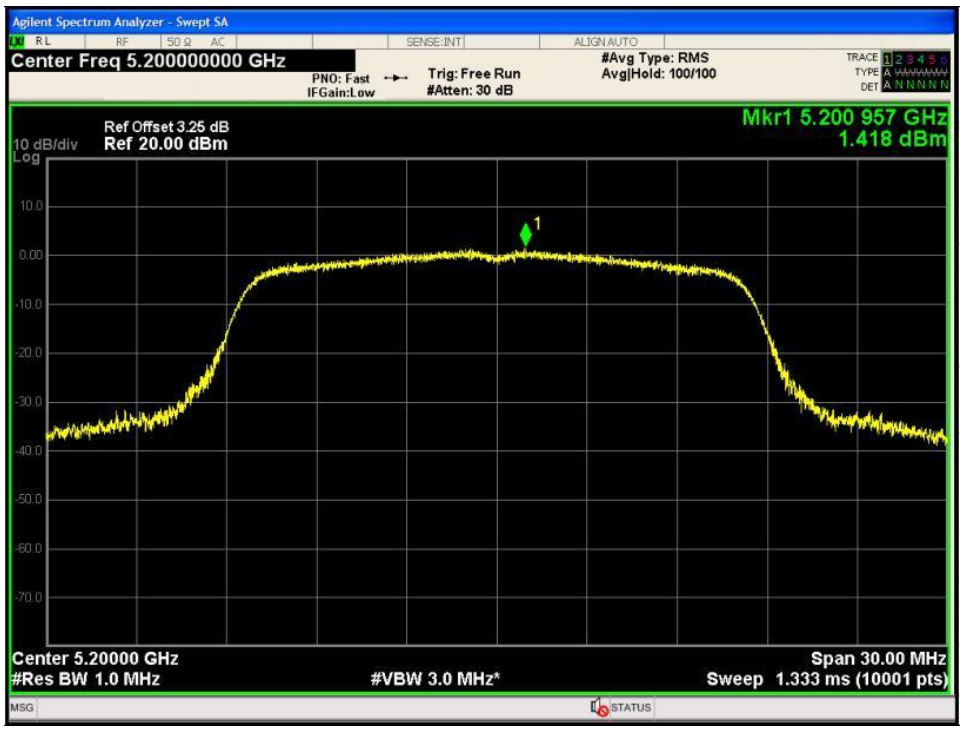
Band	Operation mode	Power Spectral Density(dBm/500KHz)		
		Low	Middle	High
U-NII-3	802.11a	-6.31	-7.12	-8.00
	802.11 n(HT20)	-7.65	-8.44	-9.68
	802.11 n(HT40)	-11.21	/	-12.21
	802.11ac(HT20)	-7.93	-8.73	-9.40
	802.11ac(HT40)	-11.57	/	-12.17
	802.11ac(HT80)	-15.86	/	/

5.5 original test data

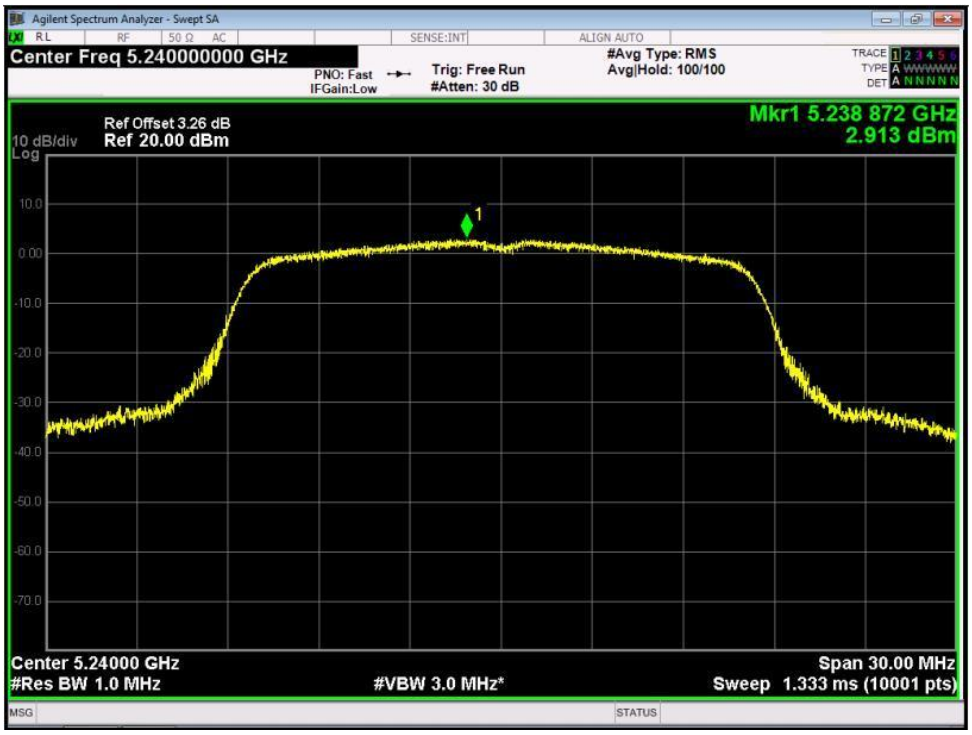
U-NII-1 802.11a Low CH



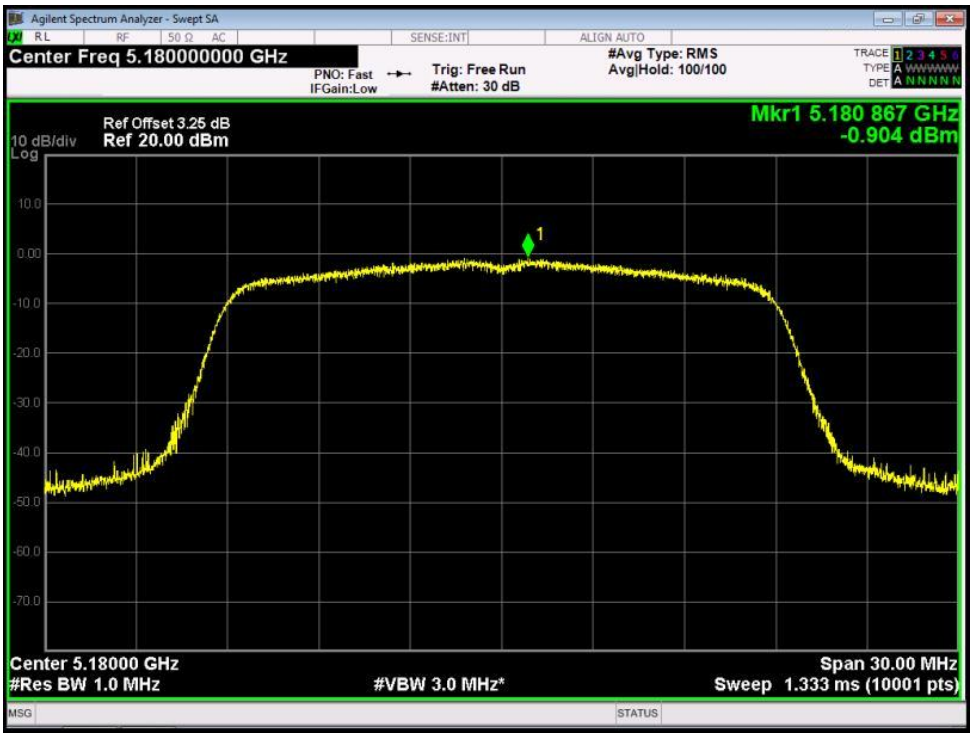
U-NII-1 802.11a Middle CH



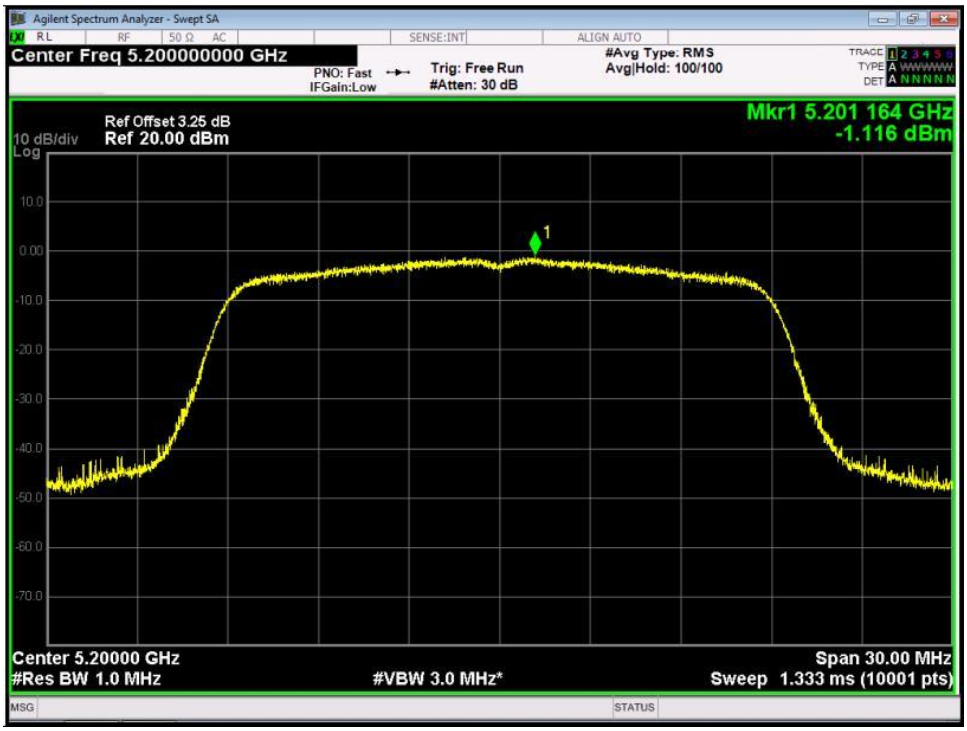
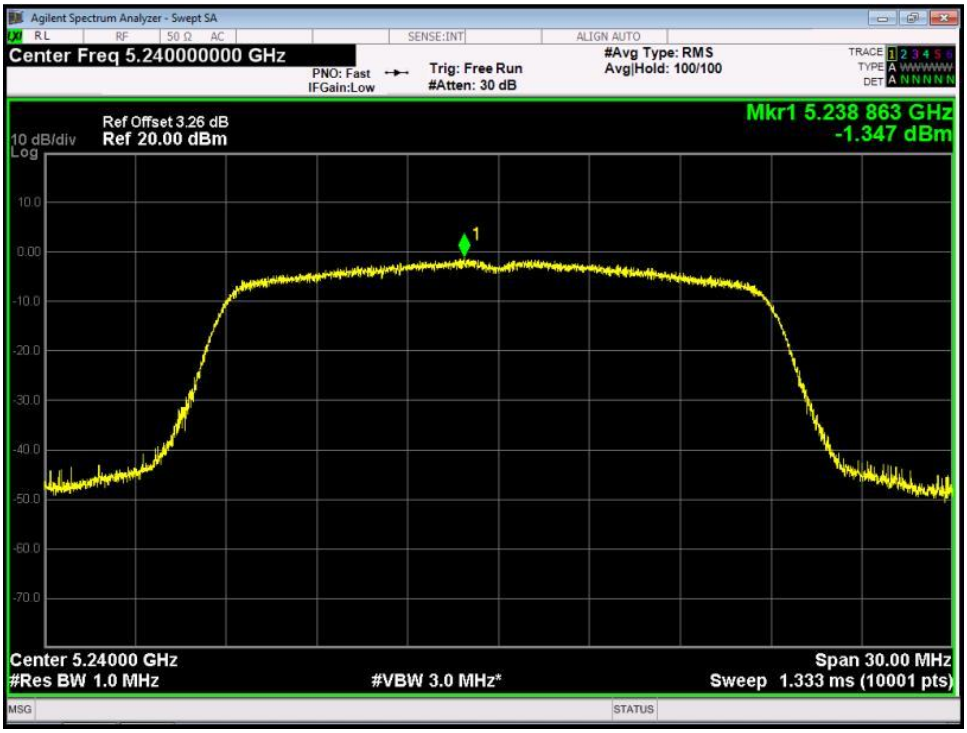
U-NII-1 802.11a High CH



U-NII-1 802.11n(HT20) Low CH



U-NII-1 802.11n(HT20) Middle CH



U-NII-1 802.11n(HT20) High CH