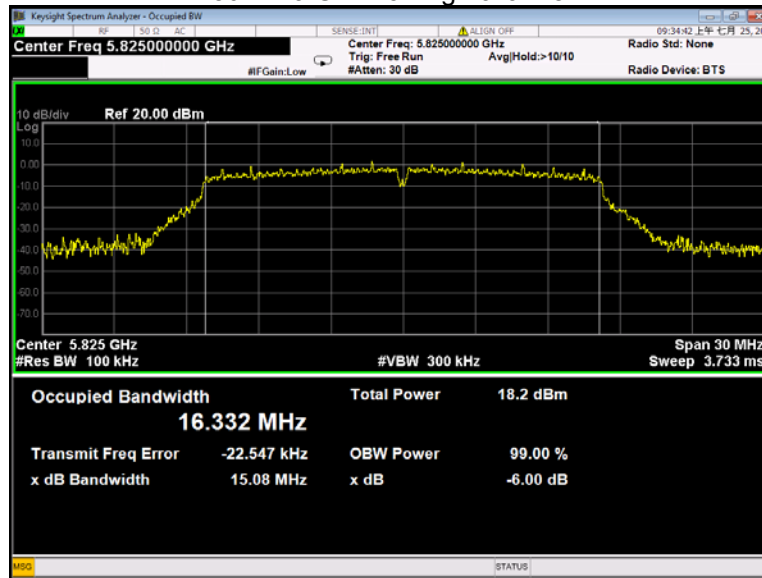
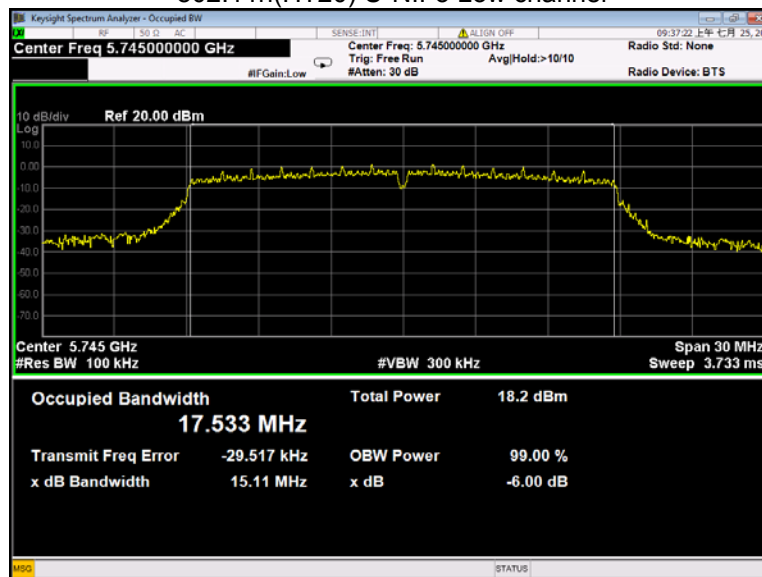


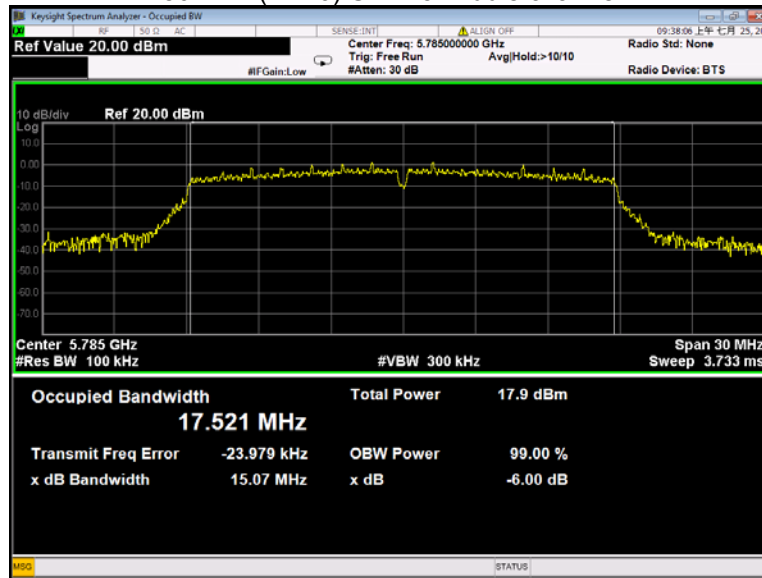
802.11a U-NII-3 High channel



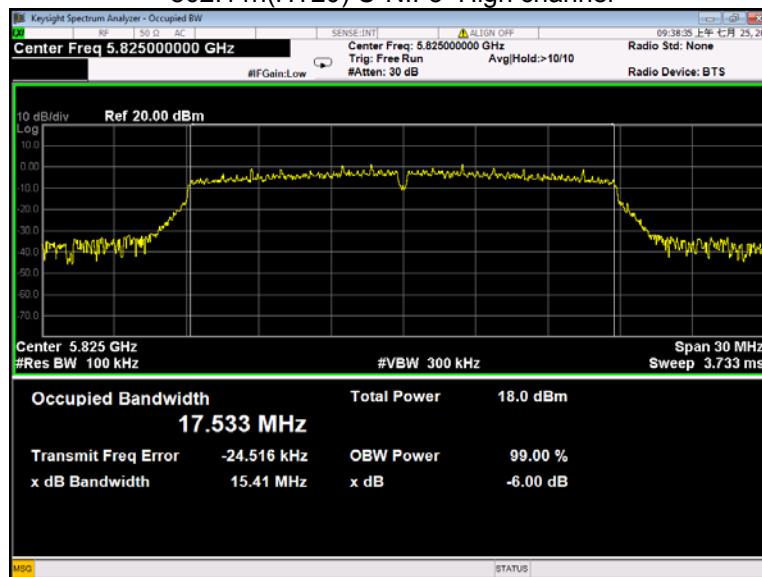
802.11n(HT20) U-NII-3 Low channel



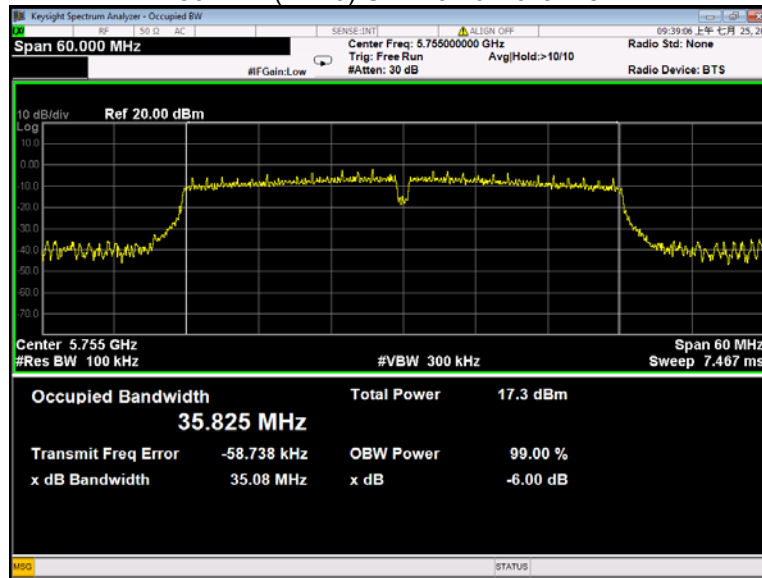
802.11n(HT20) U-NII-3 Middle channel



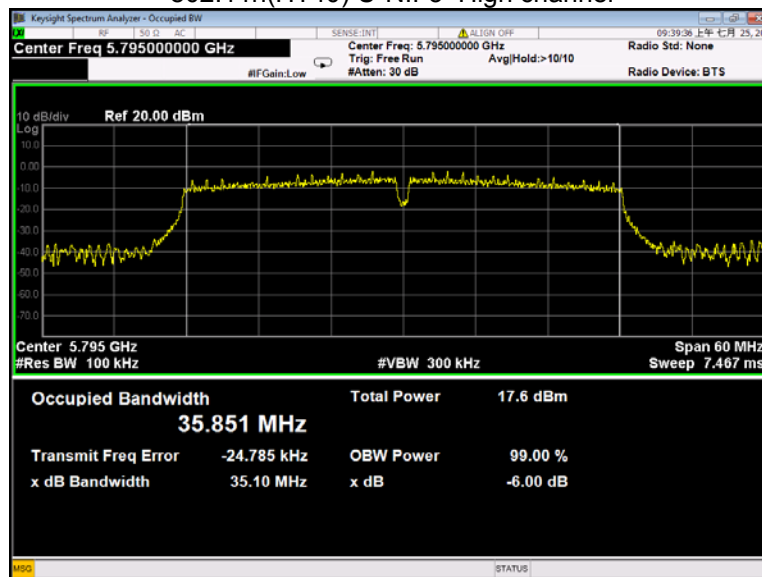
802.11n(HT20) U-NII-3 High channel



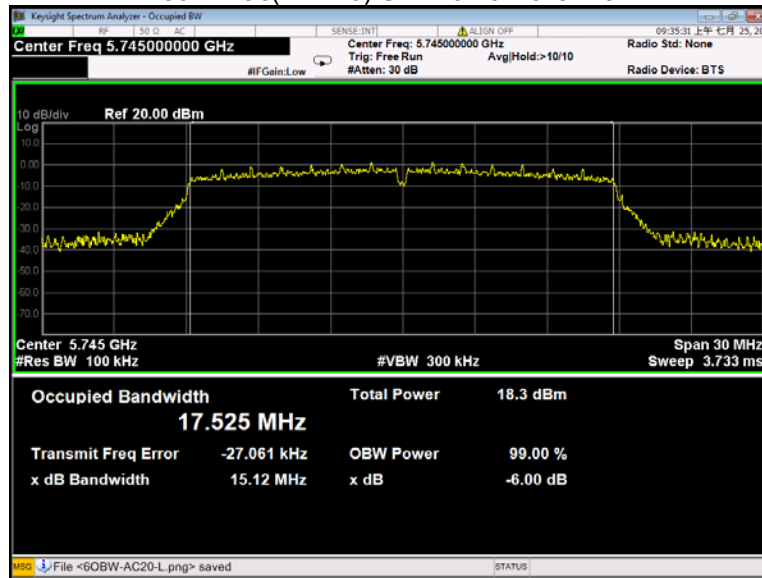
802.11n(HT40) U-NII-3 Low channel



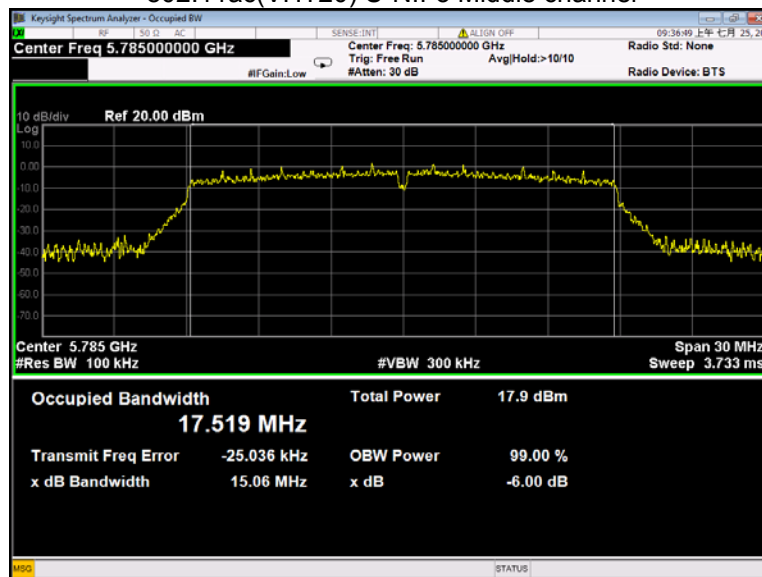
802.11n(HT40) U-NII-3 High channel



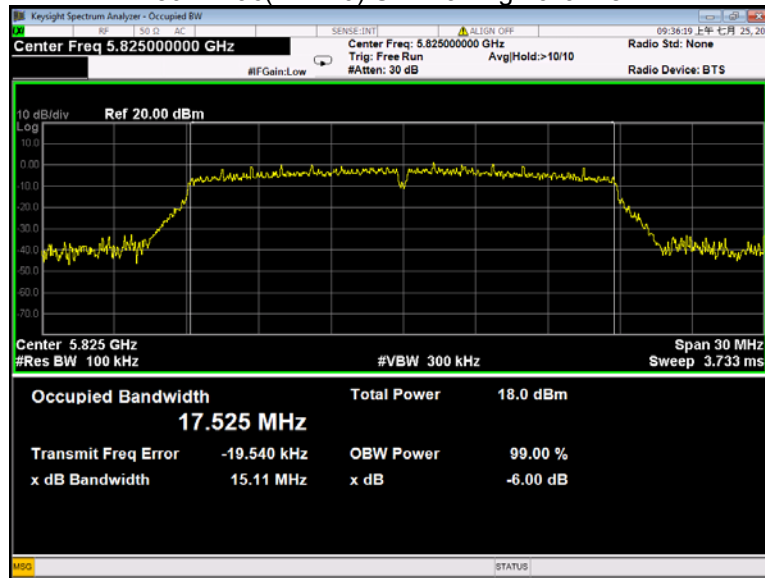
802.11ac(VHT20) U-NII-3 Low channel



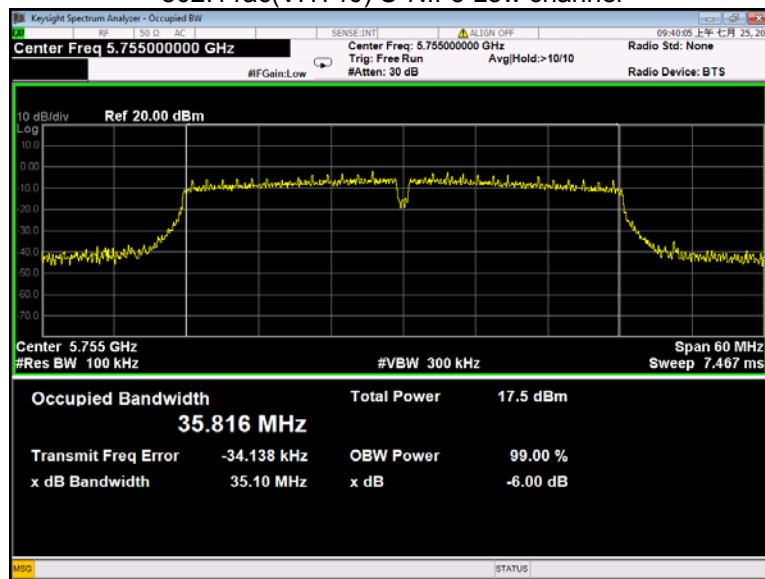
802.11ac(VHT20) U-NII-3 Middle channel



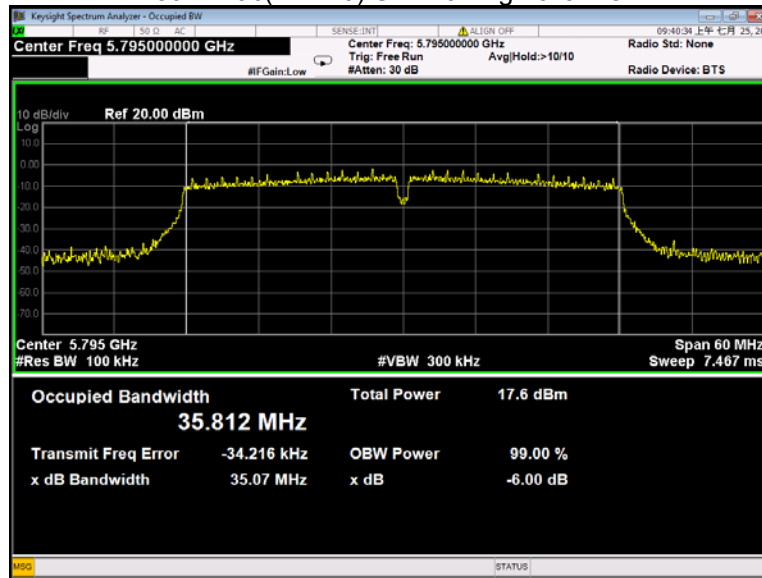
802.11ac(VHT20) U-NII-3 High channel



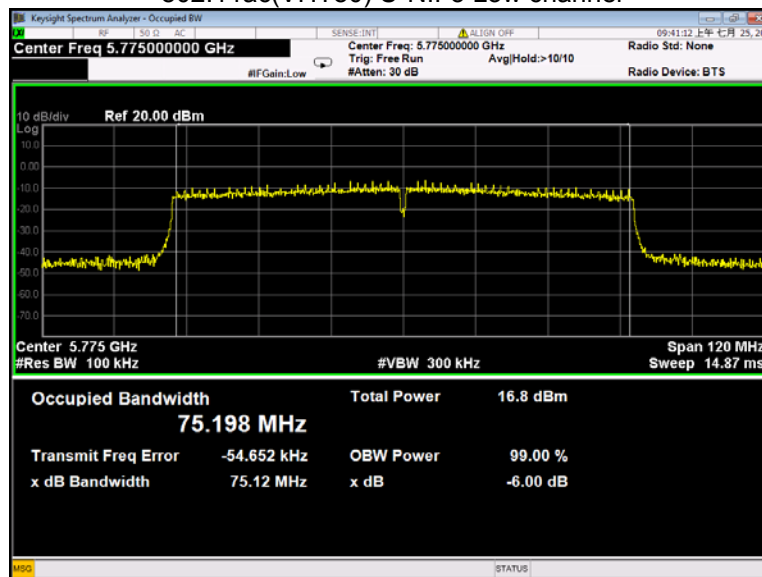
802.11ac(VHT40) U-NII-3 Low channel



802.11ac(VHT40) U-NII-3 High channel



802.11ac(VHT80) U-NII-3 Low channel



12 26 dB Bandwidth and 99% Occupied Bandwidth

Test Requirement:	FCC 47CFR Part 15 Section 15.407 (a) KDB662911 D01 Multiple Transmitter Output v02r01
Test Method:	KDB789033 D02 General U-NII Test Procedures New Rules v02r01 Section D
Test Limit:	No restriction limits
Test Result:	PASS

12.1 Test Procedure

1. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum;
2. Set the spectrum analyzer: RBW = 1% to 5% of the OBW, VBW = 3x RBW

12.2 Test Result

Band	Operation mode	26 dB Bandwidth (MHz)			99% Bandwidth (MHz)		
		Low	Middle	High	Low	Middle	High
U-NII-1	802.11a	19.620	19.740	19.740	16.440	16.500	16.440
	802.11n(HT20)	19.920	20.040	19.980	17.580	17.640	17.700
	802.11n(HT40)	40.200	/	40.200	36.120	/	36.240
	802.11ac(VHT20)	19.800	20.040	19.920	17.580	17.640	17.640
	802.11ac(VHT40)	39.960	/	40.440	36.120	/	36.240
	802.11ac(VHT80)	/	79.920	/	/	75.120	/

Band	Operation mode	26 dB Bandwidth (MHz)			99% Bandwidth (MHz)		
		Low	Middle	High	Low	Middle	High
U-NII-2A	802.11a	19.680	19.860	19.740	16.440	16.440	16.500
	802.11n(HT20)	20.100	20.040	20.100	17.640	17.640	17.640
	802.11n(HT40)	40.320	/	40.200	36.240	/	36.240
	802.11ac(VHT20)	20.100	20.100	19.920	17.640	17.640	17.640
	802.11ac(VHT40)	40.200	/	40.320	36.240	/	36.240
	802.11ac(VHT80)	/	80.160	/	/	75.600	/

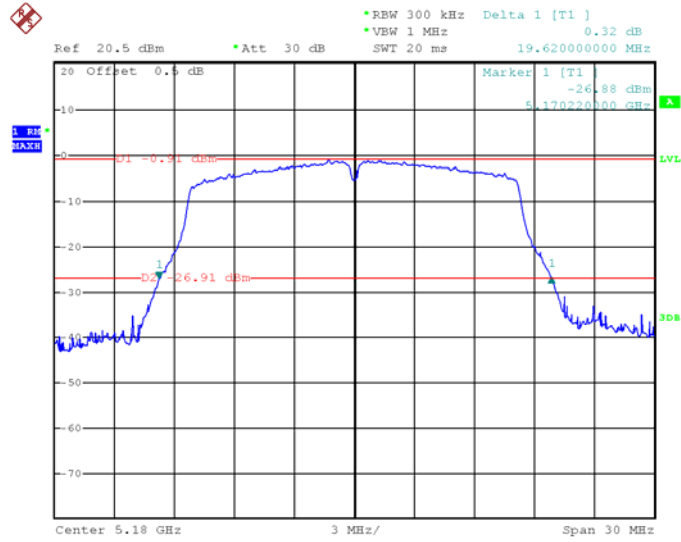
Band	Operation mode	26 dB Bandwidth (MHz)			99% Bandwidth (MHz)		
		Low	Middle	High	Low	Middle	High
U-NII-2C	802.11a	19.740	19.620	19.680	16.440	16.500	16.500
	802.11n(HT20)	19.980	20.040	20.040	17.640	17.640	17.700
	802.11n(HT40)	40.200	40.560	40.200	36.240	36.240	36.240
	802.11ac(VHT20)	20.040	19.860	19.980	17.640	17.640	17.640
	802.11ac(VHT40)	40.200	40.560	40.320	36.240	36.240	36.240
	802.11ac(VHT80)	80.160	/	80.160	75.360	75.360	/

Band	Operation mode	99% Bandwidth (MHz)		
		Low	Middle	High
U-NII-3	802.11a	16.500	16.500	16.500
	802.11n(HT20)	17.640	17.700	17.640
	802.11n(HT40)	36.240	/	36.480
	802.11ac(VHT20)	17.700	17.700	17.640
	802.11ac(VHT40)	36.240	/	36.360
	802.11ac(VHT80)	75.600	/	/

Test result plots shown as follows:

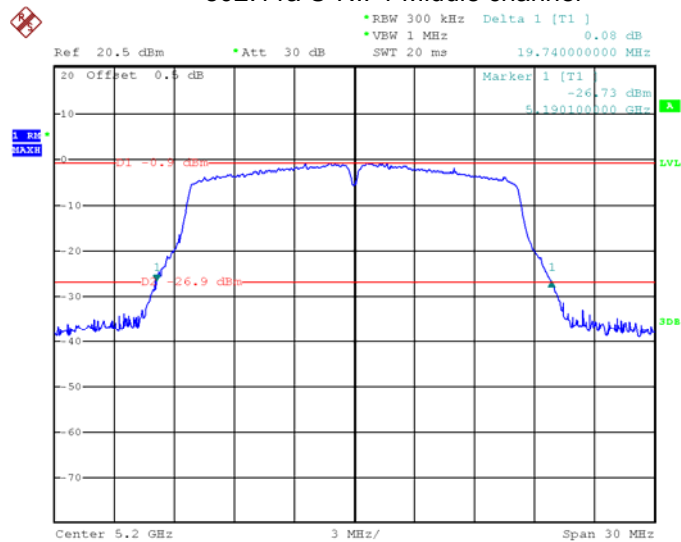
26 dB Bandwidth

802.11a U-NII-1 Low channel



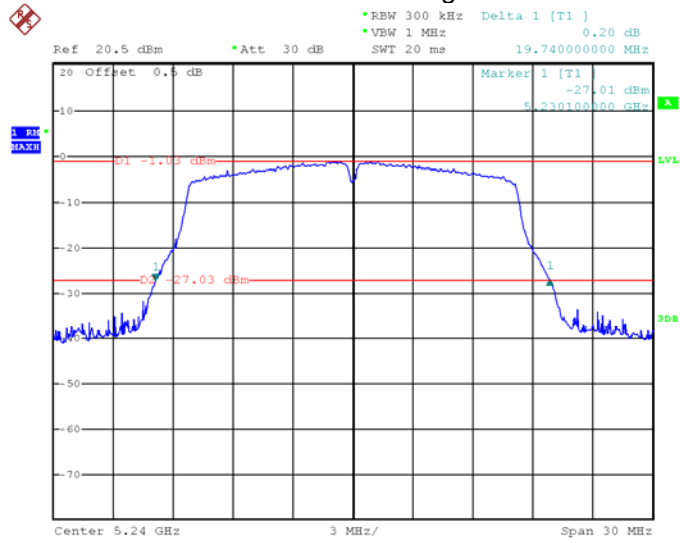
Date: 25.APR.2023 19:27:26

802.11a U-NII-1 Middle channel



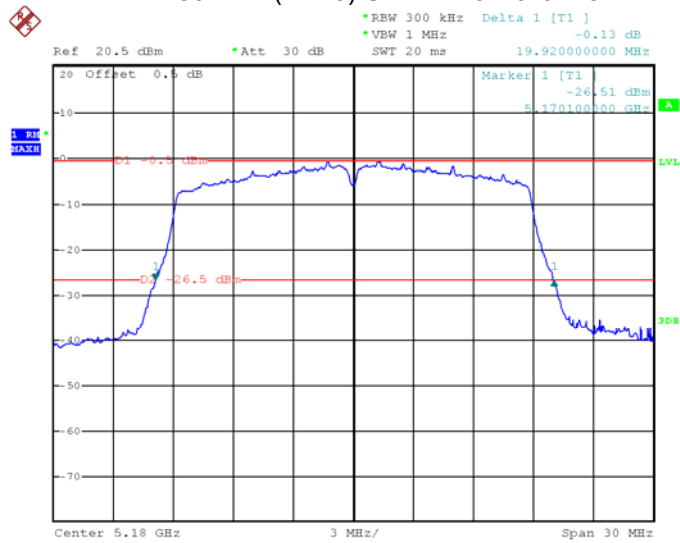
Date: 25.APR.2023 19:28:47

802.11a U-NII-1 High channel



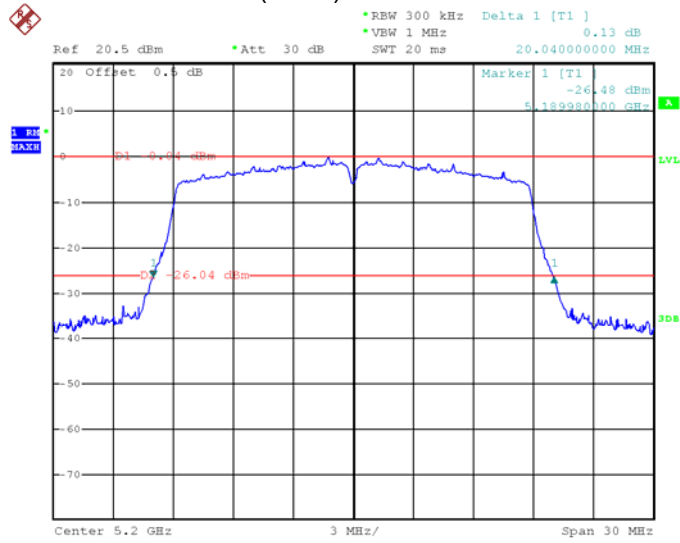
Date: 25.APR.2023 19:29:52

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



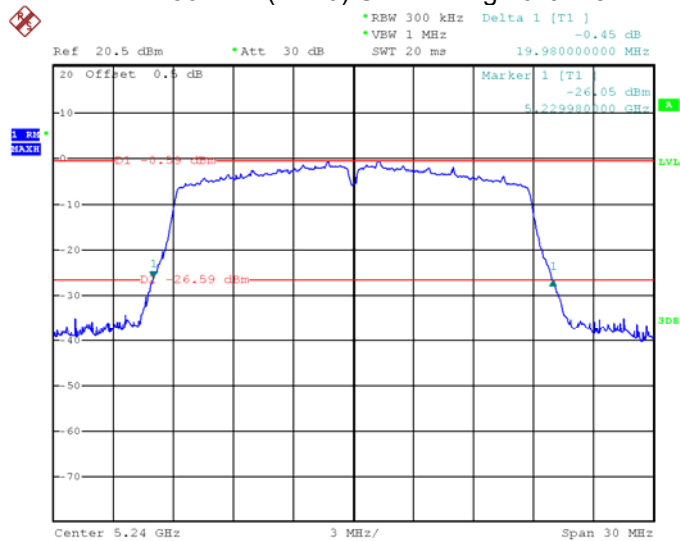
Date: 25.APR.2023 19:35:05

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



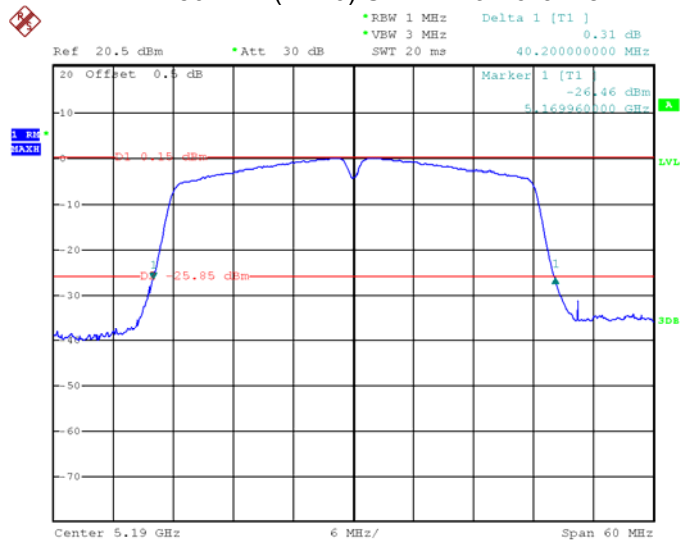
Date: 25.APR.2023 19:36:08

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



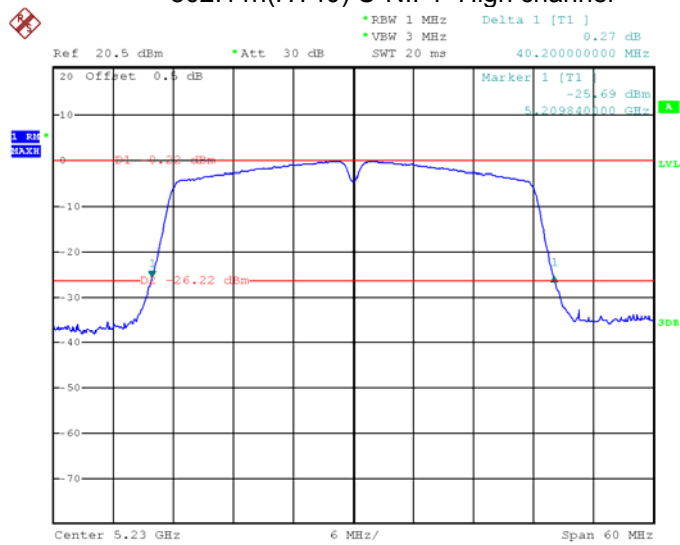
Date: 25.APR.2023 19:37:10

802.11n(HT40) U-NII-1 Low channel



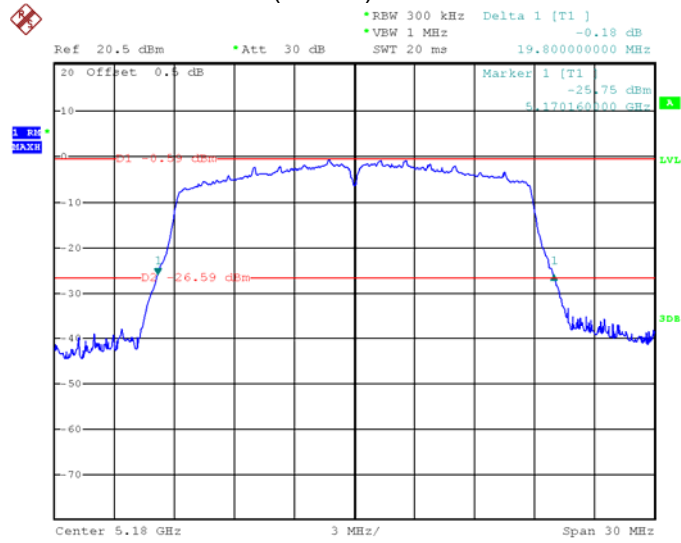
Date: 25.APR.2023 19:39:19

802.11n(HT40) U-NII-1 High channel



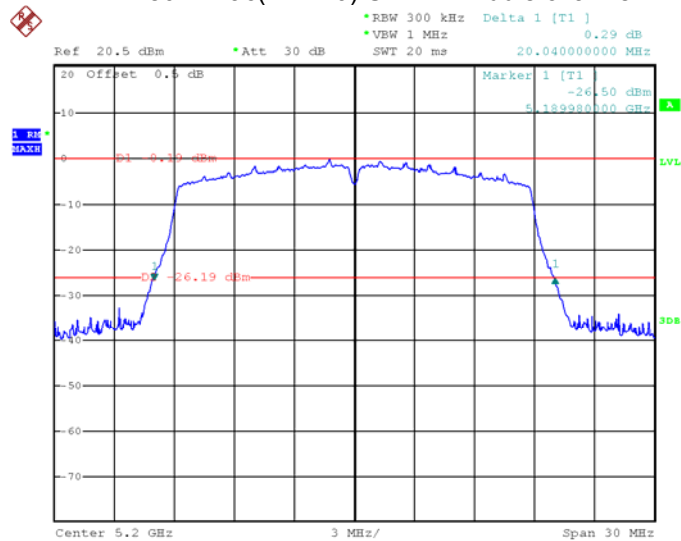
Date: 25.APR.2023 19:40:21

802.11ac(VHT20) U-NII-1 Low channel

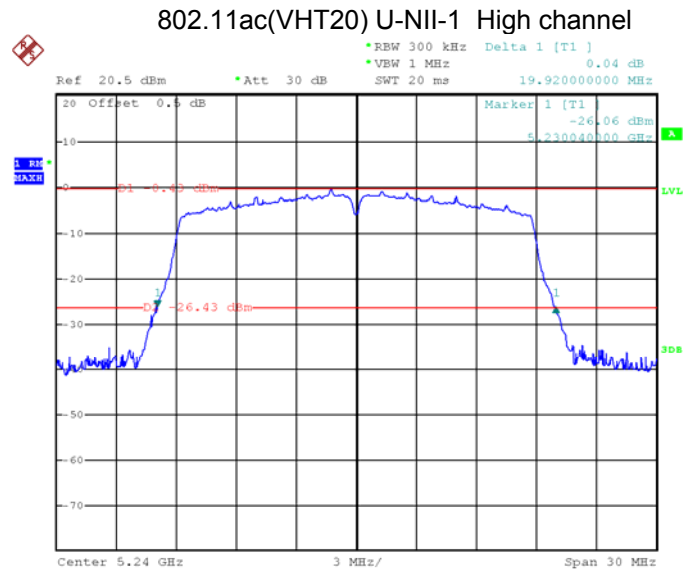


Date: 25.APR.2023 19:32:23

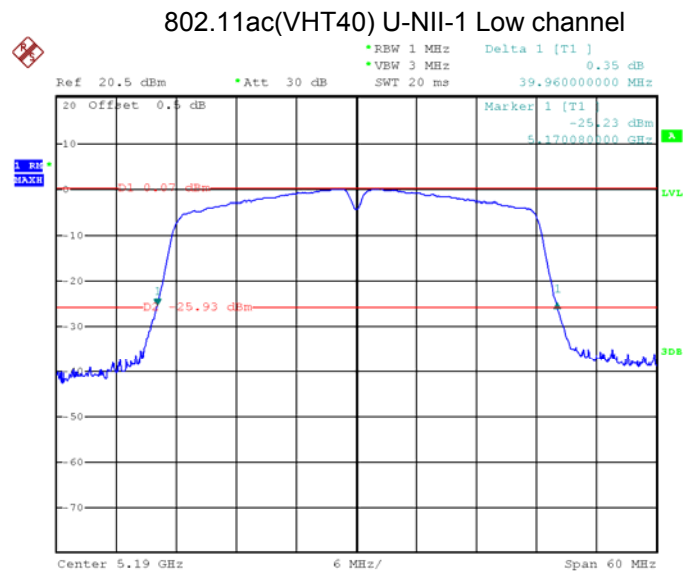
802.11ac(VHT20) U-NII-1 Middle channel



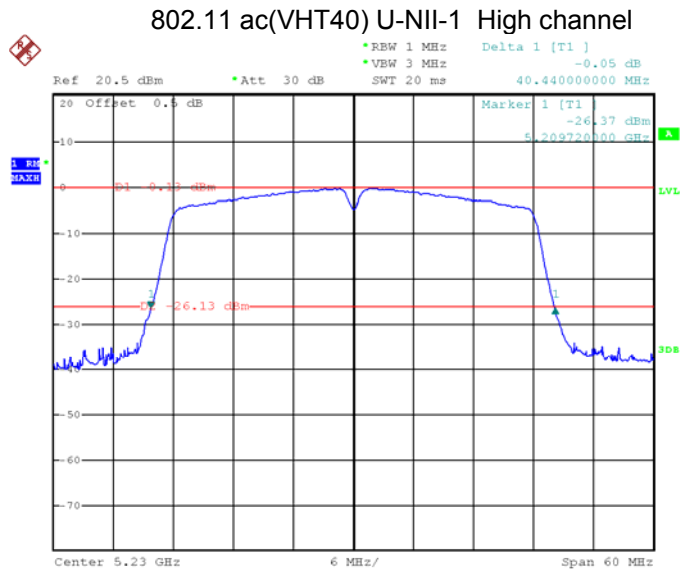
Date: 25.APR.2023 19:33:09



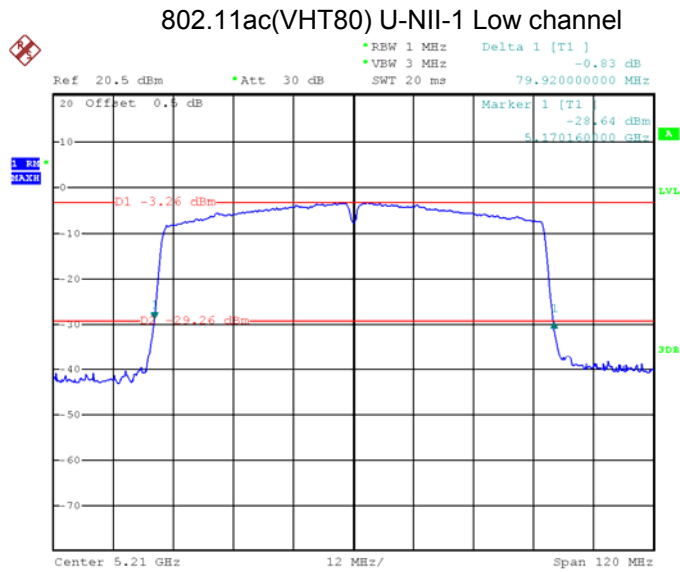
Date: 25.APR.2023 19:34:02



Date: 25.APR.2023 19:41:46

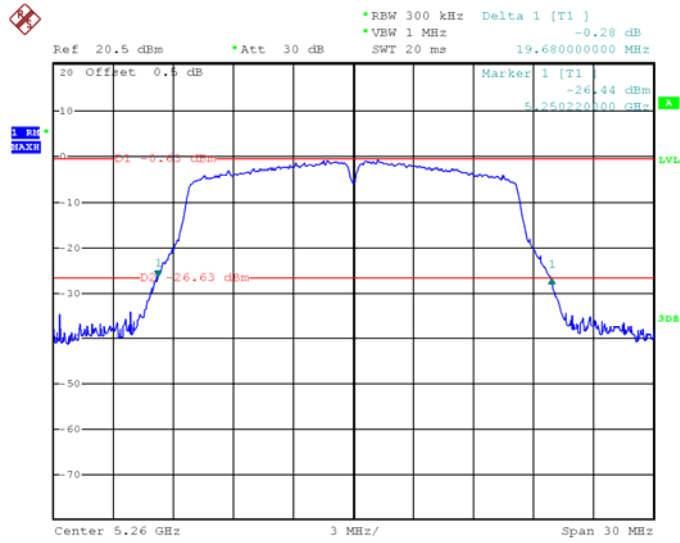


Date: 25.APR.2023 19:42:37



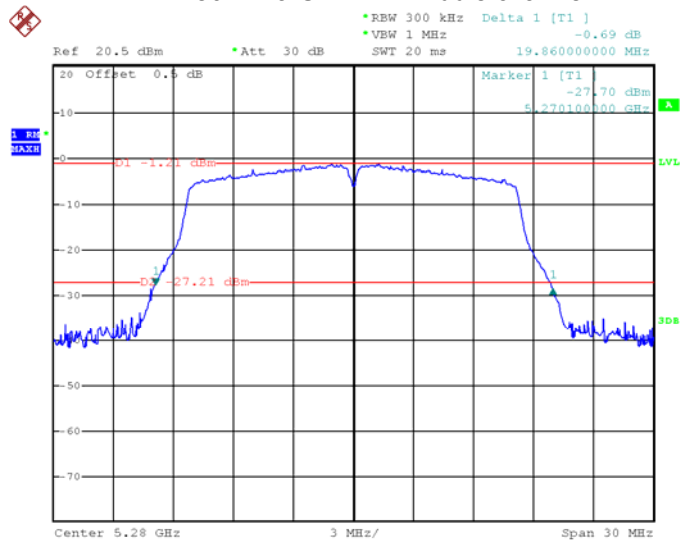
Date: 25.APR.2023 19:43:57

802.11a U-NII-2A Low channel



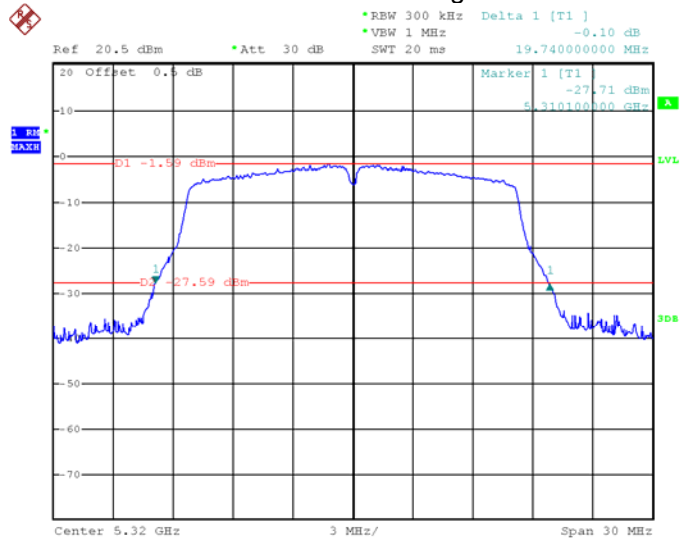
Date: 25.APR.2023 19:45:58

802.11a U-NII-2A Middle channel



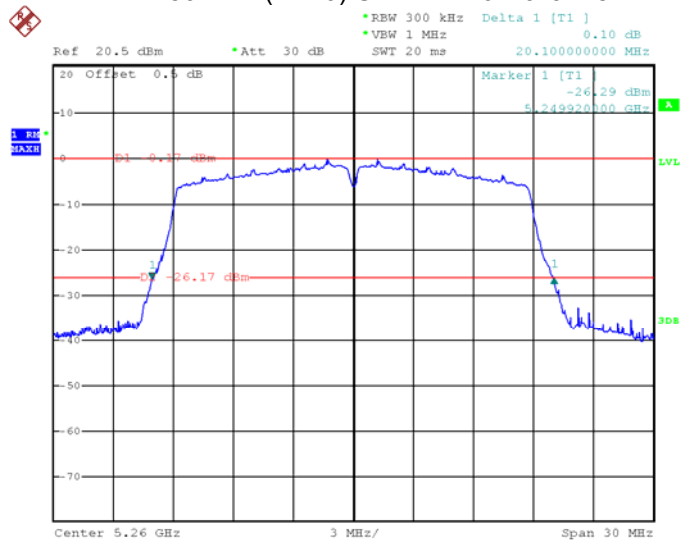
Date: 25.APR.2023 19:47:15

802.11a U-NII-2A High channel

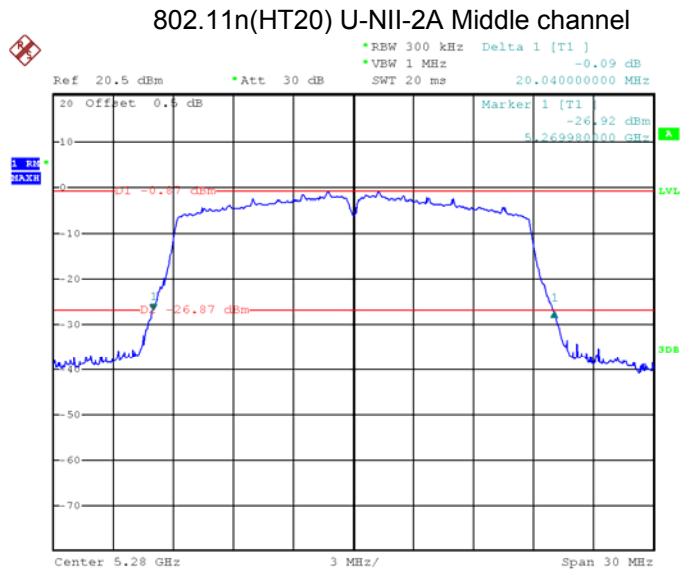


Date: 25.APR.2023 19:48:23

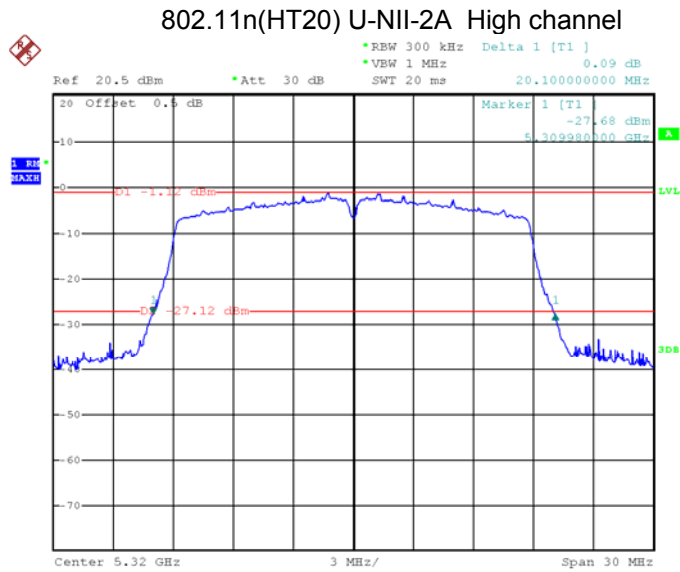
802.11n(HT20) U-NII-2A Low channel



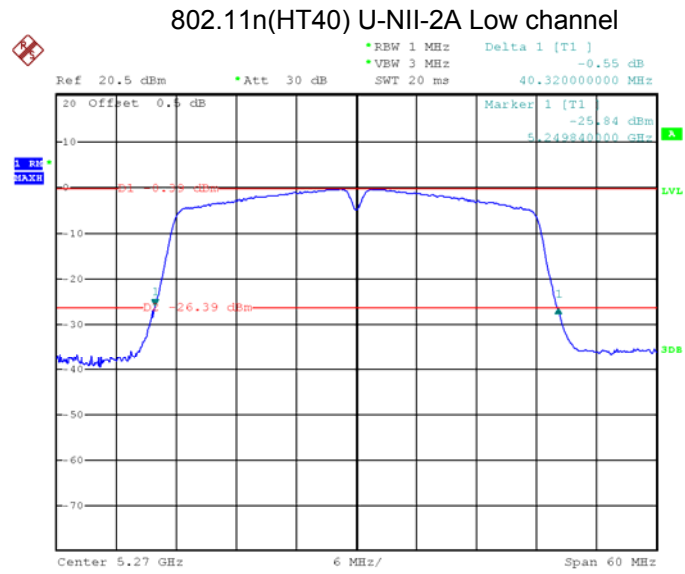
Date: 25.APR.2023 19:52:52



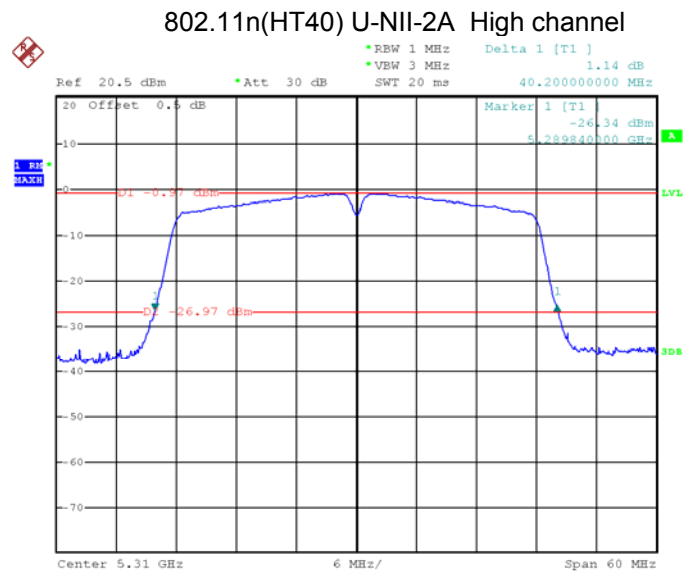
Date: 25.APR.2023 19:53:52



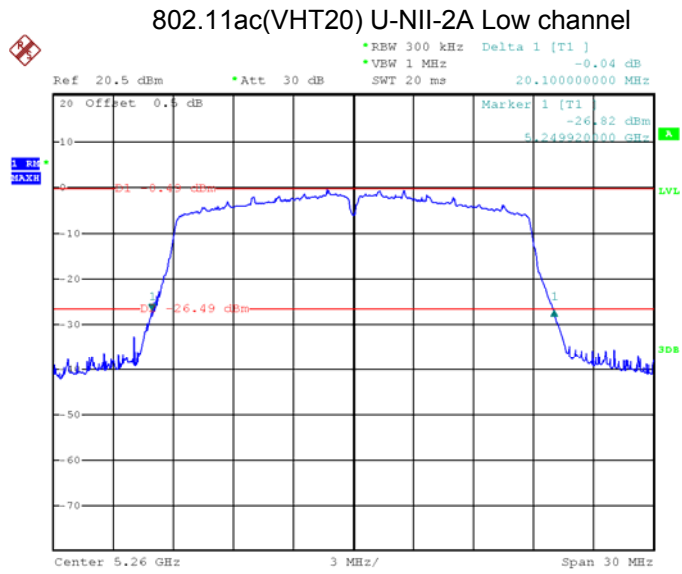
Date: 25.APR.2023 19:55:25



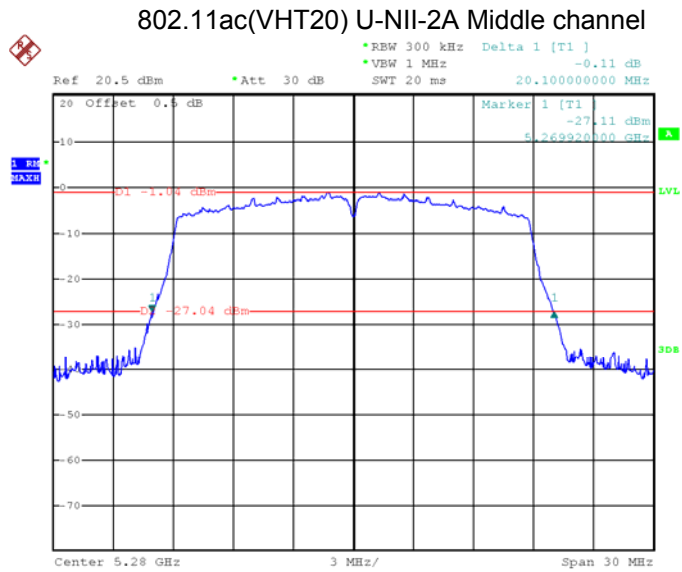
Date: 25.APR.2023 19:56:48



Date: 25.APR.2023 19:58:21

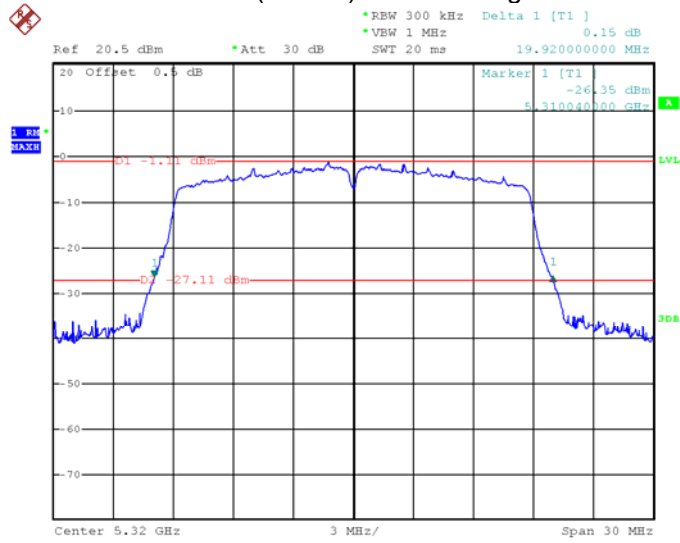


Date: 25.APR.2023 19:49:41



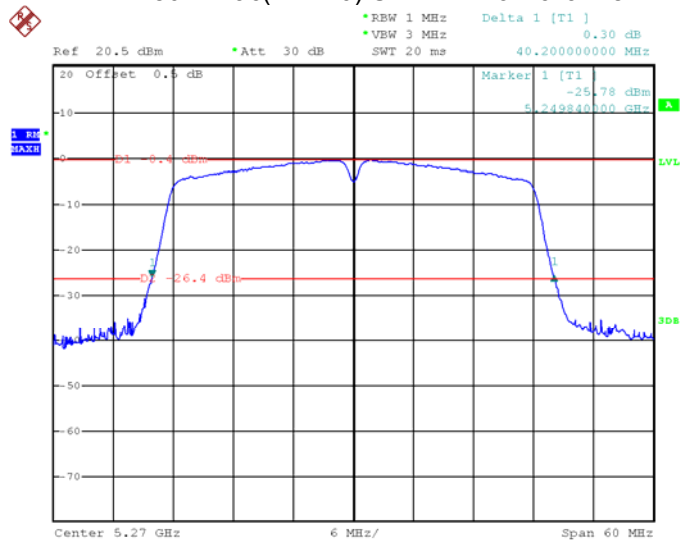
Date: 25.APR.2023 19:50:34

802.11ac(VHT20) U-NII-2A High channel

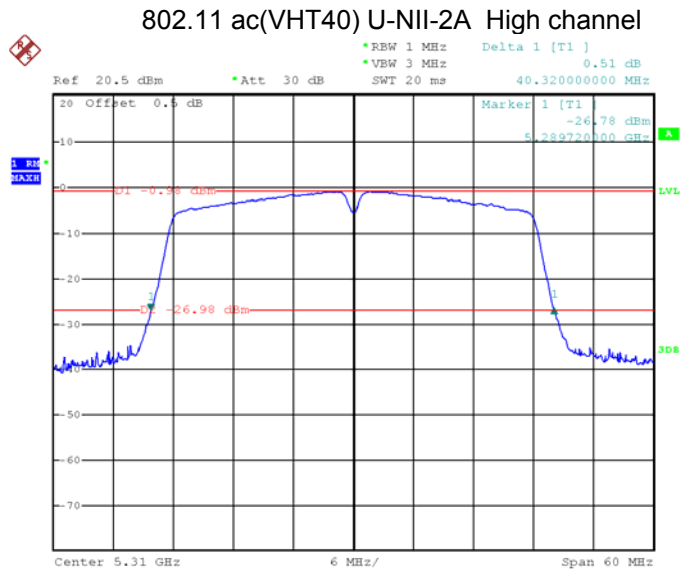


Date: 25.APR.2023 19:51:39

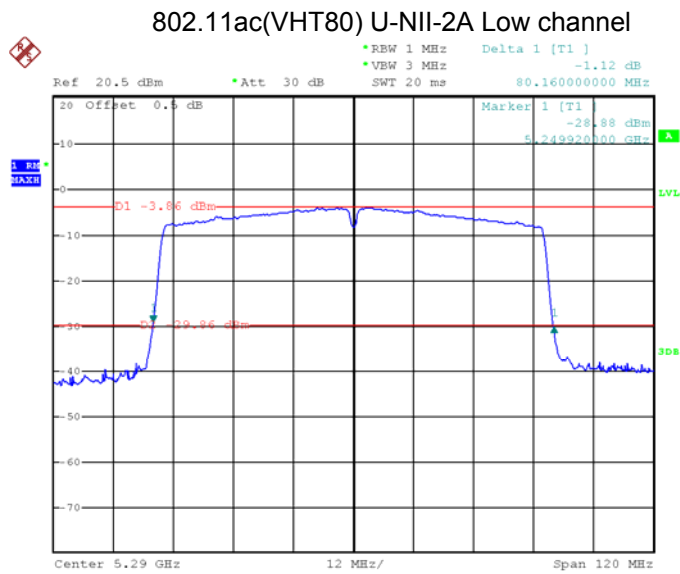
802.11ac(VHT40) U-NII-2A Low channel



Date: 25.APR.2023 19:59:37

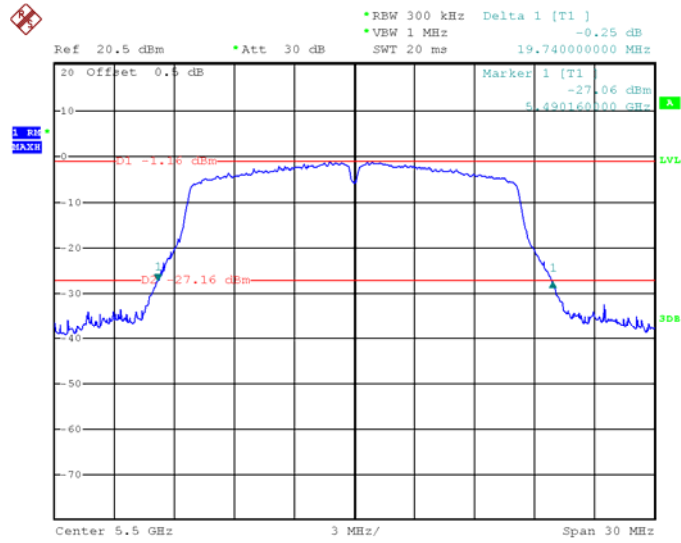


Date: 25.APR.2023 20:00:49



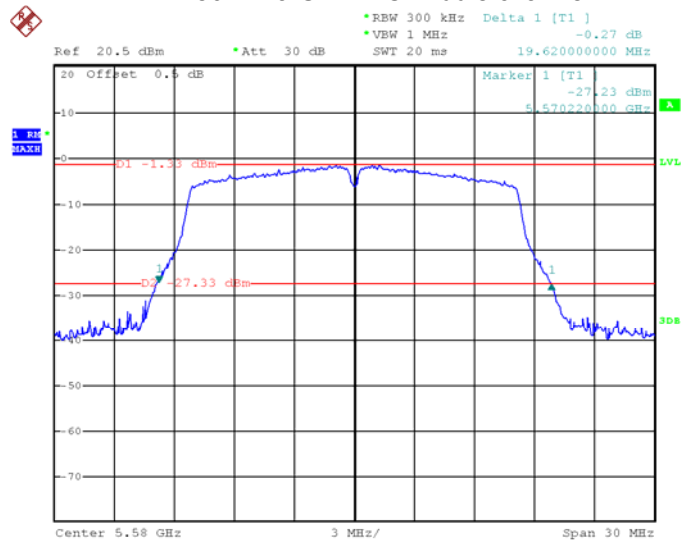
Date: 25.APR.2023 20:02:09

802.11a U-NII-2C Low channel



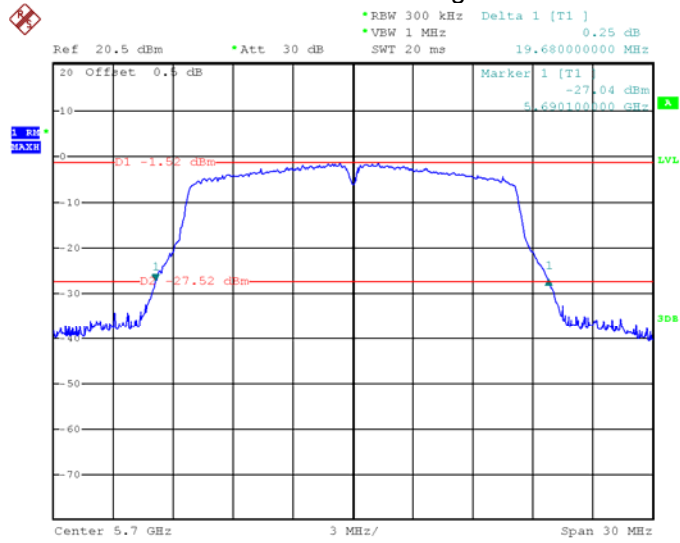
Date: 25.APR.2023 20:41:37

802.11a U-NII-2C Middle channel



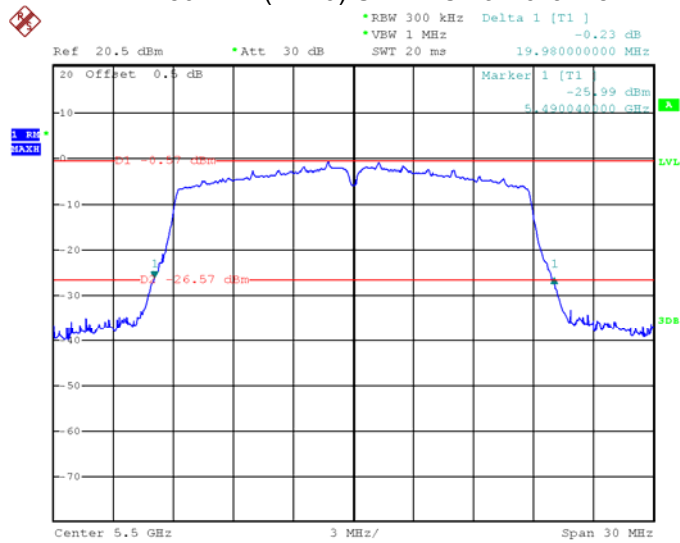
Date: 25.APR.2023 20:42:35

802.11a U-NII-2C High channel

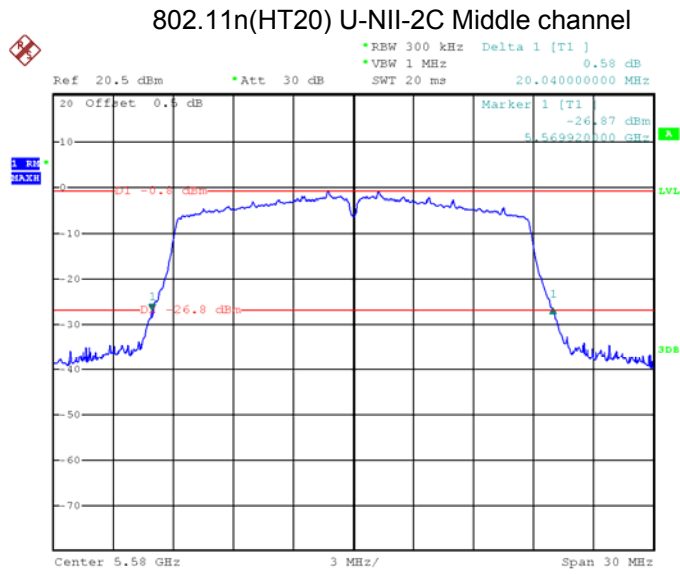


Date: 25.APR.2023 20:43:29

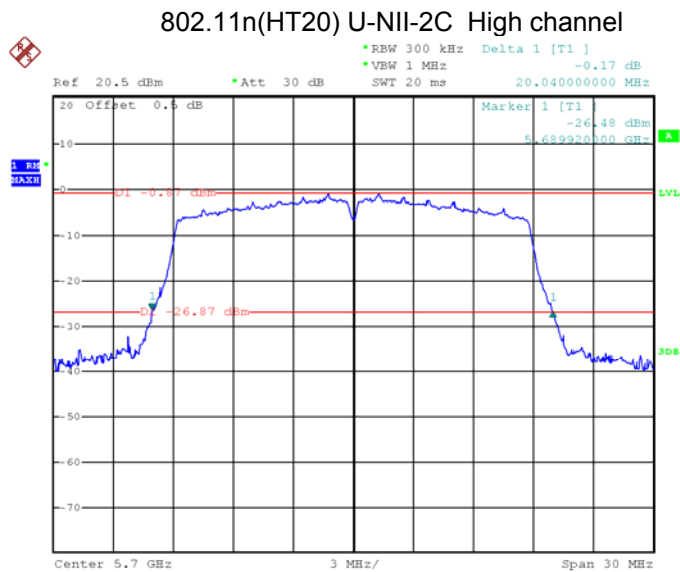
802.11n(HT20) U-NII-2C Low channel



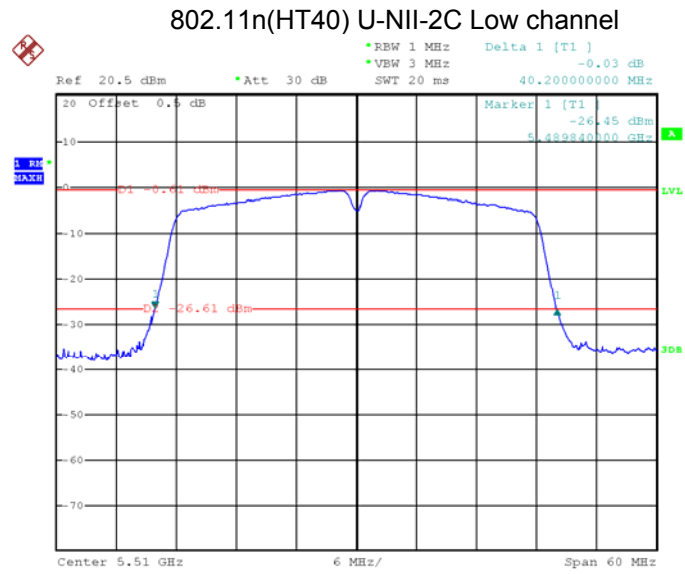
Date: 25.APR.2023 20:47:39



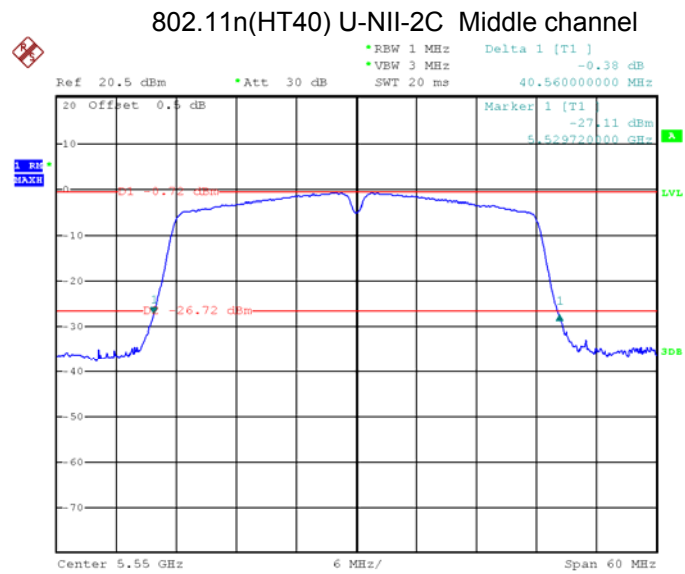
Date: 25.APR.2023 20:48:53



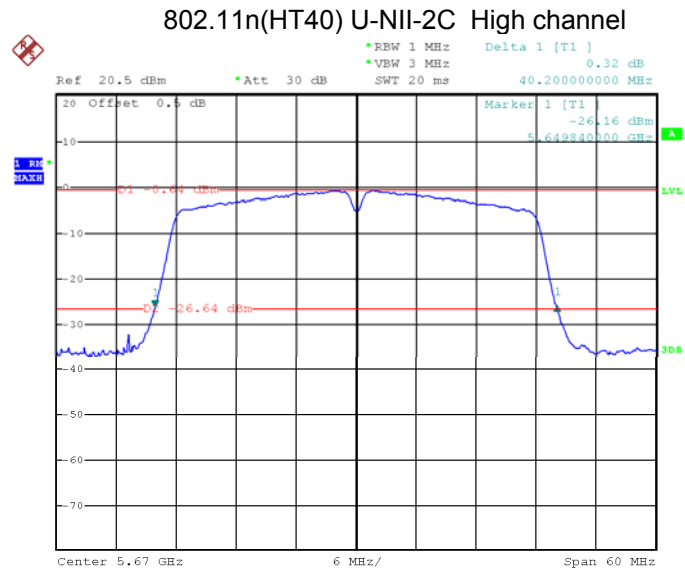
Date: 25.APR.2023 20:50:13



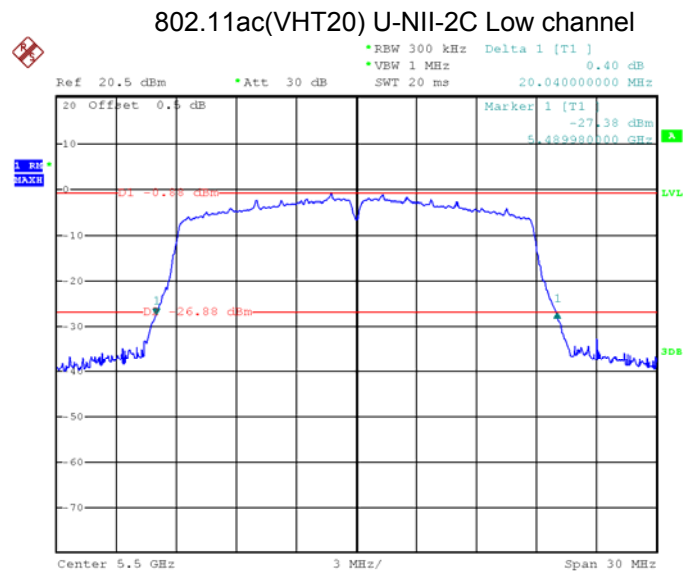
Date: 25.APR.2023 20:51:28



Date: 25.APR.2023 20:52:37

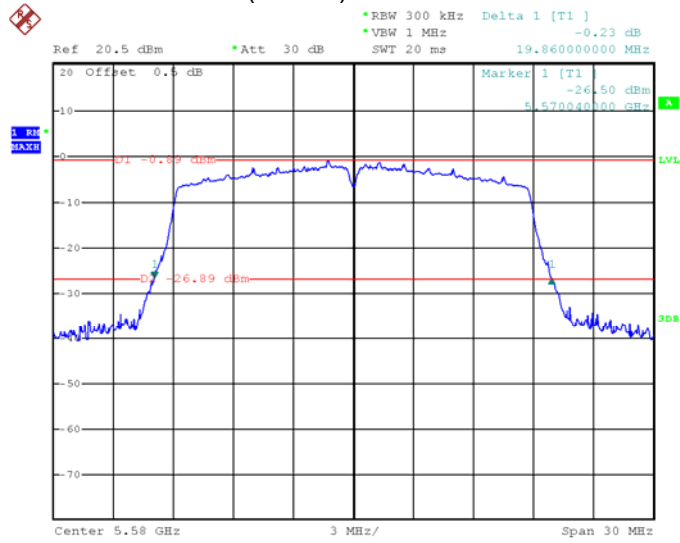


Date: 25.APR.2023 20:53:26



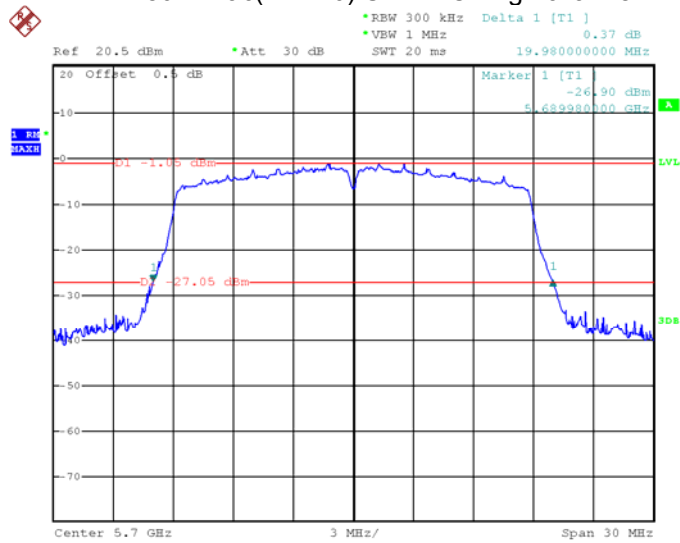
Date: 25.APR.2023 20:44:38

802.11ac(VHT20) U-NII-2C Middle channel

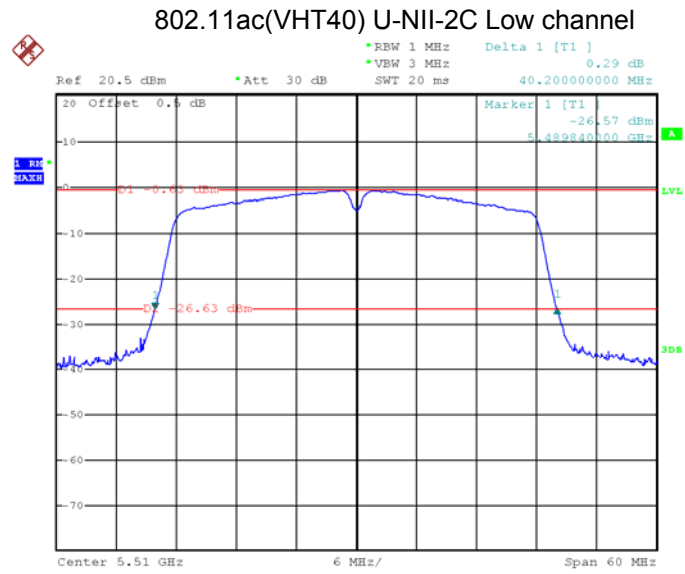


Date: 25.APR.2023 20:45:29

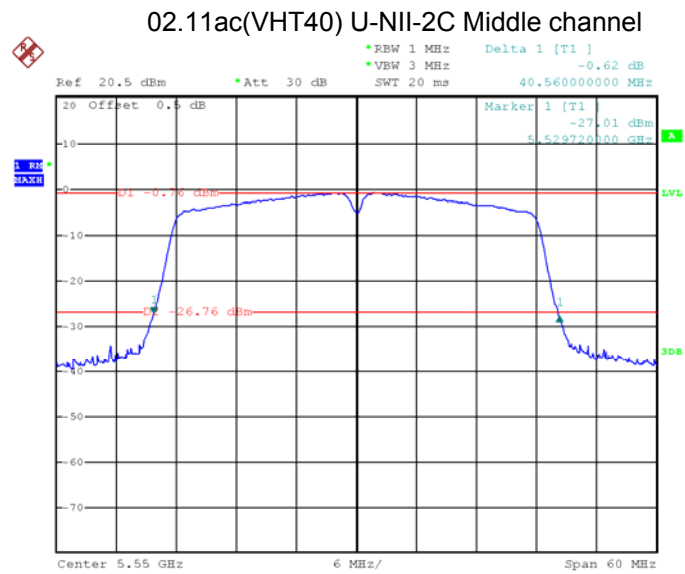
802.11ac(VHT20) U-NII-2C High channel



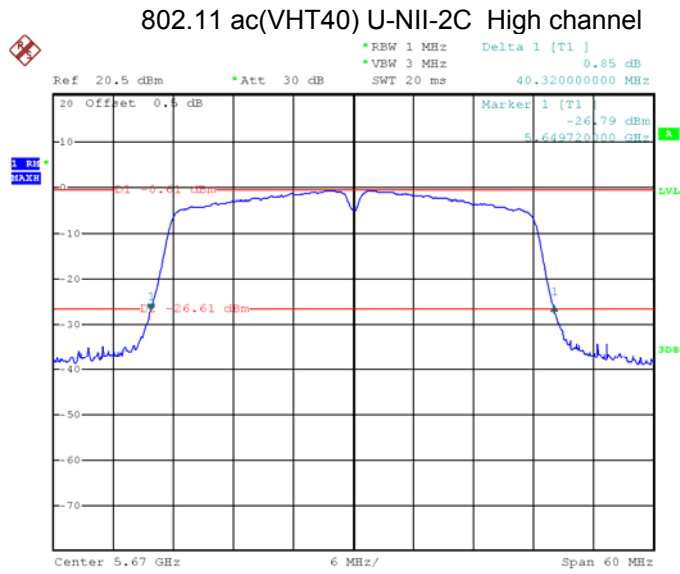
Date: 25.APR.2023 20:46:38



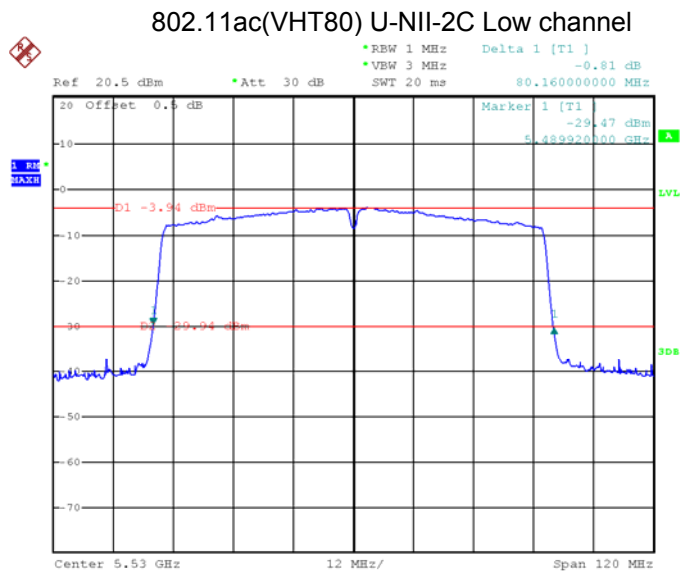
Date: 25.APR.2023 20:54:26



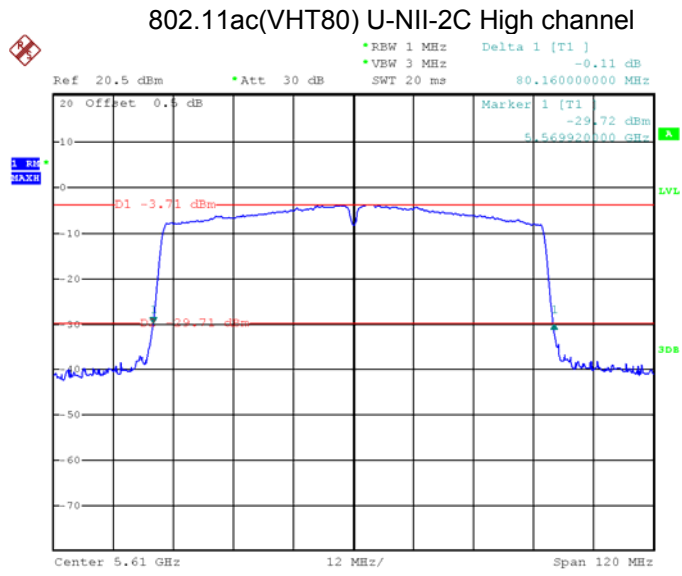
Date: 25.APR.2023 20:55:31



Date: 25.APR.2023 20:56:50



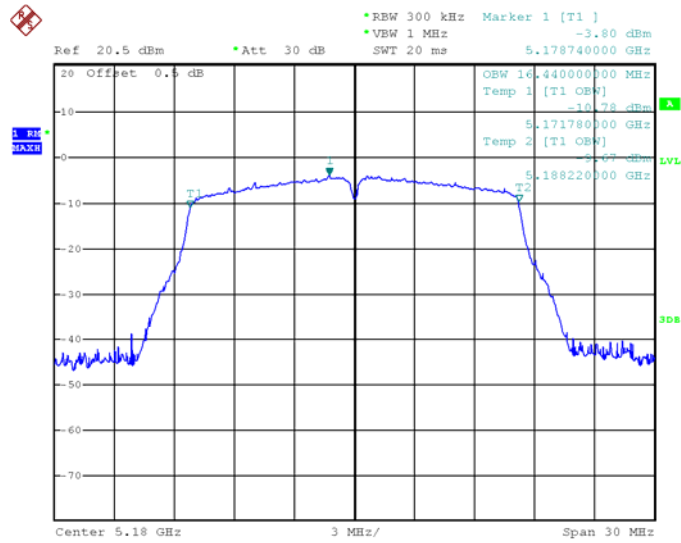
Date: 25.APR.2023 20:58:17



Date: 25.APR.2023 20:59:23

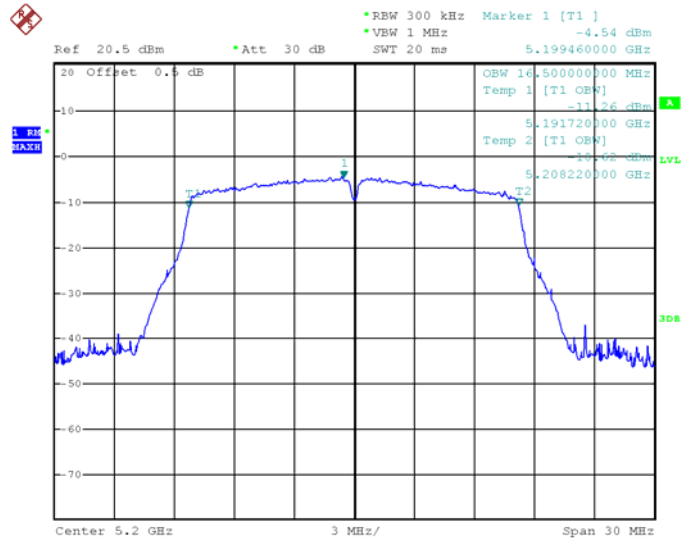
99% Occupied Bandwidth

802.11a U-NII-1 Low channel



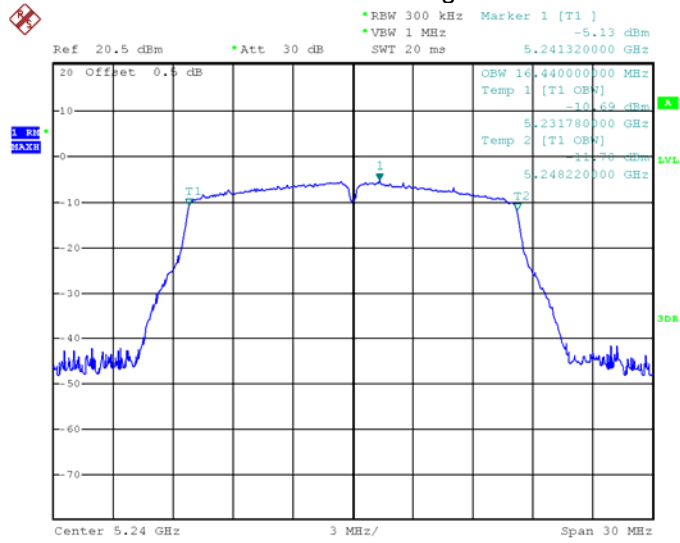
Date: 6.APR.2023 11:26:42

802.11a U-NII-1 Middle channel



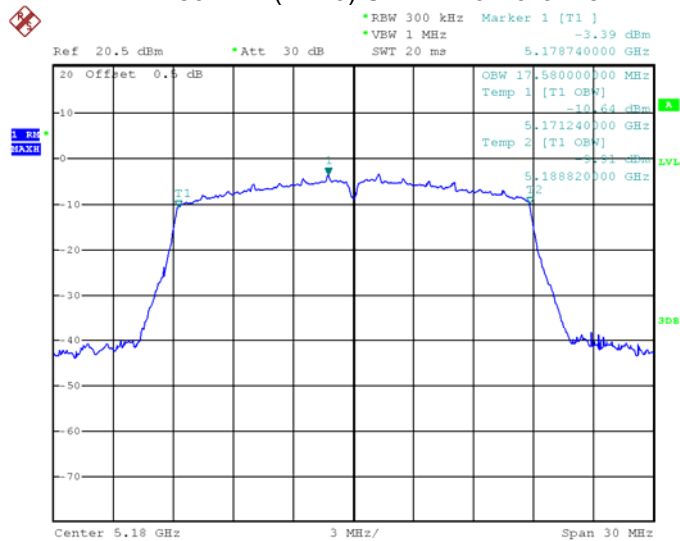
Date: 6.APR.2023 11:27:09

802.11a U-NII-1 High channel



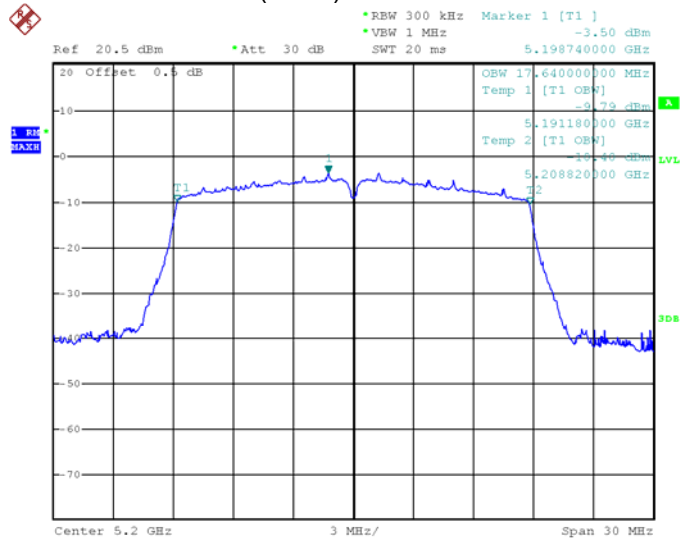
Date: 6.APR.2023 11:27:39

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



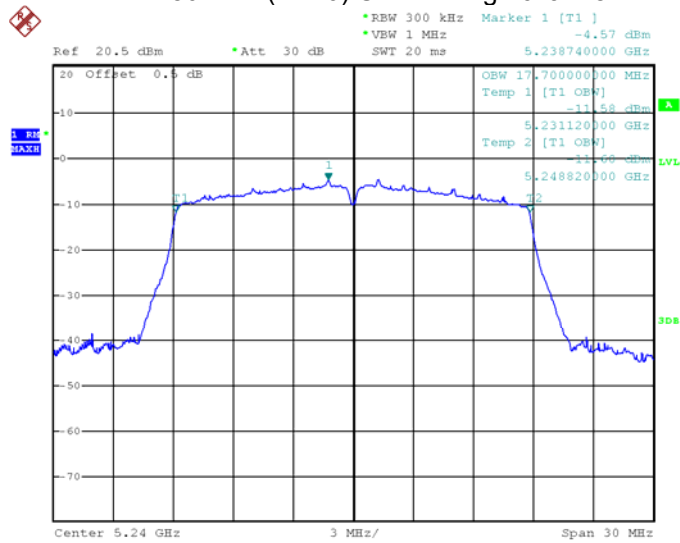
Date: 6.APR.2023 11:28:31

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



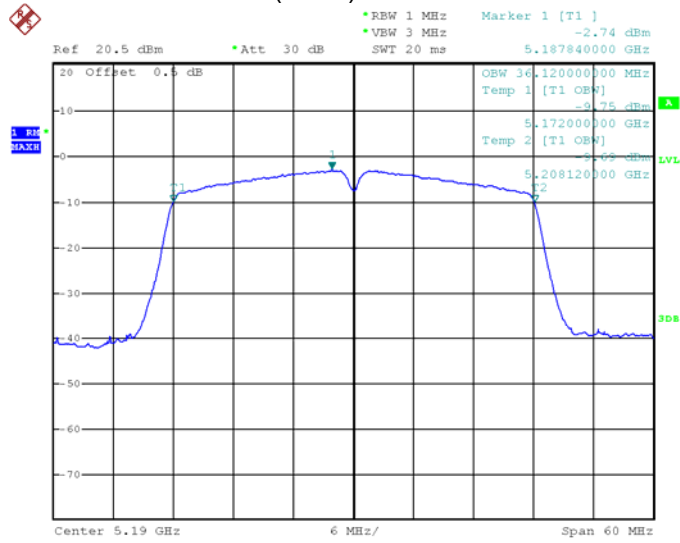
Date: 6.APR.2023 11:29:11

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



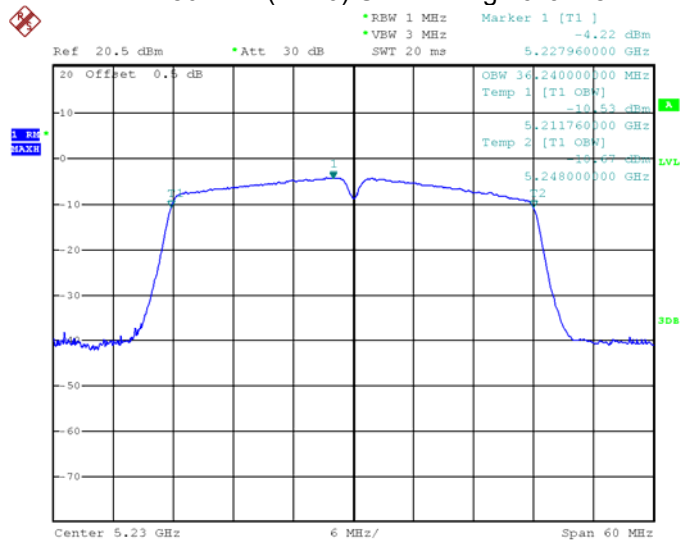
Date: 6.APR.2023 11:29:35

802.11n(HT40) U-NII-1 Low channel



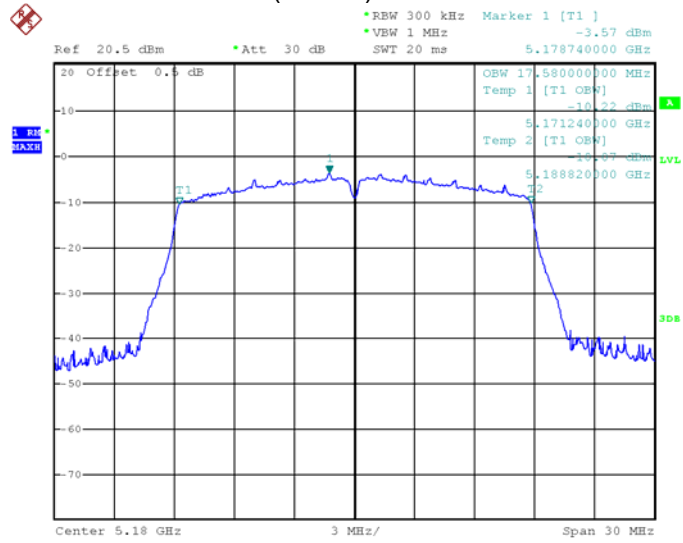
Date: 6.APR.2023 11:33:16

802.11n(HT40) U-NII-1 High channel



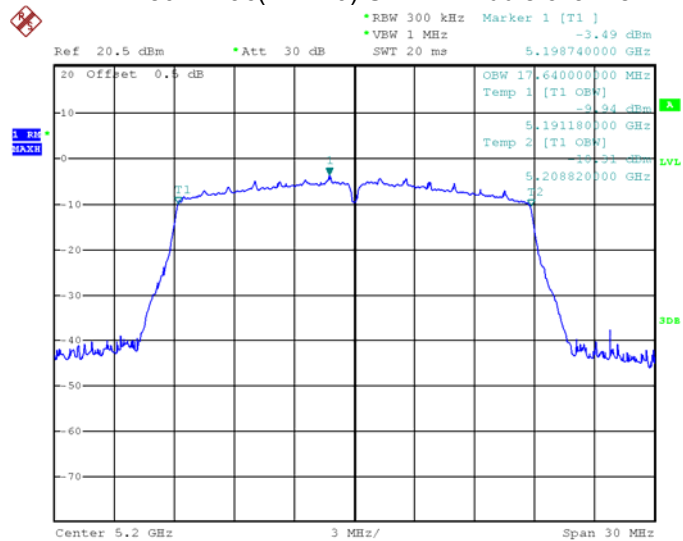
Date: 6.APR.2023 11:33:50

802.11ac(VHT20) U-NII-1 Low channel



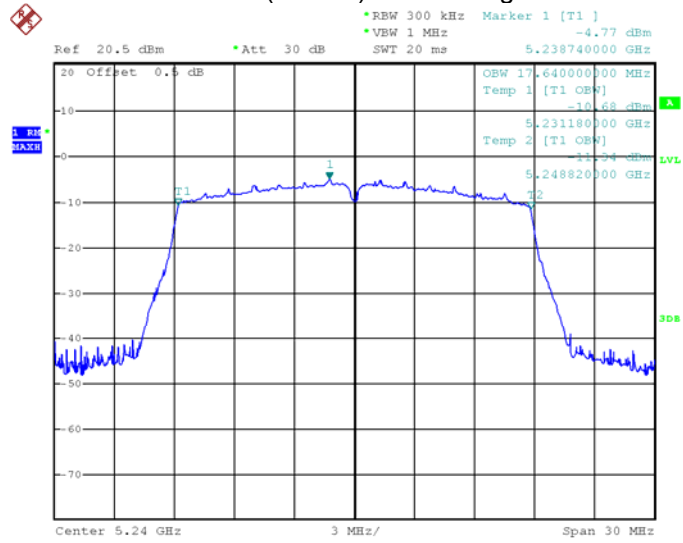
Date: 6.APR.2023 11:30:15

802.11ac(VHT20) U-NII-1 Middle channel



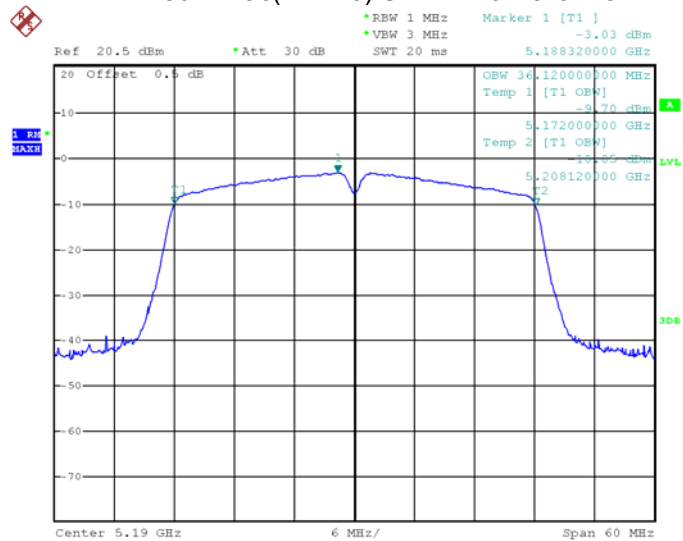
Date: 6.APR.2023 11:30:40

802.11ac(VHT20) U-NII-1 High channel



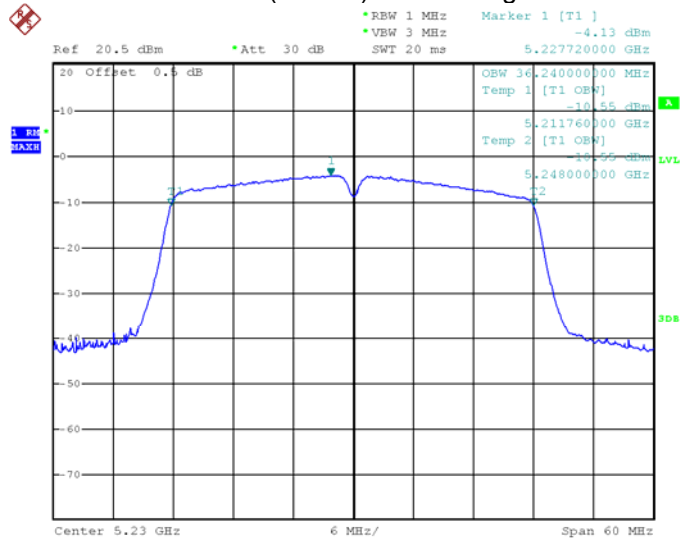
Date: 6.APR.2023 11:31:10

802.11ac(VHT40) U-NII-1 Low channel



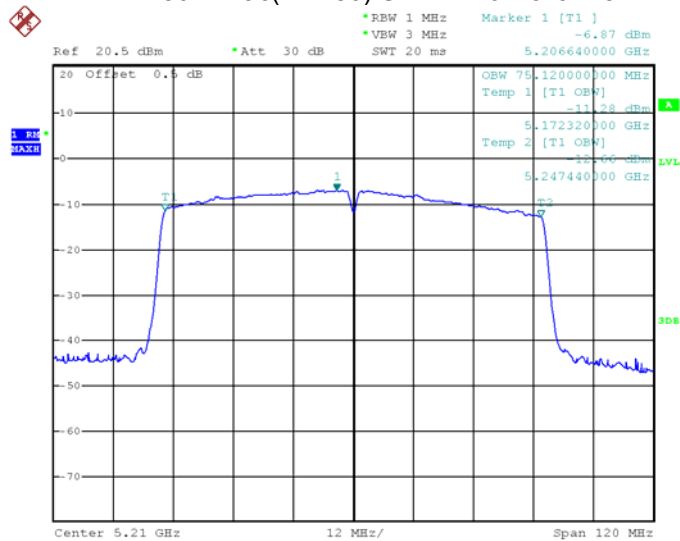
Date: 6.APR.2023 11:34:32

802.11ac(VHT40) U-NII-1 High channel



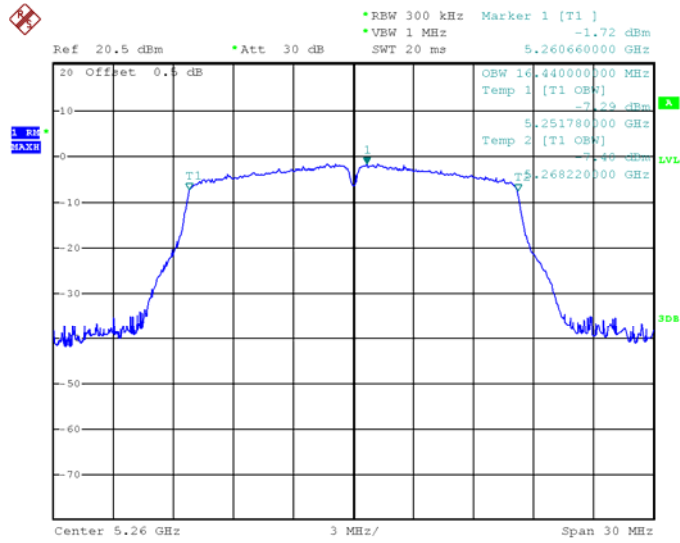
Date: 6.APR.2023 11:34:56

802.11ac(VHT80) U-NII-1 Low channel



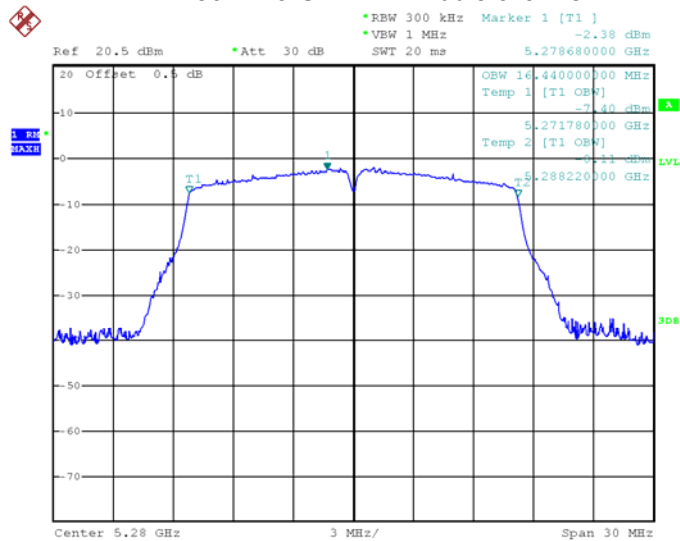
Date: 6.APR.2023 11:35:36

802.11a U-NII-2A Low channel



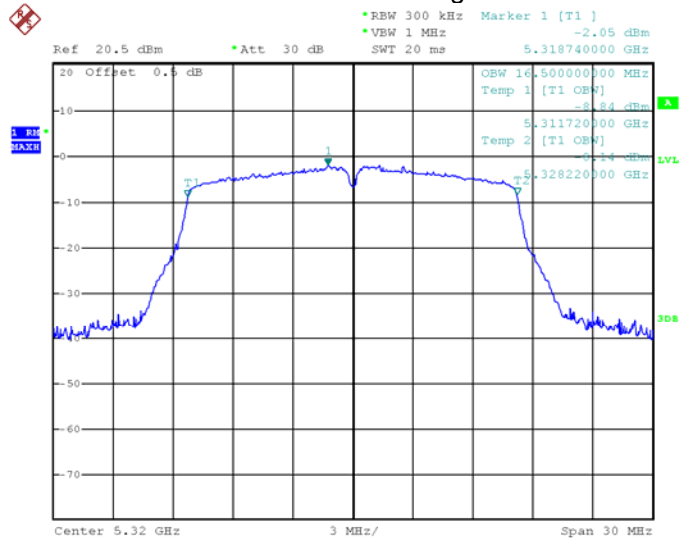
Date: 6.APR.2023 12:19:28

802.11a U-NII-2A Middle channel



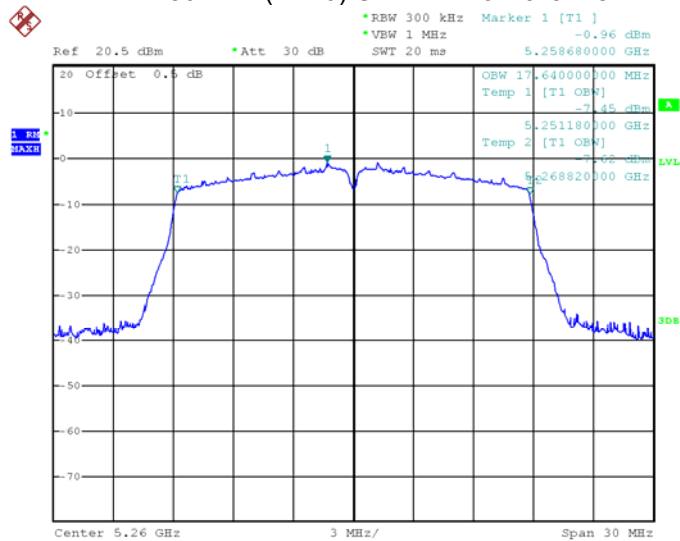
Date: 6.APR.2023 12:19:54

802.11a U-NII-2A High channel



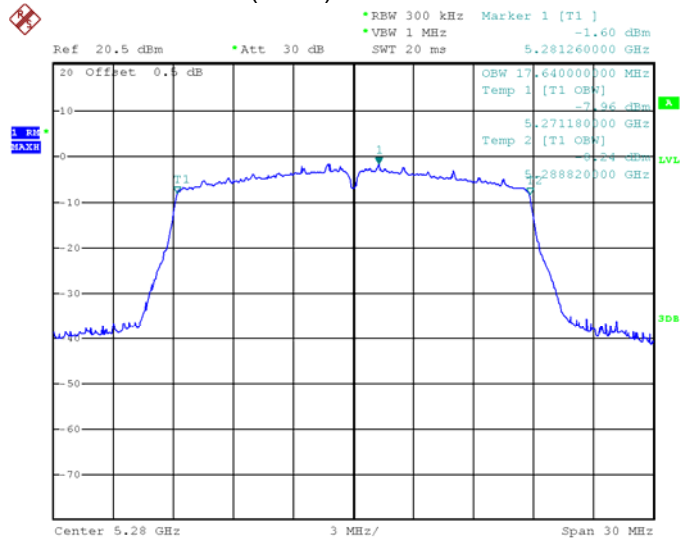
Date: 6.APR.2023 12:20:34

802.11n(HT20) U-NII-2A Low channel



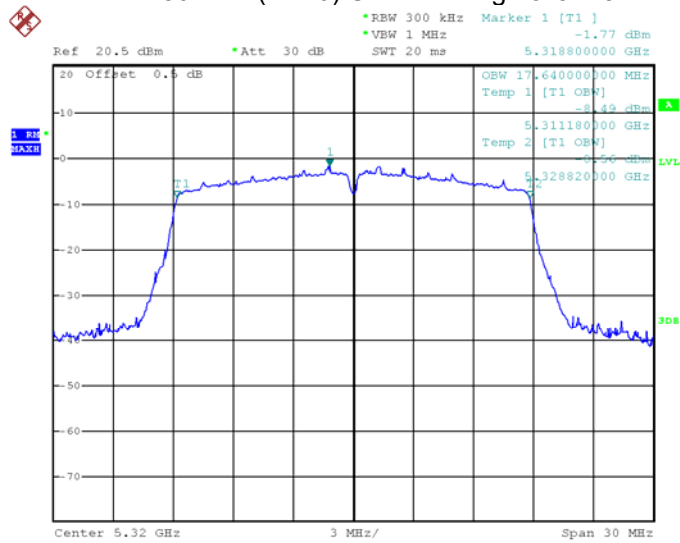
Date: 6.APR.2023 12:23:25

802.11n(HT20) U-NII-2A Middle channel

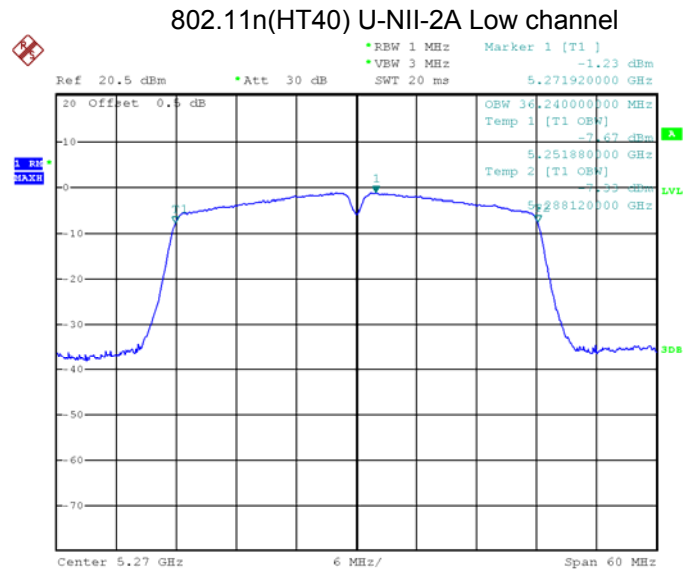


Date: 6.APR.2023 12:23:50

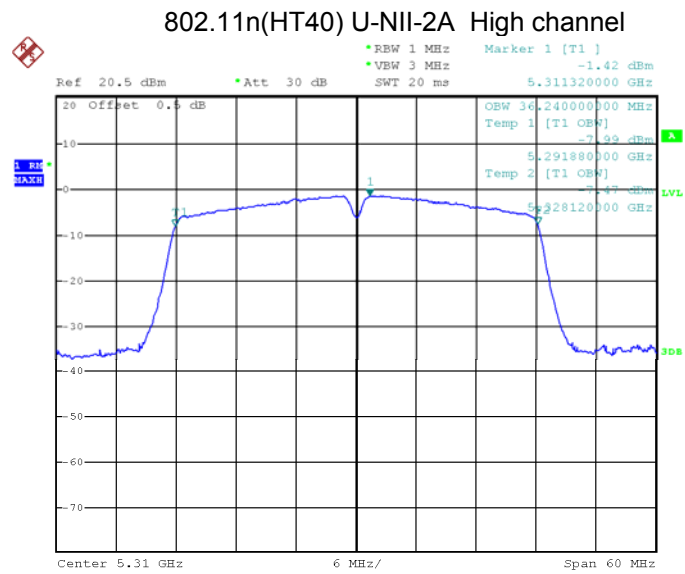
802.11n(HT20) U-NII-2A High channel



Date: 6.APR.2023 12:24:21

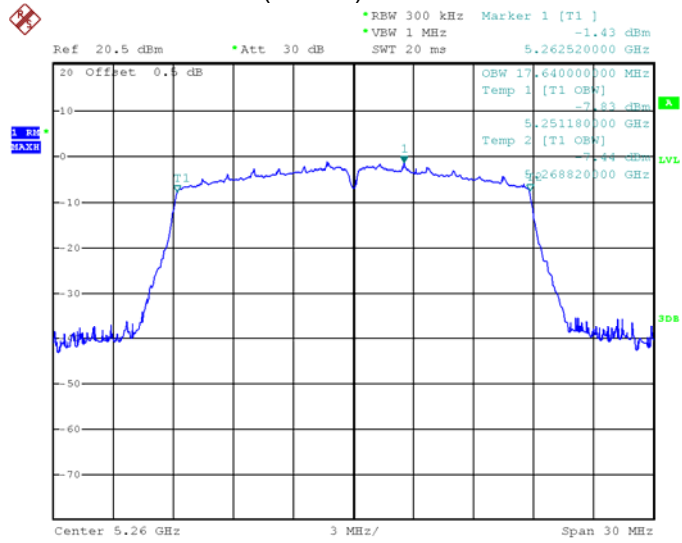


Date: 6.APR.2023 12:26:07



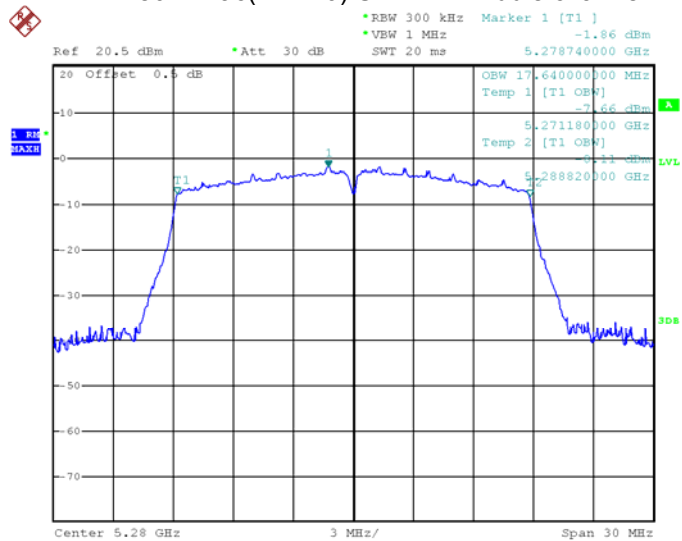
Date: 6.APR.2023 12:26:42

802.11ac(VHT20) U-NII-2A Low channel



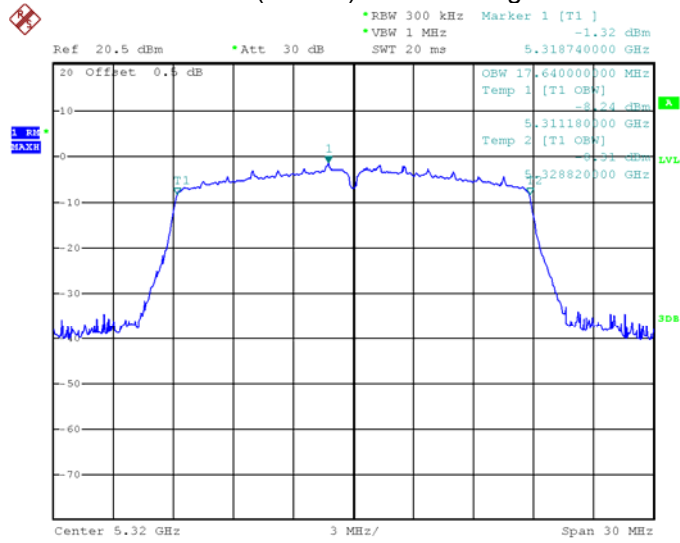
Date: 6.APR.2023 12:21:18

802.11ac(VHT20) U-NII-2A Middle channel



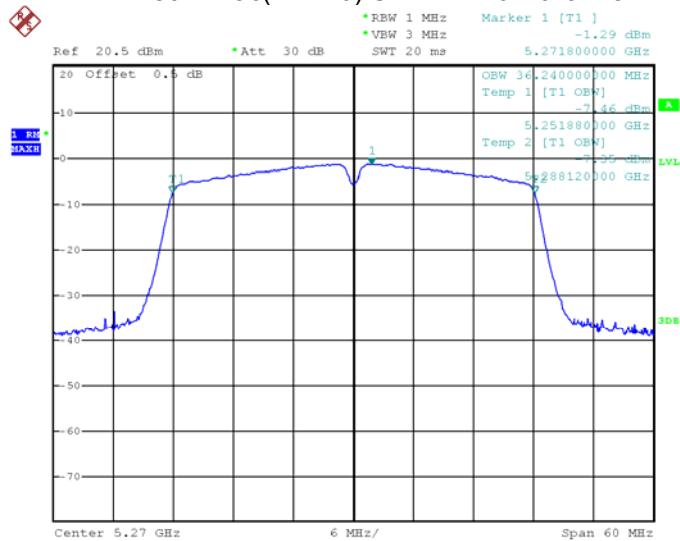
Date: 6.APR.2023 12:21:43

802.11ac(VHT20) U-NII-2A High channel



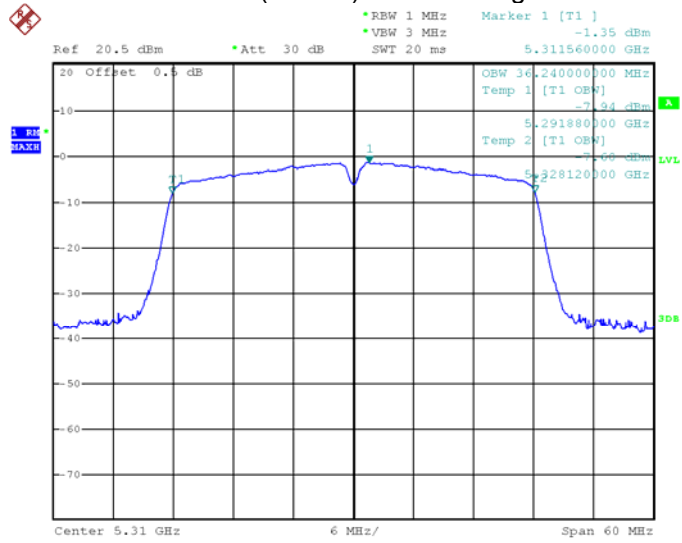
Date: 6.APR.2023 12:22:19

802.11ac(VHT40) U-NII-2A Low channel



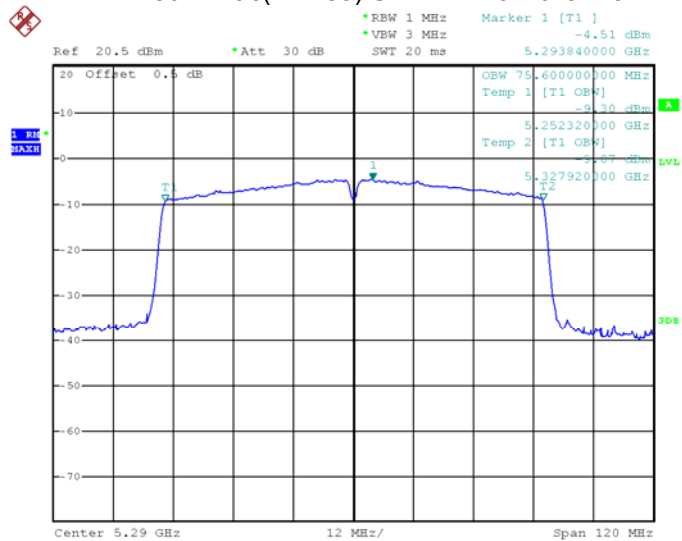
Date: 6.APR.2023 12:27:31

802.11 ac(VHT40) U-NII-2A High channel



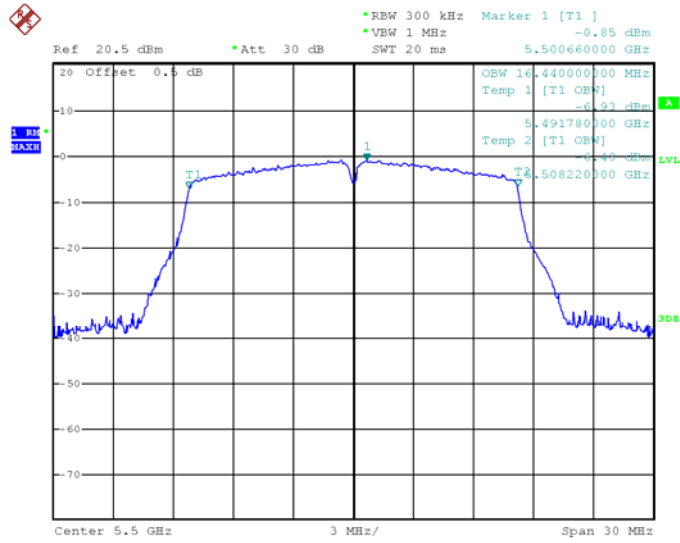
Date: 6.APR.2023 12:27:55

802.11ac(VHT80) U-NII-2A Low channel



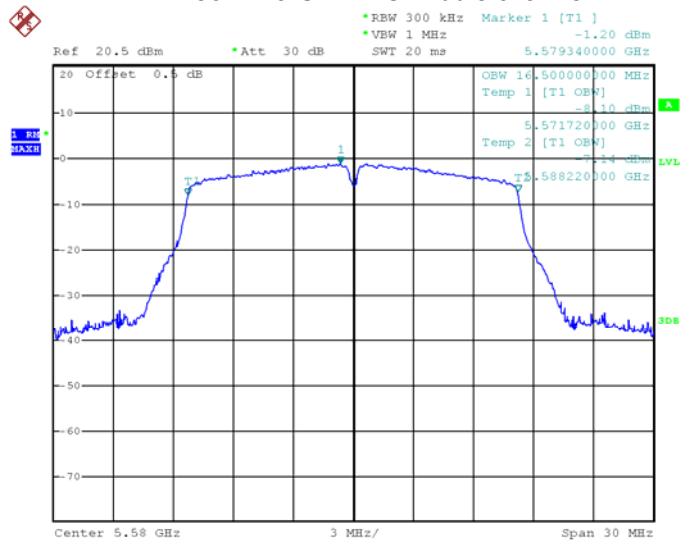
Date: 6.APR.2023 12:28:33

802.11a U-NII-2C Low channel



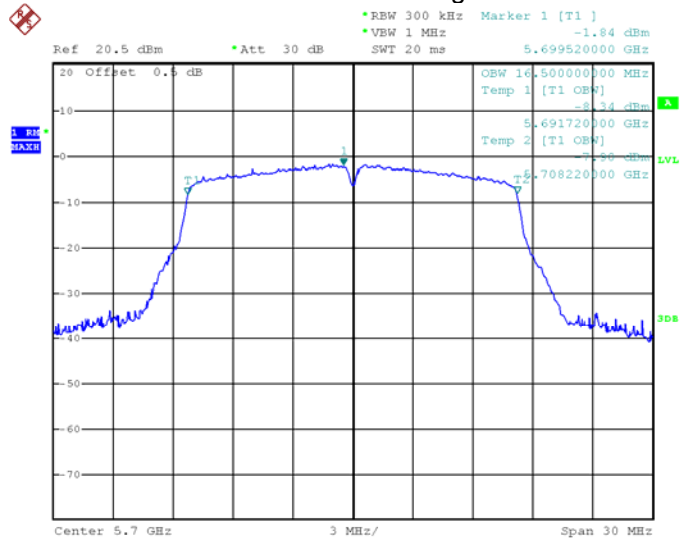
Date: 6.APR.2023 15:29:48

802.11a U-NII-2C Middle channel



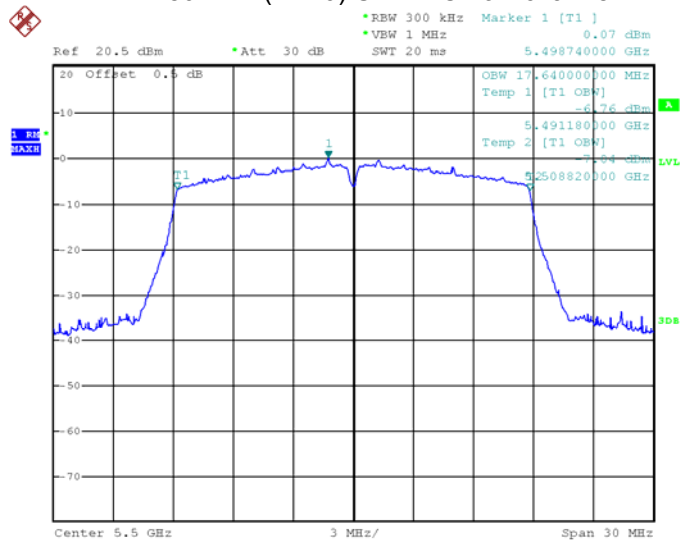
Date: 6.APR.2023 15:29:12

802.11a U-NII-2C High channel



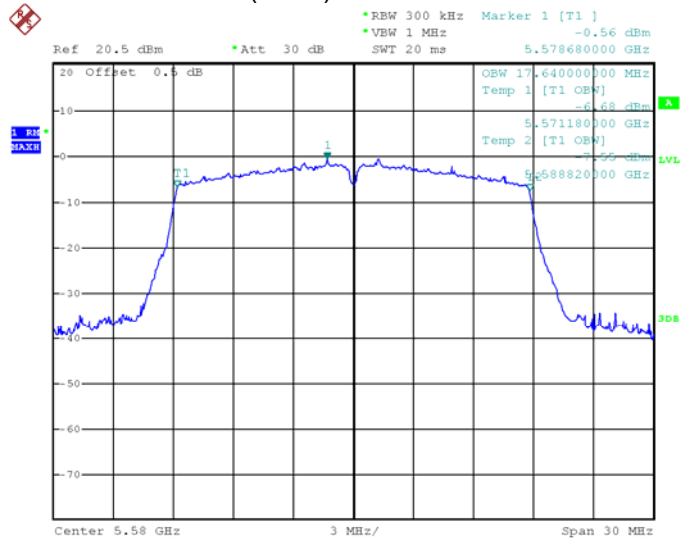
Date: 6.APR.2023 15:30:17

802.11n(HT20) U-NII-2C Low channel



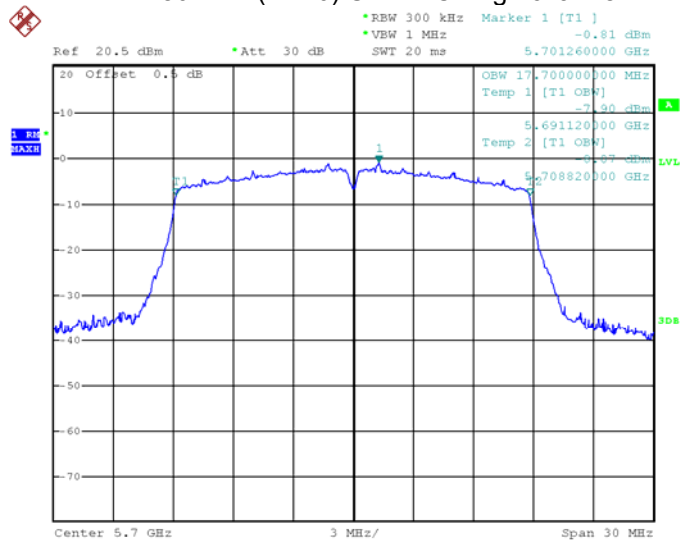
Date: 6.APR.2023 15:57:54

802.11n(HT20) U-NII-2C Middle channel

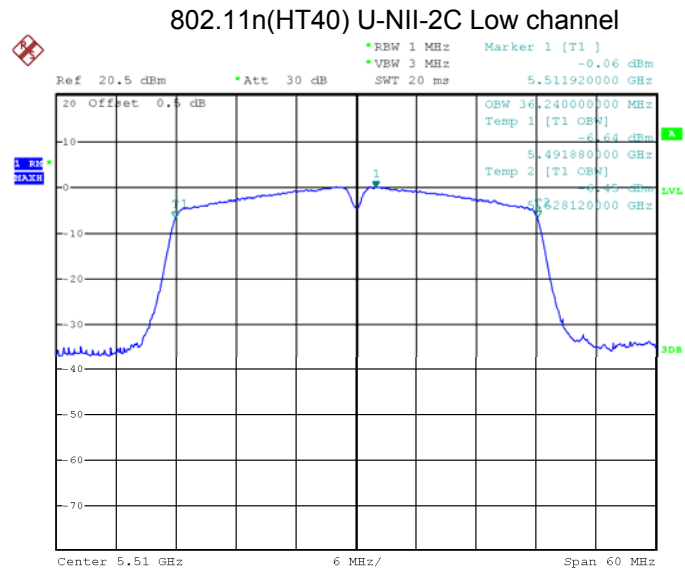


Date: 6.APR.2023 15:58:18

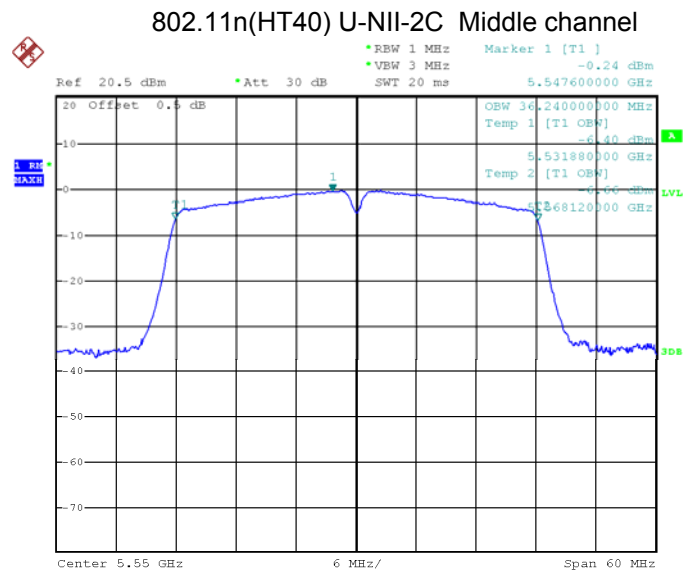
802.11n(HT20) U-NII-2C High channel



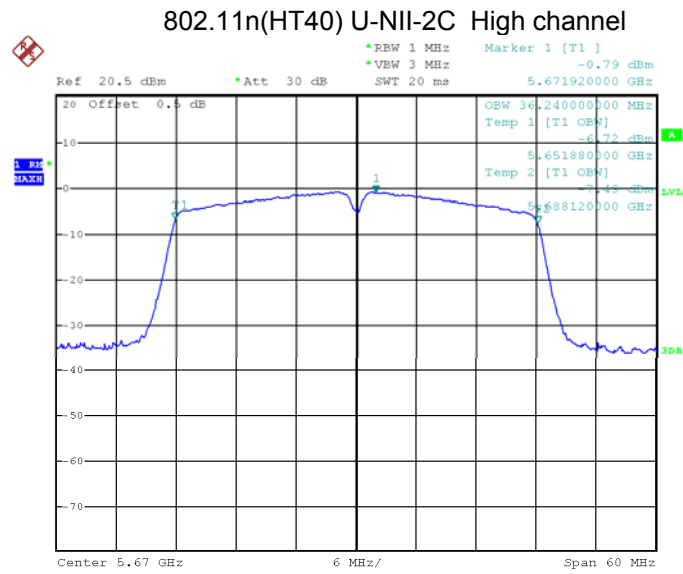
Date: 6.APR.2023 15:58:38



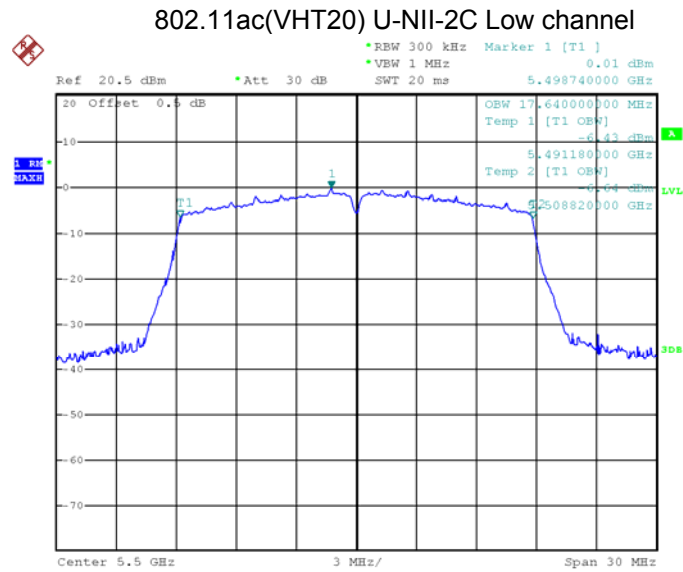
Date: 6.APR.2023 15:59:23



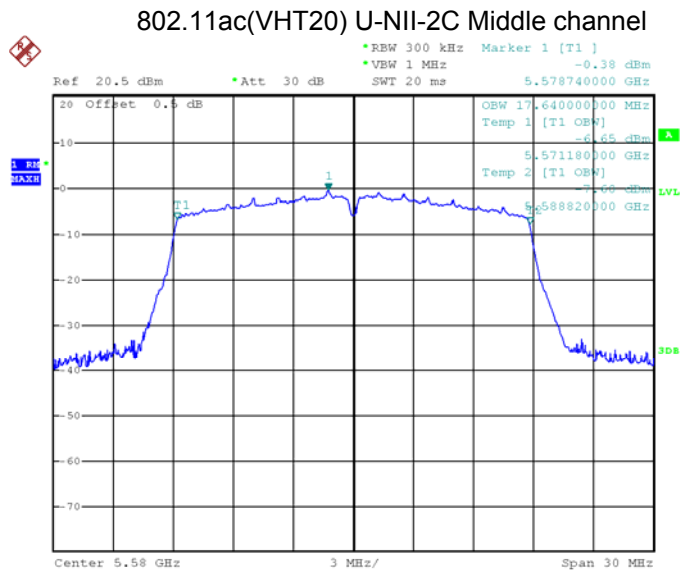
Date: 6.APR.2023 15:59:51



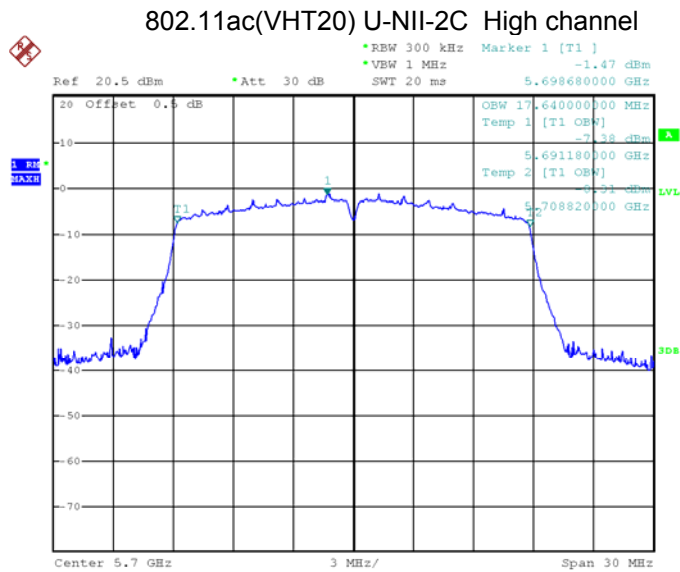
Date: 6.APR.2023 16:00:15



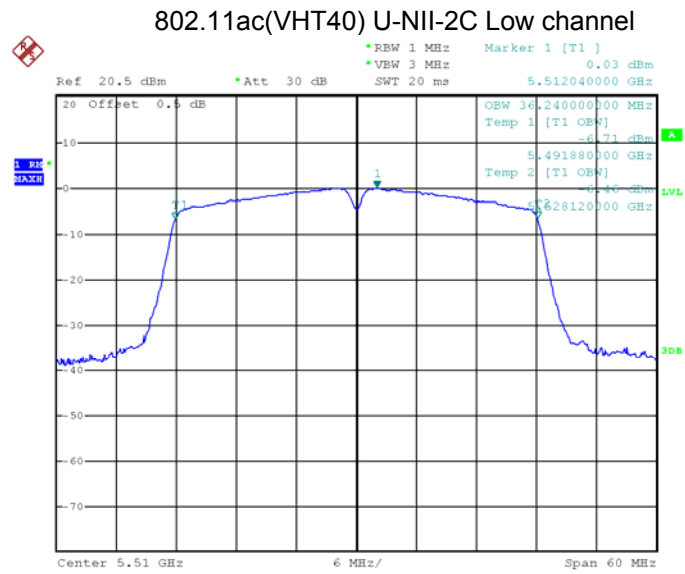
Date: 6.APR.2023 15:56:22



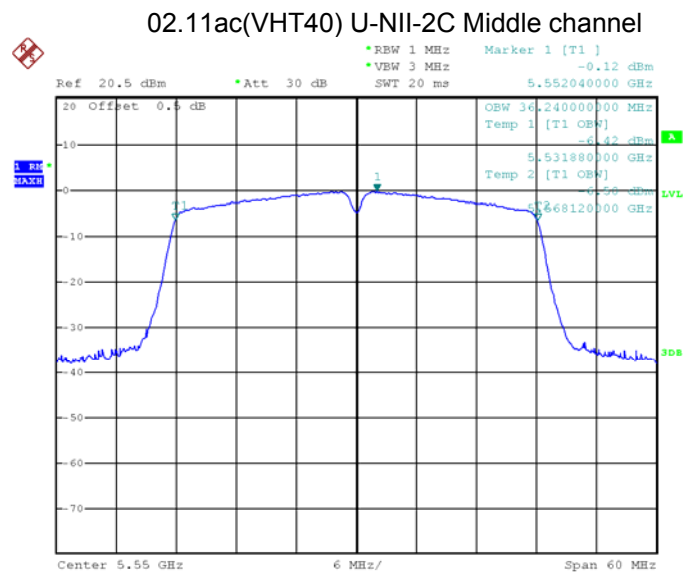
Date: 6.APR.2023 15:57:01



Date: 6.APR.2023 15:57:22

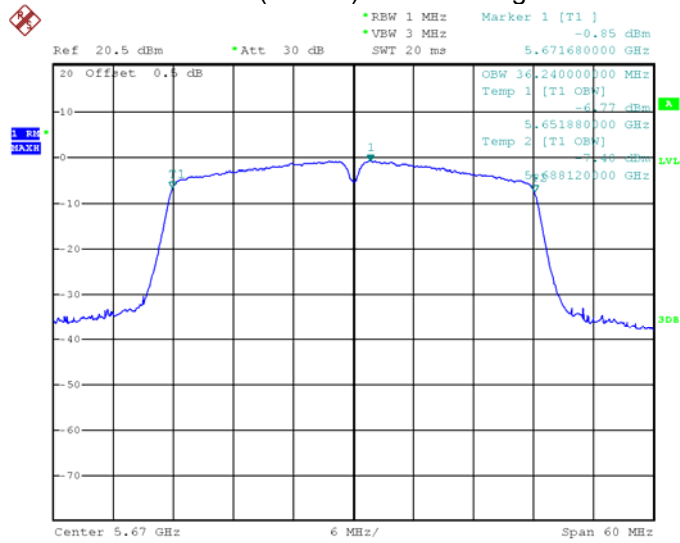


Date: 6.APR.2023 16:00:44



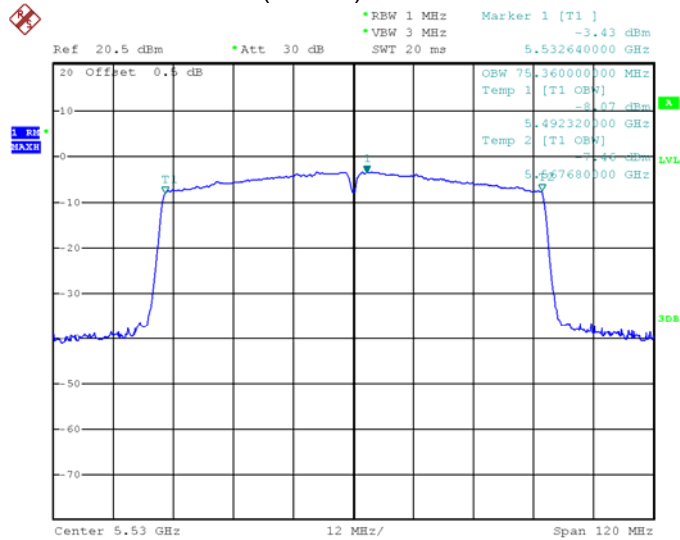
Date: 6.APR.2023 16:01:10

802.11ac(VHT40) U-NII-2C High channel

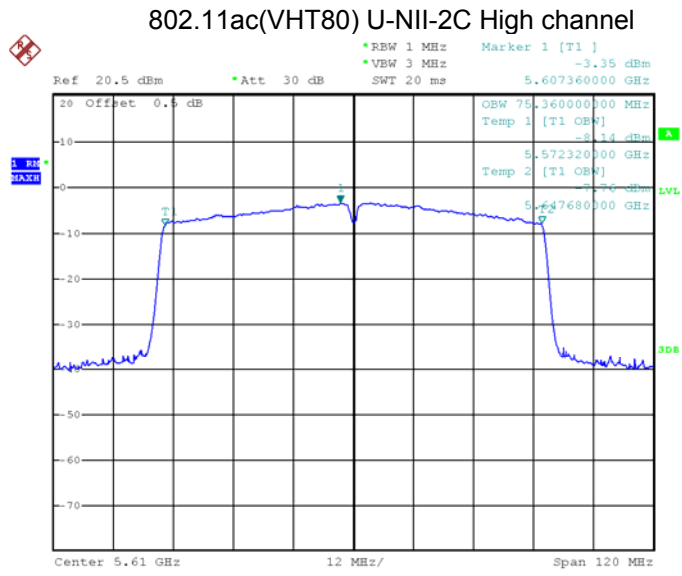


Date: 6.APR.2023 16:01:32

802.11ac(VHT80) U-NII-2C Low channel

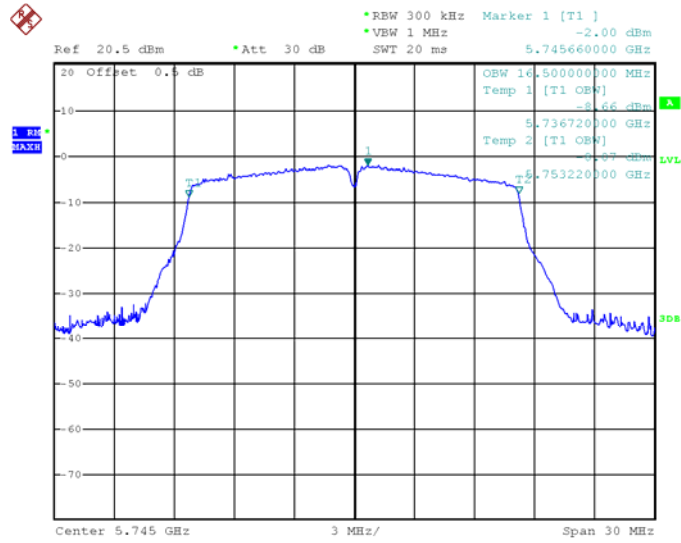


Date: 6.APR.2023 16:02:22



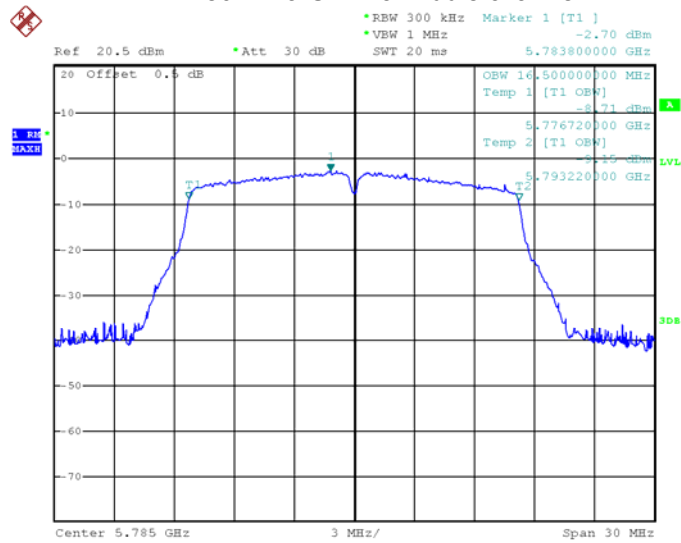
Date: 6.APR.2023 16:02:50

802.11a U-NII-3 Low channel



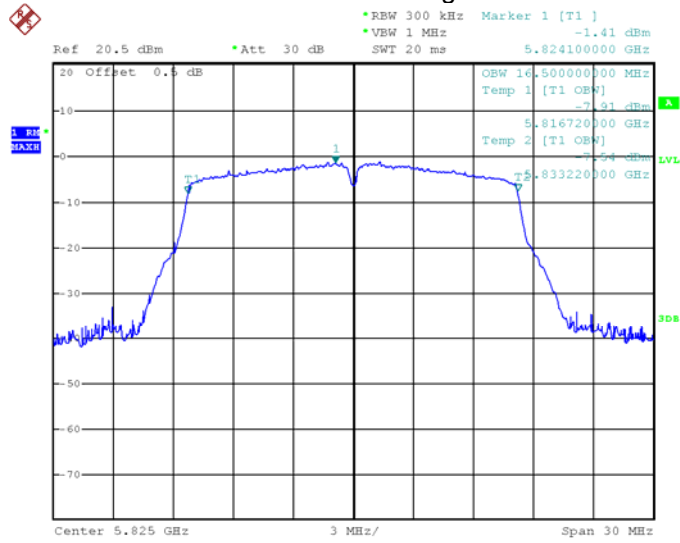
Date: 6.APR.2023 14:31:44

802.11a U-NII-3 Middle channel



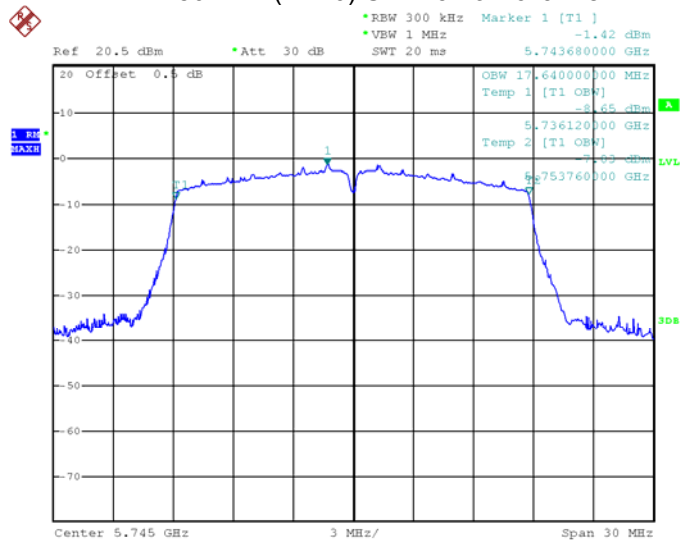
Date: 6.APR.2023 14:32:11

802.11a U-NII-3 High channel



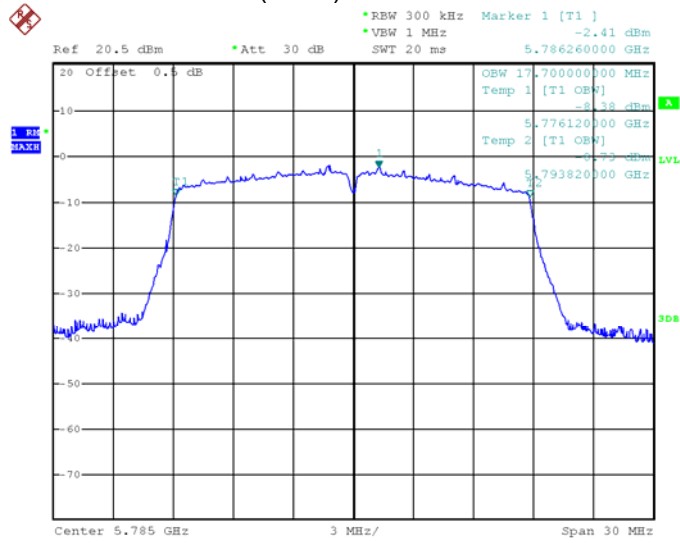
Date: 6.APR.2023 14:32:33

802.11n(HT20) U-NII-3 Low channel



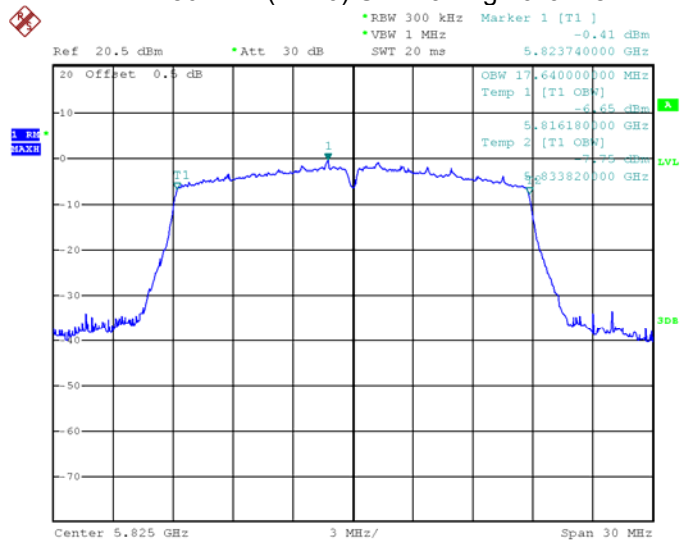
Date: 6.APR.2023 14:37:51

802.11n(HT20) U-NII-3 Middle channel



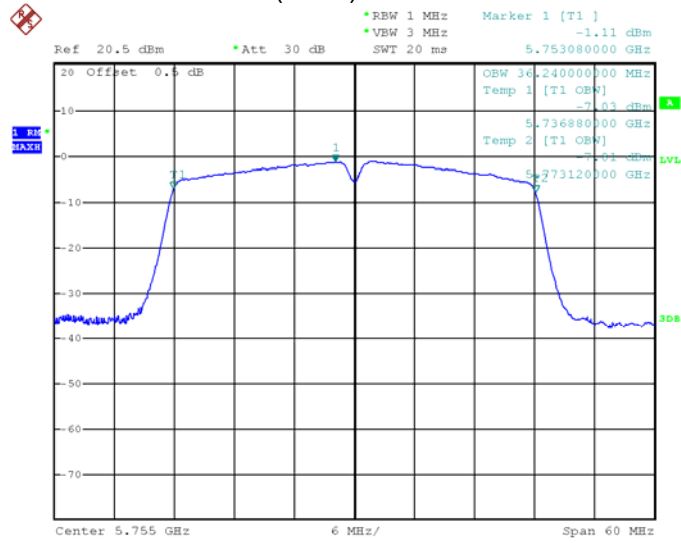
Date: 6.APR.2023 14:38:14

802.11n(HT20) U-NII-3 High channel



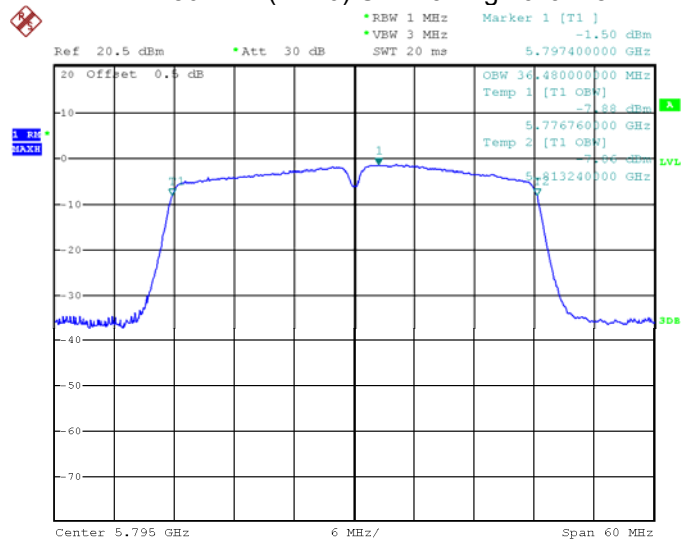
Date: 6.APR.2023 14:39:49

802.11n(HT40) U-NII-3 Low channel



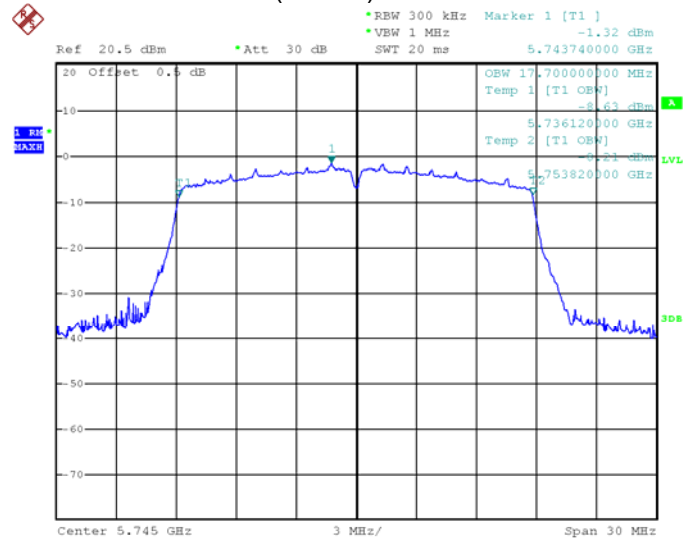
Date: 6.APR.2023 14:42:04

802.11n(HT40) U-NII-3 High channel



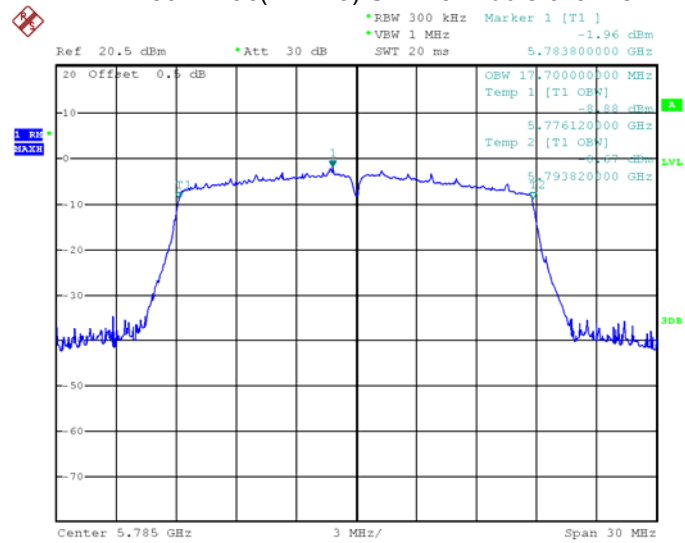
Date: 6.APR.2023 14:42:29

802.11ac(VHT20) U-NII-3 Low channel



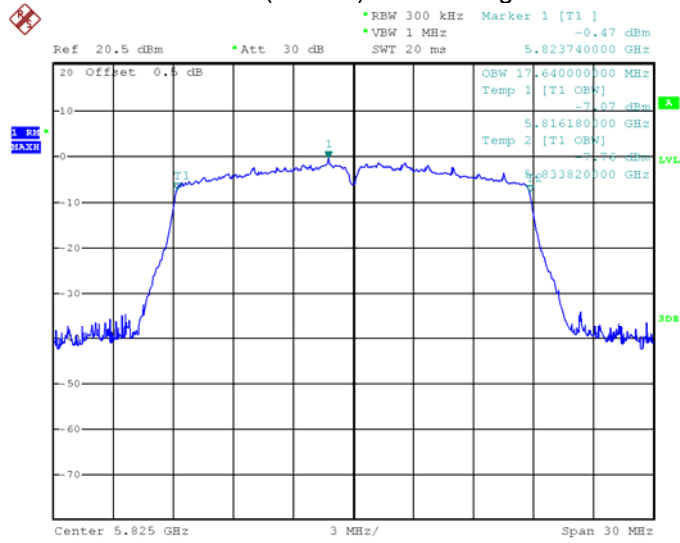
Date: 6.APR.2023 14:40:14

802.11ac(VHT20) U-NII-3 Middle channel



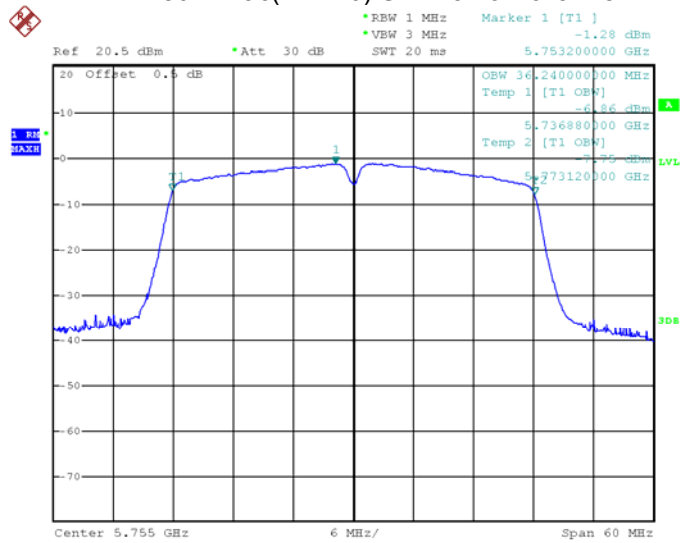
Date: 6.APR.2023 14:40:49

802.11ac(VHT20) U-NII-3 High channel



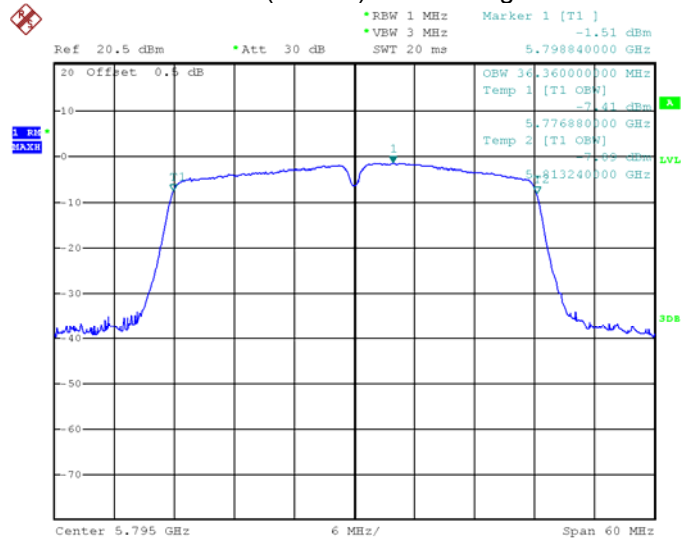
Date: 6.APR.2023 14:41:12

802.11ac(VHT40) U-NII-3 Low channel



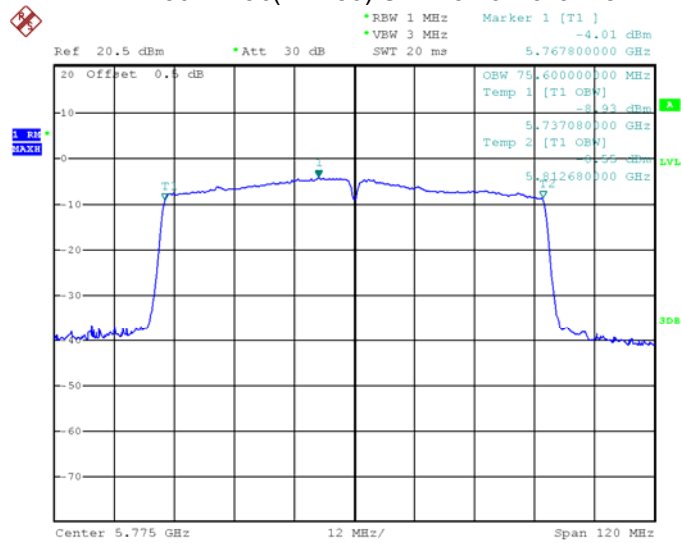
Date: 6.APR.2023 14:43:06

802.11ac(VHT40) U-NII-3 High channel



Date: 6.APR.2023 14:43:29

802.11ac(VHT80) U-NII-3 Low channel



Date: 6.APR.2023 14:44:49

13 Conducted Output Power

Test Requirement:	FCC 47CFR Part 15 Section 15.407(a) KDB662911 D01 Multiple Transmitter Output v02r01
Test Method:	KDB789033 D02 General U-NII Test Procedures New Rules v02r01 Section E
Test Limit:	U-NII-1 250mW(24dBm) U-NII-2A 250mW(24dBm) U-NII-2C 250mW(24dBm) U-NII-3 1W(30dBm)
Test Result:	PASS Conducted output power= measurement power+10log(1/x)
Remark:	X is duty cycle=1, so 10log(1/1)=0 Conducted output power= measurement power

13.1 Test Procedure

1. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum.
2. Set the spectrum analyzer: RBW = 1 MHz. VBW = 3 MHz. Sweep = auto; Detector Function = Peak, Set the span to fully encompass the DTS bandwidth.
3. Keep the EUT in transmitting at lowest, medium and highest channel individually. Record the max value.

13.2 Test Result

Band	Operation mode	Conducted Output Power (dBm)		
		Low	Middle	High
U-NII-1	802.11a	10.34	10.17	10.07
	802.11n(HT20)	10.14	10.03	9.99
	802.11n(HT40)	10.08	/	10.01
	802.11ac(VHT20)	10.22	10.07	9.99
	802.11ac(VHT40)	10.05	/	10.03
	802.11ac(VHT80)	10.00	/	/

Band	Operation mode	Conducted Output Power (dBm)		
		Low	Middle	High
U-NII-2A	802.11a	10.03	10.00	9.98
	802.11n(HT20)	9.93	9.75	9.88
	802.11n(HT40)	9.83	/	9.80
	802.11ac(VHT20)	9.97	9.83	9.85
	802.11ac(VHT40)	9.91	/	9.83
	802.11ac(VHT80)	9.92	/	/

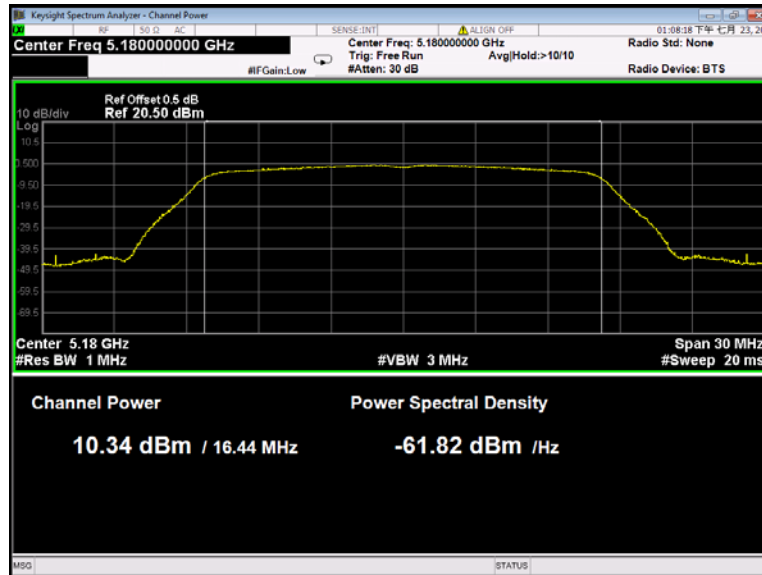
Band	Operation mode	Conducted Output Power (dBm)		
		Low	Middle	High
U-NII-2C	802.11a	10.13	10.32	10.14
	802.11n(HT20)	10.04	10.23	10.14
	802.11n(HT40)	10.11	10.34	10.28
	802.11ac(VHT20)	10.09	10.10	10.13
	802.11ac(VHT40)	10.08	10.30	10.27
	802.11ac(VHT80)	10.29	10.33	/

Band	Operation mode	Conducted Output Power (dBm)		
		Low	Middle	High
U-NII-3	802.11a	10.22	10.39	10.31
	802.11n(HT20)	10.07	10.26	10.06
	802.11n(HT40)	10.21	/	10.22
	802.11ac(VHT20)	10.10	10.24	10.21
	802.11ac(VHT40)	10.20	/	10.14
	802.11ac(VHT80)		/	/

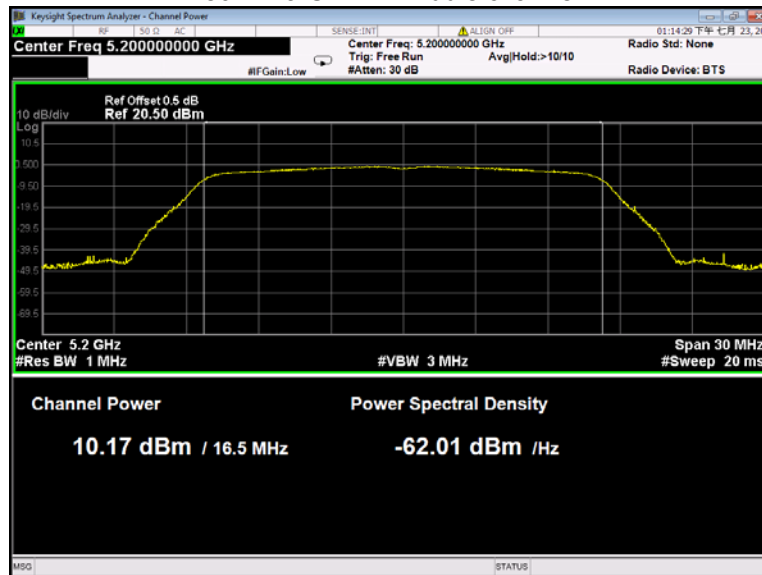
* All transmit signals are completely uncorrelated with each other, Directional gain = G_{ANT} which is less than 6dBi. So the limit does not be reduced.

Test result plots shown as follows:

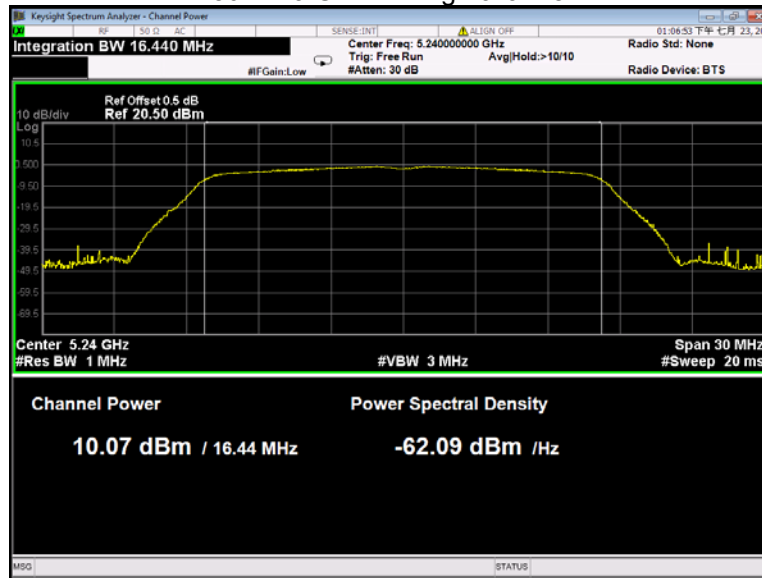
802.11a U-NII-1 Low channel



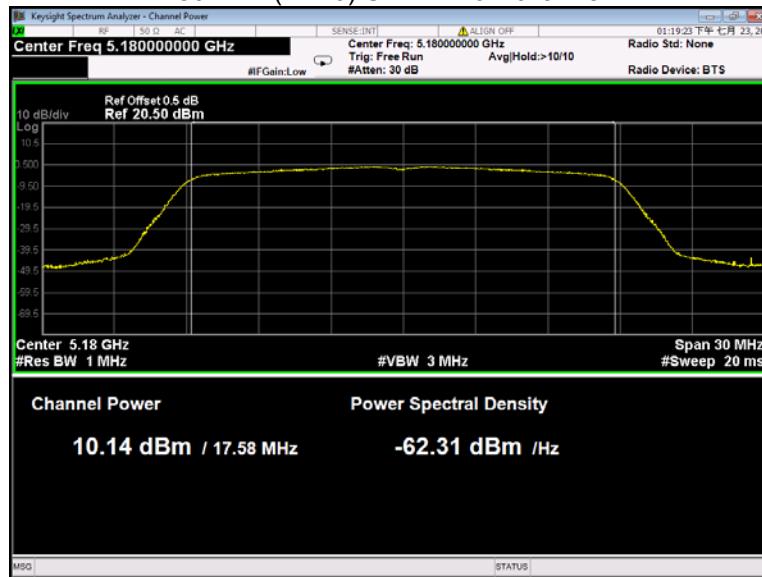
802.11a U-NII-1 Middle channel



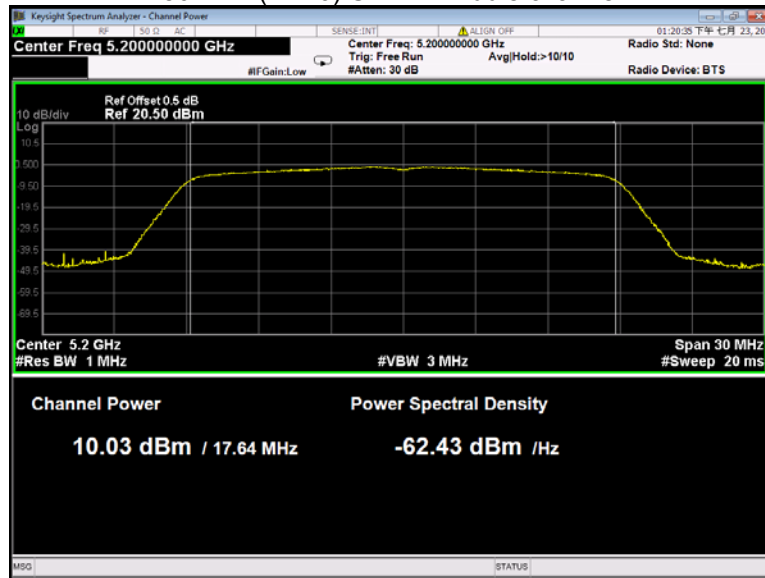
802.11a U-NII-1 High channel



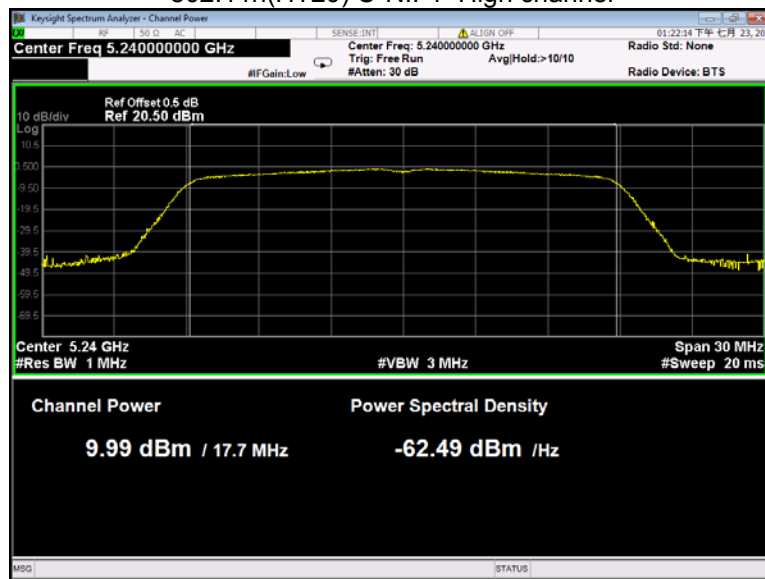
802.11n(HT20) U-NII-1 Low channel



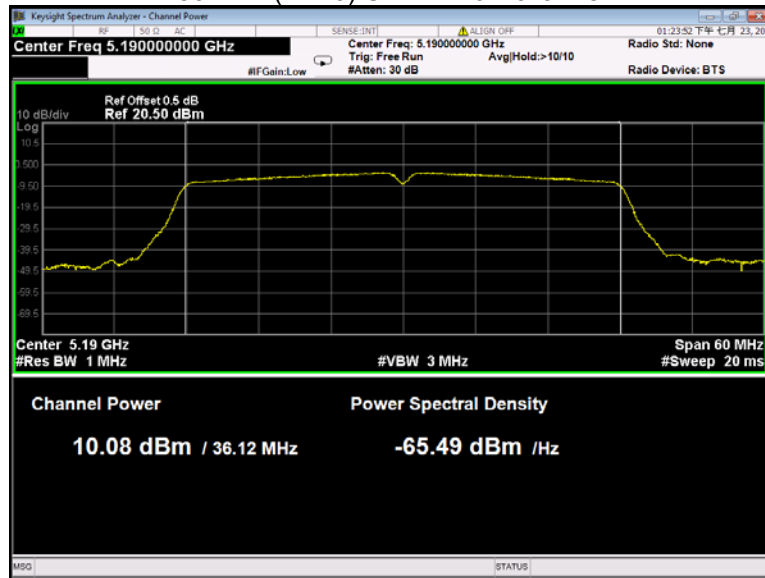
802.11n(HT20) U-NII-1 Middle channel



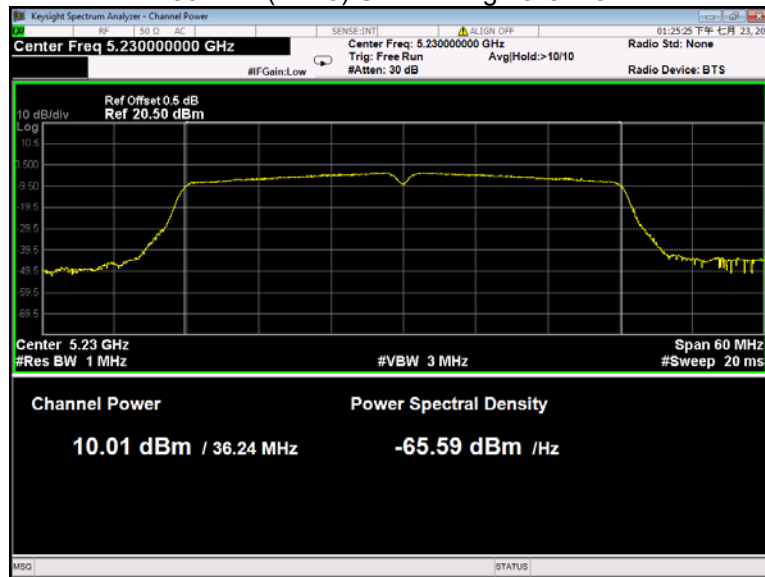
802.11n(HT20) U-NII-1 High channel



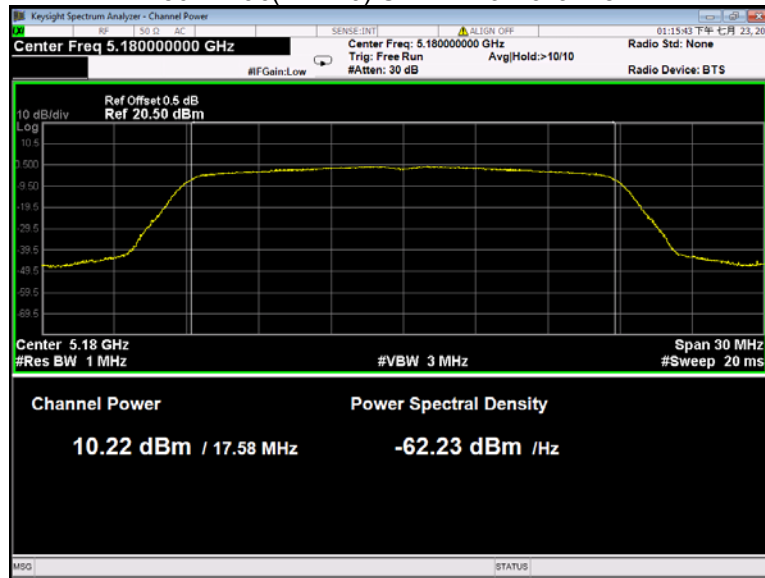
802.11n(HT40) U-NII-1 Low channel



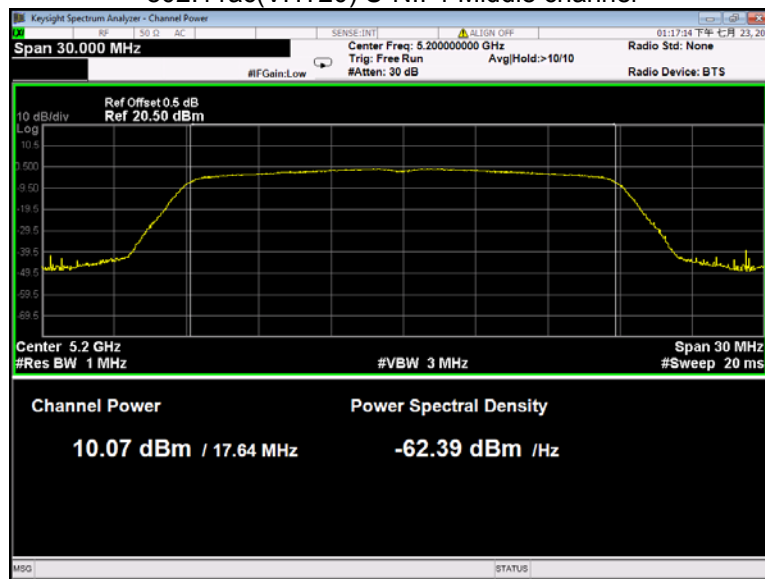
802.11n(HT40) U-NII-1 High channel



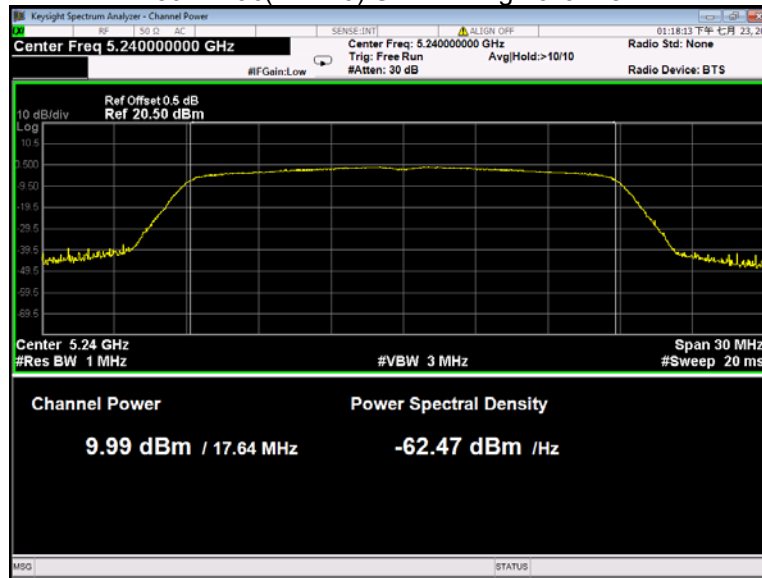
802.11ac(VHT20) U-NII-1 Low channel



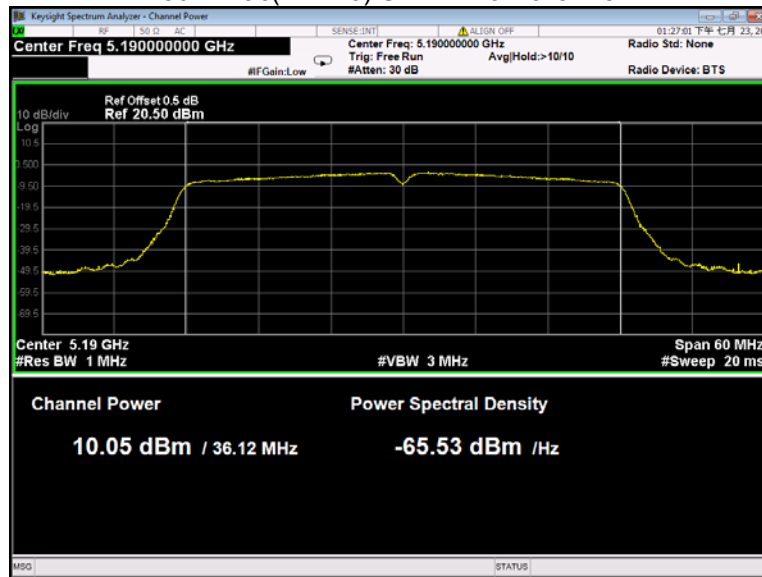
802.11ac(VHT20) U-NII-1 Middle channel



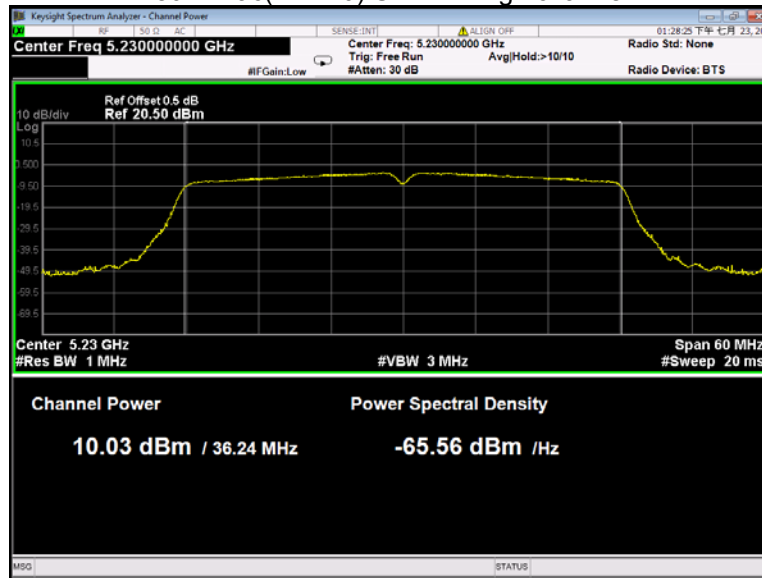
802.11ac(VHT20) U-NII-1 High channel



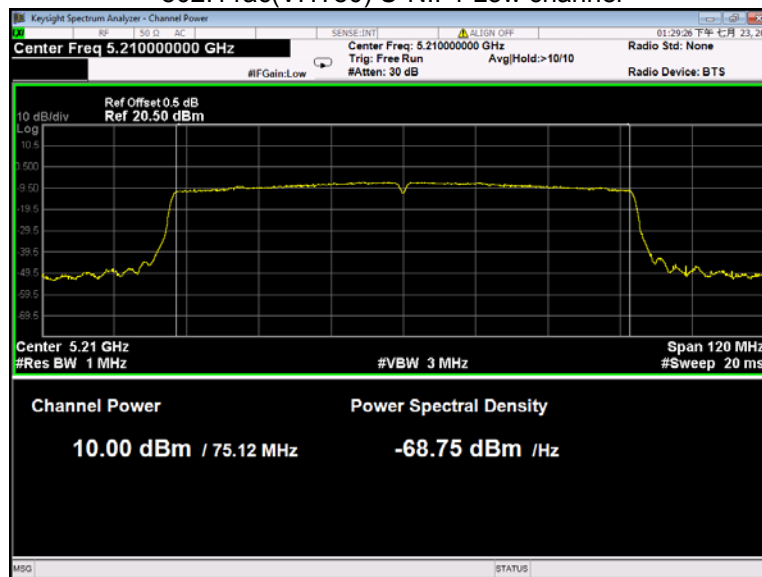
802.11ac(VHT40) U-NII-1 Low channel



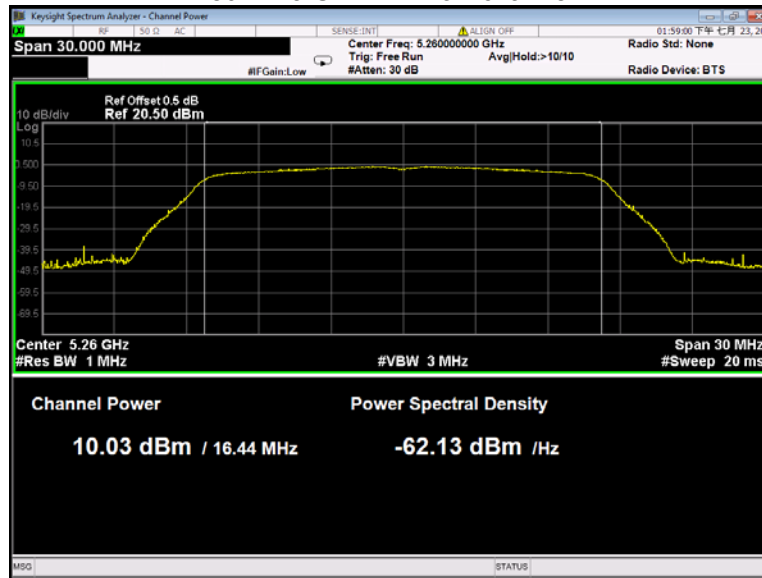
802.11ac(VHT40) U-NII-1 High channel



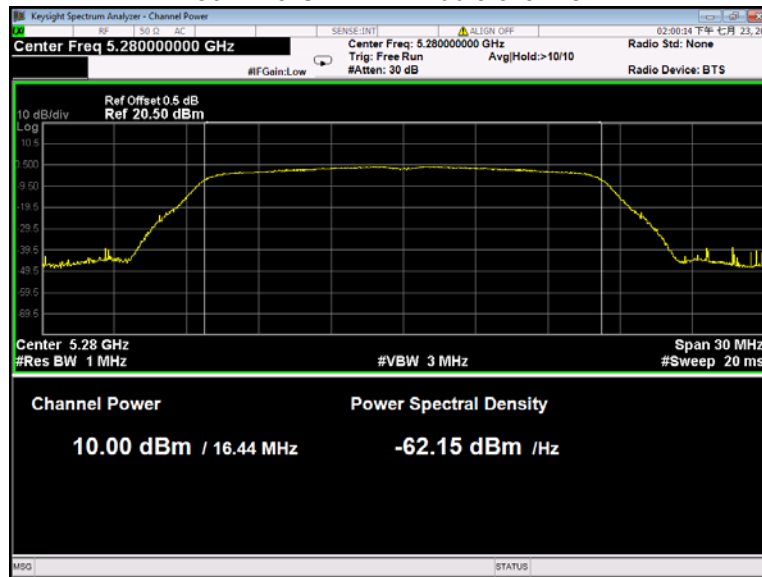
802.11ac(VHT80) U-NII-1 Low channel



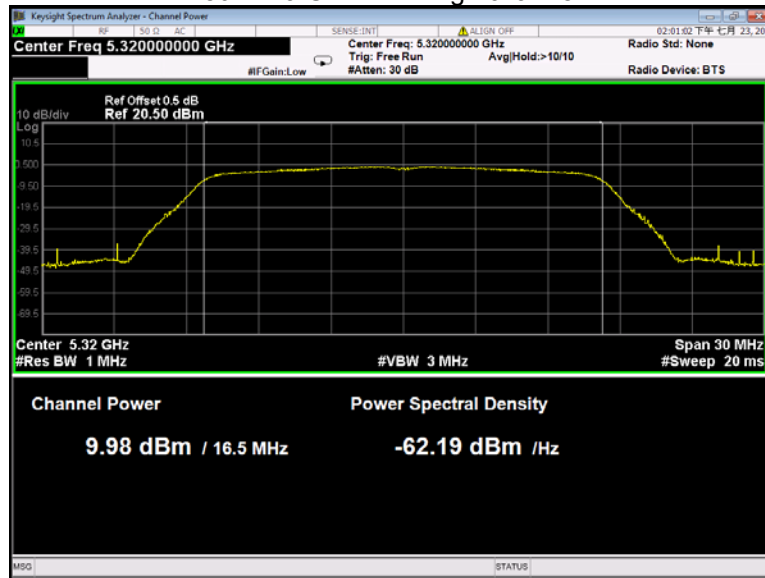
802.11a U-NII-2A Low channel



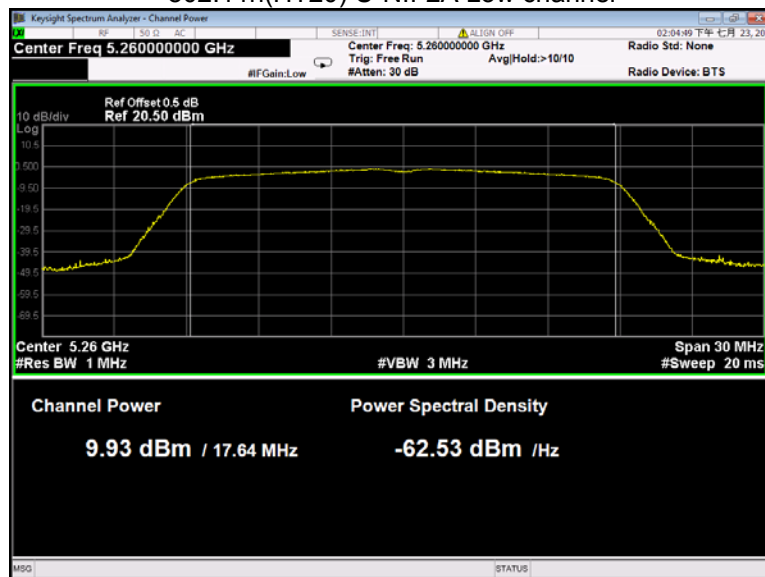
802.11a U-NII-2A Middle channel



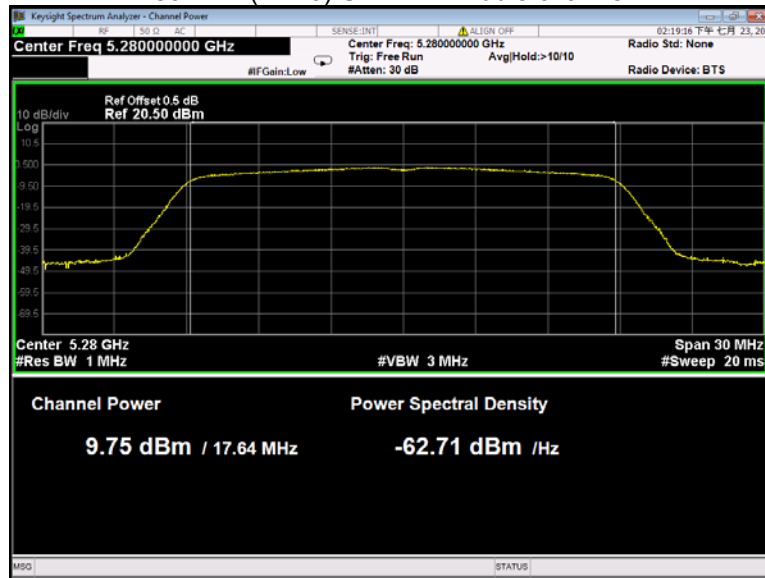
802.11a U-NII-2A High channel



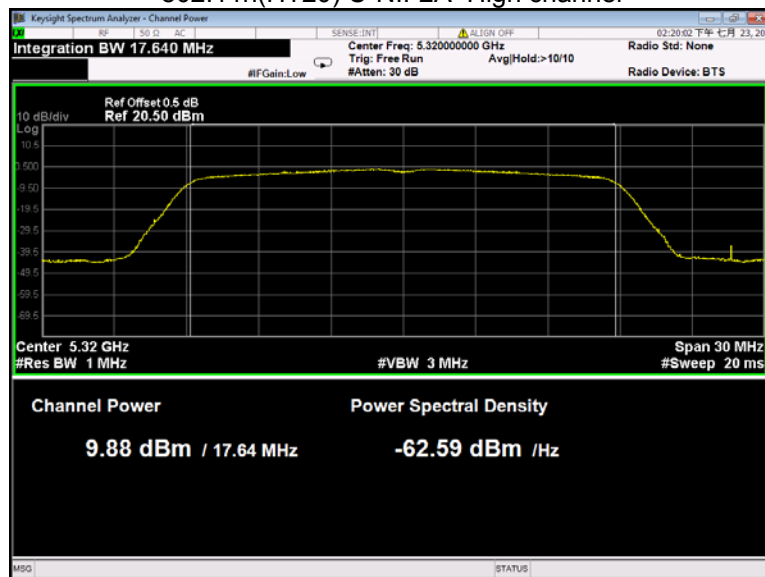
802.11n(HT20) U-NII-2A Low channel



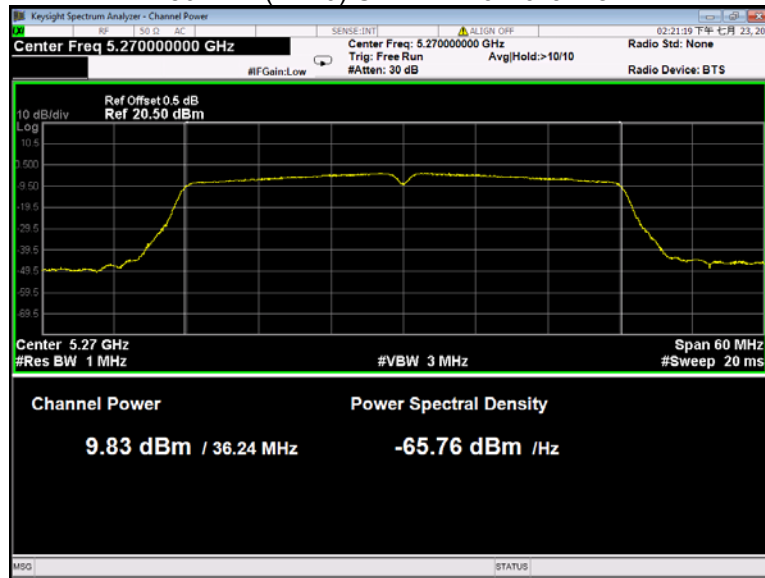
802.11n(HT20) U-NII-2A Middle channel



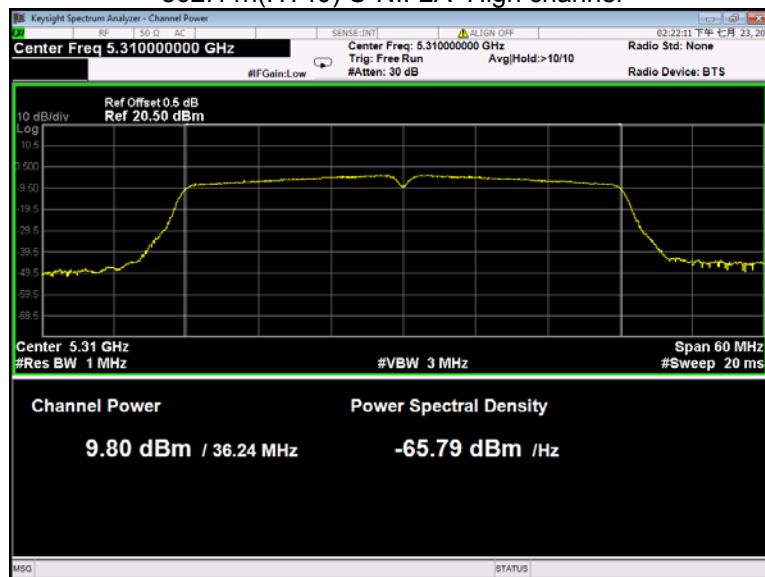
802.11n(HT20) U-NII-2A High channel



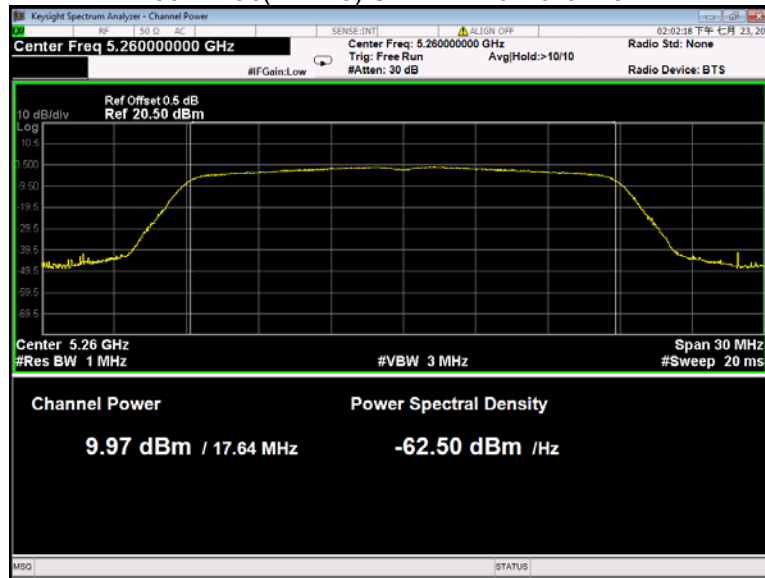
802.11n(HT40) U-NII-2A Low channel



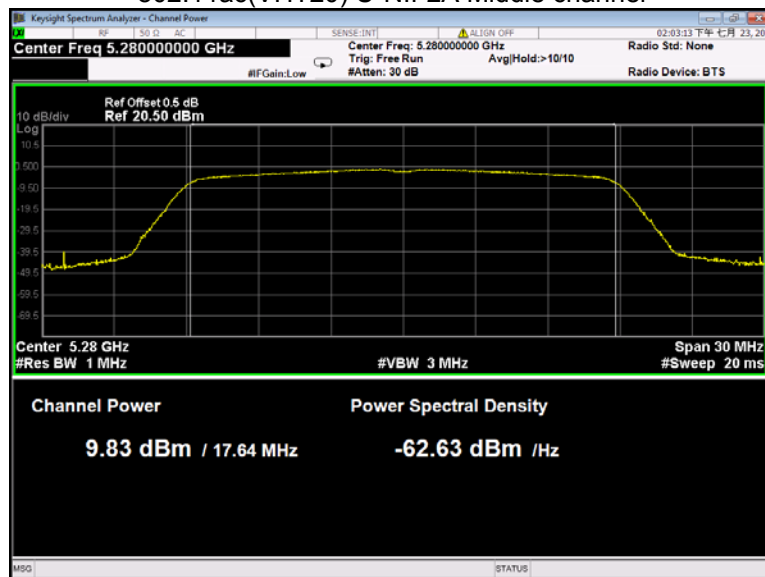
802.11n(HT40) U-NII-2A High channel



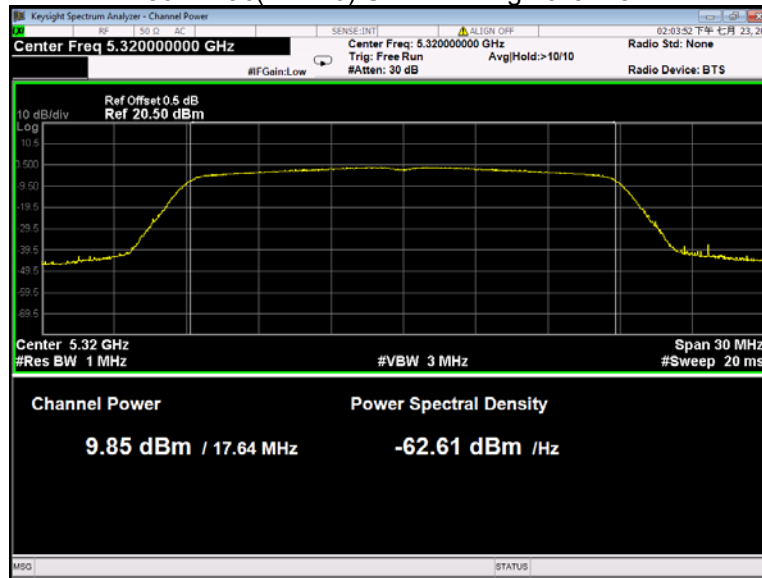
802.11ac(VHT20) U-NII-2A Low channel



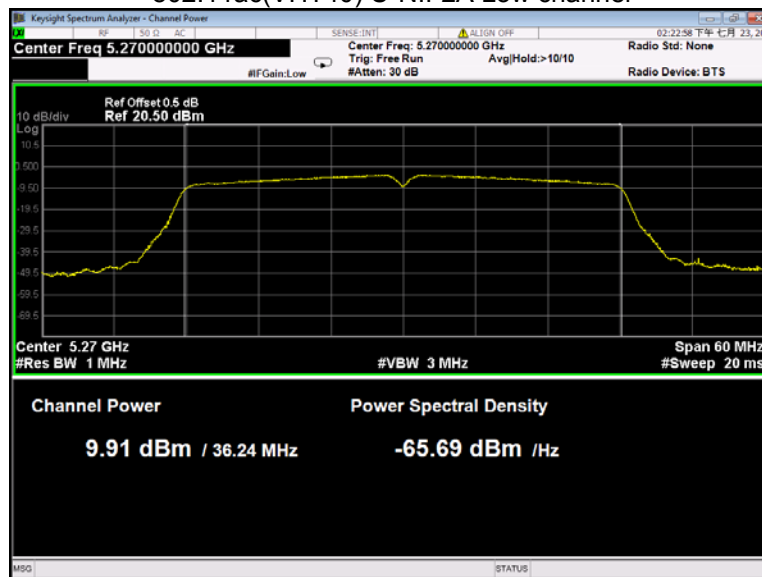
802.11ac(VHT20) U-NII-2A Middle channel



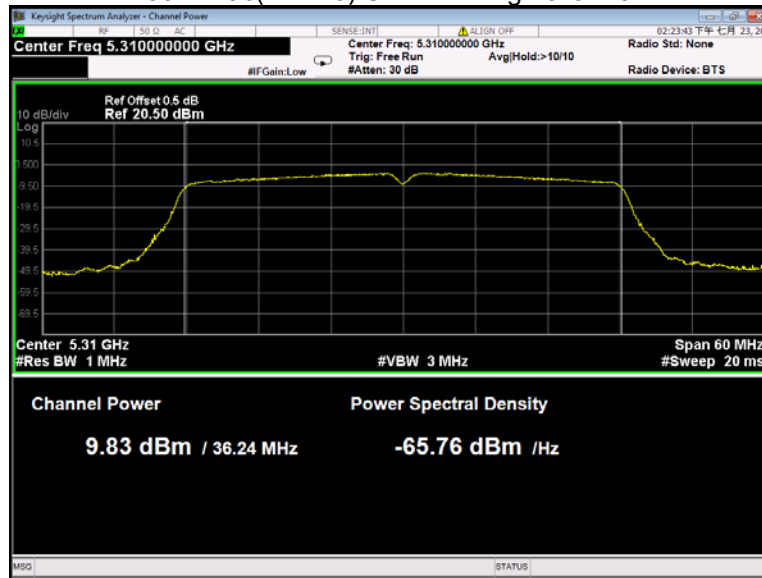
802.11ac(VHT20) U-NII-2A High channel



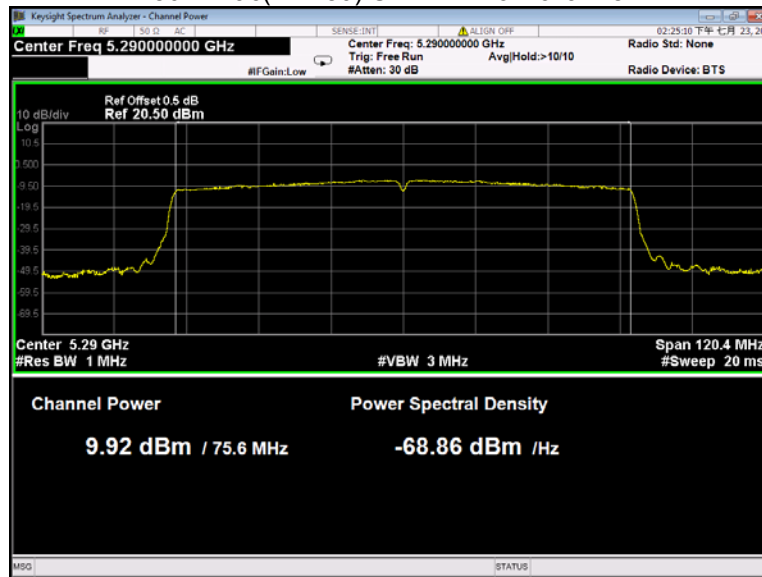
802.11ac(VHT40) U-NII-2A Low channel



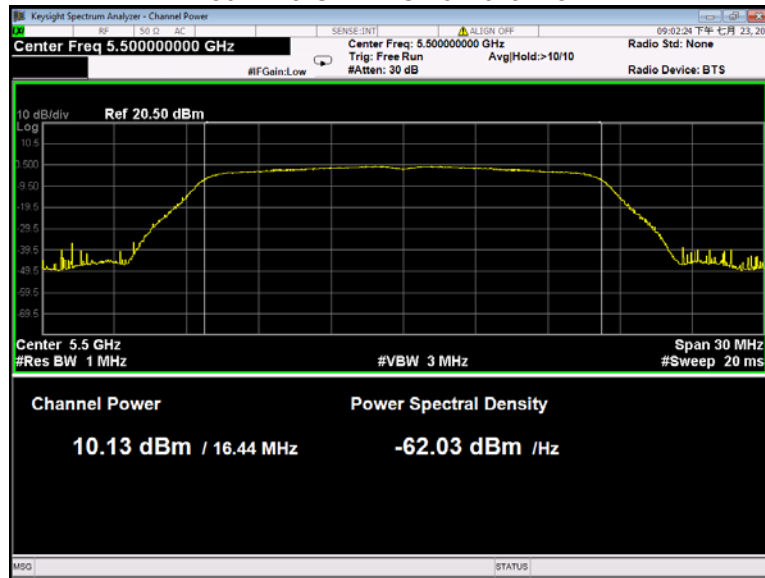
802.11ac(VHT40) U-NII-2A High channel



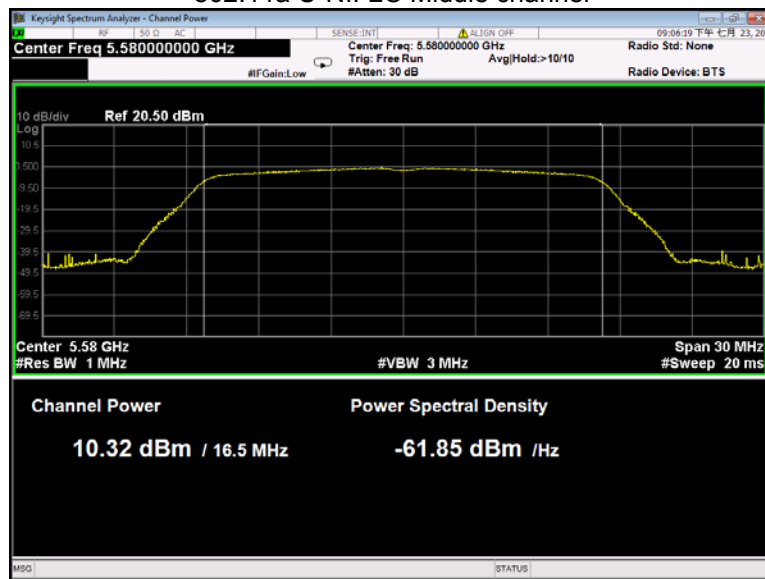
802.11ac(VHT80) U-NII-2A Low channel



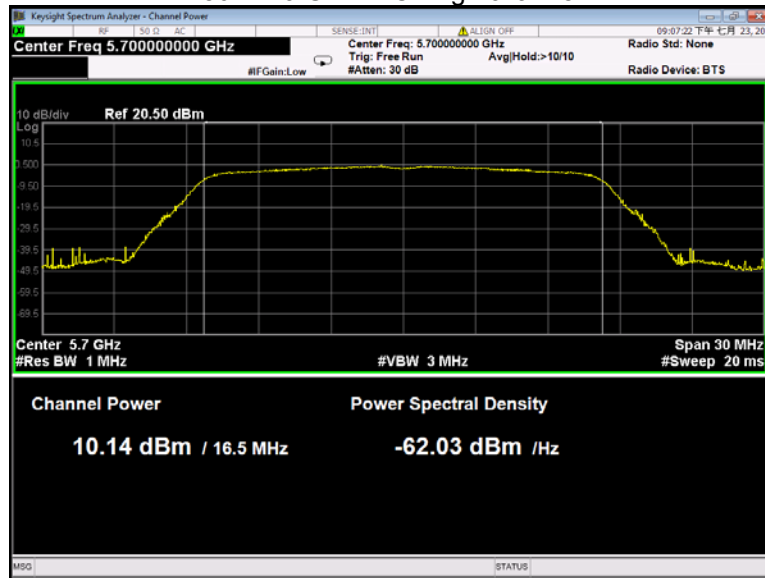
802.11a U-NII-2C Low channel



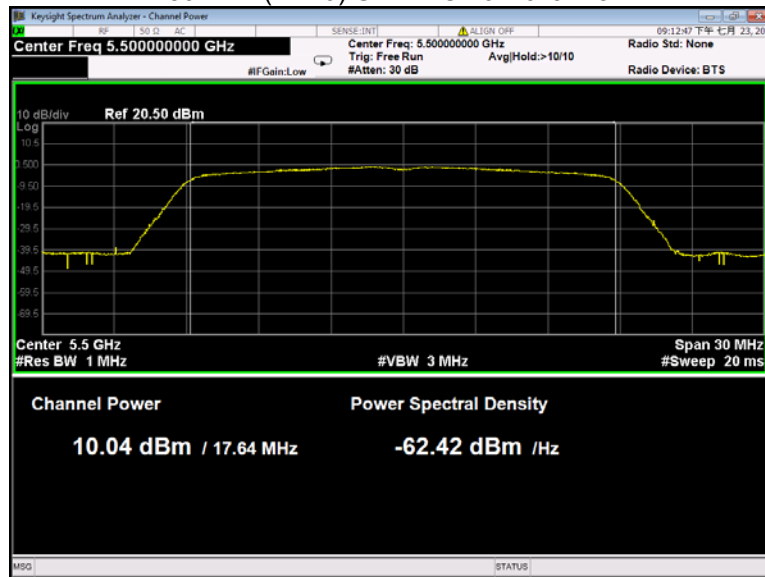
802.11a U-NII-2C Middle channel



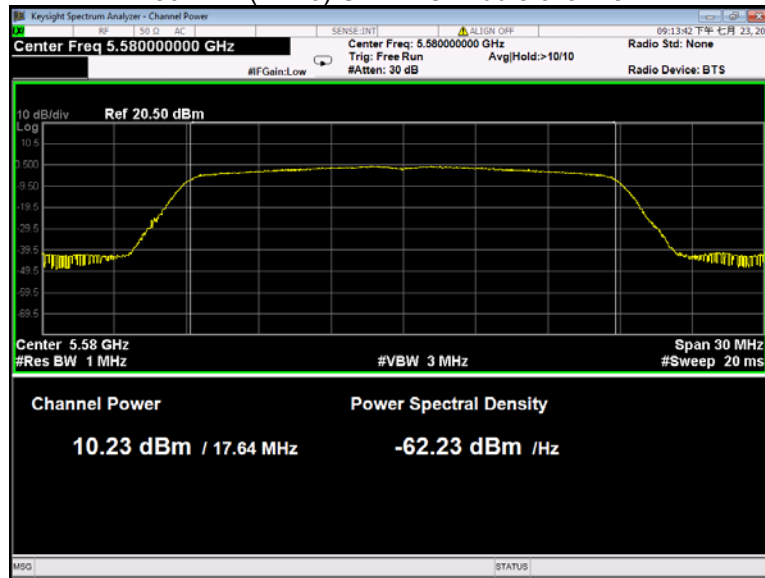
802.11a U-NII-2C High channel



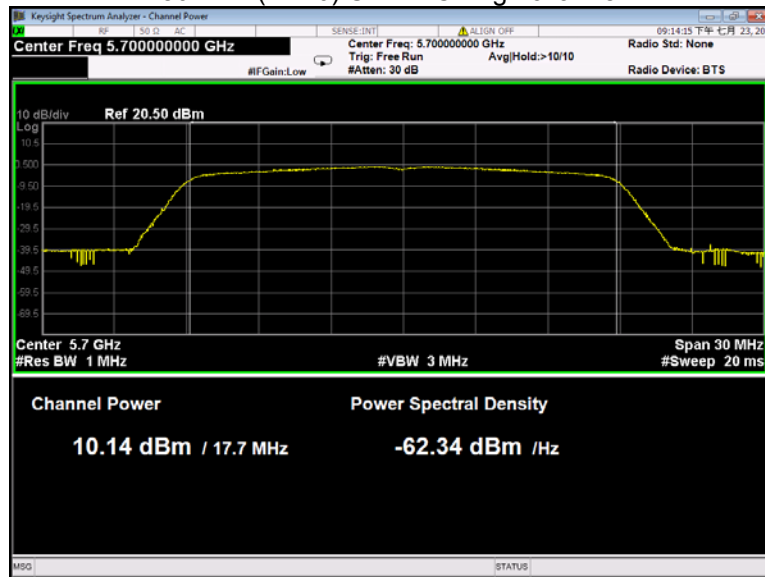
802.11n(HT20) U-NII-2C Low channel



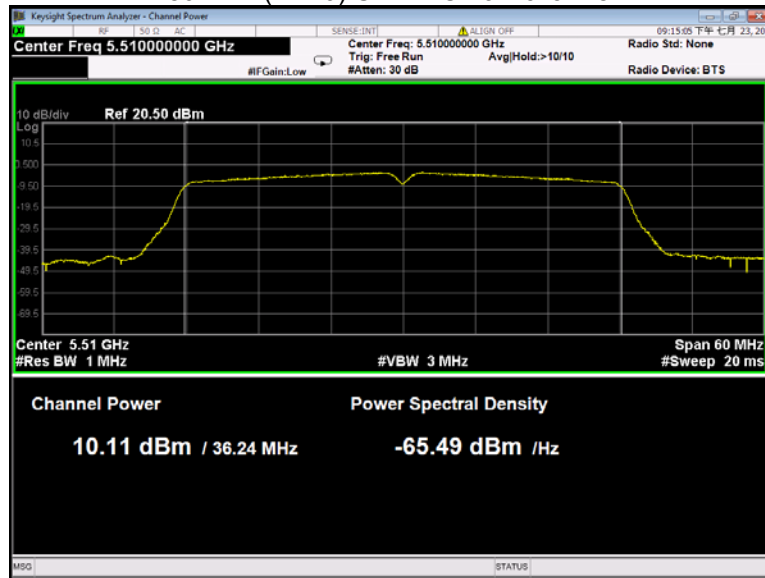
802.11n(HT20) U-NII-2C Middle channel



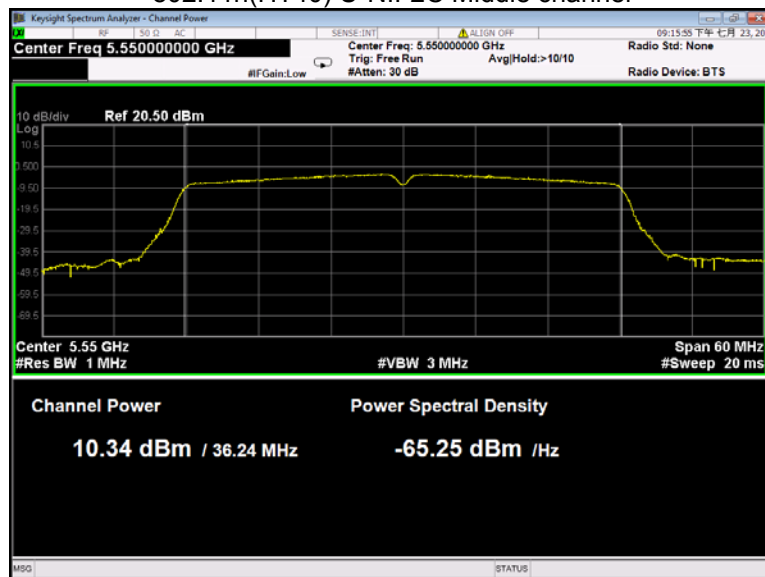
802.11n(HT20) U-NII-2C High channel



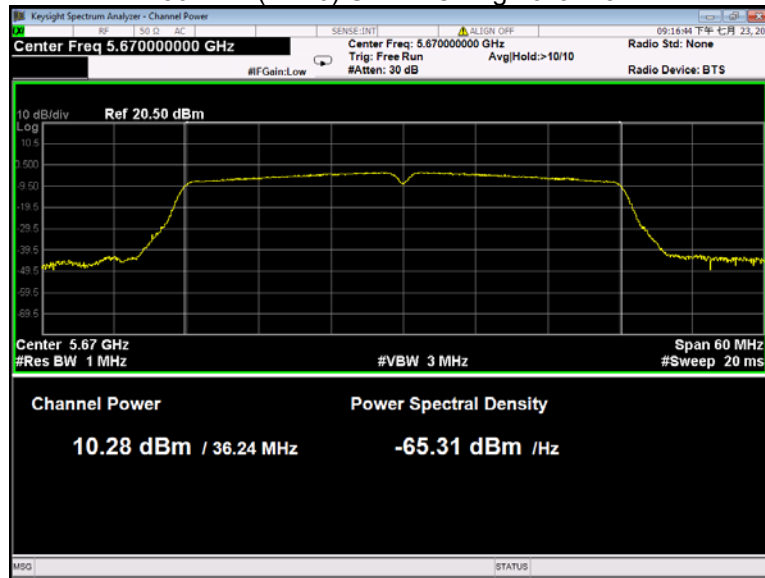
802.11n(HT40) U-NII-2C Low channel



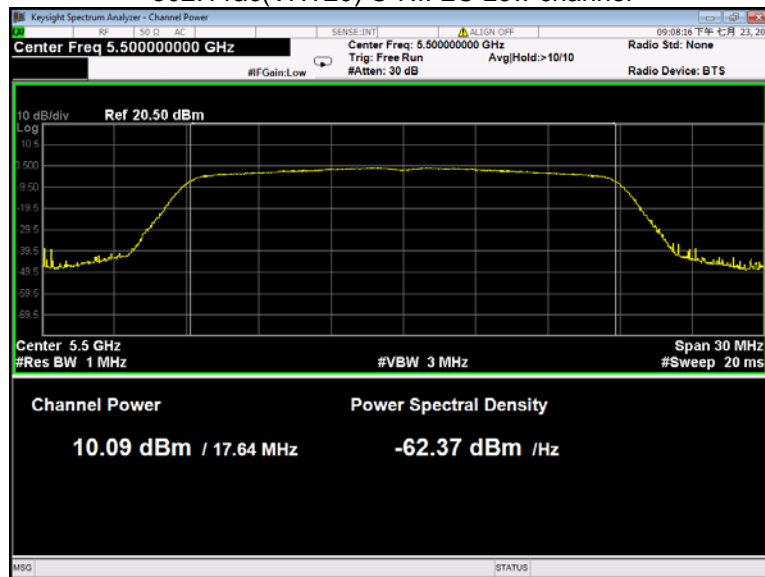
802.11n(HT40) U-NII-2C Middle channel



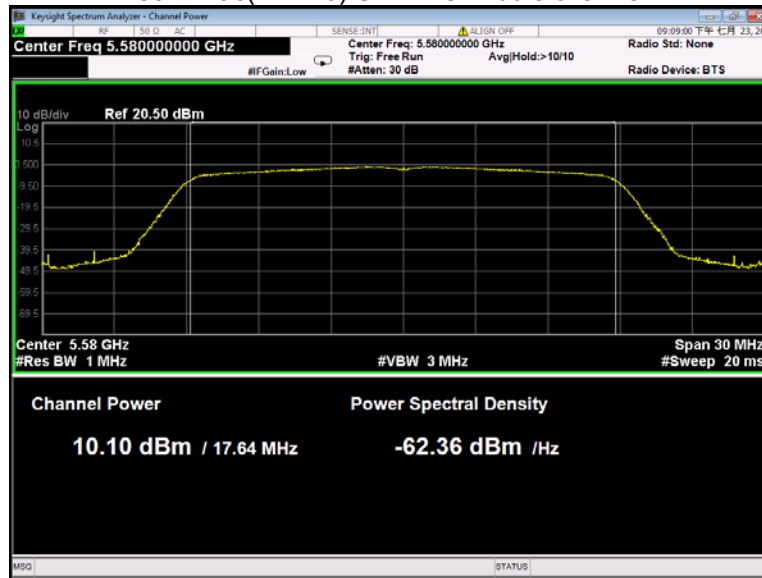
802.11n(HT40) U-NII-2C High channel



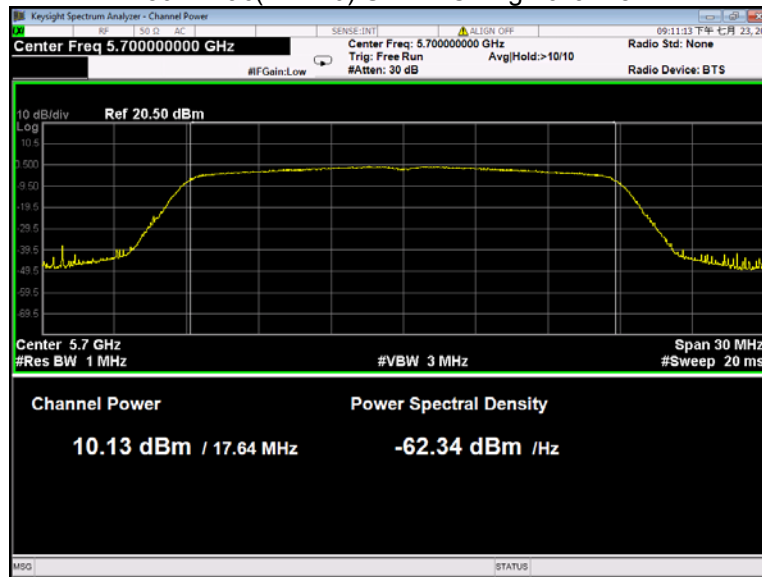
802.11ac(VHT20) U-NII-2C Low channel



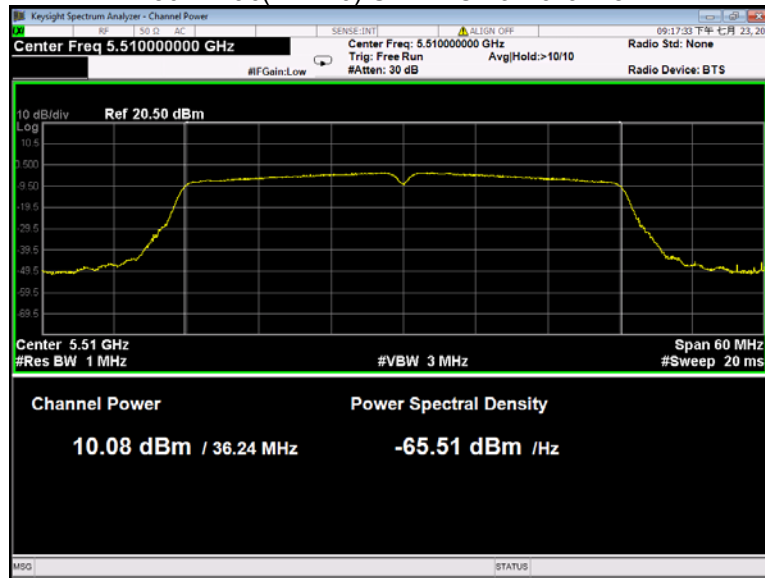
802.11ac(VHT20) U-NII-2C Middle channel



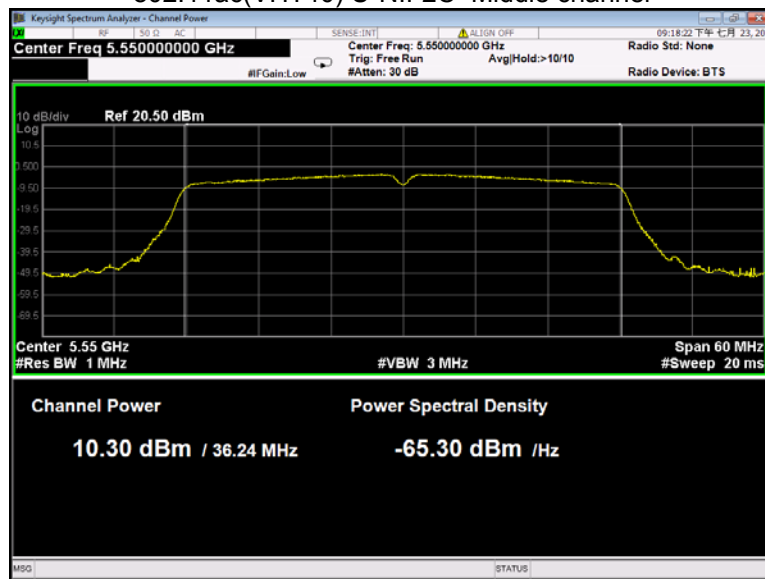
802.11ac(VHT20) U-NII-2C High channel



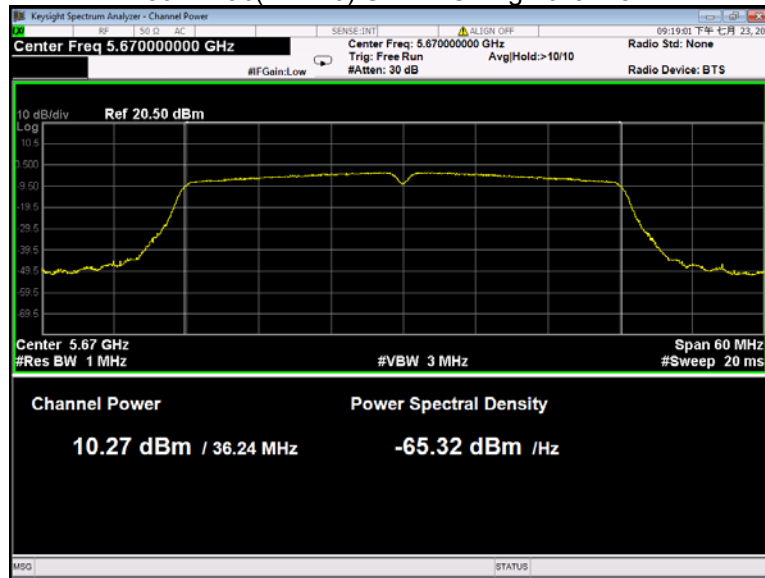
802.11ac(VHT40) U-NII-2C Low channel



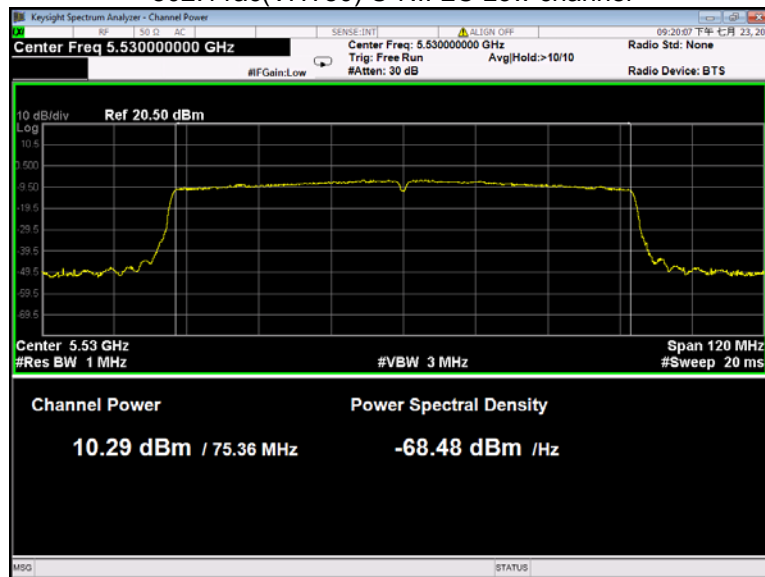
802.11ac(VHT40) U-NII-2C Middle channel



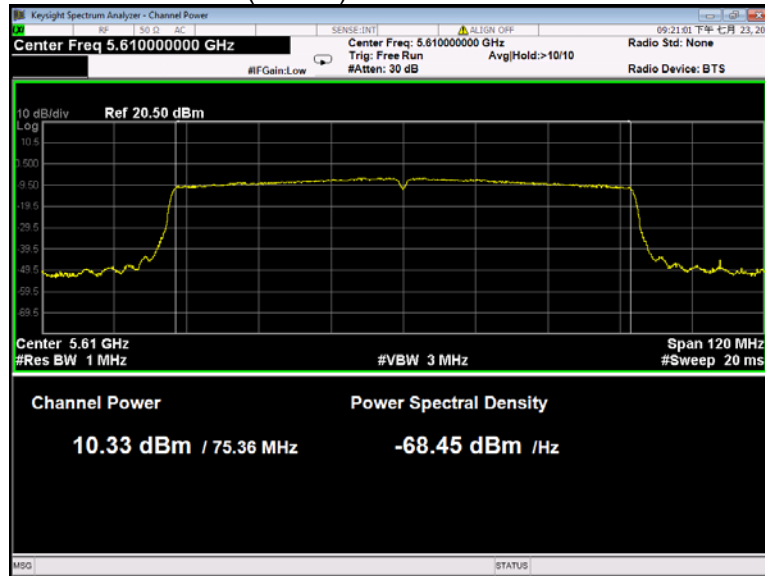
802.11ac(VHT40) U-NII-2C High channel



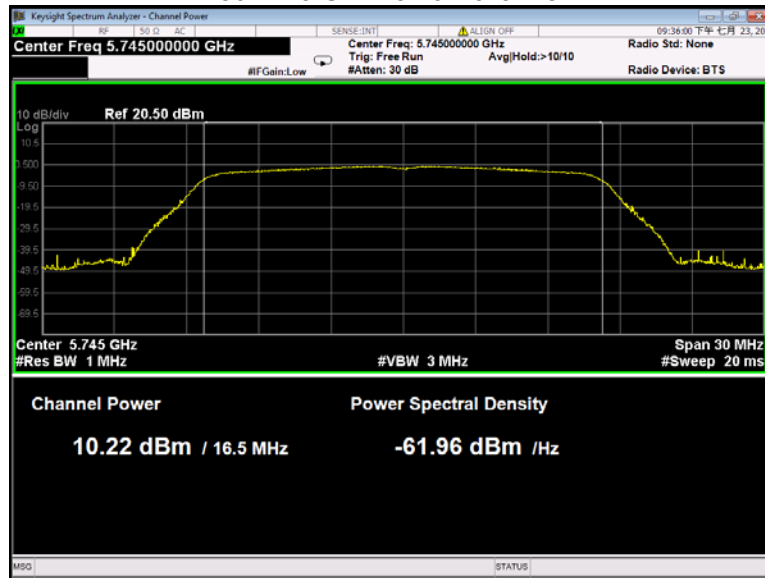
802.11ac(VHT80) U-NII-2C Low channel



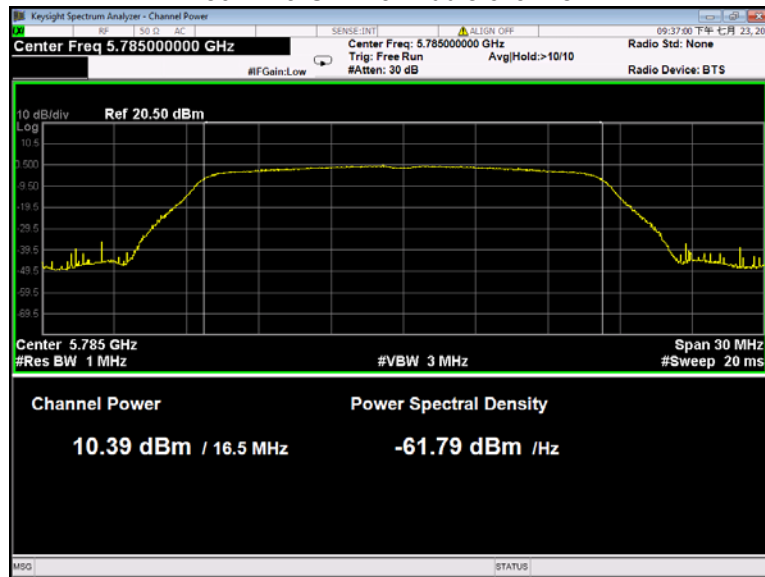
802.11ac(VHT80) U-NII-2C Middle channel



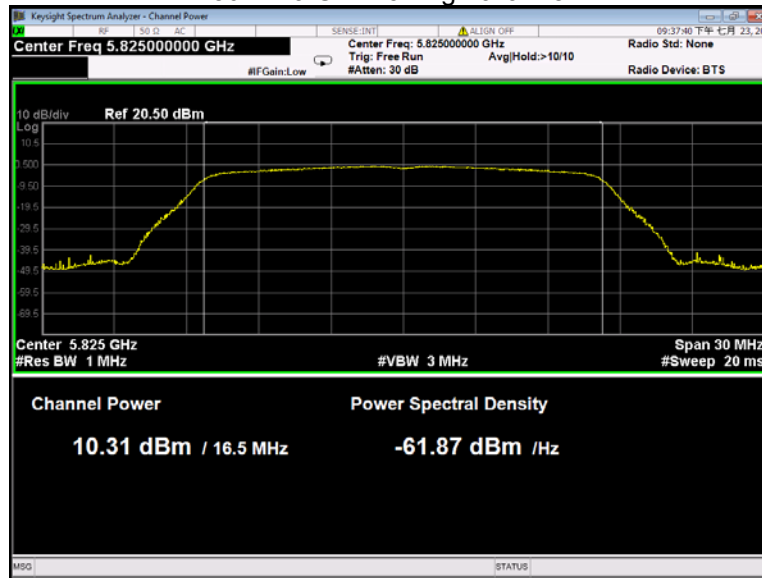
802.11a U-NII-3 Low channel



802.11a U-NII-3 Middle channel



802.11a U-NII-3 High channel



802.11n(HT20) U-NII-3 Low channel

