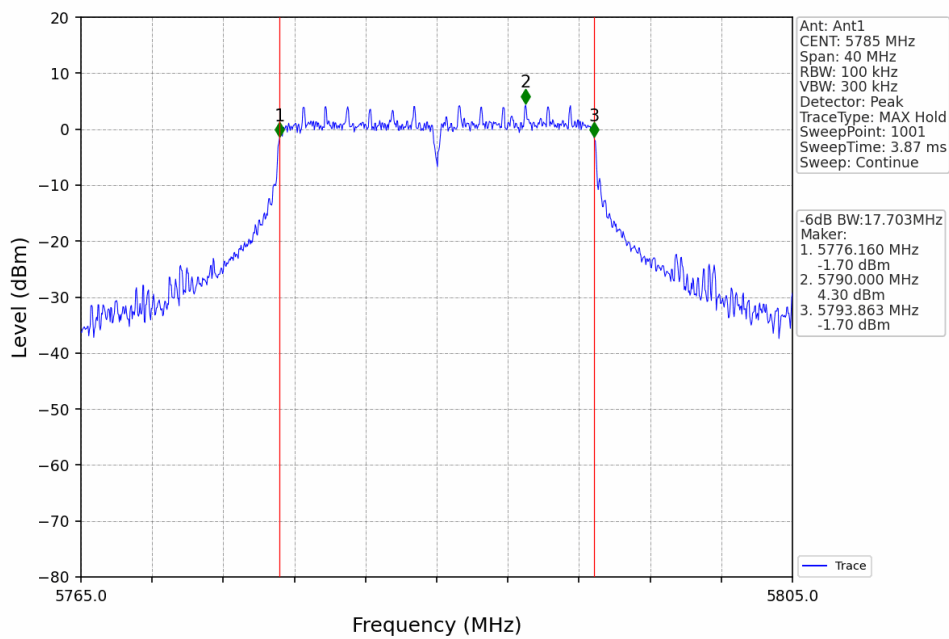
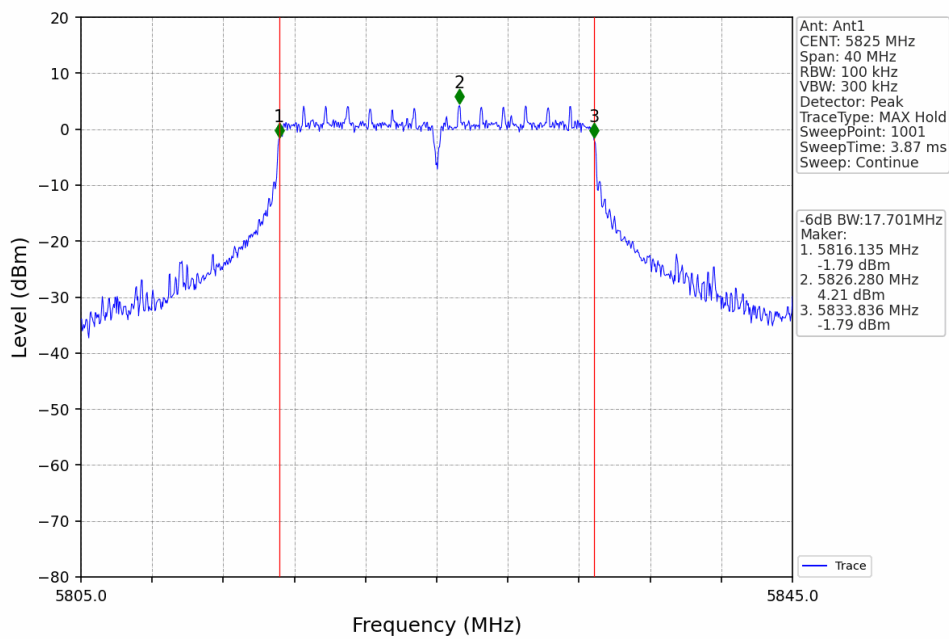




802.11n(HT20)\_MCH\_5785MHz\_Ant1\_NTNV

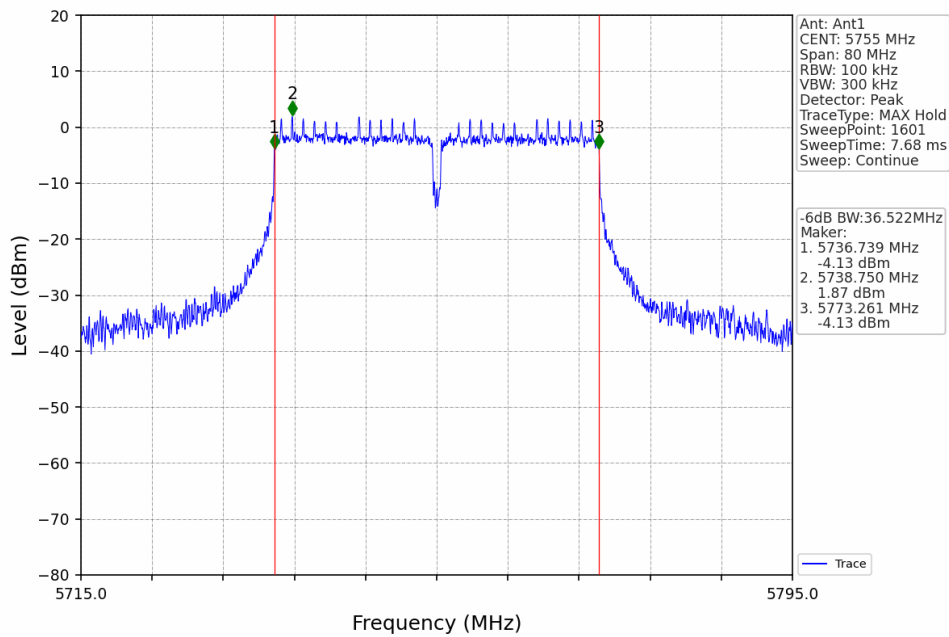


802.11n(HT20)\_HCH\_5825MHz\_Ant1\_NTNV

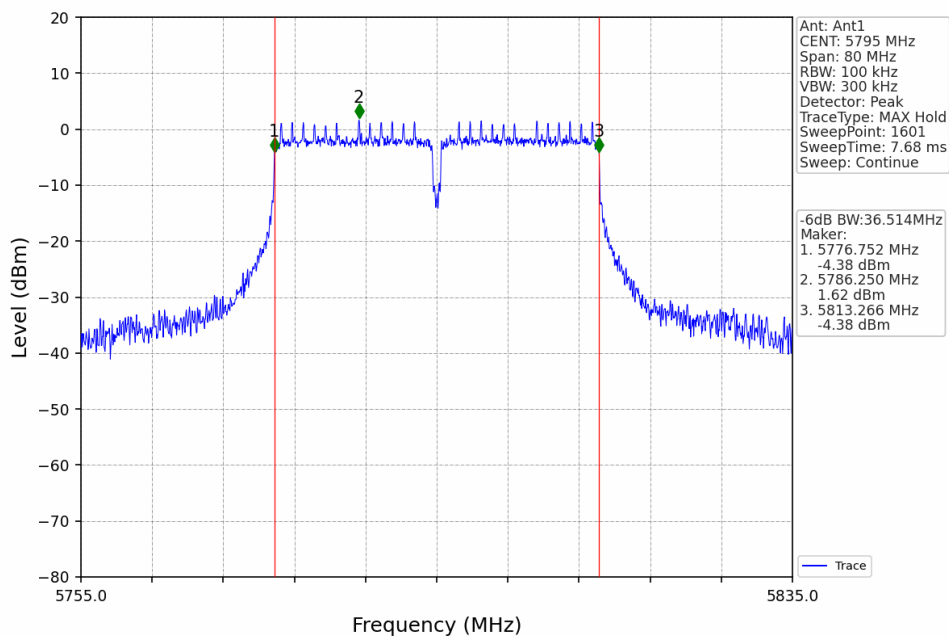




802.11n(HT40)\_LCH\_5755MHz\_Ant1\_NTNV

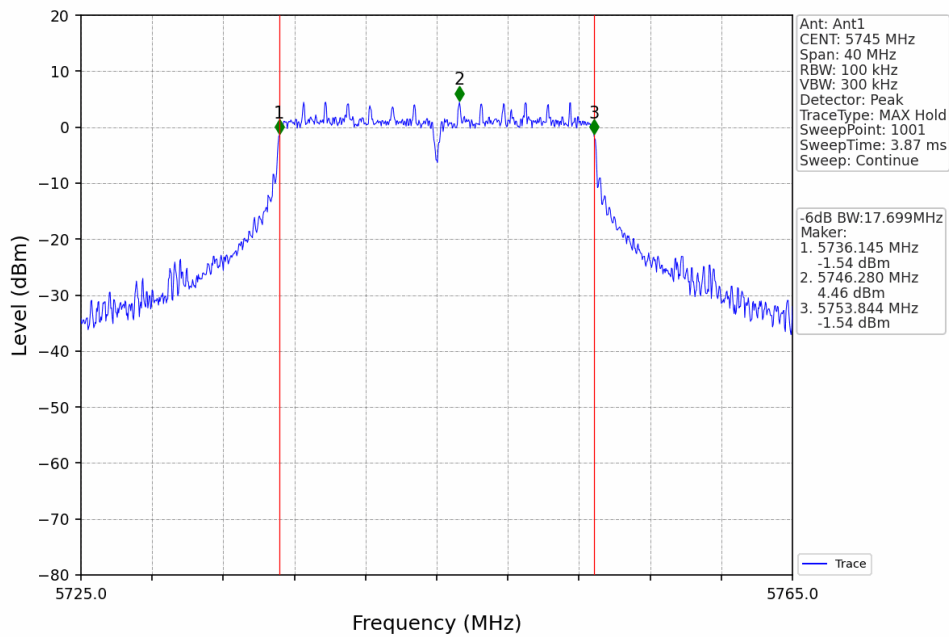


802.11n(HT40)\_HCH\_5795MHz\_Ant1\_NTNV

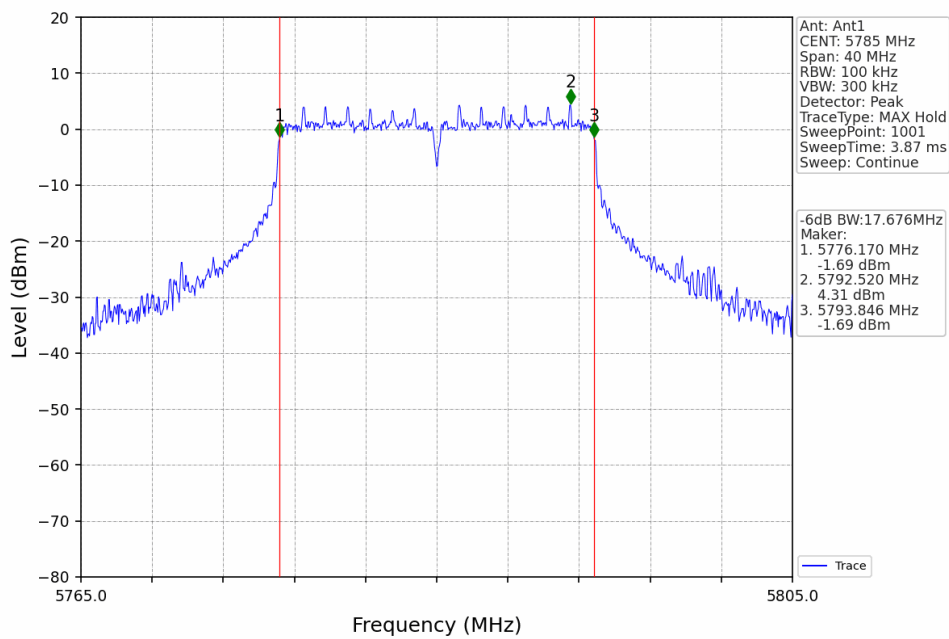




### 802.11ac(VHT20)\_LCH\_5745MHz\_Ant1\_NTNV

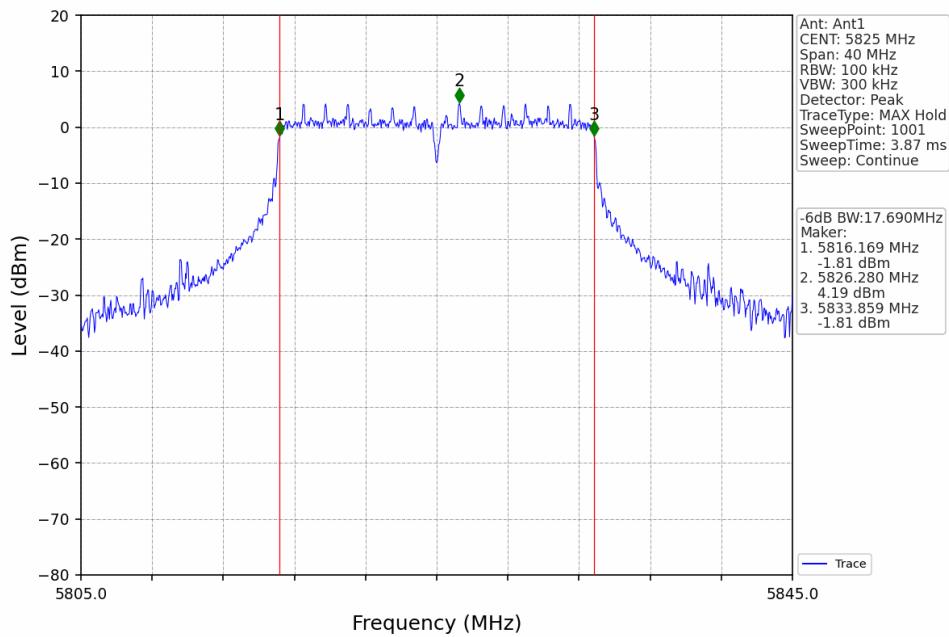


### 802.11ac(VHT20)\_MCH\_5785MHz\_Ant1\_NTNV

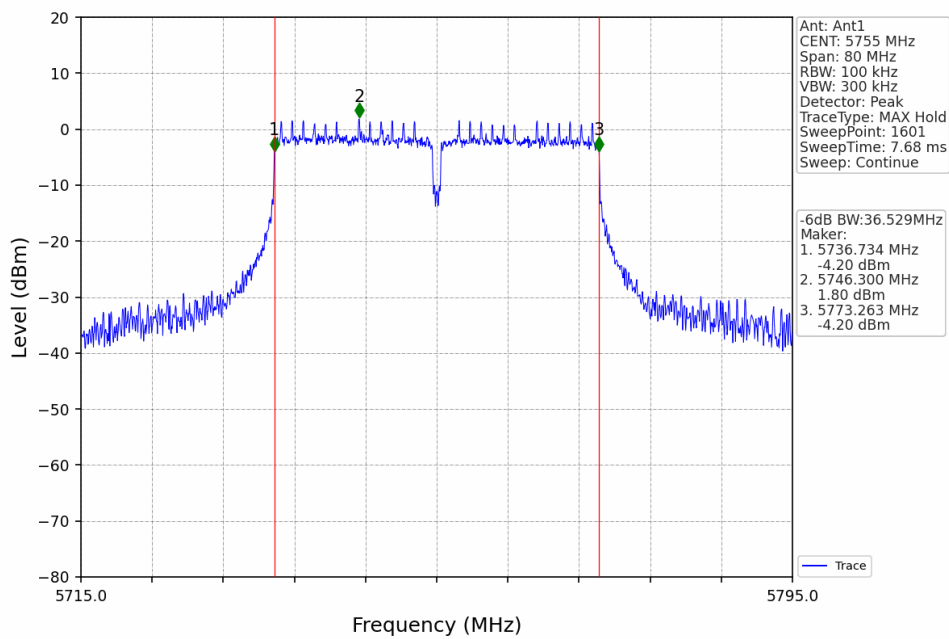




### 802.11ac(VHT20)\_HCH\_5825MHz\_Ant1\_NTNV

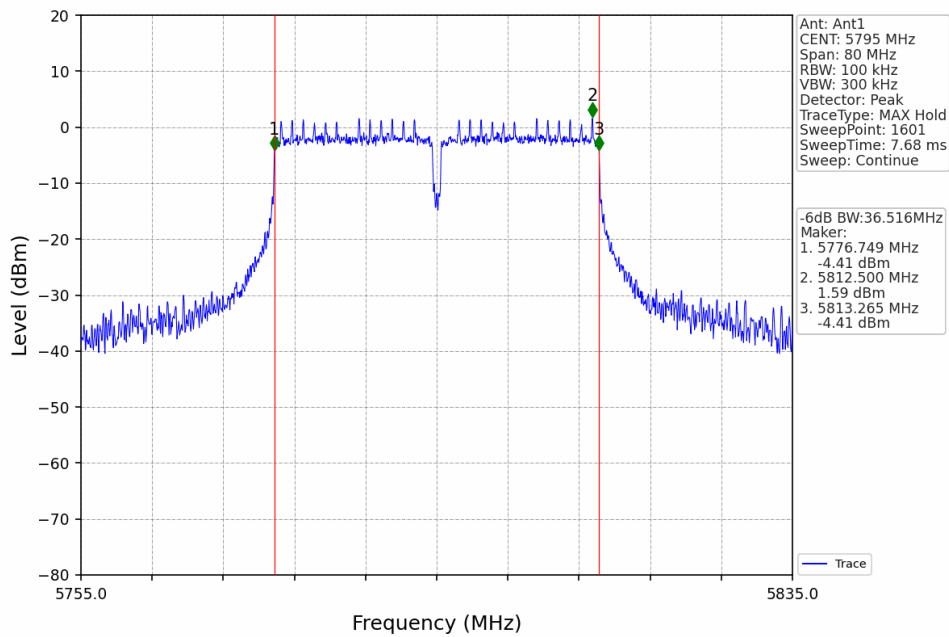


### 802.11ac(VHT40)\_LCH\_5755MHz\_Ant1\_NTNV

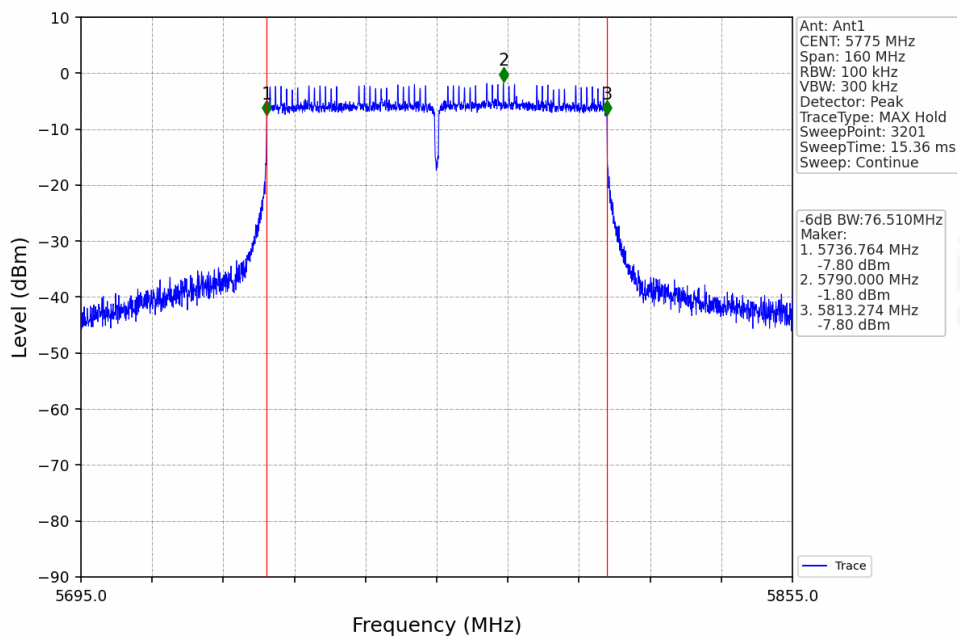




### 802.11ac(VHT40)\_HCH\_5795MHz\_Ant1\_NTNV

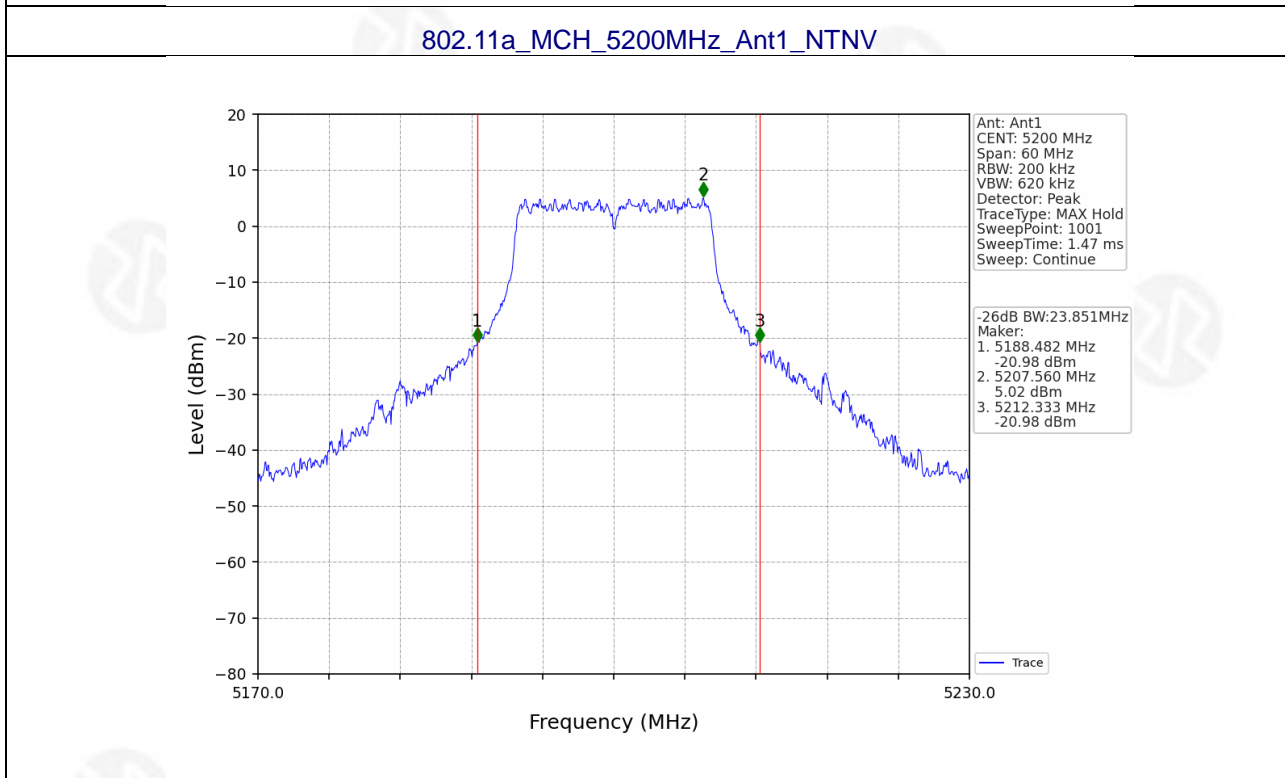
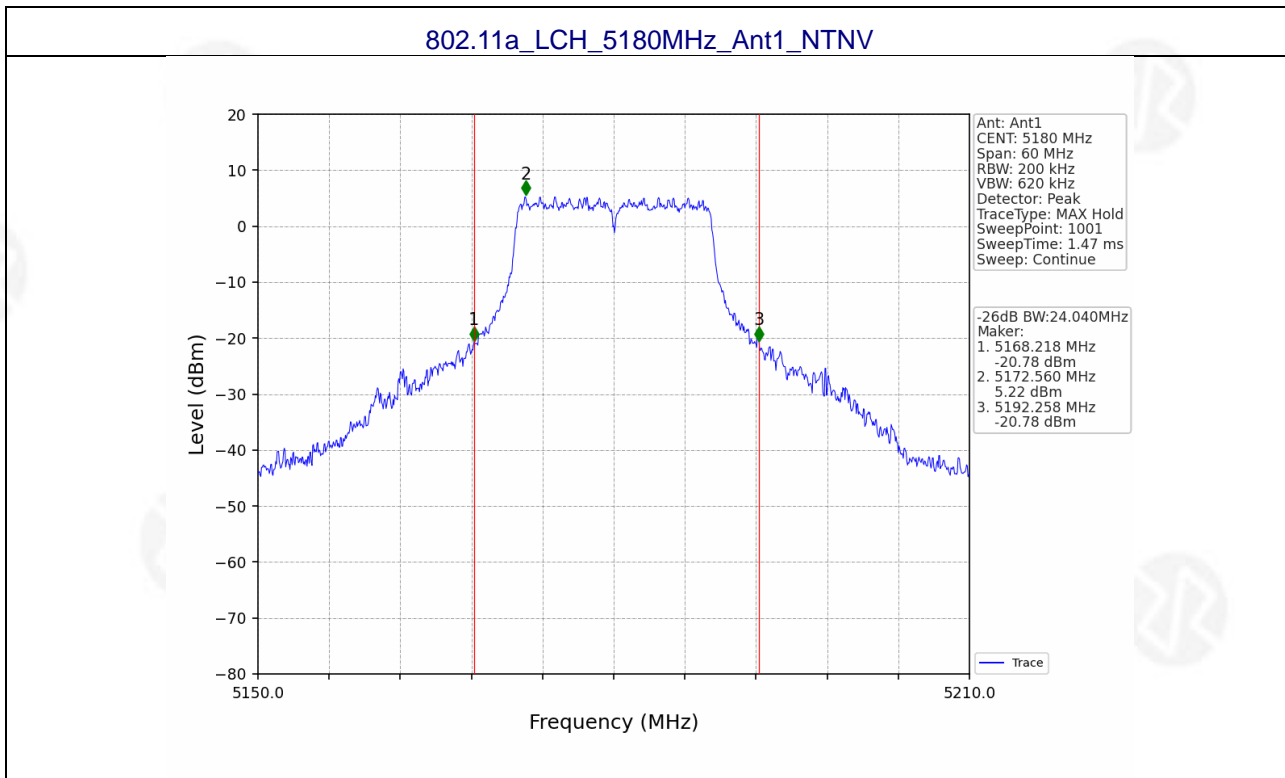


### 802.11ac(VHT80)\_MCH\_5775MHz\_Ant1\_NTNV



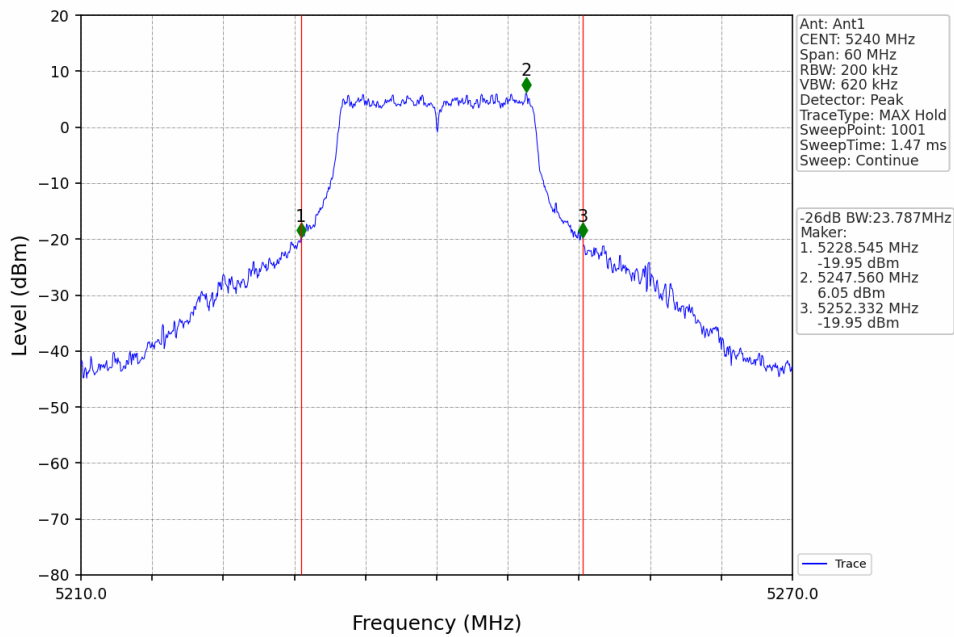


-26dB Channel Bandwidth (MHz)

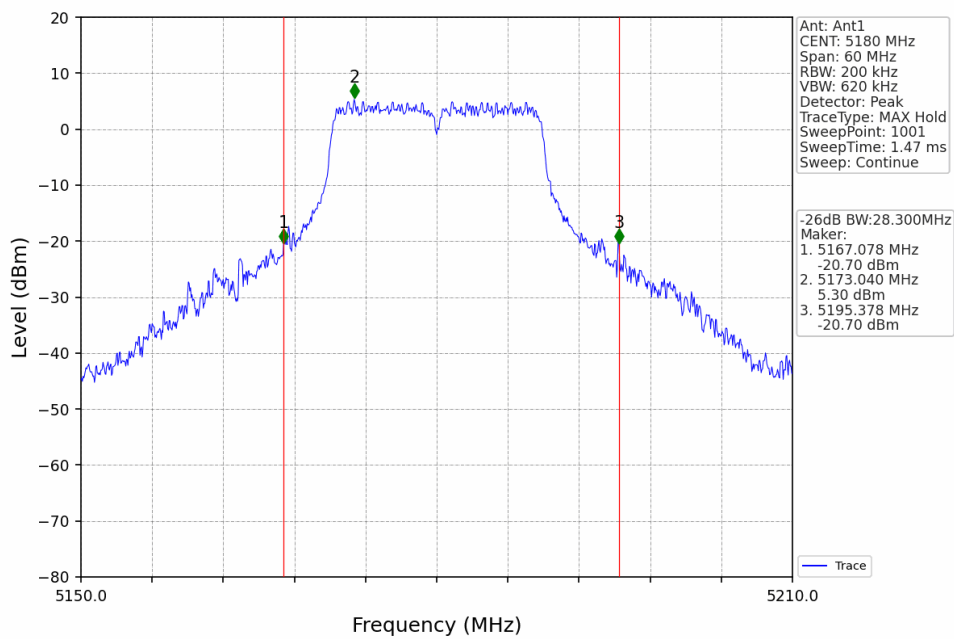




### 802.11a\_HCH\_5240MHz\_Ant1\_NTNV

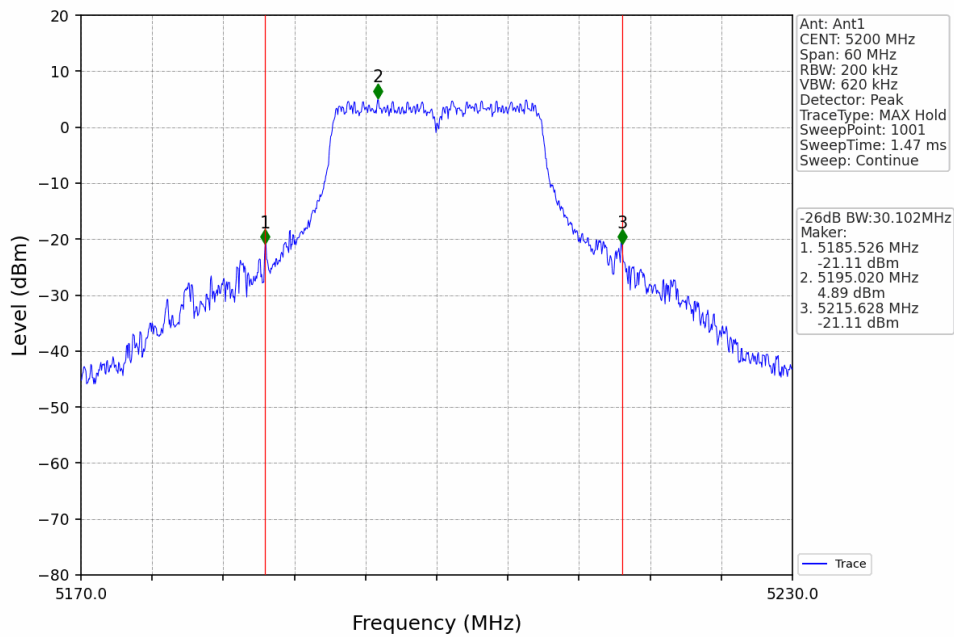


### 802.11n(HT20)\_LCH\_5180MHz\_Ant1\_NTNV

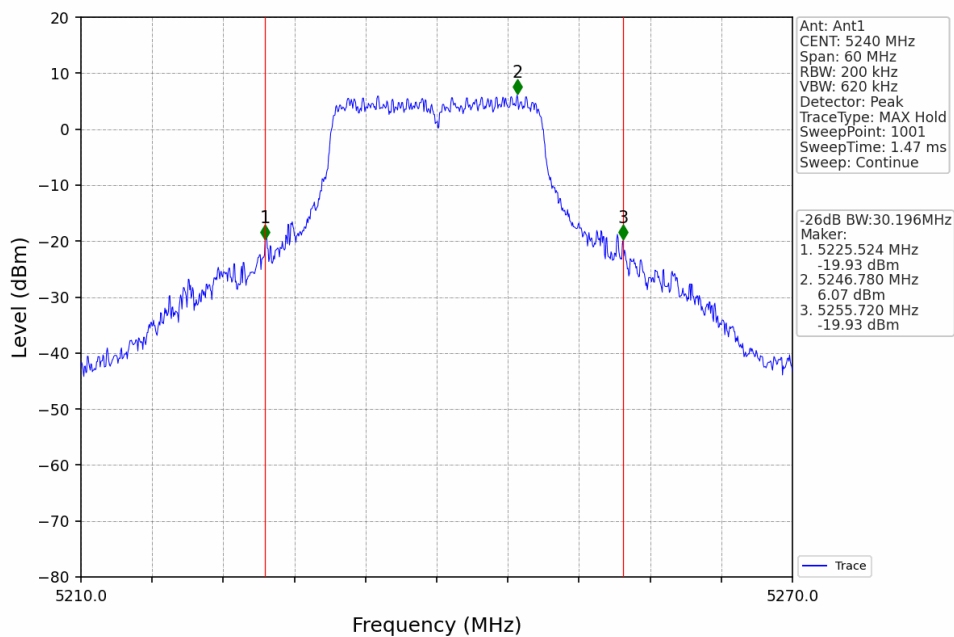




### 802.11n(HT20)\_MCH\_5200MHz\_Ant1\_NTNV



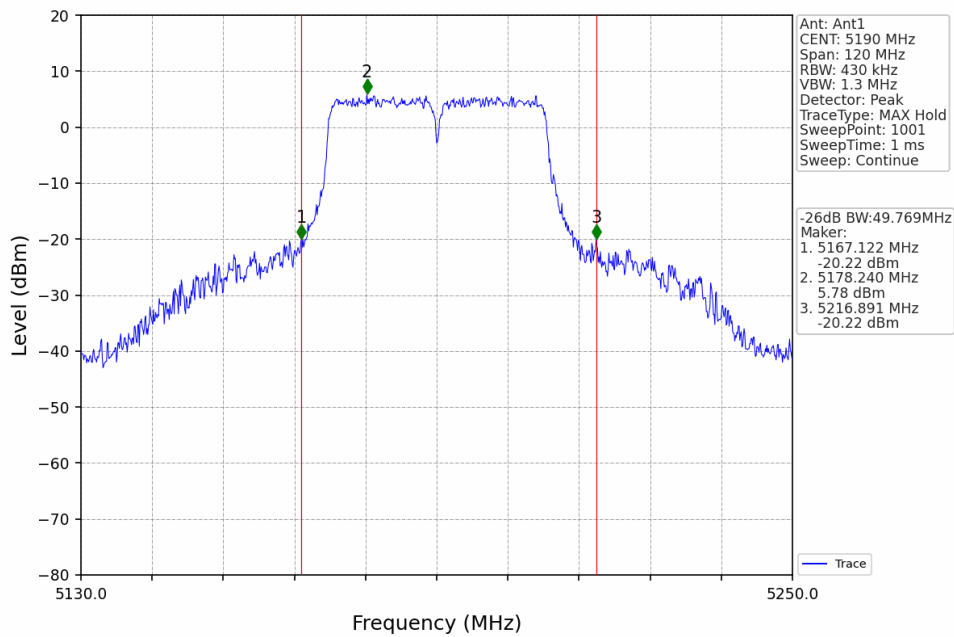
### 802.11n(HT20)\_HCH\_5240MHz\_Ant1\_NTNV



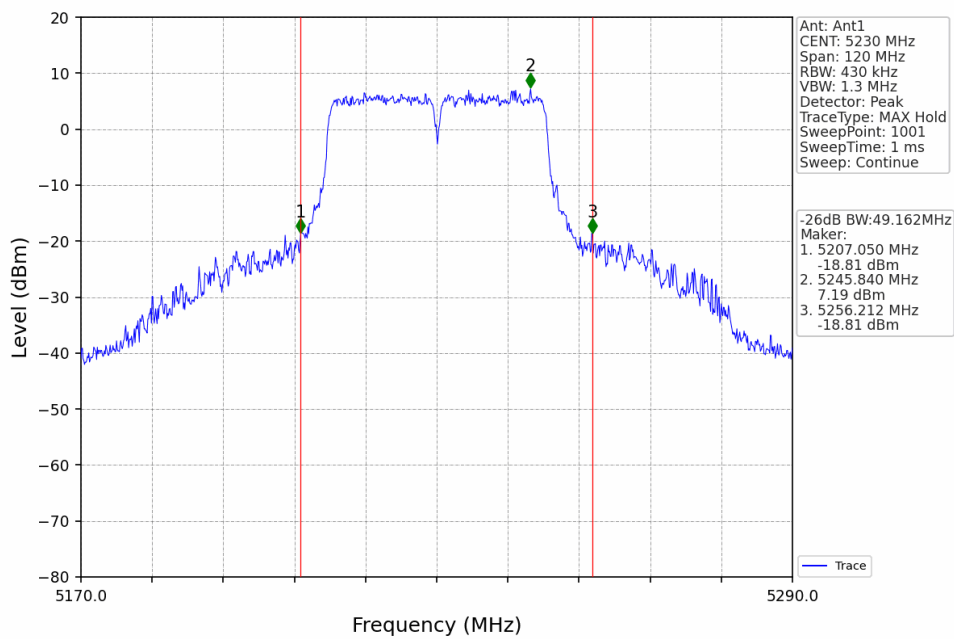




### 802.11n(HT40)\_LCH\_5190MHz\_Ant1\_NTNV

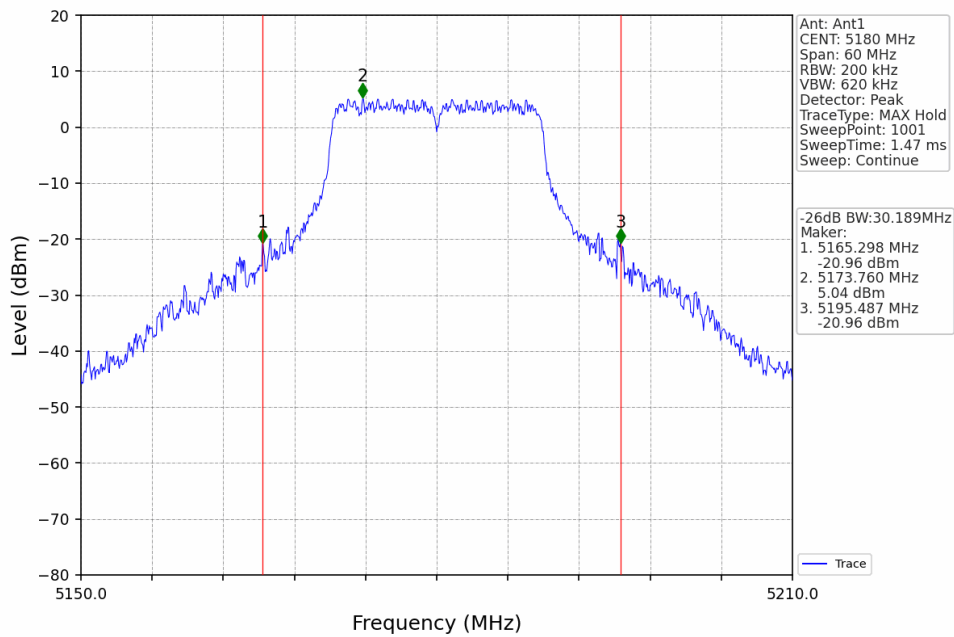


### 802.11n(HT40)\_HCH\_5230MHz\_Ant1\_NTNV

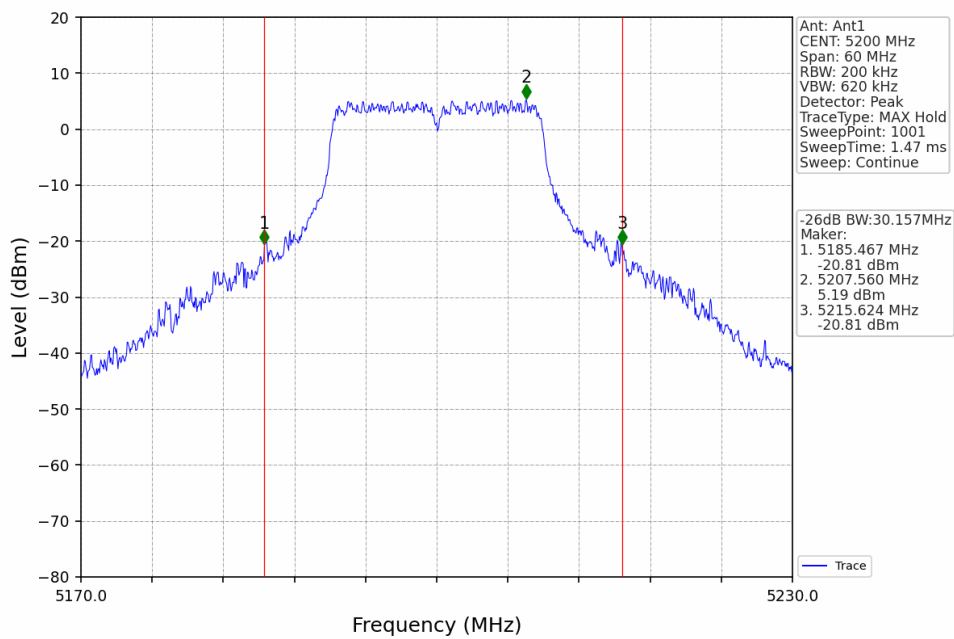




802.11ac(VHT20)\_LCH\_5180MHz\_Ant1\_NTNV

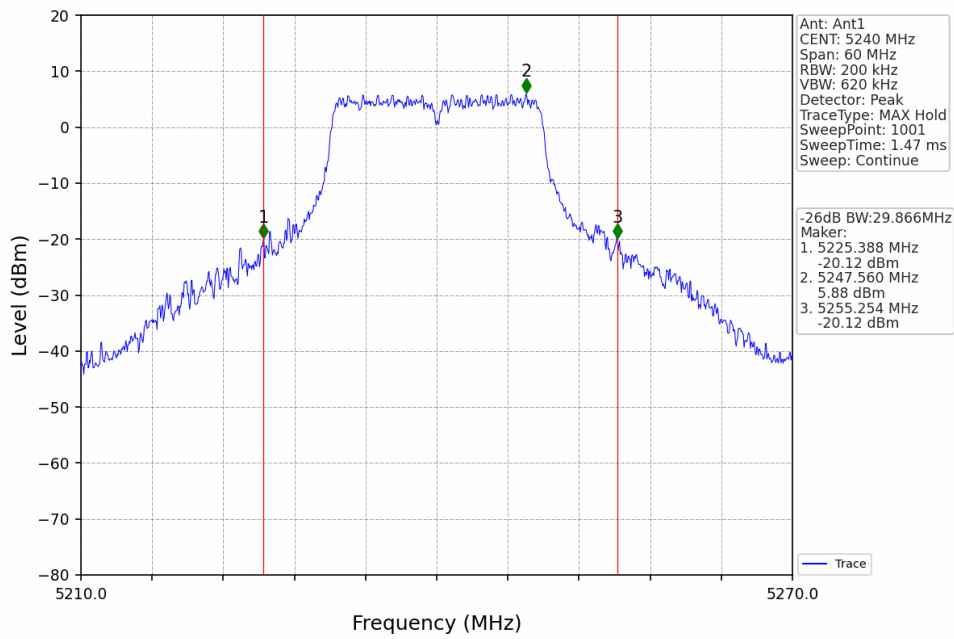


802.11ac(VHT20)\_MCH\_5200MHz\_Ant1\_NTNV

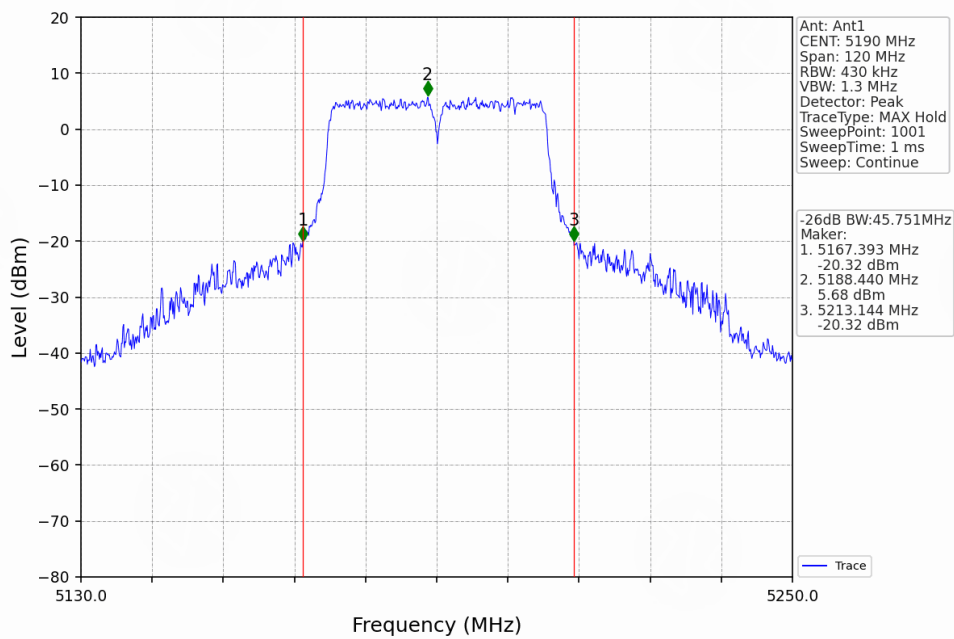




### 802.11ac(VHT20)\_HCH\_5240MHz\_Ant1\_NTNV

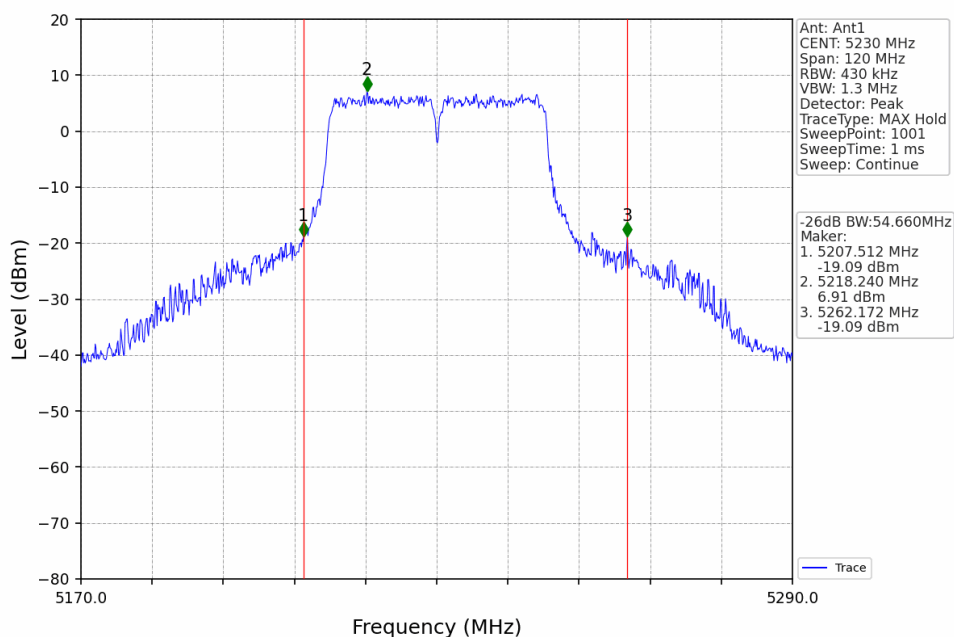


### 802.11ac(VHT40)\_LCH\_5190MHz\_Ant1\_NTNV

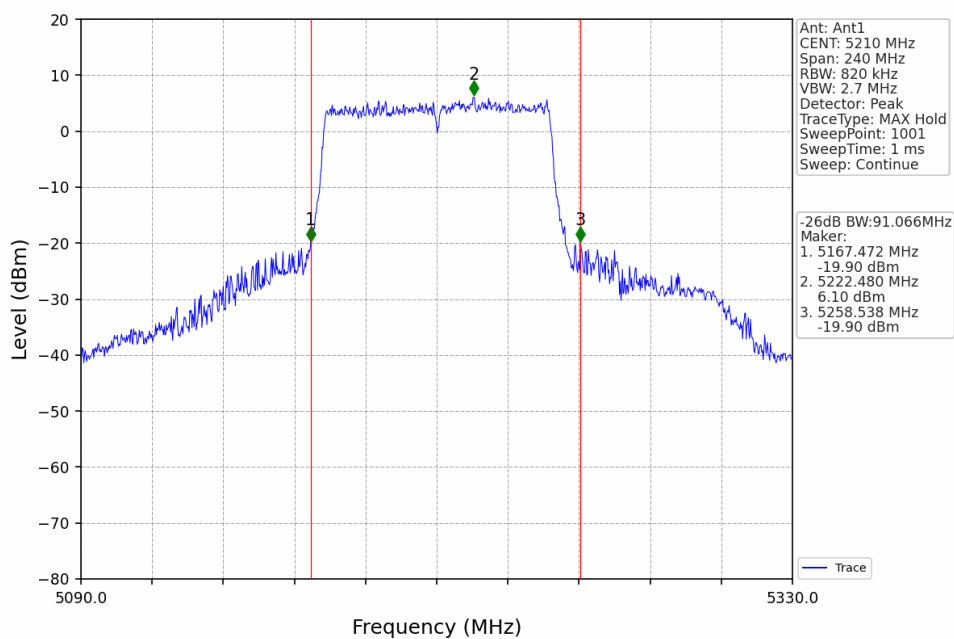




### 802.11ac(VHT40)\_HCH\_5230MHz\_Ant1\_NTNV



### 802.11ac(VHT80)\_MCH\_5210MHz\_Ant1\_NTNV





## 7. MAXIMUM CONDUCTED OUTPUT POWER

### 7.1 APPLIED PROCEDURES / LIMIT

According to FCC §15.407

The maximum conducted output power should not exceed:

Frequency Band(MHz)	Limit
5150~5250	250mW
5725~5850	1W

### 7.2 TEST PROCEDURE

The EUT was directly connected to the Power meter

#### 1. Device Configuration

If possible, configure or modify the operation of the EUT so that it transmits continuously at its maximum power control level (see section II.B.).

a) The intent is to test at 100 percent duty cycle; however a small reduction in duty cycle (to no lower than 98 percent) is permitted if required by the EUT for amplitude control purposes. Manufacturers are expected to provide software to the test lab to permit such continuous operation.

b) If continuous transmission (or at least 98 percent duty cycle) cannot be achieved due to hardware limitations (e.g., overheating), the EUT shall be operated at its maximum power control level with the transmit duration as long as possible and the duty cycle as high as possible.

#### 2. Measurement using a Spectrum Analyzer or EMI Receiver (SA)

Measurement of maximum conducted output power using a spectrum analyzer requires integrating the spectrum across a frequency span that encompasses, at a minimum, either the EBW or the 99-percent occupied bandwidth of the signal. However, the EBW must be used to determine bandwidth dependent limits on maximum conducted output power in accordance with § 15.407(a).

a) The test method shall be selected as follows: (i) Method SA-1 or SA-1 Alternative (averaging with the EUT transmitting at full power throughout each sweep) shall be applied if either of the following conditions can be satisfied:

- The EUT transmits continuously (or with a duty cycle  $\geq 98$  percent).
- Sweep triggering or gating can be implemented in a way that the device transmits at the maximum power control level throughout the duration of each of the instrument sweeps to be averaged. This condition can generally be achieved by triggering the instrument's sweep if the duration of the sweep (with the analyzer configured as in Method SA-1, below) is equal to or shorter than the duration T of each transmission from the EUT and if those transmissions exhibit full power throughout their durations.

(ii) Method SA-2 or SA-2 Alternative (averaging across on and off times of the EUT transmissions, followed by duty cycle correction) shall be applied if the conditions of (i) cannot be achieved and the transmissions exhibit a constant duty cycle during the measurement duration. Duty cycle will be considered to be constant if variations are less than  $\pm 2$  percent.

(iii) Method SA-3 (RMS detection with max hold) or SA-3 Alternative (reduced VBW with max hold) shall be applied if the conditions of (i) and (ii) cannot be achieved.

b) Method SA-1 (trace averaging with the EUT transmitting at full power throughout each sweep): (i) Set span to encompass the entire emission bandwidth (EBW) (or, alternatively, the entire 99% occupied bandwidth) of the signal.

(ii) Set RBW = 1 MHz.

(iii) Set VBW  $\geq 3$  MHz.

(iv) Number of points in sweep  $\geq 2$  Span / RBW. (This ensures that bin-to-bin spacing is  $\leq$  RBW/2, so that narrowband signals are not lost between frequency bins.)

(v) Sweep time = auto.

(vi) Detector = RMS (i.e., power averaging), if available. Otherwise, use sample detector mode.

(vii) If transmit duty cycle  $< 98$  percent, use a video trigger with the trigger level set to enable triggering only on full power pulses. Transmitter must operate at maximum power control level for the entire duration of every sweep. If the EUT transmits continuously (i.e., with no off intervals) or at duty cycle  $\geq 98$  percent, and if each transmission is entirely at the maximum power control level, then the trigger shall be set to "free run".

(viii) Trace average at least 100 traces in power averaging (i.e., RMS) mode.



(ix) Compute power by integrating the spectrum across the EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal using the instrument's band power measurement function with band limits set equal to the EBW (or occupied bandwidth) band edges. If the instrument does not have a band power function, sum the spectrum

### 7.3 DEVIATION FROM STANDARD

No deviation.

### 7.4 TEST SETUP



### 7.5 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.



7.6 TEST RESULTS

Temperature :	26 °C	Relative Humidity :	54%
Pressure :	1012 hPa	Test Voltage :	AC 120V, 60Hz
Test Mode :	TX		

Mode	TX Type	Frequency (MHz)	Maximum Average Conducted Output Power (dBm)		Verdict
			ANT1	Limit	
802.11a	SISO	5180	15.73	<=23.98	Pass
		5200	15.44	<=23.98	Pass
		5240	16.46	<=23.98	Pass
		5745	15.98	<=30	Pass
		5785	15.55	<=30	Pass
		5825	15.54	<=30	Pass
802.11n (HT20)	SISO	5180	15.49	<=23.98	Pass
		5200	15.35	<=23.98	Pass
		5240	16.33	<=23.98	Pass
		5745	16.04	<=30	Pass
		5785	15.81	<=30	Pass
		5825	15.97	<=30	Pass
802.11n (HT40)	SISO	5190	15.55	<=23.98	Pass
		5230	16.41	<=23.98	Pass
		5755	16.10	<=30	Pass
		5795	15.91	<=30	Pass
802.11ac (VHT20)	SISO	5180	15.64	<=23.98	Pass
		5200	15.66	<=23.98	Pass
		5240	16.49	<=23.98	Pass
		5745	16.01	<=30	Pass
		5785	15.86	<=30	Pass
		5825	15.82	<=30	Pass
802.11ac (VHT40)	SISO	5190	15.65	<=23.98	Pass
		5230	16.47	<=23.98	Pass
		5755	16.03	<=30	Pass
		5795	16.02	<=30	Pass
802.11ac (VHT80)	SISO	5210	15.31	<=23.98	Pass
		5775	15.43	<=30	Pass

Note1: Antenna Gain: Ant1: 1.0dBi;



## 8. OUT OF BAND EMISSIONS

### 8.1 APPLICABLE STANDARD

According to FCC §15.407(b)

Undesirable emission limits. Except as shown in paragraph (b)(7) of this section, the maximum emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:

(1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of  $-27$  dBm/MHz.

(2) For transmitters operating in the 5.725-5.85 GHz band: All emissions within the frequency range from the band edge to 10 MHz above or below the band edge shall not exceed an e.i.r.p. of  $-17$  dBm/MHz; for frequencies 10 MHz or greater above or below the band edge, emissions shall not exceed an e.i.r.p. of  $-27$  dBm/MHz.

### 8.2 TEST PROCEDURE

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT without connection to measurement instrument. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. Then set it to any one measured frequency within its operating range, and make sure the instrument is operated in its linear range.
3. Set RBW of spectrum analyzer to 1 MHz with a convenient frequency span.
4. Measure the highest amplitude appearing on spectral display and set it as a reference level. Plot the graph with marking the highest point and edge frequency.
5. Repeat above procedures until all measured frequencies were complete.

### 8.3 DEVIATION FROM STANDARD

No deviation.

### 8.4 TEST SETUP







### 8.5 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

### 8.6 TEST RESULTS

Temperature :	26 °C	Relative Humidity :	54%
Pressure :	1012 hPa	Test Voltage :	AC 120V, 60Hz

**Radiated Band Edge:**

Test Mode: 802.11a								
Peak Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
5150.00	46.96	28.65	13.58	31.04	58.15	74.00	-15.85	H
5350.00	46.11	29.16	14.68	31.96	57.99	74.00	-16.01	H
5150.00	47.82	28.65	13.58	31.04	59.01	74.00	-14.99	V
5350.00	48.27	29.16	14.68	31.96	60.15	74.00	-13.85	V
Average Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
5150.00	34.87	28.65	13.58	31.04	46.06	54.00	-7.94	H
5350.00	32.03	29.16	14.68	31.96	43.91	54.00	-10.09	H
5150.00	34.40	28.65	13.58	31.04	45.59	54.00	-8.41	V
5350.00	32.86	29.16	14.68	31.96	44.74	54.00	-9.26	V

Test Mode: 802.11n20								
Peak Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
5150.00	46.41	28.65	13.58	31.04	57.60	74.00	-16.40	H
5350.00	48.27	29.16	14.68	31.96	60.15	74.00	-13.85	H
5150.00	48.89	28.65	13.58	31.04	60.08	74.00	-13.92	V
5350.00	46.53	29.16	14.68	31.96	58.41	74.00	-15.59	V
Average Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
5150.00	34.01	28.65	13.58	31.04	45.20	54.00	-8.80	H
5350.00	32.66	29.16	14.68	31.96	44.54	54.00	-9.46	H
5150.00	33.87	28.65	13.58	31.04	45.06	54.00	-8.94	V
5350.00	34.61	29.16	14.68	31.96	46.49	54.00	-7.51	V



Test Mode: 802.11ac20								
Peak Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
5150.00	45.13	28.65	13.58	31.04	56.32	74.00	-17.68	H
5350.00	47.31	29.16	14.68	31.96	59.19	74.00	-14.81	H
5150.00	47.86	28.65	13.58	31.04	59.05	74.00	-14.95	V
5350.00	46.78	29.16	14.68	31.96	58.66	74.00	-15.34	V
Average Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
5150.00	32.33	28.65	13.58	31.04	43.52	54.00	-10.48	H
5350.00	33.61	29.16	14.68	31.96	45.49	54.00	-8.51	H
5150.00	34.51	28.65	13.58	31.04	45.70	54.00	-8.30	V
5350.00	32.25	29.16	14.68	31.96	44.13	54.00	-9.87	V

Test Mode: 802.11n40								
Peak Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
5150.00	48.91	28.65	13.58	31.04	60.10	74.00	-13.90	H
5350.00	47.44	29.16	14.68	31.96	59.32	74.00	-14.68	H
5150.00	45.42	28.65	13.58	31.04	56.61	74.00	-17.39	V
5350.00	48.74	29.16	14.68	31.96	60.62	74.00	-13.38	V
Average Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
5150.00	32.12	28.65	13.58	31.04	43.31	54.00	-10.69	H
5350.00	33.60	29.16	14.68	31.96	45.48	54.00	-8.52	H
5150.00	32.01	28.65	13.58	31.04	43.20	54.00	-10.80	V
5350.00	32.82	29.16	14.68	31.96	44.70	54.00	-9.30	V



Test Mode: 802.11ac40								
Peak Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
5150.00	48.10	28.65	13.58	31.04	59.29	74.00	-14.71	H
5350.00	47.65	29.16	14.68	31.96	59.53	74.00	-14.47	H
5150.00	47.59	28.65	13.58	31.04	58.78	74.00	-15.22	V
5350.00	46.39	29.16	14.68	31.96	58.27	74.00	-15.73	V
Average Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
5150.00	32.27	28.65	13.58	31.04	43.46	54.00	-10.54	H
5350.00	32.55	29.16	14.68	31.96	44.43	54.00	-9.57	H
5150.00	32.96	28.65	13.58	31.04	44.15	54.00	-9.85	V
5350.00	33.30	29.16	14.68	31.96	45.18	54.00	-8.82	V

Test Mode: 802.11ac80								
Peak Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
5150.00	45.91	28.65	13.58	31.04	57.10	74.00	-16.90	H
5350.00	47.23	29.16	14.68	31.96	59.11	74.00	-14.89	H
5150.00	45.10	28.65	13.58	31.04	56.29	74.00	-17.71	V
5350.00	47.13	29.16	14.68	31.96	59.01	74.00	-14.99	V
Average Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
5150.00	34.46	28.65	13.58	31.04	45.65	54.00	-8.35	H
5350.00	33.63	29.16	14.68	31.96	45.51	54.00	-8.49	H
5150.00	33.13	28.65	13.58	31.04	44.32	54.00	-9.68	V
5350.00	34.67	29.16	14.68	31.96	46.55	54.00	-7.45	V



Test Mode: 802.11a								
Peak Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
5725.00	48.12	28.65	13.58	31.04	59.31	68.20	-8.89	H
5850.00	48.38	29.16	14.68	31.96	60.26	68.20	-7.94	H
5725.00	45.36	28.65	13.58	31.04	56.55	68.20	-11.65	V
5850.00	48.93	29.16	14.68	31.96	60.81	68.20	-7.39	V
Average Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
5725.00	34.14	28.65	13.58	31.04	45.33	54.00	-8.67	H
5850.00	34.76	29.16	14.68	31.96	46.64	54.00	-7.36	H
5725.00	33.35	28.65	13.58	31.04	44.54	54.00	-9.46	V
5850.00	32.31	29.16	14.68	31.96	44.19	54.00	-9.81	V

Test Mode: 802.11n20								
Peak Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
5725.00	45.39	28.65	13.58	31.04	56.58	68.20	-11.62	H
5850.00	48.30	29.16	14.68	31.96	60.18	68.20	-8.02	H
5725.00	48.27	28.65	13.58	31.04	59.46	68.20	-8.74	V
5850.00	45.99	29.16	14.68	31.96	57.87	68.20	-10.33	V
Average Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
5725.00	33.22	28.65	13.58	31.04	44.41	54.00	-9.59	H
5850.00	33.05	29.16	14.68	31.96	44.93	54.00	-9.07	H
5725.00	32.88	28.65	13.58	31.04	44.07	54.00	-9.93	V
5850.00	33.03	29.16	14.68	31.96	44.91	54.00	-9.09	V



Test Mode: 802.11ac20								
Peak Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
5725.00	46.70	28.65	13.58	31.04	57.89	68.20	-10.31	H
5850.00	48.72	29.16	14.68	31.96	60.60	68.20	-7.60	H
5725.00	46.52	28.65	13.58	31.04	57.71	68.20	-10.49	V
5850.00	46.72	29.16	14.68	31.96	58.60	68.20	-9.60	V
Average Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
5725.00	32.90	28.65	13.58	31.04	44.09	54.00	-9.91	H
5850.00	32.31	29.16	14.68	31.96	44.19	54.00	-9.81	H
5725.00	33.25	28.65	13.58	31.04	44.44	54.00	-9.56	V
5850.00	34.60	29.16	14.68	31.96	46.48	54.00	-7.52	V

Test Mode: 802.11n40								
Peak Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
5725.00	48.97	28.65	13.58	31.04	60.16	68.20	-8.04	H
5850.00	45.02	29.16	14.68	31.96	56.90	68.20	-11.30	H
5725.00	46.12	28.65	13.58	31.04	57.31	68.20	-10.89	V
5850.00	45.86	29.16	14.68	31.96	57.74	68.20	-10.46	V
Average Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
5725.00	32.96	28.65	13.58	31.04	44.15	54.00	-9.85	H
5850.00	32.42	29.16	14.68	31.96	44.30	54.00	-9.70	H
5725.00	33.44	28.65	13.58	31.04	44.63	54.00	-9.37	V
5850.00	34.74	29.16	14.68	31.96	46.62	54.00	-7.38	V



Test Mode: 802.11ac40								
Peak Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
5725.00	48.43	28.65	13.58	31.04	59.62	68.20	-8.58	H
5850.00	45.14	29.16	14.68	31.96	57.02	68.20	-11.18	H
5725.00	47.37	28.65	13.58	31.04	58.56	68.20	-9.64	V
5850.00	45.74	29.16	14.68	31.96	57.62	68.20	-10.58	V
Average Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
5725.00	33.15	28.65	13.58	31.04	44.34	54.00	-9.66	H
5850.00	32.66	29.16	14.68	31.96	44.54	54.00	-9.46	H
5725.00	32.87	28.65	13.58	31.04	44.06	54.00	-9.94	V
5850.00	32.33	29.16	14.68	31.96	44.21	54.00	-9.79	V

Test Mode: 802.11ac80								
Peak Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
5725.00	48.37	28.65	13.58	31.04	59.56	68.20	-8.64	H
5850.00	47.88	29.16	14.68	31.96	59.76	68.20	-8.44	H
5725.00	46.09	28.65	13.58	31.04	57.28	68.20	-10.92	V
5850.00	47.44	29.16	14.68	31.96	59.32	68.20	-8.88	V
Average Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
5725.00	32.89	28.65	13.58	31.04	44.08	54.00	-9.92	H
5850.00	32.72	29.16	14.68	31.96	44.60	54.00	-9.40	H
5725.00	34.78	28.65	13.58	31.04	45.97	54.00	-8.03	V
5850.00	32.89	29.16	14.68	31.96	44.77	54.00	-9.23	V



## 9.SPURIOUS RF CONDUCTED EMISSIONS

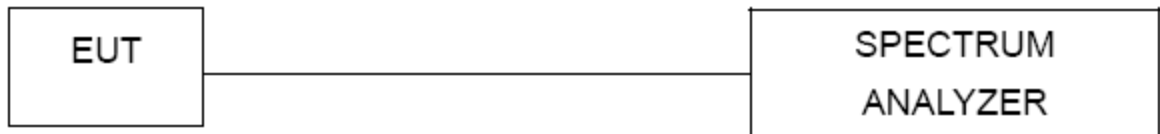
### 9.1 CONFORMANCE LIMIT

1. Below -20dB of the highest emission level in operating band.
2. Fall in the restricted bands listed in section 15.205. The maximum permitted average field strength is listed in section 15.209.

### 9.2 MEASURING INSTRUMENTS

The Measuring equipment is listed in the section 6.3 of this test report.

### 9.3 TEST SETUP



### 9.4 TEST PROCEDURE

The Spurious RF conducted emissions compliance of RF radiated emission should be measured by following the guidance in ANSI C63.10-2013 with respect to maximizing the emission by rotating the EUT, measuring the emission while the EUT is situated in three orthogonal planes (if appropriate), adjusting the measurement antenna height and polarization etc. Set RBW=100kHz and VBW= 300KHz to measure the peak field strength, and measure frequency range from 30MHz to 26.5GHz.

### 9.5 TEST RESULTS

Remark: The measurement frequency range is from 30MHz to the 5th harmonic of the fundamental frequency. The lowest, middle and highest channels are tested to verify the spurious emissions and band edge measurement data.

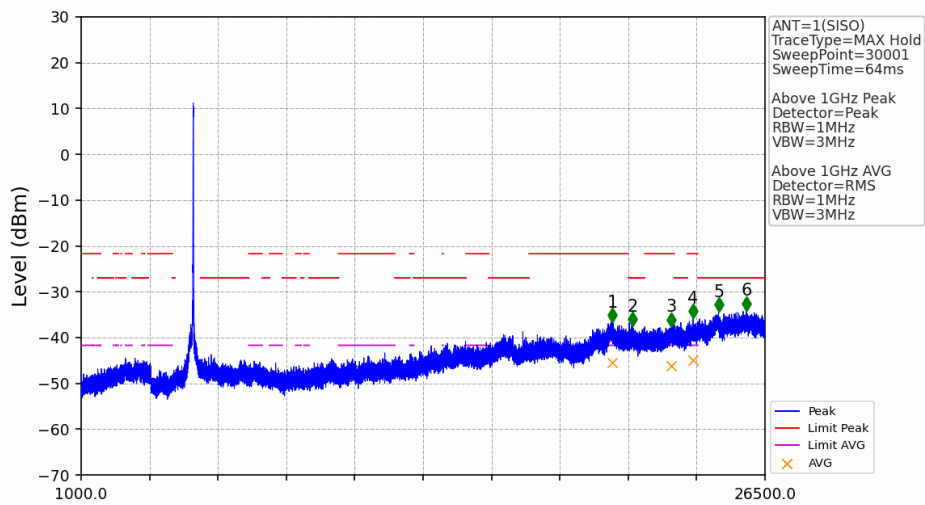




Mode	TX Type	Frequency (MHz)	ANT	Level of Unwanted Emissions (dBm)		Verdict
				Result	Limit	
802.11a	SISO	5180	1	Refer To Test Graph		Pass
		5200	1	Refer To Test Graph		Pass
		5240	1	Refer To Test Graph		Pass
		5745	1	Refer To Test Graph		Pass
		5785	1	Refer To Test Graph		Pass
		5825	1	Refer To Test Graph		Pass
802.11n (HT20)	SISO	5180	1	Refer To Test Graph		Pass
		5200	1	Refer To Test Graph		Pass
		5240	1	Refer To Test Graph		Pass
		5745	1	Refer To Test Graph		Pass
		5785	1	Refer To Test Graph		Pass
		5825	1	Refer To Test Graph		Pass
802.11n (HT40)	SISO	5190	1	Refer To Test Graph		Pass
		5230	1	Refer To Test Graph		Pass
		5755	1	Refer To Test Graph		Pass
		5795	1	Refer To Test Graph		Pass
802.11ac (VHT20)	SISO	5180	1	Refer To Test Graph		Pass
		5200	1	Refer To Test Graph		Pass
		5240	1	Refer To Test Graph		Pass
		5745	1	Refer To Test Graph		Pass
		5785	1	Refer To Test Graph		Pass
		5825	1	Refer To Test Graph		Pass
802.11ac (VHT40)	SISO	5190	1	Refer To Test Graph		Pass
		5230	1	Refer To Test Graph		Pass
		5755	1	Refer To Test Graph		Pass
		5795	1	Refer To Test Graph		Pass
802.11ac (VHT80)	SISO	5210	1	Refer To Test Graph		Pass
		5775	1	Refer To Test Graph		Pass

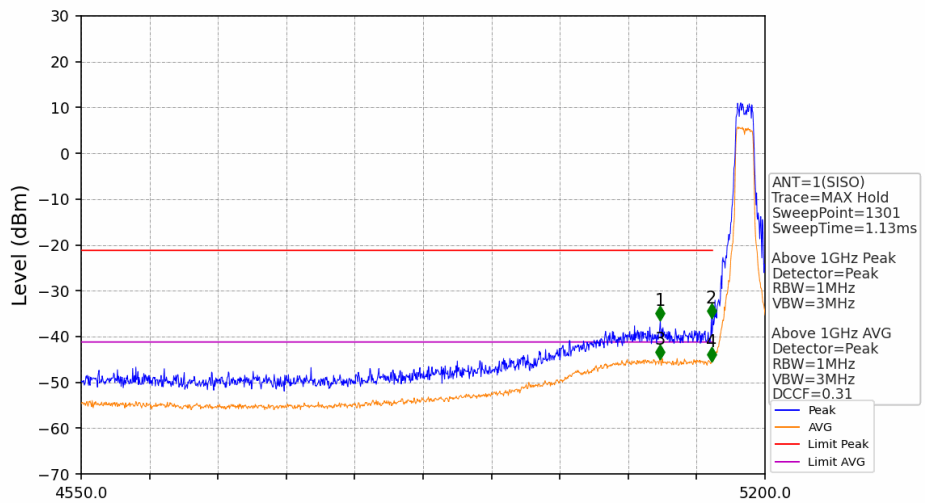


### 802.11a\_LCH\_5180MHz\_Ant1\_NTNV



No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark	No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark
1	20799.9	-36.63	-21.20	14.93	Pass	Peak	7	20799.9	-45.56	-41.20	3.86	Pass	AVG
2	21565.75	-37.51	-27.00	10.01	Pass	Peak	8	21565.75	/	-27.00	/	/	AVG
3	23008.2	-37.66	-21.20	15.96	Pass	Peak	9	23008.2	-46.16	-41.20	4.46	Pass	AVG
4	23819.95	-35.84	-21.20	14.14	Pass	Peak	10	23819.95	-45.00	-41.20	3.30	Pass	AVG
5	24767.7	-34.32	-27.00	6.82	Pass	Peak	11	24767.7	/	-27.00	/	/	AVG
6	25810.65	-34.11	-27.00	6.61	Pass	Peak	12	25810.65	/	-27.00	/	/	AVG

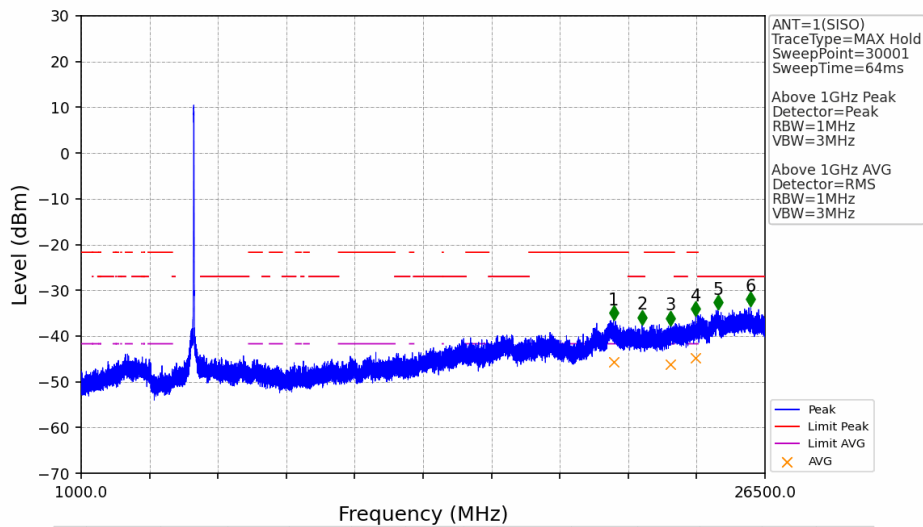
### 802.11a\_LCH\_5180MHz\_Ant1\_NTNV



No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark	No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark
1	5100.500	-36.48	-21.20	14.78	Pass	Peak	3	5100.500	/	-21.20	/	/	AVG
2	5149.000	-36.04	-21.20	14.34	Pass	Peak	4	5149.000	/	-21.20	/	/	AVG

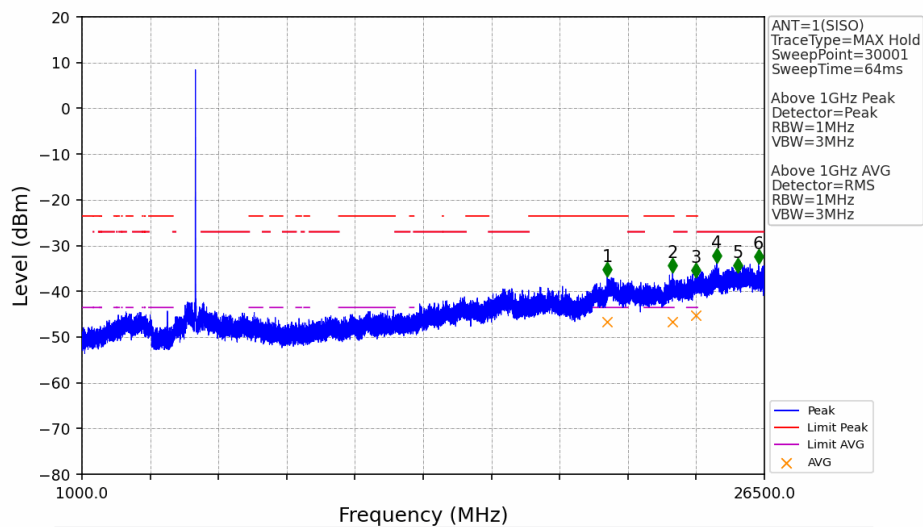


### 802.11a\_MCH\_5200MHz\_Ant1\_NTNV



No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark	No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark
1	20849.2	-36.57	-21.20	14.87	Pass	Peak	7	20849.2	-45.73	-41.20	4.03	Pass	AVG
2	21915.1	-37.47	-27.00	9.97	Pass	Peak	8	21915.1	/	-27.00	/	/	AVG
3	22984.4	-37.67	-21.20	15.97	Pass	Peak	9	22984.4	-46.26	-41.20	4.56	Pass	AVG
4	23919.4	-35.61	-21.20	13.91	Pass	Peak	10	23919.4	-44.82	-41.20	3.12	Pass	AVG
5	24737.1	-34.23	-27.00	6.73	Pass	Peak	11	24737.1	/	-27.00	/	/	AVG
6	25972.15	-33.49	-27.00	5.99	Pass	Peak	12	25972.15	/	-27.00	/	/	AVG

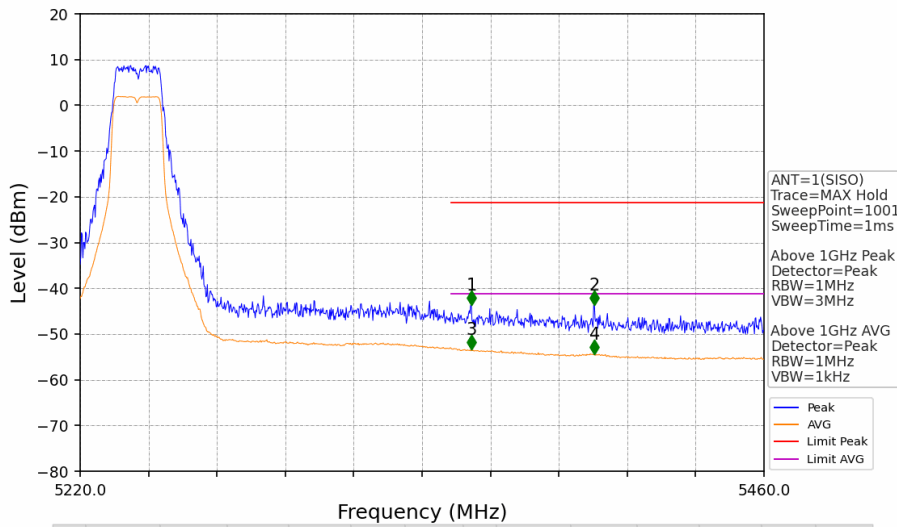
### 802.11a\_HCH\_5240MHz\_Ant1\_NTNV



No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark	No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark
1	20625.65	-36.78	-21.20	13.23	Pass	Peak	7	20625.65	-46.75	-41.20	3.20	Pass	AVG
2	23068.55	-35.90	-21.20	12.35	Pass	Peak	8	23068.55	-46.70	-41.20	3.15	Pass	AVG
3	23938.1	-37.02	-21.20	13.47	Pass	Peak	9	23938.1	-45.31	-41.20	1.76	Pass	AVG
4	24721.8	-33.80	-27.00	4.45	Pass	Peak	10	24721.8	/	-27.00	/	/	AVG
5	25506.35	-35.98	-27.00	6.63	Pass	Peak	11	25506.35	/	-27.00	/	/	AVG
6	26279	-33.98	-27.00	4.63	Pass	Peak	12	26279	/	-27.00	/	/	AVG

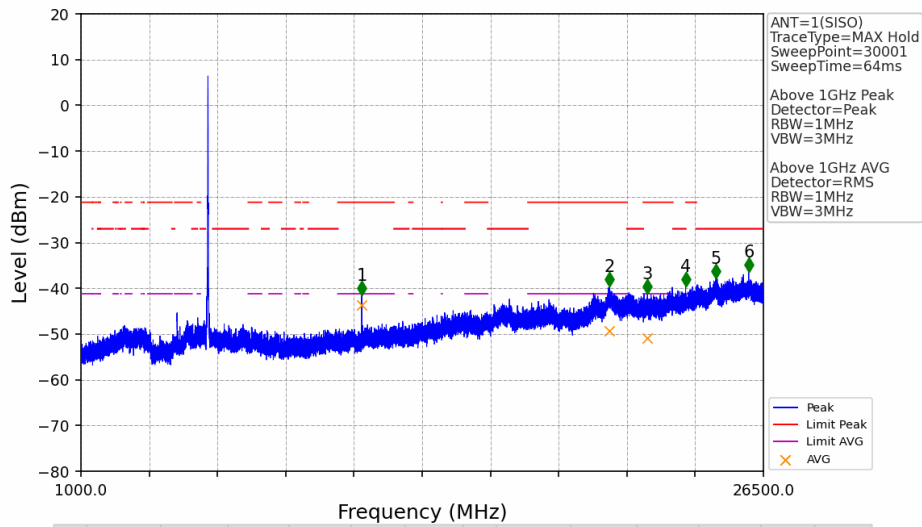


### 802.11a\_HCH\_5240MHz\_Ant1\_NTNV



No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark	No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark
1	5357.280	-43.66	-21.20	21.96	Pass	Peak	3	5357.280	/	-21.20	/	/	AVG
2	5400.480	-43.62	-21.20	21.92	Pass	Peak	4	5400.480	/	-21.20	/	/	AVG

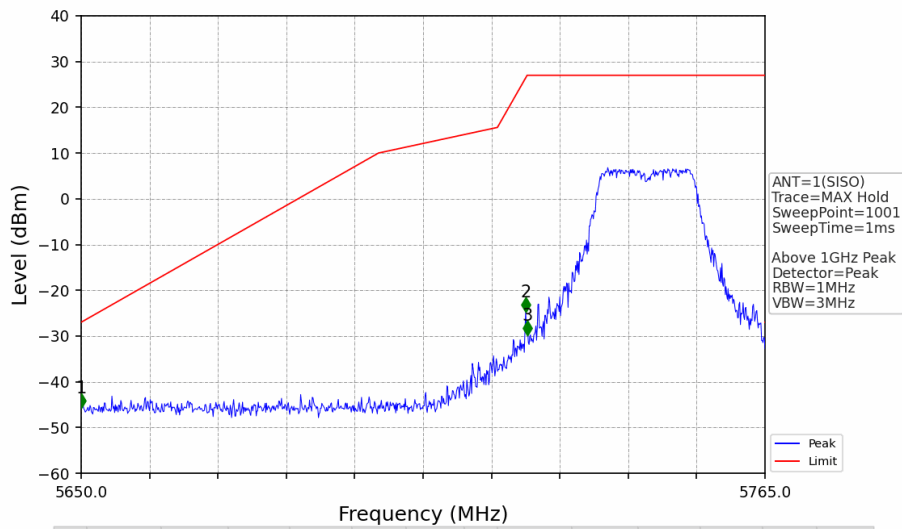
### 802.11a\_LCH\_5745MHz\_Ant1\_NTNV



No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark	No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark
1	11490.7	-41.55	-21.20	20.36	Pass	Peak	7	11490.7	-43.68	-41.20	2.48	Pass	AVG
2	20756.55	-39.64	-21.20	18.44	Pass	Peak	8	20756.55	-49.40	-41.20	8.20	Pass	AVG
3	22165	-41.23	-21.20	20.02	Pass	Peak	9	22165	-50.89	-41.20	9.69	Pass	AVG
4	23593	-39.62	-27.00	12.62	Pass	Peak	10	23593	/	-27.00	/	/	AVG
5	24726.05	-37.82	-27.00	10.82	Pass	Peak	11	24726.05	/	-27.00	/	/	AVG
6	25950.05	-36.41	-27.00	9.41	Pass	Peak	12	25950.05	/	-27.00	/	/	AVG

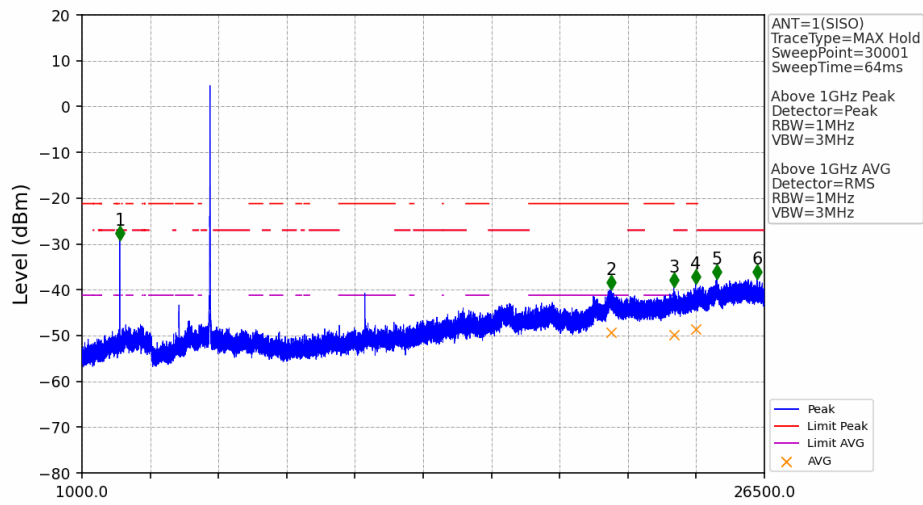


### 802.11a\_LCH\_5745MHz\_Ant1\_NTNV



No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark	No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark
1	5650.000	-45.77	-27.00	18.27	Pass	Peak	3	5725.000	-29.79	27.00	56.29	Pass	Peak
2	5724.750	-24.69	26.43	50.62	Pass	Peak							

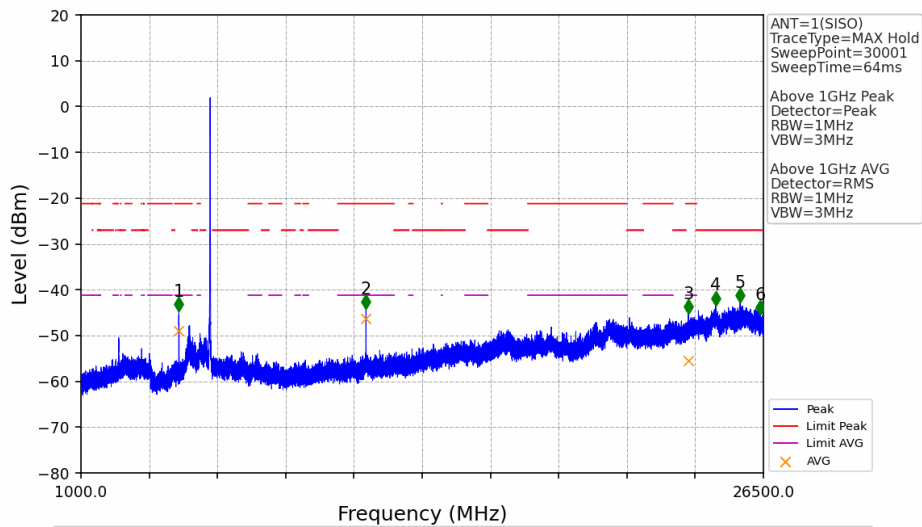
### 802.11a\_MCH\_5785MHz\_Ant1\_NTNV



No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark	No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark
1	2413.55	-29.22	-27.00	2.22	Pass	Peak	7	2413.55	/	-27.00	/	/	AVG
2	20764.2	-39.95	-21.20	18.75	Pass	Peak	8	20764.2	-49.23	-41.20	8.03	Pass	AVG
3	23114.45	-39.49	-21.20	18.29	Pass	Peak	9	23114.45	-49.88	-41.20	8.68	Pass	AVG
4	23927.9	-38.81	-21.20	17.61	Pass	Peak	10	23927.9	-48.57	-41.20	7.37	Pass	AVG
5	24721.8	-37.73	-27.00	10.73	Pass	Peak	11	24721.8	/	-27.00	/	/	AVG
6	26220.35	-37.63	-27.00	10.63	Pass	Peak	12	26220.35	/	-27.00	/	/	AVG

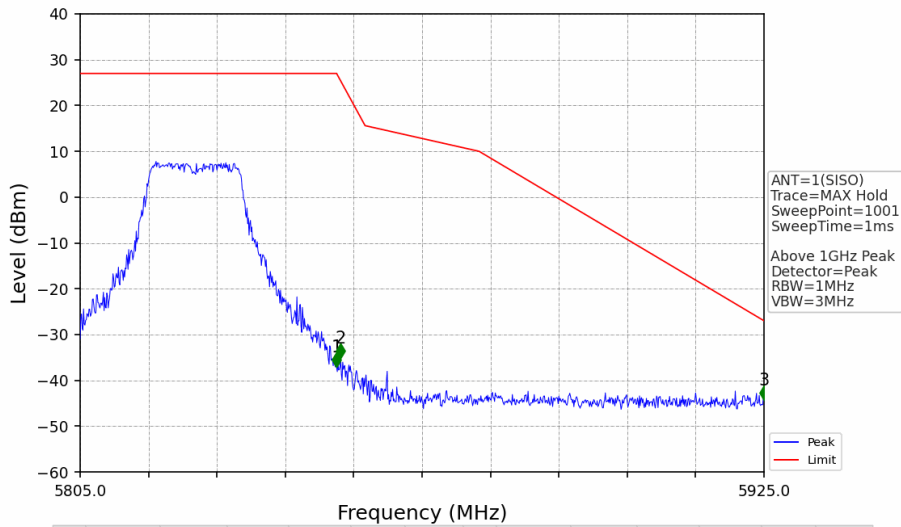


### 802.11a\_HCH\_5825MHz\_Ant1\_NTNV



No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status Remark	No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status Remark
1	4660.1	-44.80	-21.20	23.60	Pass Peak	7	4660.1	-49.02	-41.20	7.82	Pass AVG
2	11650.5	-44.17	-21.20	22.97	Pass Peak	8	11650.5	-46.40	-41.20	5.20	Pass AVG
3	23697.55	-45.26	-21.20	24.06	Pass Peak	9	23697.55	-55.42	-41.20	14.22	Pass AVG
4	24718.4	-43.41	-27.00	16.41	Pass Peak	10	24718.4	/	-27.00	/	/ AVG
5	25626.2	-42.74	-27.00	15.74	Pass Peak	11	25626.2	/	-27.00	/	/ AVG
6	26392.9	-45.46	-27.00	18.46	Pass Peak	12	26392.9	/	-27.00	/	/ AVG

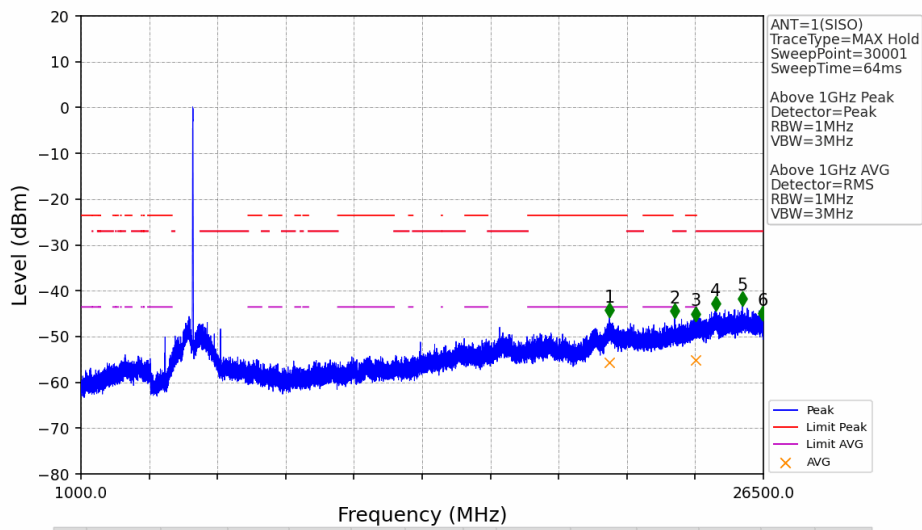
### 802.11a\_HCH\_5825MHz\_Ant1\_NTNV



No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status Remark	No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status Remark
1	5850.000	-37.12	27.00	63.62	Pass Peak	3	5925.000	-44.28	-27.00	16.78	Pass Peak
2	5850.720	-35.17	25.36	60.02	Pass Peak						

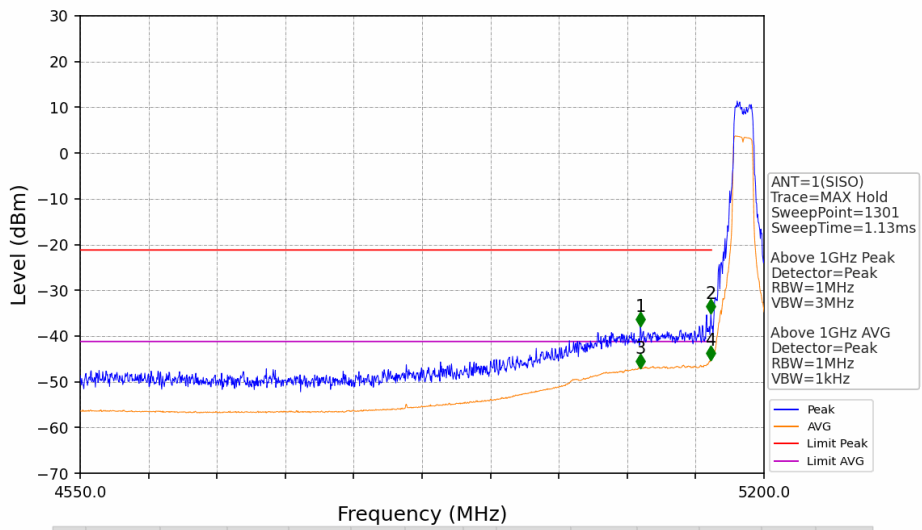


### 802.11n(HT20)\_LCH\_5180MHz\_Ant1\_NTNV



No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark	No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark
1	20748.05	-45.79	-21.20	22.24	Pass	Peak	7	20748.05	-55.69	-41.20	12.14	Pass	AVG
2	23183.3	-46.04	-27.00	16.69	Pass	Peak	8	23183.3	/	-27.00	/	/	AVG
3	23953.4	-46.59	-21.20	23.05	Pass	Peak	9	23953.4	-55.12	-41.20	11.57	Pass	AVG
4	24723.5	-44.38	-27.00	15.03	Pass	Peak	10	24723.5	/	-27.00	/	/	AVG
5	25712.05	-43.24	-27.00	13.89	Pass	Peak	11	25712.05	/	-27.00	/	/	AVG
6	26480.45	-46.54	-27.00	17.19	Pass	Peak	12	26480.45	/	-27.00	/	/	AVG

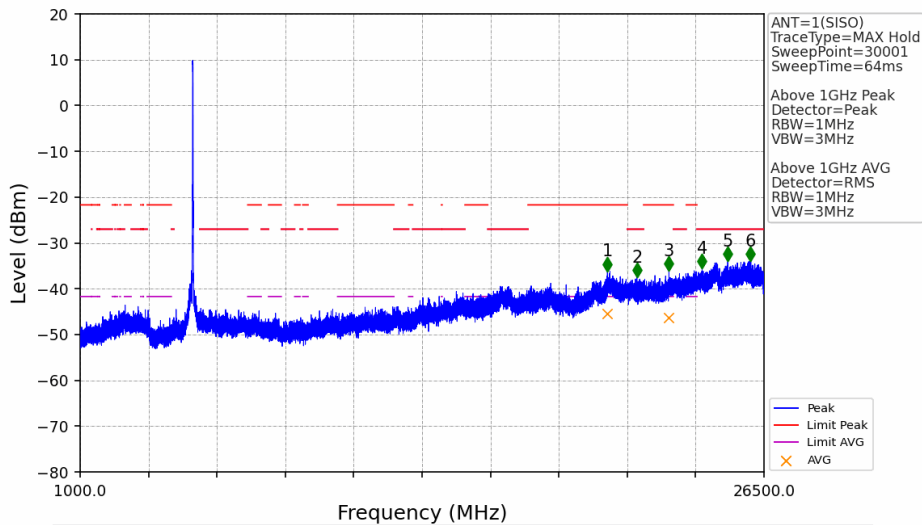
### 802.11n(HT20)\_LCH\_5180MHz\_Ant1\_NTNV



No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark	No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark
1	5082.500	-37.87	-21.20	16.17	Pass	Peak	3	5082.500	/	-21.20	/	/	AVG
2	5149.500	-35.08	-21.20	13.38	Pass	Peak	4	5149.500	/	-21.20	/	/	AVG

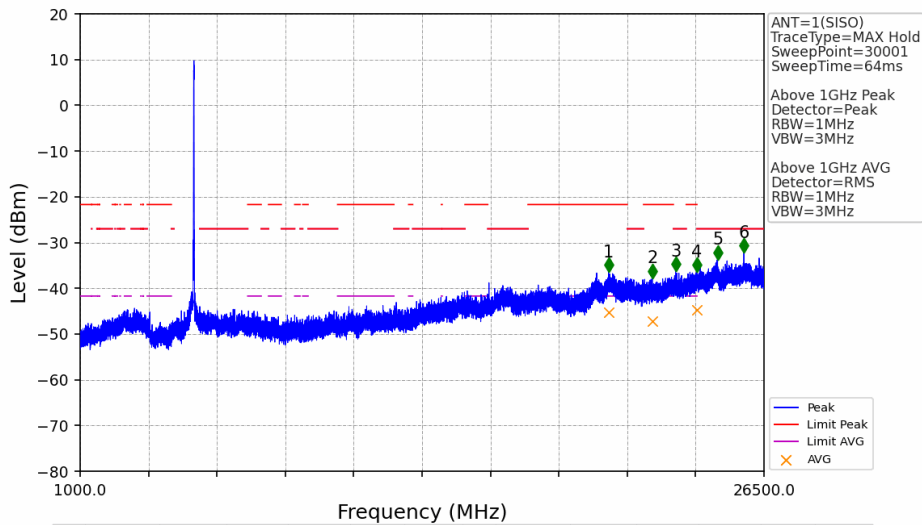


### 802.11n(HT20)\_MCH\_5200MHz\_Ant1\_NTNV



No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark	No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark
1	20662.2	-36.18	-21.20	14.48	Pass	Peak	7	20662.2	-45.50	-41.20	3.80	Pass	AVG
2	21760.4	-37.45	-27.00	9.95	Pass	Peak	8	21760.4	/	-27.00	/	/	AVG
3	22956.35	-36.12	-21.20	14.42	Pass	Peak	9	22956.35	-46.28	-41.20	4.58	Pass	AVG
4	24193.95	-35.52	-27.00	8.03	Pass	Peak	10	24193.95	/	-27.00	/	/	AVG
5	25147.65	-34.05	-27.00	6.55	Pass	Peak	11	25147.65	/	-27.00	/	/	AVG
6	25990.85	-33.94	-27.00	6.44	Pass	Peak	12	25990.85	/	-27.00	/	/	AVG

### 802.11n(HT20)\_HCH\_5240MHz\_Ant1\_NTNV

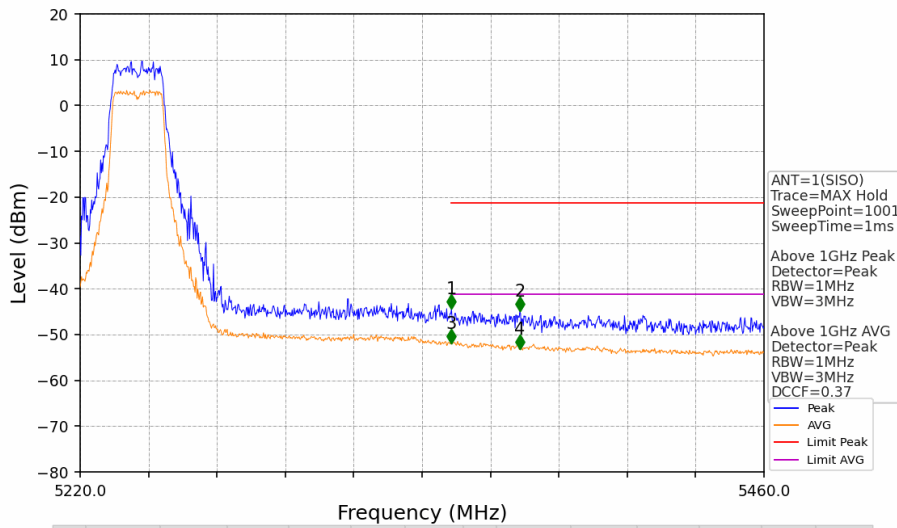


No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark	No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark
1	20701.3	-36.52	-21.20	14.82	Pass	Peak	7	20701.3	-45.27	-41.20	3.58	Pass	AVG
2	22335	-37.78	-21.20	16.08	Pass	Peak	8	22335	-47.28	-41.20	5.58	Pass	AVG
3	23201.15	-36.34	-27.00	8.84	Pass	Peak	9	23201.15	/	-27.00	/	/	AVG
4	23988.25	-36.39	-21.20	14.69	Pass	Peak	10	23988.25	-44.69	-41.20	2.99	Pass	AVG
5	24767.7	-33.70	-27.00	6.20	Pass	Peak	11	24767.7	/	-27.00	/	/	AVG
6	25749.45	-32.20	-27.00	4.70	Pass	Peak	12	25749.45	/	-27.00	/	/	AVG



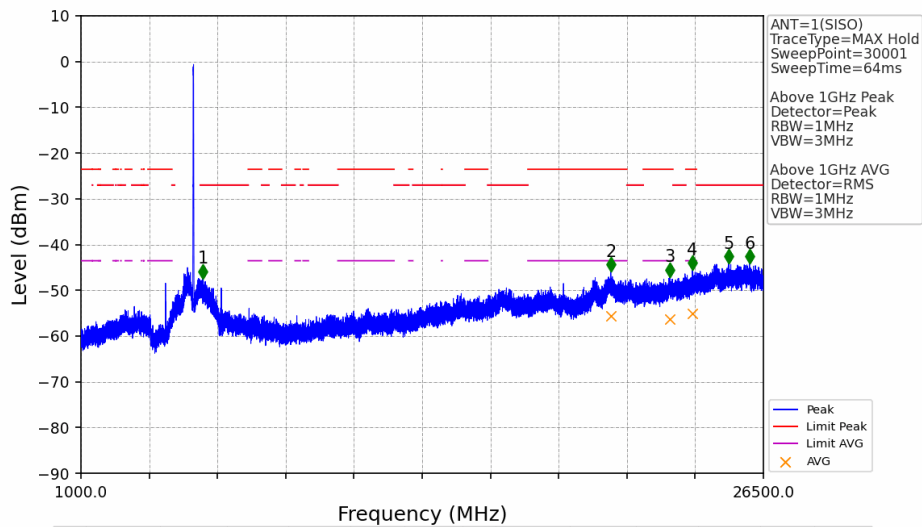


### 802.11n(HT20)\_HCH\_5240MHz\_Ant1\_NTNV



No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark	No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark
1	5350.320	-44.45	-21.20	22.75	Pass	Peak	3	5350.320	/	-21.20	/	/	AVG
2	5374.320	-44.87	-21.20	23.17	Pass	Peak	4	5374.320	/	-21.20	/	/	AVG

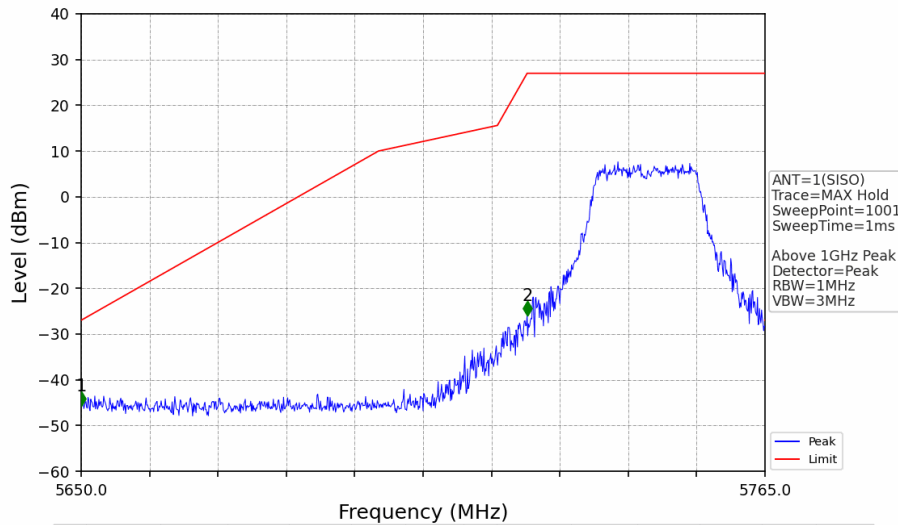
### 802.11n(HT20)\_LCH\_5745MHz\_Ant1\_NTNV



No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark	No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark
1	5552.6	-47.42	-27.00	18.07	Pass	Peak	7	5552.6	/	-27.00	/	/	AVG
2	20797.35	-45.92	-21.20	22.37	Pass	Peak	8	20797.35	-55.57	-41.20	12.02	Pass	AVG
3	23002.25	-47.08	-21.20	23.53	Pass	Peak	9	23002.25	-56.34	-41.20	12.79	Pass	AVG
4	23848	-45.61	-21.20	22.06	Pass	Peak	10	23848	-55.08	-41.20	11.53	Pass	AVG
5	25192.7	-44.19	-27.00	14.84	Pass	Peak	11	25192.7	/	-27.00	/	/	AVG
6	25980.65	-44.17	-27.00	14.82	Pass	Peak	12	25980.65	/	-27.00	/	/	AVG

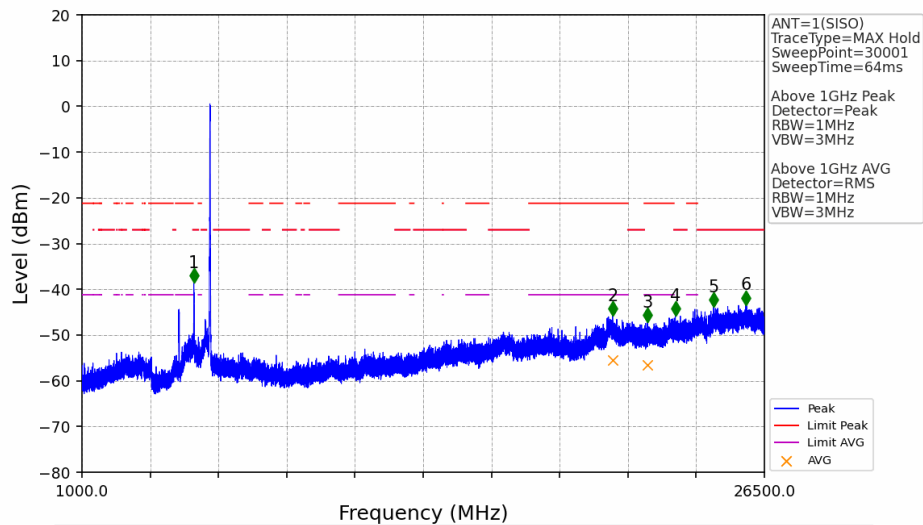


### 802.11n(HT20)\_LCH\_5745MHz\_Ant1\_NTNV



No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark	No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark
1	5650.000	-45.70	-27.00	18.20	Pass	Peak	2	5725.000	-25.96	27.00	52.46	Pass	Peak

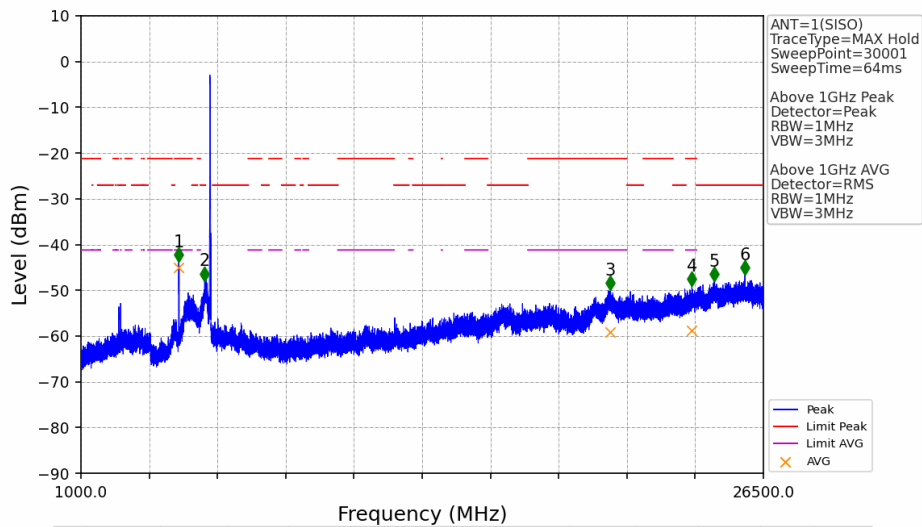
### 802.11n(HT20)\_MCH\_5785MHz\_Ant1\_NTNV



No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark	No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark
1	5179.45	-38.51	-27.00	11.51	Pass	Peak	7	5179.45	/	-27.00	/	/	AVG
2	20827.95	-45.73	-21.20	24.53	Pass	Peak	8	20827.95	-55.48	-41.20	14.28	Pass	AVG
3	22130.15	-47.19	-21.20	25.98	Pass	Peak	9	22130.15	-56.57	-41.20	15.37	Pass	AVG
4	23171.4	-45.84	-27.00	18.84	Pass	Peak	10	23171.4	/	-27.00	/	/	AVG
5	24597.7	-43.88	-27.00	16.88	Pass	Peak	11	24597.7	/	-27.00	/	/	AVG
6	25805.55	-43.43	-27.00	16.43	Pass	Peak	12	25805.55	/	-27.00	/	/	AVG

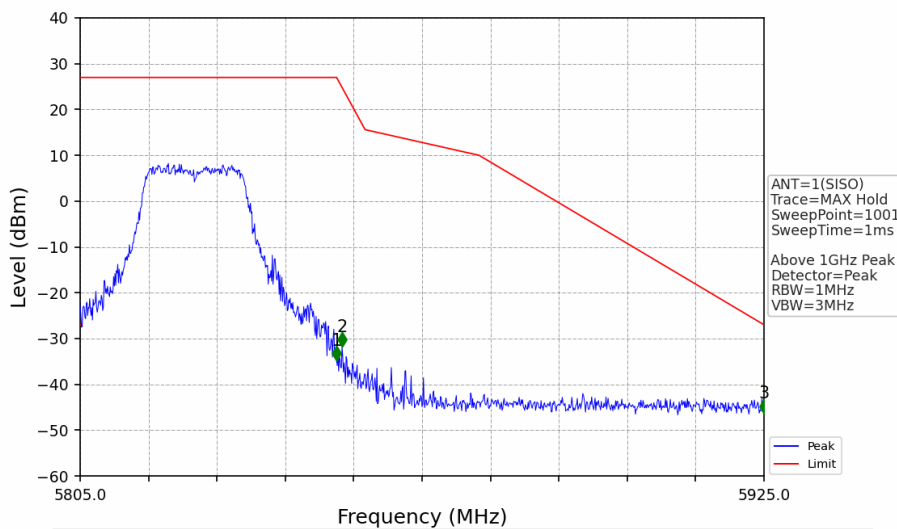


### 802.11n(HT20)\_HCH\_5825MHz\_Ant1\_NTNV



No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status Remark	No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status Remark	
1	4660.1	-43.87	-21.20	22.67	Pass Peak	7	4660.1	-45.04	-41.20	3.84	Pass AVG	
2	5622.3	-47.95	-27.00	20.95	Pass Peak	8	5622.3	/	-27.00	/	/	AVG
3	20785.45	-49.93	-21.20	28.73	Pass Peak	9	20785.45	-59.19	-41.20	17.99	Pass AVG	
4	23827.6	-49.14	-21.20	27.94	Pass Peak	10	23827.6	-58.76	-41.20	17.56	Pass AVG	
5	24658.05	-48.04	-27.00	21.04	Pass Peak	11	24658.05	/	-27.00	/	/	AVG
6	25808.95	-46.62	-27.00	19.62	Pass Peak	12	25808.95	/	-27.00	/	/	AVG

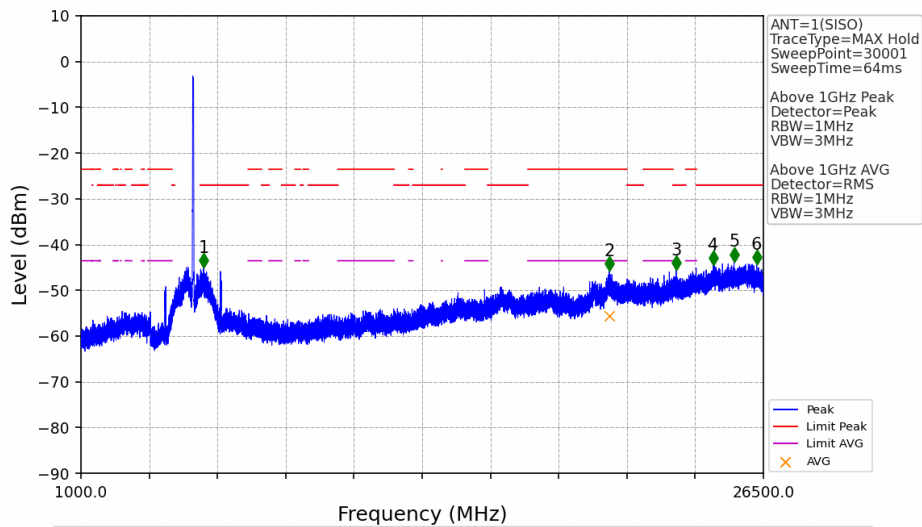
### 802.11n(HT20)\_HCH\_5825MHz\_Ant1\_NTNV



No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status Remark	No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status Remark
1	5850.000	-34.80	27.00	61.30	Pass Peak	3	5925.000	-46.34	-27.00	18.84	Pass Peak
2	5850.960	-31.73	24.81	56.05	Pass Peak						

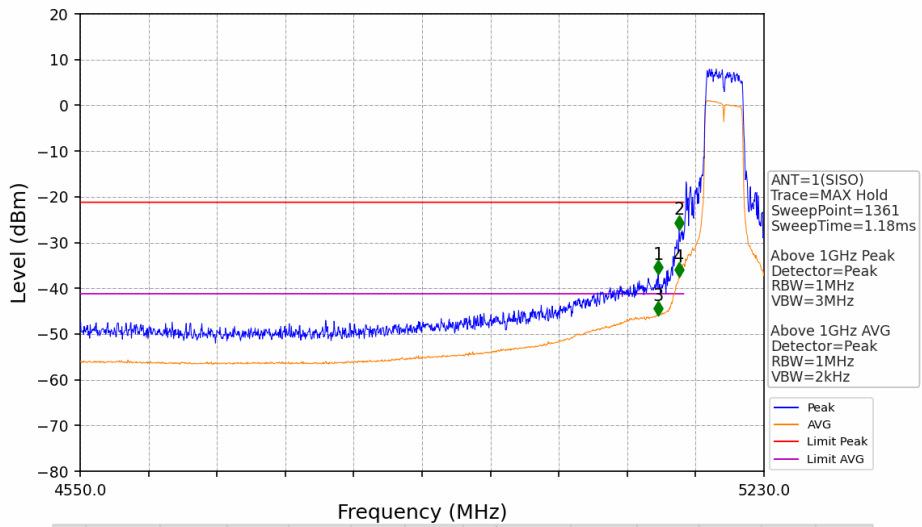


### 802.11n(HT40)\_LCH\_5190MHz\_Ant1\_NTNV



No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark	No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark
1	5583.2	-45.08	-27.00	15.73	Pass	Peak	7	5583.2	/	-27.00	/	/	AVG
2	20738.7	-45.72	-21.20	22.17	Pass	Peak	8	20738.7	-55.52	-41.20	11.97	Pass	AVG
3	23241.1	-45.51	-27.00	16.16	Pass	Peak	9	23241.1	/	-27.00	/	/	AVG
4	24630	-44.55	-27.00	15.21	Pass	Peak	10	24630	/	-27.00	/	/	AVG
5	25402.65	-43.72	-27.00	14.37	Pass	Peak	11	25402.65	/	-27.00	/	/	AVG
6	26244.15	-44.40	-27.00	15.04	Pass	Peak	12	26244.15	/	-27.00	/	/	AVG

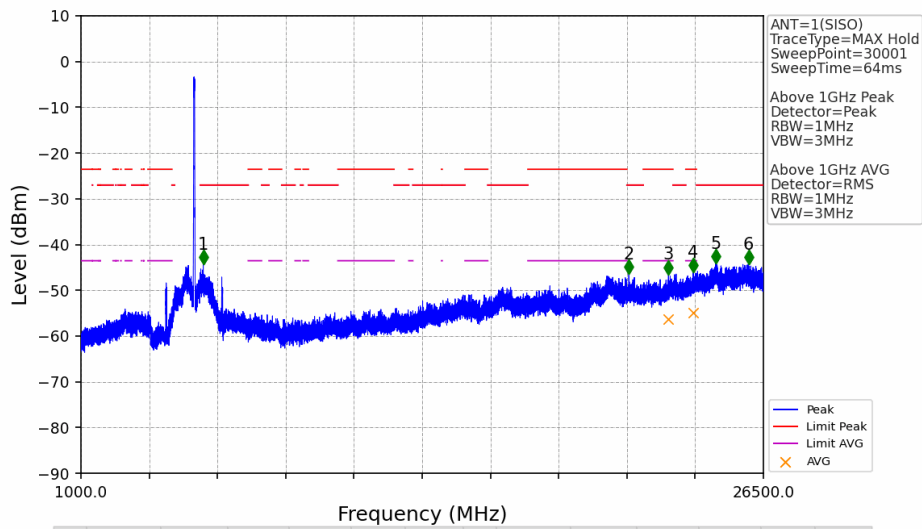
### 802.11n(HT40)\_LCH\_5190MHz\_Ant1\_NTNV



No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark	No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark
1	5125.000	-37.01	-21.20	15.31	Pass	Peak	3	5125.000	/	-21.20	/	/	AVG
2	5145.500	-27.19	-21.20	5.49	Pass	Peak	4	5145.500	/	-21.20	/	/	AVG

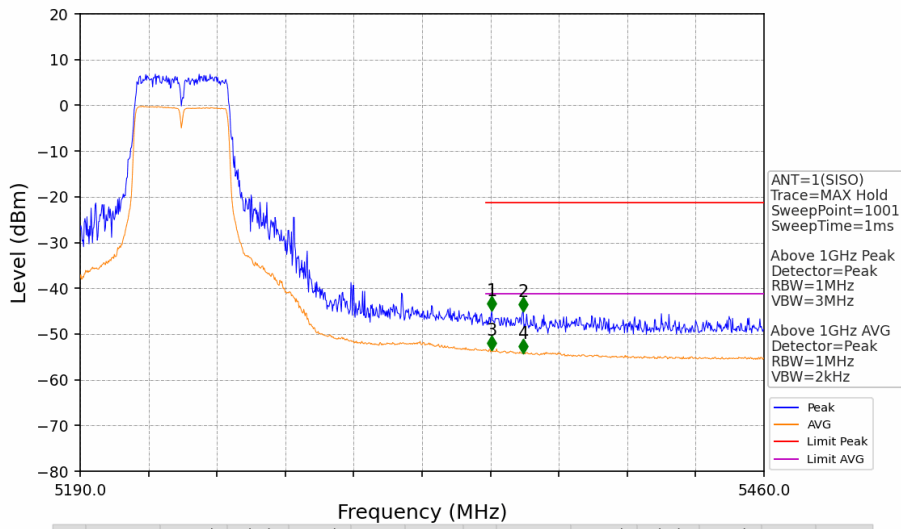


### 802.11n(HT40)\_HCH\_5230MHz\_Ant1\_NTNV



No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark	No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark
1	5567.9	-44.37	-27.00	15.02	Pass	Peak	7	5567.9	/	-27.00	/	/	AVG
2	21472.25	-46.51	-27.00	17.16	Pass	Peak	8	21472.25	/	-27.00	/	/	AVG
3	22952.95	-46.54	-21.20	22.99	Pass	Peak	9	22952.95	-56.26	-41.20	12.71	Pass	AVG
4	23878.6	-46.08	-21.20	22.53	Pass	Peak	10	23878.6	-54.87	-41.20	11.32	Pass	AVG
5	24721.8	-44.19	-27.00	14.84	Pass	Peak	11	24721.8	/	-27.00	/	/	AVG
6	25942.4	-44.28	-27.00	14.93	Pass	Peak	12	25942.4	/	-27.00	/	/	AVG

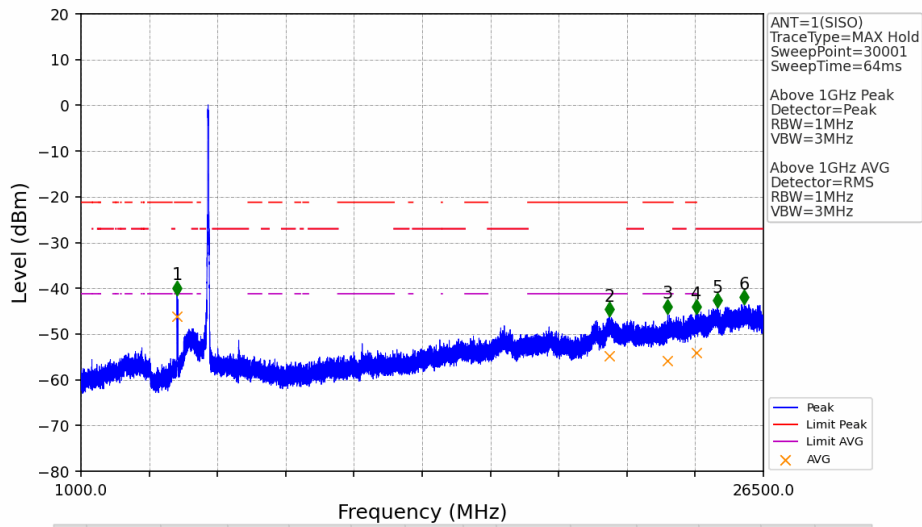
### 802.11n(HT40)\_HCH\_5230MHz\_Ant1\_NTNV



No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark	No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark
1	5352.540	-44.96	-21.20	23.26	Pass	Peak	3	5352.540	/	-21.20	/	/	AVG
2	5364.960	-45.15	-21.20	23.45	Pass	Peak	4	5364.960	/	-21.20	/	/	AVG

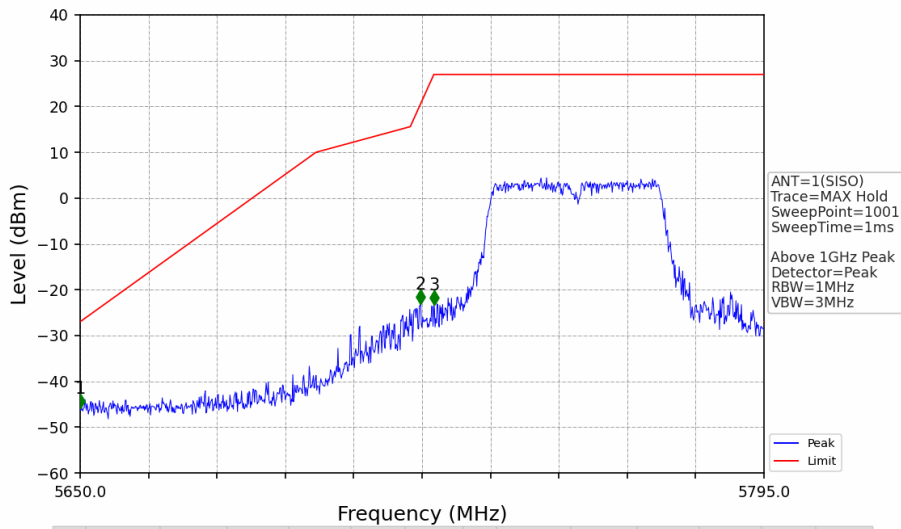


### 802.11n(HT40)\_LCH\_5755MHz\_Ant1\_NTNV



No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark	No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark
1	4589.55	-41.47	-21.20	20.27	Pass	Peak	7	4589.55	-46.15	-41.20	4.95	Pass	AVG
2	20742.95	-46.13	-21.20	24.93	Pass	Peak	8	20742.95	-54.75	-41.20	13.55	Pass	AVG
3	22927.45	-45.53	-21.20	24.33	Pass	Peak	9	22927.45	-55.76	-41.20	14.56	Pass	AVG
4	23986.55	-45.64	-21.20	24.44	Pass	Peak	10	23986.55	-54.08	-41.20	12.88	Pass	AVG
5	24781.3	-44.19	-27.00	17.18	Pass	Peak	11	24781.3	/	-27.00	/	/	AVG
6	25787.7	-43.50	-27.00	16.50	Pass	Peak	12	25787.7	/	-27.00	/	/	AVG

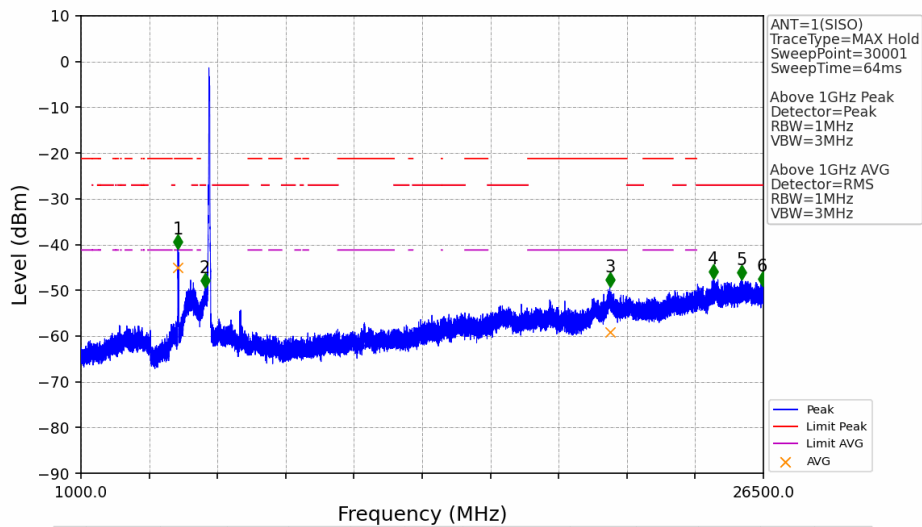
### 802.11n(HT40)\_LCH\_5755MHz\_Ant1\_NTNV



No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark	No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark
1	5650.000	-45.88	-27.00	18.88	Pass	Peak	3	5725.000	-23.26	27.00	49.76	Pass	Peak
2	5722.210	-23.18	20.64	43.32	Pass	Peak							

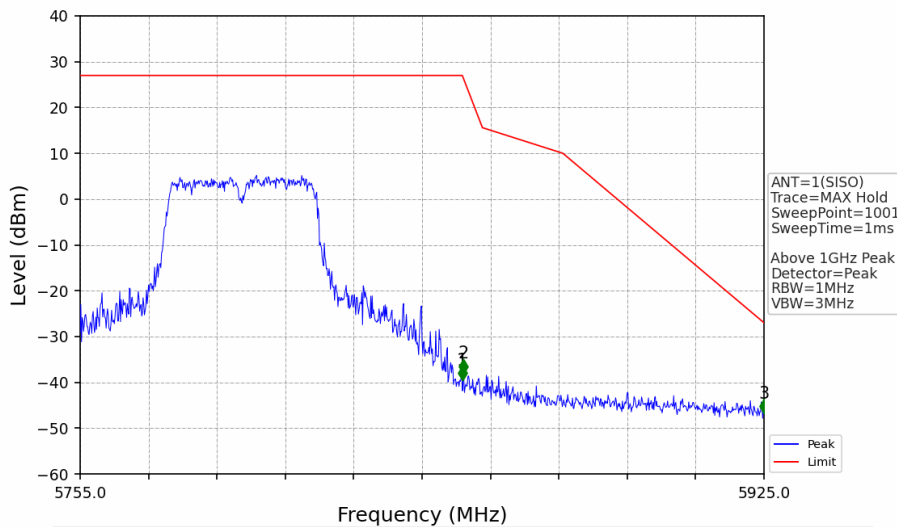


### 802.11n(HT40)\_HCH\_5795MHz\_Ant1\_NTNV



No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status Remark	No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status Remark
1	4621.85	-41.01	-21.20	19.81	Pass Peak	7	4621.85	-45.08	-41.20	3.88	Pass AVG
2	5628.25	-49.45	-27.00	22.45	Pass Peak	8	5628.25	/	-27.00	/	/ AVG
3	20760.8	-49.30	-21.20	28.10	Pass Peak	9	20760.8	-59.06	-41.20	17.86	Pass AVG
4	24624.9	-47.46	-27.00	20.46	Pass Peak	10	24624.9	/	-27.00	/	/ AVG
5	25683.15	-47.68	-27.00	20.68	Pass Peak	11	25683.15	/	-27.00	/	/ AVG
6	26457.5	-49.10	-27.00	22.10	Pass Peak	12	26457.5	/	-27.00	/	/ AVG

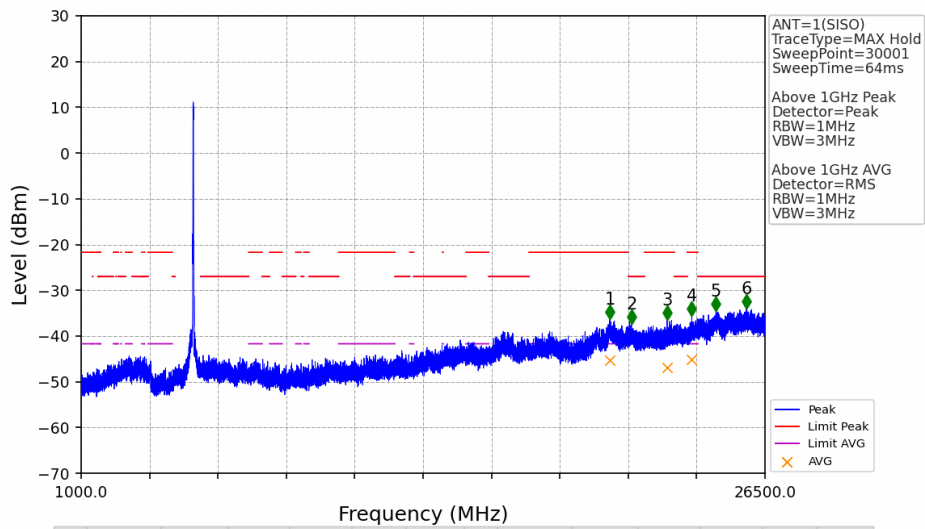
### 802.11n(HT40)\_HCH\_5795MHz\_Ant1\_NTNV



No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status Remark	No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status Remark
1	5850.000	-39.55	27.00	66.05	Pass Peak	3	5925.000	-46.80	-27.00	19.30	Pass Peak
2	5850.200	-38.05	26.54	64.09	Pass Peak						

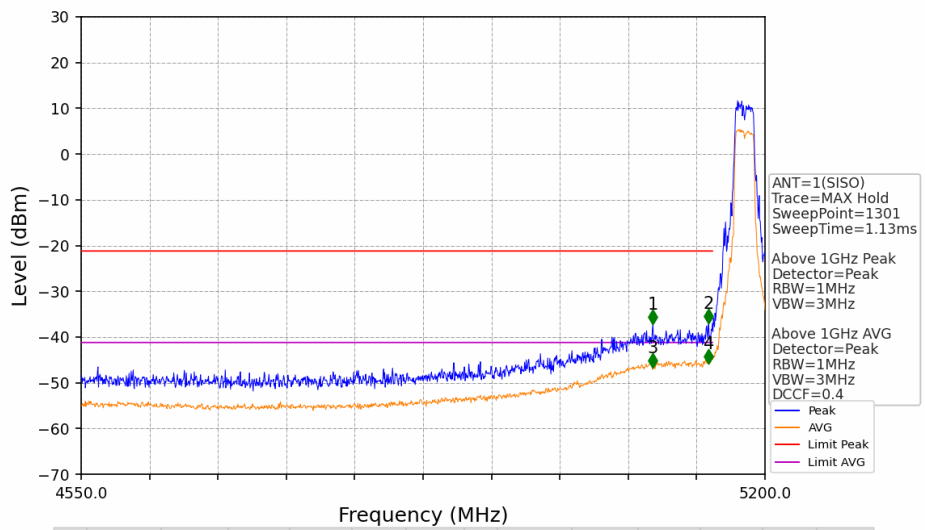


### 802.11ac(VHT20)\_LCH\_5180MHz\_Ant1\_NTNV



No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark	No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark
1	20725.1	-36.27	-21.20	14.57	Pass	Peak	7	20725.1	-45.33	-41.20	3.63	Pass	AVG
2	21519.85	-37.44	-27.00	9.94	Pass	Peak	8	21519.85	/	-27.00	/	/	AVG
3	22849.25	-36.55	-21.20	14.85	Pass	Peak	9	22849.25	-46.83	-41.20	5.13	Pass	AVG
4	23770.65	-35.56	-21.20	13.86	Pass	Peak	10	23770.65	-45.09	-41.20	3.39	Pass	AVG
5	24672.5	-34.54	-27.00	7.04	Pass	Peak	11	24672.5	/	-27.00	/	/	AVG
6	25803.85	-34.00	-27.00	6.50	Pass	Peak	12	25803.85	/	-27.00	/	/	AVG

### 802.11ac(VHT20)\_LCH\_5180MHz\_Ant1\_NTNV

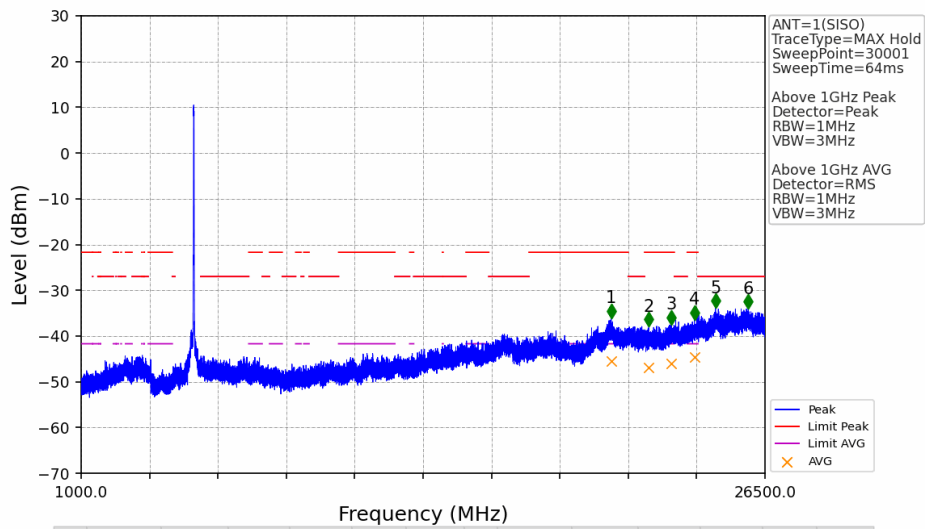


No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark	No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark
1	5093.500	-37.24	-21.20	15.54	Pass	Peak	3	5093.500	/	-21.20	/	/	AVG
2	5146.500	-37.00	-21.20	15.30	Pass	Peak	4	5146.500	/	-21.20	/	/	AVG



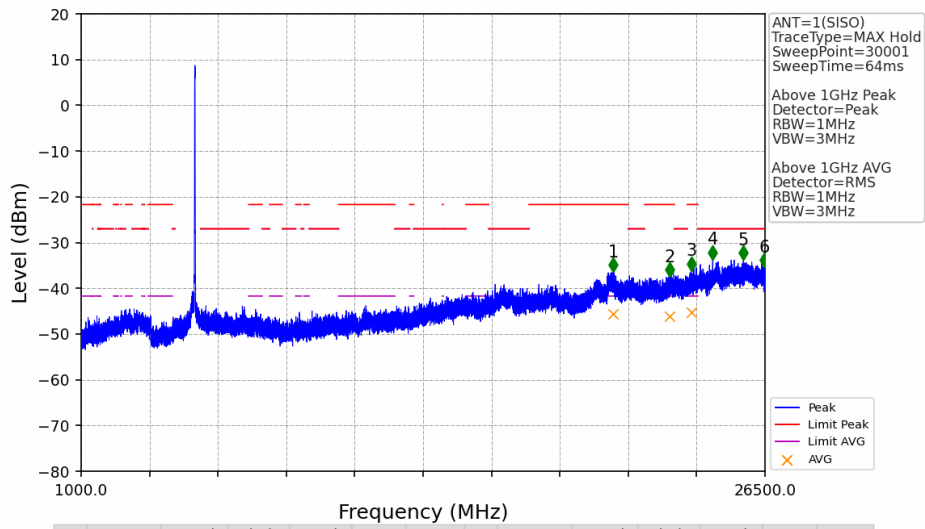


### 802.11ac(VHT20)\_MCH\_5200MHz\_Ant1\_NTNV



No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark	No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark
1	20763.35	-36.07	-21.20	14.37	Pass	Peak	7	20763.35	-45.40	-41.20	3.70	Pass	AVG
2	22171.8	-37.88	-21.20	16.18	Pass	Peak	8	22171.8	-46.94	-41.20	5.24	Pass	AVG
3	23015.85	-37.46	-21.20	15.76	Pass	Peak	9	23015.85	-46.01	-41.20	4.31	Pass	AVG
4	23865	-36.41	-21.20	14.71	Pass	Peak	10	23865	-44.62	-41.20	2.92	Pass	AVG
5	24652.95	-33.84	-27.00	6.34	Pass	Peak	11	24652.95	/	-27.00	/	/	AVG
6	25875.25	-34.05	-27.00	6.55	Pass	Peak	12	25875.25	/	-27.00	/	/	AVG

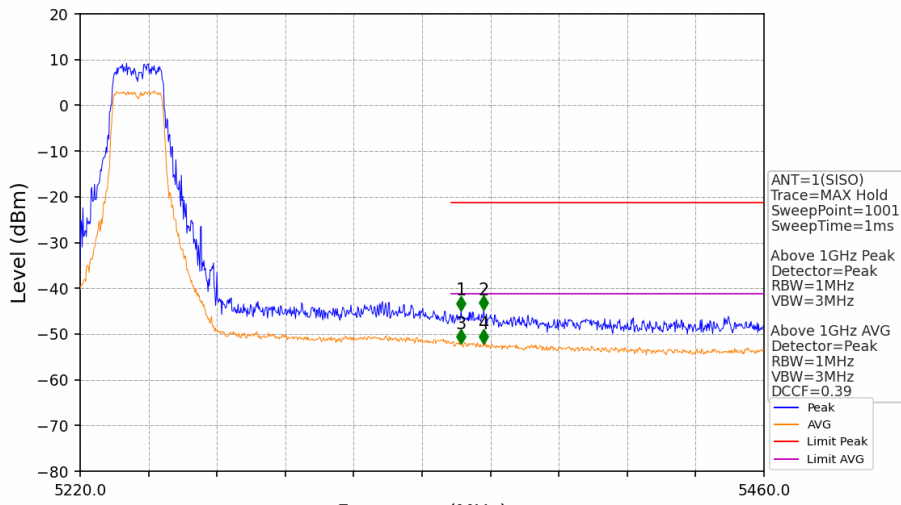
### 802.11ac(VHT20)\_HCH\_5240MHz\_Ant1\_NTNV



No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark	No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark
1	20839	-36.43	-21.20	14.73	Pass	Peak	7	20839	-45.68	-41.20	3.98	Pass	AVG
2	22953.8	-37.45	-21.20	15.74	Pass	Peak	8	22953.8	-46.15	-41.20	4.45	Pass	AVG
3	23747.7	-36.18	-21.20	14.48	Pass	Peak	9	23747.7	-45.30	-41.20	3.60	Pass	AVG
4	24547.55	-33.70	-27.00	6.20	Pass	Peak	10	24547.55	/	-27.00	/	/	AVG
5	25693.35	-33.79	-27.00	6.29	Pass	Peak	11	25693.35	/	-27.00	/	/	AVG
6	26462.6	-35.35	-27.00	7.85	Pass	Peak	12	26462.6	/	-27.00	/	/	AVG

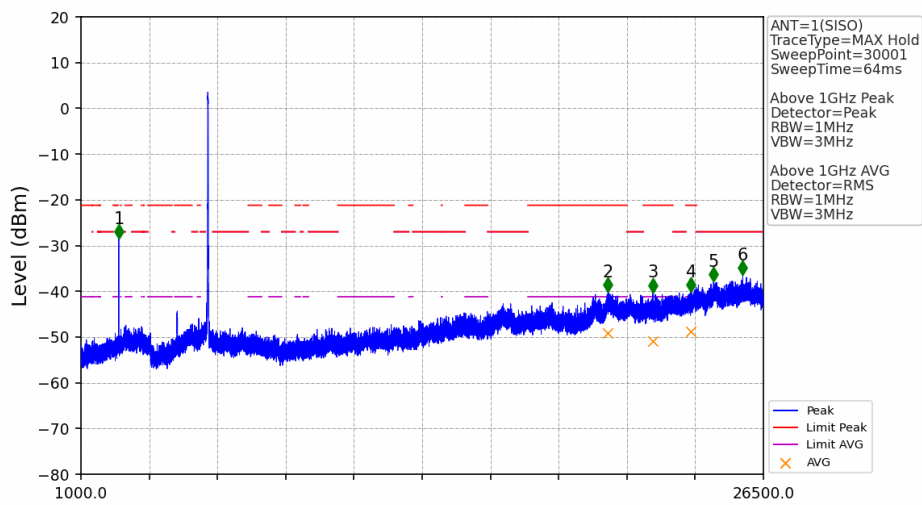


### 802.11ac(VHT20)\_HCH\_5240MHz\_Ant1\_NTNV



No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark	No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark
1	5353.680	-44.83	-21.20	23.13	Pass	Peak	3	5353.680	/	-21.20	/	/	AVG
2	5361.600	-44.70	-21.20	23.00	Pass	Peak	4	5361.600	/	-21.20	/	/	AVG

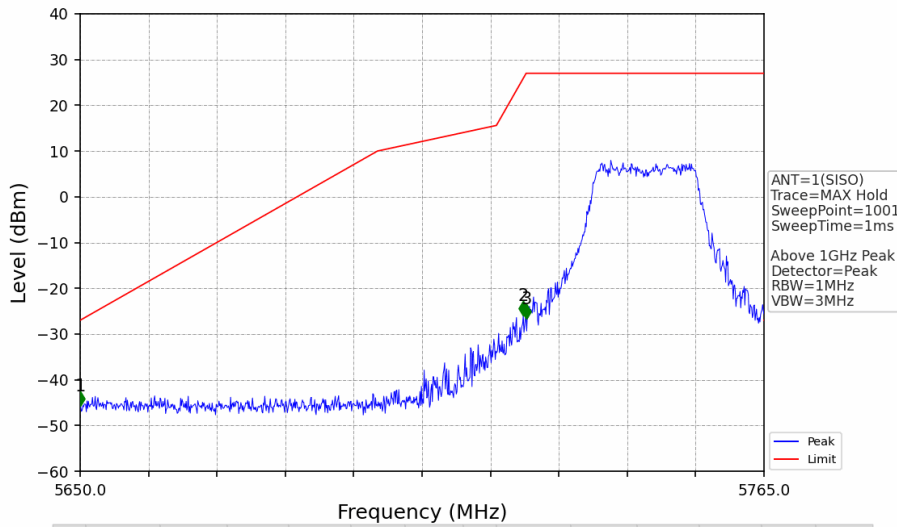
### 802.11ac(VHT20)\_LCH\_5745MHz\_Ant1\_NTNV



No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark	No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark
1	2412.7	-28.48	-27.00	1.48	Pass	Peak	7	2412.7	/	-27.00	/	/	AVG
2	20691.95	-40.15	-21.20	18.95	Pass	Peak	8	20691.95	-49.22	-41.20	8.02	Pass	AVG
3	22369.85	-40.25	-21.20	19.05	Pass	Peak	9	22369.85	-50.94	-41.20	9.73	Pass	AVG
4	23791.05	-40.13	-21.20	18.93	Pass	Peak	10	23791.05	-48.73	-41.20	7.53	Pass	AVG
5	24636.8	-37.93	-27.00	10.93	Pass	Peak	11	24636.8	/	-27.00	/	/	AVG
6	25730.75	-36.43	-27.00	9.43	Pass	Peak	12	25730.75	/	-27.00	/	/	AVG

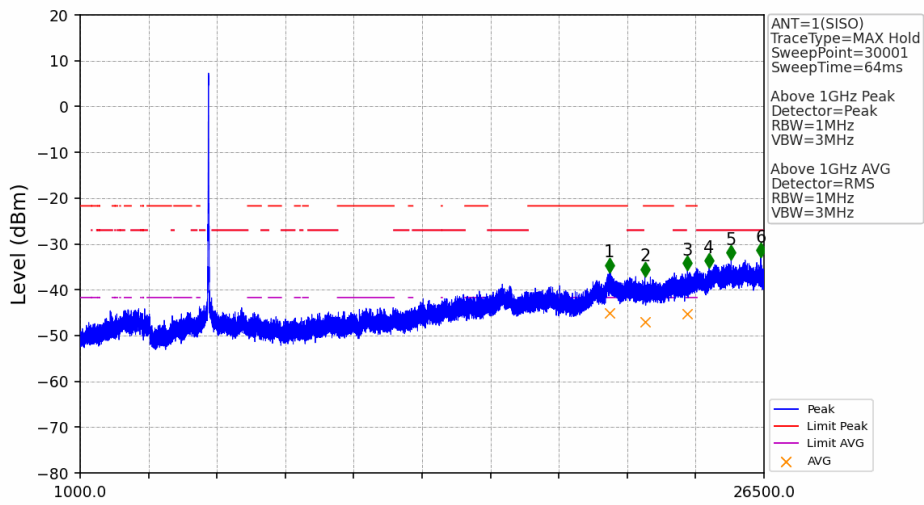


### 802.11ac(VHT20)\_LCH\_5745MHz\_Ant1\_NTNV



No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark	No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark
1	5650.000	-45.75	-27.00	18.25	Pass	Peak	3	5725.000	-26.72	27.00	53.22	Pass	Peak
2	5724.520	-25.98	25.91	51.38	Pass	Peak							

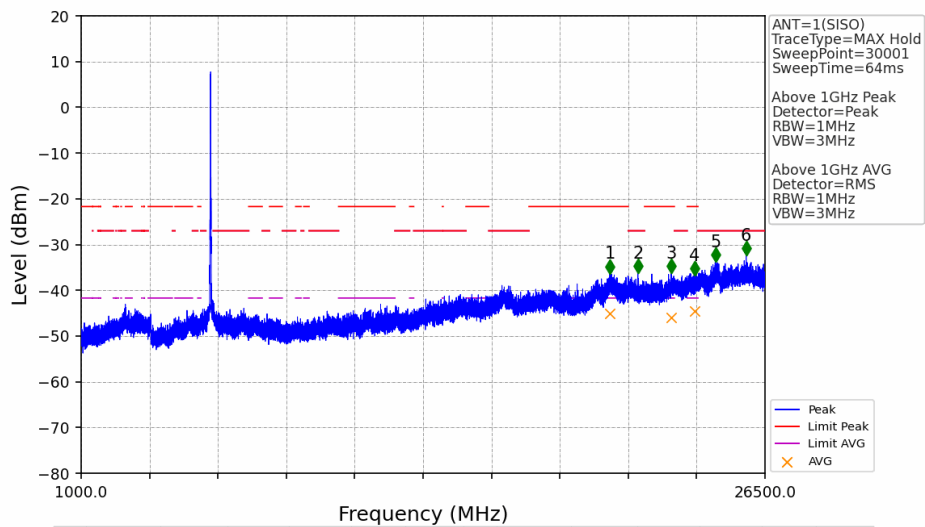
### 802.11ac(VHT20)\_MCH\_5785MHz\_Ant1\_NTNV



No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark	No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark
1	20735.3	-36.17	-21.20	14.47	Pass	Peak	7	20735.3	-45.05	-41.20	3.35	Pass	AVG
2	22057.9	-37.09	-21.20	15.39	Pass	Peak	8	22057.9	-46.94	-41.20	5.24	Pass	AVG
3	23644.85	-35.72	-21.20	14.02	Pass	Peak	9	23644.85	-45.25	-41.20	3.55	Pass	AVG
4	24453.2	-35.24	-27.00	7.74	Pass	Peak	10	24453.2	/	-27.00	/	/	AVG
5	25274.3	-33.40	-27.00	5.90	Pass	Peak	11	25274.3	/	-27.00	/	/	AVG
6	26379.3	-32.90	-27.00	5.40	Pass	Peak	12	26379.3	/	-27.00	/	/	AVG

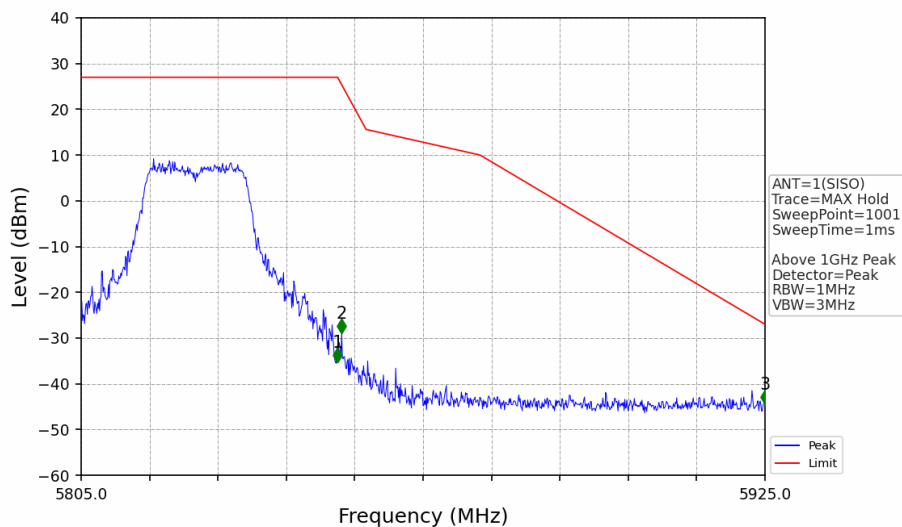


### 802.11ac(VHT20)\_HCH\_5825MHz\_Ant1\_NTNV



No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status Remark	No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status Remark
1	20714.9	-36.38	-21.20	14.68	Pass Peak	7	20714.9	-45.07	-41.20	3.37	Pass AVG
2	21759.55	-36.28	-27.00	8.79	Pass Peak	8	21759.55	/	-27.00	/	/ AVG
3	23003.1	-36.22	-21.20	14.52	Pass Peak	9	23003.1	-45.90	-41.20	4.20	Pass AVG
4	23875.2	-36.77	-21.20	15.07	Pass Peak	10	23875.2	-44.62	-41.20	2.92	Pass AVG
5	24647.85	-33.75	-27.00	6.25	Pass Peak	11	24647.85	/	-27.00	/	/ AVG
6	25797.05	-32.40	-27.00	4.89	Pass Peak	12	25797.05	/	-27.00	/	/ AVG

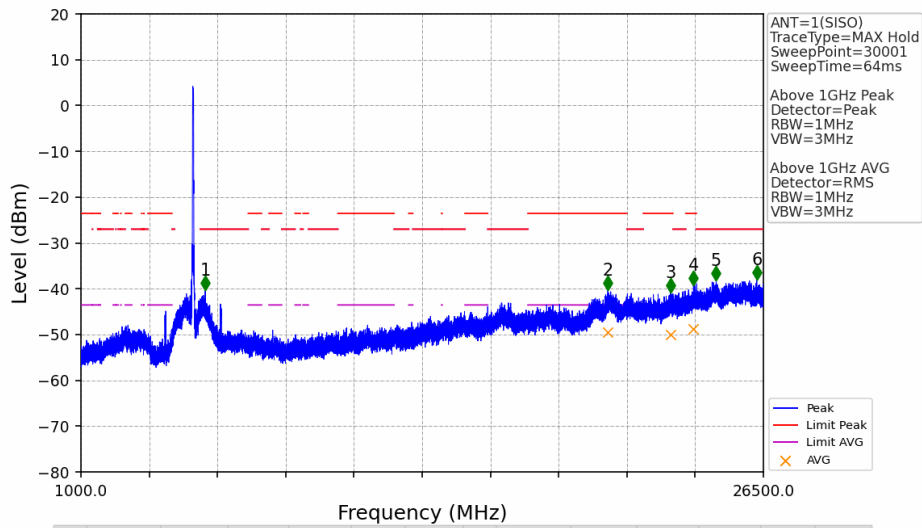
### 802.11ac(VHT20)\_HCH\_5825MHz\_Ant1\_NTNV



No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status Remark	No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status Remark
1	5850.000	-35.34	27.00	61.84	Pass Peak	3	5925.000	-44.55	-27.00	17.05	Pass Peak
2	5850.720	-28.96	25.36	53.81	Pass Peak						

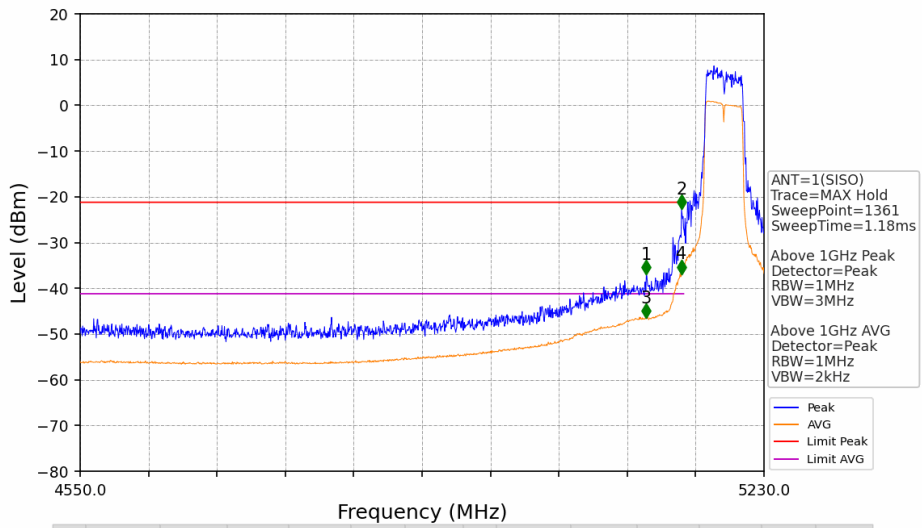


### 802.11ac(VHT40)\_LCH\_5190MHz\_Ant1\_NTNV



No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status Remark	No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status Remark
1	5644.4	-40.38	-27.00	11.03	Pass Peak	7	5644.4	/	-27.00	/	AVG
2	20687.7	-40.34	-21.20	16.80	Pass Peak	8	20687.7	-49.51	-41.20	5.96	Pass AVG
3	23042.2	-40.81	-21.20	17.26	Pass Peak	9	23042.2	-50.07	-41.20	6.52	Pass AVG
4	23888.8	-39.24	-21.20	15.69	Pass Peak	10	23888.8	-48.78	-41.20	5.23	Pass AVG
5	24735.4	-38.21	-27.00	8.86	Pass Peak	11	24735.4	/	-27.00	/	AVG
6	26251.8	-38.00	-27.00	8.65	Pass Peak	12	26251.8	/	-27.00	/	AVG

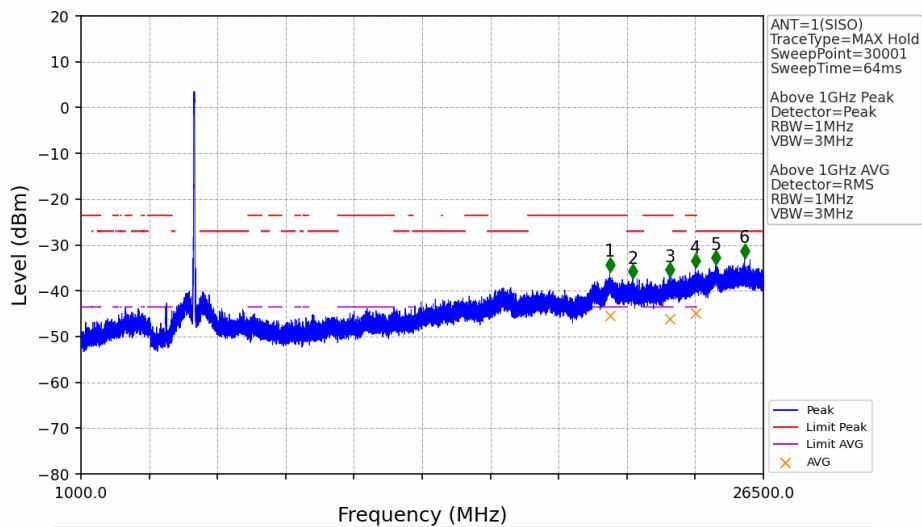
### 802.11ac(VHT40)\_LCH\_5190MHz\_Ant1\_NTNV



No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status Remark	No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status Remark
1	5113.000	-36.93	-21.20	15.23	Pass Peak	3	5113.000	/	-21.20	/	AVG
2	5148.000	-22.69	-21.20	0.99	Pass Peak	4	5148.000	/	-21.20	/	AVG

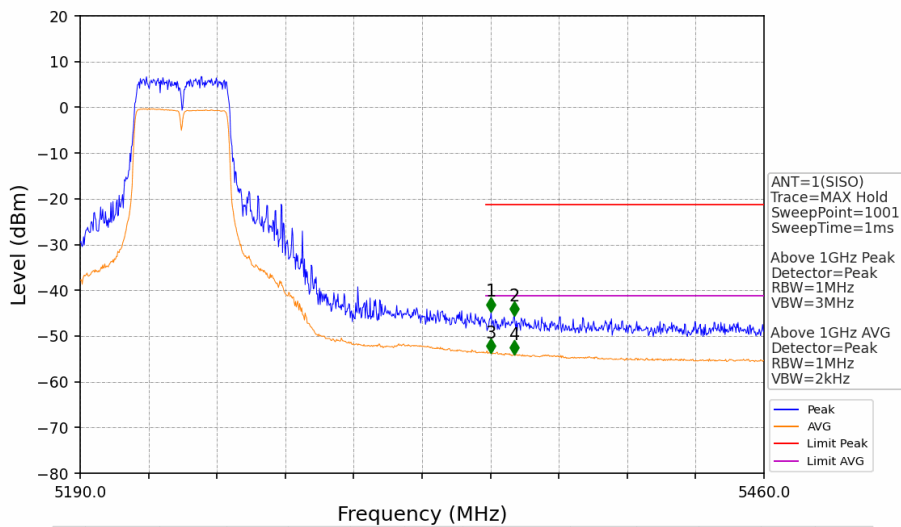


### 802.11ac(VHT40)\_HCH\_5230MHz\_Ant1\_NTNV



No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark	No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark
1	20758.25	-35.85	-21.20	12.30	Pass	Peak	7	20758.25	-45.42	-41.20	1.87	Pass	AVG
2	21619.3	-37.37	-27.00	8.02	Pass	Peak	8	21619.3	/	-27.00	/	/	AVG
3	23001.4	-36.96	-21.20	13.41	Pass	Peak	9	23001.4	-46.09	-41.20	2.54	Pass	AVG
4	23953.4	-35.08	-21.20	11.53	Pass	Peak	10	23953.4	-44.86	-41.20	1.31	Pass	AVG
5	24721.8	-34.38	-27.00	5.04	Pass	Peak	11	24721.8	/	-27.00	/	/	AVG
6	25795.35	-32.82	-27.00	3.47	Pass	Peak	12	25795.35	/	-27.00	/	/	AVG

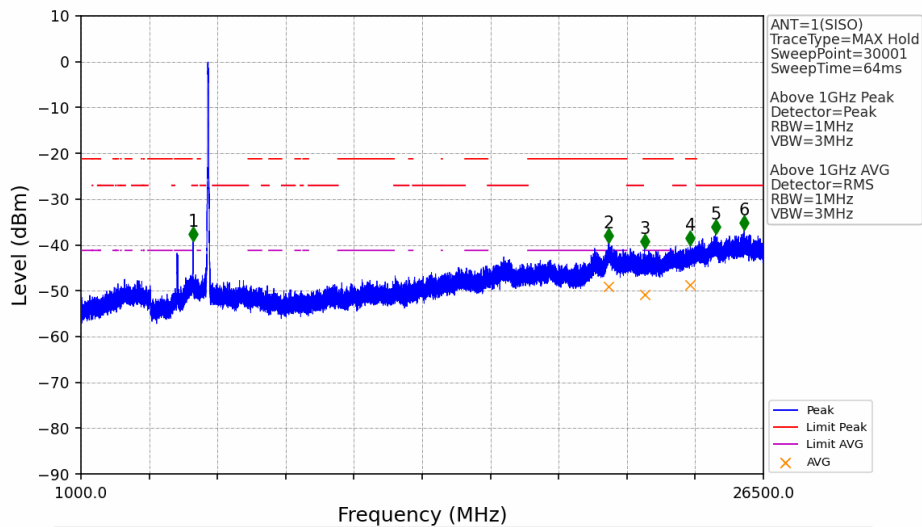
### 802.11ac(VHT40)\_HCH\_5230MHz\_Ant1\_NTNV



No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark	No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark
1	5352.270	-44.64	-21.20	22.94	Pass	Peak	3	5352.270	/	-21.20	/	/	AVG
2	5361.450	-45.67	-21.20	23.97	Pass	Peak	4	5361.450	/	-21.20	/	/	AVG

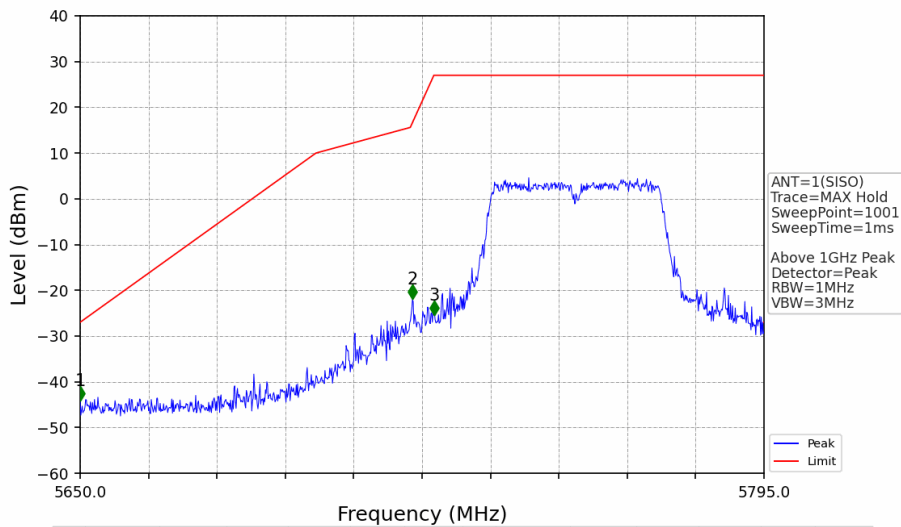


### 802.11ac(VHT40)\_LCH\_5755MHz\_Ant1\_NTNV



No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status Remark	No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status Remark
1	5185.4	-39.19	-27.00	12.19	Pass Peak	7	5185.4	/	-27.00	/	AVG
2	20712.35	-39.64	-21.20	18.44	Pass Peak	8	20712.35	-49.06	-41.20	7.86	Pass AVG
3	22055.35	-40.75	-21.20	19.55	Pass Peak	9	22055.35	-50.81	-41.20	9.61	Pass AVG
4	23767.25	-40.11	-21.20	18.91	Pass Peak	10	23767.25	-48.78	-41.20	7.58	Pass AVG
5	24709.05	-37.70	-27.00	10.70	Pass Peak	11	24709.05	/	-27.00	/	AVG
6	25780.05	-36.76	-27.00	9.76	Pass Peak	12	25780.05	/	-27.00	/	AVG

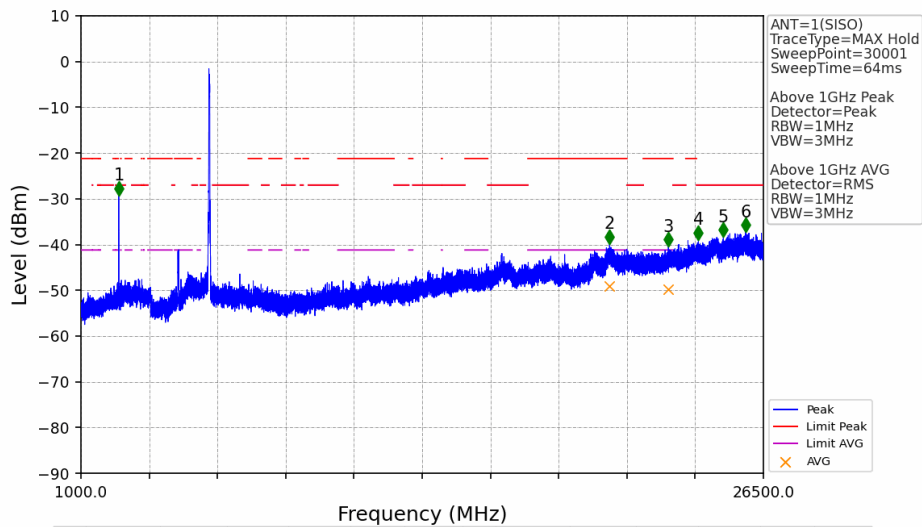
### 802.11ac(VHT40)\_LCH\_5755MHz\_Ant1\_NTNV



No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status Remark	No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status Remark
1	5650.000	-44.15	-27.00	16.65	Pass Peak	3	5725.000	-25.42	27.00	51.92	Pass Peak
2	5720.470	-21.89	16.67	38.07	Pass Peak						

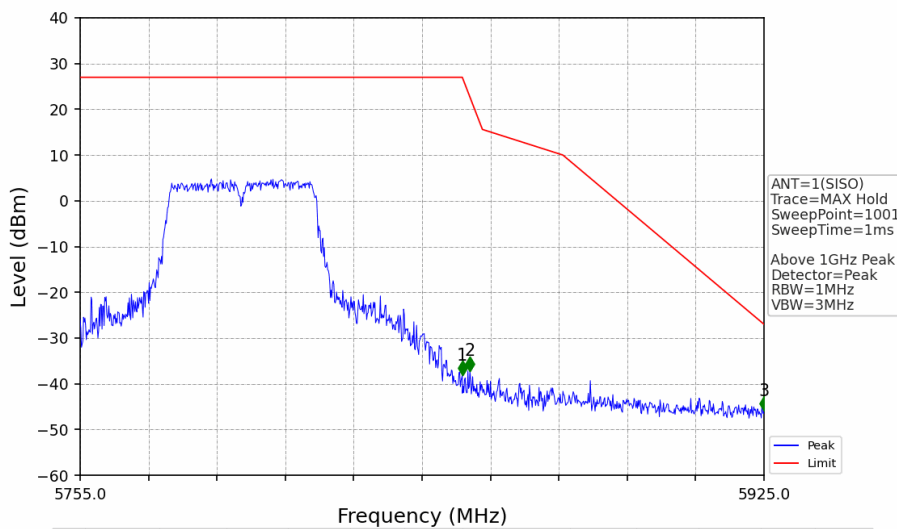


### 802.11ac(VHT40)\_HCH\_5795MHz\_Ant1\_NTNV



No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark	No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark
1	2412.7	-29.26	-27.00	2.26	Pass	Peak	7	2412.7	/	-27.00	/	/	AVG
2	20750.6	-39.84	-21.20	18.64	Pass	Peak	8	20750.6	-49.08	-41.20	7.88	Pass	AVG
3	22949.55	-40.48	-21.20	19.28	Pass	Peak	9	22949.55	-49.75	-41.20	8.55	Pass	AVG
4	24072.4	-38.96	-27.00	11.96	Pass	Peak	10	24072.4	/	-27.00	/	/	AVG
5	25004	-38.30	-27.00	11.30	Pass	Peak	11	25004	/	-27.00	/	/	AVG
6	25833.6	-37.26	-27.00	10.26	Pass	Peak	12	25833.6	/	-27.00	/	/	AVG

### 802.11ac(VHT40)\_HCH\_5795MHz\_Ant1\_NTNV

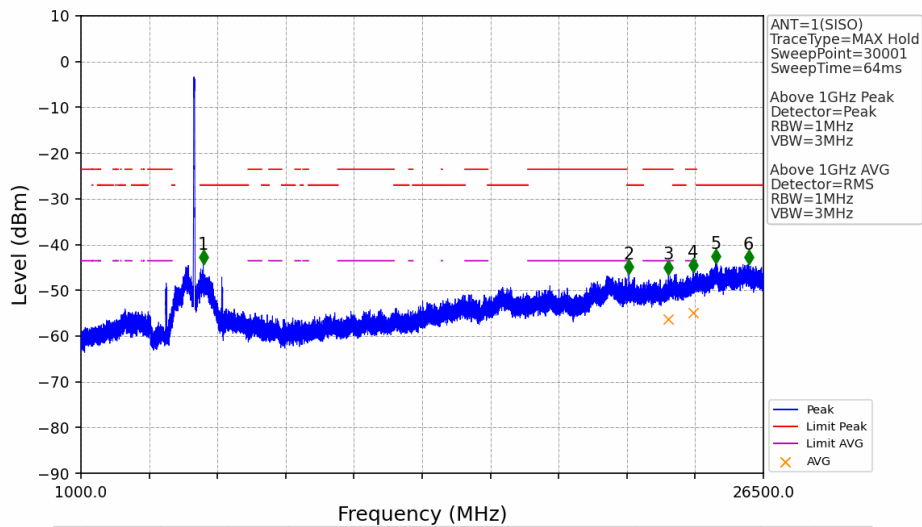


No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark	No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark
1	5850.000	-38.12	27.00	64.62	Pass	Peak	3	5925.000	-45.95	-27.00	18.45	Pass	Peak
2	5851.900	-37.16	22.67	59.33	Pass	Peak							



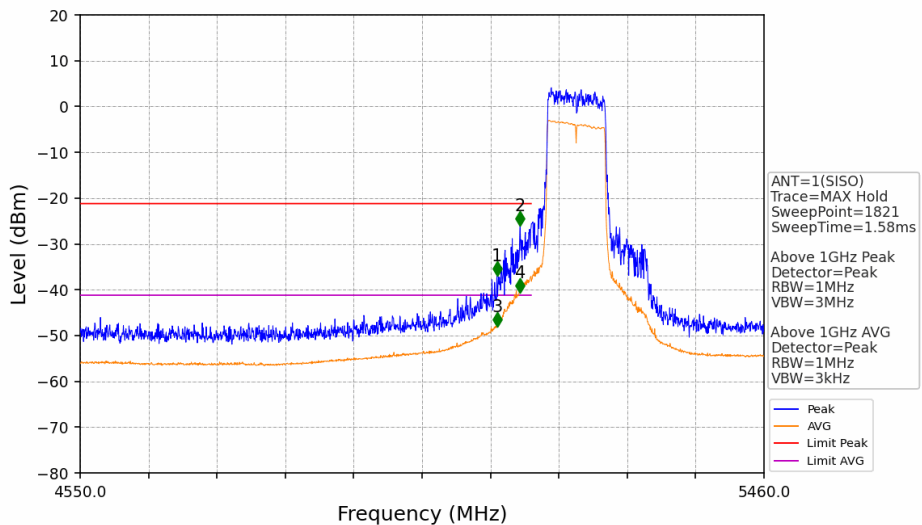


### 802.11ac(VHT80)\_MCH\_5210MHz\_Ant1\_NTNV



No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark	No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark
1	5567.9	-44.37	-27.00	15.02	Pass	Peak	7	5567.9	/	-27.00	/	/	AVG
2	21472.25	-46.51	-27.00	17.16	Pass	Peak	8	21472.25	/	-27.00	/	/	AVG
3	22952.95	-46.54	-21.20	22.99	Pass	Peak	9	22952.95	-56.26	-41.20	12.71	Pass	AVG
4	23878.6	-46.08	-21.20	22.53	Pass	Peak	10	23878.6	-54.87	-41.20	11.32	Pass	AVG
5	24721.8	-44.19	-27.00	14.84	Pass	Peak	11	24721.8	/	-27.00	/	/	AVG
6	25942.4	-44.28	-27.00	14.93	Pass	Peak	12	25942.4	/	-27.00	/	/	AVG

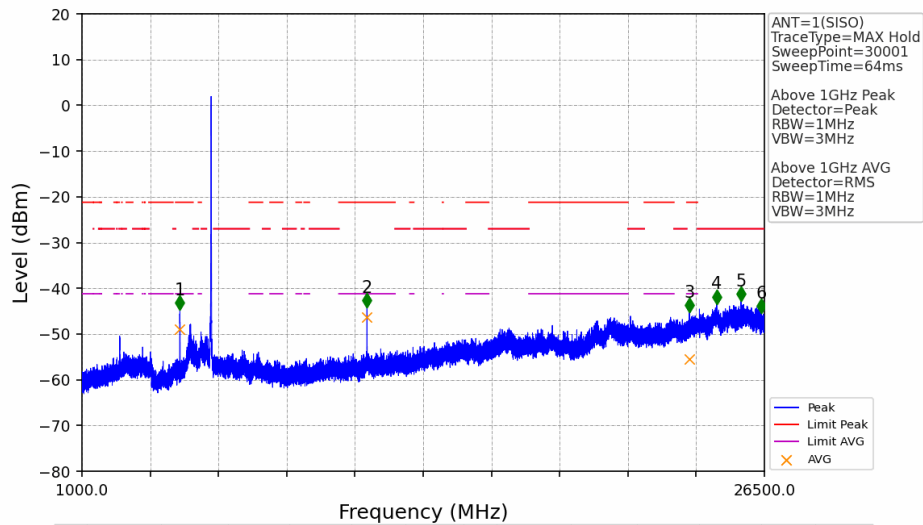
### 802.11ac(VHT80)\_MCH\_5210MHz\_Ant1\_NTNV



No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark	No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status	Remark
1	5104.500	-37.04	-21.20	15.34	Pass	Peak	3	5104.500	/	-21.20	/	/	AVG
2	5135.500	-26.02	-21.20	4.32	Pass	Peak	4	5135.500	/	-21.20	/	/	AVG

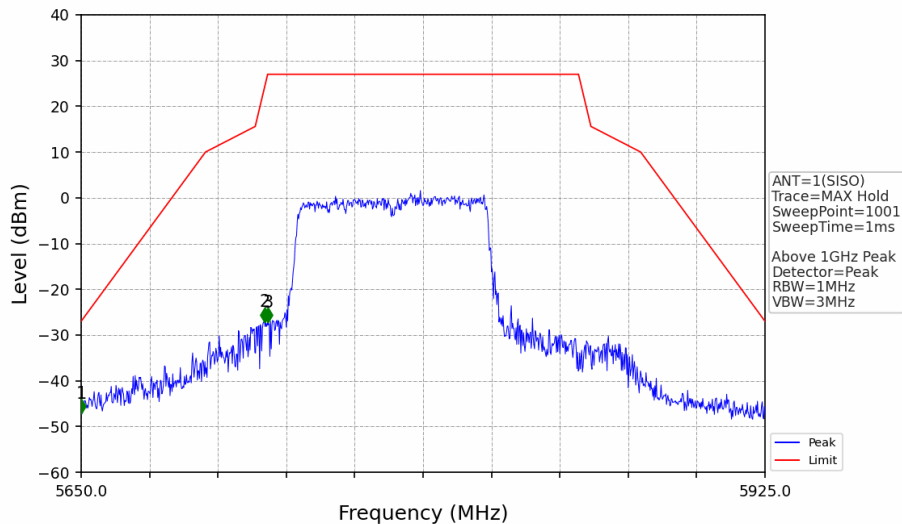


### 802.11ac(VHT80)\_MCH\_5775MHz\_Ant1\_NTNV



No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status Remark	No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status Remark
1	4660.1	-44.80	-21.20	23.60	Pass Peak	7	4660.1	-49.02	-41.20	7.82	Pass AVG
2	11650.5	-44.17	-21.20	22.97	Pass Peak	8	11650.5	-46.40	-41.20	5.20	Pass AVG
3	23697.55	-45.26	-21.20	24.06	Pass Peak	9	23697.55	-55.42	-41.20	14.22	Pass AVG
4	24718.4	-43.41	-27.00	16.41	Pass Peak	10	24718.4	/	-27.00	/	/ AVG
5	25626.2	-42.74	-27.00	15.74	Pass Peak	11	25626.2	/	-27.00	/	/ AVG
6	26392.9	-45.46	-27.00	18.46	Pass Peak	12	26392.9	/	-27.00	/	/ AVG

### 802.11ac(VHT80)\_MCH\_5775MHz\_Ant1\_NTNV



No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status Remark	No	Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Status Remark
1	5650.000	-47.17	-27.00	19.67	Pass Peak	3	5725.000	-27.25	27.00	53.75	Pass Peak
2	5723.700	-27.11	24.04	50.65	Pass Peak						



## 10. Frequency Stability Measurement

### 10.1 LIMIT

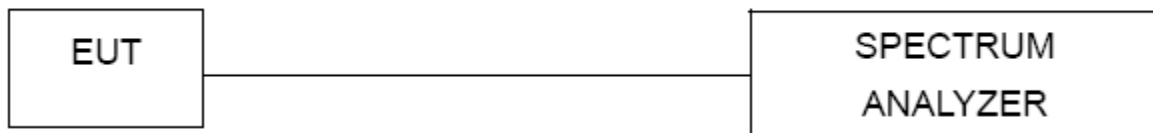
Manufactures of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

The transmitter center frequency tolerance shall be  $\pm 20$  ppm maximum for the 5 GHz band (IEEE 802.11n specification).

### 10.2 TEST PROCEDURES

1. The transmitter output (antenna port) was connected to the spectrum analyzer.
2. EUT have transmitted absence of modulation signal and fixed channelize.
3. Set the spectrum analyzer span to view the entire absence of modulation emissions bandwidth.
4. Set RBW = 10 kHz, VBW = 10 kHz with peak detector and maxhold settings.
5.  $f_c$  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  $\pm 20$  ppm (IEEE 802.11n specification).
6. The test extreme voltage is to change the primary supply voltage from 85 to 115 percent of the nominal value
7. Extreme temperature is  $-20^\circ\text{C} \sim 70^\circ\text{C}$ .

### 10.3 TEST SETUP LAYOUT



### 10.4 EUT OPERATION DURING TEST

The EUT was programmed to be in continuously un-modulation transmitting mode.

### 10.5 TEST RESULTS

Temperature :	26 °C	Relative Humidity :	54%
Pressure :	1012 hPa	Test Voltage :	AC 120V, 60Hz
Test Mode :	TX		



Mode	TX Type	Frequency (MHz)	Temperature (°C)	Voltage (VAC)	Measured Frequency (MHz)	Limit (MHz)	Verdict
802.11a	SISO	5180	20	102	5180.000	5150 to 5250	Pass
				120	5180.060	5150 to 5250	Pass
				138	5180.020	5150 to 5250	Pass
			-30	120	5180.000	5150 to 5250	Pass
			-20	120	5180.020	5150 to 5250	Pass
			-10	120	5180.040	5150 to 5250	Pass
			0	120	5180.040	5150 to 5250	Pass
			10	120	5180.040	5150 to 5250	Pass
			30	120	5180.020	5150 to 5250	Pass
			40	120	5180.000	5150 to 5250	Pass
			50	120	5180.040	5150 to 5250	Pass
		5200	20	102	5200.040	5150 to 5250	Pass
				120	5200.040	5150 to 5250	Pass
				138	5200.020	5150 to 5250	Pass
			-30	120	5200.060	5150 to 5250	Pass
			-20	120	5200.040	5150 to 5250	Pass
			-10	120	5200.000	5150 to 5250	Pass
			0	120	5200.020	5150 to 5250	Pass
			10	120	5200.040	5150 to 5250	Pass
			30	120	5200.060	5150 to 5250	Pass
			40	120	5200.020	5150 to 5250	Pass
			50	120	5200.020	5150 to 5250	Pass
		5240	20	102	5240.000	5150 to 5250	Pass
				120	5240.040	5150 to 5250	Pass
				138	5240.020	5150 to 5250	Pass
			-30	120	5240.040	5150 to 5250	Pass
			-20	120	5240.040	5150 to 5250	Pass
			-10	120	5240.000	5150 to 5250	Pass
			0	120	5240.020	5150 to 5250	Pass
			10	120	5240.040	5150 to 5250	Pass
			30	120	5240.060	5150 to 5250	Pass
			40	120	5240.060	5150 to 5250	Pass
			50	120	5240.020	5150 to 5250	Pass
5745	20	102	5744.980	5725 to 5850	Pass		
		120	5745.020	5725 to 5850	Pass		



				138	5745.000	5725 to 5850	Pass	
			-30	120	5745.040	5725 to 5850	Pass	
			-20	120	5745.040	5725 to 5850	Pass	
			-10	120	5745.040	5725 to 5850	Pass	
			0	120	5745.040	5725 to 5850	Pass	
			10	120	5745.040	5725 to 5850	Pass	
			30	120	5745.020	5725 to 5850	Pass	
			40	120	5745.040	5725 to 5850	Pass	
			50	120	5745.040	5725 to 5850	Pass	
		5785	20	102	5785.060	5725 to 5850	Pass	
				120	5785.020	5725 to 5850	Pass	
				138	5785.000	5725 to 5850	Pass	
				-30	120	5785.060	5725 to 5850	Pass
				-20	120	5785.000	5725 to 5850	Pass
				-10	120	5785.020	5725 to 5850	Pass
				0	120	5785.040	5725 to 5850	Pass
				10	120	5785.040	5725 to 5850	Pass
				30	120	5785.000	5725 to 5850	Pass
				40	120	5785.020	5725 to 5850	Pass
				50	120	5785.060	5725 to 5850	Pass
			5825	20	102	5825.040	5725 to 5850	Pass
					120	5825.000	5725 to 5850	Pass
		138			5825.020	5725 to 5850	Pass	
				-30	120	5825.020	5725 to 5850	Pass
				-20	120	5825.020	5725 to 5850	Pass
				-10	120	5825.020	5725 to 5850	Pass
				0	120	5825.040	5725 to 5850	Pass
				10	120	5825.040	5725 to 5850	Pass
				30	120	5825.020	5725 to 5850	Pass
				40	120	5825.060	5725 to 5850	Pass
				50	120	5825.000	5725 to 5850	Pass
802.11n (HT20)	SISO	5180	20	102	5180.000	5150 to 5250	Pass	
				120	5180.100	5150 to 5250	Pass	
				138	5180.060	5150 to 5250	Pass	
				-30	120	5180.060	5150 to 5250	Pass
				-20	120	5180.000	5150 to 5250	Pass
				-10	120	5180.020	5150 to 5250	Pass
				0	120	5180.020	5150 to 5250	Pass



			10	120	5180.080	5150 to 5250	Pass	
			30	120	5180.000	5150 to 5250	Pass	
			40	120	5180.080	5150 to 5250	Pass	
			50	120	5180.080	5150 to 5250	Pass	
		5200	20	102	5200.080	5150 to 5250	Pass	
				120	5200.060	5150 to 5250	Pass	
				138	5200.080	5150 to 5250	Pass	
				-30	120	5200.040	5150 to 5250	Pass
				-20	120	5200.040	5150 to 5250	Pass
				-10	120	5200.060	5150 to 5250	Pass
				0	120	5200.040	5150 to 5250	Pass
				10	120	5200.040	5150 to 5250	Pass
				30	120	5200.040	5150 to 5250	Pass
				40	120	5200.020	5150 to 5250	Pass
				50	120	5200.040	5150 to 5250	Pass
			5240	20	102	5240.000	5150 to 5250	Pass
		120			5240.080	5150 to 5250	Pass	
		138			5240.040	5150 to 5250	Pass	
				-30	120	5240.060	5150 to 5250	Pass
				-20	120	5240.040	5150 to 5250	Pass
				-10	120	5240.000	5150 to 5250	Pass
				0	120	5240.020	5150 to 5250	Pass
				10	120	5240.100	5150 to 5250	Pass
				30	120	5240.040	5150 to 5250	Pass
				40	120	5240.020	5150 to 5250	Pass
				50	120	5240.020	5150 to 5250	Pass
		5745		20	102	5745.020	5725 to 5850	Pass
			120		5745.080	5725 to 5850	Pass	
			138		5744.960	5725 to 5850	Pass	
				-30	120	5745.000	5725 to 5850	Pass
				-20	120	5745.040	5725 to 5850	Pass
				-10	120	5745.060	5725 to 5850	Pass
				0	120	5744.980	5725 to 5850	Pass
				10	120	5745.040	5725 to 5850	Pass
				30	120	5745.020	5725 to 5850	Pass
				40	120	5745.020	5725 to 5850	Pass
				50	120	5745.040	5725 to 5850	Pass
			5785	20	102	5785.020	5725 to 5850	Pass



		5825		120	5785.080	5725 to 5850	Pass
				138	5785.040	5725 to 5850	Pass
			-30	120	5785.060	5725 to 5850	Pass
			-20	120	5785.000	5725 to 5850	Pass
			-10	120	5785.040	5725 to 5850	Pass
			0	120	5785.100	5725 to 5850	Pass
			10	120	5785.000	5725 to 5850	Pass
			30	120	5785.040	5725 to 5850	Pass
			40	120	5785.080	5725 to 5850	Pass
			50	120	5785.060	5725 to 5850	Pass
		5825	20	102	5825.040	5725 to 5850	Pass
				120	5825.060	5725 to 5850	Pass
				138	5825.060	5725 to 5850	Pass
			-30	120	5825.040	5725 to 5850	Pass
			-20	120	5825.040	5725 to 5850	Pass
			-10	120	5825.080	5725 to 5850	Pass
			0	120	5825.060	5725 to 5850	Pass
			10	120	5825.040	5725 to 5850	Pass
			30	120	5825.000	5725 to 5850	Pass
			40	120	5825.040	5725 to 5850	Pass
50	120	5825.060	5725 to 5850	Pass			
802.11n (HT40)	SISO	5190	20	102	5190.080	5150 to 5250	Pass
				120	5190.040	5150 to 5250	Pass
				138	5190.160	5150 to 5250	Pass
			-30	120	5190.120	5150 to 5250	Pass
			-20	120	5190.080	5150 to 5250	Pass
			-10	120	5190.080	5150 to 5250	Pass
			0	120	5190.040	5150 to 5250	Pass
			10	120	5190.120	5150 to 5250	Pass
			30	120	5190.080	5150 to 5250	Pass
			40	120	5190.120	5150 to 5250	Pass
		50	120	5190.080	5150 to 5250	Pass	
		5230	20	102	5230.120	5150 to 5250	Pass
				120	5230.080	5150 to 5250	Pass
				138	5230.120	5150 to 5250	Pass
			-30	120	5230.080	5150 to 5250	Pass
			-20	120	5230.120	5150 to 5250	Pass
			-10	120	5230.080	5150 to 5250	Pass



			0	120	5230.120	5150 to 5250	Pass		
			10	120	5230.080	5150 to 5250	Pass		
			30	120	5230.120	5150 to 5250	Pass		
			40	120	5230.080	5150 to 5250	Pass		
			50	120	5230.120	5150 to 5250	Pass		
		5755	20	102	5755.040	5725 to 5850	Pass		
				120	5755.040	5725 to 5850	Pass		
				138	5755.080	5725 to 5850	Pass		
			-30	120	5755.080	5725 to 5850	Pass		
			-20	120	5755.080	5725 to 5850	Pass		
			-10	120	5755.080	5725 to 5850	Pass		
			0	120	5755.120	5725 to 5850	Pass		
			10	120	5755.080	5725 to 5850	Pass		
			30	120	5755.080	5725 to 5850	Pass		
			40	120	5755.080	5725 to 5850	Pass		
			50	120	5755.080	5725 to 5850	Pass		
			5795	20	102	5795.120	5725 to 5850	Pass	
					120	5795.120	5725 to 5850	Pass	
		138			5795.080	5725 to 5850	Pass		
		-30		120	5795.080	5725 to 5850	Pass		
		-20		120	5795.040	5725 to 5850	Pass		
		-10		120	5795.120	5725 to 5850	Pass		
		0		120	5795.120	5725 to 5850	Pass		
		10		120	5795.080	5725 to 5850	Pass		
		30		120	5795.120	5725 to 5850	Pass		
		40		120	5795.080	5725 to 5850	Pass		
		50		120	5795.080	5725 to 5850	Pass		
		802.11ac (VHT20)		SISO	5180	20	102	5180.020	5150 to 5250
			120				5180.040	5150 to 5250	Pass
			138				5180.040	5150 to 5250	Pass
			-30			120	5180.040	5150 to 5250	Pass
			-20			120	5179.980	5150 to 5250	Pass
			-10			120	5180.040	5150 to 5250	Pass
			0			120	5180.040	5150 to 5250	Pass
			10			120	5180.000	5150 to 5250	Pass
30	120		5180.080			5150 to 5250	Pass		
40	120		5180.020			5150 to 5250	Pass		
50	120		5180.040			5150 to 5250	Pass		





		5200	20	102	5200.060	5150 to 5250	Pass
				120	5200.060	5150 to 5250	Pass
				138	5200.060	5150 to 5250	Pass
			-30	120	5200.100	5150 to 5250	Pass
			-20	120	5200.040	5150 to 5250	Pass
			-10	120	5200.060	5150 to 5250	Pass
			0	120	5200.020	5150 to 5250	Pass
			10	120	5200.000	5150 to 5250	Pass
			30	120	5200.080	5150 to 5250	Pass
			40	120	5200.060	5150 to 5250	Pass
			50	120	5200.080	5150 to 5250	Pass
		5240	20	102	5240.020	5150 to 5250	Pass
				120	5240.040	5150 to 5250	Pass
				138	5240.040	5150 to 5250	Pass
			-30	120	5240.080	5150 to 5250	Pass
			-20	120	5240.040	5150 to 5250	Pass
			-10	120	5240.060	5150 to 5250	Pass
			0	120	5240.040	5150 to 5250	Pass
			10	120	5240.060	5150 to 5250	Pass
			30	120	5240.020	5150 to 5250	Pass
			40	120	5240.020	5150 to 5250	Pass
			50	120	5240.060	5150 to 5250	Pass
		5745	20	102	5745.020	5725 to 5850	Pass
				120	5745.000	5725 to 5850	Pass
				138	5745.020	5725 to 5850	Pass
			-30	120	5745.060	5725 to 5850	Pass
			-20	120	5745.020	5725 to 5850	Pass
			-10	120	5745.040	5725 to 5850	Pass
			0	120	5745.040	5725 to 5850	Pass
			10	120	5745.020	5725 to 5850	Pass
			30	120	5745.080	5725 to 5850	Pass
			40	120	5745.060	5725 to 5850	Pass
			50	120	5745.060	5725 to 5850	Pass
5785	20	102	5785.020	5725 to 5850	Pass		
		120	5785.080	5725 to 5850	Pass		
		138	5785.060	5725 to 5850	Pass		
	-30	120	5785.040	5725 to 5850	Pass		
	-20	120	5785.080	5725 to 5850	Pass		



		5825	-10	120	5785.060	5725 to 5850	Pass	
			0	120	5785.080	5725 to 5850	Pass	
			10	120	5785.080	5725 to 5850	Pass	
			30	120	5785.040	5725 to 5850	Pass	
			40	120	5785.020	5725 to 5850	Pass	
			50	120	5785.080	5725 to 5850	Pass	
		5825	20	102	5825.020	5725 to 5850	Pass	
				120	5825.040	5725 to 5850	Pass	
				138	5825.040	5725 to 5850	Pass	
			-30	120	5825.100	5725 to 5850	Pass	
			-20	120	5825.020	5725 to 5850	Pass	
			-10	120	5825.020	5725 to 5850	Pass	
			0	120	5825.080	5725 to 5850	Pass	
			10	120	5825.020	5725 to 5850	Pass	
			30	120	5825.060	5725 to 5850	Pass	
			40	120	5825.020	5725 to 5850	Pass	
			50	120	5825.040	5725 to 5850	Pass	
			5190	20	102	5190.080	5150 to 5250	Pass
					120	5190.120	5150 to 5250	Pass
					138	5190.080	5150 to 5250	Pass
		-30		120	5190.120	5150 to 5250	Pass	
		-20		120	5190.120	5150 to 5250	Pass	
		-10		120	5190.120	5150 to 5250	Pass	
		0		120	5190.120	5150 to 5250	Pass	
10	120	5190.080		5150 to 5250	Pass			
30	120	5190.040		5150 to 5250	Pass			
40	120	5190.120		5150 to 5250	Pass			
50	120	5190.120		5150 to 5250	Pass			
5230	20	102		5230.120	5150 to 5250	Pass		
		120		5230.080	5150 to 5250	Pass		
		138		5230.080	5150 to 5250	Pass		
	-30	120		5230.080	5150 to 5250	Pass		
	-20	120		5230.080	5150 to 5250	Pass		
	-10	120		5230.120	5150 to 5250	Pass		
	0	120		5230.120	5150 to 5250	Pass		
	10	120	5230.120	5150 to 5250	Pass			
	30	120	5230.120	5150 to 5250	Pass			
	40	120	5230.080	5150 to 5250	Pass			

802.11ac  
(VHT40)

SISO



		5755	50	120	5230.080	5150 to 5250	Pass			
			20	102	5755.080	5725 to 5850	Pass			
				120	5755.040	5725 to 5850	Pass			
				138	5755.080	5725 to 5850	Pass			
			-30	120	5755.040	5725 to 5850	Pass			
			-20	120	5755.080	5725 to 5850	Pass			
			-10	120	5755.120	5725 to 5850	Pass			
			0	120	5755.040	5725 to 5850	Pass			
			10	120	5755.080	5725 to 5850	Pass			
			30	120	5755.120	5725 to 5850	Pass			
			40	120	5755.120	5725 to 5850	Pass			
			50	120	5755.040	5725 to 5850	Pass			
			5795	20	102	5795.080	5725 to 5850	Pass		
		120			5795.080	5725 to 5850	Pass			
		138			5795.120	5725 to 5850	Pass			
		-30		120	5795.120	5725 to 5850	Pass			
		-20		120	5795.080	5725 to 5850	Pass			
		-10		120	5795.080	5725 to 5850	Pass			
		0		120	5795.080	5725 to 5850	Pass			
		10		120	5795.080	5725 to 5850	Pass			
		30		120	5795.080	5725 to 5850	Pass			
		40		120	5795.160	5725 to 5850	Pass			
		50		120	5795.080	5725 to 5850	Pass			
		802.11ac (VHT80)		SISO	5210	20	102	5210.150	5150 to 5250	Pass
							120	5210.150	5150 to 5250	Pass
			138				5210.150	5150 to 5250	Pass	
-30	120		5210.150			5150 to 5250	Pass			
-20	120		5210.150			5150 to 5250	Pass			
-10	120		5210.150			5150 to 5250	Pass			
0	120		5210.150			5150 to 5250	Pass			
10	120		5210.150			5150 to 5250	Pass			
30	120		5210.150			5150 to 5250	Pass			
40	120		5210.150			5150 to 5250	Pass			
50	120		5210.075			5150 to 5250	Pass			
5775	20		102			5775.075	5725 to 5850	Pass		
			120			5775.075	5725 to 5850	Pass		
			138		5775.075	5725 to 5850	Pass			
	-30		120		5775.075	5725 to 5850	Pass			



			-20	120	5775.075	5725 to 5850	Pass
			-10	120	5775.075	5725 to 5850	Pass
			0	120	5775.075	5725 to 5850	Pass
			10	120	5775.075	5725 to 5850	Pass
			30	120	5775.075	5725 to 5850	Pass
			40	120	5775.075	5725 to 5850	Pass
			50	120	5775.150	5725 to 5850	Pass



## 11.ANTENNA REQUIREMENT

Standard requirement:	FCC Part15 C Section 15.203
15.203 requirement: 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. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.	
EUT Antenna:	
The antenna is Ceramic Antenna, the best case gain of the antenna is 1dBi, reference to the appendix II for details	



## 12. TEST SETUP PHOTO

Reference to the appendix I for details.

## 13. EUT CONSTRUCTIONAL DETAILS

Reference to the appendix II for details.

\*\*\*\*\* END OF REPORT \*\*\*\*\*