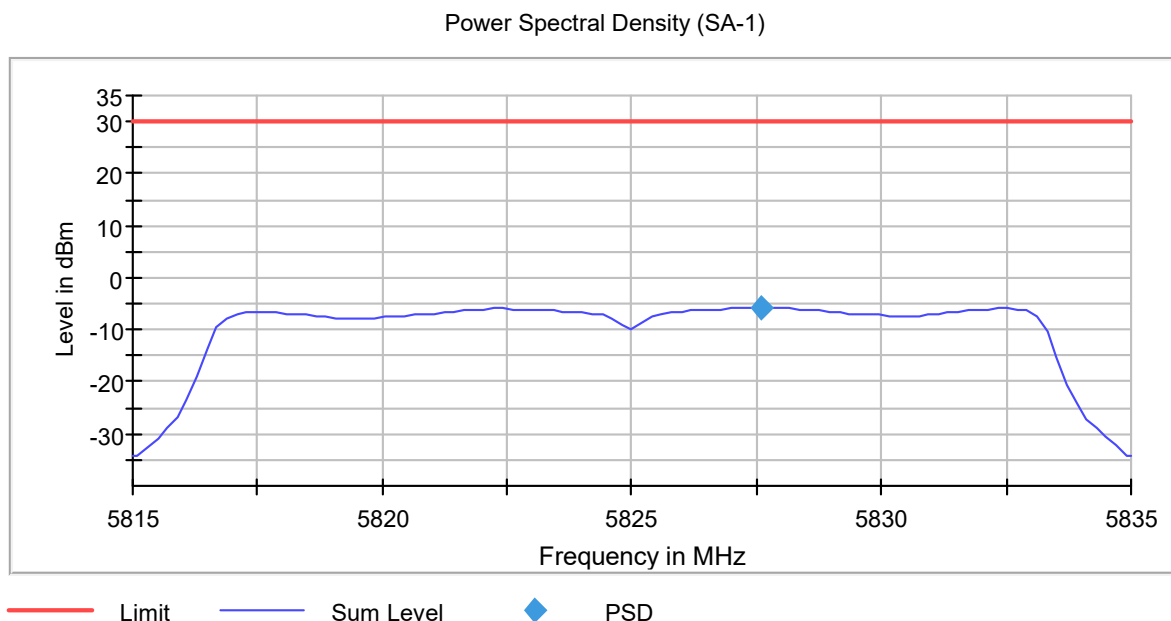


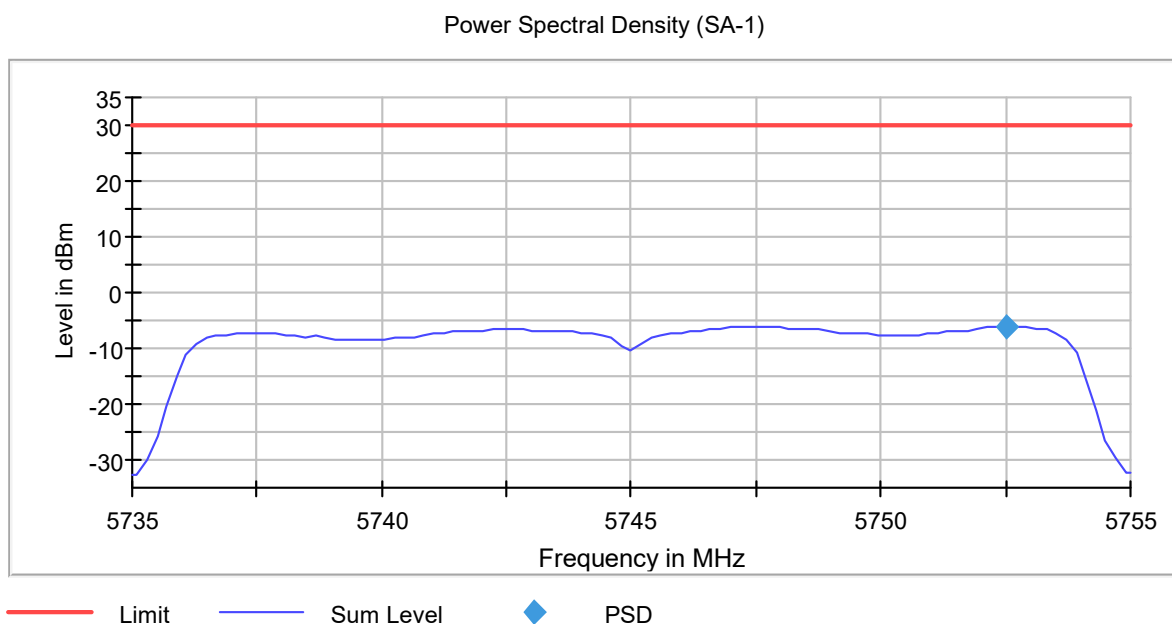
- High Channel 165 (5825 MHz):



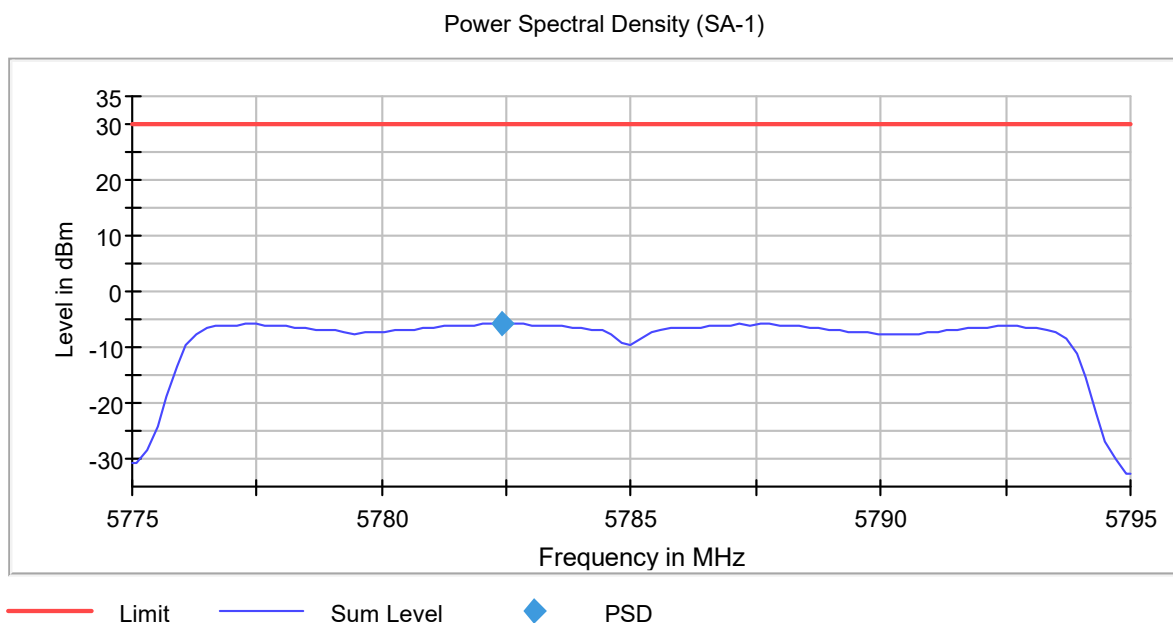
SISO 802.11 n20 (HT20):

U-NII-3 (5725-5850 MHz)

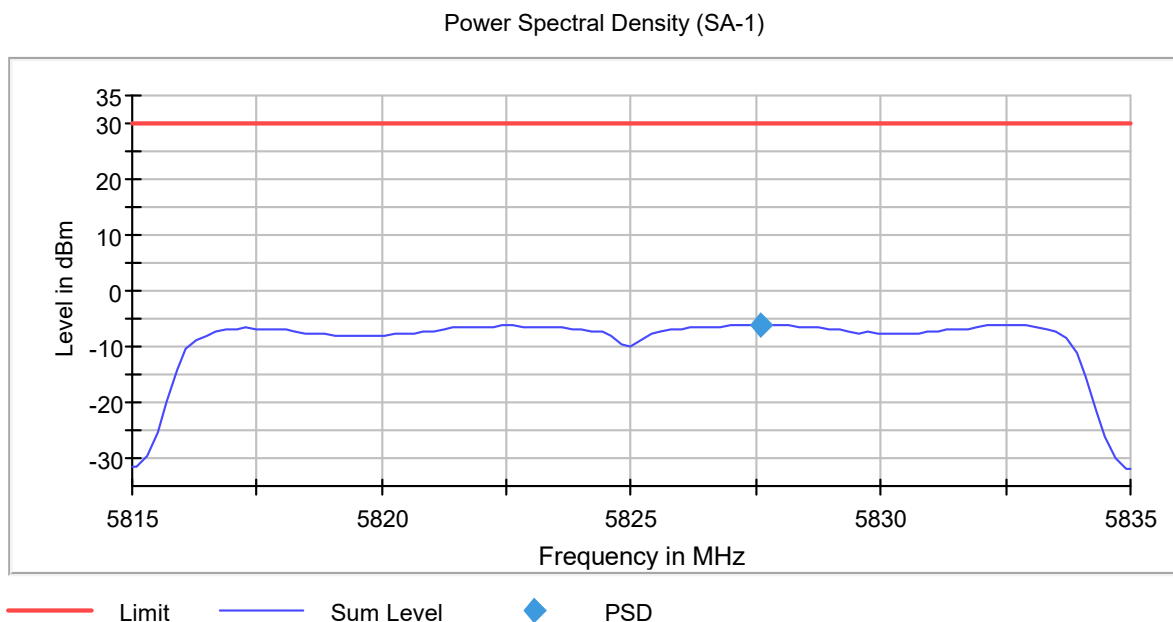
- Low Channel 149 (5745 MHz):



- Middle Channel 157 (5785 MHz):



- High Channel 165 (5825 MHz):

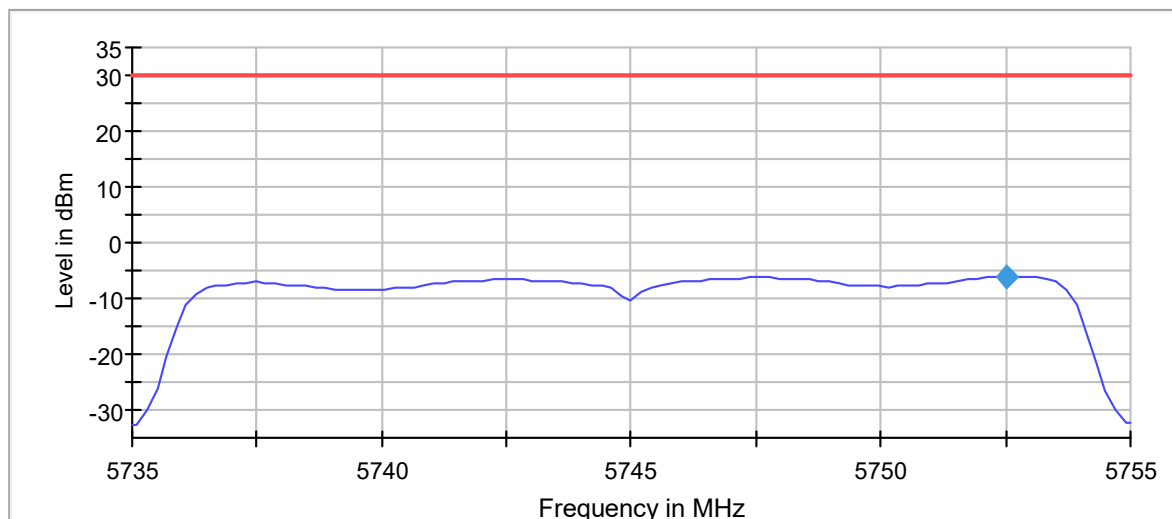


SISO 802.11 ac20 (VHT20):

U-NII-3 (5725-5850 MHz)

- Low Channel 149 (5745 MHz):

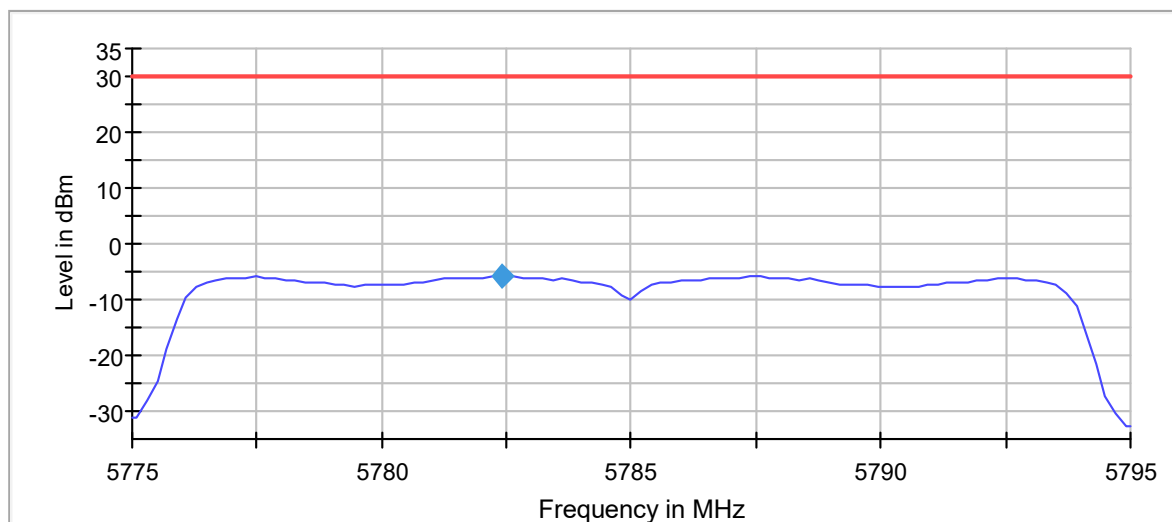
Power Spectral Density (SA-1)



— Limit — Sum Level ◆ PSD

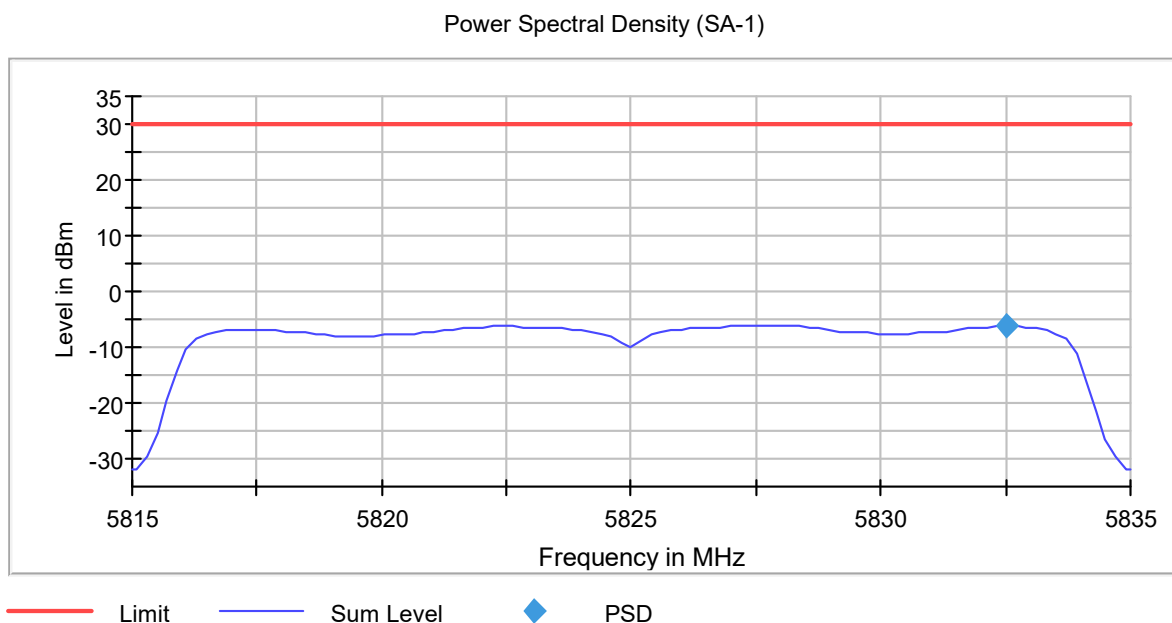
- Middle Channel 157 (5785 MHz):

Power Spectral Density (SA-1)



— Limit — Sum Level ◆ PSD

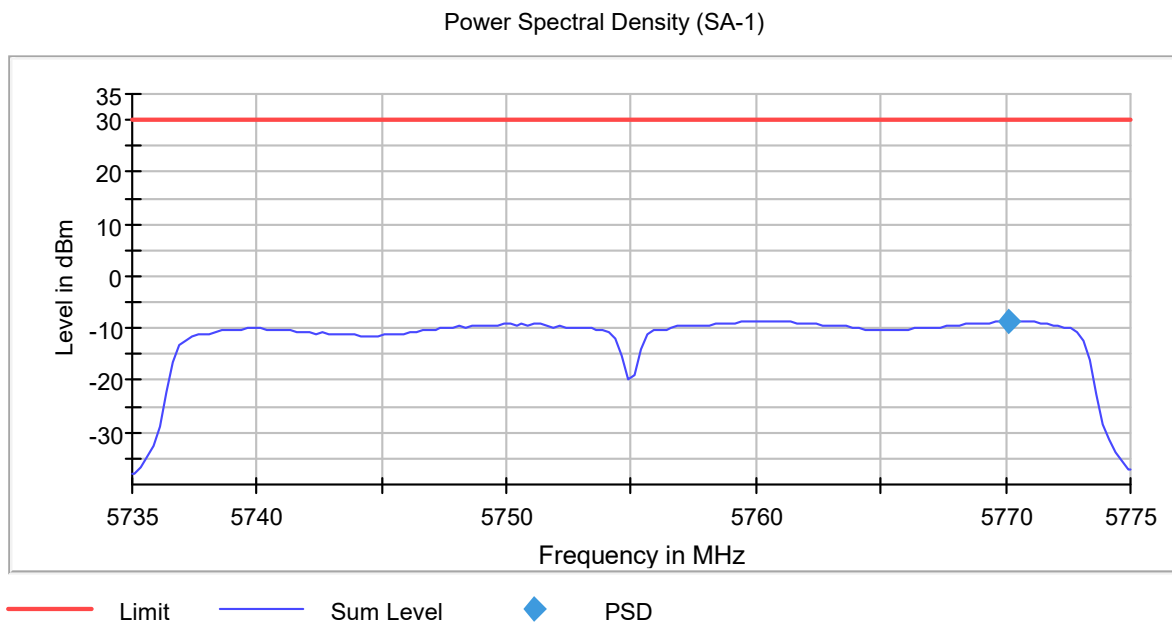
- High Channel 165 (5825 MHz):



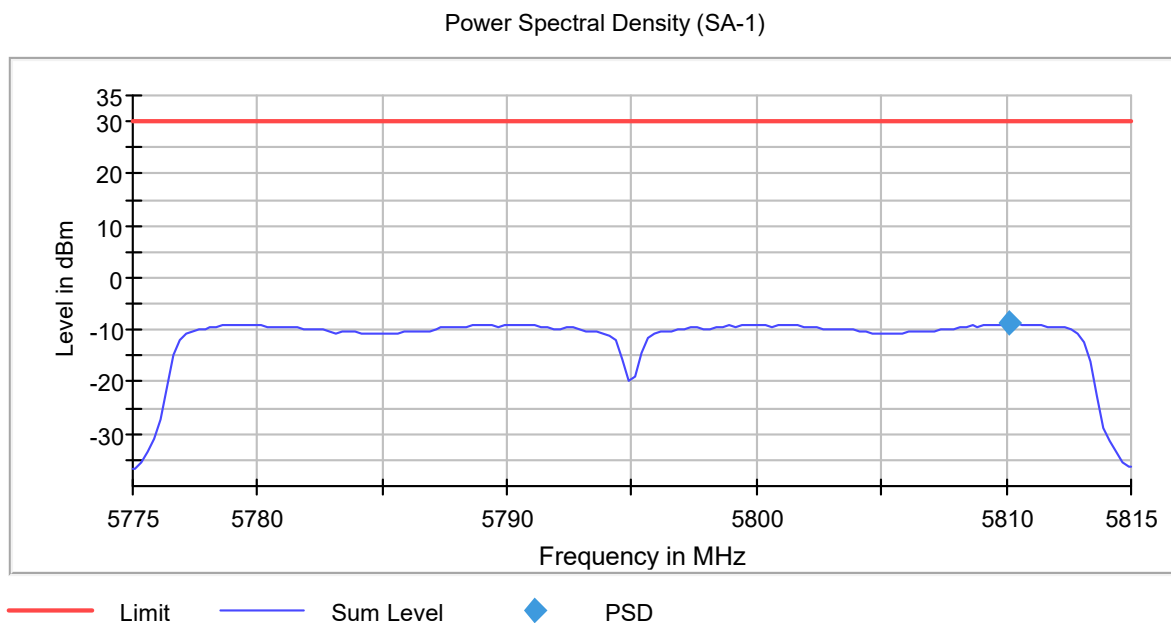
SISO 802.11 n40 (HT40):

U-NII-3 (5725-5850 MHz)

- Low Channel 151 (5755 MHz):



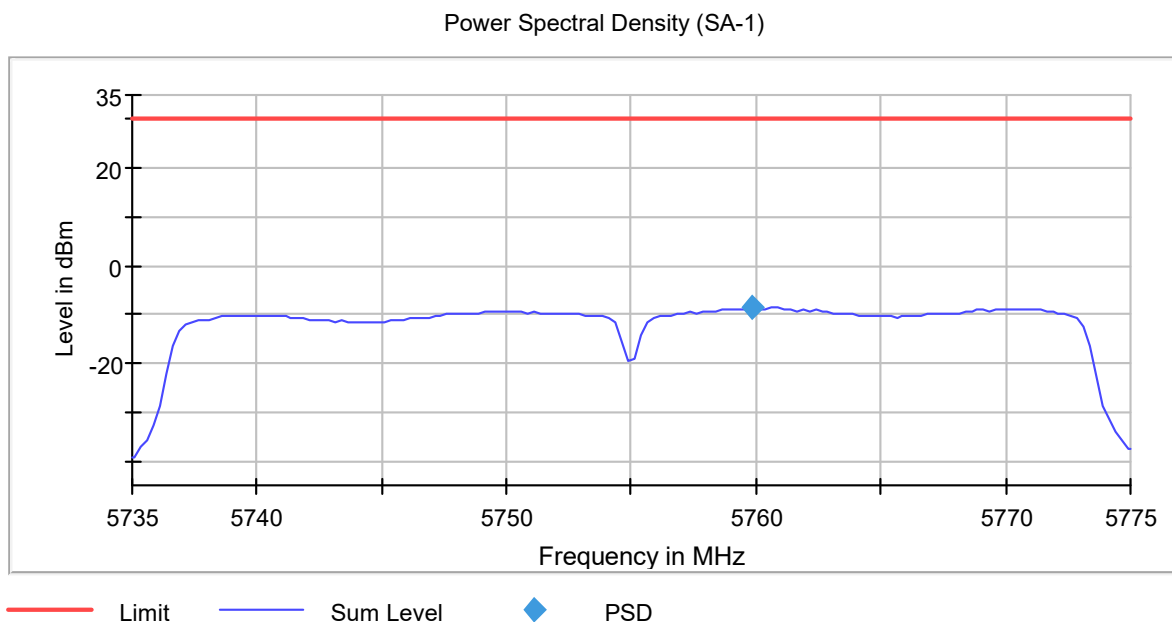
- High Channel 159 (57955 MHz):



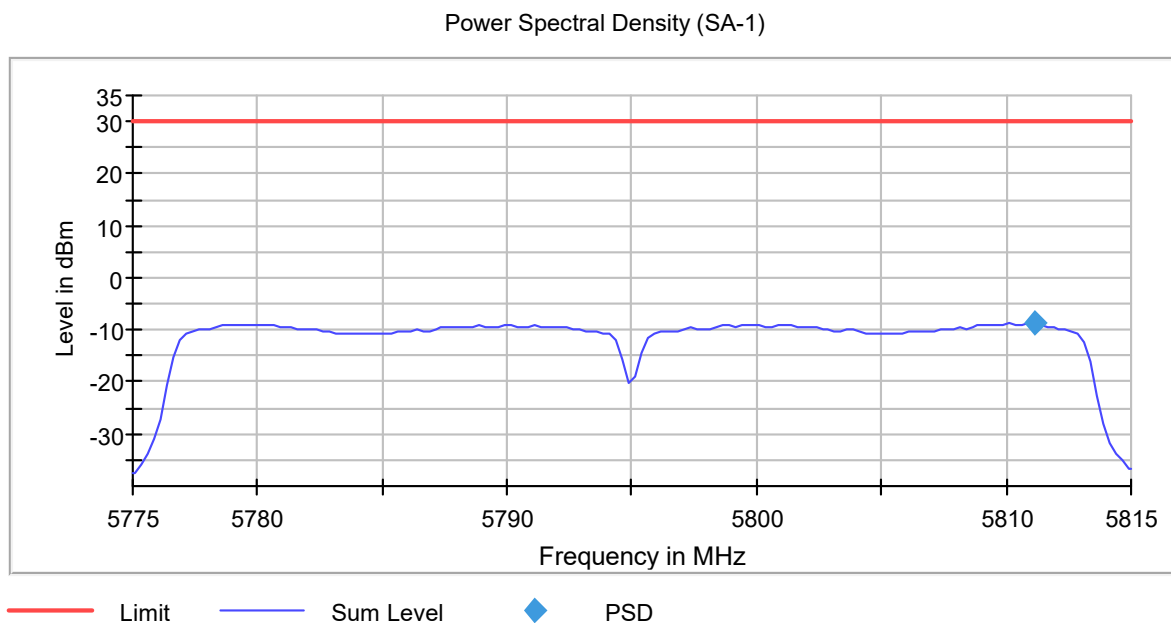
SISO 802.11 ac40 (VHT40):

U-NII-3 (5725-5850 MHz)

- Low Channel 151 (5755 MHz):



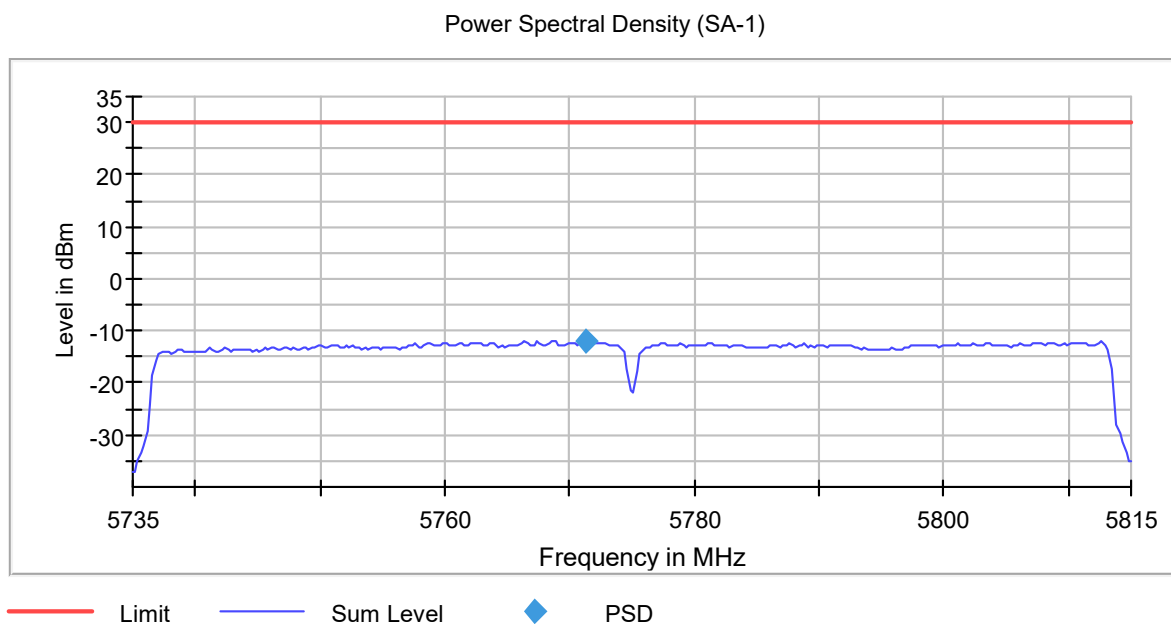
- High Channel 159 (5795 MHz):



SISO 802.11 ac80 (VHT80):

U-NII-3 (5725-5850 MHz)

- Single Channel 155 (5775 MHz):



FCC 15.407 (b)(4)(6) / RSS-247 6.2.4.2. Transmitter Out of Band Radiated Emissions and Transmitter Band Edge Radiated Emissions

SPECIFICATION:

For transmitters operating in the 5.725–5.85 GHz band:

All emissions shall be limited to a level of -27 dBm/MHz (68.23 dB μ V/m at 3 m distance) at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

Radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)):

Frequency Range (MHz)	Field strength (μ V/m)	Field strength (dB μ V/m)	Measurement distance (m)
0.009-0.490	2400/F(kHz)	-	300
0.490-1.705	24000/F(kHz)	-	300
1.705 – 30.0	30	-	30
30 – 88	100	40	3
88 – 216	150	43.5	3
216 – 960	200	46	3
960 – 40000	500	54	3

The emission limits shown in the above table are based on measurements employing CISPR quasi-peak detector except for the frequency bands 9-90 kHz, 110-490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.

For average radiated emission measurements above 1000 MHz, there is also a limit corresponding to 20 dB above the indicated values in the table is specified when measuring with peak detector function.

RESULTS:

The situation and orientation was varied to find the maximum radiated emission. It was also rotated 360° and the antenna height was varied from 1 to 4 meters to find the maximum radiated emission.

Measurements were made in both horizontal and vertical planes of polarization.

All tests were performed in a semi-anechoic chamber at a distance of 1m for the frequency range 1 GHz-40 GHz and a distance of 3m for frequency range 30MHz-1GHz.

The field strength is calculated by adding correction factor to the measured level from the spectrum 147nalyser. This correction factor includes antenna factor, cable loss and pre-amplifiers gain.

OUT OF BAND EMISSIONS: For spurious emissions outside of the U-NII-3 band edge mask of 5.65-5.925 GHz, the OFDM worst-case case was determined after preliminary measurements of the E.I.R.P. density (radiated). The Low, Middle and High Channels were tested.

- **Worst-case:** **802.11 a20** (6 Mbps).

Frequency range 30 MHz - 1 GHz (worst-case):

The spurious emissions below 1 GHz do not depend on either the operating channel or the modulation mode selected in the EUT.

No spurious frequencies detected at less than 20 dB below the limit.

Measurement Uncertainty (dB) $\leq \pm 5.08$

Frequency range 1 - 40 GHz (worst-case):

The results in the next tables show the maximum measured levels in the 1-40 GHz range except the 5.65-5.725 GHz and 5.85-5.925GHz adjacent bands. The results in the adjacent bands was evaluated on the next section.

Spurious frequencies with peak levels above the average limit (54 dB μ V/m at 3 m) are measured with an average detector for checking compliance with the average limit.

- LOW CHANNEL. No spurious frequencies at less than 20 dB below the limit.

- MIDDLE CHANNEL. No spurious frequencies at less than 20 dB below the limit.

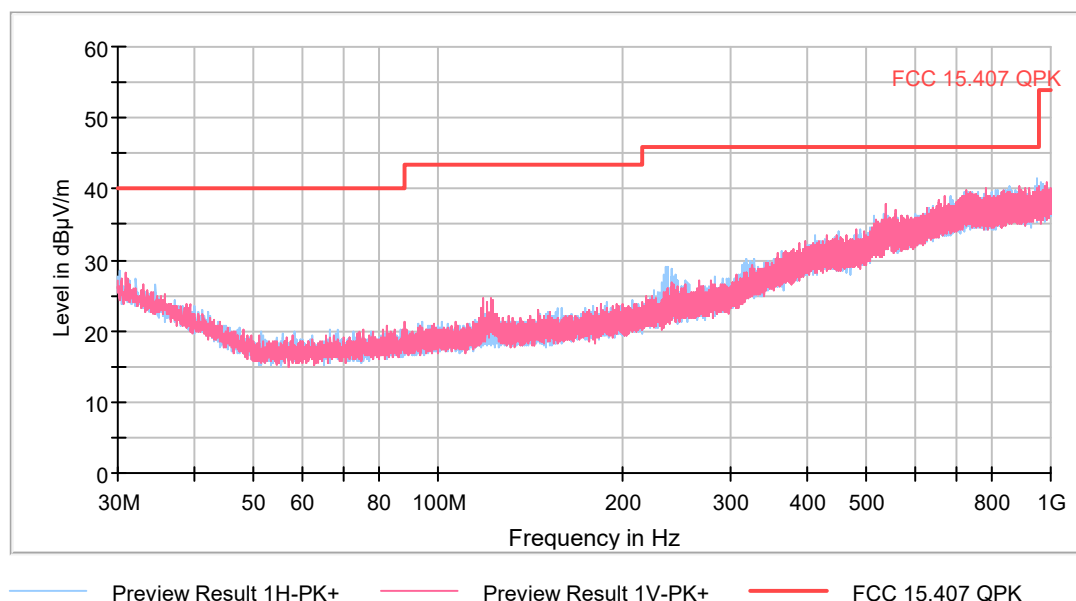
- HIGH CHANNEL. No spurious frequencies at less than 20 dB below the limit.

Measurement Uncertainty (dB):
1 GHz - 17 GHz $\leq \pm 5.13$
17 GHz - 26.5 GHz $\leq \pm 4.82$
26.5 GHz - 40 GHz $\leq \pm 5.14$

Verdict: PASS

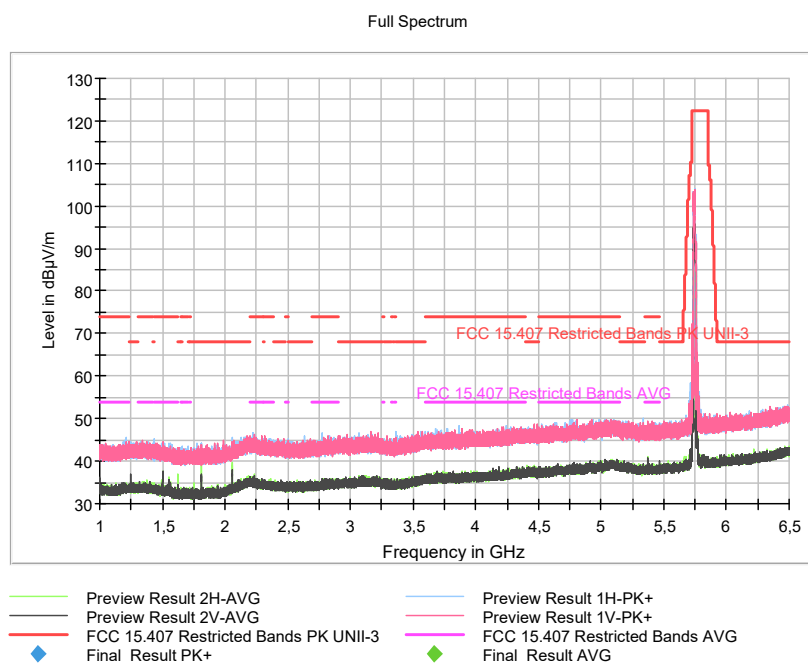
FREQUENCY RANGE 30 MHz - 1 GHz (worst-case):

This plot is valid for all the modulation modes and the Low, Middle and High Channels.



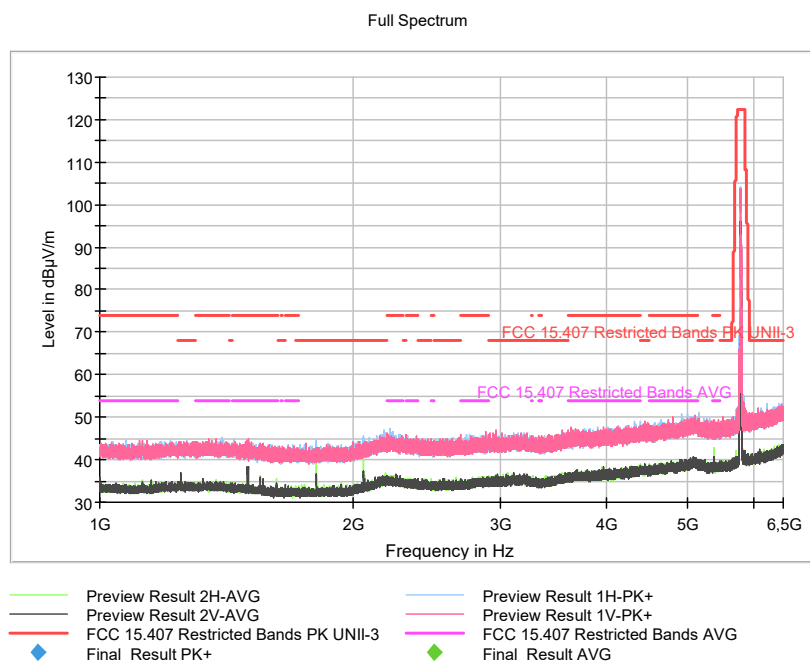
FREQUENCY RANGE 1 - 6.5 GHz (worst-case):

- Low Channel:



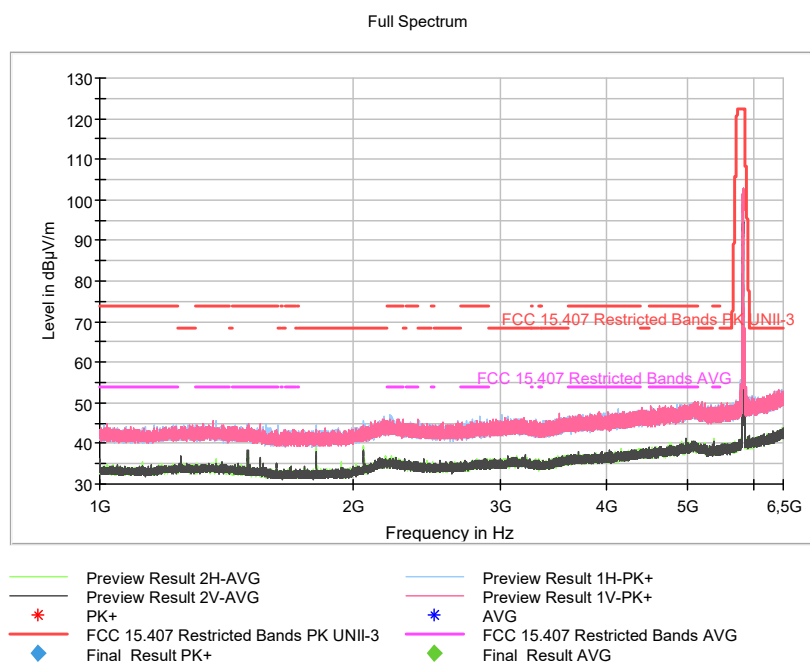
The peak above the limit is the carrier frequency.

- Middle Channel:



The peak above the limit is the carrier frequency.

- High Channel:

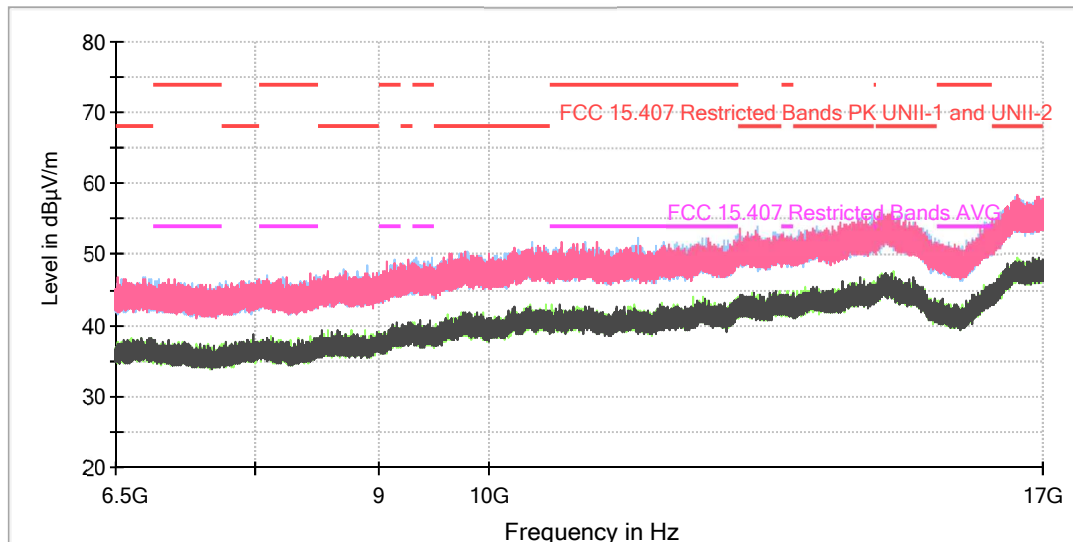


The peak above the limit is the carrier frequency.

FREQUENCY RANGE 6.5 - 17 GHz (worst-case):

- Low Channel:

Full Spectrum



- Preview Result 2H-AVG
- Preview Result 1H-PK+
- Preview Result 2V-AVG
- Preview Result 1V-PK+
- * Critical_Freqs AVG
- * Critical_Freqs PK+
- FCC 15.407 Restricted Bands PK UNII-1 and UNII-2
- FCC 15.407 Restricted Bands AVG
- ◆ Final_Result PK+
- ◆ Final_Result AVG