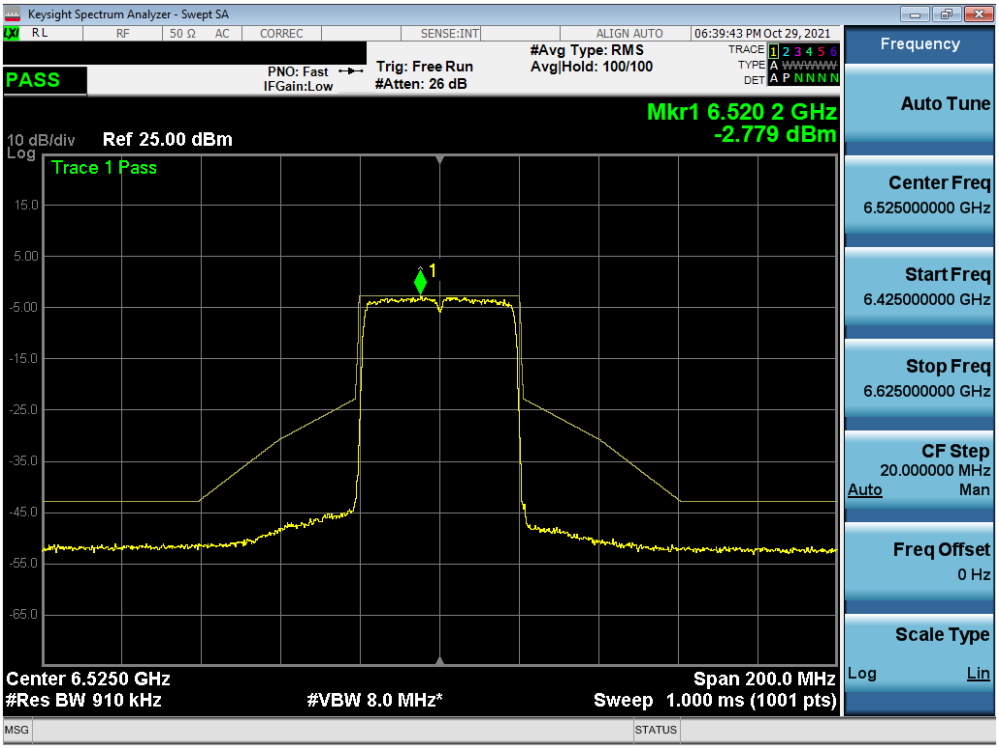
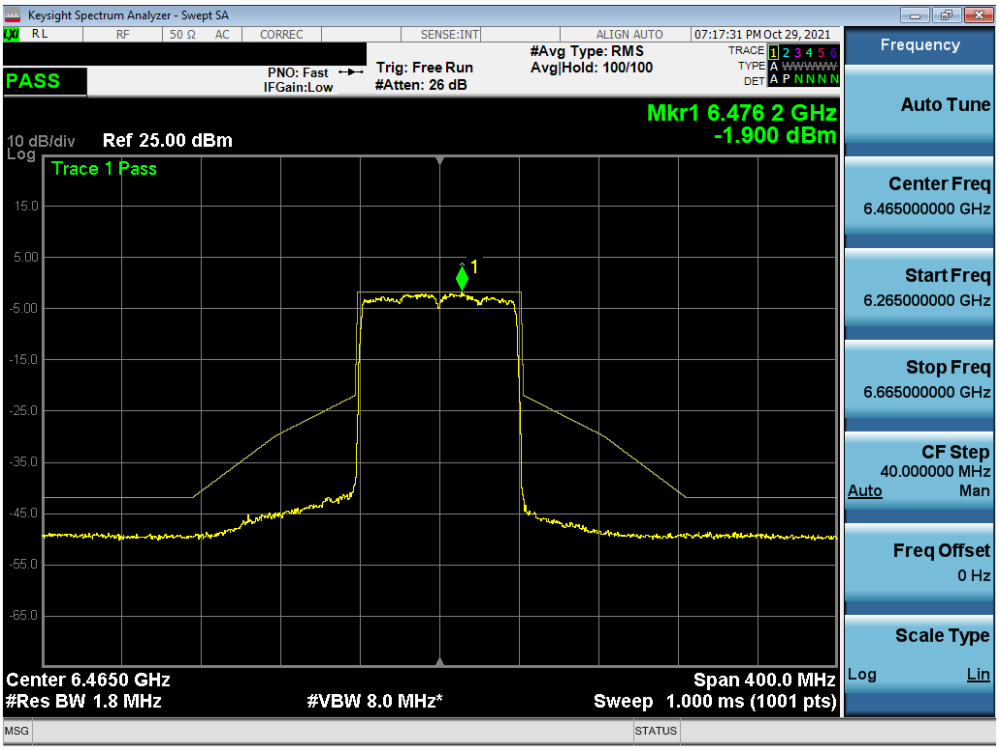
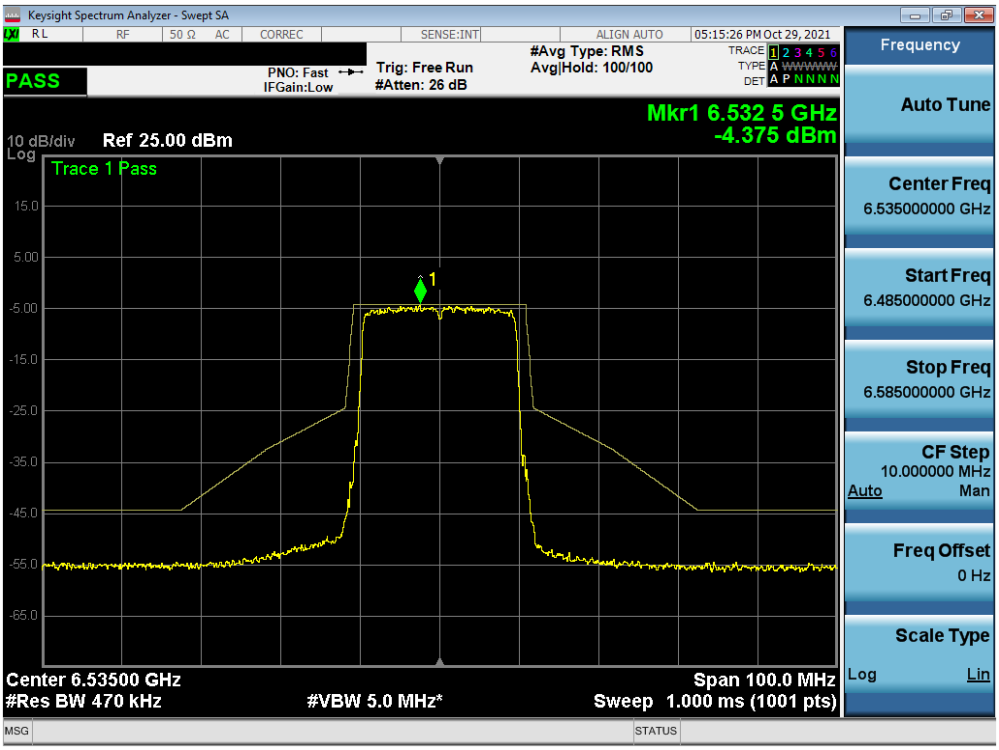


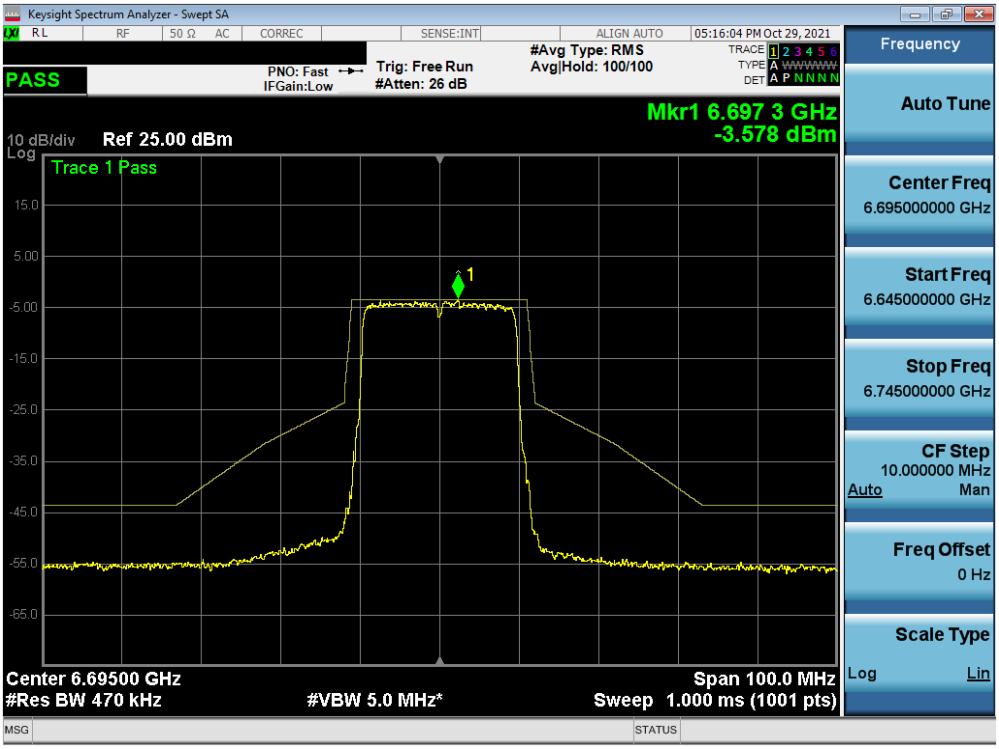

**Plot 7-382. In-Band Emission Plot MIMO ANT1 (40MHz BW 802.11ax (FULL Tones) (UNII Band 6) – Ch. 115)**



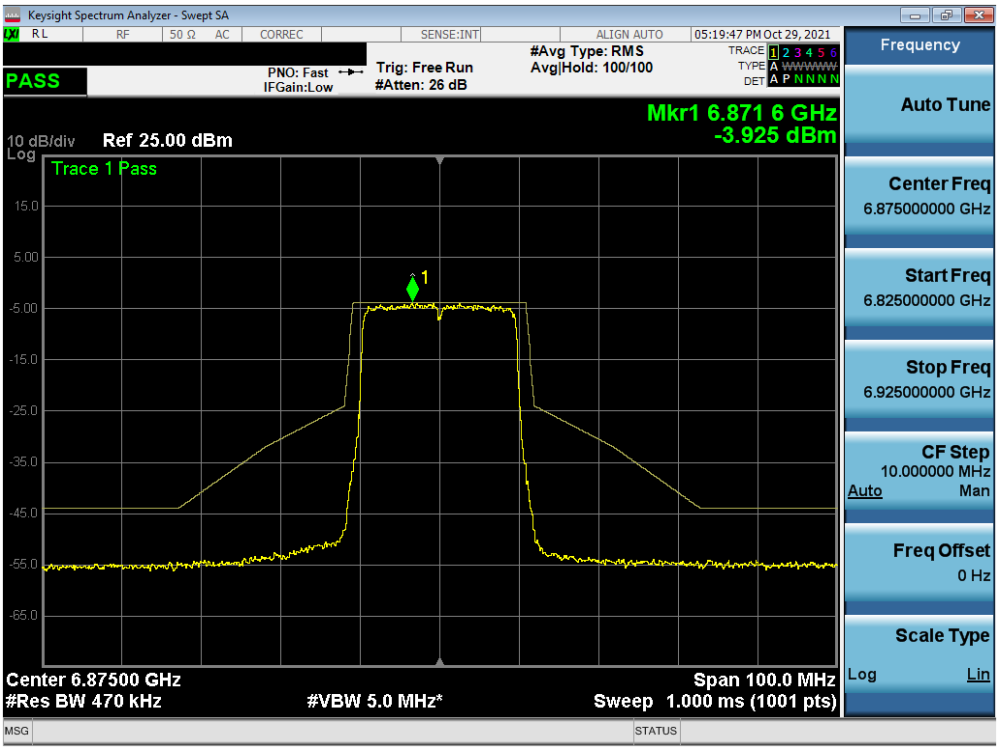

**Plot 7-383. In-Band Emission Plot MIMO ANT1 (80MHz BW 802.11ax (FULL Tones) (UNII Band 6) – Ch. 103)**



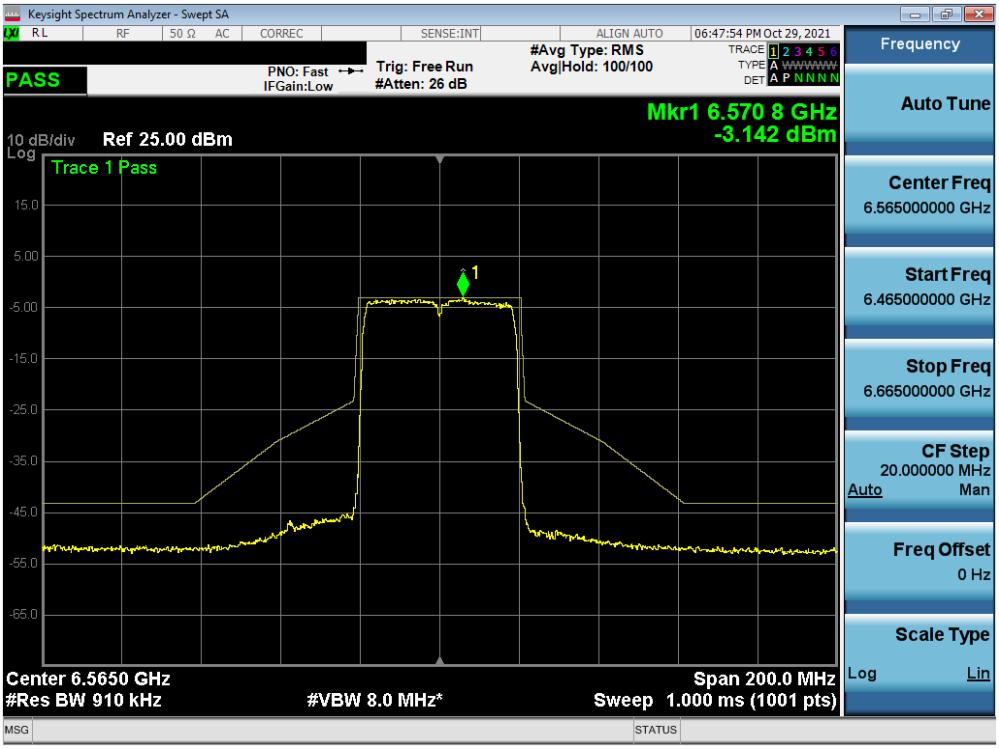

**Plot 7-384. In-Band Emission Plot MIMO ANT1 (20MHz BW 802.11ax (FULL Tones) (UNII Band 7) – Ch. 117)**



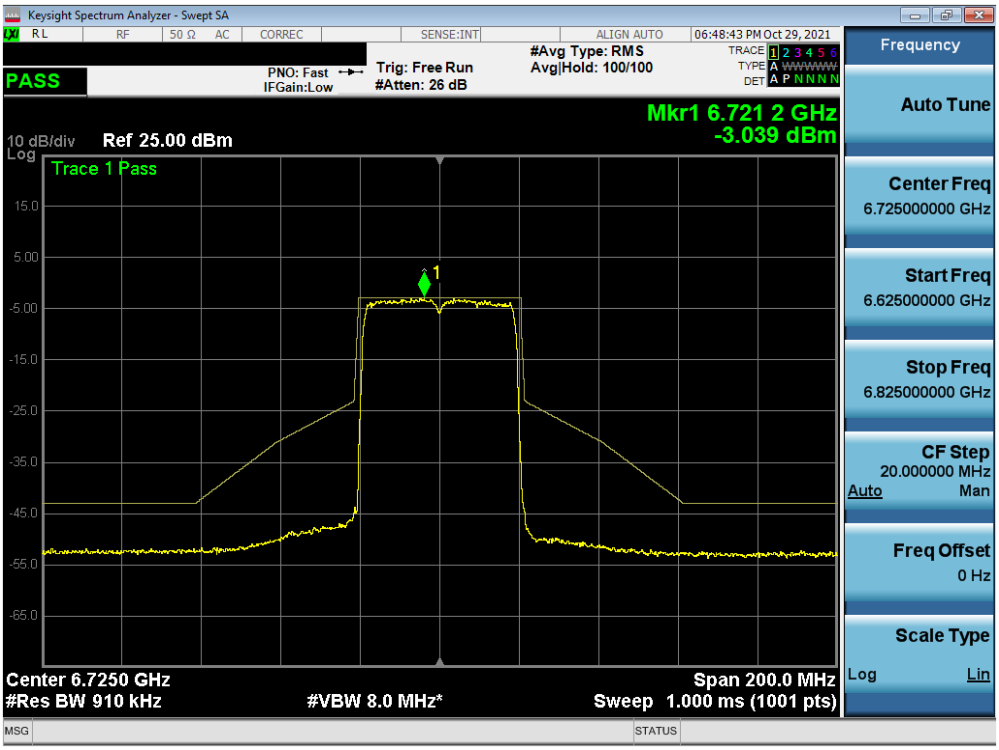

**Plot 7-385. In-Band Emission Plot MIMO ANT1 (20MHz BW 802.11ax (FULL Tones) (UNII Band 7) – Ch. 149)**



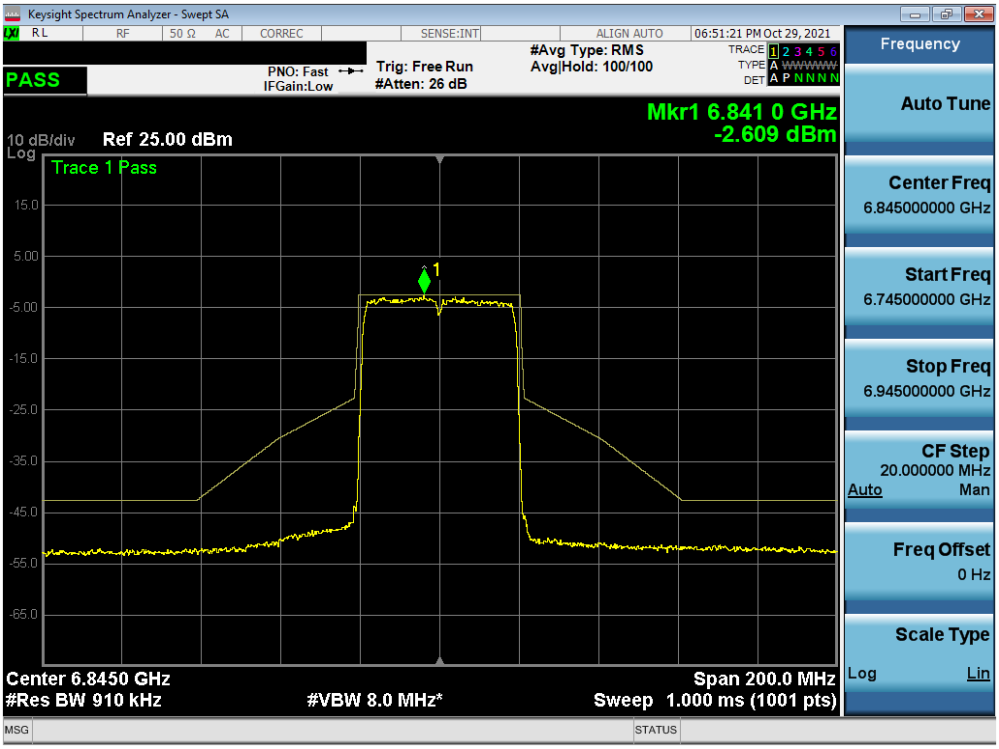

**Plot 7-386. In-Band Emission Plot MIMO ANT1 (20MHz BW 802.11ax (FULL Tones) (UNII Band 7) – Ch. 185)**



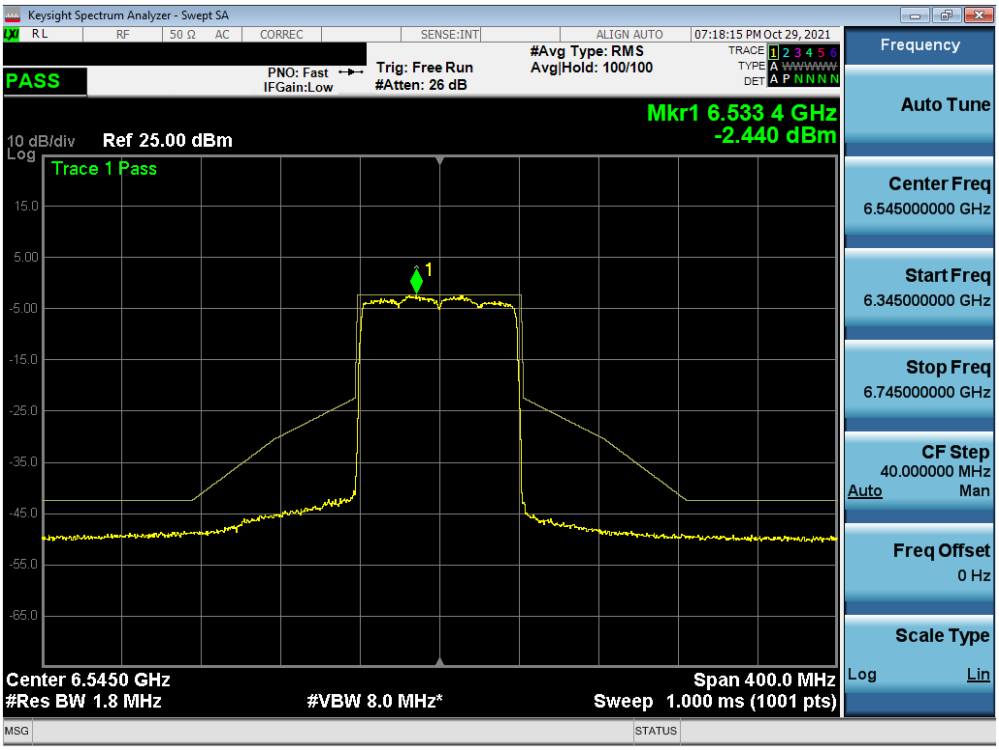

**Plot 7-387. In-Band Emission Plot MIMO ANT1 (40MHz BW 802.11ax (FULL Tones) (UNII Band 7) – Ch. 123)**



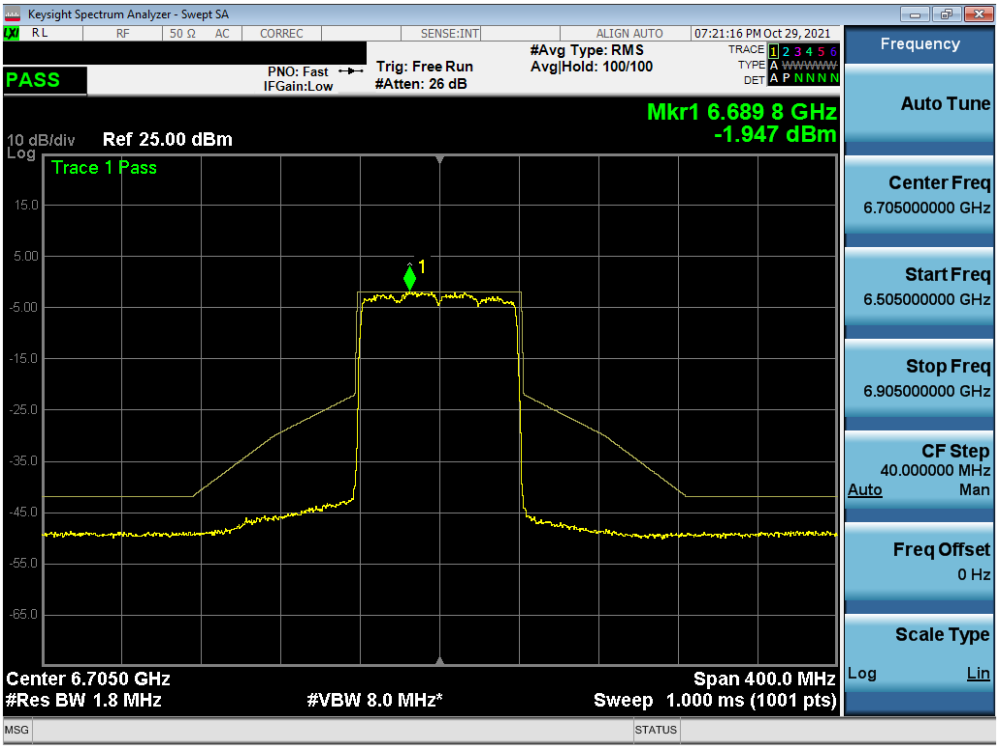

**Plot 7-388. In-Band Emission Plot MIMO ANT1 (40MHz BW 802.11ax (FULL Tones) (UNII Band 7) – Ch. 155)**



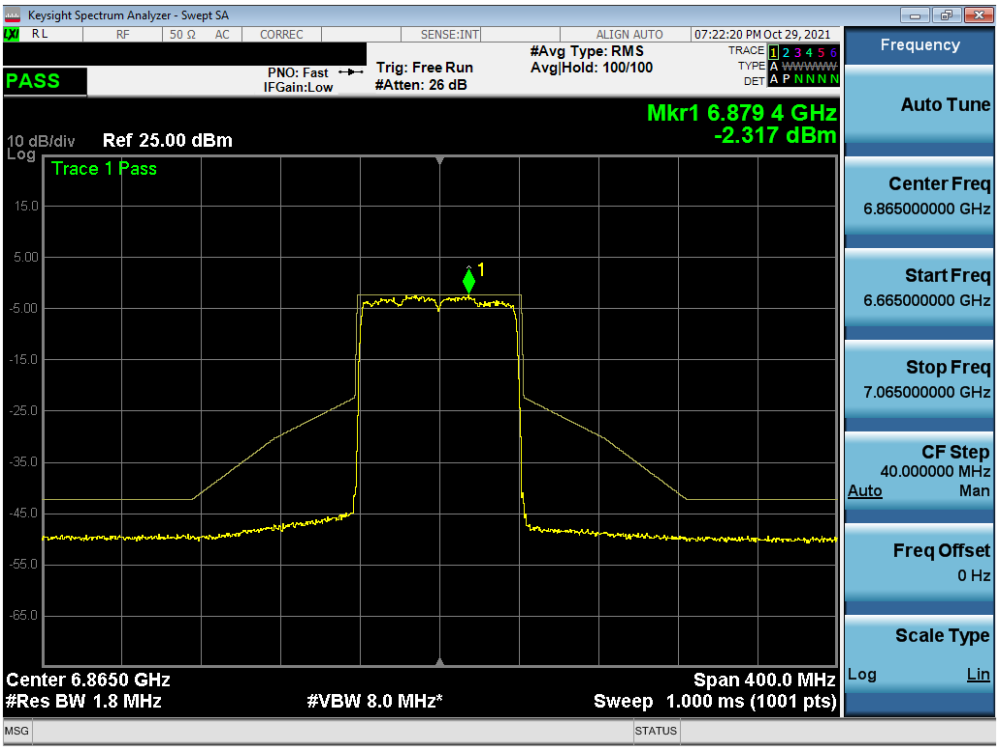

**Plot 7-389. In-Band Emission Plot MIMO ANT1 (40MHz BW 802.11ax (FULL Tones) (UNII Band 7) – Ch. 179)**



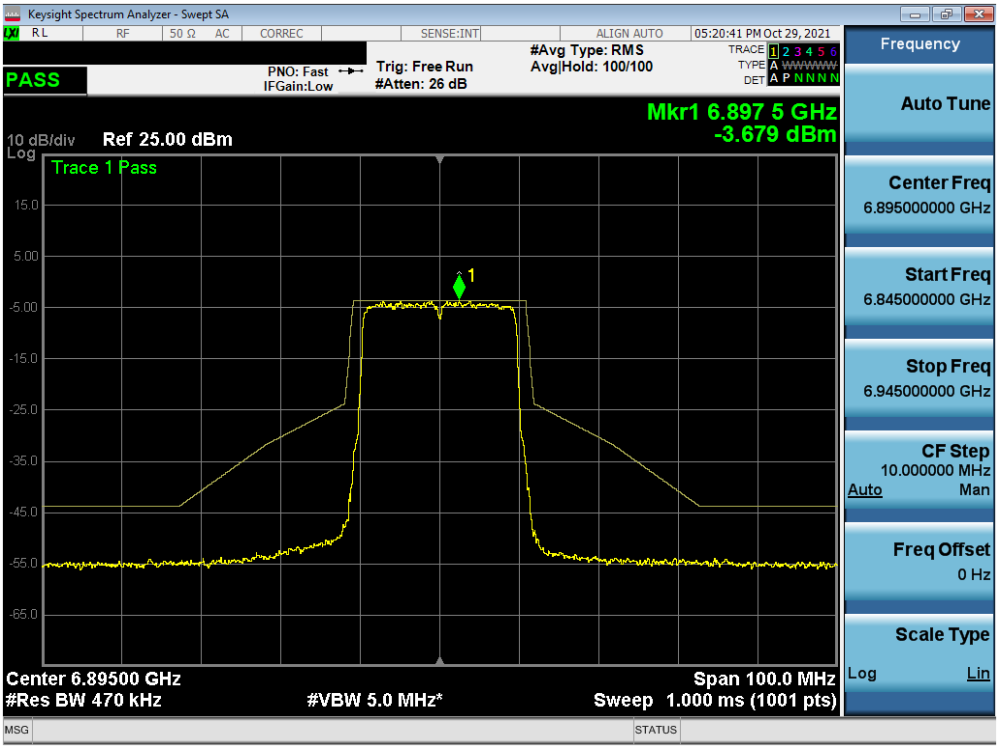

**Plot 7-390. In-Band Emission Plot MIMO ANT1 (80MHz BW 802.11ax (FULL Tones) (UNII Band 7) – Ch. 119)**



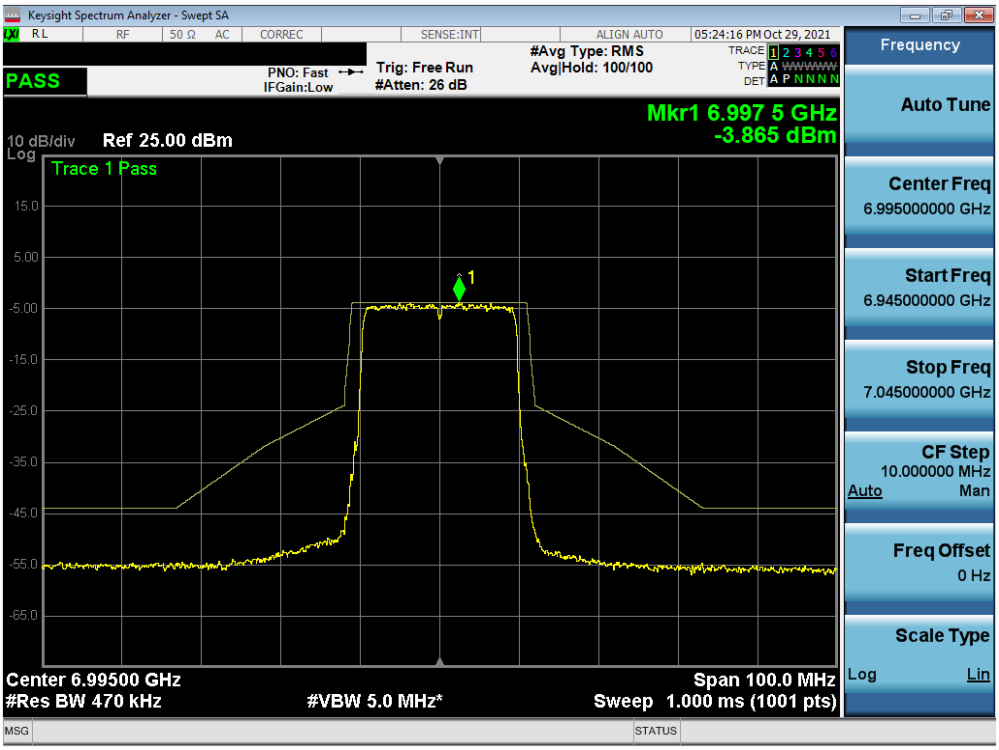

**Plot 7-391. In-Band Emission Plot MIMO ANT1 (80MHz BW 802.11ax (FULL Tones) (UNII Band 7) – Ch. 151)**



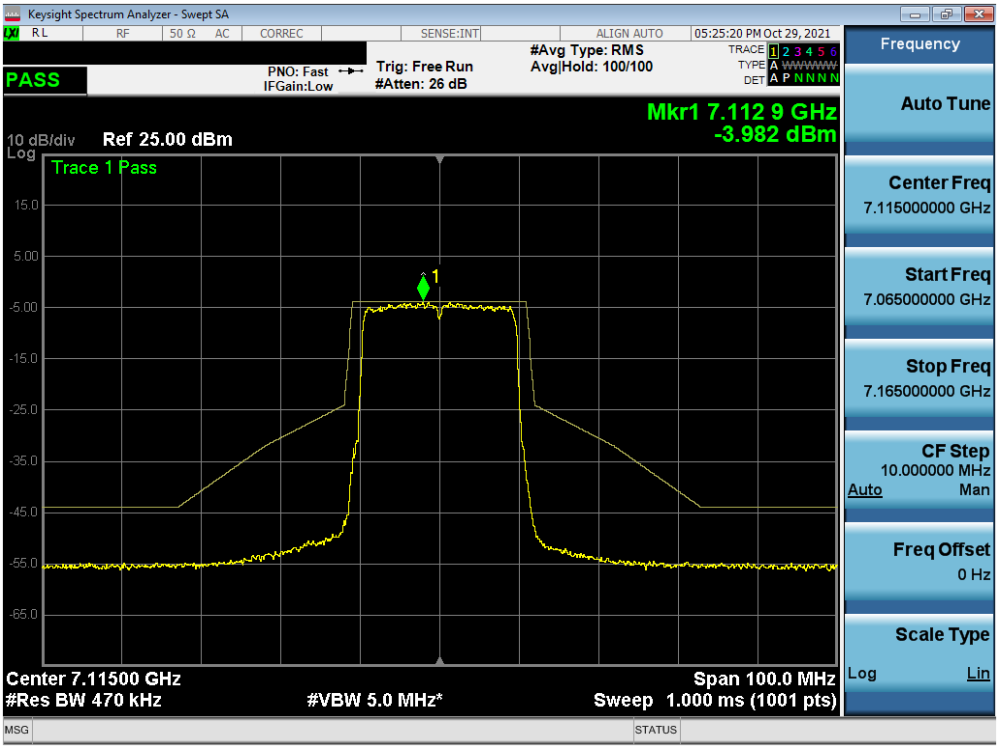

**Plot 7-392. In-Band Emission Plot MIMO ANT1 (80MHz BW 802.11ax (FULL Tones) (UNII Band 7) – Ch. 183)**



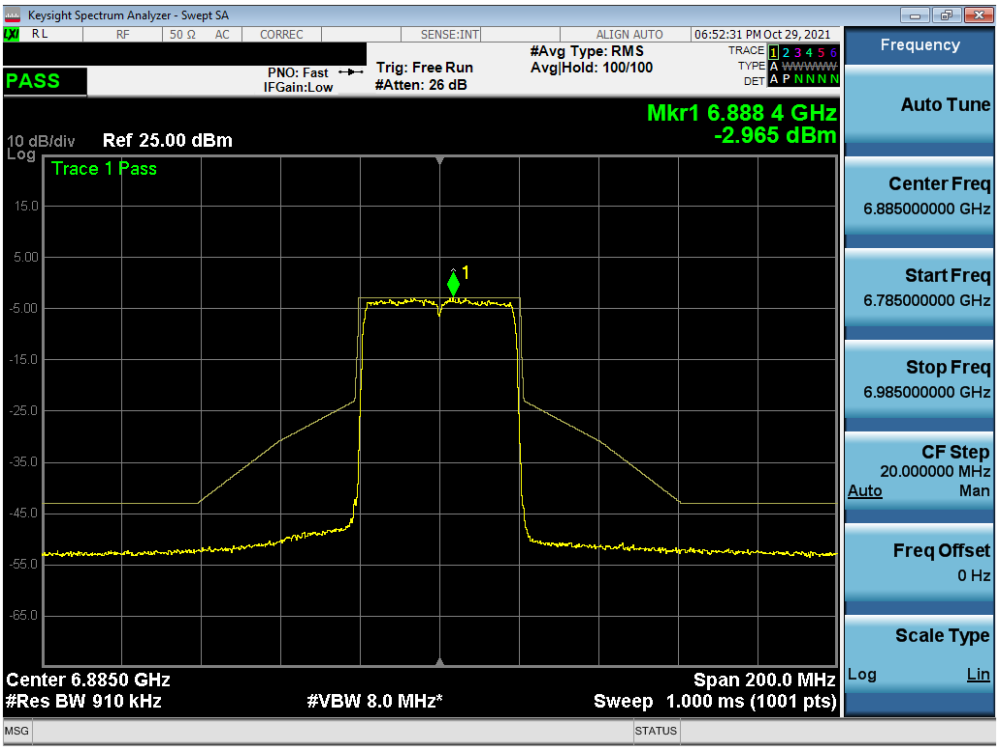

**Plot 7-393. In-Band Emission Plot MIMO ANT1 (20MHz BW 802.11ax (FULL Tones) (UNII Band 8) – Ch. 189)**



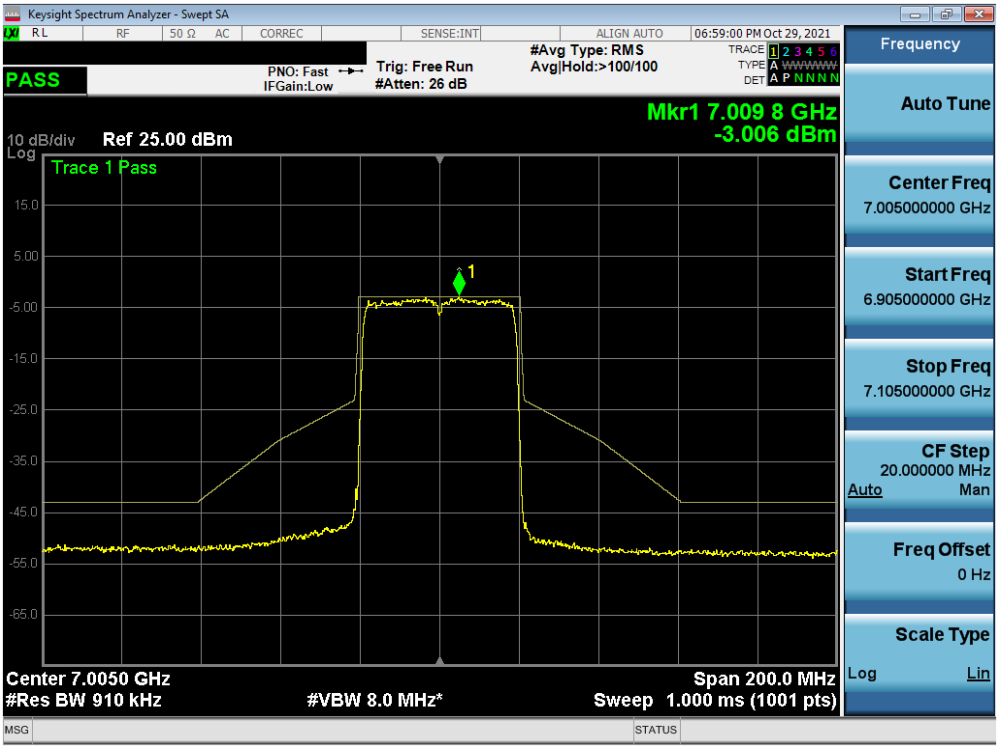

**Plot 7-394. In-Band Emission Plot MIMO ANT1 (20MHz BW 802.11ax (FULL Tones) (UNII Band 8) – Ch. 209)**



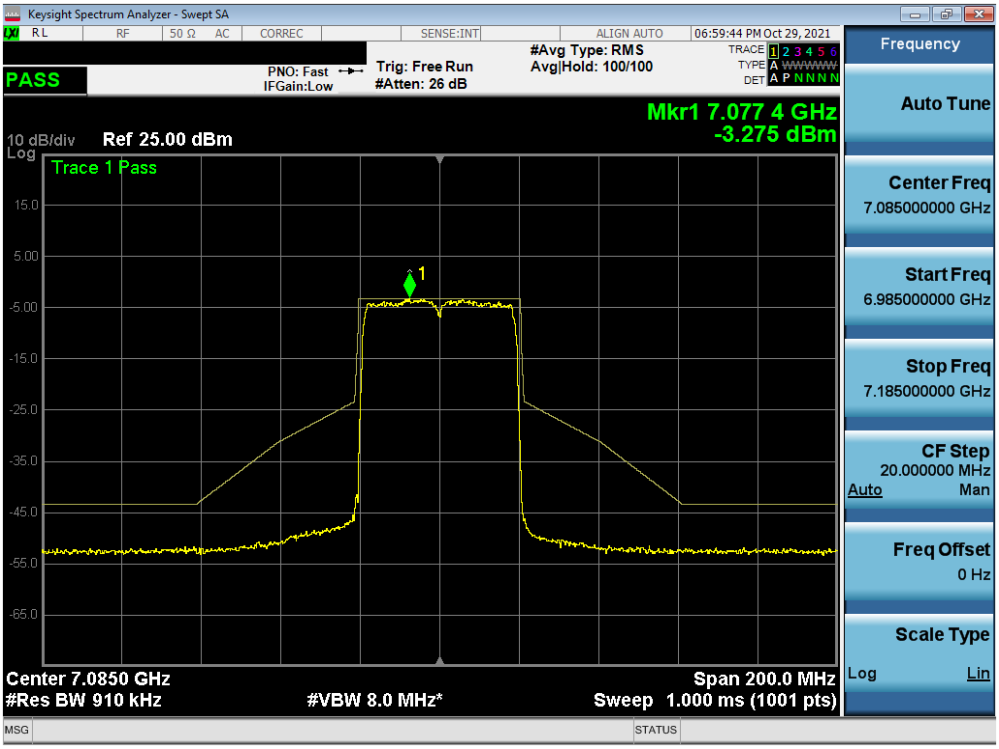

**Plot 7-395. In-Band Emission Plot MIMO ANT1 (20MHz BW 802.11ax (FULL Tones) (UNII Band 8) – Ch. 233)**



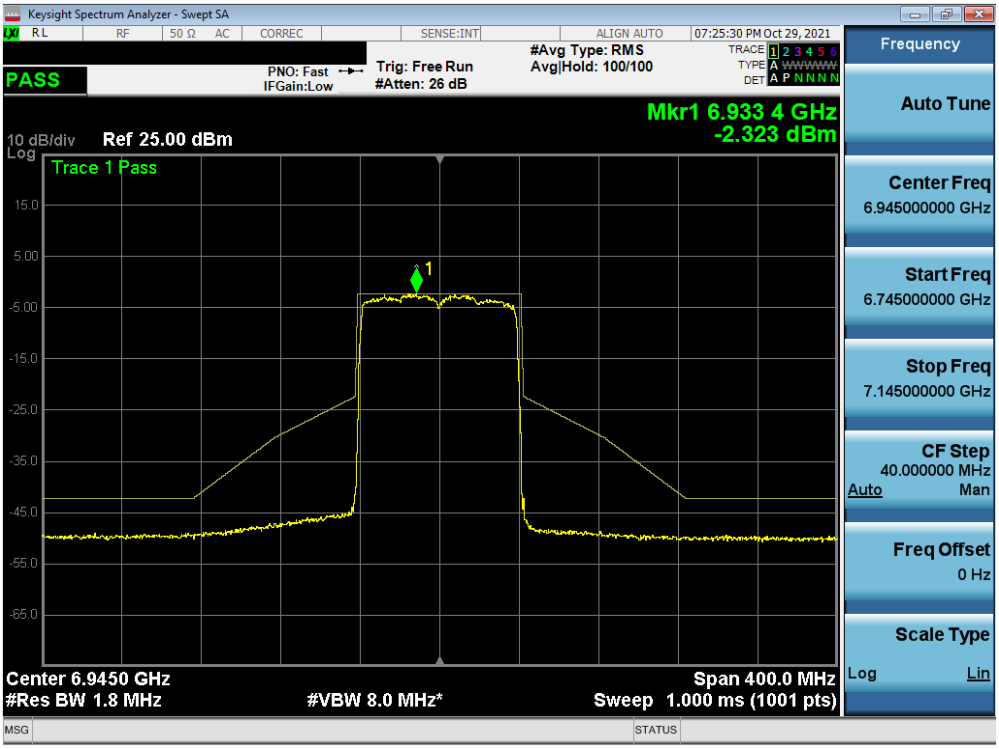

**Plot 7-396. In-Band Emission Plot MIMO ANT1 (40MHz BW 802.11ax (FULL Tones) (UNII Band 8) – Ch. 187)**



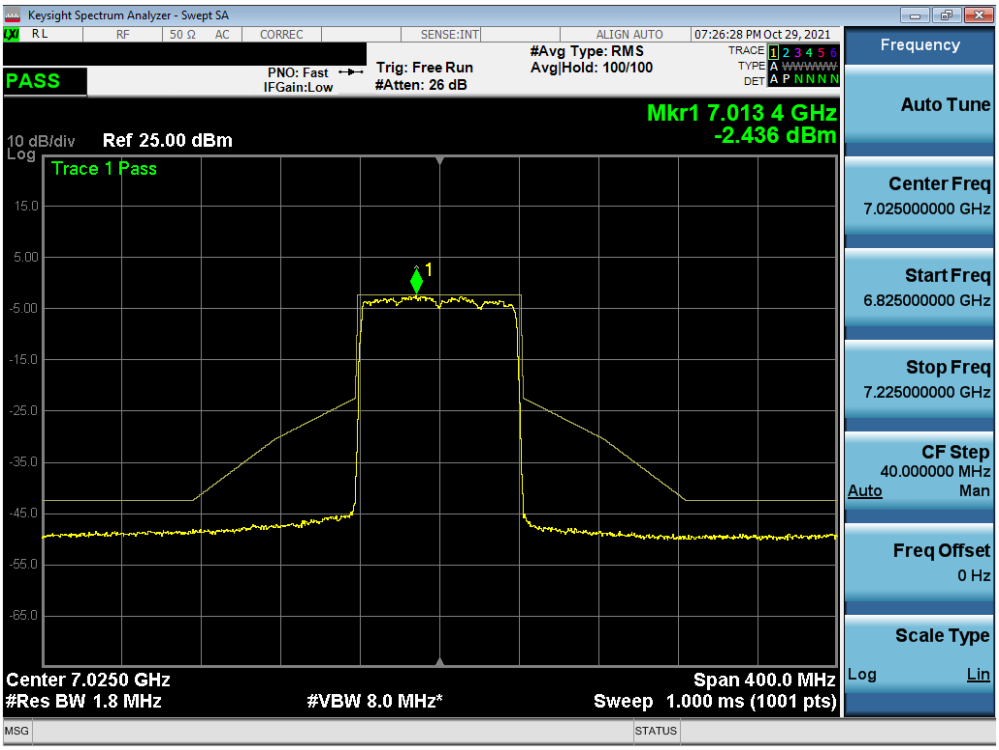

**Plot 7-397. In-Band Emission Plot MIMO ANT1 (40MHz BW 802.11ax (FULL Tones) (UNII Band 8) – Ch. 211)**




**Plot 7-398. In-Band Emission Plot MIMO ANT1 (40MHz BW 802.11ax (FULL Tones) (UNII Band 8) – Ch. 227)**

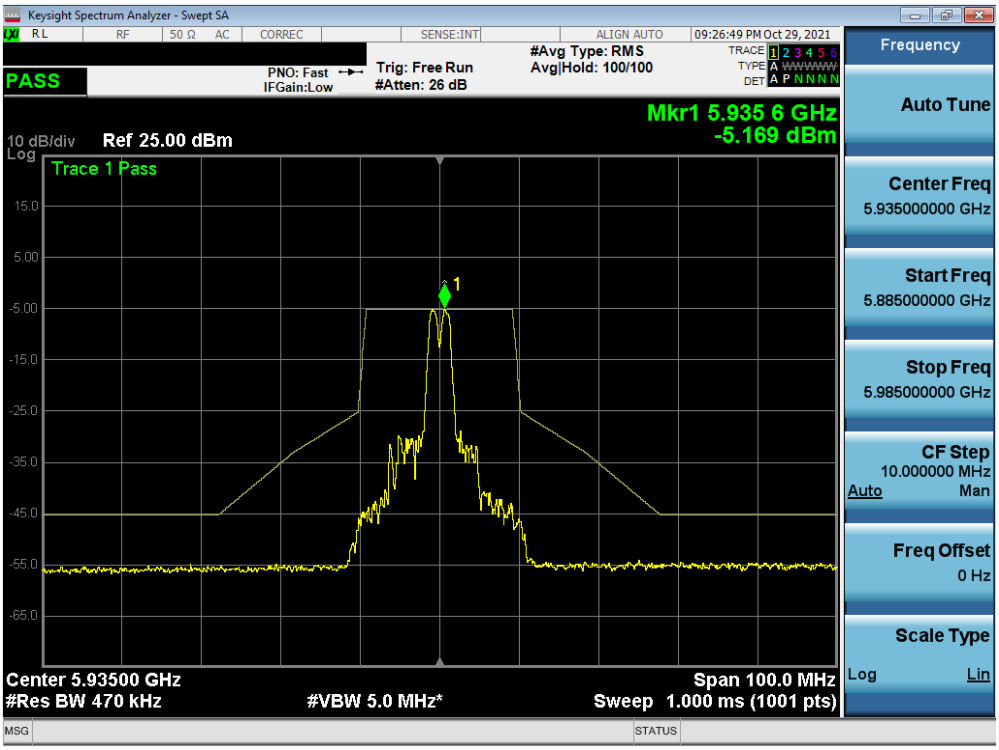



**Plot 7-399. In-Band Emission Plot MIMO ANT1 (80MHz BW 802.11ax (FULL Tones) (UNII Band 8) – Ch. 199)**

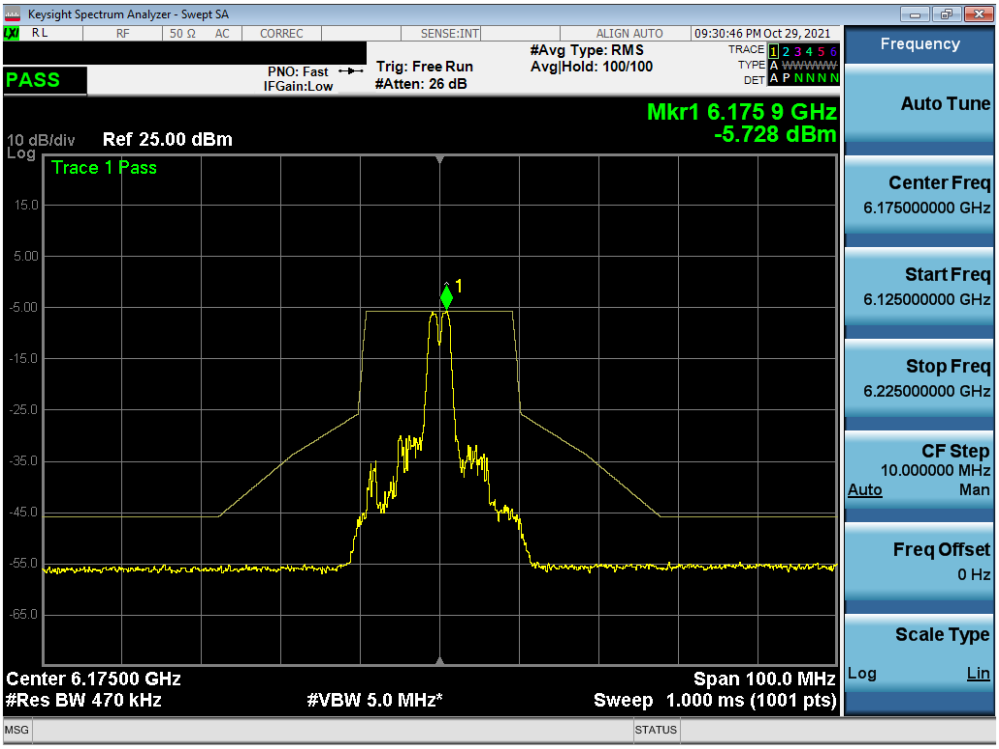



**Plot 7-400. In-Band Emission Plot MIMO ANT1 (80MHz BW 802.11ax (FULL Tones) (UNII Band 8) – Ch. 215)**

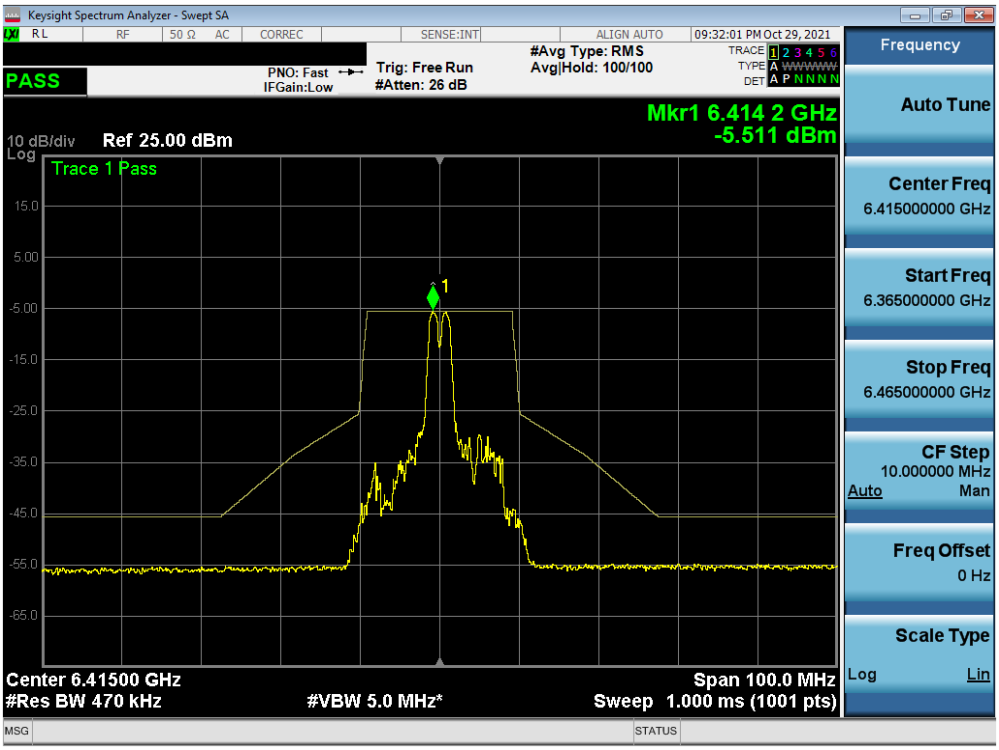
## MIMO Antenna-2 In-Band Emissions (26 Tones)



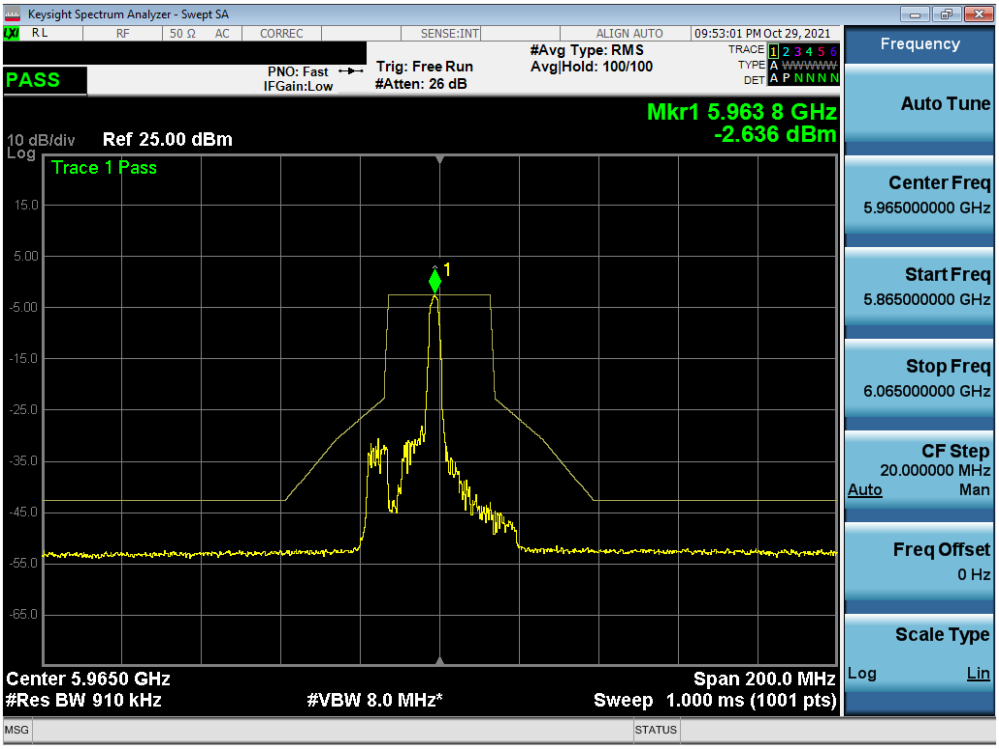

**Plot 7-401. In-Band Emission Plot MIMO ANT2 (20MHz 802.11ax (26 Tones) (UNII Band 5) – Ch. 2)**



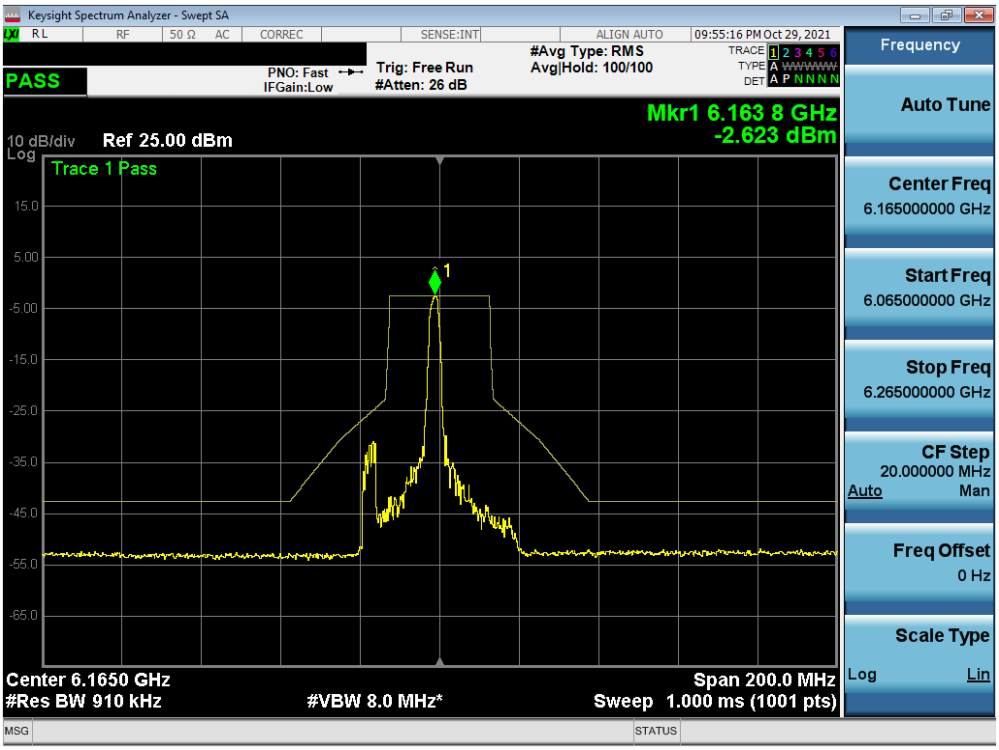

**Plot 7-402. In-Band Emission Plot MIMO ANT2 (20MHz BW 802.11ax (26 Tones) (UNII Band 5) – Ch. 45)**



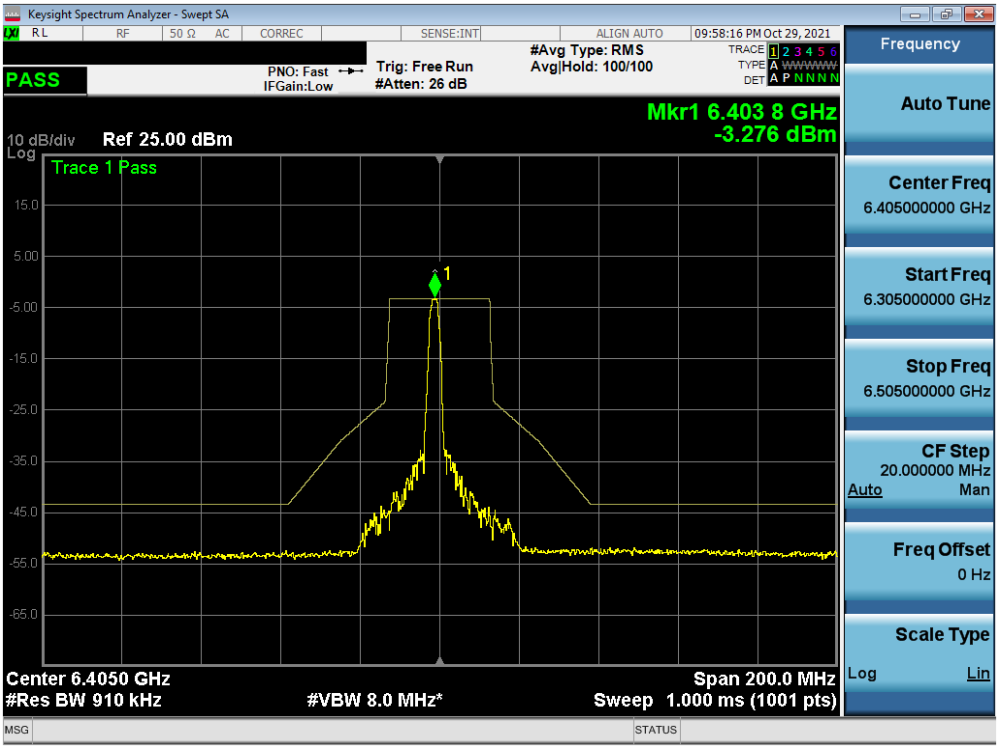

**Plot 7-403. In-Band Emission Plot MIMO ANT2 (20MHz BW 802.11ax (26 Tones) UNII Band 5) – Ch. 93)**



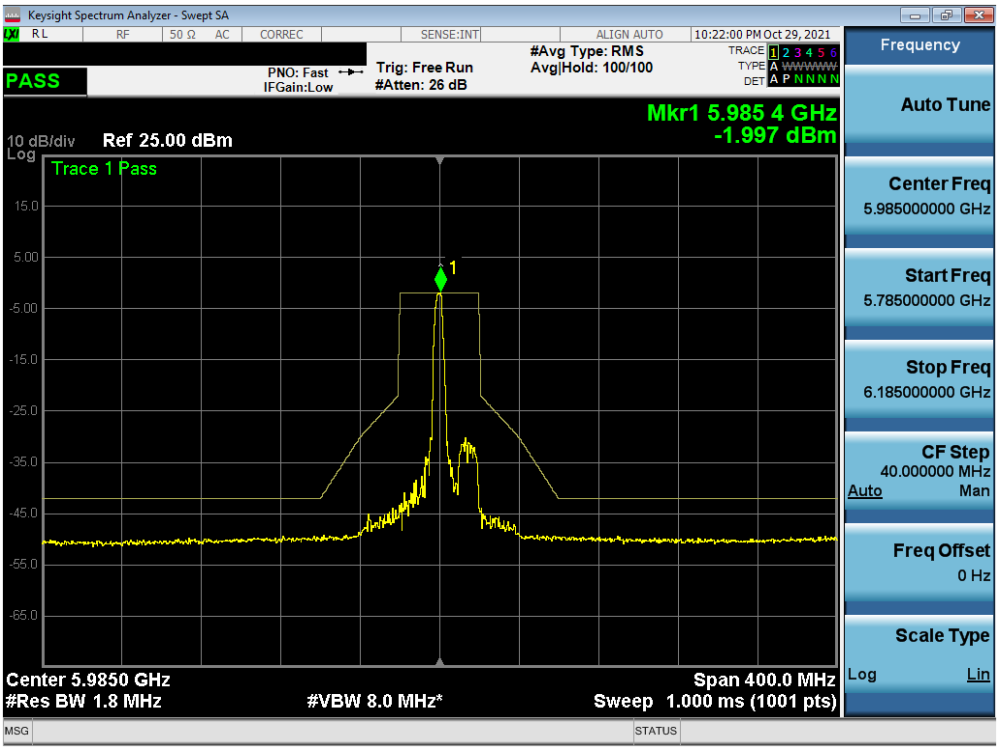

**Plot 7-404. In-Band Emission Plot MIMO ANT2 (40MHz BW 802.11ax (26 Tones) (UNII Band 5) – Ch. 3)**



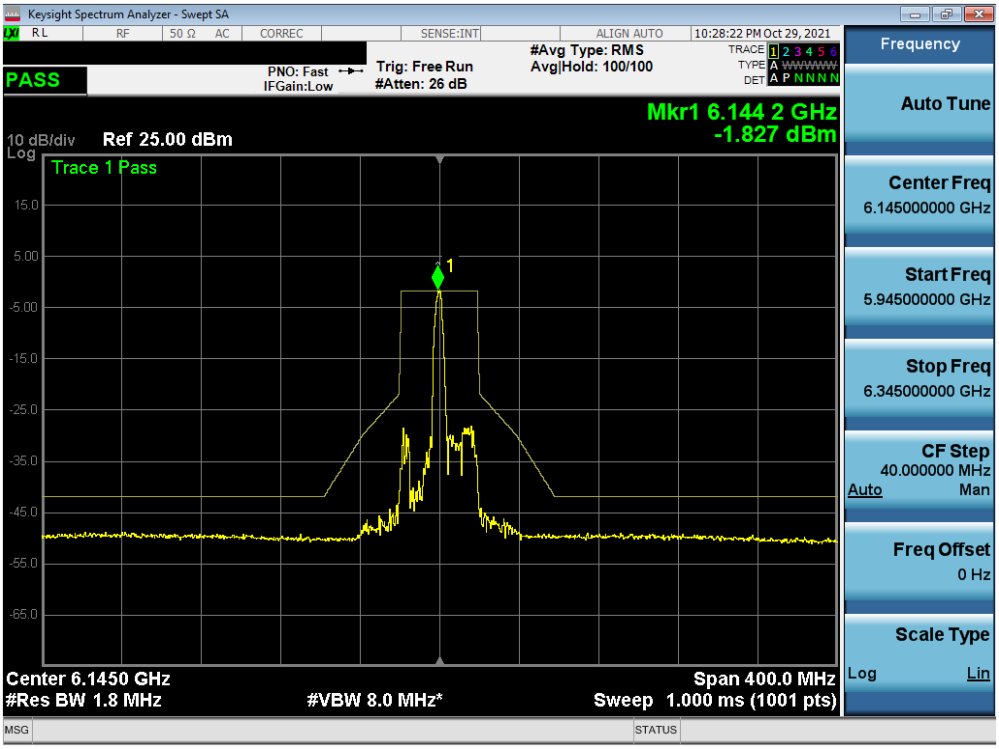

**Plot 7-405. In-Band Emission Plot MIMO ANT2 (40MHz BW 802.11ax (26 Tones) (UNII Band 5) – Ch. 43)**



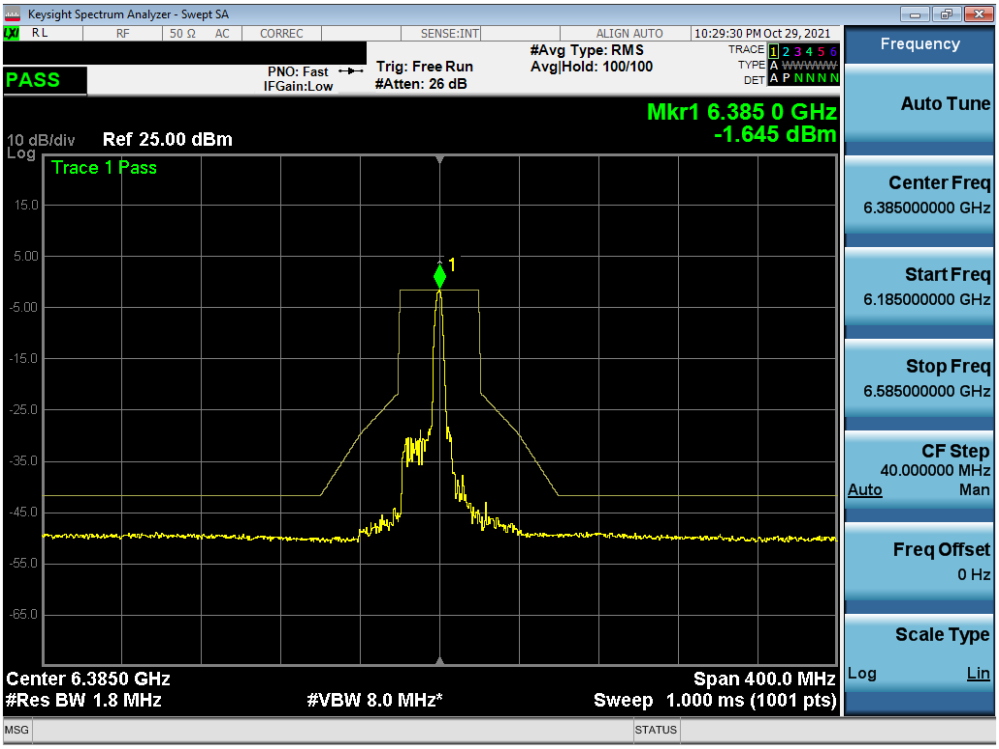

**Plot 7-406. In-Band Emission Plot MIMO ANT2 (40MHz BW 802.11ax (26 Tones) (UNII Band 5) – Ch. 91)**



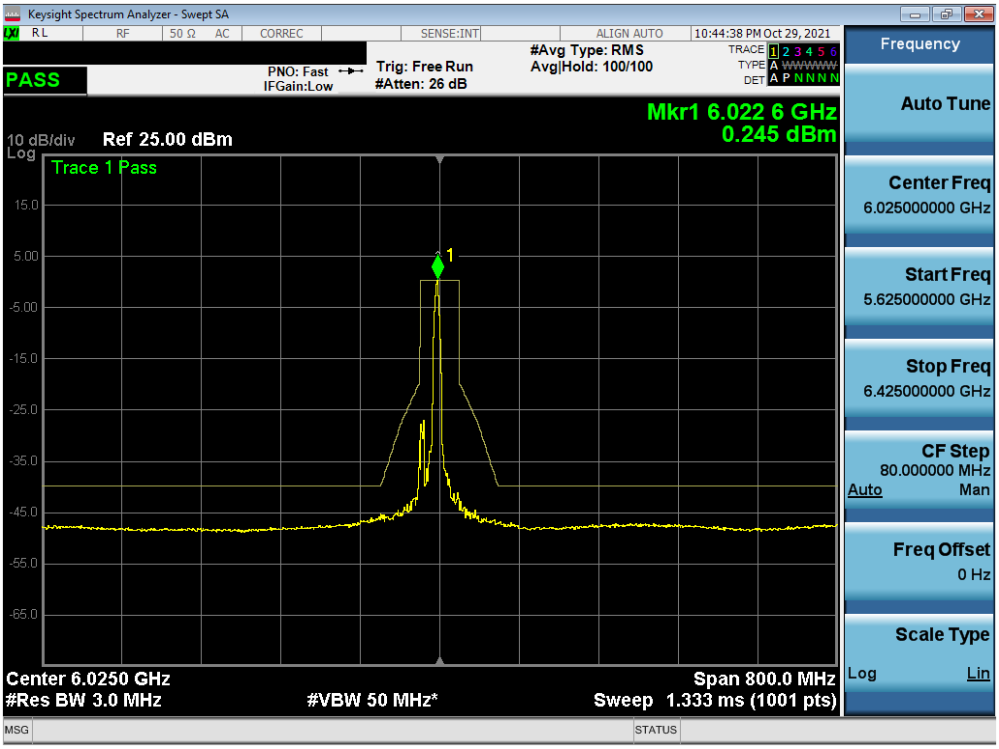

**Plot 7-407. In-Band Emission Plot MIMO ANT2 (80MHz BW 802.11ax (26 Tones) (UNII Band 5) – Ch. 7)**



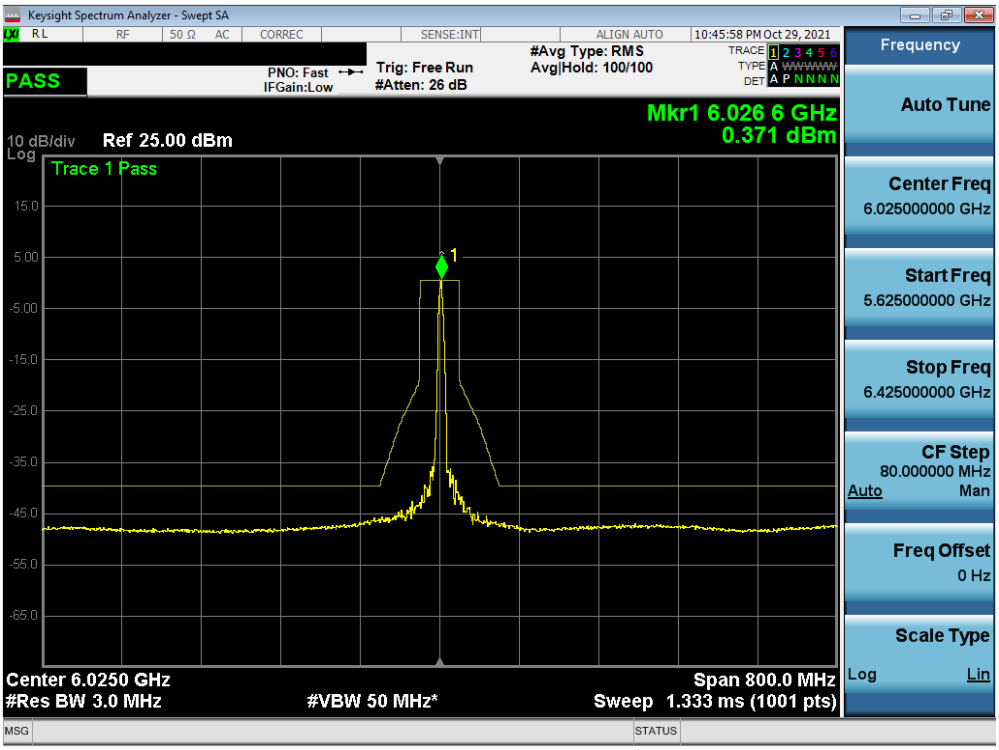

**Plot 7-408. In-Band Emission Plot MIMO ANT2 (80MHz BW 802.11ax (26 Tones) (UNII Band 5) – Ch. 39)**



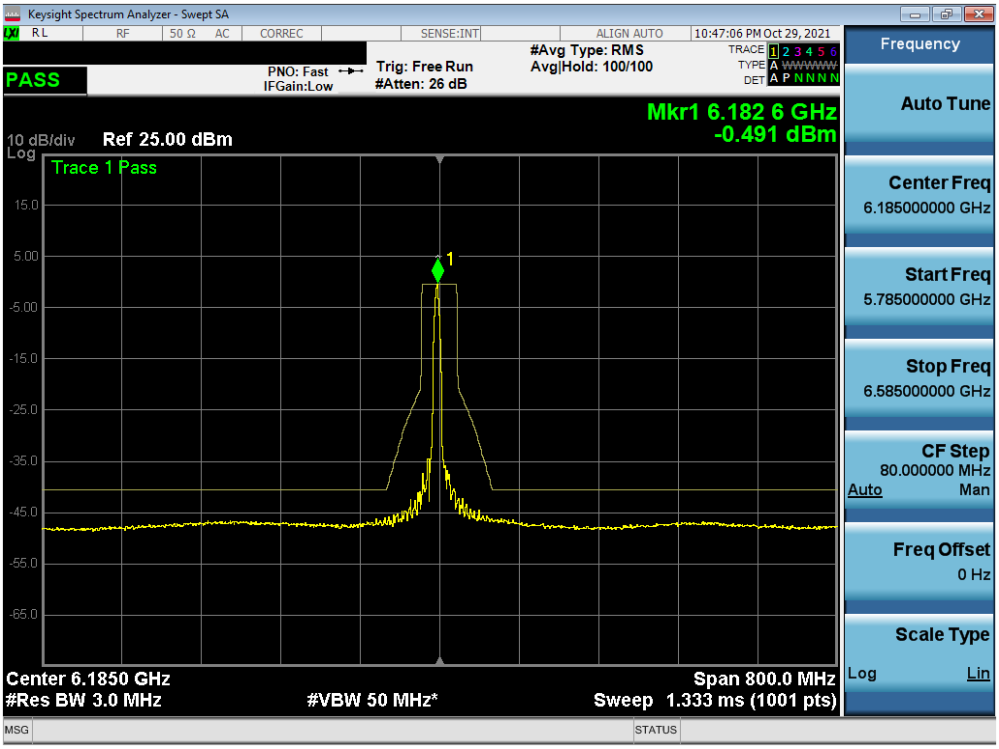

**Plot 7-409. In-Band Emission Plot MIMO ANT2 (80MHz BW 802.11ax (26 Tones) (UNII Band 5) – Ch. 87)**



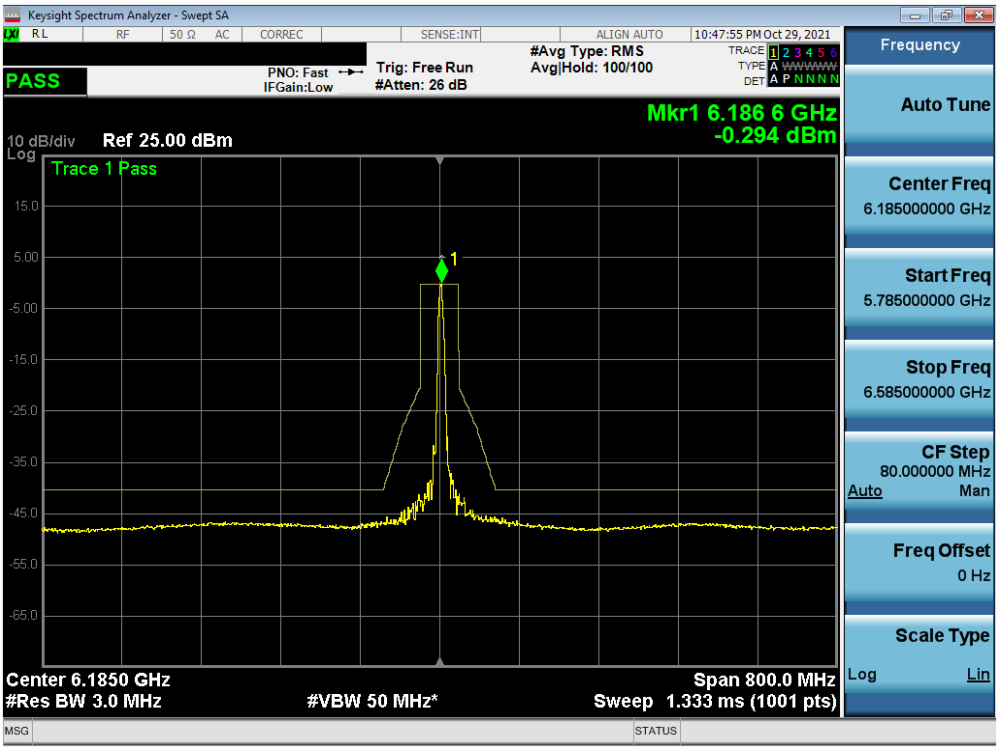

**Plot 7-410. In-Band Emission Plot MIMO ANT2 (160MHz BW (L) 802.11ax (26 Tones) (UNII Band 5) – Ch. 15)**



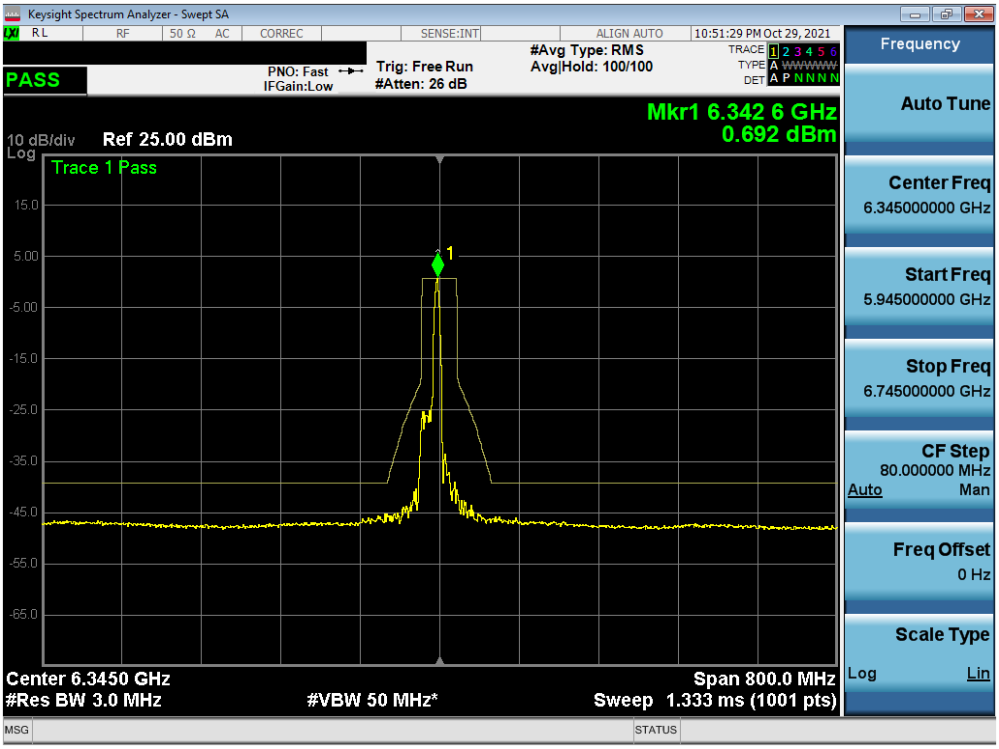

**Plot 7-411. In-Band Emission Plot MIMO ANT2 (160MHz BW (U) 802.11ax (26 Tones) (UNII Band 5) – Ch. 15)**



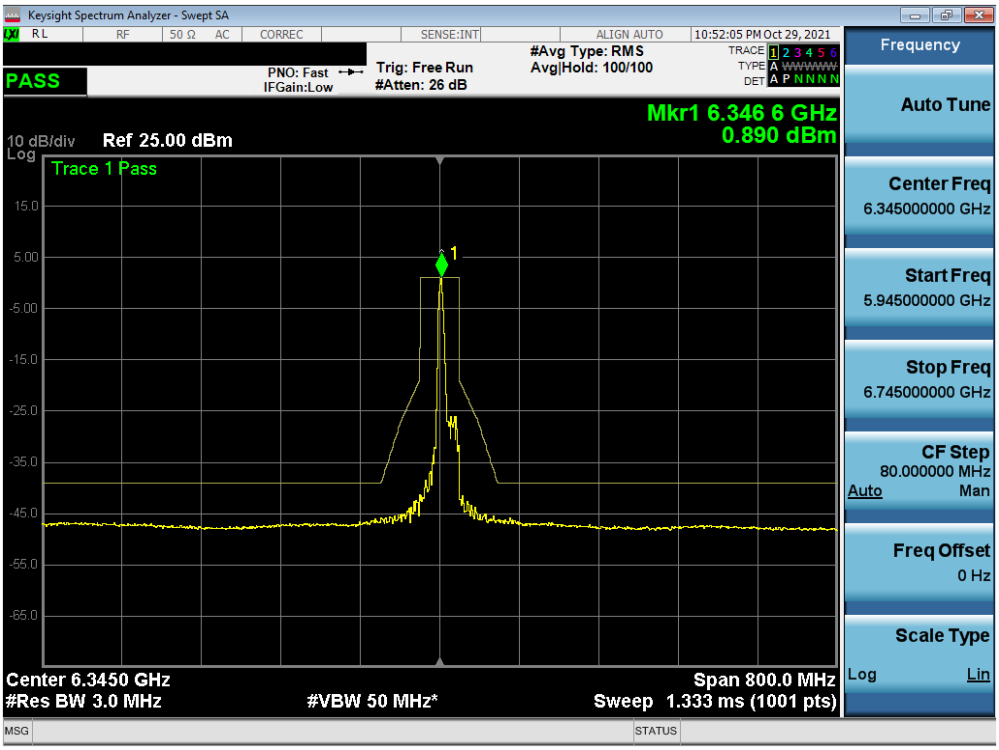

**Plot 7-412. In-Band Emission Plot MIMO ANT2 (160MHz BW (L) 802.11ax (26 Tones) (UNII Band 5) – Ch. 47)**



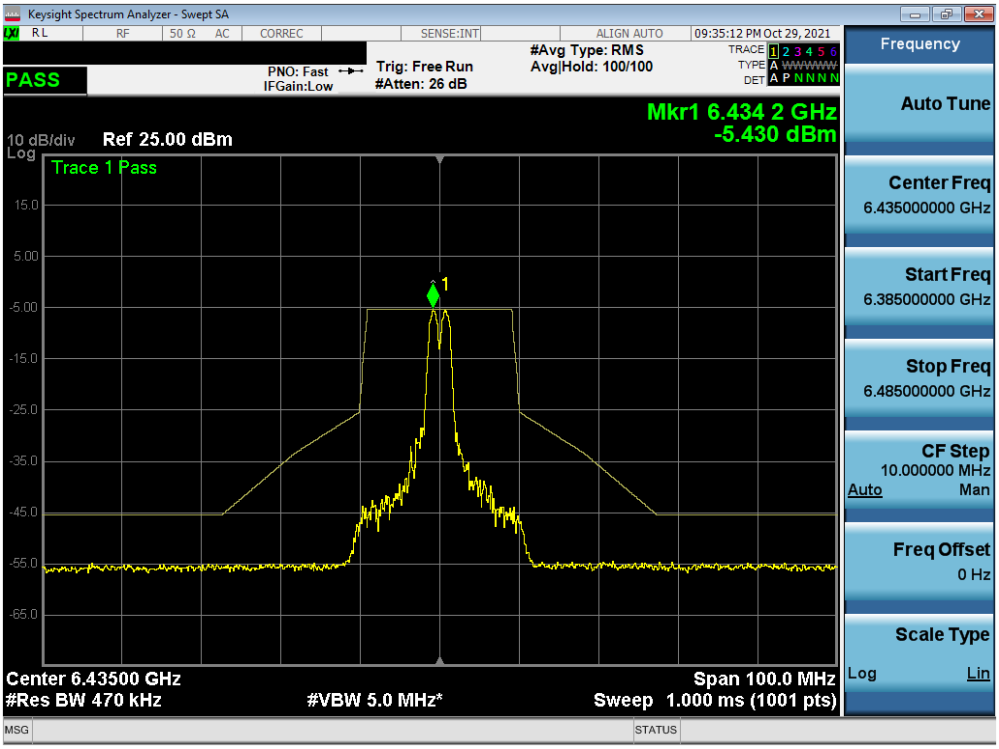

**Plot 7-413. In-Band Emission Plot MIMO ANT2 (160MHz BW (U) 802.11ax (26 Tones) (UNII Band 5) – Ch. 47)**



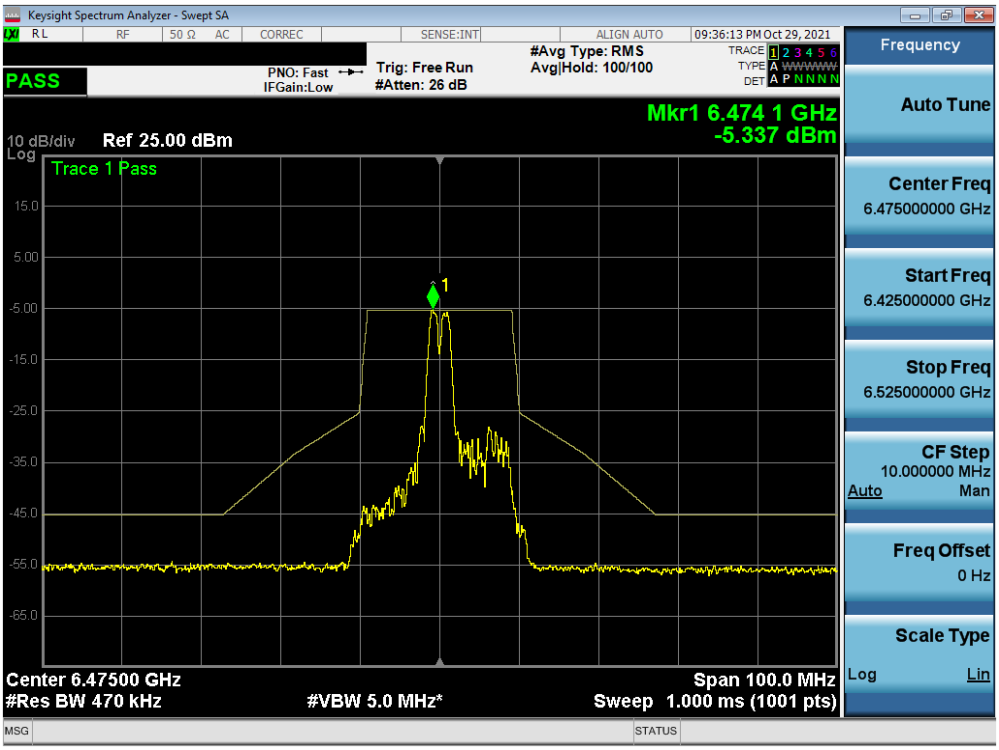

**Plot 7-414. In-Band Emission Plot MIMO ANT2 (160MHz BW (L) 802.11ax (26 Tones) (UNII Band 5) – Ch. 79)**



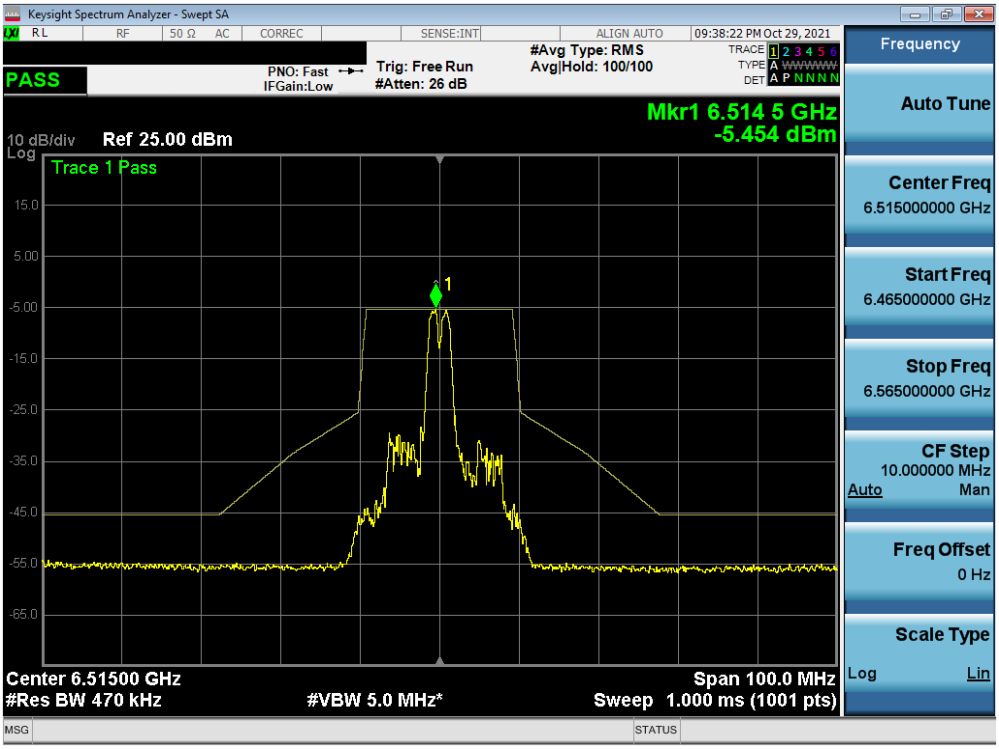

**Plot 7-415. In-Band Emission Plot MIMO ANT2 (160MHz BW (U) 802.11ax (26 Tones) (UNII Band 5) – Ch. 79)**



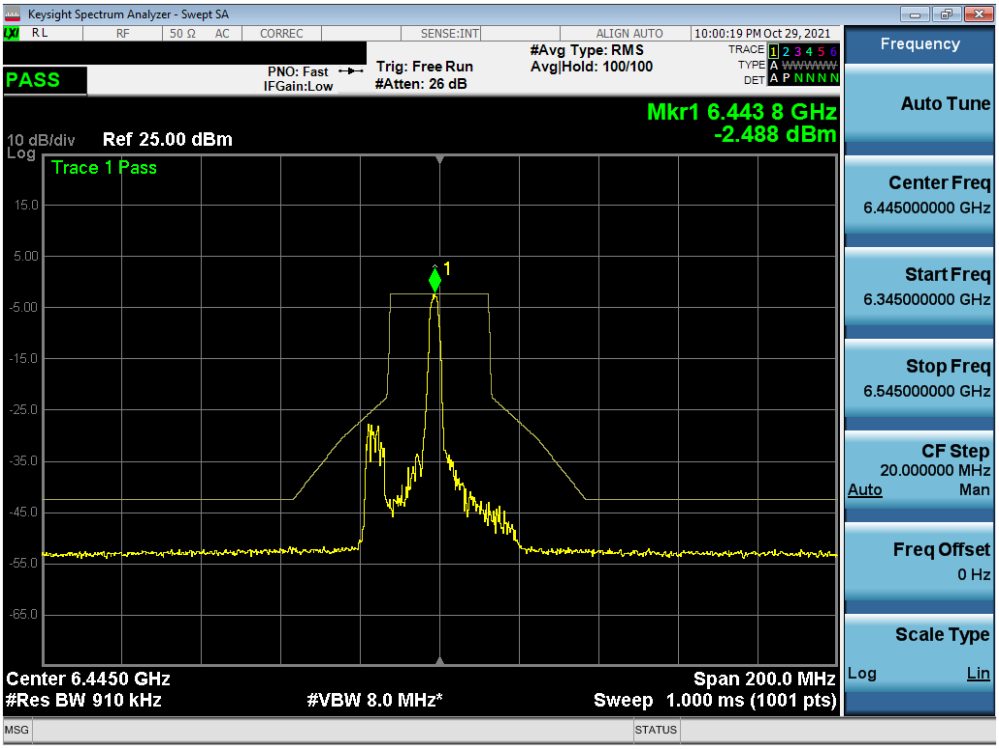

**Plot 7-416. In-Band Emission Plot MIMO ANT2 (20MHz BW 802.11ax (26 Tones) (UNII Band 6) – Ch. 97)**



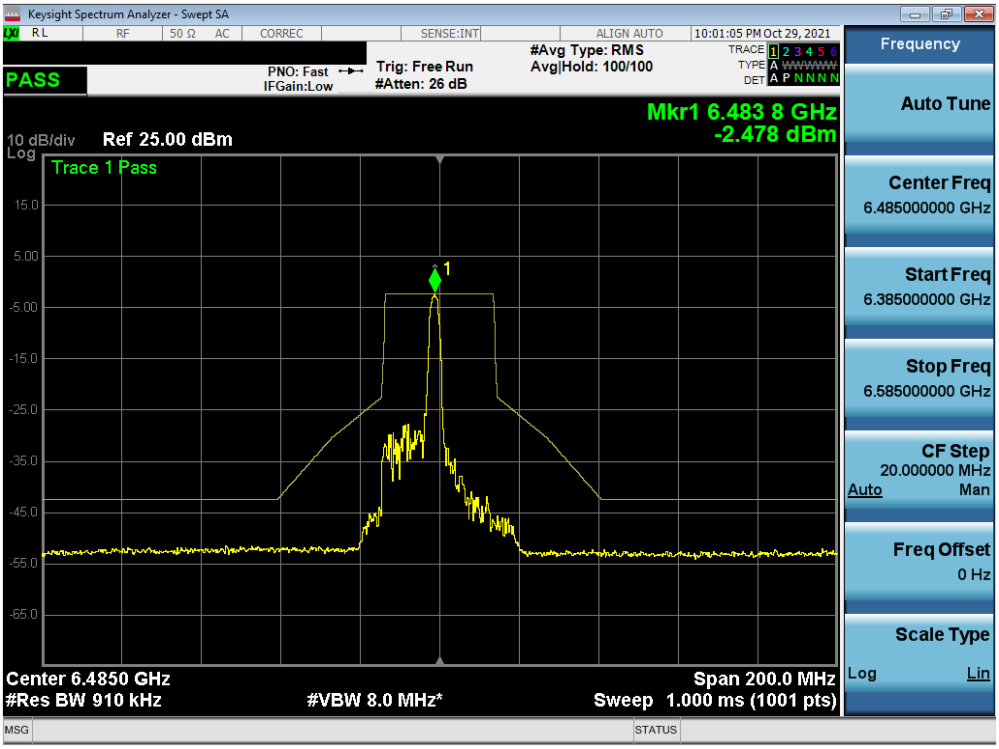

**Plot 7-417. In-Band Emission Plot MIMO ANT2 (20MHz BW 802.11ax (26 Tones) (UNII Band 6) – Ch. 105)**



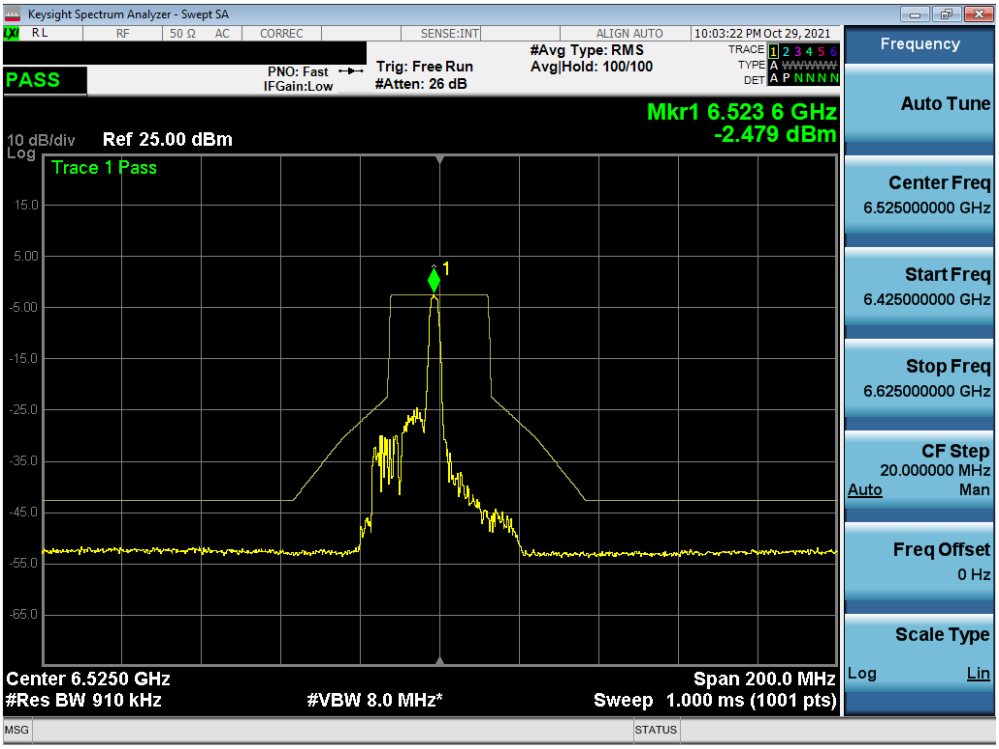

**Plot 7-418. In-Band Emission Plot MIMO ANT2 (20MHz BW 802.11ax (26 Tones) (UNII Band 6) – Ch. 113)**



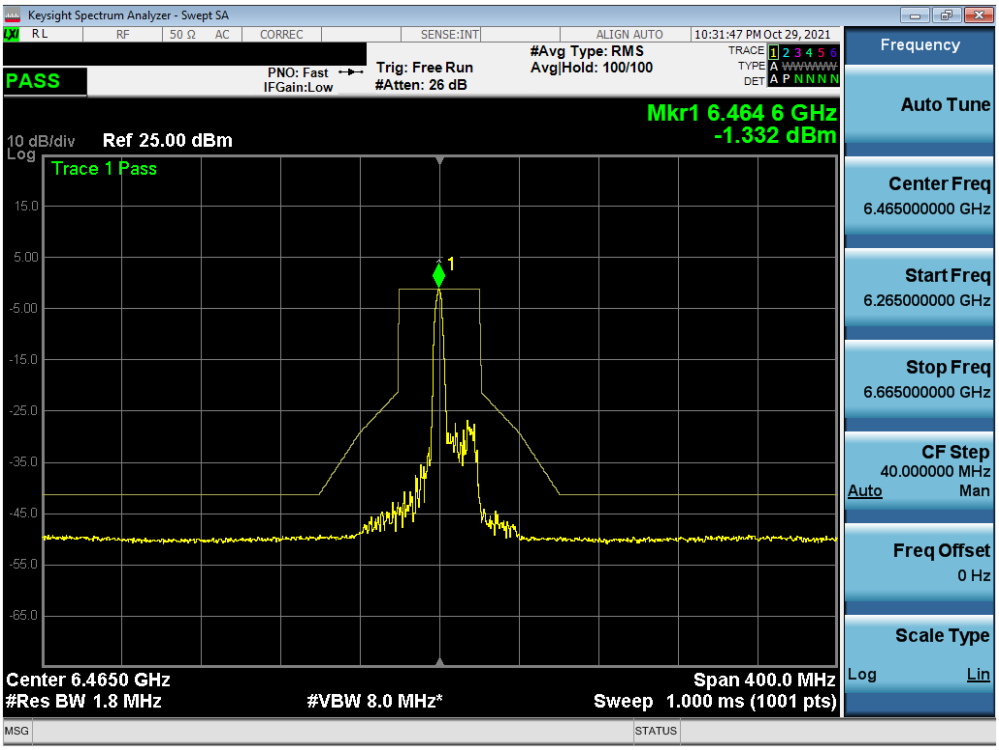

**Plot 7-419. In-Band Emission Plot MIMO ANT2 (40MHz BW 802.11ax (26 Tones) (UNII Band 6) – Ch. 99)**



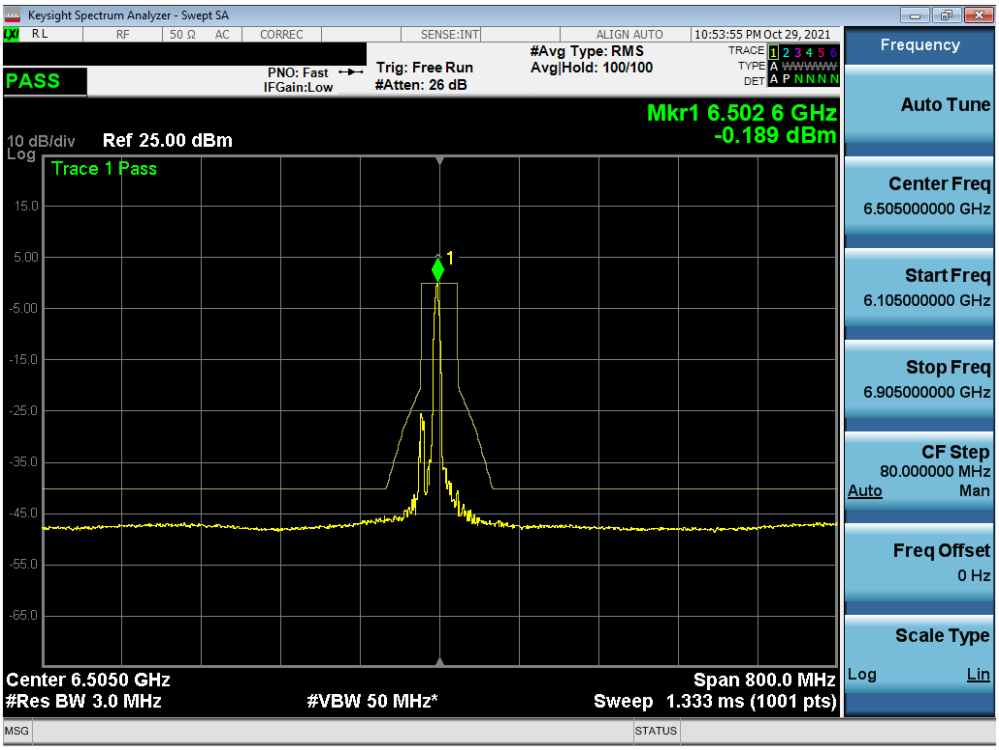

**Plot 7-420. In-Band Emission Plot MIMO ANT2 (40MHz BW 802.11ax (26 Tones) (UNII Band 6) – Ch. 107)**



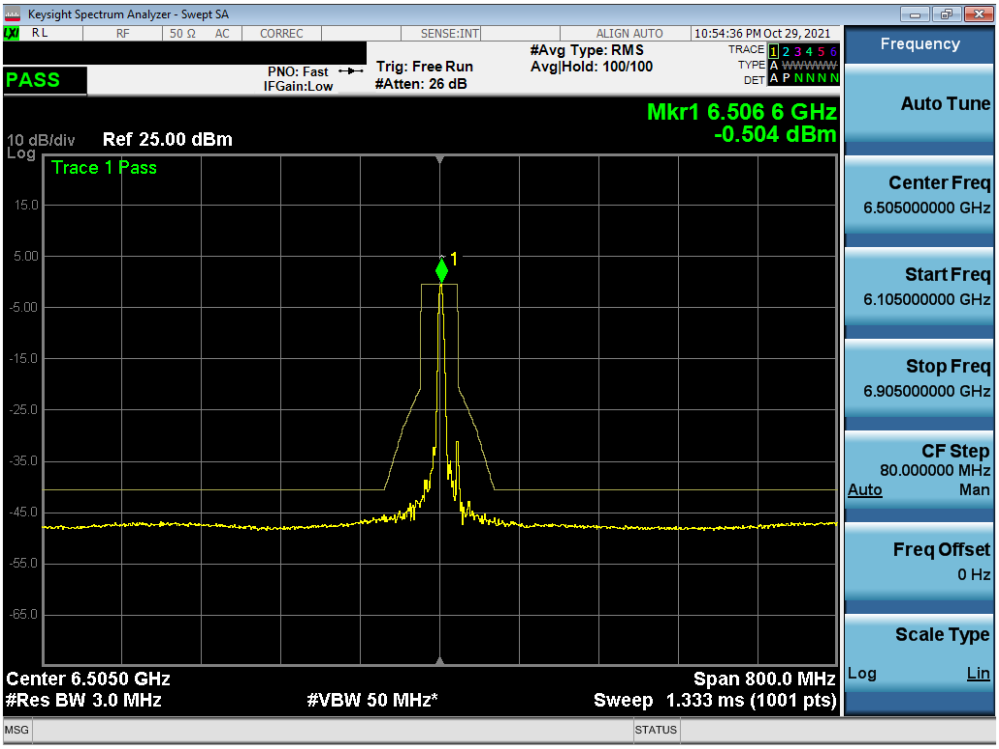

**Plot 7-421. In-Band Emission Plot MIMO ANT2 (40MHz BW 802.11ax (26 Tones) (UNII Band 6) – Ch. 115)**



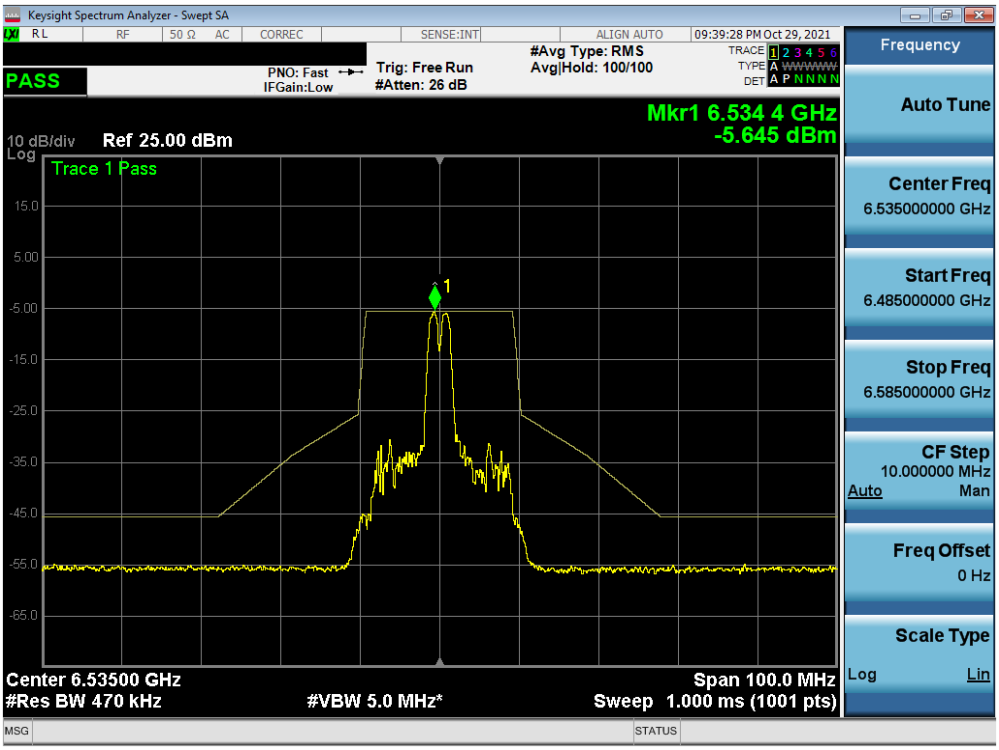

**Plot 7-422. In-Band Emission Plot MIMO ANT2 (80MHz BW 802.11ax (26 Tones) (UNII Band 6) – Ch. 103)**



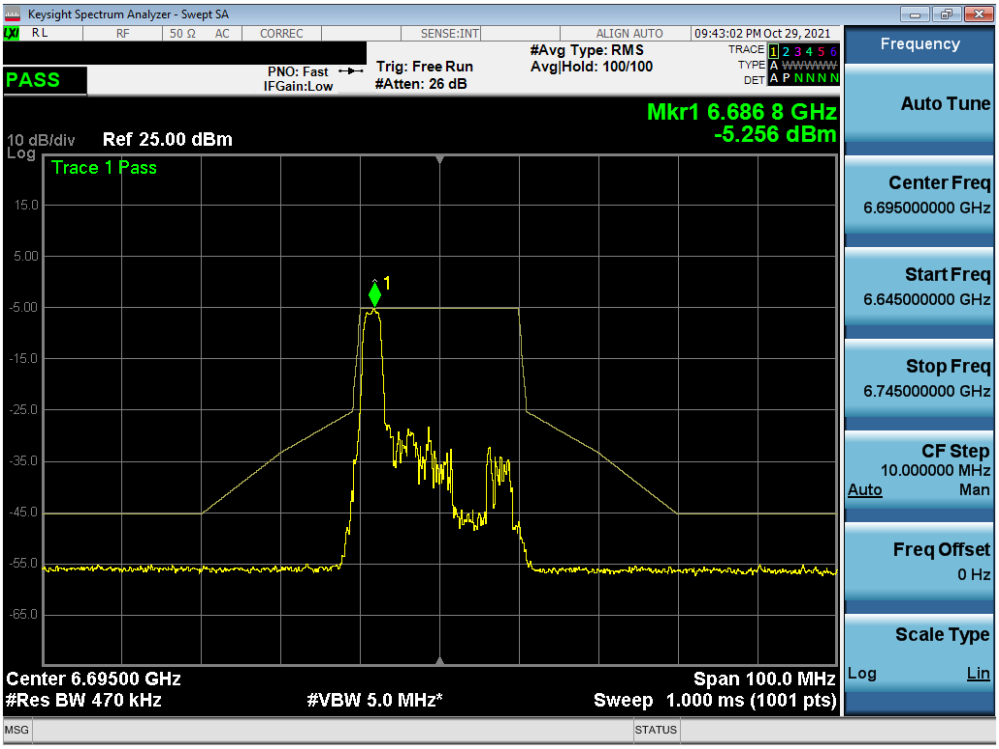

**Plot 7-423. In-Band Emission Plot MIMO ANT2 (160MHz BW (L) 802.11ax (26 Tones) (UNII Band 6) – Ch. 111)**



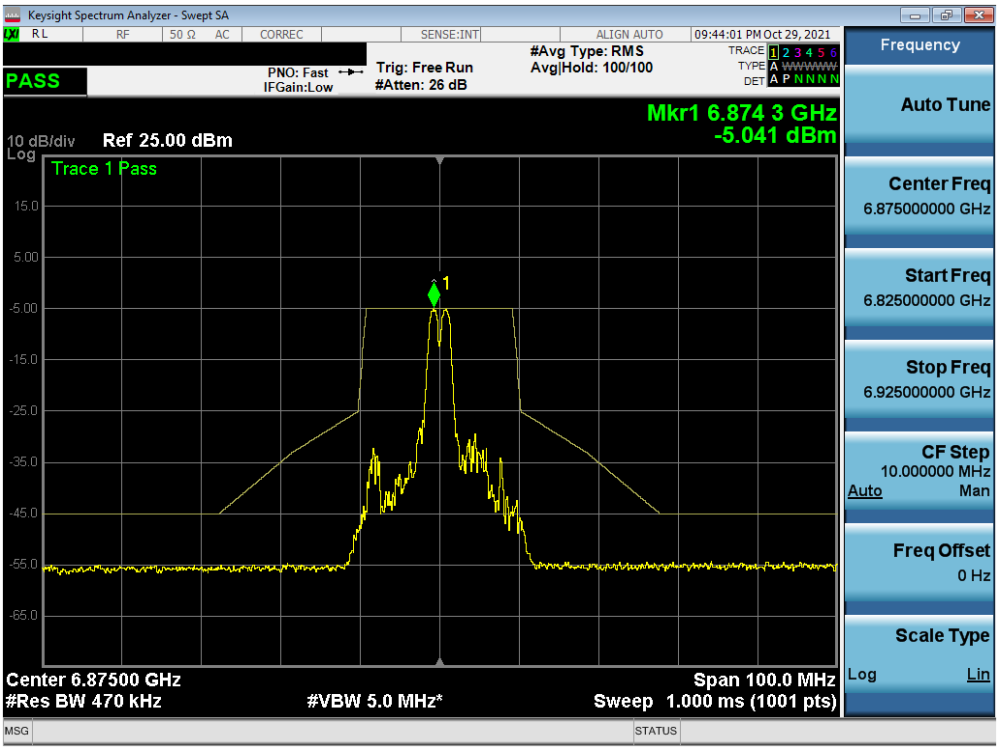

**Plot 7-424. In-Band Emission Plot MIMO ANT2 (160MHz BW (U) 802.11ax (26 Tones) (UNII Band 6) – Ch. 111)**



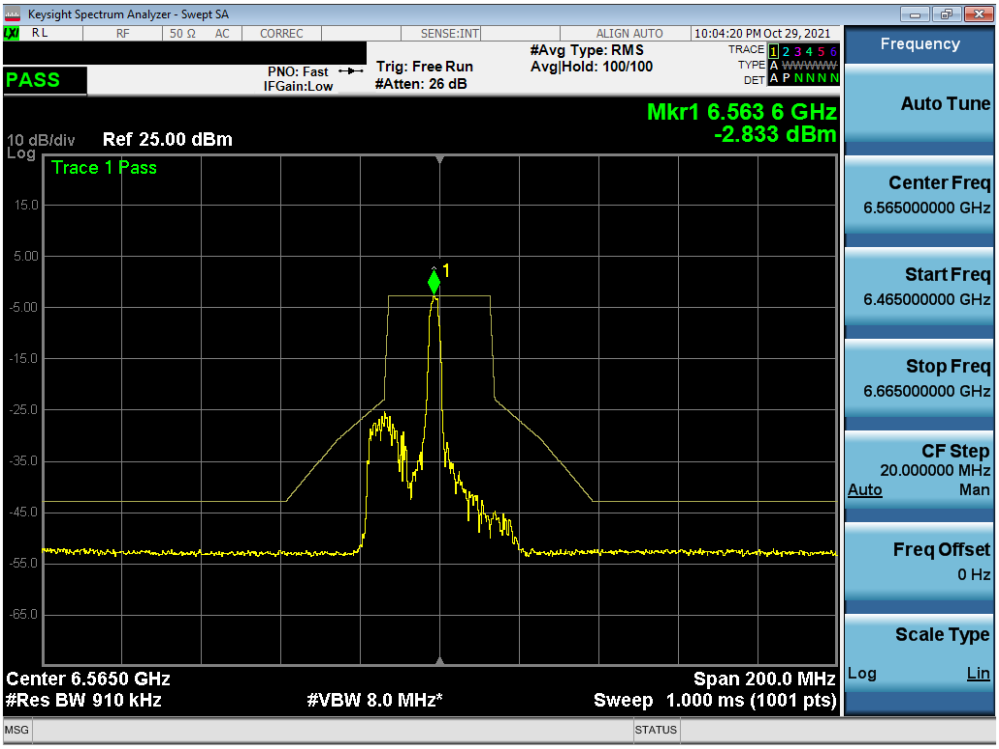

**Plot 7-425. In-Band Emission Plot MIMO ANT2 (20MHz BW 802.11ax (26 Tones) (UNII Band 7) – Ch. 117)**



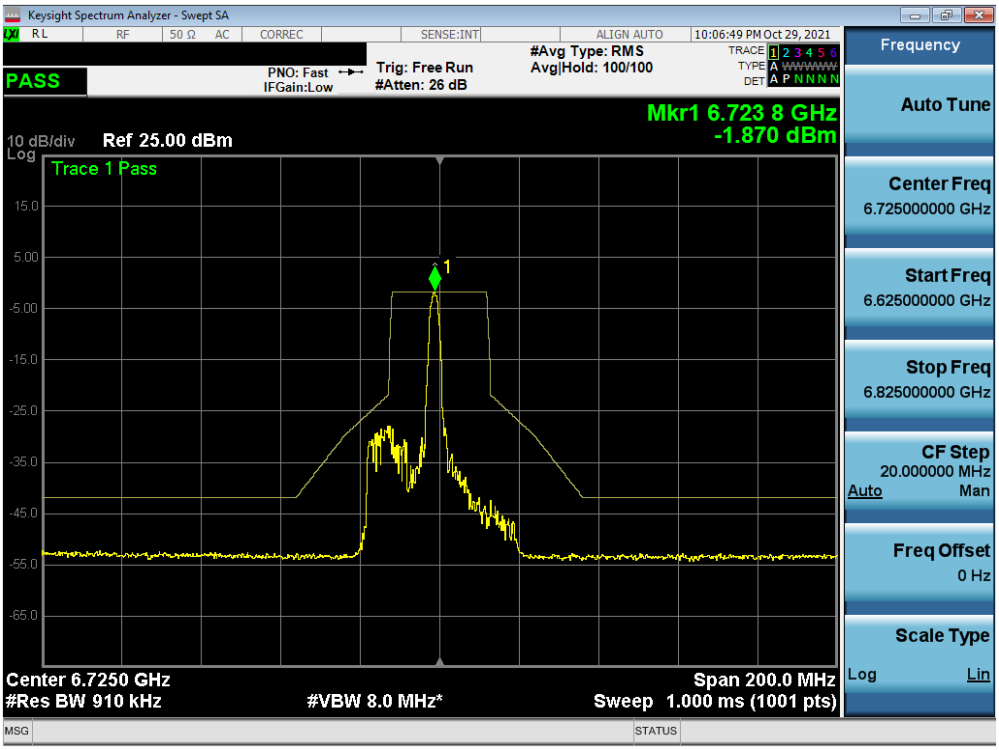

**Plot 7-426. In-Band Emission Plot MIMO ANT2 (20MHz BW 802.11ax (26 Tones) (UNII Band 7) – Ch. 149)**



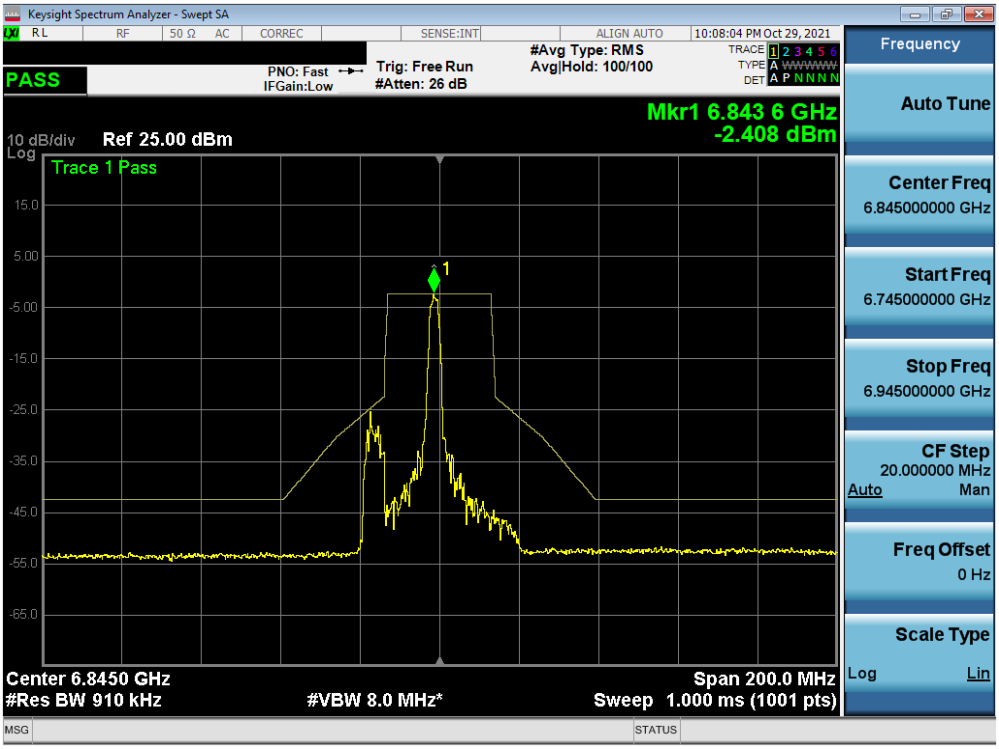

**Plot 7-427. In-Band Emission Plot MIMO ANT2 (20MHz BW 802.11ax (26 Tones) (UNII Band 7) – Ch. 185)**



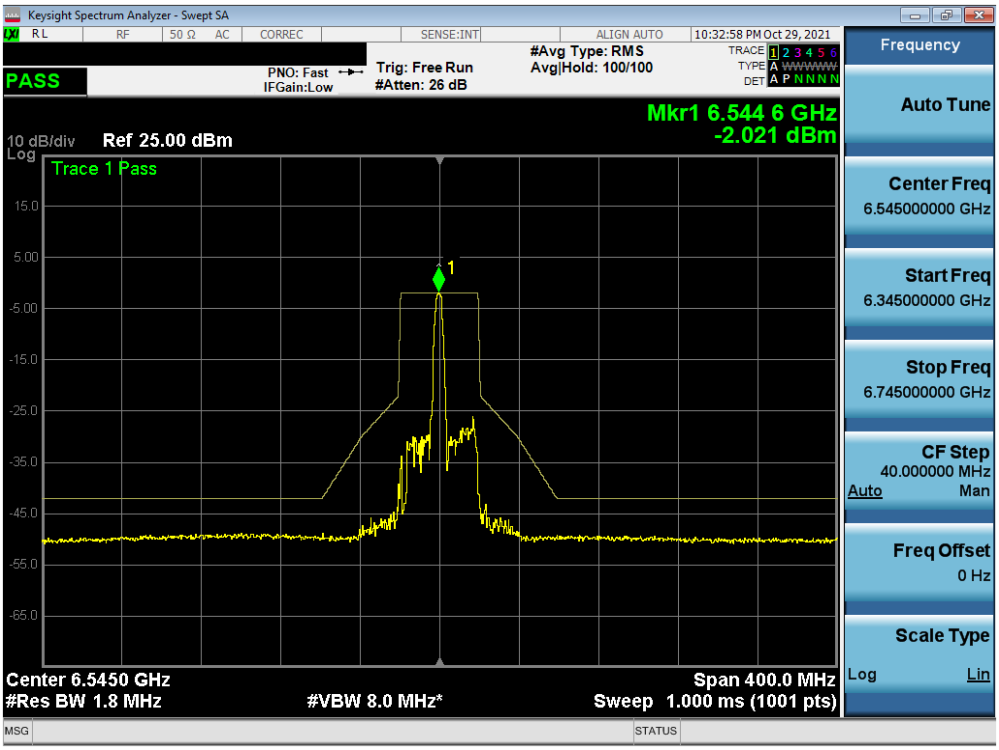

**Plot 7-428. In-Band Emission Plot MIMO ANT2 (40MHz BW 802.11ax (26 Tones) (UNII Band 7) – Ch. 123)**



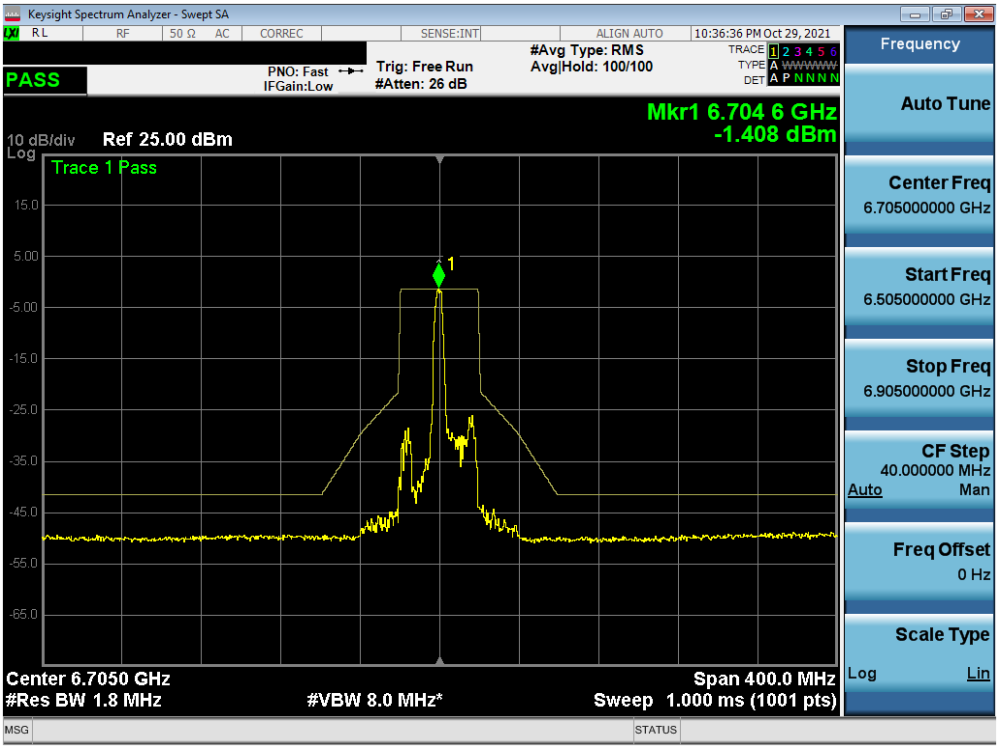

**Plot 7-429. In-Band Emission Plot MIMO ANT2 (40MHz BW 802.11ax (26 Tones) (UNII Band 7) – Ch. 155)**



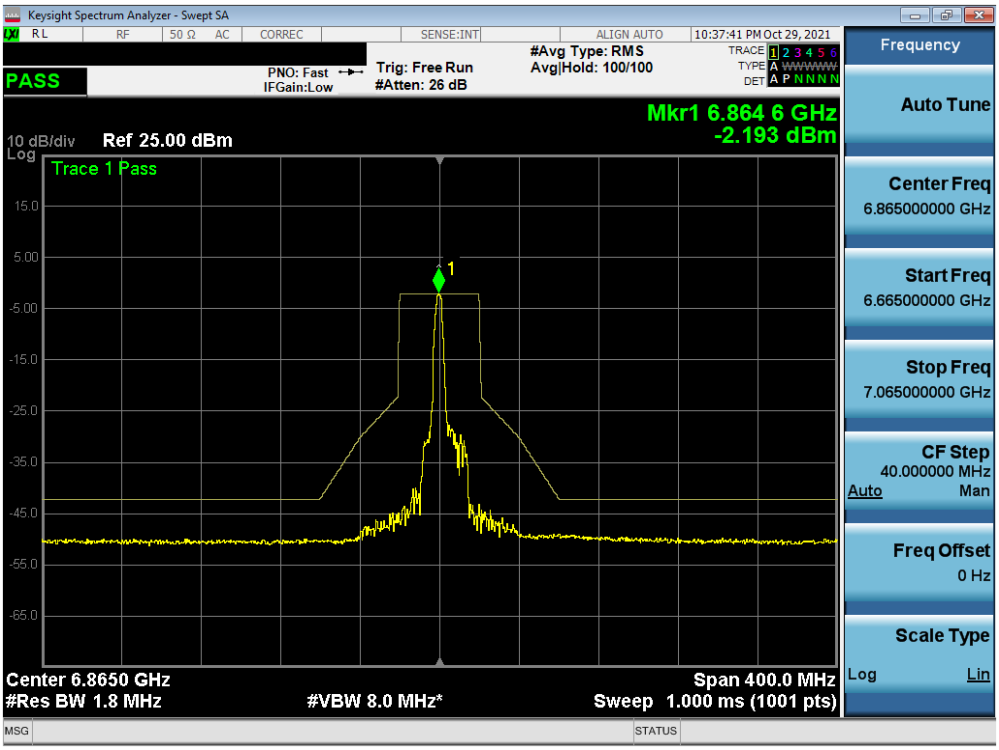

**Plot 7-430. In-Band Emission Plot MIMO ANT2 (40MHz BW 802.11ax (26 Tones) (UNII Band 7) – Ch. 179)**



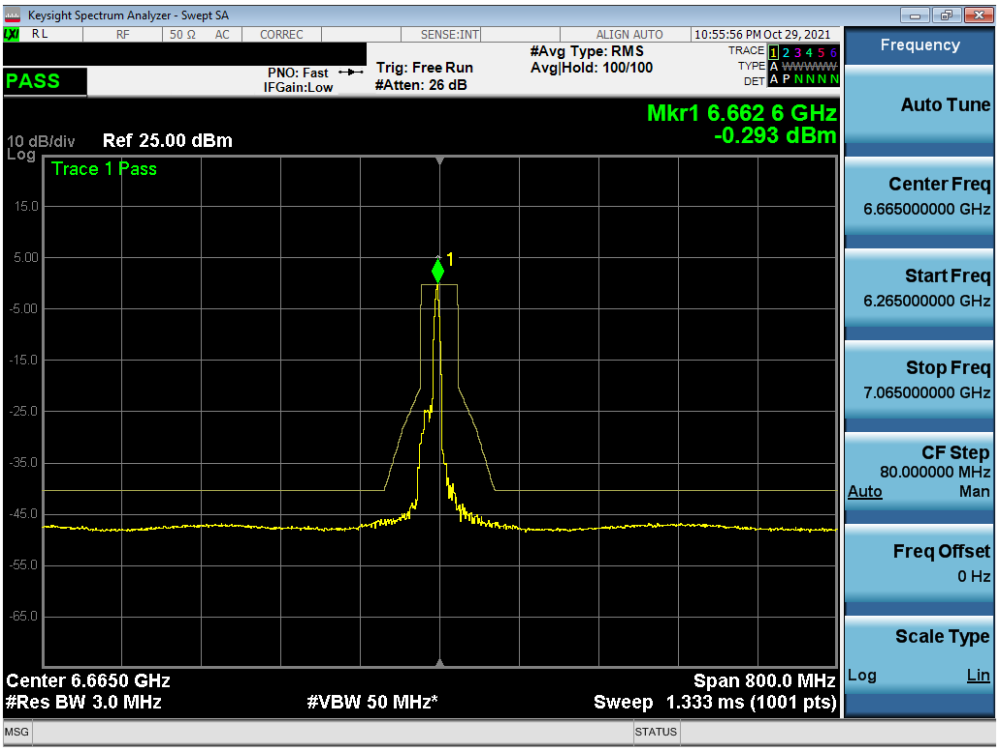

**Plot 7-431. In-Band Emission Plot MIMO ANT2 (80MHz BW 802.11ax (26 Tones) (UNII Band 7) – Ch. 119)**



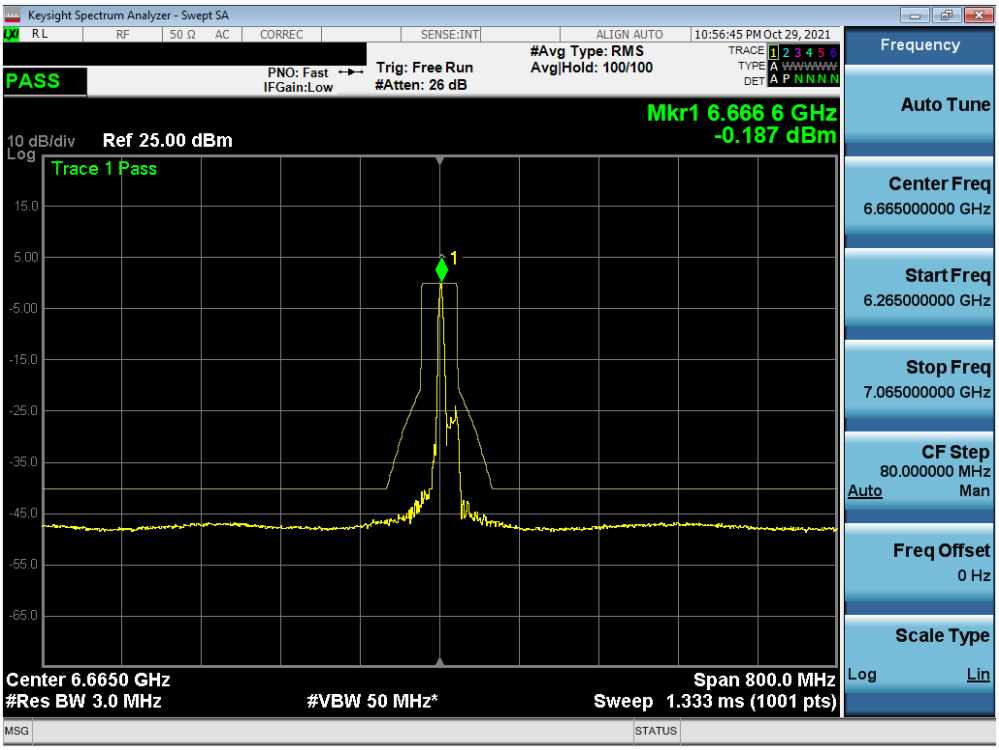

**Plot 7-432. In-Band Emission Plot MIMO ANT2 (80MHz BW 802.11ax (26 Tones) (UNII Band 7) – Ch. 151)**



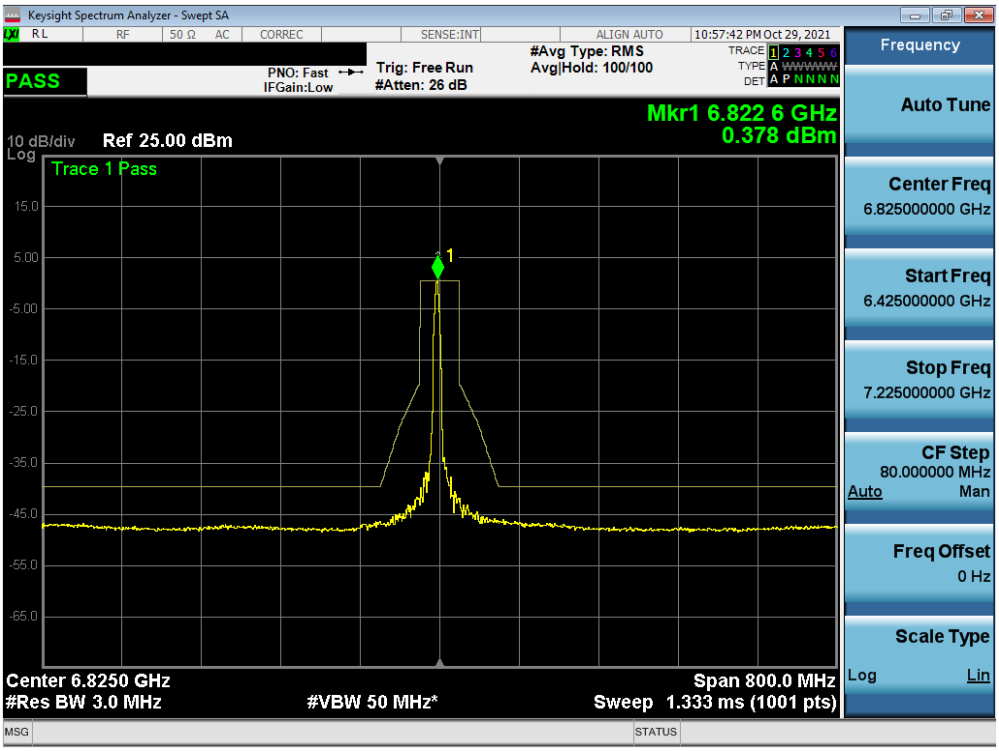

**Plot 7-433. In-Band Emission Plot MIMO ANT2 (80MHz BW 802.11ax (26 Tones) (UNII Band 7) – Ch. 183)**



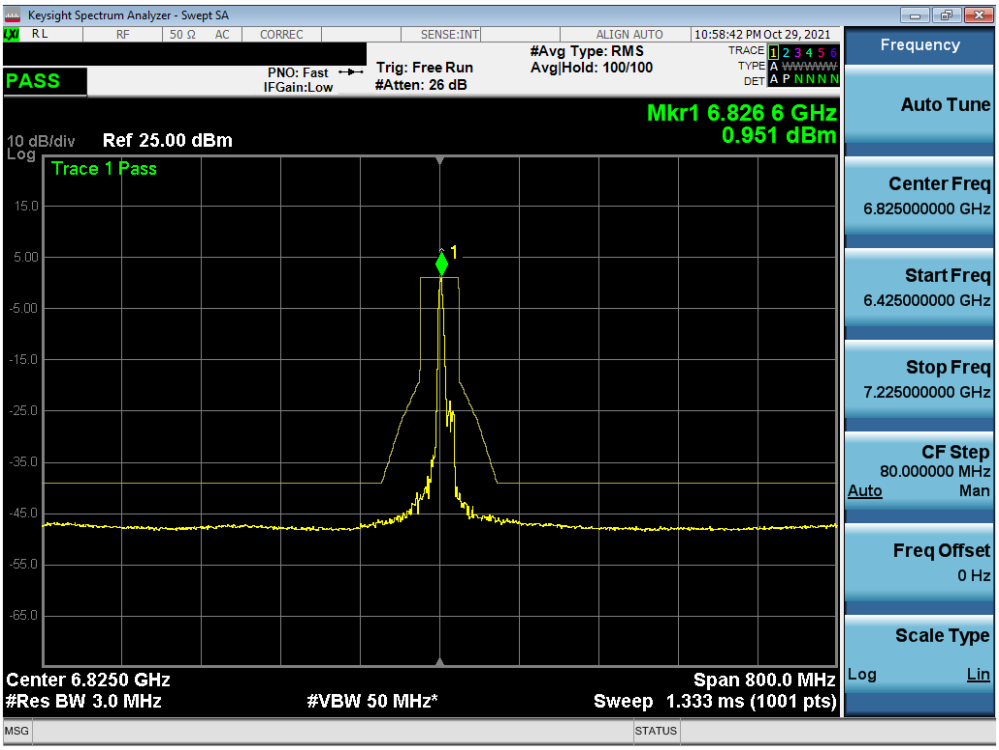

**Plot 7-434. In-Band Emission Plot MIMO ANT2 (160MHz BW (L) 802.11ax (26 Tones) (UNII Band 7) – Ch. 143)**



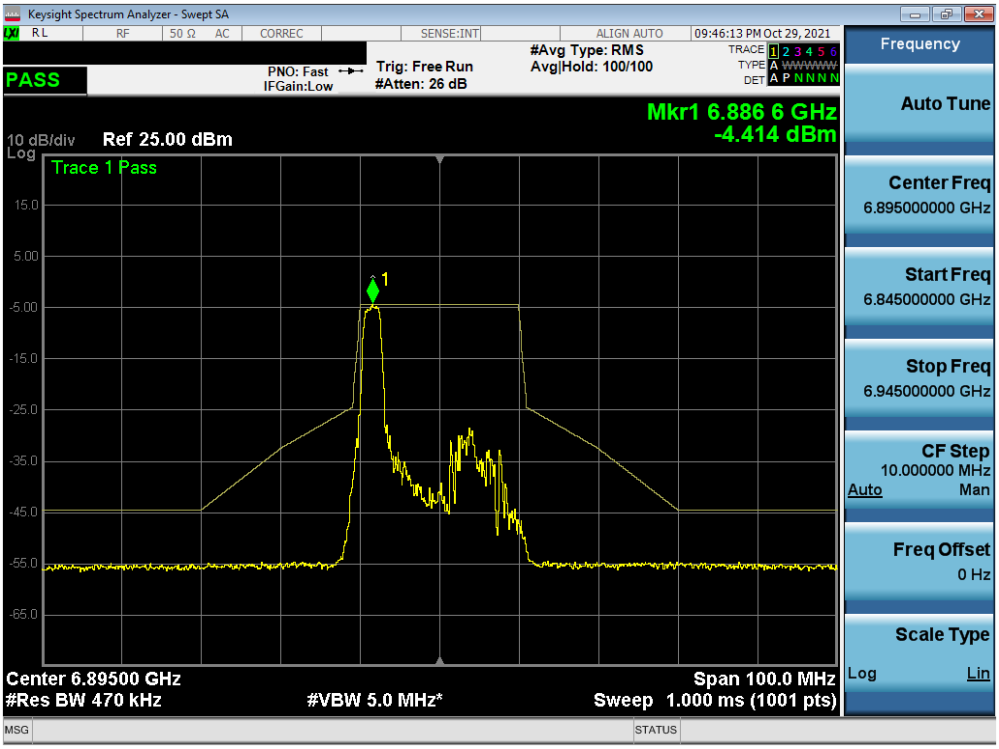

**Plot 7-435. In-Band Emission Plot MIMO ANT2 (160MHz BW (U) 802.11ax (26 Tones) (UNII Band 7) – Ch. 143)**



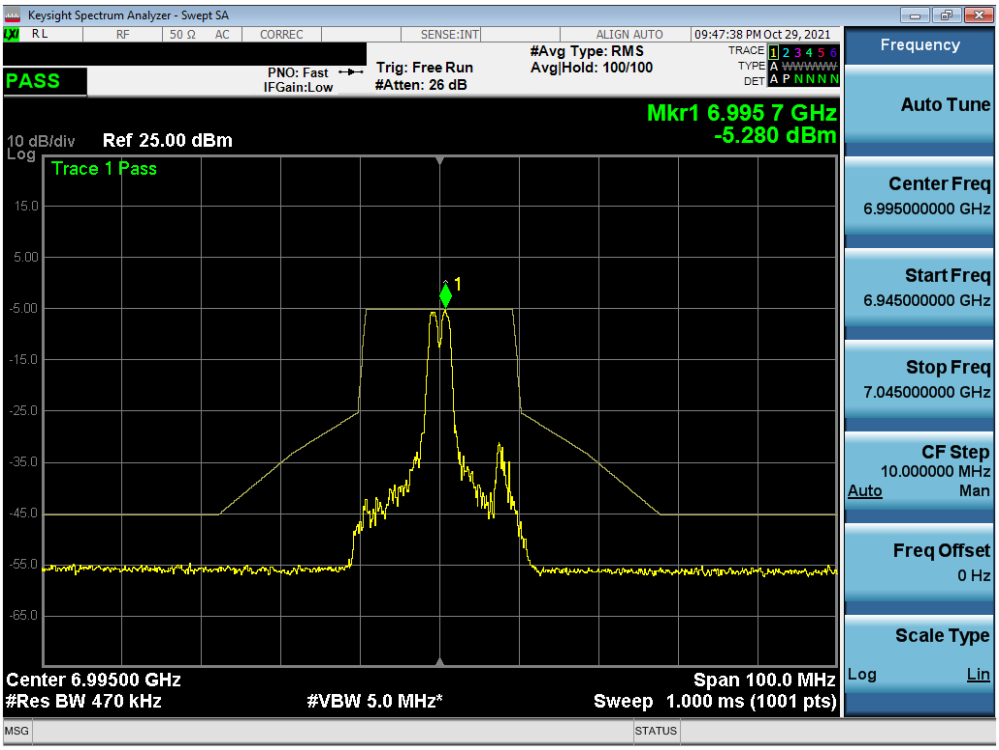

**Plot 7-436. In-Band Emission Plot MIMO ANT2 (160MHz BW (L) 802.11ax (26 Tones) (UNII Band 7) – Ch. 175)**



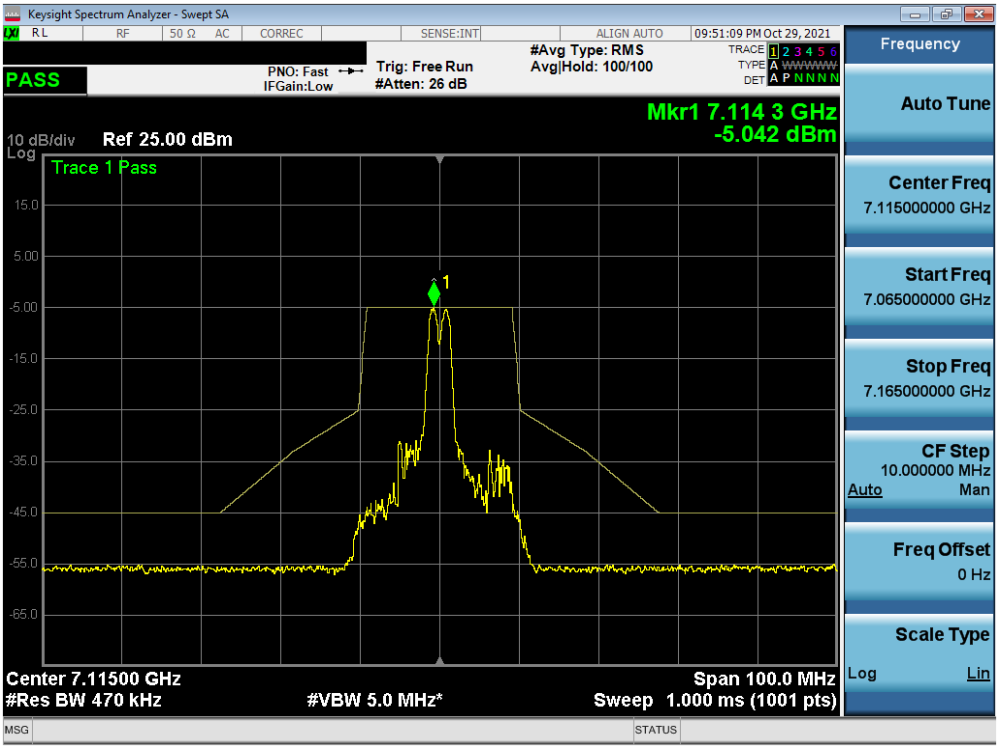

**Plot 7-437. In-Band Emission Plot MIMO ANT2 (160MHz BW (U) 802.11ax (26 Tones) (UNII Band 7) – Ch. 175)**



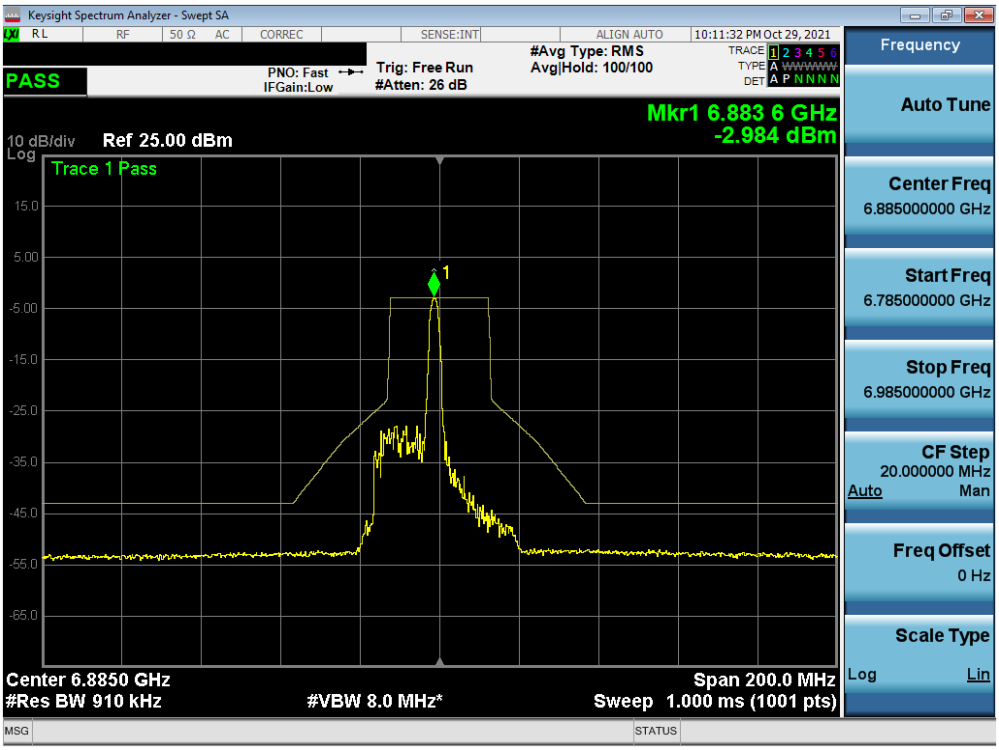

**Plot 7-438. In-Band Emission Plot MIMO ANT2 (20MHz BW 802.11ax (26 Tones) (UNII Band 8) – Ch. 189)**



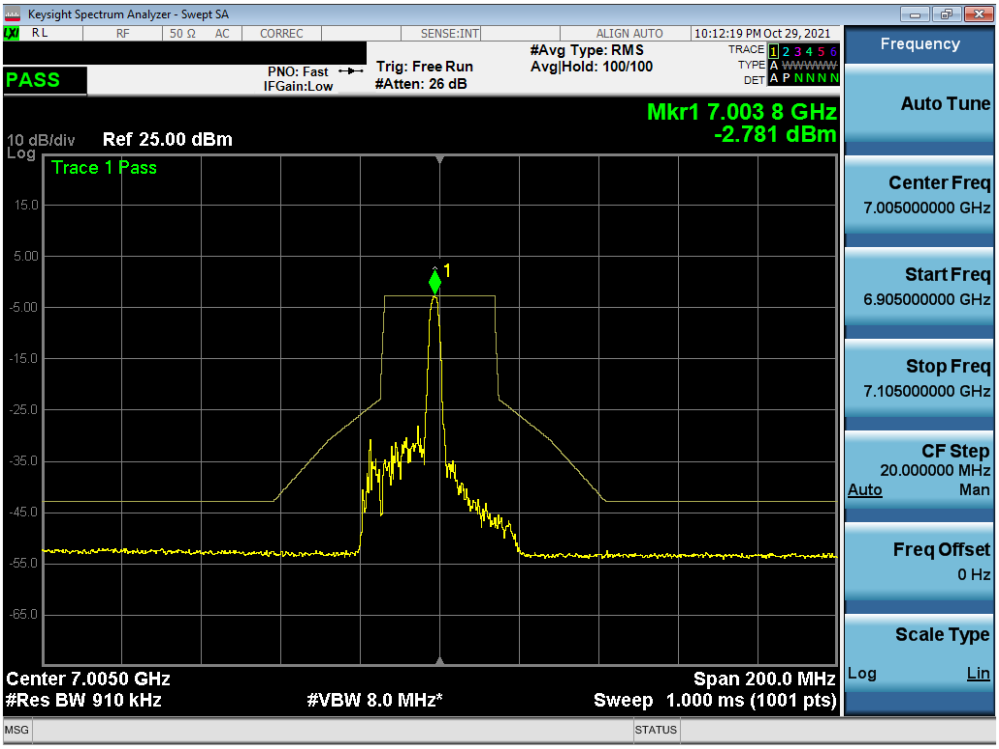

**Plot 7-439. In-Band Emission Plot MIMO ANT2 (20MHz BW 802.11ax (26 Tones) (UNII Band 8) – Ch. 209)**



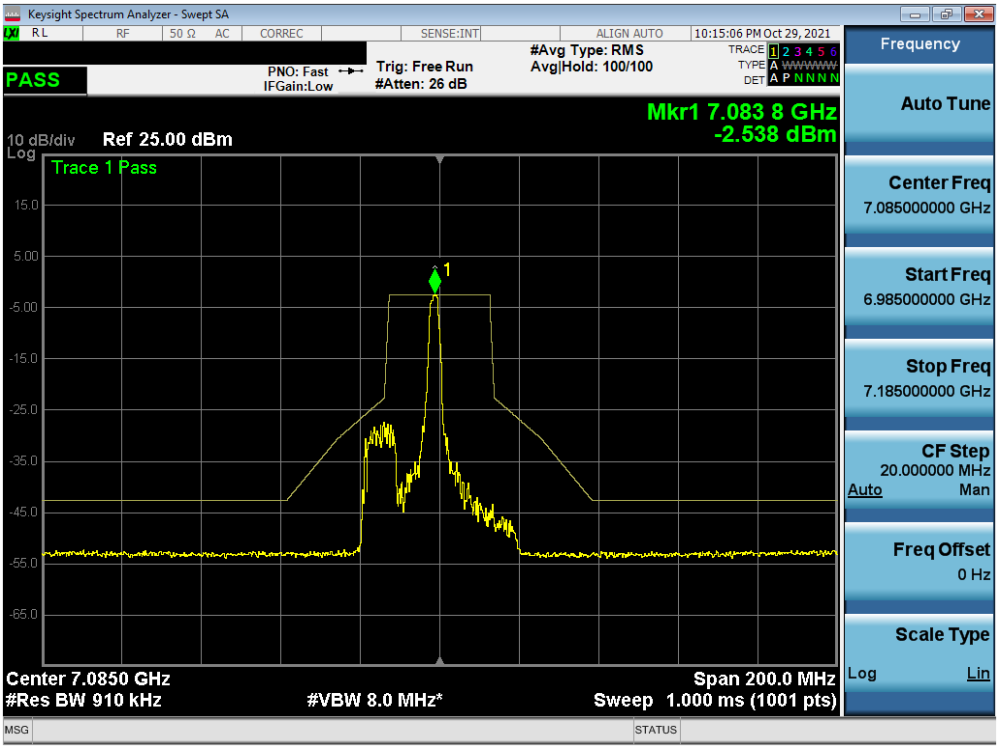

**Plot 7-440. In-Band Emission Plot MIMO ANT2 (20MHz BW 802.11ax (26 Tones) (UNII Band 8) – Ch. 233)**



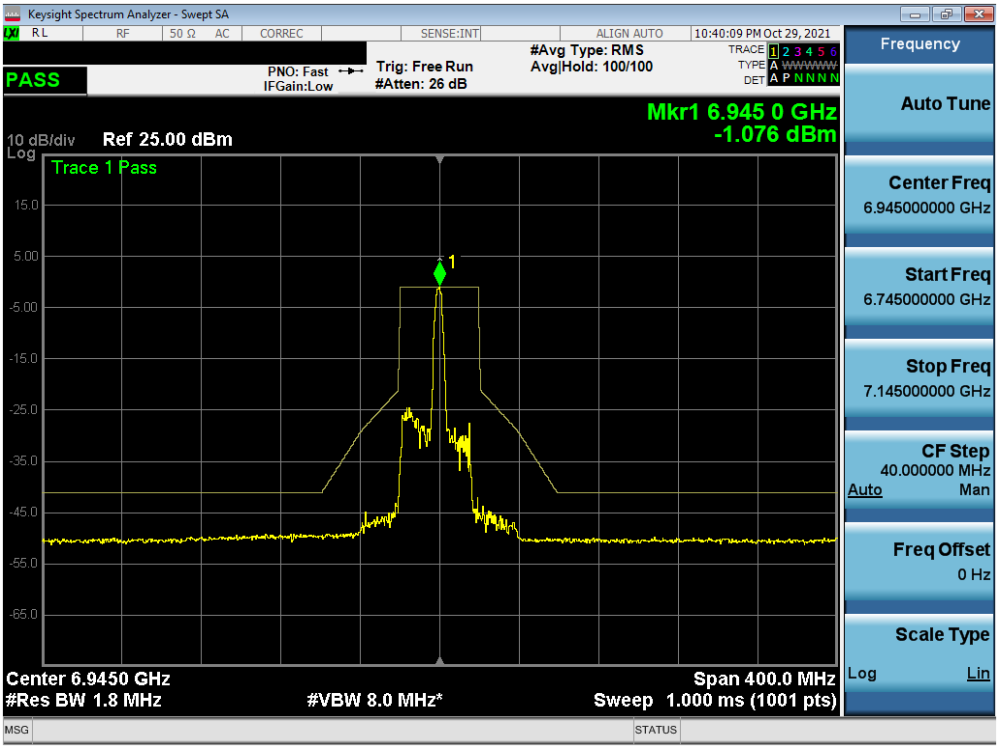

**Plot 7-441. In-Band Emission Plot MIMO ANT2 (40MHz BW 802.11ax (26 Tones) (UNII Band 8) – Ch. 187)**



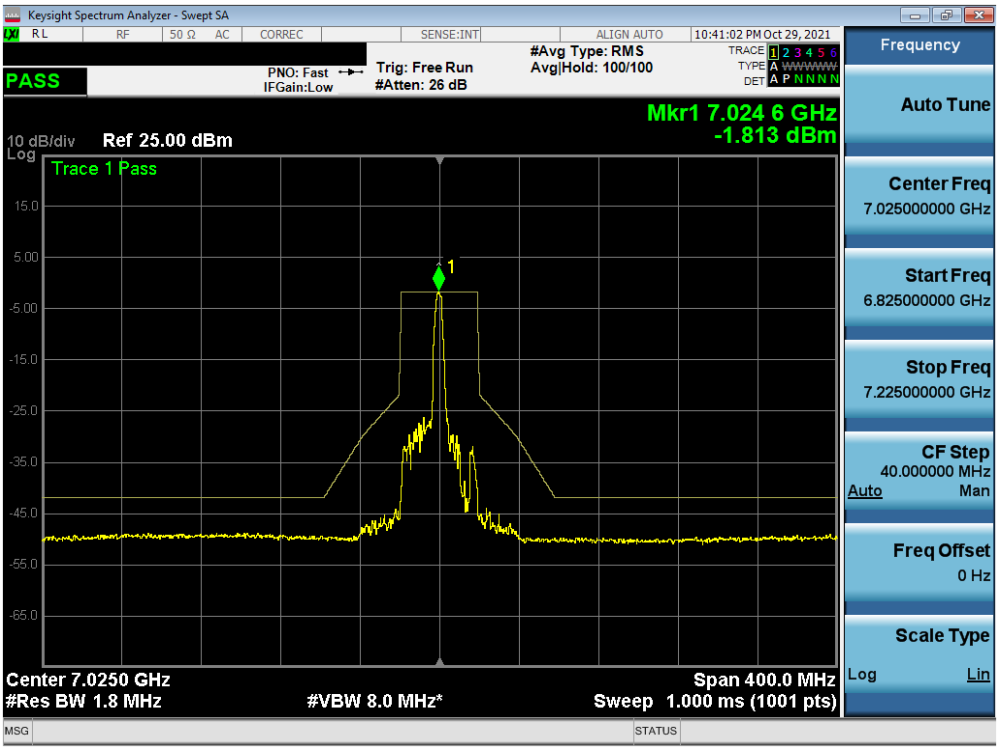

**Plot 7-442. In-Band Emission Plot MIMO ANT2 (40MHz BW 802.11ax (26 Tones) (UNII Band 8) – Ch. 211)**



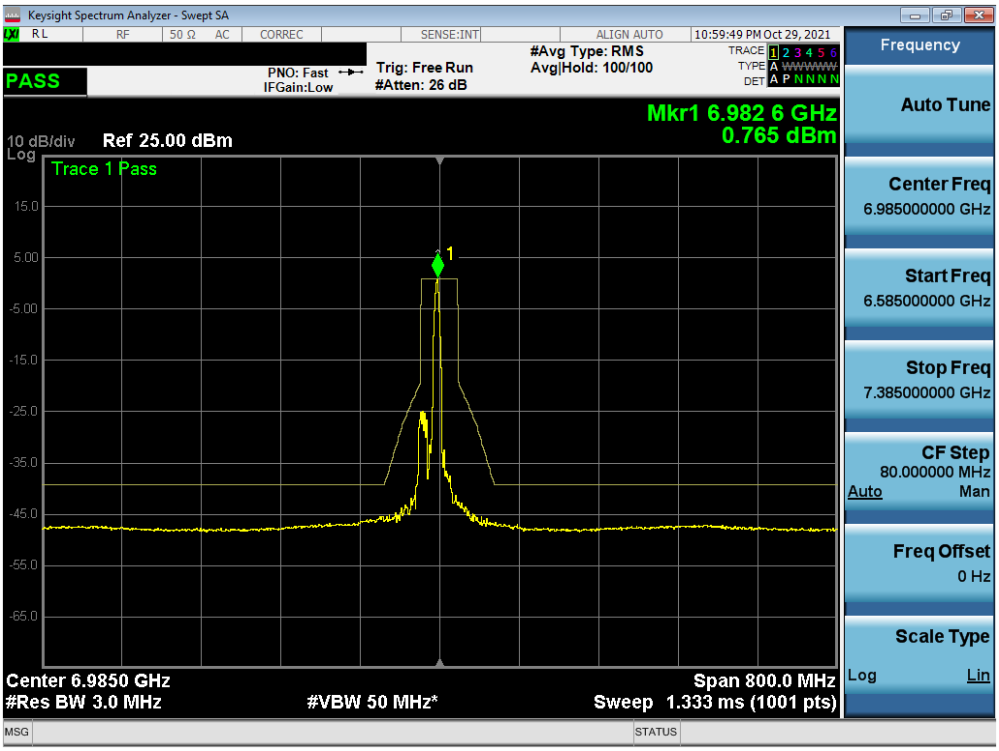

**Plot 7-443. In-Band Emission Plot MIMO ANT2 (40MHz BW 802.11ax (26 Tones) (UNII Band 8) – Ch. 227)**



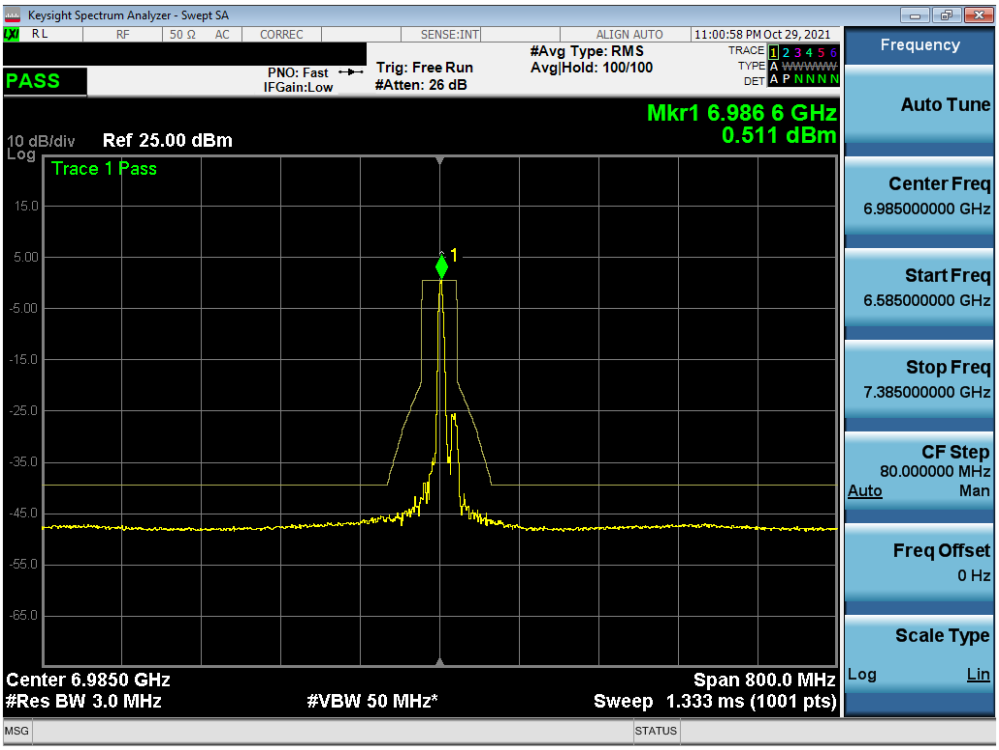

**Plot 7-444. In-Band Emission Plot MIMO ANT2 (80MHz BW 802.11ax (26 Tones) (UNII Band 8) – Ch. 199)**




**Plot 7-445. In-Band Emission Plot MIMO ANT2 (80MHz BW 802.11ax (26 Tones) (UNII Band 8) – Ch. 215)**

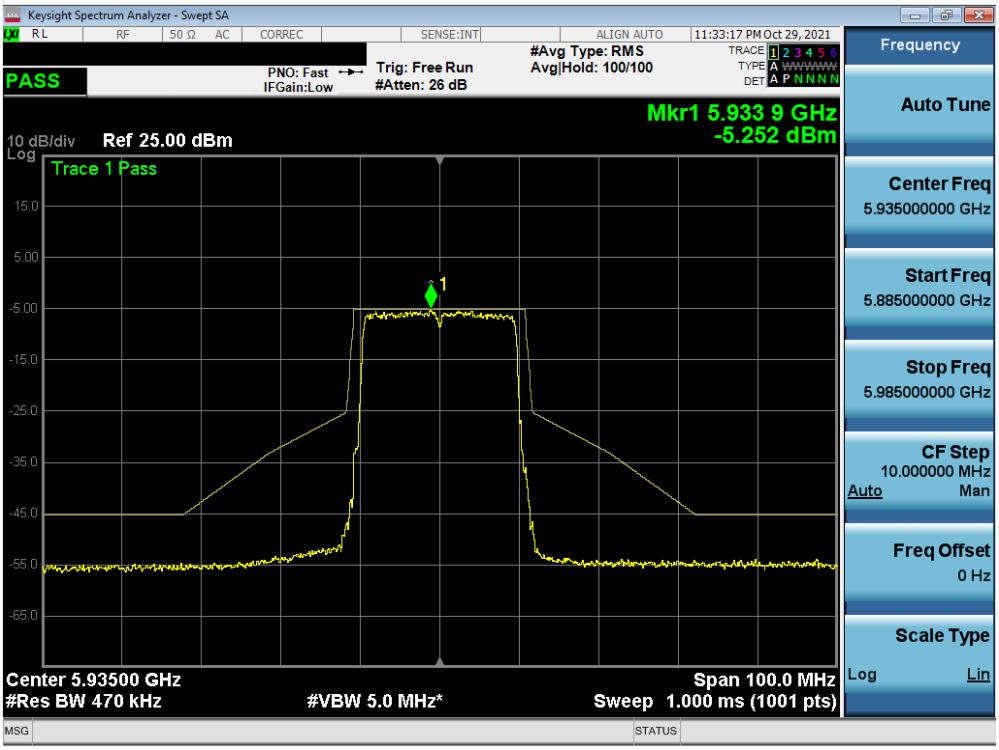



**Plot 7-446. In-Band Emission Plot MIMO ANT2 (160MHz BW (L) 802.11ax (26 Tones) (UNII Band 8) – Ch. 207)**

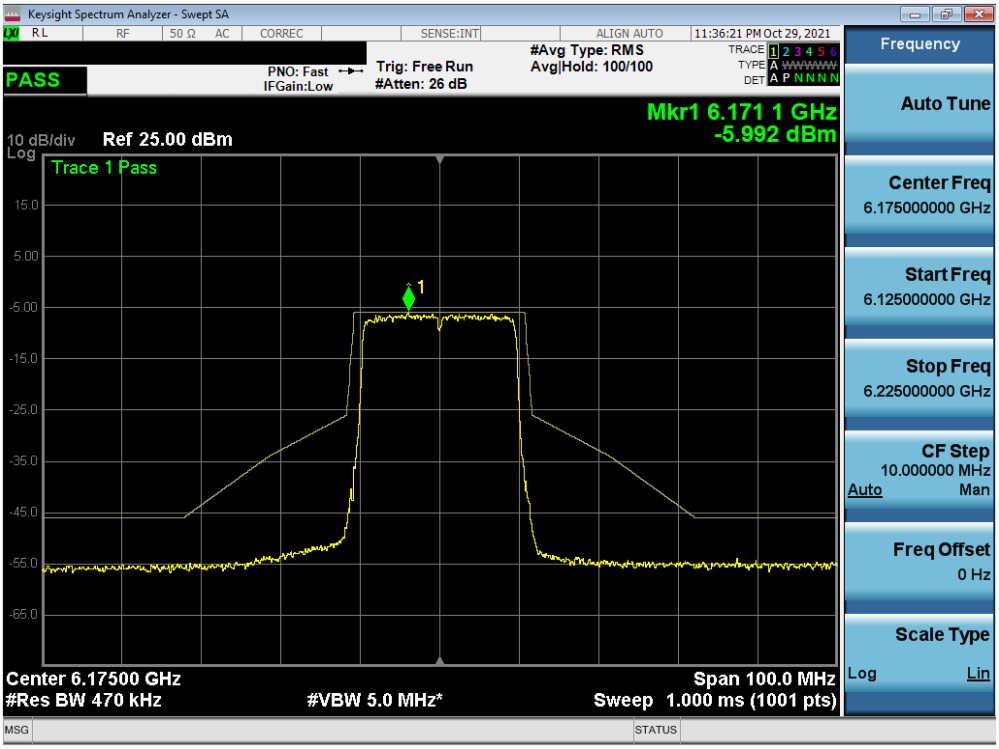



**Plot 7-447. In-Band Emission Plot MIMO ANT2 (160MHz BW (U) 802.11ax (26 Tones) (UNII Band 8) – Ch. 207)**

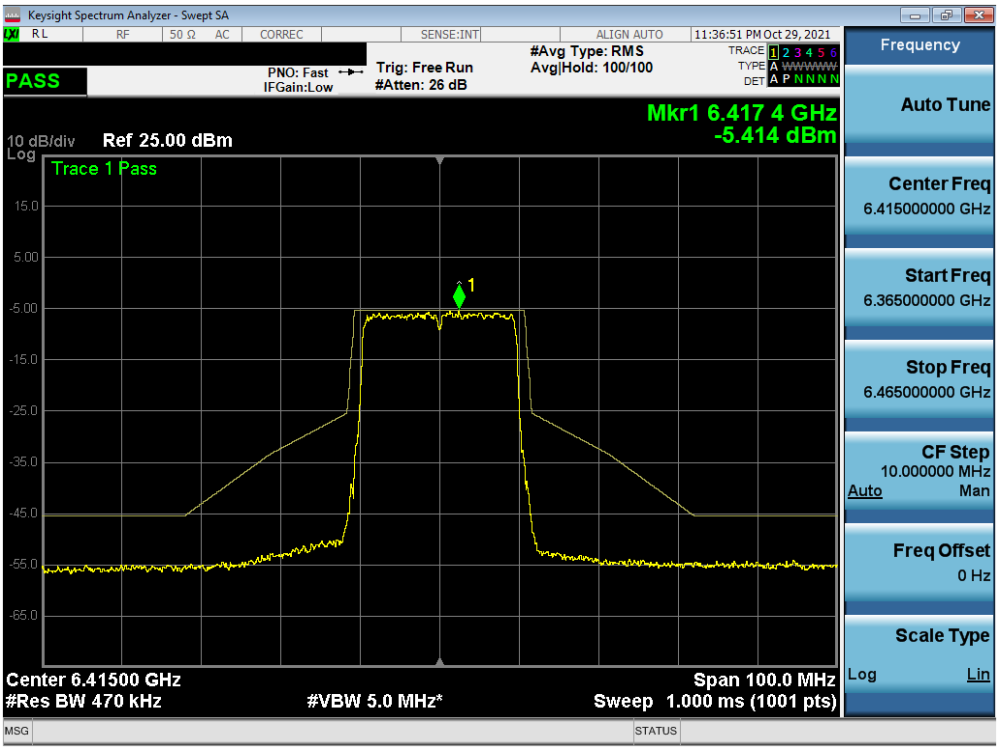
## MIMO Antenna-2 In-Band Emissions (FULL Tones)



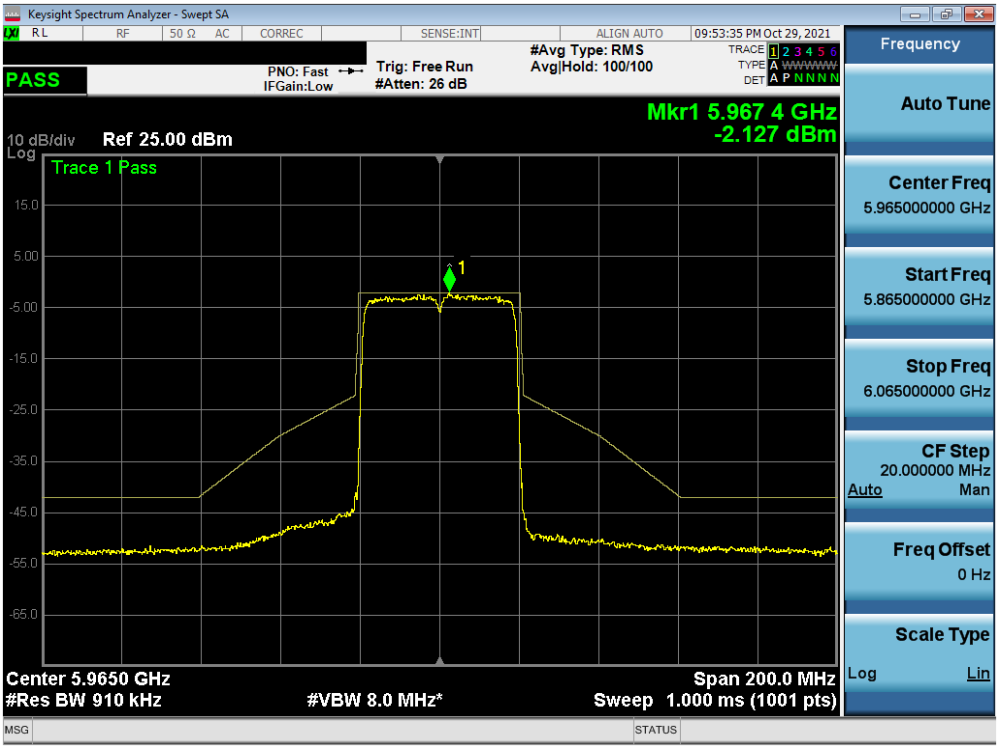

**Plot 7-448. In-Band Emission Plot MIMO ANT2 (20MHz 802.11ax (FULL Tones) (UNII Band 5) – Ch. 2)**



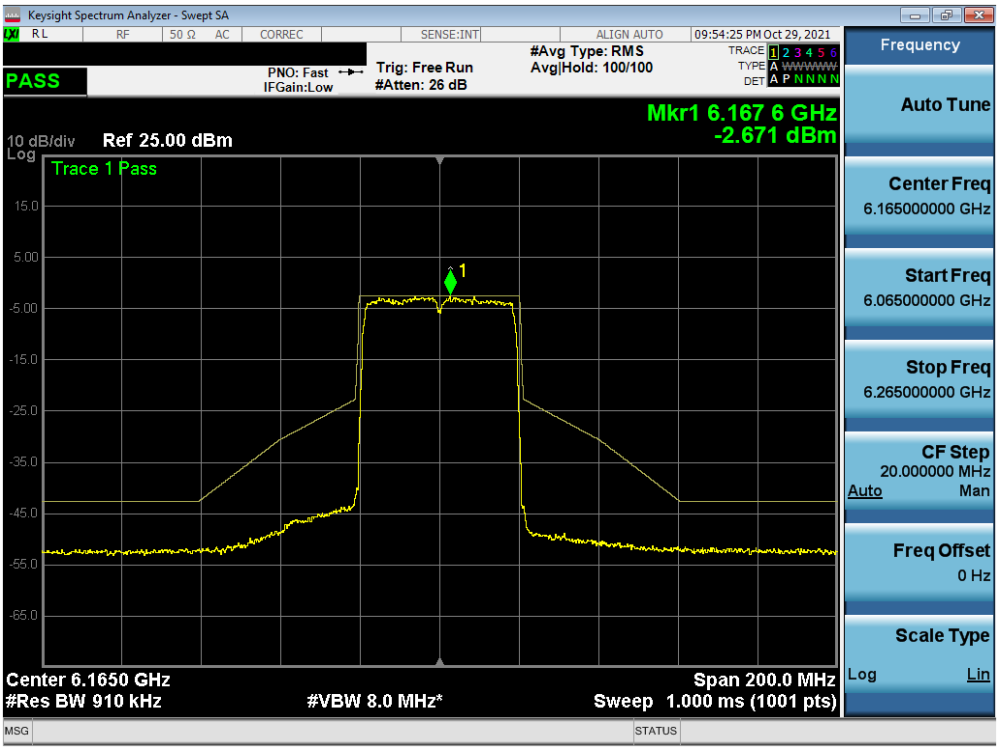

**Plot 7-449. In-Band Emission Plot MIMO ANT2 (20MHz BW 802.11ax (FULL Tones) (UNII Band 5) – Ch. 45)**



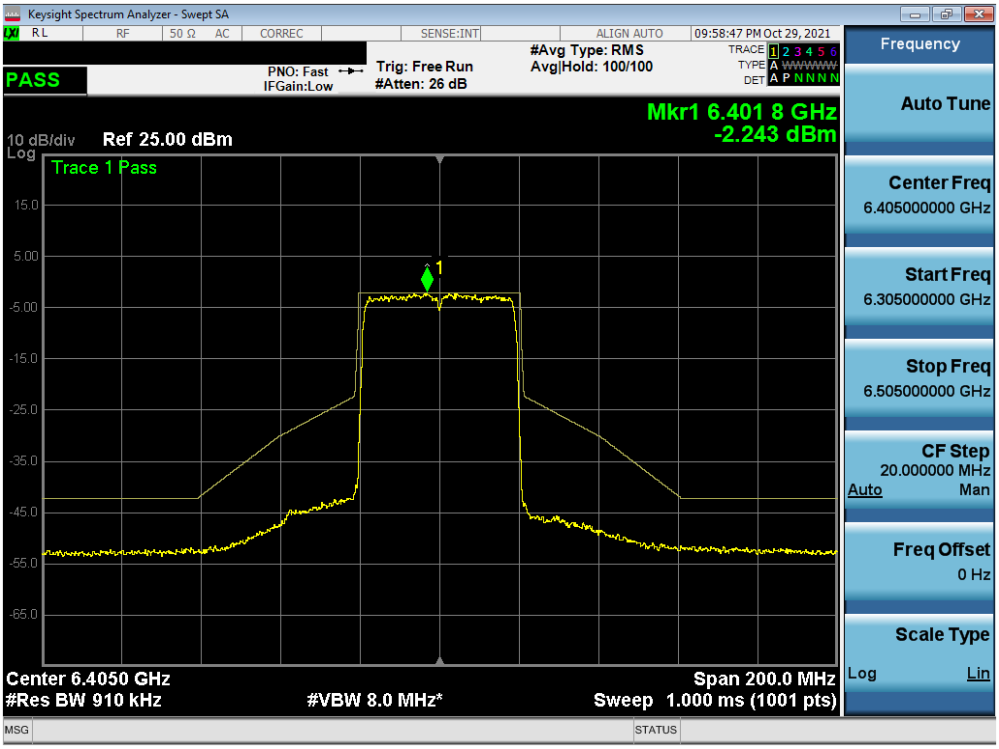

**Plot 7-450. In-Band Emission Plot MIMO ANT2 (20MHz BW 802.11ax (FULL Tones) UNII Band 5) – Ch. 93)**



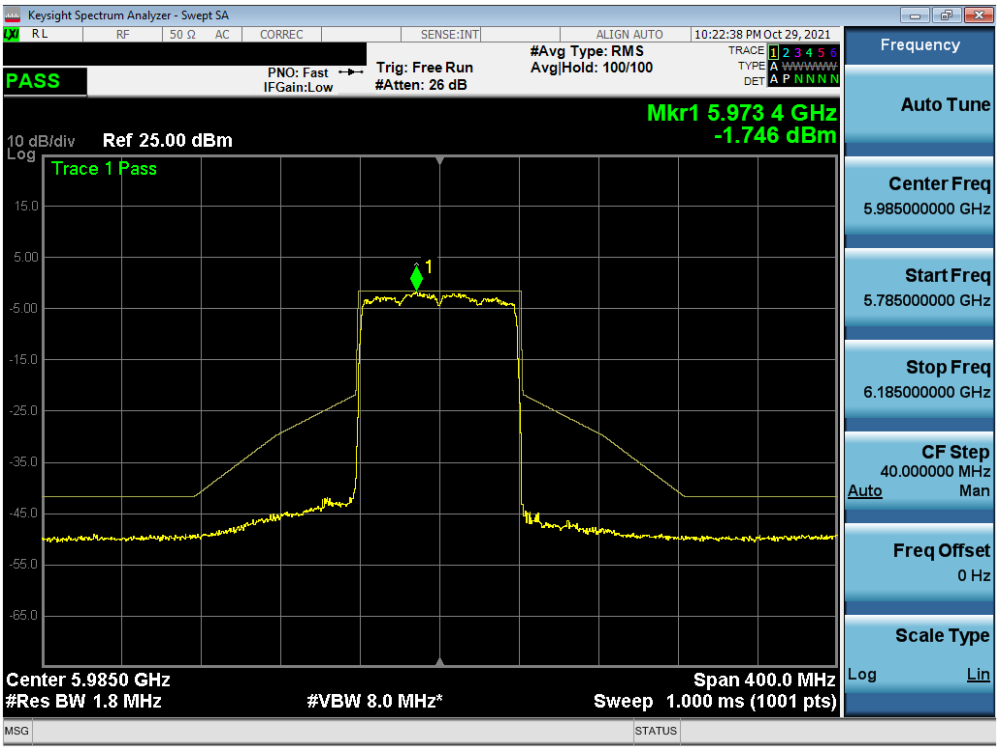

**Plot 7-451. In-Band Emission Plot MIMO ANT2 (40MHz BW 802.11ax (FULL Tones) (UNII Band 5) – Ch. 3)**



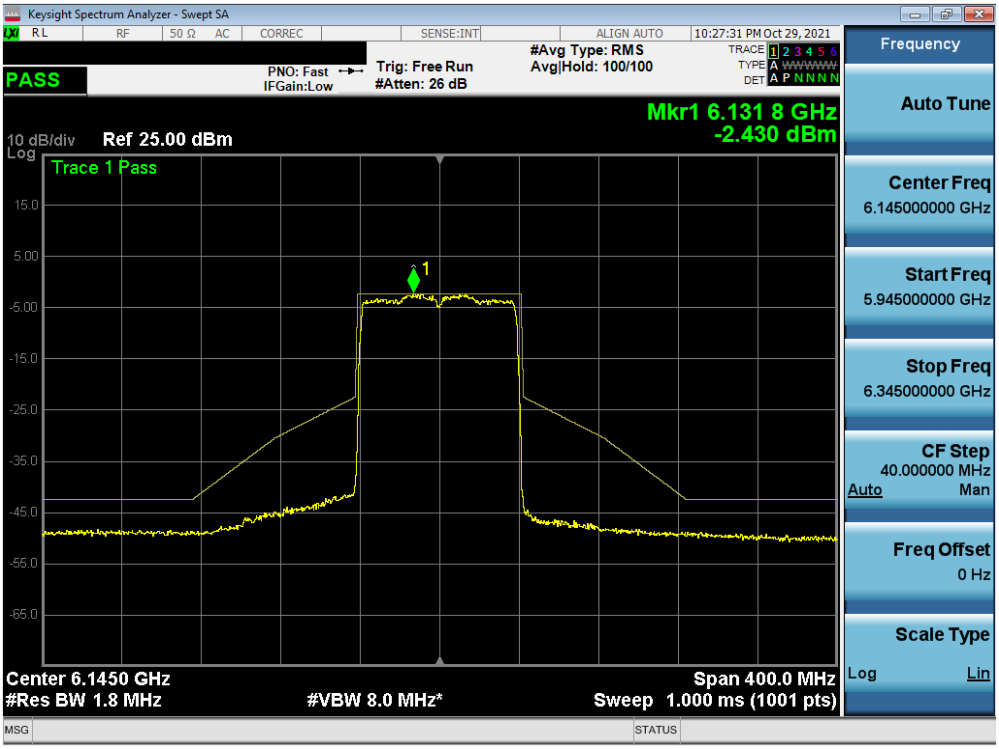

**Plot 7-452. In-Band Emission Plot MIMO ANT2 (40MHz BW 802.11ax (FULL Tones) (UNII Band 5) – Ch. 43)**



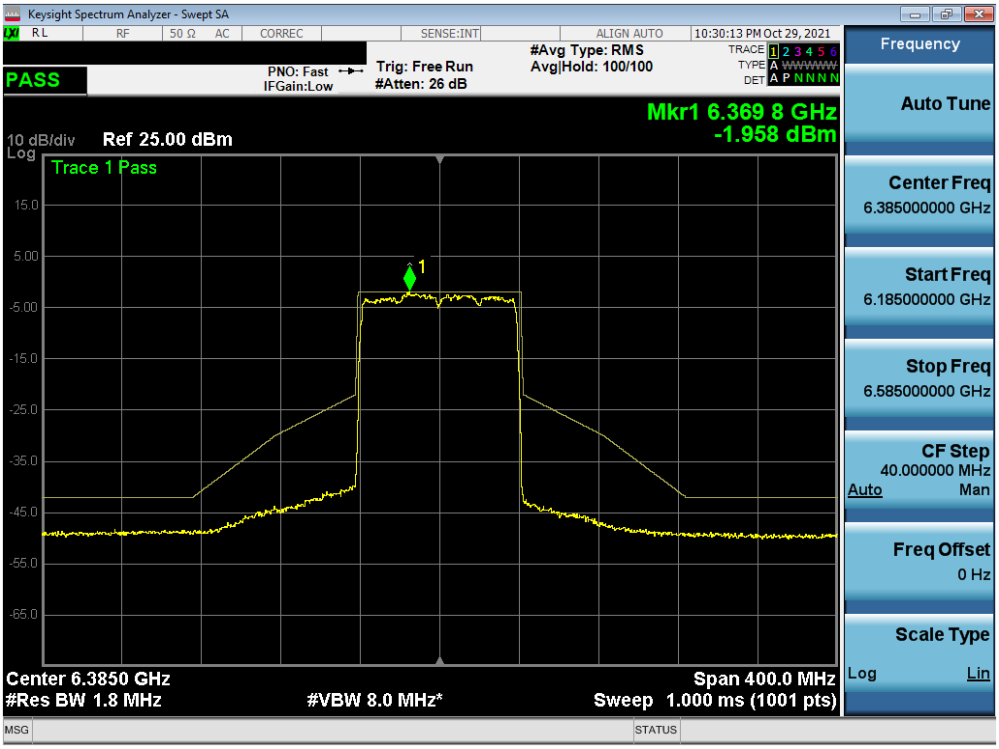

**Plot 7-453. In-Band Emission Plot MIMO ANT2 (40MHz BW 802.11ax (FULL Tones) (UNII Band 5) – Ch. 91)**



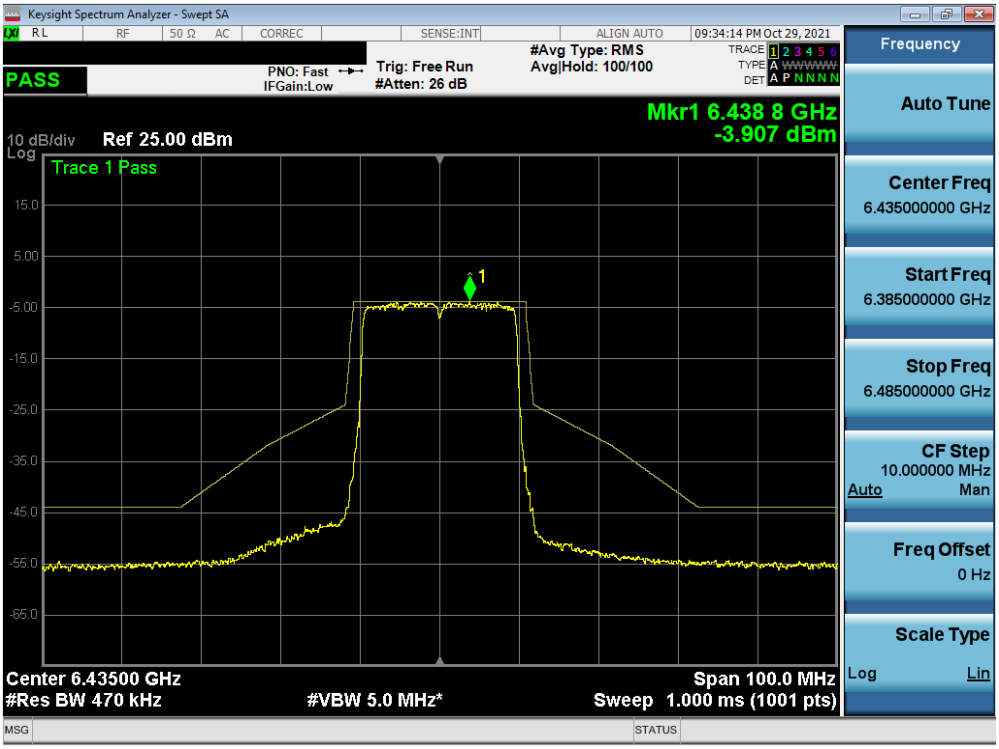

**Plot 7-454. In-Band Emission Plot MIMO ANT2 (80MHz BW 802.11ax (FULL Tones) (UNII Band 5) – Ch. 7)**



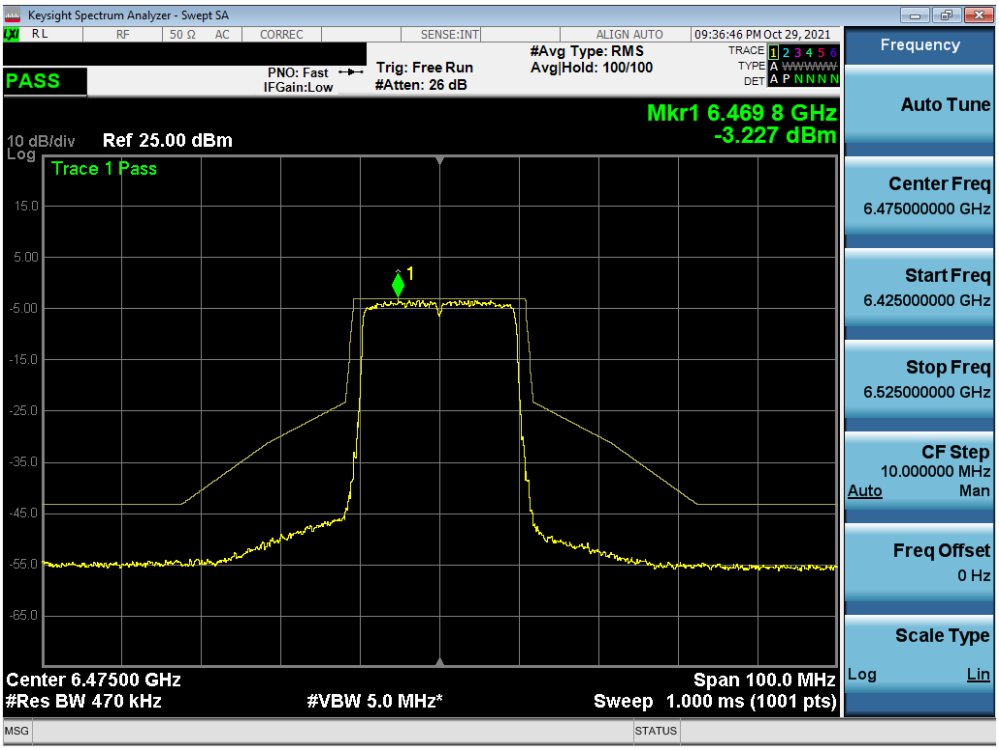

**Plot 7-455. In-Band Emission Plot MIMO ANT2 (80MHz BW 802.11ax (FULL Tones) (UNII Band 5) – Ch. 39)**



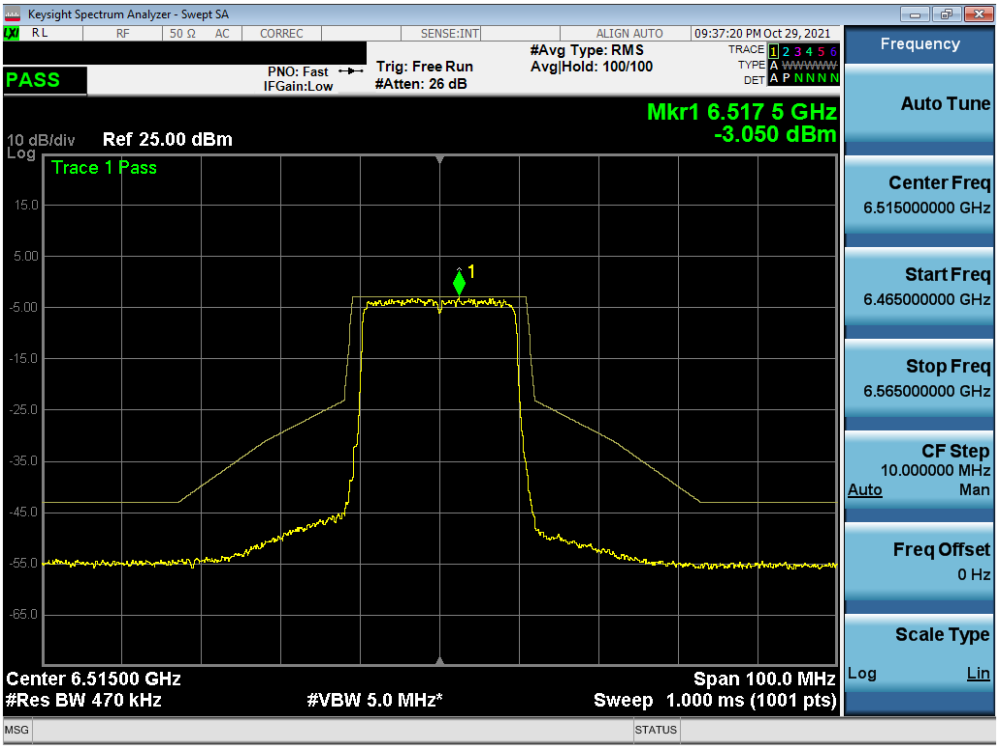

**Plot 7-456. In-Band Emission Plot MIMO ANT2 (80MHz BW 802.11ax (FULL Tones) (UNII Band 5) – Ch. 87)**



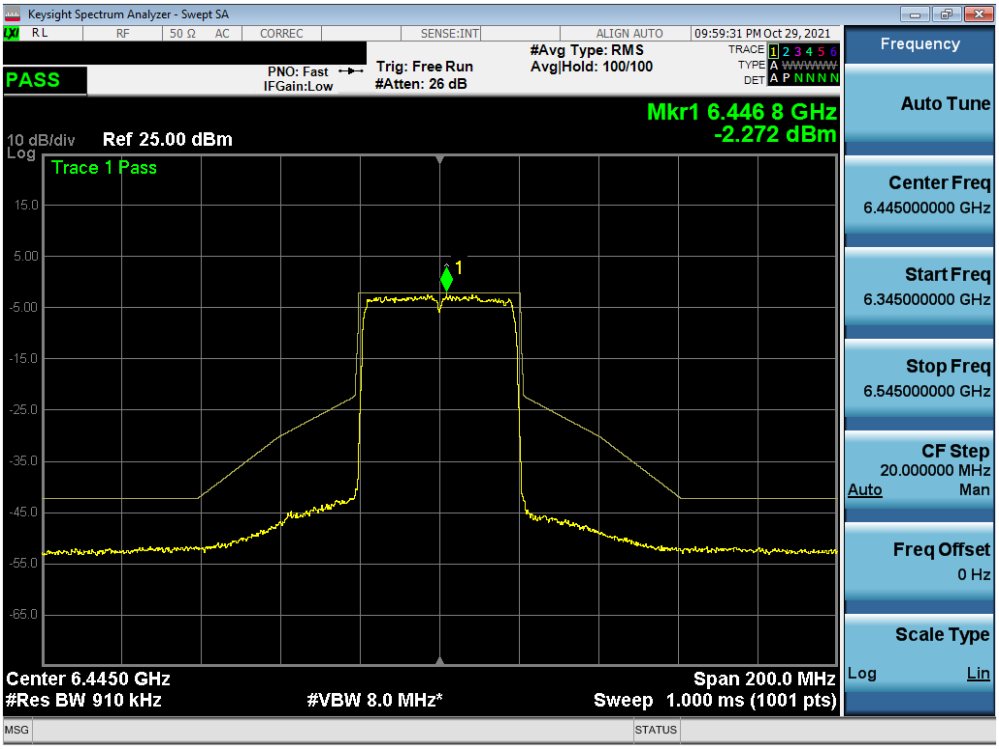

**Plot 7-457. In-Band Emission Plot MIMO ANT2 (20MHz BW 802.11ax (FULL Tones) (UNII Band 6) – Ch. 97)**



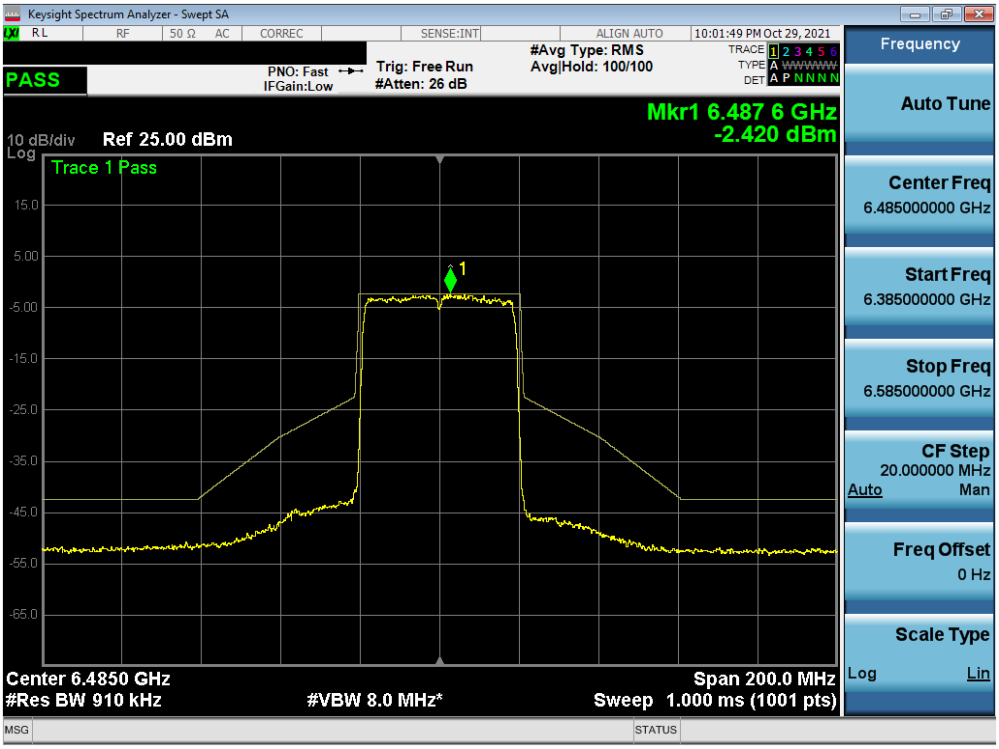

**Plot 7-458. In-Band Emission Plot MIMO ANT2 (20MHz BW 802.11ax (FULL Tones) (UNII Band 6) – Ch. 105)**



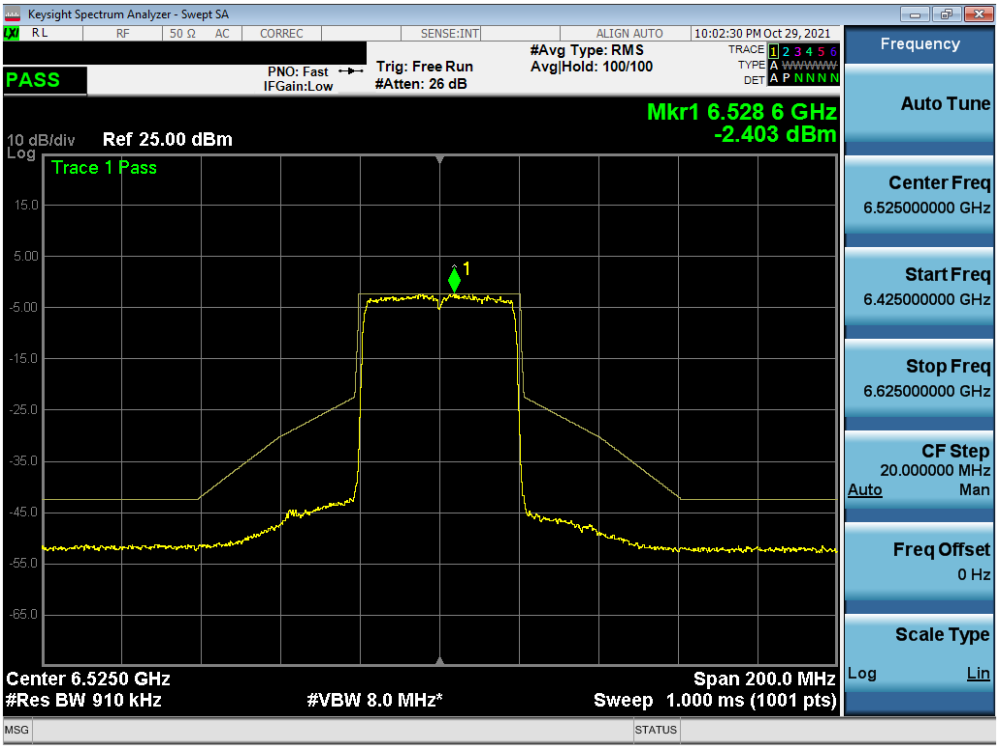

**Plot 7-459. In-Band Emission Plot MIMO ANT2 (20MHz BW 802.11ax (FULL Tones) (UNII Band 6) – Ch. 113)**



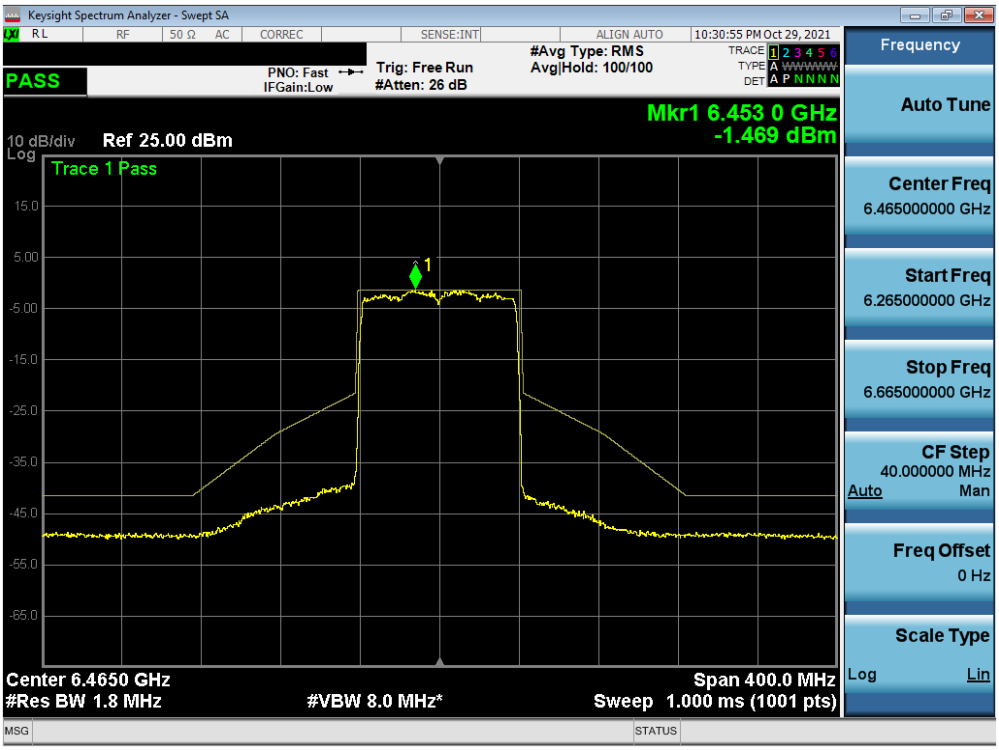

**Plot 7-460. In-Band Emission Plot MIMO ANT2 (40MHz BW 802.11ax (FULL Tones) (UNII Band 6) – Ch. 99)**



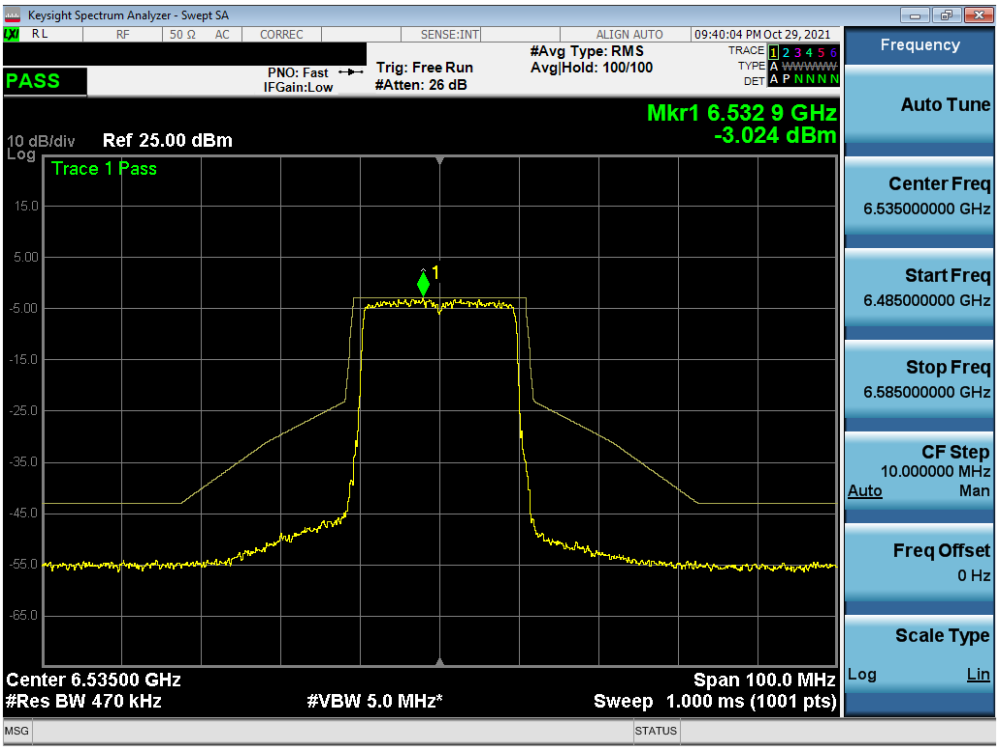

**Plot 7-461. In-Band Emission Plot MIMO ANT2 (40MHz BW 802.11ax (FULL Tones) (UNII Band 6) – Ch. 107)**



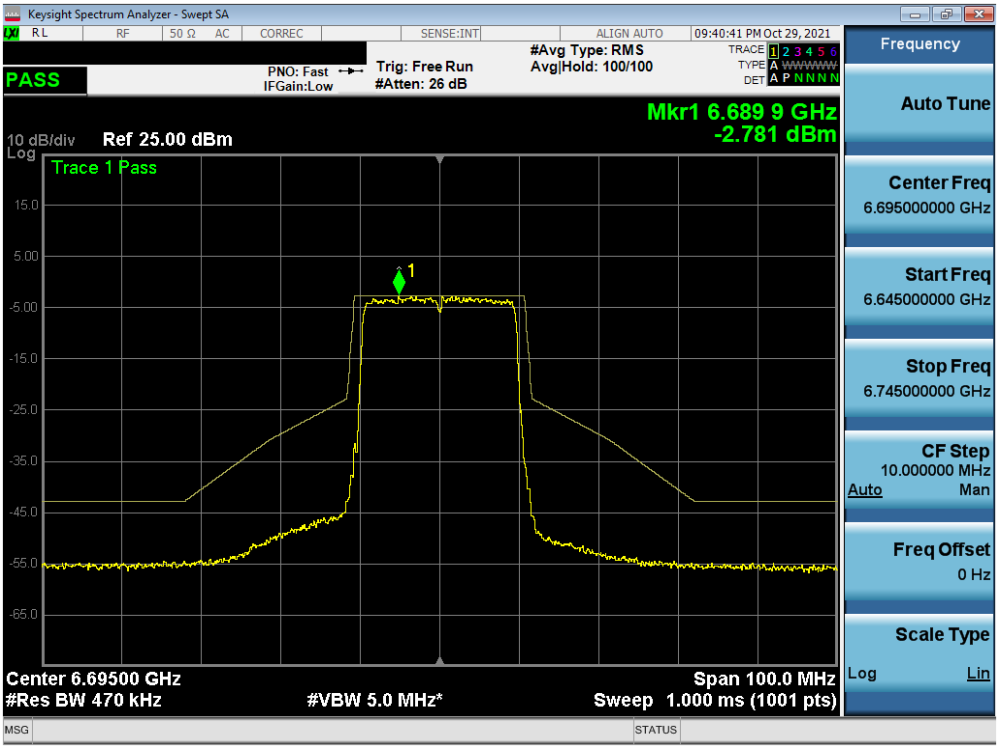

**Plot 7-462. In-Band Emission Plot MIMO ANT2 (40MHz BW 802.11ax (FULL Tones) (UNII Band 6) – Ch. 115)**



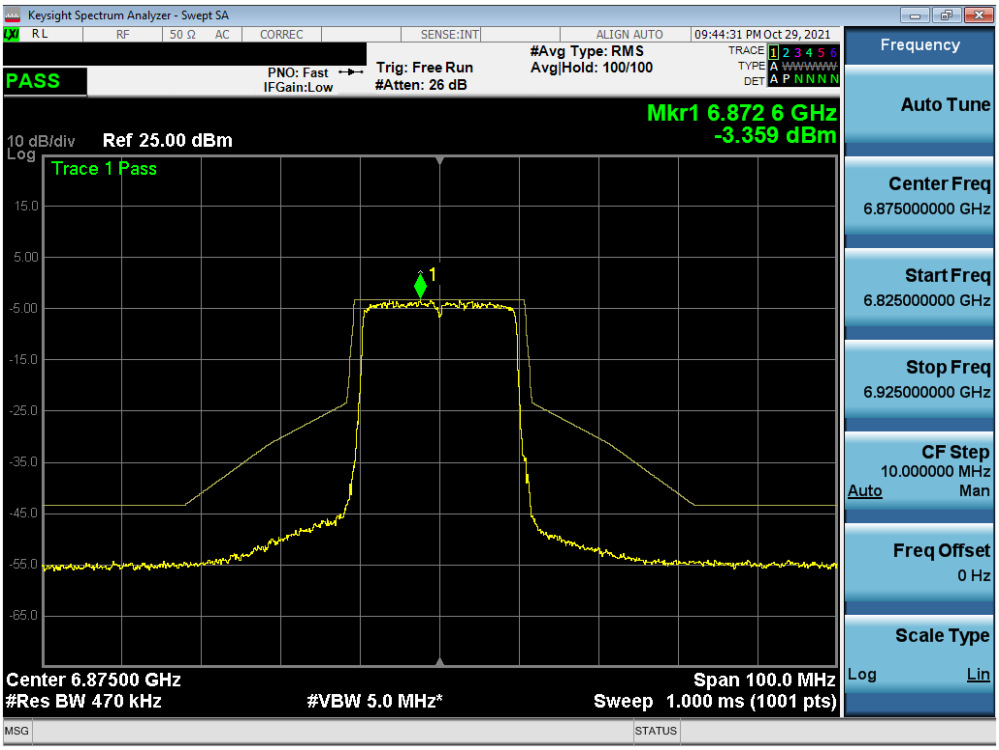

**Plot 7-463. In-Band Emission Plot MIMO ANT2 (80MHz BW 802.11ax (FULL Tones) (UNII Band 6) – Ch. 103)**



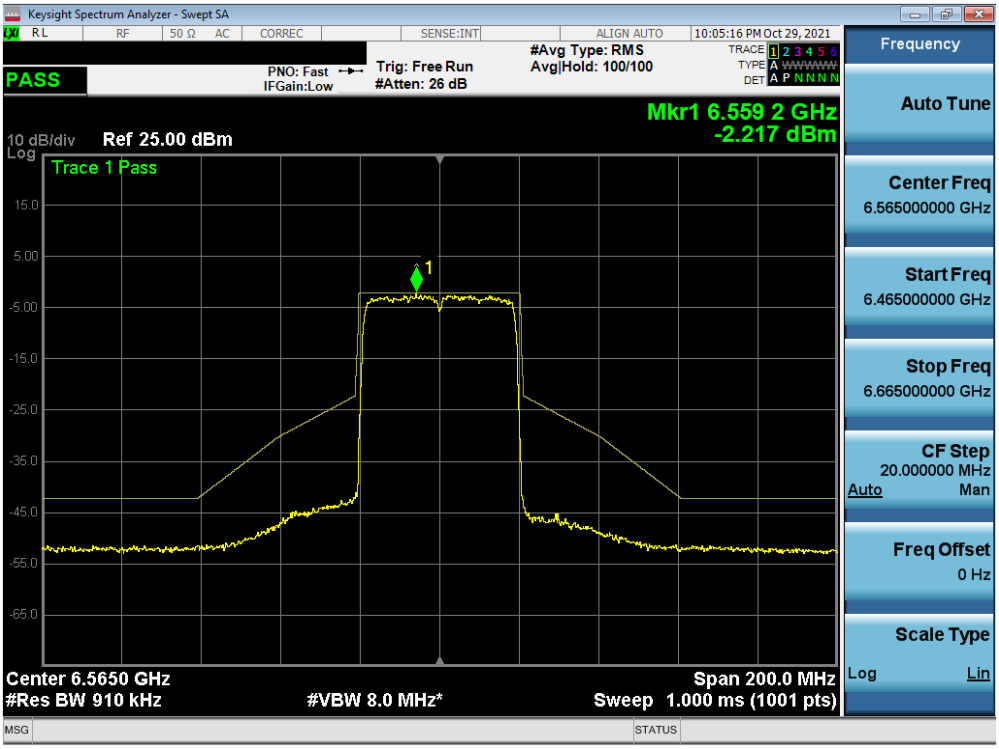

**Plot 7-464. In-Band Emission Plot MIMO ANT2 (20MHz BW 802.11ax (FULL Tones) (UNII Band 7) – Ch. 117)**



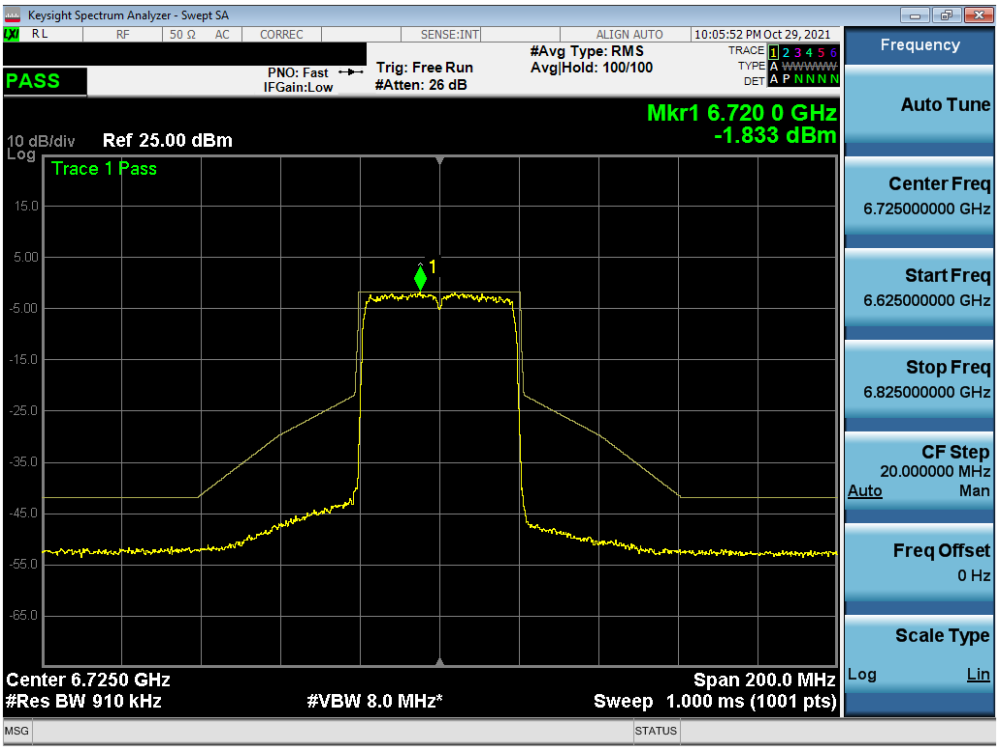

**Plot 7-465. In-Band Emission Plot MIMO ANT2 (20MHz BW 802.11ax (FULL Tones) (UNII Band 7) – Ch. 149)**



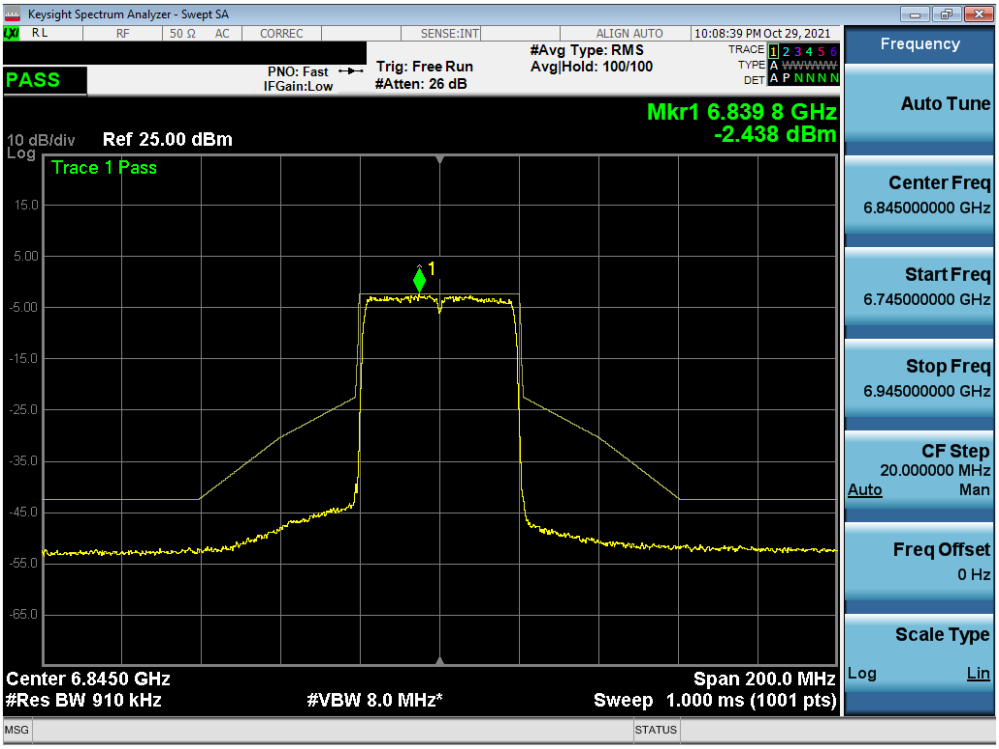

**Plot 7-466. In-Band Emission Plot MIMO ANT2 (20MHz BW 802.11ax (FULL Tones) (UNII Band 7) – Ch. 185)**



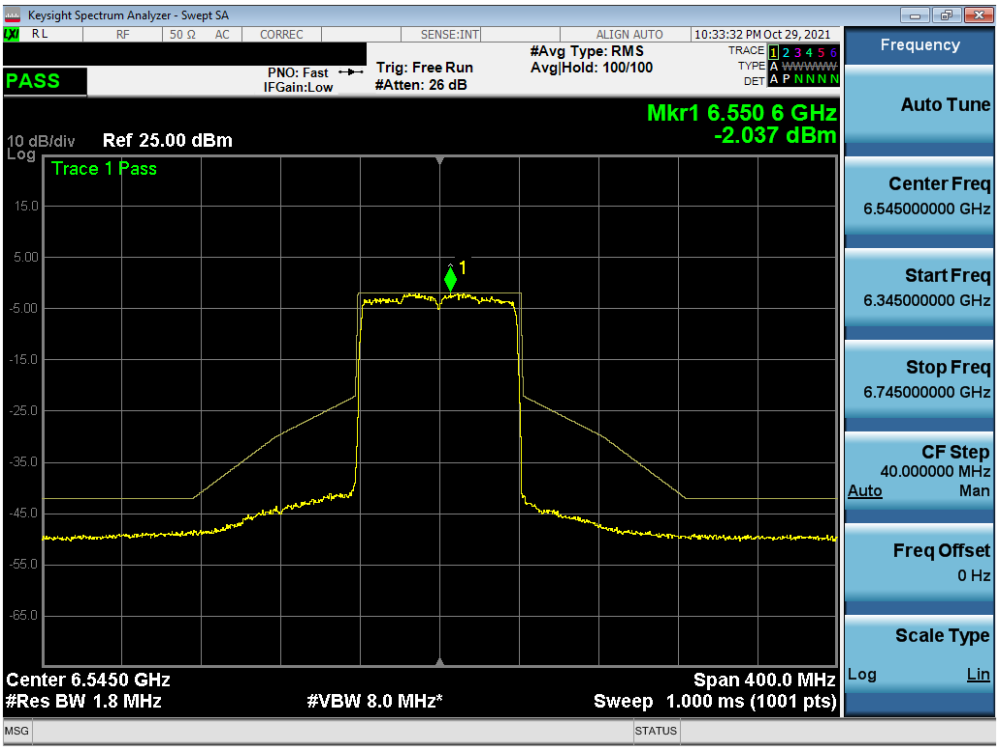

**Plot 7-467. In-Band Emission Plot MIMO ANT2 (40MHz BW 802.11ax (FULL Tones) (UNII Band 7) – Ch. 123)**



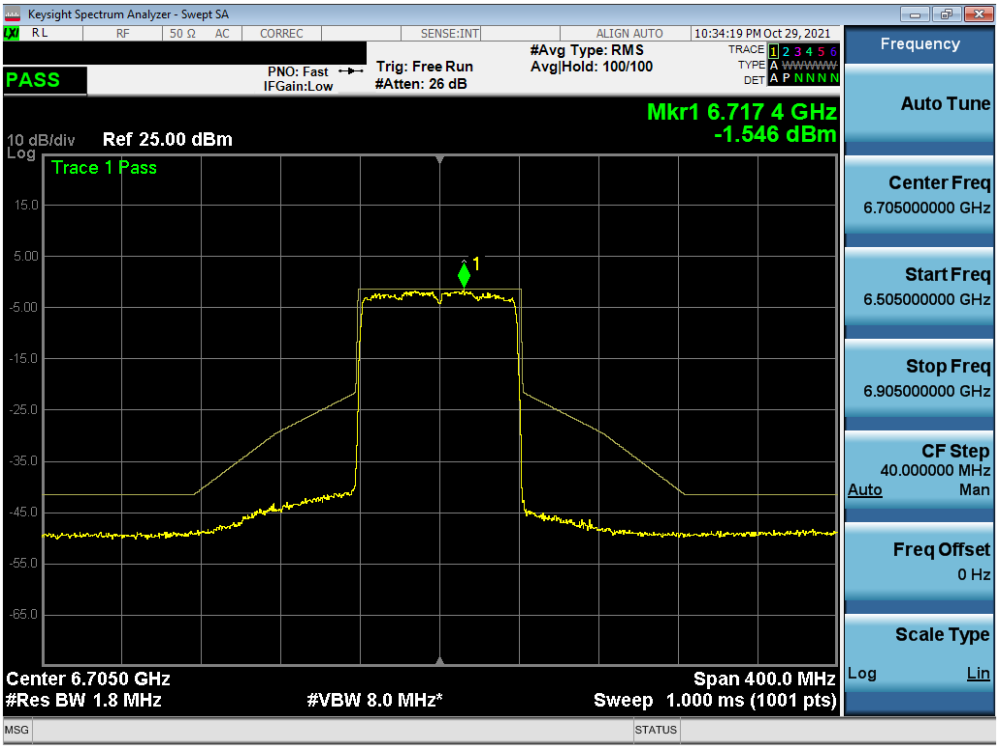

**Plot 7-468. In-Band Emission Plot MIMO ANT2 (40MHz BW 802.11ax (FULL Tones) (UNII Band 7) – Ch. 155)**



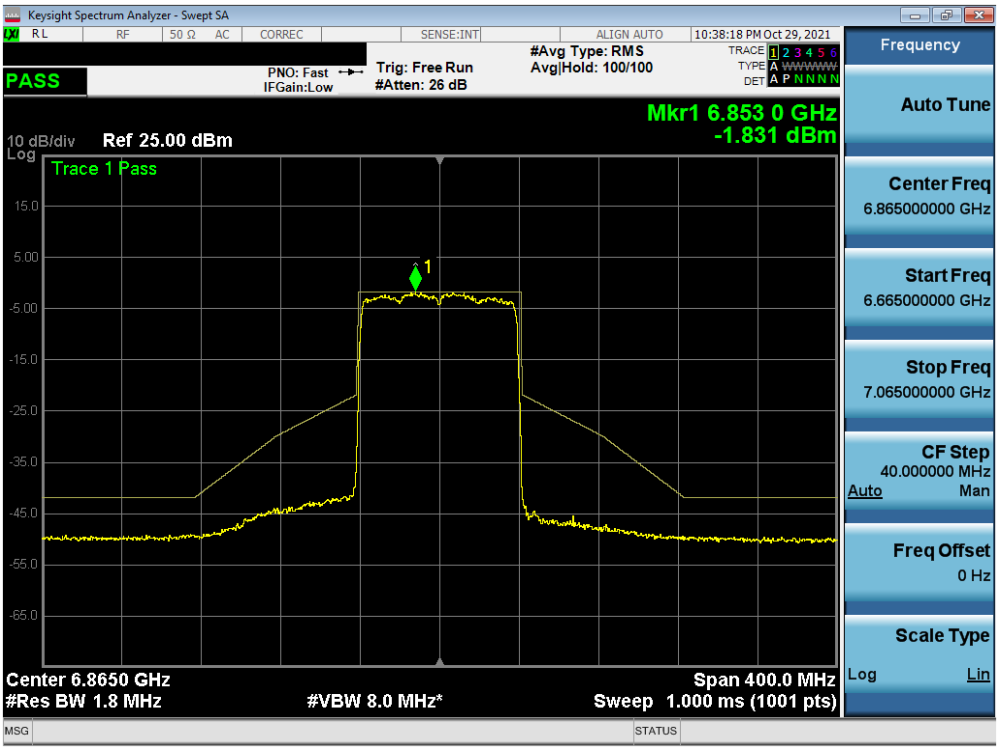

**Plot 7-469. In-Band Emission Plot MIMO ANT2 (40MHz BW 802.11ax (FULL Tones) (UNII Band 7) – Ch. 179)**



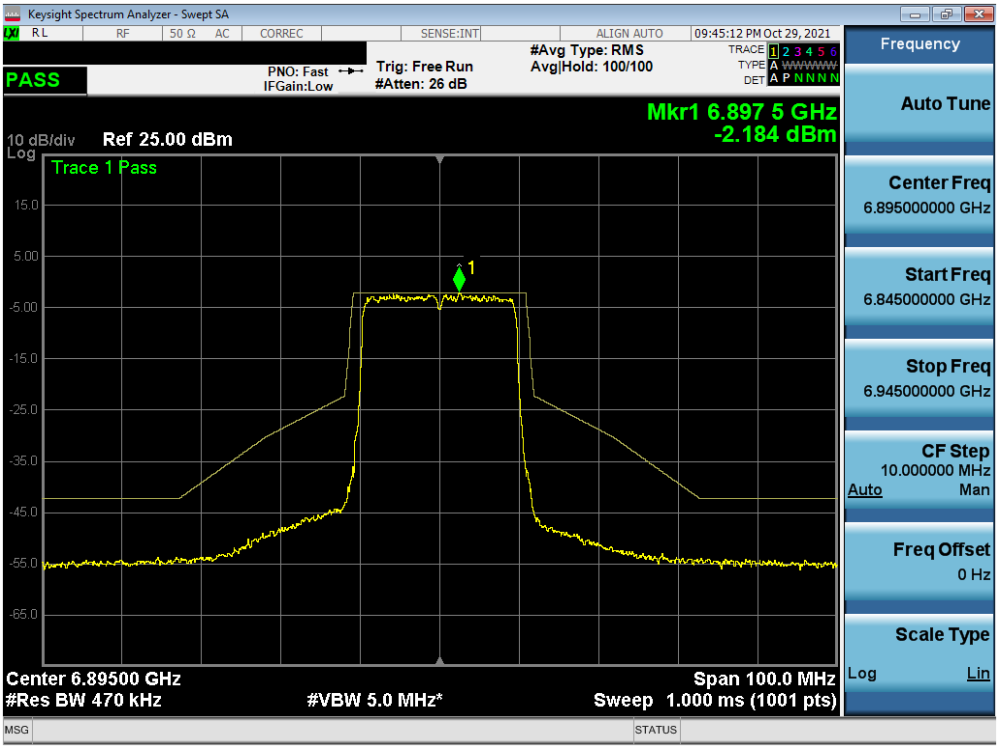

**Plot 7-470. In-Band Emission Plot MIMO ANT2 (80MHz BW 802.11ax (FULL Tones) (UNII Band 7) – Ch. 119)**



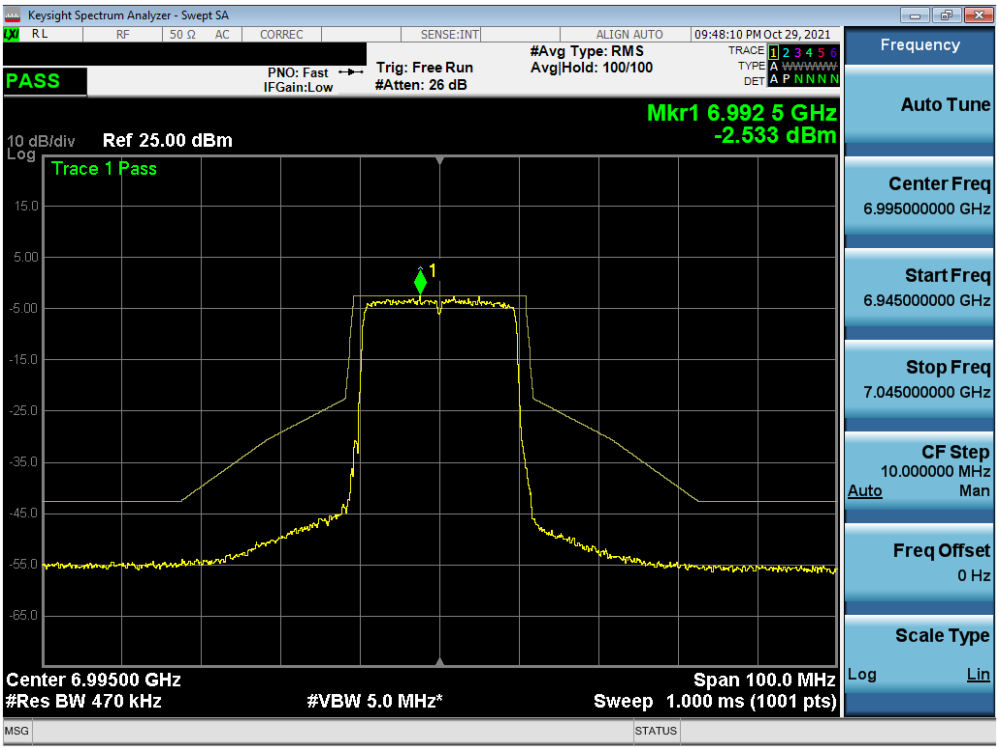

**Plot 7-471. In-Band Emission Plot MIMO ANT2 (80MHz BW 802.11ax (FULL Tones) (UNII Band 7) – Ch. 151)**



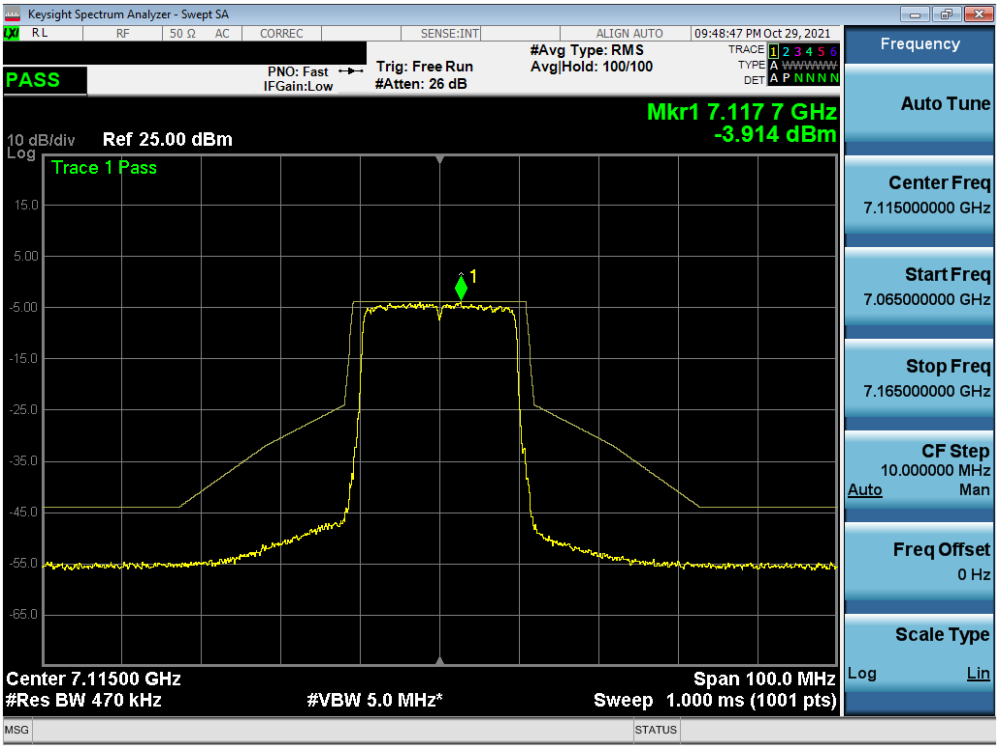

**Plot 7-472. In-Band Emission Plot MIMO ANT2 (80MHz BW 802.11ax (FULL Tones) (UNII Band 7) – Ch. 183)**



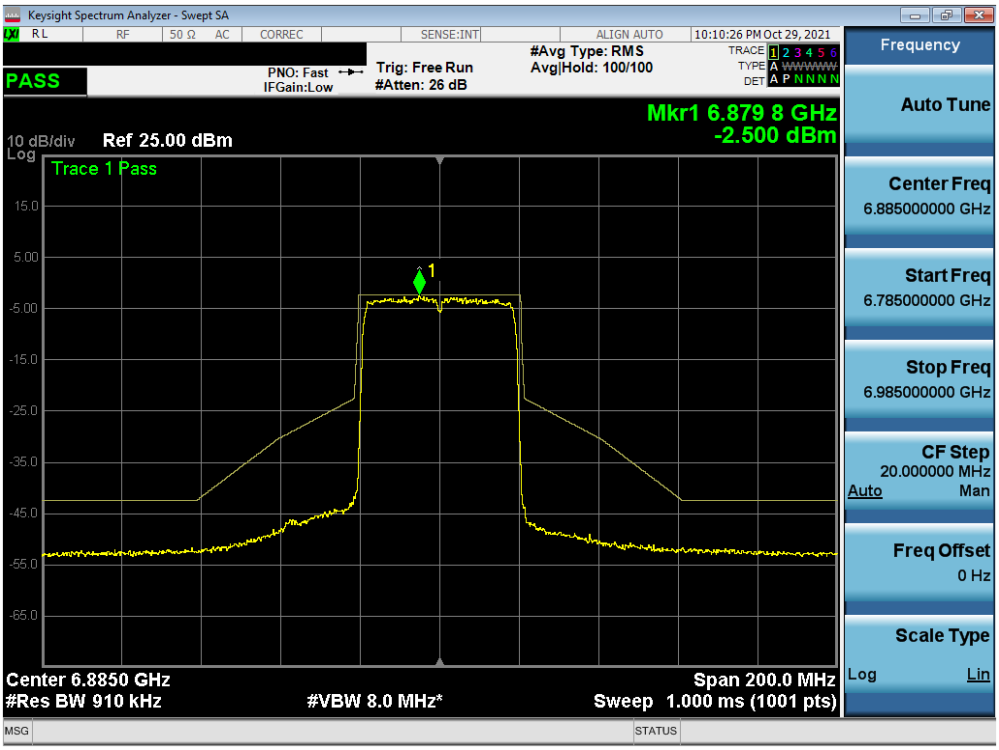

**Plot 7-473. In-Band Emission Plot MIMO ANT2 (20MHz BW 802.11ax (FULL Tones) (UNII Band 8) – Ch. 189)**



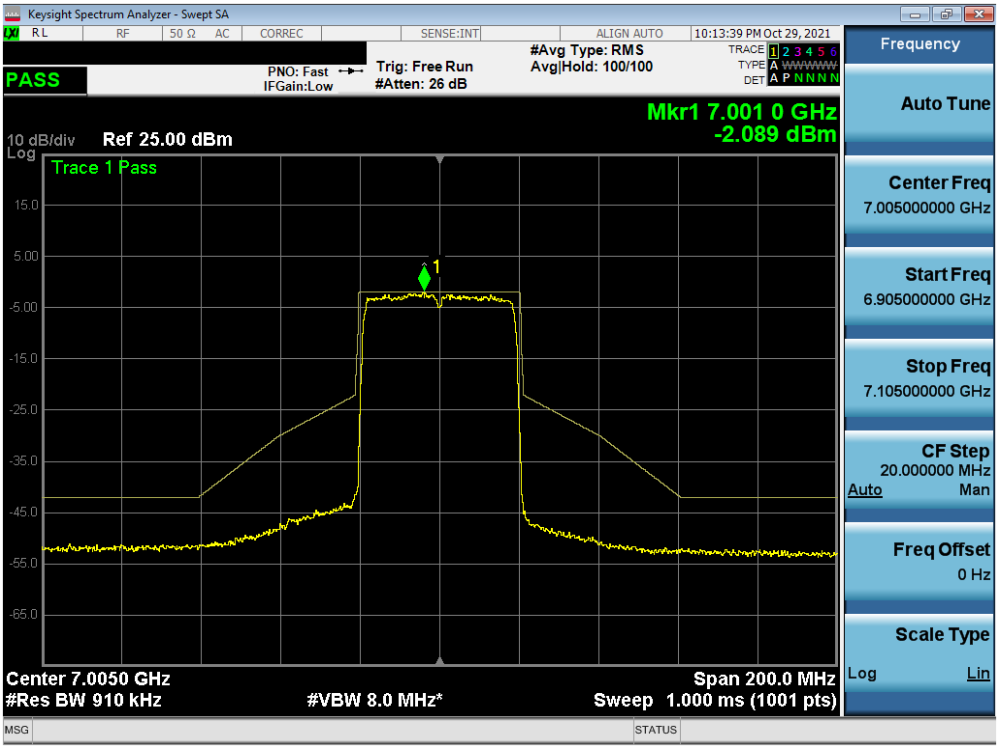

**Plot 7-474. In-Band Emission Plot MIMO ANT2 (20MHz BW 802.11ax (FULL Tones) (UNII Band 8) – Ch. 209)**



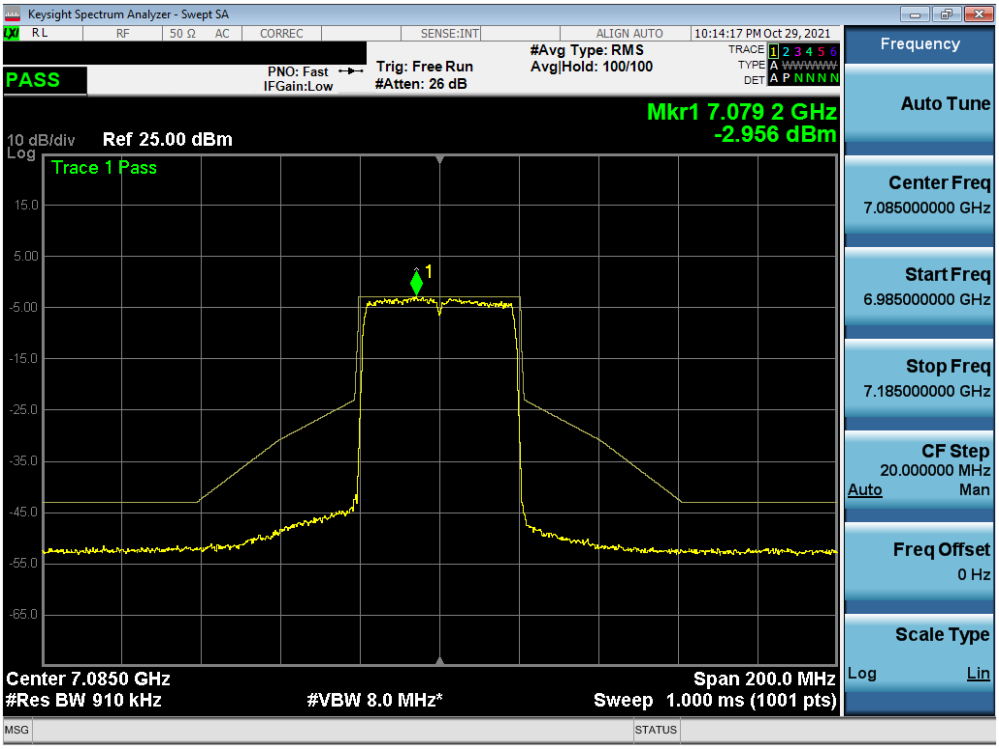

**Plot 7-475. In-Band Emission Plot MIMO ANT2 (20MHz BW 802.11ax (FULL Tones) (UNII Band 8) – Ch. 233)**



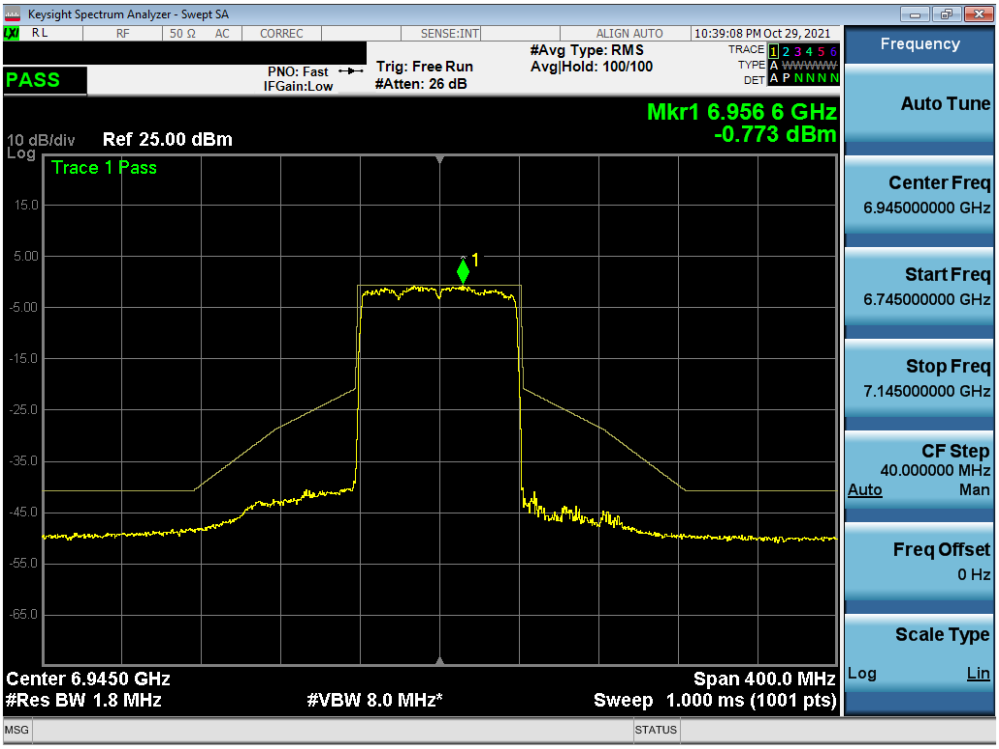

**Plot 7-476. In-Band Emission Plot MIMO ANT2 (40MHz BW 802.11ax (FULL Tones) (UNII Band 8) – Ch. 187)**



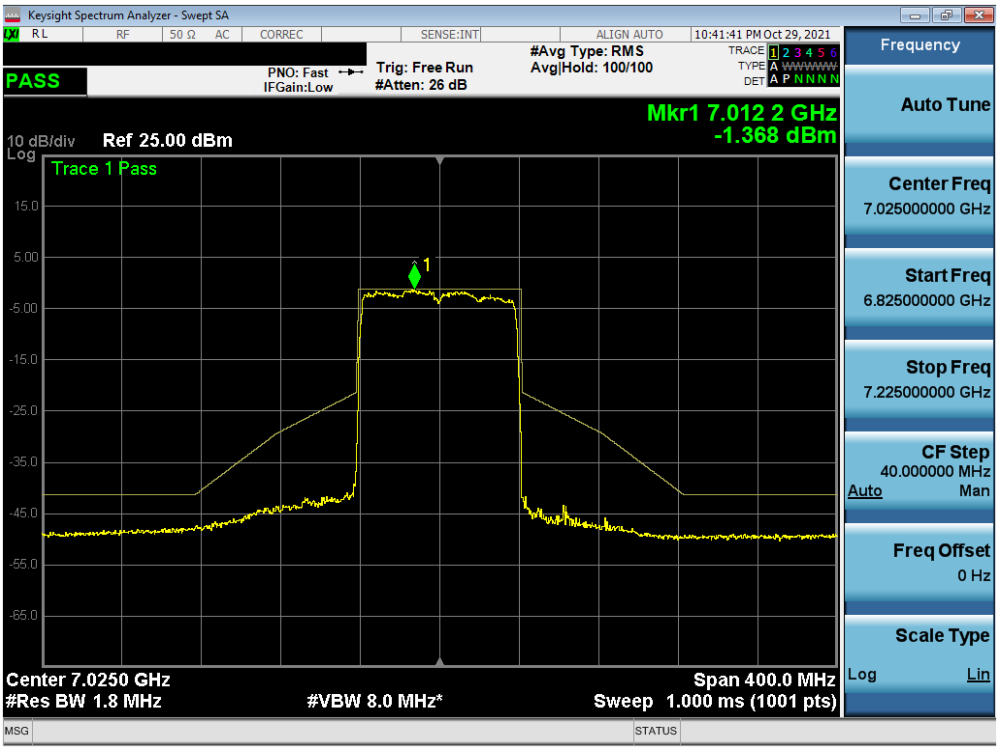

**Plot 7-477. In-Band Emission Plot MIMO ANT2 (40MHz BW 802.11ax (FULL Tones) (UNII Band 8) – Ch. 211)**




**Plot 7-478. In-Band Emission Plot MIMO ANT2 (40MHz BW 802.11ax (FULL Tones) (UNII Band 8) – Ch. 227)**




**Plot 7-479. In-Band Emission Plot MIMO ANT2 (80MHz BW 802.11ax (FULL Tones) (UNII Band 8) – Ch. 199)**




**Plot 7-480. In-Band Emission Plot MIMO ANT2 (80MHz BW 802.11ax (FULL Tones) (UNII Band 8) – Ch. 215)**

## 7.6 Contention Based Protocol – 802.11a/ax

**§15.407(d)(6)**

### Test Overview and Limit

Indoor access points, subordinate devices and client devices operating in the 5.925-7.125 GHz band (herein referred to as unlicensed devices) are required to use technologies that include a contention-based protocol to avoid co-channel interference with incumbent devices sharing the band. To ensure incumbent co-channel operations are detected in a technology-agnostic manner, unlicensed devices are required to detect co-channel radio frequency energy (energy detect) and avoid simultaneous transmission.

Unlicensed indoor low-power devices must detect co-channel radio frequency power that is at least -62 dBm or lower. Upon detection of energy in the band, unlicensed low power indoor devices must vacate the channel and stay off the channel as long as detected radio frequency power is equal to or greater than the threshold (-62 dBm). The -62 dBm (or lower) threshold is referenced to a 0 dBi antenna gain.

To ensure incumbent operations are reliably detected in the band, low power indoor devices must detect RF energy throughout their intended operating channel.

### Test Procedure Used

ANSI C63.10-2013 – Section 12.3.2.2
KDB 987594 D02 V01R01

### Test Settings

1. Using the AWGN signal source, generate (but do not transmit, i.e., RF OFF) a 10 MHz-wide AWGN signal. Use Table 1 to determine the center frequency of the 10 MHz AWGN signal relative to the EUT's channel bandwidth and center frequency.
2. Connect the AWGN signal source to antenna 1, as shown in Figure 3, and transmit the signal (RF ON).
3. Using signal analyzer 1 and antenna 2, measure the AWGN signal power level. Align antenna 2 and antenna 1 to maximize emission.
4. Using equation 1, correct the measured power $P_{\text{meas}}$ by the gain of antenna 2, $G_2$ and all cable losses and attenuations $L$ to obtain the AWGN signal power level at antenna 2, $P_2$.
5. Set the corrected power $P_2$ to an extremely low level (more than 20 dB below the -62 dBm threshold).
6. Place the EUT exactly where antenna 2 was. Configure the EUT to transmit a constant duty cycle.
7. Set the operating parameters of the EUT including power level, operating frequency, modulation and bandwidth.
8. Set the signal analyzer 1 center frequency to the nominal EUT channel center frequency. The span range of the signal analyzer shall be between two times and five times the OBW of EUT.
9. Monitor the signal analyzer 1 to verify if AWGN signal has been detected and EUT has ceased transmission. If the EUT continues to transmit, then incrementally increase the AWGN signal power level until the EUT stops transmitting.
10. Determine and record the AWGN signal power level at which the EUT ceased transmission. Repeat the procedure at least 10 times to verify the EUT can detect the AWGN signal with 90% (or better) level of certainty.
11. Refer to Table 1 in KDB 987594 D02 Section I)b) to determine number of times the detection threshold testing needs to be repeated. If testing is required more than once, then go back to step 1, choose a different center frequency for the AWGN signal and repeat the process.

## Test Setup

The EUT and measurement equipment were set up as shown in the diagram below.


**Figure 7-5. Contention-based protocol test setup, radiated method, power measurement**

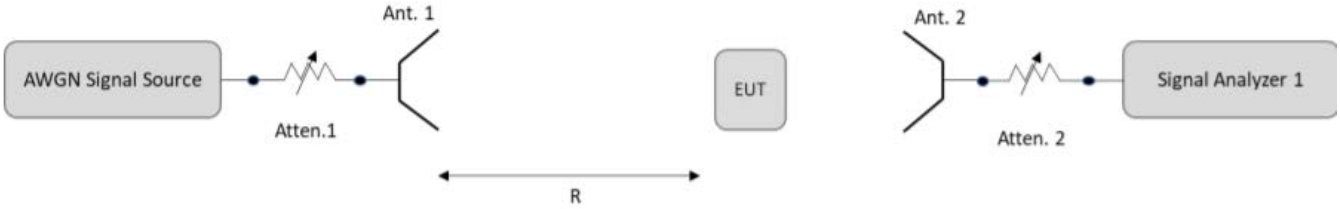


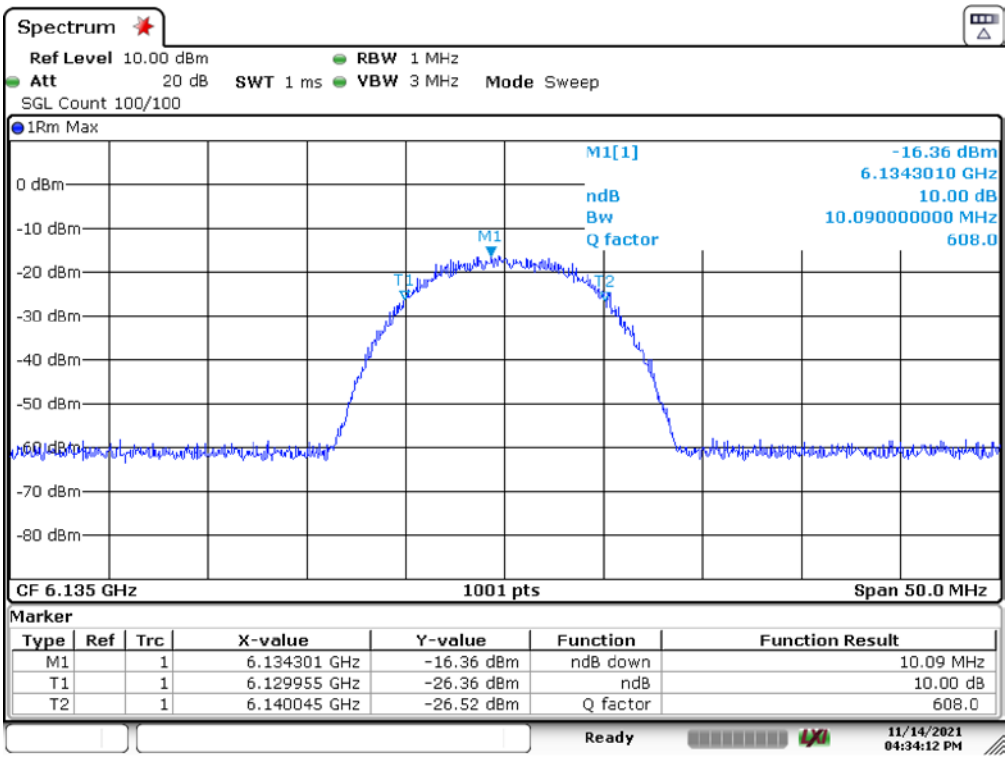

**Figure 7-6. Contention-based protocol test setup, radiated method, detection threshold measurement**

## Test Notes

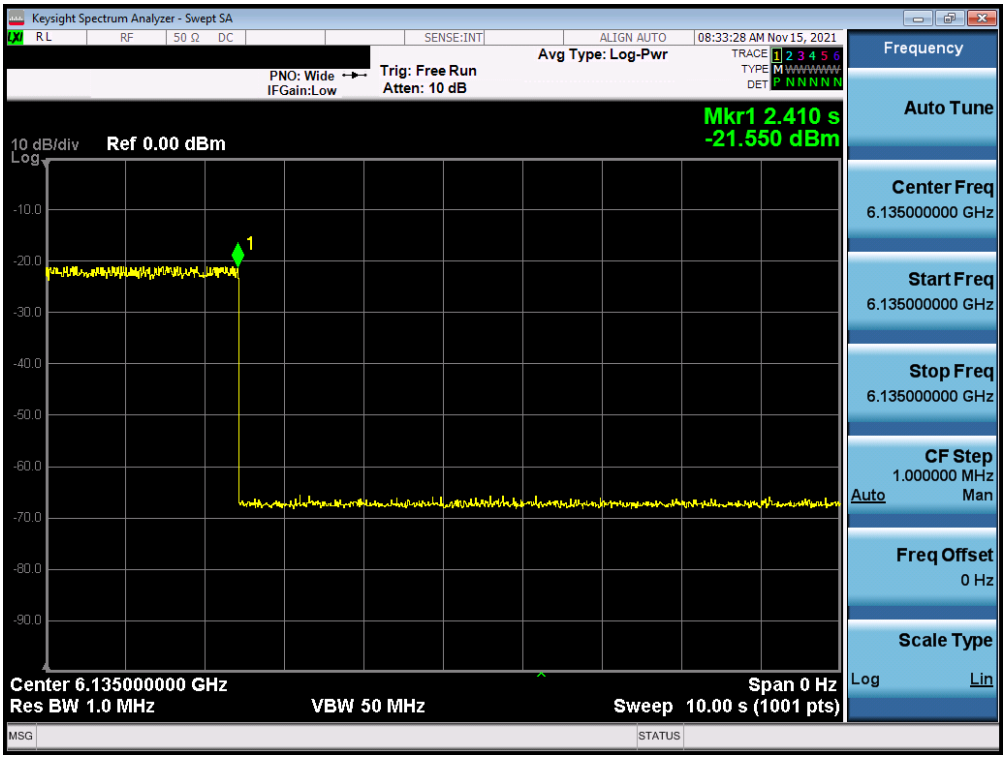
1. Per guidance from KDB 987594 D02 V01R01, contention based protocol was tested using an AWGN signal with a bandwidth of 10MHz (see Plot 7-481). The amplitude of the signal was increased until detected by the EUT, signaled by the ceasing of transmission (see Plot 7-482), marker indicates the point at which the AWGN signal is introduced.
2. 15 trials were ran in order to assure that at least 90% of certainty was met.

$$P2 = Pmeas + L - G2$$
$$P2 = -53.21 + 1.92 - 10.72$$
$$P2 = -62.01 dBm$$

**Equation 7-1. Incumbent Detection Level Calculation**




**Plot 7-481. AWGN Sample Signal**




**Plot 7-482. Contention Based Protocol Timing Plot**

| Band | Channel | Channel Freq [MHz] | Channel BW [MHz] | Incumbent Freq [MHz] | Detection Power Level [dBm] | Detection Limit [dBm] | Margin [dB] |
|---|---|---|---|---|---|---|---|
| UNII Band 5 | 37 | 6135 | 20 | 6135 | -68.89 | -62.0 | -6.89 |
| | 47 | 6185 | 160 | 6110 | -66.27 | -62.0 | -4.27 |
| | | | | 6175 | -65.90 | -62.0 | -3.90 |
| | | | | 6240 | -64.94 | -62.0 | -2.94 |
| UNII Band 6 | 101 | 6455 | 20 | 6455 | -68.86 | -62.0 | -6.86 |
| | 111 | 6505 | 160 | 6435 | -65.00 | -62.0 | -3.00 |
| | | | | 6495 | -63.78 | -62.0 | -1.78 |
| | | | | 6575 | -64.43 | -62.0 | -2.43 |
| UNII Band 7 | 149 | 6695 | 20 | 6695 | -68.26 | -62.0 | -6.26 |
| | 143 | 6665 | 160 | 6595 | -65.46 | -62.0 | -3.46 |
| | | | | 6655 | -64.52 | -62.0 | -2.52 |
| | | | | 6735 | -63.79 | -62.0 | -1.79 |
| UNII Band 8 | 213 | 7015 | 20 | 7015 | -68.27 | -62.0 | -6.27 |
| | 207 | 6985 | 160 | 6915 | -65.07 | -62.0 | -3.07 |
| | | | | 6975 | -63.50 | -62.0 | -1.50 |
| | | | | 7055 | -63.49 | -62.0 | -1.49 |

**Table 7-31. Contention Based Protocol – Incumbent Detection Results**

| Band | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | Detection Rate (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| UNII Band 5 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100 |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100 |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100 |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100 |
| UNII Band 6 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100 |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100 |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100 |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100 |
| UNII Band 7 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100 |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100 |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100 |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100 |
| UNII Band 8 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100 |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100 |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100 |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100 |

**Table 7-32. Contention Based Protocol – Incumbent Detection Trial Results**

## 7.7 Radiated Spurious Emission Measurements – Above 1GHz

**§15.205, §15.209**

### Test Overview and Limit

All out of band radiated spurious emissions are measured with a spectrum analyzer connected to a receive antenna while the EUT is operating at its maximum duty cycle, at its maximum power control level, as defined in ANSI C63.10-2013 and KDB 789033 D02 v02r01, and at the appropriate frequencies. All channels, modes (e.g. 802.11a, 802.11n (20MHz BW), 802.11n (40MHz BW), and 802.11ac (80MHz)), and modulations/data rates were investigated among all UNII bands. Only the radiated emissions of the configuration that produced the worst case emissions are reported in this section.

***For transmitters operating within the 5.925-7.125 GHz band: Any emissions outside of the 5.925-7.125 GHz band must not exceed an e.i.r.p. of −27 dBm/MHz***

***All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47 CFR must not exceed the limits shown in Table 7-33 per Section 15.209.***

| Frequency | Field Strength [µV/m] | Measured Distance [Meters] |
|---|---|---|
| Above 960.0 MHz | 500 | 3 |

**Table 7-33. Radiated Limits**

### Test Procedures Used

ANSI C63.10-2013 – Sections 12.7.7.2, 12.7.6, 12.7.5
KDB 789033 D02 v02r01 – Section G

### Test Settings

#### Average Measurements above 1GHz (Method AD)

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = power average (RMS)
5. Number of measurement points = 1001 (Number of points must be ≥ 2 x span/RBW)
6. Averaging type = power (RMS)
7. Sweep time = auto couple
8. Trace was averaged over 100 sweeps

#### Peak Measurements above 1GHz

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = peak
5. Sweep time = auto couple

6. Trace mode = max hold
7. Trace was allowed to stabilize

**Peak Measurements below 1GHz**

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. Span was set greater than 1MHz
3. RBW = 120kHz
4. Detector = CISPR quasi-peak
5. Sweep time = auto couple
6. Trace was allowed to stabilize

## Test Setup

The EUT and measurement equipment were set up as shown in the diagram below.

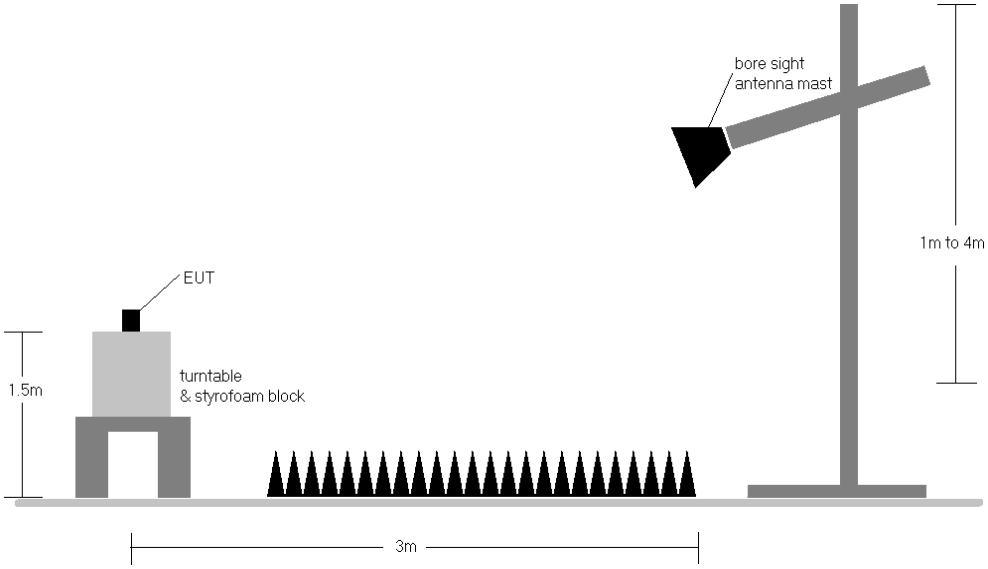



**Figure 7-7. Test Instrument & Measurement Setup**

## Test Notes

1. All emissions that lie in the restricted bands (denoted by a * next to the frequency) specified in §15.205 are below the limit shown in Table 7-33.
2. All spurious emissions lying in restricted bands specified in §15.205 are below the limit shown in Table 7-33. All spurious emissions that do not lie in a restricted band are subject to an average limit of -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions of 68.2dBμV/m.
3. All spurious emissions that do not lie in a restricted band are subject to a peak limit not to exceed 20dB of the average limit [68.2dBμV/m]. If a peak measurement passes the average limit it was determined no further investigation is necessary.
4. The antenna is manipulated through typical positions, polarity and length during the tests. The EUT is manipulated through three orthogonal planes.
5. This unit was tested with its standard battery.
6. The spectrum is measured from 9kHz to the 10th harmonic of the fundamental frequency of the transmitter using CISPR quasi peak detector below 1GHz. Above 1 GHz, average and peak measurements were taken using linearly polarized horn antennas. The worst-case emissions are reported however emissions whose levels were not within 20dB of the respective limits were not reported.
7. Emissions below 18GHz were measured at a 3 meter test distance while emissions above 18GHz were measured at a 1 meter test distance with the application of a distance correction factor.
8. Radiated spurious emissions were investigated while operating in MIMO mode, however, it was determined that single antenna operation produced the worst case emissions. Since the emissions produced from MIMO operation were found to be more than 20dB below the limit, the MIMO emissions are not reported.
9. The wide spectrum spurious emissions plots shown on the following pages are used only for the purpose of emission identification. Any emissions found to be within 20dB of the limit are fully investigated and the results are shown in this section.
10. The "-" shown in the following RSE tables are used to denote a noise floor measurement.

## Sample Calculations

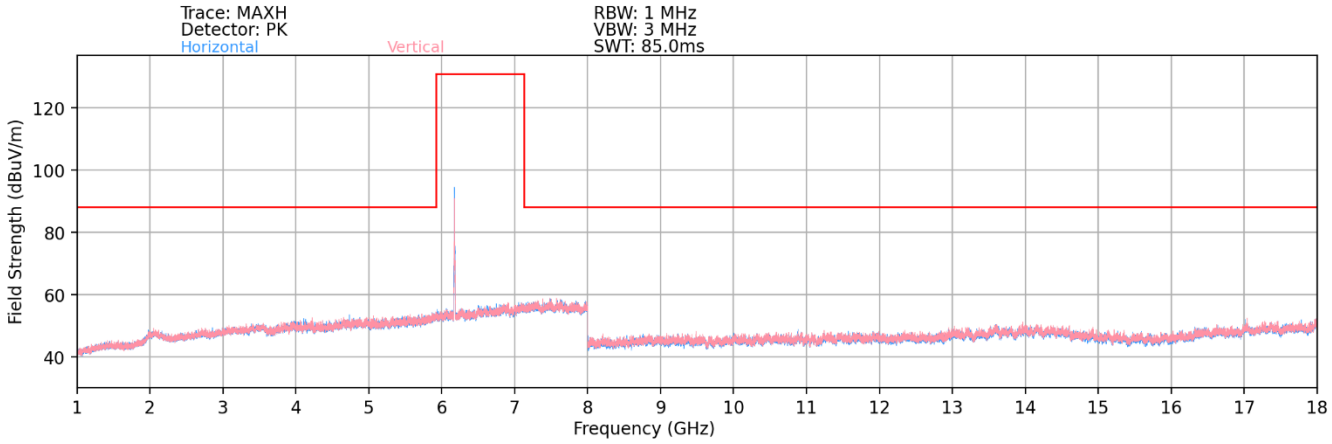
### Determining Spurious Emissions Levels

- Field Strength Level $_{[dB\mu V/m]}$ = Analyzer Level $_{[dBm]}$ + 107 + AFCL $_{[dB/m]}$
- AFCL $_{[dB/m]}$ = Antenna Factor $_{[dB/m]}$ + Cable Loss $_{[dB]}$
- Margin $_{[dB]}$ = Field Strength Level $_{[dB\mu V/m]}$ – Limit $_{[dB\mu V/m]}$

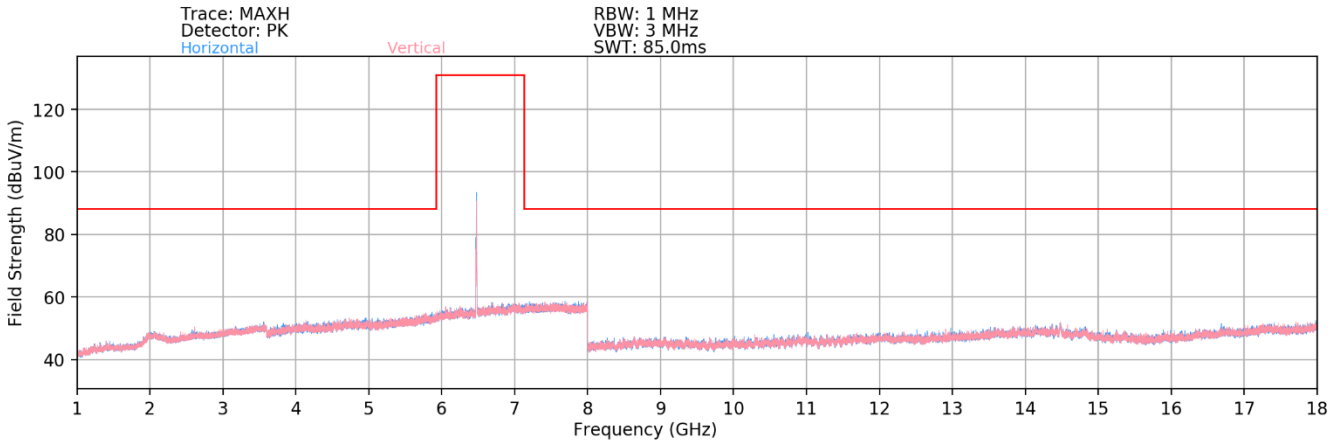
### Radiated Band Edge Measurement Offset

- The amplitude offset shown in the radiated restricted band edge plots was calculated using the formula: Offset (dB) = (Antenna Factor + Cable Loss + Attenuator) – Preamplifier Gain

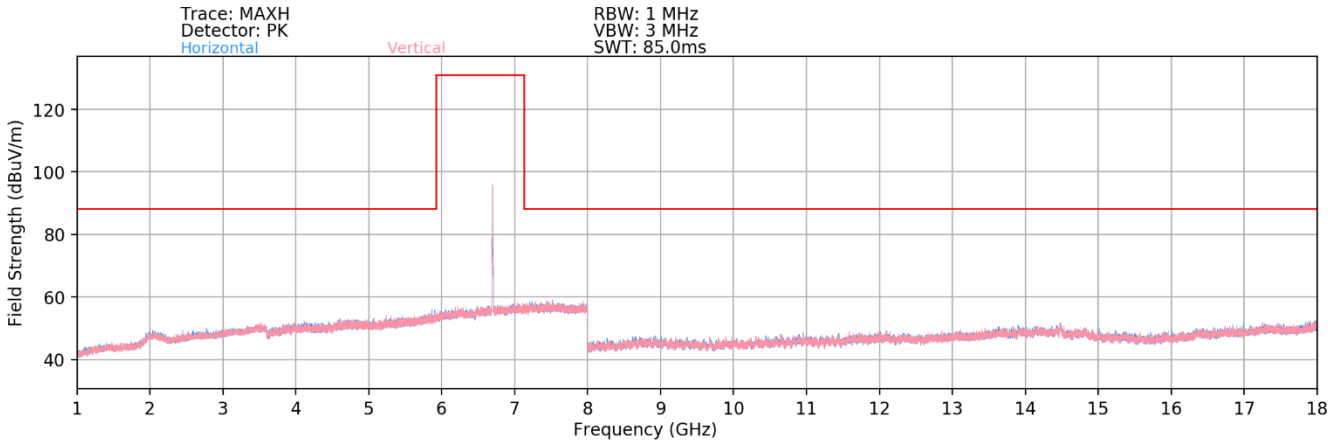
## 7.6.1 MIMO Radiated Spurious Emission Measurements (106 Tones)



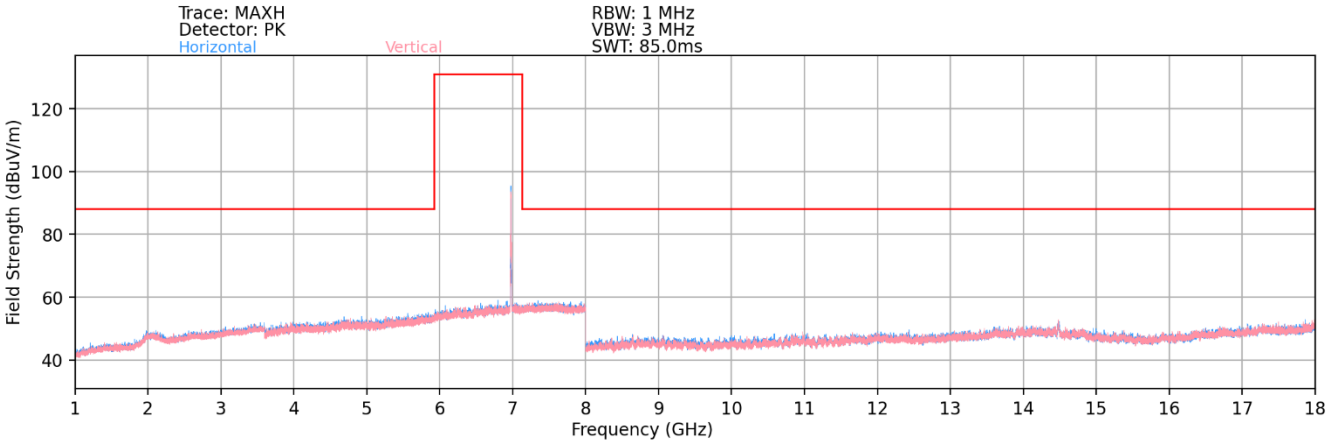

**Plot 7-483. Radiated Spurious Plot above 1GHz MIMO (802.11ax) – UNII BAND 5**




**Plot 7-484. Radiated Spurious Plot above 1GHz MIMO (802.11ax) – UNII BAND 6**




**Plot 7-485. Radiated Spurious Plot above 1GHz MIMO (802.11ax) – UNII BAND 7**




**Plot 7-486. Radiated Spurious Plot above 1GHz MIMO (802.11ax) – UNII BAND 8**

## MIMO (106 Tones) Radiated Spurious Emission Measurements

**§15.407(b) §15.205 & §15.209**

| | |
|---|---|
| Worst Case Mode: | 802.11ax |
| Worst Case Transfer Rate: | MCS0 |
| RU Index: | 54 |
| Distance of Measurements: | 1 & 3 Meters |
| Operating Frequency: | 5935MHz |
| Channel: | 2 |

| | Frequency [MHz] | Detector | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Distance Correction Factor [dB] | Field Strength [dBµV/m] | Limit [dBµV/m] | Margin [dB] |
|---|---|---|---|---|---|---|---|---|---|---|---|
| * | 11870.00 | Average | H | - | - | -82.11 | 20.44 | 0.00 | 45.33 | 53.98 | -8.65 |
| * | 11870.00 | Peak | H | - | - | -70.31 | 20.44 | 0.00 | 57.13 | 73.98 | -16.85 |
| * | 17805.00 | Average | H | - | - | -83.78 | 26.31 | 0.00 | 49.53 | 53.98 | -4.45 |
| * | 17805.00 | Peak | H | - | - | -72.44 | 26.31 | 0.00 | 60.87 | 73.98 | -13.11 |
| * | 23740.00 | Average | H | - | - | -68.27 | 4.79 | -9.54 | 33.97 | 53.98 | -20.00 |
| * | 23740.00 | Peak | H | - | - | -58.12 | 4.79 | -9.54 | 44.12 | 73.98 | -29.86 |
| | 29675.00 | Peak | H | - | - | -59.30 | 7.24 | -9.54 | 45.40 | 68.20 | -22.80 |

**Table 7-34. Radiated Measurements MIMO (106 Tones)**

| | |
|---|---|
| Worst Case Mode: | 802.11ax |
| Worst Case Transfer Rate: | MCS0 |
| RU Index: | 54 |
| Distance of Measurements: | 1 & 3 Meters |
| Operating Frequency: | 6175MHz |
| Channel: | 45 |

| | Frequency [MHz] | Detector | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Distance Correction Factor [dB] | Field Strength [dBµV/m] | Limit [dBµV/m] | Margin [dB] |
|---|---|---|---|---|---|---|---|---|---|---|---|
| * | 12350.00 | Average | H | - | - | -82.32 | 21.02 | 0.00 | 45.70 | 53.98 | -8.28 |
| * | 12350.00 | Peak | H | - | - | -70.52 | 21.02 | 0.00 | 57.50 | 73.98 | -16.48 |
| * | 18525.00 | Average | H | - | - | -67.64 | 3.17 | -9.54 | 32.98 | 53.98 | -20.99 |
| * | 18525.00 | Peak | H | - | - | -57.53 | 3.17 | -9.54 | 43.10 | 73.98 | -30.88 |
| | 24700.00 | Peak | H | - | - | -58.21 | 5.18 | -9.54 | 44.43 | 68.20 | -23.77 |
| | 30875.00 | Peak | H | - | - | -58.09 | 7.86 | -9.54 | 47.23 | 68.20 | -20.97 |

**Table 7-35. Radiated Measurements MIMO (106 Tones)**

| | |
|---|---|
| Worst Case Mode: | 802.11ax |
| Worst Case Transfer Rate: | MCS0 |
| RU Index: | 54 |
| Distance of Measurements: | 1 & 3 Meters |
| Operating Frequency: | 6415MHz |
| Channel: | 93 |

| | Frequency [MHz] | Detector | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Distance Correction Factor [dB] | Field Strength [dBµV/m] | Limit [dBµV/m] | Margin [dB] |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 12830.00 | Peak | H | - | - | -70.63 | 21.25 | 0.00 | 57.62 | 68.20 | -10.58 |
| * | 19245.00 | Average | H | - | - | -67.89 | 3.55 | -9.54 | 33.12 | 53.98 | -20.86 |
| * | 19245.00 | Peak | H | - | - | -58.35 | 3.55 | -9.54 | 42.66 | 73.98 | -31.32 |
| | 25660.00 | Peak | H | - | - | -58.22 | 5.47 | -9.54 | 44.70 | 68.20 | -23.50 |
| | 32075.00 | Peak | H | - | - | -57.55 | 8.18 | -9.54 | 48.09 | 68.20 | -20.11 |

**Table 7-36. Radiated Measurements MIMO (106 Tones)**

| | |
|---|---|
| Worst Case Mode: | 802.11ax |
| Worst Case Transfer Rate: | MCS0 |
| RU Index: | 54 |
| Distance of Measurements: | 1 & 3 Meters |
| Operating Frequency: | 6435MHz |
| Channel: | 97 |

| | Frequency [MHz] | Detector | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Distance Correction Factor [dB] | Field Strength [dBµV/m] | Limit [dBµV/m] | Margin [dB] |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 12870.00 | Peak | H | - | - | -71.27 | 21.23 | 0.00 | 56.96 | 68.20 | -11.24 |
| * | 19305.00 | Average | H | - | - | -67.69 | 3.78 | -9.54 | 33.55 | 53.98 | -20.43 |
| * | 19305.00 | Peak | H | - | - | -58.14 | 3.78 | -9.54 | 43.10 | 73.98 | -30.88 |
| | 25740.00 | Peak | H | - | - | -57.58 | 5.73 | -9.54 | 45.60 | 68.20 | -22.60 |
| | 32175.00 | Peak | H | - | - | -58.18 | 8.19 | -9.54 | 47.47 | 68.20 | -20.73 |

**Table 7-37. Radiated Measurements MIMO (106 Tones)**

| | |
|---|---|
| Worst Case Mode: | 802.11ax |
| Worst Case Transfer Rate: | MCS0 |
| RU Index: | 54 |
| Distance of Measurements: | 1 & 3 Meters |
| Operating Frequency: | 6475MHz |
| Channel: | 105 |

| | Frequency [MHz] | Detector | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Distance Correction Factor [dB] | Field Strength [dBµV/m] | Limit [dBµV/m] | Margin [dB] |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 12950.00 | Peak | H | - | - | -70.75 | 20.86 | 0.00 | 57.11 | 68.20 | -11.09 |
| * | 19425.00 | Average | H | - | - | -68.03 | 3.82 | -9.54 | 33.25 | 53.98 | -20.73 |
| * | 19425.00 | Peak | H | - | - | -57.18 | 3.82 | -9.54 | 44.10 | 73.98 | -29.88 |
| | 25900.00 | Peak | H | - | - | -57.33 | 5.87 | -9.54 | 45.99 | 68.20 | -22.21 |
| | 32375.00 | Peak | H | - | - | -59.17 | 7.89 | -9.54 | 46.18 | 68.20 | -22.02 |

**Table 7-38. Radiated Measurements MIMO (106 Tones)**

| | |
|---|---|
| Worst Case Mode: | 802.11ax |
| Worst Case Transfer Rate: | MCS0 |
| RU Index: | 54 |
| Distance of Measurements: | 1 & 3 Meters |
| Operating Frequency: | 6515MHz |
| Channel: | 113 |

| | Frequency [MHz] | Detector | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Distance Correction Factor [dB] | Field Strength [dBµV/m] | Limit [dBµV/m] | Margin [dB] |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 13030.00 | Peak | H | - | - | -71.78 | 21.08 | 0.00 | 56.30 | 68.20 | -11.90 |
| * | 19545.00 | Average | H | - | - | -67.43 | 3.89 | -9.54 | 33.92 | 53.98 | -20.06 |
| * | 19545.00 | Peak | H | - | - | -58.50 | 3.89 | -9.54 | 42.84 | 73.98 | -31.14 |
| | 26060.00 | Peak | H | - | - | -58.66 | 5.87 | -9.54 | 44.67 | 68.20 | -23.53 |
| | 32575.00 | Peak | H | - | - | -58.92 | 7.72 | -9.54 | 46.25 | 68.20 | -21.95 |

**Table 7-39. Radiated Measurements MIMO (106 Tones)**

| | |
|---|---|
| Worst Case Mode: | 802.11ax |
| Worst Case Transfer Rate: | MCS0 |
| RU Index: | 54 |
| Distance of Measurements: | 1 & 3 Meters |
| Operating Frequency: | 6535MHz |
| Channel: | 117 |

| | Frequency [MHz] | Detector | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Distance Correction Factor [dB] | Field Strength [dBµV/m] | Limit [dBµV/m] | Margin [dB] |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 13070.00 | Peak | H | - | - | -71.25 | 21.38 | 0.00 | 57.13 | 68.20 | -11.07 |
| * | 19605.00 | Average | H | - | - | -68.56 | 4.03 | -9.54 | 32.92 | 53.98 | -21.06 |
| * | 19605.00 | Peak | H | - | - | -58.75 | 4.03 | -9.54 | 42.73 | 73.98 | -31.25 |
| | 26140.00 | Peak | H | - | - | -58.99 | 6.01 | -9.54 | 44.48 | 68.20 | -23.72 |
| | 32675.00 | Peak | H | - | - | -58.45 | 7.97 | -9.54 | 46.98 | 68.20 | -21.22 |

**Table 7-40. Radiated Measurements MIMO (106 Tones)**

| | |
|---|---|
| Worst Case Mode: | 802.11ax |
| Worst Case Transfer Rate: | MCS0 |
| RU Index: | 54 |
| Distance of Measurements: | 1 & 3 Meters |
| Operating Frequency: | 6695MHz |
| Channel: | 149 |

| | Frequency [MHz] | Detector | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Distance Correction Factor [dB] | Field Strength [dBµV/m] | Limit [dBµV/m] | Margin [dB] |
|---|---|---|---|---|---|---|---|---|---|---|---|
| * | 13390.00 | Average | H | - | - | -83.14 | 21.13 | 0.00 | 44.99 | 53.98 | -8.99 |
| * | 13390.00 | Peak | H | - | - | -71.96 | 21.13 | 0.00 | 56.17 | 73.98 | -17.81 |
| * | 20085.00 | Average | H | - | - | -67.61 | 4.30 | -9.54 | 34.15 | 53.98 | -19.83 |
| * | 20085.00 | Peak | H | - | - | -58.38 | 4.30 | -9.54 | 43.38 | 73.98 | -30.60 |
| | 26780.00 | Peak | H | - | - | -58.82 | 5.85 | -9.54 | 44.49 | 68.20 | -23.71 |
| | 33475.00 | Peak | H | - | - | -58.61 | 8.43 | -9.54 | 47.28 | 68.20 | -20.92 |

**Table 7-41. Radiated Measurements MIMO (106 Tones)**

| | |
|---|---|
| Worst Case Mode: | 802.11ax |
| Worst Case Transfer Rate: | MCS0 |
| RU Index: | 54 |
| Distance of Measurements: | 1 & 3 Meters |
| Operating Frequency: | 6875MHz |
| Channel: | 185 |

| | Frequency [MHz] | Detector | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Distance Correction Factor [dB] | Field Strength [dBµV/m] | Limit [dBµV/m] | Margin [dB] |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 13750.00 | Peak | H | - | - | -71.11 | 21.83 | 0.00 | 57.72 | 68.20 | -10.48 |
| * | 20625.00 | Average | H | - | - | -68.23 | 4.46 | -9.54 | 33.69 | 53.98 | -20.29 |
| * | 20625.00 | Peak | H | - | - | -58.01 | 4.46 | -9.54 | 43.91 | 73.98 | -30.07 |
| | 27500.00 | Peak | H | - | - | -56.88 | 5.93 | -9.54 | 46.51 | 68.20 | -21.69 |
| | 34375.00 | Peak | H | - | - | -58.65 | 8.44 | -9.54 | 47.25 | 68.20 | -20.95 |

**Table 7-42. Radiated Measurements MIMO (106 Tones)**

| | |
|---|---|
| Worst Case Mode: | 802.11ax |
| Worst Case Transfer Rate: | MCS0 |
| RU Index: | 54 |
| Distance of Measurements: | 1 & 3 Meters |
| Operating Frequency: | 6895MHz |
| Channel: | 189 |

| | Frequency [MHz] | Detector | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Distance Correction Factor [dB] | Field Strength [dBµV/m] | Limit [dBµV/m] | Margin [dB] |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 13790.00 | Peak | H | - | - | -71.12 | 22.57 | 0.00 | 58.45 | 68.20 | -9.75 |
| * | 20685.00 | Average | H | - | - | -68.14 | 4.36 | -9.54 | 33.67 | 53.98 | -20.31 |
| * | 20685.00 | Peak | H | - | - | -57.36 | 4.36 | -9.54 | 44.45 | 73.98 | -29.53 |
| | 27580.00 | Peak | H | - | - | -58.24 | 5.96 | -9.54 | 45.18 | 68.20 | -23.02 |
| | 34475.00 | Peak | H | - | - | -57.68 | 8.49 | -9.54 | 48.27 | 68.20 | -19.93 |

**Table 7-43. Radiated Measurements MIMO (106 Tones)**

| | |
|---|---|
| Worst Case Mode: | 802.11ax |
| Worst Case Transfer Rate: | MCS0 |
| Distance of Measurements: | 1 & 3 Meters |
| Operating Frequency: | 6995MHz |
| Channel: | 209 |

| | Frequency [MHz] | Detector | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Distance Correction Factor [dB] | Field Strength [dBµV/m] | Limit [dBµV/m] | Margin [dB] |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 13990.00 | Peak | H | - | - | -71.24 | 22.11 | 0.00 | 57.87 | 68.20 | -10.33 |
| * | 20985.00 | Average | H | - | - | -68.35 | 4.70 | -9.54 | 33.81 | 53.98 | -20.17 |
| * | 20985.00 | Peak | H | - | - | -57.84 | 4.70 | -9.54 | 44.32 | 73.98 | -29.66 |
| | 27980.00 | Peak | H | - | - | -58.63 | 6.11 | -9.54 | 44.94 | 68.20 | -23.26 |
| | 34975.00 | Peak | H | - | - | -57.64 | 8.62 | -9.54 | 48.43 | 68.20 | -19.77 |

**Table 7-44. Radiated Measurements MIMO (106 Tones)**

| | |
|---|---|
| Worst Case Mode: | 802.11ax |
| Worst Case Transfer Rate: | MCS0 |
| RU Index: | 54 |
| Distance of Measurements: | 1 & 3 Meters |
| Operating Frequency: | 7115MHz |
| Channel: | 233 |

| | Frequency [MHz] | Detector | Ant. Pol. [H/V] | Antenna Height [cm] | Turntable Azimuth [degree] | Analyzer Level [dBm] | AFCL [dB/m] | Distance Correction Factor [dB] | Field Strength [dBµV/m] | Limit [dBµV/m] | Margin [dB] |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 14230.00 | Peak | H | - | - | -71.67 | 21.73 | 0.00 | 57.06 | 68.20 | -11.14 |
| * | 21345.00 | Average | H | - | - | -67.89 | 4.89 | -9.54 | 34.46 | 53.98 | -19.52 |
| * | 21345.00 | Peak | H | - | - | -57.42 | 4.89 | -9.54 | 44.93 | 73.98 | -29.05 |
| | 28460.00 | Peak | H | - | - | -59.20 | 6.26 | -9.54 | 44.51 | 68.20 | -23.69 |
| | 35575.00 | Peak | H | - | - | -57.83 | 8.54 | -9.54 | 48.16 | 68.20 | -20.04 |

**Table 7-45. Radiated Measurements MIMO (106 Tones)**