

10 Appendix

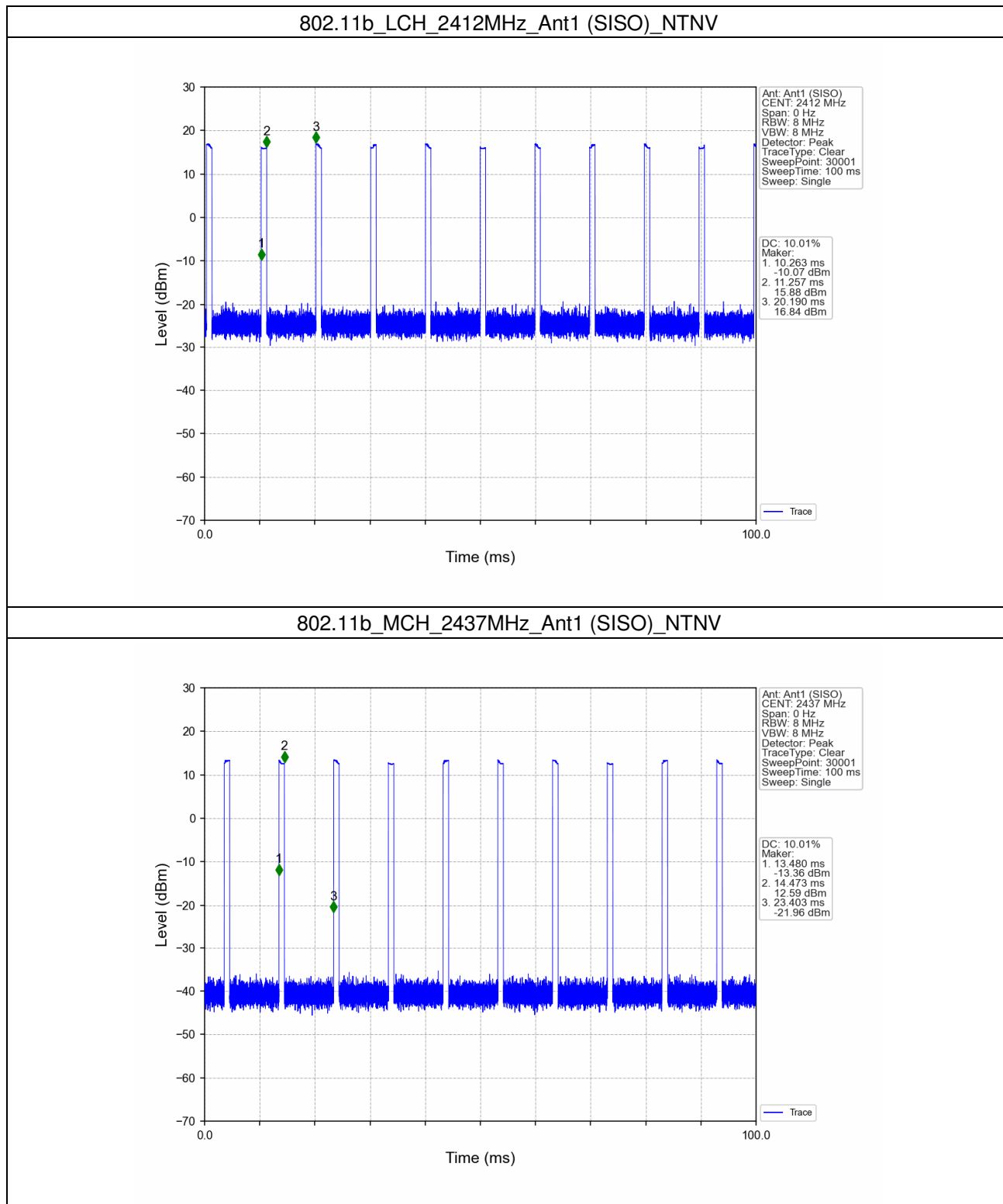
1. Duty Cycle

1.1 Ant1

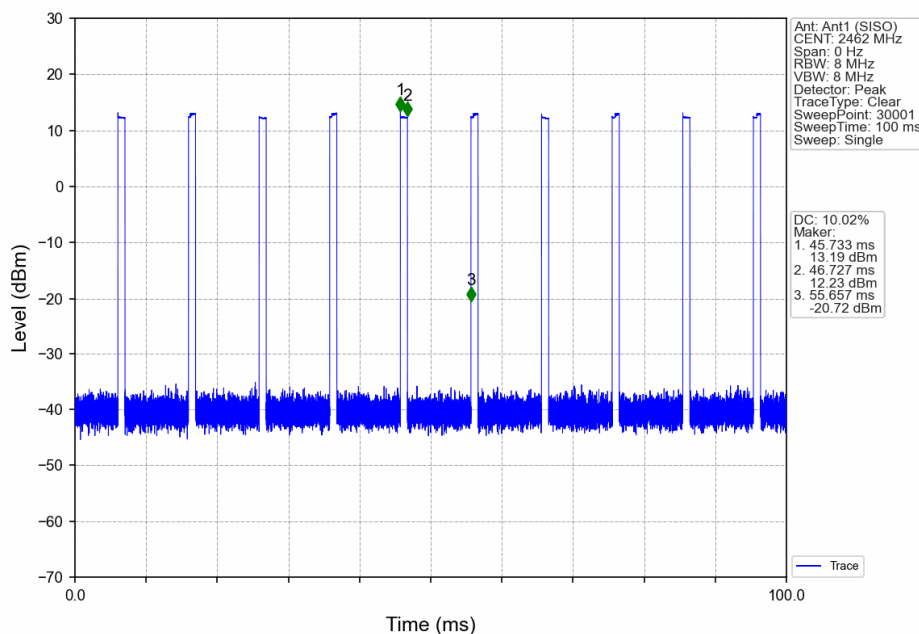
1.1.1 Test Result

| Ant1 | | | | | | | |
|----------------|---------|-----------------|----------------------|-------------|----------------|-----------------------------------|-----------------------|
| Mode | TX Type | Frequency (MHz) | T _{on} (ms) | Period (ms) | Duty Cycle (%) | Duty Cycle Correction Factor (dB) | Max. DC Variation (%) |
| 802.11b | SISO | 2412 | 0.994 | 9.927 | 10.01 | 9.99 | 0.03 |
| | | 2437 | 0.993 | 9.923 | 10.01 | 10.00 | 0.03 |
| | | 2462 | 0.994 | 9.924 | 10.02 | 9.99 | 0.03 |
| 802.11g | SISO | 2412 | 0.694 | 6.978 | 9.95 | 10.02 | 0.04 |
| | | 2437 | 0.694 | 6.977 | 9.95 | 10.02 | 0.03 |
| | | 2462 | 0.695 | 6.979 | 9.96 | 10.02 | 0.04 |
| 802.11n (HT20) | SISO | 2412 | 0.657 | 6.617 | 9.93 | 10.03 | 0.03 |
| | | 2437 | 0.658 | 6.617 | 9.94 | 10.02 | 0.04 |
| | | 2462 | 0.657 | 6.616 | 9.93 | 10.03 | 0.03 |
| 802.11n (HT40) | SISO | 2422 | 0.338 | 3.417 | 9.89 | 10.05 | 0.03 |
| | | 2437 | 0.338 | 3.417 | 9.89 | 10.05 | 0.03 |
| | | 2452 | 0.336 | 3.417 | 9.83 | 10.07 | 0.07 |

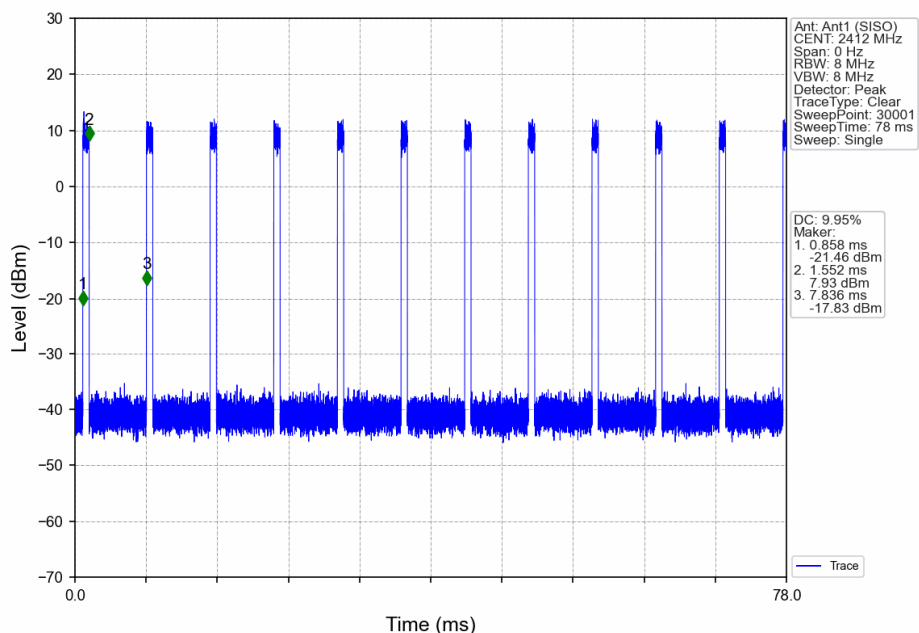
1.1.2 Test Graph



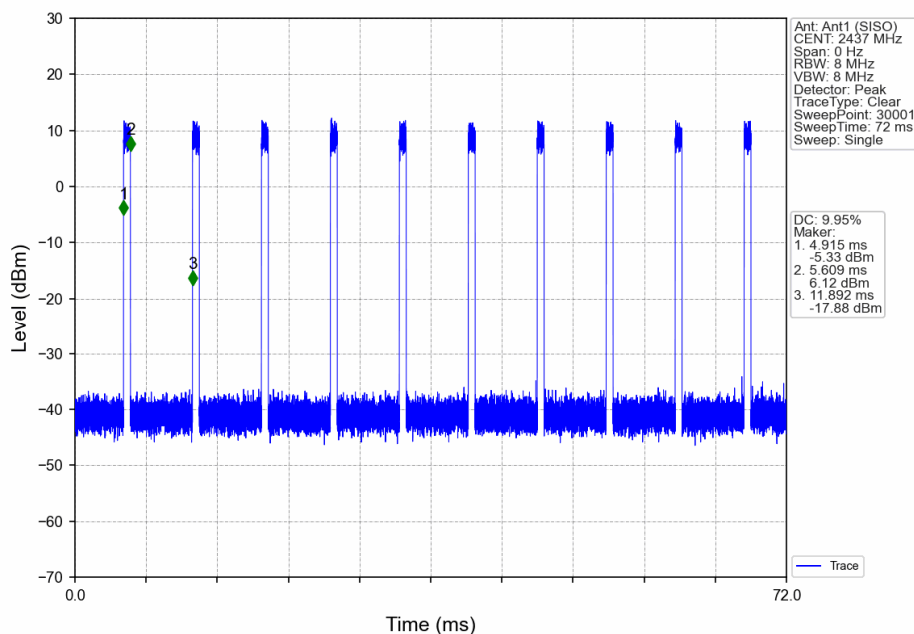
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



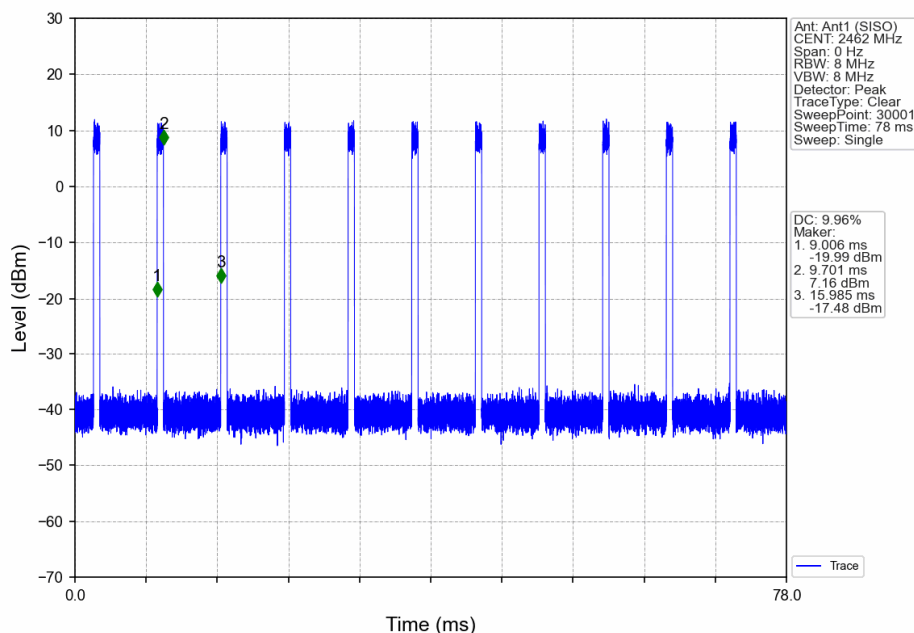
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



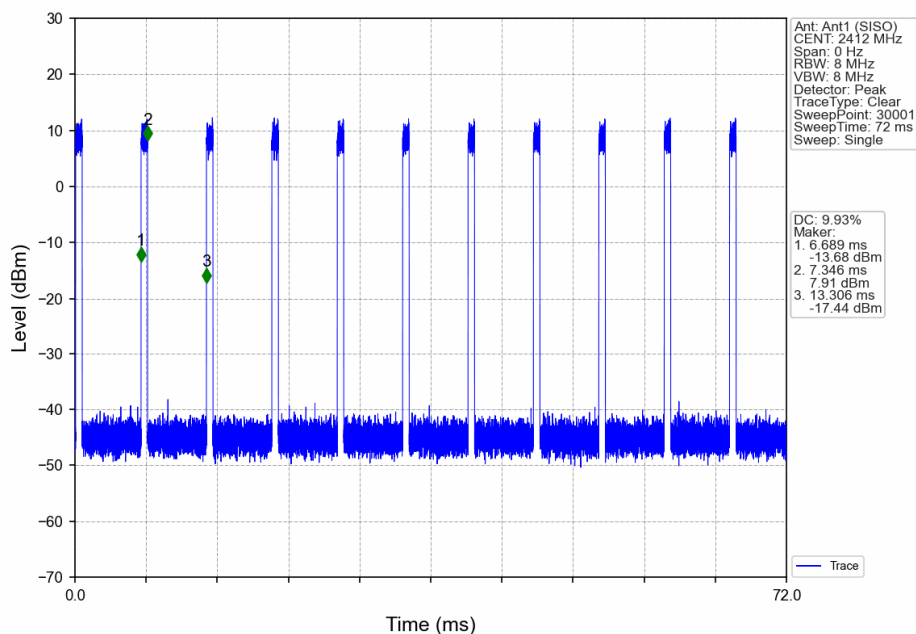
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



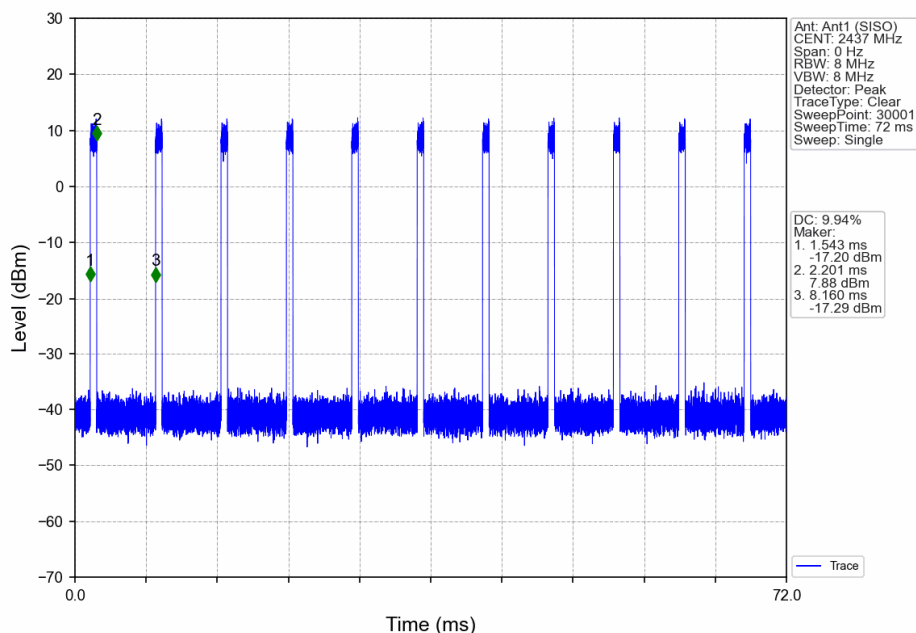
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



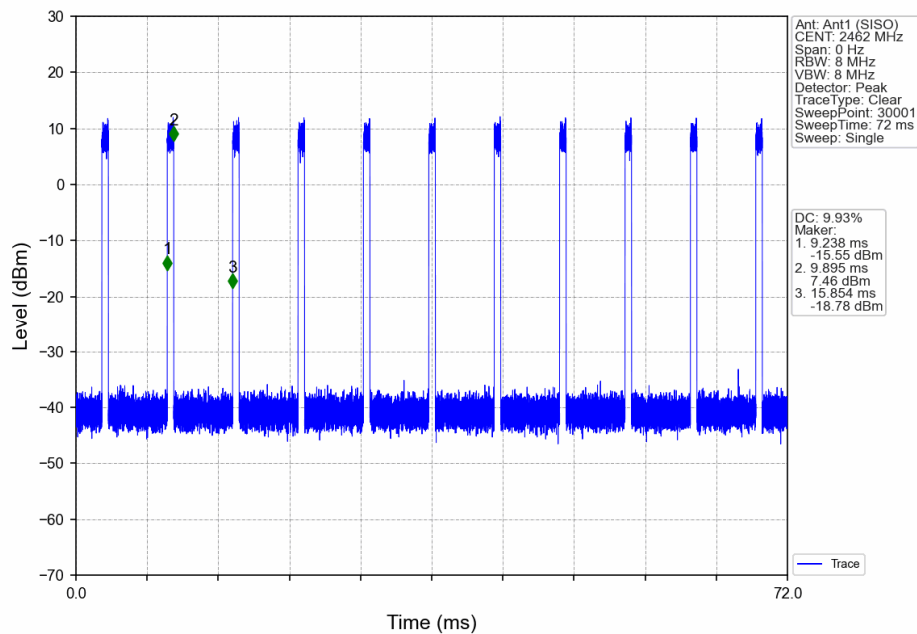
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



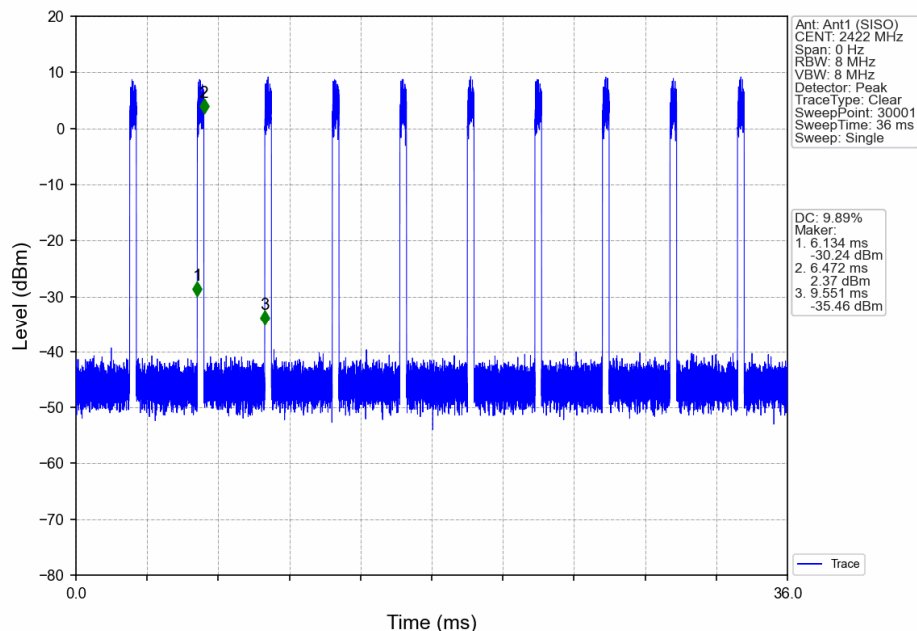
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



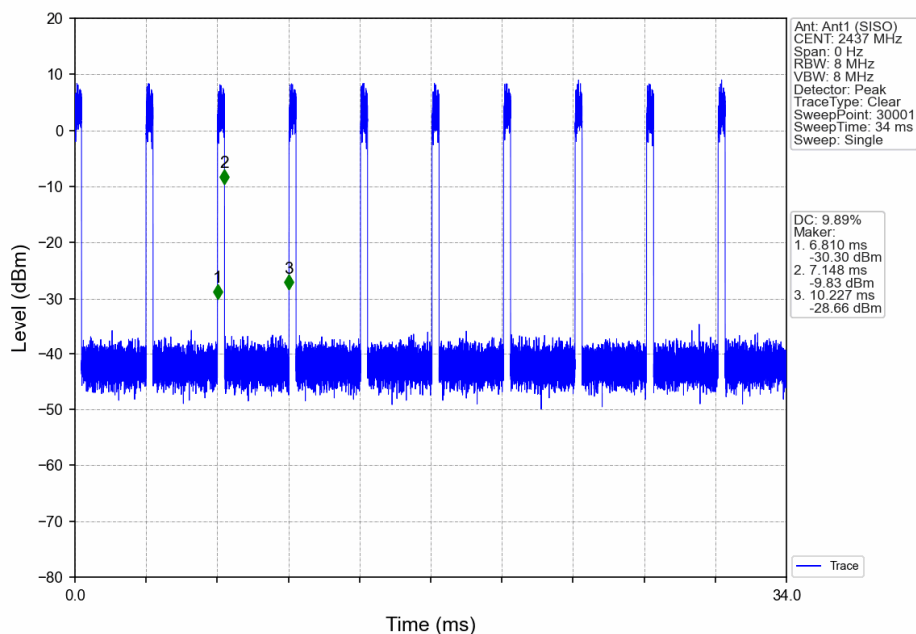
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



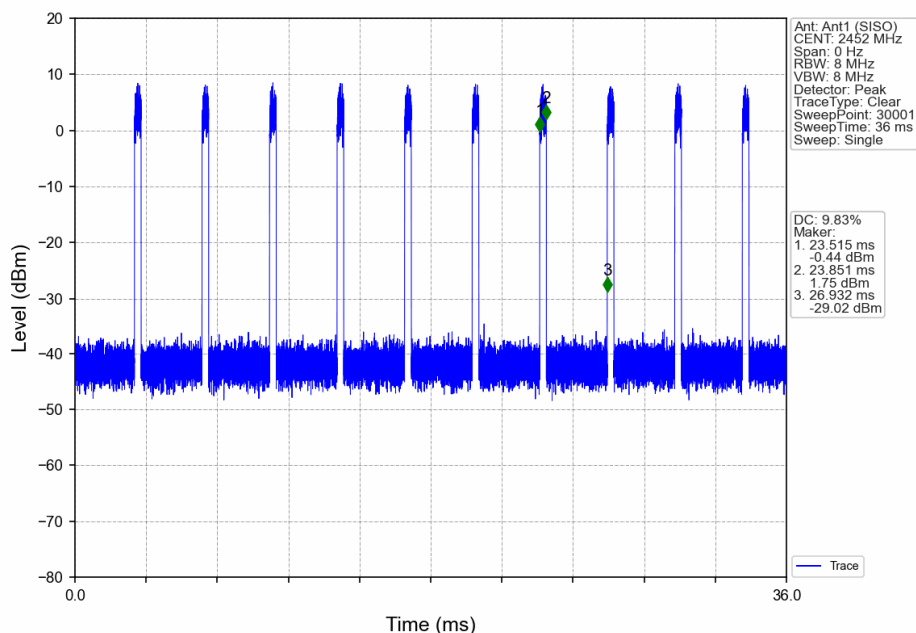
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



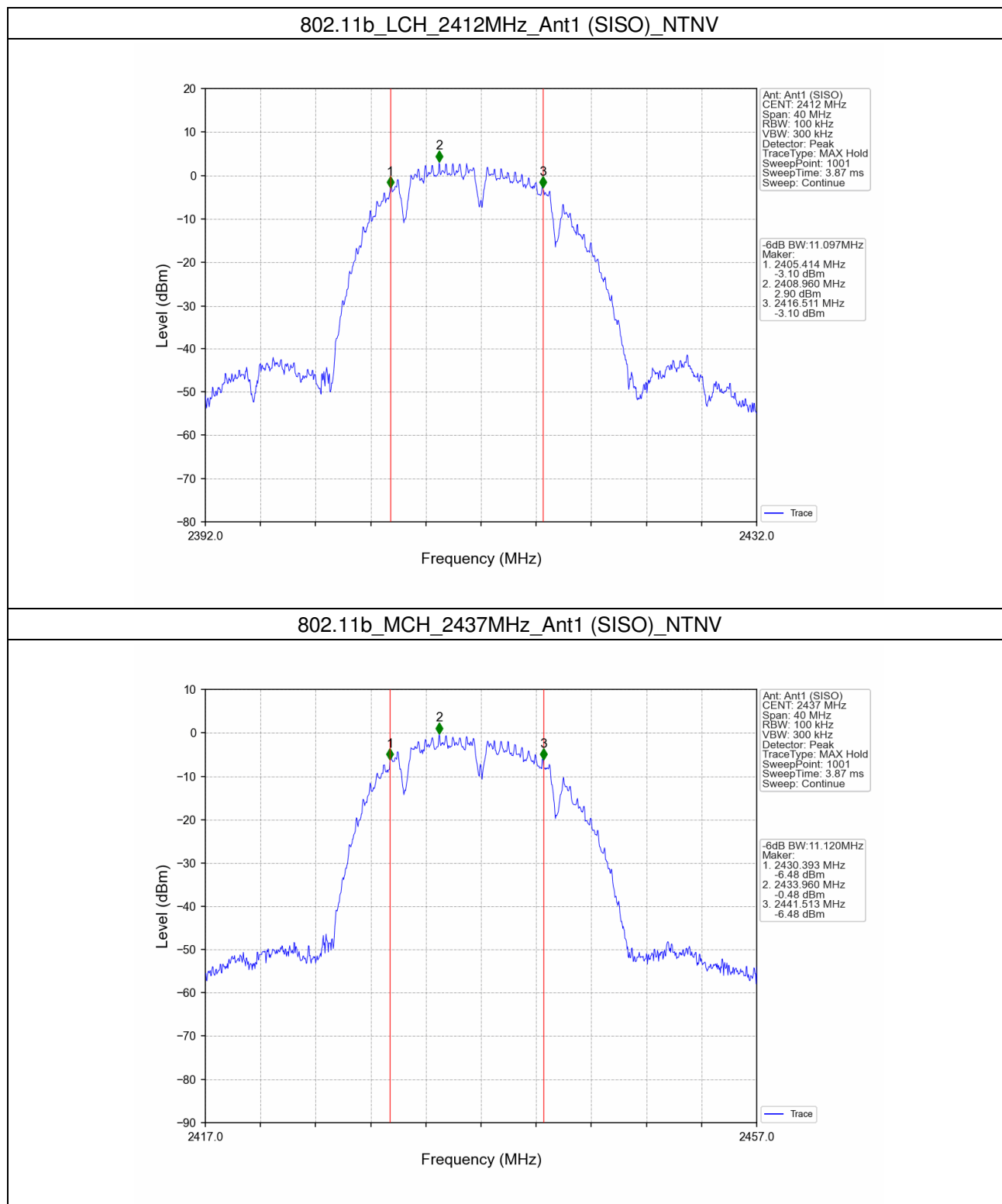
2. Bandwidth

2.1 6dB BW

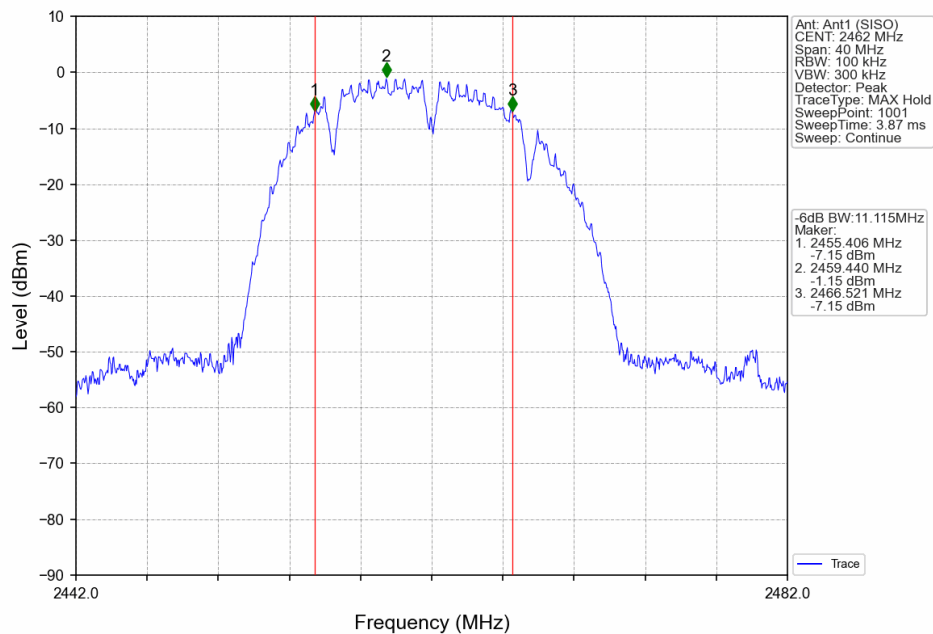
2.1.1 Test Result

| Mode | TX Type | Frequency (MHz) | ANT | 6dB Bandwidth (MHz) | | Verdict |
|----------------|---------|-----------------|-----|---------------------|------------|---------|
| | | | | Result | Limit | |
| 802.11b | SISO | 2412 | 1 | 11.097 | ≥ 0.5 | Pass |
| | | 2437 | 1 | 11.120 | ≥ 0.5 | Pass |
| | | 2462 | 1 | 11.115 | ≥ 0.5 | Pass |
| 802.11g | SISO | 2412 | 1 | 16.940 | ≥ 0.5 | Pass |
| | | 2437 | 1 | 16.892 | ≥ 0.5 | Pass |
| | | 2462 | 1 | 16.652 | ≥ 0.5 | Pass |
| 802.11n (HT20) | SISO | 2412 | 1 | 18.276 | ≥ 0.5 | Pass |
| | | 2437 | 1 | 18.304 | ≥ 0.5 | Pass |
| | | 2462 | 1 | 18.270 | ≥ 0.5 | Pass |
| 802.11n (HT40) | SISO | 2422 | 1 | 35.131 | ≥ 0.5 | Pass |
| | | 2437 | 1 | 33.890 | ≥ 0.5 | Pass |
| | | 2452 | 1 | 33.935 | ≥ 0.5 | Pass |

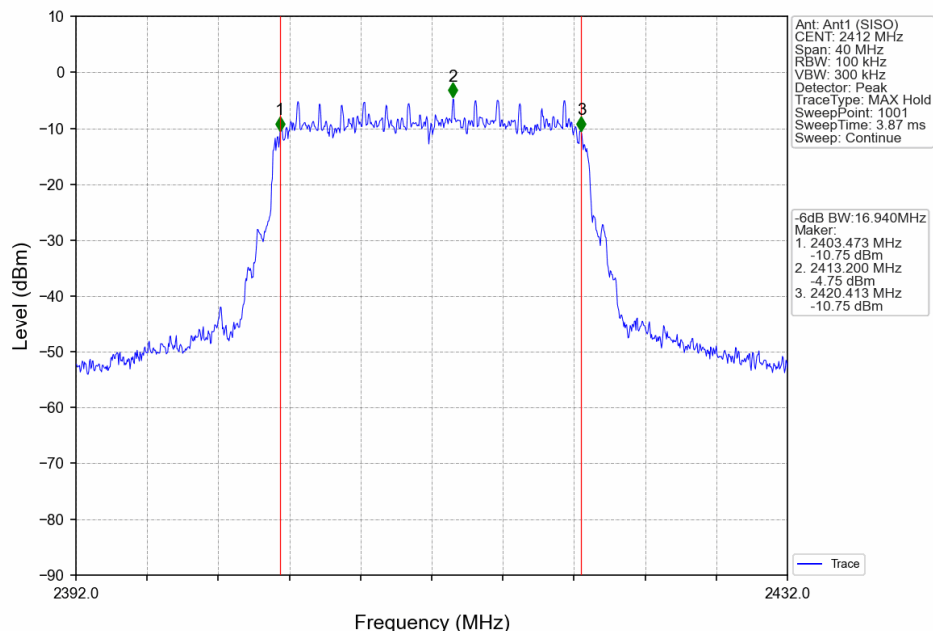
2.1.2 Test Graph



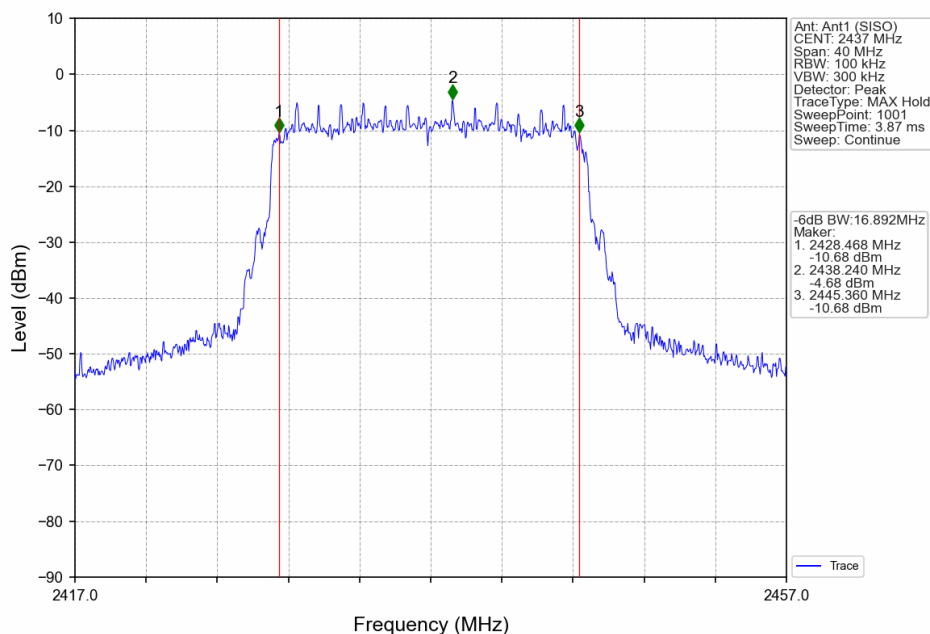
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



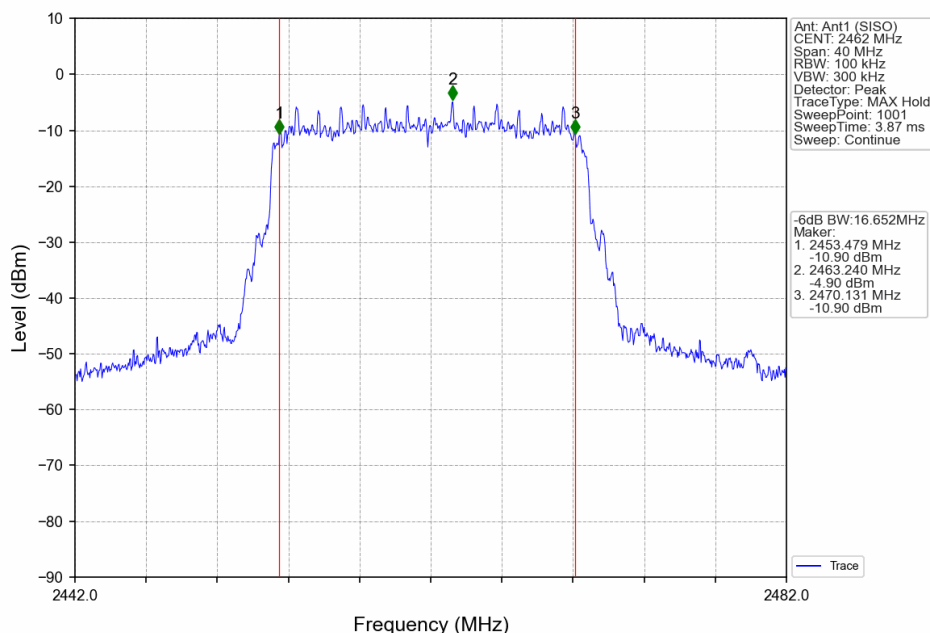
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



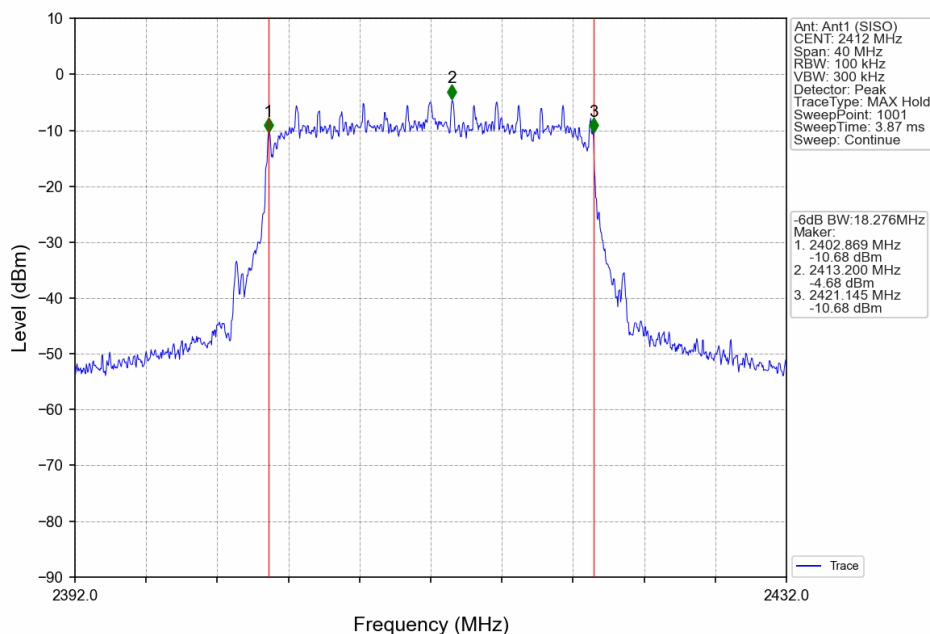
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



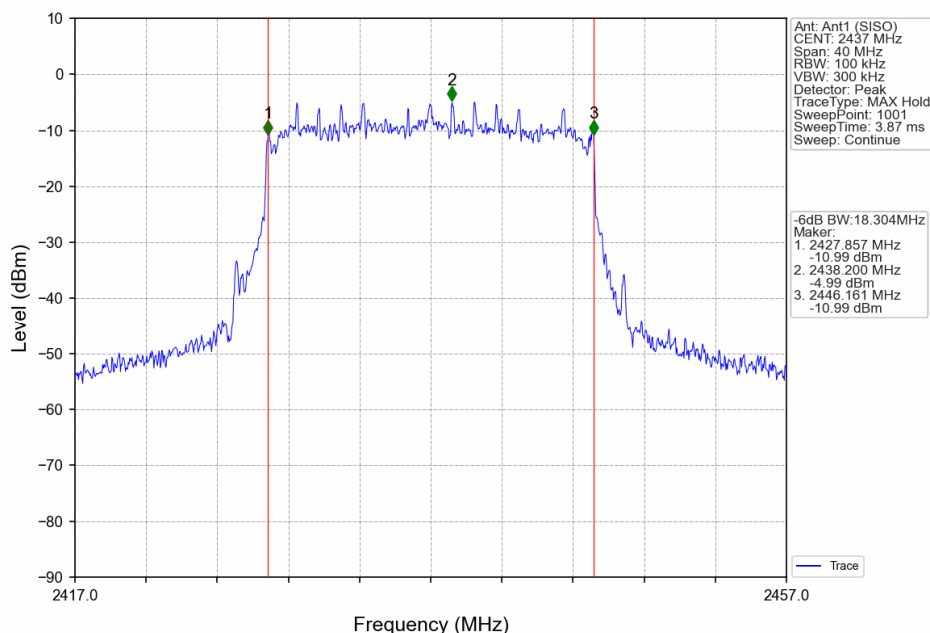
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



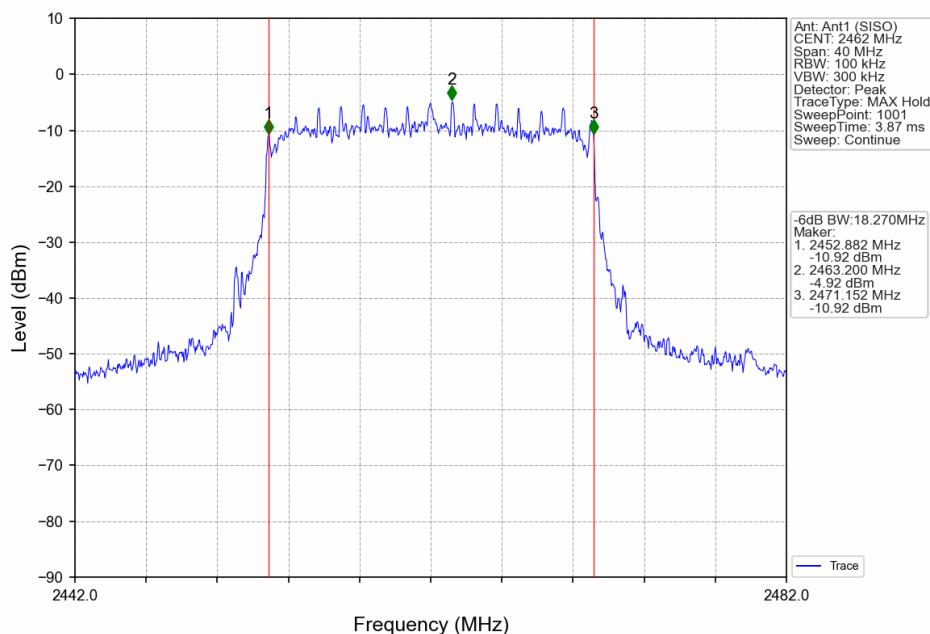
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



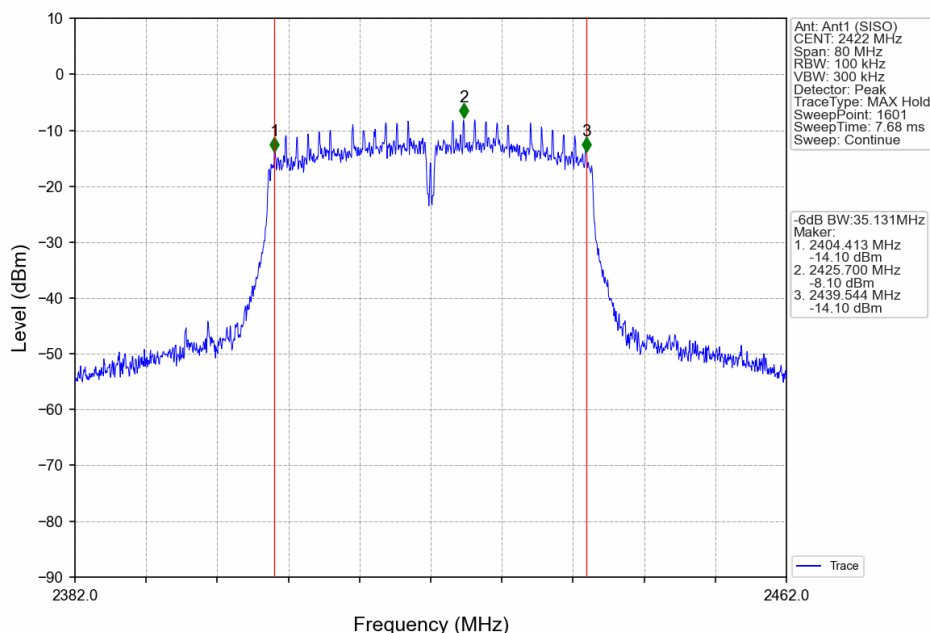
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



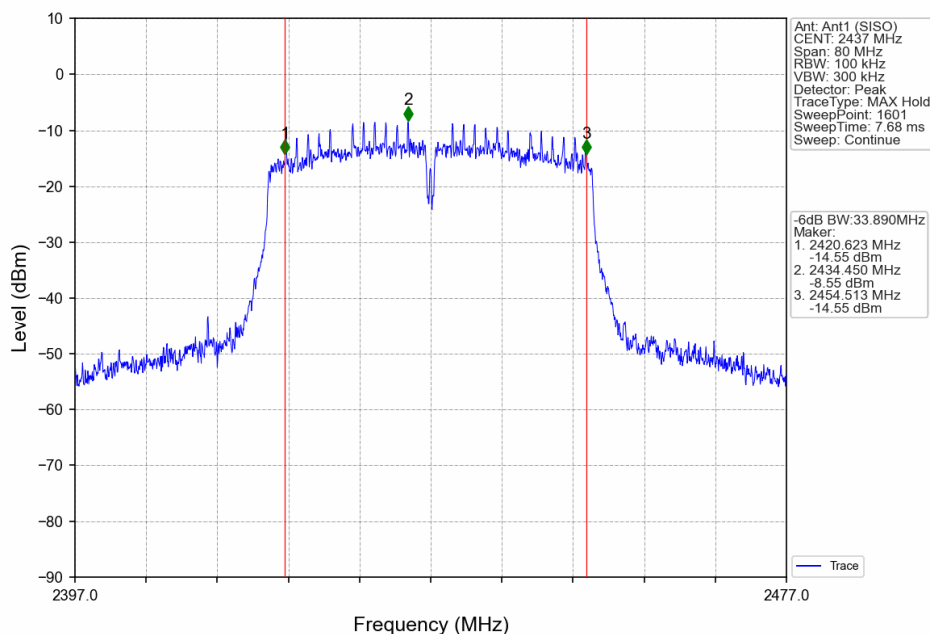
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



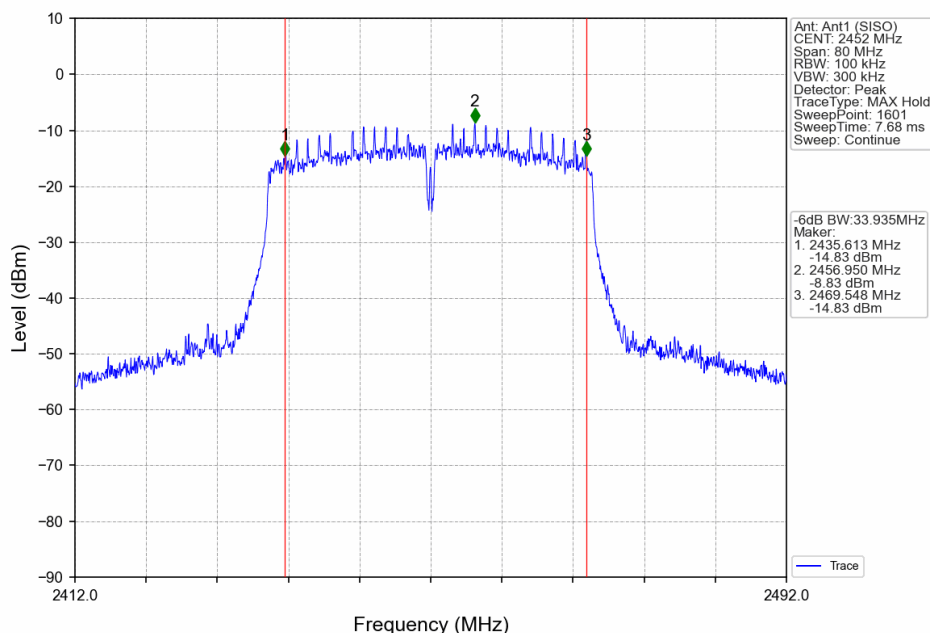
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



3. Maximum Conducted Output Power

3.1 Power

3.1.1 Test Result

| Mode | TX Type | Frequency (MHz) | Maximum Peak Conducted Output Power (dBm) | | Verdict |
|----------------|---------|-----------------|---|-------|---------|
| | | | ANT1 | Limit | |
| 802.11b | SISO | 2412 | 13.23 | <=30 | Pass |
| | | 2437 | 13.16 | <=30 | Pass |
| | | 2462 | 12.86 | <=30 | Pass |
| 802.11g | SISO | 2412 | 13.55 | <=30 | Pass |
| | | 2437 | 13.71 | <=30 | Pass |
| | | 2462 | 13.42 | <=30 | Pass |
| 802.11n (HT20) | SISO | 2412 | 13.55 | <=30 | Pass |
| | | 2437 | 13.67 | <=30 | Pass |
| | | 2462 | 13.39 | <=30 | Pass |
| 802.11n (HT40) | SISO | 2422 | 12.59 | <=30 | Pass |
| | | 2437 | 11.96 | <=30 | Pass |
| | | 2452 | 11.76 | <=30 | Pass |

Note1: Antenna Gain: Ant1: 2.64dBi;

4. Maximum Power Spectral Density

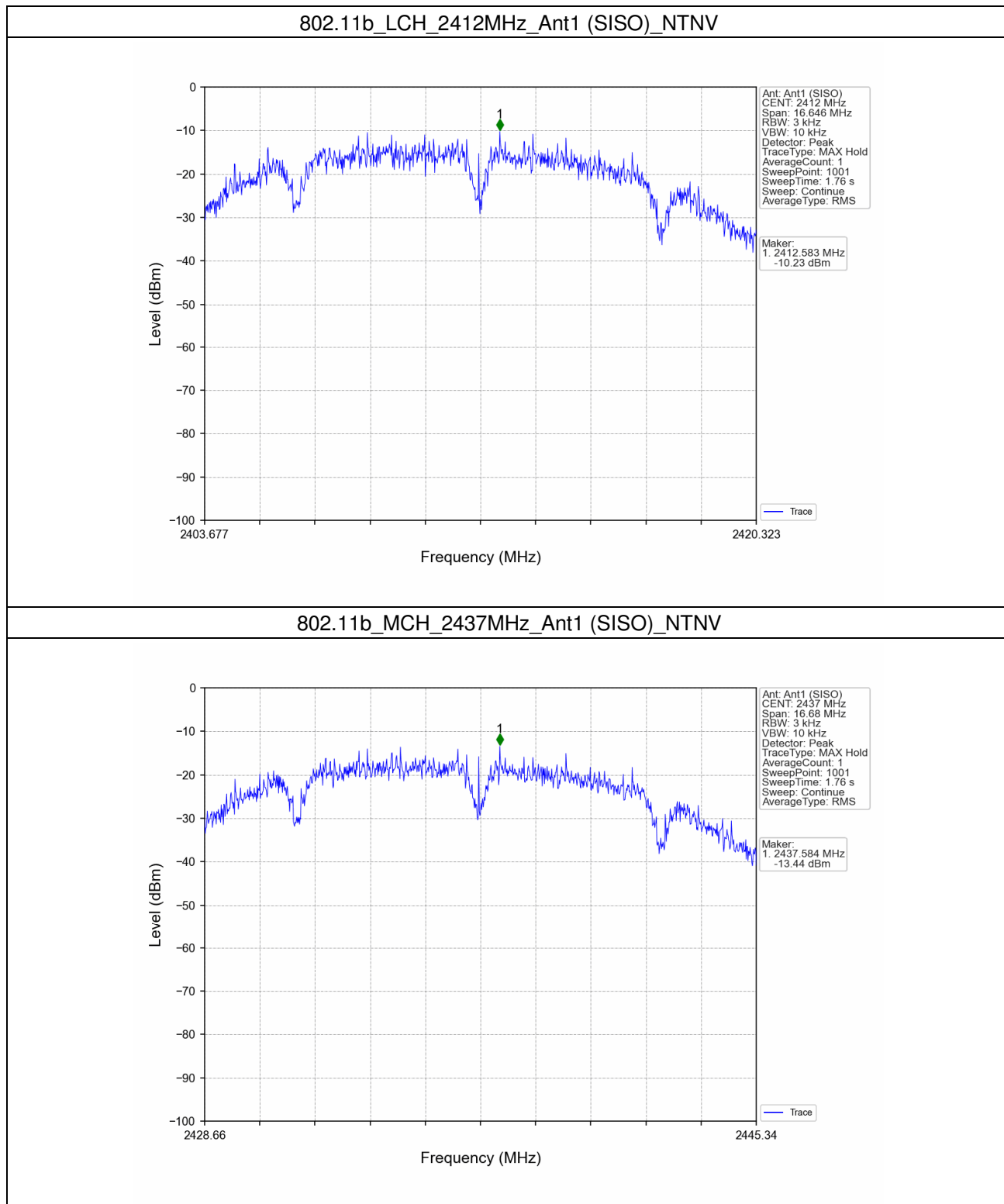
4.1 PSD

4.1.1 Test Result

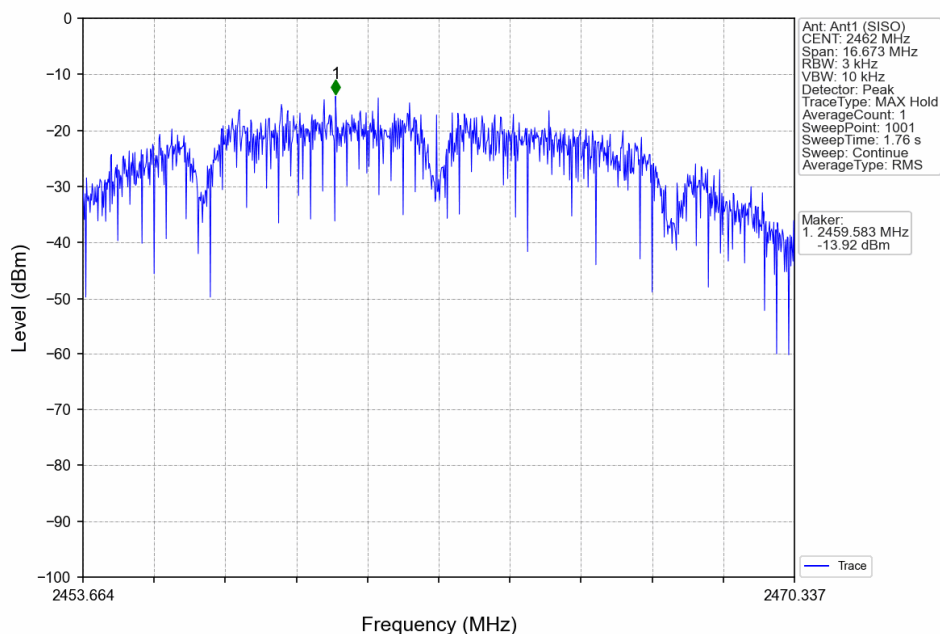
| Mode | TX Type | Frequency (MHz) | Maximum PSD (dBm/3kHz) | | Verdict |
|----------------|---------|-----------------|------------------------|-------|---------|
| | | | ANT1 | Limit | |
| 802.11b | SISO | 2412 | -10.23 | <=8 | Pass |
| | | 2437 | -13.44 | <=8 | Pass |
| | | 2462 | -13.92 | <=8 | Pass |
| 802.11g | SISO | 2412 | -19.49 | <=8 | Pass |
| | | 2437 | -17.30 | <=8 | Pass |
| | | 2462 | -17.78 | <=8 | Pass |
| 802.11n (HT20) | SISO | 2412 | -17.83 | <=8 | Pass |
| | | 2437 | -19.04 | <=8 | Pass |
| | | 2462 | -18.69 | <=8 | Pass |
| 802.11n (HT40) | SISO | 2422 | -21.57 | <=8 | Pass |
| | | 2437 | -21.44 | <=8 | Pass |
| | | 2452 | -24.11 | <=8 | Pass |

Note1: Antenna Gain: Ant1: 2.64dBi;

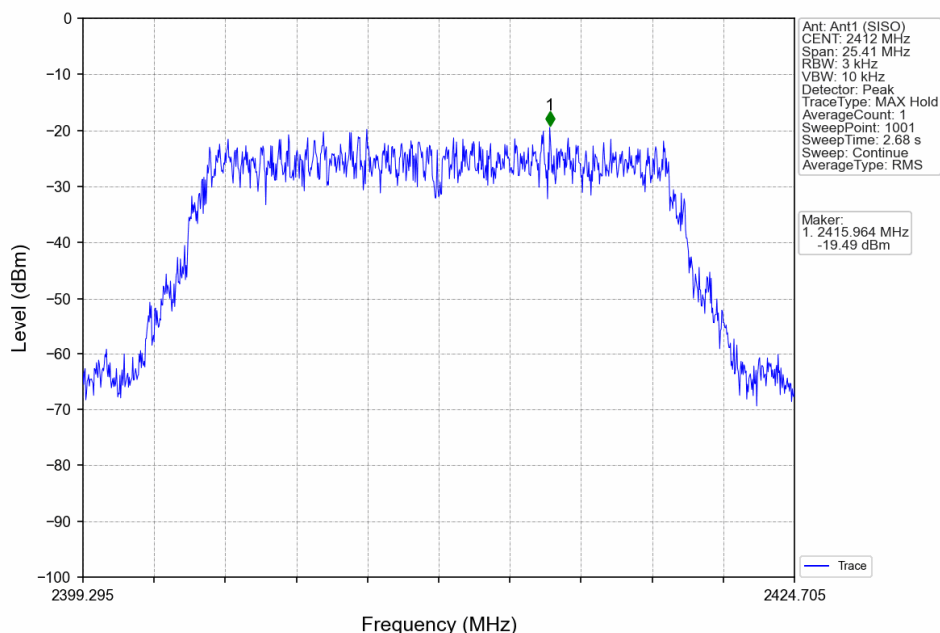
4.1.2 Test Graph



802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV

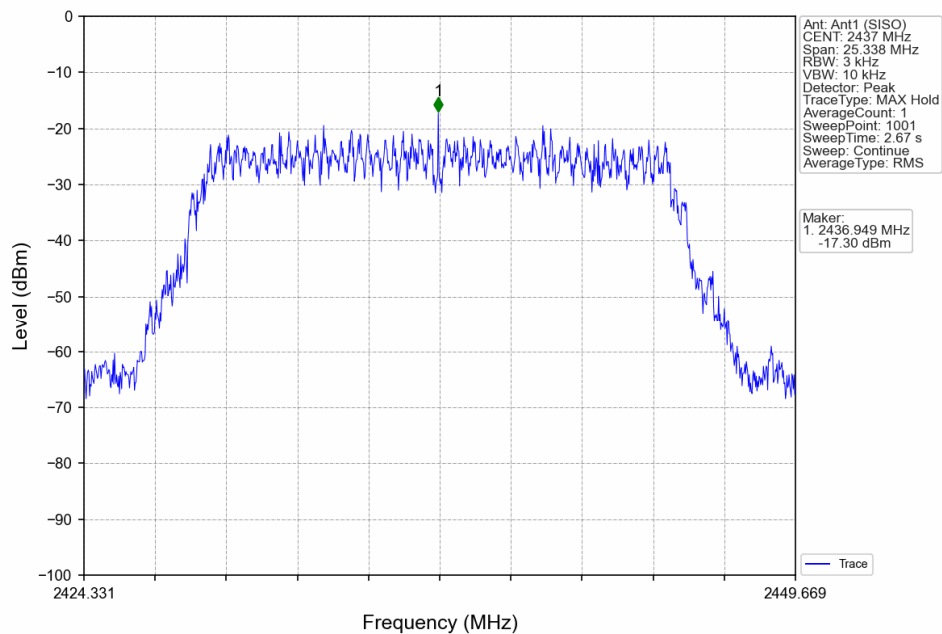


802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV

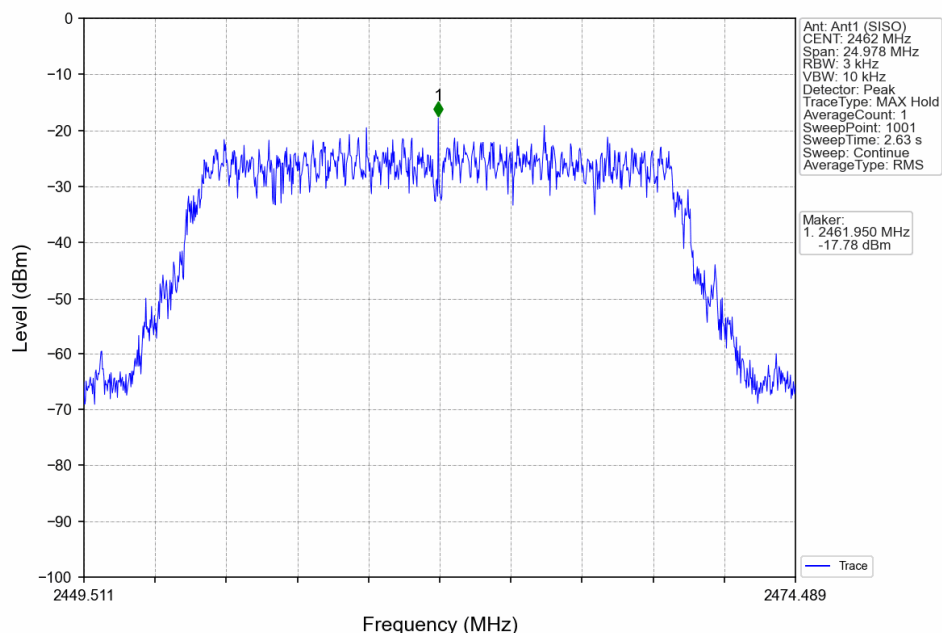


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802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV

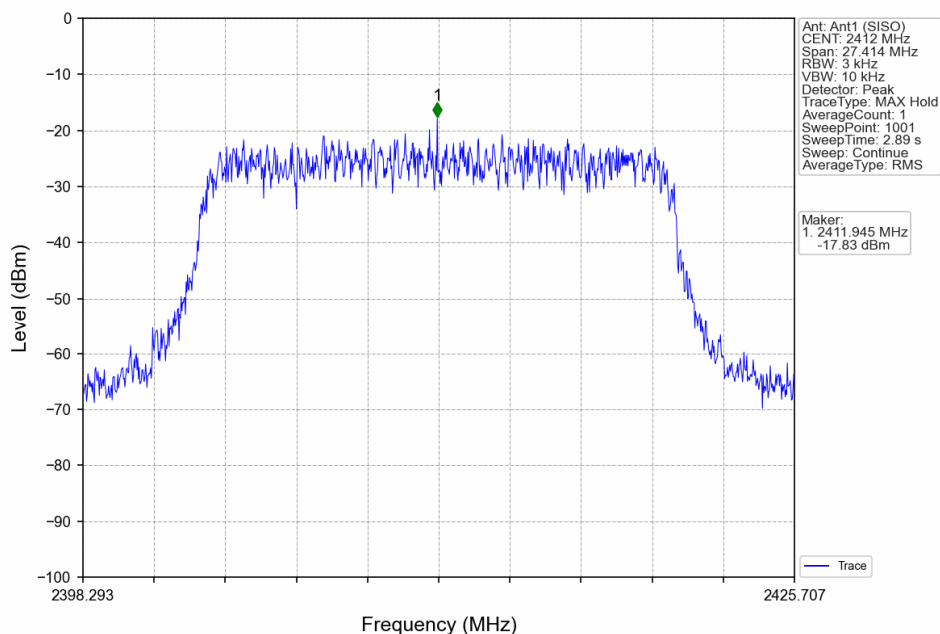


802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV

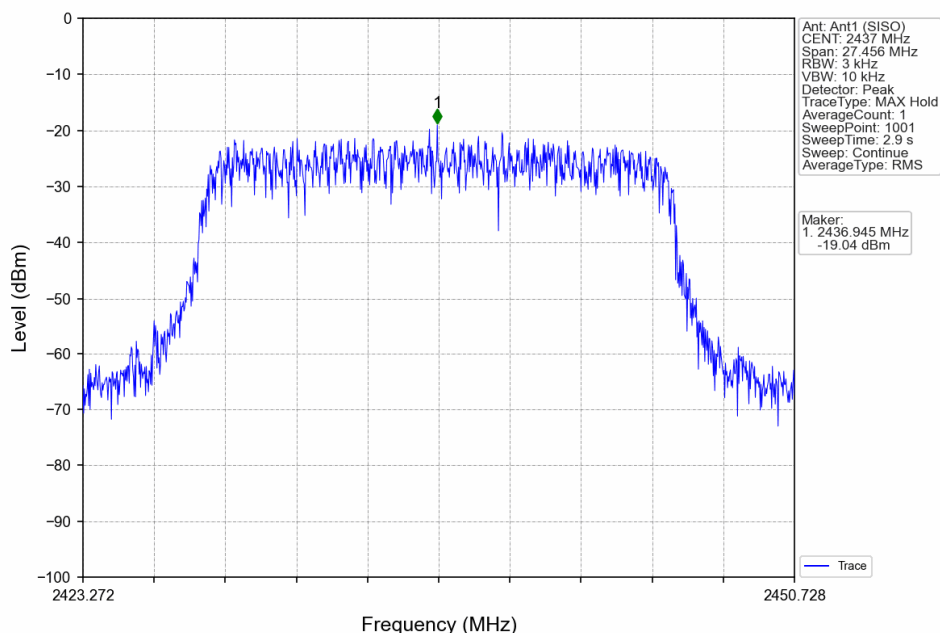


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802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



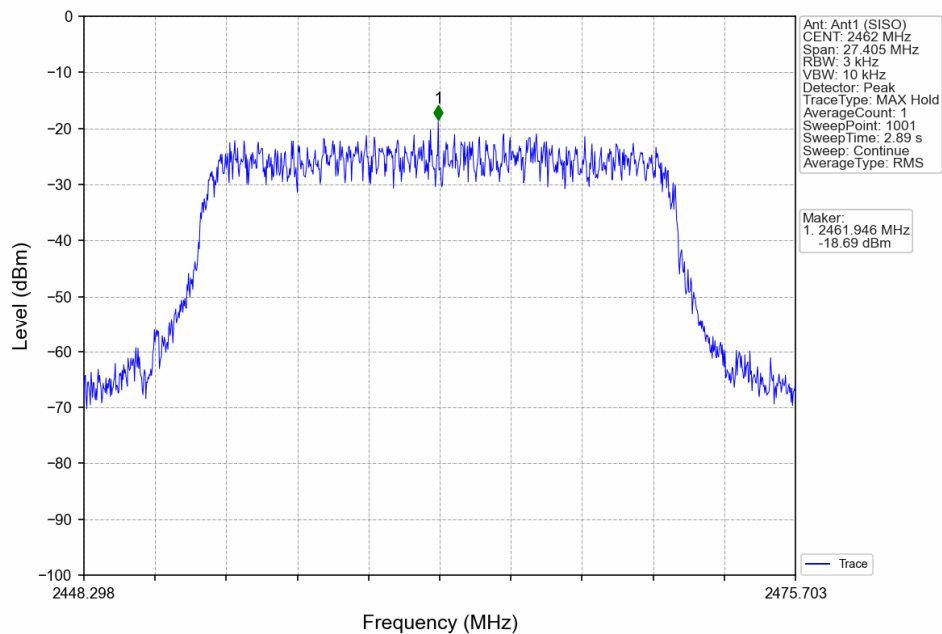
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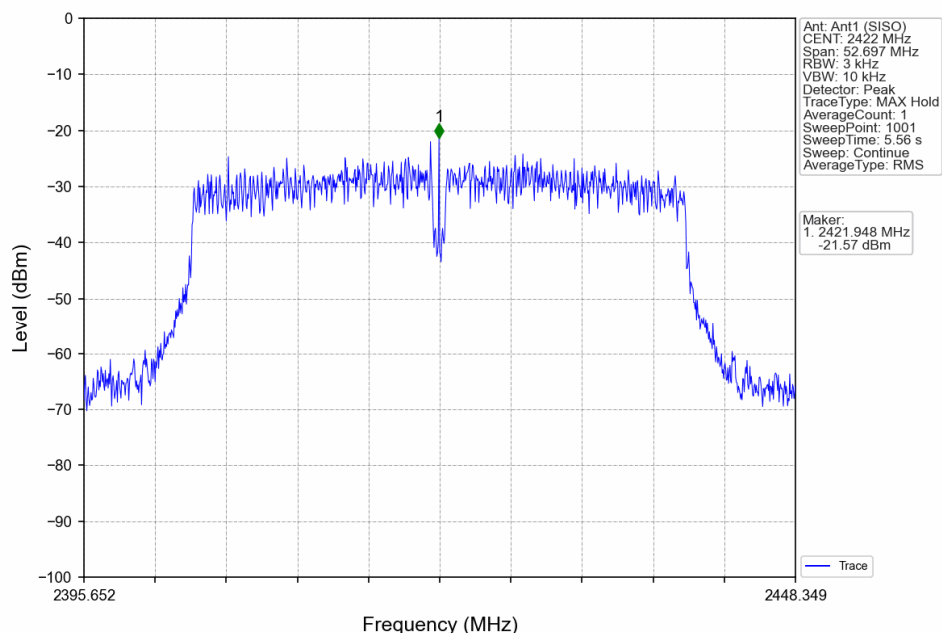
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Guangzhou Branch Testing Center EEC Laboratory

No.198 Kezhu Road, Sciotech Park, Guangzhou Economic & Technology Development District, Guangzhou, China 510663 t (86-20) 82155555 f (86-20) 82075058 www.sgsgroup.com.cn
中国·广州·经济技术开发区科学城科珠路198号 邮编: 510663 t (86-20) 82155555 f (86-20) 82075058 sgs.china@sgs.com

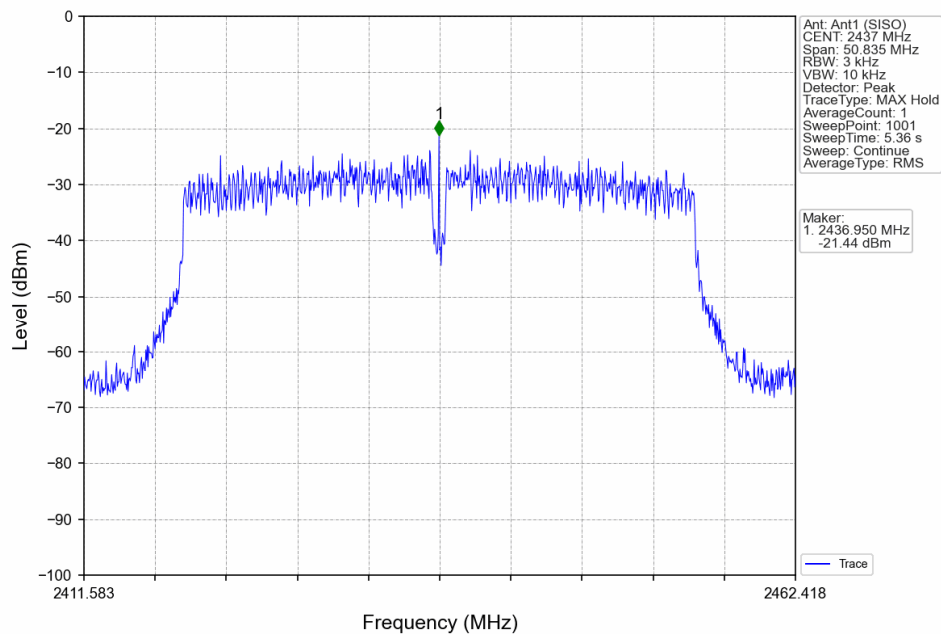
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



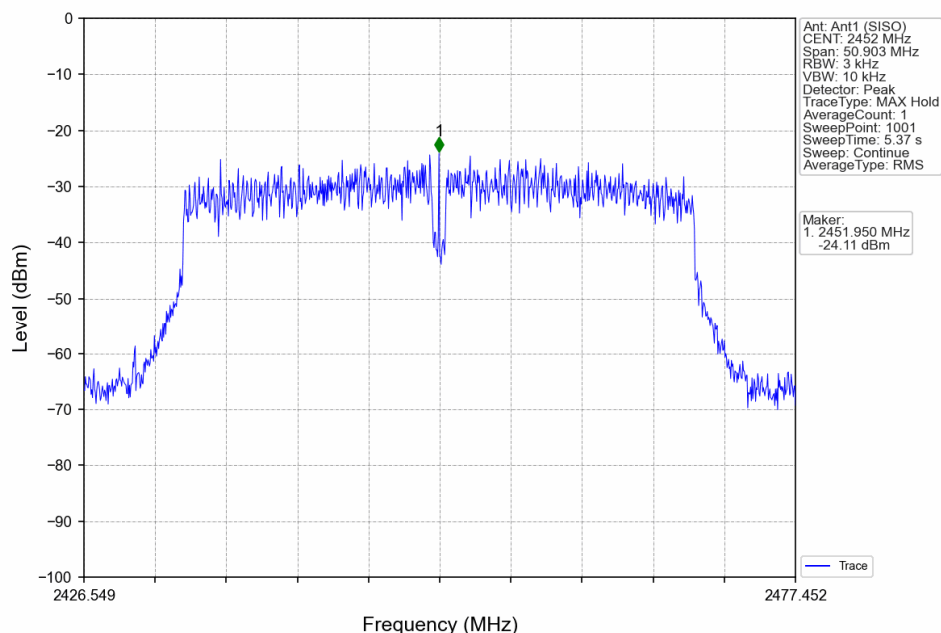
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



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5. Unwanted Emissions In Non-restricted Frequency Bands

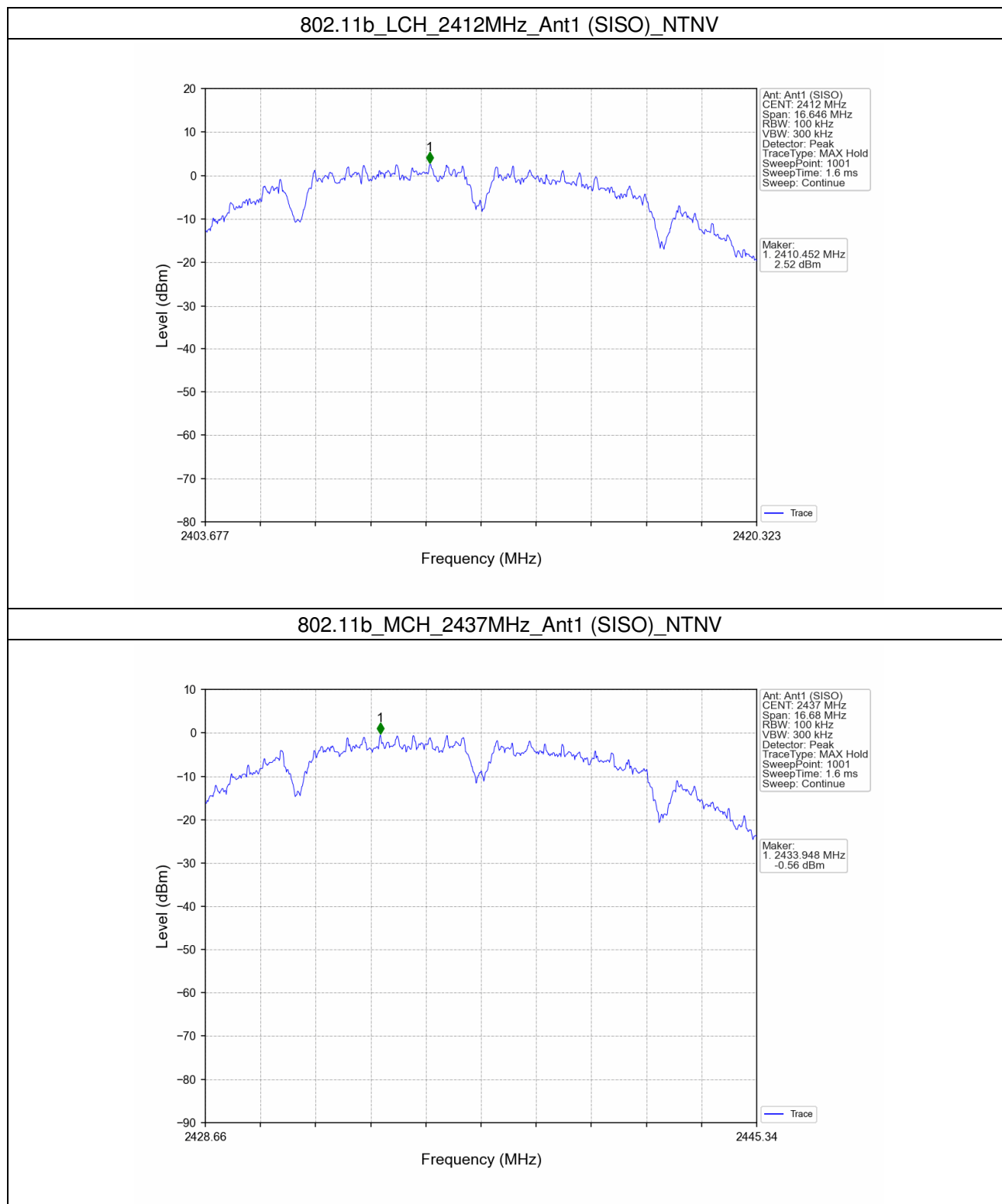
5.1 Ref

5.1.1 Test Result

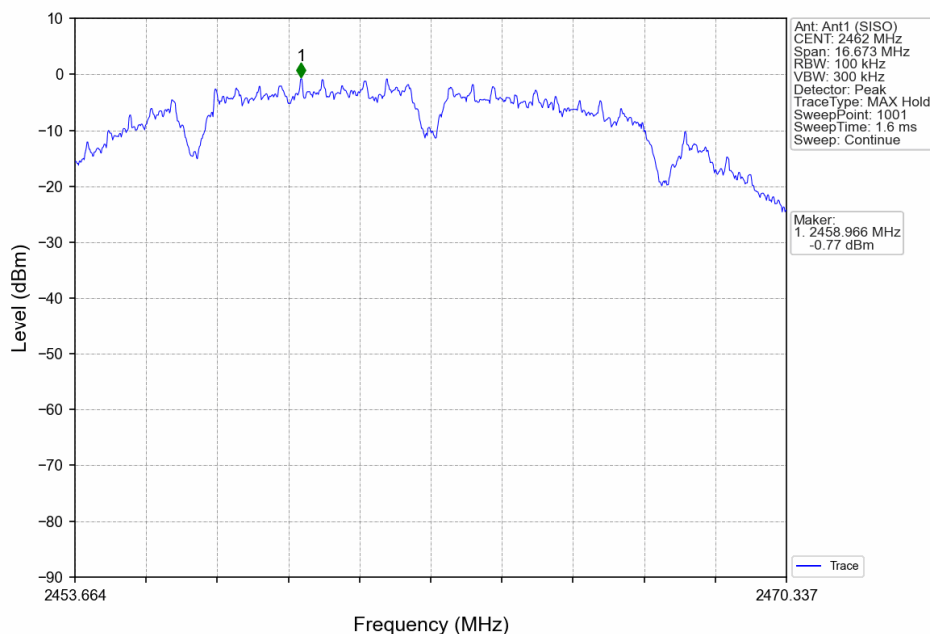
| Mode | TX Type | Frequency (MHz) | ANT | Level of Reference (dBm) |
|----------------|---------|-----------------|-----|--------------------------|
| 802.11b | SISO | 2412 | 1 | 2.52 |
| | | 2437 | 1 | -0.56 |
| | | 2462 | 1 | -0.77 |
| 802.11g | SISO | 2412 | 1 | -4.83 |
| | | 2437 | 1 | -5.12 |
| | | 2462 | 1 | -5.09 |
| 802.11n (HT20) | SISO | 2412 | 1 | -4.67 |
| | | 2437 | 1 | -4.64 |
| | | 2462 | 1 | -5.17 |
| 802.11n (HT40) | SISO | 2422 | 1 | -8.09 |
| | | 2437 | 1 | -8.69 |
| | | 2452 | 1 | -9.17 |

Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2013, the channel contains the maximum PSD level was used to establish the reference level.

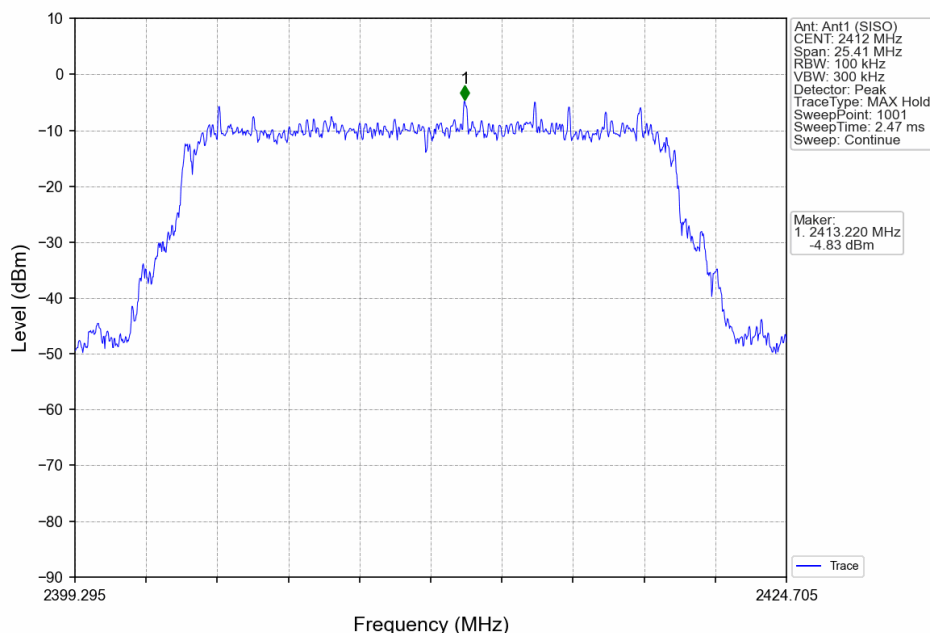
5.1.2 Test Graph



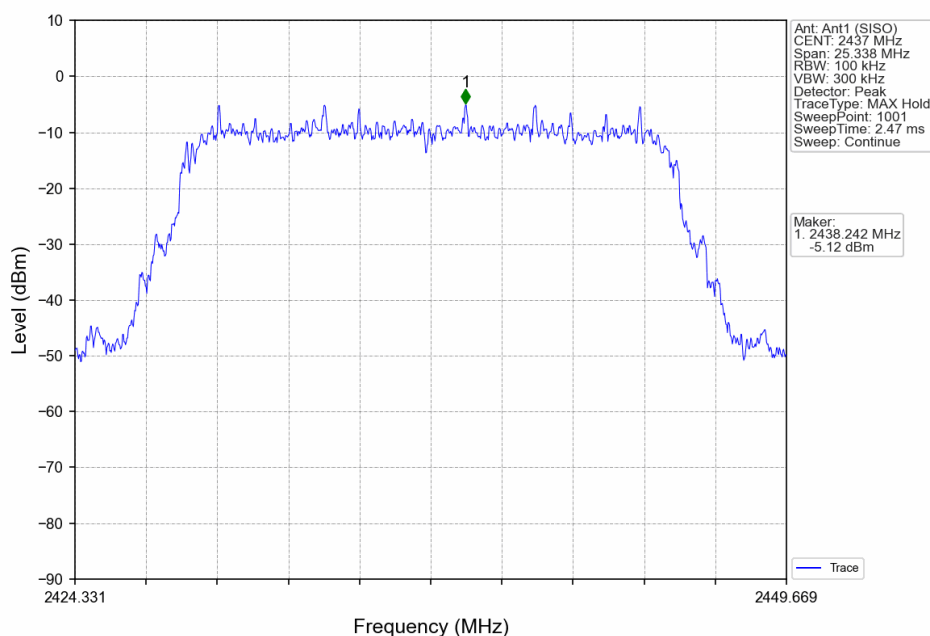
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



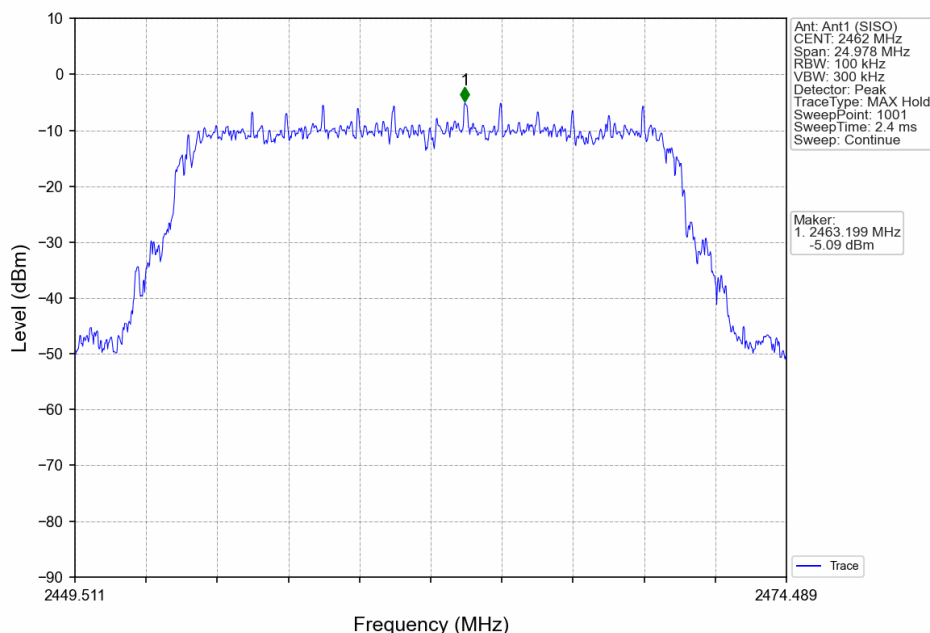
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



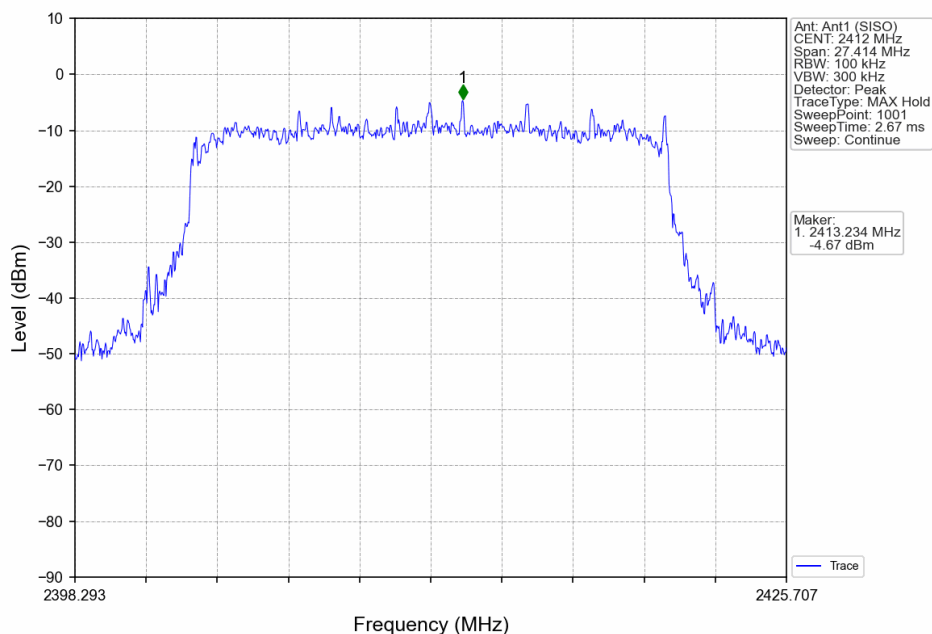
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



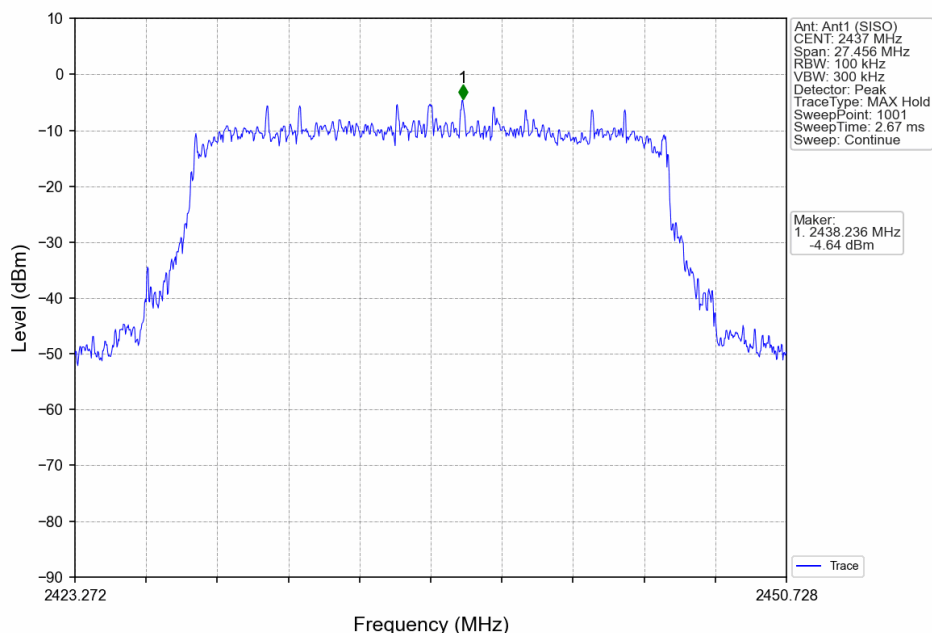
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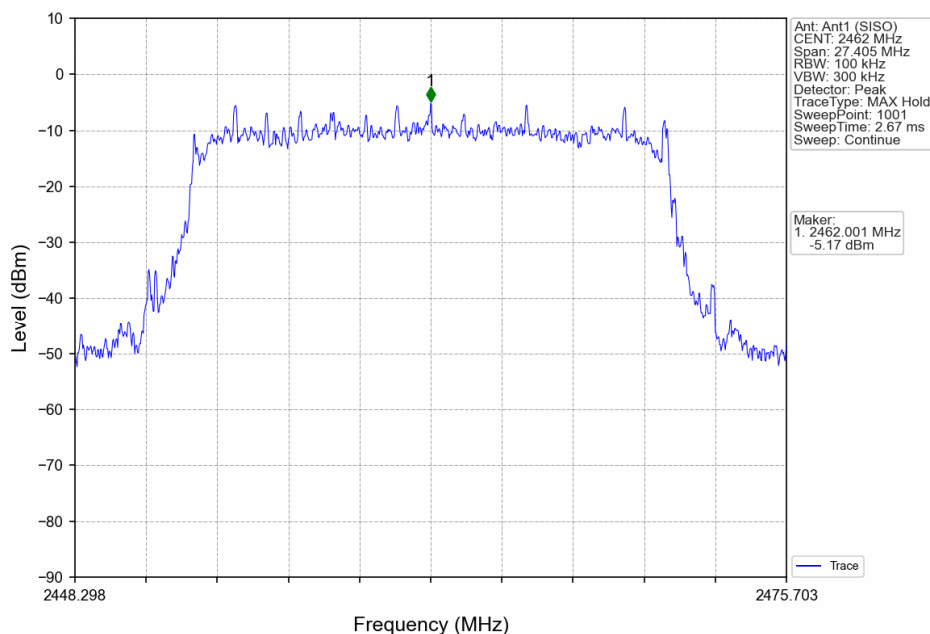
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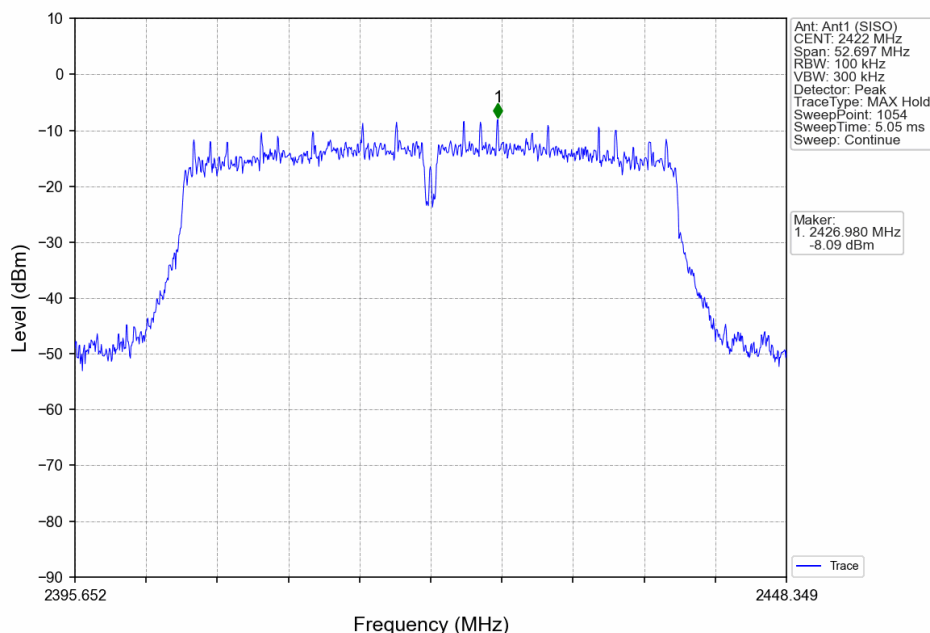
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



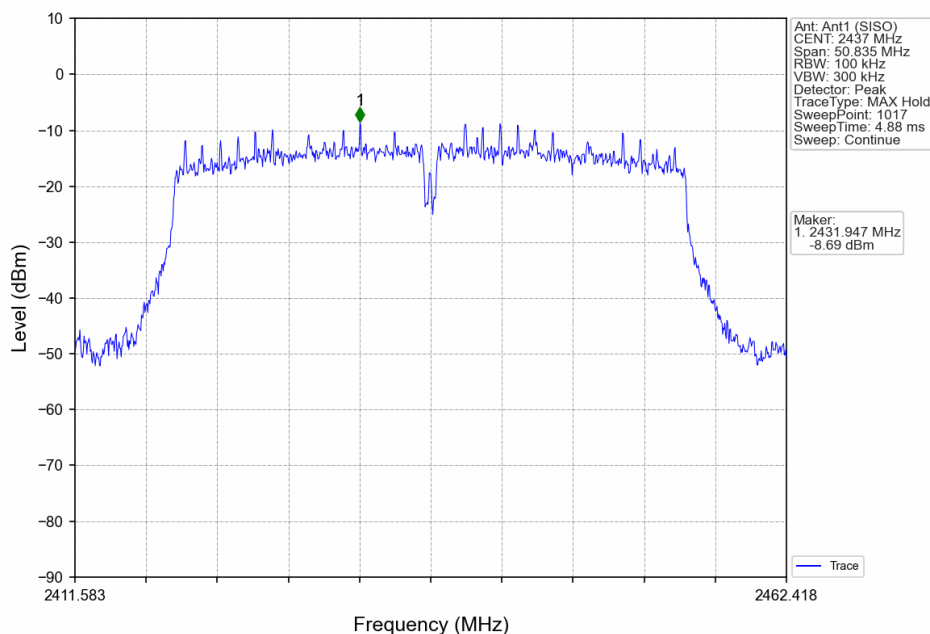
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



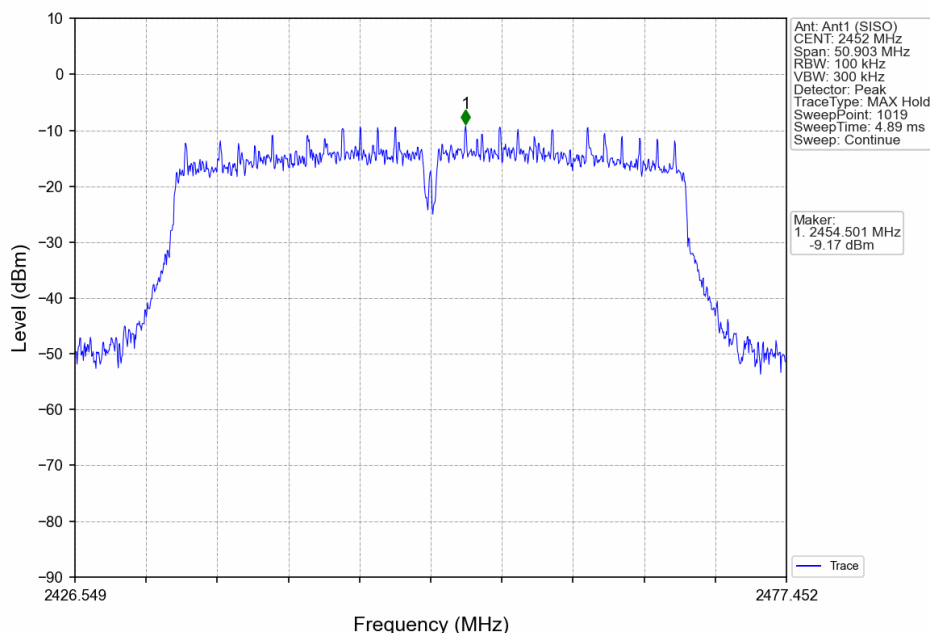
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802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



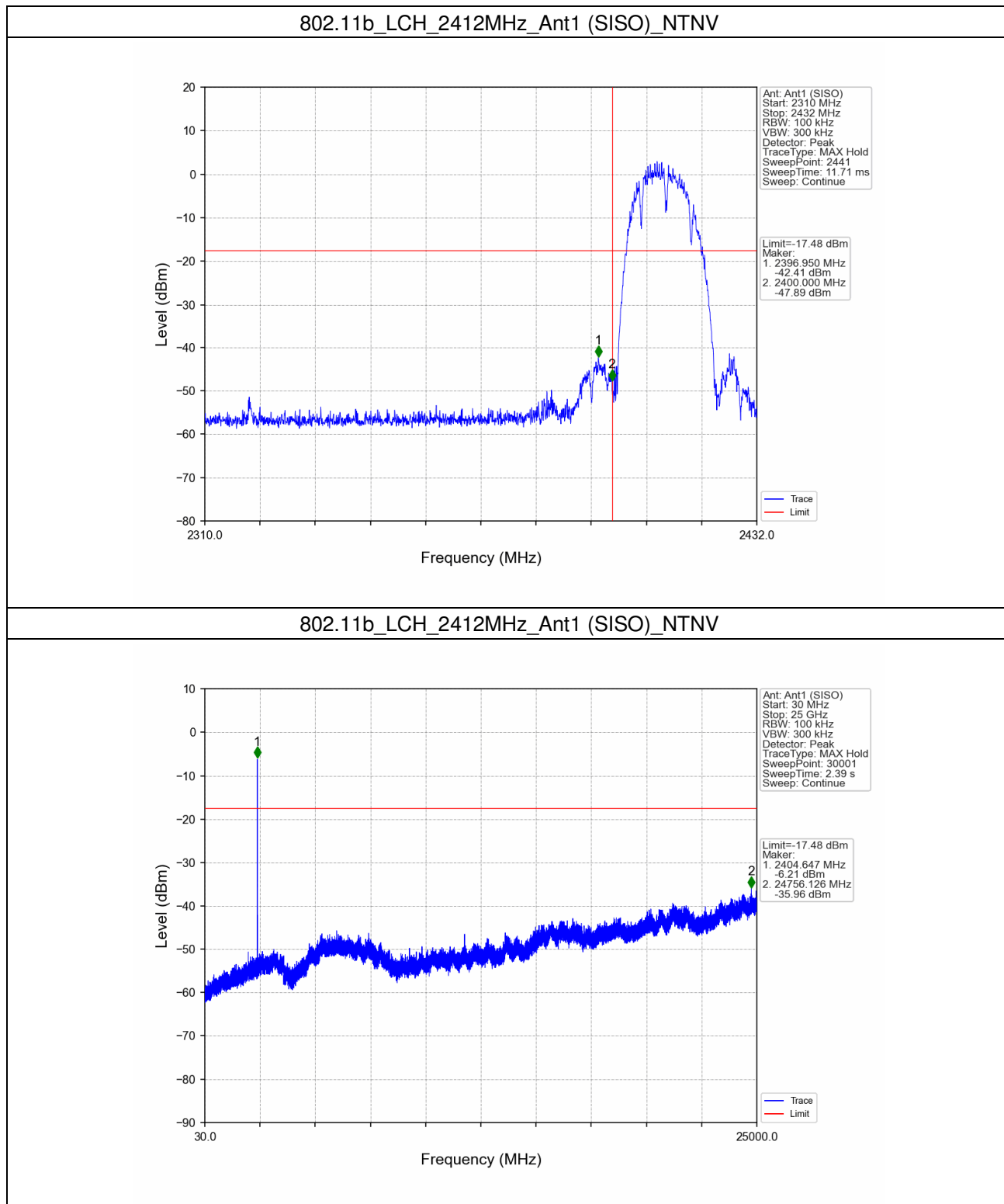
5.2 CSE and Band Edges

5.2.1 Test Result

| Mode | TX Type | Frequency (MHz) | ANT | Level of Reference (dBm) | Limit (dBm) | Verdict |
|----------------|---------|-----------------|-----|--------------------------|-------------|---------|
| 802.11b | SISO | 2412 | 1 | 2.52 | -17.48 | Pass |
| | | 2437 | 1 | 2.52 | -17.48 | Pass |
| | | 2462 | 1 | 2.52 | -17.48 | Pass |
| 802.11g | SISO | 2412 | 1 | -4.83 | -24.83 | Pass |
| | | 2437 | 1 | -4.83 | -24.83 | Pass |
| | | 2462 | 1 | -4.83 | -24.83 | Pass |
| 802.11n (HT20) | SISO | 2412 | 1 | -4.64 | -24.64 | Pass |
| | | 2437 | 1 | -4.64 | -24.64 | Pass |
| | | 2462 | 1 | -4.64 | -24.64 | Pass |
| 802.11n (HT40) | SISO | 2422 | 1 | -8.09 | -28.09 | Pass |
| | | 2437 | 1 | -8.09 | -28.09 | Pass |
| | | 2452 | 1 | -8.09 | -28.09 | Pass |

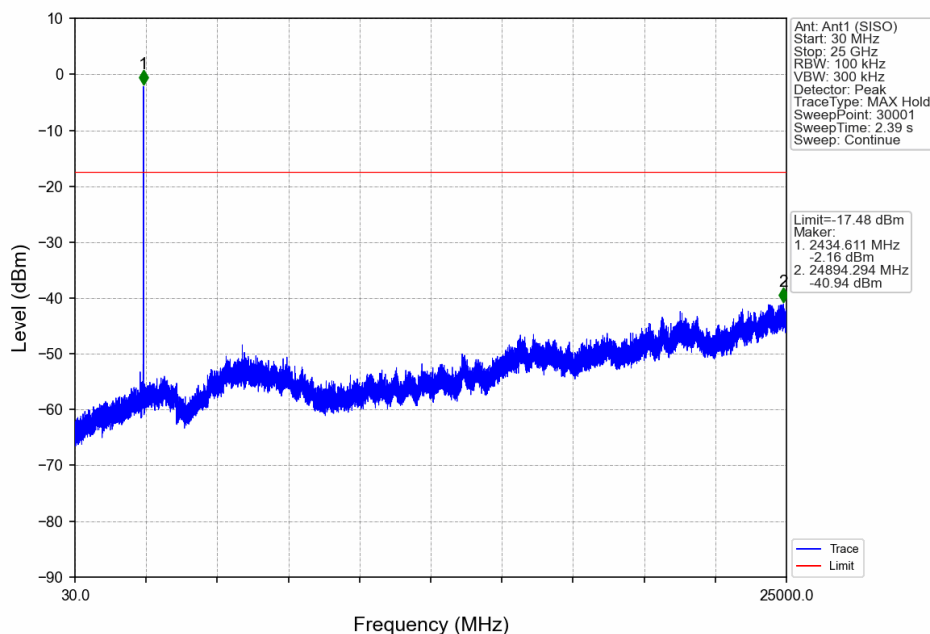
Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2013, the channel contains the maximum PSD level was used to establish the reference level.

5.2.2 Test Graph

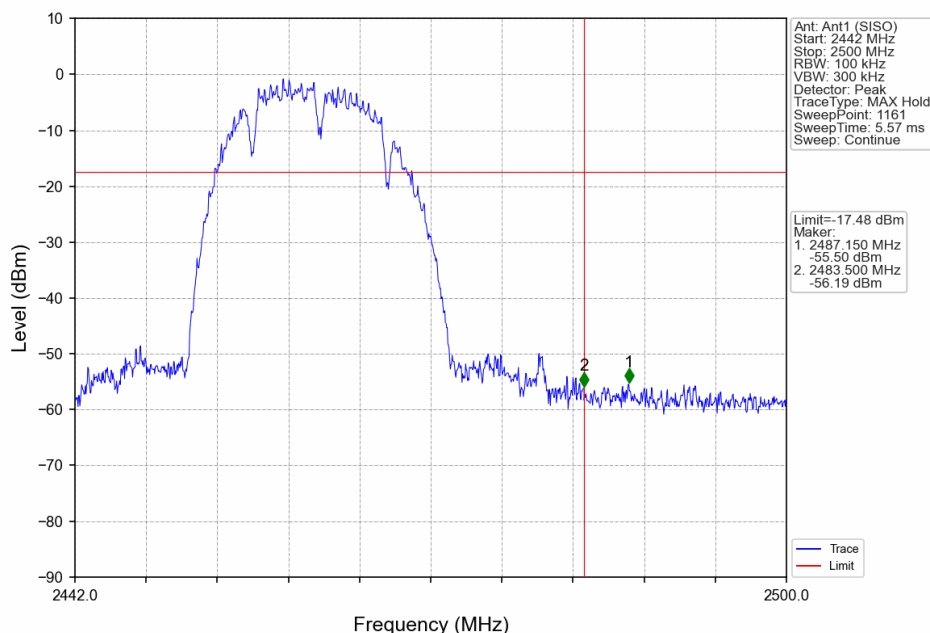


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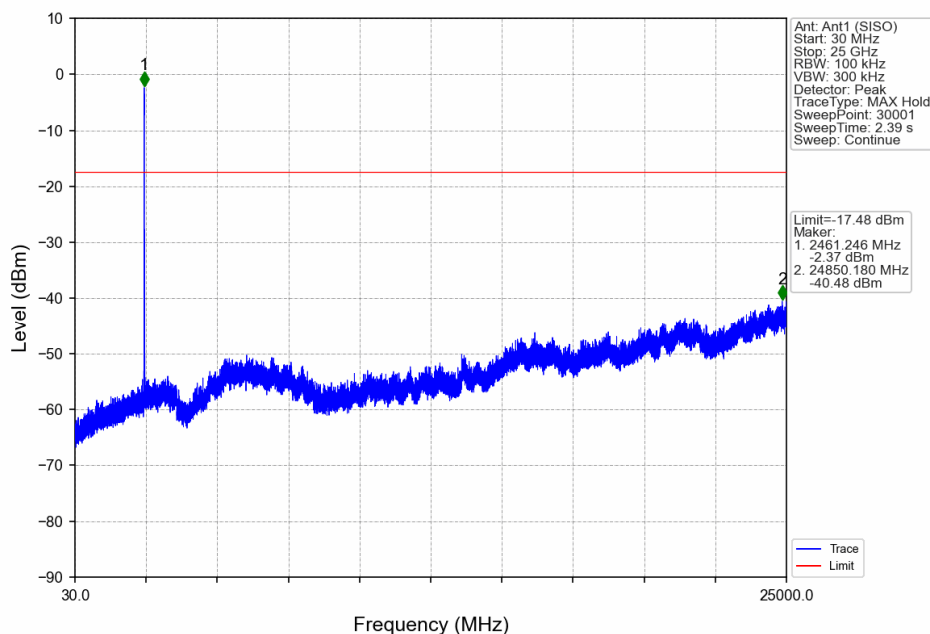
802.11b_MCH_2437MHz_Ant1 (SISO)_NTNV



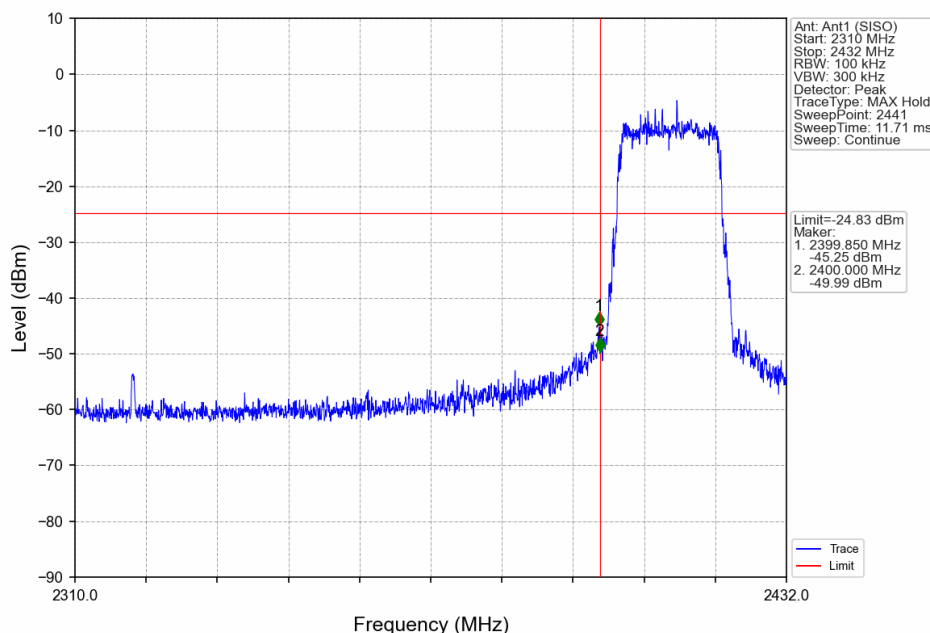
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



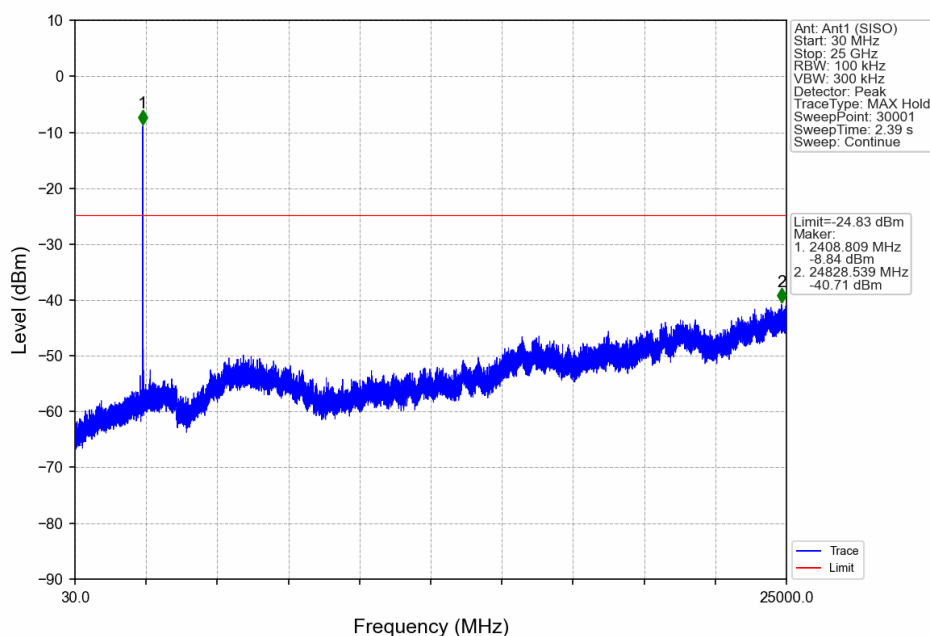
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



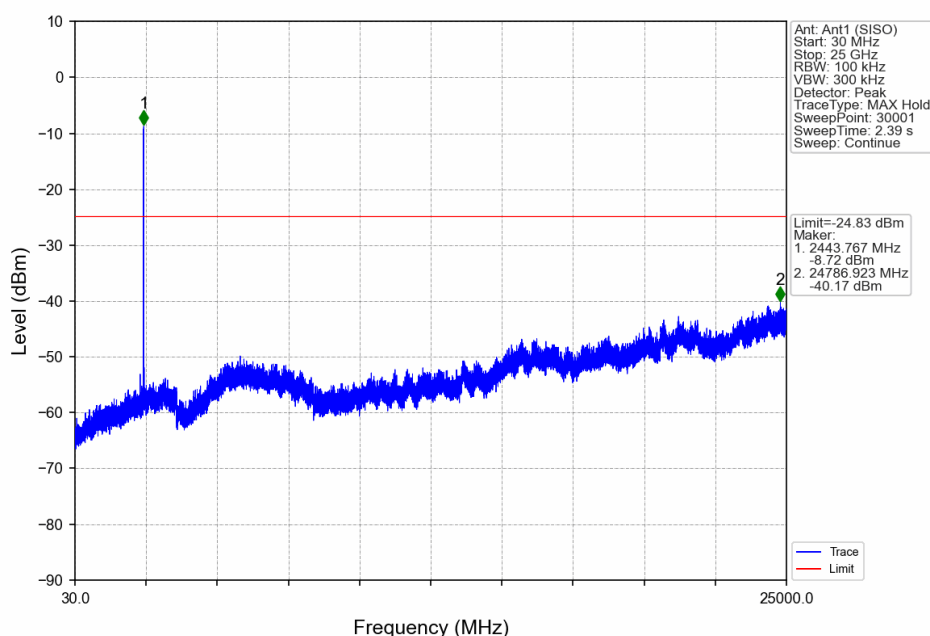
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



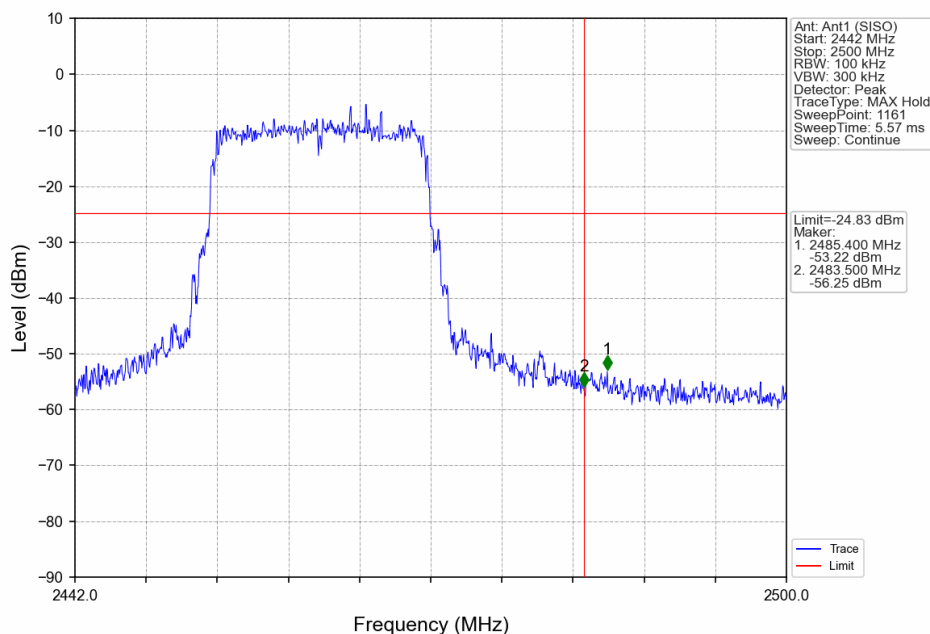
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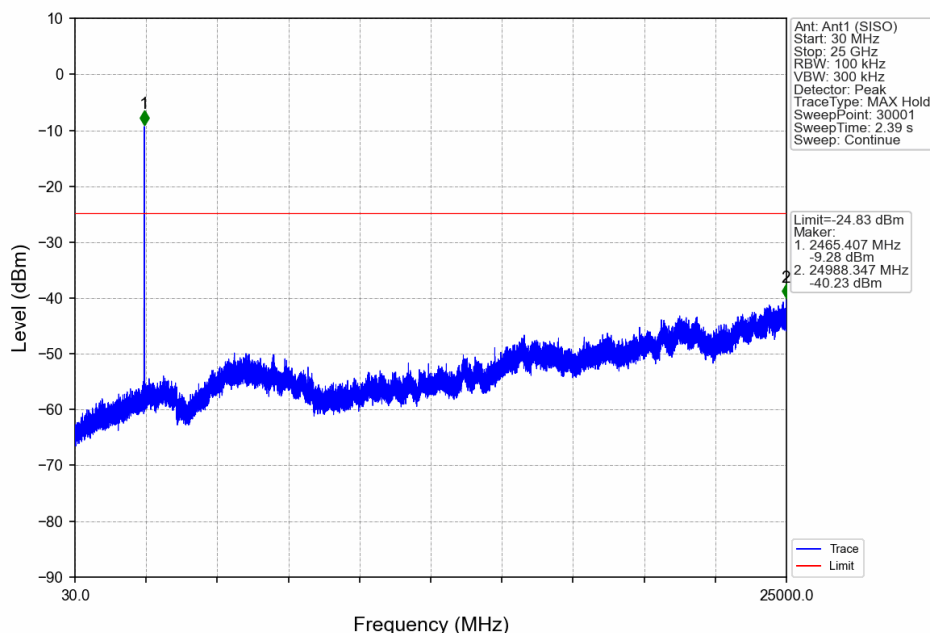
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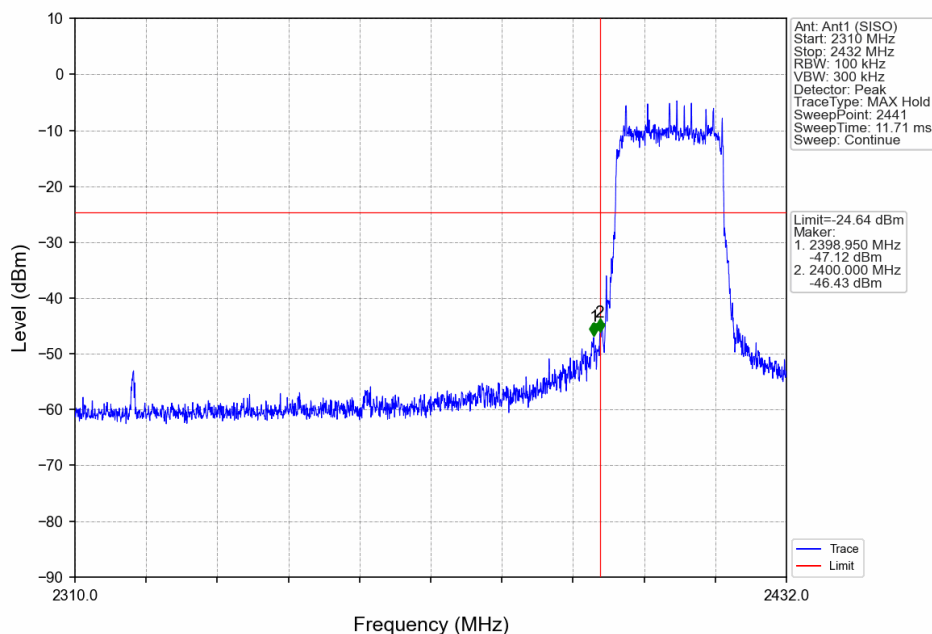
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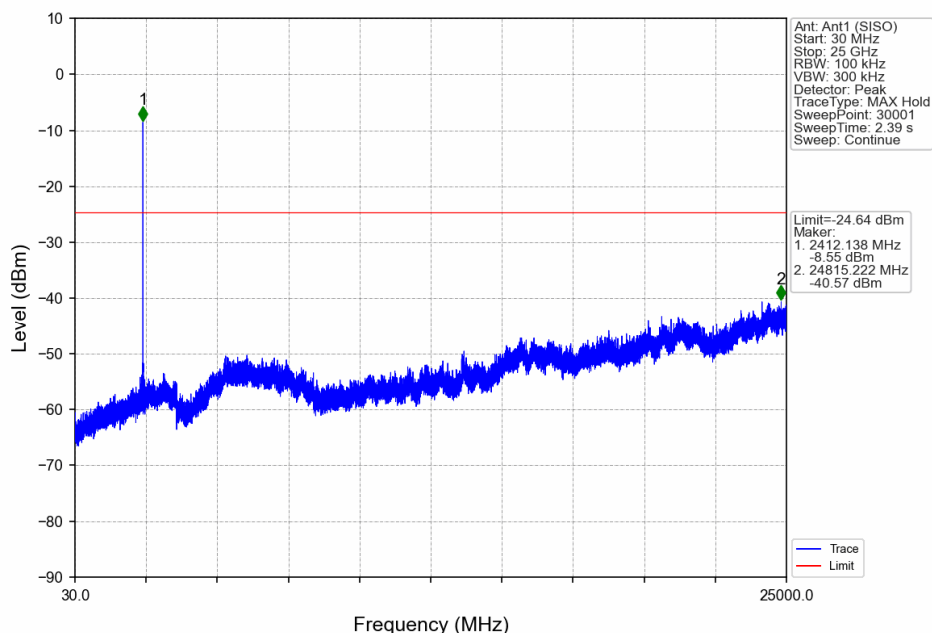
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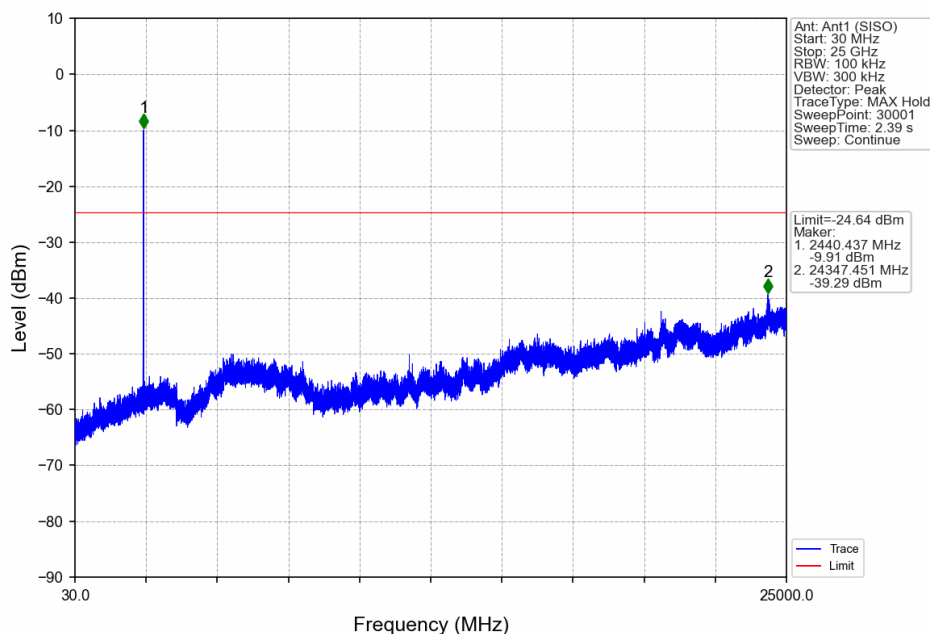
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



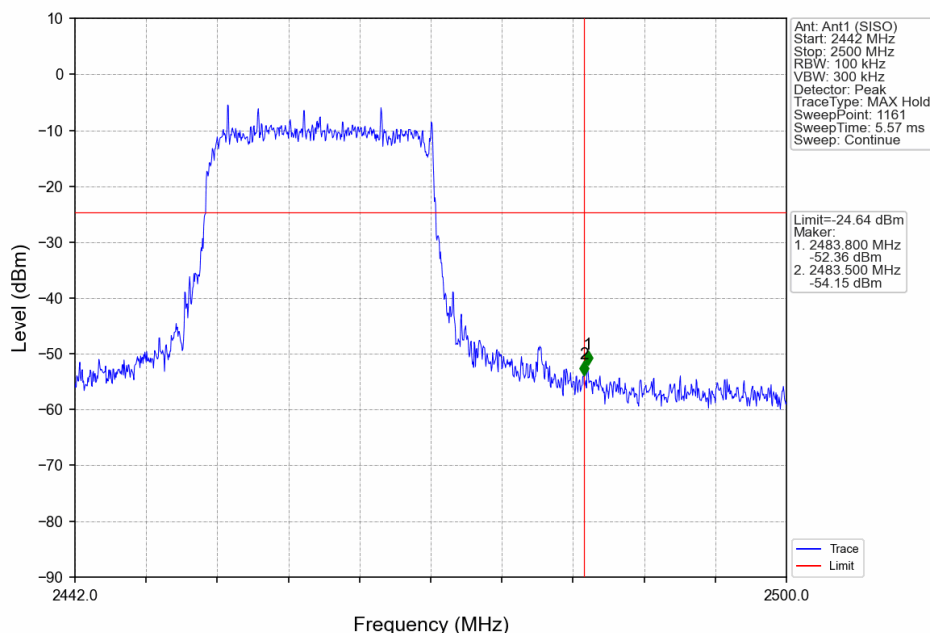
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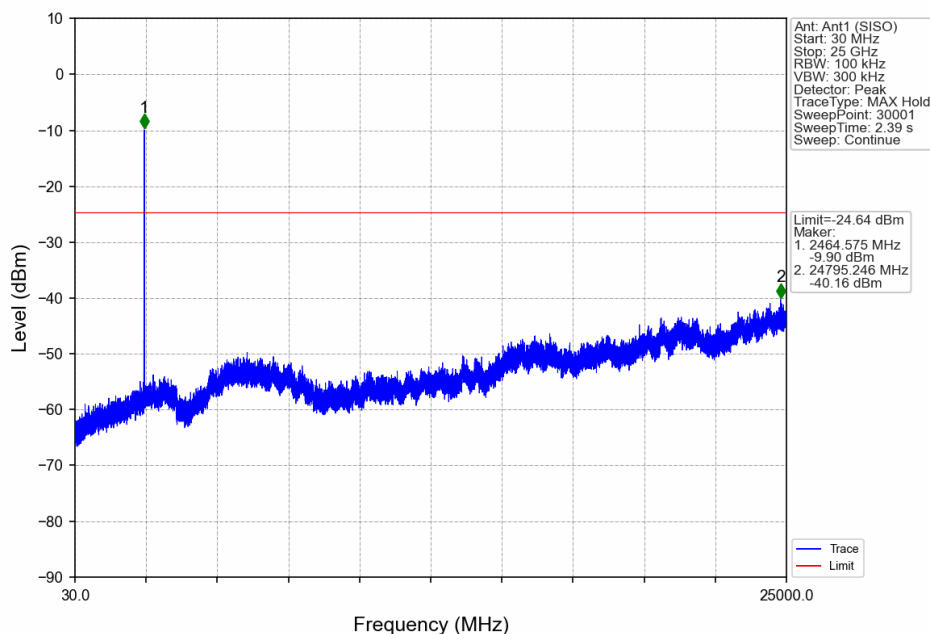
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



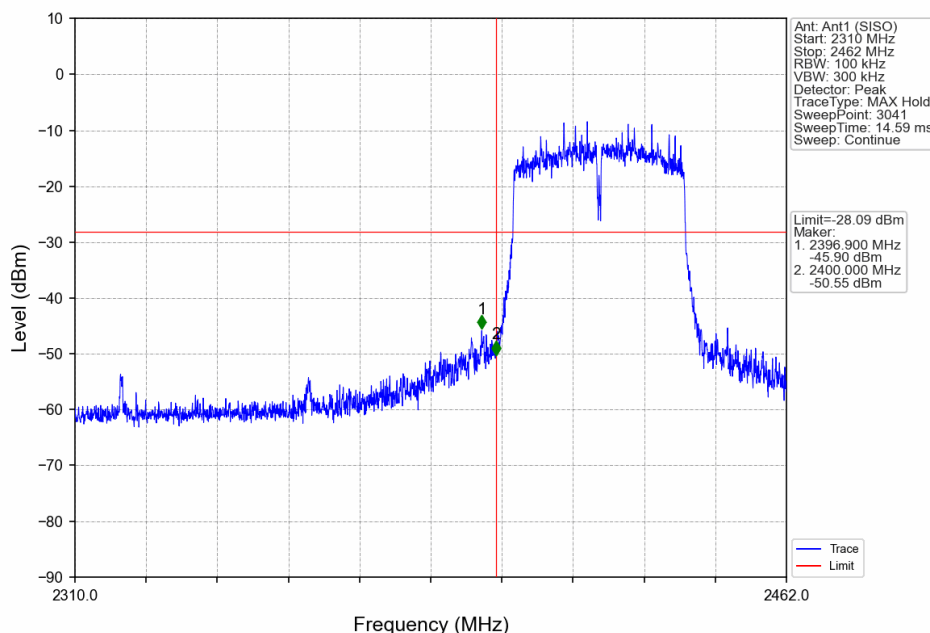
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



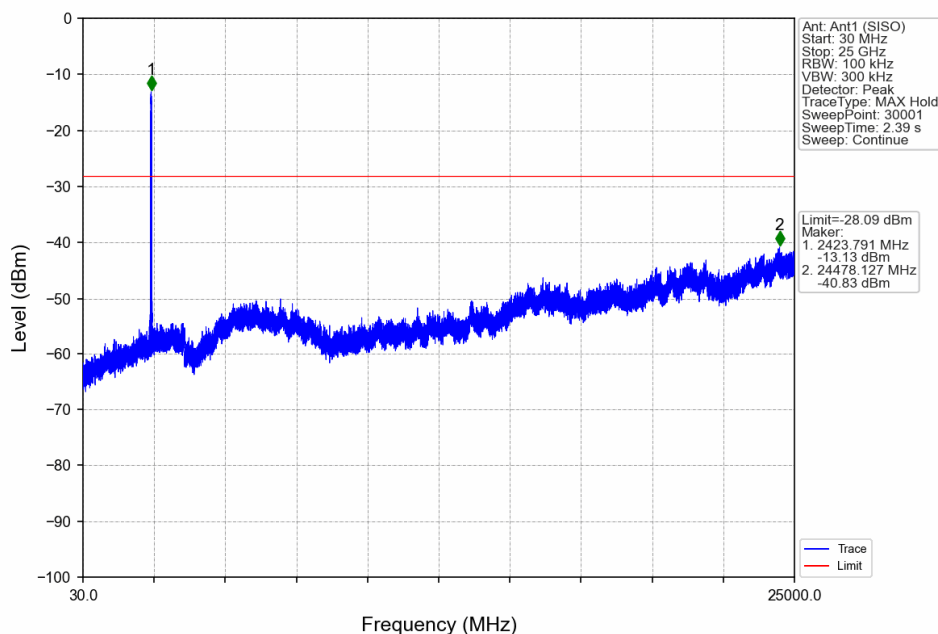
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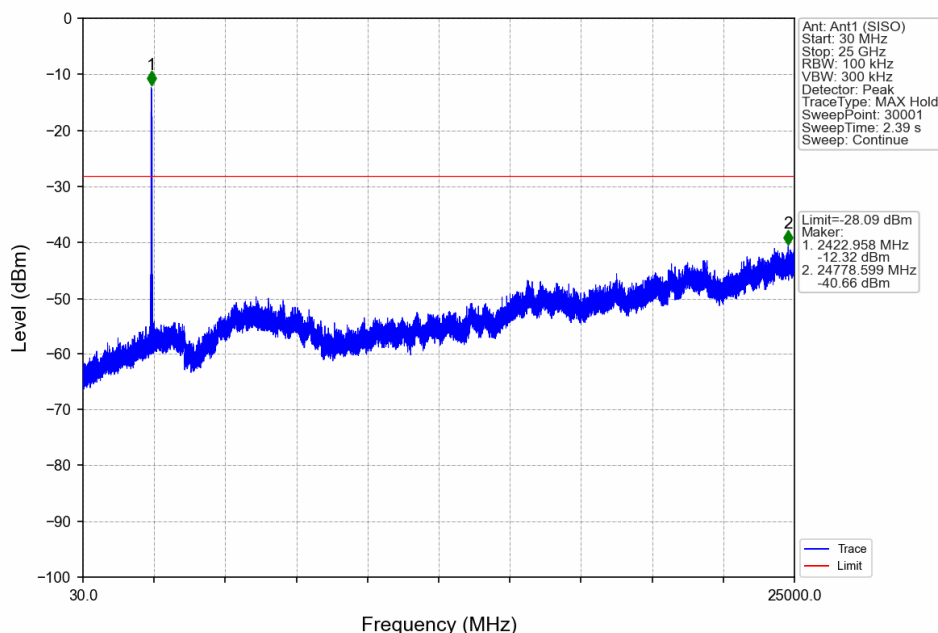
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



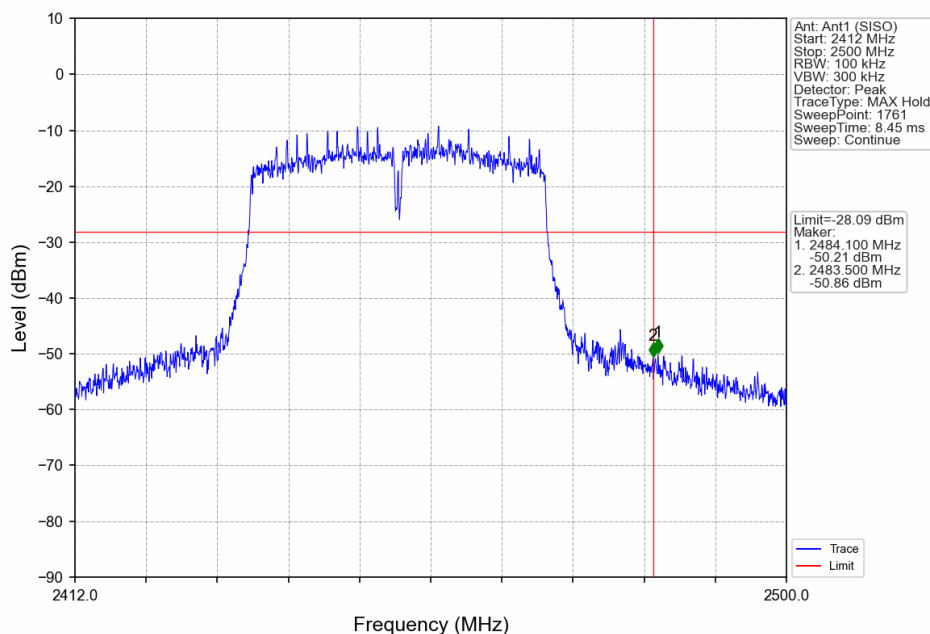
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



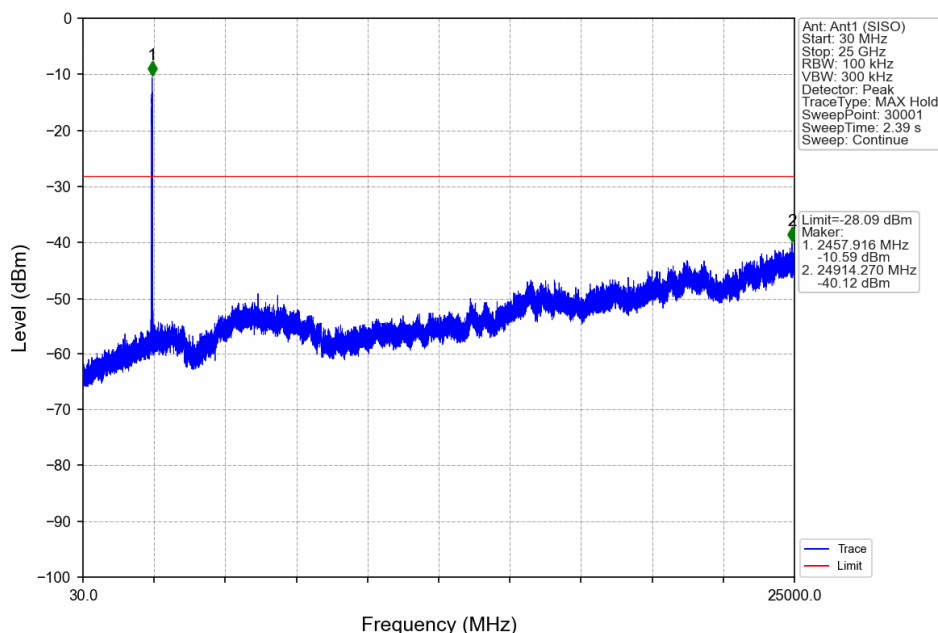
802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



- End of the Report -