# 1. Effective (Isotropic) Radiated Power Output Data

## 1.1 Band2_EIRP

### 1.1.1 Test Result

| Band: 2 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| ENV | Mode | | Frequency (MHz) | Conducted Power (dBm) | Gain (dBi) | EIRP (dBm) | | Verdict |
| | Network | Subset | | | | Result | Limit | |
| NTNV | RMC | 12.2kbps RMC | 1852.4 | 21.29 | 0.81 | 22.10 | <=33.01 | Pass |
| | | | 1880 | 21.02 | 0.81 | 21.83 | <=33.01 | Pass |
| | | | 1907.6 | 20.66 | 0.81 | 21.47 | <=33.01 | Pass |
| | HSDPA | Subtest 1 | 1852.4 | 18.97 | 0.81 | 19.78 | <=33.01 | Pass |
| | | Subtest 2 | 1852.4 | 18.98 | 0.81 | 19.79 | <=33.01 | Pass |
| | | Subtest 3 | 1852.4 | 19.03 | 0.81 | 19.84 | <=33.01 | Pass |
| | | Subtest 4 | 1852.4 | 19.05 | 0.81 | 19.86 | <=33.01 | Pass |
| | | Subtest 1 | 1880 | 18.71 | 0.81 | 19.52 | <=33.01 | Pass |
| | | Subtest 2 | 1880 | 18.73 | 0.81 | 19.54 | <=33.01 | Pass |
| | | Subtest 3 | 1880 | 18.74 | 0.81 | 19.55 | <=33.01 | Pass |
| | | Subtest 4 | 1880 | 18.70 | 0.81 | 19.51 | <=33.01 | Pass |
| | | Subtest 1 | 1907.6 | 18.34 | 0.81 | 19.15 | <=33.01 | Pass |
| | | Subtest 2 | 1907.6 | 18.30 | 0.81 | 19.11 | <=33.01 | Pass |
| | | Subtest 3 | 1907.6 | 18.32 | 0.81 | 19.13 | <=33.01 | Pass |
| | | Subtest 4 | 1907.6 | 18.35 | 0.81 | 19.16 | <=33.01 | Pass |
| | HSUPA | Subtest 1 | 1852.4 | 17.04 | 0.81 | 17.85 | <=33.01 | Pass |
| | | Subtest 2 | 1852.4 | 17.05 | 0.81 | 17.86 | <=33.01 | Pass |
| | | Subtest 3 | 1852.4 | 17.05 | 0.81 | 17.86 | <=33.01 | Pass |
| | | Subtest 4 | 1852.4 | 16.79 | 0.81 | 17.60 | <=33.01 | Pass |
| | | Subtest 5 | 1852.4 | 16.56 | 0.81 | 17.37 | <=33.01 | Pass |
| | | Subtest 1 | 1880 | 16.74 | 0.81 | 17.55 | <=33.01 | Pass |
| | | Subtest 2 | 1880 | 16.22 | 0.81 | 17.03 | <=33.01 | Pass |
| | | Subtest 3 | 1880 | 16.74 | 0.81 | 17.55 | <=33.01 | Pass |
| | | Subtest 4 | 1880 | 16.75 | 0.81 | 17.56 | <=33.01 | Pass |
| | | Subtest 5 | 1880 | 16.56 | 0.81 | 17.37 | <=33.01 | Pass |
| | | Subtest 1 | 1907.6 | 16.37 | 0.81 | 17.18 | <=33.01 | Pass |
| | | Subtest 2 | 1907.6 | 16.37 | 0.81 | 17.18 | <=33.01 | Pass |
| | | Subtest 3 | 1907.6 | 16.18 | 0.81 | 16.99 | <=33.01 | Pass |
| | | Subtest 4 | 1907.6 | 16.18 | 0.81 | 16.99 | <=33.01 | Pass |
| | | Subtest 5 | 1907.6 | 16.35 | 0.81 | 17.16 | <=33.01 | Pass |
| Note1: EIRP=Conducted Power+Antenna Gain | | | | | | | | |

# 2. Frequency Stability

## 2.1 Band2

### 2.1.1 Test Result

| Band: 2 | | | | | | | |
|---|---|---|---|---|---|---|---|
| Network | Frequency (MHz) | Temp. (°C) | Voltage (VDC) | Freq. Error (Hz) | Freq. vs. Rated (ppm) | | Verdict |
| | | | | | Result | Limit | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| RMC | 1852.4 | 20 | 3.27 | -18.067 | -0.0098 | -2.5 to 2.5 | Pass |
| | | | 3.85 | -16.272 | -0.0088 | -2.5 to 2.5 | Pass |
| | | | 4.43 | -18.368 | -0.0099 | -2.5 to 2.5 | Pass |
| | | -30 | 3.85 | -17.245 | -0.0093 | -2.5 to 2.5 | Pass |
| | | -20 | 3.85 | -17.910 | -0.0097 | -2.5 to 2.5 | Pass |
| | | -10 | 3.85 | -19.476 | -0.0105 | -2.5 to 2.5 | Pass |
| | | 0 | 3.85 | -20.721 | -0.0112 | -2.5 to 2.5 | Pass |
| | | 10 | 3.85 | -15.335 | -0.0083 | -2.5 to 2.5 | Pass |
| | | 30 | 3.85 | -17.374 | -0.0094 | -2.5 to 2.5 | Pass |
| | | 40 | 3.85 | -16.809 | -0.0091 | -2.5 to 2.5 | Pass |
| | | 50 | 3.85 | -19.641 | -0.0106 | -2.5 to 2.5 | Pass |
| | 1880 | 20 | 3.27 | -17.538 | -0.0093 | -2.5 to 2.5 | Pass |
| | | | 3.85 | -14.777 | -0.0079 | -2.5 to 2.5 | Pass |
| | | | 4.43 | -15.399 | -0.0082 | -2.5 to 2.5 | Pass |
| | | -30 | 3.85 | -14.484 | -0.0077 | -2.5 to 2.5 | Pass |
| | | -20 | 3.85 | -11.544 | -0.0061 | -2.5 to 2.5 | Pass |
| | | -10 | 3.85 | -13.204 | -0.0070 | -2.5 to 2.5 | Pass |
| | | 0 | 3.85 | -11.551 | -0.0061 | -2.5 to 2.5 | Pass |
| | | 10 | 3.85 | -18.132 | -0.0096 | -2.5 to 2.5 | Pass |
| | | 30 | 3.85 | -13.969 | -0.0074 | -2.5 to 2.5 | Pass |
| | | 40 | 3.85 | -15.750 | -0.0084 | -2.5 to 2.5 | Pass |
| | | 50 | 3.85 | -10.242 | -0.0054 | -2.5 to 2.5 | Pass |
| | 1907.6 | 20 | 3.27 | -13.926 | -0.0073 | -2.5 to 2.5 | Pass |
| | | | 3.85 | -12.445 | -0.0065 | -2.5 to 2.5 | Pass |
| | | | 4.43 | -15.650 | -0.0082 | -2.5 to 2.5 | Pass |
| | | -30 | 3.85 | -12.395 | -0.0065 | -2.5 to 2.5 | Pass |
| | | -20 | 3.85 | -16.000 | -0.0084 | -2.5 to 2.5 | Pass |
| | | -10 | 3.85 | -18.039 | -0.0095 | -2.5 to 2.5 | Pass |
| | | 0 | 3.85 | -14.663 | -0.0077 | -2.5 to 2.5 | Pass |
| | | 10 | 3.85 | -12.567 | -0.0066 | -2.5 to 2.5 | Pass |
| | | 30 | 3.85 | -14.369 | -0.0075 | -2.5 to 2.5 | Pass |
| | | 40 | 3.85 | -11.230 | -0.0059 | -2.5 to 2.5 | Pass |
| | | 50 | 3.85 | -13.905 | -0.0073 | -2.5 to 2.5 | Pass |
| HSDPA | 1852.4 | 20 | 3.27 | -15.821 | -0.0085 | -2.5 to 2.5 | Pass |
| | | | 3.85 | -10.636 | -0.0057 | -2.5 to 2.5 | Pass |
| | | | 4.43 | -15.264 | -0.0082 | -2.5 to 2.5 | Pass |
| | | -30 | 3.85 | -11.766 | -0.0064 | -2.5 to 2.5 | Pass |
| | | -20 | 3.85 | -10.822 | -0.0058 | -2.5 to 2.5 | Pass |
| | | -10 | 3.85 | -11.730 | -0.0063 | -2.5 to 2.5 | Pass |
| | | 0 | 3.85 | -13.826 | -0.0075 | -2.5 to 2.5 | Pass |
| | | 10 | 3.85 | -10.664 | -0.0058 | -2.5 to 2.5 | Pass |
| | | 30 | 3.85 | -11.823 | -0.0064 | -2.5 to 2.5 | Pass |
| | | 40 | 3.85 | -11.837 | -0.0064 | -2.5 to 2.5 | Pass |
| | | 50 | 3.85 | -12.696 | -0.0069 | -2.5 to 2.5 | Pass |
| | 1880 | 20 | 3.27 | -11.530 | -0.0061 | -2.5 to 2.5 | Pass |
| | | | 3.85 | -12.567 | -0.0067 | -2.5 to 2.5 | Pass |
| | | | 4.43 | -9.005 | -0.0048 | -2.5 to 2.5 | Pass |
| | | -30 | 3.85 | -11.086 | -0.0059 | -2.5 to 2.5 | Pass |
| | | -20 | 3.85 | -10.178 | -0.0054 | -2.5 to 2.5 | Pass |
| | | -10 | 3.85 | -15.471 | -0.0082 | -2.5 to 2.5 | Pass |
| | | 0 | 3.85 | -13.518 | -0.0072 | -2.5 to 2.5 | Pass |
| | | 10 | 3.85 | -10.707 | -0.0057 | -2.5 to 2.5 | Pass |
| | | 30 | 3.85 | -16.444 | -0.0087 | -2.5 to 2.5 | Pass |
| | | 40 | 3.85 | -13.518 | -0.0072 | -2.5 to 2.5 | Pass |
| | | 50 | 3.85 | -8.705 | -0.0046 | -2.5 to 2.5 | Pass |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | 1907.6 | 20 | 3.27 | -15.943 | -0.0084 | -2.5 to 2.5 | Pass |
| | | | 3.85 | -12.674 | -0.0066 | -2.5 to 2.5 | Pass |
| | | | 4.43 | -11.809 | -0.0062 | -2.5 to 2.5 | Pass |
| | | -30 | 3.85 | -10.507 | -0.0055 | -2.5 to 2.5 | Pass |
| | | -20 | 3.85 | -7.374 | -0.0039 | -2.5 to 2.5 | Pass |
| | | -10 | 3.85 | -6.602 | -0.0035 | -2.5 to 2.5 | Pass |
| | | 0 | 3.85 | -3.855 | -0.0020 | -2.5 to 2.5 | Pass |
| | | 10 | 3.85 | -9.220 | -0.0048 | -2.5 to 2.5 | Pass |
| | | 30 | 3.85 | -8.333 | -0.0044 | -2.5 to 2.5 | Pass |
| | | 40 | 3.85 | -13.661 | -0.0072 | -2.5 to 2.5 | Pass |
| | | 50 | 3.85 | -12.810 | -0.0067 | -2.5 to 2.5 | Pass |
| HSUPA | 1852.4 | 20 | 3.27 | -8.605 | -0.0046 | -2.5 to 2.5 | Pass |
| | | | 3.85 | -10.650 | -0.0057 | -2.5 to 2.5 | Pass |
| | | | 4.43 | -12.524 | -0.0068 | -2.5 to 2.5 | Pass |
| | | -30 | 3.85 | -11.358 | -0.0061 | -2.5 to 2.5 | Pass |
| | | -20 | 3.85 | -10.700 | -0.0058 | -2.5 to 2.5 | Pass |
| | | -10 | 3.85 | -19.634 | -0.0106 | -2.5 to 2.5 | Pass |
| | | 0 | 3.85 | -12.453 | -0.0067 | -2.5 to 2.5 | Pass |
| | | 10 | 3.85 | -11.144 | -0.0060 | -2.5 to 2.5 | Pass |
| | | 30 | 3.85 | -11.365 | -0.0061 | -2.5 to 2.5 | Pass |
| | | 40 | 3.85 | -10.049 | -0.0054 | -2.5 to 2.5 | Pass |
| | | 50 | 3.85 | -15.392 | -0.0083 | -2.5 to 2.5 | Pass |
| | 1880 | 20 | 3.27 | -10.686 | -0.0057 | -2.5 to 2.5 | Pass |
| | | | 3.85 | -14.248 | -0.0076 | -2.5 to 2.5 | Pass |
| | | | 4.43 | -15.006 | -0.0080 | -2.5 to 2.5 | Pass |
| | | -30 | 3.85 | -11.837 | -0.0063 | -2.5 to 2.5 | Pass |
| | | -20 | 3.85 | -12.381 | -0.0066 | -2.5 to 2.5 | Pass |
| | | -10 | 3.85 | -15.049 | -0.0080 | -2.5 to 2.5 | Pass |
| | | 0 | 3.85 | -11.601 | -0.0062 | -2.5 to 2.5 | Pass |
| | | 10 | 3.85 | -14.799 | -0.0079 | -2.5 to 2.5 | Pass |
| | | 30 | 3.85 | -16.644 | -0.0089 | -2.5 to 2.5 | Pass |
| | | 40 | 3.85 | -15.478 | -0.0082 | -2.5 to 2.5 | Pass |
| | | 50 | 3.85 | -14.906 | -0.0079 | -2.5 to 2.5 | Pass |
| | 1907.6 | 20 | 3.27 | -10.257 | -0.0054 | -2.5 to 2.5 | Pass |
| | | | 3.85 | -8.798 | -0.0046 | -2.5 to 2.5 | Pass |
| | | | 4.43 | -15.271 | -0.0080 | -2.5 to 2.5 | Pass |
| | | -30 | 3.85 | -12.839 | -0.0067 | -2.5 to 2.5 | Pass |
| | | -20 | 3.85 | -7.460 | -0.0039 | -2.5 to 2.5 | Pass |
| | | -10 | 3.85 | -13.161 | -0.0069 | -2.5 to 2.5 | Pass |
| | | 0 | 3.85 | -12.810 | -0.0067 | -2.5 to 2.5 | Pass |
| | | 10 | 3.85 | -11.852 | -0.0062 | -2.5 to 2.5 | Pass |
| | | 30 | 3.85 | -11.923 | -0.0063 | -2.5 to 2.5 | Pass |
| | | 40 | 3.85 | -12.488 | -0.0065 | -2.5 to 2.5 | Pass |
| | | 50 | 3.85 | -13.411 | -0.0070 | -2.5 to 2.5 | Pass |

# 3. Modulation Characteristics

## 3.1 Band2

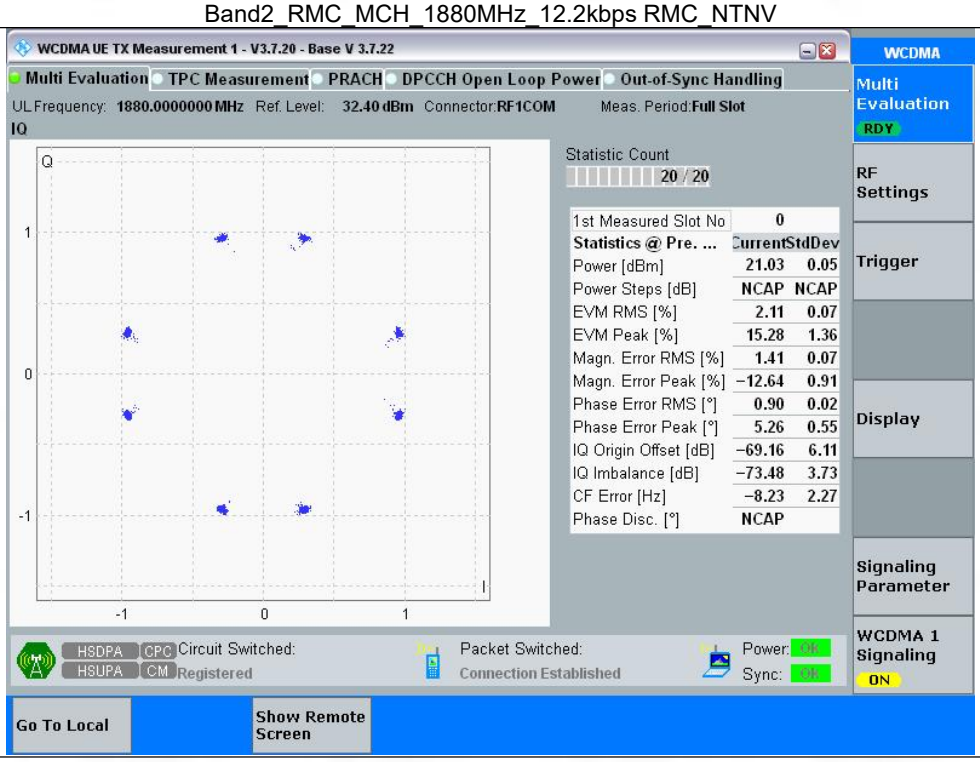
### 3.1.1 Test Result

| Band: 2 |
|---|

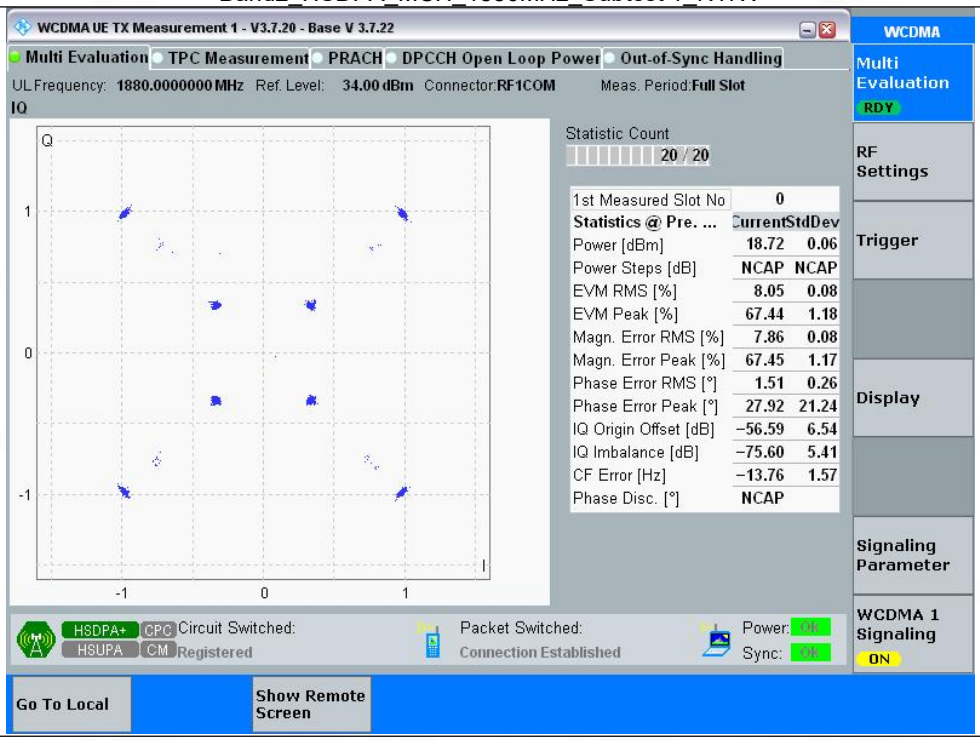
| ENV | Mode | | Frequency (MHz) | Modulation Characteristics | | Verdict |
|---|---|---|---|---|---|---|
| | Network | Subset | | Result | Limit | |
| NTNV | RMC | 12.2kbps RMC | 1880 | Refer To Test Graph | | Pass |
| | HSDPA | Subtest 1 | 1880 | Refer To Test Graph | | Pass |
| | HSUPA | Subtest 1 | 1880 | Refer To Test Graph | | Pass |

### 3.1.2 Test Graph

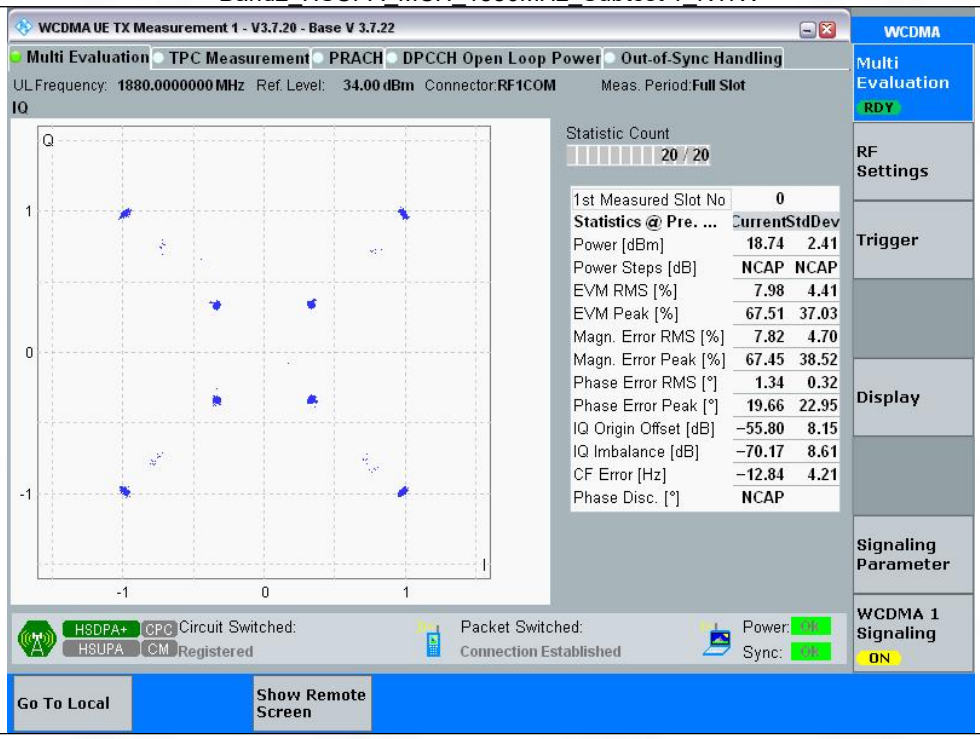
Band2_RMC_MCH_1880MHz_12.2kbps RMC_NTNV




Band2_HSDPA_MCH_1880MHz_Subtest 1_NTNV



Band2_HSUPA_MCH_1880MHz_Subtest 1_NTNV



# 4. 99% & 26dB Bandwidth

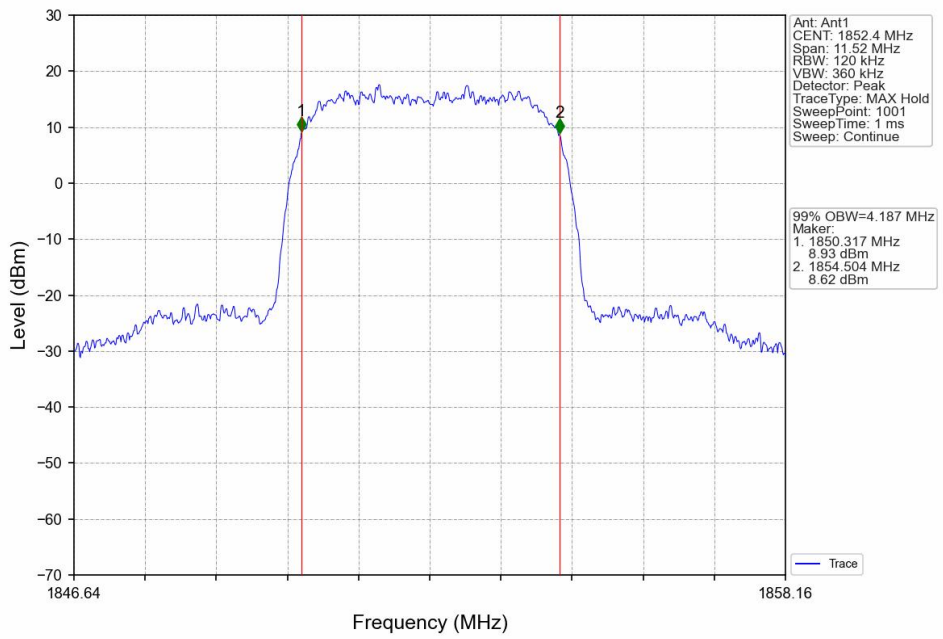
## 4.1 Band2_OBW

### 4.1.1 Test Result

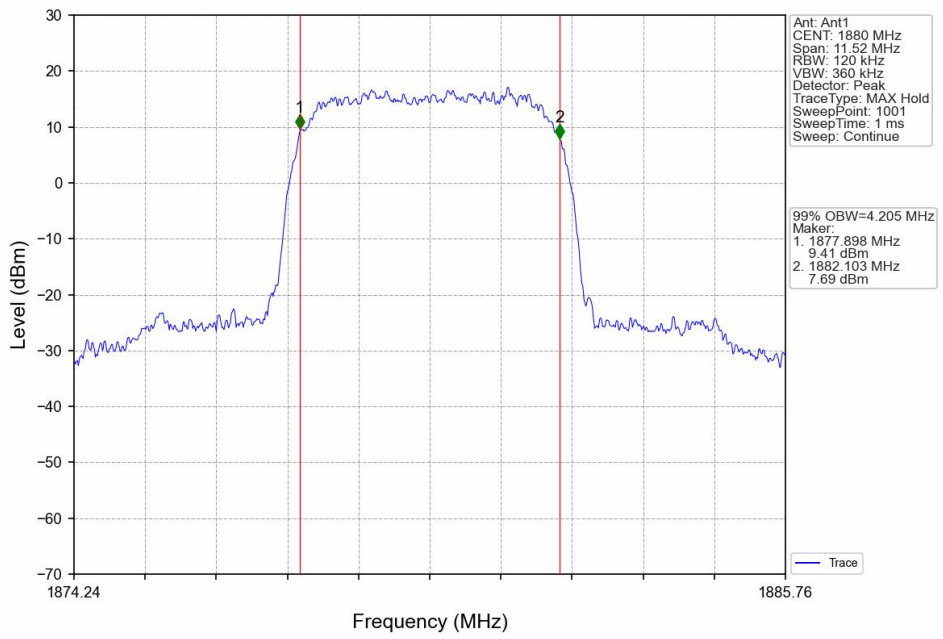
| Band: 2 | | | | | |
|---|---|---|---|---|---|
| ENV | Mode | | Frequency (MHz) | 99% Occupied Bandwidth (MHz) | Verdict |
| | Network | Subset | | Result | |
| NTNV | RMC | 12.2kbps RMC | 1852.4 | 4.187 | Pass |
| | | | 1880 | 4.205 | Pass |
| | | | 1907.6 | 4.182 | Pass |
| | HSDPA | Subtest 1 | 1852.4 | 4.227 | Pass |
| | | | 1880 | 4.251 | Pass |
| | | | 1907.6 | 4.235 | Pass |
| | HSUPA | Subtest 1 | 1852.4 | 4.229 | Pass |
| | | | 1880 | 4.242 | Pass |
| | | | 1907.6 | 4.218 | Pass |

### 4.1.2 Test Graph

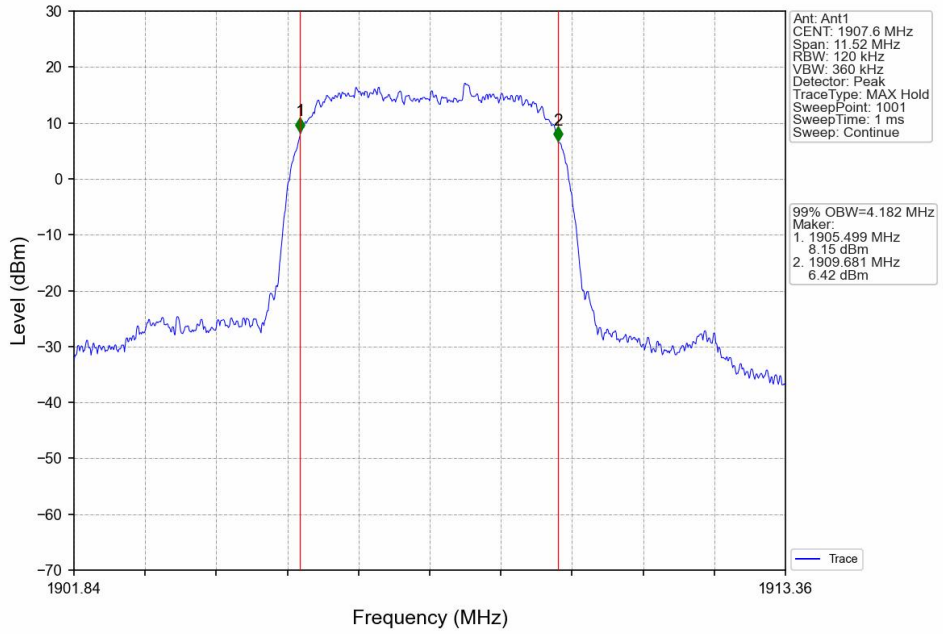
Band2_RMC_LCH_1852.4MHz_12.2kbps RMC_NTNV



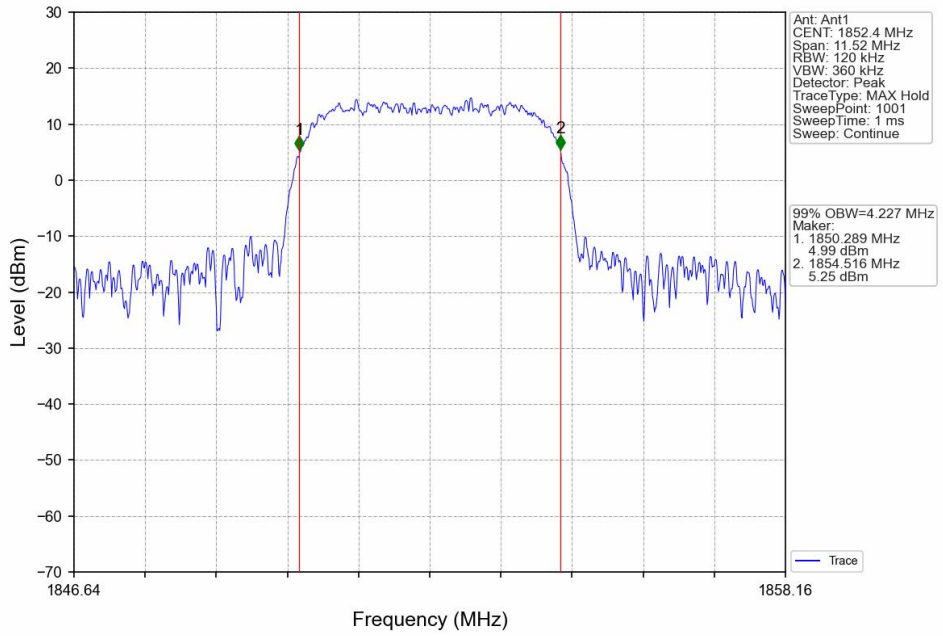

Band2_RMC_MCH_1880MHz_12.2kbps RMC_NTNV



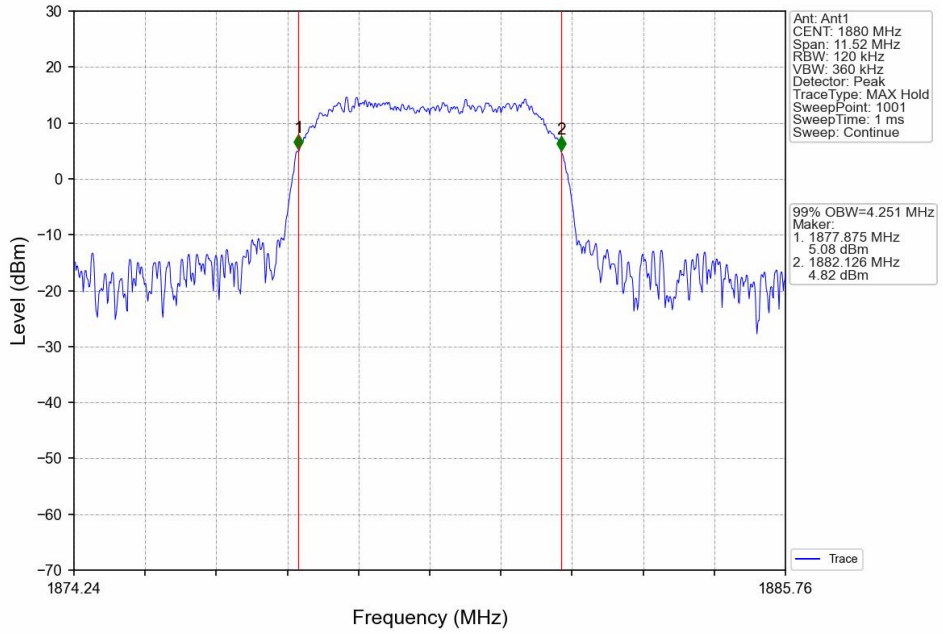
Band2_RMC_HCH_1907.6MHz_12.2kbps RMC_NTNV



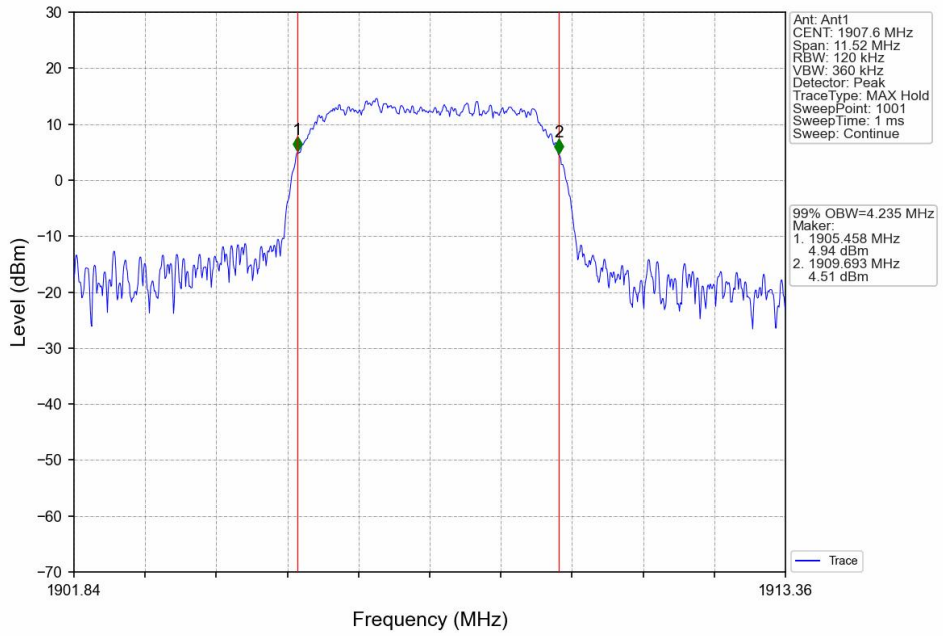

Band2_HSDPA_LCH_1852.4MHz_Subtest 1_NTNV



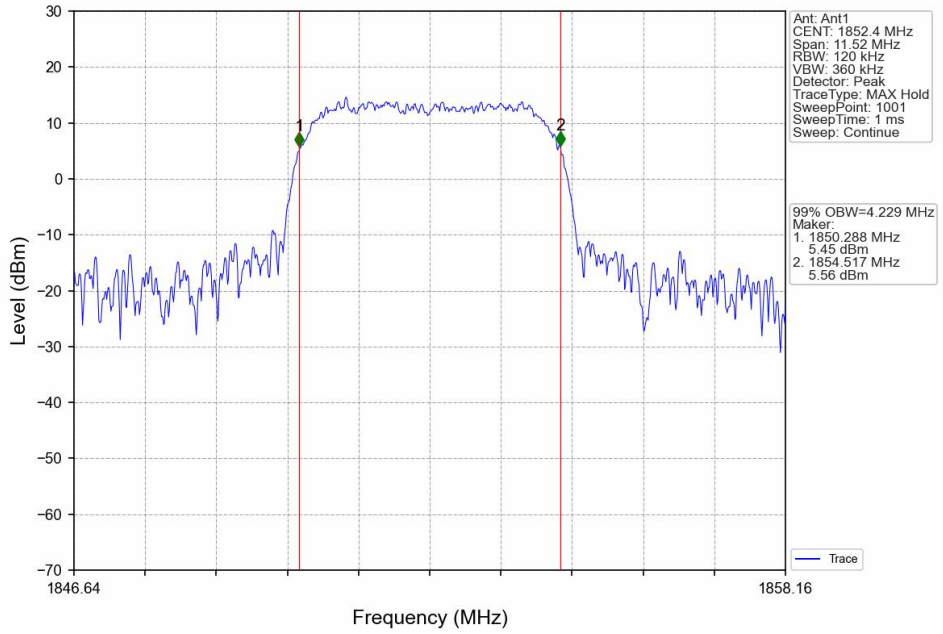
Band2_HSDPA_MCH_1880MHz_Subtest 1_NTNV



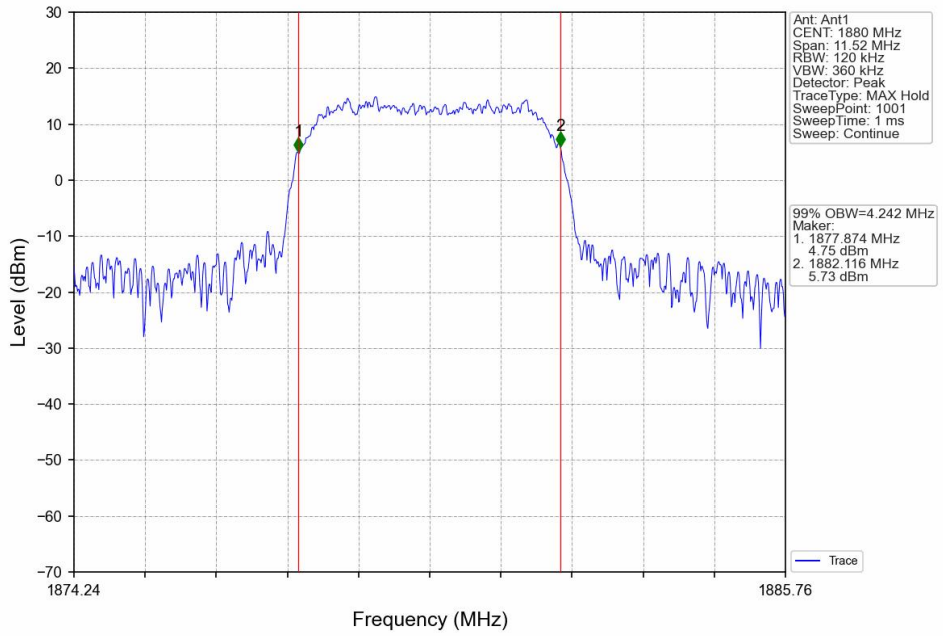

Band2_HSDPA_HCH_1907.6MHz_Subtest 1_NTNV



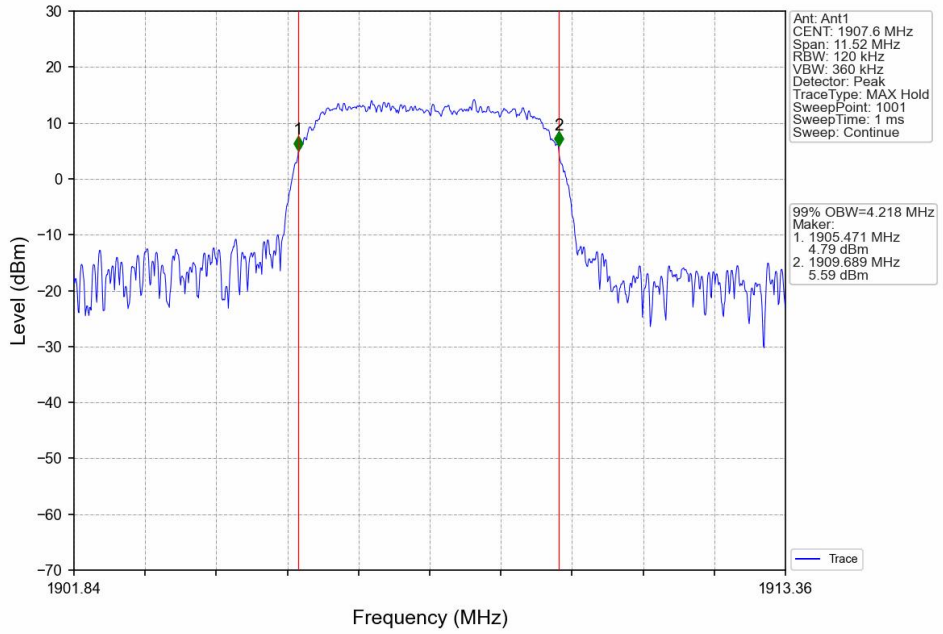
Band2_HSUPA_LCH_1852.4MHz_Subtest 1_NTNV




Band2_HSUPA_MCH_1880MHz_Subtest 1_NTNV



Band2_HSUPA_HCH_1907.6MHz_Subtest 1_NTNV



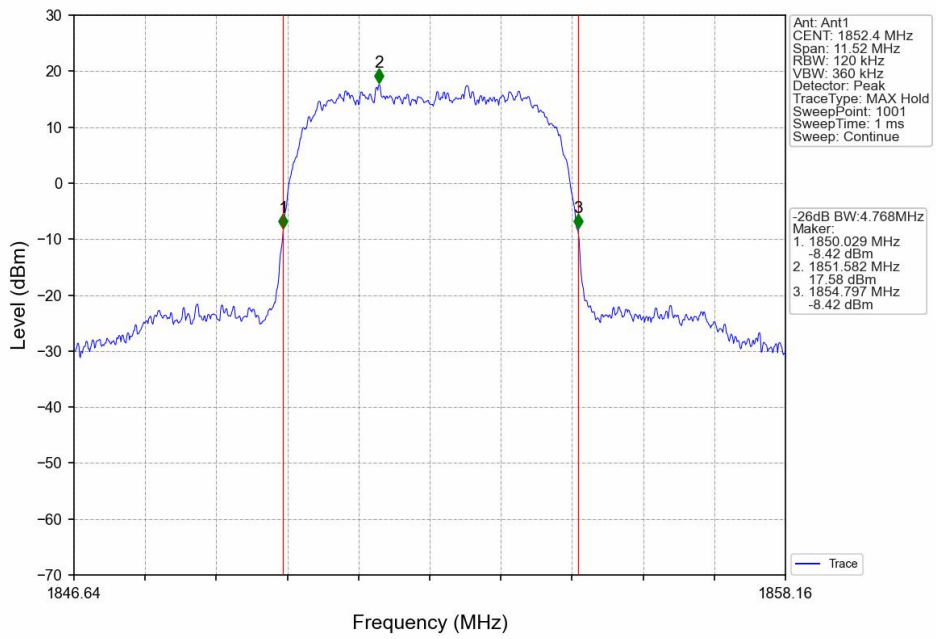
## 4.2 Band2_XDB

### 4.2.1 Test Result

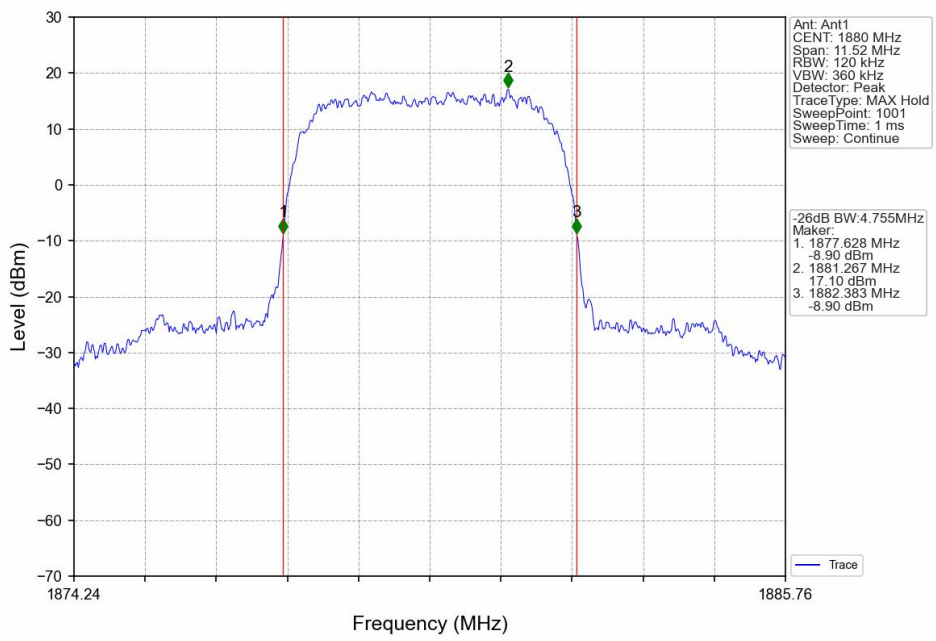
| Band: 2 | | | | | |
|---|---|---|---|---|---|
| ENV | Mode | | Frequency (MHz) | 26dB Bandwidth (MHz) | Verdict |
| | Network | Subset | | Result | |
| NTNV | RMC | 12.2kbps RMC | 1852.4 | 4.768 | Pass |
| | | | 1880 | 4.755 | Pass |
| | | | 1907.6 | 4.751 | Pass |
| | HSDPA | Subtest 1 | 1852.4 | 5.459 | Pass |
| | | | 1880 | 5.468 | Pass |
| | | | 1907.6 | 5.367 | Pass |
| | HSUPA | Subtest 1 | 1852.4 | 5.149 | Pass |
| | | | 1880 | 5.172 | Pass |
| | | | 1907.6 | 5.538 | Pass |

## 4.2.2 Test Graph

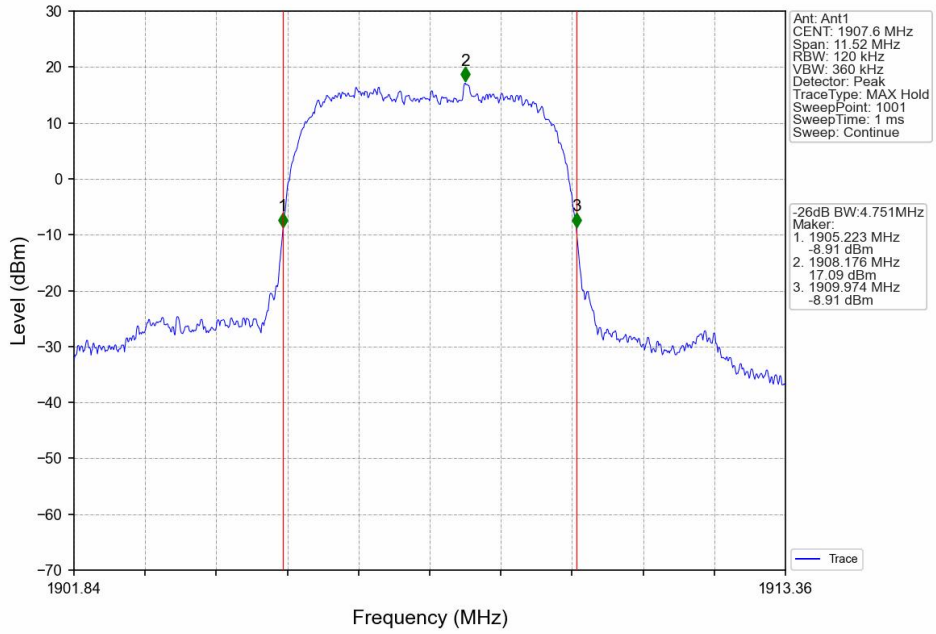
Band2_RMC_LCH_1852.4MHz_12.2kbps RMC_NTNV



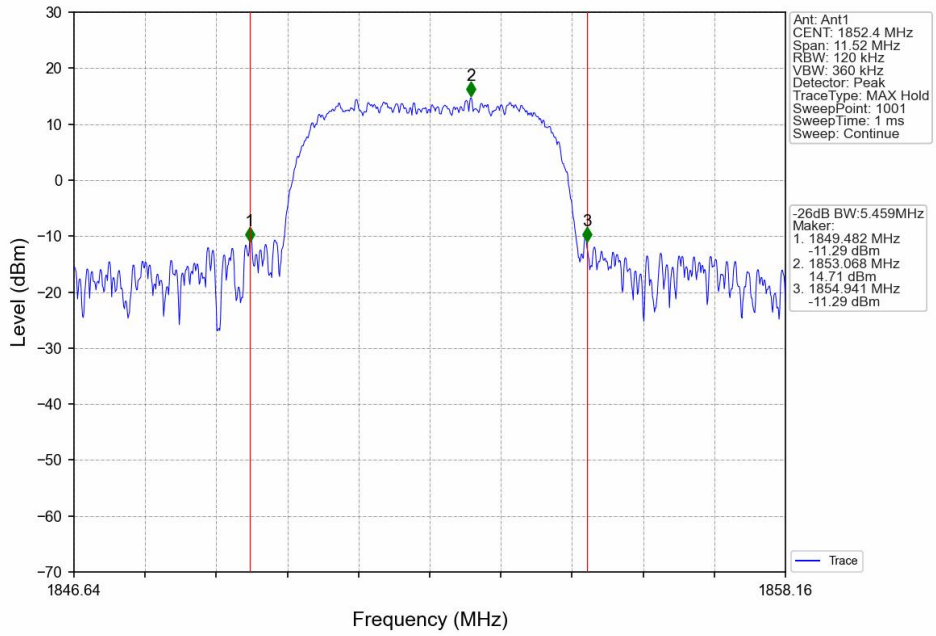

Band2_RMC_MCH_1880MHz_12.2kbps RMC_NTNV



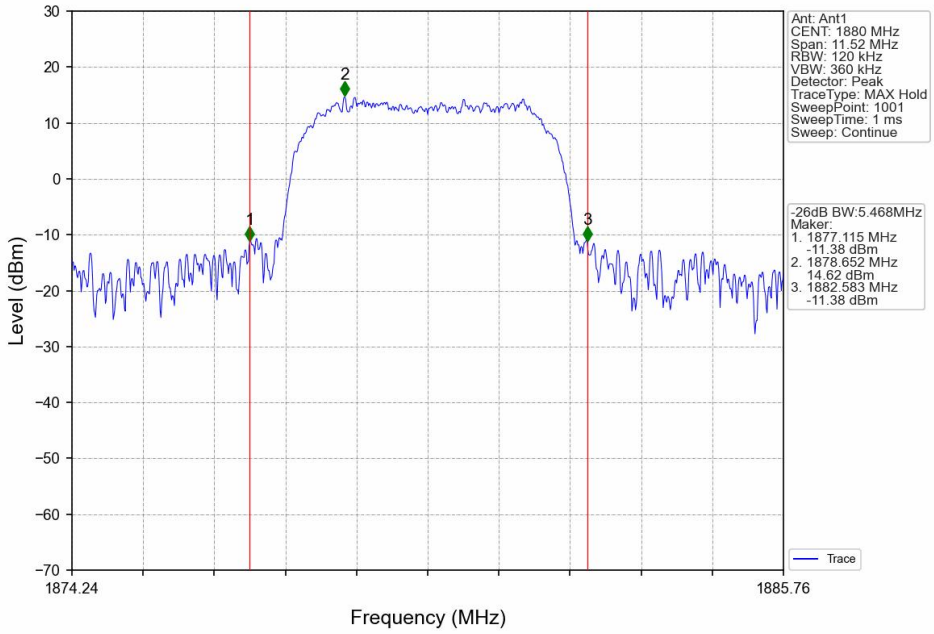
Band2_RMC_HCH_1907.6MHz_12.2kbps RMC_NTNV



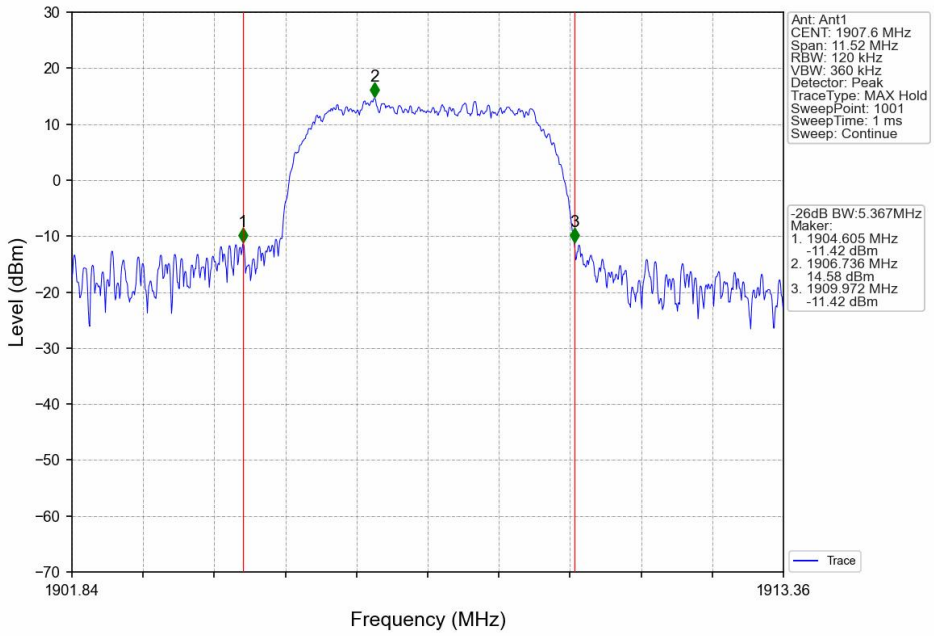

Band2_HSDPA_LCH_1852.4MHz_Subtest 1_NTNV



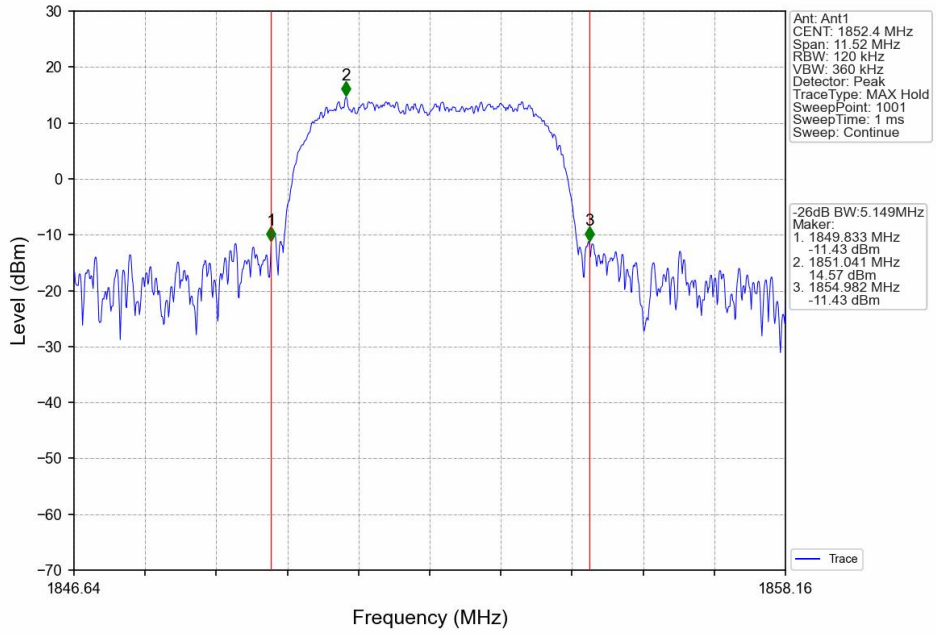
Band2_HSDPA_MCH_1880MHz_Subtest 1_NTNV



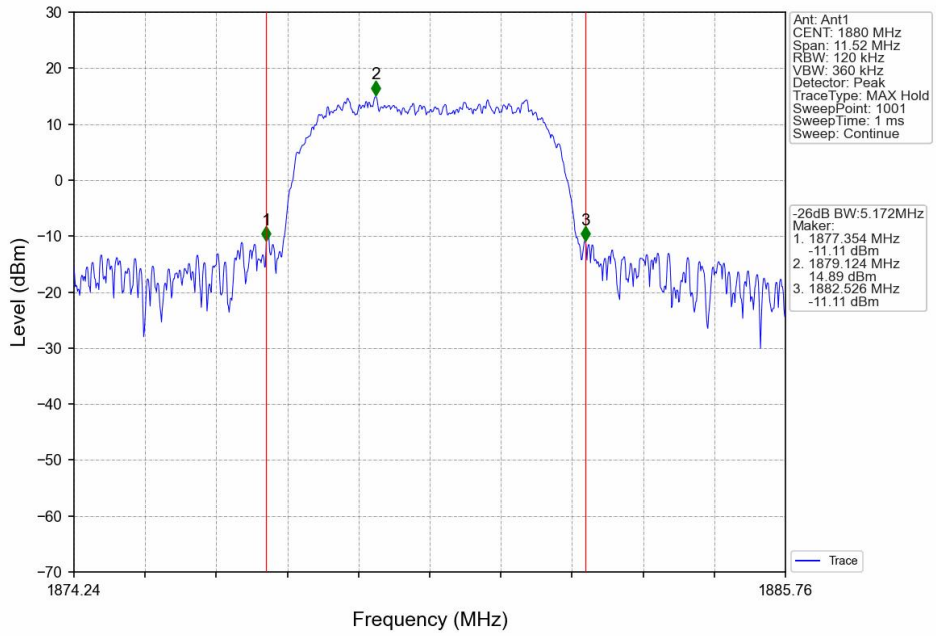

Band2_HSDPA_HCH_1907.6MHz_Subtest 1_NTNV



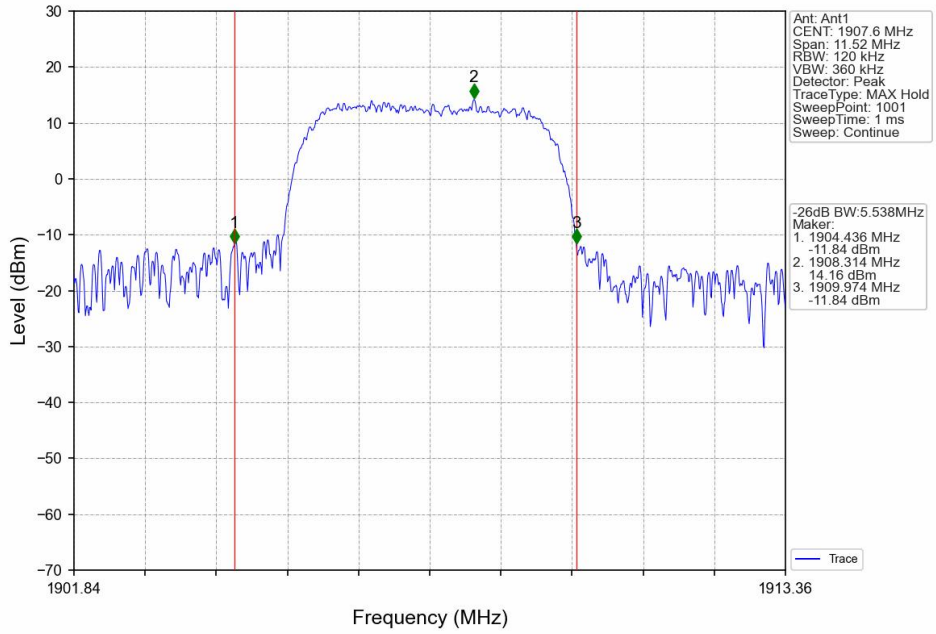
Band2_HSUPA_LCH_1852.4MHz_Subtest 1_NTNV




Band2_HSUPA_MCH_1880MHz_Subtest 1_NTNV



Band2_HSUPA_HCH_1907.6MHz_Subtest 1_NTNV



# 5. Peak-Average Ratio

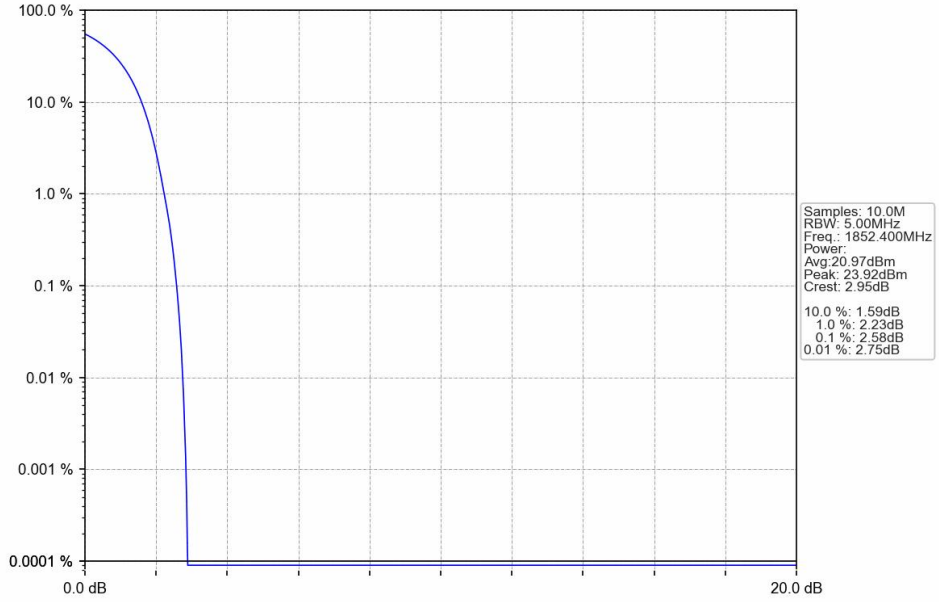
## 5.1 Band2

### 5.1.1 Test Result

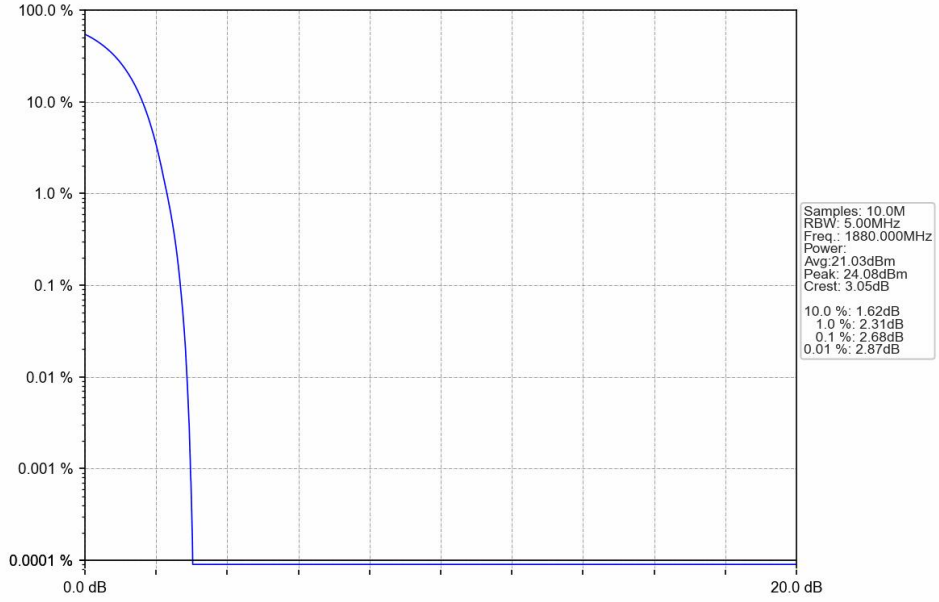
| Band: 2 | | | | | | |
|---|---|---|---|---|---|---|
| ENV | Mode | | Frequency (MHz) | Peak-Average Ratio (dB) | | Verdict |
| | Network | Subset | | Result | Limit | |
| NTNV | RMC | 12.2kbps RMC | 1852.4 | 2.58 | <=13 | Pass |
| | | | 1880 | 2.68 | <=13 | Pass |
| | | | 1907.6 | 2.77 | <=13 | Pass |
| | HSDPA | Subtest 1 | 1852.4 | 5.77 | <=13 | Pass |
| | | | 1880 | 5.78 | <=13 | Pass |
| | | | 1907.6 | 5.88 | <=13 | Pass |
| | HSUPA | Subtest 1 | 1852.4 | 5.47 | <=13 | Pass |
| | | | 1880 | 5.63 | <=13 | Pass |
| | | | 1907.6 | 5.75 | <=13 | Pass |

## 5.1.2 Test Graph

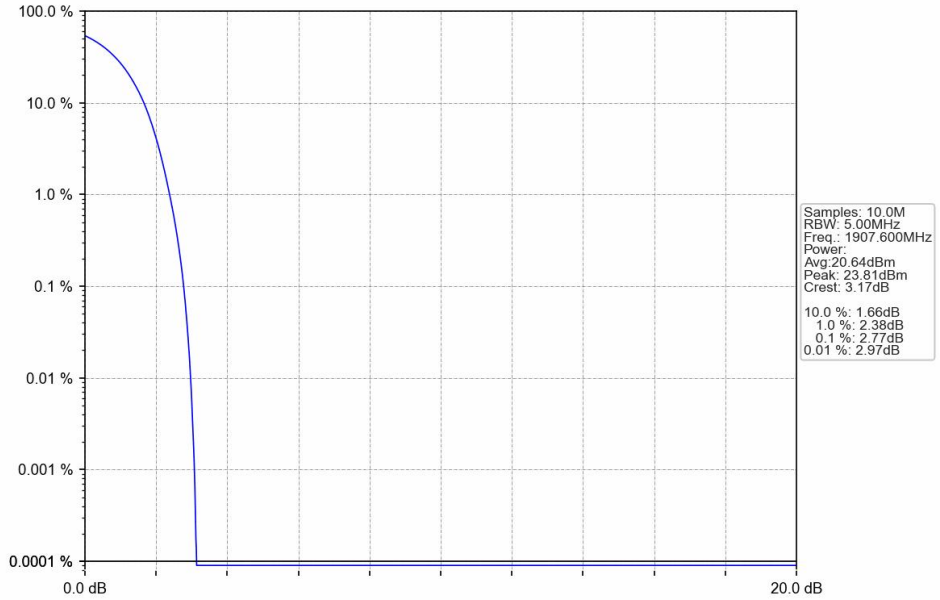
Band2_RMC_LCH_1852.4MHz_12.2kbps RMC_NTNV



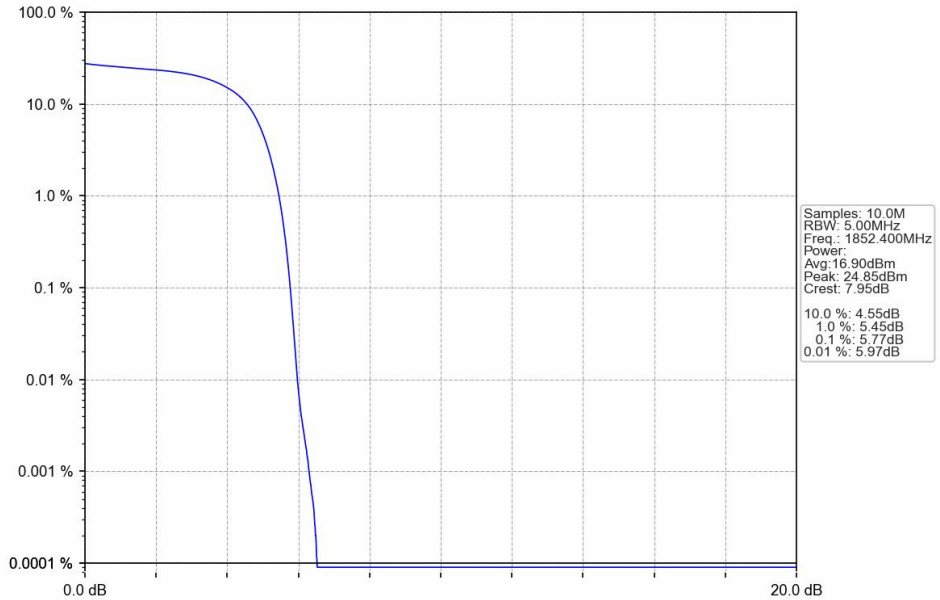

Band2_RMC_MCH_1880MHz_12.2kbps RMC_NTNV



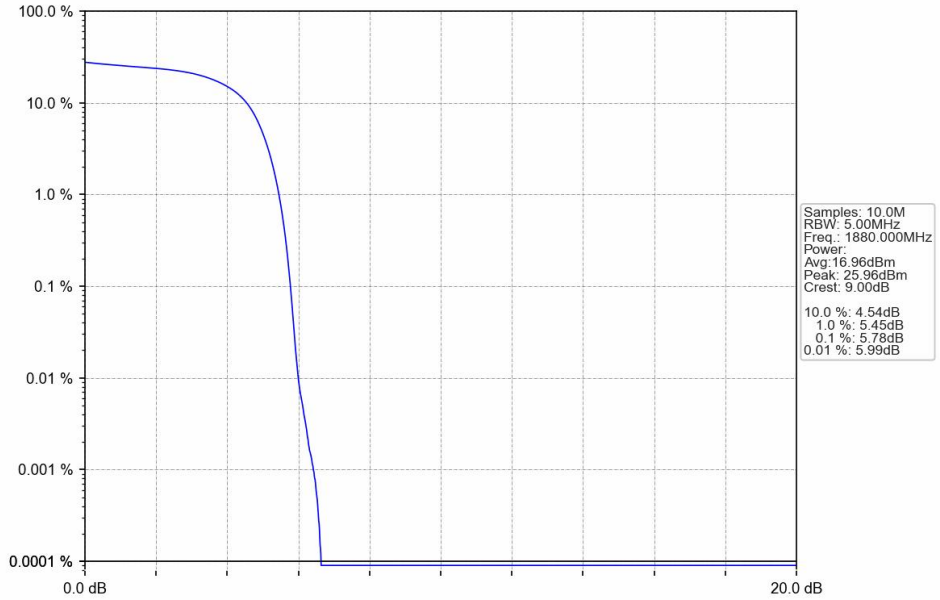
Band2_RMC_HCH_1907.6MHz_12.2kbps RMC_NTNV



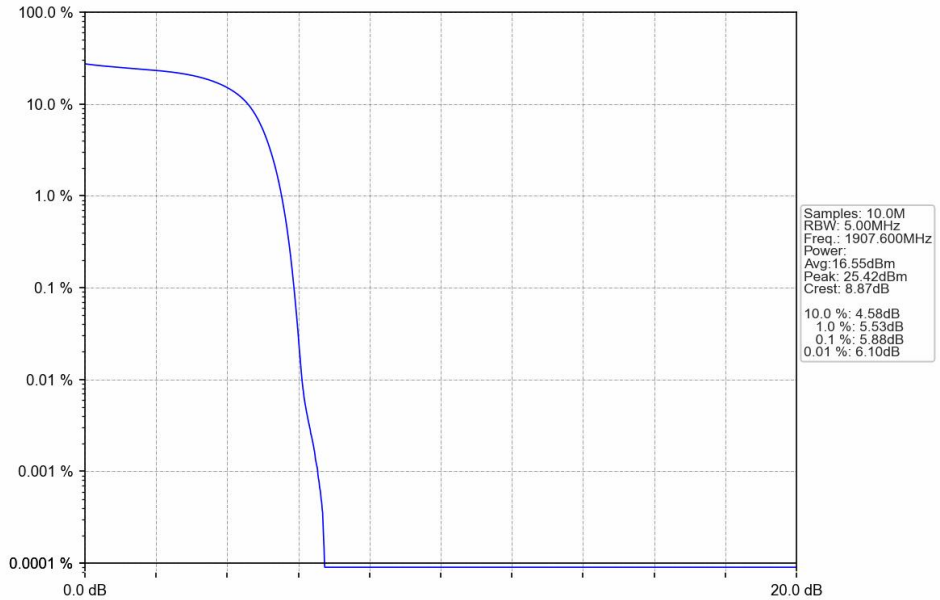

Band2_HSDPA_LCH_1852.4MHz_Subtest 1_NTNV



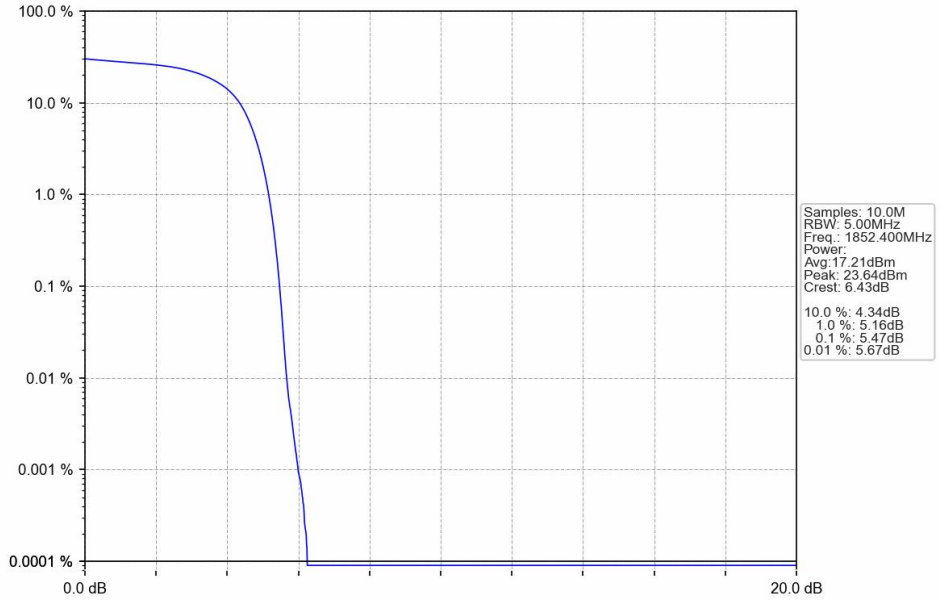
Band2_HSDPA_MCH_1880MHz_Subtest 1_NTNV



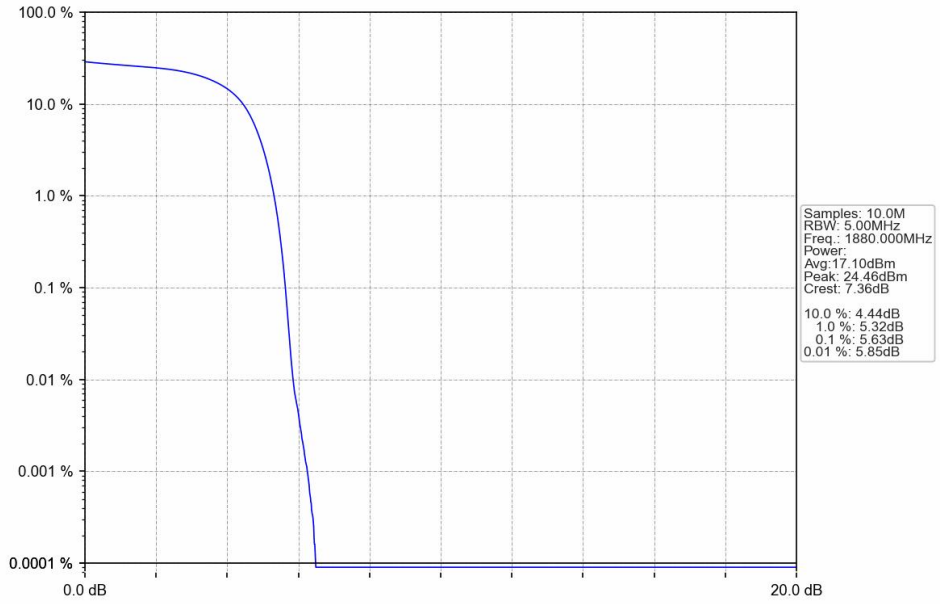

Band2_HSDPA_HCH_1907.6MHz_Subtest 1_NTNV



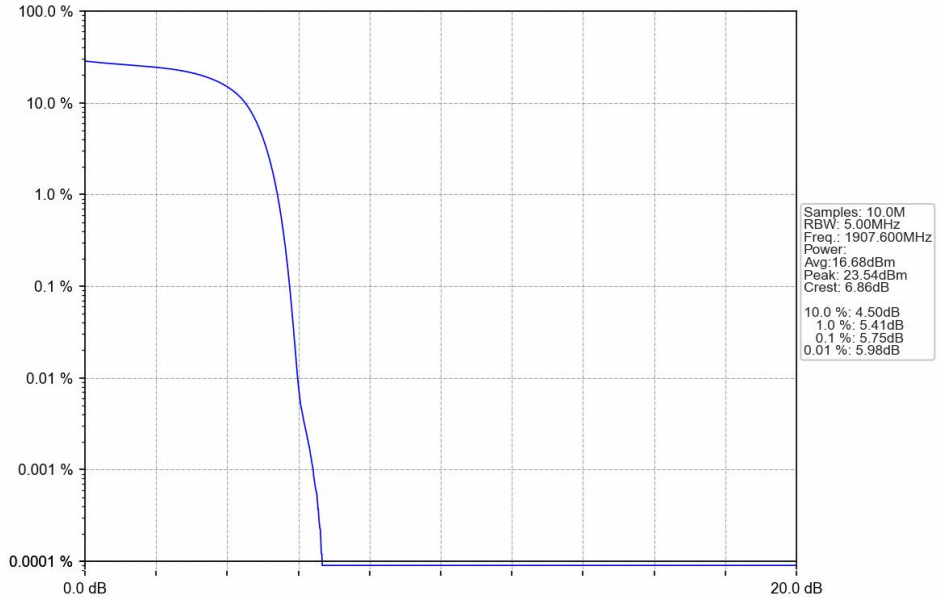
Band2_HSUPA_LCH_1852.4MHz_Subtest 1_NTNV




Band2_HSUPA_MCH_1880MHz_Subtest 1_NTNV



Band2_HSUPA_HCH_1907.6MHz_Subtest 1_NTNV



# 6. Spurious Emission

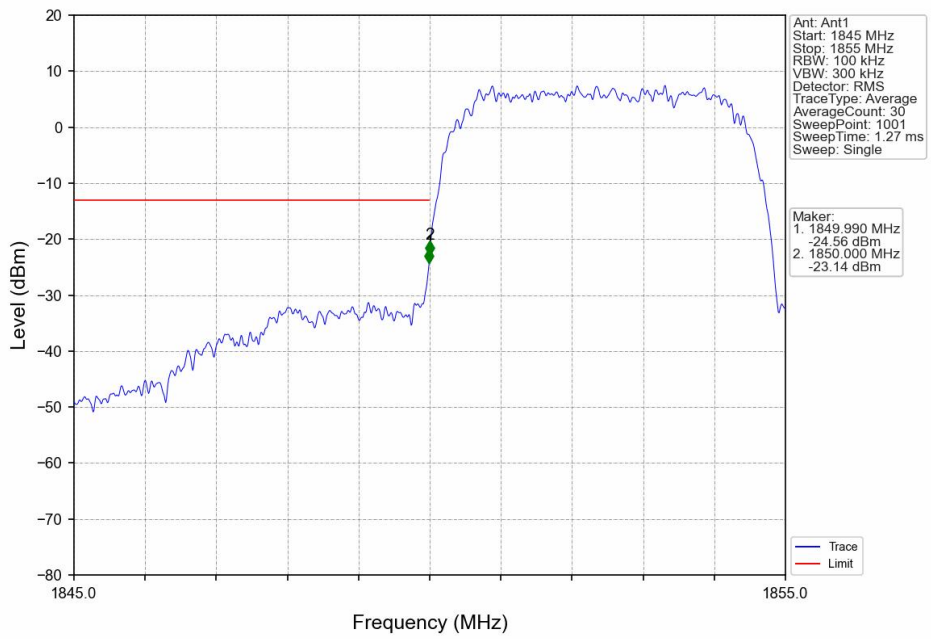
## 6.1 Band2

### 6.1.1 Test Result

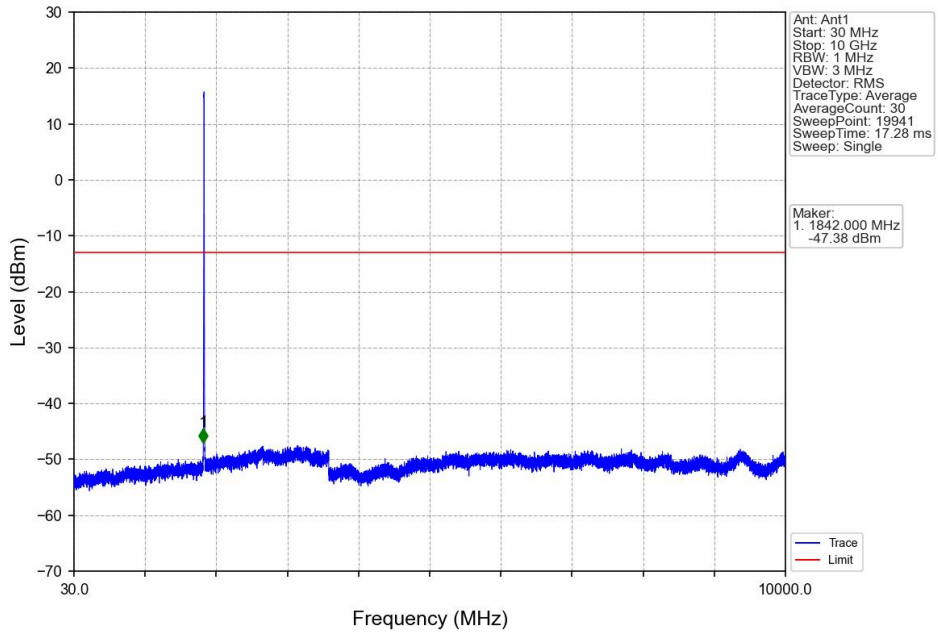
| Band: 2 | | | | | | |
|---|---|---|---|---|---|---|
| ENV | Mode | | Frequency (MHz) | Spurious Emission | | Verdict |
| | Network | Subset | | Result | Limit | |
| NTNV | RMC | 12.2kbps RMC | 1852.4 | Refer To Test Graph | | Pass |
| | | | 1880 | Refer To Test Graph | | Pass |
| | | | 1907.6 | Refer To Test Graph | | Pass |
| | HSDPA | Subtest 1 | 1852.4 | Refer To Test Graph | | Pass |
| | | | 1880 | Refer To Test Graph | | Pass |
| | | | 1907.6 | Refer To Test Graph | | Pass |
| | HSUPA | Subtest 1 | 1852.4 | Refer To Test Graph | | Pass |
| | | | 1880 | Refer To Test Graph | | Pass |
| | | | 1907.6 | Refer To Test Graph | | Pass |

## 6.1.2 Test Graph

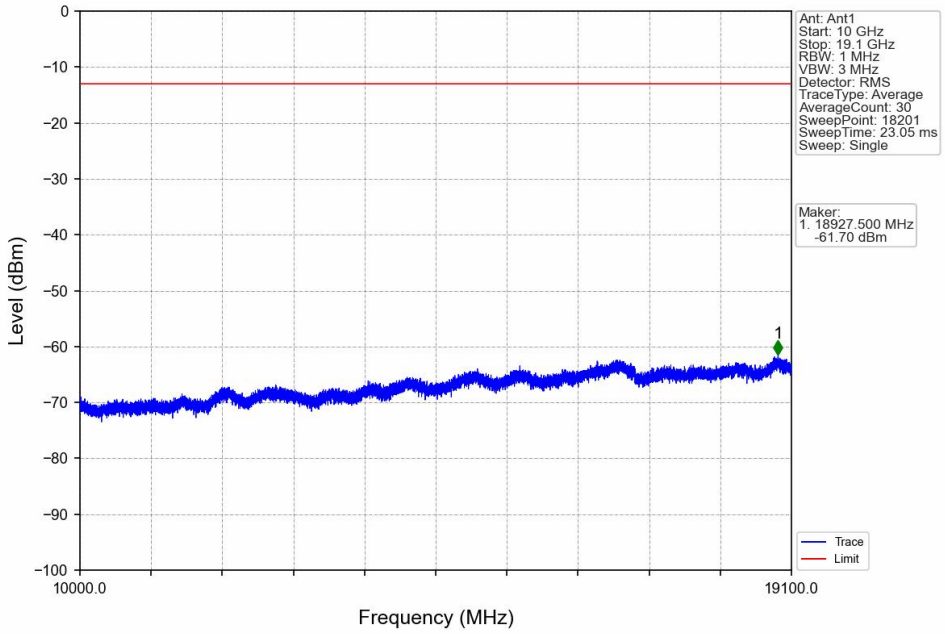
Band2_RMC_LCH_1852.4MHz_12.2kbps RMC_NTNV



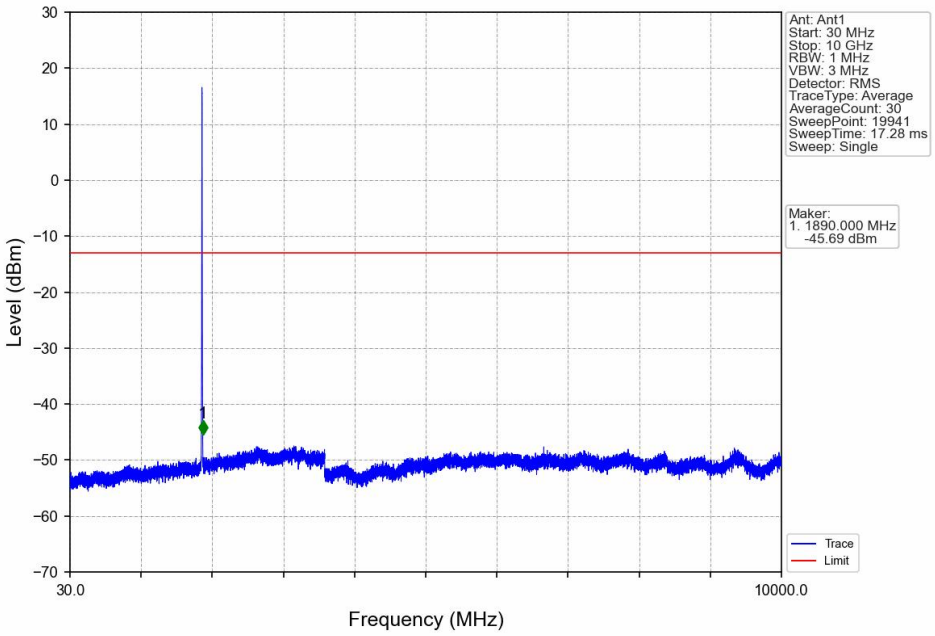

Band2_RMC_LCH_1852.4MHz_12.2kbps RMC_NTNV



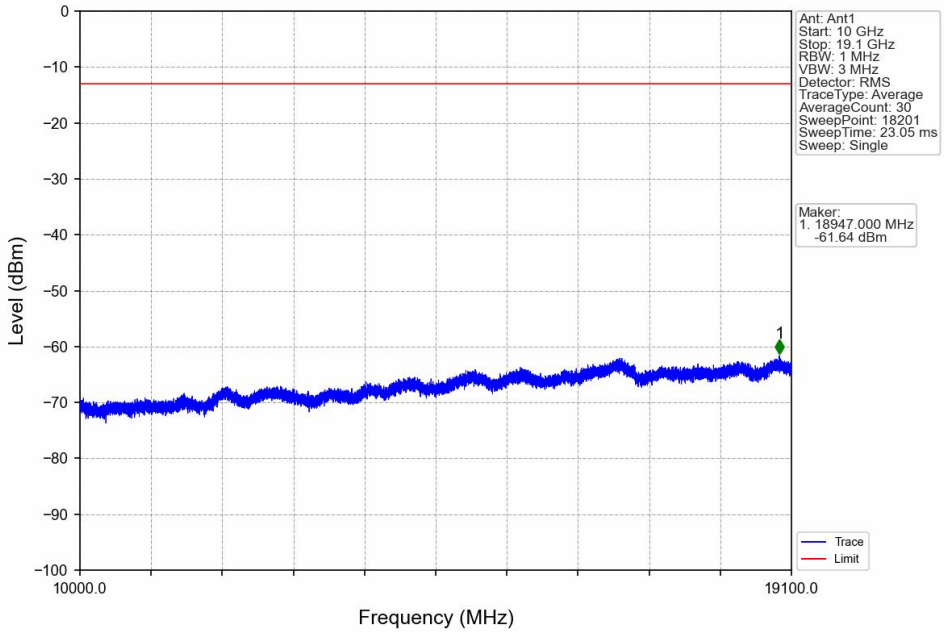
Band2_RMC_LCH_1852.4MHz_12.2kbps RMC_NTNV



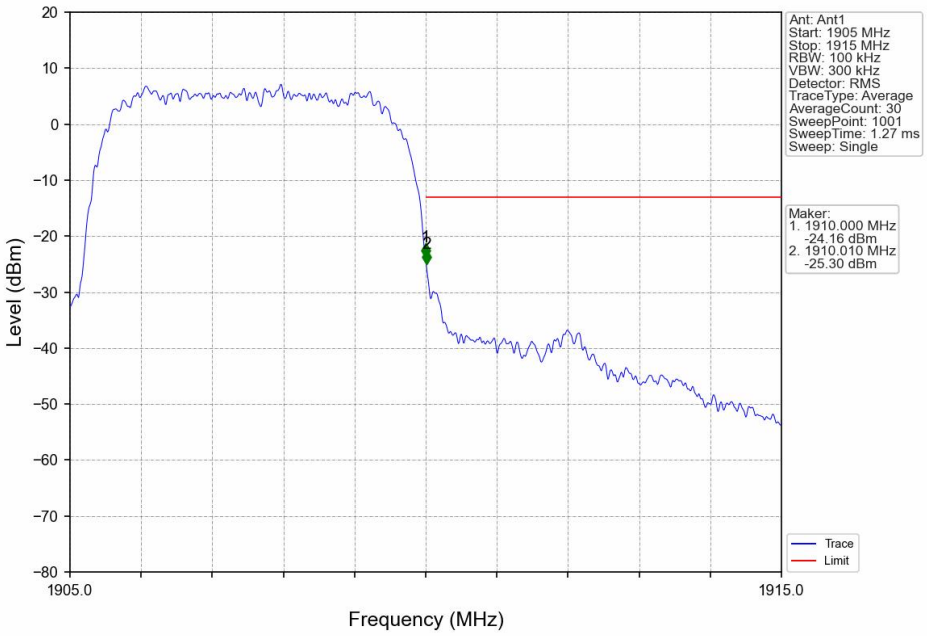

Band2_RMC_MCH_1880MHz_12.2kbps RMC_NTNV



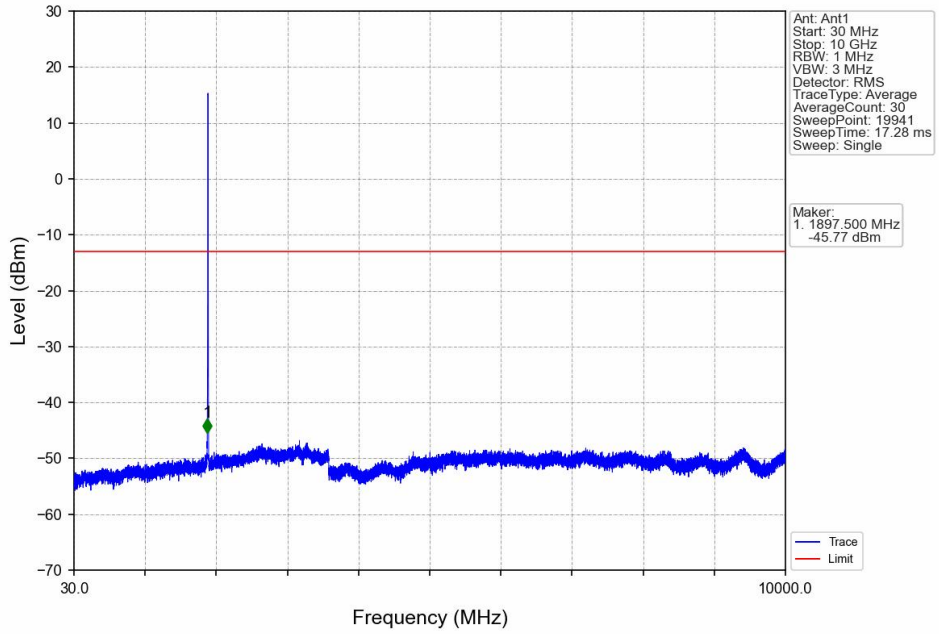
Band2_RMC_MCH_1880MHz_12.2kbps RMC_NTNV



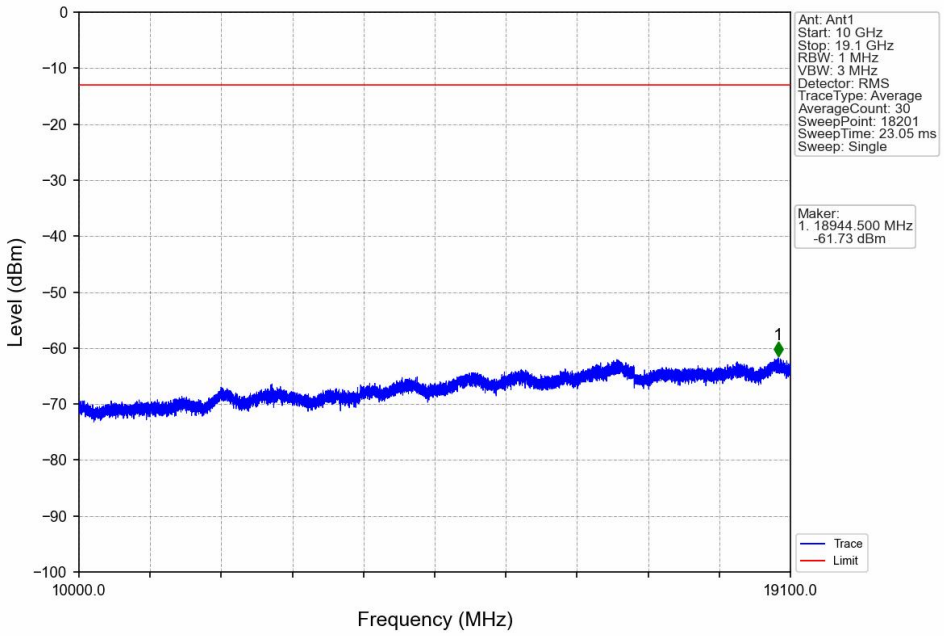

Band2_RMC_HCH_1907.6MHz_12.2kbps RMC_NTNV



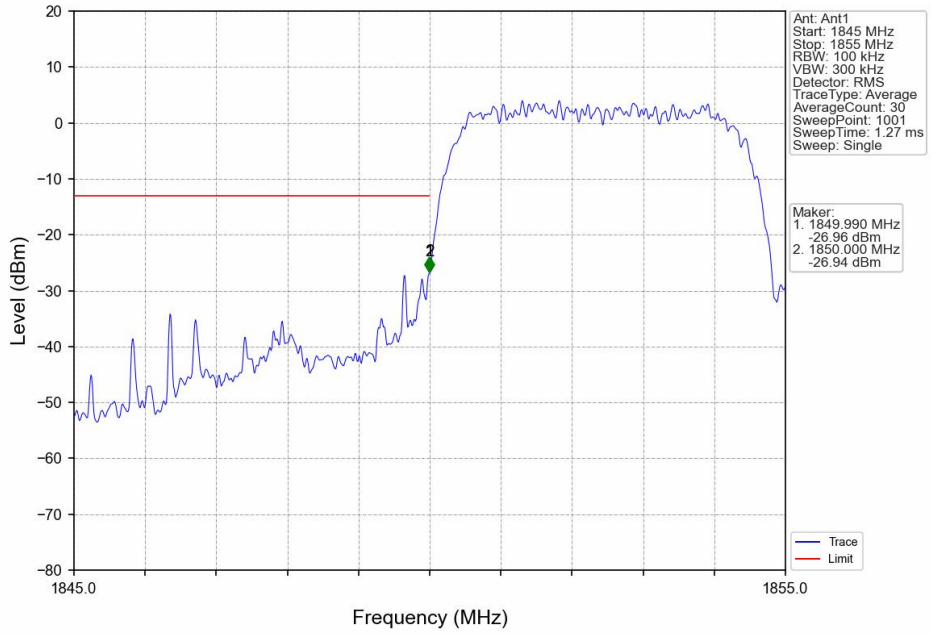
Band2_RMC_HCH_1907.6MHz_12.2kbps RMC_NTNV



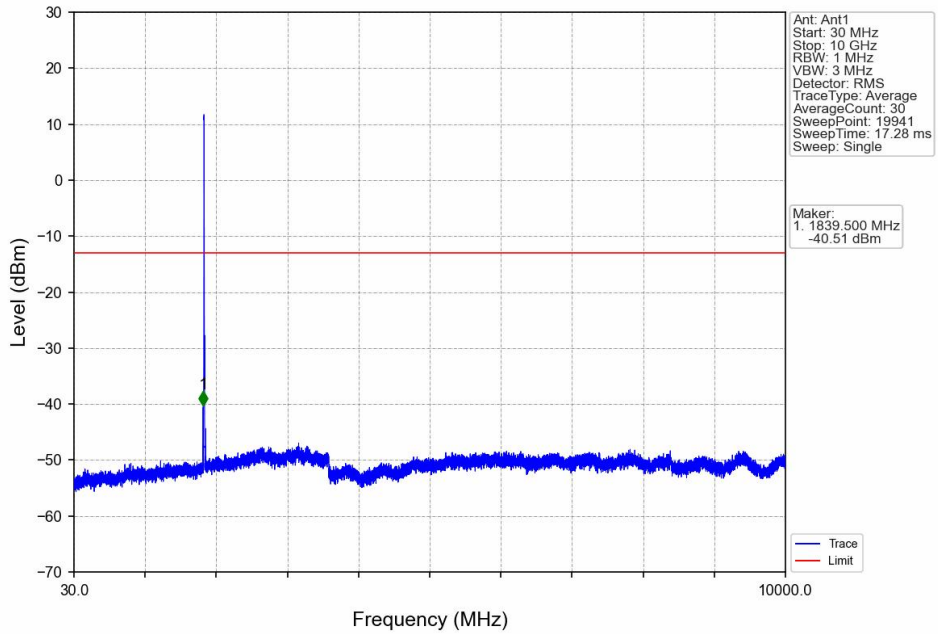

Band2_RMC_HCH_1907.6MHz_12.2kbps RMC_NTNV



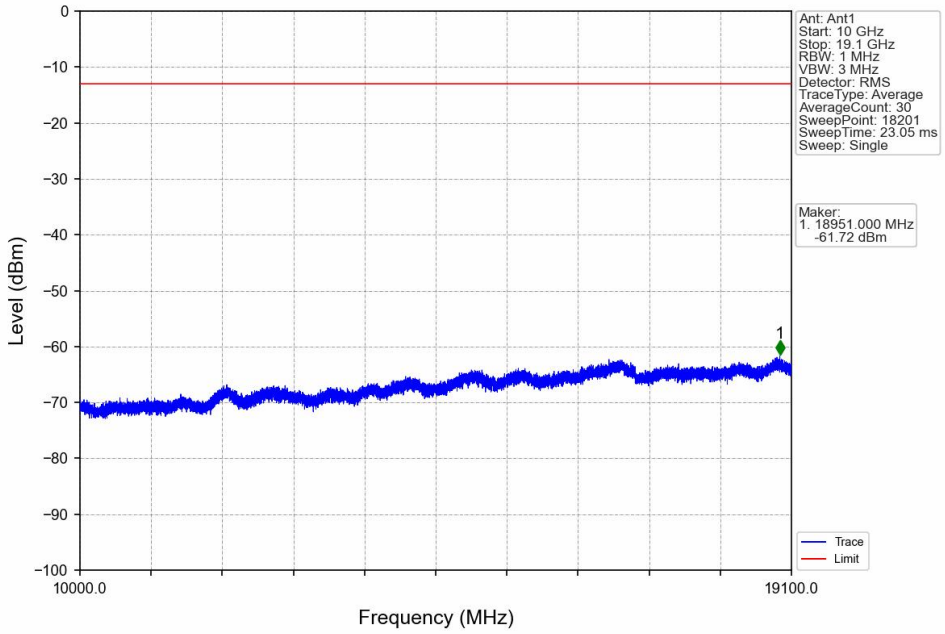
Band2_HSDPA_LCH_1852.4MHz_Subtest 1_NTNV



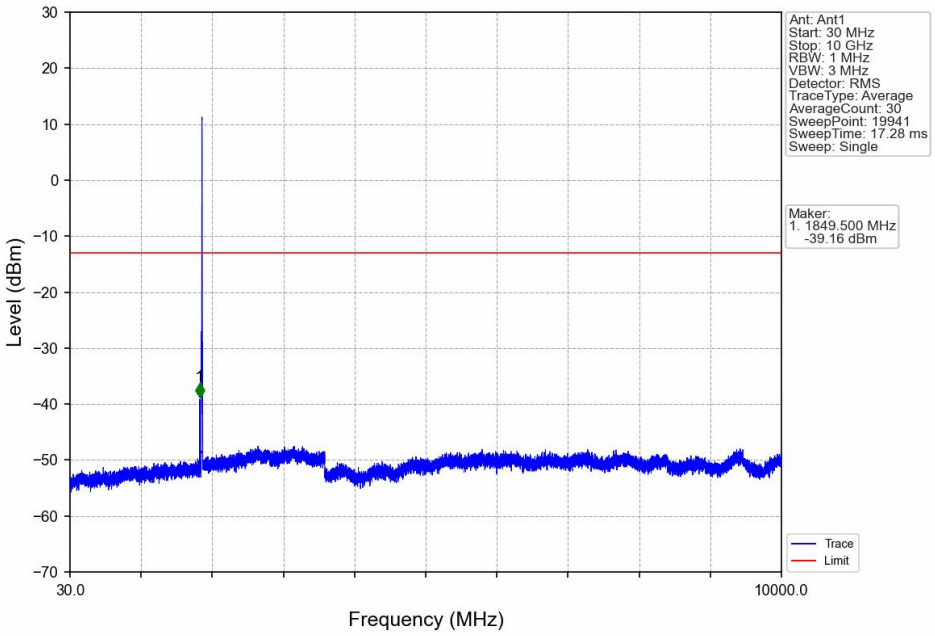

Band2_HSDPA_LCH_1852.4MHz_Subtest 1_NTNV



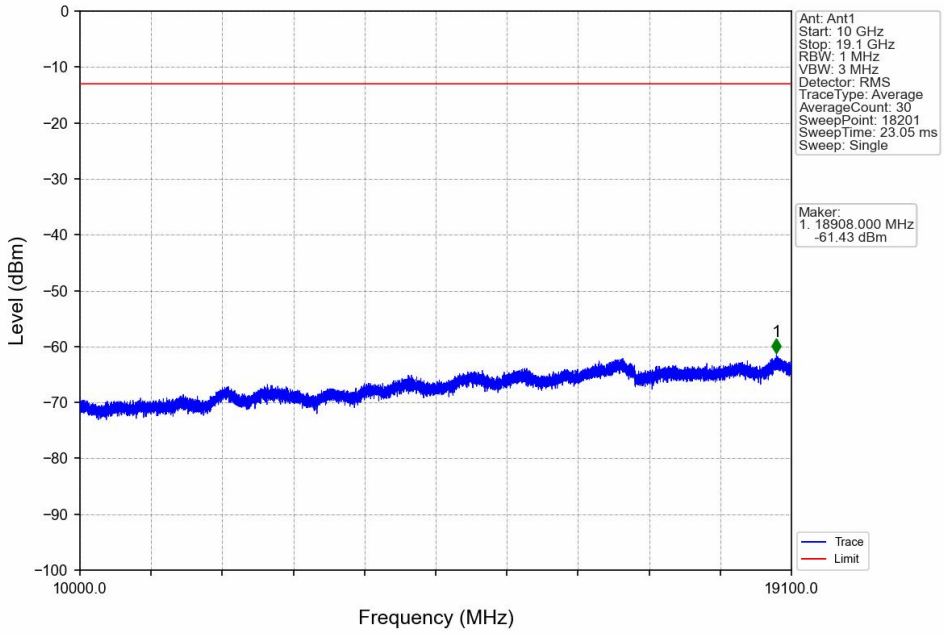
Band2_HSDPA_LCH_1852.4MHz_Subtest 1_NTNV



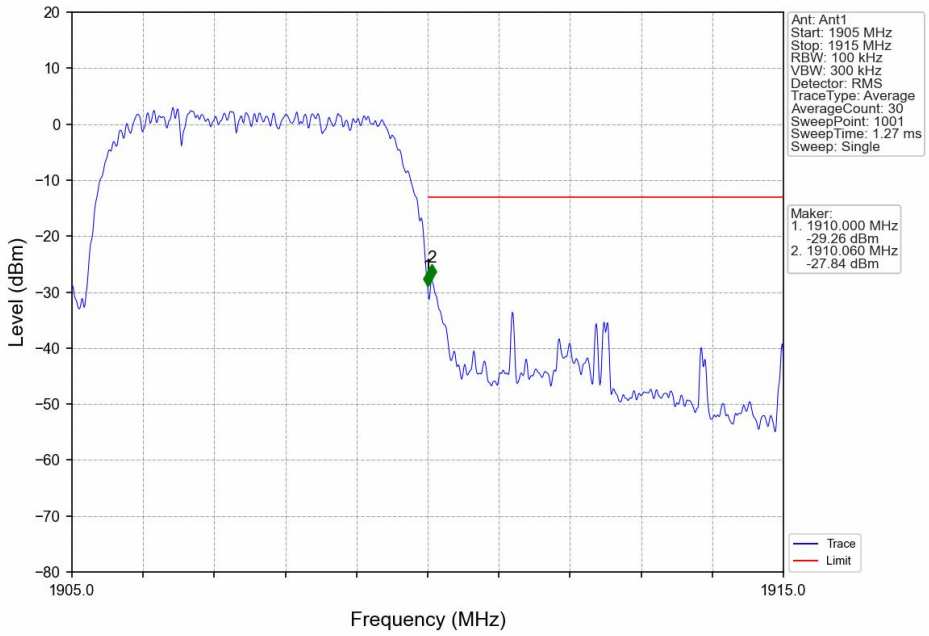

Band2_HSDPA_MCH_1880MHz_Subtest 1_NTNV



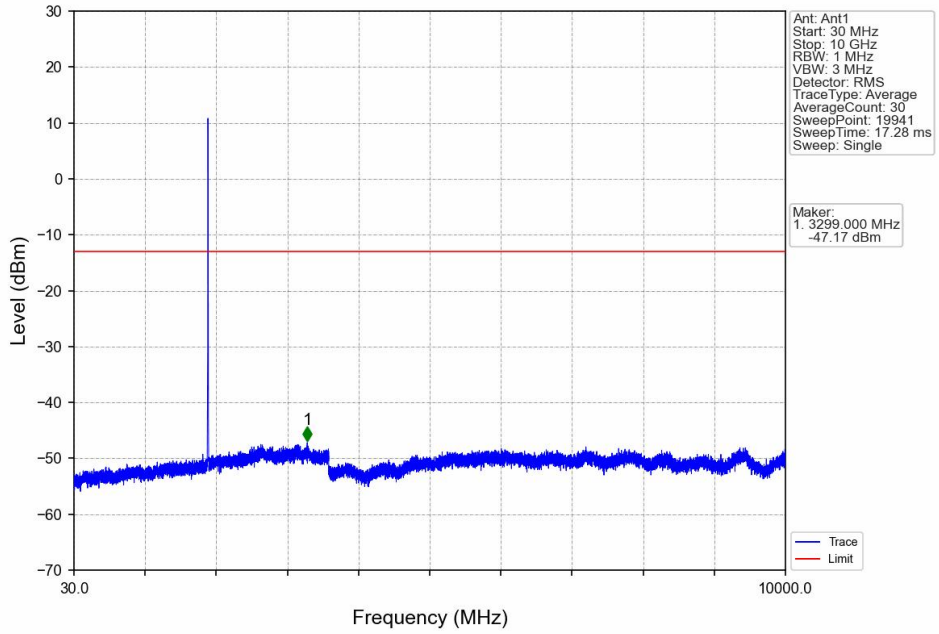
Band2_HSDPA_MCH_1880MHz_Subtest 1_NTNV



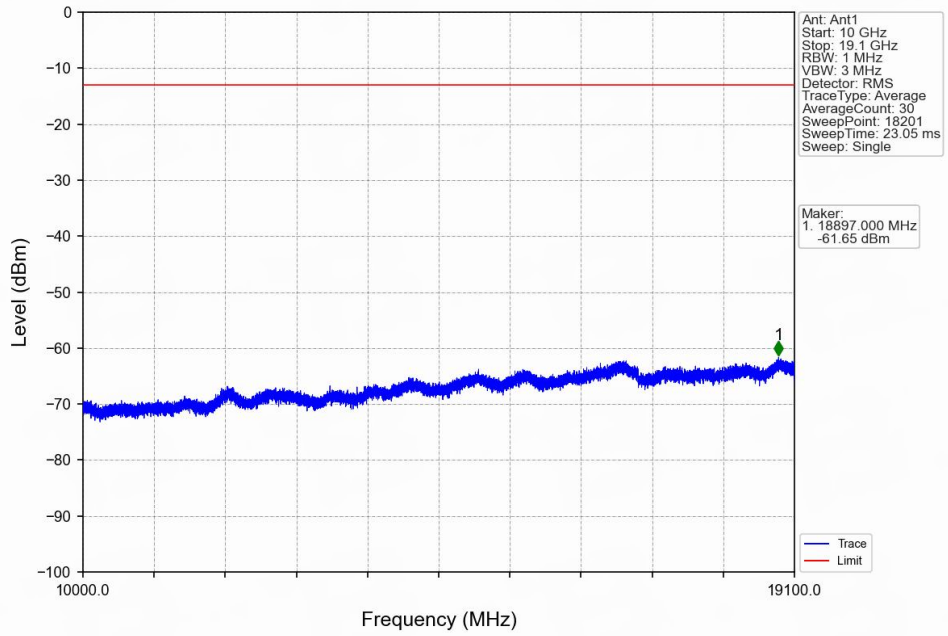

Band2_HSDPA_HCH_1907.6MHz_Subtest 1_NTNV



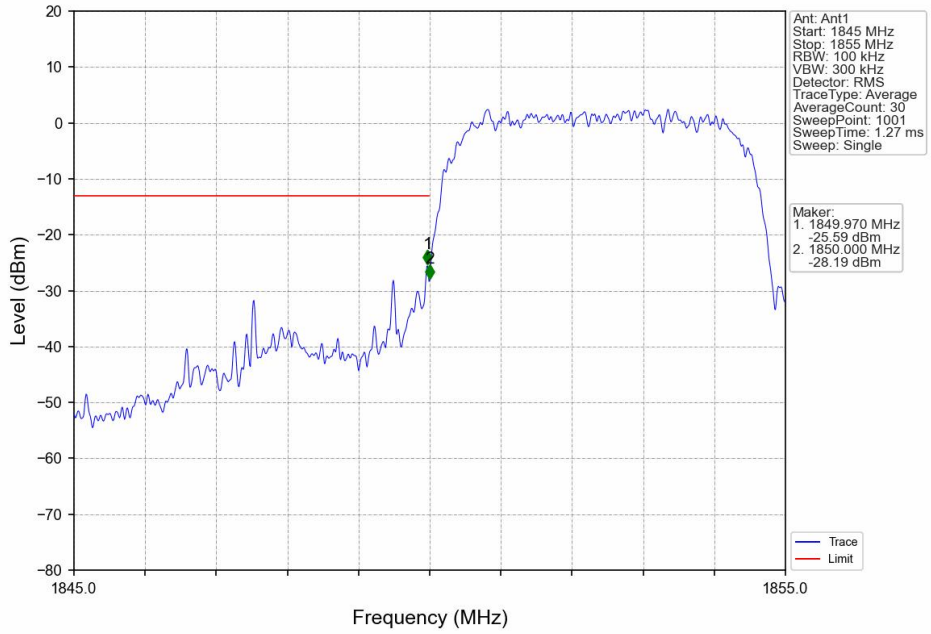
Band2_HSDPA_HCH_1907.6MHz_Subtest 1_NTNV



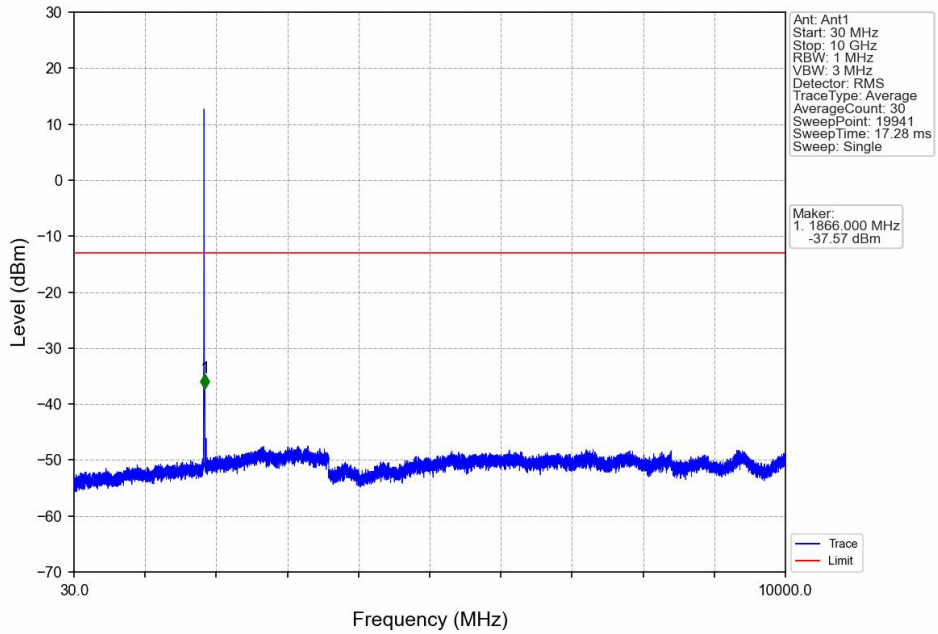

Band2_HSDPA_HCH_1907.6MHz_Subtest 1_NTNV



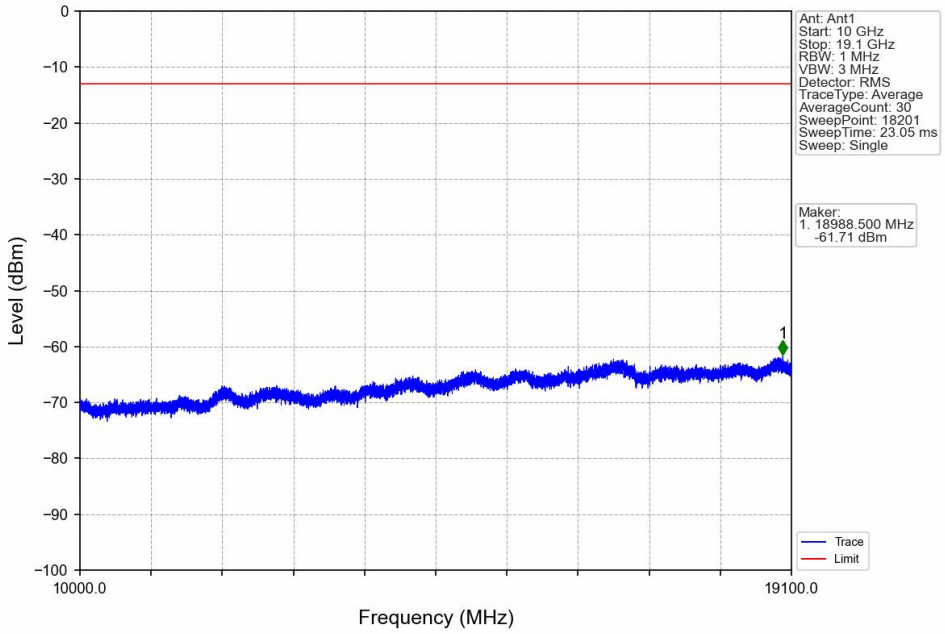
Band2_HSUPA_LCH_1852.4MHz_Subtest 1_NTNV



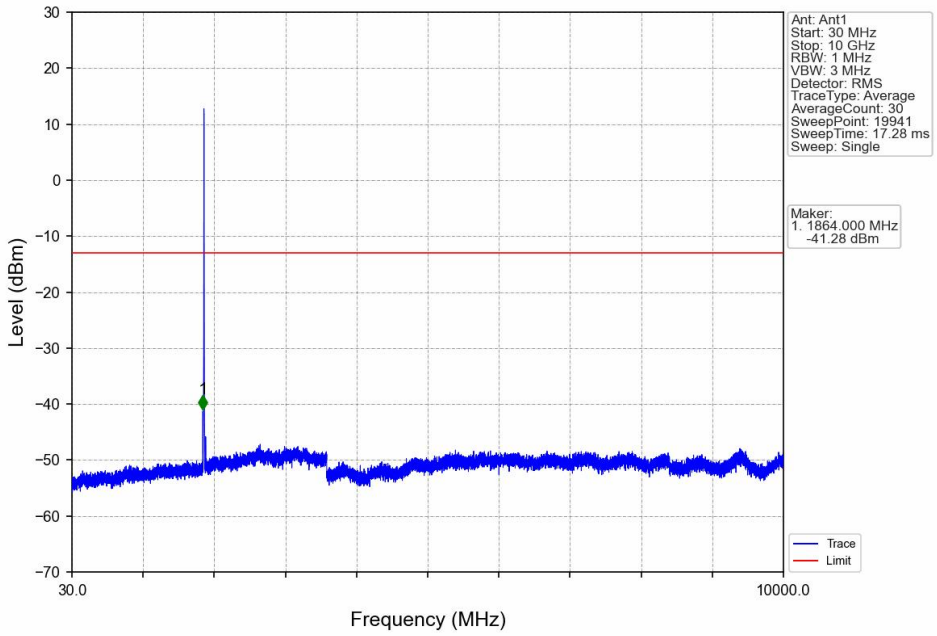

Band2_HSUPA_LCH_1852.4MHz_Subtest 1_NTNV



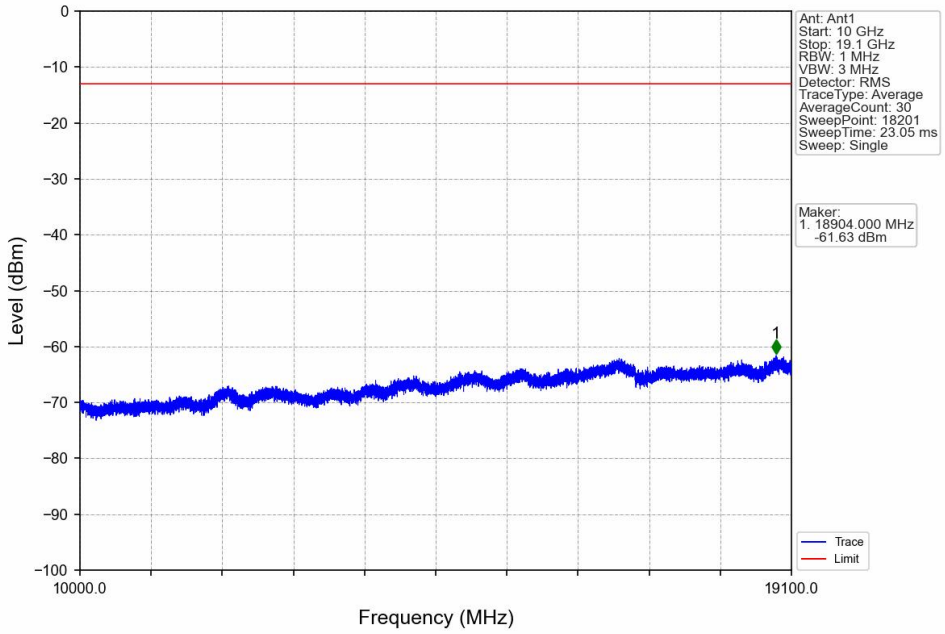
Band2_HSUPA_LCH_1852.4MHz_Subtest 1_NTNV



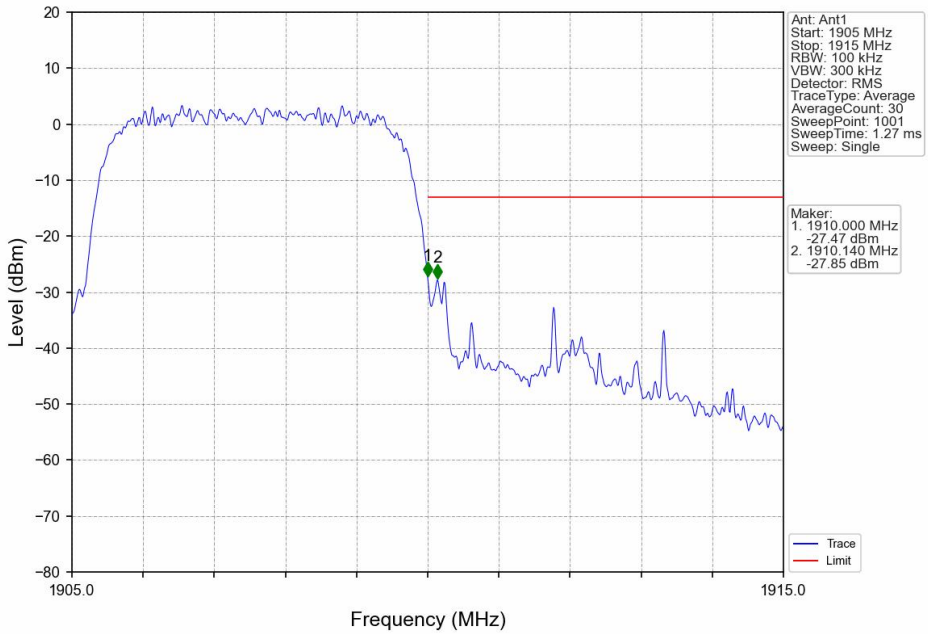

Band2_HSUPA_MCH_1880MHz_Subtest 1_NTNV



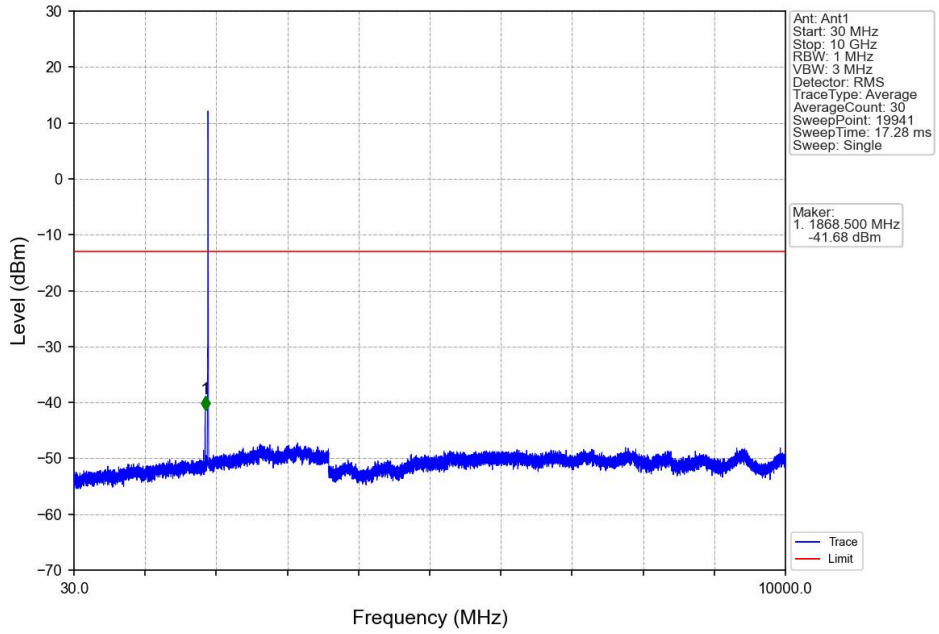
Band2_HSUPA_MCH_1880MHz_Subtest 1_NTNV



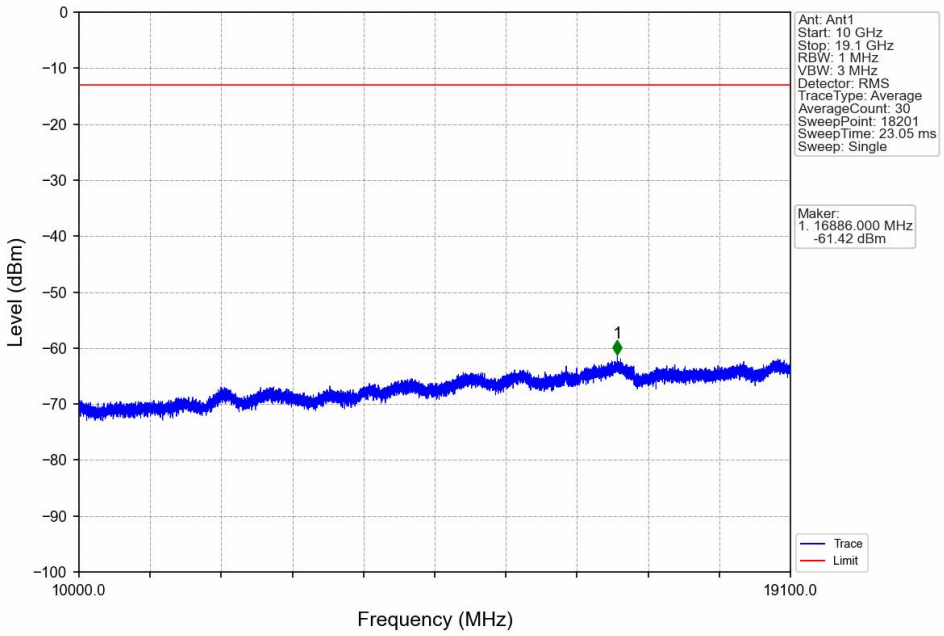

Band2_HSUPA_HCH_1907.6MHz_Subtest 1_NTNV



Band2_HSUPA_HCH_1907.6MHz_Subtest 1_NTNV




Band2_HSUPA_HCH_1907.6MHz_Subtest 1_NTNV



# 7. Form731

## 7.1 Form731_Power

### 7.1.1 Test Result

| Band | BW | Lower Freq | High Freq | MAX Power (W) | Value | Hz/ppm | Emission Designator | Rule Parts | MAX Power (dBm) |
|---|---|---|---|---|---|---|---|---|---|
| 2 | 3.84 | 1852.4 | 1907.6 | 0.1346 | 0.0112 | ppm | 4M25F9W | 24E | 21.29 |

## 7.2 Form731_EIRP

### 7.2.1 Test Result

| Band | BW | Lower Freq | High Freq | MAX Power (W) | Value | Hz/ppm | Emission Designator | Rule Parts | MAX Power (dBm) |
|---|---|---|---|---|---|---|---|---|---|
| 2 | 3.84 | 1852.4 | 1907.6 | 0.1622 | 0.0112 | ppm | 4M25F9W | 24E | 22.10 |