# 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 | 23.49 | 0.33 | 23.82 | <=33.01 | Pass |
| | | | 1880 | 23.32 | 0.33 | 23.65 | <=33.01 | Pass |
| | | | 1907.6 | 23.29 | 0.33 | 23.62 | <=33.01 | Pass |
| | HSDPA | Subtest 1 | 1852.4 | 21.39 | 0.33 | 21.72 | <=33.01 | Pass |
| | | Subtest 2 | 1852.4 | 21.39 | 0.33 | 21.72 | <=33.01 | Pass |
| | | Subtest 3 | 1852.4 | 21.41 | 0.33 | 21.74 | <=33.01 | Pass |
| | | Subtest 4 | 1852.4 | 21.43 | 0.33 | 21.76 | <=33.01 | Pass |
| | | Subtest 1 | 1880 | 21.40 | 0.33 | 21.73 | <=33.01 | Pass |
| | | Subtest 2 | 1880 | 21.40 | 0.33 | 21.73 | <=33.01 | Pass |
| | | Subtest 3 | 1880 | 21.44 | 0.33 | 21.77 | <=33.01 | Pass |
| | | Subtest 4 | 1880 | 21.43 | 0.33 | 21.76 | <=33.01 | Pass |
| | | Subtest 1 | 1907.6 | 21.42 | 0.33 | 21.75 | <=33.01 | Pass |
| | | Subtest 2 | 1907.6 | 21.37 | 0.33 | 21.70 | <=33.01 | Pass |
| | | Subtest 3 | 1907.6 | 21.33 | 0.33 | 21.66 | <=33.01 | Pass |
| | | Subtest 4 | 1907.6 | 21.37 | 0.33 | 21.70 | <=33.01 | Pass |
| | HSUPA | Subtest 1 | 1852.4 | 19.26 | 0.33 | 19.59 | <=33.01 | Pass |
| | | Subtest 2 | 1852.4 | 19.26 | 0.33 | 19.59 | <=33.01 | Pass |
| | | Subtest 3 | 1852.4 | 19.49 | 0.33 | 19.82 | <=33.01 | Pass |
| | | Subtest 4 | 1852.4 | 19.61 | 0.33 | 19.94 | <=33.01 | Pass |
| | | Subtest 5 | 1852.4 | 19.05 | 0.33 | 19.38 | <=33.01 | Pass |
| | | Subtest 1 | 1880 | 19.28 | 0.33 | 19.61 | <=33.01 | Pass |
| | | Subtest 2 | 1880 | 19.28 | 0.33 | 19.61 | <=33.01 | Pass |
| | | Subtest 3 | 1880 | 19.59 | 0.33 | 19.92 | <=33.01 | Pass |
| | | Subtest 4 | 1880 | 18.87 | 0.33 | 19.20 | <=33.01 | Pass |
| | | Subtest 5 | 1880 | 19.34 | 0.33 | 19.67 | <=33.01 | Pass |
| | | Subtest 1 | 1907.6 | 19.09 | 0.33 | 19.42 | <=33.01 | Pass |
| | | Subtest 2 | 1907.6 | 19.16 | 0.33 | 19.49 | <=33.01 | Pass |
| | | Subtest 3 | 1907.6 | 18.84 | 0.33 | 19.17 | <=33.01 | Pass |
| | | Subtest 4 | 1907.6 | 19.46 | 0.33 | 19.79 | <=33.01 | Pass |
| | | Subtest 5 | 1907.6 | 19.05 | 0.33 | 19.38 | <=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 | 3.948 | 0.0021 | -2.5 to 2.5 | Pass |
| | | | 3.85 | 3.290 | 0.0018 | -2.5 to 2.5 | Pass |
| | | | 4.43 | 3.169 | 0.0017 | -2.5 to 2.5 | Pass |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | -30 | 3.85 | 2.525 | 0.0014 | -2.5 to 2.5 | Pass |
| | | -20 | 3.85 | 3.211 | 0.0017 | -2.5 to 2.5 | Pass |
| | | -10 | 3.85 | 2.954 | 0.0016 | -2.5 to 2.5 | Pass |
| | | 0 | 3.85 | 2.918 | 0.0016 | -2.5 to 2.5 | Pass |
| | | 10 | 3.85 | 2.503 | 0.0014 | -2.5 to 2.5 | Pass |
| | | 30 | 3.85 | 2.868 | 0.0015 | -2.5 to 2.5 | Pass |
| | | 40 | 3.85 | 2.832 | 0.0015 | -2.5 to 2.5 | Pass |
| | | 50 | 3.85 | 3.269 | 0.0018 | -2.5 to 2.5 | Pass |
| | 1880 | 20 | 3.27 | 2.546 | 0.0014 | -2.5 to 2.5 | Pass |
| | | | 3.85 | 3.326 | 0.0018 | -2.5 to 2.5 | Pass |
| | | | 4.43 | 3.347 | 0.0018 | -2.5 to 2.5 | Pass |
| | | -30 | 3.85 | 3.147 | 0.0017 | -2.5 to 2.5 | Pass |
| | | -20 | 3.85 | 3.462 | 0.0018 | -2.5 to 2.5 | Pass |
| | | -10 | 3.85 | 3.133 | 0.0017 | -2.5 to 2.5 | Pass |
| | | 0 | 3.85 | 3.090 | 0.0016 | -2.5 to 2.5 | Pass |
| | | 10 | 3.85 | 2.854 | 0.0015 | -2.5 to 2.5 | Pass |
| | | 30 | 3.85 | 3.161 | 0.0017 | -2.5 to 2.5 | Pass |
| | | 40 | 3.85 | 2.975 | 0.0016 | -2.5 to 2.5 | Pass |
| | | 50 | 3.85 | 3.641 | 0.0019 | -2.5 to 2.5 | Pass |
| | 1907.6 | 20 | 3.27 | 2.561 | 0.0013 | -2.5 to 2.5 | Pass |
| | | | 3.85 | 3.154 | 0.0017 | -2.5 to 2.5 | Pass |
| | | | 4.43 | 3.369 | 0.0018 | -2.5 to 2.5 | Pass |
| | | -30 | 3.85 | 3.440 | 0.0018 | -2.5 to 2.5 | Pass |
| | | -20 | 3.85 | 3.684 | 0.0019 | -2.5 to 2.5 | Pass |
| | | -10 | 3.85 | 3.004 | 0.0016 | -2.5 to 2.5 | Pass |
| | | 0 | 3.85 | 2.925 | 0.0015 | -2.5 to 2.5 | Pass |
| | | 10 | 3.85 | 2.890 | 0.0015 | -2.5 to 2.5 | Pass |
| | | 30 | 3.85 | 2.139 | 0.0011 | -2.5 to 2.5 | Pass |
| | | 40 | 3.85 | 3.190 | 0.0017 | -2.5 to 2.5 | Pass |
| | | 50 | 3.85 | 3.169 | 0.0017 | -2.5 to 2.5 | Pass |
| HSDPA | 1852.4 | 20 | 3.27 | 2.174 | 0.0012 | -2.5 to 2.5 | Pass |
| | | | 3.85 | 2.739 | 0.0015 | -2.5 to 2.5 | Pass |
| | | | 4.43 | 1.509 | 0.0008 | -2.5 to 2.5 | Pass |
| | | -30 | 3.85 | 2.224 | 0.0012 | -2.5 to 2.5 | Pass |
| | | -20 | 3.85 | 2.010 | 0.0011 | -2.5 to 2.5 | Pass |
| | | -10 | 3.85 | 2.704 | 0.0015 | -2.5 to 2.5 | Pass |
| | | 0 | 3.85 | 1.931 | 0.0010 | -2.5 to 2.5 | Pass |
| | | 10 | 3.85 | 2.210 | 0.0012 | -2.5 to 2.5 | Pass |
| | | 30 | 3.85 | 3.240 | 0.0017 | -2.5 to 2.5 | Pass |
| | | 40 | 3.85 | 2.089 | 0.0011 | -2.5 to 2.5 | Pass |
| | | 50 | 3.85 | 3.211 | 0.0017 | -2.5 to 2.5 | Pass |
| | 1880 | 20 | 3.27 | 2.453 | 0.0013 | -2.5 to 2.5 | Pass |
| | | | 3.85 | 3.018 | 0.0016 | -2.5 to 2.5 | Pass |
| | | | 4.43 | 2.575 | 0.0014 | -2.5 to 2.5 | Pass |
| | | -30 | 3.85 | 3.669 | 0.0020 | -2.5 to 2.5 | Pass |
| | | -20 | 3.85 | 2.654 | 0.0014 | -2.5 to 2.5 | Pass |
| | | -10 | 3.85 | 2.925 | 0.0016 | -2.5 to 2.5 | Pass |
| | | 0 | 3.85 | 2.854 | 0.0015 | -2.5 to 2.5 | Pass |
| | | 10 | 3.85 | 2.990 | 0.0016 | -2.5 to 2.5 | Pass |
| | | 30 | 3.85 | 3.011 | 0.0016 | -2.5 to 2.5 | Pass |
| | | 40 | 3.85 | 2.539 | 0.0014 | -2.5 to 2.5 | Pass |
| | | 50 | 3.85 | 2.768 | 0.0015 | -2.5 to 2.5 | Pass |
| | 1907.6 | 20 | 3.27 | 2.203 | 0.0012 | -2.5 to 2.5 | Pass |
| | | | 3.85 | 1.981 | 0.0010 | -2.5 to 2.5 | Pass |
| | | | 4.43 | 1.180 | 0.0006 | -2.5 to 2.5 | Pass |
| | | -30 | 3.85 | 2.360 | 0.0012 | -2.5 to 2.5 | Pass |
| | | -20 | 3.85 | 1.423 | 0.0007 | -2.5 to 2.5 | Pass |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | -10 | 3.85 | 1.287 | 0.0007 | -2.5 to 2.5 | Pass |
| | | 0 | 3.85 | 0.880 | 0.0005 | -2.5 to 2.5 | Pass |
| | | 10 | 3.85 | 2.689 | 0.0014 | -2.5 to 2.5 | Pass |
| | | 30 | 3.85 | 1.724 | 0.0009 | -2.5 to 2.5 | Pass |
| | | 40 | 3.85 | 1.738 | 0.0009 | -2.5 to 2.5 | Pass |
| | | 50 | 3.85 | 2.296 | 0.0012 | -2.5 to 2.5 | Pass |
| HSUPA | 1852.4 | 20 | 3.27 | 4.642 | 0.0025 | -2.5 to 2.5 | Pass |
| | | | 3.85 | 6.008 | 0.0032 | -2.5 to 2.5 | Pass |
| | | | 4.43 | 6.058 | 0.0033 | -2.5 to 2.5 | Pass |
| | | -30 | 3.85 | 5.322 | 0.0029 | -2.5 to 2.5 | Pass |
| | | -20 | 3.85 | 5.100 | 0.0028 | -2.5 to 2.5 | Pass |
| | | -10 | 3.85 | 7.060 | 0.0038 | -2.5 to 2.5 | Pass |
| | | 0 | 3.85 | 5.944 | 0.0032 | -2.5 to 2.5 | Pass |
| | | 10 | 3.85 | 6.015 | 0.0032 | -2.5 to 2.5 | Pass |
| | | 30 | 3.85 | 6.444 | 0.0035 | -2.5 to 2.5 | Pass |
| | | 40 | 3.85 | 6.266 | 0.0034 | -2.5 to 2.5 | Pass |
| | | 50 | 3.85 | 5.751 | 0.0031 | -2.5 to 2.5 | Pass |
| | 1880 | 20 | 3.27 | 6.845 | 0.0036 | -2.5 to 2.5 | Pass |
| | | | 3.85 | 6.680 | 0.0036 | -2.5 to 2.5 | Pass |
| | | | 4.43 | 5.765 | 0.0031 | -2.5 to 2.5 | Pass |
| | | -30 | 3.85 | 6.087 | 0.0032 | -2.5 to 2.5 | Pass |
| | | -20 | 3.85 | 6.380 | 0.0034 | -2.5 to 2.5 | Pass |
| | | -10 | 3.85 | 5.407 | 0.0029 | -2.5 to 2.5 | Pass |
| | | 0 | 3.85 | 5.028 | 0.0027 | -2.5 to 2.5 | Pass |
| | | 10 | 3.85 | 6.366 | 0.0034 | -2.5 to 2.5 | Pass |
| | | 30 | 3.85 | 5.479 | 0.0029 | -2.5 to 2.5 | Pass |
| | | 40 | 3.85 | 6.258 | 0.0033 | -2.5 to 2.5 | Pass |
| | | 50 | 3.85 | 4.971 | 0.0026 | -2.5 to 2.5 | Pass |
| | 1907.6 | 20 | 3.27 | 6.058 | 0.0032 | -2.5 to 2.5 | Pass |
| | | | 3.85 | 5.729 | 0.0030 | -2.5 to 2.5 | Pass |
| | | | 4.43 | 5.271 | 0.0028 | -2.5 to 2.5 | Pass |
| | | -30 | 3.85 | 5.944 | 0.0031 | -2.5 to 2.5 | Pass |
| | | -20 | 3.85 | 6.194 | 0.0032 | -2.5 to 2.5 | Pass |
| | | -10 | 3.85 | 5.236 | 0.0027 | -2.5 to 2.5 | Pass |
| | | 0 | 3.85 | 4.113 | 0.0022 | -2.5 to 2.5 | Pass |
| | | 10 | 3.85 | 6.280 | 0.0033 | -2.5 to 2.5 | Pass |
| | | 30 | 3.85 | 5.286 | 0.0028 | -2.5 to 2.5 | Pass |
| | | 40 | 3.85 | 4.735 | 0.0025 | -2.5 to 2.5 | Pass |
| | | 50 | 3.85 | 5.357 | 0.0028 | -2.5 to 2.5 | Pass |

# 3. Modulation Characteristics

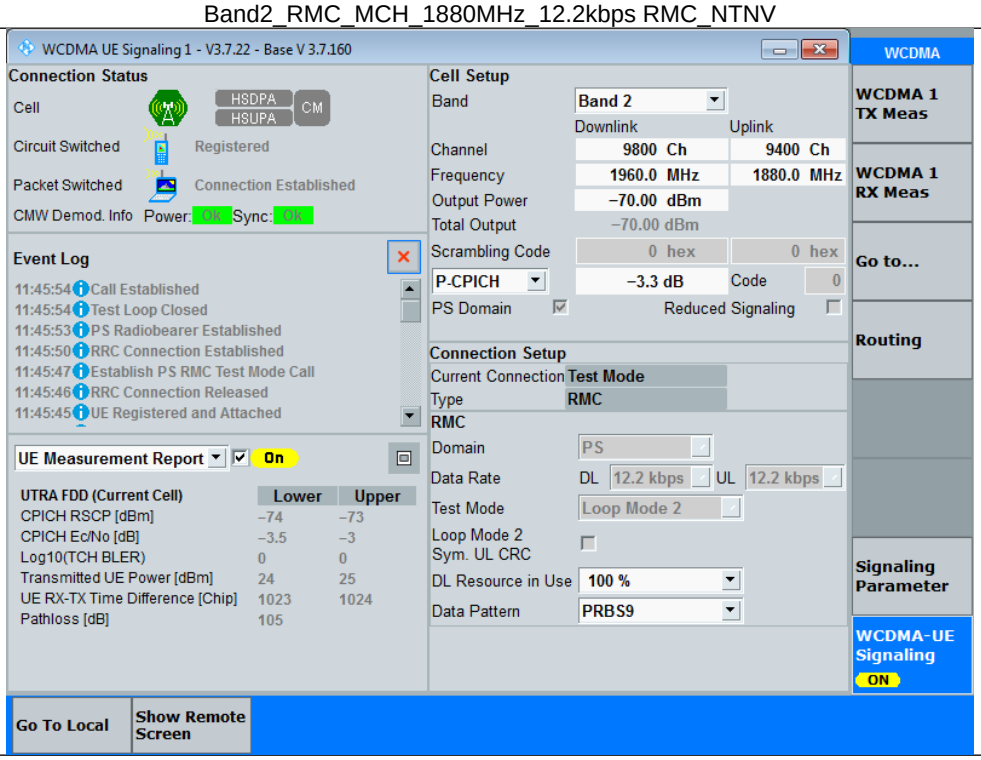
## 3.1 Band2

### 3.1.1 Test Result

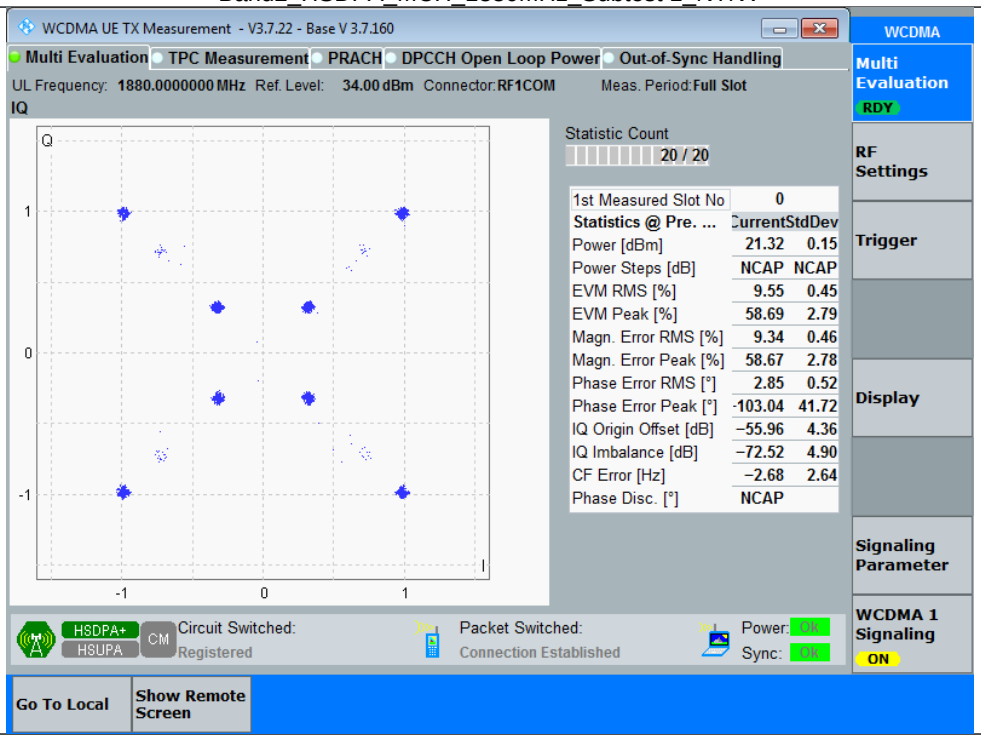
| Band: 2 | | | | | | |
|---|---|---|---|---|---|---|
| ENV | Mode | | Frequency (MHz) | Modulation Characteristics | | Verdict |
| | Network | Subset | | Result | Limit | |
| NTNV | RMC | 12.2kbps RMC | 1880 | Refer To Test Graph | | Pass |
| | HSDPA | Subtest 1 | 1880 | Refer To Test Graph | | Pass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

## 3.1.2 Test Graph

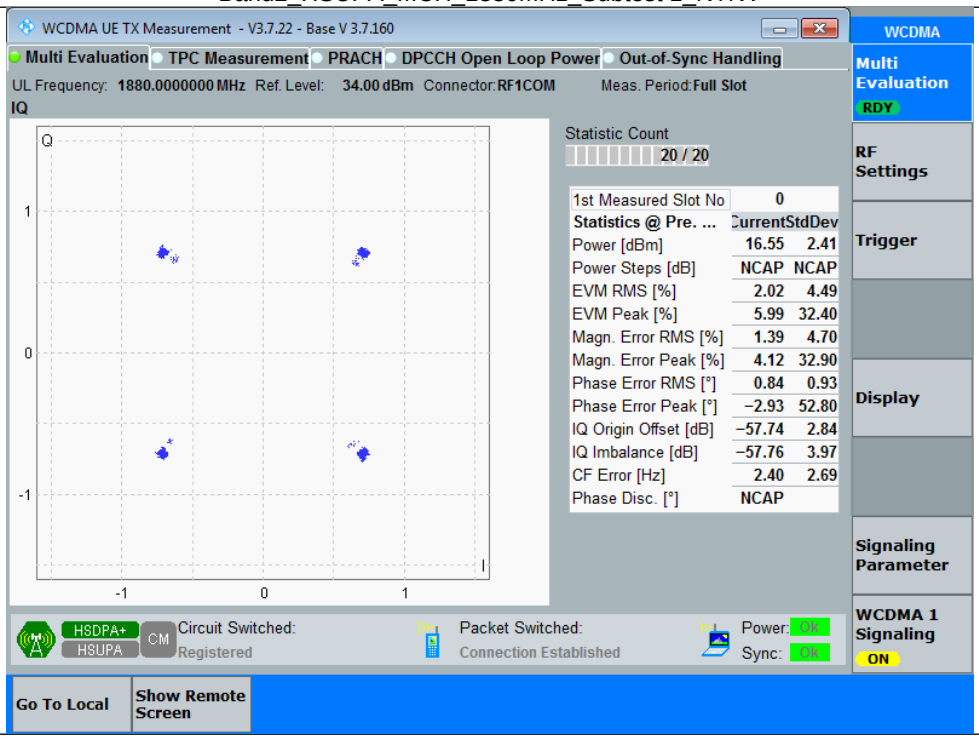
Band2_RMC_MCH_1880MHz_12.2kbps RMC_NTNV




Band2_HSDPA_MCH_1880MHz_Subtest 1_NTNV



Band2_HSUPA_MCH_1880MHz_Subtest 1_NTNV



# 4. 99% & 26dB Bandwidth

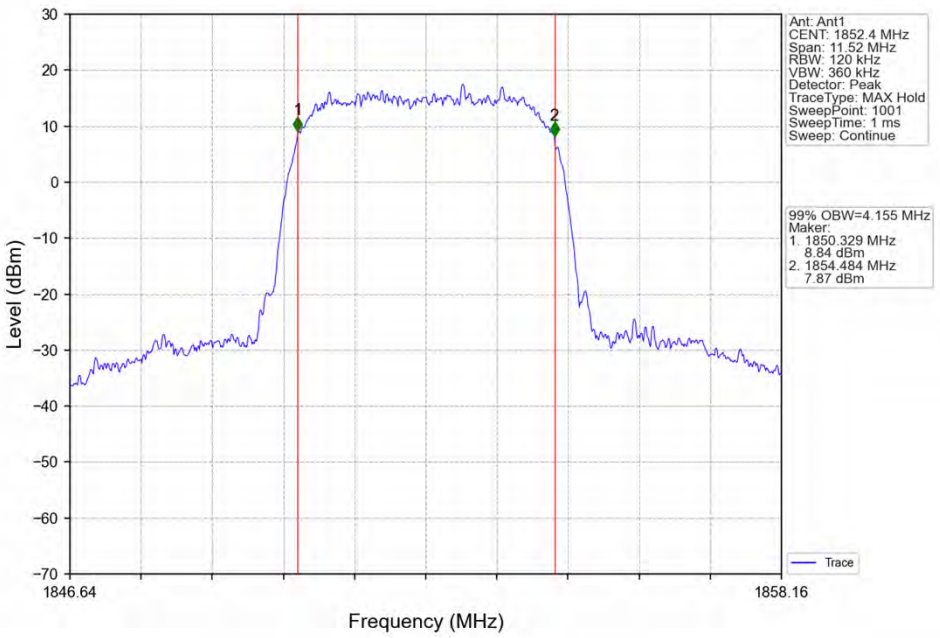
## 4.1 Band2_OBW

### 4.1.1 Test Result

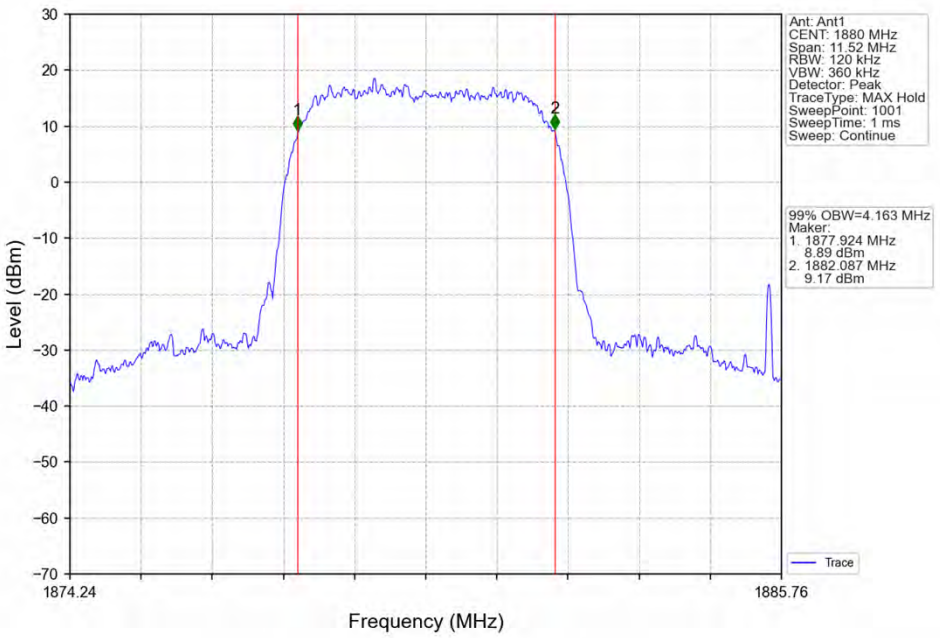
| Band: 2 | | | | | |
|---|---|---|---|---|---|
| ENV | Mode | | Frequency (MHz) | 99% Occupied Bandwidth (MHz) | Verdict |
| | Network | Subset | | Result | |
| NTNV | RMC | 12.2kbps RMC | 1852.4 | 4.155 | Pass |
| | | | 1880 | 4.163 | Pass |
| | | | 1907.6 | 4.155 | Pass |
| | HSDPA | Subtest 1 | 1852.4 | 4.181 | Pass |
| | | | 1880 | 4.190 | Pass |
| | | | 1907.6 | 4.179 | Pass |
| | HSUPA | Subtest 1 | 1852.4 | 4.192 | Pass |
| | | | 1880 | 4.196 | Pass |
| | | | 1907.6 | 4.183 | Pass |

## 4.1.2 Test Graph

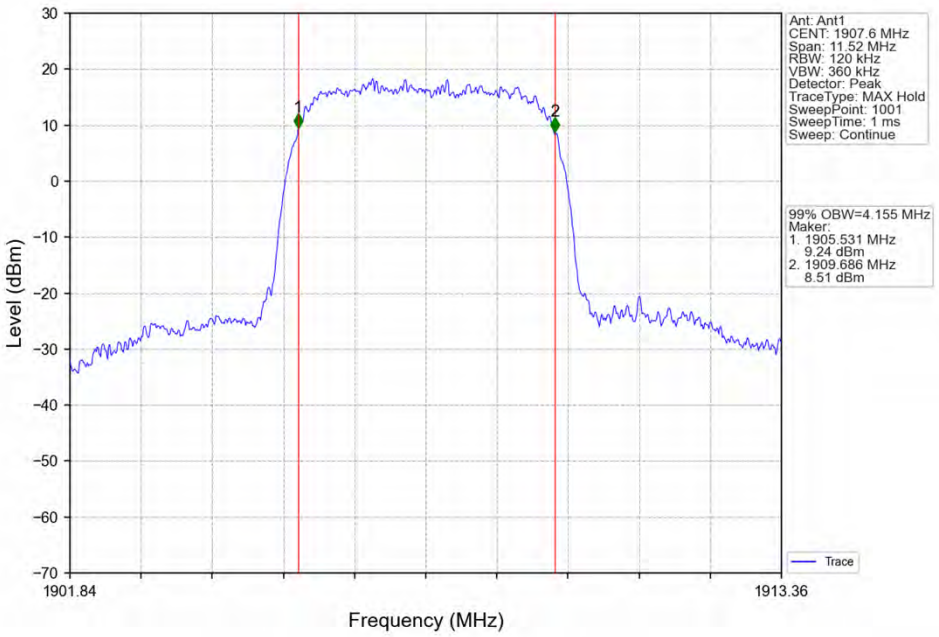
Band2_RMC_LCH_1852.4MHz_12.2kbps RMC_NTNV



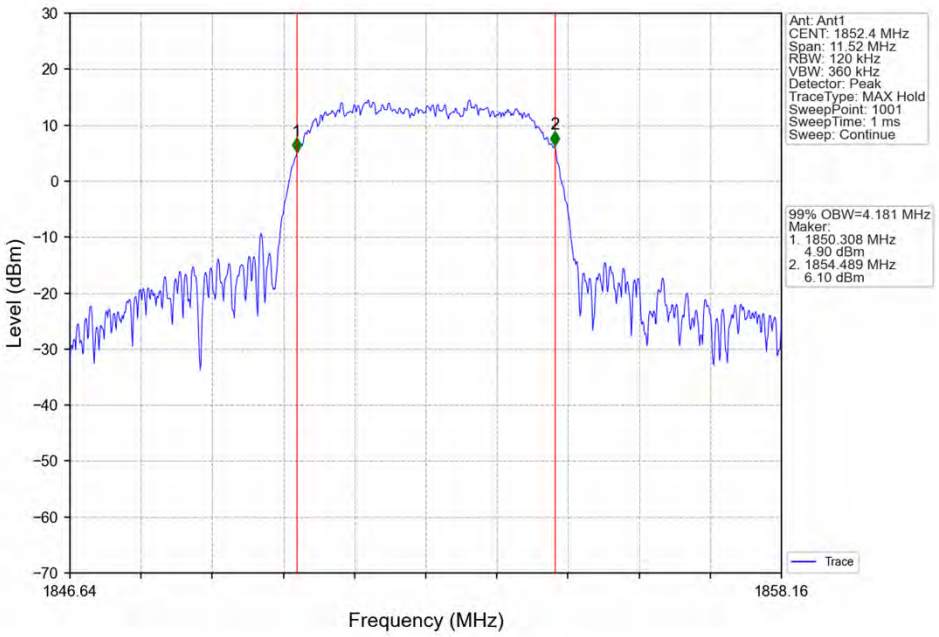

Band2_RMC_MCH_1880MHz_12.2kbps RMC_NTNV



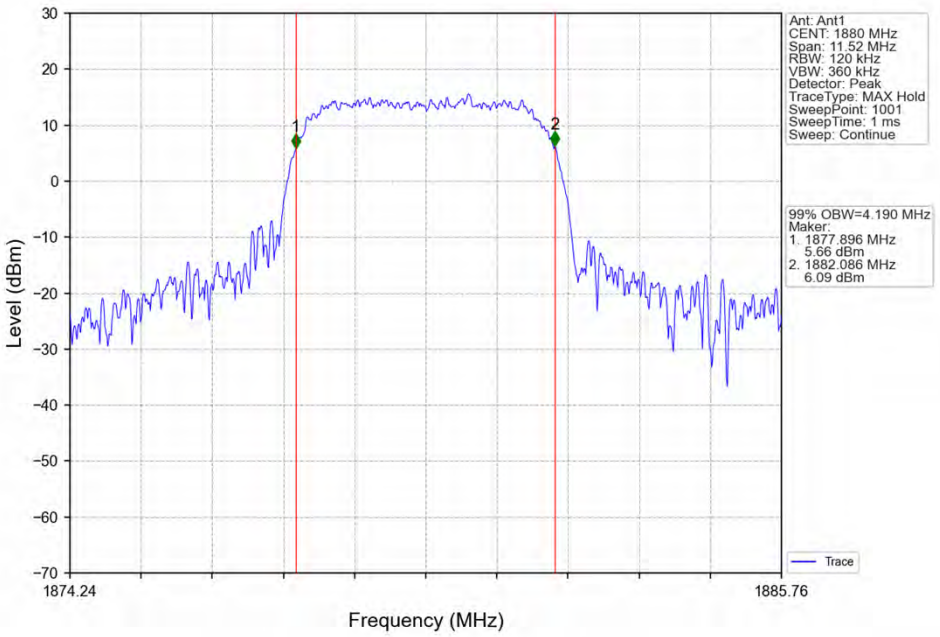
Band2_RMC_HCH_1907.6MHz_12.2kbps RMC_NTNV



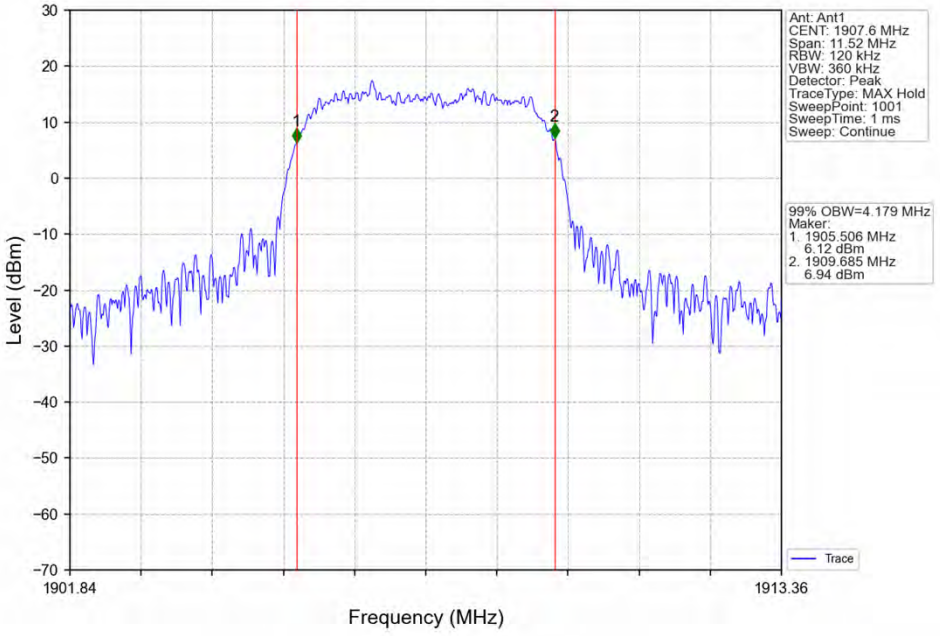

Band2_HSDPA_LCH_1852.4MHz_Subtest 1_NTNV



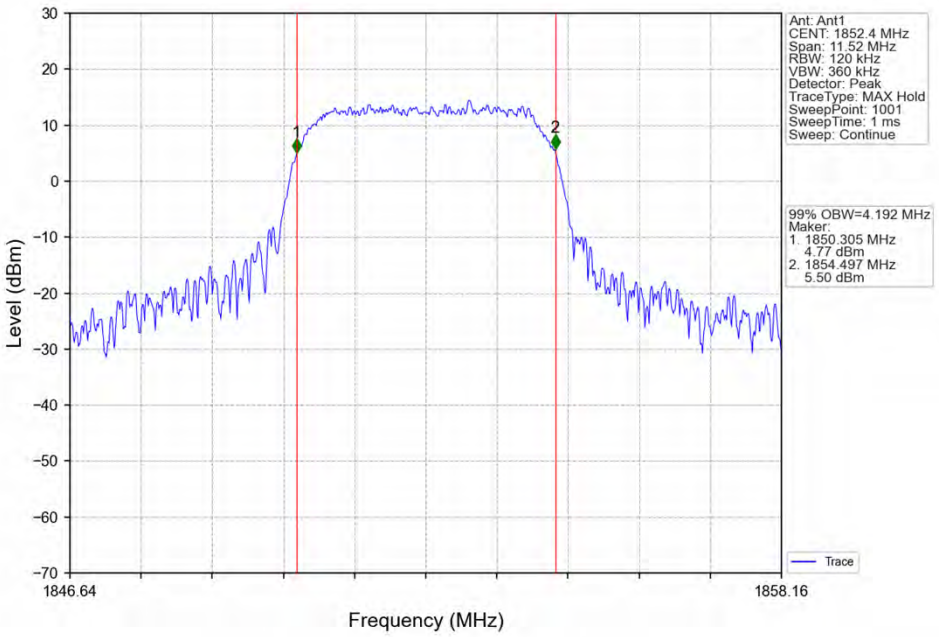
Band2_HSDPA_MCH_1880MHz_Subtest 1_NTNV



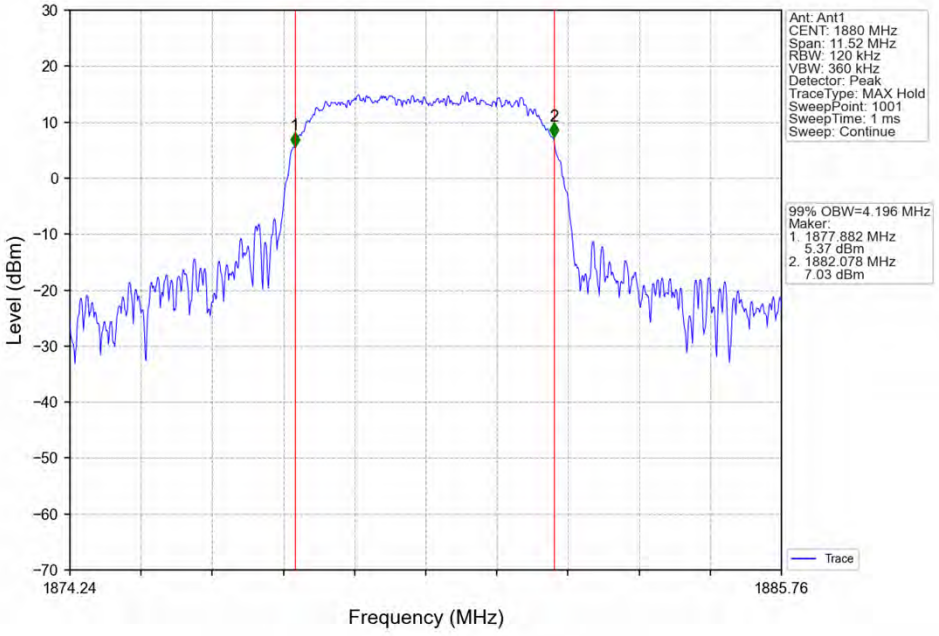

Band2_HSDPA_HCH_1907.6MHz_Subtest 1_NTNV



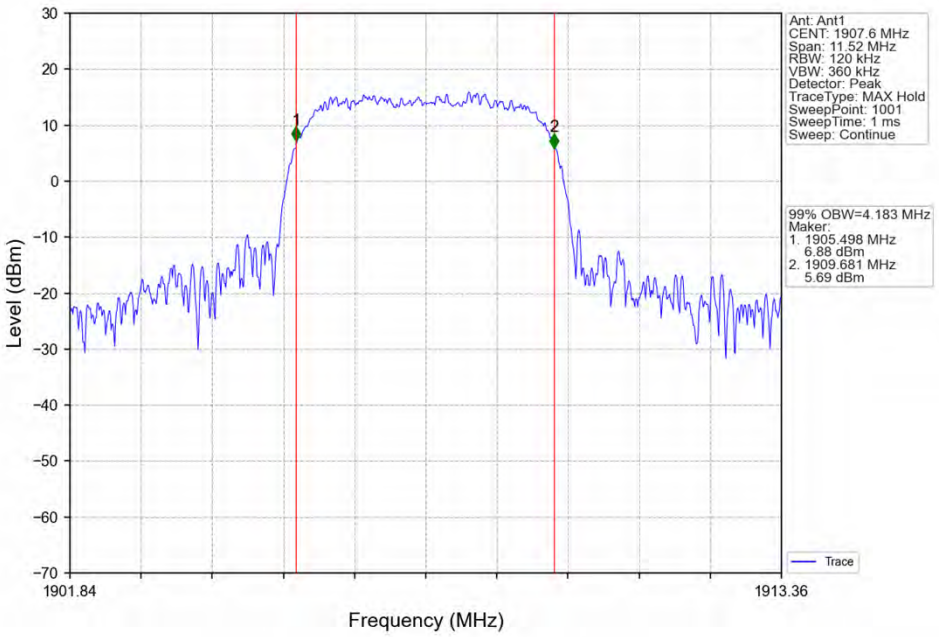
Band2_HSUPA_LCH_1852.4MHz_Subtest 1_NTNV




Band2_HSUPA_MCH_1880MHz_Subtest 1_NTNV



Band2_HSUPA_HCH_1907.6MHz_Subtest 1_NTNV



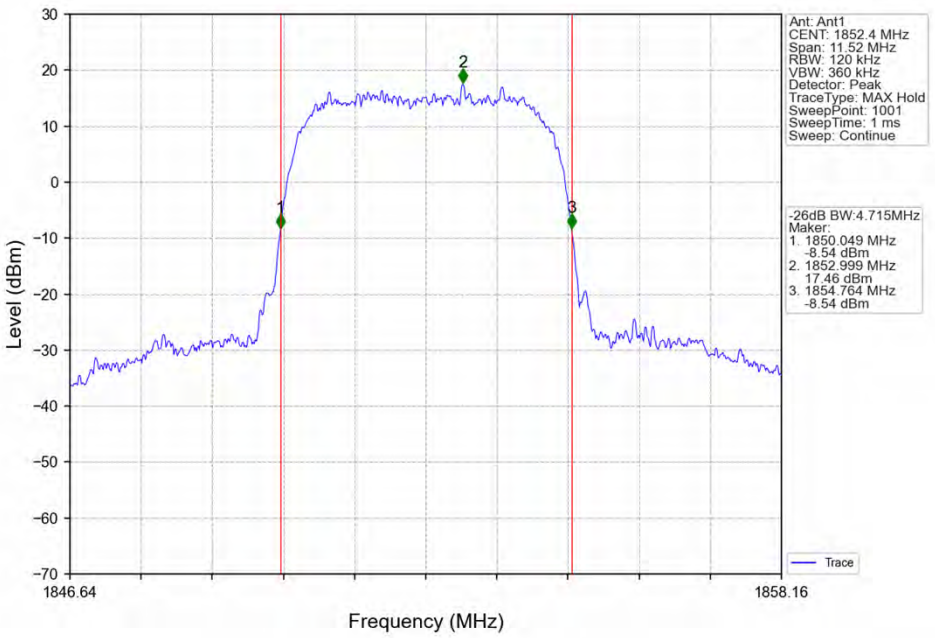
## 4.2 Band2_XDB

### 4.2.1 Test Result

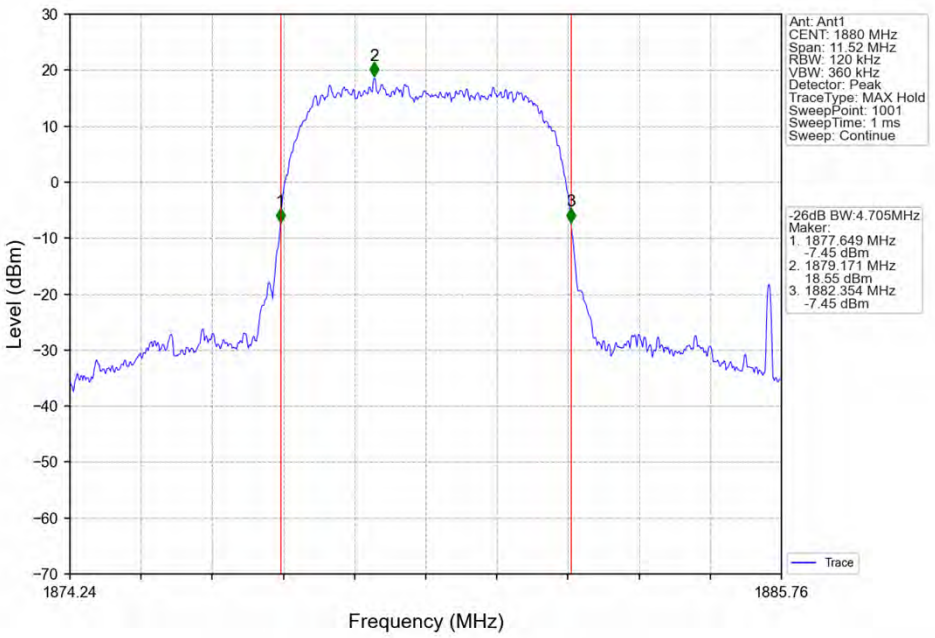
| Band: 2 | | | | | |
|---|---|---|---|---|---|
| ENV | Mode | | Frequency (MHz) | 26dB Bandwidth (MHz) | Verdict |
| | Network | Subset | | Result | |
| NTNV | RMC | 12.2kbps RMC | 1852.4 | 4.715 | Pass |
| | | | 1880 | 4.705 | Pass |
| | | | 1907.6 | 4.743 | Pass |
| | HSDPA | Subtest 1 | 1852.4 | 5.057 | Pass |
| | | | 1880 | 5.195 | Pass |
| | | | 1907.6 | 4.936 | Pass |
| | HSUPA | Subtest 1 | 1852.4 | 5.327 | Pass |
| | | | 1880 | 5.147 | Pass |
| | | | 1907.6 | 5.401 | Pass |

## 4.2.2 Test Graph

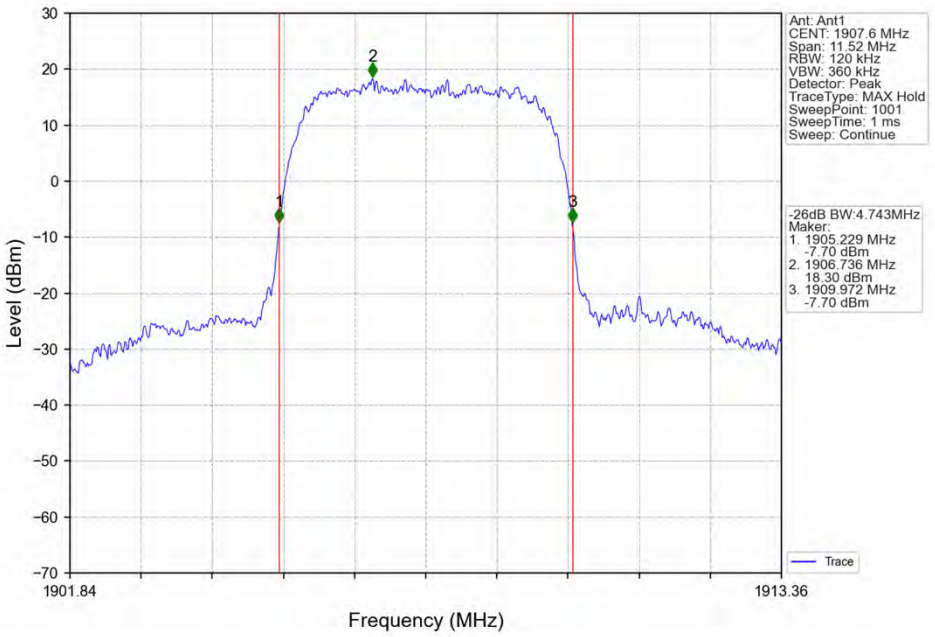
Band2_RMC_LCH_1852.4MHz_12.2kbps RMC_NTNV



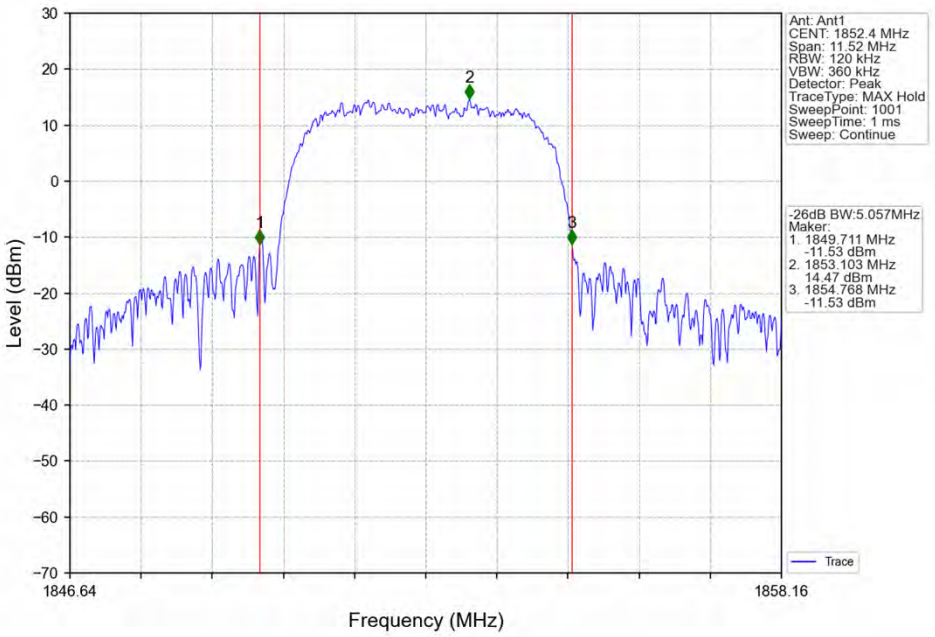

Band2_RMC_MCH_1880MHz_12.2kbps RMC_NTNV



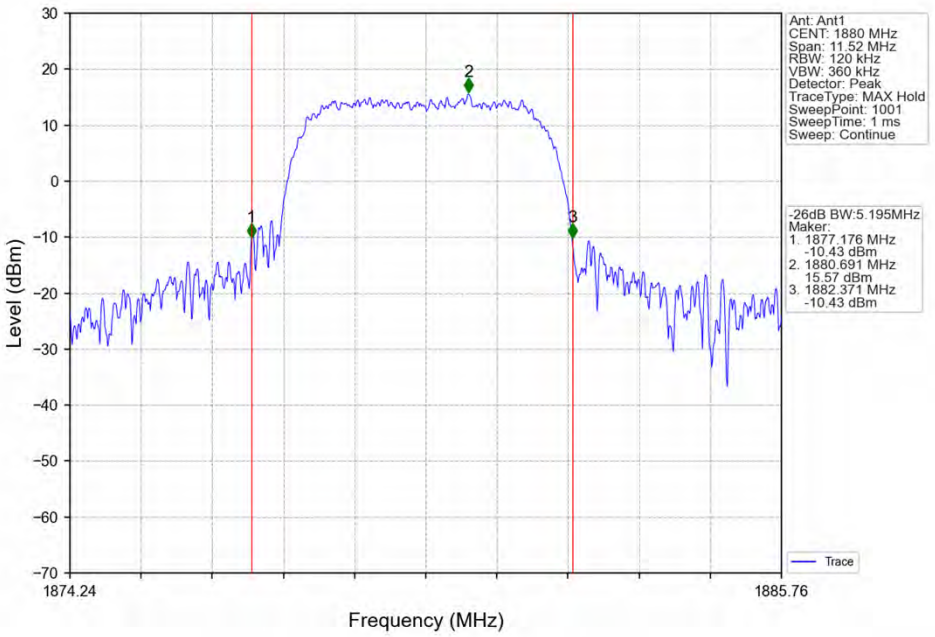
Band2_RMC_HCH_1907.6MHz_12.2kbps RMC_NTNV



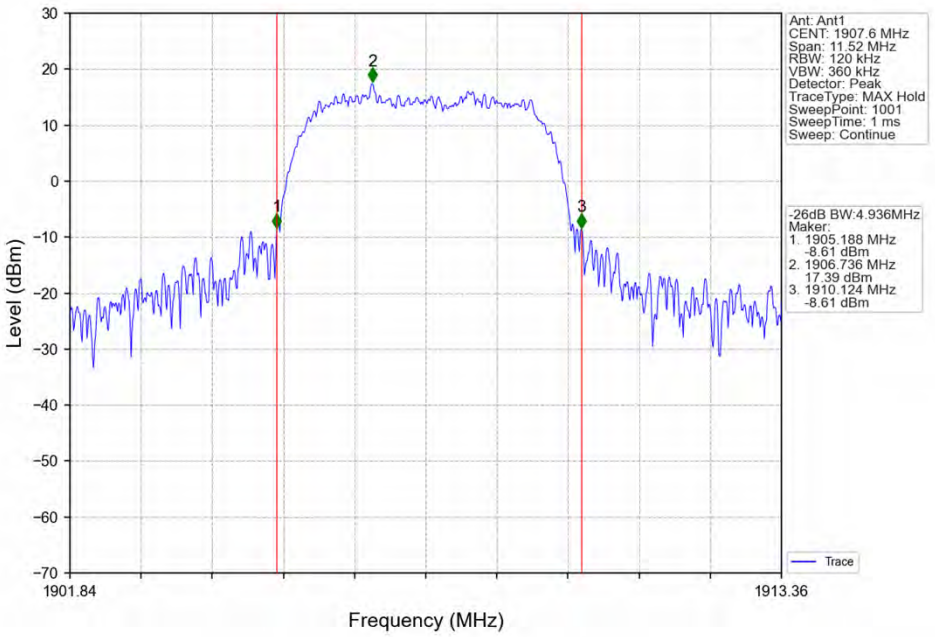

Band2_HSDPA_LCH_1852.4MHz_Subtest 1_NTNV



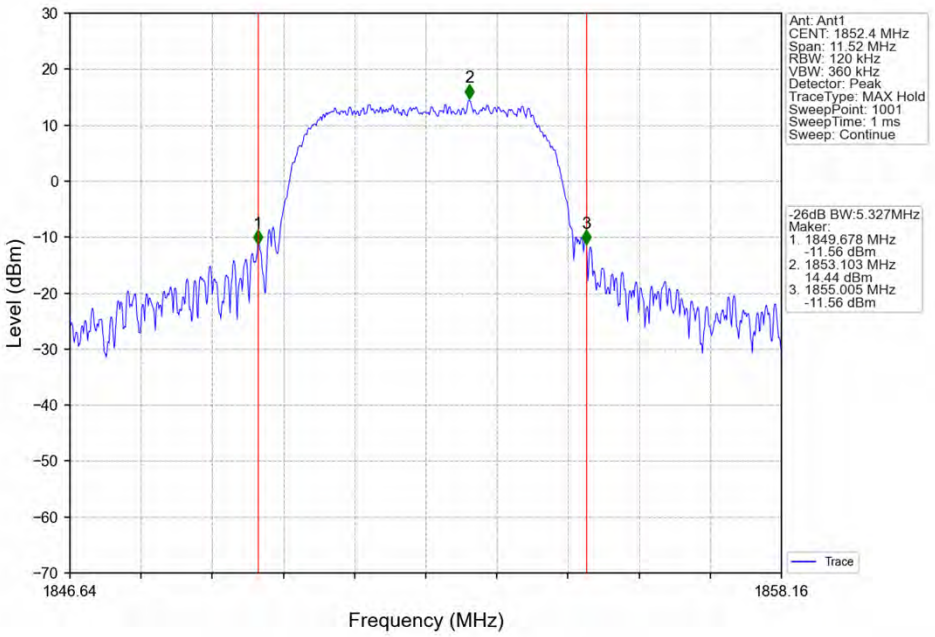
Band2_HSDPA_MCH_1880MHz_Subtest 1_NTNV



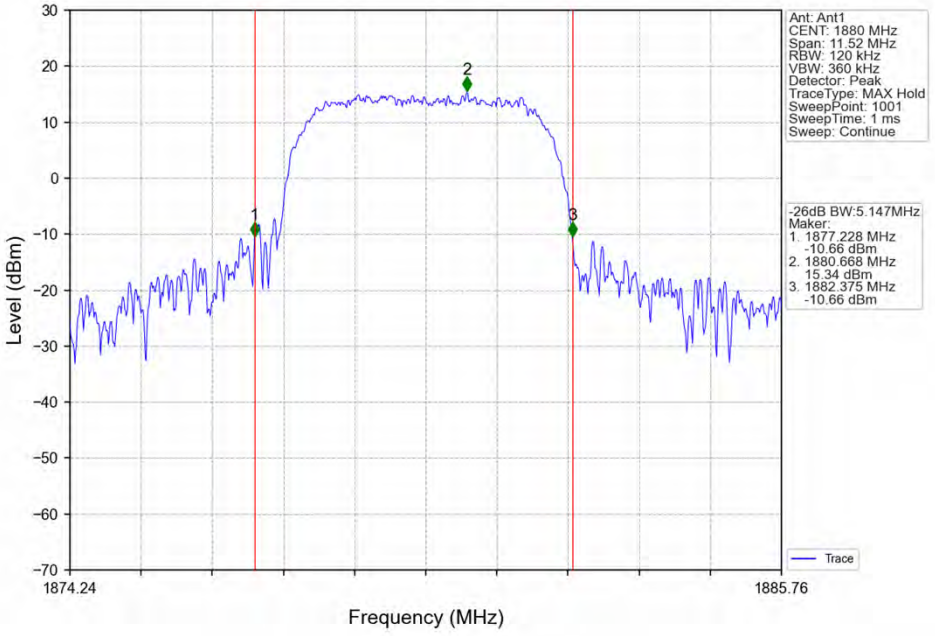

Band2_HSDPA_HCH_1907.6MHz_Subtest 1_NTNV



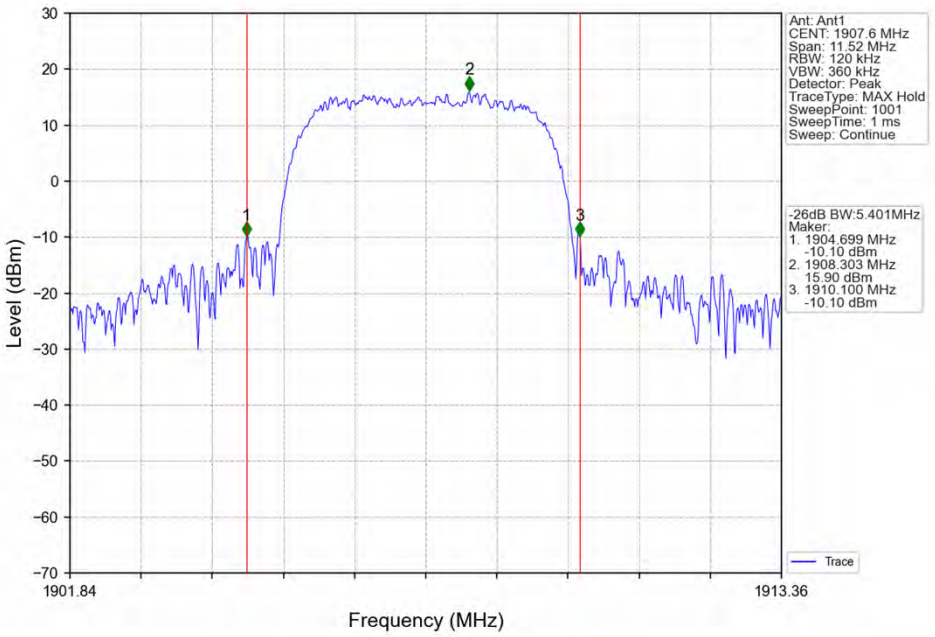
Band2_HSUPA_LCH_1852.4MHz_Subtest 1_NTNV




Band2_HSUPA_MCH_1880MHz_Subtest 1_NTNV



Band2_HSUPA_HCH_1907.6MHz_Subtest 1_NTNV



# 5. Peak-Average Ratio

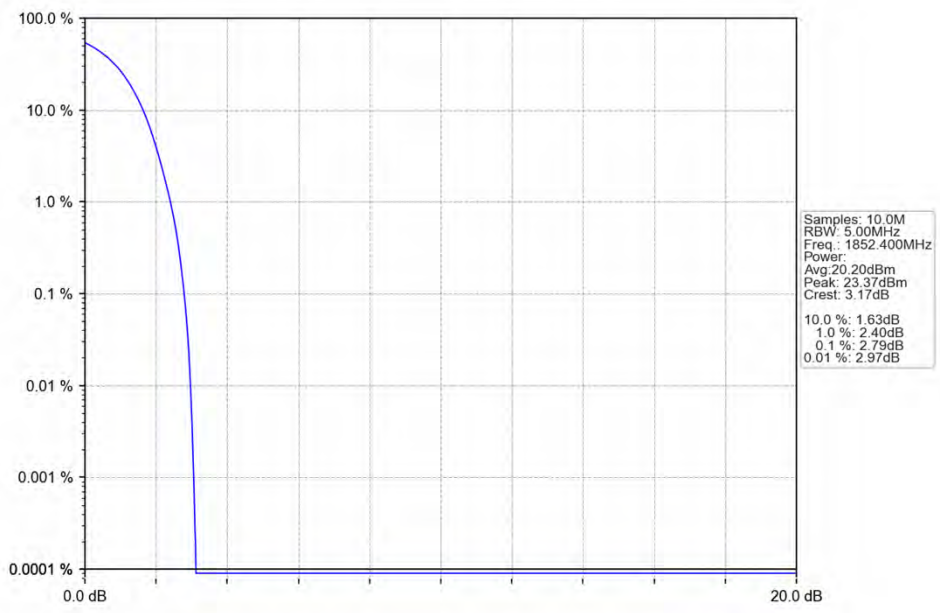
## 5.1 Band2

### 5.1.1 Test Result

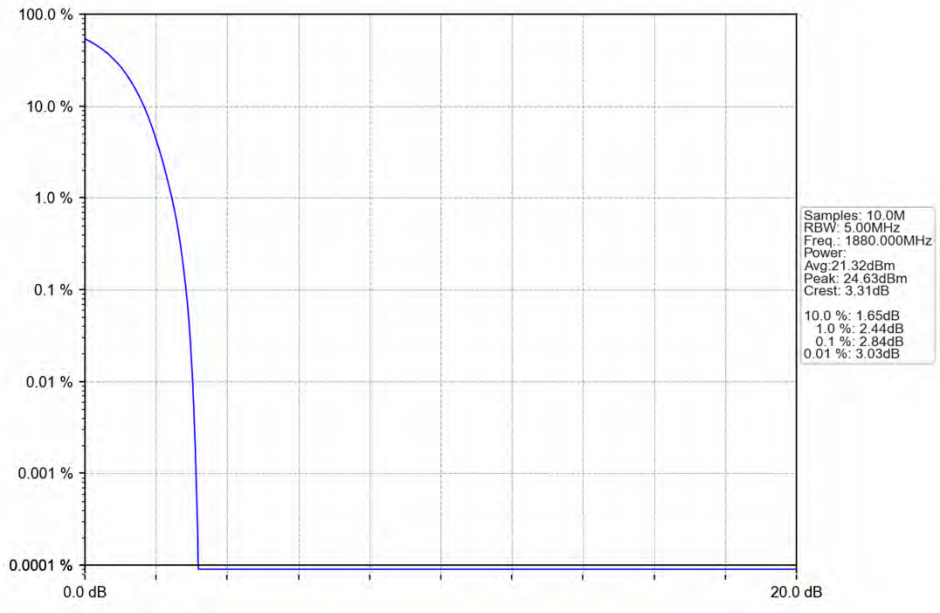
| Band: 2 | | | | | | |
|---|---|---|---|---|---|---|
| ENV | Mode | | Frequency (MHz) | Peak-Average Ratio (dB) | | Verdict |
| | Network | Subset | | Result | Limit | |
| NTNV | RMC | 12.2kbps RMC | 1852.4 | 2.79 | <=13 | Pass |
| | | | 1880 | 2.84 | <=13 | Pass |
| | | | 1907.6 | 2.74 | <=13 | Pass |
| | HSDPA | Subtest 1 | 1852.4 | 5.84 | <=13 | Pass |
| | | | 1880 | 5.60 | <=13 | Pass |
| | | | 1907.6 | 5.64 | <=13 | Pass |
| | HSUPA | Subtest 1 | 1852.4 | 5.60 | <=13 | Pass |
| | | | 1880 | 5.68 | <=13 | Pass |
| | | | 1907.6 | 5.63 | <=13 | Pass |

## 5.1.2 Test Graph

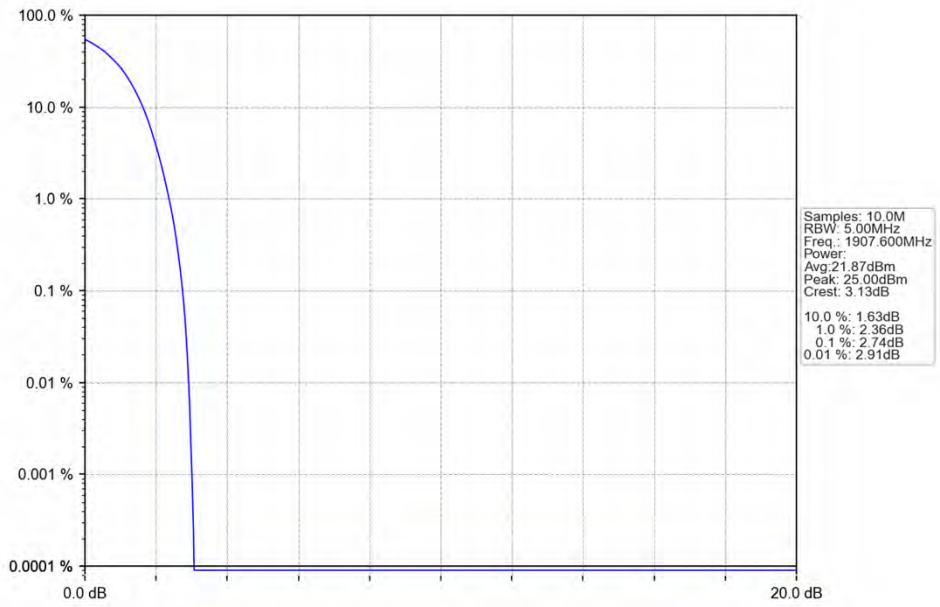
Band2_RMC_LCH_1852.4MHz_12.2kbps RMC_NTNV



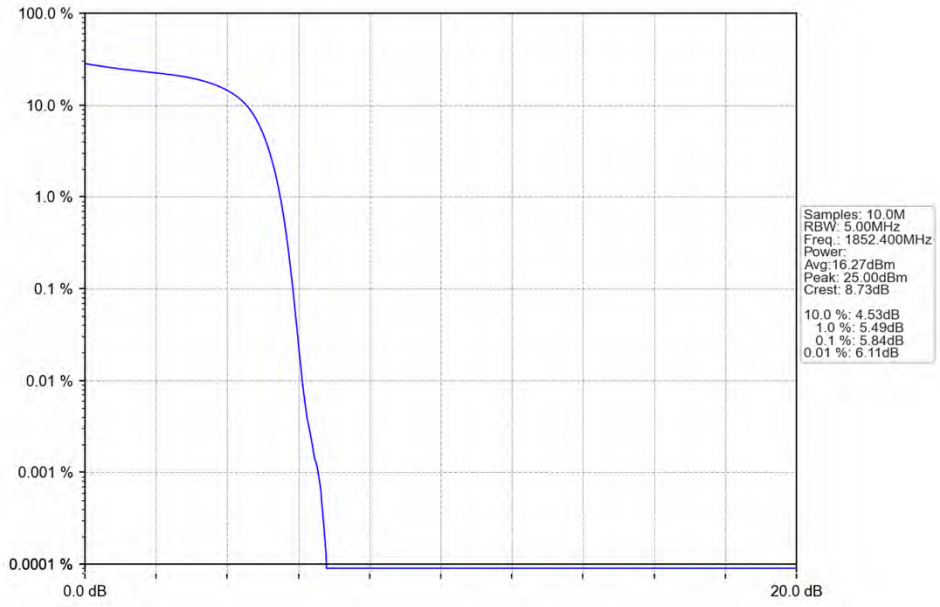

Band2_RMC_MCH_1880MHz_12.2kbps RMC_NTNV



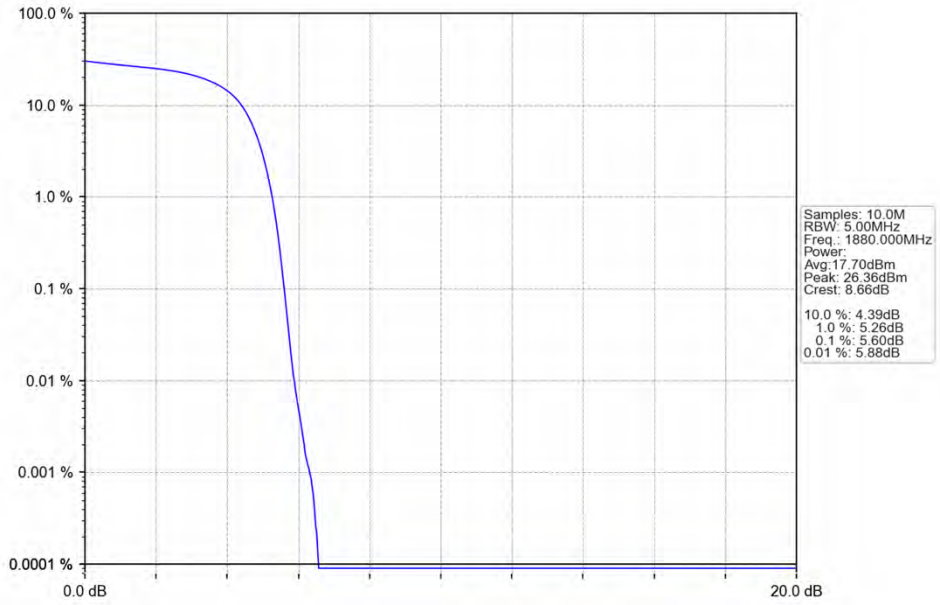
Band2_RMC_HCH_1907.6MHz_12.2kbps RMC_NTNV



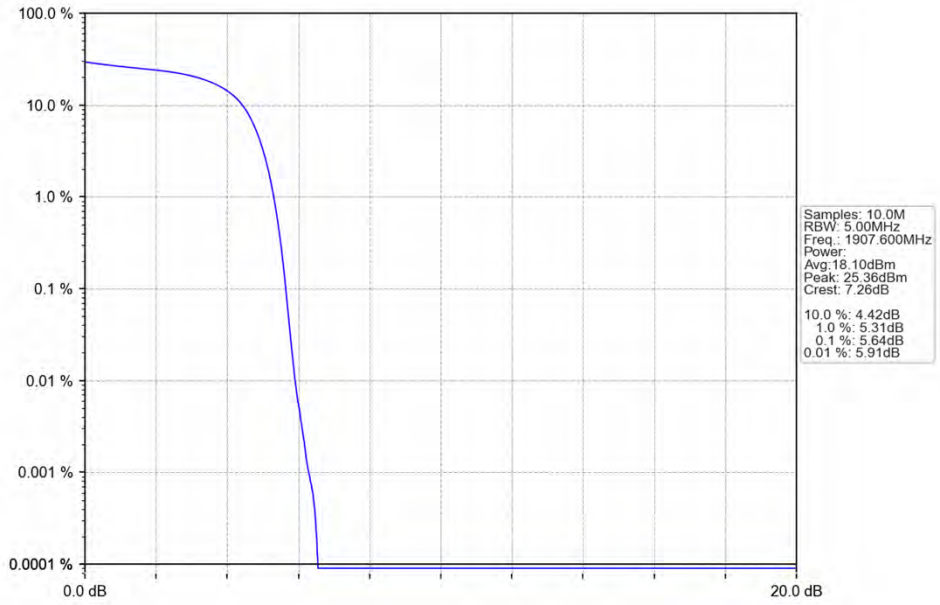

Band2_HSDPA_LCH_1852.4MHz_Subtest 1_NTNV



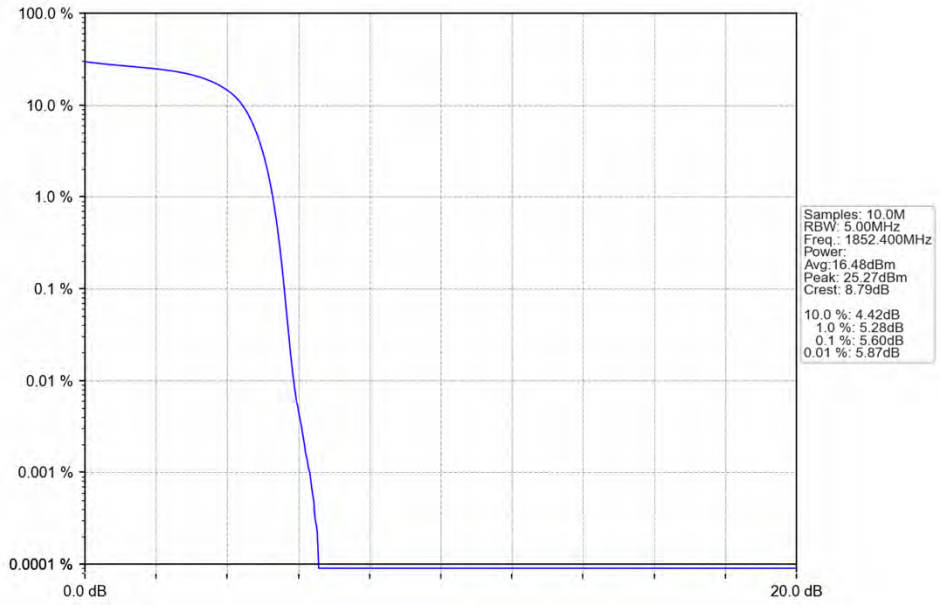
Band2_HSDPA_MCH_1880MHz_Subtest 1_NTNV



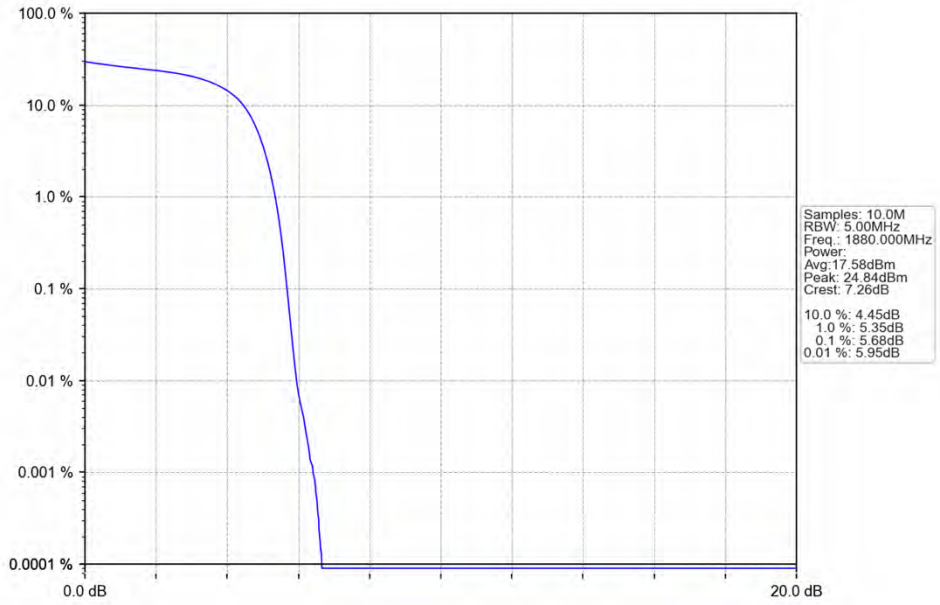

Band2_HSDPA_HCH_1907.6MHz_Subtest 1_NTNV



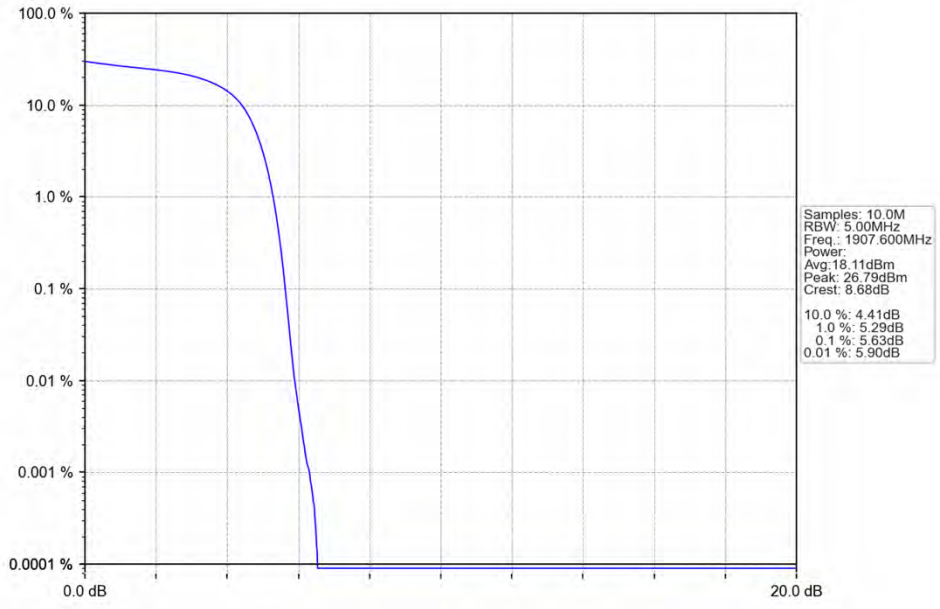
Band2_HSUPA_LCH_1852.4MHz_Subtest 1_NTNV




Band2_HSUPA_MCH_1880MHz_Subtest 1_NTNV



Band2_HSUPA_HCH_1907.6MHz_Subtest 1_NTNV



# 6. Spurious Emission

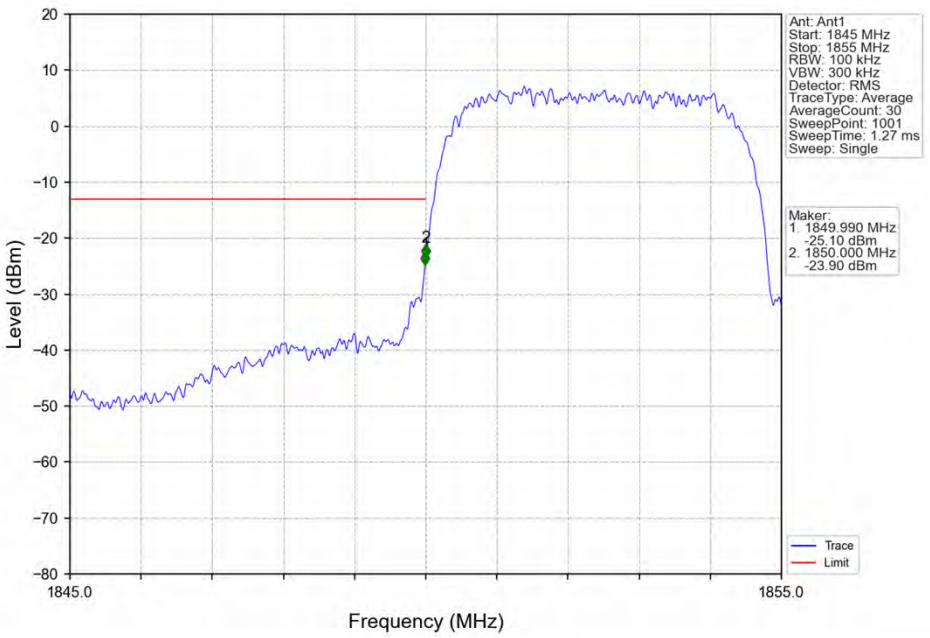
## 6.1 Band2

### 6.1.1 Test Result

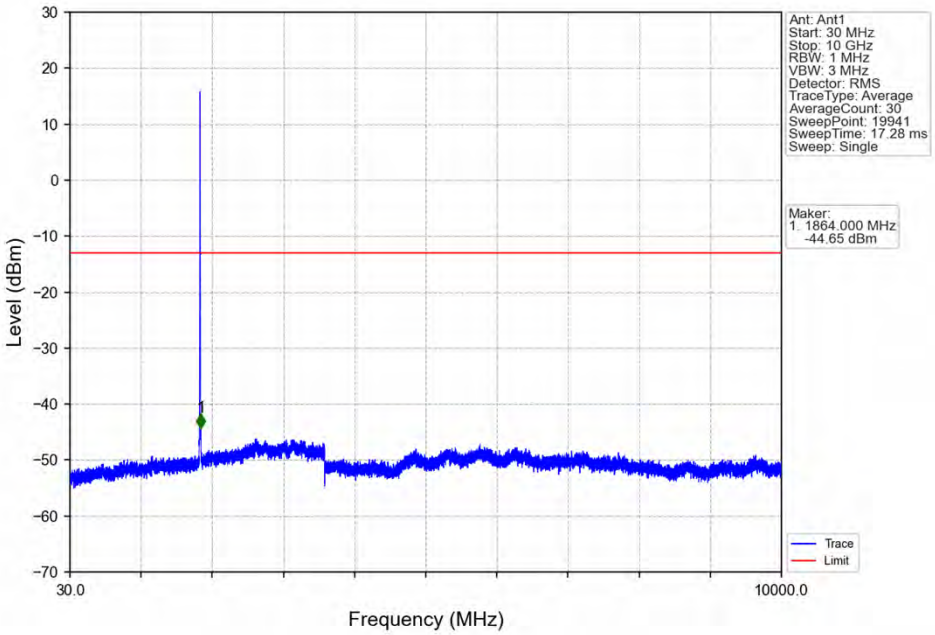
| Band: 2 | | | | | | |
|---|---|---|---|---|---|---|
| ENV | Mode | | Frequency (MHz) | Spurious Emission | | Verdict |
| | Network | Subset | | Result | Limit | |
| NTNV | RMC | 12.2kbps RMC | 1852.4 | Refer To Test Graph | | Pass |
| | | | 1880 | Refer To Test Graph | | Pass |
| | | | 1907.6 | Refer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

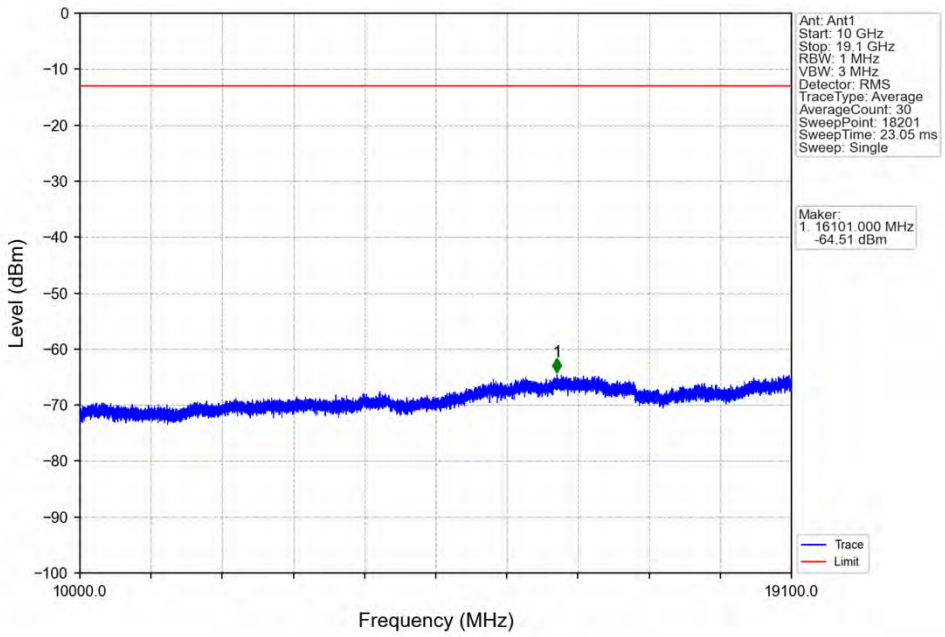
Band2_RMC_LCH_1852.4MHz_12.2kbps RMC_NTNV



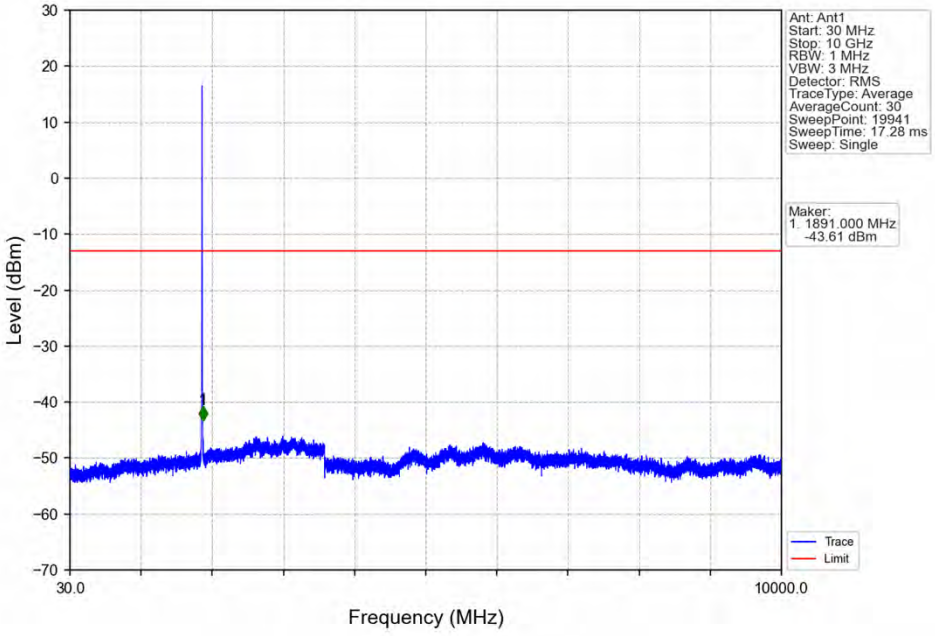

Band2_RMC_LCH_1852.4MHz_12.2kbps RMC_NTNV



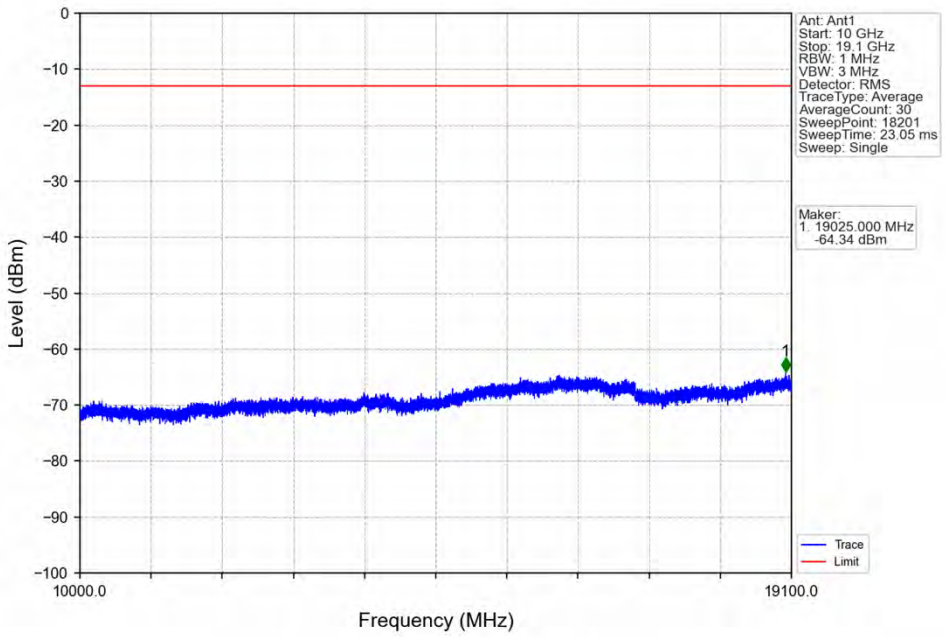
Band2_RMC_LCH_1852.4MHz_12.2kbps RMC_NTNV



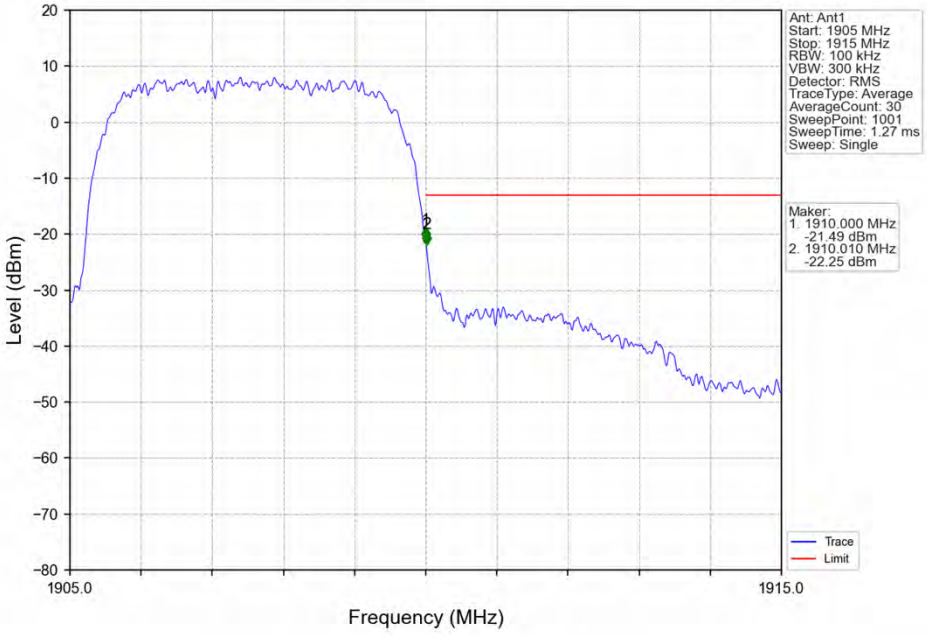

Band2_RMC_MCH_1880MHz_12.2kbps RMC_NTNV



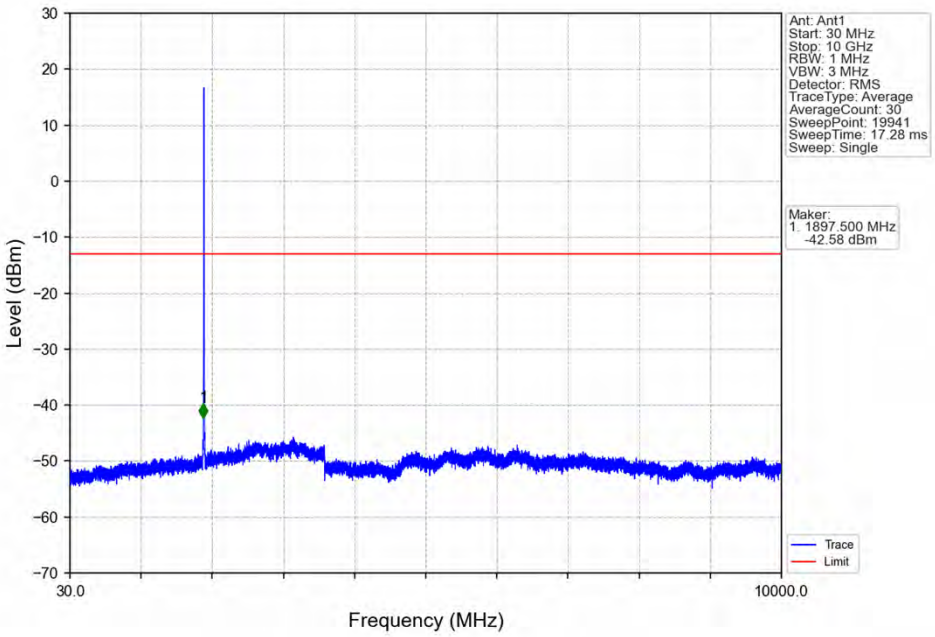
Band2_RMC_MCH_1880MHz_12.2kbps RMC_NTNV



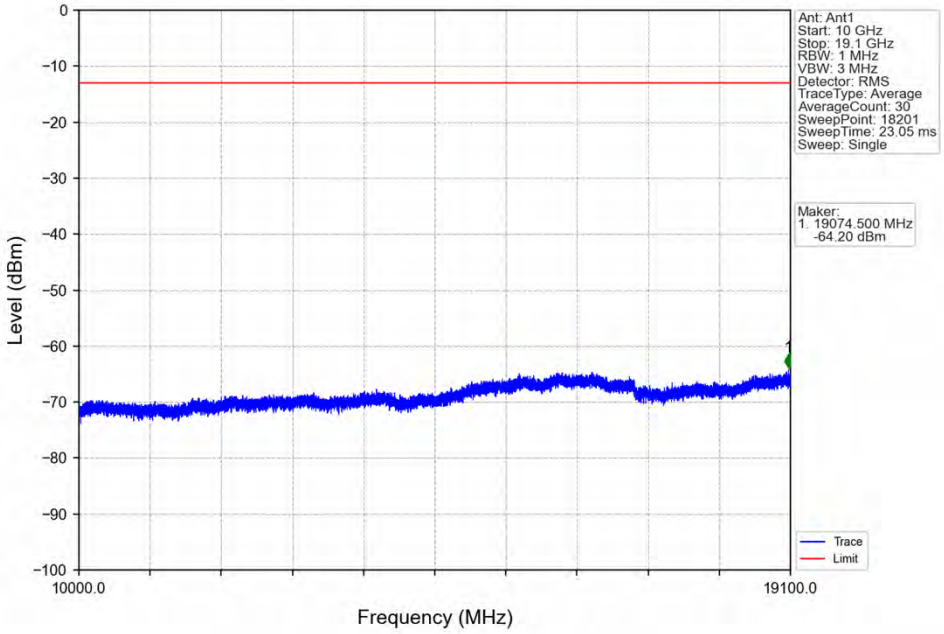

Band2_RMC_HCH_1907.6MHz_12.2kbps RMC_NTNV



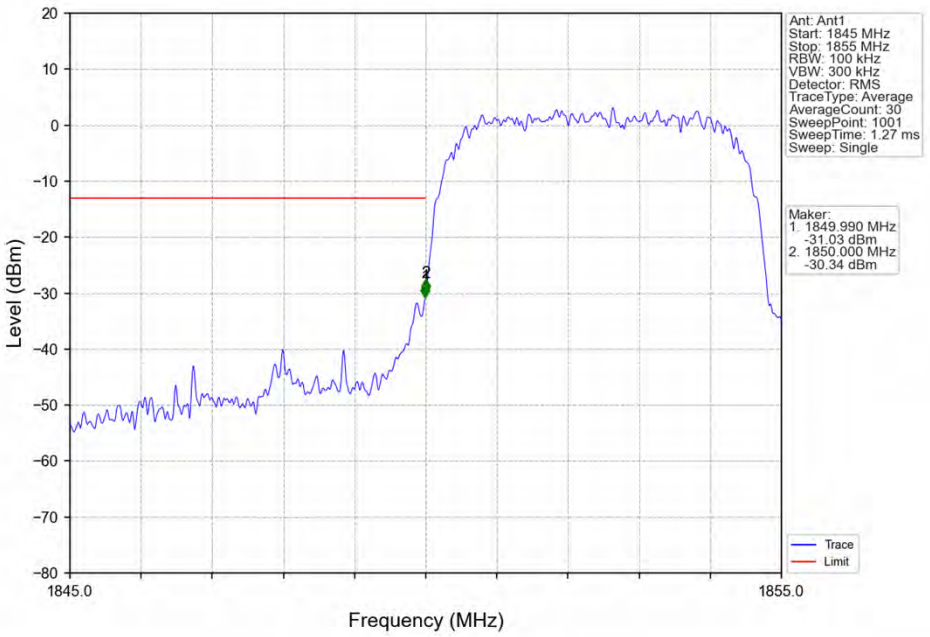
Band2_RMC_HCH_1907.6MHz_12.2kbps RMC_NTNV



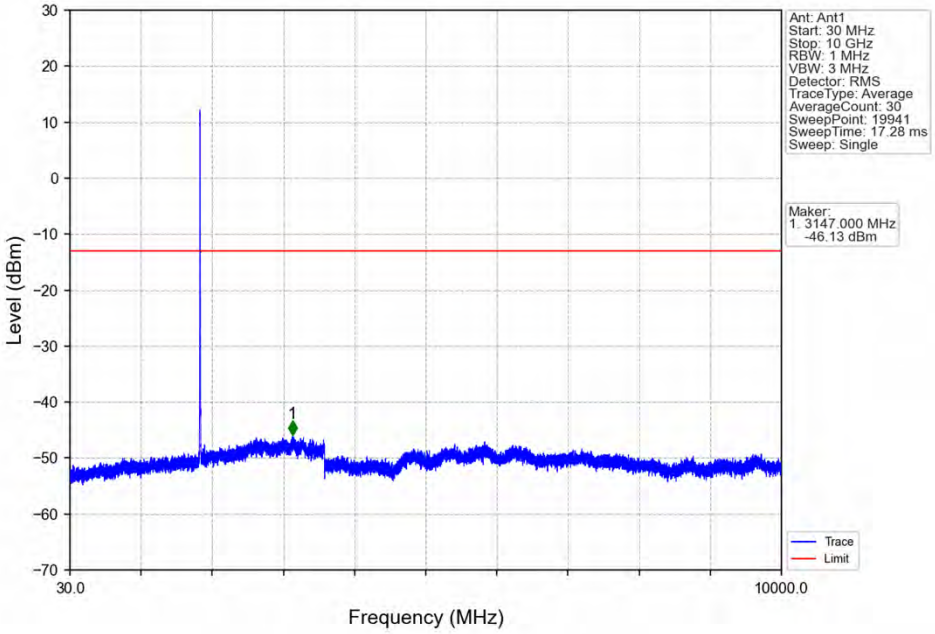

Band2_RMC_HCH_1907.6MHz_12.2kbps RMC_NTNV



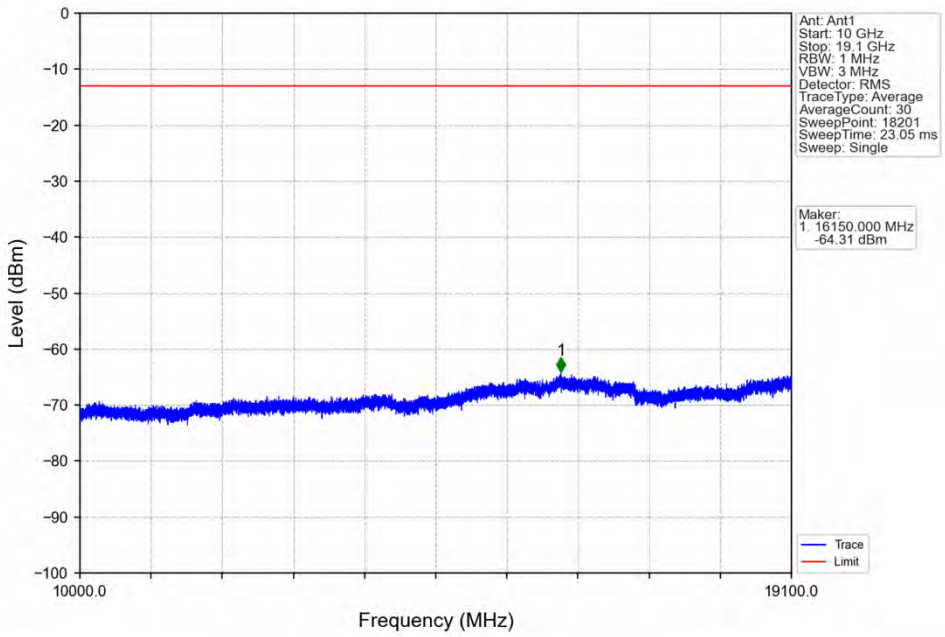
Band2_HSDPA_LCH_1852.4MHz_Subtest 1_NTNV



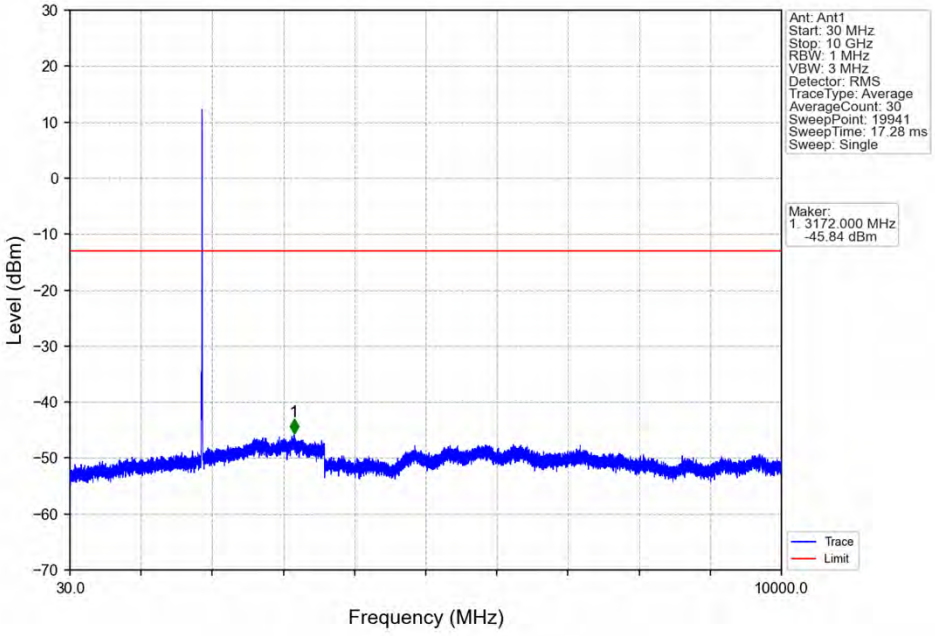

Band2_HSDPA_LCH_1852.4MHz_Subtest 1_NTNV



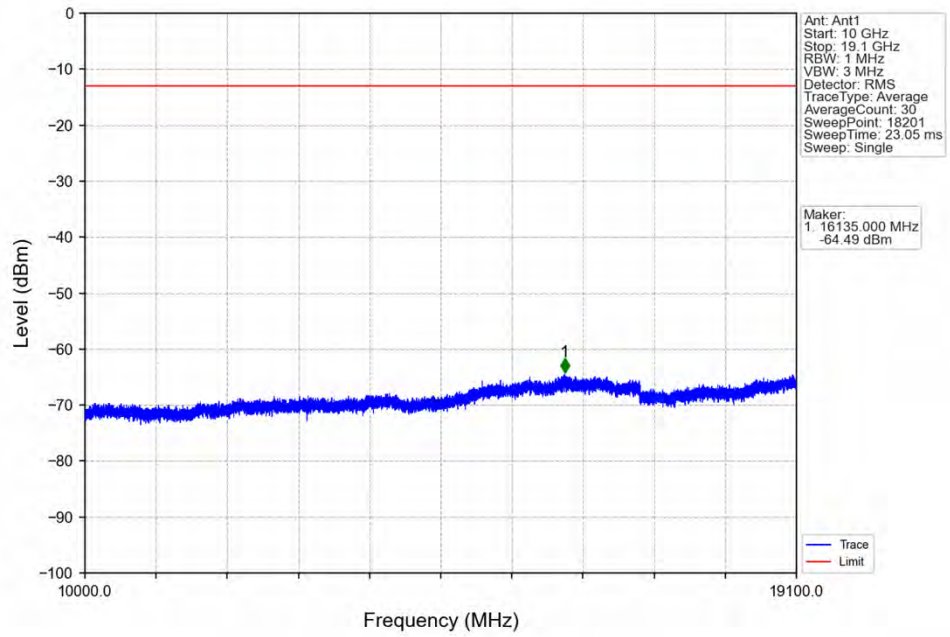
Band2_HSDPA_LCH_1852.4MHz_Subtest 1_NTNV



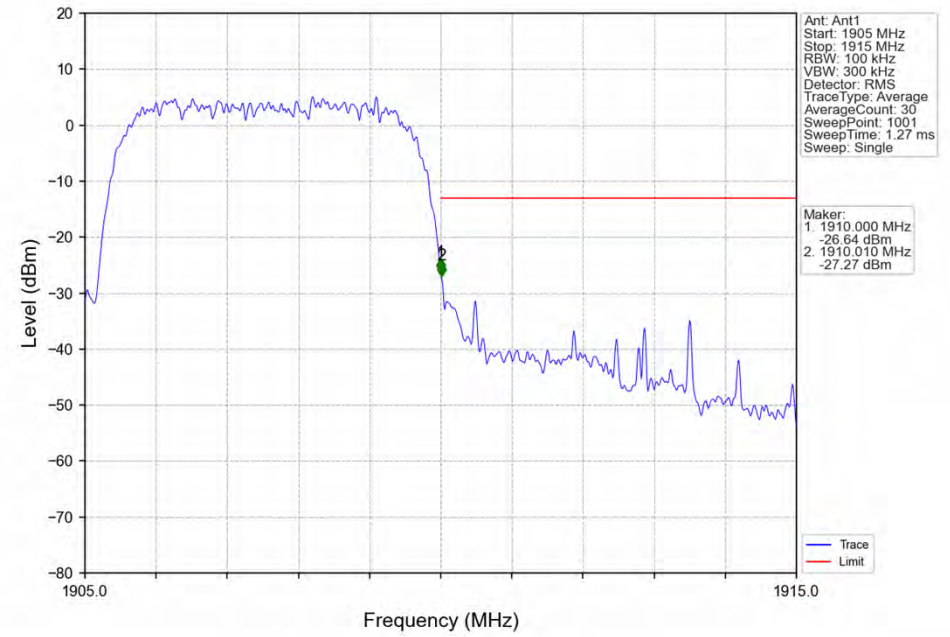

Band2_HSDPA_MCH_1880MHz_Subtest 1_NTNV



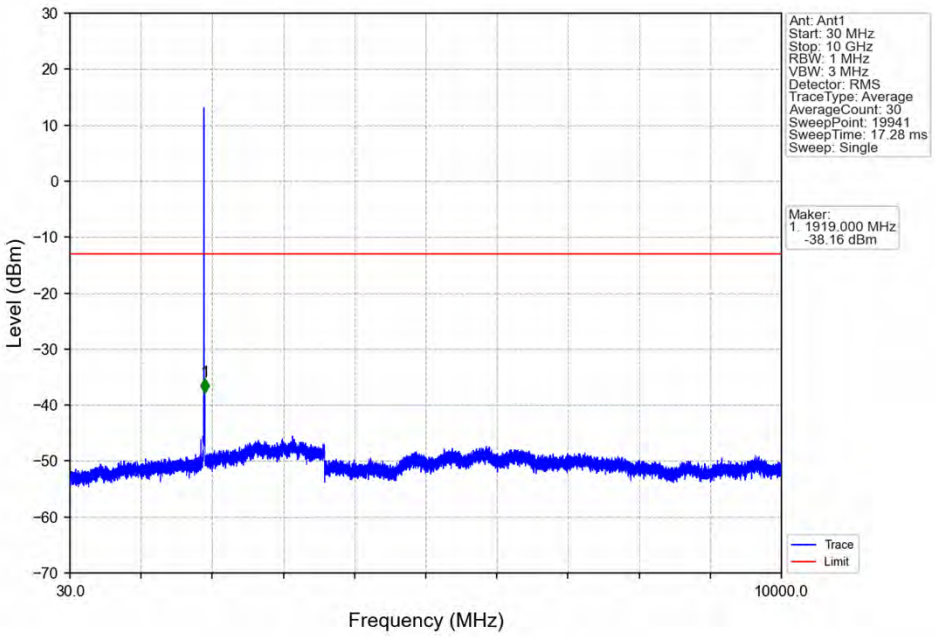
Band2_HSDPA_MCH_1880MHz_Subtest 1_NTNV



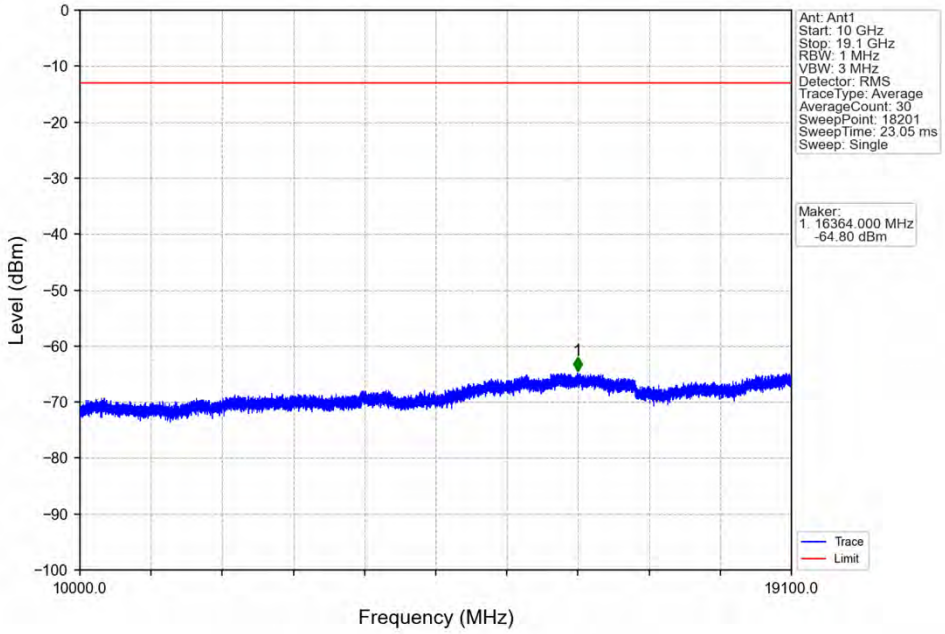

Band2_HSDPA_HCH_1907.6MHz_Subtest 1_NTNV

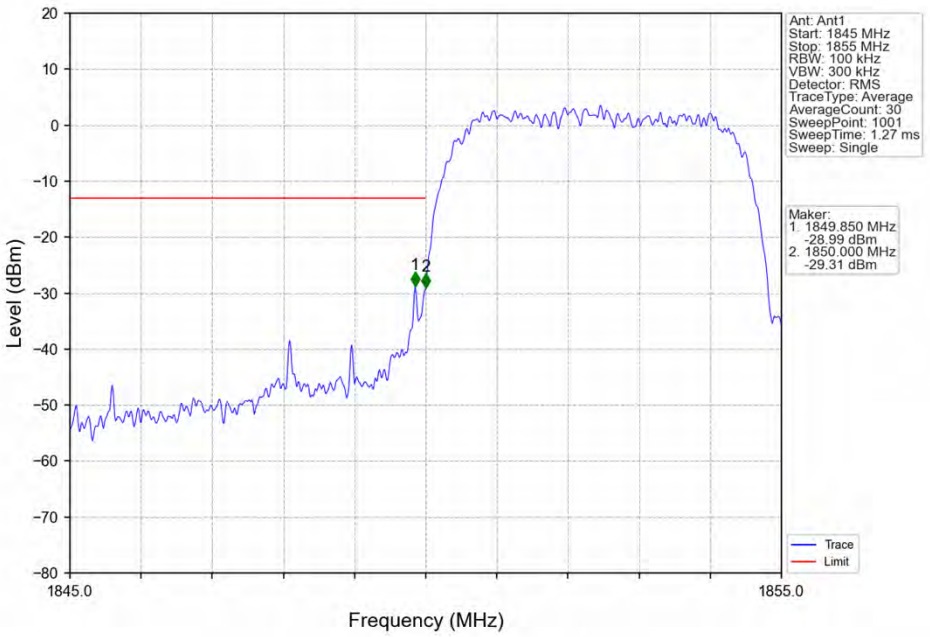


Band2_HSDPA_HCH_1907.6MHz_Subtest 1_NTNV

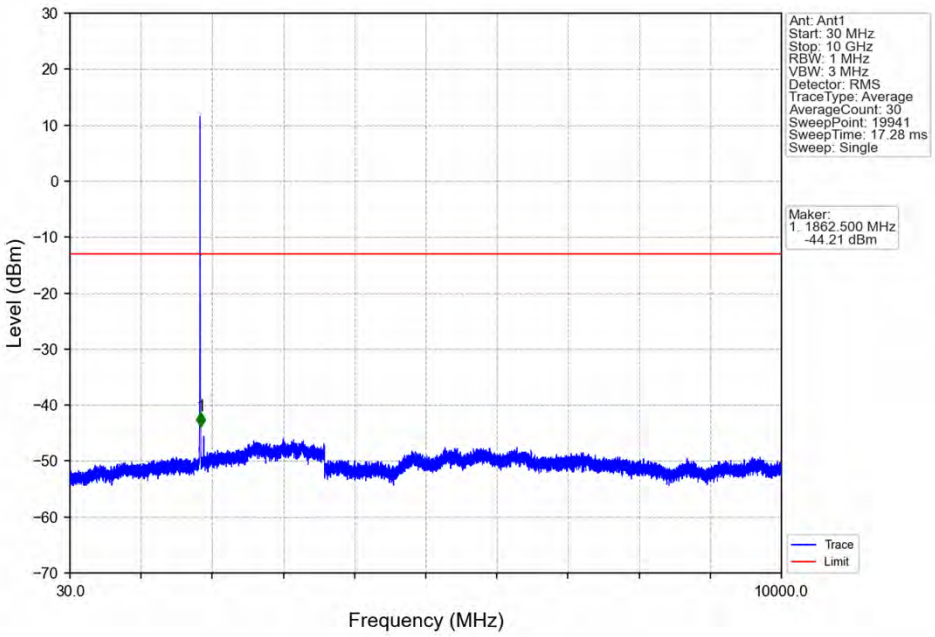



Band2_HSDPA_HCH_1907.6MHz_Subtest 1_NTNV

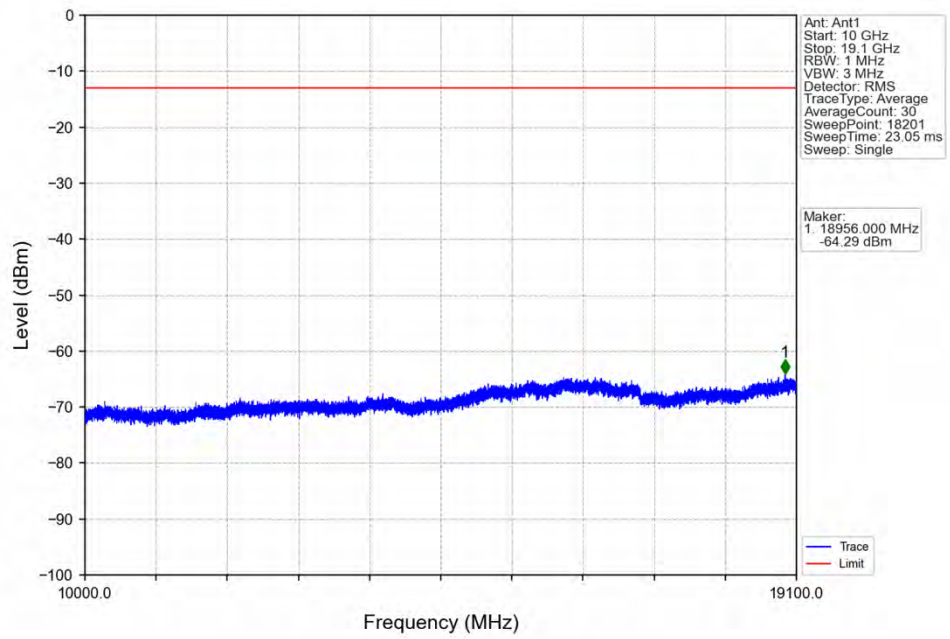


| Band2_HSUPA_LCH_1852.4MHz_Subtest 1_NTNV |
| --- |
|  |

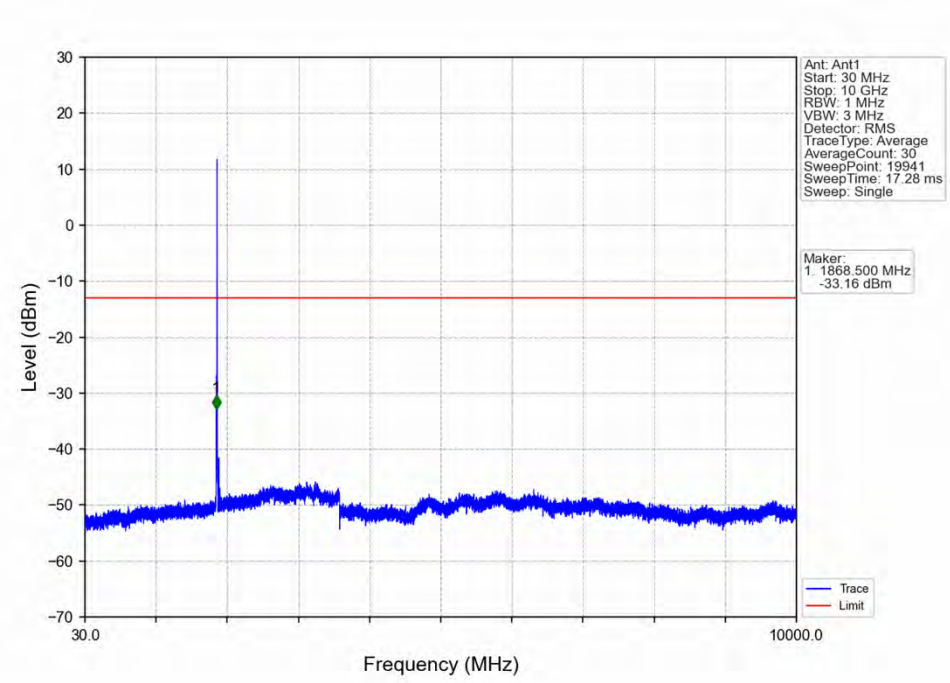


| Band2_HSUPA_LCH_1852.4MHz_Subtest 1_NTNV |
| --- |
|  |

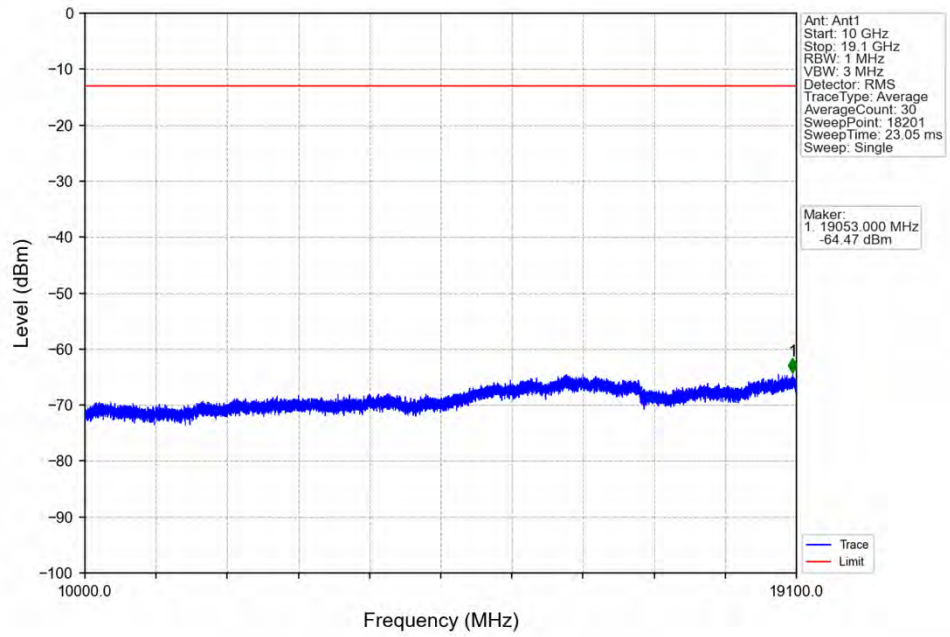
Band2_HSUPA_LCH_1852.4MHz_Subtest 1_NTNV



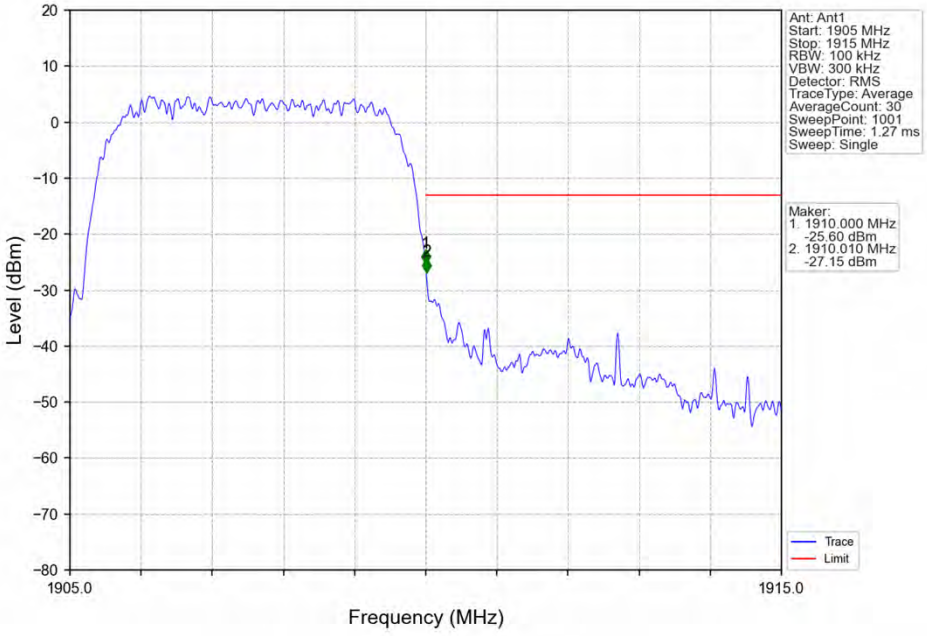

Band2_HSUPA_MCH_1880MHz_Subtest 1_NTNV



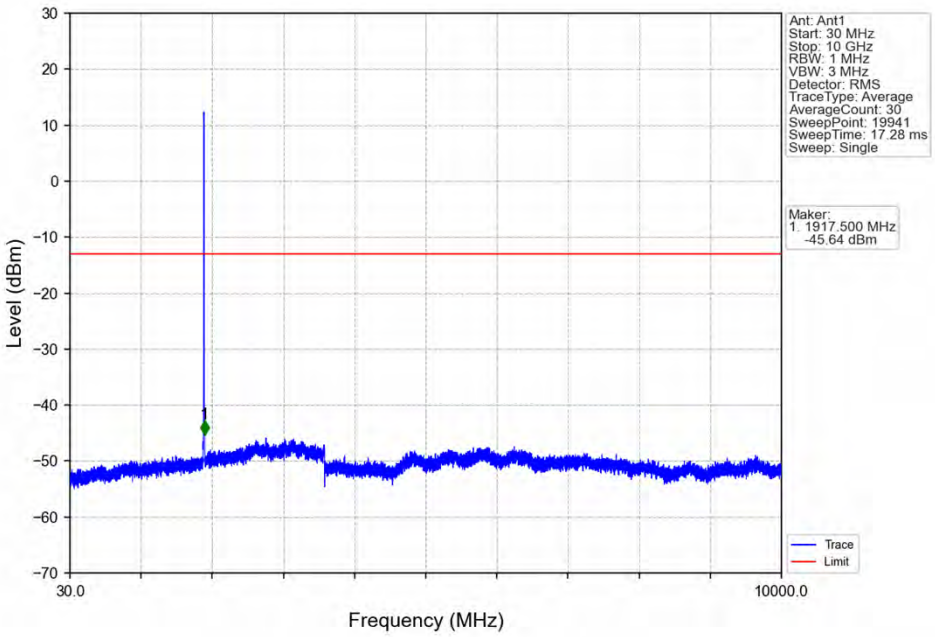
Band2_HSUPA_MCH_1880MHz_Subtest 1_NTNV



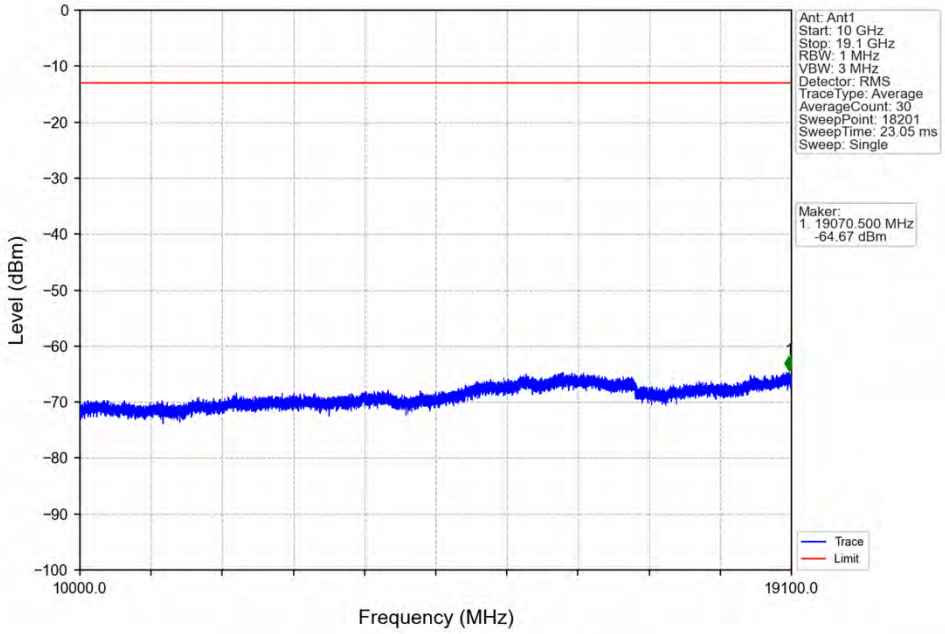

Band2_HSUPA_HCH_1907.6MHz_Subtest 1_NTNV



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 | 0.2234 | 0.0038 | ppm | 4M20F9W | 24E | 23.49 |

## 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 | 0.2410 | 0.0038 | ppm | 4M20F9W | 24E | 23.82 |