# 1. Effective (Isotropic) Radiated Power Output Data

## 1.1 Band5_ERP

### 1.1.1 Test Result

| Band: 5 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| ENV | Mode | | Frequency (MHz) | Conducted Power (dBm) | Gain (dBi) | ERP (dBm) | | Verdict |
| | Network | Subset | | | | Result | Limit | |
| NTNV | RMC | 12.2kbps RMC | 826.4 | 24.75 | 0.58 | 23.18 | <=38.45 | Pass |
| | | | 836.6 | 24.88 | 0.58 | 23.31 | <=38.45 | Pass |
| | | | 846.6 | 24.86 | 0.58 | 23.29 | <=38.45 | Pass |
| | HSDPA | Subtest 1 | 826.4 | 22.15 | 0.58 | 20.58 | <=38.45 | Pass |
| | | Subtest 2 | 826.4 | 22.16 | 0.58 | 20.59 | <=38.45 | Pass |
| | | Subtest 3 | 826.4 | 22.17 | 0.58 | 20.60 | <=38.45 | Pass |
| | | Subtest 4 | 826.4 | 22.16 | 0.58 | 20.59 | <=38.45 | Pass |
| | | Subtest 1 | 836.6 | 22.44 | 0.58 | 20.87 | <=38.45 | Pass |
| | | Subtest 2 | 836.6 | 22.44 | 0.58 | 20.87 | <=38.45 | Pass |
| | | Subtest 3 | 836.6 | 22.43 | 0.58 | 20.86 | <=38.45 | Pass |
| | | Subtest 4 | 836.6 | 22.43 | 0.58 | 20.86 | <=38.45 | Pass |
| | | Subtest 1 | 846.6 | 22.42 | 0.58 | 20.85 | <=38.45 | Pass |
| | | Subtest 2 | 846.6 | 22.44 | 0.58 | 20.87 | <=38.45 | Pass |
| | | Subtest 3 | 846.6 | 22.43 | 0.58 | 20.86 | <=38.45 | Pass |
| | | Subtest 4 | 846.6 | 22.43 | 0.58 | 20.86 | <=38.45 | Pass |
| | HSUPA | Subtest 1 | 826.4 | 19.89 | 0.58 | 18.32 | <=38.45 | Pass |
| | | Subtest 2 | 826.4 | 20.14 | 0.58 | 18.57 | <=38.45 | Pass |
| | | Subtest 3 | 826.4 | 19.89 | 0.58 | 18.32 | <=38.45 | Pass |
| | | Subtest 4 | 826.4 | 20.13 | 0.58 | 18.56 | <=38.45 | Pass |
| | | Subtest 5 | 826.4 | 19.89 | 0.58 | 18.32 | <=38.45 | Pass |
| | | Subtest 1 | 836.6 | 20.04 | 0.58 | 18.47 | <=38.45 | Pass |
| | | Subtest 2 | 836.6 | 20.58 | 0.58 | 19.01 | <=38.45 | Pass |
| | | Subtest 3 | 836.6 | 20.33 | 0.58 | 18.76 | <=38.45 | Pass |
| | | Subtest 4 | 836.6 | 20.40 | 0.58 | 18.83 | <=38.45 | Pass |
| | | Subtest 5 | 836.6 | 20.37 | 0.58 | 18.80 | <=38.45 | Pass |
| | | Subtest 1 | 846.6 | 20.56 | 0.58 | 18.99 | <=38.45 | Pass |
| | | Subtest 2 | 846.6 | 20.55 | 0.58 | 18.98 | <=38.45 | Pass |
| | | Subtest 3 | 846.6 | 20.31 | 0.58 | 18.74 | <=38.45 | Pass |
| | | Subtest 4 | 846.6 | 20.55 | 0.58 | 18.98 | <=38.45 | Pass |
| | | Subtest 5 | 846.6 | 20.54 | 0.58 | 18.97 | <=38.45 | Pass |
| Note1: ERP=Conducted Power+Antenna Gain-2.15 | | | | | | | | |

# 2. Frequency Stability

## 2.1 Band5

### 2.1.1 Test Result

| Band: 5 | | | | | | | |
|---|---|---|---|---|---|---|---|
| Network | Frequency (MHz) | Temp. (°C) | Voltage (VDC) | Freq. Error (Hz) | Freq. vs. Rated (ppm) | | Verdict |
| | | | | | Result | Limit | |
| RMC | 826.4 | 20 | 3.27 | -8.054 | -0.0097 | -2.5 to 2.5 | Pass |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | 3.85 | -9.613 | -0.0116 | -2.5 to 2.5 | Pass |
| | | | 4.43 | -12.310 | -0.0149 | -2.5 to 2.5 | Pass |
| | | -30 | 3.85 | -14.491 | -0.0175 | -2.5 to 2.5 | Pass |
| | | -20 | 3.85 | -8.612 | -0.0104 | -2.5 to 2.5 | Pass |
| | | -10 | 3.85 | -9.971 | -0.0121 | -2.5 to 2.5 | Pass |
| | | 0 | 3.85 | -12.453 | -0.0151 | -2.5 to 2.5 | Pass |
| | | 10 | 3.85 | -14.105 | -0.0171 | -2.5 to 2.5 | Pass |
| | | 30 | 3.85 | -16.472 | -0.0199 | -2.5 to 2.5 | Pass |
| | | 40 | 3.85 | -8.225 | -0.0100 | -2.5 to 2.5 | Pass |
| | | 50 | 3.85 | -10.536 | -0.0127 | -2.5 to 2.5 | Pass |
| | 836.6 | 20 | 3.27 | -14.091 | -0.0168 | -2.5 to 2.5 | Pass |
| | | | 3.85 | -6.852 | -0.0082 | -2.5 to 2.5 | Pass |
| | | | 4.43 | -9.270 | -0.0111 | -2.5 to 2.5 | Pass |
| | | -30 | 3.85 | -13.175 | -0.0157 | -2.5 to 2.5 | Pass |
| | | -20 | 3.85 | -8.748 | -0.0105 | -2.5 to 2.5 | Pass |
| | | -10 | 3.85 | -11.644 | -0.0139 | -2.5 to 2.5 | Pass |
| | | 0 | 3.85 | -15.271 | -0.0183 | -2.5 to 2.5 | Pass |
| | | 10 | 3.85 | -8.905 | -0.0106 | -2.5 to 2.5 | Pass |
| | | 30 | 3.85 | -13.447 | -0.0161 | -2.5 to 2.5 | Pass |
| | | 40 | 3.85 | -7.625 | -0.0091 | -2.5 to 2.5 | Pass |
| | | 50 | 3.85 | -12.732 | -0.0152 | -2.5 to 2.5 | Pass |
| | 846.6 | 20 | 3.27 | -8.419 | -0.0099 | -2.5 to 2.5 | Pass |
| | | | 3.85 | -13.440 | -0.0159 | -2.5 to 2.5 | Pass |
| | | | 4.43 | -10.750 | -0.0127 | -2.5 to 2.5 | Pass |
| | | -30 | 3.85 | -11.387 | -0.0135 | -2.5 to 2.5 | Pass |
| | | -20 | 3.85 | -10.815 | -0.0128 | -2.5 to 2.5 | Pass |
| | | -10 | 3.85 | -8.819 | -0.0104 | -2.5 to 2.5 | Pass |
| | | 0 | 3.85 | -9.363 | -0.0111 | -2.5 to 2.5 | Pass |
| | | 10 | 3.85 | -6.859 | -0.0081 | -2.5 to 2.5 | Pass |
| | | 30 | 3.85 | -11.845 | -0.0140 | -2.5 to 2.5 | Pass |
| | | 40 | 3.85 | -7.088 | -0.0084 | -2.5 to 2.5 | Pass |
| | | 50 | 3.85 | -11.494 | -0.0136 | -2.5 to 2.5 | Pass |
| HSDPA | 826.4 | 20 | 3.27 | -13.912 | -0.0168 | -2.5 to 2.5 | Pass |
| | | | 3.85 | -7.410 | -0.0090 | -2.5 to 2.5 | Pass |
| | | | 4.43 | -10.350 | -0.0125 | -2.5 to 2.5 | Pass |
| | | -30 | 3.85 | -13.304 | -0.0161 | -2.5 to 2.5 | Pass |
| | | -20 | 3.85 | -14.355 | -0.0174 | -2.5 to 2.5 | Pass |
| | | -10 | 3.85 | -9.856 | -0.0119 | -2.5 to 2.5 | Pass |
| | | 0 | 3.85 | -11.415 | -0.0138 | -2.5 to 2.5 | Pass |
| | | 10 | 3.85 | -14.892 | -0.0180 | -2.5 to 2.5 | Pass |
| | | 30 | 3.85 | -16.572 | -0.0201 | -2.5 to 2.5 | Pass |
| | | 40 | 3.85 | -16.358 | -0.0198 | -2.5 to 2.5 | Pass |
| | | 50 | 3.85 | -16.472 | -0.0199 | -2.5 to 2.5 | Pass |
| | 836.6 | 20 | 3.27 | -10.135 | -0.0121 | -2.5 to 2.5 | Pass |
| | | | 3.85 | -10.850 | -0.0130 | -2.5 to 2.5 | Pass |
| | | | 4.43 | -11.315 | -0.0135 | -2.5 to 2.5 | Pass |
| | | -30 | 3.85 | -11.330 | -0.0135 | -2.5 to 2.5 | Pass |
| | | -20 | 3.85 | -10.643 | -0.0127 | -2.5 to 2.5 | Pass |
| | | -10 | 3.85 | -9.291 | -0.0111 | -2.5 to 2.5 | Pass |
| | | 0 | 3.85 | -9.720 | -0.0116 | -2.5 to 2.5 | Pass |
| | | 10 | 3.85 | -11.237 | -0.0134 | -2.5 to 2.5 | Pass |
| | | 30 | 3.85 | -10.006 | -0.0120 | -2.5 to 2.5 | Pass |
| | | 40 | 3.85 | -9.005 | -0.0108 | -2.5 to 2.5 | Pass |
| | | 50 | 3.85 | -7.217 | -0.0086 | -2.5 to 2.5 | Pass |
| | 846.6 | 20 | 3.27 | -8.483 | -0.0100 | -2.5 to 2.5 | Pass |
| | | | 3.85 | -10.915 | -0.0129 | -2.5 to 2.5 | Pass |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | 4.43 | -10.450 | -0.0123 | -2.5 to 2.5 | Pass |
| | | -30 | 3.85 | -10.428 | -0.0123 | -2.5 to 2.5 | Pass |
| | | -20 | 3.85 | -9.556 | -0.0113 | -2.5 to 2.5 | Pass |
| | | -10 | 3.85 | -8.719 | -0.0103 | -2.5 to 2.5 | Pass |
| | | 0 | 3.85 | -16.065 | -0.0190 | -2.5 to 2.5 | Pass |
| | | 10 | 3.85 | -15.600 | -0.0184 | -2.5 to 2.5 | Pass |
| | | 30 | 3.85 | -7.832 | -0.0093 | -2.5 to 2.5 | Pass |
| | | 40 | 3.85 | -9.484 | -0.0112 | -2.5 to 2.5 | Pass |
| | | 50 | 3.85 | -10.686 | -0.0126 | -2.5 to 2.5 | Pass |
| HSUPA | 826.4 | 20 | 3.27 | -8.383 | -0.0101 | -2.5 to 2.5 | Pass |
| | | | 3.85 | -7.453 | -0.0090 | -2.5 to 2.5 | Pass |
| | | | 4.43 | -9.127 | -0.0110 | -2.5 to 2.5 | Pass |
| | | -30 | 3.85 | -12.653 | -0.0153 | -2.5 to 2.5 | Pass |
| | | -20 | 3.85 | -3.726 | -0.0045 | -2.5 to 2.5 | Pass |
| | | -10 | 3.85 | -2.439 | -0.0030 | -2.5 to 2.5 | Pass |
| | | 0 | 3.85 | -4.249 | -0.0051 | -2.5 to 2.5 | Pass |
| | | 10 | 3.85 | -3.176 | -0.0038 | -2.5 to 2.5 | Pass |
| | | 30 | 3.85 | -4.535 | -0.0055 | -2.5 to 2.5 | Pass |
| | | 40 | 3.85 | -3.004 | -0.0036 | -2.5 to 2.5 | Pass |
| | | 50 | 3.85 | -4.907 | -0.0059 | -2.5 to 2.5 | Pass |
| | 836.6 | 20 | 3.27 | -11.508 | -0.0138 | -2.5 to 2.5 | Pass |
| | | | 3.85 | -6.065 | -0.0072 | -2.5 to 2.5 | Pass |
| | | | 4.43 | -8.719 | -0.0104 | -2.5 to 2.5 | Pass |
| | | -30 | 3.85 | -8.740 | -0.0104 | -2.5 to 2.5 | Pass |
| | | -20 | 3.85 | -10.421 | -0.0125 | -2.5 to 2.5 | Pass |
| | | -10 | 3.85 | -10.135 | -0.0121 | -2.5 to 2.5 | Pass |
| | | 0 | 3.85 | -10.064 | -0.0120 | -2.5 to 2.5 | Pass |
| | | 10 | 3.85 | -10.486 | -0.0125 | -2.5 to 2.5 | Pass |
| | | 30 | 3.85 | -10.500 | -0.0126 | -2.5 to 2.5 | Pass |
| | | 40 | 3.85 | -11.737 | -0.0140 | -2.5 to 2.5 | Pass |
| | | 50 | 3.85 | -11.394 | -0.0136 | -2.5 to 2.5 | Pass |
| | 846.6 | 20 | 3.27 | -3.884 | -0.0046 | -2.5 to 2.5 | Pass |
| | | | 3.85 | -3.526 | -0.0042 | -2.5 to 2.5 | Pass |
| | | | 4.43 | -2.804 | -0.0033 | -2.5 to 2.5 | Pass |
| | | -30 | 3.85 | -4.985 | -0.0059 | -2.5 to 2.5 | Pass |
| | | -20 | 3.85 | -5.693 | -0.0067 | -2.5 to 2.5 | Pass |
| | | -10 | 3.85 | -7.753 | -0.0092 | -2.5 to 2.5 | Pass |
| | | 0 | 3.85 | -10.357 | -0.0122 | -2.5 to 2.5 | Pass |
| | | 10 | 3.85 | -8.669 | -0.0102 | -2.5 to 2.5 | Pass |
| | | 30 | 3.85 | -8.276 | -0.0098 | -2.5 to 2.5 | Pass |
| | | 40 | 3.85 | -9.942 | -0.0117 | -2.5 to 2.5 | Pass |
| | | 50 | 3.85 | -1.466 | -0.0017 | -2.5 to 2.5 | Pass |

# 3. Modulation Characteristics

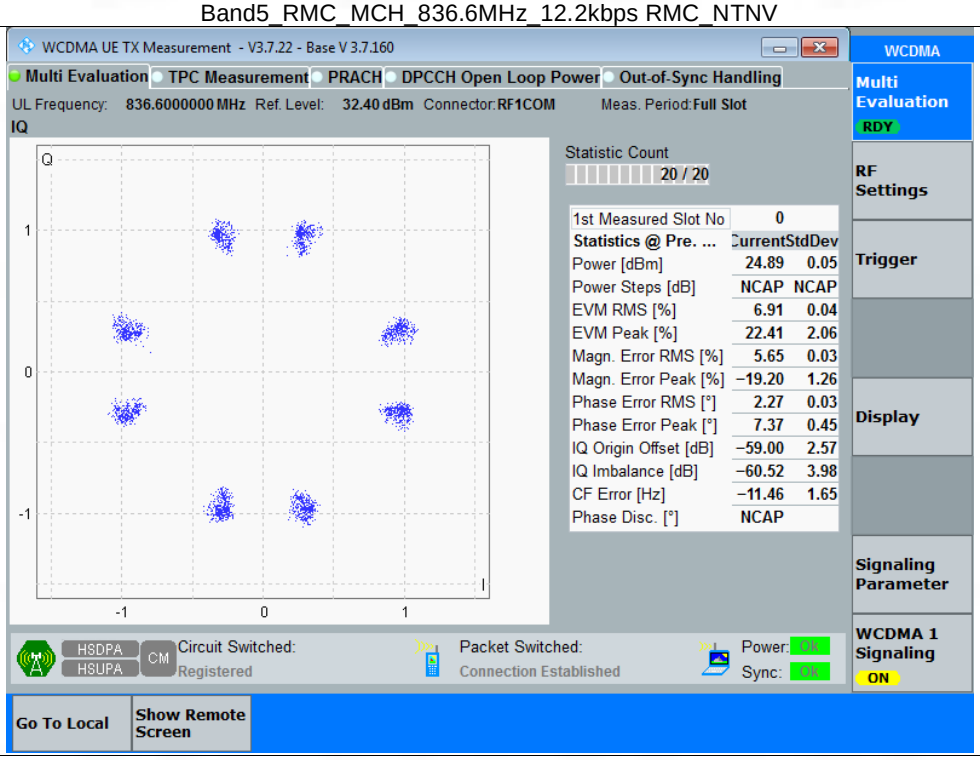
## 3.1 Band5

### 3.1.1 Test Result

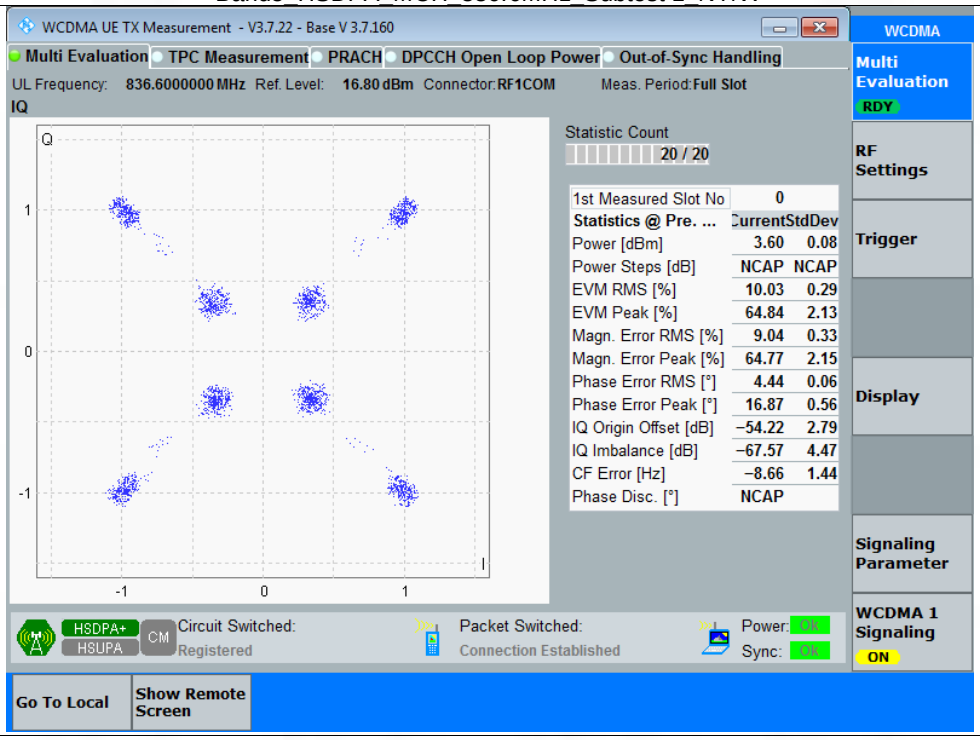
| Band: 5 | | | | | | |
|---|---|---|---|---|---|---|
| ENV | Mode | | Frequency (MHz) | Modulation Characteristics | | Verdict |
| | Network | Subset | | Result | Limit | |
| NTNV | RMC | 12.2kbps RMC | 836.6 | Refer To Test Graph | | Pass |
| | HSDPA | Subtest 1 | 836.6 | Refer To Test Graph | | Pass |
| | HSUPA | Subtest 1 | 836.6 | Refer To Test Graph | | Pass |

### 3.1.2 Test Graph

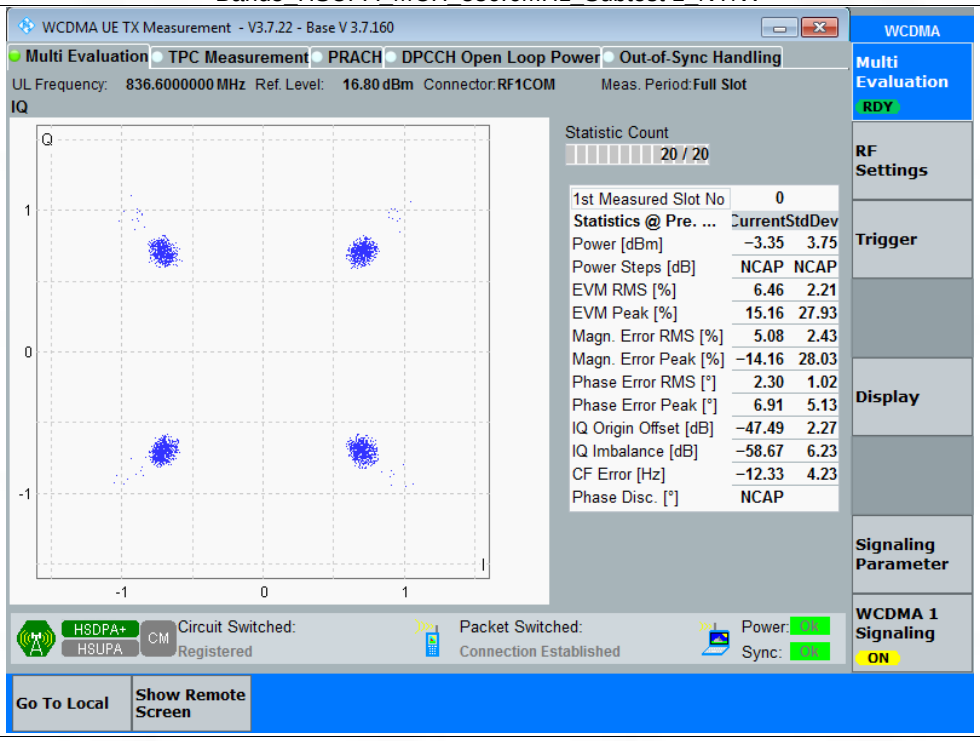
Band5_RMC_MCH_836.6MHz_12.2kbps RMC_NTNV




Band5_HSDPA_MCH_836.6MHz_Subtest 1_NTNV



Band5_HSUPA_MCH_836.6MHz_Subtest 1_NTNV



# 4. 99% & 26dB Bandwidth

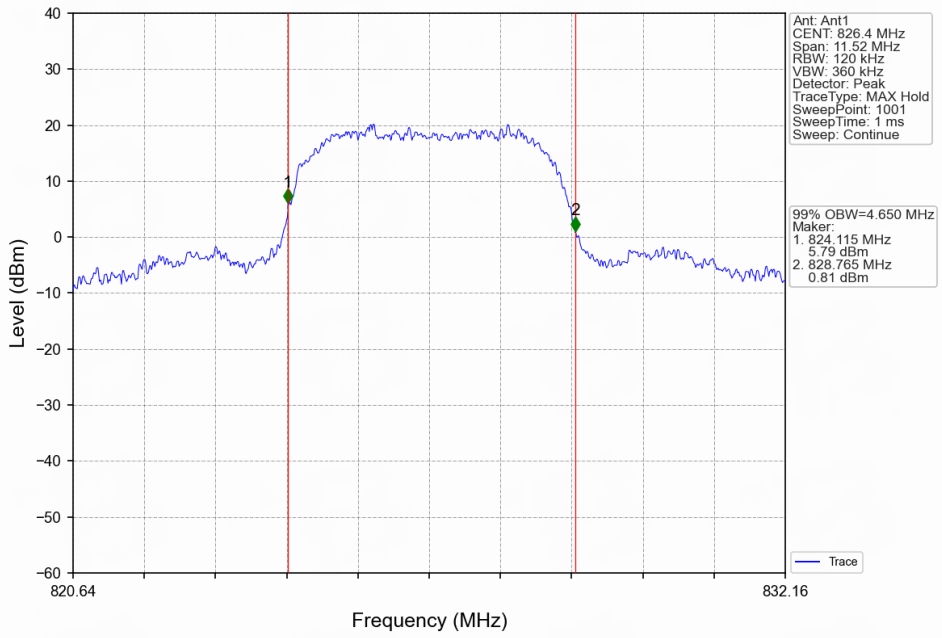
## 4.1 Band5_OBW

### 4.1.1 Test Result

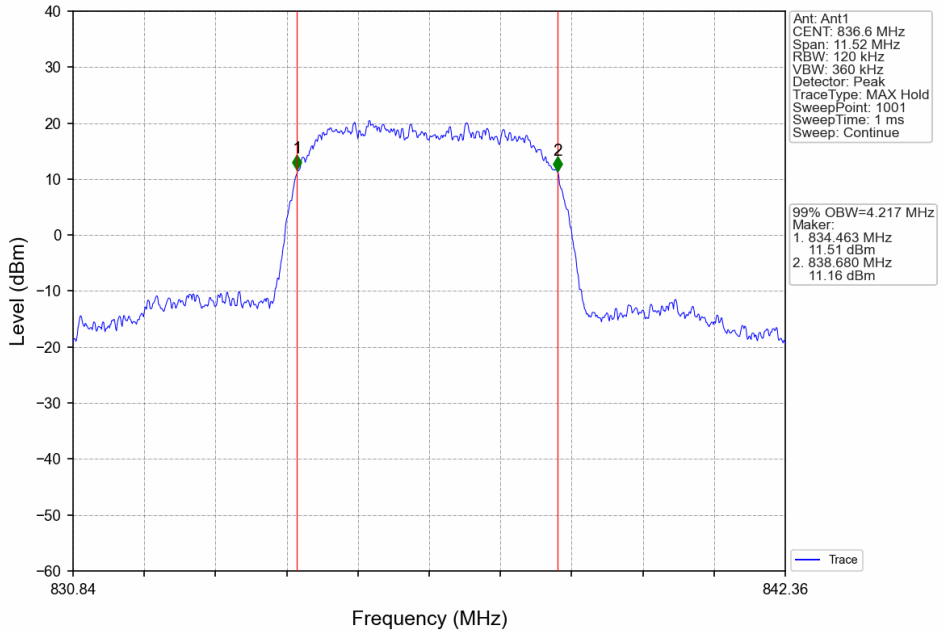
| Band: 5 | | | | | |
|---|---|---|---|---|---|
| ENV | Mode | | Frequency (MHz) | 99% Occupied Bandwidth (MHz) | Verdict |
| | Network | Subset | | Result | |
| NTNV | RMC | 12.2kbps RMC | 826.4 | 4.650 | Pass |
| | | | 836.6 | 4.217 | Pass |
| | | | 846.6 | 4.232 | Pass |
| | HSDPA | Subtest 1 | 826.4 | 4.291 | Pass |
| | | | 836.6 | 4.191 | Pass |
| | | | 846.6 | 4.170 | Pass |
| | HSUPA | Subtest 1 | 826.4 | 4.296 | Pass |
| | | | 836.6 | 4.194 | Pass |
| | | | 846.6 | 4.173 | Pass |

## 4.1.2 Test Graph

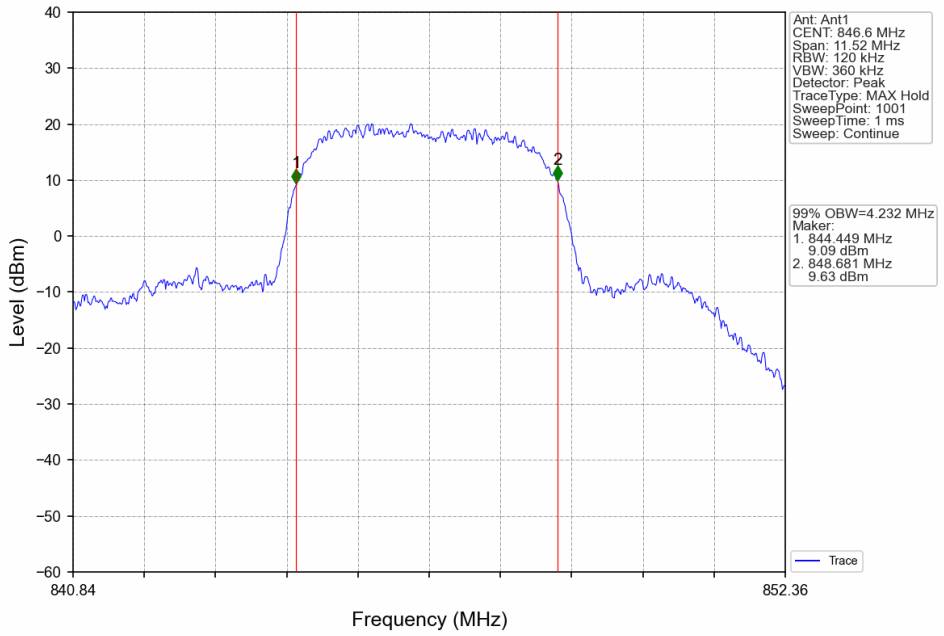
Band5_RMC_LCH_826.4MHz_12.2kbps RMC_NTNV



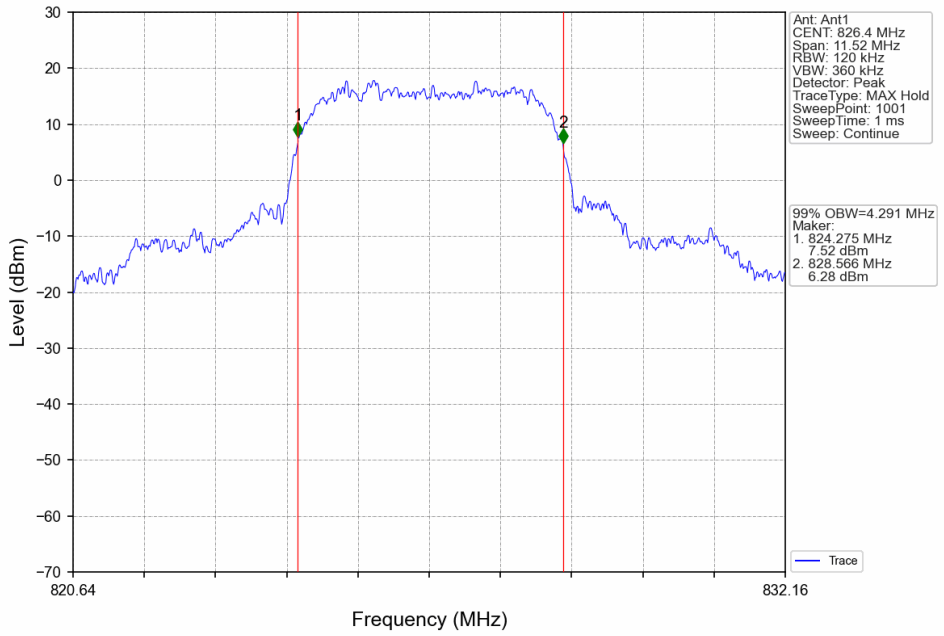

Band5_RMC_MCH_836.6MHz_12.2kbps RMC_NTNV



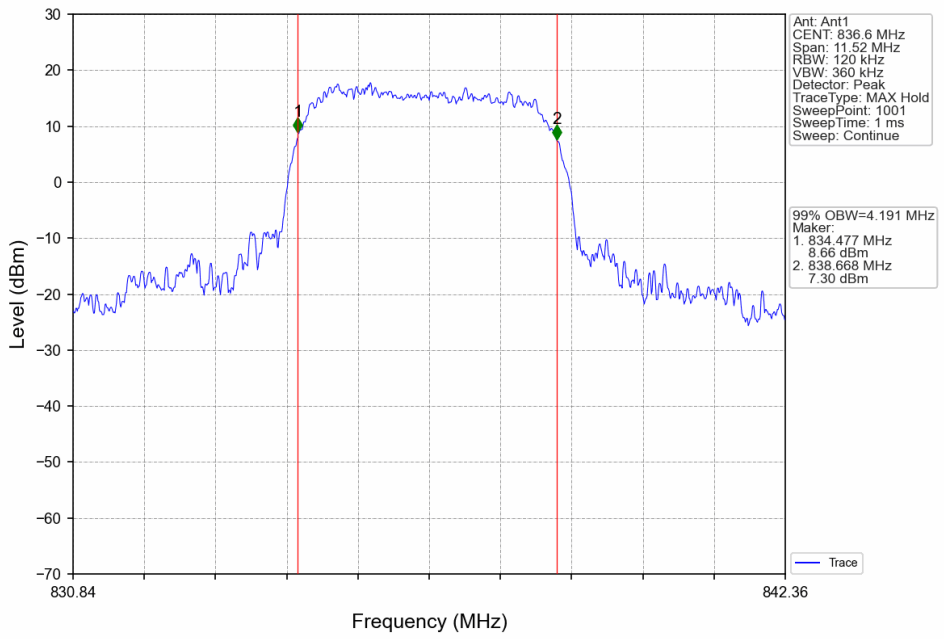

Band5_RMC_HCH_846.6MHz_12.2kbps RMC_NTNV



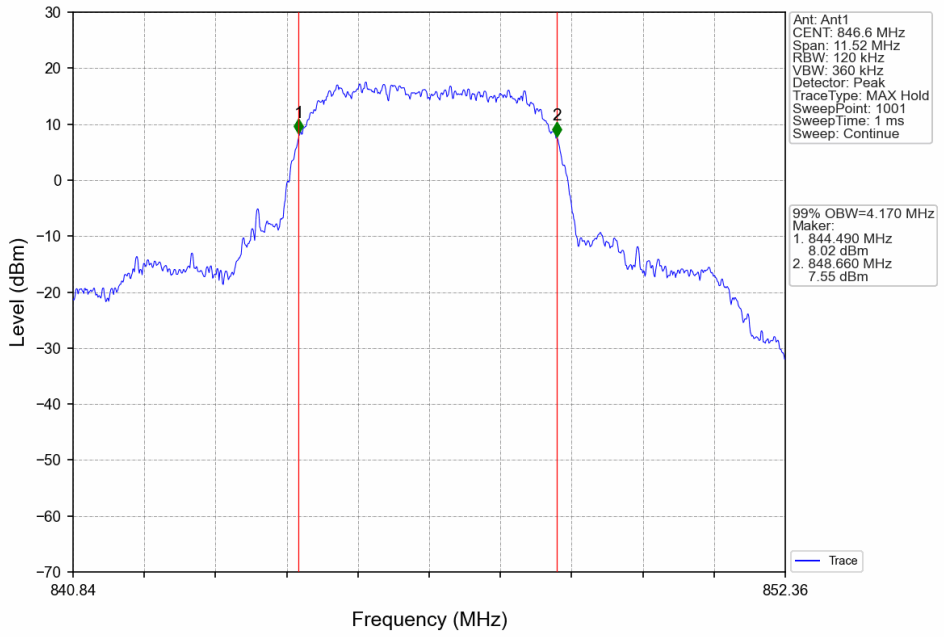

Band5_HSDPA_LCH_826.4MHz_Subtest 1_NTNV



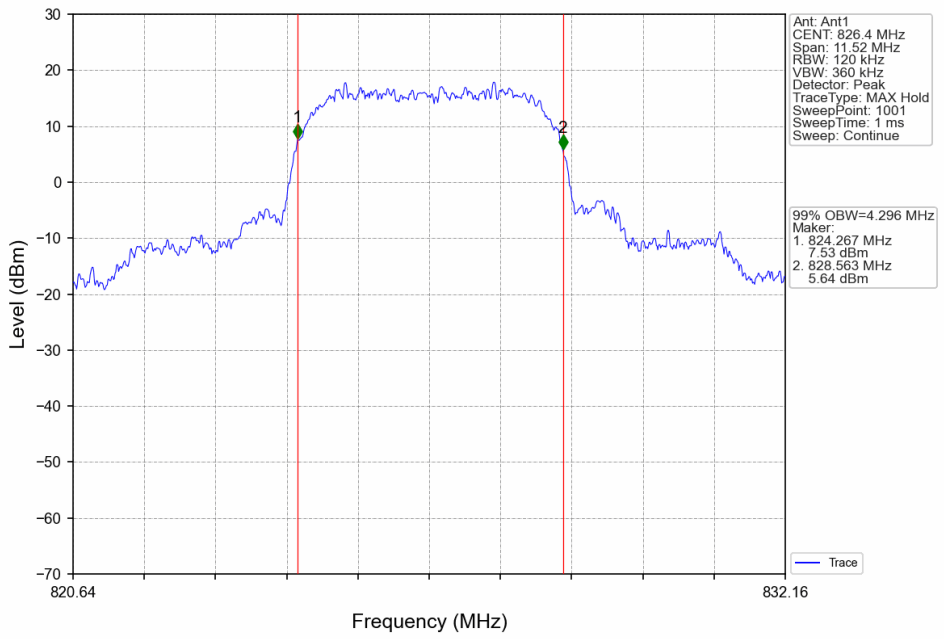
Band5_HSDPA_MCH_836.6MHz_Subtest 1_NTNV



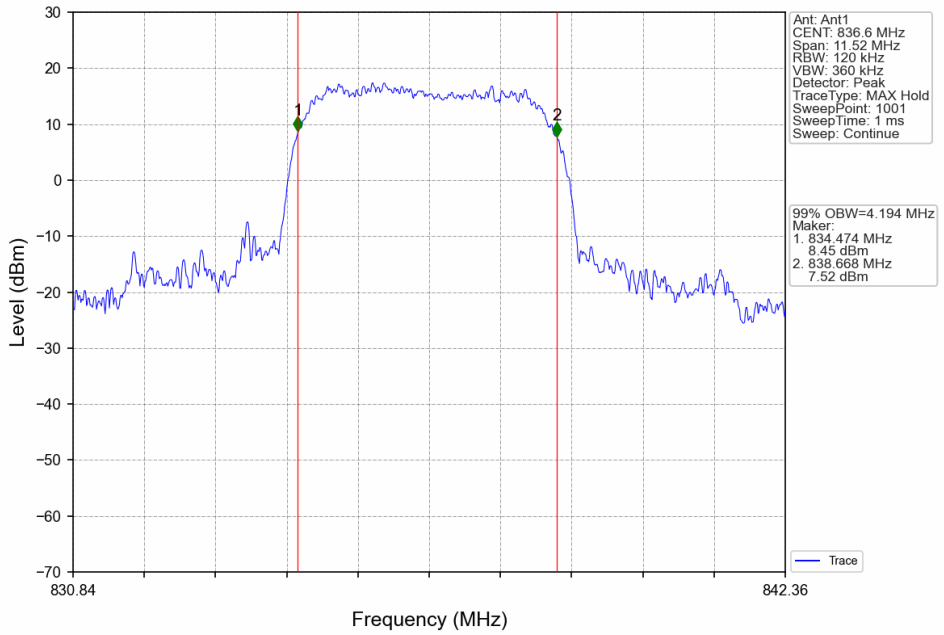

Band5_HSDPA_HCH_846.6MHz_Subtest 1_NTNV



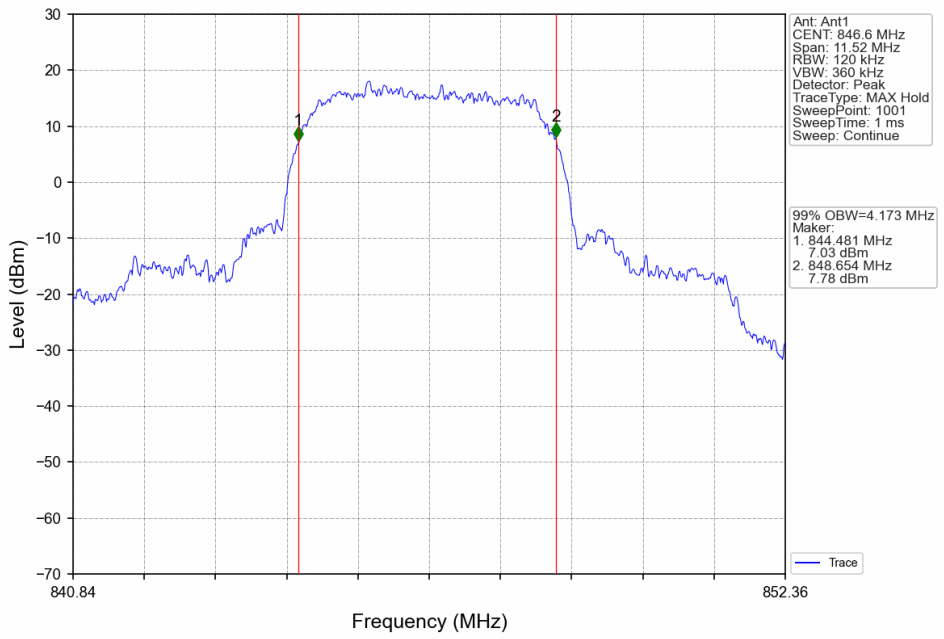
Band5_HSUPA_LCH_826.4MHz_Subtest 1_NTNV




Band5_HSUPA_MCH_836.6MHz_Subtest 1_NTNV



Band5_HSUPA_HCH_846.6MHz_Subtest 1_NTNV



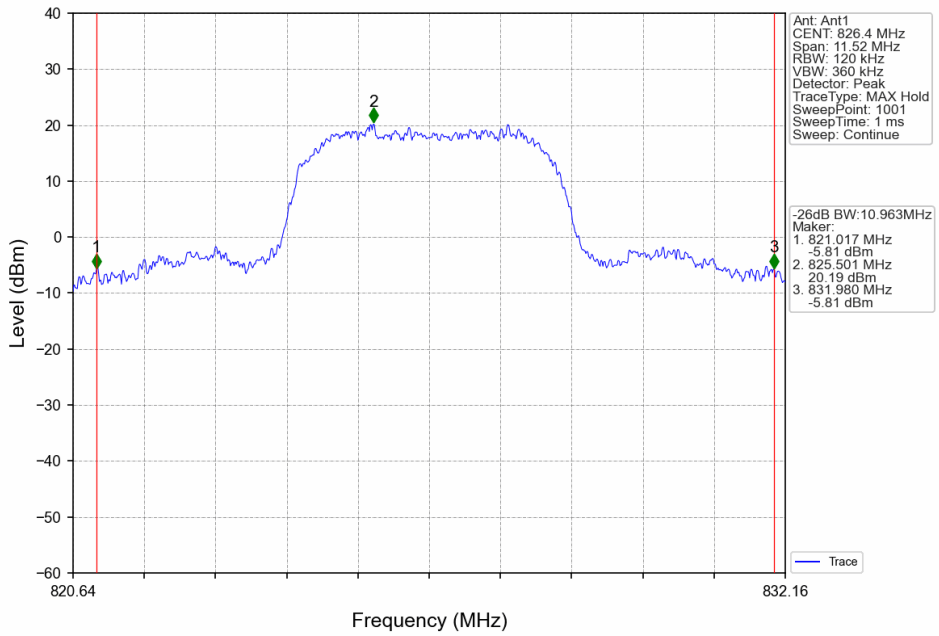
## 4.2 Band5_XDB

### 4.2.1 Test Result

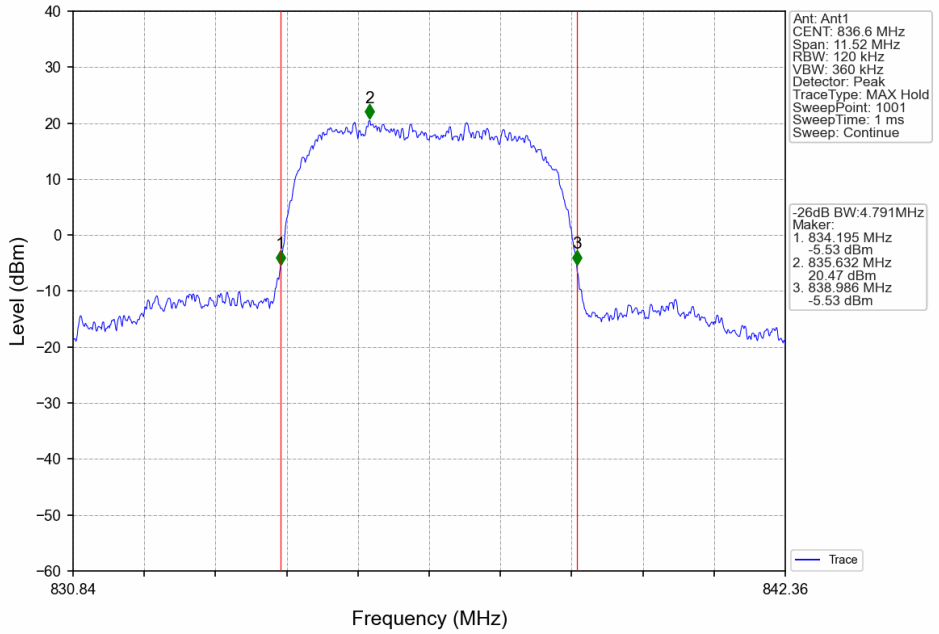
| Band: 5 | | | | | |
|---|---|---|---|---|---|
| ENV | Mode | | Frequency (MHz) | 26dB Bandwidth (MHz) | Verdict |
| | Network | Subset | | Result | |
| NTNV | RMC | 12.2kbps RMC | 826.4 | 10.963 | Pass |
| | | | 836.6 | 4.791 | Pass |
| | | | 846.6 | 6.224 | Pass |
| | HSDPA | Subtest 1 | 826.4 | 6.222 | Pass |
| | | | 836.6 | 4.738 | Pass |
| | | | 846.6 | 5.172 | Pass |
| | HSUPA | Subtest 1 | 826.4 | 6.129 | Pass |
| | | | 836.6 | 5.322 | Pass |
| | | | 846.6 | 5.008 | Pass |

## 4.2.2 Test Graph

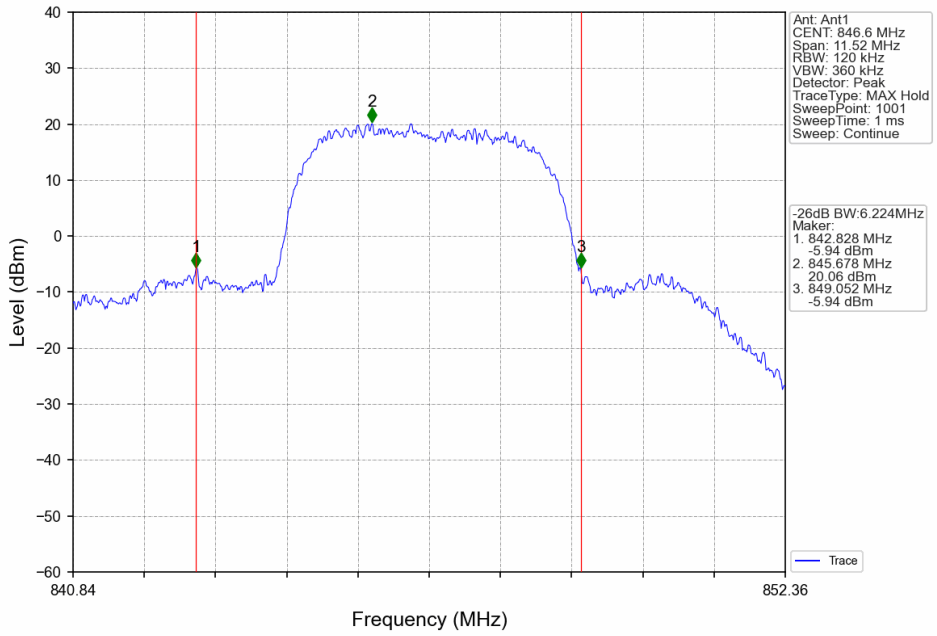
Band5_RMC_LCH_826.4MHz_12.2kbps RMC_NTNV



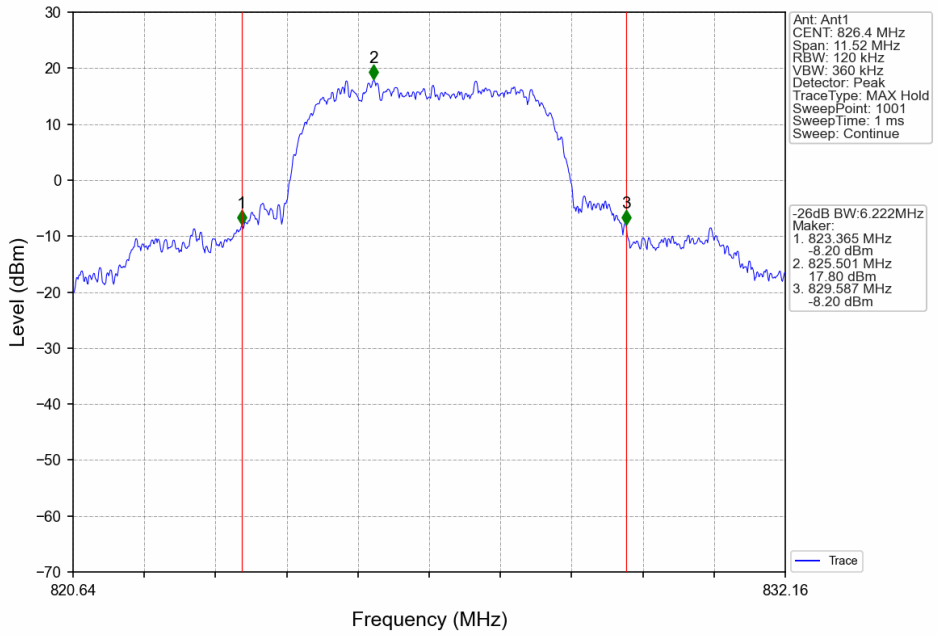

Band5_RMC_MCH_836.6MHz_12.2kbps RMC_NTNV



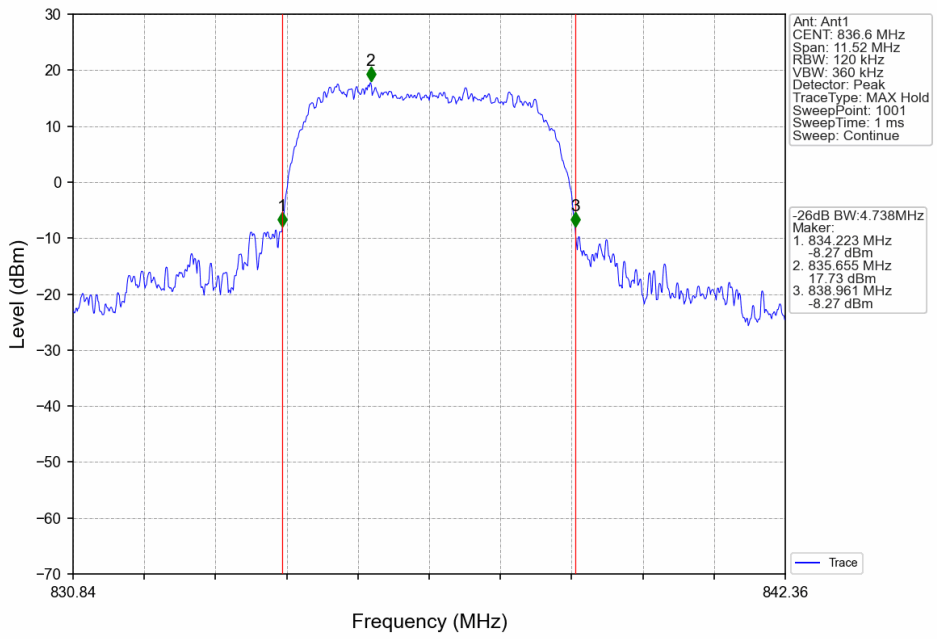

Band5_RMC_HCH_846.6MHz_12.2kbps RMC_NTNV



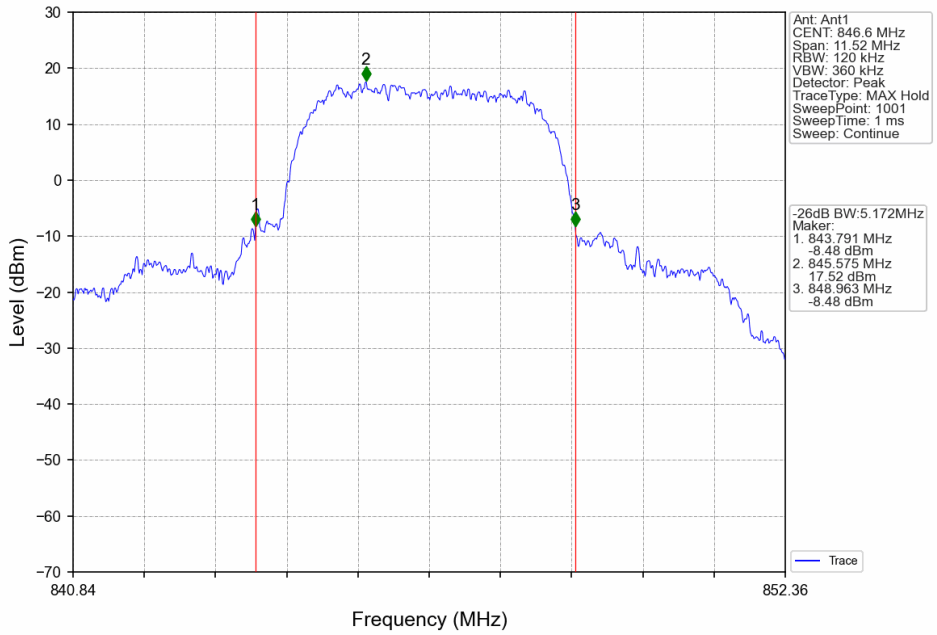

Band5_HSDPA_LCH_826.4MHz_Subtest 1_NTNV



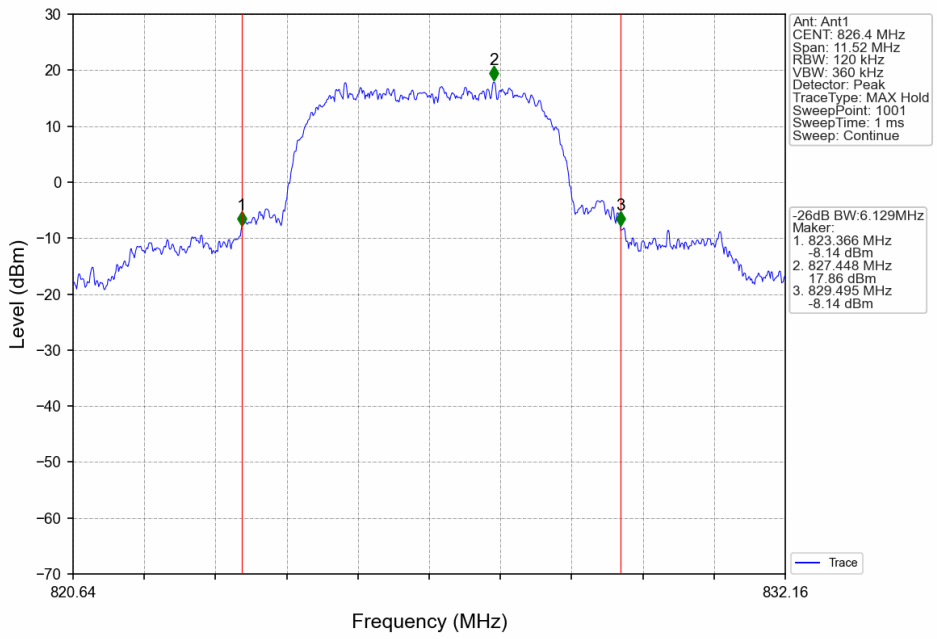
Band5_HSDPA_MCH_836.6MHz_Subtest 1_NTNV



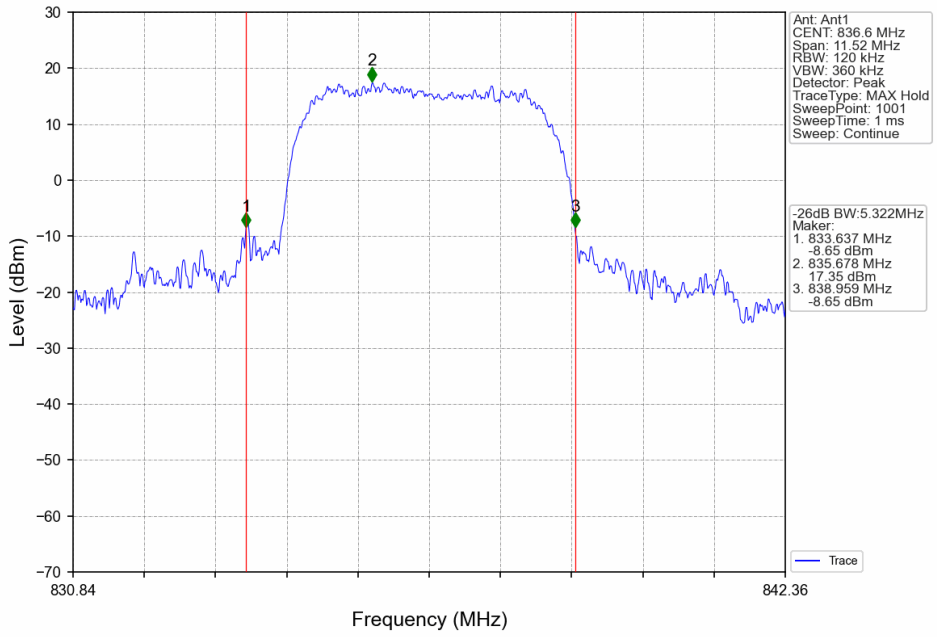

Band5_HSDPA_HCH_846.6MHz_Subtest 1_NTNV



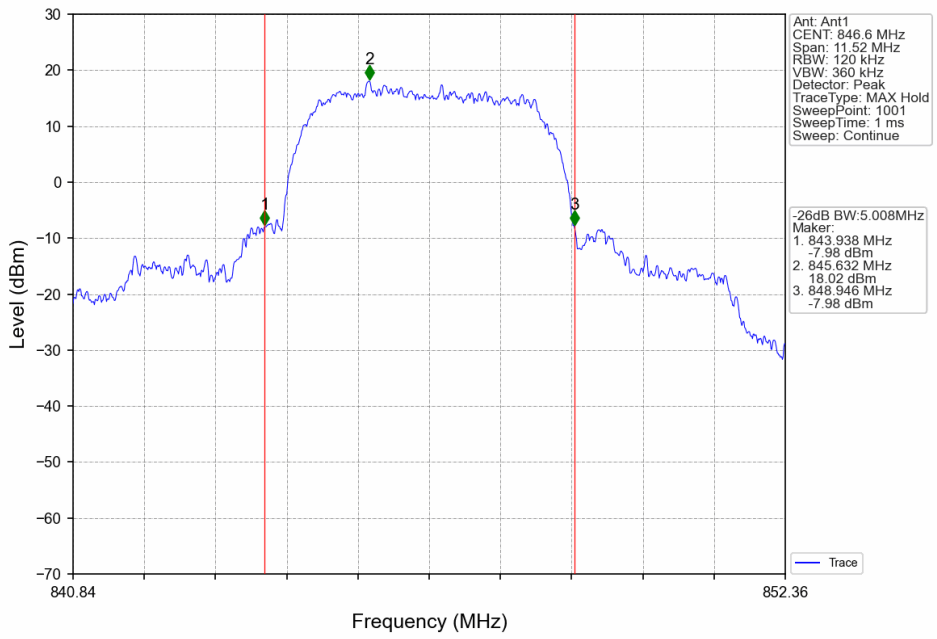
Band5_HSUPA_LCH_826.4MHz_Subtest 1_NTNV




Band5_HSUPA_MCH_836.6MHz_Subtest 1_NTNV



Band5_HSUPA_HCH_846.6MHz_Subtest 1_NTNV



# 5. Peak-Average Ratio

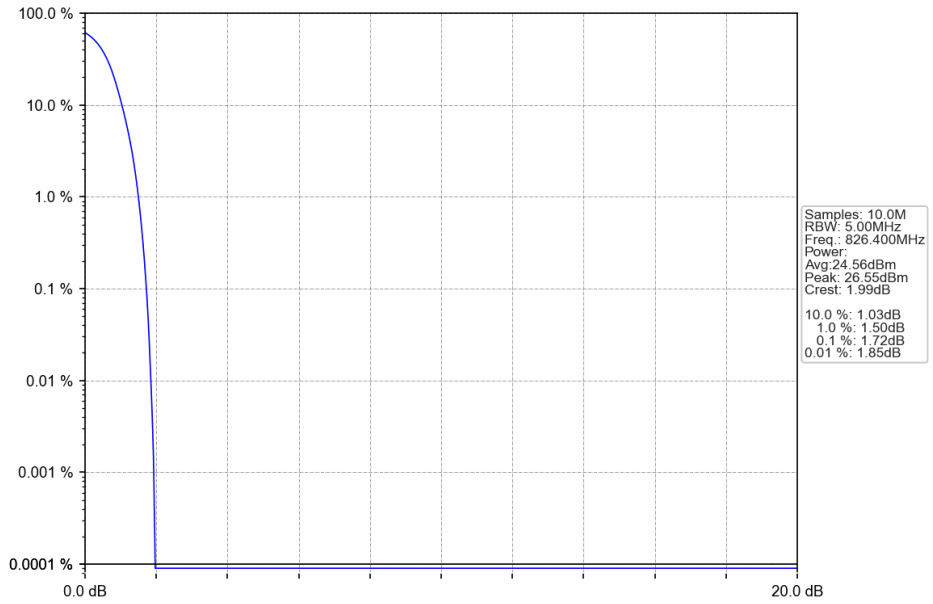
## 5.1 Band5

### 5.1.1 Test Result

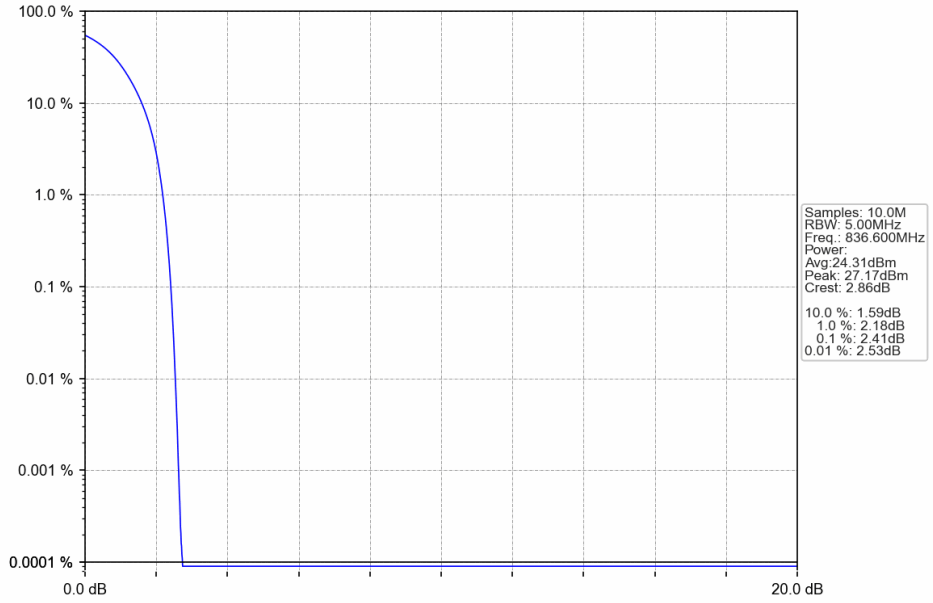
| Band: 5 | | | | | | |
|---|---|---|---|---|---|---|
| ENV | Mode | | Frequency (MHz) | Peak-Average Ratio (dB) | | Verdict |
| | Network | Subset | | Result | Limit | |
| NTNV | RMC | 12.2kbps RMC | 826.4 | 1.72 | <=13 | Pass |
| | | | 836.6 | 2.41 | <=13 | Pass |
| | | | 846.6 | 2.05 | <=13 | Pass |
| | HSDPA | Subtest 1 | 826.4 | 5.07 | <=13 | Pass |
| | | | 836.6 | 5.87 | <=13 | Pass |
| | | | 846.6 | 5.40 | <=13 | Pass |
| | HSUPA | Subtest 1 | 826.4 | 5.12 | <=13 | Pass |
| | | | 836.6 | 5.91 | <=13 | Pass |
| | | | 846.6 | 5.36 | <=13 | Pass |

## 5.1.2 Test Graph

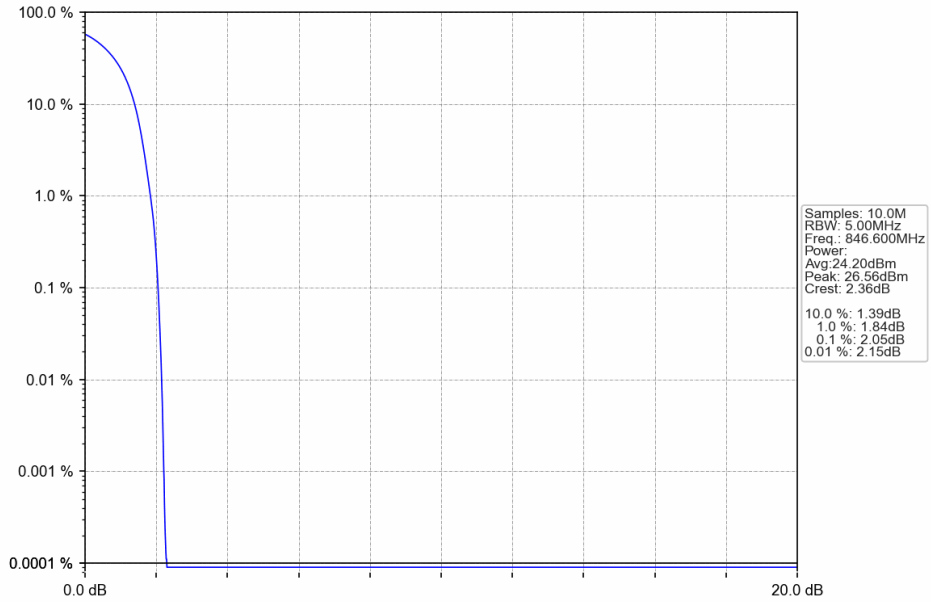
Band5_RMC_LCH_826.4MHz_12.2kbps RMC_NTNV



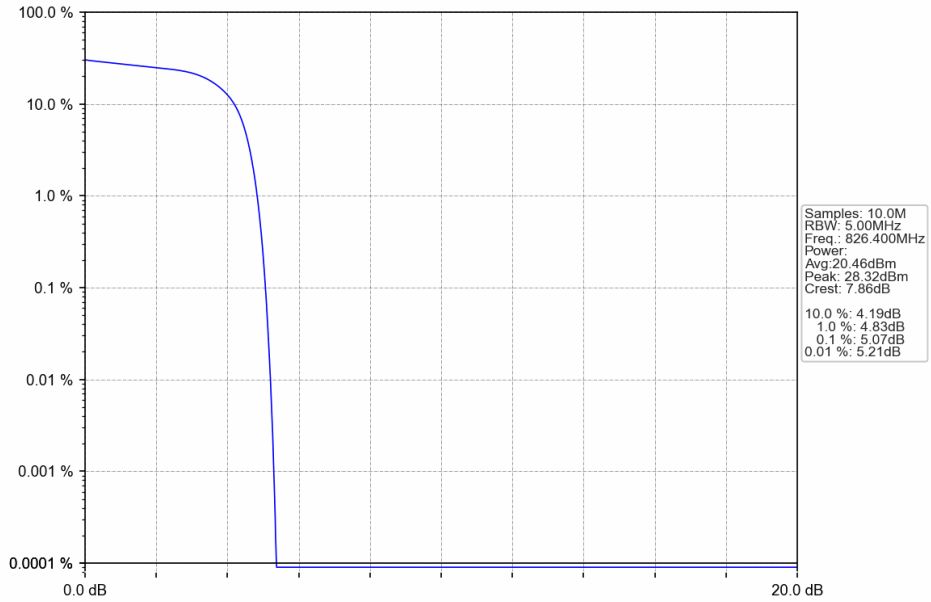

Band5_RMC_MCH_836.6MHz_12.2kbps RMC_NTNV



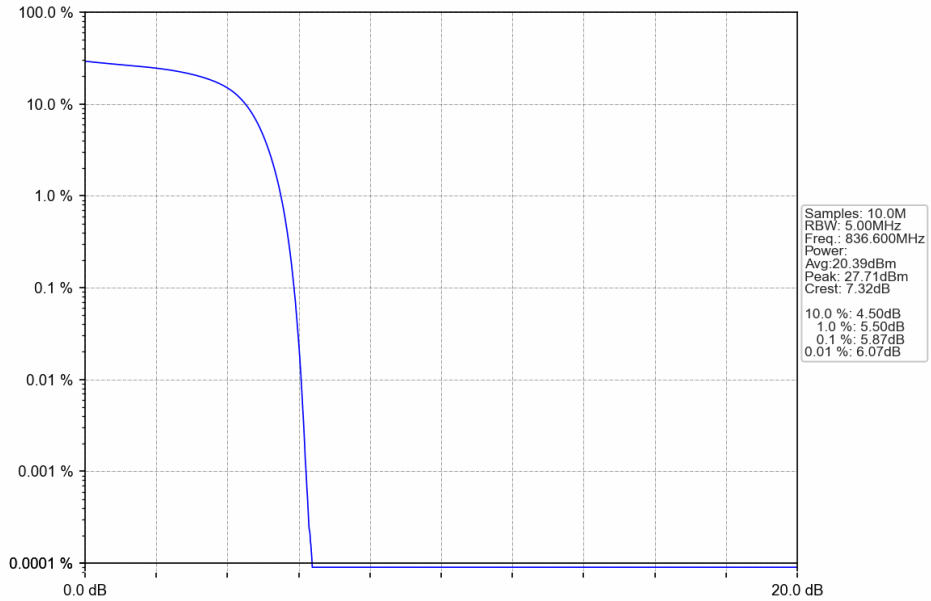

Band5_RMC_HCH_846.6MHz_12.2kbps RMC_NTNV



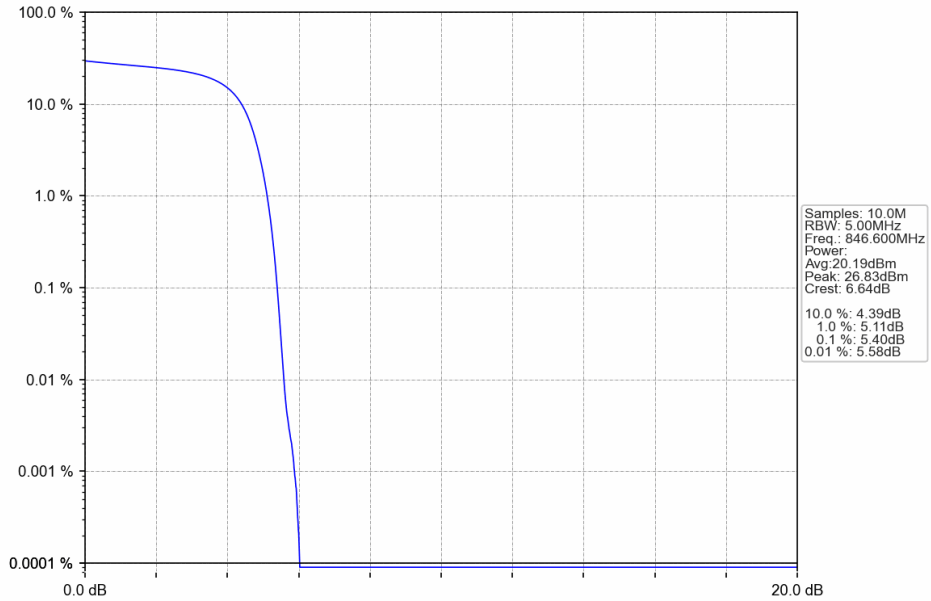

Band5_HSDPA_LCH_826.4MHz_Subtest 1_NTNV



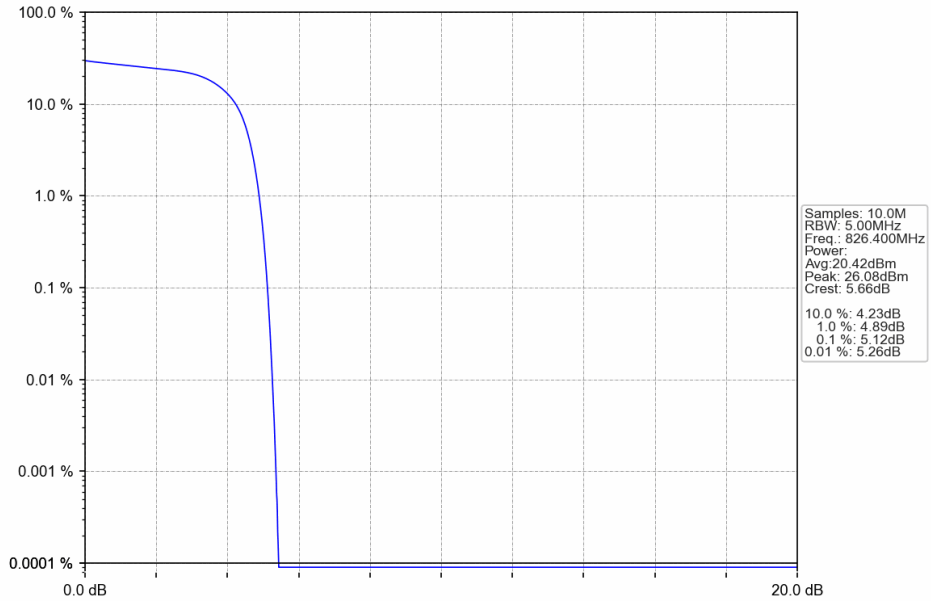
Band5_HSDPA_MCH_836.6MHz_Subtest 1_NTNV



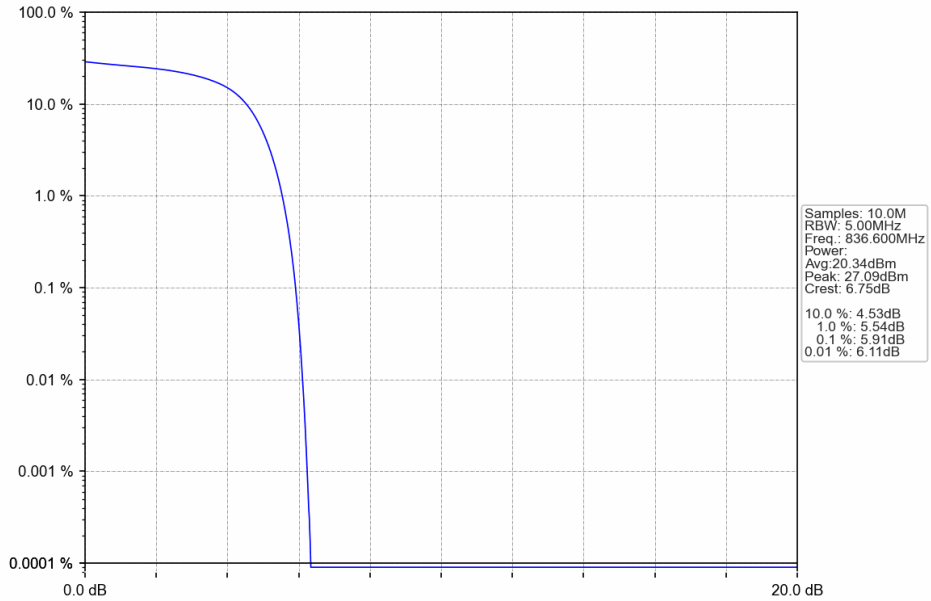

Band5_HSDPA_HCH_846.6MHz_Subtest 1_NTNV



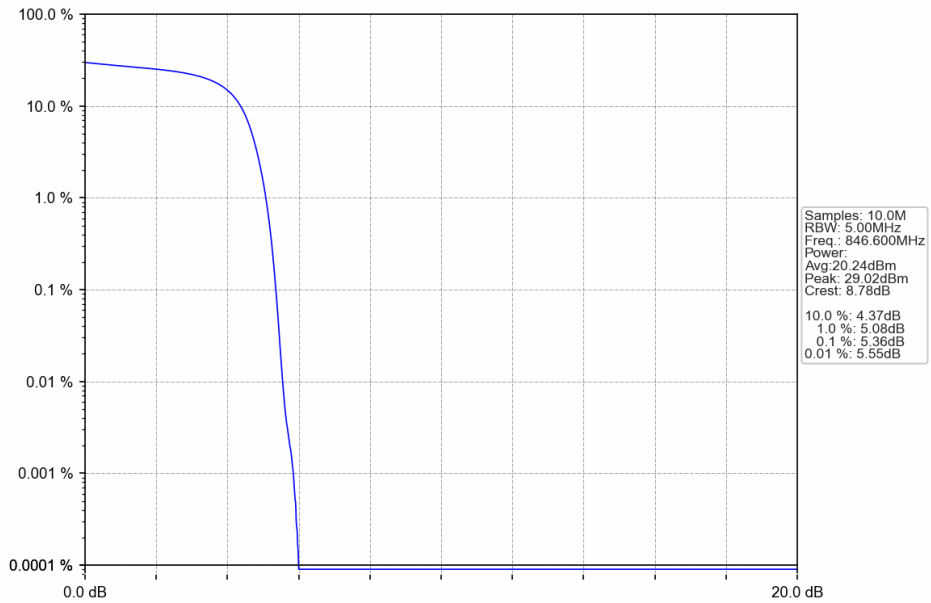
Band5_HSUPA_LCH_826.4MHz_Subtest 1_NTNV




Band5_HSUPA_MCH_836.6MHz_Subtest 1_NTNV



Band5_HSUPA_HCH_846.6MHz_Subtest 1_NTNV



# 6. Spurious Emission

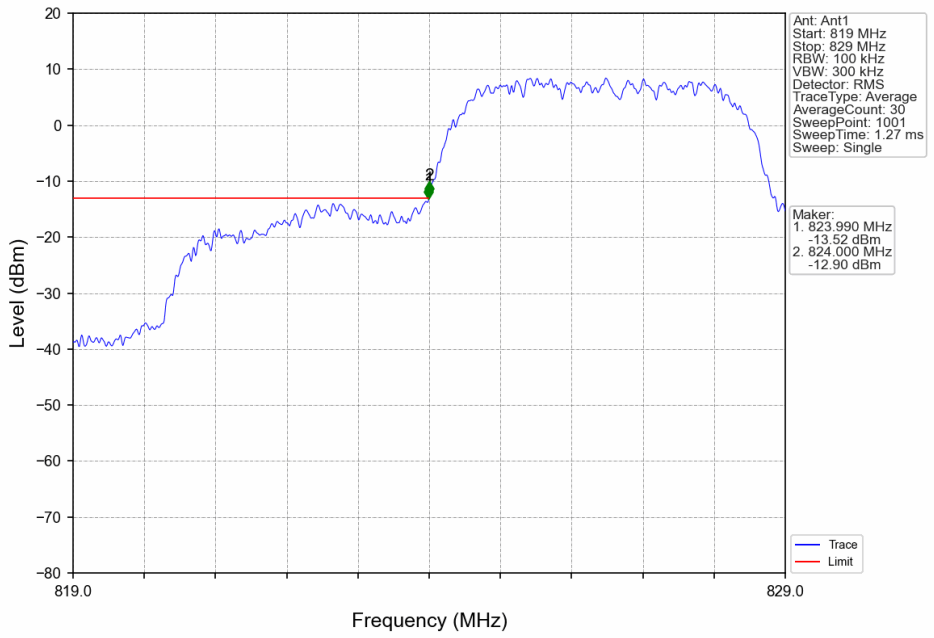
## 6.1 Band5

### 6.1.1 Test Result

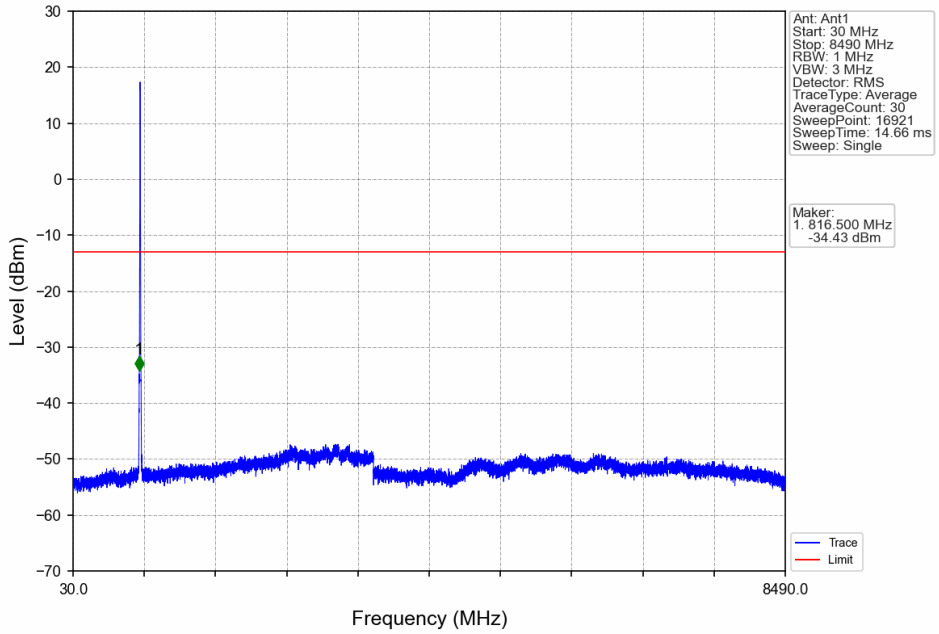
| Band: 5 | | | | | | |
|---|---|---|---|---|---|---|
| ENV | Mode | | Frequency (MHz) | Spurious Emission | | Verdict |
| | Network | Subset | | Result | Limit | |
| NTNV | RMC | 12.2kbps RMC | 826.4 | Refer To Test Graph | | Pass |
| | | | 836.6 | Refer To Test Graph | | Pass |
| | | | 846.6 | Refer To Test Graph | | Pass |
| | HSDPA | Subtest 1 | 826.4 | Refer To Test Graph | | Pass |
| | | | 836.6 | Refer To Test Graph | | Pass |
| | | | 846.6 | Refer To Test Graph | | Pass |
| | HSUPA | Subtest 1 | 826.4 | Refer To Test Graph | | Pass |
| | | | 836.6 | Refer To Test Graph | | Pass |
| | | | 846.6 | Refer To Test Graph | | Pass |

## 6.1.2 Test Graph

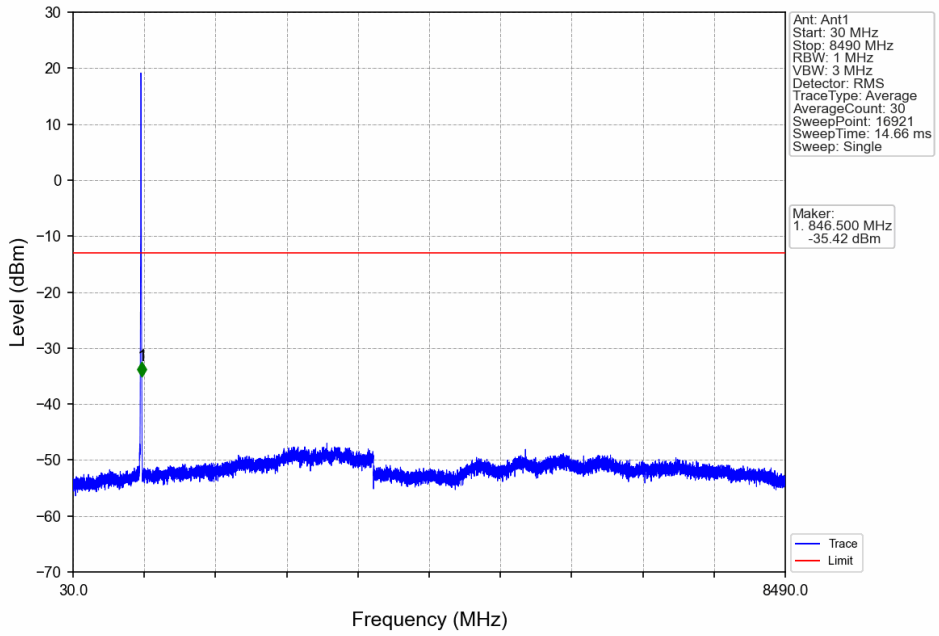
Band5_RMC_LCH_826.4MHz_12.2kbps RMC_NTNV



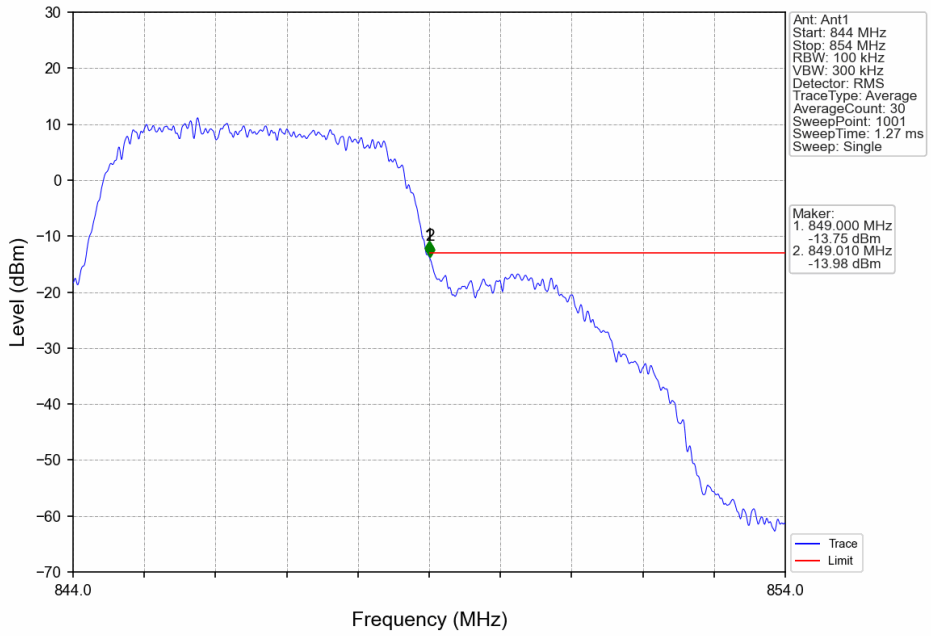

Band5_RMC_LCH_826.4MHz_12.2kbps RMC_NTNV



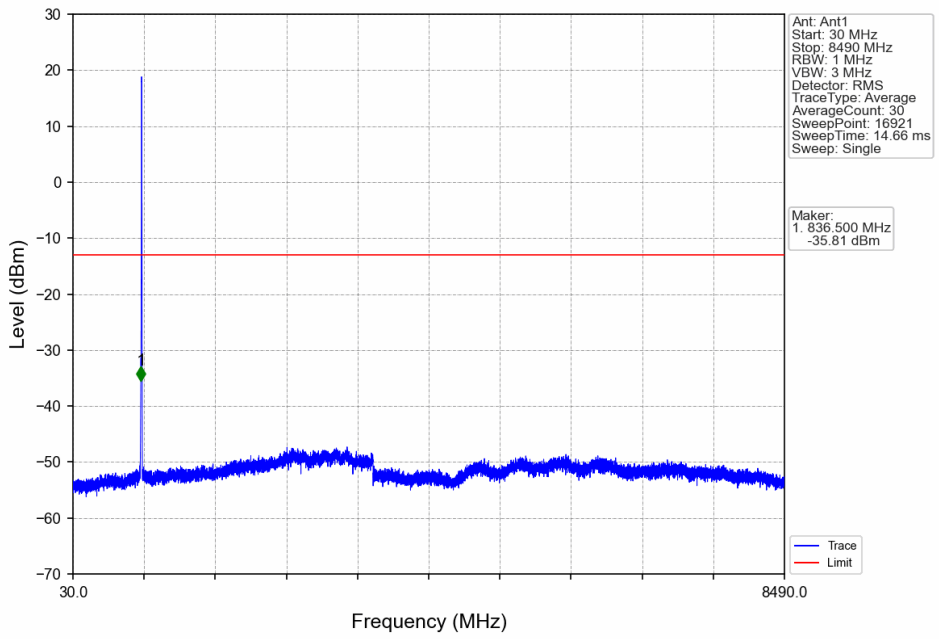

Band5_RMC_MCH_836.6MHz_12.2kbps RMC_NTNV



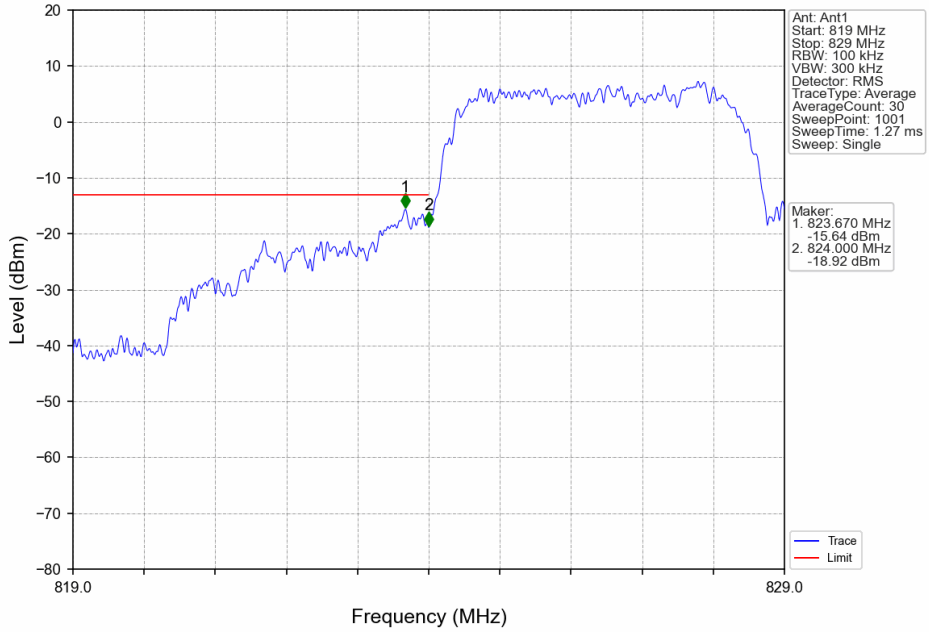

Band5_RMC_HCH_846.6MHz_12.2kbps RMC_NTNV



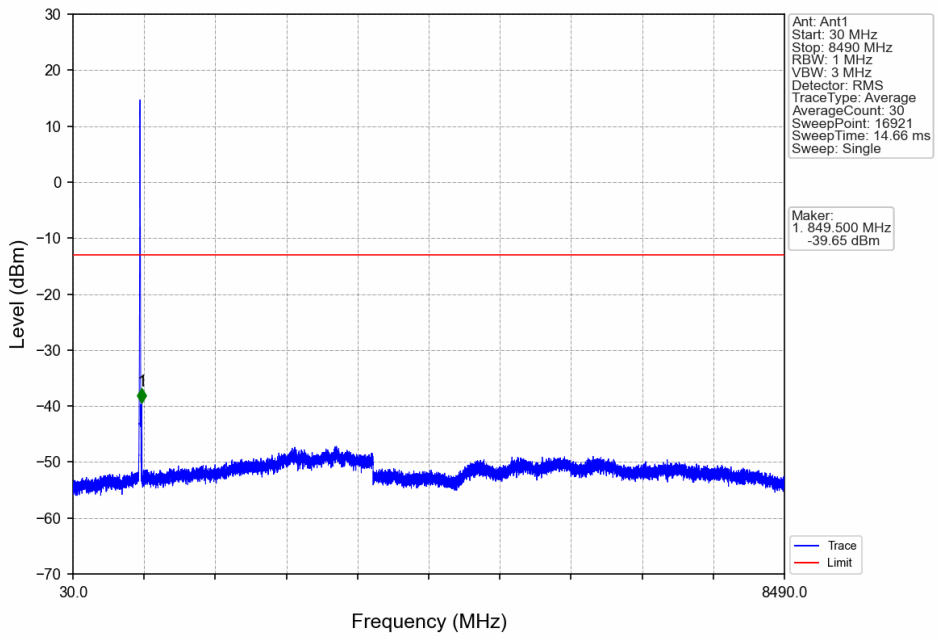
Band5_RMC_HCH_846.6MHz_12.2kbps RMC_NTNV



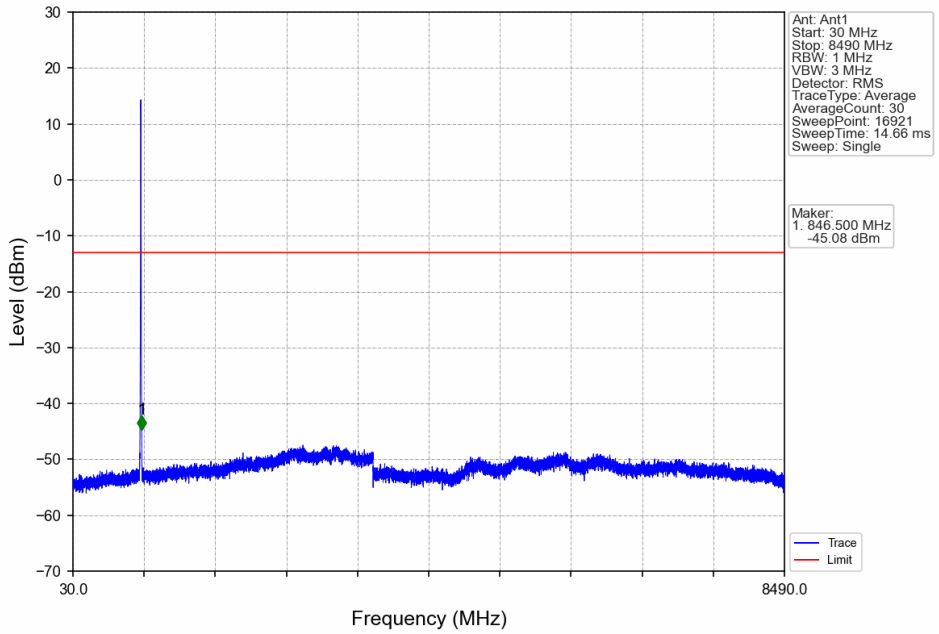

Band5_HSDPA_LCH_826.4MHz_Subtest 1_NTNV



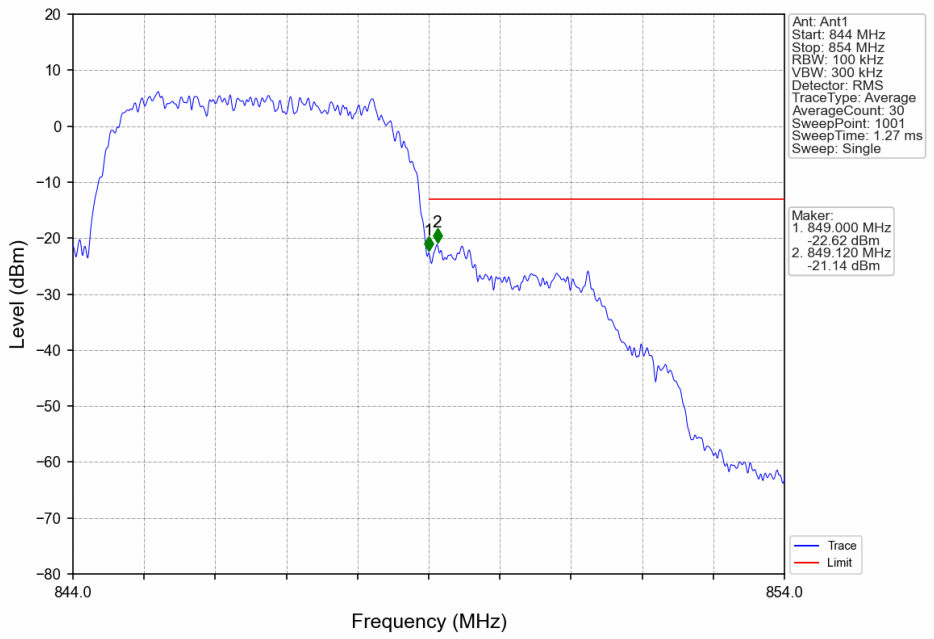
Band5_HSDPA_LCH_826.4MHz_Subtest 1_NTNV



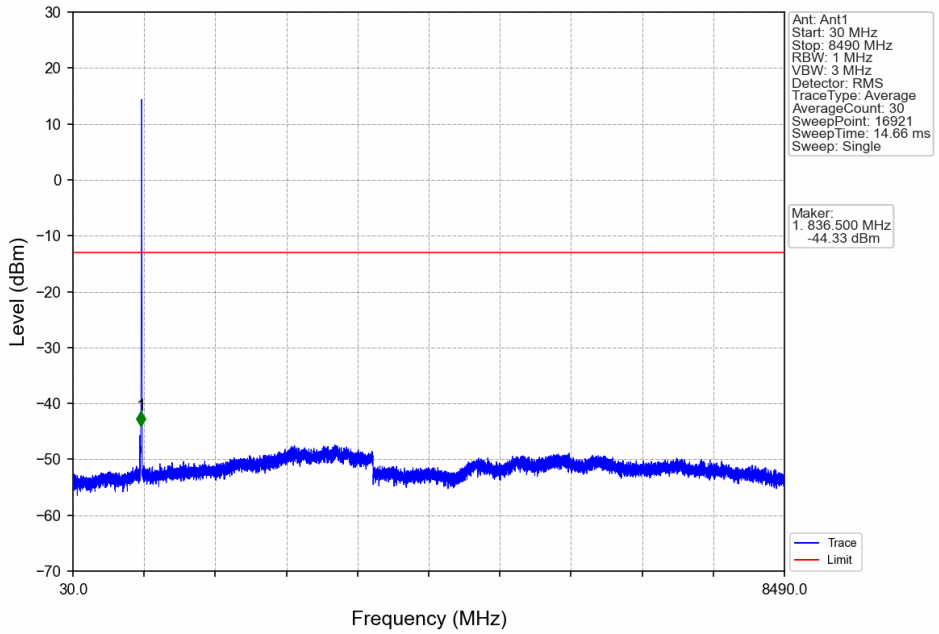

Band5_HSDPA_MCH_836.6MHz_Subtest 1_NTNV



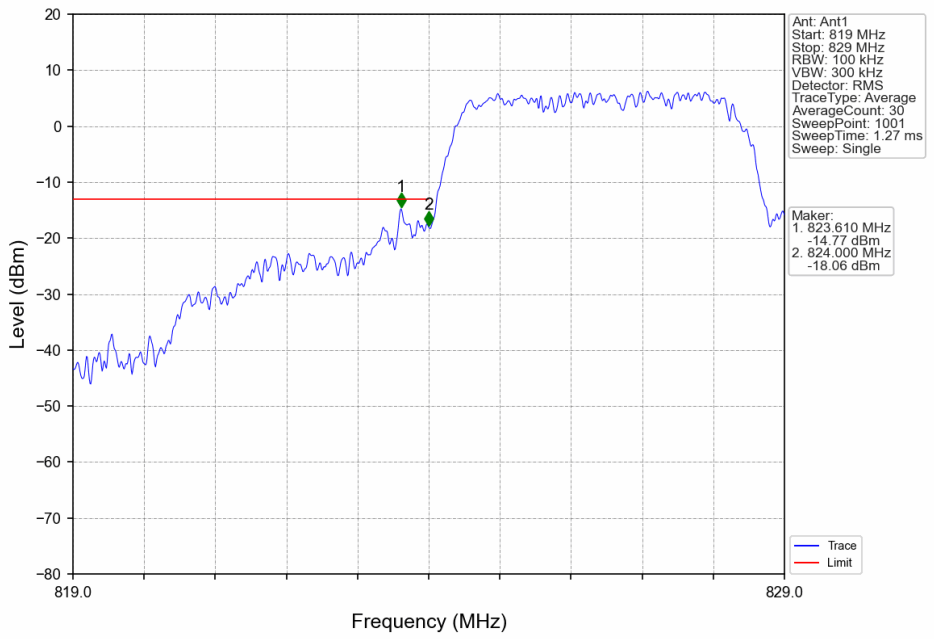
Band5_HSDPA_HCH_846.6MHz_Subtest 1_NTNV



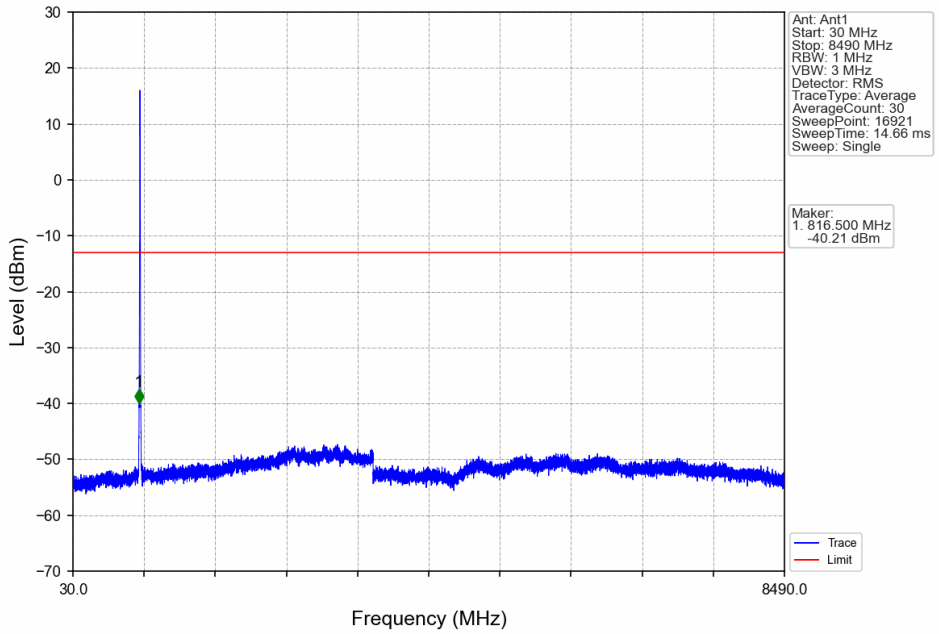

Band5_HSDPA_HCH_846.6MHz_Subtest 1_NTNV



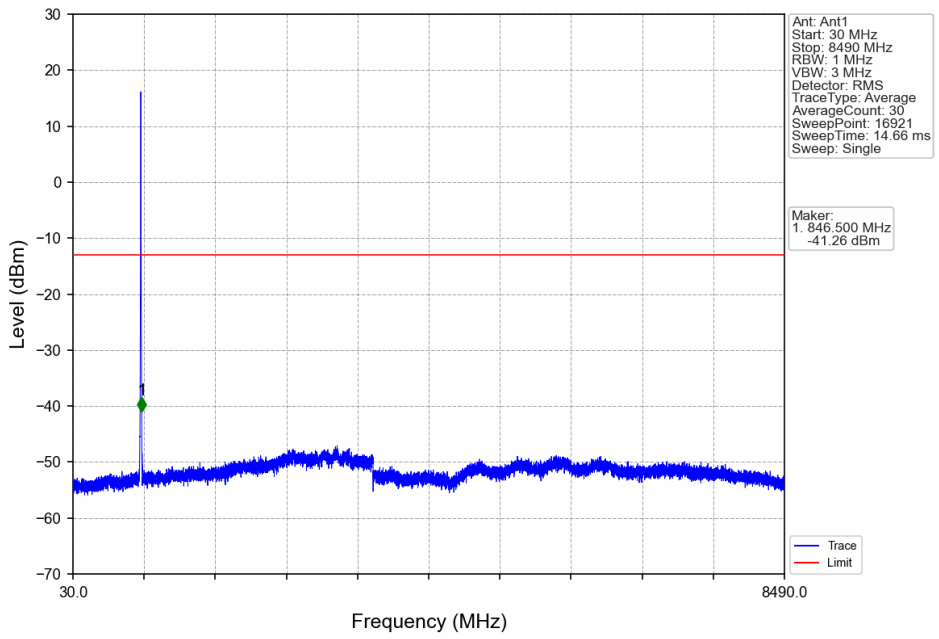
Band5_HSUPA_LCH_826.4MHz_Subtest 1_NTNV



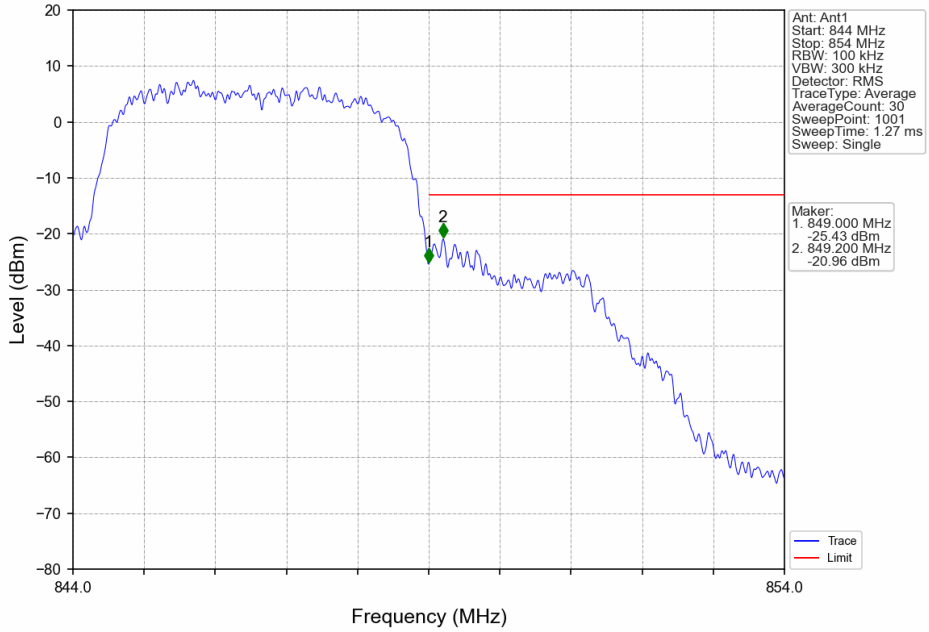

Band5_HSUPA_LCH_826.4MHz_Subtest 1_NTNV



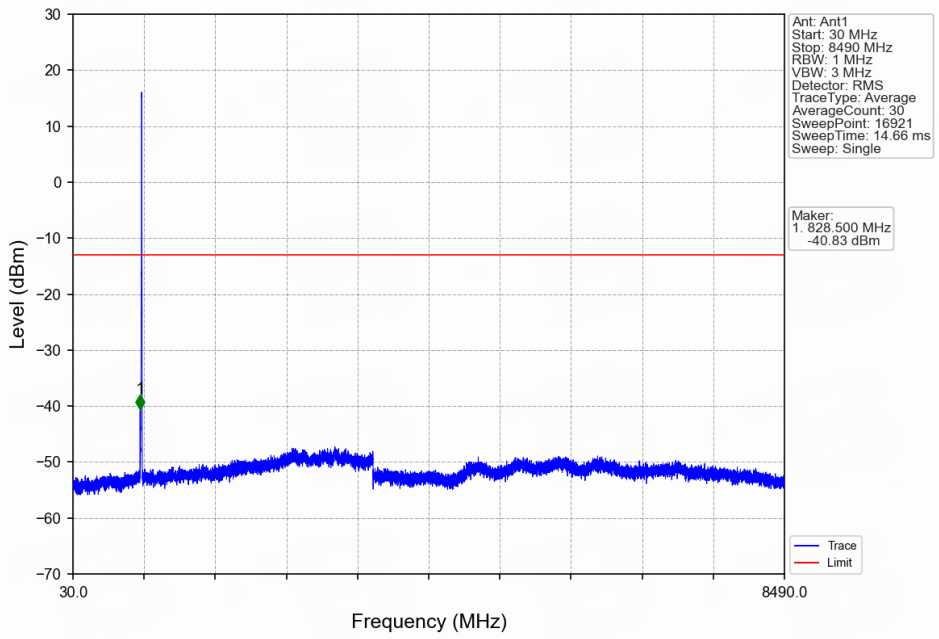
Band5_HSUPA_MCH_836.6MHz_Subtest 1_NTNV




Band5_HSUPA_HCH_846.6MHz_Subtest 1_NTNV



Band5_HSUPA_HCH_846.6MHz_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) |
|---|---|---|---|---|---|---|---|---|---|
| 5 | 3.84 | 826.4 | 846.6 | 0.3076 | 0.0201 | ppm | 4M65F9W | 24E | 24.88 |

## 7.2 Form731_ERP

### 7.2.1 Test Result

| Band | BW | Lower Freq | High Freq | MAX Power (W) | Value | Hz/ppm | Emission Designator | Rule Parts | MAX Power (dBm) |
|---|---|---|---|---|---|---|---|---|---|
| 5 | 3.84 | 826.4 | 846.6 | 0.2143 | 0.0201 | ppm | 4M65F9W | 24E | 23.31 |