

## 1. Effective (Isotropic) Radiated Power Output Data

### 1.1 Test Result

#### 1.1.1 B17\_5MHz\_ERP

| Band: 17 / Bandwidth: 5MHz / NTNV |                 |               |        |                       |            |           |         |         |
|-----------------------------------|-----------------|---------------|--------|-----------------------|------------|-----------|---------|---------|
| Modulation                        | Frequency (MHz) | RB Allocation |        | Conducted Power (dBm) | Gain (dBi) | ERP (dBm) |         | Verdict |
|                                   |                 | Size          | Offset |                       |            | Result    | Limit   |         |
| QPSK                              | 706.5           | 1             | 0      | 24.17                 | 3.26       | 25.28     | <=34.77 | Pass    |
|                                   |                 |               | 13     | 23.83                 | 3.26       | 24.94     | <=34.77 | Pass    |
|                                   |                 |               | 24     | 23.78                 | 3.26       | 24.89     | <=34.77 | Pass    |
|                                   |                 | 12            | 0      | 22.69                 | 3.26       | 23.80     | <=34.77 | Pass    |
|                                   |                 |               | 6      | 22.71                 | 3.26       | 23.82     | <=34.77 | Pass    |
|                                   |                 |               | 13     | 22.64                 | 3.26       | 23.75     | <=34.77 | Pass    |
|                                   |                 | 25            | 0      | 22.71                 | 3.26       | 23.82     | <=34.77 | Pass    |
|                                   | 710             | 1             | 0      | 24.00                 | 3.26       | 25.11     | <=34.77 | Pass    |
|                                   |                 |               | 13     | 23.69                 | 3.26       | 24.80     | <=34.77 | Pass    |
|                                   |                 |               | 24     | 23.85                 | 3.26       | 24.96     | <=34.77 | Pass    |
|                                   |                 | 12            | 0      | 22.55                 | 3.26       | 23.66     | <=34.77 | Pass    |
|                                   |                 |               | 6      | 22.70                 | 3.26       | 23.81     | <=34.77 | Pass    |
|                                   |                 |               | 13     | 22.67                 | 3.26       | 23.78     | <=34.77 | Pass    |
|                                   |                 | 25            | 0      | 22.67                 | 3.26       | 23.78     | <=34.77 | Pass    |
|                                   | 713.5           | 1             | 0      | 24.05                 | 3.26       | 25.16     | <=34.77 | Pass    |
|                                   |                 |               | 13     | 23.71                 | 3.26       | 24.82     | <=34.77 | Pass    |
|                                   |                 |               | 24     | 23.75                 | 3.26       | 24.86     | <=34.77 | Pass    |
|                                   |                 | 12            | 0      | 22.62                 | 3.26       | 23.73     | <=34.77 | Pass    |
|                                   |                 |               | 6      | 22.64                 | 3.26       | 23.75     | <=34.77 | Pass    |
|                                   |                 |               | 13     | 22.68                 | 3.26       | 23.79     | <=34.77 | Pass    |
|                                   |                 | 25            | 0      | 22.65                 | 3.26       | 23.76     | <=34.77 | Pass    |
| 16QAM                             | 706.5           | 1             | 0      | 23.08                 | 3.26       | 24.19     | <=34.77 | Pass    |
|                                   |                 |               | 13     | 23.03                 | 3.26       | 24.14     | <=34.77 | Pass    |
|                                   |                 |               | 24     | 23.12                 | 3.26       | 24.23     | <=34.77 | Pass    |
|                                   |                 | 12            | 0      | 21.73                 | 3.26       | 22.84     | <=34.77 | Pass    |
|                                   |                 |               | 6      | 21.93                 | 3.26       | 23.04     | <=34.77 | Pass    |
|                                   |                 |               | 13     | 21.83                 | 3.26       | 22.94     | <=34.77 | Pass    |
|                                   |                 | 25            | 0      | 21.84                 | 3.26       | 22.95     | <=34.77 | Pass    |
|                                   | 710             | 1             | 0      | 23.15                 | 3.26       | 24.26     | <=34.77 | Pass    |
|                                   |                 |               | 13     | 23.00                 | 3.26       | 24.11     | <=34.77 | Pass    |
|                                   |                 |               | 24     | 23.29                 | 3.26       | 24.40     | <=34.77 | Pass    |
|                                   |                 | 12            | 0      | 21.76                 | 3.26       | 22.87     | <=34.77 | Pass    |
|                                   |                 |               | 6      | 21.83                 | 3.26       | 22.94     | <=34.77 | Pass    |
|                                   |                 |               | 13     | 21.79                 | 3.26       | 22.90     | <=34.77 | Pass    |
|                                   |                 | 25            | 0      | 21.81                 | 3.26       | 22.92     | <=34.77 | Pass    |
|                                   | 713.5           | 1             | 0      | 23.17                 | 3.26       | 24.28     | <=34.77 | Pass    |
|                                   |                 |               | 13     | 22.94                 | 3.26       | 24.05     | <=34.77 | Pass    |
|                                   |                 |               | 24     | 23.15                 | 3.26       | 24.26     | <=34.77 | Pass    |
|                                   |                 | 12            | 0      | 21.80                 | 3.26       | 22.91     | <=34.77 | Pass    |
|                                   |                 |               | 6      | 21.90                 | 3.26       | 23.01     | <=34.77 | Pass    |
|                                   |                 |               | 13     | 21.79                 | 3.26       | 22.90     | <=34.77 | Pass    |
|                                   |                 | 25            | 0      | 21.85                 | 3.26       | 22.96     | <=34.77 | Pass    |

Note1: ERP=Conducted Power+Antenna Gain-2.15

#### 1.1.2 B17\_10MHz\_ERP

|                                    |
|------------------------------------|
| Band: 17 / Bandwidth: 10MHz / NTNV |
|------------------------------------|

| Modulation                                   | Frequency<br>(MHz) | RB Allocation |        | Conducted Power<br>(dBm) | Gain<br>(dBi) | ERP (dBm) |         | Verdict |      |
|----------------------------------------------|--------------------|---------------|--------|--------------------------|---------------|-----------|---------|---------|------|
|                                              |                    | Size          | Offset |                          |               | Result    | Limit   |         |      |
| QPSK                                         | 709                | 1             | 0      | 24.13                    | 3.26          | 25.24     | <=34.77 | Pass    |      |
|                                              |                    |               | 25     | 23.62                    | 3.26          | 24.73     | <=34.77 | Pass    |      |
|                                              |                    |               | 49     | 24.17                    | 3.26          | 25.28     | <=34.77 | Pass    |      |
|                                              |                    | 25            | 0      | 22.61                    | 3.26          | 23.72     | <=34.77 | Pass    |      |
|                                              |                    |               | 13     | 22.64                    | 3.26          | 23.75     | <=34.77 | Pass    |      |
|                                              |                    |               | 25     | 22.57                    | 3.26          | 23.68     | <=34.77 | Pass    |      |
|                                              |                    | 50            | 0      | 22.55                    | 3.26          | 23.66     | <=34.77 | Pass    |      |
|                                              |                    | 710           | 1      | 0                        | 24.27         | 3.26      | 25.38   | <=34.77 | Pass |
|                                              |                    |               |        | 25                       | 23.68         | 3.26      | 24.79   | <=34.77 | Pass |
|                                              | 49                 |               |        | 24.01                    | 3.26          | 25.12     | <=34.77 | Pass    |      |
|                                              | 25                 |               | 0      | 22.47                    | 3.26          | 23.58     | <=34.77 | Pass    |      |
|                                              |                    |               | 13     | 22.59                    | 3.26          | 23.70     | <=34.77 | Pass    |      |
|                                              |                    |               | 25     | 22.62                    | 3.26          | 23.73     | <=34.77 | Pass    |      |
|                                              | 50                 |               | 0      | 22.53                    | 3.26          | 23.64     | <=34.77 | Pass    |      |
|                                              | 711                |               | 1      | 0                        | 22.03         | 3.26      | 23.14   | <=34.77 | Pass |
|                                              |                    |               |        | 25                       | 23.74         | 3.26      | 24.85   | <=34.77 | Pass |
|                                              |                    | 49            |        | 24.01                    | 3.26          | 25.12     | <=34.77 | Pass    |      |
|                                              |                    | 25            | 0      | 22.53                    | 3.26          | 23.64     | <=34.77 | Pass    |      |
|                                              |                    |               | 13     | 22.55                    | 3.26          | 23.66     | <=34.77 | Pass    |      |
|                                              |                    |               | 25     | 22.56                    | 3.26          | 23.67     | <=34.77 | Pass    |      |
|                                              |                    | 50            | 0      | 22.49                    | 3.26          | 23.60     | <=34.77 | Pass    |      |
| 16QAM                                        |                    | 709           | 1      | 0                        | 23.54         | 3.26      | 24.65   | <=34.77 | Pass |
|                                              |                    |               |        | 25                       | 22.85         | 3.26      | 23.96   | <=34.77 | Pass |
|                                              | 49                 |               |        | 23.41                    | 3.26          | 24.52     | <=34.77 | Pass    |      |
|                                              | 12                 |               | 0      | 22.89                    | 3.26          | 24.00     | <=34.77 | Pass    |      |
|                                              |                    |               | 19     | 22.65                    | 3.26          | 23.76     | <=34.77 | Pass    |      |
|                                              |                    |               | 38     | 22.94                    | 3.26          | 24.05     | <=34.77 | Pass    |      |
|                                              | 27                 |               | 0      | 21.74                    | 3.26          | 22.85     | <=34.77 | Pass    |      |
|                                              | 710                |               | 1      | 0                        | 23.52         | 3.26      | 24.63   | <=34.77 | Pass |
|                                              |                    |               |        | 25                       | 22.86         | 3.26      | 23.97   | <=34.77 | Pass |
|                                              |                    | 49            |        | 23.41                    | 3.26          | 24.52     | <=34.77 | Pass    |      |
|                                              |                    | 12            | 0      | 22.82                    | 3.26          | 23.93     | <=34.77 | Pass    |      |
|                                              |                    |               | 19     | 22.62                    | 3.26          | 23.73     | <=34.77 | Pass    |      |
|                                              |                    |               | 38     | 22.96                    | 3.26          | 24.07     | <=34.77 | Pass    |      |
|                                              |                    | 27            | 0      | 21.66                    | 3.26          | 22.77     | <=34.77 | Pass    |      |
|                                              |                    | 711           | 1      | 0                        | 23.45         | 3.26      | 24.56   | <=34.77 | Pass |
|                                              |                    |               |        | 25                       | 22.95         | 3.26      | 24.06   | <=34.77 | Pass |
|                                              | 49                 |               |        | 23.33                    | 3.26          | 24.44     | <=34.77 | Pass    |      |
|                                              | 12                 |               | 0      | 22.80                    | 3.26          | 23.91     | <=34.77 | Pass    |      |
|                                              |                    |               | 19     | 22.71                    | 3.26          | 23.82     | <=34.77 | Pass    |      |
|                                              |                    |               | 38     | 22.90                    | 3.26          | 24.01     | <=34.77 | Pass    |      |
|                                              | 27                 |               | 23     | 21.78                    | 3.26          | 22.89     | <=34.77 | Pass    |      |
| Note1: ERP=Conducted Power+Antenna Gain-2.15 |                    |               |        |                          |               |           |         |         |      |

## 2. Frequency Stability

### 2.1 Test Result

#### 2.1.1 B17\_10MHz

| Band: 17 / Bandwidth: 10MHz |                 |               |        |            |               |                  |                       |             |         |
|-----------------------------|-----------------|---------------|--------|------------|---------------|------------------|-----------------------|-------------|---------|
| Modulation                  | Frequency (MHz) | RB Allocation |        | Temp. (°C) | Voltage (VDC) | Freq. Error (Hz) | Freq. vs. Rated (ppm) |             | Verdict |
|                             |                 | Size          | Offset |            |               |                  | Result                | Limit       |         |
| QPSK                        | 710             | 50            | 0      | 20         | 3.27          | 9.800            | 0.0138                | -2.5 to 2.5 | Pass    |

|  |  |  |  |     |      |         |         |             |      |
|--|--|--|--|-----|------|---------|---------|-------------|------|
|  |  |  |  |     | 3.85 | 9.900   | 0.0139  | -2.5 to 2.5 | Pass |
|  |  |  |  |     | 4.43 | 1.400   | 0.0020  | -2.5 to 2.5 | Pass |
|  |  |  |  | -30 | 3.85 | -6.100  | -0.0086 | -2.5 to 2.5 | Pass |
|  |  |  |  | -20 | 3.85 | -10.500 | -0.0148 | -2.5 to 2.5 | Pass |
|  |  |  |  | -10 | 3.85 | -12.900 | -0.0182 | -2.5 to 2.5 | Pass |
|  |  |  |  | 0   | 3.85 | -15.300 | -0.0215 | -2.5 to 2.5 | Pass |
|  |  |  |  | 10  | 3.85 | -17.800 | -0.0251 | -2.5 to 2.5 | Pass |
|  |  |  |  | 30  | 3.85 | -20.900 | -0.0294 | -2.5 to 2.5 | Pass |
|  |  |  |  | 40  | 3.85 | -22.400 | -0.0315 | -2.5 to 2.5 | Pass |
|  |  |  |  | 50  | 3.85 | -22.200 | -0.0313 | -2.5 to 2.5 | Pass |

### 3. 99% & 26dB Bandwidth

#### 3.1 Test Result

##### 3.1.1 Band17\_OBW

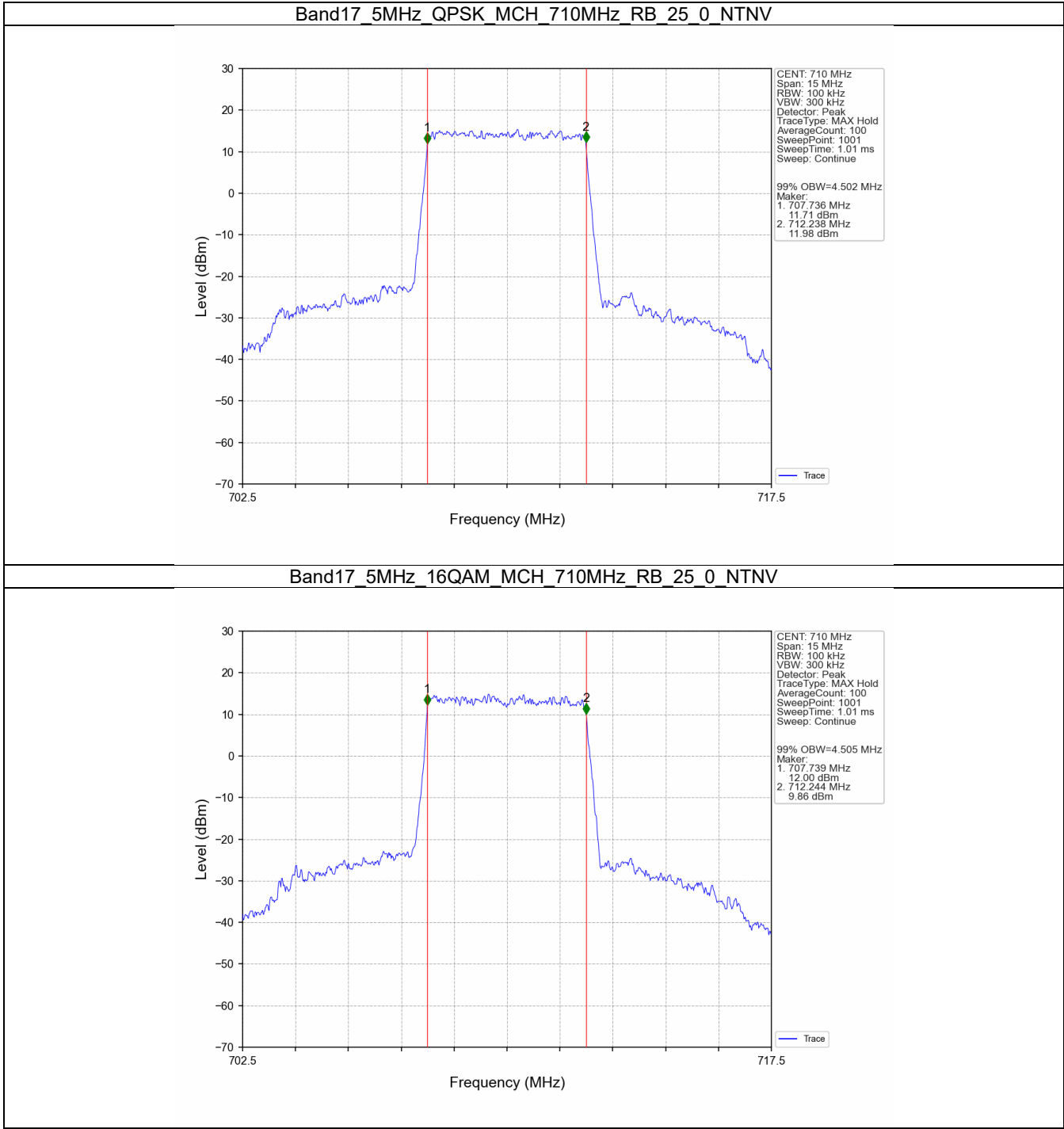
| Band: 17 / NTNV |            |                 |               |        |                              |       |         |
|-----------------|------------|-----------------|---------------|--------|------------------------------|-------|---------|
| Bandwidth (MHz) | Modulation | Frequency (MHz) | RB Allocation |        | 99% Occupied Bandwidth (MHz) |       | Verdict |
|                 |            |                 | Size          | Offset | Result                       | Limit |         |
| 5               | QPSK       | 710             | 25            | 0      | 4.502                        | /     | Pass    |
|                 | 16QAM      | 710             | 25            | 0      | 4.505                        | /     | Pass    |
| 10              | QPSK       | 710             | 50            | 0      | 8.994                        | /     | Pass    |
|                 | 16QAM      | 710             | 27            | 0      | 4.940                        | /     | Pass    |

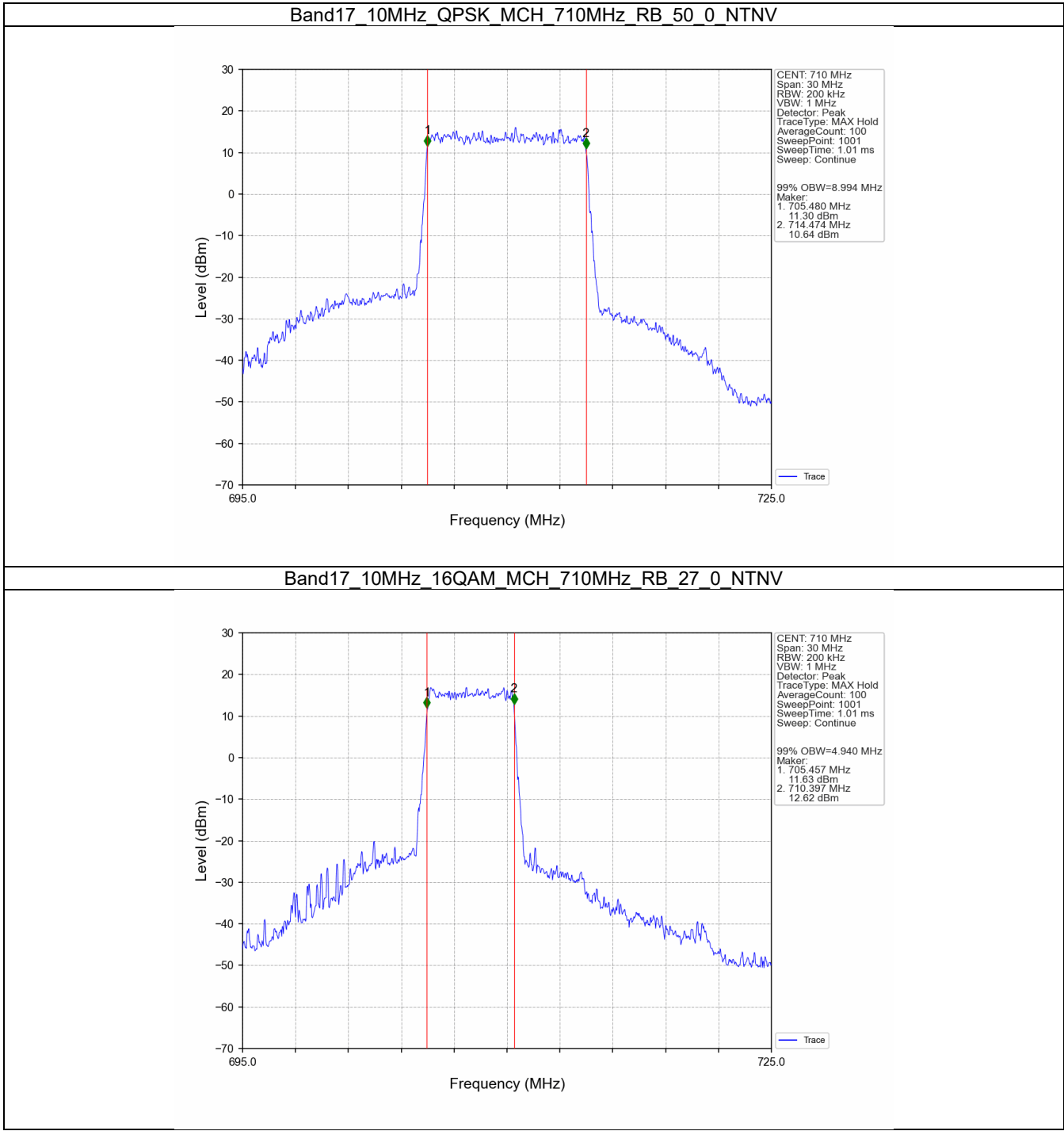
##### 3.1.2 Band17\_XDB

| Band: 17 / NTNV |            |                 |               |        |                      |       |         |
|-----------------|------------|-----------------|---------------|--------|----------------------|-------|---------|
| Bandwidth (MHz) | Modulation | Frequency (MHz) | RB Allocation |        | 26dB Bandwidth (MHz) |       | Verdict |
|                 |            |                 | Size          | Offset | Result               | Limit |         |
| 5               | QPSK       | 710             | 25            | 0      | 4.985                | /     | Pass    |
|                 | 16QAM      | 710             | 25            | 0      | 4.948                | /     | Pass    |
| 10              | QPSK       | 710             | 50            | 0      | 9.713                | /     | Pass    |
|                 | 16QAM      | 710             | 27            | 0      | 5.601                | /     | Pass    |

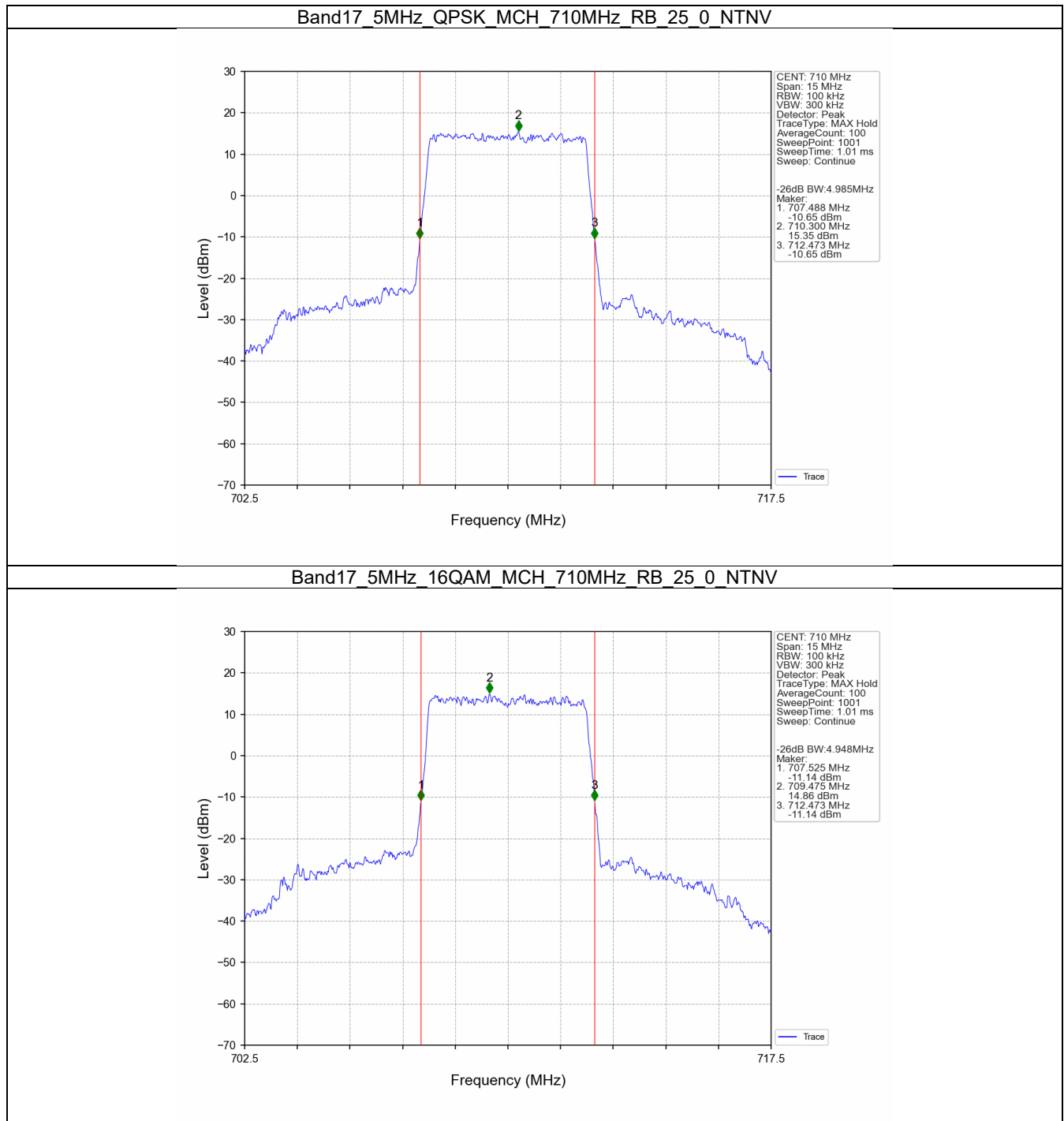
3.2 Test Graph

3.2.1 Band17\_OBW

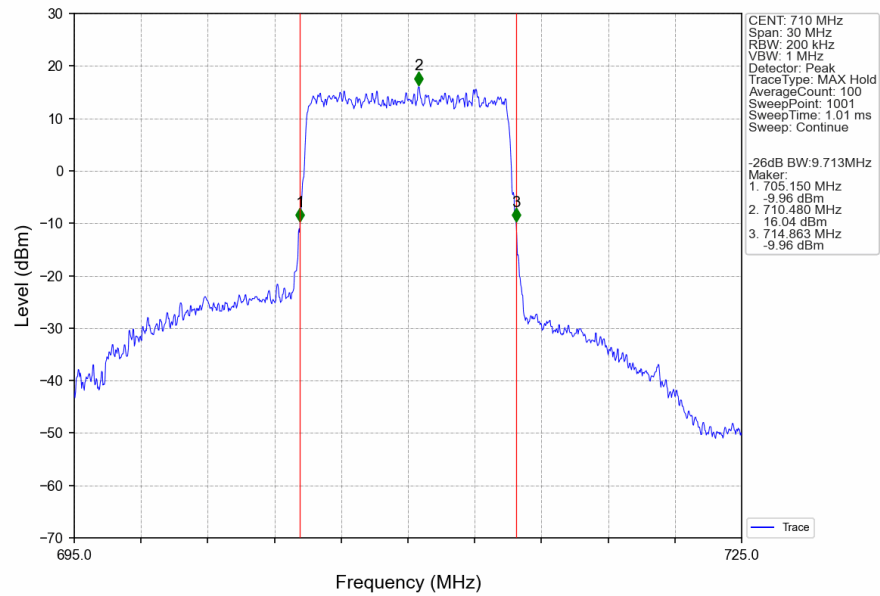




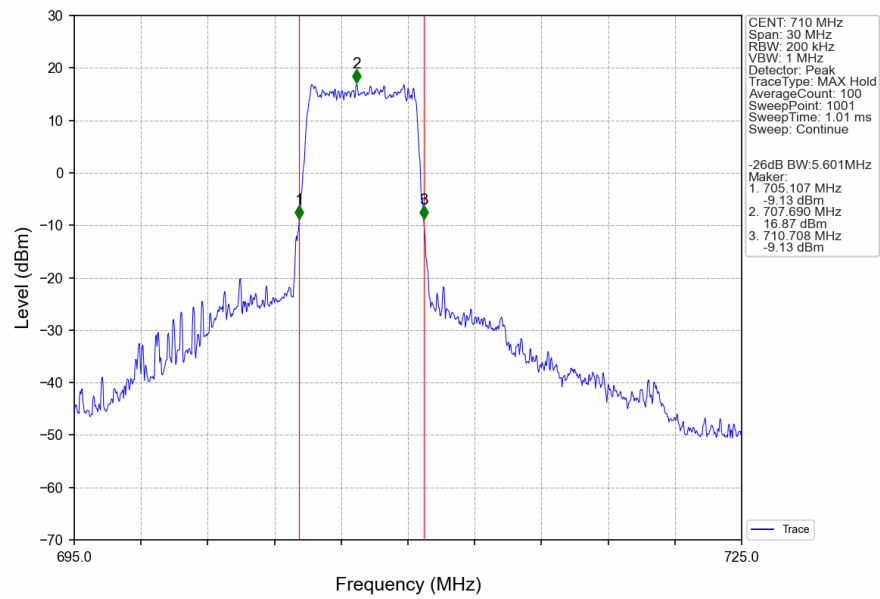
## 3.2.2 Band17\_XDB



Band17\_10MHz\_QPSK\_MCH\_710MHz\_RB\_50\_0\_NTNV



Band17\_10MHz\_16QAM\_MCH\_710MHz\_RB\_27\_0\_NTNV



## 4. Peak-Average Ratio

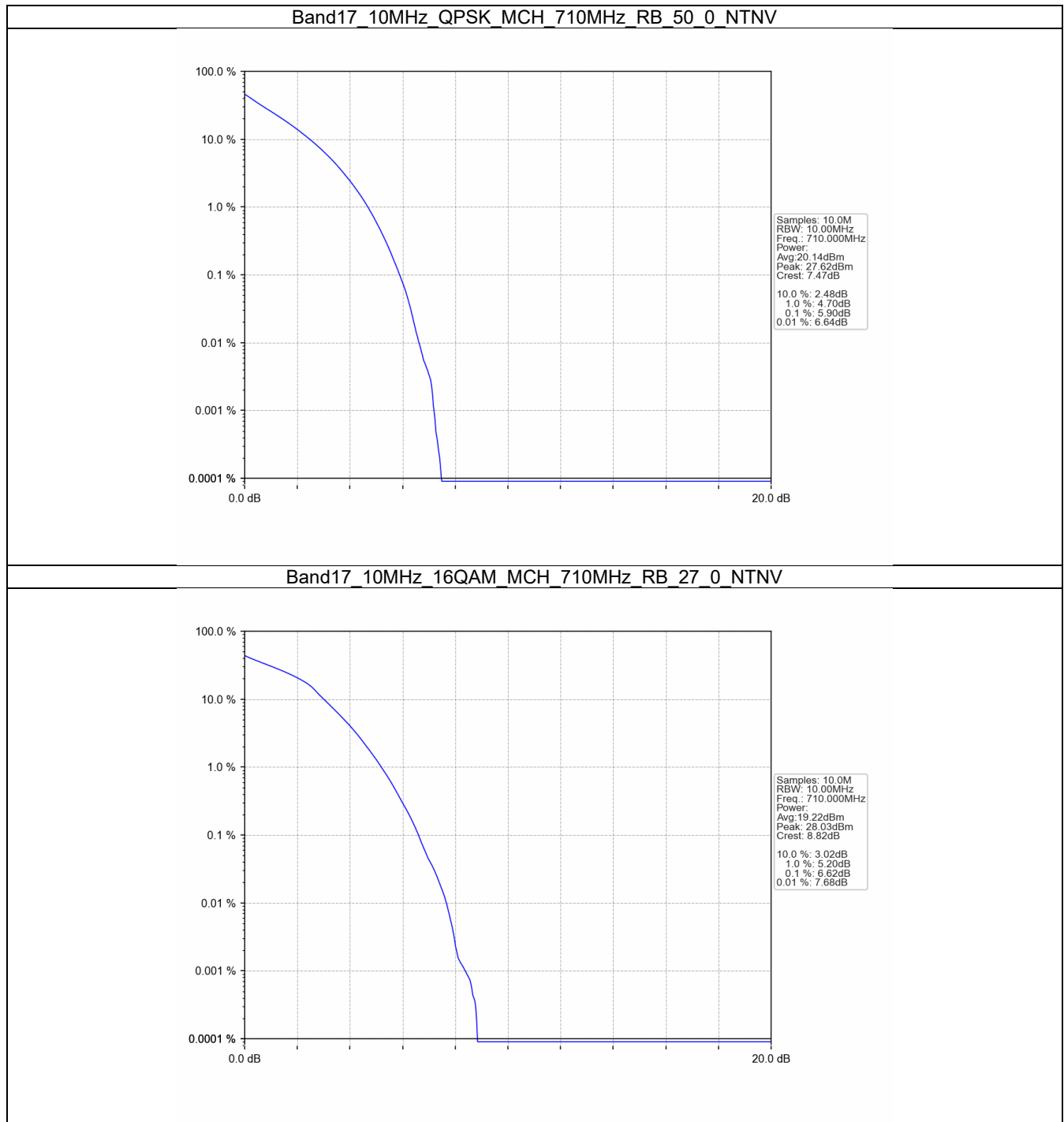
### 4.1 Test Result

#### 4.1.1 B17\_10MHz

| Band: 17 / Bandwidth: 10MHz / NTNV |                    |               |        |                         |       |         |
|------------------------------------|--------------------|---------------|--------|-------------------------|-------|---------|
| Modulation                         | Frequency<br>(MHz) | RB Allocation |        | Peak-Average Ratio (dB) |       | Verdict |
|                                    |                    | Size          | Offset | Result                  | Limit |         |
| QPSK                               | 710                | 50            | 0      | 5.90                    | <=13  | Pass    |
| 16QAM                              | 710                | 27            | 0      | 6.62                    | <=13  | Pass    |

## 4.2 Test Graph

### 4.2.1 B17\_10MHz



## 5. Spurious Emission

### 5.1 Test Result

#### 5.1.1 B17\_5MHz

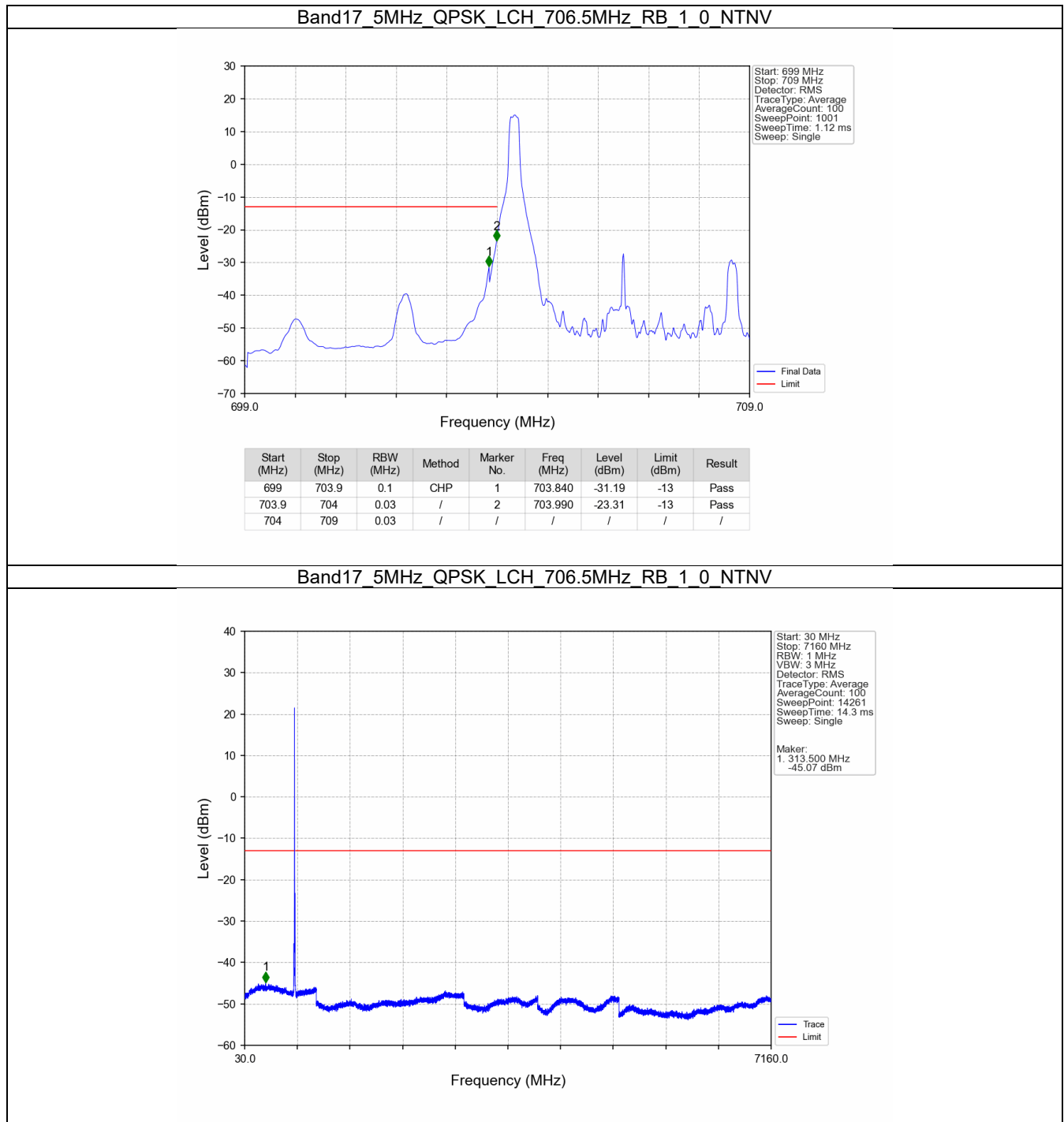
| Band: 17 / Bandwidth: 5MHz / NTVN |                 |               |        |                     |       |         |
|-----------------------------------|-----------------|---------------|--------|---------------------|-------|---------|
| Modulation                        | Frequency (MHz) | RB Allocation |        | Spurious Emission   |       | Verdict |
|                                   |                 | Size          | Offset | Result              | Limit |         |
| QPSK                              | 706.5           | 1             | 0      | Refer To Test Graph |       | Pass    |
|                                   |                 | 25            | 0      | Refer To Test Graph |       | Pass    |
|                                   | 710             | 1             | 0      | Refer To Test Graph |       | Pass    |
|                                   | 713.5           | 1             | 0      | Refer To Test Graph |       | Pass    |
|                                   |                 |               | 24     | Refer To Test Graph |       | Pass    |
|                                   |                 | 25            | 0      | Refer To Test Graph |       | Pass    |

#### 5.1.2 B17\_10MHz

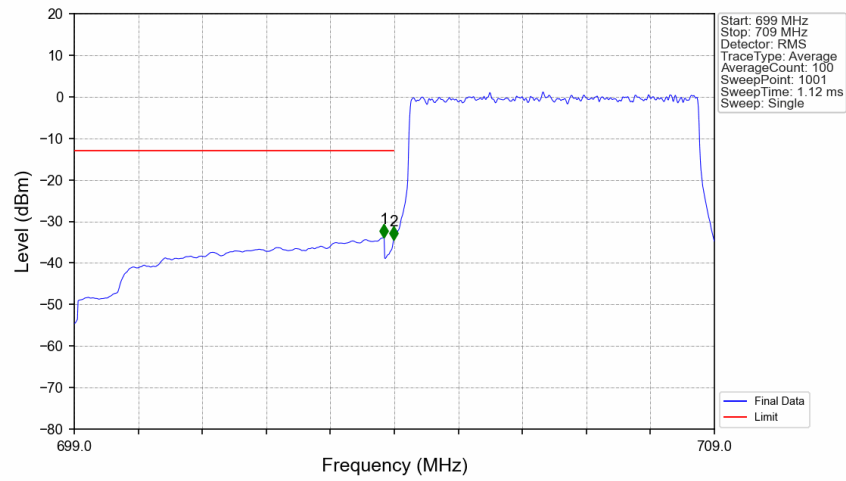
| Band: 17 / Bandwidth: 10MHz / NTNV |                 |               |        |                     |       |         |
|------------------------------------|-----------------|---------------|--------|---------------------|-------|---------|
| Modulation                         | Frequency (MHz) | RB Allocation |        | Spurious Emission   |       | Verdict |
|                                    |                 | Size          | Offset | Result              | Limit |         |
| QPSK                               | 709             | 1             | 0      | Refer To Test Graph |       | Pass    |
|                                    |                 | 50            | 0      | Refer To Test Graph |       | Pass    |
|                                    | 710             | 1             | 0      | Refer To Test Graph |       | Pass    |
|                                    | 711             | 1             | 0      | Refer To Test Graph |       | Pass    |
|                                    |                 |               | 49     | Refer To Test Graph |       | Pass    |
|                                    |                 | 50            | 0      | Refer To Test Graph |       | Pass    |

## 5.2 Test Graph

## 5.2.1 B17\_5MHz

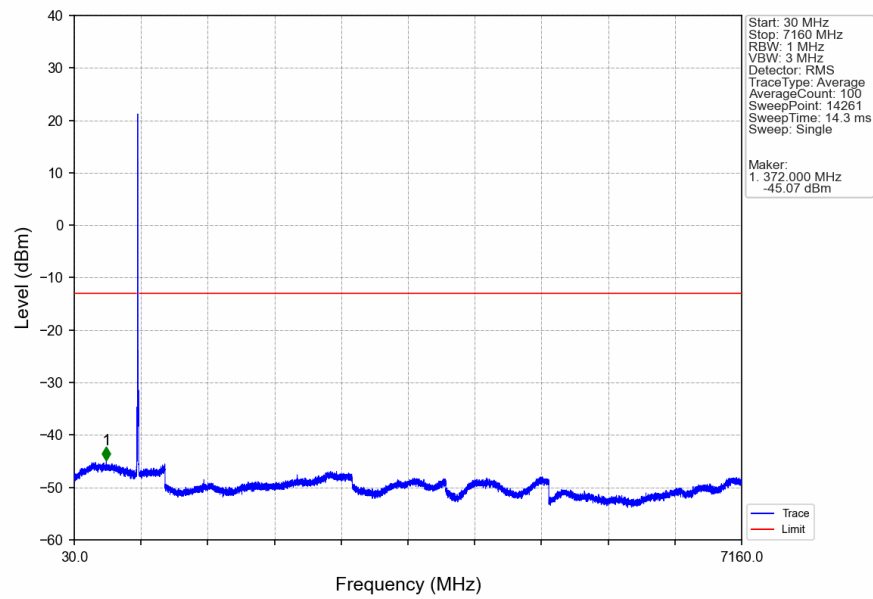


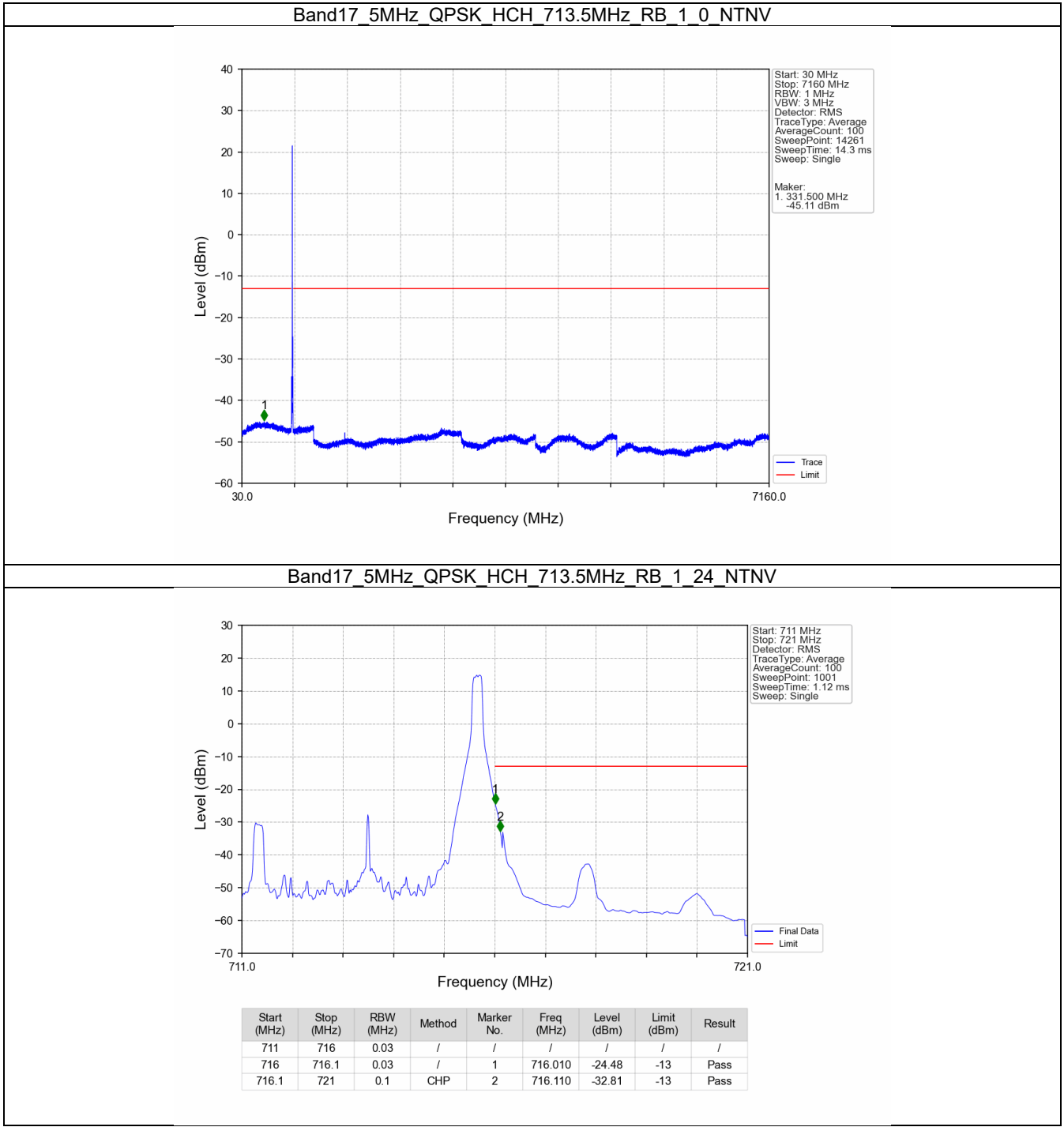
## Band17\_5MHz\_QPSK\_LCH\_706.5MHz\_RB\_25\_0\_NTNV



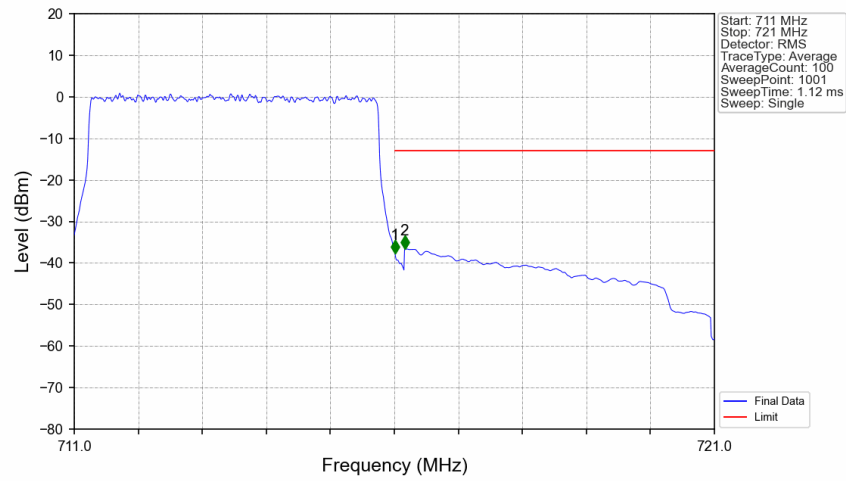
| Start (MHz) | Stop (MHz) | RBW (MHz) | Method | Marker No. | Freq (MHz) | Level (dBm) | Limit (dBm) | Result |
|-------------|------------|-----------|--------|------------|------------|-------------|-------------|--------|
| 699         | 703.9      | 0.1       | CHP    | 1          | 703.840    | -33.81      | -13         | Pass   |
| 703.9       | 704        | 0.03      | /      | 2          | 703.990    | -34.42      | -13         | Pass   |
| 704         | 709        | 0.03      | /      | /          | /          | /           | /           | /      |

## Band17\_5MHz\_QPSK\_MCH\_710MHz\_RB\_1\_0\_NTNV





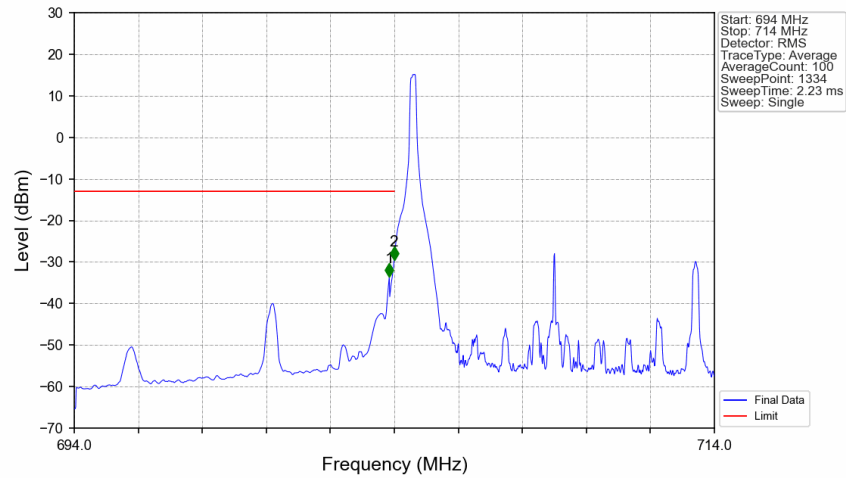
## Band17\_5MHz\_QPSK\_HCH\_713.5MHz\_RB\_25\_0\_NTNV



| Start (MHz) | Stop (MHz) | RBW (MHz) | Method | Marker No. | Freq (MHz) | Level (dBm) | Limit (dBm) | Result |
|-------------|------------|-----------|--------|------------|------------|-------------|-------------|--------|
| 711         | 716        | 0.03      | /      | /          | /          | /           | /           | /      |
| 716         | 716.1      | 0.03      | /      | 1          | 716.010    | -37.71      | -13         | Pass   |
| 716.1       | 721        | 0.1       | CHP    | 2          | 716.160    | -36.52      | -13         | Pass   |

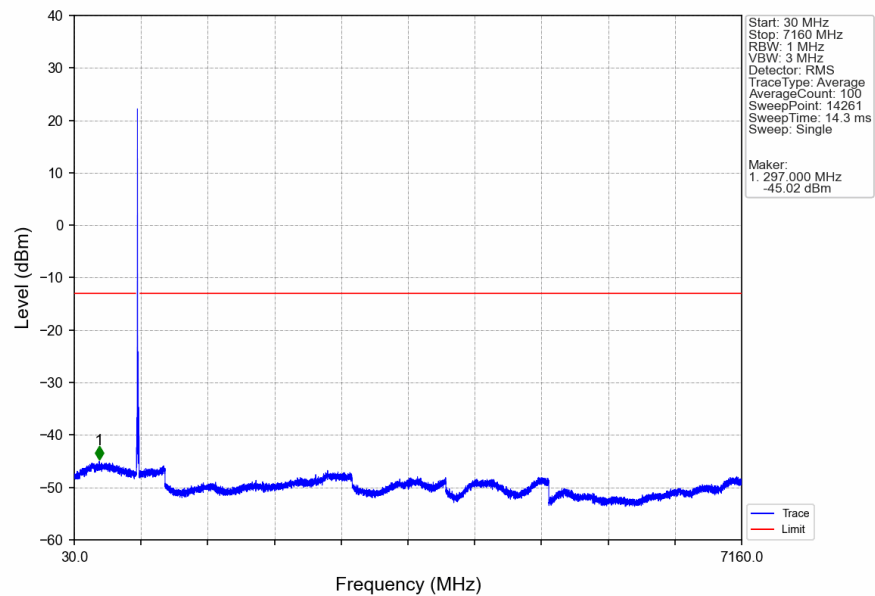
## 5.2.2 B17\_10MHz

Band17\_10MHz\_QPSK\_LCH\_709MHz\_RB\_1\_0\_NTNV

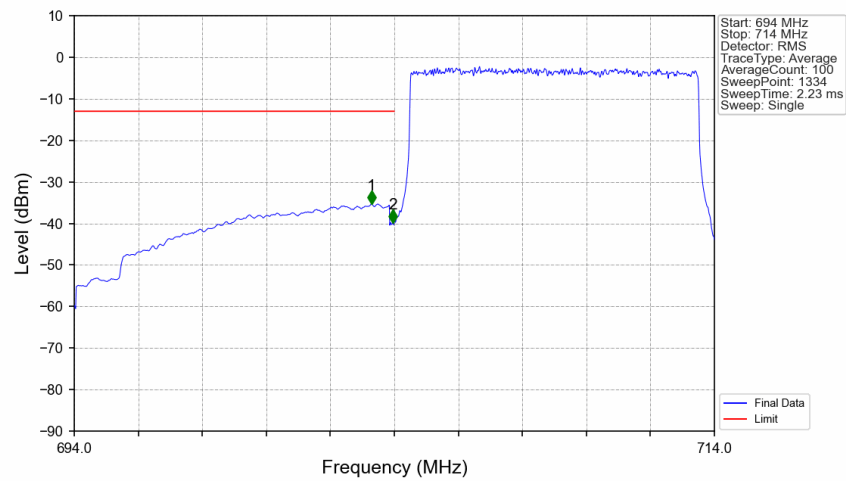


| Start (MHz) | Stop (MHz) | RBW (MHz) | Method | Marker No. | Freq (MHz) | Level (dBm) | Limit (dBm) | Result |
|-------------|------------|-----------|--------|------------|------------|-------------|-------------|--------|
| 694         | 703.9      | 0.1       | CHP    | 1          | 703.842    | -33.53      | -13         | Pass   |
| 703.9       | 704        | 0.03      | /      | 2          | 703.992    | -29.59      | -13         | Pass   |
| 704         | 714        | 0.03      | /      | /          | /          | /           | /           | /      |

Band17\_10MHz\_QPSK\_LCH\_709MHz\_RB\_1\_0\_NTNV

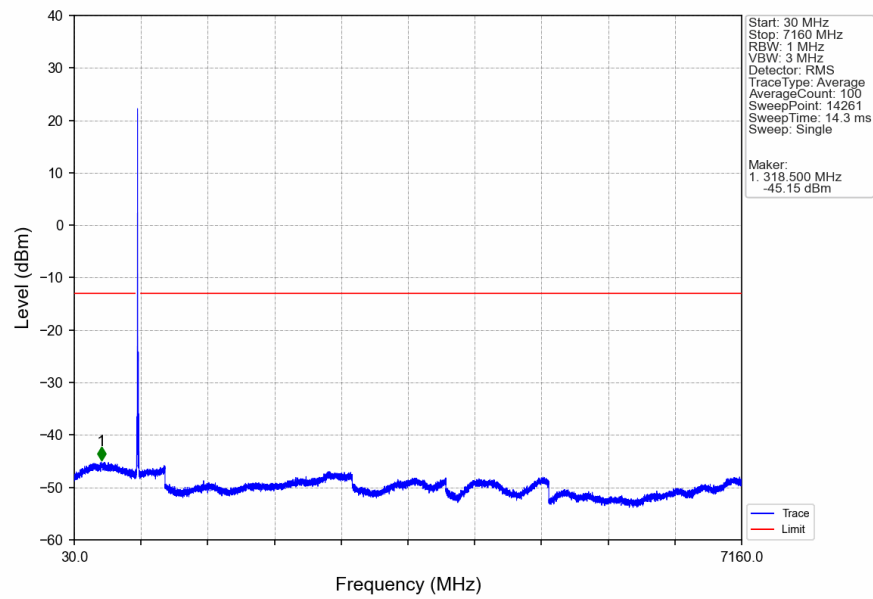


## Band17\_10MHz\_QPSK\_LCH\_709MHz\_RB\_50\_0\_NTNV

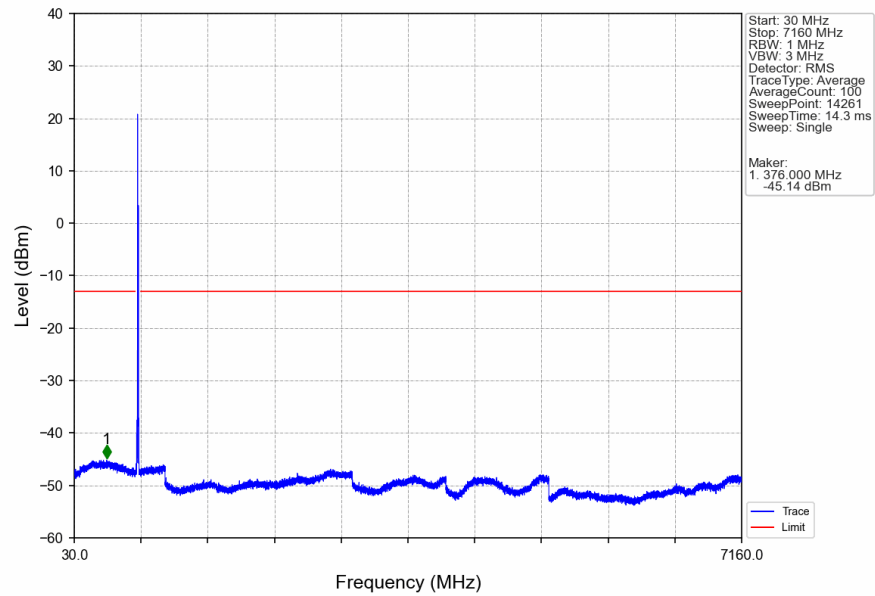


| Start (MHz) | Stop (MHz) | RBW (MHz) | Method | Marker No. | Freq (MHz) | Level (dBm) | Limit (dBm) | Result |
|-------------|------------|-----------|--------|------------|------------|-------------|-------------|--------|
| 694         | 703.9      | 0.1       | CHP    | 1          | 703.287    | -35.32      | -13         | Pass   |
| 703.9       | 704        | 0.03      | /      | 2          | 703.947    | -39.78      | -13         | Pass   |
| 704         | 714        | 0.03      | /      | /          | /          | /           | /           | /      |

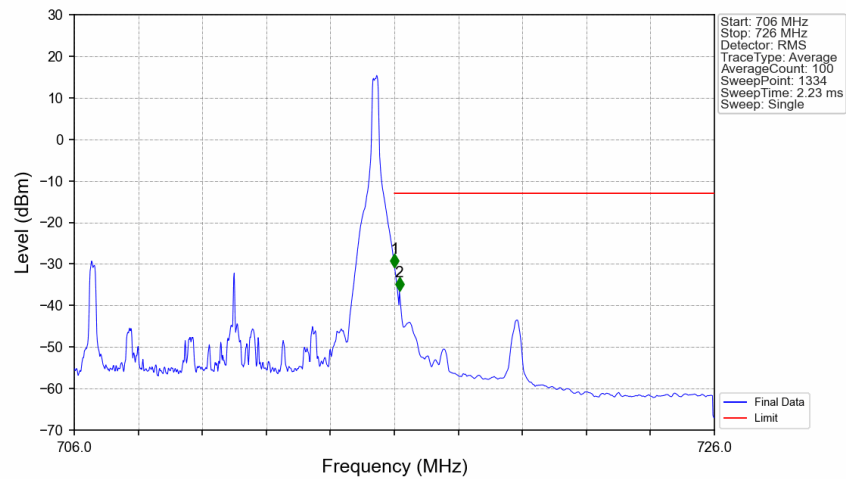
## Band17\_10MHz\_QPSK\_MCH\_710MHz\_RB\_1\_0\_NTNV



## Band17\_10MHz\_QPSK\_HCH\_711MHz\_RB\_1\_0\_NTNV

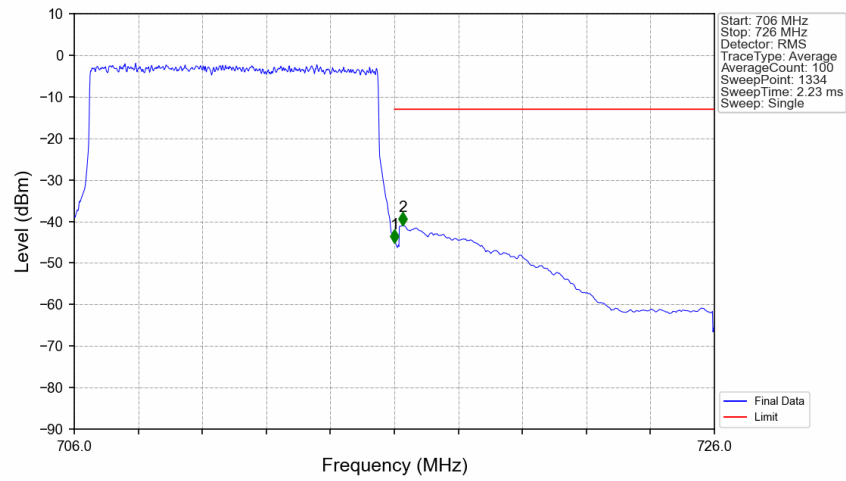


## Band17\_10MHz\_QPSK\_HCH\_711MHz\_RB\_1\_49\_NTNV



| Start (MHz) | Stop (MHz) | RBW (MHz) | Method | Marker No. | Freq (MHz) | Level (dBm) | Limit (dBm) | Result |
|-------------|------------|-----------|--------|------------|------------|-------------|-------------|--------|
| 706         | 716        | 0.03      | /      | /          | /          | /           | /           | /      |
| 716         | 716.1      | 0.03      | /      | 1          | 716.008    | -30.71      | -13         | Pass   |
| 716.1       | 726        | 0.1       | CHP    | 2          | 716.158    | -36.50      | -13         | Pass   |

## Band17\_10MHz\_QPSK\_HCH\_711MHz\_RB\_50\_0\_NTNV



| Start (MHz) | Stop (MHz) | RBW (MHz) | Method | Marker No. | Freq (MHz) | Level (dBm) | Limit (dBm) | Result |
|-------------|------------|-----------|--------|------------|------------|-------------|-------------|--------|
| 706         | 716        | 0.03      | /      | /          | /          | /           | /           | /      |
| 716         | 716.1      | 0.03      | /      | 1          | 716.008    | -45.05      | -13         | Pass   |
| 716.1       | 726        | 0.1       | CHP    | 2          | 716.263    | -40.87      | -13         | Pass   |

-End of the Appendix-