

# 1. Effective (Isotropic) Radiated Power Output Data

## 1.1 Test Result

### 1.1.1 B4\_1.4MHz\_EIRP

| Band: 4 / Bandwidth: 1.4MHz / NTNV |                 |               |        |                       |            |            |       |         |
|------------------------------------|-----------------|---------------|--------|-----------------------|------------|------------|-------|---------|
| Modulation                         | Frequency (MHz) | RB Allocation |        | Conducted Power (dBm) | Gain (dBi) | EIRP (dBm) |       | Verdict |
|                                    |                 | Size          | Offset |                       |            | Result     | Limit |         |
| QPSK                               | 1710.7          | 1             | 0      | 23.01                 | 0.72       | 23.73      | <=30  | Pass    |
|                                    |                 |               | 5      | 23.05                 | 0.72       | 23.77      | <=30  | Pass    |
|                                    |                 | 6             | 0      | 22.04                 | 0.72       | 22.76      | <=30  | Pass    |
|                                    | 1732.5          | 1             | 0      | 23.02                 | 0.72       | 23.74      | <=30  | Pass    |
|                                    |                 |               | 5      | 23.01                 | 0.72       | 23.73      | <=30  | Pass    |
|                                    |                 | 6             | 0      | 22.04                 | 0.72       | 22.76      | <=30  | Pass    |
|                                    | 1754.3          | 1             | 0      | 22.79                 | 0.72       | 23.51      | <=30  | Pass    |
|                                    |                 |               | 5      | 22.77                 | 0.72       | 23.49      | <=30  | Pass    |
|                                    |                 | 6             | 0      | 21.86                 | 0.72       | 22.58      | <=30  | Pass    |
| 16QAM                              | 1710.7          | 1             | 0      | 22.15                 | 0.72       | 22.87      | <=30  | Pass    |
|                                    |                 |               | 5      | 22.16                 | 0.72       | 22.88      | <=30  | Pass    |
|                                    |                 | 6             | 0      | 21.11                 | 0.72       | 21.83      | <=30  | Pass    |
|                                    | 1732.5          | 1             | 0      | 22.06                 | 0.72       | 22.78      | <=30  | Pass    |
|                                    |                 |               | 5      | 22.06                 | 0.72       | 22.78      | <=30  | Pass    |
|                                    |                 | 6             | 0      | 20.98                 | 0.72       | 21.70      | <=30  | Pass    |
|                                    | 1754.3          | 1             | 0      | 21.86                 | 0.72       | 22.58      | <=30  | Pass    |
|                                    |                 |               | 5      | 21.83                 | 0.72       | 22.55      | <=30  | Pass    |
|                                    |                 | 6             | 0      | 20.90                 | 0.72       | 21.62      | <=30  | Pass    |

Note1: EIRP=Conducted Power+Antenna Gain

### 1.1.2 B4\_3MHz\_EIRP

| Band: 4 / Bandwidth: 3MHz / NTNV |                 |               |        |                       |            |            |       |         |
|----------------------------------|-----------------|---------------|--------|-----------------------|------------|------------|-------|---------|
| Modulation                       | Frequency (MHz) | RB Allocation |        | Conducted Power (dBm) | Gain (dBi) | EIRP (dBm) |       | Verdict |
|                                  |                 | Size          | Offset |                       |            | Result     | Limit |         |
| QPSK                             | 1711.5          | 1             | 0      | 23.11                 | 0.72       | 23.83      | <=30  | Pass    |
|                                  |                 |               | 14     | 22.96                 | 0.72       | 23.68      | <=30  | Pass    |
|                                  |                 | 15            | 0      | 22.13                 | 0.72       | 22.85      | <=30  | Pass    |
|                                  | 1732.5          | 1             | 0      | 23.10                 | 0.72       | 23.82      | <=30  | Pass    |
|                                  |                 |               | 14     | 23.05                 | 0.72       | 23.77      | <=30  | Pass    |
|                                  |                 | 15            | 0      | 22.12                 | 0.72       | 22.84      | <=30  | Pass    |
|                                  | 1753.5          | 1             | 0      | 22.97                 | 0.72       | 23.69      | <=30  | Pass    |
|                                  |                 |               | 14     | 22.83                 | 0.72       | 23.55      | <=30  | Pass    |
|                                  |                 | 15            | 0      | 21.90                 | 0.72       | 22.62      | <=30  | Pass    |
| 16QAM                            | 1711.5          | 1             | 0      | 22.68                 | 0.72       | 23.40      | <=30  | Pass    |
|                                  |                 |               | 14     | 22.55                 | 0.72       | 23.27      | <=30  | Pass    |
|                                  |                 | 15            | 0      | 21.24                 | 0.72       | 21.96      | <=30  | Pass    |
|                                  | 1732.5          | 1             | 0      | 22.30                 | 0.72       | 23.02      | <=30  | Pass    |
|                                  |                 |               | 14     | 22.20                 | 0.72       | 22.92      | <=30  | Pass    |
|                                  |                 | 15            | 0      | 21.06                 | 0.72       | 21.78      | <=30  | Pass    |
|                                  | 1753.5          | 1             | 0      | 21.98                 | 0.72       | 22.70      | <=30  | Pass    |
|                                  |                 |               | 14     | 21.87                 | 0.72       | 22.59      | <=30  | Pass    |
|                                  |                 | 15            | 0      | 20.97                 | 0.72       | 21.69      | <=30  | Pass    |

Note1: EIRP=Conducted Power+Antenna Gain

### 1.1.3 B4\_5MHz\_EIRP

| Band: 4 / Bandwidth: 5MHz / NTNV         |                 |               |        |                       |            |            |       |         |
|------------------------------------------|-----------------|---------------|--------|-----------------------|------------|------------|-------|---------|
| Modulation                               | Frequency (MHz) | RB Allocation |        | Conducted Power (dBm) | Gain (dBi) | EIRP (dBm) |       | Verdict |
|                                          |                 | Size          | Offset |                       |            | Result     | Limit |         |
| QPSK                                     | 1712.5          | 1             | 0      | 23.26                 | 0.72       | 23.98      | <=30  | Pass    |
|                                          |                 |               | 24     | 23.11                 | 0.72       | 23.83      | <=30  | Pass    |
|                                          |                 | 25            | 0      | 22.12                 | 0.72       | 22.84      | <=30  | Pass    |
|                                          | 1732.5          | 1             | 0      | 23.23                 | 0.72       | 23.95      | <=30  | Pass    |
|                                          |                 |               | 24     | 23.12                 | 0.72       | 23.84      | <=30  | Pass    |
|                                          |                 | 25            | 0      | 22.16                 | 0.72       | 22.88      | <=30  | Pass    |
|                                          | 1752.5          | 1             | 0      | 23.09                 | 0.72       | 23.81      | <=30  | Pass    |
|                                          |                 |               | 24     | 22.88                 | 0.72       | 23.60      | <=30  | Pass    |
|                                          |                 | 25            | 0      | 21.94                 | 0.72       | 22.66      | <=30  | Pass    |
| 16QAM                                    | 1712.5          | 1             | 0      | 22.12                 | 0.72       | 22.84      | <=30  | Pass    |
|                                          |                 |               | 24     | 22.03                 | 0.72       | 22.75      | <=30  | Pass    |
|                                          |                 | 25            | 0      | 21.15                 | 0.72       | 21.87      | <=30  | Pass    |
|                                          | 1732.5          | 1             | 0      | 22.46                 | 0.72       | 23.18      | <=30  | Pass    |
|                                          |                 |               | 24     | 22.37                 | 0.72       | 23.09      | <=30  | Pass    |
|                                          |                 | 25            | 0      | 21.16                 | 0.72       | 21.88      | <=30  | Pass    |
|                                          | 1752.5          | 1             | 0      | 22.24                 | 0.72       | 22.96      | <=30  | Pass    |
|                                          |                 |               | 24     | 22.02                 | 0.72       | 22.74      | <=30  | Pass    |
|                                          |                 | 25            | 0      | 20.99                 | 0.72       | 21.71      | <=30  | Pass    |
| Note1: EIRP=Conducted Power+Antenna Gain |                 |               |        |                       |            |            |       |         |

#### 1.1.4 B4\_10MHz\_EIRP

| Band: 4 / Bandwidth: 10MHz / NTNV        |                 |               |        |                       |            |            |       |         |
|------------------------------------------|-----------------|---------------|--------|-----------------------|------------|------------|-------|---------|
| Modulation                               | Frequency (MHz) | RB Allocation |        | Conducted Power (dBm) | Gain (dBi) | EIRP (dBm) |       | Verdict |
|                                          |                 | Size          | Offset |                       |            | Result     | Limit |         |
| QPSK                                     | 1715            | 1             | 0      | 23.37                 | 0.72       | 24.09      | <=30  | Pass    |
|                                          |                 |               | 49     | 23.54                 | 0.72       | 24.26      | <=30  | Pass    |
|                                          |                 | 50            | 0      | 22.21                 | 0.72       | 22.93      | <=30  | Pass    |
|                                          | 1732.5          | 1             | 0      | 23.41                 | 0.72       | 24.13      | <=30  | Pass    |
|                                          |                 |               | 49     | 23.48                 | 0.72       | 24.20      | <=30  | Pass    |
|                                          |                 | 50            | 0      | 22.18                 | 0.72       | 22.90      | <=30  | Pass    |
|                                          | 1750            | 1             | 0      | 23.29                 | 0.72       | 24.01      | <=30  | Pass    |
|                                          |                 |               | 49     | 23.25                 | 0.72       | 23.97      | <=30  | Pass    |
|                                          |                 | 50            | 0      | 22.05                 | 0.72       | 22.77      | <=30  | Pass    |
| 16QAM                                    | 1715            | 1             | 0      | 22.91                 | 0.72       | 23.63      | <=30  | Pass    |
|                                          |                 |               | 49     | 23.07                 | 0.72       | 23.79      | <=30  | Pass    |
|                                          |                 | 50            | 0      | 21.26                 | 0.72       | 21.98      | <=30  | Pass    |
|                                          | 1732.5          | 1             | 0      | 22.56                 | 0.72       | 23.28      | <=30  | Pass    |
|                                          |                 |               | 49     | 22.67                 | 0.72       | 23.39      | <=30  | Pass    |
|                                          |                 | 50            | 0      | 21.22                 | 0.72       | 21.94      | <=30  | Pass    |
|                                          | 1750            | 1             | 0      | 22.25                 | 0.72       | 22.97      | <=30  | Pass    |
|                                          |                 |               | 49     | 22.34                 | 0.72       | 23.06      | <=30  | Pass    |
|                                          |                 | 50            | 0      | 21.06                 | 0.72       | 21.78      | <=30  | Pass    |
| Note1: EIRP=Conducted Power+Antenna Gain |                 |               |        |                       |            |            |       |         |

### 1.1.5 B4\_15MHz\_EIRP

| Band: 4 / Bandwidth: 15MHz / NTVN        |                 |               |        |                       |            |            |       |         |
|------------------------------------------|-----------------|---------------|--------|-----------------------|------------|------------|-------|---------|
| Modulation                               | Frequency (MHz) | RB Allocation |        | Conducted Power (dBm) | Gain (dBi) | EIRP (dBm) |       | Verdict |
|                                          |                 | Size          | Offset |                       |            | Result     | Limit |         |
| QPSK                                     | 1717.5          | 1             | 0      | 22.92                 | 0.72       | 23.64      | <=30  | Pass    |
|                                          |                 |               | 74     | 22.86                 | 0.72       | 23.58      | <=30  | Pass    |
|                                          |                 | 75            | 0      | 22.04                 | 0.72       | 22.76      | <=30  | Pass    |
|                                          | 1732.5          | 1             | 0      | 23.02                 | 0.72       | 23.74      | <=30  | Pass    |
|                                          |                 |               | 74     | 22.88                 | 0.72       | 23.60      | <=30  | Pass    |
|                                          |                 | 75            | 0      | 22.00                 | 0.72       | 22.72      | <=30  | Pass    |
|                                          | 1747.5          | 1             | 0      | 22.94                 | 0.72       | 23.66      | <=30  | Pass    |
|                                          |                 |               | 74     | 22.61                 | 0.72       | 23.33      | <=30  | Pass    |
|                                          |                 | 75            | 0      | 21.90                 | 0.72       | 22.62      | <=30  | Pass    |
| 16QAM                                    | 1717.5          | 1             | 0      | 22.44                 | 0.72       | 23.16      | <=30  | Pass    |
|                                          |                 |               | 74     | 22.40                 | 0.72       | 23.12      | <=30  | Pass    |
|                                          |                 | 75            | 0      | 21.03                 | 0.72       | 21.75      | <=30  | Pass    |
|                                          | 1732.5          | 1             | 0      | 22.22                 | 0.72       | 22.94      | <=30  | Pass    |
|                                          |                 |               | 74     | 22.10                 | 0.72       | 22.82      | <=30  | Pass    |
|                                          |                 | 75            | 0      | 21.05                 | 0.72       | 21.77      | <=30  | Pass    |
|                                          | 1747.5          | 1             | 0      | 22.39                 | 0.72       | 23.11      | <=30  | Pass    |
|                                          |                 |               | 74     | 22.07                 | 0.72       | 22.79      | <=30  | Pass    |
|                                          |                 | 75            | 0      | 20.92                 | 0.72       | 21.64      | <=30  | Pass    |
| Note1: EIRP=Conducted Power+Antenna Gain |                 |               |        |                       |            |            |       |         |

### 1.1.6 B4\_20MHz\_EIRP

| Band: 4 / Bandwidth: 20MHz / NTVN        |                 |               |        |                       |            |            |       |         |
|------------------------------------------|-----------------|---------------|--------|-----------------------|------------|------------|-------|---------|
| Modulation                               | Frequency (MHz) | RB Allocation |        | Conducted Power (dBm) | Gain (dBi) | EIRP (dBm) |       | Verdict |
|                                          |                 | Size          | Offset |                       |            | Result     | Limit |         |
| QPSK                                     | 1720            | 1             | 0      | 22.72                 | 0.72       | 23.44      | <=30  | Pass    |
|                                          |                 |               | 99     | 22.80                 | 0.72       | 23.52      | <=30  | Pass    |
|                                          |                 | 100           | 0      | 21.91                 | 0.72       | 22.63      | <=30  | Pass    |
|                                          | 1732.5          | 1             | 0      | 22.76                 | 0.72       | 23.48      | <=30  | Pass    |
|                                          |                 |               | 99     | 22.91                 | 0.72       | 23.63      | <=30  | Pass    |
|                                          |                 | 100           | 0      | 21.95                 | 0.72       | 22.67      | <=30  | Pass    |
|                                          | 1745            | 1             | 0      | 22.71                 | 0.72       | 23.43      | <=30  | Pass    |
|                                          |                 |               | 99     | 22.56                 | 0.72       | 23.28      | <=30  | Pass    |
|                                          |                 | 100           | 0      | 21.83                 | 0.72       | 22.55      | <=30  | Pass    |
| 16QAM                                    | 1720            | 1             | 0      | 21.99                 | 0.72       | 22.71      | <=30  | Pass    |
|                                          |                 |               | 99     | 22.11                 | 0.72       | 22.83      | <=30  | Pass    |
|                                          |                 | 100           | 0      | 20.97                 | 0.72       | 21.69      | <=30  | Pass    |
|                                          | 1732.5          | 1             | 0      | 21.83                 | 0.72       | 22.55      | <=30  | Pass    |
|                                          |                 |               | 99     | 22.05                 | 0.72       | 22.77      | <=30  | Pass    |
|                                          |                 | 100           | 0      | 20.98                 | 0.72       | 21.70      | <=30  | Pass    |
|                                          | 1745            | 1             | 0      | 22.31                 | 0.72       | 23.03      | <=30  | Pass    |
|                                          |                 |               | 99     | 22.08                 | 0.72       | 22.80      | <=30  | Pass    |
|                                          |                 | 100           | 0      | 20.84                 | 0.72       | 21.56      | <=30  | Pass    |
| Note1: EIRP=Conducted Power+Antenna Gain |                 |               |        |                       |            |            |       |         |

## 2. Frequency Stability

### 2.1 Test Result

#### 2.1.1 B4\_10MHz

| Band: 4 / Bandwidth: 10MHz |                 |               |        |            |               |                  |                       |             |         |
|----------------------------|-----------------|---------------|--------|------------|---------------|------------------|-----------------------|-------------|---------|
| Modulation                 | Frequency (MHz) | RB Allocation |        | Temp. (°C) | Voltage (VDC) | Freq. Error (Hz) | Freq. vs. Rated (ppm) |             | Verdict |
|                            |                 | Size          | Offset |            |               |                  | Result                | Limit       |         |
| QPSK                       | 1732.5          | 50            | 0      | 20         | 12            | 1.702            | 0.0010                | -2.5 to 2.5 | Pass    |
|                            |                 |               |        |            | 24            | 2.060            | 0.0012                | -2.5 to 2.5 | Pass    |
|                            |                 |               |        |            | 48            | 3.505            | 0.0020                | -2.5 to 2.5 | Pass    |
|                            |                 |               |        | -30        | 24            | 2.117            | 0.0012                | -2.5 to 2.5 | Pass    |
|                            |                 |               |        | -20        | 24            | 0.815            | 0.0005                | -2.5 to 2.5 | Pass    |
|                            |                 |               |        | -10        | 24            | 0.615            | 0.0004                | -2.5 to 2.5 | Pass    |
|                            |                 |               |        | 0          | 24            | 1.888            | 0.0011                | -2.5 to 2.5 | Pass    |
|                            |                 |               |        | 10         | 24            | 0.186            | 0.0001                | -2.5 to 2.5 | Pass    |
|                            |                 |               |        | 30         | 24            | 0.930            | 0.0005                | -2.5 to 2.5 | Pass    |
|                            |                 |               |        | 40         | 24            | 1.087            | 0.0006                | -2.5 to 2.5 | Pass    |
|                            |                 |               |        | 50         | 24            | -0.114           | -0.0001               | -2.5 to 2.5 | Pass    |

### 3. 99% & 26dB Bandwidth

#### 3.1 Test Result

##### 3.1.1 Band4\_OBW

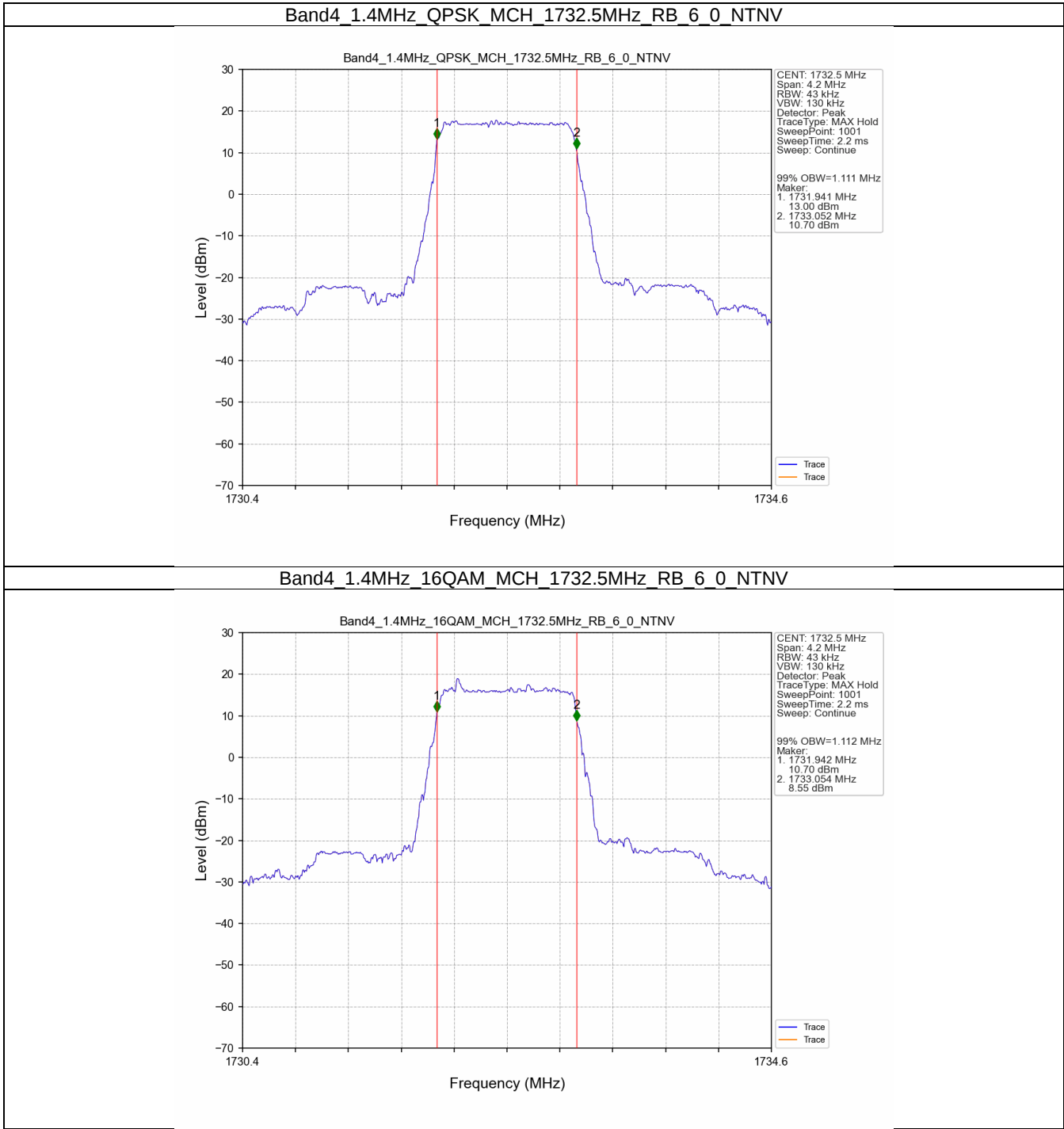
| Band: 4 / NTNV  |            |                 |               |        |                              |       |         |
|-----------------|------------|-----------------|---------------|--------|------------------------------|-------|---------|
| Bandwidth (MHz) | Modulation | Frequency (MHz) | RB Allocation |        | 99% Occupied Bandwidth (MHz) |       | Verdict |
|                 |            |                 | Size          | Offset | Result                       | Limit |         |
| 1.4             | QPSK       | 1732.5          | 6             | 0      | 1.111                        | /     | Pass    |
|                 | 16QAM      | 1732.5          | 6             | 0      | 1.112                        | /     | Pass    |
| 3               | QPSK       | 1732.5          | 15            | 0      | 2.744                        | /     | Pass    |
|                 | 16QAM      | 1732.5          | 15            | 0      | 2.732                        | /     | Pass    |
| 5               | QPSK       | 1732.5          | 25            | 0      | 4.575                        | /     | Pass    |
|                 | 16QAM      | 1732.5          | 25            | 0      | 4.539                        | /     | Pass    |
| 10              | QPSK       | 1732.5          | 50            | 0      | 9.061                        | /     | Pass    |
|                 | 16QAM      | 1732.5          | 50            | 0      | 9.033                        | /     | Pass    |
| 15              | QPSK       | 1732.5          | 75            | 0      | 13.612                       | /     | Pass    |
|                 | 16QAM      | 1732.5          | 75            | 0      | 13.619                       | /     | Pass    |
| 20              | QPSK       | 1732.5          | 100           | 0      | 18.159                       | /     | Pass    |
|                 | 16QAM      | 1732.5          | 100           | 0      | 18.144                       | /     | Pass    |

##### 3.1.2 Band4\_XDB

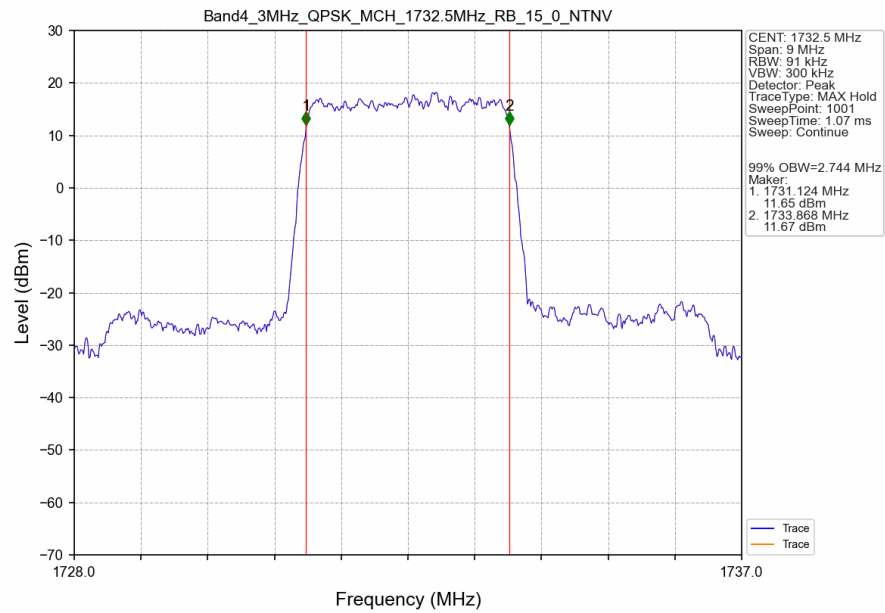
| Band: 4 / NTNV  |            |                 |               |        |                      |       |         |
|-----------------|------------|-----------------|---------------|--------|----------------------|-------|---------|
| Bandwidth (MHz) | Modulation | Frequency (MHz) | RB Allocation |        | 26dB Bandwidth (MHz) |       | Verdict |
|                 |            |                 | Size          | Offset | Result               | Limit |         |
| 1.4             | QPSK       | 1732.5          | 6             | 0      | 1.324                | /     | Pass    |
|                 | 16QAM      | 1732.5          | 6             | 0      | 1.306                | /     | Pass    |
| 3               | QPSK       | 1732.5          | 15            | 0      | 3.041                | /     | Pass    |
|                 | 16QAM      | 1732.5          | 15            | 0      | 3.050                | /     | Pass    |
| 5               | QPSK       | 1732.5          | 25            | 0      | 5.060                | /     | Pass    |
|                 | 16QAM      | 1732.5          | 25            | 0      | 5.040                | /     | Pass    |
| 10              | QPSK       | 1732.5          | 50            | 0      | 10.134               | /     | Pass    |
|                 | 16QAM      | 1732.5          | 50            | 0      | 10.003               | /     | Pass    |
| 15              | QPSK       | 1732.5          | 75            | 0      | 15.049               | /     | Pass    |
|                 | 16QAM      | 1732.5          | 75            | 0      | 15.035               | /     | Pass    |
| 20              | QPSK       | 1732.5          | 100           | 0      | 19.858               | /     | Pass    |
|                 | 16QAM      | 1732.5          | 100           | 0      | 19.801               | /     | Pass    |

3.2 Test Graph

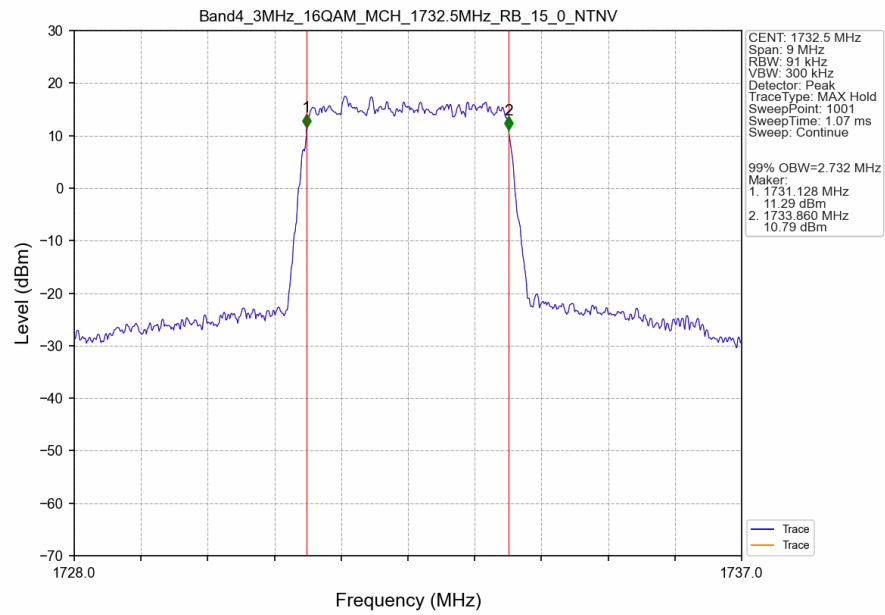
3.2.1 Band4\_OBW



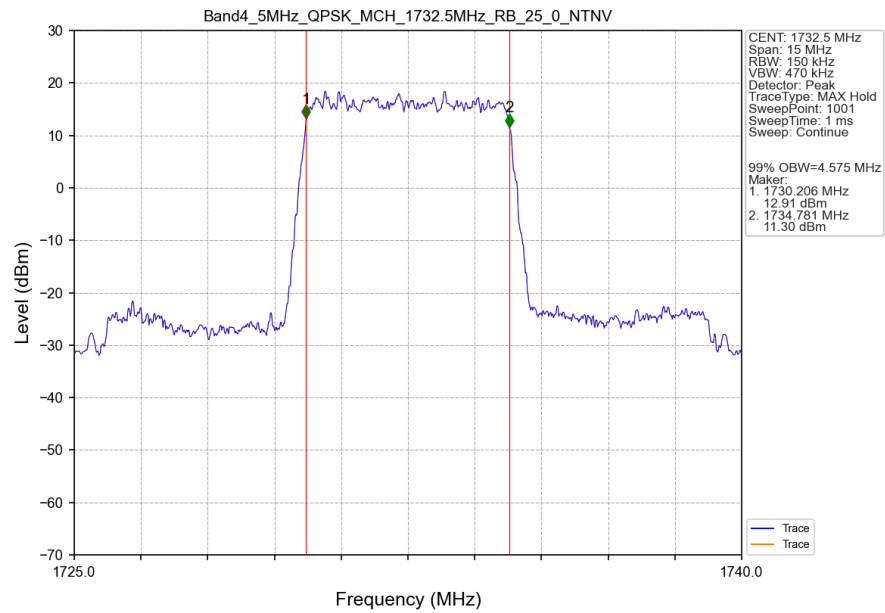
# Band4 3MHz QPSK MCH 1732.5MHz RB 15 0 NTV



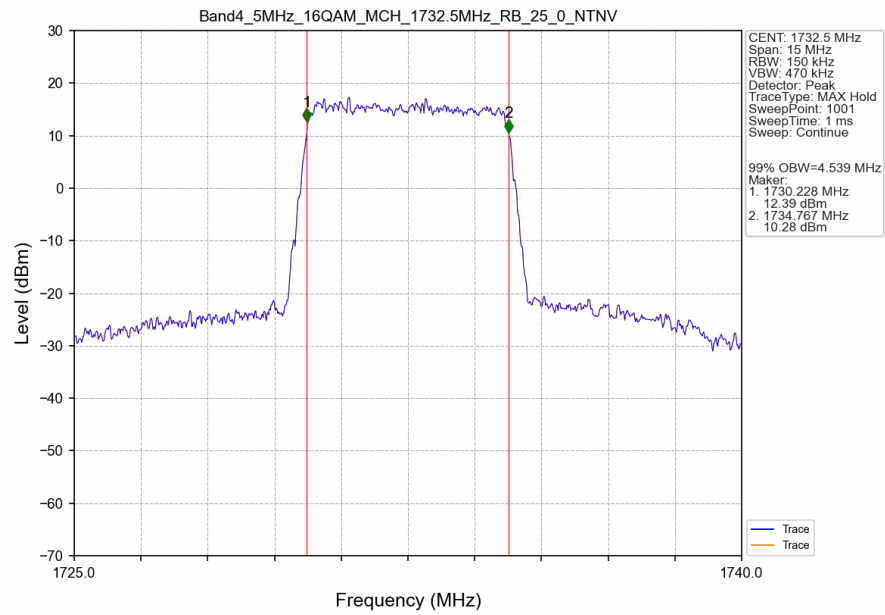
# Band4 3MHz 16QAM MCH 1732.5MHz RB 15 0 NTV



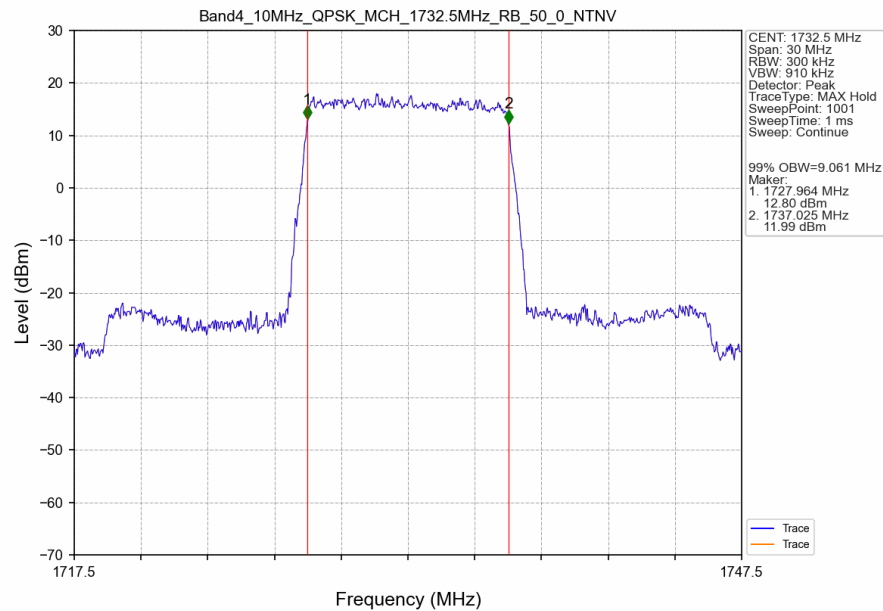
# Band4 5MHz QPSK MCH 1732.5MHz RB 25 0 NTNV



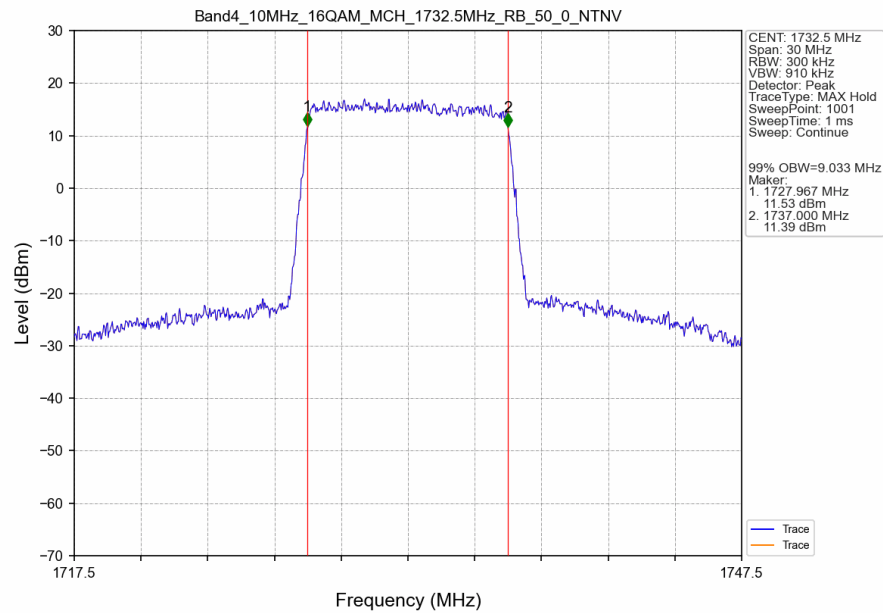
# Band4 5MHz 16QAM MCH 1732.5MHz RB 25 0 NTNV



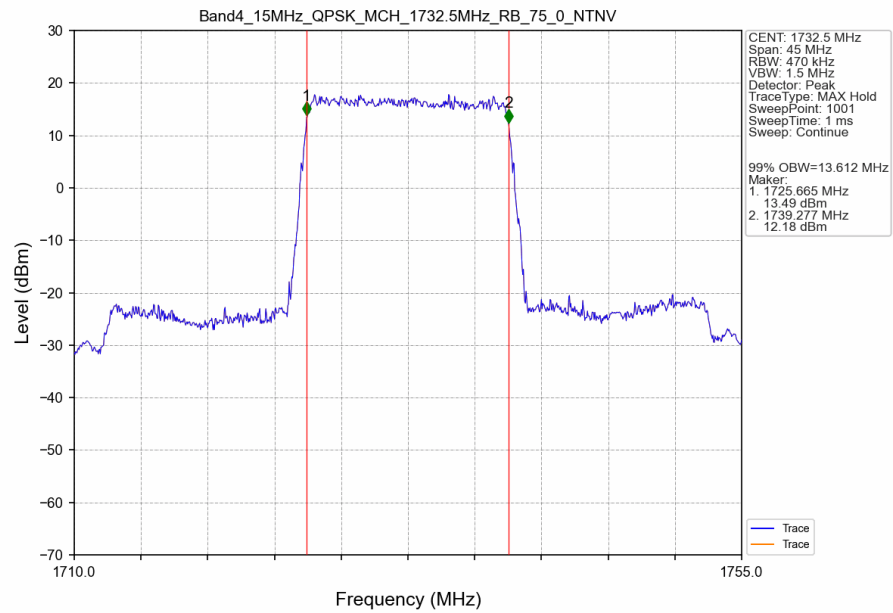
Band4 10MHz QPSK MCH 1732.5MHz RB 50 0 NTNV



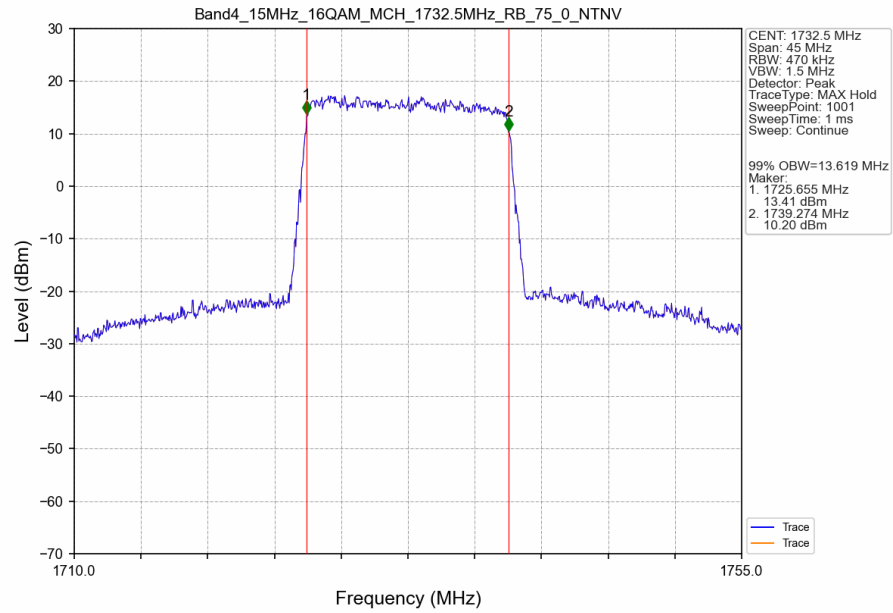
Band4 10MHz 16QAM MCH 1732.5MHz RB 50 0 NTNV



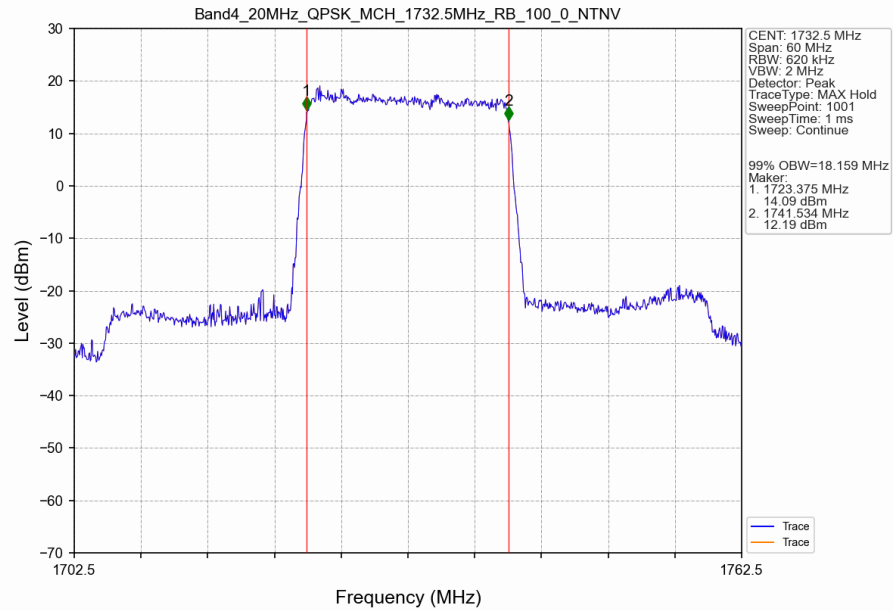
Band4 15MHz QPSK MCH 1732.5MHz RB 75 0 NTNV



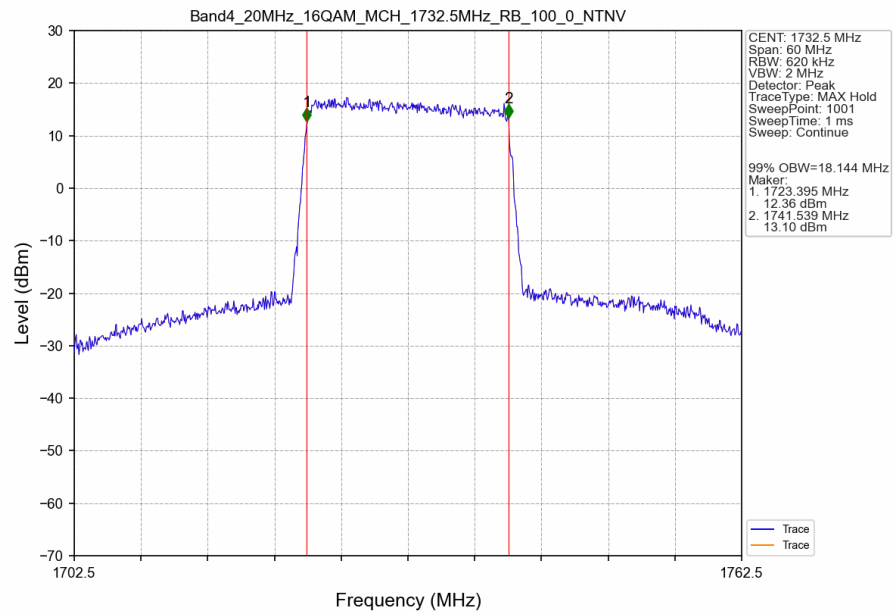
Band4 15MHz 16QAM MCH 1732.5MHz RB 75 0 NTNV



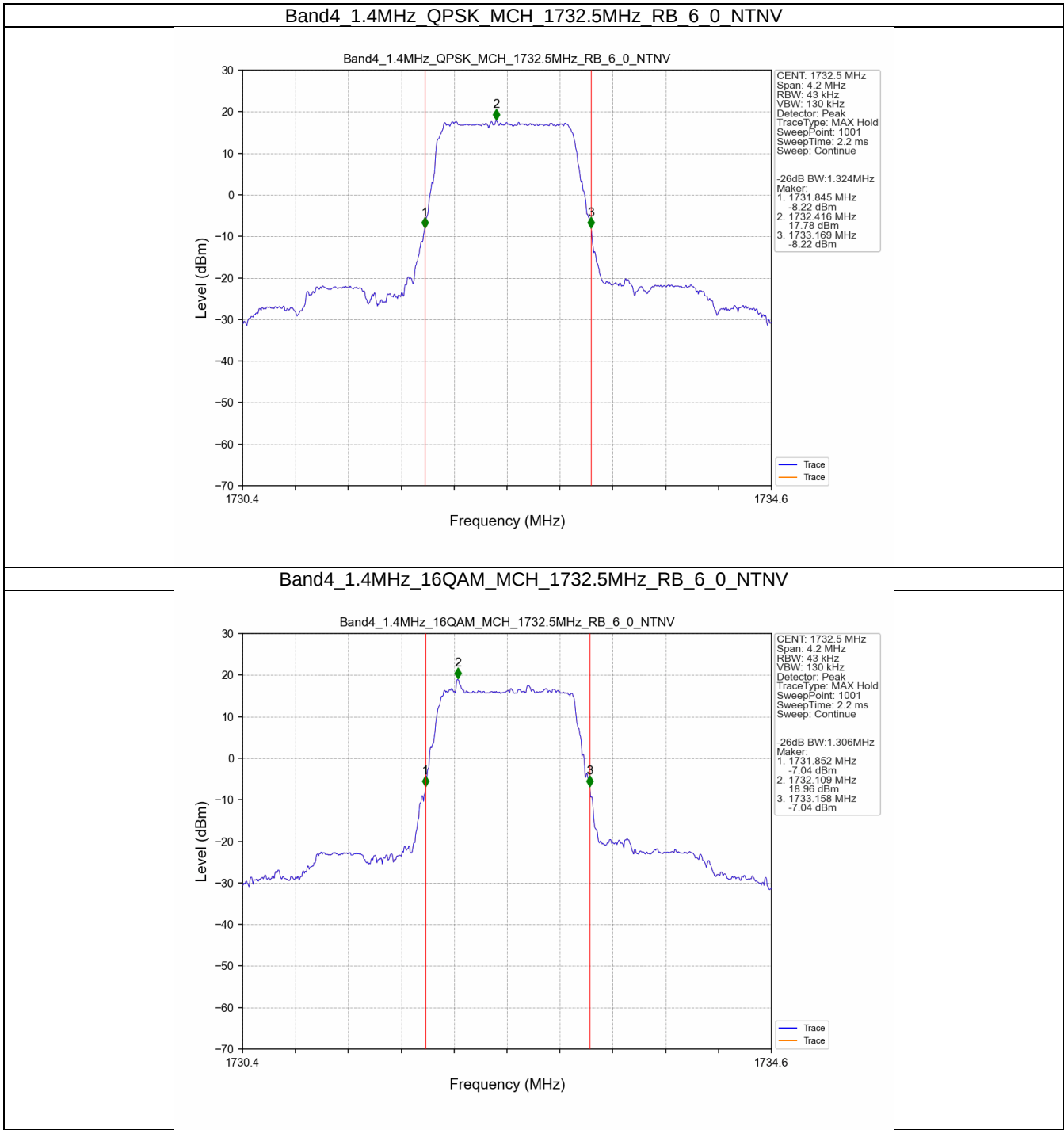
Band4 20MHz QPSK MCH 1732.5MHz RB 100 0 NTNV



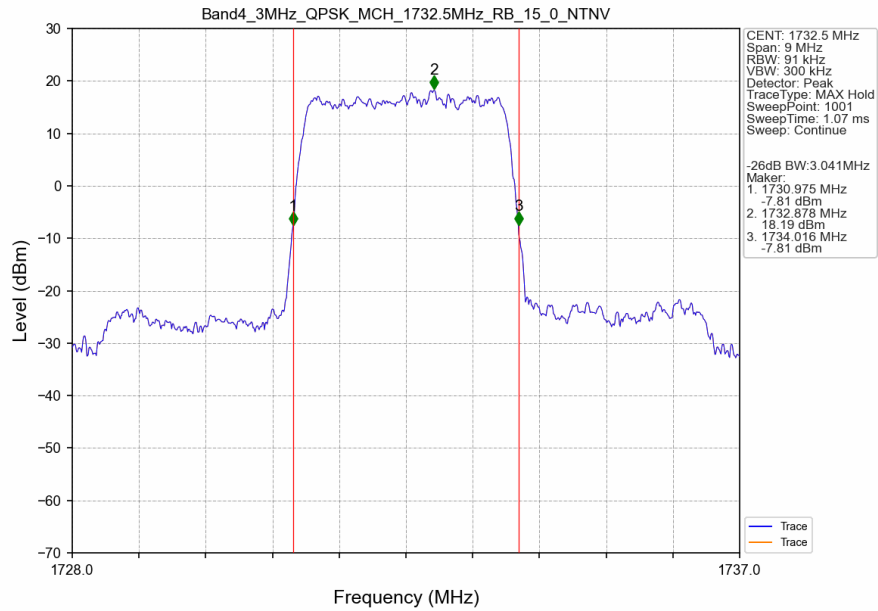
Band4 20MHz 16QAM MCH 1732.5MHz RB 100 0 NTNV



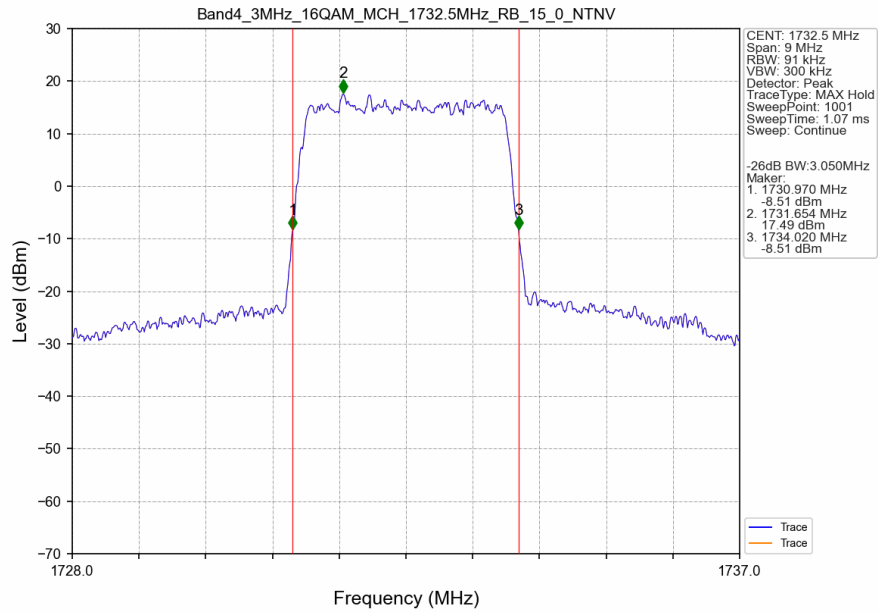
3.2.2 Band4\_XDB



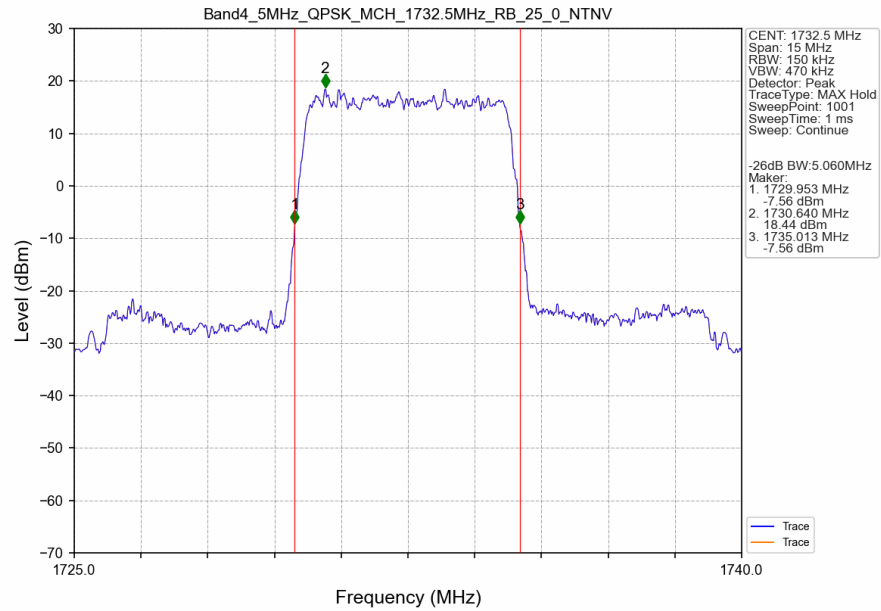
# Band4 3MHz QPSK MCH 1732.5MHz RB 15 0 NTN



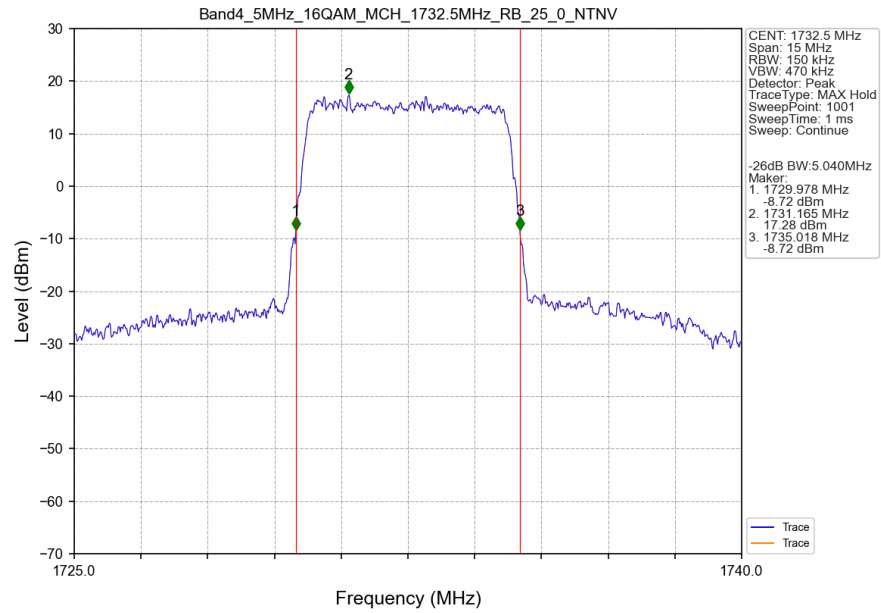
# Band4 3MHz 16QAM MCH 1732.5MHz RB 15 0 NTN



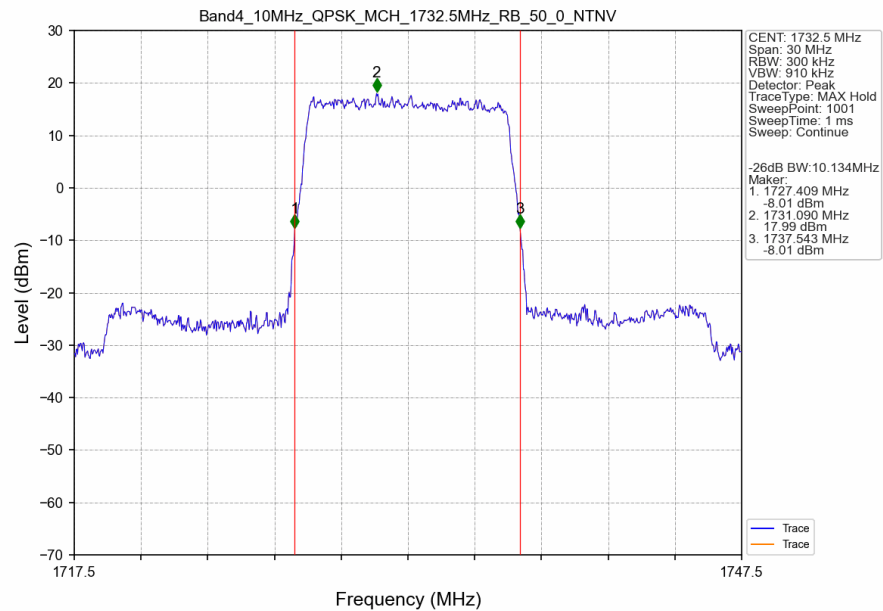
# Band4 5MHz QPSK MCH 1732.5MHz RB 25 0 NTNV



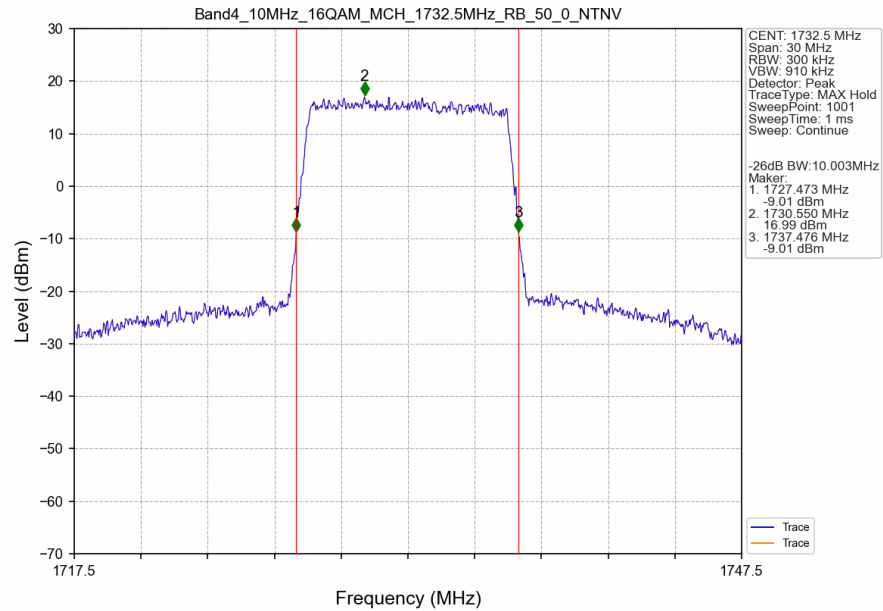
# Band4 5MHz 16QAM MCH 1732.5MHz RB 25 0 NTNV



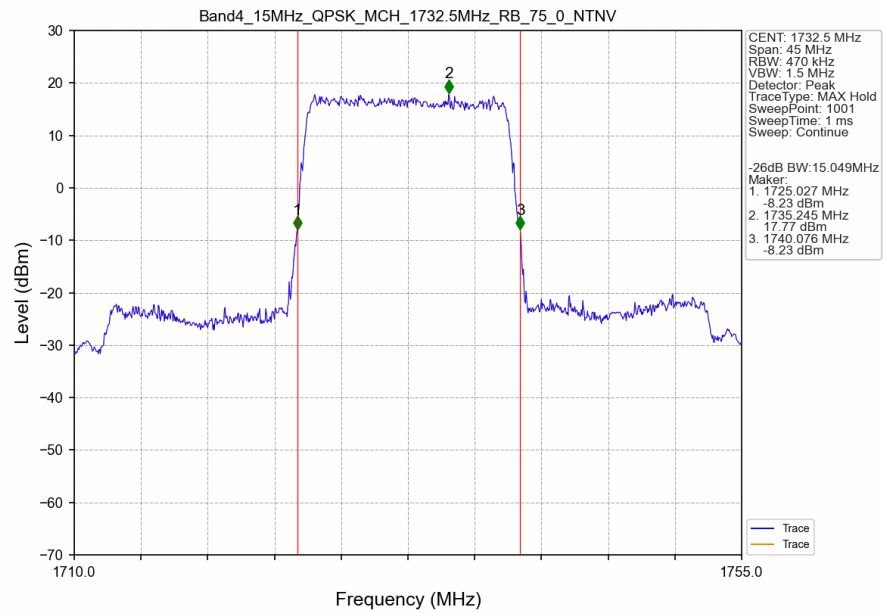
Band4 10MHz QPSK MCH 1732.5MHz RB 50 0 NTNV



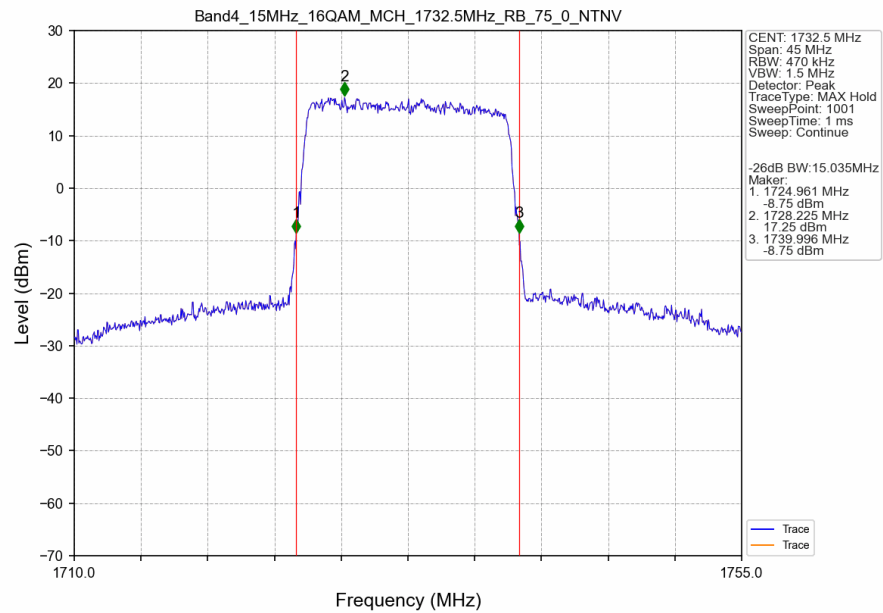
Band4 10MHz 16QAM MCH 1732.5MHz RB 50 0 NTNV



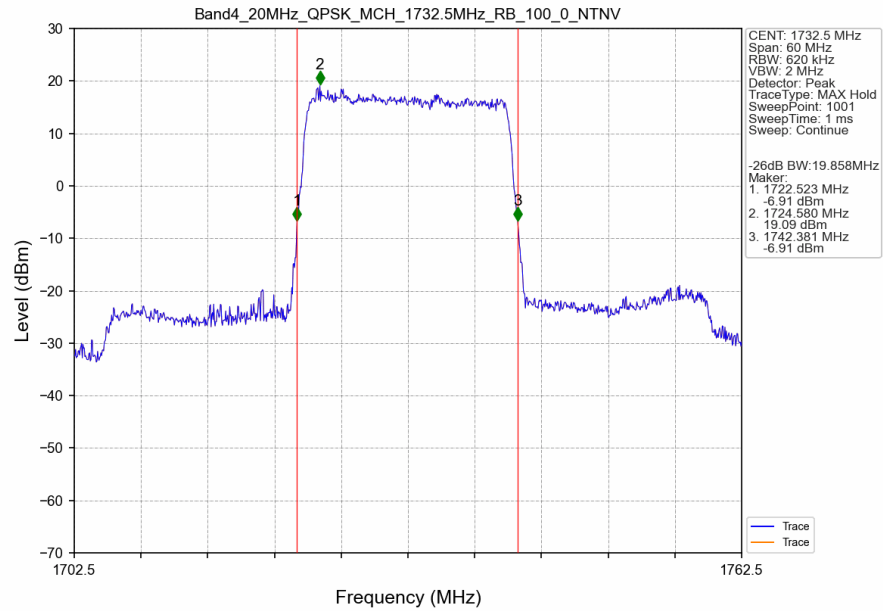
Band4 15MHz QPSK MCH 1732.5MHz RB 75 0 NTNV



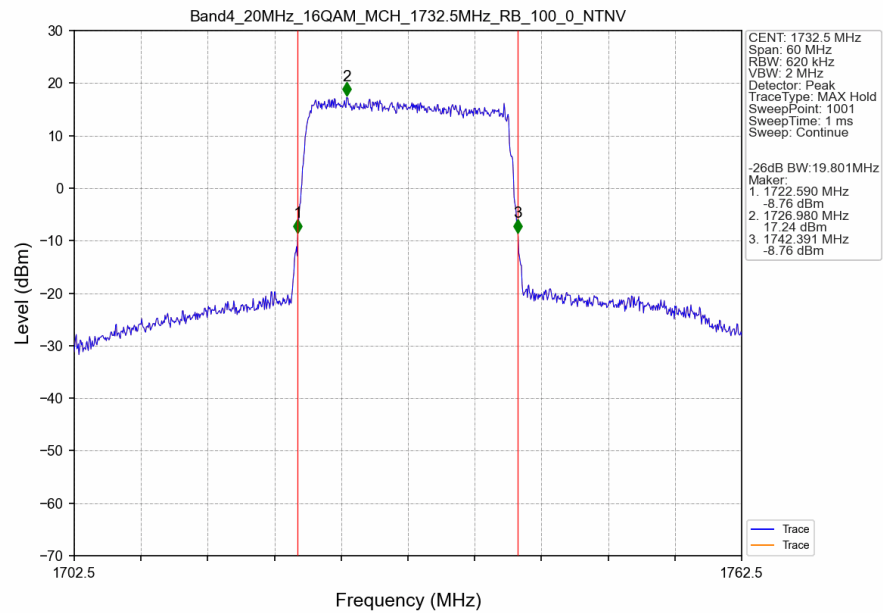
Band4 15MHz 16QAM MCH 1732.5MHz RB 75 0 NTNV



# Band4 20MHz QPSK MCH 1732.5MHz RB 100 0 NTNV



# Band4 20MHz 16QAM MCH 1732.5MHz RB 100 0 NTNV



## 4. Peak-Average Ratio

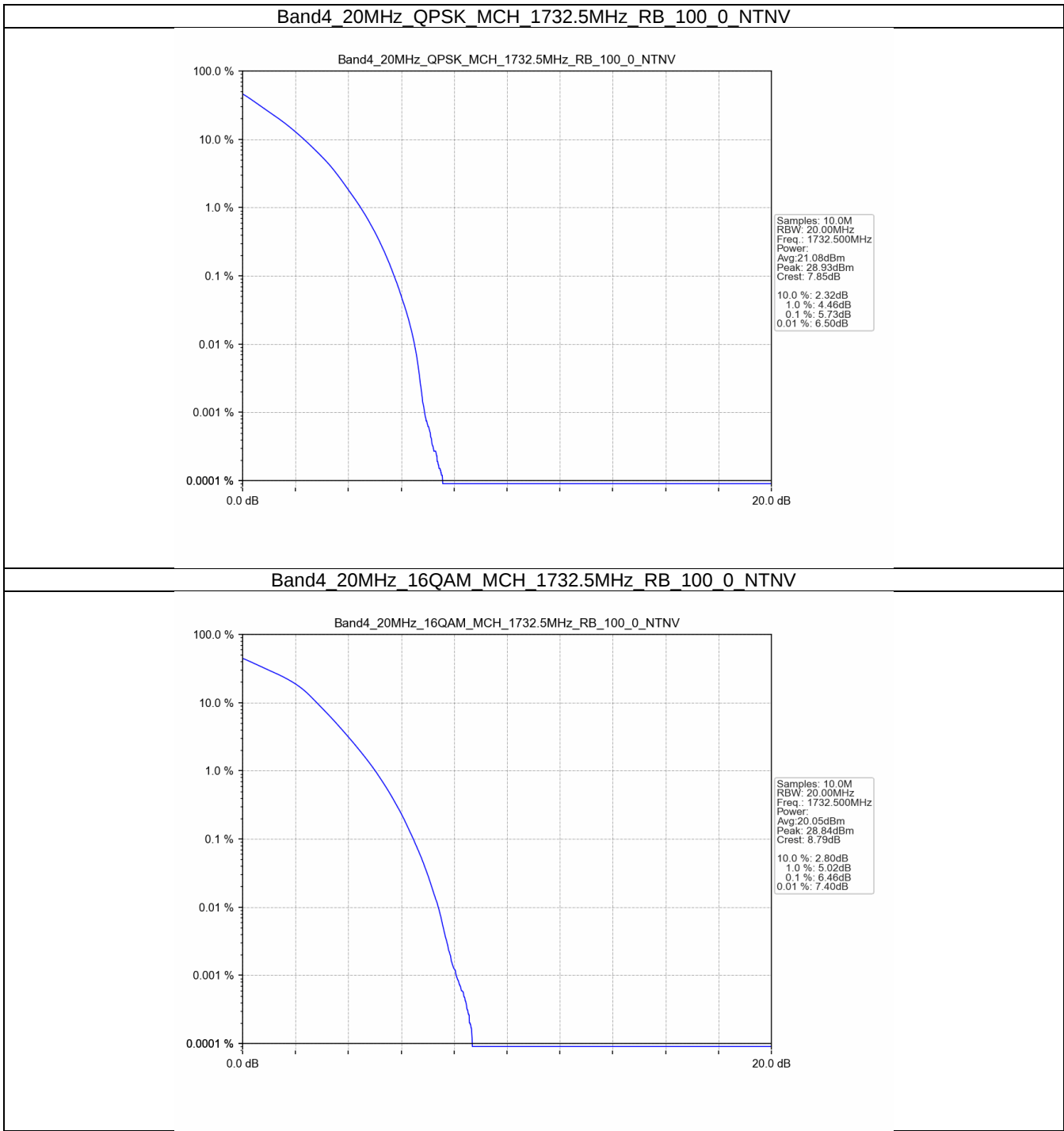
### 4.1 Test Result

#### 4.1.1 B4\_20MHz

| Band: 4 / Bandwidth: 20MHz / NTV |                    |               |        |                         |       |         |
|----------------------------------|--------------------|---------------|--------|-------------------------|-------|---------|
| Modulation                       | Frequency<br>(MHz) | RB Allocation |        | Peak-Average Ratio (dB) |       | Verdict |
|                                  |                    | Size          | Offset | Result                  | Limit |         |
| QPSK                             | 1732.5             | 100           | 0      | 5.73                    | <=13  | Pass    |
| 16QAM                            | 1732.5             | 100           | 0      | 6.46                    | <=13  | Pass    |

# 4.2 Test Graph

## 4.2.1 B4\_20MHz



## 5. Spurious Emission

### 5.1 Test Result

#### 5.1.1 B4\_1.4MHz

| Band: 4 / Bandwidth: 1.4MHz / NTNV |                 |               |        |                     |       |         |
|------------------------------------|-----------------|---------------|--------|---------------------|-------|---------|
| Modulation                         | Frequency (MHz) | RB Allocation |        | Spurious Emission   |       | Verdict |
|                                    |                 | Size          | Offset | Result              | Limit |         |
| QPSK                               | 1710.7          | 1             | 0      | Refer To Test Graph |       | Pass    |
|                                    |                 | 6             | 0      | Refer To Test Graph |       | Pass    |
|                                    | 1732.5          | 1             | 0      | Refer To Test Graph |       | Pass    |
|                                    | 1754.3          | 1             | 0      | Refer To Test Graph |       | Pass    |
|                                    |                 |               | 5      | Refer To Test Graph |       | Pass    |
|                                    |                 | 6             | 0      | Refer To Test Graph |       | Pass    |

#### 5.1.2 B4\_3MHz

| Band: 4 / Bandwidth: 3MHz / NTNV |                 |               |        |                     |       |         |
|----------------------------------|-----------------|---------------|--------|---------------------|-------|---------|
| Modulation                       | Frequency (MHz) | RB Allocation |        | Spurious Emission   |       | Verdict |
|                                  |                 | Size          | Offset | Result              | Limit |         |
| QPSK                             | 1711.5          | 1             | 0      | Refer To Test Graph |       | Pass    |
|                                  |                 | 15            | 0      | Refer To Test Graph |       | Pass    |
|                                  | 1732.5          | 1             | 0      | Refer To Test Graph |       | Pass    |
|                                  | 1753.5          | 1             | 0      | Refer To Test Graph |       | Pass    |
|                                  |                 |               | 14     | Refer To Test Graph |       | Pass    |
|                                  |                 | 15            | 0      | Refer To Test Graph |       | Pass    |

#### 5.1.3 B4\_5MHz

| Band: 4 / Bandwidth: 5MHz / NTNV |                 |               |        |                     |       |         |
|----------------------------------|-----------------|---------------|--------|---------------------|-------|---------|
| Modulation                       | Frequency (MHz) | RB Allocation |        | Spurious Emission   |       | Verdict |
|                                  |                 | Size          | Offset | Result              | Limit |         |
| QPSK                             | 1712.5          | 1             | 0      | Refer To Test Graph |       | Pass    |
|                                  |                 | 25            | 0      | Refer To Test Graph |       | Pass    |
|                                  | 1732.5          | 1             | 0      | Refer To Test Graph |       | Pass    |
|                                  | 1752.5          | 1             | 0      | Refer To Test Graph |       | Pass    |
|                                  |                 |               | 24     | Refer To Test Graph |       | Pass    |
|                                  |                 | 25            | 0      | Refer To Test Graph |       | Pass    |

#### 5.1.4 B4\_10MHz

| Band: 4 / Bandwidth: 10MHz / NTNV |                 |               |        |                     |       |         |
|-----------------------------------|-----------------|---------------|--------|---------------------|-------|---------|
| Modulation                        | Frequency (MHz) | RB Allocation |        | Spurious Emission   |       | Verdict |
|                                   |                 | Size          | Offset | Result              | Limit |         |
| QPSK                              | 1715            | 1             | 0      | Refer To Test Graph |       | Pass    |
|                                   |                 | 50            | 0      | Refer To Test Graph |       | Pass    |
|                                   | 1732.5          | 1             | 0      | Refer To Test Graph |       | Pass    |
|                                   | 1750            | 1             | 0      | Refer To Test Graph |       | Pass    |
|                                   |                 |               | 49     | Refer To Test Graph |       | Pass    |

|  |  |    |   |                     |      |
|--|--|----|---|---------------------|------|
|  |  | 50 | 0 | Refer To Test Graph | Pass |
|--|--|----|---|---------------------|------|

### 5.1.5 B4\_15MHz

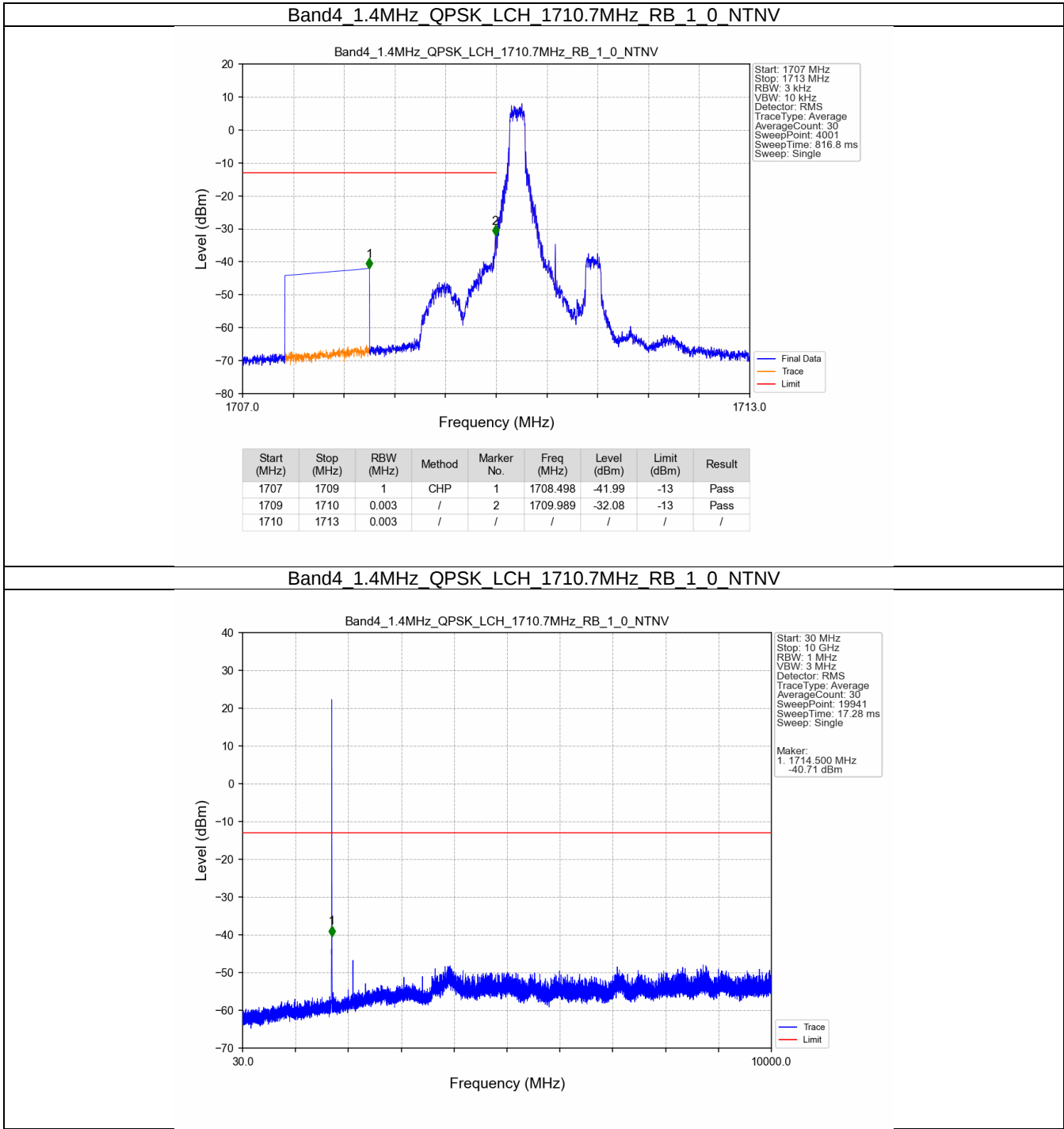
| Band: 4 / Bandwidth: 15MHz / NTNV |                 |               |        |                     |       |         |
|-----------------------------------|-----------------|---------------|--------|---------------------|-------|---------|
| Modulation                        | Frequency (MHz) | RB Allocation |        | Spurious Emission   |       | Verdict |
|                                   |                 | Size          | Offset | Result              | Limit |         |
| QPSK                              | 1717.5          | 1             | 0      | Refer To Test Graph |       | Pass    |
|                                   |                 | 75            | 0      | Refer To Test Graph |       | Pass    |
|                                   | 1732.5          | 1             | 0      | Refer To Test Graph |       | Pass    |
|                                   | 1747.5          | 1             | 0      | Refer To Test Graph |       | Pass    |
|                                   |                 |               | 74     | Refer To Test Graph |       | Pass    |
|                                   |                 | 75            | 0      | Refer To Test Graph |       | Pass    |

### 5.1.6 B4\_20MHz

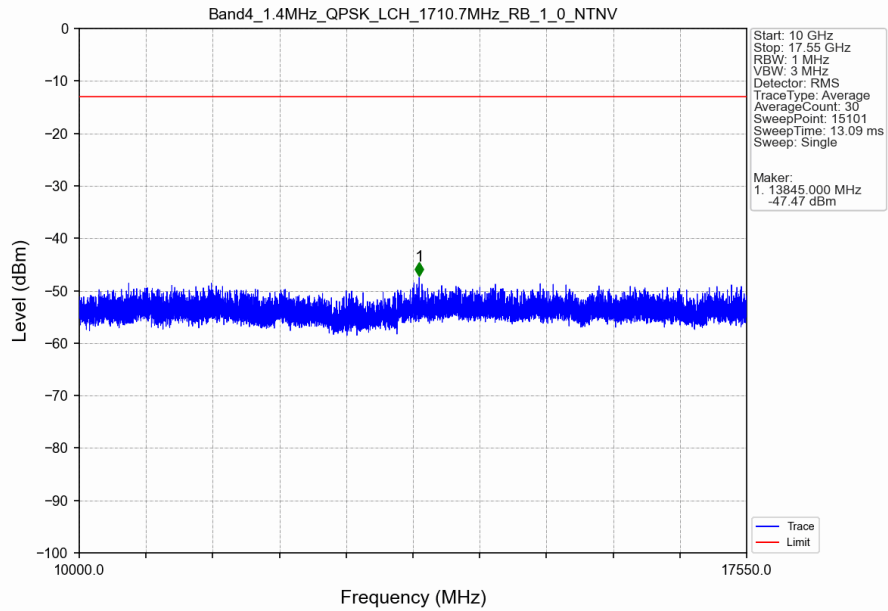
| Band: 4 / Bandwidth: 20MHz / NTNV |                 |               |        |                     |       |         |
|-----------------------------------|-----------------|---------------|--------|---------------------|-------|---------|
| Modulation                        | Frequency (MHz) | RB Allocation |        | Spurious Emission   |       | Verdict |
|                                   |                 | Size          | Offset | Result              | Limit |         |
| QPSK                              | 1720            | 1             | 0      | Refer To Test Graph |       | Pass    |
|                                   |                 | 100           | 0      | Refer To Test Graph |       | Pass    |
|                                   | 1732.5          | 1             | 0      | Refer To Test Graph |       | Pass    |
|                                   | 1745            | 1             | 0      | Refer To Test Graph |       | Pass    |
|                                   |                 |               | 99     | Refer To Test Graph |       | Pass    |
|                                   |                 | 100           | 0      | Refer To Test Graph |       | Pass    |

5.2 Test Graph

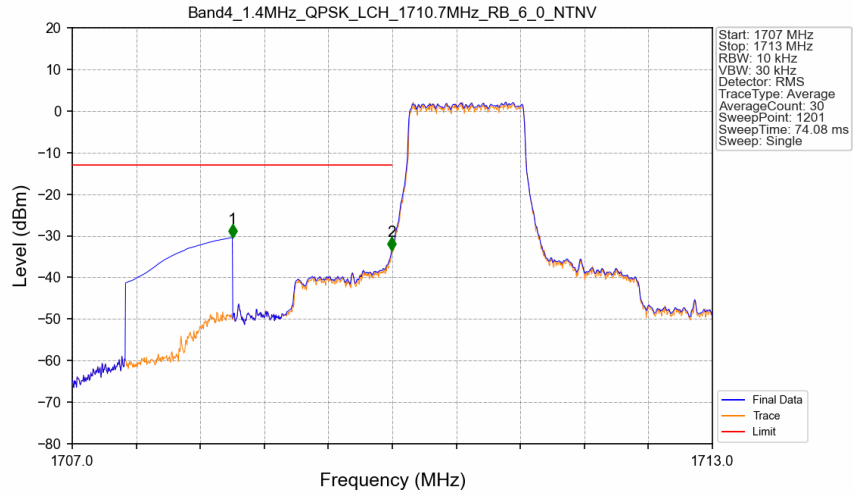
5.2.1 B4\_1.4MHz



# Band4 1.4MHz QPSK LCH 1710.7MHz RB 1 0 NTV

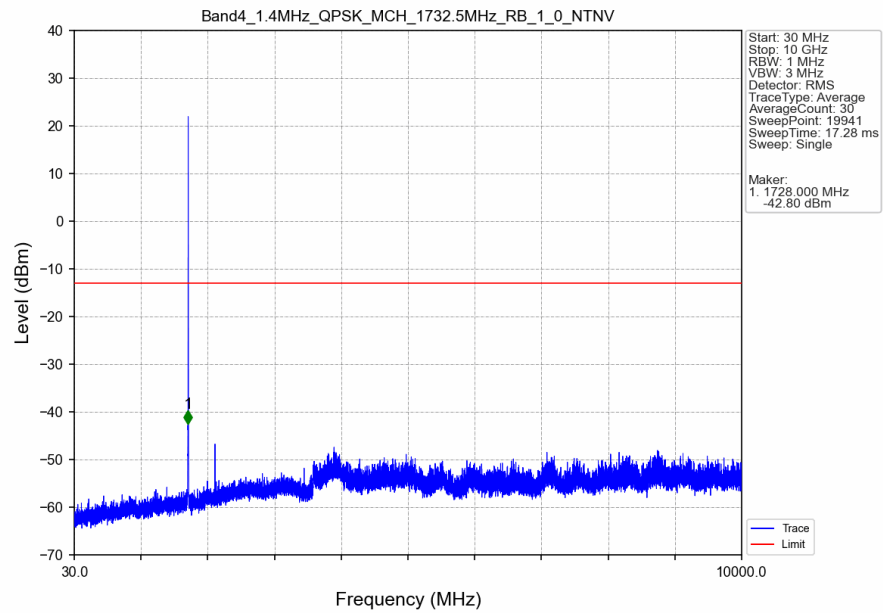


# Band4 1.4MHz QPSK LCH 1710.7MHz RB 6 0 NTV

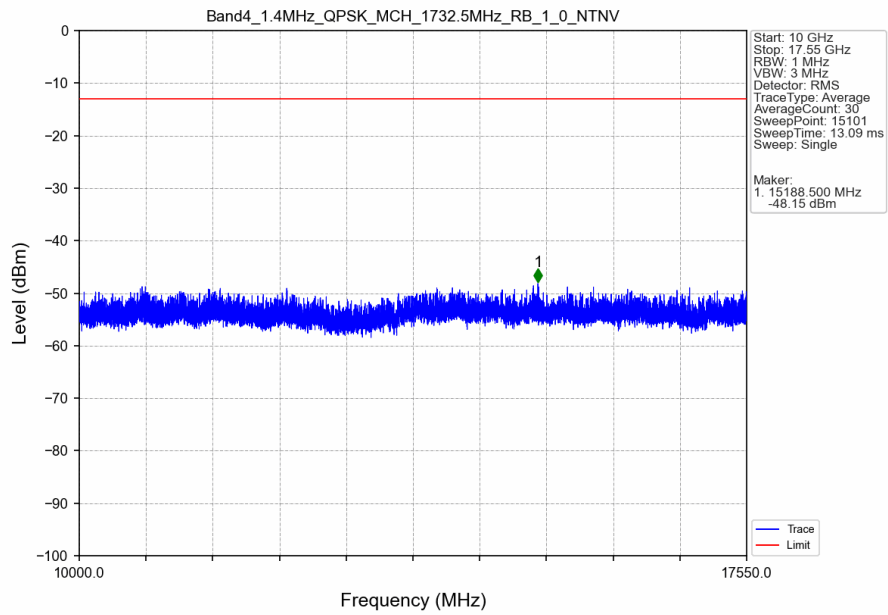


| Start (MHz) | Stop (MHz) | RBW (MHz) | Method | Marker No. | Freq (MHz) | Level (dBm) | Limit (dBm) | Result |
|-------------|------------|-----------|--------|------------|------------|-------------|-------------|--------|
| 1707        | 1709       | 1         | CHP    | 1          | 1708.500   | -30.42      | -13         | Pass   |
| 1709        | 1710       | 0.013     | CHP    | 2          | 1709.995   | -33.44      | -13         | Pass   |
| 1710        | 1713       | 0.013     | CHP    | /          | /          | /           | /           | /      |

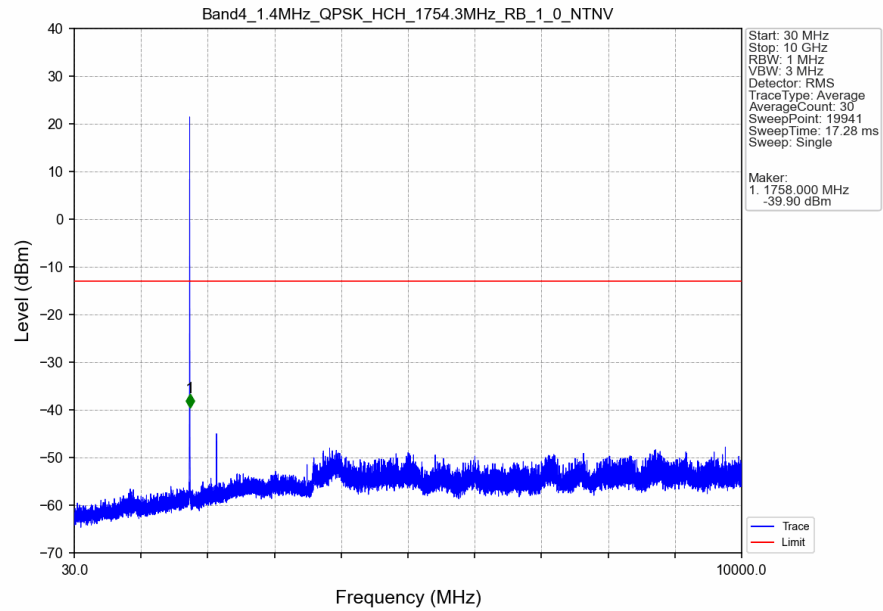
Band4 1.4MHz QPSK MCH 1732.5MHz RB 1 0 NTV



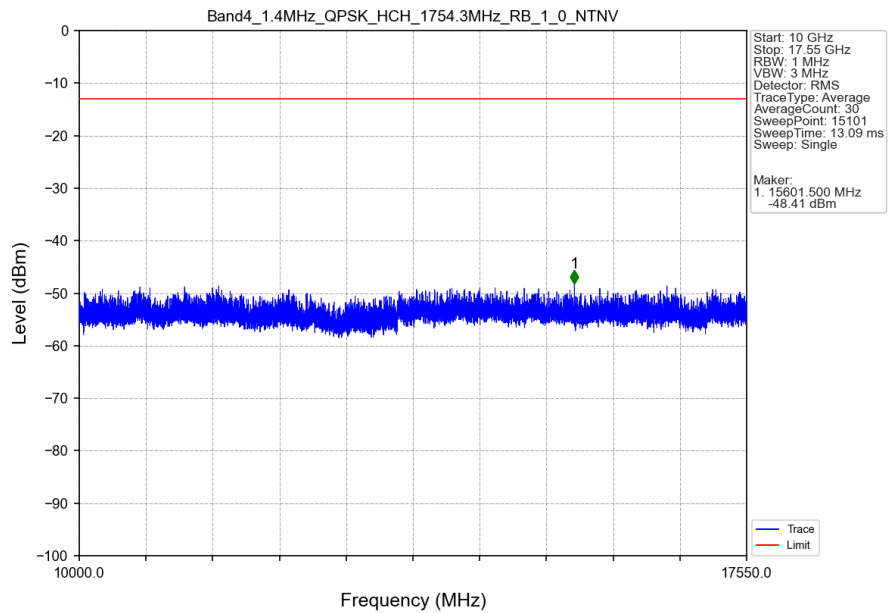
Band4 1.4MHz QPSK MCH 1732.5MHz RB 1 0 NTV



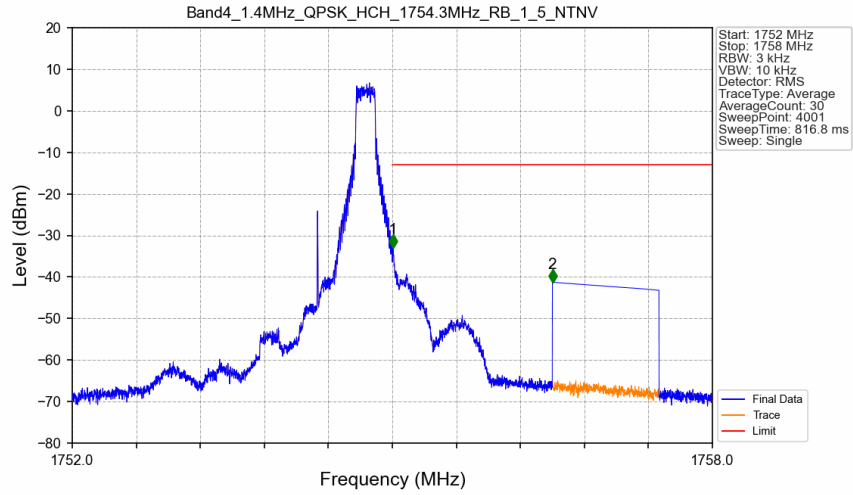
Band4 1.4MHz QPSK HCH 1754.3MHz RB 1 0 NTV



Band4 1.4MHz QPSK HCH 1754.3MHz RB 1 0 NTV

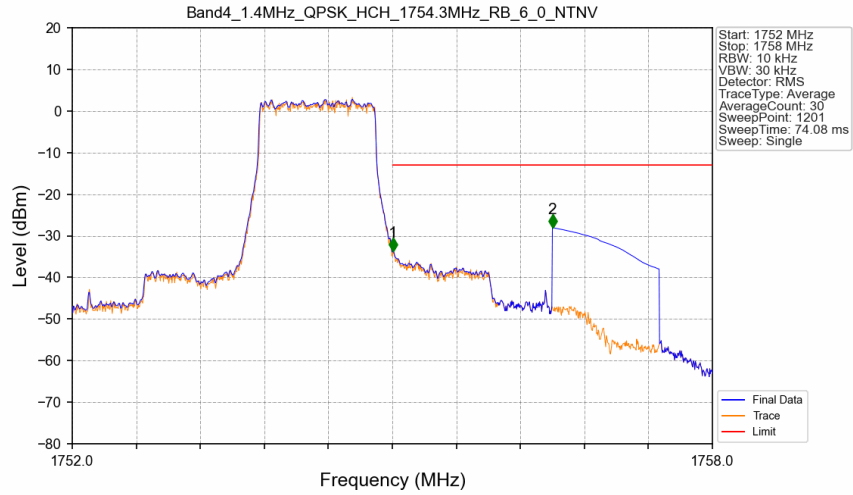


### Band4 1.4MHz QPSK HCH 1754.3MHz RB 1 5 NTV



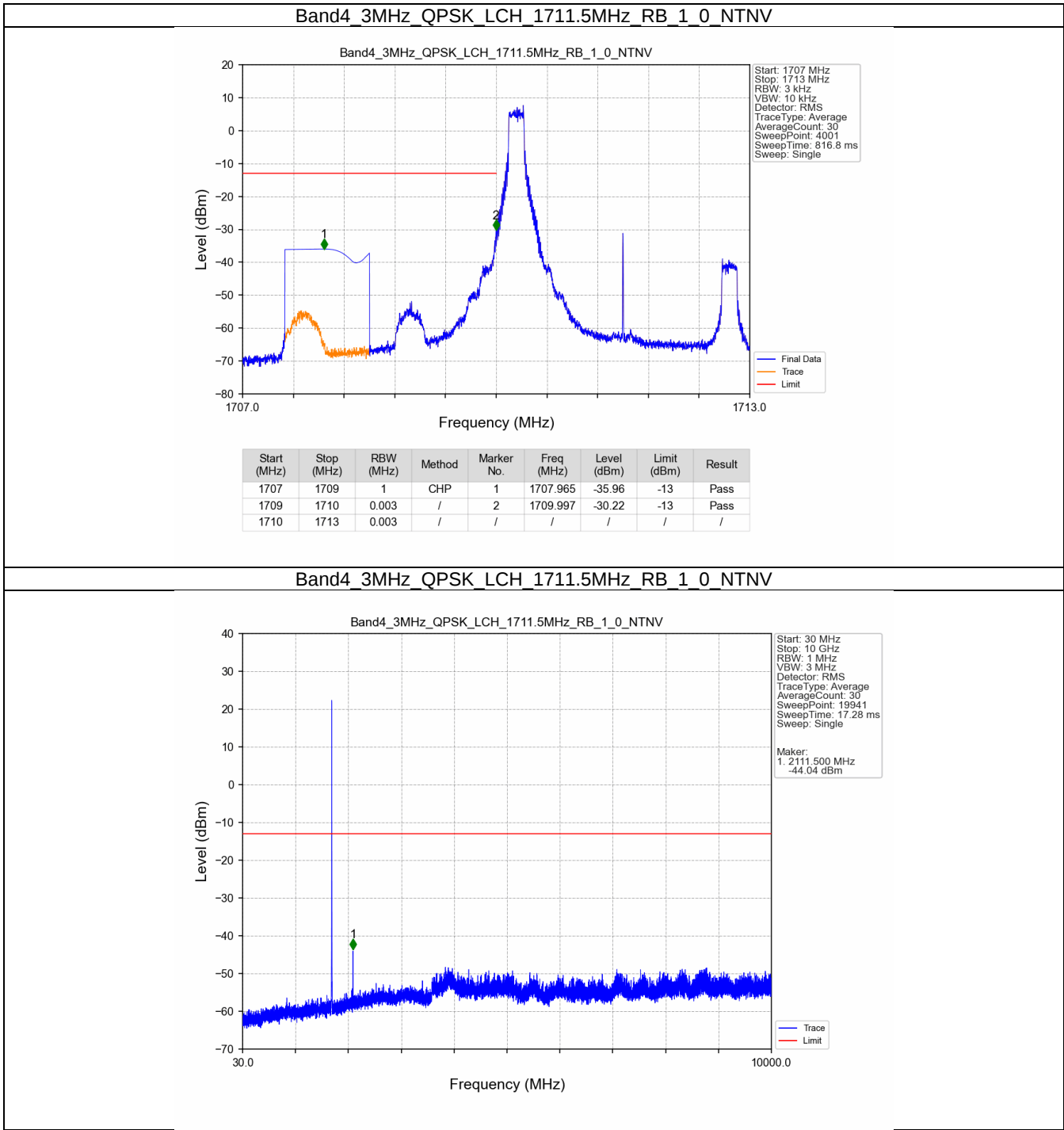
| Start (MHz) | Stop (MHz) | RBW (MHz) | Method | Marker No. | Freq (MHz) | Level (dBm) | Limit (dBm) | Result |
|-------------|------------|-----------|--------|------------|------------|-------------|-------------|--------|
| 1752        | 1755       | 0.003     | /      | /          | /          | /           | /           | /      |
| 1755        | 1756       | 0.003     | /      | 1          | 1755.006   | -33.01      | -13         | Pass   |
| 1756        | 1758       | 1         | CHP    | 2          | 1756.500   | -41.26      | -13         | Pass   |

### Band4 1.4MHz QPSK HCH 1754.3MHz RB 6 0 NTV

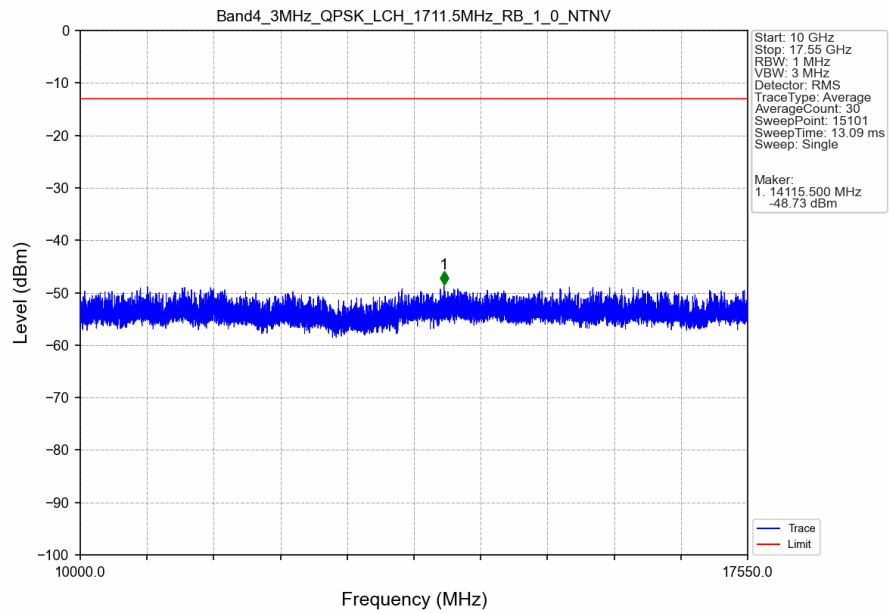


| Start (MHz) | Stop (MHz) | RBW (MHz) | Method | Marker No. | Freq (MHz) | Level (dBm) | Limit (dBm) | Result |
|-------------|------------|-----------|--------|------------|------------|-------------|-------------|--------|
| 1752        | 1755       | 0.013     | CHP    | /          | /          | /           | /           | /      |
| 1755        | 1756       | 0.013     | CHP    | 1          | 1755.005   | -33.71      | -13         | Pass   |
| 1756        | 1758       | 1         | CHP    | 2          | 1756.500   | -28.03      | -13         | Pass   |

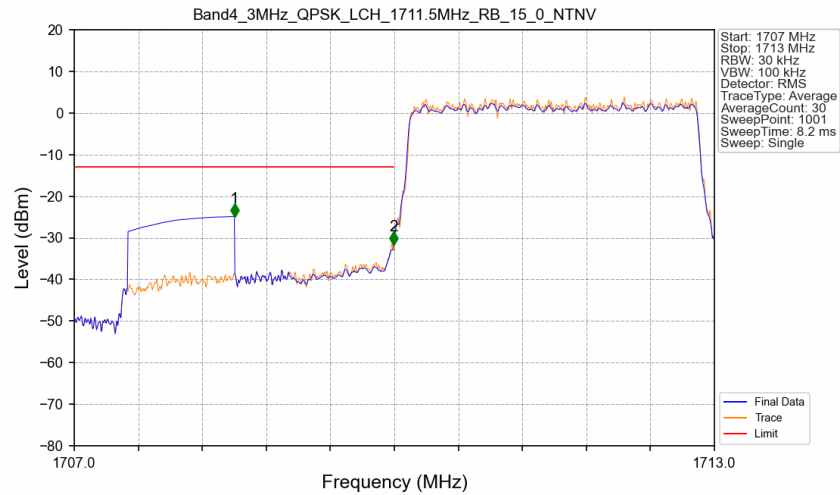
5.2.2 B4\_3MHz



Band4 3MHz QPSK LCH 1711.5MHz RB 1 0 NTNV

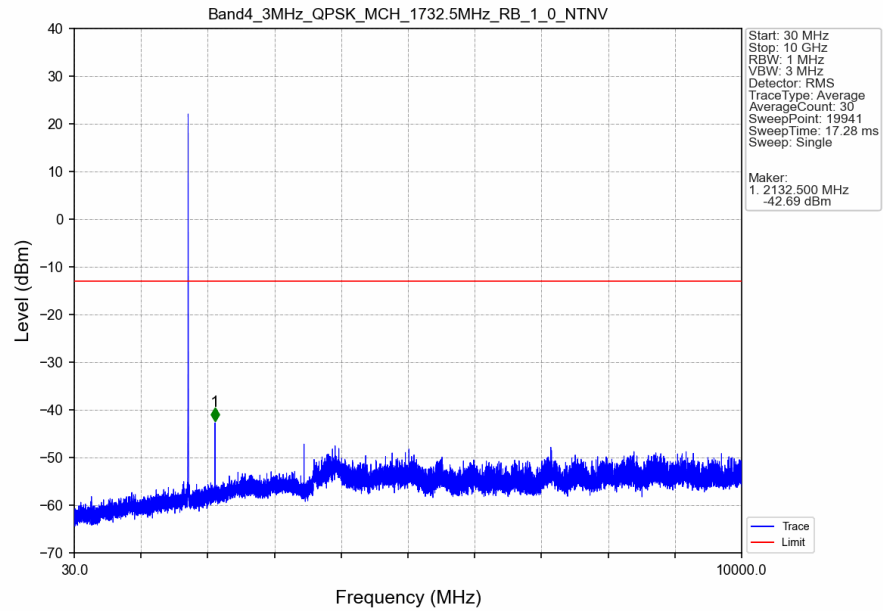


Band4 3MHz QPSK LCH 1711.5MHz RB 15 0 NTNV

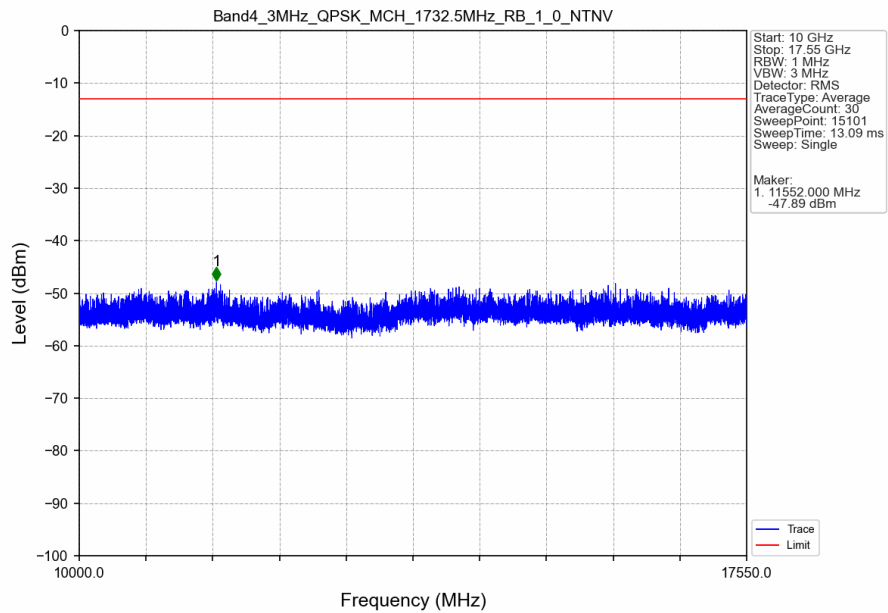


| Start (MHz) | Stop (MHz) | RBW (MHz) | Method | Marker No. | Freq (MHz) | Level (dBm) | Limit (dBm) | Result |
|-------------|------------|-----------|--------|------------|------------|-------------|-------------|--------|
| 1707        | 1709       | 1         | CHP    | 1          | 1708.500   | -24.87      | -13         | Pass   |
| 1709        | 1710       | 0.031     | CHP    | 2          | 1709.994   | -31.76      | -13         | Pass   |
| 1710        | 1713       | 0.031     | CHP    | /          | /          | /           | /           | /      |

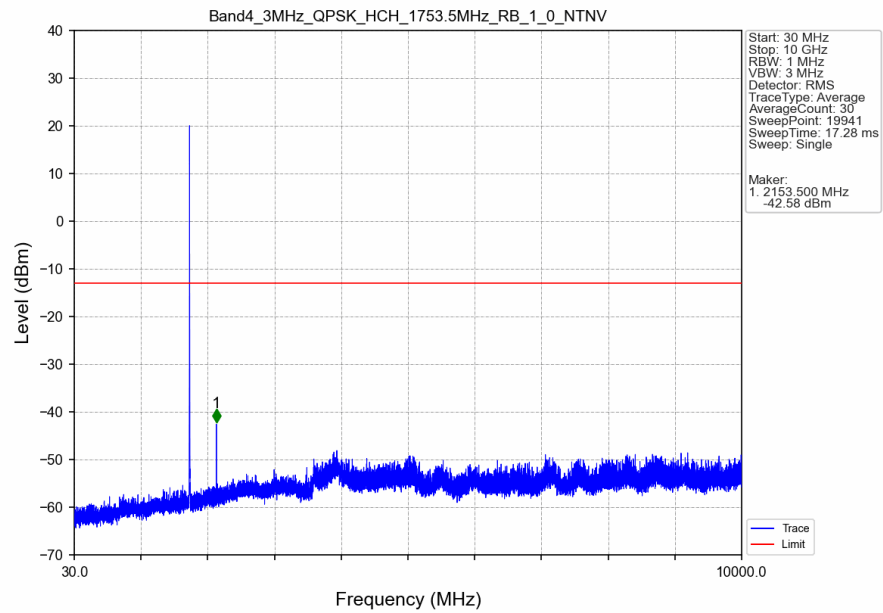
# Band4 3MHz QPSK MCH 1732.5MHz RB 1 0 NTN



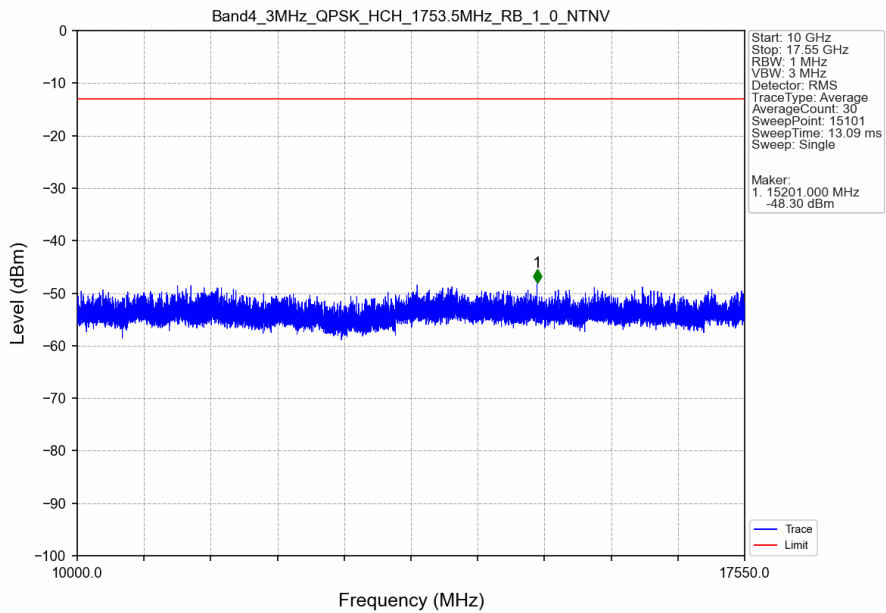
# Band4 3MHz QPSK MCH 1732.5MHz RB 1 0 NTN



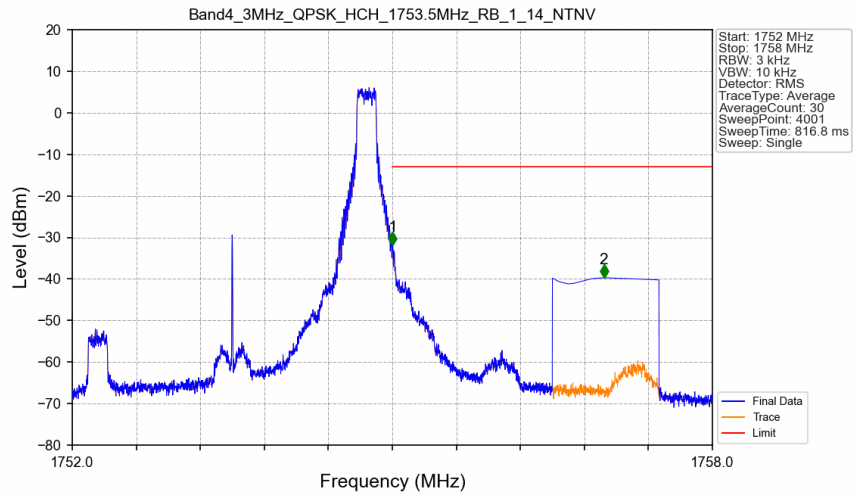
Band4 3MHz QPSK HCH 1753.5MHz RB 1 0 NTN



Band4 3MHz QPSK HCH 1753.5MHz RB 1 0 NTN

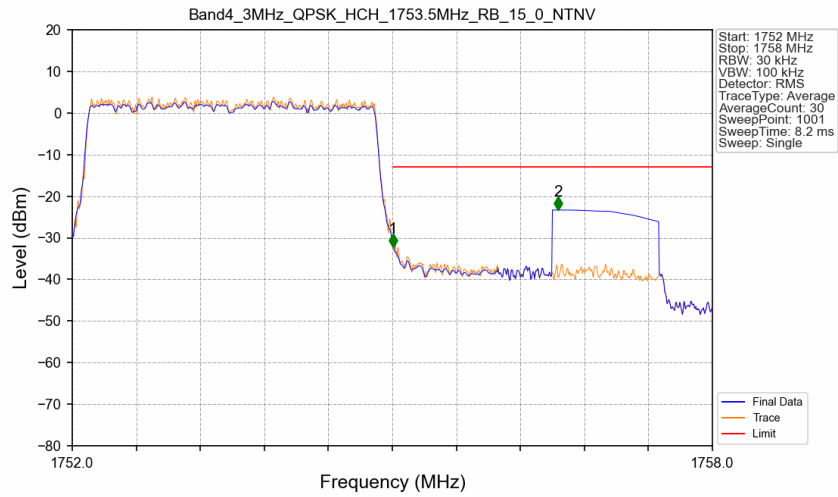


# Band4 3MHz QPSK HCH 1753.5MHz RB 1 14 NTV



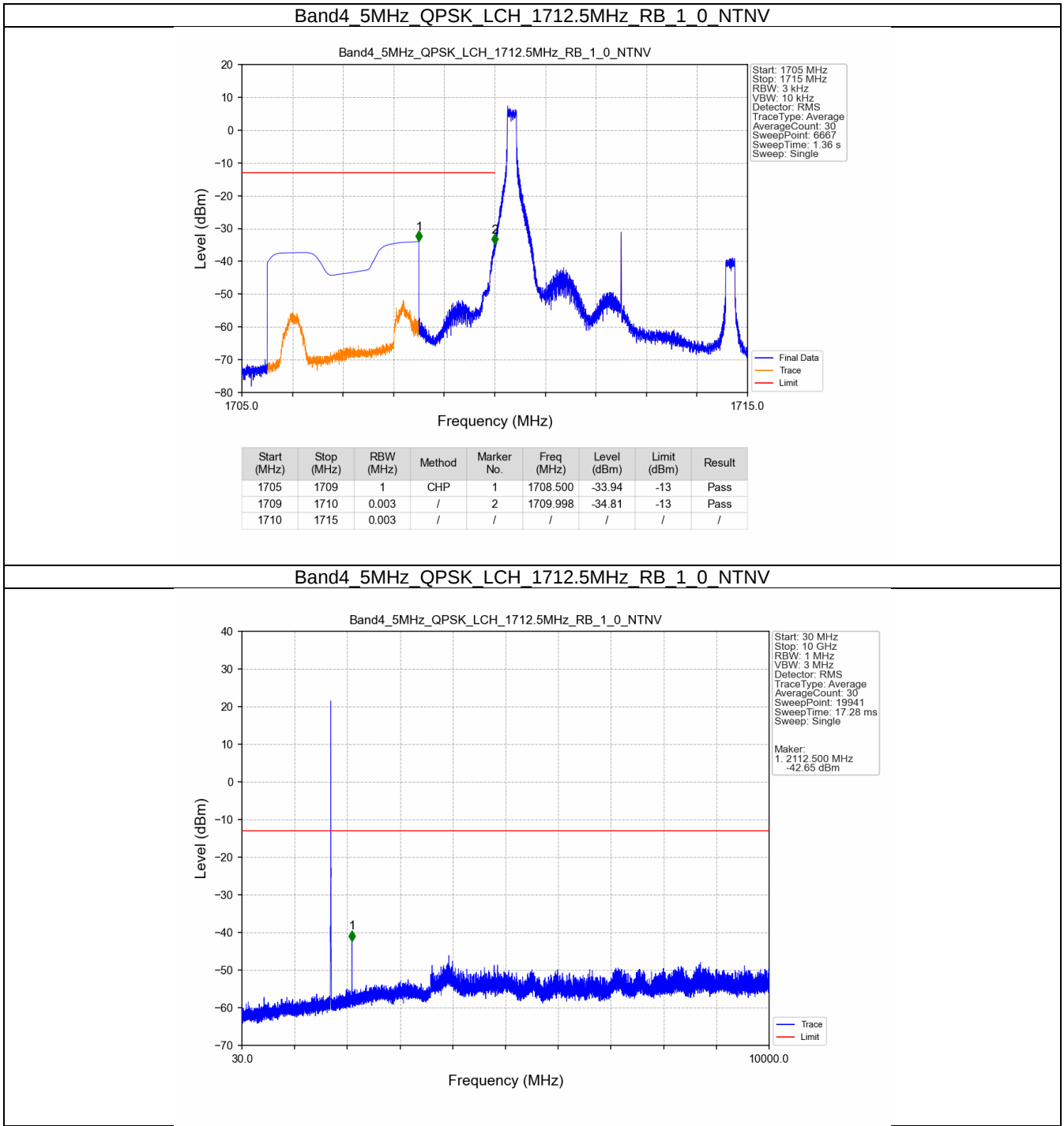
| Start (MHz) | Stop (MHz) | RBW (MHz) | Method | Marker No. | Freq (MHz) | Level (dBm) | Limit (dBm) | Result |
|-------------|------------|-----------|--------|------------|------------|-------------|-------------|--------|
| 1752        | 1755       | 0.003     | /      | /          | /          | /           | /           | /      |
| 1755        | 1756       | 0.003     | /      | 1          | 1755.002   | -31.92      | -13         | Pass   |
| 1756        | 1758       | 1         | CHP    | 2          | 1756.983   | -39.74      | -13         | Pass   |

# Band4 3MHz QPSK HCH 1753.5MHz RB 15 0 NTV

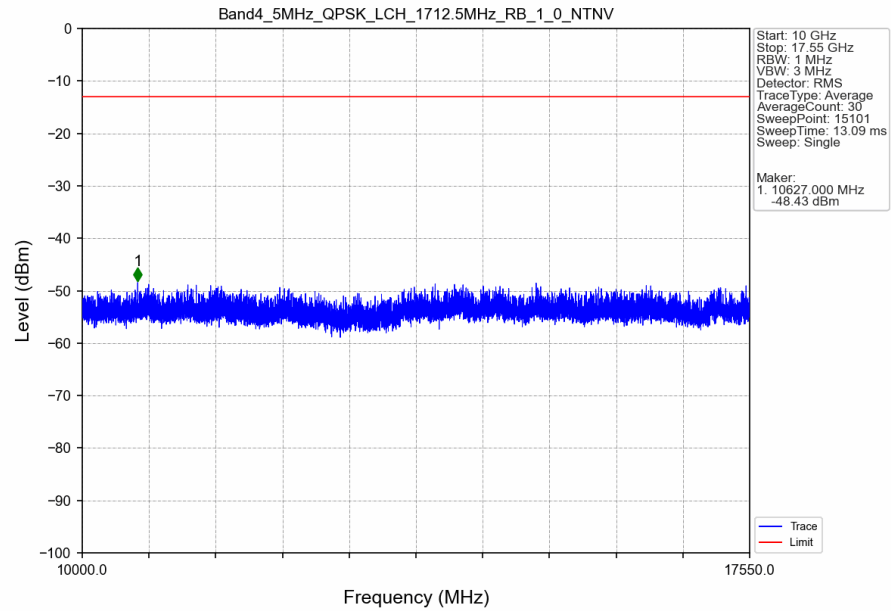


| Start (MHz) | Stop (MHz) | RBW (MHz) | Method | Marker No. | Freq (MHz) | Level (dBm) | Limit (dBm) | Result |
|-------------|------------|-----------|--------|------------|------------|-------------|-------------|--------|
| 1752        | 1755       | 0.031     | CHP    | /          | /          | /           | /           | /      |
| 1755        | 1756       | 0.031     | CHP    | 1          | 1755.006   | -32.14      | -13         | Pass   |
| 1756        | 1758       | 1         | CHP    | 2          | 1756.554   | -23.31      | -13         | Pass   |

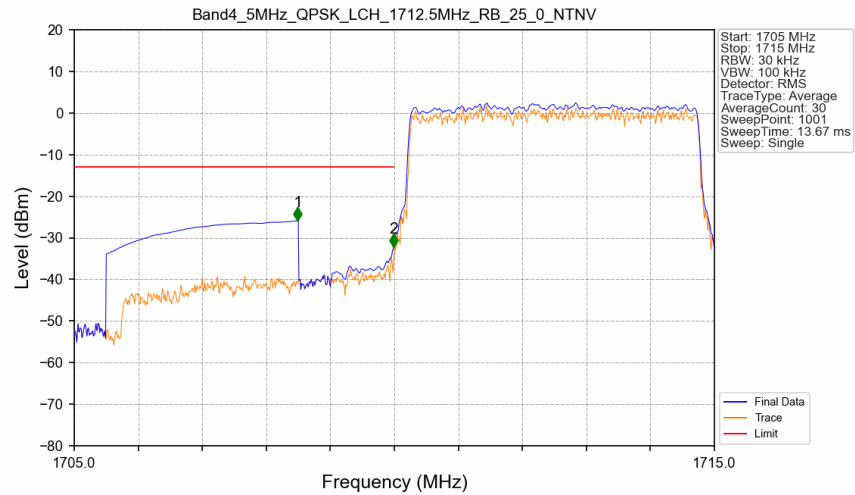
5.2.3 B4\_5MHz



Band4 5MHz QPSK LCH 1712.5MHz RB 1 0 NTN

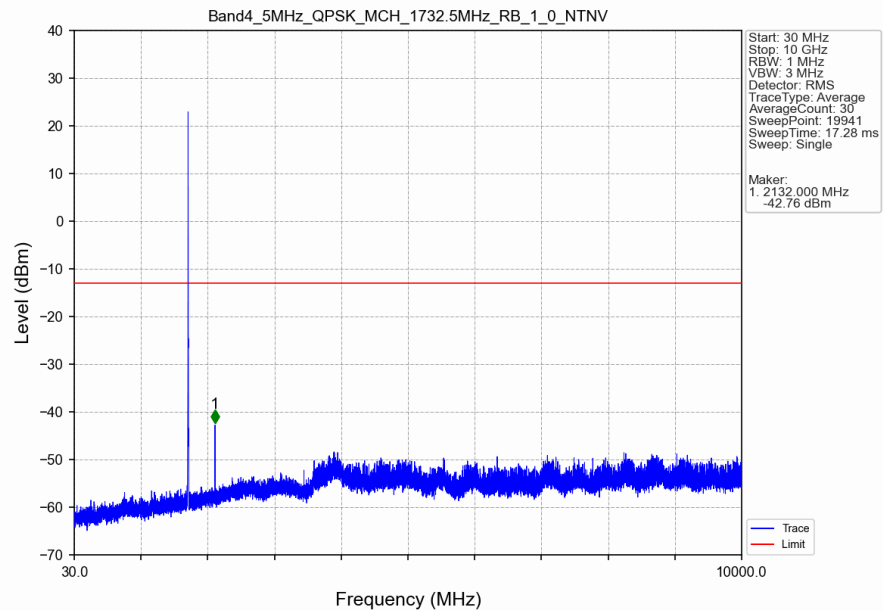


Band4 5MHz QPSK LCH 1712.5MHz RB 25 0 NTN

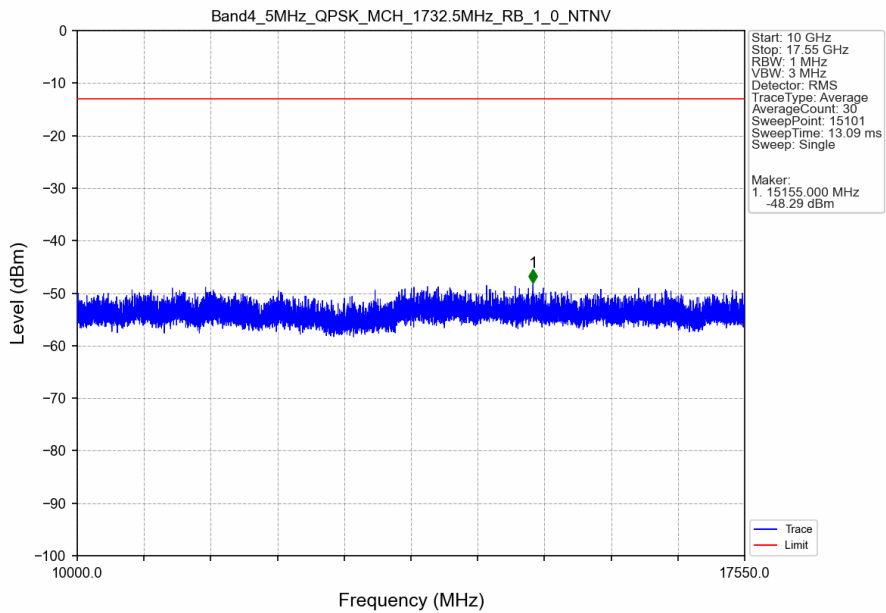


| Start (MHz) | Stop (MHz) | RBW (MHz) | Method | Marker No. | Freq (MHz) | Level (dBm) | Limit (dBm) | Result |
|-------------|------------|-----------|--------|------------|------------|-------------|-------------|--------|
| 1705        | 1709       | 1         | CHP    | 1          | 1708.490   | -25.92      | -13         | Pass   |
| 1709        | 1710       | 0.051     | CHP    | 2          | 1709.990   | -32.18      | -13         | Pass   |
| 1710        | 1715       | 0.051     | CHP    | /          | /          | /           | /           | /      |

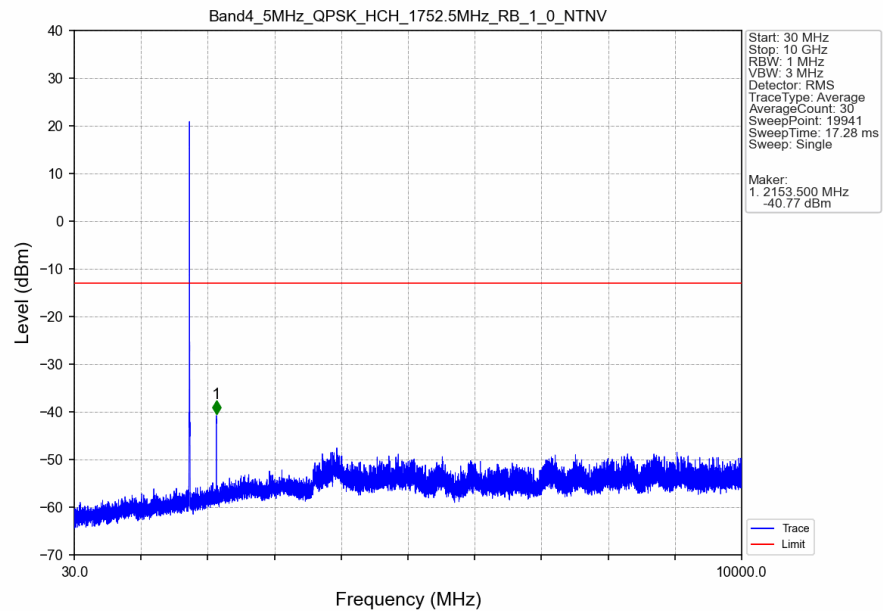
Band4 5MHz QPSK MCH 1732.5MHz RB 1 0 NTNV



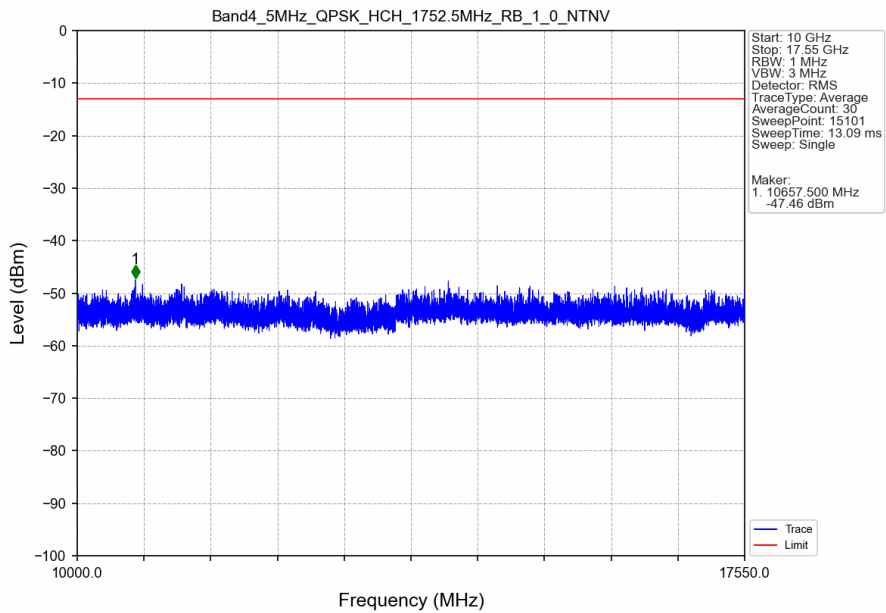
Band4 5MHz QPSK MCH 1732.5MHz RB 1 0 NTNV



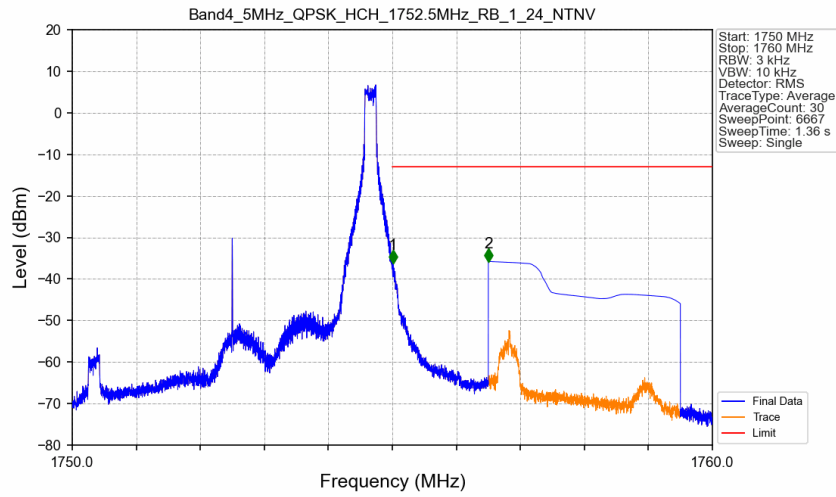
Band4 5MHz QPSK HCH 1752.5MHz RB 1 0 NTNV



Band4 5MHz QPSK HCH 1752.5MHz RB 1 0 NTNV

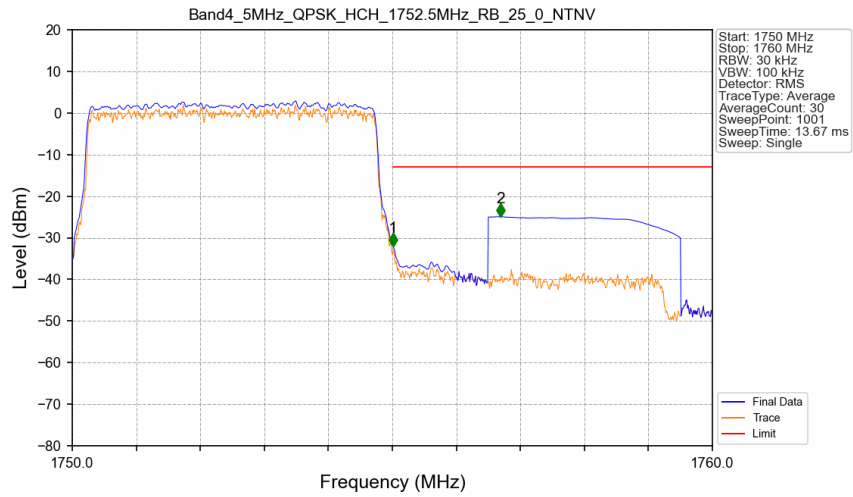


### Band4 5MHz QPSK HCH 1752.5MHz RB 1 24 NTV



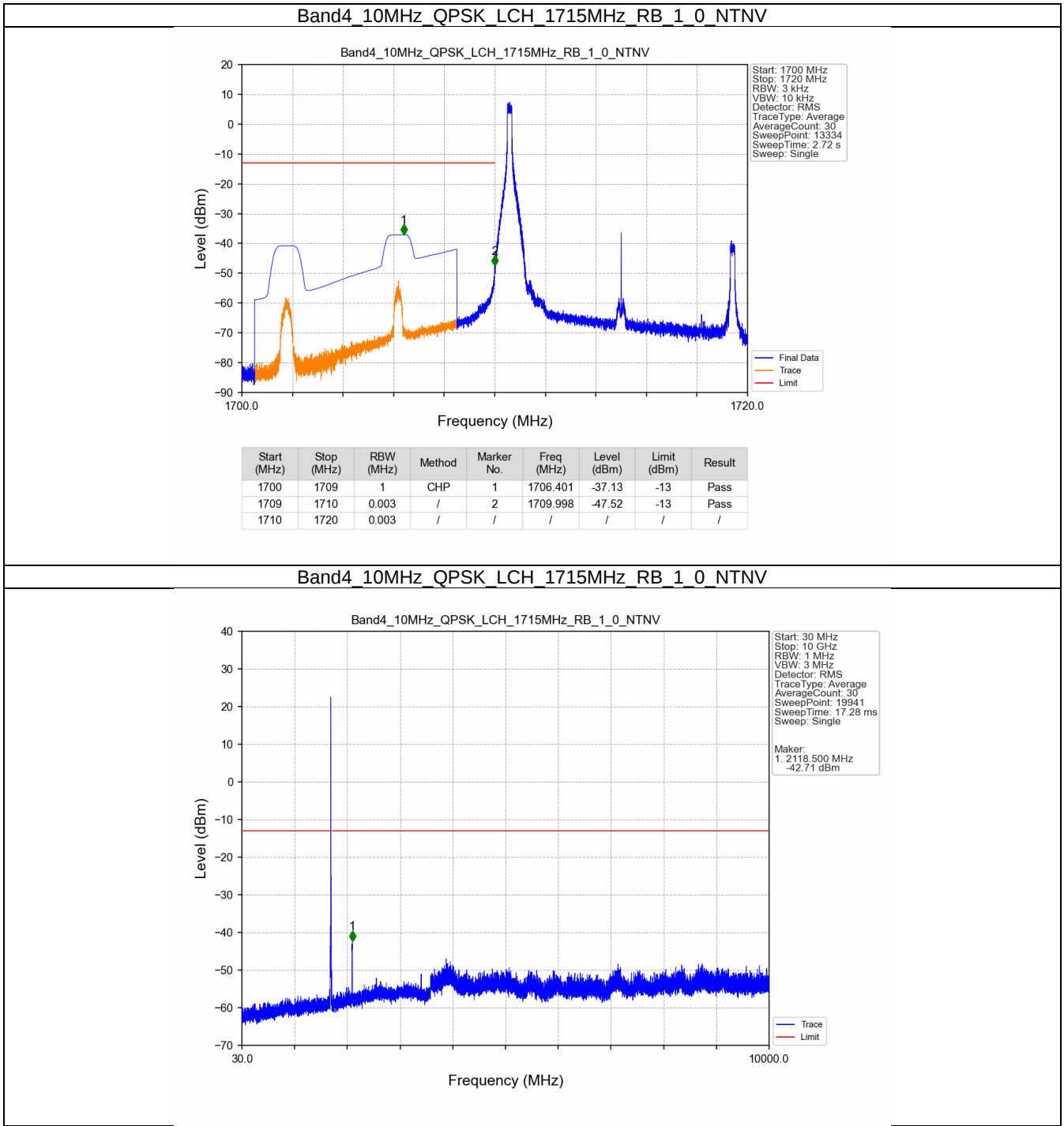
| Start (MHz) | Stop (MHz) | RBW (MHz) | Method | Marker No. | Freq (MHz) | Level (dBm) | Limit (dBm) | Result |
|-------------|------------|-----------|--------|------------|------------|-------------|-------------|--------|
| 1750        | 1755       | 0.003     | /      | /          | /          | /           | /           | /      |
| 1755        | 1756       | 0.003     | /      | 1          | 1755.012   | -36.23      | -13         | Pass   |
| 1756        | 1760       | 1         | CHP    | 2          | 1756.500   | -35.79      | -13         | Pass   |

### Band4 5MHz QPSK HCH 1752.5MHz RB 25 0 NTV

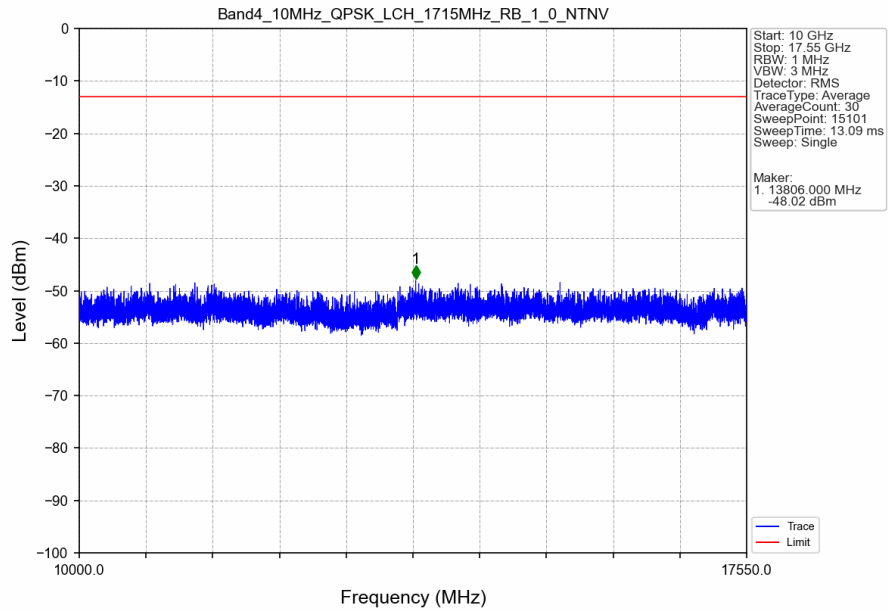


| Start (MHz) | Stop (MHz) | RBW (MHz) | Method | Marker No. | Freq (MHz) | Level (dBm) | Limit (dBm) | Result |
|-------------|------------|-----------|--------|------------|------------|-------------|-------------|--------|
| 1750        | 1755       | 0.051     | CHP    | /          | /          | /           | /           | /      |
| 1755        | 1756       | 0.051     | CHP    | 1          | 1755.010   | -32.06      | -13         | Pass   |
| 1756        | 1760       | 1         | CHP    | 2          | 1756.690   | -24.94      | -13         | Pass   |

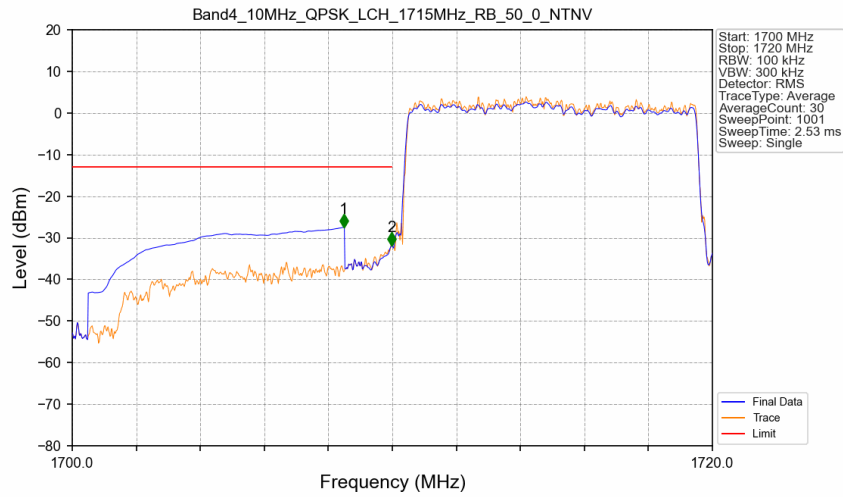
5.2.4 B4\_10MHz



# Band4 10MHz QPSK LCH 1715MHz RB 1 0 NTNV

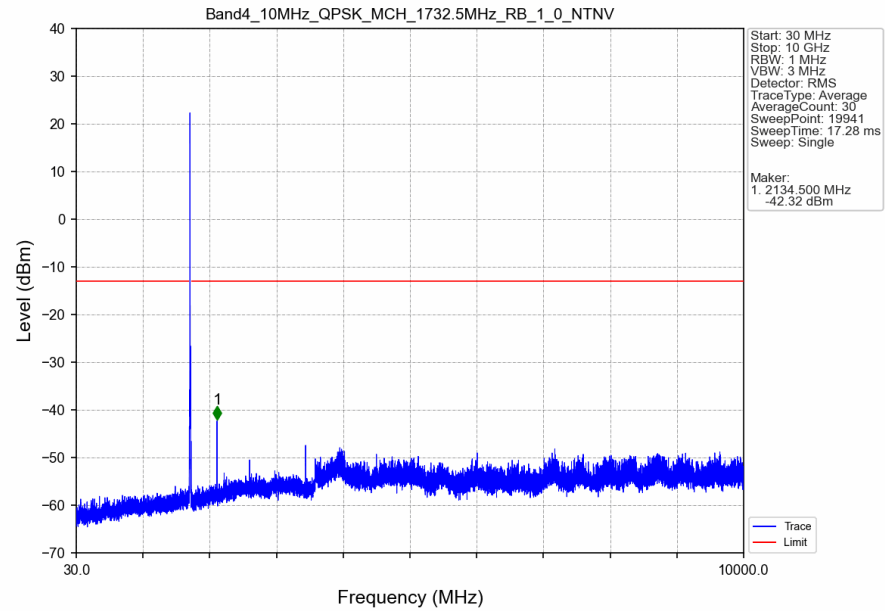


# Band4 10MHz QPSK LCH 1715MHz RB 50 0 NTNV

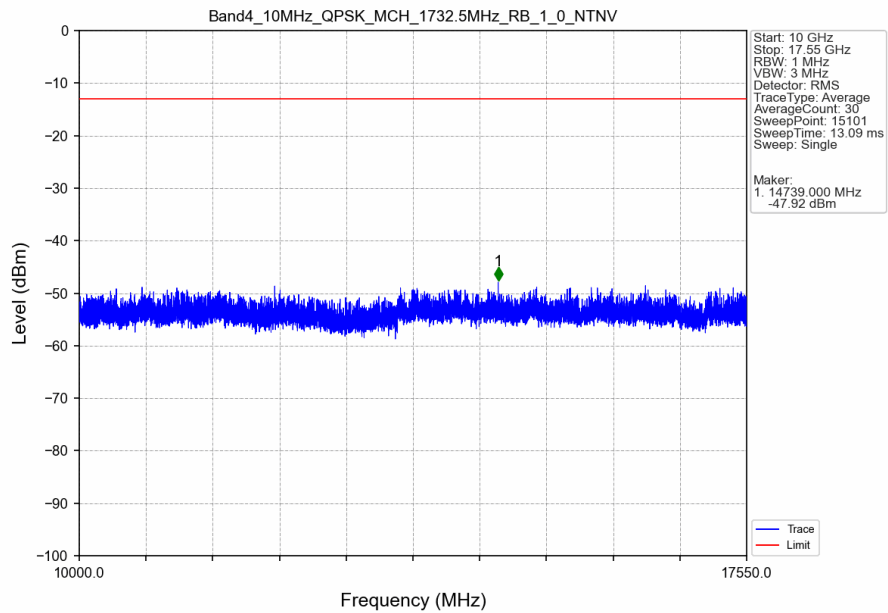


| Start (MHz) | Stop (MHz) | RBW (MHz) | Method | Marker No. | Freq (MHz) | Level (dBm) | Limit (dBm) | Result |
|-------------|------------|-----------|--------|------------|------------|-------------|-------------|--------|
| 1700        | 1709       | 1         | CHP    | 1          | 1708.480   | -27.45      | -13         | Pass   |
| 1709        | 1710       | 0.101     | CHP    | 2          | 1709.980   | -31.84      | -13         | Pass   |
| 1710        | 1720       | 0.101     | CHP    | /          | /          | /           | /           | /      |

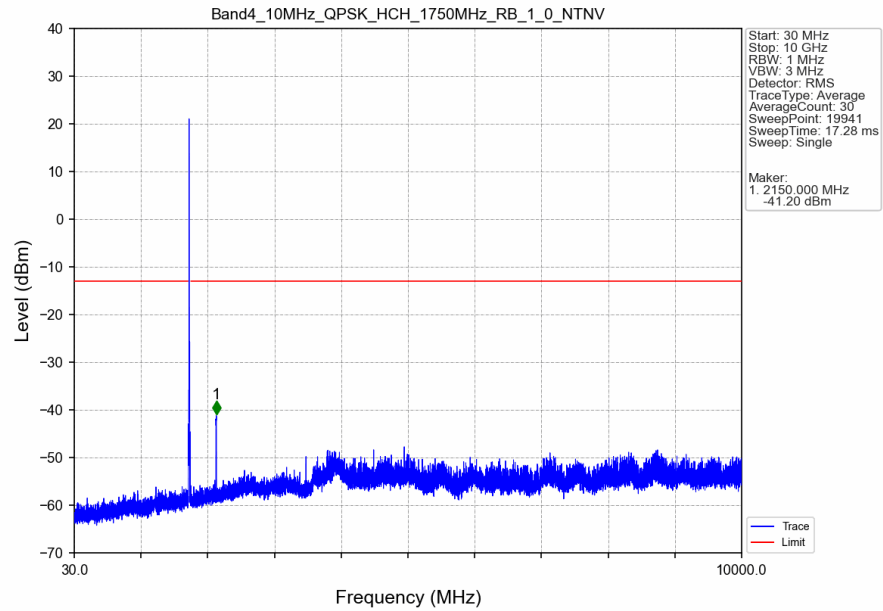
Band4\_10MHz\_QPSK\_MCH\_1732.5MHz\_RB\_1\_0\_NTNV



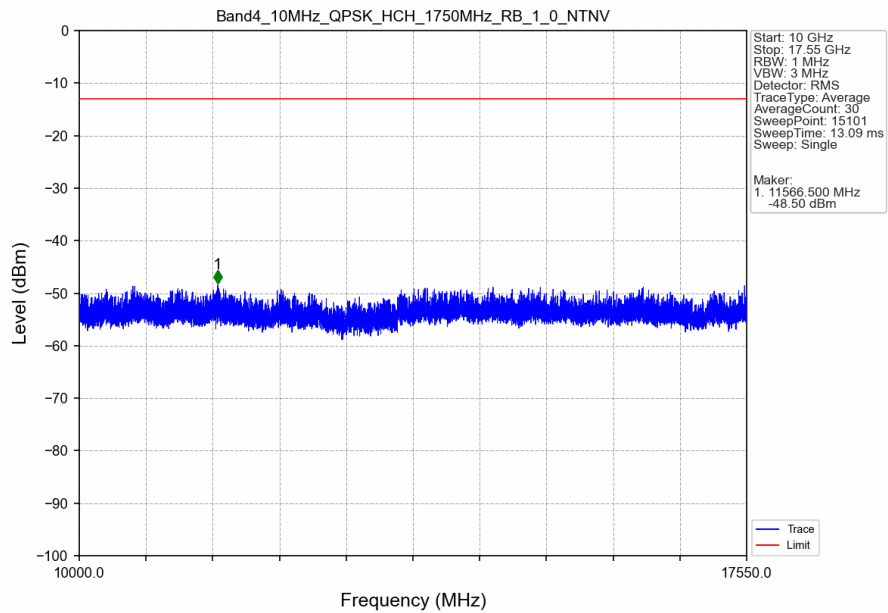
Band4\_10MHz\_QPSK\_MCH\_1732.5MHz\_RB\_1\_0\_NTNV



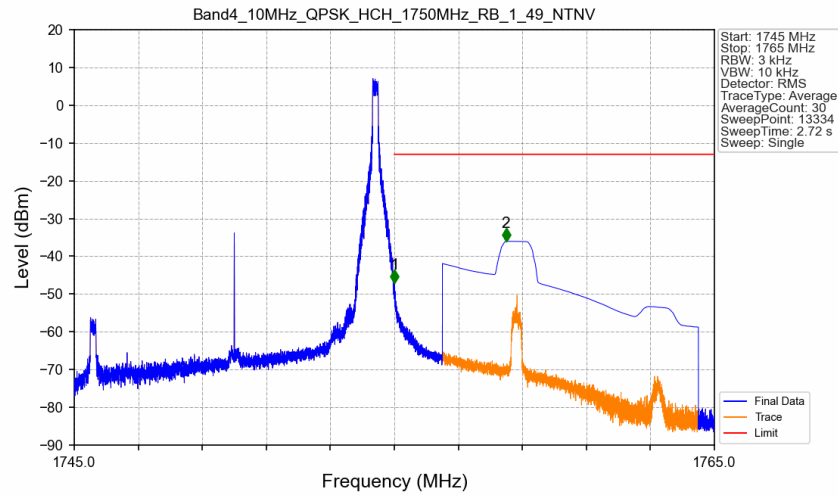
Band4 10MHz QPSK HCH 1750MHz RB 1 0 NTN



Band4 10MHz QPSK HCH 1750MHz RB 1 0 NTN

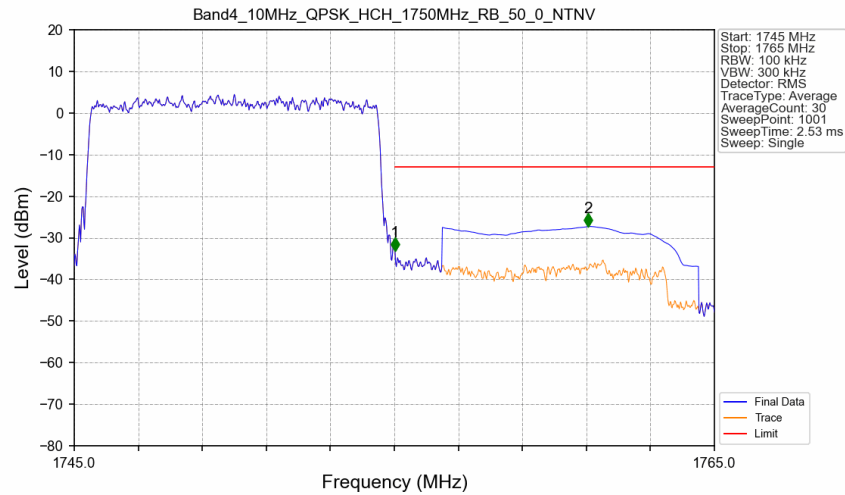


# Band4 10MHz QPSK HCH 1750MHz RB 1 49 NTNV



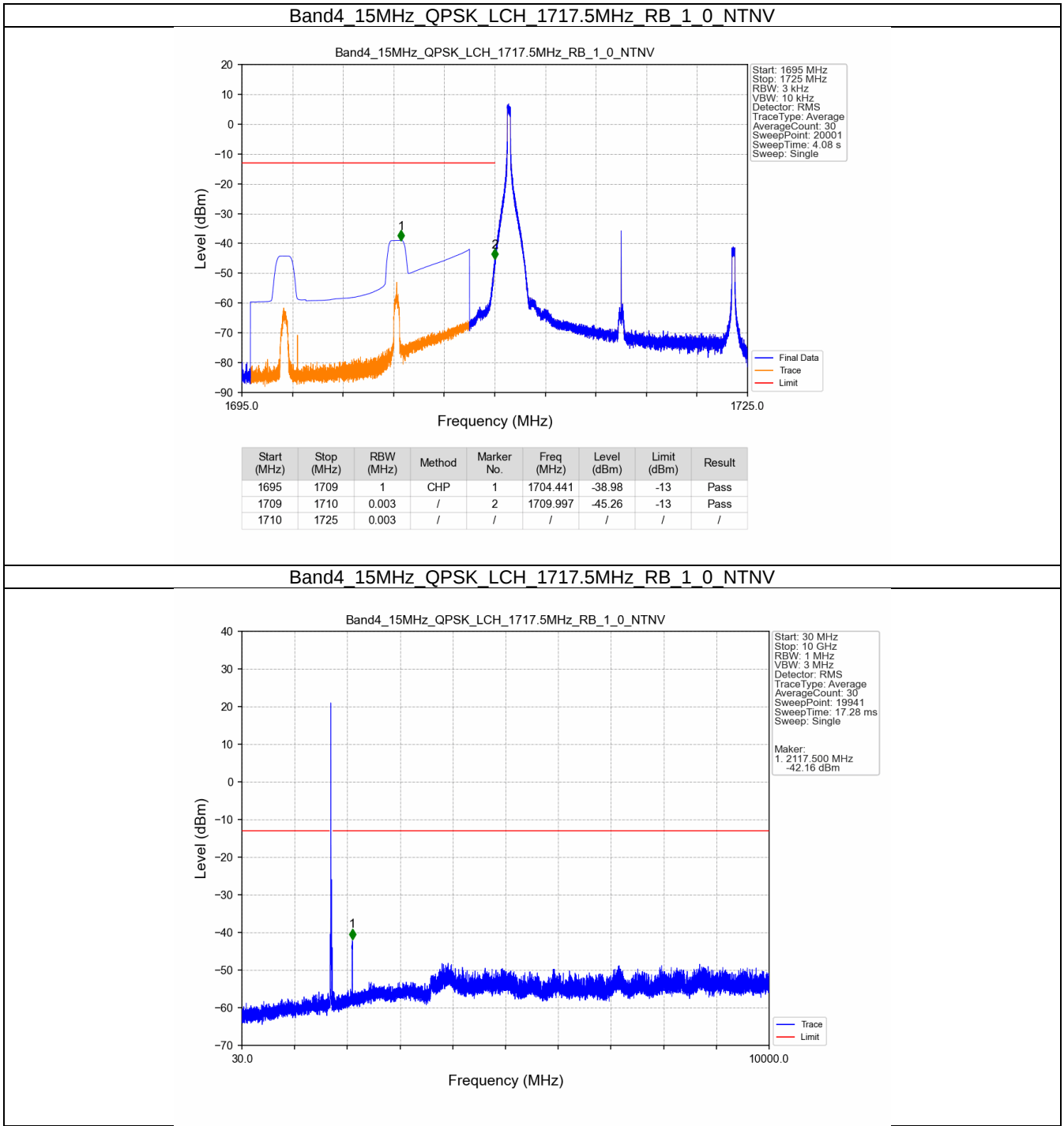
| Start (MHz) | Stop (MHz) | RBW (MHz) | Method | Marker No. | Freq (MHz) | Level (dBm) | Limit (dBm) | Result |
|-------------|------------|-----------|--------|------------|------------|-------------|-------------|--------|
| 1745        | 1755       | 0.003     | /      | /          | /          | /           | /           | /      |
| 1755        | 1756       | 0.003     | /      | 1          | 1755.002   | -47.05      | -13         | Pass   |
| 1756        | 1765       | 1         | CHP    | 2          | 1758.490   | -36.03      | -13         | Pass   |

# Band4 10MHz QPSK HCH 1750MHz RB 50 0 NTNV

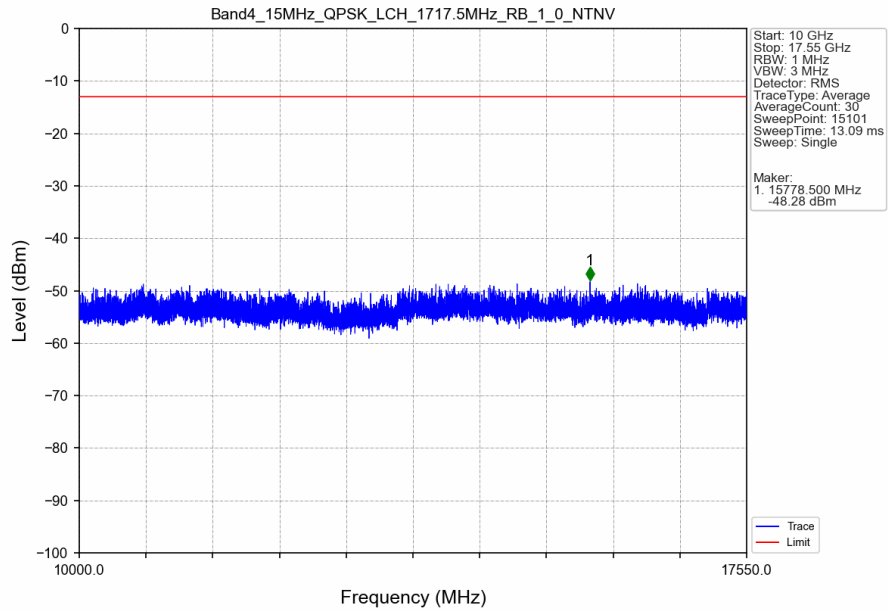


| Start (MHz) | Stop (MHz) | RBW (MHz) | Method | Marker No. | Freq (MHz) | Level (dBm) | Limit (dBm) | Result |
|-------------|------------|-----------|--------|------------|------------|-------------|-------------|--------|
| 1745        | 1755       | 0.1       | /      | /          | /          | /           | /           | /      |
| 1755        | 1756       | 0.1       | /      | 1          | 1755.020   | -33.12      | -13         | Pass   |
| 1756        | 1765       | 1         | CHP    | 2          | 1761.060   | -27.27      | -13         | Pass   |

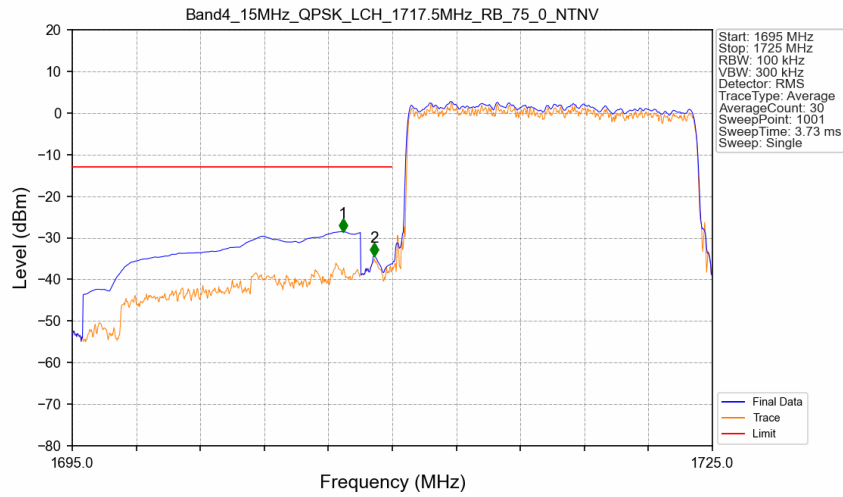
5.2.5 B4\_15MHz



### Band4 15MHz QPSK LCH 1717.5MHz RB 1 0 NTNV

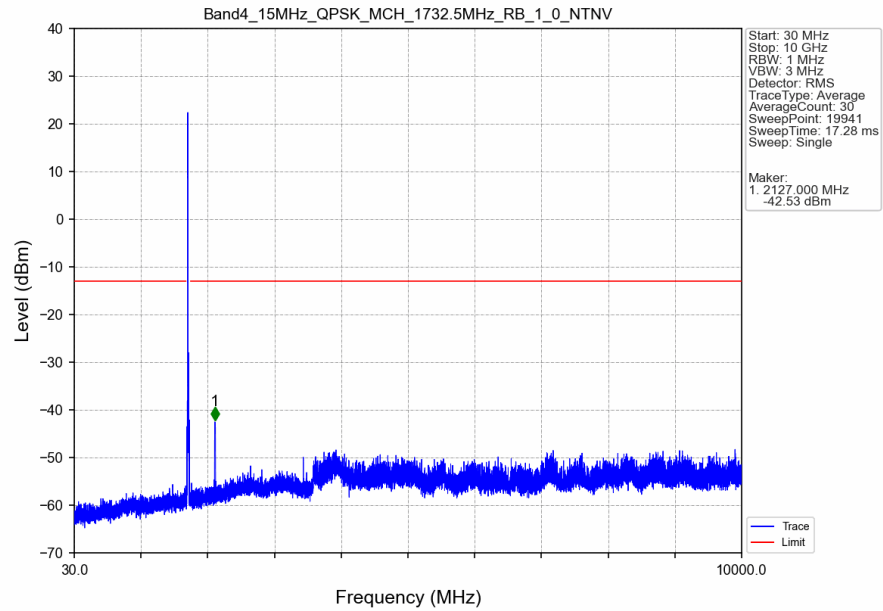


### Band4 15MHz QPSK LCH 1717.5MHz RB 75 0 NTNV

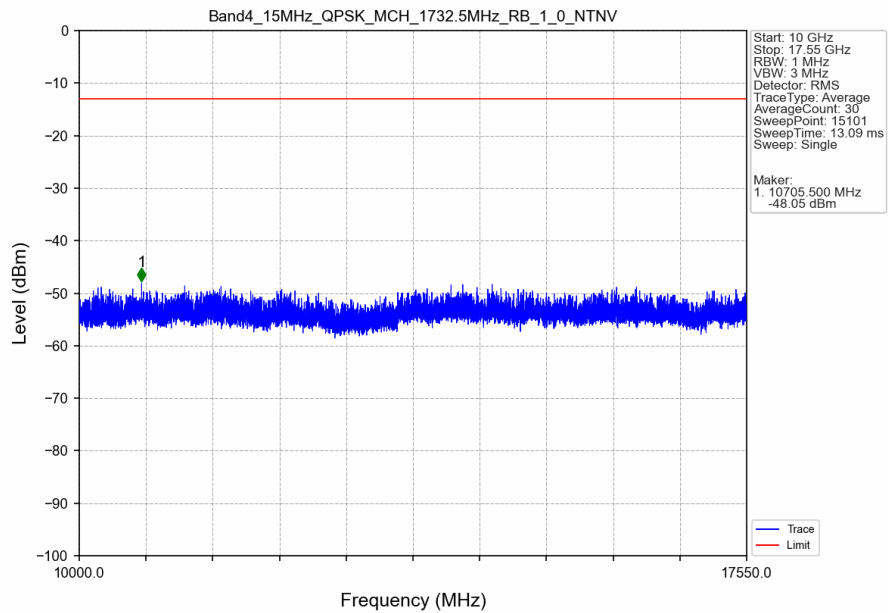


| Start (MHz) | Stop (MHz) | RBW (MHz) | Method | Marker No. | Freq (MHz) | Level (dBm) | Limit (dBm) | Result |
|-------------|------------|-----------|--------|------------|------------|-------------|-------------|--------|
| 1695        | 1709       | 1         | CHP    | 1          | 1707.690   | -28.54      | -13         | Pass   |
| 1709        | 1710       | 0.15      | CHP    | 2          | 1709.160   | -34.48      | -13         | Pass   |
| 1710        | 1725       | 0.15      | CHP    | /          | /          | /           | /           | /      |

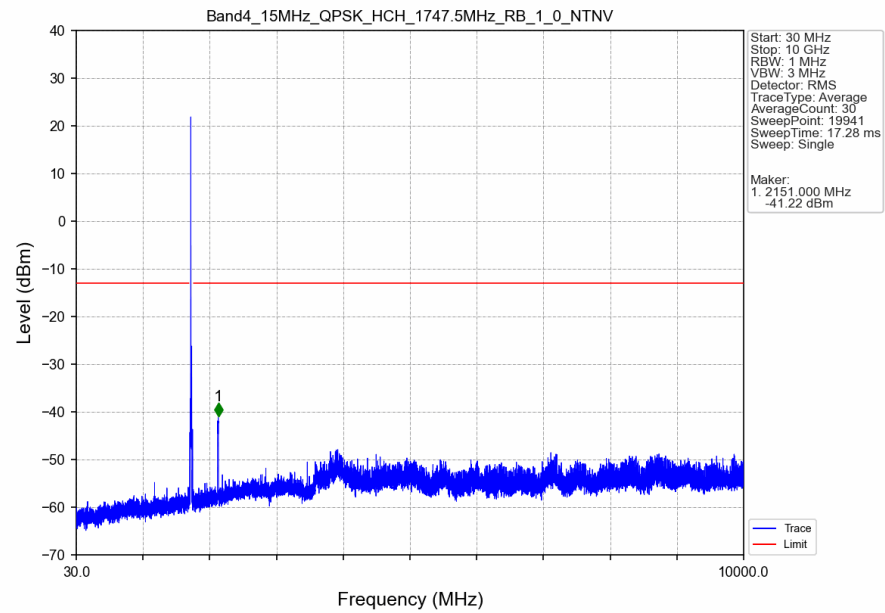
Band4 15MHz QPSK MCH 1732.5MHz RB 1 0 NTN



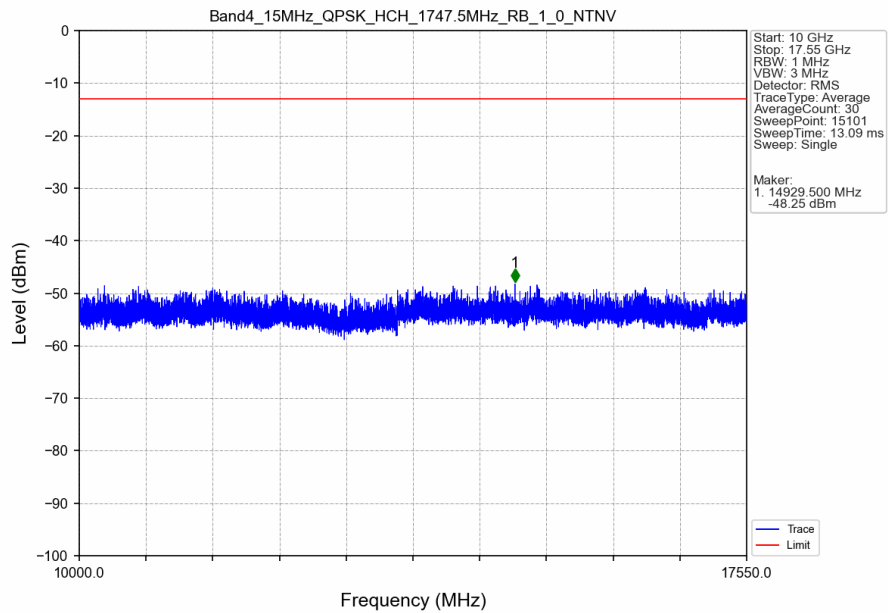
Band4 15MHz QPSK MCH 1732.5MHz RB 1 0 NTN



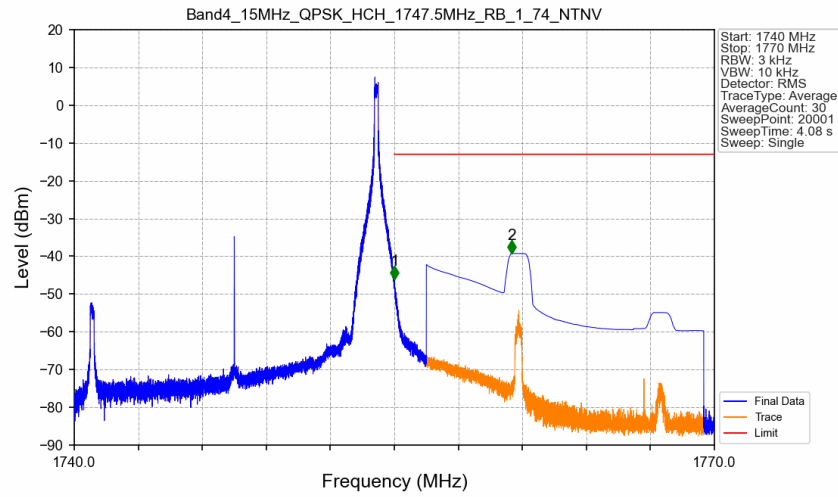
Band4 15MHz QPSK HCH 1747.5MHz RB 1 0 NTNV



Band4 15MHz QPSK HCH 1747.5MHz RB 1 0 NTNV

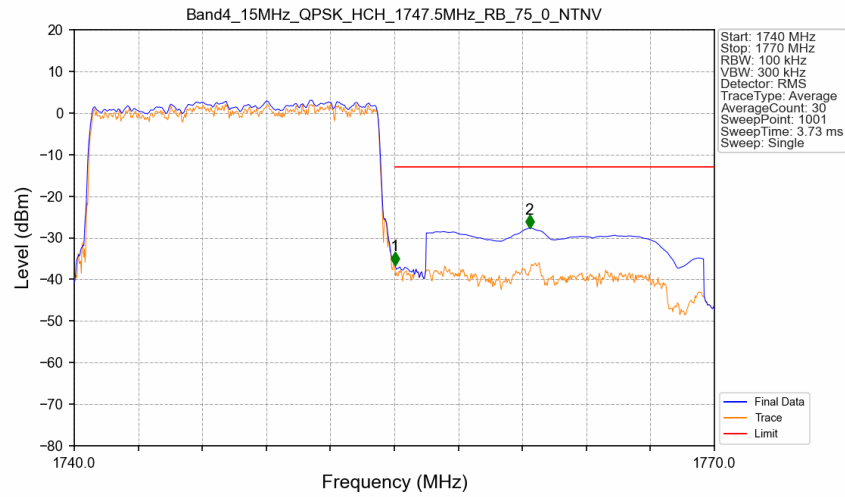


# Band4 15MHz QPSK HCH 1747.5MHz RB 1 74 NTV



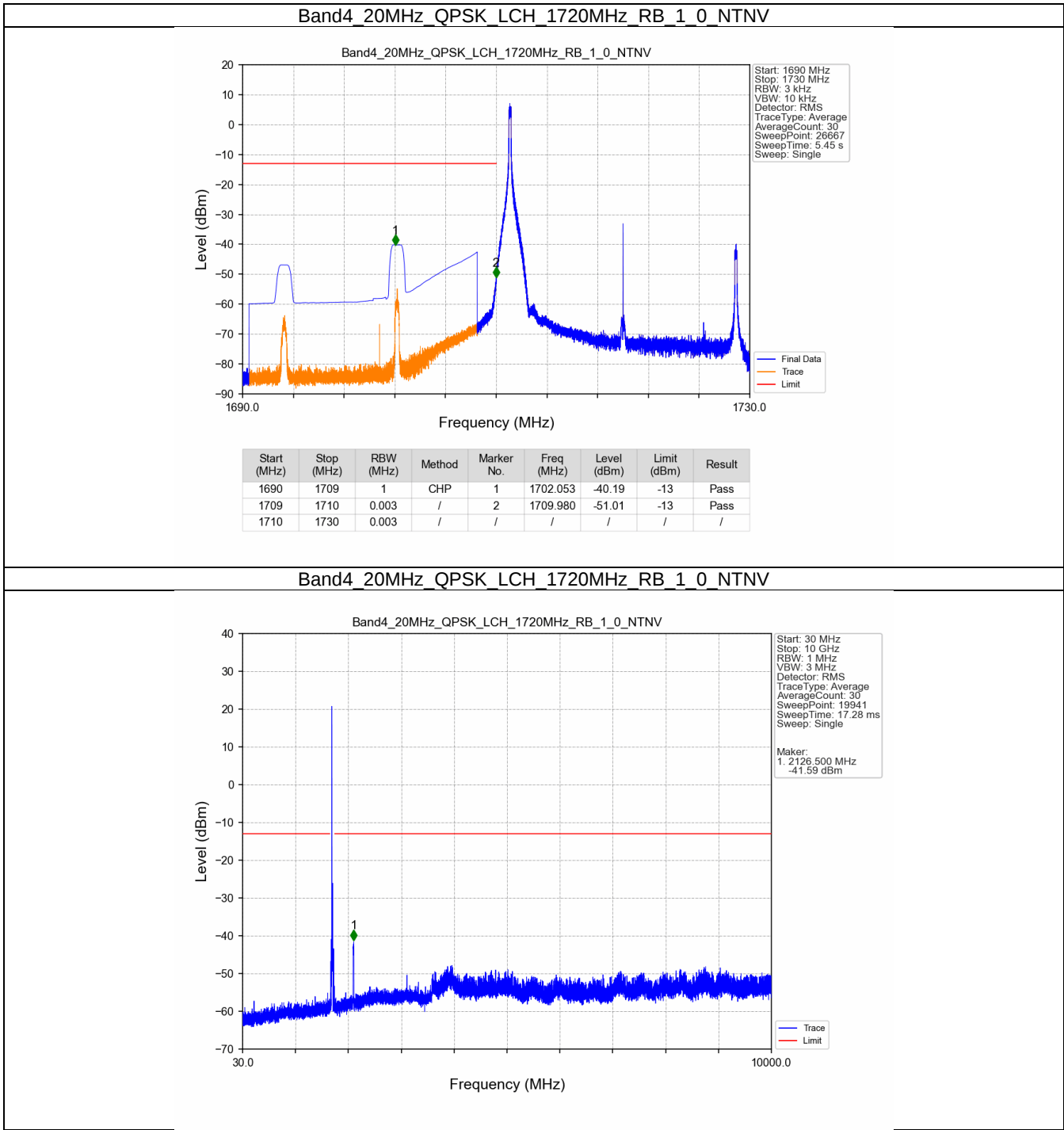
| Start (MHz) | Stop (MHz) | RBW (MHz) | Method | Marker No. | Freq (MHz) | Level (dBm) | Limit (dBm) | Result |
|-------------|------------|-----------|--------|------------|------------|-------------|-------------|--------|
| 1740        | 1755       | 0.003     | /      | /          | /          | /           | /           | /      |
| 1755        | 1756       | 0.003     | /      | 1          | 1755.016   | -46.04      | -13         | Pass   |
| 1756        | 1770       | 1         | CHP    | 2          | 1760.490   | -39.23      | -13         | Pass   |

# Band4 15MHz QPSK HCH 1747.5MHz RB 75 0 NTV

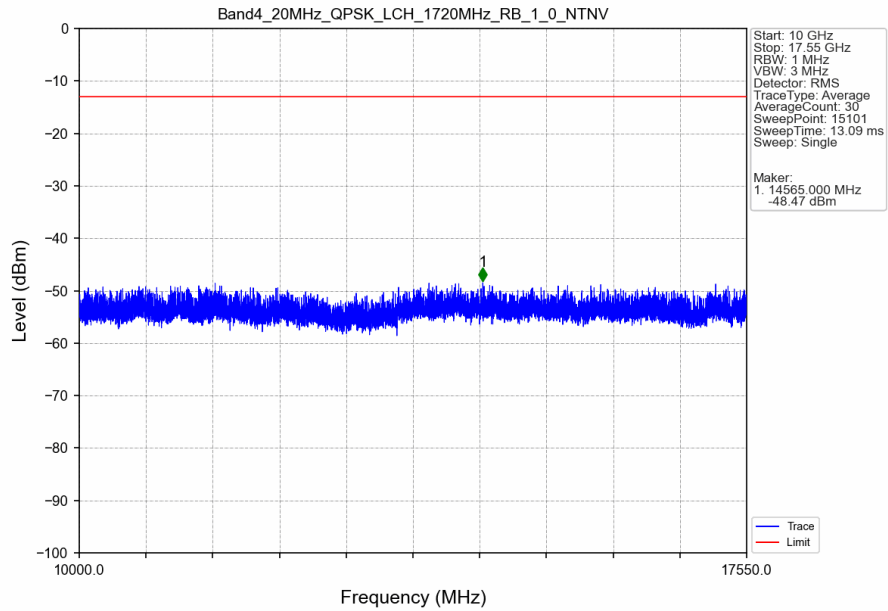


| Start (MHz) | Stop (MHz) | RBW (MHz) | Method | Marker No. | Freq (MHz) | Level (dBm) | Limit (dBm) | Result |
|-------------|------------|-----------|--------|------------|------------|-------------|-------------|--------|
| 1740        | 1755       | 0.15      | CHP    | /          | /          | /           | /           | /      |
| 1755        | 1756       | 0.15      | CHP    | 1          | 1755.030   | -36.50      | -13         | Pass   |
| 1756        | 1770       | 1         | CHP    | 2          | 1761.330   | -27.68      | -13         | Pass   |

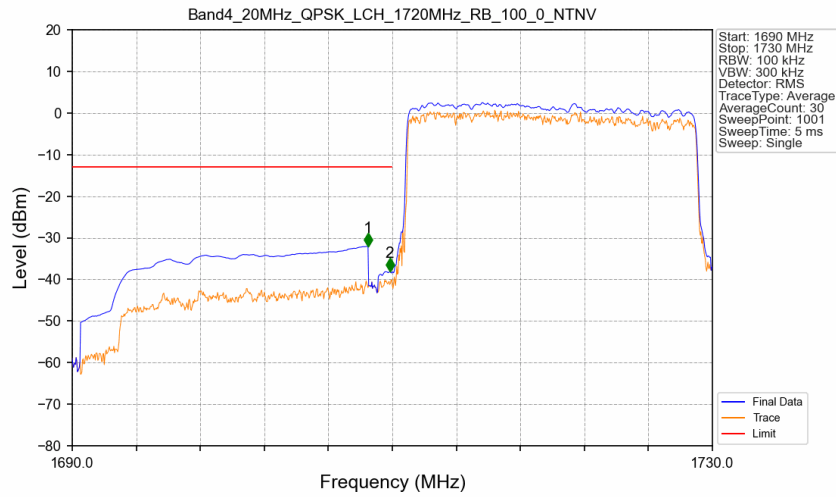
5.2.6 B4\_20MHz



# Band4 20MHz QPSK LCH 1720MHz RB 1 0 NTN

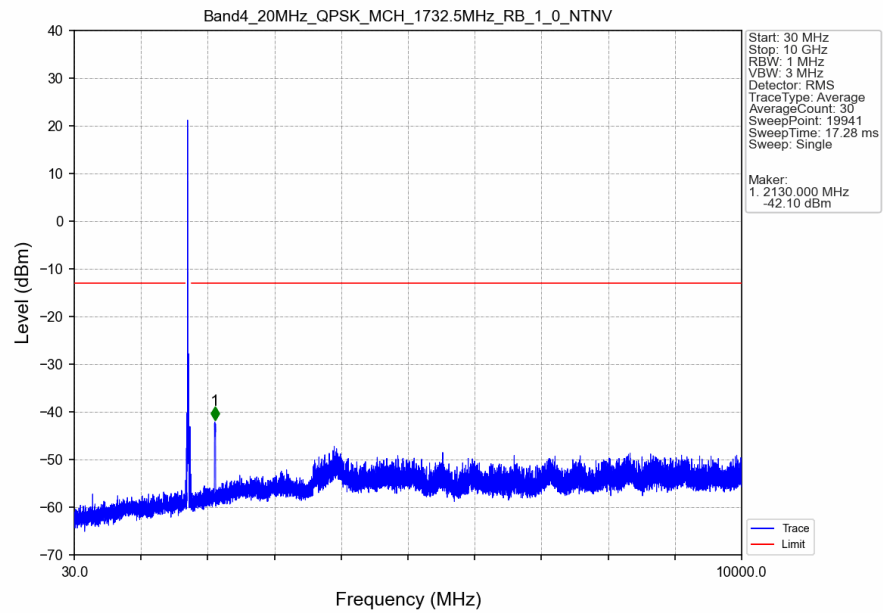


# Band4 20MHz QPSK LCH 1720MHz RB 100 0 NTN

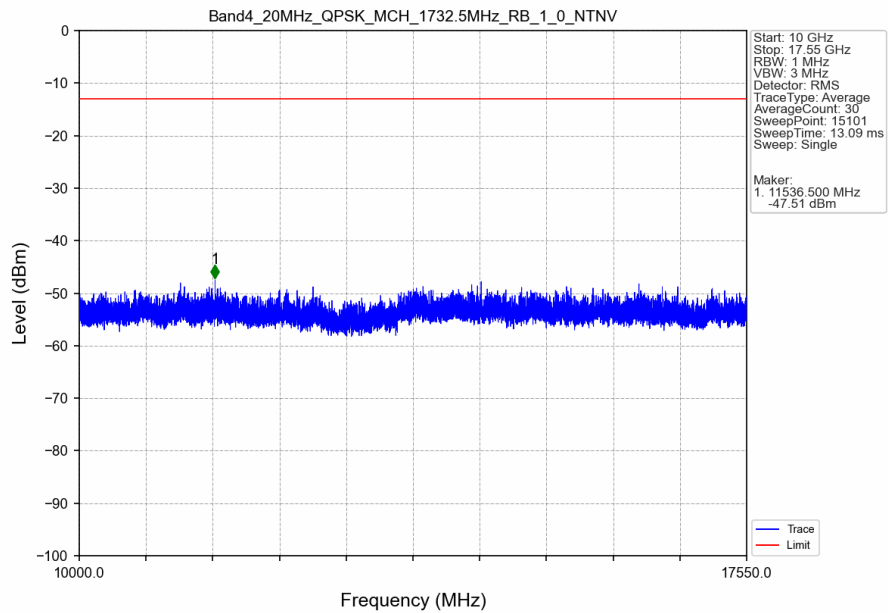


| Start (MHz) | Stop (MHz) | RBW (MHz) | Method | Marker No. | Freq (MHz) | Level (dBm) | Limit (dBm) | Result |
|-------------|------------|-----------|--------|------------|------------|-------------|-------------|--------|
| 1690        | 1709       | 1         | CHP    | 1          | 1708.480   | -32.04      | -13         | Pass   |
| 1709        | 1710       | 0.199     | CHP    | 2          | 1709.840   | -38.10      | -13         | Pass   |
| 1710        | 1730       | 0.199     | CHP    | /          | /          | /           | /           | /      |

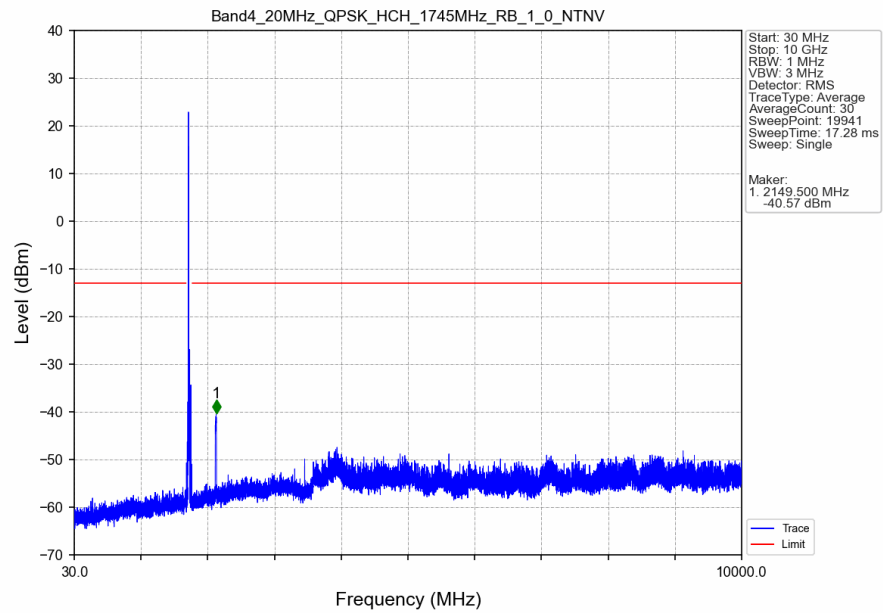
Band4 20MHz QPSK MCH 1732.5MHz RB 1 0 NTNV



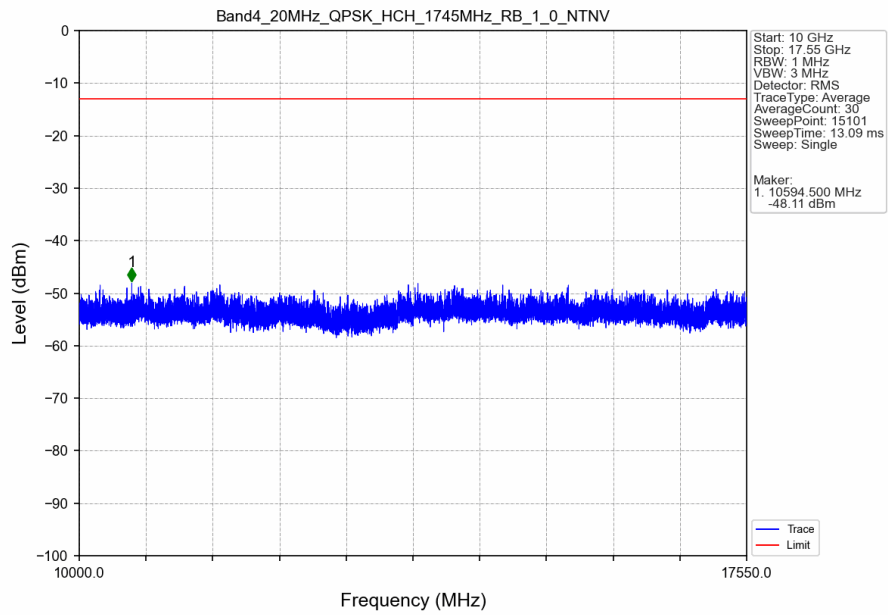
Band4 20MHz QPSK MCH 1732.5MHz RB 1 0 NTNV



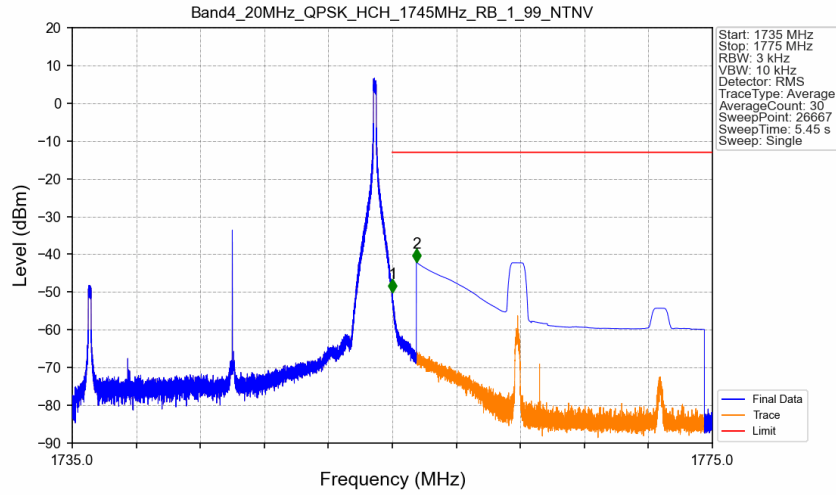
Band4 20MHz QPSK HCH 1745MHz RB 1 0 NTN



Band4 20MHz QPSK HCH 1745MHz RB 1 0 NTN

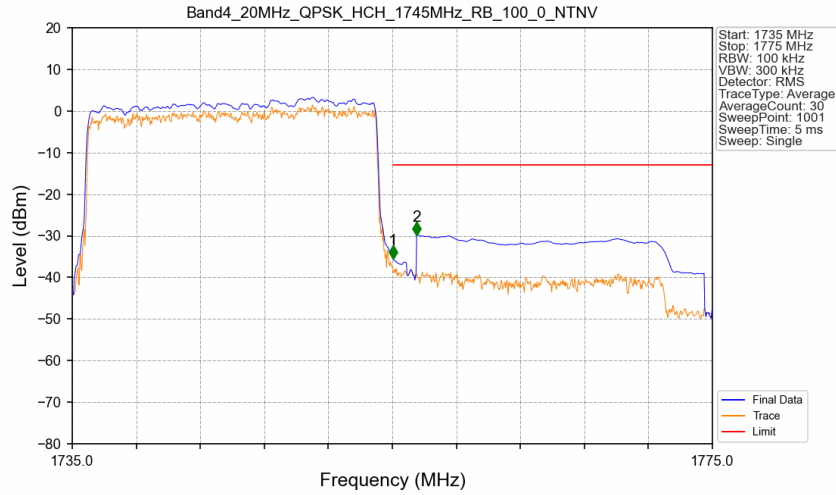


# Band4 20MHz QPSK HCH 1745MHz RB 1 99 NTNV



| Start (MHz) | Stop (MHz) | RBW (MHz) | Method | Marker No. | Freq (MHz) | Level (dBm) | Limit (dBm) | Result |
|-------------|------------|-----------|--------|------------|------------|-------------|-------------|--------|
| 1735        | 1755       | 0.003     | /      | /          | /          | /           | /           | /      |
| 1755        | 1756       | 0.003     | /      | 1          | 1755.003   | -50.01      | -13         | Pass   |
| 1756        | 1775       | 1         | CHP    | 2          | 1756.500   | -41.99      | -13         | Pass   |

# Band4 20MHz QPSK HCH 1745MHz RB 100 0 NTNV



| Start (MHz) | Stop (MHz) | RBW (MHz) | Method | Marker No. | Freq (MHz) | Level (dBm) | Limit (dBm) | Result |
|-------------|------------|-----------|--------|------------|------------|-------------|-------------|--------|
| 1735        | 1755       | 0.199     | CHP    | /          | /          | /           | /           | /      |
| 1755        | 1756       | 0.199     | CHP    | 1          | 1755.040   | -35.56      | -13         | Pass   |
| 1756        | 1775       | 1         | CHP    | 2          | 1756.520   | -29.79      | -13         | Pass   |

## 6. Field Strength of Spurious Radiation

| LTE Band 4-Low channel, Modulation: QPSK, Bandwidth:20MHz, 1RB#0 |                         |        |       |        |
|------------------------------------------------------------------|-------------------------|--------|-------|--------|
| Frequency                                                        | Spurious Emission Level |        | Limit | Margin |
| (MHz)                                                            | Polaxis                 | (dBm)  | (dBm) | (dB)   |
| 3422                                                             | H                       | -54.22 | -13   | 41.22  |
| 5133                                                             | H                       | -51.18 | -13   | 38.18  |
| 6844                                                             | H                       | -51.93 | -13   | 38.93  |
| 3422                                                             | V                       | -55.48 | -13   | 42.48  |
| 5133                                                             | V                       | -53.41 | -13   | 40.41  |
| 6844                                                             | V                       | -53.13 | -13   | 40.13  |

| LTE Band 4-Middle channel, Modulation: QPSK, Bandwidth:20MHz, 1RB#0 |                         |        |       |        |
|---------------------------------------------------------------------|-------------------------|--------|-------|--------|
| Frequency                                                           | Spurious Emission Level |        | Limit | Margin |
| (MHz)                                                               | Polaxis                 | (dBm)  | (dBm) | (dB)   |
| 3447                                                                | H                       | -51.24 | -13   | 38.24  |
| 5170.5                                                              | H                       | -51.86 | -13   | 38.86  |
| 6894                                                                | H                       | -51.24 | -13   | 38.24  |
| 3447                                                                | V                       | -49.02 | -13   | 36.02  |
| 5170.5                                                              | V                       | -52.1  | -13   | 39.1   |
| 6894                                                                | V                       | -51.99 | -13   | 38.99  |

| LTE Band 4-High channel, Modulation: QPSK, Bandwidth:20MHz, 1RB#0 |                         |        |       |        |
|-------------------------------------------------------------------|-------------------------|--------|-------|--------|
| Frequency                                                         | Spurious Emission Level |        | Limit | Margin |
| (MHz)                                                             | Polaxis                 | (dBm)  | (dBm) | (dB)   |
| 3472                                                              | H                       | -51.91 | -13   | 38.91  |
| 5208                                                              | H                       | -51.45 | -13   | 38.45  |
| 6944                                                              | H                       | -51.54 | -13   | 38.54  |
| 3472                                                              | V                       | -49.29 | -13   | 36.29  |
| 5208                                                              | V                       | -52.03 | -13   | 39.03  |
| 6944                                                              | V                       | -51.27 | -13   | 38.27  |