

# 1. Effective (Isotropic) Radiated Power Output Data

## 1.1 Test Result

### 1.1.1 B38\_5MHz\_EIRP

| Band: 38 / Bandwidth: 5MHz / NTNV |                 |               |        |                       |            |            |         |         |
|-----------------------------------|-----------------|---------------|--------|-----------------------|------------|------------|---------|---------|
| Modulation                        | Frequency (MHz) | RB Allocation |        | Conducted Power (dBm) | Gain (dBi) | EIRP (dBm) |         | Verdict |
|                                   |                 | Size          | Offset |                       |            | Result     | Limit   |         |
| QPSK                              | 2572.5          | 1             | 0      | 23.89                 | 0.75       | 24.64      | <=33.01 | Pass    |
|                                   |                 |               | 24     | 23.87                 | 0.75       | 24.62      | <=33.01 | Pass    |
|                                   |                 | 25            | 0      | 22.93                 | 0.75       | 23.68      | <=33.01 | Pass    |
|                                   | 2595            | 1             | 0      | 24.01                 | 0.75       | 24.76      | <=33.01 | Pass    |
|                                   |                 |               | 24     | 23.86                 | 0.75       | 24.61      | <=33.01 | Pass    |
|                                   |                 | 25            | 0      | 22.82                 | 0.75       | 23.57      | <=33.01 | Pass    |
|                                   | 2617.5          | 1             | 0      | 23.73                 | 0.75       | 24.48      | <=33.01 | Pass    |
|                                   |                 |               | 24     | 23.70                 | 0.75       | 24.45      | <=33.01 | Pass    |
|                                   |                 | 25            | 0      | 22.68                 | 0.75       | 23.43      | <=33.01 | Pass    |
| 16QAM                             | 2572.5          | 1             | 0      | 22.87                 | 0.75       | 23.62      | <=33.01 | Pass    |
|                                   |                 |               | 24     | 22.86                 | 0.75       | 23.61      | <=33.01 | Pass    |
|                                   |                 | 25            | 0      | 22.09                 | 0.75       | 22.84      | <=33.01 | Pass    |
|                                   | 2595            | 1             | 0      | 22.76                 | 0.75       | 23.51      | <=33.01 | Pass    |
|                                   |                 |               | 24     | 22.77                 | 0.75       | 23.52      | <=33.01 | Pass    |
|                                   |                 | 25            | 0      | 21.98                 | 0.75       | 22.73      | <=33.01 | Pass    |
|                                   | 2617.5          | 1             | 0      | 22.63                 | 0.75       | 23.38      | <=33.01 | Pass    |
|                                   |                 |               | 24     | 22.75                 | 0.75       | 23.50      | <=33.01 | Pass    |
|                                   |                 | 25            | 0      | 21.79                 | 0.75       | 22.54      | <=33.01 | Pass    |
| 64QAM                             | 2572.5          | 1             | 0      | 21.77                 | 0.75       | 22.52      | <=33.01 | Pass    |
|                                   |                 |               | 24     | 22.05                 | 0.75       | 22.80      | <=33.01 | Pass    |
|                                   |                 | 25            | 0      | 20.98                 | 0.75       | 21.73      | <=33.01 | Pass    |
|                                   | 2595            | 1             | 0      | 22.14                 | 0.75       | 22.89      | <=33.01 | Pass    |
|                                   |                 |               | 24     | 21.97                 | 0.75       | 22.72      | <=33.01 | Pass    |
|                                   |                 | 25            | 0      | 20.96                 | 0.75       | 21.71      | <=33.01 | Pass    |
|                                   | 2617.5          | 1             | 0      | 21.62                 | 0.75       | 22.37      | <=33.01 | Pass    |
|                                   |                 |               | 24     | 21.81                 | 0.75       | 22.56      | <=33.01 | Pass    |
|                                   |                 | 25            | 0      | 20.79                 | 0.75       | 21.54      | <=33.01 | Pass    |
| 256QAM                            | 2572.5          | 1             | 0      | 19.47                 | 0.75       | 20.22      | <=33.01 | Pass    |
|                                   |                 |               | 24     | 19.25                 | 0.75       | 20.00      | <=33.01 | Pass    |
|                                   |                 | 25            | 0      | 19.00                 | 0.75       | 19.75      | <=33.01 | Pass    |
|                                   | 2595            | 1             | 0      | 18.76                 | 0.75       | 19.51      | <=33.01 | Pass    |
|                                   |                 |               | 24     | 18.73                 | 0.75       | 19.48      | <=33.01 | Pass    |
|                                   |                 | 25            | 0      | 18.99                 | 0.75       | 19.74      | <=33.01 | Pass    |
|                                   | 2617.5          | 1             | 0      | 18.85                 | 0.75       | 19.60      | <=33.01 | Pass    |
|                                   |                 |               | 24     | 18.73                 | 0.75       | 19.48      | <=33.01 | Pass    |
|                                   |                 | 25            | 0      | 18.71                 | 0.75       | 19.46      | <=33.01 | Pass    |

Note1: EIRP=Conducted Power+Antenna Gain

### 1.1.2 B38\_10MHz\_EIRP

| Band: 38 / Bandwidth: 10MHz / NTNV |                 |               |        |                       |            |            |         |         |
|------------------------------------|-----------------|---------------|--------|-----------------------|------------|------------|---------|---------|
| Modulation                         | Frequency (MHz) | RB Allocation |        | Conducted Power (dBm) | Gain (dBi) | EIRP (dBm) |         | Verdict |
|                                    |                 | Size          | Offset |                       |            | Result     | Limit   |         |
| QPSK                               | 2575            | 1             | 0      | 23.97                 | 0.75       | 24.72      | <=33.01 | Pass    |
|                                    |                 |               | 49     | 23.91                 | 0.75       | 24.66      | <=33.01 | Pass    |
|                                    |                 | 50            | 0      | 22.86                 | 0.75       | 23.61      | <=33.01 | Pass    |
|                                    | 2595            | 1             | 0      | 23.77                 | 0.75       | 24.52      | <=33.01 | Pass    |

|                                          |      |    |    |       |      |       |         |      |
|------------------------------------------|------|----|----|-------|------|-------|---------|------|
|                                          |      |    | 49 | 23.83 | 0.75 | 24.58 | <=33.01 | Pass |
|                                          |      | 50 | 0  | 22.76 | 0.75 | 23.51 | <=33.01 | Pass |
|                                          | 2615 | 1  | 0  | 23.63 | 0.75 | 24.38 | <=33.01 | Pass |
|                                          |      |    | 49 | 23.67 | 0.75 | 24.42 | <=33.01 | Pass |
|                                          |      | 50 | 0  | 22.68 | 0.75 | 23.43 | <=33.01 | Pass |
| 16QAM                                    | 2575 | 1  | 0  | 22.82 | 0.75 | 23.57 | <=33.01 | Pass |
|                                          |      |    | 49 | 22.66 | 0.75 | 23.41 | <=33.01 | Pass |
|                                          |      | 50 | 0  | 22.07 | 0.75 | 22.82 | <=33.01 | Pass |
|                                          | 2595 | 1  | 0  | 22.68 | 0.75 | 23.43 | <=33.01 | Pass |
|                                          |      |    | 49 | 22.66 | 0.75 | 23.41 | <=33.01 | Pass |
|                                          |      | 50 | 0  | 21.92 | 0.75 | 22.67 | <=33.01 | Pass |
|                                          | 2615 | 1  | 0  | 22.79 | 0.75 | 23.54 | <=33.01 | Pass |
|                                          |      |    | 49 | 22.46 | 0.75 | 23.21 | <=33.01 | Pass |
|                                          |      | 50 | 0  | 21.75 | 0.75 | 22.50 | <=33.01 | Pass |
| 64QAM                                    | 2575 | 1  | 0  | 22.23 | 0.75 | 22.98 | <=33.01 | Pass |
|                                          |      |    | 49 | 22.19 | 0.75 | 22.94 | <=33.01 | Pass |
|                                          |      | 50 | 0  | 21.07 | 0.75 | 21.82 | <=33.01 | Pass |
|                                          | 2595 | 1  | 0  | 22.25 | 0.75 | 23.00 | <=33.01 | Pass |
|                                          |      |    | 49 | 22.11 | 0.75 | 22.86 | <=33.01 | Pass |
|                                          |      | 50 | 0  | 20.94 | 0.75 | 21.69 | <=33.01 | Pass |
|                                          | 2615 | 1  | 0  | 21.51 | 0.75 | 22.26 | <=33.01 | Pass |
|                                          |      |    | 49 | 21.76 | 0.75 | 22.51 | <=33.01 | Pass |
|                                          |      | 50 | 0  | 20.81 | 0.75 | 21.56 | <=33.01 | Pass |
| 256QAM                                   | 2575 | 1  | 0  | 19.03 | 0.75 | 19.78 | <=33.01 | Pass |
|                                          |      |    | 49 | 19.06 | 0.75 | 19.81 | <=33.01 | Pass |
|                                          |      | 50 | 0  | 19.05 | 0.75 | 19.80 | <=33.01 | Pass |
|                                          | 2595 | 1  | 0  | 19.18 | 0.75 | 19.93 | <=33.01 | Pass |
|                                          |      |    | 49 | 19.10 | 0.75 | 19.85 | <=33.01 | Pass |
|                                          |      | 50 | 0  | 18.89 | 0.75 | 19.64 | <=33.01 | Pass |
|                                          | 2615 | 1  | 0  | 18.62 | 0.75 | 19.37 | <=33.01 | Pass |
|                                          |      |    | 49 | 18.95 | 0.75 | 19.70 | <=33.01 | Pass |
|                                          |      | 50 | 0  | 18.73 | 0.75 | 19.48 | <=33.01 | Pass |
| Note1: EIRP=Conducted Power+Antenna Gain |      |    |    |       |      |       |         |      |

### 1.1.3 B38\_15MHz\_EIRP

| Band: 38 / Bandwidth: 15MHz / NTNV |                 |               |        |                       |            |            |         |         |
|------------------------------------|-----------------|---------------|--------|-----------------------|------------|------------|---------|---------|
| Modulation                         | Frequency (MHz) | RB Allocation |        | Conducted Power (dBm) | Gain (dBi) | EIRP (dBm) |         | Verdict |
|                                    |                 | Size          | Offset |                       |            | Result     | Limit   |         |
| QPSK                               | 2577.5          | 1             | 0      | 23.94                 | 0.75       | 24.69      | <=33.01 | Pass    |
|                                    |                 |               | 74     | 23.91                 | 0.75       | 24.66      | <=33.01 | Pass    |
|                                    |                 | 75            | 0      | 22.85                 | 0.75       | 23.60      | <=33.01 | Pass    |
|                                    | 2595            | 1             | 0      | 23.80                 | 0.75       | 24.55      | <=33.01 | Pass    |
|                                    |                 |               | 74     | 23.82                 | 0.75       | 24.57      | <=33.01 | Pass    |
|                                    |                 | 75            | 0      | 22.80                 | 0.75       | 23.55      | <=33.01 | Pass    |
|                                    | 2612.5          | 1             | 0      | 23.96                 | 0.75       | 24.71      | <=33.01 | Pass    |
|                                    |                 |               | 74     | 23.62                 | 0.75       | 24.37      | <=33.01 | Pass    |
|                                    |                 | 75            | 0      | 22.68                 | 0.75       | 23.43      | <=33.01 | Pass    |
| 16QAM                              | 2577.5          | 1             | 0      | 22.96                 | 0.75       | 23.71      | <=33.01 | Pass    |
|                                    |                 |               | 74     | 22.93                 | 0.75       | 23.68      | <=33.01 | Pass    |
|                                    |                 | 75            | 0      | 22.07                 | 0.75       | 22.82      | <=33.01 | Pass    |
|                                    | 2595            | 1             | 0      | 22.63                 | 0.75       | 23.38      | <=33.01 | Pass    |
|                                    |                 |               | 74     | 22.72                 | 0.75       | 23.47      | <=33.01 | Pass    |
|                                    |                 | 75            | 0      | 21.97                 | 0.75       | 22.72      | <=33.01 | Pass    |
|                                    | 2612.5          | 1             | 0      | 23.02                 | 0.75       | 23.77      | <=33.01 | Pass    |
|                                    |                 |               | 74     | 22.92                 | 0.75       | 23.67      | <=33.01 | Pass    |
|                                    |                 | 75            | 0      | 21.79                 | 0.75       | 22.54      | <=33.01 | Pass    |

|                                          |        |    |    |       |      |       |         |      |
|------------------------------------------|--------|----|----|-------|------|-------|---------|------|
| 64QAM                                    | 2577.5 | 1  | 0  | 22.21 | 0.75 | 22.96 | <=33.01 | Pass |
|                                          |        |    | 74 | 21.57 | 0.75 | 22.32 | <=33.01 | Pass |
|                                          |        | 75 | 0  | 21.02 | 0.75 | 21.77 | <=33.01 | Pass |
|                                          | 2595   | 1  | 0  | 22.18 | 0.75 | 22.93 | <=33.01 | Pass |
|                                          |        |    | 74 | 22.20 | 0.75 | 22.95 | <=33.01 | Pass |
|                                          |        | 75 | 0  | 21.01 | 0.75 | 21.76 | <=33.01 | Pass |
|                                          | 2612.5 | 1  | 0  | 21.99 | 0.75 | 22.74 | <=33.01 | Pass |
|                                          |        |    | 74 | 21.79 | 0.75 | 22.54 | <=33.01 | Pass |
|                                          |        | 75 | 0  | 20.83 | 0.75 | 21.58 | <=33.01 | Pass |
| 256QAM                                   | 2577.5 | 1  | 0  | 18.94 | 0.75 | 19.69 | <=33.01 | Pass |
|                                          |        |    | 74 | 18.87 | 0.75 | 19.62 | <=33.01 | Pass |
|                                          |        | 75 | 0  | 19.03 | 0.75 | 19.78 | <=33.01 | Pass |
|                                          | 2595   | 1  | 0  | 19.14 | 0.75 | 19.89 | <=33.01 | Pass |
|                                          |        |    | 74 | 18.73 | 0.75 | 19.48 | <=33.01 | Pass |
|                                          |        | 75 | 0  | 18.94 | 0.75 | 19.69 | <=33.01 | Pass |
|                                          | 2612.5 | 1  | 0  | 18.78 | 0.75 | 19.53 | <=33.01 | Pass |
|                                          |        |    | 74 | 18.57 | 0.75 | 19.32 | <=33.01 | Pass |
|                                          |        | 75 | 0  | 18.79 | 0.75 | 19.54 | <=33.01 | Pass |
| Note1: EIRP=Conducted Power+Antenna Gain |        |    |    |       |      |       |         |      |

#### 1.1.4 B38\_20MHz\_EIRP

| Band: 38 / Bandwidth: 20MHz / NTNV |                 |               |        |                       |            |            |         |         |
|------------------------------------|-----------------|---------------|--------|-----------------------|------------|------------|---------|---------|
| Modulation                         | Frequency (MHz) | RB Allocation |        | Conducted Power (dBm) | Gain (dBi) | EIRP (dBm) |         | Verdict |
|                                    |                 | Size          | Offset |                       |            | Result     | Limit   |         |
| QPSK                               | 2580            | 1             | 0      | 23.92                 | 0.75       | 24.67      | <=33.01 | Pass    |
|                                    |                 |               | 99     | 23.75                 | 0.75       | 24.50      | <=33.01 | Pass    |
|                                    |                 | 100           | 0      | 22.85                 | 0.75       | 23.60      | <=33.01 | Pass    |
|                                    | 2595            | 1             | 0      | 23.74                 | 0.75       | 24.49      | <=33.01 | Pass    |
|                                    |                 |               | 99     | 23.68                 | 0.75       | 24.43      | <=33.01 | Pass    |
|                                    |                 | 100           | 0      | 22.83                 | 0.75       | 23.58      | <=33.01 | Pass    |
|                                    | 2610            | 1             | 0      | 23.73                 | 0.75       | 24.48      | <=33.01 | Pass    |
|                                    |                 |               | 99     | 23.72                 | 0.75       | 24.47      | <=33.01 | Pass    |
|                                    |                 | 100           | 0      | 22.74                 | 0.75       | 23.49      | <=33.01 | Pass    |
| 16QAM                              | 2580            | 1             | 0      | 23.07                 | 0.75       | 23.82      | <=33.01 | Pass    |
|                                    |                 |               | 99     | 22.93                 | 0.75       | 23.68      | <=33.01 | Pass    |
|                                    |                 | 100           | 0      | 22.06                 | 0.75       | 22.81      | <=33.01 | Pass    |
|                                    | 2595            | 1             | 0      | 22.74                 | 0.75       | 23.49      | <=33.01 | Pass    |
|                                    |                 |               | 99     | 22.84                 | 0.75       | 23.59      | <=33.01 | Pass    |
|                                    |                 | 100           | 0      | 21.97                 | 0.75       | 22.72      | <=33.01 | Pass    |
|                                    | 2610            | 1             | 0      | 22.53                 | 0.75       | 23.28      | <=33.01 | Pass    |
|                                    |                 |               | 99     | 22.43                 | 0.75       | 23.18      | <=33.01 | Pass    |
|                                    |                 | 100           | 0      | 21.84                 | 0.75       | 22.59      | <=33.01 | Pass    |
| 64QAM                              | 2580            | 1             | 0      | 22.01                 | 0.75       | 22.76      | <=33.01 | Pass    |
|                                    |                 |               | 99     | 22.02                 | 0.75       | 22.77      | <=33.01 | Pass    |
|                                    |                 | 100           | 0      | 21.07                 | 0.75       | 21.82      | <=33.01 | Pass    |
|                                    | 2595            | 1             | 0      | 22.11                 | 0.75       | 22.86      | <=33.01 | Pass    |
|                                    |                 |               | 99     | 21.74                 | 0.75       | 22.49      | <=33.01 | Pass    |
|                                    |                 | 100           | 0      | 20.99                 | 0.75       | 21.74      | <=33.01 | Pass    |
|                                    | 2610            | 1             | 0      | 21.95                 | 0.75       | 22.70      | <=33.01 | Pass    |
|                                    |                 |               | 99     | 21.62                 | 0.75       | 22.37      | <=33.01 | Pass    |
|                                    |                 | 100           | 0      | 20.87                 | 0.75       | 21.62      | <=33.01 | Pass    |
| 256QAM                             | 2580            | 1             | 0      | 19.08                 | 0.75       | 19.83      | <=33.01 | Pass    |
|                                    |                 |               | 99     | 19.29                 | 0.75       | 20.04      | <=33.01 | Pass    |
|                                    |                 | 100           | 0      | 19.01                 | 0.75       | 19.76      | <=33.01 | Pass    |
|                                    | 2595            | 1             | 0      | 18.77                 | 0.75       | 19.52      | <=33.01 | Pass    |
|                                    |                 |               | 99     | 19.25                 | 0.75       | 20.00      | <=33.01 | Pass    |

|  |      |     |    |       |      |       |         |      |
|--|------|-----|----|-------|------|-------|---------|------|
|  | 2610 | 100 | 0  | 18.94 | 0.75 | 19.69 | <=33.01 | Pass |
|  |      | 1   | 0  | 18.86 | 0.75 | 19.61 | <=33.01 | Pass |
|  |      |     | 99 | 18.85 | 0.75 | 19.60 | <=33.01 | Pass |
|  |      | 100 | 0  | 18.81 | 0.75 | 19.56 | <=33.01 | Pass |

Note1: EIRP=Conducted Power+Antenna Gain

## 2. Frequency Stability

### 2.1 Test Result

#### 2.1.1 B38\_10MHz

| Band: 38 / Bandwidth: 10MHz |                 |               |        |            |               |                  |                       |             |         |
|-----------------------------|-----------------|---------------|--------|------------|---------------|------------------|-----------------------|-------------|---------|
| Modulation                  | Frequency (MHz) | RB Allocation |        | Temp. (°C) | Voltage (VDC) | Freq. Error (Hz) | Freq. vs. Rated (ppm) |             | Verdict |
|                             |                 | Size          | Offset |            |               |                  | Result                | Limit       |         |
| QPSK                        | 2595            | 50            | 0      | 20         | 3.7           | -1.588           | -0.0006               | -2.5 to 2.5 | Pass    |
|                             |                 |               |        |            | 3.91          | -16.451          | -0.0063               | -2.5 to 2.5 | Pass    |
|                             |                 |               |        |            | 4.3           | -4.950           | -0.0019               | -2.5 to 2.5 | Pass    |
|                             |                 |               |        | -30        | 3.91          | -7.381           | -0.0028               | -2.5 to 2.5 | Pass    |
|                             |                 |               |        | -20        | 3.91          | -7.896           | -0.0030               | -2.5 to 2.5 | Pass    |
|                             |                 |               |        | -10        | 3.91          | -6.709           | -0.0026               | -2.5 to 2.5 | Pass    |
|                             |                 |               |        | 0          | 3.91          | -3.819           | -0.0015               | -2.5 to 2.5 | Pass    |
|                             |                 |               |        | 10         | 3.91          | -2.518           | -0.0010               | -2.5 to 2.5 | Pass    |
|                             |                 |               |        | 30         | 3.91          | -3.762           | -0.0014               | -2.5 to 2.5 | Pass    |
|                             |                 |               |        | 40         | 3.91          | 2.789            | 0.0011                | -2.5 to 2.5 | Pass    |
|                             |                 |               |        | 50         | 3.91          | 1.302            | 0.0005                | -2.5 to 2.5 | Pass    |

### 3. 99% & 26dB Bandwidth

#### 3.1 Test Result

##### 3.1.1 Band38\_OBW

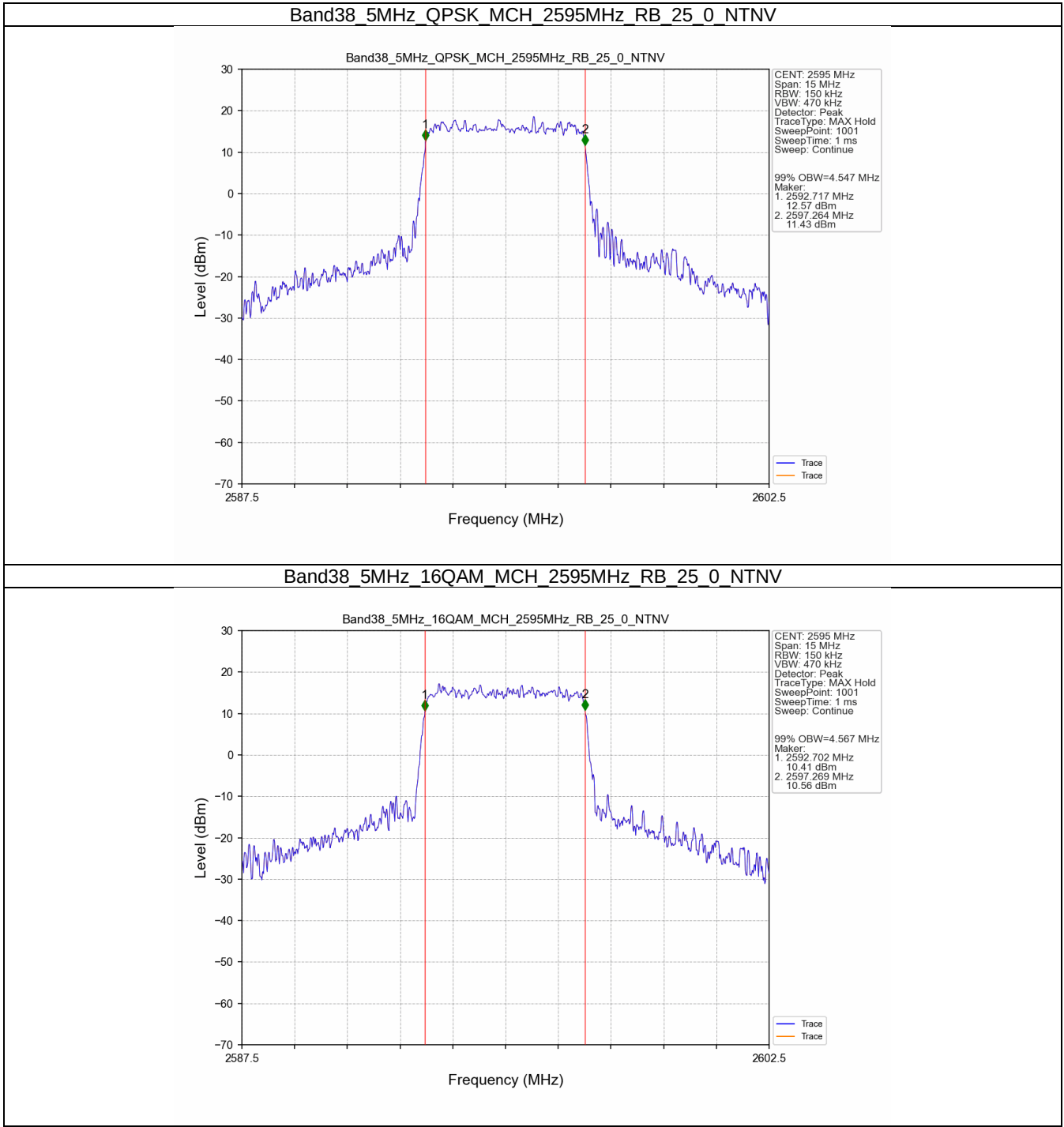
| Band: 38 / NTN  |            |                 |               |        |                              |       |         |
|-----------------|------------|-----------------|---------------|--------|------------------------------|-------|---------|
| Bandwidth (MHz) | Modulation | Frequency (MHz) | RB Allocation |        | 99% Occupied Bandwidth (MHz) |       | Verdict |
|                 |            |                 | Size          | Offset | Result                       | Limit |         |
| 5               | QPSK       | 2595            | 25            | 0      | 4.547                        | /     | Pass    |
|                 | 16QAM      | 2595            | 25            | 0      | 4.567                        | /     | Pass    |
| 10              | QPSK       | 2595            | 50            | 0      | 9.083                        | /     | Pass    |
|                 | 16QAM      | 2595            | 50            | 0      | 9.075                        | /     | Pass    |
| 15              | QPSK       | 2595            | 75            | 0      | 13.649                       | /     | Pass    |
|                 | 16QAM      | 2595            | 75            | 0      | 13.615                       | /     | Pass    |
| 20              | QPSK       | 2595            | 100           | 0      | 18.224                       | /     | Pass    |
|                 | 16QAM      | 2595            | 100           | 0      | 18.125                       | /     | Pass    |

##### 3.1.2 Band38\_XDB

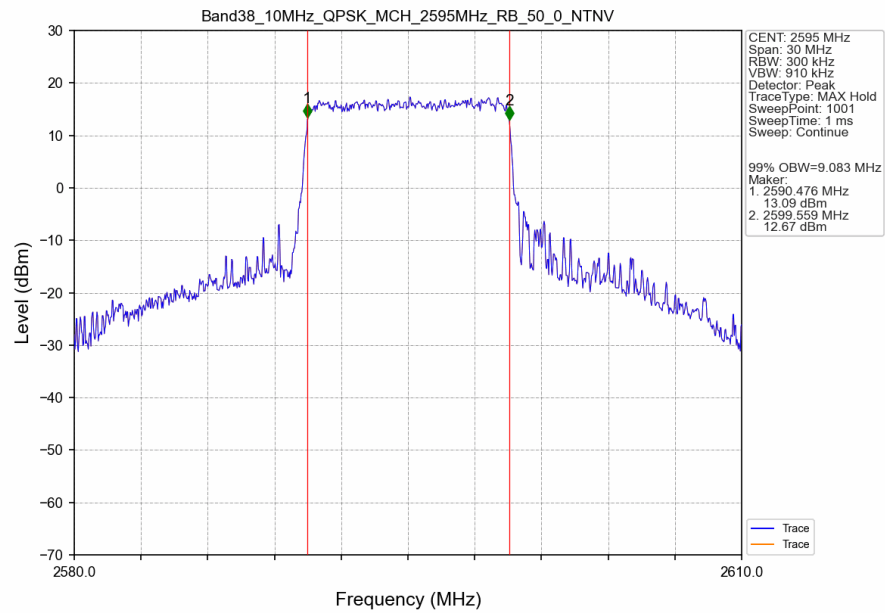
| Band: 38 / NTN  |            |                 |               |        |                      |       |         |
|-----------------|------------|-----------------|---------------|--------|----------------------|-------|---------|
| Bandwidth (MHz) | Modulation | Frequency (MHz) | RB Allocation |        | 26dB Bandwidth (MHz) |       | Verdict |
|                 |            |                 | Size          | Offset | Result               | Limit |         |
| 5               | QPSK       | 2595            | 25            | 0      | 5.562                | /     | Pass    |
|                 | 16QAM      | 2595            | 25            | 0      | 5.067                | /     | Pass    |
| 10              | QPSK       | 2595            | 50            | 0      | 12.222               | /     | Pass    |
|                 | 16QAM      | 2595            | 50            | 0      | 12.110               | /     | Pass    |
| 15              | QPSK       | 2595            | 75            | 0      | 17.287               | /     | Pass    |
|                 | 16QAM      | 2595            | 75            | 0      | 19.915               | /     | Pass    |
| 20              | QPSK       | 2595            | 100           | 0      | 26.449               | /     | Pass    |
|                 | 16QAM      | 2595            | 100           | 0      | 23.180               | /     | Pass    |

3.2 Test Graph

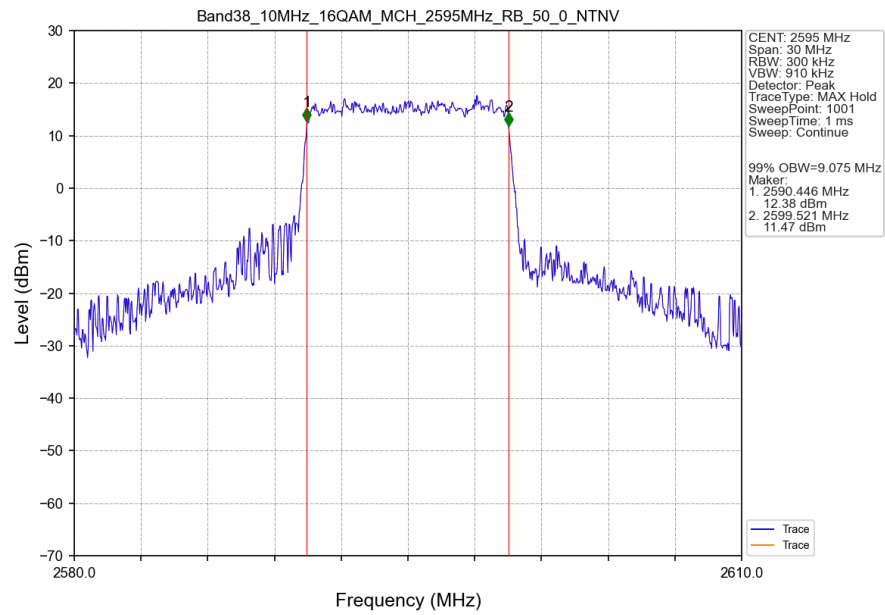
3.2.1 Band38\_OBW



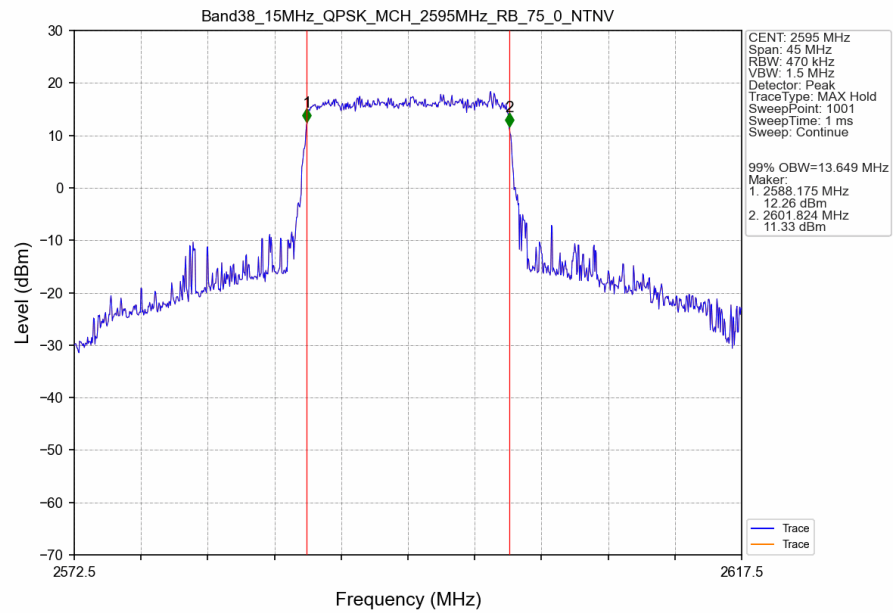
# Band38\_10MHz\_QPSK\_MCH\_2595MHz\_RB\_50\_0\_NTNV



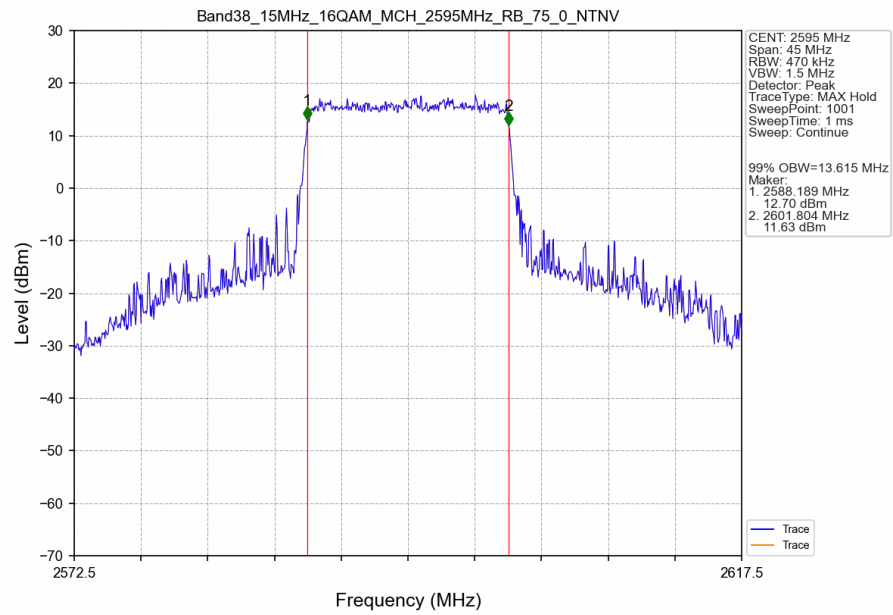
# Band38\_10MHz\_16QAM\_MCH\_2595MHz\_RB\_50\_0\_NTNV



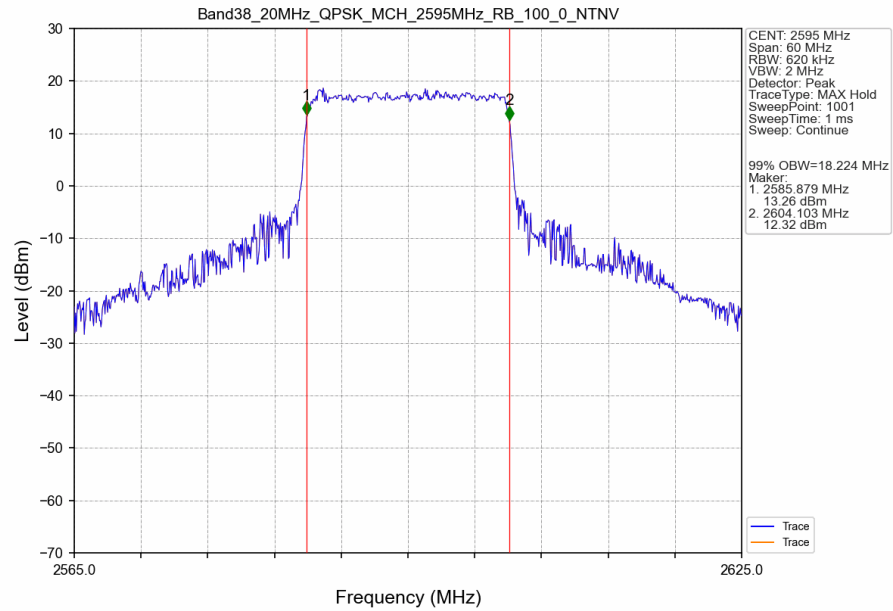
# Band38\_15MHz\_QPSK\_MCH\_2595MHz\_RB\_75\_0\_NTNV



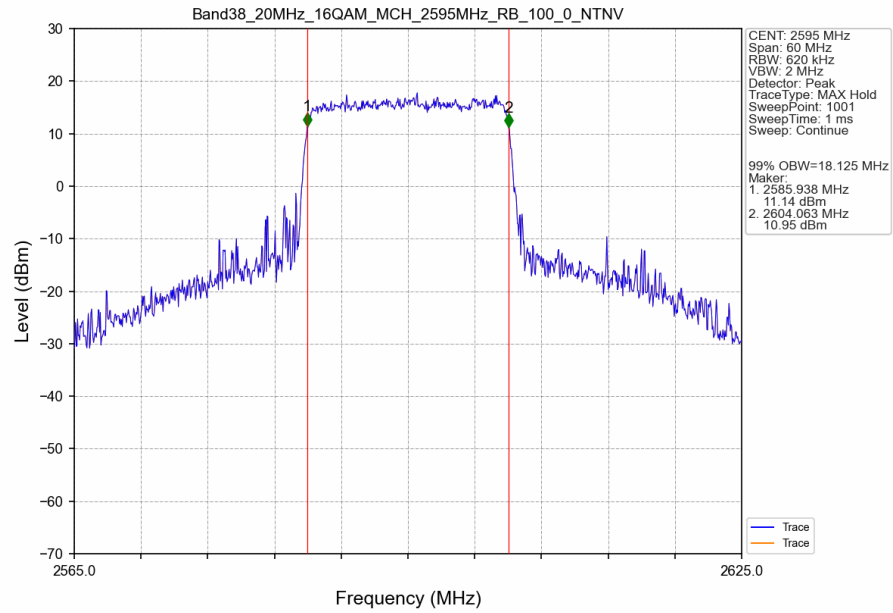
# Band38\_15MHz\_16QAM\_MCH\_2595MHz\_RB\_75\_0\_NTNV



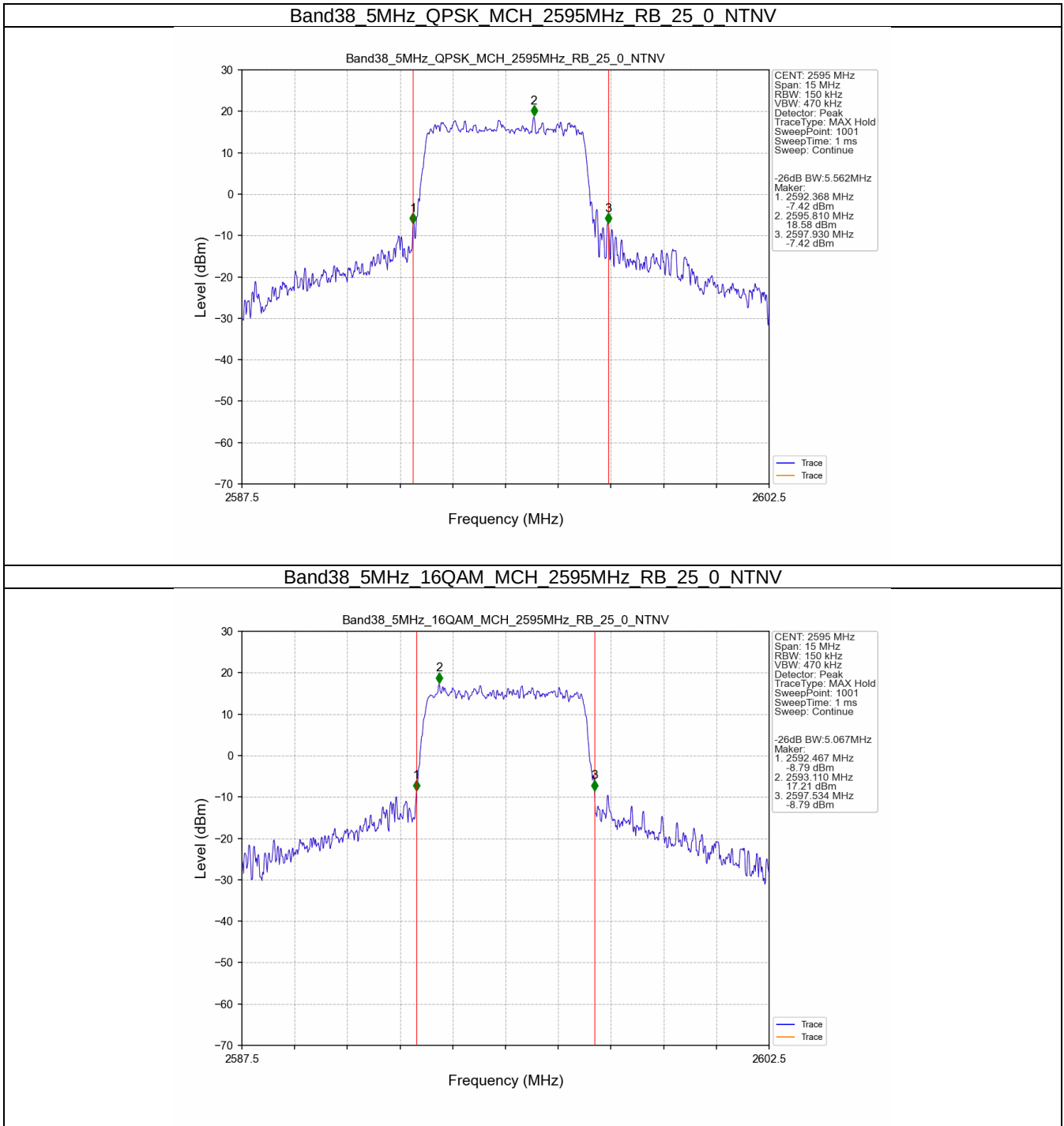
Band38 20MHz QPSK MCH 2595MHz RB 100 0 NTV



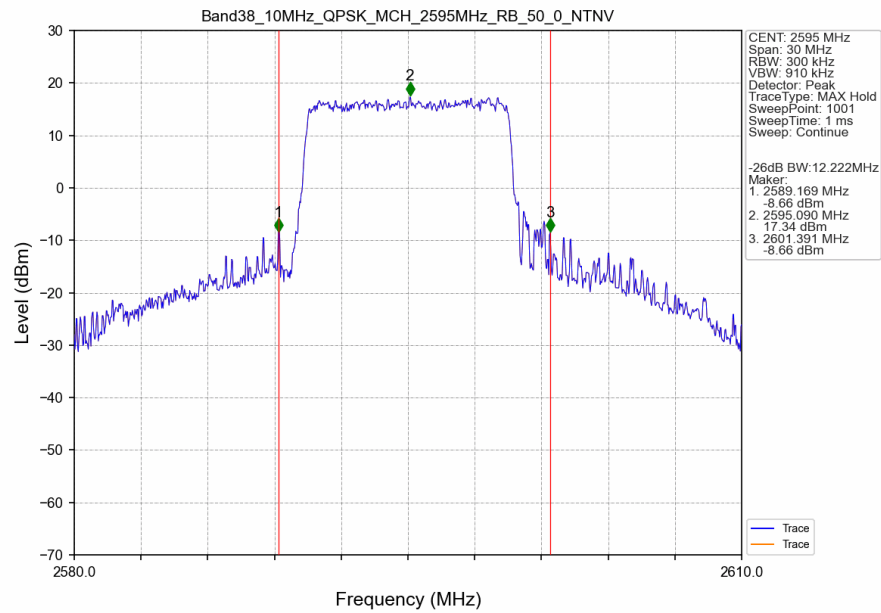
Band38 20MHz 16QAM MCH 2595MHz RB 100 0 NTV



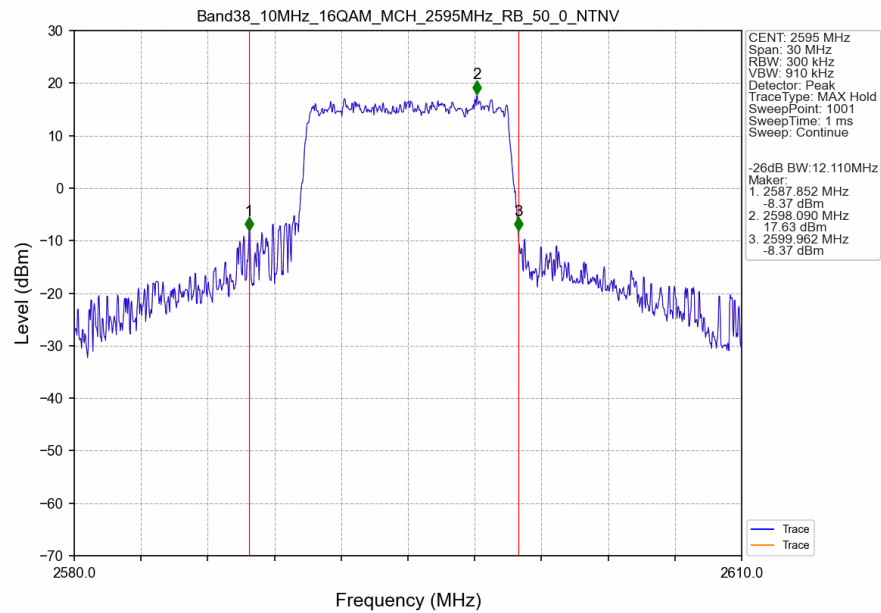
3.2.2 Band38\_XDB



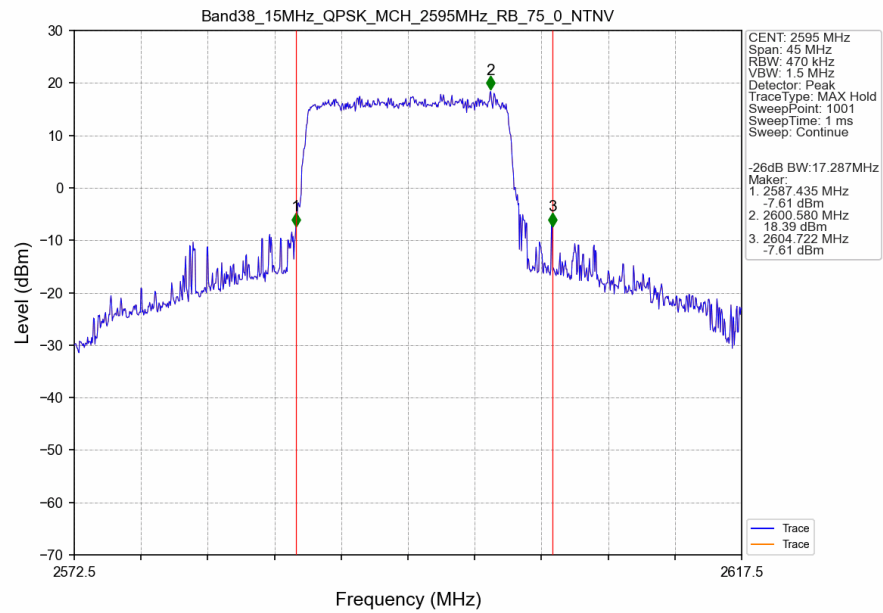
# Band38\_10MHz\_QPSK\_MCH\_2595MHz\_RB\_50\_0\_NTNV



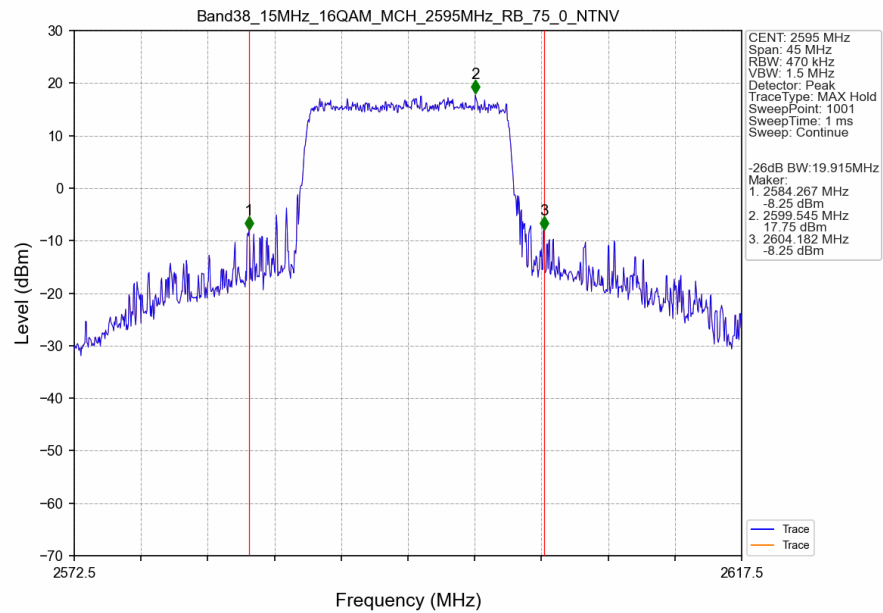
# Band38\_10MHz\_16QAM\_MCH\_2595MHz\_RB\_50\_0\_NTNV



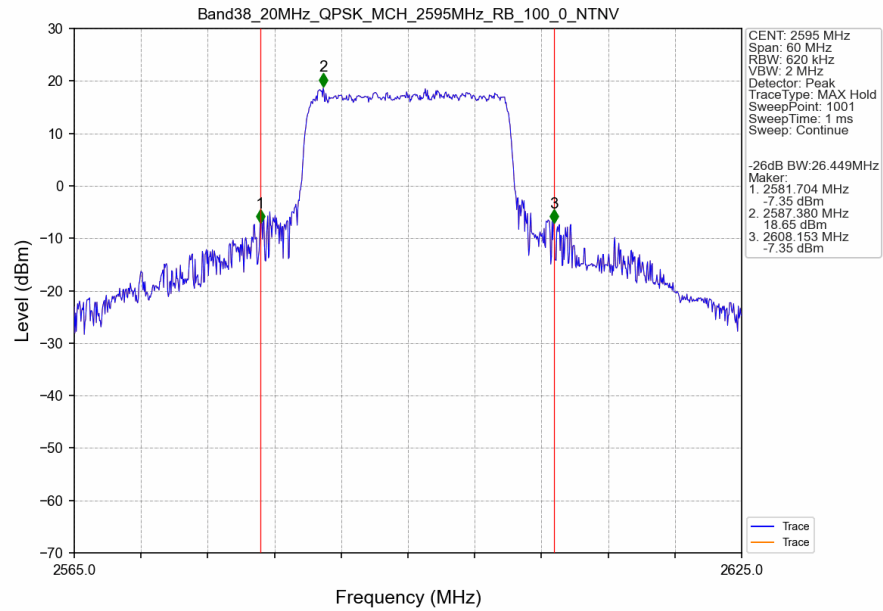
# Band38\_15MHz\_QPSK\_MCH\_2595MHz\_RB\_75\_0\_NTNV



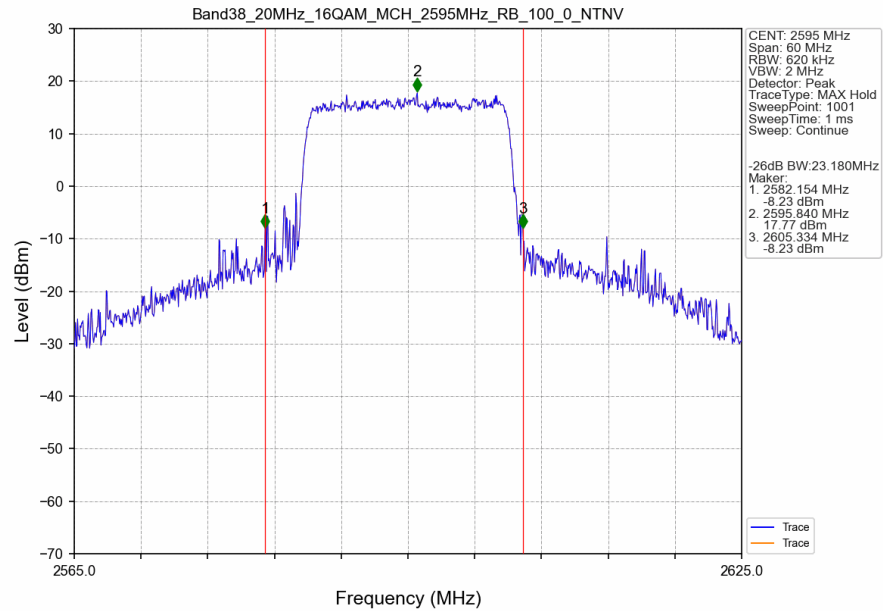
# Band38\_15MHz\_16QAM\_MCH\_2595MHz\_RB\_75\_0\_NTNV



Band38 20MHz QPSK MCH 2595MHz RB 100 0 NTNV



Band38 20MHz 16QAM MCH 2595MHz RB 100 0 NTNV



## 4. Peak-Average Ratio

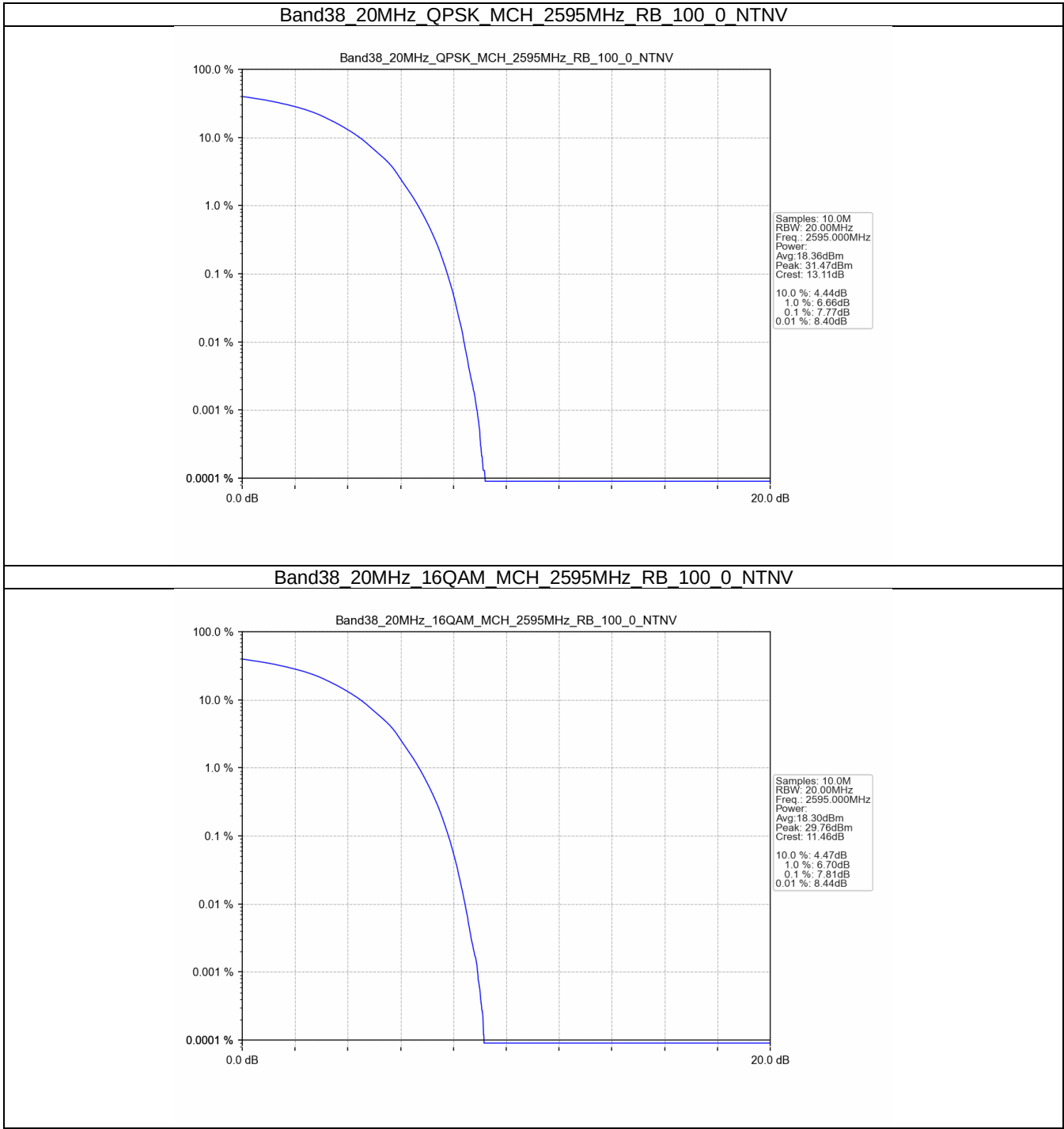
### 4.1 Test Result

#### 4.1.1 B38\_20MHz

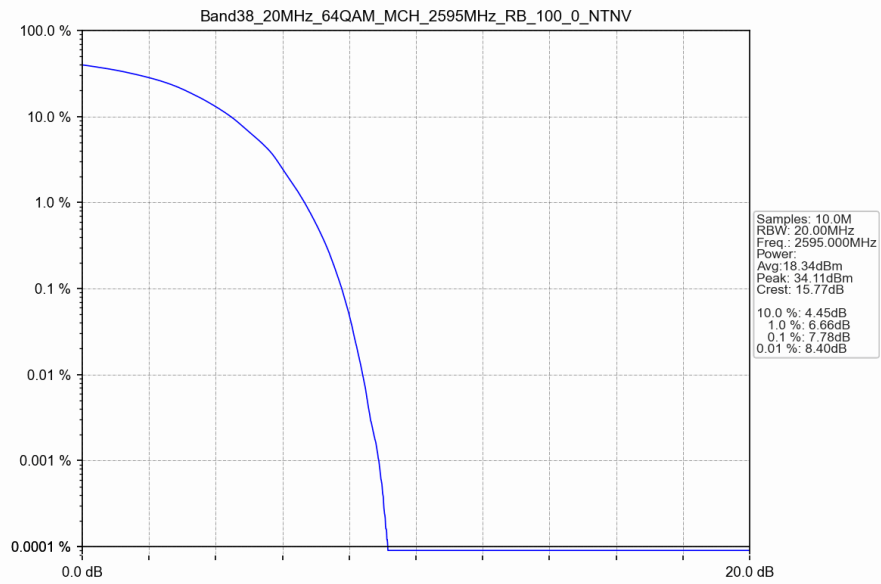
| Band: 38 / Bandwidth: 20MHz / NTN |                    |               |        |                         |       |         |
|-----------------------------------|--------------------|---------------|--------|-------------------------|-------|---------|
| Modulation                        | Frequency<br>(MHz) | RB Allocation |        | Peak-Average Ratio (dB) |       | Verdict |
|                                   |                    | Size          | Offset | Result                  | Limit |         |
| QPSK                              | 2595               | 100           | 0      | 7.77                    | <=13  | Pass    |
| 16QAM                             | 2595               | 100           | 0      | 7.81                    | <=13  | Pass    |
| 64QAM                             | 2595               | 100           | 0      | 7.78                    | <=13  | Pass    |
| 256QAM                            | 2595               | 100           | 0      | 8.38                    | <=13  | Pass    |

# 4.2 Test Graph

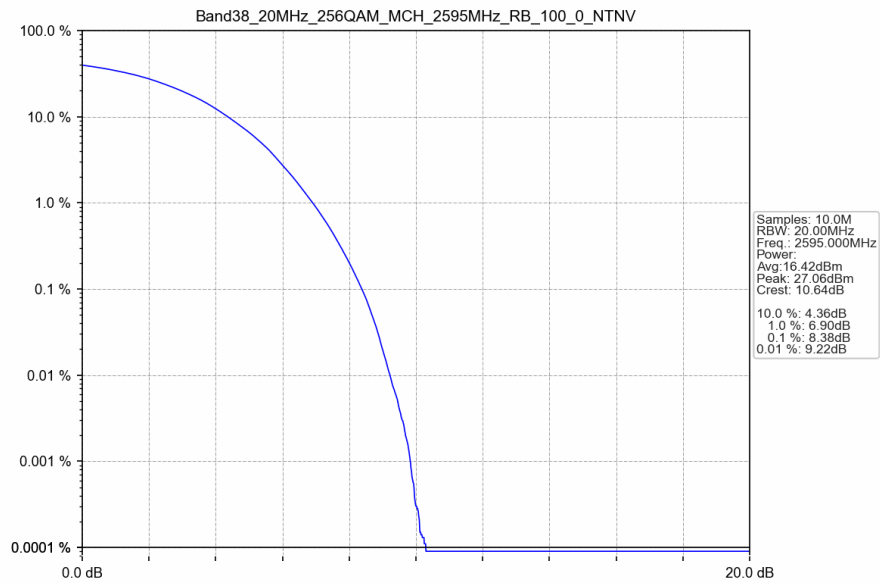
## 4.2.1 B38\_20MHz



Band38 20MHz 64QAM MCH 2595MHz RB 100 0 NTNV



Band38 20MHz 256QAM MCH 2595MHz RB 100 0 NTNV



## 5. Spurious Emission

### 5.1 Test Result

#### 5.1.1 B38\_5MHz

| Band: 38 / Bandwidth: 5MHz / NTV |                 |               |        |                     |                     |         |
|----------------------------------|-----------------|---------------|--------|---------------------|---------------------|---------|
| Modulation                       | Frequency (MHz) | RB Allocation |        | Spurious Emission   |                     | Verdict |
|                                  |                 | Size          | Offset | Result              | Limit               |         |
| QPSK                             | 2572.5          | 1             | 0      | Refer To Test Graph |                     | Pass    |
|                                  |                 | 25            | 0      | Refer To Test Graph |                     | Pass    |
|                                  | 2595            | 1             | 0      | Refer To Test Graph |                     | Pass    |
|                                  |                 | 2617.5        | 1      | 0                   | Refer To Test Graph |         |
|                                  | 24              |               |        | Refer To Test Graph |                     | Pass    |
|                                  | 25              |               | 0      | Refer To Test Graph |                     | Pass    |

#### 5.1.2 B38\_10MHz

| Band: 38 / Bandwidth: 10MHz / NTVN |                 |               |        |                     |       |         |
|------------------------------------|-----------------|---------------|--------|---------------------|-------|---------|
| Modulation                         | Frequency (MHz) | RB Allocation |        | Spurious Emission   |       | Verdict |
|                                    |                 | Size          | Offset | Result              | Limit |         |
| QPSK                               | 2575            | 1             | 0      | Refer To Test Graph |       | Pass    |
|                                    |                 | 50            | 0      | Refer To Test Graph |       | Pass    |
|                                    | 2595            | 1             | 0      | Refer To Test Graph |       | Pass    |
|                                    | 2615            | 1             | 0      | Refer To Test Graph |       | Pass    |
|                                    |                 |               | 49     | Refer To Test Graph |       | Pass    |
|                                    |                 | 50            | 0      | Refer To Test Graph |       | Pass    |

#### 5.1.3 B38\_15MHz

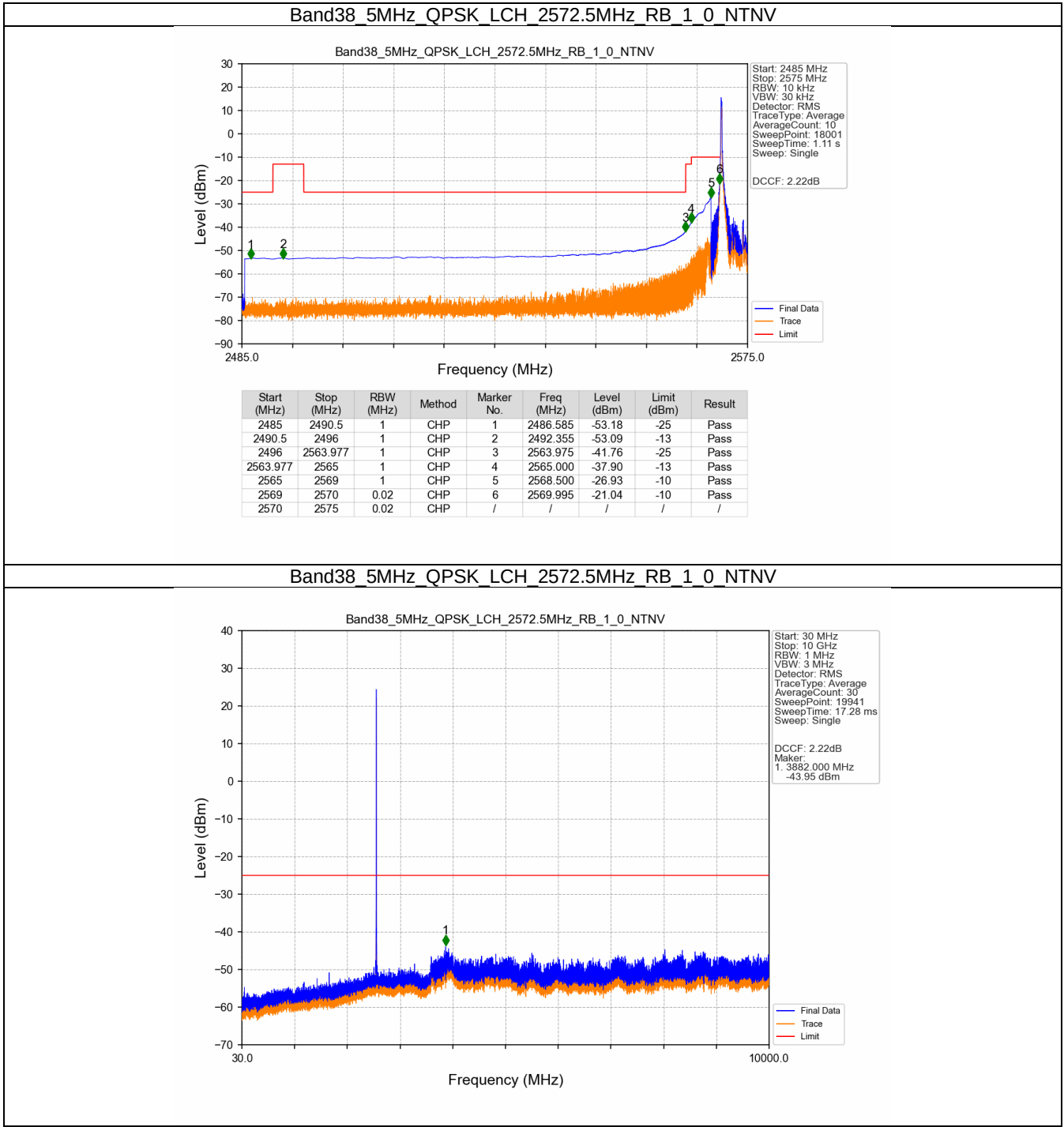
| Band: 38 / Bandwidth: 15MHz / NTNV |                 |               |        |                     |       |         |
|------------------------------------|-----------------|---------------|--------|---------------------|-------|---------|
| Modulation                         | Frequency (MHz) | RB Allocation |        | Spurious Emission   |       | Verdict |
|                                    |                 | Size          | Offset | Result              | Limit |         |
| QPSK                               | 2577.5          | 1             | 0      | Refer To Test Graph |       | Pass    |
|                                    |                 | 75            | 0      | Refer To Test Graph |       | Pass    |
|                                    | 2595            | 1             | 0      | Refer To Test Graph |       | Pass    |
|                                    | 2612.5          | 1             | 0      | Refer To Test Graph |       | Pass    |
|                                    |                 |               | 74     | Refer To Test Graph |       | Pass    |
|                                    |                 | 75            | 0      | Refer To Test Graph |       | Pass    |

#### 5.1.4 B38\_20MHz

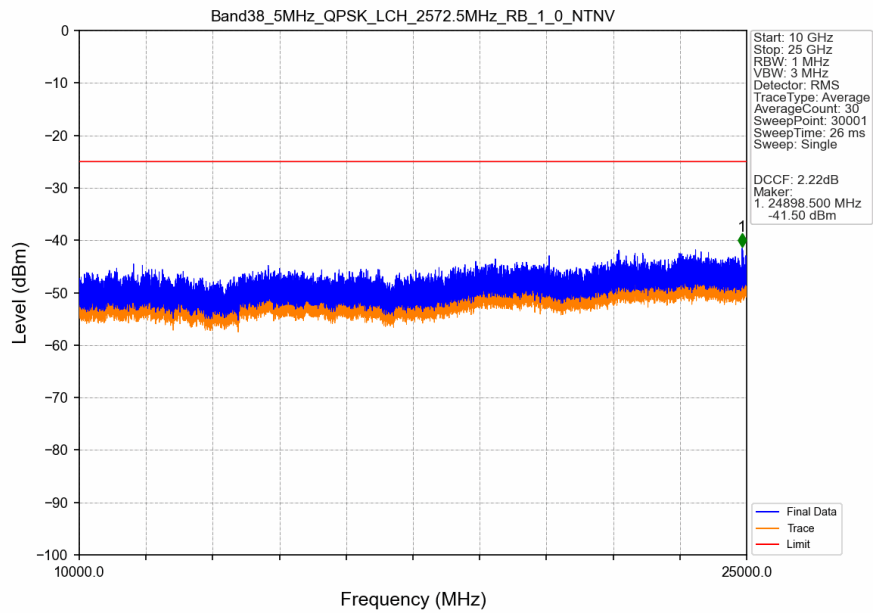
| Band: 38 / Bandwidth: 20MHz / NTNV |                 |               |        |                     |       |         |
|------------------------------------|-----------------|---------------|--------|---------------------|-------|---------|
| Modulation                         | Frequency (MHz) | RB Allocation |        | Spurious Emission   |       | Verdict |
|                                    |                 | Size          | Offset | Result              | Limit |         |
| QPSK                               | 2580            | 1             | 0      | Refer To Test Graph |       | Pass    |
|                                    |                 | 100           | 0      | Refer To Test Graph |       | Pass    |
|                                    | 2595            | 1             | 0      | Refer To Test Graph |       | Pass    |
|                                    | 2610            | 1             | 0      | Refer To Test Graph |       | Pass    |
|                                    |                 |               | 99     | Refer To Test Graph |       | Pass    |
|                                    |                 | 100           | 0      | Refer To Test Graph |       | Pass    |

5.2 Test Graph

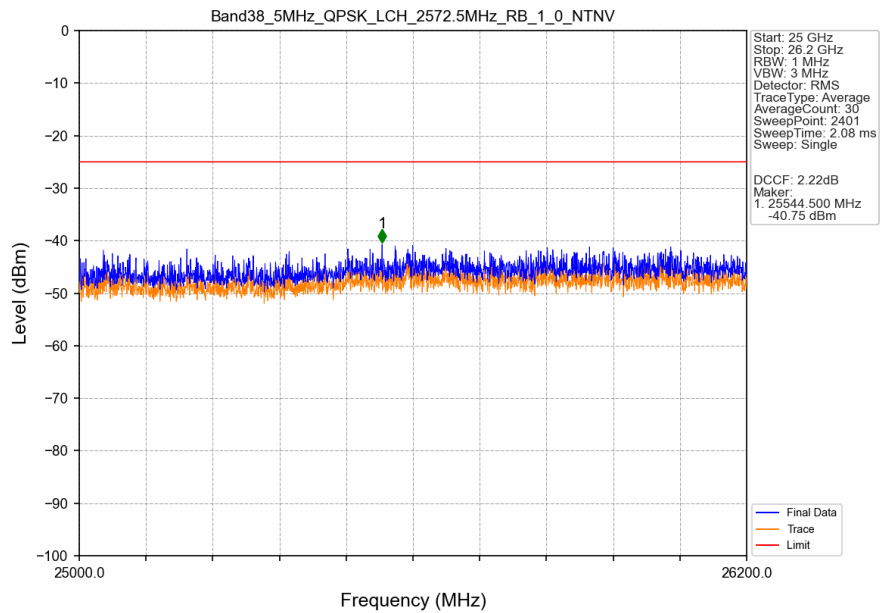
5.2.1 B38\_5MHz



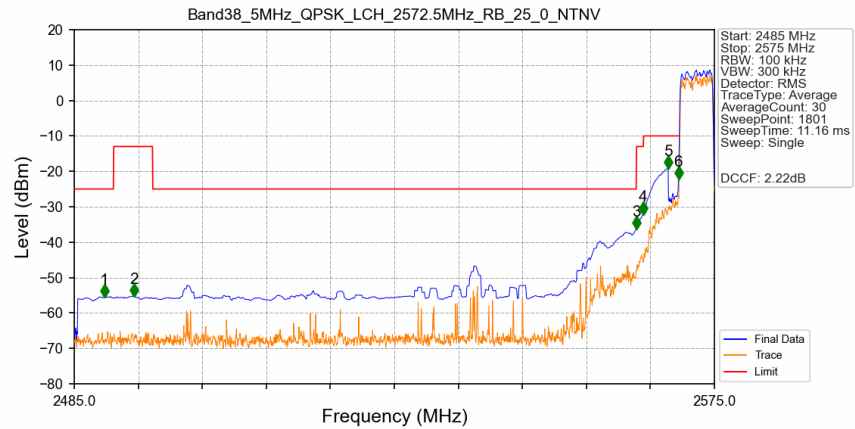
# Band38 5MHz QPSK LCH 2572.5MHz RB 1 0 NTNV



# Band38 5MHz QPSK LCH 2572.5MHz RB 1 0 NTNV

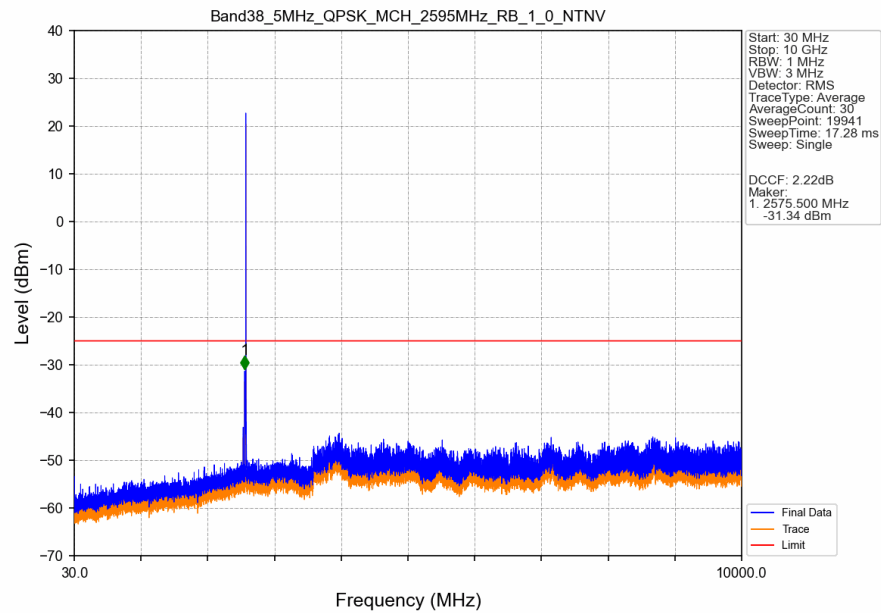


# Band38 5MHz QPSK LCH 2572.5MHz RB 25 0 NTNV

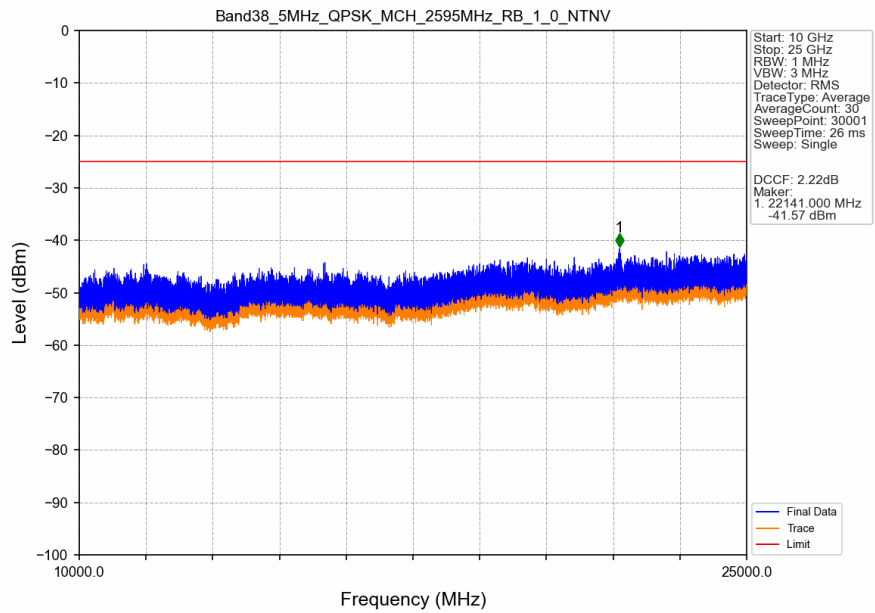


| Start (MHz) | Stop (MHz) | RBW (MHz) | Method | Marker No. | Freq (MHz) | Level (dBm) | Limit (dBm) | Result |
|-------------|------------|-----------|--------|------------|------------|-------------|-------------|--------|
| 2485        | 2490.5     | 1         | CHP    | 1          | 2489.250   | -55.27      | -25         | Pass   |
| 2490.5      | 2496       | 1         | CHP    | 2          | 2493.450   | -55.14      | -13         | Pass   |
| 2496        | 2564       | 1         | CHP    | 3          | 2564.000   | -36.14      | -25         | Pass   |
| 2564        | 2565       | 1         | CHP    | 4          | 2565.000   | -31.94      | -13         | Pass   |
| 2565        | 2569       | 1         | CHP    | 5          | 2568.500   | -18.99      | -10         | Pass   |
| 2569        | 2570       | 0.113     | CHP    | 6          | 2569.950   | -22.01      | -10         | Pass   |
| 2570        | 2575       | 0.113     | CHP    | /          | /          | /           | /           | /      |

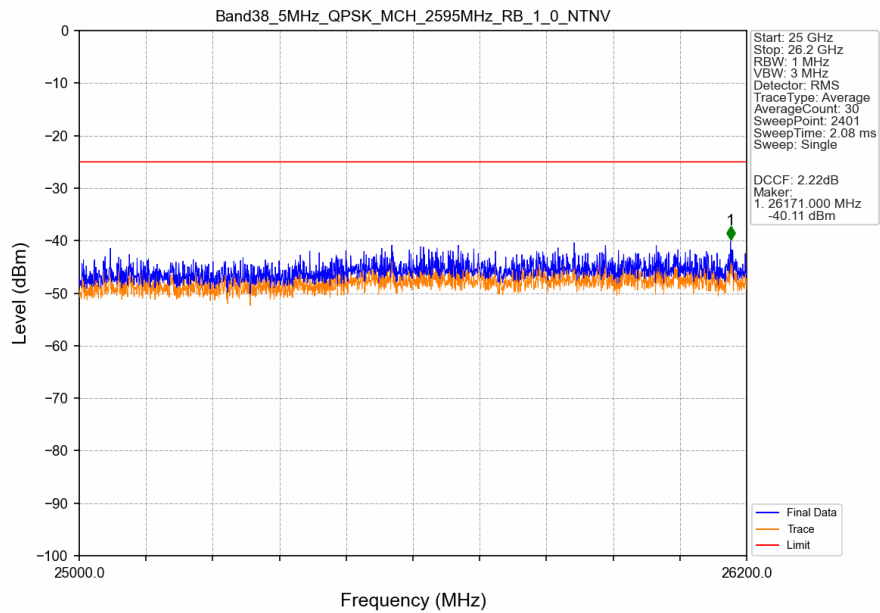
# Band38 5MHz QPSK MCH 2595MHz RB 1 0 NTNV



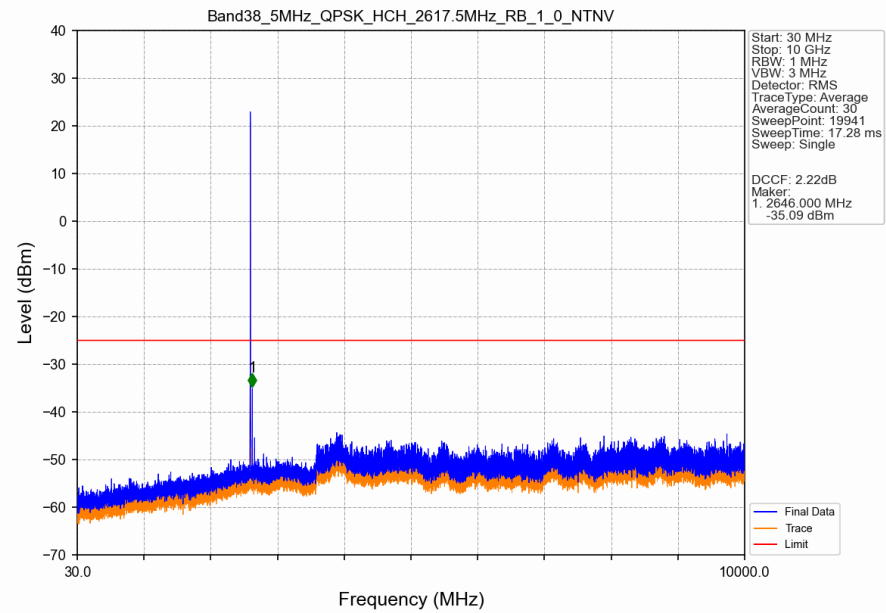
# Band38 5MHz QPSK MCH 2595MHz RB 1 0 NTN



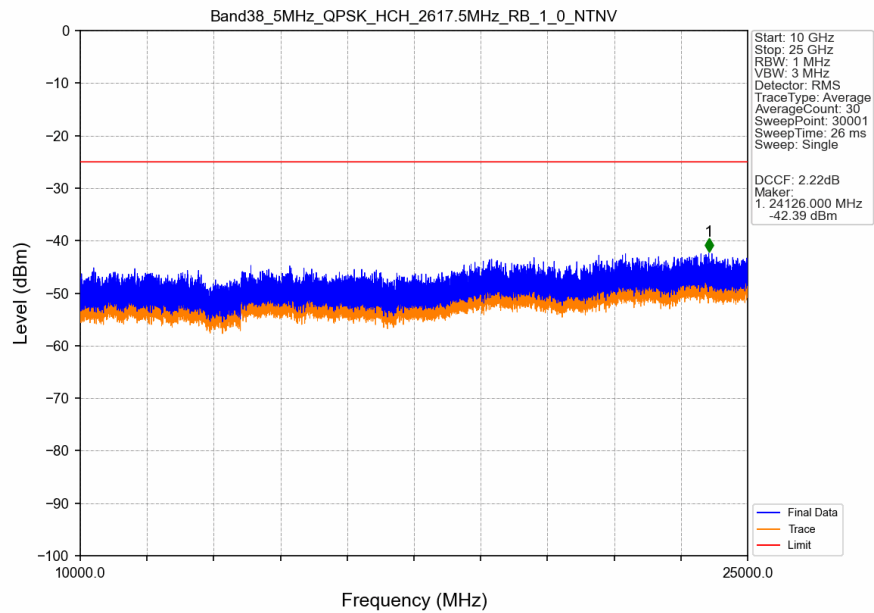
# Band38 5MHz QPSK MCH 2595MHz RB 1 0 NTN



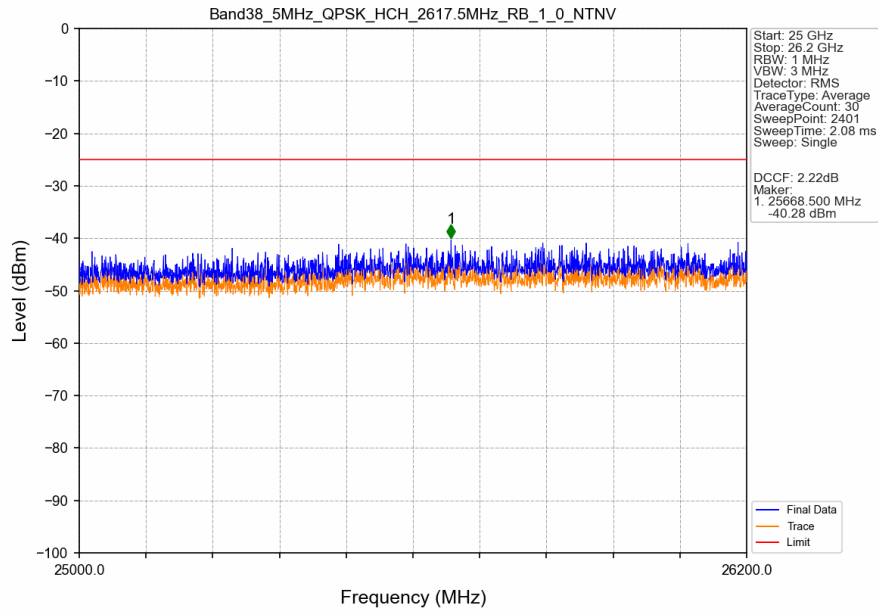
# Band38 5MHz QPSK HCH 2617.5MHz RB 1 0 NTNV



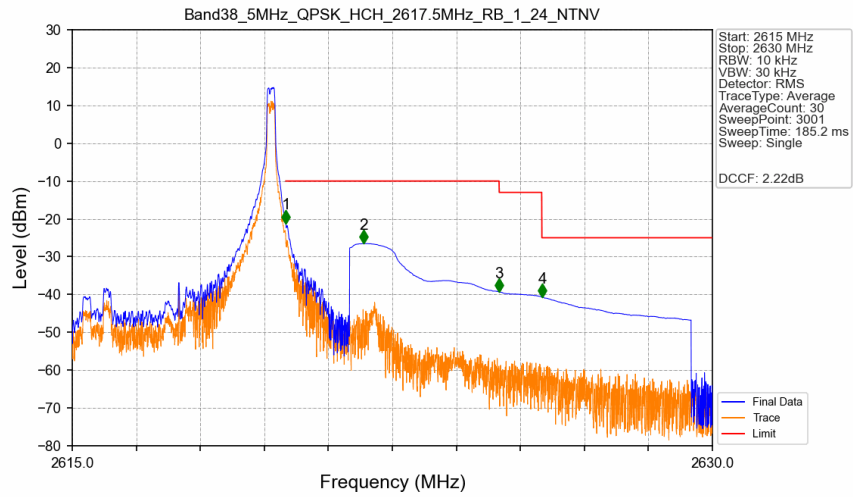
# Band38 5MHz QPSK HCH 2617.5MHz RB 1 0 NTNV



# Band38 5MHz QPSK HCH 2617.5MHz RB 1 0 NTNV

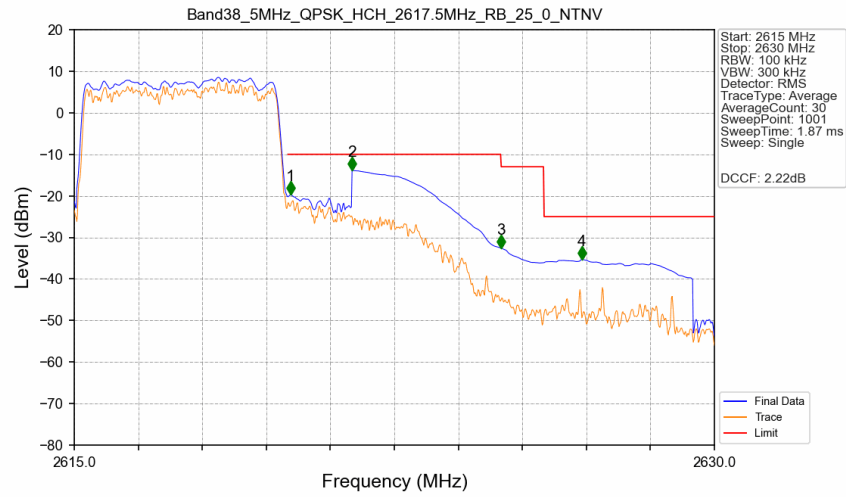


# Band38 5MHz QPSK HCH 2617.5MHz RB 1 24 NTNV



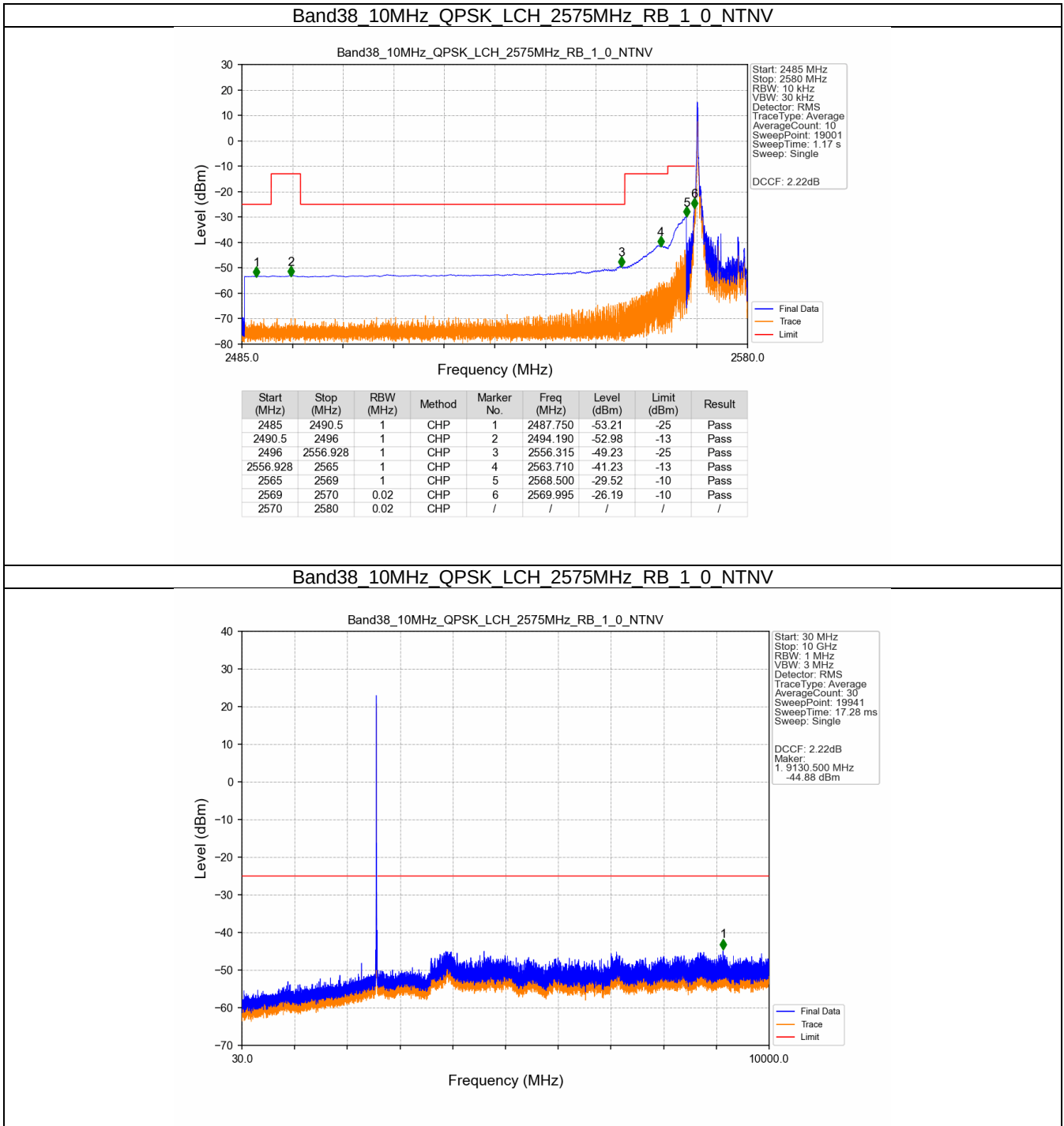
| Start (MHz) | Stop (MHz) | RBW (MHz) | Method | Marker No. | Freq (MHz) | Level (dBm) | Limit (dBm) | Result |
|-------------|------------|-----------|--------|------------|------------|-------------|-------------|--------|
| 2615        | 2620       | 0.02      | CHP    | /          | /          | /           | /           | /      |
| 2620        | 2621       | 0.02      | CHP    | 1          | 2620.005   | -21.13      | -10         | Pass   |
| 2621        | 2625       | 1         | CHP    | 2          | 2621.830   | -26.53      | -10         | Pass   |
| 2625        | 2626       | 1         | CHP    | 3          | 2625.005   | -39.34      | -13         | Pass   |
| 2626        | 2630       | 1         | CHP    | 4          | 2626.015   | -40.65      | -25         | Pass   |

Band38 5MHz QPSK HCH 2617.5MHz RB 25 0 NTV

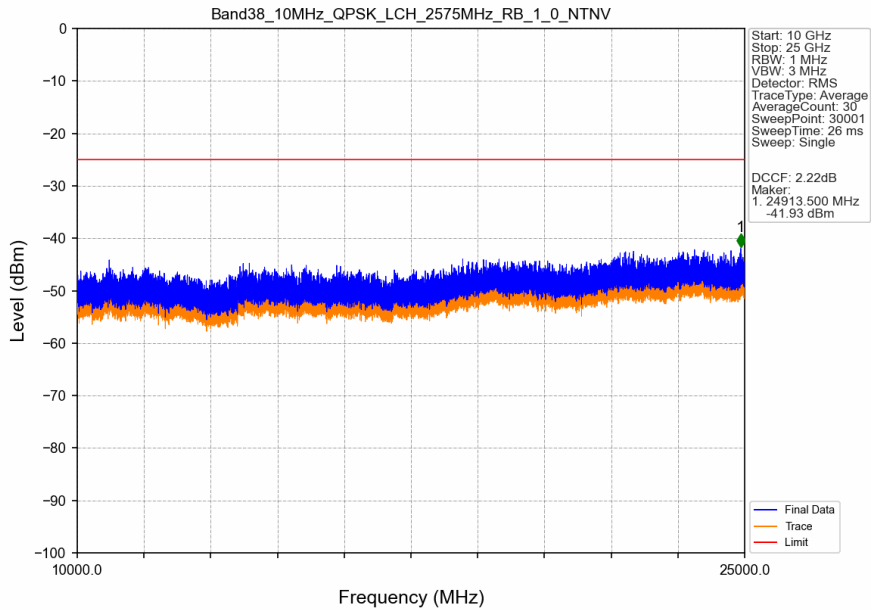


| Start (MHz) | Stop (MHz) | RBW (MHz) | Method | Marker No. | Freq (MHz) | Level (dBm) | Limit (dBm) | Result |
|-------------|------------|-----------|--------|------------|------------|-------------|-------------|--------|
| 2615        | 2620       | 0.113     | CHP    | /          | /          | /           | /           | /      |
| 2620        | 2621       | 0.113     | CHP    | 1          | 2620.070   | -19.71      | -10         | Pass   |
| 2621        | 2625       | 1         | CHP    | 2          | 2621.510   | -13.83      | -10         | Pass   |
| 2625        | 2626       | 1         | CHP    | 3          | 2625.005   | -32.60      | -13         | Pass   |
| 2626        | 2630       | 1         | CHP    | 4          | 2626.895   | -35.32      | -25         | Pass   |

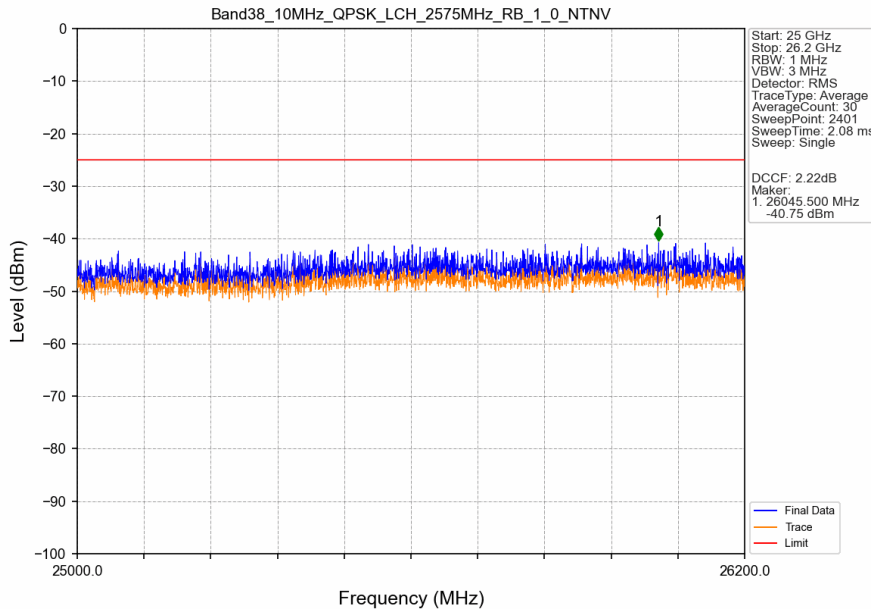
5.2.2 B38\_10MHz



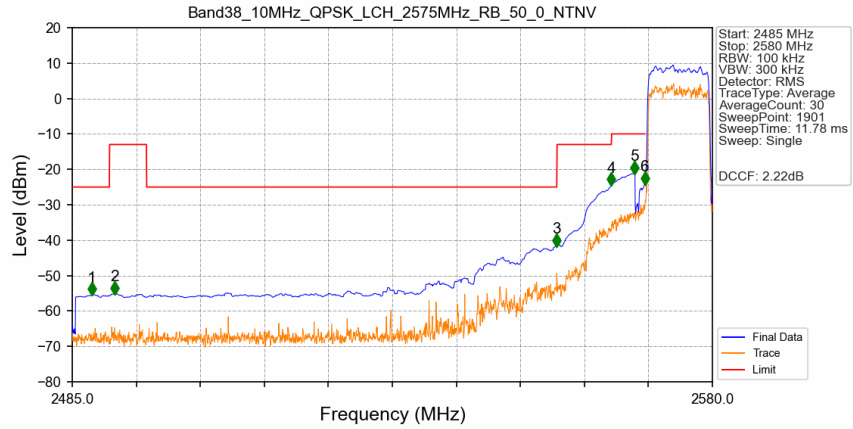
Band38\_10MHz\_QPSK\_LCH\_2575MHz\_RB\_1\_0\_NTNV



Band38\_10MHz\_QPSK\_LCH\_2575MHz\_RB\_1\_0\_NTNV

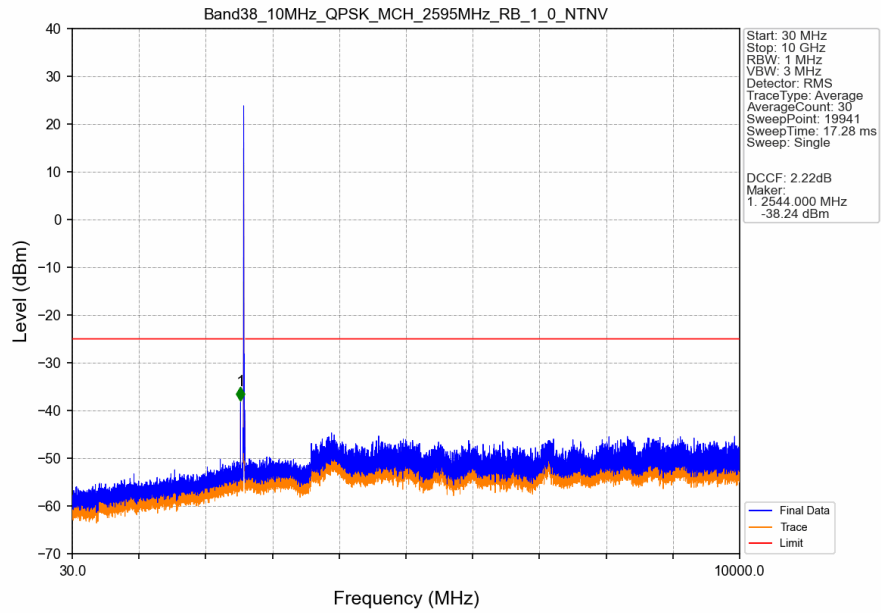


# Band38\_10MHz\_QPSK\_LCH\_2575MHz\_RB\_50\_0\_NTNV

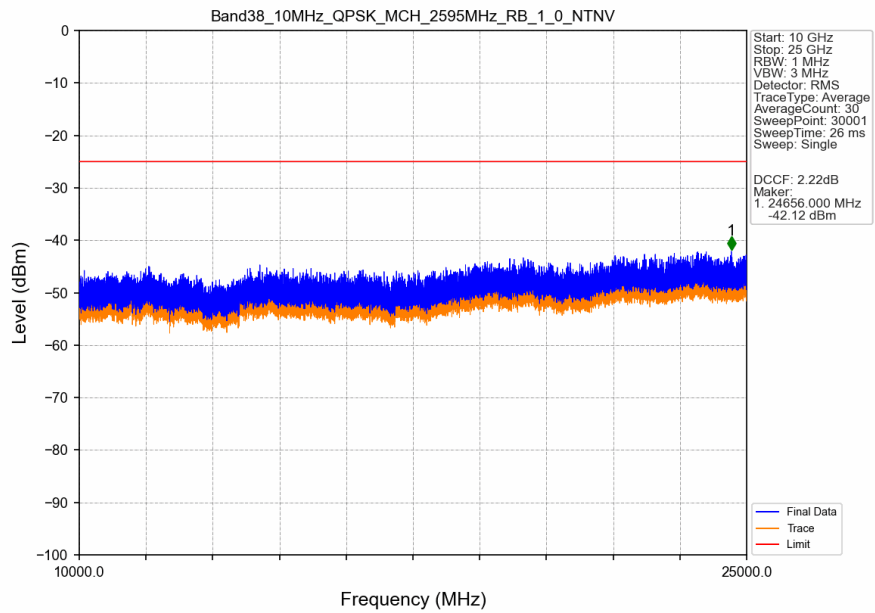


| Start (MHz) | Stop (MHz) | RBW (MHz) | Method | Marker No. | Freq (MHz) | Level (dBm) | Limit (dBm) | Result |
|-------------|------------|-----------|--------|------------|------------|-------------|-------------|--------|
| 2485        | 2490.5     | 1         | CHP    | 1          | 2487.900   | -55.30      | -25         | Pass   |
| 2490.5      | 2496       | 1         | CHP    | 2          | 2491.300   | -55.03      | -13         | Pass   |
| 2496        | 2556.928   | 1         | CHP    | 3          | 2556.900   | -41.52      | -25         | Pass   |
| 2556.928    | 2565       | 1         | CHP    | 4          | 2565.000   | -24.34      | -13         | Pass   |
| 2565        | 2569       | 1         | CHP    | 5          | 2568.450   | -21.06      | -10         | Pass   |
| 2569        | 2570       | 0.261     | CHP    | 6          | 2569.950   | -24.03      | -10         | Pass   |
| 2570        | 2580       | 0.261     | CHP    | /          | /          | /           | /           | /      |

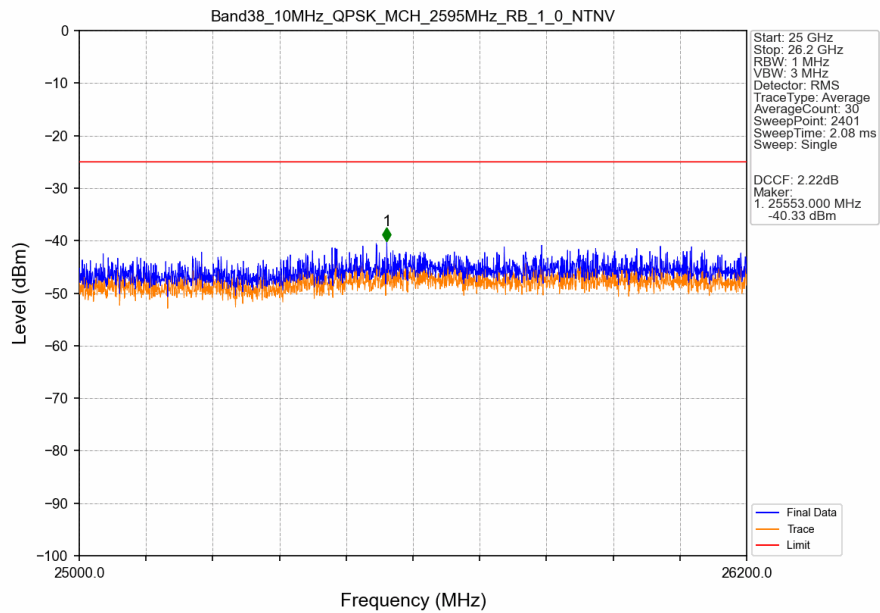
# Band38\_10MHz\_QPSK\_MCH\_2595MHz\_RB\_1\_0\_NTNV



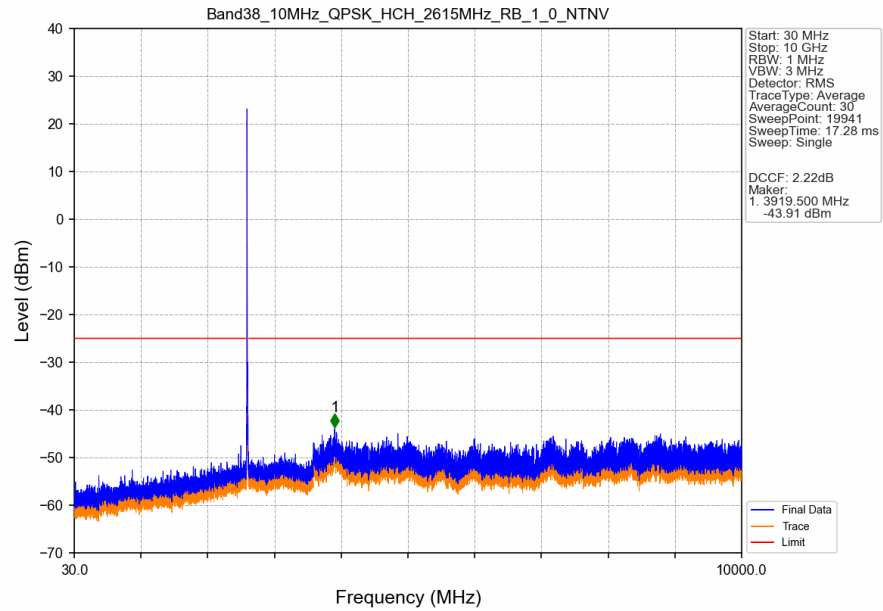
# Band38\_10MHz\_QPSK\_MCH\_2595MHz\_RB\_1\_0\_NTNV



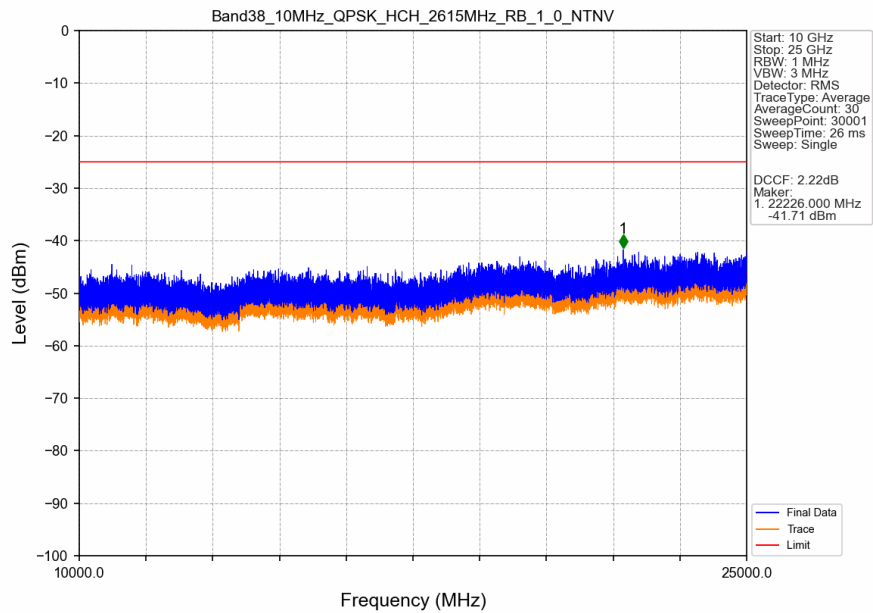
# Band38\_10MHz\_QPSK\_MCH\_2595MHz\_RB\_1\_0\_NTNV



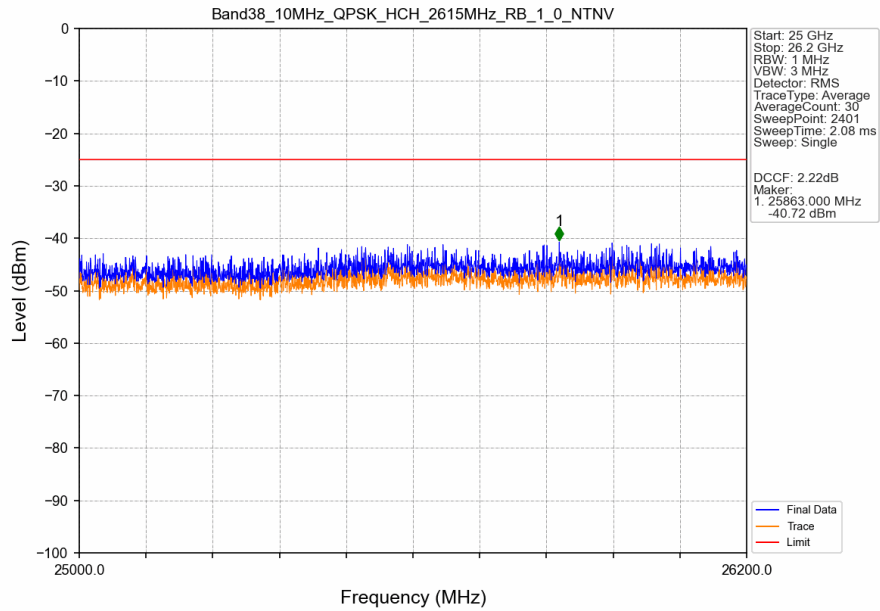
Band38 10MHz QPSK HCH 2615MHz RB 1 0 NTV



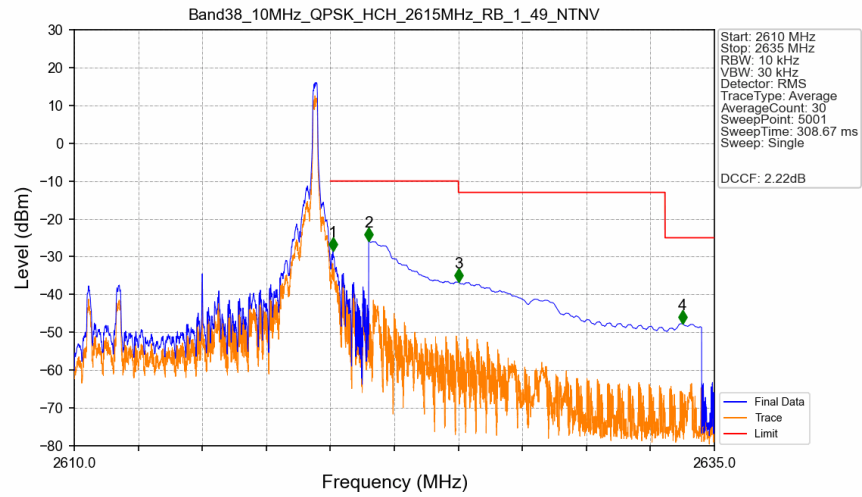
Band38 10MHz QPSK HCH 2615MHz RB 1 0 NTV



### Band38 10MHz QPSK HCH 2615MHz RB 1 0 NTNV

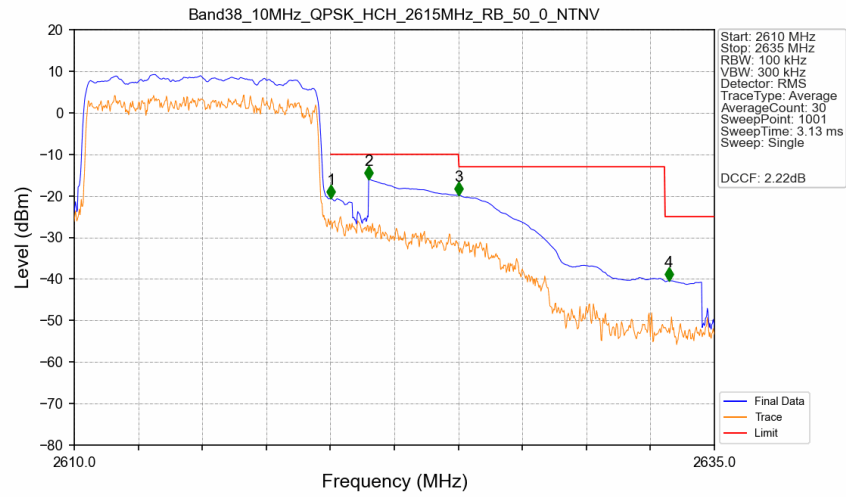


### Band38 10MHz QPSK HCH 2615MHz RB 1 49 NTNV



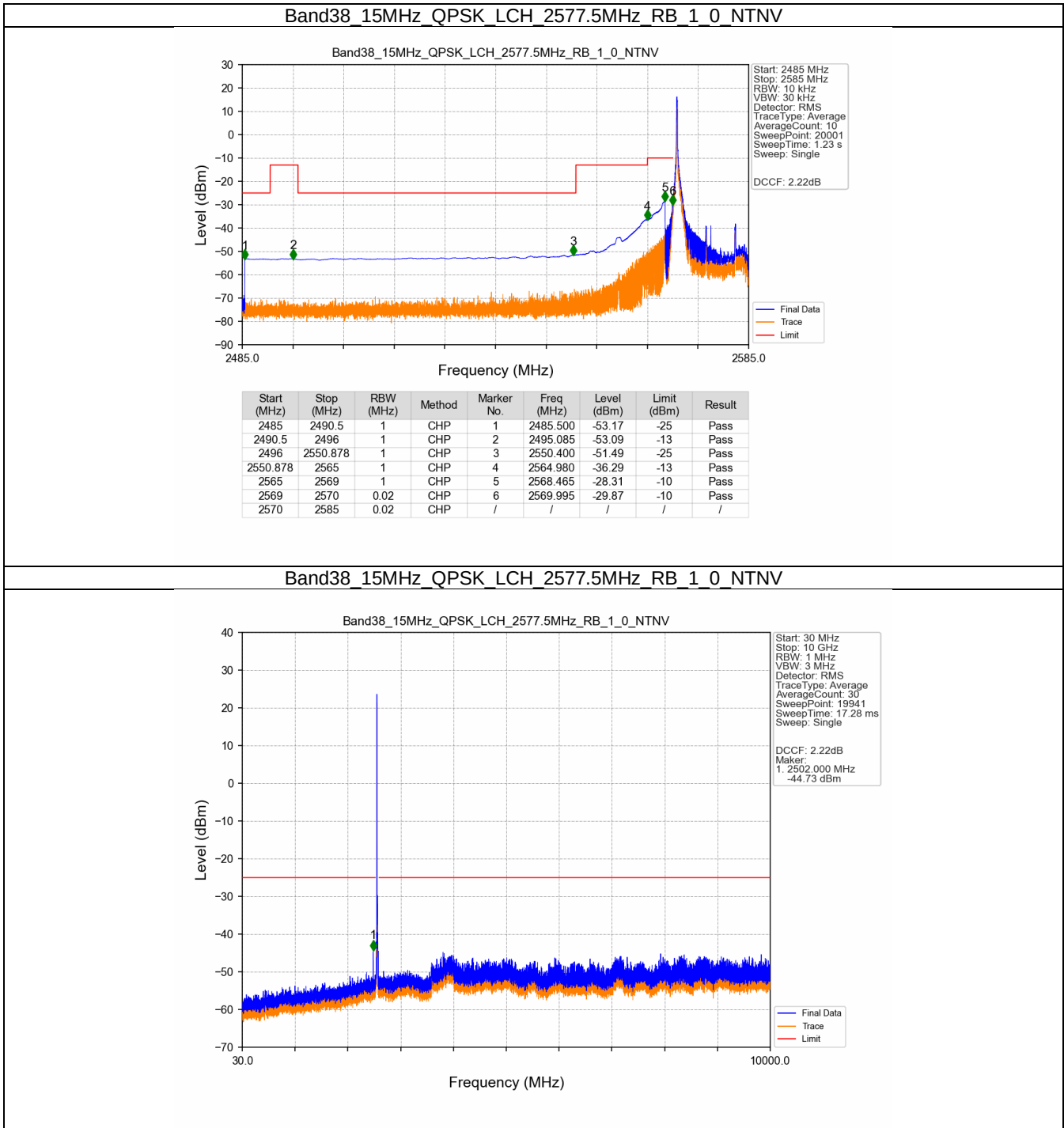
| Start (MHz) | Stop (MHz) | RBW (MHz) | Method | Marker No. | Freq (MHz) | Level (dBm) | Limit (dBm) | Result |
|-------------|------------|-----------|--------|------------|------------|-------------|-------------|--------|
| 2610        | 2620       | 0.02      | CHP    | /          | /          | /           | /           | /      |
| 2620        | 2621       | 0.02      | CHP    | 1          | 2620.105   | -28.49      | -10         | Pass   |
| 2621        | 2625       | 1         | CHP    | 2          | 2621.500   | -25.93      | -10         | Pass   |
| 2625        | 2633.072   | 1         | CHP    | 3          | 2625.005   | -36.67      | -13         | Pass   |
| 2633.072    | 2635       | 1         | CHP    | 4          | 2633.745   | -47.64      | -25         | Pass   |

# Band38 10MHz QPSK HCH 2615MHz RB 50 0 NTV

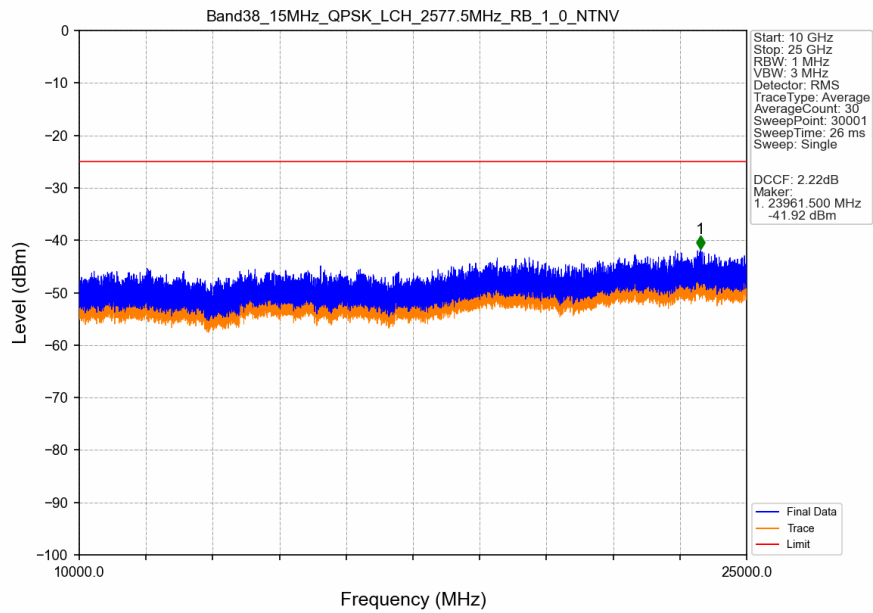


| Start (MHz) | Stop (MHz) | RBW (MHz) | Method | Marker No. | Freq (MHz) | Level (dBm) | Limit (dBm) | Result |
|-------------|------------|-----------|--------|------------|------------|-------------|-------------|--------|
| 2610        | 2620       | 0.261     | CHP    | /          | /          | /           | /           | /      |
| 2620        | 2621       | 0.261     | CHP    | 1          | 2620.025   | -20.57      | -10         | Pass   |
| 2621        | 2625       | 1         | CHP    | 2          | 2621.500   | -15.99      | -10         | Pass   |
| 2625        | 2633.072   | 1         | CHP    | 3          | 2625.025   | -19.89      | -13         | Pass   |
| 2633.072    | 2635       | 1         | CHP    | 4          | 2633.225   | -40.44      | -25         | Pass   |

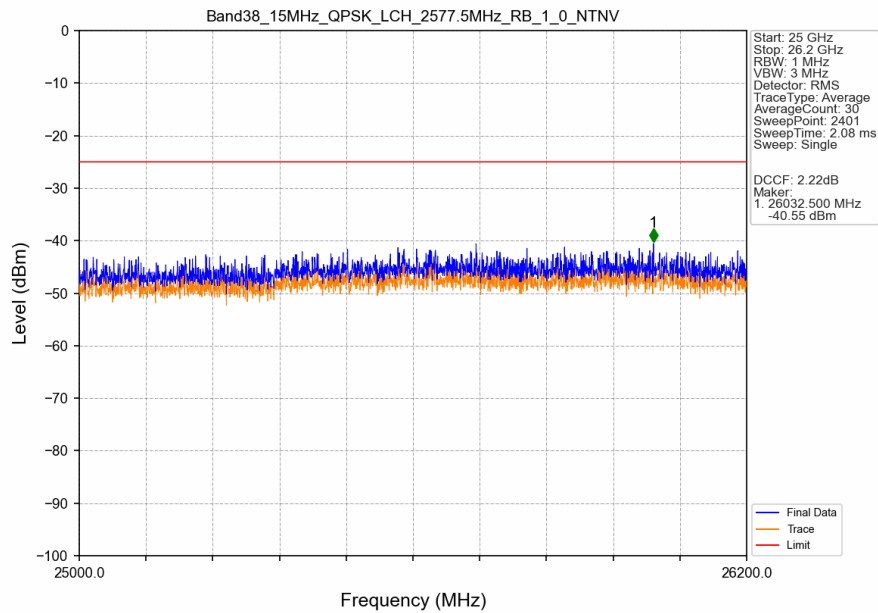
5.2.3 B38\_15MHz



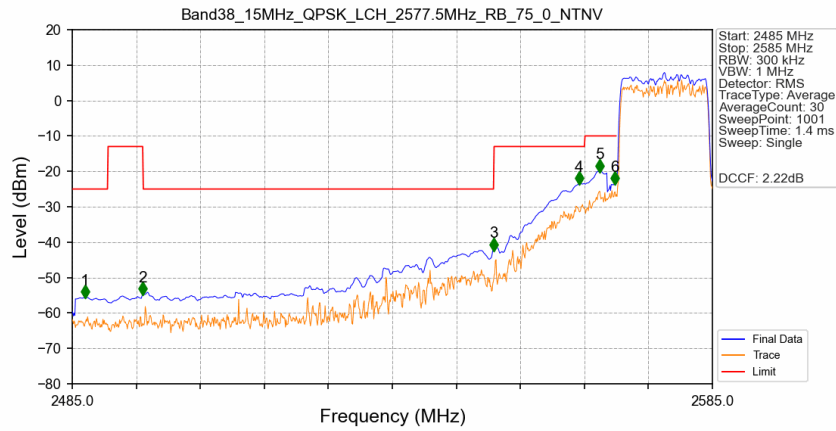
# Band38\_15MHz\_QPSK\_LCH\_2577.5MHz\_RB\_1\_0\_NTNV



# Band38\_15MHz\_QPSK\_LCH\_2577.5MHz\_RB\_1\_0\_NTNV

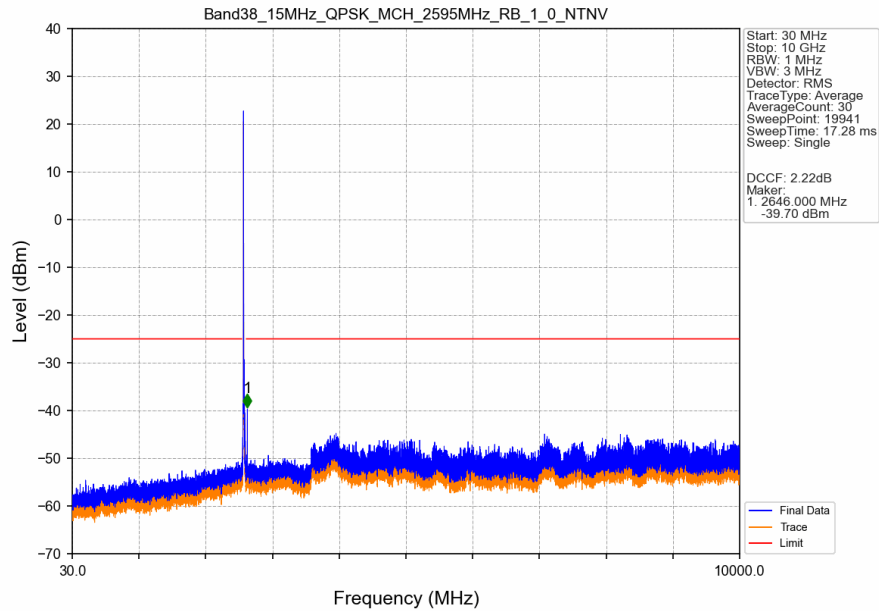


### Band38 15MHz QPSK LCH 2577.5MHz RB 75 0 NTN

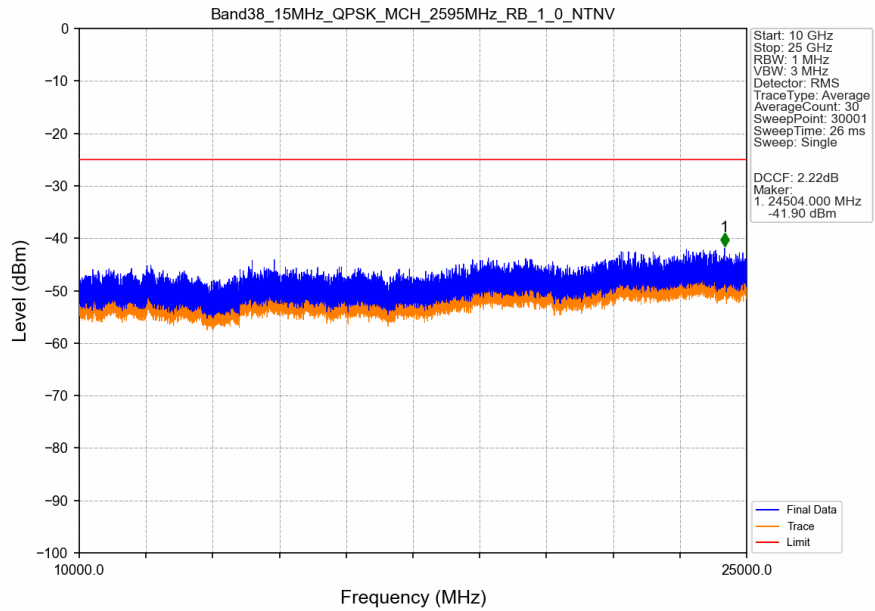


| Start (MHz) | Stop (MHz) | RBW (MHz) | Method | Marker No. | Freq (MHz) | Level (dBm) | Limit (dBm) | Result |
|-------------|------------|-----------|--------|------------|------------|-------------|-------------|--------|
| 2485        | 2490.5     | 1         | CHP    | 1          | 2487.000   | -55.57      | -25         | Pass   |
| 2490.5      | 2496       | 1         | CHP    | 2          | 2496.000   | -54.68      | -13         | Pass   |
| 2496        | 2550.878   | 1         | CHP    | 3          | 2550.800   | -42.22      | -25         | Pass   |
| 2550.878    | 2565       | 1         | CHP    | 4          | 2564.200   | -23.47      | -13         | Pass   |
| 2565        | 2569       | 1         | CHP    | 5          | 2567.400   | -19.96      | -10         | Pass   |
| 2569        | 2570       | 0.382     | CHP    | 6          | 2569.800   | -23.54      | -10         | Pass   |
| 2570        | 2585       | 0.382     | CHP    | /          | /          | /           | /           | /      |

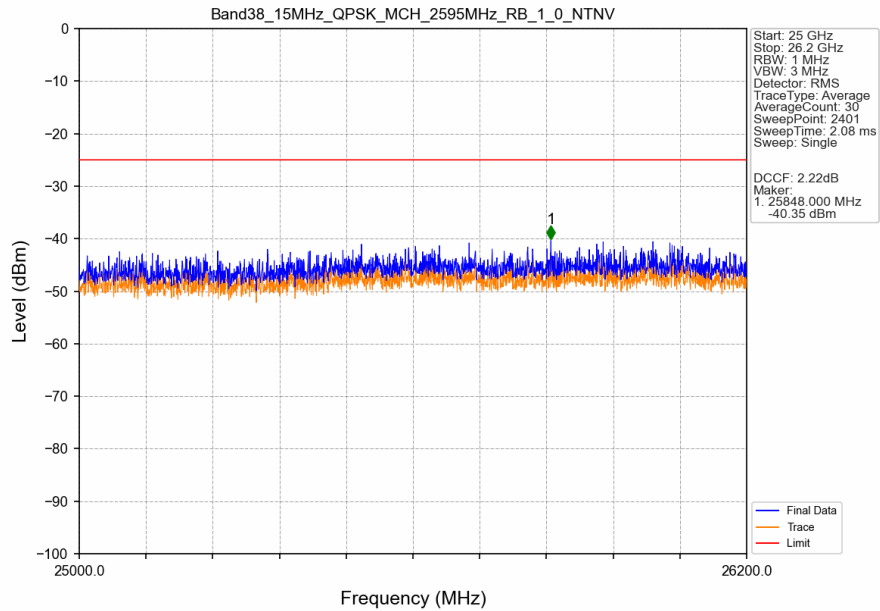
### Band38 15MHz QPSK MCH 2595MHz RB 1 0 NTN



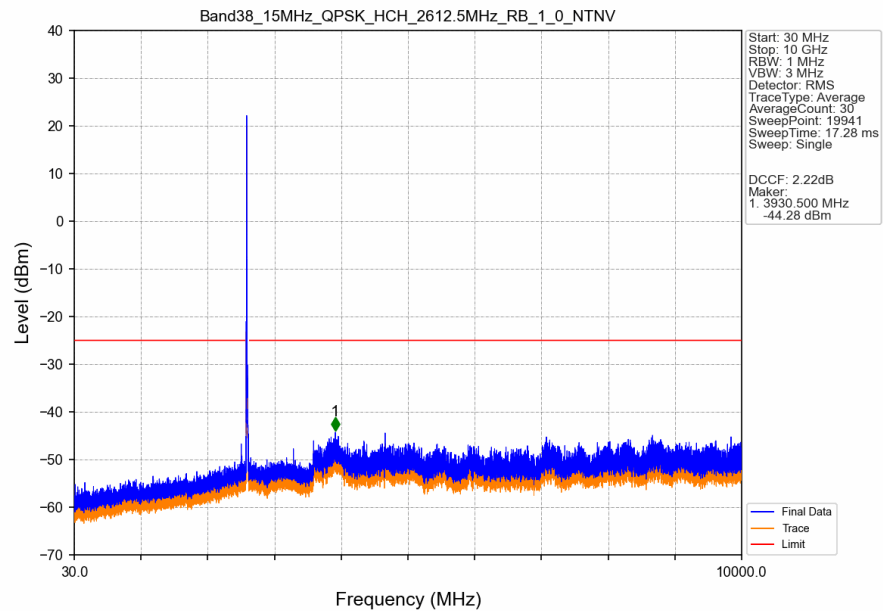
# Band38\_15MHz\_QPSK\_MCH\_2595MHz\_RB\_1\_0\_NTNV



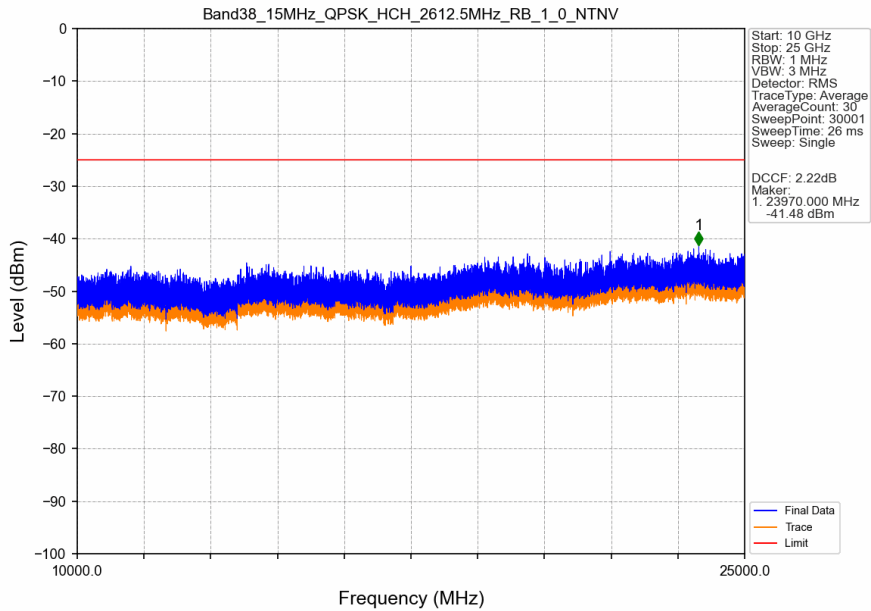
# Band38\_15MHz\_QPSK\_MCH\_2595MHz\_RB\_1\_0\_NTNV



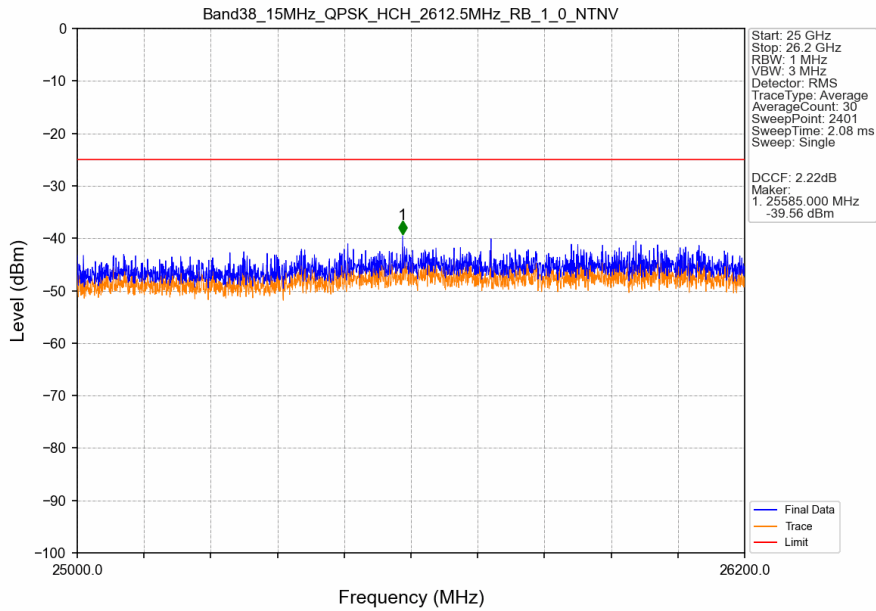
Band38\_15MHz\_QPSK\_HCH\_2612.5MHz\_RB\_1\_0\_NTNV



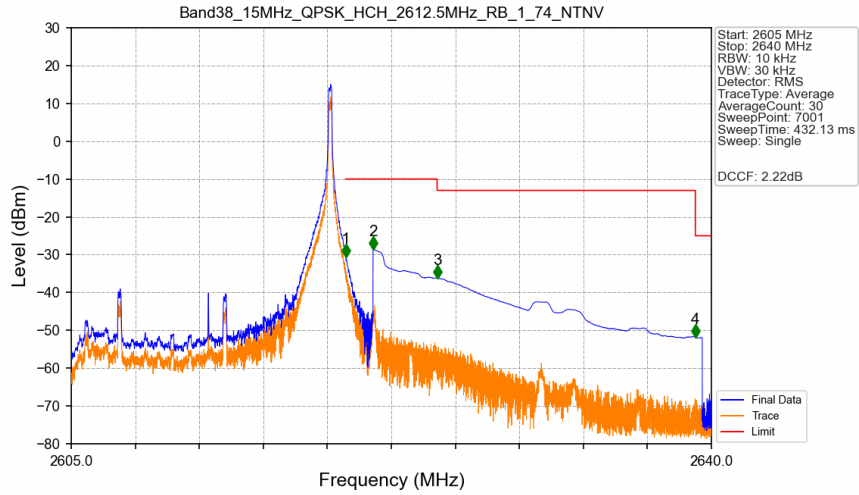
Band38\_15MHz\_QPSK\_HCH\_2612.5MHz\_RB\_1\_0\_NTNV



Band38 15MHz QPSK HCH 2612.5MHz RB 1 0 NTNV

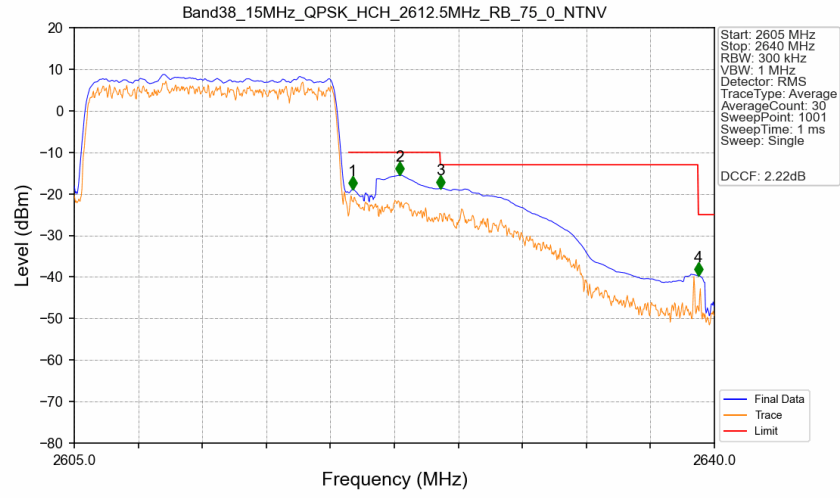


Band38 15MHz QPSK HCH 2612.5MHz RB 1 74 NTNV



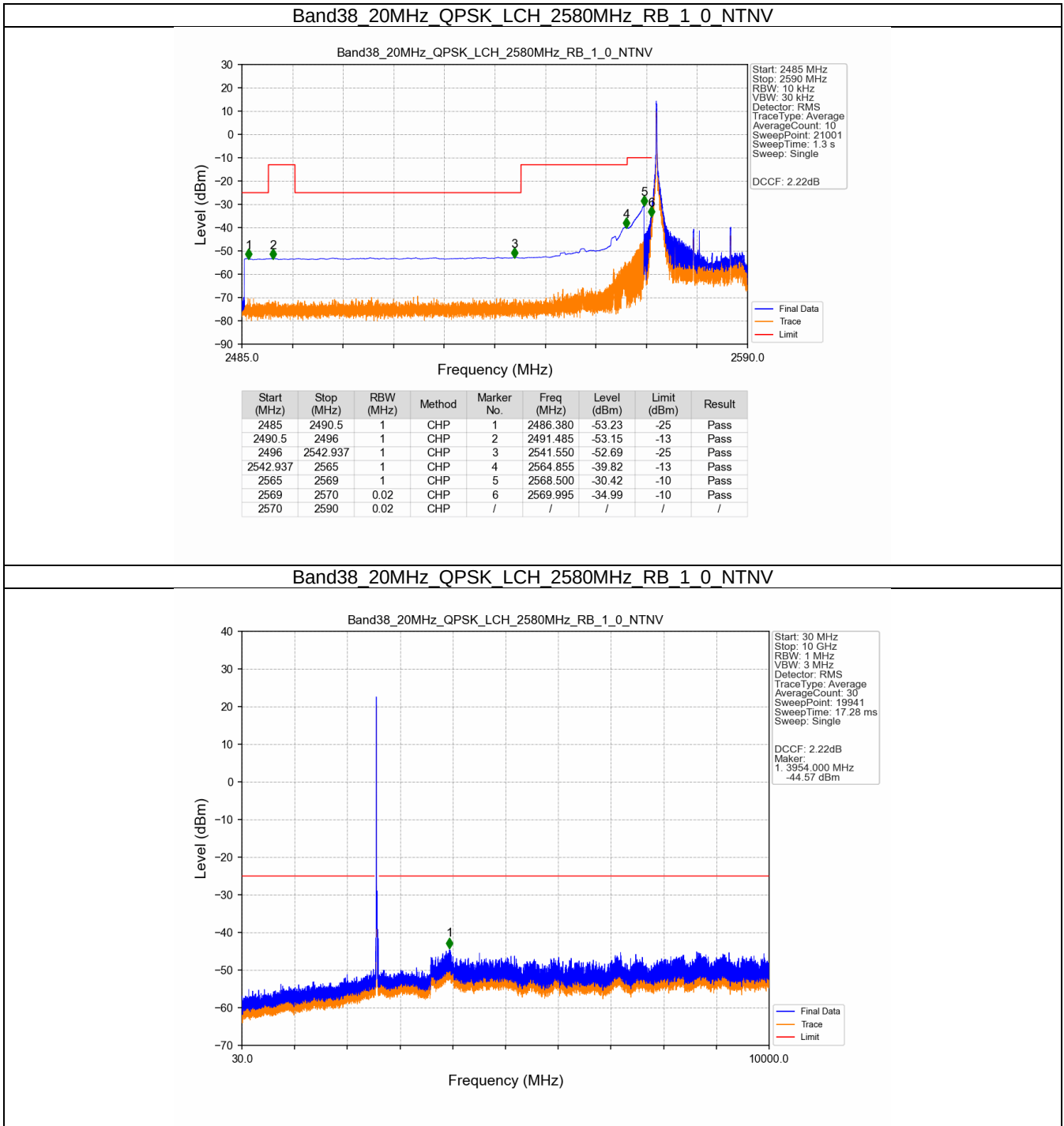
| Start (MHz) | Stop (MHz) | RBW (MHz) | Method | Marker No. | Freq (MHz) | Level (dBm) | Limit (dBm) | Result |
|-------------|------------|-----------|--------|------------|------------|-------------|-------------|--------|
| 2605        | 2620       | 0.02      | CHP    | /          | /          | /           | /           | /      |
| 2620        | 2621       | 0.02      | CHP    | 1          | 2620.005   | -30.60      | -10         | Pass   |
| 2621        | 2625       | 1         | CHP    | 2          | 2621.500   | -28.57      | -10         | Pass   |
| 2625        | 2639.122   | 1         | CHP    | 3          | 2625.005   | -36.19      | -13         | Pass   |
| 2639.122    | 2640       | 1         | CHP    | 4          | 2639.125   | -51.88      | -25         | Pass   |

# Band38 15MHz QPSK HCH 2612.5MHz RB 75 0 NTN

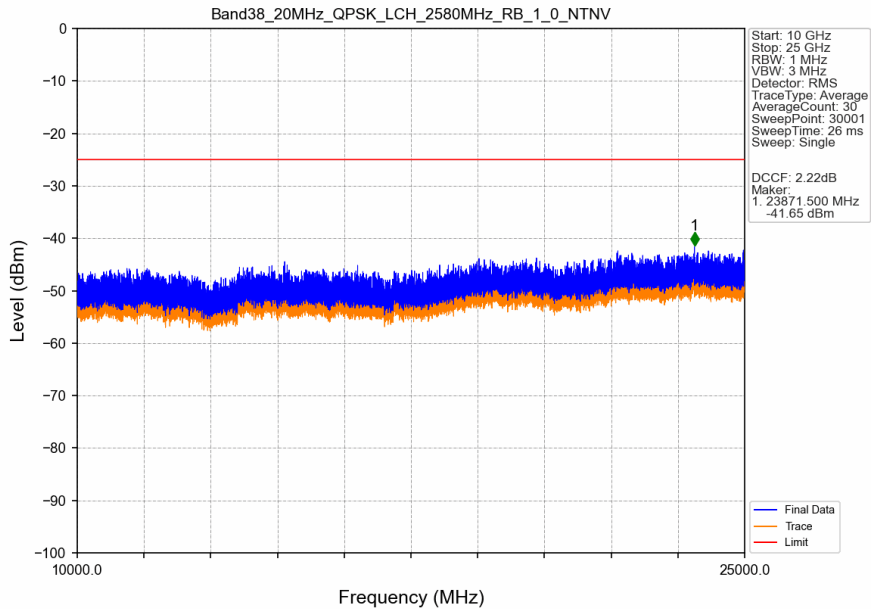


| Start (MHz) | Stop (MHz) | RBW (MHz) | Method | Marker No. | Freq (MHz) | Level (dBm) | Limit (dBm) | Result |
|-------------|------------|-----------|--------|------------|------------|-------------|-------------|--------|
| 2605        | 2620       | 0.382     | CHP    | /          | /          | /           | /           | /      |
| 2620        | 2621       | 0.382     | CHP    | 1          | 2620.225   | -18.90      | -10         | Pass   |
| 2621        | 2625       | 1         | CHP    | 2          | 2622.780   | -15.51      | -10         | Pass   |
| 2625        | 2639.122   | 1         | CHP    | 3          | 2625.020   | -18.68      | -13         | Pass   |
| 2639.122    | 2640       | 1         | CHP    | 4          | 2639.125   | -39.73      | -25         | Pass   |

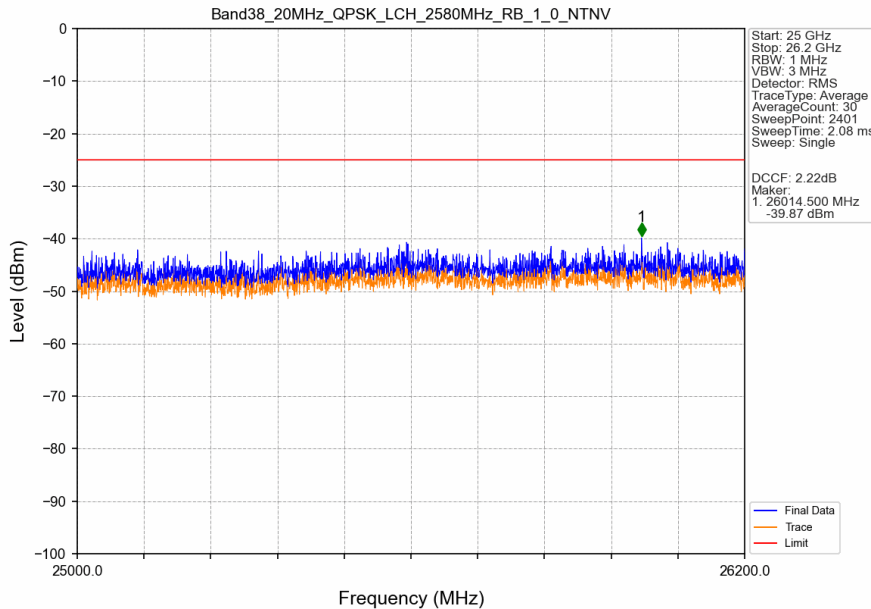
5.2.4 B38\_20MHz



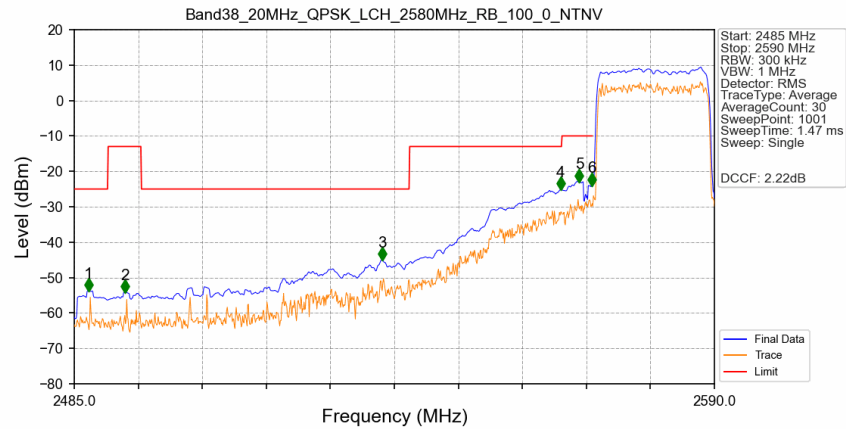
Band38 20MHz QPSK LCH 2580MHz RB 1 0 NTN



Band38 20MHz QPSK LCH 2580MHz RB 1 0 NTN

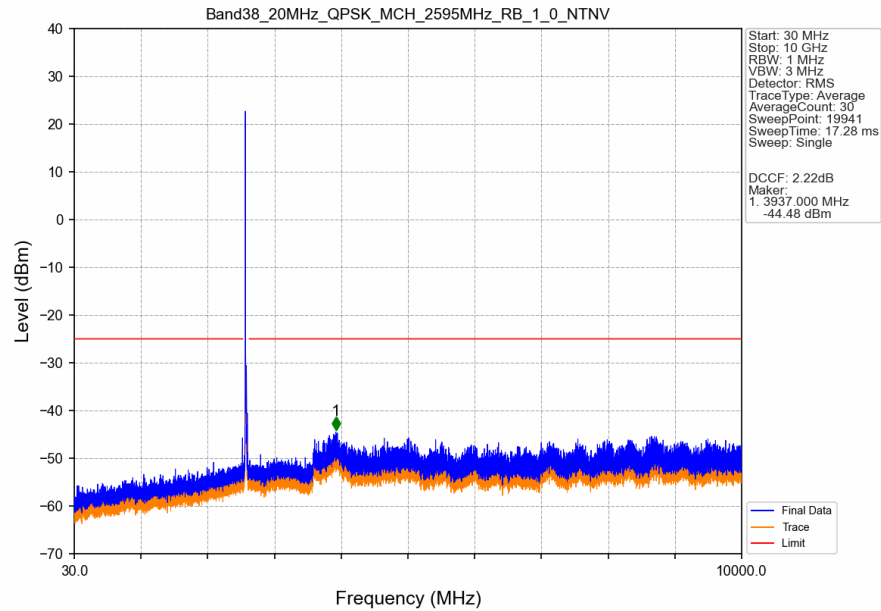


Band38 20MHz QPSK LCH 2580MHz RB 100 0 NTV

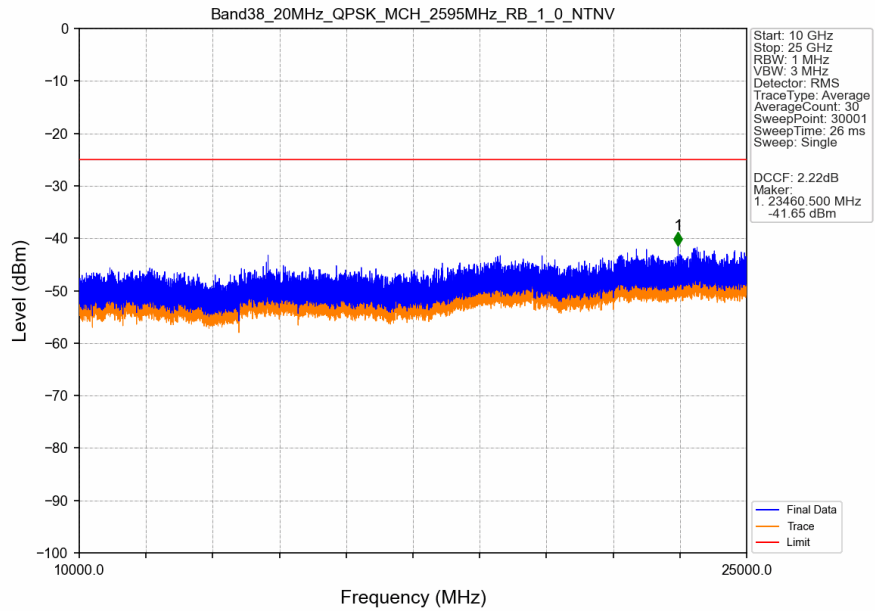


| Start (MHz) | Stop (MHz) | RBW (MHz) | Method | Marker No. | Freq (MHz) | Level (dBm) | Limit (dBm) | Result |
|-------------|------------|-----------|--------|------------|------------|-------------|-------------|--------|
| 2485        | 2490.5     | 1         | CHP    | 1          | 2487.310   | -53.65      | -25         | Pass   |
| 2490.5      | 2496       | 1         | CHP    | 2          | 2493.295   | -54.03      | -13         | Pass   |
| 2496        | 2539.96    | 1         | CHP    | 3          | 2535.505   | -44.90      | -25         | Pass   |
| 2539.96     | 2565       | 1         | CHP    | 4          | 2564.800   | -25.01      | -13         | Pass   |
| 2565        | 2569       | 1         | CHP    | 5          | 2567.845   | -22.76      | -10         | Pass   |
| 2569        | 2570       | 0.601     | CHP    | 6          | 2569.945   | -23.79      | -10         | Pass   |
| 2570        | 2590       | 0.601     | CHP    | /          | /          | /           | /           | /      |

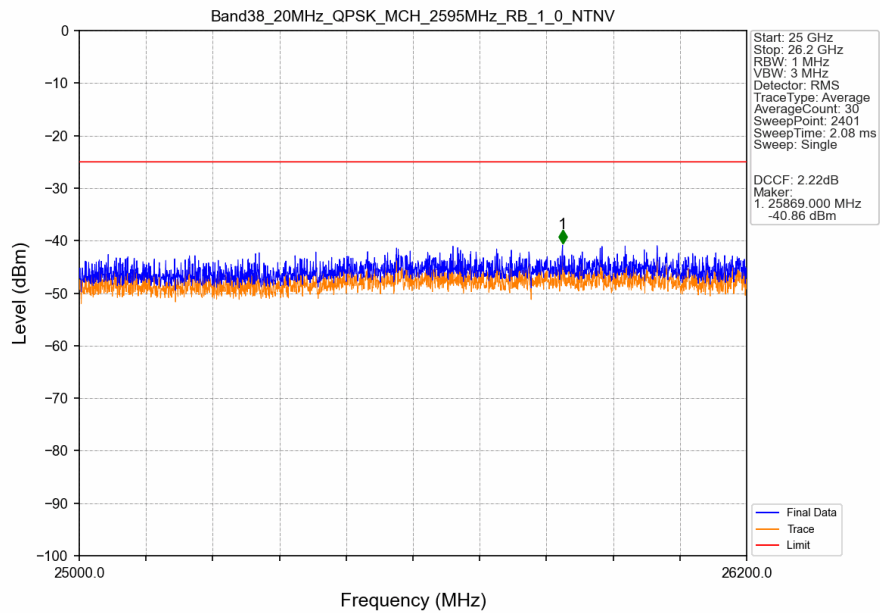
Band38 20MHz QPSK MCH 2595MHz RB 1 0 NTV



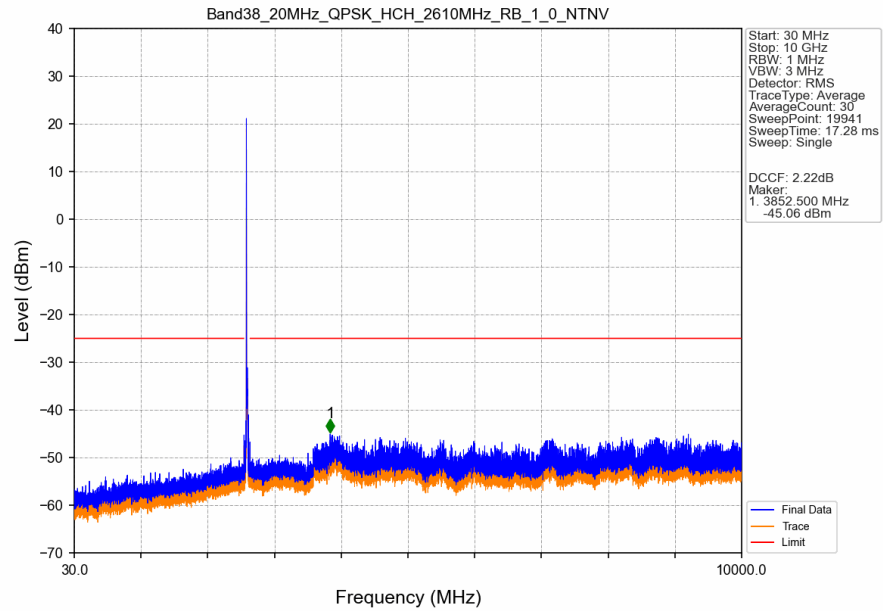
# Band38\_20MHz\_QPSK\_MCH\_2595MHz\_RB\_1\_0\_NTNV



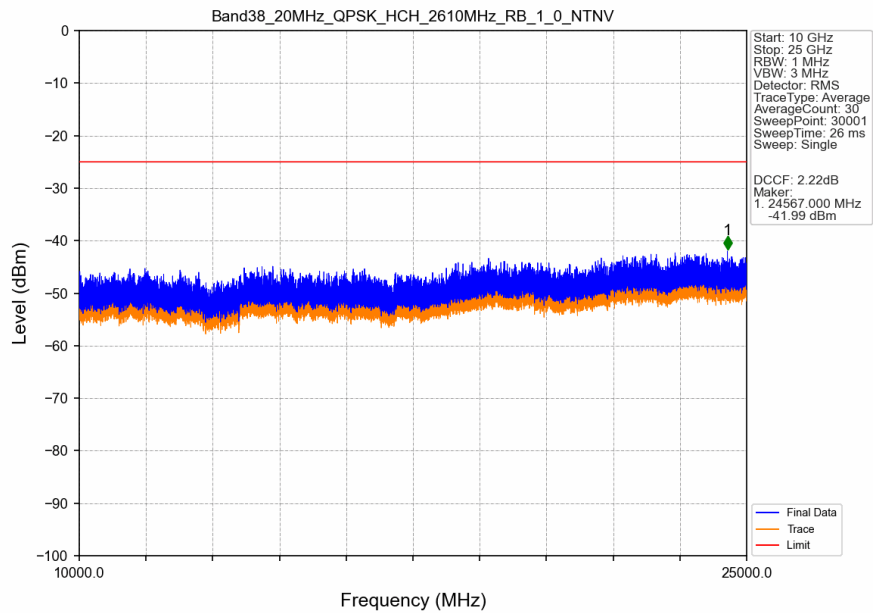
# Band38\_20MHz\_QPSK\_MCH\_2595MHz\_RB\_1\_0\_NTNV



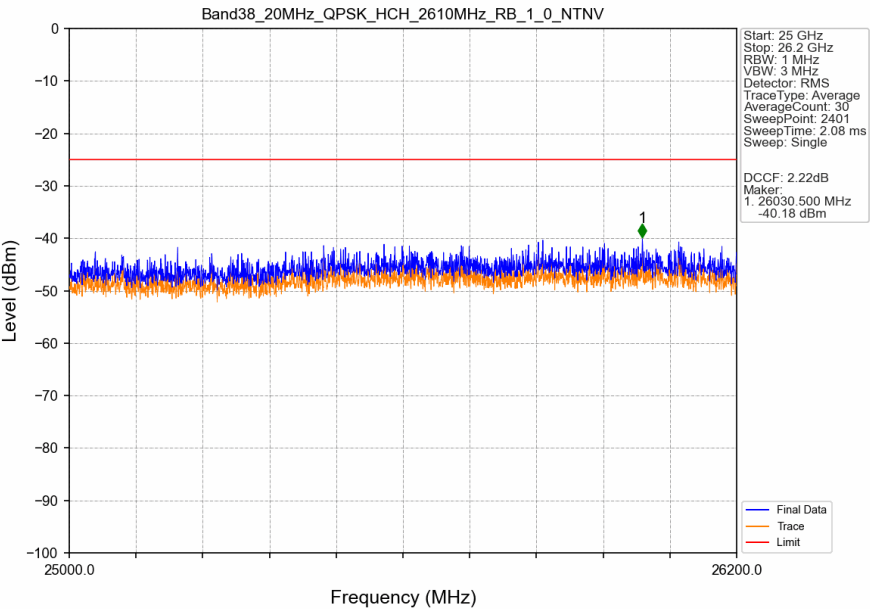
# Band38 20MHz QPSK HCH 2610MHz RB 1 0 NTV



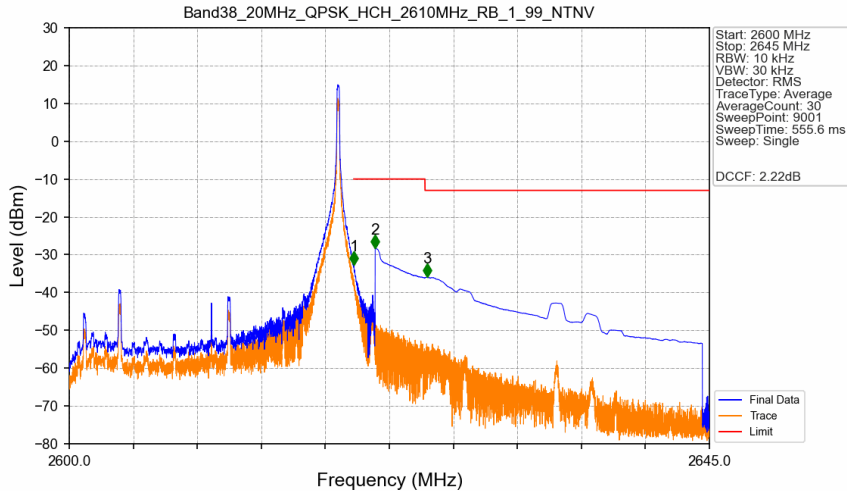
# Band38 20MHz QPSK HCH 2610MHz RB 1 0 NTV



Band38 20MHz QPSK HCH 2610MHz RB 1 0 NTNV

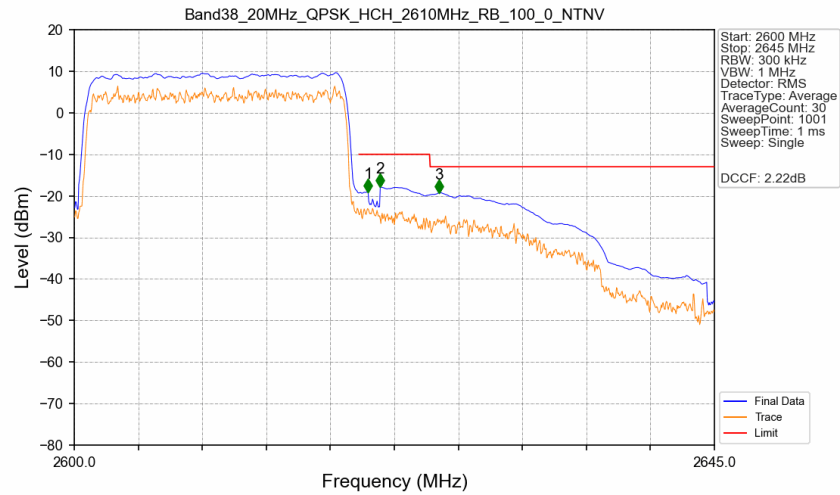


Band38 20MHz QPSK HCH 2610MHz RB 1 99 NTNV



| Start (MHz) | Stop (MHz) | RBW (MHz) | Method | Marker No. | Freq (MHz) | Level (dBm) | Limit (dBm) | Result |
|-------------|------------|-----------|--------|------------|------------|-------------|-------------|--------|
| 2600        | 2620       | 0.02      | CHP    | /          | /          | /           | /           | /      |
| 2620        | 2621       | 0.02      | CHP    | 1          | 2620.005   | -32.60      | -10         | Pass   |
| 2621        | 2625       | 1         | CHP    | 2          | 2621.515   | -28.17      | -10         | Pass   |
| 2625        | 2645       | 1         | CHP    | 3          | 2625.180   | -35.87      | -13         | Pass   |

Band38 20MHz QPSK HCH 2610MHz RB 100 0 NTN



| Start (MHz) | Stop (MHz) | RBW (MHz) | Method | Marker No. | Freq (MHz) | Level (dBm) | Limit (dBm) | Result |
|-------------|------------|-----------|--------|------------|------------|-------------|-------------|--------|
| 2600        | 2620       | 0.601     | CHP    | /          | /          | /           | /           | /      |
| 2620        | 2621       | 0.601     | CHP    | 1          | 2620.655   | -19.03      | -10         | Pass   |
| 2621        | 2625       | 1         | CHP    | 2          | 2621.510   | -17.82      | -10         | Pass   |
| 2625        | 2645       | 1         | CHP    | 3          | 2625.650   | -19.24      | -13         | Pass   |

## 6. Field Strength of Spurious Radiation

| LTE Band 38 ANT31-Low channel, Modulation: QPSK, Bandwidth:20MHz, 1RB#0 |            |             |                 |                  |                 |                    |                    |        |
|-------------------------------------------------------------------------|------------|-------------|-----------------|------------------|-----------------|--------------------|--------------------|--------|
| Frequency (MHz)                                                         | EIRP (dBm) | Limit (dBm) | Over Limit (dB) | S.G. Power (dBm) | Cable Loss (dB) | Antenna Gain (dBi) | Polarization (H/V) | Result |
| 5142.0                                                                  | -58.75     | -25         | -33.75          | -64.36           | 4.62            | 10.23              | Horizontal         | Pass   |
| 7713.0                                                                  | -59.5      | -25         | -34.5           | -66.53           | 4.96            | 11.99              | Horizontal         | Pass   |
| 12872.44                                                                | -48.67     | -25         | -23.67          | -56.14           | 5.97            | 13.44              | Horizontal         | Pass   |
| 5142.0                                                                  | -58.88     | -25         | -33.88          | -64.49           | 4.62            | 10.23              | Vertical           | Pass   |
| 7713.0                                                                  | -59.6      | -25         | -34.6           | -66.63           | 4.96            | 11.99              | Vertical           | Pass   |
| 12872.44                                                                | -44.16     | -25         | -19.16          | -51.63           | 5.97            | 13.44              | Vertical           | Pass   |

| LTE Band 38 ANT31-Middle channel, Modulation: QPSK, Bandwidth:20MHz, 1RB#0 |            |             |                 |                  |                 |                    |                    |        |
|----------------------------------------------------------------------------|------------|-------------|-----------------|------------------|-----------------|--------------------|--------------------|--------|
| Frequency (MHz)                                                            | EIRP (dBm) | Limit (dBm) | Over Limit (dB) | S.G. Power (dBm) | Cable Loss (dB) | Antenna Gain (dBi) | Polarization (H/V) | Result |
| 5172.0                                                                     | -60.5      | -25         | -35.5           | -66.12           | 4.63            | 10.25              | Horizontal         | Pass   |
| 7758.0                                                                     | -59.25     | -25         | -34.25          | -66.33           | 4.96            | 12.04              | Horizontal         | Pass   |
| 12947.07                                                                   | -49.46     | -25         | -24.46          | -56.96           | 5.98            | 13.48              | Horizontal         | Pass   |
| 5172.0                                                                     | -59.96     | -25         | -34.96          | -65.58           | 4.63            | 10.25              | Vertical           | Pass   |
| 7758.0                                                                     | -58.89     | -25         | -33.89          | -65.97           | 4.96            | 12.04              | Vertical           | Pass   |
| 12947.07                                                                   | -44.2      | -25         | -19.2           | -51.7            | 5.98            | 13.48              | Vertical           | Pass   |

| LTE Band 38 ANT31-High channel, Modulation: QPSK, Bandwidth:20MHz, 1RB#0 |            |             |                 |                  |                 |                    |                    |        |
|--------------------------------------------------------------------------|------------|-------------|-----------------|------------------|-----------------|--------------------|--------------------|--------|
| Frequency (MHz)                                                          | EIRP (dBm) | Limit (dBm) | Over Limit (dB) | S.G. Power (dBm) | Cable Loss (dB) | Antenna Gain (dBi) | Polarization (H/V) | Result |
| 5202.0                                                                   | -62.33     | -25         | -37.33          | -67.97           | 4.63            | 10.27              | Horizontal         | Pass   |
| 7803.0                                                                   | -59.0      | -25         | -34.0           | -66.14           | 4.96            | 12.1               | Horizontal         | Pass   |
| 13022.13                                                                 | -50.58     | -25         | -25.58          | -58.14           | 5.98            | 13.54              | Horizontal         | Pass   |
| 5202.0                                                                   | -62.01     | -25         | -37.01          | -67.65           | 4.63            | 10.27              | Vertical           | Pass   |
| 7803.0                                                                   | -59.04     | -25         | -34.04          | -66.18           | 4.96            | 12.1               | Vertical           | Pass   |
| 13022.13                                                                 | -46.99     | -25         | -21.99          | -54.55           | 5.98            | 13.54              | Vertical           | Pass   |

Test on the worst case :

| LTE Band 38 ANT31-Low channel, Modulation: QPSK, Bandwidth:20MHz, 1RB#0 |            |             |                 |                  |                 |                    |                    |        |
|-------------------------------------------------------------------------|------------|-------------|-----------------|------------------|-----------------|--------------------|--------------------|--------|
| Frequency (MHz)                                                         | EIRP (dBm) | Limit (dBm) | Over Limit (dB) | S.G. Power (dBm) | Cable Loss (dB) | Antenna Gain (dBi) | Polarization (H/V) | Result |
| 5142.0                                                                  | -55.89     | -25         | -30.89          | -61.5            | 4.62            | 10.23              | Horizontal         | Pass   |
| 7713.0                                                                  | -58.36     | -25         | -33.36          | -65.39           | 4.96            | 11.99              | Horizontal         | Pass   |
| 12872.44                                                                | -47.77     | -25         | -22.77          | -55.24           | 5.97            | 13.44              | Horizontal         | Pass   |
| 5142.0                                                                  | -56.23     | -25         | -31.23          | -61.84           | 4.62            | 10.23              | Vertical           | Pass   |
| 7713.0                                                                  | -57.65     | -25         | -32.65          | -64.68           | 4.96            | 11.99              | Vertical           | Pass   |
| 12872.44                                                                | -46.71     | -25         | -21.71          | -54.18           | 5.97            | 13.44              | Vertical           | Pass   |

| LTE Band 38 ANT31-Middle channel, Modulation: QPSK, Bandwidth:20MHz, 1RB#0 |            |             |                 |                  |                 |                    |                    |        |
|----------------------------------------------------------------------------|------------|-------------|-----------------|------------------|-----------------|--------------------|--------------------|--------|
| Frequency (MHz)                                                            | EIRP (dBm) | Limit (dBm) | Over Limit (dB) | S.G. Power (dBm) | Cable Loss (dB) | Antenna Gain (dBi) | Polarization (H/V) | Result |
| 5172.0                                                                     | -57.6      | -25         | -32.6           | -63.22           | 4.63            | 10.25              | Horizontal         | Pass   |
| 7758.0                                                                     | -57.23     | -25         | -32.23          | -64.31           | 4.96            | 12.04              | Horizontal         | Pass   |
| 12947.07                                                                   | -48.81     | -25         | -23.81          | -56.31           | 5.98            | 13.48              | Horizontal         | Pass   |
| 5172.0                                                                     | -57.18     | -25         | -32.18          | -62.8            | 4.63            | 10.25              | Vertical           | Pass   |
| 7758.0                                                                     | -56.37     | -25         | -31.37          | -63.45           | 4.96            | 12.04              | Vertical           | Pass   |
| 12947.07                                                                   | -44.41     | -25         | -19.41          | -51.91           | 5.98            | 13.48              | Vertical           | Pass   |

| LTE Band 38 ANT31-High channel, Modulation: QPSK, Bandwidth:20MHz, 1RB#0 |            |             |                 |                  |                 |                    |                    |        |
|--------------------------------------------------------------------------|------------|-------------|-----------------|------------------|-----------------|--------------------|--------------------|--------|
| Frequency (MHz)                                                          | EIRP (dBm) | Limit (dBm) | Over Limit (dB) | S.G. Power (dBm) | Cable Loss (dB) | Antenna Gain (dBi) | Polarization (H/V) | Result |
| 5202.0                                                                   | -60.87     | -25         | -35.87          | -66.51           | 4.63            | 10.27              | Horizontal         | Pass   |
| 7803.0                                                                   | -56.96     | -25         | -31.96          | -64.1            | 4.96            | 12.1               | Horizontal         | Pass   |
| 13022.13                                                                 | -51.1      | -25         | -26.1           | -58.66           | 5.98            | 13.54              | Horizontal         | Pass   |
| 5202.0                                                                   | -60.63     | -25         | -35.63          | -66.27           | 4.63            | 10.27              | Vertical           | Pass   |
| 7803.0                                                                   | -57.17     | -25         | -32.17          | -64.31           | 4.96            | 12.1               | Vertical           | Pass   |
| 13022.13                                                                 | -47.32     | -25         | -22.32          | -54.88           | 5.98            | 13.54              | Vertical           | Pass   |