

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

### 1.1 Test Result

#### 1.1.1 PCS1900\_EIRP

| Band: PCS1900 |         |            |                 |                       |            |            |         |         |
|---------------|---------|------------|-----------------|-----------------------|------------|------------|---------|---------|
| ENV           | Mode    |            | Frequency (MHz) | Conducted Power (dBm) | Gain (dBi) | EIRP (dBm) |         | Verdict |
|               | Network | Subset     |                 |                       |            | Result     | Limit   |         |
| NTNV          | GSM     | GSM        | 1850.2          | 30.38                 | -1.00      | 29.38      | <=33.01 | Pass    |
|               |         |            | 1880            | 29.96                 | -1.00      | 28.96      | <=33.01 | Pass    |
|               |         |            | 1909.8          | 30.04                 | -1.00      | 29.04      | <=33.01 | Pass    |
|               | GPRS    | 1 TX Slot  | 1850.2          | 30.39                 | -1.00      | 29.39      | <=33.01 | Pass    |
|               |         | 2 TX Slots | 1850.2          | 27.52                 | -1.00      | 26.52      | <=33.01 | Pass    |
|               |         | 3 TX Slots | 1850.2          | 25.80                 | -1.00      | 24.80      | <=33.01 | Pass    |
|               |         | 4 TX Slots | 1850.2          | 24.39                 | -1.00      | 23.39      | <=33.01 | Pass    |
|               |         | 1 TX Slot  | 1880            | 29.98                 | -1.00      | 28.98      | <=33.01 | Pass    |
|               |         | 2 TX Slots | 1880            | 27.10                 | -1.00      | 26.10      | <=33.01 | Pass    |
|               |         | 3 TX Slots | 1880            | 25.35                 | -1.00      | 24.35      | <=33.01 | Pass    |
|               |         | 4 TX Slots | 1880            | 24.02                 | -1.00      | 23.02      | <=33.01 | Pass    |
|               |         | 1 TX Slot  | 1909.8          | 30.07                 | -1.00      | 29.07      | <=33.01 | Pass    |
|               |         | 2 TX Slots | 1909.8          | 27.20                 | -1.00      | 26.20      | <=33.01 | Pass    |
|               |         | 3 TX Slots | 1909.8          | 25.47                 | -1.00      | 24.47      | <=33.01 | Pass    |
|               |         | 4 TX Slots | 1909.8          | 24.16                 | -1.00      | 23.16      | <=33.01 | Pass    |
|               | EGPRS   | 1 TX Slot  | 1850.2          | 26.94                 | -1.00      | 25.94      | <=33.01 | Pass    |
|               |         | 2 TX Slots | 1850.2          | 23.66                 | -1.00      | 22.66      | <=33.01 | Pass    |
|               |         | 3 TX Slots | 1850.2          | 22.46                 | -1.00      | 21.46      | <=33.01 | Pass    |
|               |         | 4 TX Slots | 1850.2          | 21.05                 | -1.00      | 20.05      | <=33.01 | Pass    |
|               |         | 1 TX Slot  | 1880            | 26.69                 | -1.00      | 25.69      | <=33.01 | Pass    |
|               |         | 2 TX Slots | 1880            | 24.00                 | -1.00      | 23.00      | <=33.01 | Pass    |
|               |         | 3 TX Slots | 1880            | 22.77                 | -1.00      | 21.77      | <=33.01 | Pass    |
|               |         | 4 TX Slots | 1880            | 20.61                 | -1.00      | 19.61      | <=33.01 | Pass    |
|               |         | 1 TX Slot  | 1909.8          | 25.73                 | -1.00      | 24.73      | <=33.01 | Pass    |
|               |         | 2 TX Slots | 1909.8          | 22.88                 | -1.00      | 21.88      | <=33.01 | Pass    |
|               |         | 3 TX Slots | 1909.8          | 22.14                 | -1.00      | 21.14      | <=33.01 | Pass    |
|               |         | 4 TX Slots | 1909.8          | 21.76                 | -1.00      | 20.76      | <=33.01 | Pass    |

Note1: EIRP=Conducted Power+Antenna Gain

## 2. Frequency Stability

### 2.1 Test Result

#### 2.1.1 PCS1900

| Band: PCS1900 |                 |            |         |                  |                       |             |         |
|---------------|-----------------|------------|---------|------------------|-----------------------|-------------|---------|
| Network       | Frequency (MHz) | Temp. (°C) | Voltage | Freq. Error (Hz) | Freq. vs. Rated (ppm) |             | Verdict |
|               |                 |            |         |                  | Result                | Limit       |         |
| GSM           | 1850.2          | 20         | LV      | -9.474           | -0.0051               | -2.5 to 2.5 | Pass    |
|               |                 |            | NV      | -8.105           | -0.0044               | -2.5 to 2.5 | Pass    |
|               |                 |            | HV      | -3.022           | -0.0016               | -2.5 to 2.5 | Pass    |
|               |                 | -30        | NV      | -3.357           | -0.0018               | -2.5 to 2.5 | Pass    |
|               |                 | -20        | NV      | 3.593            | 0.0019                | -2.5 to 2.5 | Pass    |
|               |                 | -10        | NV      | 2.582            | 0.0014                | -2.5 to 2.5 | Pass    |
|               |                 | 0          | NV      | 1.310            | 0.0007                | -2.5 to 2.5 | Pass    |
|               |                 | 10         | NV      | 10.178           | 0.0055                | -2.5 to 2.5 | Pass    |
|               |                 | 30         | NV      | 5.993            | 0.0032                | -2.5 to 2.5 | Pass    |
|               |                 | 40         | NV      | 12.835           | 0.0069                | -2.5 to 2.5 | Pass    |
|               |                 | 50         | NV      | 13.043           | 0.0070                | -2.5 to 2.5 | Pass    |
|               | 1880            | 20         | LV      | -0.222           | -0.0001               | -2.5 to 2.5 | Pass    |
|               |                 |            | NV      | 0.312            | 0.0002                | -2.5 to 2.5 | Pass    |

|       |        |     |    |         |         |             |      |
|-------|--------|-----|----|---------|---------|-------------|------|
|       |        |     | HV | 2.315   | 0.0012  | -2.5 to 2.5 | Pass |
|       |        | -30 | NV | -1.688  | -0.0009 | -2.5 to 2.5 | Pass |
|       |        | -20 | NV | -4.787  | -0.0025 | -2.5 to 2.5 | Pass |
|       |        | -10 | NV | -0.442  | -0.0002 | -2.5 to 2.5 | Pass |
|       |        | 0   | NV | -0.316  | -0.0002 | -2.5 to 2.5 | Pass |
|       |        | 10  | NV | -2.177  | -0.0012 | -2.5 to 2.5 | Pass |
|       |        | 30  | NV | 4.335   | 0.0023  | -2.5 to 2.5 | Pass |
|       |        | 40  | NV | 0.276   | 0.0001  | -2.5 to 2.5 | Pass |
|       |        | 50  | NV | 2.930   | 0.0016  | -2.5 to 2.5 | Pass |
|       | 1909.8 | 20  | LV | -2.280  | -0.0012 | -2.5 to 2.5 | Pass |
|       |        |     | NV | -3.054  | -0.0016 | -2.5 to 2.5 | Pass |
|       |        |     | HV | -3.578  | -0.0019 | -2.5 to 2.5 | Pass |
|       |        | -30 | NV | -6.069  | -0.0032 | -2.5 to 2.5 | Pass |
|       |        | -20 | NV | -4.428  | -0.0023 | -2.5 to 2.5 | Pass |
|       |        | -10 | NV | -9.019  | -0.0047 | -2.5 to 2.5 | Pass |
|       |        | 0   | NV | -5.118  | -0.0027 | -2.5 to 2.5 | Pass |
|       |        | 10  | NV | 5.860   | 0.0031  | -2.5 to 2.5 | Pass |
|       |        | 30  | NV | -2.264  | -0.0012 | -2.5 to 2.5 | Pass |
|       |        | 40  | NV | -5.670  | -0.0030 | -2.5 to 2.5 | Pass |
|       |        | 50  | NV | -4.104  | -0.0021 | -2.5 to 2.5 | Pass |
| GPRS  | 1850.2 | 20  | LV | -3.780  | -0.0020 | -2.5 to 2.5 | Pass |
|       |        |     | NV | 2.264   | 0.0012  | -2.5 to 2.5 | Pass |
|       |        |     | HV | 3.991   | 0.0022  | -2.5 to 2.5 | Pass |
|       |        | -30 | NV | -2.933  | -0.0016 | -2.5 to 2.5 | Pass |
|       |        | -20 | NV | -3.058  | -0.0017 | -2.5 to 2.5 | Pass |
|       |        | -10 | NV | 16.953  | 0.0092  | -2.5 to 2.5 | Pass |
|       |        | 0   | NV | 18.740  | 0.0101  | -2.5 to 2.5 | Pass |
|       |        | 10  | NV | 13.650  | 0.0074  | -2.5 to 2.5 | Pass |
|       |        | 30  | NV | 15.361  | 0.0083  | -2.5 to 2.5 | Pass |
|       |        | 40  | NV | 12.176  | 0.0066  | -2.5 to 2.5 | Pass |
|       |        | 50  | NV | 8.585   | 0.0046  | -2.5 to 2.5 | Pass |
|       | 1880   | 20  | LV | -2.280  | -0.0012 | -2.5 to 2.5 | Pass |
|       |        |     | NV | -2.933  | -0.0016 | -2.5 to 2.5 | Pass |
|       |        |     | HV | -3.592  | -0.0019 | -2.5 to 2.5 | Pass |
|       |        | -30 | NV | -0.916  | -0.0005 | -2.5 to 2.5 | Pass |
|       |        | -20 | NV | -0.766  | -0.0004 | -2.5 to 2.5 | Pass |
|       |        | -10 | NV | 4.364   | 0.0023  | -2.5 to 2.5 | Pass |
|       |        | 0   | NV | 3.975   | 0.0021  | -2.5 to 2.5 | Pass |
|       |        | 10  | NV | -1.720  | -0.0009 | -2.5 to 2.5 | Pass |
|       |        | 30  | NV | 8.533   | 0.0045  | -2.5 to 2.5 | Pass |
|       |        | 40  | NV | 6.573   | 0.0035  | -2.5 to 2.5 | Pass |
|       |        | 50  | NV | 3.413   | 0.0018  | -2.5 to 2.5 | Pass |
|       | 1909.8 | 20  | LV | -3.926  | -0.0021 | -2.5 to 2.5 | Pass |
|       |        |     | NV | -1.559  | -0.0008 | -2.5 to 2.5 | Pass |
|       |        |     | HV | -3.991  | -0.0021 | -2.5 to 2.5 | Pass |
|       |        | -30 | NV | -9.444  | -0.0049 | -2.5 to 2.5 | Pass |
|       |        | -20 | NV | -6.256  | -0.0033 | -2.5 to 2.5 | Pass |
|       |        | -10 | NV | -1.921  | -0.0010 | -2.5 to 2.5 | Pass |
|       |        | 0   | NV | 5.447   | 0.0029  | -2.5 to 2.5 | Pass |
|       |        | 10  | NV | 2.300   | 0.0012  | -2.5 to 2.5 | Pass |
|       |        | 30  | NV | -1.090  | -0.0006 | -2.5 to 2.5 | Pass |
|       |        | 40  | NV | -5.816  | -0.0030 | -2.5 to 2.5 | Pass |
| EGPRS | 1850.2 | 20  | LV | -7.210  | -0.0039 | -2.5 to 2.5 | Pass |
|       |        |     | NV | -6.944  | -0.0038 | -2.5 to 2.5 | Pass |
|       |        |     | HV | -6.478  | -0.0035 | -2.5 to 2.5 | Pass |
|       |        | -30 | NV | -9.438  | -0.0051 | -2.5 to 2.5 | Pass |
|       |        | -20 | NV | -8.546  | -0.0046 | -2.5 to 2.5 | Pass |
|       |        | -10 | NV | -9.269  | -0.0050 | -2.5 to 2.5 | Pass |
|       |        | 0   | NV | -10.471 | -0.0057 | -2.5 to 2.5 | Pass |
|       |        | 10  | NV | -9.237  | -0.0050 | -2.5 to 2.5 | Pass |
|       |        | 30  | NV | -7.967  | -0.0043 | -2.5 to 2.5 | Pass |
|       |        | 40  | NV | -9.875  | -0.0053 | -2.5 to 2.5 | Pass |
|       |        | 50  | NV | 1.211   | 0.0007  | -2.5 to 2.5 | Pass |

|  |        |     |    |         |         |             |      |
|--|--------|-----|----|---------|---------|-------------|------|
|  | 1880   | 20  | LV | -6.436  | -0.0034 | -2.5 to 2.5 | Pass |
|  |        |     | NV | -4.650  | -0.0025 | -2.5 to 2.5 | Pass |
|  |        |     | HV | -4.002  | -0.0021 | -2.5 to 2.5 | Pass |
|  |        | -30 | NV | -6.855  | -0.0036 | -2.5 to 2.5 | Pass |
|  |        | -20 | NV | -15.130 | -0.0080 | -2.5 to 2.5 | Pass |
|  |        | -10 | NV | -14.381 | -0.0076 | -2.5 to 2.5 | Pass |
|  |        | 0   | NV | -2.838  | -0.0015 | -2.5 to 2.5 | Pass |
|  |        | 10  | NV | 15.750  | 0.0084  | -2.5 to 2.5 | Pass |
|  |        | 30  | NV | 3.384   | 0.0018  | -2.5 to 2.5 | Pass |
|  |        | 40  | NV | 15.085  | 0.0080  | -2.5 to 2.5 | Pass |
|  |        | 50  | NV | 21.152  | 0.0113  | -2.5 to 2.5 | Pass |
|  | 1909.8 | 20  | LV | -0.381  | -0.0002 | -2.5 to 2.5 | Pass |
|  |        |     | NV | -6.152  | -0.0032 | -2.5 to 2.5 | Pass |
|  |        |     | HV | -5.254  | -0.0028 | -2.5 to 2.5 | Pass |
|  |        | -30 | NV | -0.007  | 0.0000  | -2.5 to 2.5 | Pass |
|  |        | -20 | NV | -7.092  | -0.0037 | -2.5 to 2.5 | Pass |
|  |        | -10 | NV | 8.351   | 0.0044  | -2.5 to 2.5 | Pass |
|  |        | 0   | NV | 7.069   | 0.0037  | -2.5 to 2.5 | Pass |
|  |        | 10  | NV | 1.717   | 0.0009  | -2.5 to 2.5 | Pass |
|  |        | 30  | NV | 4.642   | 0.0024  | -2.5 to 2.5 | Pass |
|  |        | 40  | NV | 10.171  | 0.0053  | -2.5 to 2.5 | Pass |
|  |        | 50  | NV | 1.600   | 0.0008  | -2.5 to 2.5 | Pass |

### 3. 99% & 26dB Bandwidth

#### 3.1 Test Result

##### 3.1.1 PCS1900\_OBW

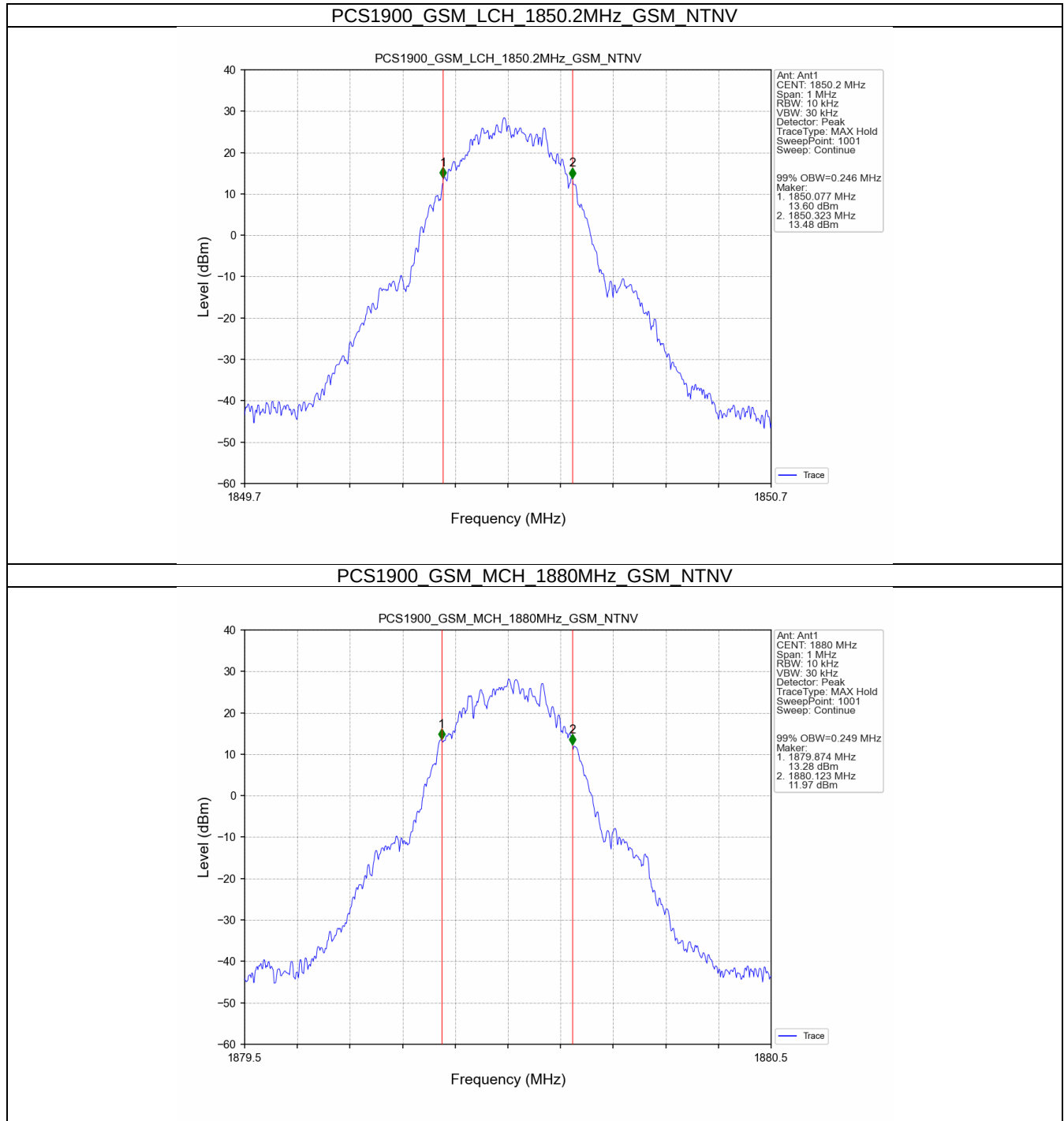
| Band: PCS1900 |         |           |                 |                              |       |         |
|---------------|---------|-----------|-----------------|------------------------------|-------|---------|
| ENV           | Mode    |           | Frequency (MHz) | 99% Occupied Bandwidth (MHz) |       | Verdict |
|               | Network | Subset    |                 | Result                       | Limit |         |
| NTNV          | GSM     | GSM       | 1850.2          | 0.246                        | /     | Pass    |
|               |         |           | 1880            | 0.249                        | /     | Pass    |
|               |         |           | 1909.8          | 0.245                        | /     | Pass    |
|               | GPRS    | 1 TX Slot | 1850.2          | 0.250                        | /     | Pass    |
|               |         |           | 1880            | 0.246                        | /     | Pass    |
|               |         |           | 1909.8          | 0.245                        | /     | Pass    |
|               | EGPRS   | 1 TX Slot | 1850.2          | 0.251                        | /     | Pass    |
|               |         |           | 1880            | 0.247                        | /     | Pass    |
|               |         |           | 1909.8          | 0.243                        | /     | Pass    |

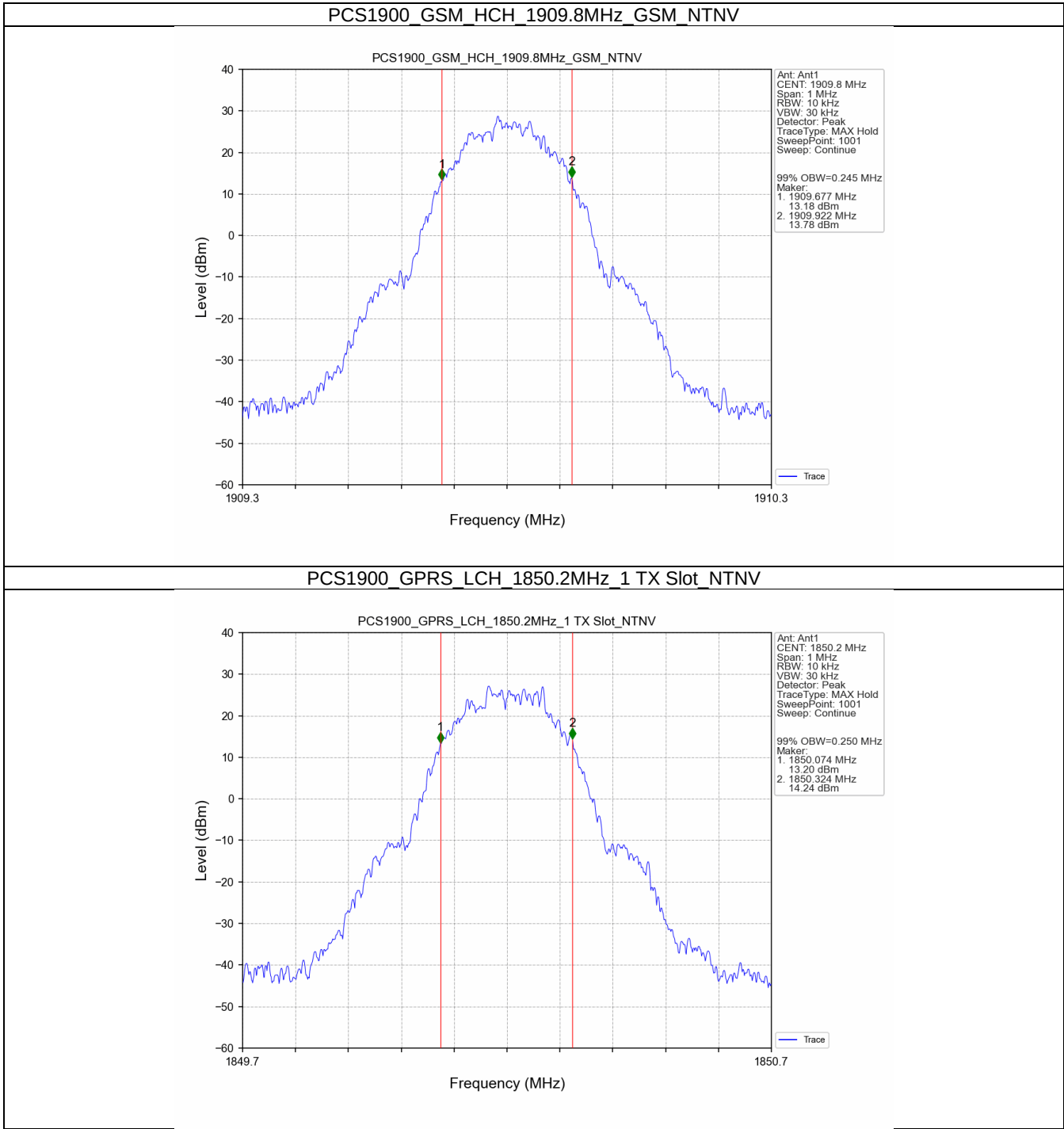
##### 3.1.2 PCS1900\_XDB

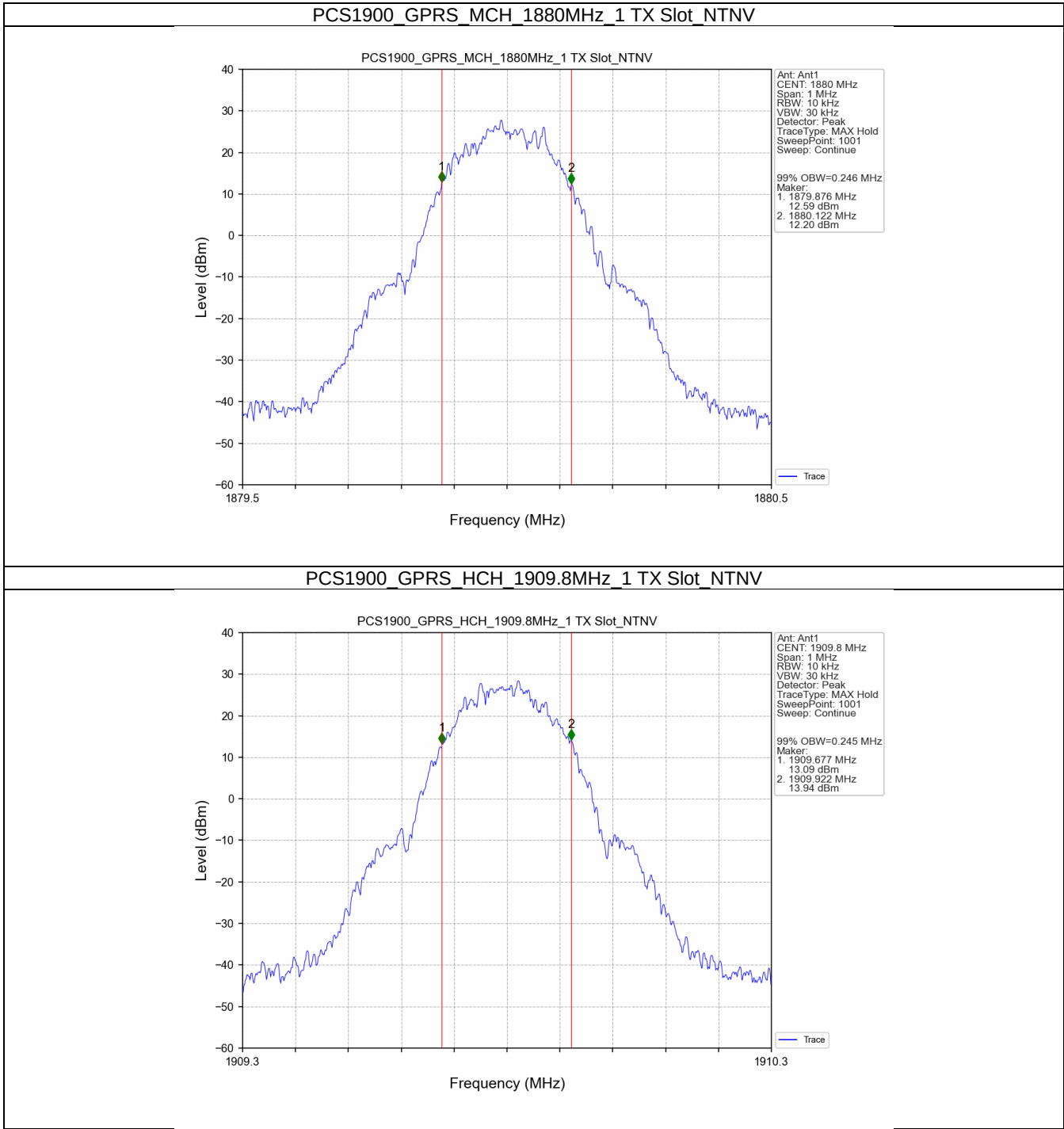
| Band: PCS1900 |         |           |                 |                      |       |         |
|---------------|---------|-----------|-----------------|----------------------|-------|---------|
| ENV           | Mode    |           | Frequency (MHz) | 26dB Bandwidth (MHz) |       | Verdict |
|               | Network | Subset    |                 | Result               | Limit |         |
| NTNV          | GSM     | GSM       | 1850.2          | 0.311                | /     | Pass    |
|               |         |           | 1880            | 0.312                | /     | Pass    |
|               |         |           | 1909.8          | 0.315                | /     | Pass    |
|               | GPRS    | 1 TX Slot | 1850.2          | 0.314                | /     | Pass    |
|               |         |           | 1880            | 0.317                | /     | Pass    |
|               |         |           | 1909.8          | 0.314                | /     | Pass    |
|               | EGPRS   | 1 TX Slot | 1850.2          | 0.307                | /     | Pass    |
|               |         |           | 1880            | 0.310                | /     | Pass    |
|               |         |           | 1909.8          | 0.306                | /     | Pass    |

## 3.2 Test Graph

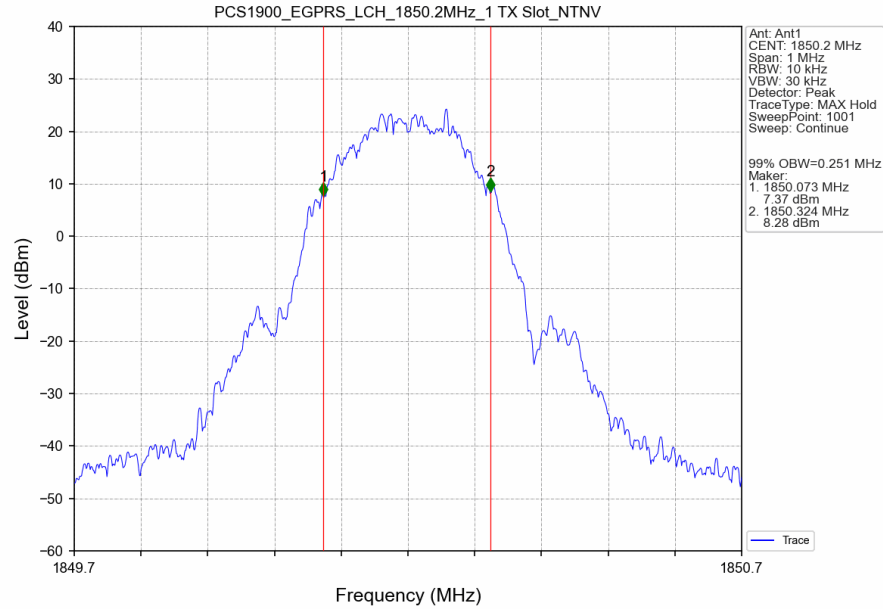
## 3.2.1 PCS1900\_OBW



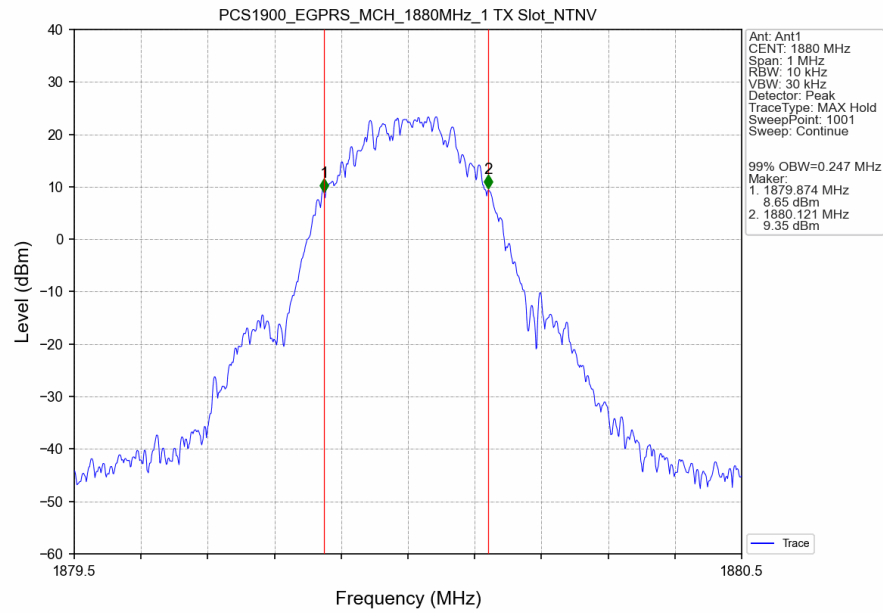


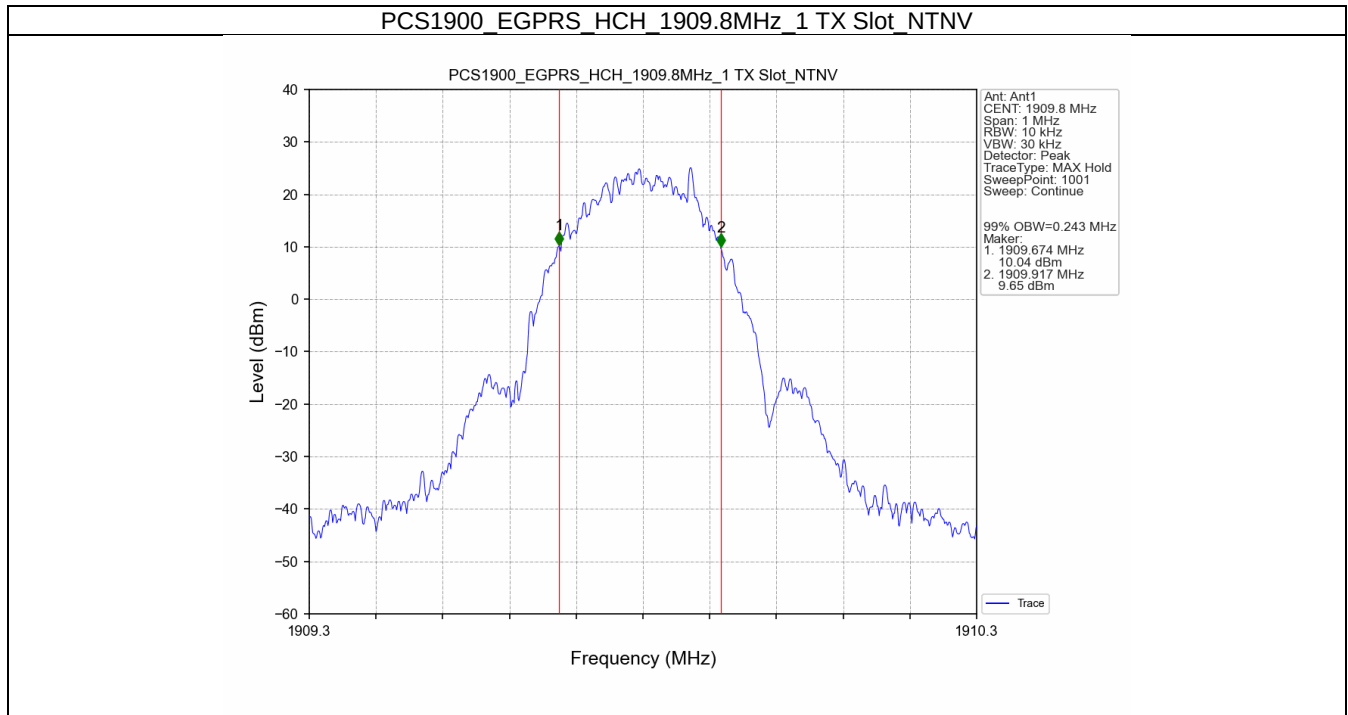


## PCS1900\_EGPRS\_LCH\_1850.2MHz\_1 TX Slot\_NTNV

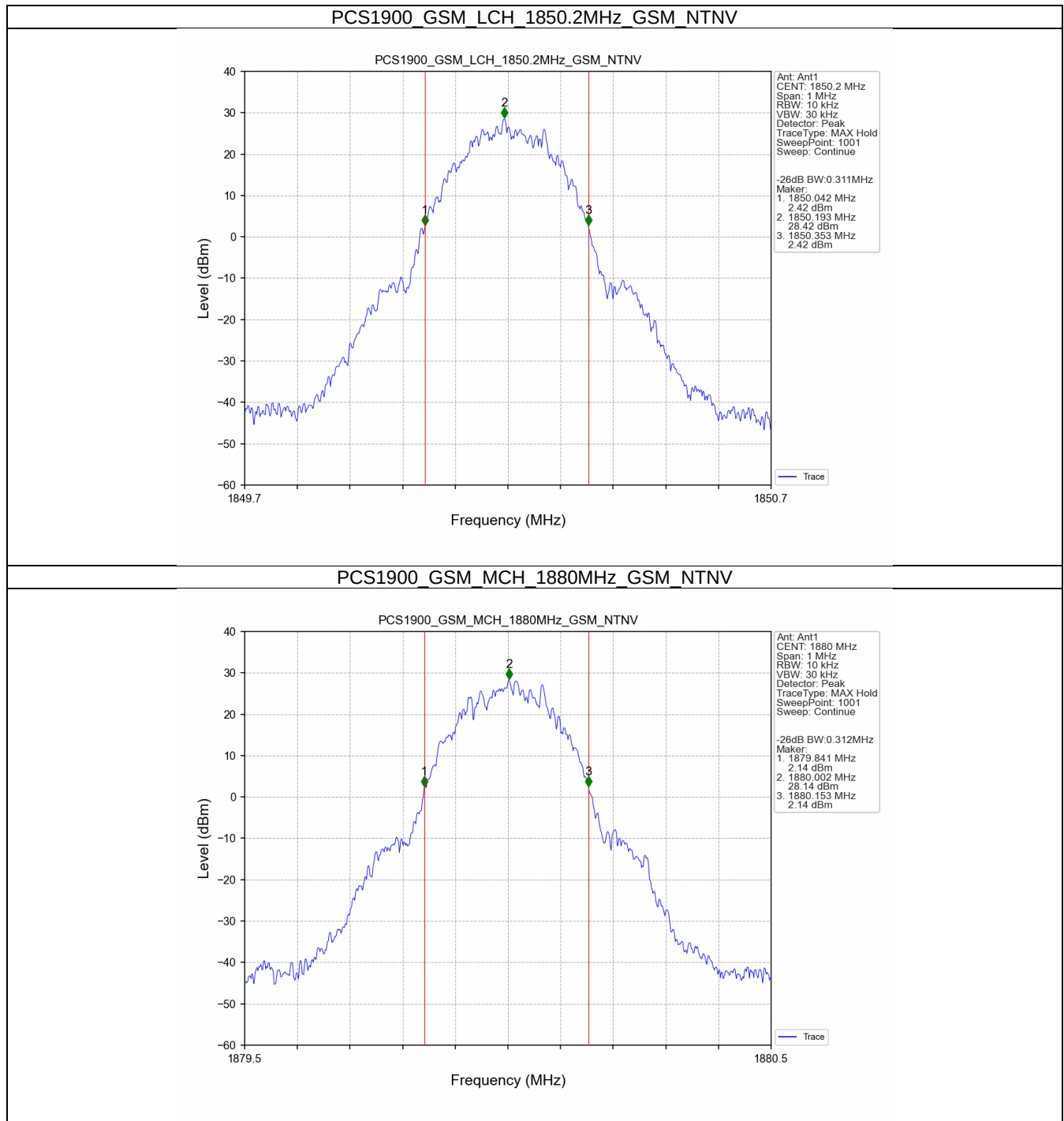


## PCS1900\_EGPRS\_MCH\_1880MHz\_1 TX Slot\_NTNV

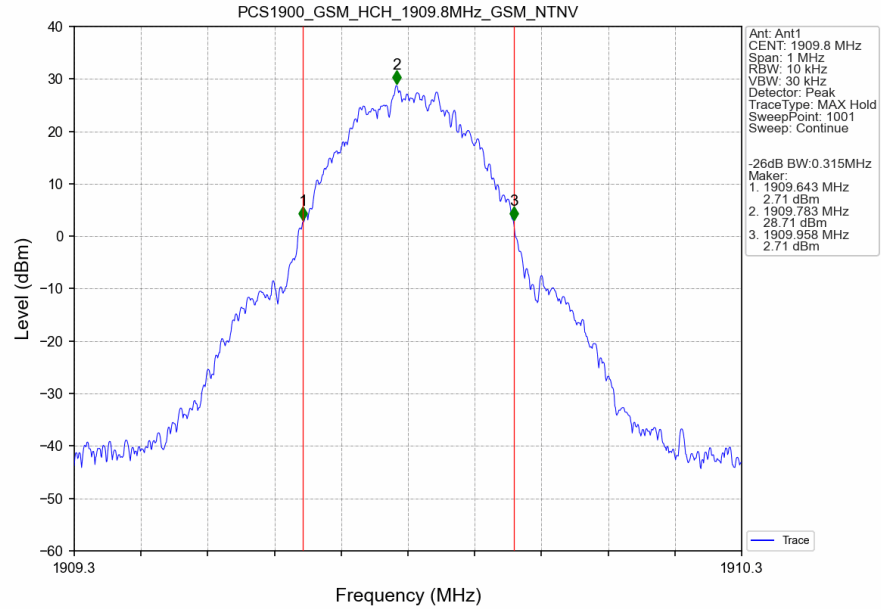




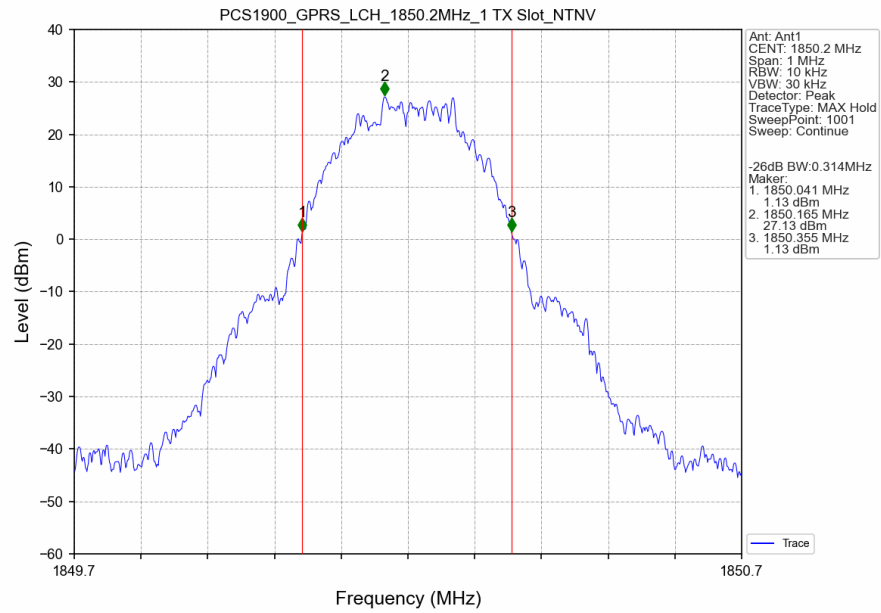
## 3.2.2 PCS1900\_XDB

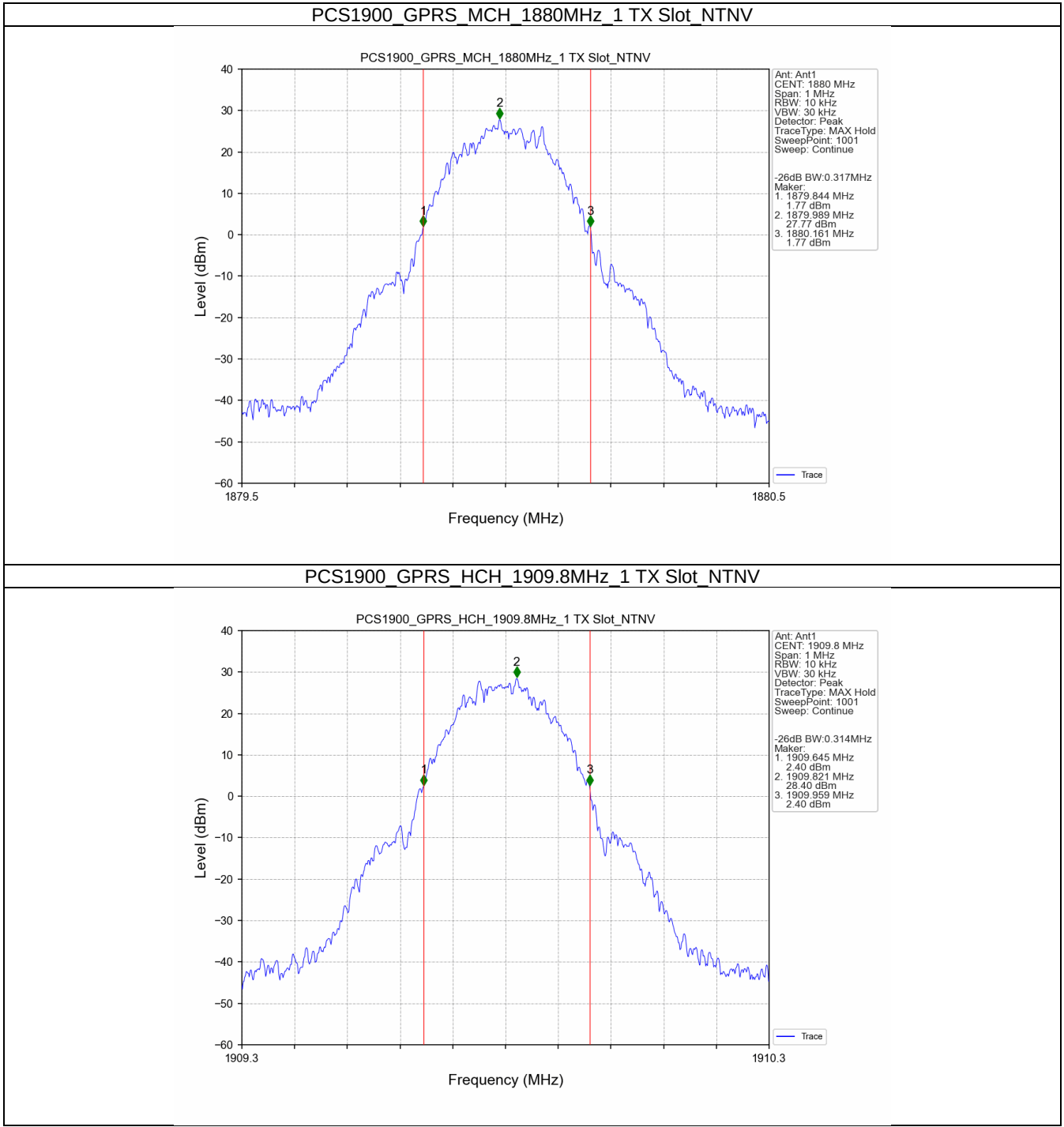


## PCS1900\_GSM\_HCH\_1909.8MHz\_GSM\_NTNV

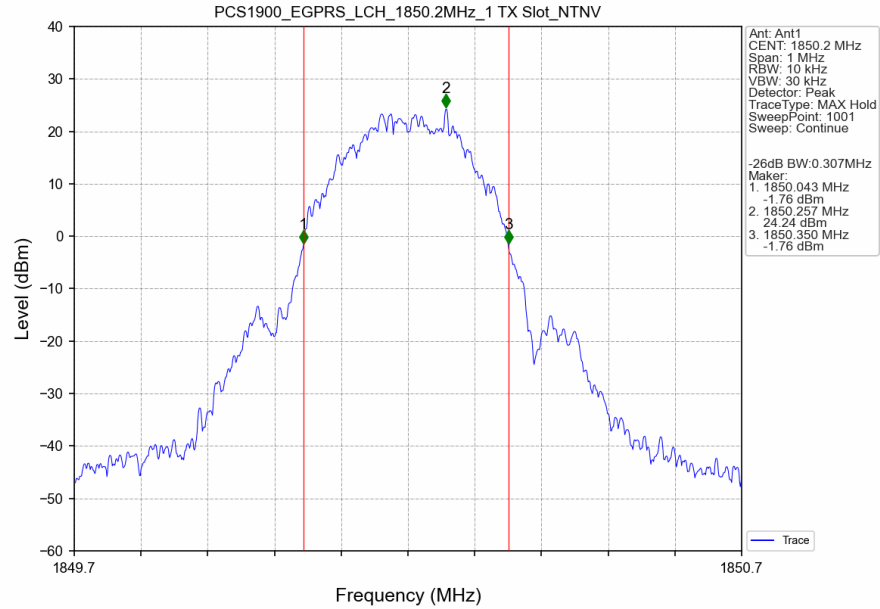


## PCS1900\_GPRS\_LCH\_1850.2MHz\_1 TX Slot\_NTNV

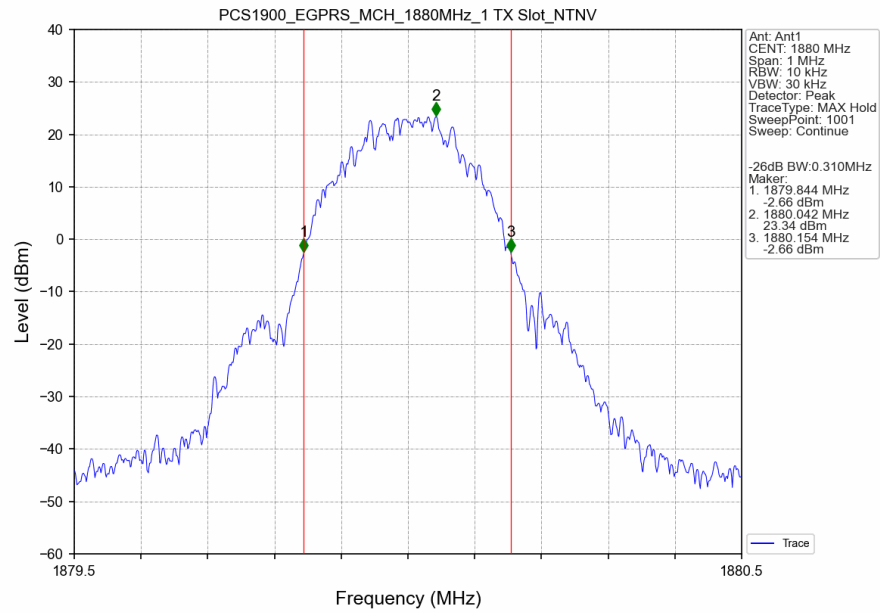


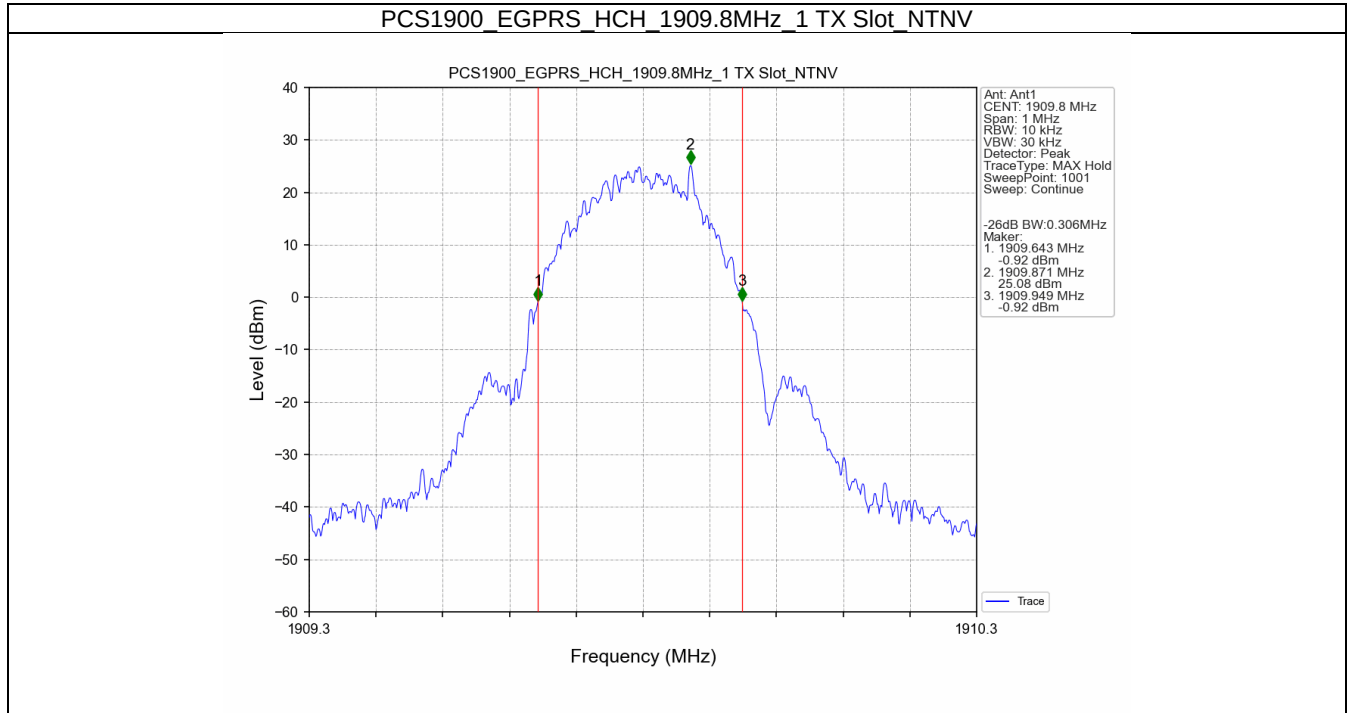


## PCS1900\_EGPRS\_LCH\_1850.2MHz\_1 TX Slot\_NTNV



## PCS1900\_EGPRS\_MCH\_1880MHz\_1 TX Slot\_NTNV





## 4. Peak-Average Ratio

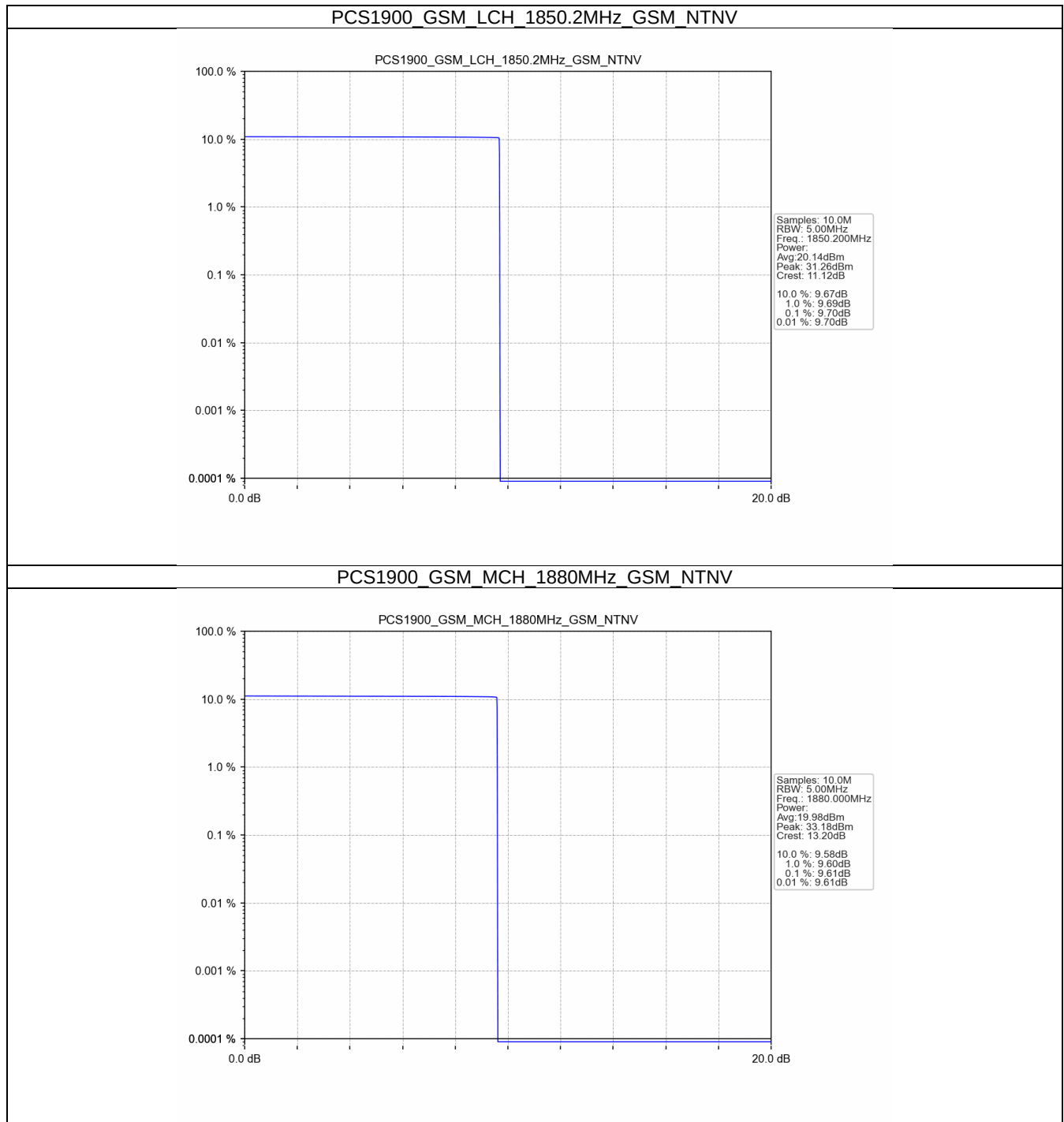
### 4.1 Test Result

#### 4.1.1 PCS1900

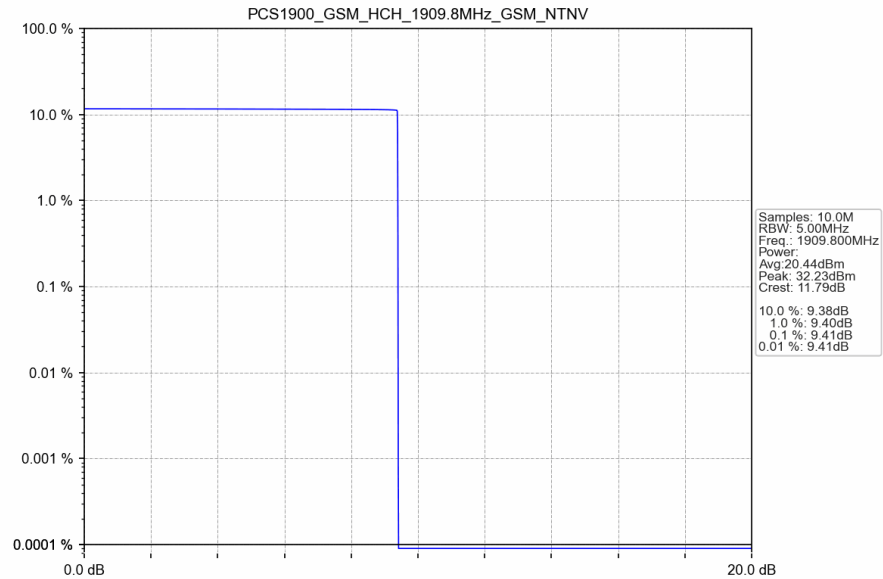
| Band: PCS1900 |         |            |                 |                         |       |         |
|---------------|---------|------------|-----------------|-------------------------|-------|---------|
| ENV           | Mode    |            | Frequency (MHz) | Peak-Average Ratio (dB) |       | Verdict |
|               | Network | Subset     |                 | Result                  | Limit |         |
| NTNV          | GSM     | GSM        | 1850.2          | 9.70                    | <=13  | Pass    |
|               |         |            | 1880            | 9.61                    | <=13  | Pass    |
|               |         |            | 1909.8          | 9.41                    | <=13  | Pass    |
|               | GPRS    | 4 TX Slots | 1850.2          | 3.44                    | <=13  | Pass    |
|               |         |            | 1880            | 3.28                    | <=13  | Pass    |
|               |         |            | 1909.8          | 3.30                    | <=13  | Pass    |
|               | EGPRS   | 4 TX Slots | 1850.2          | 7.25                    | <=13  | Pass    |
|               |         |            | 1880            | 7.13                    | <=13  | Pass    |
|               |         |            | 1909.8          | 7.05                    | <=13  | Pass    |

## 4.2 Test Graph

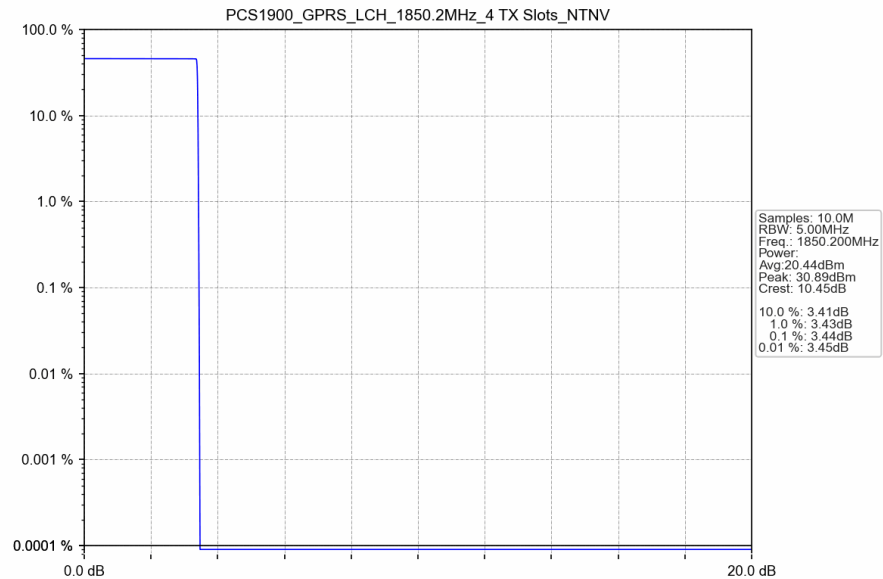
## 4.2.1 PCS1900



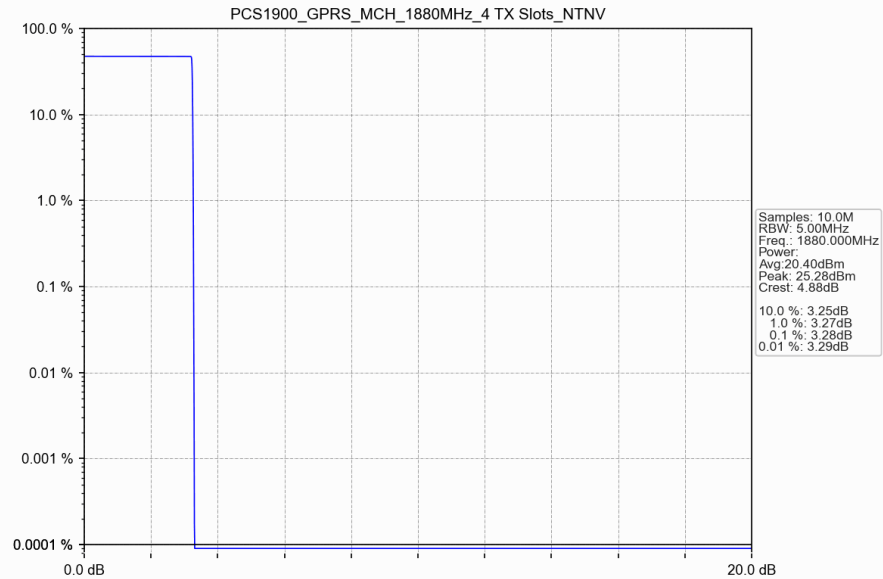
## PCS1900\_GSM\_HCH\_1909.8MHz\_GSM\_NTNV



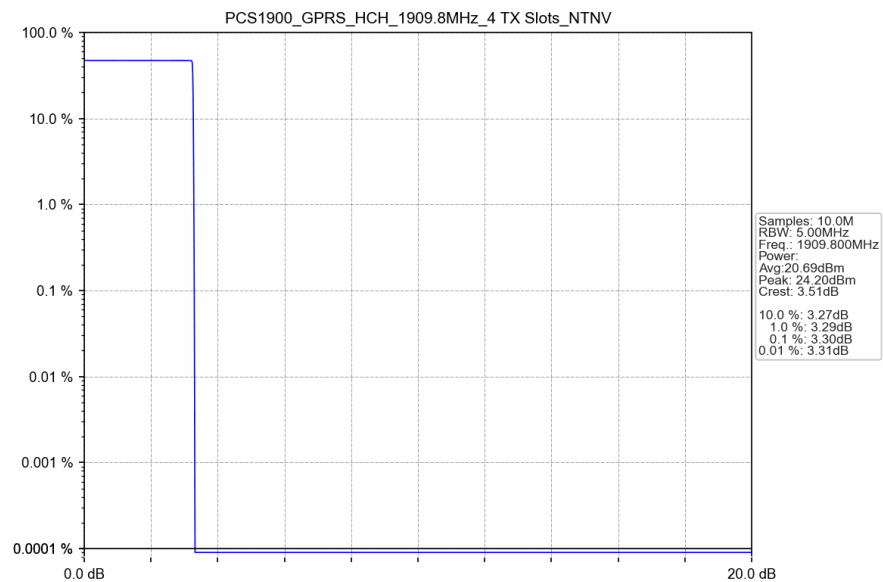
## PCS1900\_GPRS\_LCH\_1850.2MHz\_4 TX Slots\_NTNV



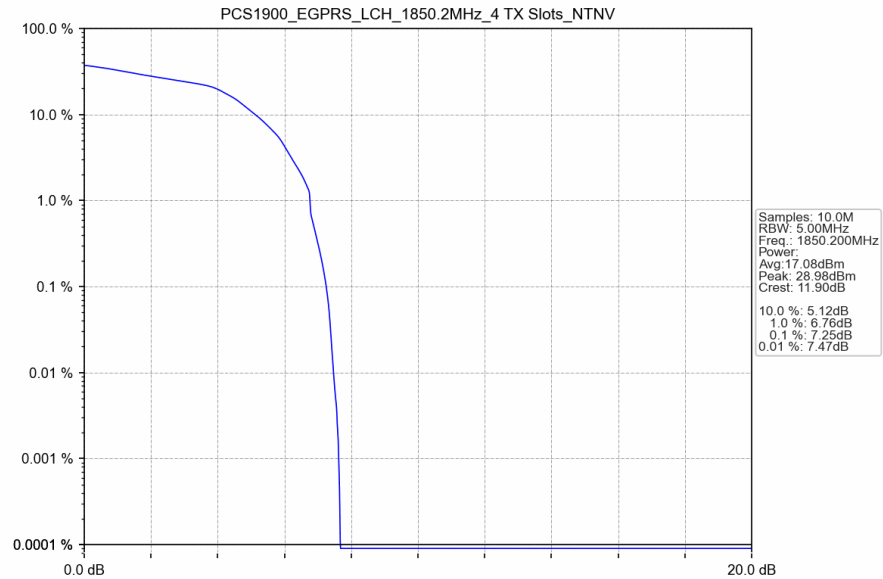
## PCS1900\_GPRS\_MCH\_1880MHz\_4 TX Slots\_NTNV



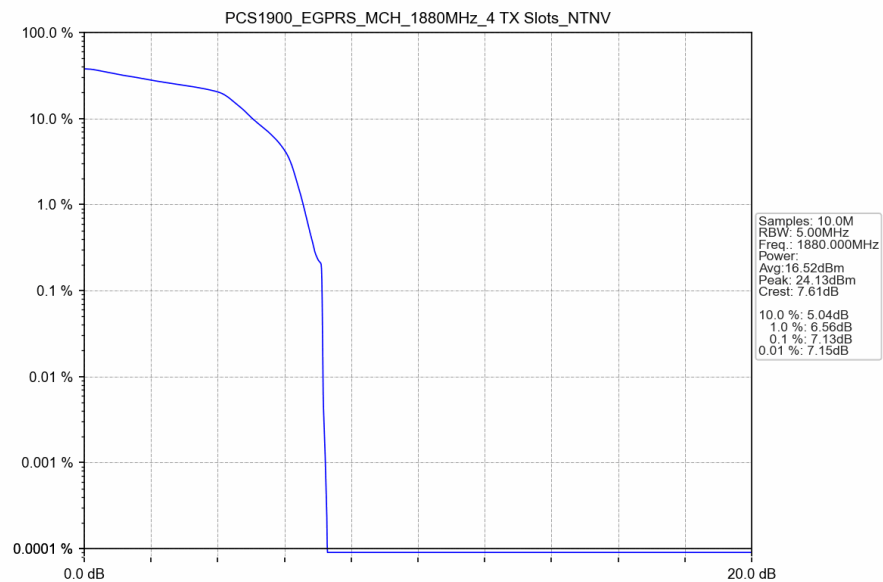
## PCS1900\_GPRS\_HCH\_1909.8MHz\_4 TX Slots\_NTNV



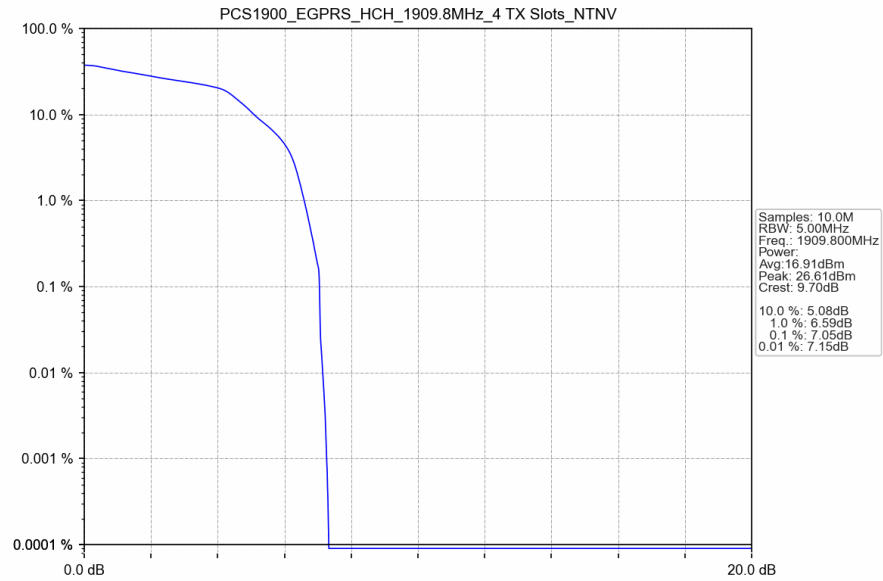
## PCS1900\_EGPRS\_LCH\_1850.2MHz\_4 TX Slots\_NTNV



## PCS1900\_EGPRS\_MCH\_1880MHz\_4 TX Slots\_NTNV



## PCS1900\_EGPRS\_HCH\_1909.8MHz\_4 TX Slots\_NTNV



## 5. Spurious Emission

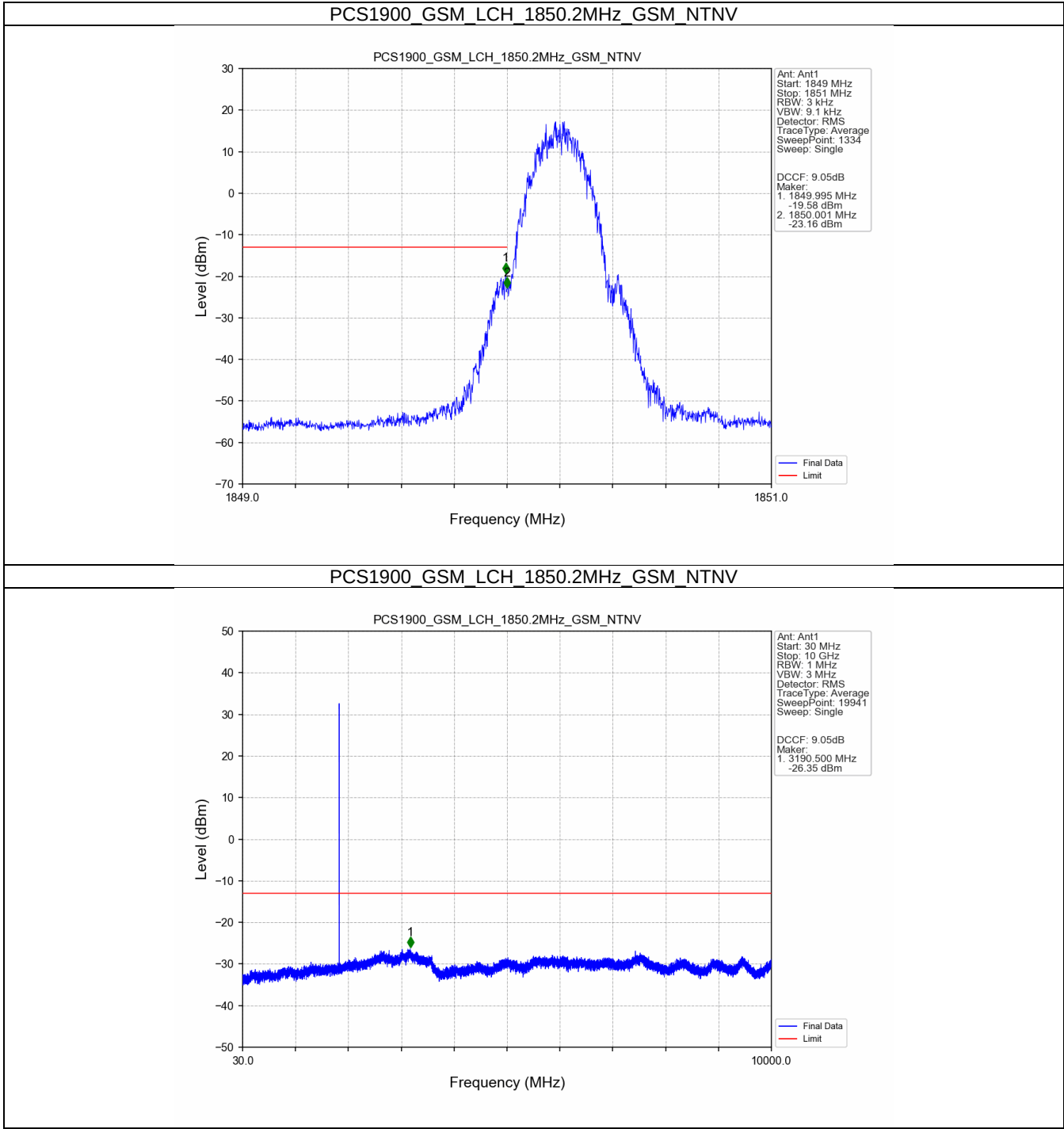
### 5.1 Test Result

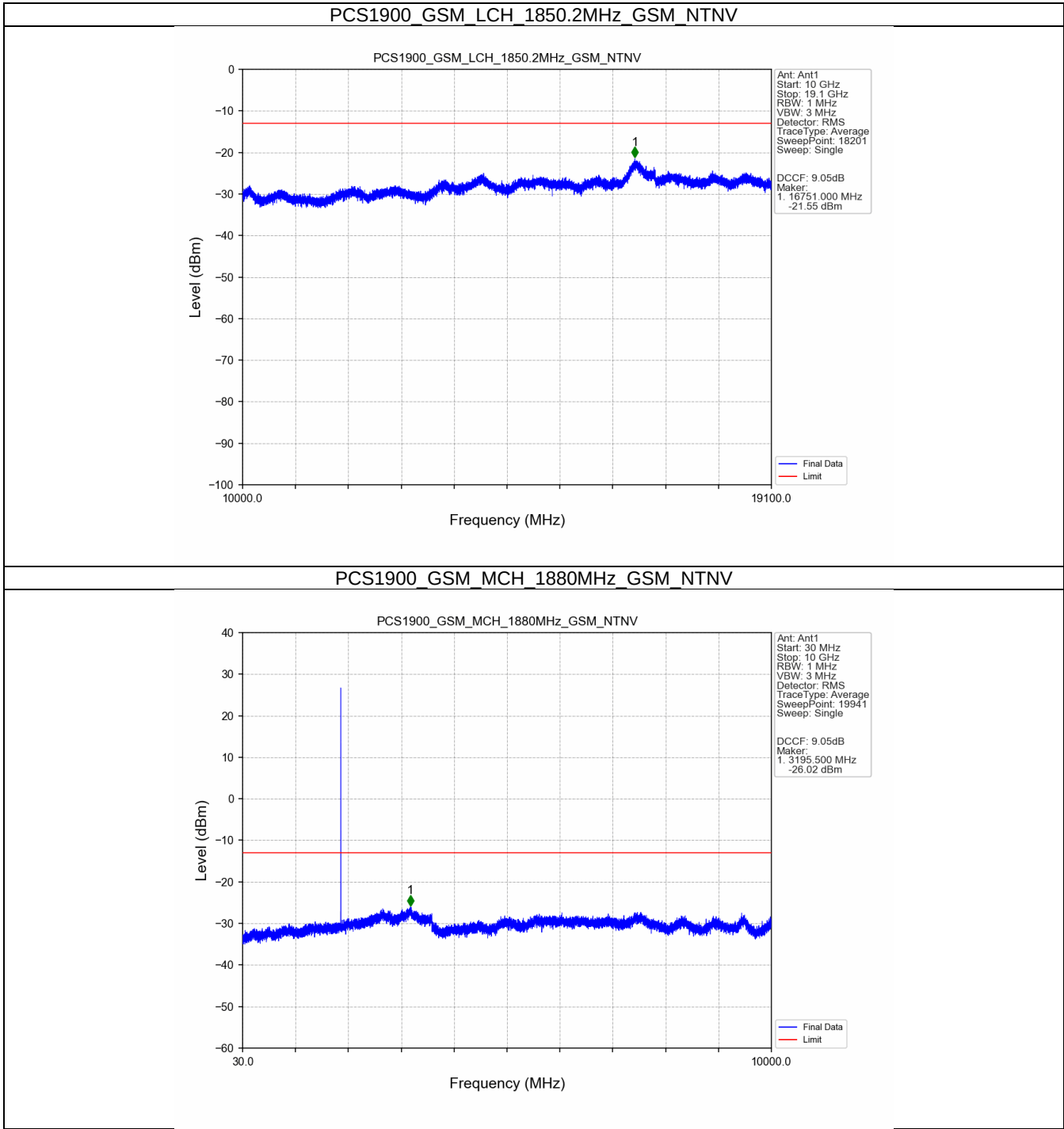
#### 5.1.1 PCS1900

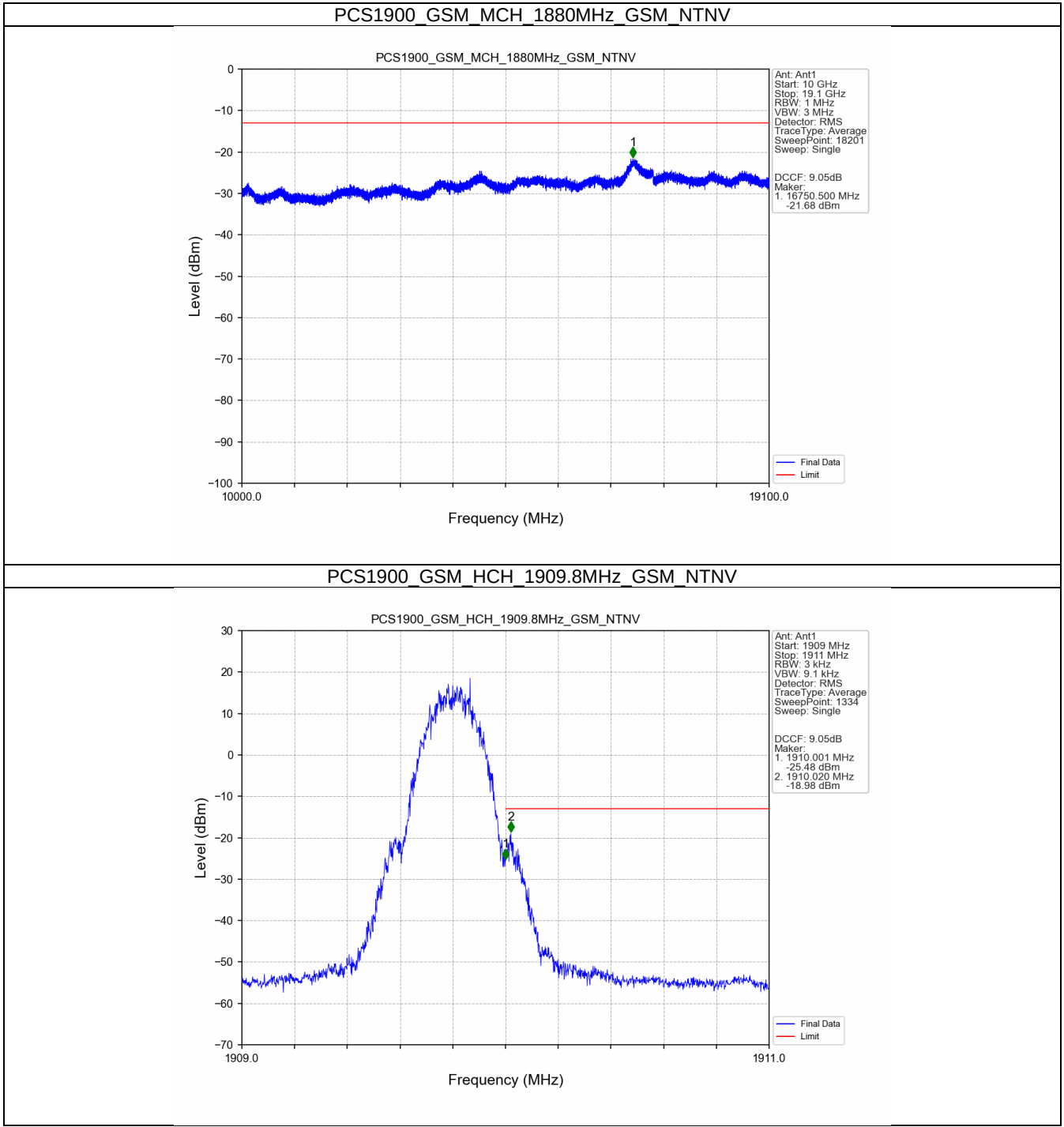
| Band: PCS1900 |         |           |                 |                     |       |         |
|---------------|---------|-----------|-----------------|---------------------|-------|---------|
| ENV           | Mode    |           | Frequency (MHz) | Spurious Emission   |       | Verdict |
|               | Network | Subset    |                 | Result              | Limit |         |
| NTNV          | GSM     | GSM       | 1850.2          | Refer To Test Graph |       | Pass    |
|               |         |           | 1880            | Refer To Test Graph |       | Pass    |
|               |         |           | 1909.8          | Refer To Test Graph |       | Pass    |
|               | GPRS    | 1 TX Slot | 1850.2          | Refer To Test Graph |       | Pass    |
|               |         |           | 1880            | Refer To Test Graph |       | Pass    |
|               |         |           | 1909.8          | Refer To Test Graph |       | Pass    |
|               | EGPRS   | 1 TX Slot | 1850.2          | Refer To Test Graph |       | Pass    |
|               |         |           | 1880            | Refer To Test Graph |       | Pass    |
|               |         |           | 1909.8          | Refer To Test Graph |       | Pass    |

5.2 Test Graph

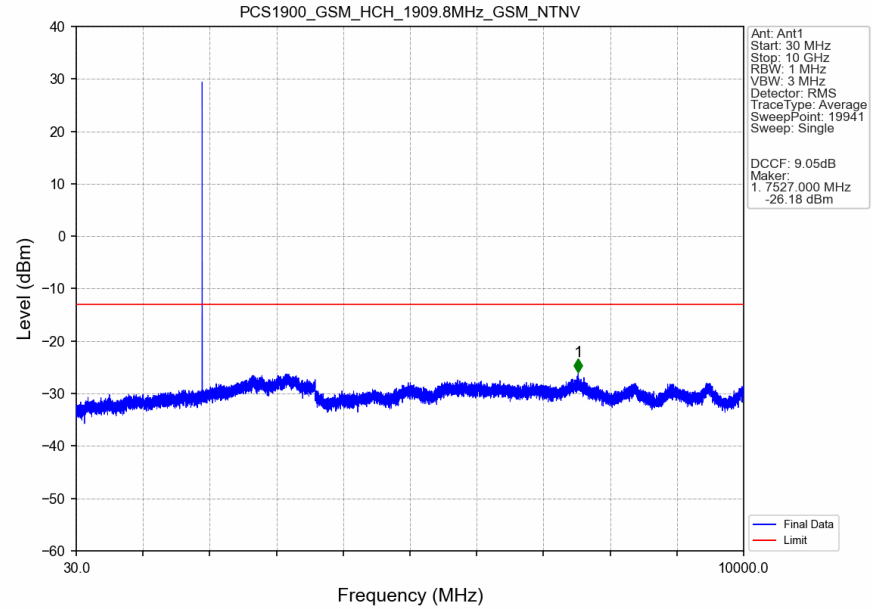
5.2.1 PCS1900



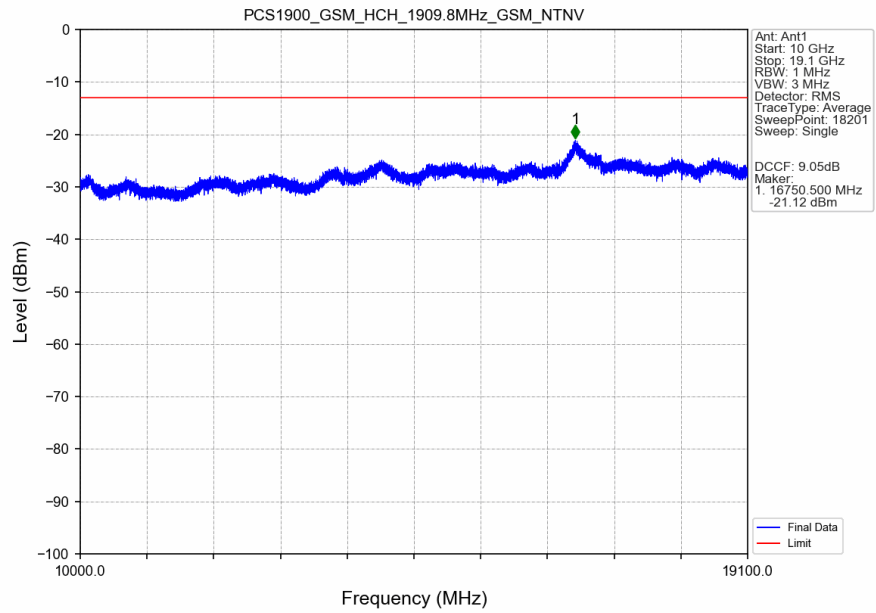


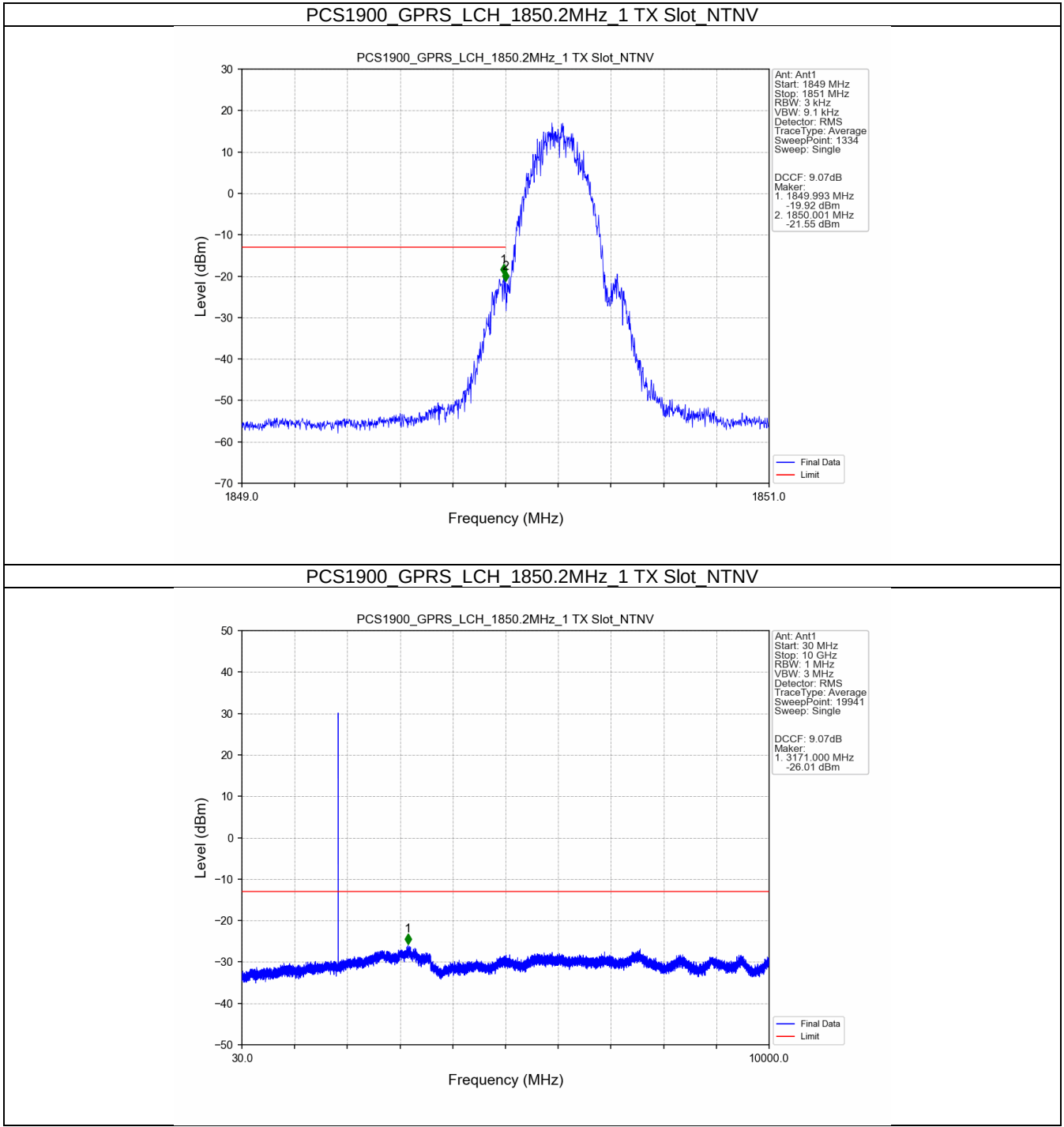


## PCS1900\_GSM\_HCH\_1909.8MHz\_GSM\_NTNV

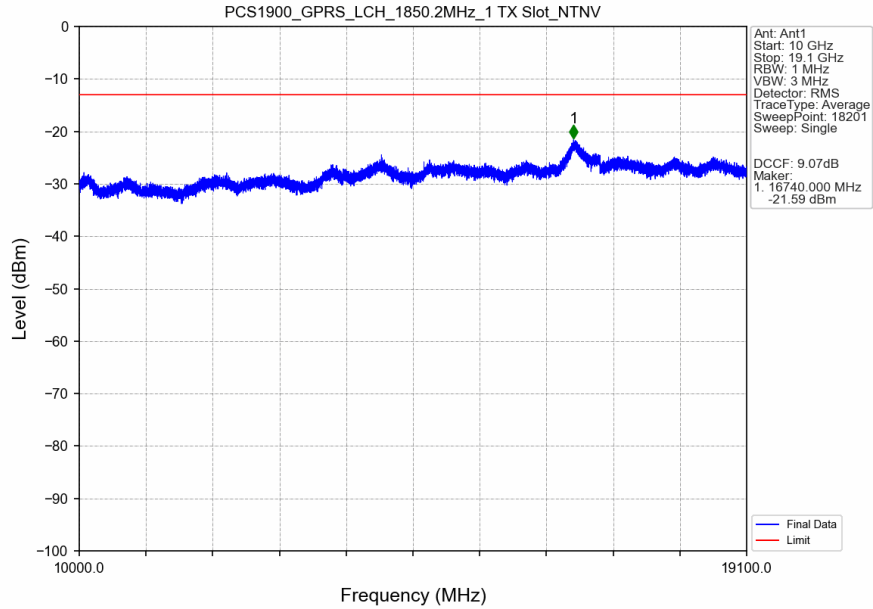


## PCS1900\_GSM\_HCH\_1909.8MHz\_GSM\_NTNV

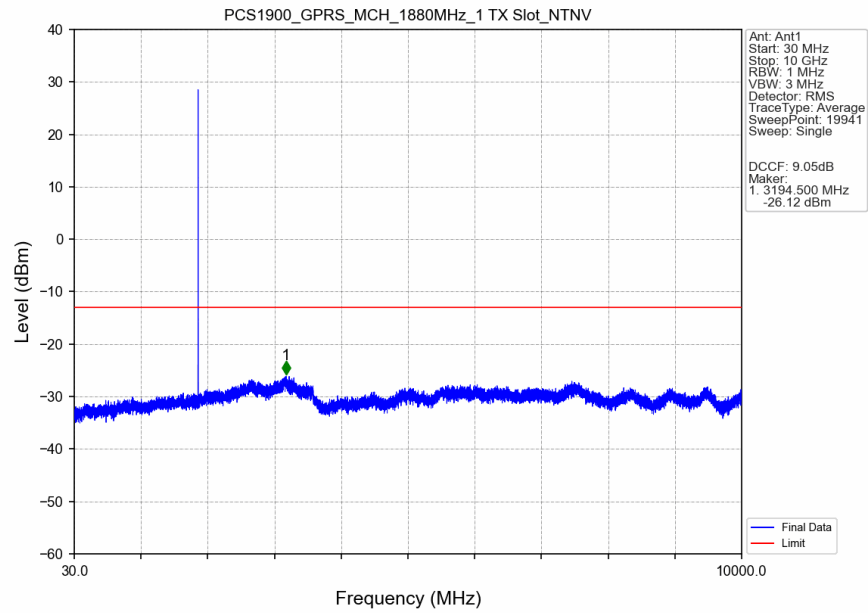




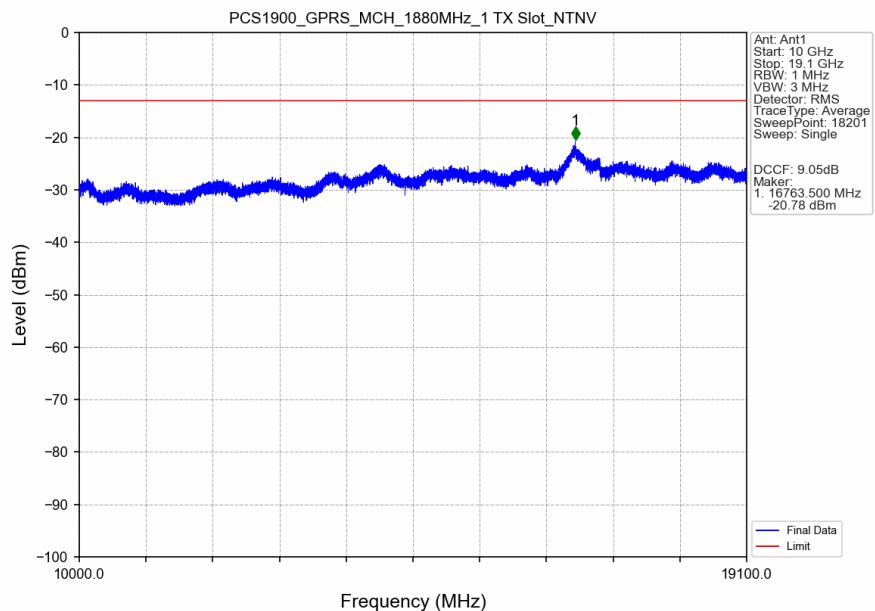
PCS1900\_GPRS\_LCH\_1850.2MHz\_1 TX Slot\_NTNV



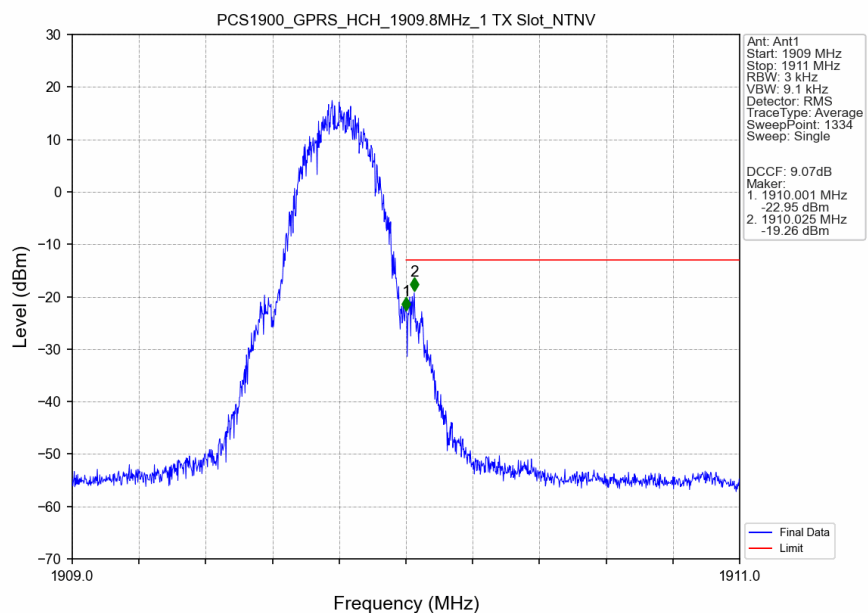
PCS1900\_GPRS\_MCH\_1880MHz\_1 TX Slot\_NTNV



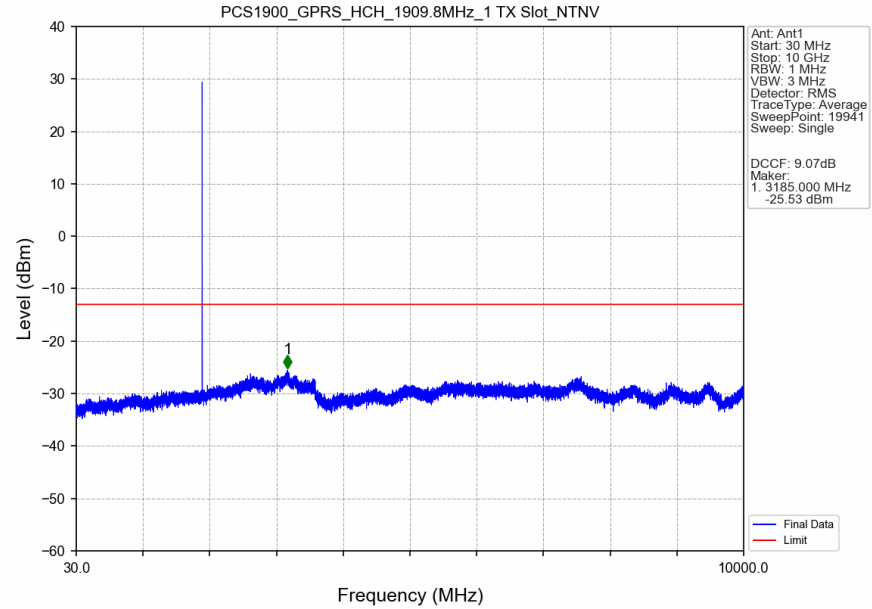
## PCS1900\_GPRS\_MCH\_1880MHz\_1 TX Slot\_NTNV



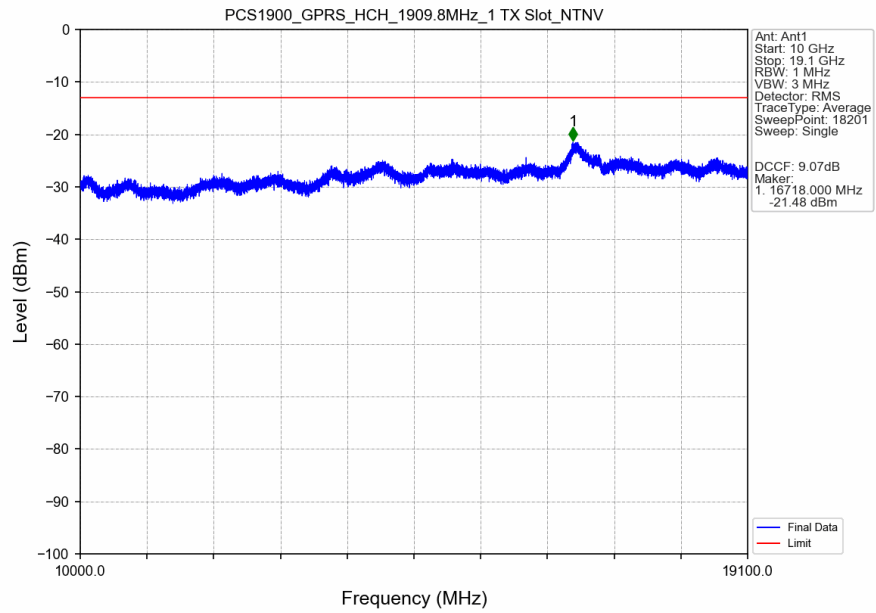
## PCS1900\_GPRS\_HCH\_1909.8MHz\_1 TX Slot\_NTNV



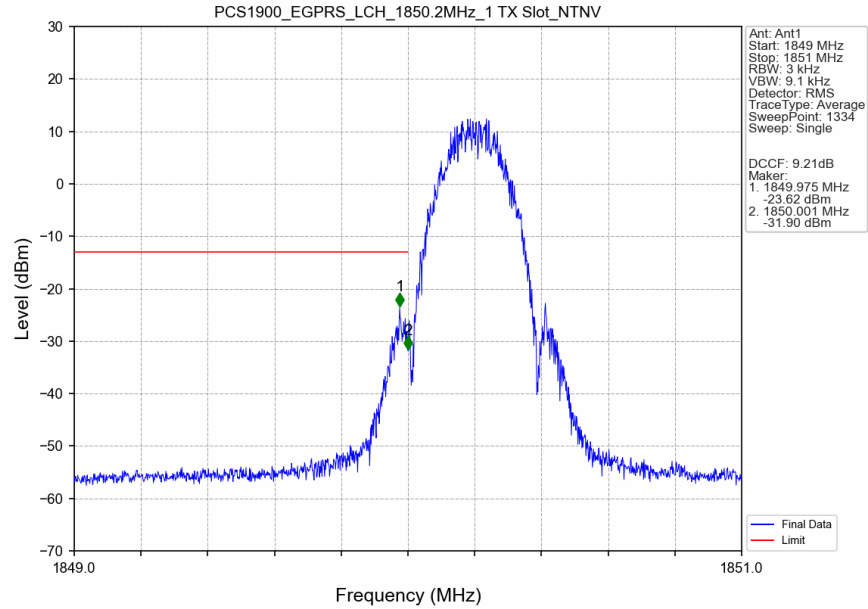
## PCS1900\_GPRS\_HCH\_1909.8MHz\_1 TX Slot\_NTNV



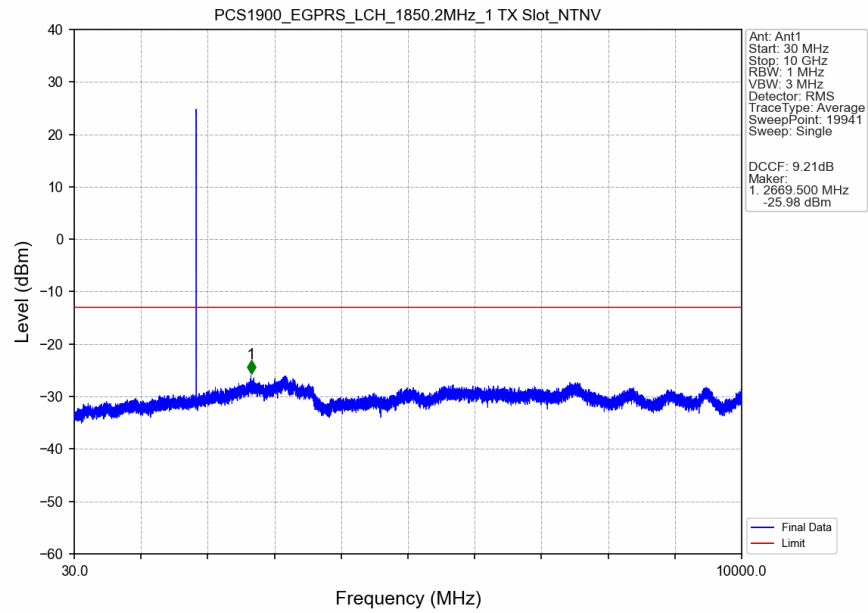
## PCS1900\_GPRS\_HCH\_1909.8MHz\_1 TX Slot\_NTNV



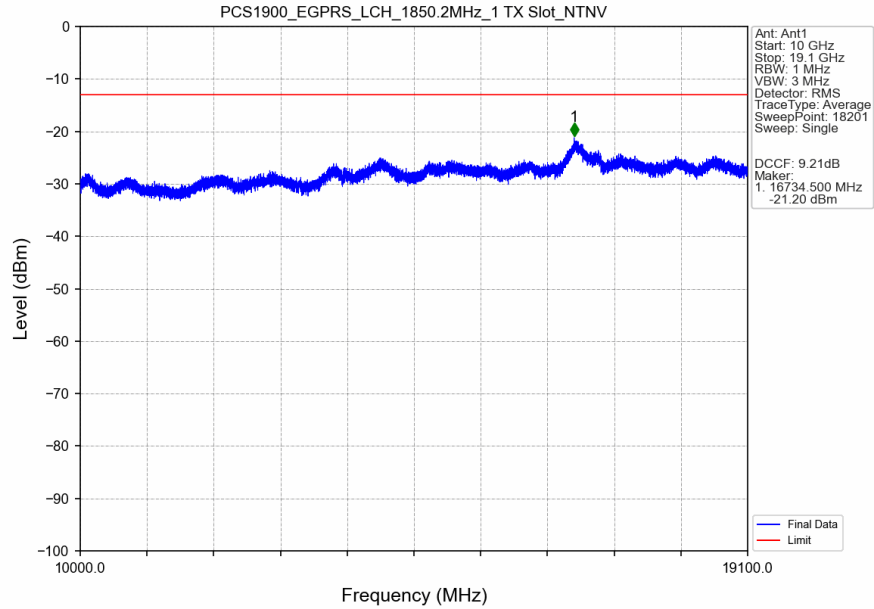
## PCS1900\_EGPRS\_LCH\_1850.2MHz\_1 TX Slot\_NTNV



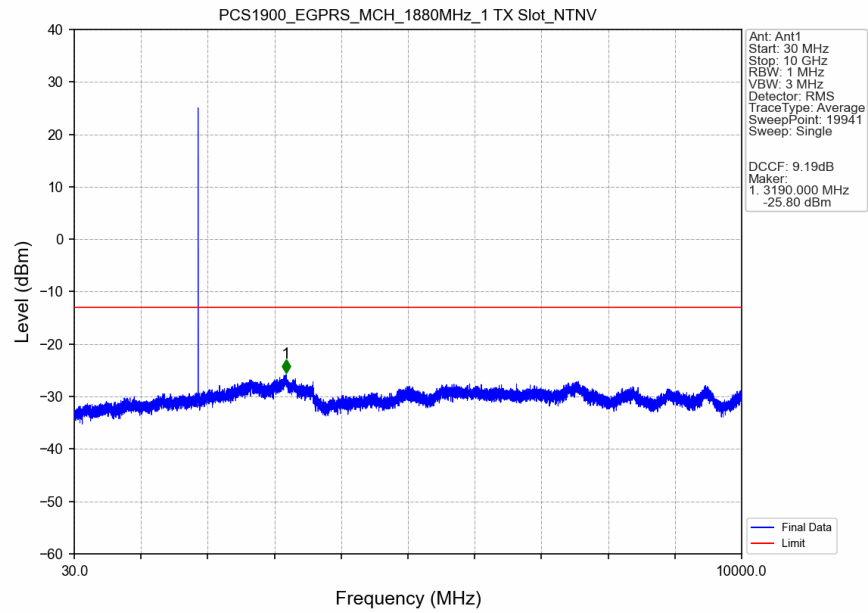
## PCS1900\_EGPRS\_LCH\_1850.2MHz\_1 TX Slot\_NTNV



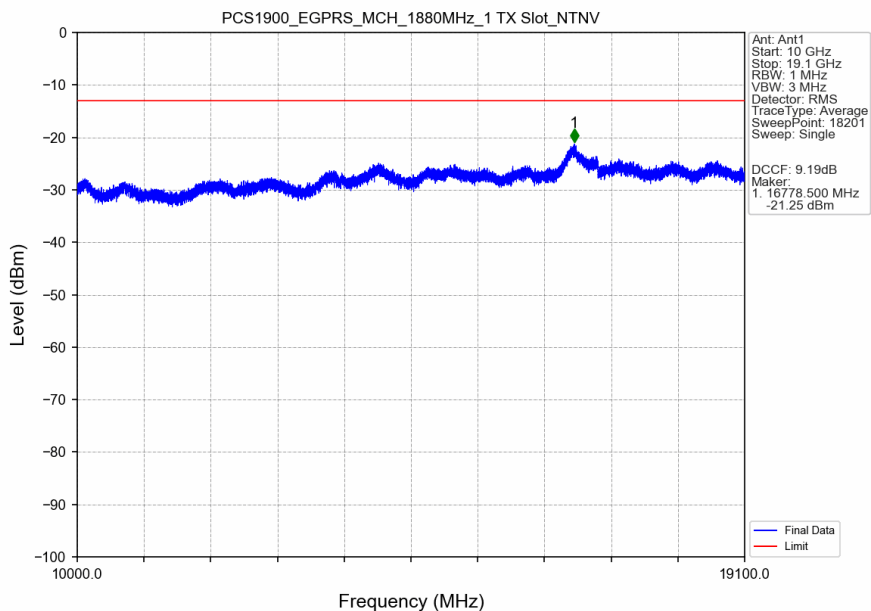
## PCS1900\_EGPRS\_LCH\_1850.2MHz\_1 TX Slot\_NTNV



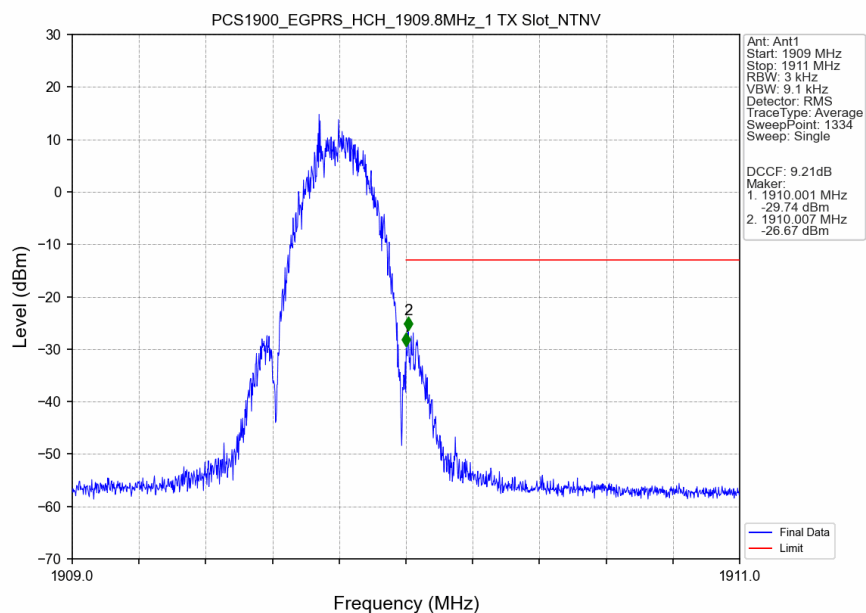
## PCS1900\_EGPRS\_MCH\_1880MHz\_1 TX Slot\_NTNV



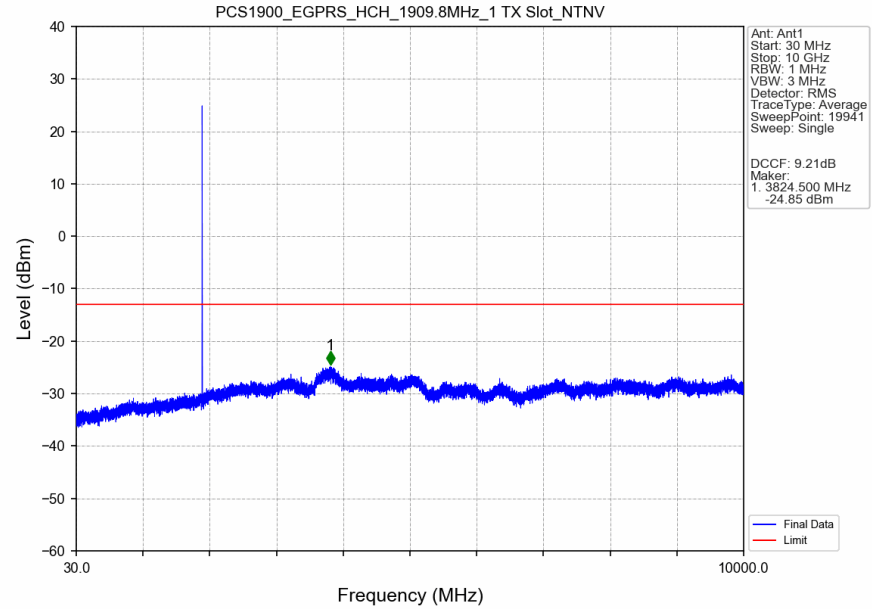
## PCS1900\_EGPRS\_MCH\_1880MHz\_1 TX Slot\_NTNV



## PCS1900\_EGPRS\_HCH\_1909.8MHz\_1 TX Slot\_NTNV



## PCS1900\_EGPRS\_HCH\_1909.8MHz\_1 TX Slot\_NTNV



## PCS1900\_EGPRS\_HCH\_1909.8MHz\_1 TX Slot\_NTNV

