

## Contents

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**Appendix 1. Conducted output power**

| <i>Band</i>    | <i>Channel</i> | <i>Frequency (MHz)</i> | <i>Power (dBm)</i> | <i>Gain (dBm)</i> | <i>ERP (dBm)</i> | <i>Verdict</i> |
|----------------|----------------|------------------------|--------------------|-------------------|------------------|----------------|
| GPRS850 1 Slot | 128            | 824.2                  | 32.59              | -16.1             | 14.34            | PASS           |
| GPRS850 1 Slot | 190            | 836.6                  | 32.53              | -16.1             | 14.28            | PASS           |
| GPRS850 1 Slot | 251            | 848.8                  | 32.52              | -16.1             | 14.27            | PASS           |
| GPRS850 2 Slot | 128            | 824.2                  | 32.59              | -16.1             | 14.34            | PASS           |
| GPRS850 2 Slot | 190            | 836.6                  | 32.55              | -16.1             | 14.3             | PASS           |
| GPRS850 2 Slot | 251            | 848.8                  | 32.53              | -16.1             | 14.28            | PASS           |
| GPRS850 3 Slot | 128            | 824.2                  | 30.59              | -16.1             | 12.34            | PASS           |
| GPRS850 3 Slot | 190            | 836.6                  | 30.39              | -16.1             | 12.14            | PASS           |
| GPRS850 3 Slot | 251            | 848.8                  | 30.39              | -16.1             | 12.14            | PASS           |
| GPRS850 4 Slot | 128            | 824.2                  | 28.66              | -16.1             | 10.41            | PASS           |
| GPRS850 4 Slot | 190            | 836.6                  | 28.41              | -16.1             | 10.16            | PASS           |
| GPRS850 4 Slot | 251            | 848.8                  | 28.38              | -16.1             | 10.13            | PASS           |

| <i>Band</i>     | <i>Channel</i> | <i>Frequency (MHz)</i> | <i>Power (dBm)</i> | <i>Gain (dBm)</i> | <i>EIRP (dBm)</i> | <i>Verdict</i> |
|-----------------|----------------|------------------------|--------------------|-------------------|-------------------|----------------|
| GPRS1900 1 Slot | 512            | 1850.2                 | 28.39              | -3.54             | 24.85             | PASS           |
| GPRS1900 1 Slot | 661            | 1880                   | 28.19              | -3.54             | 24.65             | PASS           |
| GPRS1900 1 Slot | 810            | 1909.8                 | 27.80              | -3.54             | 24.26             | PASS           |
| GPRS1900 2 Slot | 512            | 1850.2                 | 28.36              | -3.54             | 24.82             | PASS           |
| GPRS1900 2 Slot | 661            | 1880                   | 28.15              | -3.54             | 24.61             | PASS           |
| GPRS1900 2 Slot | 810            | 1909.8                 | 27.75              | -3.54             | 24.21             | PASS           |
| GPRS1900 3 Slot | 512            | 1850.2                 | 26.64              | -3.54             | 23.1              | PASS           |
| GPRS1900 3 Slot | 661            | 1880                   | 26.53              | -3.54             | 22.99             | PASS           |
| GPRS1900 3 Slot | 810            | 1909.8                 | 26.18              | -3.54             | 22.64             | PASS           |
| GPRS1900 4 Slot | 512            | 1850.2                 | 24.49              | -3.54             | 20.95             | PASS           |
| GPRS1900 4 Slot | 661            | 1880                   | 24.43              | -3.54             | 20.89             | PASS           |
| GPRS1900 4 Slot | 810            | 1909.8                 | 24.14              | -3.54             | 20.6              | PASS           |

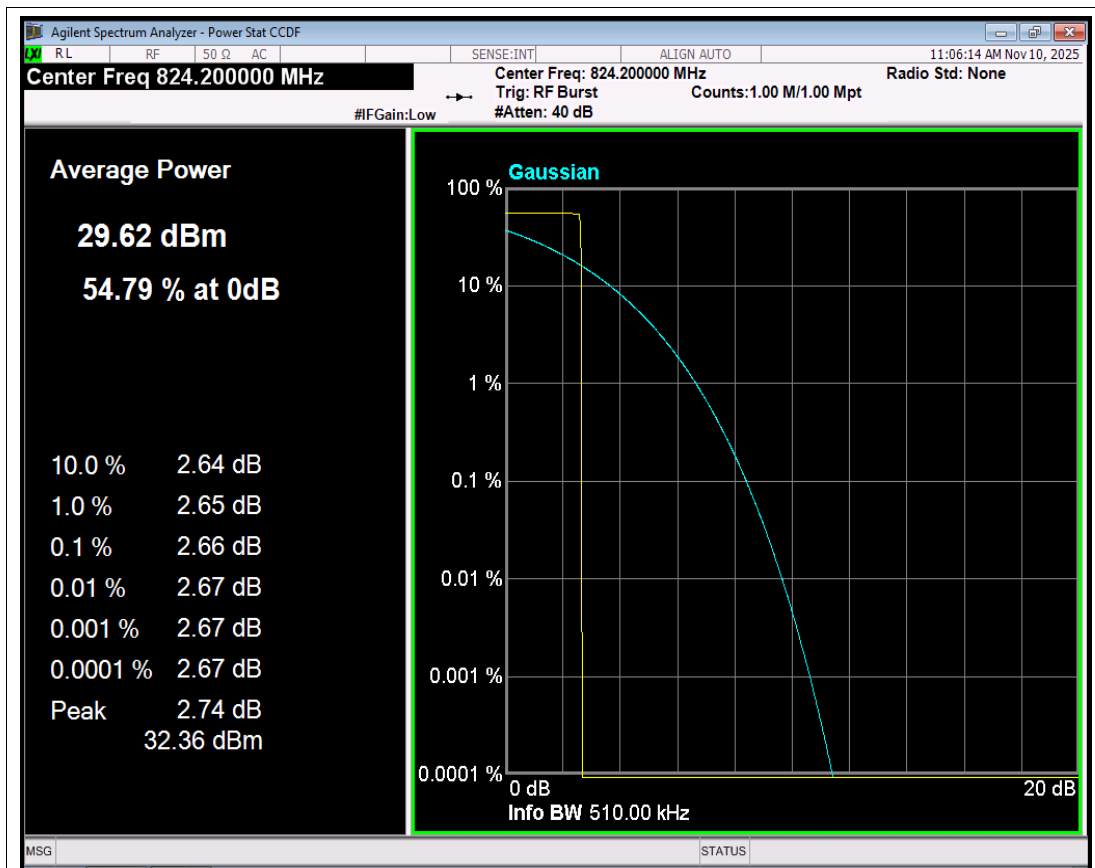
## Appendix 2.Frequency stability

| Band     | Channel | Frequency<br>(MHz) | Voltage<br>(Vdc) | Temperature<br>(C) | Result<br>(Hz) | Result<br>(ppm) | Low Limit<br>(ppm) | high Limit<br>(ppm) | Verdict |
|----------|---------|--------------------|------------------|--------------------|----------------|-----------------|--------------------|---------------------|---------|
| GPRS850  | 128     | 824.2              | LV               | NT                 | -19.05         | -0.023          | -2.5               | 2.5                 | PASS    |
| GPRS850  | 128     | 824.2              | NV               | NT                 | -21.28         | -0.026          | -2.5               | 2.5                 | PASS    |
| GPRS850  | 128     | 824.2              | HV               | NT                 | -21.63         | -0.026          | -2.5               | 2.5                 | PASS    |
| GPRS850  | 190     | 836.6              | LV               | NT                 | -20.21         | -0.024          | -2.5               | 2.5                 | PASS    |
| GPRS850  | 190     | 836.6              | NV               | NT                 | -13.04         | -0.016          | -2.5               | 2.5                 | PASS    |
| GPRS850  | 190     | 836.6              | HV               | NT                 | -14.98         | -0.018          | -2.5               | 2.5                 | PASS    |
| GPRS850  | 251     | 848.8              | LV               | NT                 | -7.81          | -0.009          | -2.5               | 2.5                 | PASS    |
| GPRS850  | 251     | 848.8              | NV               | NT                 | -7.49          | -0.009          | -2.5               | 2.5                 | PASS    |
| GPRS850  | 251     | 848.8              | HV               | NT                 | -14.79         | -0.017          | -2.5               | 2.5                 | PASS    |
| GPRS1900 | 512     | 1850.2             | LV               | NT                 | -10.43         | -0.006          | -2.5               | 2.5                 | PASS    |
| GPRS1900 | 512     | 1850.2             | NV               | NT                 | -34.13         | -0.018          | -2.5               | 2.5                 | PASS    |
| GPRS1900 | 512     | 1850.2             | HV               | NT                 | -35.90         | -0.019          | -2.5               | 2.5                 | PASS    |
| GPRS1900 | 661     | 1880               | LV               | NT                 | -18.31         | -0.010          | -2.5               | 2.5                 | PASS    |
| GPRS1900 | 661     | 1880               | NV               | NT                 | -9.69          | -0.005          | -2.5               | 2.5                 | PASS    |
| GPRS1900 | 661     | 1880               | HV               | NT                 | -1.42          | -0.001          | -2.5               | 2.5                 | PASS    |
| GPRS1900 | 810     | 1909.8             | LV               | NT                 | -19.60         | -0.010          | -2.5               | 2.5                 | PASS    |
| GPRS1900 | 810     | 1909.8             | NV               | NT                 | -2.58          | -0.001          | -2.5               | 2.5                 | PASS    |
| GPRS1900 | 810     | 1909.8             | HV               | NT                 | -7.81          | -0.004          | -2.5               | 2.5                 | PASS    |
| GPRS850  | 128     | 824.2              | NV               | -30                | -11.98         | -0.015          | -2.5               | 2.5                 | PASS    |
| GPRS850  | 128     | 824.2              | NV               | -20                | -18.63         | -0.023          | -2.5               | 2.5                 | PASS    |
| GPRS850  | 128     | 824.2              | NV               | 0                  | -20.02         | -0.024          | -2.5               | 2.5                 | PASS    |
| GPRS850  | 128     | 824.2              | NV               | 10                 | -21.21         | -0.026          | -2.5               | 2.5                 | PASS    |
| GPRS850  | 128     | 824.2              | NV               | 20                 | -19.24         | -0.023          | -2.5               | 2.5                 | PASS    |
| GPRS850  | 128     | 824.2              | NV               | 30                 | -22.31         | -0.027          | -2.5               | 2.5                 | PASS    |
| GPRS850  | 128     | 824.2              | NV               | 40                 | -14.79         | -0.018          | -2.5               | 2.5                 | PASS    |
| GPRS850  | 128     | 824.2              | NV               | 50                 | -21.79         | -0.026          | -2.5               | 2.5                 | PASS    |
| GPRS850  | 190     | 836.6              | NV               | -30                | -21.05         | -0.025          | -2.5               | 2.5                 | PASS    |
| GPRS850  | 190     | 836.6              | NV               | -20                | -19.40         | -0.023          | -2.5               | 2.5                 | PASS    |
| GPRS850  | 190     | 836.6              | NV               | 0                  | -18.53         | -0.022          | -2.5               | 2.5                 | PASS    |
| GPRS850  | 190     | 836.6              | NV               | 10                 | -23.70         | -0.028          | -2.5               | 2.5                 | PASS    |
| GPRS850  | 190     | 836.6              | NV               | 20                 | -19.89         | -0.024          | -2.5               | 2.5                 | PASS    |
| GPRS850  | 190     | 836.6              | NV               | 30                 | -16.59         | -0.020          | -2.5               | 2.5                 | PASS    |
| GPRS850  | 190     | 836.6              | NV               | 40                 | -23.02         | -0.028          | -2.5               | 2.5                 | PASS    |
| GPRS850  | 190     | 836.6              | NV               | 50                 | -15.01         | -0.018          | -2.5               | 2.5                 | PASS    |
| GPRS850  | 251     | 848.8              | NV               | -30                | -16.69         | -0.020          | -2.5               | 2.5                 | PASS    |
| GPRS850  | 251     | 848.8              | NV               | -20                | -20.44         | -0.024          | -2.5               | 2.5                 | PASS    |
| GPRS850  | 251     | 848.8              | NV               | 0                  | -13.01         | -0.015          | -2.5               | 2.5                 | PASS    |
| GPRS850  | 251     | 848.8              | NV               | 10                 | -19.18         | -0.023          | -2.5               | 2.5                 | PASS    |
| GPRS850  | 251     | 848.8              | NV               | 20                 | -18.98         | -0.022          | -2.5               | 2.5                 | PASS    |
| GPRS850  | 251     | 848.8              | NV               | 30                 | -18.02         | -0.021          | -2.5               | 2.5                 | PASS    |

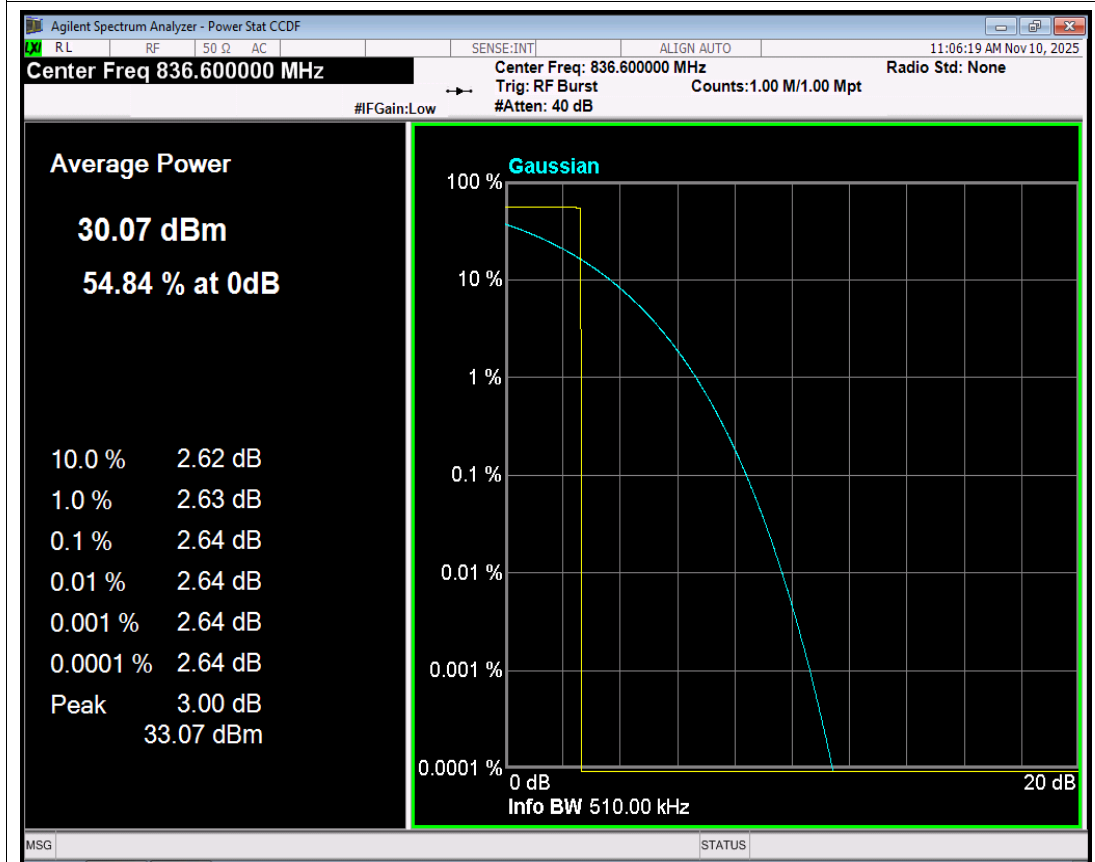
|          |     |        |    |     |        |        |      |     |      |
|----------|-----|--------|----|-----|--------|--------|------|-----|------|
| GPRS850  | 251 | 848.8  | NV | 40  | -9.62  | -0.011 | -2.5 | 2.5 | PASS |
| GPRS850  | 251 | 848.8  | NV | 50  | -21.44 | -0.025 | -2.5 | 2.5 | PASS |
| GPRS1900 | 512 | 1850.2 | NV | -30 | -30.32 | -0.016 | -2.5 | 2.5 | PASS |
| GPRS1900 | 512 | 1850.2 | NV | -20 | -29.12 | -0.016 | -2.5 | 2.5 | PASS |
| GPRS1900 | 512 | 1850.2 | NV | 0   | -33.19 | -0.018 | -2.5 | 2.5 | PASS |
| GPRS1900 | 512 | 1850.2 | NV | 10  | -37.71 | -0.020 | -2.5 | 2.5 | PASS |
| GPRS1900 | 512 | 1850.2 | NV | 20  | -33.84 | -0.018 | -2.5 | 2.5 | PASS |
| GPRS1900 | 512 | 1850.2 | NV | 30  | -38.42 | -0.021 | -2.5 | 2.5 | PASS |
| GPRS1900 | 512 | 1850.2 | NV | 40  | -29.22 | -0.016 | -2.5 | 2.5 | PASS |
| GPRS1900 | 512 | 1850.2 | NV | 50  | -26.86 | -0.015 | -2.5 | 2.5 | PASS |
| GPRS1900 | 661 | 1880   | NV | -30 | -33.87 | -0.018 | -2.5 | 2.5 | PASS |
| GPRS1900 | 661 | 1880   | NV | -20 | -31.38 | -0.017 | -2.5 | 2.5 | PASS |
| GPRS1900 | 661 | 1880   | NV | 0   | -24.31 | -0.013 | -2.5 | 2.5 | PASS |
| GPRS1900 | 661 | 1880   | NV | 10  | -33.38 | -0.018 | -2.5 | 2.5 | PASS |
| GPRS1900 | 661 | 1880   | NV | 20  | -17.82 | -0.009 | -2.5 | 2.5 | PASS |
| GPRS1900 | 661 | 1880   | NV | 30  | -30.25 | -0.016 | -2.5 | 2.5 | PASS |
| GPRS1900 | 661 | 1880   | NV | 40  | -29.54 | -0.016 | -2.5 | 2.5 | PASS |
| GPRS1900 | 661 | 1880   | NV | 50  | -14.95 | -0.008 | -2.5 | 2.5 | PASS |
| GPRS1900 | 810 | 1909.8 | NV | -30 | -24.73 | -0.013 | -2.5 | 2.5 | PASS |
| GPRS1900 | 810 | 1909.8 | NV | -20 | -35.03 | -0.018 | -2.5 | 2.5 | PASS |
| GPRS1900 | 810 | 1909.8 | NV | 0   | -20.73 | -0.011 | -2.5 | 2.5 | PASS |
| GPRS1900 | 810 | 1909.8 | NV | 10  | -24.76 | -0.013 | -2.5 | 2.5 | PASS |
| GPRS1900 | 810 | 1909.8 | NV | 20  | -9.85  | -0.005 | -2.5 | 2.5 | PASS |
| GPRS1900 | 810 | 1909.8 | NV | 30  | -12.95 | -0.007 | -2.5 | 2.5 | PASS |
| GPRS1900 | 810 | 1909.8 | NV | 40  | -19.47 | -0.010 | -2.5 | 2.5 | PASS |
| GPRS1900 | 810 | 1909.8 | NV | 50  | -8.65  | -0.005 | -2.5 | 2.5 | PASS |

**Appendix 3. Peak-to-Average Ratio**

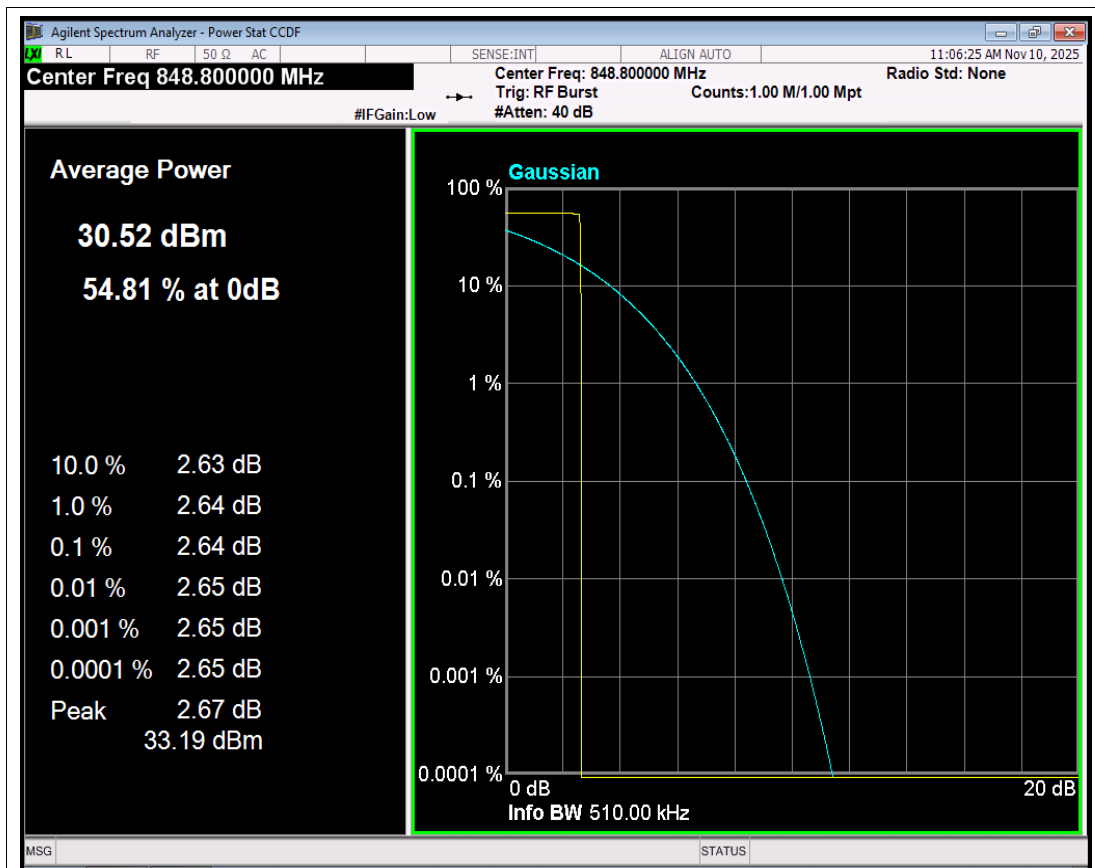
| <i>Band</i> | <i>Channel</i> | <i>Frequency (MHz)</i> | <i>Result (dB)</i> | <i>high Limit (dB)</i> | <i>Verdict</i> |
|-------------|----------------|------------------------|--------------------|------------------------|----------------|
| GPRS850     | 128            | 824.2                  | 2.659582871        | 13.00                  | PASS           |
| GPRS850     | 190            | 836.6                  | 2.638404869        | 13.00                  | PASS           |
| GPRS850     | 251            | 848.8                  | 2.644923625        | 13.00                  | PASS           |
| GPRS1900    | 512            | 1850.2                 | 2.63353208         | 13.00                  | PASS           |
| GPRS1900    | 661            | 1880                   | 2.639324677        | 13.00                  | PASS           |
| GPRS1900    | 810            | 1909.8                 | 2.642870437        | 13.00                  | PASS           |



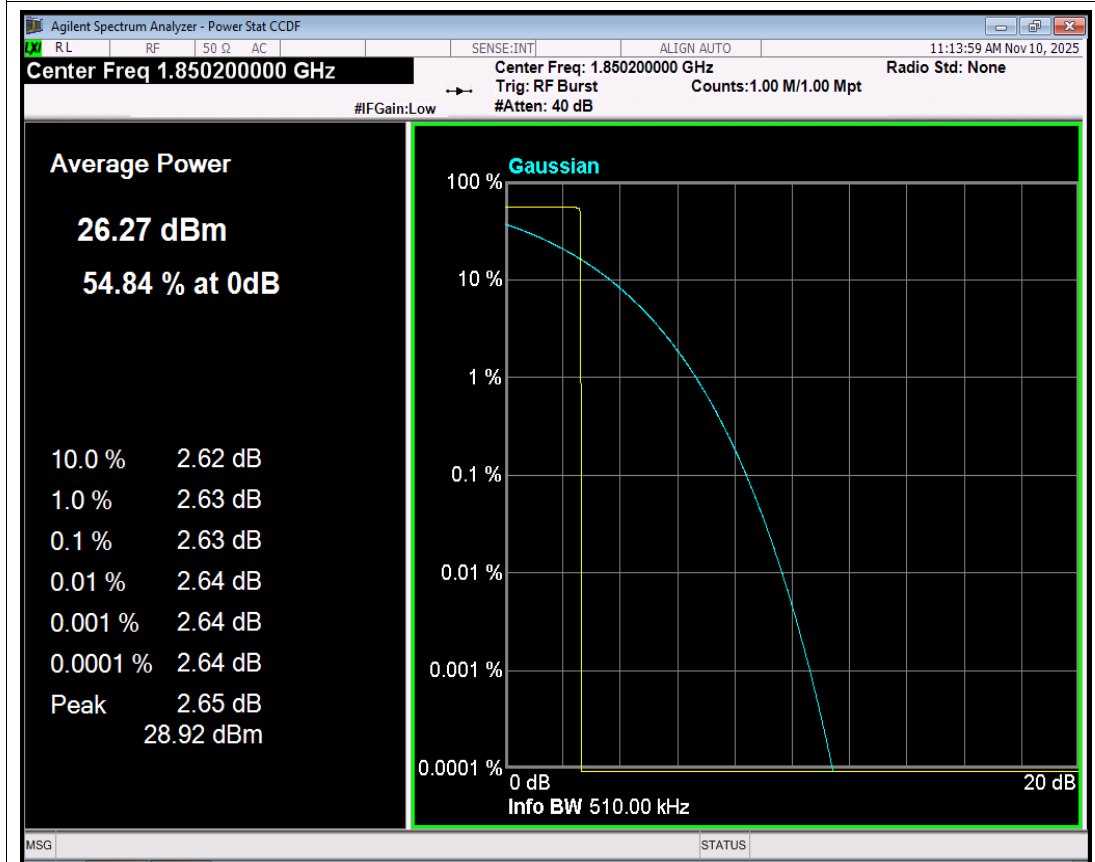
GPRS850 Channel=128



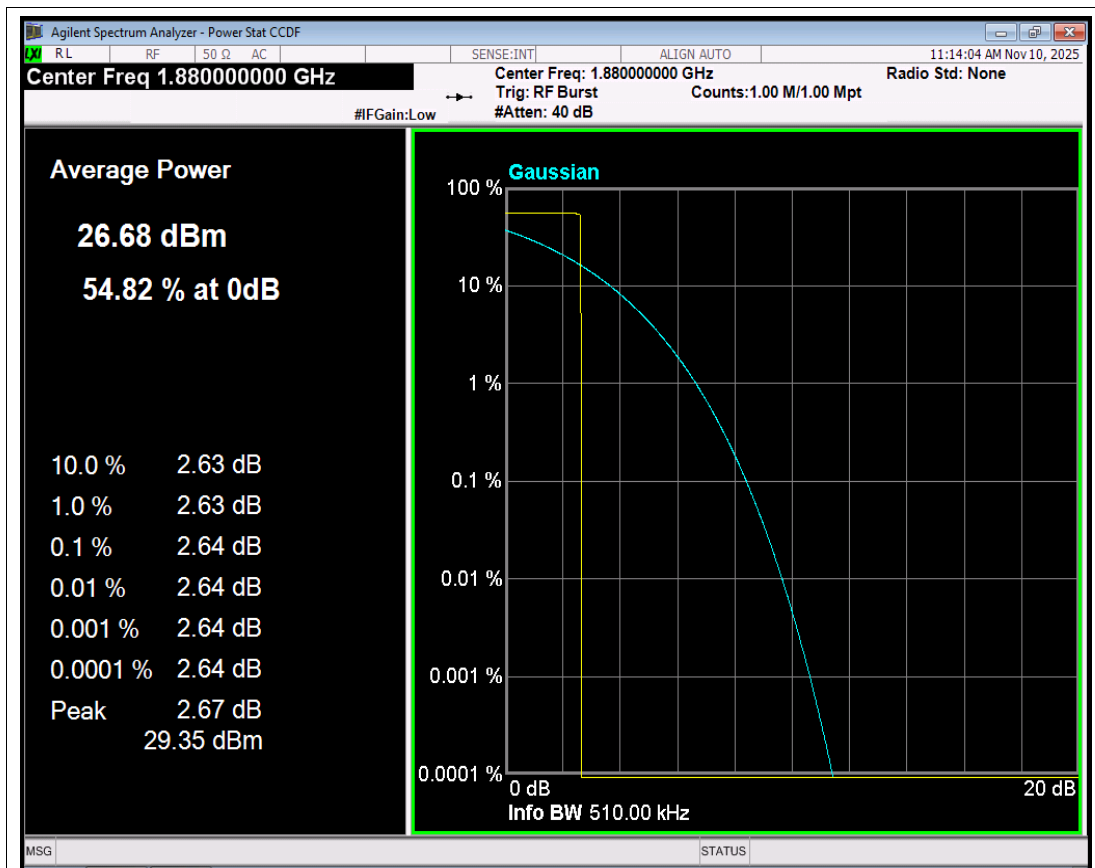
GPRS850 Channel=190



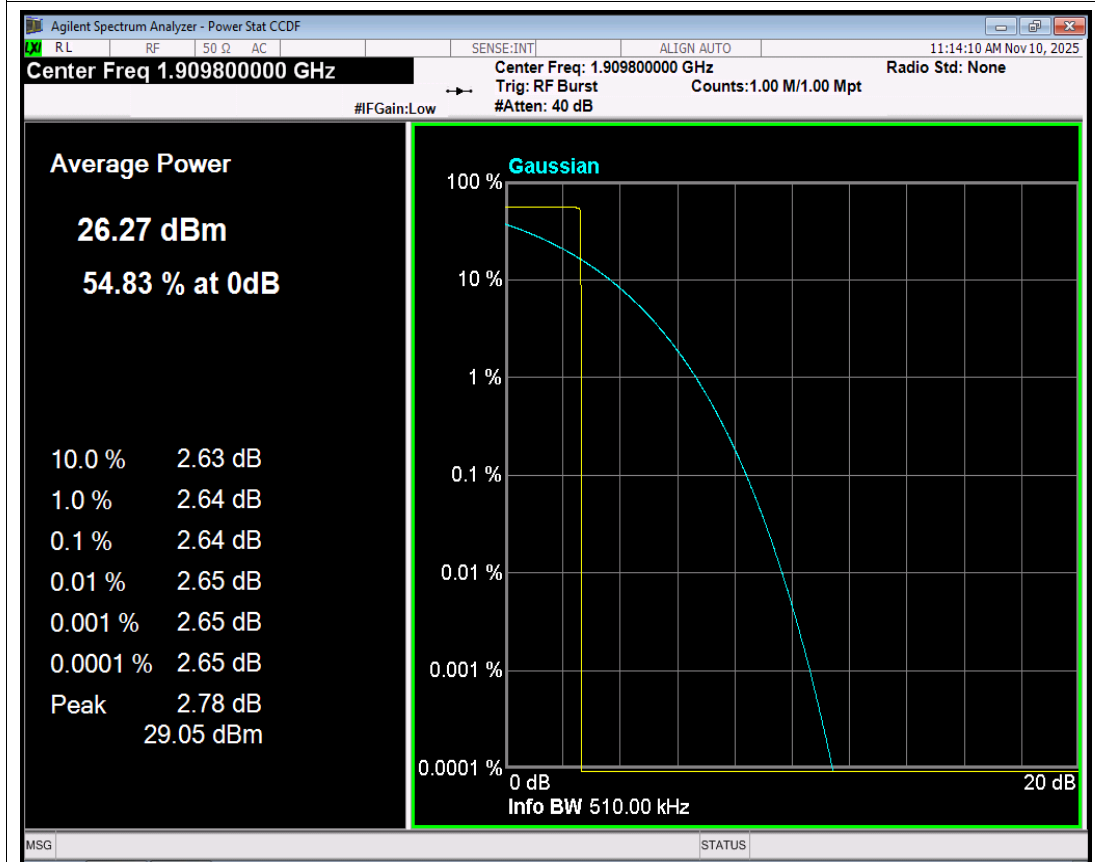
GPRS850 Channel=251



GPRS1900 Channel=512



GPRS1900 Channel=661

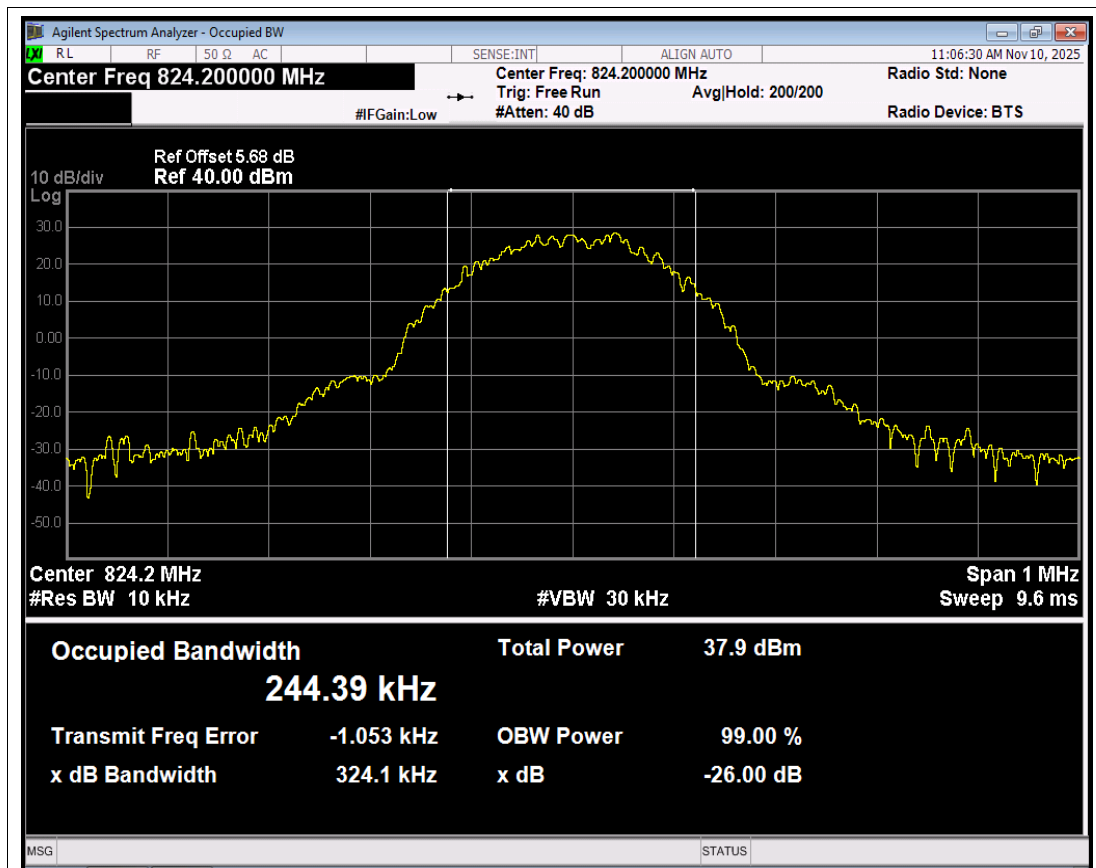


GPRS1900 Channel=810

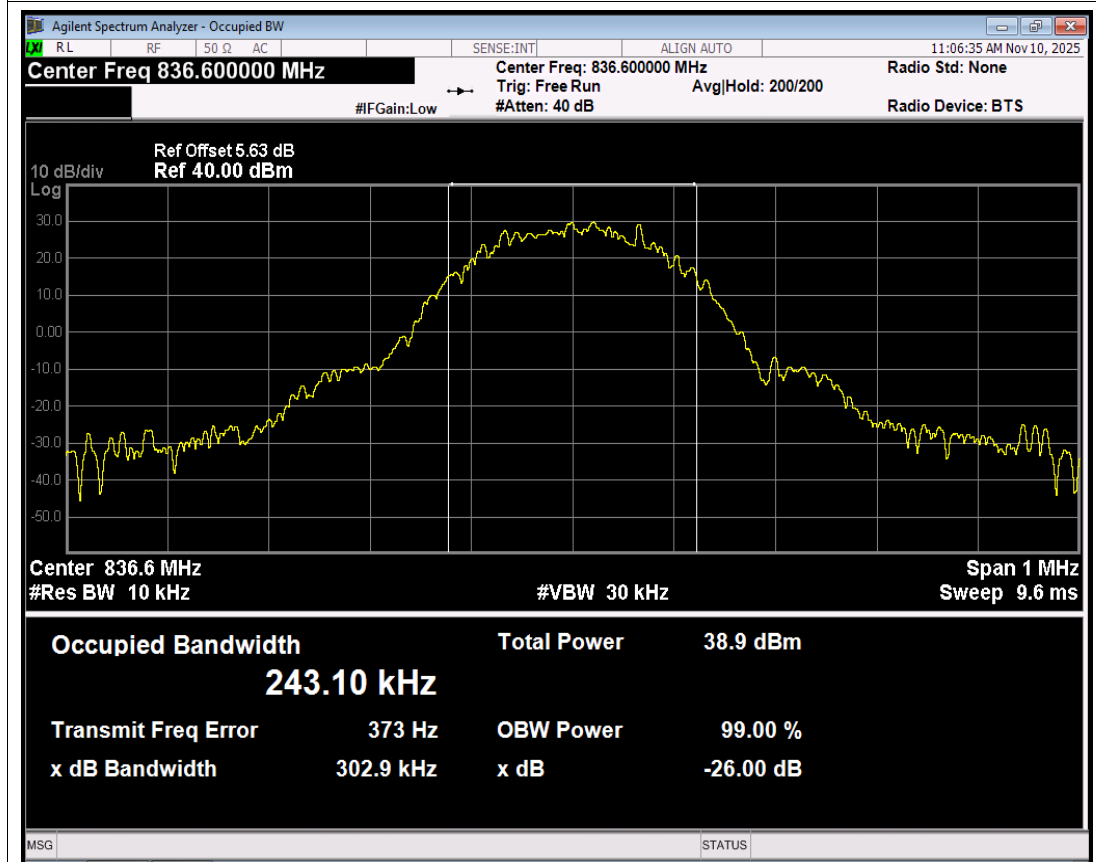


***Appendix 4.Occupied bandwidth***

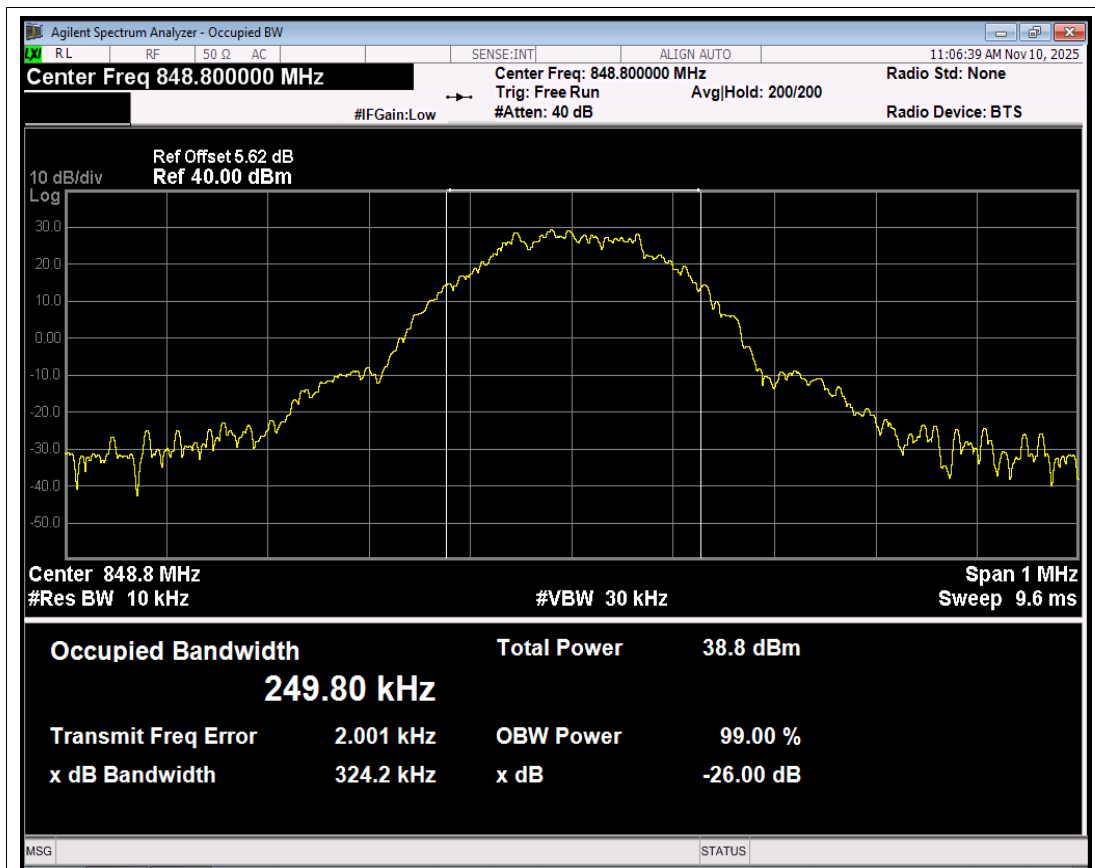
| <i>Band</i> | <i>Channel</i> | <i>Frequency (MHz)</i> | <i>99% OBW (kHz)</i> | <i>-26dB EBW (kHz)</i> | <i>Verdict</i> |
|-------------|----------------|------------------------|----------------------|------------------------|----------------|
| GPRS850     | 128            | 824.2                  | 244.389              | 324.144                | PASS           |
| GPRS850     | 190            | 836.6                  | 243.095              | 302.900                | PASS           |
| GPRS850     | 251            | 848.8                  | 249.796              | 324.210                | PASS           |
| GPRS1900    | 512            | 1850.2                 | 248.298              | 325.597                | PASS           |
| GPRS1900    | 661            | 1880                   | 247.348              | 315.835                | PASS           |
| GPRS1900    | 810            | 1909.8                 | 245.519              | 309.599                | PASS           |



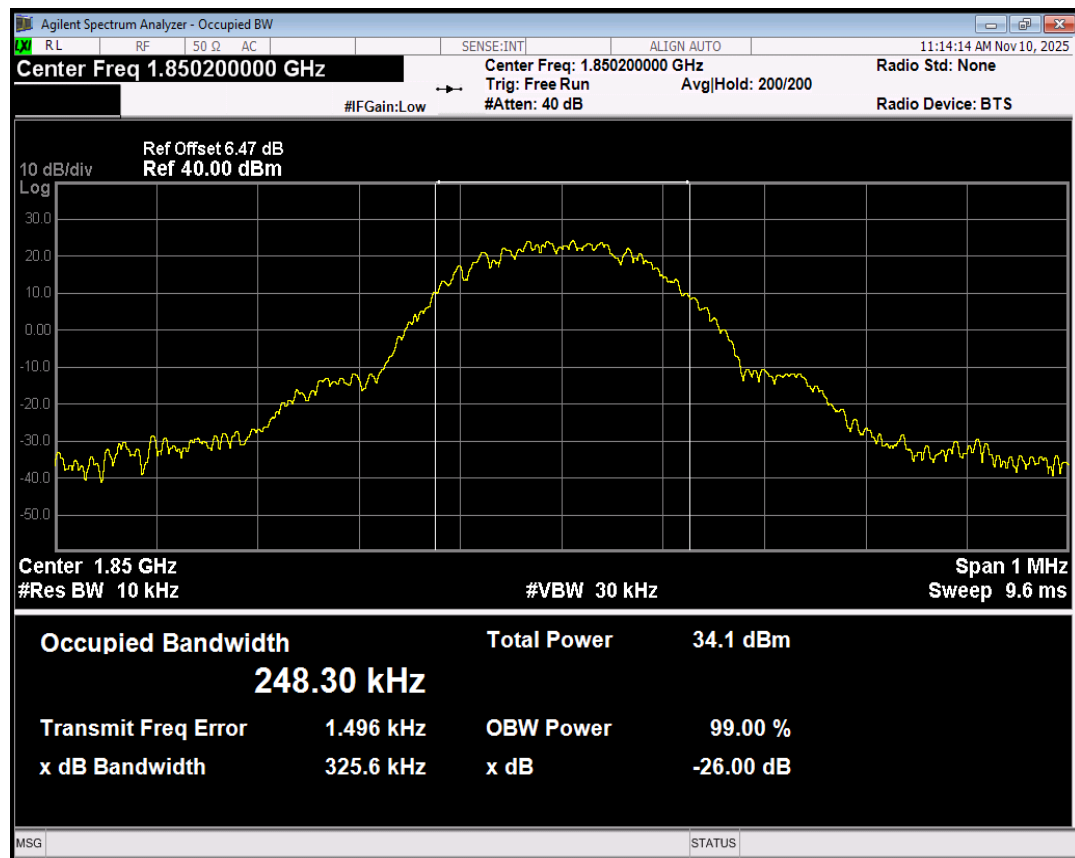
GPRS850 Channel=128



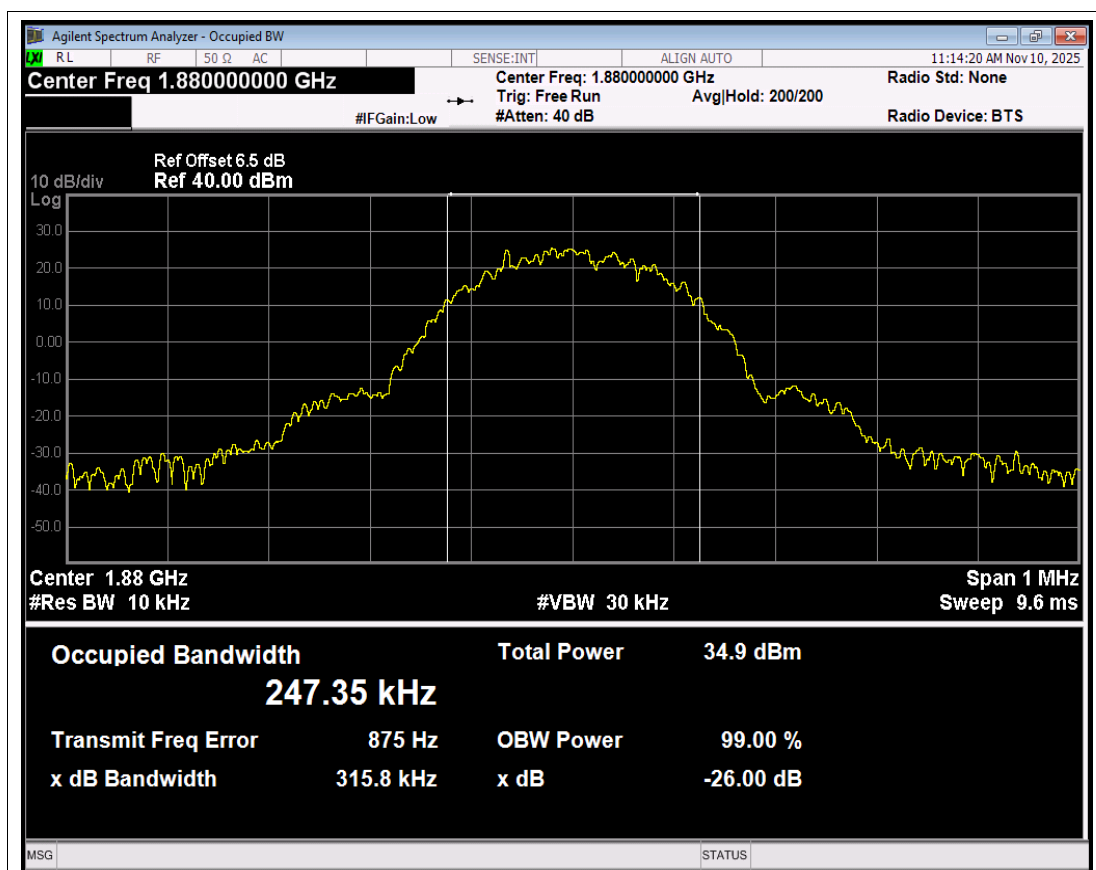
GPRS850 Channel=190



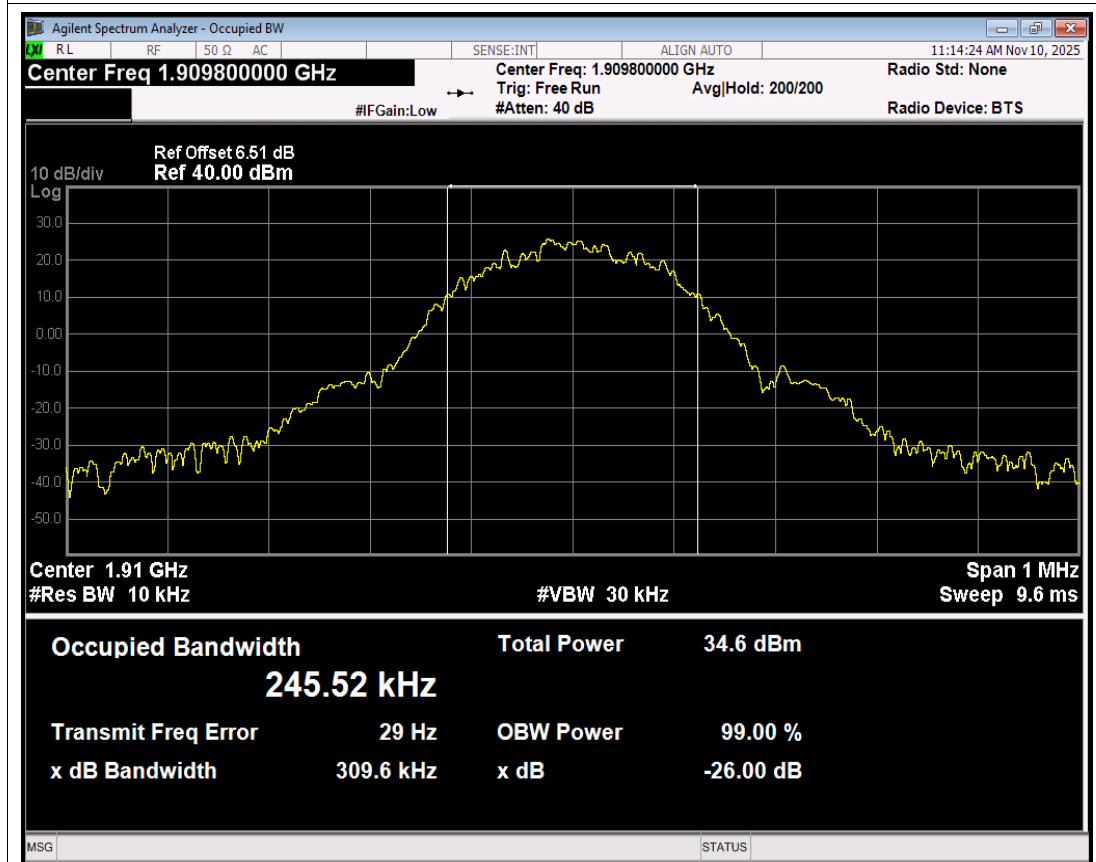
GPRS850 Channel=251



GPRS1900 Channel=512



GPRS1900 Channel=661

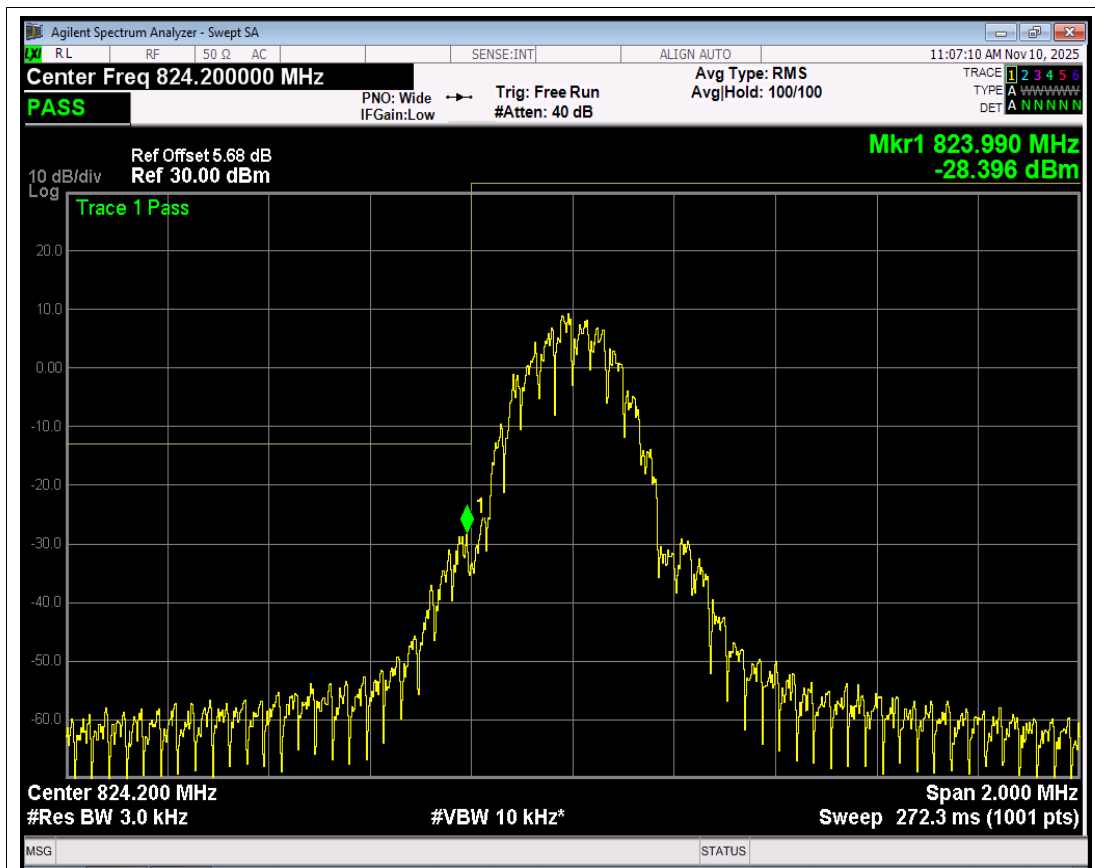


GPRS1900 Channel=810

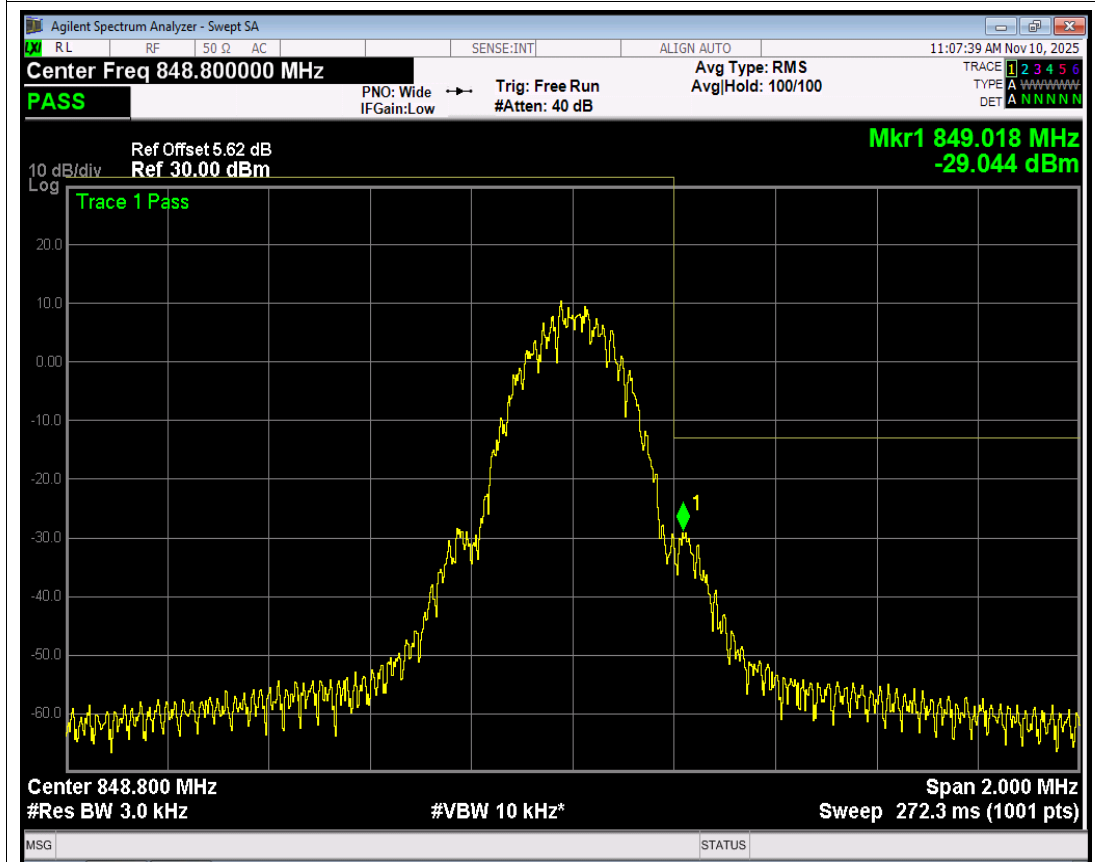


***Appendix 5.Band edge***

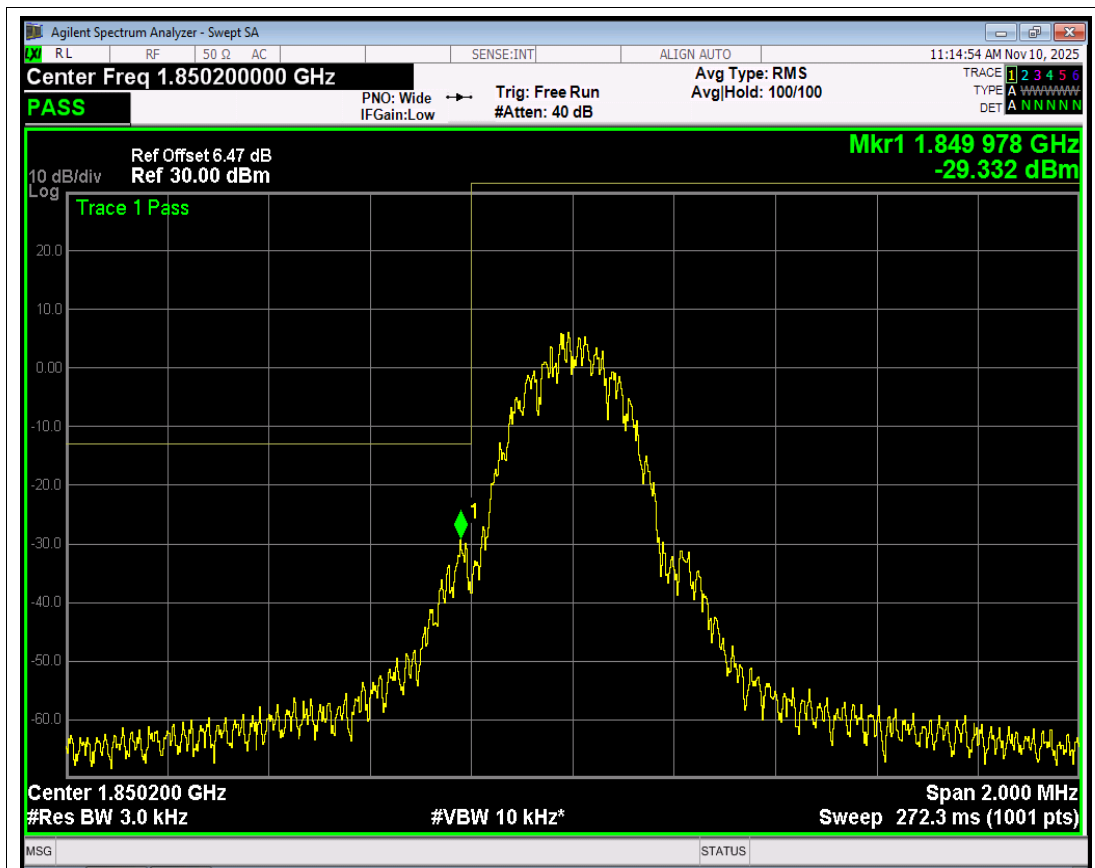
| <i>Band</i> | <i>Channel</i> | <i>Frequency (MHz)</i> | <i>Spur Freq (MHz)</i> | <i>Spur Level (dBm)</i> | <i>Limit (dBm)</i> | <i>Verdict</i> |
|-------------|----------------|------------------------|------------------------|-------------------------|--------------------|----------------|
| GPRS850     | 128            | 824.2                  | 823.99                 | -28.39                  | -13                | PASS           |
| GPRS850     | 251            | 848.8                  | 849.02                 | -29.04                  | -13                | PASS           |
| GPRS1900    | 512            | 1850.2                 | 1849.98                | -29.33                  | -13                | PASS           |
| GPRS1900    | 810            | 1909.8                 | 1910.00                | -30.83                  | -13                | PASS           |



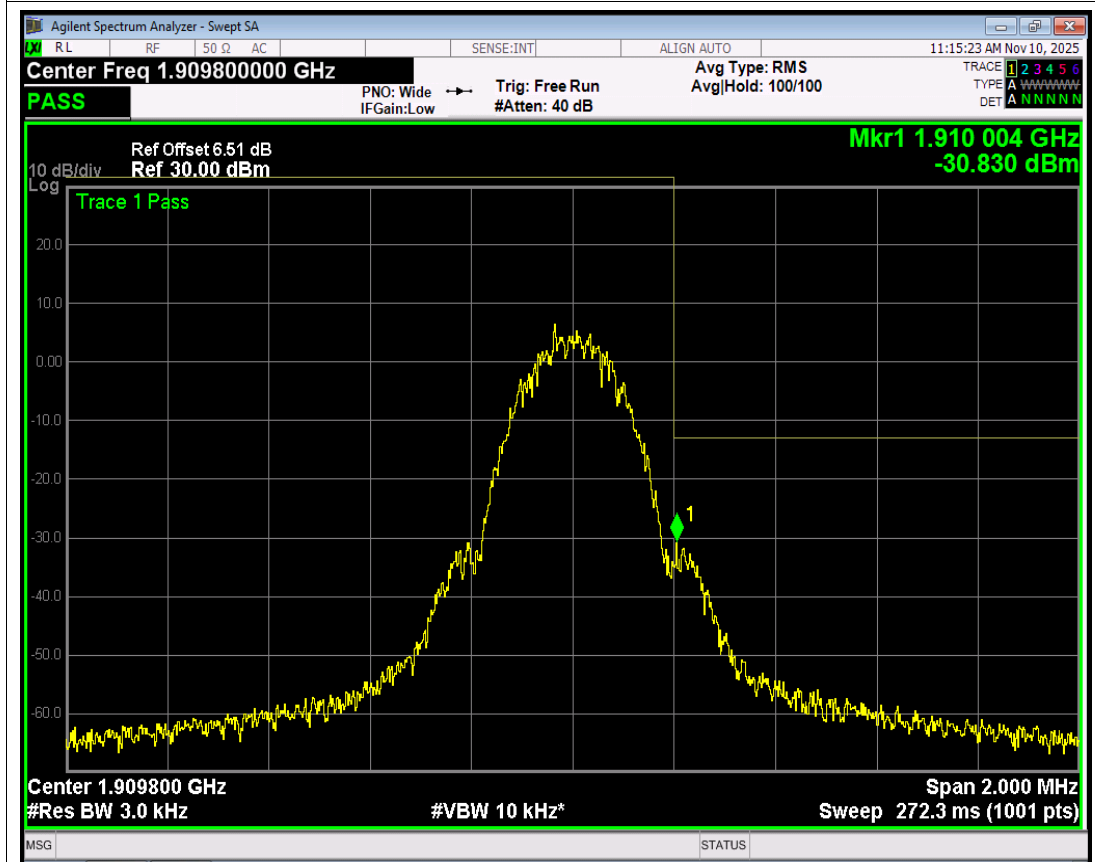
GPRS850 Channel=128



GPRS850 Channel=251



GPRS1900 Channel=512

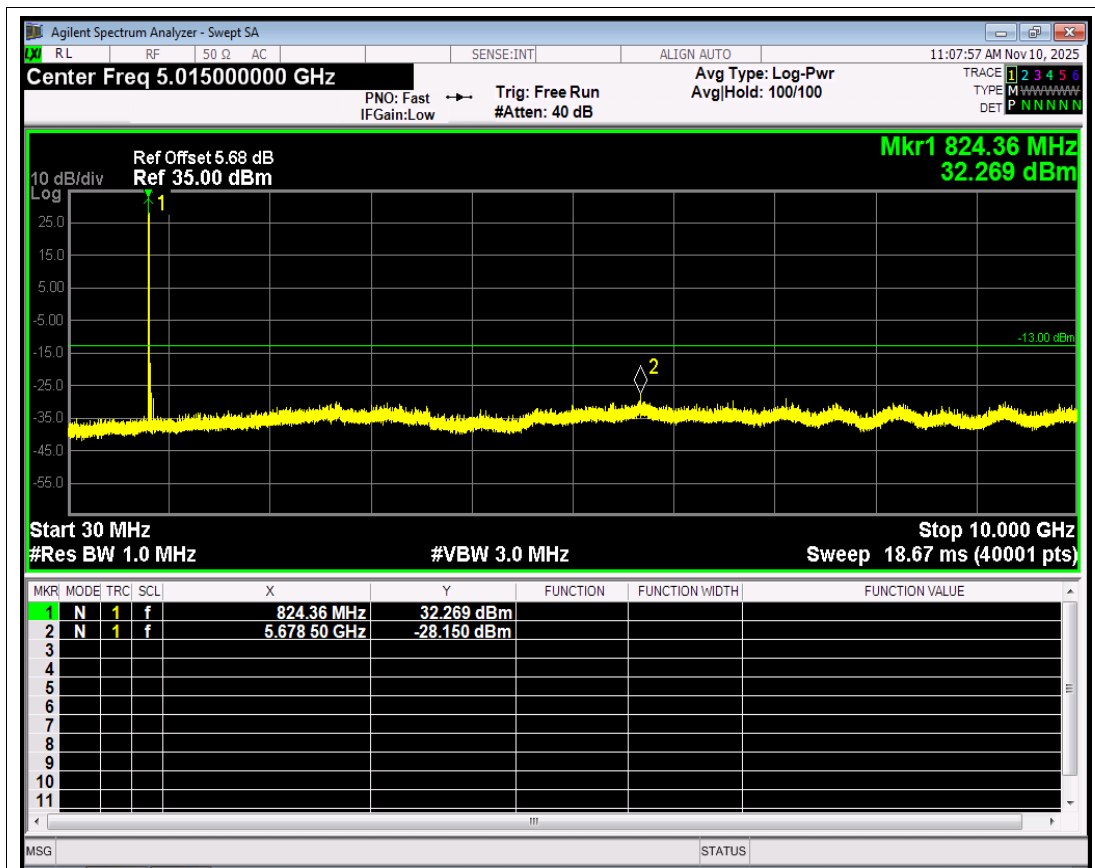


GPRS1900 Channel=810

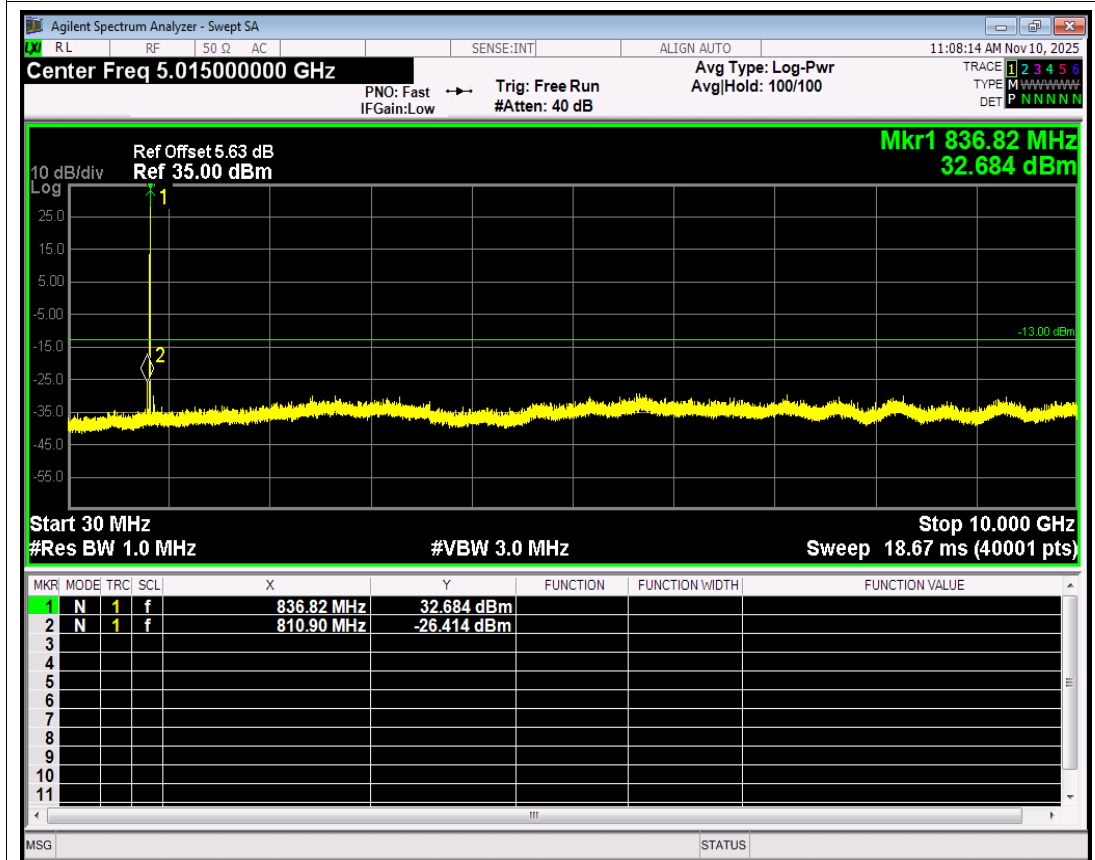


**Appendix 6.Out-of-band emissions**

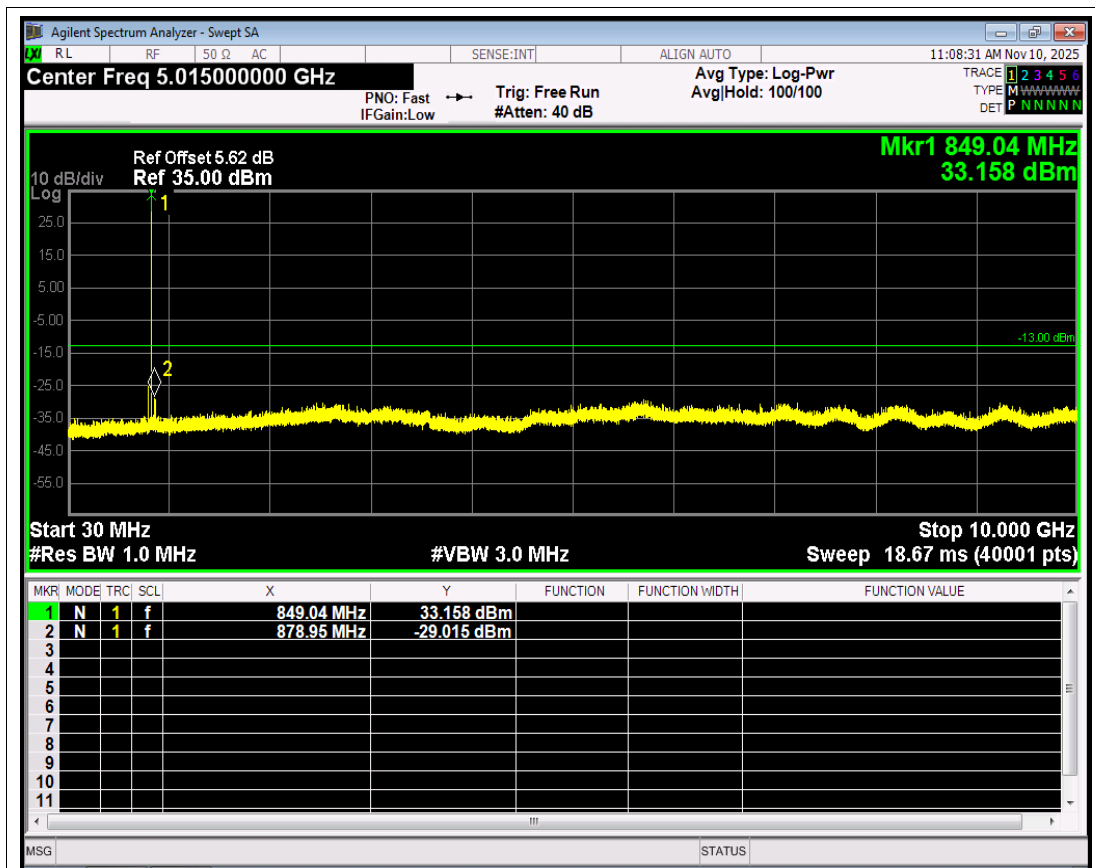
| <i>Band</i> | <i>Channel</i> | <i>Frequency (MHz)</i> | <i>Spur Freq (MHz)</i> | <i>Spur Level (dBm)</i> | <i>Limit (dBm)</i> | <i>Verdict</i> |
|-------------|----------------|------------------------|------------------------|-------------------------|--------------------|----------------|
| GPRS850     | 128            | 824.2                  | 5678.50                | -28.14                  | -13                | PASS           |
| GPRS850     | 190            | 836.6                  | 810.90                 | -26.41                  | -13                | PASS           |
| GPRS850     | 251            | 848.8                  | 878.95                 | -29.01                  | -13                | PASS           |
| GPRS1900    | 512            | 1850.2                 | 16471.30               | -23.40                  | -13                | PASS           |
| GPRS1900    | 661            | 1880                   | 19355.97               | -24.54                  | -13                | PASS           |
| GPRS1900    | 810            | 1909.8                 | 1915.67                | -18.54                  | -13                | PASS           |



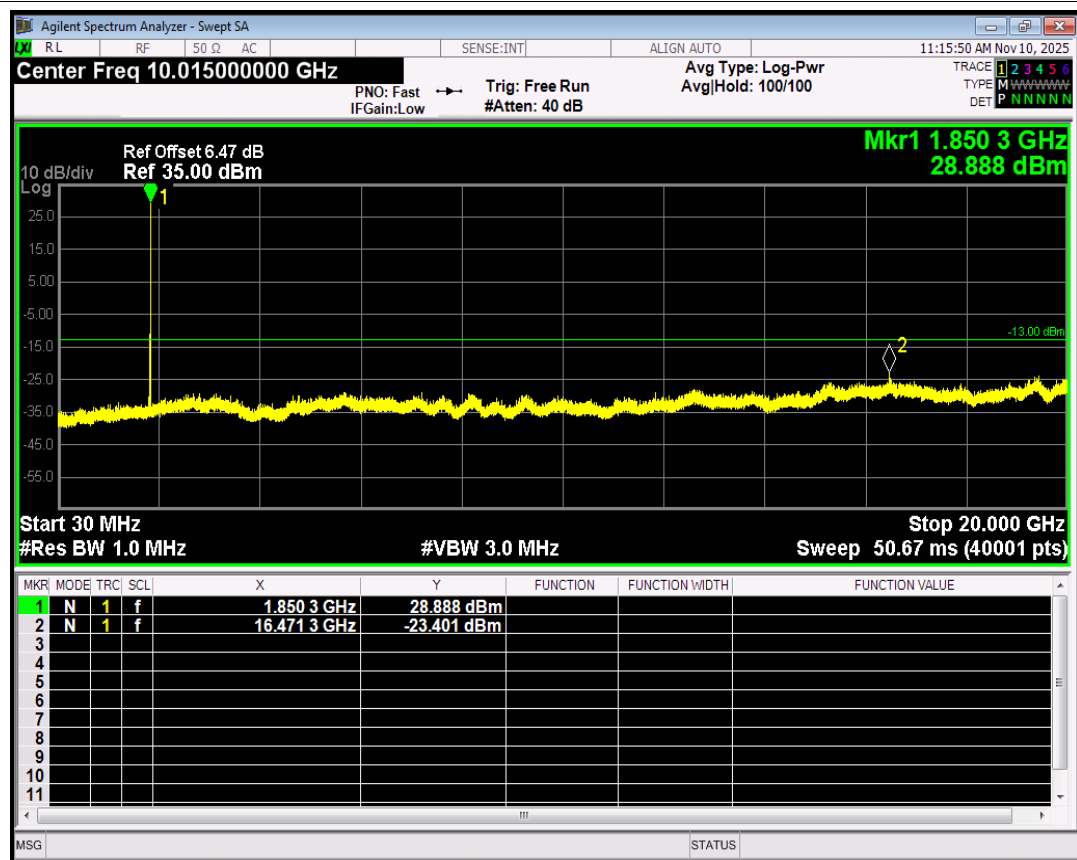
GPRS850 Channel=128



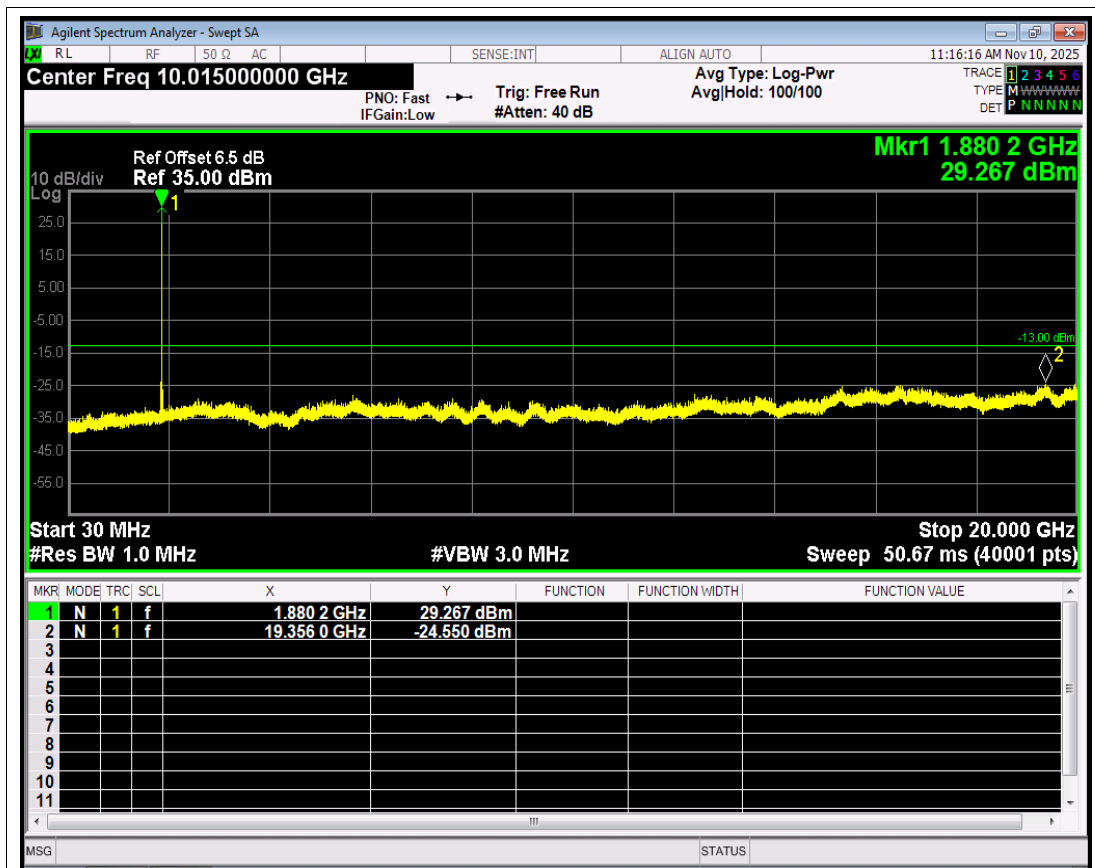
GPRS850 Channel=190



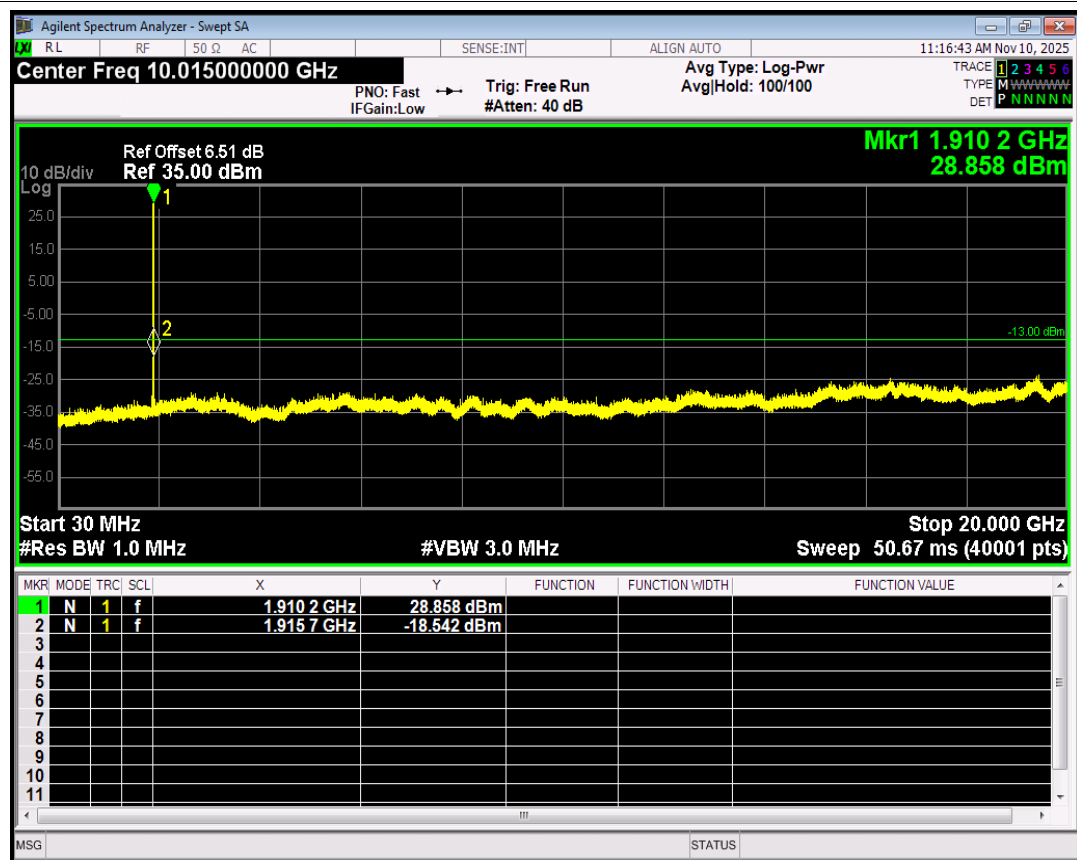
GPRS850 Channel=251



GPRS1900 Channel=512



GPRS1900 Channel=661



GPRS1900 Channel=810

