

## Appendix A: Conducted Output Power

### Test Result

| Band    | Channel | PCL | Power(dBm) | Limit(dBm) | Verdict |
|---------|---------|-----|------------|------------|---------|
| GSM850  | 128     | 5   | 30.93      | 38.5       | PASS    |
| GSM850  | 190     | 5   | 30.93      | 38.5       | PASS    |
| GSM850  | 251     | 5   | 30.83      | 38.5       | PASS    |
| GSM1900 | 512     | 0   | 29.64      | 33         | PASS    |
| GSM1900 | 661     | 0   | 29.70      | 33         | PASS    |
| GSM1900 | 810     | 0   | 29.74      | 33         | PASS    |

| Band     | Channel | PCL | Slot | Power(dBm) | Limit(dBm) | Verdict |
|----------|---------|-----|------|------------|------------|---------|
| GPRS850  | 128     | 3   | 1    | 30.85      | 38.5       | PASS    |
| GPRS850  | 128     | 3   | 2    | 30.11      | 38.5       | PASS    |
| GPRS850  | 128     | 3   | 3    | 28.27      | 38.5       | PASS    |
| GPRS850  | 128     | 3   | 4    | 27.04      | 38.5       | PASS    |
| GPRS850  | 190     | 3   | 1    | 30.69      | 38.5       | PASS    |
| GPRS850  | 190     | 3   | 2    | 29.87      | 38.5       | PASS    |
| GPRS850  | 190     | 3   | 3    | 28.24      | 38.5       | PASS    |
| GPRS850  | 190     | 3   | 4    | 27.08      | 38.5       | PASS    |
| GPRS850  | 251     | 3   | 1    | 30.59      | 38.5       | PASS    |
| GPRS850  | 251     | 3   | 2    | 30.01      | 38.5       | PASS    |
| GPRS850  | 251     | 3   | 3    | 28.22      | 38.5       | PASS    |
| GPRS850  | 251     | 3   | 4    | 27.08      | 38.5       | PASS    |
| GPRS1900 | 512     | 3   | 1    | 29.64      | 33         | PASS    |
| GPRS1900 | 512     | 3   | 2    | 28.87      | 33         | PASS    |
| GPRS1900 | 512     | 3   | 3    | 27.16      | 33         | PASS    |
| GPRS1900 | 512     | 3   | 4    | 25.99      | 33         | PASS    |
| GPRS1900 | 661     | 3   | 1    | 29.61      | 33         | PASS    |
| GPRS1900 | 661     | 3   | 2    | 28.86      | 33         | PASS    |
| GPRS1900 | 661     | 3   | 3    | 27.19      | 33         | PASS    |
| GPRS1900 | 661     | 3   | 4    | 26.05      | 33         | PASS    |
| GPRS1900 | 810     | 3   | 1    | 29.59      | 33         | PASS    |
| GPRS1900 | 810     | 3   | 2    | 28.86      | 33         | PASS    |
| GPRS1900 | 810     | 3   | 3    | 27.18      | 33         | PASS    |
| GPRS1900 | 810     | 3   | 4    | 26.10      | 33         | PASS    |

| Band     | Channel | PCL | Slot | Power(dBm) | Limit(dBm) | Verdict |
|----------|---------|-----|------|------------|------------|---------|
| EGPRS850 | 128     | 3   | 1    | 28.65      | 38.5       | PASS    |
| EGPRS850 | 128     | 3   | 2    | 28.15      | 38.5       | PASS    |
| EGPRS850 | 128     | 3   | 3    | 26.83      | 38.5       | PASS    |

|           |     |   |   |       |      |      |
|-----------|-----|---|---|-------|------|------|
| EGPRS850  | 128 | 3 | 4 | 25.89 | 38.5 | PASS |
| EGPRS850  | 190 | 3 | 1 | 29.07 | 38.5 | PASS |
| EGPRS850  | 190 | 3 | 2 | 28.29 | 38.5 | PASS |
| EGPRS850  | 190 | 3 | 3 | 26.83 | 38.5 | PASS |
| EGPRS850  | 190 | 3 | 4 | 25.95 | 38.5 | PASS |
| EGPRS850  | 251 | 3 | 1 | 29.14 | 38.5 | PASS |
| EGPRS850  | 251 | 3 | 2 | 28.36 | 38.5 | PASS |
| EGPRS850  | 251 | 3 | 3 | 26.84 | 38.5 | PASS |
| EGPRS850  | 251 | 3 | 4 | 25.97 | 38.5 | PASS |
| EGPRS1900 | 512 | 3 | 1 | 27.22 | 33   | PASS |
| EGPRS1900 | 512 | 3 | 2 | 26.41 | 33   | PASS |
| EGPRS1900 | 512 | 3 | 3 | 25.64 | 33   | PASS |
| EGPRS1900 | 512 | 3 | 4 | 24.74 | 33   | PASS |
| EGPRS1900 | 661 | 3 | 1 | 27.43 | 33   | PASS |
| EGPRS1900 | 661 | 3 | 2 | 26.90 | 33   | PASS |
| EGPRS1900 | 661 | 3 | 3 | 25.14 | 33   | PASS |
| EGPRS1900 | 661 | 3 | 4 | 24.05 | 33   | PASS |
| EGPRS1900 | 810 | 3 | 1 | 27.09 | 33   | PASS |
| EGPRS1900 | 810 | 3 | 2 | 26.15 | 33   | PASS |
| EGPRS1900 | 810 | 3 | 3 | 25.37 | 33   | PASS |
| EGPRS1900 | 810 | 3 | 4 | 24.29 | 33   | PASS |

## Appendix B: Peak-to-Average Ratio

### Test Result

| Band      | Channel | Peak-to-Average Ratio(dB) | Limit(dBm) | Verdict |
|-----------|---------|---------------------------|------------|---------|
| GSM850    | 128     | 2.65                      | 13         | PASS    |
| GSM850    | 190     | 2.65                      | 13         | PASS    |
| GSM850    | 251     | 2.65                      | 13         | PASS    |
| GPRS850   | 128     | 2.65                      | 13         | PASS    |
| GPRS850   | 190     | 2.65                      | 13         | PASS    |
| GPRS850   | 251     | 2.65                      | 13         | PASS    |
| EGPRS850  | 128     | 5.07                      | 13         | PASS    |
| EGPRS850  | 190     | 5.08                      | 13         | PASS    |
| EGPRS850  | 251     | 5.07                      | 13         | PASS    |
| GSM1900   | 512     | 2.73                      | 13         | PASS    |
| GSM1900   | 661     | 2.72                      | 13         | PASS    |
| GSM1900   | 810     | 2.76                      | 13         | PASS    |
| GPRS1900  | 512     | 2.71                      | 13         | PASS    |
| GPRS1900  | 661     | 2.73                      | 13         | PASS    |
| GPRS1900  | 810     | 2.76                      | 13         | PASS    |
| EGPRS1900 | 512     | 5.17                      | 13         | PASS    |
| EGPRS1900 | 661     | 5.27                      | 13         | PASS    |
| EGPRS1900 | 810     | 5.34                      | 13         | PASS    |

# Test Graphs

GSM850\_128



GSM850\_190



GSM850\_251



GPRS850\_128



GPRS850\_190



GPRS850\_251



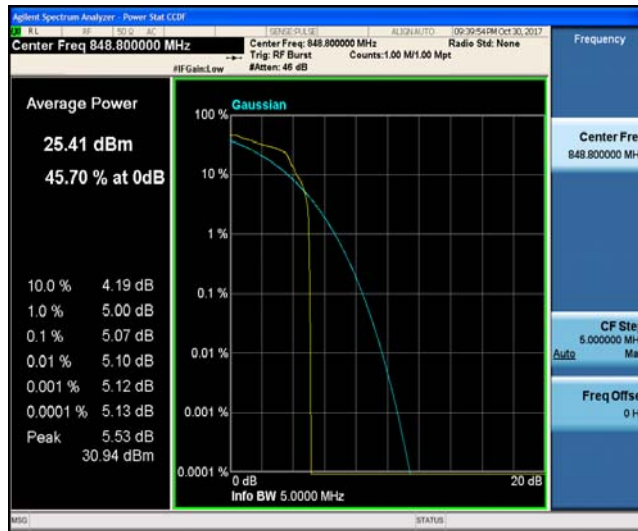
EGPRS850\_128



EGPRS850\_190



EGPRS850\_251



GSM1900\_512



GSM1900\_661



GSM1900\_810



GPRS1900\_512



GPRS1900\_661



GPRS1900\_810

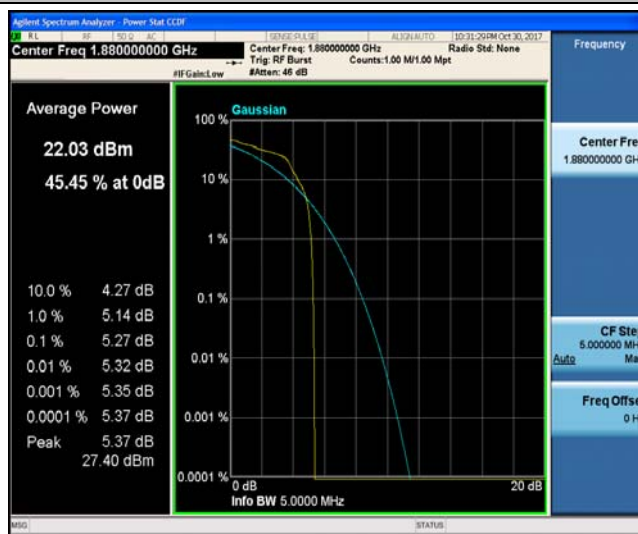




EGPRS1900\_512



EGPRS1900\_661



EGPRS1900\_810



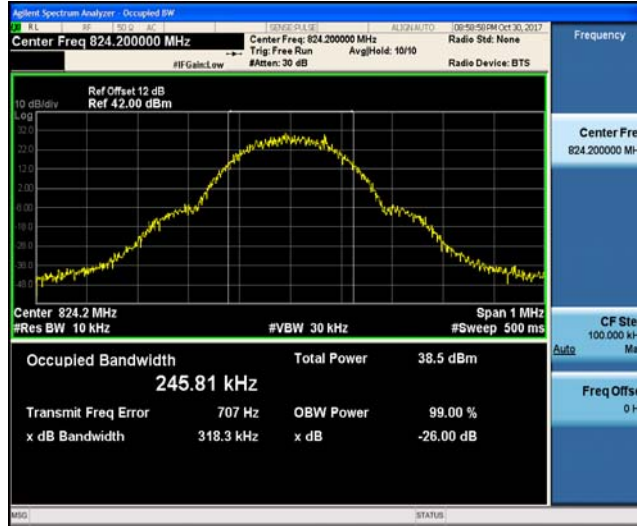
## Appendix C: 26dB Bandwidth and Occupied Bandwidth

### Test Result

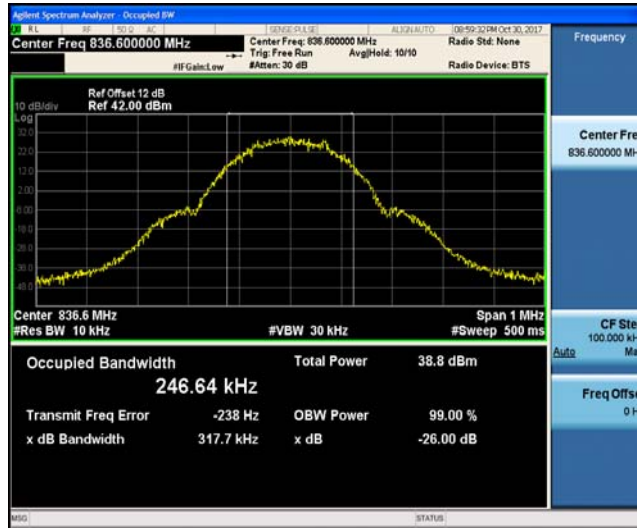
| Band      | Channel | Occupied Bandwidth<br>(kHz) | 26dB Bandwidth<br>(kHz) | Limit(kHz) | Verdict |
|-----------|---------|-----------------------------|-------------------------|------------|---------|
| GSM850    | 128     | 245.8                       | 318                     | ---        | PASS    |
| GSM850    | 190     | 246.6                       | 318                     | ---        | PASS    |
| GSM850    | 251     | 244.8                       | 311                     | ---        | PASS    |
| GPRS850   | 128     | 244.0                       | 315                     | ---        | PASS    |
| GPRS850   | 190     | 244.4                       | 321                     | ---        | PASS    |
| GPRS850   | 251     | 244.6                       | 311                     | ---        | PASS    |
| EGPRS850  | 128     | 257.7                       | 322                     | ---        | PASS    |
| EGPRS850  | 190     | 257.4                       | 326                     | ---        | PASS    |
| EGPRS850  | 251     | 255.9                       | 340                     | ---        | PASS    |
| GSM1900   | 512     | 246.9                       | 317                     | ---        | PASS    |
| GSM1900   | 661     | 245.7                       | 312                     | ---        | PASS    |
| GSM1900   | 810     | 247.3                       | 315                     | ---        | PASS    |
| GPRS1900  | 512     | 244.3                       | 316                     | ---        | PASS    |
| GPRS1900  | 661     | 246.4                       | 319                     | ---        | PASS    |
| GPRS1900  | 810     | 245.9                       | 315                     | ---        | PASS    |
| EGPRS1900 | 512     | 254.3                       | 327                     | ---        | PASS    |
| EGPRS1900 | 661     | 253.7                       | 326                     | ---        | PASS    |
| EGPRS1900 | 810     | 255.6                       | 328                     | ---        | PASS    |

# Test Graphs

GSM850\_128



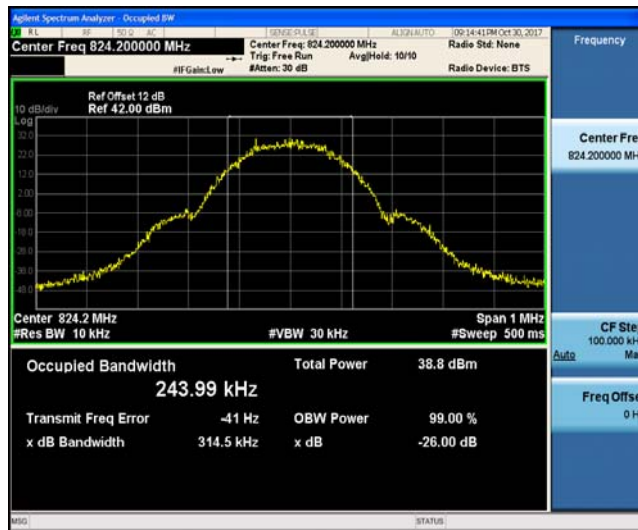
GSM850\_190



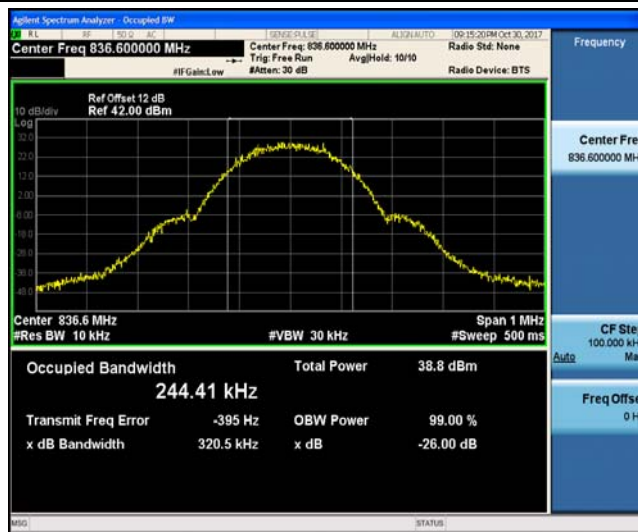
GSM850\_251



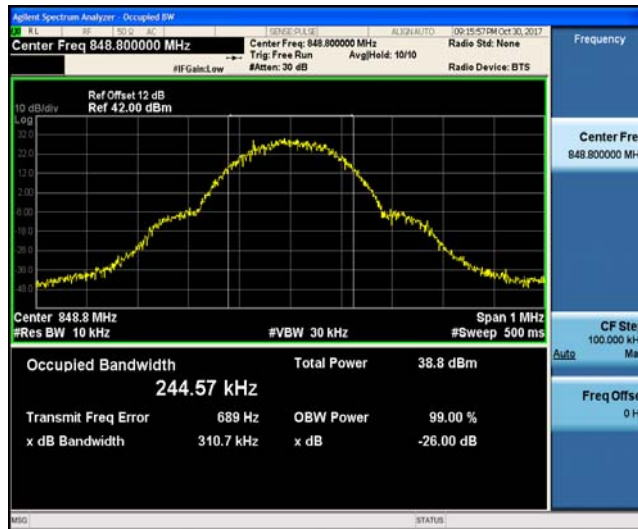
GPRS850\_128



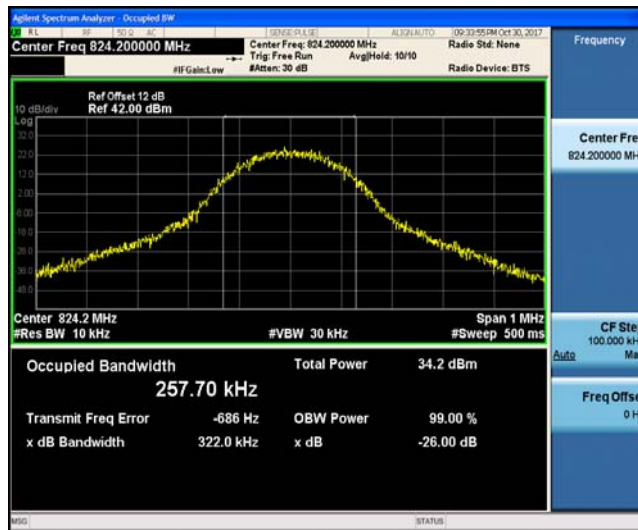
GPRS850\_190



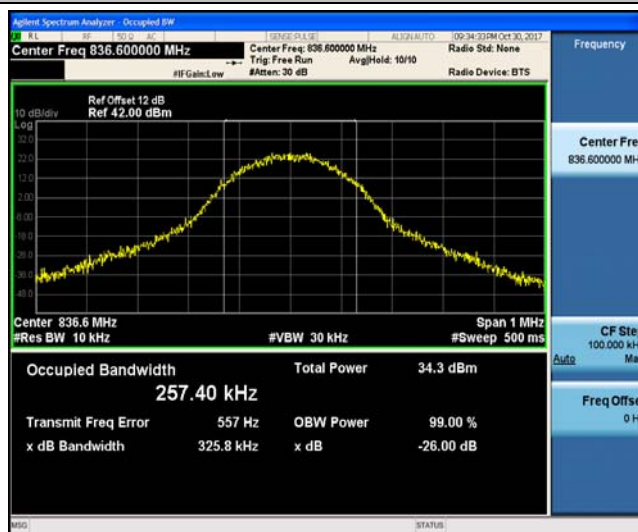
GPRS850\_251



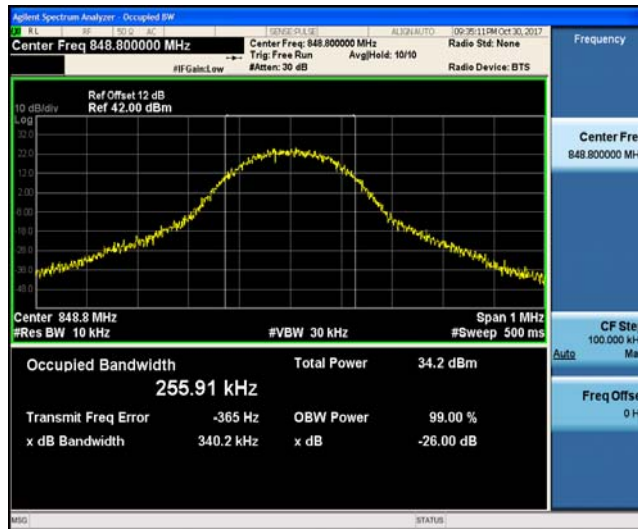
EGPRS850\_128



EGPRS850\_190



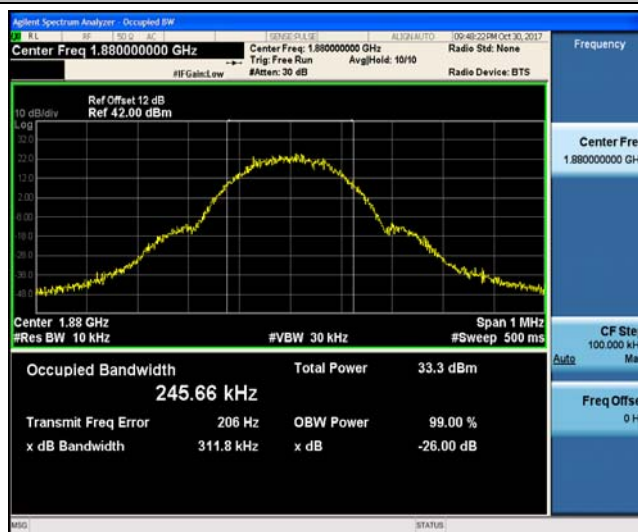
EGPRS850\_251



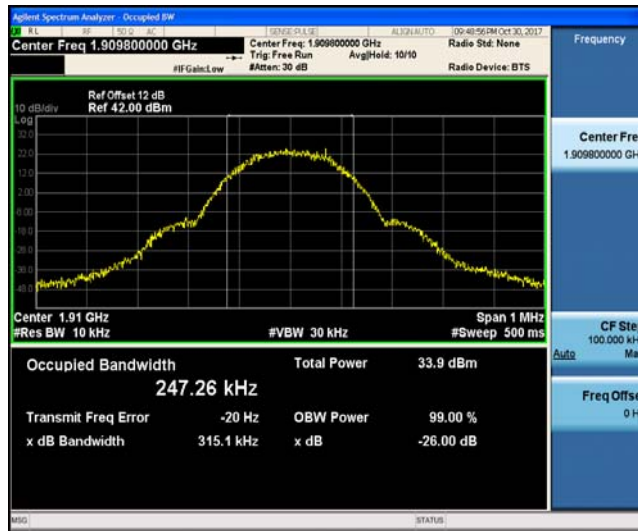
GSM1900\_512



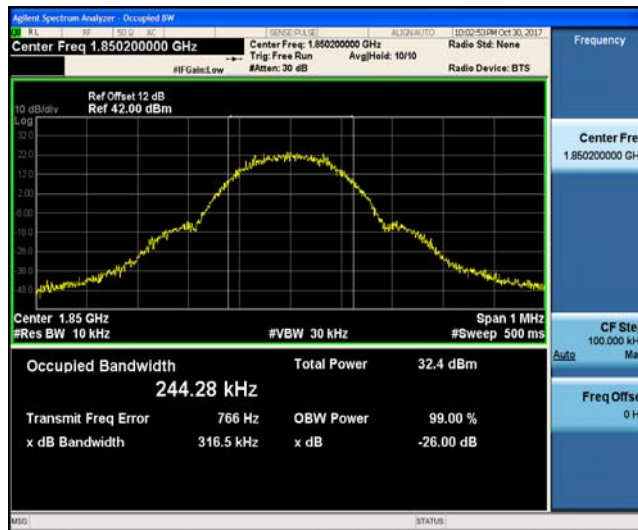
GSM1900\_661



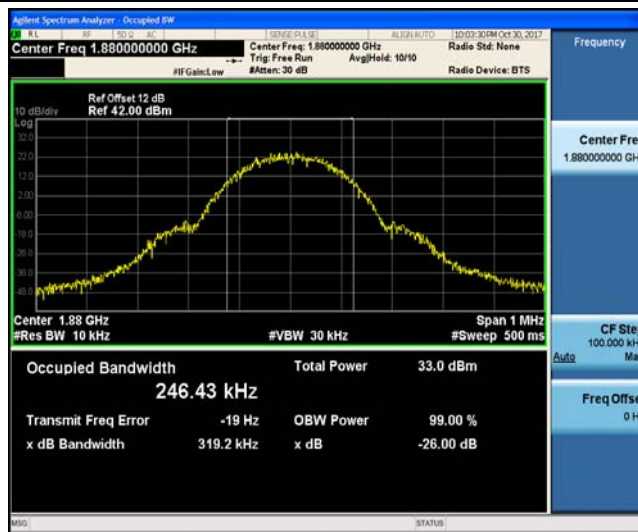
GSM1900\_810



GPRS1900\_512

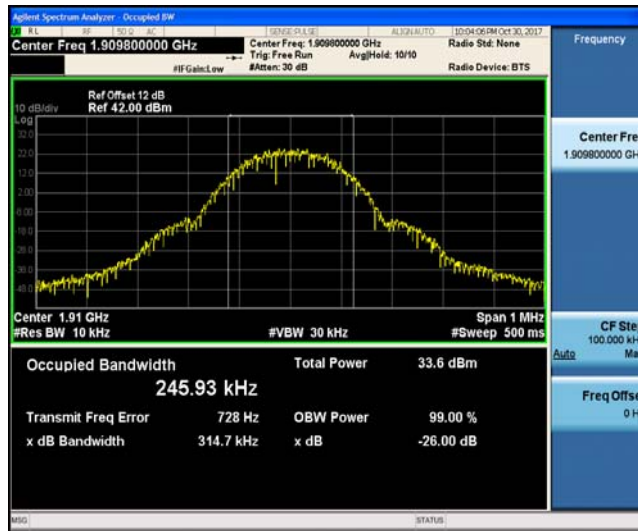


GPRS1900\_661

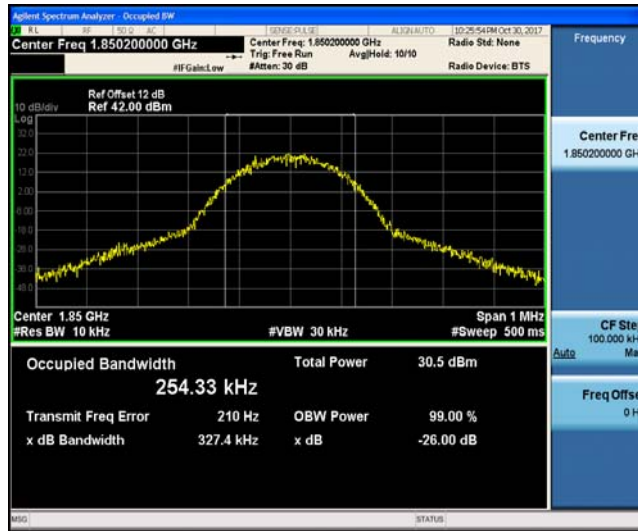


GPRS1900\_810

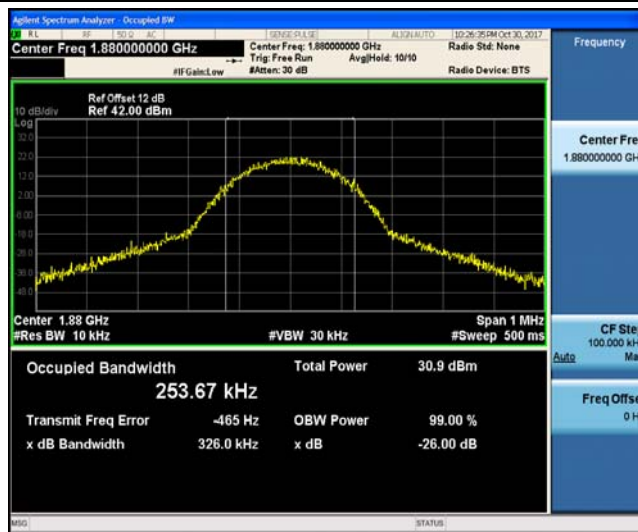




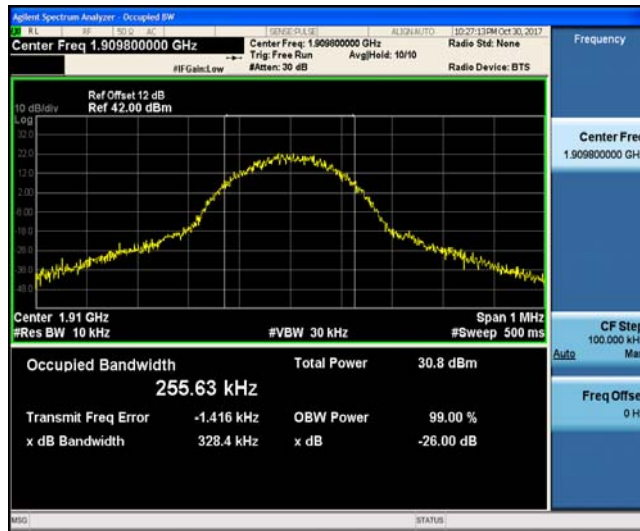
EGPRS1900\_512



EGPRS1900\_661



EGPRS1900\_810



## Appendix D: Band Edge

### Test Result

| Band      | Channel | Value(dBm) | Limit(dBm) | Verdict |
|-----------|---------|------------|------------|---------|
| GSM850    | 128     | -18.28     | -13        | PASS    |
| GSM850    | 251     | -16.55     | -13        | PASS    |
| GPRS850   | 128     | -18.50     | -13        | PASS    |
| GPRS850   | 251     | -17.89     | -13        | PASS    |
| EGPRS850  | 128     | -22.61     | -13        | PASS    |
| EGPRS850  | 251     | -23.26     | -13        | PASS    |
| GSM1900   | 512     | -24.68     | -13        | PASS    |
| GSM1900   | 810     | -22.64     | -13        | PASS    |
| GPRS1900  | 512     | -24.34     | -13        | PASS    |
| GPRS1900  | 810     | -22.83     | -13        | PASS    |
| EGPRS1900 | 512     | -29.40     | -13        | PASS    |
| EGPRS1900 | 810     | -28.60     | -13        | PASS    |

# Test Graphs

## GSM850\_128



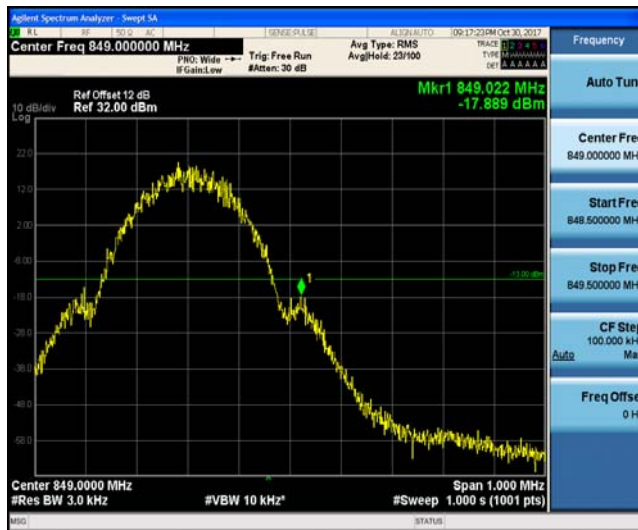
## GSM850\_251



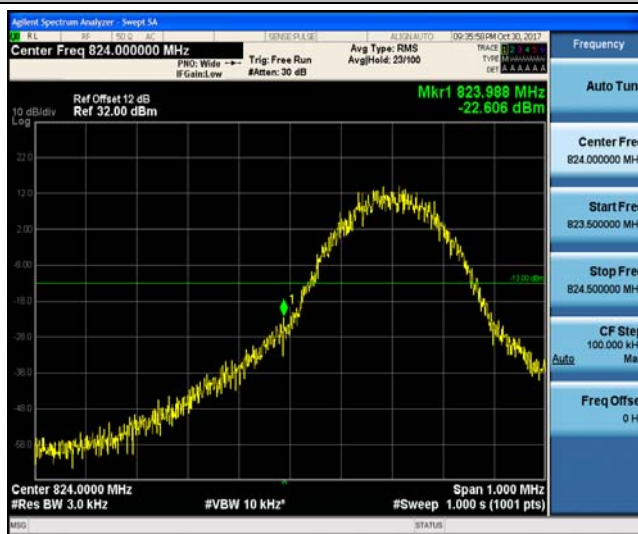
## GPRS850\_128



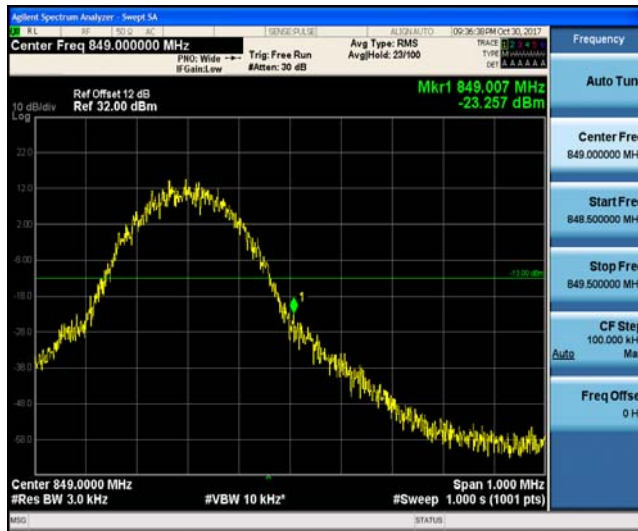
GPRS850\_251



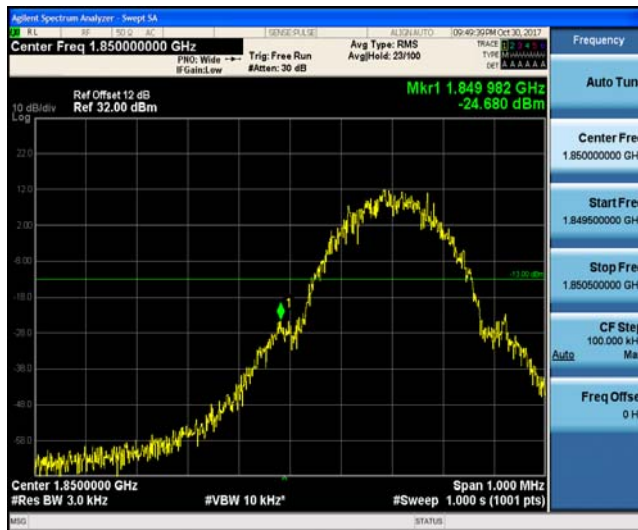
EGPRS850\_128



EGPRS850\_251



GSM1900\_512



GSM1900\_810



GPRS1900\_512



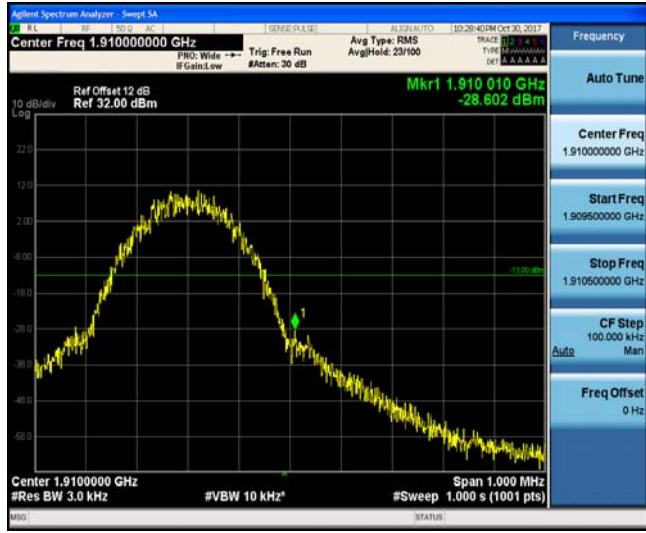
GPRS1900\_810



EGPRS1900\_512



EGPRS1900\_810





## Appendix E: Conducted Spurious Emission

### Test Result

| Band      | Channel | Frequency Rang(Mhz) | Value(dBm) | Limit(dBm) | Verdict |
|-----------|---------|---------------------|------------|------------|---------|
| GSM850    | 128     | 30~1000             | -38.02     | -13        | PASS    |
| GSM850    | 128     | 1000~10000          | -24.97     | -13        | PASS    |
| GSM850    | 190     | 30~1000             | -37.61     | -13        | PASS    |
| GSM850    | 190     | 1000~10000          | -25.16     | -13        | PASS    |
| GSM850    | 251     | 30~1000             | -37.94     | -13        | PASS    |
| GSM850    | 251     | 1000~10000          | -24.68     | -13        | PASS    |
| GPRS850   | 128     | 30~1000             | -38.23     | -13        | PASS    |
| GPRS850   | 128     | 1000~10000          | -25.61     | -13        | PASS    |
| GPRS850   | 190     | 30~1000             | -37.62     | -13        | PASS    |
| GPRS850   | 190     | 1000~10000          | -24.54     | -13        | PASS    |
| GPRS850   | 251     | 30~1000             | -36.61     | -13        | PASS    |
| GPRS850   | 251     | 1000~10000          | -25.72     | -13        | PASS    |
| EGPRS850  | 128     | 30~1000             | -37.28     | -13        | PASS    |
| EGPRS850  | 128     | 1000~10000          | -24.92     | -13        | PASS    |
| EGPRS850  | 190     | 30~1000             | -37.96     | -13        | PASS    |
| EGPRS850  | 190     | 1000~10000          | -25.20     | -13        | PASS    |
| EGPRS850  | 251     | 30~1000             | -36.66     | -13        | PASS    |
| EGPRS850  | 251     | 1000~10000          | -25.17     | -13        | PASS    |
| GSM1900   | 512     | 30~1000             | -37.23     | -13        | PASS    |
| GSM1900   | 512     | 1000~20000          | -18.83     | -13        | PASS    |
| GSM1900   | 661     | 30~1000             | -37.75     | -13        | PASS    |
| GSM1900   | 661     | 1000~20000          | -19.03     | -13        | PASS    |
| GSM1900   | 810     | 30~1000             | -37.39     | -13        | PASS    |
| GSM1900   | 810     | 1000~20000          | -18.92     | -13        | PASS    |
| GPRS1900  | 512     | 30~1000             | -37.25     | -13        | PASS    |
| GPRS1900  | 512     | 1000~20000          | -18.55     | -13        | PASS    |
| GPRS1900  | 661     | 30~1000             | -37.49     | -13        | PASS    |
| GPRS1900  | 661     | 1000~20000          | -17.98     | -13        | PASS    |
| GPRS1900  | 810     | 30~1000             | -37.42     | -13        | PASS    |
| GPRS1900  | 810     | 1000~20000          | -18.50     | -13        | PASS    |
| EGPRS1900 | 512     | 30~1000             | -37.38     | -13        | PASS    |
| EGPRS1900 | 512     | 1000~20000          | -19.23     | -13        | PASS    |
| EGPRS1900 | 661     | 30~1000             | -37.77     | -13        | PASS    |
| EGPRS1900 | 661     | 1000~20000          | -19.44     | -13        | PASS    |
| EGPRS1900 | 810     | 30~1000             | -37.93     | -13        | PASS    |
| EGPRS1900 | 810     | 1000~20000          | -18.47     | -13        | PASS    |



# Test Graphs

GSM850\_128



GSM850\_128



GSM850\_190



GSM850\_190



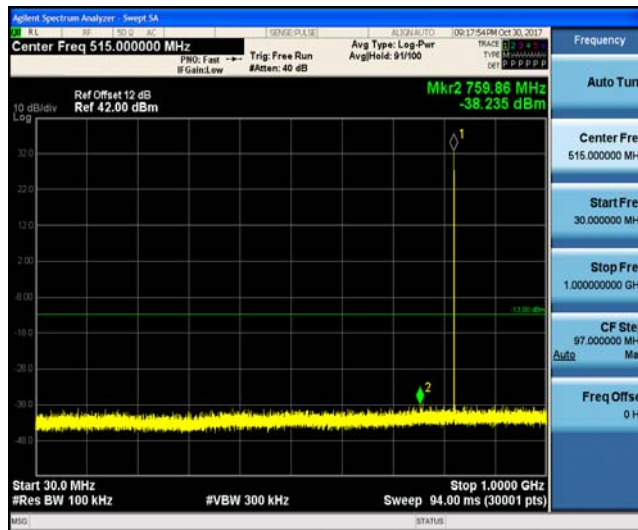
GSM850\_251



GSM850\_251



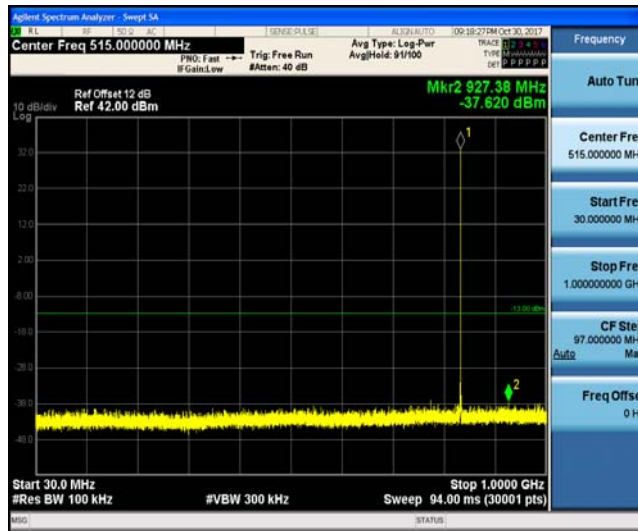
GPRS850\_128



GPRS850\_128



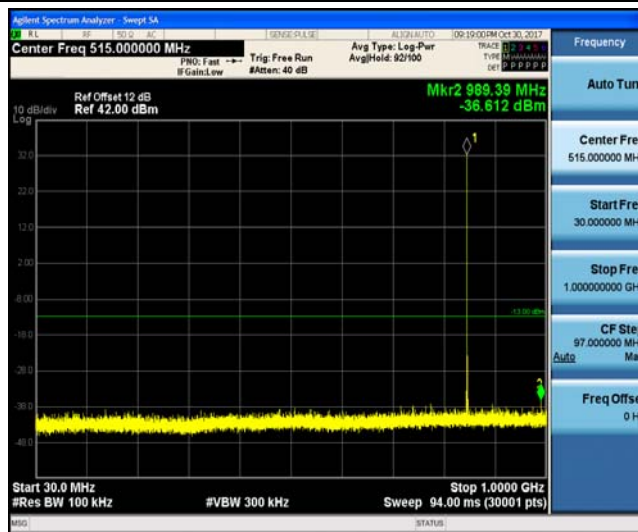
GPRS850\_190



GPRS850\_190



GPRS850\_251



GPRS850\_251



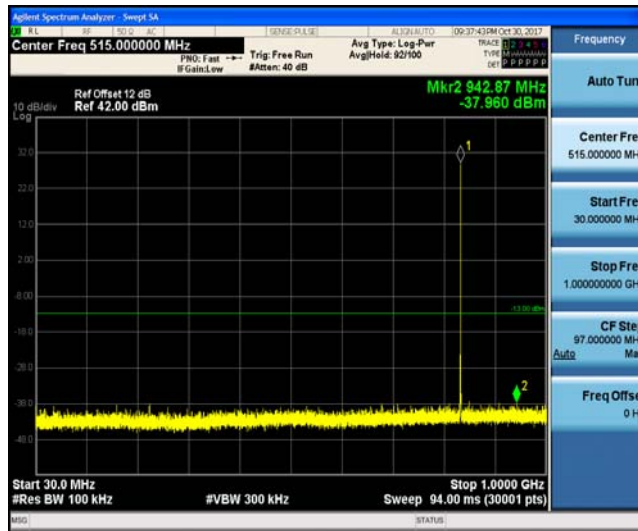
EGPRS850\_128



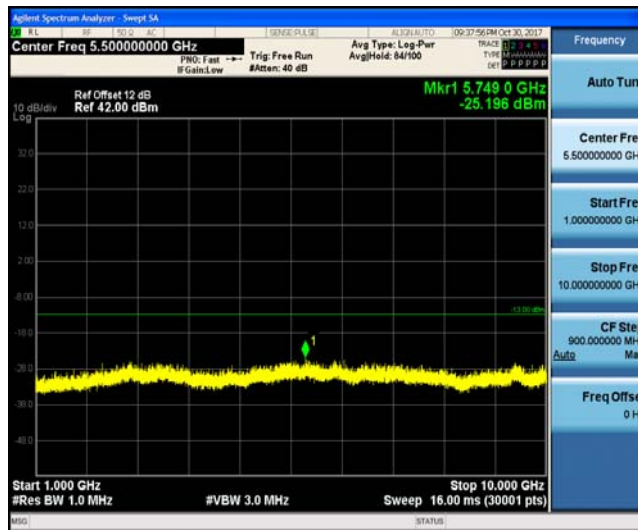
EGPRS850\_128



EGPRS850\_190



EGPRS850\_190



EGPRS850\_251



EGPRS850\_251





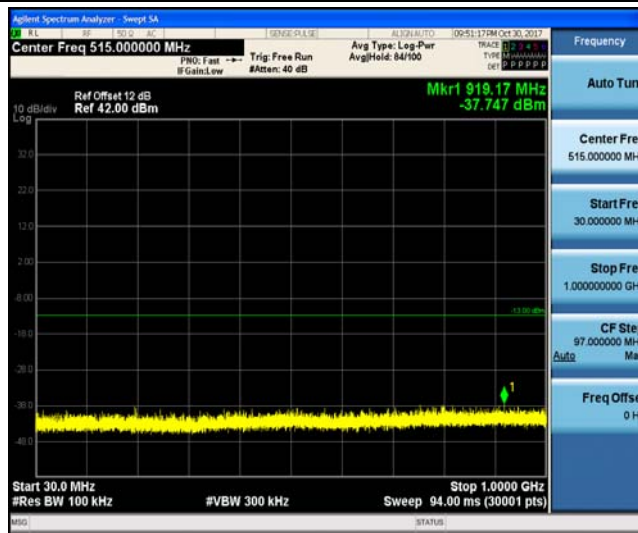
GSM1900\_512



GSM1900\_512



GSM1900\_661



GSM1900\_661



GSM1900\_810



GSM1900\_810



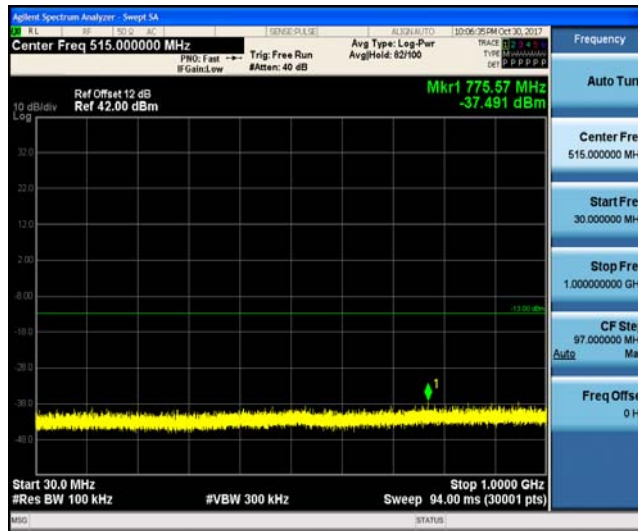
GPMS1900\_512



GPMS1900\_512



GPMS1900\_661



GPRS1900\_661



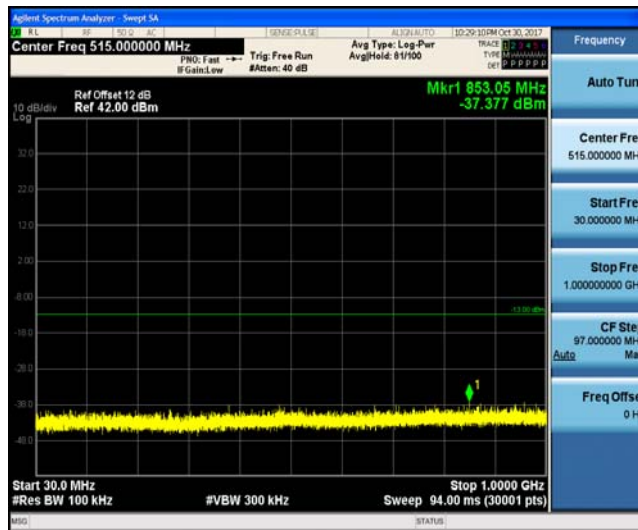
GPRS1900\_810



GPRS1900\_810



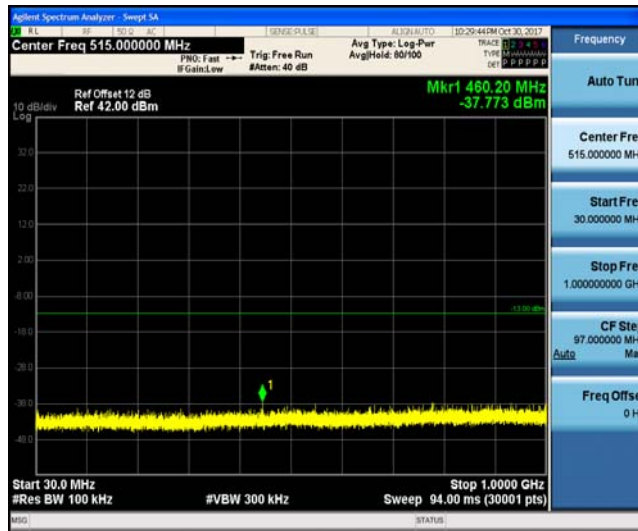
EGPRS1900\_512



EGPRS1900\_512



EGPRS1900\_661



EGPRS1900\_661



EGPRS1900\_810



EGPRS1900\_810



## Appendix F: Frequency Stability

### Test Result

| Voltage  |         |               |                  |                |                 |             |         |
|----------|---------|---------------|------------------|----------------|-----------------|-------------|---------|
| Band     | Channel | Voltage (Vdc) | Temperature (°C) | Deviation (Hz) | Deviation (ppm) | Limit (ppm) | Verdict |
| GSM850   | 128     | VL            | NT               | 14.40          | 0.017471        | 2.5         | PASS    |
| GSM850   | 128     | VN            | NT               | 16.59          | 0.020129        | 2.5         | PASS    |
| GSM850   | 128     | VH            | NT               | 14.53          | 0.017629        | 2.5         | PASS    |
| GSM850   | 190     | VL            | NT               | 18.60          | 0.022233        | 2.5         | PASS    |
| GSM850   | 190     | VN            | NT               | 17.31          | 0.020691        | 2.5         | PASS    |
| GSM850   | 190     | VH            | NT               | 18.73          | 0.022388        | 2.5         | PASS    |
| GSM850   | 251     | VL            | NT               | 19.76          | 0.023280        | 2.5         | PASS    |
| GSM850   | 251     | VN            | NT               | 20.86          | 0.024576        | 2.5         | PASS    |
| GSM850   | 251     | VH            | NT               | 22.02          | 0.025943        | 2.5         | PASS    |
| GPRS850  | 128     | VL            | NT               | 4.46           | 0.005411        | 2.5         | PASS    |
| GPRS850  | 128     | VN            | NT               | 5.75           | 0.006976        | 2.5         | PASS    |
| GPRS850  | 128     | VH            | NT               | 6.78           | 0.008226        | 2.5         | PASS    |
| GPRS850  | 190     | VL            | NT               | 4.39           | 0.005247        | 2.5         | PASS    |
| GPRS850  | 190     | VN            | NT               | 9.04           | 0.010806        | 2.5         | PASS    |
| GPRS850  | 190     | VH            | NT               | 6.52           | 0.007793        | 2.5         | PASS    |
| GPRS850  | 251     | VL            | NT               | 6.59           | 0.007764        | 2.5         | PASS    |
| GPRS850  | 251     | VN            | NT               | 9.69           | 0.011416        | 2.5         | PASS    |
| GPRS850  | 251     | VH            | NT               | 5.75           | 0.006774        | 2.5         | PASS    |
| EGPRS850 | 128     | VL            | NT               | 9.17           | 0.011126        | 2.5         | PASS    |
| EGPRS850 | 128     | VN            | NT               | 6.81           | 0.008263        | 2.5         | PASS    |
| EGPRS850 | 128     | VH            | NT               | 9.10           | 0.011041        | 2.5         | PASS    |
| EGPRS850 | 190     | VL            | NT               | 10.69          | 0.012778        | 2.5         | PASS    |
| EGPRS850 | 190     | VN            | NT               | 11.27          | 0.013471        | 2.5         | PASS    |
| EGPRS850 | 190     | VH            | NT               | 12.46          | 0.014894        | 2.5         | PASS    |
| EGPRS850 | 251     | VL            | NT               | 11.04          | 0.013007        | 2.5         | PASS    |
| EGPRS850 | 251     | VN            | NT               | 11.20          | 0.013195        | 2.5         | PASS    |
| EGPRS850 | 251     | VH            | NT               | 9.72           | 0.011451        | 2.5         | PASS    |
| GSM1900  | 512     | VL            | NT               | -28.73         | -0.015528       | 2.5         | PASS    |
| GSM1900  | 512     | VN            | NT               | -32.35         | -0.017485       | 2.5         | PASS    |
| GSM1900  | 512     | VH            | NT               | -30.35         | -0.016404       | 2.5         | PASS    |
| GSM1900  | 661     | VL            | NT               | -31.64         | -0.016830       | 2.5         | PASS    |
| GSM1900  | 661     | VN            | NT               | -31.32         | -0.016660       | 2.5         | PASS    |
| GSM1900  | 661     | VH            | NT               | -33.96         | -0.018064       | 2.5         | PASS    |
| GSM1900  | 810     | VL            | NT               | -34.87         | -0.018258       | 2.5         | PASS    |
| GSM1900  | 810     | VN            | NT               | -38.48         | -0.020149       | 2.5         | PASS    |
| GSM1900  | 810     | VH            | NT               | -37.39         | -0.019578       | 2.5         | PASS    |
| GPRS1900 | 512     | VL            | NT               | -37.84         | -0.020452       | 2.5         | PASS    |
| GPRS1900 | 512     | VN            | NT               | -51.79         | -0.027992       | 2.5         | PASS    |
| GPRS1900 | 512     | VH            | NT               | -47.27         | -0.025549       | 2.5         | PASS    |
| GPRS1900 | 661     | VL            | NT               | -37.19         | -0.019782       | 2.5         | PASS    |
| GPRS1900 | 661     | VN            | NT               | -33.77         | -0.017963       | 2.5         | PASS    |



|           |     |    |    |        |           |     |      |
|-----------|-----|----|----|--------|-----------|-----|------|
| GPRS1900  | 661 | VH | NT | -32.87 | -0.017484 | 2.5 | PASS |
| GPRS1900  | 810 | VL | NT | -36.55 | -0.019138 | 2.5 | PASS |
| GPRS1900  | 810 | VN | NT | -35.26 | -0.018463 | 2.5 | PASS |
| GPRS1900  | 810 | VH | NT | -34.29 | -0.017955 | 2.5 | PASS |
| EGPRS1900 | 512 | VL | NT | -31.54 | -0.017047 | 2.5 | PASS |
| EGPRS1900 | 512 | VN | NT | -31.06 | -0.016787 | 2.5 | PASS |
| EGPRS1900 | 512 | VH | NT | -29.83 | -0.016123 | 2.5 | PASS |
| EGPRS1900 | 661 | VL | NT | -28.12 | -0.014957 | 2.5 | PASS |
| EGPRS1900 | 661 | VN | NT | -29.41 | -0.015644 | 2.5 | PASS |
| EGPRS1900 | 661 | VH | NT | -26.38 | -0.014032 | 2.5 | PASS |
| EGPRS1900 | 810 | VL | NT | -31.87 | -0.016688 | 2.5 | PASS |
| EGPRS1900 | 810 | VN | NT | -30.77 | -0.016112 | 2.5 | PASS |
| EGPRS1900 | 810 | VH | NT | -31.41 | -0.016447 | 2.5 | PASS |

| Temperature |         |               |                  |                |                 |             |         |
|-------------|---------|---------------|------------------|----------------|-----------------|-------------|---------|
| Band        | Channel | Voltage (Vdc) | Temperature (°C) | Deviation (Hz) | Deviation (ppm) | Limit (ppm) | Verdict |
| GSM850      | 128     | NV            | -30              | 19.57          | 0.023744        | 2.5         | PASS    |
| GSM850      | 128     | NV            | -20              | 15.24          | 0.018491        | 2.5         | PASS    |
| GSM850      | 128     | NV            | -10              | 16.59          | 0.020129        | 2.5         | PASS    |
| GSM850      | 128     | NV            | 0                | 14.72          | 0.017860        | 2.5         | PASS    |
| GSM850      | 128     | NV            | 10               | 17.50          | 0.021233        | 2.5         | PASS    |
| GSM850      | 128     | NV            | 20               | 20.73          | 0.025152        | 2.5         | PASS    |
| GSM850      | 128     | NV            | 30               | 13.95          | 0.016926        | 2.5         | PASS    |
| GSM850      | 128     | NV            | 40               | 17.56          | 0.021306        | 2.5         | PASS    |
| GSM850      | 128     | NV            | 50               | 21.37          | 0.025928        | 2.5         | PASS    |
| GSM850      | 190     | NV            | -30              | 17.76          | 0.021229        | 2.5         | PASS    |
| GSM850      | 190     | NV            | -20              | 19.50          | 0.023309        | 2.5         | PASS    |
| GSM850      | 190     | NV            | -10              | 17.95          | 0.021456        | 2.5         | PASS    |
| GSM850      | 190     | NV            | 0                | 20.08          | 0.024002        | 2.5         | PASS    |
| GSM850      | 190     | NV            | 10               | 19.18          | 0.022926        | 2.5         | PASS    |
| GSM850      | 190     | NV            | 20               | 16.40          | 0.019603        | 2.5         | PASS    |
| GSM850      | 190     | NV            | 30               | 19.18          | 0.022926        | 2.5         | PASS    |
| GSM850      | 190     | NV            | 40               | 19.50          | 0.023309        | 2.5         | PASS    |
| GSM850      | 190     | NV            | 50               | 17.37          | 0.020763        | 2.5         | PASS    |
| GSM850      | 251     | NV            | -30              | 20.47          | 0.024116        | 2.5         | PASS    |
| GSM850      | 251     | NV            | -20              | 20.21          | 0.023810        | 2.5         | PASS    |
| GSM850      | 251     | NV            | -10              | 17.05          | 0.020087        | 2.5         | PASS    |
| GSM850      | 251     | NV            | 0                | 19.82          | 0.023351        | 2.5         | PASS    |
| GSM850      | 251     | NV            | 10               | 19.95          | 0.023504        | 2.5         | PASS    |
| GSM850      | 251     | NV            | 20               | 20.53          | 0.024187        | 2.5         | PASS    |
| GSM850      | 251     | NV            | 30               | 18.21          | 0.021454        | 2.5         | PASS    |
| GSM850      | 251     | NV            | 40               | 18.92          | 0.022290        | 2.5         | PASS    |
| GSM850      | 251     | NV            | 50               | 18.73          | 0.022066        | 2.5         | PASS    |
| GPRS850     | 128     | NV            | -30              | 7.30           | 0.008857        | 2.5         | PASS    |
| GPRS850     | 128     | NV            | -20              | 10.33          | 0.012533        | 2.5         | PASS    |
| GPRS850     | 128     | NV            | -10              | 14.01          | 0.016998        | 2.5         | PASS    |
| GPRS850     | 128     | NV            | 0                | 13.37          | 0.016222        | 2.5         | PASS    |
| GPRS850     | 128     | NV            | 10               | 14.98          | 0.018175        | 2.5         | PASS    |
| GPRS850     | 128     | NV            | 20               | 13.95          | 0.016926        | 2.5         | PASS    |

|          |     |    |     |        |           |     |      |
|----------|-----|----|-----|--------|-----------|-----|------|
| GPRS850  | 128 | NV | 30  | 11.56  | 0.014026  | 2.5 | PASS |
| GPRS850  | 128 | NV | 40  | 12.79  | 0.015518  | 2.5 | PASS |
| GPRS850  | 128 | NV | 50  | 10.59  | 0.012849  | 2.5 | PASS |
| GPRS850  | 190 | NV | -30 | 5.55   | 0.006634  | 2.5 | PASS |
| GPRS850  | 190 | NV | -20 | 5.94   | 0.007100  | 2.5 | PASS |
| GPRS850  | 190 | NV | -10 | 10.01  | 0.011965  | 2.5 | PASS |
| GPRS850  | 190 | NV | 0   | 10.01  | 0.011965  | 2.5 | PASS |
| GPRS850  | 190 | NV | 10  | 9.56   | 0.011427  | 2.5 | PASS |
| GPRS850  | 190 | NV | 20  | 8.59   | 0.010268  | 2.5 | PASS |
| GPRS850  | 190 | NV | 30  | 7.36   | 0.008798  | 2.5 | PASS |
| GPRS850  | 190 | NV | 40  | 6.59   | 0.007877  | 2.5 | PASS |
| GPRS850  | 190 | NV | 50  | 6.52   | 0.007793  | 2.5 | PASS |
| GPRS850  | 251 | NV | -30 | 8.78   | 0.010344  | 2.5 | PASS |
| GPRS850  | 251 | NV | -20 | 7.49   | 0.008824  | 2.5 | PASS |
| GPRS850  | 251 | NV | -10 | 7.30   | 0.008600  | 2.5 | PASS |
| GPRS850  | 251 | NV | 0   | 9.36   | 0.011027  | 2.5 | PASS |
| GPRS850  | 251 | NV | 10  | 7.36   | 0.008671  | 2.5 | PASS |
| GPRS850  | 251 | NV | 20  | 5.42   | 0.006385  | 2.5 | PASS |
| GPRS850  | 251 | NV | 30  | 6.91   | 0.008141  | 2.5 | PASS |
| GPRS850  | 251 | NV | 40  | 5.17   | 0.006091  | 2.5 | PASS |
| GPRS850  | 251 | NV | 50  | 8.85   | 0.010426  | 2.5 | PASS |
| EGPRS850 | 128 | NV | -30 | 3.78   | 0.004586  | 2.5 | PASS |
| EGPRS850 | 128 | NV | -20 | 7.81   | 0.009476  | 2.5 | PASS |
| EGPRS850 | 128 | NV | -10 | 6.46   | 0.007838  | 2.5 | PASS |
| EGPRS850 | 128 | NV | 0   | 7.94   | 0.009634  | 2.5 | PASS |
| EGPRS850 | 128 | NV | 10  | 11.07  | 0.013431  | 2.5 | PASS |
| EGPRS850 | 128 | NV | 20  | 10.85  | 0.013164  | 2.5 | PASS |
| EGPRS850 | 128 | NV | 30  | 10.17  | 0.012339  | 2.5 | PASS |
| EGPRS850 | 128 | NV | 40  | 10.78  | 0.013079  | 2.5 | PASS |
| EGPRS850 | 128 | NV | 50  | 12.53  | 0.015203  | 2.5 | PASS |
| EGPRS850 | 190 | NV | -30 | 10.88  | 0.013005  | 2.5 | PASS |
| EGPRS850 | 190 | NV | -20 | 11.30  | 0.013507  | 2.5 | PASS |
| EGPRS850 | 190 | NV | -10 | 14.01  | 0.016746  | 2.5 | PASS |
| EGPRS850 | 190 | NV | 0   | 14.37  | 0.017177  | 2.5 | PASS |
| EGPRS850 | 190 | NV | 10  | 13.82  | 0.016519  | 2.5 | PASS |
| EGPRS850 | 190 | NV | 20  | 14.24  | 0.017021  | 2.5 | PASS |
| EGPRS850 | 190 | NV | 30  | 9.72   | 0.011618  | 2.5 | PASS |
| EGPRS850 | 190 | NV | 40  | 8.91   | 0.010650  | 2.5 | PASS |
| EGPRS850 | 190 | NV | 50  | 15.37  | 0.018372  | 2.5 | PASS |
| EGPRS850 | 251 | NV | -30 | 10.88  | 0.012818  | 2.5 | PASS |
| EGPRS850 | 251 | NV | -20 | 11.56  | 0.013619  | 2.5 | PASS |
| EGPRS850 | 251 | NV | -10 | 11.43  | 0.013466  | 2.5 | PASS |
| EGPRS850 | 251 | NV | 0   | 7.78   | 0.009166  | 2.5 | PASS |
| EGPRS850 | 251 | NV | 10  | 9.94   | 0.011711  | 2.5 | PASS |
| EGPRS850 | 251 | NV | 20  | 10.40  | 0.012253  | 2.5 | PASS |
| EGPRS850 | 251 | NV | 30  | 10.94  | 0.012889  | 2.5 | PASS |
| EGPRS850 | 251 | NV | 40  | 9.72   | 0.011451  | 2.5 | PASS |
| EGPRS850 | 251 | NV | 50  | 9.30   | 0.010957  | 2.5 | PASS |
| GSM1900  | 512 | NV | -30 | -35.32 | -0.019090 | 2.5 | PASS |
| GSM1900  | 512 | NV | -20 | -29.51 | -0.015950 | 2.5 | PASS |

|          |     |    |     |        |           |     |      |
|----------|-----|----|-----|--------|-----------|-----|------|
| GSM1900  | 512 | NV | -10 | -36.61 | -0.019787 | 2.5 | PASS |
| GSM1900  | 512 | NV | 0   | -35.51 | -0.019193 | 2.5 | PASS |
| GSM1900  | 512 | NV | 10  | -34.22 | -0.018495 | 2.5 | PASS |
| GSM1900  | 512 | NV | 20  | -32.16 | -0.017382 | 2.5 | PASS |
| GSM1900  | 512 | NV | 30  | -32.87 | -0.017766 | 2.5 | PASS |
| GSM1900  | 512 | NV | 40  | -33.64 | -0.018182 | 2.5 | PASS |
| GSM1900  | 512 | NV | 50  | -38.16 | -0.020625 | 2.5 | PASS |
| GSM1900  | 661 | NV | -30 | -26.02 | -0.013840 | 2.5 | PASS |
| GSM1900  | 661 | NV | -20 | -30.35 | -0.016144 | 2.5 | PASS |
| GSM1900  | 661 | NV | -10 | -28.93 | -0.015388 | 2.5 | PASS |
| GSM1900  | 661 | NV | 0   | -32.03 | -0.017037 | 2.5 | PASS |
| GSM1900  | 661 | NV | 10  | -31.96 | -0.017000 | 2.5 | PASS |
| GSM1900  | 661 | NV | 20  | -38.68 | -0.020574 | 2.5 | PASS |
| GSM1900  | 661 | NV | 30  | -32.67 | -0.017378 | 2.5 | PASS |
| GSM1900  | 661 | NV | 40  | -33.84 | -0.018000 | 2.5 | PASS |
| GSM1900  | 661 | NV | 50  | -33.71 | -0.017931 | 2.5 | PASS |
| GSM1900  | 810 | NV | -30 | -35.84 | -0.018766 | 2.5 | PASS |
| GSM1900  | 810 | NV | -20 | -32.74 | -0.017143 | 2.5 | PASS |
| GSM1900  | 810 | NV | -10 | -34.61 | -0.018122 | 2.5 | PASS |
| GSM1900  | 810 | NV | 0   | -33.25 | -0.017410 | 2.5 | PASS |
| GSM1900  | 810 | NV | 10  | -37.32 | -0.019541 | 2.5 | PASS |
| GSM1900  | 810 | NV | 20  | -36.42 | -0.019070 | 2.5 | PASS |
| GSM1900  | 810 | NV | 30  | -36.10 | -0.018903 | 2.5 | PASS |
| GSM1900  | 810 | NV | 40  | -32.09 | -0.016803 | 2.5 | PASS |
| GSM1900  | 810 | NV | 50  | -31.58 | -0.016536 | 2.5 | PASS |
| GPRS1900 | 512 | NV | -30 | -43.39 | -0.023452 | 2.5 | PASS |
| GPRS1900 | 512 | NV | -20 | -63.41 | -0.034272 | 2.5 | PASS |
| GPRS1900 | 512 | NV | -10 | -63.15 | -0.034131 | 2.5 | PASS |
| GPRS1900 | 512 | NV | 0   | -59.79 | -0.032315 | 2.5 | PASS |
| GPRS1900 | 512 | NV | 10  | -59.66 | -0.032245 | 2.5 | PASS |
| GPRS1900 | 512 | NV | 20  | -51.40 | -0.027781 | 2.5 | PASS |
| GPRS1900 | 512 | NV | 30  | -49.20 | -0.026592 | 2.5 | PASS |
| GPRS1900 | 512 | NV | 40  | -44.04 | -0.023803 | 2.5 | PASS |
| GPRS1900 | 512 | NV | 50  | -43.13 | -0.023311 | 2.5 | PASS |
| GPRS1900 | 661 | NV | -30 | -32.54 | -0.017309 | 2.5 | PASS |
| GPRS1900 | 661 | NV | -20 | -39.45 | -0.020984 | 2.5 | PASS |
| GPRS1900 | 661 | NV | -10 | -34.16 | -0.018170 | 2.5 | PASS |
| GPRS1900 | 661 | NV | 0   | -39.71 | -0.021122 | 2.5 | PASS |
| GPRS1900 | 661 | NV | 10  | -34.22 | -0.018202 | 2.5 | PASS |
| GPRS1900 | 661 | NV | 20  | -33.90 | -0.018032 | 2.5 | PASS |
| GPRS1900 | 661 | NV | 30  | -30.15 | -0.016037 | 2.5 | PASS |
| GPRS1900 | 661 | NV | 40  | -36.94 | -0.019649 | 2.5 | PASS |
| GPRS1900 | 661 | NV | 50  | -35.06 | -0.018649 | 2.5 | PASS |
| GPRS1900 | 810 | NV | -30 | -35.90 | -0.018798 | 2.5 | PASS |
| GPRS1900 | 810 | NV | -20 | -36.10 | -0.018903 | 2.5 | PASS |
| GPRS1900 | 810 | NV | -10 | -38.16 | -0.019981 | 2.5 | PASS |
| GPRS1900 | 810 | NV | 0   | -36.29 | -0.019002 | 2.5 | PASS |
| GPRS1900 | 810 | NV | 10  | -43.91 | -0.022992 | 2.5 | PASS |
| GPRS1900 | 810 | NV | 20  | -42.04 | -0.022013 | 2.5 | PASS |
| GPRS1900 | 810 | NV | 30  | -39.39 | -0.020625 | 2.5 | PASS |

|           |     |    |     |        |           |     |      |
|-----------|-----|----|-----|--------|-----------|-----|------|
| GPRS1900  | 810 | NV | 40  | -37.32 | -0.019541 | 2.5 | PASS |
| GPRS1900  | 810 | NV | 50  | -44.75 | -0.023432 | 2.5 | PASS |
| EGPRS1900 | 512 | NV | -30 | -38.10 | -0.020592 | 2.5 | PASS |
| EGPRS1900 | 512 | NV | -20 | -38.84 | -0.020992 | 2.5 | PASS |
| EGPRS1900 | 512 | NV | -10 | -38.45 | -0.020782 | 2.5 | PASS |
| EGPRS1900 | 512 | NV | 0   | -31.41 | -0.016977 | 2.5 | PASS |
| EGPRS1900 | 512 | NV | 10  | -26.83 | -0.014501 | 2.5 | PASS |
| EGPRS1900 | 512 | NV | 20  | -28.70 | -0.015512 | 2.5 | PASS |
| EGPRS1900 | 512 | NV | 30  | -32.45 | -0.017539 | 2.5 | PASS |
| EGPRS1900 | 512 | NV | 40  | -32.41 | -0.017517 | 2.5 | PASS |
| EGPRS1900 | 512 | NV | 50  | -35.16 | -0.019003 | 2.5 | PASS |
| EGPRS1900 | 661 | NV | -30 | -25.18 | -0.013394 | 2.5 | PASS |
| EGPRS1900 | 661 | NV | -20 | -30.74 | -0.016351 | 2.5 | PASS |
| EGPRS1900 | 661 | NV | -10 | -32.16 | -0.017106 | 2.5 | PASS |
| EGPRS1900 | 661 | NV | 0   | -29.83 | -0.015867 | 2.5 | PASS |
| EGPRS1900 | 661 | NV | 10  | -28.61 | -0.015218 | 2.5 | PASS |
| EGPRS1900 | 661 | NV | 20  | -30.87 | -0.016420 | 2.5 | PASS |
| EGPRS1900 | 661 | NV | 30  | -28.09 | -0.014941 | 2.5 | PASS |
| EGPRS1900 | 661 | NV | 40  | -24.60 | -0.013085 | 2.5 | PASS |
| EGPRS1900 | 661 | NV | 50  | -22.89 | -0.012176 | 2.5 | PASS |
| EGPRS1900 | 810 | NV | -30 | -31.80 | -0.016651 | 2.5 | PASS |
| EGPRS1900 | 810 | NV | -20 | -36.94 | -0.019342 | 2.5 | PASS |
| EGPRS1900 | 810 | NV | -10 | -34.35 | -0.017986 | 2.5 | PASS |
| EGPRS1900 | 810 | NV | 0   | -33.93 | -0.017766 | 2.5 | PASS |
| EGPRS1900 | 810 | NV | 10  | -31.48 | -0.016483 | 2.5 | PASS |
| EGPRS1900 | 810 | NV | 20  | -32.16 | -0.016839 | 2.5 | PASS |
| EGPRS1900 | 810 | NV | 30  | -38.32 | -0.020065 | 2.5 | PASS |
| EGPRS1900 | 810 | NV | 40  | -36.06 | -0.018882 | 2.5 | PASS |
| EGPRS1900 | 810 | NV | 50  | -34.22 | -0.017918 | 2.5 | PASS |