

1. Effective (Isotropic) Radiated Power Output Data

1.1 Test Result

| Test Band: GSM850 | | | | | | | | | | | |
|-------------------|------------|-----------------------|-------|-------|--------------|-------|----------|-------|-------|-------------|---------|
| Test Mode | | Conducted Power (dBm) | | | Antenna gain | | ERP(dBm) | | | Limit (dBm) | Verdict |
| | | LCH | MCH | HCH | (dBd) | (dBi) | LCH | MCH | HCH | | |
| EGPRS | 1 TX Slot | 28.15 | 29.01 | 29.53 | -0.15 | 2.0 | 28 | 28.86 | 29.38 | 38.45 | PASS |
| | 2 TX Slots | 28.13 | 28.99 | 29.51 | -0.15 | 2.0 | 27.98 | 28.84 | 29.36 | 38.45 | PASS |
| | 3 TX Slots | 27.19 | 28.04 | 28.61 | -0.15 | 2.0 | 27.04 | 27.89 | 28.46 | 38.45 | PASS |
| | 4 TX Slots | 25.57 | 26.43 | 27.03 | -0.15 | 2.0 | 25.42 | 26.28 | 26.88 | 38.45 | PASS |
| GPRS | 1 TX Slot | 28.36 | 29.04 | 29.55 | -0.15 | 2.0 | 28.21 | 28.89 | 29.4 | 38.45 | PASS |
| | 2 TX Slots | 28.34 | 29.03 | 29.54 | -0.15 | 2.0 | 28.19 | 28.88 | 29.39 | 38.45 | PASS |
| | 3 TX Slots | 27.38 | 28.07 | 28.62 | -0.15 | 2.0 | 27.23 | 27.92 | 28.47 | 38.45 | PASS |
| | 4 TX Slots | 25.75 | 26.45 | 27.04 | -0.15 | 2.0 | 25.6 | 26.3 | 26.89 | 38.45 | PASS |

Note:
 1) dBd = dBi - 2.15
 2) EIRP = Conducted output power + Antenna gain (dBi)
 3) ERP = Conducted output power + Antenna gain (dBd)

2. Frequency stability

2.1 Test Result

| Test Band: GSM850 (Frequency Error VS. Voltage) | | | | | | | | | | |
|---|------------|------------|------------------|----------|---------|-----------------------|---------|---------|-------------|---------|
| Test Mode | Test Temp. | Test Volt. | Freq. Error (Hz) | | | Freq. vs. rated (ppm) | | | Limit (ppm) | Verdict |
| | | | LCH | MCH | HCH | LCH | MCH | HCH | | |
| EGPRS | NT | LV | -5.5855 | -6.0052 | -3.8097 | -0.0068 | -0.0072 | -0.0045 | 2.50 | PASS |
| | | NV | 0.3551 | -10.2992 | -2.7443 | 0.0004 | -0.0123 | -0.0032 | 2.50 | PASS |
| | | HV | -6.1666 | -3.1317 | -6.6832 | -0.0075 | -0.0037 | -0.0079 | 2.50 | PASS |
| GPRS | NT | LV | 0.0969 | -4.9397 | -0.5811 | 0.0001 | -0.0059 | -0.0007 | 2.50 | PASS |
| | | NV | -5.1657 | -6.1989 | -0.1291 | -0.0063 | -0.0074 | -0.0002 | 2.50 | PASS |
| | | HV | -3.8420 | -3.8743 | -0.6457 | -0.0047 | -0.0046 | -0.0008 | 2.50 | PASS |

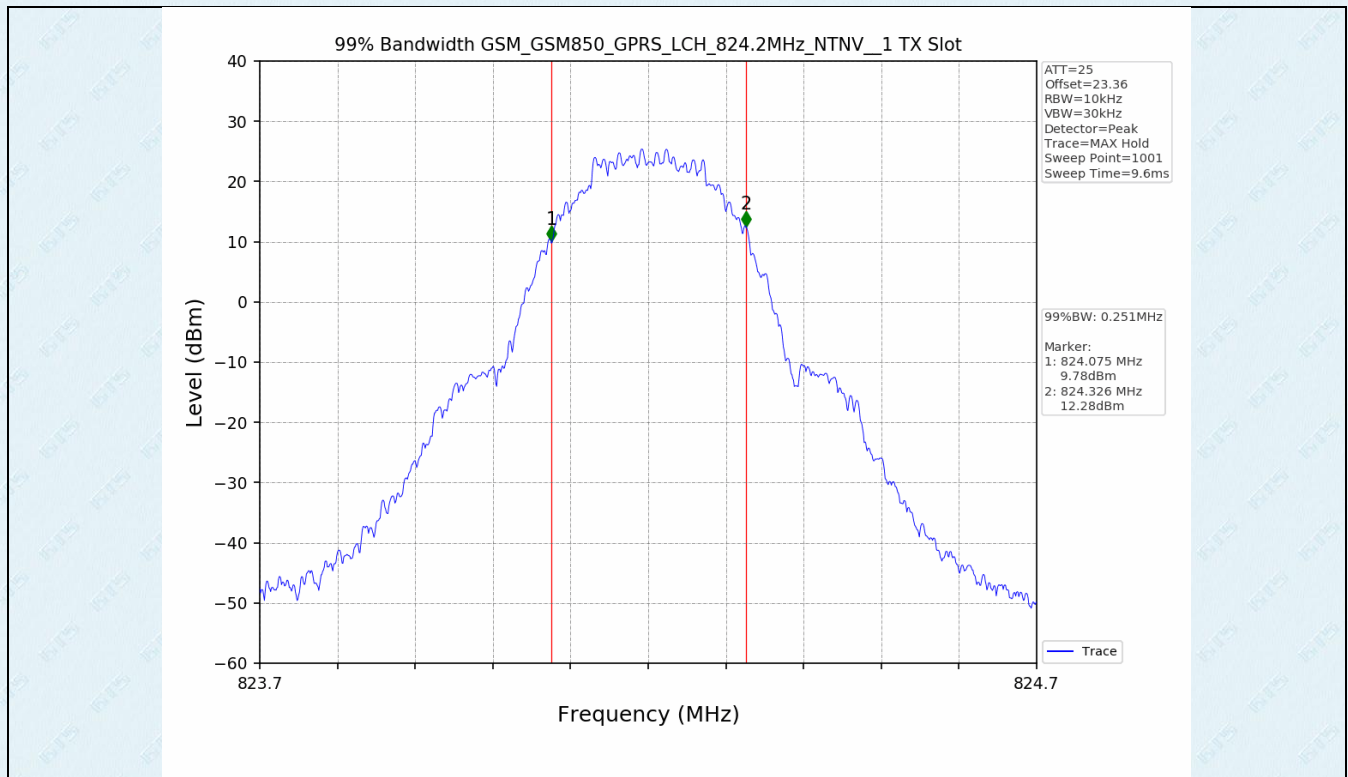
| Test Band: GSM850 (Frequency Error VS. Temperature) | | | | | | | | | | |
|---|------------|------------|------------------|----------|---------|-----------------------|---------|---------|-------------|---------|
| Test Mode | Test Volt. | Test Temp. | Freq. Error (Hz) | | | Freq. vs. rated (ppm) | | | Limit (ppm) | Verdict |
| | | | LCH | MCH | HCH | LCH | MCH | HCH | | |
| EGPRS | NV | -30.00 | 0.0969 | -7.7809 | -0.9363 | 0.0001 | -0.0093 | -0.0011 | 2.50 | PASS |
| | | -20.00 | -8.4589 | -5.1657 | -4.6492 | -0.0103 | -0.0062 | -0.0055 | 2.50 | PASS |
| | | -10.00 | -6.0697 | -7.0706 | -8.3620 | -0.0074 | -0.0085 | -0.0099 | 2.50 | PASS |
| | | 0.00 | -1.2269 | -10.9449 | -5.1657 | -0.0015 | -0.0131 | -0.0061 | 2.50 | PASS |
| | | 10.00 | -8.3620 | -10.0086 | 1.5820 | -0.0101 | -0.0120 | 0.0019 | 2.50 | PASS |
| | | 20.00 | 0.8717 | 0.2583 | -0.2906 | 0.0011 | 0.0003 | -0.0003 | 2.50 | PASS |
| | | 30.00 | -9.5243 | -4.0357 | -1.3560 | -0.0116 | -0.0048 | -0.0016 | 2.50 | PASS |
| | | 40.00 | -5.0043 | -5.7469 | -1.2269 | -0.0061 | -0.0069 | -0.0014 | 2.50 | PASS |
| | | 50.00 | -6.8446 | -0.2260 | -3.4223 | -0.0083 | -0.0003 | -0.0040 | 2.50 | PASS |
| GPRS | NV | -30.00 | -2.0017 | -2.7443 | -1.0654 | -0.0024 | -0.0033 | -0.0013 | 2.50 | PASS |
| | | -20.00 | -1.7434 | -1.9372 | -0.7426 | -0.0021 | -0.0023 | -0.0009 | 2.50 | PASS |
| | | -10.00 | -1.3883 | -0.6780 | -0.4520 | -0.0017 | -0.0008 | -0.0005 | 2.50 | PASS |
| | | 0.00 | -0.7749 | -2.7766 | 1.0331 | -0.0009 | -0.0033 | 0.0012 | 2.50 | PASS |
| | | 10.00 | -0.1614 | -3.1317 | 0.6457 | -0.0002 | -0.0037 | 0.0008 | 2.50 | PASS |
| | | 20.00 | -0.6780 | -3.0672 | 1.0331 | -0.0008 | -0.0037 | 0.0012 | 2.50 | PASS |
| | | 30.00 | -2.1632 | -2.5829 | -1.3560 | -0.0026 | -0.0031 | -0.0016 | 2.50 | PASS |
| | | 40.00 | -6.2957 | -0.7426 | 0.7426 | -0.0076 | -0.0009 | 0.0009 | 2.50 | PASS |
| | | 50.00 | -7.6840 | -2.3246 | -0.4843 | -0.0093 | -0.0028 | -0.0006 | 2.50 | PASS |

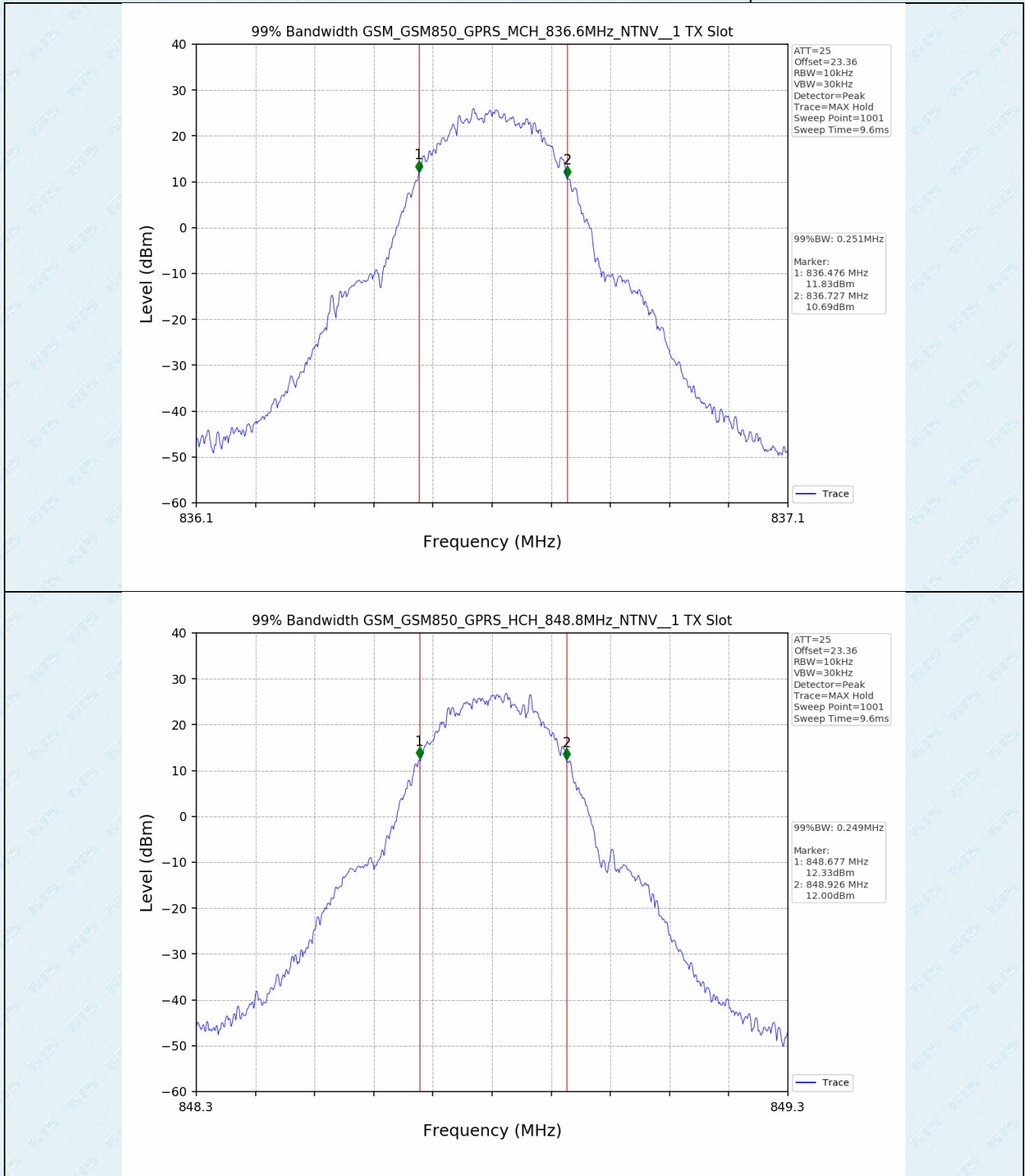
3. 99% & 26dB Bandwidth

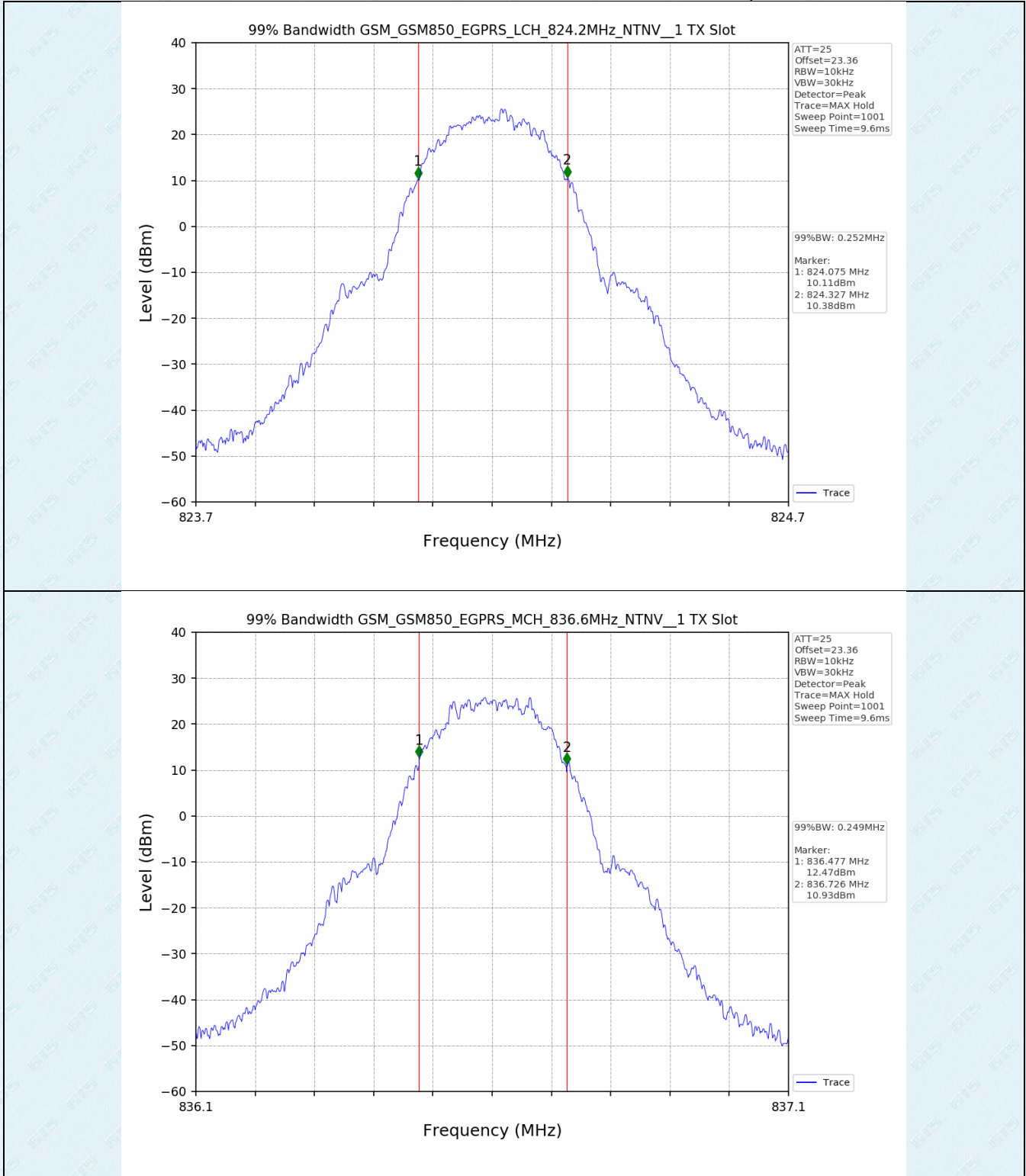
3.1 Test Result

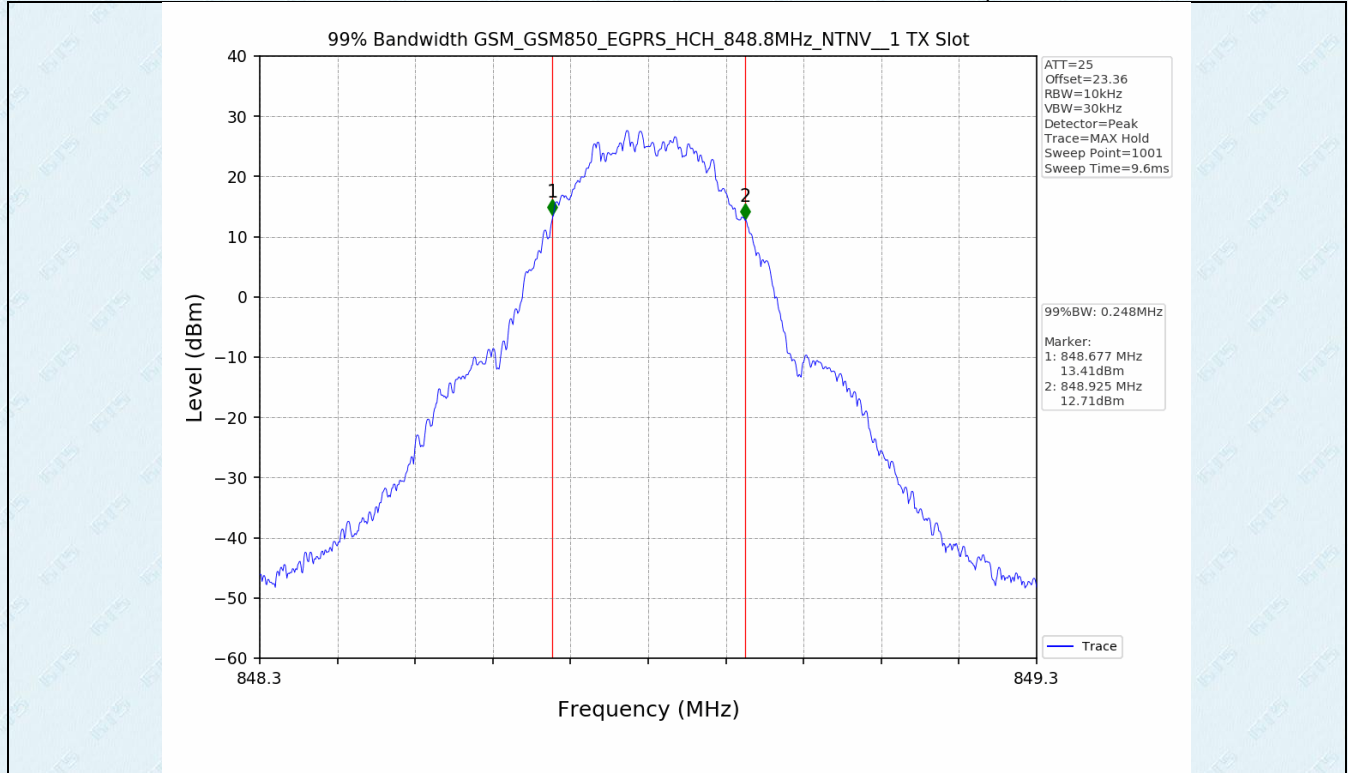
| Test Band: GSM850 | | | | | |
|-------------------|------------------------------|-------|-------|-------|---------|
| Test Mode | 99% Occupied Bandwidth (MHz) | | | Limit | Verdict |
| | LCH | MCH | HCH | | |
| EGPRS | 0.252 | 0.249 | 0.248 | N/A | PASS |
| GPRS | 0.251 | 0.251 | 0.249 | N/A | PASS |

3.2 Test Graph



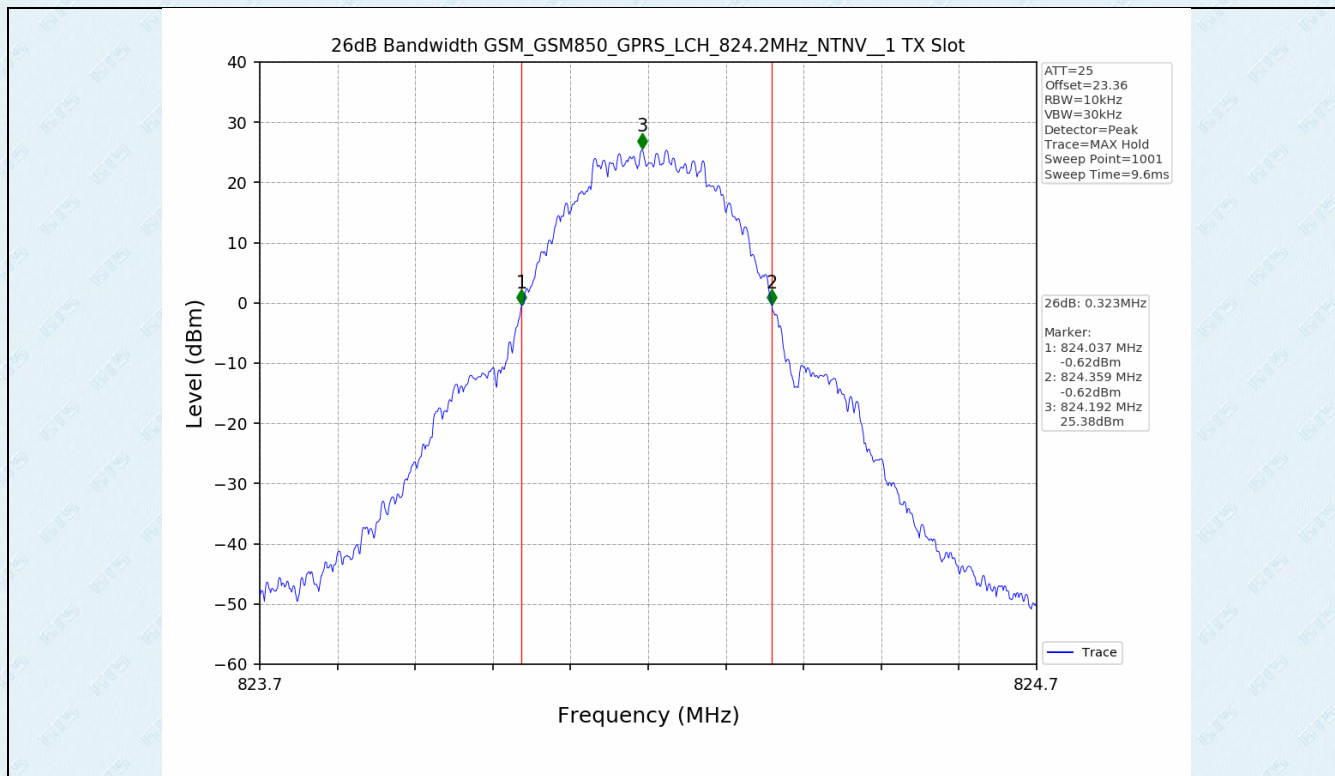


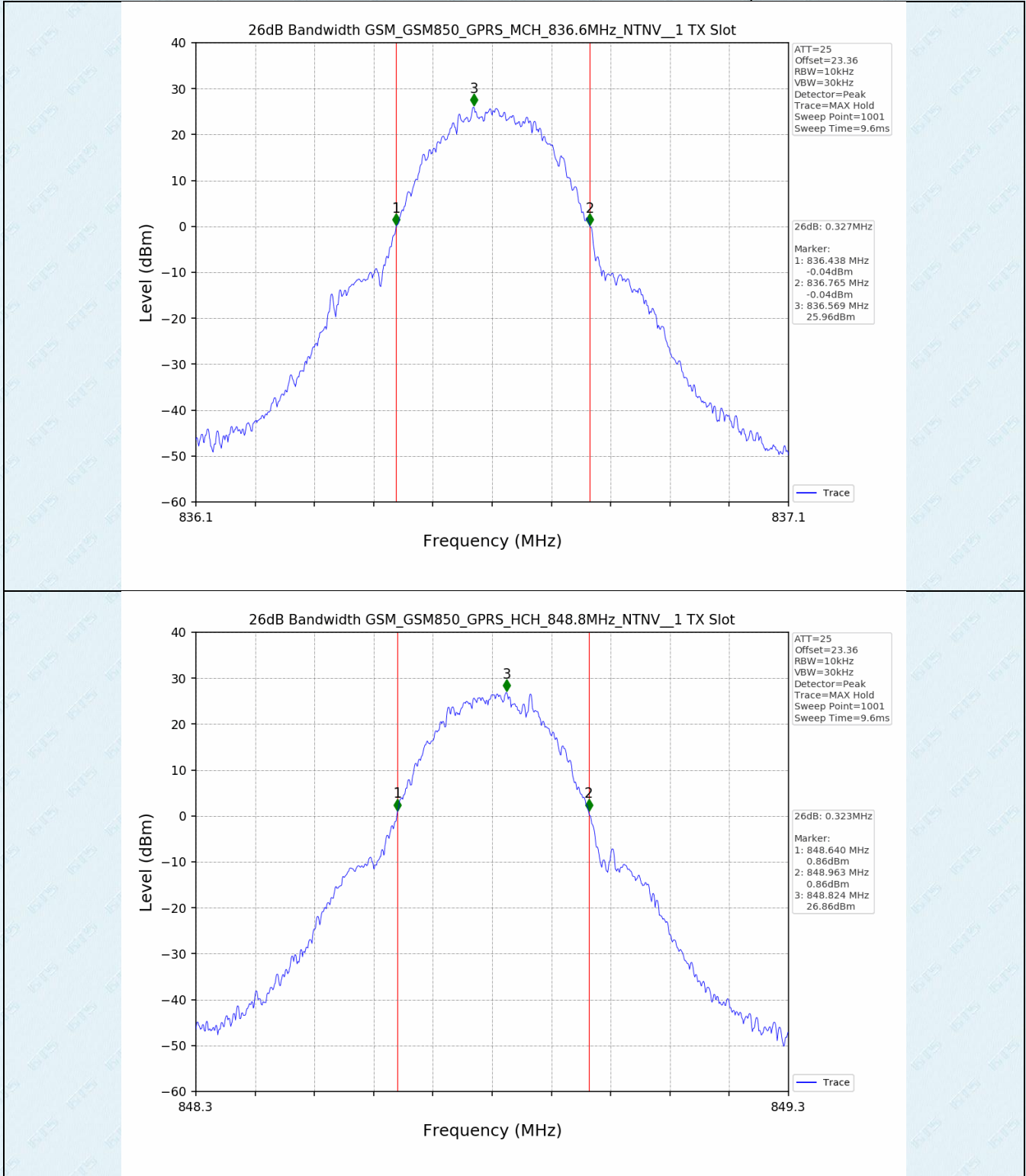


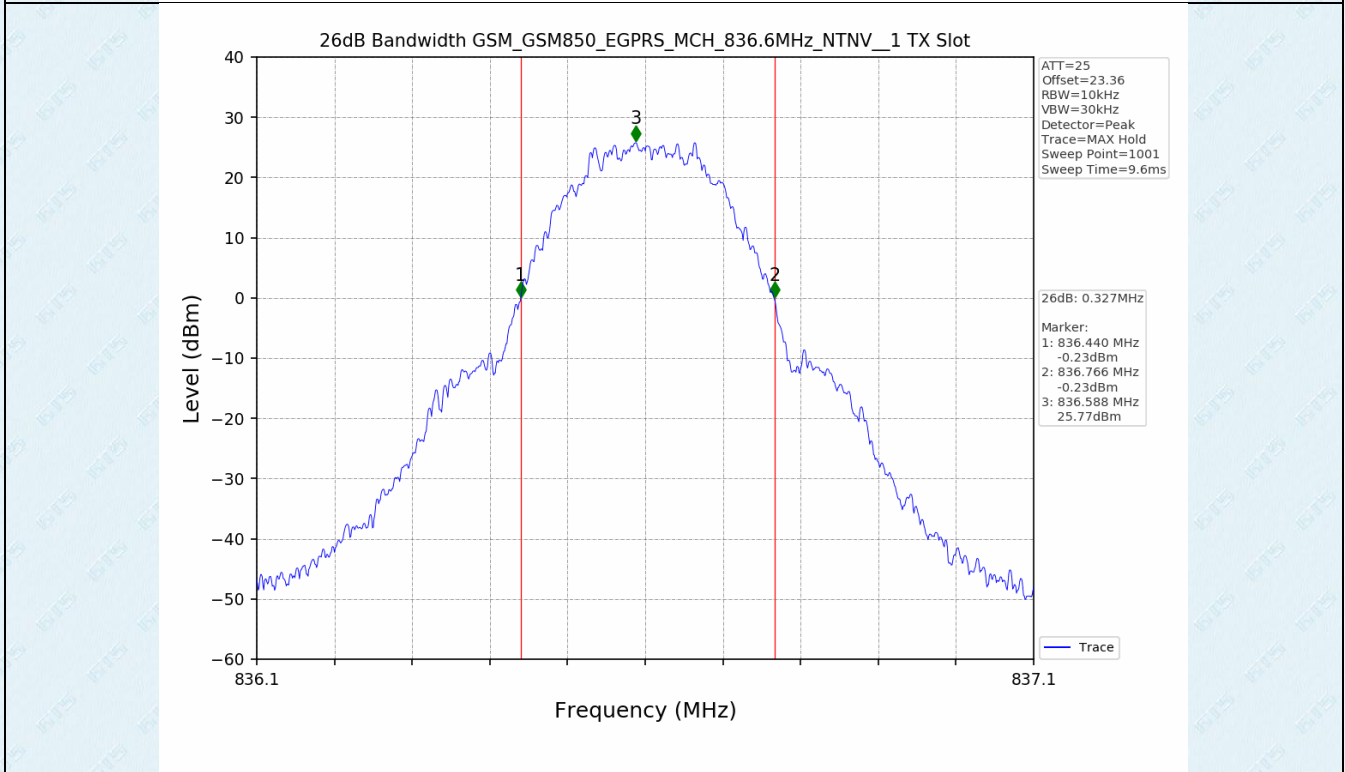
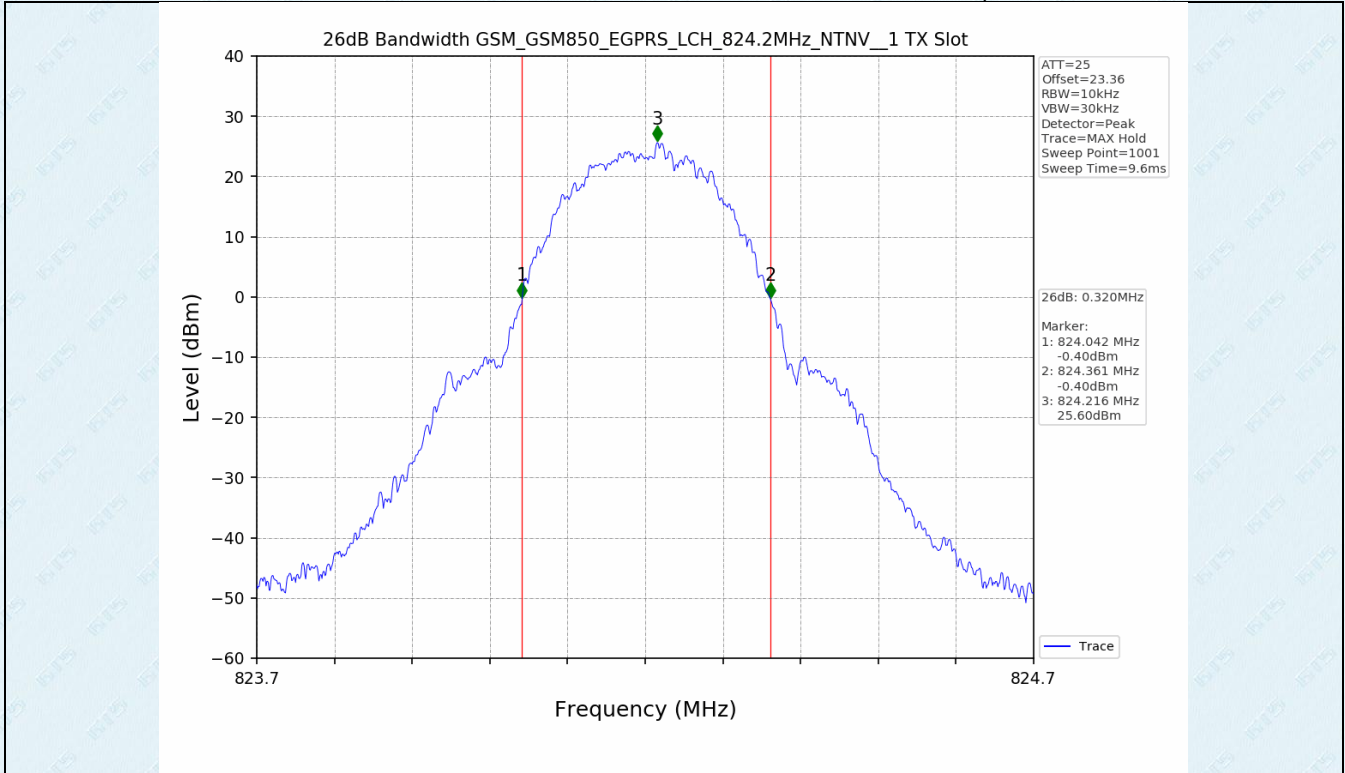


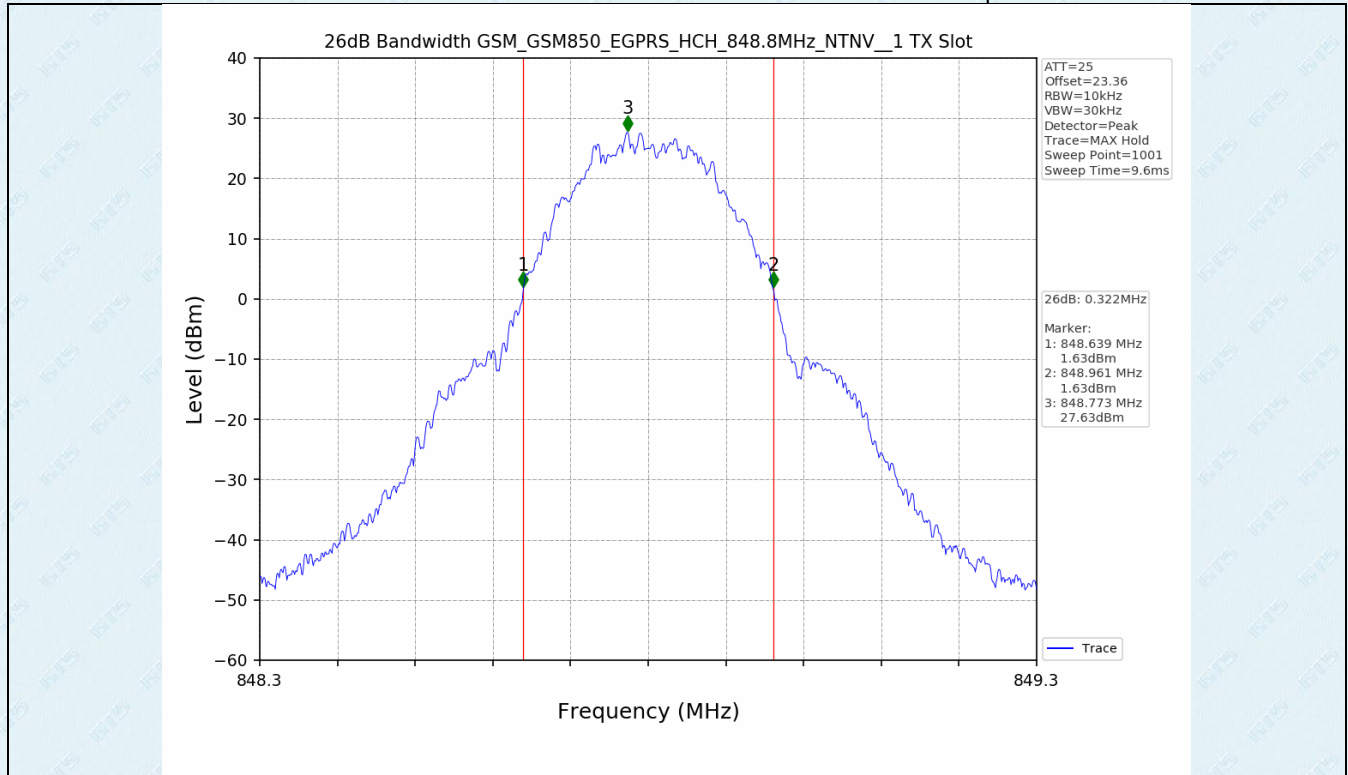
| Test Band: GSM850 | | | | | |
|-------------------|----------------------|-------|-------|-------|---------|
| Test Mode | 26dB Bandwidth (MHz) | | | Limit | Verdict |
| | LCH | MCH | HCH | | |
| EGPRS | 0.320 | 0.327 | 0.322 | N/A | PASS |
| GPRS | 0.323 | 0.327 | 0.323 | N/A | PASS |

3.2 Test Graph







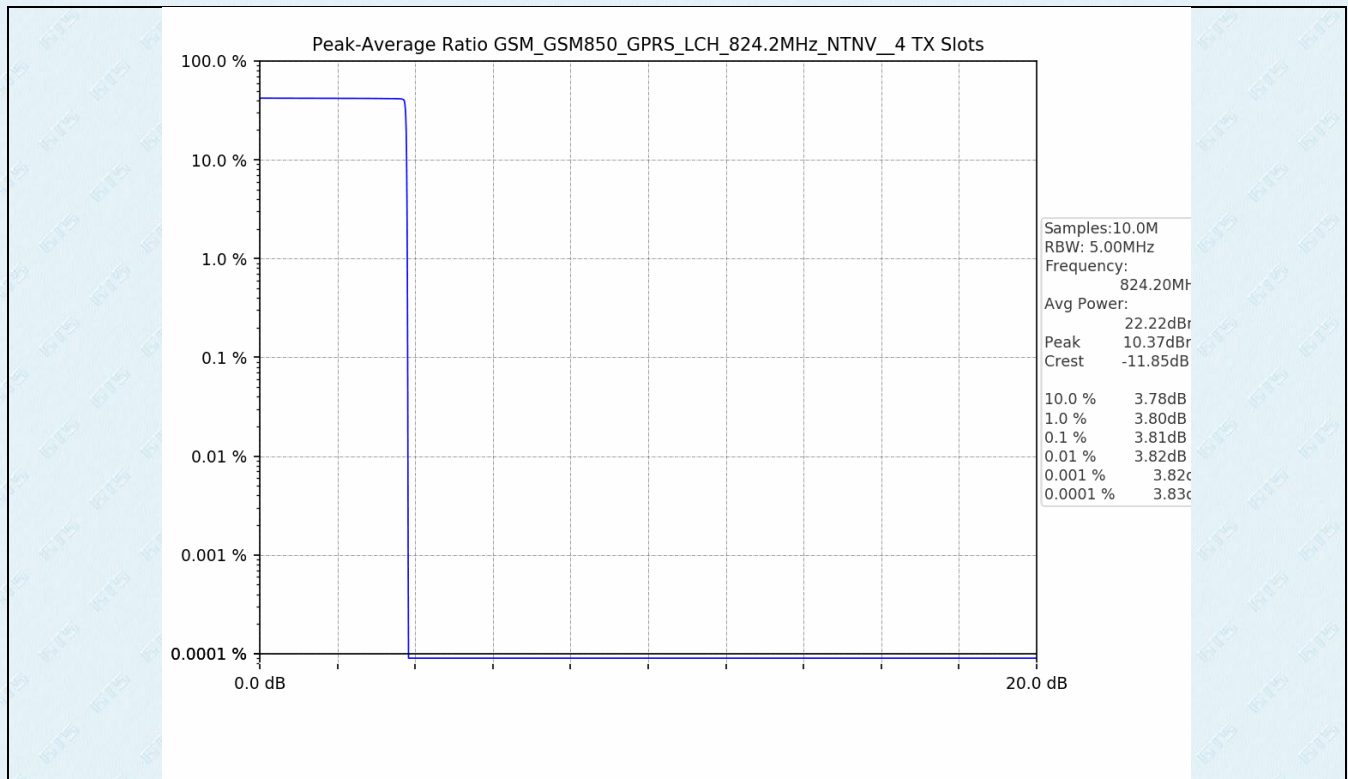


4. Peak-Average Ratio

4.1 Test Result

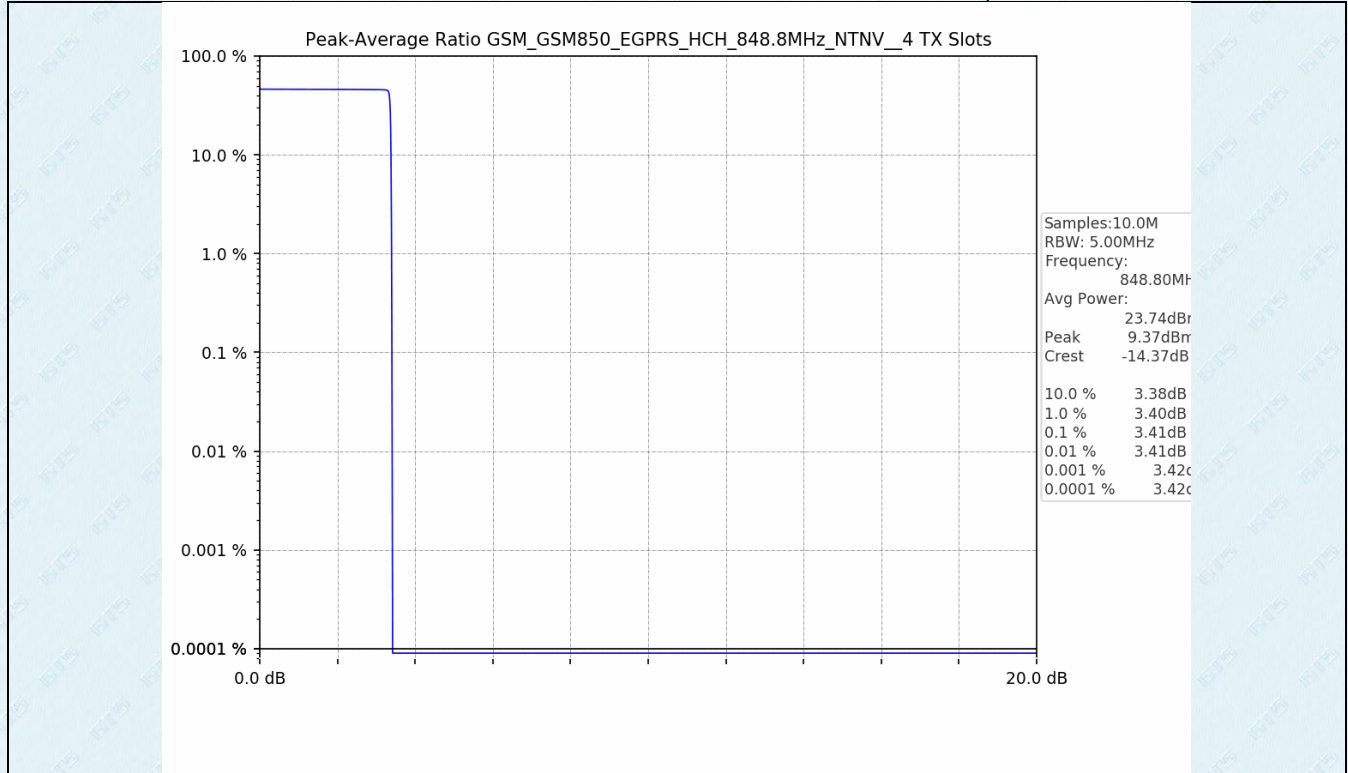
| Test Band: GSM850 | | | | | |
|-------------------|------------------|------|------|------------|---------|
| Test Mode | Test result (dB) | | | Limit (dB) | Verdict |
| | LCH | MCH | HCH | | |
| EGPRS | 3.69 | 3.60 | 3.41 | 13 | PASS |
| GPRS | 3.81 | 3.53 | 3.62 | 13 | PASS |

4.2 Test Graph



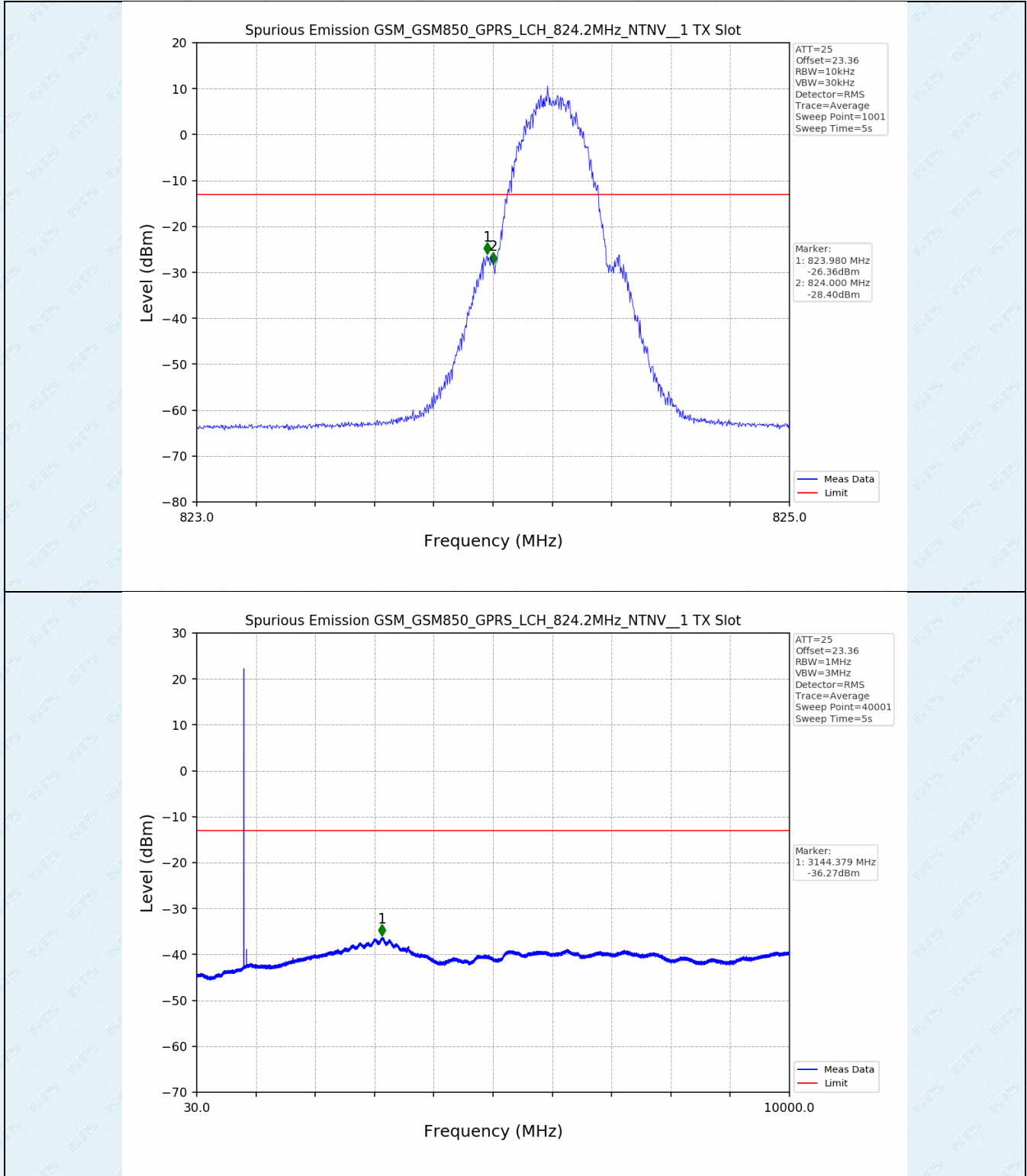


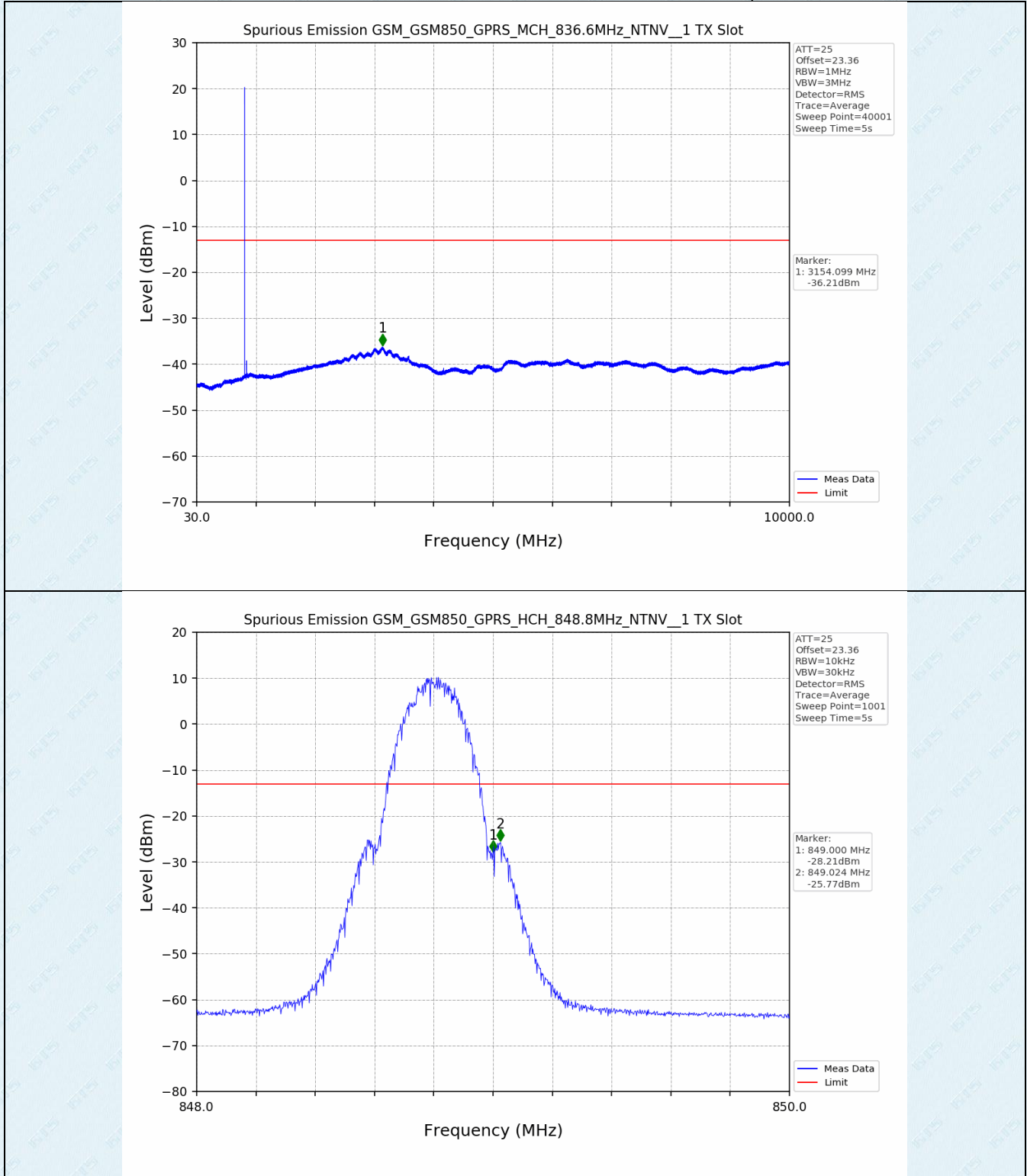


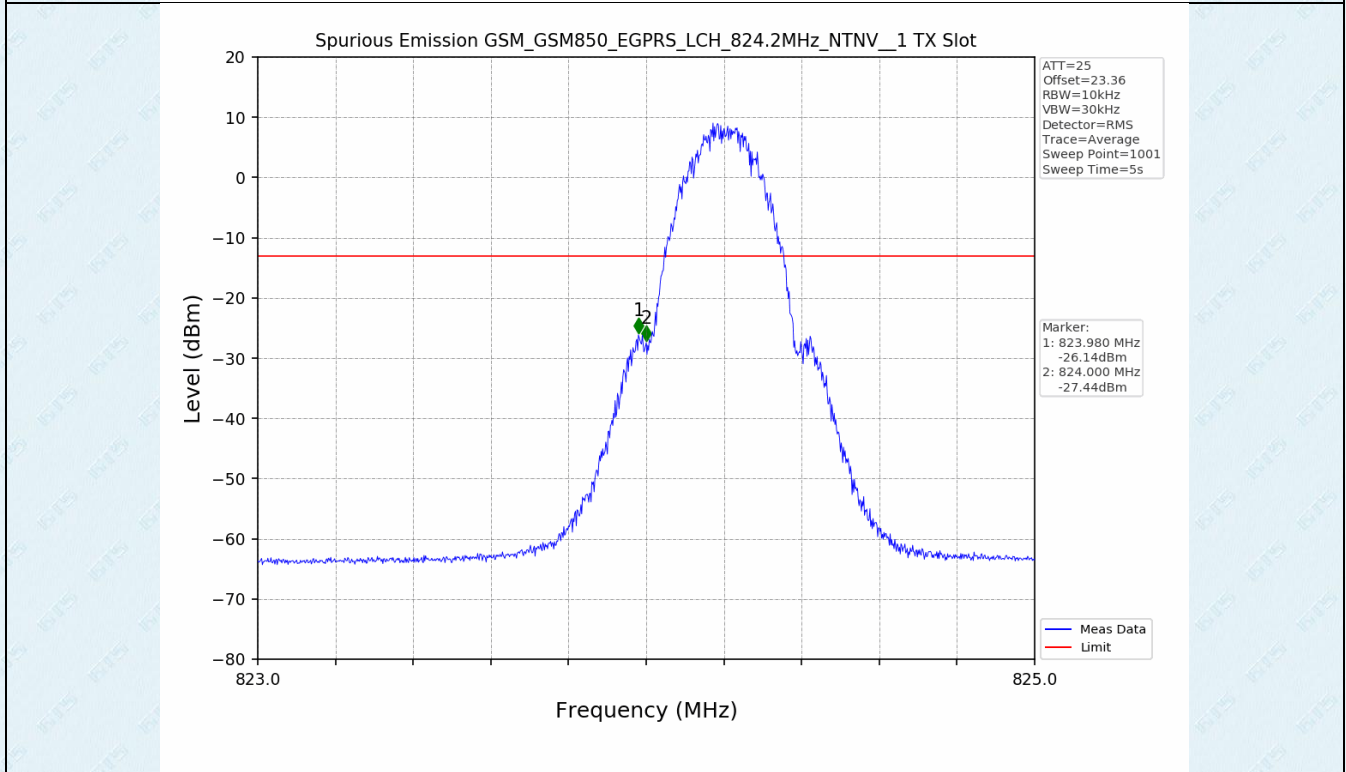
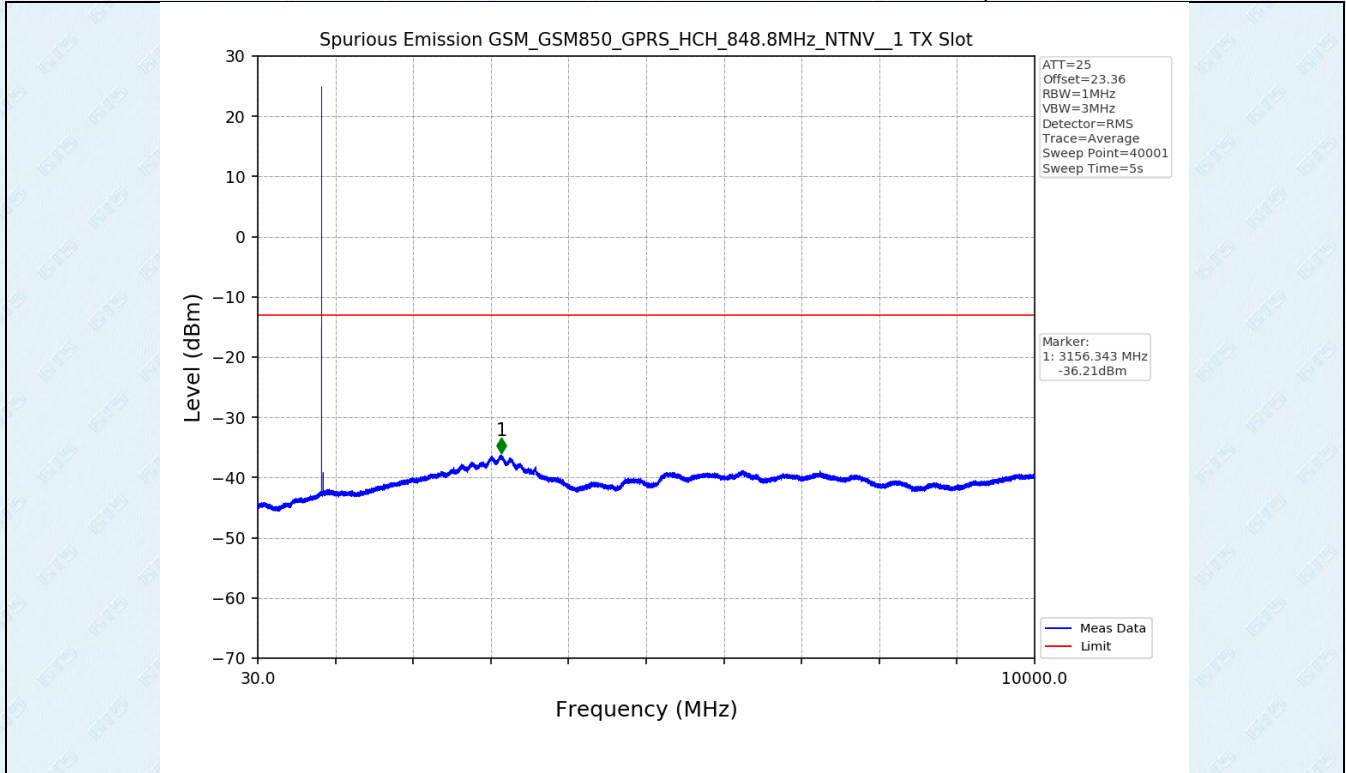


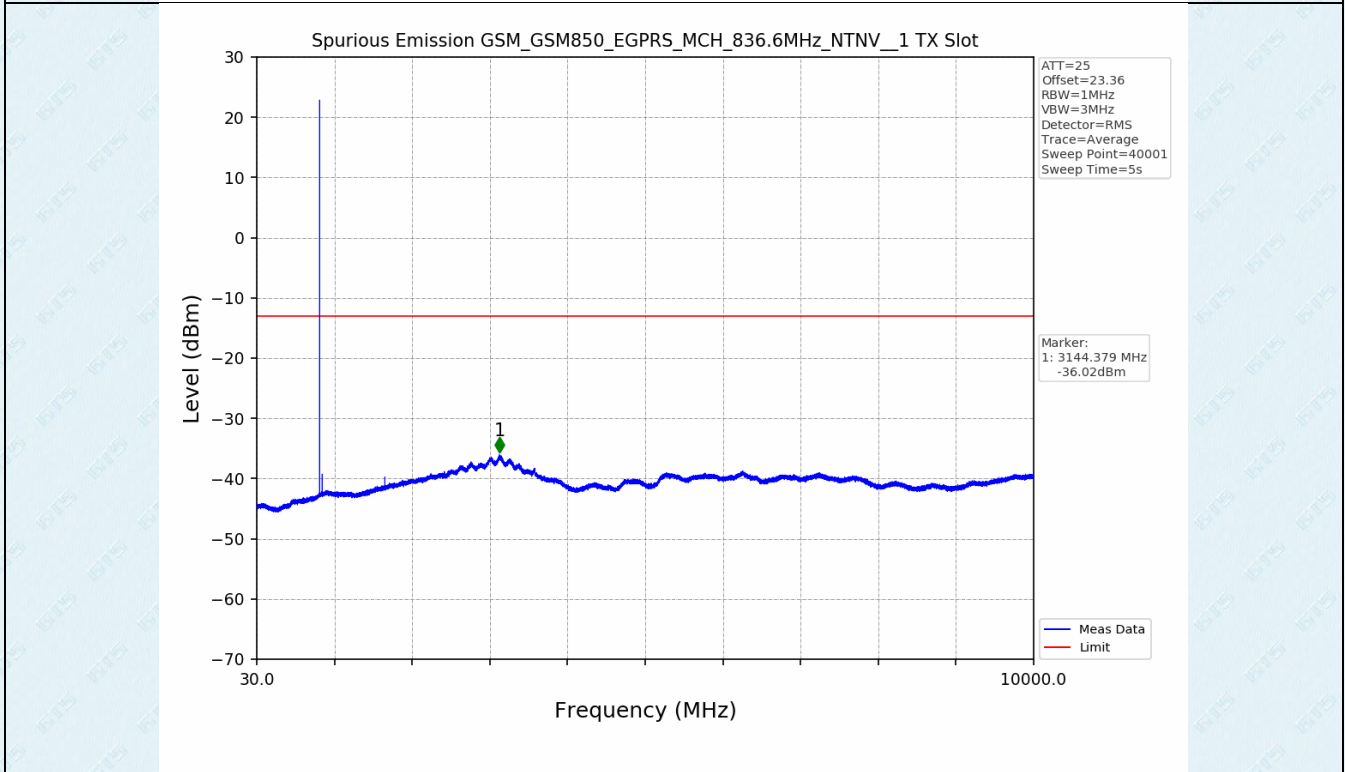
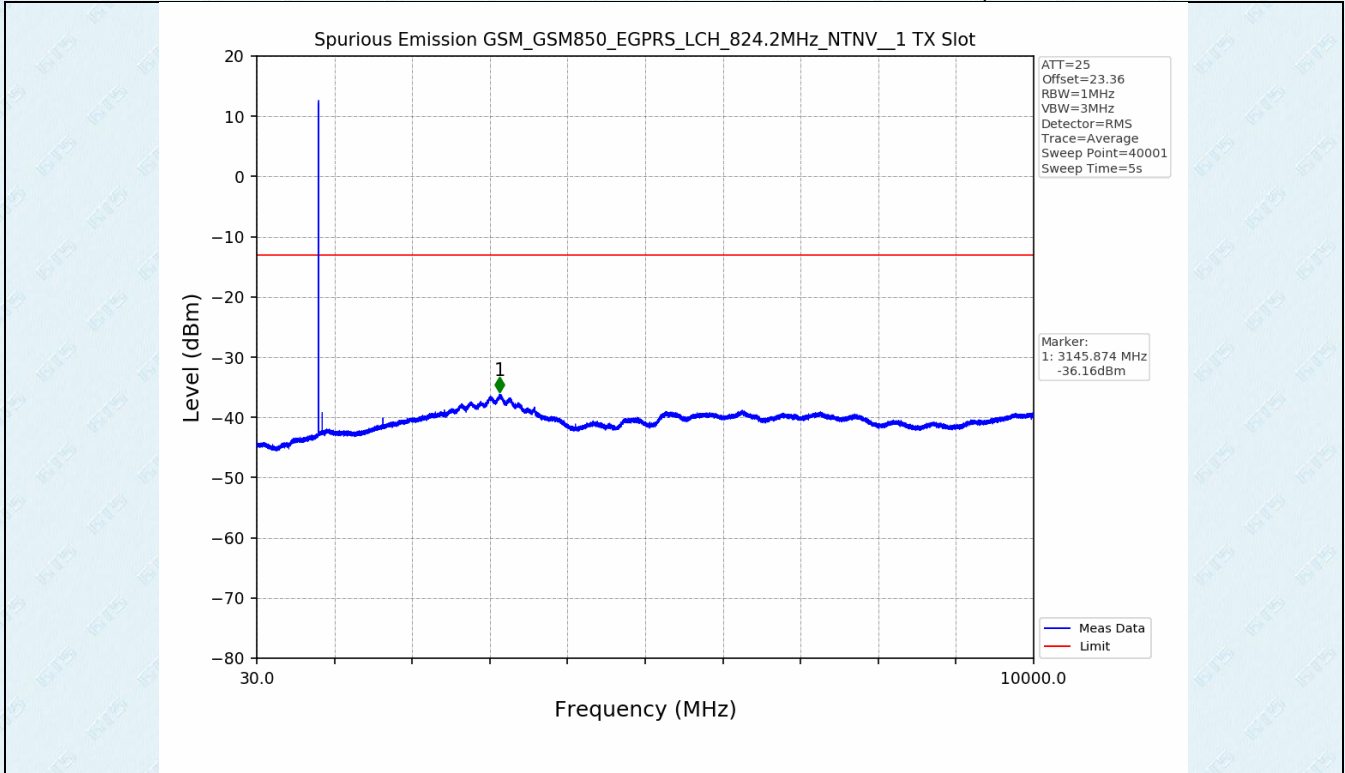
5. Spurious Emission

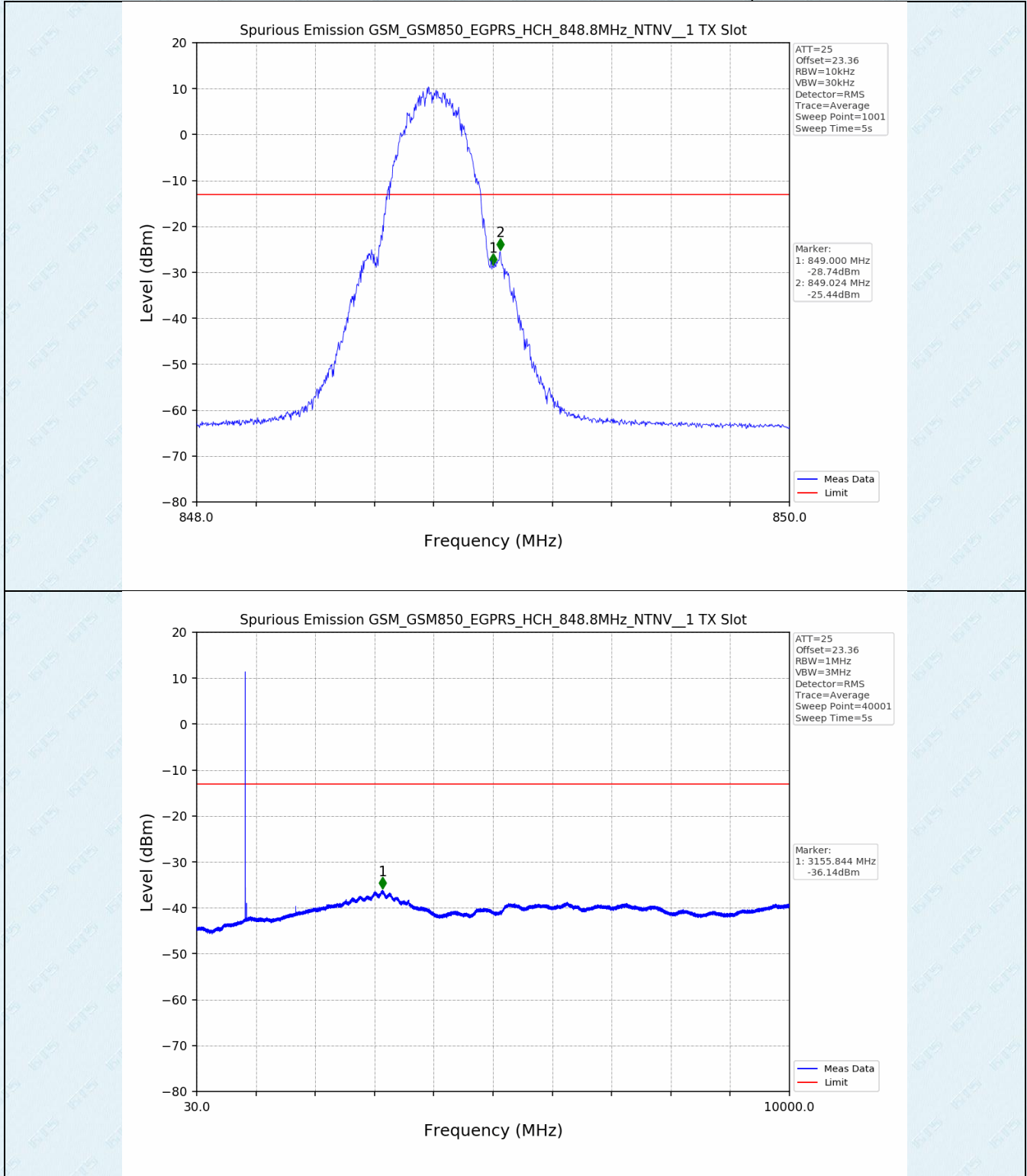
5.1 Test Graph











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