

RF Power Output and Effective Radiated Power

| GSM 850 | | Burst-conducted power | | |
|--------------|------------|-----------------------|-----------|-----------|
| | | Channel/Frenqucy(MHz) | | |
| | | 128/824.2 | 190/836.6 | 251/848.8 |
| GSM | CS | 32.24 | 32.30 | 32.36 |
| GPRS(GMSK) | 1 Tx Slot | 32.35 | 32.40 | 32.44 |
| | 2 Tx Slots | 31.04 | 31.17 | 30.85 |
| | 3 Tx Slots | 29.46 | 30.18 | 30.09 |
| | 4 Tx Slots | 28.52 | 27.81 | 28.64 |
| EGPRS (8PSK) | 1 Tx Slot | 26.33 | 26.38 | 26.40 |
| | 2 Tx Slots | 25.62 | 25.82 | 25.78 |
| | 3 Tx Slots | 24.05 | 24.22 | 24.14 |
| | 4 Tx Slots | 22.94 | 23.07 | 22.98 |

| LTE Band 5 | Channel/ Frequency(MHz) | Index | RB# | RB# | Conducted Power (dBm) | |
|---------------|----------------------------|-------|-----------------|------------------|--------------------------|-------|
| | | | RBstart QPSK | RBstart 16QAM | QPSK | 16QAM |
| 1.4MHz | 20407/824.7 | 0 | 1#0 | 1#0 | 23.16 | 22.51 |
| | | 0 | 6#0 | 5#0 | 21.16 | 21.05 |
| | 20525/836.5 | 0 | 1#0 | 1#0 | 23.10 | 22.69 |
| | | 0 | 6#0 | 5#0 | 21.32 | 21.41 |
| | 20643/848.3 | 0 | 1#5 | 1#5 | 23.28 | 22.37 |
| | | 0 | 6#0 | 5#0 | 20.98 | 21.16 |
| 3MHz | 20415/825.5 | 0 | 1#0 | 1#0 | 23.40 | 22.42 |
| | | 0 | 6#0 | 5#0 | 21.13 | 21.25 |
| | 20525/836.5 | 0 | 1#0 | 1#0 | 23.51 | 22.36 |
| | | 0 | 6#0 | 5#0 | 21.22 | 21.23 |
| | 20635/847.5 | 1 | 1#5 | 1#5 | 23.29 | 22.27 |
| | | 1 | 6#0 | 5#0 | 21.00 | 21.18 |
| 5MHz | 20425/826.5 | 3 | 1#0 | 1#0 | 23.39 | 22.82 |
| | | 0 | 6#0 | 5#0 | 22.19 | 21.41 |
| | 20525/836.5 | 0 | 1#0 | 1#0 | 23.55 | 23.42 |
| | | 0 | 6#0 | 5#0 | 22.26 | 21.31 |
| | 20625/846.5 | 0 | 1#5 | 1#5 | 23.08 | 22.67 |
| | | 3 | 6#0 | 5#0 | 22.06 | 21.29 |
| 10MHz | 20450/829 | 3 | 1#0 | 1#0 | 23.30 | 22.90 |
| | | 0 | 4#0 | 4#0 | 23.16 | 21.77 |
| | 20525/836.5 | 0 | 1#0 | 1#0 | 23.59 | 23.47 |
| | | 0 | 4#0 | 4#0 | 23.28 | 22.22 |
| | 20600/844 | 4 | 1#5 | 1#5 | 23.16 | 23.17 |
| | | 7 | 4#2 | 4#2 | 23.03 | 22.05 |

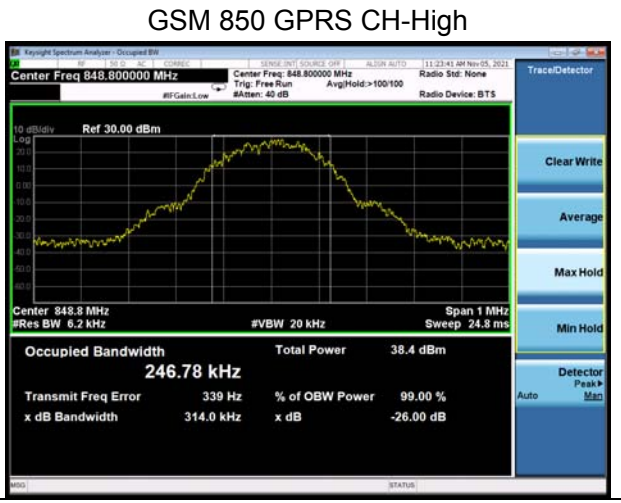
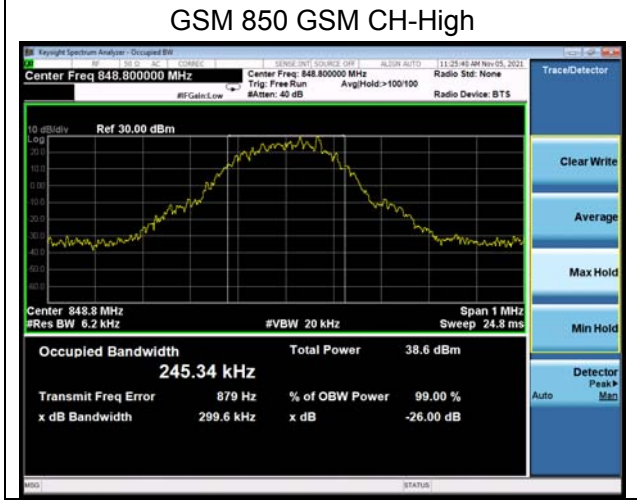
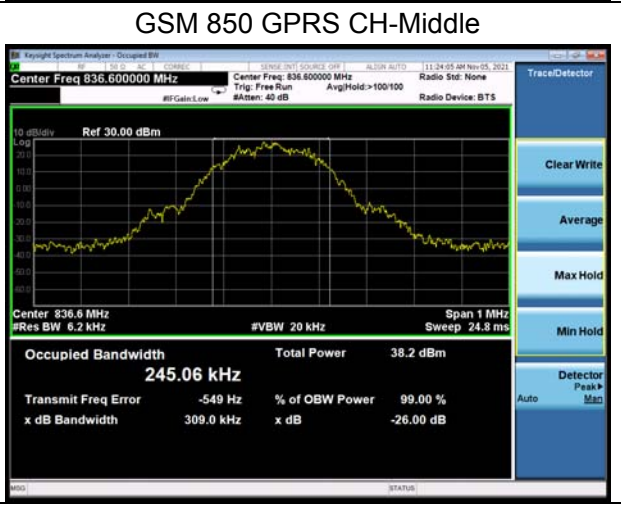
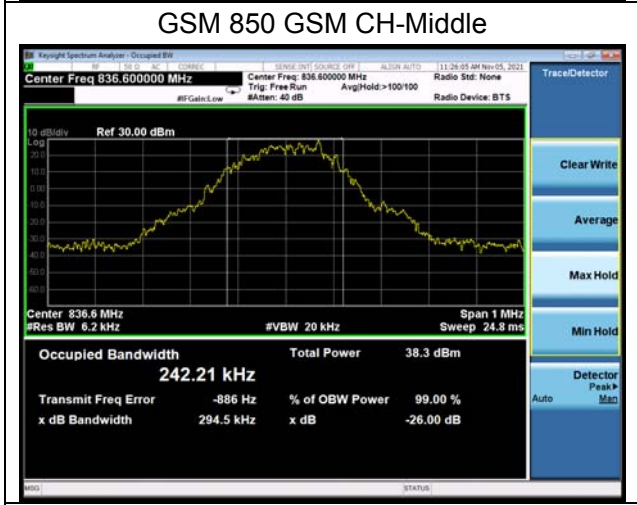
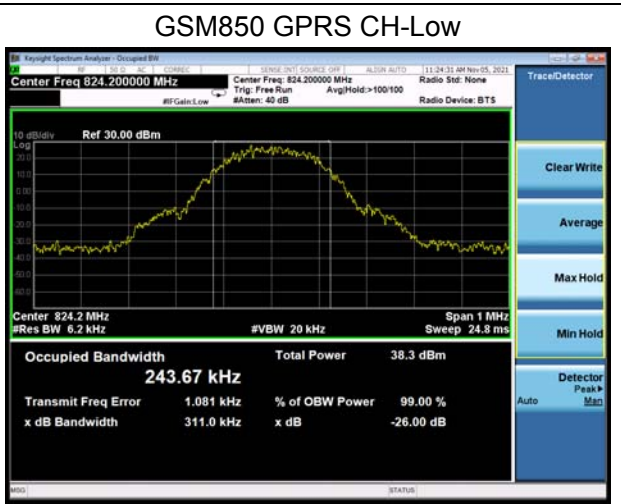
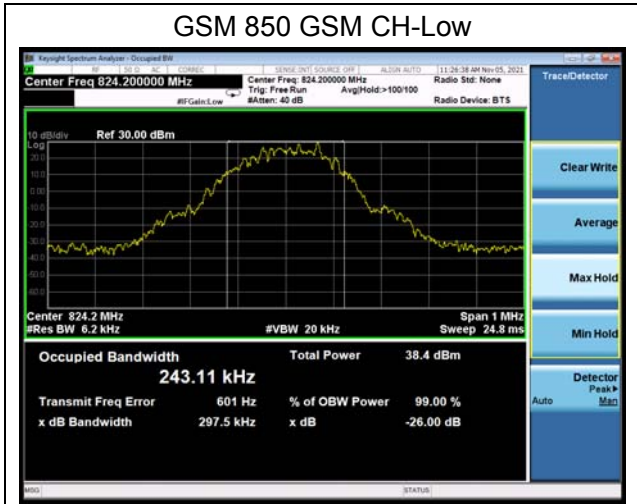
| LTE Band 26 | Channel/ Frequency(MHz) | Index | RB# RBstart QPSK | RB# RBstart 16QAM | Conducted Power (dBm) | |
|----------------|----------------------------|-------|------------------------|-------------------------|--------------------------|-------|
| | | | | | QPSK | 16QAM |
| 1.4MHz | 26797/824.7 | 0 | 1#0 | 1#0 | 23.43 | 22.43 |
| | | 0 | 6#0 | 5#0 | 21.25 | 21.36 |
| | 26915/836.5 | 0 | 1#0 | 1#0 | 23.50 | 22.43 |
| | | 0 | 6#0 | 5#0 | 21.13 | 21.29 |
| | 27033/848.3 | 0 | 1#5 | 1#5 | 23.00 | 22.01 |
| | | 0 | 6#0 | 5#0 | 21.19 | 21.34 |
| 3MHz | 26805/825.5 | 0 | 1#0 | 1#0 | 23.37 | 22.39 |
| | | 0 | 6#0 | 5#0 | 21.23 | 21.33 |
| | 26915/836.5 | 0 | 1#0 | 1#0 | 23.48 | 22.35 |
| | | 0 | 6#0 | 5#0 | 21.19 | 21.22 |
| | 27025/847.5 | 1 | 1#5 | 1#5 | 23.47 | 22.33 |
| | | 1 | 6#0 | 5#0 | 21.19 | 21.31 |
| 5MHz | 26815/826.5 | 3 | 1#0 | 1#0 | 23.34 | 22.89 |
| | | 0 | 6#0 | 5#0 | 22.24 | 21.46 |
| | 26915/836.5 | 0 | 1#0 | 1#0 | 23.45 | 23.34 |
| | | 0 | 6#0 | 5#0 | 22.23 | 21.38 |
| | 27015/846.5 | 0 | 1#5 | 1#5 | 23.15 | 22.79 |
| | | 3 | 6#0 | 5#0 | 22.13 | 21.36 |
| 10MHz | 26840/829 | 3 | 1#0 | 1#0 | 23.35 | 22.94 |
| | | 0 | 4#0 | 4#0 | 23.15 | 21.81 |
| | 26915/836.5 | 0 | 1#0 | 1#0 | 23.51 | 23.44 |
| | | 0 | 4#0 | 4#0 | 23.19 | 22.14 |
| | 26990/844 | 4 | 1#5 | 1#5 | 23.25 | 22.68 |
| | | 7 | 4#2 | 4#2 | 23.13 | 21.79 |
| 15MHz | 26865/831.5 | 3 | 1#0 | 1#0 | 23.39 | 22.79 |
| | | 0 | 6#0 | 5#0 | 23.11 | 23.33 |
| | 26915/836.5 | 0 | 1#0 | 1#0 | 23.47 | 23.48 |
| | | 0 | 6#0 | 5#0 | 23.16 | 23.23 |
| | 26965/841.5 26797/824.7 | 8 | 1#5 | 1#5 | 23.10 | 22.80 |
| | | 11 | 6#0 | 5#0 | 23.19 | 23.27 |

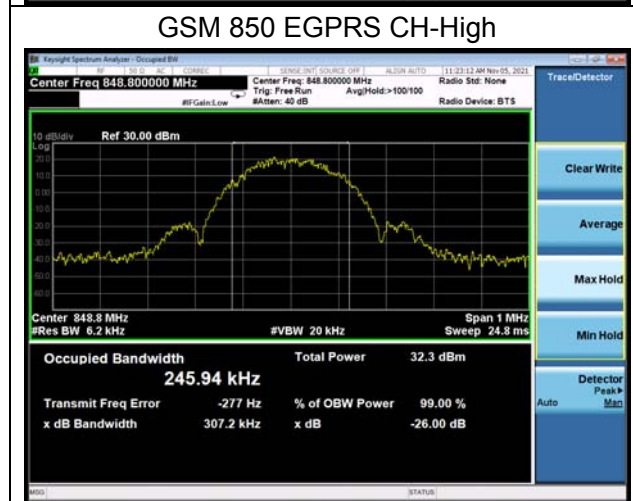
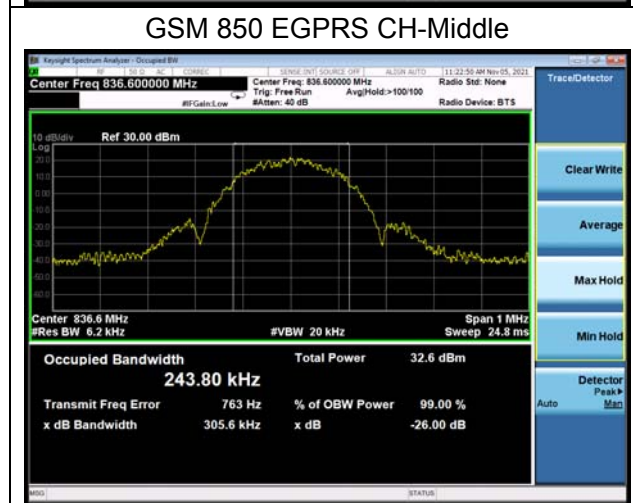
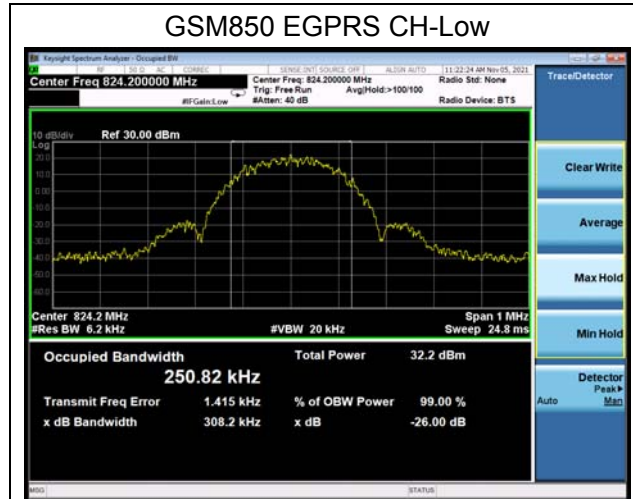
Occupied Bandwidth

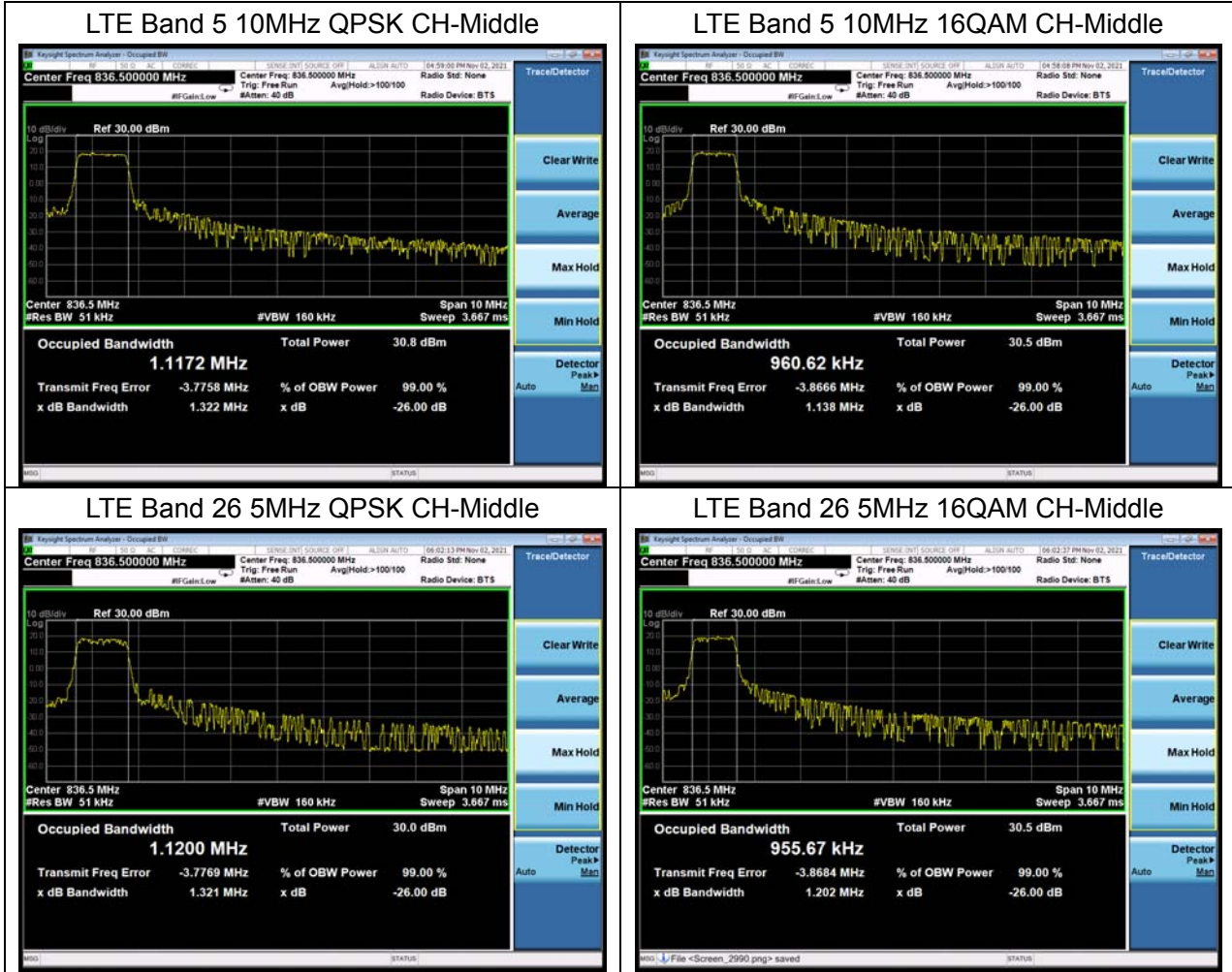
| Mode | Channel | Frequency (MHz) | 99% Power Bandwidth (MHz) | -26dBc Bandwidth(MHz) |
|-------------------|---------|-----------------|---------------------------|-----------------------|
| GSM 850 (GSM) | 128 | 824.2 | 0.24311 | 0.2975 |
| | 190 | 836.6 | 0.24221 | 0.2945 |
| | 251 | 848.8 | 0.24534 | 0.2996 |
| GPRS 850 (GMSK) | 128 | 824.2 | 0.24367 | 0.331 |
| | 190 | 836.6 | 0.24506 | 0.309 |
| | 251 | 848.8 | 0.24678 | 0.314 |
| EGPRS 850 (8-PSK) | 128 | 824.2 | 0.25082 | 0.3082 |
| | 190 | 836.6 | 0.2438 | 0.3056 |
| | 251 | 848.8 | 0.24594 | 3072 |

| Mode | Bandwidth | Modulation | Channel/ Frequency(MHz) | RB | Bandwidth(MHz) | |
|---------------|-----------|------------|----------------------------|-----|----------------|--------|
| | | | | | 99% Power | -26dBc |
| LTE Band 5 | 10MHz | QPSK | 20525/836.5 | 6#0 | 1.1172 | 1.322 |
| | | 16QAM | 20525/836.5 | 6#0 | 0.9606 | 1.1380 |

| Mode | Bandwidth | Modulation | Channel/ Frequency(MHz) | RB | Bandwidth(MHz) | |
|----------------|-----------|------------|----------------------------|-----|----------------|--------|
| | | | | | 99% Power | -26dBc |
| LTE Band 26 | 10MHz | QPSK | 26915/836.5 | 6#0 | 1.1200 | 1.321 |
| | | 16QAM | 26915/836.5 | 6#0 | 0.9557 | 1.202 |

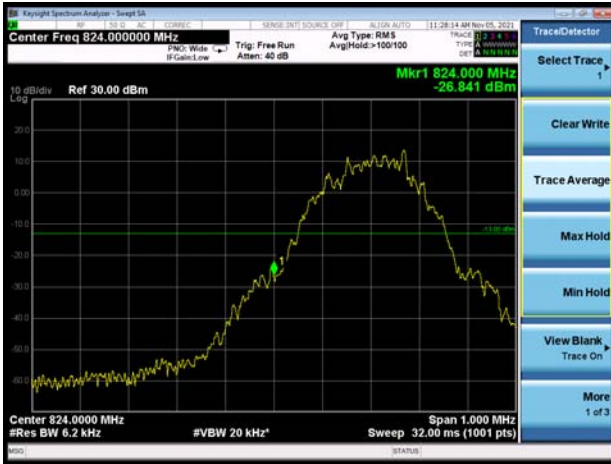




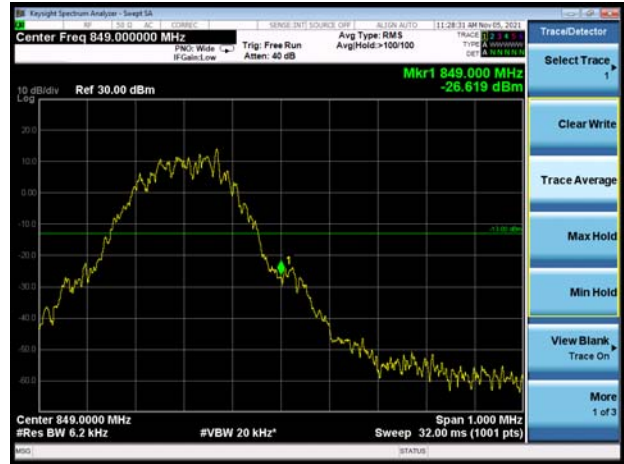


Band Edge Compliance

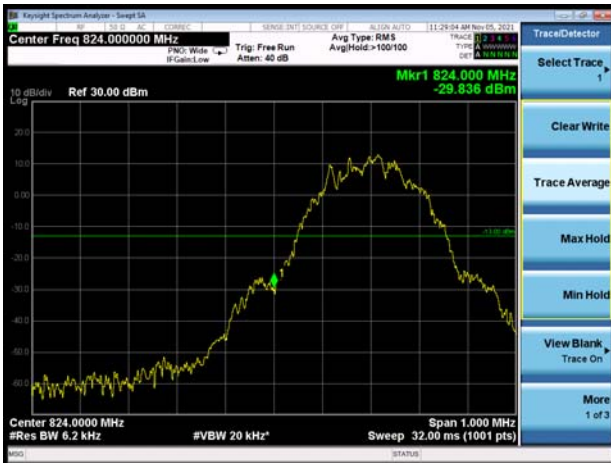
GSM850 GSM CH-Low



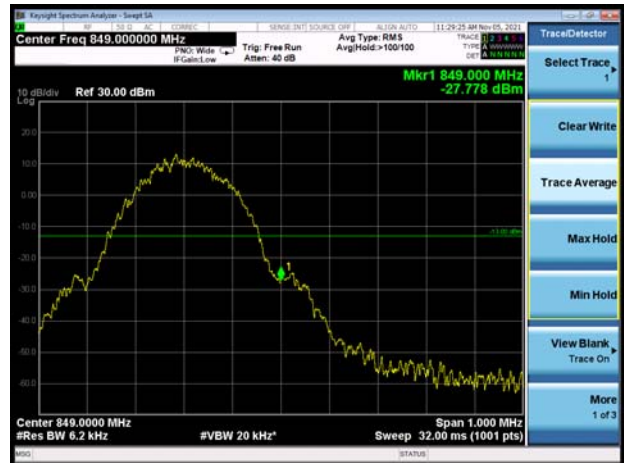
GSM 850 GSM CH-High



GSM850 GPRS CH-Low



GSM 850 GPRS CH-High



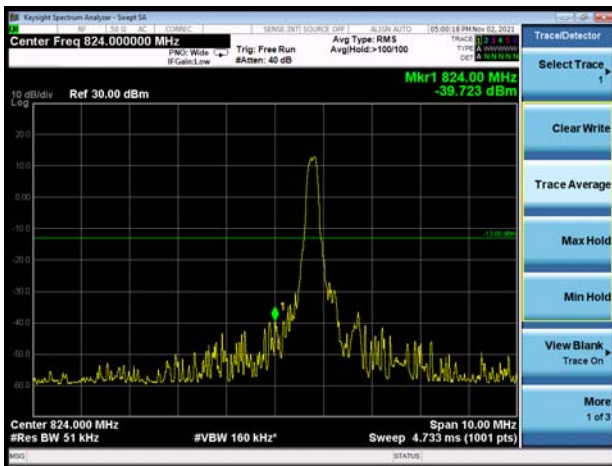
GSM850 EGPRS CH-Low



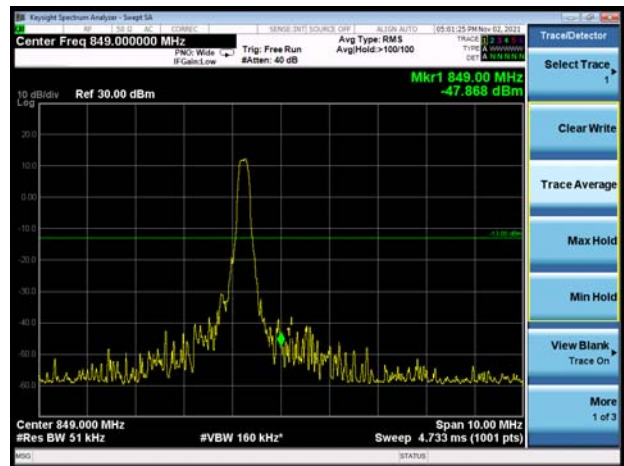
GSM 850 EGPRS CH-High



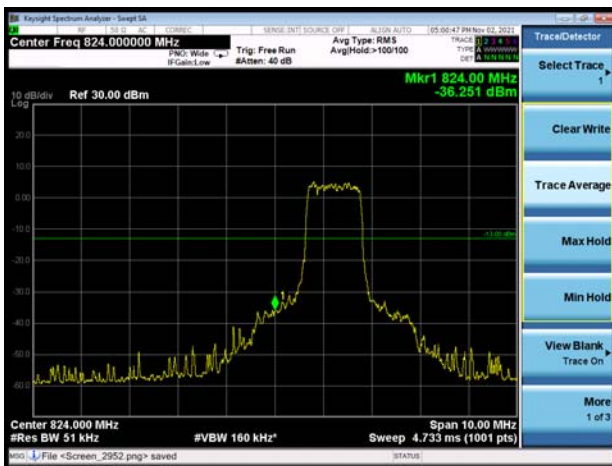
LTE Band 5 10MHz QPSK 1RB CH-Low



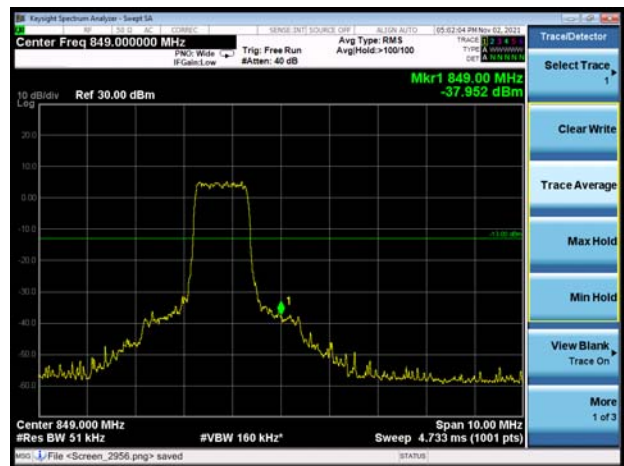
LTE Band 5 10MHz QPSK 1RB CH-High



LTE Band 5 10MHz QPSK 100%RB CH-Low



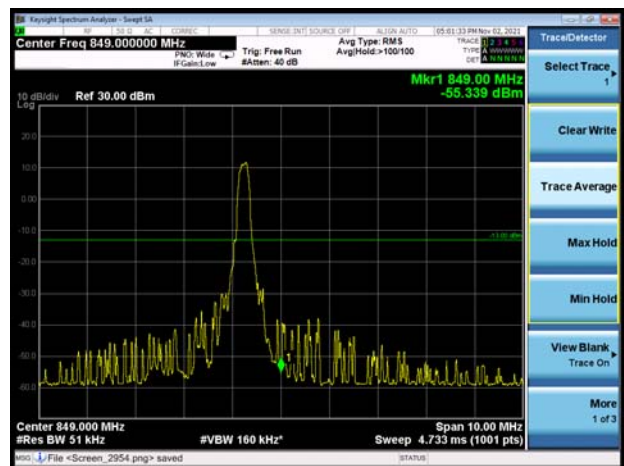
LTE Band 5 10MHz QPSK 100%RB CH-High



LTE Band 5 10MHz 16QAM 1RB CH-Low

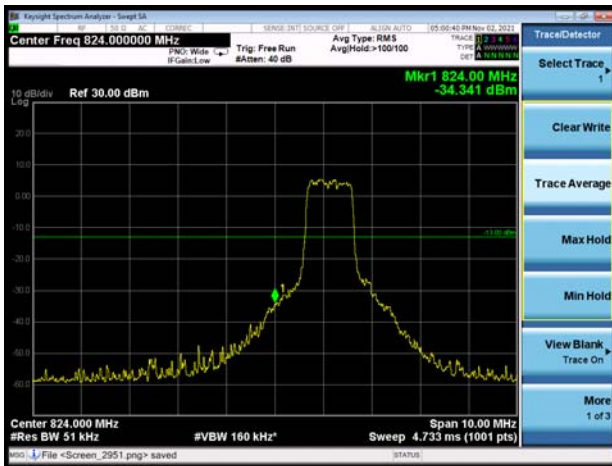


LTE Band 5 10MHz 16QAM 1RB CH-High

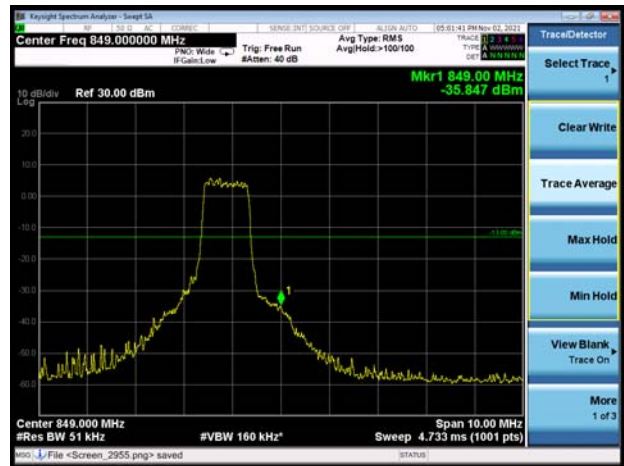




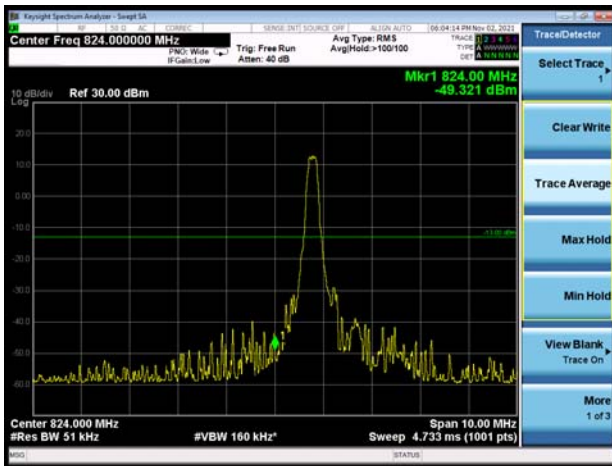
LTE Band 5 10MHz 16QAM 100%RB CH-Low



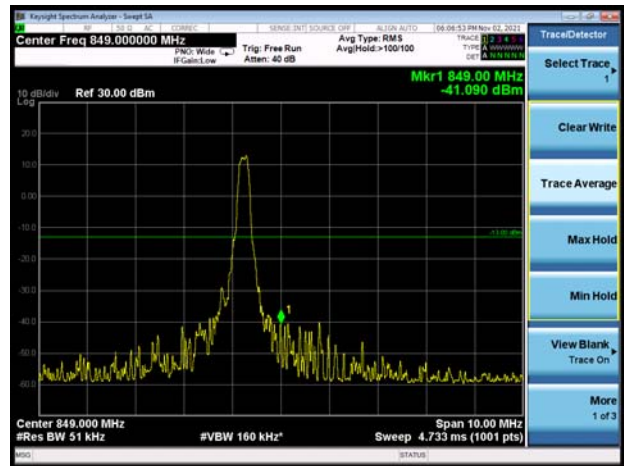
LTE Band 5 10MHz 16QAM 100%RB CH-High



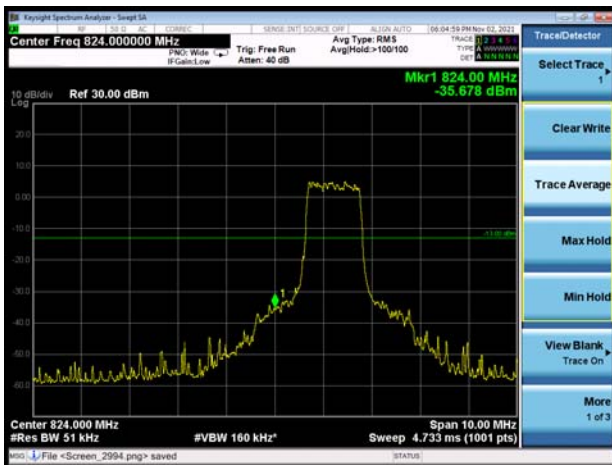
LTE Band 26 5MHz QPSK 1RB CH-Low



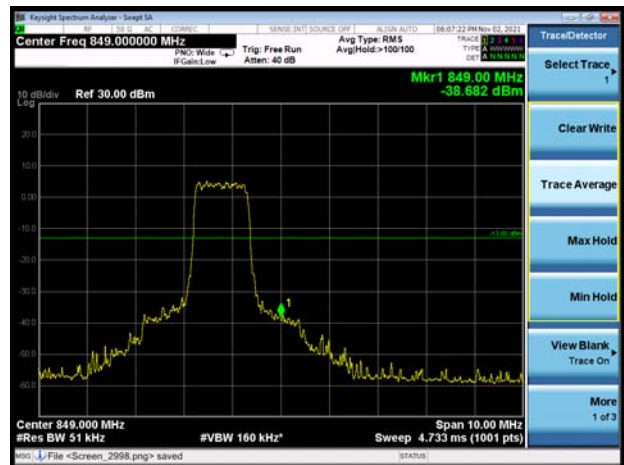
LTE Band 26 5MHz QPSK 1RB CH-High



LTE Band 26 5MHz QPSK 100%RB CH-Low



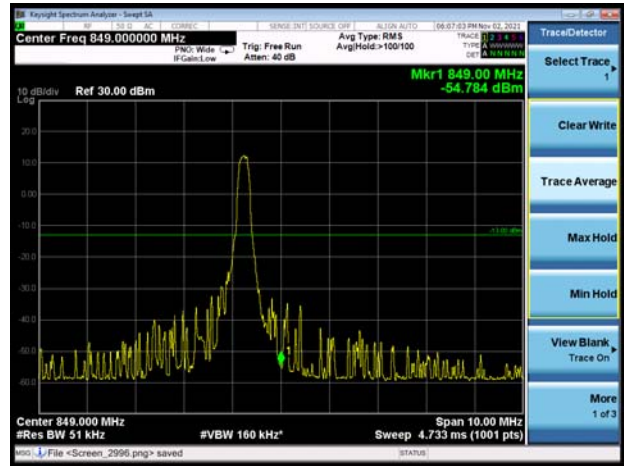
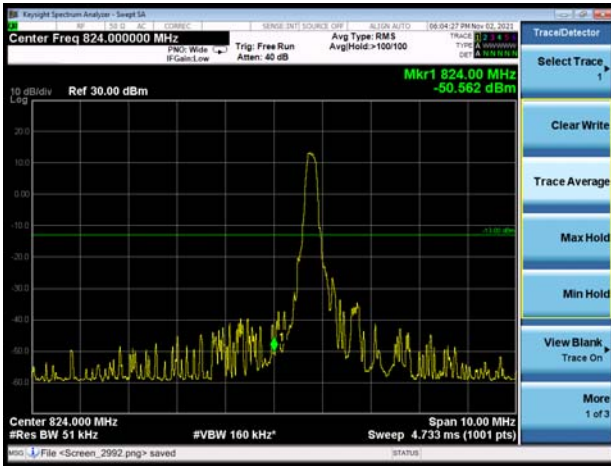
LTE Band 26 5MHz QPSK 100%RB CH-High





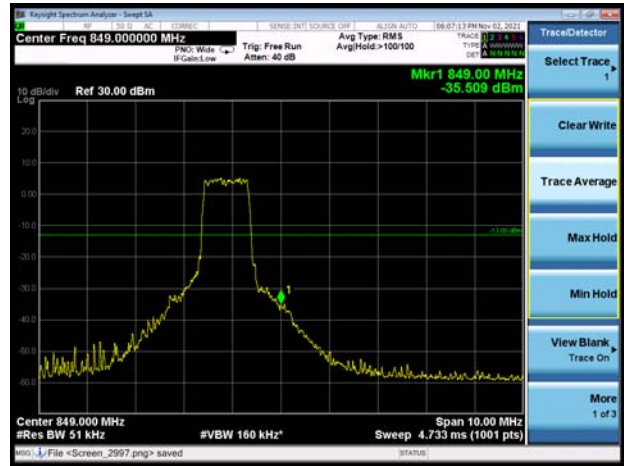
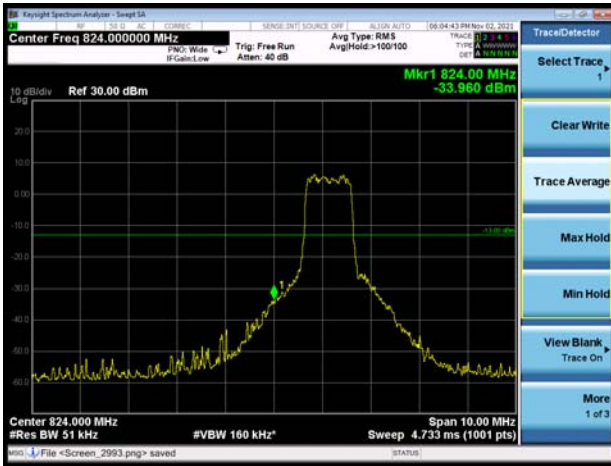
LTE Band 26 5MHz 16QAM 1RB CH-Low

LTE Band 26 5MHz 16QAM 1RB CH-High



LTE Band 26 5MHz 16QAM 100%RB CH-Low

LTE Band 26 5MHz 16QAM 100%RB CH-High



Peak-to-Average Power Ratio (PAPR)

| Mode | Channel | Frequency (MHz) | Peak(dBm) | Avg(dBm) | PAPR(dB) | Limit(dB) | Conclusion |
|------------------|---------|-----------------|-----------|----------|----------|-----------|------------|
| GSM 850 (GMSK) | 128 | 824.2 | 33.31 | 30.20 | 3.11 | ≤13 | PASS |
| | 190 | 836.6 | 33.43 | 30.29 | 3.14 | ≤13 | PASS |
| | 251 | 848.8 | 33.54 | 30.37 | 3.17 | ≤13 | PASS |
| GPRS 850 (GMSK) | 128 | 824.2 | 33.35 | 30.23 | 3.12 | ≤13 | PASS |
| | 190 | 836.6 | 33.48 | 30.33 | 3.15 | ≤13 | PASS |
| | 251 | 848.8 | 33.59 | 30.41 | 3.18 | ≤13 | PASS |
| EGPRS 850 (8PSK) | 128 | 824.2 | 30.10 | 24.31 | 5.79 | ≤13 | PASS |
| | 190 | 836.6 | 30.11 | 24.29 | 5.82 | ≤13 | PASS |
| | 251 | 848.8 | 30.17 | 24.34 | 5.83 | ≤13 | PASS |

| Mode | Bandwidth | Modulation | Channel/ Frequency(MHz) | Peak-to-Average Power Ratio (PAPR) | | | Limit(dB) | Conclusion |
|---------------|-----------|------------|----------------------------|------------------------------------|----------|----------|-----------|------------|
| | | | | Peak(dBm) | Avg(dBm) | PAPR(dB) | | |
| LTE Band 5 | 1.4MHz | QPSK | 20525/836.5 | 25.13 | 15.99 | 9.14 | ≤13 | PASS |
| | | 16QAM | 20525/836.5 | 25.87 | 15.92 | 9.95 | ≤13 | PASS |
| | 3MHz | QPSK | 20525/836.5 | 25.07 | 14.46 | 10.61 | ≤13 | PASS |
| | | 16QAM | 20525/836.5 | 25.85 | 15.92 | 9.93 | ≤13 | PASS |
| | 5MHz | QPSK | 20525/836.5 | 25.95 | 16.90 | 9.05 | ≤13 | PASS |
| | | 16QAM | 20525/836.5 | 25.91 | 15.30 | 10.61 | ≤13 | PASS |
| | 10MHz | QPSK | 20525/836.5 | 25.94 | 16.80 | 9.14 | ≤13 | PASS |
| | | 16QAM | 20525/836.5 | 26.52 | 16.43 | 10.09 | ≤13 | PASS |

| Mode | Bandwidth | Modulation | Channel/ Frequency(MHz) | Peak-to-Average Power Ratio (PAPR) | | | Limit(dB) | Conclusion |
|-------------------|-----------|------------|----------------------------|---------------------------------------|----------|----------|-----------|------------|
| | | | | Peak(dBm) | Avg(dBm) | PAPR(dB) | | |
| LTE Band 26 | 1.4MHz | QPSK | 26915/836.5 | 25.08 | 15.49 | 9.59 | ≤13 | PASS |
| | | 16QAM | 26915/836.5 | 25.74 | 15.60 | 10.14 | ≤13 | PASS |
| | 3MHz | QPSK | 26915/836.5 | 25.07 | 15.33 | 9.74 | ≤13 | PASS |
| | | 16QAM | 26915/836.5 | 25.84 | 15.63 | 10.21 | ≤13 | PASS |
| | 5MHz | QPSK | 26915/836.5 | 25.88 | 16.39 | 9.49 | ≤13 | PASS |
| | | 16QAM | 26915/836.5 | 25.87 | 15.42 | 10.45 | ≤13 | PASS |
| | 10MHz | QPSK | 26915/836.5 | 25.85 | 16.40 | 9.45 | ≤13 | PASS |
| | | 16QAM | 26915/836.5 | 26.49 | 16.40 | 10.09 | ≤13 | PASS |
| | 15MHz | QPSK | 26915/836.5 | 26.60 | 17.10 | 9.50 | ≤13 | PASS |
| | | 16QAM | 26915/836.5 | 27.02 | 17.70 | 9.32 | ≤13 | PASS |

Frequency Stability

| GSM850 | | | | | | |
|-----------------|---------|-----------------|-----------------|---------------------------|---------------------------|---------|
| Condition | | Freq.Error (Hz) | Freq.Error (Hz) | Frequency Stability (ppm) | Frequency Stability (ppm) | Verdict |
| Temperature | Voltage | GMSK | 8PSK | GMSK | 8PSK | |
| Normal (25°C) | Normal | 17.39 | 16.25 | 0.00925 | 0.00864 | PASS |
| Extreme (85°C) | | 8.02 | 6.59 | 0.00427 | 0.00350 | PASS |
| Extreme (80°C) | | 17.05 | 2.15 | 0.00907 | 0.00114 | PASS |
| Extreme (70°C) | | 17.73 | 2.66 | 0.00943 | 0.00142 | PASS |
| Extreme (60°C) | | 3.30 | 16.73 | 0.00175 | 0.00890 | PASS |
| Extreme (50°C) | | 15.98 | 5.29 | 0.00850 | 0.00281 | PASS |
| Extreme (40°C) | | 15.69 | 12.28 | 0.00835 | 0.00653 | PASS |
| Extreme (30°C) | | 3.93 | 15.90 | 0.00209 | 0.00846 | PASS |
| Extreme (20°C) | | 4.32 | 10.93 | 0.00230 | 0.00581 | PASS |
| Extreme (10°C) | | 14.63 | 8.25 | 0.00778 | 0.00439 | PASS |
| Extreme (0°C) | | 15.94 | 14.62 | 0.00848 | 0.00777 | PASS |
| Extreme (-10°C) | | 14.59 | 12.46 | 0.00776 | 0.00663 | PASS |
| Extreme (-20°C) | | 13.80 | 10.56 | 0.00734 | 0.00562 | PASS |
| Extreme (-30°C) | | 3.55 | 6.57 | 0.00189 | 0.00349 | PASS |
| Extreme (-40°C) | | 5.63 | 9.09 | 0.00300 | 0.00484 | PASS |
| 25°C | LV | 16.49 | 9.34 | 0.00877 | 0.00497 | PASS |
| | HV | 12.74 | 7.45 | 0.00678 | 0.00396 | PASS |

| LTE Band 5 | | | | | | |
|-----------------|---------|-----------------|-----------------|---------------------------|---------------------------|---------|
| Condition | | Freq.Error (Hz) | Freq.Error (Hz) | Frequency Stability (ppm) | Frequency Stability (ppm) | Verdict |
| BANDWIDTH | 1.4MHz | | | | | |
| Temperature | Voltage | 16QAM | QPSK | 16QAM | QPSK | |
| Normal (25°C) | Normal | 4.40 | 11.54 | 0.00526 | 0.01379 | PASS |
| Extreme (85°C) | | 9.21 | 15.86 | 0.01101 | 0.01896 | PASS |
| Extreme (80°C) | | 8.96 | 12.54 | 0.01071 | 0.01500 | PASS |
| Extreme (70°C) | | 17.33 | 10.90 | 0.02071 | 0.01303 | PASS |
| Extreme (60°C) | | 9.34 | 16.35 | 0.01117 | 0.01955 | PASS |
| Extreme (50°C) | | 1.67 | 2.53 | 0.00199 | 0.00302 | PASS |
| Extreme (40°C) | | 15.46 | 1.46 | 0.01849 | 0.00175 | PASS |
| Extreme (30°C) | | 12.13 | 7.02 | 0.01450 | 0.00839 | PASS |
| Extreme (20°C) | | 7.17 | 12.83 | 0.00857 | 0.01534 | PASS |
| Extreme (10°C) | | 16.55 | 16.07 | 0.01979 | 0.01921 | PASS |
| Extreme (0°C) | | 14.54 | 11.91 | 0.01738 | 0.01424 | PASS |
| Extreme (-10°C) | | 16.48 | 4.84 | 0.01970 | 0.00579 | PASS |
| Extreme (-20°C) | | 14.75 | 14.65 | 0.01764 | 0.01751 | PASS |
| Extreme (-30°C) | | 9.65 | 10.35 | 0.01154 | 0.01237 | PASS |
| Extreme (-40°C) | | 14.16 | 4.78 | 0.01693 | 0.00572 | PASS |
| 25°C | LV | 11.18 | 15.06 | 0.01337 | 0.01800 | PASS |
| | HV | 10.57 | 17.54 | 0.01263 | 0.02096 | PASS |
| Condition | | Freq.Error (Hz) | Freq.Error (Hz) | Frequency Stability (ppm) | Frequency Stability (ppm) | Verdict |
| BANDWIDTH | 3MHz | | | | | |
| Temperature | Voltage | 16QAM | QPSK | 16QAM | QPSK | |
| Normal (25°C) | Normal | 9.27 | 2.01 | 0.01108 | 0.00240 | PASS |
| Extreme (85°C) | | 15.40 | 9.78 | 0.01841 | 0.01169 | PASS |
| Extreme (80°C) | | 6.33 | 5.53 | 0.00757 | 0.00662 | PASS |
| Extreme (70°C) | | 15.11 | 3.32 | 0.01807 | 0.00397 | PASS |
| Extreme (60°C) | | 13.93 | 6.89 | 0.01665 | 0.00823 | PASS |
| Extreme (50°C) | | 14.54 | 10.69 | 0.01738 | 0.01279 | PASS |
| Extreme (40°C) | | 15.84 | 5.23 | 0.01894 | 0.00625 | PASS |
| Extreme (30°C) | | 2.50 | 10.16 | 0.00299 | 0.01214 | PASS |
| Extreme (20°C) | | 1.44 | 13.59 | 0.00172 | 0.01625 | PASS |
| Extreme (10°C) | | 13.94 | 17.63 | 0.01667 | 0.02107 | PASS |
| Extreme (0°C) | | 16.59 | 15.30 | 0.01983 | 0.01829 | PASS |
| Extreme (-10°C) | | 5.23 | 7.17 | 0.00625 | 0.00857 | PASS |
| Extreme (-20°C) | | 17.67 | 17.63 | 0.02113 | 0.02108 | PASS |
| Extreme (-30°C) | | 6.64 | 4.59 | 0.00794 | 0.00549 | PASS |
| Extreme (-40°C) | | 17.98 | 10.38 | 0.02149 | 0.01240 | PASS |
| 25°C | LV | 5.00 | 11.86 | 0.00597 | 0.01417 | PASS |

| Condition | | Freq.Error (Hz) | Freq.Error (Hz) | Frequency Stability (ppm) | Frequency Stability (ppm) | Verdict |
|-----------------|---------|-----------------|-----------------|---------------------------|---------------------------|---------|
| BANDWIDTH | 5MHz | 16QAM | QPSK | 16QAM | QPSK | |
| HV | | 2.52 | 6.16 | 0.00302 | 0.00736 | PASS |
| Temperature | Voltage | 16QAM | QPSK | 16QAM | QPSK | |
| Normal (25°C) | Normal | 2.83 | 12.31 | 0.00338 | 0.01472 | PASS |
| Extreme (85°C) | | 7.80 | 9.03 | 0.00932 | 0.01079 | PASS |
| Extreme (80°C) | | 13.26 | 13.26 | 0.01585 | 0.01585 | PASS |
| Extreme (70°C) | | 1.57 | 1.06 | 0.00188 | 0.00126 | PASS |
| Extreme (60°C) | | 13.03 | 6.09 | 0.01557 | 0.00727 | PASS |
| Extreme (50°C) | | 17.84 | 16.04 | 0.02133 | 0.01918 | PASS |
| Extreme (40°C) | | 10.33 | 16.78 | 0.01234 | 0.02006 | PASS |
| Extreme (30°C) | | 10.57 | 2.62 | 0.01264 | 0.00313 | PASS |
| Extreme (20°C) | | 1.08 | 3.17 | 0.00129 | 0.00378 | PASS |
| Extreme (10°C) | | 9.49 | 9.95 | 0.01135 | 0.01190 | PASS |
| Extreme (0°C) | | 8.09 | 16.40 | 0.00968 | 0.01960 | PASS |
| Extreme (-10°C) | | 6.20 | 5.94 | 0.00741 | 0.00710 | PASS |
| Extreme (-20°C) | | 7.91 | 16.56 | 0.00946 | 0.01979 | PASS |
| Extreme (-30°C) | | 2.11 | 5.69 | 0.00253 | 0.00680 | PASS |
| Extreme (-40°C) | | 3.67 | 11.66 | 0.00439 | 0.01394 | PASS |
| 25°C | LV | 5.31 | 12.96 | 0.00635 | 0.01549 | PASS |
| | HV | 13.68 | 4.05 | 0.01636 | 0.00485 | PASS |
| Condition | | Freq.Error (Hz) | Freq.Error (Hz) | Frequency Stability (ppm) | Frequency Stability (ppm) | Verdict |
| BANDWIDTH | 10MHz | 16QAM | QPSK | 16QAM | QPSK | |
| Temperature | Voltage | 16QAM | QPSK | 16QAM | QPSK | |
| Normal (25°C) | Normal | 15.46 | 14.97 | 0.01848 | 0.01790 | PASS |
| Extreme (85°C) | | 5.03 | 5.49 | 0.00602 | 0.00656 | PASS |
| Extreme (80°C) | | 16.65 | 5.68 | 0.01990 | 0.00679 | PASS |
| Extreme (70°C) | | 3.29 | 15.92 | 0.00393 | 0.01903 | PASS |
| Extreme (60°C) | | 6.75 | 10.46 | 0.00807 | 0.01250 | PASS |
| Extreme (50°C) | | 2.74 | 11.26 | 0.00328 | 0.01347 | PASS |
| Extreme (40°C) | | 7.11 | 14.83 | 0.00850 | 0.01772 | PASS |
| Extreme (30°C) | | 11.78 | 7.84 | 0.01409 | 0.00937 | PASS |
| Extreme (20°C) | | 15.01 | 7.31 | 0.01794 | 0.00874 | PASS |
| Extreme (10°C) | | 13.82 | 13.55 | 0.01652 | 0.01620 | PASS |
| Extreme (0°C) | | 6.89 | 17.93 | 0.00823 | 0.02143 | PASS |
| Extreme (-10°C) | | 13.88 | 11.48 | 0.01660 | 0.01373 | PASS |
| Extreme (-20°C) | | 7.17 | 15.64 | 0.00857 | 0.01870 | PASS |
| Extreme (-30°C) | | 13.10 | 9.01 | 0.01566 | 0.01077 | PASS |
| Extreme (-40°C) | | 17.81 | 15.64 | 0.02129 | 0.01870 | PASS |
| 25°C | LV | 5.84 | 8.43 | 0.00699 | 0.01008 | PASS |

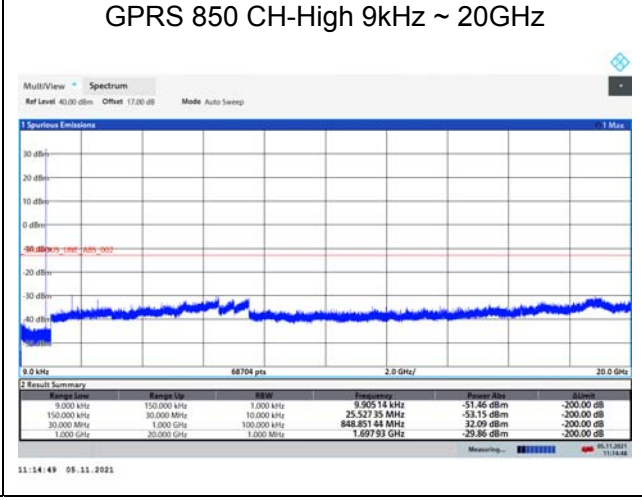
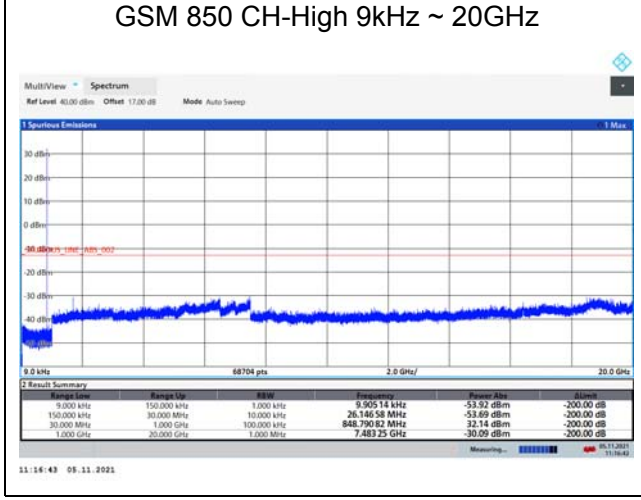
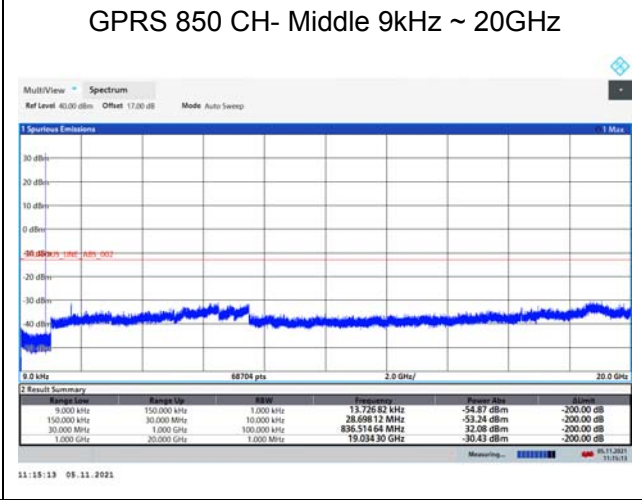
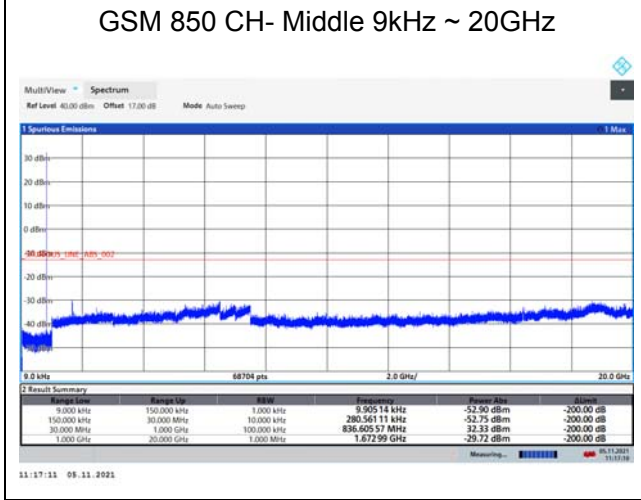
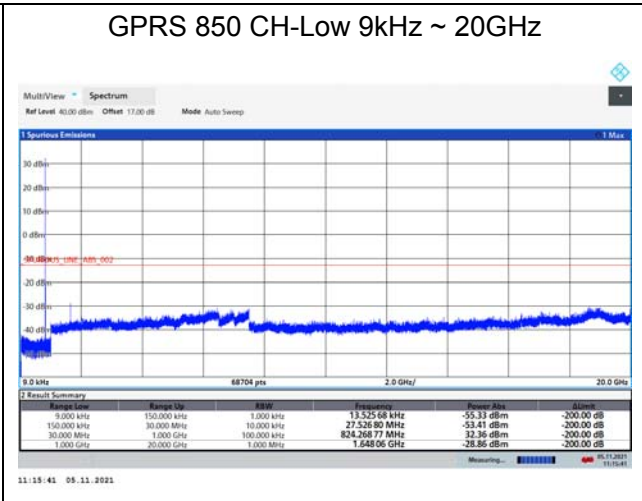
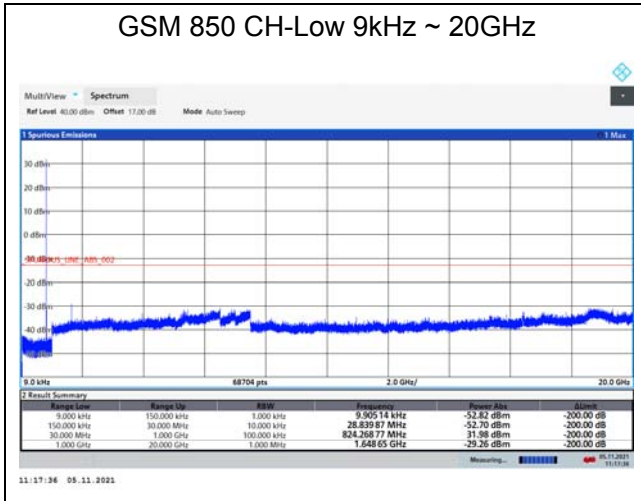
| | | | | | | |
|--|----|------|-------|---------|---------|------|
| | HV | 5.83 | 16.17 | 0.00697 | 0.01933 | PASS |
|--|----|------|-------|---------|---------|------|

| LTE Band 26 | | | | | | |
|-----------------|---------|-----------------|-----------------|---------------------------|---------------------------|---------|
| Condition | | Freq.Error (Hz) | Freq.Error (Hz) | Frequency Stability (ppm) | Frequency Stability (ppm) | Verdict |
| BANDWIDTH | 1.4MHz | | | | | |
| Temperature | Voltage | 16QAM | QPSK | 16QAM | QPSK | |
| Normal (25°C) | Normal | 16.81 | 13.79 | 0.02009 | 0.01648 | PASS |
| Extreme (85°C) | | 17.50 | 6.74 | 0.02092 | 0.00806 | PASS |
| Extreme (80°C) | | 10.25 | 13.41 | 0.01226 | 0.01603 | PASS |
| Extreme (70°C) | | 15.87 | 15.02 | 0.01897 | 0.01796 | PASS |
| Extreme (60°C) | | 5.09 | 9.72 | 0.00608 | 0.01162 | PASS |
| Extreme (50°C) | | 9.15 | 5.06 | 0.01094 | 0.00605 | PASS |
| Extreme (40°C) | | 5.62 | 16.79 | 0.00671 | 0.02007 | PASS |
| Extreme (30°C) | | 11.46 | 10.38 | 0.01371 | 0.01241 | PASS |
| Extreme (20°C) | | 3.05 | 1.46 | 0.00365 | 0.00175 | PASS |
| Extreme (10°C) | | 11.46 | 9.44 | 0.01369 | 0.01129 | PASS |
| Extreme (0°C) | | 3.74 | 3.84 | 0.00447 | 0.00459 | PASS |
| Extreme (-10°C) | | 11.38 | 16.25 | 0.01360 | 0.01943 | PASS |
| Extreme (-20°C) | | 14.01 | 3.77 | 0.01675 | 0.00450 | PASS |
| Extreme (-30°C) | | 16.13 | 4.19 | 0.01928 | 0.00501 | PASS |
| Extreme (-40°C) | | 14.56 | 14.82 | 0.01740 | 0.01771 | PASS |
| 25°C | LV | 6.09 | 2.25 | 0.00728 | 0.00269 | PASS |
| | HV | 1.84 | 9.64 | 0.00220 | 0.01153 | PASS |
| Condition | | Freq.Error (Hz) | Freq.Error (Hz) | Frequency Stability (ppm) | Frequency Stability (ppm) | Verdict |
| BANDWIDTH | 3MHz | | | | | |
| Temperature | Voltage | 16QAM | QPSK | 16QAM | QPSK | |
| Normal (25°C) | Normal | 15.20 | 8.99 | 0.01817 | 0.01075 | PASS |
| Extreme (85°C) | | 11.83 | 5.13 | 0.01415 | 0.00613 | PASS |
| Extreme (80°C) | | 1.06 | 16.10 | 0.00126 | 0.01925 | PASS |
| Extreme (70°C) | | 14.38 | 11.30 | 0.01720 | 0.01351 | PASS |
| Extreme (60°C) | | 8.51 | 17.87 | 0.01018 | 0.02136 | PASS |
| Extreme (50°C) | | 10.94 | 6.26 | 0.01308 | 0.00748 | PASS |
| Extreme (40°C) | | 1.80 | 1.60 | 0.00216 | 0.00192 | PASS |
| Extreme (30°C) | | 5.07 | 2.15 | 0.00606 | 0.00257 | PASS |
| Extreme (20°C) | | 5.15 | 7.00 | 0.00616 | 0.00837 | PASS |
| Extreme (10°C) | | 13.07 | 2.41 | 0.01562 | 0.00288 | PASS |
| Extreme (0°C) | | 9.02 | 7.66 | 0.01079 | 0.00915 | PASS |
| Extreme (-10°C) | | 11.36 | 5.12 | 0.01358 | 0.00612 | PASS |

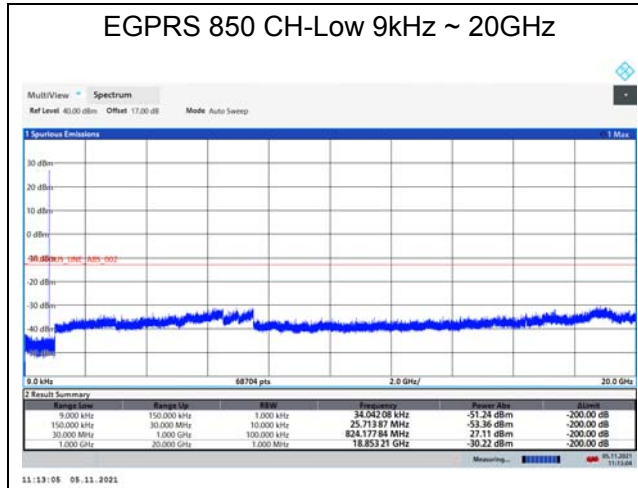
| | | | | | | |
|----------------|---------|--------------------|--------------------|---------------------------------|---------------------------------|---------|
| Extreme (-20℃) | | 1.98 | 10.36 | 0.00237 | 0.01238 | PASS |
| Extreme (-30℃) | | 16.44 | 2.25 | 0.01966 | 0.00269 | PASS |
| Extreme (-40℃) | | 6.68 | 13.34 | 0.00799 | 0.01595 | PASS |
| 25℃ | LV | 4.44 | 14.52 | 0.00531 | 0.01736 | PASS |
| | HV | 2.86 | 9.42 | 0.00342 | 0.01126 | PASS |
| Condition | | Freq.Error (Hz) | Freq.Error (Hz) | Frequency Stability (ppm) | Frequency Stability (ppm) | Verdict |
| BANDWIDTH | 5MHz | | | | | |
| Temperature | Voltage | 16QAM | QPSK | 16QAM | QPSK | |
| Normal (25℃) | Normal | 2.17 | 2.40 | 0.00259 | 0.00286 | PASS |
| Extreme (85℃) | | 12.69 | 8.48 | 0.01517 | 0.01014 | PASS |
| Extreme (80℃) | | 2.47 | 14.98 | 0.00295 | 0.01791 | PASS |
| Extreme (70℃) | | 1.08 | 12.00 | 0.00129 | 0.01435 | PASS |
| Extreme (60℃) | | 9.48 | 8.45 | 0.01134 | 0.01010 | PASS |
| Extreme (50℃) | | 1.82 | 5.46 | 0.00218 | 0.00652 | PASS |
| Extreme (40℃) | | 8.40 | 4.86 | 0.01005 | 0.00581 | PASS |
| Extreme (30℃) | | 15.69 | 4.84 | 0.01876 | 0.00578 | PASS |
| Extreme (20℃) | | 15.33 | 10.26 | 0.01832 | 0.01227 | PASS |
| Extreme (10℃) | | 16.22 | 14.10 | 0.01939 | 0.01686 | PASS |
| Extreme (0℃) | | 14.31 | 8.39 | 0.01711 | 0.01003 | PASS |
| Extreme (-10℃) | | 3.70 | 8.21 | 0.00443 | 0.00981 | PASS |
| Extreme (-20℃) | | 2.99 | 14.98 | 0.00357 | 0.01791 | PASS |
| Extreme (-30℃) | | 15.85 | 9.72 | 0.01895 | 0.01161 | PASS |
| Extreme (-40℃) | | 8.78 | 15.82 | 0.01050 | 0.01891 | PASS |
| 25℃ | LV | 7.87 | 6.58 | 0.00941 | 0.00787 | PASS |
| | HV | 13.29 | 13.37 | 0.01589 | 0.01599 | PASS |
| Condition | | Freq.Error (Hz) | Freq.Error (Hz) | Frequency Stability (ppm) | Frequency Stability (ppm) | Verdict |
| BANDWIDTH | 10MHz | | | | | |
| Temperature | Voltage | 16QAM | QPSK | 16QAM | QPSK | |
| Normal (25℃) | Normal | 11.39 | 11.52 | 0.01362 | 0.01377 | PASS |
| Extreme (85℃) | | 8.62 | 2.62 | 0.01031 | 0.00313 | PASS |
| Extreme (80℃) | | 8.89 | 15.18 | 0.01062 | 0.01815 | PASS |
| Extreme (70℃) | | 10.57 | 13.87 | 0.01264 | 0.01658 | PASS |
| Extreme (60℃) | | 12.80 | 12.80 | 0.01530 | 0.01531 | PASS |
| Extreme (50℃) | | 13.00 | 5.40 | 0.01555 | 0.00646 | PASS |
| Extreme (40℃) | | 9.84 | 13.09 | 0.01176 | 0.01565 | PASS |
| Extreme (30℃) | | 8.17 | 2.54 | 0.00977 | 0.00304 | PASS |
| Extreme (20℃) | | 14.65 | 17.12 | 0.01751 | 0.02047 | PASS |
| Extreme (10℃) | | 2.92 | 17.23 | 0.00349 | 0.02060 | PASS |
| Extreme (0℃) | | 5.98 | 8.50 | 0.00715 | 0.01016 | PASS |

| | | | | | | |
|-----------------|---------|-----------------|-----------------|---------------------------|---------------------------|---------|
| Extreme (-10°C) | | 11.08 | 10.31 | 0.01325 | 0.01232 | PASS |
| Extreme (-20°C) | | 7.42 | 12.35 | 0.00888 | 0.01476 | PASS |
| Extreme (-30°C) | | 5.62 | 8.49 | 0.00671 | 0.01015 | PASS |
| Extreme (-40°C) | | 17.14 | 9.99 | 0.02049 | 0.01194 | PASS |
| 25°C | LV | 2.60 | 2.48 | 0.00311 | 0.00296 | PASS |
| | HV | 9.10 | 10.64 | 0.01088 | 0.01272 | PASS |
| Condition | | Freq.Error (Hz) | Freq.Error (Hz) | Frequency Stability (ppm) | Frequency Stability (ppm) | Verdict |
| BANDWIDTH | 15MHz | | | | | |
| Temperature | Voltage | 16QAM | QPSK | 16QAM | QPSK | |
| Normal (25°C) | Normal | 11.66 | 10.19 | 0.01394 | 0.01219 | PASS |
| Extreme (85°C) | | 7.12 | 3.49 | 0.00852 | 0.00417 | PASS |
| Extreme (80°C) | | 7.66 | 6.24 | 0.00916 | 0.00746 | PASS |
| Extreme (70°C) | | 7.54 | 2.56 | 0.00901 | 0.00306 | PASS |
| Extreme (60°C) | | 5.39 | 5.94 | 0.00645 | 0.00710 | PASS |
| Extreme (50°C) | | 8.16 | 16.65 | 0.00976 | 0.01990 | PASS |
| Extreme (40°C) | | 14.59 | 16.44 | 0.01744 | 0.01965 | PASS |
| Extreme (30°C) | | 6.63 | 12.82 | 0.00792 | 0.01532 | PASS |
| Extreme (20°C) | | 9.44 | 17.29 | 0.01129 | 0.02067 | PASS |
| Extreme (10°C) | | 9.24 | 3.91 | 0.01105 | 0.00467 | PASS |
| Extreme (0°C) | | 4.03 | 16.24 | 0.00482 | 0.01941 | PASS |
| Extreme (-10°C) | | 1.82 | 9.21 | 0.00217 | 0.01101 | PASS |
| Extreme (-20°C) | | 8.03 | 3.12 | 0.00960 | 0.00373 | PASS |
| Extreme (-30°C) | | 7.84 | 6.49 | 0.00937 | 0.00776 | PASS |
| Extreme (-40°C) | | 11.87 | 6.77 | 0.01419 | 0.00809 | PASS |
| 25°C | LV | 2.98 | 16.49 | 0.00356 | 0.01971 | PASS |
| | HV | 14.74 | 3.11 | 0.01762 | 0.00371 | PASS |

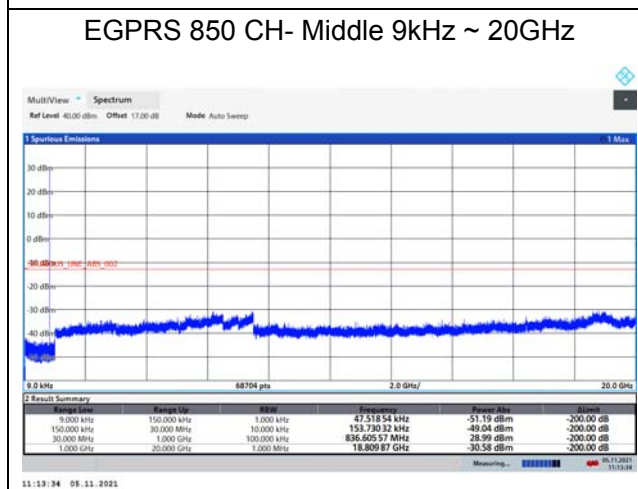
Spurious Emissions at Antenna Terminals



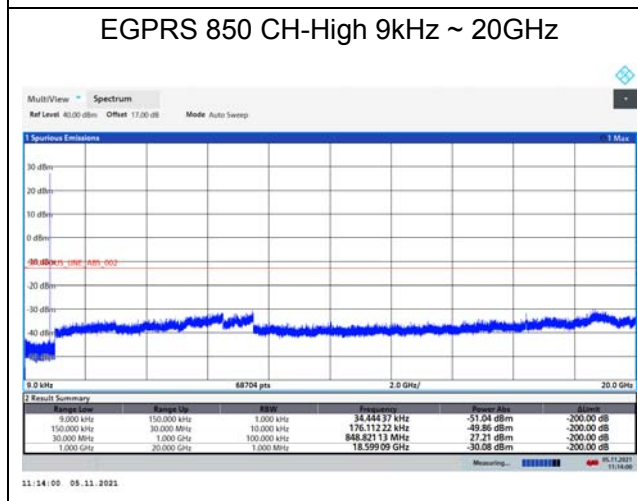
EGPRS 850 CH-Low 9kHz ~ 20GHz



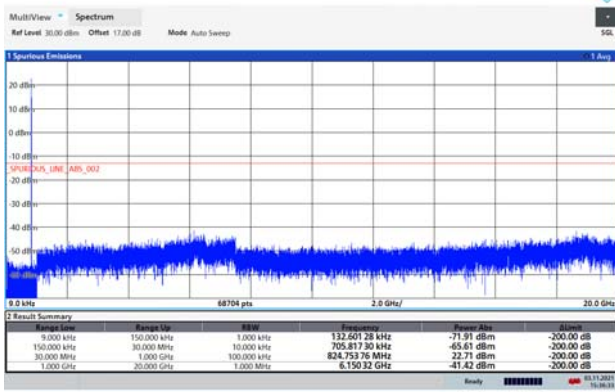
EGPRS 850 CH- Middle 9kHz ~ 20GHz



EGPRS 850 CH-High 9kHz ~ 20GHz

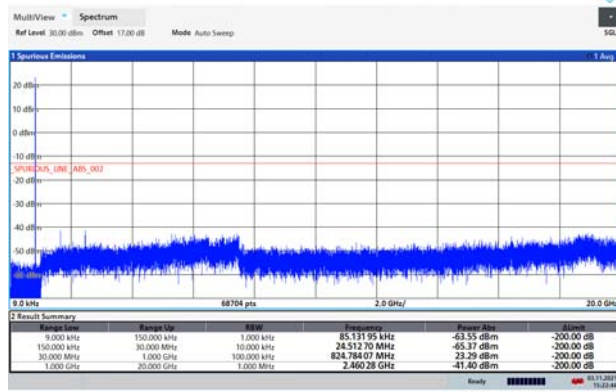


LTE Band 5 10MHz CH-Low 9kHz~20GHz



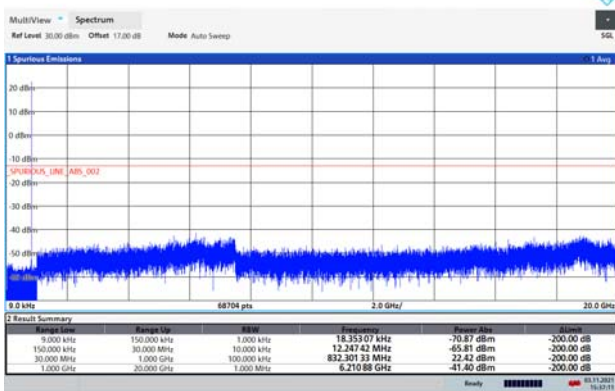
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LTE Band 26 10MHz CH-Low 9kHz~20GHz



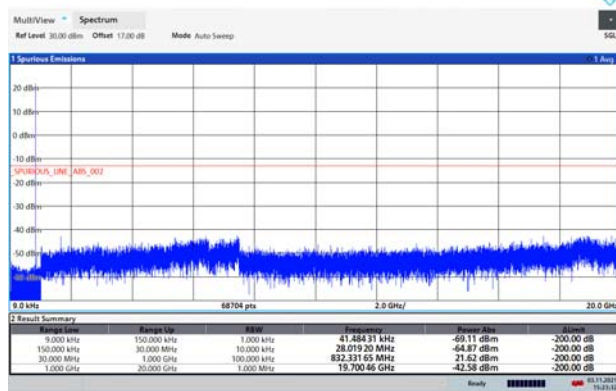
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LTE Band 5 10MHz CH-Middle 9kHz~20GHz



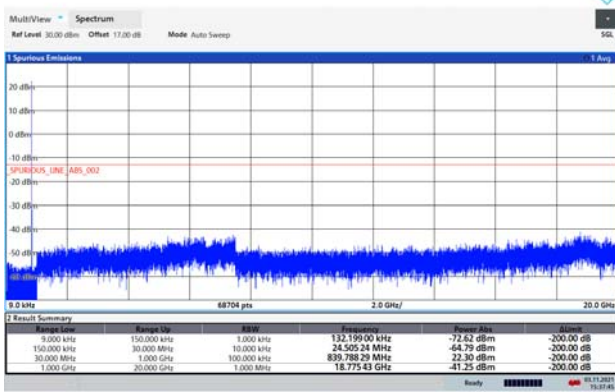
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LTE Band 26 10MHz CH-Middle 9kHz~20GHz



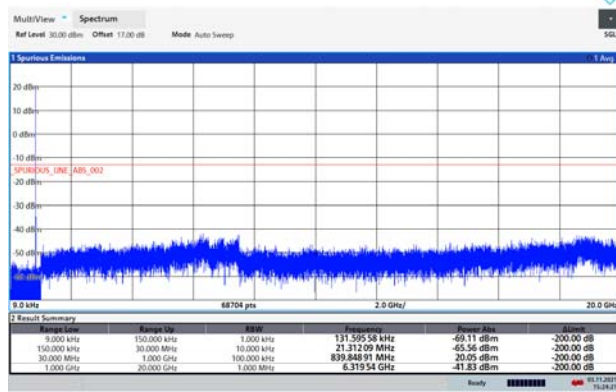
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LTE Band 5 10MHz CH-High 9kHz~20GHz



15:37:45 09.11.2021

LTE Band 26 10MHz CH-High 9kHz~20GHz



15:24:22 09.11.2021

Radiates Spurious Emission

GSM 850 CH-Middle

| Harmonic | Frequency (MHz) | SG (dBm) | Cable Loss (dB) | Gain (dBi) | Antenna Polarization | ERP Level (dBm) | Limit (dBm) | Margin (dB) | Azimuth (deg) |
|----------|-----------------|----------|-----------------|------------|----------------------|-----------------|-------------|-------------|---------------|
| 2 | 1673.2 | -63.99 | 2.00 | 10.75 | Horizontal | -57.39 | -13.0 | 46.08 | 225 |
| 3 | 2509.8 | -65.00 | 2.51 | 11.05 | Horizontal | -58.61 | -13.0 | 43.54 | 45 |
| 4 | 3346.4 | -58.57 | 4.20 | 11.15 | Horizontal | -53.77 | -13.0 | 44.39 | 135 |
| 5 | 4183.0 | -60.57 | 5.20 | 11.15 | Horizontal | -56.77 | -13.0 | 45.61 | 225 |
| 6 | 5019.6 | -57.31 | 5.50 | 11.95 | Horizontal | -53.01 | -13.0 | 40.77 | 45 |
| 7 | 5856.2 | -55.80 | 5.70 | 13.55 | Horizontal | -50.10 | -13.0 | 43.77 | 90 |
| 8 | 6692.8 | -55.15 | 6.30 | 13.75 | Horizontal | -49.85 | -13.0 | 40.01 | 180 |
| 9 | 7529.4 | -62.29 | 6.80 | 13.85 | Horizontal | -57.39 | -13.0 | 37.10 | 180 |
| 10 | 8366.0 | -63.81 | 6.90 | 14.25 | Horizontal | -58.61 | -13.0 | 36.85 | 0 |

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.
2.The worst emission was found in the antenna is Horizontal position.

LTE Band 5 5MHz CH-Middle

| Harmonic | Frequency (MHz) | SG (dBm) | Cable Loss (dB) | Gain (dBi) | Antenna Polarization | ERP Level (dBm) | Limit (dBm) | Margin (dB) | Azimuth (deg) |
|----------|-----------------|----------|-----------------|------------|----------------------|-----------------|-------------|-------------|---------------|
| 2 | 1664.4 | -62.34 | 2.00 | 10.75 | Horizontal | -55.74 | -13.00 | 42.74 | 45 |
| 3 | 2496.6 | -64.30 | 2.51 | 11.05 | Horizontal | -57.91 | -13.00 | 44.91 | 315 |
| 4 | 3346.0 | -63.32 | 4.20 | 11.15 | Horizontal | -58.52 | -13.0 | 45.52 | 0 |
| 5 | 4182.5 | -59.85 | 5.20 | 11.15 | Horizontal | -56.05 | -13.0 | 43.05 | 45 |
| 6 | 5019.0 | -58.75 | 5.50 | 11.95 | Horizontal | -54.45 | -13.0 | 41.45 | 45 |
| 7 | 5855.5 | -60.18 | 5.70 | 13.55 | Horizontal | -54.48 | -13.0 | 41.48 | 180 |
| 8 | 6692.0 | -57.08 | 6.30 | 13.75 | Horizontal | -51.78 | -13.0 | 38.78 | 180 |
| 9 | 7528.5 | -54.46 | 6.80 | 13.85 | Horizontal | -49.56 | -13.0 | 36.56 | 0 |
| 10 | 8365.0 | -54.85 | 6.90 | 14.25 | Horizontal | -49.65 | -13.0 | 36.65 | 90 |

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.
 2.The worst emission was found in the antenna is Horizontal position.

LTE Band 26 1.4MHz CH-Middle

| Harmonic | Frequency (MHz) | SG (dBm) | Cable Loss (dB) | Gain (dBi) | Antenna Polarization | ERP Level (dBm) | Limit (dBm) | Margin (dB) | Azimuth (deg) |
|----------|-----------------|----------|-----------------|------------|----------------------|-----------------|-------------|-------------|---------------|
| 2 | 1673.0 | -52.42 | 2.00 | 10.75 | Horizontal | -45.82 | -13.00 | 32.82 | 45 |
| 3 | 2509.5 | -59.67 | 2.51 | 11.05 | Horizontal | -53.28 | -13.00 | 40.28 | 0 |
| 4 | 3346.0 | -62.10 | 4.20 | 11.15 | Horizontal | -57.30 | -13.00 | 44.30 | 0 |
| 5 | 4182.5 | -60.31 | 5.20 | 11.15 | Horizontal | -56.51 | -13.00 | 43.51 | 135 |
| 6 | 5019.0 | -58.50 | 5.50 | 11.95 | Horizontal | -54.20 | -13.00 | 41.20 | 225 |
| 7 | 5855.5 | -60.94 | 5.70 | 13.55 | Horizontal | -55.24 | -13.00 | 42.24 | 315 |
| 8 | 6692.0 | -59.90 | 6.30 | 13.75 | Horizontal | -54.60 | -13.00 | 41.60 | 225 |
| 9 | 7528.5 | -54.10 | 6.80 | 13.85 | Horizontal | -49.20 | -13.00 | 36.20 | 225 |
| 10 | 8365.0 | -54.44 | 6.90 | 14.25 | Horizontal | -49.24 | -13.00 | 36.24 | 45 |

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.
 2.The worst emission was found in the antenna is Horizontal position.

Main Test Instruments

Date of Testing (variant): August 31, 2021 ~ November 5, 2021

| Name | Manufacturer | Type | Serial Number | Calibration Date | Expiration Date |
|--------------------------|--------------|------------|----------------|------------------|-----------------|
| Base Station Simulator | R&S | CMW500 | 113824 | 2021-05-15 | 2022-05-14 |
| Climate Chamber | Weiss | VT4002 | 58226119450010 | 2021-05-15 | 2022-05-14 |
| Spectrum Analyzer | Key sight | N9020 | MY52330084 | 2021-05-15 | 2022-05-14 |
| Signal Analyzer | R&S | FSV3030 | 101411 | 2020-12-13 | 2021-12-12 |
| Signal Analyzer | R&S | FSV30 | 100815 | 2020-12-13 | 2021-12-12 |
| TRILOG Broadband Antenna | Schwarzbeck | VULB 9163 | 01111 | 2019--9-12 | 2022-09-11 |
| Horn Antenna | Schwarzbeck | BBHA 9120D | 1594 | 2020-12-17 | 2021-12-16 |