## EDGE 850MHz　CH128　824.2MHz
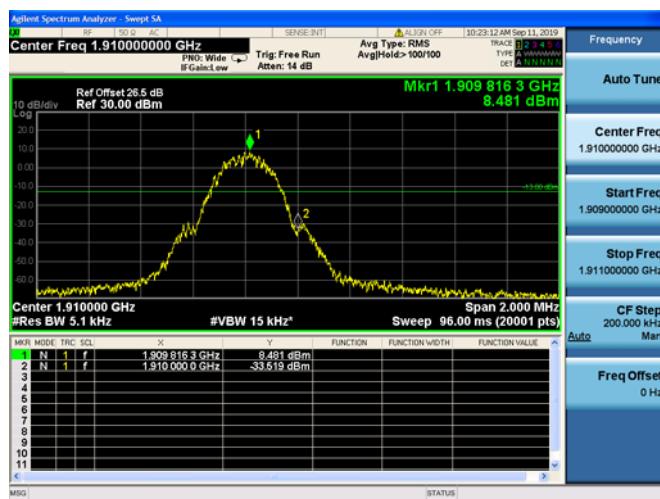


## EDGE 850MHz　CH251　848.8MHz



## EDGE 1900MHz　CH521　1850.2MHz



## EDGE 1900MHz　CH810　1909.8MHz



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## WCDMA Band V　CH4132　826.4MHz



## WCDMA Band V　CH4233　846.6MHz



## WCDMA Band II　CH9262　1852.4MHz



## WCDMA Band II　CH9538　1907.6MHz
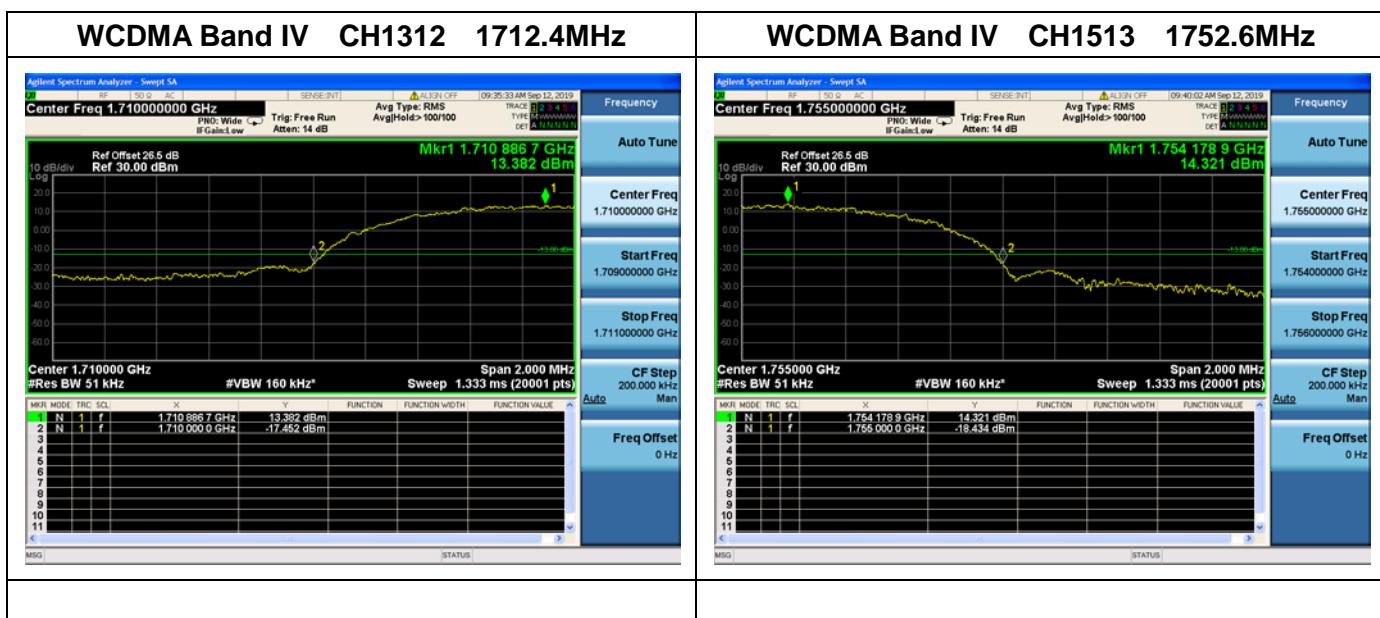
| WCDMA Band IV   CH1312   1712.4MHz | WCDMA Band IV   CH1513   1752.6MHz |
|---|---|
|  |  |

# 2.7. Transmitter Radiated Power (EIRP/ERP)

## 2.7.1. Requirement

According to FCC section 22.913, the Effective Radiated Power (ERP) of mobile transmitters and auxiliary test transmitters must not exceed 7 Watts.
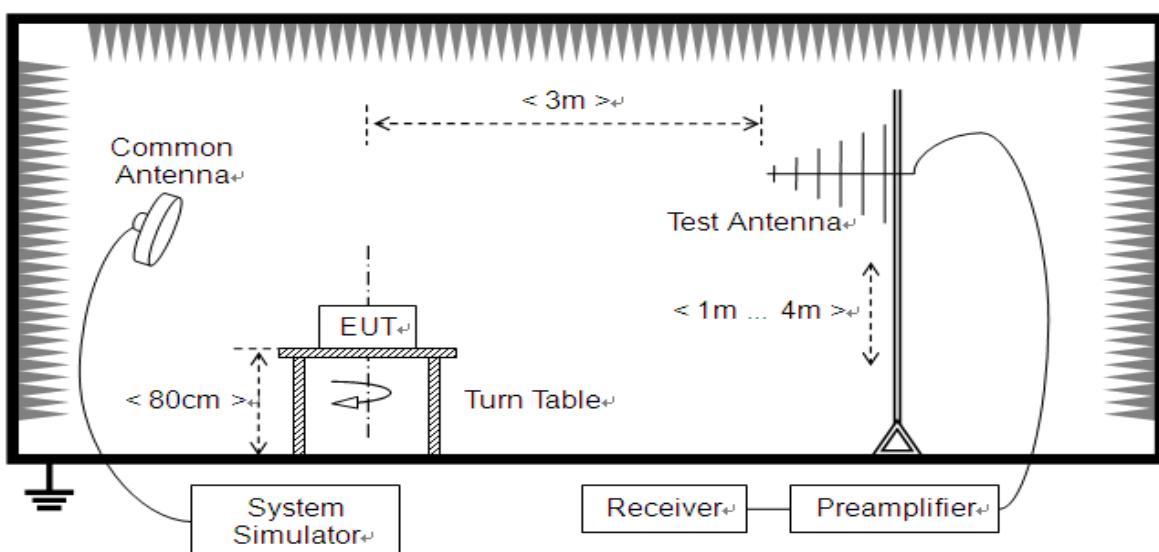
According to FCC section 24.232, the broadband PCS mobile station is limited to 2 Watts e.i.r.p. peak power.

According to FCC section 27.50, mobile, and portable (hand-held) stations is limited to 1 Watts e.i.r.p. peak power.

## 2.7.2. Test Description

Test Setup:

1) Below1GHz

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2) Above 1GHz



The EUT is located in a 3m Full-Anechoic Chamber; the cable loss, air loss and so on of the site as factors are pre-calibrated using the "Substitution" method, and calculated to correct the reading.

A call is established between the EUT and the SS via a Common Antenna. The EUT is commanded by the SS to operate at the maximum and minimum output power (i.e. GSM850MHz band Power Control Level (PCL) = 5/19 and Power Class = 4, GSM1900MHz band Power Control Level (PCL) = 0/15 and Power Class = 1), and only the test result of the maximum output power was recorded. Please refer to section 2.1.3 of this report.

- Step size (dB): 3dB

The Test Antenna is a Bi-Log one (used for 30MHz to 1GHz) or a Horn one (used for above 3GHz), it's located at the same height as the EUT. The Filters consists of Notch Filters and High Pass Filter.

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### 2.7.3. Test Result

The Turn Table is actuated to turn from 0° to 360°, and both horizontal and vertical polarizations of the Test Antenna are used to find the maximum radiated power. The lowest, middle and highest channels are tested.

The substitution corrections are obtained as described below:

$A_{SUBST} = P_{SUBST\_TX} - P_{SUBST\_RX} - L_{SUBST\_CABLES} + G_{SUBST\_TX\_ANT}$

$A_{TOT} = L_{CABLES} + A_{SUBST}$

Where   $A_{SUBST}$ is the final substitution correction including receive antenna gain.

$P_{SUBST\_TX}$ is signal generator level,

$P_{SUBST\_RX}$ is receiver level,

$L_{SUBST\_CABLES}$ is cable losses including TX cable,

$G_{SUBST\_TX\_ANT}$ is substitution antenna gain.

$A_{TOT}$ is total correction factor including cable loss and substitution correction

During the test, the data of $A_{TOT}$ was added in the Test Spectrum Analyze, so Spectrum Analyze reading is the final values which contain the data of $A_{TOT}$.

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**Top Anntenna：**

**GSM Test verdict:**

| Band | Channel | Frequency (MHz) | PCL | Measured ERP | | Limit | | Verdict |
|------|---------|-----------------|-----|------|------|------|------|---------|
| | | | | dBm | W | dBm | W | |
| GSM 850MHz | 128 | 824.20 | 5 | 29.75 | 0.944 | 38.5 | 7 | PASS |
| | 190 | 836.60 | 5 | 29.95 | 0.989 | | | PASS |
| | 251 | 848.80 | 5 | 30.15 | 1.035 | | | PASS |
| GPRS 850MHz | 128 | 824.20 | 5 | 29.85 | 0.966 | 38.5 | 7 | PASS |
| | 190 | 836.60 | 5 | 29.85 | 0.966 | | | PASS |
| | 251 | 848.80 | 5 | 30.05 | 1.012 | | | PASS |
| EDGE 850MHz | 128 | 824.20 | 5 | 24.95 | 0.313 | 38.5 | 7 | PASS |
| | 190 | 836.60 | 5 | 25.05 | 0.320 | | | PASS |
| | 251 | 848.80 | 5 | 25.05 | 0.320 | | | PASS |

**Note 1:** For the GPRS and EDGE model, all the slots were tested and just the worst data were recorded in this report.

**Note 2:** Both horizontal and vertical polarizations of the test antenna are evaluated respectively, only the worst data (horizontal) were recorded in this report.

| Band | Channel | Frequency (MHz) | PCL | Measured EIRP | | Limit | | Verdict |
|------|---------|-----------------|-----|------|------|------|------|---------|
| | | | | dBm | W | dBm | W | |
| GSM 1900MHz | 512 | 1850.2 | 0 | 26.48 | 0.445 | 33 | 2 | PASS |
| | 661 | 1880.0 | 0 | 26.56 | 0.453 | | | PASS |
| | 810 | 1909.8 | 0 | 26.49 | 0.446 | | | PASS |
| GPRS 1900MHz | 512 | 1850.2 | 0 | 26.42 | 0.439 | 33 | 2 | PASS |
| | 661 | 1880.0 | 0 | 26.59 | 0.456 | | | PASS |
| | 810 | 1909.8 | 0 | 26.52 | 0.449 | | | PASS |
| EDGE 1900MHz | 512 | 1850.2 | 0 | 22.93 | 0.196 | 33 | 2 | PASS |
| | 661 | 1880.0 | 0 | 22.96 | 0.198 | | | PASS |
| | 810 | 1909.8 | 0 | 22.91 | 0.195 | | | PASS |

**Note 1:** For the GPRS and EDGE model, all the slots were tested and just the worst data were recorded in this report.

**Note 2:** Both horizontal and vertical polarizations of the test antenna are evaluated respectively, only the worst data (horizontal) were recorded in this report.

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**WCDMA Test verdict:**

| Band | Channel | Frequency (MHz) | Measured ERP | | Limit | | Verdict |
|---|---|---|---|---|---|---|---|
| | | | dBm | W | dBm | W | |
| WCDMA Band V | 4132 | 826.4 | 20.98 | 0.125 | 38.5 | 7 | PASS |
| | 4182 | 836.4 | 21.03 | 0.127 | | | PASS |
| | 4233 | 846.6 | 20.89 | 0.123 | | | PASS |
| HSDPA Band V | 4132 | 826.4 | 18.36 | 0.069 | 38.5 | 7 | PASS |
| | 4182 | 836.4 | 18.52 | 0.071 | | | PASS |
| | 4233 | 846.6 | 18.43 | 0.070 | | | PASS |
| HSUPA Band V | 4132 | 826.4 | 18.37 | 0.069 | 38.5 | 7 | PASS |
| | 4182 | 836.4 | 18.50 | 0.071 | | | PASS |
| | 4233 | 846.6 | 18.49 | 0.071 | | | PASS |
| **Note:** Both horizontal and vertical polarizations of the test antenna are evaluated respectively, only the worst data (horizontal) were recorded in this report. | | | | | | | |

| Band | Channel | Frequency (MHz) | Measured EIRP | | Limit | | Verdict |
|---|---|---|---|---|---|---|---|
| | | | dBm | W | dBm | W | |
| WCDMA Band II | 9262 | 1852.4 | 17.46 | 0.056 | 33 | 2 | PASS |
| | 9400 | 1880.0 | 17.48 | 0.056 | | | PASS |
| | 9538 | 1907.6 | 17.45 | 0.056 | | | PASS |
| HSDPA Band II | 9262 | 1852.4 | 15.13 | 0.033 | 33 | 2 | PASS |
| | 9400 | 1880.0 | 15.29 | 0.034 | | | PASS |
| | 9538 | 1907.6 | 15.19 | 0.033 | | | PASS |
| HSUPA Band II | 9262 | 1852.4 | 15.23 | 0.033 | 33 | 2 | PASS |
| | 9400 | 1880.0 | 15.25 | 0.033 | | | PASS |
| | 9538 | 1907.6 | 15.32 | 0.034 | | | PASS |
| **Note:** Both horizontal and vertical polarizations of the test antenna are evaluated respectively, only the worst data (horizontal) were recorded in this report. | | | | | | | |

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| Band | Channel | Frequency (MHz) | Measured EIRP | | Limit | | Verdict |
|---|---|---|---|---|---|---|---|
| | | | dBm | W | dBm | W | |
| WCDMA Band IV | 1312 | 1712.4 | 18.81 | 0.076 | 30 | 1 | PASS |
| | 1413 | 1732.6 | 19.31 | 0.085 | | | PASS |
| | 1513 | 1752.6 | 19.17 | 0.083 | | | PASS |
| HSDPA Band IV | 1312 | 1712.4 | 16.65 | 0.046 | 30 | 1 | PASS |
| | 1413 | 1732.6 | 16.80 | 0.048 | | | PASS |
| | 1513 | 1752.6 | 16.70 | 0.047 | | | PASS |
| HSUPA Band IV | 1312 | 1712.4 | 16.75 | 0.047 | 30 | 1 | PASS |
| | 1413 | 1732.6 | 16.76 | 0.047 | | | PASS |
| | 1513 | 1752.6 | 16.83 | 0.048 | | | PASS |

**Note:** Both horizontal and vertical polarizations of the test antenna are evaluated respectively, only the worst data (horizontal) were recorded in this report.

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**Bottom Anntenna：**

**GSM Test verdict:**

| Band | Channel | Frequency (MHz) | PCL | Measured ERP | | Limit | | Verdict |
|---|---|---|---|---|---|---|---|---|
| | | | | dBm | W | dBm | W | |
| GSM 850MHz | 128 | 824.20 | 5 | 32.20 | 1.660 | 38.5 | 7 | PASS |
| | 190 | 836.60 | 5 | 32.32 | 1.706 | | | PASS |
| | 251 | 848.80 | 5 | 32.47 | 1.766 | | | PASS |
| GPRS 850MHz | 128 | 824.20 | 5 | 32.22 | 1.667 | 38.5 | 7 | PASS |
| | 190 | 836.60 | 5 | 32.30 | 1.698 | | | PASS |
| | 251 | 848.80 | 5 | 32.47 | 1.766 | | | PASS |
| EDGE 850MHz | 128 | 824.20 | 5 | 26.54 | 0.451 | 38.5 | 7 | PASS |
| | 190 | 836.60 | 5 | 26.55 | 0.452 | | | PASS |
| | 251 | 848.80 | 5 | 26.61 | 0.458 | | | PASS |

**Note 1:** For the GPRS and EDGE model, all the slots were tested and just the worst data were recorded in this report.

**Note 2:** Both horizontal and vertical polarizations of the test antenna are evaluated respectively, only the worst data (horizontal) were recorded in this report.

| Band | Channel | Frequency (MHz) | PCL | Measured EIRP | | Limit | | Verdict |
|---|---|---|---|---|---|---|---|---|
| | | | | dBm | W | dBm | W | |
| GSM 1900MHz | 512 | 1850.2 | 0 | 29.11 | 0.815 | 33 | 2 | PASS |
| | 661 | 1880.0 | 0 | 28.99 | 0.793 | | | PASS |
| | 810 | 1909.8 | 0 | 29.20 | 0.832 | | | PASS |
| GPRS 1900MHz | 512 | 1850.2 | 0 | 28.97 | 0.789 | 33 | 2 | PASS |
| | 661 | 1880.0 | 0 | 29.08 | 0.809 | | | PASS |
| | 810 | 1909.8 | 0 | 29.23 | 0.838 | | | PASS |
| EDGE 1900MHz | 512 | 1850.2 | 0 | 27.93 | 0.621 | 33 | 2 | PASS |
| | 661 | 1880.0 | 0 | 28.04 | 0.637 | | | PASS |
| | 810 | 1909.8 | 0 | 28.24 | 0.667 | | | PASS |

**Note 1:** For the GPRS and EDGE model, all the slots were tested and just the worst data were recorded in this report.

**Note 2:** Both horizontal and vertical polarizations of the test antenna are evaluated respectively, only the worst data (horizontal) were recorded in this report.

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**WCDMA Test verdict:**

| Band | Channel | Frequency (MHz) | Measured ERP | | Limit | | Verdict |
|---|---|---|---|---|---|---|---|
| | | | dBm | W | dBm | W | |
| WCDMA Band V | 4132 | 826.4 | 21.98 | 0.158 | 38.5 | 7 | PASS |
| | 4182 | 836.4 | 22.03 | 0.160 | | | PASS |
| | 4233 | 846.6 | 21.89 | 0.155 | | | PASS |
| HSDPA Band V | 4132 | 826.4 | 19.36 | 0.086 | 38.5 | 7 | PASS |
| | 4182 | 836.4 | 19.52 | 0.090 | | | PASS |
| | 4233 | 846.6 | 19.43 | 0.088 | | | PASS |
| HSUPA Band V | 4132 | 826.4 | 19.37 | 0.086 | 38.5 | 7 | PASS |
| | 4182 | 836.4 | 19.50 | 0.089 | | | PASS |
| | 4233 | 846.6 | 19.49 | 0.089 | | | PASS |
| **Note:** Both horizontal and vertical polarizations of the test antenna are evaluated respectively, only the worst data (horizontal) were recorded in this report. | | | | | | | |

| Band | Channel | Frequency (MHz) | Measured EIRP | | Limit | | Verdict |
|---|---|---|---|---|---|---|---|
| | | | dBm | W | dBm | W | |
| WCDMA Band II | 9262 | 1852.4 | 21.28 | 0.134 | 33 | 2 | PASS |
| | 9400 | 1880.0 | 21.30 | 0.135 | | | PASS |
| | 9538 | 1907.6 | 21.27 | 0.134 | | | PASS |
| HSDPA Band II | 9262 | 1852.4 | 18.63 | 0.073 | 33 | 2 | PASS |
| | 9400 | 1880.0 | 18.79 | 0.076 | | | PASS |
| | 9538 | 1907.6 | 18.69 | 0.074 | | | PASS |
| HSUPA Band II | 9262 | 1852.4 | 18.73 | 0.075 | 33 | 2 | PASS |
| | 9400 | 1880.0 | 18.75 | 0.075 | | | PASS |
| | 9538 | 1907.6 | 18.82 | 0.076 | | | PASS |
| **Note:** Both horizontal and vertical polarizations of the test antenna are evaluated respectively, only the worst data (horizontal) were recorded in this report. | | | | | | | |

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| Band | Channel | Frequency (MHz) | Measured EIRP | | Limit | | Verdict |
|---|---|---|---|---|---|---|---|
| | | | dBm | W | dBm | W | |
| WCDMA Band IV | 1312 | 1712.4 | 22.31 | 0.170 | 30 | 1 | PASS |
| | 1413 | 1732.6 | 22.81 | 0.191 | | | PASS |
| | 1513 | 1752.6 | 22.67 | 0.185 | | | PASS |
| HSDPA Band IV | 1312 | 1712.4 | 20.15 | 0.104 | 30 | 1 | PASS |
| | 1413 | 1732.6 | 20.30 | 0.107 | | | PASS |
| | 1513 | 1752.6 | 20.20 | 0.105 | | | PASS |
| HSUPA Band IV | 1312 | 1712.4 | 20.25 | 0.106 | 30 | 1 | PASS |
| | 1413 | 1732.6 | 20.26 | 0.106 | | | PASS |
| | 1513 | 1752.6 | 20.33 | 0.108 | | | PASS |

**Note:** Both horizontal and vertical polarizations of the test antenna are evaluated respectively, only the worst data (horizontal) were recorded in this report.

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## 2.8. Radiated Out of Band Emissions
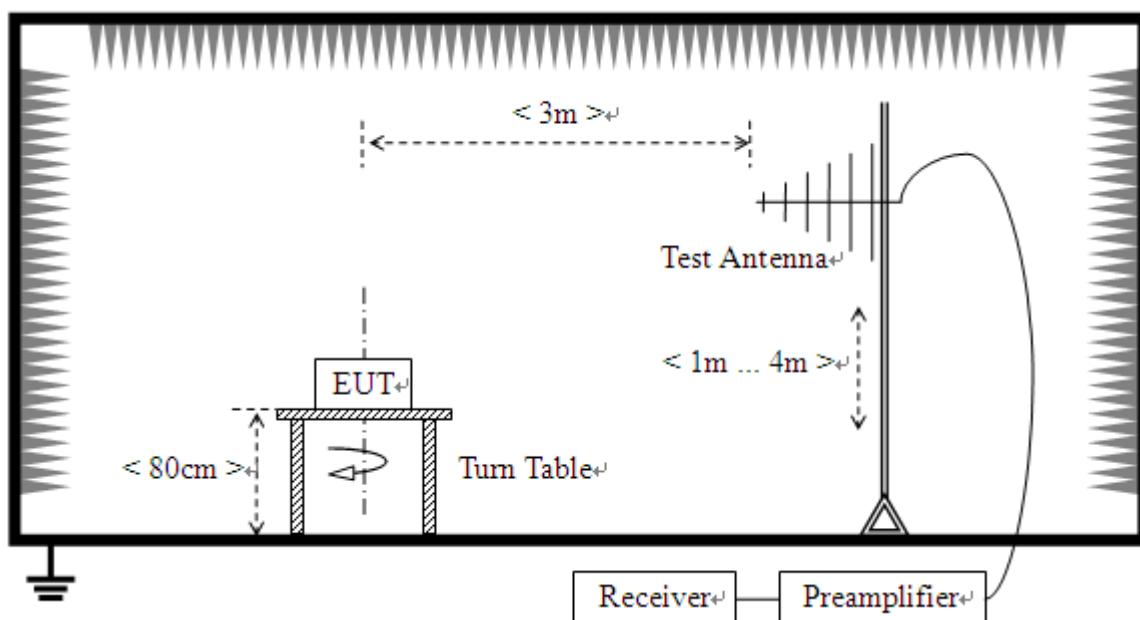
### 2.8.1. Requirement

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43+10*log(P)dB. This calculated to be -13dBm.

### 2.8.2. Test Description

Test Setup:
1) Below1GHz

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2) Above 1GHz



The EUT is located in a 3m Full-Anechoic Chamber, the cable loss, air loss and so on of the site as factors are pre-calibrated using the "Substitution" method, and calculated to correct the reading.

A call is established between the EUT and the SS via a Common Antenna. The EUT is commanded by the SS to operate at the maximum and minimum output power (i.e. GSM850MHz band Power Control Level (PCL) = 5/19 and Power Class = 4, GSM1900MHz band Power Control Level (PCL) = 0/15 and Power Class = 1), and only the test result of the maximum output power was recorded. Please refer to section 2.1.3 of this report.

- Step size (dB): 3dB

The Test Antenna is a Bi-Log one (used for 30MHz to 1GHz) and a Horn one (used for above 3 GHz), it's located at the same height as the EUT. The Filters consists of Notch Filters and High Pass Filter.

Note: when doing measurements above 1GHz, the EUT has been within the 3dB cone width of the horn antenna during horizontal antenna.

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### 2.8.3. Test Result
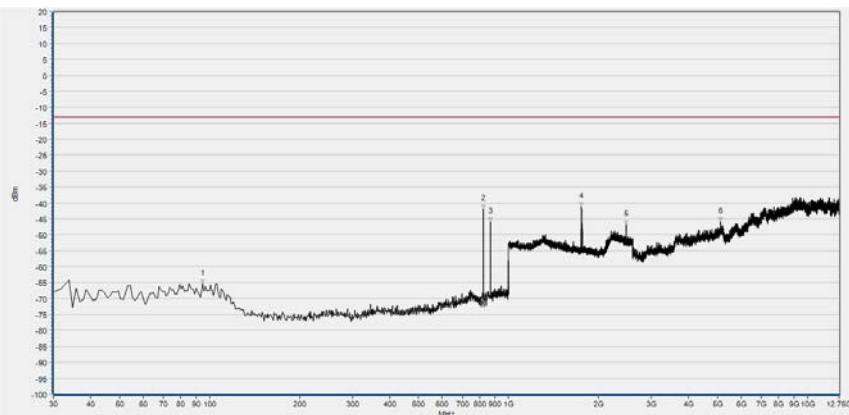
The measurement frequency range is from 30MHz to the 10th harmonic of the fundamental frequency. The Turn Table is actuated to turn from 0° to 360°, and both horizontal and vertical polarizations of the Test Antenna are used to find the maximum radiated power. The lowest, middle and highest channels are tested to verify the out of band emissions. The power of the EUT transmitting frequency should be ignored.

**Top Antenna**

| Band | Channel | Frequency (MHz) | Measured Max. Spurious Emission (dBm) | | Limit (dBm) | Verdict |
|---|---|---|---|---|---|---|
| | | | Test Antenna Horizontal | Test Antenna Vertical | | |
| GSM 850MHz | 128 | 824.2 | < -25 | < -25 | -13 | PASS |
| | 190 | 836.6 | < -25 | < -25 | | PASS |
| | 251 | 848.8 | < -25 | < -25 | | PASS |
| GSM 1900MHz | 512 | 1850.2 | < -25 | < -25 | -13 | PASS |
| | 661 | 1880.0 | < -25 | < -25 | | PASS |
| | 810 | 1909.8 | < -25 | < -25 | | PASS |
| EDGE 850MHz | 128 | 824.2 | < -25 | < -25 | -13 | PASS |
| | 190 | 836.6 | < -25 | < -25 | | PASS |
| | 251 | 848.8 | < -25 | < -25 | | PASS |
| EDGE 1900MHz | 512 | 1850.2 | < -25 | < -25 | -13 | PASS |
| | 661 | 1880.0 | < -25 | < -25 | | PASS |
| | 810 | 1909.8 | < -25 | < -25 | | PASS |
| WCDMA Band V | 4132 | 826.4 | < -25 | < -25 | -13 | PASS |
| | 4183 | 836.4 | < -25 | < -25 | | PASS |
| | 4233 | 846.6 | < -25 | < -25 | | PASS |
| WCDMA Band II | 9262 | 1852.4 | < -25 | < -25 | -13 | PASS |
| | 9400 | 1880.0 | < -25 | < -25 | | PASS |
| | 9538 | 1907.6 | < -25 | < -25 | | PASS |

**Note 1:** All test mode and condition mentioned were considered and evaluated respectively by performing full test, only the worst data were recorded and reported.

**Note 2:** All Spurious Emission tests were performed in X, Y, Z axis direction. And only the worst axis test condition was recorded in this test report.

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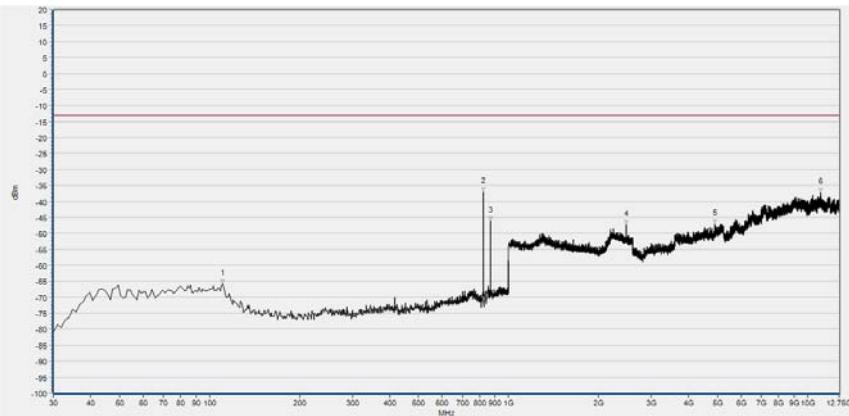
**Top Antenna:**
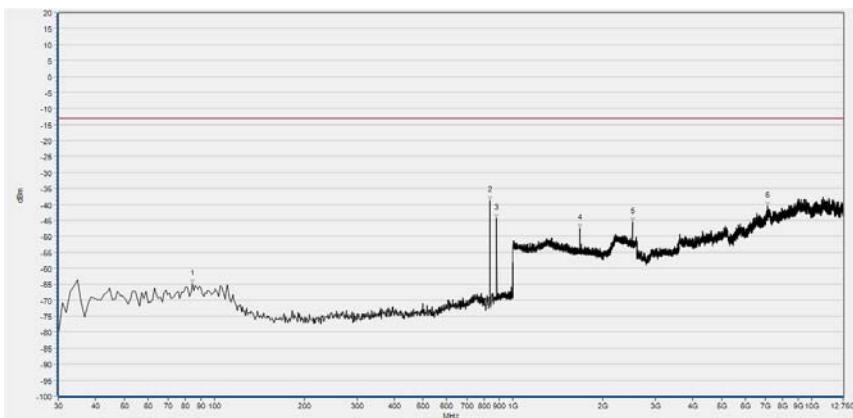


| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|-----|-----------|--------|----------|------------|---------|
| 1 | 94.990 | -65.38 | -13.00 | Horizontal | PASS |
| 2 | 824.430 | -41.96 | -13.00 | Horizontal | N/A |
| 3 | 869.050 | -45.88 | -13.00 | Horizontal | N/A |
| 4 | 1753.581 | -41.32 | -13.00 | Horizontal | PASS |
| 5 | 2472.589 | -46.83 | -13.00 | Horizontal | PASS |
| 6 | 5125.041 | -45.95 | -13.00 | Horizontal | PASS |

(GSM 850MHz, Channel = 128, Horizontal)
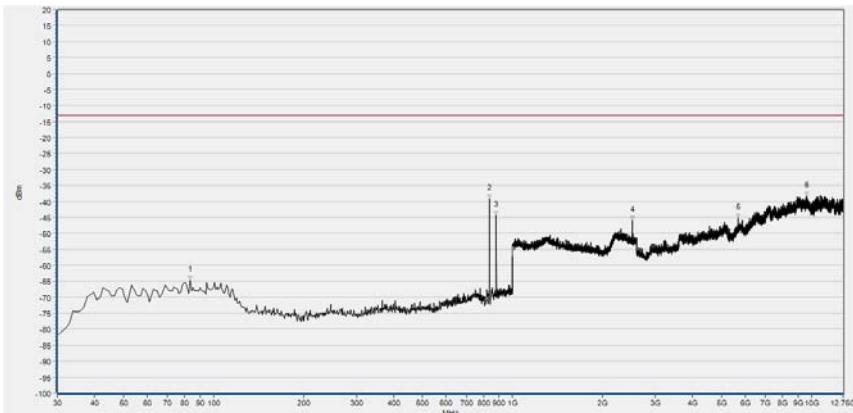


| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|-----|-----------|--------|----------|----------|---------|
| 1 | 110.510 | -65.85 | -13.00 | Vertical | PASS |
| 2 | 824.430 | -36.98 | -13.00 | Vertical | NA |
| 3 | 869.050 | -46.13 | -13.00 | Vertical | NA |
| 4 | 2472.589 | -47.26 | -13.00 | Vertical | PASS |
| 5 | 4885.088 | -47.12 | -13.00 | Vertical | PASS |
| 6 | 11079.560 | -37.19 | -13.00 | Vertical | PASS |

(GSM 850MHz, Channel = 128, Vertical)
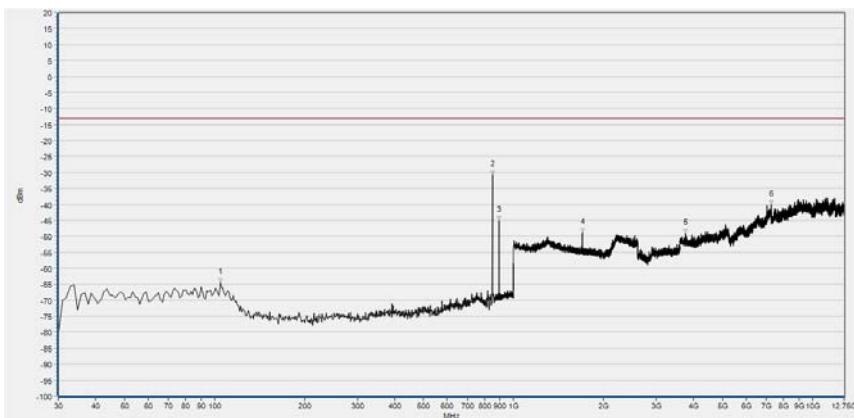
| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|-----|-----------|--------|----------|------------|---------|
| 1 | 84.320 | -64.95 | -13.00 | Horizontal | PASS |
| 2 | 836.070 | -38.79 | -13.00 | Horizontal | NA |
| 3 | 881.660 | -44.26 | -13.00 | Horizontal | NA |
| 4 | 1672.909 | -47.51 | -13.00 | Horizontal | PASS |
| 5 | 2509.724 | -45.37 | -13.00 | Horizontal | PASS |
| 6 | 7129.569 | -40.56 | -13.00 | Horizontal | PASS |

(GSM850MHz, Channel = 190, Horizontal)
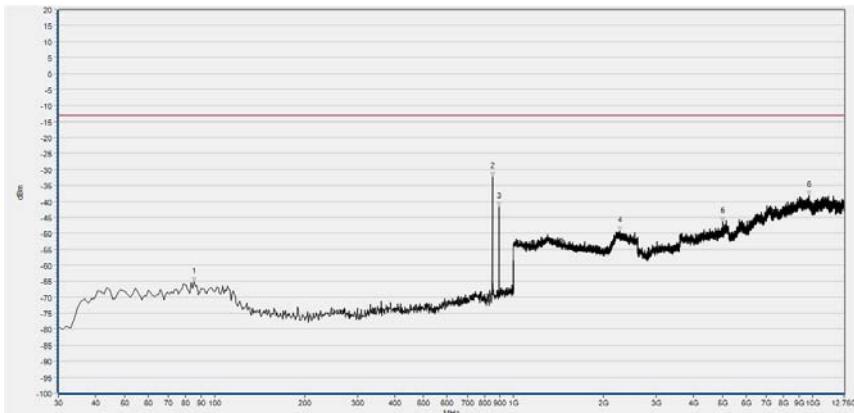


| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|-----|-----------|--------|----------|----------|---------|
| 1 | 83.350 | -64.65 | -13.00 | Vertical | PASS |
| 2 | 836.070 | -39.19 | -13.00 | Vertical | NA |
| 3 | 881.660 | -44.32 | -13.00 | Vertical | NA |
| 4 | 2509.724 | -45.96 | -13.00 | Vertical | PASS |
| 5 | 5675.086 | -45.20 | -13.00 | Vertical | PASS |
| 6 | 9621.386 | -38.32 | -13.00 | Vertical | PASS |

(GSM 850MHz, Channel = 190, Vertical)

| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|-----|-----------|--------|----------|------------|---------|
| 1 | 104.690 | -64.53 | -13.00 | Horizontal | PASS |
| 2 | 848.680 | -30.62 | -13.00 | Horizontal | NA |
| 3 | 893.300 | -45.05 | -13.00 | Horizontal | NA |
| 4 | 1697.879 | -48.93 | -13.00 | Horizontal | PASS |
| 5 | 3757.310 | -48.95 | -13.00 | Horizontal | PASS |
| 6 | 7266.157 | -40.01 | -13.00 | Horizontal | PASS |

(GSM 850MHz, Channel = 251, Horizontal)



| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|-----|-----------|--------|----------|----------|---------|
| 1 | 85.290 | -65.22 | -13.00 | Vertical | PASS |
| 2 | 848.680 | -32.30 | -13.00 | Vertical | NA |
| 3 | 893.300 | -41.79 | -13.00 | Vertical | NA |
| 4 | 2261.945 | -49.21 | -13.00 | Vertical | PASS |
| 5 | 5016.139 | -46.46 | -13.00 | Vertical | PASS |
| 6 | 9719.213 | -38.18 | -13.00 | Vertical | PASS |

(GSM 850MHz, Channel = 251, Vertical)

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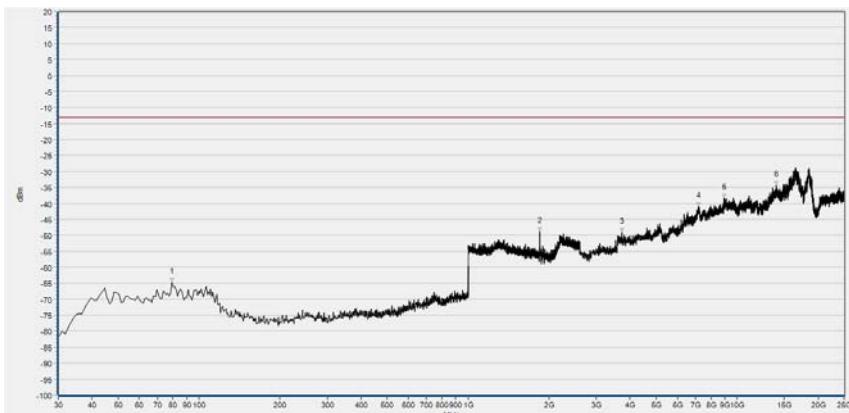
| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|---|---|---|---|---|---|
| 1 | 90.140 | -65.50 | -13.00 | Horizontal | PASS |
| 2 | 1850.260 | -43.20 | -13.00 | Horizontal | NA |
| 3 | 1929.652 | -49.47 | -13.00 | Horizontal | NA |
| 4 | 4200.873 | -49.28 | -13.00 | Horizontal | PASS |
| 5 | 7907.729 | -41.34 | -13.00 | Horizontal | PASS |
| 6 | 14001.637 | -34.00 | -13.00 | Horizontal | PASS |

(GSM 1900MHz, Channel = 512, Horizontal)
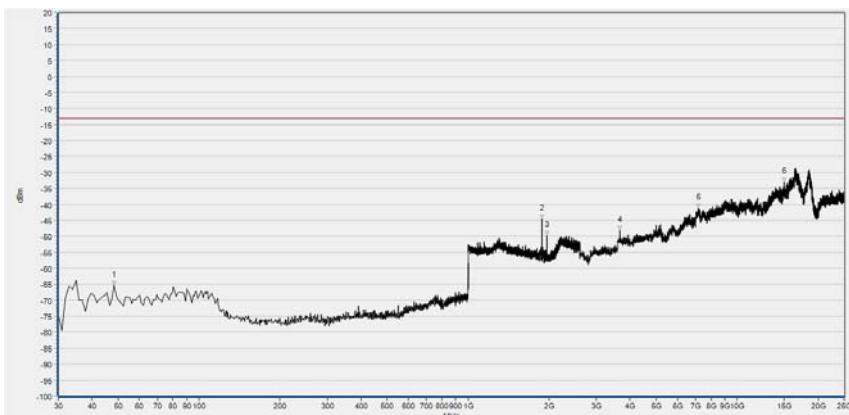


| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|---|---|---|---|---|---|
| 1 | 79.470 | -64.63 | -13.00 | Vertical | PASS |
| 2 | 1850.260 | -48.80 | -13.00 | Vertical | NA |
| 3 | 3732.424 | -49.05 | -13.00 | Vertical | PASS |
| 4 | 7174.504 | -41.01 | -13.00 | Vertical | PASS |
| 5 | 8938.316 | -38.26 | -13.00 | Vertical | PASS |
| 6 | 14005.710 | -34.40 | -13.00 | Vertical | PASS |
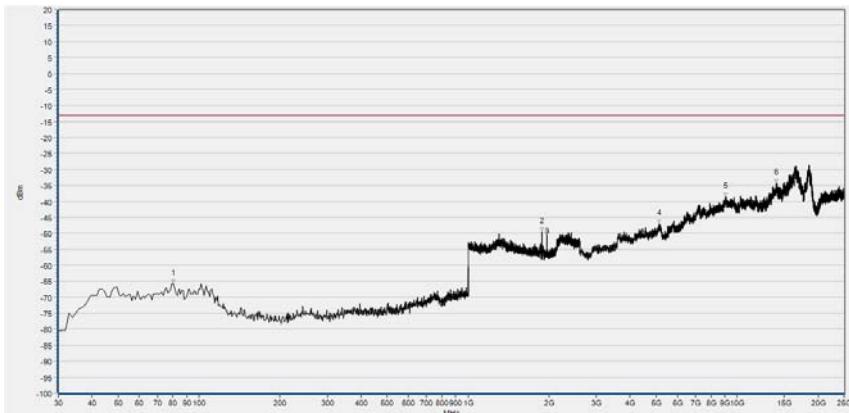
(GSM 1900MHz, Channel = 512, Vertical)

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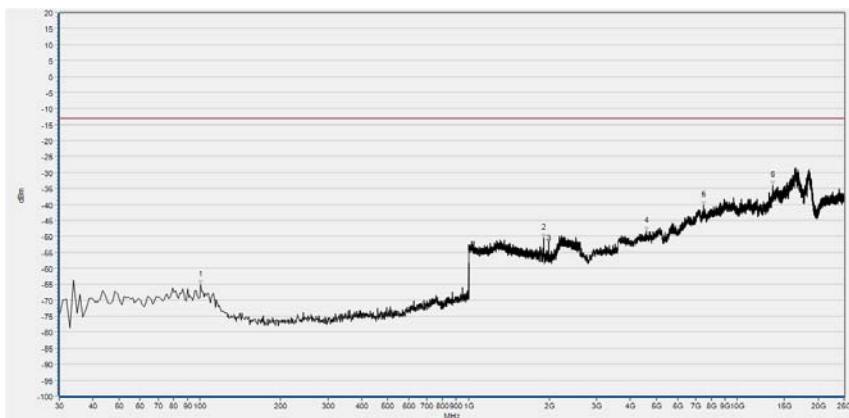
| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|-----|-----------|--------|----------|------------|---------|
| 1 | 48.430 | -65.42 | -13.00 | Horizontal | PASS |
| 2 | 1879.712 | -44.53 | -13.00 | Horizontal | NA |
| 3 | 1959.744 | -49.80 | -13.00 | Horizontal | NA |
| 4 | 3675.396 | -48.13 | -13.00 | Horizontal | PASS |
| 5 | 7162.284 | -41.19 | -13.00 | Horizontal | PASS |
| 6 | 14999.636 | -32.99 | -13.00 | Horizontal | PASS |

(GSM 1900MHz, Channel = 661, Horizontal)
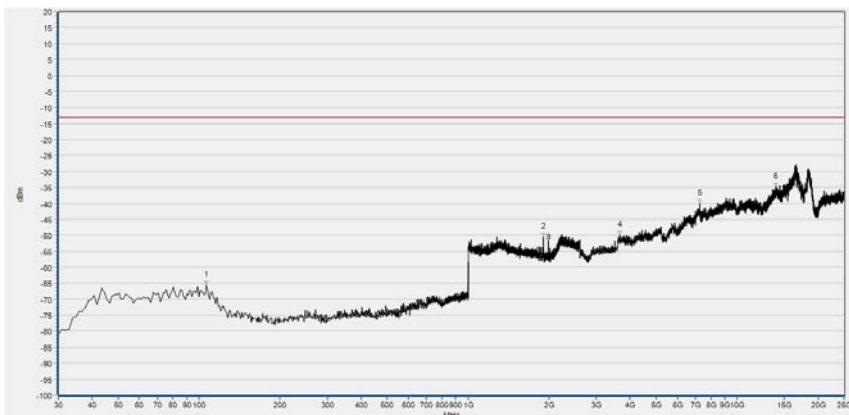


| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|-----|-----------|--------|----------|----------|---------|
| 1 | 80.440 | -65.90 | -13.00 | Vertical | PASS |
| 2 | 1879.712 | -49.56 | -13.00 | Vertical | NA |
| 3 | 1959.744 | -50.50 | -13.00 | Vertical | NA |
| 4 | 5117.403 | -46.99 | -13.00 | Vertical | PASS |
| 5 | 9068.667 | -38.51 | -13.00 | Vertical | PASS |
| 6 | 14022.004 | -34.19 | -13.00 | Vertical | PASS |

(GSM 1900MHz, Channel = 661, Vertical)

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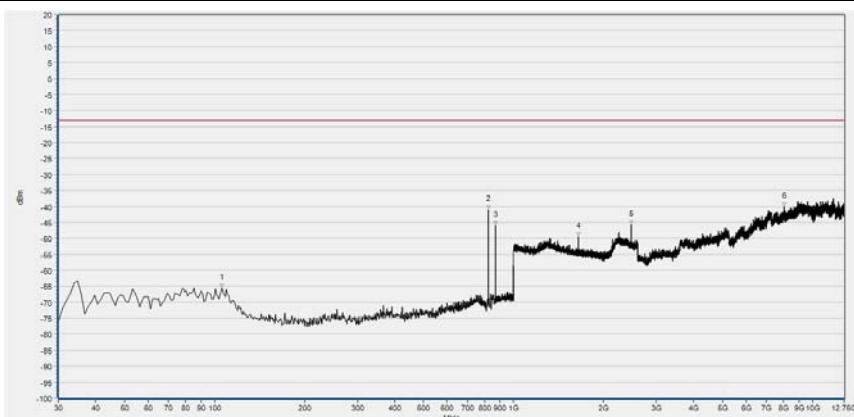
| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|---|---|---|---|---|---|
| 1 | 100.810 | -65.24 | -13.00 | Horizontal | PASS |
| 2 | 1909.804 | -50.63 | -13.00 | Horizontal | NA |
| 3 | 1989.196 | -52.10 | -13.00 | Horizontal | NA |
| 4 | 4595.999 | -48.38 | -13.00 | Horizontal | PASS |
| 5 | 7488.161 | -40.43 | -13.00 | Horizontal | PASS |
| 6 | 13573.923 | -34.08 | -13.00 | Horizontal | PASS |

(GSM 1900MHz, Channel = 810, Horizontal)
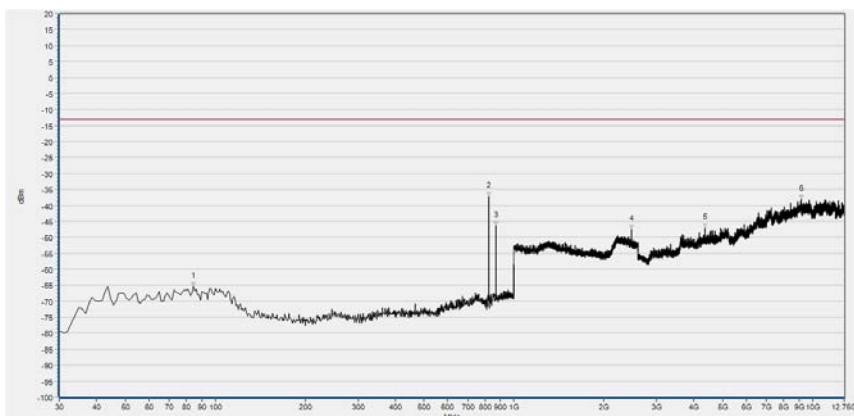


| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|---|---|---|---|---|---|
| 1 | 106.630 | -65.54 | -13.00 | Vertical | PASS |
| 2 | 1909.804 | -50.65 | -13.00 | Vertical | NA |
| 3 | 1989.836 | -51.45 | -13.00 | Vertical | NA |
| 4 | 3667.249 | -50.00 | -13.00 | Vertical | PASS |
| 5 | 7251.900 | -40.12 | -13.00 | Vertical | PASS |
| 6 | 13940.535 | -35.02 | -13.00 | Vertical | PASS |

(GSM 1900MHz, Channel = 810, Vertical)

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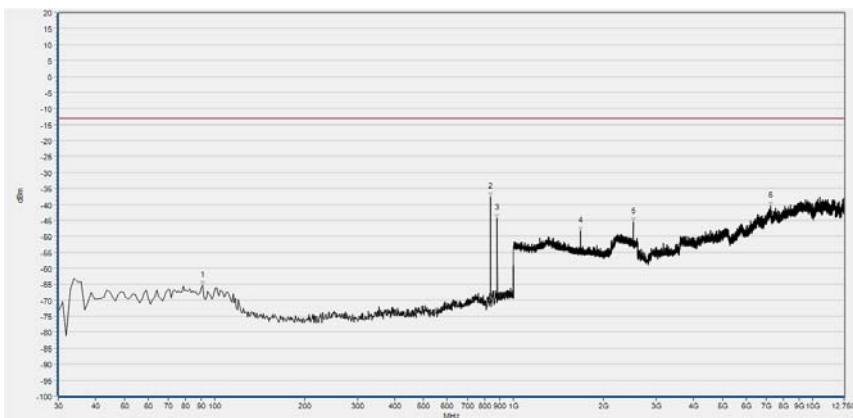
| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|-----|-----------|--------|----------|------------|---------|
| 1 | 105.660 | -65.54 | -13.00 | Horizontal | PASS |
| 2 | 824.430 | -41.11 | -13.00 | Horizontal | NA |
| 3 | 869.050 | -45.81 | -13.00 | Horizontal | NA |
| 4 | 1647.939 | -49.50 | -13.00 | Horizontal | PASS |
| 5 | 2471.949 | -45.68 | -13.00 | Horizontal | PASS |
| 6 | 8046.927 | -40.17 | -13.00 | Horizontal | PASS |

(EDGE 850MHz, Channel = 128, Horizontal)
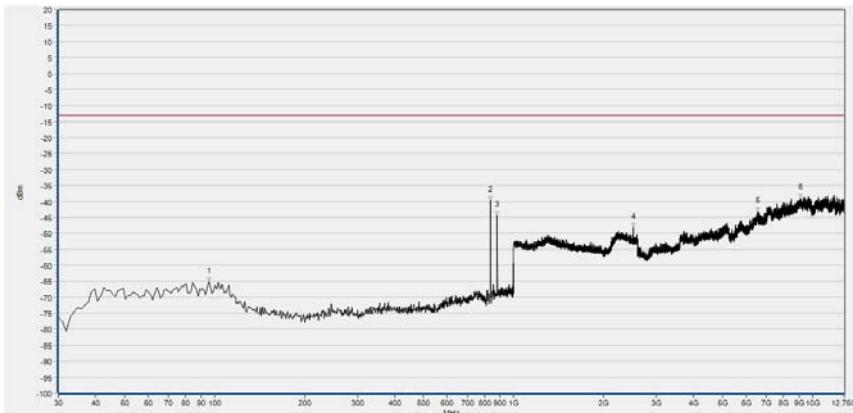


| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|-----|-----------|--------|----------|----------|---------|
| 1 | 84.320 | -65.40 | -13.00 | Vertical | PASS |
| 2 | 824.430 | -37.18 | -13.00 | Vertical | NA |
| 3 | 869.050 | -46.39 | -13.00 | Vertical | NA |
| 4 | 2471.949 | -47.42 | -13.00 | Vertical | PASS |
| 5 | 4351.655 | -47.02 | -13.00 | Vertical | PASS |
| 6 | 9152.555 | -38.09 | -13.00 | Vertical | PASS |

(EDGE 850MHz, Channel = 128, Vertical)

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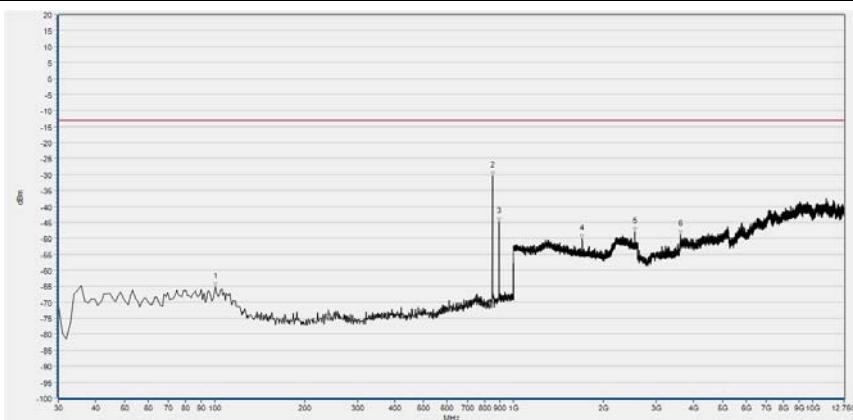
| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|-----|-----------|-----|----------|---------|---------|
| 1 | 91.110 | -65.37 | -13.00 | Horizontal | PASS |
| 2 | 836.070 | -37.71 | -13.00 | Horizontal | NA |
| 3 | 881.660 | -44.27 | -13.00 | Horizontal | NA |
| 4 | 1672.909 | -48.39 | -13.00 | Horizontal | PASS |
| 5 | 2509.724 | -45.55 | -13.00 | Horizontal | PASS |
| 6 | 7244.008 | -40.47 | -13.00 | Horizontal | PASS |

(EDGE 850MHz, Channel = 190, Horizontal)
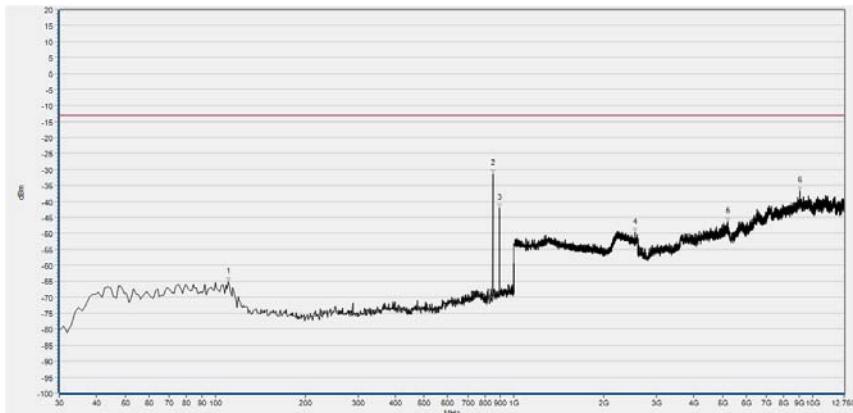


| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|-----|-----------|-----|----------|---------|---------|
| 1 | 95.960 | -65.20 | -13.00 | Vertical | PASS |
| 2 | 836.070 | -39.72 | -13.00 | Vertical | NA |
| 3 | 881.660 | -44.42 | -13.00 | Vertical | NA |
| 4 | 2509.724 | -48.25 | -13.00 | Vertical | PASS |
| 5 | 6564.757 | -43.17 | -13.00 | Vertical | PASS |
| 6 | 9100.873 | -38.91 | -13.00 | Vertical | PASS |

(EDGE 850MHz, Channel = 190, Vertical)

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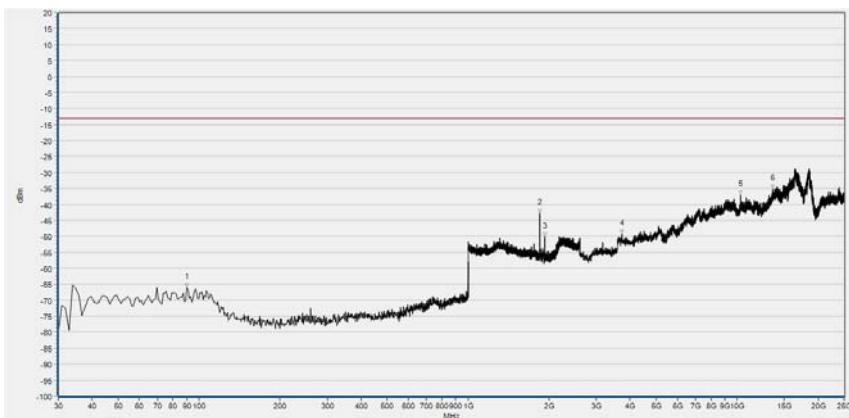
| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|-----|-----------|--------|----------|------------|---------|
| 1 | 100.810 | -65.15 | -13.00 | Horizontal | PASS |
| 2 | 848.680 | -30.50 | -13.00 | Horizontal | NA |
| 3 | 893.300 | -44.86 | -13.00 | Horizontal | NA |
| 4 | 1697.239 | -50.10 | -13.00 | Horizontal | PASS |
| 5 | 2546.218 | -47.88 | -13.00 | Horizontal | PASS |
| 6 | 3611.493 | -48.93 | -13.00 | Horizontal | PASS |

(EDGE 850MHz, Channel = 251, Horizontal)
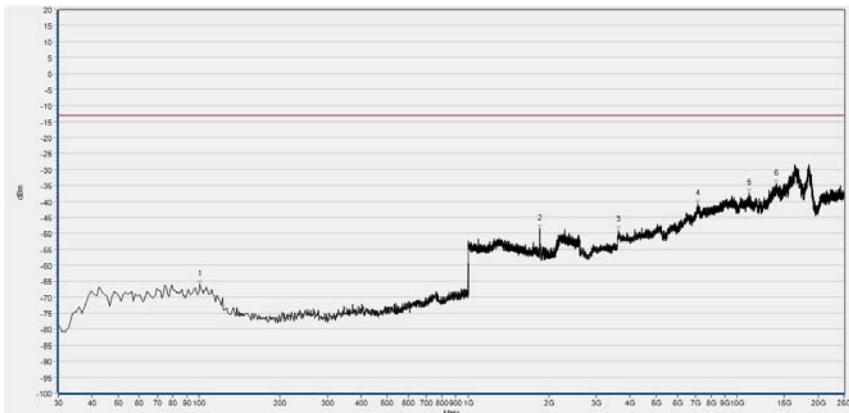


| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|-----|-----------|--------|----------|----------|---------|
| 1 | 110.510 | -65.18 | -13.00 | Vertical | PASS |
| 2 | 848.680 | -31.48 | -13.00 | Vertical | NA |
| 3 | 894.270 | -42.13 | -13.00 | Vertical | NA |
| 4 | 2546.218 | -49.79 | -13.00 | Vertical | PASS |
| 5 | 5202.564 | -46.48 | -13.00 | Vertical | PASS |
| 6 | 9043.653 | -36.65 | -13.00 | Vertical | PASS |

(EDGE 850MHz, Channel = 251, Vertical)

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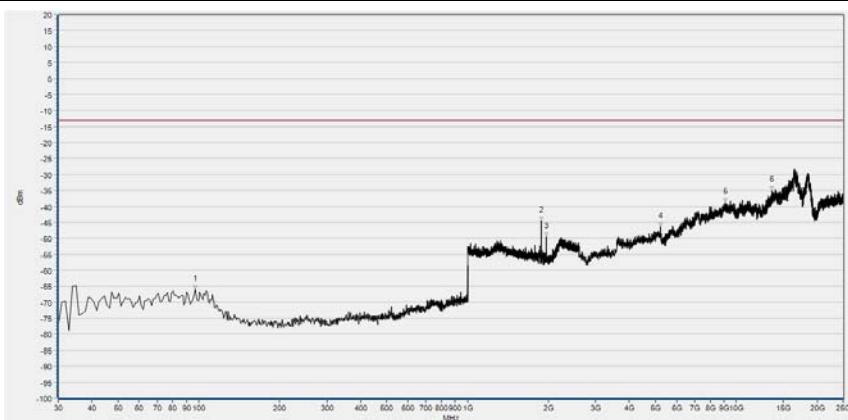
| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|-----|-----------|--------|----------|------------|---------|
| 1 | 90.140 | -66.06 | -13.00 | Horizontal | PASS |
| 2 | 1850.260 | -42.80 | -13.00 | Horizontal | NA |
| 3 | 1930.292 | -50.15 | -13.00 | Horizontal | NA |
| 4 | 3732.424 | -49.28 | -13.00 | Horizontal | PASS |
| 5 | 10294.781 | -36.98 | -13.00 | Horizontal | PASS |
| 6 | 13586.143 | -35.28 | -13.00 | Horizontal | PASS |

(EDGE 1900MHz, Channel = 512, Horizontal)
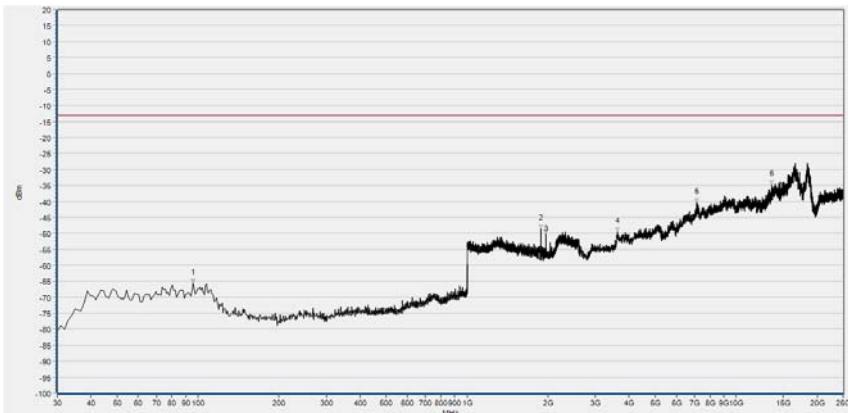


| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|-----|-----------|--------|----------|----------|---------|
| 1 | 100.810 | -66.09 | -13.00 | Vertical | PASS |
| 2 | 1849.620 | -48.68 | -13.00 | Vertical | NA |
| 3 | 3630.587 | -49.08 | -13.00 | Vertical | PASS |
| 4 | 7158.211 | -40.77 | -13.00 | Vertical | PASS |
| 5 | 11117.621 | -37.53 | -13.00 | Vertical | PASS |
| 6 | 14005.710 | -34.57 | -13.00 | Vertical | PASS |

(EDGE 1900MHz, Channel = 512, Vertical)

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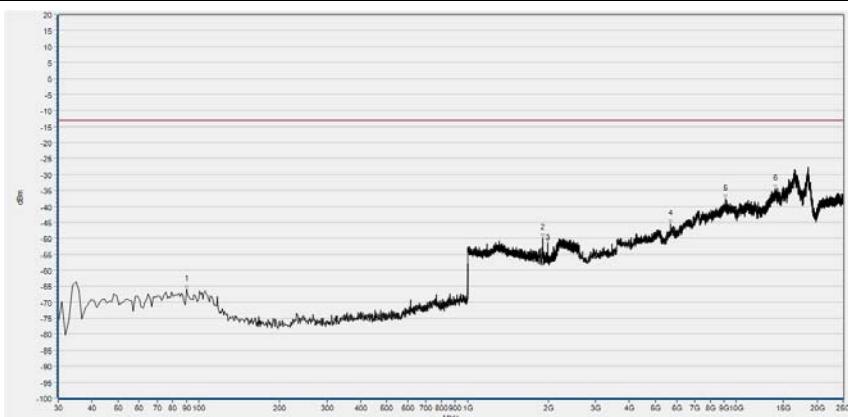
| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|-----|-----------|------|----------|------------|---------|
| 1 | 96.930 | -66.14 | -13.00 | Horizontal | PASS |
| 2 | 1879.712 | -44.47 | -13.00 | Horizontal | NA |
| 3 | 1959.744 | -49.58 | -13.00 | Horizontal | NA |
| 4 | 5215.166 | -46.42 | -13.00 | Horizontal | PASS |
| 5 | 9105.328 | -38.83 | -13.00 | Horizontal | PASS |
| 6 | 13582.069 | -34.95 | -13.00 | Horizontal | PASS |

(EDGE 1900MHz, Channel = 661, Horizontal)
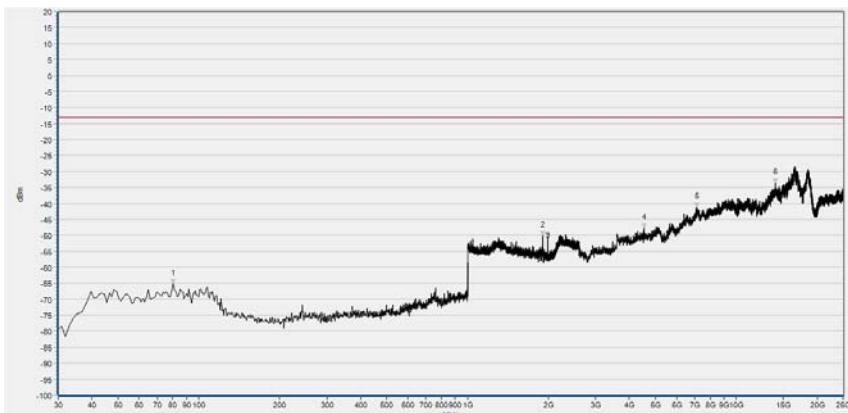


| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|-----|-----------|------|----------|----------|---------|
| 1 | 95.960 | -65.58 | -13.00 | Vertical | PASS |
| 2 | 1879.712 | -48.71 | -13.00 | Vertical | NA |
| 3 | 1959.744 | -50.19 | -13.00 | Vertical | NA |
| 4 | 3630.587 | -49.46 | -13.00 | Vertical | PASS |
| 5 | 7154.137 | -40.42 | -13.00 | Vertical | PASS |
| 6 | 13569.849 | -34.81 | -13.00 | Vertical | PASS |

(EDGE 1900MHz, Channel = 661, Vertical)

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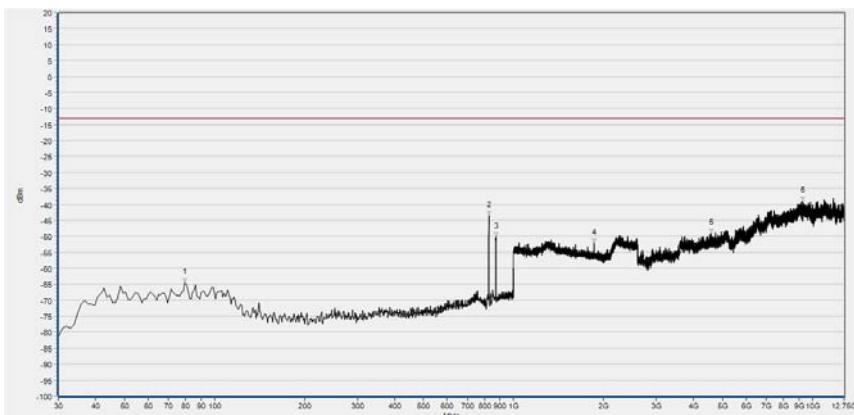
| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|-----|-----------|--------|----------|------------|---------|
| 1 | 90.140 | -65.95 | -13.00 | Horizontal | PASS |
| 2 | 1909.804 | -49.85 | -13.00 | Horizontal | NA |
| 3 | 1989.836 | -51.31 | -13.00 | Horizontal | NA |
| 4 | 5703.983 | -45.52 | -13.00 | Horizontal | PASS |
| 5 | 9141.989 | -37.62 | -13.00 | Horizontal | PASS |
| 6 | 13964.975 | -34.59 | -13.00 | Horizontal | PASS |

(EDGE 1900MHz, Channel = 810, Horizontal)
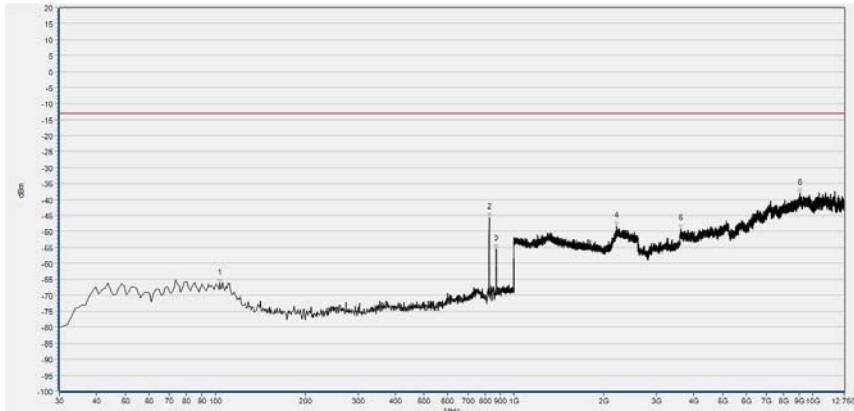


| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|-----|-----------|--------|----------|----------|---------|
| 1 | 80.440 | -65.09 | -13.00 | Vertical | PASS |
| 2 | 1909.804 | -50.11 | -13.00 | Vertical | NA |
| 3 | 1989.836 | -50.44 | -13.00 | Vertical | NA |
| 4 | 4543.044 | -47.66 | -13.00 | Vertical | PASS |
| 5 | 7158.211 | -41.22 | -13.00 | Vertical | PASS |
| 6 | 13997.563 | -33.70 | -13.00 | Vertical | PASS |

(EDGE 1900MHz, Channel = 810, Vertical)

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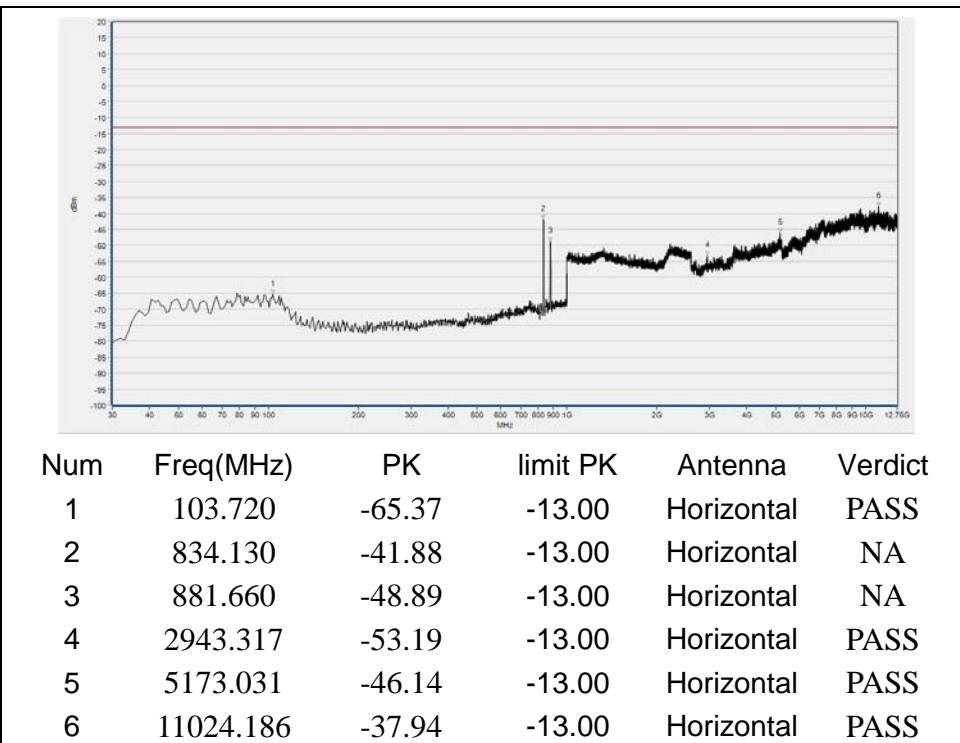
| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|---|---|---|---|---|---|
| 1 | 79.470 | -64.48 | -13.00 | Horizontal | PASS |
| 2 | 827.340 | -43.49 | -13.00 | Horizontal | NA |
| 3 | 872.930 | -50.06 | -13.00 | Horizontal | NA |
| 4 | 1857.943 | -52.19 | -13.00 | Horizontal | PASS |
| 5 | 4587.916 | -48.97 | -13.00 | Horizontal | PASS |
| 6 | 9265.148 | -38.94 | -13.00 | Horizontal | PASS |

(WCDMA Band V, Channel = 4132, Horizontal)
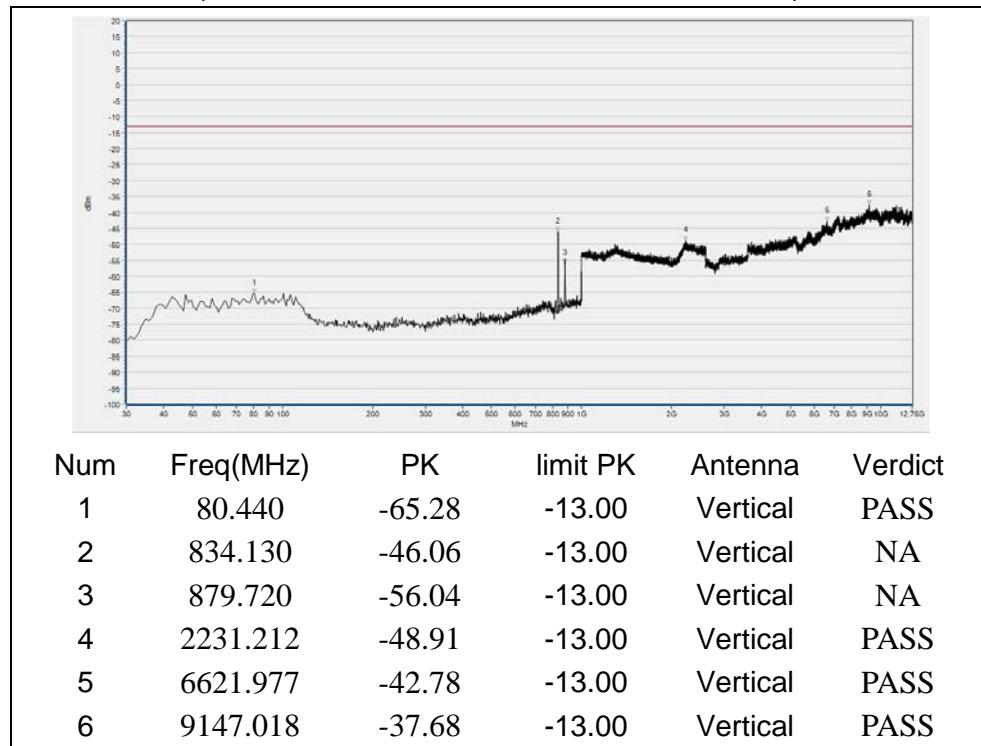


| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|---|---|---|---|---|---|
| 1 | 103.720 | -66.27 | -13.00 | Vertical | PASS |
| 2 | 827.340 | -45.80 | -13.00 | Vertical | NA |
| 3 | 871.960 | -55.64 | -13.00 | Vertical | NA |
| 4 | 2206.242 | -48.42 | -13.00 | Vertical | PASS |
| 5 | 3607.801 | -49.31 | -13.00 | Vertical | PASS |
| 6 | 9080.569 | -38.19 | -13.00 | Vertical | PASS |

(WCDMA Band V, Channel = 4132, Vertical)

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| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|-----|-----------|-------|----------|------------|---------|
| 1 | 103.720 | -65.37 | -13.00 | Horizontal | PASS |
| 2 | 834.130 | -41.88 | -13.00 | Horizontal | NA |
| 3 | 881.660 | -48.89 | -13.00 | Horizontal | NA |
| 4 | 2943.317 | -53.19 | -13.00 | Horizontal | PASS |
| 5 | 5173.031 | -46.14 | -13.00 | Horizontal | PASS |
| 6 | 11024.186 | -37.94 | -13.00 | Horizontal | PASS |

(WCDMA Band V, Channel = 4183, Horizontal)



| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|-----|-----------|-------|----------|----------|---------|
| 1 | 80.440 | -65.28 | -13.00 | Vertical | PASS |
| 2 | 834.130 | -46.06 | -13.00 | Vertical | NA |
| 3 | 879.720 | -56.04 | -13.00 | Vertical | NA |
| 4 | 2231.212 | -48.91 | -13.00 | Vertical | PASS |
| 5 | 6621.977 | -42.78 | -13.00 | Vertical | PASS |
| 6 | 9147.018 | -37.68 | -13.00 | Vertical | PASS |

(WCDMA Band V, Channel = 4183, Vertical)

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| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|-----|-----------|--------|----------|------------|---------|
| 1 | 78.500 | -64.23 | -13.00 | Horizontal | PASS |
| 2 | 847.710 | -40.65 | -13.00 | Horizontal | NA |
| 3 | 890.390 | -49.03 | -13.00 | Horizontal | NA |
| 4 | 2213.926 | -49.23 | -13.00 | Horizontal | PASS |
| 5 | 3980.651 | -48.83 | -13.00 | Horizontal | PASS |
| 6 | 9403.582 | -38.14 | -13.00 | Horizontal | PASS |

(WCDMA Band V, Channel = 4233, Horizontal)
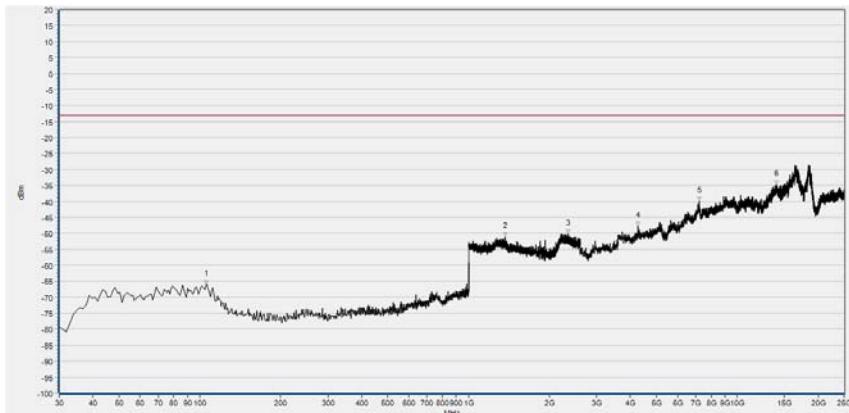


| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|-----|-----------|--------|----------|----------|---------|
| 1 | 99.840 | -65.29 | -13.00 | Vertical | PASS |
| 2 | 847.710 | -53.54 | -13.00 | Vertical | NA |
| 3 | 892.330 | -51.12 | -13.00 | Vertical | NA |
| 4 | 2186.395 | -49.62 | -13.00 | Vertical | PASS |
| 5 | 5137.961 | -47.17 | -13.00 | Vertical | PASS |
| 6 | 9167.321 | -38.72 | -13.00 | Vertical | PASS |

(WCDMA Band V, Channel = 4233, Vertical)

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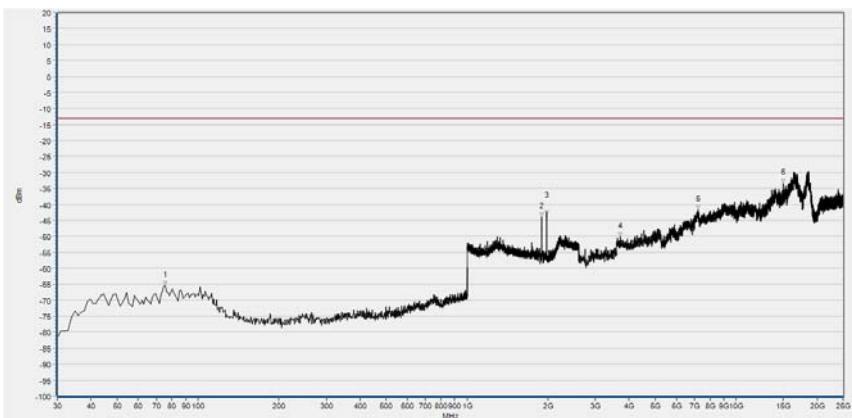
| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|---|---|---|---|---|---|
| 1 | 85.290 | -65.48 | -13.00 | Horizontal | PASS |
| 2 | 1851.541 | -42.46 | -13.00 | Horizontal | NA |
| 3 | 1932.213 | -42.21 | -13.00 | Horizontal | NA |
| 4 | 3650.955 | -50.10 | -13.00 | Horizontal | PASS |
| 5 | 6539.043 | -42.65 | -13.00 | Horizontal | PASS |
| 6 | 13590.216 | -35.51 | -13.00 | Horizontal | PASS |

(WCDMA Band II, Channel = 9262, Horizontal)
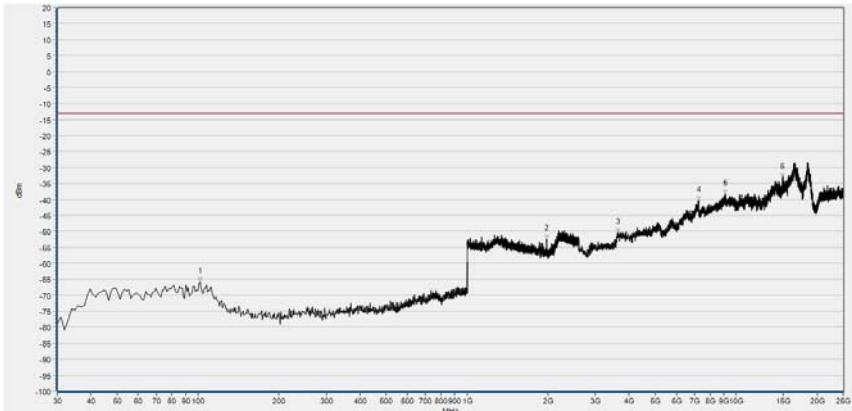


| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|---|---|---|---|---|---|
| 1 | 105.660 | -66.12 | -13.00 | Vertical | PASS |
| 2 | 1373.269 | -50.95 | -13.00 | Vertical | PASS |
| 3 | 2339.416 | -50.12 | -13.00 | Vertical | PASS |
| 4 | 4266.048 | -47.67 | -13.00 | Vertical | PASS |
| 5 | 7235.606 | -39.88 | -13.00 | Vertical | PASS |
| 6 | 14005.710 | -34.85 | -13.00 | Vertical | PASS |

(WCDMA Band II, Channel = 9262, Vertical)

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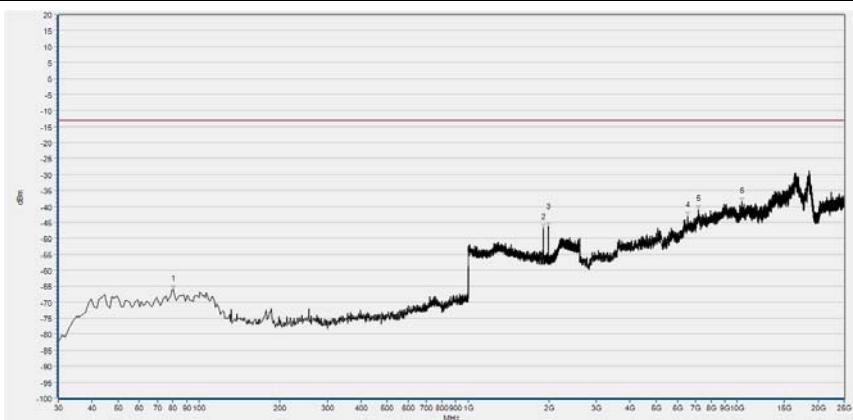
| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|-----|-----------|--------|----------|------------|---------|
| 1 | 75.590 | -65.44 | -13.00 | Horizontal | PASS |
| 2 | 1896.999 | -44.02 | -13.00 | Horizontal | NA |
| 3 | 1974.470 | -43.18 | -13.00 | Horizontal | NA |
| 4 | 3716.130 | -50.26 | -13.00 | Horizontal | PASS |
| 5 | 7211.166 | -41.63 | -13.00 | Horizontal | PASS |
| 6 | 15003.710 | -33.47 | -13.00 | Horizontal | PASS |

(WCDMA Band II, Channel = 9400, Horizontal)



| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|-----|-----------|--------|----------|----------|---------|
| 1 | 101.780 | -65.90 | -13.00 | Vertical | PASS |
| 2 | 1974.470 | -52.41 | -13.00 | Vertical | NA |
| 3 | 3634.661 | -50.40 | -13.00 | Vertical | PASS |
| 4 | 7251.900 | -40.26 | -13.00 | Vertical | PASS |
| 5 | 9129.769 | -38.32 | -13.00 | Vertical | PASS |
| 6 | 14852.991 | -33.10 | -13.00 | Vertical | PASS |

(WCDMA Band II, Channel = 9400, Vertical)
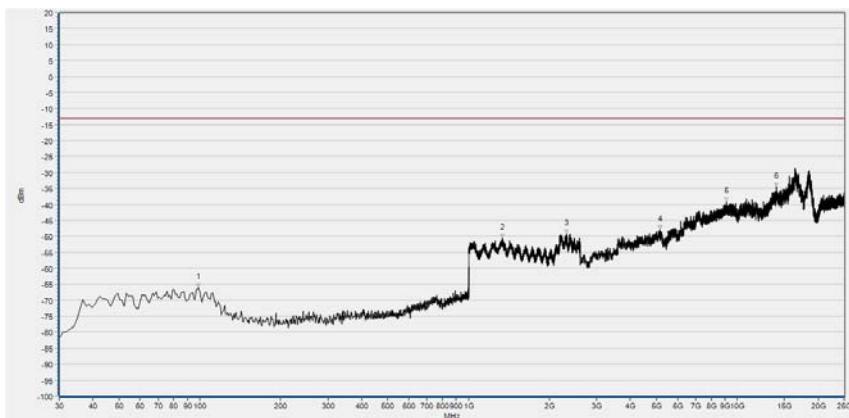
| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|-----|-----------|--------|----------|------------|---------|
| 1 | 80.440 | -66.11 | -13.00 | Horizontal | PASS |
| 2 | 1907.883 | -46.86 | -13.00 | Horizontal | NA |
| 3 | 1985.994 | -46.30 | -13.00 | Horizontal | NA |
| 4 | 6551.264 | -42.91 | -13.00 | Horizontal | PASS |
| 5 | 7170.431 | -41.02 | -13.00 | Horizontal | PASS |
| 6 | 10421.058 | -38.46 | -13.00 | Horizontal | PASS |

(WCDMA Band II, Channel = 9538, Horizontal)
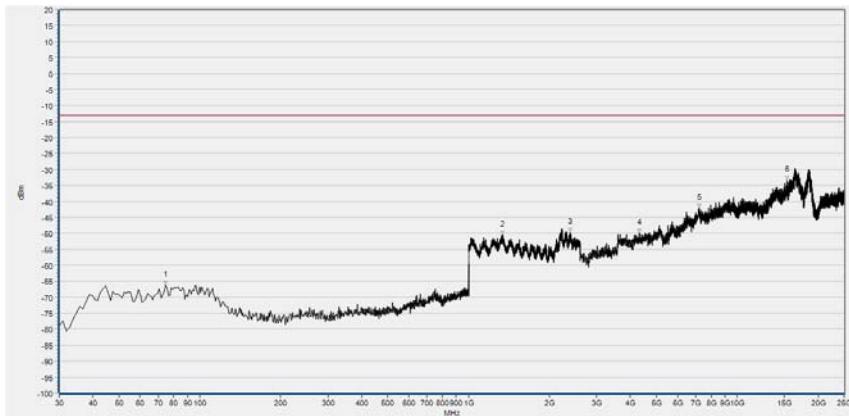


| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|-----|-----------|--------|----------|----------|---------|
| 1 | 102.750 | -66.81 | -13.00 | Vertical | PASS |
| 2 | 1347.659 | -51.07 | -13.00 | Vertical | PASS |
| 3 | 2209.444 | -49.81 | -13.00 | Vertical | PASS |
| 4 | 4978.905 | -46.49 | -13.00 | Vertical | PASS |
| 5 | 9500.455 | -38.17 | -13.00 | Vertical | PASS |
| 6 | 14999.636 | -33.88 | -13.00 | Vertical | PASS |

(WCDMA Band II, Channel = 9538, Vertical)

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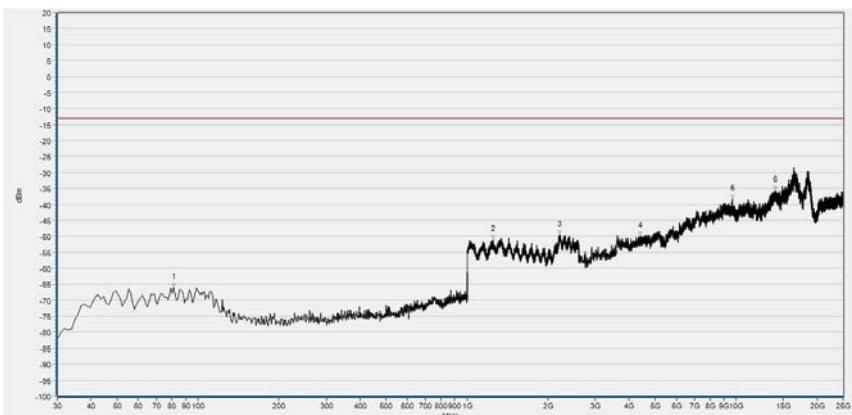
| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|---|---|---|---|---|---|
| 1 | 98.870 | -66.03 | -13.00 | Horizontal | PASS |
| 2 | 1332.933 | -50.58 | -13.00 | Horizontal | PASS |
| 3 | 2311.885 | -49.36 | -13.00 | Horizontal | PASS |
| 4 | 5166.285 | -47.97 | -13.00 | Horizontal | PASS |
| 5 | 9097.181 | -39.28 | -13.00 | Horizontal | PASS |
| 6 | 13977.196 | -34.54 | -13.00 | Horizontal | PASS |

(WCDMA Band IV, Channel = 1312, Horizontal)
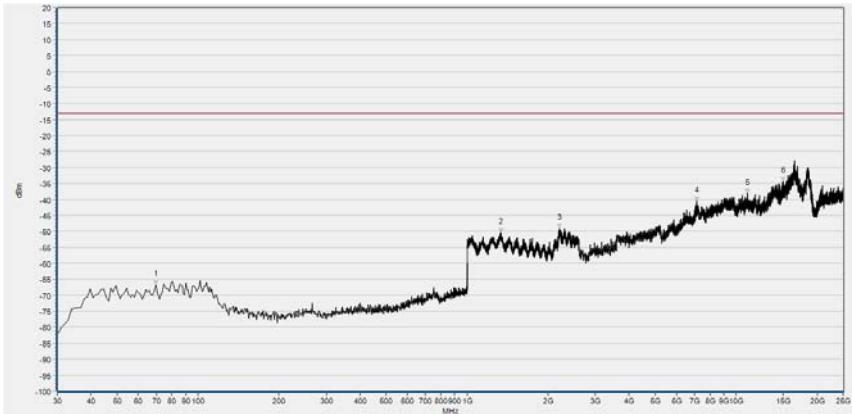


| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|---|---|---|---|---|---|
| 1 | 74.620 | -66.19 | -13.00 | Vertical | PASS |
| 2 | 1340.616 | -50.55 | -13.00 | Vertical | PASS |
| 3 | 2395.118 | -49.72 | -13.00 | Vertical | PASS |
| 4 | 4310.857 | -49.94 | -13.00 | Vertical | PASS |
| 5 | 7247.827 | -42.11 | -13.00 | Vertical | PASS |
| 6 | 15296.999 | -33.45 | -13.00 | Vertical | PASS |

(WCDMA Band IV, Channel = 1312, Vertical)

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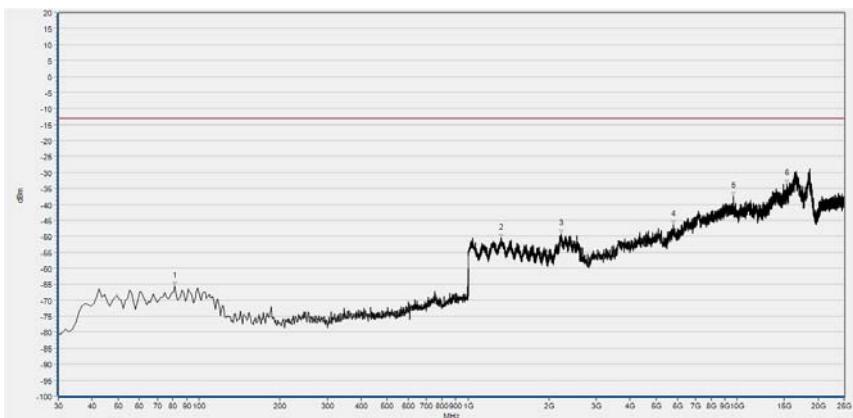
| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|-----|-----------|--------|----------|------------|---------|
| 1 | 81.410 | -66.03 | -13.00 | Horizontal | PASS |
| 2 | 1247.779 | -51.15 | -13.00 | Horizontal | PASS |
| 3 | 2213.285 | -49.57 | -13.00 | Horizontal | PASS |
| 4 | 4412.693 | -50.00 | -13.00 | Horizontal | PASS |
| 5 | 9712.275 | -38.30 | -13.00 | Horizontal | PASS |
| 6 | 13993.490 | -35.60 | -13.00 | Horizontal | PASS |

(WCDMA Band IV, Channel = 1413, Horizontal)
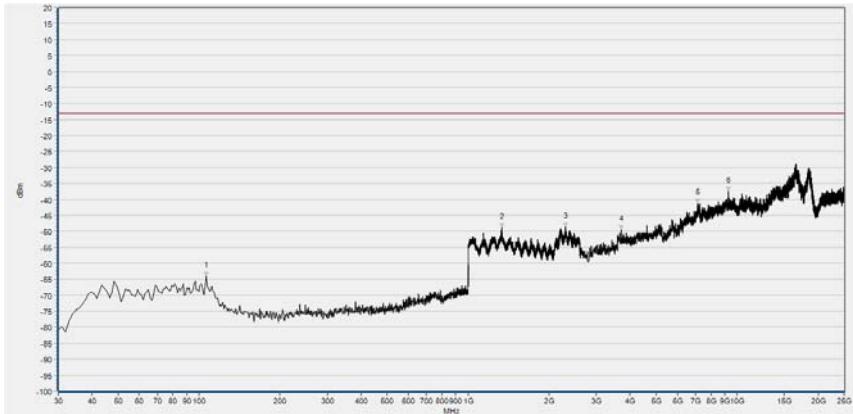


| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|-----|-----------|--------|----------|----------|---------|
| 1 | 69.770 | -66.78 | -13.00 | Vertical | PASS |
| 2 | 1335.494 | -50.31 | -13.00 | Vertical | PASS |
| 3 | 2201.120 | -49.00 | -13.00 | Vertical | PASS |
| 4 | 7158.211 | -40.59 | -13.00 | Vertical | PASS |
| 5 | 11048.372 | -38.05 | -13.00 | Vertical | PASS |
| 6 | 15003.710 | -34.35 | -13.00 | Vertical | PASS |

(WCDMA Band IV, Channel = 1413, Vertical)

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| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|-----|-----------|--------|----------|------------|---------|
| 1 | 81.410 | -65.49 | -13.00 | Horizontal | PASS |
| 2 | 1324.610 | -50.67 | -13.00 | Horizontal | PASS |
| 3 | 2217.767 | -49.34 | -13.00 | Horizontal | PASS |
| 4 | 5813.966 | -46.39 | -13.00 | Horizontal | PASS |
| 5 | 9716.348 | -37.42 | -13.00 | Horizontal | PASS |
| 6 | 15313.293 | -33.65 | -13.00 | Horizontal | PASS |

(WCDMA Band IV, Channel = 1513, Horizontal)



| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|-----|-----------|--------|----------|----------|---------|
| 1 | 106.630 | -64.06 | -13.00 | Vertical | PASS |
| 2 | 1332.933 | -48.83 | -13.00 | Vertical | PASS |
| 3 | 2302.281 | -48.71 | -13.00 | Vertical | PASS |
| 4 | 3712.057 | -49.49 | -13.00 | Vertical | PASS |
| 5 | 7117.476 | -41.23 | -13.00 | Vertical | PASS |
| 6 | 9304.928 | -37.53 | -13.00 | Vertical | PASS |

(WCDMA Band IV, Channel = 1513, Vertical)

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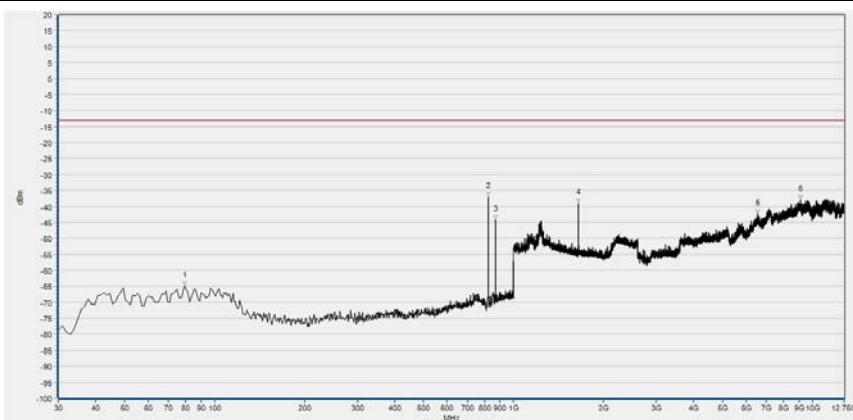
**Bottom Antenna**

| Band | Channel | Frequency (MHz) | Measured Max. Spurious Emission (dBm) | | Limit (dBm) | Verdict |
|---|---|---|---|---|---|---|
| | | | Test Antenna Horizontal | Test Antenna Vertical | | |
| GSM 850MHz | 128 | 824.2 | < -25 | < -25 | -13 | PASS |
| | 190 | 836.6 | < -25 | < -25 | | PASS |
| | 251 | 848.8 | < -25 | < -25 | | PASS |
| GSM 1900MHz | 512 | 1850.2 | < -25 | < -25 | -13 | PASS |
| | 661 | 1880.0 | < -25 | < -25 | | PASS |
| | 810 | 1909.8 | < -25 | < -25 | | PASS |
| EDGE 850MHz | 128 | 824.2 | < -25 | < -25 | -13 | PASS |
| | 190 | 836.6 | < -25 | < -25 | | PASS |
| | 251 | 848.8 | < -25 | < -25 | | PASS |
| EDGE 1900MHz | 512 | 1850.2 | < -25 | < -25 | -13 | PASS |
| | 661 | 1880.0 | < -25 | < -25 | | PASS |
| | 810 | 1909.8 | < -25 | < -25 | | PASS |
| WCDMA Band V | 4132 | 826.4 | < -25 | < -25 | -13 | PASS |
| | 4182 | 836.4 | < -25 | < -25 | | PASS |
| | 4233 | 846.6 | < -25 | < -25 | | PASS |
| WCDMA Band II | 9262 | 1852.4 | < -25 | < -25 | -13 | PASS |
| | 9400 | 1880.0 | < -25 | < -25 | | PASS |
| | 9538 | 1907.6 | < -25 | < -25 | | PASS |

**Note 1:** All test mode and condition mentioned were considered and evaluated respectively by performing full test, only the worst data were recorded and reported.

**Note 2:** All Spurious Emission tests were performed in X, Y, Z axis direction. And only the worst axis test condition was recorded in this test report.

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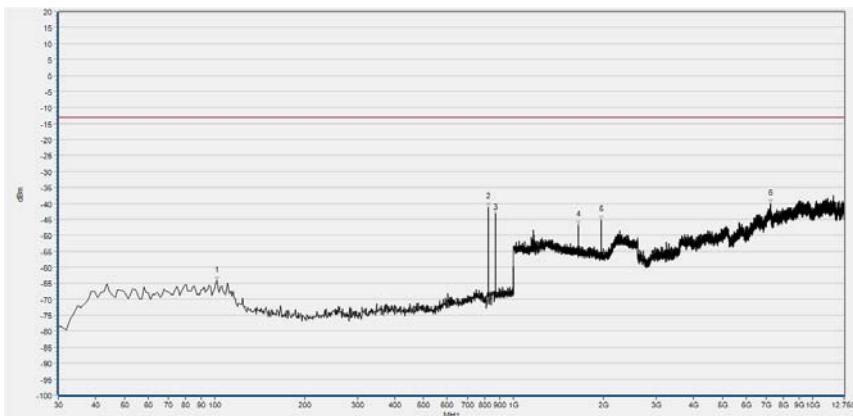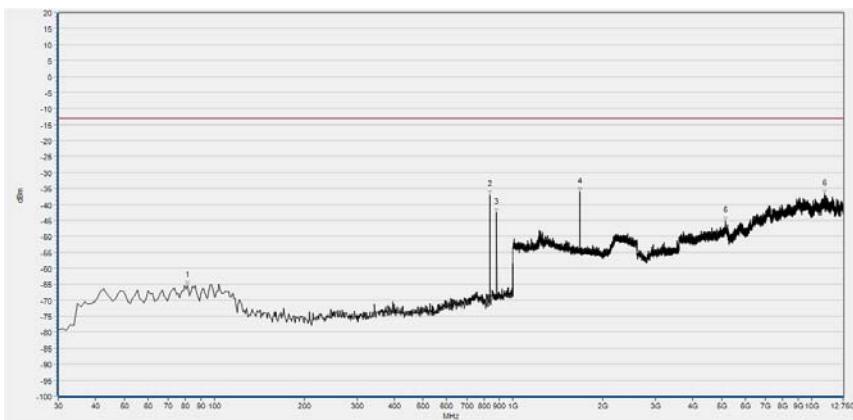
| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|-----|-----------|--------|----------|------------|---------|
| 1 | 79.470 | -65.01 | -13.00 | Horizontal | PASS |
| 2 | 824.430 | -36.99 | -13.00 | Horizontal | NA |
| 3 | 869.050 | -44.07 | -13.00 | Horizontal | NA |
| 4 | 1647.939 | -39.00 | -13.00 | Horizontal | PASS |
| 5 | 6557.374 | -42.36 | -13.00 | Horizontal | PASS |
| 6 | 9124.868 | -37.98 | -13.00 | Horizontal | PASS |

(GSM 850MHz, Channel = 128, Horizontal)
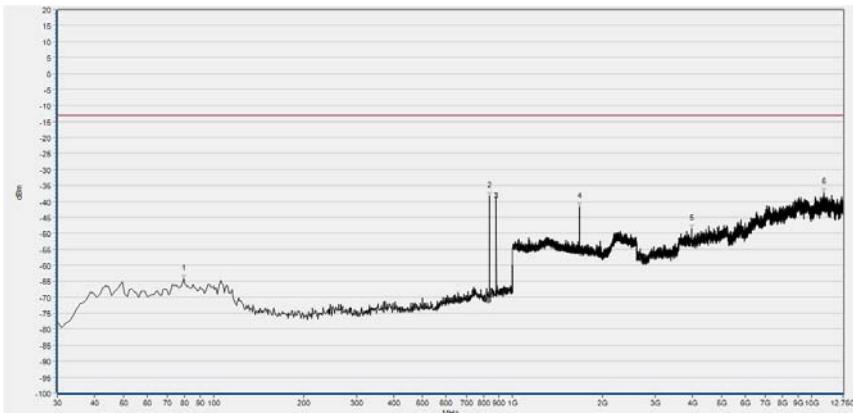


| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|-----|-----------|--------|----------|----------|---------|
| 1 | 101.780 | -64.16 | -13.00 | Vertical | PASS |
| 2 | 824.430 | -41.24 | -13.00 | Vertical | NA |
| 3 | 869.050 | -43.05 | -13.00 | Vertical | NA |
| 4 | 1647.939 | -46.75 | -13.00 | Vertical | PASS |
| 5 | 1959.744 | -45.17 | -13.00 | Vertical | PASS |
| 6 | 7229.242 | -40.16 | -13.00 | Vertical | PASS |

(GSM 850MHz, Channel = 128, Vertical)

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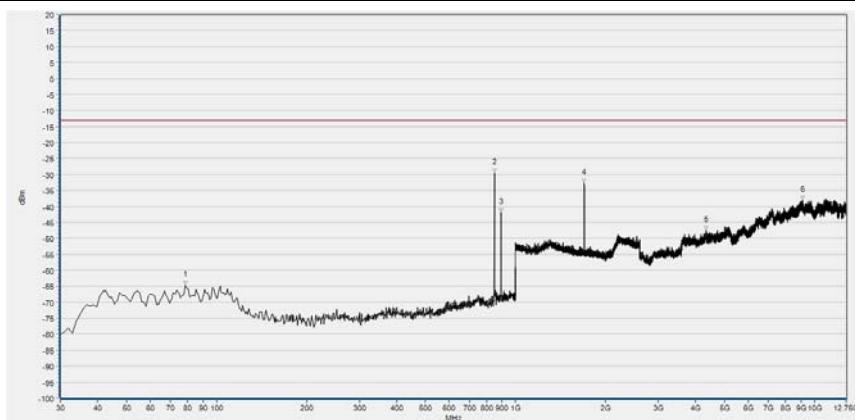
| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|-----|-----------|--------|----------|------------|---------|
| 1 | 81.410 | -65.34 | -13.00 | Horizontal | PASS |
| 2 | 836.070 | -37.02 | -13.00 | Horizontal | NA |
| 3 | 881.660 | -42.57 | -13.00 | Horizontal | NA |
| 4 | 1672.909 | -36.00 | -13.00 | Horizontal | PASS |
| 5 | 5156.419 | -45.25 | -13.00 | Horizontal | PASS |
| 6 | 11050.027 | -36.65 | -13.00 | Horizontal | PASS |

(GSM850MHz, Channel = 190, Horizontal)
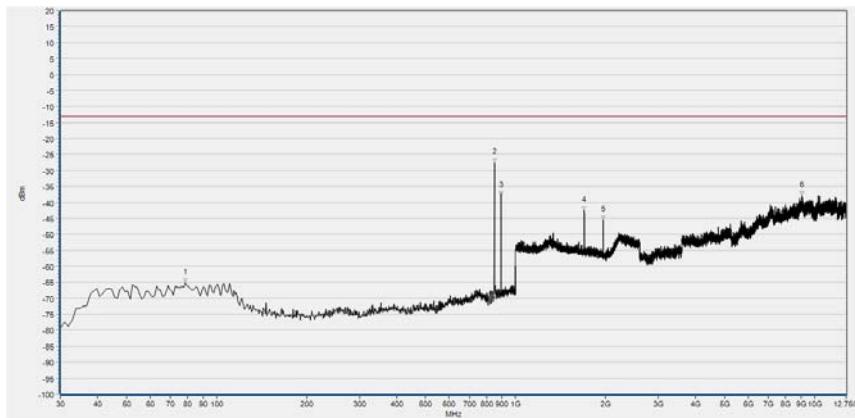


| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|-----|-----------|--------|----------|----------|---------|
| 1 | 79.470 | -64.30 | -13.00 | Vertical | PASS |
| 2 | 836.070 | -38.22 | -13.00 | Vertical | NA |
| 3 | 881.660 | -38.56 | -13.00 | Vertical | NA |
| 4 | 1672.909 | -41.71 | -13.00 | Vertical | PASS |
| 5 | 3973.268 | -48.52 | -13.00 | Vertical | PASS |
| 6 | 11002.037 | -37.10 | -13.00 | Vertical | PASS |

(GSM 850MHz, Channel = 190, Vertical)

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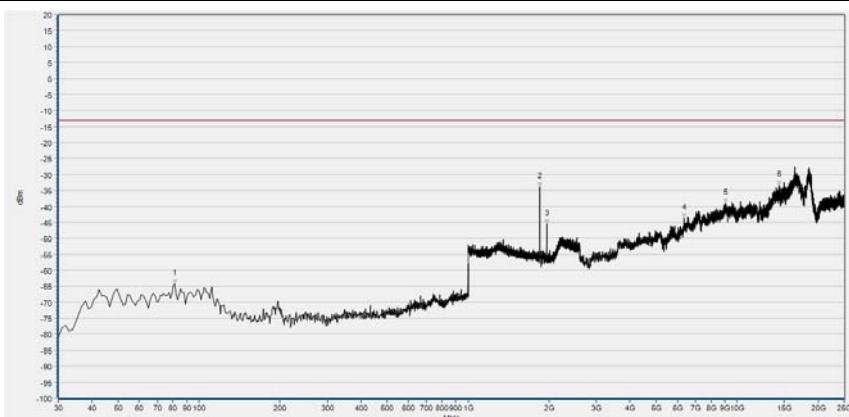
| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|-----|-----------|--------|----------|------------|---------|
| 1 | 78.500 | -64.72 | -13.00 | Horizontal | PASS |
| 2 | 848.680 | -29.59 | -13.00 | Horizontal | NA |
| 3 | 894.270 | -42.00 | -13.00 | Horizontal | NA |
| 4 | 1697.239 | -32.67 | -13.00 | Horizontal | PASS |
| 5 | 4325.814 | -47.47 | -13.00 | Horizontal | PASS |
| 6 | 9117.485 | -38.08 | -13.00 | Horizontal | PASS |
| 7 | 78.500 | -64.72 | -13.00 | Horizontal | PASS |

(GSM 850MHz, Channel = 251, Horizontal)
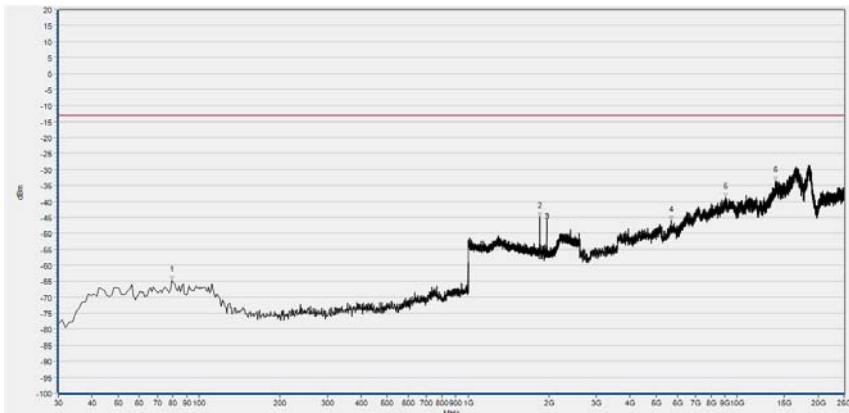


| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|-----|-----------|--------|----------|----------|---------|
| 1 | 78.500 | -65.21 | -13.00 | Vertical | PASS |
| 2 | 848.680 | -27.69 | -13.00 | Vertical | NA |
| 3 | 893.300 | -37.82 | -13.00 | Vertical | NA |
| 4 | 1697.239 | -42.46 | -13.00 | Vertical | PASS |
| 5 | 1959.744 | -45.45 | -13.00 | Vertical | PASS |
| 6 | 9084.261 | -37.91 | -13.00 | Vertical | PASS |

(GSM 850MHz, Channel = 251, Vertical)

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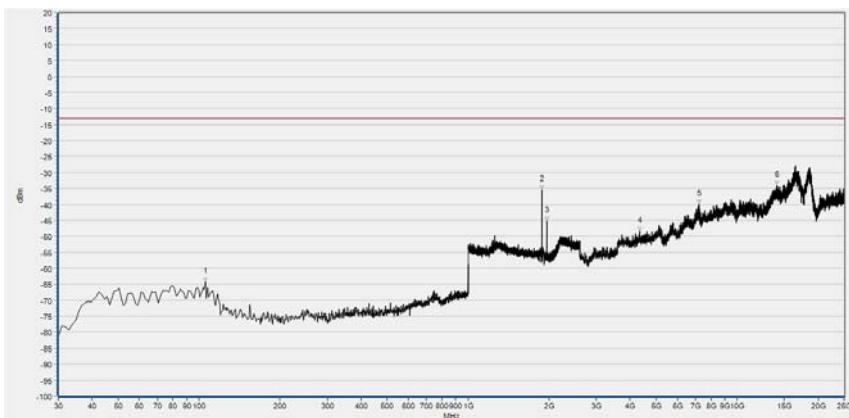
| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|-----|-----------|--------|----------|------------|---------|
| 1 | 81.410 | -64.33 | -13.00 | Horizontal | PASS |
| 2 | 1849.620 | -33.93 | -13.00 | Horizontal | NA |
| 3 | 1959.744 | -45.37 | -13.00 | Horizontal | NA |
| 4 | 6355.737 | -43.68 | -13.00 | Horizontal | PASS |
| 5 | 9056.447 | -38.94 | -13.00 | Horizontal | PASS |
| 6 | 14368.249 | -33.42 | -13.00 | Horizontal | PASS |

(GSM 1900MHz, Channel = 512, Horizontal)
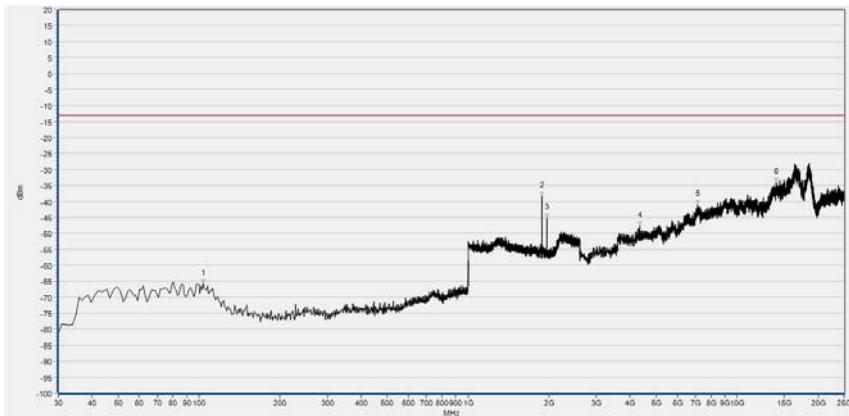


| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|-----|-----------|--------|----------|----------|---------|
| 1 | 79.470 | -64.75 | -13.00 | Vertical | PASS |
| 2 | 1850.260 | -44.86 | -13.00 | Vertical | NA |
| 3 | 1959.744 | -45.30 | -13.00 | Vertical | NA |
| 4 | 5679.542 | -45.97 | -13.00 | Vertical | PASS |
| 5 | 9076.814 | -38.82 | -13.00 | Vertical | PASS |
| 6 | 13916.094 | -33.64 | -13.00 | Vertical | PASS |

(GSM 1900MHz, Channel = 512, Vertical)

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| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|---|---|---|---|---|---|
| 1 | 105.660 | -64.22 | -13.00 | Horizontal | PASS |
| 2 | 1879.712 | -35.50 | -13.00 | Horizontal | NA |
| 3 | 1959.744 | -45.16 | -13.00 | Horizontal | NA |
| 4 | 4339.371 | -48.37 | -13.00 | Horizontal | PASS |
| 5 | 7219.313 | -39.90 | -13.00 | Horizontal | PASS |
| 6 | 14030.151 | -34.07 | -13.00 | Horizontal | PASS |

(GSM 1900MHz, Channel = 661, Horizontal)
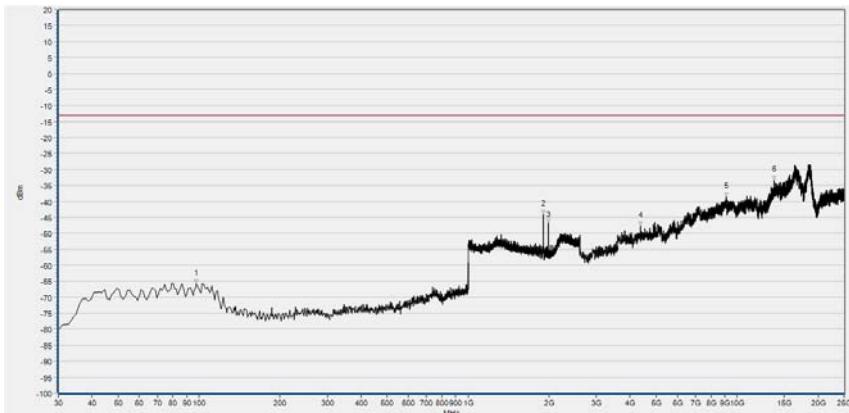


| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|---|---|---|---|---|---|
| 1 | 103.720 | -65.90 | -13.00 | Vertical | PASS |
| 2 | 1879.712 | -38.41 | -13.00 | Vertical | NA |
| 3 | 1959.744 | -45.26 | -13.00 | Vertical | NA |
| 4 | 4339.371 | -47.64 | -13.00 | Vertical | PASS |
| 5 | 7145.990 | -41.03 | -13.00 | Vertical | PASS |
| 6 | 13977.196 | -34.13 | -13.00 | Vertical | PASS |

(GSM 1900MHz, Channel = 661, Vertical)

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| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|---|---|---|---|---|---|
| 1 | 104.690 | -65.27 | -13.00 | Horizontal | PASS |
| 2 | 1909.804 | -37.19 | -13.00 | Horizontal | NA |
| 3 | 1989.836 | -48.02 | -13.00 | Horizontal | NA |
| 4 | 3817.967 | -49.45 | -13.00 | Horizontal | PASS |
| 5 | 8294.708 | -40.38 | -13.00 | Horizontal | PASS |
| 6 | 13842.771 | -34.32 | -13.00 | Horizontal | PASS |

(GSM 1900MHz, Channel = 810, Horizontal)
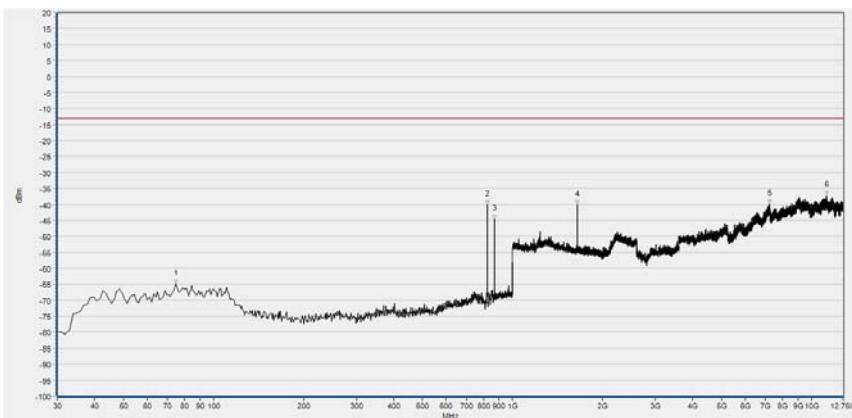


| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|---|---|---|---|---|---|
| 1 | 97.900 | -65.86 | -13.00 | Vertical | PASS |
| 2 | 1909.804 | -44.02 | -13.00 | Vertical | NA |
| 3 | 1989.836 | -46.74 | -13.00 | Vertical | NA |
| 4 | 4363.812 | -47.64 | -13.00 | Vertical | PASS |
| 5 | 9097.181 | -38.64 | -13.00 | Vertical | PASS |
| 6 | 13724.641 | -33.51 | -13.00 | Vertical | PASS |
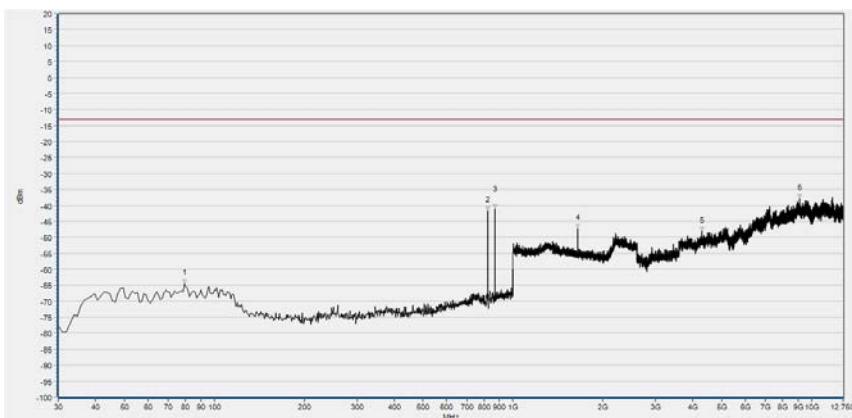
(GSM 1900MHz, Channel = 810, Vertical)

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| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|---|---|---|---|---|---|
| 1 | 74.620 | -64.98 | -13.00 | Horizontal | PASS |
| 2 | 824.430 | -40.12 | -13.00 | Horizontal | NA |
| 3 | 869.050 | -44.54 | -13.00 | Horizontal | NA |
| 4 | 1647.939 | -40.14 | -13.00 | Horizontal | PASS |
| 5 | 7242.162 | -39.93 | -13.00 | Horizontal | PASS |
| 6 | 11219.840 | -37.30 | -13.00 | Horizontal | PASS |

(EDGE 850MHz, Channel = 128, Horizontal)



| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|---|---|---|---|---|---|
| 1 | 79.470 | -64.39 | -13.00 | Vertical | PASS |
| 2 | 824.430 | -41.72 | -13.00 | Vertical | NA |
| 3 | 869.050 | -41.03 | -13.00 | Vertical | NA |
| 4 | 1648.579 | -47.33 | -13.00 | Vertical | PASS |
| 5 | 4288.898 | -48.25 | -13.00 | Vertical | PASS |
| 6 | 9137.789 | -37.96 | -13.00 | Vertical | PASS |

(EDGE 850MHz, Channel = 128, Vertical)

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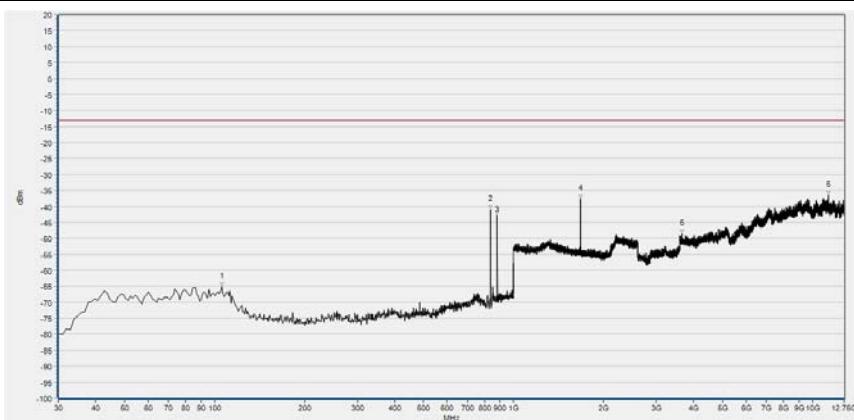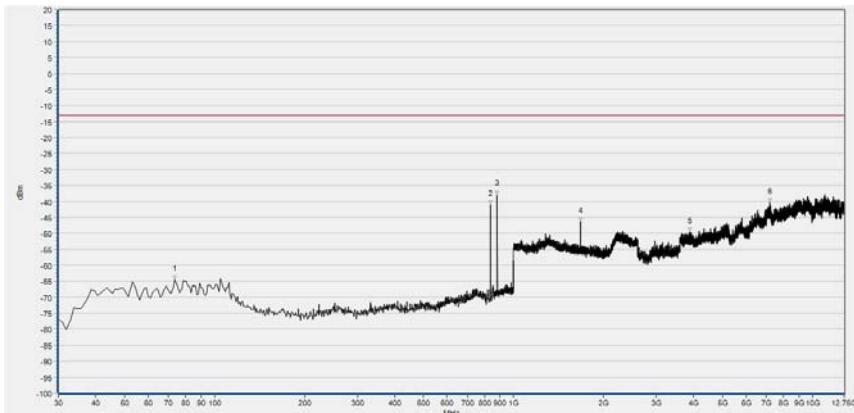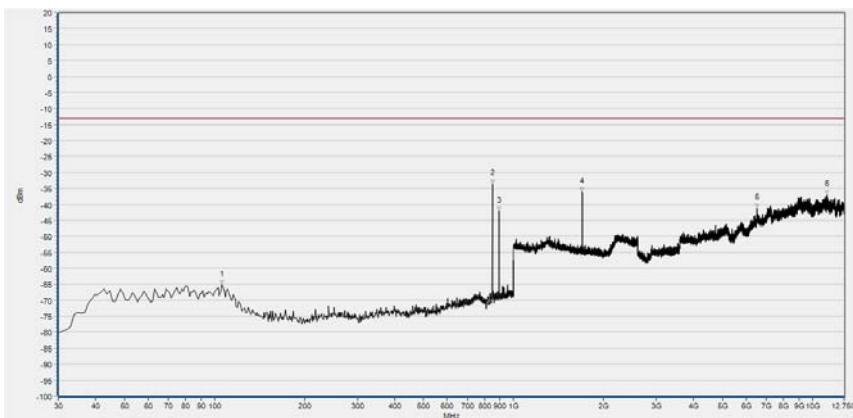
| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|-----|-----------|--------|----------|------------|---------|
| 1 | 105.660 | -65.13 | -13.00 | Horizontal | PASS |
| 2 | 837.040 | -40.99 | -13.00 | Horizontal | NA |
| 3 | 881.660 | -42.76 | -13.00 | Horizontal | NA |
| 4 | 1672.909 | -37.75 | -13.00 | Horizontal | PASS |
| 5 | 3665.021 | -48.64 | -13.00 | Horizontal | PASS |
| 6 | 11267.831 | -36.58 | -13.00 | Horizontal | PASS |

(EDGE 850MHz, Channel = 190, Horizontal)
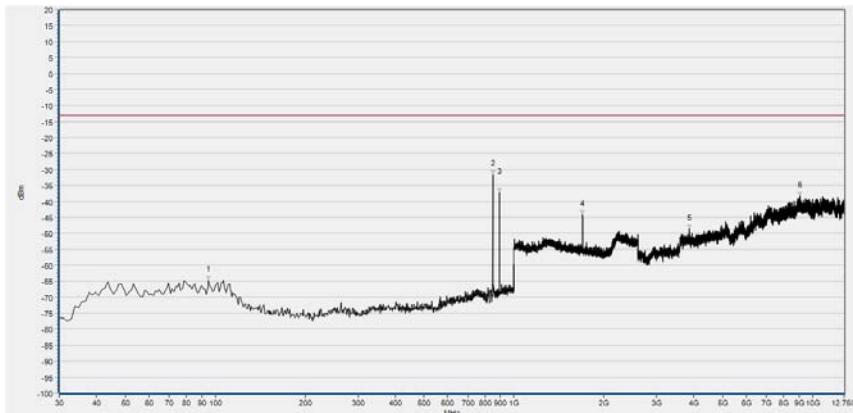


| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|-----|-----------|--------|----------|----------|---------|
| 1 | 73.650 | -64.58 | -13.00 | Vertical | PASS |
| 2 | 836.070 | -40.97 | -13.00 | Vertical | NA |
| 3 | 881.660 | -38.08 | -13.00 | Vertical | NA |
| 4 | 1672.909 | -46.39 | -13.00 | Vertical | PASS |
| 5 | 3893.899 | -49.59 | -13.00 | Vertical | PASS |
| 6 | 7208.938 | -40.31 | -13.00 | Vertical | PASS |

(EDGE 850MHz, Channel = 190, Vertical)

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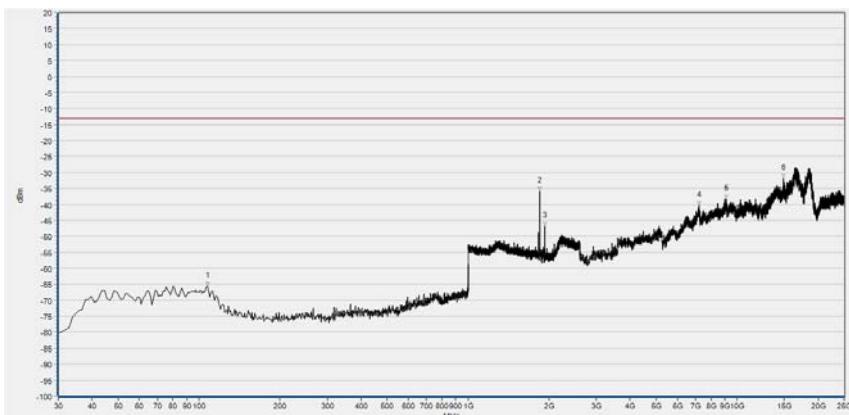
| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|---|---|---|---|---|---|
| 1 | 105.660 | -65.21 | -13.00 | Horizontal | PASS |
| 2 | 848.680 | -33.66 | -13.00 | Horizontal | NA |
| 3 | 893.300 | -42.22 | -13.00 | Horizontal | NA |
| 4 | 1697.239 | -36.07 | -13.00 | Horizontal | PASS |
| 5 | 6522.304 | -41.24 | -13.00 | Horizontal | PASS |
| 6 | 11201.382 | -37.09 | -13.00 | Horizontal | PASS |

(EDGE 850MHz, Channel = 251, Horizontal)
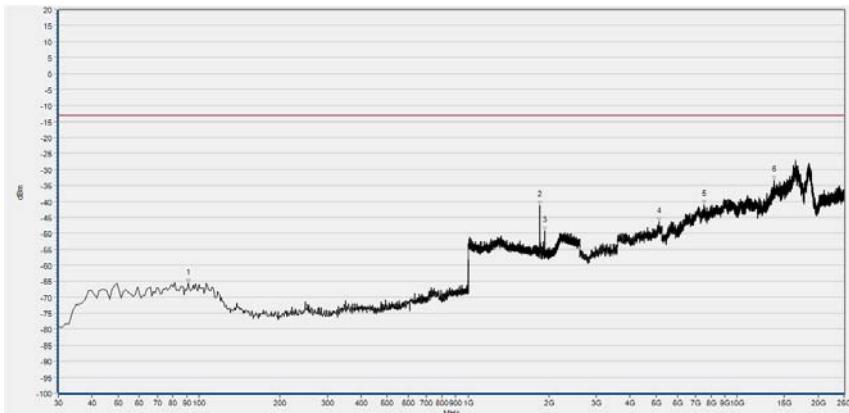


| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|---|---|---|---|---|---|
| 1 | 94.990 | -64.74 | -13.00 | Vertical | PASS |
| 2 | 848.680 | -31.66 | -13.00 | Vertical | NA |
| 3 | 894.270 | -37.26 | -13.00 | Vertical | NA |
| 4 | 1697.239 | -44.18 | -13.00 | Vertical | PASS |
| 5 | 3868.058 | -48.68 | -13.00 | Vertical | PASS |
| 6 | 9045.499 | -38.23 | -13.00 | Vertical | PASS |

(EDGE 850MHz, Channel = 251, Vertical)

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| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|-----|-----------|-----|----------|---------|---------|
| 1 | 107.600 | -65.48 | -13.00 | Horizontal | PASS |
| 2 | 1850.260 | -35.79 | -13.00 | Horizontal | NA |
| 3 | 1930.292 | -46.82 | -13.00 | Horizontal | NA |
| 4 | 7207.092 | -40.41 | -13.00 | Horizontal | PASS |
| 5 | 9133.843 | -38.40 | -13.00 | Horizontal | PASS |
| 6 | 14852.991 | -31.74 | -13.00 | Horizontal | PASS |

(EDGE 1900MHz, Channel = 512, Horizontal)
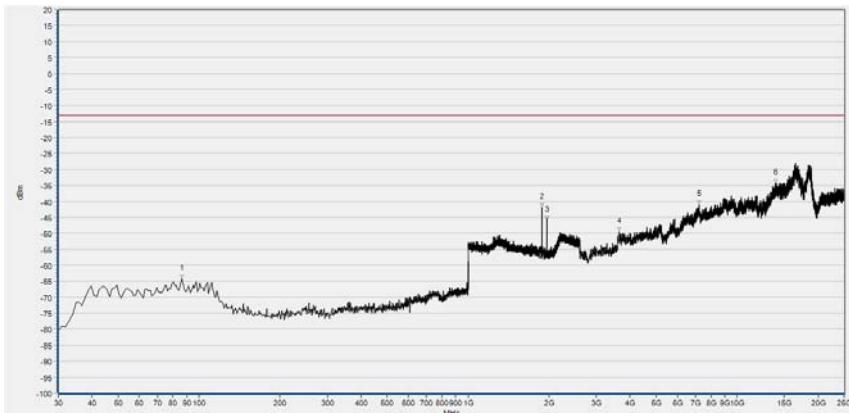


| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|-----|-----------|-----|----------|---------|---------|
| 1 | 91.110 | -65.70 | -13.00 | Vertical | PASS |
| 2 | 1850.260 | -41.33 | -13.00 | Vertical | NA |
| 3 | 1929.652 | -49.18 | -13.00 | Vertical | NA |
| 4 | 5141.844 | -46.38 | -13.00 | Vertical | PASS |
| 5 | 7553.337 | -41.07 | -13.00 | Vertical | PASS |
| 6 | 13761.302 | -33.32 | -13.00 | Vertical | PASS |

(EDGE 1900MHz, Channel = 512, Vertical)

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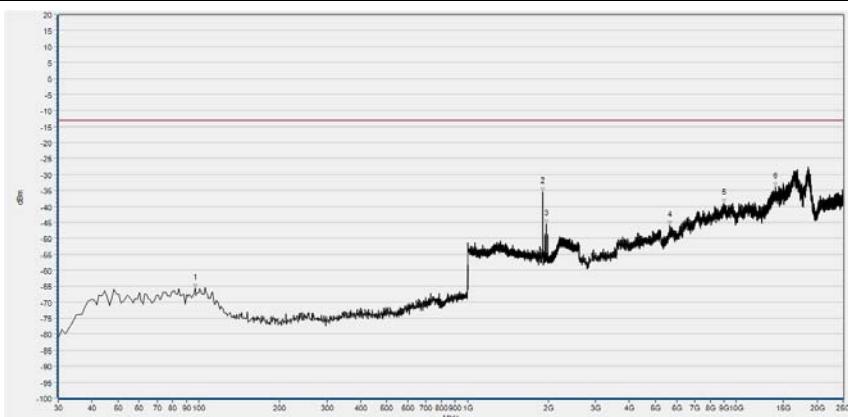
| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|-----|-----------|--------|----------|------------|---------|
| 1 | 80.440 | -65.55 | -13.00 | Horizontal | PASS |
| 2 | 1879.712 | -37.32 | -13.00 | Horizontal | NA |
| 3 | 1959.744 | -45.90 | -13.00 | Horizontal | NA |
| 4 | 7174.504 | -40.18 | -13.00 | Horizontal | PASS |
| 5 | 9712.275 | -37.91 | -13.00 | Horizontal | PASS |
| 6 | 14111.620 | -33.52 | -13.00 | Horizontal | PASS |

(EDGE 1900MHz, Channel = 661, Horizontal)
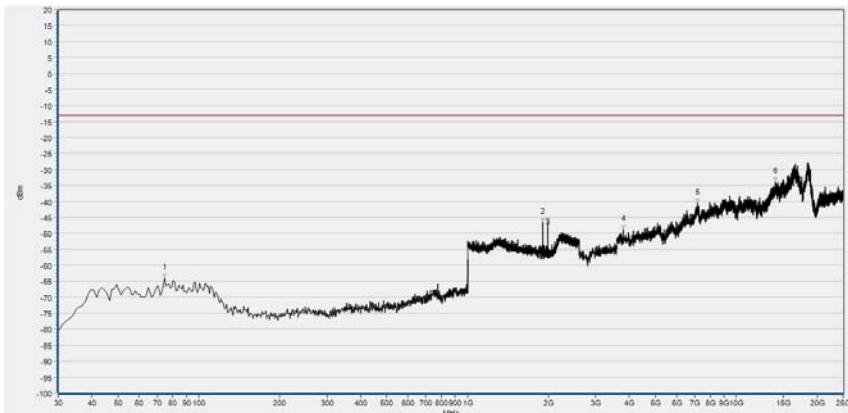


| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|-----|-----------|--------|----------|----------|---------|
| 1 | 86.260 | -64.34 | -13.00 | Vertical | PASS |
| 2 | 1879.712 | -41.95 | -13.00 | Vertical | NA |
| 3 | 1960.384 | -45.99 | -13.00 | Vertical | NA |
| 4 | 3650.955 | -49.60 | -13.00 | Vertical | PASS |
| 5 | 7211.166 | -40.94 | -13.00 | Vertical | PASS |
| 6 | 13936.461 | -34.39 | -13.00 | Vertical | PASS |

(EDGE 1900MHz, Channel = 661, Vertical)

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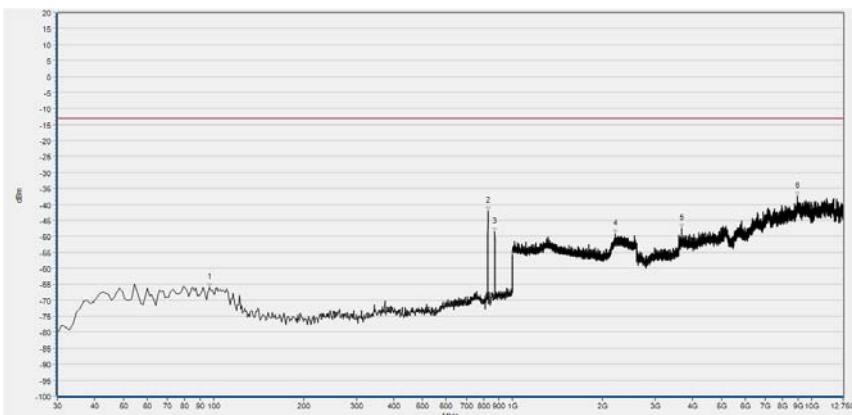
| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|-----|-----------|--------|----------|------------|---------|
| 1 | 96.930 | -65.59 | -13.00 | Horizontal | PASS |
| 2 | 1909.804 | -35.51 | -13.00 | Horizontal | NA |
| 3 | 1959.744 | -45.44 | -13.00 | Horizontal | NA |
| 4 | 5663.248 | -46.00 | -13.00 | Horizontal | PASS |
| 5 | 9023.859 | -39.09 | -13.00 | Horizontal | PASS |
| 6 | 14022.004 | -33.75 | -13.00 | Horizontal | PASS |

(EDGE 1900MHz, Channel = 810, Horizontal)
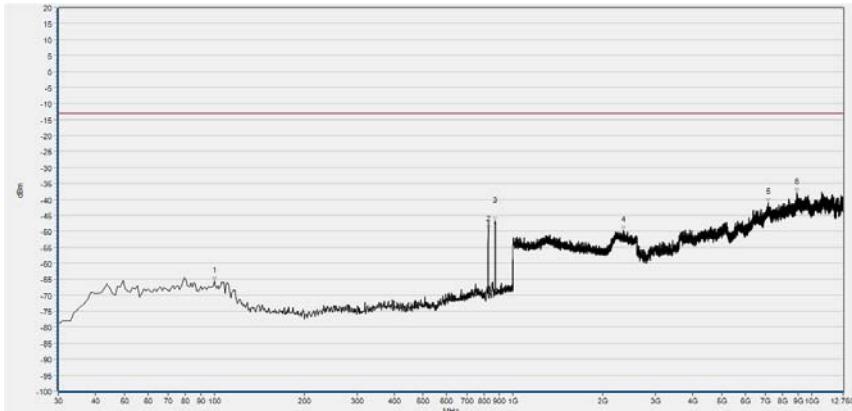


| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|-----|-----------|--------|----------|----------|---------|
| 1 | 74.620 | -64.12 | -13.00 | Vertical | PASS |
| 2 | 1909.804 | -46.54 | -13.00 | Vertical | NA |
| 3 | 1989.836 | -46.57 | -13.00 | Vertical | NA |
| 4 | 3797.600 | -48.90 | -13.00 | Vertical | PASS |
| 5 | 7162.284 | -40.55 | -13.00 | Vertical | PASS |
| 6 | 13977.196 | -33.87 | -13.00 | Vertical | PASS |

(EDGE 1900MHz, Channel = 810, Vertical)

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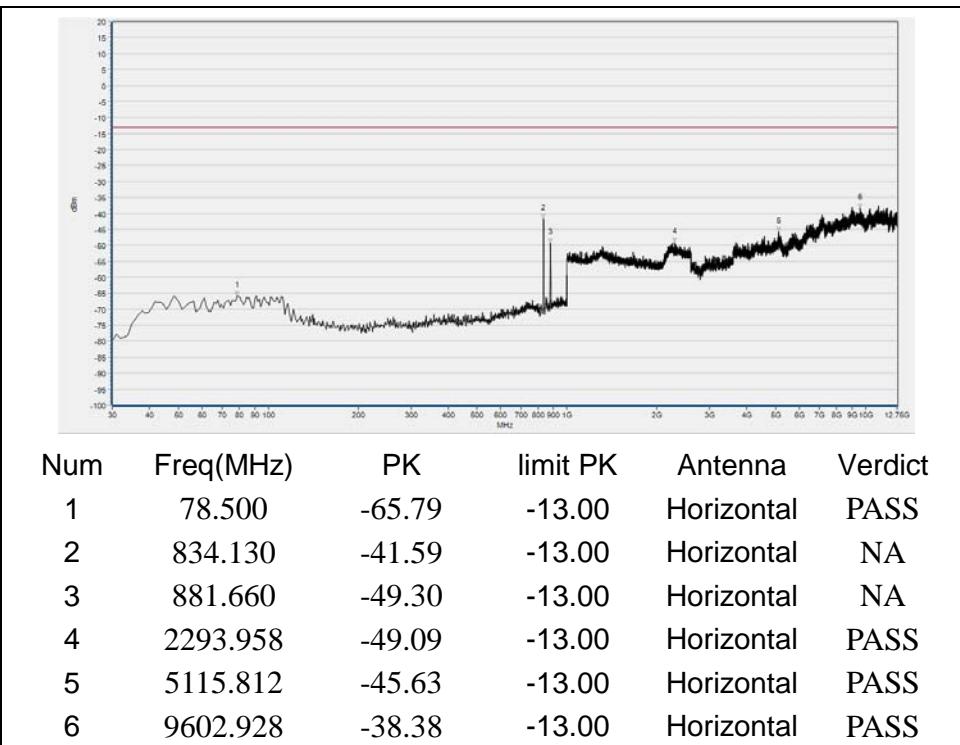
| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|---|---|---|---|---|---|
| 1 | 96.930 | -66.03 | -13.00 | Horizontal | PASS |
| 2 | 827.340 | -42.12 | -13.00 | Horizontal | NA |
| 3 | 871.960 | -48.53 | -13.00 | Horizontal | NA |
| 4 | 2205.602 | -49.38 | -13.00 | Horizontal | PASS |
| 5 | 3670.558 | -47.57 | -13.00 | Horizontal | PASS |
| 6 | 8956.901 | -37.53 | -13.00 | Horizontal | PASS |

(WCDMA Band V, Channel = 4132, Horizontal)
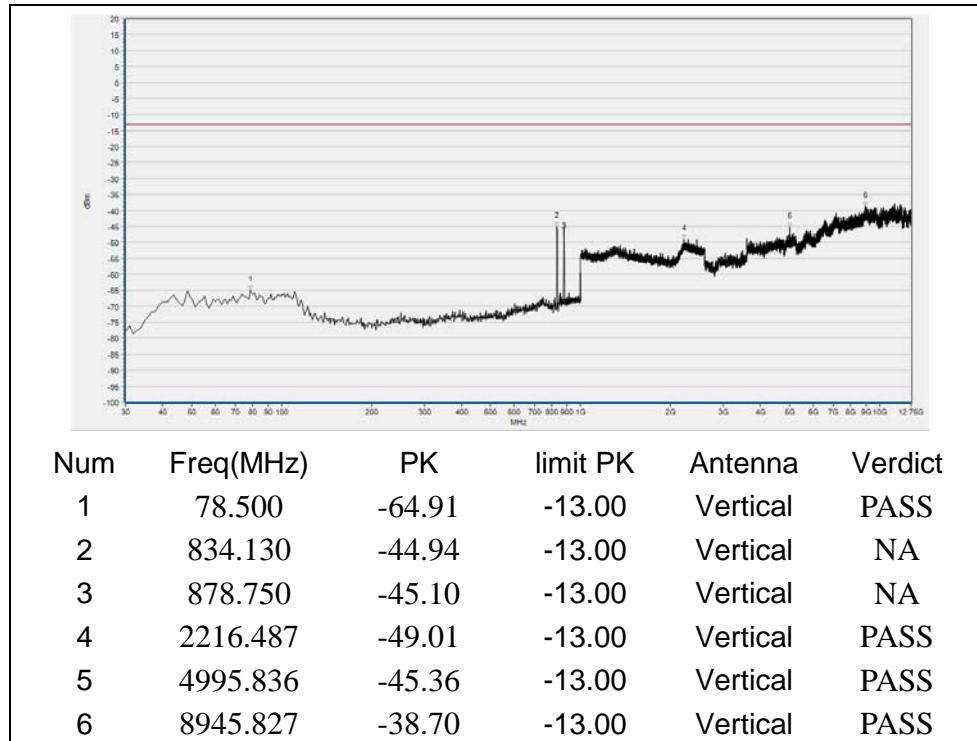


| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|---|---|---|---|---|---|
| 1 | 99.840 | -65.64 | -13.00 | Vertical | PASS |
| 2 | 826.370 | -49.59 | -13.00 | Vertical | NA |
| 3 | 870.990 | -46.88 | -13.00 | Vertical | NA |
| 4 | 2336.855 | -49.83 | -13.00 | Vertical | PASS |
| 5 | 7172.022 | -41.01 | -13.00 | Vertical | PASS |
| 6 | 8925.523 | -37.98 | -13.00 | Vertical | PASS |

(WCDMA Band V, Channel = 4132, Vertical)

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| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|---|---|---|---|---|---|
| 1 | 78.500 | -65.79 | -13.00 | Horizontal | PASS |
| 2 | 834.130 | -41.59 | -13.00 | Horizontal | NA |
| 3 | 881.660 | -49.30 | -13.00 | Horizontal | NA |
| 4 | 2293.958 | -49.09 | -13.00 | Horizontal | PASS |
| 5 | 5115.812 | -45.63 | -13.00 | Horizontal | PASS |
| 6 | 9602.928 | -38.38 | -13.00 | Horizontal | PASS |

(WCDMA Band V, Channel = 4183, Horizontal)



| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|---|---|---|---|---|---|
| 1 | 78.500 | -64.91 | -13.00 | Vertical | PASS |
| 2 | 834.130 | -44.94 | -13.00 | Vertical | NA |
| 3 | 878.750 | -45.10 | -13.00 | Vertical | NA |
| 4 | 2216.487 | -49.01 | -13.00 | Vertical | PASS |
| 5 | 4995.836 | -45.36 | -13.00 | Vertical | PASS |
| 6 | 8945.827 | -38.70 | -13.00 | Vertical | PASS |

(WCDMA Band V, Channel = 4183, Vertical)

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| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|-----|-----------|-------|----------|------------|---------|
| 1 | 80.440 | -64.88 | -13.00 | Horizontal | PASS |
| 2 | 847.710 | -45.64 | -13.00 | Horizontal | NA |
| 3 | 890.390 | -49.92 | -13.00 | Horizontal | NA |
| 4 | 2283.713 | -49.23 | -13.00 | Horizontal | PASS |
| 5 | 3633.642 | -49.33 | -13.00 | Horizontal | PASS |
| 6 | 9060.266 | -38.55 | -13.00 | Horizontal | PASS |

(WCDMA Band V, Channel = 4233, Horizontal)
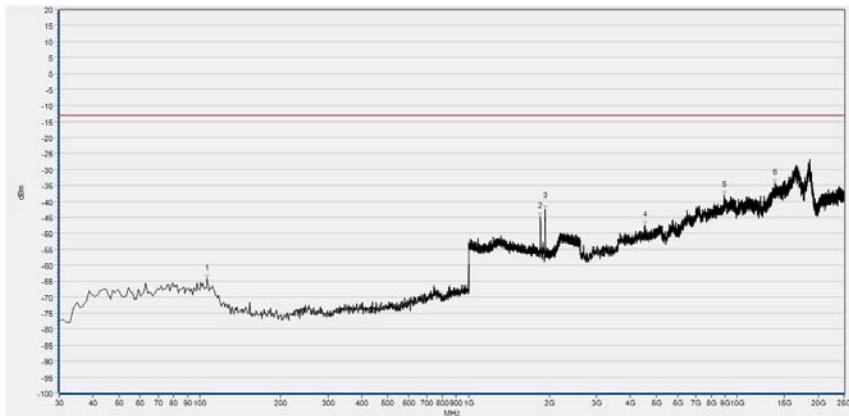


| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|-----|-----------|-------|----------|----------|---------|
| 1 | 81.410 | -64.87 | -13.00 | Vertical | PASS |
| 2 | 847.710 | -46.25 | -13.00 | Vertical | NA |
| 3 | 892.330 | -43.90 | -13.00 | Vertical | NA |
| 4 | 2260.664 | -49.59 | -13.00 | Vertical | PASS |
| 5 | 3661.329 | -48.90 | -13.00 | Vertical | PASS |
| 6 | 9047.345 | -37.10 | -13.00 | Vertical | PASS |

(WCDMA Band V, Channel = 4233, Vertical)

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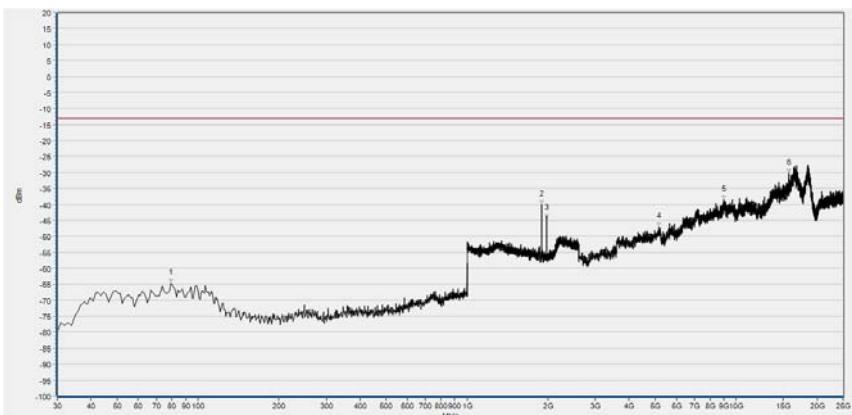
| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|-----|-----------|------|----------|------------|---------|
| 1 | 87.230 | -65.90 | -13.00 | Horizontal | PASS |
| 2 | 1851.541 | -39.84 | -13.00 | Horizontal | NA |
| 3 | 1933.493 | -43.51 | -13.00 | Horizontal | NA |
| 4 | 4453.428 | -47.85 | -13.00 | Horizontal | PASS |
| 5 | 8942.390 | -39.01 | -13.00 | Horizontal | PASS |
| 6 | 14066.812 | -33.90 | -13.00 | Horizontal | PASS |

(WCDMA Band II, Channel = 9262, Horizontal)
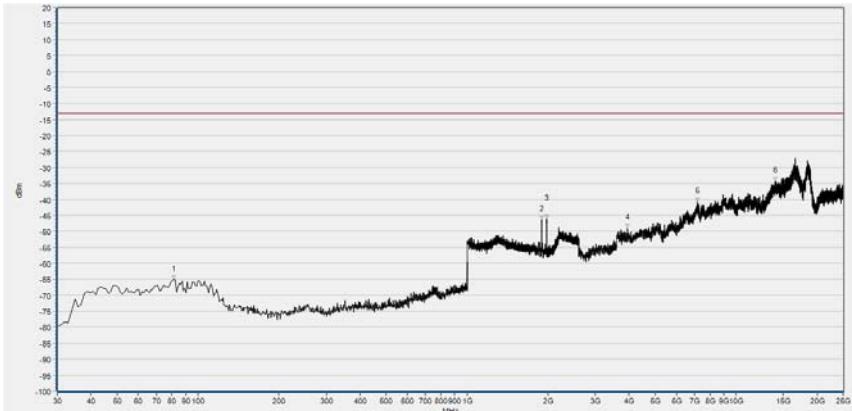


| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|-----|-----------|------|----------|----------|---------|
| 1 | 106.630 | -64.33 | -13.00 | Vertical | PASS |
| 2 | 1851.541 | -44.91 | -13.00 | Vertical | NA |
| 3 | 1933.493 | -42.60 | -13.00 | Vertical | NA |
| 4 | 4547.118 | -47.51 | -13.00 | Vertical | PASS |
| 5 | 8946.463 | -38.14 | -13.00 | Vertical | PASS |
| 6 | 13826.478 | -34.31 | -13.00 | Vertical | PASS |

(WCDMA Band II, Channel = 9262, Vertical)

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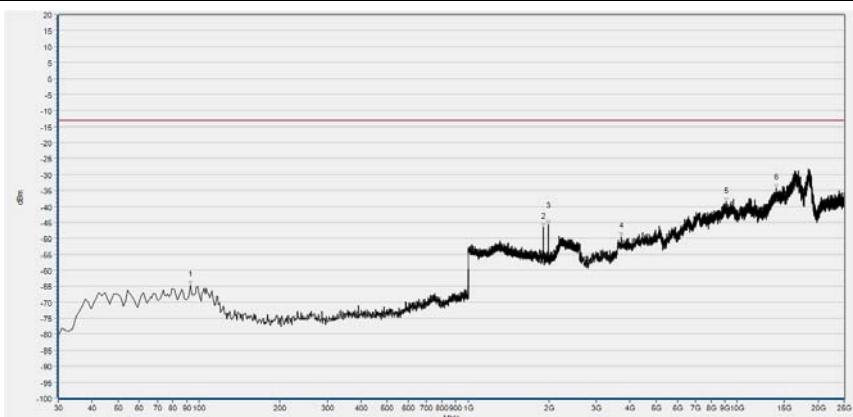
| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|-----|-----------|-------|----------|------------|---------|
| 1 | 79.470 | -64.73 | -13.00 | Horizontal | PASS |
| 2 | 1896.999 | -40.17 | -13.00 | Horizontal | NA |
| 3 | 1974.470 | -44.33 | -13.00 | Horizontal | NA |
| 4 | 5158.138 | -47.11 | -13.00 | Horizontal | PASS |
| 5 | 9011.638 | -38.66 | -13.00 | Horizontal | PASS |
| 6 | 15679.905 | -30.31 | -13.00 | Horizontal | PASS |

(WCDMA Band II, Channel = 9400, Horizontal)
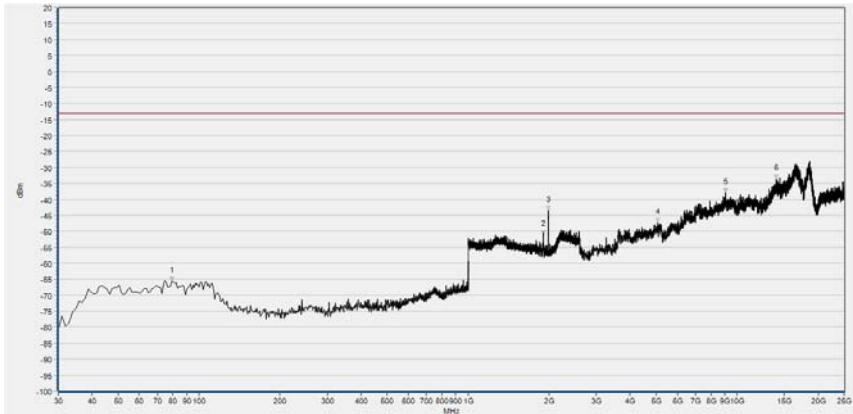


| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|-----|-----------|-------|----------|----------|---------|
| 1 | 81.410 | -65.20 | -13.00 | Vertical | PASS |
| 2 | 1896.999 | -46.47 | -13.00 | Vertical | NA |
| 3 | 1977.031 | -46.25 | -13.00 | Vertical | NA |
| 4 | 3956.465 | -49.02 | -13.00 | Vertical | PASS |
| 5 | 7170.431 | -40.83 | -13.00 | Vertical | PASS |
| 6 | 14022.004 | -34.30 | -13.00 | Vertical | PASS |

(WCDMA Band II, Channel = 9400, Vertical)

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| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|-----|-----------|--------|----------|------------|---------|
| 1 | 93.050 | -64.75 | -13.00 | Horizontal | PASS |
| 2 | 1908.523 | -46.68 | -13.00 | Horizontal | NA |
| 3 | 1987.275 | -45.67 | -13.00 | Horizontal | NA |
| 4 | 3716.130 | -49.55 | -13.00 | Horizontal | PASS |
| 5 | 9097.181 | -38.58 | -13.00 | Horizontal | PASS |
| 6 | 13993.490 | -34.26 | -13.00 | Horizontal | PASS |

(WCDMA Band II, Channel = 9538, Horizontal)
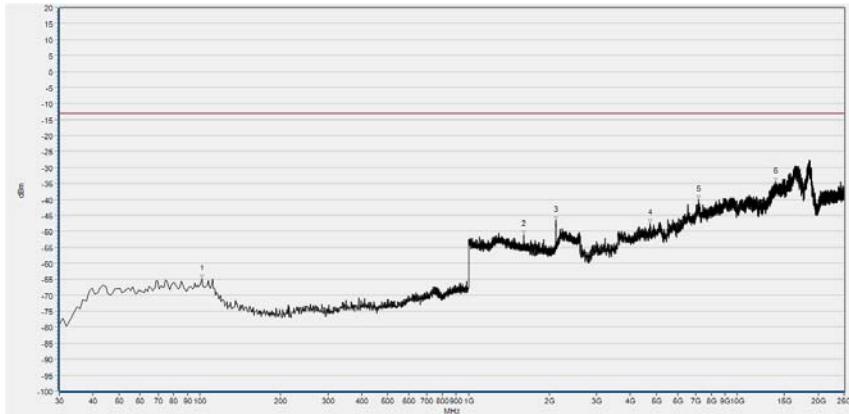


| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|-----|-----------|--------|----------|----------|---------|
| 1 | 79.470 | -65.63 | -13.00 | Vertical | PASS |
| 2 | 1907.243 | -51.12 | -13.00 | Vertical | NA |
| 3 | 1988.555 | -43.51 | -13.00 | Vertical | NA |
| 4 | 5080.742 | -47.28 | -13.00 | Vertical | PASS |
| 5 | 9036.079 | -37.85 | -13.00 | Vertical | PASS |
| 6 | 14017.931 | -33.65 | -13.00 | Vertical | PASS |

(WCDMA Band II, Channel = 9538, Vertical)

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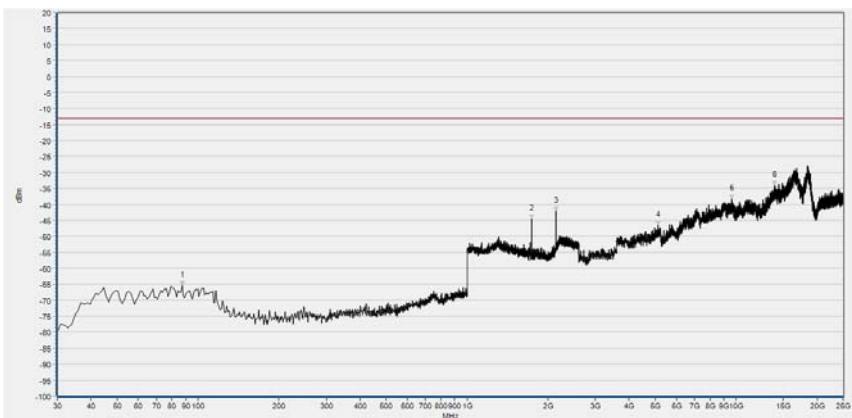
| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|---|---|---|---|---|---|
| 1 | 79.520 | -65.62 | -13.00 | Horizontal | PASS |
| 2 | 1711.556 | -50.12 | -13.00 | Horizontal | NA |
| 3 | 2110.955 | -47.83 | -13.00 | Horizontal | NA |
| 4 | 4534.189 | -47.23 | -13.00 | Horizontal | PASS |
| 5 | 7196.499 | -40.89 | -13.00 | Horizontal | PASS |
| 6 | 14048.308 | -33.87 | -13.00 | Horizontal | PASS |

(WCDMA Band IV, Channel = 1312, Horizontal)
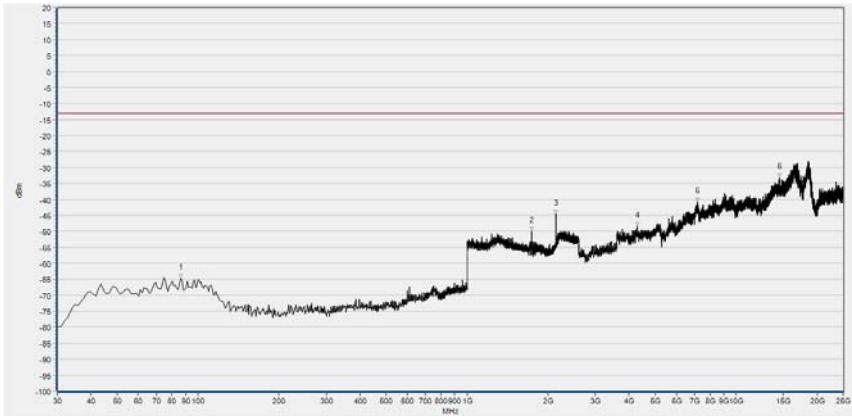


| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|---|---|---|---|---|---|
| 1 | 101.852 | -65.01 | -13.00 | Vertical | PASS |
| 2 | 1606.703 | -51.08 | -13.00 | Vertical | PASS |
| 3 | 2111.756 | -46.69 | -13.00 | Vertical | NA |
| 4 | 4728.355 | -47.59 | -13.00 | Vertical | PASS |
| 5 | 7192.765 | -40.15 | -13.00 | Vertical | PASS |
| 6 | 13880.280 | -34.51 | -13.00 | Vertical | PASS |

(WCDMA Band IV, Channel = 1312, Vertical)

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| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|-----|-----------|--------|----------|------------|---------|
| 1 | 87.287 | -65.40 | -13.00 | Horizontal | PASS |
| 2 | 1738.769 | -44.49 | -13.00 | Horizontal | NA |
| 3 | 2139.770 | -42.10 | -13.00 | Horizontal | NA |
| 4 | 5124.154 | -46.68 | -13.00 | Horizontal | PASS |
| 5 | 9619.837 | -38.31 | -13.00 | Horizontal | PASS |
| 6 | 13913.886 | -34.06 | -13.00 | Horizontal | PASS |

(WCDMA Band IV, Channel = 1413, Horizontal)
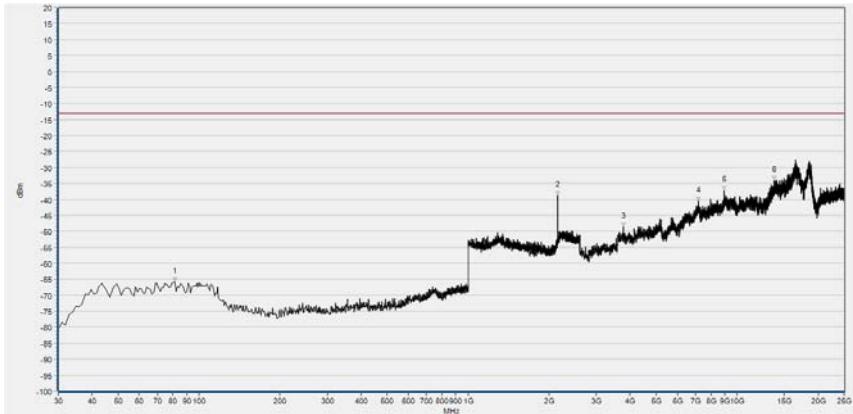


| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|-----|-----------|--------|----------|----------|---------|
| 1 | 86.316 | -64.80 | -13.00 | Vertical | PASS |
| 2 | 1738.769 | -49.94 | -13.00 | Vertical | NA |
| 3 | 2138.969 | -44.51 | -13.00 | Vertical | NA |
| 4 | 4295.216 | -48.46 | -13.00 | Vertical | PASS |
| 5 | 7177.830 | -40.80 | -13.00 | Vertical | PASS |
| 6 | 14500.117 | -33.20 | -13.00 | Vertical | PASS |

(WCDMA Band IV, Channel = 1413, Vertical)

| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|-----|-----------|--------|----------|------------|---------|
| 1 | 80.490 | -65.64 | -13.00 | Horizontal | PASS |
| 2 | 2151.776 | -42.18 | -13.00 | Horizontal | NA |
| 3 | 3768.728 | -50.23 | -13.00 | Horizontal | PASS |
| 4 | 7121.820 | -41.32 | -13.00 | Horizontal | PASS |
| 5 | 9063.477 | -38.07 | -13.00 | Horizontal | PASS |
| 6 | 14160.327 | -32.51 | -13.00 | Horizontal | PASS |

(WCDMA Band IV, Channel = 1513, Horizontal)



| Num | Freq(MHz) | PK | limit PK | Antenna | Verdict |
|-----|-----------|--------|----------|----------|---------|
| 1 | 81.461 | -65.84 | -13.00 | Vertical | PASS |
| 2 | 2151.776 | -38.74 | -13.00 | Vertical | NA |
| 3 | 3779.930 | -48.56 | -13.00 | Vertical | PASS |
| 4 | 7189.032 | -40.53 | -13.00 | Vertical | PASS |
| 5 | 8947.725 | -37.18 | -13.00 | Vertical | PASS |
| 6 | 13745.858 | -34.14 | -13.00 | Vertical | PASS |

(WCDMA Band IV, Channel = 1513, Vertical)

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# Annex A Test Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for test performed on the EUT as specified in CISPR 16-1-2:

| Test items | Uncertainty |
|---|---|
| Output Power | ±2.22dB |
| Bandwidth | ±5% |
| Conducted Spurious Emission | ±2.77 dB |
| Radiated Emission | ±2.95dB |

This uncertainty represent an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2

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# Annex B Testing Laboratory Information

## 1. Identification of the Responsible Testing Laboratory

| | |
|---|---|
| **Laboratory Name:** | Shenzhen Morlab Communications Technology Co., Ltd. Morlab Laboratory |
| **Laboratory Address:** | FL.3, Building A, FeiYang Science Park, No.8 LongChang Road, Block 67, BaoAn District, ShenZhen, GuangDong Province, P. R. China |
| **Telephone:** | +86 755 36698555 |
| **Facsimile:** | +86 755 36698525 |

## 2. Identification of the Responsible Testing Location

| | |
|---|---|
| **Name:** | Shenzhen Morlab Communications Technology Co., Ltd. Morlab Laboratory |
| **Address:** | FL.3, Building A, FeiYang Science Park, No.8 LongChang Road, Block 67, BaoAn District, ShenZhen, GuangDong Province, P. R. China |

## 3. Facilities and Accreditations

All measurement facilities used to collect the measurement data are located at FL.3, Building A, FeiYang Science Park, Block 67, BaoAn District, Shenzhen, 518101 P. R. China. The test site is constructed in conformance with the requirements of ANSI C63.10-2013 and CISPR Publication 22; the FCC designation number is CN1192, the test firm registration number is 226174.

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## 4. Test Equipments Utilized

### 4.1 Conducted Test Equipments

| Equipment Name | Serial No. | Type | Manufacturer | Cal. Date | Cal. Due |
|---|---|---|---|---|---|
| Power Splitter | NW521 | 1506A | Weinschel | 2019.04.17 | 2020.04.16 |
| Attenuator 1 | (N/A.) | 10dB | Resnet | 2019.04.17 | 2020.04.16 |
| Attenuator 2 | (N/A.) | 3dB | Resnet | 2019.04.17 | 2020.04.16 |
| EXA Signal Analzyer | MY53470836 | N9010A | Agilent | 2018.11.06 | 2019.11.05 |
| Wireless synthesizer | MY48364176 | 8960 -E5515C | Agilent | 2019.04.17 | 2020.04.16 |
| RF cable (30MHz-26GHz) | CB01 | RF01 | Morlab | N/A | N/A |
| Coaxial cable | CB02 | RF02 | Morlab | N/A | N/A |
| SMA connector | CN01 | RF03 | HUBER-SUHNER | N/A | N/A |
| Temperature Chamber | (N/A) | HUT705P | CHONGQING HANBA EXPERIMENTAL EQUIPMENT CO.,LTD | 2019.04.17 | 2020.04.16 |
| Computer | T430i | Think Pad | Lenovo | N/A | N/A |

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## 4.2 Radiated Test Equipments

| Equipment Name | Serial No. | Type | Manufacturer | Cal. Date | Cal. Due |
|---|---|---|---|---|---|
| System Simulator | 152038 | CMW500 | R&S | 2019.08.04 | 2020.08.03 |
| Receiver | MY54130016 | N9038A | Agilent | 2019.05.18 | 2020.05.17 |
| Test Antenna - Bi-Log | 9163-519 | VULB 9163 | Schwarzbeck | 2019.03.03 | 2020.03.02 |
| Test Antenna - Horn | 9170C-531 | BBHA9170 | Schwarzbeck | 2019.08.06 | 2020.08.05 |
| Test Antenna - Horn | 01774 | BBHA 9120D | Schwarzbeck | 2019.08.02 | 2020.08.01 |
| Coaxial cable (N male) (9KHz-30MHz) | CB04 | EMC04 | Morlab | N/A | N/A |
| Coaxial cable (N male) (30MHz-26GHz) | CB02 | EMC02 | Morlab | N/A | N/A |
| Coaxial cable (N male) (30MHz-26GHz) | CB03 | EMC03 | Morlab | N/A | N/A |
| 1-18GHz pre-Amplifier | MA02 | TS-PR18 | Rohde& Schwarz | 2019.05.08 | 2020.05.07 |
| 18-26.5GHz pre-Amplifier | MA03 | TS-PR18 | Rohde& Schwarz | 2019.05.08 | 2020.05.07 |
| Notch Filter | N/A | WRCG-GSM 850 | Wainwright | 2018.12.01 | 2019.11.30 |
| Notch Filter | N/A | WRCG-GSM 1900 | Wainwright | 2018.12.01 | 2019.11.30 |
| Notch Filter | N/A | WRCGV-W Band V | Wainwright | 2018.12.01 | 2019.11.30 |
| Notch Filter | N/A | WRCGV-W Band II | Wainwright | 2018.12.01 | 2019.11.30 |
| Notch Filter | N/A | WRCGV-W Band IV | Wainwright | 2018.12.01 | 2019.11.30 |
| Anechoic Chamber | N/A | 9m*6m*6m | CRT | 2017.11.19 | 2020.11.18 |

———— END OF REPORT ————