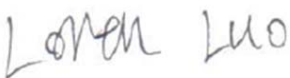
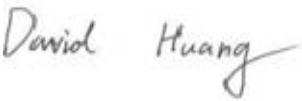



RF TEST REPORT



Report No.: 16070974-FCC-R1

Supersede Report No.: N/A

| | | |
|--|---|---|
| Applicant | Jethro Trading LTD. | |
| Product Name | GSM phone | |
| Model No. | SC213 | |
| Serial No. | N/A | |
| Test Standard | FCC Part 22(H):2015 ;FCC Part 24(E):2015;ANSI/TIA-603-D: 2010 | |
| Test Date | August 15 to 31, 2016 | |
| Issue Date | September 01, 2016 | |
| Test Result | <input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail | |
| Equipment complied with the specification <input checked="" type="checkbox"/> | | |
| Equipment did not comply with the specification <input type="checkbox"/> | | |
|  |  |  |
| Loren Luo Test Engineer | David Huang Checked By | |
| This test report may be reproduced in full only Test result presented in this test report is applicable to the tested sample only | | |

Issued by:

SIEMIC (SHENZHEN-CHINA) LABORATORIES

Zone A, Floor 1, Building 2 Wan Ye Long Technology Park

South Side of Zhoushi Road, Bao' an District, Shenzhen, Guangdong China 518108

Phone: +86 0755 2601 4629801 Email: China@siemic.com.cn

Laboratories Introduction

SIEMIC, headquartered in the heart of Silicon Valley, with superior facilities in US and Asia, is one of the leading independent testing and certification facilities providing customers with one-stop shop services for Compliance Testing and Global Certifications.



In addition to testing and certification, SIEMIC provides initial design reviews and compliance management throughout a project. Our extensive experience with China, Asia Pacific, North America, European, and International compliance requirements, assures the fastest, most cost effective way to attain regulatory compliance for the global markets.

Accreditations for Conformity Assessment

| Country/Region | Scope |
|----------------|------------------------------------|
| USA | EMC, RF/Wireless, SAR, Telecom |
| Canada | EMC, RF/Wireless, SAR, Telecom |
| Taiwan | EMC, RF, Telecom, SAR, Safety |
| Hong Kong | RF/Wireless, SAR, Telecom |
| Australia | EMC, RF, Telecom, SAR, Safety |
| Korea | EMI, EMS, RF, SAR, Telecom, Safety |
| Japan | EMI, RF/Wireless, SAR, Telecom |
| Singapore | EMC, RF, SAR, Telecom |
| Europe | EMC, RF, SAR, Telecom, Safety |

| | |
|-------------|-----------------|
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1. Report Revision History

| Report No. | Report Version | Description | Issue Date |
|-----------------|----------------|-------------|--------------------|
| 16070974-FCC-R1 | NONE | Original | September 01, 2016 |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

2. Customer information

| | |
|------------------|---|
| Applicant Name | Jethro Trading LTD. |
| Applicant Add | 505 - 8840 210TH STREET, #231 Langley, Canada V1M2Y2 |
| Manufacturer | Shenzhen Bayuda Technologies,co.,ltd |
| Manufacturer Add | Room A433 A Block,Shenzhen Industrial products exhibition procurement center the baoyuan road baoan distric |

3. Test site information

| | |
|----------------------|--|
| Lab performing tests | SIEMIC (Shenzhen-China) LABORATORIES |
| Lab Address | Zone A, Floor 1, Building 2 Wan Ye Long Technology Park South Side of Zhoushi Road, Bao' an District, Shenzhen, Guangdong China 518108 |
| FCC Test Site No. | 718246 |
| IC Test Site No. | 4842E-1 |
| Test Software | Radiated Emission Program-To Shenzhen v2.0 |

4. Equipment under Test (EUT) Information

| | |
|---|---|
| Description of EUT: | GSM phone |
| Main Model: | SC213 |
| Serial Model: | N/A |
| Date EUT received: | August 15, 2016 |
| Test Date(s): | August 15 to 31, 2016 |
| Equipment Category : | PCE |
| Antenna Gain: | GSM850: 0.4dBi PCS1900: 0.7dBi Bluetooth: 0.5dBi |
| Antenna Type: | GSM:PIFA antenna BT: Monopole antenna |
| Type of Modulation: | GSM: GMSK Bluetooth: GFSK, π /4DQPSK, 8DPSK |
| RF Operating Frequency (ies): | GSM850 TX: 824.2 ~ 848.8 MHz; RX: 869.2 ~ 893.8 MHz PCS1900 TX: 1850.2 ~ 1909.8 MHz; RX: 1930.2 ~ 1989.8 MHz Bluetooth: 2402-2480 MHz |
| Maximum Conducted AV Power to Antenna: | GSM Voice :GSM850: 32.92dBm PCS1900:29.71dBm |
| ERP/EIRP: | GSM Voice :GSM850: 31.30 dBm / ERP PCS1900: 30.27dBm / EIRPP |

| | |
|---------------------|---|
| Number of Channels: | <p>GSM 850: 124CH</p> <p>PCS1900: 299CHH</p> <p>Bluetooth: 79CH</p> |
| Port: | <p>Power Port, Earphone Port, USB Port</p> |
| Input Power: | <p>Adapter:</p> <p>Model: HJ-050050-US</p> <p>Input: 100-240VAC,50/60Hz,0.15A</p> <p>Output: DC5V,500mA</p> <p>Charging Base:</p> <p>Model:SC213</p> <p>Input: DC5.0V,500mA</p> <p>Output:DC5.0V,500mA</p> <p>Battery:</p> <p>Model: SC213</p> <p>Spec:3.7V,800mAh/2.96Wh</p> <p>Charging limited voltage: 4.2V</p> |
| Trade Name : | Jethro |
| FCC ID: | 2AAWJSC213 |

5. Test Summary

The product was tested in accordance with the following specifications.

All testing has been performed according to below product classification:

| FCC Rules | Description of Test | Result |
|--|--|------------|
| § 1.1307; § 2.1093 | RF Exposure (SAR) | Compliance |
| §2.1046; § 22.913(a); § 24.232(c); | RF Output Power | Compliance |
| § 24.232 (d) ; | Peak-Average Ratio | Compliance |
| § 2.1049; § 22.905; § 22.917; § 24.238; | 99% & -26 dB Occupied Bandwidth | Compliance |
| § 2.1051; § 22.917(a); § 24.238(a); | Spurious Emissions at Antenna Terminal | Compliance |
| § 2.1053; § 22.917(a); § 24.238(a); | Field Strength of Spurious Radiation | Compliance |
| § 22.917(a); § 24.238(a); | Out of band emission, Band Edge | Compliance |
| § 2.1055; § 22.355; § 24.235; | Frequency stability vs. temperature Frequency stability vs. voltage | Compliance |

Note: Testing was performed by configuring EUT to maximum output power status, the declared output power class for different

Measurement Uncertainty

| Emissions | | |
|---|---|---------------|
| Test Item | Description | Uncertainty |
| Band Edge and Radiated Spurious Emissions | Confidence level of approximately 95% (in the case where distributions are normal), with a coverage factor of 2 (for EUTs < 0.5m X 0.5m X 0.5m) | +5.6dB/-4.5dB |
| - | - | - |

6. MEASUREMENTS, EXAMINATION AND DERIVED RESULTS

6.1 RF Exposure (SAR)

Test Result: Pass

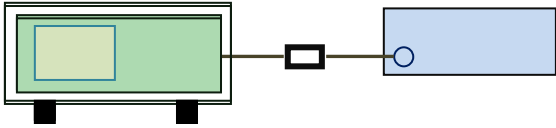
The EUT is a portable device, thus requires SAR evaluation;
Please refer to RF Exposure Evaluation Report: 16070974-FCC-H.

6.2 RF Output Power

| | |
|----------------------|-----------------|
| Temperature | 23°C |
| Relative Humidity | 54% |
| Atmospheric Pressure | 1030mbar |
| Test date : | August 30, 2016 |
| Tested By : | Loren Luo |

Requirement(s):

| Spec | Item | Requirement | Applicable |
|-------------|------|--------------|-------------------------------------|
| §22.913 (a) | a) | ERP:38.45dBm | <input checked="" type="checkbox"/> |
| §24.232 (c) | b) | EIRP:33dBm | <input checked="" type="checkbox"/> |

| | |
|------------|---|
| Test Setup |  |
|------------|---|

| | |
|----------------|---|
| Test Procedure | <p>For Conducted Power:</p> <ul style="list-style-type: none"> - The transmitter output port was connected to base station. - Set EUT at maximum power through base station. - Select lowest, middle, and highest channels for each band and different test mode. <p>For ERP/EIRP:</p> <p>According with KDB 971168 v02r02</p> <ul style="list-style-type: none"> - The transmitter was placed on a wooden turntable, and it was transmitting into a non-radiating load which was also placed on the turntable. - The measurement antenna was placed at a distance of 3 meters from the EUT. During the tests, the antenna height and polarization as well as EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. The test was performed by placing the EUT on 3-orthogonal axis. - The frequency range up to tenth harmonic of the fundamental frequency was investigated. |
|----------------|---|

| | |
|-------------|-----------------|
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| | |
|--------|--|
| | <ul style="list-style-type: none"> - Remove the EUT and replace it with substitution antenna. A signal generator was connected to the substitution antenna by a non-radiating cable. The absolute levels of the spurious emissions were measured by the substitution. - Spurious emissions in dB = $10 \log (\text{TX power in Watts}/0.001)$ – the absolute level - Spurious attenuation limit in dB = $43 + 10 \text{ Log}_{10} (\text{power out in Watts})$. |
| Remark | |
| Result | <input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail |

Test Data ☒ Yes ☐ N/A

Test Plot ☐ Yes (See below) ☒ N/A

Conducted Power

GSM Mode:

| Burst Average Power (dBm); | | | | | | | | |
|------------------------------|--------|--------------|-------|------------------------------|--------------|-------|--------|------------------------------|
| Band | GSM850 | | | | PCS1900 | | | |
| Channel | 128 | 190 | 251 | Tune up Power tolerant | 512 | 661 | 810 | Tune up Power tolerant |
| Frequency (MHz) | 824.2 | 836.6 | 848.8 | / | 1850.2 | 1880 | 1909.8 | / |
| GSM Voice (1 uplink),GMSK | 32.90 | 32.92 | 32.89 | 33±1 | 29.71 | 29.63 | 29.53 | 29.5±1 |

GSM Mode:

ERP & EIRP

ERP for Cellular Band (Part 22H)

| Frequency (MHz) | Substituted level (dBm) | Antenna Polarization | Antenna Gain correction (dBi) | Cable Loss (dB) | Absolute Level (dBm) | Limit (dBm) |
|-----------------|-------------------------|----------------------|-------------------------------|-----------------|----------------------|-------------|
| 824.2 | 24.89 | V | 6.8 | 0.53 | 31.16 | 38.45 |
| 824.2 | 23.15 | H | 6.8 | 0.53 | 29.42 | 38.45 |
| 836.6 | 24.76 | V | 6.8 | 0.53 | 31.03 | 38.45 |
| 836.6 | 23.09 | H | 6.8 | 0.53 | 29.36 | 38.45 |
| 848.8 | 24.93 | V | 6.9 | 0.53 | 31.30 | 38.45 |
| 848.8 | 23.21 | H | 6.9 | 0.53 | 29.58 | 38.45 |

EIRP for PCS Band (Part 24E)

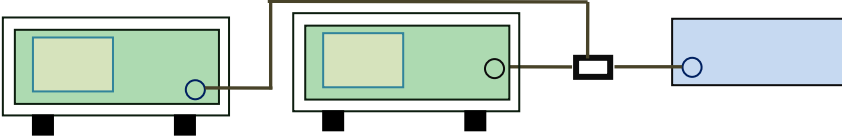
| Frequency (MHz) | Substituted level (dBm) | Antenna Polarization | Antenna Gain correction (dBi) | Cable Loss (dB) | Absolute Level (dBm) | Limit (dBm) |
|-----------------|-------------------------|----------------------|-------------------------------|-----------------|----------------------|-------------|
| 1850.2 | 23.24 | V | 7.88 | 0.85 | 30.27 | 33 |
| 1850.2 | 21.19 | H | 7.88 | 0.85 | 28.22 | 33 |
| 1880 | 23.18 | V | 7.88 | 0.85 | 30.21 | 33 |
| 1880 | 21.05 | H | 7.88 | 0.85 | 28.08 | 33 |
| 1909.8 | 23.22 | V | 7.86 | 0.85 | 30.23 | 33 |
| 1909.8 | 21.16 | H | 7.86 | 0.85 | 28.17 | 33 |

6.3 Peak-Average Ratio

| | |
|----------------------|-----------------|
| Temperature | 23°C |
| Relative Humidity | 54% |
| Atmospheric Pressure | 1030mbar |
| Test date : | August 30, 2016 |
| Tested By : | Loren Luo |

Requirement(s):

| Spec | Item | Requirement | Applicable |
|------------|------|---|-------------------------------------|
| §24.232(d) | a) | The peak-to-average ratio (PAR) of the transmission may not exceed 13 dB. | <input checked="" type="checkbox"/> |

| | |
|------------|---|
| Test Setup |  |
|------------|---|

| | |
|----------------|--|
| Test Procedure | <p>According with KDB 971168 v02r02</p> <p>5.7.2 Alternate procedure for PAPR</p> <p>5.1.2 Peak power measurements with a peak power meter</p> <p>The total peak output power may be measured using a broadband peak RF power meter. The power meter must have a video bandwidth that is greater than or equal to the emission bandwidth and utilize a fast-responding diode detector.</p> <p>5.2.3 Average power measurement with average power meter</p> <p>As an alternative to the use of a spectrum/signal analyzer or EMI receiver to perform a measurement of the total in-band average output power, a wideband RF average power meter with a thermocouple detector or equivalent can be used under certain conditions</p> <p>If the EUT can be configured to transmit continuously (i.e., the burst duty</p> |
|----------------|--|

| | |
|-------------|-----------------|
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| | |
|--------|---|
| | <p>cycle $\geq 98\%$) and at all times the EUT is transmitting at its maximum output power level, then a conventional wide-band RF power meter can be used. If the EUT cannot be configured to transmit continuously (i.e., the burst duty cycle $< 98\%$), then there are two options for the use of an average power meter. First, a gated average power meter can be used to perform the measurement if the gating parameters can be adjusted such that the power is measured only over active transmission bursts at maximum output power levels. A conventional average power meter can also be used if the measured burst duty cycle is constant (i.e., duty cycle variations are less than ± 2 percent) by performing the measurement over the on/off burst cycles and then correcting (increasing) the measured level by a factor equal to $10\log(1/\text{duty cycle})$</p> |
| Remark | |
| Result | <input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail |

Test Data ☒ Yes ☐ N/A
 Test Plot ☐ Yes (See below) ☒ N/A

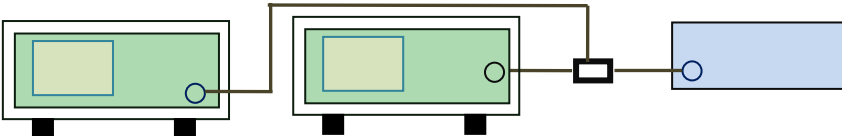
GSM 1900 PK-AV POWER (PART 24E)

| Frequency (MHz) | Conducted power(dBm) | | Peak-Average Ratio(PAR) |
|--------------------|----------------------|---------|----------------------------|
| | Peak | Average | |
| 1850.2 | 30.17 | 29.71 | 0.46 |
| 1880 | 30.35 | 29.63 | 0.72 |
| 1909.8 | 30.62 | 29.53 | 1.09 |

6.4 Occupied Bandwidth

| | |
|----------------------|-----------------|
| Temperature | 23°C |
| Relative Humidity | 54% |
| Atmospheric Pressure | 1030mbar |
| Test date : | August 30, 2016 |
| Tested By : | Loren Luo |

Requirement(s):

| Spec | Item | Requirement | Applicable |
|--|--|-----------------------------|-------------------------------------|
| §2.1049, §22.917, §22.905 §24.238 | a) | 99% Occupied Bandwidth(kHz) | <input checked="" type="checkbox"/> |
| | b) | 26 dB Bandwidth(kHz) | <input checked="" type="checkbox"/> |
| Test Setup |  | | |
| Test Procedure | <ul style="list-style-type: none"> - The EUT was connected to Spectrum Analyzer and Base Station via power divider. - The 99% and 26 dB occupied bandwidth (BW) of the middle channel for the highest RF powers. | | |
| Remark | | | |
| Result | <input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail | | |

Test Data ☒ Yes ☐ N/A

Test Plot ☒ Yes (See below) ☐ N/A

GSM Voice:

Cellular Band (Part 22H) result

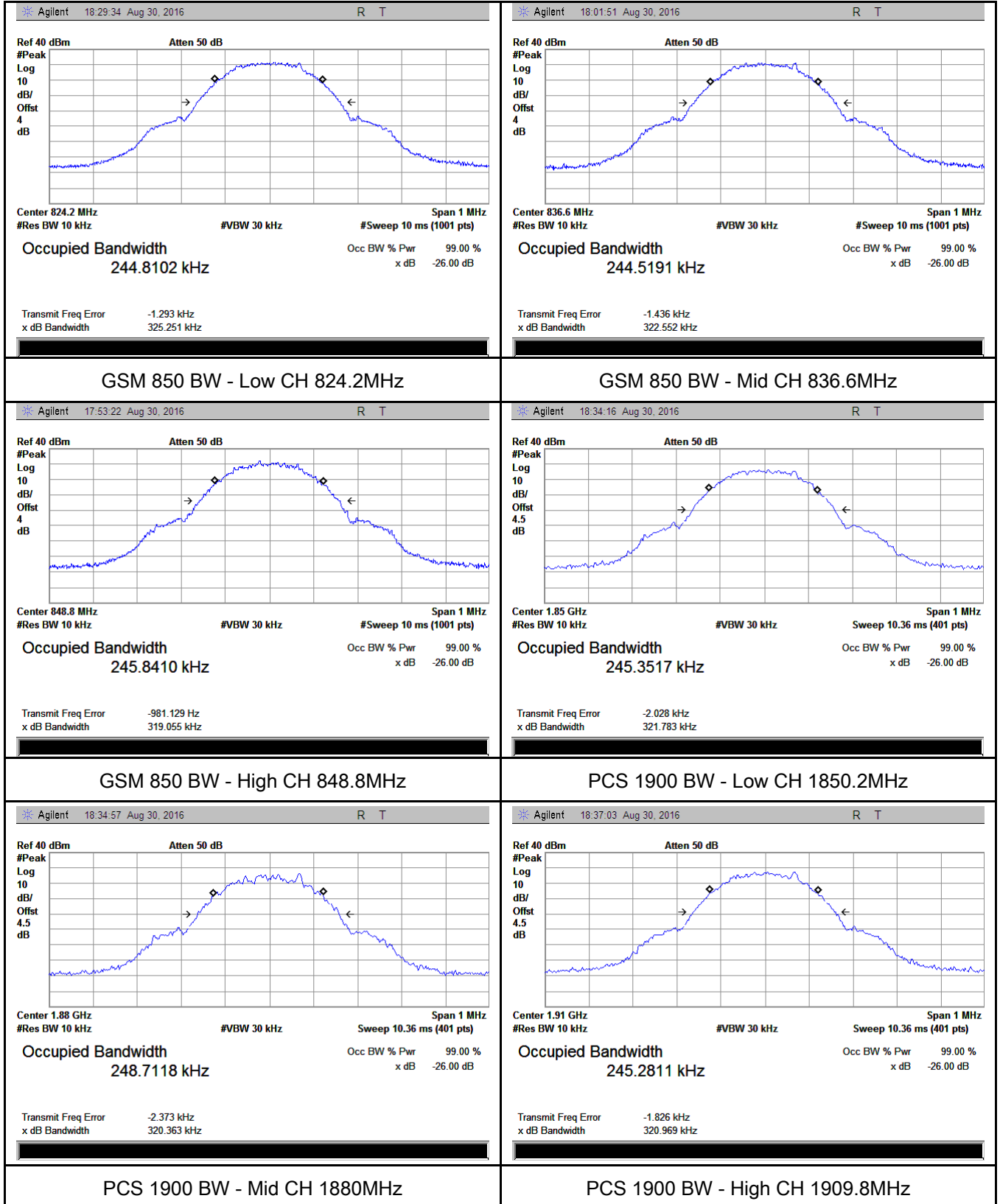
| Channel | Frequency (MHz) | 99% Occupied Bandwidth (kHz) | 26 dB Bandwidth (kHz) |
|---------|-----------------|------------------------------|-----------------------|
| 128 | 824.2 | 244.8102 | 325.251 |
| 190 | 836.6 | 244.5191 | 322.552 |
| 251 | 848.8 | 245.8410 | 319.055 |

PCS Band (Part 24E) result

| Channel | Frequency (MHz) | 99% Occupied Bandwidth (kHz) | 26 dB Bandwidth (kHz) |
|---------|-----------------|------------------------------|-----------------------|
| 512 | 1850.2 | 245.3517 | 321.783 |
| 661 | 1880.0 | 248.7118 | 320.363 |
| 810 | 1909.8 | 245.2811 | 320.969 |

GSM Mode:

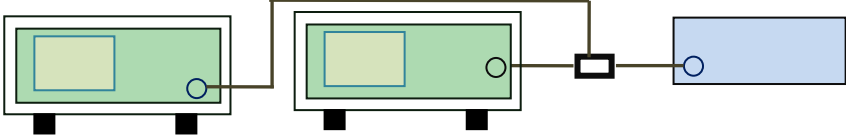
Test Plots



6.5 Spurious Emissions at Antenna Terminals

| | |
|----------------------|-----------------|
| Temperature | 23°C |
| Relative Humidity | 54% |
| Atmospheric Pressure | 1030mbar |
| Test date : | August 30, 2016 |
| Tested By : | Loren Luo |

Requirement(s):

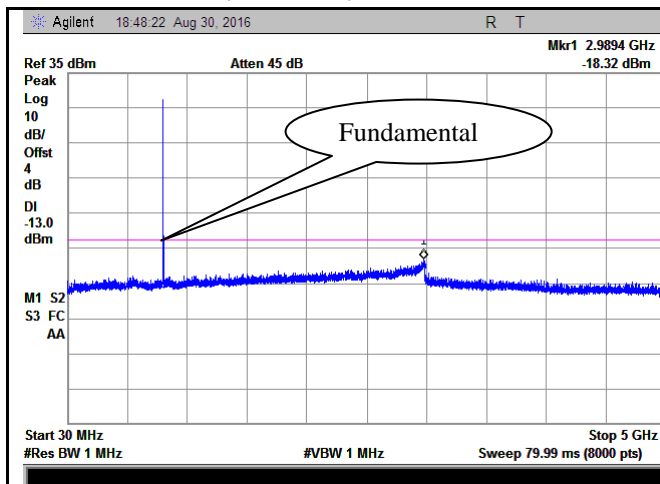
| Spec | Item | Requirement | Applicable |
|---------------------------------------|--|---|-------------------------------------|
| §2.1051, §22.917(a)& §24.238(a) | a) | The power of any emission outside of the authorized operating frequency ranges must be lower than the transmitter power (P) by a factor of at least $43 + 10 \log (P)$ dB | <input checked="" type="checkbox"/> |
| Test Setup |  | | |
| Test Procedure | <ul style="list-style-type: none"> - The EUT was connected to Spectrum Analyzer and Base Station via power divider. - The Band Edges of low and high channels for the highest RF powers were measured. - Setting RBW as roughly BW/100. | | |
| Remark | | | |
| Result | <input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail | | |

Test Data ☒ Yes ☐ N/A
 Test Plot ☒ Yes (See below) ☐ N/A

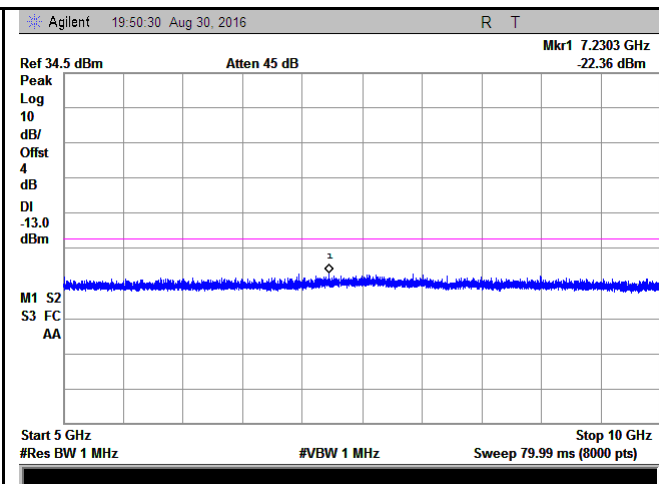
GSM Mode:

Test Plots

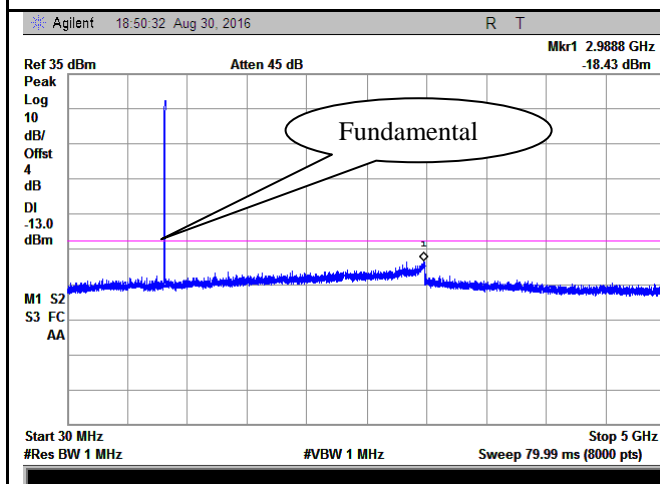
Cellular Band (Part 22H) result



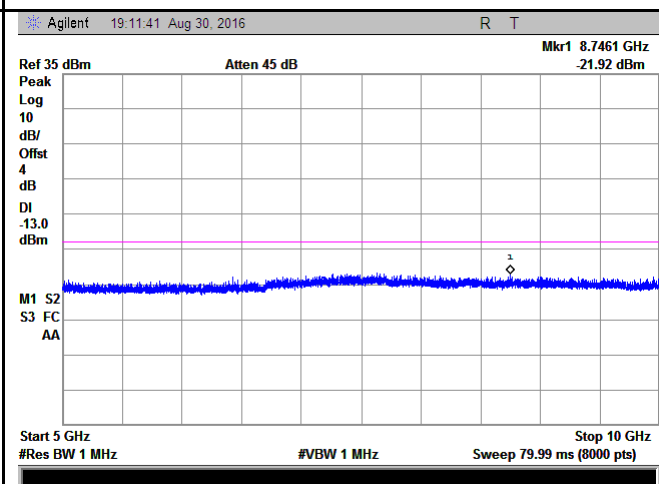
GSM 850 - Low Channel-1



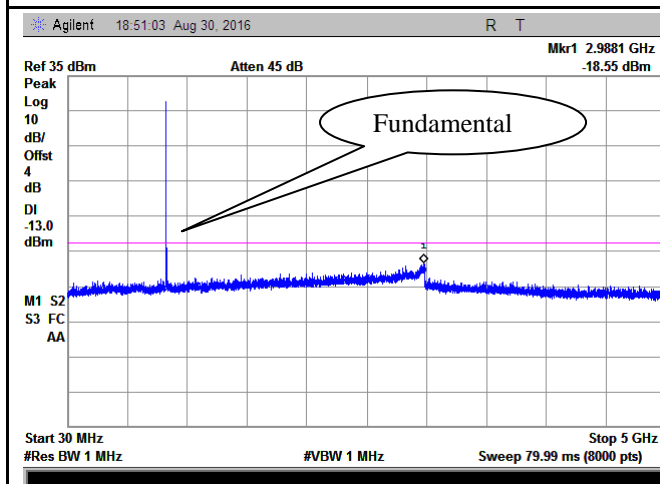
GSM 850 - Low Channel-2



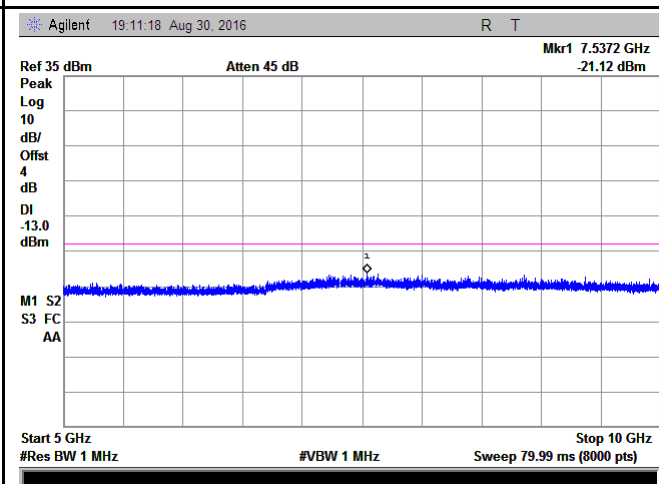
GSM 850 Middle Channel-1



GSM 850 Middle Channel-2

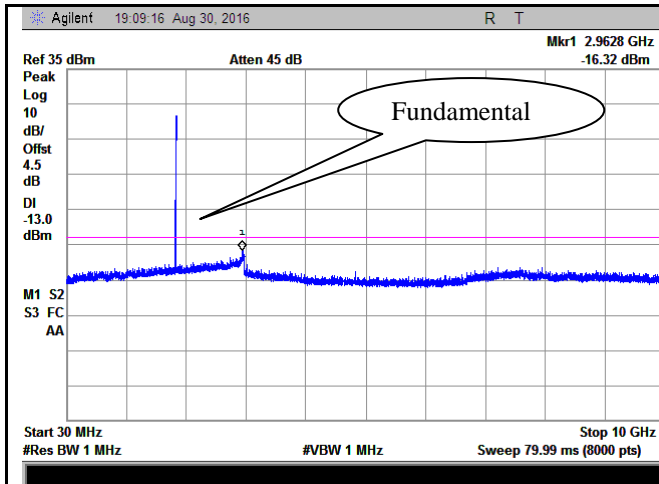


GSM 850 - High Channel-1

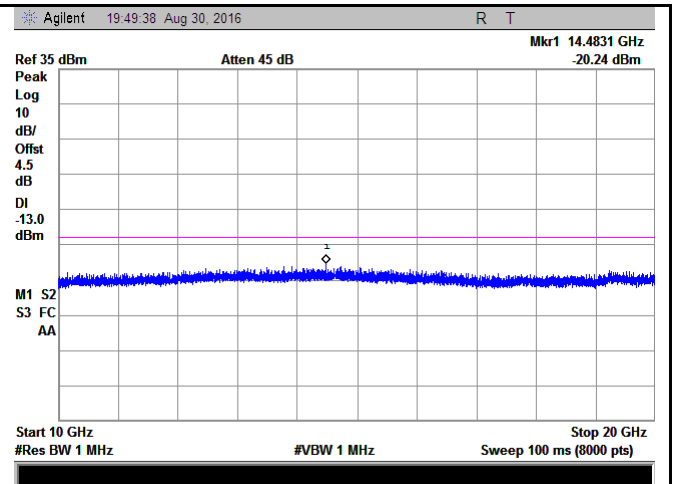


GSM 850 - High Channel-2

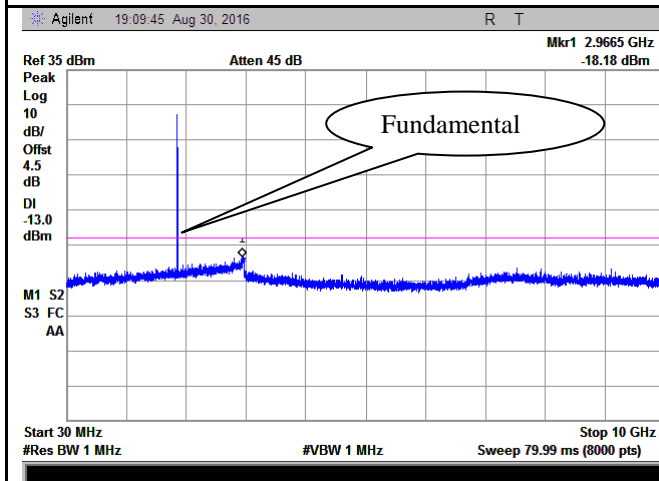
PCS Band (Part24E) result



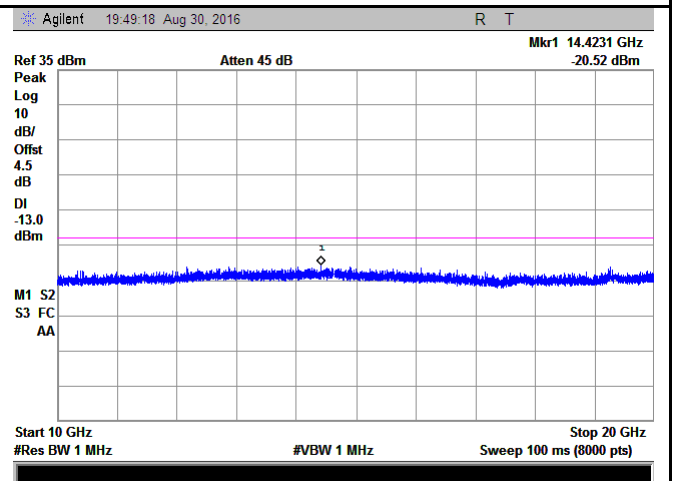
PCS1900 - Low Channel-1



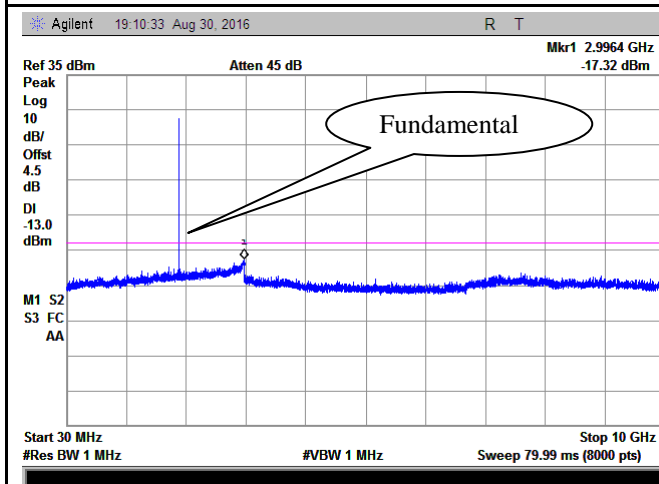
PCS 1900 - Low Channel-2



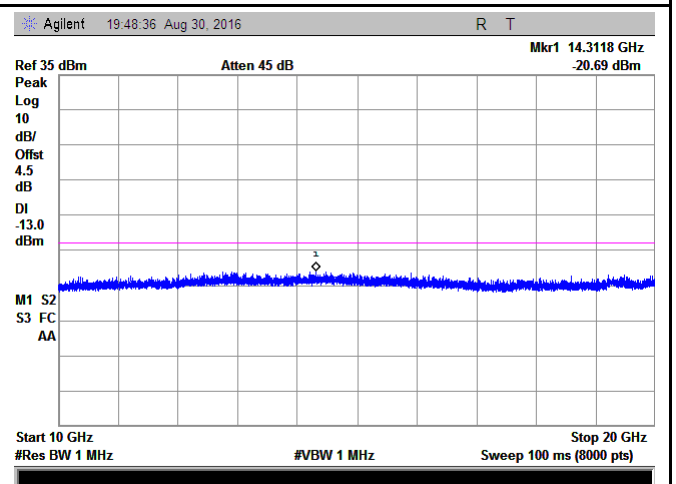
PCS1900 - Middle Channel-1



PCS 1900 - Middle Channel-2



PCS1900 - High Channel-1



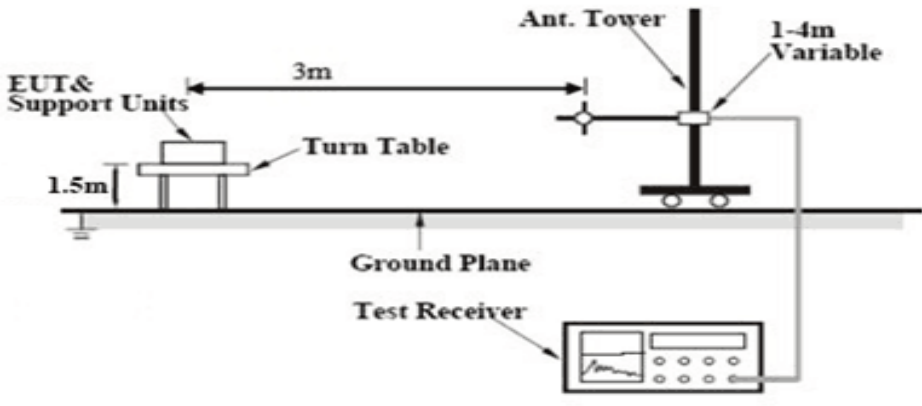
PCS 1900 - High Channel-2

6.6 Spurious Radiated Emissions

| | |
|----------------------|-----------------|
| Temperature | 23°C |
| Relative Humidity | 54% |
| Atmospheric Pressure | 1030mbar |
| Test date : | August 30, 2016 |
| Tested By : | Loren Luo |

Requirement(s):

| Spec | Item | Requirement | Applicable |
|----------------------------------|------|---|-------------------------------------|
| §2.1053, §22.917 & §24.238 | a) | The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitter power (P) by a factor of at least $43 + 10 \log (P)$ dB. The spectrum is scanned from 30 MHz up to a frequency including its 10th harmonic. | <input checked="" type="checkbox"/> |

| | |
|------------|--|
| Test setup |  |
|------------|--|

| | |
|----------------|---|
| Test Procedure | <ol style="list-style-type: none"> The transmitter was placed on a wooden turntable, and it was transmitting into a non-radiating load which was also placed on the turntable. The measurement antenna was placed at a distance of 3 meters from the EUT. During the tests, the antenna height and polarization as well as EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. The test was performed by placing the EUT on 3-orthogonal axis. Remove the EUT and replace it with substitution antenna. A signal generator was connected to the substitution antenna by a non-radiating cable. The absolute levels of the spurious emissions were measured by the substitution. <p>Sample Calculation:</p> <p>EUT Field Strength = Raw Amplitude (dBμV/m) – Amplifier Gain (dB) + Antenna Factor (dB) + Cable Loss (dB) + Filter Attenuation (dB, if used)</p> |
|----------------|---|

| | |
|-------------|-----------------|
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| | |
|--------|--|
| Remark | |
| Result | <input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail |

Test Data ☒ Yes ☐ N/A

Test Plot ☐ Yes (See below) ☒ N/A

GSM Voice:

Cellular Band (Part 22H) result

Low channel

| Frequency (MHz) | Substituted level (dBm) | Polarity (H/V) | Antenna Gain Correction (dB) | Cable Loss (dB) | Corrected Reading (dBm) | Limit (dBm) | Margin (dB) |
|-----------------|-------------------------|----------------|------------------------------|-----------------|-------------------------|-------------|-------------|
| 1648.4 | -42.59 | V | 7.95 | 0.78 | -35.42 | -13 | -22.42 |
| 1648.4 | -43.98 | H | 7.95 | 0.78 | -36.81 | -13 | -23.81 |
| 329.3 | -52.44 | V | 6.4 | 0.26 | -46.3 | -13 | -33.30 |
| 605.1 | -52.69 | H | 6.8 | 0.37 | -46.26 | -13 | -33.26 |

Middle channel

| Frequency (MHz) | Substituted level (dBm) | Polarity (H/V) | Antenna Gain Correction (dB) | Cable Loss (dB) | Corrected Reading (dBm) | Limit (dBm) | Margin (dB) |
|-----------------|-------------------------|----------------|------------------------------|-----------------|-------------------------|-------------|-------------|
| 1673.2 | -42.63 | V | 7.95 | 0.78 | -35.46 | -13 | -22.46 |
| 1673.2 | -43.76 | H | 7.95 | 0.78 | -36.59 | -13 | -23.59 |
| 329.8 | -52.35 | V | 6.4 | 0.26 | -46.21 | -13 | -33.21 |
| 605.7 | -52.79 | H | 6.8 | 0.37 | -46.36 | -13 | -33.36 |

High channel

| Frequency (MHz) | Substituted level (dBm) | Polarity (H/V) | Antenna Gain Correction (dB) | Cable Loss (dB) | Corrected Reading (dBm) | Limit (dBm) | Margin (dB) |
|-----------------|-------------------------|----------------|------------------------------|-----------------|-------------------------|-------------|-------------|
| 1697.6 | -42.77 | V | 7.95 | 0.78 | -35.6 | -13 | -22.60 |
| 1697.6 | -43.56 | H | 7.95 | 0.78 | -36.39 | -13 | -23.39 |
| 329.7 | -52.42 | V | 6.4 | 0.26 | -46.28 | -13 | -33.28 |
| 605.6 | -52.89 | H | 6.8 | 0.37 | -46.46 | -13 | -33.46 |

Note:

1, The testing has been conformed to $10 \times 848.8 \text{ MHz} = 8,488 \text{ MHz}$

2, All other emissions more than 30 dB below the limit

4, X-Axis, Y-Axis and Z-Axis were investigated. The results above show only the worst case.

PCS Band (Part24E) result

Low channel

| Frequency (MHz) | Substituted level (dBm) | Polarity (H/V) | Antenna Gain Correction (dB) | Cable Loss (dB) | Corrected Reading (dBm) | Limit (dBm) | Margin (dB) |
|-----------------|-------------------------|----------------|------------------------------|-----------------|-------------------------|-------------|-------------|
| 3700.4 | -47.86 | V | 10.25 | 2.73 | -40.34 | -13 | -27.34 |
| 3700.4 | -49.15 | H | 10.25 | 2.73 | -41.63 | -13 | -28.63 |
| 328.9 | -52.64 | V | 6.4 | 0.26 | -46.5 | -13 | -33.50 |
| 605.4 | -53.36 | H | 6.8 | 0.37 | -46.93 | -13 | -33.93 |

Middle channel

| Frequency (MHz) | Substituted level (dBm) | Polarity (H/V) | Antenna Gain Correction (dB) | Cable Loss (dB) | Corrected Reading (dBm) | Limit (dBm) | Margin (dB) |
|-----------------|-------------------------|----------------|------------------------------|-----------------|-------------------------|-------------|-------------|
| 3760 | -47.69 | V | 10.25 | 2.73 | -40.17 | -13 | -27.17 |
| 3760 | -49.26 | H | 10.25 | 2.73 | -41.74 | -13 | -28.74 |
| 329.5 | -52.65 | V | 6.4 | 0.26 | -46.51 | -13 | -33.51 |
| 604.2 | -53.43 | H | 6.8 | 0.37 | -47 | -13 | -34.00 |

High channel

| Frequency (MHz) | Substituted level (dBm) | Polarity (H/V) | Antenna Gain Correction (dB) | Cable Loss (dB) | Corrected Reading (dBm) | Limit (dBm) | Margin (dB) |
|-----------------|-------------------------|----------------|------------------------------|-----------------|-------------------------|-------------|-------------|
| 3819.6 | -47.89 | V | 10.36 | 2.73 | -40.26 | -13 | -27.26 |
| 3819.6 | -49.22 | H | 10.36 | 2.73 | -41.59 | -13 | -28.59 |
| 329.3 | -52.16 | V | 6.4 | 0.26 | -46.02 | -13 | -33.02 |
| 605.3 | -53.01 | H | 6.8 | 0.37 | -46.58 | -13 | -33.58 |

Note:

1, The testing has been conformed to $10 \times 1909.8 \text{ MHz} = 19,098 \text{ MHz}$

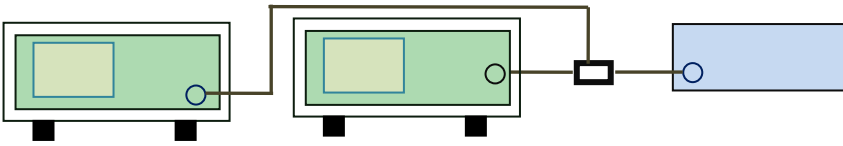
2, All other emissions more than 30 dB below the limit

3, X-Axis, Y-Axis and Z-Axis were investigated. The results above show only the worst case.

6.7 Band Edge

| | |
|----------------------|-----------------|
| Temperature | 23°C |
| Relative Humidity | 54% |
| Atmospheric Pressure | 1030mbar |
| Test date : | August 30, 2016 |
| Tested By : | Loren Luo |

Requirement(s):

| Spec | Item | Requirement | Applicable |
|--------------------------|---|--|-------------------------------------|
| §22.917(a) §24.238(a) | a) | The power of any emission outside of the authorized operating frequency ranges must be lower than the transmitter power (P) by a factor of at least $43 + 10 \log (P)$ dB. | <input checked="" type="checkbox"/> |
| Test setup |  | | |
| Procedure | <ul style="list-style-type: none"> - The EUT was connected to Spectrum Analyzer and Base Station via power divider. - The Band Edges of low and high channels for the highest RF powers were measured. Setting RBW as roughly BW/100. | | |
| Remark | | | |
| Result | <input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail | | |

Test Data ☒ Yes ☐ N/A

Test Plot ☒ Yes (See below) ☐ N/A

GSM Mode:

Cellular Band (Part 22H) result

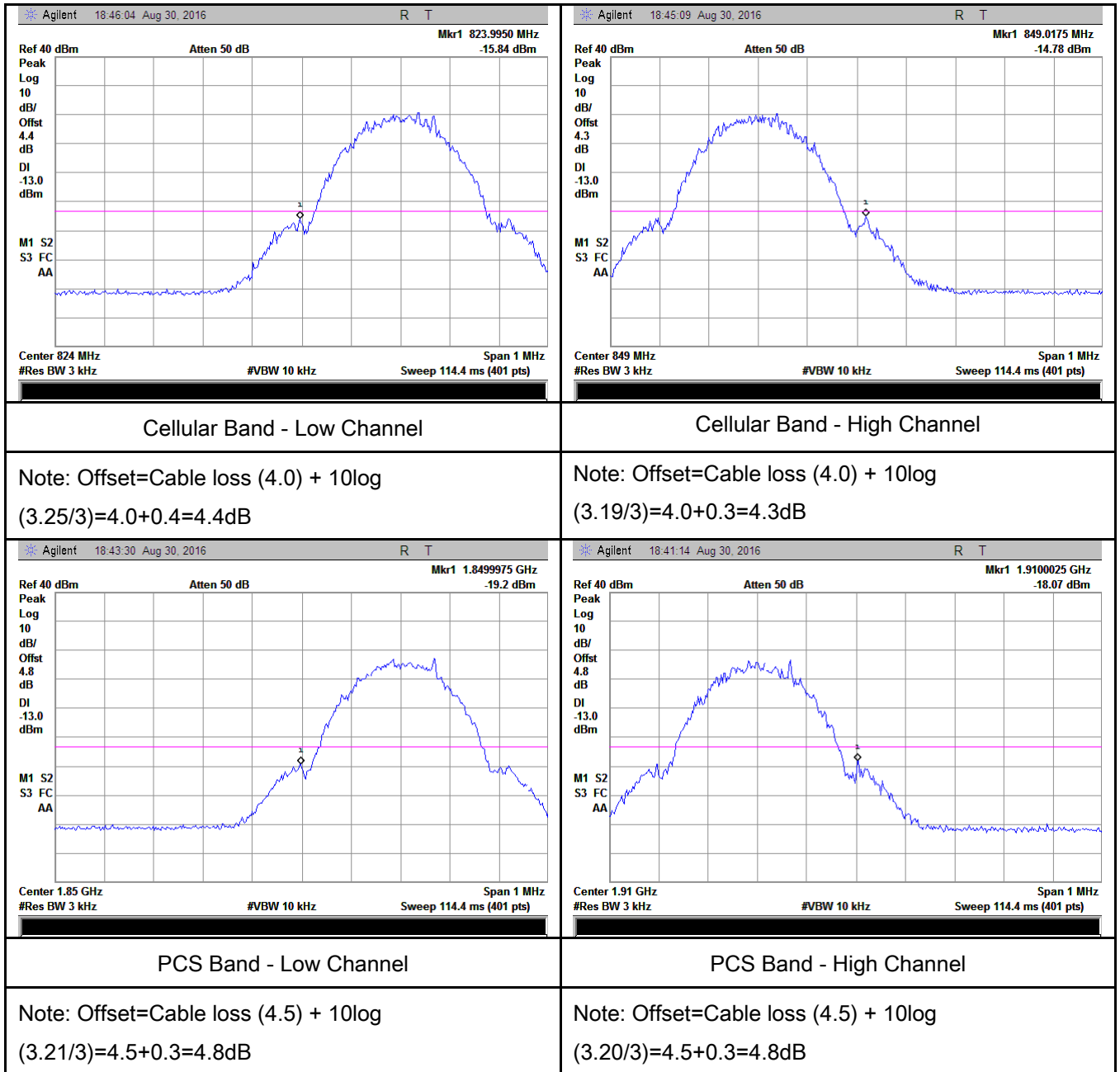
| Frequency (MHz) | Emission (dBm) | Limit (dBm) |
|-----------------|----------------|-------------|
| 823.9950 | -15.84 | -13 |
| 849.0175 | -14.78 | -13 |

PCS Band (Part24E) result

| Frequency (MHz) | Emission (dBm) | Limit (dBm) |
|-----------------|----------------|-------------|
| 1849.9975 | -19.20 | -13 |
| 1910.0025 | -18.07 | -13 |

GSM Mode:

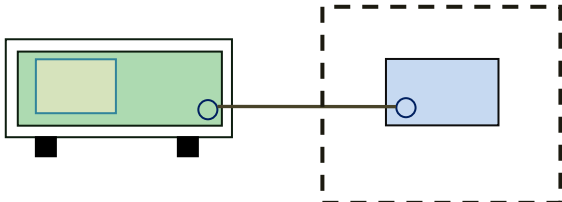
Test Plots



6.8 Frequency Stability

| | |
|----------------------|-----------------|
| Temperature | 23°C |
| Relative Humidity | 54% |
| Atmospheric Pressure | 1030mbar |
| Test date : | August 30, 2016 |
| Tested By : | Loren Luo |

Requirement(s):

| Spec | Item | Requirement | Applicable | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|------------------------|-------------------|------------------------|------------------------|----------|------|------|------|-----------|-----|-----|------|-----------|-----|-----|----|------------|-----|-----|-----|------------|-----|-----|-----|-------------|-----|-----|-----|--------------|------|-----|-----|-------------------------------------|
| §2.1055, §22.355 & §24.235 | a) | <p>According to §22.355, the carrier frequency of each transmitter in the Public Mobile Services must be maintained within the tolerances given in Table below:</p> <p>Frequency Tolerance for Transmitters in the Public Mobile Services</p> <table border="1"> <thead> <tr> <th>Frequency Range (MHz)</th><th>Base, fixed (ppm)</th><th>Mobile ≤ 3 watts (pp)</th><th>Mobile ≤ 3 watts (ppm)</th></tr> </thead> <tbody> <tr> <td>25 to 50</td><td>20.0</td><td>20.0</td><td>50.0</td></tr> <tr> <td>50 to 450</td><td>5.0</td><td>5.0</td><td>50.0</td></tr> <tr> <td>45 to 512</td><td>2.5</td><td>5.0</td><td>.0</td></tr> <tr> <td>821 to 896</td><td>1.5</td><td>2.5</td><td>2.5</td></tr> <tr> <td>928 to 29.</td><td>5.0</td><td>N/A</td><td>N/A</td></tr> <tr> <td>929 to 960.</td><td>1.5</td><td>N/A</td><td>N/A</td></tr> <tr> <td>2110 to 2220</td><td>10.0</td><td>N/A</td><td>N/A</td></tr> </tbody> </table> <p>According to §24.235, the frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized frequency block.</p> | Frequency Range (MHz) | Base, fixed (ppm) | Mobile ≤ 3 watts (pp) | Mobile ≤ 3 watts (ppm) | 25 to 50 | 20.0 | 20.0 | 50.0 | 50 to 450 | 5.0 | 5.0 | 50.0 | 45 to 512 | 2.5 | 5.0 | .0 | 821 to 896 | 1.5 | 2.5 | 2.5 | 928 to 29. | 5.0 | N/A | N/A | 929 to 960. | 1.5 | N/A | N/A | 2110 to 2220 | 10.0 | N/A | N/A | <input checked="" type="checkbox"/> |
| Frequency Range (MHz) | Base, fixed (ppm) | Mobile ≤ 3 watts (pp) | Mobile ≤ 3 watts (ppm) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 25 to 50 | 20.0 | 20.0 | 50.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 50 to 450 | 5.0 | 5.0 | 50.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 45 to 512 | 2.5 | 5.0 | .0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 821 to 896 | 1.5 | 2.5 | 2.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 928 to 29. | 5.0 | N/A | N/A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 929 to 960. | 1.5 | N/A | N/A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2110 to 2220 | 10.0 | N/A | N/A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Test setup |  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| | |
|-------------|-----------------|
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| | |
|-----------|--|
| Procedure | A communication link was established between EUT and base station. The frequency error was monitored and measured by base station under variation of ambient temperature and variation of primary supply voltage. Limit: The frequency stability of the transmitter shall be maintained within $\pm 0.00025\%$ ($\pm 2.5\text{ppm}$) of the center frequency. |
| Remark | |
| Result | <input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail |

Test Data ☒ Yes ☐ N/A

Test Plot ☐ Yes (See below) ☒ N/A

GSM Mode:

Cellular Band (Part 22H) result

| Middle Channel, $f_0 = 836.6$ MHz | | | | |
|-----------------------------------|-----------------------------------|----------------------|-----------------------|-------------|
| Temperature (°C) | Power Supplied (V _{DC}) | Frequency Error (Hz) | Frequency Error (ppm) | Limit (ppm) |
| -10 | 3.7 | 20 | 0.0239 | 2.5 |
| 0 | | 20 | 0.0239 | 2.5 |
| 10 | | 16 | 0.0191 | 2.5 |
| 20 | | 12 | 0.0143 | 2.5 |
| 30 | | 15 | 0.0179 | 2.5 |
| 40 | | 21 | 0.0251 | 2.5 |
| 50 | | 20 | 0.0239 | 2.5 |
| 55 | | 21 | 0.0251 | 2.5 |
| 25 | 4.2 | 20 | 0.0239 | 2.5 |
| | 3.5 | 21 | 0.0251 | 2.5 |

PCS Band (Part 24E) result

| Middle Channel, $f_0 = 1880$ MHz | | | | |
|----------------------------------|-----------------------------------|----------------------|-----------------------|-------------|
| Temperature (°C) | Power Supplied (V _{DC}) | Frequency Error (Hz) | Frequency Error (ppm) | Limit (ppm) |
| -10 | 3.7 | 12 | 0.0064 | 2.5 |
| 0 | | 15 | 0.0080 | 2.5 |
| 10 | | 12 | 0.0064 | 2.5 |
| 20 | | 11 | 0.0059 | 2.5 |
| 30 | | 15 | 0.0080 | 2.5 |
| 40 | | 16 | 0.0085 | 2.5 |
| 50 | | 12 | 0.0064 | 2.5 |
| 55 | | 14 | 0.0074 | 2.5 |
| 25 | 4.2 | 18 | 0.0096 | 2.5 |
| | 3.5 | 20 | 0.0106 | 2.5 |

Annex A. TEST INSTRUMENT

| Instrument | Model | Serial # | Cal Date | Cal Due | In use |
|--|-----------------|------------|------------|------------|-------------------------------------|
| RF Conducted Test | | | | | |
| Agilent ESA-E SERIES SPECTRUM ANALYZER | E4407B | MY45108319 | 09/16/2015 | 09/15/2016 | <input checked="" type="checkbox"/> |
| Power Splitter | 1# | 1# | 09/01/2015 | 08/31/2016 | <input checked="" type="checkbox"/> |
| Universal Radio Communication Tester | CMU200 | 121393 | 09/25/2015 | 09/24/2016 | <input checked="" type="checkbox"/> |
| Temperature/Humidity Chamber | UHL-270 | 001 | 10/09/2015 | 10/08/2016 | <input checked="" type="checkbox"/> |
| DC Power Supply | E3640A | MY40004013 | 09/17/2015 | 09/16/2016 | <input checked="" type="checkbox"/> |
| Radiated Emissions | | | | | |
| EMI test receiver | ESL6 | 100262 | 09/17/2015 | 09/16/2016 | <input checked="" type="checkbox"/> |
| OPT 010 AMPLIFIER (0.1-1300MHz) | 8447E | 2727A02430 | 09/01/2015 | 08/31/2016 | <input checked="" type="checkbox"/> |
| Microwave Preamplifier (1 ~ 26.5GHz) | 8449B | 3008A02402 | 03/24/2016 | 03/23/2017 | <input checked="" type="checkbox"/> |
| Bilog Antenna (30MHz~6GHz) | JB6 | A110712 | 09/21/2015 | 09/20/2016 | <input checked="" type="checkbox"/> |
| Bilog Antenna (30MHz~2GHz) | JB1 | A112017 | 09/21/2015 | 09/20/2016 | <input checked="" type="checkbox"/> |
| Double Ridge Horn Antenna (1 ~18GHz) | AH-118 | 71259 | 09/24/2015 | 09/23/2016 | <input checked="" type="checkbox"/> |
| Double Ridge Horn Antenna (1 ~18GHz) | AH-118 | 71283 | 09/24/2015 | 09/23/2016 | <input checked="" type="checkbox"/> |
| SYNTHESIZED SIGNAL GENERATOR | 8665B | 3744A01293 | 09/17/2015 | 09/16/2016 | <input checked="" type="checkbox"/> |
| Tunable Notch Filter | 3NF-800/1000-S | AA4 | 09/01/2015 | 08/31/2016 | <input checked="" type="checkbox"/> |
| Tunable Notch Filter | 3NF-1000/2000-S | AM 4 | 09/01/2015 | 08/31/2016 | <input checked="" type="checkbox"/> |

Annex B. EUT And Test Setup Photographs

Annex B.i. Photograph: EUT External Photo





EUT - Bottom View



EUT - Left View



EUT - Right View



Charger Base - Lable View

Annex B.ii. Photograph: EUT Internal Photo



Cover Off - Top View 1



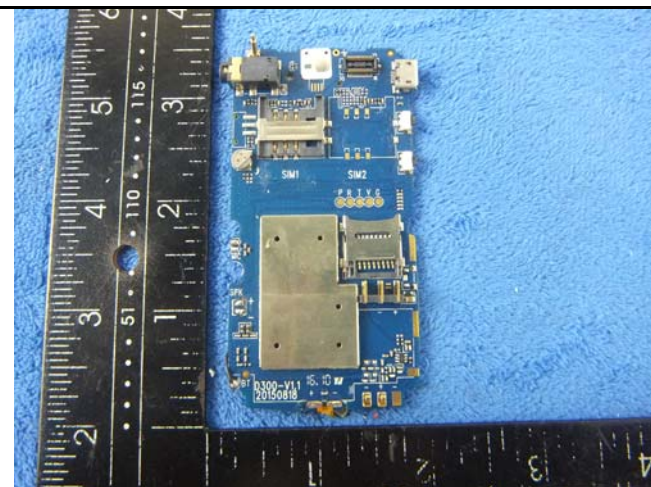
Cover Off - Top View 2



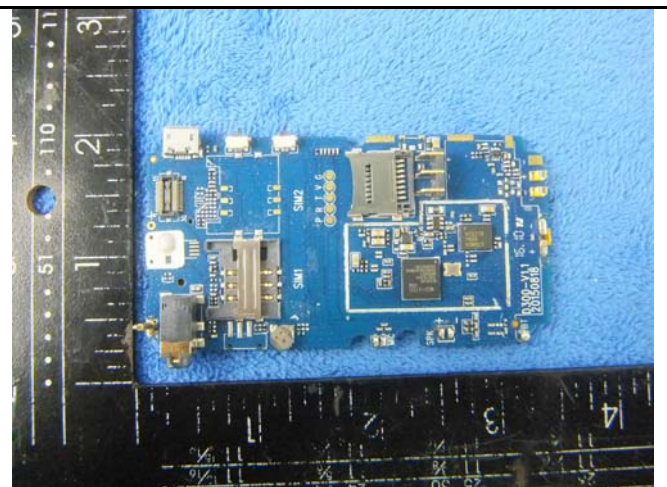
Battery - Front View



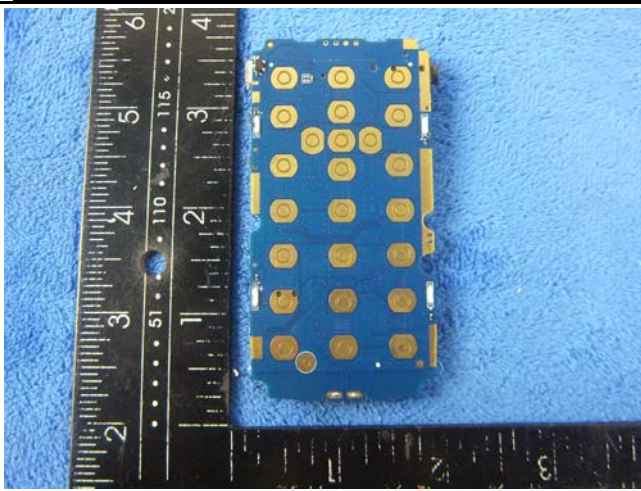
Battery - Rear View



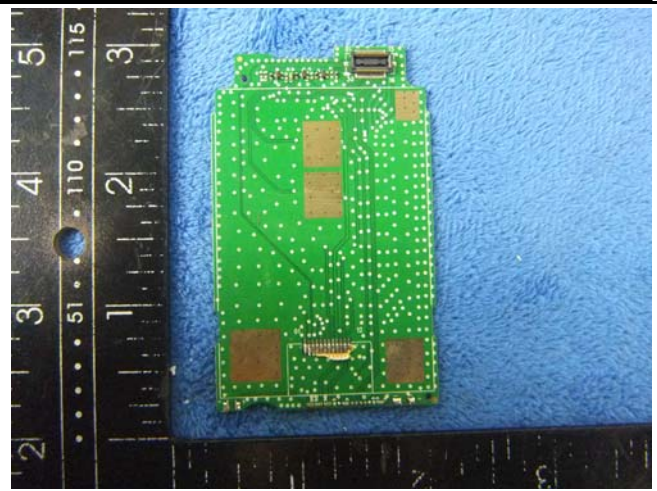
Mainboard with shielding- Front View



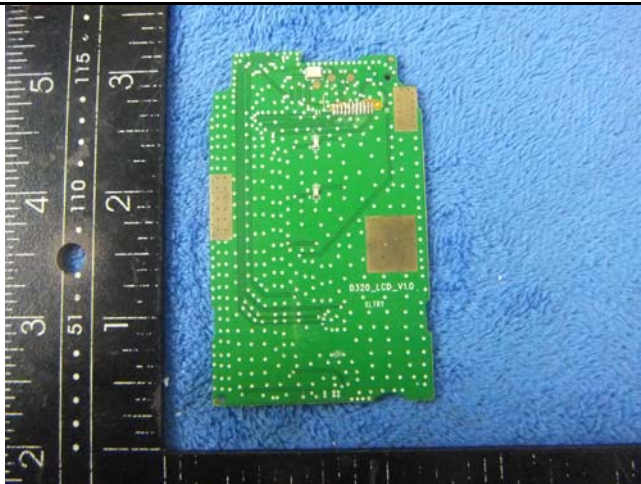
Mainboard without shielding- Front View



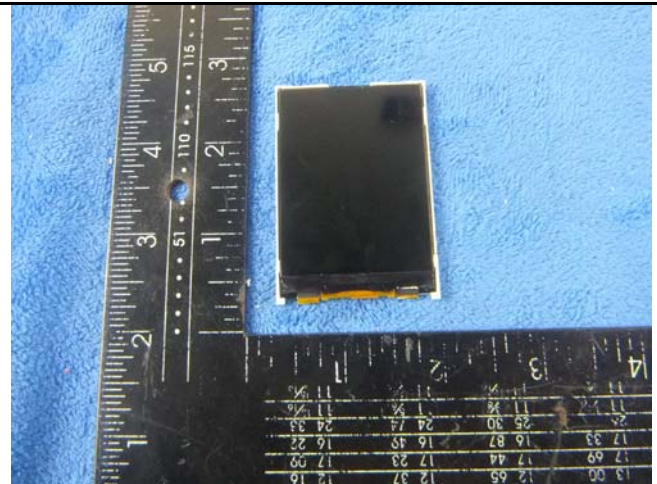
Mainboard - Rear View



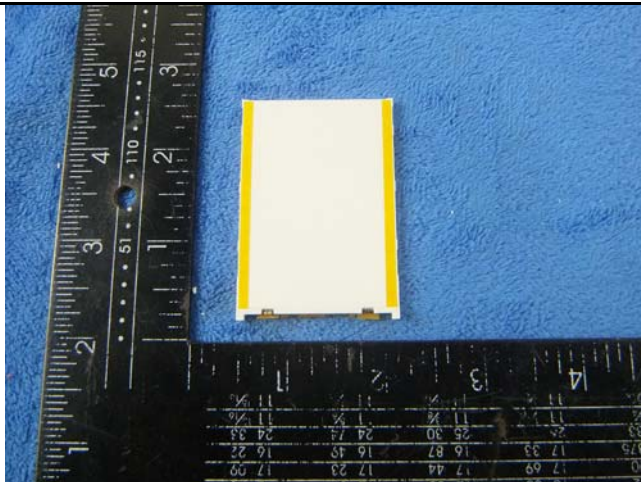
LCD Board - Front View



LCD Board - Rear View



LCD - Front View

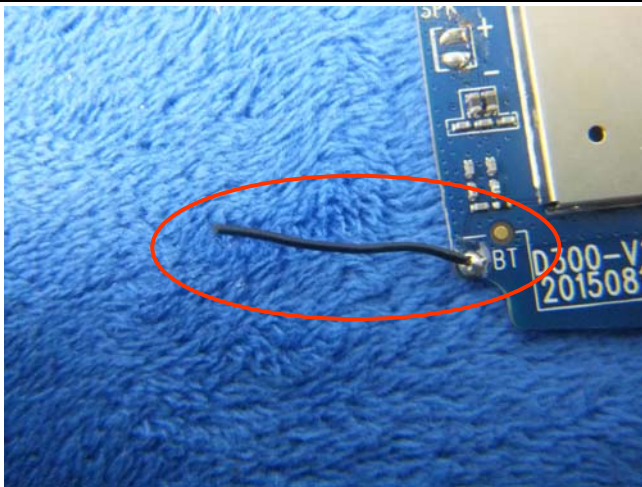


LCD - Rear View



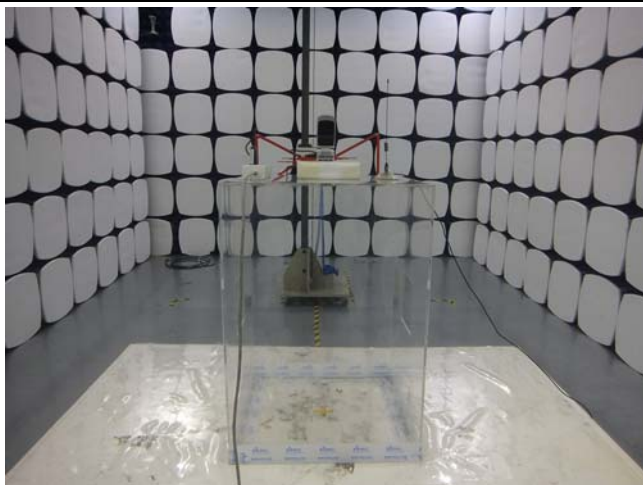
GSM/PCS Antenna View

| | |
|-------------|-----------------|
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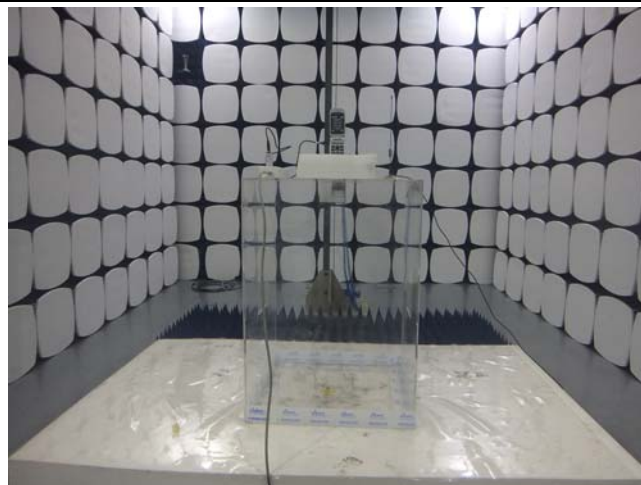


BT- Antenna View

Annex B.iii. Photograph: Test Setup Photo



Radiated Spurious Emissions Test Setup Below 1GHz

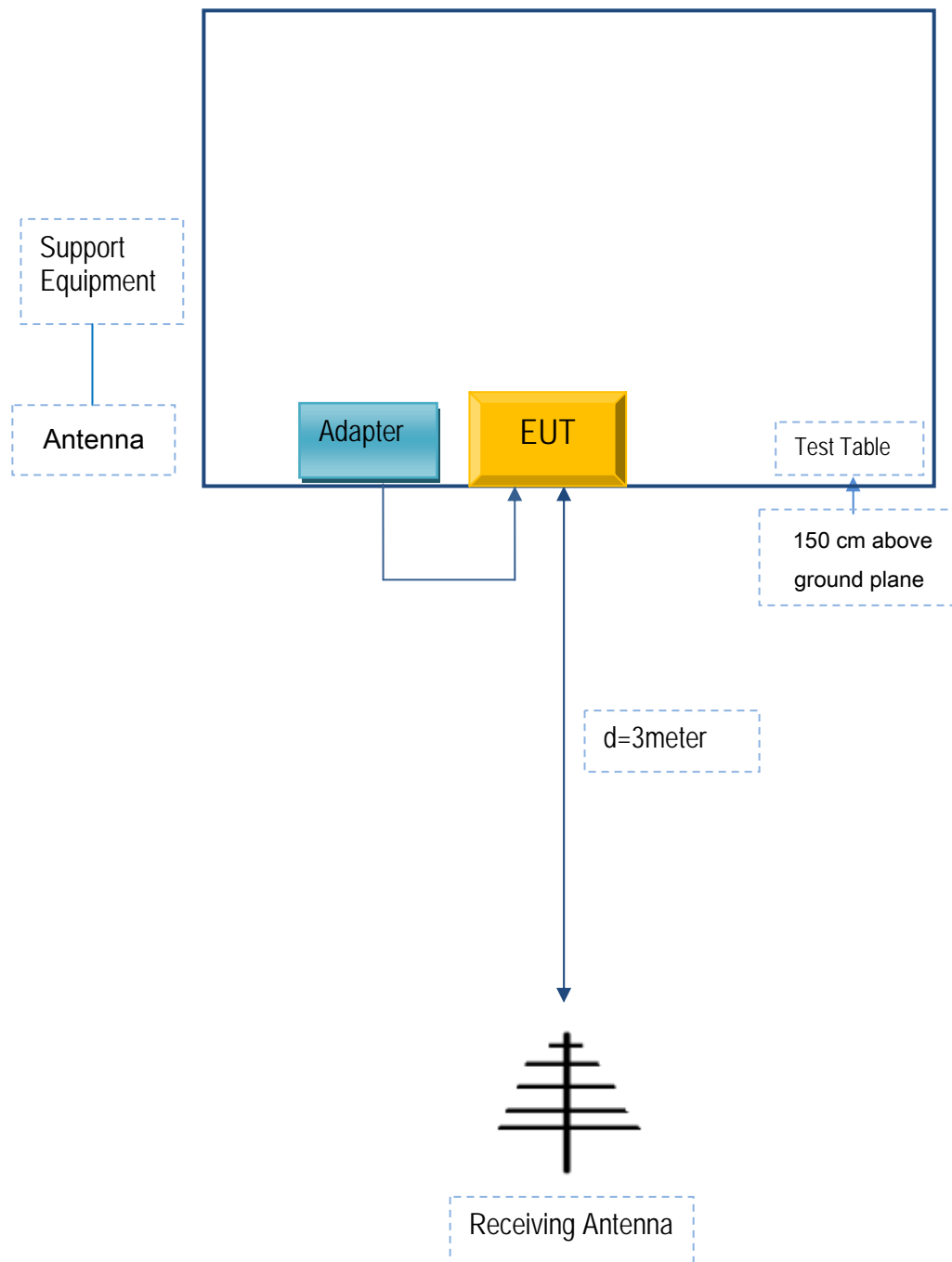


Radiated Spurious Emissions Test Setup Above
1GHz

Annex C. TEST SETUP AND SUPPORTING EQUIPMENT

Annex C.ii. TEST SET UP BLOCK

Block Configuration Diagram for Radiated Emissions



Annex C. ii. SUPPORTING EQUIPMENT DESCRIPTION

The following is a description of supporting equipment and details of cables used with the EUT.

Supporting Equipment:

| Manufacturer | Equipment Description | Model | Serial No |
|---------------------|-----------------------|--------------|-----------|
| Jethro Trading LTD. | AC Adapter | HJ-050050-US | H0502313 |

Supporting Cable:

| Cable type | Shield Type | Ferrite Core | Length | Serial No |
|------------|--------------|--------------|--------|-----------|
| USB Cable | Un-shielding | No | 0.8m | H0502313 |

| | |
|-------------|-----------------|
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Annex C.ii. EUT OPERATING CONKITIONS

N/A

| | |
|-------------|-----------------|
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Annex D. User Manual / Block Diagram / Schematics / Partlist

Please see attachment

| | |
|-------------|-----------------|
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Annex E. DECLARATION OF SIMILARITY

N/A