

Report No.: EH/2009/80058 **Issue Date: Dec. 29, 2009**

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ELECTROMAGNETIC EMISSIONS COMPLIANCE REPORT

INTENTIONAL RADIATOR CERTIFICATION TO FCC PART 22 SUBPART H, PART 24 SUBPART E

OF

Product Name: Mobile Internet Device

Brand Name: DELL

Model Name: M01M

Model Difference: N/A

FCC ID: VRSM01M001

Report No.: EH/2009/80058

Issue Date: Dec. 29, 2009

FCC Rule Part: 2,22H & 24E

Qisda Corporation Prepared for:

157 Shan-Ying Road, Gueishan

Prepared by: SGS Taiwan Ltd.

Electronics & Communication Laboratory

No. 134, Wu Kung Rd., Wuku Industrial

Zone, Taipei County, Taiwan.

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VERIFICATION OF COMPLIANCE

Qisda Corporation Qisda Corporation **Applicant:**

157 Shan-Ying Road, Gueishan

Product Name: Mobile Internet Device

Brand Name: DELL Model No.: M01M

Model Difference: N/A

FCC ID: VRSM01M001 File Number: EH/2009/80058

Date of test: Aug. 28, 2009 ~ Dec. 27, 2009

Date of EUT Received: Aug. 28, 2009

We hereby certify that:

The above equipment was tested by SGS Taiwan Ltd. Electronics & Communication Laboratory The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in TIA/EIA-603-C-2004 and the energy emitted by the sample EUT tested as described in this report is in compliance with conducted and radiated emission limits of FCC Rule FCC PART 22 subpart H, PART 24 subpart E.

The test results of this report relate only to the tested sample identified in this report.

| Test By: | Bondi Jin | Date: | Dec. 29, 2009 |
|--------------|---------------------------|-------|---------------|
| _ | Bondi Liu / Engineer | | |
| Prepared By: | Alex Hsieh | Date: | Dec. 29, 2009 |
| _ | Alex Hsieh / Sr. Engineer | | |
| Approved By: | Timent Su | Date: | Dec. 29, 2009 |
| _ | Vincent Su / Manager | | |

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Version

| Version No. | Date | Description |
|-------------|---------------|------------------------------|
| 00 | Dec. 29, 2009 | Initial creation of document |
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1. GENERAL PRODUCT INFORMATION

General:

| Product Name: | Mobile Internet Device | | | |
|---------------------|--|--|--|--|
| Brand Name: | DELL | | | |
| Model Name: | M01M | | | |
| Model Difference: | N/A | | | |
| 30pin data cable | Part No.: TY. | 5K190.001,Supplier:PCH | | |
| Mini USB data cable | Part No.: TY.5K190.003,Supplier:PCH | | | |
| DC cable | Part No.: TY.5K190.002,Supplier:PCH | | | |
| Homedock | Part No.: 6K.0QF08.001,Supplier: Qisda | | | |
| Earphone | Part No.: TY.2C190.001,Supplier:PCH | | | |
| | 3.7 Vdc re-ch | argeable battery or 5V dc by AC/DC power adapter | | |
| Power Supply | Adapter: | Part No.: 79GTM, Supplier : DELL | | |
| | Battery: | Model No.: 20QF0, Supplier: TD Hitech | | |

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GSM:

| | Operating Frequency | | Rated Power | |
|----------------------------|--|-----------------------|----------------|--|
| | GSM/GPRS/EDGE 850, Class 12 | 824.2 MHz- 848.8MHz | 33 dBm | |
| | GSM/GPRS/EDGE 900, Class 12 880.0MHz – 914.8M | 880.0MHz – 914.8MHz | 33 dBm | |
| Cellular Phone Standards | GSM/GPRS/EDGE 1800, Class 12 | 1710.2MHz-1784.8MHz | 30 dBm | |
| Frequency Range and Power: | GSM/GPRS/EDGE 1900, Class 12 | 1850.2MHz – 1909.8MHz | 30 dBm | |
| | WCDMA/HSUPA/HSDPA Band I | 1920MHz – 1980MHz | 24 dBm | |
| | WCDMA/HSUPA/HSDPA Band II | 1852.4 – 1907.6 MHz | 24 dBm | |
| | WCDMA/HSUPA/HSDPA Band V | 826.4 - 846.6 MHz | 24 dBm | |
| | WCDMA/HSUPA/HSDPA Band VIII 815MHz – 880M | 815MHz – 880MHz | 24dBm | |
| Hardware Version: | N/A | | | |
| Software Version: | N/A | | | |
| Type of Emission | GPRS 850: 245KGXW, GPRS 1900 :248KGXW EDGE 850: 242KG7W, EDGE 1900:246KG7W WCDMA Band II: 4M18F9W, WCDMA Band V: 4M17F9W HSUPA Band II: 4M18F9W, HSUPA Band V: 4M17F9W, | | | |
| IMEI: | 01195400 | | | |

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| WI | Δ | N | |
|------|----------------|----|--|
| VV I | J/ \ 1. | IΝ | |

| Frequency Range & Channel number: | 802.11 b/g: 2412 – 2462 MHz |
|-----------------------------------|--|
| Rated Power: | 802.11 b: 17.68 dBm (EIRP) 802.11 g: 18.63 dBm (EIRP) |
| Modulation type: | CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM |
| Transmission Rate: | 802.11 b: 1/2/5.5/11 Mbps; 802.11 g: 6/9/12/18/24/36/48/54 Mbps |
| Antenna Designation: | Monopole Antenna with 1.21dBi peak gain |
| Type of Emission | 15M6G1D |

The EUT is compliance with IEEE 802.11 b/g Standard.

Bluetooth:

| Bluetooth Version: | V1.1 (GFSK) V1.2 (GFSK) V2.0 (GFSK) V2.0 + EDR (GFSK + π/4DQPSK + 8DPSK) V2.1 + EDR (GFSK + π/4DQPSK + 8DPSK) |
|----------------------|---|
| Channel number: | 79 channels |
| Modulation type: | $GFSK + \pi/4DQPSK + 8DPSK$ |
| Transmit Power: | 6.71 dBm (Peak) |
| Frequency Range: | 2.402GHz – 2.480GHz |
| Dwell Time: | <= 0.4s |
| Operating Mode: | Point-to-Point |
| Antenna Designation: | Monopole Antenna with 1.21dBi peak gain |
| Type of Emission | 1M31F7D |

GPS:

| Receiver Frequency | L1 Band, 1575.42MHz |
|---------------------------------|-------------------------|
| Frequency Conversion oscillator | 3.6864MHz and 32.768kHz |

The EUT is compliance with Bluetooth 2.0 + EDR Standard. This test report applies for GSM/GPRS/EDGE 850/1900, WCDMA/HSDPA/HSUPA band II and band V.

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1.1. Related Submittal(s) / Grant (s)

This submittal(s) (test report) is intended for FCC ID: VRSM01M001 filing to comply with Section Part 22 subpart H, Part 24 subpart E of the FCC CFR 47 Rules.

1.2. Test Methodology

Both conducted and radiated testing were performed according to the procedures document on TIA/EIA-603-C-2004 and FCC CFR 47 2.1046, 2.1047, 2.1049, 2.1051, 2.1053, 2.1055 and 2.1057.

1.3. Test Facility

The measurement facilities used to collect the 3m Radiated Emission and AC power line conducted data are located on the address of SGS Taiwan Ltd. Electronics & Communication Laboratory No. 134, Wu Kung Rd., Wuku Industrial Zone, Taipei Country, Taiwan which are constructed and calibrated to meet the FCC requirements in documents ANSI C63.4: 2003. FCC Registration Number are: 990257 and 236194, Canada Registration Number: 4620A-1

The 10 m Open Area Test Sites located on the address of SGS Taiwan Ltd. Electronics & Communication Laboratory No. 29, Pau-Tou-Tsuo Valley Chia-Pau Tsuen, Linkou Hsiang, Taipei county, which is constructed and calibrated to meet the CISPR 22/EN 55022 requirements. SGS Site No. 1(3 &10 meters) and FCC Registration Number: 94644.

1.4. Special Accessories

Not available for this EUT intended for grant.

1.5. Equipment Modifications

Not available for this EUT intended for grant.

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2. SYSTEM TEST CONFIGURATION

2.1. EUT Configuration

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner which intends to maximize its emission characteristics in a continuous normal application.

2.2. EUT Exercise

The EUT (Transmitter) was operated in the engineering mode to fix the Tx frequency which was for the purpose of the measurements.

2.3. Test Procedure

2.3.1 AC Power Line Conducted Emissions

The EUT is placed on a turn table which is 0.8 m above ground plane. According to the requirements in Section 7 and 13 of ANSI C63.4: 2003. Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30MHz using CISPR Quasi-Peak and Average detector mode.

2.3.2 Conducted Measurement at Antenna Port:

According to measurement procured TIA/EIA 603C, the EUT is placed on a turn table which is 0.8 m above ground plane. A low loss of RF cable was used to connect the antenna port of EUT to measurement equipment.

2.3.3 Radiated Emissions (ERP/EIRP):

According to measurement procured TIA/EIA 603C, issue 2 of RSS-Gen and TIA/EIA IS-98 for Mobile stations. The EUT is placed on a turn table which is 80 cm above ground plane. The turn table shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3m away from the receiving antenna which varied from 1m to 4m to find out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. In order to find out the max. emission, the relative positions of this hand-held transmitter (EUT) was rotated through three orthogonal axes according to the requirements.

A standard antenna was used to replace the EUT and connect to the SG. Adjust the SG output level to reach the max emission level which were measured above.

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2.4. Measurement Equipment Used:

| AC POWER LINE CONDUCTED EMISSION EQUIPMENT List | | | | | | |
|---|------------|-----------------------------|------------|------------|------------|--|
| EQUIPMENT | SERIAL | LAST | CAL DUE. | | | |
| ТҮРЕ | | NUMBER | NUMBER | CAL. | | |
| EMI Test Receiver | R&S | ESCS30 | 828985/004 | 09/16/2009 | 09/15/2010 | |
| LISN | Rolf-Heine | NNB-2/16Z | 99012 | 04/28/2009 | 04/27/2010 | |
| LISN | FCC | FCC-LISN-50 /250-25-2-01 | 04034 | 04/28/2009 | 04/27/2010 | |
| Coaxial Cables | N/A | WK CE Cable | N/A | 10/30/2009 | 10/29/2010 | |

| Conducted Emission Test Site | | | | | |
|------------------------------|---------------|----------------------|-------------|------------|------------|
| EQUIPMENT | MFR | MODEL | SERIAL | LAST | CAL DUE. |
| TYPE | | NUMBER | NUMBER | CAL. | |
| Spectrum Analyzer | Agilent | E4446A | MY43360126 | 04/19/2008 | 04/18/2010 |
| Spectrum Analyzer | Agilent | E4440A | US41160416 | 01/23/2008 | 01/22/2010 |
| Radio Communication Analyzer | R&S | CMU200 | 102189 | 05/13/208 | 05/13/2010 |
| 800 – 1000MHz Filter | Micro-Tronics | BRM13462 | 001 | 01/05/2009 | 01/04/2010 |
| 1800 – 2000MHz Filter | Micro-Tronics | BRM13463 | 001 | 01/05/2009 | 01/04/2010 |
| Temperature Chamber | TERCHY | MHG-120LF | 911009 | 04/14/2008 | 04/13/2010 |
| Temperature Chamber | GIANT FORCE | GTH-150-40- CP-AR | MAA0512-018 | 02/05/2008 | 02/04/2010 |
| DC Block | Agilent | BLK-18 | 155452 | 07/05/2009 | 07/04/2010 |
| Attenuator | Mini-Circuit | BW-S20W5 | N/A | 07/05/2009 | 07/04/2010 |
| Attenuator | Mini-Circuit | BW-S10W5 | N/A | 07/05/2009 | 07/04/2010 |
| Attenuator | Mini-Circuit | BW-S6W5 | N/A | 07/05/2009 | 07/04/2010 |
| Splitter | Agilent | 11636B | N/A | 07/05/2009 | 07/04/2010 |
| DC Power Supply | HP | 6038A | 2929A-07548 | 06/27/2009 | 06/26/2010 |
| DC Power Supply | Topward | 3303D | 981327 | 10/26/2009 | 10/25/2010 |

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| ERP, E | IRP MEASUREM | ENT EQUIPN | MENT List 966 | 6 Chamber | |
|------------------------------|---------------|------------------------|---------------|------------|------------|
| EQUIPMENT | MFR | MODEL | SERIAL | LAST | CAL DUE. |
| TYPE | | NUMBER | NUMBER | CAL. | |
| Spectrum Analyzer | R&S | FSP 40 | 100034 | 02/12/2009 | 02/11/2010 |
| Bilog Antenna | SCHWAZBECK | VULB9160 | 9160-3136 | 11/19/2009 | 11/18/2010 |
| Dipole Antenna | SCHWAZBECK | VHAP | 908/909 | 07/10/2008 | 07/09/2010 |
| Dipole Antenna | SCHWAZBECK | UHAP | 891/892 | 07/10/2008 | 07/09/2010 |
| Hor.n antenna | SCHWAZBECK | BBHA 9120D | 309 | 01/22/2008 | 01/21/2010 |
| Horn antenna | SCHWAZBECK | BBHA 9120D | 9120D-673 | 05/09/2008 | 05/08/2010 |
| Signal Generator | R&S | SMR40 | 100210 | 01/22/2008 | 01/21/2010 |
| Signal Generator | Agilent | E4438C | MY45093613 | 06/11/2009 | 06/10/2010 |
| Pre-Amplifier | Agilent | 8447D | 1937A02834 | 11/28/2009 | 11/27/2010 |
| Pre-Amplifier | Agilent | 8449B | 3008A01973 | 01/05/2009 | 01/04/2010 |
| Attenuator | Mini-Circuit | BW-S20W5 | 001 | 07/05/2009 | 07/04/2010 |
| Attenuator | Mini-Circuit | BW-S10W5 | 001 | 07/05/2009 | 07/04/2010 |
| Attenuator | Mini-Circuit | BW-S6W5 | 001 | 07/05/2009 | 07/04/2010 |
| Radio Communication Analyzer | R&S | CMU200 | 102189 | 05/13/208 | 05/12/2010 |
| Turn Table | HD | DT420 | N/A | N.C.R | N.C.R |
| Antenna Tower | HD | MA240-N | 240/657 | N.C.R | N.C.R |
| Controller | HD | HD100 | N/A | N.C.R | N.C.R |
| Low Loss Cable | HUBER+SUHNER | SUCOFLEX 104PEA-10M | 10m | 01/05/2009 | 01/04/2010 |
| Low Loss Cable | HUBER+SUHNER | SUCOFLEX 104PEA-3M | 3m | 01/05/2009 | 01/04/2010 |
| Filter 800-1000 | Micro-Tronics | BRM13462 | 1 | 01/05/2009 | 01/04/2010 |
| Filter 1800-2000 | Micro-Tronics | BRM13463 | 1 | 01/05/2009 | 01/04/2010 |
| 3m Site | SGS | 966 chamber | N/A | 11/08/2009 | 11/09/2010 |

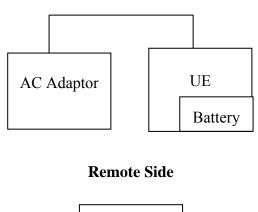


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2.5. Configuration of Tested System

Fig. 2-1 Configuration of Tested System (Fixed Channel)



CMU200

Table 2-1 Equipment Used in Tested System

| Ι | tem | Equipment | Mfr/Brand | Model/ Type No. | Series No. | Data Cable | Power Cord |
|---|-----|--------------------------------------|-----------|--------------------|------------|------------|-------------|
| | 1. | Universal Radio Communication Tester | R&S | CMU200 | 102189 | shielded | Un-shielded |

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3. SUMMARY OF TEST RESULTS

| FCC Rules | Description Of Test | Result |
|-----------------|--------------------------------------|-----------|
| §2.1046(a) | | |
| §22.913(a) | RF Peak Power Output | Compliant |
| §24.232(c)(d) | | |
| §2.1046(a) | | |
| §22.913(a)(2) | ERP/ EIRP measurement | Compliant |
| §24.232(c) | | |
| §2.1049(h) | 99% Occupied Bandwidth | Compliant |
| §2.1051 | Out of Band Emissions at Antenna | |
| §22.917(a) | Terminals and | Compliant |
| §24.238(a) | Band Edge | |
| §2.1053 | | |
| §22.917(a) | Field Strength of Spurious Radiation | Compliant |
| §24.238(a) | | |
| §2.1055(a)(1) | | |
| §22.355 | Frequency Stability vs. Temperature | Compliant |
| §24.235 | | |
| §2.1055(d)(2) | | |
| §22.355 | Frequency Stability vs. Voltage | Compliant |
| §24.235 | | |
| §15.107;§15.207 | AC Power Line Conducted Emission | Compliant |

Max ERP/EIRP measurement result:

| | dBm | | W |
|----------------|-------|------|-------|
| GPRS 850 Band | 33.64 | ERP | 2.312 |
| GPRS 1900 Band | 31.75 | EIRP | 1.496 |
| EDGE 850 Band | 31.14 | ERP | 1.300 |
| EDGE 1900 Band | 31.06 | EIRP | 1.276 |
| WCDMA Band II | 22.97 | EIRP | 0.198 |
| WCDMA Band V | 24.33 | EIRP | 0.271 |
| HSUPA Band II | 28.17 | EIRP | 0.656 |
| HSUPA Band V | 24.86 | EIRP | 0.306 |
| HSDPA Band II | 27.74 | EIRP | 0.594 |
| HSDPA Band V | 24.56 | EIRP | 0.286 |

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4. DESCRIPTION OF TEST MODES

The EUT has been tested under operating condition.

EUT staying in continuous transmitting mode. Channel Low, Mid and High for each type band with rated data rate were chosen for full testing.

The field strength of spurious radiation emission was measured as EUT stand-up position (E1 mode) and lie down position (E1, E2 mode) for GSM/GPRS/EDGE and WCDMA Band II and V with power adaptors. The worst-case of E2 position for GPRS 850 band, H position for GPRS 1900, H position HSUPA Band II, E1 position HSUPA Band V were reported.

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5. RF POWER OUTPUT MEASUREMENT

5.1 Standard Applicable:

According to FCC §2.1046.

FCC 22.913(a) Mobile station are limited to 7W.

FCC 24.232(d) Peak Power Measurement, FCC 24.232(c) Maximum Power Reduction.

3GPP Power limitation for HSDPA and HSUPA

Maximum Output Powers for HSDPA

| Sub-test in ta- ble C.10.1.4 | Power (| Class 3 | Power Class 4 | | |
|---------------------------------|----------------|-------------|----------------|-------------|--|
| | Power (dBm) | Tol (dB) | Power (dBm) | Tol (dB) | |
| 1 | +24 | +1.7/-3.7 | +21 | +2.7/-2.7 | |
| 2 | +24 | +1.7/-3.7 | +21 | +2.7/-2.7 | |
| 3 | +23.5 | +2.2/-3.7 | +20.5 | +3.2/-2.7 | |
| 4 | +23.5 | +2.2/-3.7 | +20.5 | +3.2/-2.7 | |

Maximum Output Powers for HSUPA

| Sub-test in table | Power (| Class 3 | Power Class 4 | | |
|-------------------|----------------|-------------|----------------|-------------|--|
| C.11.1.3 | Power (dBm) | Tol (dB) | Power (dBm) | Tol (dB) | |
| 1 | +24 | +1.7/-6.7 | +21 | +2.7/-5.7 | |
| 2 | +22 | +3.7/-5.2 | +19 | +4.7/-4.2 | |
| 3 | +23 | +2.7/-5.2 | +20 | +3.7/-4.2 | |
| 4 | +22 | +3.7/-5.2 | +19 | +4.7/-4.2 | |
| 5 | +24 | +1.7/-6.7 | +21 | +2.7/-5.7 | |

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**This Test of the Test

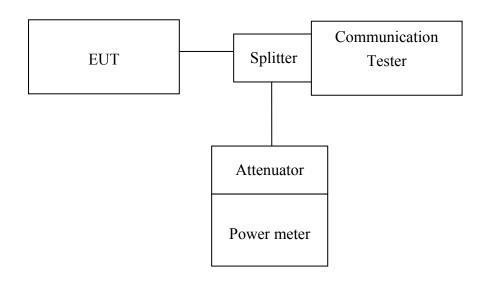
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5.2 Test Set-up:



Note: Measurement setup for testing on Antenna connector

5.3 Measurement Procedure:

The transmitter output was connected to a calibrated attenuator, the other end of which was connected to a power meter. Transmitter output was read off the power meter in dBm. The power output at the transmitter antenna port was determined by adding the value of the attenuator to the power meter reading. The Procedure of KDB941225(SAR Measurement Procedures for 3G devices, WCDMA/HSDPA) was used for EUT and Base station setting.RMC 12.2kps is used for this testing

5.4 Measurement Equipment Used:

Refer to section 2.4 in this report

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5.5 Measurement Result:

5.1 RF Conducted Output Power

5.1.1.: GSM/EDGE (**GMSK**; **8-PSK**)

Result:

| | | | | | | l | | | | |
|----------------|-----|------------|-------------|-----------------|----------|------------|-------------|------------|----------|--|
| | СН | | 1 Time Slot | | | | 2 Time Slot | | | |
| Fre- quency | | GMSK | Mode | Mode 8-PSK Mode | | GMSK Mode | | 8-PSK Mode | | |
| (MHz) | | Peak Power | AV Power | Peak Power | AV Power | Peak Power | AV Power | Peak Power | AV Power | |
| | | (dBm) | (dBm) | (dBm) | (dBm) | (dBm) | (dBm) | (dBm) | (dBm) | |
| 824.2 | 128 | 32.81 | 32.77 | 30.14 | 27.22 | 32.73 | 32.64 | 29.88 | 27.12 | |
| 836.6 | 190 | 32.89 | 32.78 | 30.31 | 27.41 | 32.78 | 32.67 | 30.05 | 27.24 | |
| 848.8 | 251 | 32.86 | 32.76 | 30.52 | 27.62 | 32.77 | 32.65 | 30.19 | 27.42 | |
| 1850.2 | 512 | 29.84 | 29.75 | 29.12 | 26.08 | 29.82 | 29.70 | 28.84 | 25.92 | |
| 1880.0 | 661 | 29.93 | 29.85 | 29.33 | 26.38 | 29.92 | 29.77 | 29.03 | 26.01 | |
| 1909.8 | 810 | 29.99 | 29.88 | 29.16 | 26.16 | 29.93 | 2982 | 29.01 | 25.98 | |

| | СН | 3 Time Slot | | | | 4 Time Slot | | | |
|----------------|-----|-------------|----------|------------|----------|-------------|----------|------------|----------|
| Fre- quency | | GMSK Mode | | 8-PSK Mode | | GMSK Mode | | 8-PSK Mode | |
| (MHz) | | Peak Power | AV Power | Peak Power | AV Power | Peak Power | AV Power | Peak Power | AV Power |
| | | (dBm) | (dBm) | (dBm) | (dBm) | (dBm) | (dBm) | (dBm) | (dBm) |
| 824.2 | 128 | 30.64 | 30.53 | 29.82 | 27.07 | 29.62 | 29.51 | 28.57 | 25.58 |
| 836.6 | 190 | 30.69 | 30.59 | 29.98 | 27.18 | 29.64 | 29.53 | 28.96 | 25.94 |
| 848.8 | 251 | 30.67 | 30.58 | 30.12 | 27.29 | 29.67 | 29.51 | 28.83 | 25.87 |
| 1850.2 | 512 | 29.69 | 29.58 | 28.89 | 25.81 | 27.25 | 27.14 | 27.12 | 24.28 |
| 1880.0 | 661 | 29.91 | 29.82 | 28.84 | 25.87 | 27.28 | 27.27 | 27.61 | 24.52 |
| 1909.8 | 810 | 29.73 | 29.73 | 28.81 | 25.85 | 27.34 | 27.22 | 27.14 | 24.11 |

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5.1.2.: WCDMA mode

The following tests were completed according to the test requirements outlined in section 5.2 of the 3GPP TS34.121-1 V8.4.0 specification. The EUT supports power Class 3, which has a nominal maximum output power of 24 dBm (+1.7/-3.7). RMC 12.2kps is used for this testing.

Results:

| EUT Mode | Frequency (MHz) | СН | Peak Power (dBm) | AVG. Power (dBm) |
|------------------|--------------------|------|------------------------|------------------------|
| WCDM | 1852.4 | 9262 | 25.79 | 22.82 |
| WCDMA Band II | 1880 | 9400 | 25.38 | 22.41 |
| Build II | 1907.6 | 9538 | 25.09 | 22.07 |

Note: The results above reflect max power with all up bits.

| EUT Mode | Frequency (MHz) | СН | Peak Power (dBm) | AVG. Power (dBm) |
|-----------------|--------------------|------|------------------------|------------------------|
| WCDM | 826.4 | 4132 | 25.94 | 22.92 |
| WCDMA Band V | 836.6 | 4183 | 25.91 | 22.86 |
| Build | 846.6 | 4233 | 25.84 | 22.89 |

Note: The results above reflect max power with all up bits



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5.1.3.: HSDPA Release 6 mode

The following 4 Sub-Tests were completed according to the test requirements outlined in section 5.2A of the 3GPP TS34.121-1 V8.4.0 specification. All TX power requirements for Power Class 3 were met according to table 5.2AA.5 and 5.2B.5 All UE channels and power ratio's are set according to table C10.1.4 & C11.1.3 in the 3GPP TS34.121-1 V8.4.0. RMC 12.2kps is used for this testing

HSDPA SUB-TEST Setting

Table C.10.1.4: β values for transmitter characteristics tests with HS-DPCCH(FOR HSDPA)

| Sub-test | βε | βа | β _d (SF) | βc/βd | βнs (Note1, Note 2) | CM (dB) (Note 3) | MPR (dB) (Note 3) | RMC (Kbps) |
|----------|-------------------|-------------------|------------------------|-------------------|---------------------------|---------------------|----------------------|---------------|
| 1 | 2/15 | 15/15 | 64 | 2/15 | 4/15 | 0.0 | 0.0 | 12.2 |
| 2 | 12/15 (Note 4) | 15/15 (Note 4) | 64 | 12/15 (Note 4) | 24/15 | 1.0 | 0.0 | 12.2 |
| 3 | 15/15 | 8/15 | 64 | 15/8 | 30/15 | 1.5 | 0.5 | 12.2 |
| 4 | 15/15 | 4/15 | 64 | 15/4 | 30/15 | 1.5 | 0.5 | 12.2 |

Note: The recommended HSDPA MPRs are implemented as per following sub-tests.

Results:

| icsuits. | | | | | | |
|-----------|----------|-------|-----------|-----------------------|-------------------|------|
| Mode | Sub-test | ` ' | | Power Class 3 Limita- | Comments | |
| | | | Channel t | | tion (dBm) | |
| | | 9262 | 9400 | 9538 | | |
| HSDPA(B2) | 1 | 23.11 | | | 20.3dBm – 25.7dBm | Pass |
| | 2 | 22.7 | 22.27 | 21.92 | 20.3dBm – 25.7dBm | Pass |
| | 3 | 22.63 | 22.22 | 21.81 | 19.8dBm – 25.7dBm | Pass |
| | 4 | 22.7 | 22.23 | 21.93 | 19.8dBm – 25.7dBm | Pass |

| Mode | Sub-test | Transmi | tter Powe | r (dBm) | Power Class 3 Limita- | Comments |
|-----------|----------|---------|-----------|---------|-----------------------|----------|
| | | | Channel | | tion (dBm) | |
| | | 4132 | 4183 | 4233 | | |
| HSDPA(B5) | 1 | 23.14 | 23.11 | 23.08 | 20.3dBm – 25.7dBm | Pass |
| | 2 | 22.85 | 22.75 | 22.76 | 20.3dBm – 25.7dBm | Pass |
| | 3 | 22.68 | 22.63 | 22.59 | 19.8dBm – 25.7dBm | Pass |
| | 4 | 22.73 | 22.67 | 22.65 | 19.8dBm – 25.7dBm | Pass |

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5.1.4.: HSPA (HSDPA & HSUPA) Release 6 mode

The following 5 Sub-Tests were completed according to the test requirements outlined in section 5.2A of the 3GPP TS34.121-1 V8.4.0 specification. All TX power requirements for Power Class 3 were met according to table 5.2AA.5 and 5.2B.5 All UE channels and power ratio's are set according to table C11.1.3 in the 3GPP TS34.121-1 V8.4.0. RMC 12.2kps is used for this testing

HSPA SUB-TEST Setting

Table C.11.1.3: β values for transmitter characteristics tests with HS-DPCCH and E-DCH(FOR HSUPA)

| Sub- test | $eta_{ m c}$ | $eta_{ m d}$ | β _d (SF) | β_c/β_d | $\beta_{ m HS}$ | eta_{ec} | $eta_{ m ed}$ | β _{ed} (SF) | β _{ed} (Codes) | CM (dB) | MPR (dB) | AG Index | E-TFCI | RMC (Kbps) |
|--------------|-------------------|-------------------|------------------------|-------------------|-----------------|------------|--|-------------------------|----------------------------|---------|----------|-------------|--------|---------------|
| 1 | 11/15 (Note 3) | 15/15 (Note 3) | 64 | 11/15 (Note 3) | 22/15 | 209/22 | 1309/225 | 4 | 1 | 1.0 | 0.0 | 20 | 75 | 12.2 |
| 2 | 6/15 | 15/15 | 64 | 6/15 | 12/15 | 12/15 | 94/75 | 4 | 1 | 3.0 | 2.0 | 12 | 67 | 12.2 |
| 3 | 15/15 | 9/15 | 64 | 15/9 | 30/15 | 30/15 | β _{ed} 1: 47/15 β _{ed} 2: 47/15 | 4 4 | 2 | 2.0 | 1.0 | 15 | 92 | 12.2 |
| 4 | 2/15 | 15/15 | 64 | 2/15 | 4/15 | 2/15 | 56/75 | 4 | 1 | 3.0 | 2.0 | 17 | 71 | 12.2 |
| 5 | 15/15 (Note 4) | 15/15 (Note 4) | 64 | 15/15 (Note 4) | 30/15 | 24/15 | 134/15 | 4 | 1 | 1.0 | 0.0 | 21 | 81 | 12.2 |

Note: The recommended HSUPA are implemented as per following sub-tests.

Results:

| Mode | Sub-test | TX | Power (dF | Bm) | Power Class 3 Limita- | Comments |
|-----------|----------|-------|-----------|-------|-----------------------|----------|
| | | | Channel | | tion (dBm) | |
| | | 9262 | 9400 | 9538 | | |
| HSUPA(B2) | 1 | 22.74 | 22.39 | 22.01 | 18.8dBm – 25.7dBm | Pass |
| | 2 | 20.79 | 20.46 | 20.05 | 16.8dBm – 25.7dBm | Pass |
| | 3 | 21.80 | 21.41 | 21.09 | 17.8dBm – 25.7dBm | Pass |
| | 4- | 20.92 | 20.51 | 20.09 | 16.8dBm – 25.7dBm | Pass |
| | 5 | 22.63 | 22.25 | 21.92 | 18.8dBm – 25.7dBm | Pass |

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| Mode | Sub-test | TX | Power (dI | Bm) | Power Class 3 Limita- | Comments |
|-----------|----------|-------|-----------|-------|-----------------------|----------|
| | | | Channel | | tion (dBm) | |
| | | 4132 | 4183 | 4233 | | |
| HSUPA(B5) | 1 | 22.88 | 22.79 | 22.81 | 18.8dBm – 25.7dBm | Pass |
| | 2 | 20.94 | 20.87 | 20.85 | 16.8dBm – 25.7dBm | Pass |
| | 3 | 21.92 | 21.85 | 21.89 | 17.8dBm – 25.7dBm | Pass |
| | 4- | 20.99 | 20.93 | 20.93 | 16.8dBm – 25.7dBm | Pass |
| | 5 | 22.74 | 22.62 | 22.70 | 18.8dBm – 25.7dBm | Pass |

5.2. Minimum Communications Power Measurement

PCS 1900 band

| PCL | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|--------------------|-------|-------|-------|-------|-------|-------|------|-------|-------|
| Output power (dBm) | 29.84 | 27.90 | 25.94 | 23.88 | 22.91 | 20.87 | 1885 | 16.84 | 14.82 |
| | | | | | | | | | |
| PCL | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| Output power (dBm) | 12.87 | 10.86 | 8.83 | 6.87 | 4.84 | 2.83 | 0.82 | | |

Note: The EUT output power was controlled by simulator. Set Communication Tester CMU200 PCL as above, and get the mobile phone output power reading.

WCDMA/HSDPA/HSUPA band II & V

The EUT output power was controlled by simulator. Set Communication Tester CMU200 function key "UE Power Control" and enter max rated power 24dBm. The EUT is going to be set to max output power to 24dBm. then record the read(see page 15 for measurement data). The min. power was measures by a function key "minimum power" then record the read. It is -52.5dBm. The power variation can be 0.1dB step by setting.

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6. ERP, EIRP MEASUREMENT

6.1. Standard Applicable:

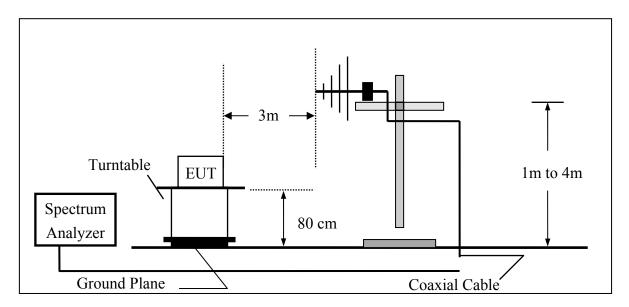
According to FCC §2.1046

FCC 22.913(a) Mobile station are limited to 7W ERP.

FCC 24.232(b) Mobile station are limited to 2W EIRP.

Test SET-UP (Block Diagram of Configuration):

(A) Radiated Emission Test Set-Up, Frequency Below 1000MHz



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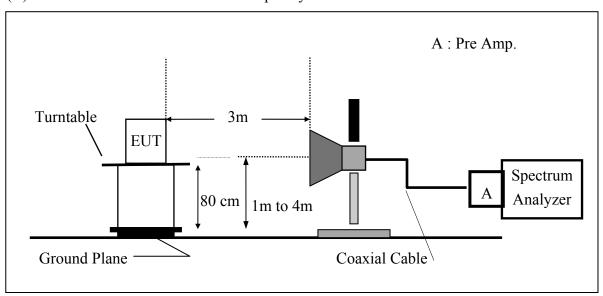
f (886-2) 2298-0488



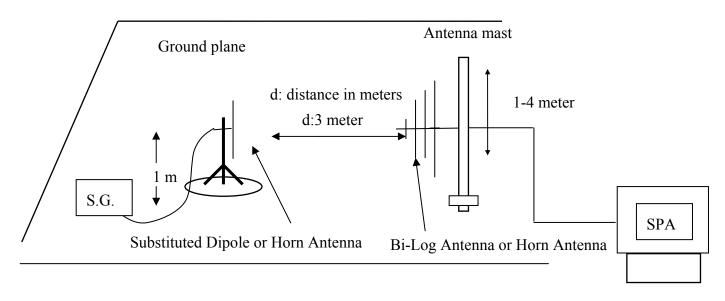
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(B) Radiated Emission Test Set-UP Frequency Over 1 GHz



(C) Substituted Method Test Set-UP



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6.3. Measurement Procedure:

The EUT was placed on an non-conductive turntable using a non-conductive support. The radiated emission at the fundamental frequency was measured at 3 m with a test antenna and EMI spectrum analyzer.

During the measurement, the EUT was communication with the station. The highest emission was recorded with the rotation of the turntable and the lowering of the test antenna from 4m to 1m. The reading was recorded and the field strength (E in dBuV/m) was calculated.

ERP in frequency band 824.2 –848.80MHz were measured using a substitution method. The EUT was replaced by dipole antenna connected, the S.G. output was recorded and ERP was calculated as follows:

EIRP in frequency band 1710-1755MHz and 1850.2 –1909.8MHz were measured using a substitution method. The EUT was replaced by a horn antenna connected, the S.G. output was recorded and EIRP was calculated as follows:

ERP = S.G. output (dBm) + Antenna Gain (dBd) - Cable Loss (dB)

EIRP = S.G. output (dBm) + Antenna Gain (dBi) – Cable Loss (dB)

6.4. Measurement Equipment Used:

Refer to section 2.4 in this report

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6.5. Measurement Result:

| EUT Mode | Frequency (MHz) | СН | EUT Pol. | Antenna Pol. | SPA Reading (dBuV) | S.G. Output (dBm) | Antenna Gain (dBd) | Cable Loss (dB) | ERP (dBm) | Limit (dBm) |
|-------------|-----------------|-----|-------------|-----------------|--------------------------|-------------------------|--------------------------|-----------------------|--------------|-------------|
| | | | Н | V | 121.81 | 35.42 | -7.87 | 3.62 | 23.92 | 38.45 |
| | | | 11 | Н | 130.01 | 43.74 | -7.87 | 3.62 | 32.24 | 38.45 |
| | 824.20 | 128 | E1 | V | 130.88 | 44.49 | -7.87 | 3.62 | 32.99 | 38.45 |
| | 024.20 | 120 | LI | Н | 125.01 | 38.74 | -7.87 | 3.62 | 27.24 | 38.45 |
| | | | E2 | V | 123.63 | 37.24 | -7.87 | 3.62 | 25.74 | 38.45 |
| | | | 152 | Н | 131.41 | 45.14 | -7.87 | 3.62 | 33.64 | 38.45 |
| | | | П | V | 118.72 | 32.47 | -7.88 | 3.65 | 20.94 | 38.45 |
| | 836.60 | | Н | Н | 129.37 | 43.14 | -7.88 | 3.65 | 31.61 | 38.45 |
| GPRS 850 | | 190 |) E1 | V | 130.47 | 44.22 | -7.88 | 3.65 | 32.69 | 38.45 |
| Grks 650 | 830.00 | 190 | | Н | 125.40 | 39.17 | -7.88 | 3.65 | 27.64 | 38.45 |
| | | | E2 | V | 122.19 | 35.94 | -7.88 | 3.65 | 24.41 | 38.45 |
| | | | EZ | Н | 130.95 | 44.72 | -7.88 | 3.65 | 33.19 | 38.45 |
| | | | Н | V | 117.66 | 31.54 | -7.88 | 3.68 | 19.98 | 38.45 |
| | | | 11 | Н | 128.55 | 42.36 | -7.88 | 3.68 | 30.80 | 38.45 |
| | 848.80 251 | 251 | 51 E1 - | V | 130.54 | 44.42 | -7.88 | 3.68 | 32.86 | 38.45 |
| | | 251 | 151 | Н | 125.76 | 39.57 | -7.88 | 3.68 | 28.01 | 38.45 |
| | | | E2 | V | 121.66 | 35.54 | -7.88 | 3.68 | 23.98 | 38.45 |
| | | | ĽZ | Н | 130.36 | 44.17 | -7.88 | 3.68 | 32.61 | 38.45 |

Remark:

(1) The RBW,VBW of SPA for frequency RBW=300 KHz, VBW=1MHz,

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Measurement Result:

| EUT Mode | Frequency (MHz) | СН | EUT Pol. | Antenna Pol. | SPA Reading (dBuV) | S.G. Output (dBm) | Antenna Gain (dBi) | Cable Loss (dB) | EIRP (dBm) | Limit (dBm) |
|-------------|-----------------|----------|-------------|-----------------|--------------------------|-------------------------|--------------------------|-----------------------|------------|-------------|
| | | | Н | V | 116.83 | 12.44 | 9.90 | 5.56 | 16.78 | 33.00 |
| | | | 11 | Н | 130.60 | 26.42 | 9.90 | 5.56 | 30.76 | 33.00 |
| | 1850.20 | 512 | E1 | V | 124.95 | 20.56 | 9.90 | 5.56 | 24.90 | 33.00 |
| | 1030.20 | 312 | | Н | 125.81 | 21.63 | 9.90 | 5.56 | 25.97 | 33.00 |
| | | 0 661 | E2 | V | 129.02 | 24.63 | 9.90 | 5.56 | 28.97 | 33.00 |
| | | | Н - | Н | 126.22 | 22.04 | 9.90 | 5.84 | 26.10 | 33.00 |
| | | | | V | 119.14 | 14.78 | 9.99 | 5.61 | 19.16 | 33.00 |
| | | | | Н | 131.25 | 27.11 | 9.99 | 5.61 | 31.48 | 33.00 |
| GPRS 1900 | 1880.00 | | E1 | V | 125.59 | 21.23 | 9.99 | 5.61 | 25.61 | 33.00 |
| GI KS 1700 | 1000.00 | 001 | | Н | 126.97 | 22.83 | 9.99 | 5.61 | 27.20 | 33.00 |
| | | | E2 | V | 129.88 | 25.52 | 9.99 | 5.61 | 29.90 | 33.00 |
| | | | LZ | Н | 125.93 | 21.79 | 9.99 | 5.61 | 26.16 | 33.00 |
| | | | Н | V | 119.20 | 14.87 | 10.08 | 5.66 | 19.29 | 33.00 |
| | | | 11 | Н | 131.44 | 27.33 | 10.08 | 5.66 | 31.75 | 33.00 |
| | 1909.80 810 | F1 | V | 125.93 | 21.60 | 10.08 | 5.66 | 26.02 | 33.00 | |
| | | 810 E1 - | Н | 128.11 | 24.00 | 10.08 | 5.66 | 28.42 | 33.00 | |
| | | E0 | E2 | V | 130.44 | 26.11 | 10.08 | 5.66 | 30.53 | 33.00 |
| | | | L'4 | Н | 124.42 | 20.31 | 10.08 | 5.66 | 24.73 | 33.00 |

Remark:

(1) The RBW,VBW of SPA for frequency RBW=300 KHz, VBW=1MHz,

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Measurement Result:

| EUT Mode | Frequency (MHz) | СН | EUT Pol. | Antenna Pol. | SPA Reading (dBuV) | S.G. Output (dBm) | Antenna Gain (dBd) | Cable Loss (dB) | ERP (dBm) | Limit (dBm) |
|-------------|-----------------|-----|-------------|-----------------|--------------------------|-------------------------|--------------------------|-----------------------|-----------|-------------|
| | | | Н | V | 118.99 | 32.60 | -7.87 | 3.62 | 21.10 | 38.45 |
| | | | 11 | Н | 127.89 | 41.62 | -7.87 | 3.62 | 30.12 | 38.45 |
| | 824.20 | 128 | E1 | V | 128.44 | 42.05 | -7.87 | 3.62 | 30.55 | 38.45 |
| | 624.20 | 120 | Li | Н | 122.62 | 36.35 | -7.87 | 3.62 | 24.85 | 38.45 |
| | | | E2 | V | 121.32 | 34.93 | -7.87 | 3.62 | 23.43 | 38.45 |
| | | | EZ | Н | 128.91 | 42.64 | -7.87 | 3.62 | 31.14 | 38.45 |
| | | | Н | V | 117.57 | 31.32 | -7.88 | 3.65 | 19.79 | 38.45 |
| | | | Н | Н | 127.60 | 41.37 | -7.88 | 3.65 | 29.84 | 38.45 |
| EDGE 850 | 836.60 | 100 | 90 E1 | V | 128.09 | 41.84 | -7.88 | 3.65 | 30.31 | 38.45 |
| EDGE 630 | 830.00 | 190 | | Н | 123.09 | 36.86 | -7.88 | 3.65 | 25.33 | 38.45 |
| | | | E2 | V | 119.53 | 33.28 | -7.88 | 3.65 | 21.75 | 38.45 |
| | | | EZ | Н | 128.06 | 41.83 | -7.88 | 3.65 | 30.30 | 38.45 |
| | | | Н | V | 116.86 | 30.74 | -7.88 | 3.68 | 19.18 | 38.45 |
| | | | 11 | Н | 127.35 | 41.16 | -7.88 | 3.68 | 29.60 | 38.45 |
| | 848.80 251 | E1 | V | 128.11 | 41.99 | -7.88 | 3.68 | 30.43 | 38.45 | |
| | | 251 | L:1 | Н | 123.39 | 37.20 | -7.88 | 3.68 | 25.64 | 38.45 |
| | | | E2 - | V | 118.96 | 32.84 | -7.88 | 3.68 | 21.28 | 38.45 |
| | | | ĽZ | Н | 127.66 | 41.47 | -7.88 | 3.68 | 29.91 | 38.45 |

Remark:

(1) The RBW,VBW of SPA for frequency RBW=300 KHz, VBW=1MHz,

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Measurement Result:

| EUT Mode | Frequency (MHz) | СН | EUT Pol. | Antenna Pol. | SPA Reading (dBuV) | S.G. Output (dBm) | Antenna Gain (dBi) | Cable Loss (dB) | EIRP (dBm) | Limit (dBm) |
|-------------|-----------------|------------|-------------|-----------------|--------------------------|-------------------------|--------------------------|-----------------------|------------|-------------|
| | | | Н | V | 116.05 | 11.66 | 9.90 | 5.56 | 16.00 | 33.00 |
| | | | 11 | Н | 129.94 | 25.76 | 9.90 | 5.56 | 30.10 | 33.00 |
| | 1850.20 | 512 | E1 | V | 124.21 | 19.82 | 9.90 | 5.56 | 24.16 | 33.00 |
| | 1630.20 | 312 | LI | Н | 125.11 | 20.93 | 9.90 | 5.56 | 25.27 | 33.00 |
| | | | E2 | V | 128.28 | 23.89 | 9.90 | 5.56 | 28.23 | 33.00 |
| | | - | EZ | Н | 124.34 | 20.16 | 9.90 | 5.84 | 24.22 | 33.00 |
| | | | Н | V | 118.14 | 13.78 | 9.99 | 5.61 | 18.16 | 33.00 |
| | 0 1880.00 | 661 | Н | Н | 130.56 | 26.42 | 9.99 | 5.61 | 30.79 | 33.00 |
| EDGE 1900 | | | E1 | V | 124.74 | 20.38 | 9.99 | 5.61 | 24.76 | 33.00 |
| EDGE 1900 | 1000.00 | 001 | | Н | 126.23 | 22.09 | 9.99 | 5.61 | 26.46 | 33.00 |
| | | | E2 | V | 129.19 | 24.83 | 9.99 | 5.61 | 29.21 | 33.00 |
| | | | EZ | Н | 123.97 | 19.83 | 9.99 | 5.61 | 24.20 | 33.00 |
| | | | Н | V | 118.39 | 14.06 | 10.08 | 5.66 | 18.48 | 33.00 |
| | 1909.80 810 | | 11 | Н | 130.75 | 26.64 | 10.08 | 5.66 | 31.06 | 33.00 |
| | | 810 | E1 | V | 125.05 | 20.72 | 10.08 | 5.66 | 25.14 | 33.00 |
| | | 810 | 151 | Н | 127.42 | 23.31 | 10.08 | 5.66 | 27.73 | 33.00 |
| | | | E2 | V | 129.47 | 25.14 | 10.08 | 5.66 | 29.56 | 33.00 |
| | | E2 - | Н | 124.44 | 20.33 | 10.08 | 5.66 | 24.75 | 33.00 | |

Remark:

(1) The RBW,VBW of SPA for frequency RBW=300 KHz, VBW=1MHz,

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Measurement Result:

| EUT Mode | Frequency (MHz) | СН | EUT Pol. | Antenna Pol. | SPA Reading (dBuV) | S.G. Output (dBm) | Antenna Gain (dBi) | Cable Loss (dB) | EIRP (dBm) | Limit (dBm) |
|-------------|-----------------|-----------------|-------------|-----------------|--------------------------|-------------------------|--------------------------|-----------------------|------------|-------------|
| | | | Н | V | 108.13 | 3.61 | 9.48 | 5.33 | 7.75 | 33.00 |
| | | | 11 | Н | 122.00 | 17.67 | 9.48 | 5.33 | 21.81 | 33.00 |
| | 1852.40 | 9262 | E1 | V | 115.70 | 11.18 | 9.48 | 5.33 | 15.32 | 33.00 |
| | 1032.40 | 7202 | | Н | 116.38 | 12.05 | 9.48 | 5.33 | 16.19 | 33.00 |
| | | | E2 | V | 116.42 | 11.90 | 9.48 | 5.33 | 16.04 | 33.00 |
| | | | | Н | 114.40 | 10.07 | 9.90 | 5.84 | 14.13 | 33.00 |
| | | | Н | V | 109.13 | 4.63 | 9.54 | 5.36 | 8.80 | 33.00 |
| | | | Н | Н | 123.11 | 18.80 | 9.54 | 5.36 | 22.97 | 33.00 |
| WCDMA | 1880.00 | 9400 | E1 | V | 115.97 | 11.47 | 9.54 | 5.36 | 15.64 | 33.00 |
| Band II | 1000.00 | 7400 | Li | Н | 117.55 | 13.24 | 9.54 | 5.36 | 17.41 | 33.00 |
| | | | E2 | V | 117.44 | 12.94 | 9.54 | 5.36 | 17.11 | 33.00 |
| | | | LZ | Н | 114.73 | 10.42 | 9.54 | 5.36 | 14.59 | 33.00 |
| | | | н | V | 109.98 | 5.50 | 9.61 | 5.40 | 9.70 | 33.00 |
| | | 1907.60 9538 E1 | 11 | Н | 122.61 | 18.32 | 9.61 | 5.40 | 22.53 | 33.00 |
| | 1907 60 | | F1 | V | 115.19 | 10.71 | 9.61 | 5.40 | 14.91 | 33.00 |
| | 1907.60 953 | | Н | 116.54 | 12.25 | 9.61 | 5.40 | 16.46 | 33.00 | |
| | | | E2 - | V | 117.58 | 13.10 | 9.61 | 5.40 | 17.30 | 33.00 |
| | | | L'Z | Н | 113.16 | 8.87 | 9.61 | 5.40 | 13.08 | 33.00 |

Remark:

(1) The RBW,VBW of SPA for frequency RBW= 5MHz, VBW= 8MHz

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Measurement Result:

| EUT Mode | Frequency (MHz) | СН | EUT Pol. | Antenna Pol. | SPA Reading (dBuV) | S.G. Output (dBm) | Antenna Gain (dBd) | Cable Loss (dB) | ERP (dBm) | Limit (dBm) |
|-------------|-----------------|------|-------------|-----------------|--------------------------|-------------------------|--------------------------|-----------------------|-----------|-------------|
| | | | Н | V | 108.08 | 21.72 | -7.88 | 3.63 | 10.21 | 38.45 |
| | | | 11 | Н | 122.09 | 35.83 | -7.88 | 3.63 | 24.33 | 38.45 |
| | 826.40 | 128 | E1 | V | 121.81 | 35.45 | -7.88 | 3.63 | 23.94 | 38.45 |
| | 020.40 | 120 | | Н | 113.59 | 27.33 | -7.88 | 3.63 | 15.83 | 38.45 |
| | | | E2 | V | 115.06 | 28.70 | -7.88 | 3.63 | 17.19 | 38.45 |
| | | | 102 | Н | 120.74 | 34.48 | -7.88 | 3.63 | 22.98 | 38.45 |
| | | 100 | Н | V | 108.50 | 22.24 | -7.88 | 3.65 | 10.71 | 38.45 |
| | | | H | Н | 121.87 | 35.64 | -7.88 | 3.65 | 24.11 | 38.45 |
| WCDMA | 836.00 | | 90 E1 | V | 121.78 | 35.52 | -7.88 | 3.65 | 23.99 | 38.45 |
| Band V | 030.00 | 170 | | Н | 114.35 | 28.12 | -7.88 | 3.65 | 16.59 | 38.45 |
| | | | E2 | V | 115.65 | 29.39 | -7.88 | 3.65 | 17.86 | 38.45 |
| | | | Li2 | Н | 120.71 | 34.48 | -7.88 | 3.65 | 22.95 | 38.45 |
| | | | Н | V | 109.32 | 23.17 | -7.88 | 3.67 | 11.62 | 38.45 |
| | | | 11 | Н | 121.36 | 35.16 | -7.88 | 3.67 | 23.61 | 38.45 |
| | 846.60 251 | F1 | V | 121.35 | 35.19 | -7.88 | 3.67 | 23.64 | 38.45 | |
| | | | 101 | Н | 114.51 | 28.31 | -7.88 | 3.67 | 16.76 | 38.45 |
| | | | E2 - | V | 115.56 | 29.41 | -7.88 | 3.67 | 17.86 | 38.45 |
| | | E2 - | Н | 120.50 | 34.30 | -7.88 | 3.67 | 22.75 | 38.45 | |

Remark:

(1) The RBW,VBW of SPA for frequency RBW= 5MHz, VBW= 8MHz

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| EUT Mode | Frequency (MHz) | СН | EUT Pol. | Antenna Pol. | SPA Reading (dBuV) | S.G. Output (dBm) | Antenna Gain (dBi) | Cable Loss (dB) | EIRP (dBm) | Limit (dBm) |
|-------------|-----------------|------|-------------|-----------------|--------------------------|-------------------------|--------------------------|-----------------------|---------------|-------------|
| | | | Н | V | 112.82 | 8.44 | 9.90 | 5.56 | 12.77 | 33.00 |
| | | | П | Н | 126.76 | 22.58 | 9.90 | 5.56 | 26.92 | 33.00 |
| | 1852.40 | 9262 | E1 | V | 117.94 | 13.56 | 9.90 | 5.56 | 17.89 | 33.00 |
| | 1032.40 | 9202 | LI | Н | 119.32 | 15.14 | 9.90 | 5.56 | 19.48 | 33.00 |
| | | 9400 | E2 | V | 125.75 | 21.37 | 9.90 | 5.56 | 25.70 | 33.00 |
| | | | 152 | Н | 124.39 | 20.21 | 9.90 | 5.84 | 24.27 | 33.00 |
| | | | Н | V | 114.01 | 9.65 | 9.99 | 5.61 | 14.03 | 33.00 |
| | | | Н | Н | 127.94 | 23.80 | 9.99 | 5.61 | 28.17 | 33.00 |
| HSUPA | 1880.00 | | 00 E1 | V | 119.16 | 14.77 | 9.90 | 5.56 | 19.11 | 33.00 |
| Band II | 1000.00 | 7400 | | Н | 121.18 | 17.04 | 9.99 | 5.61 | 21.41 | 33.00 |
| | | | E2 | V | 126.20 | 21.84 | 9.99 | 5.61 | 26.22 | 33.00 |
| | | | 1.2 | Н | 123.95 | 19.81 | 9.99 | 5.61 | 24.18 | 33.00 |
| | | | Н | V | 114.57 | 10.24 | 10.07 | 5.66 | 14.65 | 33.00 |
| | | | 11 | Н | 127.20 | 23.09 | 10.07 | 5.66 | 27.50 | 33.00 |
| | 1907.60 9538 | 9538 | E1 | V | 118.68 | 14.35 | 10.07 | 5.66 | 18.76 | 33.00 |
| | | 9538 | LI | Н | 120.27 | 16.16 | 10.07 | 5.66 | 20.57 | 33.00 |
| | | | E2 - | V | 125.49 | 21.16 | 10.07 | 5.66 | 25.57 | 33.00 |
| | | | | Н | 121.94 | 17.83 | 10.07 | 5.66 | 22.24 | 33.00 |

Remark:

(1) The RBW, VBW of SPA for frequency

RBW = 5MHz, VBW = 8MHz



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Measurement Result:

| EUT Mode | Frequency (MHz) | СН | EUT Pol. | Antenna Pol. | SPA Reading (dBuV) | S.G. Output (dBm) | Antenna Gain (dBd) | Cable Loss (dB) | ERP (dBm) | Limit (dBm) |
|-----------------|-----------------|-----|-------------|-----------------|--------------------------|-------------------------|--------------------------|-----------------------|----------------------------------|-------------|
| HSUPA Band V | 826.40 | | Н | V | 108.91 | 22.55 | -7.88 | 3.63 | 11.04 | 38.45 |
| | | | 11 | Н | 122.47 | 36.21 | -7.88 | 3.63 | 24.71 | 38.45 |
| | | 128 | E1 | V | 121.98 | 35.62 | -7.88 | 3.63 | 24.11 | 38.45 |
| | | 128 | Li | Н | 113.56 | 27.30 | -7.88 | 3.63 | 15.80 | 38.45 |
| | | | E2 | V | 115.85 | 29.49 | -7.88 | 3.63 | 17.98 | 38.45 |
| | | | LZ | Н | 121.37 | 35.11 | -7.88 | 3.63 | 23.61 | 38.45 |
| | 836.00 | | Н | V | 109.66 | 23.40 | -7.88 | 3.65 | 11.87 | 38.45 |
| | | | 11 | Н | 122.60 | 36.37 | -7.88 | 3.65 | 24.84 | 38.45 |
| | | 190 | E1 | V | 122.65 | 36.39 | -7.88 | 3.65 | 24.86 | 38.45 |
| | | 170 | L1 | Н | 115.06 | 28.83 | -7.88 | 3.65 | 17.30 38 | 38.45 |
| | | | E2 | V | 116.49 | 30.23 | -7.88 | 3.65 | | 38.45 |
| | | | EZ | Н | 121.68 | 35.45 | -7.88 | 3.65 | 23.92 | 38.45 |
| | 846.60 | | Н | V | 110.31 | 24.16 | -7.88 | 3.67 | 12.61 | 38.45 |
| | | | п | Н | 115.88 | 29.68 | -7.88 | 3.67 | 18.13 | 38.45 |
| | | 251 | E1 | V | 121.70 | 35.54 | -7.88 | 3.67 | 23.99 | 38.45 |
| | | 231 | LI | Н | 114.67 | 28.47 | -7.88 | 3.67 | 16.92 | 38.45 |
| | | | E2 | V | 115.78 | 29.63 | -7.88 | 3.67 | 18.08 | 38.45 |
| | | | ĽZ | Н | 120.50 | 34.30 | -7.88 | 3.67 | 12.61 18.13 23.99 16.92 | 38.45 |

Remark:

(1) The RBW,VBW of SPA for frequency RBW= 5MHz, VBW= 8MHz

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| EUT Mode | Frequency (MHz) | СН | EUT Pol. | Antenna Pol. | SPA Reading (dBuV) | S.G. Output (dBm) | Antenna Gain (dBi) | Cable Loss (dB) | EIRP (dBm) | Limit (dBm) |
|-------------|-----------------|------|-------------|-----------------|--------------------------|-------------------------|--------------------------|-----------------------|----------------|-------------|
| | 1852.40 | | Н | V | 112.55 | 8.17 | 9.90 | 5.56 | 12.50 | 33.00 |
| | | | П | Н | 126.67 | 22.49 | 9.90 | 5.56 | 26.83 | 33.00 |
| | | 9262 | E1 | V | 117.65 | 13.27 | 9.90 | 5.56 | 17.60 | 33.00 |
| | | 9202 | EI | Н | 119.11 | 14.93 | 9.90 | 5.56 | 19.27 33.0 | 33.00 |
| | | | E2 | V | 125.47 | 21.09 | 9.90 | 5.56 | 25.42 | 33.00 |
| | | | | Н | 124.05 | 19.87 | 9.90 | 5.84 | 23.93 | 33.00 |
| | 1880.00 | | Н | V | 113.71 | 9.35 | 9.99 | 5.61 | 13.73 | 33.00 |
| | | | 11 | Н | 127.51 | 23.37 | 9.99 | 5.61 | 27.74 | 33.00 |
| HSDPA | | 9400 | E1 | V | 118.58 | 14.19 | 9.90 | 5.56 | 18.53 20.58 | 33.00 |
| Band II | | 7400 | LI | Н | 120.35 | 16.21 | 9.99 | 5.61 | | 33.00 |
| | | | E2 | V | 125.62 | 21.26 | 9.99 | 5.61 | 25.64 | 33.00 |
| | | | LZ | Н | 123.34 | 19.20 | 9.99 | 5.61 | 23.57 | 33.00 |
| | 1907.60 | | Н | V | 113.67 | 9.34 | 10.07 | 5.66 | 13.75 | 33.00 |
| | | | 11 | Н | 126.16 | 22.05 | 10.07 | 5.66 | 26.46 | 33.00 |
| | | 9538 | E1 | V | 118.38 | 14.05 | 10.07 | 5.66 | 18.46 | 33.00 |
| | | 7336 | L/I | Н | 120.20 | 16.09 | 10.07 | 5.66 | 20.50 | 33.00 |
| | | | E2 | V | 124.64 | 20.31 | 10.07 | 5.66 | 24.72 | 33.00 |
| | | | 152 | Н | 121.85 | 17.74 | 10.07 | 5.66 | 22.15 | 33.00 |

Remark:

(1) The RBW,VBW of SPA for frequency

RBW = 5MHz, VBW = 8MHz



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Measurement Result:

| EUT Mode | Frequency (MHz) | СН | EUT Pol. | Antenna Pol. | SPA Reading (dBuV) | S.G. Output (dBm) | Antenna Gain (dBd) | Cable Loss (dB) | ERP (dBm) | Limit (dBm) |
|-----------------|-----------------|-----|-------------|-----------------|--------------------------|-------------------------|--------------------------|-----------------------|--|-------------|
| HSDPA Band V | 826.40 | | Н | V | 108.68 | 22.32 | -7.88 | 3.63 | 10.81 | 38.45 |
| | | | 11 | Н | 122.32 | 36.06 | -7.88 | 3.63 | 24.56 | 38.45 |
| | | 128 | E1 | V | 121.80 | 35.44 | -7.88 | 3.63 | 23.93 | 38.45 |
| | | 120 | LI | Н | 113.33 | 27.07 | -7.88 | 3.63 | 15.57 | 38.45 |
| | | | E2 | V | 115.80 | 29.44 | -7.88 | 3.63 | 17.93 | 38.45 |
| | | | LZ | Н | 120.85 | 34.59 | -7.88 | 3.63 | 23.09 | 38.45 |
| | 836.00 | | Н | V | 109.51 | 23.25 | -7.88 | 3.65 | 11.72 | 38.45 |
| | | | 11 | Н | 121.60 | 35.37 | -7.88 | 3.65 | 23.84 | 38.45 |
| | | 190 | E1 | V | 121.65 | 35.39 | -7.88 | 3.65 | 23.86 | 38.45 |
| | | 170 | L1 | Н | 114.86 | 28.63 | -7.88 | 3.65 | 23.86 38 17.10 38 18.05 38 23.92 38 | 38.45 |
| | | | E2 | V | 115.84 | 29.58 | -7.88 | 3.65 | | 38.45 |
| | | | EZ | Н | 121.68 | 35.45 | -7.88 | 3.65 | | 38.45 |
| | 846.60 | | Н | V | 109.90 | 23.75 | -7.88 | 3.67 | 12.20 | 38.45 |
| | | | 11 | Н | 115.71 | 29.51 | -7.88 | 3.67 | 17.96 | 38.45 |
| | | 251 | E1 | V | 121.69 | 35.53 | -7.88 | 3.67 | 23.98 | 38.45 |
| | | 231 | LI | Н | 114.25 | 28.05 | -7.88 | 3.67 | 16.50 | 38.45 |
| | | | E2 | V | 115.20 | 29.05 | -7.88 | 3.67 | 17.50 | 38.45 |
| | | | L'A | Н | 120.01 | 33.81 | -7.88 | 3.67 | 12.20 17.96 23.98 16.50 | 38.45 |

Remark:

(1) The RBW,VBW of SPA for frequency RBW= 5MHz, VBW= 8MHz

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7. 99% OCCUPIED BANDWIDTH MEASUREMENT

7.1. Standard Applicable:

According to §FCC 2.1049.

7.2. Test Set-up:

Refer to section 5.2 in this report

7.3. Measurement Procedure:

The EUT's output RF connector was connected with a short cable to the spectrum analyzer, RBW (10/30KHz) was set to about 1% of emission BW, VBW= 3 times RBW(30/100KHz), -26dBc display line was placed on the screen (or 99% bandwidth), the occupied bandwidth is the delta frequency between the two points where the display line intersects the signal trace.

7.4. Measurement Equipment Used:

Refer to section 2.4 in this report

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7.5. Measurement Result:

| EUT Mode | Frequency (MHz) | СН | 99% Bandwidth (MHz) |
|----------|--------------------|-----|------------------------|
| GPRS 850 | 824.20 | 128 | 0.2452 |
| | 836.60 | 190 | 0.2444 |
| | 848.80 | 251 | 0.2428 |

| EUT Mode | Frequency (MHz) | СН | 99% Bandwidth (MHz) |
|-----------|--------------------|-----|------------------------|
| GPRS 1900 | 1850.20 | 512 | 0.2458 |
| | 1880.00 | 661 | 0.2476 |
| | 1909.80 | 810 | 0.2451 |

| EUT Mode | Frequency (MHz) | СН | 99% Bandwidth (MHz) |
|----------|--------------------|-----|------------------------|
| EDGE 850 | 824.20 | 128 | 0.2359 |
| | 836.60 | 190 | 0.2422 |
| | 848.80 | 251 | 0.2408 |

| EUT Mode | Frequency (MHz) | СН | 99% Bandwidth (MHz) |
|-----------|--------------------|-----|------------------------|
| EDGE 1900 | 1850.20 | 512 | 0.2450 |
| | 1880.00 | 661 | 0.2444 |
| | 1909.80 | 810 | 0.2460 |

| EUT Mode | Frequency (MHz) | СН | 99% Bandwidth (MHz) |
|---------------|--------------------|------|------------------------|
| WCDMA Band II | 1852.40 | 9262 | 4.1707 |
| | 1880.00 | 9400 | 4.1644 |
| | 1907.60 | 9538 | 4.1792 |

| EUT Mode | Frequency (MHz) | СН | 99% Bandwidth (MHz) |
|--------------|--------------------|------|------------------------|
| WCDMA Band V | 826.40 | 4132 | 4.1534 |
| | 836.60 | 4180 | 4.1640 |
| | 846.60 | 4233 | 4.1665 |

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| EUT Mode | Frequency (MHz) | СН | 99% Bandwidth (MHz) |
|---------------|--------------------|------|------------------------|
| HSUPA Band II | 1852.40 | 9262 | 4.1722 |
| | 1880.00 | 9400 | 4.1797 |
| | 1907.60 | 9538 | 4.1563 |

| EUT Mode | Frequency (MHz) | СН | 99% Bandwidth (MHz) |
|--------------|--------------------|------|------------------------|
| HSUPA Band V | 826.40 | 4132 | 4.1652 |
| | 836.60 | 4180 | 4.1738 |
| | 846.60 | 4233 | 4.1563 |

| EUT Mode | Frequency (MHz) | СН | 99% Bandwidth (MHz) |
|---------------|--------------------|------|------------------------|
| HSDPA Band II | 1852.40 | 9262 | 4.1772 |
| | 1880.00 | 9400 | 4.1796 |
| | 1907.60 | 9538 | 4.1573 |

| EUT Mode | Frequency (MHz) | СН | 99% Bandwidth (MHz) |
|--------------|--------------------|------|------------------------|
| HSDPA Band V | 826.40 | 4132 | 4.1663 |
| | 836.60 | 4180 | 4.1756 |
| | 846.60 | 4233 | 4.1574 |

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Figure 7-1: GPRS 850 Channel Low

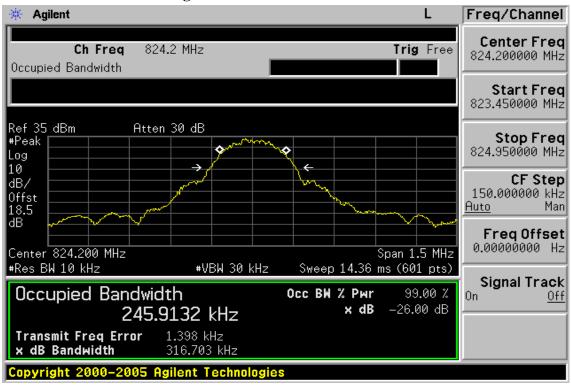
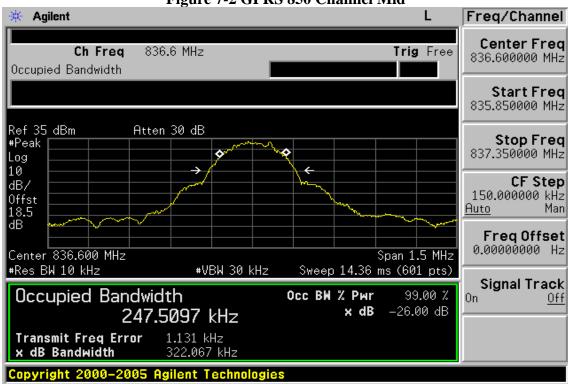


Figure 7-2 GPRS 850 Channel Mid



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Figure 7-3: GPRS 850 Channel High

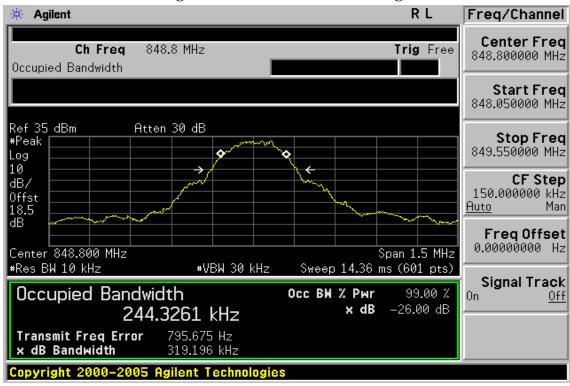
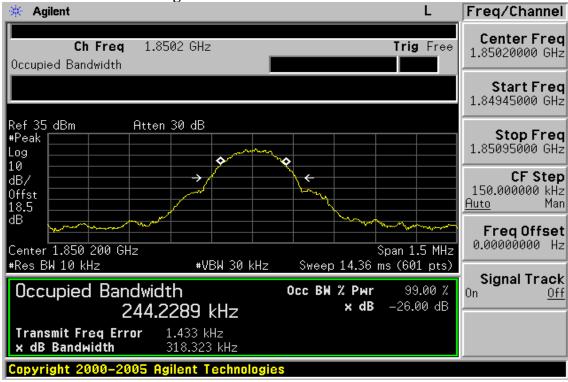


Figure 7-4: GPRS 1900 Channel Low



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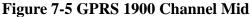
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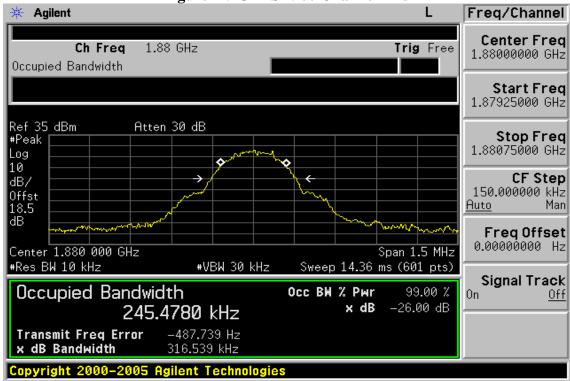
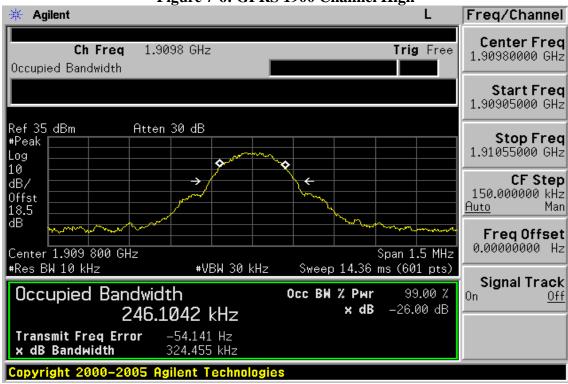


Figure 7-6: GPRS 1900 Channel High



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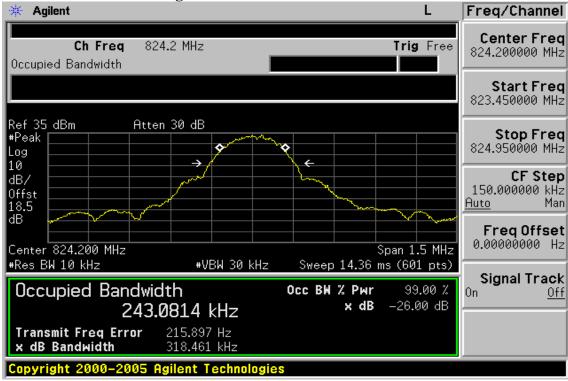
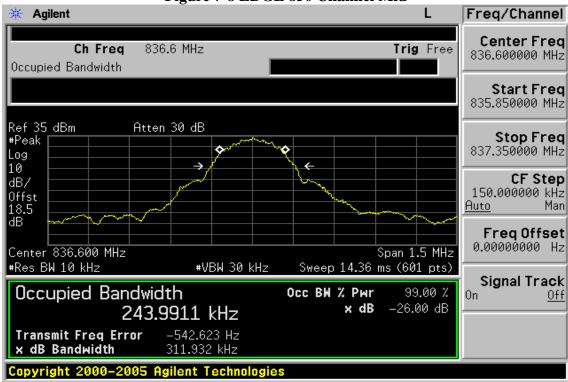


Figure 7-8 EDGE 850 Channel Mid



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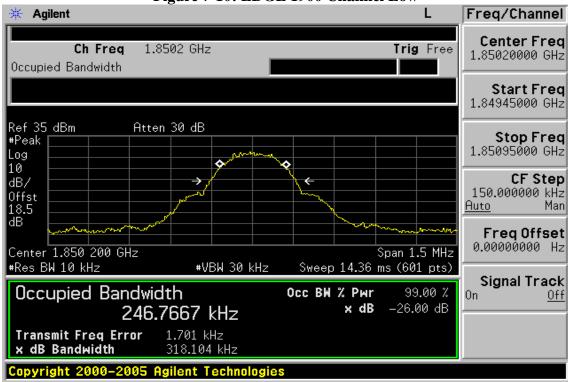
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Figure 7-10: EDGE 1900 Channel Low



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Figure 7-11 EDGE 1900 Channel Mid

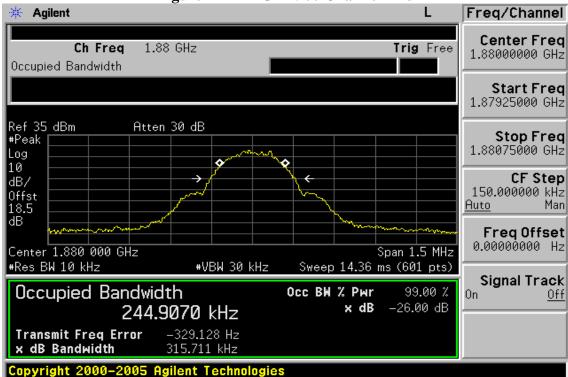
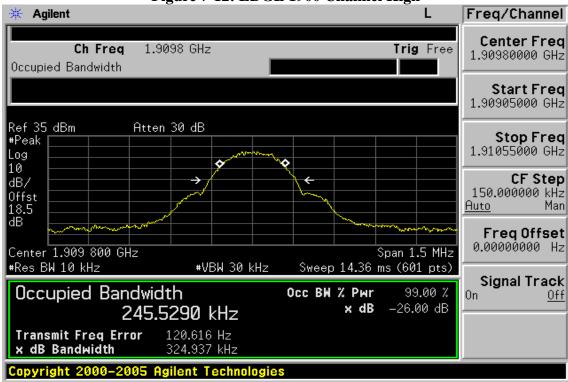


Figure 7-12: EDGE 1900 Channel High



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Figure 7-13 WCDMA B2 Channel Low

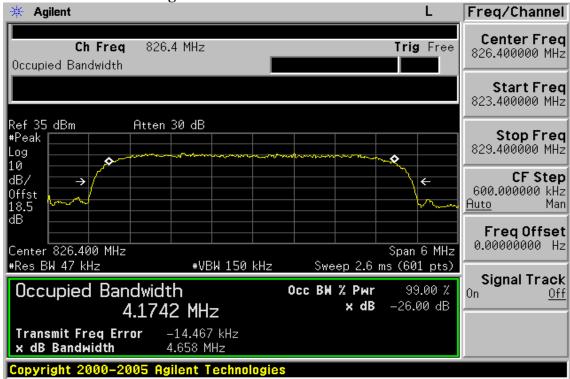
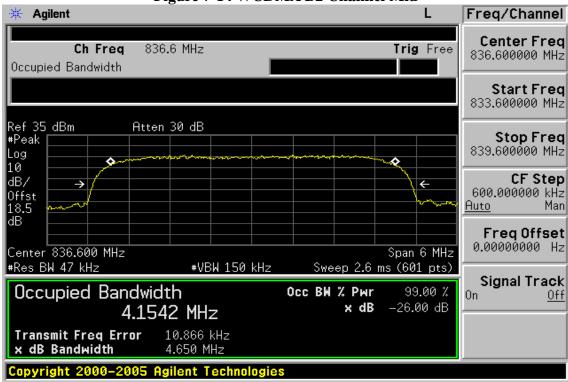


Figure 7-14 WCDMA B2 Channel Mid



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Figure 7-15: WCDMA B2 Channel High

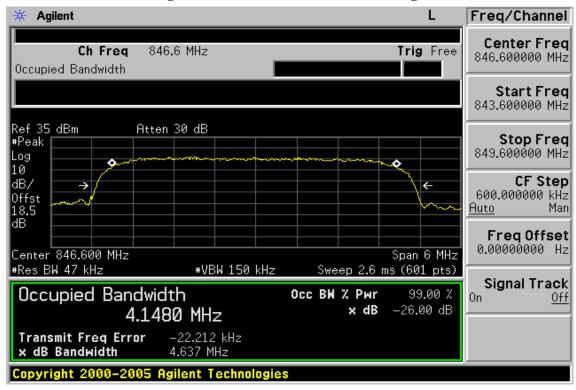
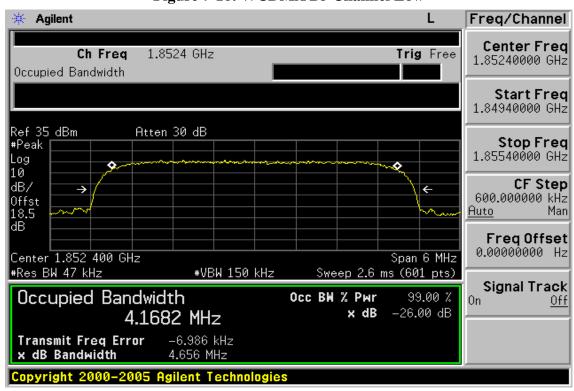


Figure 7-16: WCDMA B5 Channel Low



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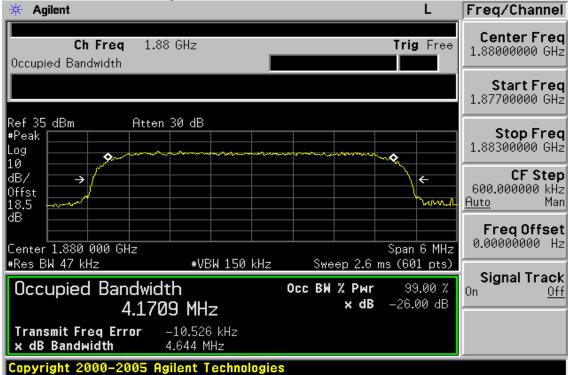
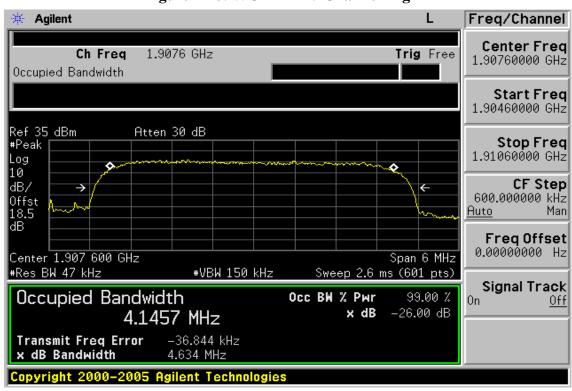


Figure 7-18: WCDMA B5 Channel High



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Figure 7-19 HSUPA B2 Channel Low

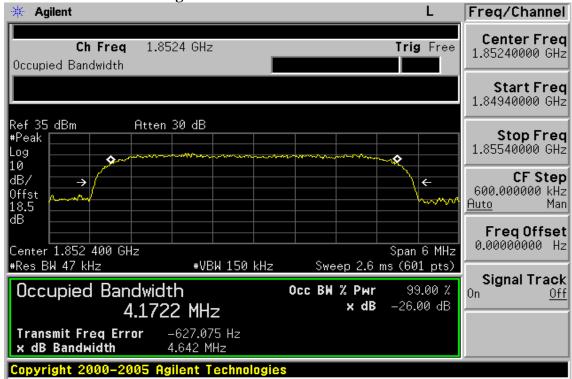
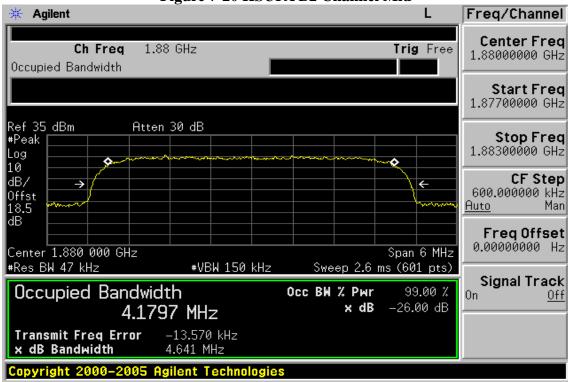


Figure 7-20 HSUPA B2 Channel Mid



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Figure 7-21: HSUPA B2 Channel High

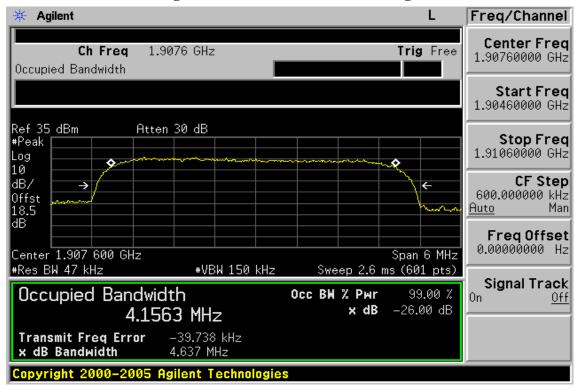
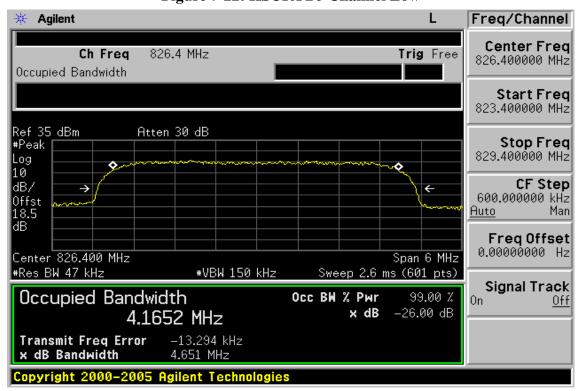


Figure 7-22: HSUPA B5 Channel Low



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Figure 7-23 HSUPA B5 Channel Mid

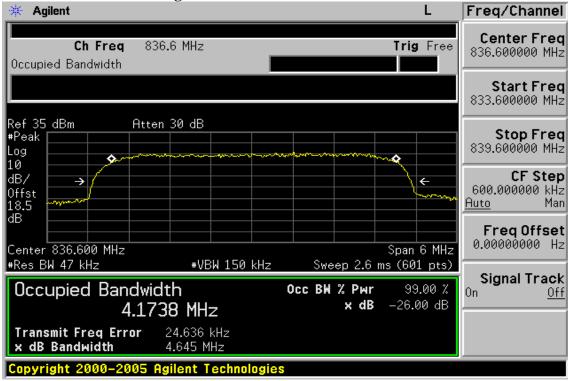
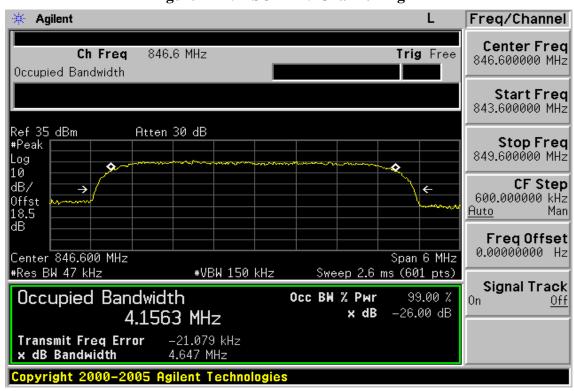


Figure 7-24: HSUPA B5 Channel High



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Figure 7-25 HSDPA B2 Channel Low

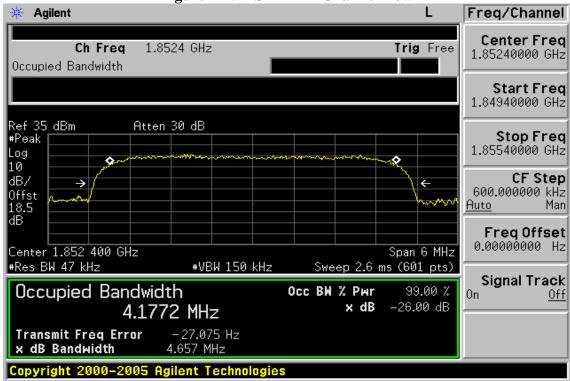
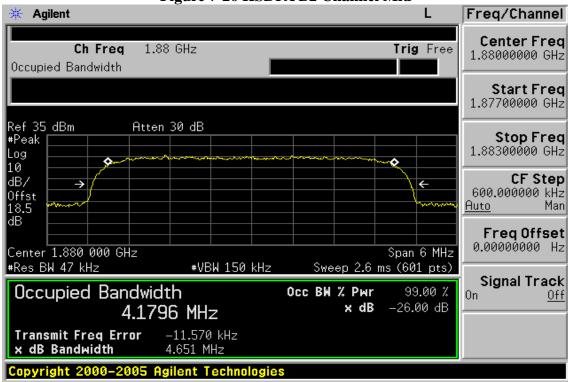


Figure 7-26 HSDPA B2 Channel Mid



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Figure 7-27: HSDPA B2 Channel High

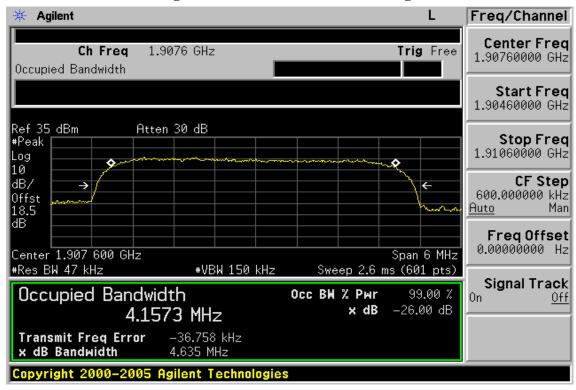
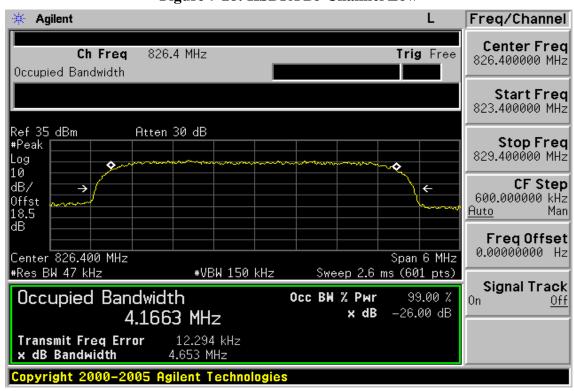


Figure 7-28: HSDPA B5 Channel Low



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Figure 7-29 HSDPA B5 Channel Mid

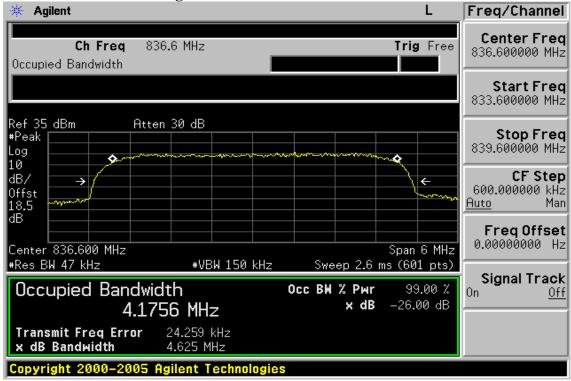
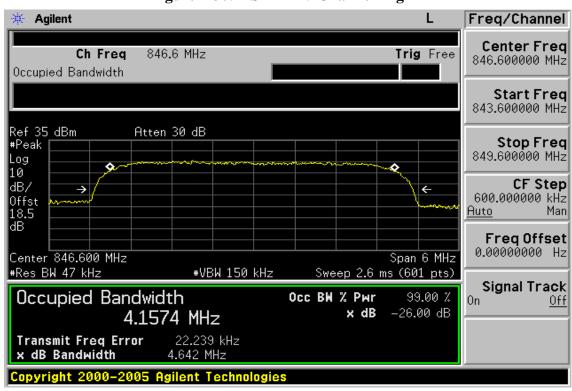


Figure 7-30: HSDPA B5 Channel High



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8. OUT OF BAND EMISSION AT ANTENNA TERMINALS

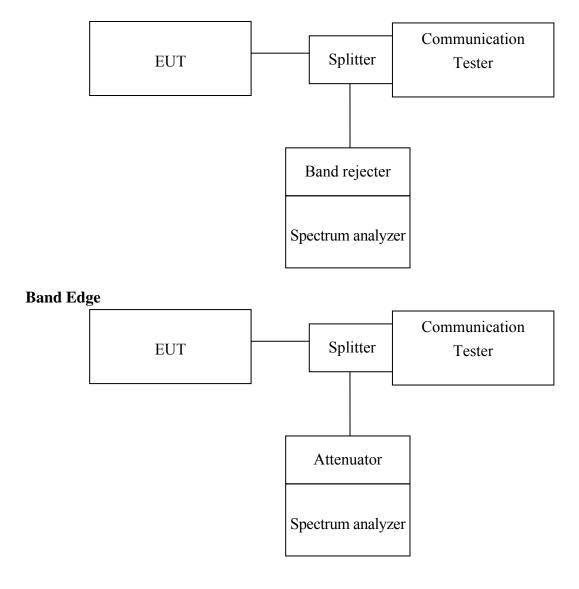
8.1. Standard Applicable:

According to FCC §2.1051.

FCC §22.917(a),§24.238(a) the magnitude of each spurious and harmonic emission that can be detected when the equipment is operated under the conditions specified in the instruction manual and/ or alignment procedure, shall not be less than 43 + 10 log (mean output power in watts) dBc below the mean power output outside a license's frequency block (-13dBm)

8.2. Test SET-UP:

Out of band emission



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8.3. Measurement Procedure:

The RF output of the transceiver was connected to a spectrum analyzer through appropriate attenuation. The resolution bandwidth of the spectrum analyzer was set at 1MHz, sufficient scans were taken to show the out of band Emissions if any up to 10th harmonic.

For the out of band: Set the RBW, VBW = 1MHz, Start=30MHz, Stop= 10 th harmonic. Limit = -13dBm

Band Edge Requirements: In the 1 MHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of at least 1 percent of the emission bandwidth of the fundamental emission of the transmitter may be employed to measure the out of band Emissions. Limit, -13dBm.

8.4. Measurement Equipment Used:

Refer to section 2.4 in this report

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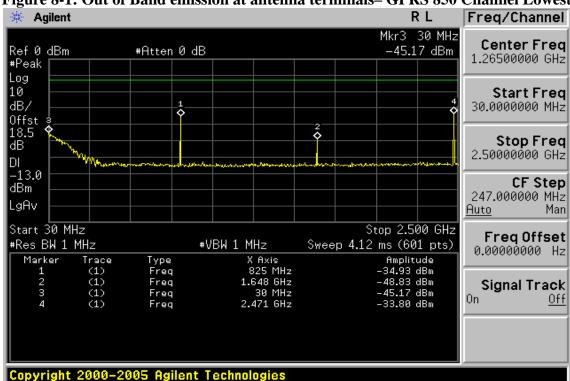


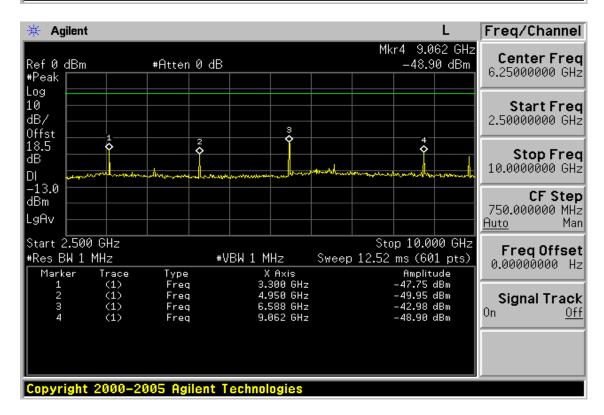
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8.5. Measurement Result:

Figure 8-1: Out of Band emission at antenna terminals-GPRS 850 Channel Lowest





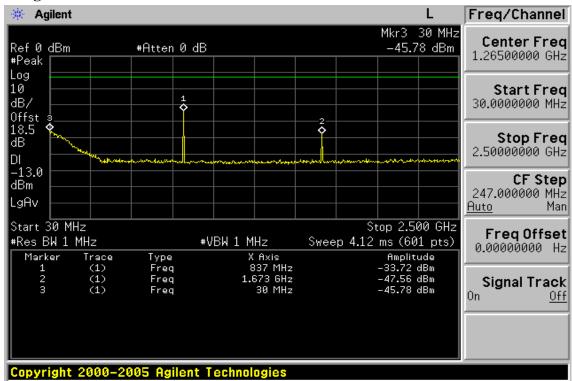
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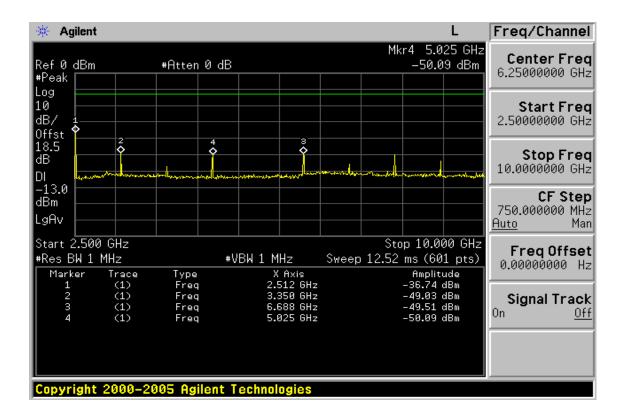
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Figure 8-2: Out of Band emission at antenna terminals -GPRS 850 Channel Mid



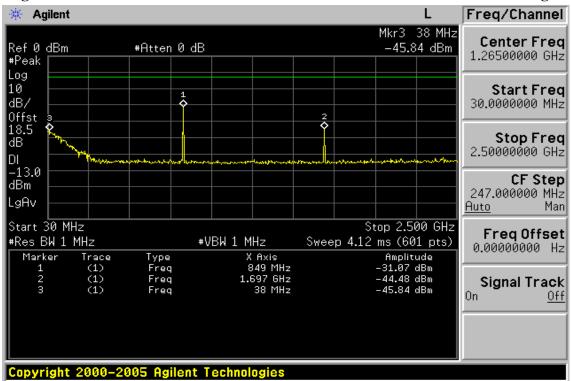


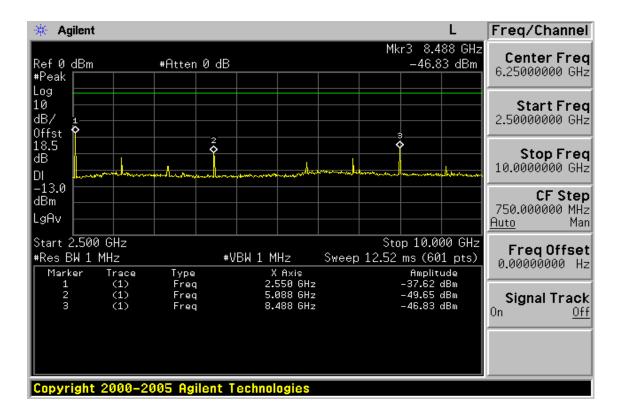
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Figure 8-3: Out of Band emission at antenna terminals-GPRS 850 Channel Highest





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Figure 8-4: Band edge emission at antenna terminals -GPRS 850 Channel Lowest



Figure 8-5: Band edge emission at antenna terminals –GPRS 850 Channel Highest



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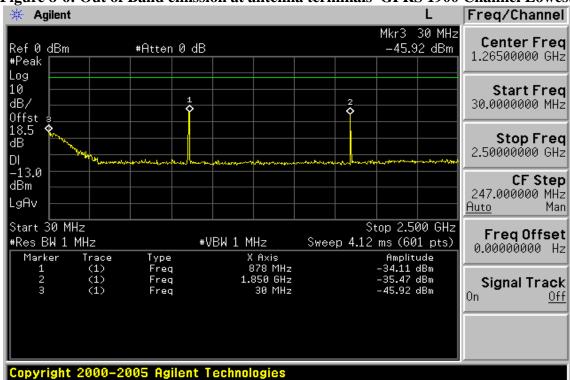
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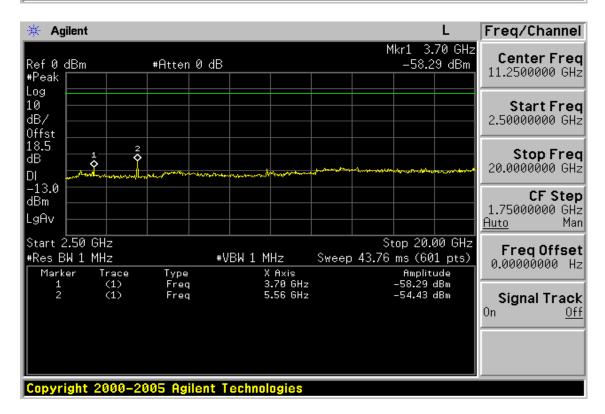
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Figure 8-6: Out of Band emission at antenna terminals-GPRS 1900 Channel Lowest





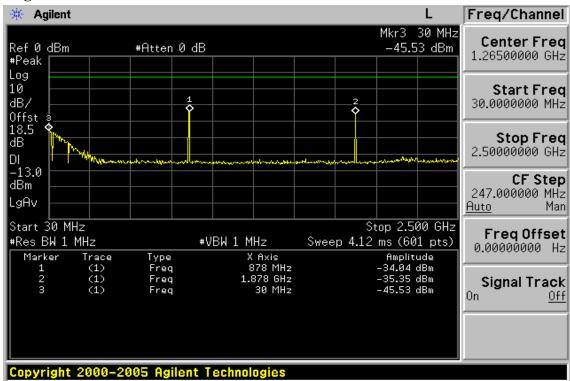
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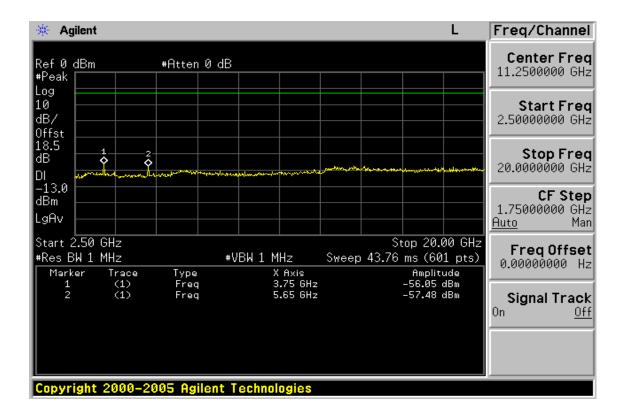
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Figure 8-7: Out of Bandd emission at antenna terminals -GPRS 1900 Channel Mid





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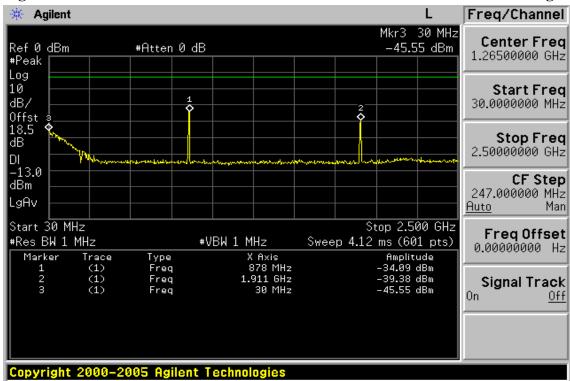
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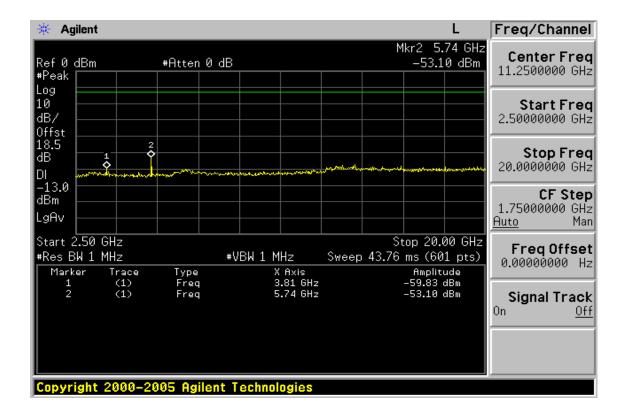
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Figure 8-8: Out of Band emission at antenna terminals-GPRS 1900 Channel Highest





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Figure 8-9: Bad edge emission at antenna terminals -GPRS 1900 Channel Lowest

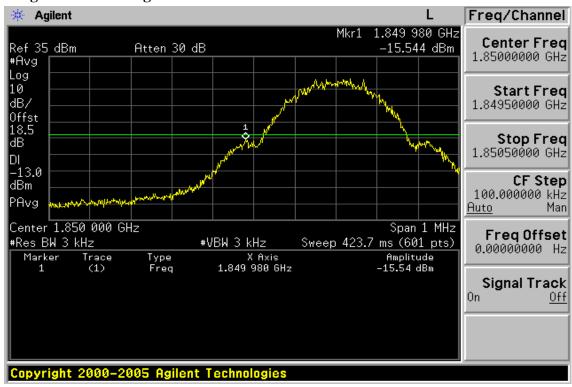
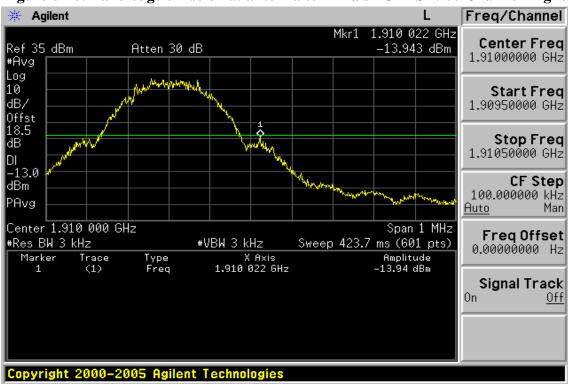


Figure 8-10: Band edge emission at antenna terminals –GPRS 1900 Channel Highest



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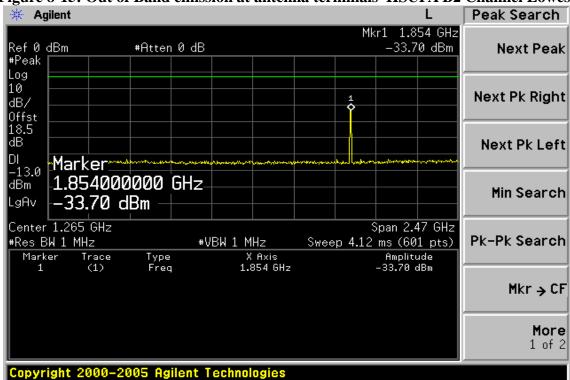
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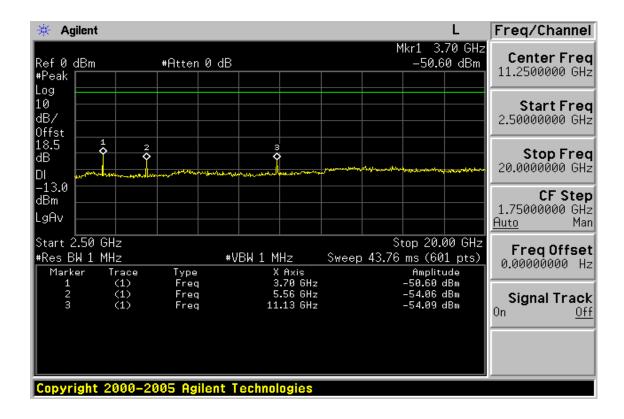
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Figure 8-15: Out of Band emission at antenna terminals-HSUPA B2 Channel Lowest





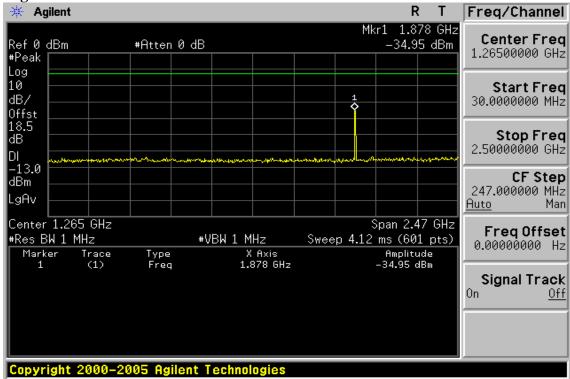
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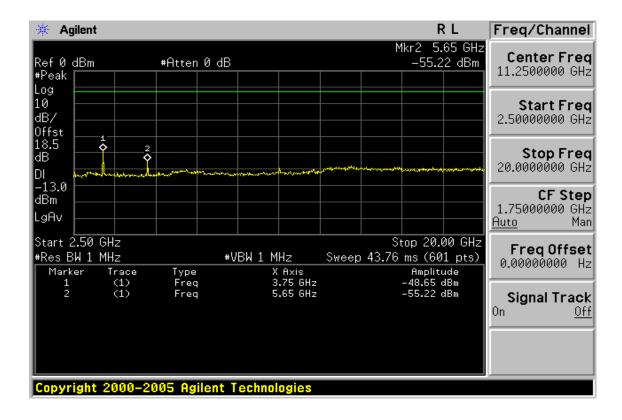
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Figure 8-16: Out of Band emission at antenna terminals -HSUPA B2 Channel Mid





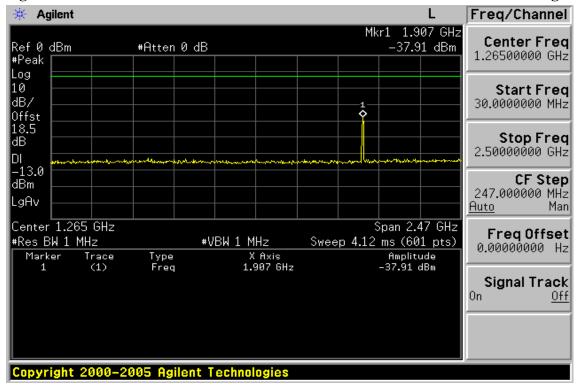
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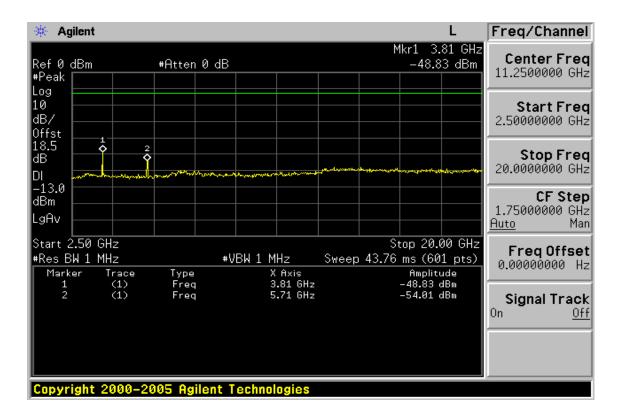
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Figure 8-17: Out of Band emission at antenna terminals-HSUPA B2 Channel Highest





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Figure 8-18: Band edge emission at antenna terminals -HSUPA B2 Channel Lowest

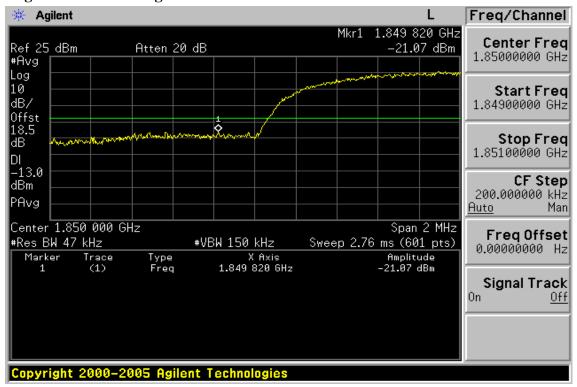


Figure 8-19: Band edge emission at antenna terminals –HSUPA B2 Channel Highest



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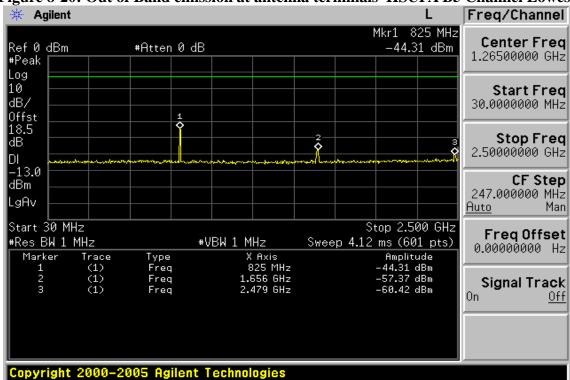
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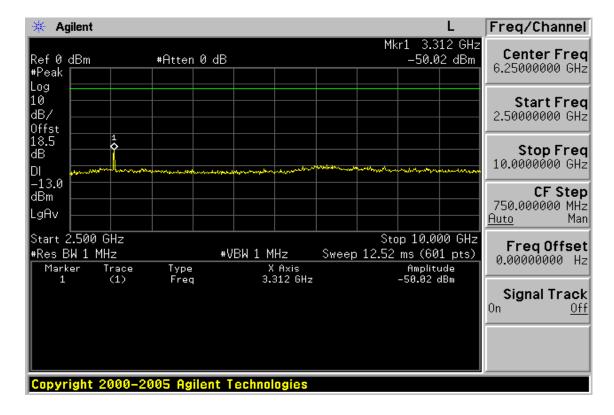
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Figure 8-20: Out of Band emission at antenna terminals-HSUPA B5 Channel Lowest



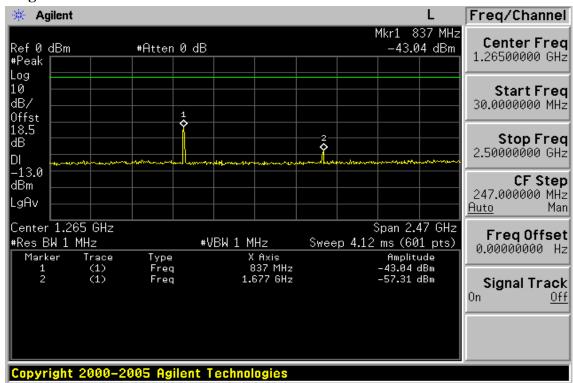


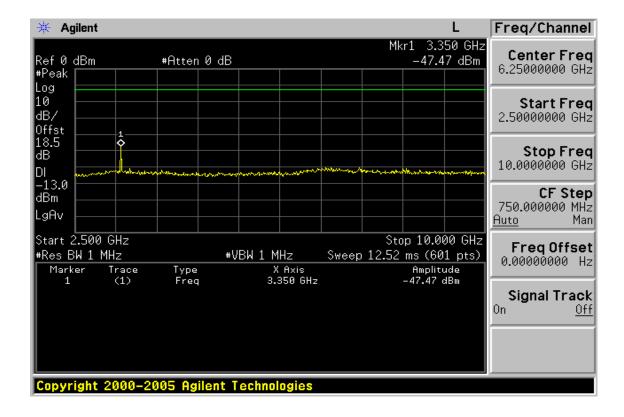
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Figure 8-21: Out of Band emission at antenna terminals -HSUPA B5 Channel Mid



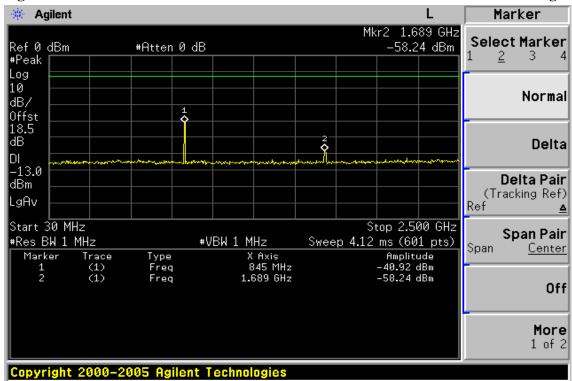


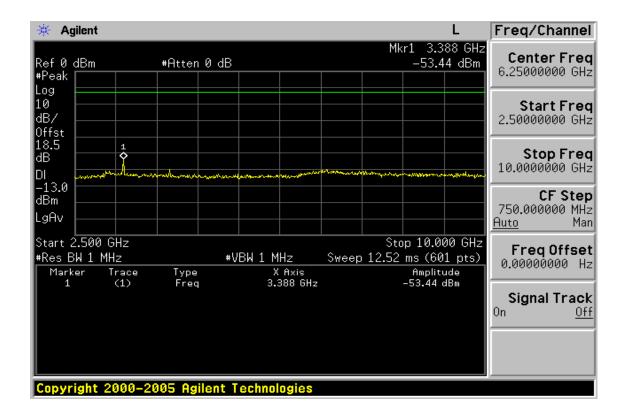
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Figure 8-22: Out of Band emission at antenna terminals-HSUPA B5 Channel Highest





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Figure 8-23: Band edge emission at antenna terminals –HSUPA B5 Channel Lowest

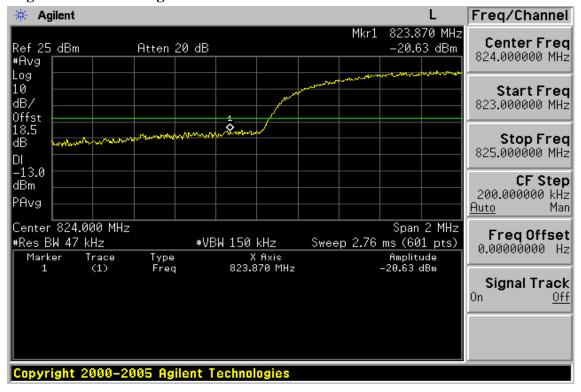
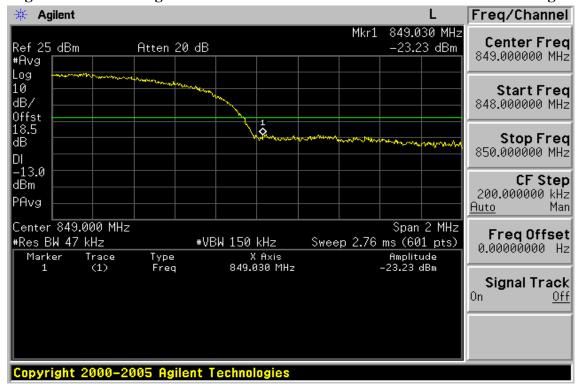


Figure 8-24: Band edge emission at antenna terminals –HSUPA B5 Channel Highest



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Taiwan Ltd. No.134, Wu Kung Road, Wuku Industrial Zone, Taipei County, Taiwan /台北縣五股工業區五工路 134 號

台灣檢驗科技股份有限公司

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9. FIELD STRENGTH OF SPURIOUS RADIATION MEASUREMENT

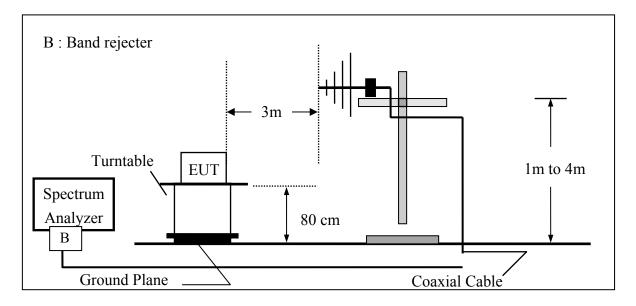
9.1. Standard Applicable:

According to FCC §2.1053,

FCC $\S22.917(a),\S24.238(a)$ the magnitude of each spurious and harmonic emission that can be detected when the equipment is operated under the conditions specified in the instruction manual and/ or alignment procedure, shall not be less than $43 + 10 \log$ (mean output power in watts) dBc below the mean power output outside a license's frequency block (-13dBm)

9.2. EUT Setup (Block Diagram of Configuration):

Radiated Emission Test Set-Up, Frequency Below 1000MHz



Ltd. No.134, Wu Kung Road, Wuku Industrial Zone, Taipei County, Taiwan /台北縣五股工業區五工路 134 號

台灣檢驗科技股份有限公司

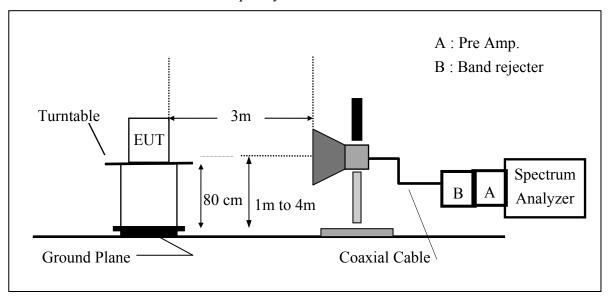
t (886-2) 2299-3279 f (886-2) 2298-0488



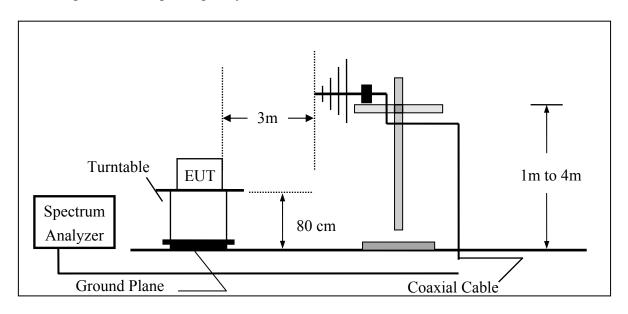
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Radiated Emission Test Set-UP Frequency Over 1 GHz



Band edge Test Set-Up, Frequency Below 1000MHz



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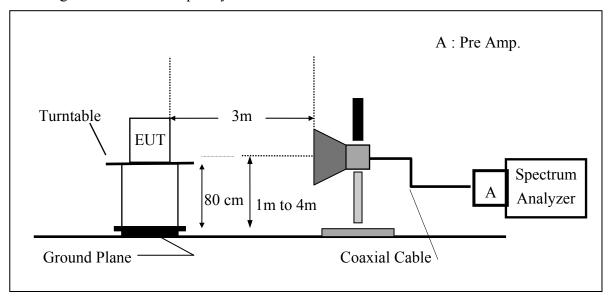
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Band edge Test Set-UP Frequency Over 1 GHz



9.3. Measurement Procedure:

The EUT was placed on a non-conductive: The measurement antenna was placed at a distance of 3 meters from the EUT. During the tests, the antenna height and the EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. This maximization process was repeated with the EUT positioned in each of its three orthogonal orientations.

The frequency range up to tenth harmonic was investigated for each of three fundamental frequency (low, middle and high channels). Once spurious emission was identified, the power of the emission was determined using the substitution method.

The spurious emissions attenuation was calculated as the difference between radiated power at the fundamental frequency and the spurious emissions frequency.

ERP= S.G. output (dBm) + Antenna Gain (dBd) - Cable Loss (dB)

EIRP = S.G. output (dBm) + Antenna Gain(dBi) - Cable Loss (dB)

9.4. Measurement Equipment Used:

Refer to section 2.4 in this report

9.5. Measurement Result:

Refer to attach tabular data sheets.

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Radiated Spurious Emission Measurement Result: GPRS 850 Mode

Operation Mode : TX CH Low E2 Mode Test Date: Oct. 29, 2009

Fundamental Frequency : 824.20 MHz Test By: Bondi Temperature Pol: Ver : 25°C

Humidity : 65%

| Freq. (MHz) | SPA. Reading (dBuV) | Ant.Pol. H/V | S.G Output (dBm) | Antenna Gain (dB/dBi) | Cable Loss (dB) | ERP/ EIRP (dBm) | Limit (dBm) | Safe Margin (dBm) |
|-------------|---------------------------|-----------------|------------------|-----------------------------|-----------------------|-----------------------|-------------|-------------------------|
| 36.79 | 50.08 | V | -52.65 | -4.16 | 0.91 | -57.72 | -13.00 | -44.72 |
| 67.83 | 45.53 | V | -66.16 | -0.95 | 1.14 | -68.25 | -13.00 | -55.25 |
| 92.08 | 48.90 | V | -54.03 | -7.75 | 1.29 | -63.07 | -13.00 | -50.07 |
| 126.03 | 42.52 | V | -56.99 | -7.78 | 1.48 | -66.25 | -13.00 | -53.25 |
| 823.98 | 71.37 | V | -15.02 | -7.87 | 3.62 | -26.52 | -13.00 | -13.52 |
| 1643.50 | 60.83 | V | -43.76 | 9.27 | 5.22 | -39.70 | -13.00 | -26.70 |
| 2475.50 | 53.63 | V | -47.36 | 10.07 | 6.53 | -43.82 | -13.00 | -30.82 |
| 3288.00 | | V | | 12.15 | 7.70 | | -13.00 | |
| 4121.00 | | V | | 12.61 | 8.86 | | -13.00 | |
| 4945.20 | | V | | 12.65 | 9.74 | | -13.00 | |
| 5769.40 | | V | | 13.55 | 10.54 | | -13.00 | |
| 6593.60 | | V | | 12.05 | 11.30 | | -13.00 | |
| 7417.80 | | V | | 11.49 | 12.10 | | -13.00 | |
| 8242.00 | | V | | 11.48 | 12.71 | | -13.00 | |

| | 30MHz - 80MHz: 5.04dB |
|-------------------------|------------------------|
| Measurement uncertainty | 80MHz -1000MHz: 3.76dB |
| | 1GHz - 13GHz: 4.45dB |

Remark:

- 1 The emission behaviors belong to narrowband spurious emission.
- 2 Remark"---" means that the emission level is too low to be measured
- 3 The result basic equation calculation is as follows:
- 4 ERP/EIRP (dBm) = SG Setting(dBm) + Antenna Gain (dB/dBi) Cable loss (dB)

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Radiated Spurious Emission Measurement Result: GPRS 850 Mode

Operation Mode : TX CH Low E2 Mode Test Date: Oct. 29, 2009

Fundamental Frequency : 824.20 MHz Test By: Bondi Temperature Pol: Hor · 25°C

Humidity : 65%

| Freq. (MHz) | SPA. Reading (dBuV) | Ant.Pol. H/V | S.G Output (dBm) | Antenna Gain (dB/dBi) | Cable Loss (dB) | ERP/ EIRP (dBm) | Limit (dBm) | Safe Margin (dBm) |
|-------------|---------------------------|-----------------|------------------|-----------------------------|-----------------------|-----------------------|-------------|-------------------------|
| 38.73 | 45.37 | Н | -57.82 | -3.25 | 0.90 | -61.97 | -13.00 | -48.97 |
| 58.13 | 41.14 | Н | -69.29 | -0.49 | 1.08 | -70.86 | -13.00 | -57.86 |
| 92.08 | 46.90 | Н | -56.69 | -7.75 | 1.29 | -65.73 | -13.00 | -52.73 |
| 126.03 | 41.73 | Н | -58.55 | -7.78 | 1.48 | -67.81 | -13.00 | -54.81 |
| 201.69 | 42.13 | Н | -59.44 | -7.84 | 1.72 | -69.00 | -13.00 | -56.00 |
| 823.98 | 83.38 | Н | -2.89 | -7.87 | 3.62 | -14.39 | -13.00 | -1.39 |
| 1643.50 | 60.11 | Н | -44.30 | 9.27 | 5.22 | -40.24 | -13.00 | -27.24 |
| 2475.50 | 57.18 | Н | -43.71 | 10.07 | 6.53 | -40.17 | -13.00 | -27.17 |
| 2963.00 | | Н | | 11.41 | 7.20 | | -13.00 | |
| 4121.00 | | Н | | 12.61 | 8.86 | | -13.00 | |
| 4945.20 | | Н | | 12.65 | 9.74 | | -13.00 | |
| 5769.40 | | Н | | 13.55 | 10.54 | | -13.00 | |
| 6593.60 | | Н | | 12.05 | 11.30 | | -13.00 | |
| 7417.80 | | Н | | 11.49 | 12.10 | | -13.00 | |
| 8242.00 | | Н | | 11.48 | 12.71 | | -13.00 | |

| | 30MHz - 80MHz: 5.04dB |
|-------------------------|------------------------|
| Measurement uncertainty | 80MHz -1000MHz: 3.76dB |
| | 1GHz - 13GHz: 4.45dB |

Remark:

- 1 The emission behaviors belong to narrowband spurious emission.
- 2 Remark"---" means that the emission level is too low to be measured
- 3 The result basic equation calculation is as follows:
- 4 ERP/EIRP (dBm) = SG Setting(dBm) + Antenna Gain (dB/dBi) Cable loss (dB)

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Radiated Spurious Emission Measurement Result: GPRS 850 Mode

Operation Mode : TX CH Mid E2 Mode Test Date: Oct. 29, 2009

Fundamental Frequency : 836.60 MHz Test By: Bondi Temperature : 25° C Pol: Ver

Humidity : 65%

| Freq. (MHz) | SPA. Reading (dBuV) | Ant.Pol. H/V | S.G Output (dBm) | Antenna Gain (dB/dBi) | Cable Loss (dB) | ERP/ EIRP (dBm) | Limit (dBm) | Safe Margin (dBm) |
|-------------|---------------------------|-----------------|------------------|-----------------------------|-----------------------|-----------------------|-------------|-------------------------|
| 36.79 | 49.40 | V | -53.33 | -4.16 | 0.91 | -58.40 | -13.00 | -45.40 |
| 67.83 | 44.79 | V | -66.90 | -0.95 | 1.14 | -68.99 | -13.00 | -55.99 |
| 92.08 | 47.18 | V | -55.75 | -7.75 | 1.29 | -64.79 | -13.00 | -51.79 |
| 126.03 | 43.48 | V | -56.03 | -7.78 | 1.48 | -65.29 | -13.00 | -52.29 |
| 1663.00 | 61.38 | V | -43.19 | 9.33 | 5.25 | -39.11 | -13.00 | -26.11 |
| 2508.00 | 52.22 | V | -48.57 | 10.08 | 6.58 | -45.07 | -13.00 | -32.07 |
| 3346.40 | | V | | 12.28 | 7.79 | | -13.00 | |
| 4183.00 | | V | | 12.62 | 8.93 | | -13.00 | |
| 5019.60 | | V | | 12.67 | 9.81 | | -13.00 | |
| 5856.20 | | V | | 13.68 | 10.62 | | -13.00 | |
| 6692.80 | | V | | 11.95 | 11.39 | | -13.00 | |
| 7529.40 | | V | | 11.45 | 12.20 | | -13.00 | |
| 8366.00 | | V | | 11.59 | 12.81 | | -13.00 | |

| | 30MHz - 80MHz: 5.04dB |
|-------------------------|------------------------|
| Measurement uncertainty | 80MHz -1000MHz: 3.76dB |
| | 1GHz - 13GHz: 4.45dB |

Remark:

- 1 The emission behaviors belongs to narrowband spurious emission.
- 2 Remark"---" means that the emission level is too low to be measured
- 3 The result basic equation calculation is as follows:
- 4 ERP/EIRP (dBm) = SG Setting(dBm) + Antenna Gain (dB/dBi) Cable loss (dB)

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Radiated Spurious Emission Measurement Result: GPRS 850 Mode

Operation Mode : TX CH Mid E2 Mode Test Date: Oct. 29, 2009

Fundamental Frequency : 836.60 MHz Test By: Bondi Temperature : 25°C Pol: Hor

Humidity : 65%

| Freq. (MHz) | SPA. Reading (dBuV) | Ant.Pol. H/V | S.G Output (dBm) | Antenna Gain (dB/dBi) | Cable Loss (dB) | ERP/ EIRP (dBm) | Limit (dBm) | Safe Margin (dBm) |
|-------------|---------------------------|-----------------|------------------|-----------------------------|-----------------------|-----------------------|-------------|-------------------------|
| 39.70 | 45.01 | Н | -57.88 | -2.79 | 0.89 | -61.57 | -13.00 | -48.57 |
| 58.13 | 40.56 | Н | -69.87 | -0.49 | 1.08 | -71.44 | -13.00 | -58.44 |
| 92.08 | 46.40 | Н | -57.19 | -7.75 | 1.29 | -66.23 | -13.00 | -53.23 |
| 126.03 | 42.79 | Н | -57.49 | -7.78 | 1.48 | -66.75 | -13.00 | -53.75 |
| 201.69 | 41.31 | Н | -60.26 | -7.84 | 1.72 | -69.82 | -13.00 | -56.82 |
| 1663.00 | 60.37 | Н | -44.02 | 9.33 | 5.25 | -39.94 | -13.00 | -26.94 |
| 2508.00 | 54.83 | Н | -45.88 | 10.08 | 6.58 | -42.37 | -13.00 | -29.37 |
| 3346.40 | | Н | | 12.28 | 7.79 | | -13.00 | |
| 4183.00 | | Н | | 12.62 | 8.93 | | -13.00 | |
| 5019.60 | | Н | | 12.67 | 9.81 | | -13.00 | |
| 5856.20 | | Н | | 13.68 | 10.62 | | -13.00 | |
| 6692.80 | | Н | | 11.95 | 11.39 | | -13.00 | |
| 7529.40 | | Н | | 11.45 | 12.20 | | -13.00 | |
| 8366.00 | | Н | | 11.59 | 12.81 | | -13.00 | |

| | 30MHz - 80MHz: 5.04dB |
|-------------------------|------------------------|
| Measurement uncertainty | 80MHz -1000MHz: 3.76dB |
| | 1GHz - 13GHz: 4.45dB |

Remark:

- 1 The emission behaviors belong to narrowband spurious emission.
- 2 Remark"---" means that the emission level is too low to be measured
- 3 The result basic equation calculation is as follows:
- 4 ERP/EIRP (dBm) = SG Setting(dBm) + Antenna Gain (dB/dBi) Cable loss (dB)

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Radiated Spurious Emission Measurement Result: GPRS 850 Mode

Operation Mode : TX CH High E2 Mode Test Date: Oct. 29, 2009

Fundamental Frequency : 848.80 MHz Test By: Bondi Temperature : 25° C Pol: Ver

Humidity : 65%

| Freq. (MHz) | SPA. Reading (dBuV) | Ant.Pol. H/V | S.G Output (dBm) | Antenna Gain (dB/dBi) | Cable Loss (dB) | ERP/ EIRP (dBm) | Limit (dBm) | Safe Margin (dBm) |
|-------------|---------------------------|-----------------|------------------|-----------------------------|-----------------------|-----------------------|-------------|-------------------------|
| 36.79 | 49.75 | V | -52.98 | -4.16 | 0.91 | -58.05 | -13.00 | -45.05 |
| 67.83 | 44.34 | V | -67.35 | -0.95 | 1.14 | -69.44 | -13.00 | -56.44 |
| 92.08 | 45.95 | V | -56.98 | -7.75 | 1.29 | -66.02 | -13.00 | -53.02 |
| 126.03 | 42.60 | V | -56.91 | -7.78 | 1.48 | -66.17 | -13.00 | -53.17 |
| 184.23 | 37.52 | V | -62.84 | -7.83 | 1.67 | -72.34 | -13.00 | -59.34 |
| 849.03 | 73.94 | V | -12.18 | -7.88 | 3.68 | -23.74 | -13.00 | -10.74 |
| 1695.50 | 61.95 | V | -42.59 | 9.43 | 5.30 | -38.46 | -13.00 | -25.46 |
| 2540.50 | 53.44 | V | -47.23 | 10.18 | 6.63 | -43.67 | -13.00 | -30.67 |
| 3395.20 | | V | | 12.38 | 7.87 | | -13.00 | |
| 4244.00 | | V | | 12.63 | 9.00 | | -13.00 | |
| 5092.80 | | V | | 12.74 | 9.88 | | -13.00 | |
| 5941.60 | | V | | 13.81 | 10.70 | | -13.00 | |
| 6790.40 | | V | | 11.86 | 11.48 | | -13.00 | |
| 7639.20 | | V | | 11.40 | 12.27 | | -13.00 | |
| 8488.00 | | V | | 11.70 | 12.91 | | -13.00 | |

| | 30MHz - 80MHz: 5.04dB |
|-------------------------|------------------------|
| Measurement uncertainty | 80MHz -1000MHz: 3.76dB |
| | 1GHz - 13GHz: 4.45dB |

Remark:

- 1 The emission behaviors belong to narrowband spurious emission.
- 2 Remark"---" means that the emission level is too low to be measured
- 3 The result basic equation calculation is as follows:
- 4 ERP/EIRP (dBm) = SG Setting(dBm) + Antenna Gain (dB/dBi) Cable loss (dB)

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Radiated Spurious Emission Measurement Result: GPRS 850 Mode

Operation Mode : TX CH High E2 Mode Oct. 29, 2009 Test Date:

Fundamental Frequency: 848.80 MHz Test By: Bondi Temperature : 25°C Pol: Hor

Humidity : 65%

| Freq. (MHz) | SPA. Reading (dBuV) | Ant.Pol. H/V | S.G Output (dBm) | Antenna Gain (dB/dBi) | Cable Loss (dB) | ERP/ EIRP (dBm) | Limit (dBm) | Safe Margin (dBm) |
|-------------|---------------------------|-----------------|------------------|-----------------------------|-----------------------|-----------------------|-------------|-------------------------|
| 41.64 | 45.57 | Н | -57.94 | -2.31 | 0.93 | -61.18 | -13.00 | -48.18 |
| 56.19 | 40.40 | Н | -69.24 | -0.51 | 1.09 | -70.84 | -13.00 | -57.84 |
| 92.08 | 45.00 | Н | -58.59 | -7.75 | 1.29 | -67.63 | -13.00 | -54.63 |
| 128.94 | 41.48 | Н | -58.49 | -7.78 | 1.49 | -67.77 | -13.00 | -54.77 |
| 849.00 | 80.56 | Н | -5.63 | -7.88 | 3.68 | -17.19 | -13.00 | -4.19 |
| 1695.50 | 60.37 | Н | -43.98 | 9.43 | 5.30 | -39.86 | -13.00 | -26.86 |
| 2540.50 | 53.65 | Н | -46.96 | 10.18 | 6.63 | -43.41 | -13.00 | -30.41 |
| 3395.20 | | Н | | 12.38 | 7.87 | | -13.00 | |
| 4244.00 | | Н | | 12.63 | 9.00 | | -13.00 | |
| 5092.80 | | Н | | 12.74 | 9.88 | | -13.00 | |
| 5941.60 | | Н | | 13.81 | 10.70 | | -13.00 | |
| 6790.40 | | Н | | 11.86 | 11.48 | | -13.00 | |
| 7639.20 | | Н | | 11.40 | 12.27 | | -13.00 | |
| 8488.00 | | Н | | 11.70 | 12.91 | | -13.00 | |

| | 30MHz - 80MHz: 5.04dB |
|-------------------------|------------------------|
| Measurement uncertainty | 80MHz -1000MHz: 3.76dB |
| | 1GHz - 13GHz: 4.45dB |

Remark:

- 1 The emission behaviors belong to narrowband spurious emission.
- 2 Remark"---" means that the emission level is too low to be measured
- 3 The result basic equation calculation is as follows:
- 4 ERP/EIRP (dBm) = SG Setting(dBm) + Antenna Gain (dB/dBi) Cable loss (dB)

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Radiated Spurious Emission Measurement Result: GPRS 1900 Mode

Operation Mode : TX CH Low H Mode Oct. 29, 2009 Test Date:

Fundamental Frequency: 1850.20MHz Test By: Bondi Ver Temperature : 25°C Pol:

Humidity : 65%

| Freq. (MHz) | SPA. Reading (dBuV) | Ant.Pol. H/V | S.G Output (dBm) | Antenna Gain (dB/dBi) | Cable Loss (dB) | ERP/ EIRP (dBm) | Limit (dBm) | Safe Margin (dBm) |
|----------------|---------------------|-----------------|------------------|-----------------------------|-----------------------|-----------------------|-------------|-------------------------|
| 38.73 | 45.65 | V | -56.52 | -3.25 | 0.90 | -60.66 | -13.00 | -47.66 |
| 77.53 | 44.65 | V | -66.77 | -2.12 | 1.21 | -70.10 | -13.00 | -57.10 |
| 90.14 | 49.32 | V | -53.86 | -7.75 | 1.27 | -62.88 | -13.00 | -49.88 |
| 106.63 | 44.72 | V | -56.59 | -7.77 | 1.39 | -65.74 | -13.00 | -52.74 |
| 1850.00 | 66.11 | V | -38.28 | 9.90 | 5.56 | -33.94 | -13.00 | -20.94 |
| 3700.40 | | V | | 12.61 | 8.31 | | -13.00 | |
| 5550.60 | 45.76 | V | -45.08 | 13.23 | 10.33 | -42.18 | -13.00 | -29.18 |
| 7400.80 | | V | | 11.50 | 12.08 | | -13.00 | |
| 9251.00 | | V | | 11.92 | 13.50 | | -13.00 | |
| 11101.20 | | V | | 11.66 | 15.11 | | -13.00 | |
| 12951.40 | | V | | 13.63 | 16.60 | | -13.00 | |
| 14801.60 | | V | | 12.76 | 17.95 | | -13.00 | |
| 16651.80 | | V | | 15.92 | 19.14 | | -13.00 | |

| | 30MHz - 80MHz: 5.04dB |
|-------------------------|------------------------|
| Measurement uncertainty | 80MHz -1000MHz: 3.76dB |
| | 1GHz - 13GHz: 4.45dB |

Remark:

- 1 The emission behaviors belong to narrowband spurious emission.
- 2 Remark"---" means that the emission level is too low to be measured
- 3 The result basic equation calculation is as follows:
- 4 ERP/EIRP (dBm) = SG Setting(dBm) + Antenna Gain (dB/dBi) Cable loss (dB)

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Radiated Spurious Emission Measurement Result: GPRS 1900 Mode

Operation Mode : TX CH Low H Mode Test Date: Oct. 29, 2009

Fundamental Frequency : 1850.20 MHz Test By: Bondi Temperature : 25°C Pol: Hor

Humidity : 65%

| Freq. (MHz) | SPA. Reading (dBuV) | Ant.Pol. H/V | S.G Output (dBm) | Antenna Gain (dB/dBi) | Cable Loss (dB) | ERP/ EIRP (dBm) | Limit (dBm) | Safe Margin (dBm) |
|-------------|---------------------|-----------------|------------------|-----------------------------|-----------------------|-----------------------|-------------|-------------------------|
| 39.70 | 46.96 | Н | -55.93 | -2.79 | 0.89 | -59.62 | -13.00 | -46.62 |
| 56.19 | 39.60 | Н | -70.04 | -0.51 | 1.09 | -71.64 | -13.00 | -58.64 |
| 90.14 | 46.10 | Н | -57.63 | -7.75 | 1.27 | -66.65 | -13.00 | -53.65 |
| 106.63 | 39.95 | Н | -62.36 | -7.77 | 1.39 | -71.51 | -13.00 | -58.51 |
| 1850.00 | 79.12 | Н | -25.06 | 9.90 | 5.56 | -20.72 | -13.00 | -7.72 |
| 3700.40 | | Н | | 12.61 | 8.31 | | -13.00 | |
| 5550.60 | 43.92 | Н | -47.13 | 13.23 | 10.33 | -44.23 | -13.00 | -31.23 |
| 7400.80 | | Н | | 11.50 | 12.08 | | -13.00 | |
| 9251.00 | | Н | | 11.92 | 13.50 | | -13.00 | |
| 11101.20 | | Н | | 11.66 | 15.11 | | -13.00 | |
| 12951.40 | | Н | | 13.63 | 16.60 | | -13.00 | |
| 14801.60 | | Н | | 12.76 | 17.95 | | -13.00 | |
| 16651.80 | | Н | | 15.92 | 19.14 | _ | -13.00 | |

| | 30MHz - 80MHz: 5.04dB |
|-------------------------|------------------------|
| Measurement uncertainty | 80MHz -1000MHz: 3.76dB |
| | 1GHz - 13GHz: 4.45dB |

Remark:

- 1 The emission behaviors belong to narrowband spurious emission.
- 2 Remark"---" means that the emission level is too low to be measured
- 3 The result basic equation calculation is as follows:
- 4 ERP/EIRP (dBm) = SG Setting(dBm) + Antenna Gain (dB/dBi) Cable loss (dB)

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Radiated Spurious Emission Measurement Result: GPRS 1900 Mode

Operation Mode : TX CH Mid H Mode Test Date: Oct. 29, 2009

Fundamental Frequency: 1880MHz
Temperature: 25°C
Test By: Bondi
Ver

Humidity : 65%

| Freq. (MHz) | SPA. Reading (dBuV) | Ant.Pol. H/V | S.G Output (dBm) | Antenna Gain (dB/dBi) | Cable Loss (dB) | ERP/ EIRP (dBm) | Limit (dBm) | Safe Margin (dBm) |
|-------------|---------------------|-----------------|------------------|-----------------------------|-----------------------|-----------------------|-------------|-------------------------|
| 38.73 | 46.05 | V | -56.12 | -3.25 | 0.90 | -60.26 | -13.00 | -47.26 |
| 77.53 | 45.72 | V | -65.70 | -2.12 | 1.21 | -69.03 | -13.00 | -56.03 |
| 90.14 | 48.76 | V | -54.42 | -7.75 | 1.27 | -63.44 | -13.00 | -50.44 |
| 106.63 | 47.62 | V | -53.69 | -7.77 | 1.39 | -62.84 | -13.00 | -49.84 |
| 3760.00 | | V | | 12.60 | 8.39 | | -13.00 | |
| 5640.00 | 44.85 | V | -45.73 | 13.36 | 10.41 | -42.78 | -13.00 | -29.78 |
| 7520.00 | | V | | 11.45 | 12.19 | | -13.00 | |
| 9400.00 | | V | | 11.93 | 13.61 | | -13.00 | |
| 11280.00 | | V | | 11.92 | 15.27 | | -13.00 | |
| 13160.00 | | V | | 13.33 | 16.71 | | -13.00 | |
| 15040.00 | | V | | 13.76 | 18.15 | | -13.00 | |
| 16920.00 | | V | | 15.27 | 19.32 | | -13.00 | |

| | 30MHz - 80MHz: 5.04dB |
|-------------------------|------------------------|
| Measurement uncertainty | 80MHz -1000MHz: 3.76dB |
| | 1GHz - 13GHz: 4.45dB |

Remark:

- 1 The emission behaviors belong to narrowband spurious emission.
- 2 Remark"---" means that the emission level is too low to be measured
- 3 The result basic equation calculation is as follows:
- 4 ERP/EIRP (dBm) = SG Setting(dBm) + Antenna Gain (dB/dBi) Cable loss (dB)

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Radiated Spurious Emission Measurement Result: GPRS 1900 Mode

Operation Mode : TX CH Mid H Mode Test Date: Oct. 29, 2009

Fundamental Frequency : 1880 MHz Test By: Bondi Temperature : 25°C Pol: Hor

Humidity : 65%

| Freq. (MHz) | SPA. Reading (dBuV) | Ant.Pol. H/V | S.G Output (dBm) | Antenna Gain (dB/dBi) | Cable Loss (dB) | ERP/ EIRP (dBm) | Limit (dBm) | Safe Margin (dBm) |
|-------------|---------------------|-----------------|------------------|-----------------------------|-----------------------|-----------------------|-------------|-------------------------|
| 39.70 | 45.85 | Н | -57.04 | -2.79 | 0.89 | -60.73 | -13.00 | -47.73 |
| 56.19 | 38.50 | Н | -71.14 | -0.51 | 1.09 | -72.74 | -13.00 | -59.74 |
| 90.14 | 43.13 | Н | -60.60 | -7.75 | 1.27 | -69.62 | -13.00 | -56.62 |
| 106.63 | 40.56 | Н | -61.75 | -7.77 | 1.39 | -70.90 | -13.00 | -57.90 |
| 3760.00 | | Н | | 12.60 | 8.39 | | -13.00 | |
| 5640.00 | 44.01 | Н | -46.74 | 13.36 | 10.41 | -43.79 | -13.00 | -30.79 |
| 7520.00 | | Н | | 11.45 | 12.19 | | -13.00 | |
| 9400.00 | | Н | | 11.93 | 13.61 | | -13.00 | |
| 11280.00 | | Н | | 11.92 | 15.27 | | -13.00 | |
| 13160.00 | | Н | | 13.33 | 16.71 | | -13.00 | |
| 15040.00 | | Н | | 13.76 | 18.15 | | -13.00 | |
| 16920.00 | | Н | | 15.27 | 19.32 | | -13.00 | |

| | 30MHz - 80MHz: 5.04dB |
|-------------------------|------------------------|
| Measurement uncertainty | 80MHz -1000MHz: 3.76dB |
| | 1GHz - 13GHz: 4.45dB |

Remark:

- 1 The emission behaviors belong to narrowband spurious emission.
- 2 Remark"---" means that the emission level is too low to be measured
- 3 The result basic equation calculation is as follows:
- 4 ERP/EIRP (dBm) = SG Setting(dBm) + Antenna Gain (dB/dBi) Cable loss (dB)

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Radiated Spurious Emission Measurement Result: GPRS 1900 Mode

Operation Mode : TX CH High H Mode Test Date: Oct. 29, 2009

Fundamental Frequency: 1909.8 MHz Test By: Bondi Temperature : 25°C Pol: Ver

Humidity : 65%

| Freq. (MHz) | SPA. Reading (dBuV) | Ant.Pol. H/V | S.G Out- put (dBm) | Antenna Gain (dB/dBi) | Cable Loss (dB) | ERP/ EIRP (dBm) | Limit (dBm) | Safe Margin (dBm) |
|----------------|---------------------|-----------------|--------------------------|-----------------------------|-----------------------|-----------------------|-------------|-------------------------|
| 38.73 | 46.57 | V | -55.60 | -3.25 | 0.90 | -59.74 | -13.00 | -46.74 |
| 65.89 | 41.85 | V | -69.74 | -0.83 | 1.12 | -71.69 | -13.00 | -58.69 |
| 92.08 | 48.39 | V | -54.54 | -7.75 | 1.29 | -63.58 | -13.00 | -50.58 |
| 106.63 | 47.35 | V | -53.96 | -7.77 | 1.39 | -63.11 | -13.00 | -50.11 |
| 1910.00 | 66.16 | V | -38.17 | 10.08 | 5.66 | -33.75 | -13.00 | -20.75 |
| 3819.60 | 46.72 | V | -50.67 | 12.60 | 8.47 | -46.54 | -13.00 | -33.54 |
| 5729.40 | | V | | 13.49 | 10.50 | | -13.00 | |
| 7639.20 | | V | | 11.40 | 12.27 | | -13.00 | |
| 9549.00 | | V | | 11.95 | 13.74 | | -13.00 | |
| 11458.80 | | V | | 12.17 | 15.43 | | -13.00 | |
| 13368.60 | | V | | 12.97 | 16.82 | | -13.00 | |
| 15278.40 | | V | | 15.00 | 18.29 | | -13.00 | |
| 17188.20 | | V | | 14.47 | 19.52 | | -13.00 | |
| 19098.00 | | V | | 18.66 | 20.78 | | -13.00 | |

| | 30MHz - 80MHz: 5.04dB |
|-------------------------|------------------------|
| Measurement uncertainty | 80MHz -1000MHz: 3.76dB |
| | 1GHz - 13GHz: 4.45dB |

Remark:

- 1 The emission behaviors belong to narrowband spurious emission.
- 2 Remark"---" means that the emission level is too low to be measured
- 3 The result basic equation calculation is as follows:
- 4 ERP/EIRP (dBm) = SG Setting(dBm) + Antenna Gain (dB/dBi) Cable loss (dB)

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Radiated Spurious Emission Measurement Result: GPRS 1900 Mode

Operation Mode : TX CH High H Mode Test Date: Oct. 29, 2009

Fundamental Frequency : 1909.8 MHz Test By: Bondi Temperature : 25° C Pol: Hor

Humidity : 65%

| Freq. (MHz) | SPA. Reading (dBuV) | Ant.Pol. H/V | S.G Out- put (dBm) | Antenna Gain (dB/dBi) | Cable Loss (dB) | ERP/ EIRP (dBm) | Limit (dBm) | Safe Margin (dBm) |
|-------------|---------------------|-----------------|--------------------------|-----------------------------|-----------------------|-----------------------|-------------|-------------------------|
| 39.70 | 46.91 | Н | -55.98 | -2.79 | 0.89 | -59.67 | -13.00 | -46.67 |
| 56.19 | 39.18 | Н | -70.46 | -0.51 | 1.09 | -72.06 | -13.00 | -59.06 |
| 90.14 | 45.34 | Н | -58.39 | -7.75 | 1.27 | -67.41 | -13.00 | -54.41 |
| 106.63 | 41.45 | Н | -60.86 | -7.77 | 1.39 | -70.01 | -13.00 | -57.01 |
| 1910.01 | 80.53 | Н | -23.58 | 10.08 | 5.66 | -19.16 | -13.00 | -6.16 |
| 3819.60 | | Н | | 12.60 | 8.47 | | -13.00 | |
| 5729.40 | 48.14 | Н | -42.31 | 13.49 | 10.50 | -39.32 | -13.00 | -26.32 |
| 7639.20 | | Н | | 11.40 | 12.27 | | -13.00 | |
| 9549.00 | | Н | | 11.95 | 13.74 | | -13.00 | |
| 11458.80 | | Н | | 12.17 | 15.43 | | -13.00 | |
| 13368.60 | | Н | | 12.97 | 16.82 | | -13.00 | |
| 15278.40 | | Н | | 15.00 | 18.29 | | -13.00 | |
| 17188.20 | | Н | | 14.47 | 19.52 | | -13.00 | |
| 19098.00 | | Н | | 18.66 | 20.78 | | -13.00 | |

| | 30MHz - 80MHz: 5.04dB |
|-------------------------|------------------------|
| Measurement uncertainty | 80MHz -1000MHz: 3.76dB |
| | 1GHz - 13GHz: 4.45dB |

Remark:

- 1 The emission behaviors belong to narrowband spurious emission.
- 2 Remark"---" means that the emission level is too low to be measured
- 3 The result basic equation calculation is as follows:
- 4 ERP/EIRP (dBm) = SG Setting(dBm) + Antenna Gain (dB/dBi) Cable loss (dB)

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Radiated Spurious Emission Measurement Result: HSUPA Band II Mode

Operation Mode : TX CH Low H Mode Test Date: Oct. 29, 2009

Fundamental Frequency : 1852.40 MHz Test By: Bondi Temperature : 25°C Pol: Ver

Humidity : 65%

| Freq. (MHz) | SPA. Reading (dBuV) | Ant.Pol. H/V | S.G Output (dBm) | Antenna Gain (dB/dBi) | Cable Loss (dB) | ERP/ EIRP (dBm) | Limit (dBm) | Safe Margin (dBm) |
|-------------|---------------------------|-----------------|------------------|-----------------------------|-----------------------|-----------------------|-------------|-------------------------|
| 36.79 | 48.42 | V | -54.31 | -4.16 | 0.91 | -59.38 | -13.00 | -46.38 |
| 64.92 | 43.54 | V | -68.01 | -0.77 | 1.11 | -69.89 | -13.00 | -56.89 |
| 92.08 | 47.84 | V | -55.09 | -7.75 | 1.29 | -64.13 | -13.00 | -51.13 |
| 124.09 | 34.13 | V | -65.56 | -7.78 | 1.47 | -74.81 | -13.00 | -61.81 |
| 1850.00 | 63.45 | V | -40.94 | 9.90 | 5.56 | -36.60 | -13.00 | -23.60 |
| 3704.80 | | V | | 12.61 | 8.31 | | -13.00 | |
| 5557.20 | 52.71 | V | -38.11 | 13.24 | 10.33 | -35.21 | -13.00 | -22.21 |
| 7409.60 | | V | | 11.49 | 12.09 | | -13.00 | |
| 9262.00 | | V | | 11.92 | 13.51 | | -13.00 | |
| 11114.40 | | V | | 11.68 | 15.12 | | -13.00 | |
| 12966.80 | | V | | 13.62 | 16.61 | | -13.00 | |
| 14819.20 | | V | | 12.83 | 17.96 | | -13.00 | |
| 16671.60 | | V | | 15.87 | 19.15 | | -13.00 | |
| 18524.00 | | V | | 18.74 | 10.86 | | -13.00 | |

| | 30MHz - 80MHz: 5.04dB |
|-------------------------|------------------------|
| Measurement uncertainty | 80MHz -1000MHz: 3.76dB |
| | 1GHz - 13GHz: 4.45dB |

Remark:

- 1 The emission behaviors belong to narrowband spurious emission.
- 2 Remark"---" means that the emission level is too low to be measured
- 3 The result basic equation calculation is as follows:
- 4 ERP/EIRP (dBm) = SG Setting(dBm) + Antenna Gain (dB/dBi) Cable loss (dB)

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Radiated Spurious Emission Measurement Result: HSUPA Band II Mode

Operation Mode : TX CH Low H Mode Oct. 29, 2009 Test Date:

Fundamental Frequency: 1852.40MHz Test By: Bondi Temperature : 25°C Pol: Hor

Humidity : 65%

| Freq. (MHz) | SPA. Reading (dBuV) | Ant.Pol. H/V | S.G Output (dBm) | Antenna Gain (dB/dBi) | Cable Loss (dB) | ERP/ EIRP (dBm) | Limit (dBm) | Safe Margin (dBm) |
|-------------|---------------------------|-----------------|------------------|-----------------------------|-----------------------|-----------------------|-------------|-------------------------|
| 38.73 | 45.04 | Н | -58.15 | -3.25 | 0.90 | -62.30 | -13.00 | -49.30 |
| 56.19 | 39.99 | Н | -69.65 | -0.51 | 1.09 | -71.25 | -13.00 | -58.25 |
| 67.83 | 41.56 | Н | -70.50 | -0.95 | 1.14 | -72.59 | -13.00 | -59.59 |
| 92.08 | 45.78 | Н | -57.81 | -7.75 | 1.29 | -66.85 | -13.00 | -53.85 |
| 1850.00 | 77.34 | Н | -26.84 | 9.90 | 5.56 | -22.50 | -13.00 | -9.50 |
| 3704.80 | | Н | | 12.61 | 8.31 | | -13.00 | |
| 5557.20 | 52.54 | Н | -38.49 | 13.24 | 10.33 | -35.59 | -13.00 | -22.59 |
| 7409.60 | | Н | | 11.49 | 12.09 | | -13.00 | |
| 9262.00 | | Н | | 11.92 | 13.51 | | -13.00 | |
| 11114.40 | | Н | | 11.68 | 15.12 | | -13.00 | |
| 12966.80 | | Н | | 13.62 | 16.61 | | -13.00 | |
| 14819.20 | | Н | | 12.83 | 17.96 | | -13.00 | |
| 16671.60 | | Н | | 15.87 | 19.15 | | -13.00 | |
| 18524.00 | | Н | | 18.74 | 10.86 | | -13.00 | |

| | 30MHz - 80MHz: 5.04dB |
|-------------------------|------------------------|
| Measurement uncertainty | 80MHz -1000MHz: 3.76dB |
| | 1GHz - 13GHz: 4.45dB |

Remark:

- 1 The emission behaviors belong to narrowband spurious emission.
- 2 Remark"---" means that the emission level is too low to be measured
- 3 The result basic equation calculation is as follows:
- 4 ERP/EIRP (dBm) = SG Setting(dBm) + Antenna Gain (dB/dBi) Cable loss (dB)

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Radiated Spurious Emission Measurement Result: HSUPA Band II Mode

Operation Mode : TX CH Mid H Mode Test Date: Oct. 29, 2009

Fundamental Frequency : 1880 MHz Test By: Bondi Temperature : 25°C Pol: Ver

Humidity : 65%

| Freq. (MHz) | SPA. Reading (dBuV) | Ant.Pol. H/V | S.G Output (dBm) | Antenna Gain (dB/dBi) | Cable Loss (dB) | ERP/ EIRP (dBm) | Limit (dBm) | Safe Margin (dBm) |
|-------------|---------------------|-----------------|------------------|-----------------------------|-----------------------|-----------------------|-------------|-------------------------|
| 36.70 | 48.30 | V | -54.46 | -4.20 | 0.91 | -59.56 | -13.00 | -46.56 |
| 62.98 | 43.92 | V | -67.53 | -0.64 | 1.10 | -69.27 | -13.00 | -56.27 |
| 92.08 | 46.39 | V | -56.54 | -7.75 | 1.29 | -65.58 | -13.00 | -52.58 |
| 153.19 | 32.83 | V | -64.75 | -7.80 | 1.60 | -74.15 | -13.00 | -61.15 |
| 177.44 | 32.74 | V | -67.01 | -7.82 | 1.66 | -76.49 | -13.00 | -63.49 |
| 3760.00 | | V | | 12.60 | 8.39 | | -13.00 | |
| 5640.00 | 47.85 | V | -42.73 | 13.36 | 10.41 | -39.78 | -13.00 | -26.78 |
| 7520.00 | | V | | 11.45 | 12.19 | | -13.00 | |
| 9400.00 | | V | | 11.93 | 13.61 | | -13.00 | |
| 11280.00 | | V | | 11.92 | 15.27 | | -13.00 | |
| 13160.00 | | V | | 13.33 | 16.71 | | -13.00 | |
| 15040.00 | | V | | 13.76 | 18.15 | | -13.00 | |
| 16920.00 | | V | | 15.27 | 19.32 | | -13.00 | |
| 18800.00 | | V | | 18.68 | 16.58 | | -13.00 | |

| | 30MHz - 80MHz: 5.04dB |
|-------------------------|------------------------|
| Measurement uncertainty | 80MHz -1000MHz: 3.76dB |
| | 1GHz - 13GHz: 4.45dB |

Remark:

- 1 The emission behaviors belong to narrowband spurious emission.
- 2 Remark"---" means that the emission level is too low to be measured
- 3 The result basic equation calculation is as follows:
- 4 ERP/EIRP (dBm) = SG Setting(dBm) + Antenna Gain (dB/dBi) Cable loss (dB)

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Radiated Spurious Emission Measurement Result: HSUPA Band II Mode

Operation Mode : TX CH Mid H Mode Test Date: Oct. 29, 2009

Fundamental Frequency: 1880MHz Test By: Bondi Pol: Temperature Hor : 25°C

Humidity : 65%

| Freq. (MHz) | SPA. Reading (dBuV) | Ant.Pol. H/V | S.G Output (dBm) | Antenna Gain (dB/dBi) | Cable Loss (dB) | ERP/ EIRP (dBm) | Limit (dBm) | Safe Margin (dBm) |
|-------------|---------------------|-----------------|------------------|-----------------------------|-----------------------|-----------------------|-------------|-------------------------|
| 36.79 | 45.47 | Н | -58.33 | -4.16 | 0.91 | -63.39 | -13.00 | -50.39 |
| 56.19 | 40.34 | Н | -69.30 | -0.51 | 1.09 | -70.90 | -13.00 | -57.90 |
| 70.74 | 40.40 | Н | -71.91 | -1.18 | 1.16 | -74.25 | -13.00 | -61.25 |
| 92.08 | 45.71 | Н | -57.88 | -7.75 | 1.29 | -66.92 | -13.00 | -53.92 |
| 158.04 | 32.86 | Н | -65.53 | -7.81 | 1.61 | -74.95 | -13.00 | -61.95 |
| 3760.00 | | Н | | 12.60 | 8.39 | | -13.00 | |
| 5640.00 | 46.54 | Н | -44.21 | 13.36 | 10.41 | -41.26 | -13.00 | -28.26 |
| 7520.00 | | Н | | 11.45 | 12.19 | | -13.00 | |
| 9400.00 | | Н | | 11.93 | 13.61 | | -13.00 | |
| 11280.00 | | Н | | 11.92 | 15.27 | | -13.00 | |
| 13160.00 | | Н | | 13.33 | 16.71 | | -13.00 | |
| 15040.00 | | Н | | 13.76 | 18.15 | | -13.00 | |
| 16920.00 | | Н | | 15.27 | 19.32 | | -13.00 | |
| 18800.00 | | Н | | 18.68 | 16.58 | | -13.00 | |

| | 30MHz - 80MHz: 5.04dB |
|-------------------------|------------------------|
| Measurement uncertainty | 80MHz -1000MHz: 3.76dB |
| | 1GHz - 13GHz: 4.45dB |

Remark:

- 1 The emission behaviors belong to narrowband spurious emission.
- 2 Remark"---" means that the emission level is too low to be measured
- 3 The result basic equation calculation is as follows:
- 4 ERP/EIRP (dBm) = SG Setting(dBm) + Antenna Gain (dB/dBi) Cable loss (dB)

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Radiated Spurious Emission Measurement Result: HSUPA Band II Mode

Operation Mode : TX CH High H Mode Test Date: Oct. 29, 2009

Fundamental Frequency: 1907.6 MHz
Temperature: 25°C
Test By:
Pol:
Ver

Humidity : 65%

| Freq. (MHz) | SPA. Reading (dBuV) | Ant.Pol. H/V | S.G Output (dBm) | Antenna Gain (dB/dBi) | Cable Loss (dB) | ERP/ EIRP (dBm) | Limit (dBm) | Safe Margin (dBm) |
|-------------|---------------------|-----------------|------------------|-----------------------------|-----------------------|-----------------------|-------------|-------------------------|
| 36.79 | 49.24 | V | -53.49 | -4.16 | 0.91 | -58.56 | -13.00 | -45.56 |
| 62.98 | 44.82 | V | -66.63 | -0.64 | 1.10 | -68.37 | -13.00 | -55.37 |
| 92.08 | 48.26 | V | -54.67 | -7.75 | 1.29 | -63.71 | -13.00 | -50.71 |
| 153.19 | 33.39 | V | -64.19 | -7.80 | 1.60 | -73.59 | -13.00 | -60.59 |
| 534.40 | 33.89 | V | -59.11 | -7.75 | 2.91 | -69.77 | -13.00 | -56.77 |
| 1910.00 | 51.53 | V | -52.80 | 10.08 | 5.66 | -48.38 | -13.00 | -35.38 |
| 3815.20 | | V | | 12.60 | 8.46 | | -13.00 | |
| 5722.80 | 46.27 | V | -44.06 | 13.48 | 10.49 | -41.07 | -13.00 | -28.07 |
| 7630.40 | | V | | 11.41 | 12.27 | | -13.00 | |
| 9538.00 | | V | | 11.95 | 13.73 | | -13.00 | |
| 11445.60 | | V | | 12.15 | 15.42 | | -13.00 | |
| 13353.20 | | V | | 13.00 | 16.81 | | -13.00 | |
| 15260.80 | | V | | 14.91 | 18.28 | | -13.00 | |
| 17168.40 | | V | | 14.53 | 19.50 | | -13.00 | |
| 19076.00 | | V | | 18.65 | 20.76 | | -13.00 | |

| | 30MHz - 80MHz: 5.04dB |
|-------------------------|------------------------|
| Measurement uncertainty | 80MHz -1000MHz: 3.76dB |
| | 1GHz - 13GHz: 4.45dB |

Remark:

- 1 The emission behaviors belong to narrowband spurious emission.
- 2 Remark"---" means that the emission level is too low to be measured
- 3 The result basic equation calculation is as follows:
- 4 ERP/EIRP (dBm) = SG Setting(dBm) + Antenna Gain (dB/dBi) Cable loss (dB)

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Radiated Spurious Emission Measurement Result: HSUPA Band II Mode

Operation Mode : TX CH High H Mode Test Date: Oct. 29, 2009

Fundamental Frequency : 1907.6 MHz Test By: Bondi Temperature : 25° C Pol: Hor

Humidity : 65%

| Freq. (MHz) | SPA. Reading (dBuV) | Ant.Pol. H/V | S.G Out- put (dBm) | Antenna Gain (dB/dBi) | Cable Loss (dB) | ERP/ EIRP (dBm) | Limit (dBm) | Safe Margin (dBm) |
|-------------|---------------------|-----------------|--------------------------|-----------------------------|-----------------------|-----------------------|-------------|-------------------------|
| 36.79 | 46.44 | Н | -57.36 | -4.16 | 0.91 | -62.42 | -13.00 | -49.42 |
| 56.19 | 41.28 | Н | -68.36 | -0.51 | 1.09 | -69.96 | -13.00 | -56.96 |
| 70.74 | 41.88 | Н | -70.43 | -1.18 | 1.16 | -72.77 | -13.00 | -59.77 |
| 92.08 | 46.30 | Н | -57.29 | -7.75 | 1.29 | -66.33 | -13.00 | -53.33 |
| 1910.00 | 66.79 | Н | -37.32 | 10.08 | 5.66 | -32.90 | -13.00 | -19.90 |
| 3815.20 | | Н | | 12.60 | 8.46 | | -13.00 | |
| 5722.80 | 45.42 | Н | -45.05 | 13.48 | 10.49 | -42.06 | -13.00 | -29.06 |
| 7630.40 | | Н | | 11.41 | 12.27 | | -13.00 | |
| 9538.00 | | Н | | 11.95 | 13.73 | | -13.00 | |
| 11445.60 | | Н | | 12.15 | 15.42 | | -13.00 | |
| 13353.20 | | Н | | 13.00 | 16.81 | | -13.00 | |
| 15260.80 | | Н | | 14.91 | 18.28 | | -13.00 | |
| 17168.40 | | Н | | 14.53 | 19.50 | | -13.00 | |
| 19076.00 | | Н | | 18.65 | 20.76 | | -13.00 | |

| | 30MHz - 80MHz: 5.04dB |
|-------------------------|------------------------|
| Measurement uncertainty | 80MHz -1000MHz: 3.76dB |
| | 1GHz - 13GHz: 4.45dB |

Remark:

- 1 The emission behaviors belong to narrowband spurious emission.
- 2 Remark"---" means that the emission level is too low to be measured
- 3 The result basic equation calculation is as follows:
- 4 ERP/EIRP (dBm) = SG Setting(dBm) + Antenna Gain (dB/dBi) Cable loss (dB)

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Radiated Spurious Emission Measurement Result: HSUPA Band V Mode

Operation Mode : TX CH Low E1 Mode Test Date: Oct. 29, 2009

Fundamental Frequency : 826.4 MHz Test By: Bondi Temperature : 25°C Pol: Ver

Humidity : 65%

| Freq. (MHz) | SPA. Reading (dBuV) | Ant.Pol. H/V | S.G Output (dBm) | Antenna Gain (dB/dBi) | Cable Loss (dB) | ERP/ EIRP (dBm) | Limit (dBm) | Safe Margin (dBm) |
|-------------|---------------------------|-----------------|------------------|-----------------------------|-----------------------|-----------------------|-------------|-------------------------|
| 36.79 | 50.53 | V | -52.20 | -4.16 | 0.91 | -57.27 | -13.00 | -44.27 |
| 67.83 | 45.93 | V | -65.76 | -0.95 | 1.14 | -67.85 | -13.00 | -54.85 |
| 92.08 | 49.86 | V | -53.07 | -7.75 | 1.29 | -62.11 | -13.00 | -49.11 |
| 153.19 | 33.56 | V | -64.02 | -7.80 | 1.60 | -73.42 | -13.00 | -60.42 |
| 823.00 | 69.07 | V | -17.33 | -7.87 | 3.62 | -28.83 | -13.00 | -15.83 |
| 1652.80 | 57.97 | V | -46.61 | 9.30 | 5.23 | -42.54 | -13.00 | -29.54 |
| 2479.20 | 46.73 | V | -54.23 | 10.07 | 6.54 | -50.70 | -13.00 | -37.70 |
| 3305.60 | | V | | 12.19 | 7.73 | | -13.00 | |
| 4132.00 | | V | | 12.62 | 8.87 | | -13.00 | |
| 4958.40 | | V | | 12.65 | 9.75 | | -13.00 | |
| 5784.80 | | V | | 13.58 | 10.55 | | -13.00 | |
| 6611.20 | | V | | 12.03 | 11.31 | | -13.00 | |
| 7437.60 | | V | | 11.48 | 12.12 | | -13.00 | |
| 8264.00 | | V | | 11.50 | 12.73 | | -13.00 | |

| | 30MHz - 80MHz: 5.04dB |
|-------------------------|------------------------|
| Measurement uncertainty | 80MHz -1000MHz: 3.76dB |
| | 1GHz - 13GHz: 4.45dB |

Remark:

- 1 The emission behaviors belong to narrowband spurious emission.
- 2 Remark"---" means that the emission level is too low to be measured
- 3 The result basic equation calculation is as follows:
- 4 ERP/EIRP (dBm) = SG Setting(dBm) + Antenna Gain (dB/dBi) Cable loss (dB)

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Radiated Spurious Emission Measurement Result: HSUPA Band V Mode

Operation Mode : TX CH Low E1 Mode Test Date: Oct. 29, 2009

Fundamental Frequency: 826.4MHz
Temperature: 25°C
Test By:
Pol:
Hor

Humidity : 65%

| Freq. (MHz) | SPA. Reading (dBuV) | Ant.Pol. H/V | S.G Output (dBm) | Antenna Gain (dB/dBi) | Cable Loss (dB) | ERP/ EIRP (dBm) | Limit (dBm) | Safe Margin (dBm) |
|-------------|---------------------------|-----------------|------------------|-----------------------------|-----------------------|-----------------------|-------------|-------------------------|
| 36.79 | 45.86 | Н | -57.94 | -4.16 | 0.91 | -63.00 | -13.00 | -50.00 |
| 58.13 | 39.79 | Н | -70.64 | -0.49 | 1.08 | -72.21 | -13.00 | -59.21 |
| 92.08 | 47.67 | Н | -55.92 | -7.75 | 1.29 | -64.96 | -13.00 | -51.96 |
| 193.93 | 37.65 | Н | -63.53 | -7.84 | 1.70 | -73.06 | -13.00 | -60.06 |
| 823.00 | 62.26 | Н | -24.01 | -7.87 | 3.62 | -35.51 | -13.00 | -22.51 |
| 1652.80 | 59.31 | Н | -45.09 | 9.30 | 5.23 | -41.02 | -13.00 | -28.02 |
| 2479.20 | 47.90 | Н | -52.97 | 10.07 | 6.54 | -49.43 | -13.00 | -36.43 |
| 3305.60 | | Н | | 12.19 | 7.73 | | -13.00 | |
| 4132.00 | | Н | | 12.62 | 8.87 | | -13.00 | |
| 4958.40 | | Н | | 12.65 | 9.75 | | -13.00 | |
| 5784.80 | | Н | | 13.58 | 10.55 | | -13.00 | |
| 6611.20 | | Н | | 12.03 | 11.31 | | -13.00 | |
| 7437.60 | | Н | | 11.48 | 12.12 | | -13.00 | |
| 8264.00 | | Н | | 11.50 | 12.73 | | -13.00 | |

| | 30MHz - 80MHz: 5.04dB |
|-------------------------|------------------------|
| Measurement uncertainty | 80MHz -1000MHz: 3.76dB |
| | 1GHz - 13GHz: 4.45dB |

Remark:

- 1 The emission behaviors belong to narrowband spurious emission.
- 2 Remark"---" means that the emission level is too low to be measured
- 3 The result basic equation calculation is as follows:
- 4 ERP/EIRP (dBm) = SG Setting(dBm) + Antenna Gain (dB/dBi) Cable loss (dB)

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Radiated Spurious Emission Measurement Result: HSUPA Band V Mode

Oct. 29, 2009 Operation Mode : TX CH Mid E1 Mode Test Date:

Fundamental Frequency: 836.6MHz Test By: Bondi Pol: Temperature Ver : 25°C

Humidity : 65%

| Freq. (MHz) | SPA. Reading (dBuV) | Ant.Pol. H/V | S.G Output (dBm) | Antenna Gain (dB/dBi) | Cable Loss (dB) | ERP/ EIRP (dBm) | Limit (dBm) | Safe Margin (dBm) |
|-------------|---------------------------|-----------------|------------------|-----------------------------|-----------------------|-----------------------|-------------|-------------------------|
| 36.79 | 49.97 | V | -52.76 | -4.16 | 0.91 | -57.83 | -13.00 | -44.83 |
| 67.83 | 45.81 | V | -65.88 | -0.95 | 1.14 | -67.97 | -13.00 | -54.97 |
| 92.08 | 48.33 | V | -54.60 | -7.75 | 1.29 | -63.64 | -13.00 | -50.64 |
| 153.19 | 33.36 | V | -64.22 | -7.80 | 1.60 | -73.62 | -13.00 | -60.62 |
| 1673.20 | 64.48 | V | -40.08 | 9.36 | 5.27 | -35.98 | -13.00 | -22.98 |
| 2509.80 | 57.33 | V | -43.45 | 10.09 | 6.58 | -39.95 | -13.00 | -26.95 |
| 3346.40 | | V | | 12.28 | 7.79 | | -13.00 | |
| 4183.00 | | V | | 12.62 | 8.93 | | -13.00 | |
| 5019.60 | | V | | 12.67 | 9.81 | | -13.00 | |
| 5856.20 | | V | | 13.68 | 10.62 | | -13.00 | |
| 6692.80 | | V | | 11.95 | 11.39 | | -13.00 | |
| 7529.40 | | V | | 11.45 | 12.20 | | -13.00 | |
| 8366.00 | | V | | 11.59 | 12.81 | | -13.00 | |

| | 30MHz - 80MHz: 5.04dB |
|-------------------------|------------------------|
| Measurement uncertainty | 80MHz -1000MHz: 3.76dB |
| | 1GHz - 13GHz: 4.45dB |

Remark:

- 1 The emission behaviors belong to narrowband spurious emission.
- 2 Remark"---" means that the emission level is too low to be measured
- 3 The result basic equation calculation is as follows:
- 4 ERP/EIRP (dBm) = SG Setting(dBm) + Antenna Gain (dB/dBi) Cable loss (dB)

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Radiated Spurious Emission Measurement Result: HSUPA Band V Mode

Operation Mode : TX CH Mid E1 Mode Test Date: Oct. 29, 2009

Fundamental Frequency : 836.6 MHz Test By: Bondi Temperature : 25°C Pol: Hor

Humidity : 65%

| Freq. (MHz) | SPA. Reading (dBuV) | Ant.Pol. H/V | S.G Out- put (dBm) | Antenna Gain (dB/dBi) | Cable Loss (dB) | ERP/ EIRP (dBm) | Limit (dBm) | Safe Margin (dBm) |
|-------------|---------------------|-----------------|--------------------------|-----------------------------|-----------------------|-----------------------|-------------|-------------------------|
| 36.79 | 46.49 | Н | -57.31 | -4.16 | 0.91 | -62.37 | -13.00 | -49.37 |
| 56.19 | 40.63 | Н | -69.01 | -0.51 | 1.09 | -70.61 | -13.00 | -57.61 |
| 92.08 | 46.94 | Н | -56.65 | -7.75 | 1.29 | -65.69 | -13.00 | -52.69 |
| 155.13 | 35.24 | Н | -62.93 | -7.80 | 1.60 | -72.33 | -13.00 | -59.33 |
| 1673.20 | 68.16 | Н | -36.22 | 9.36 | 5.27 | -32.12 | -13.00 | -19.12 |
| 2509.80 | 53.00 | Н | -47.70 | 10.09 | 6.58 | -44.20 | -13.00 | -31.20 |
| 3346.40 | | Н | | 12.28 | 7.79 | | -13.00 | |
| 4183.00 | | Н | | 12.62 | 8.93 | | -13.00 | |
| 5019.60 | | Н | | 12.67 | 9.81 | | -13.00 | |
| 5856.20 | | Н | | 13.68 | 10.62 | | -13.00 | |
| 6692.80 | | Н | | 11.95 | 11.39 | | -13.00 | |
| 7529.40 | | Н | | 11.45 | 12.20 | | -13.00 | |
| 8366.00 | | Н | | 11.59 | 12.81 | | -13.00 | |

| | 30MHz - 80MHz: 5.04dB |
|-------------------------|------------------------|
| Measurement uncertainty | 80MHz -1000MHz: 3.76dB |
| | 1GHz - 13GHz: 4.45dB |

Remark:

- 1 The emission behaviors belong to narrowband spurious emission.
- 2 Remark"---" means that the emission level is too low to be measured
- 3 The result basic equation calculation is as follows:
- 4 ERP/EIRP (dBm) = SG Setting(dBm) + Antenna Gain (dB/dBi) Cable loss (dB)

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Radiated Spurious Emission Measurement Result: HSUPA Band V Mode

: TX CH High E1 Mode Oct. 29, 2009 Operation Mode Test Date:

Fundamental Frequency: 846.6MHz Test By: Bondi Temperature Pol: Ver : 25°C

Humidity : 65%

| Freq. (MHz) | SPA. Reading (dBuV) | Ant.Pol. H/V | S.G Output (dBm) | Antenna Gain (dB/dBi) | Cable Loss (dB) | ERP/ EIRP (dBm) | Limit (dBm) | Safe Margin (dBm) |
|-------------|---------------------------|-----------------|------------------|-----------------------------|-----------------------|-----------------------|-------------|-------------------------|
| 36.79 | 49.60 | V | -53.13 | -4.16 | 0.91 | -58.20 | -13.00 | -45.20 |
| 62.98 | 43.67 | V | -67.78 | -0.64 | 1.10 | -69.52 | -13.00 | -56.52 |
| 92.08 | 48.46 | V | -54.47 | -7.75 | 1.29 | -63.51 | -13.00 | -50.51 |
| 153.19 | 32.89 | V | -64.69 | -7.80 | 1.60 | -74.09 | -13.00 | -61.09 |
| 850.00 | 64.80 | V | -21.31 | -7.88 | 3.68 | -32.87 | -13.00 | -19.87 |
| 1693.20 | 61.69 | V | -42.85 | 9.42 | 5.30 | -38.73 | -13.00 | -25.73 |
| 2539.80 | 52.79 | V | -47.88 | 10.18 | 6.62 | -44.33 | -13.00 | -31.33 |
| 3386.40 | | V | | 12.36 | 7.85 | | -13.00 | |
| 4233.00 | | V | | 12.63 | 8.99 | | -13.00 | |
| 5079.60 | | V | | 12.73 | 9.87 | | -13.00 | |
| 5926.20 | | V | | 13.79 | 10.69 | | -13.00 | |
| 6772.80 | | V | | 11.87 | 11.47 | | -13.00 | |
| 7619.40 | | V | | 11.41 | 12.26 | | -13.00 | |
| 8466.00 | | V | | 11.68 | 12.89 | | -13.00 | |

| | 30MHz - 80MHz: 5.04dB |
|-------------------------|------------------------|
| Measurement uncertainty | 80MHz -1000MHz: 3.76dB |
| | 1GHz - 13GHz: 4.45dB |

Remark:

- 1 The emission behaviors belong to narrowband spurious emission.
- 2 Remark"---" means that the emission level is too low to be measured
- 3 The result basic equation calculation is as follows:
- 4 ERP/EIRP (dBm) = SG Setting(dBm) + Antenna Gain (dB/dBi) Cable loss (dB)

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Radiated Spurious Emission Measurement Result: HSUPA Band V Mode

: TX CH High E1 Mode Oct. 29, 2009 Operation Mode Test Date:

Fundamental Frequency: 846.6MHz Test By: Bondi Pol: Temperature Hor : 25°C

Humidity : 65%

| Freq. (MHz) | SPA. Reading (dBuV) | Ant.Pol. H/V | S.G Output (dBm) | Antenna Gain (dB/dBi) | Cable Loss (dB) | ERP/ EIRP (dBm) | Limit (dBm) | Safe Margin (dBm) |
|-------------|---------------------------|-----------------|------------------|-----------------------------|-----------------------|-----------------------|-------------|-------------------------|
| 36.79 | 45.42 | Н | -58.38 | -4.16 | 0.91 | -63.44 | -13.00 | -50.44 |
| 92.08 | 47.42 | Н | -56.17 | -7.75 | 1.29 | -65.21 | -13.00 | -52.21 |
| 153.19 | 33.80 | Н | -64.22 | -7.80 | 1.60 | -73.62 | -13.00 | -60.62 |
| 269.59 | 36.92 | Н | -61.69 | -7.90 | 2.06 | -71.65 | -13.00 | -58.65 |
| 850.00 | 59.31 | Н | -26.88 | -7.88 | 3.68 | -38.44 | -13.00 | -25.44 |
| 1693.20 | 65.25 | Н | -39.10 | 9.42 | 5.30 | -34.98 | -13.00 | -21.98 |
| 2539.80 | 47.17 | Н | -53.45 | 10.18 | 6.62 | -49.89 | -13.00 | -36.89 |
| 3386.40 | | Н | | 12.36 | 7.85 | | -13.00 | |
| 4233.00 | | Н | | 12.63 | 8.99 | | -13.00 | |
| 5079.60 | | Н | | 12.73 | 9.87 | | -13.00 | |
| 5926.20 | | Н | | 13.79 | 10.69 | | -13.00 | |
| 6772.80 | | Н | | 11.87 | 11.47 | | -13.00 | |
| 7619.40 | | Н | | 11.41 | 12.26 | | -13.00 | |
| 8466.00 | | Н | | 11.68 | 12.89 | | -13.00 | |

| | 30MHz - 80MHz: 5.04dB |
|-------------------------|------------------------|
| Measurement uncertainty | 80MHz -1000MHz: 3.76dB |
| | 1GHz - 13GHz: 4.45dB |

Remark:

- 1 The emission behaviors belong to narrowband spurious emission.
- 2 Remark"---" means that the emission level is too low to be measured
- 3 The result basic equation calculation is as follows:
- 4 ERP/EIRP (dBm) = SG Setting(dBm) + Antenna Gain (dB/dBi) Cable loss (dB)

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10. FREQUENCY STABILITY V.S. TEMPERATURE MEASUREMENT

10.1. Standard Applicable:

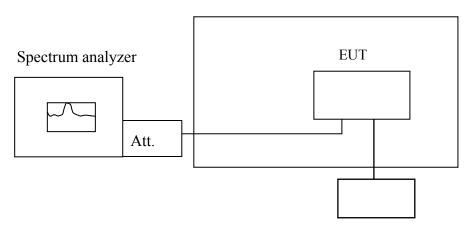
According to FCC §2.1055(a) (1)

Frequency Tolerance: +/-2.5ppm for 850MHz band

+/-2.5ppm for 1900MHz band

10.2. Test Set-up:

Temperature Chamber



Variable DC Power Supply

Note: Measurement setup for testing on Antenna connector

10.3. Measurement Procedure:

The equipment under test was connected to an external AC or DC power supply and input rated voltage. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators. The EUT was placed inside the temperature chamber. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 25°C operating frequency as reference frequency. Turn EUT off and set the chamber temperature to -30°C. After the temperature stabilized for approximately 30 minutes recorded the frequency. Repeat step measure with 10°C increased per stage until the highest temperature of +50°C reached.

10.4. Measurement Equipment Used:

Refer to section 2.4 in this report

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10.5. Measurement Result:

| Refe | rence Frequency: G | PRS 850 Mid Cha | nnel 836.6 MHz @ |), 25°C | |
|--------------|--------------------|--------------------------|------------------|------------|------|
| | Limit | +/-2.5 ppm = 20 | 91 Hz | | |
| Power Supply | Environment | Frequency | Delta (Hz) | Limit (Uz) | |
| Vdc | Temperature (°C) | (MHz) | Della (HZ) | Limit (Hz) | |
| 3.7 | -30 | 836.599997 | -29.00 | 2091 | |
| 3.7 | -20 | -20 | 836.599998 | -30.00 | 2091 |
| 3.7 | -10 | 836.599959 836.599975 | 9.00 | 2091 | |
| 3.7 | 0 | | -7.00 | 2091 | |
| 3.7 | 10 | 836.599979 | -11.00 | 2091 | |
| 3.7 20 | | 836.599968 | 0.00 | 2091 | |
| 3.7 30 | | 836.600003 | -35.00 | 2091 | |
| 3.7 | 40 | 836.599993 | -25.00 | 2091 | |
| 3.7 50 | | 836.599960 | 8.00 | 2091 | |

| Reference Frequency: GPRS 1900 Mid Channel 1880 MHz @ 25°C | | | | |
|--|-----------------------------|--------------------|----------------|------------|
| | Limit | +/-2.5 ppm = 470 | 00 Hz | |
| Power Supply Environment Frequency Delta (Hz) Limit | | | | |
| Vdc | Temperature ($^{\circ}$ C) | (MHz) | Delta (112) | Limit (Hz) |
| 3.7 | -30 | 1879.999964 -29.00 | | 4700 |
| 3.7 | 3.7 -20 1879.99995 | | -15.00 | 4700 |
| 3.7 -10 3.7 0 | | 1879.999943 | -8.00 -2.00 | 4700 |
| | | 1879.999937 | | 4700 |
| 3.7 10 | | 1879.999969 | -34.00 | 4700 |
| 3.7 20 | | 1879.999935 | 0.00 | 4700 |
| 3.7 30 | | 1879.999978 | -43.00 | 4700 |
| 3.7 40 | | 1879.999984 | -49.00 | 4700 |
| 3.7 50 | | 1879.999940 | -5.00 | 4700 |

Note: The battery is rated 3.7V dc.

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| Reference | e Frequency: WCD | MA Band II Mid | Channel 1880 MH | z @ 25°C |
|--------------|-----------------------------|------------------|-----------------|--------------|
| | Limit | +/-2.5 ppm = 47 | 00 Hz | |
| Power Supply | Environment | Frequency | Dolto (Hz) | Limit (Hz) |
| Vdc | Temperature ($^{\circ}$ C) | (MHz) | Delta (Hz) | Lillit (fiz) |
| 3.7 | -30 | 1879.999991 | 5.00 | 4700 |
| 3.7 | -20 | 1880.000008 | -12.00 | 4700 |
| 3.7 | -10 | 1879.999995 | 1.00 | 4700 |
| 3.7 | 0 | 1879.999981 | 15.00 | 4700 |
| 3.7 | 10 | 1879.999992 4.00 | 4.00 | 4700 |
| 3.7 | 20 | 1879.999996 | 0.00 | 4700 |
| 3.7 | 30 | 1879.999994 | 2.00 | 4700 |
| 3.7 | 40 | 1879.999990 | 6.00 | 4700 |
| 3.7 50 | | 1879.999996 | 0.00 | 4700 |

| Reference Frequency: WCDMA Band V Mid Channel 836.6 MHz @ 25°C | | | | |
|--|------------------------------------|-------------------|------------|------------|
| | Limit | +/-2.5 ppm = 209 | 91 Hz | |
| Power Supply | Power Supply Environment Frequency | | | |
| Vdc | Temperature (°C) | (MHz) | Delta (Hz) | Limit (Hz) |
| 3.7 | 3.7 -30 836.600005 | | 1.00 | 2091 |
| 3.7 | -20 | 836.600008 | -2.00 | 2091 |
| 3.7 | -10 | 836.599989 | 17.00 | 2091 |
| 3.7 | 0 | 836.599998 | 8.00 | 2091 |
| 3.7 | 10 | 836.600005 | 1.00 | 2091 |
| 3.7 20 | | 836.600006 | 0.00 | 2091 |
| 3.7 30 | | 836.600003 | 3.00 | 2091 |
| 3.7 40 | | 836.600001 | 5.00 | 2091 |
| 3.7 | 50 | 836.599996 | 10.00 | 2091 |

Note: The battery is rated 3.7V dc.



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11. FREQUENCY STABILITY V.S. VOLTAGE MEASUREMENT

11.1. Standard Applicable:

According to FCC §2.1055(a) (1)

Frequency Tolerance: +/-2.5ppm for 850MHz band

+/-2.5ppm for 1900MHz band

11.2. Test Set-up:

Refer to section 10.2 in this report

11.3. Measurement Procedure:

Set chamber temperature to 25° C. Use a variable AC power supply / DC power source to power the EUT and set the voltage to rated voltage. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and recorded the frequency.

Reduce the input voltage to specified extreme voltage variation (+/- 15%) and endpoint, record the maximum frequency change.

11.4. Measurement Equipment Used:

Refer to section 2.4 in this report

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11.5. Measurement Result:

| Reference Frequency: GPRS 850 Mid Channel 836.6 MHz @ 25°C | | | | |
|---|-----------------------------|-----------------------|------------|------------|
| | Limit | := +/- 2.5 ppm = 209 | 91 Hz | |
| Power Supply Environment Frequency D. L. C. | | | | Limit (Uz) |
| Vdc | Temperature ($^{\circ}$ C) | (MHz) | Delta (Hz) | Limit (Hz) |
| 4.25 | 25.00 836.599964 | | 4.00 | 2091.00 |
| 3.70 | 25.00 | 836.599968 | 0.00 | 2091.00 |
| 3.20 | 25.00 | 836.599971 | -3.00 | 2091.00 |
| 2.9 | 25.00 | 026 500004 | 164.00 | 2091.00 |
| (End Point) | 25.00 | 836.599804 | 164.00 | 2091.00 |

| Reference Frequency: GPRS 1900 Mid Channel 1880 MHz @ 25°C | | | | |
|--|-------------------------|----------------------|------------|------------|
| | Limit | : +/- 2.5 ppm = 470 | 00 Hz | |
| Power Supply Environment Frequency D. L. (11) | | | | |
| Vdc | Temperature (°C) | (MHz) | Delta (Hz) | Limit (Hz) |
| 4.25 | 4.25 25 1879.999945 -10 | | -10.00 | 4700 |
| 3.70 | 25 | 1879.999935 | 0.00 | 4700 |
| 3.20 | 25 | 1879.999958 | -23.00 | 4700 |
| 2.90 | 25 | 1070 000072 | 27.00 | 4700 |
| (Endpoint) | 25 | 1879.999972 | -37.00 | 4/00 |

Note: The battery is rated 3.7V dc.

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| Reference Frequency: WCDMA Band II Mid Channel 1880 MHz @ 25°C | | | | | |
|--|------------------|---------------------------------|------------|------------|--|
| | Limit | $\pm +/- 2.5 \text{ ppm} = 470$ | 00 Hz | | |
| Power Supply | Environment | Frequency | Dolto (Hz) | Limit (Hz) | |
| Vdc | Temperature (°C) | re (°C) (MHz) Delta (Hz) | | Limit (Hz) | |
| 4.25 | 25 | 1879.999992 | 4.00 | 4700 | |
| 3.7 | 25 | 25 1879.999996 | 0.00 | 4700 | |
| 3.2 | 25 | 1879.999982 | 14.00 | 4700 | |
| 2.9 | 2.5 | 1050 00056 | 20.00 | 4700 | |
| (Endpoint) | 25 | 1879.999976 | 20.00 | 4700 | |

| Reference Frequency: WCDMA Band V Mid Channel 836.6 MHz @ 25°C | | | | |
|--|-----------------------|---------------------------------|------------|------------|
| | Limit | $\pm +/- 2.5 \text{ ppm} = 209$ | 91 Hz | |
| Power Supply Environment Frequency D. I. (II.) | | | | |
| Vdc | Temperature (°C) | (MHz) | Delta (Hz) | Limit (Hz) |
| 4.25 | 25.00 836.599998 7.00 | | 7.00 | 2091.00 |
| 3.7 | 25.00 | 836.600005 | 0.00 | 2091.00 |
| 3.2 25.00 | | 836.599999 | 6.00 | 2091.00 |
| 2.9 | 25.00 | 026 500004 | 11.00 | 2091.00 |
| (Endpoint) | 25.00 | 836.599994 | 11.00 | 2091.00 |

Note: The battery is rated 3.7V dc.



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12. AC POWER LINE CONDUCTED EMISSION TEST

12.1. Standard Applicable:

According to §15.207. The emission value for frequency within 150KHz to 30MHz shall not exceed criteria of below chart.

| Eroguanay ranga | Lir dB(| mits |
|-----------------|------------|--------------|
| Frequency range | (ID) | u v <i>)</i> |
| MHz | Quasi-peak | Average |
| 0.15 to 0.50 | 66 to 56 | 56 to 46 |
| 0.50 to 5 | 56 | 46 |
| 5 to 30 | 60 | 50 |

Note

12.2. EUT Setup:

- 1. The conducted emission tests were performed in the test site, using the setup in accordance with the ANSI C63.4-2003.
- 2. The EUT was plug-in DC power adaptort and was placed on the center of the back edge on the test table. The peripherals like earphone was placed on the side of the EUT. The rear of the EUT and peripherals were placed flushed with the rear of the tabletop.
- 3. The Power adaptor was connected with 120Vac/60Hz power source.

12.3. Measurement Procedure:

- 1. The EUT was placed on a table which is 0.8m above ground plane.
- 2. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
- 3. Repeat above procedures until all frequency measured were complete.

12.4. Measurement Equipment Used:

Refer to section 2.4 in this report

12.5. Measurement Result:

The initial step in collecting conducted data is a spectrum analyzer peak scan of the measurement range. Significant peaks are then marked as shown on the following data page, and these signals are then quasi-peaked.

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^{1.} The lower limit shall apply at the transition frequencies

^{2.} The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz.

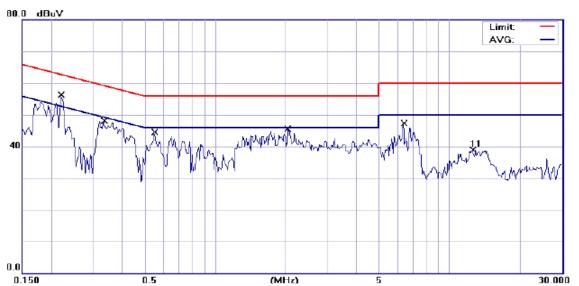


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AC POWER LINE CONDUCTED EMISSION TEST DATA

| Operation Mode: | GPRS 850 LINK | | | Test Date: | Dec. 27, 2009 |
|-----------------|---------------|-----------|------|------------|---------------|
| Temperature: | 22 °C | Humidity: | 61 % | Test By: | Bondi |



Phase:

Power:

Measure-

ment

dBu∀

49.79

26.04

40.90

20.75

38.65

21.34

36.45

20.26

38.64

27.34

38.96

Factor

dΒ

0.12

0.12

0.09

0.09

0.07

0.07

0.13

0.13

0.22

0.22

0.41

Distance:

L₁

AC 120V/60Hz

QΡ

AVG

QP

AVG

QΡ

AVG

peak

-17.35

-24.66

-19.55

-25.74

-21.36

-22.66

-21.04

Site SGS CONDUCTED #1

Limit: CISPR22/11/EN55022 Class B

Reading

Level

dBu∀

49.67

25.92

40.81

20.66

38.58

21.27

36.32

20.13

38.42

27.12

38.55

EUT: Mobile Internet Device

Freq.

MHz

0.2201

0.2201

0.3345

0.3345

0.5504

0.5504

2.0347

2.0347

6.3535

6.3535

12.5600

M/N: M01M

No. Mk.

1

2

3

4

5

6

7

8

9

10

11

Note: GPRS 850 link

| - | Limit | Over | | |
|---|-------|--------|----------|---------|
| | dBu∀ | dB | Detector | Comment |
| | 62.82 | -13.03 | QP | |
| | 52.82 | -26.78 | AVG | |
| | 59.34 | -18.44 | QP | |
| | 49.34 | -28.59 | AVG | |

Temperature:

Air Pressure:

58 %

hpa

Humidity:

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56.00

46.00

56.00

46.00

60.00

50.00

60.00

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Temperature:

Air Pressure:

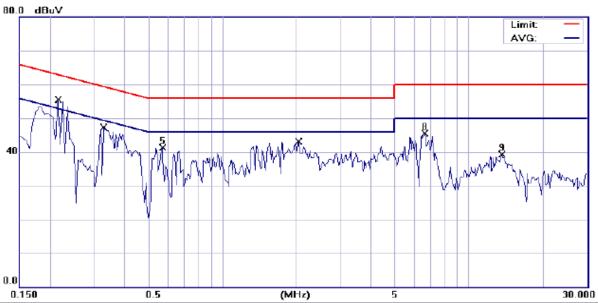
Humidity:

23 %

hpa

58 %

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Phase:

Power:

Distance:

AC 120V/60Hz

Site SGS CONDUCTED #1

Limit: CISPR22/11/EN55022 Class B

EUT: Mobile Internet Device

M/N: M01M

Note: GPRS850 link

| No. | Mk. | Freq. | Reading Level | Factor | Measure- ment | Limit | Over | | |
|-----|-----|---------|------------------|--------|------------------|-------|--------|----------|---------|
| | | MHz | dBu∀ | dB | dBu∀ | dBu∀ | dB | Detector | Comment |
| 1 | * | 0.2144 | 48.38 | 0.14 | 48.52 | 63.03 | -14.51 | QP | |
| 2 | | 0.2144 | 21.88 | 0.14 | 22.02 | 53.03 | -31.01 | AVG | |
| 3 | | 0.3295 | 39.79 | 0.12 | 39.91 | 59.46 | -19.55 | QP | |
| 4 | | 0.3295 | 15.43 | 0.12 | 15.55 | 49.46 | -33.91 | AVG | |
| 5 | | 0.5700 | 41.30 | 0.10 | 41.40 | 56.00 | -14.60 | peak | |
| 6 | | 2.0278 | 34.83 | 0.15 | 34.98 | 56.00 | -21.02 | QP | |
| 7 | | 2.0278 | 16.18 | 0.15 | 16.33 | 46.00 | -29.67 | AVG | |
| 8 | | 6.6200 | 45.21 | 0.25 | 45.46 | 60.00 | -14.54 | peak | |
| 9 | | 13.5800 | 38.81 | 0.43 | 39.24 | 60.00 | -20.76 | peak | |

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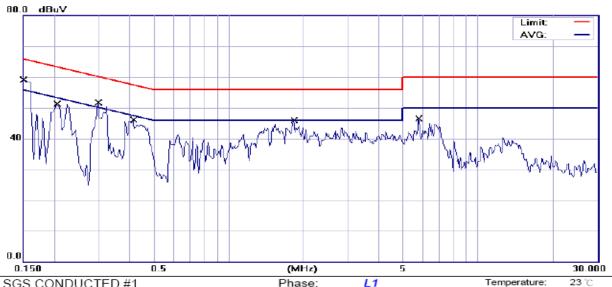


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AC POWER LINE CONDUCTED EMISSION TEST DATA

| Operation Mode: | GPRS 1900 Link | | | Test Date: | Dec. 27, 2009 |
|-----------------|----------------|-----------|------|------------|---------------|
| Temperature: | 22 °C | Humidity: | 61 % | Test By: | Bondi |



Power:

Distance:

Site SGS CONDUCTED #1

Limit: CISPR22/11/EN55022 Class B

Reading

Level

dBu∀

51.56

26.74

47.38

27.71

41.03

15.49

41.60

25.52

38.24

24.41

36.88

24 77

Factor

dB

0.17

0.17

0.12

0.12

0.10

0.10

0.08

0.08

0.12

0.12

0.20

0.20

25.60

38.36

24.53

37.08

24 97

EUT: Mobile Internet Device

M/N: M01M

No. Mk.

1

2

3

4

5

6

7

8

9

10

11

12

Note: GPRS1900 link

Freq.

MHz

0.1508

0.1508

0.2049

0.2049

0.2993

0.2993

0.4151

0.4151

1.8209

1.8209

5.7888

5.7888

| Measure- ment | Limit | Over | | | |
|------------------|-------|--------|----------|---------|--|
| dBu∀ | dBu∀ | dB | Detector | Comment | |
| 51.73 | 65.96 | -14.23 | QP | | |
| 26.91 | 55.96 | -29.05 | AVG | | |
| 47.50 | 63.41 | -15.91 | QP | | |
| 27.83 | 53.41 | -25.58 | AVG | | |
| 41.13 | 60.26 | -19.13 | QP | | |
| 15.59 | 50.26 | -34.67 | AVG | | |
| 41.68 | 57.55 | -15.87 | QP | | |

Humidity:

Air Pressure:

58 %

AC 120V/60Hz

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47.55

56.00

46.00

60.00

50.00

-21.95

-17.64

-21.47

-22.92

-25.03

AVG

QΡ

QΡ

AVG

AVG



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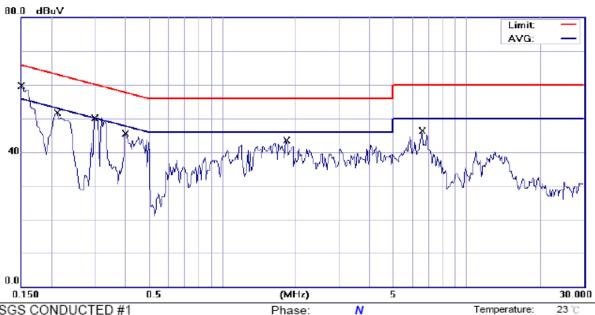
Humidity:

Air Pressure:

58 %

hpa

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Power:

Distance:

AC 120V/60Hz

Site SGS CONDUCTED #1

Limit: CISPR22/11/EN55022 Class B

EUT: Mobile Internet Device

M/N: M01M

Note: GPRS1900 link

| | | Reading | | Measure- | | | | |
|---------|--------|---------|--------|----------|-------|--------|----------|---------|
| No. Mk. | Freq. | Level | Factor | ment | Limit | Over | | |
| | MHz | dBu∀ | dB | dBu∀ | dBu∀ | dB | Detector | Comment |
| 1 * | 0.1506 | 48.94 | 0.19 | 49.13 | 65.97 | -16.84 | QP | |
| 2 | 0.1506 | 22.26 | 0.19 | 22.45 | 55.97 | -33.52 | AVG | |
| 3 | 0.2098 | 44.42 | 0.14 | 44.56 | 63.21 | -18.65 | QP | |
| 4 | 0.2098 | 23.00 | 0.14 | 23.14 | 53.21 | -30.07 | AVG | |
| 5 | 0.2999 | 33.89 | 0.13 | 34.02 | 60.25 | -26.23 | QP | |
| 6 | 0.2999 | 10.89 | 0.13 | 11.02 | 50.25 | -39.23 | AVG | |
| 7 | 0.3999 | 26.57 | 0.11 | 26.68 | 57.86 | -31.18 | QP | |
| 8 | 0.3999 | 8.26 | 0.11 | 8.37 | 47.86 | -39.49 | AVG | |
| 9 | 1.8265 | 32.84 | 0.14 | 32.98 | 56.00 | -23.02 | QP | |
| 10 | 1.8265 | 13.94 | 0.14 | 14.08 | 46.00 | -31.92 | AVG | |
| 11 | 6.5853 | 37.40 | 0.25 | 37.65 | 60.00 | -22.35 | QP | |
| 12 | 6.5853 | 23.64 | 0.25 | 23.89 | 50.00 | -26.11 | AVG | |

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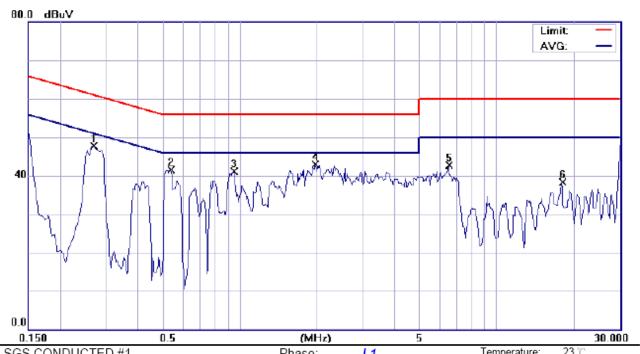


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AC POWER LINE CONDUCTED EMISSION TEST DATA

| Operation Mode: | WCDMA Band II | LINK | | Test Date: | Dec. 27, 2009 |
|-----------------|---------------|-----------|------|------------|---------------|
| Temperature: | 22 °C | Humidity: | 61 % | Test By: | Bondi |



Site SGS CONDUCTED #1

Limit: CISPR22/11/EN55022 Class B

EUT: Mobile Internet Device

M/N: M01M

Note: WCDMA B2 link

| i ilase. | L1 | | |
|-----------|--------------|---------------|-----|
| Power: | AC 120V/60Hz | Humidity: 58 | В % |
| Distance: | | Air Pressure: | hpa |

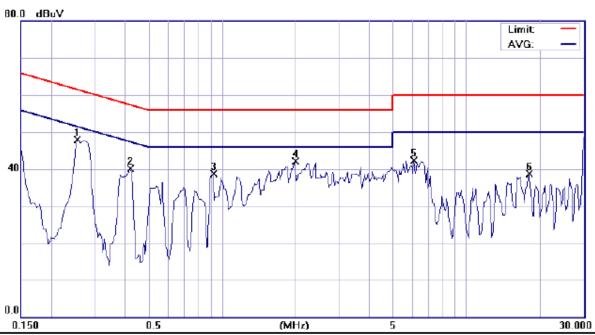
| No. Mk. | Freq. | Reading Level | Factor | Measure- ment | Limit | Over | | | |
|---------|---------|------------------|--------|------------------|-------|--------|----------|---------|--|
| | MHz | dBu∀ | dB | dBu∀ | dBu∀ | dB | Detector | Comment | |
| 1 | 0.2700 | 47.69 | 0.11 | 47.80 | 61.12 | -13.32 | peak | | |
| 2 | 0.5400 | 41.42 | 0.07 | 41.49 | 56.00 | -14.51 | peak | | |
| 3 | 0.9500 | 40.92 | 0.09 | 41.01 | 56.00 | -14.99 | peak | | |
| 4 * | 1.9600 | 42.78 | 0.13 | 42.91 | 56.00 | -13.09 | peak | | |
| 5 | 6.5200 | 42.42 | 0.23 | 42.65 | 60.00 | -17.35 | peak | | |
| 6 | 18.0000 | 38.05 | 0.30 | 38.35 | 60.00 | -21.65 | peak | | |

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Site SGS CONDUCTED #1

Limit: CISPR22/11/EN55022 Class B

EUT: Mobile Internet Device

M/N: M01M

Note: WCDMA B2 link

Phase: Temperature: 23 ℃ N

AC 120V/60Hz Humidity: 58 % Power:

Distance: Air Pressure: hpa

| No. Mi | . Freq. | Reading Level | Factor | Measure- ment | Limit | Over | | |
|--------|---------|------------------|--------|------------------|-------|--------|----------|---------|
| | MHz | dBu∀ | dB | dBu∀ | dBu∀ | dB | Detector | Comment |
| 1 * | 0.2550 | 47.83 | 0.13 | 47.96 | 61.59 | -13.63 | peak | |
| 2 | 0.4200 | 39.94 | 0.11 | 40.05 | 57.45 | -17.40 | peak | |
| 3 | 0.9200 | 38.59 | 0.12 | 38.71 | 56.00 | -17.29 | peak | |
| 4 | 1.9900 | 41.86 | 0.15 | 42.01 | 56.00 | -13.99 | peak | |
| 5 | 6.0800 | 42.11 | 0.23 | 42.34 | 60.00 | -17.66 | peak | |
| 6 | 17.9800 | 38.47 | 0.31 | 38.78 | 60.00 | -21.22 | peak | |

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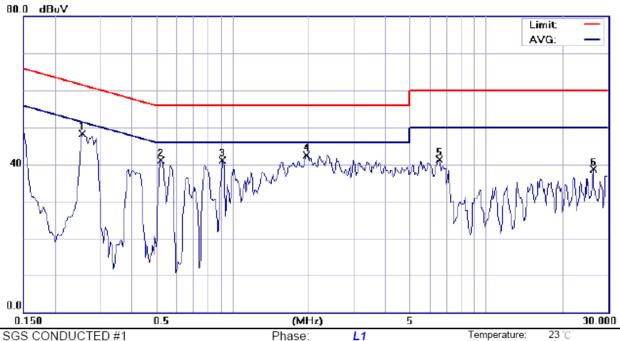


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AC POWER LINE CONDUCTED EMISSION TEST DATA

| Operation Mode: | WCDMA Band Y | V LINK | | Test Date: | Dec. 27, 2009 |
|-----------------|--------------|-----------|------|------------|---------------|
| Temperature: | 22 °C | Humidity: | 61 % | Test By: | Bondi |



AC 120V/60Hz

Site SGS CONDUCTED #1

Limit: CISPR22/11/EN55022 Class B

EUT: Mobile Internet Device

M/N: M01M

6

Note: WCDMA B5 link

26.4200

38.30

0.34

38.64

| No. | Mk. | Freq. | Reading Level | Factor | Measure- ment | Limit | Over | | | |
|-----|-----|--------|------------------|--------|------------------|-------|--------|----------|---------|--|
| | | MHz | dBu∀ | dB | dBu∀ | dBu∀ | dB | Detector | Comment | |
| 1 | * | 0.2550 | 48.23 | 0.11 | 48.34 | 61.59 | -13.25 | peak | | |
| 2 | | 0.5200 | 41.05 | 0.07 | 41.12 | 56.00 | -14.88 | peak | | |
| 3 | | 0.9100 | 41.02 | 0.09 | 41.11 | 56.00 | -14.89 | peak | | |
| 4 | | 1.9500 | 42.36 | 0.13 | 42.49 | 56.00 | -13.51 | peak | | |
| 5 | | 6.5000 | 41.06 | 0.23 | 41.29 | 60.00 | -18.71 | peak | | |

60.00

-21.36

peak

Power:

Distance:

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58 %

hpa

Humidity:

Air Pressure:



Report No.: EH/2009/80058 **Issue Date: Dec. 29, 2009**

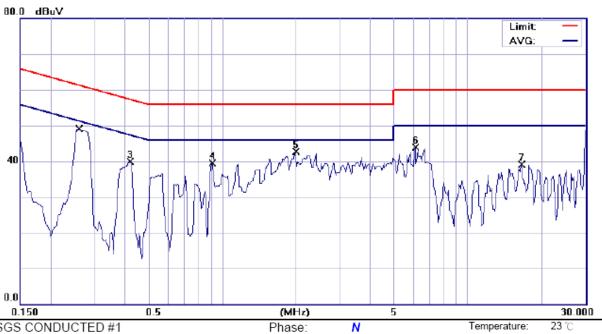
Humidity:

Air Pressure:

58 %

hpa

Page: 113 of 113



AC 120V/60Hz

Site SGS CONDUCTED #1

Limit: CISPR22/11/EN55022 Class B

EUT: Mobile Internet Device

M/N: M01M

Note: WCDMA B5 link

| No. Mk. | Freq. | Reading Level | Factor | Measure- ment | Limit | Over | | | |
|---------|---------|------------------|--------|------------------|-------|--------|----------|---------|--|
| | MHz | dBu∀ | dB | dBu∀ | dBu∀ | dB | Detector | Comment | |
| 1 | 0.2577 | 46.32 | 0.13 | 46.45 | 61.51 | -15.06 | QP | | |
| 2 | 0.2577 | 25.45 | 0.13 | 25.58 | 51.51 | -25.93 | AVG | | |
| 3 | 0.4200 | 39.89 | 0.11 | 40.00 | 57.45 | -17.45 | peak | | |
| 4 | 0.9100 | 39.42 | 0.12 | 39.54 | 56.00 | -16.46 | peak | | |
| 5 * | 1.9900 | 42.49 | 0.15 | 42.64 | 56.00 | -13.36 | peak | | |
| 6 | 6.1200 | 43.64 | 0.23 | 43.87 | 60.00 | -16.13 | peak | | |
| 7 | 16.5400 | 38.76 | 0.36 | 39.12 | 60.00 | -20.88 | peak | | |

Power:

Distance:

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