



Appendix F - FCC 3G SAR Measurement Procedures

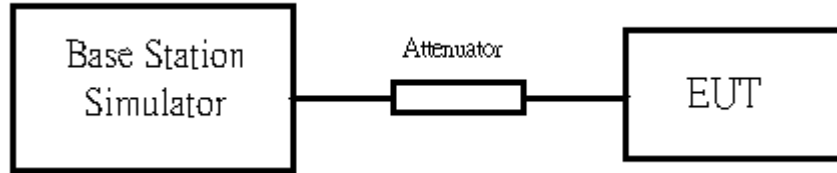
Conducted Output Power:

The EUT was tested according to the requirements of the FCC 3G procedures and the 3.1.2.3.4. A detailed analysis of the output power verification is provided as the table below:

| Function Type | Reverse Traffic Channel | Test Mode | Radio Configuration | | Service Option | Data Rates (kbps) | Power Control | Low Ch | Midd Ch | High Ch |
|-------------------|-------------------------|-----------|-------------------------------|-------------------------------|----------------|-------------------|---------------|--------|---------|---------|
| | | | Forward Traffic Channel (Fwd) | Reverse Traffic Channel (Rvs) | | | | 1013 | 384 | 777 |
| CDMA2000 Cellular | FCH | 1 | 1 | 1 | 55 | Full | All Up | 23.85 | 23.78 | 23.83 |
| | | 3 | 3 | 3 | 55 | Full | All Up | 23.85 | 23.80 | 23.81 |
| | FCH+SCH | 3 | 3 | 3 | 32 | FCH:Full,SCH 9.6 | All Up | 23.88 | 23.79 | 23.83 |
| | EVDO Rev.0* | Subtype:0 | | | | UL:9.6 | All Up | 23.66 | 23.73 | 23.63 |
| | EVDO Rev.0* | Subtype:0 | | | | UL:38.4 | All Up | 23.64 | 23.48 | 23.86 |
| | EVDO Rev.0* | Subtype:0 | | | | UL:153.6 | All Up | 23.61 | 23.38 | 23.73 |
| | EVDO Rev.A* | Subtype:0 | | | | RETAP_128Kbps | All Up | 23.59 | 23.40 | 23.69 |
| | EVDO Rev.A* | Subtype:0 | | | | RETAP_2048Kbps | All Up | 23.79 | 23.61 | 23.80 |
| | EVDO Rev.A* | Subtype:0 | | | | RETAP_12288Kbps | All Up | 23.81 | 23.65 | 23.82 |

| Function Type | Reverse Traffic Channel | Test Mode | Radio Configuration | | Service Option | Data Rates (kbps) | Power Control | Low Ch | Midd Ch | High Ch |
|---------------|-------------------------|-----------|-------------------------------|-------------------------------|----------------|-------------------|---------------|--------|---------|---------|
| | | | Forward Traffic Channel (Fwd) | Reverse Traffic Channel (Rvs) | | | | 25 | 600 | 1175 |
| CDMA2000 PCS | FCH | 1 | 1 | 1 | 55 | Full | All Up | 23.90 | 23.97 | 23.72 |
| | | 3 | 3 | 3 | 55 | Full | All Up | 23.95 | 24.03 | 23.74 |
| | FCH+SCH | 3 | 3 | 3 | 32 | FCH:Full,SCH 9.6 | All Up | 23.95 | 24.05 | 23.73 |
| | EVDO Rev.0* | Subtype:0 | | | | UL:9.6 | All Up | 23.69 | 23.87 | 23.57 |
| | EVDO Rev.0* | Subtype:0 | | | | UL:38.4 | All Up | 23.91 | 23.94 | 23.69 |
| | EVDO Rev.0* | Subtype:0 | | | | UL:153.6 | All Up | 23.86 | 24.01 | 23.76 |
| | EVDO Rev.A* | Subtype:0 | | | | RETAP_128Kbps | All Up | 23.82 | 23.90 | 23.60 |
| | EVDO Rev.A* | Subtype:0 | | | | RETAP_2048Kbps | All Up | 24.01 | 24.20 | 23.71 |
| | EVDO Rev.A* | Subtype:0 | | | | RETAP_12288Kbps | All Up | 24.06 | 24.15 | 23.94 |

CDMA2000 Setup Configuration:



Setup Configuration

1. The EUT was connected to Base Station, Agilent 8960. Refer to the drawing of Setup Configuration.
2. The RF path losses were compensated into the measurements.
3. A call was established between EUT and Base Station with following setting:
 - a. Set the test mode1 and test mode 3.
 - b. Set the Power control All Up for (FCH) and (FCH+SCH).
4. The transmitted maximum output power was recorded.

| Call Setup Screen | | | | | | | | | | | | | | | | | | | | |
|-------------------|--|--------------------------|----------------------------|--|------------|------------|------------|--------------|------|--|------|--|-------|------------|-------------|---------|-------------------|---|------------|--------|
| Call Control | Active Cell Operating Mode | | Call Parm | | | | | | | | | | | | | | | | | |
| | <table border="1"> <thead> <tr> <th colspan="2">Mobile Station Information</th> </tr> </thead> <tbody> <tr> <td>ESN (Hex):</td> <td>0x6C32D3AE</td> </tr> <tr> <td>ESN (Dec):</td> <td>108-03330990</td> </tr> <tr> <td>NCC:</td> <td></td> </tr> <tr> <td>NMC:</td> <td></td> </tr> <tr> <td>NSIN:</td> <td>3163712588</td> </tr> <tr> <td>Slot Class:</td> <td>Slotted</td> </tr> <tr> <td>Slot Cycle Index:</td> <td>2</td> </tr> </tbody> </table> | | Mobile Station Information | | ESN (Hex): | 0x6C32D3AE | ESN (Dec): | 108-03330990 | NCC: | | NMC: | | NSIN: | 3163712588 | Slot Class: | Slotted | Slot Cycle Index: | 2 | Cell Power | -86.00 |
| | Mobile Station Information | | | | | | | | | | | | | | | | | | | |
| | ESN (Hex): | 0x6C32D3AE | | | | | | | | | | | | | | | | | | |
| | ESN (Dec): | 108-03330990 | | | | | | | | | | | | | | | | | | |
| | NCC: | | | | | | | | | | | | | | | | | | | |
| | NMC: | | | | | | | | | | | | | | | | | | | |
| | NSIN: | 3163712588 | | | | | | | | | | | | | | | | | | |
| | Slot Class: | Slotted | | | | | | | | | | | | | | | | | | |
| | Slot Cycle Index: | 2 | | | | | | | | | | | | | | | | | | |
| | | | dBm/1.23 MHz | | | | | | | | | | | | | | | | | |
| | | Cell Band | US PCS | | | | | | | | | | | | | | | | | |
| | | Channel | 1175 | | | | | | | | | | | | | | | | | |
| | | Protocol Rev | 6 (IS-2000) | | | | | | | | | | | | | | | | | |
| | | Radio Config | (Fud1, Rvs1) | | | | | | | | | | | | | | | | | |
| | | FCH Service Option Setup | S055 (Loopback) | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| Close Menu | | | | | | | | | | | | | | | | | | | | |
| | Background | Active Cell Idle | Sys Type: IS-2000 | | | | | | | | | | | | | | | | | |
| | | IntRef | Offset | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| | | | 1 of 3 | | | | | | | | | | | | | | | | | |

Test Mode 1 in Radio Configuration 1 (FCH)



| Call Setup Screen | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------|---|----------------------------|--|------------|------------|------------|--------------|------|--|------|--|-------|------------|-------------|---------|-------------------|---|--------------------|------------------|-------------|----------------|------------|
| Call Control | Active Cell Operating Mode | Call Parm | | | | | | | | | | | | | | | | | | | | |
| Operating Mode | <table border="1"> <thead> <tr> <th colspan="2">Mobile Station Information</th> </tr> </thead> <tbody> <tr> <td>ESN (Hex):</td> <td>0x6C32D3AE</td> </tr> <tr> <td>ESN (Dec):</td> <td>108-03330990</td> </tr> <tr> <td>NCC:</td> <td></td> </tr> <tr> <td>NMC:</td> <td></td> </tr> <tr> <td>NSIN:</td> <td>3163712588</td> </tr> <tr> <td>Slot Class:</td> <td>Slotted</td> </tr> <tr> <td>Slot Cycle Index:</td> <td>2</td> </tr> <tr> <td>Protocol Revision:</td> <td>6 (IS-2000_Rev0)</td> </tr> <tr> <td>Band Class:</td> <td>US Cell US PCS</td> </tr> </tbody> </table> | Mobile Station Information | | ESN (Hex): | 0x6C32D3AE | ESN (Dec): | 108-03330990 | NCC: | | NMC: | | NSIN: | 3163712588 | Slot Class: | Slotted | Slot Cycle Index: | 2 | Protocol Revision: | 6 (IS-2000_Rev0) | Band Class: | US Cell US PCS | Cell Power |
| Mobile Station Information | | | | | | | | | | | | | | | | | | | | | | |
| ESN (Hex): | | 0x6C32D3AE | | | | | | | | | | | | | | | | | | | | |
| ESN (Dec): | | 108-03330990 | | | | | | | | | | | | | | | | | | | | |
| NCC: | | | | | | | | | | | | | | | | | | | | | | |
| NMC: | | | | | | | | | | | | | | | | | | | | | | |
| NSIN: | | 3163712588 | | | | | | | | | | | | | | | | | | | | |
| Slot Class: | | Slotted | | | | | | | | | | | | | | | | | | | | |
| Slot Cycle Index: | | 2 | | | | | | | | | | | | | | | | | | | | |
| Protocol Revision: | | 6 (IS-2000_Rev0) | | | | | | | | | | | | | | | | | | | | |
| Band Class: | US Cell US PCS | | | | | | | | | | | | | | | | | | | | | |
| Active Cell | | -86.00 | | | | | | | | | | | | | | | | | | | | |
| System Type | | dBm/1.23 MHz | | | | | | | | | | | | | | | | | | | | |
| IS-2000 | | Cell Band | | | | | | | | | | | | | | | | | | | | |
| | | US PCS | | | | | | | | | | | | | | | | | | | | |
| End Call | | Channel | | | | | | | | | | | | | | | | | | | | |
| | | 1175 | | | | | | | | | | | | | | | | | | | | |
| Paging INSI Setup | | Protocol Rev | | | | | | | | | | | | | | | | | | | | |
| | | 6 (IS-2000) | | | | | | | | | | | | | | | | | | | | |
| Handoff Setup | | Radio Config | | | | | | | | | | | | | | | | | | | | |
| | | (Fud3, Rvs3) | | | | | | | | | | | | | | | | | | | | |
| | | S032 (+ SCH) | | | | | | | | | | | | | | | | | | | | |
| | | FCH Service Option Setup | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | |
| | Background | Active Cell | | | | | | | | | | | | | | | | | | | | |
| | | Connected + Data | | | | | | | | | | | | | | | | | | | | |
| | | Sys Type: IS-2000 | | | | | | | | | | | | | | | | | | | | |
| 1 of 2 | IntRef | Offset | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | |
| | | 1 of 3 | | | | | | | | | | | | | | | | | | | | |

Test Mode 3 in Radio Configuration 3 (Service Option32)

| Call Setup Screen | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|--|---------------|------------|-------------------------|--------------|--------------------|------------|------------------------|--------------|---|--|-----------|---|------------------|----|------------|---|--|--|---------------|-----------------|---------------------------|--|---------------------------|------------------|----------------------------|------|--------------|-----|----------------------|------|---------------------------------------|----|------------|
| Call Control | Active Cell Operating Mode | Call Parm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Operating Mode | <table border="1"> <thead> <tr> <th colspan="2">Access Terminal Information (AT Reported)</th> </tr> </thead> <tbody> <tr> <td>Session Seed:</td> <td>0x7722375A</td> </tr> <tr> <td>Hardware ID Type (Hex):</td> <td>0x010000 ESN</td> </tr> <tr> <td>Hardware ID (Hex):</td> <td>0x602D699F</td> </tr> <tr> <td>Hardware ID (Decimal):</td> <td>096-02976159</td> </tr> <tr> <th colspan="2">Access Terminal Information (AN Assigned)</th> </tr> <tr> <td>UATI 024:</td> <td>2</td> </tr> <tr> <td>UATI Color Code:</td> <td>64</td> </tr> <tr> <td>NAC Index:</td> <td>5</td> </tr> <tr> <th colspan="2">Access Terminal Information (User Entered)</th> </tr> <tr> <td>AT Max Power:</td> <td>23 dBm/1.23 MHz</td> </tr> <tr> <th colspan="2">Application Configuration</th> </tr> <tr> <td>Session Application Type:</td> <td>Test Application</td> </tr> <tr> <td>Test Application Protocol:</td> <td>RTAP</td> </tr> <tr> <td>Limited TAP:</td> <td>Off</td> </tr> <tr> <td>AT Directed Packets:</td> <td>50 %</td> </tr> <tr> <td>ACK Channel Bit Fixed Mode Attribute:</td> <td>On</td> </tr> </tbody> </table> | Access Terminal Information (AT Reported) | | Session Seed: | 0x7722375A | Hardware ID Type (Hex): | 0x010000 ESN | Hardware ID (Hex): | 0x602D699F | Hardware ID (Decimal): | 096-02976159 | Access Terminal Information (AN Assigned) | | UATI 024: | 2 | UATI Color Code: | 64 | NAC Index: | 5 | Access Terminal Information (User Entered) | | AT Max Power: | 23 dBm/1.23 MHz | Application Configuration | | Session Application Type: | Test Application | Test Application Protocol: | RTAP | Limited TAP: | Off | AT Directed Packets: | 50 % | ACK Channel Bit Fixed Mode Attribute: | On | Cell Power |
| Access Terminal Information (AT Reported) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Session Seed: | | 0x7722375A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hardware ID Type (Hex): | | 0x010000 ESN | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hardware ID (Hex): | | 0x602D699F | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hardware ID (Decimal): | | 096-02976159 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Access Terminal Information (AN Assigned) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UATI 024: | | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UATI Color Code: | | 64 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NAC Index: | | 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Access Terminal Information (User Entered) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| AT Max Power: | 23 dBm/1.23 MHz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Application Configuration | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Session Application Type: | Test Application | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Test Application Protocol: | RTAP | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Limited TAP: | Off | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| AT Directed Packets: | 50 % | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ACK Channel Bit Fixed Mode Attribute: | On | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Active Cell | | -60.00 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | dBm/1.23 MHz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Cell Band | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | US PCS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Start Data Connection | | Channel | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 675 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Close Session | | Application Config | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Handoff Setup | | FTAP Rate | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 307.2 kbps | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| AT Max Power | | (2 Slot, QPSK) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 23 dBm/1.23 MHz | | RTAP Rate | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 153.6 kbps | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Background | Active Cell | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Session Open | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Sys Type: IS-856 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Logging: No Conn. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 of 3 | IntRef | Offset | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | RTAP | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 1 of 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

1xEV-DO setting with RTAP 153.6kbps

Reference:

- [1] SAR Measurement Procedures for 3G Devices CDMA 2000/Ev-Do/WCDMA/HSDPA, June 2006 Laboratory Division Office of Engineering and Technology Federal Communications Commission
- [2] 3.1.2.3.4 Maximum RF Output Power 3GPP2 C.S0033-0 Version 2.0, Date: 12 December 2003 Recommended Minimum Performance Standards for cdma2000 High Rate Packet Data Access Terminal