



# EMC Emission - TEST REPORT

Test Report File No. : **WC700862 Rev B** Date of issue: 25 April 2007

Model / Serial No. : PCC-2510 / 0050X067SAAX04194715

Product Name : Expedience 2.496-2.690 GHz RSU

Product Type : BRS/EBS PC Card Subscriber Unit (PCC)

Applicant : Motorola Incorporated Nextnet Wireless Product Group

Manufacturer : Motorola Incorporated Nextnet Wireless Product Group

License Holder : Motorola Incorporated Nextnet Wireless Product Group

Address : 299 Johnson Avenue  
Suite 120  
Waseca, MN 56093

Test Result :  **Positive**  **Negative**

Test Project Number Reference(s) : **WC700862 Rev B**

Total pages including Appendices **55**

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**Sign Explanations:**

- not applicable
- applicable

### R E V I S I O N   R E C O R D

REVISION	TOTAL NUMBER OF PAGES	DATE	DESCRIPTION
	61	28 February 2007	Initial Release
A	61	28 March 2007	Revisions include: <ul style="list-style-type: none"> <li>▪ Replaced substitution measurement worksheet, page 23</li> </ul>
B	55	25 April 2007	Revisions include: <ul style="list-style-type: none"> <li>▪ Page 4: Revised equipment list.</li> <li>▪ Page 23: Deleted.</li> <li>▪ Appendix A: Revised data.</li> </ul>

## EMISSIONS TEST REGULATIONS :

The emissions tests were performed according to following regulations:

- |   |   |   |
|---|---|---|
| <input type="checkbox"/> - EN 50081-1 / 1991                | <input type="checkbox"/> - Group 1                          | <input type="checkbox"/> - Group 2            |
| <input type="checkbox"/> - EN 55011 / 1991                  | <input type="checkbox"/> - Class A                          | <input type="checkbox"/> - Class B            |
| <input type="checkbox"/> - EN 55013 / 1990                  |   |   |
| <br>  |   |   |
| <input type="checkbox"/> - EN 55014 / 1987                  | <input type="checkbox"/> - Household appliances and similar |   |
|   | <input type="checkbox"/> - Portable tools                   |   |
|   | <input type="checkbox"/> - Semiconductor devices            |   |
| <br>  |   |   |
| <input type="checkbox"/> - EN 55014 / A2:1990               | <input type="checkbox"/> - Household appliances and similar |   |
| <input type="checkbox"/> - EN 55014 / 1993                  | <input type="checkbox"/> - Portable tools                   |   |
|   | <input type="checkbox"/> - Semiconductor devices            |   |
| <br>  |   |   |
| <input type="checkbox"/> - EN 55015 / 1987                  |   |   |
| <input type="checkbox"/> - EN 55015 / A1:1990               |   |   |
| <input type="checkbox"/> - EN 55015 / 1993                  |   |   |
| <input type="checkbox"/> - EN 55022 / 1987                  | <input type="checkbox"/> - Class A                          | <input type="checkbox"/> - Class B            |
| <input type="checkbox"/> - EN 55022 / 1991                  | <input type="checkbox"/> - Class A                          | <input type="checkbox"/> - Class B            |
| <br>  |   |   |
| <input type="checkbox"/> - BS                               | <input type="checkbox"/> - Class A                          | <input type="checkbox"/> - Class B            |
| <input type="checkbox"/> - VCCI                             | <input type="checkbox"/> - Class A                          | <input type="checkbox"/> - Class B            |
| <br>  |   |   |
| <input checked="" type="checkbox"/> - FCC Part 15 Subpart B | <input type="checkbox"/> - Class A                          | <input checked="" type="checkbox"/> - Class B |
| <input type="checkbox"/> - FCC Part 15 Subpart C            |   |   |
| <input checked="" type="checkbox"/> - FCC Part 27 Subpart C |   |   |
| <br>  |   |   |
| <input type="checkbox"/> - CISPR 11 (1990)                  | <input type="checkbox"/> - Group 1                          | <input type="checkbox"/> - Group 2            |
|   | <input type="checkbox"/> - Class A                          | <input type="checkbox"/> - Class B            |
| <br>  |   |   |
| <input type="checkbox"/> - CISPR 22 (1993)                  | <input type="checkbox"/> - Class A                          | <input type="checkbox"/> - Class B            |
| <br>  |   |   |
| <input checked="" type="checkbox"/> - IC RSS-Gen Issue 1    |   |   |
| <input checked="" type="checkbox"/> - IC RSS-193 Issue 1    |   |   |

## Radiated emission limits - Transmitter, FCC 27.53, IC RSS-193 6.3

### Test summary

The requirements are: ■ - MET □ - NOT MET

Minimum margin of compliance is 5 dB at 5.187 GHz, run 8

### Test location

■ - Wild River Lab Large Test Site (Open Area Test Site)

□ - Wild River Lab Small Test Site (Open Area Test Site)

### Test Distance

■ - 3 meters

□ - 10 meters

### Test equipment

TUV ID	Model Number	Manufacturer	Description	Serial Number	Cal Due
3203	EM-6917B	Electro-Metrics	Biconicalog Periodic	106	02-May-07
2690	8566B	Hewlett-Packard	Spectrum Analyzer	2430A00930	12 May 07
2673	85662A	Hewlett-Packard	Analyzer Display	2152A03687	12 May 07
2682	85650A	Hewlett-Packard	Quasi-Peak Adapter	2811A01127	29-Nov-07
2075	3115	EMCO	Ridge Guide Ant. 1-18 GHz	9001-3275	12-Jan-08
3847	ZHL-1042J	Mini-Circuits	Preamplifier 10 - 3000 MHz	0607	Code B
3935	F548B-1	Acronetics	1 - 2 GHz Bandpass Filter	010	Code B
N/A	L2G010G2	Microwave Circuits	Low Pass Filter	85441	Code B
N/A	H04G1862	Acronetics	High Pass Filter	89099	Code B
3333	SME03	Rhode & Schwarz	Signal Generator	100003	07-Jun-07
3236	UHAP-10dB	Schwarzbeck	Dipole Antenna 300-1000	164	N/A
3958	SL18B4020	Phase One Microwave	Preamplifier 1 - 18 GHz	0002	Code B
3056	18N20W-10dB	Inmet	Attenuator	1	Code B
3229	3115	Electro-Mechanics (EMCO)	Ridge Guide Antenna	2483	17-May-07
2687	8568B	Hewlett-Packard	Spectrum Analyzer (C)	2601A02219	04 Aug 07
2675	85662A	Hewlett-Packard	Analyzer Display (C)	2542A11472	04 Aug 07
2662	11970K	Hewlett-Packard	Harm Mixer - 18-26.5 GHz	2332A01170	04 Sep 08
2919	11970U	Hewlett-Packard	Harm Mixer - 40-60 GHz	3003A01395	04 Sep 09
6717	3116	EMCO	Ridge Guide Ant 18-40 GHz	2005	05 Oct 07

Cal Code B = Calibration verification performed internally.

### Test limit

-13.0 dBm

### Test Data

Pages 14 - 23

## Radiated emission limits - Receiver, FCC 15.205, FCC 15.209, IC RSS-Gen 6(a)

### Test summary

The requirements are:  - MET  - NOT MET

Minimum margin of compliance is 1.5 dB at 99.125 MHz, run 2

### Test location

- Wild River Lab Large Test Site (Open Area Test Site)

- Wild River Lab Small Test Site (Open Area Test Site)

### Test Distance

- 3 meters

- 10 meters

### Test equipment

TUV ID	Model Number	Manufacturer	Description	Serial Number	Cal Due
3203	EM-6917B	Electro-Metrics	Biconicalog Periodic	106	02-May-07
2690	8566B	Hewlett-Packard	Spectrum Analyzer	2430A00930	12 May 07
2673	85662A	Hewlett-Packard	Analyzer Display	2152A03687	12 May 07
2684	85650A	Hewlett-Packard	Quasi-Peak Adapter	2521A01006	15 Mar 07
2075	3115	EMCO	Ridge Guide Ant. 1-18 GHz	9001-3275	12 Jan 08
3847	ZHL-1042J	Mini-Circuits	Preamplifier 10 - 3000 MHz	0607	Code B
3958	SL18B4020	Phase One Microwave	Preamplifier 1 – 18 GHz	0002	Code B

Cal Code B = Calibration verification performed internally.

### Test limit

Spurious Frequency (MHz)	Field Strength (microvolt/m at 3 metres)
30-88	100
88-216	150
216-960	200
Above 960	500

### Test Data

Pages 24 – 40



## Conducted emissions - AC power lines - Class B limits, FCC 15.107, IC RSS-Gen 7.2.2

### Test summary

The requirements are:  - MET  - NOT MET  
Minimum margin of compliance is 11 dB at 180 kHz, run 7

### Test location

- Wild River Lab Large Test Site (Open Area Test Site)
- Wild River Lab Small Test Site (Open Area Test Site)

### Test equipment

TUV ID	Model Number	Manufacturer	Description	Serial Number	Cal Due
2416	3825/2	Electro-Mechanics (EMCO)	50 Ω LISN (white tape*)	8812-1437	Code B
2534	ESHS-20	Rhode & Schwarz	EMI Receiver	837055/003	27-Feb-07

Cal Code B = Calibration verification performed internally.

### Test limit

Frequency of emission (MHz)	Conducted limit (dBμV)	
	Quasi-peak	Average
0.15–0.5 .....	66 to 56* .....	56 to 46*
0.5–5 .....	56 .....	46
5–30 .....	60 .....	50

\*Decreases with the logarithm of the frequency.

### Test Data

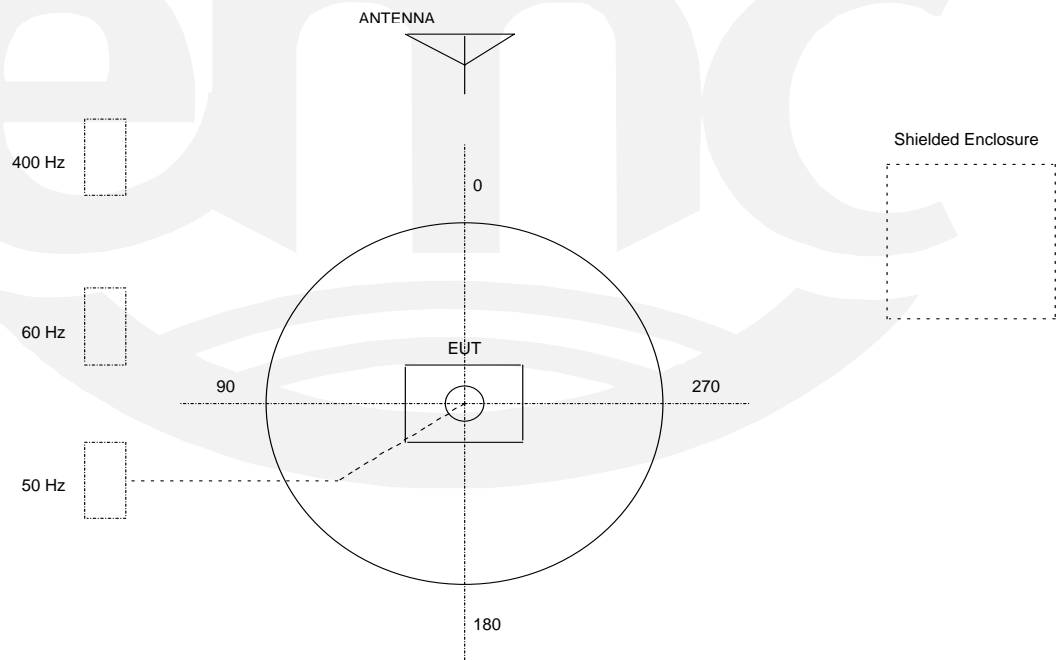
Pages 41 - 48

## TEST SETUP FOR EMISSIONS TESTING

### WILD RIVER LAB Large Test Site

Notes:

1. Items shown in dotted lines are located on the floor below the test area. It is 5 meters vertically from the ground floor to the test area.
2. 50 Hz, 60 Hz, and 400 Hz are power panels for alternating current.
3. The antenna may be positioned horizontally 3, 10 or 30 meters from the center of the turntable.
4. The circle is a 6.7 meter diameter turntable.
5. A ground plane is in the plane of this sheet.
6. The test sample is shown in the azimuthal position representing zero degrees.





Test setup photo, radiated emissions





Test setup photo, radiated emissions



Test setup photo, conducted emissions on AC mains



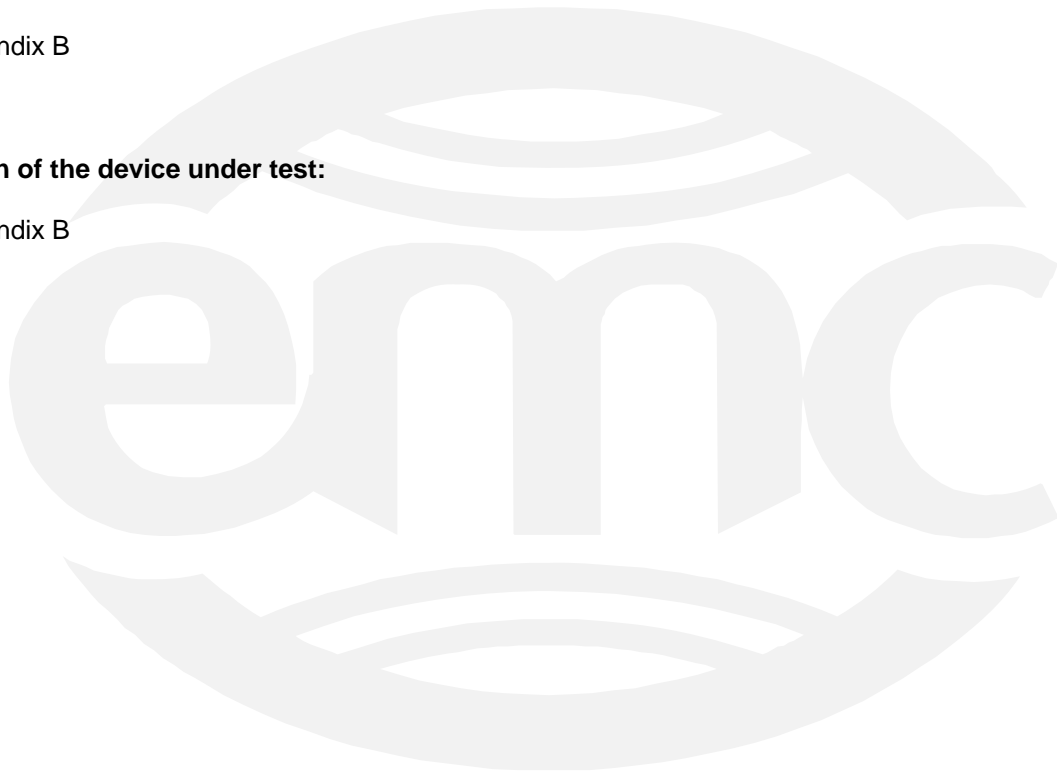
### Test Operation Mode:

The device under test was operated under the following conditions during emissions testing:

- Standby
- Test program (H - Pattern)
- Test program (color bar)
- Test program (customer specific)
- Practice operation
- See Appendix B

### Configuration of the device under test:

- See Appendix B





**DEVIATIONS FROM STANDARD:**

None.

**GENERAL REMARKS:**Modifications required to pass:

- None
- Extender card not used

Test Specification Deviations: Additions to or Exclusions from:

- None
- As indicated in the Test Plan

**SUMMARY:**

The requirements according to the technical regulations are

- met
- **not** met.

The device under test does

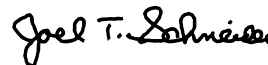
- fulfill the general approval requirements mentioned on page 3.
- **not** fulfill the general approval requirements mentioned on page 3.

EUT Received Date: 14 February 2007  
Condition of EUT: Normal  
Testing Start Date: 14 February 2007  
Testing End Date: 15 February 2007

- TÜV AMERICA INC -



Greg Jakubowski  
Senior EMC Technician



J. T. Schneider  
Senior EMC Engineer

## Appendix A

Test Data



# RADIATED EMISSIONS



America

Test Report #: WC700862 Run 8                      Test Area: LTS

EUT Model #: PCC-2510                                      Date: 2/14/2007

EUT Serial #: 0050X067SAAX04194715              EUT Power: 110VAC 60 Hz PS              Temperature: 20.0 °C

Test Method: FCC Pt 27    Air Pressure: 100.0 kPa

Customer: Motorola Inc., NextNet Wireless Product Group              Rel. Humidity: 18.0 %

EUT Description: BRS/EBS PC Card Subscriber Unit (PCC)  
Transmitter on, configs 1 - 3, 30 MHz - 27 GHz

Notes: \_\_\_\_\_

Data File Name: 0862 c.dat    Page: 1 of 4

## List of measurements for run #: 8

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	FINAL (dBm) substitution	LIMIT (-13dBm)
Begin scan 1 - 18 GHz						
Substitution measurements shown for all signals within 20 dB of the limit						
1 - 2 GHz BPF						
Config 1						
1.0 GHz	62.2 Pk	3.07 / 25.2 / 49.9 / 0.4	40.97	H / 1.00 / 0	N/a	N/a
1.031 GHz	59.35 Pk	3.09 / 25.19 / 50.04 / 0.36	37.95	H / 1.00 / 0	-59	-13
1.1 GHz	61.2 Pk	3.26 / 25.16 / 50.33 / 0.36	39.65	H / 1.00 / 0	-57	-13
1.666 GHz	71.0 Pk	4.12 / 26.03 / 50.5 / 0.52	51.17	H / 1.00 / 0	-45	-13
1.99 GHz	68.65 Pk	4.47 / 28.04 / 50.47 / 0.86	51.56	H / 1.00 / 0	-45	-13
1.0 GHz	70.4 Pk	3.07 / 25.2 / 49.9 / 0.4	49.17	V / 1.00 / 0	N/a	N/a
1.331 GHz	59.45 Pk	3.73 / 25.07 / 50.61 / 0.55	38.19	V / 1.00 / 0	-58	-13
1.494 GHz	61.4 Pk	3.92 / 25.0 / 50.69 / 0.47	40.1	V / 1.00 / 0	-56	-13
Maximized						
1.0 GHz	74.7 Pk	3.07 / 25.2 / 49.9 / 0.4	53.47	H / 1.11 / 266	-43	-13
1.99 GHz	67.35 Pk	4.47 / 28.04 / 50.47 / 0.86	50.26	H / 1.00 / 0	N/a	N/a
1.666 GHz	70.3 Pk	4.12 / 26.03 / 50.5 / 0.52	50.47	H / 1.00 / 0	N/a	N/a
Config 2						
Emissions virtually the same as config 1						
No higher emissions detected						
Config 3						
No higher emissions detected						

Tested by: Greg Jakubowski  
 \_\_\_\_\_  
 Printed

*Greg Jakubowski*  
 \_\_\_\_\_  
 Signature

Reviewed by: J. T. Schneider  
 \_\_\_\_\_  
 Printed

*Joel T. Schneider*  
 \_\_\_\_\_  
 Signature

# RADIATED EMISSIONS



America

Test Report #: WC700862 Run 8 Test Area: LTS  
 EUT Model #: PCC-2510 Date: 2/14/2007  
 EUT Serial #: 0050X067SAAX04194715 EUT Power: 110VAC 60 Hz PS Temperature: 20.0 °C  
 Test Method: FCC Pt 27 Air Pressure: 100.0 kPa  
 Customer: Motorola Inc., NextNet Wireless Product Group Rel. Humidity: 18.0 %

EUT Description: BRS/EBS PC Card Subscriber Unit (PCC)  
Transmitter on, configs 1 - 3, 30 MHz - 27 GHz  
 Notes: \_\_\_\_\_

Data File Name: 0862 c.dat Page: 2 of 4

## List of measurements for run #: 8

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	FINAL (dBm) substitution	LIMIT (-13dBm)
2 - 4 GHz, No preamp, No filters						
No significant emissions detected						
config 2						
No significant emissions detected						
config 1						
No significant emissions detected						
4 - 18 GHz, 4GHz HPF, Preamp						
Config 2						
Max'd						
5.187 GHz	83.15 Pk	7.77 / 33.44 / 47.04 / 0.73	78.06	H / 1.00 / 0	-18	-13
Substitution = -6.6 dBm sig. Gen - 0.7 dB cable loss - 10.7 dBi antenna gain = -18 dBm						
5.187 GHz	38.56 Av	7.77 / 33.44 / 47.04 / 0.73	33.47	H / 1.21 / 0	N/a	n/a
7.778 GHz	60.1 Pk	10.22 / 36.57 / 47.1 / 0.06	59.85	H / 1.00 / 0	-37	-13
10.37 GHz	59.95 Pk	14.06 / 38.19 / 46.26 / 0.2	66.13	H / 1.00 / 0	-30	-13
Substitution = -17 dBm sig. Gen - 1.0 dB cable loss - 12.0 dBi antenna gain = -30 dBm						
Config 1						
4.998 GHz	74.45 Pk	7.66 / 33.2 / 47.24 / 0.83	68.9	H / 1.06 / 300	-28	-13
Substitution = -16.7 dBm sig. Gen - 0.7 dB cable loss - 10.6 dBi antenna gain = -28 dBm						
7.497 GHz	55.95 Pk	9.95 / 36.4 / 47.19 / 0.05	55.15	H / 1.06 / 300	-41	-13
9.996 GHz	56.0 Pk	13.27 / 37.95 / 46.38 / 0.18	61.02	H / 1.06 / 300	-35	-13
Config 3						
5.374 GHz	75.35 Pk	7.98 / 33.68 / 46.84 / 0.64	70.81	H / 1.30 / 295	-26	-13
Substitution = -14.6 dBm sig. Gen - 0.7 dB cable loss - 10.7 dBi antenna gain = -26 dBm						

Tested by: Greg Jakubowski  
 \_\_\_\_\_  
 Printed

*Greg Jakubowski*  
 \_\_\_\_\_  
 Signature

Reviewed by: J. T. Schneider  
 \_\_\_\_\_  
 Printed

*Joel T. Schneider*  
 \_\_\_\_\_  
 Signature



# RADIATED EMISSIONS



America

Test Report #: WC700862 Run 8                      Test Area: LTS

EUT Model #: PCC-2510                                      Date: 2/14/2007

EUT Serial #: 0050X067SAAX04194715              EUT Power: 110VAC 60 Hz PS              Temperature: 20.0 °C

Test Method: FCC Pt 27    Air Pressure: 100.0 kPa

Customer: Motorola Inc., NextNet Wireless Product Group              Rel. Humidity: 18.0 %

EUT Description: BRS/EBS PC Card Subscriber Unit (PCC)

Transmitter on, configs 1 - 3, 30 MHz - 27 GHz

Notes: \_\_\_\_\_

Data File Name: 0862 c.dat    Page: 3 of 4

## List of measurements for run #: 8

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	FINAL (dBm) substitution	LIMIT (-13dBm)
Begin scan 30 - 1000 MHz						
Bilog antenna, 2.1GHz LPF, preamp 3847						
48.0 MHz	47.8 Pk	0.53 / 14.7 / 29.88 / 0.01	33.16	V / 1.00 / 0	-63	-13
58.158 MHz	54.55 Pk	0.71 / 11.99 / 29.73 / 0.01	37.53	V / 1.00 / 0	-59	-13
64.278 MHz	54.4 Pk	0.76 / 10.8 / 29.65 / 0.02	36.33	V / 1.00 / 0	-60	-13
70.218 MHz	57.4 Pk	0.8 / 9.82 / 29.56 / 0.02	38.48	V / 1.00 / 0	-58	-13
75.078 MHz	57.3 Pk	0.83 / 9.03 / 29.5 / 0.02	37.68	V / 1.00 / 0	-59	-13
99.903 MHz	50.65 Pk	0.94 / 8.71 / 29.54 / 0.03	30.79	V / 1.00 / 0	N/a	N/a
119.988 MHz	55.2 Pk	1.0 / 8.95 / 29.57 / 0.04	35.62	V / 1.00 / 0	-61	-13
132.04 MHz	56.3 Pk	1.04 / 8.52 / 29.59 / 0.04	36.31	V / 1.00 / 0	-60	-13
168.007 MHz	38.2 Pk	1.23 / 9.33 / 29.51 / 0.06	19.31	V / 1.00 / 0	-77	-13
213.97 MHz	48.2 Pk	1.41 / 10.91 / 29.59 / 0.08	31.01	V / 1.00 / 0	-65	-13
531.006 MHz	53.85 Pk	2.23 / 18.0 / 30.09 / 0.15	44.14	V / 1.00 / 0	N/a	N/a
995.33 MHz	39.8 Pk	3.07 / 22.9 / 29.65 / 0.24	36.35	V / 1.00 / 0	-60	-13
Max'd						
531.028 MHz	56.95 Pk	2.23 / 18.0 / 30.09 / 0.15	47.24	V / 1.13 / 101	-49	-13
99.925 MHz	60.7 Pk	0.94 / 8.71 / 29.54 / 0.03	40.85	H / 1.85 / 184	-56	-13
233.208 MHz	54.4 Pk	1.45 / 11.47 / 29.62 / 0.09	37.79	H / 1.32 / 184	-59	-13
133.0 MHz	52.0 Pk	1.04 / 8.62 / 29.59 / 0.05	32.12	H / 1.32 / 184	-64	-13
Config 2						
No higher emissions detected						
Config 1						
No higher emissions detected						

Tested by: Greg Jakubowski

Printed

*Greg Jakubowski*

Signature

Reviewed by: J. T. Schneider

Printed

*Joel T. Schneider*

Signature

# RADIATED EMISSIONS



America

Test Report #: WC700862 Run 8 Test Area: LTS  
EUT Model #: PCC-2510 Date: 2/14/2007  
EUT Serial #: 0050X067SAAX04194715 EUT Power: 110VAC 60 Hz PS Temperature: 20.0 °C  
Test Method: FCC Pt 27 Air Pressure: 100.0 kPa  
Customer: Motorola Inc., NextNet Wireless Product Group Rel. Humidity: 18.0 %  
EUT Description: BRS/EBS PC Card Subscriber Unit (PCC)  
Transmitter on, configs 1 - 3, 30 MHz - 27 GHz  
Notes: \_\_\_\_\_  
Data File Name: 0862 c.dat Page: 4 of 4

## List of measurements for run #: 8

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	FINAL (dBm) substitution	LIMIT (-13dBm)
Begin scan 18 - 27 GHz						
Agilent analyzer, #3978 preamp, #6717 horn antenna						
No significant emissions detected, configs 1, 2, & 3						

Tested by: Greg Jakubowski  
Printed

*Greg Jakubowski*  
Signature

Reviewed by: J. T. Schneider  
Printed

*Joel T. Schneider*  
Signature

# RADIATED EMISSIONS



Test Report #: WC700862 Run 2 Test Area: LTS  
EUT Model #: PCC-2510 Date: 2/14/2007  
EUT Serial #: 0050X067SAAX04194715 EUT Power: 3.3 VDC Temperature: 21.0 °C  
Test Method: FCC B Air Pressure: 100.0 kPa  
Customer: Motorola Inc., NextNet Wireless Product Group Rel. Humidity: 15.0 %

EUT Description: BRS/EBS PC Card Subscriber Unit (PCC)

Notes: Receive mode, Configuration 4: 6.0 MHz channel bandwidth: RF freq = 2499 MHz

Data File Name: 0862.dat Page: 1 of 5

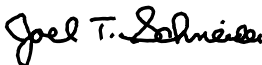
## List of measurements for run #: 2

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	DELTA1 FCC-B <1GHz 3m	DELTA2
Extender card not in use						
48.0 MHz	42.9 Qp	0.53 / 14.7 / 29.88 / 0.0	28.25	V / 1.00 / 0	-11.75	n/a
58.158 MHz	42.1 Qp	0.71 / 11.99 / 29.73 / 0.0	25.07	V / 1.00 / 0	-14.93	n/a
64.278 MHz	40.35 Qp	0.76 / 10.8 / 29.65 / 0.0	22.26	V / 1.00 / 0	-17.74	n/a
70.218 MHz	41.1 Qp	0.8 / 9.82 / 29.56 / 0.0	22.17	V / 1.00 / 0	-17.83	n/a
75.078 MHz	39.65 Qp	0.83 / 9.03 / 29.5 / 0.0	20.01	V / 1.00 / 0	-19.99	n/a
82.98 MHz	38.6 Qp	0.88 / 7.73 / 29.51 / 0.0	17.7	V / 1.00 / 0	-22.3	n/a
88.89 MHz	47.3 Qp	0.91 / 7.74 / 29.52 / 0.0	26.43	V / 1.00 / 0	-17.07	n/a
99.925 MHz	52.55 Qp	0.94 / 8.71 / 29.54 / 0.0	32.66	V / 1.00 / 0	-10.84	n/a
119.988 MHz	44.85 Qp	1.0 / 8.95 / 29.57 / 0.0	25.23	V / 1.00 / 0	-18.27	n/a
132.756 MHz	42.9 Qp	1.04 / 8.59 / 29.59 / 0.0	22.95	V / 1.00 / 0	-20.55	n/a
166.561 MHz	43.05 Qp	1.23 / 9.23 / 29.51 / 0.0	24.0	V / 1.00 / 0	-19.5	n/a
174.643 MHz	38.15 Qp	1.26 / 9.76 / 29.52 / 0.0	19.65	V / 1.00 / 0	-23.85	n/a
260.403 MHz	43.9 Qp	1.5 / 12.25 / 29.66 / 0.0	27.99	V / 1.00 / 0	-18.01	n/a
353.806 MHz	39.0 Qp	1.92 / 14.94 / 29.81 / 0.0	26.06	V / 1.00 / 0	-19.94	n/a
357.958 MHz	40.3 Qp	1.93 / 15.06 / 29.82 / 0.0	27.48	V / 1.00 / 0	-18.52	n/a
386.578 MHz	39.5 Qp	1.99 / 15.63 / 29.86 / 0.0	27.26	V / 1.00 / 0	-18.74	n/a
531.028 MHz	39.6 Qp	2.23 / 18.0 / 30.09 / 0.0	29.74	V / 1.00 / 0	-16.26	n/a
995.275 MHz	38.6 Qp	3.07 / 22.9 / 29.65 / 0.0	34.91	V / 1.00 / 0	-19.09	n/a
58.158 MHz	43.45 Qp	0.71 / 11.99 / 29.73 / 0.0	26.42	V / 1.00 / 90	-13.58	n/a
64.278 MHz	41.25 Qp	0.76 / 10.8 / 29.65 / 0.0	23.16	V / 1.00 / 90	-16.84	n/a
70.218 MHz	41.5 Qp	0.8 / 9.82 / 29.56 / 0.0	22.57	V / 1.00 / 90	-17.43	n/a
82.98 MHz	40.55 Qp	0.88 / 7.73 / 29.51 / 0.0	19.65	V / 1.00 / 90	-20.35	n/a
83.262 MHz	39.75 Qp	0.88 / 7.69 / 29.51 / 0.0	18.81	V / 1.00 / 90	-21.19	n/a

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# RADIATED EMISSIONS



America

Test Report #: WC700862 Run 2 Test Area: LTS  
 EUT Model #: PCC-2510 Date: 2/14/2007  
 EUT Serial #: 0050X067SAAX04194715 EUT Power: 3.3 VDC Temperature: 21.0 °C  
 Test Method: FCC B Air Pressure: 100.0 kPa  
 Customer: Motorola Inc., NextNet Wireless Product Group Rel. Humidity: 15.0 %

EUT Description: BRS/EBS PC Card Subscriber Unit (PCC)

Notes: Receive mode, Configuration 4: 6.0 MHz channel bandwidth: RF freq = 2499 MHz

Data File Name: 0862.dat

Page: 2 of 5

## List of measurements for run #: 2

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	DELTA1 FCC-B <1GHz 3m	DELTA2
111.726 MHz	42.05 Qp	0.97 / 9.49 / 29.56 / 0.0	22.95	V / 1.00 / 90	-20.55	n/a
119.988 MHz	47.25 Qp	1.0 / 8.95 / 29.57 / 0.0	27.63	V / 1.00 / 90	-15.87	n/a
531.028 MHz	48.15 Qp	2.23 / 18.0 / 30.09 / 0.0	38.29	V / 1.00 / 90	-7.71	n/a
111.726 MHz	44.5 Qp	0.97 / 9.49 / 29.56 / 0.0	25.4	V / 1.00 / 180	-18.1	n/a
119.988 MHz	52.1 Qp	1.0 / 8.95 / 29.57 / 0.0	32.48	V / 1.00 / 180	-11.02	n/a
355.934 MHz	37.9 Qp	1.93 / 15.01 / 29.81 / 0.0	25.02	V / 1.00 / 180	-20.98	n/a
357.958 MHz	42.35 Qp	1.93 / 15.06 / 29.82 / 0.0	29.53	V / 1.00 / 180	-16.47	n/a
386.578 MHz	41.85 Qp	1.99 / 15.63 / 29.86 / 0.0	29.61	V / 1.00 / 180	-16.39	n/a
48.0 MHz	44.6 Qp	0.53 / 14.7 / 29.88 / 0.0	29.95	V / 1.00 / 270	-10.05	n/a
75.078 MHz	40.35 Qp	0.83 / 9.03 / 29.5 / 0.0	20.71	V / 1.00 / 270	-19.29	n/a
99.925 MHz	54.25 Qp	0.94 / 8.71 / 29.54 / 0.0	34.36	V / 1.00 / 270	-9.14	n/a
132.756 MHz	44.2 Qp	1.04 / 8.59 / 29.59 / 0.0	24.25	V / 1.00 / 270	-19.25	n/a
355.934 MHz	41.2 Qp	1.93 / 15.01 / 29.81 / 0.0	28.32	V / 1.00 / 270	-17.68	n/a
995.275 MHz	40.45 Qp	3.07 / 22.9 / 29.65 / 0.0	36.76	V / 1.00 / 270	-17.24	n/a
99.925 MHz	55.6 Qp	0.94 / 8.71 / 29.54 / 0.0	35.71	H / 1.00 / 270	-7.79	n/a
132.756 MHz	47.55 Qp	1.04 / 8.59 / 29.59 / 0.0	27.6	H / 1.00 / 270	-15.9	n/a
166.561 MHz	46.8 Qp	1.23 / 9.23 / 29.51 / 0.0	27.75	H / 1.00 / 270	-15.75	n/a
174.643 MHz	40.0 Qp	1.26 / 9.76 / 29.52 / 0.0	21.5	H / 1.00 / 270	-22.0	n/a
177.943 MHz	43.9 Qp	1.28 / 9.98 / 29.53 / 0.0	25.63	H / 1.00 / 270	-17.87	n/a
260.403 MHz	47.65 Qp	1.5 / 12.25 / 29.66 / 0.0	31.74	H / 1.00 / 270	-14.26	n/a
354.04 MHz	43.35 Qp	1.92 / 14.95 / 29.81 / 0.0	30.41	H / 1.00 / 270	-15.59	n/a
355.934 MHz	42.8 Qp	1.93 / 15.01 / 29.81 / 0.0	29.92	H / 1.00 / 270	-16.08	n/a
99.925 MHz	57.66 Qp	0.94 / 8.71 / 29.54 / 0.0	37.77	H / 1.00 / 180	-5.73	n/a

Tested by: Greg Jakubowski

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# RADIATED EMISSIONS



Test Report #: WC700862 Run 2 Test Area: LTS  
EUT Model #: PCC-2510 Date: 2/14/2007  
EUT Serial #: 0050X067SAAX04194715 EUT Power: 3.3 VDC Temperature: 21.0 °C  
Test Method: FCC B Air Pressure: 100.0 kPa  
Customer: Motorola Inc., NextNet Wireless Product Group Rel. Humidity: 15.0 %

EUT Description: BRS/EBS PC Card Subscriber Unit (PCC)

Notes: Receive mode, Configuration 4: 6.0 MHz channel bandwidth: RF freq = 2499 MHz

Data File Name: 0862.dat Page: 3 of 5

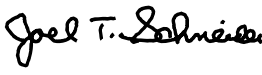
## List of measurements for run #: 2

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	DELTA1 FCC-B <1GHz 3m	DELTA2
119.988 MHz	53.3 Qp	1.0 / 8.95 / 29.57 / 0.0	33.68	H / 1.00 / 90	-9.82	n/a
354.04 MHz	44.15 Qp	1.92 / 14.95 / 29.81 / 0.0	31.21	H / 1.00 / 90	-14.79	n/a
355.934 MHz	44.0 Qp	1.93 / 15.01 / 29.81 / 0.0	31.12	H / 1.00 / 90	-14.88	n/a
Maximized 99.925 MHz						
99.925 MHz	61.85 Qp	0.94 / 8.71 / 29.54 / 0.0	41.96	H / 1.70 / 189	-1.54	n/a
End scan 30 - 2000 MHz						

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# RADIATED EMISSIONS



Test Report #: WC700862 Run 2 Test Area: LTS  
 EUT Model #: PCC-2510 Date: 2/14/2007  
 EUT Serial #: 0050X067SAAX04194715 EUT Power: 3.3 VDC Temperature: 21.0 °C  
 Test Method: FCC B Air Pressure: 100.0 kPa  
 Customer: Motorola Inc., NextNet Wireless Product Group Rel. Humidity: 15.0 %  
 EUT Description: BRS/EBS PC Card Subscriber Unit (PCC)

Notes: Receive mode, Configuration 4: 6.0 MHz channel bandwidth: RF freq = 2499 MHz

Data File Name: 0862.dat

Page: 4 of 5

## Measurement summary for limit1: FCC-B <1GHz 3m (Qp)

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	DELTA1 FCC-B <1GHz 3m
99.925 MHz	61.85 Qp	0.94 / 8.71 / 29.54 / 0.0	41.96	H / 1.70 / 189	-1.54
531.028 MHz	48.15 Qp	2.23 / 18.0 / 30.09 / 0.0	38.29	V / 1.00 / 90	-7.71
119.988 MHz	53.3 Qp	1.0 / 8.95 / 29.57 / 0.0	33.68	H / 1.00 / 90	-9.82
48.0 MHz	44.6 Qp	0.53 / 14.7 / 29.88 / 0.0	29.95	V / 1.00 / 270	-10.05
58.158 MHz	43.45 Qp	0.71 / 11.99 / 29.73 / 0.0	26.42	V / 1.00 / 90	-13.58
260.403 MHz	47.65 Qp	1.5 / 12.25 / 29.66 / 0.0	31.74	H / 1.00 / 270	-14.26
354.04 MHz	44.15 Qp	1.92 / 14.95 / 29.81 / 0.0	31.21	H / 1.00 / 90	-14.79
355.934 MHz	44.0 Qp	1.93 / 15.01 / 29.81 / 0.0	31.12	H / 1.00 / 90	-14.88
166.561 MHz	46.8 Qp	1.23 / 9.23 / 29.51 / 0.0	27.75	H / 1.00 / 270	-15.75
132.756 MHz	47.55 Qp	1.04 / 8.59 / 29.59 / 0.0	27.6	H / 1.00 / 270	-15.9
386.578 MHz	41.85 Qp	1.99 / 15.63 / 29.86 / 0.0	29.61	V / 1.00 / 180	-16.39
357.958 MHz	42.35 Qp	1.93 / 15.06 / 29.82 / 0.0	29.53	V / 1.00 / 180	-16.47
64.278 MHz	41.25 Qp	0.76 / 10.8 / 29.65 / 0.0	23.16	V / 1.00 / 90	-16.84
88.89 MHz	47.3 Qp	0.91 / 7.74 / 29.52 / 0.0	26.43	V / 1.00 / 0	-17.07
995.275 MHz	40.45 Qp	3.07 / 22.9 / 29.65 / 0.0	36.76	V / 1.00 / 270	-17.24
70.218 MHz	41.5 Qp	0.8 / 9.82 / 29.56 / 0.0	22.57	V / 1.00 / 90	-17.43
177.943 MHz	43.9 Qp	1.28 / 9.98 / 29.53 / 0.0	25.63	H / 1.00 / 270	-17.87
111.726 MHz	44.5 Qp	0.97 / 9.49 / 29.56 / 0.0	25.4	V / 1.00 / 180	-18.1
75.078 MHz	40.35 Qp	0.83 / 9.03 / 29.5 / 0.0	20.71	V / 1.00 / 270	-19.29
353.806 MHz	39.0 Qp	1.92 / 14.94 / 29.81 / 0.0	26.06	V / 1.00 / 0	-19.94
82.98 MHz	40.55 Qp	0.88 / 7.73 / 29.51 / 0.0	19.65	V / 1.00 / 90	-20.35
83.262 MHz	39.75 Qp	0.88 / 7.69 / 29.51 / 0.0	18.81	V / 1.00 / 90	-21.19
174.643 MHz	40.0 Qp	1.26 / 9.76 / 29.52 / 0.0	21.5	H / 1.00 / 270	-22.0

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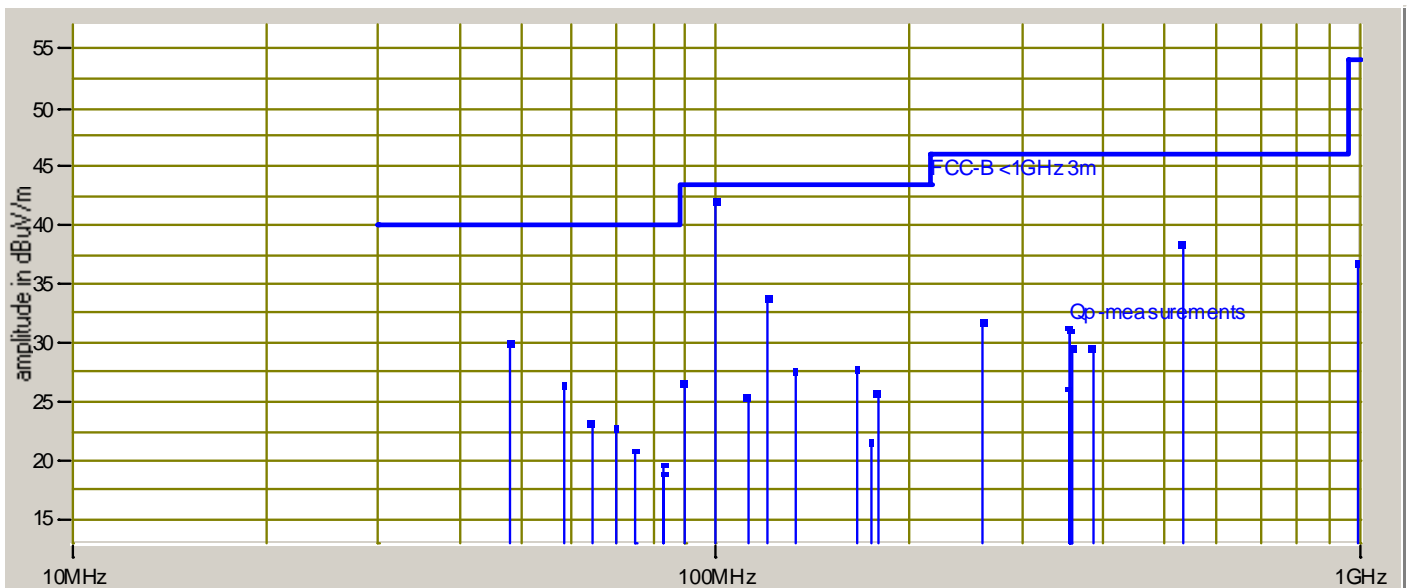
# RADIATED EMISSIONS



America

Test Report #: WC700862 Run 2 Test Area: LTS  
 EUT Model #: PCC-2510 Date: 2/14/2007  
 EUT Serial #: 0050X067SAAX04194715 EUT Power: 3.3 VDC Temperature: 21.0 °C  
 Test Method: FCC B Air Pressure: 100.0 kPa  
 Customer: Motorola Inc., NextNet Wireless Product Group Rel. Humidity: 15.0 %  
 EUT Description: BRS/EBS PC Card Subscriber Unit (PCC)  
 Notes: Receive mode, Configuration 4: 6.0 MHz channel bandwidth: RF freq = 2499 MHz  
 Data File Name: 0862.dat Page: 5 of 5

## Graph:



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 Signature

Reviewed by: J. T. Schneider  
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*Joel T. Schneider*  
 Signature



# RADIATED EMISSIONS



Test Report #: WC700862 Run 3 Test Area: LTS  
 EUT Model #: PCC-2510 Date: 2/14/2007  
 EUT Serial #: 0050X067SAAX04194715 EUT Power: 3.3 VDC Temperature: 21.0 °C  
 Test Method: FCC B Air Pressure: 100.0 kPa  
 Customer: Motorola Inc., NextNet Wireless Product Group Rel. Humidity: 15.0 %  
 EUT Description: BRS/EBS PC Card Subscriber Unit (PCC)

Notes: Receive mode, Configuration 5: 5.5 MHz channel bandwidth: RF freq = 2593 MHz

Data File Name: 0862.dat

Page: 1 of 6

## List of measurements for run #: 3

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	DELTA1 FCC-B <1GHz 3m	DELTA2 FCC B >1GHz 3m
48.0 MHz	43.13 Qp	0.53 / 14.7 / 29.88 / 0.0	28.48	V / 1.00 / 0	-11.52	n/a
58.158 MHz	42.5 Qp	0.71 / 11.99 / 29.73 / 0.0	25.47	V / 1.00 / 0	-14.53	n/a
64.278 MHz	42.19 Qp	0.76 / 10.8 / 29.65 / 0.0	24.1	V / 1.00 / 0	-15.9	n/a
70.218 MHz	42.34 Qp	0.8 / 9.82 / 29.56 / 0.0	23.41	V / 1.00 / 0	-16.59	n/a
75.078 MHz	40.39 Qp	0.83 / 9.03 / 29.5 / 0.0	20.75	V / 1.00 / 0	-19.25	n/a
88.89 MHz	46.9 Qp	0.91 / 7.74 / 29.52 / 0.0	26.03	V / 1.00 / 0	-17.47	n/a
99.925 MHz	53.78 Qp	0.94 / 8.71 / 29.54 / 0.0	33.89	V / 1.00 / 0	-9.61	n/a
119.988 MHz	46.14 Qp	1.0 / 8.95 / 29.57 / 0.0	26.52	V / 1.00 / 0	-16.98	n/a
132.756 MHz	42.78 Qp	1.04 / 8.59 / 29.59 / 0.0	22.83	V / 1.00 / 0	-20.67	n/a
166.561 MHz	44.54 Qp	1.23 / 9.23 / 29.51 / 0.0	25.49	V / 1.00 / 0	-18.01	n/a
260.403 MHz	43.78 Qp	1.5 / 12.25 / 29.66 / 0.0	27.87	V / 1.00 / 0	-18.13	n/a
353.806 MHz	39.88 Qp	1.92 / 14.94 / 29.81 / 0.0	26.94	V / 1.00 / 0	-19.06	n/a
357.958 MHz	39.84 Qp	1.93 / 15.06 / 29.82 / 0.0	27.02	V / 1.00 / 0	-18.98	n/a
386.578 MHz	39.51 Qp	1.99 / 15.63 / 29.86 / 0.0	27.27	V / 1.00 / 0	-18.73	n/a
531.028 MHz	40.1 Qp	2.23 / 18.0 / 30.09 / 0.0	30.24	V / 1.00 / 0	-15.76	n/a
995.275 MHz	42.78 Qp	3.07 / 22.9 / 29.65 / 0.0	39.09	V / 1.00 / 0	-14.91	n/a
1.659 GHz	31.07 Av	4.11 / 27.82 / 29.39 / 0.0	33.6	V / 1.00 / 0	n/a	-20.4
125.858 MHz	44.03 Qp	1.02 / 8.57 / 29.58 / 0.0	24.04	V / 1.00 / 90	-19.46	n/a
154.128 MHz	37.79 Qp	1.15 / 9.23 / 29.53 / 0.0	18.64	V / 1.00 / 90	-24.86	n/a
232.293 MHz	44.65 Qp	1.44 / 11.44 / 29.62 / 0.0	27.92	V / 1.00 / 90	-18.08	n/a
399.847 MHz	36.44 Qp	2.01 / 15.81 / 29.88 / 0.0	24.37	V / 1.00 / 90	-21.63	n/a
415.23 MHz	36.08 Qp	2.02 / 16.13 / 29.91 / 0.0	24.32	V / 1.00 / 90	-21.68	n/a
431.346 MHz	40.92 Qp	2.04 / 16.46 / 29.93 / 0.0	29.49	V / 1.00 / 90	-16.51	n/a
58.158 MHz	43.2 Qp	0.71 / 11.99 / 29.73 / 0.0	26.17	V / 1.00 / 90	-13.83	n/a
119.988 MHz	46.6 Qp	1.0 / 8.95 / 29.57 / 0.0	26.98	V / 1.00 / 90	-16.52	n/a

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Test Report #: WC700862 Run 3                      Test Area: LTS  
 EUT Model #: PCC-2510                                      Date: 2/14/2007  
 EUT Serial #: 0050X067SAAX04194715              EUT Power: 3.3 VDC                      Temperature: 21.0 °C  
 Test Method: FCC B    Air Pressure: 100.0 kPa  
 Customer: Motorola Inc., NextNet Wireless Product Group                      Rel. Humidity: 15.0 %  
 EUT Description: BRS/EBS PC Card Subscriber Unit (PCC)

Notes: Receive mode, Configuration 5: 5.5 MHz channel bandwidth: RF freq = 2593 MHz

Data File Name: 0862.dat

Page: 2 of 6

## List of measurements for run #: 3

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	DELTA1 FCC-B <1GHz 3m	DELTA2 FCC B >1GHz 3m
531.028 MHz	47.8 Qp	2.23 / 18.0 / 30.09 / 0.0	37.94	V / 1.00 / 90	-8.06	n/a
119.988 MHz	49.5 Qp	1.0 / 8.95 / 29.57 / 0.0	29.88	V / 1.00 / 180	-13.62	n/a
357.958 MHz	41.85 Qp	1.93 / 15.06 / 29.82 / 0.0	29.03	V / 1.00 / 180	-16.97	n/a
386.578 MHz	40.6 Qp	1.99 / 15.63 / 29.86 / 0.0	28.36	V / 1.00 / 180	-17.64	n/a
415.23 MHz	37.95 Qp	2.02 / 16.13 / 29.91 / 0.0	26.19	V / 1.00 / 180	-19.81	n/a
431.346 MHz	43.36 Qp	2.04 / 16.46 / 29.93 / 0.0	31.93	V / 1.00 / 180	-14.07	n/a
99.925 MHz	55.88 Qp	0.94 / 8.71 / 29.54 / 0.0	35.99	V / 1.00 / 270	-7.51	n/a
354.04 MHz	42.26 Qp	1.92 / 14.95 / 29.81 / 0.0	29.32	V / 1.00 / 270	-16.68	n/a
355.934 MHz	41.87 Qp	1.93 / 15.01 / 29.81 / 0.0	28.99	V / 1.00 / 270	-17.01	n/a
995.275 MHz	44.03 Qp	3.07 / 22.9 / 29.65 / 0.0	40.34	V / 1.00 / 270	-13.66	n/a
132.756 MHz	45.99 Qp	1.04 / 8.59 / 29.59 / 0.0	26.04	H / 1.00 / 270	-17.46	n/a
177.943 MHz	42.79 Qp	1.28 / 9.98 / 29.53 / 0.0	24.52	H / 1.00 / 270	-18.98	n/a
232.293 MHz	52.55 Qp	1.44 / 11.44 / 29.62 / 0.0	35.82	H / 1.00 / 270	-10.18	n/a
260.403 MHz	50.41 Qp	1.5 / 12.25 / 29.66 / 0.0	34.5	H / 1.00 / 270	-11.5	n/a
354.04 MHz	43.15 Qp	1.92 / 14.95 / 29.81 / 0.0	30.21	H / 1.00 / 270	-15.79	n/a
355.934 MHz	42.76 Qp	1.93 / 15.01 / 29.81 / 0.0	29.88	H / 1.00 / 270	-16.12	n/a
119.988 MHz	50.93 Qp	1.0 / 8.95 / 29.57 / 0.0	31.31	H / 1.00 / 90	-12.19	n/a
354.04 MHz	44.44 Qp	1.92 / 14.95 / 29.81 / 0.0	31.5	H / 1.00 / 90	-14.5	n/a
355.934 MHz	44.56 Qp	1.93 / 15.01 / 29.81 / 0.0	31.68	H / 1.00 / 90	-14.32	n/a
119.988 MHz	52.71 Qp	1.0 / 8.95 / 29.57 / 0.0	33.09	H / 2.50 / 90	-10.41	n/a
99.925 MHz	57.22 Qp	0.94 / 8.71 / 29.54 / 0.0	37.33	H / 2.50 / 180	-6.17	n/a

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Reviewed by: J. T. Schneider

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# RADIATED EMISSIONS



America

Test Report #: WC700862 Run 3 Test Area: LTS  
EUT Model #: PCC-2510 Date: 2/14/2007  
EUT Serial #: 0050X067SAAX04194715 EUT Power: 3.3 VDC Temperature: 21.0 °C  
Test Method: FCC B Air Pressure: 100.0 kPa  
Customer: Motorola Inc., NextNet Wireless Product Group Rel. Humidity: 15.0 %

EUT Description: BRS/EBS PC Card Subscriber Unit (PCC)

Notes: Receive mode, Configuration 5: 5.5 MHz channel bandwidth: RF freq = 2593 MHz

Data File Name: 0862.dat Page: 3 of 6

## List of measurements for run #: 3

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	DELTA1 FCC-B <1GHz 3m	DELTA2 FCC B >1GHz 3m
Maximized						
99.925 MHz	61.69 Qp	0.94 / 8.71 / 29.54 / 0.0	41.8	H / 1.60 / 192	-1.7	n/a
531.028 MHz	50.29 Qp	2.23 / 18.0 / 30.09 / 0.0	40.43	V / 1.07 / 105	-5.57	n/a
End scan 30 - 2000 MHz						

Tested by: Greg Jakubowski  
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Reviewed by: J. T. Schneider  
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*Joel T. Schneider*  
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# RADIATED EMISSIONS



Test Report #: WC700862 Run 3                      Test Area: LTS  
 EUT Model #: PCC-2510                                      Date: 2/14/2007  
 EUT Serial #: 0050X067SAAX04194715              EUT Power: 3.3 VDC                      Temperature: 21.0 °C  
 Test Method: FCC B    Air Pressure: 100.0 kPa  
 Customer: Motorola Inc., NextNet Wireless Product Group                      Rel. Humidity: 15.0 %  
 EUT Description: BRS/EBS PC Card Subscriber Unit (PCC)

Notes: Receive mode, Configuration 5: 5.5 MHz channel bandwidth: RF freq = 2593 MHz

Data File Name: 0862.dat

Page: 4 of 6

## Measurement summary for limit1: FCC-B <1GHz 3m (Qp)

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	DELTA1 FCC-B <1GHz 3m
99.925 MHz	61.69 Qp	0.94 / 8.71 / 29.54 / 0.0	41.8	H / 1.60 / 192	-1.7
531.028 MHz	50.29 Qp	2.23 / 18.0 / 30.09 / 0.0	40.43	V / 1.07 / 105	-5.57
232.293 MHz	52.55 Qp	1.44 / 11.44 / 29.62 / 0.0	35.82	H / 1.00 / 270	-10.18
119.988 MHz	52.71 Qp	1.0 / 8.95 / 29.57 / 0.0	33.09	H / 2.50 / 90	-10.41
260.403 MHz	50.41 Qp	1.5 / 12.25 / 29.66 / 0.0	34.5	H / 1.00 / 270	-11.5
48.0 MHz	43.13 Qp	0.53 / 14.7 / 29.88 / 0.0	28.48	V / 1.00 / 0	-11.52
995.275 MHz	44.03 Qp	3.07 / 22.9 / 29.65 / 0.0	40.34	V / 1.00 / 270	-13.66
58.158 MHz	43.2 Qp	0.71 / 11.99 / 29.73 / 0.0	26.17	V / 1.00 / 90	-13.83
431.346 MHz	43.36 Qp	2.04 / 16.46 / 29.93 / 0.0	31.93	V / 1.00 / 180	-14.07
355.934 MHz	44.56 Qp	1.93 / 15.01 / 29.81 / 0.0	31.68	H / 1.00 / 90	-14.32
354.04 MHz	44.44 Qp	1.92 / 14.95 / 29.81 / 0.0	31.5	H / 1.00 / 90	-14.5
64.278 MHz	42.19 Qp	0.76 / 10.8 / 29.65 / 0.0	24.1	V / 1.00 / 0	-15.9
70.218 MHz	42.34 Qp	0.8 / 9.82 / 29.56 / 0.0	23.41	V / 1.00 / 0	-16.59
357.958 MHz	41.85 Qp	1.93 / 15.06 / 29.82 / 0.0	29.03	V / 1.00 / 180	-16.97
132.756 MHz	45.99 Qp	1.04 / 8.59 / 29.59 / 0.0	26.04	H / 1.00 / 270	-17.46
88.89 MHz	46.9 Qp	0.91 / 7.74 / 29.52 / 0.0	26.03	V / 1.00 / 0	-17.47
386.578 MHz	40.6 Qp	1.99 / 15.63 / 29.86 / 0.0	28.36	V / 1.00 / 180	-17.64
166.561 MHz	44.54 Qp	1.23 / 9.23 / 29.51 / 0.0	25.49	V / 1.00 / 0	-18.01
177.943 MHz	42.79 Qp	1.28 / 9.98 / 29.53 / 0.0	24.52	H / 1.00 / 270	-18.98
353.806 MHz	39.88 Qp	1.92 / 14.94 / 29.81 / 0.0	26.94	V / 1.00 / 0	-19.06
75.078 MHz	40.39 Qp	0.83 / 9.03 / 29.5 / 0.0	20.75	V / 1.00 / 0	-19.25
125.858 MHz	44.03 Qp	1.02 / 8.57 / 29.58 / 0.0	24.04	V / 1.00 / 90	-19.46
415.23 MHz	37.95 Qp	2.02 / 16.13 / 29.91 / 0.0	26.19	V / 1.00 / 180	-19.81
399.847 MHz	36.44 Qp	2.01 / 15.81 / 29.88 / 0.0	24.37	V / 1.00 / 90	-21.63
154.128 MHz	37.79 Qp	1.15 / 9.23 / 29.53 / 0.0	18.64	V / 1.00 / 90	-24.86

Tested by: Greg Jakubowski

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Reviewed by: J. T. Schneider

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# RADIATED EMISSIONS



America

Test Report #: WC700862 Run 3 Test Area: LTS  
 EUT Model #: PCC-2510 Date: 2/14/2007  
 EUT Serial #: 0050X067SAAX04194715 EUT Power: 3.3 VDC Temperature: 21.0 °C  
 Test Method: FCC B Air Pressure: 100.0 kPa  
 Customer: Motorola Inc., NextNet Wireless Product Group Rel. Humidity: 15.0 %

EUT Description: BRS/EBS PC Card Subscriber Unit (PCC)

Notes: Receive mode, Configuration 5: 5.5 MHz channel bandwidth: RF freq = 2593 MHz

Data File Name: <u>0862.dat</u>	Page:	5 of 6
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<b>Measurement summary for limit2: FCC B &gt;1GHz 3m (Av)</b>					
FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	DELTA2 FCC B >1GHz 3m
1.659 GHz	31.07 Av	4.11 / 27.82 / 29.39 / 0.0	33.6	V / 1.00 / 0	-20.4

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 \_\_\_\_\_  
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*Greg Jakubowski*  
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 Signature

Reviewed by: J. T. Schneider  
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*Joel T. Schneider*  
 \_\_\_\_\_  
 Signature

# RADIATED EMISSIONS



America

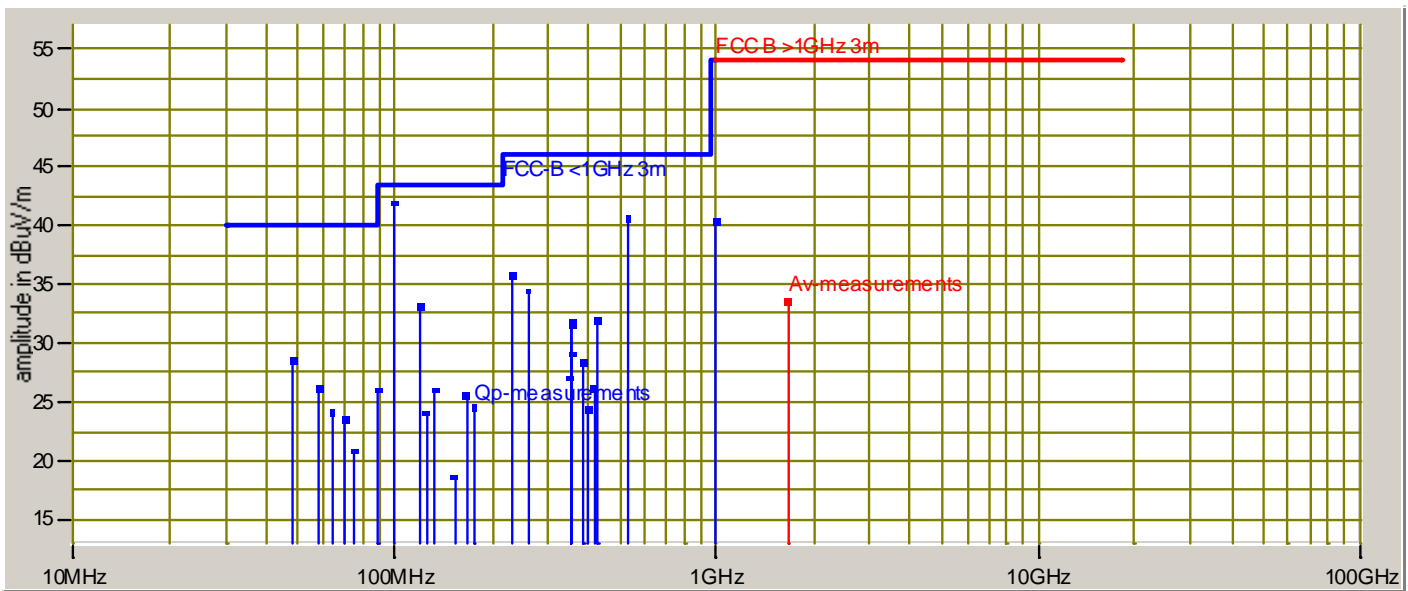
Test Report #: WC700862 Run 3 Test Area: LTS  
 EUT Model #: PCC-2510 Date: 2/14/2007  
 EUT Serial #: 0050X067SAAX04194715 EUT Power: 3.3 VDC Temperature: 21.0 °C  
 Test Method: FCC B Air Pressure: 100.0 kPa  
 Customer: Motorola Inc., NextNet Wireless Product Group Rel. Humidity: 15.0 %

EUT Description: BRS/EBS PC Card Subscriber Unit (PCC)

Notes: Receive mode, Configuration 5: 5.5 MHz channel bandwidth: RF freq = 2593 MHz

Data File Name: 0862.dat Page: 6 of 6

## Graph:



Tested by: Greg Jakubowski  
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*Greg Jakubowski*  
 Signature

Reviewed by: J. T. Schneider  
 Printed

*Joel T. Schneider*  
 Signature

# RADIATED EMISSIONS



Test Report #: WC700862 Run 4 Test Area: LTS

EUT Model #: PCC-2510 Date: 2/14/2007

EUT Serial #: 0050X067SAAX04194715 EUT Power: 3.3 VDC Temperature: 21.0 °C

Test Method: FCC B Air Pressure: 100.0 kPa

Customer: Motorola Inc., NextNet Wireless Product Group Rel. Humidity: 15.0 %

EUT Description: BRS/EBS PC Card Subscriber Unit (PCC)

Notes: Receive mode, Configuration 6: 5.0 MHz channel bandwidth: RF freq = 2687 MHz

Data File Name: 0862.dat

Page: 1 of 6

## List of measurements for run #: 4

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	DELTA1 FCC-B <1GHz 3m	DELTA2 FCC B >1GHz 3m
48.0 MHz	35.4 Qp	0.53 / 14.7 / 29.88 / 0.0	20.75	V / 1.00 / 0	-19.25	n/a
58.158 MHz	36.05 Qp	0.71 / 11.99 / 29.73 / 0.0	19.02	V / 1.00 / 0	-20.98	n/a
64.278 MHz	38.55 Qp	0.76 / 10.8 / 29.65 / 0.0	20.46	V / 1.00 / 0	-19.54	n/a
70.218 MHz	39.8 Qp	0.8 / 9.82 / 29.56 / 0.0	20.87	V / 1.00 / 0	-19.13	n/a
75.078 MHz	36.05 Qp	0.83 / 9.03 / 29.5 / 0.0	16.41	V / 1.00 / 0	-23.59	n/a
88.89 MHz	41.5 Qp	0.91 / 7.74 / 29.52 / 0.0	20.63	V / 1.00 / 0	-22.87	n/a
99.925 MHz	48.2 Qp	0.94 / 8.71 / 29.54 / 0.0	28.31	V / 1.00 / 0	-15.19	n/a
119.988 MHz	42.2 Qp	1.0 / 8.95 / 29.57 / 0.0	22.58	V / 1.00 / 0	-20.92	n/a
132.756 MHz	39.4 Qp	1.04 / 8.59 / 29.59 / 0.0	19.45	V / 1.00 / 0	-24.05	n/a
166.561 MHz	39.9 Qp	1.23 / 9.23 / 29.51 / 0.0	20.85	V / 1.00 / 0	-22.65	n/a
177.943 MHz	33.95 Qp	1.28 / 9.98 / 29.53 / 0.0	15.68	V / 1.00 / 0	-27.82	n/a
232.293 MHz	38.25 Qp	1.44 / 11.44 / 29.62 / 0.0	21.52	V / 1.00 / 0	-24.48	n/a
260.403 MHz	39.9 Qp	1.5 / 12.25 / 29.66 / 0.0	23.99	V / 1.00 / 0	-22.01	n/a
353.806 MHz	38.55 Qp	1.92 / 14.94 / 29.81 / 0.0	25.61	V / 1.00 / 0	-20.39	n/a
357.958 MHz	39.2 Qp	1.93 / 15.06 / 29.82 / 0.0	26.38	V / 1.00 / 0	-19.62	n/a
386.578 MHz	39.2 Qp	1.99 / 15.63 / 29.86 / 0.0	26.96	V / 1.00 / 0	-19.04	n/a
415.23 MHz	34.75 Qp	2.02 / 16.13 / 29.91 / 0.0	22.99	V / 1.00 / 0	-23.01	n/a
431.346 MHz	32.85 Qp	2.04 / 16.46 / 29.93 / 0.0	21.42	V / 1.00 / 0	-24.58	n/a
531.028 MHz	38.5 Qp	2.23 / 18.0 / 30.09 / 0.0	28.64	V / 1.00 / 0	-17.36	n/a
995.275 MHz	37.6 Qp	3.07 / 22.9 / 29.65 / 0.0	33.91	V / 1.00 / 0	-20.09	n/a
1.659 GHz	31.15 Av	4.11 / 27.81 / 29.39 / 0.0	33.68	V / 1.00 / 0	n/a	-20.32
48.0 MHz	39.2 Qp	0.53 / 14.7 / 29.88 / 0.0	24.55	V / 1.00 / 90	-15.45	n/a
119.988 MHz	45.64 Qp	1.0 / 8.95 / 29.57 / 0.0	26.02	V / 1.00 / 90	-17.48	n/a
125.858 MHz	38.92 Qp	1.02 / 8.57 / 29.58 / 0.0	18.93	V / 1.00 / 90	-24.57	n/a
232.293 MHz	42.13 Qp	1.44 / 11.44 / 29.62 / 0.0	25.4	V / 1.00 / 90	-20.6	n/a
354.04 MHz	36.25 Qp	1.92 / 14.95 / 29.81 / 0.0	23.31	V / 1.00 / 90	-22.69	n/a

Tested by: Greg Jakubowski

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Reviewed by: J. T. Schneider

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# RADIATED EMISSIONS



Test Report #: WC700862 Run 4 Test Area: LTS

EUT Model #: PCC-2510 Date: 2/14/2007

EUT Serial #: 0050X067SAAX04194715 EUT Power: 3.3 VDC Temperature: 21.0 °C

Test Method: FCC B Air Pressure: 100.0 kPa

Customer: Motorola Inc., NextNet Wireless Product Group Rel. Humidity: 15.0 %

EUT Description: BRS/EBS PC Card Subscriber Unit (PCC)

Notes: Receive mode, Configuration 6: 5.0 MHz channel bandwidth: RF freq = 2687 MHz

Data File Name: 0862.dat

Page: 2 of 6

## List of measurements for run #: 4

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	DELTA1 FCC-B <1GHz 3m	DELTA2 FCC B >1GHz 3m
355.934 MHz	35.7 Qp	1.93 / 15.01 / 29.81 / 0.0	22.82	V / 1.00 / 90	-23.18	n/a
399.847 MHz	36.98 Qp	2.01 / 15.81 / 29.88 / 0.0	24.91	V / 1.00 / 90	-21.09	n/a
415.23 MHz	35.78 Qp	2.02 / 16.13 / 29.91 / 0.0	24.02	V / 1.00 / 90	-21.98	n/a
431.346 MHz	40.82 Qp	2.04 / 16.46 / 29.93 / 0.0	29.39	V / 1.00 / 90	-16.61	n/a
531.028 MHz	49.87 Qp	2.23 / 18.0 / 30.09 / 0.0	40.01	V / 1.00 / 90	-5.99	n/a
119.988 MHz	50.4 Qp	1.0 / 8.95 / 29.57 / 0.0	30.78	V / 1.00 / 180	-12.72	n/a
125.858 MHz	44.75 Qp	1.02 / 8.57 / 29.58 / 0.0	24.76	V / 1.00 / 180	-18.74	n/a
132.756 MHz	42.44 Qp	1.04 / 8.59 / 29.59 / 0.0	22.49	V / 1.00 / 180	-21.01	n/a
354.04 MHz	38.33 Qp	1.92 / 14.95 / 29.81 / 0.0	25.39	V / 1.00 / 180	-20.61	n/a
355.934 MHz	38.81 Qp	1.93 / 15.01 / 29.81 / 0.0	25.93	V / 1.00 / 180	-20.07	n/a
357.958 MHz	42.55 Qp	1.93 / 15.06 / 29.82 / 0.0	29.73	V / 1.00 / 180	-16.27	n/a
386.578 MHz	40.63 Qp	1.99 / 15.63 / 29.86 / 0.0	28.39	V / 1.00 / 180	-17.61	n/a
415.23 MHz	38.15 Qp	2.02 / 16.13 / 29.91 / 0.0	26.39	V / 1.00 / 180	-19.61	n/a
431.346 MHz	43.29 Qp	2.04 / 16.46 / 29.93 / 0.0	31.86	V / 1.00 / 180	-14.14	n/a
48.0 MHz	41.79 Qp	0.53 / 14.7 / 29.88 / 0.0	27.14	V / 1.00 / 270	-12.86	n/a
99.925 MHz	50.42 Qp	0.94 / 8.71 / 29.54 / 0.0	30.53	V / 1.00 / 270	-12.97	n/a
354.04 MHz	42.41 Qp	1.92 / 14.95 / 29.81 / 0.0	29.47	V / 1.00 / 270	-16.53	n/a
355.934 MHz	42.06 Qp	1.93 / 15.01 / 29.81 / 0.0	29.18	V / 1.00 / 270	-16.82	n/a
995.275 MHz	44.15 Qp	3.07 / 22.9 / 29.65 / 0.0	40.46	V / 1.00 / 270	-13.54	n/a
99.925 MHz	54.6 Qp	0.94 / 8.71 / 29.54 / 0.0	34.71	H / 1.00 / 270	-8.79	n/a
132.756 MHz	45.43 Qp	1.04 / 8.59 / 29.59 / 0.0	25.48	H / 1.00 / 270	-18.02	n/a
166.561 MHz	46.54 Qp	1.23 / 9.23 / 29.51 / 0.0	27.49	H / 1.00 / 270	-16.01	n/a
177.943 MHz	42.39 Qp	1.28 / 9.98 / 29.53 / 0.0	24.12	H / 1.00 / 270	-19.38	n/a
232.293 MHz	52.64 Qp	1.44 / 11.44 / 29.62 / 0.0	35.91	H / 1.00 / 270	-10.09	n/a

Tested by: Greg Jakubowski

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Reviewed by: J. T. Schneider

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# RADIATED EMISSIONS



America

Test Report #: WC700862 Run 4 Test Area: LTS  
EUT Model #: PCC-2510 Date: 2/14/2007  
EUT Serial #: 0050X067SAAX04194715 EUT Power: 3.3 VDC Temperature: 21.0 °C  
Test Method: FCC B Air Pressure: 100.0 kPa  
Customer: Motorola Inc., NextNet Wireless Product Group Rel. Humidity: 15.0 %

EUT Description: BRS/EBS PC Card Subscriber Unit (PCC)

Notes: Receive mode, Configuration 6: 5.0 MHz channel bandwidth: RF freq = 2687 MHz

Data File Name: 0862.dat Page: 3 of 6

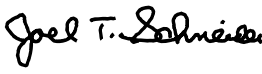
## List of measurements for run #: 4

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	DELTA1 FCC-B <1GHz 3m	DELTA2 FCC B >1GHz 3m
260.403 MHz	50.2 Qp	1.5 / 12.25 / 29.66 / 0.0	34.29	H / 1.00 / 270	-11.71	n/a
354.04 MHz	43.48 Qp	1.92 / 14.95 / 29.81 / 0.0	30.54	H / 1.00 / 270	-15.46	n/a
99.925 MHz	54.55 Qp	0.94 / 8.71 / 29.54 / 0.0	34.66	H / 1.00 / 180	-8.84	n/a
355.934 MHz	43.88 Qp	1.93 / 15.01 / 29.81 / 0.0	31.0	H / 1.00 / 180	-15.0	n/a
354.04 MHz	45.15 Qp	1.92 / 14.95 / 29.81 / 0.0	32.21	H / 1.00 / 90	-13.79	n/a
355.934 MHz	45.03 Qp	1.93 / 15.01 / 29.81 / 0.0	32.15	H / 1.00 / 90	-13.85	n/a
88.938 MHz	45.27 Qp	0.91 / 7.75 / 29.52 / 0.0	24.4	H / 2.50 / 0	-19.1	n/a
99.925 MHz	56.17 Qp	0.94 / 8.71 / 29.54 / 0.0	36.28	H / 2.50 / 0	-7.22	n/a
119.988 MHz	53.19 Qp	1.0 / 8.95 / 29.57 / 0.0	33.57	H / 2.50 / 90	-9.93	n/a
88.938 MHz	47.65 Qp	0.91 / 7.75 / 29.52 / 0.0	26.78	H / 2.50 / 180	-16.72	n/a
99.925 MHz	57.21 Qp	0.94 / 8.71 / 29.54 / 0.0	37.32	H / 2.50 / 180	-6.18	n/a
125.858 MHz	46.73 Qp	1.02 / 8.57 / 29.58 / 0.0	26.74	H / 2.50 / 270	-16.76	n/a
Maximized						
531.028 MHz	50.68 Qp	2.23 / 18.0 / 30.09 / 0.0	40.82	V / 1.13 / 101	-5.18	n/a
99.925 MHz	61.84 Qp	0.94 / 8.71 / 29.54 / 0.0	41.95	H / 1.73 / 202	-1.55	n/a
End scan 30 - 2000 MHz						

Tested by: Greg Jakubowski  
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Reviewed by: J. T. Schneider  
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# RADIATED EMISSIONS



Test Report #: WC700862 Run 4 Test Area: LTS  
 EUT Model #: PCC-2510 Date: 2/14/2007  
 EUT Serial #: 0050X067SAAX04194715 EUT Power: 3.3 VDC Temperature: 21.0 °C  
 Test Method: FCC B Air Pressure: 100.0 kPa  
 Customer: Motorola Inc., NextNet Wireless Product Group Rel. Humidity: 15.0 %  
 EUT Description: BRS/EBS PC Card Subscriber Unit (PCC)

Notes: Receive mode, Configuration 6: 5.0 MHz channel bandwidth: RF freq = 2687 MHz

Data File Name: 0862.dat

Page: 4 of 6

## Measurement summary for limit1: FCC-B <1GHz 3m (Qp)

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	DELTA1 FCC-B <1GHz 3m
99.925 MHz	61.84 Qp	0.94 / 8.71 / 29.54 / 0.0	41.95	H / 1.73 / 202	-1.55
531.028 MHz	50.68 Qp	2.23 / 18.0 / 30.09 / 0.0	40.82	V / 1.13 / 101	-5.18
119.988 MHz	53.19 Qp	1.0 / 8.95 / 29.57 / 0.0	33.57	H / 2.50 / 90	-9.93
232.293 MHz	52.64 Qp	1.44 / 11.44 / 29.62 / 0.0	35.91	H / 1.00 / 270	-10.09
260.403 MHz	50.2 Qp	1.5 / 12.25 / 29.66 / 0.0	34.29	H / 1.00 / 270	-11.71
48.0 MHz	41.79 Qp	0.53 / 14.7 / 29.88 / 0.0	27.14	V / 1.00 / 270	-12.86
995.275 MHz	44.15 Qp	3.07 / 22.9 / 29.65 / 0.0	40.46	V / 1.00 / 270	-13.54
354.04 MHz	45.15 Qp	1.92 / 14.95 / 29.81 / 0.0	32.21	H / 1.00 / 90	-13.79
355.934 MHz	45.03 Qp	1.93 / 15.01 / 29.81 / 0.0	32.15	H / 1.00 / 90	-13.85
431.346 MHz	43.29 Qp	2.04 / 16.46 / 29.93 / 0.0	31.86	V / 1.00 / 180	-14.14
166.561 MHz	46.54 Qp	1.23 / 9.23 / 29.51 / 0.0	27.49	H / 1.00 / 270	-16.01
357.958 MHz	42.55 Qp	1.93 / 15.06 / 29.82 / 0.0	29.73	V / 1.00 / 180	-16.27
88.938 MHz	47.65 Qp	0.91 / 7.75 / 29.52 / 0.0	26.78	H / 2.50 / 180	-16.72
125.858 MHz	46.73 Qp	1.02 / 8.57 / 29.58 / 0.0	26.74	H / 2.50 / 270	-16.76
386.578 MHz	40.63 Qp	1.99 / 15.63 / 29.86 / 0.0	28.39	V / 1.00 / 180	-17.61
132.756 MHz	45.43 Qp	1.04 / 8.59 / 29.59 / 0.0	25.48	H / 1.00 / 270	-18.02
70.218 MHz	39.8 Qp	0.8 / 9.82 / 29.56 / 0.0	20.87	V / 1.00 / 0	-19.13
177.943 MHz	42.39 Qp	1.28 / 9.98 / 29.53 / 0.0	24.12	H / 1.00 / 270	-19.38
64.278 MHz	38.55 Qp	0.76 / 10.8 / 29.65 / 0.0	20.46	V / 1.00 / 0	-19.54
415.23 MHz	38.15 Qp	2.02 / 16.13 / 29.91 / 0.0	26.39	V / 1.00 / 180	-19.61
353.806 MHz	38.55 Qp	1.92 / 14.94 / 29.81 / 0.0	25.61	V / 1.00 / 0	-20.39
58.158 MHz	36.05 Qp	0.71 / 11.99 / 29.73 / 0.0	19.02	V / 1.00 / 0	-20.98
399.847 MHz	36.98 Qp	2.01 / 15.81 / 29.88 / 0.0	24.91	V / 1.00 / 90	-21.09
75.078 MHz	36.05 Qp	0.83 / 9.03 / 29.5 / 0.0	16.41	V / 1.00 / 0	-23.59

Tested by: Greg Jakubowski

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Reviewed by: J. T. Schneider

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# RADIATED EMISSIONS



America

Test Report #: WC700862 Run 4 Test Area: LTS  
 EUT Model #: PCC-2510 Date: 2/14/2007  
 EUT Serial #: 0050X067SAAX04194715 EUT Power: 3.3 VDC Temperature: 21.0 °C  
 Test Method: FCC B Air Pressure: 100.0 kPa  
 Customer: Motorola Inc., NextNet Wireless Product Group Rel. Humidity: 15.0 %

EUT Description: BRS/EBS PC Card Subscriber Unit (PCC)

Notes: Receive mode, Configuration 6: 5.0 MHz channel bandwidth: RF freq = 2687 MHz

Data File Name: 0862.dat Page: 5 of 6

<b>Measurement summary for limit2: FCC B &gt;1GHz 3m (Av)</b>					
FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	DELTA2 FCC B >1GHz 3m
1.659 GHz	31.15 Av	4.11 / 27.81 / 29.39 / 0.0	33.68	V / 1.00 / 0	-20.32

Tested by: Greg Jakubowski  
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*Greg Jakubowski*  
 \_\_\_\_\_  
 Signature

Reviewed by: J. T. Schneider  
 \_\_\_\_\_  
 Printed

*Joel T. Schneider*  
 \_\_\_\_\_  
 Signature

# RADIATED EMISSIONS



America

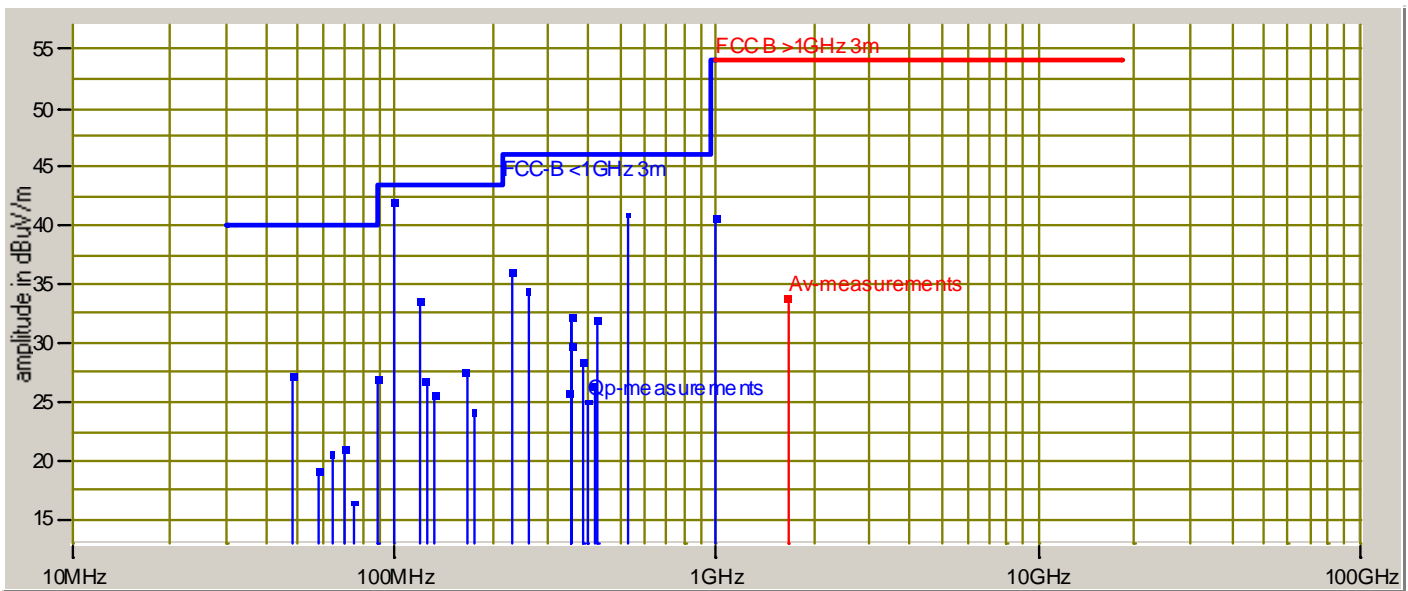
Test Report #: WC700862 Run 4 Test Area: LTS  
 EUT Model #: PCC-2510 Date: 2/14/2007  
 EUT Serial #: 0050X067SAAX04194715 EUT Power: 3.3 VDC Temperature: 21.0 °C  
 Test Method: FCC B Air Pressure: 100.0 kPa  
 Customer: Motorola Inc., NextNet Wireless Product Group Rel. Humidity: 15.0 %

EUT Description: BRS/EBS PC Card Subscriber Unit (PCC)

Notes: Receive mode, Configuration 6: 5.0 MHz channel bandwidth: RF freq = 2687 MHz

Data File Name: 0862.dat Page: 6 of 6

## Graph:



Tested by: Greg Jakubowski  
 Printed

*Greg Jakubowski*  
 Signature

Reviewed by: J. T. Schneider  
 Printed

*Joel T. Schneider*  
 Signature

# CONDUCTED EMISSIONS



America

Test Report #: WC700862 Run 6 Test Area: LTS  
 EUT Model #: PCC-2510 Date: 2/14/2007  
 EUT Serial #: 0050X067SAAX04194715 EUT Power: 110VAC 60 Hz PS Temperature: 21.0 °C  
 Test Method: FCC B / EN55022 B Air Pressure: 100.0 kPa  
 Customer: Motorola Inc., NextNet Wireless Product Group Rel. Humidity: 15.0 %

EUT Description: BRS/EBS PC Card Subscriber Unit (PCC)

Receive mode

Notes:

Data File Name: 0862.dat

Page: 1 of 5

## List of measurements for run #: 6

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	EUT Lead	DELTA1 EN55022 B Qp	DELTA2 EN55022 B Avg
150.0 kHz	48.37 Qp	0.12 / 0.3 / 0.0 / 0.0	48.79	N	-17.21	n/a
185.0 kHz	47.85 Qp	0.12 / 0.21 / 0.0 / 0.0	48.18	N	-16.08	n/a
220.0 kHz	50.68 Qp	0.13 / 0.11 / 0.0 / 0.0	50.92	N	-11.9	n/a
460.0 kHz	38.8 Qp	0.17 / 0.1 / 0.0 / 0.0	39.07	N	-17.62	n/a
595.0 kHz	41.07 Qp	0.2 / 0.1 / 0.0 / 0.0	41.37	N	-14.63	n/a
895.0 kHz	31.25 Qp	0.23 / 0.1 / 0.0 / 0.0	31.58	N	-24.42	n/a
150.0 kHz	30.84 Av	0.12 / 0.3 / 0.0 / 0.0	31.26	N	n/a	-24.74
185.0 kHz	33.67 Av	0.12 / 0.21 / 0.0 / 0.0	34.0	N	n/a	-20.26
220.0 kHz	34.28 Av	0.13 / 0.11 / 0.0 / 0.0	34.52	N	n/a	-18.3
460.0 kHz	20.51 Av	0.17 / 0.1 / 0.0 / 0.0	20.78	N	n/a	-25.91
595.0 kHz	22.84 Av	0.2 / 0.1 / 0.0 / 0.0	23.14	N	n/a	-22.86
895.0 kHz	19.47 Av	0.23 / 0.1 / 0.0 / 0.0	19.8	N	n/a	-26.2
150.0 kHz	53.23 Qp	0.12 / 0.3 / 0.0 / 0.0	53.65	L1	-12.35	n/a
185.0 kHz	52.41 Qp	0.12 / 0.21 / 0.0 / 0.0	52.74	L1	-11.52	n/a
220.0 kHz	50.74 Qp	0.13 / 0.11 / 0.0 / 0.0	50.98	L1	-11.84	n/a
460.0 kHz	38.86 Qp	0.17 / 0.1 / 0.0 / 0.0	39.13	L1	-17.56	n/a
595.0 kHz	39.28 Qp	0.2 / 0.1 / 0.0 / 0.0	39.58	L1	-16.42	n/a
895.0 kHz	30.96 Qp	0.23 / 0.1 / 0.0 / 0.0	31.29	L1	-24.71	n/a
150.0 kHz	33.47 Av	0.12 / 0.3 / 0.0 / 0.0	33.89	L1	n/a	-22.11
185.0 kHz	35.8 Av	0.12 / 0.21 / 0.0 / 0.0	36.13	L1	n/a	-18.13
220.0 kHz	34.93 Av	0.13 / 0.11 / 0.0 / 0.0	35.17	L1	n/a	-17.65
460.0 kHz	18.99 Av	0.17 / 0.1 / 0.0 / 0.0	19.26	L1	n/a	-27.43
595.0 kHz	22.06 Av	0.2 / 0.1 / 0.0 / 0.0	22.36	L1	n/a	-23.64
895.0 kHz	19.47 Av	0.23 / 0.1 / 0.0 / 0.0	19.8	L1	n/a	-26.2

Tested by: Greg Jakubowski

Printed

Signature

Reviewed by: J. T. Schneider

Printed

Signature

# CONDUCTED EMISSIONS



America

Test Report #: WC700862 Run 6 Test Area: LTS  
 EUT Model #: PCC-2510 Date: 2/14/2007  
 EUT Serial #: 0050X067SAAX04194715 EUT Power: 110VAC 60 Hz PS Temperature: 21.0 °C  
 Test Method: FCC B / EN55022 B Air Pressure: 100.0 kPa  
 Customer: Motorola Inc., NextNet Wireless Product Group Rel. Humidity: 15.0 %

EUT Description: BRS/EBS PC Card Subscriber Unit (PCC)

Receive mode

Notes:

Data File Name: 0862.dat Page: 3 of 5

## Measurement summary for limit1: EN55022 B Qp (Qp)

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	EUT Lead	DELTA1 EN55022 B Qp
185.0 kHz	52.41 Qp	0.12 / 0.21 / 0.0 / 0.0	52.74	L1	-11.52
220.0 kHz	50.74 Qp	0.13 / 0.11 / 0.0 / 0.0	50.98	L1	-11.84
150.0 kHz	53.23 Qp	0.12 / 0.3 / 0.0 / 0.0	53.65	L1	-12.35
595.0 kHz	41.07 Qp	0.2 / 0.1 / 0.0 / 0.0	41.37	N	-14.63
460.0 kHz	38.86 Qp	0.17 / 0.1 / 0.0 / 0.0	39.13	L1	-17.56
895.0 kHz	31.25 Qp	0.23 / 0.1 / 0.0 / 0.0	31.58	N	-24.42

Tested by: Greg Jakubowski  
 Printed

*Greg Jakubowski*  
 Signature

Reviewed by: J. T. Schneider  
 Printed

*Joel T. Schneider*  
 Signature



# CONDUCTED EMISSIONS



America

Test Report #: WC700862 Run 6 Test Area: LTS  
 EUT Model #: PCC-2510 Date: 2/14/2007  
 EUT Serial #: 0050X067SAAX04194715 EUT Power: 110VAC 60 Hz PS Temperature: 21.0 °C  
 Test Method: FCC B / EN55022 B Air Pressure: 100.0 kPa  
 Customer: Motorola Inc., NextNet Wireless Product Group Rel. Humidity: 15.0 %

EUT Description: BRS/EBS PC Card Subscriber Unit (PCC)

Notes: Receive mode

Data File Name: 0862.dat Page: 4 of 5

## Measurement summary for limit2: EN55022 B Avg (Av)

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	EUT Lead	DELTA2 EN55022 B Avg
220.0 kHz	34.93 Av	0.13 / 0.11 / 0.0 / 0.0	35.17	L1	-17.65
185.0 kHz	35.8 Av	0.12 / 0.21 / 0.0 / 0.0	36.13	L1	-18.13
150.0 kHz	33.47 Av	0.12 / 0.3 / 0.0 / 0.0	33.89	L1	-22.11
595.0 kHz	22.84 Av	0.2 / 0.1 / 0.0 / 0.0	23.14	N	-22.86
460.0 kHz	20.51 Av	0.17 / 0.1 / 0.0 / 0.0	20.78	N	-25.91
895.0 kHz	19.47 Av	0.23 / 0.1 / 0.0 / 0.0	19.8	N	-26.2

Tested by: Greg Jakubowski  
 Printed

*Greg Jakubowski*  
 Signature

Reviewed by: J. T. Schneider  
 Printed

*Joel T. Schneider*  
 Signature

# CONDUCTED EMISSIONS



America

Test Report #: WC700862 Run 6 Test Area: LTS  
 EUT Model #: PCC-2510 Date: 2/14/2007  
 EUT Serial #: 0050X067SAAX04194715 EUT Power: 110VAC 60 Hz PS Temperature: 21.0 °C  
 Test Method: FCC B / EN55022 B Air Pressure: 100.0 kPa  
 Customer: Motorola Inc., NextNet Wireless Product Group Rel. Humidity: 15.0 %

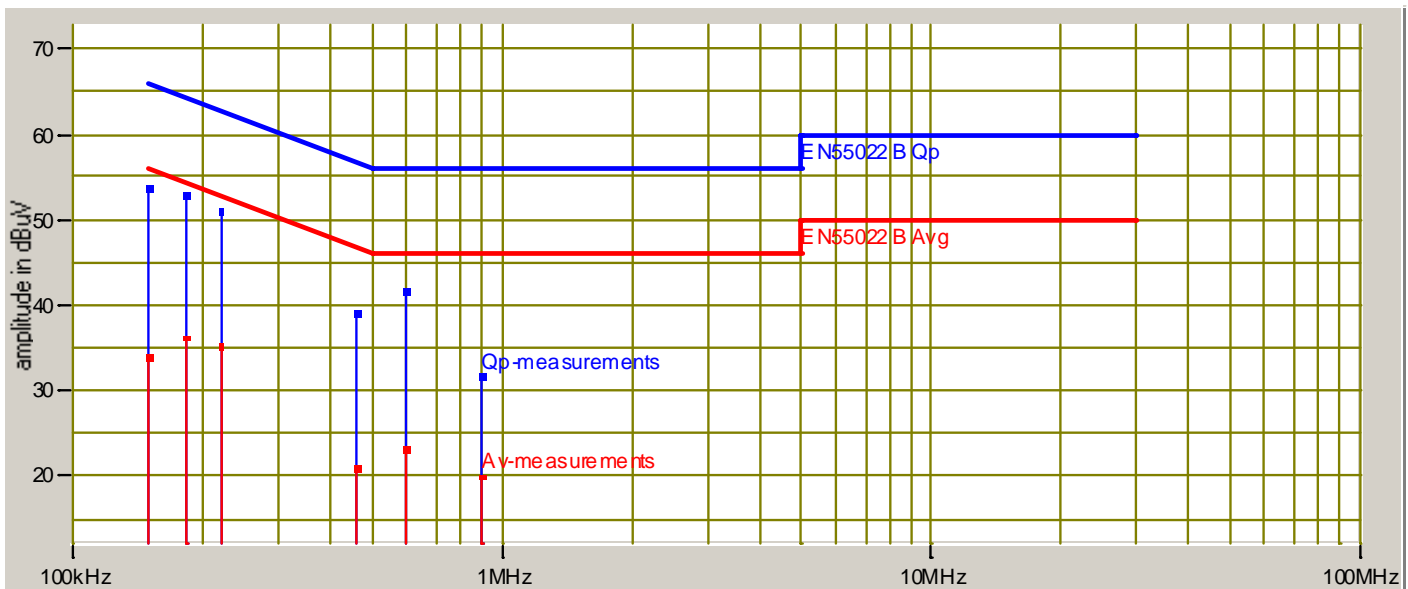
EUT Description: BRS/EBS PC Card Subscriber Unit (PCC)

Receive mode

Notes:

Data File Name: 0862.dat Page: 5 of 5

## Graph:



Tested by: Greg Jakubowski  
 Printed

*Greg Jakubowski*  
 Signature

Reviewed by: J. T. Schneider  
 Printed

*Joel T. Schneider*  
 Signature

# CONDUCTED EMISSIONS



America

Test Report #: WC700862 Run 7 Test Area: LTS  
 EUT Model #: PCC-2510 Date: 2/14/2007  
 EUT Serial #: 0050X067SAAX04194715 EUT Power: 110VAC 60 Hz PS Temperature: 21.0 °C  
 Test Method: FCC B / EN55022 B Air Pressure: 100.0 kPa  
 Customer: Motorola Inc., NextNet Wireless Product Group Rel. Humidity: 15.0 %

EUT Description: BRS/EBS PC Card Subscriber Unit (PCC)

Transmit mode

Notes:

Data File Name: 0862.dat

Page: 1 of 5

## List of measurements for run #: 7

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	EUT Lead	DELTA1 EN55022 B Qp	DELTA2 EN55022 B Avg
150.0 kHz	48.85 Qp	0.12 / 0.3 / 0.0 / 0.0	49.27	N	-16.73	n/a
180.0 kHz	47.32 Qp	0.12 / 0.22 / 0.0 / 0.0	47.66	N	-16.82	n/a
205.0 kHz	49.88 Qp	0.13 / 0.15 / 0.0 / 0.0	50.16	N	-13.25	n/a
460.0 kHz	33.88 Qp	0.17 / 0.1 / 0.0 / 0.0	34.15	N	-22.54	n/a
575.0 kHz	37.82 Qp	0.2 / 0.1 / 0.0 / 0.0	38.12	N	-17.88	n/a
865.0 kHz	30.76 Qp	0.23 / 0.1 / 0.0 / 0.0	31.09	N	-24.91	n/a
150.0 kHz	30.91 Av	0.12 / 0.3 / 0.0 / 0.0	31.33	N	n/a	-24.67
180.0 kHz	33.32 Av	0.12 / 0.22 / 0.0 / 0.0	33.66	N	n/a	-20.82
205.0 kHz	36.73 Av	0.13 / 0.15 / 0.0 / 0.0	37.01	N	n/a	-16.4
460.0 kHz	16.89 Av	0.17 / 0.1 / 0.0 / 0.0	17.16	N	n/a	-29.53
575.0 kHz	23.84 Av	0.2 / 0.1 / 0.0 / 0.0	24.14	N	n/a	-21.86
865.0 kHz	16.88 Av	0.23 / 0.1 / 0.0 / 0.0	17.21	N	n/a	-28.79
150.0 kHz	53.72 Qp	0.12 / 0.3 / 0.0 / 0.0	54.14	L1	-11.86	n/a
180.0 kHz	52.84 Qp	0.12 / 0.22 / 0.0 / 0.0	53.18	L1	-11.3	n/a
205.0 kHz	51.65 Qp	0.13 / 0.15 / 0.0 / 0.0	51.93	L1	-11.48	n/a
460.0 kHz	35.73 Qp	0.17 / 0.1 / 0.0 / 0.0	36.0	L1	-20.69	n/a
575.0 kHz	37.14 Qp	0.2 / 0.1 / 0.0 / 0.0	37.44	L1	-18.56	n/a
865.0 kHz	31.14 Qp	0.23 / 0.1 / 0.0 / 0.0	31.47	L1	-24.53	n/a
150.0 kHz	33.67 Av	0.12 / 0.3 / 0.0 / 0.0	34.09	L1	n/a	-21.91
180.0 kHz	36.13 Av	0.12 / 0.22 / 0.0 / 0.0	36.47	L1	n/a	-18.01
205.0 kHz	37.13 Av	0.13 / 0.15 / 0.0 / 0.0	37.41	L1	n/a	-16.0
460.0 kHz	16.23 Av	0.17 / 0.1 / 0.0 / 0.0	16.5	L1	n/a	-30.19
575.0 kHz	23.05 Av	0.2 / 0.1 / 0.0 / 0.0	23.35	L1	n/a	-22.65
865.0 kHz	16.22 Av	0.23 / 0.1 / 0.0 / 0.0	16.55	L1	n/a	-29.45

Tested by: Greg Jakubowski

Printed

Signature

Reviewed by: J. T. Schneider

Printed

Signature

# CONDUCTED EMISSIONS



America

Test Report #: WC700862 Run 7 Test Area: LTS  
 EUT Model #: PCC-2510 Date: 2/14/2007  
 EUT Serial #: 0050X067SAAX04194715 EUT Power: 110VAC 60 Hz PS Temperature: 21.0 °C  
 Test Method: FCC B / EN55022 B Air Pressure: 100.0 kPa  
 Customer: Motorola Inc., NextNet Wireless Product Group Rel. Humidity: 15.0 %

EUT Description: BRS/EBS PC Card Subscriber Unit (PCC)

Transmit mode

Notes:

Data File Name: 0862.dat Page: 3 of 5

## Measurement summary for limit1: EN55022 B Qp (Qp)

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	EUT Lead	DELTA1 EN55022 B Qp
180.0 kHz	52.84 Qp	0.12 / 0.22 / 0.0 / 0.0	53.18	L1	-11.3
205.0 kHz	51.65 Qp	0.13 / 0.15 / 0.0 / 0.0	51.93	L1	-11.48
150.0 kHz	53.72 Qp	0.12 / 0.3 / 0.0 / 0.0	54.14	L1	-11.86
575.0 kHz	37.82 Qp	0.2 / 0.1 / 0.0 / 0.0	38.12	N	-17.88
460.0 kHz	35.73 Qp	0.17 / 0.1 / 0.0 / 0.0	36.0	L1	-20.69
865.0 kHz	31.14 Qp	0.23 / 0.1 / 0.0 / 0.0	31.47	L1	-24.53

Tested by: Greg Jakubowski  
 Printed

*Greg Jakubowski*  
 Signature

Reviewed by: J. T. Schneider  
 Printed

*Joel T. Schneider*  
 Signature

# CONDUCTED EMISSIONS



Test Report #: WC700862 Run 7                      Test Area: LTS  
 EUT Model #: PCC-2510                                      Date: 2/14/2007  
 EUT Serial #: 0050X067SAAX04194715              EUT Power: 110VAC 60 Hz PS              Temperature: 21.0 °C  
 Test Method: FCC B / EN55022 B                                      Air Pressure: 100.0 kPa  
 Customer: Motorola Inc., NextNet Wireless Product Group                                      Rel. Humidity: 15.0 %

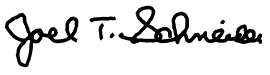
EUT Description: BRS/EBS PC Card Subscriber Unit (PCC)  
    Transmit mode  
 Notes: \_\_\_\_\_  
 Data File Name: 0862.dat                                      Page: 4 of 5

Measurement summary for limit2: EN55022 B Avg (Av)					
FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	EUT Lead	DELTA2 EN55022 B Avg
205.0 kHz	37.13 Av	0.13 / 0.15 / 0.0 / 0.0	37.41	L1	-16.0
180.0 kHz	36.13 Av	0.12 / 0.22 / 0.0 / 0.0	36.47	L1	-18.01
575.0 kHz	23.84 Av	0.2 / 0.1 / 0.0 / 0.0	24.14	N	-21.86
150.0 kHz	33.67 Av	0.12 / 0.3 / 0.0 / 0.0	34.09	L1	-21.91
865.0 kHz	16.88 Av	0.23 / 0.1 / 0.0 / 0.0	17.21	N	-28.79
460.0 kHz	16.89 Av	0.17 / 0.1 / 0.0 / 0.0	17.16	N	-29.53

Tested by: Greg Jakubowski  
    Printed

  
    Signature

Reviewed by: J. T. Schneider  
    Printed

  
    Signature

# CONDUCTED EMISSIONS



America

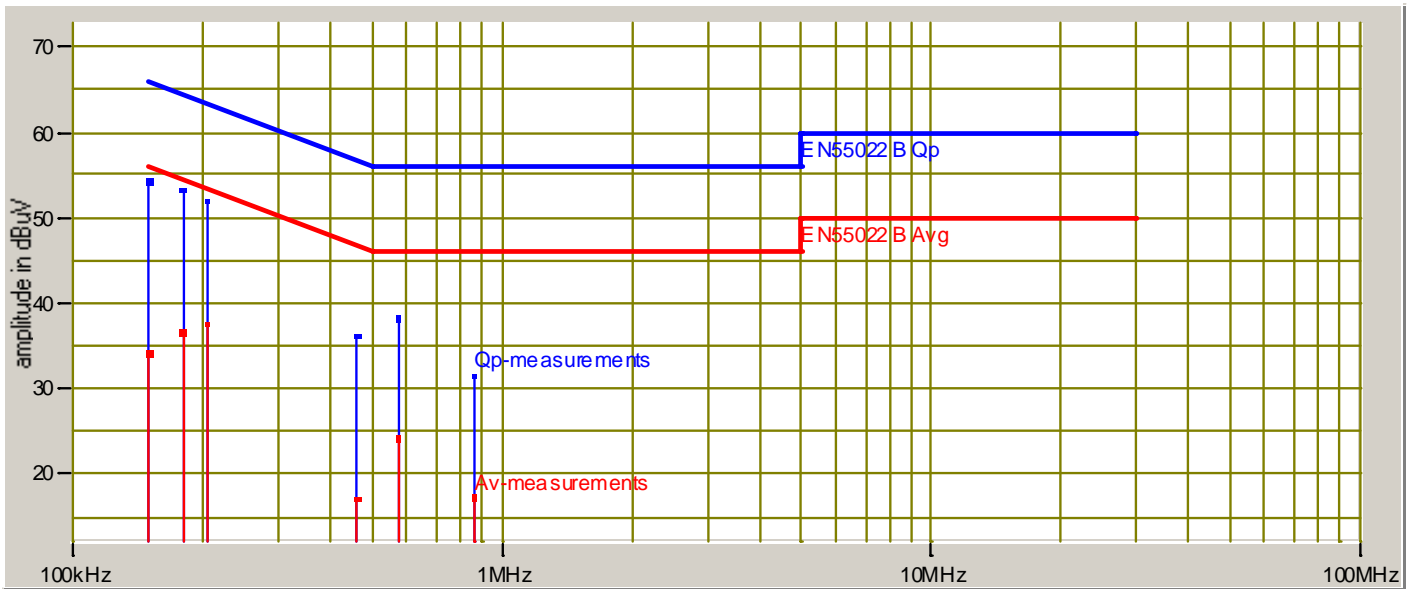
Test Report #: WC700862 Run 7 Test Area: LTS  
 EUT Model #: PCC-2510 Date: 2/14/2007  
 EUT Serial #: 0050X067SAAX04194715 EUT Power: 110VAC 60 Hz PS Temperature: 21.0 °C  
 Test Method: FCC B / EN55022 B Air Pressure: 100.0 kPa  
 Customer: Motorola Inc., NextNet Wireless Product Group Rel. Humidity: 15.0 %

EUT Description: BRS/EBS PC Card Subscriber Unit (PCC)  
Transmit mode

Notes: \_\_\_\_\_

Data File Name: 0862.dat Page: 5 of 5

## Graph:



Tested by: Greg Jakubowski  
 \_\_\_\_\_  
 Printed

*Greg Jakubowski*  
 \_\_\_\_\_  
 Signature

Reviewed by: J. T. Schneider  
 \_\_\_\_\_  
 Printed

*Joel T. Schneider*  
 \_\_\_\_\_  
 Signature

## Appendix B

Constructional Data Form

and

Block Diagram





# EMC Test Plan and Constructional Data Form

America

PLEASE COMPLETE THIS DOCUMENT IN FULL, ENTERING N/A IF THE FIELD IS NOT APPLICABLE. IF TESTING RESULTS IN MODIFICATIONS TO THE EQUIPMENT, PLEASE SUBMIT A REVISED TP/CDF INDICATING THOSE MODIFICATIONS.  
**NOTE: This information will be input into your test report as shown below. Press the F1 key at any time to get HELP for the current field selected.**

Company: Motorola Inc., NextNet Wireless Product Group  
 Address: 299 Johnson Ave.  
Suite 120  
Waseca, MN 56093  
 Contact: Tim Blom Position: Section Manager RF Engineering  
 Phone: 507-837-3672 Fax: 507-837-1059  
 E-mail Address: Tim.Blom@motorola.com

**General Equipment Description -- NOTE: This information will be input into your test report as shown below.**

EUT Description BRS/EBS PC Card Subscriber Unit (PCC)  
 EUT Name Expedience 2.496-2.690 GHz RSU  
 Model No.: PCC-2510 Serial No.: S/N: 0050X067SAAX04194715  
 Product Options: external accessory antenna  
 Configurations to be tested: standard with external accessory antenna

**Equipment Modification (If applicable, indicate modifications since EUT was last tested. If modifications are made during this testing, submit revised TP/CDF after testing is complete.)**

Modifications since last test: N/A  
 Modifications made during test: \_\_\_\_\_

**Test Objective(s): Please indicate the tests to be performed, entering the applicable standard(s) where noted.**

- |  |  |
|--|--|
| <input type="checkbox"/> EMC Directive 89/336/EEC (EMC)<br>Std: _____                        | <input checked="" type="checkbox"/> FCC: Class <input type="checkbox"/> A <input checked="" type="checkbox"/> B Part <u>27</u> |
| <input type="checkbox"/> Machinery Directive 89/392/EEC (EMC)<br>Std: _____                  | <input type="checkbox"/> VCCI: Class <input type="checkbox"/> A <input type="checkbox"/> B                                     |
| <input type="checkbox"/> Medical Device Directive 93/42/EEC (EMC)<br>Std: _____              | <input type="checkbox"/> BSMI: Class <input type="checkbox"/> A <input type="checkbox"/> B                                     |
| <input type="checkbox"/> Vehicle Directive 72/245/EEC (EMC)<br>Std: _____                    | <input checked="" type="checkbox"/> Canada: Class <input type="checkbox"/> A <input checked="" type="checkbox"/> B             |
| <input type="checkbox"/> FDA Reviewers Guidance for Premarket Notification Submissions (EMC) | <input type="checkbox"/> Australia: Class <input type="checkbox"/> A <input type="checkbox"/> B                                |
|  | <input checked="" type="checkbox"/> Other: <u>FCC 2, 15, 27, IC RSS-193</u>  |

**Third Party Certification, if applicable (\*Signature on Page 6 Required)**

- |   |   |
|---|---|
| <input type="checkbox"/> Attestation of Conformity (AoC)* | <input type="checkbox"/> EMC Certification (used with Octagon Mark)*                                  |
| <input type="checkbox"/> Certificate of Conformity (CoC)* | <input type="checkbox"/> Compliance Document*   |
| Protection Class (N/A for vehicles)                       | <input type="checkbox"/> Class I <input type="checkbox"/> Class II <input type="checkbox"/> Class III |
- (Press F1 when field is selected to show additional information on Protection Class.)



# FCC Emissions Test Plan Details (ATTACHMENT)



If testing levels other than those desired, then indicate the requested test levels under Engineering Justifications / Test Deviations.

Standards to be Applied	
<input type="checkbox"/> CISPR 22	
<input type="checkbox"/> Class A	
<input type="checkbox"/> Class B	
<input checked="" type="checkbox"/> FCC Part <u>2.1033</u> (list)	Class <u>B</u> (list)
<input type="checkbox"/> Other _____ (list)	

Description	Basic Document	Requirement
Radiated & Conducted Emissions	ANSI 63.4	Reference Basic Document or Applicable Standard

Engineering Justifications / Test Deviations
<p><b>Transmitter radiated spurious emissions:</b></p> <p><b>FCC 2.1033</b> Application for Certification</p> <p><b>FCC 2.1033(c)</b> Applications for equipment other than that operating under parts 15 and 18 of the rules shall be accompanied by a technical report containing the following information:</p> <p><b>FCC 2.1053</b> Measurements Required: Field Strength of spurious radiation</p> <p><b>ANSI/TIA/EIA-603-C-2004 clause 2.2.12</b> Unwanted Emissions: Radiated Spurious</p> <p><b>Receiver and Digital Devices radiated spurious emissions:</b></p> <p><b>ANSI C63.4-2003</b> American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz (2003)</p>



## EMC Block Diagram Form

**System Configuration Block Diagram** -- Provide a line drawing identifying the EUT, simulators, support equipment, I/O cables, power cables, and any other pertinent components to be used during testing. Use a dashed line to separate the equipment in the testing field versus equipment outside testing field.

\*\* Part 15 test setup for radiated emissions compliance (DoC). \*\*  
Test setup per ANSI C63.4-2003

\*\* Parts 2 and 27 test setup for BRS and EBS service rules \*\*  
Test setup per TIA-603-C (2004)

### Authorization Signatures

/s/ Tim Blom

02/10/2007

\_\_\_\_\_  
Customer authorization to perform tests  
according to this test plan.

\_\_\_\_\_  
Date

\_\_\_\_\_  
Test Plan/CDF Prepared By (please print)

\_\_\_\_\_  
Date



## EMC Test Plan and Constructional Data Form

- FCC / TCB Certification  
 E-Mark Certification

- Industry Canada / FCB Certification  
 Taiwan Certification

### Attendance

Test will be:  Attended by the customer     Unattended by the customer

### Failure - Complete this section if testing will not be attended by the customer.

If a failure occurs, TÜV America should:

- Call contact listed above, if not available then stop testing. (After hrs phone): \_\_\_\_\_  
 Continue testing to complete test series.  
 Continue testing to define corrective action.  
 Stop testing.

### EUT Specifications and Requirements

Length: 5.125 "    Width: 2.25"    Height: 0.75 "    Weight: 3 oz

### Power Requirements

*Regulations require testing to be performed at typical power ratings in the countries of intended use. (i.e., European power is typically 230 VAC 50 Hz or 400 VAC 50 Hz, single and three phase, respectively)*

Voltage: 3.3 VDC (If battery powered, make sure battery life is sufficient to complete testing.)

# of Phases: 1

Current (Amps/phase(max)): 1.0    Current (Amps/phase(nominal)): .2

Other: ---

### Other Special Requirements

Transmitter radiated emissions to be measured per EIA/TIA 603-C procedure for licensed transmitters. Receiver radiated emissions testing to be performed on ANSI C63.4-2003 clause 5.4 compliant site. Receiver radiated emissions measured with a quasi peak detector compliant to CISPR Publication 16.

### Typical Installation and/or Operating Environment

(ie. Hospital, Small Business, Industrial/Factory, etc.)  
 Installed into pc card slot of laptop computer

### EUT Power Cable

- Permanent    OR     Removable    Length (in meters): \_\_\_\_\_  
 Shielded    OR     Unshielded  
 Not Applicable



# EMC Test Plan and Constructional Data Form

America

EUT Interface Ports and Cables															
Type	Analog		Digital		During Test		Qty	Shielding		Termination	Connector Type	Port Termination	Length tested (in meters)	Removable	Permanent
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Yes	No						
<b>EXAMPLE:</b> RS232	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Foil over braid	Coaxial	Metallized 9-pin D-Sub	Characteristic Impedance	6	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Acc Antenna	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	coax	coaxial	custom	50	0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>						<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>						<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>						<input type="checkbox"/>	<input type="checkbox"/>	
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## EMC Test Plan and Constructional Data Form

### EUT Software.

Revision Level: NextNet Diagnostics Test N Tune s/w: MCB1\_23  
 Loader s/w: 10A  
 NextNet Tool/Diagnostics s/w: 9.01p  
 RF ASIC Configuration file: 020907.1

Description: Test software for PC Card product that enables test modes for compliance testing.

**Equipment Under Test (EUT) Operating Modes to be Tested** -- list the operating modes to be used during test. It is recommended the equipment be tested while operating in a typical operation mode. FCC testing of personal computers and/or peripherals requires that a simple program generate a complete line of upper case H's. Provide a general description of all software, firmware, and PLD algorithms used in the equipment. List all code modules as described above, with the revision level used during testing. Consult with your TÜV Product Service Representative if additional assistance is required.

1. Radiated emissions - transmitter - 7.14% duty cycle, 3 RF channels, 3 channel bandwidths

Requirements per TIA/EIA 603-C-2004 and Industry Canada RSS-193 procedures [absolute power level of -13 dBm and verified using antenna-generator substitution method]

Configuration 1 :: 6.0 MHz channel bandwidth: RF freq = 2499 MHz  
 Configuration 2 :: 5.5 MHz channel bandwidth: RF freq = 2593 MHz  
 Configuration 3 :: 5.0 MHz channel bandwidth: RF freq = 2687 MHz

Radiated emissions to be measured from 30 MHz to 27 GHz for each configuration.

2. Radiated emissions - receiver - 3 RF channels, 3 channel bandwidths

Requirements per FCC part 15B and Industry Canada RSS-Gen Issue 1, September, 2005 section 6 Table 1

Configuration 4 :: 6.0 MHz channel bandwidth: RF freq = 2499 MHz  
 Configuration 5 :: 5.5 MHz channel bandwidth: RF freq = 2593 MHz  
 Configuration 6 :: 5.0 MHz channel bandwidth: RF freq = 2687 MHz

Radiated emissions to be measured from 30 MHz to 14 GHz for each configuration.

3. Transmitter and Receiver AC Power Lines Conducted Emissions Limits.

Requirements per FCC part 15B and Industry Canada RSS-Gen Issue 1, September, 2005 section 7.2.2

Configuration 7 :: 6.0 MHz channel bandwidth: RF freq = 2499 MHz, transmit 7.14% duty cycle

Configuration 8 :: 5.5 MHz channel bandwidth: RF freq = 2593 MHz, receive mode



America

## EMC Test Plan and Constructional Data Form

**Equipment Under Test (EUT) System Components** -- List and describe all components which are part of the EUT. For FCC & Taiwan testing a minimum configuration is required. (ie. Mouse, Printer, Monitor, External Disk Drive, Motherboard, etc)

Description	Model #	Serial #	FCC ID #
PC Card Subscriber Unit (PCC)	PCC-2510	0050X067SAAX04 194715	FCC: PHX-PCC2510
Accessory Antenna	SPA 2600/70/7/0/V_C	N/A	N/A



## EMC Test Plan and Constructional Data Form

America

**Support Equipment** -- List and describe all support equipment which is not part of the EUT. (i.e. peripherals, simulators, etc)  
This information is required for FCC & Taiwan testing.

<i>Description</i>	<i>Model #</i>	<i>Serial #</i>	<i>FCC ID #</i>
Dell laptop computer	Precision M65	CRFK3B1	N/A
Belkin Mouse	F8E814-OPT	057002030	N/A
Lexar Media USB memory stick reader	Part # : RW012 Rev. B	N/A	N/A

**Oscillator Frequencies**

<i>Frequency</i>	<i>Derived Frequency</i>	<i>Component # / Location</i>	<i>Description of Use</i>
40 MHz	N	Y1	TCXO for main stability
1 MHz	N	U10 / 1.8 Vdc Power Supply	power supply switchers
300 kHz	N	U16 / Vpa Power Supply	
500 kHz	N	U18 / 25V	
20 MHz	Y	U8	main clock
33 MHz	Y	Laptop	Card Bus
130, 172.5, 177.5 MHz	Y	U9 / ARM	ARM clock
65, 86.25, 88.75 MHz	Y	U9 / ARM Bus	ARM clock
3.332 - 3.58666 GHz	N	U8 / Synthesizer	Main RF frequency source (VCO)
5.8333333 / 23.3333333 / 35 / 140 MHz	Y	U9 / Logic	NN Custom ASIC processing clocks (5.0 MHz channel)
6.333333 / 25.3333333 / 38 / 152 MHz	Y	U9 / Logic	NN Custom ASIC processing clocks (5.5 MHz channel)
7 / 28 / 42 / 168 MHz	Y	U9 / Logic	NN Custom ASIC processing clocks (6 MHz channel)



America

## EMC Test Plan and Constructional Data Form

<b>Power Supply</b>			
<i>Manufacturer</i>	<i>Model #</i>	<i>Serial #</i>	<i>Type</i>
contained in laptop			<input type="checkbox"/> Switched-mode: (Frequency) _____ <input type="checkbox"/> Linear <input type="checkbox"/> Other: _____
Laptop Supply	Dell DF266 PA-1900-01D3	0DF266-71615-62S-7293	<input checked="" type="checkbox"/> Switched-mode: (Frequency) ???? <input type="checkbox"/> Linear <input type="checkbox"/> Other: _____

<b>Power Line Filters</b>		
<i>Manufacturer</i>	<i>Model #</i>	<i>Location in EUT</i>
N/A		





## EMC Test Plan and Constructional Data Form

**Critical EMI Components (Capacitors, ferrites, etc.)**

<i>Description</i>	<i>Manufacturer</i>	<i>Part # or Value</i>	<i>Qty</i>	<i>Component # / Location</i>
N/A				

**EMC Critical Detail -- Describe other EMC Design details used to reduce high frequency noise.**

N/A

(PLEASE INSERT "ELECTRONIC SIGNATURE" BELOW IF POSSIBLE)

**Authorization Signatures (Signature Required for Certifications checked on pg 1)**

/s/ Tim Blom

02/10/2007

\_\_\_\_\_  
Customer authorization to perform tests according to this test plan.

\_\_\_\_\_  
Date

\_\_\_\_\_  
Test Plan/CDF Prepared By (please print)

\_\_\_\_\_  
Date

## Appendix C

### Measurement Protocol



## MEASUREMENT PROTOCOL

### Environmental conditions in the lab, (TUV)

Temperature: 21° C

Relative Humidity: 15 %

Atmospheric pressure: 100.0 kPa

### Test Methodology

Emissions testing is performed according to the procedures in ANSI C63.4-2003.

### Measurement Uncertainty

The test system for conducted emissions is defined as the LISN, tuned receiver or spectrum analyzer, and coaxial cable. The test system has a measurement uncertainty of  $\pm 1.8$  dB. The test system for radiated emissions is defined as the antenna, the pre-amplifier, the spectrum analyzer and the coaxial cable. The test system has a measurement uncertainty of  $\pm 4.8$  dB. The equipment comprising the test systems is calibrated on an annual basis.

### Justification

The Equipment Under Test (EUT) is configured in a typical user arrangement in accordance with the manufacturer's instructions. A cable is connected to each available port and either terminated with a peripheral into its characteristic impedance or left unterminated. When appropriate, the cables are manually manipulated with respect to each other to obtain maximum emissions from the unit.

### Radiated Emissions

The final level, in dB $\mu$ V/m, equals the reading from the spectrum analyzer (Level dB $\mu$ V), adding the antenna correction factor and cable loss factor (Factor dB) to it, and subtracting the preamp gain (and duty cycle correction factor, if applicable). This result then has the limit subtracted from it to provide the Delta, which gives the tabular data as shown in the data sheets in Attachment A.

Example:

FREQ (MHz)	LEVEL (dB $\mu$ V)	CABLE/ANT/PREAMP (dB)	FINAL (dB $\mu$ V/m)	POL/HGT/AZ (m) (deg)	DELTA1
60.80	42.5Qp +	1.2 + 10.9 - 25.5 =	29.1	V 1.0 0.0	-10.9

### Substitution Method

Per TIA/EIA 603-C-2004, a radiated emission scan was also made, at TUV America's Wild River Lab Large Test Site, with the EUT's antenna replaced with a termination to demonstrate case radiation compliance to the -13 dBm requirement. Radiated emissions from the EUT are measured in the frequency range of 30 to 27000 MHz using a spectrum analyzer and appropriate broadband linearly polarized antennas. Table top equipment is placed on a 1.0 X 1.5 meter non-conducting table 80 centimeters above the ground plane. Floor standing equipment is placed directly on the turntable/ground plane. Interface cables that are closer than 40 centimeters to the ground plane are bundled in the center in a serpentine fashion so they are at least 40 centimeters from the ground plane. Cables to simulators/testers (if used in this test) are routed through the center of the table and to a screen room located outside the test area. The antenna is positioned 3 meters horizontally from the EUT. To locate maximum emissions from the test sample the antenna is varied in height from 1 to 4 meters, measurement scans are made with both horizontal and vertical antenna polarizations and the EUT are rotated 360 degrees. The field strength levels were measured per ANSI C63.4. The EUT is then replaced with a tuned dipole antenna (below 1 GHz) or horn antenna (above 1 GHz). The substitute antenna was placed in the same polarization as the test antenna. A signal generator was used to generate a signal level that matched the highest level measured from the EUT. The signal generator level minus the cable loss from the signal generator to the substitute antenna plus the substitute antenna gain equals the spurious power level.

### Test Equipment

All measurement instrumentation is traceable to the National Institute of Standards and Technology and is calibrated according to internal procedure.