DECLARATION OF COMPLIANCE | FCC PART 15 SUBPART E | IC RSS-210 ISSUE 8

Test Lab Information	**Name**	**CELLTECH LABS INC.**		
	Address	21-364 Lougheed Road, Kelowna B.C. V1X 7R8 Canada		
Test Lab Accreditation	**ISO 17025**	A2LA Test Lab Certificate No. 2470.01		
Test Site Registration No.	**FCC**	Accredited Test Facility	**IC**	3874A-1
Applicant Information	**Name**	**XPLORE TECHNOLOGIES CORPORATION**		
	Address	14000 Summit Drive, Suite 900, Austin, Texas, 78728 USA		
Standard(s)/Procedure(s)	**FCC**	47 CFR Part 15 Subpart E (15.407)	Unlicensed National Information Infrastructure TX (NII)	
	IC	RSS-210 Issue 8 Annex 8	RSS-Gen Issue 3	
	IEEE	ANSI C63.4:2003		
Application Type(s)	**FCC/IC**	**Class II Permissive Change (Limited Modular Approval)**		
Description of Change(s)	**FCC/IC**	**Add Xplore iX104C5 Host Tablet PC & SkyCross Multiband Transmit Diversity Antenna**		
Device Identifier(s)	**FCC ID:**	Q2GI6205-XPL	**IC:**	4596A-I6205XPL
Test Sample Receipt Date	October 05, 2011	**Date(s) of Measurements**	October 21-26, 2011	
Device Under Test (DUT)	802.11a/b/g/n WLAN Module (PCIe Half Mini Card Form Factor)			
Device Under Test Model	62205ANHMW	**Device Under Test Serial No.**	G12784-006	
DUT Host PC Configuration	Xplore Technologies Rugged Tablet PC			
DUT Host PC Model	Xplore Technologies iX104C5			
DUT Host PC Serial No.	914JP01003G110000B4M000			
Transmitter Freq. Range(s)	5180 - 5240 MHz	5260 - 5320 MHz	5500 - 5700 MHz	
Data Rates (Mbps)	54, 48, 36, 24, 18, 12, 9, 6 (802.11a)			
	300, 270, 243, 240, 180, 150, 144, 135, 130, 120, 117, 115.5, 90, 86.667, 72.2, 65, 60, 57.8, 45, 43.3, 30, 28.9, 21.7, 15, 14.4, 7.2 (802.11n)			
Modulation Type(s)	BPSK, QPSK, 16QAM, 64QAM (5 GHz)			
Antenna Type(s) Tested	SkyCross Multiband Antenna	P/N: 25.90A14.001 (MAIN Antenna)	P/N: 25.90A0Q.001 (AUX Antenna)	
Antenna Location(s)	MAIN Antenna - Upper Left Side Edge above Display	AUX Antenna - Upper Right Side Edge above Display		
Antenna Gain Specification	-5.3 dBi (5 GHz Band)			
Power Source(s) Tested	Lithium-ion Battery	7.4V, 7600mAh	Model: iX104	
Co-located WWAN	GPRS/EDGE/CDMA/WCDMA/HSPA	Model: GOBI3000	Does not co-transmit with WLAN	
	FCC ID: Q2GGOBI3K-XPL	IC: 4596A-GOBI3KXPL	Manuf.: Option NV	
Co-located Bluetooth	Class 2 Bluetooth	Model: BCM92070MD_REF	Does co-transmit with WLAN	
	FCC ID: QDS-BRCM1043	IC: 4324A-BRCM1043	Manuf.: Broadcom Corporation	

This wireless device has demonstrated compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in FCC 47 CFR Rule Parts 15C; Industry Canada RSS-210 Issue 8, RSS-Gen Issue 3 and ANSI C63.4:2003.

I attest to the accuracy of data. All measurements were performed by me or were made under my supervision and are correct to the best of my knowledge and belief. I assume full responsibility for the completeness of these measurements and vouch for the qualifications of all persons taking them.

The results and statements contained in this report pertain only to the device(s) evaluated.

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Test Report Approved By	Sean Johnston	**Sean Johnston**	**Lab Manager**	**Celltech Labs Inc.**

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TEST SUMMARY

Appendix	Test Description	Procedure Reference	FCC Limit Reference	IC Limit Reference	Result
B	Transmitter Radiated Spurious Emissions	ANSI C63.4	§15.205(a)(b) §15.209(a), §15.407	RSS-210 Issue 8	Pass

REVISION LOG

Revision	Description	Implemented By	Implementation Date
1.0	1st Release	Jon Hughes	January 06, 2012

Test Report Prepared By	Report Preparation Date	QA Review By	QA Review Date
Sean Johnston	January 04, 2012	Jon Hughes	January 05, 2012

1.0 SCOPE

This report outlines the measurements made and results collected during electromagnetic emissions testing of the Xplore Technologies Corporation Model: 62205ANHMW 802.11a/b/g/n WLAN Mini-PCI Express Card installed in the Xplore Technologies Corporation Model: iX104C5 Rugged Tablet PC with SkyCross Multiband Transmit Diversity Antenna. The measurement results were applied against the applicable EMC requirements and limits outlined in the technical rules and regulations set forth in the Federal Communication's Commission Code of Federal Regulations Title 47 Part 15 Subpart E and Industry Canada Radio Standards Specification RSS-210 Issue 8 and RSS-Gen Issue 3.

2.0 REFERENCES

2.1 Normative References

ANSI/ISO 17025:2005	General Requirements for competence of testing and calibration laboratories
IEEE/ANSI C63.4-2003	Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz
CFR Title 47 Part 15 Subpart E	Code of Federal Regulations Title 47: Telecommunication Part 15E: Unlicensed National Information Infrastructure Devices
IC Spectrum Management & Telecommunications Policy	Radio Standards Specification RSS-210 Issue 8 - Low-Power Licence-Exempt Radiocommunication Devices (All Frequency Bands): Category I Equipment RSS-Gen Issue 3 - General Requirements and Information for the Certification of Radiocommunication Equipment

3.0 FACILITIES AND ACCREDITATIONS

The facilities used in collecting the test results outlined in this report are located at 21-364 Lougheed Road, Kelowna, British Columbia, Canada V1X 7R8. The radiated emissions site conforms to the requirements set forth in ANSI C63.4 and is filed and listed with the FCC as an accredited test facility and Industry Canada under File Number IC 3874A-1.

4.0 GENERAL INFORMATION

4.1 Applicant Information

Company Name	**XPLORE TECHNOLOGIES CORPORATION**
Address	14000 Summit Drive, Suite 900
	Austin, Texas 78728
	United States

4.2 DUT Description

Host PC Type	Rugged Tablet PC	**Model**	iX104C5	**Serial No.**	914JP01003G11000 0B4M000
Transmitter Tested	802.11a/b/g/n WLAN	**Model**	62205ANHMW	**Serial No.**	G12784-006
Transmit Freq. Range	5180 - 5240 MHz	5260 - 5320 MHz	5500 - 5700 MHz		
Transmitter Identifier(s)	FCC ID: Q2GI6205-XPL	IC: 4596A-I6205XPL			
Power Source Tested	Lithium-ion Battery (Host PC)	7.4V, 7600mAh	Model: iX104		
Antenna Type(s) Tested	SkyCross Multiband Transmit Diversity	P/N: 25.90A14.001 (MAIN)	P/N: 25.90A0Q.001 (AUX)		
Antenna Gain Spec.	-5.3 dBi (5 GHz Band)				

4.3 Rule Part(s) & Classification(s)

Rule Part(s) Applied	**FCC**	47 CFR §15.407, 15.209, §15.205 (a), (b)
	IC	RSS-210 Issue 8, RSS-Gen Issue 3

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4.4 Mode(s) of Operation Tested

Measurements were made with the DUT set to the low, mid and high channel in each band and in 3 orthogonal DUT positions.

The WLAN was configured and exercised using customer supplied test software that allows an operator to set the parameters of the WLAN operation. With the exception of the output power and frequency settings, all other WLAN settings were left on their default settings. The power gain settings were set as described in section appendix A with the worst-case data rate as described in the same section. Software power settings were set as defined by the radio manufacturers for maximum rated power.

Pre-scan measurements were made with the WLAN in each mode (a,& n). The lowest and highest bit rates where tested in each. The lowest, highest and mid-band channels in the mode a & n were investigated. The three orthogonal EUT orientations were used to determine worse case orientation. From this preliminary data, it was determined that the lowest rate in each mode, with the DUT in orientation Position A (see Section B.9), produced the highest spurious emissions.

TX Frequency Range:	Mode a: 5150 – 5250 MHz Ch. 36 (5180 MHz), Ch. 40 (5785 MHz) & Ch. 48 (5825 MHz) Mode a: 5150 – 5250 MHz Ch. 149 (5745 MHz), Ch. 157 (5785 MHz) & Ch. 165 (5825 MHz) Mode a: 5745 – 5825 MHz Ch. 149 (5745 MHz), Ch. 157 (5785 MHz) & Ch. 165 (5825 MHz) Mode a: 5745 – 5825 MHz Ch. 151(F)(5755 MHz), Ch. 157(F) (5795 MHz)
Modulation Type(s):	OFDM (BPSK, QPSK, 16QAM, 64QAM)

4.5 Configuration Description

4.5.1 Configuration Justification

The DUT was tested in a configuration described by the client as being typical of normal use.

5.0 PASS/FAIL CRITERIA

Unless otherwise noted in the Appendices, the pass/fail criteria is the limit set forth in the reference standards. The DUT is considered to have passed the requirements if the data collected during the described measurement procedure is no greater than the specified limits as defined. The pass/fail statements made in this report only apply to the unit tested.

Appendix A – Reference Conducted Output Power Measurements

5.2 GHz Band			
802.11a	6Mbps	OFDM	
Duty Cycle	99%		
Channel	**Frequency (MHz)**	**Conducted Average Power (dBm)**	
		MAIN - Chain A	**AUX - Chain B**
36	5180	16.1	16.0
40	5200	16.2	16.1
44	5220	16.0	16.1
48	5240	16.1	16.1
802.11n (20 MHz)	HT0	OFDM	
Duty Cycle	99%		
Channel	**Frequency (MHz)**	**Conducted Average Power (dBm)**	
		MAIN - Chain A	**AUX - Chain B**
36	5180	15.5	15.5
40	5200	16.2	16.1
44	5220	16.1	16.0
48	5240	16.1	16.1
802.11n (40 MHz)	HT0	OFDM	
Duty Cycle	99%		
Channel	**Frequency (MHz)**	**Conducted Average Power (dBm)**	
		MAIN - Chain A	**AUX - Chain B**
38(F)	5190	11.1	11.3
46(F)	5230	16.1	16.0
802.11n MIMO 20M	HT16	OFDM	
Duty Cycle	98%		
Channel	**Frequency (MHz)**	**Conducted Average Power (dBm)**	
		MAIN - Chain A	**AUX - Chain B**
36	5180	16	16
40	5200	16	16
44	5220	16	16
48	5240	16	16

5.3 GHz Band

802.11a 6Mbps OFDM
Duty Cycle 99%

Channel	Frequency (MHz)	Conducted Average Power (dBm)	
		MAIN - Chain A	AUX - Chain B
52	5260	16.1	16.0
56	5280	16.1	16.0
60	5300	16.2	16.1
64	5320	16.0	16.0

802.11n (20 MHz) HT0 OFDM
Duty Cycle 99%

Channel	Frequency (MHz)	Conducted Average Power (dBm)	
		MAIN - Chain A	AUX - Chain B
52	5260	16.1	16.0
56	5280	16.1	16.0
60	5300	16.2	16.1
64	5320	16.0	16.1

802.11n (40 MHz) HT0 OFDM
Duty Cycle 99%

Channel	Frequency (MHz)	Conducted Average Power (dBm)	
		MAIN - Chain A	AUX - Chain B
54(F)	5270	16.0	16.0
62(F)	5310	11.1	11.1

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5.5-5.7 GHz Band

802.11a 6Mbps OFDM
Duty Cycle 99%

Channel	Frequency (MHz)	Conducted Average Power (dBm)	
		MAIN - Chain A	AUX - Chain B
100	5500	16.1	16.0
104	5520	16.0	16.0
108	5540	16.1	16.1
112	5560	16.0	16.0
116	5580	16.0	16.0
120	5600	16.2	16.1
124	5620	16.1	16.0
128	5640	16.0	16.0
132	5660	16.1	16.1
136	5680	16.1	16.0
140	5700	15.5	15.4

802.11n (20 MHz) HT0 OFDM
Duty Cycle 99%

Channel	Frequency (MHz)	Conducted Average Power (dBm)	
		MAIN - Chain A	AUX - Chain B
100	5500	16.0	16.0
104	5520	16.0	16.0
108	5540	16.0	16.0
112	5560	16.0	16.1
116	5580	16.0	16.0
120	5600	16.2	16.1
124	5620	16.1	16.0
128	5640	16.0	16.0
132	5660	16.0	16.0
136	5680	15.5	15.5
140	5700	15.5	15.5

802.11n (40 MHz) HT0 OFDM
Duty Cycle 99%

Channel	Frequency (MHz)	Conducted Average Power (dBm)	
		MAIN - Chain A	AUX - Chain B
102(F)	5510	13.5	13.4
118(F)	5590	16.0	16.0
134(F)	5670	16.0	16.0

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Appendix B – Radiated Transmitter Spurious Emissions

B.1 REFERENCES

Normative Reference Standard	FCC CFR 47 §15.407(b) (1) & (2), §15.205 (a), (b), §15.209 (a) and §15.407 RSS 210, RSS GEN
Procedure Reference	ANSI C63.4:2003

B.2 LIMITS

§15.209, §15.205

TX Emission Limits 15.209

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
009–0.490	2400/F(kHz)	300
0.490–1.705	24000/F(kHz)	30
1.705–30.0	30	30
30–88	100**	3
88–216	150**	3
216–960	200**	3
Above 960	500	3

**Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this section shall not be located in the frequency bands 54–72 MHz, 76–88 MHz, 174–216 MHz or 470–806 MHz. However, operation within these frequency bands is permitted under other sections of this part, e.g. §§15.231 and 15.241.

Restricted Bands

MHz	MHz	MHz	GHz
0.090–0.110	16.42–16.423	399.9–410	4.5–5.15
[1]0.495–0.505	16.69475–16.69525	608–614	5.35–5.46
2.1735–2.1905	16.80425–16.80475	960–1240	7.25–7.75
4.125–4.128	25.5–25.67	1300–1427	8.025–8.5
4.17725–4.17775	37.5–38.25	1435–1626.5	9.0–9.2
4.20725–4.20775	73–74.6	1645.5–1646.5	9.3–9.5
6.215–6.218	74.8–75.2	1660–1710	10.6–12.7
6.26775–6.26825	108–121.94	1718.8–1722.2	13.25–13.4
6.31175–6.31225	123–138	2200–2300	14.47–14.5
8.291–8.294	149.9–150.05	2310–2390	15.35–16.2
8.362–8.366	156.52475–156.52525	2483.5–2500	17.7–21.4
8.37625–8.38675	156.7–156.9	2690–2900	22.01–23.12
8.41425–8.41475	162.0125–167.17	3260–3267	23.6–24.0
12.29–12.293	167.72–173.2	3332–3339	31.2–31.8
12.51975–12.52025	240–285	3345.8–3358	36.43–36.5
12.57675–12.57725	322–335.4	3600–4400	-2
13.36–13.41			

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B.3 LIMITS

B.1.1. FCC CFR 47

§15.407 (b):	*Undesirable Emissions Limits: …… the peak emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:*
	(1) For transmitters operating in the 5.15 – 5.25 GHz band: all emissions outside of the 5.15 – 5.35 GHz band shall not exceed an EIRP of –27 dBm/MHz.*
	(2) For transmitters operating in the 5.25 – 5.35 GHz band: all emissions outside of the 5.15 – 5.35 GHz band shall not exceed an EIRP of –27 dBm/MHz…*
	(3) For transmitters operating in the 5.47 – 5.725 GHz band: all emissions outside of the 5.15 – 5.35 GHz band shall not exceed an EIRP of –27 dBm/MHz…*
	(6) Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in Section 15.209.

* Free space field strength values equivalent to the EIRP limits specified were calculated using the following formulae:
Field Strength (dBuV/m) = 20 * log (sqrt [((30 * Power (watts)) / (distance (m) ^2 * 10^6)])
Resulting in a field strength limit of 68.23 dBuV/m when measured with a RBW of 1 MHz.

B.4 ENVIRONMENTAL CONDITIONS

Temperature	25 +/- 5 ºC
Humidity	40 +/- 10 %
Barometric Pressure	101 +/- 3 kPa

B.5 TEST EQUIPMENT LIST

ASSET NUMBER	MANUFACTURER	MODEL	DESCRIPTION	CAL DUE
00072	EMCO	2075	Mini-mast	n/a
00073	EMCO	2080	Turn Table	n/a
00071	EMCO	2090	Multi-Device Controller	n/a
00015	HP	E4408B	Spectrum Analyzer	03May12
00050	Chase	CBL-6111A	Bilog Antenna	03May13
00034	ETS	3115	Double Ridged Guide Horn	29Apr13
00035	ETS	3115	Double Ridged Guide Horn	29Apr13
00051	HP	8566B	Spectrum Analyzer RF Section	03May12
00049	HP	85650A	Quasi-peak Adapter	06May12
00047	HP	85685A	RF Preselector	05May12
00006	R & S	SMR 20	Signal Generator (10MHz-40GHz)	30Apr12
00114	Amplifier Research	DC7154	Directional Coupler (0.8-4.2 GHz)	n/a
00078	Pasternack	PE2214-20	Directional Coupler (1-18 GHz)	n/a
00106	Amplifier Research	5S1G4	Power Amplifier (5W, 800MHz-4.2GHz)	n/a
00041	Amplifier Research	10W1000C	Power Amplifier (0.5 - 1 GHz)	n/a
00007	Gigatronics	8652A	Power Meter	04May12
00014	Gigatronics	80701A	Power Sensor	04May12
00015	Agilent	4408B	Spectrum Analyzer	03May12
00115	Miteq	J54-00102600-35-5A	LNA	n/a
00093	Microtronics	HPM50111	High Pass Filter	n/a
00119	INMAT	18AH-10	10dB attenuator	n/a
00120	Celltech	n/a	Microwave Cable (RX)	n/a
00161/00166	Waveline	899/801-KF	Standard Gain Horn	29Apr13

B.6 MEASUREMENT EQUIPMENT SETUP

MEASUREMENT EQUIPMENT CONNECTIONS

The measurement equipment was connected as shown in the A.6.1. A number of antennas were used to cover the applicable frequency range test. The ranges in which each antenna was used are as follows:

Frequency Range	Spectrum Analyzer Asset #	LNA/Filter/Attenuator Asset #	Antenna Asset #
30 MHz - 1GHz	00051		00050
2 GHz – 3 GHz	00015	00119/00115	00035
3 GHz – 10 GHz	00015	00093/00115	00035
10 GHz – 18 GHz	00015	00093/00115	00035
18 GHz – 26 GHz	00161	00093/00115	00161

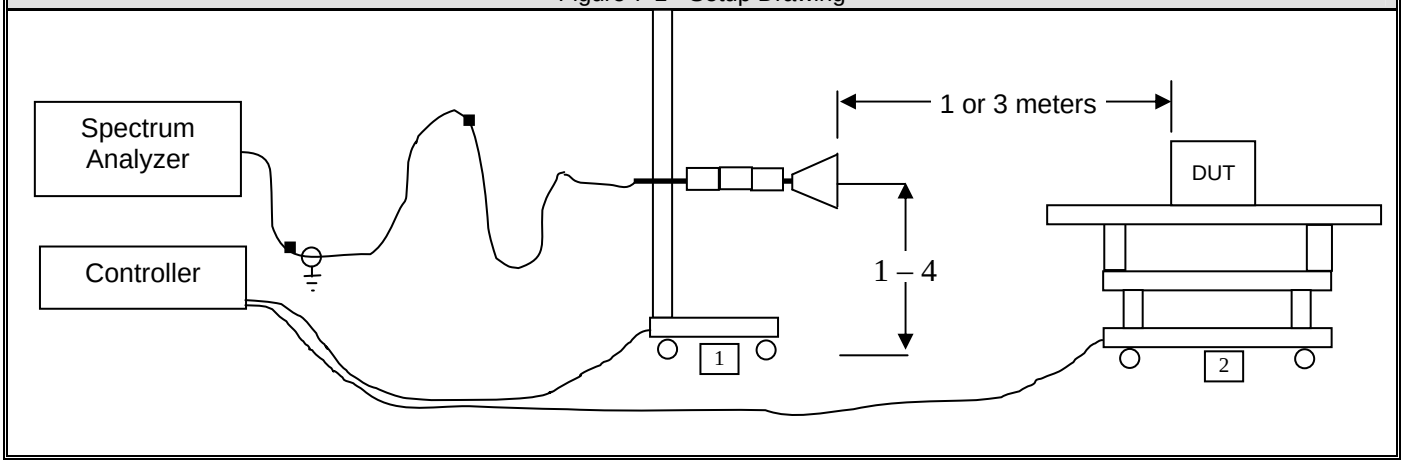
MEASUREMENT EQUIPMENT SETTINGS

The spectrum analyzer was set to the following settings:

Frequency Range	RBW	VBW	Detector
MHz	kHz	kHz	
< 1 GHz	100	300	Peak
> 1000	1000	1000	Peak

B.7 SETUP DRAWING

Figure 7-1 - Setup Drawing



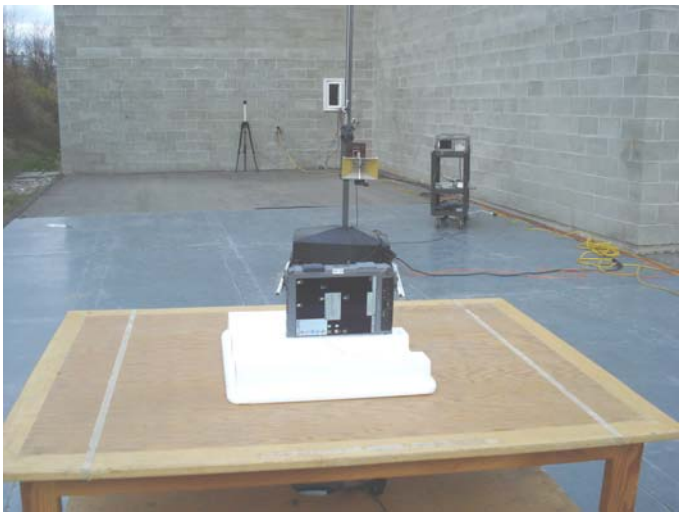
B.8 DUT OPERATING DESCRIPTION

The worst-case data rate was determined from conducted power analysis (see Appendix A). Pre-scan investigations determined the worst-case modes that were applied for the final radiated spurious emission measurements. The transmitter was set to the maximum conducted power setting prescribed by the manufacturer.

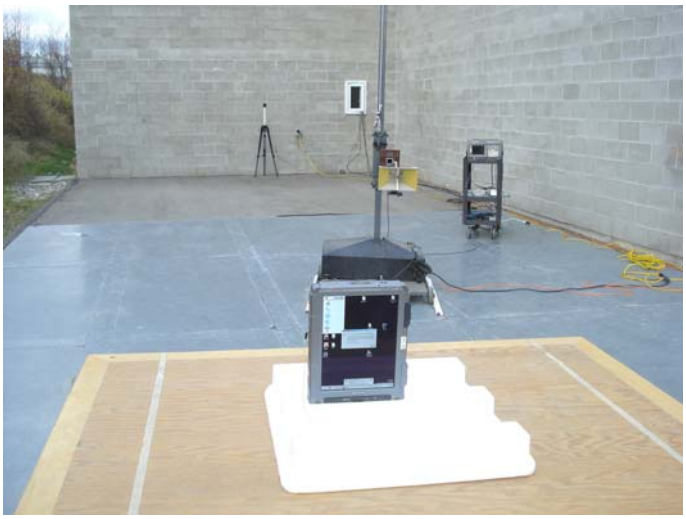
B.9 SETUP PHOTOGRAPHS

Photograph B.9-1 – DUT Position A

Photograph B.9-2 – DUT Position B



Photograph B.9-3 – DUT Position C



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B.10 RADIATED TRANSMITTER SPURIOUS EMISSIONS MEASUREMENT DATA

Spurious Emissions 802.11a (5180-5240 MHz) Channels 36, 40 & 48

Freq. (MHz)	Channel/Chain	Level (dBuV) pk	Polarity	Distance (m)	Corr. factors (dB)	Field Strength (dBuV/m) pk	Limit distance (m)	Limit (dBuV/m) pk	Margin (dB) pk
5180	**36**								
3453.3	a	nf	V	3	4.1		3	68.2	
6906.7	a	nf	V	1	8.3		1	77.7	
10360	a	nf	V	1	15.2		1	77.7	
3453.3	b	41.1	V	3	4.1	45.2	3	68.2	23
6906.7	b	39.4	V	1	8.3	47.7	1	77.7	30
10360	b	35.6	V	1	15.2	50.8	1	77.7	26.9
3453.3	a	nf	H	3	4		3	68.2	
6906.7	a	nf	H	1	8.3		1	77.7	
10360	a	nf	H	1	15.1		1	77.7	
3453.3	b	40.1	H	3	4	44.1	3	68.2	24.1
6906.7	b	nf	H	1	8.3		1	77.7	
10360	b	nf	H	1	15.1		1	77.7	
5200	**40**								
3466.7	a	nf	V	3	4.1		3	68.2	
3933.3	a	nf	V	1	8.3		1	77.7	
10400	a	nf	V	1	15.2		1	77.7	
3466.7	b	41.2	V	3	4.1	45.3	3	68.2	22.9
3933.3	b	40.2	V	1	8.3	48.5	1	77.7	29.2
10400	b	38.5	V	1	15.2	53.7	1	77.7	24
3466.7	a	nf	H	3	4		3	68.2	
3933.3	a	nf	H	1	8.3		1	77.7	
10400	a	nf	H	1	15.1		1	77.7	
3466.7	b	39.4	H	3	4	43.4	3	68.2	24.8
3933.3	b	nf	H	1	8.3		1	77.7	
10400	b	nf	H	1	15.1		1	77.7	
5240	**48**								
3493.3	a	nf	V	3	4.1		3	68.2	
6986.7	a	nf	V	1	8.3		1	77.7	
10480	a	nf	V	1	15.2		1	77.7	
3493.3	b	39.6	V	3	4.1	43.7	3	68.2	24.5
6986.7	b	39.3	V	1	8.3	47.6	1	77.7	30.1
10480	b	38.4	V	1	15.2	53.6	1	77.7	24.1
3493.3	a	nf	H	3	4		3	68.2	
6986.7	a	nf	H	1	8.3		1	77.7	
10480	a	nf	H	1	15.1		1	77.7	
3493.3	b	nf	H	3	4		3	68.2	
6986.7	b	nf	H	1	8.3		1	77.7	
10480	b	nf	H	1	15.1		1	77.7	

No emissions were detected for n mode 20MHz and 40 MHz and dual chain AB mode.
nf = noise floor

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RADIATED TRANSMITTER SPURIOUS EMISSIONS MEASUREMENT DATA (CONT.)

Spurious Emissions 802.11a (5260-5320 MHz) Channels 52, 56 & 64

Freq. (MHz)	Channel/Chain	Level (dBuV) pk	Polarity	Distance (m)	Corr. factors (dB)	Field Strength (dBuV/m) pk	Limit distance (m)	Limit (dBuV/m) pk	Margin (dB) pk
5260	**52**								
3506.7	a	nf	V	3	4.1		3	68.2	
7013.3	a	nf	V	1	8.3		1	77.7	
10520	a	nf	V	1	15.2		1	77.7	
3506.7	b	41.3	V	3	4.1	45.4	3	68.2	22.8
7013.3	b	39.9	V	1	8.3	48.2	1	77.7	29.5
10520	b	38.6	V	1	15.2	53.8	1	77.7	23.9
3506.7	a	nf	H	3	4		3	68.2	
7013.3	a	nf	H	1	8.3		1	77.7	
10520	a	nf	H	1	15.1		1	77.7	
3506.7	b	nf	H	3	4		3	68.2	
7013.3	b	nf	H	1	8.3		1	77.7	
10520	b	nf	H	1	15.1		1	77.7	
5280	**56**								
3520	a	nf	V	3	4.1		3	68.2	
7040	a	nf	V	1	8.3		1	77.7	
10560	a	nf	V	1	15.2		1	77.7	
3520	b	42.3	V	3	4.1	46.4	3	68.2	21.8
7040	b	39.4	V	1	8.3	47.7	1	77.7	30
10560	b	38.1	V	1	15.2	53.3	1	77.7	24.4
3520	a	nf	H	3	4		3	68.2	
7040	a	nf	H	1	8.3		1	77.7	
10560	a	nf	H	1	15.1		1	77.7	
3520	b	nf	H	3	4		3	68.2	
7040	b	nf	H	1	8.3		1	77.7	
10560	b	nf	H	1	15.1		1	77.7	
5320	**64**								
3546.7	a	nf	V	3	4.1		3	68.2	
7093.3	a	nf	V	1	8.3		1	77.7	
10640	a	nf	V	1	15.2		1	77.7	
3546.7	b	39.8	V	3	4.1	43.9	3	68.2	24.3
7093.3	b	38.4	V	1	8.3	46.7	1	77.7	31
10640	b	nf	V	1	15.2		1	77.7	
3546.7	a	nf	H	3	4		3	68.2	
7093.3	a	nf	H	1	8.3		1	77.7	
10640	a	nf	H	1	15.1		1	77.7	
3546.7	b	nf	H	3	4		3	68.2	
7093.3	b	nf	H	1	8.3		1	77.7	
10640	b	nf	H	1	15.1		1	77.7	

No emissions were detected for n mode 20MHz and 40 MHz and dual chain AB mode.
nf = noise floor

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RADIATED TRANSMITTER SPURIOUS EMISSIONS MEASUREMENT DATA (CONT.)

Spurious Emissions 802.11a (5500-5700 MHz) Channels 100, 120 & 140

Freq. (MHz)	Channel/Chain	Level (dBuV) pk	Polarity	Distance (m)	Corr. factors (dB)	Field Strength (dBuV/m) pk	Limit distance (m)	Limit (dBuV/m) pk	Margin (dB) pk
5500	**100**								
3666.6	a	nf	V	3	4.1		3	68.2	
7333.2	a	nf	V	1	8.3		1	77.7	
11000	a	nf	V	1	15.2		1	77.7	
3666.6	b	42.1	V	3	4.1	46.2	3	68.2	22
7333.2	b	40.1	V	1	8.3	48.4	1	77.7	29.3
11000	b	38.9	V	1	15.2	54.1	1	77.7	23.6
3666.6	a	nf	H	3	4		3	68.2	
7333.2	a	nf	H	1	8.3		1	77.7	
11000	a	nf	H	1	15.1		1	77.7	
3666.6	b	nf	H	3	4		3	68.2	
7333.2	b	nf	H	1	8.3		1	77.7	
11000	b	nf	H	1	15.1		1	77.7	
5600	**120**								
3733.3	a	nf	V	3	4.1		3	68.2	
7466.6	a	40.2	V	1	8.3		1	77.7	
11200	a	nf	V	1	15.2		1	77.7	
3733.3	b	40.2	V	3	4.1	44.3	3	68.2	23.9
7466.6	b	39.5	V	1	8.3	47.8	1	77.7	29.9
11200	b	38.5	V	1	15.2	53.7	1	77.7	24
3733.3	a	nf	H	3	4		3	68.2	
7466.6	a	nf	H	1	8.3		1	77.7	
11200	a	nf	H	1	15.1		1	77.7	
3733.3	b	nf	H	3	4		3	68.2	
7466.6	b	nf	H	1	8.3		1	77.7	
11200	b	nf	H	1	15.1		1	77.7	
5700	**140**								
3800	a	nf	V	3	4.1		3	68.2	
7600	a	nf	V	1	8.3		1	77.7	
11400	a	nf	V	1	15.2		1	77.7	
3800	b	39.9	V	3	4.1	44	3	68.2	24.2
7600	b	37	V	1	8.3	45.3	1	77.7	32.4
11400	b	nf	V	1	15.2		1	77.7	
3800	a	nf	H	3	4		3	68.2	
7600	a	nf	H	1	8.3		1	77.7	
11400	a	nf	H	1	15.1		1	77.7	
3800	b	nf	H	3	4		3	68.2	
7600	b	nf	H	1	8.3		1	77.7	
11400	b	nf	H	1	15.1		1	77.7	

No emissions were detected for n mode 20MHz and 40 MHz and dual chain AB mode.
nf = noise floor

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Formulae:
Total CF = Antenna Factor + Cable Factor + Other Factor (Amplifier Gain, filter loss, etc)
Field Strength = SA Reading + Total CF
Limit Distance Correction = 40*log(d1/d2) for F<30 MHz, 20*log(d1/d2) for F> 30 MHz:
where d1 is the measurement distance, d2 is the published limit distance
Limit = Specified Limit + Limit Distance Correction
Margin = Limit - Field Strength

PASS/FAIL
In reference to the results outlined in B.10, the DUT passes the requirements as stated in the reference standards.

2 SIGN-OFF

I attest to the accuracy of the data. All measurements reported herein were performed by me and are correct to the best of my knowledge and belief. I assume full responsibility for the completeness of these measurements.

Sean Johnston
Lab Manager
Celltech Labs Inc.

Oct. 26, 2011
Date

END OF DOCUMENT