ELECTROMAGNETIC COMPATIBILITY

EMC TEST REPORT

FCC 47 CFR PART 22 SUBPART H
FCC 47 CFR PART 24 SUBPART E

FOR

ITRONIX CORPORATION

MODEL: IX-AC595

DUAL-BAND CDMA/EV-DO PCMCIA MODEM

INSTALLED IN

IX325 SERIES RUGGED TABLET PC

UTILIZING AN

EMBEDDED ANTENNA

FCC ID: KBCIX-AC595

IC ID: 1943A-AC595

Test Report Serial No.

010907KBC-T805-E24C

Test Report Revision No.

Revision 1.0 (Initial Release)

Test Lab and Location

Celltech Compliance Testing & Engineering Lab
(Celltech Labs Inc.)
1955 Moss Court
Kelowna, BC
Canada
V1Y 9L3

DECLARATION OF COMPLIANCE

Test Lab and Location	**CELLTECH LABS INCORPORATED** Testing and Engineering Services 1955 Moss Court Kelowna, BC V1Y 9L3 Canada			**Company Information**	**ITRONIX CORPORATION** 12825 E. Mirabeau Parkway Spokane Valley, WA 99216 United States
Phone:	250-448-7047	**Fax:**	250-448-7048		
E-mail:	info@celltechlabs.com	**Web site:**	www.celltechlabs.com		

Lab Registration No.(s):	FCC:	714830	IC:	IC 3874
Rule Part(s) Applied:	FCC:	§2; §22H; §24E	IC:	RSS-132 Issue 2, RSS-133 Issue 3
Device Classification(s):	FCC:	PCS Licensed Transmitter (PCB)	IC:	800 MHz Cellular Telephones Employing New Technologies 2 GHz Personal Communication Services

Device Identifier(s):	FCC ID:	KBCIX-AC595	IC ID:	1943A-AC595	**Device Model:**	IX-AC595
Device Description:	Dual-Band CDMA/EV-DO PCMCIA Modem Card installed in Itronix IX325 Rugged Tablet PC					
Transmit Frequency Range(s):	824.70 - 848.31 MHz		Cellular CDMA/EV-DO	1851.25 - 1908.75 MHz		PCS CDMA/EV-DO

Maximum RF Peak Conducted Output Power Levels Measured:	PCS EV-DO (Rev. 0)	1851.25 MHz	Ch. 25	1880.00 MHz	Ch. 600	1908.75 MHz	Ch. 1175
		28.79 dBm	0.757 W	28.33 dBm	0.681 W	27.24 dBm	0.530 W
	Cellular EV-DO (Rev. 0)	824.70 MHz	Ch. 1013	836.52 MHz	Ch. 384	848.31 MHz	Ch. 777
		28.73 dBm	0.746 W	29.01 dBm	0.796 W	28.27 dBm	0.671 W

Max. ERP/EIRP Levels Measured:	Cellular EV-DO (Rev. 0)	23.51 dBm	0.224 W	Ch. 384	836.52 MHz
	PCS EV-DO (Rev. 0)	32.35 dBm	1.72 W	Ch. 25	1851.25 MHz

Antenna Type(s) Tested:	Internal Dual-Band CDMA	Manufactured by Sierra Wireless Inc.	Embedded on PCMCIA Card
Power Source(s) Tested:	AC Power Adapter	Manufactured by Delta Electronics Inc.	Model: ADP-75FB B

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 2, 22H, 24E; Industry Canada RSS-132 Issue 2, RSS 133 Issue 3 and ANSI TIA/EIA-603-C-2004.

I attest to the accuracy of the data. All measurements reported herein were performed by me or were 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.

Test Report Approved By:
Spencer Watson
EMC Manager
Celltech Labs Inc.

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TEST SUMMARY

Appendix	Test Description	Procedure Reference	Limit Reference	Test Start Date	Test End Date	Result
Referenced Standard(s): FCC CFR Title 47 Parts 2, 22 & 24						
A	Conducted RF Output Power	FCC 97-114, §2.1046	N/A	Jan18	Jan19	N/A
B	Effective Radiated Power Effective Isotropic Radiated Power	ANSI/TIA/EIA-603-C	§22.913 §24.232(c)	Jan22	Jan22	Pass
C	Radiated TX Spurious Emissions	ANSI/TIA/EIA-603-C	§22.917 (a), §24.238 (a)	Feb15	Feb20	Pass
Referenced Standard(s): IC RSS-132 Issue 2 & RSS-133 Issue 3						
A	Conducted RF Output Power	RSS-Gen §4.6 RSS-133 §4.3	N/A	Jan18	Jan19	N/A
B	Effective Radiated Power Effective Isotropic Radiated Power	ANSI/TIA/EIA-603-C	SRSP-503 §5.1.3 SRSP-510 §5.1.2	Jan22	Jan22	Pass
C	Radiated TX Spurious Emissions	RSS-Gen §4.7	RSS-132 §4.5 RSS-133 §4.4	Feb15	Feb20	Pass

REVISION LOG

Revision	Description	Implemented By	Implementation Date
1.0	Initial Release	Jonathan Hughes	April 16, 2007

SIGNATORIES

Prepared By:	Spencer Watson	February 21, 2007
Name/Title:	Spencer Watson / EMC Manager	Date
Reviewed By:		April 16, 2007
Name/Title:	Jonathan Hughes / General Manager	Date

1.0 SCOPE

This report outlines the measurements made and results collected during electromagnetic emissions testing of the Itronix Corporation Model: IX-AC595 Dual-Band CDMA/EV-DO PCMCIA Modem Card installed in the IX325 Rugged Tablet PC utilizing the embedded antenna installed within the PCMCIA Card. 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 Commission Code of Federal Regulations Title 47 Parts 2, 22 Subpart H and 24 Subpart E; and Industry Canada Radio Standards Specification RSS-132 Issue 2 and RSS-133 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
IEEE/ANSI C95.1:2005	American National Standard Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields
ANSI/TIA/EIA-603-C:2004	Land Mobile FM or PM Communication Equipment Measurement and Performance Standards
CFR Title 47 Part 2:2006	Code of Federal Regulations Title 47: Telecommunication Part 2: Frequency Allocations and Radio Treaty Matters; General Rules and Regulations
CFR Title 47 Part 22:2006	Code of Federal Regulations Title 47: Telecommunication Part 22: Public Mobile Services
CFR Title 47 Part 24:2006	Code of Federal Regulations Title 47: Telecommunication Part 24: Personal Communication Services
IC Spectrum Management & Telecommunications Policy	Radio Standards Specification RSS-102 Issue 2 - Radio Frequency Exposure Compliance of Radiocommunication Apparatus (All Frequency Bands) RSS-132 Issue 2 - 800 MHz Cellular Telephones Employing New Technologies RSS-133 Issue 3 - 2 GHz Personal Communication Services RSS-212 Issue 1 (Provisional) - Test Facilities & Test Methods for Radio Equipment RSS-Gen Issue 1 - General Requirements and Information for the Certification of Radiocommunication Equipment SRSP-503 Issue 6 - Technical Requirements for Cellular Radiotelephone Systems Operating in the Bands 824 - 849 MHz and 869 - 894 MHz SRSP-510 Issue 3 - Technical Requirements for Personal Communications Services in the Bands 1850 - 1910 MHz and 1930 - 1990 MHz

3.0 TERMS AND DEFINITIONS

AV	Average
CDMA	Code Division Multiple Access
CFR	Code of Federal Regulations
dB	decibel
dBm	dB referenced to 1 mW
dBuV	dB referenced to 1 uV
DUT	Device under Test
dBc	dB down from carrier
EBW	Emission Bandwidth
EDGE	Enhanced Data Rates for GSM Evolution
EIRP	Effective Isotropic Radiated Power
EMC	Electromagnetic Compatibility
ERP	Effective Radiated Power
EV-DO	Evolution - Data Optimized
FCC	Federal Communications Commission
FHSS	Frequency Hopping Spread Spectrum
GSM	Global Systems for Mobile Communication
GMRS	General Mobile Radio Service
GPRS	General Packet Radio Service
HP	Hewlett Packard
HPF	High Pass Filter
Hpol	Horizontal Polarization
HSDPA	High Speed Downlink Packet Access
HSUPA	High Speed Uplink Packet Access
Hz	Hertz
IC	Industry Canada
kHz	kilohertz
LNA	Low Noise Amplifier
m	meter
MHz	Megahertz
Mbps	megabits per second
na	not applicable
n/a	not available
PK	Peak
PPSD	Peak Power Spectral Density
QP	Quasi-peak
RBW	Resolution Bandwidth
R&S	Rohde & Schwarz
RSS	Radio Standard Specification
SA	Spectrum Analyzer
UMTS	Universal Mobile Telecommunications System
VBW	Video Bandwidth
Vpol	Vertical Polarization
WCDMA	Wide CDMA

4.0 FACILITIES AND ACCREDITATIONS

The facilities used in collecting the test results outlined in this report are located at 1955 Moss Court, Kelowna, British Columbia, Canada, V1Y 9L3. The radiated and conducted emissions sites conform with the requirements set forth in ANSI C63.4 and are filed and listed with the FCC under Registration Number 714830 and Industry Canada under File Number IC 3874.

5.0 GENERAL INFORMATION

5.1 Applicant Information

Company Name:	**Itronix Corporation**
Address:	12825 E. Mirabeau Parkway
	Spokane Valley, WA 99216
	United States

5.2 DUT Description

The DUT consisted of the Sierra Wireless AC595 Dual-Band CDMA/EV-DO PCMCIA Modem Card installed in the Itronix Corporation IX325 Rugged Tablet PC. The PCMCIA Card is enclosed within the PCMCIA hatch of the IX325 Tablet PC.

Device Type:	Dual-Band CDMA/EV-DO PCMCIA Modem		**Model:**	IX-AC595	**Serial No.:**	X272806107210
Host PC Type:	Rugged Tablet PC		**Model:**	IX325	**Serial No.:**	ZZGEG6108ZZ8638
Modem Manufacturer:	Sierra Wireless Inc. (AC595)		**Tablet PC Manufacturer:**		Itronix Corporation	
Device Identifier(s):	FCC ID:	KBCIX-AC595	IC ID:		1943A-AC595	
Battery Type(s):	Lithium-ion	11.1 VDC	3.6 Ah		Model Name: T8M-E	
Power Source Tested:	AC Power Adapter	Delta Electronics Inc.			Model: ADP-75FB B	
Antenna Type(s) & Gain(s):	Embedded on PCMCIA Card	Manufacturer by Sierra Wireless Inc.		Max. Gain:	Cell Band:	+3 dBi
					PCS Band:	+4 dBi

5.3 Rule Part(s) & Classification(s)

Rule Part(s) Applied:	FCC:	47 CFR §2; §22(H), §24(E)
	IC:	RSS-132 Issue 2, RSS-133 Issue 3
Device Classification(s):	FCC:	PCS Licensed Transmitter (PCB)
	IC:	800 MHz Cellular Telephones employing New Technologies (RSS-132)
		2 GHz Personal Communication Services (RSS-133)

5.4 Mode(s) of Operation Tested

5.4.1 Dual-Band CDMA/EV-DO Modem

Customer supplied software was used to set the Sierra Wireless AirCard 595 modem to the appropriate channel and power level for the specific measurement. Measurements were made with the modem set to the low, mid and high channel in each band or on a worst-case channel for the measurement, as determined by prescan evaluations. The following settings were used for each channel.

5.4.1.1 Cellular CDMA/EV-DO

Transmitter Frequency Range:	824.70 - 848.31 MHz Ch. 1013 (824.70 MHz) (low), Ch. 384 (836.52 MHz) (mid) & Ch. 777 (848.31 MHz) (high) measured unless otherwise noted
Software Power Gain Settings:	Set by CDMA communications test set for "all ups"
Modulation Type(s):	QPSK

5.4.1.2 PCS CDMA/EV-DO

Transmitter Frequency Range:	1851.25 - 1908.75 MHz Ch. 25 (1851.25 MHz) (low), Ch 600 (1880.00 MHz) (mid) & Ch. 1175 (1908.75 MHz) (high) measured unless otherwise noted
Software Power Gain Settings:	Set by CDMA communications test set for "all ups"
Modulation Type(s):	QPSK

5.5 Configuration Description

The DUT was configured, as described by the client as being representative of what would be delivered to a final customer. Prescan evaluations were made to determine the configuration that resulted in the highest emissions. It was determined that placing the device face up on the measurement surface resulted in the highest emissions. EV-DO transmission in Rev. 0 RTAP mode was utilized as worst-case power mode for both cellular and PCS bands. More details may be included in each appendix.

5.5.1 Configuration Justification

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

5.5.2 Transmitter Configuration(s)

Optional Co-located Transmitter Configurations	Intel Pro 802.11abg WLAN Model: 2200BG	FCC ID: KBCIX325-IWL
	MSI Bluetooth Model: MS-6837	FCC ID: KBCIX325-BT
	Intel Pro 802.11abg WLAN Model: 2200BG & MSI Bluetooth Model: MS-6837	FCC ID: KBCIX325-IWLBT
	Note: The IX-AC595 and WLAN do not co-transmit (see applicant's attestation submitted with this application). The IX-AC595 and Bluetooth can co-transmit. Co-transmit radiated spurious emissions were investigated and found to be in compliance.	

6.0 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.

APPENDICES

Appendix A - Conducted RF Output Power Measurement

A.1 REFERENCES

Normative Reference Standard	FCC CFR 47 §2.1046(b)
Procedure Reference	FCC 97-114

A.2 LIMITS

A.2.1 FCC CFR 47

FCC CFR 47 §2.1046 (b)	For single sideband, independent sideband, and single channel, controlled carrier radiotelephone transmitters the procedure specified in paragraph (a) of this section shall be employed and, in addition, the transmitter shall be modulated during the test as follows. In all tests, the input level of the modulating signal shall be such as to develop rated peak envelope power or carrier power, as appropriate, for the transmitter.

*ERP and EIRP limits are specified in Appendix B.

A.3 ENVIRONMENTAL CONDITIONS

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

A.4 EQUIPMENT LIST

ASSET NUMBER	MANUFACTURER	MODEL	DESCRIPTION	LAST CAL	CAL DUE
00015	HP	E4408B	Spectrum Analyzer	02Feb06	02Feb07
				05Feb07	05Feb08
80012	Agilent	8960A	Radio Communications Test Set	13Dec06	12Jan09
00078	Pasternack	PE2214-20	Directional Coupler 1-18 GHz	n/a*	n/a*

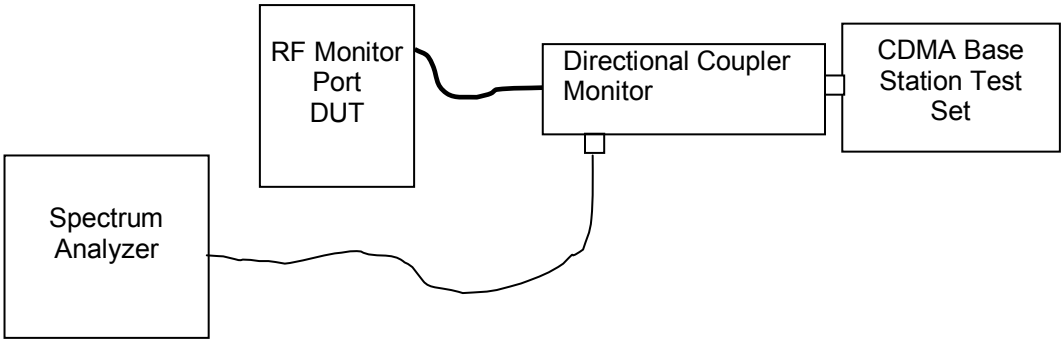
*Verified with power meter prior to use

A.5 MEASUREMENT EQUIPMENT SETUP

Equipment Connections	The equipment was connected as shown in the setup drawing in A.6.
Equipment Settings	For Channel Power: RBW = 1 MHz For Peak Power: RBW = 3 MHz Offset - set to include loss through cable and directional coupler.
Measurement Procedure	The channel was set on the base station and the resulting power measurement recorded and reported herein.

A.6 SETUP DRAWING

Figure A.6-1 - Setup Drawing



A.7 DUT OPERATING DESCRIPTION

Power measurements were made in the cellular and PCS bands with the DUT set appropriately as described in Section 5.4.

A.8 TEST RESULTS

A 8.1 1xEV-DO Rev. 0

Power Measurement Procedures

This procedure assumes the Agilent 8960 Series 10 E5515C Wireless Communications Test Set contains the following applications installed and with valid license.

Application	Rev. License
1xEV-DO Terminal Test	A.07.13, L

FTAP

- Call Setup → Shift & Preset
- Protocol Rev → 0 (1xEV-DO)
- Application Config → Enhanced Test Application Protocol → FTAP
- FTAP Rate → 307.2 kbps (2 Slot, QPSK)
- Access Network Info → Cell Parameters → Sector ID → (Didn't Need One) → Subnet Mask → 0
- Generator Info → Termination Parameters → Max Forward Packet Duration → 16 Slots
- Rvs Power Ctrl → All Bits Up (to get the maximum power)

RTAP

- Call Setup → Shift & Preset
- Protocol Rev → 0 (1xEV-DO)
- Application Config → Enhanced Test Application Protocol → RTAP
- RTAP Rate → 153.6 kbps
- Access Network Info → Cell Parameters → Sector ID → (Didn't Need One) → Subnet Mask → 0
- Generator Info → Termination Parameters → Max Forward Packet Duration → 16 Slots
- Rvs Power Ctrl → All Bits Up (to get the maximum power)

Conducted Output Power Measurements

1xEV-DO Rev. 0

Band	Freq. (MHz)	Channel	FTAP					RTAP				
			Rate (kbps)	Average		Peak		Rate (kbps)	Average		Peak	
				dBm	Watts	dBm	Watts		dBm	Watts	dBm	Watts
PCS	1851.25	25	307.2 (2 slot)	23.8	0.240	28.68	0.738	153.6	24.0	0.251	**28.79**	**0.757**
	1880.00	600		24.2	0.263	28.41	0.693		24.1	0.257	28.33	0.681
	1908.75	1175		23.6	0.229	27.15	0.519		23.7	0.234	27.24	0.530
Cell	824.70	1013	307.2 (2 slot)	23.2	0.209	28.63	0.729	153.6	23.4	0.219	28.73	0.746
	836.52	384		23.7	0.234	28.95	0.785		23.9	0.245	**29.01**	**0.796**
	848.31	777		23.7	0.234	28.27	0.671		23.9	0.245	28.27	0.671

Note: Peak Power was measured with the HP E4408B Spectrum Analyzer

A 8.2 1x EV-DO REV A

Power Measurement Procedures

This procedure assumes the Agilent 8960 Series 10 E5515C Wireless Communications Test Set contains the following applications installed and with valid license.

Application	Software Option
1xEV-DO Terminal Test	A.07.13, L

FETAP

- Call Setup → Shift & Preset
- Protocol Rev → A (1xEv-Do-A)
- Application Config → Enhanced Test Application Protocol → FETAP
- FTAP Rate → 307.2 kbps (2 Slot, QPSK)
- Protocol Subtype Config → Release A Physical Layer Subtype → Subtype 0
- Access Network Info → Cell Parameters → Sector ID → (Didn't Need One)→ Subnet Mask → 0
- Generator Info → Termination Parameters > Max Forward Packet Duration → 16 Slots
- Rvs Power Ctrl → All Bits Up (to get the maximum power)

RETAP

- Call Setup → Shift & Preset
- Protocol Rev → A (1xEv-Do-A)
- Application Config → Enhanced Test Application Protocol → RETAP
- F-Traffic Format → 4 (1024, 2,128) Canonical (307.2k, QPSK)
- R-Data Pkt Size → 4096
- Protocol Subtype Config → Release A Physical Layer Subtype → Subtype 2
  → PL Subtype 2 Access Channel MAC Subtype → Default (Subtype 0)
- Access Network Info → Cell Parameters → Sector ID → (Didn't Need One) → Subnet Mask → 0
- Generator Info → Termination Parameters → Max Forward Packet Duration > 16 Slots
  → ACK R-Data After > Subpacket 0 (All ACK)
- Rvs Power Ctrl → All Bits Up (to get the maximum power)

Conducted Output Power Measurements

1xEV-DO Rev. A

Band	Freq. (MHz)	Channel	FETAP					RETAP				
			Rate (kbps)	Average		Peak		Rate (kbps)	Average		Peak	
				dBm	Watts	dBm	Watts		dBm	Watts	dBm	Watts
PCS	1851.25	25	307.2 (2 slot)	23.7	0.234	**28.62**	**0.728**	153.6	24.2	0.263	28.27	0.671
	1880.00	600		23.8	0.240	28.16	0.655		24.2	0.263	27.83	0.607
	1908.75	1175		23.8	0.240	27.15	0.519		23.8	0.240	26.91	0.491
Cell	824.70	1013	307.2 (2 slot)	23.2	0.209	28.72	0.745	153.6	23.5	0.224	28.63	0.729
	836.52	384		23.7	0.234	**28.92**	**0.780**		24.0	0.251	28.80	0.759
	848.31	777		23.7	0.234	28.29	0.675		24.0	0.251	28.18	0.658

Note: Peak Power was measured with the HP E4408B Spectrum Analyzer

A 8.3 CDMA 1xRTT

Power Measurement Procedures

This procedure assumes the Agilent 8960 Series 10 E5515C Wireless Communications Test Set contains the following applications installed and with valid license.

Application	Rev. License
CDMA2000 Mobile Test	B.12.12, L

1xRTT

- Call Setup → Shift & Preset
- Protocol Rev → 6 (IS-2000-0)
- Radio Config (RC) → RC3 (Fwd3, Rvs3)
- FCH Service Option (SO) Setup → SO55
- Traffic Data Rate → Full
- Cell info → Cell Parameters → System ID (SID) → 8
  → Network ID (NID) → 65535
- Rvs Power Ctrl → All Bits Up (to get the maximum power)

Conducted Output Power Measurements

CDMA 1xRTT

Band	Freq. (MHz)	Channel	Rate (Kbps)	Radio Configuration (RC)	Service Option (SO)	Average		Peak	
						dBm	Watts	dBm	Watts
PCS	1851.25	25	9600	RC3	SO55 (FCH)	24.2	0.263	28.23	0.665
	1880.00	600				24.2	0.263	27.90	0.617
	1908.75	1175				23.7	0.234	26.92	0.492
Cell	824.70	1013	9600	RC3	SO55 (FCH)	23.5	0.224	28.49	0.706
	836.52	384				24.1	0.257	28.53	0.713
	848.31	777				24.0	0.251	28.09	0.644
PCS	1851.25	25	9600	RC3	SO32 (FCH+SCH)	23.5	0.224	28.30	0.676
	1880.00	600				23.7	0.234	28.00	0.631
	1908.75	1175				23.6	0.229	27.05	0.507
Cell	824.70	1013	9600	RC3	SO32 (FCH+SCH)	23.1	0.204	28.57	0.719
	836.52	384				23.5	0.224	28.52	0.711
	848.31	777				23.6	0.229	28.12	0.649
PCS	1851.25	25	9600	RC1	SO55	24.2	0.263	**28.48**	**0.705**
	1880.00	600				24.2	0.263	28.13	0.650
	1908.75	1175				23.7	0.234	27.12	0.515
Cell	824.70	1013	9600	RC1	SO55	23.5	0.224	28.59	0.723
	836.52	384				24.1	0.257	**28.76**	**0.752**
	848.31	777				24.0	0.251	28.24	0.667

Note: Peak Power was measured with the HP E4408B Spectrum Analyzer

A.9 PASS/FAIL

There is no pass/fail criterion for this measurement.

A.10 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.

Spencer Watson
EMC Manager
Celltech Labs Inc.

January 19, 2007
Date

Appendix B - Effective Radiated Power / Effective Isotropic Radiated Power Measurement

B.1 REFERENCES

Normative Reference Standard	FCC CFR 47 §22.913 (a)(2), FCC CFR 47 §24.232 (c)
Procedure Reference	ANSI/TIA/EIA-603-C

B.2 LIMITS

B.2.1 FCC CFR 47

FCC CFR 47 §22.913 (a)(2)	*(a)(2) Maximum ERP. ……. The ERP of mobile transmitters and auxiliary transmitters must not exceed 7 Watts.*
FCC CFR 47 §24.232 (c)	*(c) Mobile/portable stations are limited to 2 watts e.i.r.p. peak power and the equipment must employ means to limit the power to the minimum necessary for successful communications.*

B.3 ENVIRONMENTAL CONDITIONS

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

B.4 EQUIPMENT LIST

ASSET NUMBER	MANUFACTURER	MODEL	DESCRIPTION	LAST CAL	CAL DUE
00072	EMCO	2075	Mini-mast	n/a	n/a
00073	EMCO	2080	Turn Table	n/a	n/a
00071	EMCO	2090	Multi-Device Controller	n/a	n/a
00050	Chase	CBL-6111A	Bilog Antenna	04Apr06	04Apr07
00055	EMCO	3121C	Dipole Antenna	04Apr06	04Apr07
00034	ETS	3115	Double Ridged Guide Horn	11Aug05	11Aug07
00035	ETS	3115	Double Ridged Guide Horn	03Apr06	03Apr08
00161	Waveline	899	Standard Gain Horn Antenna	n/a	n/a
00051	HP	8566B	Spectrum Analyzer RF Section	04Apr06	04Apr07
00049	HP	85650A	Quasi-peak Adapter	04Apr06	04Apr07
00047	HP	85685A	RF Preselector	05Apr06	05Apr07
00048	Gore	65474	Microwave Cable	16Aug06	16Aug07
00006	R & S	SMR 20	Signal Generator (10MHz-40GHz)	06Apr06	06Apr07
00114	Amplifier Research	DC7154	Directional Coupler (0.8-4.2 GHz)	n/a	n/a
00078	Pasternack	PE2214-20	Directional Coupler (1-18 GHz)	n/a	n/a
00106	Amplifier Research	5S1G4	Power Amplifier (5W, 800MHz-4.2GHz)	n/a	n/a
00041	Amplifier Research	10W1000C	Power Amplifier (0.5 - 1 GHz)	n/a	n/a
00110	Gigatronics	8652A	Power Meter	12Apr06	12Apr07
00011	Gigatronics	80701A	Power Sensor	03Feb06	03Feb07
80012	Agilent	8960A	Radio Communications Test Set	13Dec06	12Jan09

B.5 MEASUREMENT EQUIPMENT SETUP

MEASUREMENT EQUIPMENT CONNECTIONS

For the field strength measurements, the measurement equipment was connected as shown in B.6. A number of antennas were used to cover the applicable frequency range tested. The ranges in which each antenna was used are as follows. For the final substitutions, the DUT was replaced with the appropriate antenna and fed from a CW signal source sufficient to replicate the received field strength of the emission being investigated.

Frequency Range	RX Antenna	TX Antenna
30 MHz - 1GHz	Bilog	Dipole
1 GHz - 18 GHz	ETS 3115 Horn	ETS 3115 Horn

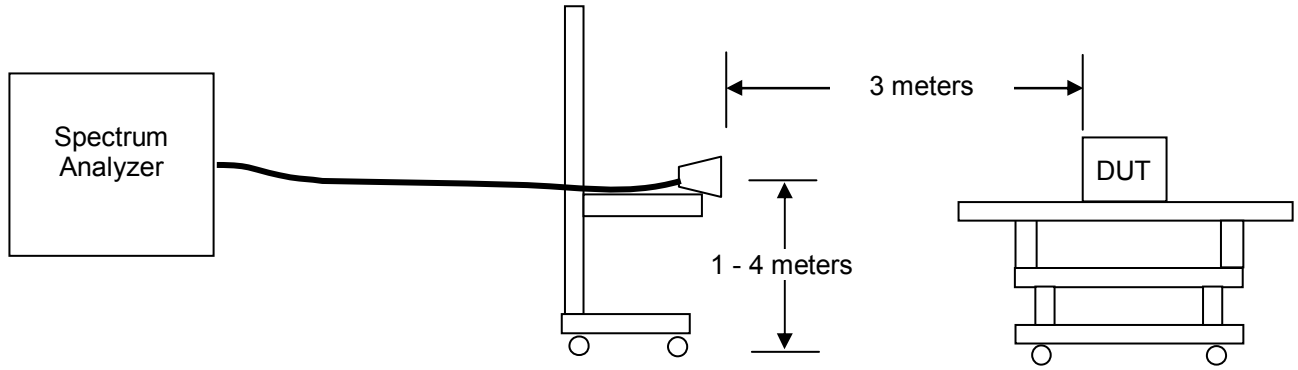
MEASUREMENT EQUIPMENT SETTINGS

For measuring the radiated field strength of the fundamental CDMA signal, the spectrum analyzer was set to the following settings:

Mode	RBW	VBW	Detector
	MHz	MHz	
Cellular	3	3	Peak
PCS	3	3	Peak

B.6 SETUP DRAWING

Figure B.6-1 - Setup Drawing

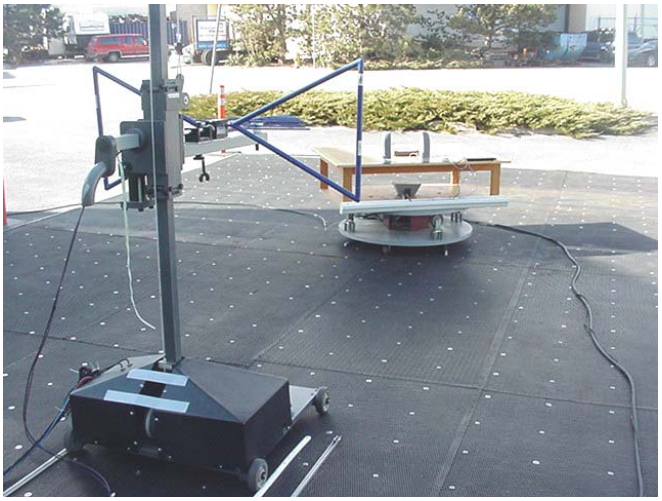


B.7 DUT OPERATING DESCRIPTION

Measurements were made for the low, mid and high channels for both the cellular and PCS bands at maximum power level as described in Appendix A.

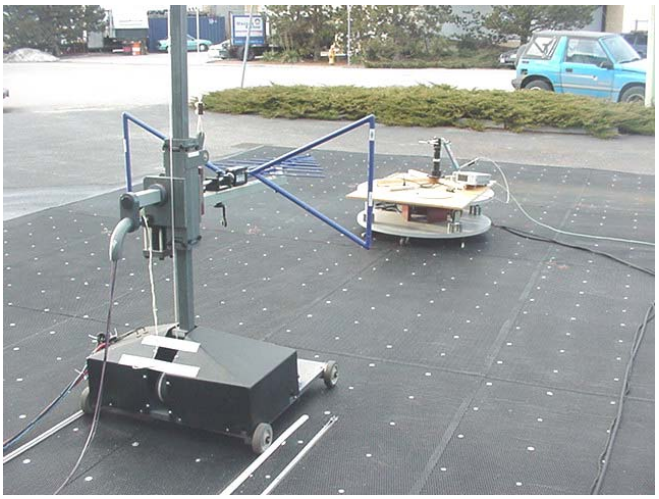
B.8 SETUP PHOTOGRAPHS

Photograph B.8-1 - Bilog Receive Antenna with DUT in Face Up Configuration



Photograph B.8-2 - Horn Receive Antenna with DUT in Face Up Configuration

Photograph B.8-3 - Dipole Substitution Setup



Photograph B.8-4 - Horn Substitution Setup

B.9 TEST RESULTS

B.9.1 Carrier Levels

B.9.1.1 Cellular Carrier Levels

Project Number: 805 **Standard:** FCC22.913
Company: Itronix **Test Start Date:** 22-Jan-07
Product: IX325 AC595 **Test End Date:** 22-Jan-07

Configuration		Polarity	Distance	Carrier Channel	Frequency	Corrected Field Strength	Substituted SA Signal Level (uncorrected)	Power Applied to Antenna	Antenna Gain	ERP Limit		Margin	Pass/ Fail	Measured ERP Carrier Level	
Orientation	Accessory		m		MHz	dBuV/m	dBuV	dBm	dBd	dBm	Watts	dB		dBm	milliWatts
Portable EVDO Cellular Band Radiated Carrier Power Levels															
Face Up	None	H	3	1013	824.7000	125.46	100.50	24.95	-1.44	38.45	7.00	14.94	PASS	23.51	224.26
Face Up	None	V	3	1013	824.7000	117.46	92.50	20.22	-1.44	38.45	7.00	19.67	PASS	18.78	75.47
Face Up	None	H	3	384	836.5200	125.39	100.10	24.86	-1.35	38.45	7.00	14.94	PASS	23.51	224.50
Face Up	None	V	3	384	836.5200	116.59	91.30	19.35	-1.35	38.45	7.00	20.45	PASS	18.00	63.13
Face Up	None	H	3	777	848.3100	124.23	98.70	23.81	-1.25	38.45	7.00	15.89	PASS	22.56	180.16
Face Up	None	V	3	777	848.3100	114.93	89.40	18.03	-1.25	38.45	7.00	21.67	PASS	16.78	47.60

B.9.1.2 PCS Carrier Levels

Project Number: 805 **Standard:** FCC24.232I
Company: Itronix **Test Start Date:** 22-Jan-07
Product: IX325 AC595 **Test End Date:** 22-Jan-07

Configuration		Polarity	Distance	Carrier Channel	Frequency	Corrected Field Strength	Substituted SA Signal Level (uncorrected)	Power Applied to Antenna	Antenna Gain	EIRP Limit		Margin	Pass/ Fail	Measured EIRP Carrier Level	
Orientation	Accessory		m		MHz	dBuV/m	dBuV	dBm	dBi	dBm	Watts	dB		dBm	milliWatts
Portable EVDO PCS Band Radiated Carrier Power Levels															
Face Up	None	H	3	25	1851.2500	126.63	96.20	23.53	8.82	33.01	2.00	0.66	PASS	32.35	1718.50
Face Up	None	V	3	25	1851.2500	122.73	92.30	18.74	8.82	33.01	2.00	5.45	PASS	27.56	570.36
Face Up	None	H	3	600	1880.0000	125.18	94.60	23.16	8.86	33.01	2.00	0.99	PASS	32.02	1590.74
Face Up	None	V	3	600	1880.0000	120.68	90.10	17.48	8.86	33.01	2.00	6.67	PASS	26.34	430.13
Face Up	None	H	3	1175	1908.7500	123.82	93.10	22.15	8.89	33.01	2.00	1.97	PASS	31.04	1270.72
Face Up	None	V	3	1175	1908.7500	118.62	87.90	15.72	8.89	33.01	2.00	8.40	PASS	24.61	289.10

B.10 PASS/FAIL

In reference to the results outlined in B.9, the DUT passes the requirements as stated in the reference standards.

B.11SIGN-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.

Spencer Watson
EMC Manager
Celltech Labs Inc.

January 22, 2007
Date

Appendix C - Radiated Spurious Emissions Measurement

C.1 REFERENCES

Normative Reference Standard	FCC CFR 47 §22.917(a), FCC CFR 47 §24.238(a)
Procedure Reference	ANSI/TIA/EIA-603-C

C.2 LIMITS

C.2.1 FCC CFR 47

FCC CFR 47 §22.917 & §24.238	(a) *Out of band emissions. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.*

C.3 ENVIRONMENTAL CONDITIONS

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

C.4 EQUIPMENT LIST

ASSET NUMBER	MANUFACTURER	MODEL	DESCRIPTION	LAST CAL	CAL DUE
00072	EMCO	2075	Mini-mast	n/a	n/a
00073	EMCO	2080	Turn Table	n/a	n/a
00071	EMCO	2090	Multi-Device Controller	n/a	n/a
00050	Chase	CBL-6111A	Bilog Antenna	04Apr06	04Apr07
00055	EMCO	3121C	Dipole Antenna	04Apr06	04Apr07
00034	ETS	3115	Double Ridged Guide Horn	11Aug05	11Aug07
00035	ETS	3115	Double Ridged Guide Horn	03Apr06	03Apr08
00161	Waveline	899	Standard Gain Horn Antenna	n/a	n/a
00051	HP	8566B	Spectrum Analyzer RF Section	04Apr06	04Apr07
00049	HP	85650A	Quasi-peak Adapter	04Apr06	04Apr07
00047	HP	85685A	RF Preselector	05Apr06	05Apr07
00048	Gore	65474	Microwave Cable	16Aug06	16Aug07
00115	Miteq	J54-00102600-35-5A	LNA	18Apr06	18Apr07
00006	R & S	SMR 20	Signal Generator (10MHz-40GHz)	06Apr06	06Apr07
00114	Amplifier Research	DC7154	Directional Coupler (0.8-4.2 GHz)	n/a	n/a
00078	Pasternack	PE2214-20	Directional Coupler (1-18 GHz)	n/a	n/a
00106	Amplifier Research	5S1G4	Power Amplifier (5W, 800MHz-4.2GHz)	n/a	n/a
00041	Amplifier Research	10W1000C	Power Amplifier (0.5 - 1 GHz)	n/a	n/a
00110	Gigatronics	8652A	Power Meter	12Apr06	12Apr07
00012	Gigatronics	80701A	Power Sensor	22Jan07	22Jan08
80012	Agilent	8960A	Radio Communications Test Set	13Dec06	12Jan09

C.5 MEASUREMENT EQUIPMENT SETUP

MEASUREMENT EQUIPMENT CONNECTIONS

For the field strength measurements, the measurement equipment was connected as shown in C.6. A number of antennas were used to cover the applicable frequency range tested. The ranges in which each antenna was used are shown below. For the final substitutions, the DUT was replaced with the appropriate antenna and fed from a CW signal source sufficient to replicate the received field strength of the emission being investigated.

Frequency Range	RX Antenna	TX Antenna
30 MHz - 1GHz	Bilog	Dipole
1 GHz - 18 GHz	ETS 3115 Horn	ETS 3115 Horn
18 GHz - 20 GHz	Waveline 899 Horn	Waveline 899 Horn

MEASUREMENT EQUIPMENT SETTINGS

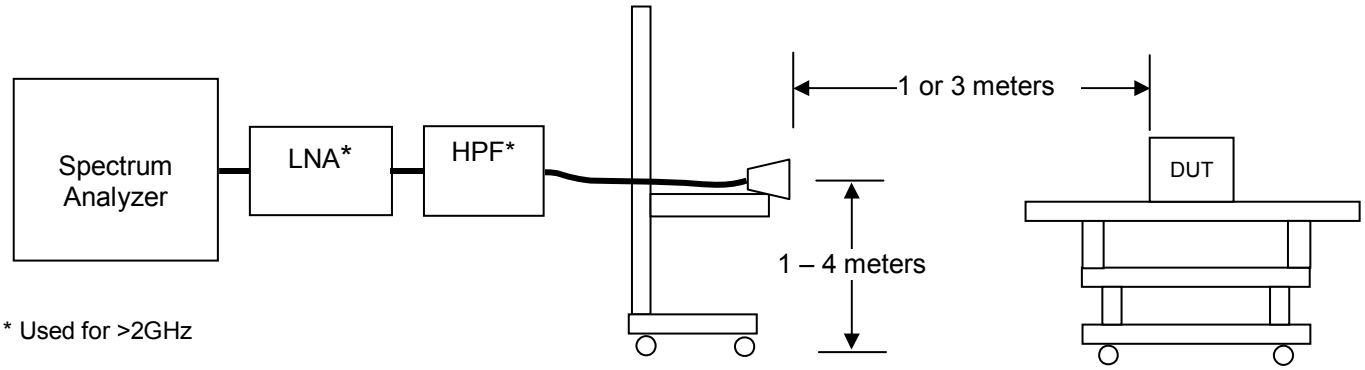
For the spurious out-of-band emissions, the spectrum analyzer was set to the following settings:

Mode	RBW	VBW	Detector
	kHz	kHz	
Cellular < 1 GHz	100	300	Peak*
Cellular > 1 GHz	1000	1000	Peak*
PCS	1000	1000	Peak*

* For measurements made below 1 GHz where the peak emission exceeded the average limit, a Quasi-peak measurement was made. For measurements above 1 GHz where the peak emission exceeded the average limit, an average measurement was made using video averaging.

C.6 SETUP DRAWING

Figure C.6-1 - Setup Drawing



C.7 DUT OPERATING DESCRIPTION

Measurements were made for the low, mid and high channels transmitting in the cellular and PCS bands at maximum power level as described in Appendix A.

C.8 TEST RESULTS

C.8.1 Spurious Emissions

C.8.1.1 Cellular Spurious Emissions

Project Number: 805 **Standard:** FCC22.917
Company: Itronix **Test Start Date:** 15-Feb-07
Product: IX325 w AC595 **Test End Date:** 20-Feb-07

Channel 1013

Polarity	Distance	Substitution Antenna Type	Carrier Channel	Frequency	Corrected Field Strength	Maximized SA Signal Level (uncorrected)	Power Applied to Antenna	Antenna Gain	ERP Emission Level	Limit	Margin	Pass/Fail
	m			MHz	dBuV/m	dBuV	dBm	dBi	dBm	dBm or dBuV/m*	dB	
H	3	none	1013	1649.40	63.02	31.40	n/a	n/a	n/a	94.0*	31.0*	PASS*
H	3	none	1013	2474.10	52.31	39.63	n/a	n/a	n/a	94.0*	41.7*	PASS*
H	3	none	1013	3298.80	54.56	38.05	n/a	n/a	n/a	94.0*	39.4*	PASS*
H	3	none	1013	4123.50	56.35	36.70	n/a	n/a	n/a	94.0*	37.6*	PASS*
H	3	none	1013	4948.20	59.51	37.77	n/a	n/a	n/a	94.0*	34.5*	PASS*
H	3	none	1013	5772.90	64.08	40.10	n/a	n/a	n/a	94.0*	29.9*	PASS*
H	3	none	1013	6597.60	61.05	35.75	n/a	n/a	n/a	94.0*	32.9*	PASS*
H	3	none	1013	7422.30	63.39	35.96	n/a	n/a	n/a	94.0*	30.6*	PASS*
H	3	none	1013	8247.00	65.03	35.08	n/a	n/a	n/a	94.0*	29.0*	PASS*
V	3	none	1013	1649.40	50.82	19.20	n/a	n/a	n/a	94.0*	43.2*	PASS*
V	3	none	1013	2474.10	51.63	38.95	n/a	n/a	n/a	94.0*	42.4*	PASS*
V	3	none	1013	3298.80	53.73	37.22	n/a	n/a	n/a	94.0*	40.3*	PASS*
V	3	none	1013	4123.50	58.26	38.61	n/a	n/a	n/a	94.0*	35.7*	PASS*
V	3	none	1013	4948.20	58.96	37.22	n/a	n/a	n/a	94.0*	35.0*	PASS*
V	3	none	1013	5772.90	67.38	43.40	n/a	n/a	n/a	94.0*	26.6*	PASS*
V	3	none	1013	6597.60	61.18	35.88	n/a	n/a	n/a	94.0*	32.8*	PASS*
V	3	none	1013	7422.30	65.35	37.92	n/a	n/a	n/a	94.0*	28.6*	PASS*
V	3	none	1013	8247.00	64.88	34.93	n/a	n/a	n/a	94.0*	29.1*	PASS*

*The emissions reported above represent the highest emissions or noise floor measured within the frequency band of 30MHz and the 10th harmonic of the carrier with field strengths within 20 dB of the theoretical limit. All other emissions attributed to the EUT had field strengths greater than 20 dB below the theoretical limit and substitutions were not made.

C.8.1.2 Cellular Spurious Emissions

Project Number: 805 **Standard:** FCC22.917
Company: Itronix **Test Start Date:** 15-Feb-07
Product: IX325 w AC595 **Test End Date:** 20-Feb-07

Channel 384

Polarity	Distance	Substitution Antenna Type	Carrier Channel	Frequency	Corrected Field Strength	Maximized SA Signal Level (uncorrected)	Power Applied to Antenna	Antenna Gain	ERP Emission Level	Limit	Margin	Pass/Fail
	m			MHz	dBuV/m	dBuV	dBm	dBi	dBm	dBm or dBuV/m*	dB	
H	3	none	384	1673.04	66.45	34.70	n/a	n/a	n/a	94.0*	27.6*	PASS*
H	3	none	384	2509.56	51.61	38.81	n/a	n/a	n/a	94.0*	42.4*	PASS*
H	3	none	384	3346.08	54.04	37.33	n/a	n/a	n/a	94.0*	40.0*	PASS*
H	3	none	384	4182.60	59.75	39.96	n/a	n/a	n/a	94.0*	34.2*	PASS*
H	3	none	384	5019.12	58.50	36.46	n/a	n/a	n/a	94.0*	35.5*	PASS*
H	3	none	384	5855.64	60.53	36.52	n/a	n/a	n/a	94.0*	33.5*	PASS*
H	3	none	384	6692.16	61.08	35.61	n/a	n/a	n/a	94.0*	32.9*	PASS*
H	3	none	384	7528.68	64.11	36.37	n/a	n/a	n/a	94.0*	29.9*	PASS*
H	3	none	384	8365.20	65.42	35.11	n/a	n/a	n/a	94.0*	28.6*	PASS*
V	3	none	384	1673.04	57.15	25.40	n/a	n/a	n/a	94.0*	36.9*	PASS*
V	3	none	384	2509.56	51.39	38.59	n/a	n/a	n/a	94.0*	42.6*	PASS*
V	3	none	384	3346.08	54.14	37.43	n/a	n/a	n/a	94.0*	39.9*	PASS*
V	3	none	384	4182.60	56.26	36.47	n/a	n/a	n/a	94.0*	37.7*	PASS*
V	3	none	384	5019.12	59.18	37.14	n/a	n/a	n/a	94.0*	34.8*	PASS*
V	3	none	384	5855.64	60.88	36.87	n/a	n/a	n/a	94.0*	33.1*	PASS*
V	3	none	384	6692.16	61.50	36.03	n/a	n/a	n/a	94.0*	32.5*	PASS*
V	3	none	384	7528.68	65.59	37.85	n/a	n/a	n/a	94.0*	28.4*	PASS*
V	3	none	384	8365.20	64.73	34.42	n/a	n/a	n/a	94.0*	29.3*	PASS*

*The emissions reported above represent the highest emissions or noise floor measured within the frequency band of 30MHz and the 10th harmonic of the carrier with field strengths within 20 dB of the theoretical limit. All other emissions attributed to the DUT had field strengths greater than 20 dB below the theoretical limit and substitutions were not made.

C.8.1.3 Cellular Spurious Emissions

Project Number: 805 **Standard:** FCC22.917
Company: Itronix **Test Start Date:** 15-Feb-07
Product: IX325 w AC595 **Test End Date:** 20-Feb-07

Channel 777

Polarity	Distance	Substitution Antenna Type	Carrier Channel	Frequency	Corrected Field Strength	Maximized SA Signal Level (uncorrected)	Power Applied to Antenna	Antenna Gain	ERP Emission Level	Limit	Margin	Pass/Fail
	m			MHz	dBuV/m	dBuV	dBm	dBi	dBm	dBm or dBuV/m*	dB	
H	3	none	777	1696.62	68.02	36.10	n/a	n/a	n/a	94.0*	26.0*	PASS*
H	3	none	777	2544.93	51.42	38.42	n/a	n/a	n/a	94.0*	42.6*	PASS*
H	3	none	777	3393.24	53.65	36.75	n/a	n/a	n/a	94.0*	40.3*	PASS*
H	3	none	777	4241.55	56.36	36.55	n/a	n/a	n/a	94.0*	37.6*	PASS*
H	3	none	777	5089.86	58.94	36.68	n/a	n/a	n/a	94.0*	35.1*	PASS*
H	3	none	777	5938.17	60.41	36.33	n/a	n/a	n/a	94.0*	33.6*	PASS*
H	3	none	777	6786.48	62.53	36.72	n/a	n/a	n/a	94.0*	31.5*	PASS*
H	3	none	777	7634.79	63.85	35.76	n/a	n/a	n/a	94.0*	30.2*	PASS*
H	3	none	777	8483.10	64.98	34.55	n/a	n/a	n/a	94.0*	29.0*	PASS*
V	3	none	777	1696.62	56.51	24.60	n/a	n/a	n/a	94.0*	37.5*	PASS*
V	3	none	777	2544.93	51.12	38.12	n/a	n/a	n/a	94.0*	42.9*	PASS*
V	3	none	777	3393.24	54.10	37.20	n/a	n/a	n/a	94.0*	39.9*	PASS*
V	3	none	777	4241.55	57.20	37.39	n/a	n/a	n/a	94.0*	36.8*	PASS*
V	3	none	777	5089.86	59.08	36.82	n/a	n/a	n/a	94.0*	34.9*	PASS*
V	3	none	777	5938.17	61.11	37.03	n/a	n/a	n/a	94.0*	32.9*	PASS*
V	3	none	777	6786.48	63.23	37.42	n/a	n/a	n/a	94.0*	30.8*	PASS*
V	3	none	777	7634.79	64.31	36.22	n/a	n/a	n/a	94.0*	29.7*	PASS*
V	3	none	777	8483.10	65.64	35.21	n/a	n/a	n/a	94.0*	28.4*	PASS*

*The emissions reported above represent the highest emissions or noise floor measured within the frequency band of 30MHz and the 10th harmonic of the carrier with field strengths within 20 dB of the theoretical limit. All other emissions attributed to the DUT had field strengths greater than 20 dB below the theoretical limit and substitutions were not made.

C.8.1.4 PCS Spurious Emissions

Project Number: 805 **Standard:** FCC24.238
Company: Itronix **Test Start Date:** 15-Feb-07
Product: IX325 w AC595 **Test End Date:** 20-Feb-07

Channel 25

Polarity	Distance	Substitution Antenna Type	Carrier Channel	Frequency	Corrected Field Strength	Maximized SA Signal Level (uncorrected)	Power Applied to Antenna	Antenna Gain	ERP Emission Level	Limit	Margin	Pass/Fail
	m			MHz	dBuV/m	dBuV	dBm	dBi	dBm	dBm or dBuV/m*	dB	
H	3	none	25	3702.50	73.76	55.51	n/a	n/a	n/a	94.0*	20.2*	PASS*
H	3	none	25	3702.50	52.35	34.10	n/a	n/a	n/a	94.0*	41.7*	PASS*
H	3	none	25	5553.75	76.95	52.93	n/a	n/a	n/a	94.0*	17.1*	PASS*
H	3	none	25	5553.75	59.03	35.01	n/a	n/a	n/a	94.0*	35.0*	PASS*
H	3	none	25	7405.00	76.07	48.71	n/a	n/a	n/a	94.0*	17.9*	PASS*
H	3	none	25	7405.00	59.40	32.04	n/a	n/a	n/a	94.0*	34.6*	PASS*
H	3	none	25	9256.25	69.09	38.02	n/a	n/a	n/a	94.0*	24.9*	PASS*
H	1	none	25	11107.50	71.07	46.57	n/a	n/a	n/a	103.5*	32.5*	PASS*
H	1	none	25	12958.75	69.68	43.28	n/a	n/a	n/a	103.5*	33.9*	PASS*
H	1	none	25	14810.00	64.36	36.20	n/a	n/a	n/a	103.5*	39.2*	PASS*
H	1	none	25	16661.25	62.16	35.47	n/a	n/a	n/a	103.5*	41.4*	PASS*
H	1	none	25	18512.50	51.95	35.21	n/a	n/a	n/a	103.5*	51.6*	PASS*
V	3	none	25	3702.50	66.07	47.82	n/a	n/a	n/a	94.0*	27.9*	PASS*
V	3	none	25	5553.75	72.18	48.16	n/a	n/a	n/a	94.0*	21.8*	PASS*
V	3	none	25	5553.75	58.12	34.10	n/a	n/a	n/a	94.0*	35.9*	PASS*
V	3	none	25	7405.00	66.59	39.23	n/a	n/a	n/a	94.0*	27.4*	PASS*
V	3	none	25	9256.25	68.04	36.97	n/a	n/a	n/a	94.0*	26.0*	PASS*
V	1	none	25	11107.50	68.87	44.37	n/a	n/a	n/a	103.5*	34.7*	PASS*
V	1	none	25	12958.75	62.13	35.73	n/a	n/a	n/a	103.5*	41.4*	PASS*
V	1	none	25	14810.00	64.10	35.94	n/a	n/a	n/a	103.5*	39.4*	PASS*
V	1	none	25	16661.25	62.07	35.38	n/a	n/a	n/a	103.5*	41.5*	PASS*
V	1	none	25	18512.50	51.58	34.84	n/a	n/a	n/a	103.5*	52.0*	PASS*

*The emissions reported above represent the highest emissions or noise floor measured within the frequency band of 30MHz and the 10th harmonic of the carrier with field strengths within 20 dB of the theoretical limit. All other emissions attributed to the DUT had field strengths greater than 20 dB below the theoretical limit and substitutions were not made.

C.8.1.5 PCS Spurious Emissions

Project Number: 805 **Standard:** FCC24.238
Company: Itronix **Test Start Date:** 15-Feb-07
Product: IX325 w AC595 **Test End Date:** 20-Feb-07

Channel 600

Polarity	Distance	Substitution Antenna Type	Carrier Channel	Frequency	Corrected Field Strength	Maximized SA Signal Level (uncorrected)	Power Applied to Antenna	Antenna Gain	ERP Emission Level	Limit	Margin	Pass/Fail
	m			MHz	dBuV/m	dBuV	dBm	dBi	dBm	dBm or dBuV/m*	dB	
H	3	none	600	3760.00	74.90	56.51	n/a	n/a	n/a	94.0*	19.1*	PASS*
H	3	none	600	3760.00	58.32	39.93	n/a	n/a	n/a	94.0*	35.7*	PASS*
H	3	none	600	5640.00	76.73	52.71	n/a	n/a	n/a	94.0*	17.3*	PASS*
H	3	none	600	5640.00	61.88	37.86	n/a	n/a	n/a	94.0*	32.1*	PASS*
H	3	none	600	7520.00	76.32	48.58	n/a	n/a	n/a	94.0*	17.7*	PASS*
H	3	none	600	7520.00	62.30	34.56	n/a	n/a	n/a	94.0*	31.7*	PASS*
H	3	none	600	9400.00	75.87	44.98	n/a	n/a	n/a	94.0*	18.1*	PASS*
H	3	none	600	9400.00	62.87	31.98	n/a	n/a	n/a	94.0*	31.1*	PASS*
H	1	none	600	11280.00	82.97	58.22	n/a	n/a	n/a	103.5*	20.6*	PASS*
H	1	none	600	11280.00	59.80	35.05	n/a	n/a	n/a	103.5*	43.7*	PASS*
H	1	none	600	13160.00	60.62	33.62	n/a	n/a	n/a	103.5*	42.9*	PASS*
H	1	none	600	15040.00	63.46	36.21	n/a	n/a	n/a	103.5*	40.1*	PASS*
H	1	none	600	16920.00	63.75	35.74	n/a	n/a	n/a	103.5*	39.8*	PASS*
H	1	none	600	18800.00	51.89	35.20	n/a	n/a	n/a	103.5*	51.6*	PASS*
V	3	none	600	3760.00	66.74	48.35	n/a	n/a	n/a	94.0*	27.3*	PASS*
V	3	none	600	5640.00	74.65	50.63	n/a	n/a	n/a	94.0*	19.4*	PASS*
V	3	none	600	5640.00	59.18	35.16	n/a	n/a	n/a	94.0*	34.8*	PASS*
V	3	none	600	7520.00	66.08	38.34	n/a	n/a	n/a	94.0*	27.9*	PASS*
V	3	none	600	9400.00	67.62	36.73	n/a	n/a	n/a	94.0*	26.4*	PASS*
V	1	none	600	11280.00	74.27	49.52	n/a	n/a	n/a	103.5*	29.3*	PASS*
V	1	none	600	13160.00	60.65	33.65	n/a	n/a	n/a	103.5*	42.9*	PASS*
V	1	none	600	15040.00	63.05	35.80	n/a	n/a	n/a	103.5*	40.5*	PASS*
V	1	none	600	16920.00	63.47	35.46	n/a	n/a	n/a	103.5*	40.1*	PASS*
V	1	none	600	18800.00	52.04	35.35	n/a	n/a	n/a	103.5*	51.5*	PASS*

*The emissions reported above represent the highest emissions or noise floor measured within the frequency band of 30MHz and the 10th harmonic of the carrier with field strengths within 20 dB of the theoretical limit. All other emissions attributed to the DUT had field strengths greater than 20 dB below the theoretical limit and substitutions were not made.

C.8.1.6 PCS Spurious Emissions

Project Number: 805 **Standard:** FCC24.238
Company: Itronix **Test Start Date:** 15-Feb-07
Product: IX325 w AC595 **Test End Date:** 20-Feb-07

Channel 1175

Polarity	Distance	Substitution Antenna Type	Carrier Channel	Frequency	Corrected Field Strength	Maximized SA Signal Level (uncorrected)	Power Applied to Antenna	Antenna Gain	ERP Emission Level	Limit	Margin	Pass/Fail
	m			MHz	dBuV/m	dBuV	dBm	dBi	dBm	dBm or dBuV/m*	dB	
H	3	none	1175	3817.50	73.88	55.12	n/a	n/a	n/a	94.0*	20.1*	PASS*
H	3	none	1175	3817.50	58.37	39.61	n/a	n/a	n/a	94.0*	35.6*	PASS*
H	3	none	1175	5726.25	74.97	51.02	n/a	n/a	n/a	94.0*	19.0*	PASS*
H	3	none	1175	5726.25	61.77	37.82	n/a	n/a	n/a	94.0*	32.2*	PASS*
H	3	none	1175	7635.00	76.85	48.76	n/a	n/a	n/a	94.0*	17.1*	PASS*
H	3	none	1175	7635.00	60.24	32.15	n/a	n/a	n/a	94.0*	33.8*	PASS*
H	3	none	1175	9543.75	73.86	42.51	n/a	n/a	n/a	94.0*	20.1*	PASS*
H	3	none	1175	9543.75	62.29	30.94	n/a	n/a	n/a	94.0*	31.7*	PASS*
H	1	none	1175	11452.50	84.38	59.39	n/a	n/a	n/a	103.5*	19.2*	PASS*
H	1	none	1175	11452.50	62.93	37.94	n/a	n/a	n/a	103.5*	40.6*	PASS*
H	1	none	1175	13361.25	72.20	44.58	n/a	n/a	n/a	103.5*	31.3*	PASS*
H	1	none	1175	15270.00	62.40	36.10	n/a	n/a	n/a	103.5*	41.1*	PASS*
H	1	none	1175	17178.75	64.48	35.32	n/a	n/a	n/a	103.5*	39.1*	PASS*
H	1	none	1175	19087.50	51.42	34.76	n/a	n/a	n/a	103.5*	52.1*	PASS*
V	3	none	1175	3817.50	78.61	59.85	n/a	n/a	n/a	94.0*	15.4*	PASS*
V	3	none	1175	3817.50	62.15	43.39	n/a	n/a	n/a	94.0*	31.9*	PASS*
V	3	none	1175	5726.25	76.97	53.02	n/a	n/a	n/a	94.0*	17.0*	PASS*
V	3	none	1175	5726.25	62.57	38.62	n/a	n/a	n/a	94.0*	31.4*	PASS*
V	3	none	1175	7635.00	77.60	49.51	n/a	n/a	n/a	94.0*	16.4*	PASS*
V	3	none	1175	7635.00	60.72	32.63	n/a	n/a	n/a	94.0*	33.3*	PASS*
V	3	none	1175	9543.75	76.01	44.66	n/a	n/a	n/a	94.0*	18.0*	PASS*
V	3	none	1175	9543.75	60.90	29.55	n/a	n/a	n/a	94.0*	33.1*	PASS*
V	1	none	1175	11452.50	79.65	54.66	n/a	n/a	n/a	103.5*	23.9*	PASS*
V	1	none	1175	13361.25	68.26	40.64	n/a	n/a	n/a	103.5*	35.3*	PASS*
V	1	none	1175	15270.00	61.78	35.48	n/a	n/a	n/a	103.5*	41.8*	PASS*
V	1	none	1175	17178.75	64.54	35.38	n/a	n/a	n/a	103.5*	39.0*	PASS*
V	1	none	1175	19087.50	51.58	34.92	n/a	n/a	n/a	103.5*	52.0*	PASS*

*The emissions reported above represent the highest emissions or noise floor measured within the frequency band of 30MHz and the 10th harmonic of the carrier with field strengths within 20 dB of the theoretical limit. All other emissions attributed to the EUT had field strengths greater than 20 dB below the theoretical limit and substitutions were not made.

C.9 PASS/FAIL

In reference to the results shown in C.8, the DUT passes the requirements as stated in the reference standards as follows:

FCC 22.917 (a) Out of band emissions. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.

FCC 24.238 (a): Out of band emissions. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.

C.10SIGN-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.

Spencer Watson
EMC Manager
Celltech Labs Inc.

February 20, 2007
Date

END OF DOCUMENT