

UTStarcom Canada

BTS800 and

iPA 1900T System

Report of Measurements

as per

**FCC CFR47 Part 15/B and
FCC CFR47 Part 24**

Revision 1.8

April 20, 2006

Approval		
Checked By:	_____	_____
	Robert Stirling, P.Eng	Date

Protocol Labs, Abbotsford BC, Canada
FCC Registration Number 96437
Industry Canada Registration Numbers IC3384

Index

Section I:	Information for Test Report of Measurements	3
Section II:	FCC CFR47 Part 15/B Report of Measurements	5
	Part 1 – A.C. Mains Conducted Emission Testing	6
	Part 2 - Radiated Emission Testing	7
Section III:	FCC CFR47 Part 24 Report of Measurements	8
	Part 1 - Field Strength of Spurious Radiation measurements	8
	Part 2 – Occupied Bandwidth	9
	Part 3 – RF Power Output	12
	Part 4 – Spurious Emissions at Antenna Terminals	13
	Part 5 – Frequency Stability.....	18
Appendix A:	EUT Photos	20
Appendix B:	Measurement Data and Plots	22
	Conducted Emissions.....	23
Appendix C:	Measurement and Technical report for iCell BTS with iPA 800	25

Section I: Information for Test Report of Measurements

Testing Details

TESTED BY: David Johanson
 TEST CONDITIONS: Temperature and Humidity: 10.8° C, 62%
 TEST VOLTAGE: 120Vac, 60Hz

Test Facilities

Protocol Labs
 28945 McTavish Rd.
 Abbotsford BC, Canada, V4X 2E7
 FCC Registration Number 96437
 Industry Canada Registration Number IC3384

Test Equipment List

EMISSIONS:

Device	Model Number	Serial No.	Last Cal.	Next Cal
Antenna	EMCO 3105	32	25/02/05	25/02/06
Antenna	EMCO LPA-30	178	13/10/04	13/10/05
Antenna	EMCO EM 6912	380	11/10/04	11/01/05
LISN	Solar 8012-50-R-24-BNC	863092	22/10/04	22/10/05
Power meter	Agilent E4417A	MY45100151	19/09/05	19/09/06
High Frequency Stack				
Spectrum Analyzer	Hewlett Packard 8566B	2241A02102	22/03/05	22/03/06
RF-Preselector	Hewlett Packard 85685A	3107A01222	22/03/05	22/03/06
Quasi-PeakAdapter	Hewlett Packard 85650A	2043A00240	22/03/05	22/03/06
Spectrum Analyzer	Agilent E4440	M444303599	01/01/05	01/01/06
Spectrum Analyzer	Agilent E4440	MY44303812	17/05/05	17/05/06
Tower	Rhientech Labs	Custom	NR	NR
Turntable	Protocol	Custom	NR	NR

Company Tested For

NAME: UTStarcom Canada
 ADDRESS: 4600 Jacombs Road
 Richmond, BC V6V 3B1

CONTACT PERSON: Mr. Joe Perrella
 PHONE NUMBER: 604-276-0055

Company on Test Site

NAME: Unity Wireless Systems Corporation
 ADDRESS: 7438 Fraser Park Drive
 Burnaby, BC V5J 5B9

CONTACT PERSON: Mr. Rami Kenig
 EMAIL: ramik@unitywireless.com
 PHONE NUMBER: 604-267-2737

Equipment Under Test

THE TEST SYSTEM:	EUT:	BTS800 and iPA1900T System
	Manufacturer:	Unity Wireless Systems Corporation, OEM UTStarcom Canada
	Part Number:	3000 0005 002
	Serial Number:	05031716
	Aux Equip 1:	Signal Generator
	Manufacturer:	Hewlett Packard
	Part Number:	HP8646C
	Serial Number:	3537A02338
	Aux Equip 2:	Laptop PC
	Manufacturer:	Toshiba
	Part Number:	PS22SC-N91J4
	Serial Number:	60013470
	Aux Equip 3:	19.2 MHz Frequency Reference Jig
	Manufacturer:	Unity Wireless
	Aux Equip 4:	iCell BTS800
	Manufacturer:	Unity Wireless
	Serial Number:	12R200601300001

TEST SETUP: The EUT was setup in its approved operating configuration as per the requested requirements of the manufacturer. The iPA1900T is marketed with an iCell BTS800 attached to its' input. For some of these tests the iPA1900T was tested as a standalone unit.

The iCell BTS 800MHz was previously tested and approved as a standalone unit. It was approved as FCC ID: S52P800-1 Refer to the test report that is listed in Appendix C.

CABLING:

Cable	Connector	Load/Termination	Shielded	Ferrites
RG174	SMA Male	19.2 MHz Ref	Yes	No
RG58	N Male	50 Ohm Load	Yes	No
RG174	SMA Male	Frequency Generator	Yes	No
RG6	N Male	Attenuators/Spectrum Analyzer	Yes	No
Power Cord	3 Prong AC Plug	120VAC	No	No
RS-232 Serial	DB-9 male	PC Serial Port	Yes	No

MODIFICATIONS: No modifications were required for this unit to pass.

CONCLUSION: The BTS800 and iPA 1900T System as tested, complies with the requirements of FCC CFR47 Part 15/B, and FCC CFR47 Part 24

Section II: FCC CFR47 Part 15/B Report of Measurements

General

Tests were conducted on a sample of the equipment for the purpose of demonstrating compliance with FCC Part 15B - Unintentional Radiators, Class A.

Both the Radiated and Power Line Conducted Emission tests were performed using measurement procedure outlined in the above standard.

FCC Labeling and Marking Requirements:

Markings

According to FCC Section 15.19, and ICES 003, a statement similar to the following must be included on an identification label, which also uniquely identifies the manufactured date, either explicitly or through a serial number etc.:

"This equipment complies with FCC Rules, Part 15 and Industry Canada's ICES 003 for a Class A Digital Device. Operation is subject to two conditions:

- 1) This device may not cause harmful interference, and
- 2) This device must accept any interference that may cause any undesired operation"

Additionally, if the manufacturer markets product to Quebec, the following supplemental information should be added to the label:

"Cet Appareil numerique de la Classe A respecte toutes les exigences du Reglement sur le material brouilleur du Canada."

Labeling

According to FCC Section 15.105, and ICES 003, the following statement must be included in a prominent location your User's Manual:

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

It is also required according to FCC Part B Section 15.21 that a caution is included such as:

Caution: Changes or modifications to this equipment, not expressly approved by the manufacturer could void the user's authority to operate the equipment.

Part 1 – A.C. Mains Conducted Emission Testing

DATE: March 9, 2005

TEST STANDARD: FCC CFR47, Part 15, Subpart B

TEST VOLTAGE: 120Vac, 60Hz

TEST SETUP: The iPA1900T was connected to the conducted emissions LISN apparatus. The BTS800 was tested previously. Refer to the report for FCC ID: S52P800-1 Refer to the test report that is listed in Appendix C.

MINIMUM STANDARD: Class A Limit:

Frequency (MHz)	Conducted Limit (dB μ V)	
	Quasi-Peak	Average
0.15 - 0.50	79	66
5.00 - 30.0	73	60

METHOD OF MEASUREMENT: Measurements were made using a spectrum analyzer, Peak detector. Any emissions that are close to the limit are measured using a test receiver and CISPR Quasi-Peak detector.

DEVICE DESCRIPTIONS: As described in the Equipment Under Test Section, above.

CABLING DETAILS: The EUT was set up using the manufacturer's specified normal cabling configuration.

CABLING:

Cable	Connector	Load/Termination	Shielded	Ferrites
RG174	SMA Male	19.2 M μ 2 Ref	Yes	No
RG58	N Male	50 Ohm Load	Yes	No
RG174	SMA Male	Frequency Generator	Yes	No
RG6	N Male	Attenuators/Spectrum Analyzer	Yes	No
Power Cord	3 Prong AC Plug	120VAC	No	No
RS-232 Serial	DB-9 male	PC Serial Port	Yes	No

MODIFICATIONS: No modifications were required for the device to pass the test.

MEASUREMENT DATA: See Appendix B for Plots,

EMISSIONS DATA: See Tables 1 and 2 in Appendix B for corresponding frequencies.

PERFORMANCE: Complies with standard.

Part 2 - Radiated Emission Testing

DATE: March 9, 2005

TEST STANDARD: FCC CFR47, Part 15, Subpart B

TEST VOLTAGE: 120Vac, 60Hz

TEST SETUP: The equipment was set up in a 10-meter open field test site. Emissions in both horizontal and vertical polarizations were measured while rotating the EUT on a turntable to maximize the emissions signal strength and the results recorded on the attached plots. These measurements are for the iPA1900T only. The BTS800 was tested previously. Refer to the report for FCC ID: S52P800-1 Refer to the test report that is listed in Appendix C.

MINIMUM STANDARD: Class A Limit:

Frequency MHz	Field Strength at 10m	
	Microvolts/Meter	dB microvolts per meter
30 - 88	90	39.08
88 - 216	150	43.52
216 - 960	210	46.44
960 - above	300	49.54

DEVICE DESCRIPTIONS: Refer to the Equipment Under Test Section.

CABLING DETAILS: The EUT was set up using the manufacturer's specified normal cabling configuration.

CABLING:

Cable	Connector	Load/Termination	Shielded	Ferrites
RG174	SMA Male	19.2 M μ 2 Ref	Yes	No
RG58	N Male	50 Ohm Load	Yes	No
RG174	SMA Male	Frequency Generator	Yes	No
RG6	N Male	Attenuators/Spectrum Analyzer	Yes	No
Power Cord	3 Prong AC Plug	120VAC	No	No
RS-232 Serial	DB-9 male	PC Serial Port	Yes	No

MODIFICATIONS: No modifications were required for the device to pass the test.

EMISSIONS DATA: See Table in Appendix B for corresponding frequencies.

PERFORMANCE: Complies with standard.

Section III: FCC CFR47 Part 24 Report of Measurements

General

Tests were conducted on a sample of the equipment for the purpose of demonstrating compliance with FCC Part 24 – Personal Communication Services.

The Radiated Emission tests were performed using measurement procedure outlined in the above standard and in the applicable parts of CFR47 Part 2.

Part 1 - Field Strength of Spurious Radiation measurements

DATE:	March 10, 2005
TEST STANDARD:	47CFR2.1053, 24.238(A)
TEST VOLTAGE:	120Vac, 60Hz
TEST SETUP:	<p>As required by §2.1053, field strength of spurious radiation measurements were made in accordance with the general procedures of TIA/EIA-603-A using the Substitution Method. The final measurements were made on a 3meter open area test site for Frequencies up to 1GHz. The remaining measurements were made at 1meter using a Microwave amplifier and the appropriate filters..</p> <p>The iPA1900T was tested independently and was connected to the appropriate generators, terminators and a laptop PC to simulate the operations of the BTS800. The RF output of the iPA1900T was set to transmit at 1930, 1960 and 1980 MHz at 42.3 dBm output as per the manufacturers tuning procedures. The BTS800 was tested previously. Refer to the report for FCC ID: S52P800-1 Refer to the test report that is listed Appendix C. The unit was scanned over the frequency range of 9 kHz to 20 GHz.</p>
MINIMUM STANDARD:	<p>As per 24.238(a), the spurious emissions must be attenuated by $43 + 10\log(P)$ below the transmitting power level.</p> <p>The power level is: 28.18W</p> <p>Therefore, the attenuation level limit for spurious emissions is set at:</p> $43 + 10\log(28.18) = 57.5\text{dB}$ <p>Limit dBm = $10\log((P)/0.001) - 57.5$</p> <p>Limit dBm = $10\log((28.18)/0.001) - 57.5 = 44.5 - 57.5 = -13\text{dBm}$</p> <p>Maximum limit of Spurious Emissions = -13dBm</p>
MODIFICATIONS:	No modifications were required for the device to pass the test.
EMISSIONS DATA:	Nothing was detectable when the unit was tested in all 3 frequencies in both Vertical and Horizontal modes. The frequencies were also investigated at 1MHz and 30KHz RBW to try and identify frequencies, but nothing was found above the noise floor.
PERFORMANCE:	Complies with standard.

Part 2 – Occupied Bandwidth

DATE: April 19, 2005

TEST STANDARD: FCC CFR47, Part 24.238

TEST VOLTAGE: 120Vac, 60Hz

TEST SETUP: As required by §24.238(b) of CFR 47, occupied bandwidth measurements were made at the 26dB attenuation point. Using an IF bandwidth of 12kHz, 1% of 6dB Bandwidth, we determined the 26dB occupied bandwidth of the emission at the lowest and highest selectable channel range was determined.

The iPA1900T was tested while connected to the BTS800. The RF output of the iPA1900T was set to 42.3dBm as per the manufacturers tuning procedures. The BTS800 was independently tested previously. Refer to the report for FCC ID: S52P800-1 Refer to the test report that is listed Appendix C.

CABLING DETAILS: The EUT was set up using the manufacturer's specified normal cabling configuration.

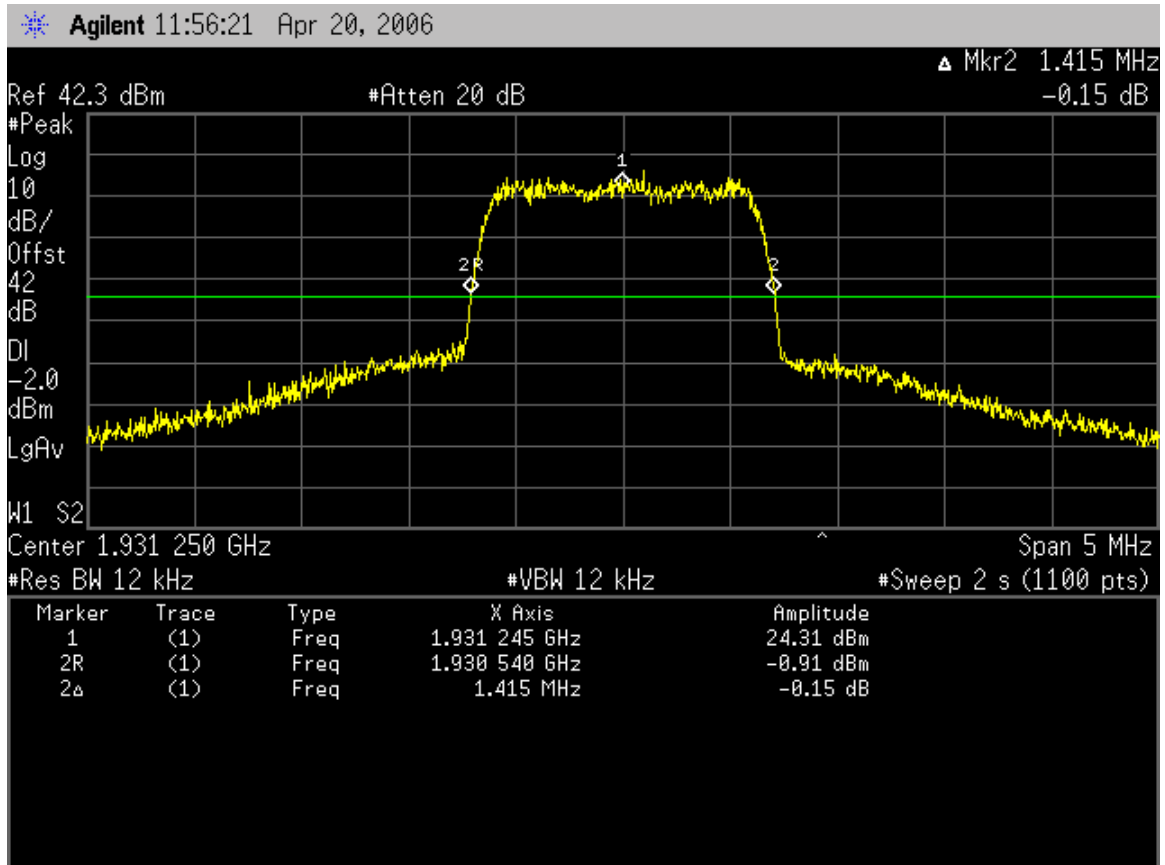
CABLING:

Cable	Connector	Load/Termination	Shielded	Ferrites
RG174	SMA Male	19.2 M μ 2 Ref	Yes	No
RG58	N Male	50 Ohm Load	Yes	No
RG174	SMA Male	Frequency Generator	Yes	No
RG6	N Male	Attenuators/Spectrum Analyzer	Yes	No
Power Cord	3 Prong AC Plug	120VAC	No	No
RS-232 Serial	DB-9 male	PC Serial Port	Yes	No

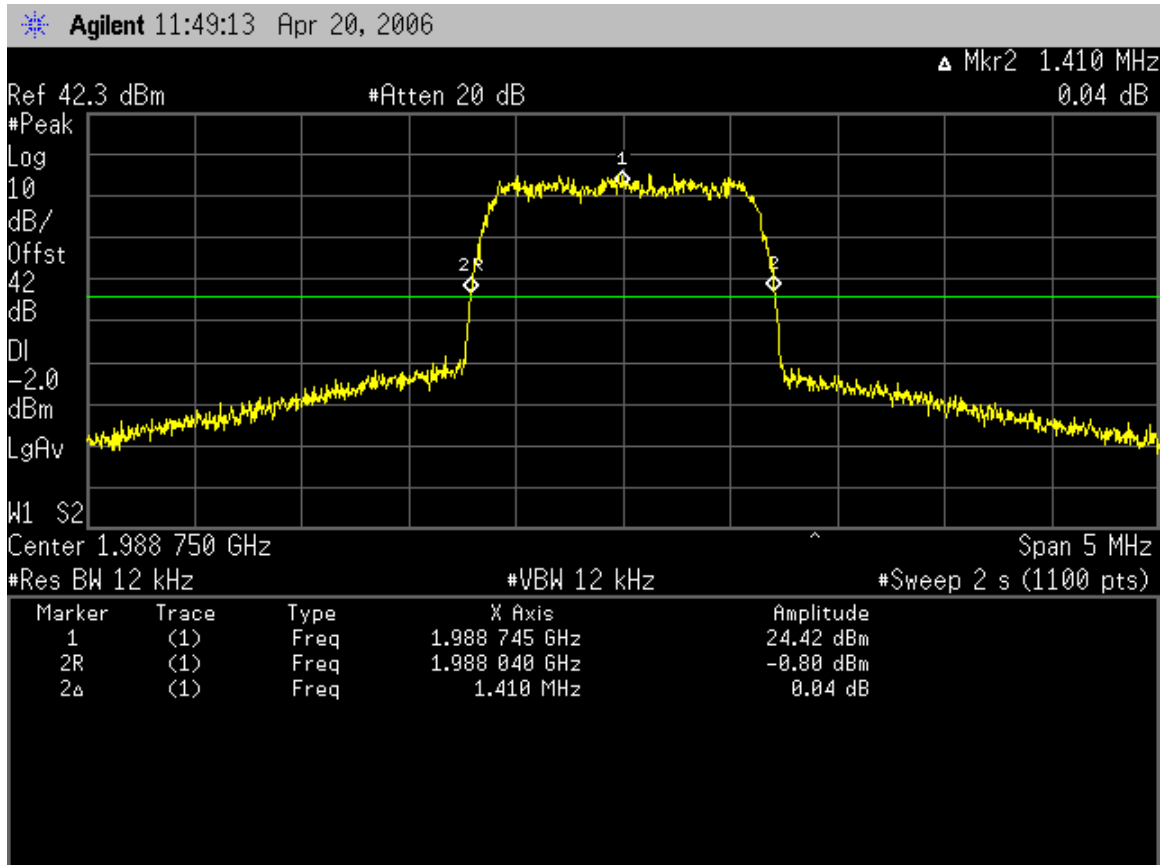
MODIFICATIONS: No modifications were required for the device to pass the test.

EMISSIONS DATA: See the following pages for the Plots.

PERFORMANCE: Complies with standard.



Occupied Bandwidth - Lowest channel



Occupied Bandwidth - Highest Channel

Part 3 – RF Power Output

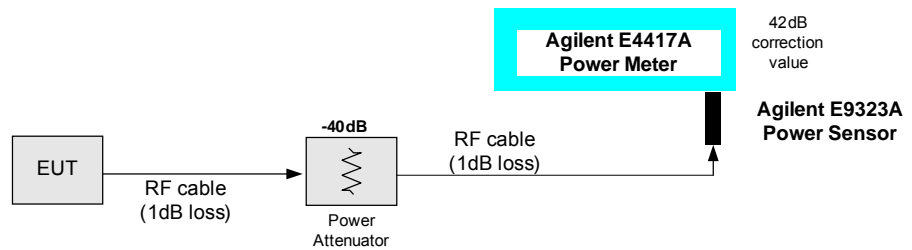
DATE: April 19, 2006
 TEST STANDARD: FCC CFR47, Part 2.1046 and 24.132(b)(c)
 TEST VOLTAGE: 120Vac, 60Hz

TEST SETUP: As required by §2.1046 of CFR 47, *RF Power Output measurements* were made at the RF output terminals using an Attenuator and a Power Meter. this test was performed with the BTS800 providing the input using a CDMA 2000 modulation format.

BTS800 and iPA1900T are components of a feedback loop. The iPA1900T has an output power detector that reports to the BTS800. The BTS800 reads the value of this power detector and never allows output power of the loop be more than 42.3dBm (this is software coded).

The EUT was scanned and tested in various configurations. The data was collected to show the highest level that could be detected.

CABLING DETAILS: The EUT was set up using the manufacturer's specified normal cabling configuration.



CABLING:

Cable	Connector	Load/Termination	Shielded	Ferrites
RG174	SMA Male	19.2 MHz Ref	Yes	No
RG58	N Male	50 Ohm Load	Yes	No
RG174	SMA Male	Frequency Generator	Yes	No
RG6	N Male	Attenuators/Spectrum Analyzer	Yes	No
Power Cord	3 Prong AC Plug	120VAC	No	No
RS-232 Serial	DB-9 male	PC Serial Port	Yes	No

MODIFICATIONS: No modifications were required for the device to pass the test.

EMISSIONS DATA – Maximum Power Output:

IPA Output Frequency (GHz)	Internal Power Meter Output level (dBm)	Measured (dBm)	Total (W)
1.93125	42.3	44.4	27.54
1.9600	42.3	44.5	28.18
1.98875	42.3	42.4	17.4

PERFORMANCE: Maximum output power level measured: 44.5dBm (28.18Watts)

Part 4 – Spurious Emissions at Antenna Terminals

DATE: March 9, 2005

TEST STANDARD: FCC CFR47, Part 2.1051; 24.238(a)

TEST VOLTAGE: 120Vac, 60Hz

TEST SETUP: As required by §2.1051 of CFR 47, spurious emissions at antenna terminal measurements were made at the RF output terminals using a 50 Ohm attenuator and spectrum analyzer set for a 1MHz bandwidth. Tests were also performed at 10kHz bandwidth to confirm frequency presence. This test was performed with a digital signal generator configured to transmit a CDMA IS-95 modulated carrier signal. The frequency spectrum was investigated from 9.0 kHz to 20.0 GHz. The iPA1900T was tested independently and was connected to the appropriate generators, terminators and a laptop PC to simulate the operations of the BTS800. The RF output of the iPA1900T was set to 42.3 dBm as per the manufacturers tuning procedures. The BTS800 was tested previously. Refer to the report for FCC ID: S52P800-1 Refer to the test report that is listed Appendix C.

CABLING DETAILS: The EUT was set up using the manufacturer's specified normal cabling configuration.

CABLING:

Cable	Connector	Load/Termination	Shielded	Ferrites
RG174	SMA Male	19.2 M μ 2 Ref	Yes	No
RG58	N Male	50 Ohm Load	Yes	No
RG174	SMA Male	Frequency Generator	Yes	No
RG6	N Male	Attenuators/Spectrum Analyzer	Yes	No
Power Cord	3 Prong AC Plug	120VAC	No	No
RS-232 Serial	DB-9 male	PC Serial Port	Yes	No

MODIFICATIONS: No modifications were required for the device to pass the test.

STANDARD: 24.238(a) The mean power of emissions must be attenuated below the transmitting power by at least $(43 + 10\log P)$

For measurements performed with RBW=1MHz, Peak power was 44.25dBm at 1960Mhz. Therefore Attenuation Limit is:

$$(43 + 10\log 26.6) = 57.2\text{dB}$$

The limit line is set at $44.25 - 57.2 = -13\text{dBm}$

EMISSIONS DATA: See the following pages for the data.

PERFORMANCE: Complies with standard.

Low Channel 1.930 GHz set to 42.3dBm output. Modulated with CDMA – IS95

Frequency (MHz)	Harmonic	Measured Signal (dBm) @1MHz	Limit Lines (dBm)	Delta Limit Peak (dBc)
1930.000	1st	40.94	NA	NA
3860.000	2nd	-69.85	-13.0	110
5790.000	3rd	-61.15	-13.0	102
7720.000	4th	-67.69	-13.0	109
9650.000	5th	-67.20	-13.0	108
11580.000	6th	-68.30	-13.0	109
13510.000	7th	-66.33	-13.0	107
15440.000	8th	-67.16	-13.0	108
17370.000	9th	-66.61	-13.0	107
19300.000	10th	-66.40	-13.0	107

Other than 3rd harmonic, no frequencies detected above the noise floor.

Mid Channel 1.960 GHz set to 42.3dBm output. Modulated with CDMA – IS95

Frequency (MHz)	Harmonic	Measured Signal (dBm) @1MHz	Limit Lines (dBm)	Delta Limit Peak (dBc)
1960.000	1st	44.25	NA	NA
3920.000	2nd	-67.35	-13.0	112
5880.000	3rd	-58.32	-13.0	103
7840.000	4th	-67.30	-13.0	112
9800.000	5th	-68.45	-13.0	113
11760.000	6th	-67.23	-13.0	112
13720.000	7th	-66.51	-13.0	111
15680.000	8th	-68.56	-13.0	113
17640.000	9th	-66.54	-13.0	111
19600.000	10th	-67.12	-13.0	111

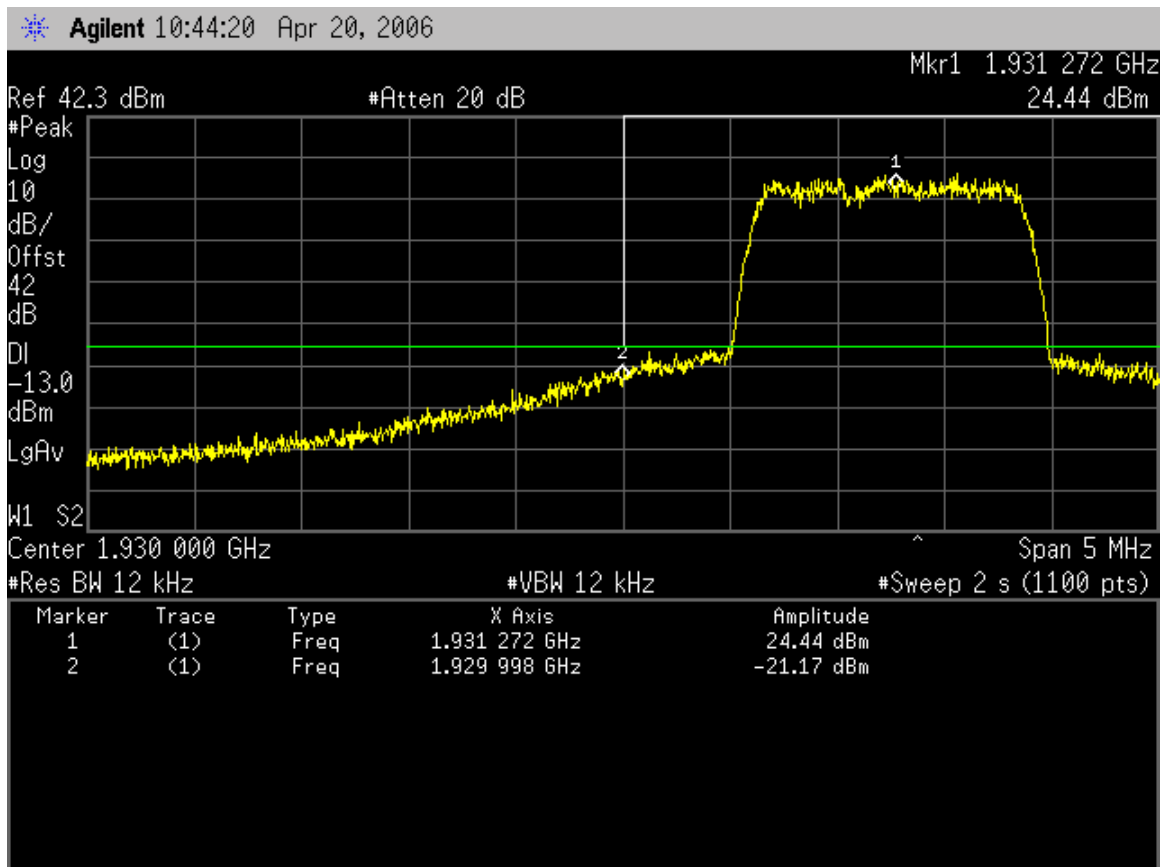
Other than 3rd harmonic, no frequencies detected above the noise floor.

High Channel 1.989 GHz set to 42.3dBm output. Modulated with CDMA – IS95

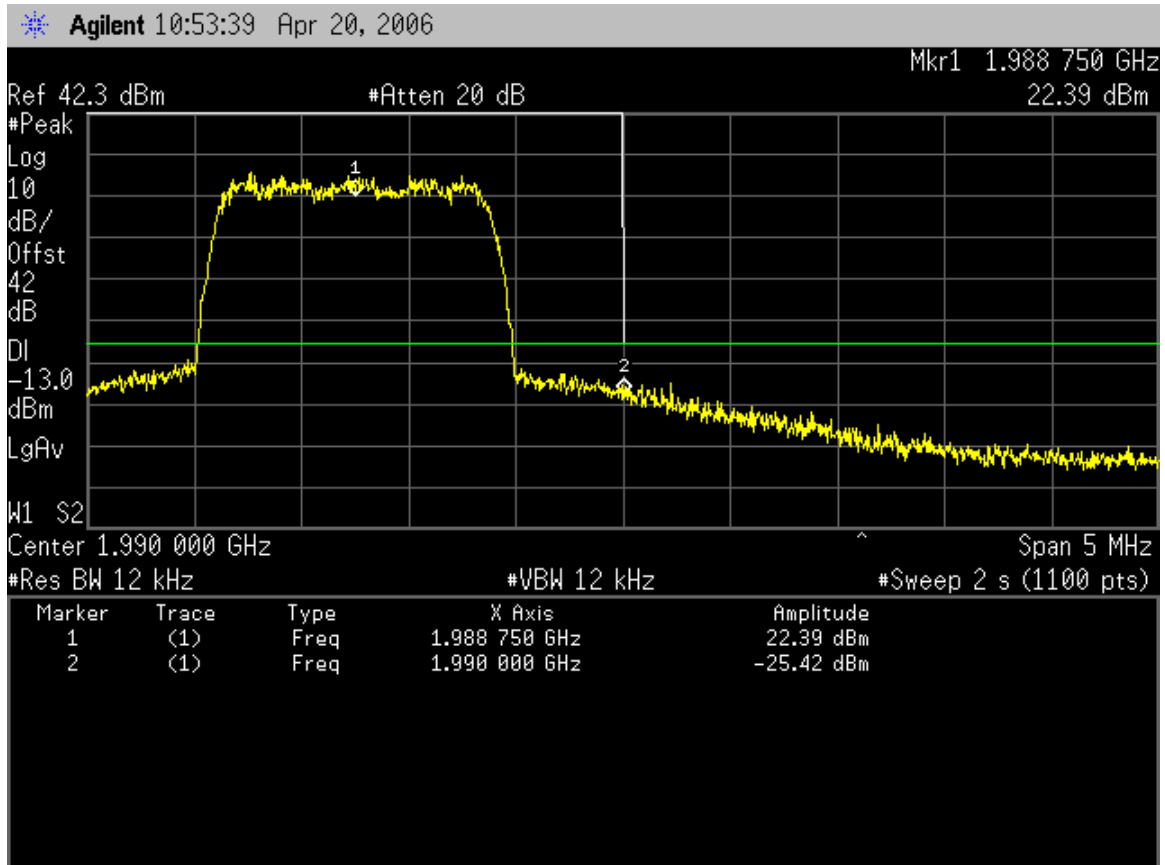
Frequency (MHz)	Harmonic	Measured Signal (dBm) @1MHz	Limit Lines (dBm)	Delta Limit Peak (dBc)
1989.000	1st	41.25	NA	NA
3978.000	2nd	-66.55	-13.0	108
5967.000	3rd	-60.85	-13.0	102
7956.000	4th	-66.40	-13.0	108
9945.000	5th	-67.34	-13.0	109
11934.000	6th	-68.52	-13.0	110
13923.000	7th	-67.25	-13.0	109
15912.000	8th	-68.74	-13.0	110
17901.000	9th	-68.36	-13.0	110
19890.000	10th	-67.95	-13.0	109

Other than 3rd harmonic, no frequencies detected above the noise floor.

Bandedge measurements



BTS800 and iPA1900T System Bandedge at Terminal - Low Freq. 1930 MHz



BTS800 and iPA1900T System Bandedge at Terminal - High Frequency at 1990 MHz

Part 5 – Frequency Stability

DATE: April 25, 2005

TEST STANDARD: FCC CFR47, Part 2.1055; 24.235

TEST VOLTAGE: 120Vac, 60Hz

TEST SETUP: As required by §2.1055 of CFR 47, stability measurements were made at the antenna output terminal using a 50 Ohm attenuator and spectrum analyzer set for a 10Hz resolution bandwidth. This test was performed using a CW signal and measured using a RBW=10Hz

The Temperature Stability part of the test was performed at the manufacturers location with the manufacturers test equipment. The measurements were taken over the temperature range of –30 to +50 deg. Celsius, in 10 deg. increments for each of the Frequencies under test. The measurements were taken after the frequency and unit had stabilized for each frequency and temperature.

The Voltage Stability part of the test were performed at our labs. The measurements were taken over the voltage range of 93.5Vac to 126.5Vac which is the 85% to 115% of the rated operating Voltage of 110Vac. using our in-house equipment.

CABLING DETAILS: The EUT was set up using the manufacturer's specified normal cabling configuration.

CABLING:

Cable	Connector	Load/Termination	Shielded	Ferrites
RG174	SMA Male	19.2 M μ 2 Ref	Yes	No
RG58	N Male	50 Ohm Load	Yes	No
RG174	SMA Male	Frequency Generator	Yes	No
RG6	N Male	Attenuators/Spectrum Analyzer	Yes	No
Power Cord	3 Prong AC Plug	120VAC	No	No
RS-232 Serial	DB-9 male	PC Serial Port	Yes	No

MODIFICATIONS: No modifications were required for the device to pass the test.

STANDARD: §24.235 of CFR 47, the frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block. Since this can have a number of interpretations, depending on the frequency, the manufacturer has set a tolerance of +/- 0.5ppm as an appropriate level to meet this requirement.

EMISSIONS DATA: See the following pages for the data.

PERFORMANCE: Complies with standard.

Frequency Stability over Temperature Range.

Temperature (°C)	Low Frequency Channel 0 1930.000000 MHz	Middle Frequency Channel 600 1960.000000 MHz	High Frequency Channel 1199 1989.950000 MHz
+50	1930.000000	1960.000000	1989.950000
+40	1930.000000	1960.000000	1989.950000
+30	1930.000000	1960.000000	1989.950000
+20	See Voltage table below		
+10	1930.000000	1960.000000	1989.950000
0	1930.000000	1960.000000	1989.950000
-10	1930.000000	1960.000000	1989.950000
-20	1930.000000	1960.000000	1989.950000
-30	1930.000000	1960.000000	1989.950000
Limit (0.5ppm)	1929.999350- 1930.0000965	1959.999902 - 1960.000980	1989.949005 – 1989.950995

Reference input frequency: 19.200000 MHz

TRX Input Frequency: 879.600000 MHz.

Frequency Stability over Voltage Range.

Voltage (Vac)	Low Frequency Channel 0 1930.000000 MHz	Middle Frequency Channel 600 1960.000000 MHz	High Frequency Channel 1199 1989.950000 MHz
126.5	1929.9972647	1959.9971735	1989.9471241
115.5	1929.9972655	1959.9971728	1989.9471242
110.0	1929.9972702	1959.9971758	1989.9471232
104.5	1929.9972739	1959.9971756	1989.9471258
93.5	1929.9972740	1959.9971742	1989.9471257
Limit (0.5ppm)	1929.9996305 – 1929.998235	1959.996195 – 1959.998155	1989.946128 – 1989.948118

Reference input frequency: 19.200000 MHz

TRX Input Frequency: Channel 320 879.600000 MHz.

Performed at: +20°C

Nominal Voltage: 110.0Vac 60Hz

Appendix A: EUT Photos



Emissions Test Setup Front View



Emissions Test Setup Back View of Cables

Appendix B: Measurement Data and Plots

UTStarcom Canada –iPA 1900T

Conducted Emissions

Table 1: Line 1 - 120Vac 60Hz

Frequency (MHz)	Peak (dB μ V)	DelLim-Pk (dB)
0.9925	60.9	0.90
1.103	59.9	-0.1
1.214	58.5	-1.5
0.8834	58.1	-1.9
0.5515	56.7	-3.3
0.778	54.1	-5.9
AVERAGE		
0.9925	57.9	-2.1
1.109	56.9	-3.1
1.22	55.6	-4.4
0.8881	55.0	-5.0

Table 2: Line 2 - 120Vac 60Hz

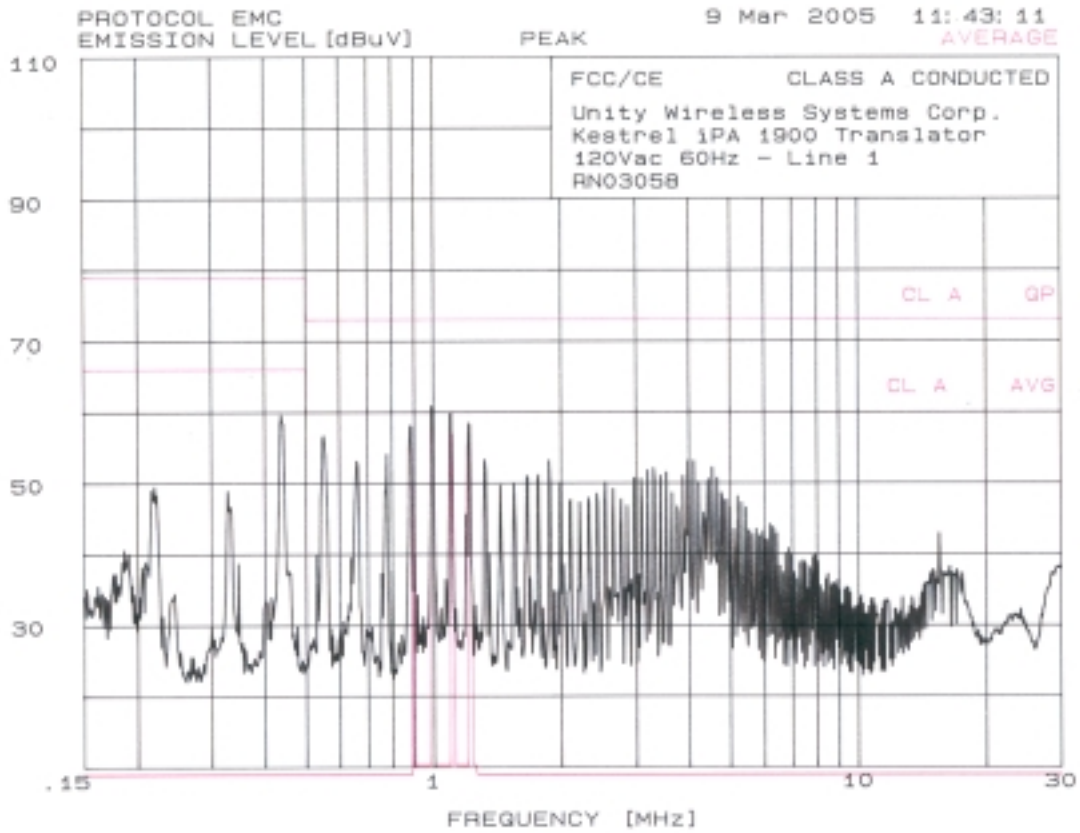
Frequency (MHz)	Peak (dB μ V)	DelLim-Pk (dB)
0.9925	60.7	0.7
1.121	60.3	0.3
1.098	59.9	-0.1
1.22	58.4	-1.6
0.8834	58.3	-1.7
0.5486	56.3	-3.7
AVERAGE		
0.9925	57.9	-2.1
1.103	56.8	-3.2
1.22	55.4	-4.6
0.8834	55.1	-4.9

Radiated Emission Class A – 10 m

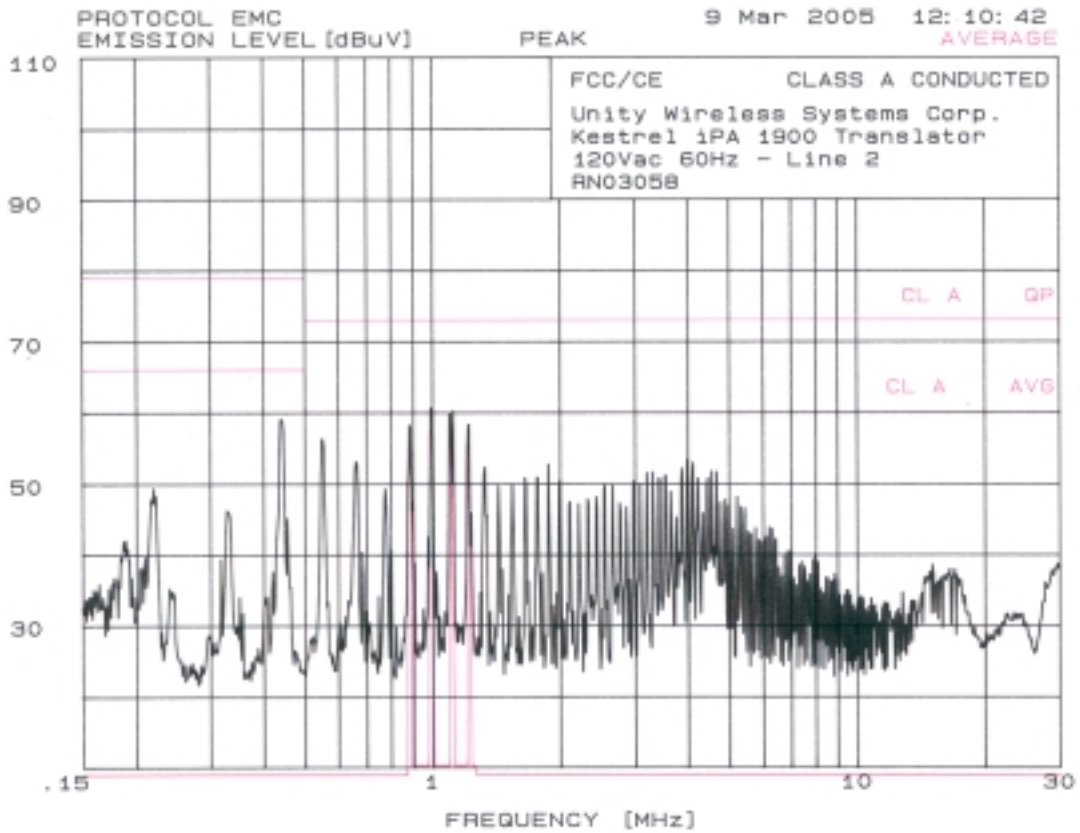
Table 5: FCC Emissions

Frequency (MHz)	Ant. Pol	Ant. Hgt (m)	Ang (deg)	Uncor- Pk (dB μ V)	Tot Corr (dB)	Peak (dB μ V/m)	QP Lmt (dB μ V/m)	DelLim-Pk (dB)
49.009920	V	1	0	20.9	10.36	31.26	49.53	-18.27
62.21124	V	1	250	13.2	6.28	19.48	49.53	-30.05
73.51903	V	1	180	16.6	7.5	24.1	49.53	-25.43

Conducted Emissions



Conducted Emissions Line 1 – 120Vac, 60Hz



Conducted Emissions Line 2 – 120Vac, 60Hz

Appendix C: Measurement and Technical report for iCell BTS with iPA 800

Refer to the FCC ID: S52P800-1 TUV America report No. SC501057-03 for detailed measurements of this product.

This document can be downloaded for the FCC web site located at:
<https://gulfoss2.fcc.gov/prod/oet/cf/eas/reports/GenericSearch.cfm>

You would then insert the FCC ID: S52P800-1 into the first 2 fields. Then select “details” on the next window.