
	Test Report Serial No.:	110811TS5-T1132-E24C	Test Report Issue Date:	December 12, 2011
	Measurement Date(s):	November 23-28, 2011	Test Report Revision No.:	Revision 1.0
	Measurement Standard(s):	FCC 47 CFR §2, §22H, §24E	Industry Canada RSS-132 & RSS-133	
	Test Lab Registration(s):	FCC Accredited Site	Industry Canada Lab File #: IC 3874A-1	

DECLARATION OF COMPLIANCE			RF MEASUREMENT REPORT			FCC & IC	
Test Lab Information	Name	CELLTECH LABS INC.					
	Address	21-364 Lougheed Road, Kelowna B.C. V1X 7R8 Canada					
Test Lab Registration No.(s)	ISO 17025	A2LA Test Lab Certificate No. 2470.01					
	IC	3874A-1					
Applicant Information	Name	SENDUM WIRELESS CORPORATION					
	Address	4500 Beedie Street, Burnaby, B.C. V5J 5L2 Canada					
Standard(s) & Procedure(s)	FCC	47 CFR Part 2	47 CFR Part 22 Subpart H	47 CFR Part 24 Subpart E			
	IC	RSS-132 Issue 2	RSS-133 Issue 5	RSS-Gen Issue 3			
	ANSI	TIA/EIA-603-C-2004					
Device Classification(s)	FCC	PCS Licensed Transmitter (PCB)			47 CFR §24(E)		
	IC	2 GHz Personal Communication Services 800 MHz Cellular Telephones Employing New Technologies			RSS-133 Issue 5 RSS-132 Issue 2		
Application Type(s)	FCC/IC	New Certification					
Device Identifier(s)	FCC ID:	TS5-6055M-PT300	IC:	6234A-PT300			
Device Under Test (DUT)	Asset Tracking Device						
Co-located Transmitter(s)	None						
Device Model(s)	PT300						
Test Sample Revision No.(s)	Hardware	Rev 2.0		Firmware	R1.43.12		
Test Sample Serial No.(s)	KP3111072700611 0565EB28 (Identical Prototype)						
Mode(s) of Operation	Dual-Band CDMA 1xRTT						
Transmit Freq. Range(s)	850 Band	824.70 - 848.31 MHz		1900 Band	1851.25 - 1908.75 MHz		
Max. RF Output Power Tested	1900	CDMA 1xRTT	1851.25 MHz	25	26.1	0.407	EIRP
			1880.00 MHz	600	27.2	0.525	EIRP
			1908.75 MHz	1175	25.5	0.355	EIRP
	850	CDMA 1xRTT	824.70 MHz	1013	24.85	0.306	ERP
			836.52 MHz	384	26.35	0.432	ERP
			848.31 MHz	777	26.75	0.473	ERP
Antenna Type(s) Tested	Internal						
Power Source(s) Tested	Lithium-ion Rechargeable Smart Battery		3.7V	3760mAh	Model: BP300		
<p>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 5, RSS-Gen and ANSI TIA/EIA-603-C-2004.</p> <p>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.</p> <p>The results and statements contained in this report pertain only to the device(s) evaluated.</p> <p>This test report shall not be reproduced partially, or in full, without the prior written approval of Celltech Labs Inc.</p>							
Test Report Approved By			Sean Johnston	Lab Manager	Celltech Labs Inc.		

Applicant:	Sendum Wireless Corp.	FCC ID:	TS5-6055M-PT300	IC:	6234A-PT300	Sendum
DUT Model:	PT300	DUT Type:	Asset Tracking Device (Dual-Band CDMA 1xRTT)	850 / 1900 Bands		
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TEST SUMMARY						
Referenced Standard(s):		FCC CFR Title 47 Parts 2, 22 & 24				
Appendix	Test Description	Procedure Reference	Limit Reference	Test Start Date	Test End Date	Result
A	Occupied Bandwidth	§2.1049	§2.1049, §22.905, §24.238	23Nov11	24Nov11	Pass
B	Peak to Average Ratio	§24.232(d)	§24.232(d)	23Nov11	24Nov11	Pass
C	Out of Band TX Conducted spurious emissions	§2.1055	§22.917 (a) §24.238 (a)	23Nov11	24Nov11	Pass
D	Effective Radiated Power	ANSI/TIA/EIA-603-C	§22.913	28Nov11	28Nov11	Pass
	Effective Isotropic Radiated Power	ANSI/TIA/EIA-603-C	§24.232(c)			Pass
E	Radiated TX Spurious Emissions	ANSI/TIA/EIA-603-C	§22.917 (a)	28Nov11	28Nov11	Pass
			§24.238 (a)			Pass
F	Frequency Stability	ANSI/TIA/EIA-603-C	§2.1055, §22.335 §2.1055, §24.235	25Nov11	25Nov11	Pass
Referenced Standard(s):		IC RSS-132 Issue 2 & RSS-133 Issue 5				
A	Occupied Bandwidth	RSS-GEN	N/A	23Nov11	24Nov11	Pass
B	Peak to Average Ratio	RSS-GEN RSS 132	RSS-133 6.4	23Nov11	24Nov11	Pass
C	Out of Band TX Conducted spurious emissions	RSS-GEN	RSS-132 RSS-133	23Nov11	24Nov11	Pass
D	Effective Radiated Power	ANSI/TIA/EIA-603-C	SRSP-503 §5.1.3	28Nov11	28Nov11	Pass
	Effective Isotropic Radiated Power	ANSI/TIA/EIA-603-C	SRSP-510 §5.1.2			Pass
E	Radiated TX Spurious Emissions	RSS-Gen §4.9	RSS-132 §4.5	28Nov11	28Nov11	Pass
			RSS-133 §4.4			Pass
F	Frequency Stability	RSS-Gen	RSS-133 6.3	25Nov11	25Nov11	Pass
			RSS-133 6.3			


Applicant:	Sendum Wireless Corp.		FCC ID:	TS5-6055M-PT300	IC:	6234A-PT300	Sendum
DUT Model:	PT300	DUT Type:	Asset Tracking Device (Dual-Band CDMA 1xRTT)			850 / 1900 Bands	
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REVISION LOG

Revision	Description	Implemented By	Implementation Date
1.0	1st Release	Jon Hughes	December 12, 2011

SIGNATORIES

Prepared By		December 09, 2011
Name/Title	Sean Johnston / Lab Manager	Date

Applicant:	Sendum Wireless Corp.		FCC ID:	TS5-6055M-PT300	IC:	6234A-PT300	Sendum
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	Test Lab Registration(s):	FCC Accredited Site	Industry Canada Lab File #: IC 3874A-1	

1.0 SCOPE


This report outlines the measurements made and the results collected for the Sendum Wireless Corp. Model: PT300 Dual-Band CDMA Asset Tracking Device. The measurement results were applied against the applicable requirements and limits outlined in the technical rules and regulations set forth in the Federal Communication's 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, RSS-133 Issue 5 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
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	Code of Federal Regulations Title 47: Telecommunication Part 2: Frequency Allocations and Radio Treaty Matters; General Rules and Regulations
CFR Title 47 Part 22	Code of Federal Regulations Title 47: Telecommunication Part 22: Public Mobile Services
CFR Title 47 Part 24	Code of Federal Regulations Title 47: Telecommunication Part 24: Personal Communication Services
IC Spectrum Management & Telecommunications Policy	Radio Standards Specification RSS-132 Issue 2 - 800 MHz Cellular Telephones Employing New Technologies RSS-133 Issue 5 - 2 GHz Personal Communication Services RSS-Gen Issue 3 - General Requirements and Information for the Certification of Radiocommunication Equipment SRSP-503 Issue 7 - Technical Requirements for Cellular Radiotelephone Systems Operating in the Bands 824 - 849 MHz and 869 - 894 MHz SRSP-510 Issue 5 - Technical Requirements for Personal Communications Services in the Bands 1850 - 1910 MHz and 1930 - 1990 MHz


Applicant:	Sendum Wireless Corp.		FCC ID:	TS5-6055M-PT300	IC:	6234A-PT300	Sendum
DUT Model:	PT300	DUT Type:	Asset Tracking Device (Dual-Band CDMA 1xRTT)			850 / 1900 Bands	
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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

Applicant:	Sendum Wireless Corp.		FCC ID:	TS5-6055M-PT300	IC:	6234A-PT300	Sendum
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	Test Lab Registration(s):	FCC Accredited Site	Industry Canada Lab File #: IC 3874A-1	

4.0 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 site and with Industry Canada under File Number IC 3874A-1.

5.0 GENERAL INFORMATION

5.1 Applicant Information

Company Name	Sendum Wireless Corporation
Address	4500 Beedie Street
	Burnaby, B.C. V5J 5L2
	Canada


5.2 DUT Description

Device Description	Asset Tracking Device
Device Model	PT300
Device Serial No.	KP3111072700611 0565EB28 (Identical Prototype)
Hardware Revision No.	2.0
Firmware Revision No.	R1.43.12
Internal Transmitter	Dual-Band CDMA 1xRTT
Power Source Tested	Lithium-ion Battery Model: BP300 (3.7V, 3760mAh)
Antenna Tested	Internal

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 5, RSS-Gen 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)

Applicant:	Sendum Wireless Corp.		FCC ID:	TS5-6055M-PT300	IC:	6234A-PT300	Sendum
DUT Model:	PT300	DUT Type:	Asset Tracking Device (Dual-Band CDMA 1xRTT)			850 / 1900 Bands	
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5.4 Mode(s) of Operation Tested

5.4.1 Dual-Band CDMA 1xRTT

Measurements were made with the DUT 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.

5.4.1.1 Cellular CDMA 1xRTT

Transmitter Frequency Range	824.70 - 848.31 MHz		
Transmitter Test Channels	Ch. 1013 (824.70 MHz) - Low	Ch. 384 (836.52 MHz) - Mid	Ch. 777 (848.31 MHz) - High
Software Power Gain Settings	Set by CDMA communications test set for "all ups"		
Modulation Type(s)	QPSK		

5.4.1.2 PCS CDMA 1xRTT

Transmitter Frequency Range	1851.25 - 1908.75 MHz		
Transmitter Test Channels	Ch. 25 (1851.25 MHz) - Low	Ch. 600 (1880.00 MHz) - Mid	Ch. 1175 (1908.75 MHz) - High
Software Power Gain Settings	Set by CDMA communications test set for "all ups"		
Modulation Type(s)	QPSK		

5.5 Configuration Description

Transmission in RC3 S055 mode was utilized as worst-case power mode for both cellular and PCS bands.

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)

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.

Applicant:	Sendum Wireless Corp.		FCC ID:	TS5-6055M-PT300	IC:	6234A-PT300	Sendum
DUT Model:	PT300	DUT Type:	Asset Tracking Device (Dual-Band CDMA 1xRTT)			850 / 1900 Bands	
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	Test Lab Registration(s):	FCC Accredited Site	Industry Canada Lab File #: IC 3874A-1	

Appendix A - Occupied Bandwidth

A.1 REFERENCES

Normative Reference Standard	FCC CFR 47 §2.1049, §22.905, §24.238, RSS-132, RSS 133, RSS-GEN
Procedure Reference	FCC CFR 47 §2.1049, RSS-GEN

A.2 LIMITS

A.2.1 N/a

A.3 ENVIRONMENTAL CONDITIONS

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


A.4 EQUIPMENT LIST

ASSET NUMBER	MANUFACTURER	MODEL	DESCRIPTION	CAL DUE
00015	HP	E4408B	Spectrum Analyzer	03May12
00208	Anritsu	MT8820A	Radio Communications Test Set	03May12
00007	Gigatronics	8652A	Power Meter	04May12
00014	Gigatronics	80701A	Power Sensor	04May12
00078	Pasternack	PE2214-20	Directional Coupler 1-18 GHz	N/a*

*Verified with power meter prior to use

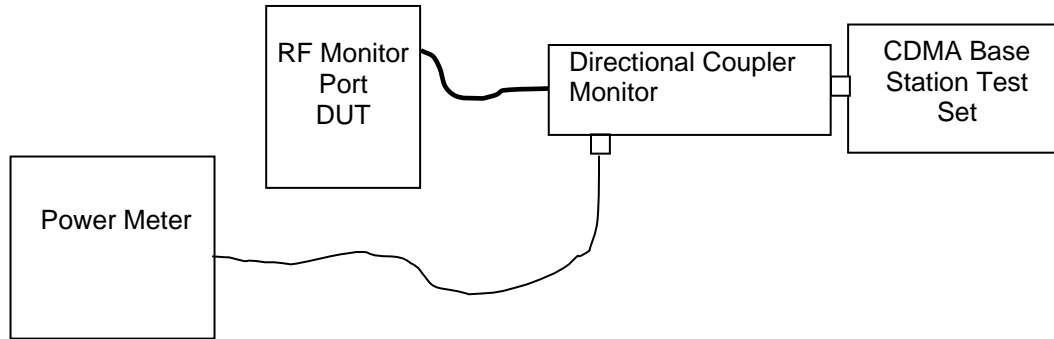
A.5 MEASUREMENT EQUIPMENT SETUP

Equipment Connections	The equipment was connected as shown in the setup drawing in A.6.
Equipment Settings	Offset - set to include loss through cable and directional coupler.
Measurement Procedure	The channel was set on the base station and the power set for "all ups" .

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A.6 SETUP DRAWING

Figure A.6-1 - Setup Drawing




A.7 DUT OPERATING DESCRIPTION

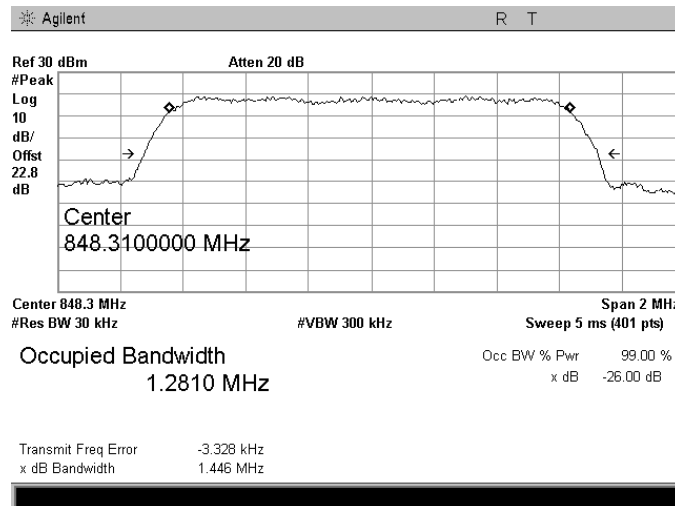
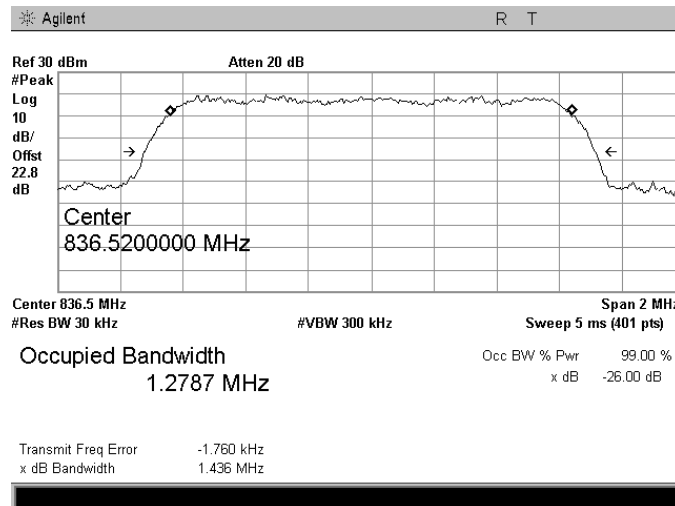
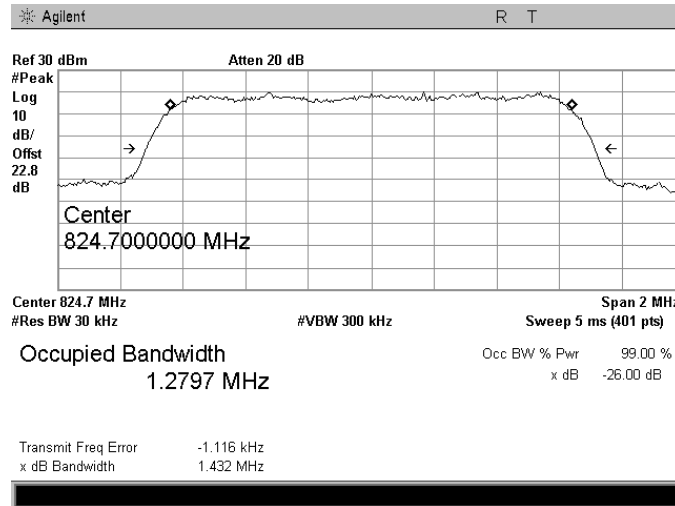
Measurements were made in the cellular and PCS bands with the DUT set appropriately in CDMA 1xRTT. The occupied bandwidth was measured in low, mid and high channel in each band.

Table 1: Occupied Bandwidth


Mode	Freq. (MHz)	Channel	99% Occupied Bandwidth (MHz)
RC3 S055	824.7	1013	1.2797
	836.52	384	1.2787
	848.31	777	1.2810
	1851.25	25	1.2802
	1880	600	1.2798
	1908.75	1175	1.2824

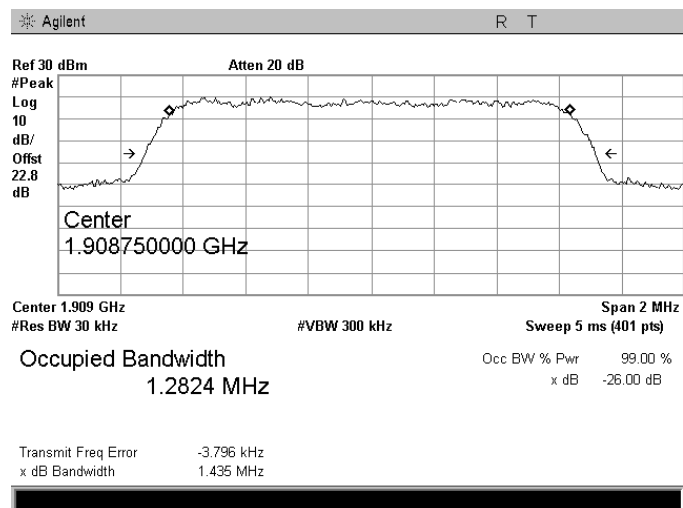
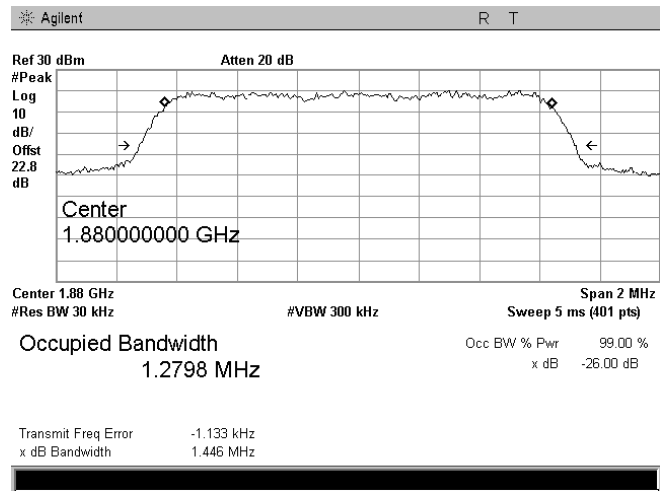
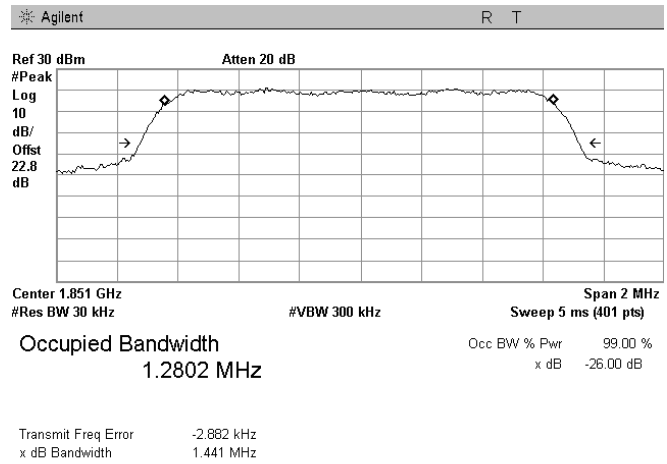
Applicant:	Sendum Wireless Corp.		FCC ID:	TS5-6055M-PT300	IC:	6234A-PT300	Sendum
DUT Model:	PT300	DUT Type:	Asset Tracking Device (Dual-Band CDMA 1xRTT)			850 / 1900 Bands	
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A.8 PASS/FAIL

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

A.9 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.

Nov 24, 2011

Date

Applicant:	Sendum Wireless Corp.		FCC ID:	TS5-6055M-PT300	IC:	6234A-PT300	Sendum
DUT Model:	PT300	DUT Type:	Asset Tracking Device (Dual-Band CDMA 1xRTT)			850 / 1900 Bands	
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Appendix B Peak to Average Ratio

B.1 REFERENCES

Normative Reference Standard	FCC CFR 47 §24.232
Procedure Reference	FCC CFR 47 §24.232; IC RSS-133

B.2 LIMITS

B.2.1	FCC CFR 47: < 13 dB
B.2.2	IC RSS 133: The peak to average ratio shall not exceed 13 dB

B.3 ENVIRONMENTAL CONDITIONS

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

B.4 EQUIPMENT LIST


ASSET NUMBER	MANUFACTURER	MODEL	DESCRIPTION	CAL DUE
00015	HP	E4408B	Spectrum Analyzer	03May12
00208	Anritsu	MT8820A	Radio Communications Test Set	03May12
00007	Gigatronics	8652A	Power Meter	04May12
00014	Gigatronics	80701A	Power Sensor	04May12
00078	Pasternack	PE2214-20	Directional Coupler 1-18 GHz	N/a*

*Verified with power meter prior to use

B.5 MEASUREMENT EQUIPMENT SETUP

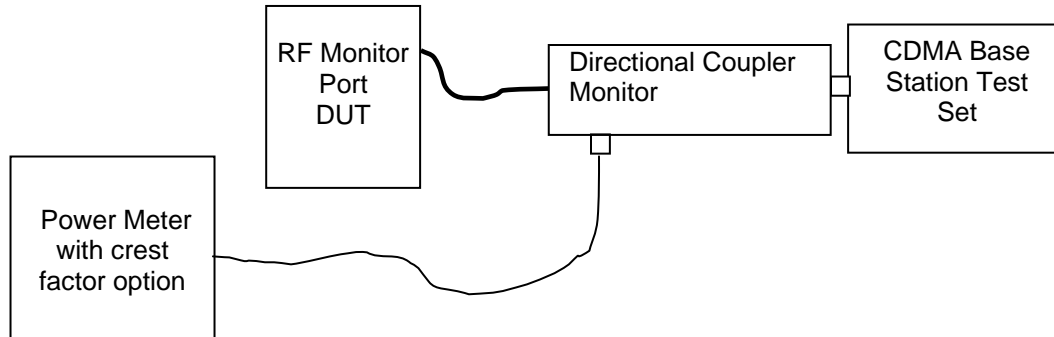
Equipment Connections	The equipment was connected as shown in the setup drawing in B.6.
Equipment Settings	Offset - set to include loss through cable and directional coupler.
Measurement Procedure	The channel was set on the base station and the power set for "all ups".

Applicant:	Sendum Wireless Corp.		FCC ID:	TS5-6055M-PT300	IC:	6234A-PT300	Sendum
DUT Model:	PT300	DUT Type:	Asset Tracking Device (Dual-Band CDMA 1xRTT)			850 / 1900 Bands	
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	Test Report Serial No.:	110811TS5-T1132-E24C	Test Report Issue Date:	December 12, 2011
	Measurement Date(s):	November 23-28, 2011	Test Report Revision No.:	Revision 1.0
	Measurement Standard(s):	FCC 47 CFR §2, §22H, §24E	Industry Canada RSS-132 & RSS-133	
	Test Lab Registration(s):	FCC Accredited Site	Industry Canada Lab File #: IC 3874A-1	

B.6 SETUP DRAWING

Figure B.6-1 - Setup Drawing



B.7 DUT OPERATING DESCRIPTION

Measurements were made in the PCS band with the DUT set appropriately in CDMA 1xRTT. The peak to average ratio was measured in low, mid and high channel.

Table 2: Peak to average ratio

Channel	Frequency (MHz)	Measured Peak (dB)	Measured Average (dBm)	Peak to average Ratio (dB)
25	1851.25	28.76	25.2	4.11
600	1880.0	28.94	24.9	4.4
1175	1908.75	29.31	24.7	4.6

B.8 PASS/FAIL

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

B.9 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.

Nov 24, 2011

Date

Applicant:	Sendum Wireless Corp.		FCC ID:	TS5-6055M-PT300	IC:	6234A-PT300	Sendum
DUT Model:	PT300	DUT Type:	Asset Tracking Device (Dual-Band CDMA 1xRTT)			850 / 1900 Bands	
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	Test Report Serial No.:	110811TS5-T1132-E24C	Test Report Issue Date:	December 12, 2011
	Measurement Date(s):	November 23-28, 2011	Test Report Revision No.:	Revision 1.0
	Measurement Standard(s):	FCC 47 CFR §2, §22H, §24E	Industry Canada RSS-132 & RSS-133	
	Test Lab Registration(s):	FCC Accredited Site	Industry Canada Lab File #: IC 3874A-1	

Appendix C

Out of Band Emissions at the Antenna Terminals

C.1 REFERENCES

Normative Reference Standard	FCC CFR 47 §2.1051, §22.917, §24.238, RSS-132, RSS-133,
Procedure Reference	FCC CFR 47 §2.1051, RSS-GEN

C.2 LIMITS

FCC §22.917

FCC CFR 47: (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.

(b) *Measurement procedure*. Compliance with these rules is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater. In the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (i.e. 100 kHz or 1 percent of emission bandwidth, as specified). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

§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.


(b) *Measurement procedure*. Compliance with these rules is based on the use of measurement instrumentation employing a resolution bandwidth of 1 MHz or greater. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (i.e. 1 MHz or 1 percent of emission bandwidth, as specified). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

IC RSS-132 & RSS-133

In the first 1.0 MHz bands immediately outside and adjacent to the equipment's operating frequency block, the emission power per any 1% of the emission bandwidth shall be attenuated below the transmitter output power P (in watts) by at least $43 + 10 \log_{10}(P)$, dB.

After the first 1.0 MHz (for equipment that complies with (a)(i) of this subsection) or 1.5 MHz (for equipment that complies with (a)(ii) of this subsection), the emission power in any 1 MHz bandwidth shall be attenuated below the transmitter output power P (in watts) by at least $43 + 10 \log_{10}(P)$, dB. (**Note:** If the test result using 1% of the emission bandwidth is used, power integration over 1.0 MHz is required; alternatively, the spectrum analyzer resolution and video bandwidths can be increased to 1.0 MHz for this measurement).

Applicant:	Sendum Wireless Corp.		FCC ID:	TS5-6055M-PT300	IC:	6234A-PT300	Sendum
DUT Model:	PT300	DUT Type:	Asset Tracking Device (Dual-Band CDMA 1xRTT)			850 / 1900 Bands	
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	Measurement Date(s):	November 23-28, 2011	Test Report Revision No.:	Revision 1.0
	Measurement Standard(s):	FCC 47 CFR §2, §22H, §24E	Industry Canada RSS-132 & RSS-133	
	Test Lab Registration(s):	FCC Accredited Site	Industry Canada Lab File #: IC 3874A-1	

C.3 ENVIRONMENTAL CONDITIONS

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

C.4 EQUIPMENT LIST

ASSET NUMBER	MANUFACTURER	MODEL	DESCRIPTION	CAL DUE
00015	HP	E4408B	Spectrum Analyzer	03May12
00208	Anritsu	MT8820A	Radio Communications Test Set	03May12
00007	Gigatronics	8652A	Power Meter	04May12
00014	Gigatronics	80701A	Power Sensor	04May12
00078	Pasternack	PE2214-20	Directional Coupler 1-18 GHz	N/a*

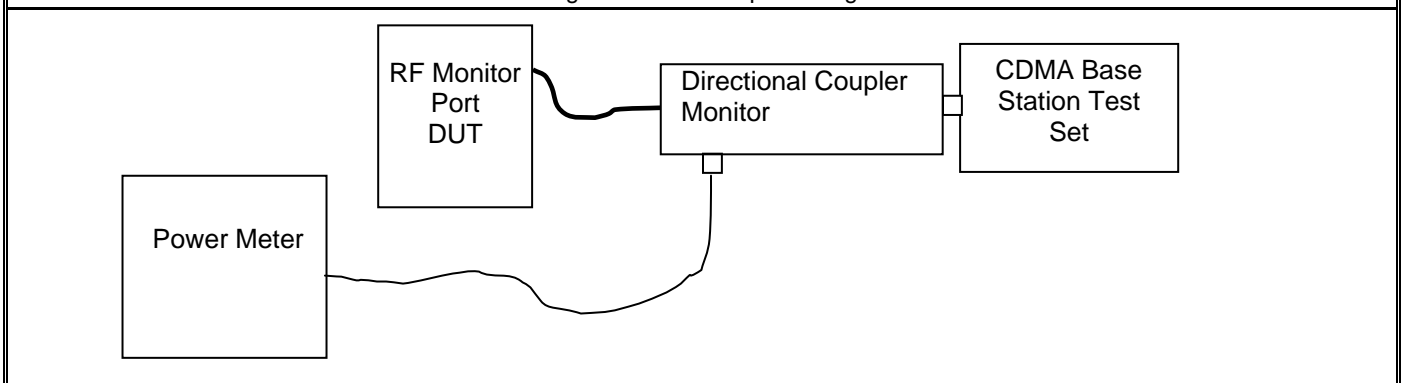
*Verified with power meter prior to use

C.5 MEASUREMENT EQUIPMENT SETUP

Equipment Connections	The equipment was connected as shown in the setup drawing in C.6.
Equipment Settings	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.

C.6 SETUP DRAWING

Figure C.6-1 - Setup Drawing



C.7 DUT OPERATING DESCRIPTION

1. The measurements were made in the cellular and PCS bands with the DUT in the appropriate test mode as described in Section 5.4.

Applicant:	Sendum Wireless Corp.		FCC ID:	TS5-6055M-PT300	IC:	6234A-PT300	Sendum
DUT Model:	PT300	DUT Type:	Asset Tracking Device (Dual-Band CDMA 1xRTT)			850 / 1900 Bands	
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	Measurement Date(s):	November 23-28, 2011	Test Report Revision No.:	Revision 1.0
	Measurement Standard(s):	FCC 47 CFR §2, §22H, §24E	Industry Canada RSS-132 & RSS-133	
	Test Lab Registration(s):	FCC Accredited Site	Industry Canada Lab File #: IC 3874A-1	

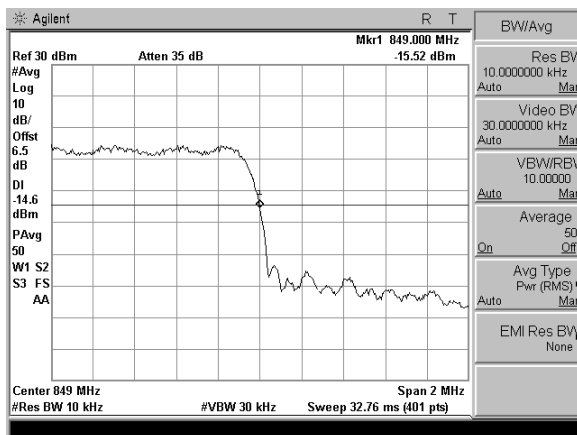
Table 3: Block edge limit correction table

Limit line correction $10\log(RB1/RB2)$

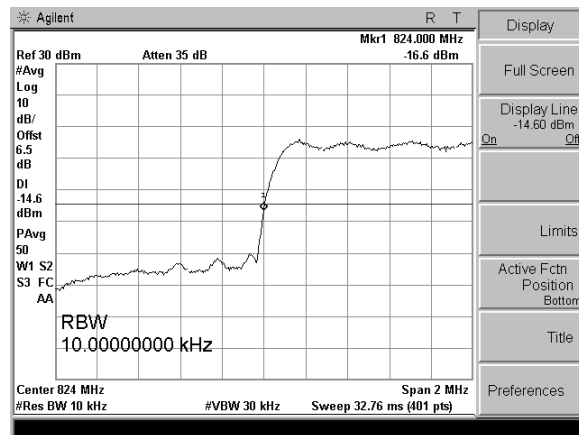
Frequency (MHz)	Channel	99% Occupied Bandwidth (MHz)	26dB Bandwidth (Emission bandwidth)	1% of emission bandwidth	Correction factor on limit	Limit
824.7	1013	1.2797	1.432	14.32	-1.6	-14.6
836.52	384	1.2787	1.436	14.36	-1.6	-14.6
848.31	777	1.2810	1.446	14.46	-1.6	-14.6
1851.25	25	1.2802	1.441	14.41	-1.6	-14.6
1880.0	600	1.2798	1.446	14.46	-1.6	-14.6
1908.75	1175	1.2824	1.435	14.35	-1.6	-14.6

Table 4: Block Edge

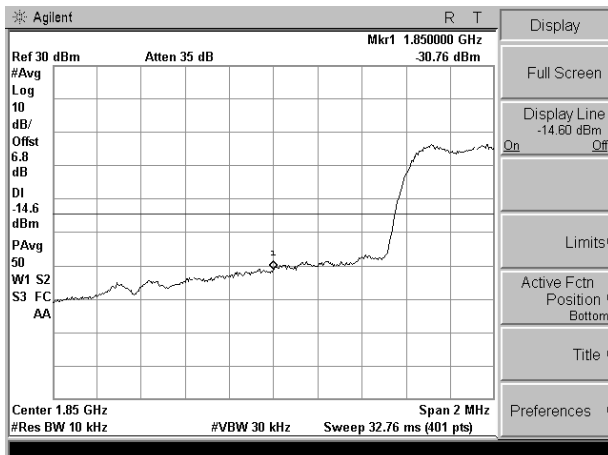
Cell: CH 1013



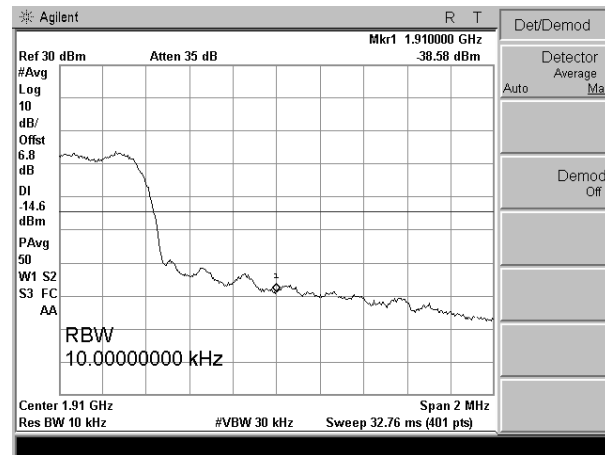
Cell: CH 777



PCS: CH 25



PCS: CH 1175



Applicant:	Sendum Wireless Corp.		FCC ID:	TS5-6055M-PT300	IC:	6234A-PT300	Sendum
DUT Model:	PT300	DUT Type:	Asset Tracking Device (Dual-Band CDMA 1xRTT)			850 / 1900 Bands	
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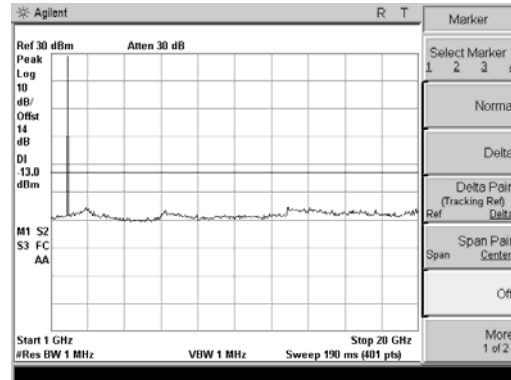
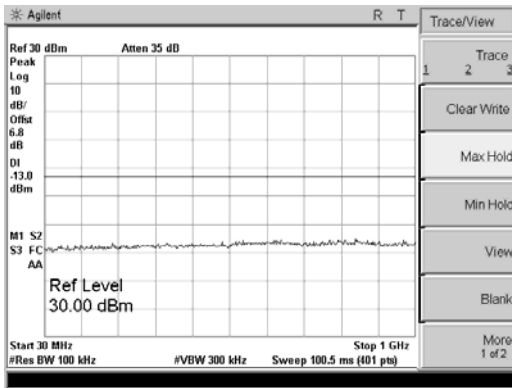
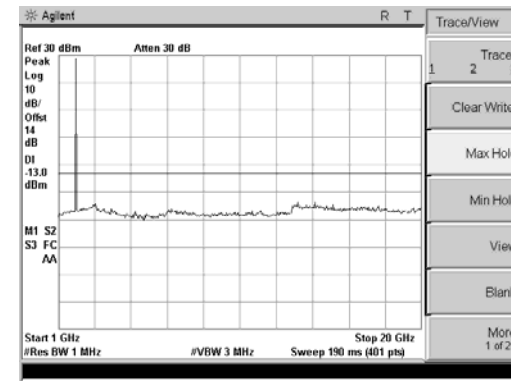
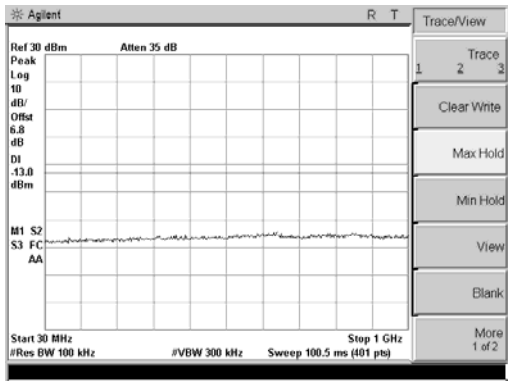
	Test Report Serial No.:	110811TS5-T1132-E24C	Test Report Issue Date:	December 12, 2011
	Measurement Date(s):	November 23-28, 2011	Test Report Revision No.:	Revision 1.0
	Measurement Standard(s):	FCC 47 CFR §2, §22H, §24E	Industry Canada RSS-132 & RSS-133	
	Test Lab Registration(s):	FCC Accredited Site	Industry Canada Lab File #: IC 3874A-1	

Table 5: PCS Band TX spurious Emissions

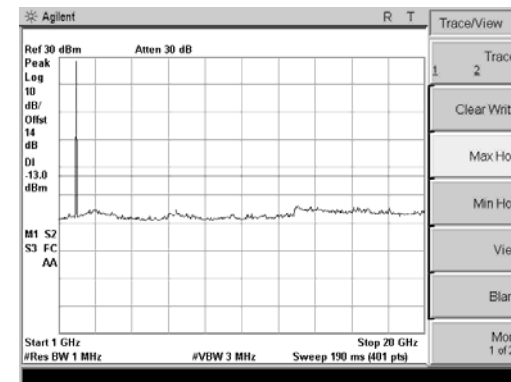
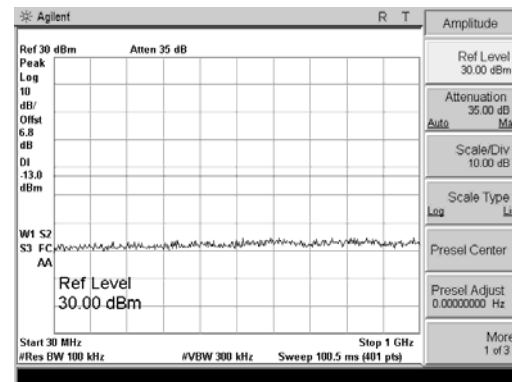
PCS CH 25



PCS CH 600



PCS CH 1175



Applicant:	Sendum Wireless Corp.		FCC ID:	TS5-6055M-PT300	IC:	6234A-PT300	Sendum
DUT Model:	PT300	DUT Type:	Asset Tracking Device (Dual-Band CDMA 1xRTT)			850 / 1900 Bands	
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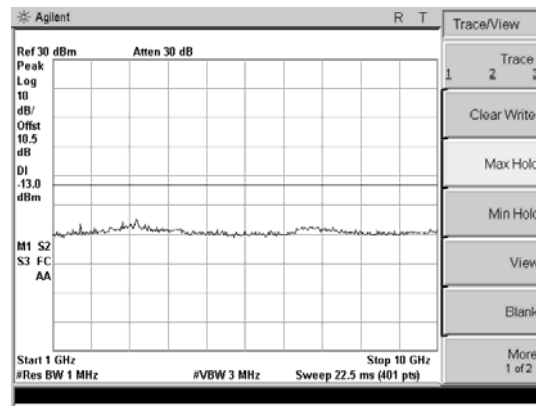
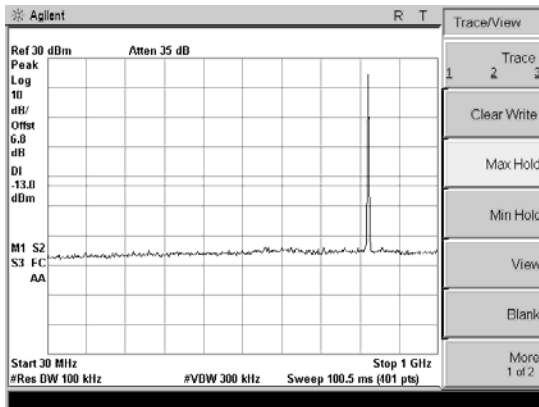
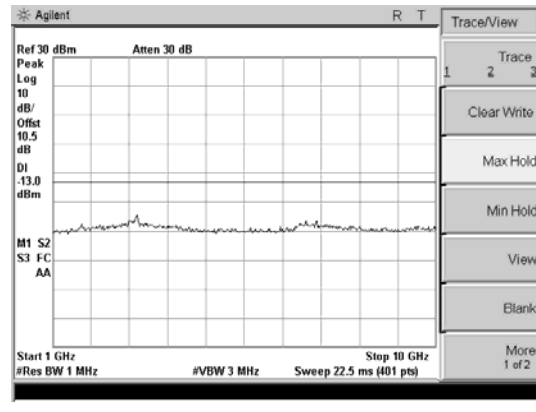
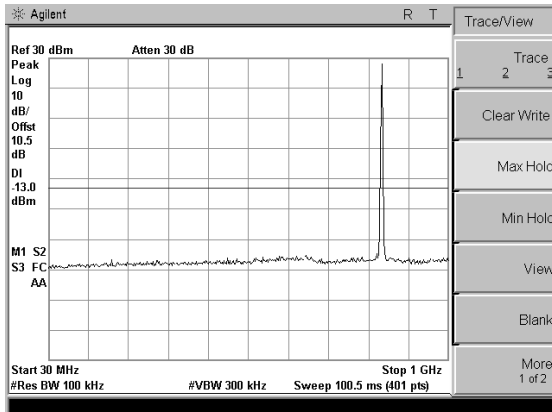
	Test Report Serial No.:	110811TS5-T1132-E24C	Test Report Issue Date:	December 12, 2011
	Measurement Date(s):	November 23-28, 2011	Test Report Revision No.:	Revision 1.0
	Measurement Standard(s):	FCC 47 CFR §2, §22H, §24E	Industry Canada RSS-132 & RSS-133	
	Test Lab Registration(s):	FCC Accredited Site	Industry Canada Lab File #: IC 3874A-1	

Table 6: Cell Band TX Spurious Emissions

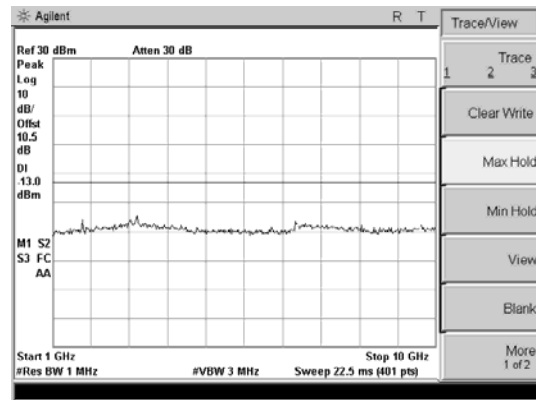
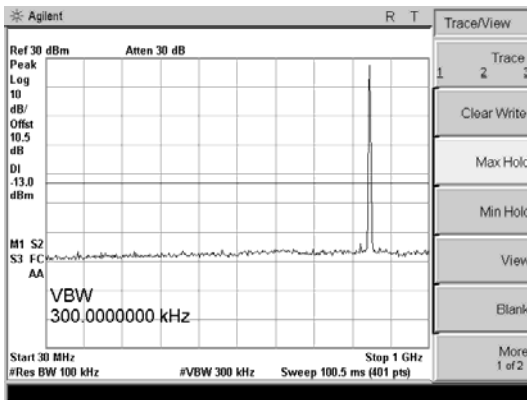
Cell CH 1013




Cell CH 384



Cell CH 777



Applicant:	Sendum Wireless Corp.		FCC ID:	TS5-6055M-PT300	IC:	6234A-PT300	Sendum
DUT Model:	PT300	DUT Type:	Asset Tracking Device (Dual-Band CDMA 1xRTT)			850 / 1900 Bands	
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	Test Report Serial No.:	110811TS5-T1132-E24C	Test Report Issue Date:	December 12, 2011
	Measurement Date(s):	November 23-28, 2011	Test Report Revision No.:	Revision 1.0
	Measurement Standard(s):	FCC 47 CFR §2, §22H, §24E	Industry Canada RSS-132 & RSS-133	
	Test Lab Registration(s):	FCC Accredited Site	Industry Canada Lab File #: IC 3874A-1	

Appendix D

- Effective Radiated Power / Effective Isotropic Radiated Power Measurement

D.1 REFERENCES

Normative Reference Standards	FCC CFR 47 §22.913 (a)(2), FCC CFR 47 §24.232 (c)
	IC RSS-132 Section 4.4; RSS-133 Section 6.4; SRSP-503
Procedure Reference	ANSI/TIA/EIA-603-C

D.2 LIMITS

D.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.


D.3 ENVIRONMENTAL CONDITIONS

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

D.4 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
00208	Anritsu	MT8820A	Radio Communications Test Set	03May12

Applicant:	Sendum Wireless Corp.		FCC ID:	TS5-6055M-PT300	IC:	6234A-PT300	Sendum
DUT Model:	PT300	DUT Type:	Asset Tracking Device (Dual-Band CDMA 1xRTT)			850 / 1900 Bands	
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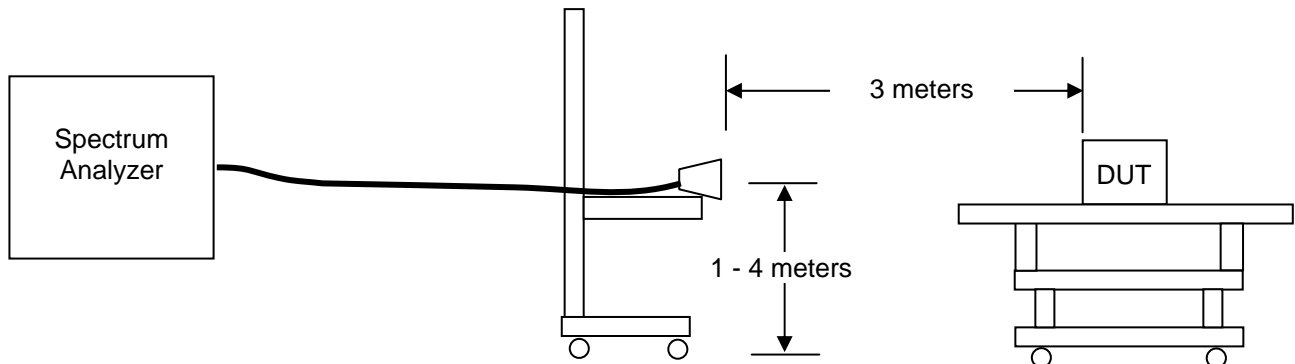
	Test Report Serial No.:	110811TS5-T1132-E24C	Test Report Issue Date:	December 12, 2011
	Measurement Date(s):	November 23-28, 2011	Test Report Revision No.:	Revision 1.0
	Measurement Standard(s):	FCC 47 CFR §2, §22H, §24E	Industry Canada RSS-132 & RSS-133	
	Test Lab Registration(s):	FCC Accredited Site	Industry Canada Lab File #: IC 3874A-1	

D.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
	700 MHz - 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
		MHz	MHz
	Cellular	1	3
	PCS	1	3
			Detector
			Peak
			Peak

D.6 SETUP DRAWING


Figure D.6-1 - Setup Drawing



D.7 DUT OPERATING DESCRIPTION

1. The measurements were made in the cellular and PCS bands with the DUT in the appropriate test mode as described in Section 5.4.


Applicant:	Sendum Wireless Corp.		FCC ID:	TS5-6055M-PT300	IC:	6234A-PT300	Sendum
DUT Model:	PT300	DUT Type:	Asset Tracking Device (Dual-Band CDMA 1xRTT)			850 / 1900 Bands	
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	Measurement Date(s):	November 23-28, 2011	Test Report Revision No.:	Revision 1.0
	Measurement Standard(s):	FCC 47 CFR §2, §22H, §24E	Industry Canada RSS-132 & RSS-133	
	Test Lab Registration(s):	FCC Accredited Site	Industry Canada Lab File #: IC 3874A-1	

D.8 SETUP PHOTOGRAPHS



Applicant:	Sendum Wireless Corp.		FCC ID:	TS5-6055M-PT300	IC:	6234A-PT300	Sendum
DUT Model:	PT300	DUT Type:	Asset Tracking Device (Dual-Band CDMA 1xRTT)			850 / 1900 Bands	
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	Measurement Date(s):	November 23-28, 2011	Test Report Revision No.:	Revision 1.0
	Measurement Standard(s):	FCC 47 CFR §2, §22H, §24E	Industry Canada RSS-132 & RSS-133	
	Test Lab Registration(s):	FCC Accredited Site	Industry Canada Lab File #: IC 3874A-1	

D.9 TEST RESULTS

D.9.1 Carrier Levels

D.9.1.1 Cellular Band Carrier Levels

Frequency (MHz)	Measured Level (uncorr.) (dBuV)	Substitute Level (dBm)	Cable Loss (dB)	Antenna Gain (dBi)	Pol. (V/H)	ERP		Limit (dBm)	Margin (dB)	Pass/Fail
						Watts	dBm			
824.70	97.5	26.3	2.8	3.5	V	0.306	24.85	38.45	13.6	Pass
836.52	98.4	27.6	2.8	3.7	V	0.432	26.35	38.45	12.1	Pass
848.31	98.2	27.8	2.9	4	V	0.473	26.75	38.45	11.7	Pass

D.9.1.2 PCS Band Carrier Levels

Frequency (MHz)	Measured Level (uncorr.) (dBuV)	Substitute Level (dBm)	Cable Loss (dB)	Antenna Gain (dBi)	Pol. (V/H)	EIRP		Limit (dBm)	Margin (dB)	Pass/Fail
						Watts	dBm			
1851.25	91.7	21.3	3.7	8.5	V	0.407	26.1	33	6.9	Pass
1880.00	92.6	22.4	3.7	8.5	V	0.525	27.2	33	5.8	Pass
1908.85	91.2	20.8	3.8	8.5	V	0.355	25.5	33	7.5	Pass

D.10 PASS/FAIL

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

D.11 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.

Nov 28, 2011

Date

Applicant:	Sendum Wireless Corp.		FCC ID:	TS5-6055M-PT300	IC:	6234A-PT300	Sendum
DUT Model:	PT300	DUT Type:	Asset Tracking Device (Dual-Band CDMA 1xRTT)			850 / 1900 Bands	
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	Test Report Serial No.:	110811TS5-T1132-E24C	Test Report Issue Date:	December 12, 2011
	Measurement Date(s):	November 23-28, 2011	Test Report Revision No.:	Revision 1.0
	Measurement Standard(s):	FCC 47 CFR §2, §22H, §24E	Industry Canada RSS-132 & RSS-133	
	Test Lab Registration(s):	FCC Accredited Site	Industry Canada Lab File #: IC 3874A-1	

Appendix E - Radiated Spurious Emissions Measurement

E.1 REFERENCES

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

E.2 LIMITS

E.2.1 FCC CFR 47

FCC CFR 47 §22.917 & §24.238	(a) <i>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.</i>
------------------------------	---


E.3 ENVIRONMENTAL CONDITIONS

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

E.4 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
00208	Anritsu	MT8820A	Radio Communications Test Set	03May12

Applicant:	Sendum Wireless Corp.		FCC ID:	TS5-6055M-PT300	IC:	6234A-PT300	Sendum
DUT Model:	PT300	DUT Type:	Asset Tracking Device (Dual-Band CDMA 1xRTT)			850 / 1900 Bands	
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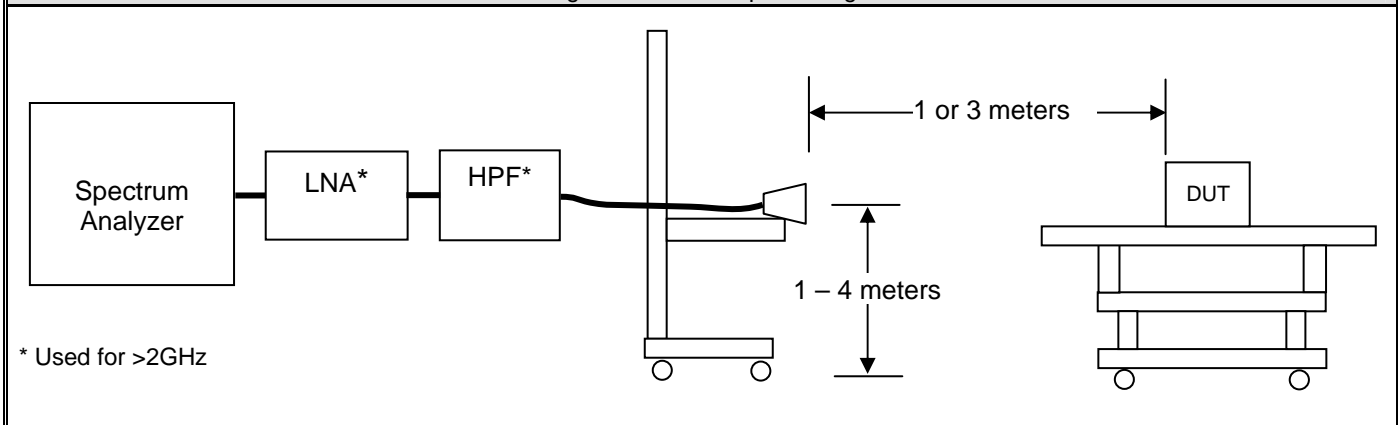
	Test Report Serial No.:	110811TS5-T1132-E24C	Test Report Issue Date:	December 12, 2011
	Measurement Date(s):	November 23-28, 2011	Test Report Revision No.:	Revision 1.0
	Measurement Standard(s):	FCC 47 CFR §2, §22H, §24E	Industry Canada RSS-132 & RSS-133	
	Test Lab Registration(s):	FCC Accredited Site	Industry Canada Lab File #: IC 3874A-1	

E.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 – 700MHz	Bilog	Dipole
	700 MHz - 18 GHz	ETS 3115 Horn	ETS 3115 Horn
MEASUREMENT EQUIPMENT SETTINGS	For the spurious out-of-band emissions, the spectrum analyzer was set to the following settings:		
	Mode	RBW	VBW
		kHz	kHz
	Cellular < 1 GHz	100	300
	Cellular > 1 GHz	1000	3000

E.6 SETUP DRAWING


Figure E.6-1 - Setup Drawing



E.7 DUT OPERATING DESCRIPTION

1. The measurements were made in the cellular and PCS bands with the DUT in the appropriate test mode as described in Section 5.4.

Applicant:	Sendum Wireless Corp.		FCC ID:	TS5-6055M-PT300	IC:	6234A-PT300	Sendum
DUT Model:	PT300	DUT Type:	Asset Tracking Device (Dual-Band CDMA 1xRTT)			850 / 1900 Bands	
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	Test Lab Registration(s):	FCC Accredited Site	Industry Canada Lab File #: IC 3874A-1	

E.8 TEST RESULTS

E.8.1 Spurious Emissions

E.8.1.1 850 Band Spurious Emissions

Low Channel: 824.70 MHz

Measured output power: 24.85 dBm = 0.31 W, Limit: $43+10\log(W)$ = 37.85dBc

Or -13dBm

Frequency (GHz)	Measured Level V (dBuV)	Measured Level H (dBuV)	Substitute Level (dBm)	Antenna Gain (dBi)	Loss	EIRP (dBm)	Limit (dBm)	Margin (dB)	Pass/Fail	Notes
CH 1013										
1.649	NF	33.94	-43.7	8.8	3.85	-38.75	-13	25.75	Pass	*

Mid Channel: 836.52 MHz

Measured output power: 26.35 dBm = 0.43 W, Limit: $43+10\log(W)$ = 39.4dBc

Or -13dBm

Frequency (GHz)	Measured Level V (dBuV)	Measured Level H (dBuV)	Substitute Level (dBm)	Antenna Gain (dBi)	Loss	EIRP (dBm)	Limit (dBm)	Margin (dB)	Pass/Fail	Notes
CH 384										
1.673	NF	35.82	-40.3	8.8	3.85	-35.35	-13	22.35	Pass	*

High Channel: 848.31 MHz

Measured output power: 26.75 dBm = 0.47 W, Limit: $43+10\log(W)$ = 39.8dBc


Or -13dBm

Frequency (GHz)	Measured Level V (dBuV)	Measured Level H (dBuV)	Substitute Level (dBm)	Antenna Gain (dBi)	Loss	EIRP (dBm)	Limit (dBm)	Margin (dB)	Pass/Fail	Notes
CH 777										
1.697	NF	35.36	-41.7	8.8	3.85	-36.75	-13	23.75	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. All other emissions were at the noise floor and substitutions were not made.

NF = Noise Floor

Applicant:	Sendum Wireless Corp.		FCC ID:	TS5-6055M-PT300	IC:	6234A-PT300	Sendum
DUT Model:	PT300	DUT Type:	Asset Tracking Device (Dual-Band CDMA 1xRTT)			850 / 1900 Bands	
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E.8.1.2 1900 Band Spurious Emissions

Low Channel: 1851.25 MHz

Measured output power: 26.1 dBm = 0.41 W, Limit: $43+10\log(W)=39.1\text{dBc}$

Or -13dBm

Frequency (GHz)	Measured Level V (dBuV)	Measured Level H (dBuV)	Substitute Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Pass/Fail	Notes
CH 25										
3.703	NF	31.6	-29.4	9.5	7.2	-27.1	-13	14.1	Pass	
5.553	NF	35.26	-28.3	11.2	8.6	-25.7	-13	12.7	Pass	

Mid Channel: 1880.00 MHz

Measured output power: 27.2 dBm = 0.52 W, Limit: $43+10\log(W)=40.2\text{dBc}$

Or -13dBm

Frequency (GHz)	Measured Level V (dBuV)	Measured Level H (dBuV)	Substitute Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Pass/Fail	Notes
CH 600										
3.76	NF	32.3	-30.1	9.5	7.2	-27.8	-13	14.8	Pass	
5.64	NF	33.4	-29.1	11.2	8.6	-26.5	-13	13.5	Pass	

High Channel: 1908.75 MHz

Measured output power: 25.5 dBm = 0.35 W, Limit: $43+10\log(W)=38.5\text{dBc}$


Or -13dBm

Frequency (GHz)	Measured Level V (dBuV)	Measured Level H (dBuV)	Substitute Level (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Pass/Fail	Notes
CH 1175										
3.818	NF	31.8	-29.5	9.5	7.2	-27.2	-13	14.2	Pass	
5.726	NF	29.6	-32.1	11.2	8.6	-29.5	-13	16.5	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. All other emissions were at the noise floor and substitutions were not made.

NF = Noise Floor

Applicant:	Sendum Wireless Corp.		FCC ID:	TS5-6055M-PT300	IC:	6234A-PT300	Sendum
DUT Model:	PT300	DUT Type:	Asset Tracking Device (Dual-Band CDMA 1xRTT)			850 / 1900 Bands	
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	Test Lab Registration(s):	FCC Accredited Site	Industry Canada Lab File #: IC 3874A-1	

E.9 PASS/FAIL

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

E.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.




Sean Johnston
Lab Manager
Celltech Labs Inc.

Nov 28, 2011

Date

Applicant:	Sendum Wireless Corp.		FCC ID:	TS5-6055M-PT300	IC:	6234A-PT300	Sendum
DUT Model:	PT300	DUT Type:	Asset Tracking Device (Dual-Band CDMA 1xRTT)			850 / 1900 Bands	
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	Measurement Standard(s):	FCC 47 CFR §2, §22H, §24E	Industry Canada RSS-132 & RSS-133	
	Test Lab Registration(s):	FCC Accredited Site	Industry Canada Lab File #: IC 3874A-1	

Appendix F – Frequency Stability

F.1 REFERENCES

Normative Reference Standards	FCC CFR 47 §2.1055, §22.355, FCC CFR 47 §24.235
	IC RSS-132 Section 4.3; RSS-133 Section 6.3
Procedure Reference	ANSI/TIA/EIA-603-C

F.2 LIMITS

F.2.1	FCC §22, 24	The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block. The frequency stability of the transmitter shall be maintained within $\pm 0.00025\%$ (± 2.5 ppm) of the center frequency.
	IC RSS-132	The carrier frequency shall not depart from the reference frequency in excess of ± 2.5 ppm for mobile stations and ± 1.5 ppm for base stations.
	IC RSS-133	The carrier frequency shall not depart from the reference frequency, in excess of ± 2.5 ppm for mobile stations and ± 1.0 ppm for base stations.


F.3 ENVIRONMENTAL CONDITIONS

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

F.4 EQUIPMENT LIST

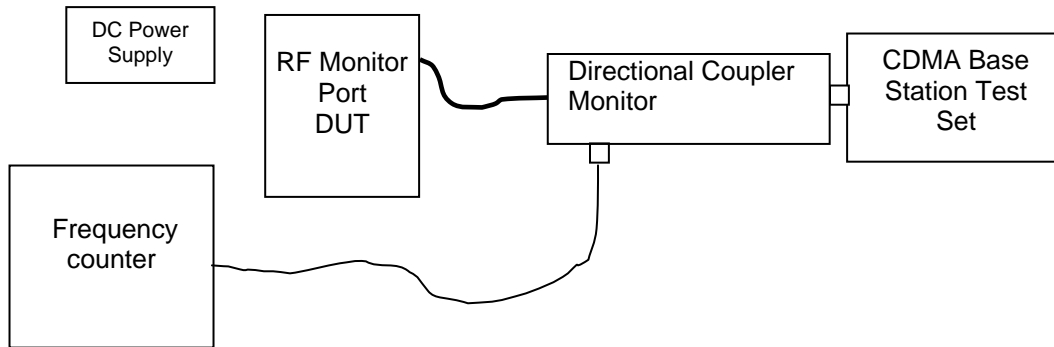
ASSET NUMBER	MANUFACTURER	MODEL	DESCRIPTION	CAL DUE
00208	Anritsu	MT8820A	Radio Communications Test Set	03May12
na	ESPEC	ECT-2	Heater/Refrigerator	na
0003	HP	53181A	Frequency Counter	09-Apr-12
na	HP	E3611A	DC Power Supply	na
00207	VWR	na	Temperature Humidity Monitor	09-Apr-12

Applicant:	Sendum Wireless Corp.		FCC ID:	TS5-6055M-PT300	IC:	6234A-PT300	Sendum
DUT Model:	PT300	DUT Type:	Asset Tracking Device (Dual-Band CDMA 1xRTT)			850 / 1900 Bands	
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F.5 SETUP DRAWING


Figure F.5-1 - Setup Drawing



F.6 DUT OPERATING DESCRIPTION

1. The measurements were made in the cellular and PCS bands with the DUT in the appropriate test mode as described in Section 5.4.

Applicant:	Sendum Wireless Corp.		FCC ID:	TS5-6055M-PT300	IC:	6234A-PT300	Sendum
DUT Model:	PT300	DUT Type:	Asset Tracking Device (Dual-Band CDMA 1xRTT)			850 / 1900 Bands	
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F.7 TEST RESULTS

Cell Band

CH 384

Temperature (degrees C)	Assigned Frequency (MHz)	Measured Frequency (MHz)	Deviation (%)	Frequency tolerance with reference to value @ 20 C (ppm)
-30	836.52000	836.5196590	-0.000041%	-0.637761054
-20	836.52000	836.5198723	-0.000015%	-0.382776176
-10	836.52000	836.5200138	0.000002%	-0.213623056
0	836.52000	836.5199841	-0.000002%	-0.24912728
10	836.52000	836.5201515	0.000018%	-0.049012565
20	836.52000	836.5201925	0.000023%	0
30	836.52000	836.5201586	0.000019%	-0.040525023
40	836.52000	836.5200761	0.000009%	-0.139147866
50	836.52000	836.5201503	0.000018%	-0.050447079

PCS Band


CH 600

Temperature (degrees C)	Assigned Frequency (MHz)	Measured Frequency (MHz)	Deviation (%)	Frequency tolerance with reference to value @ 20 C (ppm)
-30	1880.00000	1879.9992480	-0.000040%	-0.503723352
-20	1880.00000	1879.9997330	-0.000014%	-0.245744655
-10	1880.00000	1879.9996310	-0.000020%	-0.299999969
0	1880.00000	1880.0003990	0.000021%	0.108510627
10	1880.00000	1880.0003600	0.000019%	0.087765948
20	1880.00000	1880.0001950	0.000010%	0
30	1880.00000	1880.0006830	0.000036%	0.259574441
40	1880.00000	1880.0002870	0.000015%	0.048936165
50	1880.00000	1880.0002700	0.000014%	0.039893613

F.8 PASS/FAIL

In reference to the results outlined in F.7 the DUT passes the requirements as stated in the reference standards.

Applicant:	Sendum Wireless Corp.		FCC ID:	TS5-6055M-PT300	IC:	6234A-PT300	Sendum
DUT Model:	PT300	DUT Type:	Asset Tracking Device (Dual-Band CDMA 1xRTT)			850 / 1900 Bands	
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F.9 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.

Nov 25, 2011

Date

Applicant:	Sendum Wireless Corp.		FCC ID:	TS5-6055M-PT300	IC:	6234A-PT300	Sendum
DUT Model:	PT300	DUT Type:	Asset Tracking Device (Dual-Band CDMA 1xRTT)			850 / 1900 Bands	
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END OF DOCUMENT

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