EXHIBIT VI.

Test Report 1

Supplemental Test Report

For New Certification

Of Previously Certified AirCard 555

Under

FCC ID: KBCIX300AC555WLBT

IX300 GoBook Tablet PC

With AirCard 555, WLAN and Bluetooth

Certification Requested Under Parts 22 & 24

Prepared On Behalf Of

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March 15, 2004

Supplemental Test Report

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Note: Please refer to the original Certification data and exhibits uploaded for FCC ID: N7NACRD555, in support of this application.

Exhibit 6 Test - RF Conducted Power Output

FCC ID: KBCIX300AC555WLBT

Grantee: ITRONIX, Corp.

Model: IX300 with AirCard 555, (WAN), WM168b-Molex, (WLAN), & MUBTC2-TH, (Bluetooth)

Authorization Procedure: Part 2.1046
Limit: Part 22.913(a) & Part 24.232(b)
Test Dates: 3/03/04 & 3/04/04

Note: The applicant wishes to refer to the original Sierra Wireless test report for the FCC ID: N7NACRD555 dated June 2002 for all conducted measurement data for this application. This report is included in the exhibits submitted for this application. The conducted power data below was made to confirm maximum power output prior to making the ERP or EIRP measurements.

Method of Measurement

The RF output port of the AirCard 555 was directly coupled to the input of the Agilent spectrum analyzer through a special RF adapter short cable and SMA connector. The instrument was set to measure peak power output and the measured results for low, mid and high channels within the PCS band are reported below.

Conducted Measurement Data

AirCard 555	
Frequency (MHz) Channel #	Peak Power (dBm) cable loss inc.
825.25 (Ch.8)	26.85
836.50 (Ch.383)	27.67
847.75 (Ch.758)	27.07
1850.2 (Ch.512)	25.30
1880.0 (Ch.661)	26.49
1909.8 (Ch.810)	25.12

Exhibit 6 Test: Effective Radiated Power (ERP) Output

Grantee: ITRONIX, Corp.

FCC ID: KBCIX300AC555WLBT

Model: IX300 with AirCard 555, (WAN), WM168b-Molex, (WLAN), & MUBTC2-TH, (Bluetooth)

Effective Radiated Power Output measurements by Substitution Method according to ANSI/TIA-603-B, approved November 7, 2002.

The measurements were made as prescribed in TIA-603-B 2.2.17.2.2, a – f. The EUT was set up at the OATS facility on the non-conductive turntable 3 meters from the receive antenna. The height and turntable rotation was adjusted for the maximum reading on the spectrum analyzer for each antenna polarization. Only the polarization with the highest levels observed is reported below. The EUT was removed and a half wave dipole antenna, adjusted for each frequency, was substituted in it's place with the height of this antenna consistent with the position of the EUT antenna. The RF signal generator with a known output fed a signal to the dipole antenna to obtain and record the path loss in dB as *LOSS*. *LOSS* = Generator Output Power (dBm) – Analyzer reading (dBm).

The ERP was determined by the formula referenced below.

ERP (dBm) = LVL (dBm) + LOSS (dB)

Freq. MHz	ERP (W)	ERP (dBm)	Ref. Level (dBm)	Path ***LOSS***	Ant. Pol. H / V
825.25	0.204	23.10	-11.9	34.19	H
836.50	0.160	22.06	-12.01	34.07	H
847.75	0.174	22.43	-11.58	34.01	H

Part 22.913(a) ERP of mobile and auxiliary test transmitters not to exceed 7 Watts

Measured at 3 meters EUT to receive antenna distance.
Location: Spectrum Technology Inc., Fluke Park II OATS facility
Date: March 3, 2004
EUT tuned to maximum power.
Test made with a fully charged standard battery.

Note: The antenna used is a standard Sierra Wireless AirCard 555 model that is ½ wave in the cellular band and full wave in the PCS band.

Itronix Part Number	Air Card	Mnf PN	Mnf SKU	Frequency Band	Length (+/- 0.25 mm)
47-0215-002	AC 550, AC 555	1200233	6000165	AMPS/PCS	50.5 mm

Exhibit 6 Test - Effective Isotropic Radiated Power (EIRP) Output

Grantee: ITRONIX, Corp.

FCC ID: KBCIX300AC555WLBT

Model: IX300 with AirCard 555, (WAN), WM168b-Molex, (WLAN), & MUBTC2-TH, (Bluetooth)

Effective Isotropic Radiated Power Output measurements by Substitution Method according to ANSI/TIA-603-B, approved November 7, 2002.

The measurements were made as prescribed in TIA-603-B 2.2.17.2.2, a – f. The EUT was set up at the OATS facility on the non-conductive turntable 3 meters from the receive antenna. The height and the turntable rotation was carefully adjusted for the maximum reading on the spectrum analyzer for each antenna polarization. The adjustable swivel antenna on the EUT was also investigated in vertical and horizontal polarization. With the highest levels observed is reported. The EUT was removed and a horn antenna was substituted in it's place with the height of this antenna consistent with the position of the EUT antenna. The RF signal generator with a known output fed a signal to the horn antenna to obtain and record the path loss in dB as *LOSS*. *LOSS* = Generator Output Power (dBm) – Analyzer reading (dBm).

The difference between the gain of the horn antenna and an isotropic antenna is taken into account and the EIRP is recorded.

Freq. MHz	EIRP (W)	EIRP (dBm)	Ref. Level (dBm)	Path LOSS	Ant. Pol. H / V	Limit EIRP (dBm)
1850.20	.414	26.18	-2.99	29.17	V	33
1800.00	.340	25.32	-4.08	29.40	V	33
1909.80	.302	24.81	-4.31	29.12	V	33

Part 24.232 (b) EIRP of mobile and portable stations limited to 2 Watts EIRP.

Measured at 3 meters EUT to receive antenna distance.
Location: Spectrum Technology Inc., Fluke Park II OATS facility
Date: March 4, 2004
EUT tuned to maximum power continuous transmit via the Sierra test script running under Procomm.
Test made with a fully charged standard battery with the IX300 in a desk stand & charging cradle.

Exhibit 6 Test - Field Strength of Spurious Radiated Emissions

FCC ID:	KBCIX300AC555WLBT
Grantee:	ITRONIX, Corp.
Model:	IX300 with AirCard 750, (WAN), WM168b- Molex, (WLAN), & MUBTC2-TH, (Bluetooth)
Minimum Standard Specified:	Part 22.917 (e) = 43+10log (PO) dB
Test Results:	Equipment complies with standard
Authorization Procedure:	Part 2.1053
Test Equipment Set Up:	See photos and block diagram in Exhibit 7
Frequency Range Observed:	.30 to 9.000 GHz
Test Frequencies:	825.25, 836.50 and 847.75 MHz
Power Output:	0. 204 Watts ERP
Spurious Limit = 43 + 10Log (PO) =	36.1 dB below the carrier
Test date: 3/03/04	Location: OATS Fluke Park II Everett, WA

Discussion

The field strength of the radiated spurious emissions and harmonics was measured at 3 meters EUT to antenna distance using 1 MHz RBW and VBW. The transmitter output of the AirCard 555 was terminated into a 50 ohm coaxial termination. A high pass filter was used prior to the input to the preamp during testing to reduce the fundamental signal of the WLAN and BT and avoid overloading the front end of the analyzer. All of the measured spurious levels reported on the following page are more than 40 dB below the spurious limit. Emissions attenuated by 20 dB or more below the limit need not be reported according to Part 2.1051.

The highest level emissions observed were then re-measured with the signal substitution method and the level reported on page 8.

The change observed in the measurable emissions levels with or without the two Part 15 Intentional Radiators was negligible so the reported results are “worst case” with all three co-located transmitters transmitting simultaneously. The Part 15 Intentional Radiators were both set to operate on the same frequencies as follows: Low, 2412 MHz, Mid, 2436 MHz, High, 2463 MHz. This corresponding to the Low, 825.25 MHz, Mid 836.50 MHz and High 847.75 MHz channels the AirCard 555 was set for during this test.

Exhibit 6 Test: Field Strength of Spurious Radiated Emissions

FCC ID: KBCIX300AC555WLBT
Applicant: ITRONIX Corp.
Model: IX300 with AirCard 555, WLAN, & Bluetooth
Frequency Range Observed: .30 to 9 GHz Date: 03/03/04

NOTE: Simultaneous co-location transmit with Part 22 Cellular and two Part 15 devices. The Part 15 WLAN and the Bluetooth transmitters were centered on the same RF channels for worst case.

RADIATED HARMONIC AND SPURIOUS EMISSIONS & RESTRICTED BANDS									
Frequency GHz	**Max. SA Rdg. dBu/V**	**Ant. Vert. or Horz.**	**Peak or Average Detector**	**Antenna Factor dB**	**Cable & filter loss dB**	**Amp Gain**	**Corrected Reading dBuV/m**	**Corrected Reading dBm**	**Margin dB below -13 dBm LIMIT**
Fo-825.25									
1650.50	37.79	V	Peak	25.70	1.75	26.7	38.54	-68.46	55.46
1650.50	34.29	H	Peak	25.70	1.75	26.7	35.04	-71.96	58.96
2475.75	<31.01	V	Peak	28.37	2.08	22.3	39.16	-67.84	54.84
2475.75	<30.27	H	Peak	28.37	2.08	22.3	38.42	-68.58	55.58
3301.00	32.60	V	Peak	30.45	2.37	21.7	43.72	-63.28	50.28
3301.00	<28.28	H	Peak	30.45	2.37	21.7	39.40	-67.60	54.60
Fo-836.5									
1673.00	36.22	V	Peak	25.70	1.75	26.7	36.97	-70.03	57.03
1673.00	33.78	H	Peak	25.70	1.75	26.7	34.53	-72.47	59.47
2509.50	<32.17	V	Peak	28.37	2.08	22.3	40.32	-66.68	53.68
2509.50	<31.92	H	Peak	28.37	2.08	22.3	40.07	-66.93	53.93
3346.00	35.07	V	Peak	30.45	2.37	21.7	46.75	-60.25	47.25
3346.00	34.73	H	Peak	30.45	2.37	21.7	46.41	-60.59	47.59
Fo-847.75									
1695.50	36.11	V	Peak	25.70	1.75	26.7	36.86	-70.14	57.14
1695.50	34.61	H	Peak	25.70	1.75	26.7	35.56	-71.44	58.44
2543.25	<31.81	V	Peak	28.37	2.08	22.3	39.96	-67.04	54.04
2543.25	<32.47	H	Peak	28.37	2.08	22.3	40.62	-66.38	53.38
3391.00	36.79	V	Peak	30.45	2.37	21.7	48.47	-58.53	45.53
3391.00	34.41	H	Peak	30.45	2.37	21.7	46.09	-60.91	47.91

Harmonic emissions on all three channels (low, mid & high) 5Fo – 10Fo at or below noise floor			
Channel	**Frequency in GHz**	**Harmonics Observed**	**Limit 43 + 10 Log(PO)**
Low Ch.	825.25		
5Fo – 10Fo	4.126 – 8.2525	None -at or < noise floor @3m	All emissions < 54 dBuV/m
Mid Ch.	836.5		
5Fo – 10Fo	4.182 – 8.3650	None -at or < noise floor @3m	All emissions < 54 dBuV/m
High Ch.	847.75		
5F o- 10Fo	4.238 – 8.4775	None -at or < noise floor @3m	All emissions < 54 dBuV/m

NOTE: With external antenna removed from the IX300 and the transmitter output terminated to a non-radiating load per TIA-603B 2.2.12.2(c) only the above harmonics were measurable. The highest level radiated spurious emissions observed above, 4FO, (hi-lighted in Red), were re-tested using signal substitution and are reported on the next page.

< *Denotes measured level at or below analyzer noise floor*

Exhibit 6 Test: Spurious Emissions Attenuation Measured by Signal Substitution Method

Trans. Freq. & Spurious Freq.	Spectrum Analyzer Ref. Rdg. Of EUT Tx level	Horn Gain	Ant. Polar-ization	Corrected Signal Generator Output inc. cable loss	EIRP	ERP	Limit EIRP
MHz	(dBuV)	(dBi)	(H / V)	(dBm)	(dBm)	(dBm)	(dBm)
825.25							
3301.0	32.60	10.02	V	-63.77	-53.75	-55.90	-13
836.50							
3346.0	35.07	10.02	V	-61.61	-51.59	-53.74	-13
847.75							
3391.0	36.79	10.02	V	-59.95	-49.93	-52.08	-13

The highest level spurious emissions observed from the low, mid, and high channels field strength reading were re-measured to determine the Effective Isotropic Radiated Power Output. The measurements were made by the Signal Substitution Method described in TIA-603-B, approved November 7, 2002.

The measurements were made as prescribed in TIA-603-B 2.2.12, Unwanted Emissions: Radiated Spurious. The EUT was set up at the OATS facility on the non-conductive turntable 3 meters from the receive antenna. The antenna height and the turntable rotation were adjusted for the maximum reading on the spectrum analyzer for each antenna polarization. Only the three highest levels observed are reported above. All emissions observed are more than 40 dB below the limit and are not required to be reported according to Part 2.1051.

During the preliminary field strength measurements the highest level spurious emissions were identified. The EUT was removed and a horn antenna was substituted in it's place, with the height of this antenna consistent with the position of the EUT antenna. The output of the RF signal generator tuned to a particular spurious frequency was carefully adjusted along with adjustment of the test antenna to duplicate the reading originally observed on the Spectrum Analyzer during the filed strength measurements. The Signal Generator reading was corrected for the cable loss and the gain of the substitute horn antenna used, relative to an ideal half wave dipole, to obtain the power in dBm.

$$P_d\ (\text{dBm}) = P_g\ (\text{dBm}) - \text{cable loss (dB)} + \text{antenna gain (dB)}$$

P_d is the dipole equivalent power and P_g is the generator output power into the substitute antenna.

Measured at 3 meters EUT to receive antenna distance.
Location: Spectrum Technology Inc., Fluke Park II OATS facility
Test Date: March 3, 2004
EUT tuned to maximum power continuous transmit mode via the Sierra test script running under Procomm.
Test made with a fully charged standard battery with the IX300 in a desk stand & charging cradle.

Exhibit 6 Test - Field Strength of Spurious Radiated Emissions

FCC ID:	KBCIX300AC555WLBT
Grantee:	ITRONIX, Corp.
Model:	IX300 with AirCard 750, (WAN), WM168b- Molex, (WLAN), & MUBTC2-TH, (Bluetooth)
Minimum Standard Specified:	Part 24.238 (a) = 43+10log (PO) dB
Test Results:	Equipment complies with standard
Authorization Procedure:	Part 2.1053
Test Equipment Set Up:	See photos and block diagram in Exhibit 7
Frequency Range Observed:	.30 to 19.098 GHz
Test Frequencies:	1850.2, 1880, & 1909.8 MHz
Power Output:	0. 414 Watts EIRP
Spurious Limit = 43 + 10Log_{10} PO =	39.17 dB below the carrier
Test date: 3/04/04	Location: OATS Fluke Park II Everett, WA

Discussion

The field strength of the radiated spurious emissions and harmonics was measured at 3 meters EUT to antenna distance using 1 MHz RBW and VBW. The transmitter output of the AirCard 555 was terminated into a 50 ohm coaxial termination. A high pass filter was used prior to the input to the preamp during testing to reduce the fundamental signal of the WLAN and BT and avoid overloading the front end of the analyzer. All of the measured spurious levels appear to be 40 dB or more below the spurious limit. Spurious emissions attenuated by 20 dB or more below the limit need not be reported according to Part 2.1051. In this case the highest level emissions observed were not re-measured with the signal substitution method as the reported levels are the noise floor not a measurable spurious level from the transmitter.

The change observed in the measurable emissions levels with or without the two Part 15 Intentional Radiators was negligible so the reported results are “worst case” with all three co-located transmitters transmitting simultaneously. The Part 15 Intentional Radiators were both set to operate on the same frequencies as follows: Low, 2412 MHz, Mid, 2436 MHz, High, 2463 MHz corresponding to the Low, 1850.2 MHz, Mid 1880.0 MHz and High 1909.8 MHz channels the AirCard 555 was set for during this test.

Exhibit 6 Test: Field Strength of Spurious Radiated Emissions

FCC ID: KBCIX300AC555WLBT
Applicant: ITRONIX Corp.
Model: IX300 with AirCard 555, WLAN, & Bluetooth
Frequency Range Observed: 0 to 25 GHz Date: 03/04/04

NOTE: Simultaneous co-location transmit with Part 24 PCS and two Part 15 devices. The Part 15 WLAN and the Bluetooth transmitters were centered on the same RF channels for worst case.

RADIATED HARMONIC AND SPURIOUS EMISSIONS & RESTRICTED BANDS									
Frequency GHz	**Max. SA Rdg. dBu/V**	**Ant. Vert. or Horz.**	**Peak or Average Detector**	**Antenna Factor dB**	**Cable & filter loss dB**	**Amp Gain**	**Corrected Reading dBuV/m**	**Corrected Reading dBm**	**Margin in dB below -13 dBm LIMIT**
Fo-1850.2									
3700.4	<32.39	V	Peak	31.58	2.37	23.2	43.14	-63.86	50.86
3700.4	<30.64	H	Peak	31.58	2.37	23.2	41.39	-65.61	52.61
5551.6	<33.12	V	Peak	34.24	2.85	25.9	44.31	-62.69	49.69
5551.6	<30.39	H	Peak	34.24	2.85	25.9	41.58	-65.42	52.42
7400.8	<34.23	V	Peak	36.77	3.28	24.5	49.78	-57.22	44.22
7400.8	<32.58	H	Peak	36.77	3.28	24.5	48.13	-58.87	45.87
Fo-1880.0									
3760.0	<31.00	V	Peak	31.58	2.37	23.2	41.75	-65.25	52.25
3760.0	<31.81	H	Peak	31.58	2.37	23.2	42.56	-62.44	51.44
5640.0	<33.12	V	Peak	34.24	2.85	25.9	44.31	-62.69	49.69
5640.0	<32.85	H	Peak	34.24	2.85	25.9	44.04	-62.96	49.96
7520.0	<34.16	V	Peak	36.77	3.28	24.7	49.51	-57.49	44.49
7520.0	<34.39	H	Peak	36.77	3.28	24.7	43.18	-63.82	50.82
Fo-1909.8									
3819.6	<30.55	V	Peak	31.84	2.37	23.2	41.56	-65.44	52.44
3819.6	<30.64	H	Peak	31.84	2.37	23.2	41.65	-65.35	52.35
5729.4	<31.57	V	Peak	34.36.	2.85	25.9	42.88	-64.12	51.12
5729.4	<32.09	H	Peak	34.36	2.85	25.9	43.40	-63.60	50.60
7639.2	<33.93	V	Peak	36.87	3.28	24.7	49.38	-57.62	44.62
7639.2	<34.14	H	Peak	36.87	3.28	24.7	49.59	-57.41	44.41

Harmonic emissions on all three channels (low, mid & high) 5Fo – 10Fo at or below noise floor			
Channel	**Frequency in GHz**	**Harmonics Observed**	**Limit 43 + 10 Log(P)**
Low Ch.	1850.2		
5Fo – 10Fo	9.251 – 18.502	None -at or < noise floor @3m	All emissions < 54 dBuV/m
Mid Ch.	1880.0		
5Fo – 10Fo	9.400 – 18.800	None -at or < noise floor @3m	All emissions < 54 dBuV/m
High Ch.	1909.8		
5F o- 10Fo	9.549 – 19.098	None -at or < noise floor @3m	All emissions < 54 dBuV/m

* During preliminary measurements with the external antenna on the IX300 only the above harmonics were visible. However, when the transmitter output was terminated to a non-radiating load per TIA-603B 2.2.12.2(c) only the noise floor reported above was measurable. No radiated spurious emissions were re-tested using signal substitution as NONE were measurable above the noise floor.