

 Testing and Engineering Services Lab	Test Report Serial No.:	061405KBC-T648-E15W	Report Issue No.:	Issue 1.0
	Test Date(s):	15Jun05 - 04Aug05	Report Issue Date:	20Sept05
	Test Rule Part(s):	FCC 47 CFR §15.247	Industry Canada RSS-210 Issue 5	
	Lab Registration(s):	FCC Lab Reg. # 714830	Industry Canada Lab File # IC 3874	

Appendix F - Restricted Band Radiated Emissions Measurement

F.1. REFERENCES

Normative Reference Standard	FCC CFR 47 §15.205 (a) (b), FCC CFR 47 §15.209 (a)
Procedure Reference	FCC 97-114

F.2. LIMITS

FCC CFR 47 §15.205	(a) Except as shown in paragraph (d) of this section, only spurious emissions are permitted in any of the frequency bands listed below:																																																																											
	<table><tr><th>MHz</th><th>MHz</th><th>MHz</th><th>GHz</th></tr><tr><td>0.090–0.110</td><td>16.42–16.423</td><td>399.9–410</td><td>4.5–5.15</td></tr><tr><td>1.0495–0.505</td><td>16.69475–16.69525</td><td>608–614</td><td>5.35–5.46</td></tr><tr><td>2.1735–2.1905</td><td>16.80425–16.80475</td><td>960–1240</td><td>7.25–7.75</td></tr><tr><td>4.125–4.128</td><td>25.5–25.67</td><td>1300–1427</td><td>8.025–8.5</td></tr><tr><td>4.17725–4.17775</td><td>37.5–38.25</td><td>1435–1626.5</td><td>9.0–9.2</td></tr><tr><td>4.20725–4.20775</td><td>73–74.6</td><td>1645.5–1646.5</td><td>9.3–9.5</td></tr><tr><td>6.215–6.218</td><td>74.8–75.2</td><td>1660–1710</td><td>10.6–12.7</td></tr><tr><td>6.26775–6.26825</td><td>108–121.94</td><td>1718.8–1722.2</td><td>13.25–13.4</td></tr><tr><td>6.31175–6.31225</td><td>123–138</td><td>2200–2300</td><td>14.47–14.5</td></tr><tr><td>8.291–8.294</td><td>149.9–150.05</td><td>2310–2390</td><td>15.35–16.2</td></tr><tr><td>8.362–8.366</td><td>156.52475–156.52525</td><td>2483.5–2500</td><td>17.7–21.4</td></tr><tr><td>8.37625–8.38675</td><td>156.7–156.9</td><td>2655–2900</td><td>22.01–23.12</td></tr><tr><td>8.41425–8.41475</td><td>162.0125–167.17</td><td>3260–3267</td><td>23.6–24.0</td></tr><tr><td>12.29–12.293</td><td>167.72–173.2</td><td>3332–3339</td><td>31.2–31.8</td></tr><tr><td>12.51975–12.52025</td><td>240–285</td><td>3345.8–3358</td><td>36.43–36.5</td></tr><tr><td>12.57675–12.57725</td><td>322–335.4</td><td>3600–4400</td><td>(²)</td></tr><tr><td>13.36–13.41</td><td></td><td></td><td></td></tr></table>	MHz	MHz	MHz	GHz	0.090–0.110	16.42–16.423	399.9–410	4.5–5.15	1.0495–0.505	16.69475–16.69525	608–614	5.35–5.46	2.1735–2.1905	16.80425–16.80475	960–1240	7.25–7.75	4.125–4.128	25.5–25.67	1300–1427	8.025–8.5	4.17725–4.17775	37.5–38.25	1435–1626.5	9.0–9.2	4.20725–4.20775	73–74.6	1645.5–1646.5	9.3–9.5	6.215–6.218	74.8–75.2	1660–1710	10.6–12.7	6.26775–6.26825	108–121.94	1718.8–1722.2	13.25–13.4	6.31175–6.31225	123–138	2200–2300	14.47–14.5	8.291–8.294	149.9–150.05	2310–2390	15.35–16.2	8.362–8.366	156.52475–156.52525	2483.5–2500	17.7–21.4	8.37625–8.38675	156.7–156.9	2655–2900	22.01–23.12	8.41425–8.41475	162.0125–167.17	3260–3267	23.6–24.0	12.29–12.293	167.72–173.2	3332–3339	31.2–31.8	12.51975–12.52025	240–285	3345.8–3358	36.43–36.5	12.57675–12.57725	322–335.4	3600–4400	(²)	13.36–13.41						
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	¹ Until February 1, 1999, this restricted band shall be 0.490–0.510 MHz. ² Above 38.6																																																																											
	(b) Except as provided in paragraphs (d) and (e), the field strength of emissions appearing within these frequency bands shall not exceed the limits shown in 15.209. At frequencies equal to or less than 1000 MHz, compliance with the limits in Section 15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000 MHz, compliance with the emission limits in Section 15.209 shall be demonstrated based on the average value of the measured emissions. The provisions of 15.35 apply to these measurements.																																																																											
FCC CFR 47 §15.209	(a) Except as provided elsewhere in this Subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:																																																																											
	<table><tr><th>Frequency</th><th colspan="2">Field Strength</th><th>Measurement Distance</th></tr><tr><th>MHz</th><th>uV/m</th><th>dBuV/m</th><th>Meters</th></tr><tr><td>.009 – 0.490</td><td>2400/F(kHz)</td><td>48.52 – 13.80</td><td>300</td></tr><tr><td>0.490 – 1.705</td><td>24000/F(kHz)</td><td>33.80 – 22.97</td><td>30</td></tr><tr><td>1.705 – 30.0</td><td>30</td><td>29.54</td><td>30</td></tr><tr><td>30 – 88</td><td>100</td><td>40.00</td><td>3</td></tr><tr><td>88 – 216</td><td>150</td><td>43.52</td><td>3</td></tr><tr><td>216 - 960</td><td>200</td><td>46.02</td><td>3</td></tr><tr><td>Above 960</td><td>500</td><td>53.98</td><td>3</td></tr></table>	Frequency	Field Strength		Measurement Distance	MHz	uV/m	dBuV/m	Meters	.009 – 0.490	2400/F(kHz)	48.52 – 13.80	300	0.490 – 1.705	24000/F(kHz)	33.80 – 22.97	30	1.705 – 30.0	30	29.54	30	30 – 88	100	40.00	3	88 – 216	150	43.52	3	216 - 960	200	46.02	3	Above 960	500	53.98	3																																							
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	(b) In the emission table above, the tighter limit applies at the band edges.																																																																											

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F.3. ENVIRONMENTAL CONDITIONS

Temperature	27 +/- 2 °C
Humidity	33 +/- 2 %
Barometric Pressure	96 +/- 0.2 kPa

F.4. EQUIPMENT LIST

RECEIVING EQUIPMENT						
ID	ASSET NUMBER	MANUFACTURER	MODEL	DESCRIPTION	LAST CAL	CAL DUE
1	00072	EMCO	2075	Mini-mast	na	na
2	00073	EMCO	2080	Turn Table	na	na
3	00071	EMCO	2090	Multi-Device Controller	na	na
4	00085	EMCO	6502	Loop Antenna	10Aug04	10Aug05
5	00050	Chase	CBL-6111A	Bilog Antenna	08Feb05	08Feb06
6	00035	ETS	3115	Double Ridged Guide Horn	24Mar04	24Mar06
7	00161/00166	Waveline	899/801-KF	Standard Gain Horn	na	na
8	00051	HP	8566B	Spectrum Analyzer RF Section	12Apr05	12Apr06
9	00049	HP	85650A	Quasi-Peak Adapter	13Apr05	13Apr06
10	00047	HP	85685A	RF Preselector	13Apr05	13Apr06
11	00015	Agilent	4408B	Spectrum Analyzer	24Jan05	24Jan06
12	00115	Miteq	J54-00102600-35-5A	LNA	08Jun04	08Jun06
13	00093	Microtronics	HPM50111	High Pass Filter	8Jun04	8Dec05
14	00119	INMAT	18AH-10	10dB attenuator	8Jun04	8Dec05
15	00120	Celltech	n/a	Microwave Cable (RX)	25Mar05	25Mar06
16	00121	Andrew	FSJ4-50B	Microwave Cable (RX)	25Mar05	25Mar06
17	00130	Andrew	FSJ1-50A	Microwave Cable (RX)	25Mar05	25Mar06

Applicant:	Itronix Corporation	Model:	IX260PLUSNL305	FCC ID:	KBCIX260PLUSNL305	
Rugged Laptop PC with internal Senao NL-3054MP 802.11b/g WLAN Mini-PCI Card and External Antennas						
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F.5. MEASUREMENT EQUIPMENT SETUP

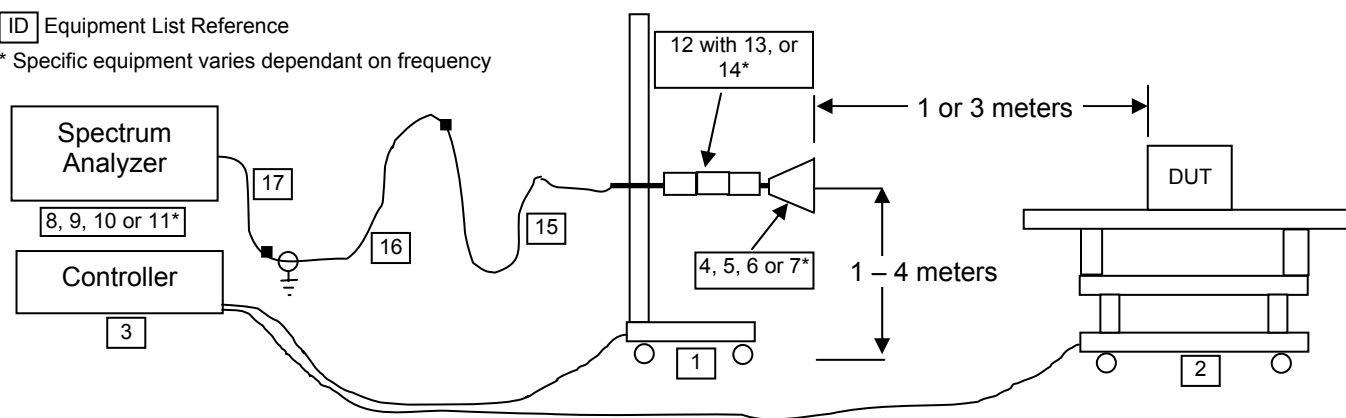
MEASUREMENT EQUIPMENT CONNECTIONS	The measurement equipment was connected as shown in the F.6. A number of antennas were used to cover the applicable frequency range test. The ranges in which each antenna was used are as follows:			
	Frequency Range	Spectrum Analyzer Asset #	LNA/Filter/Attenuator Asset #	Antenna Asset #
	10kHz - 30 MHz	00051/00049/00047	none	00085
	30 MHz - 1 GHz	00051/00049/00047	none	00050
	1 GHz - 2 GHz	00051/00047	00119/00115	00035
	1 GHz - 18 GHz	00051	00093/00115	00035
	18 GHz - 22 GHz	00051	00093/00115	00161/00166
	22 GHz - 26 GHz	00015	00093/00115	00161/00166
MEASUREMENT EQUIPMENT SETTINGS	The spectrum analyzer was set to the following settings:			
	Frequency Range	RBW	VBW	Detector
	MHz	kHz	kHz	
	0.009 – 0.150	0.200	10	Peak*
	0.150 – 30	9	30	Peak*
	30 – 1000	100	300	Peak*
	> 1000	1000*	1000	Peak*
	*As a worst-case measurement, the average/QP limit was applied to measurements made with a peak detector, unless otherwise noted.			

F.6. SETUP DRAWING

Figure F.6-1 - Setup Drawing

ID Equipment List Reference

* Specific equipment varies dependant on frequency



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F.7. SETUP PHOTOGRAPHS

F.7.1. DUT with Swivel Dipole Antenna Configuration

Photograph F-1 - Loop Antenna



Photograph F-2 - Bilog Antenna



Photograph F-3 - 3115 Horn @ 3m



Photograph F-4 - 3115 Horn with LNA @ 3m



Photograph F-5 - 3115 Horn with LNA @ 1m



Photograph F-6 - Standard Gain Horn @ 1m



Applicant: Itronix Corporation Model: IX260PLUSNL305 FCC ID: KBCIX260PLUSNL305

Rugged Laptop PC with internal Senao NL-3054MP 802.11b/g WLAN Mini-PCI Card and External Antennas



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F.7.2. DUT with Vehicle-Mount Antenna Configuration

Photograph F-7 - Loop Antenna



Photograph F-8 - Bilog Antenna



Photograph F-9 - 3115 Horn @ 3m



Photograph F-10 - 3115 Horn with LNA @ 3m



Photograph F-11 - 3115 Horn with LNA @ 1m



Photograph F-12 - Standard Gain Horn @ 1m



F.8. DUT OPERATING DESCRIPTION

The worst-case data rate was determined from prescan investigations. Measurements were made at three channels throughout the band, Low Channel (2412 MHz), Mid Channel (2437 MHz), High Channel (2462 MHz) and for both Modes b and g for the band-edge measurements and for Mode b for the remaining measurements.

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F.9. TEST RESULTS

F.9.1. Mode b - Swivel dipole antenna - Fundamental Field Strengths @ Specified Distance (1 MHz RBW)

Channel	Polarity	Measurement Distance	Antenna	Frequency	SA Level	Noise Floor	AF	CL	Other	Total CF	Field Strength	Detector	RBW
		m						MHz	dBuV		dB/m		dB
WLAN-CH1	H	3	Horn SN6276	2412.00	94.00		30.26	5.10	-23.13	12.23	106.23	PK	1000
WLAN-CH1	H	3	Horn SN6276	2412.00	90.60		30.26	5.10	-23.13	12.23	102.83	AV	1000
WLAN-CH1	V	3	Horn SN6276	2412.00	86.90		30.26	5.10	-23.13	12.23	99.13	PK	1000
WLAN-CH1	V	3	Horn SN6276	2412.00	83.70		30.26	5.10	-23.13	12.23	95.93	AV	1000
WLAN-CH6	H	3	Horn SN6276	2437.00	94.00		30.30	5.14	-23.12	12.31	106.31	PK	1000
WLAN-CH6	H	3	Horn SN6276	2437.00	90.60		30.30	5.14	-23.12	12.31	102.91	AV	1000
WLAN-CH6	V	3	Horn SN6276	2437.00	87.00		30.30	5.14	-23.12	12.31	99.31	PK	1000
WLAN-CH6	V	3	Horn SN6276	2437.00	84.00		30.30	5.14	-23.12	12.31	96.31	AV	1000
WLAN-CH11	H	3	Horn SN6276	2462.00	94.60		30.34	5.16	-23.12	12.38	106.98	PK	1000
WLAN-CH11	H	3	Horn SN6276	2462.00	91.40		30.34	5.16	-23.12	12.38	103.78	AV	1000
WLAN-CH11	V	3	Horn SN6276	2462.00	87.80		30.34	5.16	-23.12	12.38	100.18	PK	1000
WLAN-CH11	V	3	Horn SN6276	2462.00	84.70		30.34	5.16	-23.12	12.38	97.08	AV	1000

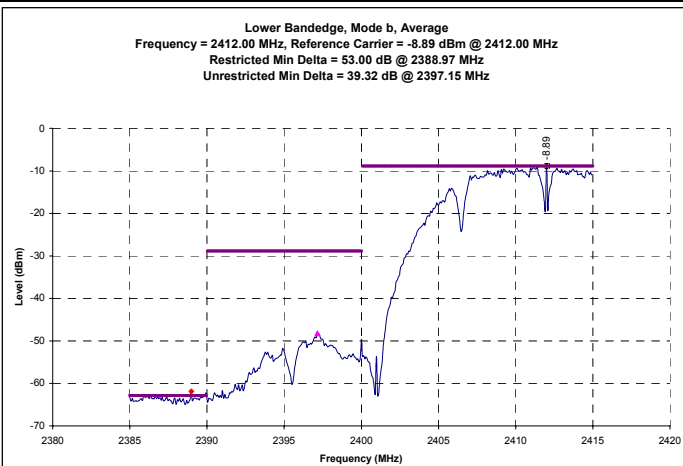
Formulae:

Total CF = Antenna Factor + Cable Factor + Other Factor (Amplifier Gain, filter loss, etc)

$$\text{Field Strength} = \text{SA Reading} + \text{Total CF}$$

Note: (Lower Band-edge (unrestricted Band) is in Appendix E)

Channel 1 - Average Conducted Band-edge Plots

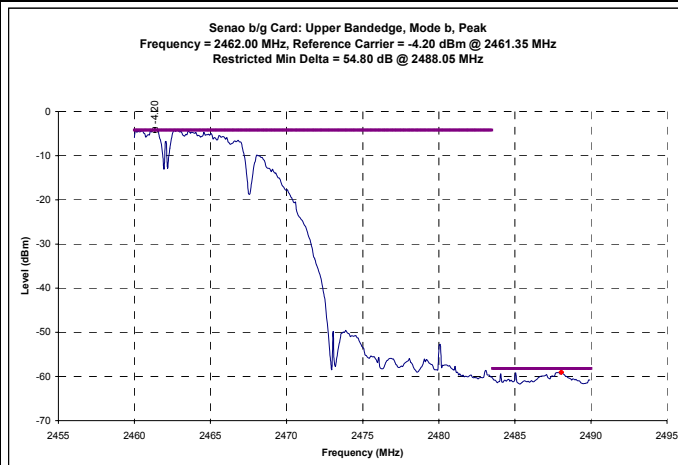


Channel	Polarity	Distance	Frequency	Carrier Radiated Field Strength	Delta Marker	Detector	Calculated Bandedge Field Strength	Duty Cycle Correction	Corrected Bandedge Field Strength	Specified Limit	Specified Limit Distance	Limit Distance Correction	Calculated Limit	Margin	Pass/Fail
		m	MHz	dBuV/m	dB		dBuV/m	dB	dBuV/m	dBuV/m	m	dB	dBuV/m	dB	
	WLAN-CH1	H	3	2389.05	106.23	53.08	PK	53.15	0.00	53.15	73.98	3.00	0.00	73.98	20.83
WLAN-CH1	H	3	2388.97	102.83	53.00	AV	49.83	0.00	49.83	53.98	3.00	0.00	53.98	4.15	PASS
WLAN-CH1	V	3	2389.05	99.13	53.08	PK	46.05	0.00	46.05	73.98	3.00	0.00	73.98	27.93	PASS
WLAN-CH1	V	3	2388.97	95.93	53.00	AV	42.93	0.00	42.93	53.98	3.00	0.00	53.98	11.05	PASS

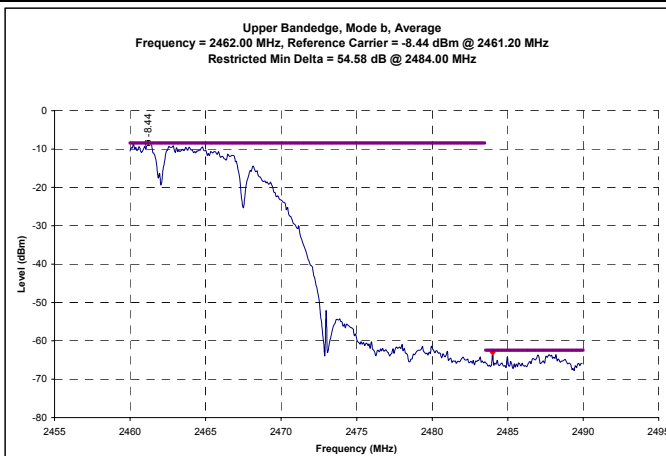
Calculated Bandedge Field Strength (dBuV/m) = Carrier Radiated Field Strength (dBuV/m) - Delta Marker (dB)
Duty Cycle Correction (dB) = $20 * \log(\text{time on} / \text{total time})$
Corrected Bandedge Field Strength (dBuV/m) = Calculated Bandedge Field Strength (dBuV/m) + Duty Cycle Correction (dB)
Limit Distance Correction = $20 * \log(\text{measurement distance} / \text{limit distance})$
Calculated Limit (dBuV/m) = Specified Limit (dBuV/m) + Limit Distance Correction (dB)
Margin (dB) = Calculated Limit (dBuV/m) – Corrected Bandedge Field Strength (dBuV/m)

**Note: Measurements and calculation reference the Marker-Delta Method described in FCC Public Notice DA 00-705
Limit based on highest radiated carrier**

Channel 11 - Peak Conducted Band-edge Plots



Channel 11 - Average Conducted Band-edge Plots



Channel 11 - Calculated Band-edge (within restricted bands) Field Strengths

Channel	Polarity	Distance	Frequency	Carrier Radiated Field Strength	Delta Marker	Detector	Calculated Bandedge Field Strength	Duty Cycle Correction	Corrected Bandedge Field Strength	Specified Limit	Specified Limit Distance	Limit Distance Correction	Calculated Limit	Margin	Pass/Fail
		m													
		m													
WLAN-CH11	H	3	2488.05	106.98	54.80	PK	52.18	0.00	52.18	73.98	3.00	0.00	73.98	21.80	PASS
WLAN-CH11	H	3	2484.00	103.78	54.58	AV	49.20	0.00	49.20	53.98	3.00	0.00	53.98	4.78	PASS
WLAN-CH11	V	3	2488.05	100.18	54.80	PK	45.38	0.00	45.38	73.98	3.00	0.00	73.98	28.60	PASS
WLAN-CH11	V	3	2484.00	97.08	54.58	AV	42.50	0.00	42.50	53.98	3.00	0.00	53.98	11.48	PASS

Formulae:

$$\text{Calculated Bandedge Field Strength (dBuV/m)} = \text{Carrier Radiated Field Strength (dBuV/m)} - \text{Delta Marker (dB)}$$
$$\text{Duty Cycle Correction (dB)} = 20 * \log (\text{time on} / \text{total time})$$
$$\text{Corrected Bandedge Field Strength (dBuV/m)} = \text{Calculated Bandedge Field Strength (dBuV/m)} + \text{Duty Cycle Correction (dB)}$$
$$\text{Limit Distance Correction} = 20 * \log (\text{measurement distance} / \text{limit distance})$$
$$\text{Calculated Limit (dBuV/m)} = \text{Specified Limit (dBuV/m)} + \text{Limit Distance Correction (dB)}$$
$$\text{Margin (dB)} = \text{Calculated Limit (dBuV/m)} - \text{Corrected Bandedge Field Strength (dBuV/m)}$$

Note: Measurements and calculation reference the Marker-Delta Method described in FCC Public Notice DA 00-705

Limit based on highest radiated carrier

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F.9.4. Mode b - Swivel dipole antenna - Channel 1 Out-of-Band Spurious Emission Field Strengths @ Specified Distance (within restricted bands)

Channel	Polarity	Distance	Rx Antenna	Frequency	SA Level	Noise Floor	Rx AF	Rx CL	Other Rx	Total Rx CF	Field Strength	Detector	Limit Distance	Limit Distance Correction	Calculated Limit	Margin	Pass/Fail
		m		MHz	dBuV		dB/m	dB	dB	dB/m	dBuV/m	(PK/QP/AV)	m	dB	dBuV/m	dB	
WLAN-CH1	H	3	Loop 6502	2.18	45.40	X	10.32	0.52	0.00	10.84	56.24	PK*	30.00	40.00	69.54	13.30	PASS
WLAN-CH1	H	3	Loop 6502	25.63	43.80		9.20	0.54	0.00	9.74	53.54	PK*	30.00	40.00	69.54	16.01	PASS
WLAN-CH1	H	3	Bilog SN1607	400.34	20.10		16.71	2.05	0.00	18.76	38.86	PK*	3.00	0.00	46.02	7.16	PASS
WLAN-CH1	H	3	Horn SN6276	1336.28	14.50	X	26.97	3.75	0.00	30.72	45.22	PK*	3.00	0.00	53.98	8.76	PASS
WLAN-CH1	H	3	Horn SN6276	4824.09	35.00		35.35	7.40	-31.04	11.71	46.71	PK*	3.00	0.00	53.98	7.27	PASS
WLAN-CH1	H	3	Horn SN6276	8299.12	35.10	X	39.28	10.21	-30.77	18.73	53.83	PK	3.00	0.00	73.98	20.15	PASS
WLAN-CH1	H	3	Horn SN6276	8299.12	23.50	X	39.28	10.21	-30.77	18.73	42.23	AV	3.00	0.00	53.98	11.75	PASS
WLAN-CH1	H	3	Horn SN6276	8373.43	36.20		39.32	10.22	-30.76	18.78	54.98	PK	3.00	0.00	73.98	19.00	PASS
WLAN-CH1	H	3	Horn SN6276	8373.44	22.70	X	39.32	10.22	-30.76	18.78	41.48	AV	3.00	0.00	53.98	12.50	PASS
WLAN-CH1	H	3	Horn SN6276	9348.96	35.30	X	40.27	11.51	-30.72	21.06	56.36	PK	3.00	0.00	73.98	17.62	PASS
WLAN-CH1	H	3	Horn SN6276	9348.96	22.30	X	40.27	11.51	-30.72	21.06	43.36	AV	3.00	0.00	53.98	10.62	PASS
WLAN-CH1	H	1	Horn SN6276	12053.65	39.16	X	40.58	8.62	-30.61	18.58	57.74	PK*	3.00	9.54	63.52	5.78	PASS
WLAN-CH1	H	1	Horn SN6276	12060.00	37.01		40.58	8.62	-30.61	18.59	55.60	PK*	3.00	9.54	63.52	7.92	PASS
WLAN-CH1	H	1	Horn SN6276	14472.00	38.27		42.57	9.73	-30.78	21.52	59.79	PK*	3.00	9.54	63.52	3.73	PASS
WLAN-CH1	H	1	Waveline_899	18153.00	39.88	X	40.20	11.22	-34.62	16.80	56.68	PK*	3.00	9.54	63.52	6.84	PASS
WLAN-CH1	H	1	Waveline_899	19296.00	38.02		40.26	11.64	-35.23	16.67	54.69	PK*	3.00	9.54	63.52	8.83	PASS
WLAN-CH1	H	1	Waveline_899	20677.25	40.75	X	40.30	12.15	-35.59	16.85	57.60	PK*	3.00	9.54	63.52	5.92	PASS
WLAN-CH1	H	1	Waveline_899	23959.45	40.80	X	40.40	13.35	-35.55	18.20	59.00	PK*	3.00	9.54	63.52	4.52	PASS
WLAN-CH1	V	3	Loop 6502	2.18	48.80	X	10.32	0.52	0.00	10.84	59.64	PK*	30.00	40.00	69.54	9.90	PASS
WLAN-CH1	V	3	Loop 6502	25.61	41.30		9.20	0.54	0.00	9.74	51.04	PK*	30.00	40.00	69.54	18.50	PASS
WLAN-CH1	V	3	Bilog SN1607	119.96	33.10		11.80	1.10	0.00	12.90	46.00	PK	3.00	0.00	63.52	17.52	PASS
WLAN-CH1	V	3	Bilog SN1607	119.96	9.20		11.80	1.10	0.00	12.90	22.10	QP	3.00	0.00	43.52	21.42	PASS
WLAN-CH1	V	3	Horn SN6276	1082.52	17.08	X	26.62	3.37	0.00	29.98	47.06	PK*	3.00	0.00	53.98	6.92	PASS
WLAN-CH1	V	3	Horn SN6276	1110.20	16.60	X	26.65	3.43	0.00	30.08	46.68	PK*	3.00	0.00	53.98	7.30	PASS
WLAN-CH1	V	3	Horn SN6276	2687.35	52.70		31.00	5.44	-23.10	13.34	66.04	PK	3.00	0.00	73.98	7.94	PASS
WLAN-CH1	V	3	Horn SN6276	2688.27	37.20		31.00	5.44	-23.10	13.34	50.54	AV	3.00	0.00	53.98	3.44	PASS
WLAN-CH1	V	3	Horn SN6276	2753.45	44.80		31.21	5.49	-23.10	13.61	58.41	PK	3.00	0.00	73.98	15.57	PASS
WLAN-CH1	V	3	Horn SN6276	2754.58	35.50		31.21	5.50	-23.10	13.61	49.11	AV	3.00	0.00	53.98	4.87	PASS
WLAN-CH1	V	3	Horn SN6276	4824.00	33.50		35.35	7.40	-31.04	11.71	45.21	PK*	3.00	0.00	53.98	8.77	PASS
WLAN-CH1	V	3	Horn SN6276	7253.69	36.50	X	38.26	9.68	-30.84	17.10	53.60	PK	3.00	0.00	73.98	20.38	PASS
WLAN-CH1	V	3	Horn SN6276	7253.69	23.20	X	38.26	9.68	-30.84	17.10	40.30	AV	3.00	0.00	53.98	13.68	PASS
WLAN-CH1	V	1	Horn SN6276	12060.00	36.98		40.58	8.62	-30.61	18.59	55.57	PK*	3.00	9.54	63.52	7.95	PASS
WLAN-CH1	V	1	Horn SN6276	12064.25	37.95	X	40.59	8.62	-30.61	18.60	56.55	PK*	3.00	9.54	63.52	6.97	PASS
WLAN-CH1	V	1	Horn SN6276	14470.40	40.22	X	42.57	9.73	-30.78	21.52	61.74	PK	3.00	9.54	63.52	21.78	PASS
WLAN-CH1	V	1	Horn SN6276	14470.40	29.34	X	42.57	9.73	-30.78	21.52	50.86	AV	3.00	9.54	63.52	12.66	PASS
WLAN-CH1	V	1	Horn SN6276	14472.00	37.89		42.57	9.73	-30.78	21.52	59.41	PK*	3.00	9.54	63.52	4.11	PASS
WLAN-CH1	V	1	Waveline_899	19296.00	37.90		40.26	11.64	-35.23	16.67	54.57	PK*	3.00	9.54	63.52	8.95	PASS
WLAN-CH1	V	1	Waveline_899	19964.00	39.84	X	40.30	11.89	-35.58	16.60	56.44	PK*	3.00	9.54	63.52	7.08	PASS
WLAN-CH1	V	1	Waveline_899	21310.65	40.87		40.30	12.38	-35.58	17.09	57.96	PK*	3.00	9.54	63.52	5.56	PASS
WLAN-CH1	V	1	Waveline_899	23981.10	41.24	X	40.40	13.37	-35.55	18.21	59.45	PK*	3.00	9.54	63.52	4.07	PASS

Formulae:

Total CF = Antenna Factor + Cable Factor + Other Factor (Amplifier Gain, filter loss, etc)

Field Strength = SA Reading + Total CF

Limit Distance Correction = $40 \cdot \log(d1/d2)$ for $F < 30$ MHz, $20 \cdot \log(d1/d2)$ for $F > 30$ MHz:

where d1 is the measurement distance, d2 is the published limit distance

Limit = Specified Limit + Limit Distance Correction

Margin = Limit - Field Strength

BOLD indicates emission at or near a carrier harmonic frequency

*Where applicable the QP or Average Limits were applied to the peak emission

No emissions were measured with margins less than those reported

The frequency points reported describe the highest emission measured in each of the ranges tested and are used to describe the measured spectrum as a whole. It is shown that the highest emissions measured within the spectrum pass the appropriate restricted limits; therefore all emissions within the restricted bands would also meet the requirements. No out-of-band emissions were measured above the levels noted.

Applicant:	Itronix Corporation	Model:	IX260PLUSNL305	FCC ID:	KBCIX260PLUSNL305	
Rugged Laptop PC with internal Senao NL-3054MP 802.11b/g WLAN Mini-PCI Card and External Antennas						
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 Testing and Engineering Services Lab	Test Report Serial No.:	061405KBC-T648-E15W	Report Issue No.:	Issue 1.0
	Test Date(s):	15Jun05 - 04Aug05	Report Issue Date:	20Sept05
	Test Rule Part(s):	FCC 47 CFR §15.247	Industry Canada RSS-210 Issue 5	
	Lab Registration(s):	FCC Lab Reg. # 714830	Industry Canada Lab File # IC 3874	

F.9.5. Mode b - Swivel dipole antenna - Channel 6 Out-of-Band Spurious Emission Field Strengths @ Specified Distance (within restricted bands)

Channel	Polarity	Distance	Rx Antenna	Frequency	SA Level	Noise Floor	Rx AF	Rx CL	Other Rx	Total Rx CF	Field Strength	Detector	Limit Distance	Limit Distance Correction	Calculated Limit	Margin	Pass/Fail
		m		MHz	dBuV		dB/m	dB	dB	dB/m	dBuV/m	(PK/QP/AV)	m	dB	dBuV/m	dB	
WLAN-CH6	H	3	Loop 6502	2.18	43.10		10.32	0.52	0.00	10.84	53.94	PK*	30.00	40.00	69.54	15.60	PASS
WLAN-CH6	H	3	Loop 6502	25.52	47.30		9.22	0.54	0.00	9.75	57.05	PK*	30.00	40.00	69.54	12.49	PASS
WLAN-CH6	H	3	Horn SN6276	1088.67	13.80	X	26.62	3.39	0.00	30.01	43.81	PK*	3.00	0.00	53.98	10.17	PASS
WLAN-CH6	H	3	Horn SN6276	4873.82	33.60		35.45	7.60	-31.04	12.01	45.61	PK*	3.00	0.00	53.98	8.37	PASS
WLAN-CH6	H	3	Horn SN6276	7311.74	35.90	X	38.36	9.94	-30.84	17.46	53.36	PK	3.00	0.00	73.98	20.62	PASS
WLAN-CH6	H	3	Horn SN6276	7311.74	20.90	X	38.36	9.94	-30.84	17.46	38.36	AV	3.00	0.00	53.98	15.62	PASS
WLAN-CH6	H	3	Horn SN6276	8303.18	23.50	X	39.28	10.25	-30.77	18.76	42.26	AV	3.00	0.00	53.98	11.71	PASS
WLAN-CH6	H	3	Horn SN6276	8303.71	35.40	X	39.28	10.26	-30.77	18.77	54.17	PK	3.00	0.00	73.98	19.81	PASS
WLAN-CH6	H	3	Horn SN6276	8375.38	36.40		39.33	10.21	-30.76	18.78	55.18	PK	3.00	0.00	73.98	18.80	PASS
WLAN-CH6	H	3	Horn SN6276	8375.64	26.00		39.33	10.21	-30.76	18.77	44.77	AV	3.00	0.00	53.98	9.21	PASS
WLAN-CH6	H	1	Horn SN6276	12185.00	37.84		40.76	8.68	-30.61	18.83	56.67	PK*	3.00	9.54	63.52	6.85	PASS
WLAN-CH6	H	1	Horn SN6276	12187.45	39.10	X	40.76	8.68	-30.61	18.84	57.94	PK*	3.00	9.54	63.52	5.59	PASS
WLAN-CH6	H	1	Horn SN6276	14487.15	40.22	X	42.59	9.74	-30.79	21.54	61.76	PK	3.00	9.54	83.52	21.77	PASS
WLAN-CH6	H	1	Horn SN6276	14487.15	29.13	X	42.59	9.74	-30.79	21.54	50.67	AV	3.00	9.54	63.52	12.86	PASS
WLAN-CH6	H	1	Horn SN6276	17977.30	39.09	X	45.83	11.16	-32.64	24.35	63.44	PK	3.00	9.54	83.52	20.08	PASS
WLAN-CH6	H	1	Horn SN6276	17977.30	29.28	X	45.83	11.16	-32.64	24.35	53.63	AV	3.00	9.54	63.52	9.89	PASS
WLAN-CH6	H	1	Waveline_899	18418.85	38.95	X	40.20	11.32	-34.76	16.76	55.71	PK*	3.00	9.54	63.52	7.82	PASS
WLAN-CH6	H	1	Waveline_899	19496.00	38.75		40.30	11.71	-35.33	16.68	55.43	PK*	3.00	9.54	63.52	8.09	PASS
WLAN-CH6	H	1	Waveline_899	23945.40	40.99	X	40.40	13.35	-35.55	18.19	59.18	PK*	3.00	9.54	63.52	4.34	PASS
WLAN-CH6	V	3	Loop 6502	2.18	43.10		10.32	0.52	0.00	10.84	53.94	PK*	30.00	40.00	69.54	15.60	PASS
WLAN-CH6	V	3	Loop 6502	25.52	48.00		9.22	0.54	0.00	9.75	57.75	PK*	30.00	40.00	69.54	11.79	PASS
WLAN-CH6	V	3	Bilog SN1607	119.60	34.90		11.78	1.10	0.00	12.88	47.78	PK	3.00	0.00	63.52	15.74	PASS
WLAN-CH6	V	3	Bilog SN1607	119.60	19.90		11.78	1.10	0.00	12.88	32.78	QP	3.00	0.00	43.52	10.74	PASS
WLAN-CH6	V	3	Bilog SN1607	171.73	35.30		10.26	1.32	0.00	11.58	46.88	PK	3.00	0.00	63.52	16.64	PASS
WLAN-CH6	V	3	Bilog SN1607	171.73	3.20		10.26	1.32	0.00	11.58	14.78	QP	3.00	0.00	43.52	28.74	PASS
WLAN-CH6	V	3	Horn SN6276	1106.07	14.40	X	26.65	3.42	0.00	30.07	44.47	PK*	3.00	0.00	53.98	9.51	PASS
WLAN-CH6	V	3	Horn SN6276	1125.19	14.20	X	26.68	3.45	0.00	30.13	44.33	PK*	3.00	0.00	53.98	9.65	PASS
WLAN-CH6	V	3	Horn SN6276	1129.02	13.70	X	26.68	3.47	0.00	30.15	43.85	PK*	3.00	0.00	53.98	10.13	PASS
WLAN-CH6	V	3	Horn SN6276	1454.90	14.70	X	27.14	3.95	0.00	31.08	45.78	PK*	3.00	0.00	53.98	8.20	PASS
WLAN-CH6	V	3	Horn SN6276	2492.86	36.90		30.39	5.22	-23.12	12.49	49.39	PK*	3.00	0.00	53.98	4.59	PASS
WLAN-CH6	V	3	Horn SN6276	2680.90	47.40		30.98	5.43	-23.10	13.31	60.71	PK	3.00	0.00	73.98	13.27	PASS
WLAN-CH6	V	3	Horn SN6276	2681.39	38.00		30.98	5.43	-23.10	13.31	51.31	AV	3.00	0.00	53.98	2.67	PASS
WLAN-CH6	V	3	Horn SN6276	4873.66	32.20		35.45	7.60	-31.04	12.01	44.21	PK*	3.00	0.00	53.98	9.77	PASS
WLAN-CH6	V	3	Horn SN6276	7307.73	23.20	X	38.35	9.91	-30.84	17.43	40.63	AV	3.00	0.00	53.98	13.35	PASS
WLAN-CH6	V	3	Horn SN6276	7312.57	36.60	X	38.36	9.94	-30.84	17.47	54.07	PK	3.00	0.00	73.98	19.91	PASS
WLAN-CH6	V	1	Horn SN6276	12172.40	39.38	X	40.74	8.67	-30.61	18.81	58.19	PK*	3.00	9.54	63.52	5.33	PASS
WLAN-CH6	V	1	Horn SN6276	12185.00	38.16		40.76	8.68	-30.61	18.83	56.99	PK*	3.00	9.54	63.52	6.53	PASS
WLAN-CH6	V	1	Horn SN6276	17888.50	39.39		45.57	11.12	-32.59	24.10	63.49	PK	3.00	9.54	83.52	20.03	PASS
WLAN-CH6	V	1	Horn SN6276	17888.50	29.15		45.57	11.12	-32.59	24.10	53.25	AV	3.00	9.54	63.52	10.27	PASS
WLAN-CH6	V	1	Waveline_899	18786.80	39.20	X	40.20	11.45	-34.96	16.70	55.90	PK*	3.00	9.54	63.52	7.63	PASS
WLAN-CH6	V	1	Waveline_899	19496.00	38.34		40.30	11.71	-35.33	16.68	55.02	PK*	3.00	9.54	63.52	8.50	PASS
WLAN-CH6	V	1	Waveline_899	23973.85	40.73	X	40.40	13.36	-35.55	18.21	58.94	PK*	3.00	9.54	63.52	4.59	PASS

Formulae:

Total CF = Antenna Factor + Cable Factor + Other Factor (Amplifier Gain, filter loss, etc)

Field Strength = SA Reading + Total CF

Limit Distance Correction = 40*log(d1/d2) for F<30 MHz, 20*log(d1/d2) for F> 30 MHz:

where d1 is the measurement distance, d2 is the published limit distance

Limit = Specified Limit + Limit Distance Correction

Margin = Limit - Field Strength

BOLD indicates emission at or near a carrier harmonic frequency

*Where applicable the QP or Average Limits were applied to the peak emission

No emissions were measured with margins less than those reported

The frequency points reported describe the highest emission measured in each of the ranges tested and are used to describe the measured spectrum as a whole. It is shown that the highest emissions measured within the spectrum pass the appropriate restricted limits; therefore all emissions within the restricted bands would also meet the requirements. No out-of-band emissions were measured above the levels noted.

Applicant:	Itronix Corporation	Model:	IX260PLUSNL305	FCC ID:	KBCIX260PLUSNL305	
Rugged Laptop PC with internal Senao NL-3054MP 802.11b/g WLAN Mini-PCI Card and External Antennas						
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 Testing and Engineering Services Lab	Test Report Serial No.:	061405KBC-T648-E15W	Report Issue No.:	Issue 1.0
	Test Date(s):	15Jun05 - 04Aug05	Report Issue Date:	20Sept05
	Test Rule Part(s):	FCC 47 CFR §15.247	Industry Canada RSS-210 Issue 5	
	Lab Registration(s):	FCC Lab Reg. # 714830	Industry Canada Lab File # IC 3874	

F.9.6. Mode b - Swivel dipole antenna - Channel 11 Out-of-Band Spurious Emission Field Strengths @ Specified Distance (within restricted bands)

Channel	Polarity	Distance	Rx Antenna	Frequency	SA Level	Noise Floor	Rx AF	Rx CL	Other Rx	Total Rx CF	Field Strength	Detector	Limit Distance	Limit Distance Correction	Calculated Limit	Margin	Pass/Fail
		m		MHz	dBuV		dB/m	dB	dB	dB/m	dBuV/m	(PK/QP/AV)	m	dB	dBuV/m	dB	
WLAN-CH11	H	3	Loop 6502	2.18	49.40	X	10.32	0.52	0.00	10.84	60.24	PK*	30.00	40.00	69.54	9.30	PASS
WLAN-CH11	H	3	Loop 6502	25.52	42.50	X	9.22	0.54	0.00	9.75	52.25	PK*	30.00	40.00	69.54	17.29	PASS
WLAN-CH11	H	3	Bilog SN1607	401.02	8.50	X	16.74	2.05	0.00	18.79	27.29	PK*	3.00	0.00	46.02	18.73	PASS
WLAN-CH11	H	3	Horn SN6276	1079.00	14.70	X	26.61	3.36	0.00	29.97	44.67	PK*	3.00	0.00	53.98	9.31	PASS
WLAN-CH11	H	3	Horn SN6276	4924.23	30.80		35.55	7.53	-31.03	12.05	42.85	PK*	3.00	0.00	53.98	11.13	PASS
WLAN-CH11	H	3	Horn SN6276	7382.89	36.60	X	38.49	9.94	-30.83	17.60	54.20	PK	3.00	0.00	73.98	19.78	PASS
WLAN-CH11	H	3	Horn SN6276	7384.34	20.90	X	38.49	9.94	-30.83	17.60	38.50	AV	3.00	0.00	53.98	15.47	PASS
WLAN-CH11	H	3	Horn SN6276	8302.20	35.80		39.28	10.24	-30.77	18.75	54.55	PK	3.00	0.00	73.98	19.43	PASS
WLAN-CH11	H	3	Horn SN6276	8303.15	23.40		39.28	10.25	-30.77	18.76	42.16	AV	3.00	0.00	53.98	11.82	PASS
WLAN-CH11	H	3	Horn SN6276	8375.70	24.10		39.33	10.21	-30.76	18.77	42.87	AV	3.00	0.00	53.98	11.11	PASS
WLAN-CH11	H	3	Horn SN6276	8375.74	37.10		39.33	10.21	-30.76	18.77	55.87	PK	3.00	0.00	73.98	18.11	PASS
WLAN-CH11	H	1	Horn SN6276	12310.00	38.49		40.93	8.74	-30.60	19.07	57.56	PK*	3.00	9.54	63.52	5.96	PASS
WLAN-CH11	H	1	Horn SN6276	12312.65	39.31	X	40.94	8.74	-30.60	19.07	58.38	PK*	3.00	9.54	63.52	5.14	PASS
WLAN-CH11	H	1	Horn SN6276	17925.00	29.18	X	45.68	11.14	-32.61	24.20	53.38	AV	3.00	9.54	63.52	10.14	PASS
WLAN-CH11	H	1	Horn SN6276	17931.10	39.65	X	45.69	11.14	-32.61	24.22	63.87	PK	3.00	9.54	83.52	19.65	PASS
WLAN-CH11	H	1	Waveline_899	19696.00	37.99		40.30	11.79	-35.44	16.65	54.64	PK*	3.00	9.54	63.52	8.88	PASS
WLAN-CH11	H	1	Waveline_899	22158.00	39.79		40.33	12.69	-35.57	17.45	57.24	PK*	3.00	9.54	63.52	6.28	PASS
WLAN-CH11	H	1	Waveline_899	23981.20	40.45	X	40.40	13.37	-35.55	18.21	58.66	PK*	3.00	9.54	63.52	4.86	PASS
WLAN-CH11	V	3	Loop 6502	2.18	49.00	X	10.32	0.52	0.00	10.84	59.84	PK*	30.00	40.00	69.54	9.70	PASS
WLAN-CH11	V	3	Loop 6502	25.52	45.80	X	9.22	0.54	0.00	9.75	55.55	PK*	30.00	40.00	69.54	13.99	PASS
WLAN-CH11	V	3	Bilog SN1607	131.90	9.30	X	12.24	1.15	0.00	13.39	22.69	PK*	3.00	0.00	43.52	20.83	PASS
WLAN-CH11	V	3	Horn SN6276	1106.94	15.40	X	26.65	3.42	0.00	30.07	45.47	PK*	3.00	0.00	53.98	8.51	PASS
WLAN-CH11	V	3	Horn SN6276	1121.62	14.90	X	26.67	3.44	0.00	30.11	45.01	PK*	3.00	0.00	53.98	8.97	PASS
WLAN-CH11	V	3	Horn SN6276	1132.30	14.10	X	26.69	3.48	0.00	30.16	44.26	PK*	3.00	0.00	53.98	9.72	PASS
WLAN-CH11	V	3	Horn SN6276	2281.54	34.40	X	30.05	4.94	-23.14	11.85	46.25	PK*	3.00	0.00	53.98	7.73	PASS
WLAN-CH11	V	3	Horn SN6276	2697.71	45.80		31.03	5.45	-23.10	13.38	59.18	PK	3.00	0.00	73.98	14.80	PASS
WLAN-CH11	V	3	Horn SN6276	2701.54	34.80		31.04	5.45	-23.10	13.40	48.20	AV	3.00	0.00	53.98	5.78	PASS
WLAN-CH11	V	3	Horn SN6276	4321.40	31.70	X	34.70	7.00	-31.08	10.62	42.32	PK*	3.00	0.00	53.98	11.66	PASS
WLAN-CH11	V	3	Horn SN6276	4923.85	31.40		35.55	7.53	-31.03	12.05	43.45	PK*	3.00	0.00	53.98	10.53	PASS
WLAN-CH11	V	3	Horn SN6276	7385.90	35.60	X	38.49	9.94	-30.83	17.61	53.21	PK	3.00	0.00	73.98	20.77	PASS
WLAN-CH11	V	3	Horn SN6276	7385.90	22.85	X	38.49	9.94	-30.83	17.61	40.46	AV	3.00	0.00	53.98	13.52	PASS
WLAN-CH11	V	1	Horn SN6276	12308.30	39.99	X	40.93	8.73	-30.60	19.07	59.06	PK*	3.00	9.54	63.52	4.47	PASS
WLAN-CH11	V	1	Horn SN6276	12310.00	38.82		40.93	8.74	-30.60	19.07	57.89	PK*	3.00	9.54	63.52	5.63	PASS
WLAN-CH11	V	1	Horn SN6276	17974.90	29.28	X	45.82	11.16	-32.64	24.34	53.62	AV	3.00	9.54	63.52	9.90	PASS
WLAN-CH11	V	1	Horn SN6276	17975.55	40.16	X	45.83	11.16	-32.64	24.35	64.51	PK	3.00	9.54	83.52	19.02	PASS
WLAN-CH11	V	1	Waveline_899	19696.00	38.42		40.30	11.79	-35.44	16.65	55.07	PK*	3.00	9.54	63.52	8.45	PASS
WLAN-CH11	V	1	Waveline_899	22158.00	38.72		40.33	12.69	-35.57	17.45	56.17	PK*	3.00	9.54	63.52	7.35	PASS
WLAN-CH11	V	1	Waveline_899	23876.05	40.12	X	40.40	13.32	-35.55	18.17	58.29	PK*	3.00	9.54	63.52	5.24	PASS

Formulae:

Total CF = Antenna Factor + Cable Factor + Other Factor (Amplifier Gain, filter loss, etc)

Field Strength = SA Reading + Total CF

Limit Distance Correction = $40 \cdot \log(d1/d2)$ for $F < 30$ MHz, $20 \cdot \log(d1/d2)$ for $F > 30$ MHz:

where d1 is the measurement distance, d2 is the published limit distance

Limit = Specified Limit + Limit Distance Correction

Margin = Limit - Field Strength

BOLD indicates emission at or near a carrier harmonic frequency

*Where applicable the QP or Average Limits where applied to the peak emission

No emissions were measured with margins less than those reported

The frequency points reported describe the highest emission measured in each of the ranges tested and are used to describe the measured spectrum as a whole. It is shown that the highest emissions measured within the spectrum pass the appropriate restricted limits; therefore all emissions within the restricted bands would also meet the requirements. No out-of-band emissions were measured above the levels noted.

Applicant:	Itronix Corporation	Model:	IX260PLUSNL305	FCC ID:	KBCIX260PLUSNL305	
Rugged Laptop PC with internal Senao NL-3054MP 802.11b/g WLAN Mini-PCI Card and External Antennas						
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F.9.7. Mode g - Swivel dipole antenna - Fundamental Field Strengths @ Specified Distance (1 MHz RBW)

Channel	Polarity	Measurement Distance	Antenna	Frequency	SA Level	Noise Floor	AF	CL	Other	Total CF	Field Strength	Detector	RBW
		m						MHz	dBuV	dB/m	dB		dB
WLAN-CH1	H	3	Horn SN6276	2412.00	94.00		30.26	5.10	-23.13	12.23	106.23	PK	1000
WLAN-CH1	H	3	Horn SN6276	2412.00	84.60		30.26	5.10	-23.13	12.23	96.83	AV	1000
WLAN-CH1	V	3	Horn SN6276	2412.00	87.60		30.26	5.10	-23.13	12.23	99.83	PK	1000
WLAN-CH1	V	3	Horn SN6276	2412.00	77.60		30.26	5.10	-23.13	12.23	89.83	AV	1000
WLAN-CH6	H	3	Horn SN6276	2437.00	94.50		30.30	5.14	-23.12	12.31	106.81	PK	1000
WLAN-CH6	H	3	Horn SN6276	2437.00	84.70		30.30	5.14	-23.12	12.31	97.01	AV	1000
WLAN-CH6	V	3	Horn SN6276	2437.00	87.50		30.30	5.14	-23.12	12.31	99.81	PK	1000
WLAN-CH6	V	3	Horn SN6276	2437.00	78.20		30.30	5.14	-23.12	12.31	90.51	AV	1000
WLAN-CH11	H	3	Horn SN6276	2462.00	93.70		30.34	5.16	-23.12	12.38	106.08	PK	1000
WLAN-CH11	H	3	Horn SN6276	2462.00	83.60		30.34	5.16	-23.12	12.38	95.98	AV	1000
WLAN-CH11	V	3	Horn SN6276	2462.00	87.50		30.34	5.16	-23.12	12.38	99.88	PK	1000
WLAN-CH11	V	3	Horn SN6276	2462.00	78.00		30.34	5.16	-23.12	12.38	90.38	AV	1000

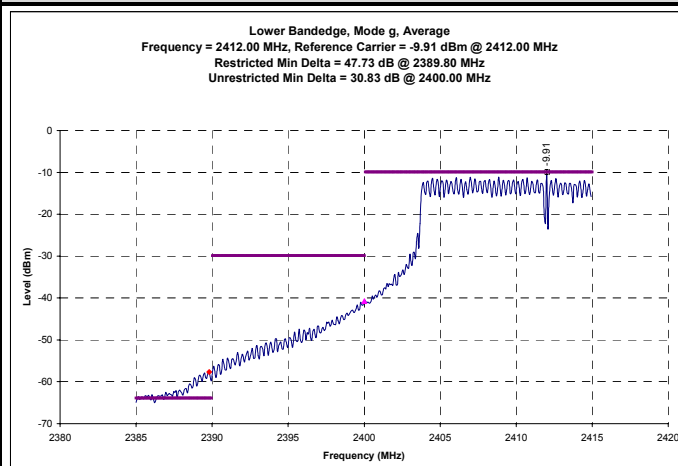
Formulae:

Total CF = Antenna Factor + Cable Factor + Other Factor (Amplifier Gain, filter loss, etc)

$$\text{Field Strength} = \text{SA Reading} + \text{Total CF}$$

Note: (Lower Band-edge (unrestricted Band) is in Appendix E)

Channel 1 - Average Conducted Band-edge Plots



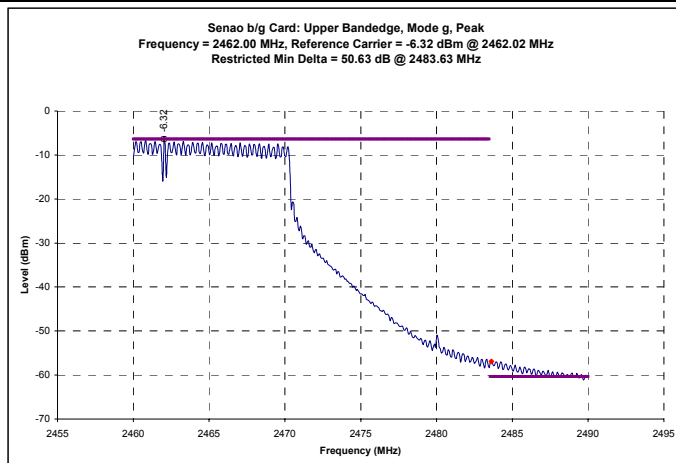
Channel	Polarity	Distance	Frequency	Carrier Radiated Field Strength	Delta Marker	Detector	Calculated Bandedge Field Strength	Duty Cycle Correction	Corrected Bandedge Field Strength	Specified Limit	Specified Limit Distance	Limit Distance Correction	Calculated Limit	Margin	Pass/Fail
		m													
WLAN-CH1	H	3	2389.88	106.23	45.45	PK	60.78	0.00	60.78	73.98	3.00	0.00	73.98	13.20	PASS
WLAN-CH1	H	3	2389.80	96.83	47.73	AV	49.10	0.00	49.10	53.98	3.00	0.00	53.98	4.88	PASS
WLAN-CH1	V	3	2389.88	99.83	45.45	PK	54.38	0.00	54.38	73.98	3.00	0.00	73.98	19.60	PASS
WLAN-CH1	V	3	2389.80	89.83	47.73	AV	42.10	0.00	42.10	53.98	3.00	0.00	53.98	11.88	PASS

Calculated Bandedge Field Strength (dBuV/m) = Carrier Radiated Field Strength (dBuV/m) - Delta Marker (dB)
 Duty Cycle Correction (dB) = $20 * \log(\text{time on} / \text{total time})$
 Corrected Bandedge Field Strength (dBuV/m) = Calculated Bandedge Field Strength (dBuV/m) + Duty Cycle Correction (dB)
 Limit Distance Correction = $20 * \log(\text{measurement distance} / \text{limit distance})$
 Calculated Limit (dBuV/m) = Specified Limit (dBuV/m) + Limit Distance Correction (dB)
 Margin (dB) = Calculated Limit (dBuV/m) – Corrected Bandedge Field Strength (dBuV/m)

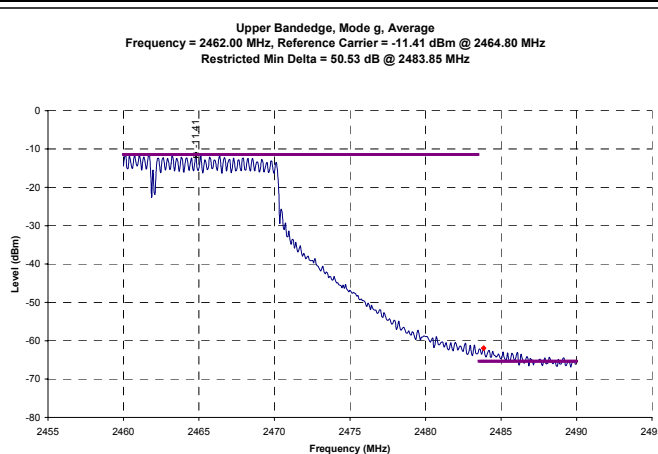
Applicant:	Itronix Corporation	Model:	IX260PLUSNL305	FCC ID:	KBCIX260PLUSNL305	
Rugged Laptop PC with internal Senao NL-3054MP 802.11b/g WLAN Mini-PCI Card and External Antennas						
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Test Report Serial No.:	061405KBC-T648-E15W	Report Issue No.:	Issue 1.0
Test Date(s):	15Jun05 - 04Aug05	Report Issue Date:	20Sept05
Test Rule Part(s):	FCC 47 CFR §15.247	Industry Canada RSS-210 Issue 5	
Lab Registration(s):	FCC Lab Reg. # 714830	Industry Canada Lab File # IC 3874	

Channel 11 - Peak Conducted Band-edge Plots



Channel 11 - Average Conducted Band-edge Plots



Channel 11 - Calculated Band-edge (within restricted bands) Field Strengths

Channel	Polarity	Distance	Frequency	Carrier Radiated Field Strength	Delta Marker	Detector	Calculated Bandedge Field Strength	Duty Cycle Correction	Corrected Bandedge Field Strength	Specified Limit	Specified Limit Distance	Limit Distance Correction	Calculated Limit	Margin	Pass/Fail
		m													
WLAN-CH11	H	3	2483.63	106.08	50.63	PK	55.45	0.00	55.45	73.98	3.00	0.00	73.98	18.53	PASS
WLAN-CH11	H	3	2483.85	95.98	50.53	AV	45.45	0.00	45.45	53.98	3.00	0.00	53.98	8.53	PASS
WLAN-CH11	V	3	2483.63	99.88	50.63	PK	49.25	0.00	49.25	73.98	3.00	0.00	73.98	24.73	PASS
WLAN-CH11	V	3	2483.85	90.38	50.53	AV	39.85	0.00	39.85	53.98	3.00	0.00	53.98	14.13	PASS

Formulae:

$$\text{Calculated Bandedge Field Strength (dBuV/m)} = \text{Carrier Radiated Field Strength (dBuV/m)} - \text{Delta Marker (dB)}$$

Duty Cycle Correction (dB) = 20 * log (time on / total time)

$$\text{Corrected Bandedge Field Strength (dBuV/m)} = \text{Calculated Bandedge Field Strength (dBuV/m)} + \text{Duty Cycle Correction (dB)}$$
$$\text{Limit Distance Correction} = 20 * \log (\text{measurement distance} / \text{limit distance})$$
$$\text{Calculated Limit (dBuV/m)} = \text{Specified Limit (dBuV/m)} + \text{Limit Distance Correction (dB)}$$
$$\text{Margin (dB)} = \text{Calculated Limit (dBuV/m)} - \text{Corrected Bandedge Field Strength (dBuV/m)}$$

Note: Measurements and calculation reference the Marker-Delta Method described in FCC Public Notice DA 00-705

Limit based on highest radiated carrier

 Testing and Engineering Services Lab	Test Report Serial No.:	061405KBC-T648-E15W	Report Issue No.:	Issue 1.0
	Test Date(s):	15Jun05 - 04Aug05	Report Issue Date:	20Sept05
	Test Rule Part(s):	FCC 47 CFR §15.247	Industry Canada RSS-210 Issue 5	
	Lab Registration(s):	FCC Lab Reg. # 714830	Industry Canada Lab File # IC 3874	

F.9.10. Mode g - Swivel dipole antenna - Channel 1 Out-of-Band Spurious Emission Field Strengths @ Specified Distance (within restricted bands)

Channel	Polarity	Distance	Rx Antenna	Frequency	SA Level	Noise Floor	Rx AF	Rx CL	Other Rx	Total Rx CF	Field Strength	Detector	Limit Distance	Limit Distance Correction	Calculated Limit	Margin	Pass/Fail
		m		MHz	dBuV		dB/m	dB	dB	dB/m	dBuV/m	(PK/QP/AV)	m	dB	dBuV/m	dB	
WLAN-CH1	H	3	Loop 6502	2.18	43.00		10.32	0.52	0.00	10.84	53.84	PK*	30.00	40.00	69.54	15.70	PASS
WLAN-CH1	H	3	Horn SN6276	1075.08	15.30	X	26.61	3.36	0.00	29.96	45.26	PK*	3.00	0.00	53.98	8.71	PASS
WLAN-CH1	H	3	Horn SN6276	1077.19	15.00	X	26.61	3.36	0.00	29.97	44.97	PK*	3.00	0.00	53.98	9.01	PASS
WLAN-CH1	H	3	Horn SN6276	2483.70	38.30		30.37	5.18	-23.12	12.44	50.74	PK*	3.00	0.00	53.98	3.24	PASS
WLAN-CH1	H	3	Horn SN6276	4824.00	30.00		35.35	7.40	-31.04	11.71	41.71	PK*	3.00	0.00	53.98	12.27	PASS
WLAN-CH1	H	3	Horn SN6276	8303.25	24.50		39.28	10.25	-30.77	18.77	43.27	AV	3.00	0.00	53.98	10.71	PASS
WLAN-CH1	H	3	Horn SN6276	8303.51	36.00		39.28	10.25	-30.77	18.77	54.77	PK	3.00	0.00	73.98	19.21	PASS
WLAN-CH1	H	3	Horn SN6276	8374.77	36.60		39.32	10.22	-30.76	18.78	55.38	PK	3.00	0.00	73.98	18.60	PASS
WLAN-CH1	H	3	Horn SN6276	8375.35	25.30		39.33	10.21	-30.76	18.78	44.08	AV	3.00	0.00	53.98	9.90	PASS
WLAN-CH1	H	1	Horn SN6276	12060.00	36.32		40.58	8.62	-30.61	18.59	54.91	PK*	3.00	9.54	63.52	8.61	PASS
WLAN-CH1	H	1	Horn SN6276	14472.00	38.37		42.57	9.73	-30.78	21.52	59.89	PK*	3.00	9.54	63.52	3.63	PASS
WLAN-CH1	H	1	Horn SN6276	17910.00	29.17		45.63	11.13	-32.60	24.16	53.33	AV	3.00	9.54	63.52	10.19	PASS
WLAN-CH1	H	1	Horn SN6276	17911.00	39.76	X	45.63	11.13	-32.60	24.16	63.92	PK	3.00	9.54	83.52	19.60	PASS
WLAN-CH1	H	1	Waveline_899	19296.00	37.46		40.26	11.64	-35.23	16.67	54.13	PK*	3.00	9.54	63.52	9.39	PASS
WLAN-CH1	H	1	Waveline_899	23772.90	40.92	X	40.40	13.28	-35.56	18.13	59.05	PK*	3.00	9.54	63.52	4.48	PASS
WLAN-CH1	V	3	Loop 6502	2.18	43.20		10.32	0.52	0.00	10.84	54.04	PK*	30.00	40.00	69.54	15.50	PASS
WLAN-CH1	V	3	Horn SN6276	1553.92	16.50	X	27.46	4.07	0.00	31.53	48.03	PK*	3.00	0.00	53.98	5.95	PASS
WLAN-CH1	V	3	Horn SN6276	2372.26	34.20	X	30.20	5.06	-23.13	12.12	46.32	PK*	3.00	0.00	53.98	7.66	PASS
WLAN-CH1	V	3	Horn SN6276	2489.38	34.40	X	30.38	5.21	-23.12	12.47	46.87	PK*	3.00	0.00	53.98	7.11	PASS
WLAN-CH1	V	3	Horn SN6276	2679.68	33.10		30.97	5.43	-23.10	13.30	46.40	AV	3.00	0.00	53.98	7.58	PASS
WLAN-CH1	V	3	Horn SN6276	2684.46	42.20		30.99	5.44	-23.10	13.32	55.52	PK	3.00	0.00	73.98	18.46	PASS
WLAN-CH1	V	3	Horn SN6276	2754.70	39.10		31.22	5.50	-23.10	13.61	52.71	PK	3.00	0.00	73.98	21.26	PASS
WLAN-CH1	V	3	Horn SN6276	4824.00	29.90		35.35	7.40	-31.04	11.71	41.61	PK*	3.00	0.00	53.98	12.37	PASS
WLAN-CH1	V	3	Horn SN6276	7348.31	31.70	X	38.43	9.84	-30.83	17.43	49.13	PK*	3.00	0.00	53.98	4.85	PASS
WLAN-CH1	V	1	Horn SN6276	12060.00	36.57		40.58	8.62	-30.61	18.59	55.16	PK*	3.00	9.54	63.52	8.36	PASS
WLAN-CH1	V	1	Horn SN6276	14472.00	38.25		42.57	9.73	-30.78	21.52	59.77	PK*	3.00	9.54	63.52	3.75	PASS
WLAN-CH1	V	1	Horn SN6276	17875.55	40.41	X	45.53	11.12	-32.58	24.06	64.47	PK	3.00	9.54	83.52	19.05	PASS
WLAN-CH1	V	1	Horn SN6276	17883.70	29.15		45.55	11.12	-32.59	24.09	53.24	AV	3.00	9.54	63.52	10.29	PASS
WLAN-CH1	V	1	Waveline_899	18150.35	39.28	X	40.20	11.22	-34.62	16.80	56.08	PK*	3.00	9.54	63.52	7.44	PASS
WLAN-CH1	V	1	Waveline_899	19296.00	37.82		40.26	11.64	-35.23	16.67	54.49	PK*	3.00	9.54	63.52	9.03	PASS
WLAN-CH1	V	1	Waveline_899	20815.50	40.24	X	40.30	12.20	-35.59	16.91	57.15	PK*	3.00	9.54	63.52	6.37	PASS

Formulae:

Total CF = Antenna Factor + Cable Factor + Other Factor (Amplifier Gain, filter loss, etc)

Field Strength = SA Reading + Total CF

Limit Distance Correction = $40 \cdot \log(d1/d2)$ for $F < 30$ MHz, $20 \cdot \log(d1/d2)$ for $F > 30$ MHz:

where d1 is the measurement distance, d2 is the published limit distance

Limit = Specified Limit + Limit Distance Correction

Margin = Limit - Field Strength

BOLD indicates emission at or near a carrier harmonic frequency

*Where applicable the QP or Average Limits where applied to the peak emission

No emissions were measured with margins less than those reported

The frequency points reported describe the highest emission measured in each of the ranges tested and are used to describe the measured spectrum as a whole. It is shown that the highest emissions measured within the spectrum pass the appropriate restricted limits; therefore all emissions within the restricted bands would also meet the requirements. No out-of-band emissions were measured above the levels noted.

Applicant:	Itronix Corporation	Model:	IX260PLUSNL305	FCC ID:	KBCIX260PLUSNL305		
Rugged Laptop PC with internal Senao NL-3054MP 802.11b/g WLAN Mini-PCI Card and External Antennas							
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 Testing and Engineering Services Lab	Test Report Serial No.:	061405KBC-T648-E15W	Report Issue No.:	Issue 1.0
	Test Date(s):	15Jun05 - 04Aug05	Report Issue Date:	20Sept05
	Test Rule Part(s):	FCC 47 CFR §15.247	Industry Canada RSS-210 Issue 5	
	Lab Registration(s):	FCC Lab Reg. # 714830	Industry Canada Lab File # IC 3874	

F.9.11. Mode g - Swivel dipole antenna - Channel 6 Out-of-Band Spurious Emission Field Strengths @ Specified Distance (within restricted bands)

Channel	Polarity	Distance	Rx Antenna	Frequency	SA Level	Noise Floor	Rx AF	Rx CL	Other Rx	Total Rx CF	Field Strength	Detector	Limit Distance	Limit Distance Correction	Calculated Limit	Margin	Pass/Fail
		m		MHz	dBuV		dB/m	dB	dB	dB/m	dBuV/m	(PK/QP/AV)	m	dB	dBuV/m	dB	
WLAN-CH6	H	3	Loop 6502	2.18	43.10		10.32	0.52	0.00	10.84	53.94	PK*	30.00	40.00	69.54	15.60	PASS
WLAN-CH6	H	3	Bilog SN1607	127.57	33.20		12.10	1.14	0.00	13.25	46.45	PK	3.00	0.00	63.52	17.08	PASS
WLAN-CH6	H	3	Bilog SN1607	127.57	19.30		12.10	1.14	0.00	13.25	32.55	QP	3.00	0.00	43.52	10.98	PASS
WLAN-CH6	H	3	Horn SN6276	1054.18	15.20	X	26.58	3.35	0.00	29.92	45.12	PK*	3.00	0.00	53.98	8.86	PASS
WLAN-CH6	H	3	Horn SN6276	1060.08	15.00	X	26.58	3.36	0.00	29.94	44.94	PK*	3.00	0.00	53.98	9.04	PASS
WLAN-CH6	H	3	Horn SN6276	2484.06	37.70		30.37	5.18	-23.12	12.44	50.14	PK*	3.00	0.00	53.98	3.84	PASS
WLAN-CH6	H	3	Horn SN6276	4874.00	29.00		35.45	7.60	-31.04	12.01	41.01	PK*	3.00	0.00	53.98	12.97	PASS
WLAN-CH6	H	3	Horn SN6276	7311.00	35.00		38.36	9.93	-30.84	17.46	52.46	PK	3.00	0.00	73.98	21.52	PASS
WLAN-CH6	H	3	Horn SN6276	7311.00	23.20		38.36	9.93	-30.84	17.46	40.66	AV	3.00	0.00	53.98	13.32	PASS
WLAN-CH6	H	3	Horn SN6276	8303.05	35.90		39.28	10.25	-30.77	18.76	54.66	PK	3.00	0.00	73.98	19.32	PASS
WLAN-CH6	H	3	Horn SN6276	8303.25	24.70		39.28	10.25	-30.77	18.77	43.47	AV	3.00	0.00	53.98	10.51	PASS
WLAN-CH6	H	3	Horn SN6276	8375.11	36.50		39.33	10.22	-30.76	18.78	55.28	PK	3.00	0.00	73.98	18.70	PASS
WLAN-CH6	H	3	Horn SN6276	8375.55	25.80		39.33	10.21	-30.76	18.77	44.57	AV	3.00	0.00	53.98	9.40	PASS
WLAN-CH6	H	1	Horn SN6276	12185.00	37.44		40.76	8.68	-30.61	18.83	56.27	PK*	3.00	9.54	63.52	7.25	PASS
WLAN-CH6	H	1	Waveline 899	19496.00	38.99		40.30	11.71	-35.33	16.68	55.67	PK*	3.00	9.54	63.52	7.85	PASS
WLAN-CH6	V	3	Loop 6502	2.18	43.10		10.32	0.52	0.00	10.84	53.94	PK*	30.00	40.00	69.54	15.60	PASS
WLAN-CH6	V	3	Horn SN6276	1087.08	15.00	X	26.62	3.38	0.00	30.00	45.00	PK*	3.00	0.00	53.98	8.98	PASS
WLAN-CH6	V	3	Horn SN6276	1109.51	14.90	X	26.65	3.43	0.00	30.08	44.98	PK*	3.00	0.00	53.98	9.00	PASS
WLAN-CH6	V	3	Horn SN6276	1116.84	15.10	X	26.66	3.43	0.00	30.10	45.20	PK*	3.00	0.00	53.98	8.78	PASS
WLAN-CH6	V	3	Horn SN6276	2361.34	33.60	X	30.18	5.07	-23.13	12.11	45.71	PK*	3.00	0.00	53.98	8.27	PASS
WLAN-CH6	V	3	Horn SN6276	2679.52	34.50		30.97	5.43	-23.10	13.30	47.80	AV	3.00	0.00	53.98	6.18	PASS
WLAN-CH6	V	3	Horn SN6276	2680.16	35.10		30.98	5.43	-23.10	13.30	48.40	AV	3.00	0.00	53.98	5.58	PASS
WLAN-CH6	V	3	Horn SN6276	2685.38	47.90		30.99	5.44	-23.10	13.33	61.23	PK	3.00	0.00	73.98	12.75	PASS
WLAN-CH6	V	3	Horn SN6276	2687.20	49.30		31.00	5.44	-23.10	13.34	62.64	PK	3.00	0.00	73.98	11.34	PASS
WLAN-CH6	V	3	Horn SN6276	4131.28	32.40	X	34.70	6.80	-31.10	10.41	42.81	PK*	3.00	0.00	53.98	11.17	PASS
WLAN-CH6	V	3	Horn SN6276	4874.00	29.50		35.45	7.60	-31.04	12.01	41.51	PK*	3.00	0.00	53.98	12.47	PASS
WLAN-CH6	V	3	Horn SN6276	7311.00	34.40		38.36	9.93	-30.84	17.46	51.86	PK	3.00	0.00	73.98	22.12	PASS
WLAN-CH6	V	3	Horn SN6276	7311.00	22.60		38.36	9.93	-30.84	17.46	40.06	AV	3.00	0.00	53.98	13.92	PASS
WLAN-CH6	V	1	Horn SN6276	12185.00	37.32		40.76	8.68	-30.61	18.83	56.15	PK*	3.00	9.54	63.52	7.37	PASS
WLAN-CH6	V	1	Waveline 899	19496.00	39.09		40.30	11.71	-35.33	16.68	55.77	PK*	3.00	9.54	63.52	7.75	PASS
WLAN-CH6	V	1	Waveline 899	23940.95	41.19	X	40.40	13.34	-35.55	18.19	59.38	PK*	3.00	9.54	63.52	4.14	PASS

Formulae:

Total CF = Antenna Factor + Cable Factor + Other Factor (Amplifier Gain, filter loss, etc)

Field Strength = SA Reading + Total CF

Limit Distance Correction = $40 \cdot \log(d1/d2)$ for $F < 30$ MHz, $20 \cdot \log(d1/d2)$ for $F > 30$ MHz:

where d1 is the measurement distance, d2 is the published limit distance

Limit = Specified Limit + Limit Distance Correction

Margin = Limit - Field Strength

BOLD indicates emission at or near a carrier harmonic frequency

*Where applicable the QP or Average Limits were applied to the peak emission

No emissions were measured with margins less than those reported

The frequency points reported describe the highest emission measured in each of the ranges tested and are used to describe the measured spectrum as a whole. It is shown that the highest emissions measured within the spectrum pass the appropriate restricted limits; therefore all emissions within the restricted bands would also meet the requirements. No out-of-band emissions were measured above the levels noted.

Applicant:	Itronix Corporation	Model:	IX260PLUSNL305	FCC ID:	KBCIX260PLUSNL305	
Rugged Laptop PC with internal Senao NL-3054MP 802.11b/g WLAN Mini-PCI Card and External Antennas						
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 Testing and Engineering Services Lab	Test Report Serial No.:	061405KBC-T648-E15W	Report Issue No.:	Issue 1.0
	Test Date(s):	15Jun05 - 04Aug05	Report Issue Date:	20Sept05
	Test Rule Part(s):	FCC 47 CFR §15.247	Industry Canada RSS-210 Issue 5	
	Lab Registration(s):	FCC Lab Reg. # 714830	Industry Canada Lab File # IC 3874	

F.9.12. Mode g - Swivel dipole antenna - Channel 11 Out-of-Band Spurious Emission Field Strengths @ Specified Distance (within restricted bands)

Channel	Polarity	Distance	Rx Antenna	Frequency	SA Level	Noise Floor	Rx AF	Rx CL	Other Rx	Total Rx CF	Field Strength	Detector	Limit Distance	Limit Distance Correction	Calculated Limit	Margin	Pass/Fail
		m		MHz	dBuV		dB/m	dB	dB	dB/m	dBuV/m	(PK/QP/AV)	m	dB	dBuV/m	dB	
WLAN-CH11	H	3	Loop 6502	2.18	43.20		10.32	0.52	0.00	10.84	54.04	PK*	30.00	40.00	69.54	15.50	PASS
WLAN-CH11	H	3	Horn SN6276	1081.33	15.30	X	26.61	3.36	0.00	29.98	45.28	PK*	3.00	0.00	53.98	8.70	PASS
WLAN-CH11	H	3	Horn SN6276	1125.62	15.50	X	26.68	3.45	0.00	30.13	45.63	PK*	3.00	0.00	53.98	8.35	PASS
WLAN-CH11	H	3	Horn SN6276	2493.20	38.00		30.39	5.22	-23.12	12.49	50.49	PK*	3.00	0.00	53.98	3.49	PASS
WLAN-CH11	H	3	Horn SN6276	4924.00	29.60		35.55	7.53	-31.03	12.05	41.65	PK*	3.00	0.00	53.98	12.33	PASS
WLAN-CH11	H	3	Horn SN6276	7386.00	34.10		38.49	9.94	-30.83	17.61	51.71	PK	3.00	0.00	73.98	22.27	PASS
WLAN-CH11	H	3	Horn SN6276	7386.00	20.90		38.49	9.94	-30.83	17.61	38.51	AV	3.00	0.00	53.98	15.47	PASS
WLAN-CH11	H	3	Horn SN6276	8302.93	35.80		39.28	10.25	-30.77	18.76	54.56	PK	3.00	0.00	73.98	19.42	PASS
WLAN-CH11	H	3	Horn SN6276	8303.27	24.80		39.28	10.25	-30.77	18.77	43.57	AV	3.00	0.00	53.98	10.41	PASS
WLAN-CH11	H	3	Horn SN6276	8375.08	36.60		39.33	10.22	-30.76	18.78	55.38	PK	3.00	0.00	73.98	18.60	PASS
WLAN-CH11	H	3	Horn SN6276	8375.68	25.60		39.33	10.21	-30.76	18.77	44.37	AV	3.00	0.00	53.98	9.61	PASS
WLAN-CH11	H	1	Horn SN6276	12310.00	37.12		40.93	8.74	-30.60	19.07	56.19	PK*	3.00	9.54	63.52	7.33	PASS
WLAN-CH11	H	1	Horn SN6276	17876.20	29.14		45.53	11.12	-32.58	24.06	53.20	AV	3.00	9.54	63.52	10.32	PASS
WLAN-CH11	H	1	Horn SN6276	17879.25	39.99	X	45.54	11.12	-32.59	24.07	64.06	PK	3.00	9.54	83.52	19.46	PASS
WLAN-CH11	H	1	Waveline .899	19696.00	38.71		40.30	11.79	-35.44	16.65	55.36	PK*	3.00	9.54	63.52	8.16	PASS
WLAN-CH11	H	1	Waveline .899	22158.00	39.10		40.33	12.69	-35.57	17.45	56.55	PK*	3.00	9.54	63.52	6.97	PASS
WLAN-CH11	V	3	Loop 6502	2.18	43.20		10.32	0.52	0.00	10.84	54.04	PK*	30.00	40.00	69.54	15.50	PASS
WLAN-CH11	V	3	Bilog SN1607	127.41	18.40		12.10	1.14	0.00	13.24	31.64	QP	3.00	0.00	43.52	11.88	PASS
WLAN-CH11	V	3	Bilog SN1607	127.59	39.00		12.10	1.14	0.00	13.25	52.25	PK	3.00	0.00	63.52	11.27	PASS
WLAN-CH11	V	3	Horn SN6276	1076.45	14.60	X	26.61	3.36	0.00	29.97	44.57	PK*	3.00	0.00	53.98	9.41	PASS
WLAN-CH11	V	3	Horn SN6276	1105.51	14.70	X	26.65	3.42	0.00	30.07	44.77	PK*	3.00	0.00	53.98	9.21	PASS
WLAN-CH11	V	3	Horn SN6276	1126.52	15.10	X	26.68	3.46	0.00	30.13	45.23	PK*	3.00	0.00	53.98	8.75	PASS
WLAN-CH11	V	3	Horn SN6276	1425.80	16.50	X	27.10	3.89	0.00	30.99	47.49	PK*	3.00	0.00	53.98	6.49	PASS
WLAN-CH11	V	3	Horn SN6276	1703.83	16.70	X	28.18	4.28	0.00	32.46	49.16	PK*	3.00	0.00	53.98	4.82	PASS
WLAN-CH11	V	3	Horn SN6276	2317.00	36.50		30.11	4.99	-23.13	11.96	48.46	PK*	3.00	0.00	53.98	5.52	PASS
WLAN-CH11	V	3	Horn SN6276	2687.66	29.90		31.00	5.44	-23.10	13.34	43.24	AV	3.00	0.00	53.98	10.74	PASS
WLAN-CH11	V	3	Horn SN6276	2690.24	41.20		31.01	5.44	-23.10	13.35	54.55	PK	3.00	0.00	73.98	19.43	PASS
WLAN-CH11	V	3	Horn SN6276	2700.90	35.10		31.04	5.46	-23.10	13.40	48.50	PK*	3.00	0.00	53.98	5.48	PASS
WLAN-CH11	V	3	Horn SN6276	2706.52	33.90	X	31.06	5.44	-23.10	13.40	47.30	PK*	3.00	0.00	53.98	6.68	PASS
WLAN-CH11	V	3	Horn SN6276	2741.56	31.20		31.17	5.45	-23.10	13.52	44.72	AV	3.00	0.00	53.98	9.26	PASS
WLAN-CH11	V	3	Horn SN6276	2741.70	40.50		31.17	5.45	-23.10	13.52	54.02	PK	3.00	0.00	73.98	19.96	PASS
WLAN-CH11	V	3	Horn SN6276	2752.66	33.10	X	31.21	5.49	-23.10	13.60	46.70	PK*	3.00	0.00	53.98	7.28	PASS
WLAN-CH11	V	3	Horn SN6276	4317.88	32.20	X	34.70	6.99	-31.08	10.61	42.81	PK*	3.00	0.00	53.98	11.17	PASS
WLAN-CH11	V	3	Horn SN6276	4924.00	29.35		35.55	7.53	-31.03	12.05	41.40	PK*	3.00	0.00	53.98	12.58	PASS
WLAN-CH11	V	3	Horn SN6276	7386.00	34.50		38.49	9.94	-30.83	17.61	52.11	PK	3.00	0.00	73.98	21.87	PASS
WLAN-CH11	V	3	Horn SN6276	7386.00	21.30		38.49	9.94	-30.83	17.61	38.91	AV	3.00	0.00	53.98	15.07	PASS
WLAN-CH11	V	1	Horn SN6276	12310.00	37.54		40.93	8.74	-30.60	19.07	56.61	PK*	3.00	9.54	63.52	6.91	PASS
WLAN-CH11	V	1	Horn SN6276	17936.20	29.19	X	45.71	11.14	-32.62	24.23	53.42	AV	3.00	9.54	63.52	10.10	PASS
WLAN-CH11	V	1	Horn SN6276	17941.90	40.28	X	45.73	11.14	-32.62	24.25	64.53	PK	3.00	9.54	83.52	18.99	PASS
WLAN-CH11	V	1	Waveline .899	19696.00	37.74		40.30	11.79	-35.44	16.65	54.39	PK*	3.00	9.54	63.52	9.13	PASS
WLAN-CH11	V	1	Waveline .899	22158.00	38.45		40.33	12.69	-35.57	17.45	55.90	PK*	3.00	9.54	63.52	7.62	PASS

Formulae:

Total CF = Antenna Factor + Cable Factor + Other Factor (Amplifier Gain, filter loss, etc)

Field Strength = SA Reading + Total CF

Limit Distance Correction = $40 \cdot \log(d1/d2)$ for $F < 30$ MHz, $20 \cdot \log(d1/d2)$ for $F > 30$ MHz:

where d1 is the measurement distance, d2 is the published limit distance

Limit = Specified Limit + Limit Distance Correction

Margin = Limit - Field Strength

BOLD indicates emission at or near a carrier harmonic frequency

*Where applicable the QP or Average Limits where applied to the peak emission

No emissions were measured with margins less than those reported

The frequency points reported describe the highest emission measured in each of the ranges tested and are used to describe the measured spectrum as a whole. It is shown that the highest emissions measured within the spectrum pass the appropriate restricted limits; therefore all emissions within the restricted bands would also meet the requirements. No out-of-band emissions were measured above the levels noted.

Applicant:	Itronix Corporation	Model:	IX260PLUSNL305	FCC ID:	KBCIX260PLUSNL305	
Rugged Laptop PC with internal Senao NL-3054MP 802.11b/g WLAN Mini-PCI Card and External Antennas						
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F.9.13. Mode b - 5.25" Monopole - Fundamental Field Strengths @ Specified Distance (1 MHz RBW)

Channel	Polarity	Measurement Distance	Antenna	Frequency	SA Level	Noise Floor	AF	CL	Other	Total CF	Field Strength	Detector	RBW
		m											
WLAN-CH1	H	3	Horn SN6276	2412.00	79.10		30.26	5.10	-23.13	12.23	91.33	PK	1000
WLAN-CH1	H	3	Horn SN6276	2412.00	76.30		30.26	5.10	-23.13	12.23	88.53	AV	1000
WLAN-CH1	V	3	Horn SN6276	2412.00	86.60		30.26	5.10	-23.13	12.23	98.83	PK	1000
WLAN-CH1	V	3	Horn SN6276	2412.00	83.50		30.26	5.10	-23.13	12.23	95.73	AV	1000
WLAN-CH6	H	3	Horn SN6276	2437.00	78.60		30.30	5.14	-23.12	12.31	90.91	PK	1000
WLAN-CH6	H	3	Horn SN6276	2437.00	75.50		30.30	5.14	-23.12	12.31	87.81	AV	1000
WLAN-CH6	V	3	Horn SN6276	2437.00	86.10		30.30	5.14	-23.12	12.31	98.41	PK	1000
WLAN-CH6	V	3	Horn SN6276	2437.00	82.70		30.30	5.14	-23.12	12.31	95.01	AV	1000
WLAN-CH11	H	3	Horn SN6276	2462.00	79.00		30.34	5.16	-23.12	12.38	91.38	PK	1000
WLAN-CH11	H	3	Horn SN6276	2462.00	76.00		30.34	5.16	-23.12	12.38	88.38	AV	1000
WLAN-CH11	V	3	Horn SN6276	2462.00	86.10		30.34	5.16	-23.12	12.38	98.48	PK	1000
WLAN-CH11	V	3	Horn SN6276	2462.00	82.70		30.34	5.16	-23.12	12.38	95.08	AV	1000

Formulae:

Formulae:
Total CF = Antenna Factor + Cable Factor + Other Factor (Amplifier Gain, filter loss, etc)

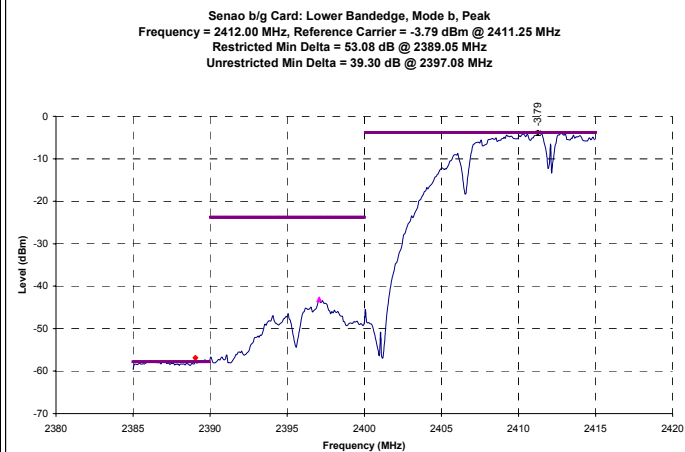
$$\text{Field Strength} = \text{SA Reading} + \text{Total CF}$$

 Testing and Engineering Services Lab	Test Report Serial No.:	061405KBC-T648-E15W	Report Issue No.:	Issue 1.0
	Test Date(s):	15Jun05 - 04Aug05	Report Issue Date:	20Sept05
	Test Rule Part(s):	FCC 47 CFR §15.247	Industry Canada RSS-210 Issue 5	
	Lab Registration(s):	FCC Lab Reg. # 714830	Industry Canada Lab File # IC 3874	

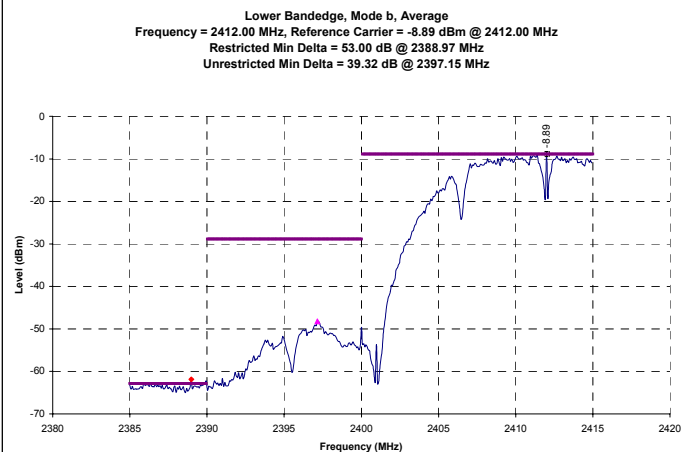
F.9.14. Mode b - 5.25" Monopole - Lower Band-edge Emission Field Strengths @ Specified Distance

Note: (Lower Band-edge (unrestricted Band) is in Appendix E)

Channel 1 - Peak Conducted Band-edge Plots



Channel 1 - Average Conducted Band-edge Plots



Channel 1 - Calculated Band-edge (within restricted bands) Field Strengths

Channel	Polarity	Distance	Frequency	Carrier Radiated Field Strength	Delta Marker	Detector	Calculated Bandedge Field Strength	Duty Cycle Correction	Corrected Bandedge Field Strength	Specified Limit	Specified Limit Distance	Limit Distance Correction	Calculated Limit	Margin	Pass/Fail
		m	MHz	dBuV/m	dB		dBuV/m	dB	dBuV/m	dBuV/m	m	dB	dBuV/m	dB	
WLAN-CH1	H	3	2389.05	91.33	53.08	PK	38.25	0.00	38.25	73.98	3.00	0.00	73.98	35.73	PASS
WLAN-CH1	H	3	2388.97	88.53	53.00	AV	35.53	0.00	35.53	53.98	3.00	0.00	53.98	18.45	PASS
WLAN-CH1	V	3	2389.05	98.83	53.08	PK	45.75	0.00	45.75	73.98	3.00	0.00	73.98	28.23	PASS
WLAN-CH1	V	3	2388.97	95.73	53.00	AV	42.73	0.00	42.73	53.98	3.00	0.00	53.98	11.25	PASS

Formulae:

Calculated Bandedge Field Strength (dBuV/m) = Carrier Radiated Field Strength (dBuV/m) - Delta Marker (dB)

Duty Cycle Correction (dB) = 20 * log (time on / total time)

Corrected Bandedge Field Strength (dBuV/m) = Calculated Bandedge Field Strength (dBuV/m) + Duty Cycle Correction (dB)

Limit Distance Correction = 20 * log (measurement distance / limit distance)

Calculated Limit (dBuV/m) = Specified Limit (dBuV/m) + Limit Distance Correction (dB)

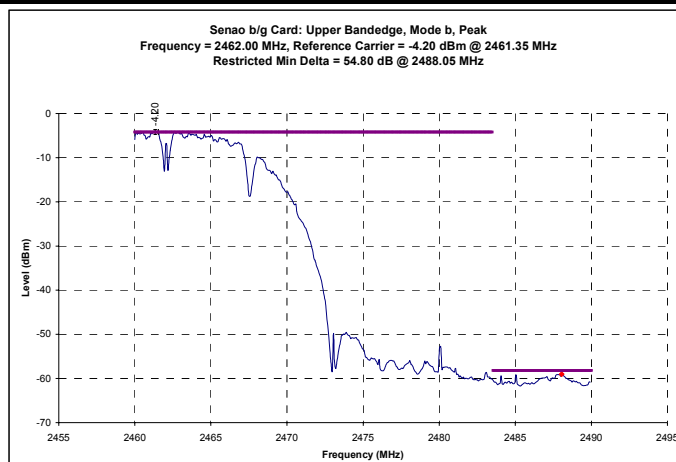
Margin (dB) = Calculated Limit (dBuV/m) - Corrected Bandedge Field Strength (dBuV/m)

Note: Measurements and calculation reference the Marker-Delta Method described in FCC Public Notice DA 00-705
Limit based on highest radiated carrier

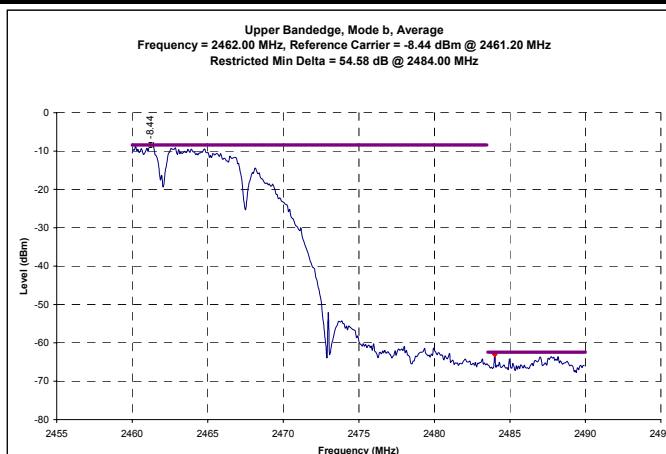
Applicant:	Itronix Corporation	Model:	IX260PLUSNL305	FCC ID:	KBCIX260PLUSNL305	 ITRONIX
Rugged Laptop PC with internal Senao NL-3054MP 802.11b/g WLAN Mini-PCI Card and External Antennas						
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F.9.15. Mode b - 5.25" Monopole - Upper Band-edge Emission Field Strengths @ Specified Distance

Channel 11 - Peak Conducted Band-edge Plots



Channel 11 - Average Conducted Band-edge Plots



Channel 11 - Calculated Band-edge (within restricted bands) Field Strengths

Channel	Polarity	Distance	Frequency	Carrier Radiated Field Strength	Delta Marker	Detector	Calculated Bandedge Field Strength	Duty Cycle Correction	Corrected Bandedge Field Strength	Specified Limit	Specified Limit Distance	Limit Distance Correction	Calculated Limit	Margin	Pass/Fail
		m													
		MHz													
WLAN-CH11	H	3	2488.05	91.38	54.80	PK	36.58	0.00	36.58	73.98	3.00	0.00	73.98	37.40	PASS
WLAN-CH11	H	3	2484.00	88.38	54.58	AV	33.80	0.00	33.80	53.98	3.00	0.00	53.98	20.18	PASS
WLAN-CH11	V	3	2488.05	98.48	54.80	PK	43.68	0.00	43.68	73.98	3.00	0.00	73.98	30.30	PASS
WLAN-CH11	V	3	2484.00	95.08	54.58	AV	40.50	0.00	40.50	53.98	3.00	0.00	53.98	13.48	PASS

Formulae:

$$\text{Calculated Bandedge Field Strength (dBuV/m)} = \text{Carrier Radiated Field Strength (dBuV/m)} - \text{Delta Marker (dB)}$$

Duty Cycle Correction (dB) = 20 * log (time on / total time)

$$\text{Corrected Bandedge Field Strength (dBuV/m)} = \text{Calculated Bandedge Field Strength (dBuV/m)} + \text{Duty Cycle Correction (dB)}$$
$$\text{Limit Distance Correction} = 20 * \log (\text{measurement distance} / \text{limit distance})$$
$$\text{Calculated Limit (dBuV/m)} = \text{Specified Limit (dBuV/m)} + \text{Limit Distance Correction (dB)}$$
$$\text{Margin (dB)} = \text{Calculated Limit (dBuV/m)} - \text{Corrected Bandedge Field Strength (dBuV/m)}$$

Note: Measurements and calculation reference the Marker-Delta Method described in FCC Public Notice DA 00-705

Limit based on highest radiated carrier

 Testing and Engineering Services Lab	Test Report Serial No.:	061405KBC-T648-E15W	Report Issue No.:	Issue 1.0
	Test Date(s):	15Jun05 - 04Aug05	Report Issue Date:	20Sept05
	Test Rule Part(s):	FCC 47 CFR §15.247	Industry Canada RSS-210 Issue 5	
	Lab Registration(s):	FCC Lab Reg. # 714830	Industry Canada Lab File # IC 3874	

F.9.16. Mode b - 5.25" Monopole - Channel 1 Out-of-Band Spurious Emission Field Strengths @ Specified Distance (within restricted bands)

Channel	Polarity	Distance	Rx Antenna	Frequency	SA Level	Noise Floor	Rx AF	Rx CL	Other Rx	Total Rx CF	Field Strength	Detector	Limit Distance	Limit Distance Correction	Calculated Limit	Margin	Pass/Fail
		m		MHz	dBuV		dB/m	dB	dB	dB/m	dBuV/m	(PK/QP/AV)	m	dB	dBuV/m	dB	
WLAN-CH1	H	3	Loop 6502	2.19	40.20	X	10.32	0.52	0.00	10.84	51.04	PK*	30.00	40.00	69.54	18.50	PASS
WLAN-CH1	H	3	Bilog SN1607	401.29	18.80		16.75	2.06	0.00	18.81	37.61	PK*	3.00	0.00	46.02	8.41	PASS
WLAN-CH1	H	3	Horn SN6276	1028.65	15.25	X	26.54	3.40	0.00	29.94	45.19	PK*	3.00	0.00	53.98	8.78	PASS
WLAN-CH1	H	3	Horn SN6276	1071.61	15.20	X	26.60	3.36	0.00	29.96	45.16	PK*	3.00	0.00	53.98	8.82	PASS
WLAN-CH1	H	3	Horn SN6276	1098.04	14.90	X	26.64	3.41	0.00	30.05	44.95	PK*	3.00	0.00	53.98	9.03	PASS
WLAN-CH1	H	3	Horn SN6276	1119.22	15.30	X	26.67	3.43	0.00	30.10	45.40	PK*	3.00	0.00	53.98	8.58	PASS
WLAN-CH1	H	3	Horn SN6276	1580.98	15.90	X	27.59	4.14	0.00	31.72	47.62	PK*	3.00	0.00	53.98	6.35	PASS
WLAN-CH1	H	3	Horn SN6276	4341.23	31.90	X	34.70	7.04	-31.08	10.67	42.57	PK*	3.00	0.00	53.98	11.41	PASS
WLAN-CH1	H	3	Horn SN6276	4824.00	30.90		35.35	7.40	-31.04	11.71	42.61	PK*	3.00	0.00	53.98	11.37	PASS
WLAN-CH1	H	3	Horn SN6276	8375.07	38.50		39.33	10.22	-30.76	18.78	57.28	PK	3.00	0.00	73.98	16.70	PASS
WLAN-CH1	H	3	Horn SN6276	8375.59	30.85		39.33	10.21	-30.76	18.77	49.62	AV	3.00	0.00	53.98	4.35	PASS
WLAN-CH1	H	1	Horn SN6276	12060.00	36.78		40.58	8.62	-30.61	18.59	55.37	PK*	3.00	9.54	63.52	8.15	PASS
WLAN-CH1	H	1	Horn SN6276	14472.00	37.85		42.57	9.73	-30.78	21.52	59.37	PK*	3.00	9.54	63.52	4.15	PASS
WLAN-CH1	H	1	Horn SN6276	17893.55	39.35	X	45.58	11.13	-32.59	24.11	63.46	PK	3.00	9.54	83.52	20.06	PASS
WLAN-CH1	H	1	Horn SN6276	17893.55	29.11		45.58	11.13	-32.59	24.11	53.22	AV	3.00	9.54	63.52	10.30	PASS
WLAN-CH1	H	1	Waveline_899	18414.80	39.69	X	40.20	11.32	-34.76	16.76	56.45	PK*	3.00	9.54	63.52	7.07	PASS
WLAN-CH1	H	1	Waveline_899	19296.00	38.18		40.26	11.64	-35.23	16.67	54.85	PK*	3.00	9.54	63.52	8.67	PASS
WLAN-CH1	H	1	Waveline_899	23925.60	41.38	X	40.40	13.34	-35.55	18.18	59.56	PK*	3.00	9.54	63.52	3.96	PASS
WLAN-CH1	V	3	Loop 6502	2.18	40.50	X	10.32	0.52	0.00	10.84	51.34	PK*	30.00	40.00	69.54	18.20	PASS
WLAN-CH1	V	3	Horn SN6276	1023.96	14.20	X	26.53	3.44	0.00	29.97	44.17	PK*	3.00	0.00	53.98	9.81	PASS
WLAN-CH1	V	3	Horn SN6276	1073.24	14.85	X	26.60	3.36	0.00	29.96	44.81	PK*	3.00	0.00	53.98	9.17	PASS
WLAN-CH1	V	3	Horn SN6276	1103.61	14.65	X	26.65	3.42	0.00	30.07	44.72	PK*	3.00	0.00	53.98	9.26	PASS
WLAN-CH1	V	3	Horn SN6276	1198.66	14.75	X	26.78	3.58	0.00	30.36	45.11	PK*	3.00	0.00	53.98	8.87	PASS
WLAN-CH1	V	3	Horn SN6276	1226.46	15.45	X	26.82	3.62	0.00	30.44	45.89	PK*	3.00	0.00	53.98	8.09	PASS
WLAN-CH1	V	3	Horn SN6276	1226.87	15.30	X	26.82	3.62	0.00	30.44	45.74	PK*	3.00	0.00	53.98	8.24	PASS
WLAN-CH1	V	3	Horn SN6276	1361.51	15.90	X	27.01	3.81	0.00	30.82	46.72	PK*	3.00	0.00	53.98	7.26	PASS
WLAN-CH1	V	3	Horn SN6276	1486.03	16.60	X	27.18	4.02	0.00	31.20	47.80	PK*	3.00	0.00	53.98	6.18	PASS
WLAN-CH1	V	3	Horn SN6276	2328.74	33.70	X	30.13	5.01	-23.13	12.00	45.70	PK*	3.00	0.00	53.98	8.28	PASS
WLAN-CH1	V	3	Horn SN6276	2385.70	34.10	X	30.22	5.06	-23.13	12.15	46.25	PK*	3.00	0.00	53.98	7.73	PASS
WLAN-CH1	V	3	Horn SN6276	2679.48	36.55		30.97	5.43	-23.10	13.30	49.85	AV	3.00	0.00	53.98	4.13	PASS
WLAN-CH1	V	3	Horn SN6276	2679.68	42.20		30.97	5.43	-23.10	13.30	55.50	PK	3.00	0.00	73.98	18.48	PASS
WLAN-CH1	V	3	Horn SN6276	2754.54	36.90		31.21	5.50	-23.10	13.61	50.51	AV	3.00	0.00	53.98	3.47	PASS
WLAN-CH1	V	3	Horn SN6276	2754.56	43.10		31.21	5.50	-23.10	13.61	56.71	PK	3.00	0.00	73.98	17.27	PASS
WLAN-CH1	V	3	Horn SN6276	4824.00	32.55		35.35	7.40	-31.04	11.71	44.26	PK*	3.00	0.00	53.98	9.72	PASS
WLAN-CH1	V	1	Horn SN6276	12060.00	36.13		40.58	8.62	-30.61	18.59	54.72	PK*	3.00	9.54	63.52	8.80	PASS
WLAN-CH1	V	1	Horn SN6276	14472.00	37.94		42.57	9.73	-30.78	21.52	59.46	PK*	3.00	9.54	63.52	4.06	PASS
WLAN-CH1	V	1	Horn SN6276	17965.85	40.35	X	45.80	11.15	-32.63	24.32	64.67	PK	3.00	9.54	83.52	18.85	PASS
WLAN-CH1	V	1	Horn SN6276	17965.85	29.33	X	45.80	11.15	-32.63	24.32	53.65	AV	3.00	9.54	63.52	9.87	PASS
WLAN-CH1	V	1	Waveline_899	18087.55	39.46	X	40.20	11.20	-34.59	16.81	56.27	PK*	3.00	9.54	63.52	7.25	PASS
WLAN-CH1	V	1	Waveline_899	19296.00	37.97		40.26	11.64	-35.23	16.67	54.64	PK*	3.00	9.54	63.52	8.88	PASS
WLAN-CH1	V	1	Waveline_899	23945.50	40.43	X	40.40	13.35	-35.55	18.19	58.62	PK*	3.00	9.54	63.52	4.90	PASS

Formulae:

Total CF = Antenna Factor + Cable Factor + Other Factor (Amplifier Gain, filter loss, etc)

Field Strength = SA Reading + Total CF

Limit Distance Correction = $40 \cdot \log(d1/d2)$ for $F < 30$ MHz, $20 \cdot \log(d1/d2)$ for $F > 30$ MHz:

where d1 is the measurement distance, d2 is the published limit distance

Limit = Specified Limit + Limit Distance Correction

Margin = Limit - Field Strength

BOLD indicates emission at or near a carrier harmonic frequency

*Where applicable the QP or Average Limits were applied to the peak emission

No emissions were measured with margins less than those reported

The frequency points reported describe the highest emission measured in each of the ranges tested and are used to describe the measured spectrum as a whole. It is shown that the highest emissions measured within the spectrum pass the appropriate restricted limits; therefore all emissions within the restricted bands would also meet the requirements. No out-of-band emissions were measured above the levels noted.

 Testing and Engineering Services Lab	Test Report Serial No.:	061405KBC-T648-E15W	Report Issue No.:	Issue 1.0
	Test Date(s):	15Jun05 - 04Aug05	Report Issue Date:	20Sept05
	Test Rule Part(s):	FCC 47 CFR §15.247	Industry Canada RSS-210 Issue 5	
	Lab Registration(s):	FCC Lab Reg. # 714830	Industry Canada Lab File # IC 3874	

F.9.17. Mode b - 5.25" Monopole - Channel 6 Out-of-Band Spurious Emission Field Strengths @ Specified Distance (within restricted bands)

Channel	Polarity	Distance	Rx Antenna	Frequency	SA Level	Noise Floor	Rx AF	Rx CL	Other Rx	Total Rx CF	Field Strength	Detector	Limit Distance	Limit Distance Correction	Calculated Limit	Margin	Pass/Fail
		m		MHz	dBuV		dB/m	dB	dB	dB/m	dBuV/m	(PK/QP/AV)	m	dB	dBuV/m	dB	
WLAN-CH6	H	3	Loop 6502	2.17	39.60	X	10.32	0.52	0.00	10.84	50.44	PK*	30.00	40.00	69.54	19.10	PASS
WLAN-CH6	H	3	Horn SN6276	1089.00	14.85	X	26.62	3.39	0.00	30.01	44.86	PK*	3.00	0.00	53.98	9.12	PASS
WLAN-CH6	H	3	Horn SN6276	1096.75	15.75	X	26.64	3.41	0.00	30.04	45.79	PK*	3.00	0.00	53.98	8.19	PASS
WLAN-CH6	H	3	Horn SN6276	1130.71	14.75	X	26.68	3.47	0.00	30.15	44.90	PK*	3.00	0.00	53.98	9.08	PASS
WLAN-CH6	H	3	Horn SN6276	4652.06	31.20	X	35.00	7.28	-31.05	11.23	42.43	PK*	3.00	0.00	53.98	11.55	PASS
WLAN-CH6	H	3	Horn SN6276	4747.66	31.25	X	35.20	7.35	-31.05	11.50	42.75	PK*	3.00	0.00	53.98	11.23	PASS
WLAN-CH6	H	3	Horn SN6276	4874.00	30.25		35.45	7.60	-31.04	12.01	42.26	PK*	3.00	0.00	53.98	11.72	PASS
WLAN-CH6	H	3	Horn SN6276	7311.00	34.70		38.36	9.93	-30.84	17.46	52.16	PK	3.00	0.00	73.98	21.82	PASS
WLAN-CH6	H	3	Horn SN6276	7311.00	21.30		38.36	9.93	-30.84	17.46	38.76	AV	3.00	0.00	53.98	15.22	PASS
WLAN-CH6	H	3	Horn SN6276	8373.29	38.95		39.32	10.23	-30.76	18.78	57.73	PK	3.00	0.00	73.98	16.24	PASS
WLAN-CH6	H	3	Horn SN6276	8374.95	30.95		39.32	10.22	-30.76	18.78	49.73	AV	3.00	0.00	53.98	4.25	PASS
WLAN-CH6	H	3	Horn SN6276	9157.30	35.30		40.23	11.20	-30.73	20.70	56.00	PK	3.00	0.00	73.98	17.98	PASS
WLAN-CH6	H	3	Horn SN6276	9157.30	21.95		40.23	11.20	-30.73	20.70	42.65	AV	3.00	0.00	53.98	11.33	PASS
WLAN-CH6	H	1	Horn SN6276	12185.00	38.43		40.76	8.68	-30.61	18.83	57.26	PK*	3.00	9.54	63.52	6.26	PASS
WLAN-CH6	H	1	Horn SN6276	17891.75	40.20	X	45.58	11.13	-32.59	24.11	64.31	PK	3.00	9.54	83.52	19.21	PASS
WLAN-CH6	H	1	Horn SN6276	17891.75	29.34		45.58	11.13	-32.59	24.11	53.45	AV	3.00	9.54	63.52	10.07	PASS
WLAN-CH6	H	1	Waveline_899	18189.20	39.54	X	40.20	11.23	-34.64	16.79	56.33	PK*	3.00	9.54	63.52	7.19	PASS
WLAN-CH6	H	1	Waveline_899	19496.00	38.26		40.30	11.71	-35.33	16.68	54.94	PK*	3.00	9.54	63.52	8.58	PASS
WLAN-CH6	H	1	Waveline_899	20635.55	40.63	X	40.30	12.13	-35.59	16.84	57.47	PK*	3.00	9.54	63.52	6.05	PASS
WLAN-CH6	V	3	Loop 6502	2.18	41.50	X	10.32	0.52	0.00	10.84	52.34	PK*	30.00	40.00	69.54	17.20	PASS
WLAN-CH6	V	3	Bilog SN1607	257.43	25.20	X	13.49	1.62	0.00	15.11	40.31	PK*	3.00	0.00	46.02	5.71	PASS
WLAN-CH6	V	3	Horn SN6276	1107.79	15.45	X	26.65	3.42	0.00	30.08	45.53	PK*	3.00	0.00	53.98	8.45	PASS
WLAN-CH6	V	3	Horn SN6276	1119.41	15.15	X	26.67	3.44	0.00	30.10	45.25	PK*	3.00	0.00	53.98	8.73	PASS
WLAN-CH6	V	3	Horn SN6276	1126.45	15.40	X	26.68	3.46	0.00	30.13	45.53	PK*	3.00	0.00	53.98	8.45	PASS
WLAN-CH6	V	3	Horn SN6276	2679.50	44.15		30.97	5.43	-23.10	13.30	57.45	PK	3.00	0.00	73.98	16.53	PASS
WLAN-CH6	V	3	Horn SN6276	2679.50	36.60		30.97	5.43	-23.10	13.30	49.90	AV	3.00	0.00	53.98	4.08	PASS
WLAN-CH6	V	3	Horn SN6276	2703.88	33.30	X	31.05	5.45	-23.10	13.40	46.70	PK*	3.00	0.00	53.98	7.28	PASS
WLAN-CH6	V	3	Horn SN6276	2741.68	46.75		31.17	5.45	-23.10	13.52	60.27	PK	3.00	0.00	73.98	13.71	PASS
WLAN-CH6	V	3	Horn SN6276	2752.64	33.95	X	31.21	5.49	-23.10	13.60	47.55	PK*	3.00	0.00	53.98	6.43	PASS
WLAN-CH6	V	3	Horn SN6276	4259.96	35.35		34.70	6.92	-31.09	10.54	45.89	PK*	3.00	0.00	53.98	8.09	PASS
WLAN-CH6	V	3	Horn SN6276	4874.00	31.20		35.45	7.60	-31.04	12.01	43.21	PK*	3.00	0.00	53.98	10.77	PASS
WLAN-CH6	V	3	Horn SN6276	7311.00	34.55		38.36	9.93	-30.84	17.46	52.01	PK	3.00	0.00	73.98	21.97	PASS
WLAN-CH6	V	3	Horn SN6276	7311.00	21.15		38.36	9.93	-30.84	17.46	38.61	AV	3.00	0.00	53.98	15.37	PASS
WLAN-CH6	V	1	Horn SN6276	12185.00	37.28		40.76	8.68	-30.61	18.83	56.11	PK*	3.00	9.54	63.52	7.41	PASS
WLAN-CH6	V	1	Horn SN6276	17961.95	40.28	X	45.79	11.15	-32.63	24.31	64.59	PK	3.00	9.54	83.52	18.93	PASS
WLAN-CH6	V	1	Horn SN6276	17961.95	29.34	X	45.79	11.15	-32.63	24.31	53.65	AV	3.00	9.54	63.52	9.87	PASS
WLAN-CH6	V	1	Waveline_899	18196.05	39.17	X	40.20	11.24	-34.64	16.79	55.96	PK*	3.00	9.54	63.52	7.56	PASS
WLAN-CH6	V	1	Waveline_899	19496.00	38.25		40.30	11.71	-35.33	16.68	54.93	PK*	3.00	9.54	63.52	8.59	PASS

Formulae:

Total CF = Antenna Factor + Cable Factor + Other Factor (Amplifier Gain, filter loss, etc)

Field Strength = SA Reading + Total CF

Limit Distance Correction = 40*log(d1/d2) for F<30 MHz, 20*log(d1/d2) for F> 30 MHz:

where d1 is the measurement distance, d2 is the published limit distance

Limit = Specified Limit + Limit Distance Correction

Margin = Limit - Field Strength

BOLD indicates emission at or near a carrier harmonic frequency

*Where applicable the QP or Average Limits were applied to the peak emission

No emissions were measured with margins less than those reported

The frequency points reported describe the highest emission measured in each of the ranges tested and are used to describe the measured spectrum as a whole. It is shown that the highest emissions measured within the spectrum pass the appropriate restricted limits; therefore all emissions within the restricted bands would also meet the requirements. No out-of-band emissions were measured above the levels noted.

Applicant:	Itronix Corporation	Model:	IX260PLUSNL305	FCC ID:	KBCIX260PLUSNL305	
Rugged Laptop PC with internal Senao NL-3054MP 802.11b/g WLAN Mini-PCI Card and External Antennas						
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 Testing and Engineering Services Lab	Test Report Serial No.:	061405KBC-T648-E15W	Report Issue No.:	Issue 1.0
	Test Date(s):	15Jun05 - 04Aug05	Report Issue Date:	20Sept05
	Test Rule Part(s):	FCC 47 CFR §15.247	Industry Canada RSS-210 Issue 5	
	Lab Registration(s):	FCC Lab Reg. # 714830	Industry Canada Lab File # IC 3874	

F.9.18. Mode b - 5.25" Monopole - Channel 11 Out-of-Band Spurious Emission Field Strengths @ Specified Distance (within restricted bands)

Channel	Polarity	Distance	Rx Antenna	Frequency	SA Level	Noise Floor	Rx AF	Rx CL	Other Rx	Total Rx CF	Field Strength	Detector	Limit Distance	Limit Distance Correction	Calculated Limit	Margin	Pass/Fail
		m		MHz	dBuV		dB/m	dB	dB	dB/m	dBuV/m	(PK/QP/AV)	m	dB	dBuV/m	dB	
WLAN-CH11	H	3	Loop 6502	2.17	39.20	X	10.32	0.52	0.00	10.84	50.04	PK*	30.00	40.00	69.54	19.50	PASS
WLAN-CH11	H	3	Horn SN6276	1048.13	15.35	X	26.57	3.33	0.00	29.90	45.25	PK*	3.00	0.00	53.98	8.73	PASS
WLAN-CH11	H	3	Horn SN6276	2484.00	38.50		30.37	5.18	-23.12	12.44	50.94	PK*	3.00	0.00	53.98	3.04	PASS
WLAN-CH11	H	3	Horn SN6276	4783.91	30.20	X	35.27	7.49	-31.04	11.72	41.92	PK*	3.00	0.00	53.98	12.06	PASS
WLAN-CH11	H	3	Horn SN6276	4924.00	30.75		35.55	7.53	-31.03	12.05	42.80	PK*	3.00	0.00	53.98	11.18	PASS
WLAN-CH11	H	3	Horn SN6276	7386.00	34.65		38.49	9.94	-30.83	17.61	52.26	PK	3.00	0.00	73.98	21.72	PASS
WLAN-CH11	H	3	Horn SN6276	7386.00	20.90		38.49	9.94	-30.83	17.61	38.51	AV	3.00	0.00	53.98	15.47	PASS
WLAN-CH11	H	3	Horn SN6276	8374.91	30.35		39.32	10.22	-30.76	18.78	49.13	AV	3.00	0.00	53.98	4.85	PASS
WLAN-CH11	H	3	Horn SN6276	8375.23	39.05		39.33	10.22	-30.76	18.78	57.83	PK	3.00	0.00	73.98	16.15	PASS
WLAN-CH11	H	1	Horn SN6276	12310.00	38.33		40.93	8.74	-30.60	19.07	57.40	PK*	3.00	9.54	63.52	6.12	PASS
WLAN-CH11	H	1	Horn SN6276	15554.75	39.87	X	40.78	10.23	-31.35	19.65	59.52	PK*	3.00	9.54	63.52	4.00	PASS
WLAN-CH11	H	1	Horn SN6276	17969.90	39.59	X	45.81	11.15	-32.63	24.33	63.92	PK	3.00	9.54	83.52	19.60	PASS
WLAN-CH11	H	1	Horn SN6276	17969.90	29.33	X	45.81	11.15	-32.63	24.33	53.66	AV	3.00	9.54	63.52	9.86	PASS
WLAN-CH11	H	1	Waveline_899	18265.65	39.55	X	40.20	11.26	-34.68	16.78	56.33	PK*	3.00	9.54	63.52	7.19	PASS
WLAN-CH11	H	1	Waveline_899	19696.00	37.93		40.30	11.79	-35.44	16.65	54.58	PK*	3.00	9.54	63.52	8.94	PASS
WLAN-CH11	H	1	Waveline_899	22158.00	38.88		40.33	12.69	-35.57	17.45	56.33	PK*	3.00	9.54	63.52	7.19	PASS
WLAN-CH11	H	1	Waveline_899	23925.55	40.39	X	40.40	13.34	-35.55	18.18	58.57	PK*	3.00	9.54	63.52	4.95	PASS
WLAN-CH11	V	3	Loop 6502	2.18	39.70	X	10.32	0.52	0.00	10.84	50.54	PK*	30.00	40.00	69.54	19.00	PASS
WLAN-CH11	V	3	Horn SN6276	1087.90	15.45	X	26.62	3.38	0.00	30.01	45.46	PK*	3.00	0.00	53.98	8.52	PASS
WLAN-CH11	V	3	Horn SN6276	1110.75	16.10	X	26.66	3.43	0.00	30.08	46.18	PK*	3.00	0.00	53.98	7.80	PASS
WLAN-CH11	V	3	Horn SN6276	1513.25	15.55	X	27.26	4.02	0.00	31.28	46.83	PK*	3.00	0.00	53.98	7.15	PASS
WLAN-CH11	V	3	Horn SN6276	2488.46	37.25		30.38	5.20	-23.12	12.46	49.71	PK*	3.00	0.00	53.98	4.27	PASS
WLAN-CH11	V	3	Horn SN6276	2703.36	34.90	X	31.05	5.45	-23.10	13.40	48.30	PK*	3.00	0.00	53.98	5.68	PASS
WLAN-CH11	V	3	Horn SN6276	2755.76	34.05	X	31.22	5.50	-23.10	13.62	47.67	PK*	3.00	0.00	53.98	6.31	PASS
WLAN-CH11	V	3	Horn SN6276	4924.00	30.55		35.55	7.53	-31.03	12.05	42.60	PK*	3.00	0.00	53.98	11.38	PASS
WLAN-CH11	V	3	Horn SN6276	7386.00	34.70		38.49	9.94	-30.83	17.61	52.31	PK	3.00	0.00	73.98	21.67	PASS
WLAN-CH11	V	3	Horn SN6276	7386.00	20.90		38.49	9.94	-30.83	17.61	38.51	AV	3.00	0.00	53.98	15.47	PASS
WLAN-CH11	V	3	Horn SN6276	9423.49	35.25	X	40.28	11.74	-30.72	21.30	56.55	PK	3.00	0.00	73.98	17.43	PASS
WLAN-CH11	V	3	Horn SN6276	9423.49	22.00	X	40.28	11.74	-30.72	21.30	43.30	AV	3.00	0.00	53.98	10.68	PASS
WLAN-CH11	V	1	Horn SN6276	12310.00	37.97		40.93	8.74	-30.60	19.07	57.04	PK*	3.00	9.54	63.52	6.48	PASS
WLAN-CH11	V	1	Horn SN6276	12521.45	39.02	X	41.22	8.83	-30.59	19.46	58.48	PK*	3.00	9.54	63.52	5.04	PASS
WLAN-CH11	V	1	Horn SN6276	17903.25	40.50	X	45.61	11.13	-32.60	24.14	64.64	PK	3.00	9.54	83.52	18.88	PASS
WLAN-CH11	V	1	Horn SN6276	17903.25	29.31	X	45.61	11.13	-32.60	24.14	53.45	AV	3.00	9.54	63.52	10.07	PASS
WLAN-CH11	V	1	Waveline_899	18623.45	38.92	X	40.20	11.39	-34.87	16.72	55.64	PK*	3.00	9.54	63.52	7.88	PASS
WLAN-CH11	V	1	Waveline_899	19696.00	38.15		40.30	11.79	-35.44	16.65	54.80	PK*	3.00	9.54	63.52	8.72	PASS
WLAN-CH11	V	1	Waveline_899	22158.00	39.04		40.33	12.69	-35.57	17.45	56.49	PK*	3.00	9.54	63.52	7.03	PASS
WLAN-CH11	V	1	Waveline_899	23924.85	41.19	X	40.40	13.34	-35.55	18.18	59.37	PK*	3.00	9.54	63.52	4.15	PASS

Formulae:

Total CF = Antenna Factor + Cable Factor + Other Factor (Amplifier Gain, filter loss, etc)

Field Strength = SA Reading + Total CF

Limit Distance Correction = $40 \cdot \log(d1/d2)$ for $F < 30$ MHz, $20 \cdot \log(d1/d2)$ for $F > 30$ MHz:
where d1 is the measurement distance, d2 is the published limit distance

Limit = Specified Limit + Limit Distance Correction

Margin = Limit - Field Strength

BOLD indicates emission at or near a carrier harmonic frequency

*Where applicable the QP or Average Limits where applied to the peak emission

No emissions were measured with margins less than those reported

The frequency points reported describe the highest emission measured in each of the ranges tested and are used to describe the measured spectrum as a whole. It is shown that the highest emissions measured within the spectrum pass the appropriate restricted limits; therefore all emissions within the restricted bands would also meet the requirements. No out-of-band emissions were measured above the levels noted.

Applicant:	Itronix Corporation	Model:	IX260PLUSNL305	FCC ID:	KBCIX260PLUSNL305		
Rugged Laptop PC with internal Senao NL-3054MP 802.11b/g WLAN Mini-PCI Card and External Antennas							
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F.9.19. Mode g - 5.25" Monopole - Fundamental Field Strengths @ Specified Distance (1 MHz RBW)

Channel	Polarity	Measurement Distance	Antenna	Frequency	SA Level	Noise Floor	AF	CL	Other	Total CF	Field Strength	Detector	RBW
		m					MHz	dBuV	dB/m	dB	dB		dB/m
WLAN-CH1	H	3	Horn SN6276	2412.00	80.70		30.26	5.10	-23.13	12.23	92.93	PK	1000
WLAN-CH1	H	3	Horn SN6276	2412.00	71.10		30.26	5.10	-23.13	12.23	83.33	AV	1000
WLAN-CH1	V	3	Horn SN6276	2412.00	88.90		30.26	5.10	-23.13	12.23	101.13	PK	1000
WLAN-CH1	V	3	Horn SN6276	2412.00	79.20		30.26	5.10	-23.13	12.23	91.43	AV	1000
WLAN-CH6	H	3	Horn SN6276	2437.00	80.20		30.30	5.14	-23.12	12.31	92.51	PK	1000
WLAN-CH6	H	3	Horn SN6276	2437.00	70.30		30.30	5.14	-23.12	12.31	82.61	AV	1000
WLAN-CH6	V	3	Horn SN6276	2437.00	88.60		30.30	5.14	-23.12	12.31	100.91	PK	1000
WLAN-CH6	V	3	Horn SN6276	2437.00	78.50		30.30	5.14	-23.12	12.31	90.81	AV	1000
WLAN-CH11	H	3	Horn SN6276	2462.00	82.00		30.34	5.16	-23.12	12.38	94.38	PK	1000
WLAN-CH11	H	3	Horn SN6276	2462.00	72.60		30.34	5.16	-23.12	12.38	84.98	AV	1000
WLAN-CH11	V	3	Horn SN6276	2462.00	88.70		30.34	5.16	-23.12	12.38	101.08	PK	1000
WLAN-CH11	V	3	Horn SN6276	2462.00	79.10		30.34	5.16	-23.12	12.38	91.48	AV	1000

Formulae:

Total CF = Antenna Factor + Cable Factor + Other Factor (Amplifier Gain, filter loss, etc)

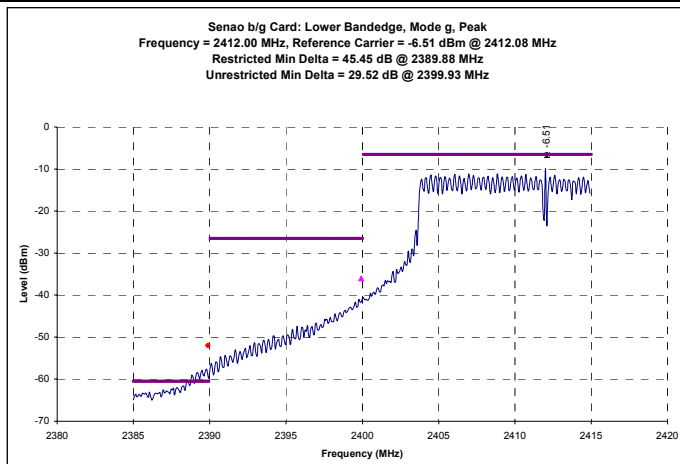
$$\text{Field Strength} = \text{SA Reading} + \text{Total CF}$$

	Test Report Serial No.:	061405KBC-T648-E15W	Report Issue No.:	Issue 1.0
	Test Date(s):	15Jun05 - 04Aug05	Report Issue Date:	20Sept05
	Test Rule Part(s):	FCC 47 CFR §15.247	Industry Canada RSS-210 Issue 5	
	Lab Registration(s):	FCC Lab Reg. # 714830	Industry Canada Lab File # IC 3874	

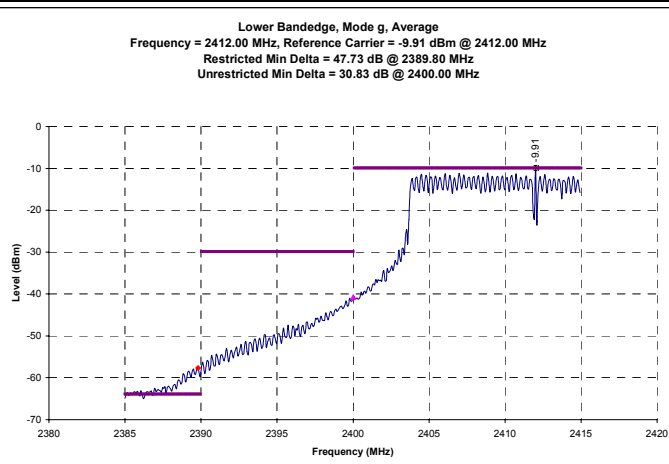
F.9.20. Mode g - 5.25" Monopole - Lower Band-edge Emission Field Strengths @ Specified Distance

Note: (Lower Band-edge (unrestricted Band) is in Appendix E)

Channel 1 - Peak Conducted Band-edge Plots



Channel 1 - Average Conducted Band-edge Plots



Channel 1 - Calculated Band-edge (within restricted bands) Field Strengths

Channel	Polarity	Distance	Frequency	Carrier Radiated Field Strength	Delta Marker	Detector	Calculated Bandedge Field Strength	Duty Cycle Correction	Corrected Bandedge Field Strength	Specified Limit	Specified Limit Distance	Limit Distance Correction	Calculated Limit	Margin	Pass/Fail
		m	MHz	dBuV/m	dB		dBuV/m	dB	dBuV/m	dBuV/m	m	dB	dBuV/m	dB	
WLAN-CH1	H	3	2389.88	92.93	45.45	PK	47.48	0.00	47.48	73.98	3.00	0.00	73.98	26.50	PASS
WLAN-CH1	H	3	2389.80	83.33	47.73	AV	35.60	0.00	35.60	53.98	3.00	0.00	53.98	18.38	PASS
WLAN-CH1	V	3	2389.88	101.13	45.45	PK	55.68	0.00	55.68	73.98	3.00	0.00	73.98	18.30	PASS
WLAN-CH1	V	3	2389.80	91.43	47.73	AV	43.70	0.00	43.70	53.98	3.00	0.00	53.98	10.28	PASS

Formulae:

Calculated Bandedge Field Strength (dBuV/m) = Carrier Radiated Field Strength (dBuV/m) - Delta Marker (dB)

Duty Cycle Correction (dB) = $20 \cdot \log(\text{time on} / \text{total time})$

Corrected Bandedge Field Strength (dBuV/m) = Calculated Bandedge Field Strength (dBuV/m) + Duty Cycle Correction (dB)

Limit Distance Correction = $20 \cdot \log(\text{measurement distance} / \text{limit distance})$

Calculated Limit (dBuV/m) = Specified Limit (dBuV/m) + Limit Distance Correction (dB)

Margin (dB) = Calculated Limit (dBuV/m) - Corrected Bandedge Field Strength (dBuV/m)

Note: Measurements and calculation reference the Marker-Delta Method described in FCC Public Notice DA 00-705

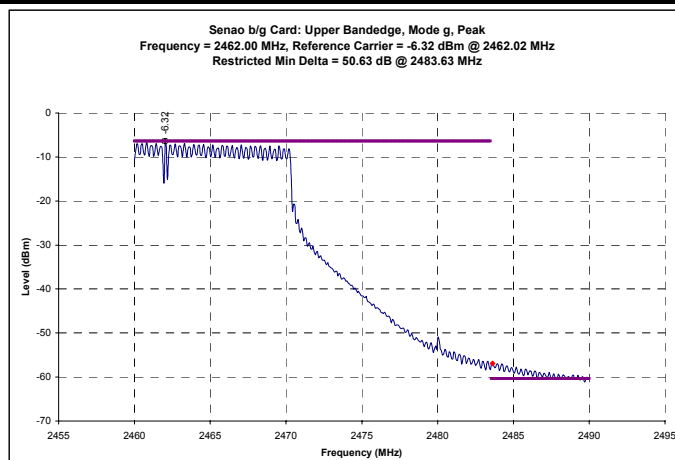
Limit based on highest radiated carrier

Applicant:	Itronix Corporation	Model:	IX260PLUSNL305	FCC ID:	KBCIX260PLUSNL305	
Rugged Laptop PC with internal Senao NL-3054MP 802.11b/g WLAN Mini-PCI Card and External Antennas						
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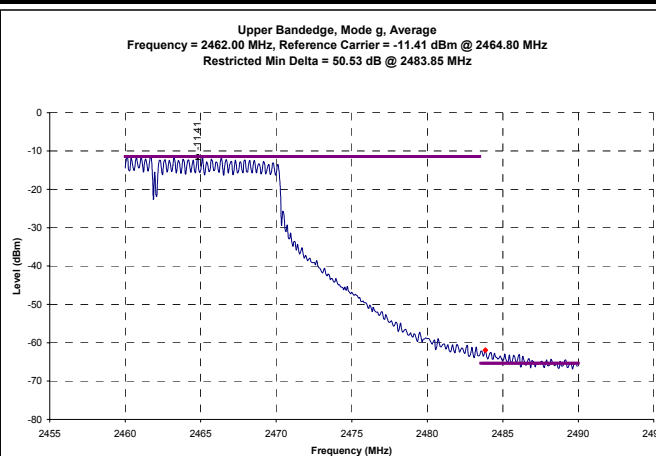
Test Report Serial No.:	061405KBC-T648-E15W	Report Issue No.:	Issue 1.0
Test Date(s):	15Jun05 - 04Aug05	Report Issue Date:	20Sept05
Test Rule Part(s):	FCC 47 CFR §15.247	Industry Canada RSS-210 Issue 5	
Lab Registration(s):	FCC Lab Reg. # 714830	Industry Canada Lab File # IC 3874	

F.9.21. Mode g - 5.25" Monopole - Upper Band-edge Emission Field Strengths @ Specified Distance

Channel 11 - Peak Conducted Band-edge Plots



Channel 11 - Average Conducted Band-edge Plots



Channel 11 - Calculated Band-edge (within restricted bands) Field Strengths

Channel	Polarity	Distance	Frequency	Carrier Radiated Field Strength	Delta Marker	Detector	Calculated Bandedge Field Strength	Duty Cycle Correction	Corrected Bandedge Field Strength	Specified Limit	Specified Limit Distance	Limit Distance Correction	Calculated Limit	Margin	Pass/Fail
		m													
WLAN-CH11	H	3	2483.63	94.38	50.63	PK	43.75	0.00	43.75	73.98	3.00	0.00	73.98	30.23	PASS
WLAN-CH11	H	3	2483.85	84.98	50.53	AV	34.45	0.00	34.45	53.98	3.00	0.00	53.98	19.53	PASS
WLAN-CH11	V	3	2483.63	101.08	50.63	PK	50.45	0.00	50.45	73.98	3.00	0.00	73.98	23.53	PASS
WLAN-CH11	V	3	2483.85	91.48	50.53	AV	40.95	0.00	40.95	53.98	3.00	0.00	53.98	13.03	PASS

Formulae:

$$\text{Calculated Bandedge Field Strength (dBuV/m)} = \text{Carrier Radiated Field Strength (dBuV/m)} - \text{Delta Marker (dB)}$$

Duty Cycle Correction (dB) = 20 * log (time on / total time)

$$\text{Corrected Bandedge Field Strength (dBuV/m)} = \text{Calculated Bandedge Field Strength (dBuV/m)} + \text{Duty Cycle Correction (dB)}$$
$$\text{Limit Distance Correction} = 20 * \log (\text{measurement distance} / \text{limit distance})$$
$$\text{Calculated Limit (dBuV/m)} = \text{Specified Limit (dBuV/m)} + \text{Limit Distance Correction (dB)}$$
$$\text{Margin (dB)} = \text{Calculated Limit (dBuV/m)} - \text{Corrected Bandedge Field Strength (dBuV/m)}$$

Note: Measurements and calculation reference the Marker-Delta Method described in FCC Public Notice DA 00-705

Limit based on highest radiated carrier

 Testing and Engineering Services Lab	Test Report Serial No.:	061405KBC-T648-E15W	Report Issue No.:	Issue 1.0
	Test Date(s):	15Jun05 - 04Aug05	Report Issue Date:	20Sept05
	Test Rule Part(s):	FCC 47 CFR §15.247	Industry Canada RSS-210 Issue 5	
	Lab Registration(s):	FCC Lab Reg. # 714830	Industry Canada Lab File # IC 3874	

F.9.22. Mode g - 5.25" Monopole - Channel 1 Out-of-Band Spurious Emission Field Strengths @ Specified Distance (within restricted bands)

Channel	Polarity	Distance	Rx Antenna	Frequency	SA Level	Noise Floor	Rx AF	Rx CL	Other Rx	Total Rx CF	Field Strength	Detector	Limit Distance	Limit Distance Correction	Calculated Limit	Margin	Pass/Fail
		m		MHz	dBuV		dB/m	dB	dB	dB/m	dBuV/m	(PK/QP/AV)	m	dB	dBuV/m	dB	
WLAN-CH1	H	3	Loop 6502	2.18	38.80	X	10.32	0.52	0.00	10.84	49.64	PK*	30.00	40.00	69.54	19.90	PASS
WLAN-CH1	H	3	Bilog SN1607	112.70	27.70	X	11.46	1.07	0.00	12.53	40.23	PK*	3.00	0.00	43.52	3.29	PASS
WLAN-CH1	H	3	Bilog SN1607	172.40	23.20		10.21	1.32	0.00	11.52	34.72	QP	3.00	0.00	43.52	8.80	PASS
WLAN-CH1	H	3	Bilog SN1607	172.40	43.70		10.21	1.32	0.00	11.52	55.22	PK	3.00	0.00	63.52	8.30	PASS
WLAN-CH1	H	3	Bilog SN1607	324.33	21.20	X	14.37	1.83	0.00	16.20	37.40	PK*	3.00	0.00	46.02	8.62	PASS
WLAN-CH1	H	3	Horn SN6276	1066.37	14.80	X	26.59	3.36	0.00	29.95	44.75	PK*	3.00	0.00	53.98	9.23	PASS
WLAN-CH1	H	3	Horn SN6276	1107.27	15.75	X	26.65	3.42	0.00	30.07	45.82	PK*	3.00	0.00	53.98	8.16	PASS
WLAN-CH1	H	3	Horn SN6276	1148.19	15.85	X	26.71	3.50	0.00	30.21	46.06	PK*	3.00	0.00	53.98	7.92	PASS
WLAN-CH1	H	3	Horn SN6276	4281.18	31.60	X	34.70	6.94	-31.08	10.56	42.16	PK*	3.00	0.00	53.98	11.82	PASS
WLAN-CH1	H	3	Horn SN6276	4352.56	31.50	X	34.70	7.02	-31.08	10.64	42.14	PK*	3.00	0.00	53.98	11.84	PASS
WLAN-CH1	H	3	Horn SN6276	4824.00	30.30		35.35	7.40	-31.04	11.71	42.01	PK*	3.00	0.00	53.98	11.97	PASS
WLAN-CH1	H	3	Horn SN6276	8322.88	34.95	X	39.29	10.41	-30.77	18.94	53.89	PK	3.00	0.00	73.98	20.09	PASS
WLAN-CH1	H	3	Horn SN6276	8322.88	23.40		39.29	10.41	-30.77	18.94	42.34	AV	3.00	0.00	53.98	11.64	PASS
WLAN-CH1	H	3	Horn SN6276	8374.93	30.75		39.32	10.22	-30.76	18.78	49.53	AV	3.00	0.00	53.98	4.45	PASS
WLAN-CH1	H	3	Horn SN6276	8375.11	38.40		39.33	10.22	-30.76	18.78	57.18	PK	3.00	0.00	73.98	16.80	PASS
WLAN-CH1	H	1	Horn SN6276	12060.00	38.07		40.58	8.62	-30.61	18.59	56.66	PK*	3.00	9.54	63.52	6.86	PASS
WLAN-CH1	H	1	Horn SN6276	14472.00	38.94		42.57	9.73	-30.78	21.52	60.46	PK*	3.00	9.54	63.52	3.06	PASS
WLAN-CH1	H	1	Horn SN6276	17999.95	39.88	X	45.90	11.16	-32.65	24.41	64.29	PK	3.00	9.54	83.52	19.23	PASS
WLAN-CH1	H	1	Horn SN6276	17999.95	29.33	X	45.90	11.16	-32.65	24.41	53.74	AV	3.00	9.54	63.52	9.78	PASS
WLAN-CH1	H	1	Waveline_899	19296.00	38.73		40.26	11.64	-35.23	16.67	55.40	PK*	3.00	9.54	63.52	8.12	PASS
WLAN-CH1	H	1	Waveline_899	23981.35	41.16	X	40.40	13.37	-35.55	18.21	59.37	PK*	3.00	9.54	63.52	4.15	PASS
WLAN-CH1	V	3	Loop 6502	2.19	40.50	X	10.32	0.52	0.00	10.84	51.34	PK*	30.00	40.00	69.54	18.20	PASS
WLAN-CH1	V	3	Horn SN6276	1065.35	14.20	X	26.59	3.36	0.00	29.95	44.15	PK*	3.00	0.00	53.98	9.83	PASS
WLAN-CH1	V	3	Horn SN6276	1090.09	15.90	X	26.63	3.39	0.00	30.02	45.92	PK*	3.00	0.00	53.98	8.06	PASS
WLAN-CH1	V	3	Horn SN6276	1108.85	17.90	X	26.65	3.43	0.00	30.08	47.98	PK*	3.00	0.00	53.98	6.00	PASS
WLAN-CH1	V	3	Horn SN6276	1130.18	16.30	X	26.68	3.47	0.00	30.15	46.45	PK*	3.00	0.00	53.98	7.53	PASS
WLAN-CH1	V	3	Horn SN6276	2335.52	34.85		30.14	5.02	-23.13	12.02	46.87	PK*	3.00	0.00	53.98	7.11	PASS
WLAN-CH1	V	3	Horn SN6276	2662.20	34.55	X	30.92	5.38	-23.11	13.19	47.74	PK*	3.00	0.00	53.98	6.24	PASS
WLAN-CH1	V	3	Horn SN6276	2679.68	44.90		30.97	5.43	-23.10	13.30	58.20	PK	3.00	0.00	73.98	15.78	PASS
WLAN-CH1	V	3	Horn SN6276	2679.88	36.60		30.98	5.43	-23.10	13.30	49.90	AV	3.00	0.00	53.98	4.08	PASS
WLAN-CH1	V	3	Horn SN6276	2715.40	33.90	X	31.09	5.42	-23.10	13.41	47.31	PK*	3.00	0.00	53.98	6.67	PASS
WLAN-CH1	V	3	Horn SN6276	2751.40	32.40	X	31.20	5.48	-23.10	13.59	45.99	PK*	3.00	0.00	53.98	7.99	PASS
WLAN-CH1	V	3	Horn SN6276	2841.10	34.00	X	31.49	5.57	-23.09	13.97	47.97	PK*	3.00	0.00	53.98	6.01	PASS
WLAN-CH1	V	3	Horn SN6276	4353.24	36.80		34.70	7.02	-31.08	10.64	47.44	PK*	3.00	0.00	53.98	6.54	PASS
WLAN-CH1	V	3	Horn SN6276	4824.00	30.25		35.35	7.40	-31.04	11.71	41.96	PK*	3.00	0.00	53.98	12.02	PASS
WLAN-CH1	V	1	Horn SN6276	12060.00	37.85		40.58	8.62	-30.61	18.59	56.44	PK*	3.00	9.54	63.52	7.08	PASS
WLAN-CH1	V	1	Horn SN6276	14472.00	38.80		42.57	9.73	-30.78	21.52	60.32	PK*	3.00	9.54	63.52	3.20	PASS
WLAN-CH1	V	1	Horn SN6276	18000.00	40.35	X	45.90	11.17	-32.65	24.42	64.77	PK	3.00	9.54	83.52	18.76	PASS
WLAN-CH1	V	1	Horn SN6276	18000.00	29.37	X	45.90	11.17	-32.65	24.42	53.79	AV	3.00	9.54	63.52	9.74	PASS
WLAN-CH1	V	1	Waveline_899	18041.80	39.73	X	40.20	11.18	-34.56	16.82	56.55	PK*	3.00	9.54	63.52	6.97	PASS
WLAN-CH1	V	1	Waveline_899	19296.00	38.16		40.26	11.64	-35.23	16.67	54.83	PK*	3.00	9.54	63.52	8.69	PASS
WLAN-CH1	V	1	Waveline_899	23982.40	41.23	X	40.40	13.37	-35.55	18.21	59.44	PK*	3.00	9.54	63.52	4.08	PASS

Formulae:

Total CF = Antenna Factor + Cable Factor + Other Factor (Amplifier Gain, filter loss, etc)

Field Strength = SA Reading + Total CF

Limit Distance Correction = 40*log(d1/d2) for F<30 MHz, 20*log(d1/d2) for F > 30 MHz:

where d1 is the measurement distance, d2 is the published limit distance

Limit = Specified Limit + Limit Distance Correction

Margin = Limit - Field Strength

BOLD indicates emission at or near a carrier harmonic frequency

*Where applicable the QP or Average Limits were applied to the peak emission

No emissions were measured with margins less than those reported

The frequency points reported describe the highest emission measured in each of the ranges tested and are used to describe the measured spectrum as a whole. It is shown that the highest emissions measured within the spectrum pass the appropriate restricted limits; therefore all emissions within the restricted bands would also meet the requirements. No out-of-band emissions were measured above the levels noted.

Applicant:	Itronix Corporation	Model:	IX260PLUSNL305	FCC ID:	KBCIX260PLUSNL305	
Rugged Laptop PC with internal Senao NL-3054MP 802.11b/g WLAN Mini-PCI Card and External Antennas						
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	Test Report Serial No.:	061405KBC-T648-E15W	Report Issue No.:	Issue 1.0
	Test Date(s):	15Jun05 - 04Aug05	Report Issue Date:	20Sept05
	Test Rule Part(s):	FCC 47 CFR §15.247	Industry Canada RSS-210 Issue 5	
	Lab Registration(s):	FCC Lab Reg. # 714830	Industry Canada Lab File # IC 3874	

F.9.23. Mode g - 5.25" Monopole - Channel 6 Out-of-Band Spurious Emission Field Strengths @ Specified Distance (within restricted bands)

Channel	Polarity	Distance	Rx Antenna	Frequency	SA Level	Noise Floor	Rx AF	Rx CL	Other Rx	Total Rx CF	Field Strength	Detector	Limit Distance	Limit Distance Correction	Calculated Limit	Margin	Pass/Fail
		m		MHz	dBuV		dB/m	dB	dB	dB/m	dBuV/m	(PK/QP/AV)	m	dB	dBuV/m	dB	
WLAN-CH6	H	3	Loop 6502	2.18	40.60	X	10.32	0.52	0.00	10.84	51.44	PK*	30.00	40.00	69.54	18.10	PASS
WLAN-CH6	H	3	Bilog SN1607	400.17	17.60		16.71	2.05	0.00	18.76	36.36	PK*	3.00	0.00	46.02	9.66	PASS
WLAN-CH6	H	3	Horn SN6276	1065.79	15.55	X	26.59	3.36	0.00	29.95	45.50	PK*	3.00	0.00	53.98	8.48	PASS
WLAN-CH6	H	3	Horn SN6276	1127.97	15.75	X	26.68	3.46	0.00	30.14	45.89	PK*	3.00	0.00	53.98	8.09	PASS
WLAN-CH6	H	3	Horn SN6276	3811.73	31.65	X	34.17	6.53	-31.12	9.58	41.23	PK*	3.00	0.00	53.98	12.75	PASS
WLAN-CH6	H	3	Horn SN6276	4874.00	29.95		35.45	7.60	-31.04	12.01	41.96	PK*	3.00	0.00	53.98	12.02	PASS
WLAN-CH6	H	3	Horn SN6276	7311.00	35.50		38.36	9.93	-30.84	17.46	52.96	PK	3.00	0.00	73.98	21.02	PASS
WLAN-CH6	H	3	Horn SN6276	7311.00	21.10		38.36	9.93	-30.84	17.46	38.56	AV	3.00	0.00	53.98	15.42	PASS
WLAN-CH6	H	3	Horn SN6276	8303.19	25.50		39.28	10.25	-30.77	18.76	44.26	AV	3.00	0.00	53.98	9.71	PASS
WLAN-CH6	H	3	Horn SN6276	8303.31	37.20		39.28	10.25	-30.77	18.77	55.97	PK	3.00	0.00	73.98	18.01	PASS
WLAN-CH6	H	3	Horn SN6276	8375.15	29.95		39.33	10.22	-30.76	18.78	48.73	AV	3.00	0.00	53.98	5.25	PASS
WLAN-CH6	H	3	Horn SN6276	8375.41	38.30		39.33	10.21	-30.76	18.78	57.08	PK	3.00	0.00	73.98	16.90	PASS
WLAN-CH6	H	3	Horn SN6276	9330.13	35.60	X	40.27	11.53	-30.72	21.08	56.68	PK	3.00	0.00	73.98	17.30	PASS
WLAN-CH6	H	3	Horn SN6276	9330.13	22.25		40.27	11.53	-30.72	21.08	43.33	AV	3.00	0.00	53.98	10.65	PASS
WLAN-CH6	H	1	Horn SN6276	12185.00	38.43		40.76	8.68	-30.61	18.83	57.26	PK*	3.00	9.54	63.52	6.26	PASS
WLAN-CH6	H	1	Horn SN6276	17737.50	39.77	X	45.11	11.07	-32.51	23.67	63.44	PK	3.00	9.54	83.52	20.08	PASS
WLAN-CH6	H	1	Horn SN6276	17737.50	29.22		45.11	11.07	-32.51	23.67	52.89	AV	3.00	9.54	63.52	10.63	PASS
WLAN-CH6	H	1	Waveline_899	18366.35	39.08	X	40.20	11.30	-34.73	16.77	55.85	PK*	3.00	9.54	63.52	7.68	PASS
WLAN-CH6	H	1	Waveline_899	19496.00	38.63		40.30	11.71	-35.33	16.68	55.31	PK*	3.00	9.54	63.52	8.21	PASS
WLAN-CH6	H	1	Waveline_899	23986.70	41.55	X	40.40	13.37	-35.55	18.22	59.77	PK*	3.00	9.54	63.52	3.75	PASS
WLAN-CH6	V	3	Loop 6502	2.18	42.40	X	10.32	0.52	0.00	10.84	53.24	PK*	30.00	40.00	69.54	16.30	PASS
WLAN-CH6	V	3	Bilog SN1607	119.56	18.60		11.78	1.10	0.00	12.88	31.48	QP	3.00	0.00	43.52	12.04	PASS
WLAN-CH6	V	3	Bilog SN1607	119.56	39.60		11.78	1.10	0.00	12.88	52.48	PK	3.00	0.00	63.52	11.04	PASS
WLAN-CH6	V	3	Horn SN6276	1065.19	15.00	X	26.59	3.36	0.00	29.95	44.95	PK*	3.00	0.00	53.98	9.03	PASS
WLAN-CH6	V	3	Horn SN6276	1074.13	14.40	X	26.60	3.36	0.00	29.96	44.36	PK*	3.00	0.00	53.98	9.62	PASS
WLAN-CH6	V	3	Horn SN6276	1090.30	15.00	X	26.63	3.39	0.00	30.02	45.02	PK*	3.00	0.00	53.98	8.96	PASS
WLAN-CH6	V	3	Horn SN6276	1123.79	15.90	X	26.67	3.45	0.00	30.12	46.02	PK*	3.00	0.00	53.98	7.96	PASS
WLAN-CH6	V	3	Horn SN6276	2659.80	34.45	X	30.91	5.37	-23.11	13.18	47.63	PK*	3.00	0.00	53.98	6.35	PASS
WLAN-CH6	V	3	Horn SN6276	2713.66	35.20		31.08	5.43	-23.10	13.41	48.61	PK*	3.00	0.00	53.98	5.37	PASS
WLAN-CH6	V	3	Horn SN6276	2754.34	34.05	X	31.21	5.50	-23.10	13.61	47.66	PK*	3.00	0.00	53.98	6.32	PASS
WLAN-CH6	V	3	Horn SN6276	2854.10	34.15	X	31.53	5.60	-23.09	14.05	48.20	PK*	3.00	0.00	53.98	5.78	PASS
WLAN-CH6	V	3	Horn SN6276	3851.95	30.90	X	34.29	6.58	-31.12	9.74	40.64	PK*	3.00	0.00	53.98	13.34	PASS
WLAN-CH6	V	3	Horn SN6276	4355.33	30.60	X	34.70	7.01	-31.08	10.63	41.23	PK*	3.00	0.00	53.98	12.75	PASS
WLAN-CH6	V	3	Horn SN6276	4874.00	29.60		35.45	7.60	-31.04	12.01	41.61	PK*	3.00	0.00	53.98	12.37	PASS
WLAN-CH6	V	3	Horn SN6276	7311.00	34.20		38.36	9.93	-30.84	17.46	51.66	PK	3.00	0.00	73.98	22.32	PASS
WLAN-CH6	V	3	Horn SN6276	7311.00	21.10		38.36	9.93	-30.84	17.46	38.56	AV	3.00	0.00	53.98	15.42	PASS
WLAN-CH6	V	1	Horn SN6276	12185.00	37.35		40.76	8.68	-30.61	18.83	56.18	PK*	3.00	9.54	63.52	7.34	PASS
WLAN-CH6	V	1	Horn SN6276	13309.65	40.57	X	41.85	9.20	-30.56	20.48	61.05	PK	3.00	9.54	83.52	22.47	PASS
WLAN-CH6	V	1	Horn SN6276	13309.65	29.69		41.85	9.20	-30.56	20.48	50.17	AV	3.00	9.54	63.52	13.35	PASS
WLAN-CH6	V	1	Horn SN6276	17931.45	40.01	X	45.69	11.14	-32.61	24.22	64.23	PK	3.00	9.54	83.52	19.29	PASS
WLAN-CH6	V	1	Horn SN6276	17931.45	29.21		45.69	11.14	-32.61	24.22	53.43	AV	3.00	9.54	63.52	10.09	PASS
WLAN-CH6	V	1	Waveline_899	18057.15	40.20	X	40.20	11.19	-34.57	16.82	57.02	PK*	3.00	9.54	63.52	6.51	PASS
WLAN-CH6	V	1	Waveline_899	19496.00	37.99		40.30	11.71	-35.33	16.68	54.67	PK*	3.00	9.54	63.52	8.85	PASS
WLAN-CH6	V	1	Waveline_899	23950.15	41.04	X	40.40	13.35	-35.55	18.19	59.23	PK*	3.00	9.54	63.52	4.29	PASS

Formulae:

Total CF = Antenna Factor + Cable Factor + Other Factor (Amplifier Gain, filter loss, etc)

Field Strength = SA Reading + Total CF

Limit Distance Correction = $40 \cdot \log(d1/d2)$ for $F < 30$ MHz, $20 \cdot \log(d1/d2)$ for $F > 30$ MHz:
where d1 is the measurement distance, d2 is the published limit distance

Limit = Specified Limit + Limit Distance Correction

Margin = Limit - Field Strength

BOLD indicates emission at or near a carrier harmonic frequency

*Where applicable the QP or Average Limits where applied to the peak emission

No emissions were measured with margins less than those reported

The frequency points reported describe the highest emission measured in each of the ranges tested and are used to describe the measured spectrum as a whole. It is shown that the highest emissions measured within the spectrum pass the appropriate restricted limits; therefore all emissions within the restricted bands would also meet the requirements. No out-of-band emissions were measured above the levels noted.

Applicant:	Itronix Corporation	Model:	IX260PLUSNL305	FCC ID:	KBCIX260PLUSNL305		
Rugged Laptop PC with internal Senao NL-3054MP 802.11b/g WLAN Mini-PCI Card and External Antennas							
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 Testing and Engineering Services Lab	Test Report Serial No.:	061405KBC-T648-E15W	Report Issue No.:	Issue 1.0
	Test Date(s):	15Jun05 - 04Aug05	Report Issue Date:	20Sept05
	Test Rule Part(s):	FCC 47 CFR §15.247	Industry Canada RSS-210 Issue 5	
	Lab Registration(s):	FCC Lab Reg. # 714830	Industry Canada Lab File # IC 3874	

F.9.24. Mode g - 5.25" Monopole - Channel 11 Out-of-Band Spurious Emission Field Strengths @ Specified Distance (within restricted bands)

Channel	Polarity	Distance	Rx Antenna	Frequency	SA Level	Noise Floor	Rx AF	Rx CL	Other Rx	Total Rx CF	Field Strength	Detector	Limit Distance	Limit Distance Correction	Calculated Limit	Margin	Pass/Fail
		m		MHz	dBuV		dB/m	dB	dB	dB/m	dBuV/m	(PK/QP/AV)	m	dB	dBuV/m	dB	
WLAN-CH11	H	3	Loop 6502	2.19	40.40	X	10.32	0.52	0.00	10.84	51.24	PK*	30.00	40.00	69.54	18.30	PASS
WLAN-CH11	H	3	Horn SN6276	1037.77	14.95	X	26.55	3.34	0.00	29.89	44.84	PK*	3.00	0.00	53.98	9.14	PASS
WLAN-CH11	H	3	Horn SN6276	1128.81	15.90	X	26.68	3.46	0.00	30.14	46.04	PK*	3.00	0.00	53.98	7.93	PASS
WLAN-CH11	H	3	Horn SN6276	1705.64	16.30	X	28.19	4.28	0.00	32.47	48.77	PK*	3.00	0.00	53.98	5.21	PASS
WLAN-CH11	H	3	Horn SN6276	4924.00	29.60		35.55	7.53	-31.03	12.05	41.65	PK*	3.00	0.00	53.98	12.33	PASS
WLAN-CH11	H	3	Horn SN6276	7386.00	34.10		38.49	9.94	-30.83	17.61	51.71	PK	3.00	0.00	53.98	22.27	PASS
WLAN-CH11	H	3	Horn SN6276	7386.00	20.70		38.49	9.94	-30.83	17.61	38.31	AV	3.00	0.00	53.98	15.67	PASS
WLAN-CH11	H	3	Horn SN6276	7484.23	36.25	X	38.67	10.00	-30.82	17.85	54.10	PK	3.00	0.00	53.98	19.88	PASS
WLAN-CH11	H	3	Horn SN6276	7484.23	22.85	X	38.67	10.00	-30.82	17.85	40.70	AV	3.00	0.00	53.98	13.28	PASS
WLAN-CH11	H	3	Horn SN6276	8318.79	35.65	X	39.29	10.43	-30.77	18.95	54.60	PK	3.00	0.00	53.98	19.38	PASS
WLAN-CH11	H	3	Horn SN6276	8318.79	22.10	X	39.29	10.43	-30.77	18.95	41.05	AV	3.00	0.00	53.98	12.93	PASS
WLAN-CH11	H	3	Horn SN6276	8373.27	38.75		39.32	10.23	-30.76	18.79	57.54	PK	3.00	0.00	53.98	16.44	PASS
WLAN-CH11	H	3	Horn SN6276	8375.23	30.50		39.33	10.22	-30.76	18.78	49.28	AV	3.00	0.00	53.98	4.70	PASS
WLAN-CH11	H	3	Horn SN6276	9366.43	35.35	X	40.27	11.60	-30.72	21.15	56.50	PK	3.00	0.00	53.98	17.48	PASS
WLAN-CH11	H	3	Horn SN6276	9366.43	22.15	X	40.27	11.60	-30.72	21.15	43.30	AV	3.00	0.00	53.98	10.68	PASS
WLAN-CH11	H	1	Horn SN6276	12310.00	38.11		40.93	8.74	-30.60	19.07	57.18	PK*	3.00	9.54	63.52	6.34	PASS
WLAN-CH11	H	1	Horn SN6276	17918.05	39.81	X	45.65	11.13	-32.61	24.18	63.99	PK	3.00	9.54	63.52	19.53	PASS
WLAN-CH11	H	1	Horn SN6276	17918.05	29.26	X	45.65	11.13	-32.61	24.18	53.44	AV	3.00	9.54	63.52	10.08	PASS
WLAN-CH11	H	1	Waveline_899	19696.00	38.49		40.30	11.79	-35.44	16.65	55.14	PK*	3.00	9.54	63.52	8.38	PASS
WLAN-CH11	H	1	Waveline_899	22158.00	39.05		40.33	12.69	-35.57	17.45	56.50	PK*	3.00	9.54	63.52	7.02	PASS
WLAN-CH11	V	3	Horn SN6276	1021.32	15.50	X	26.53	3.46	0.00	29.99	45.49	PK*	3.00	0.00	53.98	8.49	PASS
WLAN-CH11	V	3	Horn SN6276	1041.80	14.85	X	26.56	3.32	0.00	29.88	44.73	PK*	3.00	0.00	53.98	9.25	PASS
WLAN-CH11	V	3	Horn SN6276	1065.44	15.45	X	26.59	3.36	0.00	29.95	45.40	PK*	3.00	0.00	53.98	8.58	PASS
WLAN-CH11	V	3	Horn SN6276	1078.32	15.30	X	26.61	3.36	0.00	29.97	45.27	PK*	3.00	0.00	53.98	8.71	PASS
WLAN-CH11	V	3	Horn SN6276	1087.13	14.90	X	26.62	3.38	0.00	30.00	44.90	PK*	3.00	0.00	53.98	9.08	PASS
WLAN-CH11	V	3	Horn SN6276	1104.98	15.30	X	26.65	3.42	0.00	30.07	45.37	PK*	3.00	0.00	53.98	8.61	PASS
WLAN-CH11	V	3	Horn SN6276	1317.13	15.65	X	26.94	3.74	0.00	30.69	46.34	PK*	3.00	0.00	53.98	7.64	PASS
WLAN-CH11	V	3	Horn SN6276	1421.48	15.90	X	27.09	3.88	0.00	30.97	46.87	PK*	3.00	0.00	53.98	7.11	PASS
WLAN-CH11	V	3	Horn SN6276	1542.12	16.00	X	27.40	4.03	0.00	31.43	47.43	PK*	3.00	0.00	53.98	6.55	PASS
WLAN-CH11	V	3	Horn SN6276	2234.10	35.25	X	29.97	4.95	-23.14	11.79	47.04	PK*	3.00	0.00	53.98	6.94	PASS
WLAN-CH11	V	3	Horn SN6276	2692.14	34.50		31.01	5.45	-23.10	13.36	47.86	AV	3.00	0.00	53.98	6.12	PASS
WLAN-CH11	V	3	Horn SN6276	2696.86	45.85		31.03	5.45	-23.10	13.38	59.23	PK	3.00	0.00	53.98	14.75	PASS
WLAN-CH11	V	3	Horn SN6276	4251.50	32.90	X	34.70	6.91	-31.09	10.53	43.43	PK*	3.00	0.00	53.98	10.55	PASS
WLAN-CH11	V	3	Horn SN6276	4924.00	30.90		35.55	7.53	-31.03	12.05	42.95	PK*	3.00	0.00	53.98	11.03	PASS
WLAN-CH11	V	3	Horn SN6276	7386.00	34.45		38.49	9.94	-30.83	17.61	52.06	PK	3.00	0.00	53.98	21.92	PASS
WLAN-CH11	V	3	Horn SN6276	7386.00	20.70		38.49	9.94	-30.83	17.61	38.31	AV	3.00	0.00	53.98	15.67	PASS
WLAN-CH11	V	1	Horn SN6276	12310.00	37.27		40.93	8.74	-30.60	19.07	56.34	PK*	3.00	9.54	63.52	7.18	PASS
WLAN-CH11	V	1	Horn SN6276	18000.00	41.80	X	45.90	11.17	-32.65	24.42	66.22	PK	3.00	9.54	63.52	17.31	PASS
WLAN-CH11	V	1	Horn SN6276	18000.00	29.27	X	45.90	11.17	-32.65	24.42	53.69	AV	3.00	9.54	63.52	9.84	PASS
WLAN-CH11	V	1	Waveline_899	19696.00	37.41		40.30	11.79	-35.44	16.65	54.06	PK*	3.00	9.54	63.52	9.46	PASS
WLAN-CH11	V	1	Waveline_899	22158.00	38.68		40.33	12.69	-35.57	17.45	56.13	PK*	3.00	9.54	63.52	7.39	PASS
WLAN-CH11	V	1	Waveline_899	23834.05	40.24	X	40.40	13.30	-35.55	18.15	58.39	PK*	3.00	9.54	63.52	5.13	PASS

Formulae:

Total CF = Antenna Factor + Cable Factor + Other Factor (Amplifier Gain, filter loss, etc)

Field Strength = SA Reading + Total CF

Limit Distance Correction = 40*log(d1/d2) for F<30 MHz, 20*log(d1/d2) for F> 30 MHz:

where d1 is the measurement distance, d2 is the published limit distance

Limit = Specified Limit + Limit Distance Correction

Margin = Limit - Field Strength

BOLD indicates emission at or near a carrier harmonic frequency

*Where applicable the QP or Average Limits were applied to the peak emission

No emissions were measured with margins less than those reported

The frequency points reported describe the highest emission measured in each of the ranges tested and are used to describe the measured spectrum as a whole. It is shown that the highest emissions measured within the spectrum pass the appropriate restricted limits; therefore all emissions within the restricted bands would also meet the requirements. No out-of-band emissions were measured above the levels noted.

Applicant:	Itronix Corporation	Model:	IX260PLUSNL305	FCC ID:	KBCIX260PLUSNL305		
Rugged Laptop PC with internal Senao NL-3054MP 802.11b/g WLAN Mini-PCI Card and External Antennas							
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F.9.25. Mode b - 7.5" Monopole - Fundamental Field Strengths @ Specified Distance (1 MHz RBW)

Channel	Polarity	Measurement Distance	Antenna	Frequency	SA Level	Noise Floor	AF	CL	Other	Total CF	Field Strength	Detector	RBW								
		m												MHz	dBuV	dB/m	dB	dB	dB/m	dBuV/m	kHz
WLAN-CH1	H	3	Horn SN6276	2412.00	78.50		30.26	5.10	-23.13	12.23	90.73	PK	1000								
WLAN-CH1	H	3	Horn SN6276	2412.00	75.20		30.26	5.10	-23.13	12.23	87.43	AV	1000								
WLAN-CH1	V	3	Horn SN6276	2412.00	86.00		30.26	5.10	-23.13	12.23	98.23	PK	1000								
WLAN-CH1	V	3	Horn SN6276	2412.00	82.80		30.26	5.10	-23.13	12.23	95.03	AV	1000								
WLAN-CH6	H	3	Horn SN6276	2437.00	77.50		30.30	5.14	-23.12	12.31	89.81	PK	1000								
WLAN-CH6	H	3	Horn SN6276	2437.00	74.70		30.30	5.14	-23.12	12.31	87.01	AV	1000								
WLAN-CH6	V	3	Horn SN6276	2437.00	86.10		30.30	5.14	-23.12	12.31	98.41	PK	1000								
WLAN-CH6	V	3	Horn SN6276	2437.00	83.10		30.30	5.14	-23.12	12.31	95.41	AV	1000								
WLAN-CH11	H	3	Horn SN6276	2462.00	78.90		30.34	5.16	-23.12	12.38	91.28	PK	1000								
WLAN-CH11	H	3	Horn SN6276	2462.00	75.80		30.34	5.16	-23.12	12.38	88.18	AV	1000								
WLAN-CH11	V	3	Horn SN6276	2462.00	87.40		30.34	5.16	-23.12	12.38	99.78	PK	1000								
WLAN-CH11	V	3	Horn SN6276	2462.00	84.10		30.34	5.16	-23.12	12.38	96.48	AV	1000								

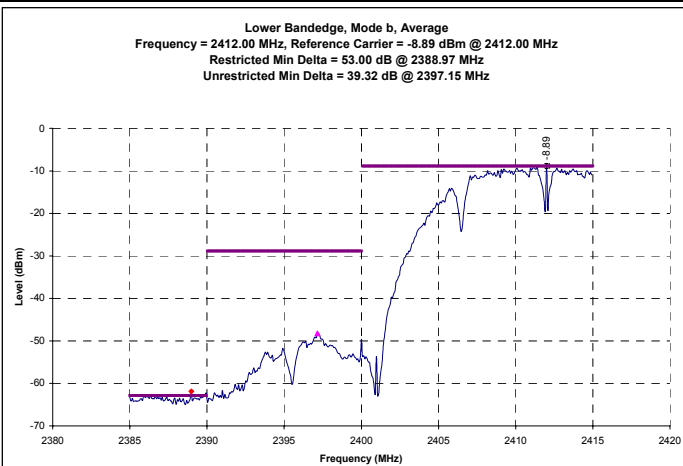
Formulae:

Total CF = Antenna Factor + Cable Factor + Other Factor (Amplifier Gain, filter loss, etc)

$$\text{Field Strength} = \text{SA Reading} + \text{Total CF}$$

Note: (Lower Band-edge (unrestricted Band) is in Appendix E)

Channel 1 - Average Conducted Band-edge Plots



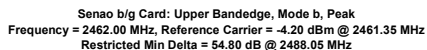
Channel	Polarity	Distance	Frequency	Carrier Radiated Field Strength	Delta Marker	Detector	Calculated Bandedge Field Strength	Duty Cycle Correction	Corrected Bandedge Field Strength	Specified Limit	Specified Limit Distance	Limit Distance Correction	Calculated Limit	Margin	Pass/Fail
		m	MHz	dBuV/m	dB		dBuV/m	dB	dBuV/m	dBuV/m	m	dB	dBuV/m	dB	
WLAN-CH1	H	3	2389.05	90.73	53.08	PK	37.65	0.00	37.65	73.98	3.00	0.00	73.98	36.33	PASS
WLAN-CH1	H	3	2388.97	87.43	53.00	AV	34.43	0.00	34.43	53.98	3.00	0.00	53.98	19.55	PASS
WLAN-CH1	V	3	2389.05	98.23	53.08	PK	45.15	0.00	45.15	73.98	3.00	0.00	73.98	28.83	PASS
WLAN-CH1	V	3	2388.97	95.03	53.00	AV	42.03	0.00	42.03	53.98	3.00	0.00	53.98	11.95	PASS

Calculated Bandedge Field Strength (dBuV/m) = Carrier Radiated Field Strength (dBuV/m) - Delta Marker (dB)
 Duty Cycle Correction (dB) = $20 * \log(\text{time on} / \text{total time})$
 Corrected Bandedge Field Strength (dBuV/m) = Calculated Bandedge Field Strength (dBuV/m) + Duty Cycle Correction (dB)
 Limit Distance Correction = $20 * \log(\text{measurement distance} / \text{limit distance})$
 Calculated Limit (dBuV/m) = Specified Limit (dBuV/m) + Limit Distance Correction (dB)
 Margin (dB) = Calculated Limit (dBuV/m) – Corrected Bandedge Field Strength (dBuV/m)

**Note: Measurements and calculation reference the Marker-Delta Method described in FCC Public Notice DA 00-705
Limit based on highest radiated carrier**

Test Report Serial No.:	061405KBC-T648-E15W	Report Issue No.:	Issue 1.0
Test Date(s):	15Jun05 - 04Aug05	Report Issue Date:	20Sept05
Test Rule Part(s):	FCC 47 CFR §15.247	Industry Canada RSS-210 Issue 5	
Lab Registration(s):	FCC Lab Reg. # 714830	Industry Canada Lab File # IC 3874	

Channel 11 - Peak Conducted Band-edge Plots



Upper Bandedge, Mode b, Average
Frequency = 2462.00 MHz, Reference Carrier = -8.44 dBm @ 2461.20 MHz
Restricted Min Delta = 54.58 dB @ 2484.00 MHz

Channel	Polarity	Distance	Frequency	Carrier Radiated Field Strength	Delta Marker	Detector	Calculated Bandedge Field Strength	Duty Cycle Correction	Corrected Bandedge Field Strength	Specified Limit	Specified Limit Distance	Limit Distance Correction	Calculated Limit	Margin	Pass/Fail
		m													
		MHz													
WLAN-CH11	H	3	2488.05	91.28	54.80	PK	36.48	0.00	36.48	73.98	3.00	0.00	73.98	37.50	PASS
WLAN-CH11	H	3	2484.00	88.18	54.58	AV	33.60	0.00	33.60	53.98	3.00	0.00	53.98	20.38	PASS
WLAN-CH11	V	3	2488.05	99.78	54.80	PK	44.98	0.00	44.98	73.98	3.00	0.00	73.98	29.00	PASS
WLAN-CH11	V	3	2484.00	96.48	54.58	AV	41.90	0.00	41.90	53.98	3.00	0.00	53.98	12.08	PASS

Calculated Bandedge Field Strength (dBuV/m) = Carrier Radiated Field Strength (dBuV/m) - Delta Marker (dB)
 Duty Cycle Correction (dB) = $20 * \log(\text{time on} / \text{total time})$
 Corrected Bandedge Field Strength (dBuV/m) = Calculated Bandedge Field Strength (dBuV/m) + Duty Cycle Correction (dB)
 Limit Distance Correction = $20 * \log(\text{measurement distance} / \text{limit distance})$
 Calculated Limit (dBuV/m) = Specified Limit (dBuV/m) + Limit Distance Correction (dB)
 Margin (dB) = Calculated Limit (dBuV/m) – Corrected Bandedge Field Strength (dBuV/m)

**Note: Measurements and calculation reference the Marker-Delta Method described in FCC Public Notice DA 00-705
Limit based on highest radiated carrier**

 Testing and Engineering Services Lab	Test Report Serial No.:	061405KBC-T648-E15W	Report Issue No.:	Issue 1.0
	Test Date(s):	15Jun05 - 04Aug05	Report Issue Date:	20Sept05
	Test Rule Part(s):	FCC 47 CFR §15.247	Industry Canada RSS-210 Issue 5	
	Lab Registration(s):	FCC Lab Reg. # 714830	Industry Canada Lab File # IC 3874	

F.9.28. Mode b - 7.5" Monopole - Channel 1 Out-of-Band Spurious Emission Field Strengths @ Specified Distance (within restricted bands)

Channel	Polarity	Distance	Rx Antenna	Frequency	SA Level	Noise Floor	Rx AF	Rx CL	Other Rx	Total Rx CF	Field Strength	Detector	Limit Distance	Limit Distance Correction	Calculated Limit	Margin	Pass/Fail
		m		MHz	dBuV		dB/m	dB	dB	dB/m	dBuV/m	(PK/QP/AV)	m	dB	dBuV/m	dB	
WLAN-CH1	H	3	Loop 6502	2.19	40.20	X	10.32	0.52	0.00	10.84	51.04	PK*	30.00	40.00	69.54	18.50	PASS
WLAN-CH1	H	3	Bilog SN1607	401.29	18.80		16.75	2.06	0.00	18.81	37.61	PK*	3.00	0.00	46.02	8.41	PASS
WLAN-CH1	H	3	Horn SN6276	1028.65	15.25	X	26.54	3.40	0.00	29.94	45.19	PK*	3.00	0.00	53.98	8.78	PASS
WLAN-CH1	H	3	Horn SN6276	1071.61	15.20	X	26.60	3.36	0.00	29.96	45.16	PK*	3.00	0.00	53.98	8.82	PASS
WLAN-CH1	H	3	Horn SN6276	1098.04	14.90	X	26.64	3.41	0.00	30.05	44.95	PK*	3.00	0.00	53.98	9.03	PASS
WLAN-CH1	H	3	Horn SN6276	1119.22	15.30	X	26.67	3.43	0.00	30.10	45.40	PK*	3.00	0.00	53.98	8.58	PASS
WLAN-CH1	H	3	Horn SN6276	1580.98	15.90	X	27.59	4.14	0.00	31.72	47.62	PK*	3.00	0.00	53.98	6.35	PASS
WLAN-CH1	H	3	Horn SN6276	4341.23	31.90	X	34.70	7.04	-31.08	10.67	42.57	PK*	3.00	0.00	53.98	11.41	PASS
WLAN-CH1	H	3	Horn SN6276	4824.00	30.90		35.35	7.40	-31.04	11.71	42.61	PK*	3.00	0.00	53.98	11.37	PASS
WLAN-CH1	H	3	Horn SN6276	8375.07	38.50		39.33	10.22	-30.76	18.78	57.28	PK	3.00	0.00	73.98	16.70	PASS
WLAN-CH1	H	3	Horn SN6276	8375.59	30.85		39.33	10.21	-30.76	18.77	49.62	AV	3.00	0.00	53.98	4.35	PASS
WLAN-CH1	H	1	Horn SN6276	12060.00	36.78		40.58	8.62	-30.61	18.59	55.37	PK*	3.00	9.54	63.52	8.15	PASS
WLAN-CH1	H	1	Horn SN6276	14472.00	37.85		42.57	9.73	-30.78	21.52	59.37	PK*	3.00	9.54	63.52	4.15	PASS
WLAN-CH1	H	1	Horn SN6276	17893.55	39.35	X	45.58	11.13	-32.59	24.11	63.46	PK	3.00	9.54	83.52	20.06	PASS
WLAN-CH1	H	1	Horn SN6276	17893.55	29.11		45.58	11.13	-32.59	24.11	53.22	AV	3.00	9.54	63.52	10.30	PASS
WLAN-CH1	H	1	Waveline_899	18414.80	39.69	X	40.20	11.32	-34.76	16.76	56.45	PK*	3.00	9.54	63.52	7.07	PASS
WLAN-CH1	H	1	Waveline_899	19296.00	38.18		40.26	11.64	-35.23	16.67	54.85	PK*	3.00	9.54	63.52	8.67	PASS
WLAN-CH1	H	1	Waveline_899	23925.60	41.38	X	40.40	13.34	-35.55	18.18	59.56	PK*	3.00	9.54	63.52	3.96	PASS
WLAN-CH1	V	3	Loop 6502	2.18	40.50	X	10.32	0.52	0.00	10.84	51.34	PK*	30.00	40.00	69.54	18.20	PASS
WLAN-CH1	V	3	Horn SN6276	1023.96	14.20	X	26.53	3.44	0.00	29.97	44.17	PK*	3.00	0.00	53.98	9.81	PASS
WLAN-CH1	V	3	Horn SN6276	1073.24	14.85	X	26.60	3.36	0.00	29.96	44.81	PK*	3.00	0.00	53.98	9.17	PASS
WLAN-CH1	V	3	Horn SN6276	1103.61	14.65	X	26.65	3.42	0.00	30.07	44.72	PK*	3.00	0.00	53.98	9.26	PASS
WLAN-CH1	V	3	Horn SN6276	1198.66	14.75	X	26.78	3.58	0.00	30.36	45.11	PK*	3.00	0.00	53.98	8.87	PASS
WLAN-CH1	V	3	Horn SN6276	1226.46	15.45	X	26.82	3.62	0.00	30.44	45.89	PK*	3.00	0.00	53.98	8.09	PASS
WLAN-CH1	V	3	Horn SN6276	1226.87	15.30	X	26.82	3.62	0.00	30.44	45.74	PK*	3.00	0.00	53.98	8.24	PASS
WLAN-CH1	V	3	Horn SN6276	1361.51	15.90	X	27.01	3.81	0.00	30.82	46.72	PK*	3.00	0.00	53.98	7.26	PASS
WLAN-CH1	V	3	Horn SN6276	1486.03	16.60	X	27.18	4.02	0.00	31.20	47.80	PK*	3.00	0.00	53.98	6.18	PASS
WLAN-CH1	V	3	Horn SN6276	2328.74	33.70	X	30.13	5.01	-23.13	12.00	45.70	PK*	3.00	0.00	53.98	8.28	PASS
WLAN-CH1	V	3	Horn SN6276	2385.70	34.10	X	30.22	5.06	-23.13	12.15	46.25	PK*	3.00	0.00	53.98	7.73	PASS
WLAN-CH1	V	3	Horn SN6276	2679.48	36.55		30.97	5.43	-23.10	13.30	49.85	AV	3.00	0.00	53.98	4.13	PASS
WLAN-CH1	V	3	Horn SN6276	2679.68	42.20		30.97	5.43	-23.10	13.30	55.50	PK	3.00	0.00	73.98	18.48	PASS
WLAN-CH1	V	3	Horn SN6276	2754.54	36.90		31.21	5.50	-23.10	13.61	50.51	AV	3.00	0.00	53.98	3.47	PASS
WLAN-CH1	V	3	Horn SN6276	2754.56	43.10		31.21	5.50	-23.10	13.61	56.71	PK	3.00	0.00	73.98	17.27	PASS
WLAN-CH1	V	3	Horn SN6276	4824.00	32.55		35.35	7.40	-31.04	11.71	44.26	PK*	3.00	0.00	53.98	9.72	PASS
WLAN-CH1	V	1	Horn SN6276	12060.00	36.13		40.58	8.62	-30.61	18.59	54.72	PK*	3.00	9.54	63.52	8.80	PASS
WLAN-CH1	V	1	Horn SN6276	14472.00	37.94		42.57	9.73	-30.78	21.52	59.46	PK*	3.00	9.54	63.52	4.06	PASS
WLAN-CH1	V	1	Horn SN6276	17965.85	40.35	X	45.80	11.15	-32.63	24.32	64.67	PK	3.00	9.54	83.52	18.85	PASS
WLAN-CH1	V	1	Horn SN6276	17965.85	29.33	X	45.80	11.15	-32.63	24.32	53.65	AV	3.00	9.54	63.52	9.87	PASS
WLAN-CH1	V	1	Waveline_899	18087.55	39.46	X	40.20	11.20	-34.59	16.81	56.27	PK*	3.00	9.54	63.52	7.25	PASS
WLAN-CH1	V	1	Waveline_899	19296.00	37.97		40.26	11.64	-35.23	16.67	54.64	PK*	3.00	9.54	63.52	8.88	PASS
WLAN-CH1	V	1	Waveline_899	23945.50	40.43	X	40.40	13.35	-35.55	18.19	58.62	PK*	3.00	9.54	63.52	4.90	PASS

Formulae:

Total CF = Antenna Factor + Cable Factor + Other Factor (Amplifier Gain, filter loss, etc)

Field Strength = SA Reading + Total CF

Limit Distance Correction = 40*log(d1/d2) for F<30 MHz, 20*log(d1/d2) for F> 30 MHz:

where d1 is the measurement distance, d2 is the published limit distance

Limit = Specified Limit + Limit Distance Correction

Margin = Limit - Field Strength

BOLD indicates emission at or near a carrier harmonic frequency

*Where applicable the QP or Average Limits were applied to the peak emission

No emissions were measured with margins less than those reported

The frequency points reported describe the highest emission measured in each of the ranges tested and are used to describe the measured spectrum as a whole. It is shown that the highest emissions measured within the spectrum pass the appropriate restricted limits; therefore all emissions within the restricted bands would also meet the requirements. No out-of-band emissions were measured above the levels noted.

Applicant:	Itronix Corporation	Model:	IX260PLUSNL305	FCC ID:	KBCIX260PLUSNL305	
Rugged Laptop PC with internal Senao NL-3054MP 802.11b/g WLAN Mini-PCI Card and External Antennas						
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 Testing and Engineering Services Lab	Test Report Serial No.:	061405KBC-T648-E15W	Report Issue No.:	Issue 1.0
	Test Date(s):	15Jun05 - 04Aug05	Report Issue Date:	20Sept05
	Test Rule Part(s):	FCC 47 CFR §15.247	Industry Canada RSS-210 Issue 5	
	Lab Registration(s):	FCC Lab Reg. # 714830	Industry Canada Lab File # IC 3874	

F.9.29. Mode b - 7.5" Monopole - Channel 6 Out-of-Band Spurious Emission Field Strengths @ Specified Distance (within restricted bands)

Channel	Polarity	Distance	Rx Antenna	Frequency	SA Level	Noise Floor	Rx AF	Rx CL	Other Rx	Total Rx CF	Field Strength	Detector	Limit Distance	Limit Distance Correction	Calculated Limit	Margin	Pass/Fail
		m		MHz	dBuV		dB/m	dB	dB	dB/m	dBuV/m	(PK/QP/AV)	m	dB	dBuV/m	dB	
WLAN-CH6	H	3	Loop 6502	2.17	39.60	X	10.32	0.52	0.00	10.84	50.44	PK*	30.00	40.00	69.54	19.10	PASS
WLAN-CH6	H	3	Horn SN6276	1089.00	14.85	X	26.62	3.39	0.00	30.01	44.86	PK*	3.00	0.00	53.98	9.12	PASS
WLAN-CH6	H	3	Horn SN6276	1096.75	15.75	X	26.64	3.41	0.00	30.04	45.79	PK*	3.00	0.00	53.98	8.19	PASS
WLAN-CH6	H	3	Horn SN6276	1130.71	14.75	X	26.68	3.47	0.00	30.15	44.90	PK*	3.00	0.00	53.98	9.08	PASS
WLAN-CH6	H	3	Horn SN6276	4652.06	31.20	X	35.00	7.28	-31.05	11.23	42.43	PK*	3.00	0.00	53.98	11.55	PASS
WLAN-CH6	H	3	Horn SN6276	4747.66	31.25	X	35.20	7.35	-31.05	11.50	42.75	PK*	3.00	0.00	53.98	11.23	PASS
WLAN-CH6	H	3	Horn SN6276	4874.00	30.25		35.45	7.60	-31.04	12.01	42.26	PK*	3.00	0.00	53.98	11.72	PASS
WLAN-CH6	H	3	Horn SN6276	7311.00	34.70		38.36	9.93	-30.84	17.46	52.16	PK	3.00	0.00	73.98	21.82	PASS
WLAN-CH6	H	3	Horn SN6276	7311.00	21.30		38.36	9.93	-30.84	17.46	38.76	AV	3.00	0.00	53.98	15.22	PASS
WLAN-CH6	H	3	Horn SN6276	8373.29	38.95		39.32	10.23	-30.76	18.78	57.73	PK	3.00	0.00	73.98	16.24	PASS
WLAN-CH6	H	3	Horn SN6276	8374.95	30.95		39.32	10.22	-30.76	18.78	49.73	AV	3.00	0.00	53.98	4.25	PASS
WLAN-CH6	H	3	Horn SN6276	9157.30	35.30		40.23	11.20	-30.73	20.70	56.00	PK	3.00	0.00	73.98	17.98	PASS
WLAN-CH6	H	3	Horn SN6276	9157.30	21.95		40.23	11.20	-30.73	20.70	42.65	AV	3.00	0.00	53.98	11.33	PASS
WLAN-CH6	H	1	Horn SN6276	12185.00	38.43		40.76	8.68	-30.61	18.83	57.26	PK*	3.00	9.54	63.52	6.26	PASS
WLAN-CH6	H	1	Horn SN6276	17891.75	40.20	X	45.58	11.13	-32.59	24.11	64.31	PK	3.00	9.54	83.52	19.21	PASS
WLAN-CH6	H	1	Horn SN6276	17891.75	29.34		45.58	11.13	-32.59	24.11	53.45	AV	3.00	9.54	63.52	10.07	PASS
WLAN-CH6	H	1	Waveline_899	18189.20	39.54	X	40.20	11.23	-34.64	16.79	56.33	PK*	3.00	9.54	63.52	7.19	PASS
WLAN-CH6	H	1	Waveline_899	19496.00	38.26		40.30	11.71	-35.33	16.68	54.94	PK*	3.00	9.54	63.52	8.58	PASS
WLAN-CH6	H	1	Waveline_899	20635.55	40.63	X	40.30	12.13	-35.59	16.84	57.47	PK*	3.00	9.54	63.52	6.05	PASS
WLAN-CH6	V	3	Loop 6502	2.18	41.50	X	10.32	0.52	0.00	10.84	52.34	PK*	30.00	40.00	69.54	17.20	PASS
WLAN-CH6	V	3	Bilog SN1607	257.43	25.20	X	13.49	1.62	0.00	15.11	40.31	PK*	3.00	0.00	46.02	5.71	PASS
WLAN-CH6	V	3	Horn SN6276	1107.79	15.45	X	26.65	3.42	0.00	30.08	45.53	PK*	3.00	0.00	53.98	8.45	PASS
WLAN-CH6	V	3	Horn SN6276	1119.41	15.15	X	26.67	3.44	0.00	30.10	45.25	PK*	3.00	0.00	53.98	8.73	PASS
WLAN-CH6	V	3	Horn SN6276	1126.45	15.40	X	26.68	3.46	0.00	30.13	45.53	PK*	3.00	0.00	53.98	8.45	PASS
WLAN-CH6	V	3	Horn SN6276	2679.50	44.15		30.97	5.43	-23.10	13.30	57.45	PK	3.00	0.00	73.98	16.53	PASS
WLAN-CH6	V	3	Horn SN6276	2679.50	36.60		30.97	5.43	-23.10	13.30	49.90	AV	3.00	0.00	53.98	4.08	PASS
WLAN-CH6	V	3	Horn SN6276	2703.88	33.30	X	31.05	5.45	-23.10	13.40	46.70	PK*	3.00	0.00	53.98	7.28	PASS
WLAN-CH6	V	3	Horn SN6276	2741.68	46.75		31.17	5.45	-23.10	13.52	60.27	PK	3.00	0.00	73.98	13.71	PASS
WLAN-CH6	V	3	Horn SN6276	2752.64	33.95	X	31.21	5.49	-23.10	13.60	47.55	PK*	3.00	0.00	53.98	6.43	PASS
WLAN-CH6	V	3	Horn SN6276	4259.96	35.35		34.70	6.92	-31.09	10.54	45.89	PK*	3.00	0.00	53.98	8.09	PASS
WLAN-CH6	V	3	Horn SN6276	4874.00	31.20		35.45	7.60	-31.04	12.01	43.21	PK*	3.00	0.00	53.98	10.77	PASS
WLAN-CH6	V	3	Horn SN6276	7311.00	34.55		38.36	9.93	-30.84	17.46	52.01	PK	3.00	0.00	73.98	21.97	PASS
WLAN-CH6	V	3	Horn SN6276	7311.00	21.15		38.36	9.93	-30.84	17.46	38.61	AV	3.00	0.00	53.98	15.37	PASS
WLAN-CH6	V	1	Horn SN6276	12185.00	37.28		40.76	8.68	-30.61	18.83	56.11	PK*	3.00	9.54	63.52	7.41	PASS
WLAN-CH6	V	1	Horn SN6276	17961.95	40.28	X	45.79	11.15	-32.63	24.31	64.59	PK	3.00	9.54	83.52	18.93	PASS
WLAN-CH6	V	1	Horn SN6276	17961.95	29.34	X	45.79	11.15	-32.63	24.31	53.65	AV	3.00	9.54	63.52	9.87	PASS
WLAN-CH6	V	1	Waveline_899	18196.05	39.17	X	40.20	11.24	-34.64	16.79	55.96	PK*	3.00	9.54	63.52	7.56	PASS
WLAN-CH6	V	1	Waveline_899	19496.00	38.25		40.30	11.71	-35.33	16.68	54.93	PK*	3.00	9.54	63.52	8.59	PASS

Formulae:

Total CF = Antenna Factor + Cable Factor + Other Factor (Amplifier Gain, filter loss, etc)

Field Strength = SA Reading + Total CF

Limit Distance Correction = 40*log(d1/d2) for F<30 MHz, 20*log(d1/d2) for F> 30 MHz:

where d1 is the measurement distance, d2 is the published limit distance

Limit = Specified Limit + Limit Distance Correction

Margin = Limit - Field Strength

BOLD indicates emission at or near a carrier harmonic frequency

*Where applicable the QP or Average Limits were applied to the peak emission

No emissions were measured with margins less than those reported

The frequency points reported describe the highest emission measured in each of the ranges tested and are used to describe the measured spectrum as a whole. It is shown that the highest emissions measured within the spectrum pass the appropriate restricted limits; therefore all emissions within the restricted bands would also meet the requirements. No out-of-band emissions were measured above the levels noted.

Applicant:	Itronix Corporation	Model:	IX260PLUSNL305	FCC ID:	KBCIX260PLUSNL305	
Rugged Laptop PC with internal Senao NL-3054MP 802.11b/g WLAN Mini-PCI Card and External Antennas						
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 Testing and Engineering Services Lab	Test Report Serial No.:	061405KBC-T648-E15W	Report Issue No.:	Issue 1.0
	Test Date(s):	15Jun05 - 04Aug05	Report Issue Date:	20Sept05
	Test Rule Part(s):	FCC 47 CFR §15.247	Industry Canada RSS-210 Issue 5	
	Lab Registration(s):	FCC Lab Reg. # 714830	Industry Canada Lab File # IC 3874	

F.9.30. Mode b - 7.5" Monopole - Channel 11 Out-of-Band Spurious Emission Field Strengths @ Specified Distance (within restricted bands)

Channel	Polarity	Distance	Rx Antenna	Frequency	SA Level	Noise Floor	Rx AF	Rx CL	Other Rx	Total Rx CF	Field Strength	Detector	Limit Distance	Limit Distance Correction	Calculated Limit	Margin	Pass/Fail
		m		MHz	dBuV		dB/m	dB	dB	dB/m	dBuV/m	(PK/QP/AV)	m	dB	dBuV/m	dB	
WLAN-CH11	H	3	Loop 6502	2.17	39.20	X	10.32	0.52	0.00	10.84	50.04	PK*	30.00	40.00	69.54	19.50	PASS
WLAN-CH11	H	3	Horn SN6276	1048.13	15.35	X	26.57	3.33	0.00	29.90	45.25	PK*	3.00	0.00	53.98	8.73	PASS
WLAN-CH11	H	3	Horn SN6276	2484.00	38.50		30.37	5.18	-23.12	12.44	50.94	PK*	3.00	0.00	53.98	3.04	PASS
WLAN-CH11	H	3	Horn SN6276	4783.91	30.20	X	35.27	7.49	-31.04	11.72	41.92	PK*	3.00	0.00	53.98	12.06	PASS
WLAN-CH11	H	3	Horn SN6276	4924.00	30.75		35.55	7.53	-31.03	12.05	42.80	PK*	3.00	0.00	53.98	11.18	PASS
WLAN-CH11	H	3	Horn SN6276	7386.00	34.65		38.49	9.94	-30.83	17.61	52.26	PK	3.00	0.00	73.98	21.72	PASS
WLAN-CH11	H	3	Horn SN6276	7386.00	20.90		38.49	9.94	-30.83	17.61	38.51	AV	3.00	0.00	53.98	15.47	PASS
WLAN-CH11	H	3	Horn SN6276	8374.91	30.35		39.32	10.22	-30.76	18.78	49.13	AV	3.00	0.00	53.98	4.85	PASS
WLAN-CH11	H	3	Horn SN6276	8375.23	39.05		39.33	10.22	-30.76	18.78	57.83	PK	3.00	0.00	73.98	16.15	PASS
WLAN-CH11	H	1	Horn SN6276	12310.00	38.33		40.93	8.74	-30.60	19.07	57.40	PK*	3.00	9.54	63.52	6.12	PASS
WLAN-CH11	H	1	Horn SN6276	15554.75	39.87	X	40.78	10.23	-31.35	19.65	59.52	PK*	3.00	9.54	63.52	4.00	PASS
WLAN-CH11	H	1	Horn SN6276	17969.90	39.59	X	45.81	11.15	-32.63	24.33	63.92	PK	3.00	9.54	83.52	19.60	PASS
WLAN-CH11	H	1	Horn SN6276	17969.90	29.33	X	45.81	11.15	-32.63	24.33	53.66	AV	3.00	9.54	63.52	9.86	PASS
WLAN-CH11	H	1	Waveline_899	18265.65	39.55	X	40.20	11.26	-34.68	16.78	56.33	PK*	3.00	9.54	63.52	7.19	PASS
WLAN-CH11	H	1	Waveline_899	19696.00	37.93		40.30	11.79	-35.44	16.65	54.58	PK*	3.00	9.54	63.52	8.94	PASS
WLAN-CH11	H	1	Waveline_899	22158.00	38.88		40.33	12.69	-35.57	17.45	56.33	PK*	3.00	9.54	63.52	7.19	PASS
WLAN-CH11	H	1	Waveline_899	23925.55	40.39	X	40.40	13.34	-35.55	18.18	58.57	PK*	3.00	9.54	63.52	4.95	PASS
WLAN-CH11	V	3	Loop 6502	2.18	39.70	X	10.32	0.52	0.00	10.84	50.54	PK*	30.00	40.00	69.54	19.00	PASS
WLAN-CH11	V	3	Horn SN6276	1087.90	15.45	X	26.62	3.38	0.00	30.01	45.46	PK*	3.00	0.00	53.98	8.52	PASS
WLAN-CH11	V	3	Horn SN6276	1110.75	16.10	X	26.66	3.43	0.00	30.08	46.18	PK*	3.00	0.00	53.98	7.80	PASS
WLAN-CH11	V	3	Horn SN6276	1513.25	15.55	X	27.26	4.02	0.00	31.28	46.83	PK*	3.00	0.00	53.98	7.15	PASS
WLAN-CH11	V	3	Horn SN6276	2488.46	37.25		30.38	5.20	-23.12	12.46	49.71	PK*	3.00	0.00	53.98	4.27	PASS
WLAN-CH11	V	3	Horn SN6276	2703.36	34.90	X	31.05	5.45	-23.10	13.40	48.30	PK*	3.00	0.00	53.98	5.68	PASS
WLAN-CH11	V	3	Horn SN6276	2755.76	34.05	X	31.22	5.50	-23.10	13.62	47.67	PK*	3.00	0.00	53.98	6.31	PASS
WLAN-CH11	V	3	Horn SN6276	4924.00	30.55		35.55	7.53	-31.03	12.05	42.60	PK*	3.00	0.00	53.98	11.38	PASS
WLAN-CH11	V	3	Horn SN6276	7386.00	34.70		38.49	9.94	-30.83	17.61	52.31	PK	3.00	0.00	73.98	21.67	PASS
WLAN-CH11	V	3	Horn SN6276	7386.00	20.90		38.49	9.94	-30.83	17.61	38.51	AV	3.00	0.00	53.98	15.47	PASS
WLAN-CH11	V	3	Horn SN6276	9423.49	35.25	X	40.28	11.74	-30.72	21.30	56.55	PK	3.00	0.00	73.98	17.43	PASS
WLAN-CH11	V	3	Horn SN6276	9423.49	22.00	X	40.28	11.74	-30.72	21.30	43.30	AV	3.00	0.00	53.98	10.68	PASS
WLAN-CH11	V	1	Horn SN6276	12310.00	37.97		40.93	8.74	-30.60	19.07	57.04	PK*	3.00	9.54	63.52	6.48	PASS
WLAN-CH11	V	1	Horn SN6276	12521.45	39.02	X	41.22	8.83	-30.59	19.46	58.48	PK*	3.00	9.54	63.52	5.04	PASS
WLAN-CH11	V	1	Horn SN6276	17903.25	40.50	X	45.61	11.13	-32.60	24.14	64.64	PK	3.00	9.54	83.52	18.88	PASS
WLAN-CH11	V	1	Horn SN6276	17903.25	29.31	X	45.61	11.13	-32.60	24.14	53.45	AV	3.00	9.54	63.52	10.07	PASS
WLAN-CH11	V	1	Waveline_899	18623.45	38.92	X	40.20	11.39	-34.87	16.72	55.64	PK*	3.00	9.54	63.52	7.88	PASS
WLAN-CH11	V	1	Waveline_899	19696.00	38.15		40.30	11.79	-35.44	16.65	54.80	PK*	3.00	9.54	63.52	8.72	PASS
WLAN-CH11	V	1	Waveline_899	22158.00	39.04		40.33	12.69	-35.57	17.45	56.49	PK*	3.00	9.54	63.52	7.03	PASS
WLAN-CH11	V	1	Waveline_899	23924.85	41.19	X	40.40	13.34	-35.55	18.18	59.37	PK*	3.00	9.54	63.52	4.15	PASS

Formulae:

Total CF = Antenna Factor + Cable Factor + Other Factor (Amplifier Gain, filter loss, etc)

Field Strength = SA Reading + Total CF

Limit Distance Correction = $40 \cdot \log(d1/d2)$ for $F < 30$ MHz, $20 \cdot \log(d1/d2)$ for $F > 30$ MHz:

where d1 is the measurement distance, d2 is the published limit distance

Limit = Specified Limit + Limit Distance Correction

Margin = Limit - Field Strength

BOLD indicates emission at or near a carrier harmonic frequency

*Where applicable the QP or Average Limits where applied to the peak emission

No emissions were measured with margins less than those reported

The frequency points reported describe the highest emission measured in each of the ranges tested and are used to describe the measured spectrum as a whole. It is shown that the highest emissions measured within the spectrum pass the appropriate restricted limits; therefore all emissions within the restricted bands would also meet the requirements. No out-of-band emissions were measured above the levels noted.

Applicant:	Itronix Corporation	Model:	IX260PLUSNL305	FCC ID:	KBCIX260PLUSNL305	
Rugged Laptop PC with internal Senao NL-3054MP 802.11b/g WLAN Mini-PCI Card and External Antennas						
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F.9.31. Mode g - 7.5" Monopole - Fundamental Field Strengths @ Specified Distance (1 MHz RBW)

Channel	Polarity	Measurement Distance	Antenna	Frequency	SA Level	Noise Floor	AF	CL	Other	Total CF	Field Strength	Detector	RBW
							dB/m	dB	dB	dB/m	dBuV/m		kHz
WLAN-CH1	H	3	Horn SN6276	2412.00	79.60		30.26	5.10	-23.13	12.23	91.83	PK	1000
WLAN-CH1	H	3	Horn SN6276	2412.00	70.00		30.26	5.10	-23.13	12.23	82.23	AV	1000
WLAN-CH1	V	3	Horn SN6276	2412.00	88.40		30.26	5.10	-23.13	12.23	100.63	PK	1000
WLAN-CH1	V	3	Horn SN6276	2412.00	78.20		30.26	5.10	-23.13	12.23	90.43	AV	1000
WLAN-CH6	H	3	Horn SN6276	2437.00	79.50		30.30	5.14	-23.12	12.31	91.81	PK	1000
WLAN-CH6	H	3	Horn SN6276	2437.00	69.30		30.30	5.14	-23.12	12.31	81.61	AV	1000
WLAN-CH6	V	3	Horn SN6276	2437.00	88.20		30.30	5.14	-23.12	12.31	100.51	PK	1000
WLAN-CH6	V	3	Horn SN6276	2437.00	77.80		30.30	5.14	-23.12	12.31	90.11	AV	1000
WLAN-CH11	H	3	Horn SN6276	2462.00	80.30		30.34	5.16	-23.12	12.38	92.68	PK	1000
WLAN-CH11	H	3	Horn SN6276	2462.00	70.50		30.34	5.16	-23.12	12.38	82.88	AV	1000
WLAN-CH11	V	3	Horn SN6276	2462.00	88.50		30.34	5.16	-23.12	12.38	100.88	PK	1000
WLAN-CH11	V	3	Horn SN6276	2462.00	78.50		30.34	5.16	-23.12	12.38	90.88	AV	1000

Formulae:

Formulae:

Total CF = Antenna Factor + Cable Factor + Other Factor (Amplifier Gain, filter loss, etc)

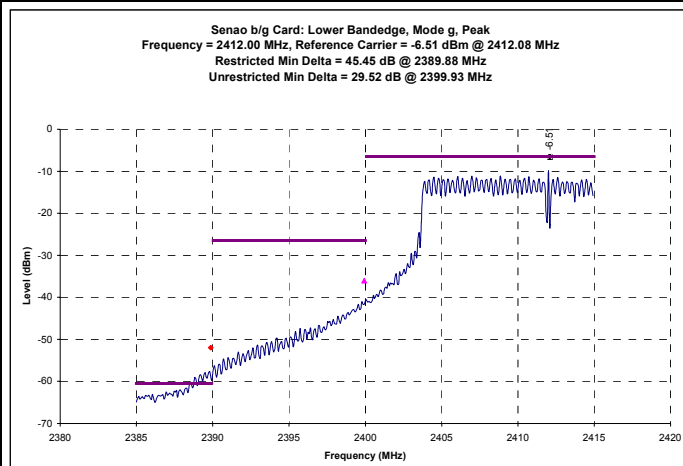
$$\text{Field Strength} = \text{SA Reading} + \text{Total CF}$$

Test Report Serial No.:	061405KBC-T648-E15W	Report Issue No.:	Issue 1.0
Test Date(s):	15Jun05 - 04Aug05	Report Issue Date:	20Sept05
Test Rule Part(s):	FCC 47 CFR §15.247	Industry Canada RSS-210 Issue 5	
Lab Registration(s):	FCC Lab Reg. # 714830	Industry Canada Lab File # IC 3874	

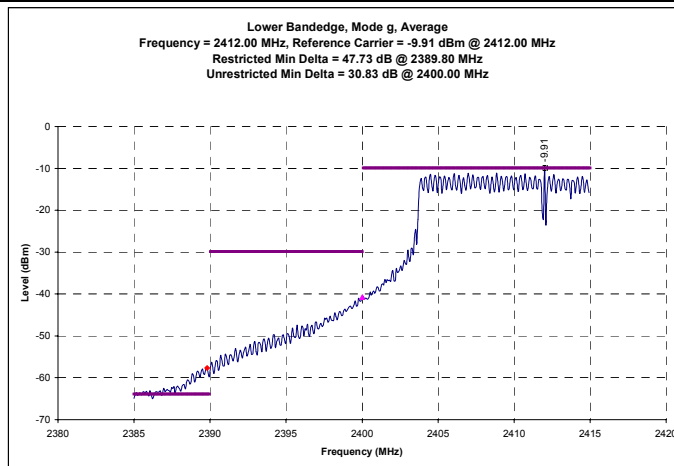
F.9.32. Mode g - 7.5" Monopole - Lower Band-edge Emission Field Strengths @ Specified Distance

Note: (Lower Band-edge (unrestricted Band) is in Appendix E)

Channel 1 - Peak Conducted Band-edge Plots



Channel 1 - Average Conducted Band-edge Plots



Channel 1 - Calculated Band-edge (within restricted bands) Field Strengths

Channel	Polarity	Distance	Frequency	Carrier Radiated Field Strength	Delta Marker	Detector	Calculated Bandedge Field Strength	Duty Cycle Correction	Corrected Bandedge Field Strength	Specified Limit	Specified Limit Distance	Limit Distance Correction	Calculated Limit	Margin	Pass/Fail
		m													
		MHz													
WLAN-CH1	H	3	2389.88	91.83	45.45	PK	46.38	0.00	46.38	73.98	3.00	0.00	73.98	27.60	PASS
WLAN-CH1	H	3	2389.80	82.23	47.73	AV	34.50	0.00	34.50	53.98	3.00	0.00	53.98	19.48	PASS
WLAN-CH1	V	3	2389.88	100.63	45.45	PK	55.18	0.00	55.18	73.98	3.00	0.00	73.98	18.80	PASS
WLAN-CH1	V	3	2389.80	90.43	47.73	AV	42.70	0.00	42.70	53.98	3.00	0.00	53.98	11.28	PASS

Formulae:

$$\text{Calculated Bandedge Field Strength (dBuV/m)} = \text{Carrier Radiated Field Strength (dBuV/m)} - \text{Delta Marker (dB)}$$

Duty Cycle Correction (dB) = 20 * log (time on / total time)

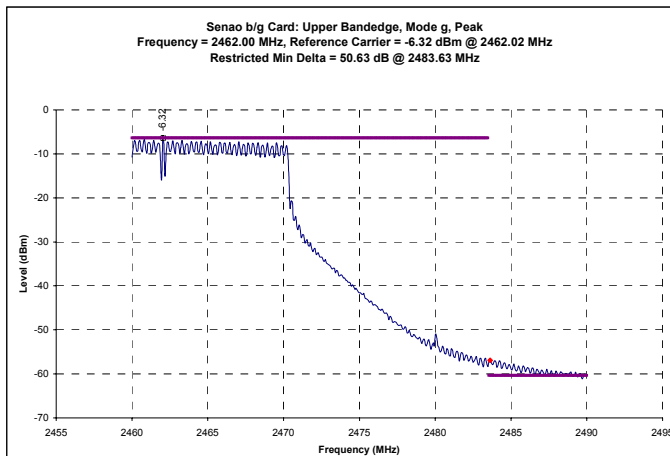
$$\text{Corrected Bandedge Field Strength (dBuV/m)} = \text{Calculated Bandedge Field Strength (dBuV/m)} + \text{Duty Cycle Correction (dB)}$$
$$\text{Limit Distance Correction} = 20 * \log (\text{measurement distance} / \text{limit distance})$$
$$\text{Calculated Limit (dBuV/m)} = \text{Specified Limit (dBuV/m)} + \text{Limit Distance Correction (dB)}$$
$$\text{Margin (dB)} = \text{Calculated Limit (dBuV/m)} - \text{Corrected Bandedge Field Strength (dBuV/m)}$$

Note: Measurements and calculation reference the Marker-Delta Method described in FCC Public Notice DA 00-705

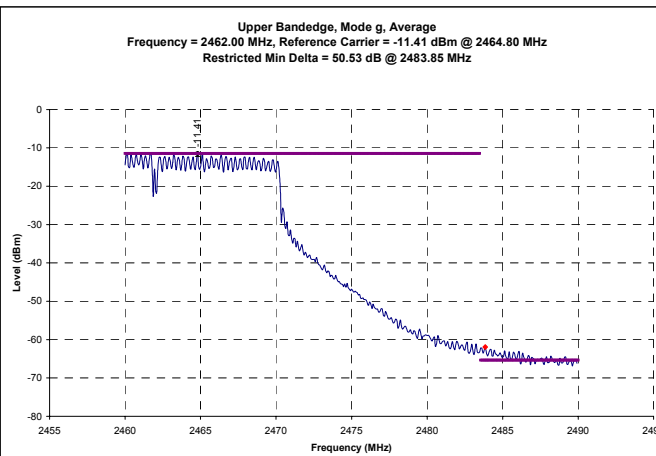
Limit based on highest radiated carrier

F.9.33. Mode g - 7.5" Monopole - Upper Band-edge Emission Field Strengths @ Specified Distance

Channel 11 - Peak Conducted Band-edge Plots



Channel 11 - Average Conducted Band-edge Plots



Channel 11 - Calculated Band-edge (within restricted bands) Field Strengths

Channel	Polarity	Distance	Frequency	Carrier Radiated Field Strength	Delta Marker	Detector	Calculated Bandedge Field Strength	Duty Cycle Correction	Corrected Bandedge Field Strength	Specified Limit	Specified Limit Distance	Limit Distance Correction	Calculated Limit	Margin	Pass/Fail
		m													
		MHz													
WLAN-CH11	H	3	2483.63	92.68	50.63	PK	42.05	0.00	42.05	73.98	3.00	0.00	73.98	31.93	PASS
WLAN-CH11	H	3	2483.85	82.88	50.53	AV	32.35	0.00	32.35	53.98	3.00	0.00	53.98	21.63	PASS
WLAN-CH11	V	3	2483.63	100.88	50.63	PK	50.25	0.00	50.25	73.98	3.00	0.00	73.98	23.73	PASS
WLAN-CH11	V	3	2483.85	90.88	50.53	AV	40.35	0.00	40.35	53.98	3.00	0.00	53.98	13.63	PASS

Formulae:

$$\text{Calculated Bandedge Field Strength (dBuV/m)} = \text{Carrier Radiated Field Strength (dBuV/m)} - \text{Delta Marker (dB)}$$

Duty Cycle Correction (dB) = 20 * log (time on / total time)

$$\text{Corrected Bandedge Field Strength (dBuV/m)} = \text{Calculated Bandedge Field Strength (dBuV/m)} + \text{Duty Cycle Correction (dB)}$$
$$\text{Limit Distance Correction} = 20 * \log (\text{measurement distance} / \text{limit distance})$$
$$\text{Calculated Limit (dBuV/m)} = \text{Specified Limit (dBuV/m)} + \text{Limit Distance Correction (dB)}$$
$$\text{Margin (dB)} = \text{Calculated Limit (dBuV/m)} - \text{Corrected Bandedge Field Strength (dBuV/m)}$$

Note: Measurements and calculation reference the Marker-Delta Method described in FCC Public Notice DA 00-705

Limit based on highest radiated carrier

 Testing and Engineering Services Lab	Test Report Serial No.:	061405KBC-T648-E15W	Report Issue No.:	Issue 1.0
	Test Date(s):	15Jun05 - 04Aug05	Report Issue Date:	20Sept05
	Test Rule Part(s):	FCC 47 CFR §15.247	Industry Canada RSS-210 Issue 5	
	Lab Registration(s):	FCC Lab Reg. # 714830	Industry Canada Lab File # IC 3874	

F.9.34. Mode g - 7.5" Monopole - Channel 1 Out-of-Band Spurious Emission Field Strengths @ Specified Distance (within restricted bands)

Channel	Polarity	Distance	Rx Antenna	Frequency	SA Level	Noise Floor	Rx AF	Rx CL	Other Rx	Total Rx CF	Field Strength	Detector	Limit Distance	Limit Distance Correction	Calculated Limit	Margin	Pass/Fail
		m		MHz	dBuV		dB/m	dB	dB	dB/m	dBuV/m	(PK/QP/AV)	m	dB	dBuV/m	dB	
WLAN-CH1	H	3	Loop 6502	2.18	38.80	X	10.32	0.52	0.00	10.84	49.64	PK*	30.00	40.00	69.54	19.90	PASS
WLAN-CH1	H	3	Bilog SN1607	112.70	27.70	X	11.46	1.07	0.00	12.53	40.23	PK*	3.00	0.00	43.52	3.29	PASS
WLAN-CH1	H	3	Bilog SN1607	172.40	23.20		10.21	1.32	0.00	11.52	34.72	QP	3.00	0.00	43.52	8.80	PASS
WLAN-CH1	H	3	Bilog SN1607	172.40	43.70		10.21	1.32	0.00	11.52	55.22	PK	3.00	0.00	63.52	8.30	PASS
WLAN-CH1	H	3	Bilog SN1607	324.33	21.20	X	14.37	1.83	0.00	16.20	37.40	PK*	3.00	0.00	46.02	8.62	PASS
WLAN-CH1	H	3	Horn SN6276	1066.37	14.80	X	26.59	3.36	0.00	29.95	44.75	PK*	3.00	0.00	53.98	9.23	PASS
WLAN-CH1	H	3	Horn SN6276	1107.27	15.75	X	26.65	3.42	0.00	30.07	45.82	PK*	3.00	0.00	53.98	8.16	PASS
WLAN-CH1	H	3	Horn SN6276	1148.19	15.85	X	26.71	3.50	0.00	30.21	46.06	PK*	3.00	0.00	53.98	7.92	PASS
WLAN-CH1	H	3	Horn SN6276	1428.18	31.60	X	34.70	6.94	-31.08	10.56	42.16	PK*	3.00	0.00	53.98	11.82	PASS
WLAN-CH1	H	3	Horn SN6276	4352.56	31.50	X	34.70	7.02	-31.08	10.64	42.14	PK*	3.00	0.00	53.98	11.84	PASS
WLAN-CH1	H	3	Horn SN6276	4824.00	30.30		35.35	7.40	-31.04	11.71	42.01	PK*	3.00	0.00	53.98	11.97	PASS
WLAN-CH1	H	3	Horn SN6276	8322.88	34.95	X	39.29	10.41	-30.77	18.94	53.89	PK	3.00	0.00	73.98	20.09	PASS
WLAN-CH1	H	3	Horn SN6276	8322.88	23.40		39.29	10.41	-30.77	18.94	42.34	AV	3.00	0.00	53.98	11.64	PASS
WLAN-CH1	H	3	Horn SN6276	8374.93	30.75		39.32	10.22	-30.76	18.78	49.53	AV	3.00	0.00	53.98	4.45	PASS
WLAN-CH1	H	3	Horn SN6276	8375.11	38.40		39.33	10.22	-30.76	18.78	57.18	PK	3.00	0.00	73.98	16.80	PASS
WLAN-CH1	H	1	Horn SN6276	12060.00	38.07		40.58	8.62	-30.61	18.59	56.66	PK*	3.00	9.54	63.52	6.86	PASS
WLAN-CH1	H	1	Horn SN6276	14472.00	38.94		42.57	9.73	-30.78	21.52	60.46	PK*	3.00	9.54	63.52	3.06	PASS
WLAN-CH1	H	1	Horn SN6276	17999.95	39.88	X	45.90	11.16	-32.65	24.41	64.29	PK	3.00	9.54	83.52	19.23	PASS
WLAN-CH1	H	1	Horn SN6276	17999.95	29.33	X	45.90	11.16	-32.65	24.41	53.74	AV	3.00	9.54	63.52	9.78	PASS
WLAN-CH1	H	1	Waveline_899	19296.00	38.73		40.26	11.64	-35.23	16.67	55.40	PK*	3.00	9.54	63.52	8.12	PASS
WLAN-CH1	H	1	Waveline_899	23981.35	41.16	X	40.40	13.37	-35.55	18.21	59.37	PK*	3.00	9.54	63.52	4.15	PASS
WLAN-CH1	V	3	Loop 6502	2.19	40.50	X	10.32	0.52	0.00	10.84	51.34	PK*	30.00	40.00	69.54	18.20	PASS
WLAN-CH1	V	3	Horn SN6276	1065.35	14.20	X	26.59	3.36	0.00	29.95	44.15	PK*	3.00	0.00	53.98	9.83	PASS
WLAN-CH1	V	3	Horn SN6276	1090.09	15.90	X	26.63	3.39	0.00	30.02	45.92	PK*	3.00	0.00	53.98	8.06	PASS
WLAN-CH1	V	3	Horn SN6276	1108.85	17.90	X	26.65	3.43	0.00	30.08	47.98	PK*	3.00	0.00	53.98	6.00	PASS
WLAN-CH1	V	3	Horn SN6276	1130.18	16.30	X	26.68	3.47	0.00	30.15	46.45	PK*	3.00	0.00	53.98	7.53	PASS
WLAN-CH1	V	3	Horn SN6276	2335.52	34.85		30.14	5.02	-23.13	12.02	46.87	PK*	3.00	0.00	53.98	7.11	PASS
WLAN-CH1	V	3	Horn SN6276	2662.20	34.55	X	30.92	5.38	-23.11	13.19	47.74	PK*	3.00	0.00	53.98	6.24	PASS
WLAN-CH1	V	3	Horn SN6276	2679.68	44.90		30.97	5.43	-23.10	13.30	58.20	PK	3.00	0.00	73.98	15.78	PASS
WLAN-CH1	V	3	Horn SN6276	2679.88	36.60		30.98	5.43	-23.10	13.30	49.90	AV	3.00	0.00	53.98	4.08	PASS
WLAN-CH1	V	3	Horn SN6276	2715.40	33.90	X	31.09	5.42	-23.10	13.41	47.31	PK*	3.00	0.00	53.98	6.67	PASS
WLAN-CH1	V	3	Horn SN6276	2751.40	32.40	X	31.20	5.48	-23.10	13.59	45.99	PK*	3.00	0.00	53.98	7.99	PASS
WLAN-CH1	V	3	Horn SN6276	2841.10	34.00	X	31.49	5.57	-23.09	13.97	47.97	PK*	3.00	0.00	53.98	6.01	PASS
WLAN-CH1	V	3	Horn SN6276	4353.24	36.80		34.70	7.02	-31.08	10.64	47.44	PK*	3.00	0.00	53.98	6.54	PASS
WLAN-CH1	V	3	Horn SN6276	4824.00	30.25		35.35	7.40	-31.04	11.71	41.96	PK*	3.00	0.00	53.98	12.02	PASS
WLAN-CH1	V	1	Horn SN6276	12060.00	37.85		40.58	8.62	-30.61	18.59	56.44	PK*	3.00	9.54	63.52	7.08	PASS
WLAN-CH1	V	1	Horn SN6276	14472.00	38.80		42.57	9.73	-30.78	21.52	60.32	PK*	3.00	9.54	63.52	3.20	PASS
WLAN-CH1	V	1	Horn SN6276	18000.00	40.35	X	45.90	11.17	-32.65	24.42	64.77	PK	3.00	9.54	83.52	18.76	PASS
WLAN-CH1	V	1	Horn SN6276	18000.00	29.37	X	45.90	11.17	-32.65	24.42	53.79	AV	3.00	9.54	63.52	9.74	PASS
WLAN-CH1	V	1	Waveline_899	18041.80	39.73	X	40.20	11.18	-34.56	16.82	56.55	PK*	3.00	9.54	63.52	6.97	PASS
WLAN-CH1	V	1	Waveline_899	19296.00	38.16		40.26	11.64	-35.23	16.67	54.83	PK*	3.00	9.54	63.52	8.69	PASS
WLAN-CH1	V	1	Waveline_899	23982.40	41.23	X	40.40	13.37	-35.55	18.21	59.44	PK*	3.00	9.54	63.52	4.08	PASS

Formulae:

Total CF = Antenna Factor + Cable Factor + Other Factor (Amplifier Gain, filter loss, etc)

Field Strength = SA Reading + Total CF

Limit Distance Correction = $40 \cdot \log(d1/d2)$ for $F < 30$ MHz, $20 \cdot \log(d1/d2)$ for $F > 30$ MHz:

where d1 is the measurement distance, d2 is the published limit distance

Limit = Specified Limit + Limit Distance Correction

Margin = Limit - Field Strength

BOLD indicates emission at or near a carrier harmonic frequency

*Where applicable the QP or Average Limits were applied to the peak emission

No emissions were measured with margins less than those reported

The frequency points reported describe the highest emission measured in each of the ranges tested and are used to describe the measured spectrum as a whole. It is shown that the highest emissions measured within the spectrum pass the appropriate restricted limits; therefore all emissions within the restricted bands would also meet the requirements. No out-of-band emissions were measured above the levels noted.

Applicant:	Itronix Corporation	Model:	IX260PLUSNL305	FCC ID:	KBCIX260PLUSNL305		
Rugged Laptop PC with internal Senao NL-3054MP 802.11b/g WLAN Mini-PCI Card and External Antennas							
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	Test Report Serial No.:	061405KBC-T648-E15W	Report Issue No.:	Issue 1.0
	Test Date(s):	15Jun05 - 04Aug05	Report Issue Date:	20Sept05
	Test Rule Part(s):	FCC 47 CFR §15.247	Industry Canada RSS-210 Issue 5	
	Lab Registration(s):	FCC Lab Reg. # 714830	Industry Canada Lab File # IC 3874	

F.9.35. Mode g - 7.5" Monopole - Channel 6 Out-of-Band Spurious Emission Field Strengths @ Specified Distance (within restricted bands)

Channel	Polarity	Distance	Rx Antenna	Frequency	SA Level	Noise Floor	Rx AF	Rx CL	Other Rx	Total Rx CF	Field Strength	Detector	Limit Distance	Limit Distance Correction	Calculated Limit	Margin	Pass/Fail
		m		MHz	dBuV		dB/m	dB	dB	dB/m	dBuV/m	(PK/QP/AV)	m	dB	dBuV/m	dB	
WLAN-CH6	H	3	Loop 6502	2.18	40.60	X	10.32	0.52	0.00	10.84	51.44	PK*	30.00	40.00	69.54	18.10	PASS
WLAN-CH6	H	3	Bilog SN1607	400.17	17.60		16.71	2.05	0.00	18.76	36.36	PK*	3.00	0.00	46.02	9.66	PASS
WLAN-CH6	H	3	Horn SN6276	1065.79	15.55	X	26.59	3.36	0.00	29.95	45.50	PK*	3.00	0.00	53.98	8.48	PASS
WLAN-CH6	H	3	Horn SN6276	1127.97	15.75	X	26.68	3.46	0.00	30.14	45.89	PK*	3.00	0.00	53.98	8.09	PASS
WLAN-CH6	H	3	Horn SN6276	3811.73	31.65	X	34.17	6.53	-31.12	9.58	41.23	PK*	3.00	0.00	53.98	12.75	PASS
WLAN-CH6	H	3	Horn SN6276	4874.00	29.95		35.45	7.60	-31.04	12.01	41.96	PK*	3.00	0.00	53.98	12.02	PASS
WLAN-CH6	H	3	Horn SN6276	7311.00	35.50		38.36	9.93	-30.84	17.46	52.96	PK	3.00	0.00	73.98	21.02	PASS
WLAN-CH6	H	3	Horn SN6276	7311.00	21.10		38.36	9.93	-30.84	17.46	38.56	AV	3.00	0.00	53.98	15.42	PASS
WLAN-CH6	H	3	Horn SN6276	8303.19	25.50		39.28	10.25	-30.77	18.76	44.26	AV	3.00	0.00	53.98	9.71	PASS
WLAN-CH6	H	3	Horn SN6276	8303.31	37.20		39.28	10.25	-30.77	18.77	55.97	PK	3.00	0.00	73.98	18.01	PASS
WLAN-CH6	H	3	Horn SN6276	8375.15	29.95		39.33	10.22	-30.76	18.78	48.73	AV	3.00	0.00	53.98	5.25	PASS
WLAN-CH6	H	3	Horn SN6276	8375.41	38.30		39.33	10.21	-30.76	18.78	57.08	PK	3.00	0.00	73.98	16.90	PASS
WLAN-CH6	H	3	Horn SN6276	9330.13	35.60	X	40.27	11.53	-30.72	21.08	56.68	PK	3.00	0.00	73.98	17.30	PASS
WLAN-CH6	H	3	Horn SN6276	9330.13	22.25		40.27	11.53	-30.72	21.08	43.33	AV	3.00	0.00	53.98	10.65	PASS
WLAN-CH6	H	1	Horn SN6276	12185.00	38.43		40.76	8.68	-30.61	18.83	57.26	PK*	3.00	9.54	63.52	6.26	PASS
WLAN-CH6	H	1	Horn SN6276	17737.50	39.77	X	45.11	11.07	-32.51	23.67	63.44	PK	3.00	9.54	83.52	20.08	PASS
WLAN-CH6	H	1	Horn SN6276	17737.50	29.22		45.11	11.07	-32.51	23.67	52.89	AV	3.00	9.54	63.52	10.63	PASS
WLAN-CH6	H	1	Waveline_899	18366.35	39.08	X	40.20	11.30	-34.73	16.77	55.85	PK*	3.00	9.54	63.52	7.68	PASS
WLAN-CH6	H	1	Waveline_899	19496.00	38.63		40.30	11.71	-35.33	16.68	55.31	PK*	3.00	9.54	63.52	8.21	PASS
WLAN-CH6	H	1	Waveline_899	23986.70	41.55	X	40.40	13.37	-35.55	18.22	59.77	PK*	3.00	9.54	63.52	3.75	PASS
WLAN-CH6	V	3	Loop 6502	2.18	42.40	X	10.32	0.52	0.00	10.84	53.24	PK*	30.00	40.00	69.54	16.30	PASS
WLAN-CH6	V	3	Bilog SN1607	119.56	18.60		11.78	1.10	0.00	12.88	31.48	QP	3.00	0.00	43.52	12.04	PASS
WLAN-CH6	V	3	Bilog SN1607	119.56	39.60		11.78	1.10	0.00	12.88	52.48	PK	3.00	0.00	63.52	11.04	PASS
WLAN-CH6	V	3	Horn SN6276	1065.19	15.00	X	26.59	3.36	0.00	29.95	44.95	PK*	3.00	0.00	53.98	9.03	PASS
WLAN-CH6	V	3	Horn SN6276	1074.13	14.40	X	26.60	3.36	0.00	29.96	44.36	PK*	3.00	0.00	53.98	9.62	PASS
WLAN-CH6	V	3	Horn SN6276	1090.30	15.00	X	26.63	3.39	0.00	30.02	45.02	PK*	3.00	0.00	53.98	8.96	PASS
WLAN-CH6	V	3	Horn SN6276	1123.79	15.90	X	26.67	3.45	0.00	30.12	46.02	PK*	3.00	0.00	53.98	7.96	PASS
WLAN-CH6	V	3	Horn SN6276	2659.80	34.45	X	30.91	5.37	-23.11	13.18	47.63	PK*	3.00	0.00	53.98	6.35	PASS
WLAN-CH6	V	3	Horn SN6276	2713.66	35.20		31.08	5.43	-23.10	13.41	48.61	PK*	3.00	0.00	53.98	5.37	PASS
WLAN-CH6	V	3	Horn SN6276	2754.34	34.05	X	31.21	5.50	-23.10	13.61	47.66	PK*	3.00	0.00	53.98	6.32	PASS
WLAN-CH6	V	3	Horn SN6276	2854.10	34.15	X	31.53	5.60	-23.09	14.05	48.20	PK*	3.00	0.00	53.98	5.78	PASS
WLAN-CH6	V	3	Horn SN6276	3851.95	30.90	X	34.29	6.58	-31.12	9.74	40.64	PK*	3.00	0.00	53.98	13.34	PASS
WLAN-CH6	V	3	Horn SN6276	4355.33	30.60	X	34.70	7.01	-31.08	10.63	41.23	PK*	3.00	0.00	53.98	12.75	PASS
WLAN-CH6	V	3	Horn SN6276	4874.00	29.60		35.45	7.60	-31.04	12.01	41.61	PK*	3.00	0.00	53.98	12.37	PASS
WLAN-CH6	V	3	Horn SN6276	7311.00	34.20		38.36	9.93	-30.84	17.46	51.66	PK	3.00	0.00	73.98	22.32	PASS
WLAN-CH6	V	3	Horn SN6276	7311.00	21.10		38.36	9.93	-30.84	17.46	38.56	AV	3.00	0.00	53.98	15.42	PASS
WLAN-CH6	V	1	Horn SN6276	12185.00	37.35		40.76	8.68	-30.61	18.83	56.18	PK*	3.00	9.54	63.52	7.34	PASS
WLAN-CH6	V	1	Horn SN6276	13309.65	40.57	X	41.85	9.20	-30.56	20.48	61.05	PK	3.00	9.54	83.52	22.47	PASS
WLAN-CH6	V	1	Horn SN6276	13309.65	29.69		41.85	9.20	-30.56	20.48	50.17	AV	3.00	9.54	63.52	13.35	PASS
WLAN-CH6	V	1	Horn SN6276	17931.45	40.01	X	45.69	11.14	-32.61	24.22	64.23	PK	3.00	9.54	83.52	19.29	PASS
WLAN-CH6	V	1	Horn SN6276	17931.45	29.21		45.69	11.14	-32.61	24.22	53.43	AV	3.00	9.54	63.52	10.09	PASS
WLAN-CH6	V	1	Waveline_899	18057.15	40.20	X	40.20	11.19	-34.57	16.82	57.02	PK*	3.00	9.54	63.52	6.51	PASS
WLAN-CH6	V	1	Waveline_899	19496.00	37.99		40.30	11.71	-35.33	16.68	54.67	PK*	3.00	9.54	63.52	8.85	PASS
WLAN-CH6	V	1	Waveline_899	23950.15	41.04	X	40.40	13.35	-35.55	18.19	59.23	PK*	3.00	9.54	63.52	4.29	PASS

Formulae:

Total CF = Antenna Factor + Cable Factor + Other Factor (Amplifier Gain, filter loss, etc)

Field Strength = SA Reading + Total CF

Limit Distance Correction = $40 \cdot \log(d1/d2)$ for $F < 30$ MHz, $20 \cdot \log(d1/d2)$ for $F > 30$ MHz:

where d1 is the measurement distance, d2 is the published limit distance

Limit = Specified Limit + Limit Distance Correction

Margin = Limit - Field Strength

BOLD indicates emission at or near a carrier harmonic frequency

*Where applicable the QP or Average Limits were applied to the peak emission

No emissions were measured with margins less than those reported

The frequency points reported describe the highest emission measured in each of the ranges tested and are used to describe the measured spectrum as a whole. It is shown that the highest emissions measured within the spectrum pass the appropriate restricted limits; therefore all emissions within the restricted bands would also meet the requirements. No out-of-band emissions were measured above the levels noted.

Applicant:	Itronix Corporation	Model:	IX260PLUSNL305	FCC ID:	KBCIX260PLUSNL305	
Rugged Laptop PC with internal Senao NL-3054MP 802.11b/g WLAN Mini-PCI Card and External Antennas						
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	Test Report Serial No.:	061405KBC-T648-E15W	Report Issue No.:	Issue 1.0
	Test Date(s):	15Jun05 - 04Aug05	Report Issue Date:	20Sept05
	Test Rule Part(s):	FCC 47 CFR §15.247	Industry Canada RSS-210 Issue 5	
	Lab Registration(s):	FCC Lab Reg. # 714830	Industry Canada Lab File # IC 3874	

F.9.36. Mode g - 7.5" Monopole - Channel 11 Out-of-Band Spurious Emission Field Strengths @ Specified Distance
(within restricted bands)

Channel	Polarity	Distance	Rx Antenna	Frequency	SA Level	Noise Floor	Rx AF	Rx CL	Other Rx	Total Rx CF	Field Strength	Detector	Limit Distance	Limit Distance Correction	Calculated Limit	Margin	Pass/Fail
		m		MHz	dBuV		dB/m	dB	dB	dB/m	dBuV/m	(PK/QP/AV)	m	dB	dBuV/m	dB	
WLAN-CH11	H	3	Loop 6502	2.19	40.40	X	10.32	0.52	0.00	10.84	51.24	PK*	30.00	40.00	69.54	18.30	PASS
WLAN-CH11	H	3	Horn SN6276	1037.77	14.95	X	26.55	3.34	0.00	29.89	44.84	PK*	3.00	0.00	53.98	9.14	PASS
WLAN-CH11	H	3	Horn SN6276	1128.81	15.90	X	26.68	3.46	0.00	30.14	46.04	PK*	3.00	0.00	53.98	7.93	PASS
WLAN-CH11	H	3	Horn SN6276	1705.64	16.30	X	28.19	4.28	0.00	32.47	48.77	PK*	3.00	0.00	53.98	5.21	PASS
WLAN-CH11	H	3	Horn SN6276	4924.00	29.60		35.55	7.53	-31.03	12.05	41.65	PK*	3.00	0.00	53.98	12.33	PASS
WLAN-CH11	H	3	Horn SN6276	7386.00	34.10		38.49	9.94	-30.83	17.61	51.71	PK	3.00	0.00	53.98	22.27	PASS
WLAN-CH11	H	3	Horn SN6276	7386.00	20.70		38.49	9.94	-30.83	17.61	38.31	AV	3.00	0.00	53.98	15.67	PASS
WLAN-CH11	H	3	Horn SN6276	7484.23	36.25	X	38.67	10.00	-30.82	17.85	54.10	PK	3.00	0.00	53.98	19.88	PASS
WLAN-CH11	H	3	Horn SN6276	7484.23	22.85	X	38.67	10.00	-30.82	17.85	40.70	AV	3.00	0.00	53.98	13.28	PASS
WLAN-CH11	H	3	Horn SN6276	8318.79	35.65	X	39.29	10.43	-30.77	18.95	54.60	PK	3.00	0.00	53.98	19.38	PASS
WLAN-CH11	H	3	Horn SN6276	8318.79	22.10	X	39.29	10.43	-30.77	18.95	41.05	AV	3.00	0.00	53.98	12.93	PASS
WLAN-CH11	H	3	Horn SN6276	8373.27	38.75		39.32	10.23	-30.76	18.79	57.54	PK	3.00	0.00	53.98	16.44	PASS
WLAN-CH11	H	3	Horn SN6276	8375.23	30.50		39.33	10.22	-30.76	18.78	49.28	AV	3.00	0.00	53.98	4.70	PASS
WLAN-CH11	H	3	Horn SN6276	9366.43	35.35	X	40.27	11.60	-30.72	21.15	56.50	PK	3.00	0.00	53.98	17.48	PASS
WLAN-CH11	H	3	Horn SN6276	9366.43	22.15	X	40.27	11.60	-30.72	21.15	43.30	AV	3.00	0.00	53.98	10.68	PASS
WLAN-CH11	H	1	Horn SN6276	12310.00	38.11		40.93	8.74	-30.60	19.07	57.18	PK*	3.00	9.54	63.52	6.34	PASS
WLAN-CH11	H	1	Horn SN6276	17918.05	39.81	X	45.65	11.13	-32.61	24.18	63.99	PK	3.00	9.54	63.52	19.53	PASS
WLAN-CH11	H	1	Horn SN6276	17918.05	29.26	X	45.65	11.13	-32.61	24.18	53.44	AV	3.00	9.54	63.52	10.08	PASS
WLAN-CH11	H	1	Waveline_899	19696.00	38.49		40.30	11.79	-35.44	16.65	55.14	PK*	3.00	9.54	63.52	8.38	PASS
WLAN-CH11	H	1	Waveline_899	22158.00	39.05		40.33	12.69	-35.57	17.45	56.50	PK*	3.00	9.54	63.52	7.02	PASS
WLAN-CH11	V	3	Horn SN6276	1021.32	15.50	X	26.53	3.46	0.00	29.99	45.49	PK*	3.00	0.00	53.98	8.49	PASS
WLAN-CH11	V	3	Horn SN6276	1041.80	14.85	X	26.56	3.32	0.00	29.88	44.73	PK*	3.00	0.00	53.98	9.25	PASS
WLAN-CH11	V	3	Horn SN6276	1065.44	15.45	X	26.59	3.36	0.00	29.95	45.40	PK*	3.00	0.00	53.98	8.58	PASS
WLAN-CH11	V	3	Horn SN6276	1078.32	15.30	X	26.61	3.36	0.00	29.97	45.27	PK*	3.00	0.00	53.98	8.71	PASS
WLAN-CH11	V	3	Horn SN6276	1087.13	14.90	X	26.62	3.38	0.00	30.00	44.90	PK*	3.00	0.00	53.98	9.08	PASS
WLAN-CH11	V	3	Horn SN6276	1104.98	15.30	X	26.65	3.42	0.00	30.07	45.37	PK*	3.00	0.00	53.98	8.61	PASS
WLAN-CH11	V	3	Horn SN6276	1317.13	15.65	X	26.94	3.74	0.00	30.69	46.34	PK*	3.00	0.00	53.98	7.64	PASS
WLAN-CH11	V	3	Horn SN6276	1421.48	15.90	X	27.09	3.88	0.00	30.97	46.87	PK*	3.00	0.00	53.98	7.11	PASS
WLAN-CH11	V	3	Horn SN6276	1542.12	16.00	X	27.40	4.03	0.00	31.43	47.43	PK*	3.00	0.00	53.98	6.55	PASS
WLAN-CH11	V	3	Horn SN6276	2234.10	35.25	X	29.97	4.95	-23.14	11.79	47.04	PK*	3.00	0.00	53.98	6.94	PASS
WLAN-CH11	V	3	Horn SN6276	2692.14	34.50		31.01	5.45	-23.10	13.36	47.86	AV	3.00	0.00	53.98	6.12	PASS
WLAN-CH11	V	3	Horn SN6276	2696.86	45.85		31.03	5.45	-23.10	13.38	59.23	PK	3.00	0.00	53.98	14.75	PASS
WLAN-CH11	V	3	Horn SN6276	4251.50	32.90	X	34.70	6.91	-31.09	10.53	43.43	PK*	3.00	0.00	53.98	10.55	PASS
WLAN-CH11	V	3	Horn SN6276	4924.00	30.90		35.55	7.53	-31.03	12.05	42.95	PK*	3.00	0.00	53.98	11.03	PASS
WLAN-CH11	V	3	Horn SN6276	7386.00	34.45		38.49	9.94	-30.83	17.61	52.06	PK	3.00	0.00	53.98	21.92	PASS
WLAN-CH11	V	3	Horn SN6276	7386.00	20.70		38.49	9.94	-30.83	17.61	38.31	AV	3.00	0.00	53.98	15.67	PASS
WLAN-CH11	V	1	Horn SN6276	12310.00	37.27		40.93	8.74	-30.60	19.07	56.34	PK*	3.00	9.54	63.52	7.18	PASS
WLAN-CH11	V	1	Horn SN6276	18000.00	41.80	X	45.90	11.17	-32.65	24.42	66.22	PK	3.00	9.54	63.52	17.31	PASS
WLAN-CH11	V	1	Horn SN6276	18000.00	29.27	X	45.90	11.17	-32.65	24.42	53.69	AV	3.00	9.54	63.52	9.84	PASS
WLAN-CH11	V	1	Waveline_899	19696.00	37.41		40.30	11.79	-35.44	16.65	54.06	PK*	3.00	9.54	63.52	9.46	PASS
WLAN-CH11	V	1	Waveline_899	22158.00	38.68		40.33	12.69	-35.57	17.45	56.13	PK*	3.00	9.54	63.52	7.39	PASS
WLAN-CH11	V	1	Waveline_899	23834.05	40.24	X	40.40	13.30	-35.55	18.15	58.39	PK*	3.00	9.54	63.52	5.13	PASS

Formulae:

Total CF = Antenna Factor + Cable Factor + Other Factor (Amplifier Gain, filter loss, etc)

Field Strength = SA Reading + Total CF

Limit Distance Correction = 40*log(d1/d2) for F<30 MHz, 20*log(d1/d2) for F > 30 MHz:

where d1 is the measurement distance, d2 is the published limit distance

Limit = Specified Limit + Limit Distance Correction

Margin = Limit - Field Strength

BOLD indicates emission at or near a carrier harmonic frequency

*Where applicable the QP or Average Limits where applied to the peak emission

No emissions were measured with margins less than those reported

The frequency points reported describe the highest emission measured in each of the ranges tested and are used to describe the measured spectrum as a whole. It is shown that the highest emissions measured within the spectrum pass the appropriate restricted limits; therefore all emissions within the restricted bands would also meet the requirements. No out-of-band emissions were measured above the levels noted.

Applicant:	Itronix Corporation	Model:	IX260PLUSNL305	FCC ID:	KBCIX260PLUSNL305	
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	Test Date(s):	15Jun05 - 04Aug05	Report Issue Date:	20Sept05
	Test Rule Part(s):	FCC 47 CFR §15.247	Industry Canada RSS-210 Issue 5	
	Lab Registration(s):	FCC Lab Reg. # 714830	Industry Canada Lab File # IC 3874	

F.10. PASS/FAIL

In reference to the results outlined in F.9, the DUT passes the requirements as stated in the reference standards as follows: FCC 15.205 (a) (b) and 15.209 (a): No emissions were measured within the restricted bands as outlined in 15.205 that exceeded the limits stated in 15.209.

F.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.



Alex Yuan
EMC Technologist
Celltech Labs Inc.

17Jul05

Date

Applicant:	Itronix Corporation	Model:	IX260PLUSNL305	FCC ID:	KBCIX260PLUSNL305	
Rugged Laptop PC with internal Senao NL-3054MP 802.11b/g WLAN Mini-PCI Card and External Antennas						
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	Lab Registration(s):	FCC Lab Reg. # 714830	Industry Canada Lab File # IC 3874	

Appendix G - Peak Power Spectral Density Measurement

G.1. REFERENCES	
Normative Reference Standard	FCC CFR 47 §15.247(d)
Procedure Reference	FCC Bulletin KDB Publication No 558074

G.2. LIMITS
G.2.1. FCC CFR
§15.247(d): For digitally modulated systems, the peak power spectral density conducted from the intentional radiator to the antenna shall not be greater than +8 dBm in any 3 kHz band during any time interval of continuous transmission.

G.3. ENVIRONMENTAL CONDITIONS	
Temperature	25 +/- 2 °C
Humidity	35 +/- 2 %
Barometric Pressure	96 kPa

G.4. EQUIPMENT LIST					
ASSET NUMBER	MANUFACTURER	MODEL	DESCRIPTION	LAST CAL	CAL DUE
00015	Agilent	E4408B	Spectrum Analyzer	24Jan05	29Jan06
00075	Alpha Wire-J	9223	1ft. RG223/U RF Cable	08Jul04*	08Dec05
00076	Pasternack	PE7014-30	30dB 2 Watt Attenuator	01Nov04*	01Nov05

Applicant:	Itronix Corporation	Model:	IX260PLUSNL305	FCC ID:	KBCIX260PLUSNL305	
Rugged Laptop PC with internal Senao NL-3054MP 802.11b/g WLAN Mini-PCI Card and External Antennas						
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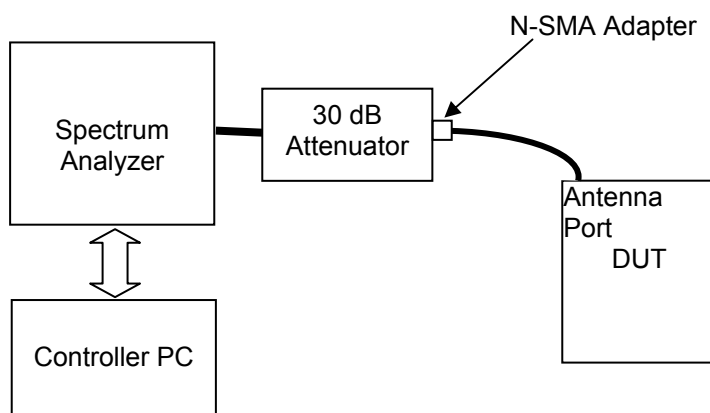
	Test Report Serial No.:	061405KBC-T648-E15W	Report Issue No.:	Issue 1.0
	Test Date(s):	15Jun05 - 04Aug05	Report Issue Date:	20Sept05
	Test Rule Part(s):	FCC 47 CFR §15.247	Industry Canada RSS-210 Issue 5	
	Lab Registration(s):	FCC Lab Reg. # 714830	Industry Canada Lab File # IC 3874	

G.5. MEASUREMENT EQUIPMENT SETUP

Measurement Equipment Connections	The equipment was connected as shown in the setup drawing in G.6.
Measurement Equipment Settings	To evaluate the occupied bandwidth, software and a PC controller were used to set the spectrum analyzer using the following setting: RBW – 3 kHz VBW – 30 kHz Detector – Sample Average – Power Trace Average – 100 Offset – appropriate for external attenuation (-31.4 dB)
Measurement Procedure	The power spectral density measurement was performed using the PSD Option 2 method described in the FCC document KDB Publication No. 558074.

G.6. SETUP DRAWING

Figure G.6-1 - Setup Drawing



Applicant:	Itronix Corporation	Model:	IX260PLUSNL305	FCC ID:	KBCIX260PLUSNL305	
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	Lab Registration(s):	FCC Lab Reg. # 714830	Industry Canada Lab File # IC 3874	

G.7. TEST RESULTS

Channel	802.11b			802.11g		
	Frequency (GHz)	PPSD (dBm)	Data Rate Mb/s	Frequency (GHz)	PPSD (dBm)	Data Rate Mb/s
Low	2.412	-5.858	1	2.412	-6.184	6
Mid	2.437	-6.091	1	2.437	-6.034	6
High	2.462	-6.364	1	2.462	-5.791	6

G.8. PASS/FAIL

In reference to the results outlined in G.7, the DUT passes the requirements as stated in the reference standards as follows:

FCC 15.247 (d): The peak power spectral density did not exceed +8 dBm in any 3 kHz band.

G.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.



Alex Yuan
EMC Technologist
Celltech Labs Inc.

20Jul05
Date

Applicant:	Itronix Corporation	Model:	IX260PLUSNL305	FCC ID:	KBCIX260PLUSNL305	
Rugged Laptop PC with internal Senao NL-3054MP 802.11b/g WLAN Mini-PCI Card and External Antennas						
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	Lab Registration(s):	FCC Lab Reg. # 714830	Industry Canada Lab File # IC 3874	

Appendix H - Conducted Powerline Emissions Measurement

H.1. REFERENCES

Normative Reference Standard	CFR 47 FCC Part 15 §15.207
Procedure Reference	ANSI C63.4

H.2. LIMITS

§15.207: Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each powerline and ground at the power terminal.

Frequency of Emission (MHz)	Conducted Limit (dBuV)	
	Quasi-Peak	Average
0.15 – 0.5	66 to 56*	56 to 46*
0.50 – 5.0	56	46
5.0 – 30.0	60	50

*Decreases logarithmically with frequency.

H.3. ENVIRONMENTAL CONDITIONS

Temperature	+26 ± 5 °C
Humidity	31 % ± 10% RH
Barometric Pressure	101.4 kpa

H.4. EQUIPMENT LIST

ASSET NUMBER	MANUFACTURER	MODEL	DESCRIPTION	LAST CAL	CAL DUE
00051	HP	8566B	Spectrum Analyzer RF Section	12Apr05	12Apr06
00049	HP	85650A	Quasi-Peak Adapter	13Apr05	13Apr06
00047	HP	85685A	RF Preselector	13Apr05	13Apr06
00051	HP	8566B	Spectrum Analyzer RF Section	12Apr05	12Apr06
00083	EMCO	3825/2	Line Impedance Stabilization Network	26Apr05	26Apr06
00084	EMCO	3825/2	Line Impedance Stabilization Network	26Apr05	26Apr06

H.5. MEASUREMENT EQUIPMENT SETUP

MEASUREMENT EQUIPMENT CONNECTIONS	The conducted emissions were measured on each of the two AC powerline leads connected to the DUT's power supply brick. A two line LISN was used to make this measurement. A drawing of the equipment setup is shown in H.7
MEASUREMENT EQUIPMENT SETTINGS	Each of the monitor ports from the 2-line LISN was connected in turn to the spectrum analyzer. The port not connected to the analyzer was terminated in a 50-ohm load. A prescan of the peak emission levels was made of the 150 kHz – 30 MHz range split into 4 equal frequency bands. The following were the spectrum analyzer settings: Start Frequency and Stop Frequency set by software for each of the four bands RBW: 100 kHz VBW: 300 kHz Sweep: 500 mS The resulting data from each band was corrected and collected by software and presented in the graphical representations shown in H.9 for the two leads. The frequency points with the highest 10 levels on each lead were used by software to optimize a set of 20 readings for each type of detector (peak, quasi-peak and average). This data was corrected by the software is presented in the tables shown in section H.9.

Applicant:	Itronix Corporation	Model:	IX260PLUSNL305	FCC ID:	KBCIX260PLUSNL305		
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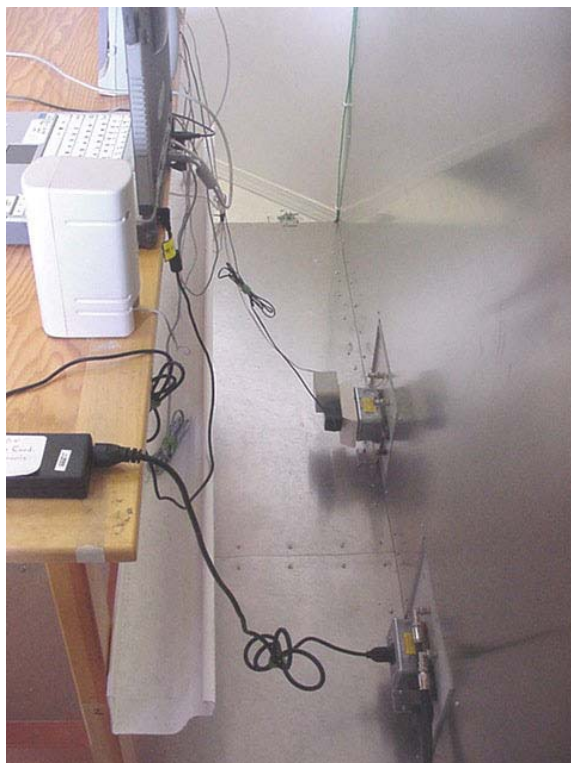
	Test Report Serial No.:	061405KBC-T648-E15W	Report Issue No.:	Issue 1.0
	Test Date(s):	15Jun05 - 04Aug05	Report Issue Date:	20Sept05
	Test Rule Part(s):	FCC 47 CFR §15.247	Industry Canada RSS-210 Issue 5	
	Lab Registration(s):	FCC Lab Reg. # 714830	Industry Canada Lab File # IC 3874	

H.6. SETUP PHOTOS

Photograph H-1 - AC Powerline Conducted Emission Configuration



Photograph H-2 - AC Powerline Conducted Emission Cable Placement

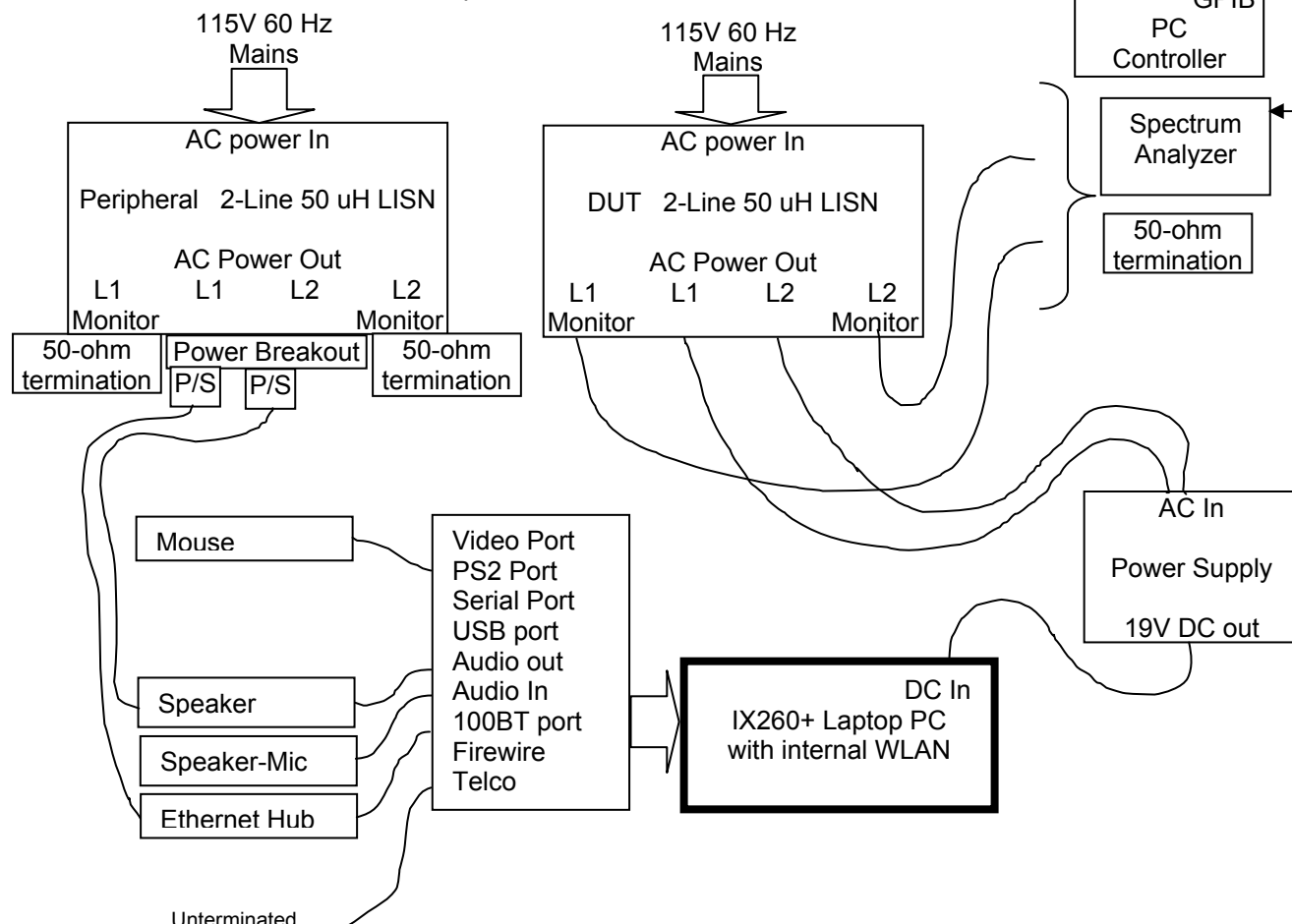


Applicant:	Itronix Corporation	Model:	IX260PLUSNL305	FCC ID:	KBCIX260PLUSNL305	
Rugged Laptop PC with internal Senao NL-3054MP 802.11b/g WLAN Mini-PCI Card and External Antennas						
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H.7. SETUP DRAWING

Figure H.7-1 - Setup Drawing

Conducted Emission Measurement Setup



H.8. DUT OPERATING DESCRIPTION

WLAN:	The WLAN was set to transmit at full power on Channel 1, Mode g 6 Mb/s
PC:	Other than operating the WLAN software and running MS windows, no PC exercising was performed.
Peripherals:	All peripherals were active, but no specific traffic was initiated.

H.9.1. Line 1 Conducted Emissions



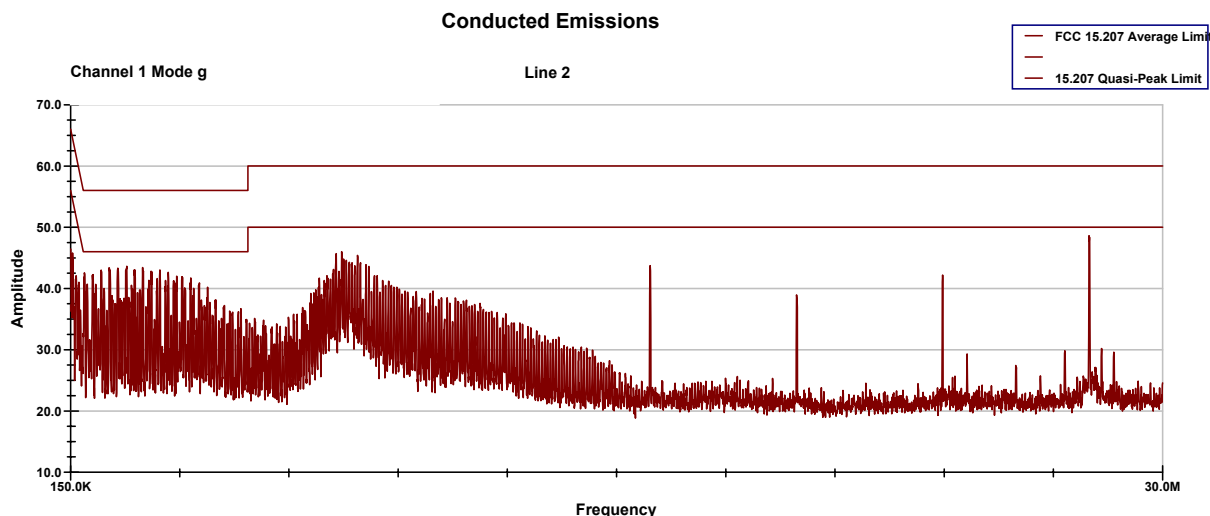
Company: Itronix

Standard:	FCC 15.207
Test Start Date:	8-Jul-05
Test End Date:	8-Jul-05

Corrected Emission Level (dBUV) = Uncorrected Reading (dBUV) + Correction Factor (dB)
Margin (dB) = Limit (dBUV) - Corrected Emission Level (dBUV)

CF = Correction Factor
Emission Level = Measured Level + correction factor
Margin = Limit – Emission Level

H.9.2. Line 2 Conducted Emissions



01:47:56 PM, Friday, July 08, 2005

Company: Itronix

Project Number: 061405KBC-T648-E15W
Company: Itronix
Product: IX260+ with Senao WLAN

Standard:	FCC 15.207
Test Start Date:	8-Jul-05
Test End Date:	8-Jul-05

Line 2 Conducted Emissions												
Frequency	Uncorrected Reading			Correction Factor	Corrected Emission Level			Quasi-Peak Limit	Quasi-Peak Margin	Average Limit	Average Margin	Pass/Fail
	Peak	Quasi-Peak	Average		Peak	Quasi-Peak	Average					
MHz	dBuV	dBuV	dBuV	dB	dBuV	dBuV	dBuV	dBuV	dB	dBuV	dB	
0.156	47.50	42.65	38.75	-2.04	45.46	40.61	25.06	65.67	25.06	55.67	30.61	
0.201	48.30	45.39	30.49	-1.43	46.87	43.96	19.59	63.56	19.59	53.56	33.96	
1.675	44.30	43.32	43.31	-0.30	44.00	43.02	12.98	56.00	12.98	46.00	33.02	
15.987	44.60	44.15	42.86	-0.40	44.21	43.76	16.25	60.00	16.25	50.00	33.76	
19.982	40.00	39.29	38.59	-0.47	39.53	38.82	21.18	60.00	21.18	50.00	28.82	
23.980	43.00	42.43	41.82	-0.44	42.56	41.99	18.01	60.00	18.01	50.00	31.99	
27.977	49.00	48.89	48.36	-0.41	48.59	48.48	11.52	60.00	11.52	50.00	38.48	

$$\text{Corrected Emission Level (dBUV)} = \text{Uncorrected Reading (dBUV)} + \text{Correction Factor (dB)}$$

$$\text{Margin (dB)} = \text{Limit (dBUV)} - \text{Corrected Emission Level (dBUV)}$$

Calculations

CF = Correction Factor

$$\text{Emission Level} = \text{Measured Level} + \text{correction factor}$$
$$\text{Margin} = \text{Limit} - \text{Emission Level}$$

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	Test Date(s):	15Jun05 - 04Aug05	Report Issue Date:	20Sept05
	Test Rule Part(s):	FCC 47 CFR §15.247	Industry Canada RSS-210 Issue 5	
	Lab Registration(s):	FCC Lab Reg. # 714830	Industry Canada Lab File # IC 3874	

H.10. PASS/FAIL

In reference to the results outlined in H.9 the DUT passes the requirements as stated in the reference standards as follows:
The RF voltage measured in reference to ground on each of the power line conductors does not exceed the limits as outline in FCC 15.207.

H.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.



Alex Yuan
EMC Technologist
Celltech Labs Inc.

15Jul05

Date

Applicant:	Itronix Corporation	Model:	IX260PLUSNL305	FCC ID:	KBCIX260PLUSNL305	
Rugged Laptop PC with internal Senao NL-3054MP 802.11b/g WLAN Mini-PCI Card and External Antennas						
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	Lab Registration(s):	FCC Lab Reg. # 714830	Industry Canada Lab File # IC 3874	

Appendix I - Maximum Permissible Exposure Calculation

I.1. REFERENCES

Normative Reference Standard	FCC CFR 47§1.1310 IEEE Std C95.1-1992
Procedure Reference	FCC CFR 47§2.1091

I.2. LIMITS

FCC CFR 47§1.1310 Table 1(b)	1.0 mW/cm ²
------------------------------	------------------------

I.3. ENVIRONMENTAL CONDITIONS

Temperature	na
Humidity	na
Barometric Pressure	na

I.4. EQUIPMENT LIST

ASSET NUMBER	MANUFACTURER	MODEL	DESCRIPTION	LAST CAL	CAL DUE
na					

I.5. MEASUREMENT EQUIPMENT SETUP

MEASUREMENT EQUIPMENT CONNECTIONS	The results described herein were determined by the following calculation, so no measurement equipment was used.
MEASUREMENT EQUIPMENT SETTINGS	na

I.6. SETUP PHOTOS

na

I.7. SETUP DRAWINGS

na

I.8. DUT OPERATING DESCRIPTION

na

Applicant:	Itronix Corporation	Model:	IX260PLUSNL305	FCC ID:	KBCIX260PLUSNL305	
Rugged Laptop PC with internal Senao NL-3054MP 802.11b/g WLAN Mini-PCI Card and External Antennas						
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	Lab Registration(s):	FCC Lab Reg. # 714830	Industry Canada Lab File # IC 3874	

I.9. TEST RESULTS

Calculation:

3" Swivel Dipole Antenna (802.11b mode):

Tx Frequency: 2437 (MHz)
 RF Output Power at Antenna Input Terminal: 17.70 (dBm)
 Antenna gain: 1.50 (dBi)

S = 1.00 (mW/cm²)
 P = 58.8844 (mW)
 G = 1.41 (numeric)

R = 2.57 (cm)

S at 20cm: 0.016529487 (mW/cm²)

3" Swivel Dipole Antenna (802.11g mode):

Tx Frequency: 2412 (MHz)
 RF Output Power at Antenna Input Terminal: 20.10 (dBm)
 Antenna gain: 1.50 (dBi)

S = 1.00 (mW/cm²)
 P = 102.3293 (mW)
 G = 1.41 (numeric)

R = 3.39 (cm)

S at 20cm: 0.028724956 (mW/cm²)

Formulae:

$$S = \frac{PG}{4\pi R^2}$$

$$R = \sqrt{\frac{P}{4\pi S}}$$
 where: S = Power Density Limit
 P = Power Applied to the Antenna
 G = Numeric Antenna Gain
 R = Distance from Antenna

Results:

Mode	Power Density Limit	RF Conducted Output Power	Antenna Gain	MPE Distance	Power Density at 20 cm
	mW/cm ²	dBm	dBi	cm	mW/cm ²
802.11b	1.0	17.70	1.50	2.57	0.0165
802.11g	1.0	20.10	1.50	3.39	0.0287

Applicant:	Itronix Corporation	Model:	IX260PLUSNL305	FCC ID:	KBCIX260PLUSNL305	
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	Test Date(s):	15Jun05 - 04Aug05	Report Issue Date:	20Sept05
	Test Rule Part(s):	FCC 47 CFR §15.247	Industry Canada RSS-210 Issue 5	
	Lab Registration(s):	FCC Lab Reg. # 714830	Industry Canada Lab File # IC 3874	

Calculation:

5.25" Vehicle-Mount Monopole Antenna (802.11b mode):

Tx Frequency: 2437 (MHz)
 RF Output Power at Antenna Input Terminal: 17.70 (dBm)
 Antenna gain: 3.00 (dBi)

S = 1.00 (mW/cm²)
 P = 58.8844 (mW)
 G = 2.00 (numeric)

R = 3.06 (cm)

S at 20cm: 0.023348521 (mW/cm²)

5.25" Vehicle-Mount Monopole Antenna (802.11g mode):

Tx Frequency: 2412 (MHz)
 RF Output Power at Antenna Input Terminal: 20.10 (dBm)
 Antenna gain: 3.00 (dBi)

S = 1.00 (mW/cm²)
 P = 102.3293 (mW)
 G = 2.00 (numeric)

R = 4.03 (cm)

S at 20cm: 0.040575078 (mW/cm²)

Formulae:

$S = \frac{PG}{4\pi R^2}$
 $R = \sqrt{\frac{P}{4\pi S}}$

where: S = Power Density Limit
 P = Power Applied to the Antenna
 G = Numeric Antenna Gain
 R = Distance from Antenna

Results:

Mode	Power Density Limit	RF Conducted Output Power	Antenna Gain	MPE Distance	Power Density at 20 cm
	mW/cm ²	dBm	dBi	cm	mW/cm ²
802.11b	1.0	17.70	3.00	3.06	0.0233
802.11g	1.0	20.10	3.00	4.03	0.0406

Applicant:	Itronix Corporation	Model:	IX260PLUSNL305	FCC ID:	KBCIX260PLUSNL305	
Rugged Laptop PC with internal Senao NL-3054MP 802.11b/g WLAN Mini-PCI Card and External Antennas						
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	Lab Registration(s):	FCC Lab Reg. # 714830	Industry Canada Lab File # IC 3874	

Calculation:

7.5" Vehicle-Mount Monopole Antenna (802.11b mode):

Tx Frequency: 2437 (MHz)
 RF Output Power at Antenna Input Terminal: 17.70 (dBm)
 Antenna gain: 5.00 (dBi)

S = 1.00 (mW/cm²)
 P = 58.8844 (mW)
 G = 3.16 (numeric)

R = 3.85 (cm)

S at 20cm: 0.037004911 (mW/cm²)

7.5" Vehicle-Mount Monopole Antenna (802.11g mode):

Tx Frequency: 2412 (MHz)
 RF Output Power at Antenna Input Terminal: 20.10 (dBm)
 Antenna gain: 5.00 (dBi)

S = 1.00 (mW/cm²)
 P = 102.3293 (mW)
 G = 3.16 (numeric)

R = 5.07 (cm)

S at 20cm: 0.064307166 (mW/cm²)

Formulae:

$$S = \frac{PG}{4\pi R^2}$$

$$R = \sqrt{\frac{P}{4\pi S}}$$
 where: S = Power Density Limit
 P = Power Applied to the Antenna
 G = Numeric Antenna Gain
 R = Distance from Antenna

Results:

Mode	Power Density Limit	RF Conducted Output Power	Antenna Gain	MPE Distance	Power Density at 20 cm
	mW/cm ²	dBm	dBi	cm	mW/cm ²
802.11b	1.0	17.70	5.00	3.85	0.0370
802.11g	1.0	20.10	5.00	5.07	0.0643

Applicant:	Itronix Corporation	Model:	IX260PLUSNL305	FCC ID:	KBCIX260PLUSNL305	
Rugged Laptop PC with internal Senao NL-3054MP 802.11b/g WLAN Mini-PCI Card and External Antennas						
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	Lab Registration(s):	FCC Lab Reg. # 714830	Industry Canada Lab File # IC 3874	

I.10. PASS/FAIL

In reference to the results outlined in D.9 the DUT passes the requirements as stated in the reference standards as follows:
1) The DUT must comply with the minimum spacing requirement of 20 cm to ensure an exposure of not more than 1 mW/cm².

I.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.



Duane M. Friesen, C.E.T.
EMC Manager
Celltech Labs Inc.

4Aug05

Date

Applicant:	Itronix Corporation	Model:	IX260PLUSNL305	FCC ID:	KBCIX260PLUSNL305	
Rugged Laptop PC with internal Senao NL-3054MP 802.11b/g WLAN Mini-PCI Card and External Antennas						
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	Lab Registration(s):	FCC Lab Reg. # 714830	Industry Canada Lab File # IC 3874	

Appendix J - Conducted RX Spurious Emissions Measurement

J.1. REFERENCES

Normative Reference Standard	IC RSS-210 Issue 5 §7.2
Procedure Reference	IC RSS-210 Issue 5 §7.2

J.2. LIMITS

J.2.1. FCC CFR

§7.2: Receiver spurious emissions at any discrete frequency shall not exceed 2 nanowatts in the band 30-1000 MHz, or 5 nanowatts above 1 GHz.

*-57 dBm = 2 nW, -53 dBm = 5 nW

J.3. ENVIRONMENTAL CONDITIONS

Temperature	25 +/- 2 °C
Humidity	35 +/- 2 %
Barometric Pressure	96 kPa

J.4. EQUIPMENT LIST

ASSET NUMBER	MANUFACTURER	MODEL	DESCRIPTION	LAST CAL	CAL DUE
00015	Agilent	E4408B	Spectrum Analyzer	24Jan05	24Jan06
00075	Alpha Wire-J	9223	2ft. RG223/U RF Cable	08Jul04*	08Dec05
na*	Narda	M3933/16-06	2dB 2 Watt Attenuator	na*	na*
na*	Narda	M3933/16-06	2dB 2 Watt Attenuator	na*	na*

*Cable and attenuator verified with power meter prior to use

J.5. MEASUREMENT EQUIPMENT SETUP

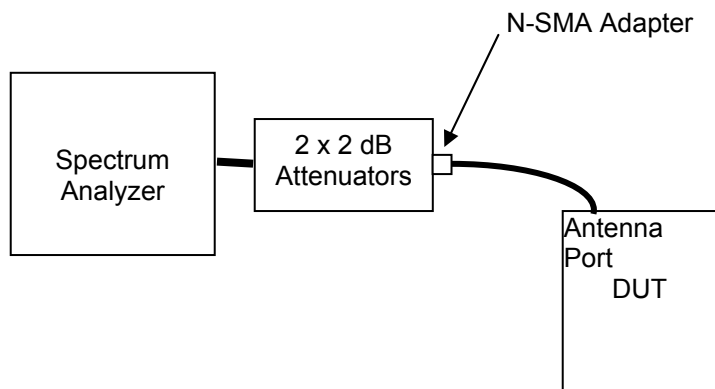
Measurement Equipment Connections	The equipment was connected as shown in the setup drawing in J.6.
Measurement Equipment Settings	To evaluate the conducted transmitter spurious emissions, the frequency band starting just below the carrier to just above the 10th harmonic is evaluated. The measurements are performed with the spectrum analyzer using the following setting: RBW – 1 MHz* VBW – 1MHz Detector – Peak Trace – Max Hold Software is used to control the analyzer settings and record/compile the data. The software divided the full band into two sub-bands 2 GHz – 3 GHz & 3GHz – 25 GHz. Each of these were further divided (the 2 – 3 GHz band into 5 equal parts and the 3 – 25 GHz band into 11 equal parts) * A worst case 1 MHz RBW (vs. 100 kHz) was used so the data collected could be used in the prescan evaluation for restricted band emissions

Applicant:	Itronix Corporation	Model:	IX260PLUSNL305	FCC ID:	KBCIX260PLUSNL305	
Rugged Laptop PC with internal Senao NL-3054MP 802.11b/g WLAN Mini-PCI Card and External Antennas						
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 Testing and Engineering Services Lab	Test Report Serial No.:	061405KBC-T648-E15W	Report Issue No.:	Issue 1.0
	Test Date(s):	15Jun05 - 04Aug05	Report Issue Date:	20Sept05
	Test Rule Part(s):	FCC 47 CFR §15.247	Industry Canada RSS-210 Issue 5	
	Lab Registration(s):	FCC Lab Reg. # 714830	Industry Canada Lab File # IC 3874	

J.6. SETUP DRAWING

Figure J.6-1 - Setup Drawing



J.7. DUT OPERATING DESCRIPTION

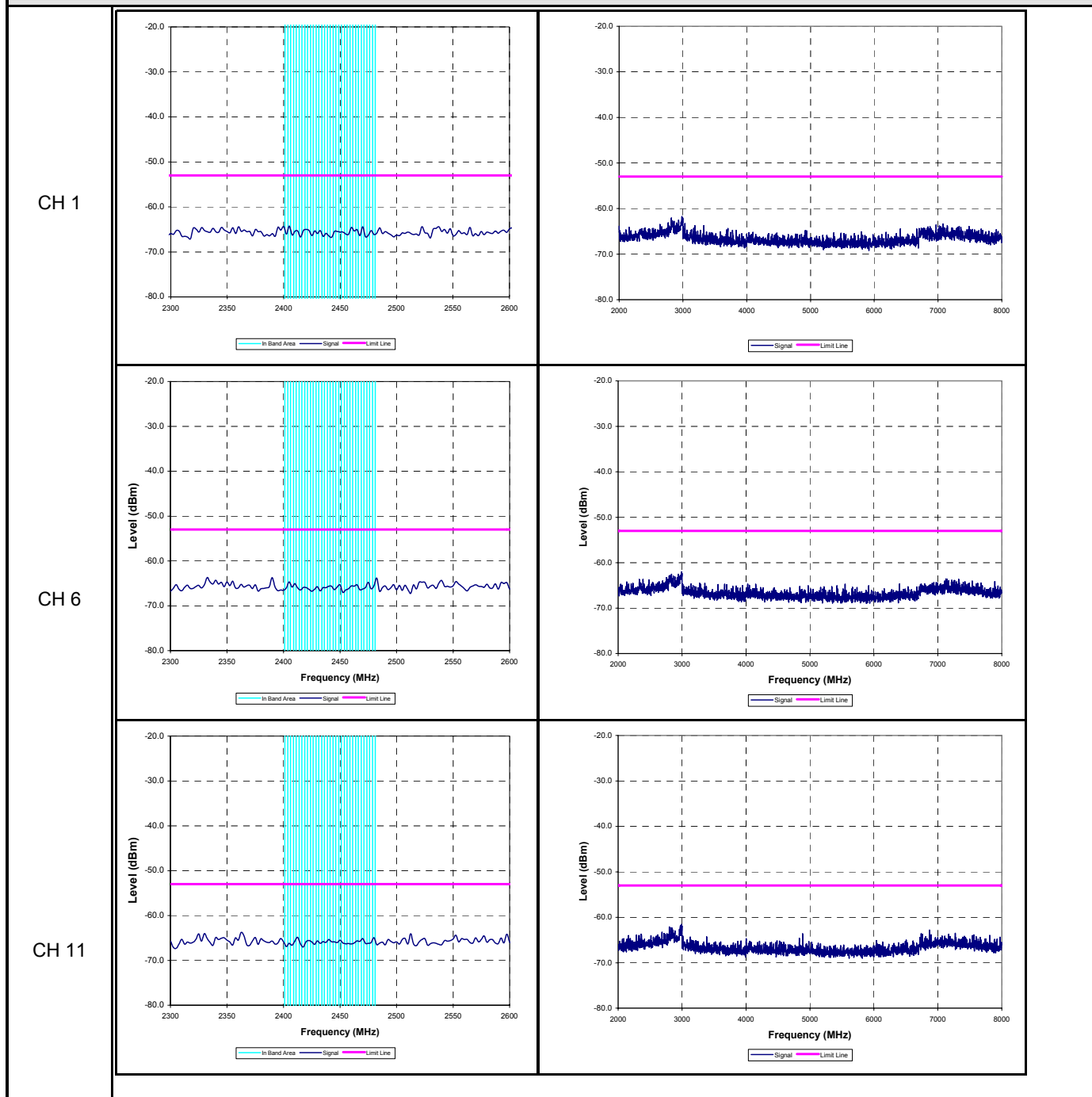
The worst-case data rate was determined from prescan investigations. Measurements were made at three channels throughout the band, Low Channel (2412 MHz), Mid Channel (2437 MHz), High Channel (2462 MHz) for both Modes b and g.

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J.8. TEST RESULTS

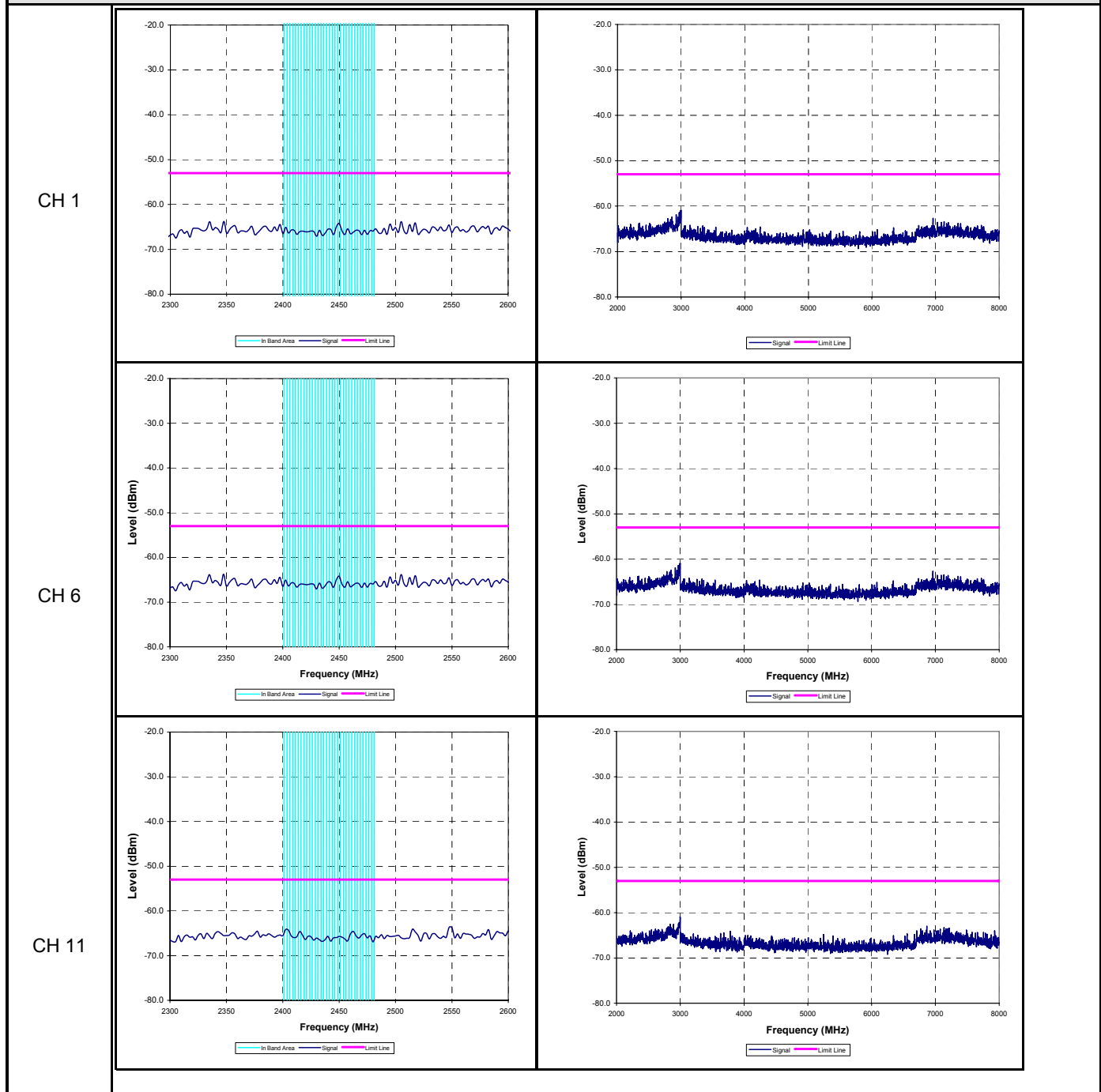
J.8.1. Mode b - Main Port



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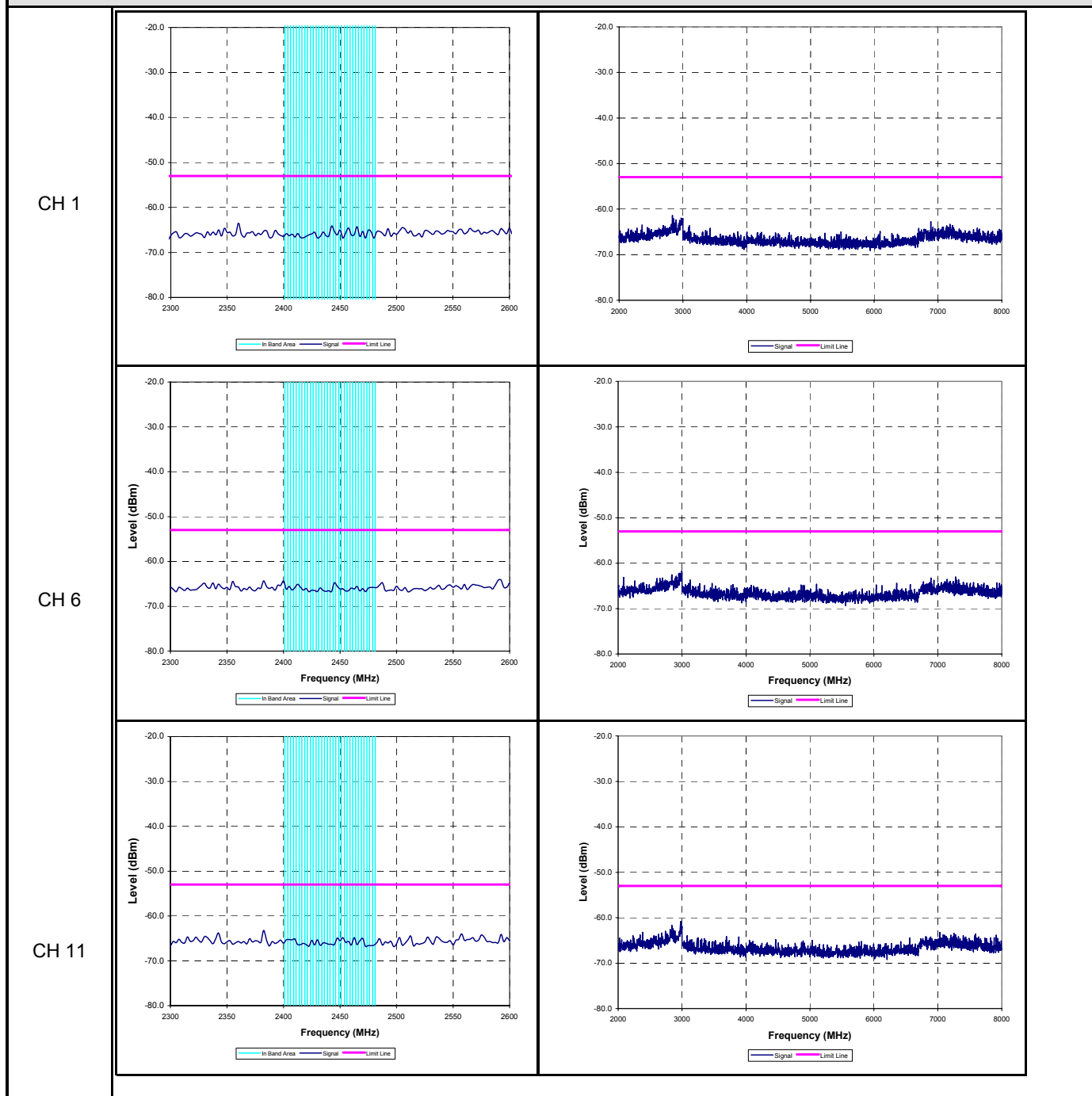
J.8.2. Mode b - Auxiliary Port (diversity)



Applicant:	Itronix Corporation	Model:	IX260PLUSNL305	FCC ID:	KBCIX260PLUSNL305	
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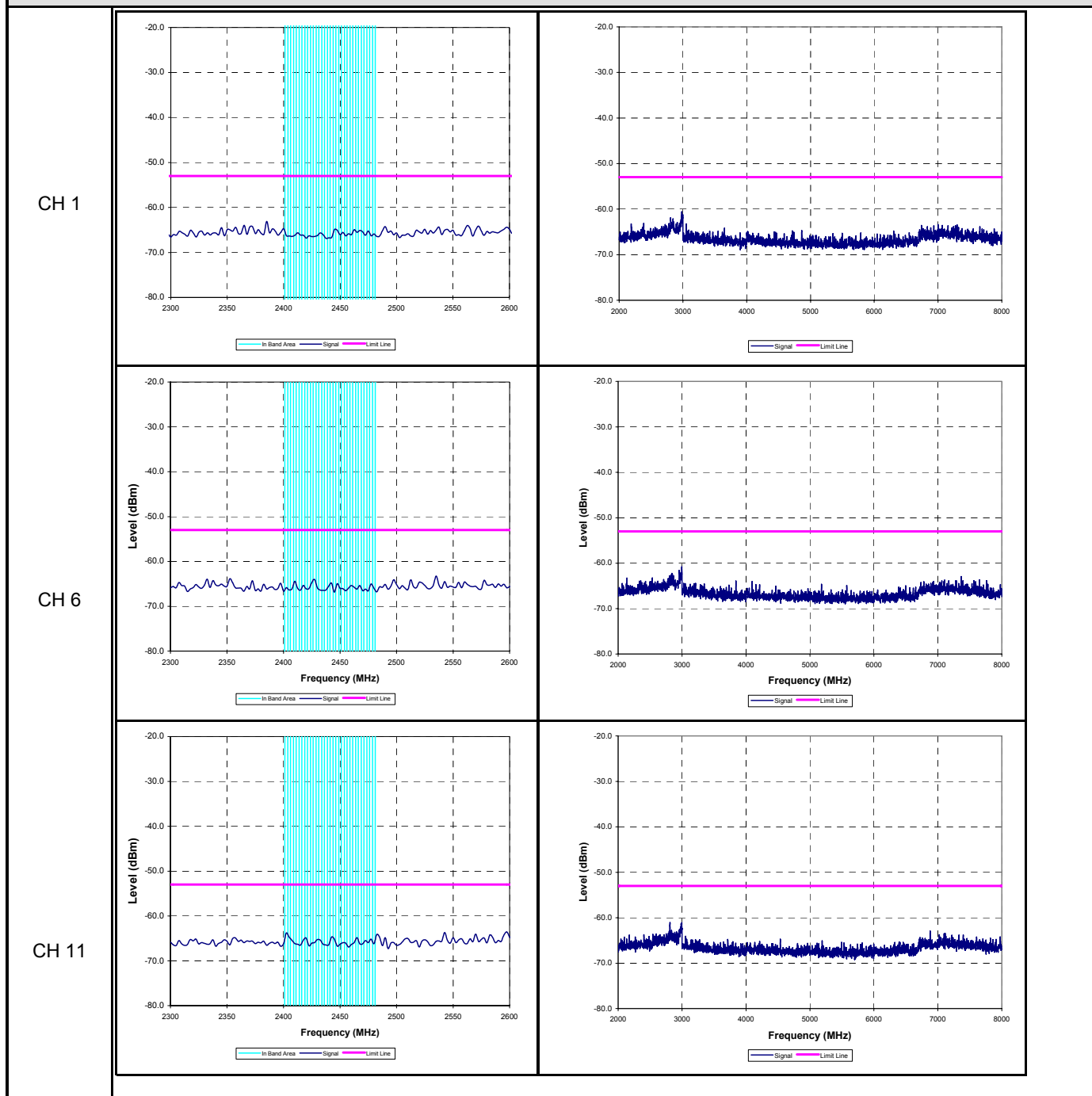
J.8.3. Mode g - Main Port



Applicant:	Itronix Corporation	Model:	IX260PLUSNL305	FCC ID:	KBCIX260PLUSNL305	
Rugged Laptop PC with internal Senao NL-3054MP 802.11b/g WLAN Mini-PCI Card and External Antennas						
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J.8.4. Mode g - Auxiliary Port (diversity)



Applicant:	Itronix Corporation	Model:	IX260PLUSNL305	FCC ID:	KBCIX260PLUSNL305	
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 Testing and Engineering Services Lab	Test Report Serial No.:	061405KBC-T648-E15W	Report Issue No.:	Issue 1.0
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J.9. PASS/FAIL

In reference to the results outlined in J.8 the DUT passes the requirements as stated in the reference standards as follows:

IC RSS-210 Issue 5 §7.2: Receiver spurious emissions at any discrete frequency shall not exceed 2 nanowatts in the band 30-1000 MHz, or 5 nanowatts above 1 GHz.

J.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.



Alex Yuan
EMC Technologist
Celltech Labs Inc.

15Jul05

Date

Applicant:	Itronix Corporation	Model:	IX260PLUSNL305	FCC ID:	KBCIX260PLUSNL305	
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END OF DOCUMENT

Applicant:	Itronix Corporation	Model:	IX260PLUSNL305	FCC ID:	KBCIX260PLUSNL305	
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