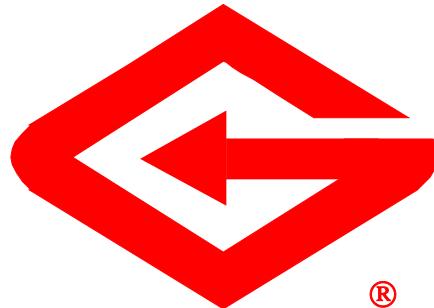




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FCC TEST REPORT
for
IRIS INTERACTIVE HORIZONS, INC.
Audience Interaction (AI) Wireless System

GARWOOD LABORATORIES, INC.
TESTING AND ENGINEERING SERVICES



FCC TEST REPORT
Certification for FCC Part 15
Subpart C – Intentional Radiators
Section 15.249

Report for:
IRIS INTERACTIVE HORIZONS, INC.
AUDIENCE INTERACTION (AI) WIRELESS SYSTEM

Prepared For: Iris Interactive Horizons, Inc.
207 N. 44th Street
Cody, WY 82414

Prepared By: Garwood Laboratories, Inc
7829 Industry Avenue
Pico Rivera, CA 90660

Issued: December 30, 2003



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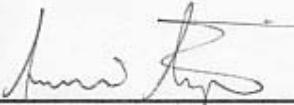
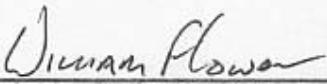
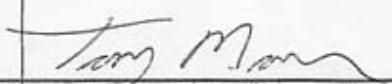
**"EXCELLENCE BUILT
ON INTEGRITY"**

Report No: FR26028-E

FCC TEST REPORT FOR IRIS INC.

RESPONSIBLE SIGNATURES

This report is intended for the use by the organization to whom it is addressed, and will not be made available to any other parties without the expressed written consent of the aforementioned organization. This report shall not be reproduced, except in full, without the written approval of Garwood Laboratories, Inc.

WRITTEN BY:	REVIEWED BY:	REVIEWED BY:
		
Arnie Tapia EMC Engineer	William Flower Quality Assurance Manager	Tony Masone EMC Lab Manager

DOCUMENT HISTORY

Revision	Issue Date	Affected Page(s)	Description Of Modifications	Revised By	Approved By
N/C	12/30/03		Initial release		



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Report No: FR26028-E

FCC TEST REPORT FOR IRIS INC.

CLIENT INFORMATION	
Purchase Order	FCC-F1
Company Name	Iris Interactive Horizons, Inc.
Address	207 N. 44 th Street
City, State, Zip	Cody, WY 82414
Contact Name	Justin Crooks
E-mail	engineering@inhorizons.com

GARWOOD INFORMATION	
EMC Test Laboratory	Garwood Laboratories, Inc.
Address	7829 Industry Avenue
City, State, Zip Code	Pico Rivera, CA 90660
Phone	(562) 949-2727
Fax	(562) 949-8757
Web Site	www.garwoodtestlabs.com
Contact Name	Tony Masone
Title	EMC Manager

Test Personnel	Test Dates
Arnie Tapia – EMC Engineer	12/22/03, 12/23/03, 12/24/03, 12/29/03



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FCC TEST REPORT FOR IRIS INC.

ACCREDITATIONS:

The Open Area Test Site (OATS) and measurement facilities used to collect the test data are located at Garwood Laboratories, Incorporated test facility in Pico Rivera, California. This facility has been fully described in a report submitted to the FCC and accepted in a letter dated 25 September 2003, Registration Number 534174.

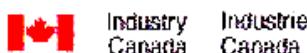
The test facility is also recognized, certified, or accredited by the following organizations:



This site has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration Number: 534174. Date of renewal: September 25, 2003. **Garwood Laboratories** is an authorized test laboratory for the DoC process.



Garwood Laboratories, Inc. has been assessed in accordance with ISO 17025 and with ITI's assessment criteria. Based upon this assessment, Technology International (Europe), Ltd. has granted approval for specifications implementing the EU Directive on EMC (89/336/EEC). The scope of the approval was provided on a Schedule of Assessment supplied with a certificate and is available upon request. Certificate Number: 01-051, effective through October 11, 2003 or until the next agreed assessment date.



Garwood Laboratories, Inc. is registered by Industry Canada for performance of measurements and complies with RSS 212, Issue 1 (Provisional). Reference IC 3298, Dated: January 8, 2003.



Garwood Laboratories, Inc. is authorized, by joint agreement with Korea Electric Testing Institute (KETI), to perform required and necessary South Korean Product Safety and EMC testing (including reports) according to the IEC and CISPR standards.

Nmi (Nederlands Meetinstituut)

Garwood Laboratories, Inc. has entered into a cooperative agreement with Nmi Certin B.V. of the Netherlands. This is a Notified Body for the R&TTE Directive and Maritime Directive as well as a Competent Body for the EMC Directive.



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**"EXCELLENCE BUILT
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FCC TEST REPORT FOR IRIS INC.

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**"EXCELLENCE BUILT
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Report No: FR26028-E

FCC TEST REPORT FOR IRIS INC.

Measurement / Technical Report Summary

<i>Type of Authorization</i>	Certification for an Intentional Radiator
<i>Applicable FCC Rules and Tests</i>	<p>This test report has been prepared in accordance with the requirements of FCC Rules and Regulations as listed in title 47 CFR. The following subparts are applicable:</p> <p>PART 15 – RADIO FREQUENCY DEVICES Subpart C – Intentional Radiators Section - 15.249</p> <p>PART 2 – FREQUENCY ALLOCATIONS AND RADIO TREATY MATTERS; GENERAL RULES AND REGULATIONS Subpart J – Equipment Authorization Procedures</p> <p>Tests:</p> <p>Field Strength of Fundamental Frequency Field Strength of Harmonics Radiated Emissions other than Harmonics</p> <p>In performing the tests listed above, the guidelines listed under FCC Part 2 §2.1046, §2.1047, §2.1049, §2.1053, §2.1055 and §2.1057 were followed.</p>
<i>Summary of Test Results</i>	The Audience Interaction (AI) Wireless System, here by referred to as EUT, complied with all the requirements. The AI Wireless System consists of (1) the AI Base Station and (2) the AI Handset.



FCC TEST REPORT FOR IRIS INC.

1.0 GENERAL INFORMATION

1.1 Product Description

Equipment Under Test	Audience Interaction (AI) Wireless System
Model Number	
Description	The Audience Interaction (AI) Wireless System consists of a Base Station unit and a Handset unit. The system is a wireless voting system, where one base station collects votes from N handsets. Both the AI Base Station and AI Handset contain the same transceiver circuitry.

1.2 System Operational Description

I. Transceiver Circuitry (same for all devices)

The transceiver is based on Texas Instruments(R) TRF6901 900 MHz transceiver IC. Oscillator: a 20.0 MHz oscillator provides the reference frequency for the integer-N PLL to produce an internal, "local oscillator" frequency of 892.3 MHz - 927 MHz. This reference oscillator's frequency is shifted by means of a capacitor being keyed into and out of the circuit, accomplishing FM modulation.

Receiving: The local oscillator is set to (RF frequency - 10.7 MHz) and mixed with the input signal. This is amplified, filtered using a 10.7 MHz IF filter, amplified again, and passed to an FM discriminator for data recovery.

Transmitting: The local oscillator is set to (RF frequency). The 20.0 MHz reference oscillator frequency is shifted slightly by means of a capacitor, providing frequency modulation. This is passed to an RF power amplifier, then to the antenna. Typical EIRP is around -6 dBm. The frequency range is from 903.0 MHz to 927.0 MHz.

Channels assigned: Channels 1-25 are mapped to frequencies 903.0 to 927.0 MHz, 1.00 MHz channel spacing.

II. Baseband Processor (same for all devices)

The recovered data is processed by a PIC16F873A microcontroller, operating with a reference oscillator of 3.6864 MHz. The RF data rate is 28.8 Kbps.



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FCC TEST REPORT FOR IRIS INC.

III. Handset Description

The handset is simply a transceiver board (HandTI Rev. G) with a keypad and battery attached, and placed into a Serpac M-8 enclosure.

IV. Base Station Description

The base station is simply a transceiver board attached to a "host interface" board, which contains a microcontroller and USB interface circuitry. The USB circuitry contains a 6.000 MHz reference oscillator. The microcontroller, a PIC18F252, uses a 3.6864 MHz oscillator.

V. System Behavior

In essence, this system is a wireless voting system, where one base station collects votes from N handsets. It accomplishes this by polling up to 250 handsets for any new keypresses.

The base station (SerTI) polls handsets (HandTI) by sending a 6 ms RF message approximately every 48 ms. If a handset has keypress data to report to the base station, it reports the information only when it is polled, in its assigned time slice.

The base station collects keypress information, and reports it to the host twice per second. Software then compiles this information and displays the vote summary.

Each handset wakes up when a key is pressed, records the value of the key pressed, then stays awake only long enough to report the keypress. After it receives confirmation that the vote was received, the handset goes to sleep to conserve battery life.



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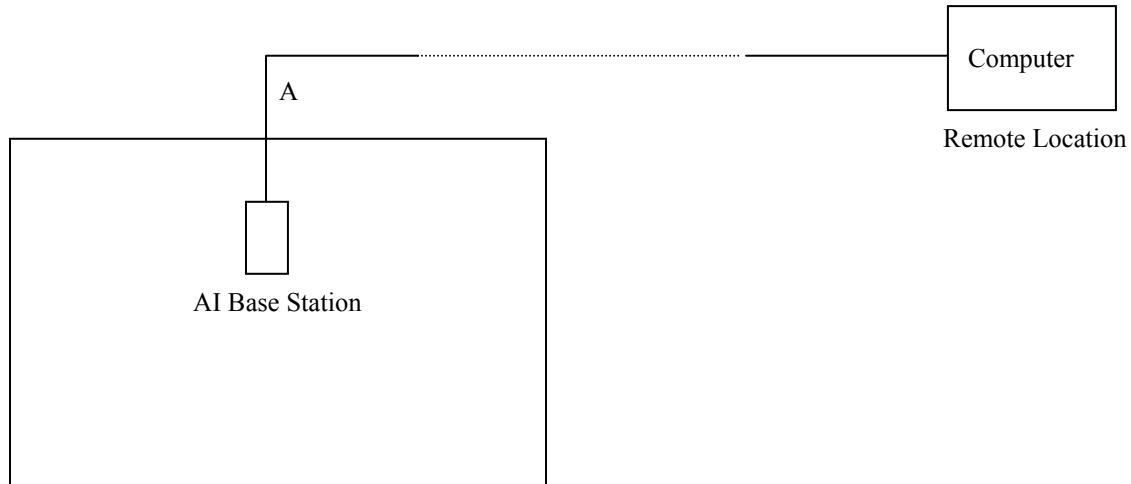
1.3 Configuration of Tested System

The following table lists the support equipment that was utilized during testing of the AI Wireless System.

<i>Item</i>	<i>Manufacturer</i>	<i>Description</i>	<i>Model No.</i>	<i>Serial No.</i>
1	Compaq	Computer	Presario	1X01DCT6F06B
2	Impression 5	Video Monitor	DCM-1588E	Not Available
3	Key Tronic	Keyboard	E03601QL	S952384855
4	Logitech	Mouse	M-S34	LZA91503716

<i>Item</i>	<i>Cable Type</i>	<i>Length</i>	<i>From</i>	<i>To</i>
A	USB Cable (w/ extension)	~11m	AI Base Station	Computer

Test Setup for AI Base Station:



Test Setup for AI Handset:

The AI Handset was tested as a stand-alone unit.



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FCC TEST REPORT FOR IRIS INC.

2.0 PRODUCT LABELING

2.1 FCC ID Label

All devices authorized under the certification procedures are required to display an identification label showing the FCC Identifier (FCC ID) under which they are authorized.

The FCC ID consists of two elements, a grantee code and an equipment product code (EPC), in the exact order as shown in the example below (Ref: §2.925(a)).

Example FCC ID:

FCC ID XXX123

XXX = The three-character grantee code is assigned permanently by the FCC to a specific grantee (applicant) and is valid only for the party listed and at the address listed in the Notification of Code Assignment.

123 = The equipment product code (EPC) is assigned by the grantee (applicant) and should consist of a series of Arabic numerals, capital letters or a combination thereof and may include the dash or hyphen (-). The series of characters of the EPC should not exceed 14.

In addition, the manufacturer is responsible for having the compliance label produced, and for having it affixed to each unit that is marketed or imported.

FCC Compliance Label:

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference including interference that may cause undesired operation.

Please refer to Appendix B for a drawing of the FCC ID label for the AI Wireless System.

2.2 Location of the Label on the EUT

In order to validate the grant of equipment authorization, the FCC ID label should be permanently affixed to the equipment and should be in a conspicuous location on the device where it is readily visible (Ref: §2.925(d)).

For the FCC Compliance Label, when the device is so small or for such use that it is not practicable to place the statement specified above, the information should be placed in a prominent location in the instruction manual or pamphlet supplied to the user or, alternatively, should be placed on the container in which the device is marketed (Ref §15.19). However, the FCC identifier must be displayed on the device.

Please refer to Appendix B for a picture of the location of the FCC ID label on the AI Wireless System.

Date: 12/30/03

EUT: AI Wireless System

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FCC TEST REPORT FOR IRIS INC.

2.3 Information to the User

The users manual or instruction manual for an intentional or unintentional radiator shall caution the user that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Please refer to Appendix B for the preliminary instruction manual of the AI Wireless System.



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FCC TEST REPORT FOR IRIS INC.

3. TEST RESULTS

The Audience Interaction (AI) Wireless System consists of a Base Station unit and a Handset unit. Each test was performed on the AI Base Station and the AI Handset. Furthermore, the operating frequency range of the AI Wireless System is more than 10MHz (903 - 927MHz); therefore, three transmit frequencies were tested.

AI Wireless System frequencies tested

- 1 near bottom: Ch1 - 903MHz
- 1 near middle: Ch13 – 915MHz
- 1 near top: Ch25 – 927MHz

3.1 Field Strength of the Fundamental Frequency

Specification Requirement:

Reference - FCC Pt.15 Subpart C §15.249(a)

The field strength of the fundamental frequency from an intentional radiator operating within the frequency bands outlined in §15.249 should comply with the following:

FCC Pt. 15 Subpart C § 15.249		
Fundamental Frequency	Field Strength of Fundamental	
	(mV/meter)	(dB μ V/meter)
902 – 928 MHz	50	94
2400 – 2486.5 MHz	50	94
5725 – 5875 MHz	50	94
24.0 – 24.25 GHz	250	108

The field strength limits above are specified at a test distance of 3 meters. The applicable limit for the AI Wireless System is that listed for the fundamental frequency falling within the band of 902-928MHz (94dB μ V/m). Testing was performed at an antenna to EUT test distance of 3 meters. All measurements shown are peak readings, unless otherwise noted.



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Test Results (AI Base Station):

Fundamental Frequency (MHz)	Antenna Polarity (V or H)	Corrected Field Strength Measurement (dB μ V/m)	FCC Limit (dB μ V/m)	Margin (dB)	Judgment
903	V	84.8	94	-9.2	Complied
903	H	91.1	94	-2.9	Complied
915	V	84.1	94	-9.9	Complied
915	H	90.4	94	-3.6	Complied
927	V	84.4	94	-9.6	Complied
927	H	90.1	94	-3.9	Complied

Test Results (AI Handset):

Fundamental Frequency (MHz)	Antenna Polarity (V or H)	Corrected Field Strength Measurement (dB μ V/m)	FCC Limit (dB μ V/m)	Margin (dB)	Judgment
903	V	82.5	94	-11.5	Complied
903	H	90.3	94	-3.7	Complied
915	V	83.7	94	-10.3	Complied
915	H	91.6	94	-2.4	Complied
927	V	83.8	94	-10.2	Complied
927	H	90.6	94	-3.4	Complied



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**"EXCELLENCE BUILT
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FCC TEST REPORT FOR IRIS INC.

3.2 Field Strength of the Harmonics

Specification Requirement:

Reference - FCC Pt.15 Subpart C §15.249(a)

The field strength of the harmonics of the fundamental frequency from an intentional radiator operating within the frequency bands outlined in §15.249 should comply with the following:

FCC Pt. 15 Subpart C § 15.249		
Fundamental Frequency	Field Strength of Harmonics	
	(μ V/meter)	(dB μ V/meter)
902 – 928 MHz	500	54
2400 – 2486.5 MHz	500	54
5725 – 5875 MHz	500	54
24.0 – 24.25 GHz	2500	68

The field strength limits above are specified at a test distance of 3 meters. The applicable limit for the AI Wireless System is that listed for the fundamental frequency falling within the band of 902-928MHz. Testing was performed at an antenna to EUT test distance of 1 meter. All measurements shown are peak readings, unless otherwise noted.

Test Results (AI Base Station)

Customer: IRIS, Inc.

Date: 12/24/03

EUT: AI Base Station

Model: USB Model

EUT Transmitting Frequency: 903MHz (Channel 1)

Test Distance: 1m

Frequency (GHz)	Antenna Polariz. (V/H)	S.A. Reading (dB μ V)	Antenna Factor (dB/m)	System Gain/Loss (dB)	Corrected Reading (dB μ V/m)	FCC Limit (dB μ V/m)	Margin (dB)
1.806	H	55.6	27	-31.2	51.4	64	-12.6
1.806	V	59.5	27	-31.2	55.3	64	-8.7
2.709	H	57.7	30.2	-29.3	58.6	64	-5.4
2.709	V	54	30.2	-29.3	54.9	64	-9.1
3.612	H	52.1	31.8	-27.6	56.3	64	-7.7
3.612	V	49.5	31.8	-27.6	53.7	64	-10.3
4.515	H	51.6	33.7	-26	59.3	64	-4.7
4.515	V	46.7	33.7	-26	54.4	64	-9.6
5.418	H	NDS	--	--	--	--	--
5.418	V	NDS	--	--	--	--	--



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Report No: FR26028-E

FCC TEST REPORT FOR IRIS INC.

Customer: IRIS, Inc.

Date: 12/24/03

EUT: AI Base Station

Model: USB Model

EUT Transmitting Frequency: 915MHz (Channel 13)

Test Distance: 1m

Frequency (GHz)	Antenna Polariz. (V/H)	S.A. Reading (dBuV)	Antenna Factor (dB/m)	System Gain/Loss (dB)	Corrected Reading (dBuV/m)	FCC Limit (dBuV/m)	Margin (dB)
1.83	H	58.2	27.2	-31.1	54.3	64	-9.7
1.83	V	59	27.2	-31.1	55.1	64	-8.9
2.745	H	56.5	30.2	-29.1	57.6	64	-6.4
2.745	V	53.4	30.2	-29.1	54.5	64	-9.5
3.66	H	51.9	31.8	-27.4	56.3	64	-7.7
3.66	V	51.1	31.8	-27.4	55.5	64	-8.5
4.575	H	51.5	33.8	-26	59.3	64	-4.7
4.575	V	47.4	33.8	-26	55.2	64	-8.8
5.49	H	NDS	--	--	--	--	--
5.49	V	NDS	--	--	--	--	--

Customer: IRIS, Inc.

Date: 12/24/03

EUT: AI Base Station

Model: USB Model

EUT Transmitting Frequency: 927MHz (Channel 25)

Test Distance: 1m

Frequency (GHz)	Antenna Polariz. (V/H)	S.A. Reading (dBuV)	Antenna Factor (dB/m)	System Gain/Loss (dB)	Corrected Reading (dBuV/m)	FCC Limit (dBuV/m)	Margin (dB)
1.854	H	58.8	27.6	-31	55.4	64	-8.6
1.854	V	58.1	27.6	-31	54.7	64	-9.3
2.781	H	57.5	30.3	-29	58.8	64	-5.2
2.781	V	53.6	30.3	-29	54.9	64	-9.1
3.708	H	52.1	31.8	-27.2	56.7	64	-7.3
3.708	V	51.6	31.8	-27.2	56.2	64	-7.8
4.635	H	49.1	33.9	-25.9	57.1	64	-6.9
4.635	V	45.4	33.9	-25.9	53.4	64	-10.6
5.562	H	NDS	--	--	--	--	--
5.562	V	NDS	--	--	--	--	--

Notes:

Corrected reading = SA Reading + Antenna Factor + System Gain/Loss

The System Gain/Loss factor consist of preamplifier gain and cable loss. A negative System Gain/Loss indicates an overall gain factor.

All measurements above 1000MHz were made with S.A. settings VBW=RBW=1MHz

NDS = No Detectable Signal

Date: 12/30/03

EUT: AI Wireless System

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**"EXCELLENCE BUILT
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Report No: FR26028-E

FCC TEST REPORT FOR IRIS INC.

Test Results (AI Handset)

Customer: IRIS, Inc.

Date: 12/29/03

EUT: AI Handset

Model:

EUT Transmitting Frequency: 903MHz (Channel 1)

Test Distance: 1m

Frequency (GHz)	Antenna Polariz. (V/H)	S.A. Reading (dBuV)	Antenna Factor (dB/m)	System Gain/Loss (dB)	Corrected Reading (dBuV/m)	FCC Limit (dBuV/m)	Margin (dB)
1.806	H	59.5	27	-31.2	55.3	64	-8.7
1.806	V	57.9	27	-31.2	53.7	64	-10.3
2.709	H	51.8	30.2	-29.3	52.7	64	-11.3
2.709	V	51.6	30.2	-29.3	52.5	64	-11.5
3.612	H	50.6	31.8	-27.6	54.8	64	-9.2
3.612	V	52.8	31.8	-27.6	57	64	-7
4.515	H	49.7	33.7	-26	57.4	64	-6.6
4.515	V	47.6	33.7	-26	55.3	64	-8.7
5.418	H	NDS	--	--	--	--	--
5.418	V	NDS	--	--	--	--	--

Customer: IRIS, Inc.

Date: 12/29/03

EUT: AI Base Station

Model: USB Model

EUT Transmitting Frequency: 915MHz (Channel 13)

Test Distance: 1m

Frequency (GHz)	Antenna Polariz. (V/H)	S.A. Reading (dBuV)	Antenna Factor (dB/m)	System Gain/Loss (dB)	Corrected Reading (dBuV/m)	FCC Limit (dBuV/m)	Margin (dB)
1.83	H	59.5	27.2	-31.1	55.6	64	-8.4
1.83	V	54.8	27.2	-31.1	50.9	64	-13.1
2.745	H	53.4	30.2	-29.1	54.5	64	-9.5
2.745	V	51.4	30.2	-29.1	52.5	64	-11.5
3.66	H	49.8	31.8	-27.4	54.2	64	-9.8
3.66	V	52.2	31.8	-27.4	56.6	64	-7.4
4.575	H	49.5	33.8	-26	57.3	64	-6.7
4.575	V	47.4	33.8	-26	55.2	64	-8.8
5.49	H	NDS	--	--	--	--	--
5.49	V	NDS	--	--	--	--	--



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Report No: FR26028-E

FCC TEST REPORT FOR IRIS INC.

Customer: IRIS, Inc.

Date: 12/29/03

EUT: AI Handset

Model:

EUT Transmitting Frequency: 927MHz (Channel 25)

Test Distance: 1m

Frequency (GHz)	Antenna Polariz. (V/H)	S.A. Reading (dBuV)	Antenna Factor (dB/m)	System Gain/Loss (dB)	Corrected Reading (dBuV/m)	FCC Limit (dBuV/m)	Margin (dB)
1.854	H	59.8	27.6	-31	56.4	64	-7.6
1.854	V	57.6	27.6	-31	54.2	64	-9.8
2.781	H	52	30.3	-29	53.3	64	-10.7
2.781	V	50.8	30.3	-29	52.1	64	-11.9
3.708	H	50.8	31.8	-27.2	55.4	64	-8.6
3.708	V	52.6	31.8	-27.2	57.2	64	-6.8
4.635	H	48.1	33.9	-25.9	56.1	64	-7.9
4.635	V	46.6	33.9	-25.9	54.6	64	-9.4
5.562	H	NDS	--	--	--	--	--
5.562	V	NDS	--	--	--	--	--

Notes:

Corrected reading = SA Reading + Antenna Factor + System Gain/Loss

The System Gain/Loss factor consist of preamplifier gain and cable loss. A negative System Gain/Loss indicates an overall gain factor.

All measurements above 1000MHz were made with S.A. settings VBW=RBW=1MHz

NDS = No Detectable Signal



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3.3 Radiated Emissions other than Harmonics

Specification Requirement:

Reference - FCC Pt.15 Subpart C §15.249(d)

Radiated emissions other than harmonics should be attenuated by at least 50dB below the level of the fundamental or to the general radiated emission limits in Section 15.209, whichever is the lesser attenuation. The table below shows the general radiated emission limits.

FCC Pt. 15 Subpart C § 15.209			
Frequency (MHz)	Field Strength		Measurement Distance (meter)
	(μ V/meter)	(dB μ V/meter)	
30 - 88	100	40	3
88 - 216	150	43.5	3
216 - 960	200	46	3
Above 960	500	54	3

Testing was performed at an antenna to EUT test distance of 3 meters.

Test Results (AI Base Station):

Emission Frequency (MHz)	Antenna Polarity (V or H)	Detection Mode (PK or QP)	Corrected Measurement (dB μ V/m)	FCC Limit (dB μ V/m)	Margin (dB)	Judgment
503.987	H	PK	42.7	46.0	-3.3	Complied
71.989**	V	QP	36.5	40.0	-3.5	Complied
527.988	H	PK	41.8	46.0	-4.2	Complied
215.990	V	PK	39.1	43.5	-4.4	Complied
516.008	H	PK	41.6	46.0	-4.4	Complied
335.9797	H	PK	40.1	46.0	-5.9	Complied

Notes:

**A ferrite was added to the USB cable of the AI Base Station in order to comply with the FCC requirements. The ferrite manufacturer is Steward and the part number is 28A2029-0A0. Iris Inc will provide the ferrite along with the unit.

Test Results (AI Handset)

There were no radiated emissions other than harmonics from the AI Handset.



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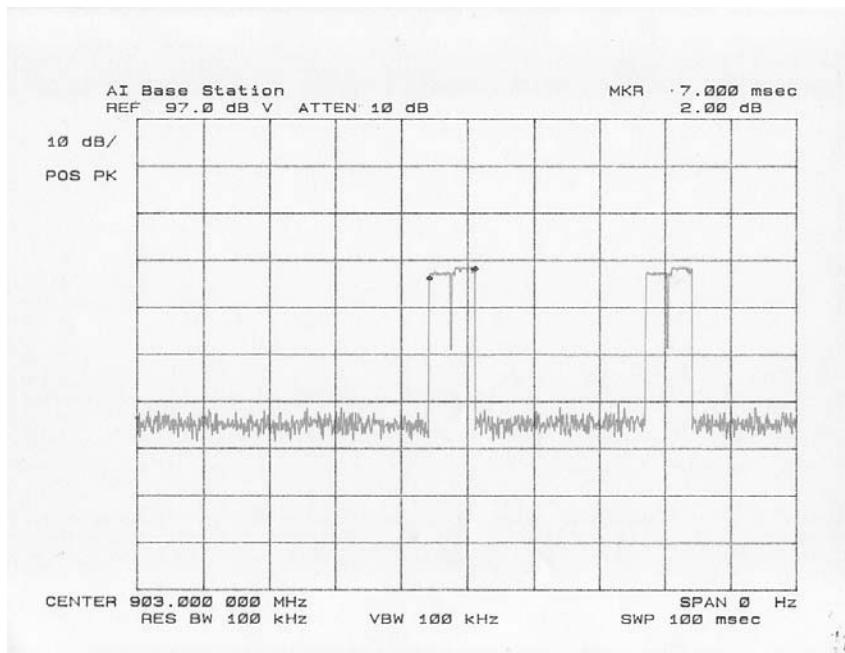
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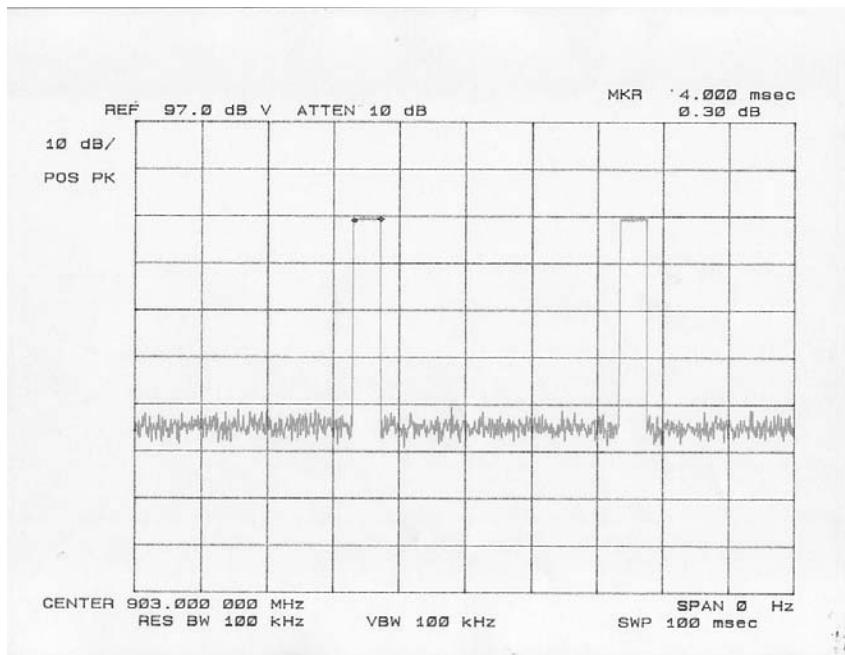
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3.4 Duty Cycle Plots

The following plots show the transmission ON time of the AI Base Station and AI Handset.



AI Base Station – ON time approximately 7ms.



AI Handset – ON time approximately 4ms.



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4.0 Test Measurement Photos

REFER TO EXHIBIT

Photo: AI Handset Radiated Emissions (Front View)

REFER TO EXHIBIT

Photo: AI Handset Radiated Emissions (Rear View)



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REFER TO EXHIBIT

Photo: AI Base Station Radiated Emissions (Front View)

REFER TO EXHIBIT

Photo: AI Base Station Radiated Emissions (Rear View)



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APPENDIX A - TEST EQUIPMENT USED

The absolute performance calibration of equipment requiring calibration is performed on an as needed basis in accordance with ANSI/NCSL Z540-1-1994. However, calibration periods do not exceed one (1) year. The test equipment is capable of making measurements within tolerances of at least +/- 2dB amplitude and +/- 2% frequency deviation. Equipment certifications showing traceability to NIST (National Institute of Standards and Technology) are maintained on file at Garwood Laboratories, Inc. Pico Rivera, California. All equipment is checked and verified for proper operation before and after each series of tests.

A.1 Specific Equipment Used

<i>Instrument</i>	<i>MFG / Model No.</i>	<i>Asset No.</i>	<i>CAL. Due Date</i>
Bilog Antenna	Chase / CBL6111A	20062	4/14/04
Horn Antenna	EMCO / 3115	20056	11/22/04
RF Preamplifier (>1GHz)	Hewlett Packard / 8449B	20003	5/7/04
Spectrum Analyzer Display	Hewlett Packard / 85662A	20015	7/24/04
Spectrum Analyzer	Hewlett Packard / 8566B	20014	7/24/04
Spectrum Analyzer Display	Hewlett Packard / 85662A	9466B	3/13/04
Spectrum Analyzer	Hewlett Packard / 8568B	9466A	3/13/04
RF Pre-selector	Hewlett Packard / 85685A	20008	12/1/04
Quasi Peak Adapter	Hewlett Packard /	20011	7/24/04
Pre-Amplifier	ISCI / RFPA/Z FL-2000	20007	5/7/04



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APPENDIX B - ATTACHMENTS

INDEX OF ATTACHMENTS

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