# Airtraq LLC

**ATQ-032** 

October 15, 2007

Report No. AIRT0003 Rev 01

Report Prepared By



www.nwemc.com 1-888-EMI-CERT

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22975 NW Evergreen Parkway Suite 400 Hillsboro, Oregon 97124

### **Certificate of Test**

Issue Date: October 15, 2007 Airtraq LLC Model: ATQ-032

Emissions				
Test Description	Specification	Test Method	Pass/Fail	
Field Strength of Fundamental	FCC 15.249:2006	ANSI C63.4:2003	Pass	
Field Strength of Spurious Emissions	FCC 15.249:2006	ANSI C63.4:2003	Pass	
AC Powerline Conducted Emissions	FCC 15.207:2006	ANSI C63.4:2003	Pass	

Modifications made to the product
See the Modifications section of this report

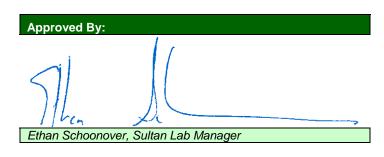
#### Test Facility

The measurement facility used to collect the data is located at:

Northwest EMC, Inc. 22975 NW Evergreen Parkway, Suite 400 Hillsboro, OR 97124

Phone: (503) 844-4066 Fax: 844-3826

This site has been fully described in a report filed with and accepted by the FCC (Federal Communications Commission) and Industry Canada.





NVLAP Lab Code: 200630-0

This report must not be used to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government of the United States of America.

Product compliance is the responsibility of the client, therefore the tests and equipment modes of operation represented in this report were agreed upon by the client, prior to testing. This Report may only be duplicated in its entirety. The results of this test pertain only to the sample(s) tested. The specific description is noted in each of the individual sections of the test report supporting this certificate of test.



22975 NW Evergreen Parkway Suite 400 Hillsboro, Oregon 97124

### **Certificate of Test**

Issue Date: October 15, 2007 Airtraq LLC Model: ATQ-032

Emissions					
Test Description	Specification	Test Method	Pass/Fail		
AC Powerline Conducted Emissions	FCC 15.107:2006 Class A	ANSI C63.4:2003	Pass		

Madifications made to the madret
Modifications made to the product
See the Modifications section of this report
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#### Test Facility

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Phone: (503) 844-4066 Fax: 844-3826

This site has been fully described in a report filed with and accepted by the FCC (Federal Communications Commission) and Industry Canada.

Approved By:

Ethan Schoonover, Sultan Lab Manager



NVLAP Lab Code: 200630-0

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# **Revision History**

Revision 05/05/03

Revision Description		Date	Page Number
01	Removed R3 from model name	11/19/07	1-3, 8-10, 13, 17-20, 24-29

**FCC:** Accredited by NVLAP for performance of FCC radio, digital, and ISM device testing. Our Open Area Test Sites, certification chambers, and conducted measurement facilities have been fully described in reports filed with the FCC and accepted by the FCC in letters maintained in our files. Northwest EMC has been accredited by ANSI to ISO / IEC Guide 65 as a product certifier. We have been designated by the FCC as a Telecommunications Certification Body (TCB). This allows Northwest EMC to certify transmitters to FCC specifications in accordance with 47 CFR 2.960 and 2.962.





**NVLAP:** Northwest EMC, Inc. is accredited under the United States Department of Commerce, National Institute of Standards and Technology, and National Voluntary Laboratory Accreditation Program for satisfactory compliance with the requirements of ISO/IEC 17025 for Testing Laboratories. The NVLAP accreditation encompasses Electromagnetic Compatibility Testing in accordance with the European Union EMC Directive 2004/108/EC, and ANSI C63.4. Additionally, Northwest EMC is accredited by NVLAP to perform radio testing in accordance with the European Union R&TTE Directive 1999/5/EEC, the requirements of FCC, and the RSS radio standards for Industry Canada.



**Industry Canada:** Accredited by NVLAP for performance of Industry Canada RSS and ICES testing. Our Open Area Test Sites and certification chambers comply with RSS 212, Issue 1 (Provisional) and have been filed with Industry Canada and accepted. Northwest EMC has been accredited by ANSI to ISO / IEC Guide 65 as a product certifier. We have been designated by NIST and recognized by Industry Canada as a Certification Body (CB) per the APEC Mutual Recognition Arrangement (MRA). This allows Northwest EMC to certify transmitters to Industry Canada technical requirements.



**CAB:** Designated by NIST and validated by the European Commission as a Conformity Assessment Body (CAB) to conduct tests and approve products to the EMC directive and transmitters to the R&TTE directive, as described in the U.S. - EU Mutual Recognition Agreement.



**TÜV Product Service:** Included in TUV Product Service Group's Listing of Recognized Laboratories. It qualifies in connection with the TUV Certification after Recognition of Agent's Testing Program for the product categories and/or standards shown in TUV's current Listing of CARAT Laboratories, available from TUV. A certificate was issued to represent that this laboratory continues to meet TUV's CARAT Program requirements. Certificate No. USA0604C.



**TÜV Rheinland:** Authorized to carryout EMC tests by order and under supervision of TÜV Rheinland. This authorization is based on "Conditions for EMC-Subcontractors" of November 1992.



**NEMKO:** Assessed and accredited by NEMKO (Norwegian testing and certification body) for European emissions and immunity testing. As a result of NEMKO's laboratory assessment, they will accept test results from Northwest EMC, Inc. for product certification (Authorization No. ELA 119).



**Australia/New Zealand:** The National Association of Testing Authorities (NATA), Australia has been appointed by the ACA as an accreditation body to accredit test laboratories and competent bodies for EMC standards. Accredited test reports or assessments by competent bodies must carry the NATA logo. Test reports made by an overseas laboratory that has been accredited for the relevant standards by an overseas accreditation body that has a Mutual Recognition Agreement (MRA) with NATA are also accepted as technical grounds for product conformity. The report should be endorsed with the respective logo of the accreditation body (NVLAP).



**VCCI:** Accepted as an Associate Member to the VCCI, Acceptance No. 564. Conducted and radiated measurement facilities have been registered in accordance with Regulations for Voluntary Control Measures, Article 8. (Registration Numbers. - Hillsboro: C-1071, R-1025, C-2687, T-289, and R-2318, Irvine: R-1943, C-2766, and T-298, Sultan: R-871, C-1784, and T-294).



**BSMI:** Northwest EMC has been designated by NIST and validated by C-Taipei (BSMI) as a CAB to conduct tests as described in the APEC Mutual Recognition Agreement. License No.SL2-IN-E-1017.



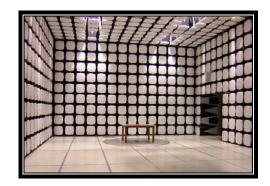
**GOST:** Northwest EMC, Inc. has been assessed and accredited by the Russian Certification bodies Certinform VNIINMASH, CERTINFO, SAMTES, and Federal CHEC, to perform EMC and Hygienic testing for Information Technology Products. As a result of their laboratory assessment, they will accept test results from Northwest EMC, Inc. for product certification



#### SCOPE

For details on the Scopes of our Accreditations, please visit: http://www.nwemc.com/scope.asp





### California – Orange County Facility Labs OC01 – OC13

41 Tesla Ave. Irvine, CA 92618 (888) 364-2378 Fax: (503) 844-3826





### Oregon – Evergreen Facility Labs EV01 – EV11

22975 NW Evergreen Pkwy. Suite 400 Hillsboro, OR 97124 (503) 844-4066 Fax: (503) 844-3826





### Washington – Sultan Facility Labs SU01 – SU07

14128 339<sup>th</sup> Ave. SE Sultan, WA 98294 (888) 364-2378

#### **Party Requesting the Test**

Company Name:	Airtraq LLC
Address:	3460 Pointe Creek Court
City, State, Zip:	Bonita Springs, FL 34134-2015
Test Requested By:	Paul Dryden
Model:	ATQ-032
First Date of Test:	September 27, 2007
Last Date of Test:	October 4, 2007
Receipt Date of Samples:	September 27, 2007
Equipment Design Stage:	Production
Equipment Condition:	No Damage

#### **Information Provided by the Party Requesting the Test**

#### **Functional Description of the EUT (Equipment Under Test):**

The Airtraq Camera has been specially designed to work as an accessory for the AIRTRAQ Optical Laryngoscope. The Camera provides the ability to transmit the images of the glottis obtained when intubating to an external monitor (e.g. any monitor In the operating room, any other portable monitor which has a composite (RCA) video input or even a laptop computer through a video capture card. It provides full color, real-time images.

#### **Testing Objective:**

These tests were selected to satisfy the EMC requirements for the FCC.

# Configurations

Revision 9/21/05

### **CONFIGURATION 1 AIRT0003**

EUT			
Description	Manufacturer	Model/Part Number	Serial Number
EUT - Camera	AIRWAVE TECHNOLOGIES INC.	ATQ-032	Unknown

### **CONFIGURATION 10 AIRT0002**

EUT					
Description	Manufacturer	Model/Part Number	Serial Number		
Receiver	Airtraq	None	None		
EUT - Camera	AIRWAVE TECHNOLOGIES INC.	ATQ-032	Unknown		
LCD Power adapter	Sunny	STD-1204	0503286128		

Peripherals in test setup boundary				
Description	Manufacturer	Model/Part Number	Serial Number	
LCD Display	X2gen	MV17FU	MV17FU2005040001290	

Cables					
Cable Type	Shield	Length (m)	Ferrite	Connection 1	Connection 2
AC Mains	No	1.7m	No	AC Mains	Receiver
Video Coax	Yes	3.7m	No	Receiver	Monitor
DC Lead	No	1.0m	No	Power Adapter	LCD Display
AC Mains	No	1.7m	No	AC Mains	LCD Power adapter
PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown.					

## **CONFIGURATION 12 AIRT0002**

EUT			
Description	Manufacturer	Model/Part Number	Serial Number
EUT - Camera	AIRWAVE TECHNOLOGIES INC.	ATQ-032	Unknown
Power Adapter	AIRWAVE TECHNOLOGIES INC.	FY0850500	Unknown

Cables					
Cable Type	Shield	Length (m)	Ferrite	Connection 1	Connection 2
DC Leads	No	1.5m	No	Power Adapter	EUT - Camera
AC Mains	No	1.8m	No	AC Mains	Power Adapter
PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown.					

# Configurations

## **CONFIGURATION 13 AIRT0002**

EUT							
Description	Manufacturer	Model/Part Number	Serial Number				
Receiver	Airtraq	None	None				
EUT - Camera	AIRWAVE TECHNOLOGIES INC.	ATQ-032	Unknown				

Remote Equipment Outside of Test Setup Boundary					
Description Manufacturer Model/Part Number Serial Number					
Monitor	Provideo	VM-901B	9907000089		

Cables								
Cable Type	Shield	Length (m)	Ferrite	Connection 1	Connection 2			
AC Mains	No	1.7m	No	AC Mains	Receiver			
Video Coax	Yes	3.7m	No	Receiver	Monitor			
AC Mains	No	1.7m	No	AC Mains	Monitor			
PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown.								

Revision 4/28/03

	Equipment modifications								
Item	Date	Test	Modification	Note	Disposition of EUT				
1	9/27/2007	Field Strength of Fundamental	Modified from delivered configuration. Initial or No Modification	Unit labeled as '6 dB DBC Resisencias' provided as sample passed field strength of fundamental. Modification done by Customer.	EUT remained at Northwest EMC following the test.				
2	9/28/2007	Field Strength of Spurious Emissions	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.				
3	10/4/2007	AC Powerline Conducted Emissions	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	Scheduled testing was completed.				

## FIELD STRENGTH OF FUNDAMENTAL

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

#### **MODES OF OPERATION**

Transmitting typical modulation

#### **POWER SETTINGS INVESTIGATED**

Battery

FREQUENCY RANGE INVESTIGATED						
Start Frequency	2400 MHz	Stop Frequency	2483.5 MHz			

#### SAMPLE CALCULATIONS

Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation

TEST EQUIPMENT									
Description	Manufacturer	Model	ID	Last Cal.	Interval				
Spectrum Analyzer	Agilent	E4446A	AAT	12/7/2006	13				
Antenna, Horn	EMCO	3115	AHC	8/24/2006	24				
EV01 cables g,h,j			EVB	5/10/2007	13				

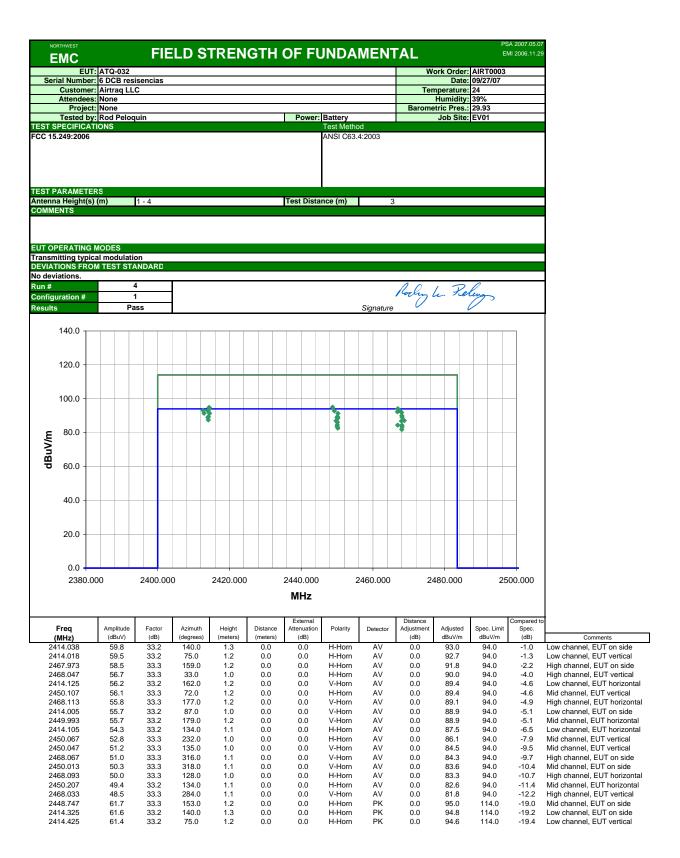
Frequency Range	Peak Data	Quasi-Peak Data	Average Data			
(MHz)	(kHz)	(kHz)	(kHz)			
0.01 - 0.15	1.0	0.2	0.2			
0.15 - 30.0	10.0	9.0	9.0			
30.0 - 1000	100.0	120.0	120.0			
Above 1000	1000.0	N/A	1000.0			
Measurements were made using the bandwidths and detectors specified. No video filter was used.						

#### **MEASUREMENT UNCERTAINTY**

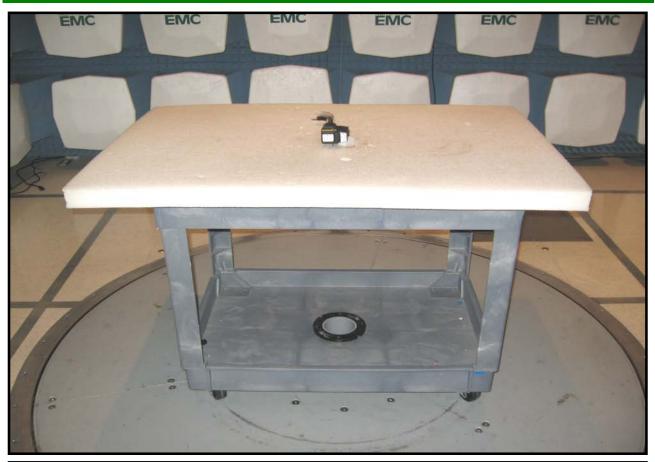
Measurement uncertainty is used to reflect the accuracy of the measured result as compared with its "true" or theoretically correct value. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4. In the case of transient tests our test equipment has been demonstrated by calibration to provide at least a 95% confidence that it complies with the test specification requirements. The measurement uncertainty for any test is available upon request.

#### **TEST DESCRIPTION**

The antennas to be used with the EUT were tested. The EUT was transmitting and/or receiving while set at the lowest channel, a middle channel, and the highest channel available. While scanning, emissions from the EUT were maximized by rotating the EUT, adjusting the measurement antenna height and polarization, and manipulating the EUT antenna in 3 orthogonal planes (per ANSI C63.4:2003).



# FIELD STRENGTH OF FUNDAMENTAL





# FIELD STRENGTH OF FUNDAMENTAL





### **Spurious Radiated Emissions**

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

#### MODES OF OPERATION

Transmitting typical modulation, low channel

Transmitting typical modulation, mid channel

Transmitting typical modulation, high channel

#### POWER SETTINGS INVESTIGATED

Battery

#### FREQUENCY RANGE INVESTIGATED

Start Frequency 30 MHz Stop Frequency 26 GHz

#### **CLOCKS AND OSCILLATORS**

Not provided

#### SAMPLE CALCULATIONS

Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation

TEST EQUIPMENT					
Description	Description Manufacturer		ID	Last Cal.	Interval
Spectrum Analyzer	Agilent	E4446A	AAT	12/7/2006	13
High Pass Filter	Micro-Tronics	HPM50111	HFO	12/29/2006	13
EV01 cables g,h,l			EVF	5/10/2007	13
Pre-Amplifier	Miteq	AMF-6F-12001800-30-10P	AVD	6/22/2007	13
Antenna, Horn	EMCO	3160-08	AHK	NCR	0
EV01 Cable D			EVD	7/25/2007	13
Pre-Amplifier	Miteq	JSD4-18002600-26-8P	APU	7/25/2007	13
Antenna, Horn	EMCO	3160-09	AHG	NCR	0
EV01 cables g,h,j			EVB	5/10/2007	13
Pre-Amplifier	Miteq	AMF-4D-010100-24-10P	APW	5/10/2007	13
Antenna, Horn	EMCO	3115	AHC	8/24/2006	24
EV01 cables c,g, h			EVA	12/29/2006	13
Pre-Amplifier	Miteq	AM-1616-1000	AOL	12/29/2006	13
Antenna, Biconilog	EMCO	3141	AXE	12/28/2005	24

MEASUREMENT BANDWIDTHS								
	Frequency Range	Peak Data	Quasi-Peak Data	Average Data				
	(MHz)	(kHz)	(kHz)	(kHz)				
	0.01 - 0.15	1.0	0.2	0.2				
	0.15 - 30.0	10.0	9.0	9.0				
	30.0 - 1000	100.0	120.0	120.0				
	Above 1000	1000.0	N/A	1000.0				
M	leasurements were made usi	ing the handwidths and deter	ctors specified No video filt	er was used				

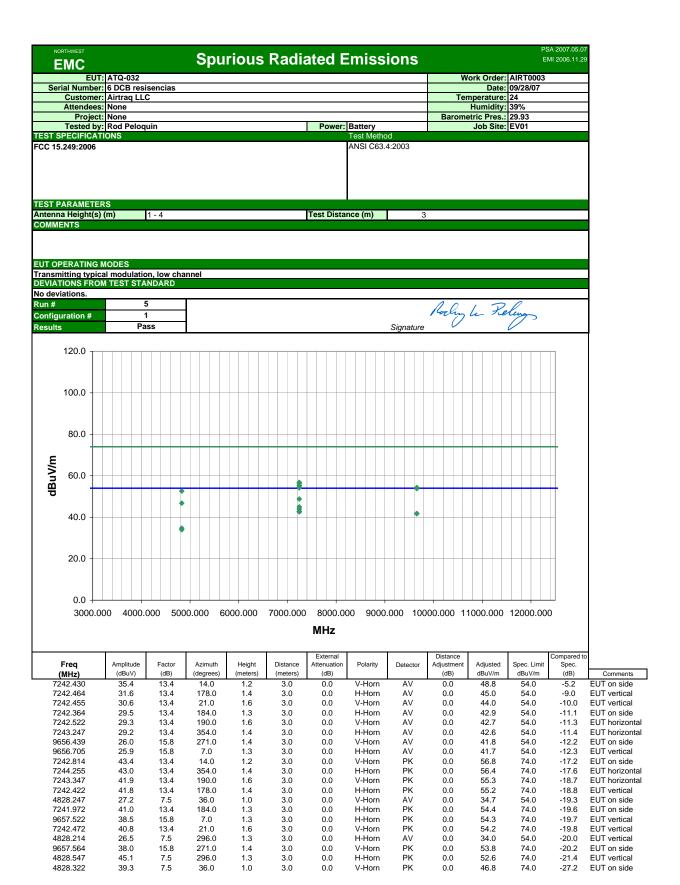
#### **MEASUREMENT UNCERTAINTY**

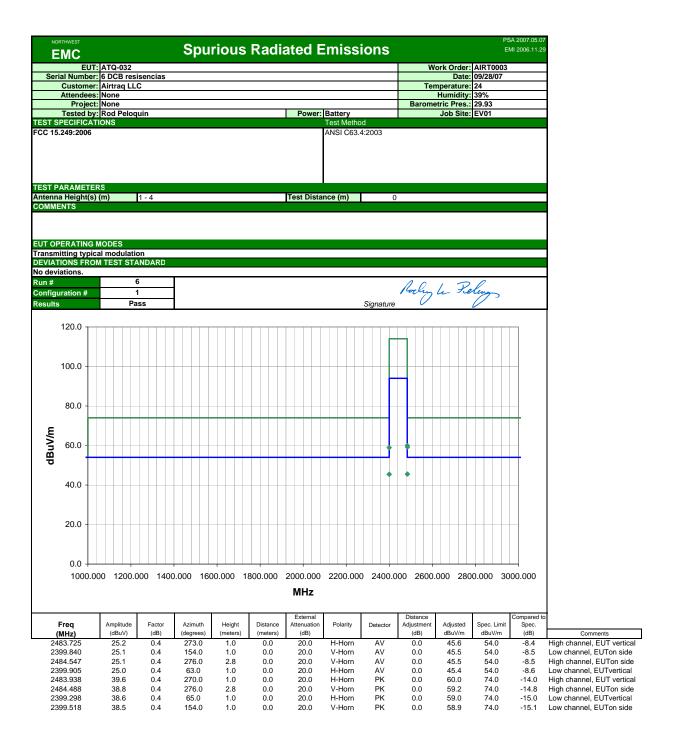
Measurement uncertainty is used to reflect the accuracy of the measured result as compared with its "true" or theoretically correct value. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4. In the case of transient tests our test equipment has been demonstrated by calibration to provide at least a 95% confidence that it complies with the test specification requirements. The measurement uncertainty for any test is available upon request.

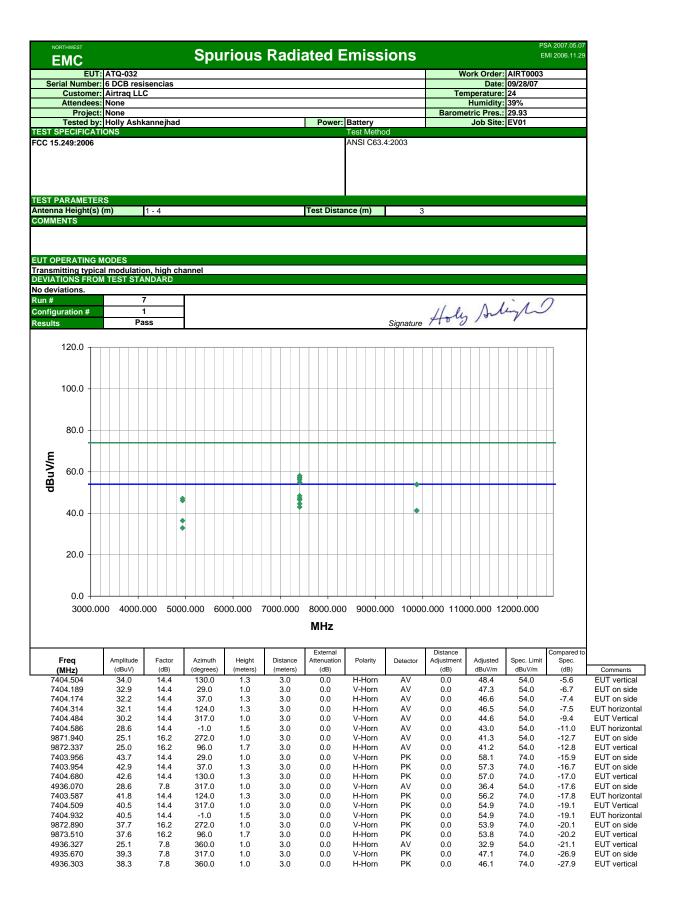
#### TEST DESCRIPTION

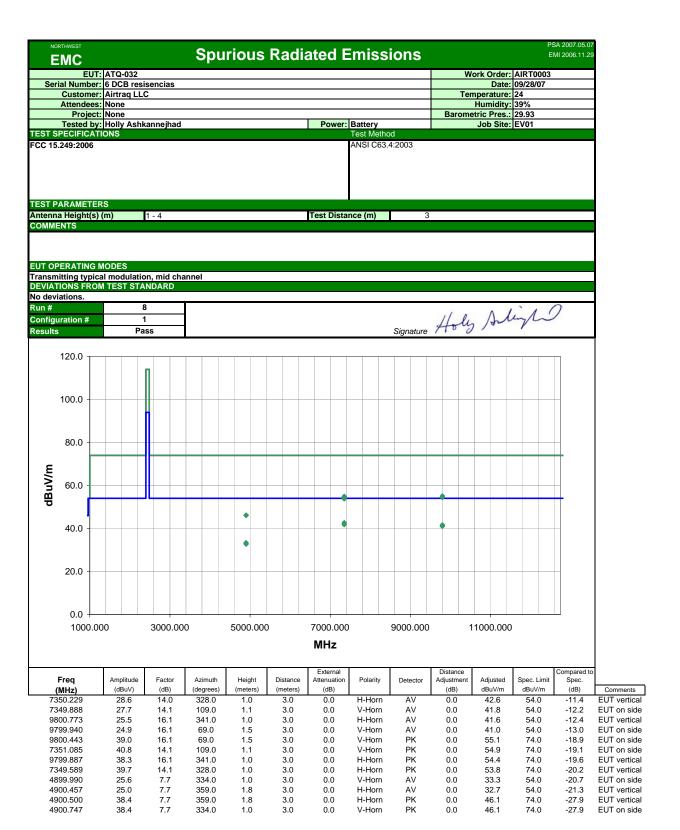
Using the mode of operation and configuration noted within this report, a final radiated emissions test was performed. The frequency range investigated (scanned), is also noted in this report. Radiated emissions measurements were made at the EUT azimuth and antenna height such that the maximum radiated emissions level will be detected. This requires the use of a turntable and an antenna positioner. The preferred method of a continuous azimuth search is utilized for frequency scans of the EUT field strength with both polarities of the measuring antenna. A calibrated, linearly polarized antenna was positioned at the specified distance from the periphery of the EUT.

Tests were made with the antenna positioned in both the horizontal and vertical planes of polarization. The antenna was varied in height above the conducting ground plane to obtain the maximum signal strength. Though specified in the report, the measurement distance shall be 3 meters or 10 meters. At any measurement distance, the antenna height was varied from 1 meter to 4 meters. These height scans apply for both horizontal and vertical polarization, except that for vertical polarization the minimum height of the center of the antenna shall be increased so that the lowest point of the bottom of the antenna clears the ground surface by at least 25 cm.









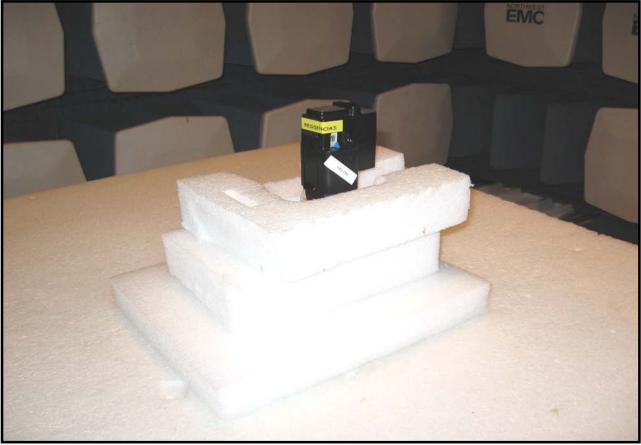
# Spurious Radiated Emissions





# Spurious Radiated Emissions







# **AC Powerline Conducted Emissions**

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

#### **MODES OF OPERATION**

Camera charging battery while in receiver cradle.

Camera charging from model FY850500 power supply

Camera transmitting to receiver.

#### **POWER SETTINGS INVESTIGATED**

120V/60Hz

#### **CLASSES INVESTIGATED**

Class A: tested for ancillary equipment in charging mode

Class B: tested for radio equipment in transmit/receive mode

#### SAMPLE CALCULATIONS

Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator

TEST EQUIPMENT					
Description	Manufacturer	Model	ID	Last Cal.	Interval
LISN	Solar	9252-50-R-24-BNC	LIP	12/20/2006	13
LISN	Solar	9252-50-R-24-BNC	LIR	11/20/2007	13
Attenuator	Tektronix	011-0059-02	ATC	12/27/2006	13
High Pass Filter	TTE	H97-100K-50-720B	HFX	8/22/2006	24
Receiver	Rohde & Schwartz	ESCI	ARG	12/7/2006	13

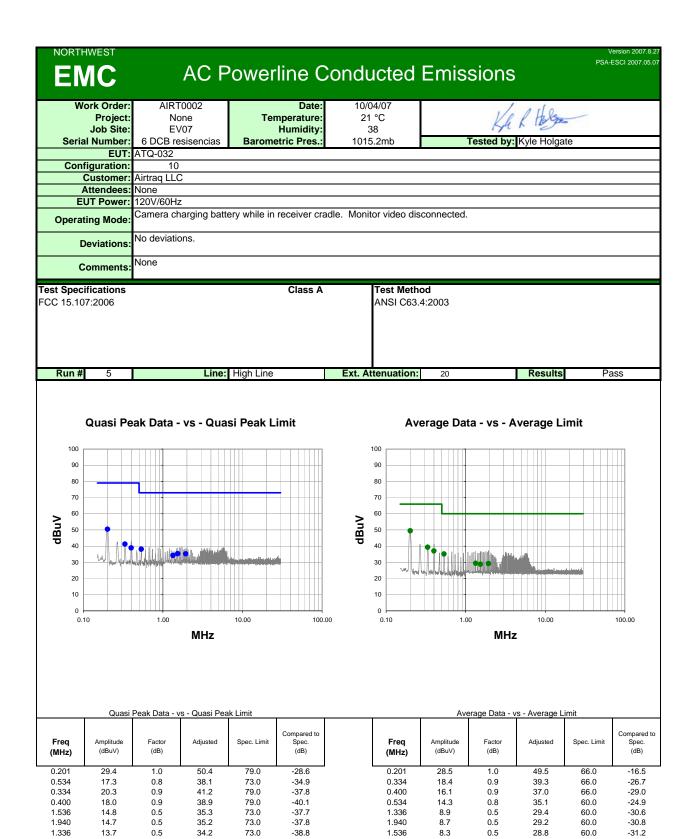
Frequency Range	Peak Data	Quasi-Peak Data	Average Data
(MHz)	(kHz)	(kHz)	(kHz)
0.01 - 0.15	1.0	0.2	0.2
0.15 - 30.0	10.0	9.0	9.0
30.0 - 1000	100.0	120.0	120.0
Above 1000	1000.0	N/A	1000.0
Measurements were made us	sing the bandwidths and det	ectors specified. No video filter	was used.

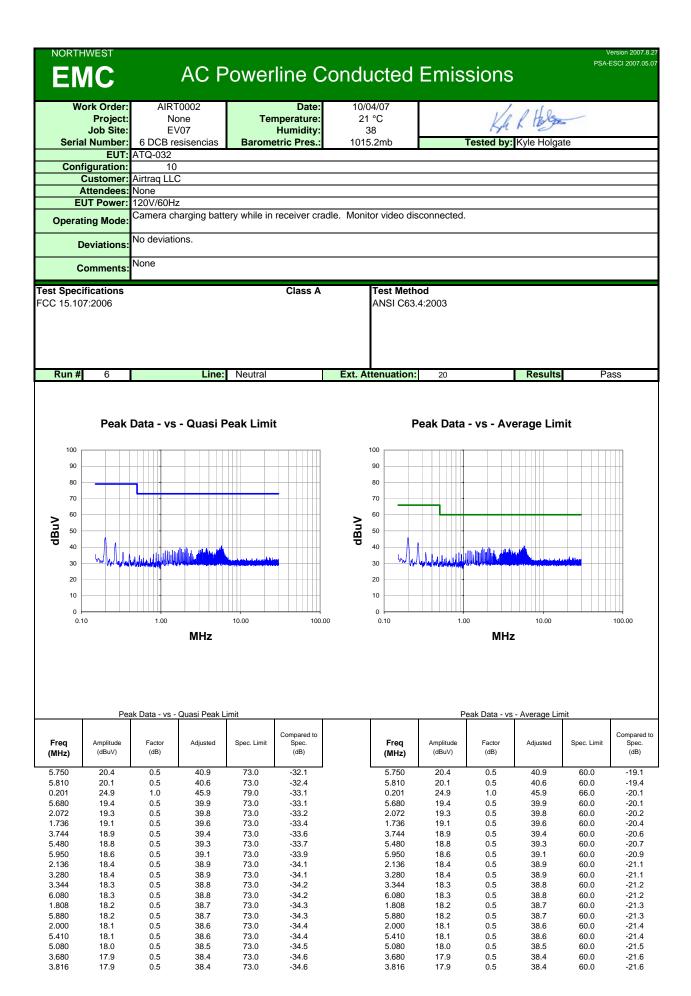
#### **MEASUREMENT UNCERTAINTY**

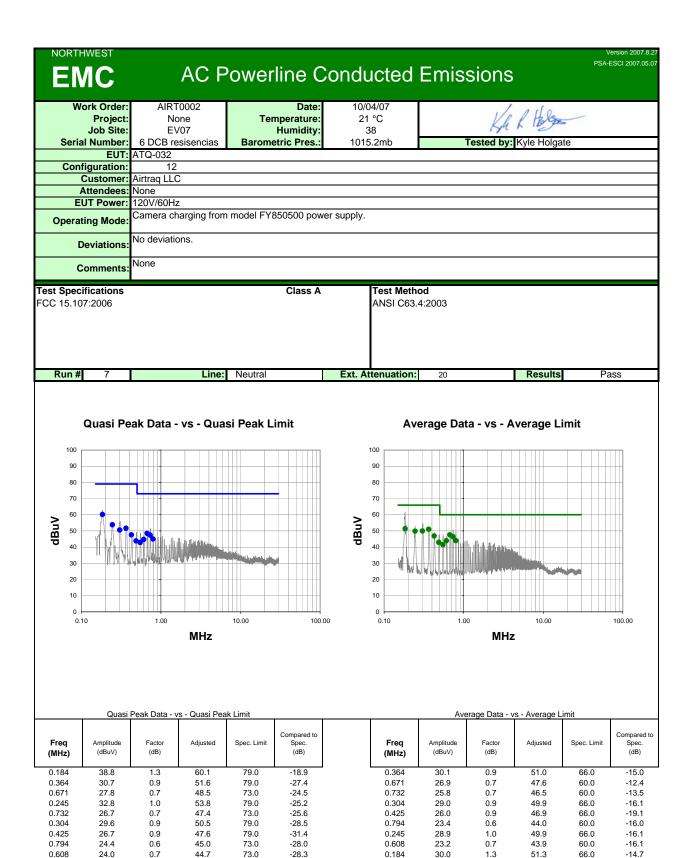
Measurement uncertainty is used to reflect the accuracy of the measured result as compared with its "true" or theoretically correct value. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4. In the case of transient tests our test equipment has been demonstrated by calibration to provide at least a 95% confidence that it complies with the test specification requirements. The measurement uncertainty for any test is available upon request.

#### **TEST DESCRIPTION**

Using the mode of operation and configuration noted within this report, conducted emissions tests were performed. The frequency range investigated (scanned), is also noted in this report. Conducted power line measurements are made, unless otherwise specified, over the frequency range from 150 kHz to 30 MHz to determine the line-to-ground radio-noise voltage that is conducted from the EUT power-input terminals that are directly (or indirectly via separate transformer or power supplies) connected to a public power network. Equipment is tested with power cords that are normally used or that have electrical or shielding characteristics that are the same as those cords normally used. Typically those measurements are made using a LISN (Line Impedance Stabilization Network), the 50  $\Omega$  measuring port is terminated by a 50  $\Omega$  EMI meter or a 50  $\Omega$  resistive load. All 50  $\Omega$  measuring ports of the LISN are terminated by 50 $\Omega$ .







0.488

0.549

23.0

22.0

43.8

42.8

79.0

73.0

0.8

8.0

-35.2

-30.2

22 1

20.7

0.488

0.549

42 9

41.5

66.0

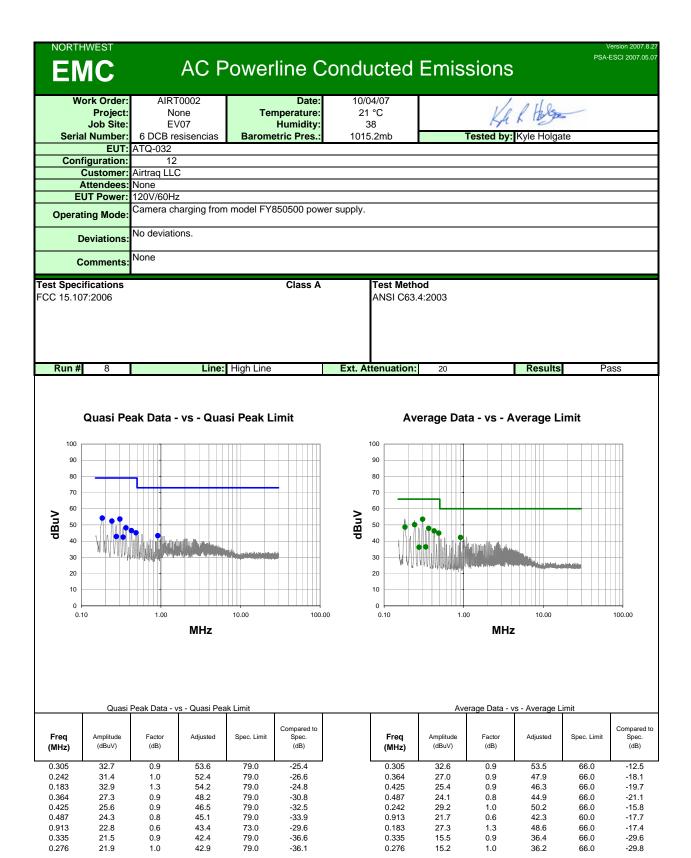
60.0

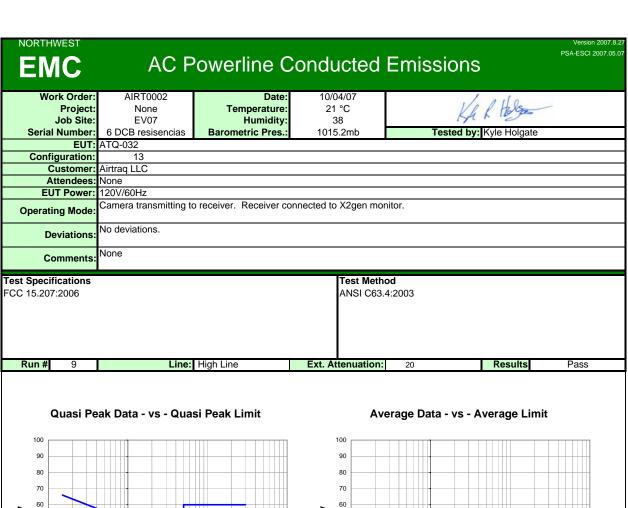
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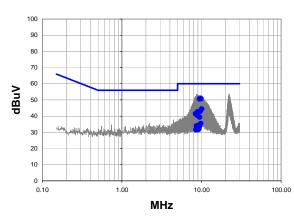
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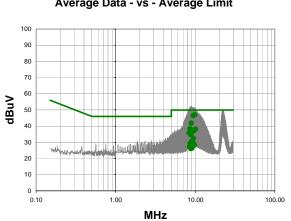
0.8

0.8

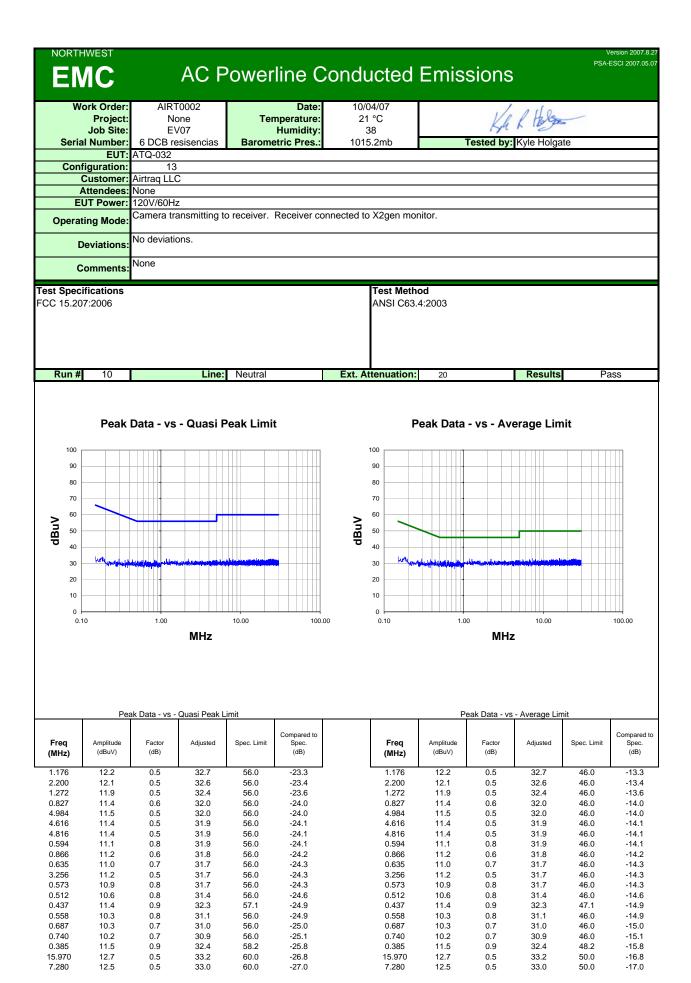








	Quasi Peak Data - vs - Quasi Peak Limit					Average Data - vs - Average Limit					
Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted	Spec. Limit	Compared to Spec. (dB)	Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted	Spec. Limit	Compared to Spec. (dB)
9.882	30.3	0.5	50.8	60.0	-9.2	9.882	26.5	0.5	47.0	50.0	-3.0
9.412	30.2	0.5	50.7	60.0	-9.3	9.412	26.0	0.5	46.5	50.0	-3.5
10.072	23.9	0.5	44.4	60.0	-15.6	8.934	21.4	0.5	41.9	50.0	-8.1
9.672	22.5	0.5	43.0	60.0	-17.0	8.578	17.9	0.5	38.4	50.0	-11.6
8.934	22.1	0.5	42.6	60.0	-17.4	10.072	17.7	0.5	38.2	50.0	-11.8
8.402	21.0	0.5	41.5	60.0	-18.5	9.672	16.7	0.5	37.2	50.0	-12.8
8.578	20.9	0.5	41.4	60.0	-18.6	8.402	15.3	0.5	35.8	50.0	-14.2
8.848	20.0	0.5	40.5	60.0	-19.5	8.848	14.3	0.5	34.8	50.0	-15.2
9.472	18.9	0.5	39.4	60.0	-20.6	9.472	12.0	0.5	32.5	50.0	-17.5
9.788	14.9	0.5	35.4	60.0	-24.6	9.002	10.0	0.5	30.5	50.0	-19.5
9.002	13.7	0.5	34.2	60.0	-25.8	9.182	9.4	0.5	29.9	50.0	-20.1
9.182	13.5	0.5	34.0	60.0	-26.0	8.648	8.9	0.5	29.4	50.0	-20.6
8.648	13.4	0.5	33.9	60.0	-26.1	9.538	8.8	0.5	29.3	50.0	-20.7
9.538	13.3	0.5	33.8	60.0	-26.2	8.720	7.8	0.5	28.3	50.0	-21.7
8.720	12.2	0.5	32.7	60.0	-27.3	9.788	7.8	0.5	28.3	50.0	-21.7
9.072	11.9	0.5	32.4	60.0	-27.6	9.072	7.2	0.5	27.7	50.0	-22.3
9.248	11.7	0.5	32.2	60.0	-27.8	9.248	7.1	0.5	27.6	50.0	-22.4
9.142	11.2	0.5	31.7	60.0	-28.3	8.464	6.7	0.5	27.2	50.0	-22.8
8.790	11.1	0.5	31.6	60.0	-28.4	9.142	5.9	0.5	26.4	50.0	-23.6
8.464	11.0	0.5	31.5	60.0	-28.5	8.790	5.6	0.5	26.1	50.0	-23.9



# AC Powerline Conducted Emissions





# AC Powerline Conducted Emissions

