Airtraq LLC

A-305 / ATQ-305

FCC 15.249:2013

Report #: AIRT0020

Report Prepared By Northwest EMC Inc.

NORTHWEST EMC – (888) 364-2378 – www.nwemc.com

California – Minnesota – Oregon – New York – Washington

CERTIFICATE OF TEST

Last Date of Test: February 11, 2013
Airtraq LLC
Model: A-305 / ATQ-305

Emissions

Test Description	Specification	Test Method	Pass/Fail
Field Strength of Fundamental	FCC 15.249:2013	ANSI C63.10:2009	Pass
Field Strength of Harmonics	FCC 15.249:2013	ANSI C63.10:2009	Pass

Deviations From Test Standards

None

Approved By:

Don Facteau, IS Manager

NVLAP Lab Code: 200630-0

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 (Site filing #2834D-1).

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.

NORTHWEST EMC
REV 2012.08.02

REVISION HISTORY

Revision Number	Description	Date	Page Number
00	None		

Barometric Pressure

The recorded barometric pressure has been normalized to sea level.

NORTHWEST EMC

REV 2012.05.24

ACCREDITATIONS AND AUTHORIZATIONS

United States

FCC - Designated by the FCC as a Telecommunications Certification Body (TCB). Certification chambers, Open Area Test Sites, and conducted measurement facilities are listed with the FCC.

A2LA - Accredited by A2LA to ISO / IEC Guide 65 as a product certifier. This allows Northwest EMC to certify transmitters to FCC and IC specifications.

NVLAP - Each laboratory is accredited by NVLAP to ISO 17025

Canada

IC - Recognized by Industry Canada as a Certification Body (CB). Certification chambers and Open Area Test Sites are filed with IC.

European Union

European Commission – Validated by the European Commission as a Conformity Assessment Body (CAB) under the EMC directive and as a Notified Body under the R&TTE Directive.

Australia/New Zealand

ACMA - Recognized by ACMA as a CAB for the acceptance of test data.

Korea

KCC / RRA - Recognized by KCC's RRA as a CAB for the acceptance of test data.

Japan

VCCI - Associate Member of the VCCI. Conducted and radiated measurement facilities are registered.

Taiwan

BSMI – Recognized by BSMI as a CAB for the acceptance of test data.

NCC - Recognized by NCC as a CAB for the acceptance of test data.

Singapore

IDA – Recognized by IDA as a CAB for the acceptance of test data.

Hong Kong

OFTA – Recognized by OFTA as a CAB for the acceptance of test data.

Vietnam

MIC – Recognized by MIC as a CAB for the acceptance of test data.

Russia

GOST – Accredited by Certinform VNIINMASH, CERTINFO, SAMTES, and Federal CHEC to perform EMC and Hygienic testing for Information Technology products to GOST standards.

SCOPE

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

MEASUREMENT UNCERTAINTY

Measurement Uncertainty

When a measurement is made, the result will be different from the true or theoretically correct value. The difference is the result of tolerances in the measurement system that cannot be completely eliminated. To the extent that technology allows us, it has been our aim to minimize this error. Measurement uncertainty is a statistical expression of measurement error qualified by a probability distribution.

A measurement uncertainty estimation has been performed for each test per our internal quality document WP 342. The estimation is used to compare the measured result with its "true" or theoretically correct value. The expanded measurement uncertainty (K=2) for each test is on each data sheet. Our measurement data meets or exceeds the measurement uncertainty requirements of the applicable specification; therefore, the test data can be compared directly to the specification limit to determine compliance. The calculations for estimating measurement uncertainty are based upon ETSI TR 100 028 (or CISPR 16-4-1 as applicable), and are available upon request.

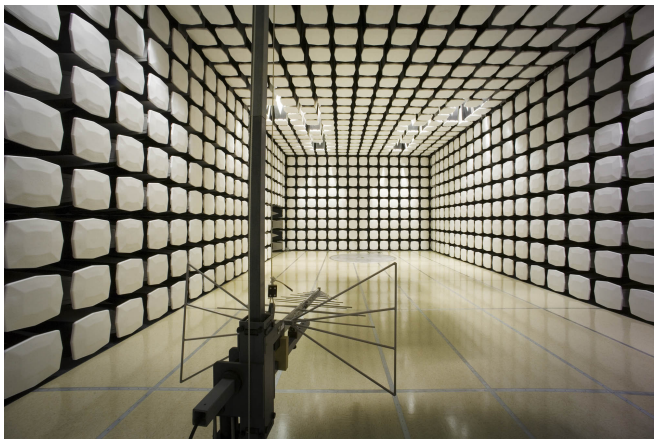
The following table represents the Measurement Uncertainty (MU) budgets for each of the tests that may be contained in this report.

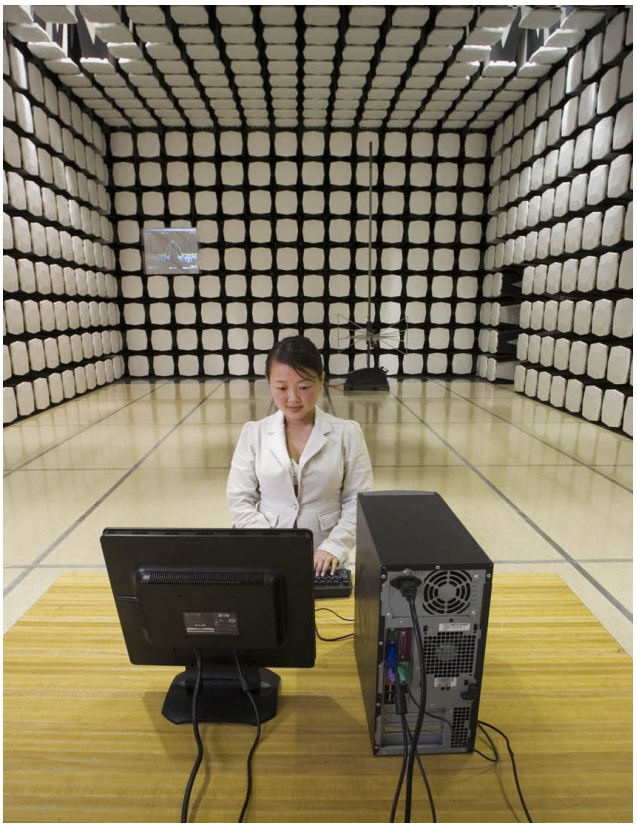
Test	+ MU	- MU
Frequency Accuracy (Hz)	0.12	-0.01
Amplitude Accuracy (dB)	0.49	-0.49
Conducted Power (dB)	0.41	-0.41
Radiated Power via Substitution (dB)	0.69	-0.68
Temperature (degrees C)	0.81	-0.81
Humidity (% RH)	2.89	-2.89
Field Strength (dB)	4.00	-4.00
AC Powerline Conducted Emissions (dB)	2.70	-2.70

LOCATIONS

REV 2013.01.07

Oregon	California	New York	Minnesota	Washington
Labs EV01-12 22975 NW Evergreen Pkwy Hillsboro, OR 97124 (503) 844-4066	Labs OC01-13 41 Tesla Irvine, CA 92618 (949) 861-8918	Labs WA01-04 4939 Jordan Rd. Elbridge, NY 13060 (315) 685-0796	Labs MN01-08 9349 W Broadway Ave. Brooklyn Park, MN 55445 (763) 425-2281	Labs NC01-05,SU02,SU07 19201 120th Ave. NE Bothell, WA 98011 (425) 984-6600
VCCI				
A-0108	A-0029		A-0109	A-0110
Industry Canada				
2834D-1, 2834D-*2*	2834B-1, 2834B-2, 2834B-3		2834E-1	2834C-1





PRODUCT DESCRIPTION

WTD 12.5.23

Client and Equipment Under Test (EUT) Information

Company Name:	Prodol Meditec Limited
Address:	1/F Block C, NO.18, 7th Science Ave, Hi-Tech Innovation Coast
City, State, Zip:	Tangjia Bay, Zhuhai, 519085 China
Test Requested By:	Paul Dryden
Model:	A-305 / ATQ-305
First Date of Test:	June 12, 2012
Last Date of Test:	February 11, 2013
Receipt Date of Samples:	June 11, 2012
Equipment Design Stage:	Production
Equipment Condition:	No Damage

Information Provided by the Party Requesting the Test

Functional Description of the EUT (Equipment Under Test):
Video transmission equipment used as an accessory for endotracheal tube intubation. The system uses a 5.8 GHz radio transmitting in the 5725 - 5875 MHz band. The equipment is battery powered with no means of recharging or connecting to the AC mains.

Testing Objective:
To demonstrate compliance under FCC 15.249

Configuration AIRT0015- 2

EUT			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
Camera	Prodol Meditec Ltd.	A-305 / ATQ-305	C-000GE

Remote Equipment Outside of Test Setup Boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
Wireless Display Recorder (AWDR)	Prodol Meditec Ltd.	A-335	R-000GE

MODIFICATIONS

WTD 12.5.23

Equipment Modifications

Item	Date	Test	Modification	Note	Disposition of EUT
1	6/12/2012	Field Strength of Fundamental	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.
2	2/11/2013	Field Strength of Harmonics	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. The test data represents the configuration / operating mode/ model that produced the highest emission levels as compared to the specification limit.

MODES OF OPERATION

Continuous transmit, typical modulation

POWER SETTINGS INVESTIGATED

Internal Battery

CONFIGURATIONS INVESTIGATED

AIRT0015 - 2

FREQUENCY RANGE INVESTIGATED

Start Frequency	5725 MHz	Stop Frequency	5875 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
Antenna, Horn	ETS	3115	AIZ	1/24/2011	24 mo
EV01 Cables	N/A	Double Ridge Horn Cables	EVB	6/28/2011	12 mo
Spectrum Analyzer	Agilent	E4446A	AAQ	2/7/2012	12 mo

MEASUREMENT BANDWIDTHS

Frequency Range (MHz)	Peak Data (kHz)	Quasi-Peak Data (kHz)	Average Data (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

TEST DESCRIPTION

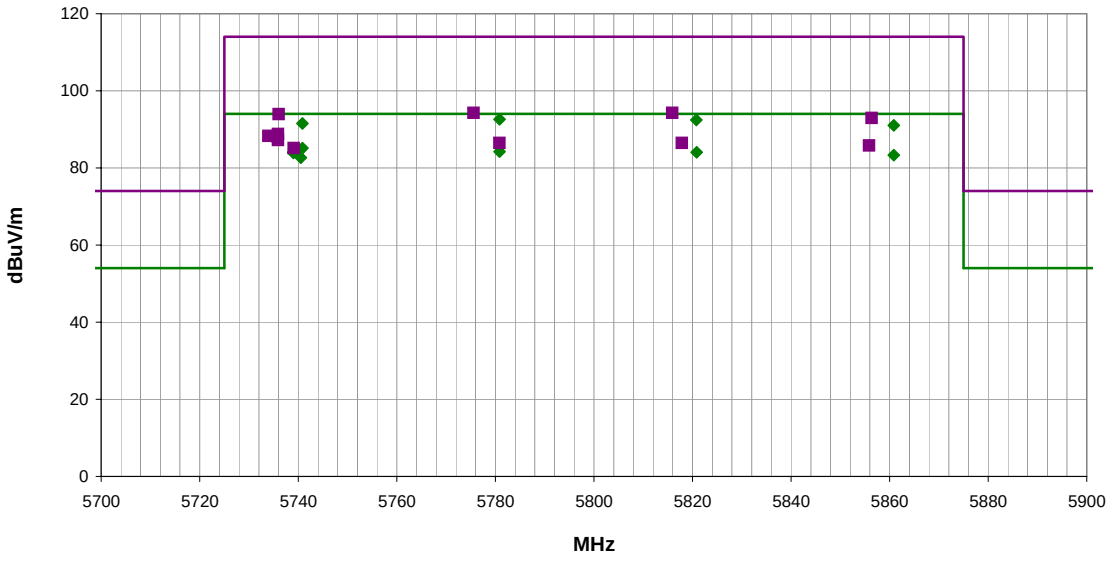
The antennas to be used with the EUT were tested. The EUT was transmitting and while set at the lowest channel, a middle channel, and the highest channel available. While scanning, emissions from the EUT were maximized by rotating the EUT, adjusting the measurement antenna height and polarization, and manipulating the EUT and EUT antenna in 3 orthogonal planes (per ANSI C63.10:2009).

FIELD STRENGTH OF FUNDAMENTAL

Work Order:	AIRT0015	**Date:**	06/12/12		
Project:	None	**Temperature:**	23.8 °C		
Job Site:	EV01	**Humidity:**	39.1		
Serial Number:	C-000GE	**Barometric Pres.:**	1022	**Tested by:**	Ethan Schoonover
EUT:	A-305 / ATQ-305				
Configuration:	2				
Customer:	Airtraq LLC				
Attendees:	None				
EUT Power:	Internal Battery				
Operating Mode:	Continuous transmit, typical modulation				
Deviations:	None				
Comments:	See comments below for channel, frequency, and EUT orientation.				

Test Specifications	**Test Method**
FCC 15.249:2013	ANSI C63.10:2009

Run #	1	**Test Distance (m)**	3	**Antenna Height(s)**	1-4m	**Results**	Pass



Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Antenna Height (meters)	Azimuth (degrees)	Test Distance (meters)	External Attenuation (dB)	Polarity/ Transducer Type	Detector	Distance Adjustment (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Compared to Spec. (dB)	Comments
5780.823	50.2	42.4	1.2	250.0	3.0	0.0	Vert	AV	0.0	92.6	94.0	-1.4	Mid Ch. 1 (5780MHz), EUT Upright
5820.800	49.9	42.6	1.1	311.0	3.0	0.0	Vert	AV	0.0	92.5	94.0	-1.5	Mid Ch. 2 (5820MHz), EUT Upright
5740.817	49.3	42.2	1.1	259.0	3.0	0.0	Vert	AV	0.0	91.5	94.0	-2.5	Low Ch. 0 (5740MHz), EUT Upright
5860.817	48.2	42.8	1.5	324.0	3.0	0.0	Vert	AV	0.0	91.0	94.0	-3.0	High Ch. 3 (5860MHz), EUT Upright
5740.863	42.9	42.2	1.9	257.0	3.0	0.0	Horz	AV	0.0	85.1	94.0	-8.9	Low Ch. 0 (5740MHz), EUT Upright
5740.397	42.4	42.2	1.2	233.0	3.0	0.0	Horz	AV	0.0	84.6	94.0	-9.4	Low Ch. 0 (5740MHz), EUT On Side
5780.847	41.8	42.4	1.2	28.0	3.0	0.0	Horz	AV	0.0	84.2	94.0	-9.8	Mid Ch. 1 (5780MHz), EUT Upright
5820.823	41.5	42.6	1.2	9.0	3.0	0.0	Horz	AV	0.0	84.1	94.0	-9.9	Mid Ch. 2 (5820MHz), EUT Upright
5738.973	41.8	42.2	1.2	288.0	3.0	0.0	Horz	AV	0.0	84.0	94.0	-10.0	Low Ch. 0 (5740MHz), EUT On Back
5738.997	41.7	42.2	1.1	206.0	3.0	0.0	Vert	AV	0.0	83.9	94.0	-10.1	Low Ch. 0 (5740MHz), EUT On Back
5860.840	40.5	42.8	1.9	20.0	3.0	0.0	Horz	AV	0.0	83.3	94.0	-10.7	High Ch. 3 (5860MHz), EUT Upright
5740.537	40.4	42.2	1.2	156.0	3.0	0.0	Vert	AV	0.0	82.6	94.0	-11.4	Low Ch. 0 (5740MHz), EUT On Side
5775.597	51.9	42.4	1.2	250.0	3.0	0.0	Vert	PK	0.0	94.3	114.0	-19.7	Mid Ch. 1 (5780MHz), EUT Upright
5815.923	51.7	42.6	1.1	311.0	3.0	0.0	Vert	PK	0.0	94.3	114.0	-19.7	Mid Ch. 2 (5820MHz), EUT Upright
5736.057	51.7	42.2	1.1	259.0	3.0	0.0	Vert	PK	0.0	93.9	114.0	-20.1	Low Ch. 0 (5740MHz), EUT Upright
5856.383	50.2	42.8	1.5	324.0	3.0	0.0	Vert	PK	0.0	93.0	114.0	-21.0	High Ch. 3 (5860MHz), EUT Upright
5735.917	46.6	42.2	1.2	288.0	3.0	0.0	Horz	PK	0.0	88.8	114.0	-25.2	Low Ch. 0 (5740MHz), EUT On Back
5733.933	46.1	42.2	1.2	233.0	3.0	0.0	Horz	PK	0.0	88.3	114.0	-25.7	Low Ch. 0 (5740MHz), EUT On Side
5735.730	46.0	42.2	1.1	206.0	3.0	0.0	Vert	PK	0.0	88.2	114.0	-25.8	Low Ch. 0 (5740MHz), EUT On Back
5735.917	45.0	42.2	1.9	257.0	3.0	0.0	Horz	PK	0.0	87.2	114.0	-26.8	Low Ch. 0 (5740MHz), EUT Upright
5780.823	44.1	42.4	1.2	28.0	3.0	0.0	Horz	PK	0.0	86.5	114.0	-27.5	Mid Ch. 1 (5780MHz), EUT Upright
5817.883	43.9	42.6	1.2	9.0	3.0	0.0	Horz	PK	0.0	86.5	114.0	-27.5	Mid Ch. 2 (5820MHz), EUT Upright
5855.847	43.0	42.8	1.9	20.0	3.0	0.0	Horz	PK	0.0	85.8	114.0	-28.2	High Ch. 3 (5860MHz), EUT Upright
5739.067	42.9	42.2	1.2	156.0	3.0	0.0	Vert	PK	0.0	85.1	114.0	-28.9	Low Ch. 0 (5740MHz), EUT On Side

FIELD STRENGTH OF HARMONICS

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. The test data represents the configuration / operating mode/ model that produced the highest emission levels as compared to the specification limit.

MODES OF OPERATION

Continuous transmit, typical modulation

POWER SETTINGS INVESTIGATED

Internal Battery

CONFIGURATIONS INVESTIGATED

AIRT0015 - 2

FREQUENCY RANGE INVESTIGATED

Start Frequency	30 MHz	Stop Frequency	40 GHz

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
5.725-5.875 Notch Filter	Micro-Tronics	BRC50705	HGJ	3/21/2012	24 mo
OC Cable	ESM Cable Corp.	KMKM-72	OCV	6/28/2012	12 mo
Pre-Amplifier	Miteq	JSW45-26004000-40-5P	AVR	6/28/2012	12 mo
Antenna, Horn	ETS Lindgren	3160-10	AIW	NCR	0 mo
Cable	ESM Cable Corp.	KMKM-72	EVY	9/11/2012	12 mo
Pre-Amplifier	Miteq	AMF-6F-18002650-25-10P	AVU	9/11/2012	12 mo
Antenna, Horn	ETS Lindgren	3160-09	AIV	NCR	0 mo
Pre-Amplifier	Miteq	AMF-6F-12001800-30-10P	AVD	2/28/2012	12 mo
Antenna, Horn	ETS	3160-08	AHV	NCR	0 mo
EV01 Cables	N/A	Standard Gain Horns Cables	EVF	2/28/2012	12 mo
Pre-Amplifier	Miteq	AMF-6F-08001200-30-10P	AVC	2/28/2012	12 mo
Antenna, Horn	ETS	3160-07	AHU	NCR	0 mo
EV01 Cables	N/A	Double Ridge Horn Cables	EVB	6/27/2012	12 mo
Pre-Amplifier	Miteq	AMF-4D-010100-24-10P	APW	6/27/2012	12 mo
Antenna, Horn	ETS	3115	AIZ	1/24/2011	36 mo
EV01 Cables	N/A	Bilog Cables	EVA	6/26/2012	12 mo
Pre-Amplifier	Miteq	AM-1616-1000	AOL	6/26/2012	12 mo
Antenna, Biconilog	EMCO	3141	AXG	4/10/2012	12 mo
EV01 Cable	ESM Cable Corp.	TTBJ-141 KMKM-72	ECC	8/27/2012	12 mo
Antenna, Horn	EMCO	3115	AFE	10/6/2011	24 mo
Spectrum Analyzer	Agilent	E4446A	AAQ	2/7/2012	24 mo

MEASUREMENT BANDWIDTHS

Frequency Range (MHz)	Peak Data (kHz)	Quasi-Peak Data (kHz)	Average Data (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

TEST DESCRIPTION

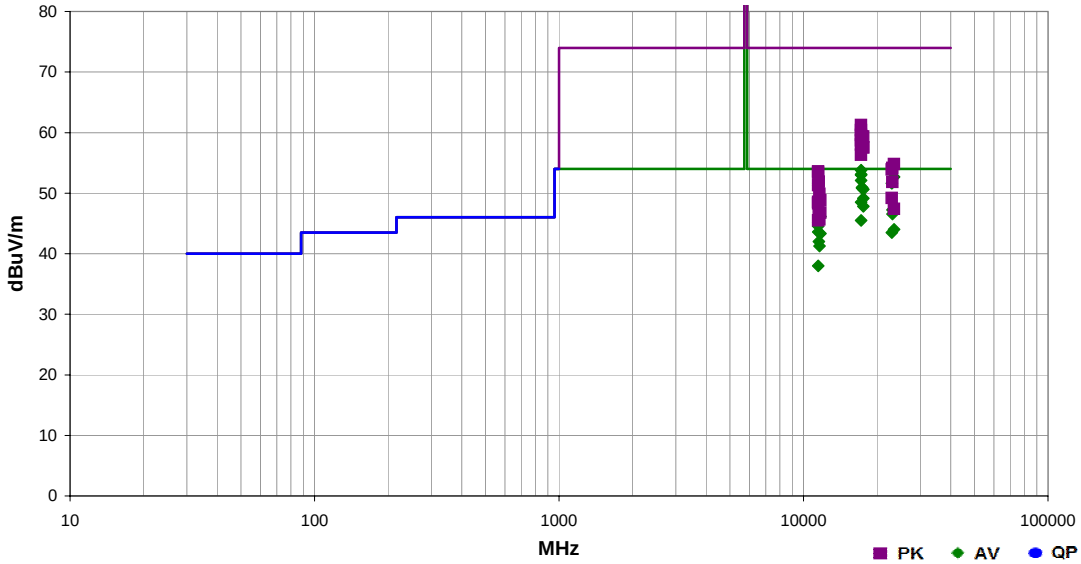
The antennas to be used with the EUT were tested. The EUT was transmitting and receiving while set at the lowest channel, a middle channel, and the highest channel available. While scanning, emissions from the EUT were maximized by rotating the EUT, adjusting the measurement antenna height and polarization, and manipulating the EUT antenna in 3 orthogonal planes (per ANSI C63.10:2009). A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

FIELD STRENGTH OF HARMONICS

Work Order:	AIRT0015	**Date:**	02/11/13		
Project:	None	**Temperature:**	22 °C		
Job Site:	EV01	**Humidity:**	34% RH		
Serial Number:	C-000GE	**Barometric Pres.:**	1029 mbar	**Tested by:**	Carl Engholm, Rod Peloquin
EUT:	A-305 / ATQ-305				
Configuration:	2				
Customer:	Airtraq LLC				
Attendees:	None				
EUT Power:	Internal Battery				
Operating Mode:	Continuous transmit, typical modulation				
Deviations:	None				
Comments:	See comments below for channel, frequency, and EUT orientation. Average measurements made using RMS method unless indicated otherwise.				

Test Specifications	**Test Method**
FCC 15.249:2013	ANSI C63.10:2009

Run #	26	**Test Distance (m)**	3	**Antenna Height(s)**	1-4m	**Results**	Pass



Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Antenna Height (meters)	Azimuth (degrees)	Test Distance (meters)	External Attenuation (dB)	Polarity/ Transducer Type	Detector	Distance Adjustment (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Compared to Spec. (dB)	Comments
17221.530	42.0	11.8	1.0	108.0	3.0	0.0	Horz	AV	0.0	53.8	54.0	-0.2	Low Ch. 0 (5740MHz), EUT On Back
17222.370	41.3	11.8	1.6	157.0	3.0	0.0	Vert	AV	0.0	53.1	54.0	-0.9	10Hz, Low Ch. 0 (5740MHz), EUT Upright
17220.490	41.2	11.8	1.0	68.0	3.0	0.0	Horz	AV	0.0	53.0	54.0	-1.0	Low Ch. 0 (5740MHz), EUT On Side
23443.360	59.3	-6.6	1.1	167.0	3.0	0.0	Horz	AV	0.0	52.7	54.0	-1.3	High Ch. 3 (5860MHz), EUT Upright
17222.420	40.3	11.8	1.0	152.0	3.0	0.0	Horz	AV	0.0	52.1	54.0	-1.9	10Hz, Low Ch. 0 (5740MHz), EUT Upright
11481.340	58.5	-6.8	1.2	12.0	3.0	0.0	Horz	AV	0.0	51.7	54.0	-2.3	Low Ch. 0 (5740MHz), EUT Upright
22962.480	58.3	-6.7	1.1	228.0	3.0	0.0	Horz	AV	0.0	51.6	54.0	-2.4	Low Ch. 0 (5740MHz), EUT Upright
11481.670	58.1	-6.8	3.5	44.0	3.0	0.0	Vert	AV	0.0	51.3	54.0	-2.7	Low Ch. 0 (5740MHz), EUT Upright
17342.360	39.1	11.8	1.2	118.0	3.0	0.0	Horz	AV	0.0	50.9	54.0	-3.1	10Hz, Mid Ch. 1 (5780MHz), EUT Upright
17342.510	39.0	11.8	1.2	285.0	3.0	0.0	Vert	AV	0.0	50.8	54.0	-3.2	10Hz, Mid Ch. 1 (5780MHz), EUT Upright
17574.440	38.9	11.7	1.2	176.0	3.0	0.0	Vert	AV	0.0	50.6	54.0	-3.4	High Ch. 3 (5860MHz), EUT Upright
11561.700	55.7	-6.5	1.1	75.0	3.0	0.0	Horz	AV	0.0	49.2	54.0	-4.8	Mid Ch. 1 (5780MHz), EUT Upright
17569.550	37.4	11.7	1.2	109.0	3.0	0.0	Horz	AV	0.0	49.1	54.0	-4.9	High Ch. 3 (5860MHz), EUT Upright
17227.940	36.7	11.8	1.0	245.0	3.0	0.0	Vert	AV	0.0	48.5	54.0	-5.5	Low Ch. 0 (5740MHz), EUT On Side
17569.210	36.1	11.7	1.2	195.0	3.0	0.0	Horz	AV	0.0	47.8	54.0	-6.2	High Ch. 3 (5860MHz), EUT Upright
23112.040	53.9	-6.7	1.0	309.0	3.0	0.0	Horz	AV	0.0	47.2	54.0	-6.8	Mid Ch. 1 (5780MHz), EUT Upright
11641.670	53.4	-6.3	1.1	76.0	3.0	0.0	Horz	AV	0.0	47.1	54.0	-6.9	Mid Ch. 2 (5820MHz), EUT Upright
23123.320	53.2	-6.7	1.2	0.0	3.0	0.0	Vert	AV	0.0	46.5	54.0	-7.5	Mid Ch. 1 (5780MHz), EUT Upright
11721.630	52.3	-6.2	1.2	76.0	3.0	0.0	Horz	AV	0.0	46.1	54.0	-7.9	High Ch. 3 (5860MHz), EUT Upright
17222.870	33.7	11.8	1.1	67.0	3.0	0.0	Vert	AV	0.0	45.5	54.0	-8.5	10Hz, Low Ch. 0 (5740MHz), EUT On Back
11480.870	52.0	-6.8	1.1	185.0	3.0	0.0	Vert	AV	0.0	45.2	54.0	-8.8	Low Ch. 0 (5740MHz), EUT On Back
11485.300	51.3	-6.8	1.2	177.0	3.0	0.0	Horz	AV	0.0	44.5	54.0	-9.5	Low Ch. 0 (5740MHz), EUT On Side
23442.200	50.6	-6.6	1.0	104.0	3.0	0.0	Vert	AV	0.0	44.0	54.0	-10.0	High Ch. 3 (5860MHz), EUT Upright
11480.700	50.4	-6.8	1.1	38.0	3.0	0.0	Horz	AV	0.0	43.6	54.0	-10.4	Low Ch. 0 (5740MHz), EUT On Back
22962.370	50.2	-6.7	1.2	38.0	3.0	0.0	Vert	AV	0.0	43.5	54.0	-10.5	Low Ch. 0 (5740MHz), EUT Upright
11721.830	49.5	-6.2	1.1	89.0	3.0	0.0	Horz	AV	0.0	43.3	54.0	-10.7	High Ch. 3 (5860MHz), EUT Upright
11561.800	48.5	-6.5	1.3	222.0	3.0	0.0	Vert	AV	0.0	42.0	54.0	-12.0	Mid Ch. 1 (5780MHz), EUT Upright
11641.730	47.6	-6.3	1.3	227.0	3.0	0.0	Vert	AV	0.0	41.3	54.0	-12.7	Mid Ch. 2 (5820MHz), EUT Upright
17222.330	49.4	11.8	0.9	157.0	3.0	0.0	Vert	PK	0.0	61.2	74.0	-12.8	Low Ch. 0 (5740MHz), EUT Upright
17221.360	48.6	11.8	1.0	152.0	3.0	0.0	Horz	PK	0.0	60.4	74.0	-13.6	Low Ch. 0 (5740MHz), EUT Upright
17222.700	47.8	11.8	1.1	67.0	3.0	0.0	Vert	PK	0.0	59.6	74.0	-14.4	Low Ch. 0 (5740MHz), EUT On Back
17342.010	47.5	11.8	1.2	118.0	3.0	0.0	Horz	PK	0.0	59.3	74.0	-14.7	Mid Ch. 1 (5780MHz), EUT Upright
17569.940	47.6	11.7	1.2	109.0	3.0	0.0	Horz	PK	0.0	59.3	74.0	-14.7	High Ch. 3 (5860MHz), EUT Upright
17342.470	47.4	11.8	1.2	285.0	3.0	0.0	Vert	PK	0.0	59.2	74.0	-14.8	Mid Ch. 1 (5780MHz), EUT Upright

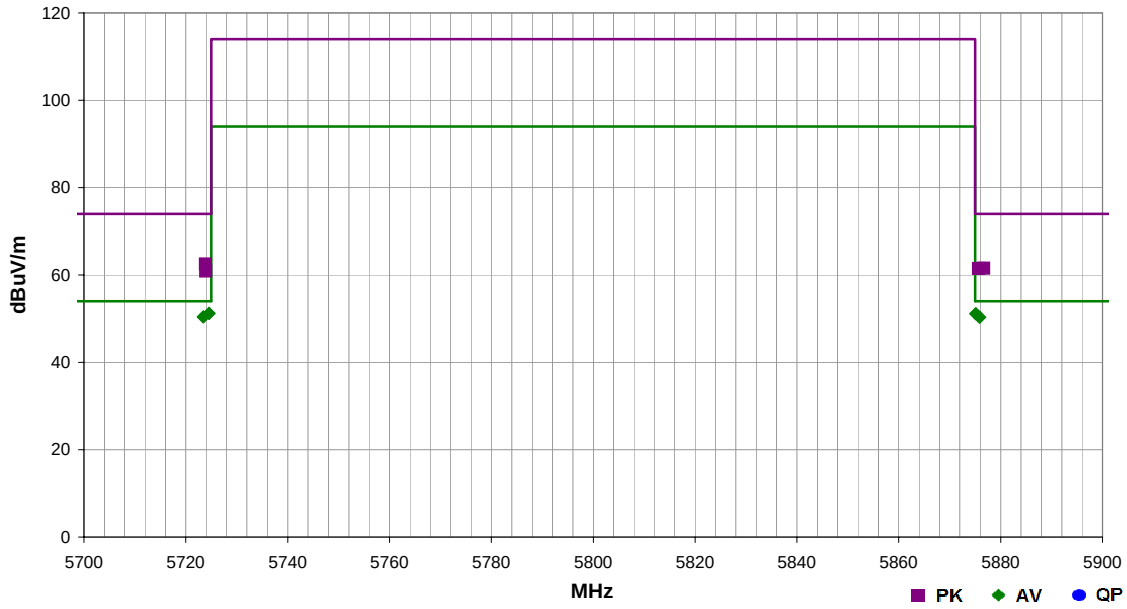
Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Antenna Height (meters)	Azimuth (degrees)	Test Distance (meters)	External Attenuation (dB)	Polarity/ Transducer Type	Detector	Distance Adjustment (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Compared to Spec. (dB)	Comments
17220.550	46.9	11.8	1.0	68.0	3.0	0.0	Horz	PK	0.0	58.7	74.0	-15.3	Low Ch. 0 (5740MHz), EUT On Side
17221.410	46.2	11.8	1.0	108.0	3.0	0.0	Horz	PK	0.0	58.0	74.0	-16.0	Low Ch. 0 (5740MHz), EUT On Back
11480.000	44.8	-6.8	1.2	216.0	3.0	0.0	Vert	AV	0.0	38.0	54.0	-16.0	Low Ch. 0 (5740MHz), EUT On Side
17568.580	45.8	11.7	1.2	195.0	3.0	0.0	Horz	PK	0.0	57.5	74.0	-16.5	High Ch. 3 (5860MHz), EUT Upright
17574.430	45.8	11.7	1.2	176.0	3.0	0.0	Vert	PK	0.0	57.5	74.0	-16.5	High Ch. 3 (5860MHz), EUT Upright
17220.380	44.5	11.8	1.0	245.0	3.0	0.0	Vert	PK	0.0	56.3	74.0	-17.7	Low Ch. 0 (5740MHz), EUT On Side
23443.240	61.4	-6.6	1.1	167.0	3.0	0.0	Horz	PK	0.0	54.8	74.0	-19.2	High Ch. 3 (5860MHz), EUT Upright
23112.920	60.8	-6.7	1.0	309.0	3.0	0.0	Horz	PK	0.0	54.1	74.0	-19.9	Mid Ch. 1 (5780MHz), EUT Upright
22963.080	60.6	-6.7	1.1	228.0	3.0	0.0	Horz	PK	0.0	53.9	74.0	-20.1	Low Ch. 0 (5740MHz), EUT Upright
11481.870	60.4	-6.8	1.2	12.0	3.0	0.0	Horz	PK	0.0	53.6	74.0	-20.4	Low Ch. 0 (5740MHz), EUT Upright
11476.100	60.2	-6.8	3.5	44.0	3.0	0.0	Vert	PK	0.0	53.4	74.0	-20.6	Low Ch. 0 (5740MHz), EUT Upright
11564.570	58.4	-6.5	1.1	75.0	3.0	0.0	Horz	PK	0.0	51.9	74.0	-22.1	Mid Ch. 1 (5780MHz), EUT Upright
23122.520	58.5	-6.7	1.2	0.0	3.0	0.0	Vert	PK	0.0	51.8	74.0	-22.2	Mid Ch. 1 (5780MHz), EUT Upright
11485.840	58.1	-6.8	1.2	177.0	3.0	0.0	Horz	PK	0.0	51.3	74.0	-22.7	Low Ch. 0 (5740MHz), EUT On Side
11638.470	56.2	-6.3	1.1	76.0	3.0	0.0	Horz	PK	0.0	49.9	74.0	-24.1	Mid Ch. 2 (5820MHz), EUT Upright
22962.690	55.9	-6.7	1.2	38.0	3.0	0.0	Vert	PK	0.0	49.2	74.0	-24.8	Low Ch. 0 (5740MHz), EUT Upright
11721.370	55.0	-6.2	1.2	76.0	3.0	0.0	Horz	PK	0.0	48.8	74.0	-25.2	High Ch. 3 (5860MHz), EUT Upright
11490.240	55.3	-6.7	1.1	38.0	3.0	0.0	Horz	PK	0.0	48.6	74.0	-25.4	Low Ch. 0 (5740MHz), EUT On Back
11481.500	55.1	-6.8	1.1	185.0	3.0	0.0	Vert	PK	0.0	48.3	74.0	-25.7	Low Ch. 0 (5740MHz), EUT On Back
23442.390	54.0	-6.6	1.0	104.0	3.0	0.0	Vert	PK	0.0	47.4	74.0	-26.6	High Ch. 3 (5860MHz), EUT Upright
11721.530	52.9	-6.2	1.1	89.0	3.0	0.0	Horz	PK	0.0	46.7	74.0	-27.3	High Ch. 3 (5860MHz), EUT Upright
11563.370	53.1	-6.5	1.3	222.0	3.0	0.0	Vert	PK	0.0	46.6	74.0	-27.4	Mid Ch. 1 (5780MHz), EUT Upright
11641.770	52.0	-6.3	1.3	227.0	3.0	0.0	Vert	PK	0.0	45.7	74.0	-28.3	Mid Ch. 2 (5820MHz), EUT Upright
11479.240	52.3	-6.8	1.2	216.0	3.0	0.0	Vert	PK	0.0	45.5	74.0	-28.5	Low Ch. 0 (5740MHz), EUT On Side

FIELD STRENGTH OF HARMONICS

Work Order:	AIRT0015	**Date:**	02/11/13		
Project:	None	**Temperature:**	22 °C		
Job Site:	EV01	**Humidity:**	34% RH		
Serial Number:	C-000GE	**Barometric Pres.:**	1029 mbar	**Tested by:**	Carl Engholm, Rod Peloquin
EUT:	A-305 / ATQ-305				
Configuration:	2				
Customer:	Airtraq LLC				
Attendees:	None				
EUT Power:	Internal Battery				
Operating Mode:	Continuous transmit, typical modulation				
Deviations:	None				
Comments:	See comments below for channel, frequency, and EUT orientation.				

Test Specifications	**Test Method**
FCC 15.249:2013	ANSI C63.10:2009

Run #	27	**Test Distance (m)**	1	**Antenna Height(s)**	1-4m	**Results**	Pass



Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Antenna Height (meters)	Azimuth (degrees)	Test Distance (meters)	External Attenuation (dB)	Polarity/ Transducer Type	Detector	Distance Adjustment (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Compared to Spec. (dB)	Comments
5724.537	23.1	37.6	1.0	325.0	1.0	0.0	Vert	AV	-9.5	51.2	54.0	-2.8	Low Ch. 0 (5740MHz), EUT Upright
5875.120	23.0	37.7	1.0	286.0	1.0	0.0	Vert	AV	-9.5	51.2	54.0	-2.9	High Ch. 3 (5860MHz), EUT Upright
5723.407	22.3	37.6	1.1	217.0	1.0	0.0	Horz	AV	-9.5	50.4	54.0	-3.6	Low Ch. 0 (5740MHz), EUT Upright
5875.887	22.2	37.7	1.1	301.0	1.0	0.0	Horz	AV	-9.5	50.4	54.0	-3.6	High Ch. 3 (5860MHz), EUT Upright
5723.870	34.4	37.6	1.0	325.0	1.0	0.0	Vert	PK	-9.5	62.5	74.0	-11.5	Low Ch. 0 (5740MHz), EUT Upright
5876.663	33.4	37.7	1.0	286.0	1.0	0.0	Vert	PK	-9.5	61.6	74.0	-12.4	High Ch. 3 (5860MHz), EUT Upright
5875.707	33.3	37.7	1.1	301.0	1.0	0.0	Horz	PK	-9.5	61.5	74.0	-12.5	High Ch. 3 (5860MHz), EUT Upright
5723.967	32.8	37.6	1.1	217.0	1.0	0.0	Horz	PK	-9.5	60.9	74.0	-13.1	Low Ch. 0 (5740MHz), EUT Upright