FCC Part 15.225
Transmitter Certification

13.56MHz RFID Reader/Writer

Test Report

FCC ID: UEJRFIDRW01

FCC Rule Part: 15.225

ACS Report Number: 06-0215-15C

Manufacturer: AIONEX
Model: RFID Reader/Writer

Test Begin Date: June 27, 2006
Test End Date: June 30, 2006

Report Issue Date: July 19, 2006

FOR THE SCOPE OF ACCREDITATION UNDER LAB Code 200612-0

This report is not be used to claim certification, approval, or endorsement by NVLAP, NIST or any government agency.

Prepared by: _____
J. Kirby Munroe
Manager Wireless Certifications
ACS, Inc.

Reviewed by: _____
R. Sam Wismer
Engineering Manager
ACS, Inc.

This report contains 20 pages

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1.0 GENERAL

1.1 Purpose

The purpose of this report is to demonstrate compliance with Part 15, Subpart C of the FCC's Code of Federal Regulations.

1.2 Product Description

1.2.1 General

The AIONEX RFID Reader/Writer is a multi-protocol desktop, wall mount, or handheld radio frequency identification (RFID) data collection device. The Reader is designed to communicate with most industry standard 13.56 MHz RFID tags and smart labels. The Reader has an internal antenna with a typical read/write range of several inches.

The Reader has an attached interface cable with a PS2 jumper cable for power. An asynchronous RS232 interface provides for host communication to a PC or terminal.

The Reader is ideal for use in a variety of medical, industrial, commercial, and field service environments.

Manufacturer Information:
AIONEX
104 Space Park North
Goodlettsville, TN 37072

Detailed photographs of the EUT are filed separately with this filing.

1.2.2 Intended Use

The Reader is ideal for use in a variety of medical, industrial, commercial, and field service environments.

1.3 Test Methodology and Considerations

The EUT was tested as marketed or sold with no modifications except for the purpose of showing compliance AC power line conducted emissions. For AC power line conducted emissions the EUT was only modified for in band testing. For in band testing, 13.110 – 14.010 MHz, the EUT antenna was removed and replaced with a non-radiating 50 Ohm termination.

2.0 TEST FACILITIES

2.1 Location

The radiated and conducted emissions test sites are located at the following address:

Advanced Compliance Solutions
5015 B.U. Bowman Drive
Buford, GA 30518
Phone: (770) 831-8048
Fax: (770) 831-8598

2.2 Laboratory Accreditations/Recognitions/Certifications

The Semi-Anechoic Chamber Test Site, Open Area Test Site (OATS) and Conducted Emissions Site have been fully described, submitted to, and accepted by the FCC, Industry Canada and the Japanese Voluntary Control Council for Interference by information technology equipment. In addition, ACS is compliant to ISO 17025 as certified by the National Institute of Standards and Technology under their National Voluntary Laboratory Accreditation Program. The following certification numbers have been issued in recognition of these accreditations and certifications:

FCC Registration Number: 89450
Industry Canada Lab Code: IC 4175
VCCI Member Number: 1831

- VCCI OATS Registration Number R-1526
- VCCI Conducted Emissions Site Registration Number: C-1608

NVLAP Lab Code: 200612-0

2.3 Radiated Emissions Test Site Description

2.3.1 Semi-Anechoic Chamber Test Site

The Semi-Anechoic Chamber Test Site consists of a 20' x 30' x 18' shielded enclosure. The chamber is lined with Toyo Ferrite Grid Absorber, model number FFG-1000. The ferrite tile grid is 101 x 101 x 19mm thick and weighs approximately 550 grams. These tiles are mounted on steel panels and installed directly on the inner walls of the chamber.

The turntable is 150cm in diameter and is located 160cm from the back wall of the chamber. The chamber is grounded via 1 - 8' copper ground rod, installed at the center of the back wall, it is bound to the ground plane using 3/4" stainless steel braided cable.

The turntable is all steel, flush mounted table installed in an all steel frame. The table is remotely operated from inside the control room located 25' from the range. The turntable is electrically bonded to the surrounding ground plane via steel fingers installed on the edge of the turn table. The steel fingers make constant contact with the ground plane during operation.

Behind the turntable is a 3' x 6' x 4' deep shielded pit used for support equipment if necessary. The pit is equipped with 1 - 4" PVC chases from the turntable to the pit that allow for cabling to the EUT if necessary. The underside of the turntable can be accessed from the pit so cables can be supplied to the EUT from the pit.

A diagram of the Semi-Anechoic Chamber Test Site is shown in Figure 2.3-1 below:

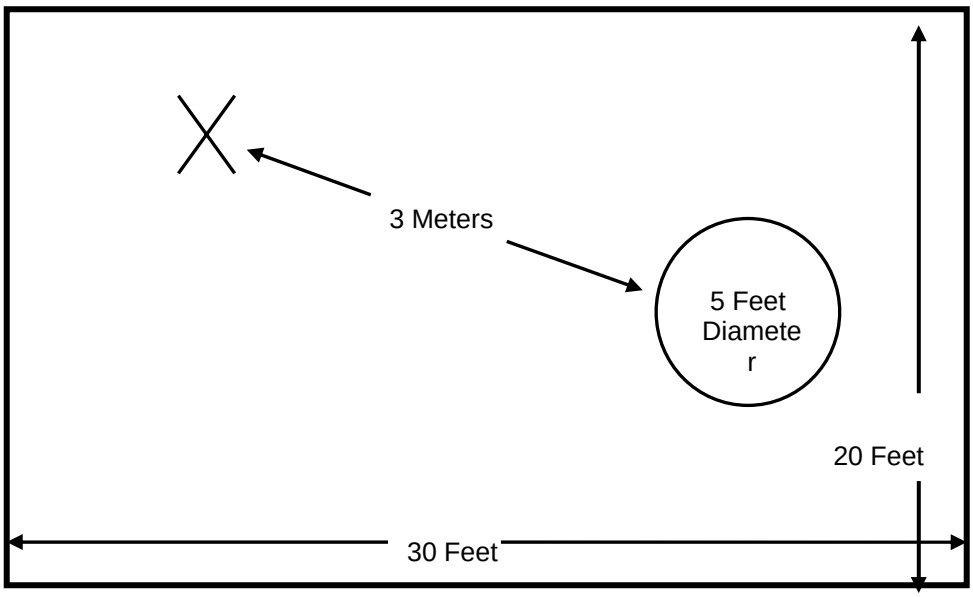


Figure 2.3-1: Semi-Anechoic Chamber Test Site

2.3.2 Open Area Tests Site (OATS)

The open area test site consists of a 40' x 66' concrete pad covered with a perforated electro-plated galvanized sheet metal. The perforations in the sheet metal are 1/8" holes that are staggered every 3/16". The individual sheets are placed to overlap each other by 1/4" and are riveted together to provide a continuous seam. Rivets are spaced every 3" in a 3 x 20 meter perimeter around the antenna mast and EUT area. Rivets in the remaining area are spaced as necessary to properly secure the ground plane and maintain the electrical continuity.

The entire ground plane extends 12' beyond the turntable edge and 16' beyond the antenna mast when set to a 10 meter measurement distance. The ground plane is grounded via 4 - 8' copper ground rods, each installed at a corner of the ground plane and bound to the ground plane using 3/4" stainless steel braided cable.

The turntable is an all aluminum 10' flush mounted table installed in an all aluminum frame. The table is remotely operated from inside the control room located 40' from the range. The turntable is electrically bonded to the surrounding ground plane via steel fingers installed on the edge of the turn table. The steel fingers make constant contact with the ground plane during operation.

Adjacent to the turntable is a 7' x 7' square and 4' deep concrete pit used for support equipment if necessary. The pit is equipped with 5 - 4" PVC chases from the pit to the control room that allow for cabling to the EUT if necessary. The underside of the turntable can be accessed from the pit so cables can be supplied to the EUT from the pit. The pit is covered with 2 sheets of 1/4" diamond style re-enforced steel sheets. The sheets are painted to match the perforated steel ground plane; however the underside edges have been masked off to maintain the electrical continuity of the ground plane. All reflecting objects are located outside of the ellipse defined in ANSI C63.4.

A diagram of the Open Area Test Site is shown in Figure 2.3-2 below:

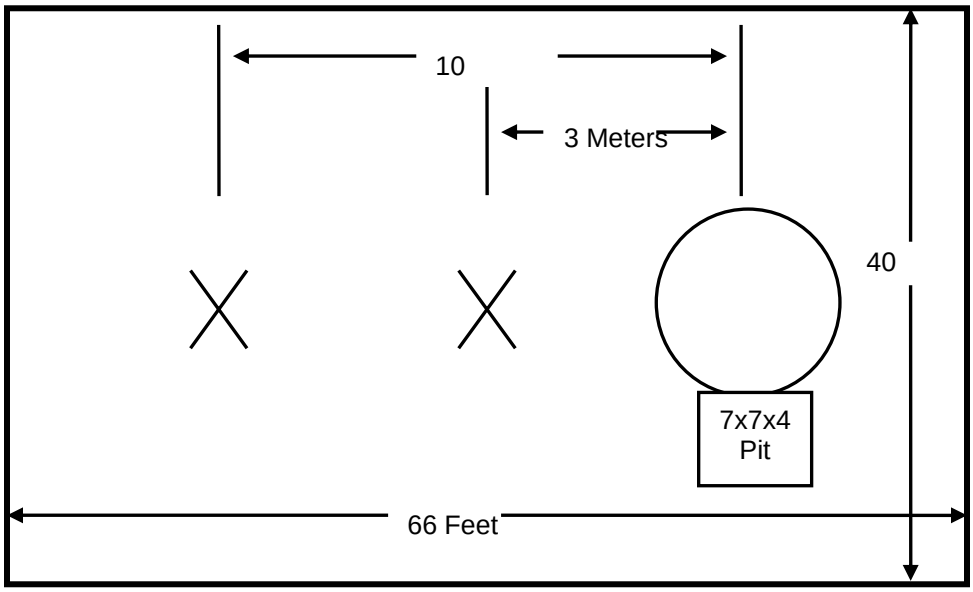


Figure 2.3-2: Open Area Test Site

2.4 Conducted Emissions Test Site Description

The AC mains conducted EMI site is located in the main EMC lab. It consists of an 8' x 8' solid aluminum horizontal group reference plane (GRP) bonded every 3" to an 8' X 8' vertical ground plane.

The site is of sufficient size to test table top and floor standing equipment in accordance with section 6.1.4 of ANSI C63.4.

A diagram of the room is shown below in figure 4.1.3-1:

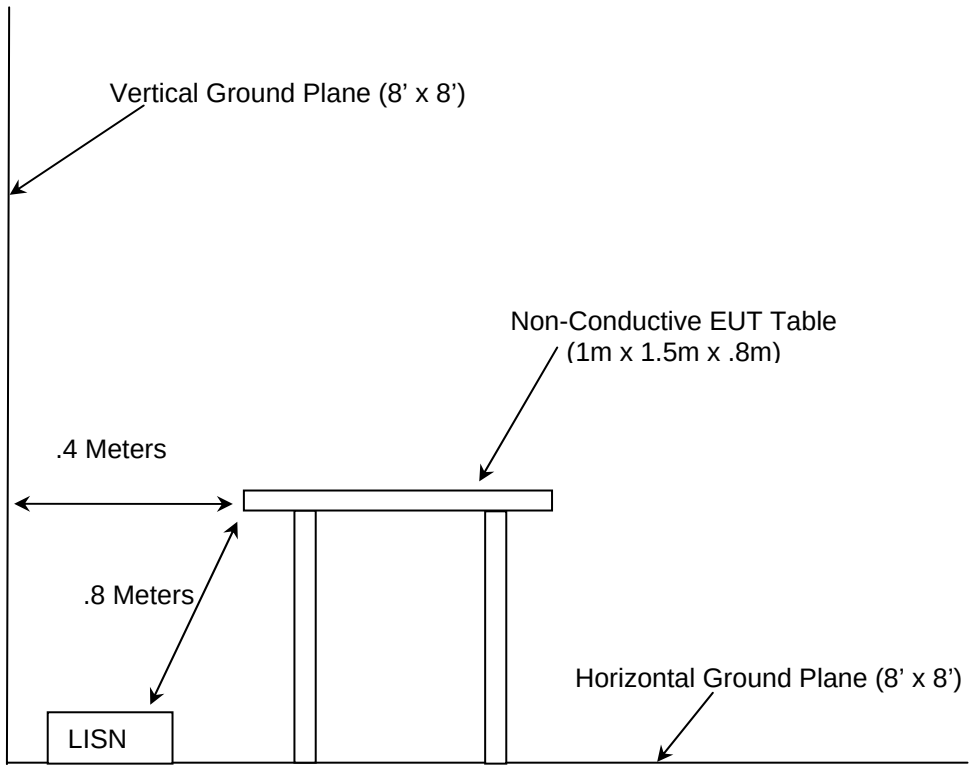


Figure 2.4-1: AC Mains Conducted EMI Site

3.0 APPLICABLE STANDARD REFERENCES

The following standards were used:

- ANSI C63.4-2003: Method of Measurements of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the 9KHz to 40GHz
- US Code of Federal Regulations (CFR): Title 47, Part 2, Subpart J: Equipment Authorization Procedures, 2005
- US Code of Federal Regulations (CFR): Title 47, Part 15, Subpart C: Radio Frequency Devices, Intentional Radiators, 2005

4.0 LIST OF TEST EQUIPMENT

All test equipment used for regulatory testing is calibrated yearly or according to manufacturer's specifications.

Table 4.0-1: Test Equipment

Equipment Calibration Information					
ACS#	**Mfg.**	**Eq. type**	**Model**	**S/N**	**Cal. Due**
☒ 25	Chase	Bi-Log Antenna	CBL6111	1043	5/30/07
☒ 041	ElectroMetrics	Bi-Con Antenna	BIA-25	2925	5/25/07
☒ 78	EMCO	Loop Antenna	6502	9104-2608	1/13/07
☒ 152	EMCO	LISN	3825/2	9111-1905	2/8/07
☒ 153	EMCO	LISN	3825/2	9411-2268	12/5/06
☒ 225	Andrew	OATS RF cable	Heliax	225	1/07/07
☒ 165	ACS	Conducted EMI Cable Set	RG8	165	3/07/07
☒ 73	Agilent	Pre-Amplifier	8447D	272A05624	5/18/07
☒ 1	Rohde & Schwarz	Receiver Display	804.8932.52	833771/007	3/01/07
☒ 2	Rohde & Schwarz	ESMI Receiver	1032.5640.53	839587/003	3/01/07
☒ 3	Rohde & Schwarz	Receiver Display	804.8932.52	839379/011	11/02/06
☒ 4	Rohde & Schwarz	ESMI Receiver	1032.5640.53	833827/003	11/02/06
☒ 213	Test Equipment Corp.	Pre-Amplifier	PA-102	44927	12/5/06
☒ 211	Eagle	Band Reject Filter	C7RFM3NFNM	n/a	1/07/07
☒ 168	Hewlett Packard	Pulse Limiter	11947A	3107A02268	3/7/07
☒ 167	ACS	Chamber EMI Cable Set	RG6	167	1/7/07
☒ 16	ACS	Conducted Emission Cable	Cable	16	5/10/07

5.0 SUPPORT EQUIPMENT

Table 5-3: Support Equipment

ID	Manufacturer	Equipment Type	Model Number	Serial Number	FCC ID
1	Dell	PC	DHM	GSKWJ11	NA
2	Dell	Keyboard	SK-8110	CN-07N242-38840-245-0T62	NA
3	Dell	Mouse	H3003	K0503004108	NA
4	Dell	Monitor	M782	08G167	NA

6.0 EQUIPMENT UNDER TEST SETUP BLOCK DIAGRAM

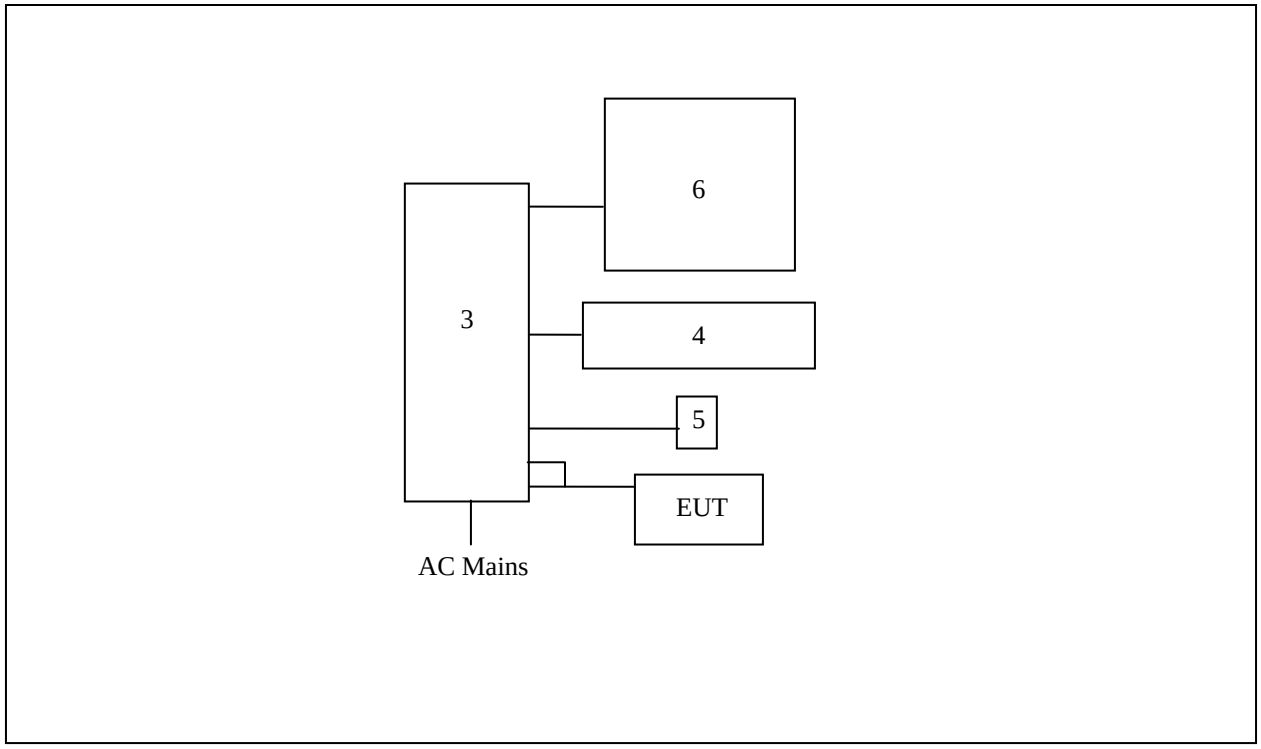


Figure 6-1: EUT Test Setup

The EUT was connected to the host computer through the serial and PS2 ports.

*See Test Setup photographs for additional detail.

7.0 SUMMARY OF TESTS

Along with the tabular data shown below, plots were taken of all signals deemed important enough to document.

7.1 Antenna Requirement - FCC Section 15.203

The EUT utilizes an integrated PCB loop antenna which can not be removed or altered without damaging the device.

7.2 Power Line Conducted Emissions - FCC Section 15.207

7.2.1 Test Methodology

ANSI C63.4 sections 6 and 7 were the guiding documents for this evaluation. Conducted emissions were performed from 150kHz to 30MHz with the spectrum analyzer's resolution bandwidth set to 9kHz and the video bandwidth set to 30kHz. The calculation for the conducted emissions is as follows:

Corrected Reading = Analyzer Reading + LISN Loss + Cable Loss
Margin = Applicable Limit - Corrected Reading

Testing was completed with the EUT transmitting and the antenna attached for the range of 150kHz to 30MHz. Testing was then repeated with the EUT replaced by a non-radiating 50 Ohm termination for the purpose of showing compliance in the band 13.110 – 14.010MHz.

7.2.2 Test Results

Results of the test are shown below in Tables 7.2-1 through 7.2-4 and Figure 7.2-1 through 7.2-2 for measurements with the integrated antenna attached for out of band emissions. Results of the test are shown below in Tables 7.2-5 through 7.2-8 and Figure 7.2-3 through 7.2-4 for measurements with the integrated antenna removed and replaced with a 50Ohm termination for in band emissions.

7.2.2.1 Out of Band Emissions

Table 7.2-1: Line 1 Conducted EMI Results (Quasi-Peak)

Frequency MHz	Level dBµV	Transducer dB	Limit dBµV	Margin dB	Line	PE
0.180	41.9	9.6	64.4	22.5	L1	GND
2.538	32.1	9.7	56	23.8	L1	GND
3.324	31.9	9.7	56	24.0	L1	GND
3.804	31.6	9.7	56	24.3	L1	GND
4.170	32.0	9.7	56	23.9	L1	GND
4.410	32.9	9.7	56	23.1	L1	GND
4.956	32.2	9.7	56	23.7	L1	GND
13.560	55.4	9.5	60	4.5*	L1	GND
27.120	42.6	8.9	60	17.3	L1	GND

* In band 13.56MHz carrier. Not applicable to the test results.

Table 7.2-2: Line 1 Conducted EMI Results (Average)

Frequency MHz	Level dBµV	Transducer dB	Limit dBµV	Margin dB	Line	PE
0.180	39.5	9.6	54.4	14.8	L1	GND
2.538	30.2	9.7	46	15.7	L1	GND
3.324	30.9	9.7	46	15.1	L1	GND
3.804	29.4	9.7	46	16.5	L1	GND
4.170	31.3	9.7	46	14.6	L1	GND
4.470	30.9	9.7	46	15.0	L1	GND
4.956	30.9	9.7	46	15.1	L1	GND
13.560	55.0	9.5	50	-5.0*	L1	GND
27.120	42.2	8.9	50	7.7	L1	GND

* In band 13.56MHz carrier. Not applicable to the test results.

Table 7.2-3: Line 2 Conducted EMI Results (Quasi-Peak)

Frequency MHz	Level dBµV	Transducer dB	Limit dBµV	Margin dB	Line	PE
0.180	45.5	9.6	64.4	18.9	L2	GND
0.906	30.7	9.7	56	25.2	L2	GND
1.146	29.9	9.7	56	26.0	L2	GND
1.812	29.4	9.7	56	26.5	L2	GND
2.478	31.0	9.7	56	24.9	L2	GND
2.538	31.4	9.7	56	24.5	L2	GND
3.264	31.5	9.7	56	24.4	L2	GND
4.470	32.4	9.7	56	23.5	L2	GND
13.560	55.5	9.5	60	4.4*	L2	GND
27.120	42.7	8.9	60	17.2	L2	GND

*In band 13.56MHz carrier. Not applicable to the test results.

Table 7.2-4: Line 2 Conducted EMI Results (Average)

Frequency MHz	Level dBµV	Transducer dB	Limit dBµV	Margin dB	Line	PE
0.180	44.5	9.6	54.4	9.9	L2	GND
0.906	30.1	9.7	46	15.8	L2	GND
1.146	28.0	9.7	46	17.9	L2	GND
1.812	27.4	9.7	46	18.5	L2	GND
2.478	29.4	9.7	46	16.5	L2	GND
2.538	29.5	9.7	46	16.4	L2	GND
3.264	30.3	9.7	46	15.6	L2	GND
4.470	31.5	9.7	46	14.4	L2	GND
13.560	55.1	9.5	50	-5.1*	L2	GND
27.120	42.1	8.9	50	7.8	L2	GND

* In band 13.56MHz carrier. Not applicable to the test results.

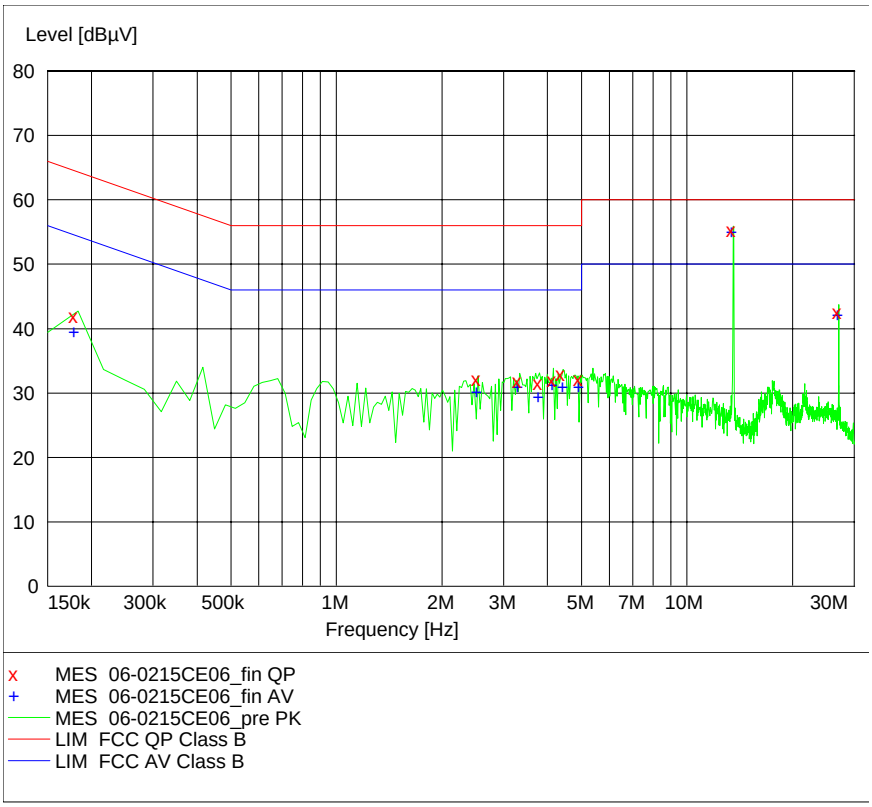


Figure 7.2-1: Conducted Emissions Graph – Line 1

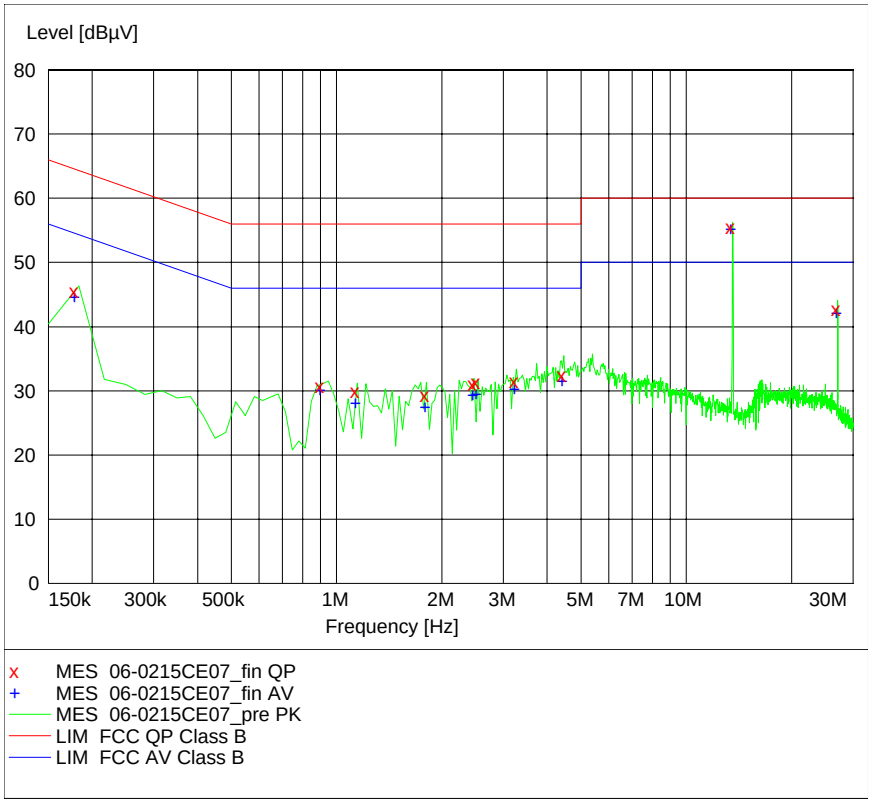


Figure 7.2-2: Conducted Emissions Graph – Line 2

7.2.2.2 In-Band Emissions

Table 7.2-5: Line 1 Conducted EMI Results (Quasi-Peak)

Frequency MHz	Level dBµV	Transducer dB	Limit dBµV	Margin dB	Line	PE
0.180	42.1	9.6	64.4	22.3	L1	GND
0.420	29.4	9.7	57.4	27.9	L1	GND
0.660	29.2	9.7	56	26.7	L1	GND
0.906	31.1	9.7	56	24.8	L1	GND
1.146	30.9	9.7	56	25.0	L1	GND
1.812	28.9	9.7	56	27.0	L1	GND
2.352	31.2	9.7	56	24.7	L1	GND
2.532	31.4	9.7	56	24.5	L1	GND
3.738	31.8	9.7	56	24.1	L1	GND
27.120	35.7	8.9	60	24.2	L1	GND

Table 7.2-6: Line 1 Conducted EMI Results (Average)

Frequency MHz	Level dBµV	Transducer dB	Limit dBµV	Margin dB	Line	PE
0.180	39.3	9.6	54.4	15.0	L1	GND
0.420	28.6	9.7	47.4	18.7	L1	GND
0.606	29.0	9.7	46	16.9	L1	GND
0.906	30.1	9.7	46	15.8	L1	GND
1.146	29.1	9.7	46	16.9	L1	GND
1.812	27.0	9.7	46	18.9	L1	GND
2.292	29.5	9.7	46	16.4	L1	GND
2.532	29.2	9.7	46	16.7	L1	GND
3.738	29.7	9.7	46	16.2	L1	GND
27.120	34.9	8.9	50	15.0	L1	GND

Table 7.2-7: Line 2 Conducted EMI Results (Quasi-Peak)

Frequency MHz	Level dBµV	Transducer dB	Limit dBµV	Margin dB	Line	PE
0.180	45.6	9.6	64.4	18.8	L2	GND
1.752	30.4	9.7	56	25.5	L2	GND
2.532	29.8	9.7	56	26.1	L2	GND
3.078	31.6	9.7	56	24.3	L2	GND
3.318	31.5	9.7	56	24.4	L2	GND
3.618	30.3	9.7	56	25.6	L2	GND
4.044	32.8	9.7	56	23.1	L2	GND
4.164	32.2	9.7	56	23.7	L2	GND
4.890	33.4	9.7	56	22.5	L2	GND
27.120	35.6	8.9	60	24.3	L2	GND

Table 7.2-8: Line 2 Conducted EMI Results (Average)

Frequency MHz	Level dBµV	Transducer dB	Limit dBµV	Margin dB	Line	PE
0.180	44.4	9.6	54.4	9.9	L2	GND
1.752	29.0	9.7	46	16.9	L2	GND
2.538	28.4	9.7	46	17.5	L2	GND
3.078	30.6	9.7	46	15.3	L2	GND
3.318	29.9	9.7	46	16.0	L2	GND
3.624	30.2	9.7	46	15.7	L2	GND
4.044	31.6	9.7	46	14.3	L2	GND
4.164	31.5	9.7	46	14.4	L2	GND
4.890	31.5	9.7	46	14.4	L2	GND
27.120	34.7	8.9	50	15.2	L2	GND

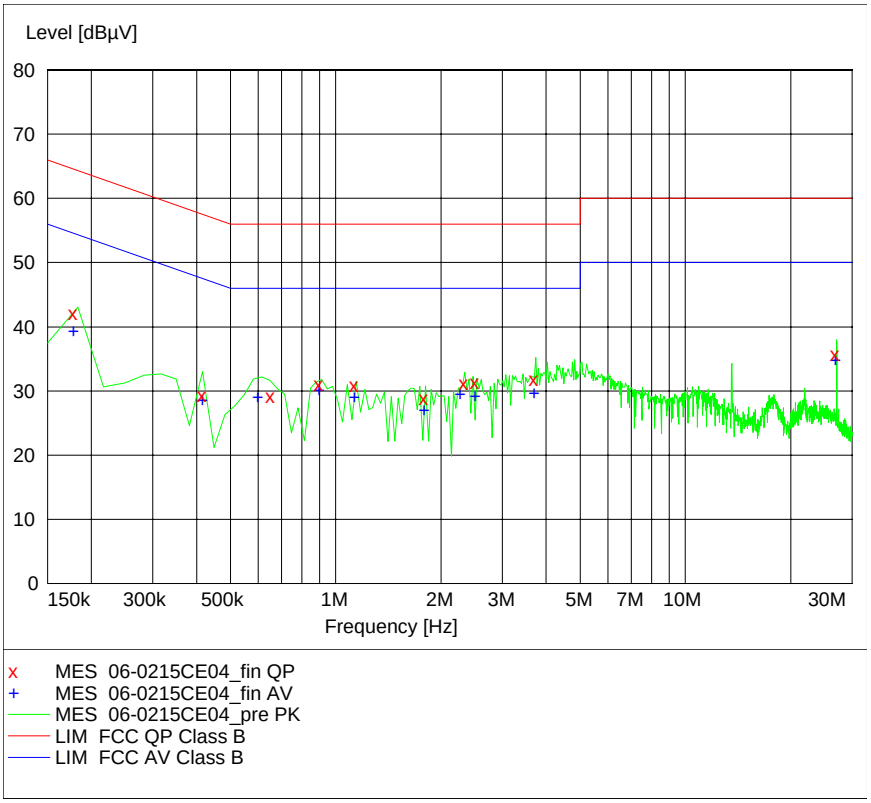


Figure 7.2-3: Conducted Emissions Graph – Line 1

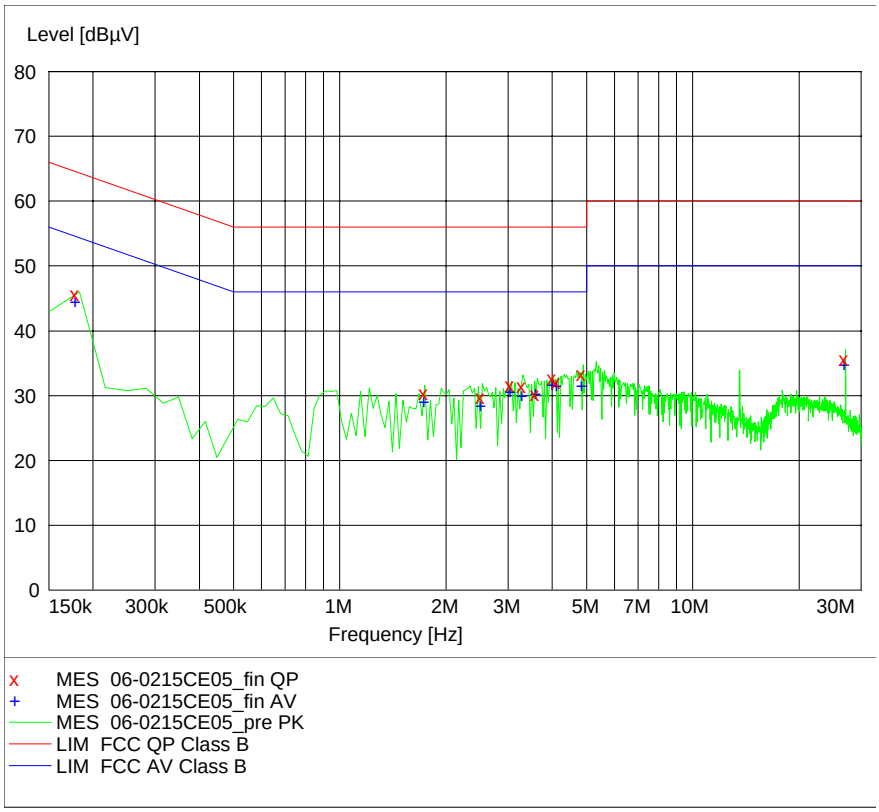


Figure 7.2-4: Conducted Emissions Graph – Line 2

7.3 Radiated Emissions - FCC Section 15.109(Unintentional Radiation)

7.3.1 Test Methodology

Radiated emissions tests were performed over the frequency range of 30MHz to 1 GHz. Measurements of the radiated field strength were made at a distance of 3m from the boundary of the equipment under test (EUT) and the receiving antenna. The antenna height was varied from 1m to 4m so that the maximum radiated emissions level would be detected. Radiated measurements were made with the Spectrum Analyzer's resolution bandwidth set to 120 KHz for measurements above 30MHz. Average measurements are taken with the RBW and VBW were set to 1MHz and 10 Hz respectively for measurements above 1000MHz.

7.3.2 Test Results

Results of the test are given in Table 7.3-1 below:

Table 7.3-1: Radiated Emissions Tabulated Data

Frequency (MHz)	Uncorrected Reading (dBµV/m)	Antenna Polarity (H/V)	Total Correction Factor (dB)	Corrected Reading (dBµV/m)	Limit (dBµV/m)	Margin (dB)
40.06	38.41	V	-13.36	25.05	39	14.0
132.48	37.2	H	-11.51	25.69	43.5	17.8
186.3	19.4	H	-5.52	13.88	43.5	29.6
266.17	43.43	H	-9.62	33.81	46.5	12.7
298.34	34.6	H	-8.20	26.40	46.5	20.1
400.77	33.5	H	-6.27	27.23	46.5	19.3
441	27.2	V	-4.59	22.61	46.5	23.9
481.72	27.69	H	-3.56	24.13	46.5	22.4
531.5	41.5	H	-3.14	38.36	46.5	8.1

* Note: All emissions above 531.5 MHz were attenuated below the permissible limit.

7.4 Radiated Spurious Emissions (Restricted Bands) - FCC Section 15.225(a) – 15.225(d) & 15.209

7.4.1 Test Methodology

In-band radiated emission testing was performed over the frequency range 13.110 – 14.010MHz according to 15.225(a) – 15.225(c).

Out of band radiated emissions tests according to 15.225(d) and 15.209 were made over the frequency range of up to 10 times the highest fundamental frequency.

Initially emission testing was performed on the Open Area Test Site (OATS) at 10 meters using a magnetic loop antenna for frequency below 30MHz and a broadband antenna for frequencies above 30MHz. At 10 meters the emissions from the EUT were undetectable above the ambient field strength therefore the magnetic loop receive antenna was moved to a distance of 3 meters from the EUT. Where the ambient levels significantly masked the EUT emissions, measurements were performed in the Semi-anechoic chamber at a distance of 3 meters. To maximize emission levels, the EUT was rotated 360º and the loop antenna rotated about the vertical axis for measurements below 30MHz the broadband antenna raised from 1-4 meters for frequencies above 30MHz. The magnetic loop receiving antenna was fixed with its center 1 meter above the ground.

For measurements below 30MHz the spectrum analyzer's resolution bandwidth was set to 9 kHz and video bandwidth 30 kHz. For measurements above 30MHz the spectrum analyzer's resolution bandwidth was set to 120 kHz and video bandwidth 300 kHz. All emissions were measured using a Quasi-peak detector. The final measurements were then corrected by a distance correction factor, antenna correction factors, and cable loss for comparison to the limits.

7.4.2 Distance Correction – Part 15.31

Some radiated measurements were performed at a distance closer than the distance required according to Part 15.209. Therefore a correction factor was applied to account for propagation loss at the specified distance. The propagation loss was calculated by extrapolating the measurement results to the specified distance using a 40dB per decade distance correction as indicated in 15.31. The distance correction factor was determined as follows:

Distance correction factor = 40*Log (Test Distance/30)
= 40*Log (3/30)
= - 40dB

7.4.3 Test Results – In-Band

In-Band radiated emissions are reported in Figure 7.4-1. Spectrum analyzer levels were corrected for system transducer factors.

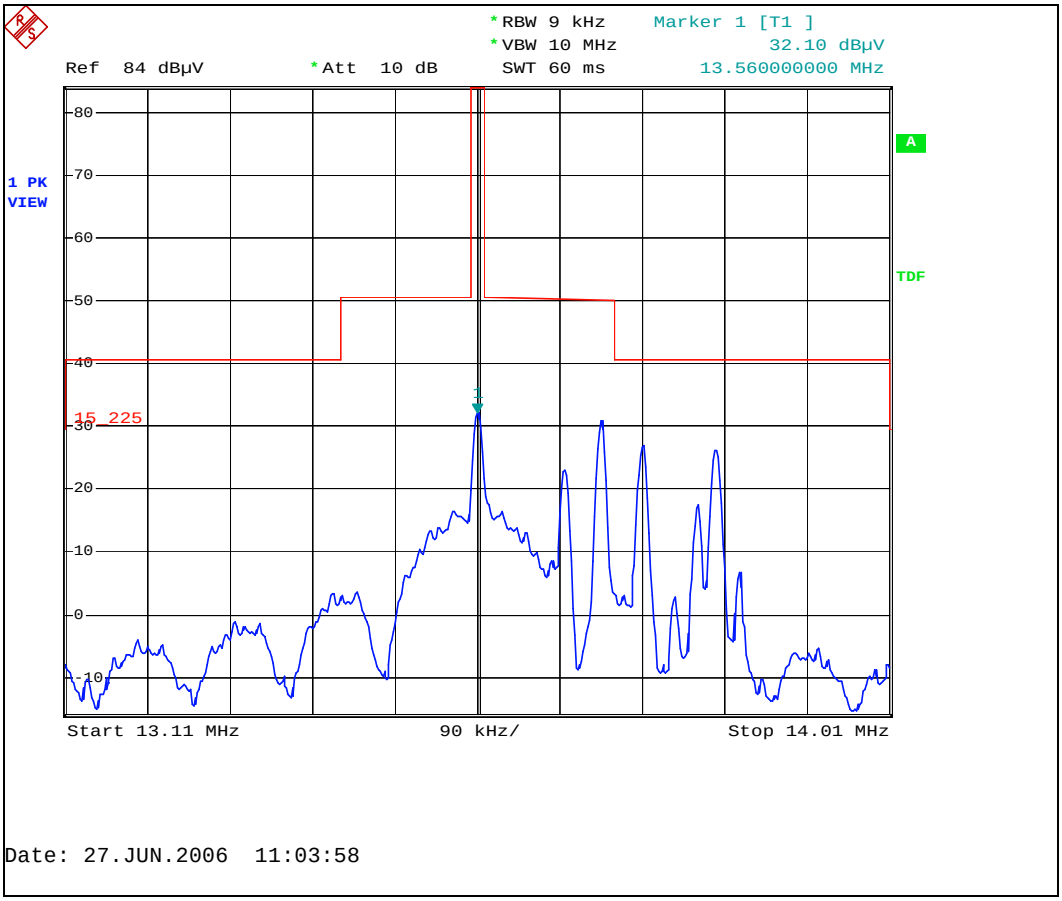


Figure 7.4-1: Radiated Spurious Emissions – In Band - 13.110 – 14.010MHz

7.4.4 Test Results – Out-of-Band

Radiated spurious emissions are reported in Table 7.4-1. Each emission found was compared to the radiated emission limits as defined in section 15.209

Table 7.4-1: Radiated Spurious Emissions – Out-of-Band

Frequency (MHz)	Level (dBuV)	Antenna Polarity (H/V)	Antenna Height (cm)	Turntable Position (o)	Correction Factors (dB)	Corrected Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
27.12	23.43		100	29.1	8.78	32.21	69.5	37.29
40.68	47.19	H	300	159	-13.01	34.18	40.0	5.82
40.68	53.32	V	100	79	-13.75	39.57	40.0	0.43
54.24	34.76	H	300	145	-12.11	22.65	40.0	17.35
54.24	40.30	V	100	327	-12.11	28.19	40.0	11.81
67.8	36.80	V	100	54	-15.67	21.13	40.0	18.87
94.92	42.86	H	197	85	-15.61	27.25	43.5	16.25
94.92	37.61	V	100	57	-14.52	23.09	43.5	20.41
122.04	35.87	H	100	167	-9.62	26.25	43.5	17.25
122.04	33.59	V	100	326	-8.70	24.89	43.5	18.61
135.6	35.34	V	100	282	-11.06	24.28	43.5	19.22

7.4.5 Sample Calculation:

$R_C = R_U + CF_T$

Where:

CF_T	=	Total Correction Factor (AF+CA+AG)
R_U	=	Uncorrected Reading
R_C	=	Corrected Level
AF	=	Antenna Factor
CA	=	Cable Attenuation
AG	=	Amplifier Gain

Example Calculation

Corrected Level: 23.43+ 8.78= 32.21dBuV
Margin: 69.5dBuV – 32.21dBuV = 37.29dB

7.5 Frequency Tolerance - Section 15.225(e)

7.5.1 Test Methodology

The frequency tolerance of the carrier signal shall be maintained within ±0.01% of the operating frequency over a temperature variation of -20 degrees to +50 degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20 degrees C.

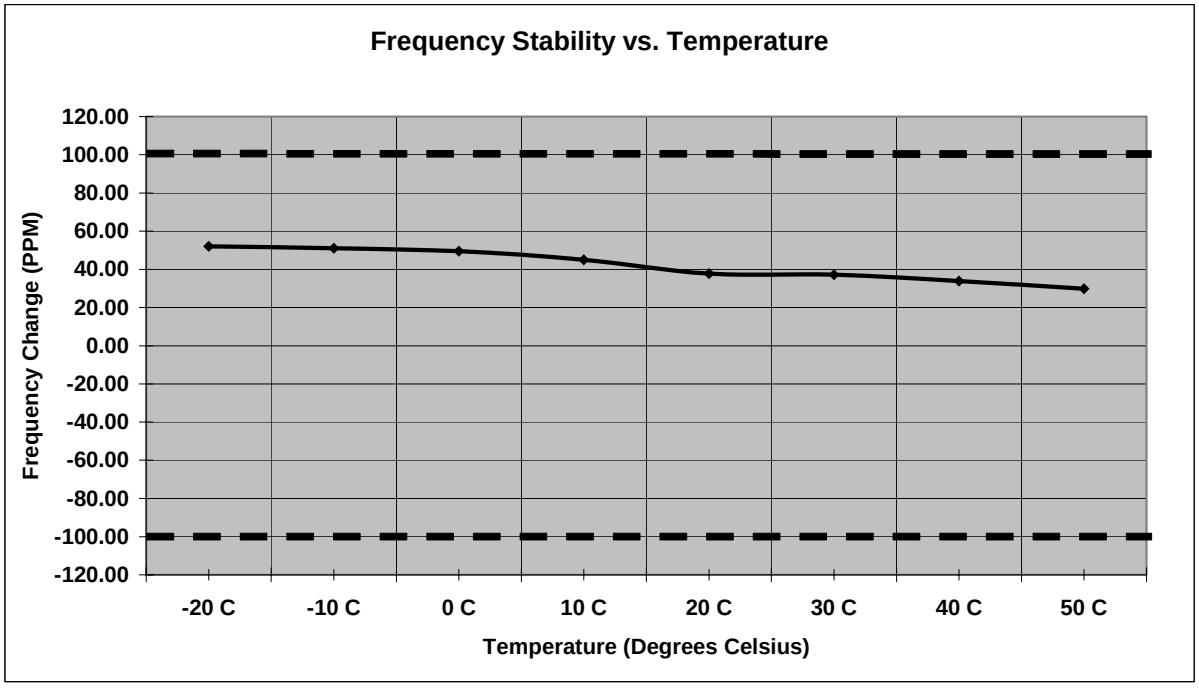
Measurements were made with the EUT inside the temperature chamber using a near field probe. The frequency counter function of the spectrum analyzer was utilized.

7.5.2 Test Results

Frequency Stability

Frequency (MHz): 13.56
Deviation Limit (PPM): 100ppm (0.01%)

Temperature	Frequency	Frequency Error	Voltage	Voltage
C	MHz	(PPM)	(%)	(VAC)
-20 C	**13.560706**	**52.065**	100%	120.00
-10 C	**13.560692**	**51.032**	100%	120.00
0 C	**13.560671**	**49.484**	100%	120.00
10 C	**13.560610**	**44.985**	100%	120.00
20 C	**13.560512**	**37.758**	100%	120.00
30 C	**13.560504**	**37.168**	100%	120.00
40 C	**13.560460**	**33.923**	100%	120.00
50 C	**13.560405**	**29.867**	100%	120.00
20 C	**13.560511**	**37.684**	85%	102.00
20 C	**13.560509**	**37.537**	115%	138.00



8.0 CONCLUSION

In the opinion of ACS, Inc. the RFID Reader/Writer, manufactured by Aionex meets the requirements of FCC Part 15 subpart C.

END REPORT