REPORT

For

Guard RFID Solutions

#140 – 766 Cliveden Place
Delta, British Columbia
V3M 6C7, Canada

Date:	17 August 2016
Report No.:	13591-1E
Revision No.:	0
Project No.:	13591
Equipment:	Mother Tag
Model No.:	MT-125E
FCC ID:	VZKMT

ONE STOP GLOBAL CERTIFICATION SOLUTIONS

3133-20800 Westminster Hwy, Richmond, BC
V6V 2W3, Canada
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TEST REPORT		
FCC15 and RSS-210, issue 8		
Report reference No..... :	13591-1E	
Report Revision History:	✓ Rev. 0: 17 August, 2016	
Tested by (printed name and signature) ..... :	Jeremy Lee	
Approved by (printed name and signature) ..... :	Kavinder Dhillon, Eng.L.	
Date of issue ..... :	17 August 2016	
Note: By signing this report, both the Testing Technician and the Reviewer hereby declare to abide by the applicable LabTest policies: 1.) Statement of Independence # 3014 (LabTest Employees), 2.) Independence, Impartiality, and Integrity #1039, clause 11 (Engineering Service Subcontractors), or 3.) Independence, Impartiality, and Integrity #1019, clause 3.5 (Testing Subcontractors).		
Testing Laboratory Name ..... :	LabTest Certification Inc.	
Address ..... :	3128 – 20800 Westminster Hwy, Richmond, B.C. V6V 2W3	
FCC Site Registration No. ..... :	721268	
IC Site Registration No. ..... :	5970A-2	
Test Site Location Name ..... :	LabTest Certification Inc.	
Address ..... :	3128 – 20800 Westminster Hwy, Richmond, B.C. V6V 2W3	
Applicant's Name ..... :	Guard RFID Solutions	
Address ..... :	#140 – 766 Cliveden Place, Delta, BC, V3M 6C7, Canada	
Manufacturer's Name ..... :	Same as Applicant	
Address ..... :	Same as Applicant	
Test specification		
Standards ..... :	➢ FCC15.207 & 209:2016/ RSS-210, Issue 8, December	
Testing		
Date of receipt of test item ..... :	21 July 2016	
Date(s) of performance of test ..... :	22 to 29 July 2016	
Test item description ..... :		
Trademark ..... :	Guard RFID	
Model and/or type reference ..... :	MT-125E	
FCC ID / IC ID ..... :	VZKMT / 9937A-MT	
Serial numbers ..... :	N/P	
Electrical Rating(s) ..... :	3.0V Lithium Battery	

Product descriptions

Output Frequency ..... :	125kHz
Number of Channels ..... :	1
Application for..... :	RFID Tag solution
Type of Antenna ..... :	Integral(Loop coil antenna)
Modulation..... :	PSK
Operating Range..... :	12” (30.5 cm) nominal
Battery Life ..... :	12 months
Equipment mobility ..... :	Yes
Operating ..... :	0 to + 40 °C
Mass of equipment ..... :	20gram
Dimension(Width X Depth X Height)	45.2 mm X 4.0 mm X 11.9 mm
Test case verdicts	
Test case does not apply to the test object :	N/A
Test item does meet the requirement ..... :	Pass
Test item does not meet the requirement .. :	Fail

General product information:

The EUT, MT-125E Mother Tag enables association between different objects. Some of the examples of possible associations are:

- A person with another person (e.g. mother - baby, patient - caregiver)
- A person with an asset (e.g. patient - medical equipment, asset - asset owner, tool - worker)
- An asset with another asset (e.g. equipment module – mainframe, parts detection on assembly line)

The tag creates a low level 125 KHz low frequency (LF) field that has a nominal range of 12 inches. Each Mother Tag LF field has a unique ID.

Any of GuardRFID’s active Tags can be associated with a Mother Tag within GuardRFID’s system. In the event an active Tag is detected within a range of Mother Tag, the system will raise notifications by means of a warning or alarm, depending on the configuration of the system (good match when a Tag and Mother Tag are associated or bad match when there is no association between them). The system allows multiple active Tags to be associated with a single Mother Tag and multiple Mother Tags to be associated with a single active Tag.

Frequencies

Module	Signal	Frequencies (kHz)
Y1, Crystal	Clock	32.768

List of ancillary and/or support equipment provided by the applicant

Model No.	Description	Manufacturer	Approvals/Standards
None			

Description of Interface Cables for Testing

Connected port	Cable Type	Cable length	Ferrite
None			

Software and Firmware

Description	Version
None	

Worst-case configuration and mode of operation during testing

The EUT was modified as intentionally turning on 125kHz every one second for easy to collect radio signal.

Modifications Required for Compliance

None.

Test Equipment Verified for function

Model #	Description	Checked Function	Results
E7405A	Spectrum Analyzer	Frequency and Amplitude	Connected 50MHz and -20 dBm Ref_siganl and checked OK.
8447D	Pre-Amplifier, 30 to 2,000MHz	Gain at 30 and 1,000MHz	Gains were normal.
JB1	Anatenna, 30 to 2000MHz	Checked structure	Normal – no damage.
AL-130	Antenna, 10kHz to 30MHz	Checked structure and power LED	Normal – no damage.
Onset HOBO	Humidity/ Temperature Logger	Compared room Temp. and Hum. with another data logger	Working normally

Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests:

Parameter	Uncertainty(dB)
Radiated Emission, 10kHZ to30MHz	± 4.94 dB
Radiated Emission, 30 to 1,000MHz	± 4.91 dB

Uncertainty figures are valid to a confidence level of 95%.

Markings

Test Summary

When configured and operated as specified in this report, the product was found to comply with the requirements as indicated below.

Test Type	Regulation	Measurement Method	Result
Antenna Requirement	15.203 & RSS-210	N/A	PASS
AC Power Line Conducted Emissions	15.207 & RSS-Gen	ANSI C63.4:2014	N/A[1)]
Field Strength of Fundamental	15.209 & RSS-210	ANSI C63.4:2014 & ANSI C63.10:2013	PASS
Radiated Emissions	15.209 & RSS-210	ANSI C63.4:2014 & ANSI C63.10:2013	PASS
20dB Bandwidth	15.215 & RSS-210	ANSI C63.10:2013	PASS

Note 1) There is no connection to AC Main Power.

Antenna Requirement

Test Date	29 July 2016
Sample Number	4256
Tested By	Jeremy LEE

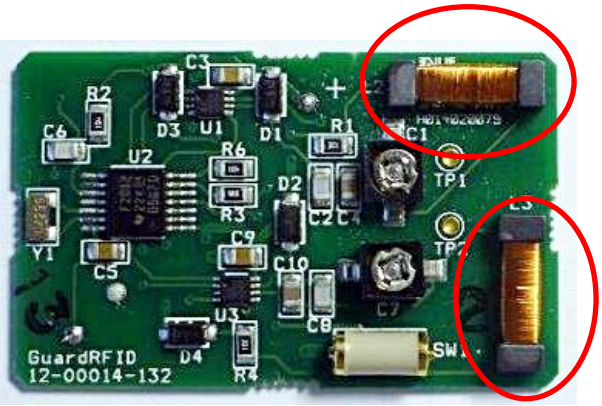
Test Limits

FCC 15.203

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. This requirement does not apply to carrier current devices or to devices operated under the provisions of § 15.211, § 15.213, § 15.217, § 15.219, or § 15.221. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with § 15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded.

Test Results:

The EUT has an integral Loop Coil Antenna. Please see below photo..



X Pass **Fail** **N/A**

AC Power line Conducted Emission

Test Date	29 July 2016
Sample Number	4256
Tested By	Jeremy LEE

Test Limits

FCC 15.207

(a) Except as shown in paragraphs (b) and (c) of this section, for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table, as measured using a 50 μH/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower limit applies at the boundary between the frequencies ranges.

Frequency of emission (MHz)	Conducted limit (dBμV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

Test Result

There is no connection to AC Main Power.

Pass **Fail** **X** **N/A**

Field Strength of Fundamental

Temperature	28.0 °C
Relative Humidity	51.0 %
Barometric Pressure:	101.4 kPa
Test Date	29 July 2016
Sample Number	4256
Calibrated Test Equipment (ID)	241, 266, 272
Reference Equipment (ID) (Calibration not required)	374
Tested Voltages	3.0V Lithium Battery
Tested By	Jeremy LEE

Use the barometric pressure reported at: http://www.theweathernetwork.com/weather/cabc0284

Test Limits

FCC 15.209:

(a) Except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100**	3
88-216	150**	3
216-960	200**	3
Above 960	500	3

**Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permItted under other sections of this part, e.g., §§15.231 and 15.241.

(d) The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90 kHz, 110-490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.

Limit : 2400/125=19.2uV/m @ 300m = 25.67dBuV/m@300m = 105.67dBuV/m @3m
Distance Correction Factor = 40log(test distance /specific distance)

Test Setup

The test was performed in accordance with **FCC 15.209, FCC 15.31, FCC 15.33, FCC 15.35, and ANSI C63.4, and ANSI C63.10:2013.**

Test procedure is based on the FCC15.31(a)(3) – Other intentional and unintentional radiators are to be measured for compliance using the following procedure excluding sections 4.1.5.2, 5.7, 9 and 14: ANSI C63.4–2014: "Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz" (incorporated by reference, see § 15.38). This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR Part 51.
NOTE to Paragraph (a)(3): Digital devices tested to show compliance with the provisions of §§ 15.107(e) and 15.109(g) must be tested following the ANSI C63.4 procedure described in paragraph (a)(3) of this section.[As stated in the adopting R&O, ANSI C63.4 is not used for measurements below 30 MHz.]

The EUT was placed on 0.8-meter high nonconductive table that was placed directly onto a flush mounted turntable. The EUT was set 3 meters away from the interference- receiving antenna, which was mounted on 1 meter high. It is measured with a receiver – the spectrum analyzer, was software controlled. The antennas was used an Active Loop Antenna.

The EUT was positioned the emissions from the unit were maximized by manipulating the cables, and by adjusting the polarization and height of the receive antenna and rotating the EUT on the turntable.

- The EUT was turned on 125kHz signal intentionally every one second.
- The following measurements were made with
  - Span = wide enough to fully capture the emission being measured.
  - RBW = 200Hz.
  - VBW = 300Hz
  - Sweep = Auto
  - Detector Function = peak
  - Trace = Single trace up to capturing the whole range of signal
  - Detecting Method = Average and Peak.
- The test was repeated three different orthogonals and four Antenna positions.

Test Result

Radiated Emission (dBuV/m) = Measured Emission (dBuV) + Antenna Factor(1/m) + Path Loss(dB)

Freq-uency (kHz)	Detector	Mea-sured (dBuV)	AF (dB/m)	Path Loss (dB)	Radiated Emission (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Position	Ortho-gonal	Results
125	Average	26.13	10.81	0.22	37.16	105.67	68.51	H, Side	X	PASS
125	Peak	48.54	10.81	0.22	59.57	125.67	66.10	H, Side	X	PASS

X Pass Fail N/A

- Table of Field Strength of Fundamental, Average Detecting, Antenna was used AL-130.

LabTest Certification Inc.
Intentional Radiated Emissions
FCC15.209, 3 meters, Averaging Detector

Operator: Jeremy Lee

Contact: Dalibor Pokarajac
Company: Guard RFID Solutions Inc.

Frequency	Measured	AntFactor	PathLoss	Emission	Limit	Margin	T/T	Tower	POL
MHz	dBuV	dB/m	dB	dBuV/m	dBuV/m	dB	Degree	cm	
125.000 KHz	26.13	10.81	0.22	37.16	105.67	68.51	169.5	100.0	H
T: 28.0 C, H: 51.0 %, BP.:101.4 kPa									
Project # - 13591									
Model # - MT-125E									
Serial # - N/P									
Sample # - 4256									
Side Loop & Ortho X - Three Ortho, Four Direction									

- Table of Field Strength of Fundamental, Peak Detecting, Antenna was used AL-130.

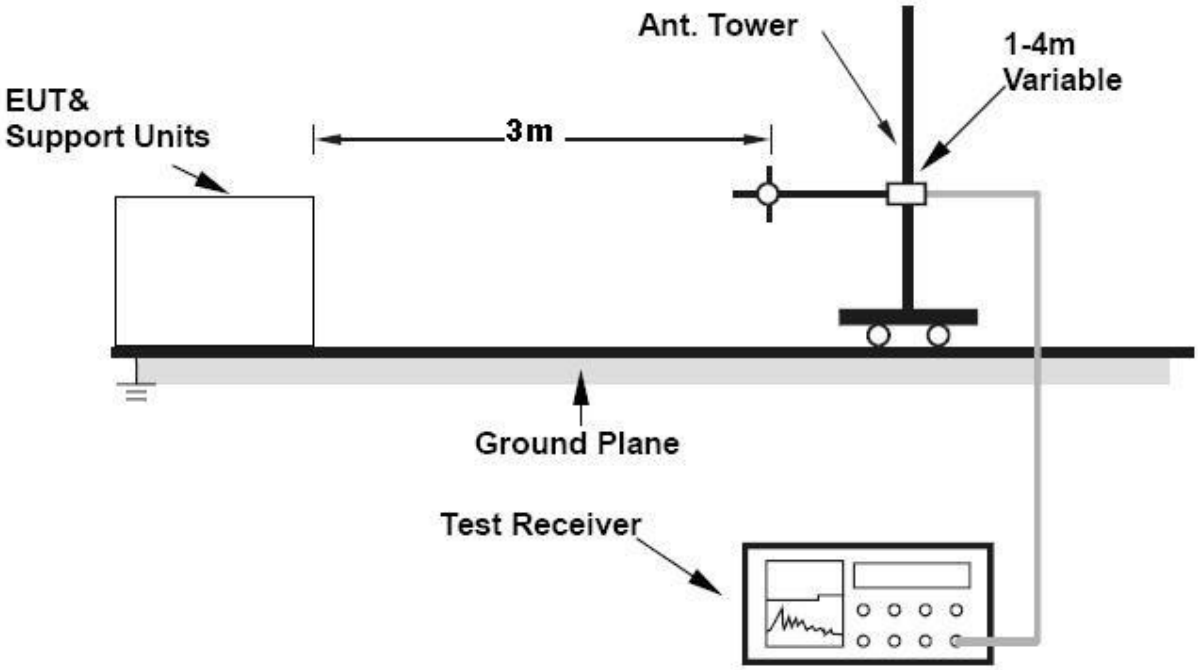
LabTest Certification Inc.
Intentional Radiated Emissions
FCC15.209, 3 meters, Peak Detector

Operator: Jeremy Lee

Contact: Dalibor Pokarajac
Company: Guard RFID Solutions Inc.

Frequency	Measured_PK	AntFactor	PathLoss	Emission_PK	Limit_PK	Margin_PK	T/T	Tower	POL
MHz	dBuV	dB/m	dB	dBuV/m	dBuV/m	dB	Degree	cm	
125.000 KHz	48.54	10.81	0.22	59.57	125.67	66.10	169.5	100.0	H
T: 28.0 C, H: 51.0 %, BP.:101.4 kPa									
Project # - 13591									
Model # - MT-125E									
Serial # - N/P									
Sample # - 4256									
Side Loop & Ortho X - Three Ortho, Four Direction									

Test Setup in Chamber



Radiated Emissions

Temperature	28.5 °C
Relative Humidity	50.0 %
Barometric Pressure:	101.3 kPa
Test Date	29 July 2016
Sample Number	4256
Calibrated Test Equipment (ID)	266, 272, 371
Reference Equipment (ID) (Calibration not required)	374, 516
Tested Voltages	120VAC, 60Hz, Single Phase
Tested By	Jeremy LEE

Use the barometric pressure reported at: http://www.theweathernetwork.com/weather/cabc0284

Test Limits

FCC 15.209:

(c) The level of any unwanted emissions from an intentional radiator operating under these general provisions shall not exceed the level of the fundamental emission. For intentional radiators which operate under the provisions of other sections within this part and which are required to reduce their unwanted emissions to the limits specified in this table, the limits in this table are based on the frequency of the unwanted emission and not the fundamental frequency. However, the level of any unwanted emissions shall not exceed the level of the fundamental frequency.

Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100**	3
88-216	150**	3
216-960	200**	3
Above 960	500	3

**Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permItted under other sections of this part, e.g., §§15.231 and 15.241.

(d) The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90 kHz, 110-490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.

Test Setup

The test was performed in accordance with **FCC 15.247, FCC 15.31, FCC 15.33, FCC 15.35, and ANSI C63.4:2014, and ANSI C63.10:2013.**

Test procedure is based on the FCC15.31(a)(3) - Other intentional and unintentional radiators are to be measured for compliance using the following procedure excluding sections 4.1.5.2, 5.7, 9 and 14: ANSI C63.4–2014: "Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz" (incorporated by reference, see § 15.38). This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR Part 51.
NOTE to Paragraph (a)(3): Digital devices tested to show compliance with the provisions of §§ 15.107(e) and 15.109(g) must be tested following the ANSI C63.4 procedure described in paragraph (a)(3) of this section.[As stated in the adopting R&O, ANSI C63.4 is not used for measurements below 30 MHz.]

The EUT was placed on 0.8-meter high nonconductive table that was placed directly onto a flush mounted turntable. The EUT was set 3 meters away from the interference- receiving antenna, which was mounted on the top of a variable-height antenna supporter. It is measured with a receiver – the spectrum analyzer, was software controlled. The antennas was used Active Loop Antenna and Wideband Antenna.

The EUT was positioned the emissions from the unit were maximized by manipulating the cables, and by adjusting the polarization and height of the receive antenna and rotating the EUT on the turntable.

- The EUT was turned on 125kHz signal intentionally every one second.
- The following measurements were made with
  - Span = wide enough to fully capture the emission being measured.
  - RBW = 200Hz, 9kHz, and 120kHz.
  - VBW ≥ RBW
  - Sweep = Auto
  - Detector Function = peak
  - Trace = Single trace up to capturing the whole range of signal
  - Detecting Method = Average, Quasi-Peak and Peak.
- The test was repeated three different orthogonals looking for Harmonics.

Test Result

Radiated Emission (dBuV/m) = Measured Emission (dBuV) + Antenna Factor(1/m) + Path Loss(dB)

Freq-uency (kHz)	Detector	Mea-sured (dBuV)	AF (dB/m)	Path Loss (dB)	Radiated Emission (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Position	Ortho-gonal	Results
250	Average	36.19	10.53	0.25	46.96	111.12	64.16	H, Side	X	PASS
250	Peak	48.17	10.53	0.25	58.95	131.12	72.18	H, Side	X	PASS
375	Average	32.57	10.61	0.26	43.44	102.10	58.66	H, Side	X	PASS
375	Peak	48.83	10.61	0.26	54.70	122.10	67.40	H, Side	X	PASS
500	QP	36.32	10.54	0.27	47.13	73.71	26.58	H, Side	X	PASS
625	QP	34.32	10.68	0.23	45.24	72.60	27.36	H, Side	X	PASS
750	QP	32.75	10.82	0.12	43.69	71.48	27.80	H, Side	X	PASS
875	QP	31.58	10.96	0.13	42.66	70.37	27.71	H, Side	X	PASS
1000	QP	30.32	10.94	0.12	41.38	69.25	27.87	H, Side	X	PASS

1125	QP	29.35	10.96	0.13	40.44	68.14	27.70	H, Side	X	PASS
1250	QP	28.47	10.97	0.14	39.58	67.03	27.45	H, Side	X	PASS

X Pass Fail N/A

- Table of Intentional Radiated Emissions: Average or Quasi-peak Detecting, Antenna was used AL-130.

LabTest Certification Inc.
Intentional Radiated Emissions
FCC15.209, 3 meters, Averaging and QP Detector

Operator: Jeremy Lee

03:56:56 PM, Friday, July 29, 2016

Contact: Dalibor Pokarajac
Company: Guard RFID Solutions Inc.

Frequency	Measured	AntFactor	PathLoss	Emission	Limit	Margin	T/T	Tower	POL
MHz	dBuV	dB/m	dB	dBuV/m	dBuV/m	dB	Degree	cm	
250.000000 KHz	36.19	10.53	0.25	46.96	111.12	64.16	169.5	100.0	H
375.000000 KHz	32.57	10.61	0.26	43.44	102.10	58.66	169.5	100.0	H
500.000000 KHz	36.32	10.54	0.27	47.13	73.71	26.58	169.5	100.0	H
625.000000 KHz	34.32	10.68	0.23	45.24	72.60	27.36	169.5	100.0	H
750.000000 KHz	32.75	10.82	0.12	43.69	71.48	27.80	169.5	100.0	H
875.000000 KHz	31.58	10.96	0.13	42.66	70.37	27.71	169.5	100.0	H
1.000000 MHz	30.32	10.94	0.12	41.38	69.25	27.87	169.5	100.0	H
1.125000 MHz	29.35	10.96	0.13	40.44	68.14	27.70	169.5	100.0	H
1.250000 MHz	28.47	10.97	0.14	39.58	67.03	27.45	169.5	100.0	H

T: 28.5 C, H: 50.0 %, BP.:101.3 kPa

Project # - 13591
Model # - MT-125E
Serial # - N/P
Sample # - 4256

Side Loop & Ortho X - Three Ortho, Four Direction

- Table of Intentional Radiated Emissions: Peak Detecting, Antenna was used AL-130

LabTest Certification Inc.
Intentional Radiated Emissions
FCC15.209, 3 meters, Peak Detector

Operator: Jeremy Lee

03:56:56 PM, Friday, July 29, 2016

Contact: Dalibor Pokarajac
Company: Guard RFID Solutions Inc.

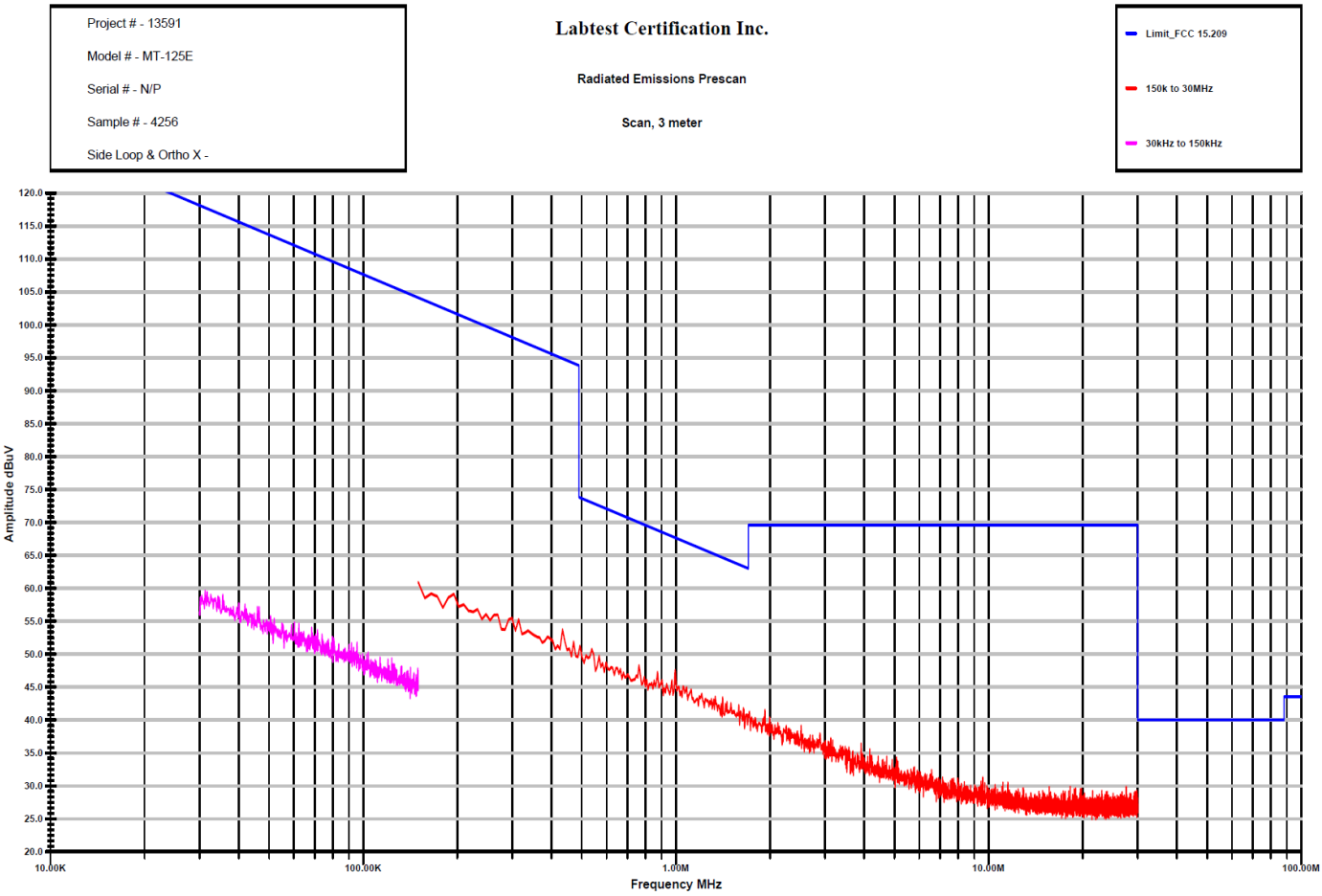
Frequency	Measured_PK	AntFactor	PathLoss	Emission_PK	Limit_PK	Margin_PK	T/T	Tower	POL
MHz	dBuV	dB/m	dB	dBuV/m	dBuV/m	dB	Degree	cm	
250.000 KHz	48.17	10.53	0.25	58.95	131.12	72.18	169.5	100.0	H
375.000 KHz	43.83	10.61	0.26	54.70	122.10	67.40	169.5	100.0	H

T: 28.5 C, H: 50.0 %, BP.:101.3 kPa

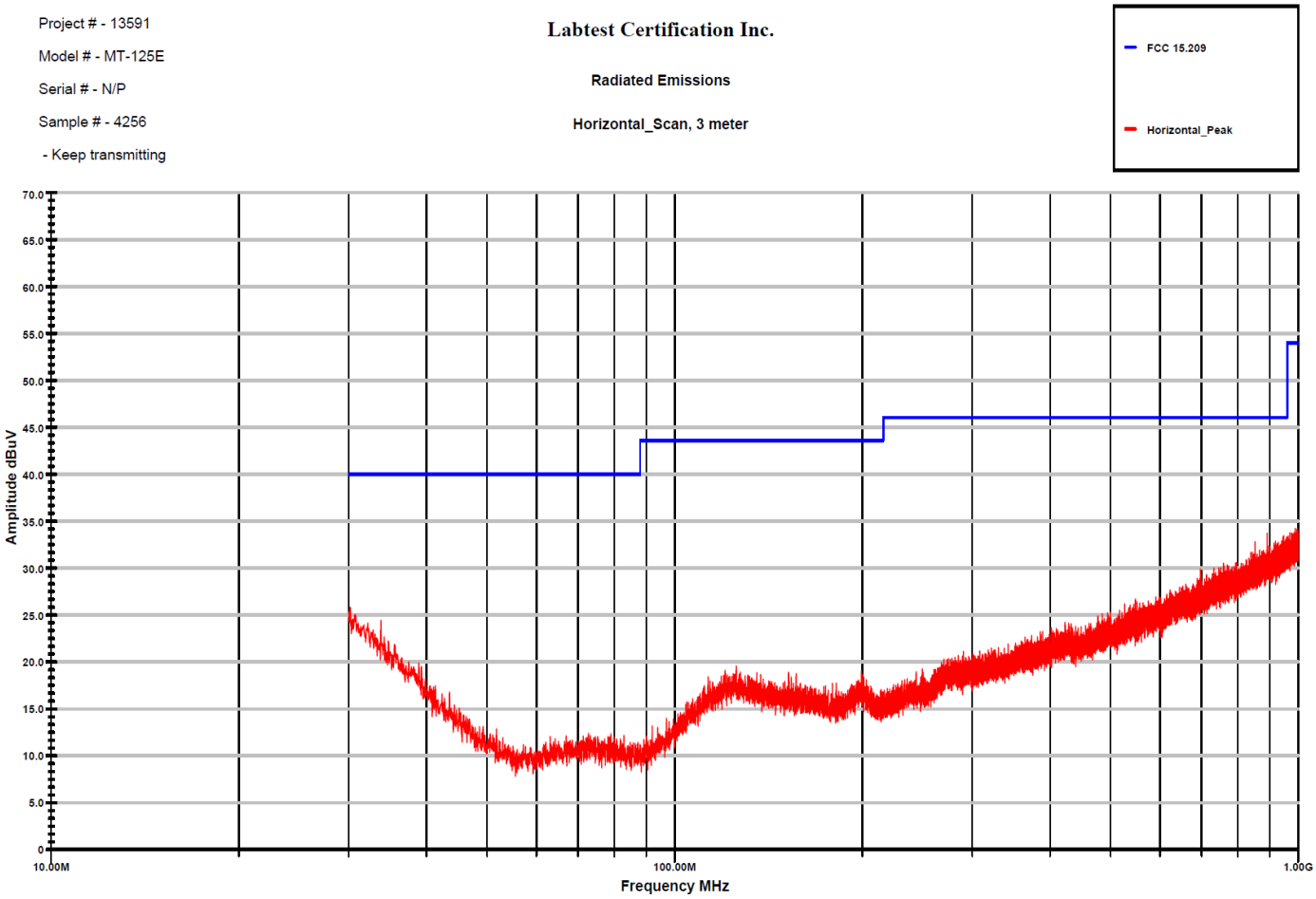
Project # - 13591
Model # - MT-125E
Serial # - N/P
Sample # - 4256

Side Loop & Ortho X - Three Ortho, Four Direction

- Graph of Radiated Emissions: 30kHz to 30MHz, Peak detecting, the position of Antenna was side and Horizontal, and the orthogonal was X.



- Graph of Radiated Emissions: 30 to 1,000MHz, Peak detecting, the polarization of Antenna was Horizontal.



Operator: Jeremy Lee

RE_Scan_over 30MHz.TIL

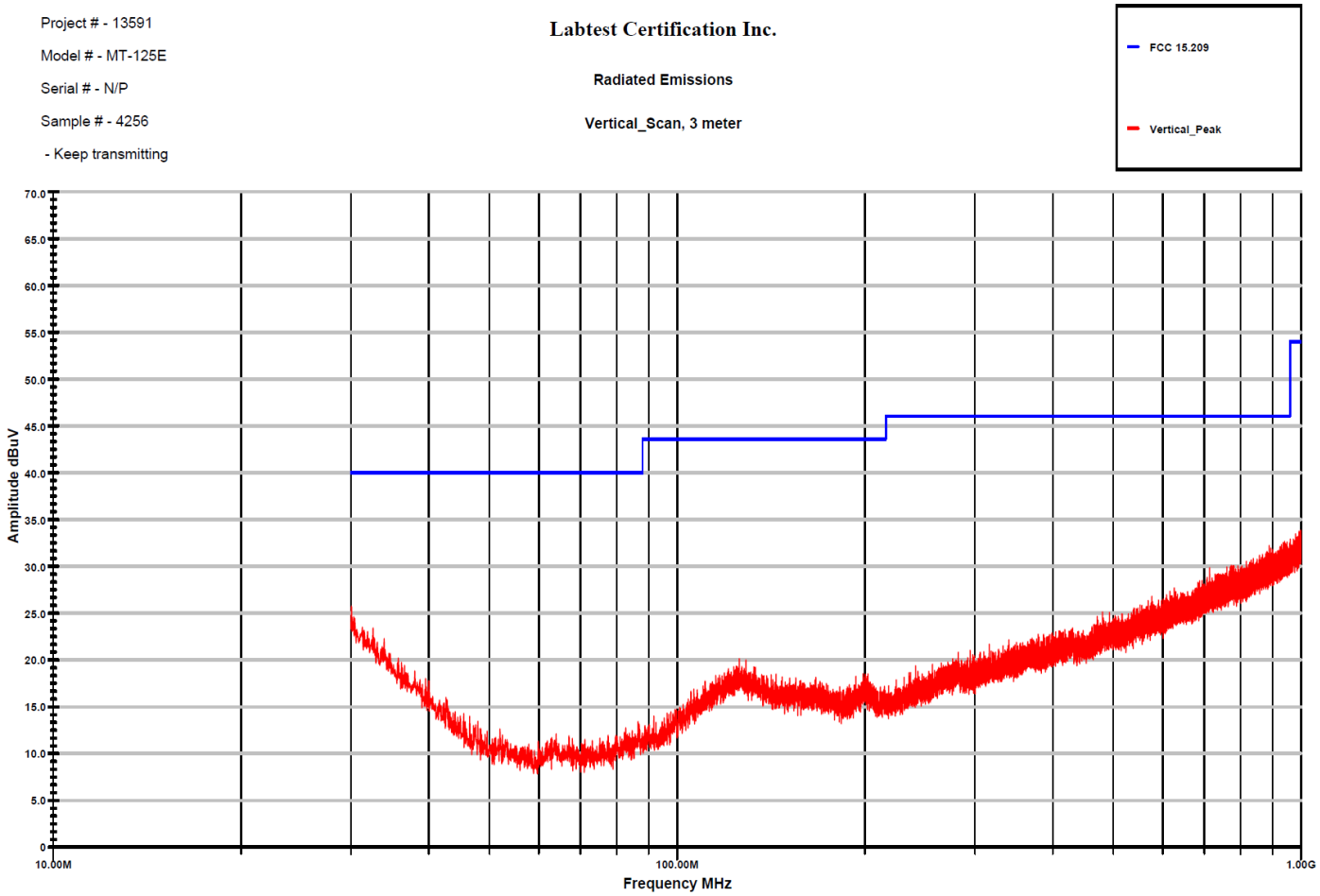
05:44:02 PM, Friday, July 29, 2016

T: 28.5 C, H: 50.0 %, BP.:101.3 kPa

Contact: Dalibor Pokrajac

Company: Guard RFID Solutions Inc.

- Graph of Radiated Emissions: 30 to 1,000MHz, Peak detecting, the polarization of Antenna was Vertical.



Operator: Jeremy Lee

RE_Scan_over 30MHz.TIL

06:24:34 PM, Friday, July 29, 2016

T: 28.5 C, H: 50.0 %, BP.:101.3 kPa

Contact: Dalibor Pokrajac

Company: Guard RFID Solutions Inc.

20dB Bandwidth

Test Date	17 August 2016
Sample Number	4256
Calibrated Test Equipment (ID)	246
Reference Equipment (ID) (Calibration not required)	N/A
Tested By	Jeremy Lee

Test Limits

FCC 15.215:

(c) Intentional radiators operating under the alternative provisions to the general emission limits, as contained in §§ 15.217 through 15.257 and in Subpart E of this part, must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated. The requirement to contain the designated bandwidth of the emission within the specified frequency band includes the effects from frequency sweeping, frequency hopping and other modulation techniques that may be employed as well as the frequency stability of the transmitter over expected variations in temperature and supply voltage. If a frequency stability is not specified in the regulations, it is recommended that the fundamental emission be kept within at least the central 80% of the permitted band in order to minimize the possibility of out-of-band operation.

Test Setup

The test was performed in accordance with **FCC 15.215:2010 and ANSI C63.10:2009.**

The signal of the EUT was radiated to the RF input port of the Spectrum Analyzer via Active Loop Antenna.
The bandwidth was measured at an amplitude level reduced from the reference level by a specified ratio. The reference level was the level of the highest amplitude signal observed from the unlicensed wireless device at fundamental frequency.
Once the reference level was established, the equipment was conditioned with typical modulating signals to produce the worst-case (i.e., the widest) bandwidth. Measured the bandwidth at the –20 dB levels with respect to the reference level.
To measure the modulated signal properly, a resolution bandwidth that was small compared with the bandwidth.

The EUT was placed on 0.8-meter high nonconductive table that was placed directly onto a flush mounted turntable. The EUT was set 3 meters away from the interference- receiving antenna, which was mounted on the top of a variable-height antenna supporter. It is measured with a receiver – the spectrum analyzer, was software controlled. The antennas was used Active Loop Antenna.

- The EUT was turned on 125kHz signal intentionally every one second.
- The following measurements were made with
  - Span = 20kHz
  - RBW = 1kHz.
  - VBW = 3kHz
  - Sweep = Auto

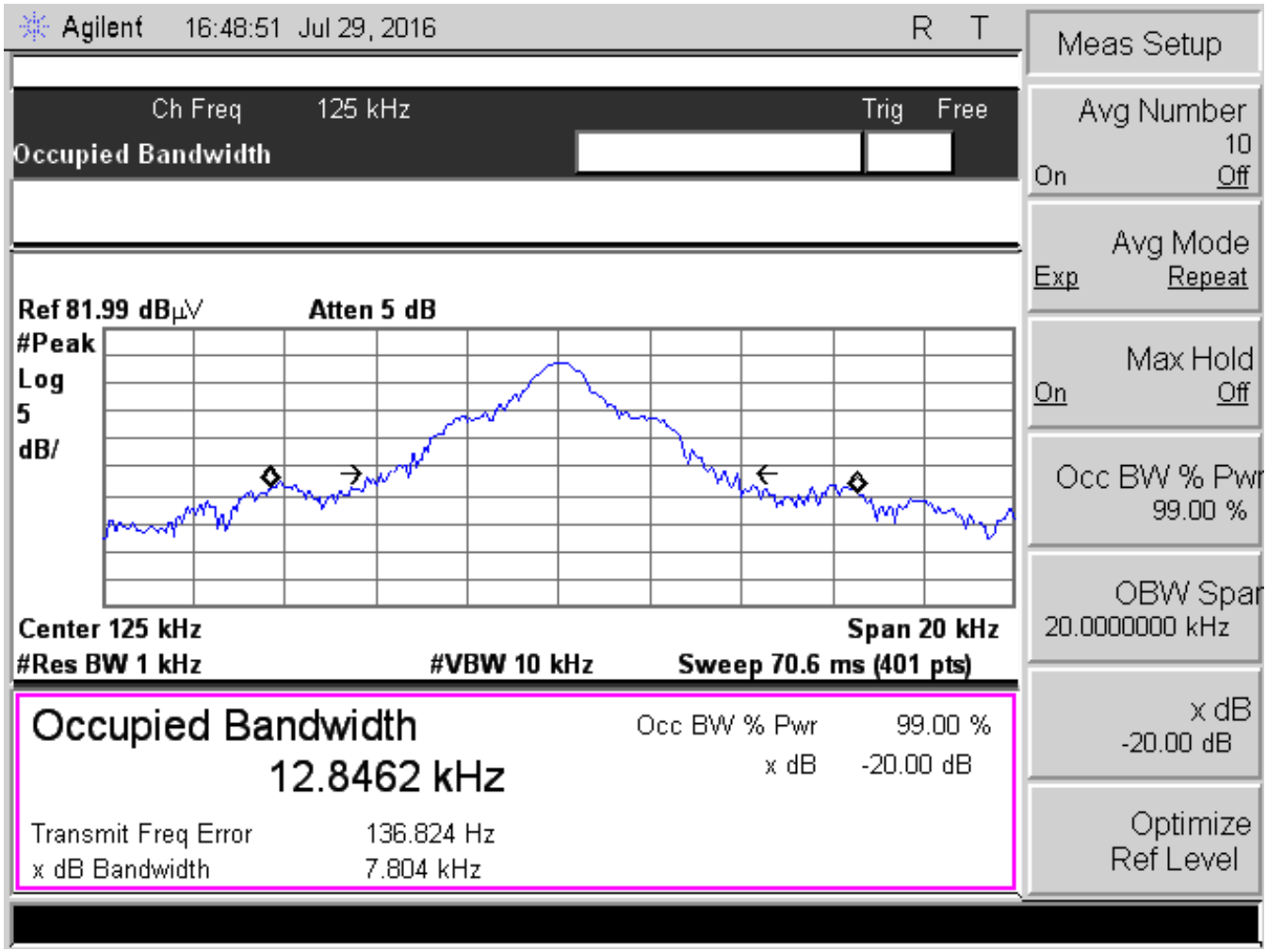
- Detector Function = peak
- Trace = Auto
- Used x dB function of Spectrum Analyzer.

Test Result

Carrier Frequency(kHz)	20dB BW(kHz)	Limit(kHz)	Pass/Fail
125	7.804	N/A	Pass

X Pass Fail N/A

- 20dB Bandwidth



APPENDIX A: Test equipments used for tests

ID No.	Description	Manufacturer	Model	Serial No.	Calibration Date	Calibration Due Date	Calibration Certificate No:	Calibration Laboratory
241	Active Loop Antenna	AL-130	Com-Power	17075	28-Oct-2015	28-Oct-2017	151020-114249-d3931f	Liberty Labs
266	Humidity/ Temperature Logger	Onset HOBO	U14-001	2436907	06-Jan-2016	06-Jan-2018	393966	Wescan
272	EMC Analyzer	Agilent	E7405A	US41110263	16-Jun-2016	16-Jun-2017	1-7914055940-1	Keysight
273	RF Preamplifier	Agilent	8449B	3008A02264	N/A	N/A	N/A	N/A
371	EMC Broadband Antenna	Sunol	JB1	A022012	29-Mar-2016	29-Mar-2018	1603-6070	A.H.Systems
374	EMC Shielded Enclosure	USC	USC-26	111811	N/A	N/A	N/A	N/A
406	Spectrum Analyzer	Agilent	E4404B	MY45115702	20-Nov-2015	20-Nov-2016	37880	Tradeport
516	Pre-Amplifier	Agilent	AT8447D	2944A10969	N/A	N/A	N/A	N/A

END OF REPORT