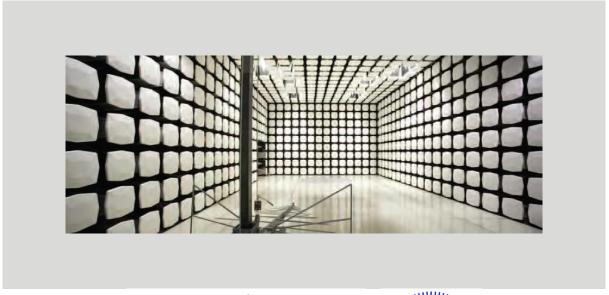


Onity Inc., A Division of UTCFS

OS700 Safe FCC 15.225:2018 13.56 MHz Radio

Report # ONIT0047.1 Rev.2







NVLAP Lab Code: 200630-0

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More: https://www.bis.doc.gov/index.php/forms-documents/regulations-docs/14-commerce-country-chart/fileT

CERTIFICATE OF TEST



Last Date of Test: February 26, 2018 Onity Inc., A Division of UTCFS Model: OS700 Safe

Radio Equipment Testing

Standards

Specification	Method				
FCC 15.225:2018	ANSI C63.10:2013				

Results

Method Clause	Test Description	Applied	Results	Comments
6.2	Powerline Conducted Emissions	No	N/A	Not required for a battery powered EUT.
6.4	Field Strength of Fundamental	Yes	Pass	
6.4	Field Strength of Spurious Emissions Less Than 30 MHz	Yes	Pass	
6.5	Field Strength of Spurious Emissions Greater Than 30 MHz	Yes	Pass	
6.8	Frequency Stability	No	N/A	This testing was covered under test report ONIT0017 for FCC ID: R32-10103704P1

Deviations From Test Standards

None

Approved By:

Kyle Holgate, Operations Manager

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. 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. This report reflects only those tests from the referenced standards shown in the certificate of test. It does not include inspection or verification of labels, identification, marking or user information.

REVISION HISTORY



Revision Number	Description	Date	Page Number
01	New data for the following tests was added to the report: Field Strength of Fundamental, Field Strength of Spurious Emissions Less Than 30 MHz and Field Strength of Spurious Emissions Greater Than 30 MHz.	3-14-18	11
02	Oregon was added to the City, State, Zip field on the Product Description page.	7-6-18	8

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 17065 as a product certifier. This allows Element to certify transmitters to FCC and IC specifications.

NVLAP - Each laboratory is accredited by NVLAP to ISO 17025

Canada

ISED - Recognized by Innovation, Science and Economic Development Canada as a Certification Body (CB). Certification chambers and Open Area Test Sites are filed with ISED.

European Union

European Commission - Within Element, we have a EU Notified Body validated for the EMCD and RED Directives.

Australia/New Zealand

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

Korea

MSIP / 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.

Israel

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

Hong Kong

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

Vietnam

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

SCOPE

For details on the Scopes of our Accreditations, please visit:

http://portlandcustomer.element.com/ts/scope/scope.htm http://gsi.nist.gov/global/docs/cabs/designations.html

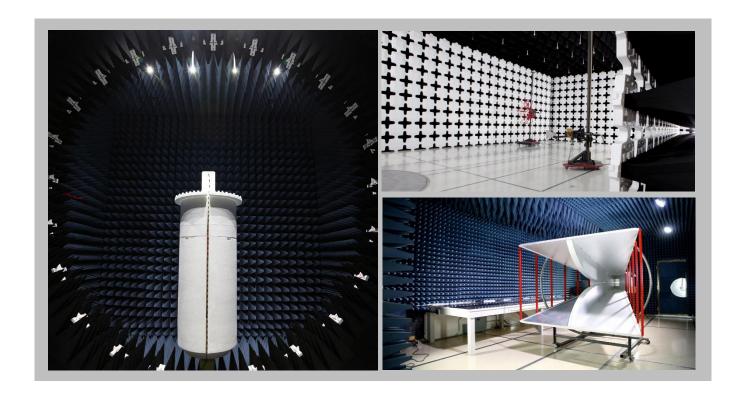
FACILITIES







California Minnesota Labs OC01-17 Labs MN01-10 41 Tesla 9349 W Broadway Ave. Irvine, CA 92618 Brooklyn Park, MN 55445 (949) 861-8918 (612)-638-5136		New York Labs NY01-04 4939 Jordan Rd. Elbridge, NY 13060 (315) 554-8214	Oregon Labs EV01-12 6775 NE Evergreen Pkwy #400 Hillsboro, OR 97124 (503) 844-4066	Texas Labs TX01-09 3801 E Plano Pkwy Plano, TX 75074 (469) 304-5255	Washington Labs NC01-05 19201 120 th Ave NE Bothell, WA 98011 (425)984-6600					
NVLAP										
NVLAP Lab Code: 200676-0	NVLAP Lab Code: 200881-0	NVLAP Lab Code: 200761-0	NVLAP Lab Code: 200630-0	NVLAP Lab Code:201049-0	NVLAP Lab Code: 200629-0					
Innovation, Science and Economic Development Canada										
2834B-1, 2834B-3	2834E-1, 2834E-3	N/A	2834D-1, 2834D-2	2834G-1	2834F-1					
		BS	МІ							
SL2-IN-E-1154R	SL2-IN-E-1152R	N/A	SL2-IN-E-1017	SL2-IN-E-1158R	SL2-IN-E-1153R					
VCCI										
A-0029	A-0029 A-0109 N/A A-0108 A-0201 A-0110									
	Recognized Phase	e I CAB for ACMA, BSM	I, IDA, KCC/RRA, MIC, M	OC, NCC, OFCA						
US0158	US0175	N/A	US0017	US0191	US0157					



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 QM205.4.6. The estimation is used to compare the measured result with its "true" or theoretically correct value. The expanded measurement uncertainty (K=2) can be found included as part of the applicable test description page. 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 16-4-2 as applicable), and are available upon request.

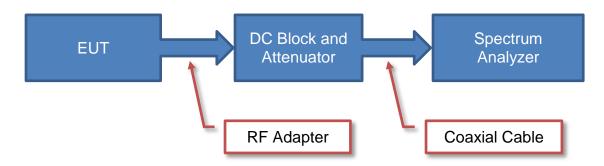
The following table represents the Measurement Uncertainty (MU) budgets for each of the tests that may be contained in this report.

Test	+ MU	- MU
Frequency Accuracy (Hz)	0.0007%	-0.0007%
Amplitude Accuracy (dB)	1.2 dB	-1.2 dB
Conducted Power (dB)	0.3 dB	-0.3 dB
Radiated Power via Substitution (dB)	0.7 dB	-0.7 dB
Temperature (degrees C)	0.7°C	-0.7°C
Humidity (% RH)	2.5% RH	-2.5% RH
Voltage (AC)	1.0%	-1.0%
Voltage (DC)	0.7%	-0.7%
Field Strength (dB)	5.2 dB	-5.2 dB
AC Powerline Conducted Emissions (dB)	2.4 dB	-2.4 dB

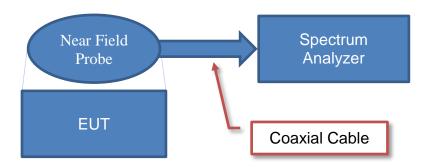
Test Setup Block Diagrams



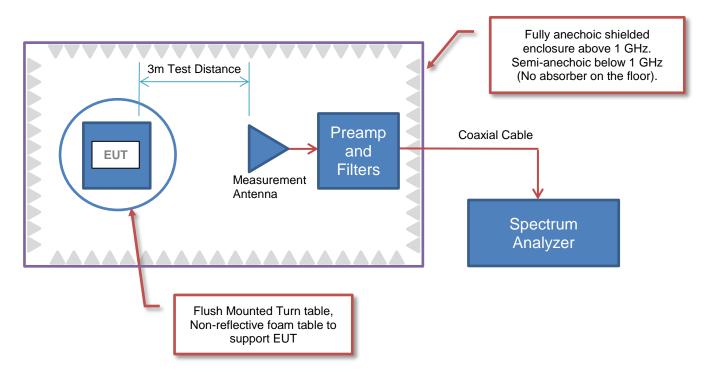
Antenna Port Conducted Measurements



Near Field Test Fixture Measurements



Spurious Radiated Emissions



PRODUCT DESCRIPTION



Client and Equipment Under Test (EUT) Information

Company Name:	Onity Inc., A Division of UTCFS
Address:	4001 Fairview Industrial Drive
City, State, Zip:	Salem, OR 97302-1142
Test Requested By:	Tim Emmerich
Model:	OS700 Safe
First Date of Test:	January 10, 2018
Last Date of Test:	February 26, 2018
Receipt Date of Samples:	January 10, 2018
Equipment Design Stage:	Production
Equipment Condition:	No Damage
Purchase Authorization:	Verified

Information Provided by the Party Requesting the Test

Functional Description of the EUT:

The product is a simple safe used by the hotel industry. It opens and re-locks with an RFID card.

Testing Objective:

To demonstrate compliance to FCC Part 15.225 specifications.

CONFIGURATIONS



Configuration ONIT0047- 2

EUT									
Description	Manufacturer	Model/Part Number	Serial Number						
Safe	Onity Inc., A Division of UTCFS	OS700 Safe	CNSAGXXXXXXXXXSF7LRB170620017						

Peripherals in test setup boundary										
Description	Manufacturer Model/Part Number Serial Number									
RFID Tag	Onity Inc., A Division of UTCFS	None	None							

MODIFICATIONS



Equipment Modifications

Item	Date	Test	Modification	Note	Disposition of EUT
1	2/23/2018	Field Strength of Fundamental	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Element following the test.
2	2/23/2018	Field Strength of Spurious Emissions Less Than 30 MHz	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Element following the test.
3	2/26/2018	Field Strength of Spurious Emissions Greater Than 30 MHz	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



PSA-ESCI 2017.09.18

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

13.56 MHz RFID continuous Tx with tag polling

POWER SETTINGS INVESTIGATED

Battery

CONFIGURATIONS INVESTIGATED

ONIT0047 - 2

FREQUENCY RANGE INVESTIGATED

Start Frequency	12 MHz	Stop Frequency	15 MHz
Start requerity		Stop i requericy	13 1011 12

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
Analyzer - Spectrum Analyzer	Agilent	E4443A	AFB	16-May-2017	12 mo
Cable	None	10m Test Distance Cable	EVL	17-Apr-2017	12 mo
Antenna - Loop	EMCO	6502	AOA	6-Jul-2016	24 mo

TEST DESCRIPTION

The antennas to be used with the EUT were tested. The EUT was continuously transmitting while set to the channel specified.

The fundamental carrier of the EUT was maximized by rotating the EUT on a turntable, adjusting the position of the EUT and EUT antenna in three orthogonal axis, and adjusting the measurement antenna height and polarization (per ANSI C63.10). A calibrated active loop antenna was used for this test in order to provide sufficient measurement sensitivity. The center of the loop antenna was maintained at 1m above the ground plane during the testing.

Measurements were made with the required detectors and annotated on the data for each individual point using the following annotation:

QP = Quasi-Peak Detector

PK = Peak Detector

AV = RMS Detector

As outlined in 15.209(e), 15.31(f)(2), and RSS-GEN, 6.4, measurements may be performed at a distance closer than what is specified with the limit. The limit at the specified distance is shown on the data sheet. Measurements are made at a closer distance and the data is adjusted using a distance correction factor of 40dB/decade for comparison to the limit.

FIELD STRENGTH OF FUNDAMENTAL



										EmiR5 2017.09.18.2		PSA-ESCI 2017.09.18	3
W	ork Order:		T0047		Date:		o-2018	-		/	- //	6	
	Project:		lone	Ter	nperature:		7 °C	(/	-	//			
	Job Site:		V11		Humidity:		% RH		/	///			
Seria	al Number:		nfiguration	Barome	etric Pres.:	1036	mbar		Tested by:	Travis Pov	and Jeff A	Alcoke	=
C = 11		OS700 Sa	ate										_
Con	figuration:	Onity Inc	, A Division o	STITCES.									=
			, A Division (or UTCFS									_
	Attendees: UT Power:												=
	UT Power:		z RFID conti	nuouo Tv.	uith toa nalli								=
Operat	ting Mode:	13.30 IVII	IZ KFID COIIL	nuous ix i	with tag poin	ing							
		None											=
	Deviations:	I VOITE											
		See comr	ments below	for FUT or	ientation								_
C	comments:												
Tost Spor	rifications						Test Meth	od					
Test Specifications Test Method FCC 15.225:2018 ANSI C63.10:2013												-	
FCC 15.225:2018 ANSI C63.10:2013													
Run #	12	Test D	istance (m)	10	Antonna	Height(s)		1(m)		Results	D,	ass	=
i\uii π	12	1631 D	istance (iii)	10	Antenna	rieigiit(3)		1(111)		Nesults	1.0	233	=
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80 -													
60 -													
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12	2.0	12	2.5	13.0)	13.5		14.0		14.5		15.0	
						MHz				■ PK	◆ AV	QP	
							Polarity/						
_					-	External	Transducer		Distance			Compared to	
Freq	Amplitude (dBuV)	Factor (dB)	Antenna Height (meters)	Azimuth (degrees)	Test Distance (meters)	Attenuation (dB)	Туре	Detector	Adjustment (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Spec. (dB)	
(MHz)	(ubuv)	(GD)	(meters)	(ucgrees)	(IIICICIS)	(GD)			(db)	(GDGV/III)	(abav/iii)	(ab)	Comments
12.035	6.7	11.0	1.0	292.0	10.0	0.0	Perp EUT	QP	-19.1	-1.4	29.5	-30.9	EUT Horizontal
14.979	5.8	11.1	1.0	292.0	10.0	0.0	Perp EUT	QP	-19.1	-2.2	29.5	-31.7	EUT Horizontal
13.924	6.7	11.1	1.0	292.0	10.0	0.0	Perp EUT	QP	-19.1	-1.3	40.5	-41.8	EUT Horizontal
13.143 13.567	6.2 7.6	11.1 11.1	1.0 1.0	292.0 292.0	10.0 10.0	0.0 0.0	Perp EUT Perp EUT	QP QP	-19.1 -19.1	-1.8 -0.5	40.5 50.5	-42.3 -51.0	EUT Horizontal EUT Horizontal
13.557	6.8	11.1	1.0	292.0 292.0	10.0	0.0	Perp EUT	QP QP	-19.1 -19.1	-0.5 -1.2	50.5 50.5	-51.0 -51.7	EUT Horizontal
13.560	15.5	11.1	1.0	292.0	10.0	0.0	Perp EUT	QP	-19.1	7.5	84.0	-76.5	EUT Horizontal
13.560	15.4	11.1	1.0	251.0	10.0	0.0	Perp EUT	QP	-19.1	7.4	84.0	-76.6	EUT on Side
13.560	13.3	11.1	1.0	258.0	10.0	0.0	Par GND	QP	-19.1	5.3	84.0	-78.7	EUT on Side
13.560	13.3	11.1	1.0	271.0	10.0	0.0	Par GND	QP	-19.1	5.3	84.0	-78.7	EUT Horizontal
13.560	10.3	11.1	1.0	193.0	10.0	0.0	Par EUT	QP OB	-19.1 -10.1	2.3	84.0	-81.7 -81.8	EUT on Side EUT Horizontal
13.560 13.560	10.2 9.2	11.1 11.1	1.0 1.0	213.0 267.0	10.0 10.0	0.0 0.0	Par EUT Perp EUT	QP QP	-19.1 -19.1	2.2 1.2	84.0 84.0	-81.8 -82.8	EUT Vertical
13.561	8.2	11.1	1.0	163.0	10.0	0.0	Par EUT	QP	-19.1	0.2	84.0	-83.8	EUT Vertical
13.561	7.8	11.1	1.0	134.0	10.0	0.0	Par GND	QP	-19.1	-0.2	84.0	-84.2	EUT Vertical

FIELD STRENGTH OF SPURIOUS EMISSIONS LESS THAN 30 MHZ



PSA-ESCI 2017.09.18

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

13.56 MHz RFID continuous Tx with tag polling

POWER SETTINGS INVESTIGATED

Battery

CONFIGURATIONS INVESTIGATED

ONIT0047 - 2

FREQUENCY RANGE INVESTIGATED

	Start Frequency	9 kHz	Stop Frequency	30 MHz
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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
Analyzer - Spectrum Analyzer	Agilent	E4443A	AFB	16-May-2017	12 mo
Cable	None	10m Test Distance Cable	EVL	17-Apr-2017	12 mo
Antenna - Loop	EMCO	6502	AOA	6-Jul-2016	24 mo

TEST DESCRIPTION

The antennas to be used with the EUT were tested. The EUT was continuously transmitting while set to the channel specified.

For each configuration, the spectrum was scanned throughout the specified range as part of the exploratory investigation of the emissions. These "pre-scans" are not included in the report. Final measurements on individual emissions were then made and included in this test report.

The individual emissions from the EUT were maximized by rotating the EUT on a turntable, adjusting the position of the EUT and EUT antenna in three orthogonal axis if required, and adjusting the measurement antenna height and polarization (per ANSI C63.10). An active loop antenna was used for this test in order to provide sufficient measurement sensitivity.

Measurements were made with the required detectors and annotated on the data for each individual point using the following annotation:

QP = Quasi-Peak Detector

PK = Peak Detector

AV = RMS Detector

If there are no detectable emissions above the noise floor, the data included may show noise floor measurements for reference only.

Measurements at the edges of the allowable band may be presented in an alternative method as provided for in the ANSI C63.10 Marker-Delta method. This method involves performing an in-band fundamental measurement followed by a screen capture of the fundamental and out-of-band emission using reduced measurement instrumentation bandwidths. The amplitude delta measured on this screen capture is applied to the fundamental emission value to show the out-of-band emission level as applied to the limit.

As outlined in 15.209(e), 15.31(f)(2), and RSS-GEN, 6.4, measurements may be performed at a distance closer than what is specified with the limit. The limit at the specified distance is shown on the data sheet. Measurements are made at a closer distance and the data is adjusted using a distance correction factor of 40dB/decade for comparison to the limit.

FIELD STRENGTH OF SPURIOUS **EMISSIONS LESS THAN 30 MHZ**



											EmiR5 2017.09.18.2		PSA-ESCI 2017.09.1	3_
Wo	ork Order:		T0047			Date:	23-Feb			_	/		6	
	Project:		one		Ter	mperature:	20.7		(/	/				
	Job Site:		V11			Humidity:	24.89				17			
Seria	I Number:		figuration	Ва	arom	etric Pres.:	1036	mbar		Tested by:	Travis Pov	v and Jeff A	Alcoke	=
		OS700 Safe												-
Conf	iguration:	2 Onity Inc., A Division of UTCFS												
	Customer:	Onity Inc.,	A Division of	of UT	CFS									-
	Attendees:													=
EU	JT Power:													_
Operati	ing Mode:	13.56 MH	z RFID conti	nuou	ıs Tx ı	with tag polli	ing							
Оролин	9													_
D	eviations:	None												
		See comments helpy for ELIT orientation												
_		See comments below for EUT orientation												
C	omments:													
														-
Test Speci	ifications							Test Meth	od					_
FCC 15.22								ANSI C63.	10:2013					_
Run #	12	Test Di	stance (m)		10	Antonna	Height(s)		1(m)		Results	D,	ass	=
	12	I GSL DI	starice (III)		10	Antenna	rieigiit(3)		1(111)		Results	1 10	233	=
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0.	• •				1.0		MHz		.0.0				100.0	
							ıVI∏Z				■ PK	◆ AV	QP	
								Polority/						
							External	Polarity/ Transducer		Distance			Compared to	
Freq	Amplitude	Factor	Antenna Height		muth	Test Distance	Attenuation	Туре	Detector	Adjustment	Adjusted	Spec. Limit	Spec.	
(MHz)	(dBuV)	(dB)	(meters)	(de	grees)	(meters)	(dB)			(dB)	(dBuV/m)	(dBuV/m)	(dB)	Comments
27.122	6.9	9.3	1.0	10	94.0	10.0	0.0	Perp EUT	QP	-19.1	-2.9	29.5	-32.4	Comments EUT Vertical
27.122	5.6	9.3 9.3	1.0		94.0 61.0	10.0	0.0	Perp EUT	QP QP	-19.1 -19.1	-2.9 -4.2	29.5 29.5	-32.4 -33.7	EUT on Side
27.120	5.6	9.3	1.0		35.0	10.0	0.0	Par GND	QP	-19.1	-4.2	29.5	-33.7	EUT Vertical
27.120	5.5	9.3	1.0	30	0.00	10.0	0.0	Par EUT	QP	-19.1	-4.3	29.5	-33.8	EUT Vertical
27.120	5.5	9.3	1.0		5.0	10.0	0.0	Par EUT	QP	-19.1	-4.3	29.5	-33.8	EUT Horizontal
27.122	5.5 5.5	9.3	1.0		35.0	10.0	0.0	Par EUT	QP	-19.1	-4.3	29.5	-33.8	EUT on Side
	5.5	9.3	1.0	11	16.0	10.0	0.0	Perp EUT	QP	-19.1	-4.3	29.5	-33.8	EUT Horizontal
27.120			1 0			10.0	0.0					20 5	-220	FUT Horizontal
27.120 27.119 27.119	5.5 5.4	9.3 9.3	1.0 1.0	11	19.0 32.0	10.0 10.0	0.0 0.0	Par GND Par GND	QP QP	-19.1 -19.1	-4.3 -4.4	29.5 29.5	-33.8 -33.9	EUT Horizontal EUT on Side

FIELD STRENGTH OF SPURIOUS EMISSIONS GREATER THAN 30 MHZ



PSA-ESCI 2017.09.18

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

13.56 MHz RFID continuous Tx with tag polling

POWER SETTINGS INVESTIGATED

Battery

CONFIGURATIONS INVESTIGATED

ONIT0047 - 2

FREQUENCY RANGE INVESTIGATED

Start Frequency 30 MHz	Stop Frequency	1000 MHz
Start Frequency 30 MHz	Stop Frequency	1000 WI 12

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
Analyzer - Spectrum Analyzer	Agilent	E4443A	AFB	16-May-2017	12 mo
Filter - Low Pass	Micro-Tronics	LPM50004	HGR	17-Apr-2017	12 mo
Cable	None	3m Test Distance Cable	EVM	17-Apr-2017	12 mo
Amplifier - Pre-Amplifier	Miteq	AM-1551	AOY	17-Apr-2017	12 mo
Antenna - Biconilog	EMCO	3141	AXG	17-Jul-2017	24 mo

TEST DESCRIPTION

The antennas to be used with the EUT were tested. The EUT was transmitting while set at the operating channel.

For each configuration, the spectrum was scanned throughout the specified range as part of the exploratory investigation of the emissions. These "pre-scans" are not included in the report. Final measurements on individual emissions were then made and included in this test report.

The individual emissions from the EUT were maximized by rotating the EUT on a turntable, adjusting the position of the EUT and EUT antenna in three orthogonal axis, and adjusting the measurement antenna height and polarization (per ANSI C63.10). A preamp and high pass filter (and notch filter) were used for this test in order to provide sufficient measurement sensitivity.

Measurements were made with the required detectors and annotated on the data for each individual point using the following annotation:

QP = Quasi-Peak Detector

PK = Peak Detector

AV = RMS Detector

Measurements were made to satisfy the specific requirements of the test specification for out of band emissions as well as the restricted band requirements.

If there are no detectable emissions above the noise floor, the data included may show noise floor measurements for reference only.

Measurements at the edges of the allowable band may be presented in an alternative method as provided for in the ANSI C63.10 Marker-Delta method. This method involves performing an in-band fundamental measurement followed by a screen capture of the fundamental and out-of-band emission using reduced measurement instrumentation bandwidths. The amplitude delta measured on this screen capture is applied to the fundamental emission value to show the out-of-band emission level as applied to the limit.

FIELD STRENGTH OF SPURIOUS EMISSIONS GREATER THAN 30 MHZ



										EmiR5 2017.09.18.2		PSA-ESCI 2017.09.18	<u>B</u>		
1	Work Order:				Date:	26-Feb					- //	4			
	Project:	None		Ter	mperature:	21.7	7 °C	(/	1	//					
	Job Site:				Humidity:	31.99	% RH			19/	10-				
Ser	rial Number:		uration	Barome	etric Pres.:	1024	mbar		Tested by:	Travis Pow	and Jeff A	Alcoke	_		
		OS700 Safe													
Co	nfiguration:	2													
	Customer:	Onity Inc., A Division of UTCFS													
	Attendees:	None											-		
	EUT Power:												-		
0	ating Mode:	13.56 MHz R	FID conti	nuous Tx v	with tag polli	ing							=		
Oper	ating wode.														
	Deviations:	None											-		
	Deviations:														
		See commen	its below	for EUT or	ientation								=		
	Comments:														
Tool Co.	a sification a						Test Meth								
	ecifications												=		
FCC 15.	225:2018						ANSI C63.	.10:2013							
	•												=		
Run	# 20	Test Dista	ance (m)	3	Antenna	Height(s)		1 to 4(m)		Results	P	ass	_		
80															
70	1														
60															
⁵⁰ ء															
w//ng p												 -			
n 40															
₩ +0															
_															
30															
20	+														
							•								
10	+						•								
					•		_								
						!									
0	+	1							1	1		1000			
	10					100						1000			
						MHz				■ PK	◆ AV	QP			
										- FN	▼ AV	→ ₩ Γ			
							Polarity/								
From	Amplitude	Factor A-	otoppa Haiakt	Azimuth	Test Distance	External	Transducer	Dotretee	Distance	Adjusted	Spac Limit	Compared to			
Freq (MHz)	Amplitude (dBuV)	Factor An (dB)	tenna Height (meters)	Azimuth (degrees)	(meters)	Attenuation (dB)	Туре	Detector	Adjustment (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Spec. (dB)			
(WITIZ)	(3507)	(==)	,,	(==5.000)	(51010)	(15)			(30)	(32247111)	((35)	Comments		
40.681	51.8	-26.0	1.0	159.0	3.0	0.0	Vert	QP	0.0	25.8	40.0	-14.2	EUT on Side		
67.802	49.5	-30.7	1.0	340.0	3.0	0.0	Vert	QP	0.0	18.8	40.0	-21.2	EUT on Side		
122.045		-29.5	1.0	85.0	3.0	0.0	Vert	QP	0.0	18.3	43.5	-25.2	EUT on Side		
94.923	46.2	-29.0	1.0	57.0	3.0	0.0	Vert	QP	0.0	17.2	43.5	-26.3	EUT on Side		
54.245 135.605	35.0 37.5	-29.7 -29.1	1.2 1.0	299.0 84.0	3.0 3.0	0.0 0.0	Vert Vert	QP QP	0.0 0.0	5.3 8.4	40.0 43.5	-34.7 -35.1	EUT on Side EUT on Side		
81.367	37.5	-30.6	1.0	93.0	3.0	0.0	Vert	QP QP	0.0	3.8	43.5 40.0	-35.1 -36.2	EUT on Side		
108.488		-28.7	1.0	250.0	3.0	0.0	Vert	QP	0.0	6.0	43.5	-37.5	EUT on Side		