



# COMPLIANCE WORLDWIDE INC. TEST REPORT 248-21

In Accordance with the Requirements of Federal Communications Commission CFR Title 47 Part 15.249, Subpart C

Innovation, Science and Economic Development Canada RSS 210, Issue 10

Low Power License-Exempt Radio Communication Devices Intentional Radiators

Issued to

PICA Product Development, LLC 4 Ash Street Extension Derry, NH 03038

> for the Skyhawk Hub Model: HUBPVZG

FCC ID: UOXSKYHAWKHUBTYP1

Report Issued on July 30, 2021

Tested by

Brian F. Breault

Reviewed by

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ACCREDITED
TESTING CERT #1673.01

Issue Date: 7/30/2021

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#### 1. Scope

This test report certifies that the PICA Product Development Skyhawk Hub Model HUBPVZG, as tested, meets the FCC Part 15, Subpart C and Industry Canada RSS 210, Issue 10 requirements. The scope of this test report is limited to the test sample provided by the client, only in as much as that sample represents other production units. If any significant changes are made to the unit, the changes shall be evaluated and a retest may be required.

#### 2. Product Details

**2.1. Manufacturer:** PICA Product Development

**2.2. Model Number:** HUBPVZG

**2.3. Serial Number:** SHH212000001

**2.4. Description of EUT:** Remote monitoring of animal traps

**2.5. Power Source:** 3 VDC (2 – AAA Batteries)

2.6. Hardware Revision: Rev F2.7. Software Revision: N/A

**2.8. Modulation Type:** Gaussian frequency shift keying

2.9. Operating Frequency: 915 MHz2.10. EMC Modifications: None

#### 3. Product Configuration

#### 3.1. EUT Hardware

Manufacturer	Model	Serial Number	Input Volts	Freq (Hz) Or DC	Description/Function
PICA Product Development	HUBPVZG	SHH212000001	3	DC	Animal Trap Sensor
Quectel Wireless Solutions	Quectel BG96				PCS Module FCC ID: XMR201707BG96

#### 3.2. Support Equipment

Device	Manufacturer	Model	Serial No.	Comment
None				

#### 3.3. Cables

Cable Type	Length	Shield	From	То
None				





#### 3. Product Configuration (continued)

#### 3.4. Operational Characteristics & Software

The EUT was configured for continuous transmit operation once the batteries are installed and the button is pushed.

#### 3.5. Block Diagram

Skyhawk Hub

#### 4. Measurements Parameters

#### 4.1. Measurement Equipment Used to Perform Test

Device	Manufacturer	Model No.	Serial No.	Cal Due	Interval
EMI Test Receiver, 9kHz - 7GHz <sup>1</sup>	Rohde & Schwarz	ESR7	101156	10/16/2022	2 Years
EMI Test Receiver, 10 Hz - 7GHz <sup>1</sup>	Rohde & Schwarz	ESR7	101770	7/17/2022	2 Years
Spectrum Analyzer, 2 Hz to 26.5 GHz <sup>2</sup>	Rohde & Schwarz	FSW26	102057	9/13/2021	3 Years
Spectrum Analyzer, 9 kHz to 40 GHz <sup>3</sup>	Rohde & Schwarz	FSV40	100899	8/12/2022	2 Years
Spectrum Analyzer 10 Hz – 40 GHz <sup>1</sup>	Rohde & Schwarz	FSVR40	100909	9/18/2022	2 Years
Loop Antenna 9 kHz - 30 MHz	EMCO	6512	9309-1139	1/28/2022	3 Years
Biconilog Antenna, 30 MHz - 2 GHz	Sunol Sciences	JB1	A050913	7/1/2023	2 Years
Dbl Ridged Guide Antenna 1- 18 GHz	ETS-Lindgren	3117	00143292	3/21/2022	2 Years
Horn Antenna, 18 GHz to 40 GHz	Com-Power	AH-840	101032	9/8/2021	3 Years
Preamplifier, 1 GHz to 26.5 GHz	Hewlett Packard	8449B	3008A01323	9/11/2021	3 Years
1.8 GHz - 9.3 GHz Passband Filter	Mini-Circuits	VHP-16	0341	3/23/2022	2 Years
Band Reject Filter (Notch), 2.4 GHz	Micro-Tronics	BRM50702	150	3/23/2022	2 Years
Digital Barometer	Control Company	4195	ID236	4/3/2021	3 Years
Temperature Chamber	Associated Environmental	SD-308	10782	CNR	N/A

<sup>1</sup> ESR7 Firmware revision: V3.48 SP3, Date installed: 09/30/2020 <sup>2</sup> FSW26 Firmware revision: V4.71 SP1, Date installed: 11/16/2020

Previous V3.48 SP2, installed 07/23/2020. Previous V4.61, installed 08/11/2020.

<sup>4</sup> FSVR40 Firmware revision: V2.23 SP1, Date installed: 08/19/2016

<sup>3</sup> FSV40 Firmware revision: V2.30 SP4, Date installed: 05/04/2016

Previous V2.30 SP1, installed 10/22/2014. Previous V2.23, installed 10/22/2014.





### 4. Measurements Parameters (continued)

#### 4.2. Software Used to Perform Test

Manufacturer	Software Description	Title or Model #	Rev.	Report Sections
Compliance Worldwide	Test Report Generation Software	Test Report Generator	1.0	Used to process conducted emissions data

4.3. Measurement & Equipment Setup

EMI Receiver IF Bandwidth:

Test Dates: 7/19/2021, 7/20/2021, 7/22/2021

Test Engineers: Sean Defelice

Normal Site Temperature (15 - 35°C): 22 Relative Humidity (20 -75%RH): 44

Frequency Range: 30 kHz to 10 GHz

Measurement Distance: 3 Meters

200 Hz – 10 kHz to 150 kHz 9 kHz – 150 kHz to 30 MHz 120 kHz – 30 MHz to 1 GHz

1 MHz - Above 1 GHz

EMI Receiver Average Bandwidth: >= 3 \* RBW

Detector Function: Peak, Quasi-Peak & Average

#### 4.4. Measurement Procedures

Test measurements were made in accordance FCC Part 15.249, ISED RSS-210 B.10: Operation within the bands <u>902 - 928 MHz</u>, 2400 - 2483.5 MHz, 5725 - 5875 MHz, and 24.0 - 24.25 GHz.

The test methods used to generate the data in this test report are in accordance with ANSI C63.10: 2013, American National Standard for Testing Unlicensed Wireless Devices.

ISED RSS-210, Issue 10; RSS-GEN, Issue 5

#### 4.5. Choice of Operating Frequencies

The device under test utilizes one operating frequency at 915.0 MHz

#### 4.6. EUT Positions for Emissions Measurements

The device under test was tested in two orthogonal positions in accordance with ANSI C63.10-2013, Section 5.10.1 to represent either wall or ceiling mounted configurations.





### **5. Measurement Summary**

	-				
Test Requirement	FCC Requirement	ISED Requirement	Test Section	Result	Comment
Antenna Requirement	15.203	RSS-GEN 6.7	6.1	Compliant	
Radiated Field Strength of Fundamental	15.249 (a),(c)	RSS-210 B.10	6.2	Compliant	
Radiated Field Strength of Harmonics	15.249 (a),(c)	RSS-210 B.10	6.3	Compliant	
Fixed, Point-to-Point Operation	15.249 (b)	N/A		Not Required	
Band Edge Measurements	15.249 (d) 15.209	N/A	6.4	Compliant	
Spurious Radiated Emissions	15.249 (d), 15.209	RSS-210 B.10	6.5	Compliant	
Occupied Bandwidth (-20 dB)	ANSI C63.4 § 13.1.7	N/A	6.6	Compliant	
99% Power Bandwidth	N/A	RSS-GEN 6.6	6.7	Compliant	
AC Power Line Conducted Emissions	15.207	RSS-GEN 8.8	6.8	N/A	EUT is battery powered
Public Exposure to Radio Frequency Energy Levels	2.1093 1.1307 (b)(1))	RSS-102 Issue 5	6.9	Compliant	

#### 6. Measurement Data

#### 6.1. Antenna Requirement (Section 15.203, RSS-GEN, Issue 5)

Automia Requirement (Coolien Folzos, Red Czit, Iodae s)

Requirement: 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.

Result: The unit under test utilizes an external monopole antenna with an

external RP-SMA connector.





### 6. Measurement Data (continued)

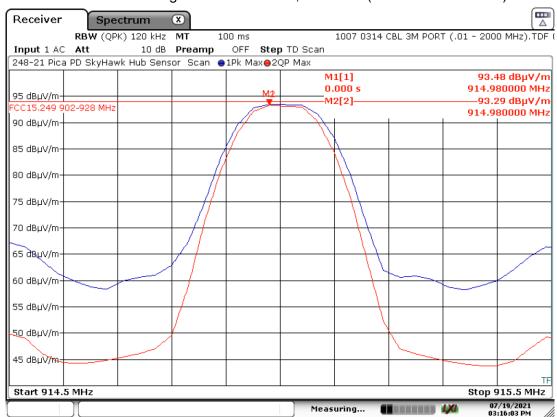
# 6.2. Radiated Field Strength of Fundamental (15.249, Section (a), (c), ISED RSS-210 B.10)

Requirement: The 3 meter field strength of the fundamental emissions from intentional radiators operating within the 2400 – 2483.5 MHz frequency band shall comply with the following requirement: 50 millivolts/meter (94 dB $\mu$ V/m) Quasi-Peak mode measurement and 500 millivolts/meter (114 dB $\mu$ V/m) peak mode measurement.

Frequency (MHz)	(dB)	plitude¹ uV/m) at Meters	(dBµ	imit V/m) at leters	Margin (dBµV/m) at 3 Meters		Ant Polarity	Ant Height	Turntable Azimuth	Result
	Peak	Quasi-Pk	Peak	Quasi-Pk	Peak	Quasi-Pk	H/V	cm	Deg	
915	93.48	93.29	114.00	94.00	-20.52	-0.71	Н	155	294	Compliant

<sup>&</sup>lt;sup>1</sup> All correction factors are included in measurement values.

#### 6.2.1. Radiated Field Strength of Fundamental, 915 MHz (Worst case – Y Axis)



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#### 6. Measurement Data (continued)

### 6.3. Radiated Field Strength of Harmonics (15.249, Section (a), ISED RSS-210 A.1.4 (d))

Requirement: The 3 meter field strength of the harmonic emissions from intentional

radiators operated within the 2400 to 2483.5 MHz frequency bands shall comply with the following: 500 microvolts/meter (54 dBµV/m), average mode measurement. Peak field strength may not be greater than 20 dB

above the average limit (74 dBµV/m).

Test Results : Compliant

Notes: All correction factors are included in the field strength values. The tabled

values represent the worst case orthogonal position of the DUT.

#### 6.3.1. Fundamental Frequency = 915 MHz

Freq.	Field Strength (dBµV/m)		_	Limit (dBµV/m)		rgin ıV/m)	Antenna Polarity	Result
(	Peak	Average	Peak	Average	Peak	Average	(H/V)	
1830.00	43.58	30.75	74.00	54.00	-30.42	-23.25	Н	Compliant
2745.00	53.78	47.85	74.00	54.00	-20.22	-6.15	Н	Compliant
3660.00	49.45	36.00	74.00	54.00	-24.55	-18.00	Н	Compliant
4575.00	51.72	39.09	74.00	54.00	-22.28	-14.91	Н	Compliant
5490.00	50.75	37.51	74.00	54.00	-23.25	-16.49	Н	Compliant
6405.00	51.58	39.17	74.00	54.00	-22.42	-14.83	Н	Compliant
7320.00	52.48	40.58	74.00	54.00	-21.52	-13.42	Н	Compliant
8235.00	56.06	43.22	74.00	54.00	-17.94	-10.78	Н	Compliant
9150.00	53.26	40.86	74.00	54.00	-20.74	-13.14	Н	Compliant





#### 6. Measurement Data (continued)

#### 6.4. Band Edge Measurements (15.249, Section (d), ISED RSS-210 A.1.4 (d))

Requirement: Emissions radiated outside of the specified frequency band of 902 to 928

MHz, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in

Section 15.209, whichever is the lesser attenuation.

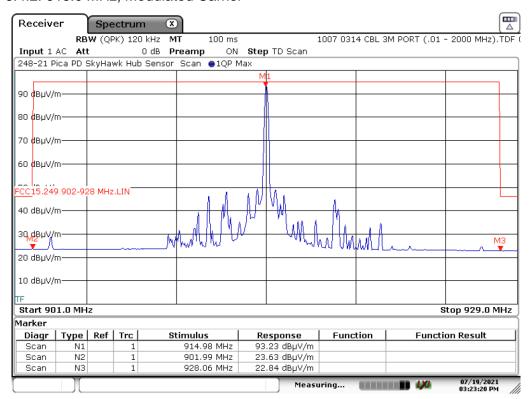
Test Note: The upper and lower band edge peak mode measurements meet the

FCC Part 15, Section 15.209 quasi-peak requirement of 46 dBµV/m.

#### 6.4.1. Band Edge

Freq.		itude V/m)		Band Edge (dBµV/m)				Margin (dBµV/m)	Result
(MHz)	Peak	Quasi Peak	Band Edge	Freq MHz	Peak	Quasi Peak	15.209 QP	15.209 QP	
915.0	93.48	93.29	Lower	901.99		23.63	46.00	-22.37	Compliant
915.0	93.46	93.29	Upper	928.06		22.84	46.00	-23.16	Compliant

#### 6.4.2. 915.0 MHz, Modulated Carrier



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#### 6. Measurement Data (continued)

# 6.5. Spurious Radiated Emissions, 32 kHz to EUT 10<sup>th</sup> Harmonic (15.249, Section (d)), ISED RSS-GEN, Issue 4

Requirement: Emissions radiated outside of the specified frequency bands, except for

harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in Section 15.209,

whichever is the lesser attenuation.

Test Notes: Spurious emissions screen captures are located in appendices A and B.

The lowest frequency generated by the device under test is 32.768 kHz.

#### 6.5.1. Regulatory Limit: FCC Part 209, Quasi-Peak & Average

Frequency Range (MHz)	Distance (Meters)	Limit (dBµV/m)
0.009 to 0.490	3	128.5 to 93.8
0.490 to 1.705	3	73.8 to 63
1.705 to 30	3	69.5
30 to 88	3	40.0
88 to 216	3	43.5
216 to 960	3	46.0
Above 960	3	54.0

#### 6.5.2. Measurement Summary

Notes: Each of the tabled entries represents the worst case turntable position and receive height. All measurements were made using a peak detector.

Transmit Frequency = 915 MHz

Frequency Range (MHz)	Worst-Case Measured Frequency	Field Strength	FCC Part 15.209 Limit	Margin	Reference	Receive Antenna Polarity
(	(MHz)	(dBµV/m)	(dBµV/m)	(dB)	Appendix A	(H/V)
0.03 - 0.15	0.03370	69.10	117.85	-48.75	A.1.6	Gnd Parallel
0.15 - 30	0.15000	61.54	104.08	-42.54	A.2.4	Parallel
30 - 1000 375.00000		33.00	46.00	-13.00	A.3.1	Н
1000 - 9400	2745.30000	47.27	54.00	-6.73	A.4.1	Н

Sample Calculation: Final Res

Final Result ( $dB\mu V/m$ ) = Measurement Value ( $dB\mu V$ ) + Antenna Factor (dB/m) + Cable Loss (dB) – Pre-amplifier Gain (dB) Internal or External.

**Note:** All correction factors are loaded into the measurement instrument prior to testing to determine the final result.





### 6. Measurement Data (continued)

### 6.6 Occupied Bandwidth (ANSI C63.10, Section 6.9.1 & ISED RSS-GEN, Issue 5)

Requirement: The occupied bandwidth measurements on an intentional radiator shall be made in accordance with the requirements outlined in ANSI C63.10-2013,

Section 6.9.1. If no bandwidth requirement is specified by the procuring or regulatory agency, the bandwidth will be measured at –20 dB with respect

to the reference level.

Test Notes:

The span range for the SA display shall be between two times and five times the OBW. The nominal IF filter bandwidth (3 dB RBW) should be approximately 1% to 5% of the OBW, unless otherwise specified, depending on the applicable requirement. The dynamic range of the SA at the selected RBW shall be more than 10 dB below the target "dB down" (attenuation) requirement, i.e., if the requirement calls for measuring the – 20 dB OBW, the SA noise floor at the selected RBW shall be at least 30 dB below the largest measured value on the display.

Frequency (MHz)	-20 dB Bandwidth (kHz)
915.0	120.68

#### 6.6.1. Occupied (-20 dB) Bandwidth, Fundamental Frequency = 915 MHz







#### 6. Measurement Data (continued)

#### 6.7 99% Emission Bandwidth (ISED RSS-GEN)

Requirement: When an occupied bandwidth value is not specified in the applicable

RSS, the transmitted signal bandwidth to be reported is to be its 99%

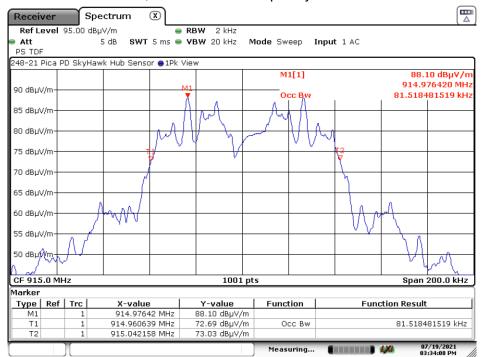
emission bandwidth, as calculated or measured.

Test Notes:

The transmitter shall be operated at its maximum carrier power measured under normal test conditions. The span of the analyzer shall be set to capture all products of the modulation process, including the emission skirts. The resolution bandwidth shall be set to as close to 1% of the selected span as is possible without being below 1%. The video bandwidth shall be set to 3 times the resolution bandwidth. Video averaging is not permitted. Where practical, a sampling detector shall be used given that a peak or peak hold may produce a wider bandwidth than actual.

Frequency (MHz)	99% Power Bandwidth (kHz)
915.0	81.519

#### 6.7.1. 99% Power Bandwidth, Fundamental Frequency = 915.0 MHz



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### 6. Measurement Data (continued)

#### 6.8. Conducted Emissions

Requirement: 15.207 With certain exceptions, 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  $50\mu H/50\Omega$  line impedance stabilization network (LISN).

Frequency Range (MHz)	Limits (dBµV)				
(	Quasi-Peak	Average			
0.15 to 0.50	66 to 56*	56 to 46*			
0.50 to 5.0	56	46			
5.0 to 30.0	60	50			
* Decreases with the logarithm of the frequency.					

Procedure: This test was performed in accordance with the procedure detailed in

ANSI C63.10-2013, Section 6.2: Standard test method for ac power-line

conducted emissions from unlicensed wireless devices.

Test Notes: The device under test is only battery powered.

Results: N/A

Measurement & Equipment Setup

Test Date: N/A N/A Test Engineer: Site Temperature (°C): 22.8 48.3 Relative Humidity (%RH):

0.15 MHz to 30 MHz Frequency Range:

EMI Receiver IF Bandwidth: 9 kHz EMI Receiver Avg Bandwidth: 30 kHz

**Detector Functions:** Peak, Quasi-Peak & Average



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#### 6. Measurement Data (continued)

6.9. Public Exposure to Radio Frequency Energy Levels ((1.1307 (b)(1)) RSS-GEN, ISSUE 5, RSS 102)

6.9.1. 1.1307 (b) (1) Public Exposure

Requirement: Systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess of the Commission's quidelines.

Frequency		DUT Output Power (dBm)	DUT Antenna Numeric	Power Density	Limit (mW/cm2)	Result
(MHz)		Tower (abiii)	Gain (dB)	(mW/cm²)		
		(2)	(3)	(4)	(5)	
915.0	20	-1.91	0	0.0001282	0.61	Compliant
824.2	20	23.97	2.512	0.0884973	0.55	Compliant
			SUM	0.0886255	0.55	

$$PD = \frac{OP + AG}{(4 \times \pi \times d^2)}$$

PD = Power Density (mW/cm<sup>2</sup>)

• OP = DUT Output Power (dBm)

• AG = DUT Antenna Gain (dBi)

• d = MPE Distance (cm)

- Reference CFR 2.1091: For purposes of this section, a mobile device is defined as a transmitting device designed to be used in other than fixed locations and to generally be used in such a way that a separation distance of at least 20 centimeters is normally maintained between the transmitter's radiating structure(s) and the body of the user or nearby persons.
- 2. Table 6.2 of this test report. Converted from field strength measurements.
- 3. Included in field strength measurement.
- 4. Power density is calculated from field strength measurement and antenna gain.
- Reference CFR 1.1310, Table 1: Limits for Maximum Permissible Exposure (MPE), Section (B): Limits for General Population/Uncontrolled Exposure. Limit = f/1500, where f is in MHz.

Results: Passed - The device under test meets the exclusion requirement detailed for a device with a separation distance of 20 cm.





#### 6. Measurement Data (continued)

6.9. Public Exposure to Radio Frequency Energy Levels ((1.1307 (b)(1)) RSS-GEN, ISSUE 5, RSS 102)

6.9.2. RSS-102 Issue 5 Requirements

Requirement: Requirement: RF exposure evaluation is required if the separation distance between the user and/or bystander and the device's radiating element is greater than 20 cm, except when the device operates as follows:

at or above 300 MHz and below 6 GHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than 1.31 x  $10^{-2}$  x  $f^{0.6834}$  W (adjusted for tune-up tolerance), where f is in MHz.

Results: Compliant

Frequency	Separation Distance	Maximum Power <sup>1</sup>		RSS-102 Exemption Limit <sup>2</sup>	Result
(MHz)	(cm)	(mW)	(Watts)	(Watts)	
915.0	≥ 20	0.39	0.00039	1.38	Compliant
824.2	≥ 20	444.84	0.44484	1.29	Compliant
		SUM	0.44523	1.29	

<sup>&</sup>lt;sup>1</sup> Reference Section 6.2 of this report.

The following formula was used to determine the exemption limit (W):  $1.31 \times 10^{-2} \times f^{0.6834}$  (f = frequency (MHz))

Reference RSS-102, § 2.5.2 Exemption Limits for Routine Evaluation – RF Exposure Evaluation for distances greater than 20 cm.



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# 7. Test Setup Photographs

7.1 Radiated Spurious Emissions 30 kHz to 1 GHz, Front View





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7. Test Setup Photographs7.2 Radiated Spurious Emissions < 30 MHz, Rear View</li>





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# 7. Test Setup Photographs

7.3 Radiated Field Strength and Spurious Emissions, 30 MHz to 1 GHz, Rear View





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# 7. Test Setup Photographs

7.4. Radiated Harmonics and Spurious Emissions >1 GHz, Front View

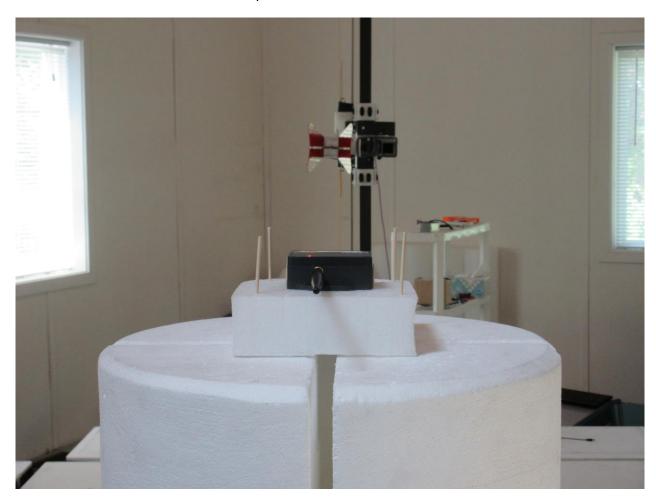




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# 7. Test Setup Photographs

7.5. Radiated Harmonics and Spurious Emissions >1 GHz, Rear View





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#### 8. Test Site Description

Compliance Worldwide is located at 357 Main Street in Sandown, New Hampshire. The test sites at Compliance Worldwide are used for conducted and radiated emissions testing in accordance with the Federal Communications Commission (FCC) and Industry Canada standards. Through our American Association for Laboratory Accreditation (A2LA) ISO Guide 17025 Accreditation our test sites are designated with the FCC (designation number US1091), Industry Canada (file number IC 3023A-1) and VCCI (Member number 3168) under registration number A-0274.

Compliance Worldwide is also designated as a Phase 1 CAB under APEC-MRA (US0132) for Australia/New Zealand AS/NZS CISPR 32, Chinese-Taipei (Taiwan) BSMI CNS 13438 and Korea (RRA) KN 11, KN 13, KN 14-1, KN 22, KN 32, KN 61000-6-3, KN 61000-6-4.

The radiated emissions test site is a 3 and 10 meter enclosed open area test site (OATS). Personnel, support equipment and test equipment are located in the basement beneath the OATS ground plane.

The conducted emissions site is part of a 16'  $\times$  20'  $\times$  12' ferrite tile chamber and uses one of the walls for the vertical ground plane. A second conducted emissions site is also located in the basement of the OATS site with a 2.3  $\times$  2.5 meter ground plane and a 2.4  $\times$  2.4 meter vertical wall.

The radiated emissions test site for measurements above 1GHz is a 3 Meter open area test site (OATS) with a 3.6 by 3.6 meter anechoic absorber floor patch to achieve a quasi-free space measurement environment per ANSI C63.4/C63.10 and CISPR 16-1-4 standards.

The sites are designed to test products or systems 1.5 meters W x 1.5 meters L x 2.0 meters H, floor standing or table top.



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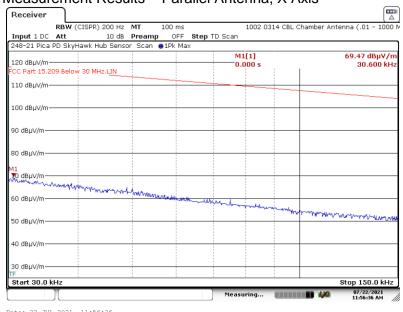
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### Appendix A

# Spurious Radiated Emissions, 30 kHz to EUT 10<sup>th</sup> Harmonic (15.249, Section (d)), ISED RSS-GEN, Issue 5 (continued)

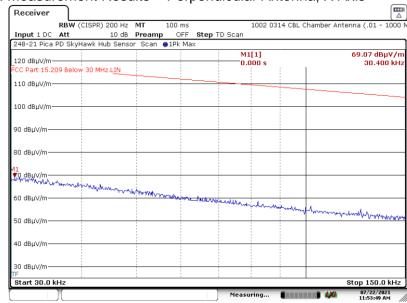
A.1. Spurious Radiated Emissions (30 kHz to 150 kHz),

A.1.1. Measurement Results - Parallel Antenna, X Axis



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#### A.1.2. Measurement Results - Perpendicular Antenna, X Axis



Date: 22.JUL.2021 11:53:50



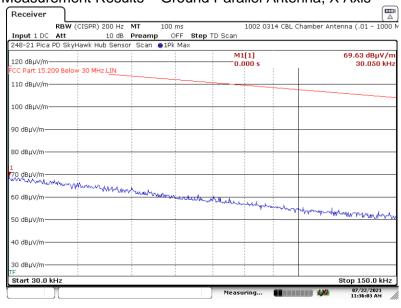


### **Appendix A (continued)**

# Spurious Radiated Emissions, 30 kHz to EUT 10<sup>th</sup> Harmonic (15.249, Section (d)), ISED RSS-GEN, Issue 5 (continued)

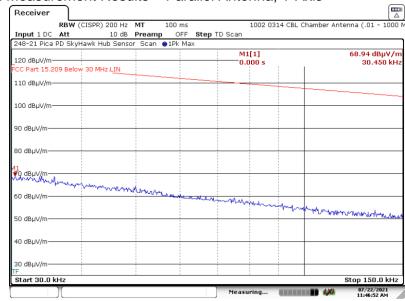
A.1. Spurious Radiated Emissions (30 kHz to 150 kHz)

#### A.1.3. Measurement Results - Ground Parallel Antenna, X Axis



Date: 22.JUL.2021 11:36:03

#### A.1.4. Measurement Results - Parallel Antenna, Y Axis



Date: 22.JUL.2021 11:46:52



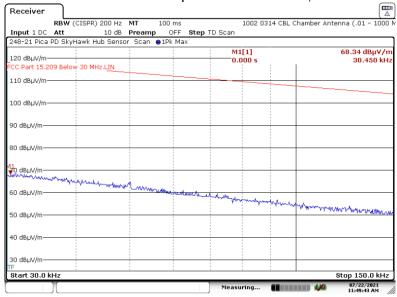


### **Appendix A (continued)**

# Spurious Radiated Emissions, 30 kHz to EUT 10<sup>th</sup> Harmonic (15.249, Section (d)), ISED RSS-GEN, Issue 5 (continued)

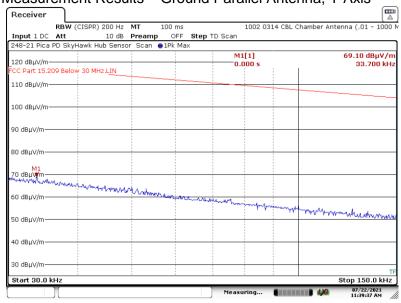
A.1. Spurious Radiated Emissions (30 kHz to 150 kHz)

A.1.5. Measurement Results - Perpendicular Antenna, Y Axis



Date: 22.JUL.2021 11:49:44

#### A.1.6. Measurement Results - Ground Parallel Antenna, Y Axis



Date: 22.JUL.2021 11:39:37



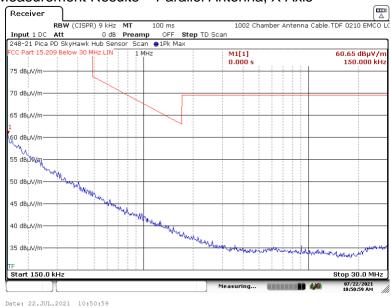


### **Appendix A (continued)**

# Spurious Radiated Emissions, 30 kHz to EUT 10th Harmonic (15.249, Section (d)), **ISED RSS-GEN, Issue 5 (continued)**

A.2. Spurious Radiated Emissions (150 kHz to 30 MHz)

A.2.1. Measurement Results - Parallel Antenna, X Axis



#### A.2.2. Measurement Results - Perpendicular Antenna, X Axis







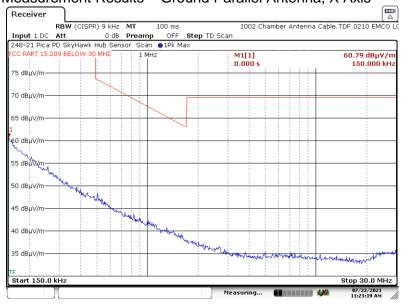
Issue Date: 7/30/2021

### **Appendix A (continued)**

# Spurious Radiated Emissions, 30 kHz to EUT 10<sup>th</sup> Harmonic (15.249, Section (d)), ISED RSS-GEN, Issue 5 (continued)

A.2. Spurious Radiated Emissions (150 kHz to 30 MHz)

#### A.2.3. Measurement Results - Ground Parallel Antenna, X Axis



Date: 22.JUL.2021 11:23:20

#### A.2.4. Measurement Results - Parallel Antenna, Y Axis



Date: 22.JUL.2021 11:03:27





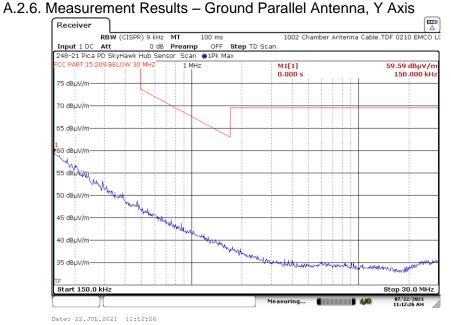
### **Appendix A (continued)**

Spurious Radiated Emissions, 30 kHz to EUT 10th Harmonic (15.249, Section (d)), ISED RSS-GEN, Issue 5 (continued)

A.2. Spurious Radiated Emissions (150 kHz to 30 MHz)

A.2.5. Measurement Results - Perpendicular Antenna, Y Axis





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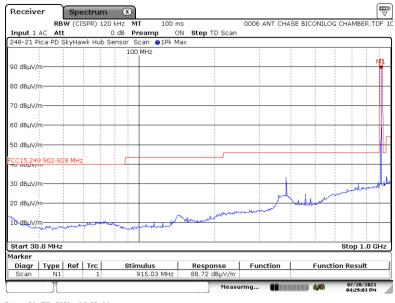


### **Appendix A (continued)**

# Spurious Radiated Emissions, 30 kHz to EUT 10<sup>th</sup> Harmonic (15.249, Section (d)), ISED RSS-GEN, Issue 5 (continued)

A.3. Spurious Radiated Emissions (30 MHz to 1 GHz)

A.3.1. Measurement Results - Horizontal Antenna, X Axis



Date: 20.JUL.2021 16:29:04

#### A.3.2. Measurement Results – Vertical Antenna, X Axis



Date: 20.JUL.2021 16:22:09



**TESTING CERT #1673.01** 

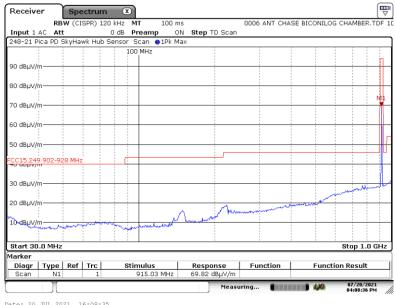
Test Number: 248-21 Issue Date: 7/30/2021

### **Appendix A (continued)**

# Spurious Radiated Emissions, 30 kHz to EUT 10th Harmonic (15.249, Section (d)), **ISED RSS-GEN, Issue 5 (continued)**

A.3. Spurious Radiated Emissions (30 MHz to 1 GHz)

A.3.3. Measurement Results - Horizontal Antenna, Y Axis



Date: 20.JUL.2021 16:08:35

#### A.3.4. Measurement Results – Vertical Antenna, Y Axis



Date: 20.JUL.2021 16:15:29



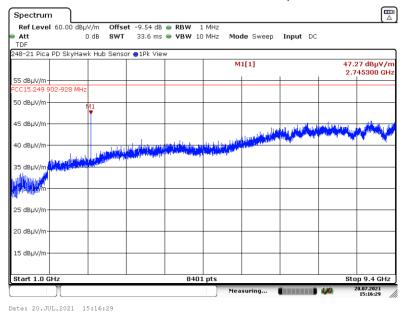


### **Appendix A (continued)**

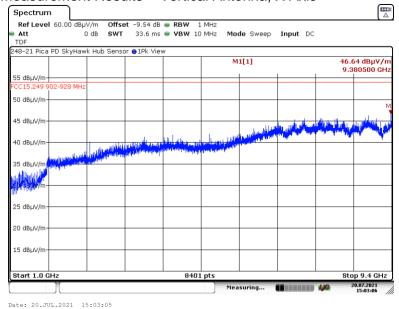
# Spurious Radiated Emissions, 30 kHz to EUT 10<sup>th</sup> Harmonic (15.249, Section (d)), ISED RSS-GEN, Issue 5 (continued)

A.4. Spurious Radiated Emissions (1 to 9.4 GHz)

A.4.1. Measurement Results - Horizontal Antenna, X Axis



A.4.2. Measurement Results - Vertical Antenna, X Axis





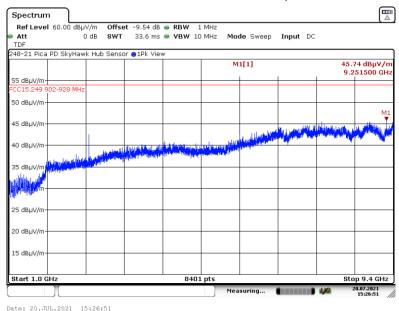


### **Appendix A (continued)**

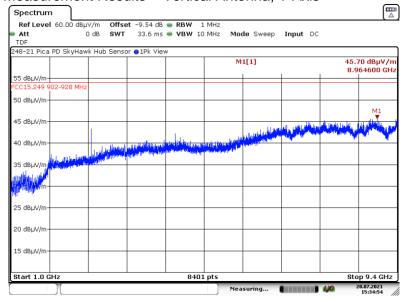
# Spurious Radiated Emissions, 30 kHz to EUT 10<sup>th</sup> Harmonic (15.249, Section (d)), ISED RSS-GEN, Issue 5 (continued)

A.4. Spurious Radiated Emissions (1 to 9.4 GHz)

A.4.3. Measurement Results - Horizontal Antenna, Y Axis



A.4.4. Measurement Results - Vertical Antenna, Y Axis



Date: 20.JUL.2021 15:34:54