

# FCC RF TEST REPORT



**Vista Labs**  
TEST • CERTIFY • COMPLY

Test Report Number.....	CDW-20052821-C-FCC-R1
Applicant.....	<b>Cohda Wireless Pty Ltd</b>
Applicant Address.....	27 Greenhill Road, Wayville, SA 5034 Australia
Product Name.....	DSRC MK5 OBU Development Platform
Model Number.....	XBU-V
Family Product/Model.....	N/A
FCC ID.....	2AEGPMK5OBU
Date of EUT received.....	08/12/2019
Date of Test.....	08/12/2019 – 08/20/2019
Report Issue Date.....	06/12/2020
Test Standards.....	47CFR Part95 Subpart L
Test Result.....	Pass

Issued By:

## Vista Laboratories

1261 Puerta Del Sol, San Clemente, CA 92673 USA

[www.vista-compliance.com](http://www.vista-compliance.com)

Note that the results contained in this report relate only to the items tested and were obtained in the period between the date of initial receipt of samples and the date of issue of the report. This report is not to be reproduced by any means except in full and in any case not without the written approval of Vista Laboratories.

Tested by:

Bruce Li/Test Engineer

Approved By:

David Zhang/Technical Manager

<b>Report Number:</b>	CDW-20052821-C-FCC-R1
<b>Product:</b>	DSRC MK5 OBU Development Platform
<b>Model Number:</b>	XBU-V



# Laboratory Introduction

Vista Labs is an A2LA accredited 17025 compliant regulatory compliance testing laboratories (Cert. number: 4848-01) strategically located in Orange County, providing services in the electrical and telecommunication industries. Vista labs is also recognized testing facility for Australia (ACMA), Chinese Taipei (BSMI), Chinese Taipei (NCC), Hong Kong (OFCA), Israel (MOC), Korea (RRA), Singapore (IMDA), Vietnam (MIC), etc.

Our comprehensive testing services include safety testing, EMC emission and susceptibility testing, RF and wireless testing (including DFS).

As your partner, Vista investigates appropriate test standards, develops test plans, performs troubleshooting & failure analysis, reviews documentation, and provides test reports for a complete compliance testing and certification package.



**17025 Product Testing Accreditation Certificate**



**17065 Product Certification Accreditation Certificate**



Electromagnetic Compatibility  
Radio Frequency  
Product Certification  
International Approval

1261 Puerta Del Sol  
San Clemente, CA, 92673  
+1 (949) 393-1123  
[www.vista-compliance.com](http://www.vista-compliance.com)

<b>Report Number:</b>	CDW-20052821-C-FCC-R1
<b>Product:</b>	DSRC MK5 OBU Development Platform
<b>Model Number:</b>	XBU-V



**TABLE OF CONTENTS**

**1 GENERAL INFORMATION .....5**

1.1 Applicant .....5

1.2 Product information .....5

1.3 Test standard and method .....6

1.4 Test Purpose and statement .....6

**2 TEST SITE INFORMATION .....7**

**3 MODIFICATION OF EUT .....7**

**4 TEST CONFIGURATION AND OPERATION .....7**

4.1 EUT test configuration .....7

4.2 EUT test mode .....7

4.3 Supporting Equipment .....8

4.4 EUT setup diagram .....8

4.5 EUT operation .....8

4.6 Test software .....8

**5 EUT AND TEST SETUP PICTURES .....9**

5.1 EUT pictures .....9

5.2 EUT test setup pictures .....10

**6 TEST SUMMARY .....12**

**7 UNCERTAINTY OF MEASUREMENT .....13**

**8 TEST SUMMARY AND RESULT .....14**

8.1 Transmitter unwanted emission masks .....14

**9 TEST INSTRUMENT LIST .....24**



Electromagnetic Compatibility  
 Radio Frequency  
 Product Certification  
 International Approval

1261 Puerta Del Sol  
 San Clemente, CA, 92673  
 +1 (949) 393-1123  
[www.vista-compliance.com](http://www.vista-compliance.com)

<b>Report Number:</b>	CDW-20052821-C-FCC-R1
<b>Product:</b>	DSRC MK5 OBU Development Platform
<b>Model Number:</b>	XBU-V



### REVISION HISTORY

Revision	Issue Date	Description	Note
Original	06/05/2020	Original release	N/A
R1	06/12/2020	Update applicant address	N/A



Electromagnetic Compatibility  
 Radio Frequency  
 Product Certification  
 International Approval

1261 Puerta Del Sol  
 San Clemente, CA, 92673  
 +1 (949) 393-1123  
[www.vista-compliance.com](http://www.vista-compliance.com)

<b>Report Number:</b>	CDW-20052821-C-FCC-R1
<b>Product:</b>	DSRC MK5 OBU Development Platform
<b>Model Number:</b>	XBU-V



## 1 General Information

### 1.1 Applicant

<b>Applicant:</b>	Cohda Wireless Pty Ltd
<b>Applicant address:</b>	27 Greenhill Road, Wayville, SA 5034 Australia
<b>Manufacturer:</b>	Cohda Wireless Pty Ltd
<b>Manufacturer Address:</b>	27 Greenhill Road, Wayville, SA 5034 Australia

### 1.2 Product information

<b>Product Name</b>	DSRC MK5 OBU Development Platform
<b>Model Number</b>	XBU-V
<b>Family Model Number</b>	N/A
<b>Serial Number</b>	04E5482200FC
<b>Frequency Band</b>	5860MHz – 5920MHz
<b>Type of modulation</b>	OFDM
<b>Equipment Class/ Category</b>	DSRC OBU
<b>Maximum output power</b>	See test result
<b>Antenna Information</b>	Huber + Shunner (1399.17.0244), 2 dBi gain
<b>Clock Frequencies</b>	N/A
<b>Port/Connectors</b>	Ethernet, USB, Vehicle interface (VIC), Serial, Input power
<b>Input Power</b>	12VDC
<b>Power Adapter Manu/Model</b>	N/A
<b>Power Adapter SN</b>	N/A
<b>Hardware version</b>	N/A
<b>Software version</b>	N/A
<b>Simultaneous Transmission</b>	N/A
<b>Additional Info</b>	N/A

<b>Report Number:</b>	CDW-20052821-C-FCC-R1
<b>Product:</b>	DSRC MK5 OBU Development Platform
<b>Model Number:</b>	XBU-V



### 1.3 Test standard and method

<b>Test standard</b>	47CFR Part95 Subpart L ASTM E 2213-03 (2010)
<b>Test method</b>	ANSI C63.26: 2015 TIA/EIA-603-E-2016

### 1.4 Test Purpose and statement

The purpose of this test report is intended to demonstrate the compliance of product listed in section 1.2, received from company listed in section 1.1, to the requirements of standard and method listed in section 1.3. Based on our test results, we conclude that the product tested complies with the requirements of the standards indicated. This is C2PC reassessment report for approved device (FCC ID: 2AEGPMK5OBU), original model number: MK5-OBU. Only the spurious emission test result is presented here. For all the other RF measurement result, please refer to original FCC filing. Those measurements are not performed in current report since transmitter module itself has not changed as well as the fundamental RF characteristic.

<b>Report Number:</b>	CDW-20052821-C-FCC-R1
<b>Product:</b>	DSRC MK5 OBU Development Platform
<b>Model Number:</b>	XBU-V



## 2 Test site information

<b>Lab performing tests</b>	<b>Vista Laboratories</b>
<b>Lab Address</b>	1261 Puerta Del Sol, San Clemente, CA 92673 USA
<b>Phone Number</b>	+1 (949) 393-1123
<b>Website</b>	www.Vista-compliance.com

Test condition	Test Engineer	Test Environment	Test Date
Radiated	Bruce Li	23.5°C / 58.2%/996 mbar	08/12/2019 – 08/20/2019

## 3 Modification of EUT

The EUT is an engineering test sample loaded with RF testing firmware specifically designed to support the RF TX/RX measurement in different aspects.

## 4 Test configuration and operation

### 4.1 EUT test configuration

EUT is powered by external DC power supply for testing purpose. The test software is used to set EUT to different transmission mode in terms of radio mode, test channel, data rate, etc.

### 4.2 EUT test mode

Radio	Channel
802.11p	5860
802.11p	5890
802.11p	5920

### 4.3 Supporting Equipment

Index	Description	Model	S/N	Brand	Remark
1	DC Power Supply	DP712	DP7B194900487	RIGOL	N/A

### 4.4 EUT setup diagram



### 4.5 EUT operation

The operation, control and display are done by the built-in buttons and OLED display.

### 4.6 Test software

Index	Description	Remark
1	Putty.exe	To set EUT into continuous TX and RX mode under different modulation, data rate and channel, etc.
2	EMISoft Vasona 6.0049	EMC/Spurious emission test software used during testing



## 5 EUT and test setup pictures

### 5.1 EUT pictures



EUT Top View



EUT Bottom View



EUT Front View



EUT Rear View



EUT Left View

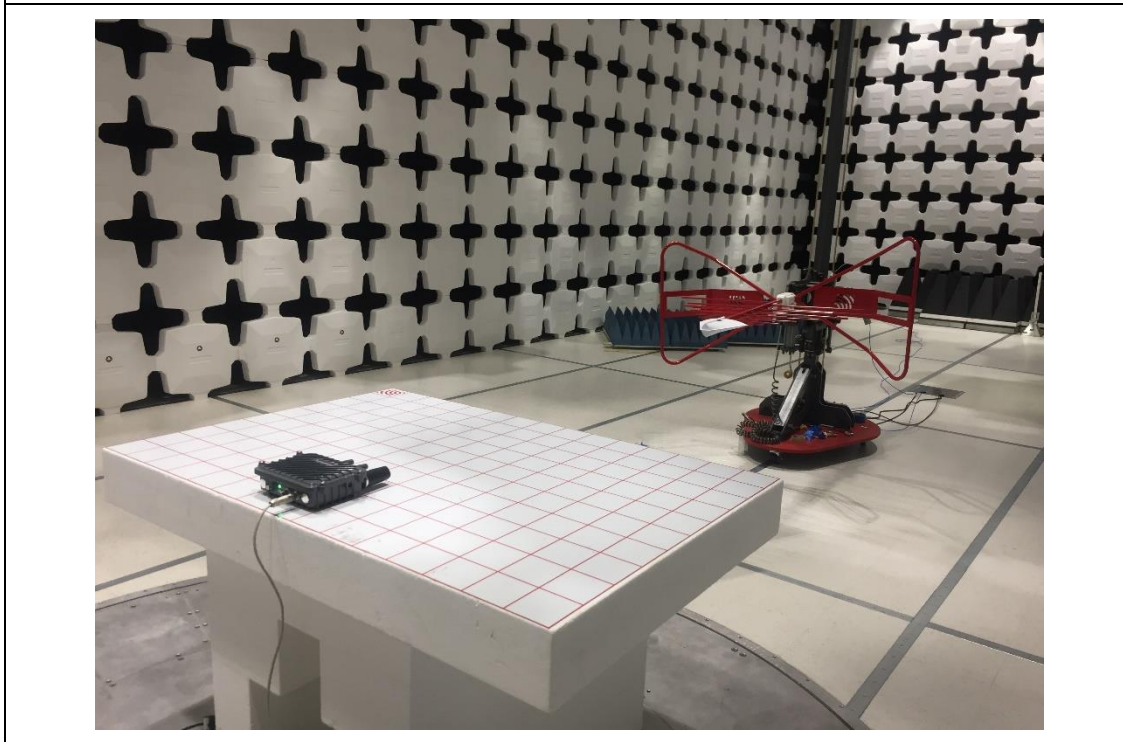


EUT Right View

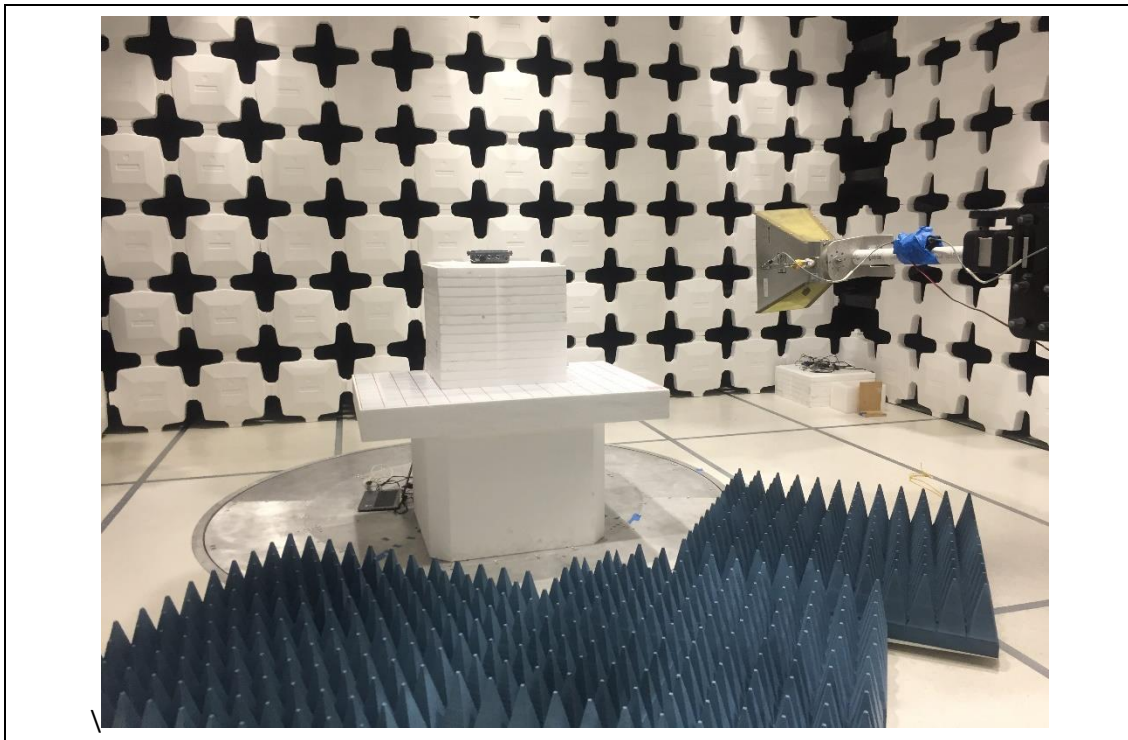
## 5.2 EUT test setup pictures



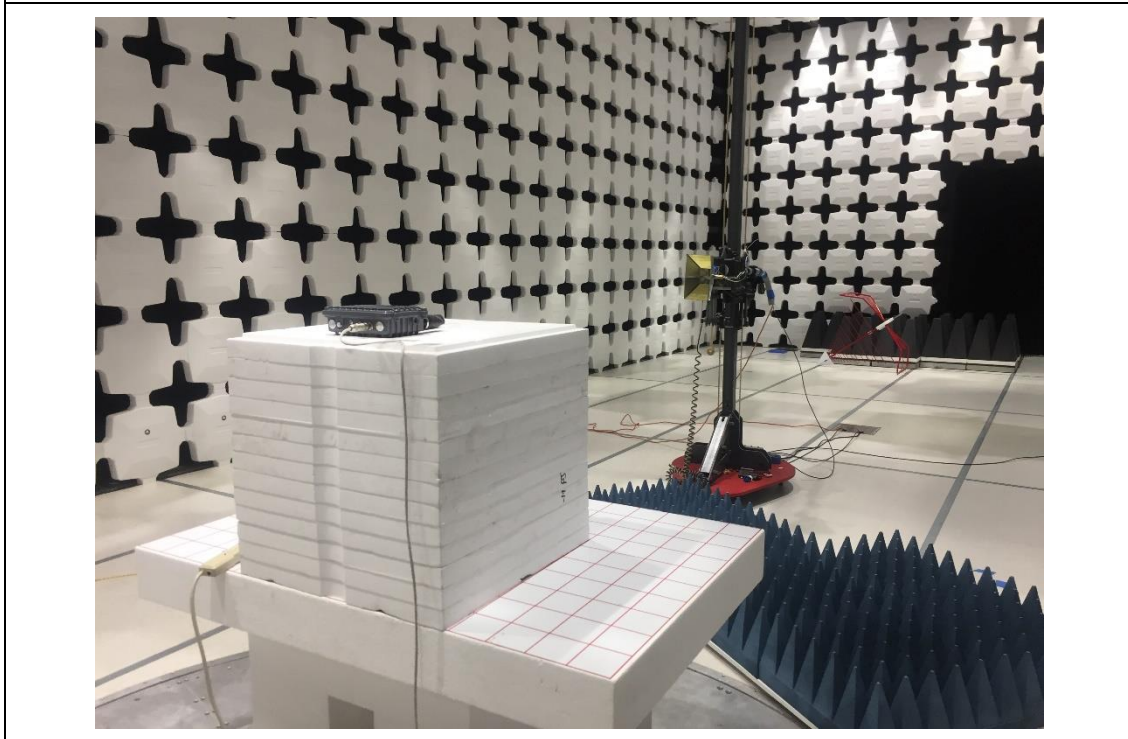
Radiated Emissions Below 1GHz setup – Front



Radiated Emissions Below 1GHz setup – Rear



**Radiated Emissions Above 1GHz setup – Front**



**Radiated Emissions Above 1GHz setup – Rear**

<b>Report Number:</b>	CDW-20052821-C-FCC-R1
<b>Product:</b>	DSRC MK5 OBU Development Platform
<b>Model Number:</b>	XBU-V



## 6 Test Summary

FCC Rules	Test Item	Section	Verdict
FCC §2.1053; §95.3189 ASTM E2213-03 §8.9.2	Transmitter unwanted emission	8.1	Pass

<b>Report Number:</b>	CDW-20052821-C-FCC-R1
<b>Product:</b>	DSRC MK5 OBU Development Platform
<b>Model Number:</b>	XBU-V



## 7 Uncertainty of Measurement

Test item	Measurement Uncertainty (dB)
RF Output Power (Conducted)	±1.2 dB
Power Spectral Density	±0.9 dB
Unwanted Emission (conducted)	±2.6 dB
Occupied Channel Bandwidth	±5 %
Radiated Emission (9KHz-30MHz)	±3.5 dB
Radiated Emission (30MHz-1GHz)	±4.6 dB
Radiated Emission (1-18GHz)	±4.9 dB
Radiated Emission (18-40GHz)	±3.5 dB

## 8 Test summary and result

### 8.1 Transmitter unwanted emission

#### 8.1.1 Requirement

Per FCC §2.1053; §95.3189, OBU devices shall comply with the transmitter emission described in the ASTM E 2213-03 standard.

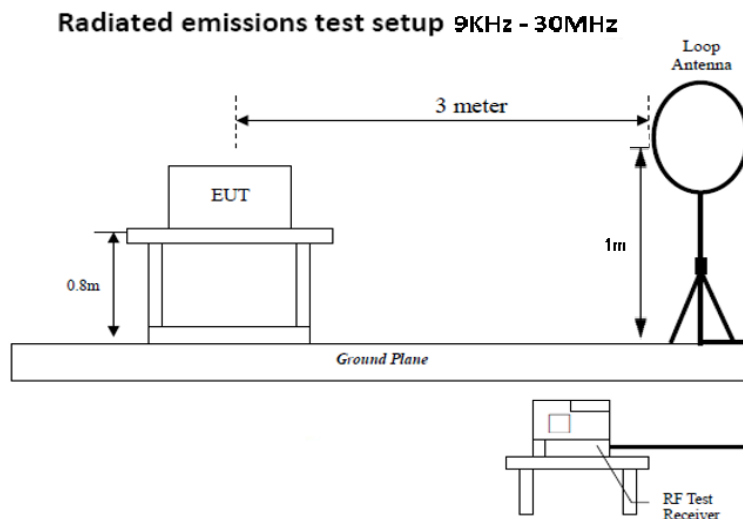
Emissions in frequencies beyond the DSRC emission masks described in the ASTM E2213-03.

standard, shall comply with the same emission limit as the limit that is applicable to the highest frequency offset described in the emission mask.

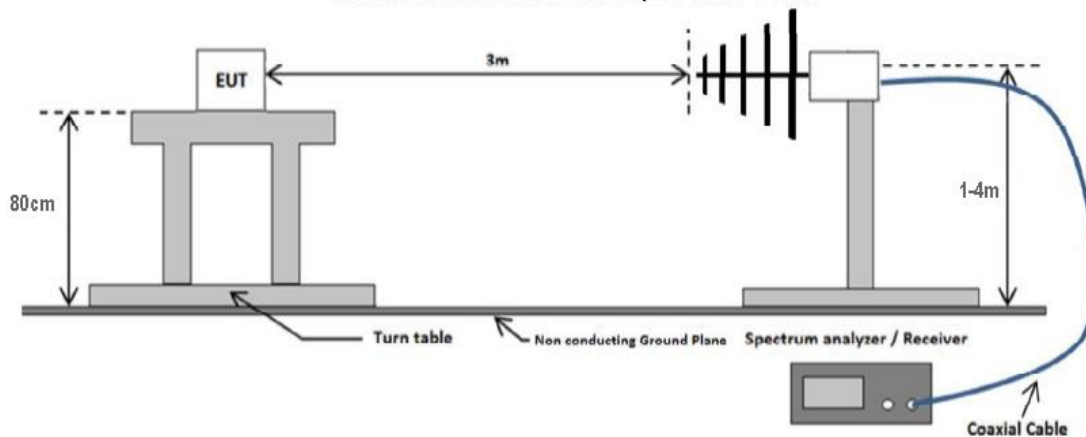
Per ASTM E2213-03, The DSRC transmitted spectrum mask is relative to the device class of operation. The power in the transmitted spectrum for all DSRC devices shall be  $-25$  dBm or less within 100 kHz outside all channel and band edges. This will be accomplished by attenuating the transmitted signal 100 kHz

outside the channel and band edges by  $55 + 10\log(P)$  dB, where P is the total transmitted power in watts. The transmitted spectral density of the transmitted signal for all devices shall fall within the spectral mask, as detailed in Table 10.5 The measurements shall be made using a 100 kHz resolution bandwidth and a 30 kHz video bandwidth.

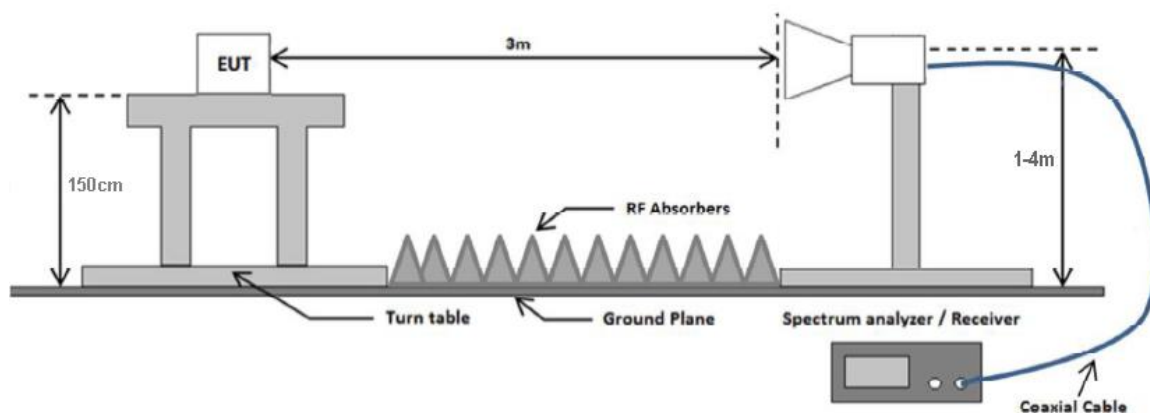
#### 8.1.2 Test setup



**Radiated emissions test setup 30 MHz - 1 GHz**



**Radiated emissions test setup above 1 GHz**



<b>Report Number:</b>	CDW-20052821-C-FCC-R1
<b>Product:</b>	DSRC MK5 OBU Development Platform
<b>Model Number:</b>	XBU-V



### 8.1.3 Test Procedure

Test method is according to ANSI C63.26: 2015 and TIA/EIA-603-E-2016. Boresight antenna mast was used during the scanning to point to EUT to maximize the emission. The process will be repeated in 3 EUT orientations.

1. The EUT was switched on and allowed to warm up to its normal operating condition.
2. The test was carried out at the selected frequency points obtained from the EUT characterization. Maximization of the emissions, was carried out by rotating the EUT, changing the antenna polarization, and adjusting the antenna height in the following manner:
  - a. Vertical or horizontal polarization (whichever gave the higher emission level over a full rotation of the EUT) was chosen.
  - b. The EUT was then rotated to the direction that gave the maximum emission.
  - c. Finally, the antenna height was adjusted to the height that gave the maximum emission.
3. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 300 Hz for frequency below 150KHz.
4. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 10 kHz for frequency between 150KHz – 30MHz.
5. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 kHz for Quasi-Peak detection at frequency between 30MHz - 1GHz.
6. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz with Peak detection for Peak and average measurement at frequency above 1GHz.
7. Steps 2 and 3 were repeated for the next frequency point, until all selected frequency points were measured.

**Note: Limit of -25 dBm EIRP per ASTM E2213-03 standard is equivalent to 70.2 dBuV/m at 3m or 79.7 dBuV/m at 1 m.**

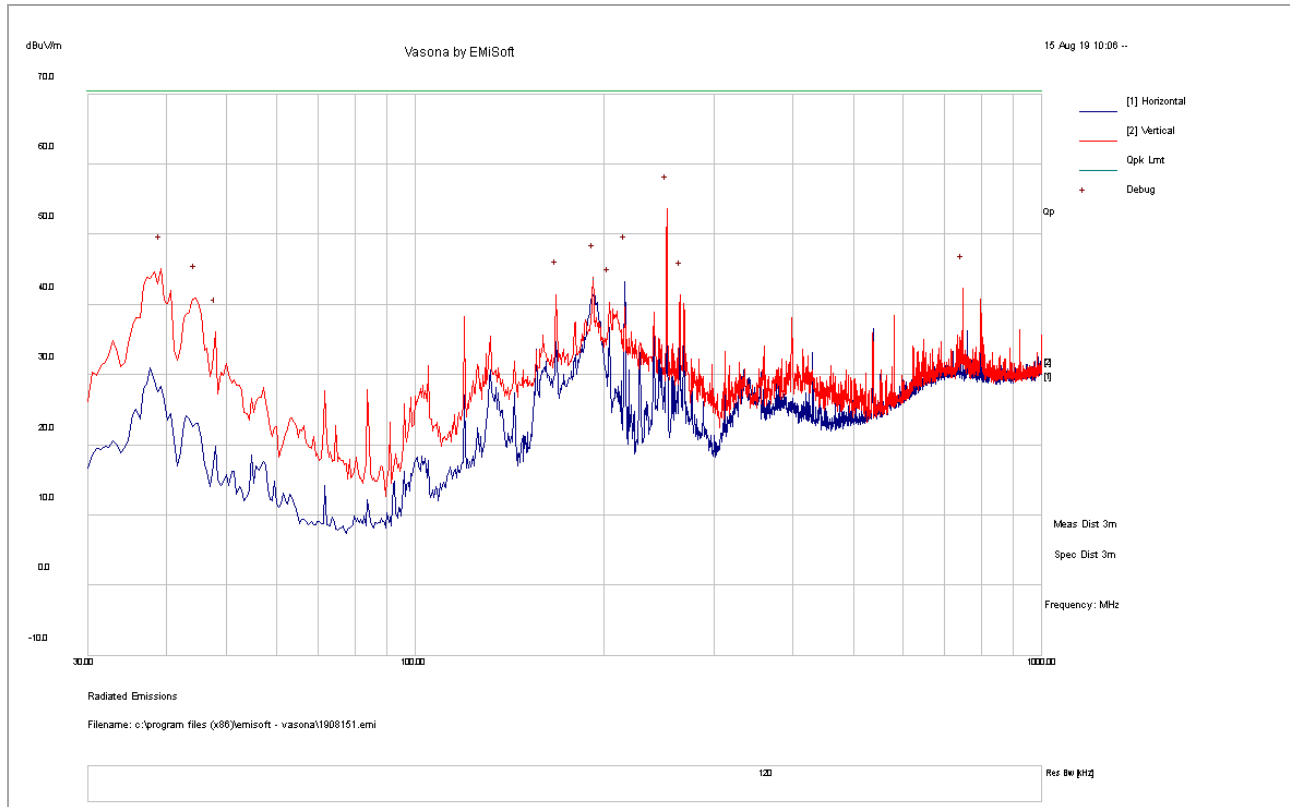
**Preliminary measurements performed to identify worst case orientation by rotating the device around 3 orthogonal planes (X, Y and Z). Z orientation was found to be the worst. In addition, data rates were varied to identify the worst case configuration. All measurements below are from worst case orientation and configuration.**



### 8.1.4 Test Result

#### 30-1000MHz test result

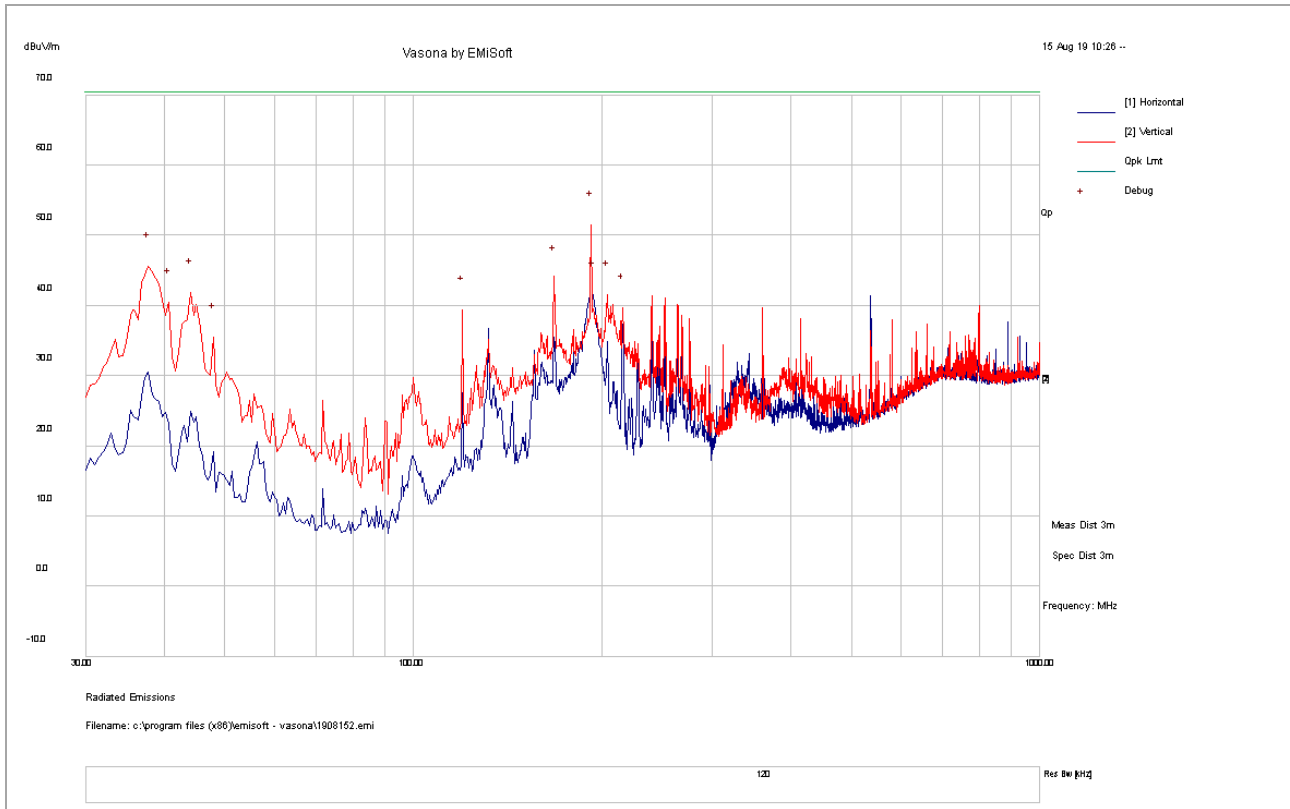
<b>Test Standard:</b>	47CFR Part95L	<b>Mode:</b>	802.11p-5860MHz
<b>Frequency Range:</b>	30-1000MHz	<b>Test Date:</b>	08/15/2019
<b>Antenna Type/Polarity:</b>	Bi-Log/Hor & Ver	<b>Test Personnel:</b>	Bruce Li
<b>Remark:</b>	N/A	<b>Test Result:</b>	Pass



Frequency MHz	Raw dB	Cable dB	AF dB	Level dBuV/m	Det	Pol deg	Height cm	Table deg	Limit dBuV/m	Margin dB
252.13	67.54	5.27	-19.23	53.58	PK	V	100	0	70.20	-16.62
39.22	62.56	2.52	-20.03	45.05	PK	V	100	0	70.20	-25.15
215.76	61.08	4.91	-20.94	45.05	PK	H	300	0	70.20	-25.15
44.55	60.98	2.66	-22.82	40.83	PK	V	100	0	70.20	-29.37
191.99	61.02	4.66	-21.91	43.77	PK	V	100	0	70.20	-26.43
167.74	59.23	4.43	-22.24	41.43	PK	V	100	0	70.20	-28.77
203.63	57.17	4.77	-21.60	40.35	PK	V	100	0	70.20	-29.85
747.32	41.62	7.28	-6.59	42.31	PK	V	100	0	70.20	-27.89
47.95	57.29	2.75	-23.94	36.10	PK	V	100	0	70.20	-34.10
264.26	55.11	5.38	-19.09	41.40	PK	V	100	0	70.20	-28.80

**30-1000MHz test result**

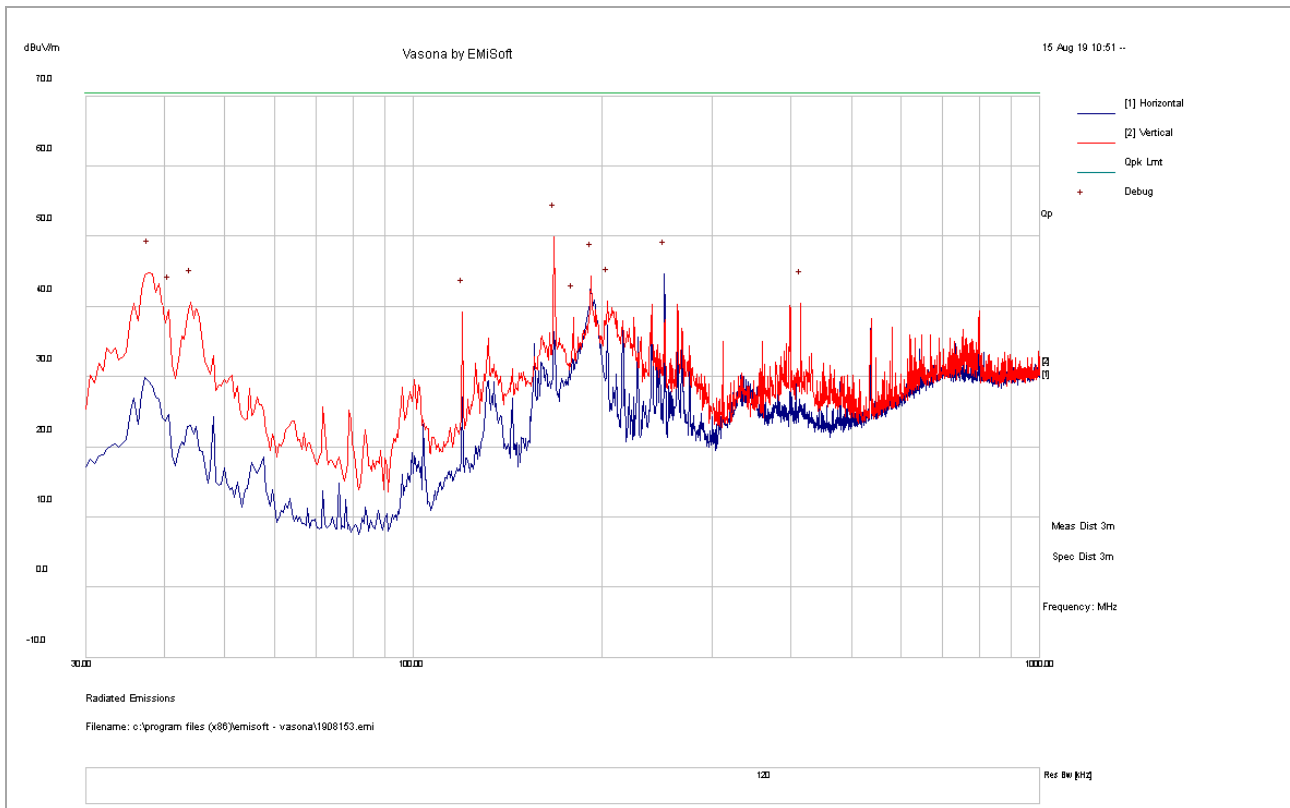
<b>Test Standard:</b>	47CFR Part95L	<b>Mode:</b>	802.11p-5890MHz
<b>Frequency Range:</b>	30-1000MHz	<b>Test Date:</b>	08/15/2019
<b>Antenna Type/Polarity:</b>	Bi-Log/Hor & Ver	<b>Test Personnel:</b>	Bruce Li
<b>Remark:</b>	N/A	<b>Test Result:</b>	Pass



Frequency MHz	Raw dB	Cable dB	AF dB	Level dBuV/m	Det	Pol deg	Height cm	Table deg	Limit dBuV/m	Margin dB
191.99	68.72	4.66	-21.91	51.47	PK	V	100	0	70.20	-18.73
37.76	62.23	2.48	-19.22	45.49	PK	V	100	0	70.20	-24.71
44.07	61.79	2.65	-22.57	41.87	PK	V	300	0	70.20	-28.33
40.67	58.72	2.56	-20.81	40.47	PK	V	100	0	70.20	-29.73
167.74	61.54	4.43	-22.24	43.73	PK	V	100	0	70.20	-26.47
204.12	58.36	4.78	-21.57	41.57	PK	V	100	0	70.20	-28.63
193.93	58.66	4.68	-21.88	41.46	PK	H	100	0	70.20	-28.74
215.76	55.63	4.91	-20.94	39.60	PK	V	100	0	70.20	-30.60
119.73	58.65	3.87	-23.17	39.35	PK	V	100	0	70.20	-30.85
47.95	56.71	2.75	-23.94	35.51	PK	V	100	0	70.20	-34.69

**30-1000MHz test result**

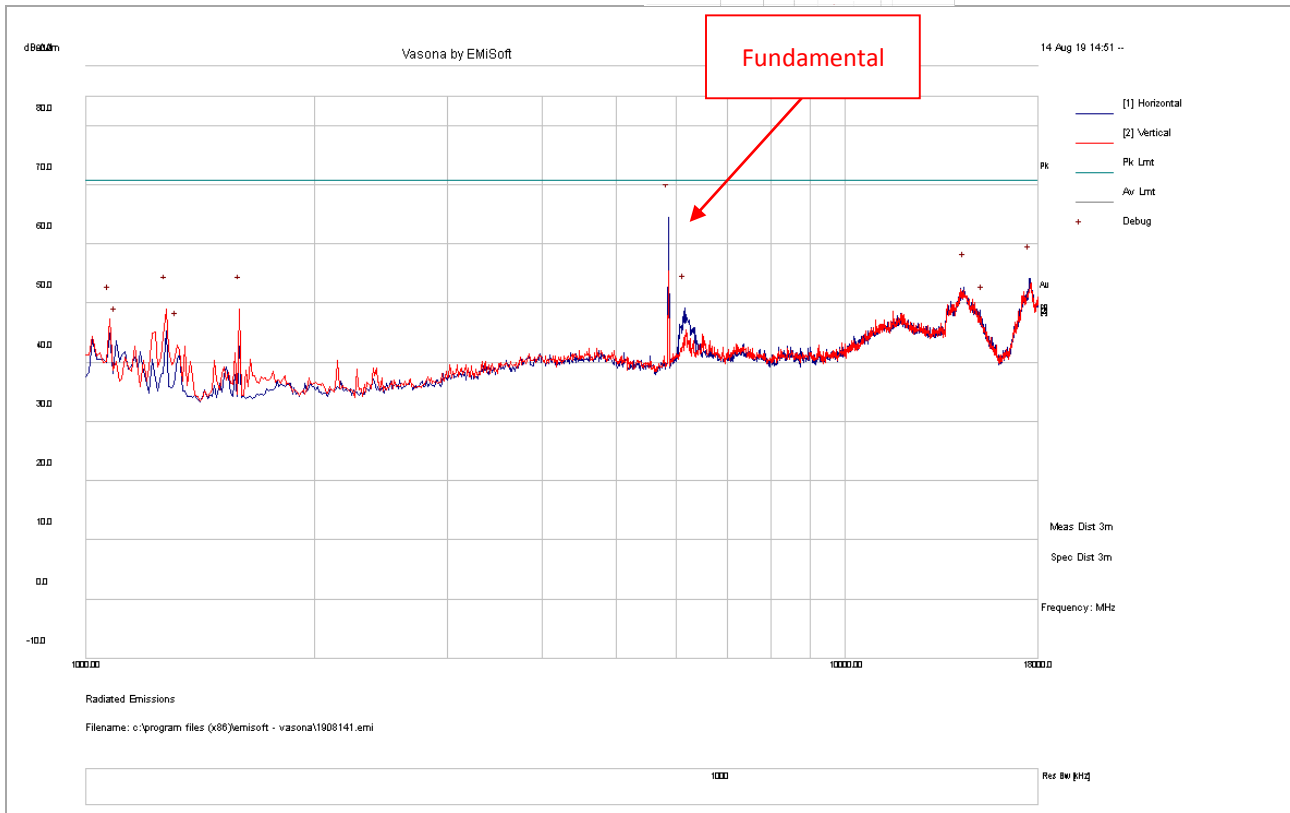
<b>Test Standard:</b>	47CFR Part95L	<b>Mode:</b>	802.11p-5920MHz
<b>Frequency Range:</b>	30-1000MHz	<b>Test Date:</b>	08/14/2019
<b>Antenna Type/Polarity:</b>	Bi-Log/Hor & Ver	<b>Test Personnel:</b>	Bruce Li
<b>Remark:</b>	N/A	<b>Test Result:</b>	Pass



Frequency MHz	Raw dB	Cable dB	AF dB	Level dBuV/m	Det	Pol deg	Height cm	Table deg	Limit dBuV/m	Margin dB
167.74	67.72	4.43	-22.24	49.91	PK	V	100	0	70.20	-20.29
37.76	61.50	2.48	-19.22	44.76	PK	V	100	0	70.20	-25.44
191.99	61.61	4.66	-21.91	44.37	PK	V	300	0	70.20	-25.83
44.07	60.51	2.65	-22.57	40.60	PK	V	100	0	70.20	-29.60
40.67	57.81	2.56	-20.81	39.57	PK	V	100	0	70.20	-30.63
251.65	58.53	5.27	-19.23	44.56	PK	H	100	0	70.20	-25.64
204.12	57.50	4.78	-21.57	40.70	PK	V	100	0	70.20	-29.50
119.73	58.48	3.87	-23.17	39.18	PK	V	100	0	70.20	-31.02
179.87	55.98	4.55	-22.07	38.47	PK	V	100	0	70.20	-31.73
415.09	47.71	6.32	-13.64	40.39	PK	V	100	0	70.20	-29.81

**1GHz – 18GHz test result**

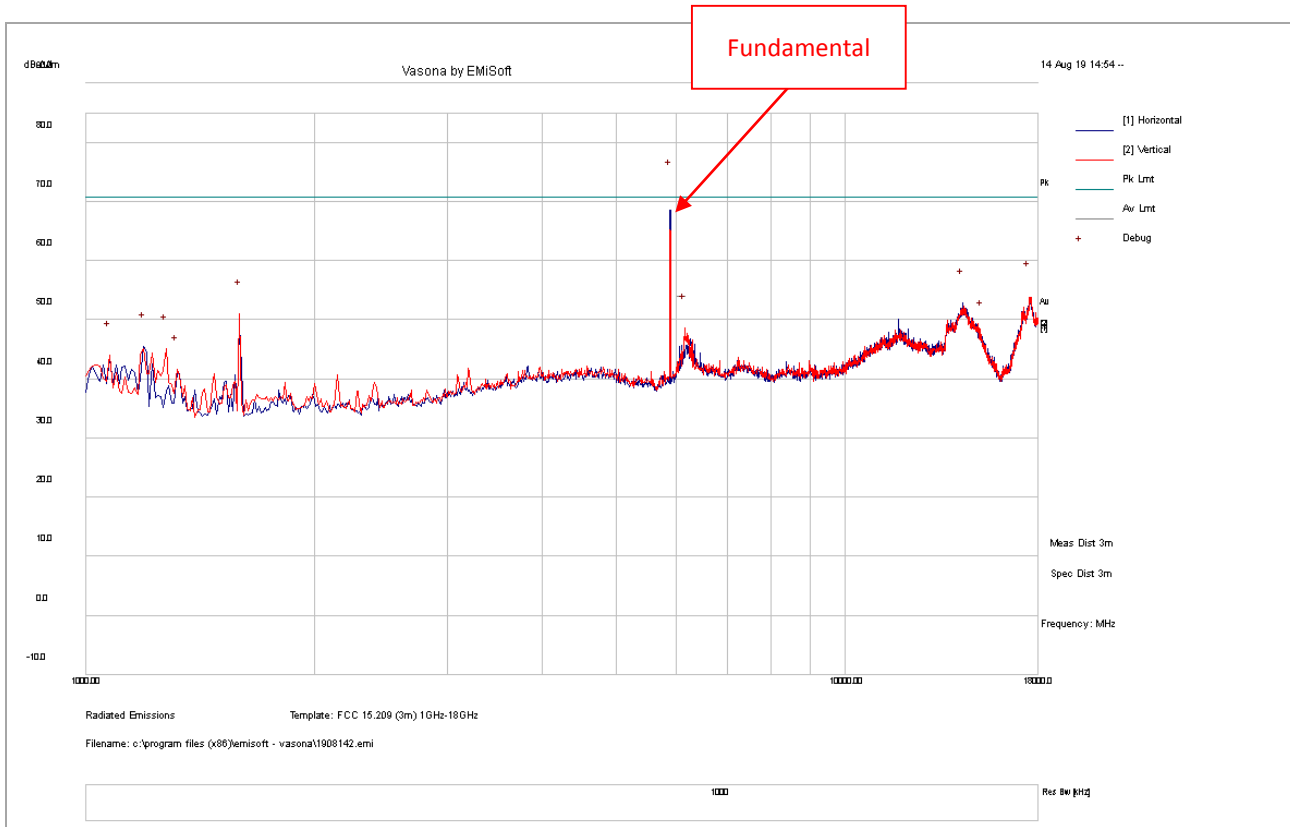
<b>Test Standard:</b>	47CFR Part95L	<b>Mode:</b>	11p-5860MHz
<b>Frequency Range:</b>	1GHz-18GHz	<b>Test Date:</b>	08/14/2019
<b>Antenna Type/Polarity:</b>	Horn/Hor & Ver	<b>Test Personnel:</b>	Bruce Li
<b>Remark:</b>	N/A	<b>Test Result:</b>	Pass



Frequency MHz	Raw dB	Cable dB	AF dB	Level dBuV/m	Det	Pol deg	Height cm	Table deg	Limit dBuV/m	Margin dB
17532.50	14.57	25.20	14.35	54.11	PK	H	200	0	70.20	-16.09
14376.88	15.50	22.67	14.56	52.73	PK	H	100	0	70.20	-17.47
6153.13	22.94	14.90	11.29	49.13	PK	H	100	0	70.20	-21.07
1595.00	41.66	10.73	-3.37	49.02	PK	V	200	0	70.20	-21.18
1276.25	42.42	10.46	-3.87	49.02	PK	V	100	0	70.20	-21.18
15184.38	13.76	24.36	9.18	47.31	PK	H	100	0	70.20	-22.89
1074.38	42.05	10.03	-4.79	47.28	PK	V	100	0	70.20	-22.92
1095.63	38.07	10.07	-4.58	43.57	PK	H	100	0	70.20	-26.63
1318.75	36.10	10.54	-3.79	42.85	PK	V	100	0	70.20	-27.35
17532.50	14.57	25.20	14.35	54.11	PK	H	200	0	70.20	-16.09

**1GHz – 18GHz test result**

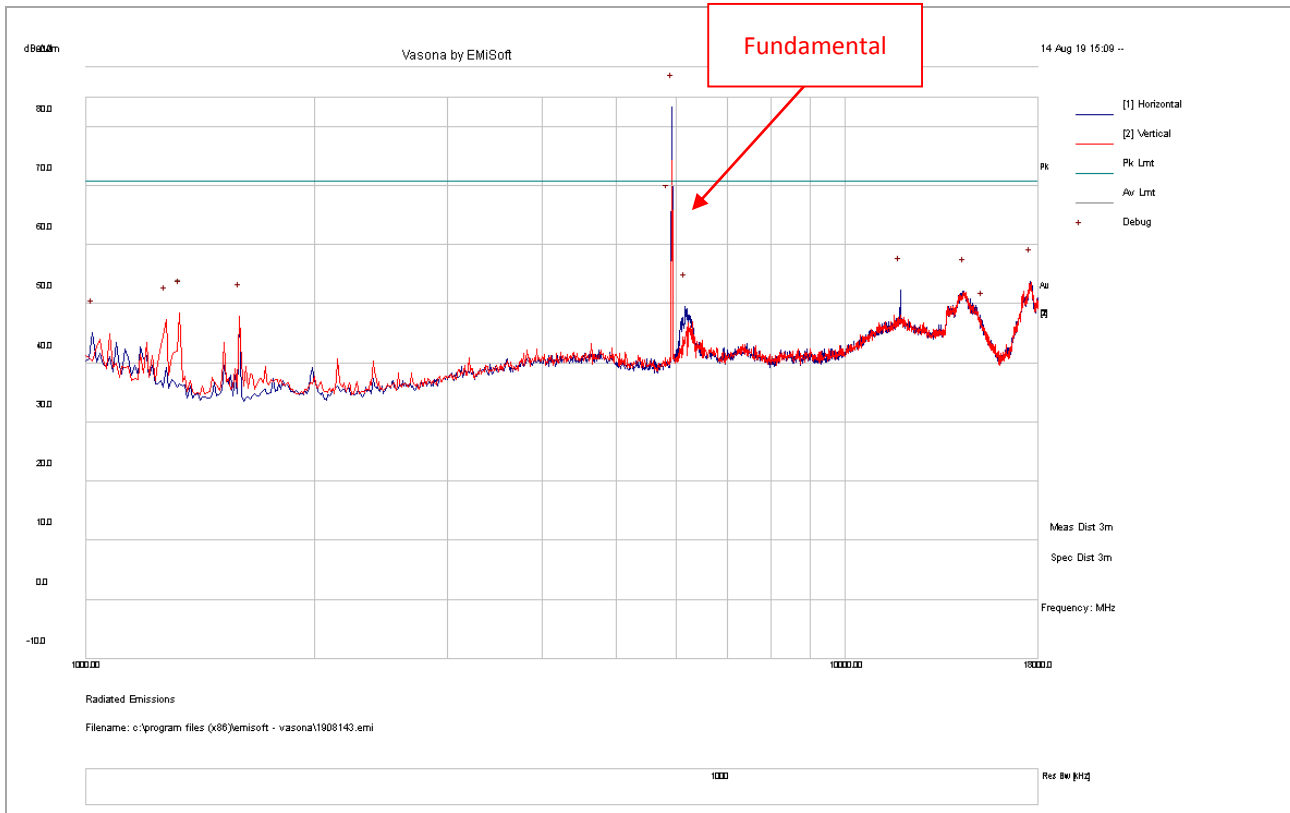
<b>Test Standard:</b>	47CFR Part95L	<b>Mode:</b>	11p-5890MHz
<b>Frequency Range:</b>	1GHz-18GHz	<b>Test Date:</b>	08/14/2019
<b>Antenna Type/Polarity:</b>	Horn/Hor & Ver	<b>Test Personnel:</b>	Bruce Li
<b>Remark:</b>	N/A	<b>Test Result:</b>	Pass



Frequency MHz	Raw dB	Cable dB	AF dB	Level dBuV/m	Det	Pol deg	Height cm	Table deg	Limit dBuV/m	Margin dB
17490.00	14.84	25.14	14.11	54.10	PK	V	100	0	70.20	-16.10
14291.88	15.76	22.41	14.67	52.84	PK	H	200	0	70.20	-17.36
1595.00	43.67	10.73	-3.37	51.03	PK	V	200	0	70.20	-19.17
6153.13	22.43	14.90	11.29	48.62	PK	V	100	0	70.20	-21.58
15141.88	13.66	24.40	9.41	47.47	PK	V	200	0	70.20	-22.73
1191.25	39.50	10.29	-4.28	45.51	PK	H	100	0	70.20	-24.69
1276.25	38.45	10.46	-3.87	45.04	PK	V	100	0	70.20	-25.16
1074.38	38.78	10.03	-4.79	44.02	PK	V	100	0	70.20	-26.18
1318.75	34.74	10.54	-3.79	41.49	PK	V	100	0	70.20	-28.71

**1GHz – 18GHz test result**

<b>Test Standard:</b>	47CFR Part95L	<b>Mode:</b>	11p-5920MHz
<b>Frequency Range:</b>	1GHz-18GHz	<b>Test Date:</b>	08/14/2019
<b>Antenna Type/Polarity:</b>	Horn/Hor & Ver	<b>Test Personnel:</b>	Bruce Li
<b>Remark:</b>	N/A	<b>Test Result:</b>	Pass



Frequency MHz	Raw dB	Cable dB	AF dB	Level dBuV/m	Det	Pol deg	Height cm	Table deg	Limit dBuV/m	Margin dB
17585.63	13.54	25.27	14.87	53.68	PK	H	100	0	70.20	-16.52
11837.50	17.28	21.32	13.73	52.34	PK	H	200	0	70.20	-17.86
14376.88	14.91	22.67	14.56	52.14	PK	H	100	0	70.20	-18.06
6163.75	23.28	14.90	11.30	49.48	PK	H	200	0	70.20	-20.72
1329.38	41.57	10.56	-3.81	48.32	PK	V	100	0	70.20	-21.88
1595.00	40.45	10.73	-3.37	47.82	PK	V	200	0	70.20	-22.38
1276.25	40.72	10.46	-3.87	47.32	PK	V	100	0	70.20	-22.88
15205.63	12.92	24.35	9.07	46.33	PK	H	200	0	70.20	-23.87
1021.25	40.67	9.90	-5.43	45.14	PK	H	100	0	70.20	-25.06

<b>Report Number:</b>	CDW-20052821-C-FCC-R1
<b>Product:</b>	DSRC MK5 OBU Development Platform
<b>Model Number:</b>	XBU-V



### 18GHz – 40GHz test result

Note: no substantial emission is found other than the noise floor. Different modes have been verified.

<b>Report Number:</b>	CDW-20052821-C-FCC-R1
<b>Product:</b>	DSRC MK5 OBU Development Platform
<b>Model Number:</b>	XBU-V



## 9 Test instrument list

Equipment	Manufacturer	Model	Serial Number	Cal. Date	Cal. Due
Semi-Anechoic Chamber	ETS-Lindgren	10M	VL001	5/11/2019	5/11/2020
Shielding Control Room	ETS-Lindgren	Series 81	VL006	N/A	N/A
Spectrum Analyzer	Keysight	N9020A	MY50110074	5/4/2019	5/4/2020
EMC Test Receiver	R&S	ESL6	100230	5/7/2019	5/7/2020
LISN (9KHz – 30MHz)	EMCO	3816/2	9705-1066	5/4/2019	5/4/2020
Bi-Log Antenna	ETS-Lindgren	3142E	217921	11/15/2018	11/15/2019
Horn Antenna (1-18GHz)	Electro-Metrics	EM-6961	6292	5/2/2019	5/2/2020
Horn Antenna (18-40GHz)	Com-Power	AH-840	101109	5/2/2019	5/2/2020
Preamplifier	RF Bay, Inc.	LPA-10-20	11180621	5/10/2019	5/10/2020
True RMS Multi-meter	UNI-T	UT181A	C173014829	5/10/2019	5/10/2020
Temp / Humidity / Pressure Meter	PCE Instruments	PCE-THB 40	R062028	5/9/2019	5/9/2020
RF Attenuator	Pasternack	PE7005-3	VL061	5/10/2019	5/10/2020
Preamplifier 100KHz - 40GHz	Aeroflex	33711-392- 77150-11	064	5/10/2019	5/10/2020
EM Center Control	ETS-Lindgren	7006-001	160136	N/A	N/A
Turn Table	ETS-Lindgren	2181-3.03	VL002	N/A	N/A
Boresight Antenna Tower	ETS-Lindgren	2171B	VL003	N/A	N/A
Loop Antenna (9k-30MHz)	Com-Power	AL-130	121012	5/9/2019	5/9/2020
RE test cable(below 6GHz)	Vista	RE-6GHz-01	RE-6GHz-01	5/10/2019	5/10/2020
RE test cable (1-18GHz)	PhaseTrack	II-240	RE-18GHz-01	5/10/2019	5/10/2020
RE test cable (>18GHz)	Sucoflex	104	344903/4	5/10/2019	5/10/2020
Pulse limiter	Com-Power	LIT-930A	531727	5/15/2019	5/15/2020
CE test cable #1	FIRST RF	FRF-C-1002-001	CE-6GHz-01	5/10/2019	5/10/2020
CE test cable#2	FIRST RF	FRF-C-1002-001	CE-6GHz-02	5/9/2019	5/9/2020
Wideband Communication	R&S	CMW500	147508	5/8/2019	5/8/2020

