



FCC PART 15.407
ISED C RSS-247, ISSUE 2, FEBRUARY 2017



TEST REPORT

For

Cisco Systems, Inc.

125 West Tasman Drive
San Jose, CA 95134, USA

FCC ID: LDKIW9165E
IC: 2461A-IW9165E

Report Type: Original Report	Product Type: Wi-Fi 6E Outdoor Access Point
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* This report may contain data that are not covered by the A2LA accreditation and are marked with an asterisk "*" (Rev.

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DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
0	R2303171-407	Original Report	2023-07-27
1	R2303171-407 Rev. A	Updated report to include additional applicable test configurations per standard requirements. Additionally removed redundant duty cycle measurements that were covered in conducted test results reports.	2023-09-21

1 General Description

1.1 Product Description for Equipment under Test (EUT)

This test report was prepared on behalf of *Cisco Systems, Inc.*, and their product model: *IW9165E-B (USA)*, *IW9165E-A (Canada)*, FCC ID: LDKIW9165E, IC: 2461A-IW9165E, or the “EUT” as referred to in this report. It is a Wi-Fi 6E Outdoor Access Point.

Note: 5600-5650 MHz range shall not be applicable to ISED.

1.2 Objective

This report was prepared on behalf of Cisco Systems, Inc. in accordance with FCC CFR47 §15.407 and ISEDC RSS-247 Issue 2, February 2017.

The objective was to determine compliance with FCC Part 15.407 and ISEDC RSS-247 rules for Radiated Spurious Emissions.

1.3 Related Submittal(s)/Grant(s)

FCC Part 15, Subpart E, Equipment DTS with FCC ID: LDKIW9165E, IC: 2461A-IW9165E
FCC Part 90 with FCC ID: LDKIW9165E, IC: 2461A-IW9165E

1.4 Test Methodology

All measurements contained in this report were conducted in accordance with ANSI C63.10-2013, American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the range of 9 kHz to 40 GHz, and FCC KDB 789033 D02 General UNII Test Procedure New Rules v02r01.

1.5 Measurement Uncertainty

All measurements involve certain levels of uncertainties, especially in the field of EMC. The factors contributing to uncertainties are spectrum analyzer, cable loss, antenna factor calibration, antenna directivity, antenna factor variation with height, antenna phase center variation, antenna factor frequency interpolation, measurement distance variation, site imperfections, mismatch (average), and system repeatability.

Parameter	Measurement uncertainty
Occupied Channel Bandwidth	±5 %
RF output power, conducted	±0.57 dB
Power Spectral Density, conducted	±1.48dB
Unwanted Emissions, conducted	±1.57dB
All emissions, radiated	±4.0 dB
AC power line Conducted Emission	±2.0 dB
Temperature	±2 ° C
Humidity	±5 %
DC and low frequency voltages	±1.0 %
Time	±2 %
Duty Cycle	±3 %

1.6 Test Facility Registrations

BACLs test facilities that are used to perform Radiated and Conducted Emissions tests are currently recognized by the Federal Communications Commission as Accredited with NIST Designation Number US1129.

BACL's test facilities that are used to perform Radiated and Conducted Emissions tests are currently registered with Industry Canada under Registration Numbers: 3062A-1, 3062A-2, and 3062A-3.

BACL is a Chinese Taipei Bureau of Standards Metrology and Inspection (BSMI) validated Conformity Assessment Body (CAB), under Appendix B, Phase I Procedures of the APEC Mutual Recognition Arrangement (MRA). BACL's BSMI Lab Code Number is: SL2-IN-E-1002R

BACL's test facilities that are used to perform AC Line Conducted Emissions, Telecommunications Line Conducted Emissions, Radiated Emissions from 30 MHz to 1 GHz, and Radiated Emissions from 1 GHz to 6 GHz are currently recognized as Accredited in accordance with the Voluntary Control Council for Interference [VCCI] Article 15 procedures under Registration Number A-0027.

1.7 Test Facility Accreditations

Bay Area Compliance Laboratories Corp. (BACL) is:

A- An independent, 3rd-Party, Commercial Test Laboratory accredited to ISO/IEC 17025:2017 by A2LA (Test Laboratory Accreditation Certificate Number 3297.02), in the fields of: Electromagnetic Compatibility and Telecommunications. Unless noted by an Asterisk (*) in the Compliance Matrix (See Section 3 of this Test Report), BACL's ISO/IEC 17025:2017 Scope of Accreditation includes all of the Test Method Standards and/or the Product Family Standards detailed in this Test Report..

BACL's ISO/IEC 17025:2017 Scope of Accreditation includes a comprehensive suite of EMC Emissions, EMC Immunity, Radio, RF Exposure, Safety and wireline Telecommunications test methods applicable to a wide range of product categories. These product categories include Central Office Telecommunications Equipment [including NEBS - Network Equipment Building Systems], Unlicensed and Licensed Wireless and RF devices,

Information Technology Equipment (ITE); Telecommunications Terminal Equipment (TTE); Medical Electrical Equipment; Industrial, Scientific and Medical Test Equipment; Professional Audio and Video Equipment; Industrial and Scientific Instruments and Laboratory Apparatus; Cable Distribution Systems, and Energy Efficient Lighting.

B- A Product Certification Body accredited to ISO/IEC 17065:2012 by A2LA (Product Certification Body Accreditation Certificate Number 3297.03) to certify

- For the USA (Federal Communications Commission):
 - 1- All Unlicensed radio frequency devices within FCC Scopes A1, A2, A3, and A4;
 - 2- All Licensed radio frequency devices within FCC Scopes B1, B2, B3, and B4;
 - 3- All Telephone Terminal Equipment within FCC Scope C.
- For the Canada (Industry Canada):
 - 1 All Scope 1-Licence-Exempt Radio Frequency Devices;
 - 2 All Scope 2-Licensed Personal Mobile Radio Services;
 - 3 All Scope 3-Licensed General Mobile & Fixed Radio Services;
 - 4 All Scope 4-Licensed Maritime & Aviation Radio Services;
 - 5 All Scope 5-Licensed Fixed Microwave Radio Services
 - 6 All Broadcasting Technical Standards (BETS) in the Category I Equipment Standards List.
- For Singapore (Info-Communications Development Authority (IDA)):
 - 1 All Line Terminal Equipment: All Technical Specifications for Line Terminal Equipment – Table 1 of IDA MRA Recognition Scheme: 2011, Annex 2
 2. All Radio-Communication Equipment: All Technical Specifications for Radio-Communication Equipment – Table 2 of IDA MRA Recognition Scheme: 2011, Annex 2
- For the Hong Kong Special Administrative Region:
 - 1 All Radio Equipment, per KHCA 10XX-series Specifications;
 - 2 All GMDSS Marine Radio Equipment, per HKCA 12XX-series Specifications;
 - 3 All Fixed Network Equipment, per HKCA 20XX-series Specifications.
- For Japan:
 - 1 MIC Telecommunication Business Law (Terminal Equipment):
 - All Scope A1 - Terminal Equipment for the Purpose of Calls;
 - All Scope A2 - Other Terminal Equipment
 - 2 Radio Law (Radio Equipment):
 - All Scope B1 - Specified Radio Equipment specified in Article 38-2-2, paragraph 1, item 1 of the Radio Law
 - All Scope B2 - Specified Radio Equipment specified in Article 38-2-2, paragraph 1, item 2 of the Radio Law
 - All Scope B3 - Specified Radio Equipment specified in Article 38-2-2, paragraph 1, item 3 of the Radio Law

C- A Product Certification Body accredited to ISO/IEC 17065:2012 by A2LA (Product Certification Body Accreditation Certificate Number 3297.01) to certify Products to USA's Environmental Protection Agency (EPA) ENERGY STAR Product Specifications for:

- 1 Electronics and Office Equipment:
 - for Telephony (ver. 3.0)
 - for Audio/Video (ver. 3.0)
 - for Battery Charging Systems (ver. 1.1)
 - for Set-top Boxes & Cable Boxes (ver. 4.1)
 - for Televisions (ver. 6.1)
 - for Computers (ver. 6.0)
 - for Displays (ver. 6.0)
 - for Imaging Equipment (ver. 2.0)
 - for Computer Servers (ver. 2.0)

- 2 Commercial Food Service Equipment
 - for Commercial Dishwashers (ver. 2.0)
 - for Commercial Ice Machines (ver. 2.0)
 - for Commercial Ovens (ver. 2.1)
 - for Commercial Refrigerators and Freezers
- 3 Lighting Products
 - For Decorative Light Strings (ver. 1.5)
 - For Luminaires (including sub-components) and Lamps (ver. 1.2)
 - For Compact Fluorescent Lamps (CFLs) (ver. 4.3)
 - For Integral LED Lamps (ver. 1.4)
- 4 Heating, Ventilation, and AC Products
 - for Residential Ceiling Fans (ver. 3.0)
 - for Residential Ventilating Fans (ver. 3.2)
- 5 Other
 - For Water Coolers (ver. 3.0)

D- A NIST Designated Phase-I and Phase-II Conformity Assessment Body (CAB) for the following economies and regulatory authorities under the terms of the stated MRAs/Treaties:

- Australia: ACMA (Australian Communication and Media Authority) – APEC Tel MRA -Phase I;
- Canada: (Innovation, Science and Economic development Canada - ISEDC) Foreign Certification Body – FCB – APEC Tel MRA -Phase I & Phase II;
- Chinese Taipei (Republic of China – Taiwan):
 - o BSMI (Bureau of Standards, Metrology and Inspection) APEC Tel MRA -Phase I;
 - o NCC (National Communications Commission) APEC Tel MRA -Phase I;
- European Union:
 - o EMC Directive 2014/30/EU US-EU EMC & Telecom MRA CAB (NB)
 - o Radio Equipment (RE) Directive 2014/53/EU US-EU EMC & Telecom MRA CAB (NB)
 - o Low Voltage Directive (LVD) 2014/35/EU
- Hong Kong Special Administrative Region: (Office of the Telecommunications Authority – OFTA) APEC Tel MRA -Phase I & Phase II
- Israel – US-Israel MRA Phase I
- Republic of Korea (Ministry of Communications - Radio Research Laboratory) APEC Tel MRA -Phase I
- Singapore: (Infocomm Media Development Authority - IMDA) APEC Tel MRA -Phase I & Phase II;
- Japan: VCCI - Voluntary Control Council for Interference US-Japan Telecom Treaty VCCI Side Letter-
- USA:
 - o ENERGY STAR Recognized Test Laboratory – US EPA
 - o Telecommunications Certification Body (TCB) – US FCC;
 - o Nationally Recognized Test Laboratory (NRTL) – US OSHA
- Vietnam: APEC Tel MRA -Phase I;

2 EUT Test Configuration

2.1 Justification

The EUT was configured for testing according to ANSI C63.10-2013 and FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.

The EUT was tested in a testing mode to represent worst-case results during the final qualification test.

The worst-case data rates are determined by measuring the average power, peak power and PPSD across all data rates bandwidths, and modulations.

2.2 EUT Exercise Software

The test software used was Tera Term. The software is compliant with the standard requirements being tested against.

2.3 Equipment Modifications

N/A

2.4 Local Support Equipment

Manufacturer	Description	Model
Dell	Laptop	Latitude E6410

2.5 Remote Support Equipment

Manufacturer	Description	Model
LiteON	Power Supply	PA-1600-1C

2.6 Interface Ports and Cabling

Cable Description	Length (m)	To	From
USB A to RJ45	< 1 m	EUT	Laptop
Power Supply	< 1 m	EUT	Power

3 Summary of Test Results

FCC and ISEDC Rules	Description of Test	Result
FCC §2.1053, §15.205, §15.209, 15.407(b) ISEDC RSS-247 §6.2	Spurious Radiated Emissions	Compliant

BACL is responsible for all the information provided in this report, except when information is provided by the customer as identified in this report. Information provided by the customer, e.g., antenna gain, can affect the validity of results.

4 FCC §15.209, §15.407(b) & ISEDC RSS-247 §6.2 - Spurious Radiated Emissions

4.1 Applicable Standard

As Per FCC §15.205(a) except as show in paragraph (d) of this section, only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.090 – 0.110	16.42 – 16.423		4.5 – 5.15
0.495 – 0.505	16.69475 – 16.69525		5.35 – 5.46
2.1735 – 2.1905	25.5 – 25.67	960 – 1240	7.25 – 7.75
4.125 – 4.128	37.5 – 38.25	1300 – 1427	8.025 – 8.5
4.17725 – 4.17775	73 – 74.6	1435 – 1626.5	9.0 – 9.2
4.20725 – 4.20775	74.8 – 75.2	1645.5 – 1646.5	9.3 – 9.5
6.215 – 6.218	108 – 121.94	1660 – 1710	10.6 – 12.7
6.26775 – 6.26825	123 – 138	1718.8 – 1722.2	13.25 – 13.4
6.31175 – 6.31225	149.9 – 150.05	2200 – 2300	14.47 – 14.5
8.291 – 8.294	156.52475 – 156.52525	2310 – 2390	15.35 – 16.2
8.362 – 8.366	156.7 – 156.9	2483.5 – 2500	17.7 – 21.4
8.37625 – 8.38675	162.0125 – 167.17	2690 – 2900	22.01 – 23.12
8.41425 – 8.41475	167.72 – 173.2	3260 – 3267	23.6 – 24.0
12.29 – 12.293	240 – 285	3.332 – 3.339	31.2 – 31.8
12.51975 – 12.52025	322 – 335.4	3.3458 – 3.358	36.43 – 36.5
12.57675 – 12.57725	399.9 – 410	3.600 – 4.400	Above 38.6
13.36 – 13.41	608 – 614		

As per FCC §15.209: The emissions from an intentional radiator shall not exceed the field strength levels specified in the following table

Frequency (MHz)	Field Strength (micro volts/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 Note 1	3
88 - 216	150 Note 1	3
216 - 960	200 Note 1	3
Above 960	500	3

Note 1: 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., Sections 15.231 and 15.241.

As per FCC Part 15.407 (b)

(1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

- (2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (3) For transmitters operating in the 5.47 -5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (4) For transmitters operating in the 5.725-5.85 GHz band: All emissions within the frequency range from the band edge to 10 MHz above or below the band edge shall not exceed an e.i.r.p. of -17 dBm/MHz; for frequencies 10 MHz or greater above or below the band edge, emissions shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (5) The emission measurements shall be performed using a minimum resolution bandwidth of 1 MHz. A lower resolution bandwidth may be employed near the band edge, when necessary, provided the measured energy is integrated to show the total power over 1 MHz.
- (6) Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in §15.209. Further, any U-NII devices using an AC power line are required to comply also with the conducted limits set forth in §15.207.
- (7) The provisions of §15.205 apply to intentional radiators operating under this section.

As per ISED RSS-247 §6.2

For transmitters operating in the band 5150-5250 MHz, all emissions outside the band 5150-5350 MHz shall not exceed -27 dBm/MHz e.i.r.p. However, any unwanted emissions that fall into the band 5250- 5350 MHz must be 26 dBc, when measured using a resolution bandwidth between 1 and 5% of the occupied bandwidth, above 5.25 GHz. Otherwise, the transmission is considered as intentional and the devices shall implement dynamic frequency selection (DFS) and transmitter power control (TPC) as per the requirements for the band 5250-5350 MHz

For devices with both operating frequencies and channel bandwidths contained within the band 5250-5350 MHz, the device shall comply with the following:

1. All emissions outside the band 5250-5350 MHz shall not exceed -27 dBm/MHz e.i.r.p. if the equipment is intended for outdoor use; or
2. All emissions outside the band 5150-5350 MHz shall not exceed -27 dBm/MHz e.i.r.p. and any emissions within the band 5150-5250 MHz shall meet the power spectral density limits of Section 6.2.1. The device shall be labelled "for indoor use only."

For devices with operating frequencies in the band 5250-5350 MHz but having a channel bandwidth that overlaps the band 5150-5250 MHz, the devices' unwanted emission shall not exceed -27 dBm/MHz e.i.r.p. outside the band 5150-5350 MHz and its power shall comply with the spectral power density for operation within the band 5150-5250 MHz. The device shall be labelled "for indoor use only."

For transmitters operating in the band 5470-5725 MHz, emissions outside the band shall not exceed -27 dBm/MHz e.i.r.p.

For the band 5725-5850 MHz, emissions at frequencies from the band edges to 10 MHz above or below the band edges shall not exceed -17 dBm/MHz e.i.r.p. For emissions at frequencies more than 10 MHz above or below the band edges, the emissions power shall not exceed -27 dBm/MHz.

4.2 Test Setup

The radiated emissions tests were performed in the 5-meter Chamber, using the setup in accordance with ANSI C63.10-2013. The specification used was the FCC 15.407 and ISEDC RSS-247 limits.

The spacing between the peripherals was 10 centimeters.

External I/O cables were draped along the edge of the test table and bundle when necessary.

4.3 Test Procedure

The antenna-port methodology from ANSI C63.10: 2013 Section 11.12.2 was utilized as an alternative to radiated emissions in the restricted bands.

In order to assess the cabinet radiated spurious emissions, a radiated scan was performed with the antenna of proper impedance installed. The transmitter was turned on.

For the radiated emissions test, the EUT host, and all support equipment power cords were connected to the AC floor outlet.

Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all installation combinations.

The EUT is set 3 meter away from the testing antenna, which is varied from 1-4 meter, and the EUT is placed on a turntable, which is 0.8 meter or 1.5 meter above ground plane, the table shall be rotated for 360 degrees to find out the highest emission. The receiving antenna should be changed the polarization both of horizontal and vertical.

The spectrum analyzer or receiver is set as:

Below 1000 MHz:

$$\text{RBW} = 100 \text{ kHz} / \text{VBW} = 300 \text{ kHz} / \text{Sweep} = \text{Auto}$$

Above 1000 MHz:

- (1) Peak: RBW = 1MHz / VBW = 3MHz / Sweep = 100ms
- (2) Average: RBW = 1MHz / VBW = 10Hz / Sweep = Auto

4.4 Corrected Amplitude and Margin Calculation

The Corrected Amplitude (CA) is calculated by adding the Antenna Factor (AF), the Cable Loss (CL), the Attenuator Factor (Atten) and subtracting the Amplifier Gain (Ga) to indicated Amplitude (Ai) reading. The basic equation is as follows:

$$\text{CA} = \text{Ai} + \text{AF} + \text{CL} + \text{Atten} - \text{Ga}$$

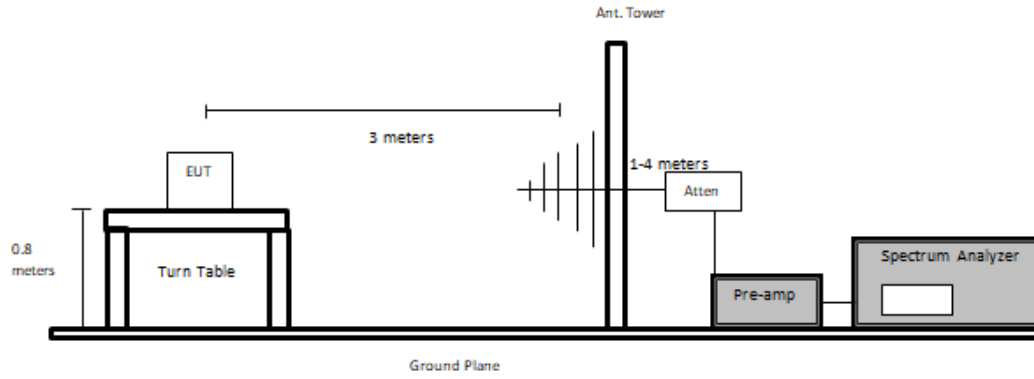
For example, a corrected amplitude of 40.3 dBuV/m = Indicated Reading (32.5 dBuV) + Antenna Factor (+23.5dB) + Cable Loss (3.7 dB) + Attenuator (10 dB) - Amplifier Gain (29.4 dB)

The “**Margin**” column of the following data tables indicates the degree of compliance within the applicable limit. For example, a margin of -7 dB means the emission is 7 dB below the maximum limit for Class A. The equation for margin calculation is as follows:

$$\text{Margin} = \text{Corrected Amplitude} - \text{Limit}$$

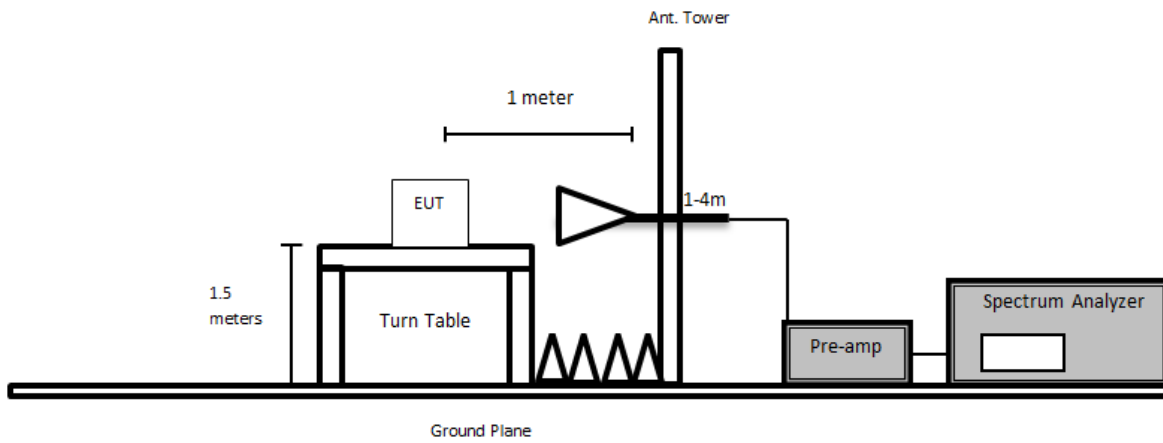
4.5 Test Setup Block Diagram

Below 1GHz:

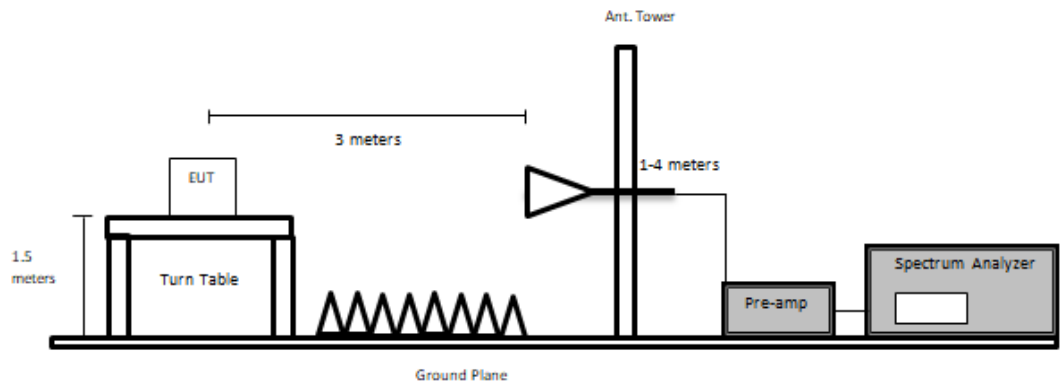


Above 1GHz:

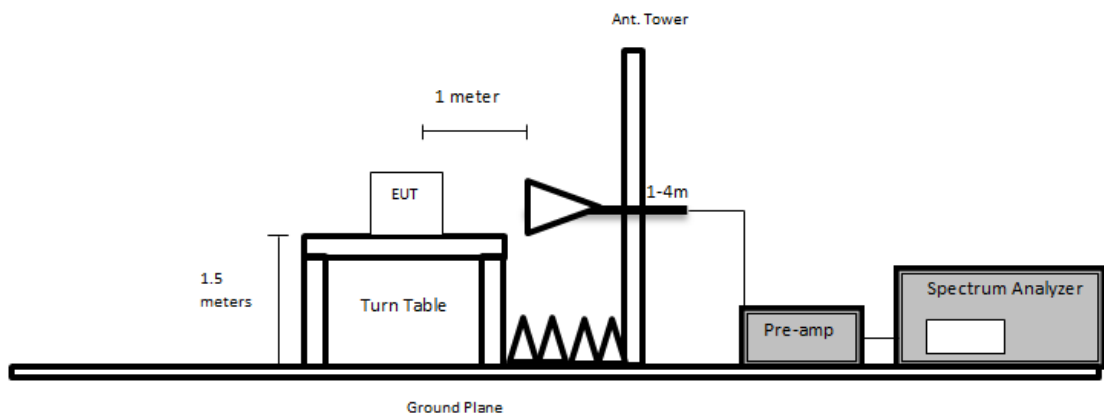
Using Asset #1192 at 1meter



Using Asset #1192 at 3meters



Using Asset #91, #92



4.6 Test Equipment List and Details

BACL No.	Manufacturer	Description	Model No.	Serial No.	Calibration Date	Calibration Interval
655	Rhode & Schwarz	Signal Analyzer	FSQ26	200749	2022-02-07	2 years
287	Agilent	Spectrum Analyzer	E4446A	US443003 86	2022-05-05	1 year
124	Rhode & Schwarz	EMI Test Receiver	ESCI 1166.5950 K03	100044	2021-05-14	2 years
-	Sunol Sciences	System Controller	SC99V	011003-1	N/R	N/A
321	Sunol Sciences	Biconilog Antenna	JB3	A020106-2	2021-11-22	2 years
1192	ETS Lindgren	Horn Antenna	3117	00218973	2022-09-29	2 years
91	Wisewave	Antenna, Horn	ARH- 4223-02	10555-02	2022-03-08	2 years
92	Wisewave	Antenna, Horn	ARH- 2823-02	10555-01	2022-03-17	2 years
-	-	SMA cable	-	-	Each time ¹	N/A
-	-	Notch Filter	-	-	Each time ¹	N/A
1228	Pasternack	Coaxial Cable, RG213	PE3496- 800CM	2111301	2021-11-30	1 year
1295	Carlisle	10m Ultra Low Loss Coaxial Cable	UFB142A- 1-3937- 200200	646398909 12-001	2022-10-28	6 months
827	AH Systems	Preamplifier	PAM 1840 VH	170	2022-06-21	1 year
658	Agilent	Pre-Amplifier	8449B	3008A011 03	2022-07-22	1 year
459	HP	Pre Amplifier	8447D	2443A043 74	2022-07-27	6 months
-	Vasona	Test software	V6.0 build 11	10400213	N/R	N/R

Note¹: cable and attenuator included in the test set-up will be checked each time before testing.

Statement of Traceability: BACL Corp. attests that all of the calibrations on the equipment items listed above were traceable to NIST or to another internationally recognized National Metrology Institute (NMI), and were compliant with the latest version of A2LA policy P102 "A2LA Policy on Metrological Traceability".

4.7 Test Environmental Conditions

Temperature:	22-24 °C
Relative Humidity:	40-41 %
ATM Pressure:	103.1-104.1 kPa

The testing was performed by Deepak Mishra from 2022-11-17 to 2023-11-22 in 5m chamber 3.

4.8 Summary of Test Results

According to the data hereinafter, the EUT complied with the FCC Part 15.407 and RSS-247 standards' radiated emissions limits, and had the worst margin of:

Mode: Transmitting			
Margin (dB)	Frequency (MHz)	Polarization (Horizontal/Vertical)	Configuration
-2.905	11440	Vertical	Radio 1 HE20 2, 5720MHz

4.9 Radiated Emissions Test Result Data

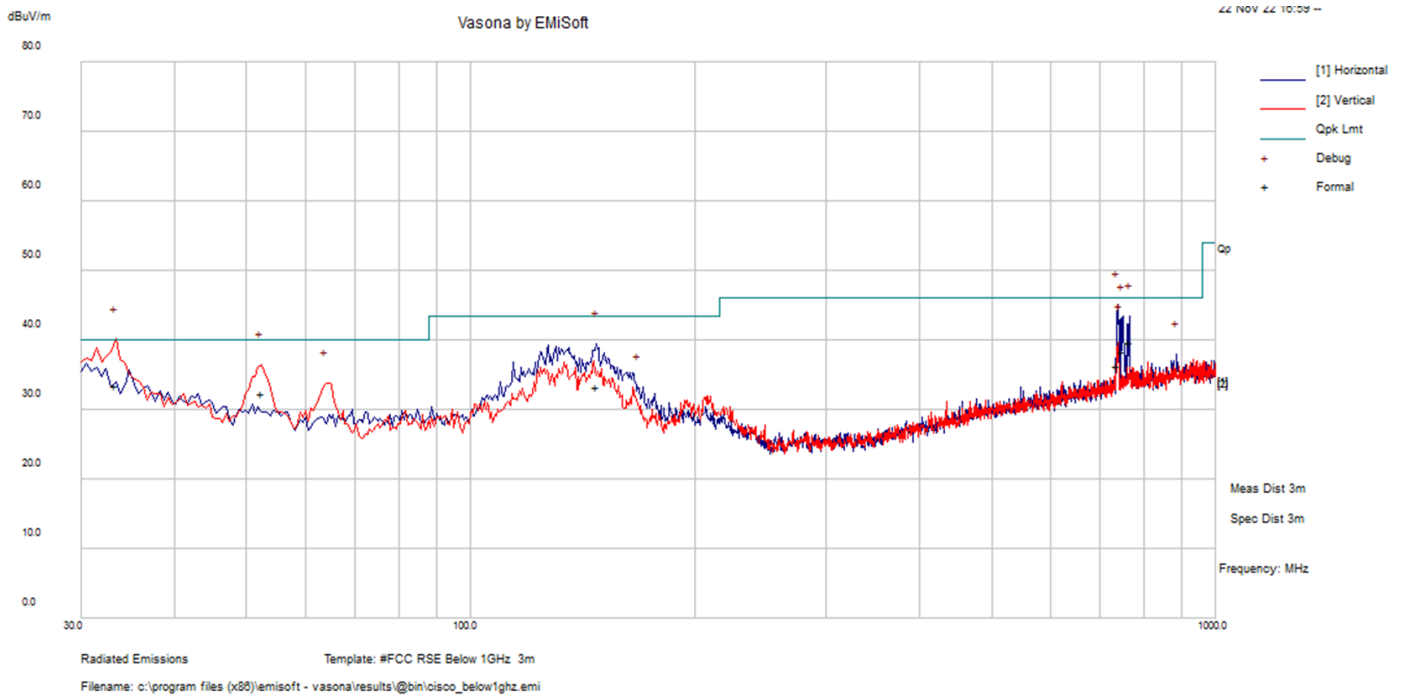
Note: Pre-scan was performed in order to determine worst-case orientation of device[shown in Test Setup Photos] with respect to measurement antenna. Plots/data shown represent measurements made in worst-case orientation.

Note: For all Wifi measurements, EUT is transmitting MIMO.

Note: Below results are representative of worst-case cabinet emissions. Worst case modulations per band were selected based on worst power measurements from conducted measurements. Per each of these modulations selected, all bandwidths were evaluated and appropriate Low, Mid and High channels were covered.

1) 30 MHz – 1 GHz at 3 meters

Co-location: Radio 1 + Radio2 + ble



Frequency (MHz)	S.A. Reading (dBuV)	Correction Factor (dB/m)	Corrected Amplitude (dBµV/m)	Antenna Height (cm)	Antenna Polarity (H/V)	Turntable Azimuth (degrees)	Limit (dBµV/m)	Margin (dB)	Comment
33.36575	36.38	-2.87	33.5	210	V	179	40	-6.5	Pass
738.639	34.78	1.61	36.39	127	H	188	46	-9.61	Pass
766.07725	37.69	2.01	39.7	126	H	281	46	-6.3	Pass
749.98925	36.49	1.87	38.36	126	H	47	46	-7.64	Pass
52.5355	45.52	-13.15	32.37	159	V	158	40	-7.63	Pass
147.53925	41.61	-8.41	33.21	166	H	143	43.5	-10.29	Pass

FCC/IC Limits for 1 GHz to 40 GHz				
Applicability	(dBm)	(uV/m at 3meters)	(dBuV/m at 3meters)	(dBuV/m at 1meter) ²
Restricted Band Average Limit	-	500	54	64
Restricted Band Peak Limit ¹	-	-	74	84
FCC §15.407(b) & ISEDC RSS-247 §6.2 Defined Unwanted Emissions Limit	-27	-	68	78

Note¹: Restricted Band Peak Limit is defined to be 20dB higher than Average Limit.

Note²: Limits at 1 meter are determined by applying a Distance correction factor accounts for extrapolation from 1 meters to 3 meters. Formula used is as follows: $20 \cdot \log(3\text{meters}/1\text{meter}) = 9.54$ (According to ANSI C63.10-2013 Section 9.4)

Note³: Where Restricted Band Peak Limit is replaced with stricter 78 dBuV/m at 1 meter, compliance is being shown for unwmated emissions per FCC §15.407(b) & ISEDC RSS-247 §6.2

2) 1-40 GHz measured at 3 meter

5150 - 5350 MHz

Radio 1

Frequency (MHz)	S.A. Reading (dBμV)	Turntable Azimuth (degrees)	Test Antenna			Cable Loss (dB)	Pre-Amp. (dB)	Cord. Reading (dBμV/m)	FCC/ISEDC		Comments
			Height (cm)	Polarity (H/V)	Factor (dB/m)				Limit (dBμV/m)	Margin (dB)	
Channel 5180 MHz HE20											
10360	48.700	255	281	H	37.362	10.600	36.440	60.222	74	-13.778	Peak
10360	48.290	159	278	V	37.362	10.600	36.440	59.812	74	-14.188	Peak
10360	35.590	255	281	H	37.362	10.600	36.440	47.112	54	-6.888	Ave
10360	35.640	159	278	V	37.362	10.600	36.440	47.162	54	-6.838	Ave
Channel 5210 MHz HE80											
10420	47.850	99	230	H	37.381	10.610	36.349	59.492	74	-14.508	Peak
10420	47.730	139	139	V	37.381	10.610	36.349	59.372	74	-14.628	Peak
10420	35.240	99	230	H	37.381	10.610	36.349	46.882	54	-7.118	Ave
10420	35.020	139	139	V	37.381	10.610	36.349	46.662	54	-7.338	Ave
Channel 5320 MHz HE20											
10640	47.990	334	100	H	37.768	10.770	36.205	60.323	74	-13.677	Peak
10640	47.380	82	257	V	37.768	10.770	36.205	59.713	74	-14.287	Peak
10640	35.010	334	100	H	37.768	10.770	36.205	47.343	54	-6.657	Ave
10640	34.940	82	257	V	37.768	10.770	36.205	47.273	54	-6.727	Ave
Channel 5290 MHz HE80											
10580	47.230	230	257	H	37.750	10.710	36.267	59.423	74	-14.577	Peak
10580	48.620	347	196	V	37.750	10.710	36.267	60.813	74	-13.187	Peak
10580	35.100	230	257	H	37.750	10.710	36.267	47.293	54	-6.707	Ave
10580	35.040	347	196	V	37.750	10.710	36.267	47.233	54	-6.767	Ave

Frequency (MHz)	S.A. Reading (dBµV)	Turntable Azimuth (degrees)	Test Antenna			Cable Loss (dB)	Pre-Amp. (dB)	Cord. Reading (dBµV/m)	FCC/ISED		Comments
			Height (cm)	Polarity (H/V)	Factor (dB/m)				Limit (dBµV/m)	Margin (dB)	
Channel 5190 MHz HE40											
10380	48.190	360	150	H	37.362	10.600	36.440	60.274	74	-13.726	Peak
10380	48.210	360	150	V	37.362	10.600	36.440	60.294	74	-13.706	Peak
10380	36.962	360	150	H	37.362	10.600	36.440	49.046	54	-4.954	Ave
10380	35.469	360	150	V	37.362	10.600	36.440	47.553	54	-6.447	Ave
Channel 5200 MHz HE20											
10400	47.050	360	150	H	37.362	10.600	36.440	59.134	74	-14.866	Peak
10400	47.010	360	150	V	37.362	10.600	36.440	59.094	74	-14.906	Peak
10400	36.910	360	150	H	37.362	10.600	36.440	48.994	54	-5.006	Ave
10400	36.701	360	150	V	37.362	10.600	36.440	48.785	54	-5.215	Ave
Channel 5260 MHz HE20											
10520	46.060	360	150	H	37.574	11.210	36.389	58.917	74	-15.083	Peak
10520	46.170	360	150	V	37.574	11.210	36.389	59.027	74	-14.973	Peak
10520	36.994	360	150	H	37.574	11.210	36.389	49.851	54	-4.149	Ave
10520	37.232	360	150	V	37.574	11.210	36.389	50.089	54	-3.911	Ave
Channel 5280 MHz HE20											
10560	45.610	360	150	H	37.671	11.210	36.389	58.564	74	-15.436	Peak
10560	45.440	360	150	V	37.671	11.210	36.389	58.394	74	-15.606	Peak
10560	36.764	360	150	H	37.671	11.210	36.389	49.718	54	-4.282	Ave
10560	36.732	360	150	V	37.671	11.210	36.389	49.686	54	-4.314	Ave
Channel 5270 MHz HE40											
10540	46.630	360	150	H	37.671	11.210	36.389	59.583	74	-14.417	Peak
10540	45.770	360	150	V	37.671	11.210	36.389	58.723	74	-15.277	Peak
10540	35.911	360	150	H	37.671	11.210	36.389	48.864	54	-5.136	Ave
10540	36.064	360	150	V	37.671	11.210	36.389	49.017	54	-4.983	Ave
Channel 5240 MHz HE20											
10480	46.480	360	150	H	37.671	11.210	36.389	59.433	74	-14.567	Peak
10480	45.650	360	150	V	37.671	11.210	36.389	58.603	74	-15.397	Peak
10480	35.786	360	150	H	37.671	11.210	36.389	48.739	54	-5.261	Ave
10480	35.966	360	150	V	37.671	11.210	36.389	48.919	54	-5.081	Ave
Channel 5310 MHz HE40											
10620	47.85	334	100	H	37.768	10.770	36.205	60.183	74	-13.817	Peak
10620	47.47	82	257	V	37.768	10.770	36.205	59.803	74	-14.197	Peak
10620	35.22	334	100	H	37.768	10.770	36.205	47.553	54	-6.447	Ave
10620	34.99	82	257	V	37.768	10.770	36.205	47.323	54	-6.677	Ave
Channel 5230 MHz HE40											
10460	46.58	360	150	H	37.671	11.210	36.389	59.072	74	-14.928	Peak
10460	45.73	360	150	V	37.671	11.210	36.389	58.222	74	-15.778	Peak
10460	35.914	360	150	H	37.671	11.210	36.389	48.406	54	-5.594	Ave
10460	35.781	360	150	V	37.671	11.210	36.389	48.273	54	-5.727	Ave

Radio 2

Frequency (MHz)	S.A. Reading (dBµV)	Turntable Azimuth (degrees)	Test Antenna			Cable Loss (dB)	Pre-Amp. (dB)	Cord. Reading (dBµV/m)	FCC/ISED		Comments
			Height (cm)	Polarity (H/V)	Factor (dB/m)				Limit (dBµV/m)	Margin (dB)	
Channel 5180 MHz HE20											
10360	47.940	24	229	H	37.362	10.600	36.440	59.462	74	-14.538	Peak
10360	48.020	222	250	V	37.362	10.600	36.440	59.542	74	-14.458	Peak
10360	35.380	24	229	H	37.362	10.600	36.440	46.902	54	-7.098	Ave
10360	35.440	222	250	V	37.362	10.600	36.440	46.962	54	-7.038	Ave
Channel 5210 MHz HE80											
10420	48.150	118	192	H	37.381	10.610	36.349	59.792	74	-14.208	Peak
10420	44.900	54	121	V	37.381	10.610	36.349	56.542	74	-17.458	Peak
10420	35.260	118	192	H	37.381	10.610	36.349	46.902	54	-7.098	Ave
10420	35.260	54	121	V	37.381	10.610	36.349	46.902	54	-7.098	Ave
Channel 5320 MHz HE20											
10640	47.520	325	127	H	37.768	10.770	36.205	59.853	74	-14.147	Peak
10640	47.470	41	115	V	37.768	10.770	36.205	59.803	74	-14.197	Peak
10640	34.880	325	127	H	37.768	10.770	36.205	47.213	54	-6.787	Ave
10640	34.880	41	115	V	37.768	10.770	36.205	47.213	54	-6.787	Ave
Channel 5290 MHz VHT80											
10580	47.290	138	221	H	37.750	10.710	36.267	59.483	74	-14.517	Peak
10580	47.150	212	197	V	37.750	10.710	36.267	59.343	74	-14.657	Peak
10580	35.080	138	221	H	37.750	10.710	36.267	47.273	54	-6.727	Ave
10580	36.040	212	197	V	37.750	10.710	36.267	48.233	54	-5.767	Ave
Channel 5200 MHz, HE20											
10400	47.740	302	207	H	37.362	10.600	36.440	59.262	74	-14.738	Peak
10400	46.220	228	150	V	37.362	10.600	36.440	57.742	74	-16.258	Peak
10400	37.050	302	207	H	37.362	10.600	36.440	48.572	54	-5.428	Ave
10400	36.940	228	150	V	37.362	10.600	36.440	48.462	54	-5.538	Ave

Channel 5240 MHz, HE20

10480	48.030	307	239	H	37.362	10.600	36.440	59.552	74	-14.448	Peak
10480	48.580	246	221	V	37.362	10.600	36.440	60.102	74	-13.898	Peak
10480	37.320	302	207	H	37.362	10.600	36.440	48.842	54	-5.158	Ave
10480	37.470	246	221	V	37.362	10.600	36.440	48.992	54	-5.008	Ave

Channel 5310 MHz HT40

10620	47.230	282	208	H	37.768	10.770	36.205	59.563	74	-14.437	Peak
10620	46.330	145	250	V	37.768	10.770	36.205	58.663	74	-15.337	Peak
10620	36.420	282	208	H	37.768	10.770	36.205	48.753	54	-5.247	Ave
10620	36.770	145	250	V	37.768	10.770	36.205	49.103	54	-4.897	Ave

Channel MHz 5190 HE40,

10380	47.500	101	150	H	37.362	10.600	36.440	59.022	74	-14.978	Peak
10380	47.180	228	150	V	37.362	10.600	36.440	58.702	74	-15.298	Peak
10380	36.930	101	150	H	37.362	10.600	36.440	48.452	54	-5.548	Ave
10380	36.816	228	150	V	37.362	10.600	36.440	48.338	54	-5.662	Ave

Channel 5230 MHz HE40

10460	47.640	101	150	H	37.362	10.600	36.440	59.162	74	-14.838	Peak
10460	47.960	294	150	V	37.362	10.600	36.440	59.482	74	-14.518	Peak
10460	36.910	101	150	H	37.362	10.600	36.440	48.432	54	-5.568	Ave
10460	37.060	294	150	V	37.362	10.600	36.440	48.582	54	-5.418	Ave

Channel 5270 MHz HT40

10540	48.220	26	150	H	37.362	10.600	36.440	59.742	74	-14.258	Peak
10540	47.270	256	150	V	37.362	10.600	36.440	58.792	74	-15.208	Peak
10540	36.740	26	150	H	37.362	10.600	36.440	48.262	54	-5.738	Ave
10540	36.810	256	150	V	37.362	10.600	36.440	48.332	54	-5.668	Ave

Channel 5260 MHz HT20

10520	47.690	131	150	H	37.362	10.600	36.440	59.212	74	-14.788	Peak
10520	48.150	120	150	V	37.362	10.600	36.440	59.672	74	-14.328	Peak
10520	36.990	131	150	H	37.362	10.600	36.440	48.512	54	-5.488	Ave
10520	37.860	120	150	V	37.362	10.600	36.440	49.382	54	-4.618	Ave

Channel 5280 MHz HT20

10560	47.730	36	150	H	37.362	10.600	36.440	59.252	74	-14.748	Peak
10560	47.130	111	150	V	37.362	10.600	36.440	58.652	74	-15.348	Peak
10560	36.720	36	150	H	37.362	10.600	36.440	48.242	54	-5.758	Ave
10560	37.860	111	150	V	37.362	10.600	36.440	49.382	54	-4.618	Ave

5470-5850 MHz**Radio 1**

Frequency (MHz)	S.A. Reading (dBµV)	Turntable Azimuth (degrees)	Test Antenna			Cable Loss (dB)	Pre-Amp. (dB)	Cord. Reading (dBµV/m)	FCC/ISED		Comments
			Height (cm)	Polarity (H/V)	Factor (dB/m)				Limit (dBµV/m)	Margin (dB)	
Channel 5500 MHz HE20											
11000	47.510	154	213	H	37.798	10.990	35.981	60.317	74	-13.683	Peak
11000	47.860	254	199	V	37.798	10.990	35.981	60.667	74	-13.333	Peak
11000	34.780	154	213	H	37.798	10.990	35.981	47.587	54	-6.413	Ave
11000	35.440	254	199	V	37.798	10.990	35.981	48.247	54	-5.753	Ave
Channel 5530 MHz HE80											
11060	47.640	73	265	H	37.795	11.000	35.887	60.548	74	-13.452	Peak
11060	47.750	220	209	V	37.795	11.000	35.887	60.658	74	-13.342	Peak
11060	35.340	73	265	H	37.795	11.000	35.887	48.248	54	-5.752	Ave
11060	35.380	220	209	V	37.795	11.000	35.887	48.288	54	-5.712	Ave
Channel 5610 MHz HE80											
11220	47.220	356	208	H	37.795	11.000	35.887	60.128	74	-13.872	Peak
11220	47.280	322	263	V	37.795	11.000	35.887	60.188	74	-13.812	Peak
11220	35.352	356	208	H	37.795	11.000	35.887	48.260	54	-5.740	Ave
11220	35.297	322	263	V	37.795	11.000	35.887	48.205	54	-5.795	Ave
Channel 5690 MHz HE80											
11380	47.290	356	208	H	37.795	11.000	35.887	60.198	74	-13.802	Peak
11380	47.330	322	263	V	37.795	11.000	35.887	60.238	74	-13.762	Peak
11380	35.035	356	208	H	37.795	11.000	35.887	47.943	54	-6.057	Ave
11380	35.348	322	263	V	37.795	11.000	35.887	48.256	54	-5.744	Ave
Channel 5745 MHz Non HT20											
11490	47.510	102	149	H	38.078	11.200	35.897	60.891	74	-13.109	Peak
11490	48.580	313	103	V	38.078	11.200	35.897	61.961	74	-12.039	Peak
11490	35.150	102	149	H	38.078	11.200	35.897	48.531	54	-5.469	Ave
11490	35.060	313	103	V	38.078	11.200	35.897	48.441	54	-5.559	Ave
Channel 5775 MHz Non HT80											
11550	47.280	188	124	H	38.111	11.240	35.891	60.740	74	-13.260	Peak
11550	47.480	321	300	V	38.111	11.240	35.891	60.940	74	-13.060	Peak
11550	35.340	188	124	H	38.111	11.240	35.891	48.800	54	-5.200	Ave
11550	35.270	321	300	V	38.111	11.240	35.891	48.730	54	-5.270	Ave

Frequency (MHz)	S.A. Reading (dBµV)	Turntable Azimuth (degrees)	Test Antenna			Cable Loss (dB)	Pre-Amp. (dB)	Cord. Reading (dBµV/m)	FCC/ISED		Comments
			Height (cm)	Polarity (H/V)	Factor (dB/m)				Limit (dBµV/m)	Margin (dB)	
Channel 5660 MHz HE20											
11320	44.150	360	150	H	37.908	11.722	35.952	57.829	74	-16.172	Peak
11320	44.430	360	150	V	37.908	11.722	35.952	58.109	74	-15.892	Peak
11320	36.666	360	150	H	37.908	11.722	35.952	50.345	54	-3.656	Ave
11320	36.732	360	150	V	37.908	11.722	35.952	50.411	54	-3.590	Ave
Channel 5720 MHz HE20											
11440	44.310	360	150	H	37.961	11.768	35.900	58.139	74	-15.861	Peak
11440	44.210	360	150	V	37.961	11.768	35.900	58.039	74	-15.961	Peak
11440	36.974	360	150	H	37.961	11.768	35.900	50.803	54	-3.197	Ave
11440	37.266	360	150	V	37.961	11.768	35.900	51.095	54	-2.905	Ave
Channel 5510 MHz HE40											
11020	45.540	360	150	H	37.798	11.484	36.095	58.727	74	-15.273	Peak
11020	44.660	360	150	V	37.798	11.484	36.095	57.847	74	-16.153	Peak
11020	36.305	360	150	H	37.798	11.484	36.095	49.492	54	-4.508	Ave
11020	36.597	360	150	V	37.798	11.484	36.095	49.784	54	-4.216	Ave
Channel 5670 MHz HE40											
11340	44.460	360	150	H	37.912	11.722	35.952	58.143	74	-15.858	Peak
11340	44.540	360	150	V	37.912	11.722	35.952	58.223	74	-15.778	Peak
11340	36.846	360	150	H	37.912	11.722	35.952	50.529	54	-3.472	Ave
11340	36.729	360	150	V	37.912	11.722	35.952	50.412	54	-3.589	Ave
Channel 5710 MHz HE40											
11420	44.180	360	150	H	37.961	11.768	35.900	58.009	74	-15.991	Peak
11420	44.590	360	150	V	37.961	11.768	35.900	58.419	74	-15.581	Peak
11420	36.660	360	150	H	37.961	11.768	35.900	50.489	54	-3.511	Ave
11420	36.628	360	150	V	37.961	11.768	35.900	50.457	54	-3.543	Ave
Channel 5785 MHz Non HT20											
11570	44.060	360	150	H	38.078	11.200	35.897	57.441	74	-16.559	Peak
11570	44.120	360	150	V	38.078	11.200	35.897	57.501	74	-16.499	Peak
11570	36.230	360	150	H	38.078	11.200	35.897	49.611	54	-4.389	Ave
11570	36.310	360	150	V	38.078	11.200	35.897	49.691	54	-4.309	Ave
Channel 5825 MHz Non HT20											
11650	44.760	360	150	H	38.078	11.200	35.897	58.141	74	-15.859	Peak
11650	44.880	360	150	V	38.078	11.200	35.897	58.261	74	-15.739	Peak
11650	36.740	360	150	H	38.078	11.200	35.897	50.121	54	-3.879	Ave
11650	36.820	360	150	V	38.078	11.200	35.897	50.201	54	-3.799	Ave

Frequency (MHz)	S.A. Reading (dB μ V)	Turntable Azimuth (degrees)	Test Antenna			Cable Loss (dB)	Pre-Amp. (dB)	Cord. Reading (dB μ V/m)	FCC/ISED		Comments
			Height (cm)	Polarity (H/V)	Factor (dB/m)				Limit (dB μ V/m)	Margin (dB)	
Channel 5755 MHz Non HT40											
11510	44.260	360	150	H	38.078	11.801	35.932	58.744	74	-15.256	Peak
11510	44.050	360	150	V	38.078	11.801	35.932	58.534	74	-15.466	Peak
11510	35.530	360	150	H	38.078	11.801	35.932	50.014	54	-3.986	Ave
11510	35.800	360	150	V	38.078	11.801	35.932	50.284	54	-3.716	Ave
Channel 5795 MHz Non HT40											
11590	44.210	360	150	H	38.189	11.808	35.985	58.222	74	-15.778	Peak
11590	44.560	360	150	V	38.189	11.808	35.985	58.572	74	-15.428	Peak
11590	36.550	360	150	H	38.189	11.808	35.985	50.562	54	-3.438	Ave
11590	36.374	360	150	V	38.189	11.808	35.985	50.386	54	-3.614	Ave

Radio 2

Frequency (MHz)	S.A. Reading (dBμV)	Turntable Azimuth (degrees)	Test Antenna			Cable Loss (dB)	Pre-Amp. (dB)	Cord. Reading (dBμV/m)	FCC/ISED		Comments
			Height (cm)	Polarity (H/V)	Factor (dB/m)				Limit (dBμV/m)	Margin (dB)	
Channel 5500 MHz HE20											
11000	47.750	350	163	H	37.798	10.990	35.981	60.557	74	-13.443	Peak
11000	47.470	222	203	V	37.798	10.990	35.981	60.277	74	-13.723	Peak
11000	34.750	350	163	H	37.798	10.990	35.981	47.557	54	-6.443	Ave
11000	34.700	222	203	V	37.798	10.990	35.981	47.507	54	-6.493	Ave
Channel 5530 MHz HE80											
11060	47.410	356	208	H	37.795	11.000	35.887	60.318	74	-13.682	Peak
11060	47.600	322	263	V	37.795	11.000	35.887	60.508	74	-13.492	Peak
11060	35.040	356	208	H	37.795	11.000	35.887	47.948	54	-6.052	Ave
11060	35.050	322	263	V	37.795	11.000	35.887	47.958	54	-6.042	Ave
Channel 5610 MHz HE80											
11220	47.180	356	208	H	37.795	11.000	35.887	60.088	74	-13.912	Peak
11220	47.480	322	263	V	37.795	11.000	35.887	60.388	74	-13.612	Peak
11220	35.318	356	208	H	37.795	11.000	35.887	48.226	54	-5.774	Ave
11220	35.916	322	263	V	37.795	11.000	35.887	48.824	54	-5.176	Ave
Channel 5690 MHz HE80											
11380	47.340	356	208	H	37.795	11.000	35.887	60.248	74	-13.752	Peak
11380	47.620	322	263	V	37.795	11.000	35.887	60.528	74	-13.472	Peak
11380	35.078	356	208	H	37.795	11.000	35.887	47.986	54	-6.014	Ave
11380	35.159	322	263	V	37.795	11.000	35.887	48.067	54	-5.933	Ave
Channel 5745 MHz Non HT20											
11490	47.810	53	296	H	38.078	11.200	35.897	61.191	74	-12.809	Peak
11490	48.090	272	148	V	38.078	11.200	35.897	61.471	74	-12.529	Peak
11490	35.090	53	296	H	38.078	11.200	35.897	48.471	54	-5.529	Ave
11490	35.020	272	148	V	38.078	11.200	35.897	48.401	54	-5.599	Ave
Channel 5775 MHz Non HT80											
11550	47.300	308	204	H	38.111	11.240	35.891	60.760	74	-13.240	Peak
11550	47.610	206	224	V	38.111	11.240	35.891	61.070	74	-12.930	Peak
11550	35.070	308	204	H	38.111	11.240	35.891	48.530	54	-5.470	Ave
11550	35.050	206	224	V	38.111	11.240	35.891	48.510	54	-5.490	Ave
Channel 5590 MHz HE40											
11180	47.130	44	249	H	37.798	10.990	35.981	59.937	74	-14.063	Peak
11180	47.530	232	250	V	37.798	10.990	35.981	60.337	74	-13.663	Peak
11180	36.199	44	249	H	37.798	10.990	35.981	49.006	54	-4.994	Ave
11180	35.990	232	250	V	37.798	10.990	35.981	48.797	54	-5.203	Ave
Channel 5710 MHz HE40											
11420	45.970	153	223	H	37.798	10.990	35.981	58.777	74	-15.223	Peak
11420	46.060	123	222	V	37.798	10.990	35.981	58.867	74	-15.133	Peak
11420	36.690	153	223	H	37.798	10.990	35.981	49.497	54	-4.503	Ave
11420	36.780	123	222	V	37.798	10.990	35.981	49.587	54	-4.413	Ave

Channel 5785 MHz non HT20

11570	46.540	229.000	124	H	38.111	11.240	35.891	60.000	74	-14.000	Peak
11570	46.810	229.000	221	V	38.111	11.240	35.891	60.270	74	-13.730	Peak
11570	36.200	188.000	124	H	38.111	11.240	35.891	49.660	54	-4.340	Ave
11570	36.040	229.000	221	V	38.111	11.240	35.891	49.500	54	-4.500	Ave

Channel 5825 MHz non HT20

11650	47.640	229.000	124	H	38.111	11.240	35.891	61.100	74	-12.900	Peak
11650	46.321	229.000	221	V	38.111	11.240	35.891	59.781	74	-14.219	Peak
11650	36.230	188.000	124	H	38.111	11.240	35.891	49.690	54	-4.310	Ave
11650	36.078	229.000	221	V	38.111	11.240	35.891	49.538	54	-4.462	Ave

Channel 5510 MHz HE40

11020	46.890	173	150	H	37.798	10.990	35.981	59.697	74	-14.303	Peak
11020	46.660	298	150	V	37.798	10.990	35.981	59.467	74	-14.533	Peak
11020	36.251	173	150	H	37.798	10.990	35.981	49.058	54	-4.942	Ave
11020	36.085	298	150	V	37.798	10.990	35.981	48.892	54	-5.108	Ave

Channel 5580 MHz HE20

11160	47.580	53	150	H	37.798	10.990	35.981	60.387	74	-13.613	Peak
11160	47.139	178	150	V	37.798	10.990	35.981	59.946	74	-14.054	Peak
11160	36.323	53	150	H	37.798	10.990	35.981	49.130	54	-4.870	Ave
11160	36.575	178	150	V	37.798	10.990	35.981	49.382	54	-4.618	Ave

Channel 5720 MHz HE20

11440	47.377	23	150	H	37.798	10.990	35.981	60.184	74	-13.816	Peak
11440	46.998	202	150	V	37.798	10.990	35.981	59.805	74	-14.195	Peak
11440	36.376	23	150	H	37.798	10.990	35.981	49.183	54	-4.817	Ave
11440	36.159	202	150	V	37.798	10.990	35.981	48.966	54	-5.034	Ave

Channel 5755 MHz non HT40

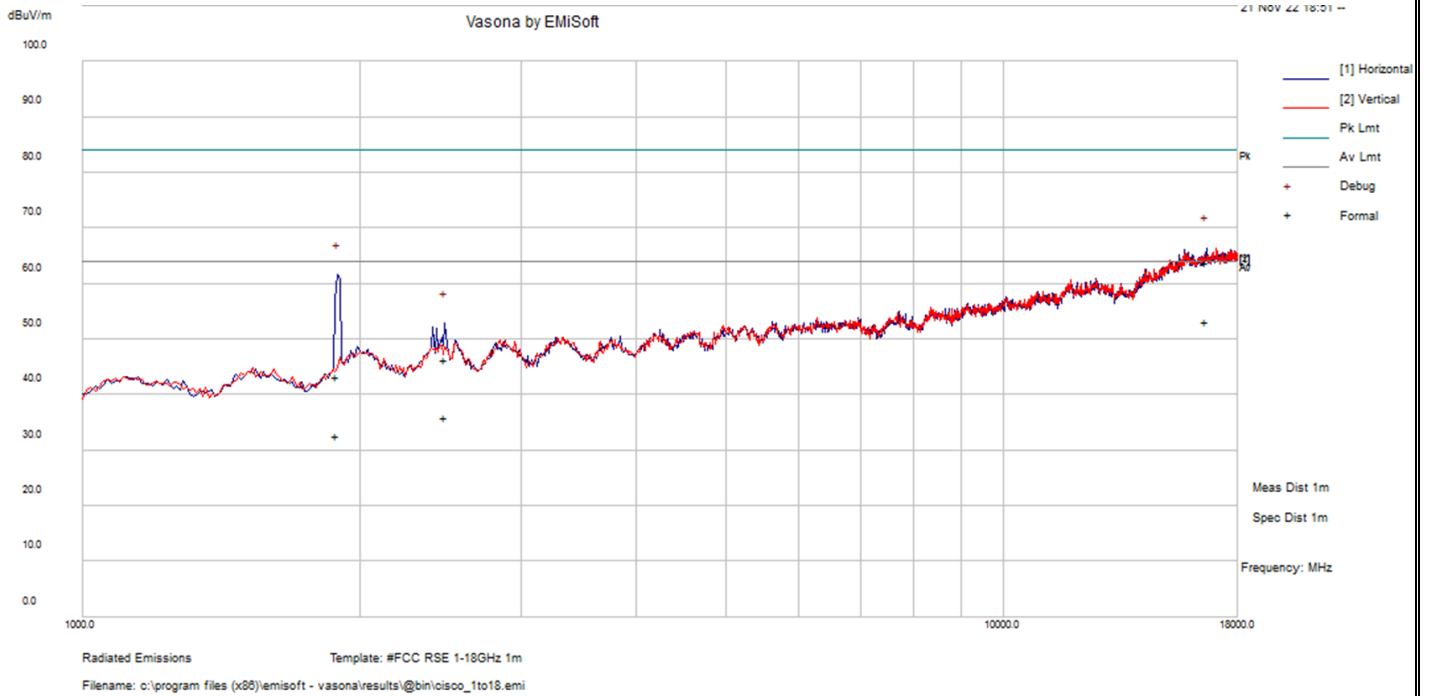
11510	48.839	165	150	H	38.111	11.240	35.891	62.299	74	-11.701	Peak
11510	48.017	324	150	V	38.111	11.240	35.891	61.477	74	-12.523	Peak
11510	36.907	165	150	H	38.111	11.240	35.891	50.367	54	-3.633	Ave
11510	37.138	3244	150	V	38.111	11.240	35.891	50.598	54	-3.402	Ave

Channel 5795 MHz non HT40

11590	47.585	178	150	H	38.111	11.240	35.891	61.045	74	-12.955	Peak
11590	47.814	25	150	V	38.111	11.240	35.891	61.274	74	-12.726	Peak
11590	36.570	178	150	H	38.111	11.240	35.891	50.030	54	-3.970	Ave
11590	36.741	25	150	V	38.111	11.240	35.891	50.201	54	-3.799	Ave

3) 1 GHz – 18 GHz Worst Case Scan at 1 Meter

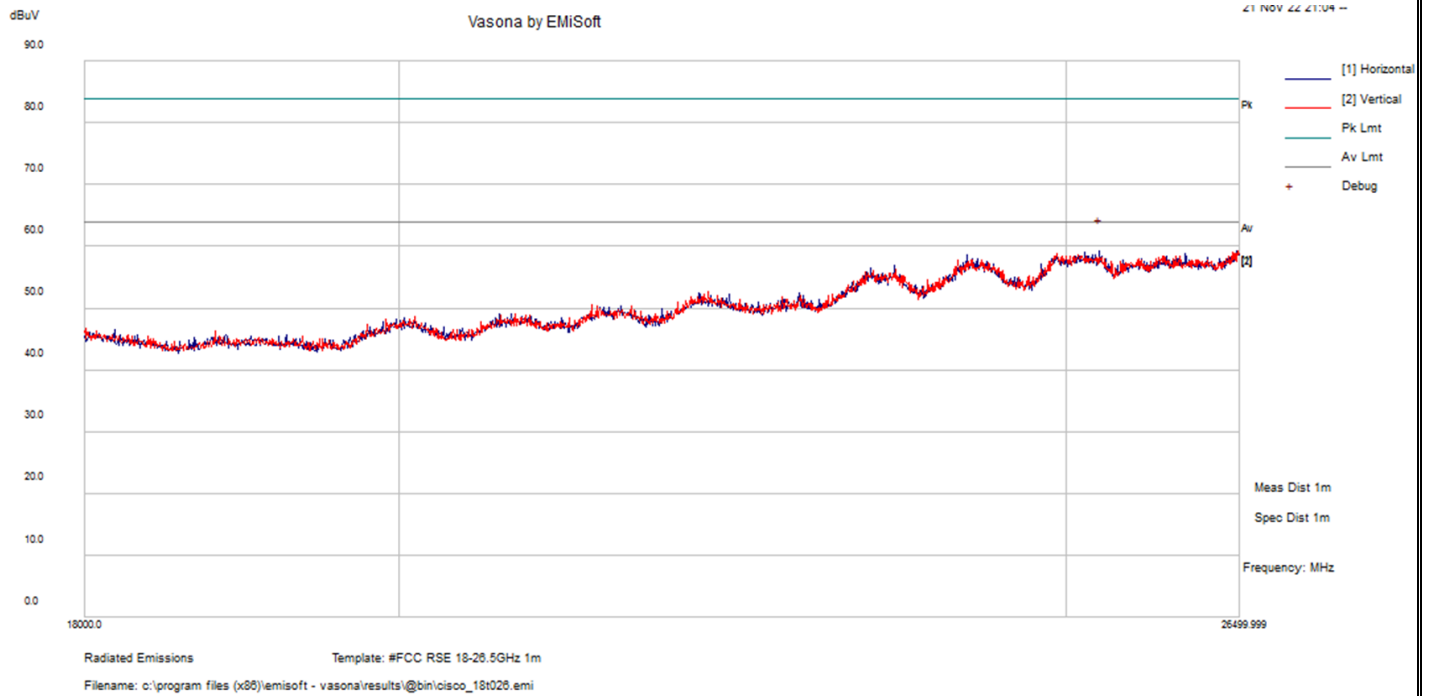
Co-location: Radio 1 + Radio2 + ble



Frequency (MHz)	S.A. Reading (dBµV)	Correction Factor (dB/m)	Corrected Amplitude (dBµV/m)	Antenna Height (cm)	Antenna Polarity (H/V)	Turntable Azimuth (degrees)	Limit (dBµV/m)	Margin (dB)	Comment
16640.365	46.71	17.04	63.75	164	H	252	84	-20.25	Pass
1891.01	47.39	-4.15	43.24	158	H	314	84	-40.76	Pass
2478.695	47.88	-1.53	46.35	217	H	332	84	-37.65	Pass
16640.365	36.2	17.04	53.24	164	H	252	64	-10.76	Pass
1891.01	36.86	-4.15	32.71	158	H	314	64	-31.29	Pass
2478.695	37.49	-1.53	35.95	217	H	332	64	-28.05	Pass

4) 18 GHz – 26.5 GHz Worst Case Scan at 1 Meter

Co-location: Radio 1 + Radio2 + ble

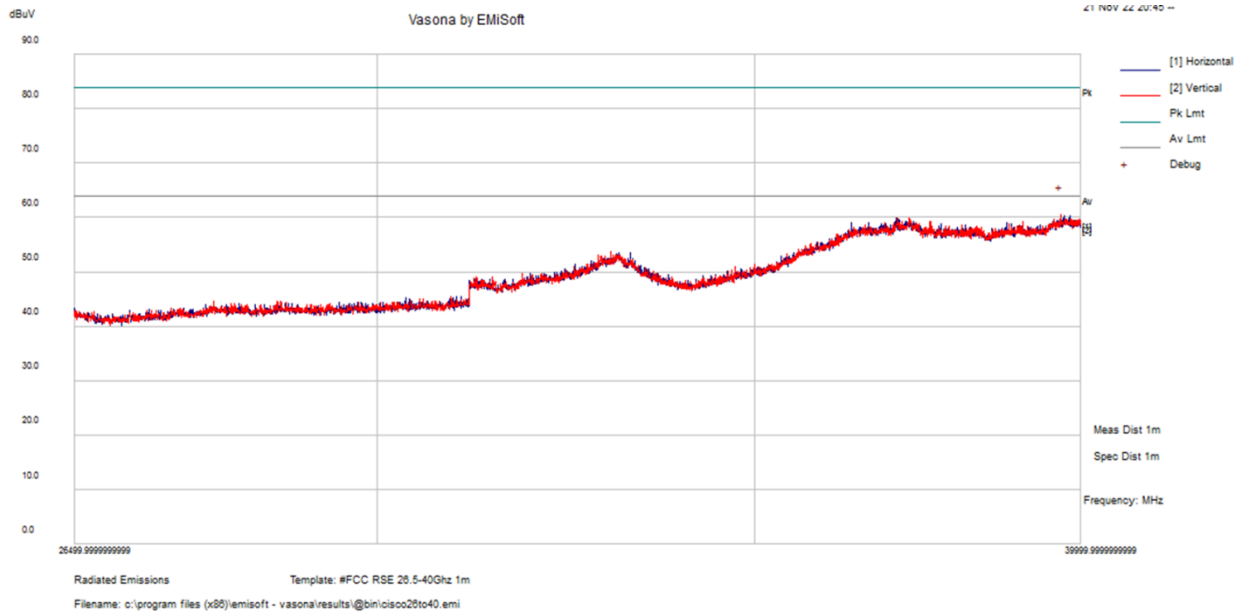


Frequency (MHz)	S.A. Reading (dBµV)	Correction Factor (dB/m)	Corrected Amplitude (dBµV/m)	Antenna Height (cm)	Antenna Polarity (H/V)	Turntable Azimuth (degrees)	Limit (dBµV/m)	Margin (dB)	Comment
25283.437	38.38	20.96	59.35	100	H	0	64	-4.65	Pass

Note: Max Peak emission compared to average limit to show compliance.

5) 26.5 GHz – 40 GHz Worst Case Scan at 1 Meter

Co-location: Radio 1 + Radio2 + ble



Frequency (MHz)	S.A. Reading (dBµV)	Correction Factor (dB/m)	Corrected Amplitude (dBµV/m)	Antenna Height (cm)	Antenna Polarity (H/V)	Turntable Azimuth (degrees)	Limit (dBµV/m)	Margin (dB)	Comment
39666.719	44.92	15.64	60.57	200	H	0	64	-3.43	Pass

Note: Max Peak emission compared to average limit to show compliance.

5 Annex A (Normative) - A2LA Electrical Testing Certificate



Accredited Laboratory

A2LA has accredited

BAY AREA COMPLIANCE LABORATORIES CORP.

Sunnyvale, CA

for technical competence in the field of

Electrical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 General requirements for the competence of testing and calibration laboratories. This laboratory also meets A2LA R222 - Specific Requirements EPA ENERGY STAR Accreditation Program. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated April 2017).

Presented this 21st day of December 2022.



A handwritten signature in blue ink, appearing to read 'Trace McInturf'.

Mr. Trace McInturf, Vice President, Accreditation Services
 For the Accreditation Council
 Certificate Number 3297.02
 Valid to September 30, 2024

For the tests to which this accreditation applies, please refer to the laboratory's Electrical Scope of Accreditation.

Please follow the web link below for a full ISO 17025 scope

<https://www.a2la.org/scopepdf/3297-02.pdf>

--- END OF REPORT ---