



Test Report for Hydration Labs, Inc.
Report No. EY0069-6 Issue 2



TEST REPORT

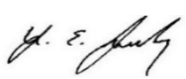
Applicant	Hydration Labs, Inc.
Address	529 Main Street Suite 304 Boston, MA 02129

FCC ID	2AMTV-4000029
ISED Canada IC	22810-4000029
Product Description	Bevi Single Board Computer, Gen 2
PMN Model/HVIN FVIN HMN	Bevi SBC Gen 2 400-0029 Bevi OS 2 N/A
Additional Models	None
Date of tests	June 3 to June 13, 2024
FCC Test Firm DN Canada CABID	US1028 US0106

The tests have been carried out according to the requirements of the following standard:

- ☒ **FCC Part 15, Subpart E, Section 15.407**
- ☒ **ISED Canada RSS-247 Issue 3**

CONCLUSION: The submitted sample was found to COMPLY with the test requirement

Prepared by Nisha Patel Wireless Engineer I	Approved by Yunus Faziloglu Wireless Manager
	
Report Issue Date: May 2, 2025	Issue Number: 2

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	PREPARED BY	APPROVED BY	DATE ISSUED
1	Original release	NP	YF	Sep 3, 2024
2	To address TCB review findings: FVIN updated to Bevi OS 2	NP	YF	May 2, 2025



1 SUMMARY OF TEST RESULTS

EUT was tested against the following requirements:

APPLIED STANDARD: FCC PART 15, SUBPART E (SECTION 15.407), RSS-247				
STANDARD SECTION		TEST TYPE AND LIMIT	APPLICABLE	RESULT
47CFR15	RSS			
15.205	247 3.3	Radiated Spurious Emissions	Y	PASS
15.209	247 5.5			
	Gen 8.9			
	Gen 8.10			

Note: Radiated spurious emissions testing for Class 2 Permissive Change to add a new antenna to a certified radio module.

2 MEASUREMENT UNCERTAINTY

The listed uncertainties are the worst-case uncertainty for the entire range of measurement. Please note that the uncertainty values are provided for informational purposes only and are not used in determining the PASS/FAIL results. Values for measurement uncertainty are calculated per ETSI TR 100 028 (2001).

Measurement	Expanded Uncertainty k=2	Maximum allowable uncertainty
Radio frequency (@ 2.4GHz)	3.23×10^{-8}	1×10^{-7}
RF power, conducted	0.40dB	0.75dB
Maximum frequency deviation: Within 300Hz and 6kHz of audio frequency / Within 6kHz and 25kHz of audio frequency	3.4% 0.3dB	5% 3dB
Adjacent channel power	1.9dB	3dB
Conducted spurious emission of transmitter, valid up to 12.75GHz	2.39dB	3dB
Conducted emission of receivers	1.3dB	3dB
Radiated emission of transmitter, valid up to 26.5GHz	3.9dB	6dB
Radiated emission of transmitter, valid up to 80GHz	3.3dB	6dB
Radiated emission of receiver, valid up to 26.5GHz	3.9dB	6dB
Radiated emission of receiver, valid up to 80GHz	3.3dB	6dB
Humidity	2.37%	5%
Temperature	0.7°C	1.0°C
Time	4.1%	10%
RF Power Density, Conducted	0.4dB	3dB
DC and low frequency voltages	1.3%	3%
Voltage (AC, <10kHz)	1.3%	2%
Voltage (DC)	0.62%	1%
The above reflects a 95% confidence level		

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

3 GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

NOMINAL VOLTAGE	12 VDC
RADIO TECHNOLOGY	WLAN (802.11a/n(HT20)/n(HT40)/ac(VHT20)/ac(VHT40)/ac(VHT80))
ANTENNA TYPE (Customer Supplied Information)	Dual-Band 2.4GHz/5.8GHz Wi-Fi Ceramic Substrate Loop Manufacturer: TAOGLAS, Model: WLA.10 Gain: 2.17 dBi Peak in 5GHz band

EUT Modes	Data rates and Power Settings (Default max setting)	Operating frequencies
802.11a	6Mbps: 15dBm 54Mbps: 13dBm	5180-5240 MHz
802.11n HT20	MCS0: 15dBm MCS7: 13dBm	5180-5240 MHz
802.11n HT40	MCS0: 15dBm MCS7: 13dBm	5190-5230 MHz
802.11ac VHT20	MCS0: 14dBm MCS8: 13dBm	5180-5240 MHz
802.11ac VHT40	MCS0: 13dBm MCS9: 12dBm	5190-5230 MHz
802.11ac VHT80	MCS0: 13dBm MCS9: 12dBm	5210 MHz

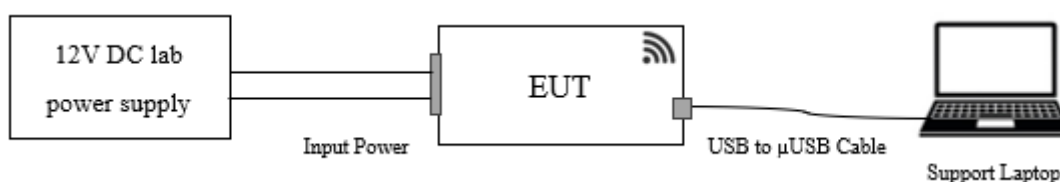
EUT Ports Information:									
Port Label	Port Type	No. of ports	No. Populated	Cable Type	Shielded	Ferrites (No. of Ferrites)	Length	Max Length	Reason if unpopulated
J9	Display	1	1	Power/Data	N	Y (1)	38cm	38cm	--
J12	Touch	1	1	Power/Data	N	N	38cm	38cm	--
J10	Back-light	1	1	Power	N	N	46cm	46cm	
J11	uUSB	1	0	USB	--	--	NA	NA	Setup/ diagnostic only
J5	USB	1	1	USB	Y	Y (2)	115cm	115cm	
J6	USB	1	0	USB	--	--	NA	NA	Setup/ diagnostic only
J7	RJ45	1	1	Ethernet	N	N	108cm	108cm	
J1	Power	1	1	Power	N	N	94cm	94cm	
J3	Debug	1	0	Data	--	--	NA	NA	Setup/ diagnostic only

3.2 DESCRIPTION OF TEST MODES:

TEST MODE	DESCRIPTION
A	Transmit on 802.11a at 6Mbps (Duty-cycle: >98.0%)
B	Transmit on 802.11n HT20 at MCS0 (Duty-cycle: >98.0%)
C	Transmit on 802.11n HT40 at MCS0 (Duty-cycle: 93.78%)
D	Transmit on 802.11ac VHT20 at MCS0 (Duty-cycle: >98.0%)
E	Transmit on 802.11ac VHT40 at MCS0 (Duty-cycle: 93.14%)
F	Transmit on 802.11ac VHT80 at MCS0 (Duty-cycle: 87%)

EUT SETUP BLOCK DIAGRAMS

Radiated Emissions EUT Setup



Note: Support laptop is disconnected after the test mode setup.

The following channels/modes were selected for the applicable tests below.

TEST	TEST MODE	AVAILABLE CHANNELS	TESTED CHANNEL	MODULATION TYPE	DATA RATE (Mbps)	Notes
RSE<1G	A	36 to 48	36, 40 & 48	802.11a	6Mbps	1,2,3
RSE≥1G	A	36 to 48	36, 40 & 48	802.11a	6Mbps	1,2
RBE	A	36 to 48	36 & 48	802.11a	6 Mbps	2,4
	B	36 to 48	36 & 48	802.11n HT20	MCS0	
	C	38 to 46	38 & 46	802.11n HT40	MCS0	
	D	36 to 48	36 & 48	802.11ac VHT20	MCS0	
	E	38 to 46	38 & 46	802.11ac VHT40	MCS0	
	F	42	42	802.11ac VHT80	MCS0	

Note 1: All Radio Spurious emission tests were performed on mode A only, since mode A was determined as worst test mode based on pre-scans (on each mode at low and high data rates).

Note 2: For radiated emissions, EUT was maximized in three orthogonal positions (X, Y, Z) to find the worst orientation. Worst-case orientation was found when the EUT was positioned on X-axis as shown in the Test setup photos.

Note 3: Testing below 30MHz was limited to 1 channel only, since no emissions were detected in this range.

Note 4: Band-edge testing was performed at the worst data rate on each mode.

RSE<1G: Radiated Spurious Emissions Below 1GHz

RSE≥1G: Radiated Spurious Emissions Above 1GHz

RBE: Radiated Band-edge

TEST CONDITIONS:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY	DATE OF TEST
RE<1G	23.6°C, 45.3%, 1005mbar	12VDC	Nisha Patel	June-3-2024
	23.7°C, 47.3%, 1005mbar			June-4-2024
	22.3°C, 48.2%, 993mbar			June-10-2024
RE≥1G	23.6°C, 51.3%, 1007mbar	12VDC	Nisha Patel	June-12-2024
	23.6°C, 50.6%, 1007mbar			June-13-2024
Radiated Band Edges	22.3°C, 48.2%, 993mbar	12VDC	Nisha Patel	June-10-2024
	23.6°C, 51.3%, 1007mbar			June-12-2024



3.3 MEASUREMENT PROCEDURES USED

All tests were performed in accordance with the following measurement procedures:

ANSI C63.10-2013

3.4 DESCRIPTION OF SUPPORT EQUIPMENT

Support Equipment	Model #	Serial #
Lab supplied DC power supply	Test Inst 61	00480
Customer supplied laptop	Dell Precision 7770	JGQB2T3

4 TEST RESULTS

4.1 RADIATED SPURIOUS EMISSIONS

4.1.1 LIMITS

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emissions limits specified in Section 15.209(a).

FREQUENCIES (MHz)	FIELD STRENGTH (microvolts/meter)	MEASUREMENT DISTANCE (meters)
0.009 ~ 0.490	2400/F(kHz)	300
0.490 ~ 1.705	24000/F(kHz)	30
1.705 ~ 30.0	30	30
30 ~ 88	100	3
88 ~ 216	150	3
216 ~ 960	200	3
Above 960	500	3

NOTE:

- Lower limit applies at the transition frequencies.
- As specified in 15.35(b), for frequencies above 1000MHz, field strength limits are based on the use of measurement instrumentation employing an average detector function. However, there is also a limit on the peak level of the emissions that is 20 dB above the maximum permitted average emission limit.
- Measurements above 6GHz or 18GHz can be performed at distances less than 3m from the EUT due to increased noise floor of the measurement system. Since such measurements produce higher amplitudes than what they would be if they were measured at 3 meters, this would be considered worst-case and no compensation back to 3 meters is needed. Limit conversion above 30MHz is done by using inverse linear distance extrapolation factor (20dB/decade) as allowed in FCC 15.31(f)(1).

$$\text{Limit}(1\text{m}) = \text{Limit}(3\text{m}) + 20 \cdot \log(3/1) = \text{Limit}(3\text{m}) + 9.5$$
- Limit conversion below 30MHz is done by using the square of an inverse linear distance extrapolation factor (40 dB/decade) as allowed in FCC 15.31(f)(2).

$$\text{Limit}(3\text{m}) = \text{Limit}(30\text{m}) + 40 \cdot \log(30/3) = \text{Limit}(30\text{m}) + 40$$

$$\text{Limit}(3\text{m}) = \text{Limit}(300\text{m}) + 40 \cdot \log(300/3) = \text{Limit}(300\text{m}) + 80$$
- Adjusted Reading (dBuV/m) = Raw Reading (dBuV) + Transducer(Correction) Factor (dB/m)
 Transducer Factor (dB/m) = Antenna Factor (dB/m) – PreAmp Gain (dB) + Cable Loss (dB) + Filter Loss (dB)
 Note: Filter loss only applies if a notch filter is used during testing.
- RSS-GEN Table 6 H-field limits are 51.5dB lower than FCC 15.209(a) E-field limits. Measurements are performed in terms of magnetic field and converted to electric field using the free space impedance of 377Ω (E-field = H-field + 51.5). Therefore resulting pass/fail margin would be the same if an E-field reading is compared to an E-field limit or an H-field reading is compared to an H-field limit.



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4.1.2 TEST EQUIPMENT USED

Rev. 5/21/2024

Radiated Emissions Sites	FCC Code	IC Code	VCCI Code	Range	Asset	Cat	Calibration Due	Calibrated on
EMI Chamber 1	719150	2762A-6	A-0015	30-1000MHz	1685	I	11/29/2024	11/29/2022
EMI Chamber 1	719150	2762A-6	A-0015	1-18GHz	1685	I	12/29/2024	12/29/2022
Spectrum Analyzers / Receivers / Preselectors	Range	MN	Mfr	SN	Asset	Cat	Calibration Due	Calibrated on
Rental MXE EMI Receiver(1170725)	20Hz-26.5GHz	N9038A	Agilent	MY51210151	1170725	I	2/15/2025	2/15/2024
Gauss TDEMI Ultra 40	9KHz-40GHz	TDEMI Ultra 40	Gauss	2305001	2712	I	7/9/2024	7/9/2023
Antennas	Range	MN	Mfr	SN	Asset	Cat	Calibration Due	Calibrated on
Red-White Bilog	30-2000MHz	JB1	Sunol	A091604-1	1105	I	11/2/2025	11/2/2023
Blue Horn	1-18GHz	3117	ETS	157647	1861	I	3/27/2025	3/27/2023
3116C Horn / PA	18-40GHz	3116C	ETS	258845	2852	I	3/21/2026	3/21/2024
2615 Active Loop Antenna	9KHz-30MHz	6502	EMCO	2049	2615	I	1/18/2025	1/18/2023
Cables	Range		Mfr			Cat	Calibration Due	Calibrated on
Asset #2466	9KHz-18GHz		MegaPhase			II	11/2/2024	11/2/2023
Asset #2594	9KHz-40GHz		Carlisle			II	2/17/2025	2/17/2024
Asset #2681	9KHz-18GHz		Pasternack			II	12/7/2024	12/7/2023
Asset #2690	1-40GHz		Pasternack			II	8/22/2024	8/22/2023
Asset #2608	9KHz-18GHz		Pasternack			II	11/2/2024	11/2/2023
Preamps/Couplers Attenuators / Filters	Range	MN	Mfr	SN	Asset	Cat	Calibration Due	Calibrated on
8447F Rental PA	9KHz-1.3GHz	84477F	HP	3113A05395		II	10/18/2024	10/18/2023
2113 HPF	0.009-18000MHz	HPM50107	Micro-Tronics	34	2113	II	12/5/2024	12/5/2023
2118 BRP	0.009-18000MHz	BRM50703	Micro-Tronics	96	2118	II	12/5/2024	12/5/2023
Meteorological Meters/Chambers		MN	Mfr	SN	Asset	Cat	Calibration Due	Calibrated on
Weather Clock (Pressure Only)		BA928	Oregon Scientific	C3166-1	831	I	12/15/2025	12/15/2022
Asset #2847		1235C97	Control Company	200435382	2847	I	8/18/2025	8/18/2022

All equipment is calibrated using standards traceable to NIST or other nationally recognized calibration standard.

4.1.3 TEST PROCEDURES

- a. The EUT was placed on the top of a rotating table 1.5 meters (above 1GHz) and 0.8 meters (below 1GHz) above the ground at a 3 meters semi-anechoic chamber.
- b. For below 30MHz, a loop antenna with its lowest point 1m above the ground was placed 3m away from the EUT and it was rotated 0 and 90 degrees around its vertical axis.
- c. In the 30MHz-1GHz range, a biconilog antenna was mounted on a variable-height antenna tower and placed 3m away from the EUT. Antenna height was varied from 1 meter to 4 meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna were investigated. The table was rotated 360 degrees to determine the position of the highest radiation.
- d. In the 1GHz-18GHz range, a horn antenna was mounted on a variable-height antenna tower and placed 3m away from the EUT. Antenna height was varied from 1 meter to 4 meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna were investigated. The table was rotated 360 degrees to determine the position of the highest radiation.
- e. In 18-40GHz a smaller horn antenna was used to make measurements 1m away from the EUT.
- f. Following bandwidths were used during emissions testing:

Freq. (MHz)	RBW	VBW	Pre-scan	Final
0.009-0.15	200Hz	1kHz	Peak	Not required based on peak pre-scan data
0.15-30	9kHz	30kHz	Peak	Not required based on peak pre-scan data
30-1000	120kHz	300kHz	Peak	Quasi Peak
>1000	1MHz	3MHz	Peak	Peak Max Hold and RMS Power Avg (Trace Max Hold)

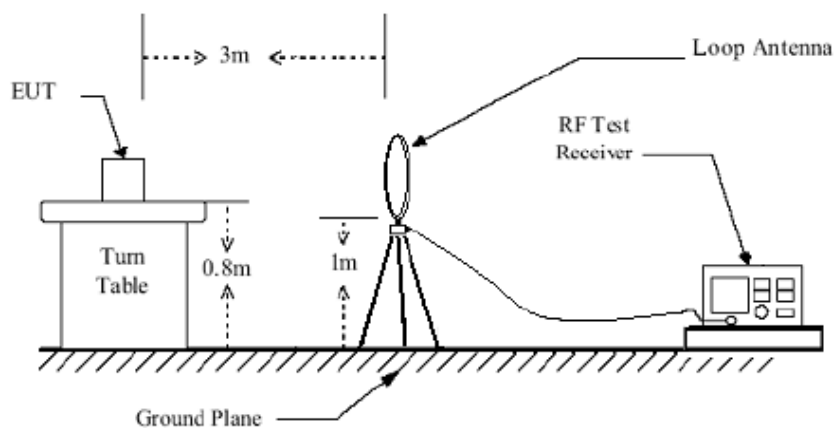
Per FCC §15.209(d), limits §15.209(a) are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9–90 kHz, 110–490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector. If peak measurements in these frequency bands were below the applicable limits, QPk and RMS measurements were not performed.

4.1.4 DEVIATIONS

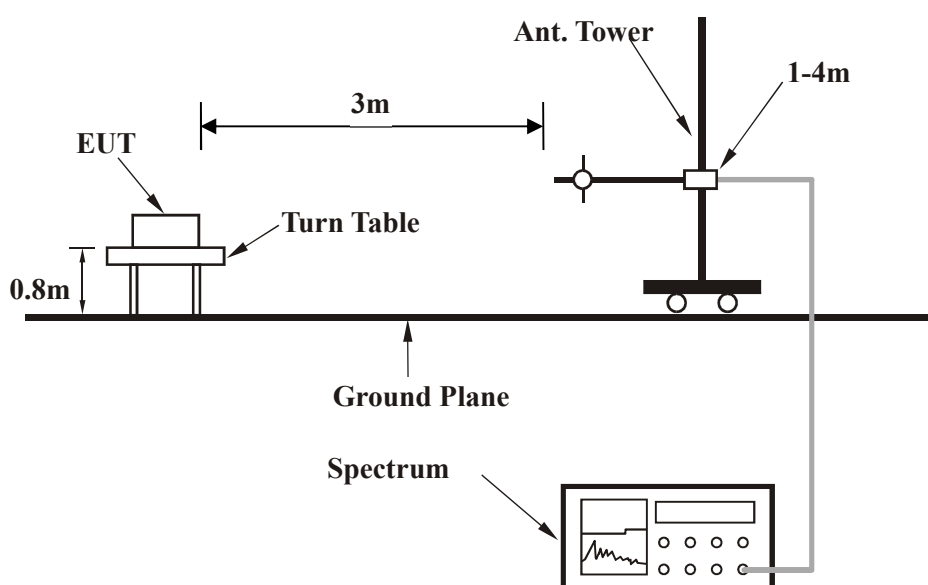
No deviations from the standard.

4.1.5 TEST SETUP

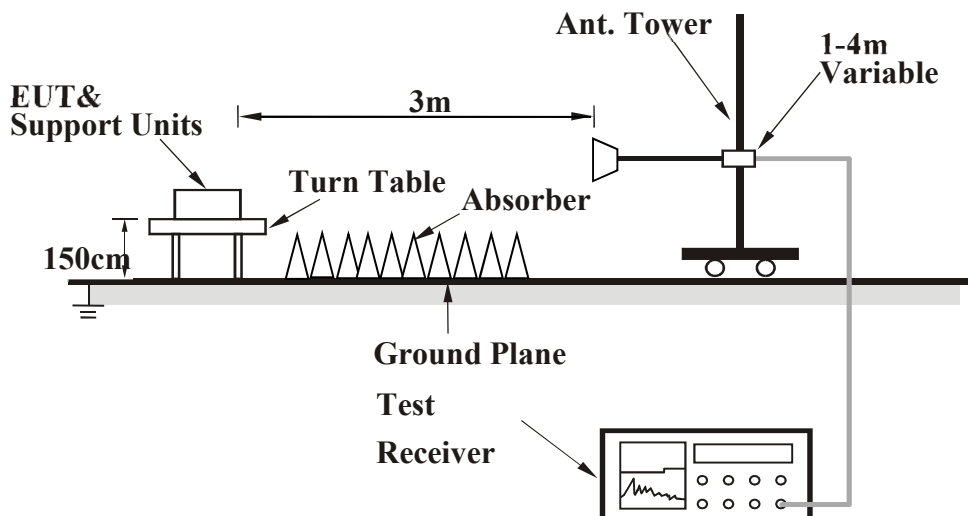
Below 30MHz Test Setup



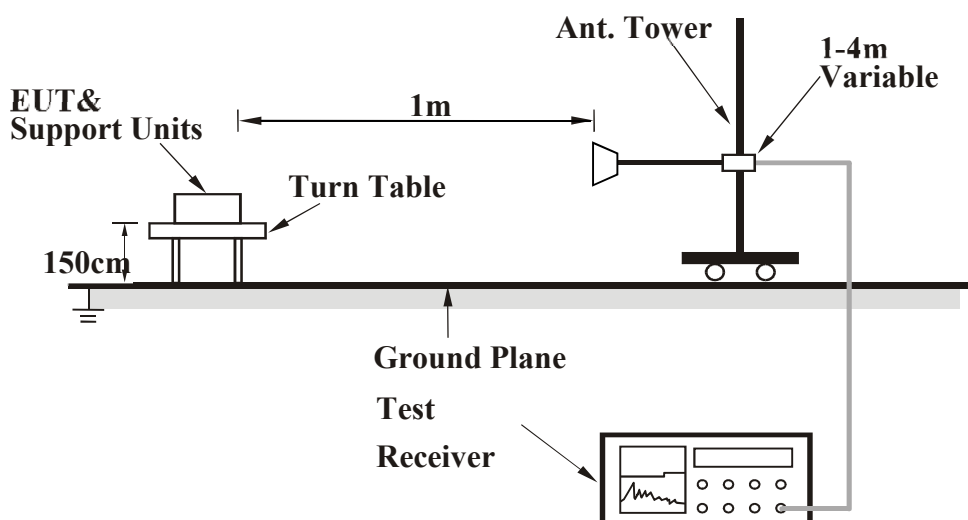
30MHz - 1GHz Test Setup



1GHz – 18GHz Test Setup



18GHz – 40GHz Test Setup



Note: For the actual test configuration, please refer to the Test Setup Photos exhibit.

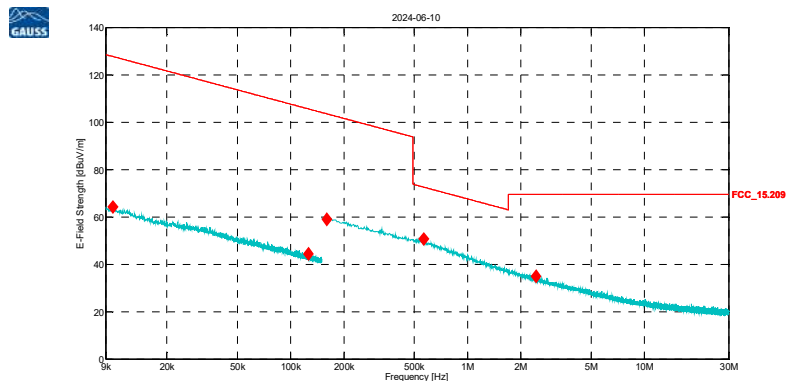
4.1.6 EUT OPERATING CONDITIONS

EUT was operated according to the manufacturer's specifications.

4.1.7 TEST RESULTS

Emissions below 30MHz

EUT Mode: Mid-Ch, 802.11a-6Mbps



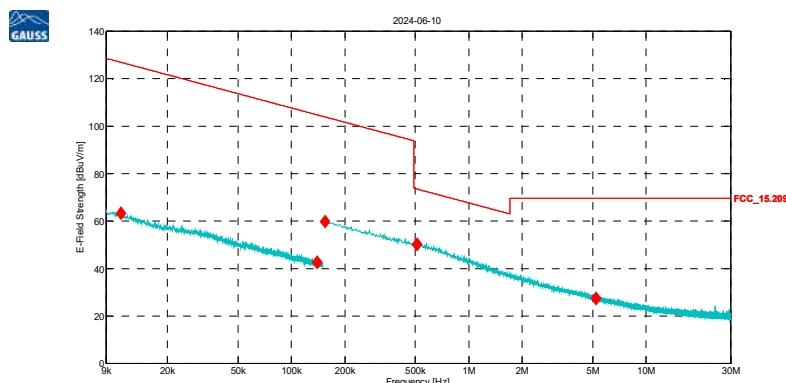
Scan1: 9.0 kHz, 100.0 Hz, 150.0 kHz; IF:200Hz, 100.0 ms MaxPeak, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Height [cm]	Angle [°]	Trans	Name
9.9 kHz	64.23	127.68	63.46	Parallel	100	320.253	18.71	FCC_15.209
126.25 kHz	44.31	105.58	61.27	Parallel	100	27.594	10.03	FCC_15.209

Scan2: 150.0 kHz, 5.0 kHz, 30.0 MHz; IF:9kHz, 100.0 ms MaxPeak, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Height [cm]	Angle [°]	Trans	Name
160 kHz	58.90	103.52	44.61	Parallel	100	0.007	10.00	FCC_15.209
567.5 kHz	50.60	72.52	21.93	Parallel	100	97.274	10.23	FCC_15.209
2.445 MHz	34.86	69.54	34.68	Parallel	100	282.683	10.49	FCC_15.209

9k-30MHz Parallel Data Table and Plot



Scan1: 9.0 kHz, 100.0 Hz, 150.0 kHz; IF:200Hz, 100.0 ms MaxPeak, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Height [cm]	Angle [°]	Trans	Name
10.95 kHz	63.26	126.81	63.54	Perpendicular	100	192.025	18.08	FCC_15.209
139.45 kHz	42.41	104.71	62.30	Perpendicular	100	104.467	10.01	FCC_15.209

Scan2: 150.0 kHz, 5.0 kHz, 30.0 MHz; IF:9kHz, 100.0 ms MaxPeak, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Height [cm]	Angle [°]	Trans	Name
155 kHz	59.81	103.79	43.98	Perpendicular	100	89.081	10.01	FCC_15.209
510 kHz	50.05	73.45	23.40	Perpendicular	100	0.298	10.11	FCC_15.209
5.2075 MHz	27.31	69.54	42.23	Perpendicular	100	9.071	10.67	FCC_15.209

9k-30MHz Perpendicular Data Table and Plot

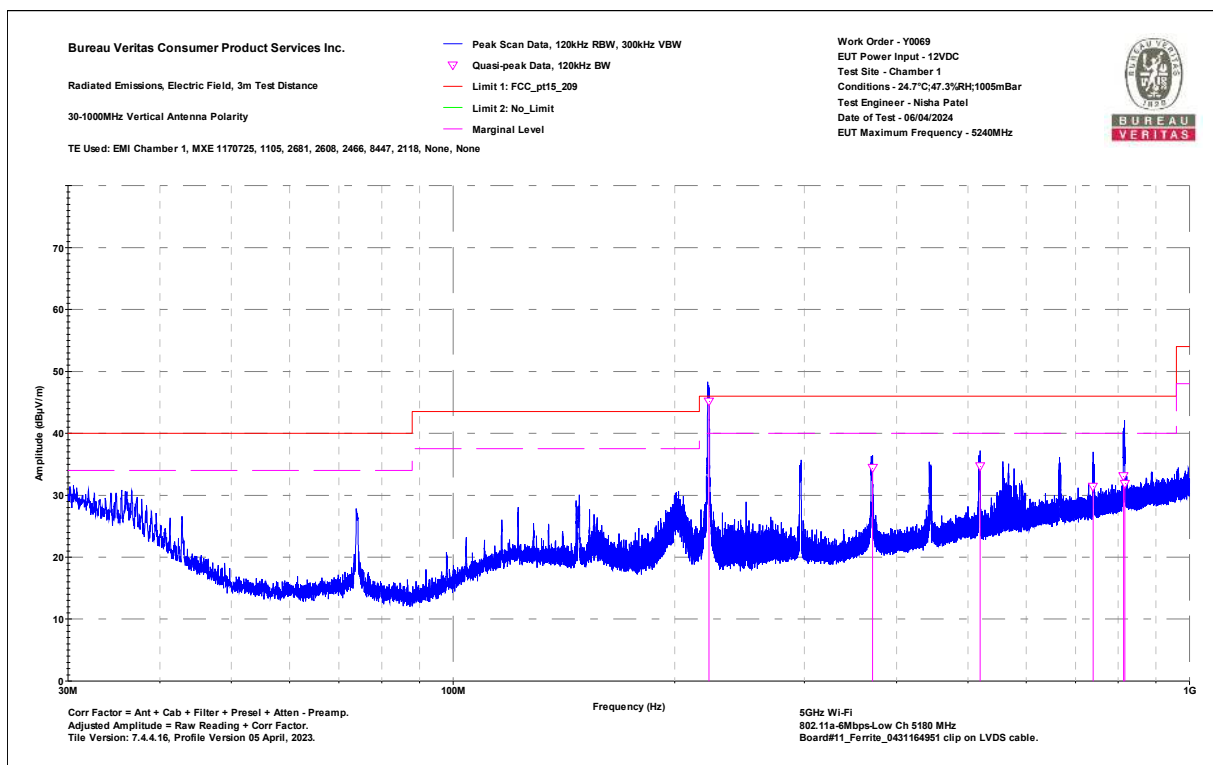


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30MHz-1000MHz

EUT Mode: Low-Ch, 802.11a-6Mbps



Bureau Veritas Consumer Product Services Inc.
Radiated Emissions Electric Field 3m Distance
30-1000MHz Vertical Data
Notes:
5GHz Wi-Fi
802.11a-6Mbps-Low Ch 5180 MHz
Board#11_Ferrite_0431164951 clip on LVDS cable.

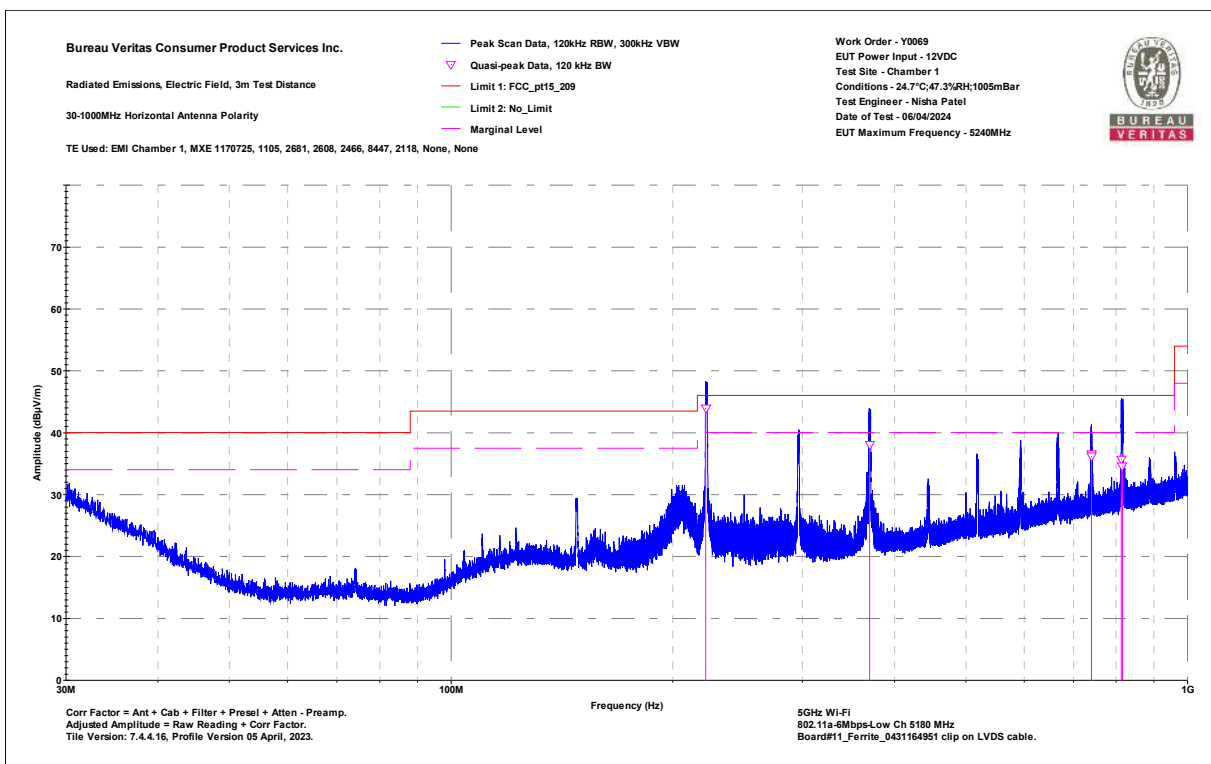
Work Order - Y0069
EUT Power Input - 12VDC
Test Site - Chamber 1
Conditions - 24.7°C; 47.3%RH; 1005mBar
Test Engineer - Nisha Patel
Date of Test - 06/04/2024

Frequency (MHz)	Raw QP Reading (dBµV)	Correction Factor (dB/m)	Adjusted QP Amplitude (dBµV/m)	Lim1: FCC_pt15_2 09 (dBµV/m)	Margin to Lim1 (dB)	Test Results Lim1 (Pass/Fail)	Worst Margin Lim1 (dB)	Antenna Height (cm)	EUT Azimuth (degrees)
222.432	53.7	-8.6	45.1	46	-0.9	PASS	-0.9	100	27
371.059	38.9	-4.5	34.4	46	-11.6	PASS		175	155
519.346	37.1	-2.4	34.7	46	-11.3	PASS		100	287
739.567	30.3	1.1	31.4	46	-14.6	PASS		104	294
813.17	30.5	2.7	33.1	46	-12.9	PASS		125	0
816.386	29.1	2.9	31.9	46	-14.1	PASS		116	0

30-1000MHz Vertical Data table and Plot



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Bureau Veritas Consumer Product Services Inc.
Radiated Emissions Electric Field 3m Distance
30-1000MHz Horizontal Data
Notes:
5GHz Wi-Fi
802.11a-6Mbps-Low Ch 5180 MHz
Board#11_Ferrite_0431164951 clip on LVDS cable.

Work Order - Y0069
EUT Power Input - 12VDC
Test Site - Chamber 1
Conditions - 24.7°C;47.3%RH;1005mBar
Test Engineer - Nisha Patel
Date of Test - 06/04/2024

Frequency (MHz)	Raw QP Reading (dBμV)	Correction Factor (dB/m)	Adjusted QP Amplitude (dBμV/m)	Lim1: FCC_pt15_2 09 (dBμV/m)	Margin to Lim1 (dB)	Test Results Lim1 (Pass/Fail)	Worst Margin Lim1 (dB)	Antenna Height (cm)	EUT Azimuth (degrees)
221.656	52.6	-8.7	43.9	46	-2.1	PASS	-2.1	136	232
370.157	42.5	-4.5	38	46	-8	PASS		125	286
740.283	35.5	1.1	36.6	46	-9.4	PASS		108	279
740.428	35.1	1.1	36.2	46	-9.8	PASS		125	270
812.58	33	2.6	35.7	46	-10.3	PASS		113	266
815.845	31.7	2.8	34.6	46	-11.4	PASS		100	295

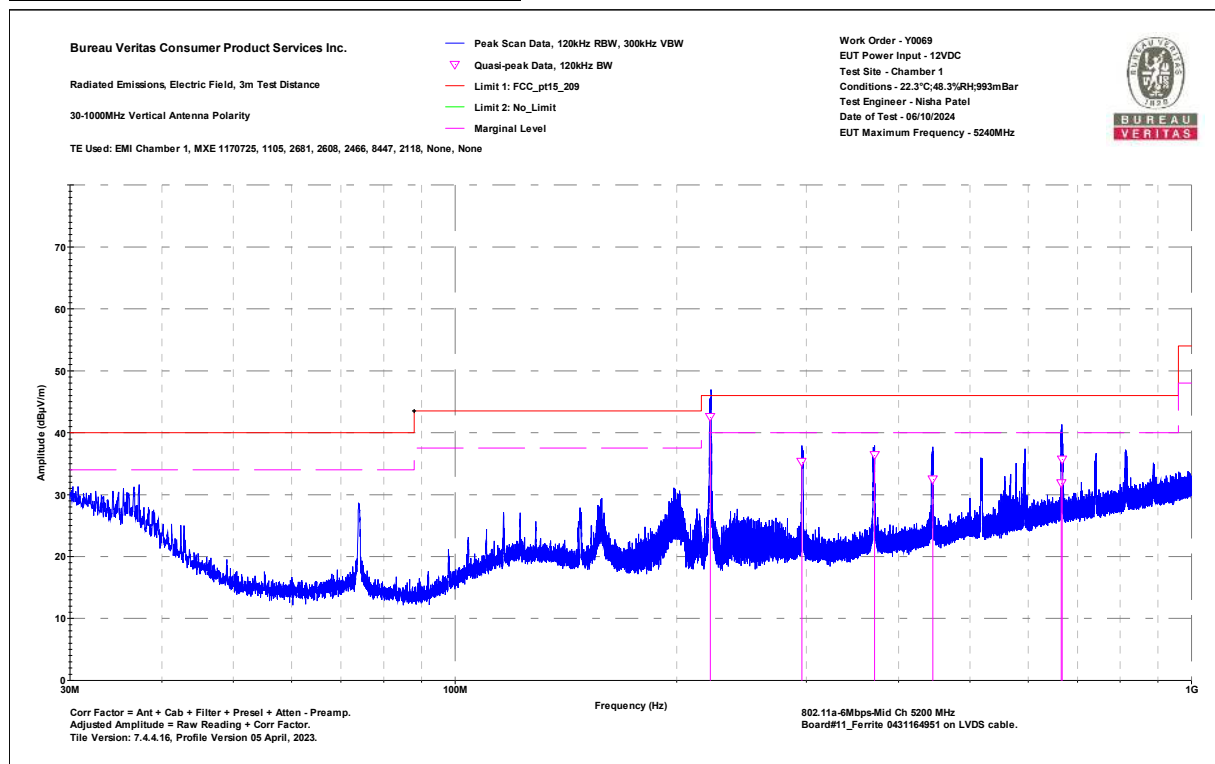
30-1000MHz Horizontal Data Table and Plot



Test Report for Hydration Labs, Inc.
Report No. EY0069-6 Issue 2



EUT Mode: Mid-Ch, 802.11a-6Mbps



Bureau Veritas Consumer Product Services Inc.
Radiated Emissions Electric Field 3m Distance
30-1000MHz Vertical Data
Notes:
802.11a-6Mbps-Mid Ch 5200 MHz
Board#11_Ferrite 0431164951 on LVDS cable.

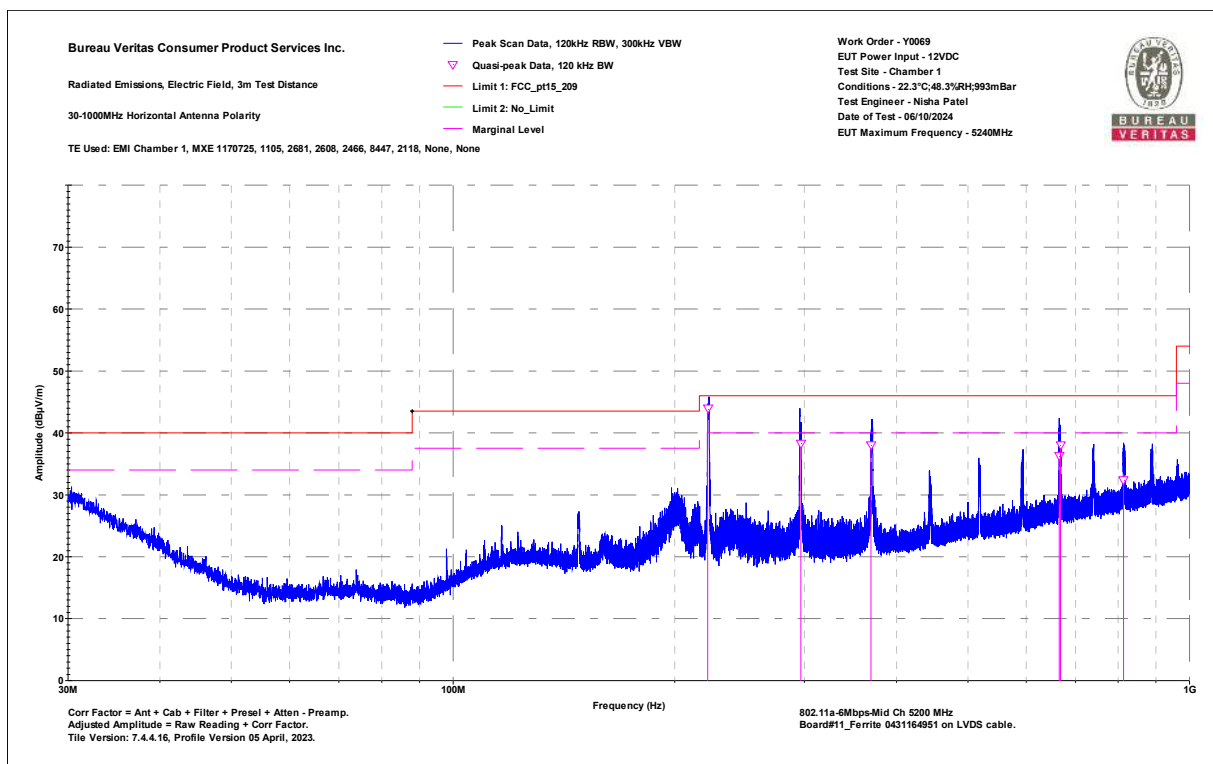
Work Order - Y0069
EUT Power Input - 12VDC
Test Site - Chamber 1
Conditions - 22.3°C; 48.3%RH; 993mBar
Test Engineer - Nisha Patel
Date of Test - 06/10/2024

Frequency (MHz)	Raw QP Reading (dBμV)	Correction Factor (dB/m)	Adjusted QP Amplitude (dBμV/m)	Lim1: FCC_pt15_2 09 (dBμV/m)	Margin to Lim1 (dB)	Test Results Lim1 (Pass/Fail)	Worst Margin Lim1 (dB)	Antenna Height (cm)	EUT Azimuth (degrees)
222.191	51.2	-8.6	42.5	46	-3.5	PASS	-3.5	125	26
295.647	41.1	-5.8	35.3	46	-10.7	PASS		104	320
371.139	40.9	-4.5	36.4	46	-9.6	PASS		215	6
445.391	35.8	-3.4	32.4	46	-13.6	PASS		125	245
665.207	31.8	0	31.8	46	-14.2	PASS		125	318
667.32	35.7	0	35.7	46	-10.3	PASS		100	245

30-1000MHz Vertical Data table and Plot



Test Report for Hydration Labs, Inc.
Report No. EY0069-6 Issue 2



Bureau Veritas Consumer Product Services Inc.
Radiated Emissions Electric Field 3m Distance
30-1000MHz Horizontal Data
Notes:
802.11a-6Mbps-Mid Ch 5200 MHz
Board#11_Ferrite 0431164951 on LVDS cable.

Work Order - Y0069
EUT Power Input - 12VDC
Test Site - Chamber 1
Conditions - 22.3°C;48.3%RH;993mBar
Test Engineer - Nisha Patel
Date of Test - 06/10/2024

Frequency (MHz)	Raw QP Reading (dBμV)	Correction Factor (dB/m)	Adjusted QP Amplitude (dBμV/m)	Lim1: FCC_pt15_2 09 (dBμV/m)	Margin to Lim1 (dB)	Test Results Lim1 (Pass/Fail)	Worst Margin Lim1 (dB)	Antenna Height (cm)	EUT Azimuth (degrees)
221.76	52.5	-8.7	43.9	46	-2.1	PASS	-2.1	125	262
296.491	44.1	-5.8	38.2	46	-7.8	PASS		125	277
369.449	42.5	-4.5	38	46	-8	PASS		100	245
665.336	36.2	0	36.2	46	-9.8	PASS		151	273
668.024	38	0	38	46	-8	PASS		134	268
813.883	29.6	2.7	32.4	46	-13.6	PASS		225	167

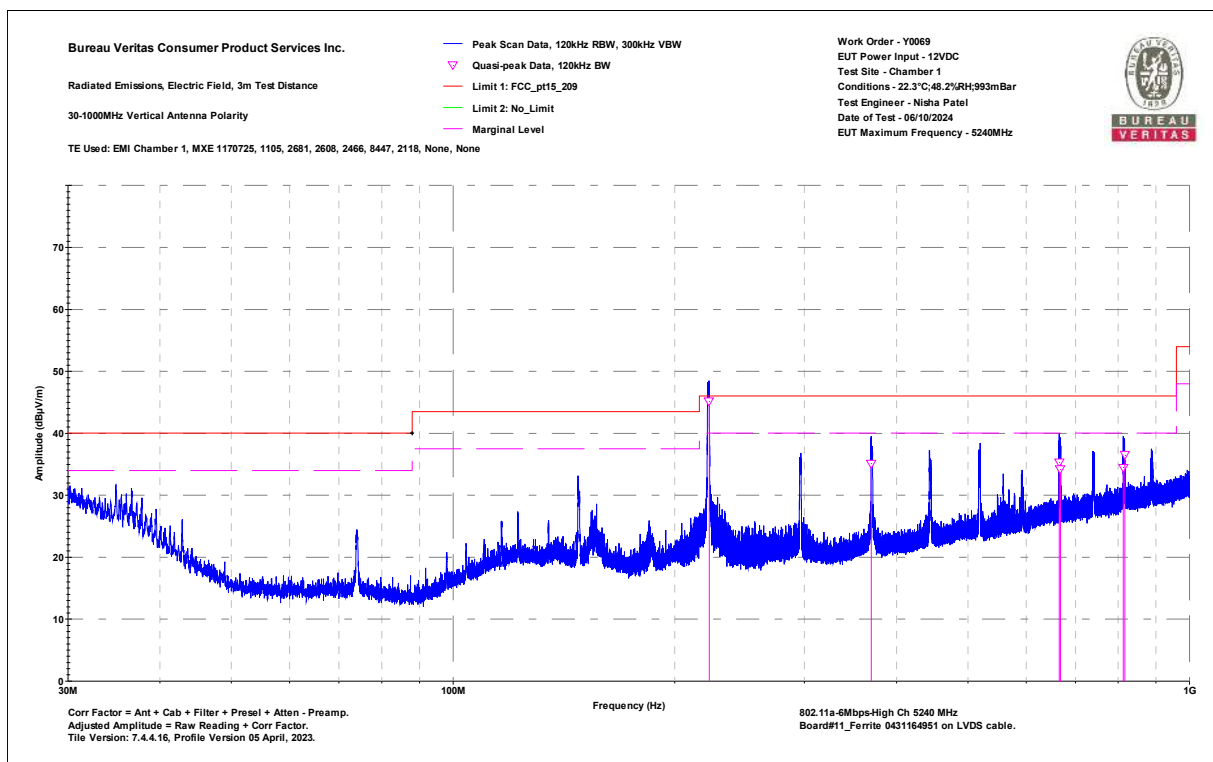
30-1000MHz Horizontal Data Table and Plot



Test Report for Hydration Labs, Inc.
Report No. EY0069-6 Issue 2



EUT Mode: High-Ch, 802.11a-6Mbps



Bureau Veritas Consumer Product Services Inc.
Radiated Emissions Electric Field 3m Distance
30-1000MHz Vertical Data
Notes:
802.11a-6Mbps-High Ch 5240 MHz
Board#11_Ferrite 0431164951 on LVDS cable.

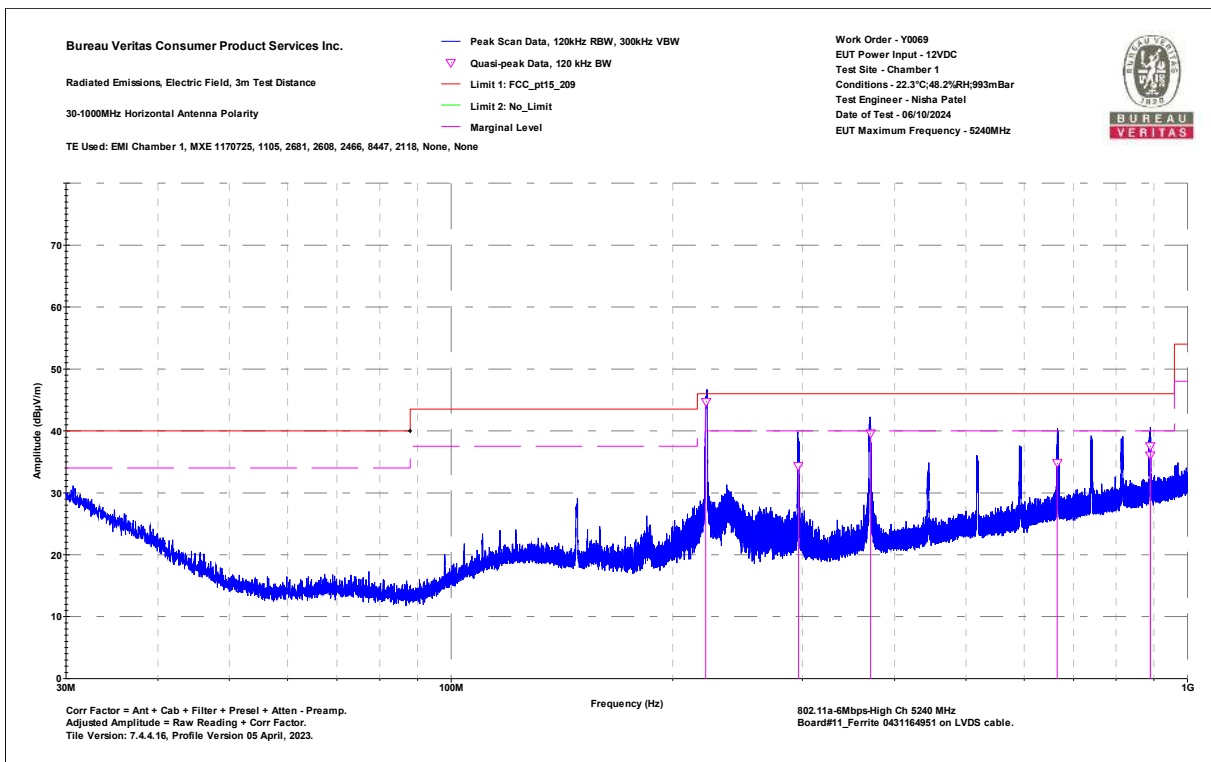
Work Order - Y0069
EUT Power Input - 12VDC
Test Site - Chamber 1
Conditions - 22.3°C; 48.2%RH; 993mBar
Test Engineer - Nisha Patel
Date of Test - 06/10/2024

Frequency (MHz)	Raw QP Reading (dBµV)	Correction Factor (dB/m)	Adjusted QP Amplitude (dBµV/m)	Lim1: FCC_pt15_2 09 (dBµV/m)	Margin to Lim1 (dB)	Test Results Lim1 (Pass/Fail)	Worst Margin Lim1 (dB)	Antenna Height (cm)	EUT Azimuth (degrees)
222.716	53.7	-8.6	45.1	46	-0.9	PASS	-0.9	100	25
369.78	39.6	-4.5	35.1	46	-10.9	PASS		134	256
665.163	35.3	0	35.3	46	-10.7	PASS		101	290
667.764	34.2	0	34.2	46	-11.8	PASS		125	260
812.832	31.9	2.6	34.5	46	-11.5	PASS		125	25
816.557	33.7	2.9	36.5	46	-9.5	PASS		102	9

30-1000MHz Vertical Data table and Plot



Test Report for Hydration Labs, Inc.
Report No. EY0069-6 Issue 2



Bureau Veritas Consumer Product Services Inc.
Radiated Emissions Electric Field 3m Distance
30-1000MHz Horizontal Data
Notes:
802.11a-6Mbps-High Ch 5240 MHz
Board#11_Ferrite 0431164951 on LVDS cable.

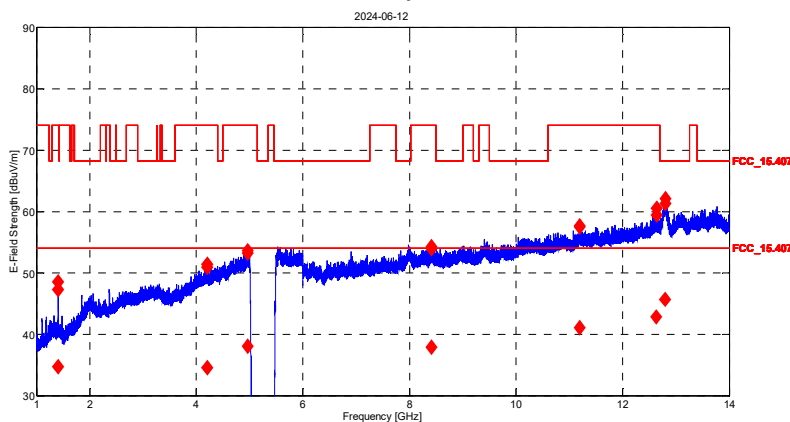
Work Order - Y0069
EUT Power Input - 12VDC
Test Site - Chamber 1
Conditions - 22.3°C;48.2%RH;993mBar
Test Engineer - Nisha Patel
Date of Test - 06/10/2024

Frequency (MHz)	Raw QP Reading (dBμV)	Correction Factor (dB/m)	Adjusted QP Amplitude (dBμV/m)	Lim1: FCC_pt15_2 09 (dBμV/m)	Margin to Lim1 (dB)	Test Results Lim1 (Pass/Fail)	Worst Margin Lim1 (dB)	Antenna Height (cm)	EUT Azimuth (degrees)
221.75	53.4	-8.7	44.7	46	-1.3	PASS	-1.3	147	86
296.378	40.1	-5.8	34.3	46	-11.7	PASS		125	294
371.055	44.2	-4.5	39.7	46	-6.3	PASS		100	284
665.288	34.9	0	34.9	46	-11.1	PASS		154	261
890.084	32.2	3.9	36.1	46	-9.9	PASS		105	282
890.484	33.7	3.9	37.6	46	-8.4	PASS		109	289

30-1000MHz Horizontal Data Table and Plot

1GHz-14GHz

EUT Mode: Low-Ch, 802.11a-6Mbps



Final 1: 1.4 GHz, 50.0 kHz, 12.8 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 0dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name
1.40725 GHz	48.56	74.00	25.44	V	230.383	375.223	31.36	FCC_15.407
4.20875 GHz	50.95	74.00	23.05	V	351.311	399.362	39.18	FCC_15.407
4.963 GHz	53.22	74.00	20.78	V	250.691	101.241	40.10	FCC_15.407
8.41225 GHz	54.28	74.00	19.72	V	0	369.992	43.62	FCC_15.407
11.2005 GHz	57.68	74.00	16.32	V	341.235	162.908	45.96	FCC_15.407
12.639 GHz	59.37	74.00	14.63	V	249.37	120.161	48.50	FCC_15.407
12.8045 GHz	62.13	68.20	6.07	V	78.095	190.54	51.26	FCC_15.407

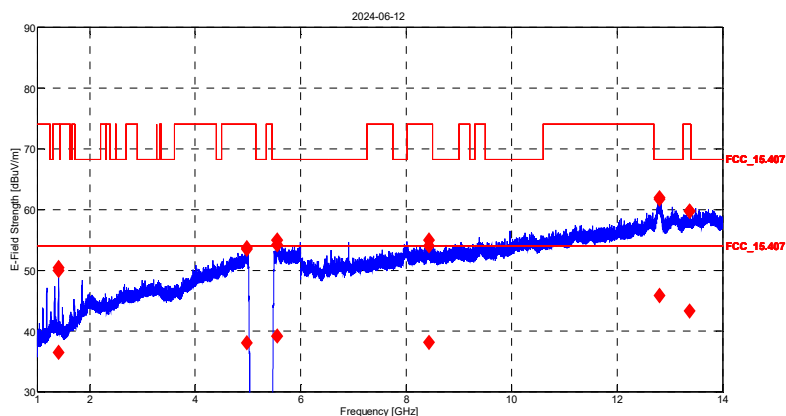
Final 2: 1.4 GHz, 50.0 kHz, 12.8 GHz; IF:1MHz, 100.0 ms RMS, Att 0dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name
1.4085 GHz	34.73	54.00	19.27	V	230.383	372.495	31.36	FCC_15.407
4.20725 GHz	34.56	54.00	19.44	V	351.311	339.246	39.18	FCC_15.407
4.963 GHz	38.02	54.00	15.98	V	250.691	149.338	40.10	FCC_15.407
8.41625 GHz	37.89	54.00	16.11	V	0	300	43.62	FCC_15.407
11.19725 GHz	41.09	54.00	12.91	V	341.235	200	45.96	FCC_15.407
12.63625 GHz	42.82	54.00	11.18	V	249.37	100	48.50	FCC_15.407
12.801 GHz	45.68	54.00	8.32	V	78.095	185.086	51.26	FCC_15.407

1-14GHz Vertical Data Table and Plot



Test Report for Hydration Labs, Inc.
Report No. EY0069-6 Issue 2



Final 3: 1.4 GHz, 50.0 kHz, 13.4 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 0dB

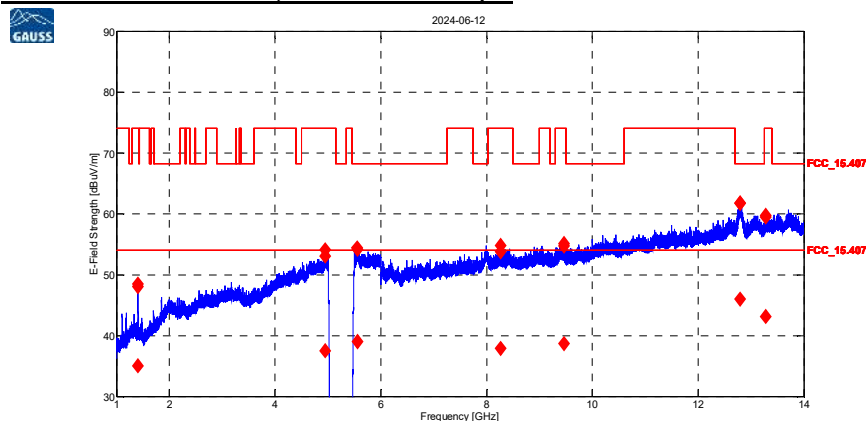
f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name
1.40925 GHz	49.99	74.00	24.01	H	237.302	115.723	31.38	FCC_15.407
4.973 GHz	53.48	74.00	20.52	H	143.583	369.088	40.17	FCC_15.407
5.55175 GHz	54.20	68.20	14.00	H	99.366	159.195	41.49	FCC_15.407
8.435 GHz	54.03	74.00	19.97	H	313.5	134.931	43.57	FCC_15.407
12.80525 GHz	61.91	68.20	6.29	H	19.45	100	51.25	FCC_15.407
13.37325 GHz	59.76	74.00	14.24	H	75.2	181.331	48.42	FCC_15.407

Final 4: 1.4 GHz, 50.0 kHz, 13.4 GHz; IF:1MHz, 100.0 ms RMS, Att 0dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name
1.40875 GHz	36.44	54.00	17.56	H	237.302	142.461	31.38	FCC_15.407
4.97425 GHz	38.04	54.00	15.96	H	143.583	308.417	40.17	FCC_15.407
5.55525 GHz	39.15	54.00	14.85	H	99.366	119.422	41.49	FCC_15.407
8.4325 GHz	38.12	54.00	15.88	H	313.5	100	43.57	FCC_15.407
12.80325 GHz	45.85	54.00	8.15	H	19.45	200	51.25	FCC_15.407
13.3765 GHz	43.26	54.00	10.74	H	75.2	100	48.42	FCC_15.407

1-14GHz Horizontal Data Table and Plot

EUT Mode: Mid-Ch, 802.11a-6Mbps



Final 1: 1.4 GHz, 50.0 kHz, 13.3 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 0dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name
1.4085 GHz	48.03	74.00	25.97	V	239.819	386.305	31.38	FCC_15.407
4.94825 GHz	53.04	74.00	20.96	V	68.438	208.056	39.96	FCC_15.407
5.5565 GHz	54.17	68.20	14.03	V	83.394	170.481	41.48	FCC_15.407
8.2675 GHz	53.77	74.00	20.23	V	315.351	130.231	43.82	FCC_15.407
9.46775 GHz	54.69	74.00	19.31	V	190.947	190.631	43.79	FCC_15.407
12.796 GHz	61.72	68.20	6.48	V	0	326.477	51.20	FCC_15.407
13.2825 GHz	59.46	74.00	14.54	V	88.521	124.019	48.68	FCC_15.407

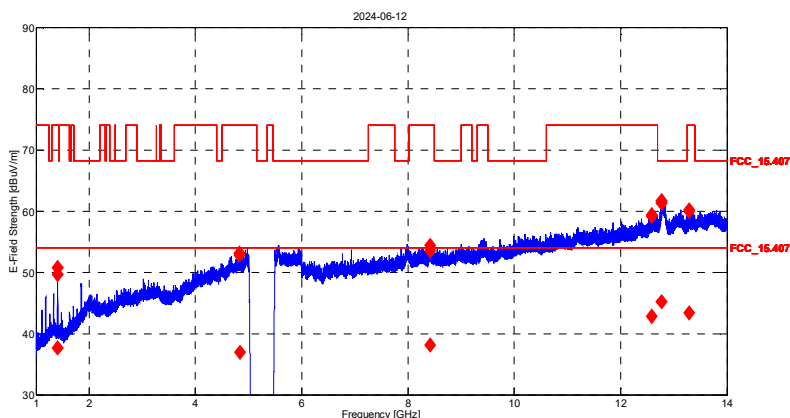
Final 2: 1.4 GHz, 50.0 kHz, 13.3 GHz; IF:1MHz, 100.0 ms RMS, Att 0dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name
1.4085 GHz	35.08	54.00	18.92	V	239.819	391.169	31.38	FCC_15.407
4.94475 GHz	37.49	54.00	16.51	V	68.438	228.952	39.96	FCC_15.407
5.556 GHz	39.02	54.00	14.98	V	83.394	151.438	41.48	FCC_15.407
8.27 GHz	37.90	54.00	16.10	V	315.351	107.269	43.82	FCC_15.407
9.4675 GHz	38.66	54.00	15.34	V	190.947	200	43.79	FCC_15.407
12.7965 GHz	45.98	54.00	8.02	V	0	200	51.20	FCC_15.407
13.28175 GHz	43.14	54.00	10.86	V	88.521	200	48.68	FCC_15.407

1-14GHz Vertical Data Table and Plot



Test Report for Hydration Labs, Inc.
Report No. EY0069-6 Issue 2



Final 3: 1.4 GHz, 50.0 kHz, 13.3 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 0dB

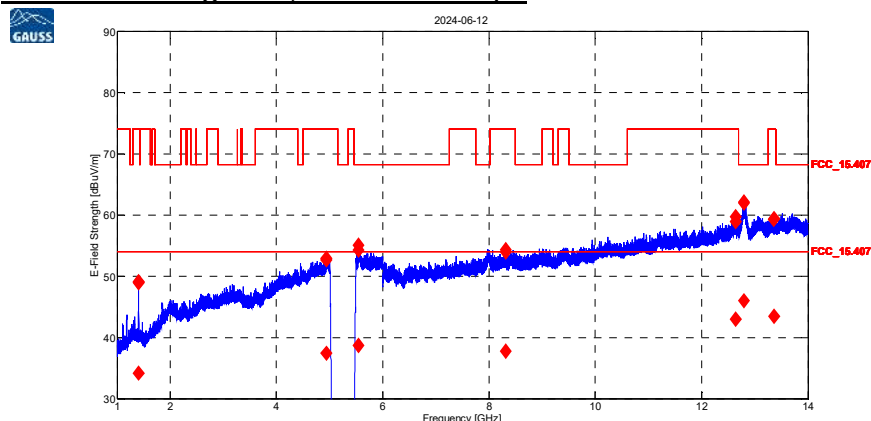
f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name
1.4085 GHz	50.79	74.00	23.21	H	243.685	184.615	31.37	FCC_15.407
4.833 GHz	53.10	74.00	20.90	H	216.308	276.51	40.12	FCC_15.407
8.41375 GHz	53.52	74.00	20.48	H	64.043	104.443	43.62	FCC_15.407
12.58625 GHz	59.17	74.00	14.83	H	97.659	243.66	48.66	FCC_15.407
12.76775 GHz	61.27	68.20	6.93	H	292.097	164.627	50.19	FCC_15.407
13.2945 GHz	59.99	74.00	14.01	H	360	273.81	48.82	FCC_15.407

Final 4: 1.4 GHz, 50.0 kHz, 13.3 GHz; IF:1MHz, 100.0 ms RMS, Att 0dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name
1.4085 GHz	37.68	54.00	16.32	H	243.685	147.6	31.37	FCC_15.407
4.8335 GHz	36.96	54.00	17.04	H	216.308	244.993	40.12	FCC_15.407
8.4155 GHz	38.16	54.00	15.84	H	64.043	185.813	43.62	FCC_15.407
12.58825 GHz	42.82	54.00	11.18	H	97.659	200	48.66	FCC_15.407
12.767 GHz	45.22	54.00	8.78	H	292.097	145.168	50.19	FCC_15.407
13.2945 GHz	43.41	54.00	10.59	H	360	200	48.82	FCC_15.407

1-14GHz Horizontal Data Table and Plot

EUT Mode: High-Ch, 802.11a-6Mbps



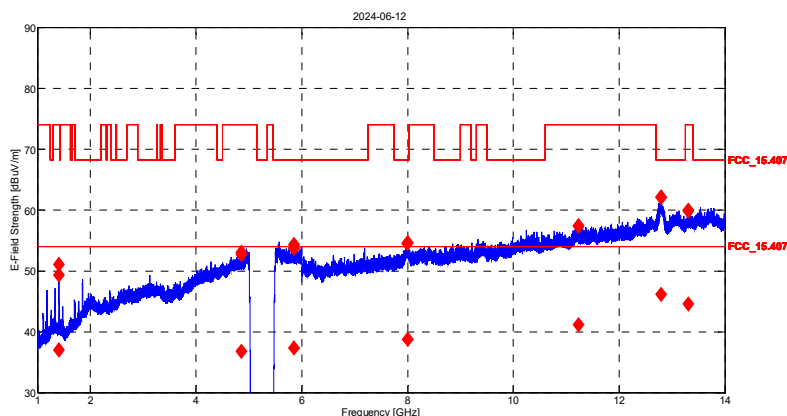
Final 1: 1.4 GHz, 50.0 kHz, 13.4 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 0dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name
1.4085 GHz	49.09	74.00	24.91	V	252.347	100.065	31.37	FCC_15.407
4.93625 GHz	52.63	74.00	21.37	V	29.251	187.4	39.91	FCC_15.407
5.53975 GHz	54.26	68.20	13.94	V	288.44	123.141	41.58	FCC_15.407
8.31225 GHz	54.35	74.00	19.65	V	50.138	157.464	43.69	FCC_15.407
12.64425 GHz	58.90	74.00	15.10	V	281.181	253.632	48.39	FCC_15.407
12.79475 GHz	62.08	68.20	6.12	V	21.316	140.854	51.17	FCC_15.407
13.36 GHz	59.44	74.00	14.56	V	235.614	120.279	48.59	FCC_15.407

Final 2: 1.4 GHz, 50.0 kHz, 13.4 GHz; IF:1MHz, 100.0 ms RMS, Att 0dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name
1.408 GHz	34.15	54.00	19.85	V	252.347	107.851	31.37	FCC_15.407
4.93425 GHz	37.39	54.00	16.61	V	29.251	100	39.91	FCC_15.407
5.543 GHz	38.69	54.00	15.31	V	288.44	128.546	41.58	FCC_15.407
8.31225 GHz	37.76	54.00	16.24	V	50.138	100	43.69	FCC_15.407
12.64375 GHz	43.00	54.00	11.00	V	281.181	200	48.39	FCC_15.407
12.79375 GHz	45.96	54.00	8.04	V	21.316	200	51.17	FCC_15.407
13.36125 GHz	43.42	54.00	10.58	V	235.614	100	48.59	FCC_15.407

1-14GHz Vertical Data Table and Plot



Final 1: 1.4 GHz, 50.0 kHz, 13.3 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 0dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name
1.40975 GHz	51.03	74.00	22.97	H	255.111	147.786	31.38	FCC_15.407
4.85425 GHz	53.09	74.00	20.91	H	180.162	168.32	40.17	FCC_15.407
5.85275 GHz	53.70	68.20	14.50	H	0	177.727	41.04	FCC_15.407
7.99975 GHz	54.61	68.20	13.59	H	355.25	100	43.65	FCC_15.407
11.234 GHz	57.41	74.00	16.59	H	344.95	400	46.00	FCC_15.407
12.7965 GHz	62.12	68.20	6.08	H	325.9	101.308	51.22	FCC_15.407
13.30775 GHz	59.99	74.00	14.01	H	9.25	323.274	48.91	FCC_15.407

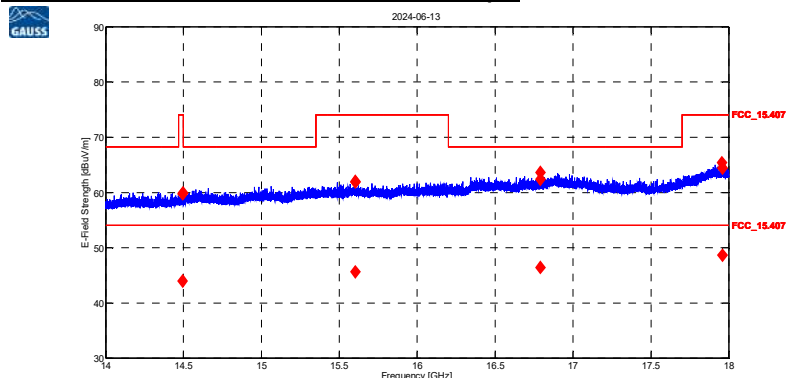
Final 2: 1.4 GHz, 50.0 kHz, 13.3 GHz; IF:1MHz, 100.0 ms RMS, Att 0dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name
1.4085 GHz	37.04	54.00	16.96	H	255.111	151.478	31.38	FCC_15.407
4.8575 GHz	36.82	54.00	17.18	H	180.162	135.367	40.17	FCC_15.407
5.85275 GHz	37.30	54.00	16.70	H	0	254.031	41.04	FCC_15.407
8.0005 GHz	38.81	54.00	15.19	H	355.25	124.003	43.65	FCC_15.407
11.23325 GHz	41.14	54.00	12.86	H	344.95	200	46.00	FCC_15.407
12.7945 GHz	46.13	54.00	7.87	H	325.9	200	51.22	FCC_15.407
13.308 GHz	44.54	54.00	9.46	H	9.25	300	48.91	FCC_15.407

1-14GHz Horizontal Data Table and Plot

14GHz-18GHz

EUT Mode: Low-Ch, 802.11a-6Mbps



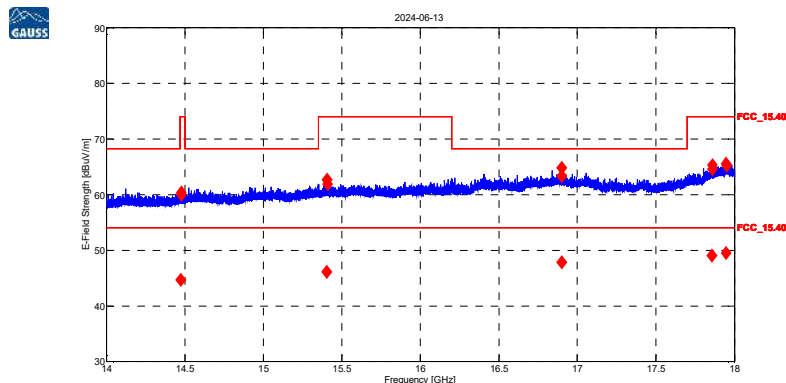
Final 1: 14.5 GHz, 50.0 kHz, 18.0 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 0dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name
14.49475 GHz	59.73	74.00	14.27	V	193.958	145.813	48.52	FCC_15.407
15.602 GHz	61.88	74.00	12.12	V	204.777	132.342	50.11	FCC_15.407
16.791 GHz	62.37	68.20	5.83	V	274.975	106.967	51.36	FCC_15.407
17.95825 GHz	64.43	74.00	9.57	V	255.69	199.808	53.45	FCC_15.407

Final 2: 14.5 GHz, 50.0 kHz, 18.0 GHz; IF:1MHz, 100.0 ms RMS, Att 0dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name
14.49475 GHz	43.89	54.00	10.11	V	193.958	200	48.52	FCC_15.407
15.604 GHz	45.56	54.00	8.44	V	204.777	100	50.11	FCC_15.407
16.79025 GHz	46.40	54.00	7.60	V	274.975	183.103	51.36	FCC_15.407
17.95825 GHz	48.61	54.00	5.39	V	255.69	100	53.45	FCC_15.407

14-18GHz Vertical Data table and Plot



Final 1: 14.5 GHz, 50.0 kHz, 18.0 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 0dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name
14.4765 GHz	59.95	74.00	14.05	H	300.253	169.627	48.37	FCC_15.407
15.40775 GHz	61.90	74.00	12.10	H	67.434	119.819	49.98	FCC_15.407
16.901 GHz	63.33	68.20	4.87	H	113.876	190.951	51.81	FCC_15.407
17.8595 GHz	64.53	74.00	9.47	H	147.67	169.193	53.16	FCC_15.407
17.95025 GHz	65.20	74.00	8.80	H	350.636	111.857	53.45	FCC_15.407

Final 2: 14.5 GHz, 50.0 kHz, 18.0 GHz; IF:1MHz, 100.0 ms RMS, Att 0dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name
14.47525 GHz	44.65	54.00	9.35	H	300.253	200	48.37	FCC_15.407
15.40375 GHz	46.11	54.00	7.89	H	67.434	109.811	49.98	FCC_15.407
16.901 GHz	47.86	54.00	6.14	H	113.876	186.13	51.81	FCC_15.407
17.85825 GHz	48.99	54.00	5.01	H	147.67	100	53.16	FCC_15.407
17.949 GHz	49.49	54.00	4.51	H	350.636	200	53.45	FCC_15.407

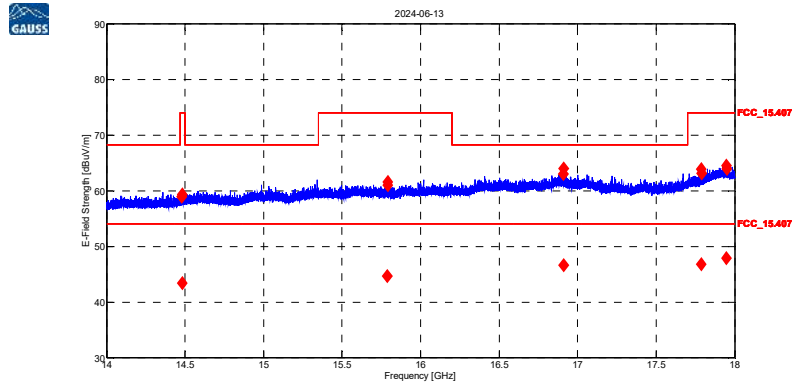
14-18GHz Horizontal Data Table and Plot



Test Report for Hydration Labs, Inc.
Report No. EY0069-6 Issue 2



EUT Mode: Mid-Ch, 802.11a-6Mbps



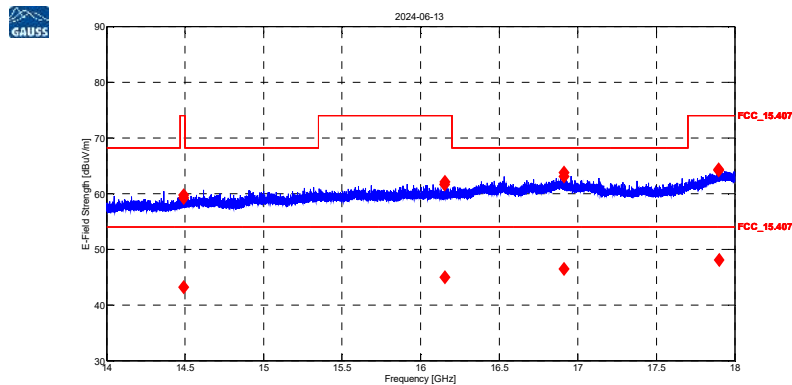
Final 1: 14.5 GHz, 50.0 kHz, 18.0 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 0dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name
14.48075 GHz	58.90	74.00	15.10	V	181.9	373.105	48.41	FCC_15.407
15.7905 GHz	61.01	74.00	12.99	V	330.8	159.446	50.13	FCC_15.407
16.90975 GHz	63.00	68.20	5.20	V	305.1	100	51.79	FCC_15.407
17.7895 GHz	63.17	74.00	10.83	V	360	387.79	52.35	FCC_15.407
17.951 GHz	63.93	74.00	10.07	V	265.125	117.792	53.45	FCC_15.407

Final 2: 14.5 GHz, 50.0 kHz, 18.0 GHz; IF:1MHz, 100.0 ms RMS, Att 0dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name
14.48275 GHz	43.34	54.00	10.66	V	181.9	400	48.41	FCC_15.407
15.78925 GHz	44.65	54.00	9.35	V	330.8	179.531	50.13	FCC_15.407
16.913 GHz	46.60	54.00	7.40	V	305.1	100	51.79	FCC_15.407
17.7875 GHz	46.80	54.00	7.20	V	360	200	52.35	FCC_15.407
17.94825 GHz	47.86	54.00	6.14	V	265.125	191.097	53.45	FCC_15.407

14-18GHz Vertical Data table and Plot



Final 1: 14.5 GHz, 50.0 kHz, 17.9 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 0dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name
14.4905 GHz	59.24	74.00	14.76	H	26.591	109.627	48.47	FCC_15.407
16.15275 GHz	61.63	74.00	12.37	H	209.414	307.906	50.24	FCC_15.407
16.913 GHz	63.06	68.20	5.14	H	291.644	100.005	51.79	FCC_15.407
17.89825 GHz	64.32	74.00	9.68	H	348.435	270.934	53.42	FCC_15.407

Final 2: 14.5 GHz, 50.0 kHz, 17.9 GHz; IF:1MHz, 100.0 ms RMS, Att 0dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name
14.4925 GHz	43.20	54.00	10.80	H	26.591	170.238	48.47	FCC_15.407
16.154 GHz	44.93	54.00	9.07	H	209.414	200	50.24	FCC_15.407
16.913 GHz	46.46	54.00	7.54	H	291.644	160.084	51.79	FCC_15.407
17.899 GHz	48.05	54.00	5.95	H	348.435	200	53.42	FCC_15.407

14-18GHz Horizontal Data Table and Plot

Bureau Veritas Consumer Product
Services Inc.

One Distribution Center Circle, #1
Littleton, MA

Tel.: (978) 486-8880
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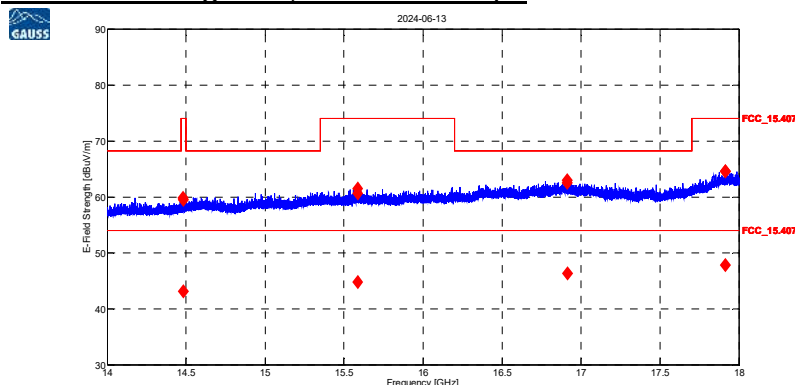


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Test Report for Hydration Labs, Inc. Report No. EY0069-6 Issue 2



EUT Mode: High-Ch, 802.11a-6Mbps



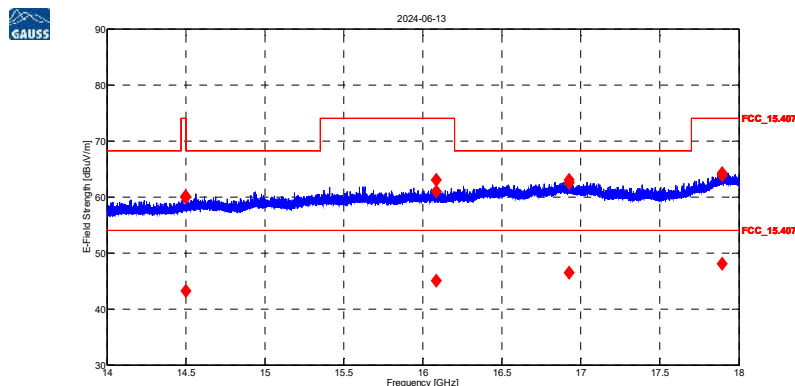
Final 1: 14.5 GHz, 50.0 kHz, 17.9 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 0dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name
14.48075 GHz	59.78	74.00	14.22	V	55.842	114.522	48.41	FCC_15.407
15.58725 GHz	60.61	74.00	13.39	V	109.988	200	50.12	FCC_15.407
16.91225 GHz	62.50	68.20	5.70	V	147.362	398.728	51.79	FCC_15.407
17.9155 GHz	64.57	74.00	9.43	V	355.544	143.468	53.44	FCC_15.407

Final 2: 14.5 GHz, 50.0 kHz, 17.9 GHz; IF:1MHz, 100.0 ms RMS, Att 0dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name
14.482 GHz	43.11	54.00	10.89	V	55.842	300	48.41	FCC_15.407
15.58675 GHz	44.80	54.00	9.20	V	109.988	100	50.12	FCC_15.407
16.914 GHz	46.33	54.00	7.67	V	147.362	200	51.79	FCC_15.407
17.9135 GHz	47.80	54.00	6.20	V	355.544	185.384	53.44	FCC_15.407

14-18GHz Vertical Data table and Plot



Final 1: 14.5 GHz, 50.0 kHz, 17.9 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 0dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name
14.49725 GHz	60.09	74.00	13.91	H	341.47	107.701	48.53	FCC_15.407
16.0835 GHz	61.01	74.00	12.99	H	344.727	139.628	50.41	FCC_15.407
16.925 GHz	62.50	68.20	5.70	H	250.598	118.614	51.72	FCC_15.407
17.8955 GHz	63.85	74.00	10.15	H	40.296	122.377	53.41	FCC_15.407

Final 2: 14.5 GHz, 50.0 kHz, 17.9 GHz; IF:1MHz, 100.0 ms RMS, Att 0dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name
14.49875 GHz	43.20	54.00	10.80	H	341.47	300	48.53	FCC_15.407
16.08575 GHz	45.07	54.00	8.93	H	344.727	100	50.41	FCC_15.407
16.927 GHz	46.44	54.00	7.56	H	250.598	179.067	51.72	FCC_15.407
17.8935 GHz	48.07	54.00	5.93	H	40.296	100	53.41	FCC_15.407

14-18GHz Horizontal Data Table and Plot

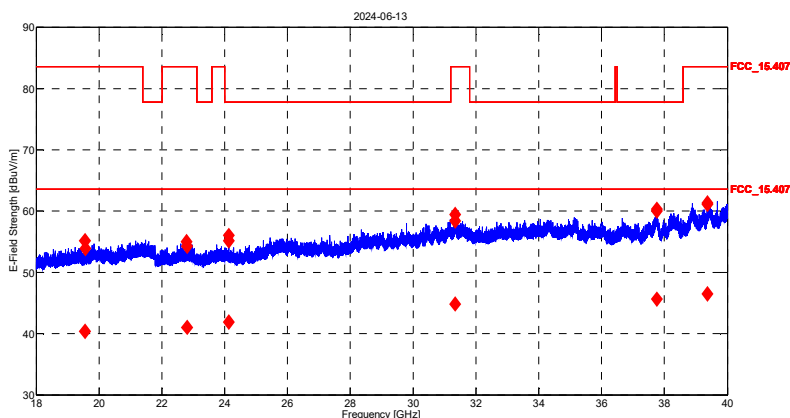
**Bureau Veritas Consumer Product
Services Inc.**

**One Distribution Center Circle, #1
Littleton, MA**

Tel.: (978) 486-8880
Fax: (978) 486-8828

18GHz-40GHz

EUT Mode: Low-Ch, 802.11a-6Mbps



Final 1: 19.6 GHz, 50.0 kHz, 39.4 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 20dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name
19.56525 GHz	53.82	83.50	29.68	V	83.298	100.36	15.17	FCC_15.407
22.8 GHz	54.21	83.50	29.29	V	184.519	113.367	16.39	FCC_15.407
24.13675 GHz	56.02	77.70	21.68	V	298.163	100.18	16.50	FCC_15.407
31.34075 GHz	59.41	83.50	24.09	V	13.036	124.318	18.56	FCC_15.407
37.76075 GHz	60.29	77.70	17.41	V	140.945	100	20.45	FCC_15.407
39.37625 GHz	61.05	83.50	22.45	V	174.1	124.9	20.48	FCC_15.407

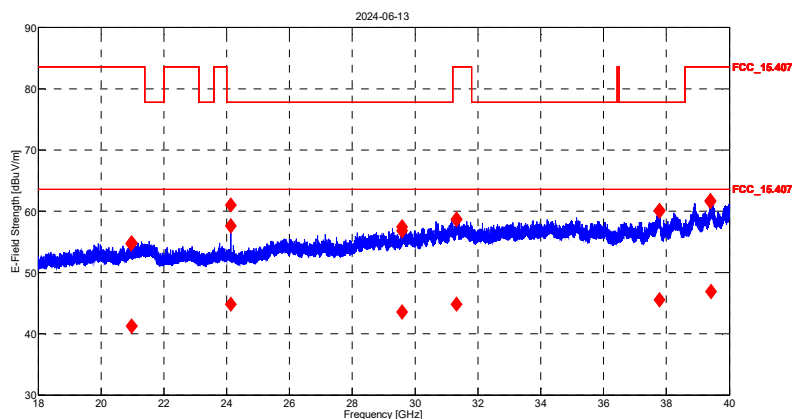
Final 2: 19.6 GHz, 50.0 kHz, 39.4 GHz; IF:1MHz, 100.0 ms RMS, Att 20dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name
19.562 GHz	40.37	63.50	23.13	V	83.298	125	15.17	FCC_15.407
22.8 GHz	41.02	63.50	22.48	V	184.519	100	16.39	FCC_15.407
24.13725 GHz	41.88	63.50	21.62	V	298.163	100.18	16.50	FCC_15.407
31.33875 GHz	44.80	63.50	18.70	V	13.036	100	18.56	FCC_15.407
37.7615 GHz	45.56	63.50	17.94	V	140.945	106.8	20.45	FCC_15.407
39.3755 GHz	46.43	63.50	17.07	V	174.1	100	20.48	FCC_15.407

18-40GHz Vertical Data table and Plot



Test Report for Hydration Labs, Inc.
Report No. EY0069-6 Issue 2



Final 1: 21.0 GHz, 50.0 kHz, 39.4 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 20dB

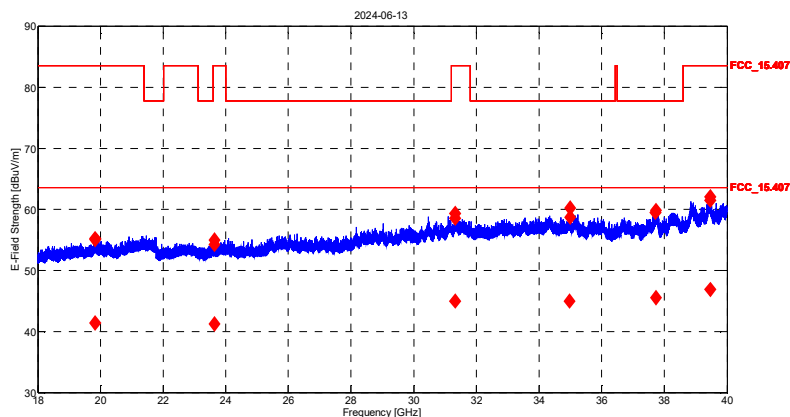
f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name
20.971 GHz	54.61	83.50	28.89	H	0.95	197.626	15.79	FCC_15.407
24.13725 GHz	60.98	77.70	16.72	H	296.538	100	16.50	FCC_15.407
29.59525 GHz	56.81	77.70	20.89	H	0	174.17	17.67	FCC_15.407
31.32525 GHz	58.58	83.50	24.92	H	102.114	159.496	18.58	FCC_15.407
37.77475 GHz	60.11	77.70	17.59	H	80.45	102.569	20.42	FCC_15.407
39.4115 GHz	61.58	83.50	21.92	H	191.862	125	20.46	FCC_15.407

Final 2: 21.0 GHz, 50.0 kHz, 39.4 GHz; IF:1MHz, 100.0 ms RMS, Att 20dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name
20.975 GHz	41.27	63.50	22.23	H	0.95	175	15.79	FCC_15.407
24.13725 GHz	44.79	63.50	18.71	H	296.538	100	16.50	FCC_15.407
29.594 GHz	43.55	63.50	19.95	H	0	150	17.67	FCC_15.407
31.3265 GHz	44.84	63.50	18.66	H	102.114	190.465	18.58	FCC_15.407
37.776 GHz	45.54	63.50	17.96	H	80.45	100	20.42	FCC_15.407
39.4135 GHz	46.88	63.50	16.62	H	191.862	116.44	20.46	FCC_15.407

18-40GHz Horizontal Data Table and Plot

EUT Mode: Mid-Ch, 802.11a-6Mbps



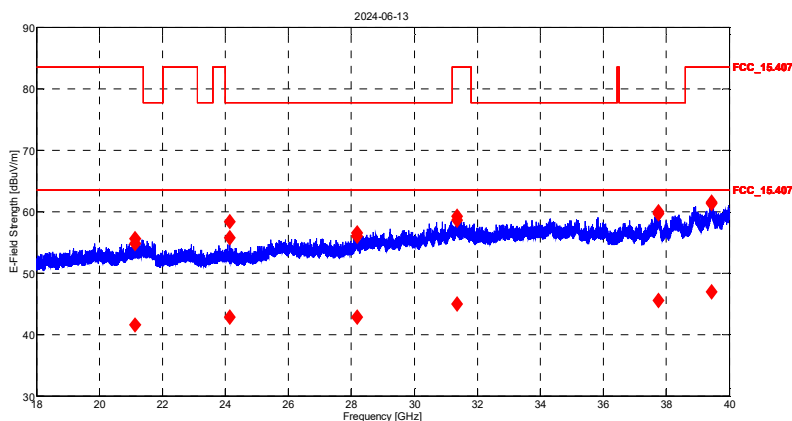
Final 1: 19.8 GHz, 50.0 kHz, 39.5 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 20dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name
19.82825 GHz	55.05	83.50	28.45	V	87.977	213.426	15.75	FCC_15.407
23.63775 GHz	54.21	83.50	29.29	V	360	175	16.01	FCC_15.407
31.3225 GHz	58.51	83.50	24.99	V	38.397	100.133	18.58	FCC_15.407
34.986 GHz	58.70	77.70	19.00	V	106.186	125	19.88	FCC_15.407
37.724 GHz	59.50	77.70	18.20	V	243.258	102.2	20.50	FCC_15.407
39.46875 GHz	62.01	83.50	21.49	V	71.108	122.54	20.47	FCC_15.407

Final 2: 19.8 GHz, 50.0 kHz, 39.5 GHz; IF:1MHz, 100.0 ms RMS, Att 20dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name
19.82975 GHz	41.41	63.50	22.09	V	87.977	175	15.75	FCC_15.407
23.63775 GHz	41.23	63.50	22.27	V	360	216.026	16.01	FCC_15.407
31.32125 GHz	44.94	63.50	18.56	V	38.397	102.967	18.58	FCC_15.407
34.98325 GHz	44.93	63.50	18.57	V	106.186	100	19.88	FCC_15.407
37.728 GHz	45.50	63.50	18.00	V	243.258	100	20.50	FCC_15.407
39.467 GHz	46.90	63.50	16.60	V	71.108	107.04	20.47	FCC_15.407

18-40GHz Vertical Data table and Plot



Final 1: 21.1 GHz, 50.0 kHz, 39.4 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 20dB

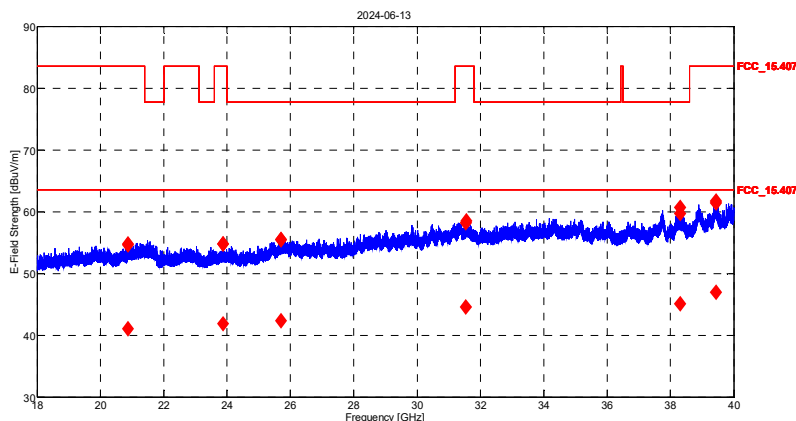
f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name
21.138 GHz	54.77	83.50	28.73	H	22.611	106.367	16.08	FCC_15.407
24.13675 GHz	58.38	77.70	19.32	H	300.423	120.233	16.50	FCC_15.407
28.178 GHz	56.02	77.70	21.68	H	169.798	125	16.82	FCC_15.407
31.35275 GHz	59.26	83.50	24.24	H	134.387	108	18.54	FCC_15.407
37.7435 GHz	59.95	77.70	17.75	H	240.598	100	20.47	FCC_15.407
39.44225 GHz	61.56	83.50	21.94	H	311.249	123.665	20.46	FCC_15.407

Final 2: 21.1 GHz, 50.0 kHz, 39.4 GHz; IF:1MHz, 100.0 ms RMS, Att 20dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name
21.13925 GHz	41.59	63.50	21.91	H	22.611	125	16.08	FCC_15.407
24.13725 GHz	42.83	63.50	20.67	H	300.423	120.233	16.50	FCC_15.407
28.174 GHz	42.85	63.50	20.65	H	169.798	111.5	16.82	FCC_15.407
31.352 GHz	44.98	63.50	18.52	H	134.387	113.067	18.54	FCC_15.407
37.7475 GHz	45.52	63.50	17.98	H	240.598	100.438	20.47	FCC_15.407
39.43825 GHz	46.91	63.50	16.59	H	311.249	100	20.46	FCC_15.407

18-40GHz Horizontal Data Table and Plot

EUT Mode: High-Ch, 802.11a-6Mbps



Final 1: 20.9 GHz, 50.0 kHz, 39.4 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 20dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name
20.8675 GHz	54.63	83.50	28.87	V	209.069	192.1	15.74	FCC_15.407
23.882 GHz	54.81	83.50	28.69	V	93.251	100.1	16.44	FCC_15.407
25.6975 GHz	55.41	77.70	22.29	V	298.35	175	16.96	FCC_15.407
31.54575 GHz	58.24	83.50	25.26	V	265.974	135.291	18.58	FCC_15.407
38.311 GHz	59.70	77.70	18.00	V	57.393	110.22	20.74	FCC_15.407
39.43825 GHz	61.72	83.50	21.78	V	1.297	124.233	20.46	FCC_15.407

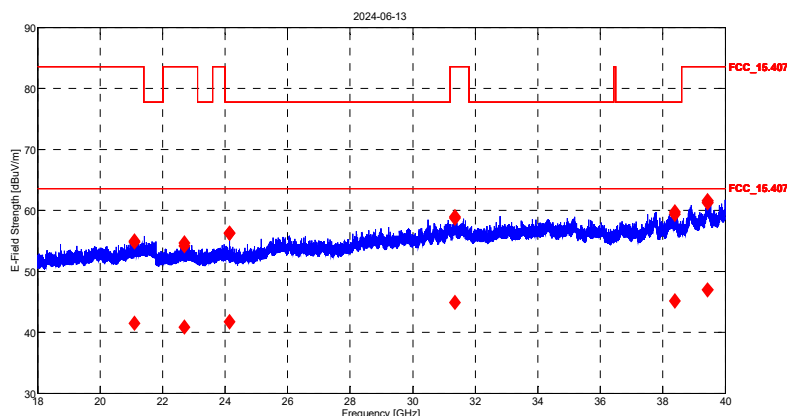
Final 2: 20.9 GHz, 50.0 kHz, 39.4 GHz; IF:1MHz, 100.0 ms RMS, Att 20dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name
20.869 GHz	41.06	63.50	22.44	V	209.069	175	15.74	FCC_15.407
23.8815 GHz	41.90	63.50	21.60	V	93.251	111.733	16.44	FCC_15.407
25.697 GHz	42.36	63.50	21.14	V	298.35	125	16.96	FCC_15.407
31.5465 GHz	44.55	63.50	18.95	V	265.974	165.248	18.58	FCC_15.407
38.31075 GHz	45.09	63.50	18.41	V	57.393	125	20.74	FCC_15.407
39.435 GHz	46.94	63.50	16.56	V	1.297	100	20.46	FCC_15.407

18-40GHz Vertical Data table and Plot



Test Report for Hydration Labs, Inc.
Report No. EY0069-6 Issue 2



Final 1: 21.1 GHz, 50.0 kHz, 39.4 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 20dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name
21.0985 GHz	54.80	83.50	28.70	H	0	125.314	16.03	FCC_15.407
22.70125 GHz	54.15	83.50	29.35	H	71.375	165.978	16.31	FCC_15.407
24.13675 GHz	56.27	77.70	21.43	H	326.551	105.613	16.50	FCC_15.407
31.35075 GHz	58.68	83.50	24.82	H	27.426	125	18.54	FCC_15.407
38.379 GHz	59.35	77.70	18.35	H	38.639	174.883	20.71	FCC_15.407
39.44225 GHz	61.24	83.50	22.26	H	326.551	225	20.46	FCC_15.407

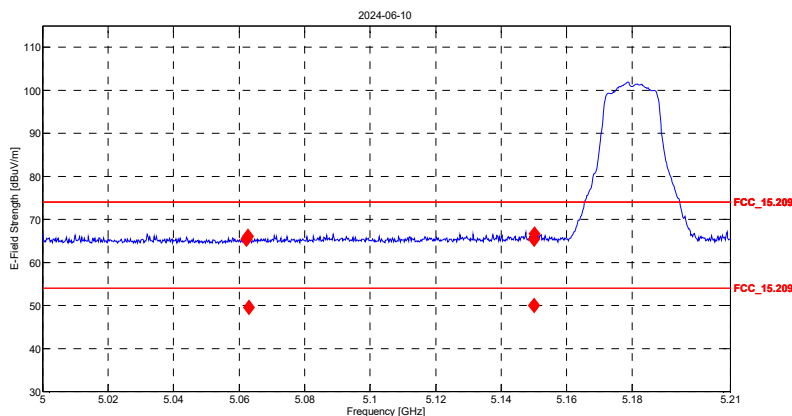
Final 2: 21.1 GHz, 50.0 kHz, 39.4 GHz; IF:1MHz, 100.0 ms RMS, Att 20dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name
21.0985 GHz	41.46	63.50	22.04	H	0	175	16.03	FCC_15.407
22.69925 GHz	40.83	63.50	22.67	H	71.375	162.839	16.31	FCC_15.407
24.137 GHz	41.72	63.50	21.78	H	326.551	103.6	16.50	FCC_15.407
31.35125 GHz	44.84	63.50	18.66	H	27.426	100	18.54	FCC_15.407
38.381 GHz	45.16	63.50	18.34	H	38.639	133.348	20.71	FCC_15.407
39.43825 GHz	46.91	63.50	16.59	H	326.551	175	20.46	FCC_15.407

18-40GHz Horizontal Data Table and Plot

Radiated Band-edge:

EUT Mode: 802.11a-6Mbps



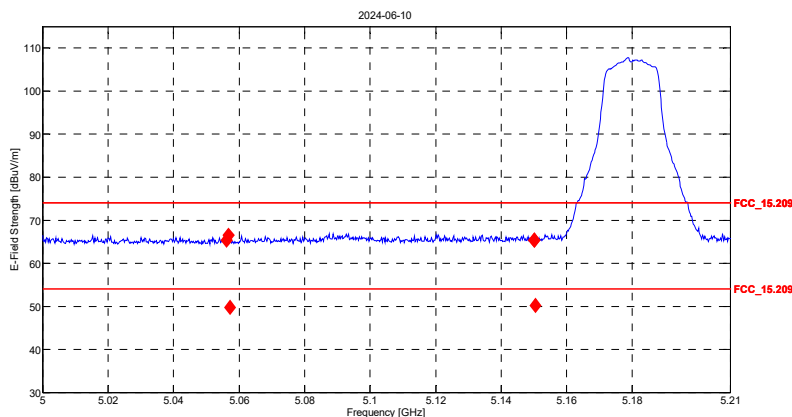
Final 1: 5.1 GHz, 50.0 kHz, 5.2 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name
5.06225 GHz	65.36	74.00	8.64	V	90.043	227.296	39.11	FCC_15.209
5.15025 GHz	66.56	74.00	7.44	V	258.286	199.965	39.13	FCC_15.209

Final 2: 5.1 GHz, 50.0 kHz, 5.2 GHz; IF:1MHz, 100.0 ms RMS, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name	Comment
5.063 GHz	49.49	54.00	4.51	V	90.043	100	39.11	FCC_15.209	RMS Maxhold
5.15 GHz	49.97	54.00	4.03	V	258.286	198.787	39.13	FCC_15.209	RMS Maxhold

Low-Ch Vertical Data table and Plot



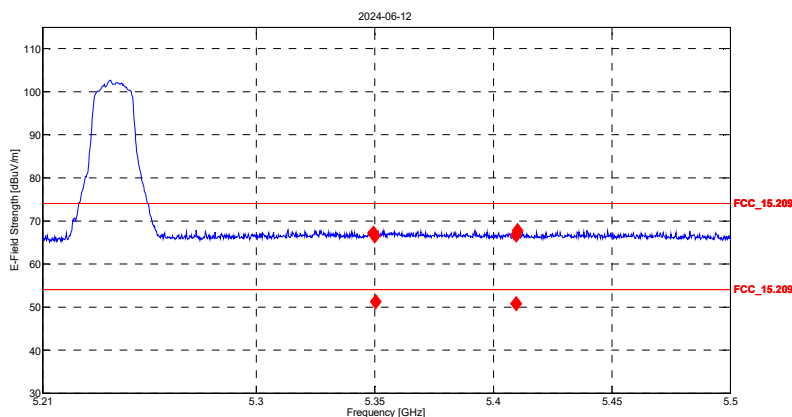
Final 1: 5.1 GHz, 50.0 kHz, 5.2 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name
5.05625 GHz	65.40	74.00	8.60	H	318.593	100	39.11	FCC_15.209
5.15025 GHz	65.39	74.00	8.61	H	165.422	162.844	39.13	FCC_15.209

Final 2: 5.1 GHz, 50.0 kHz, 5.2 GHz; IF:1MHz, 100.0 ms RMS, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name	Comment
5.05725 GHz	49.77	54.00	4.23	H	318.593	186.135	39.11	FCC_15.209	RMS Maxhold
5.1505 GHz	50.18	54.00	3.82	H	165.422	136.3	39.13	FCC_15.209	RMS Maxhold

Low-Ch Horizontal Data table and Plot



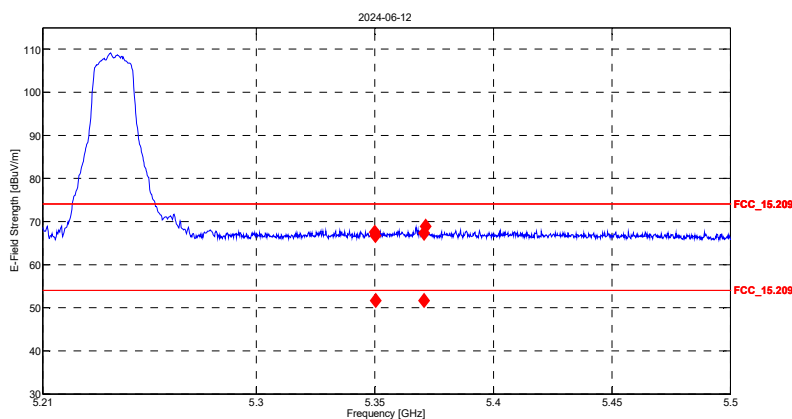
Final 1: 5.3 GHz, 50.0 kHz, 5.4 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name
5.3495 GHz	67.15	74.00	6.85	V	349.486	263.949	40.06	FCC_15.209
5.40975 GHz	66.72	74.00	7.28	V	265.829	136.116	40.25	FCC_15.209

Final 2: 5.3 GHz, 50.0 kHz, 5.4 GHz; IF:1MHz, 100.0 ms RMS, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name	Comment
5.3505 GHz	51.16	54.00	2.84	V	349.486	299.299	40.06	FCC_15.209	RMS Maxhold
5.40975 GHz	50.73	54.00	3.27	V	265.829	100	40.25	FCC_15.209	RMS Maxhold

High-Ch Vertical Data table and Plot



Final 1: 5.3 GHz, 50.0 kHz, 5.4 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name
5.35025 GHz	66.69	74.00	7.31	H	16.921	179.516	40.06	FCC_15.209
5.371 GHz	67.32	74.00	6.68	H	98.015	200	40.14	FCC_15.209

Final 2: 5.3 GHz, 50.0 kHz, 5.4 GHz; IF:1MHz, 100.0 ms RMS, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name	Comment
5.3505 GHz	51.66	54.00	2.34	H	16.921	100	40.06	FCC_15.209	RMS Maxhold
5.371 GHz	51.60	54.00	2.40	H	98.015	183.181	40.14	FCC_15.209	RMS Maxhold

High-Ch Horizontal Data table and Plot

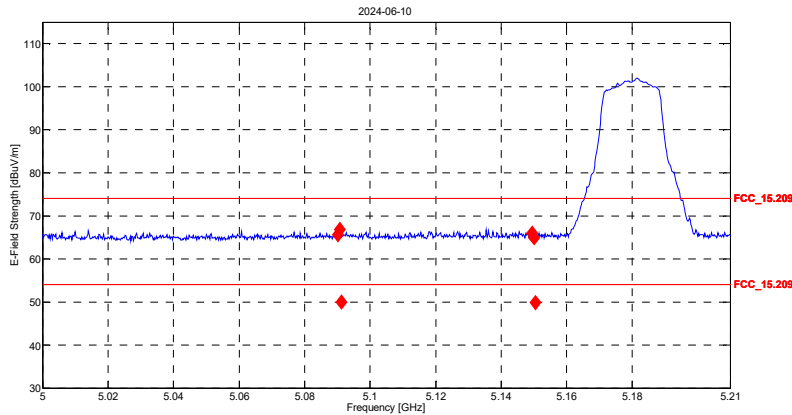


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Test Report for Hydration Labs, Inc.
Report No. EY0069-6 Issue 2



EUT Mode: 802.11n HT20 MCS0



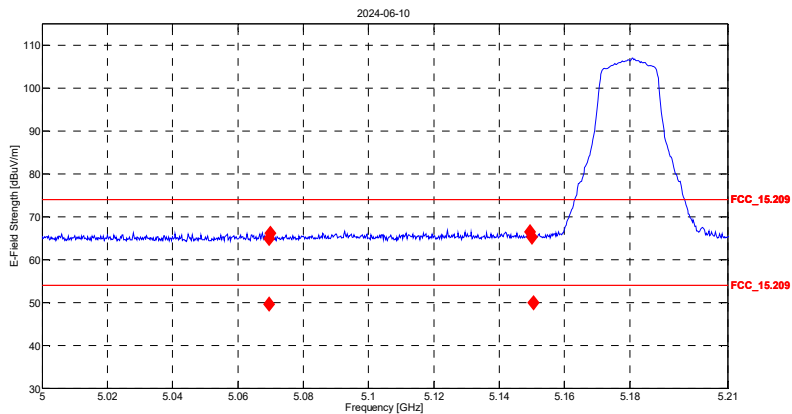
Final 1: 5.1 GHz, 50.0 kHz, 5.2 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name
5.09025 GHz	65.62	74.00	8.38	V	185.259	161.761	39.11	FCC_15.209
5.1495 GHz	65.97	74.00	8.03	V	272.341	195.946	39.13	FCC_15.209

Final 2: 5.1 GHz, 50.0 kHz, 5.2 GHz; IF:1MHz, 100.0 ms RMS, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name	Comment
5.09125 GHz	49.92	54.00	4.08	V	185.259	249.641	39.11	FCC_15.209	RMS Maxhold
5.1505 GHz	49.87	54.00	4.13	V	272.341	116.592	39.13	FCC_15.209	RMS Maxhold

Low-Ch Vertical Data table and Plot



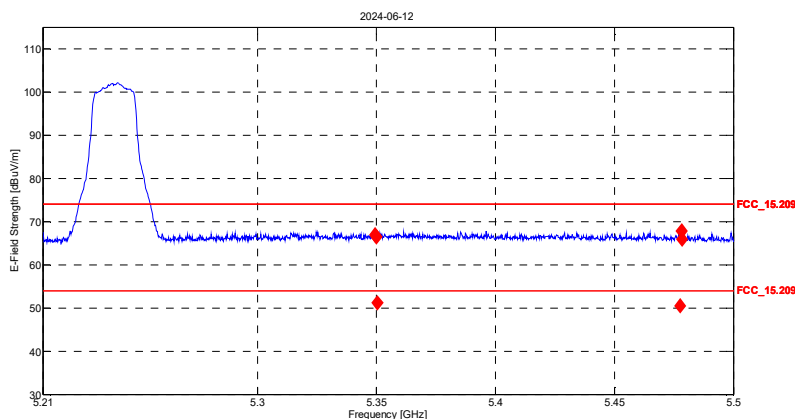
Final 1: 5.1 GHz, 50.0 kHz, 5.2 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name
5.0695 GHz	64.87	74.00	9.13	H	101.073	175.1	39.11	FCC_15.209
5.1495 GHz	66.54	74.00	7.46	H	9.978	199.908	39.13	FCC_15.209

Final 2: 5.1 GHz, 50.0 kHz, 5.2 GHz; IF:1MHz, 100.0 ms RMS, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name	Comment
5.0695 GHz	49.59	54.00	4.41	H	101.073	105.575	39.11	FCC_15.209	RMS Maxhold
5.1505 GHz	49.98	54.00	4.02	H	9.978	113.759	39.13	FCC_15.209	RMS Maxhold

Low-Ch Horizontal Data table and Plot



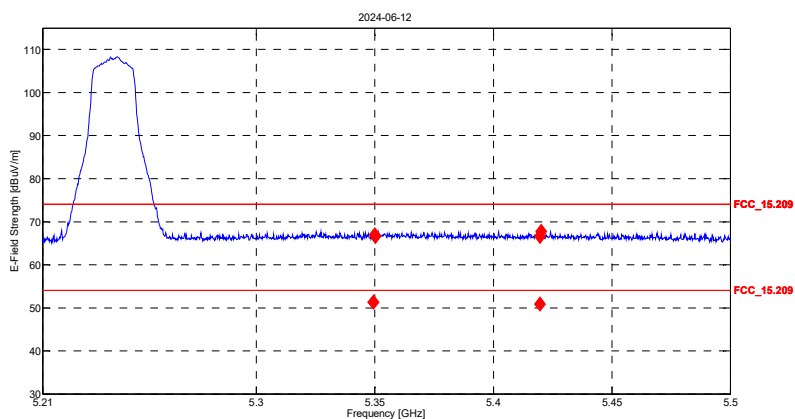
Final 1: 5.3 GHz, 50.0 kHz, 5.5 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name
5.3495 GHz	66.93	74.00	7.07	V	46.805	134	40.06	FCC_15.209
5.4785 GHz	65.92	74.00	8.08	V	171.078	199.72	40.28	FCC_15.209

Final 2: 5.3 GHz, 50.0 kHz, 5.5 GHz; IF:1MHz, 100.0 ms RMS, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name	Comment
5.3505 GHz	51.16	54.00	2.84	V	46.805	100.075	40.06	FCC_15.209	RMS Maxhold
5.4775 GHz	50.54	54.00	3.46	V	171.078	137.25	40.28	FCC_15.209	RMS Maxhold

High-Ch Vertical Data table and Plot



Final 1: 5.3 GHz, 50.0 kHz, 5.4 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 10dB

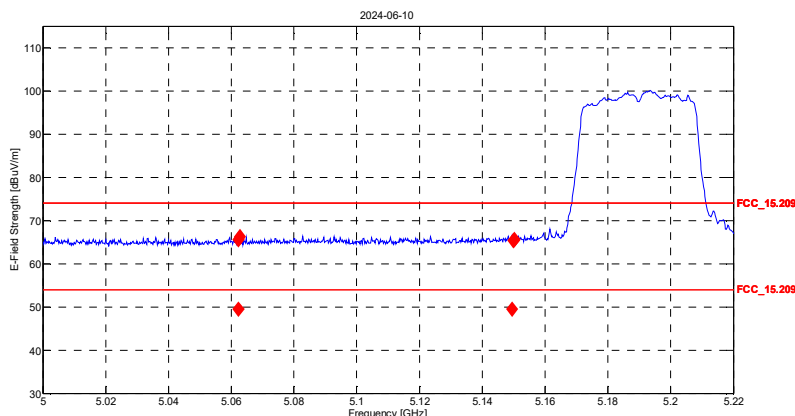
f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name
5.35025 GHz	66.63	74.00	7.37	H	42.053	327.457	40.06	FCC_15.209
5.41975 GHz	66.58	74.00	7.42	H	208.899	100.022	40.27	FCC_15.209

Final 2: 5.3 GHz, 50.0 kHz, 5.4 GHz; IF:1MHz, 100.0 ms RMS, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name	Comment
5.3495 GHz	51.26	54.00	2.74	H	42.053	232.971	40.06	FCC_15.209	RMS Maxhold
5.41975 GHz	50.91	54.00	3.09	H	208.899	177.622	40.27	FCC_15.209	RMS Maxhold

High-Ch Horizontal Data table and Plot

EUT Mode: 802.11n HT40-MCS0



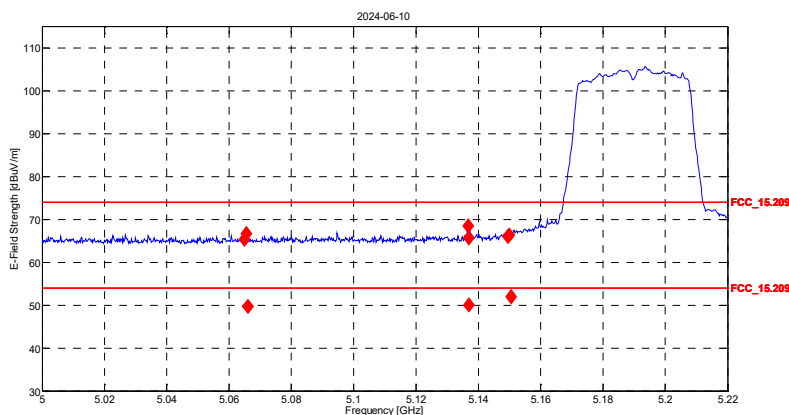
Final 1: 5.1 GHz, 50.0 kHz, 5.2 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name
5.06225 GHz	65.55	74.00	8.45	V	359	390.644	39.11	FCC_15.209
5.15025 GHz	65.63	74.00	8.37	V	112.45	185.422	39.13	FCC_15.209

Final 2: 5.1 GHz, 50.0 kHz, 5.2 GHz; IF:1MHz, 100.0 ms RMS, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name	Comment
5.06225 GHz	49.46	54.00	4.54	V	359	241.406	39.11	FCC_15.209	RMS Maxhold
5.1495 GHz	49.54	54.00	4.46	V	112.45	100	39.13	FCC_15.209	RMS Maxhold

Low-Ch Vertical Data table and Plot



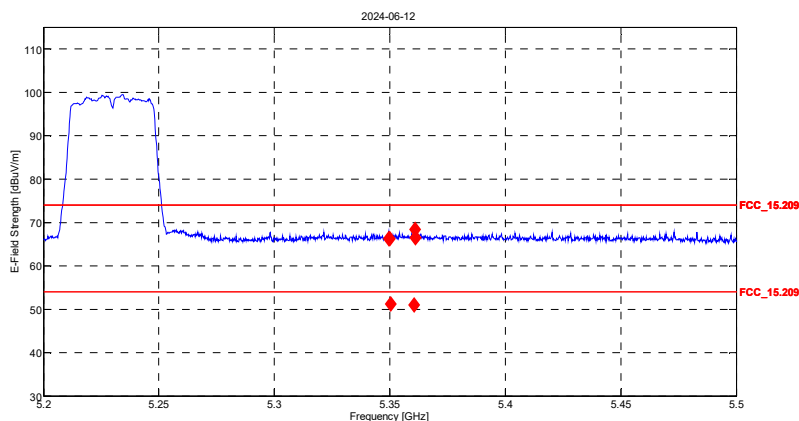
Final 1: 5.1 GHz, 50.0 kHz, 5.2 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name
5.065 GHz	65.42	74.00	8.58	H	204.641	100	39.11	FCC_15.209
5.137 GHz	65.66	74.00	8.34	H	109.567	197.389	39.13	FCC_15.209
5.1495 GHz	66.05	74.00	7.95	H	44.957	100	39.13	FCC_15.209

Final 2: 5.1 GHz, 50.0 kHz, 5.2 GHz; IF:1MHz, 100.0 ms RMS, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name	Comment
5.066 GHz	49.76	54.00	4.24	H	204.641	100	39.11	FCC_15.209	RMS Maxhold
5.137 GHz	50.12	54.00	3.88	H	109.567	113.056	39.13	FCC_15.209	RMS Maxhold
5.1505 GHz	52.01	54.00	1.99	H	44.957	105.2	39.13	FCC_15.209	RMS Maxhold

Low-Ch Horizontal Data table and Plot



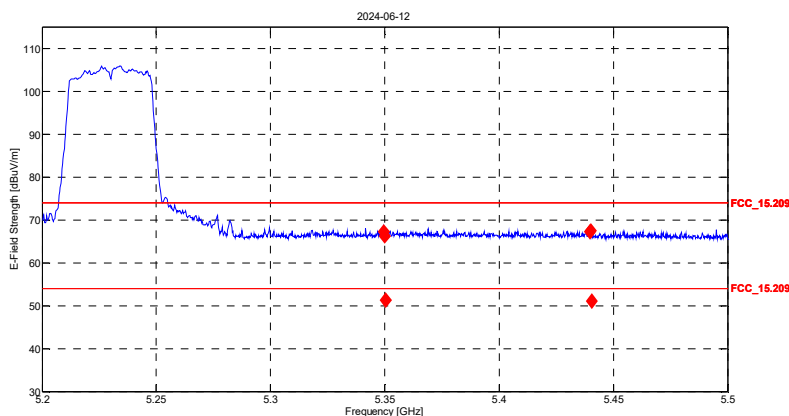
Final 1: 5.3 GHz, 50.0 kHz, 5.4 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name
5.3495 GHz	66.25	74.00	7.75	V	128.824	156.168	40.06	FCC_15.209
5.36125 GHz	66.43	74.00	7.57	V	319.421	155.727	40.10	FCC_15.209

Final 2: 5.3 GHz, 50.0 kHz, 5.4 GHz; IF:1MHz, 100.0 ms RMS, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name	Comment
5.3505 GHz	51.16	54.00	2.84	V	128.824	120.838	40.06	FCC_15.209	RMS Maxhold
5.3605 GHz	51.02	54.00	2.98	V	319.421	107.637	40.10	FCC_15.209	RMS Maxhold

High-Ch Vertical Data table and Plot



Final 1: 5.3 GHz, 50.0 kHz, 5.4 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name
5.3495 GHz	67.25	74.00	6.75	H	58.529	400	40.06	FCC_15.209
5.43975 GHz	67.28	74.00	6.72	H	133.243	100.003	40.29	FCC_15.209

Final 2: 5.3 GHz, 50.0 kHz, 5.4 GHz; IF:1MHz, 100.0 ms RMS, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name	Comment
5.3505 GHz	51.26	54.00	2.74	H	58.529	200	40.06	FCC_15.209	RMS Maxhold
5.4405 GHz	51.13	54.00	2.87	H	133.243	175.738	40.29	FCC_15.209	RMS Maxhold

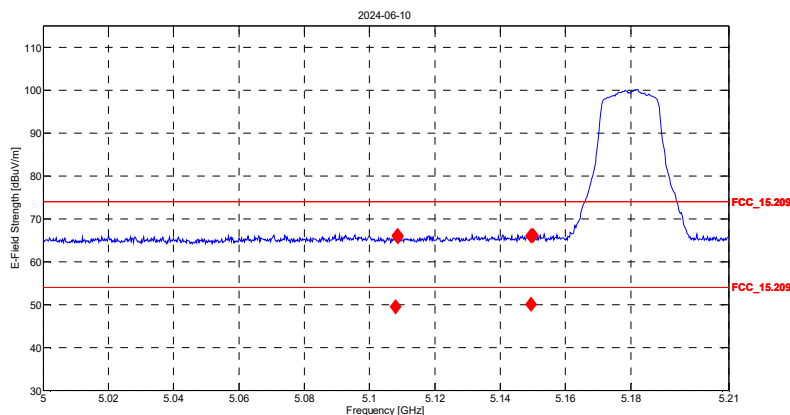
High-Ch Horizontal Data table and Plot



Test Report for Hydration Labs, Inc.
Report No. EY0069-6 Issue 2



EUT Mode: 802.11ac VHT20-MCS0



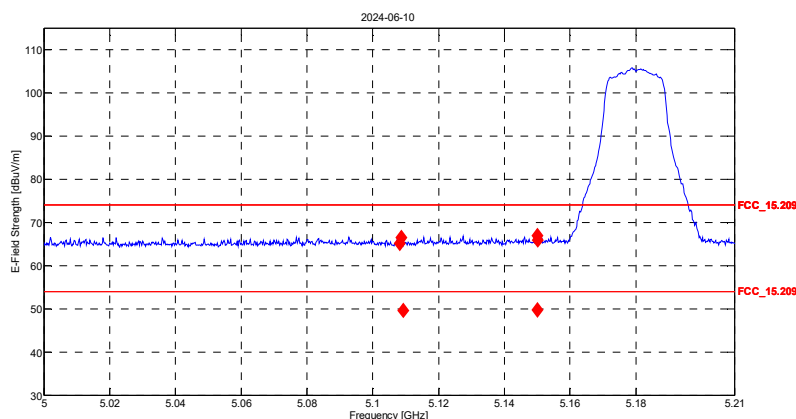
Final 1: 5.1 GHz, 50.0 kHz, 5.2 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name
5.10875 GHz	65.77	74.00	8.23	V	206.79	105.75	39.11	FCC_15.209
5.1495 GHz	66.05	74.00	7.95	V	289.89	113.7	39.13	FCC_15.209

Final 2: 5.1 GHz, 50.0 kHz, 5.2 GHz; IF:1MHz, 100.0 ms RMS, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name	Comment
5.108 GHz	49.48	54.00	4.52	V	206.79	114.4	39.11	FCC_15.209	RMS Maxhold
5.1495 GHz	50.07	54.00	3.93	V	289.89	156.433	39.13	FCC_15.209	RMS Maxhold

Low-Ch Vertical Data table and Plot



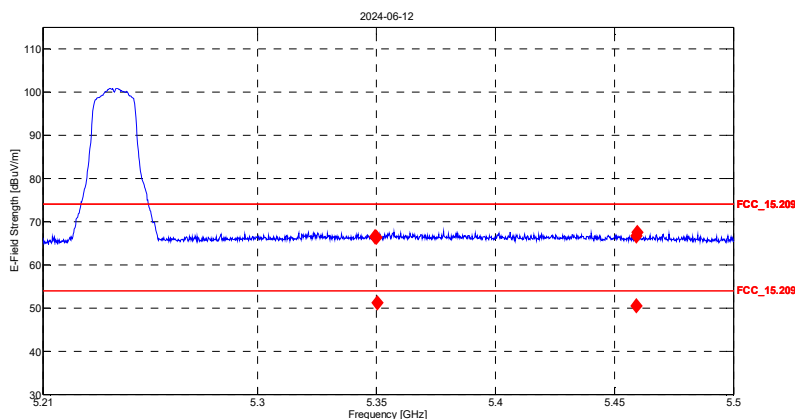
Final 1: 5.1 GHz, 50.0 kHz, 5.2 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name
5.10825 GHz	65.11	74.00	8.89	H	238.654	383.446	39.11	FCC_15.209
5.15025 GHz	65.96	74.00	8.04	H	219.017	107.724	39.13	FCC_15.209

Final 2: 5.1 GHz, 50.0 kHz, 5.2 GHz; IF:1MHz, 100.0 ms RMS, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name	Comment
5.10925 GHz	49.61	54.00	4.39	H	238.654	307.379	39.11	FCC_15.209	RMS Maxhold
5.15 GHz	49.76	54.00	4.24	H	219.017	100.954	39.13	FCC_15.209	RMS Maxhold

Low-Ch Horizontal Data table and Plot



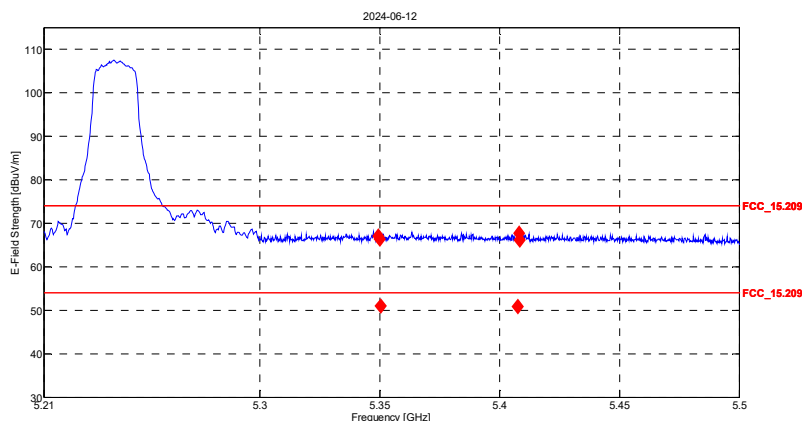
Final 1: 5.3 GHz, 50.0 kHz, 5.5 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name
5.3495 GHz	66.54	74.00	7.46	V	109.867	144.489	40.06	FCC_15.209
5.45925 GHz	66.73	74.00	7.27	V	339.046	125.585	40.29	FCC_15.209

Final 2: 5.3 GHz, 50.0 kHz, 5.5 GHz; IF:1MHz, 100.0 ms RMS, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name	Comment
5.3505 GHz	51.16	54.00	2.84	V	109.867	100	40.06	FCC_15.209	RMS Maxhold
5.45925 GHz	50.49	54.00	3.51	V	339.046	100	40.29	FCC_15.209	RMS Maxhold

High-Ch Vertical Data table and Plot



Final 1: 5.3 GHz, 50.0 kHz, 5.4 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name
5.3495 GHz	67.03	74.00	6.97	H	261.056	256.004	40.06	FCC_15.209
5.4085 GHz	66.14	74.00	7.86	H	234.297	199.717	40.25	FCC_15.209

Final 2: 5.3 GHz, 50.0 kHz, 5.4 GHz; IF:1MHz, 100.0 ms RMS, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name	Comment
5.3505 GHz	51.00	54.00	3.00	H	261.056	210.539	40.06	FCC_15.209	RMS Maxhold
5.40775 GHz	50.85	54.00	3.15	H	234.297	171.667	40.25	FCC_15.209	RMS Maxhold

High-Ch Horizontal Data table and Plot

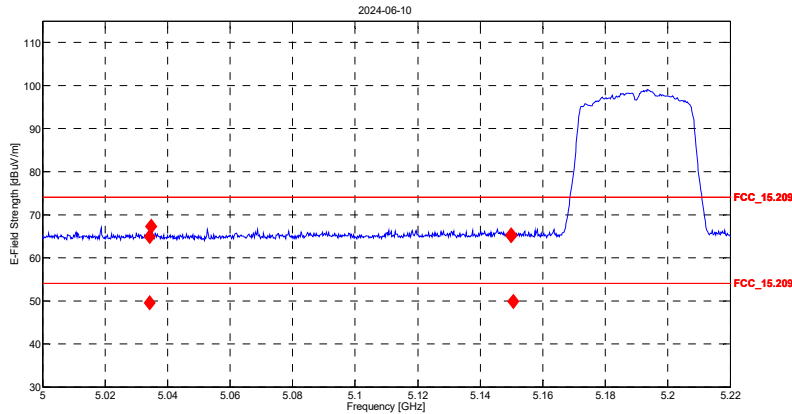


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EUT Mode: 802.11ac VHT40-MCS0



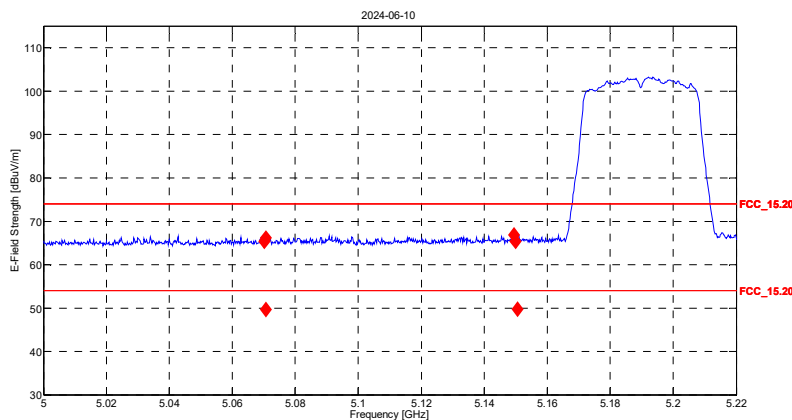
Final 1: 5.0 GHz, 50.0 kHz, 5.2 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name
5.03425 GHz	64.89	74.00	9.11	V	358.702	144.7	39.12	FCC_15.209
5.15 GHz	65.08	74.00	8.92	V	242.215	142.16	39.13	FCC_15.209

Final 2: 5.0 GHz, 50.0 kHz, 5.2 GHz; IF:1MHz, 100.0 ms RMS, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name	Comment
5.03425 GHz	49.52	54.00	4.48	V	358.702	100	39.12	FCC_15.209	RMS Maxhold
5.1505 GHz	49.87	54.00	4.13	V	242.215	142.16	39.13	FCC_15.209	RMS Maxhold

Low-Ch Vertical Data table and Plot



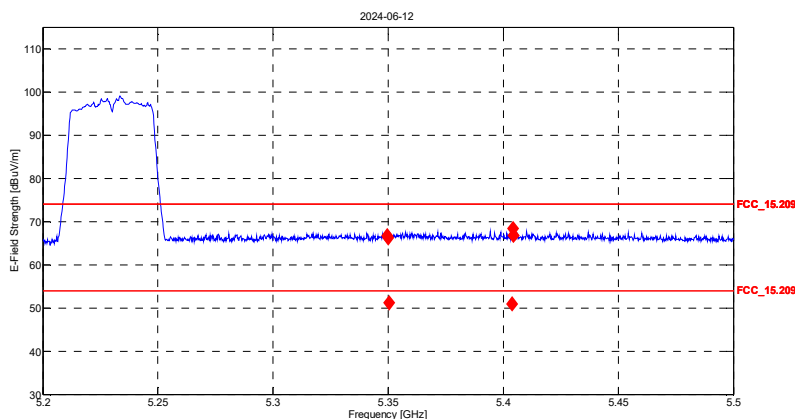
Final 1: 5.1 GHz, 50.0 kHz, 5.2 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name
5.07025 GHz	65.38	74.00	8.62	H	84.171	100.078	39.11	FCC_15.209
5.1495 GHz	66.80	74.00	7.20	H	243.3	199.8	39.13	FCC_15.209

Final 2: 5.1 GHz, 50.0 kHz, 5.2 GHz; IF:1MHz, 100.0 ms RMS, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name	Comment
5.07075 GHz	49.62	54.00	4.38	H	84.171	100.438	39.11	FCC_15.209	RMS Maxhold
5.1505 GHz	49.77	54.00	4.23	H	243.3	112.593	39.13	FCC_15.209	RMS Maxhold

Low-Ch Horizontal Data table and Plot



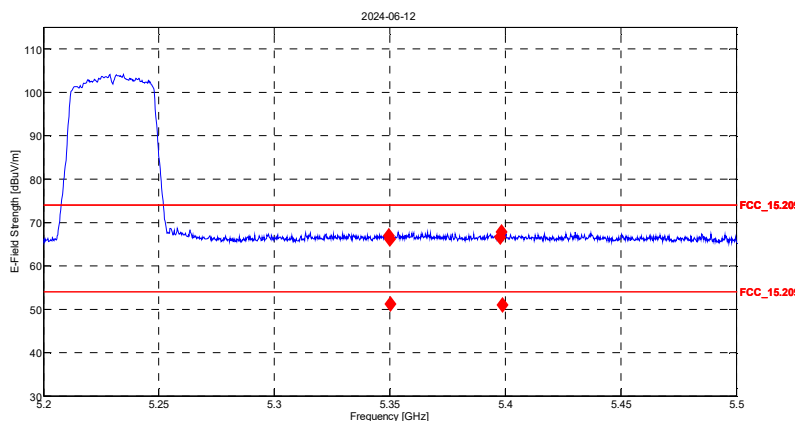
Final 1: 5.3 GHz, 50.0 kHz, 5.4 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name
5.3495 GHz	66.67	74.00	7.33	V	345.736	164.121	40.06	FCC_15.209
5.4045 GHz	66.78	74.00	7.22	V	358.399	175.667	40.24	FCC_15.209

Final 2: 5.3 GHz, 50.0 kHz, 5.4 GHz; IF:1MHz, 100.0 ms RMS, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name	Comment
5.3505 GHz	51.16	54.00	2.84	V	345.736	100.913	40.06	FCC_15.209	RMS Maxhold
5.40375 GHz	50.97	54.00	3.03	V	358.399	126.6	40.24	FCC_15.209	RMS Maxhold

High-Ch Vertical Data table and Plot



Final 1: 5.3 GHz, 50.0 kHz, 5.4 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 10dB

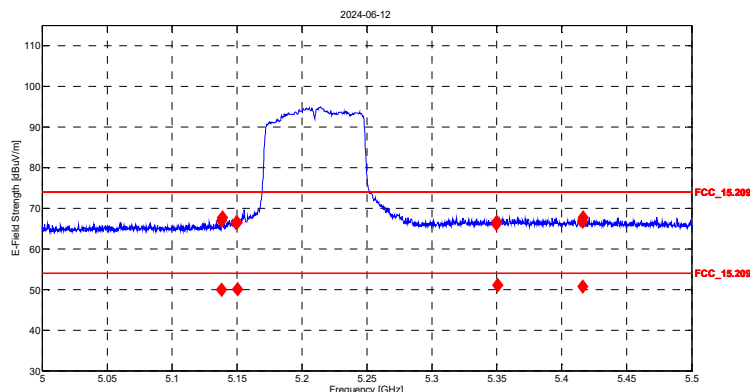
f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name
5.3495 GHz	66.96	74.00	7.04	H	0	106.679	40.06	FCC_15.209
5.39775 GHz	66.57	74.00	7.43	H	59.259	141.959	40.23	FCC_15.209

Final 2: 5.3 GHz, 50.0 kHz, 5.4 GHz; IF:1MHz, 100.0 ms RMS, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name	Comment
5.35025 GHz	51.25	54.00	2.75	H	0	274.885	40.06	FCC_15.209	RMS Maxhold
5.39875 GHz	50.92	54.00	3.08	H	59.259	185.648	40.23	FCC_15.209	RMS Maxhold

High-Ch Horizontal Data table and Plot

EUT Mode: 802.11ac VHT80-MCS0



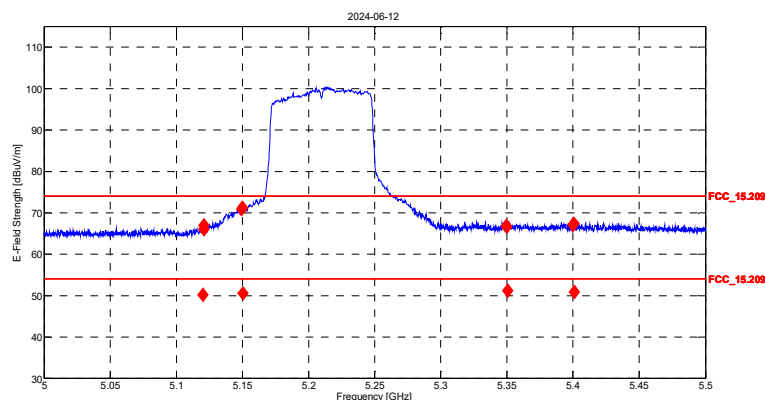
Final 1: 5.1 GHz, 50.0 kHz, 5.4 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name
5.13825 GHz	66.88	74.00	7.12	V	204.5	345.825	39.13	FCC 15.209
5.1495 GHz	66.38	74.00	7.62	V	8.3	100.55	39.13	FCC 15.209
5.3495 GHz	66.16	74.00	7.84	V	107.1	130.561	40.06	FCC 15.209
5.416 GHz	66.66	74.00	7.34	V	138.9	158.122	40.26	FCC 15.209

Final 2: 5.1 GHz, 50.0 kHz, 5.4 GHz; IF:1MHz, 100.0 ms RMS, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name	Comment
5.13825 GHz	49.96	54.00	4.04	V	204.5	329.76	39.13	FCC 15.209	RMS Maxhold
5.1505 GHz	50.08	54.00	3.92	V	8.3	119.1	39.13	FCC 15.209	RMS Maxhold
5.3505 GHz	51.05	54.00	2.95	V	107.1	128.017	40.06	FCC 15.209	RMS Maxhold
5.416 GHz	50.74	54.00	3.26	V	138.9	160.989	40.26	FCC 15.209	RMS Maxhold

Low & High Ch Vertical Data table and Plot



Final 1: 5.1 GHz, 50.0 kHz, 5.4 GHz; IF:1MHz, 100.0 ms MaxPeak, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name
5.121 GHz	66.04	74.00	7.96	H	150.5	100.022	39.12	FCC 15.209
5.1495 GHz	70.84	74.00	3.16	H	148.626	152.783	39.13	FCC 15.209
5.3495 GHz	66.83	74.00	7.17	H	216.874	104.354	40.06	FCC 15.209
5.4 GHz	67.02	74.00	6.98	H	225.732	119.33	40.24	FCC 15.209

Final 2: 5.1 GHz, 50.0 kHz, 5.4 GHz; IF:1MHz, 100.0 ms RMS, Att 10dB

f	Mag [dBuV/m]	Limit	Diff	Polarization	Angle [°]	Height [cm]	Trans	Name	Comment
5.12025 GHz	50.21	54.00	3.79	H	150.5	100	39.12	FCC 15.209	RMS Maxhold
5.1505 GHz	50.56	54.00	3.44	H	148.626	107.427	39.13	FCC 15.209	RMS Maxhold
5.3505 GHz	51.16	54.00	2.84	H	216.874	146.578	40.06	FCC 15.209	RMS Maxhold
5.401 GHz	50.85	54.00	3.15	H	225.732	112.515	40.24	FCC 15.209	RMS Maxhold

Low & High Ch Horizontal Data table and Plot



Test Report for Hydration Labs, Inc.
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5 PHOTOGRAPHS OF THE TEST CONFIGURATION

Please refer to the Test Setup Photos exhibits



6 MODIFICATIONS DURING TESTING

- 1) During EMC Radiated Emission testing, inside the standup system, the ethernet cable shield was taken off and two ferrites (28AO593-OA2 and 28AO807-AO2) were added on the USB cable at the J5 port. Please refer to EMC **EY0069-1 FCC Final Report**.
- 2) During 2.4GHz Wi-Fi Radio Emission testing a ferrite (0431164951) was added on LVDS cable at J9 port. Please refer to Radio **EY0069-5 FCC 2.4GHz C2PC Antenna change report**.
- 3) Besides the modifications listed above, no further modifications were made to the system during the 5GHz Radio emissions testing. 5 GHz Wi-Fi Radio emission testing was performed on board sample 11.

Please refer to the test setup photos exhibit for EUT modification configuration.

---END OF REPORT---