

### CH High (IEEE 802.11a Mode / Band 1 / Chain 1)



### CH Low (IEEE 802.11a Mode / Band 1 / Chain 2)

### CH Middle (IEEE 802.11a Mode / Band 1 / Chain 2)





### CH High (IEEE 802.11a Mode / Band 1 / Chain 2)



### CH Low (IEEE 802.11a Mode / Band 1 / Chain 3)

### CH Middle (IEEE 802.11a Mode / Band 1 / Chain 3)





# CH High (IEEE 802.11a Mode / Band 1 / Chain 3)



# CH Low (IEEE 802.11a Mode / Band 3 / Chain 0)

### CH Middle (IEEE 802.11a Mode / Band 3 / Chain 0)





### CH High (IEEE 802.11a Mode / Band 3 / Chain 0)



# CH Low (IEEE 802.11a Mode / Band 3 / Chain 1)

### CH Middle (IEEE 802.11a Mode / Band 3 / Chain 1)





## CH High (IEEE 802.11a Mode / Band 3 / Chain 1)



### CH Low (IEEE 802.11a Mode / Band 3 / Chain 2)

### CH Middle (IEEE 802.11a Mode / Band 3 / Chain 2)





## CH High (IEEE 802.11a Mode / Band 3 / Chain 2)



# CH Low (IEEE 802.11a Mode / Band 3 / Chain 3)

### CH Middle (IEEE 802.11a Mode / Band 3 / Chain 3)





## CH High (IEEE 802.11a Mode / Band 3 / Chain 3)



#### CH Low (IEEE 802.11ac VHT20 Mode / Band 1 / Chain 0)

### CH Middle (IEEE 802.11ac VHT20 Mode / Band 1 / Chain 0)





### CH High (IEEE 802.11ac VHT20 Mode / Band 1 / Chain 0)

Page 155 / 331 This report shall not be reproduced, except in full, without the written approval of Compliance Certification Services Inc.



#### CH Low (IEEE 802.11ac VHT20 Mode / Band 1 / Chain 1)

#### CH Middle (IEEE 802.11ac VHT20 Mode / Band 1 / Chain 1)





### CH High (IEEE 802.11ac VHT20 Mode / Band 1 / Chain 1)

Page 157 / 331 This report shall not be reproduced, except in full, without the written approval of Compliance Certification Services Inc.



### CH Low (IEEE 802.11ac VHT20 Mode / Band 1 / Chain 2)

### CH Middle (IEEE 802.11ac VHT20 Mode / Band 1 / Chain 2)





### CH High (IEEE 802.11ac VHT20 Mode / Band 1 / Chain 2)

Page 159 / 331 This report shall not be reproduced, except in full, without the written approval of Compliance Certification Services Inc.



#### CH Low (IEEE 802.11ac VHT20 Mode / Band 1 / Chain 3)

### CH Middle (IEEE 802.11ac VHT20 Mode / Band 1 / Chain 3)





### CH High (IEEE 802.11ac VHT20 Mode / Band 1 / Chain 3)



## CH Low (IEEE 802.11ac VHT20 Mode / Band 3 / Chain 0)

### CH Middle (IEEE 802.11ac VHT20 Mode / Band 3 / Chain 0)





### CH High (IEEE 802.11ac VHT20 Mode / Band 3 / Chain 0)



# CH Low (IEEE 802.11ac VHT20 Mode / Band 3 / Chain 1)

### CH Middle (IEEE 802.11ac VHT20 Mode / Band 3 / Chain 1)





### CH High (IEEE 802.11ac VHT20 Mode / Band 3 / Chain 1)



### CH Low (IEEE 802.11ac VHT20 Mode / Band 3 / Chain 2)

### CH Middle (IEEE 802.11ac VHT20 Mode / Band 3 / Chain 2)





### CH High (IEEE 802.11ac VHT20 Mode / Band 3 / Chain 2)



### CH Low (IEEE 802.11ac VHT20 Mode / Band 3 / Chain 3)

### CH Middle (IEEE 802.11ac VHT20 Mode / Band 3 / Chain 3)





### CH High (IEEE 802.11ac VHT20 Mode / Band 3 / Chain 3)



# CH Low (IEEE 802.11ac VHT40 Mode / Band 1 / Chain 0)

### CH High (IEEE 802.11ac VHT40 Mode / Band 1 / Chain 0)





# CH Low (IEEE 802.11ac VHT40 Mode / Band 1 / Chain 1)

# CH High (IEEE 802.11ac VHT40 Mode / Band 1 / Chain 1)





# CH Low (IEEE 802.11ac VHT40 Mode / Band 1 / Chain 2)

### CH High (IEEE 802.11ac VHT40 Mode / Band 1 / Chain 2)





# CH Low (IEEE 802.11ac VHT40 Mode / Band 1 / Chain 3)

### CH High (IEEE 802.11ac VHT40 Mode / Band 1 / Chain 3)





# CH Low (IEEE 802.11ac VHT40 Mode / Band 3 / Chain 0)

# CH High (IEEE 802.11ac VHT40 Mode / Band 3 / Chain 0)





# CH Low (IEEE 802.11ac VHT40 Mode / Band 3 / Chain 1)

# CH High (IEEE 802.11ac VHT40 Mode / Band 3 / Chain 1)





# CH Low (IEEE 802.11ac VHT40 Mode / Band 3 / Chain 2)

### CH High (IEEE 802.11ac VHT40 Mode / Band 3 / Chain 2)




### CH Low (IEEE 802.11ac VHT40 Mode / Band 3 / Chain 3)

### CH High (IEEE 802.11ac VHT40 Mode / Band 3 / Chain 3)





### CH Low (IEEE 802.11ac VHT80 Mode / Band 1 / Chain 0)

# CH Low (IEEE 802.11ac VHT80 Mode / Band 1 / Chain 1)





### CH Low (IEEE 802.11ac VHT80 Mode / Band 1 / Chain 2)

### CH Low (IEEE 802.11ac VHT80 Mode / Band 1 / Chain 3)





### CH Low (IEEE 802.11ac VHT80 Mode / Band 3 / Chain 0)

### CH Low (IEEE 802.11ac VHT80 Mode / Band 3 / Chain 1)





## CH Low (IEEE 802.11ac VHT80 Mode / Band 3 / Chain 2)

### CH Low (IEEE 802.11ac VHT80 Mode / Band 3 / Chain 3)





### CH Low (IEEE 802.11ac VHT160 Mode / Band 1 / Chain 0)

# CH Low (IEEE 802.11ac VHT160 Mode / Band 1 / Chain 1)





### CH Low (IEEE 802.11ac VHT160 Mode / Band 1 / Chain 2)

### CH Low (IEEE 802.11ac VHT160 Mode / Band 1 / Chain 3)





### CH Low (IEEE 802.11ac VHT160 Mode / Band 3 / Chain 0)

#### CH Low (IEEE 802.11ac VHT160 Mode / Band 3 / Chain 1)





### CH Low (IEEE 802.11ac VHT160 Mode / Band 3 / Chain 2)

### CH Low (IEEE 802.11ac VHT160 Mode / Band 3 / Chain 3)



# Beamforming



# CH Middle (IEEE 802.11a Mode / Band 1 / Chain 0)





### CH High (IEEE 802.11a Mode / Band 1 / Chain 0)



### CH Low (IEEE 802.11a Mode / Band 1 / Chain 1)

### CH Middle (IEEE 802.11a Mode / Band 1 / Chain 1)





# CH High (IEEE 802.11a Mode / Band 1 / Chain 1)



### CH Low (IEEE 802.11a Mode / Band 1 / Chain 2)

# CH Middle (IEEE 802.11a Mode / Band 1 / Chain 2)





### CH High (IEEE 802.11a Mode / Band 1 / Chain 2)



#### CH Low (IEEE 802.11a Mode / Band 1 / Chain 3)

### CH Middle (IEEE 802.11a Mode / Band 1 / Chain 3)





### CH High (IEEE 802.11a Mode / Band 1 / Chain 3)



### CH Low (IEEE 802.11a Mode / Band 3 / Chain 0)

### CH Middle (IEEE 802.11a Mode / Band 3 / Chain 0)





CH High (IEEE 802.11a Mode / Band 3 / Chain 0)



### CH Low (IEEE 802.11a Mode / Band 3 / Chain 1)

### CH Middle (IEEE 802.11a Mode / Band 3 / Chain 1)





CH High (IEEE 802.11a Mode / Band 3 / Chain 1)



#### CH Low (IEEE 802.11a Mode / Band 3 / Chain 2)

### CH Middle (IEEE 802.11a Mode / Band 3 / Chain 2)





# CH High (IEEE 802.11a Mode / Band 3 / Chain 2)



### CH Low (IEEE 802.11a Mode / Band 3 / Chain 3)

### CH Middle (IEEE 802.11a Mode / Band 3 / Chain 3)





### CH High (IEEE 802.11a Mode / Band 3 / Chain 3)



#### CH Low (IEEE 802.11ac VHT20 Mode / Band 1 / Chain 0)

### CH Middle (IEEE 802.11ac VHT20 Mode / Band 1 / Chain 0)







### CH Low (IEEE 802.11ac VHT20 Mode / Band 1 / Chain 1)

### CH Middle (IEEE 802.11ac VHT20 Mode / Band 1 / Chain 1)





CH High (IEEE 802.11ac VHT20 Mode / Band 1 / Chain 1)



#### CH Low (IEEE 802.11ac VHT20 Mode / Band 1 / Chain 2)

### CH Middle (IEEE 802.11ac VHT20 Mode / Band 1 / Chain 2)





### Page 207 / 331 This report shall not be reproduced, except in full, without the written approval of Compliance Certification Services Inc.



#### CH Low (IEEE 802.11ac VHT20 Mode / Band 1 / Chain 3)

### CH Middle (IEEE 802.11ac VHT20 Mode / Band 1 / Chain 3)





CH High (IEEE 802.11ac VHT20 Mode / Band 1 / Chain 3)



#### CH Low (IEEE 802.11ac VHT20 Mode / Band 3 / Chain 0)

### CH Middle (IEEE 802.11ac VHT20 Mode / Band 3 / Chain 0)





#### CH High (IEEE 802.11ac VHT20 Mode / Band 3 / Chain 0)

Page 211 / 331 This report shall not be reproduced, except in full, without the written approval of Compliance Certification Services Inc.



#### CH Low (IEEE 802.11ac VHT20 Mode / Band 3 / Chain 1)

### CH Middle (IEEE 802.11ac VHT20 Mode / Band 3 / Chain 1)




#### CH High (IEEE 802.11ac VHT20 Mode / Band 3 / Chain 1)

Page 213 / 331 This report shall not be reproduced, except in full, without the written approval of Compliance Certification Services Inc.



#### CH Low (IEEE 802.11ac VHT20 Mode / Band 3 / Chain 2)

#### CH Middle (IEEE 802.11ac VHT20 Mode / Band 3 / Chain 2)





#### CH High (IEEE 802.11ac VHT20 Mode / Band 3 / Chain 2)



#### CH Low (IEEE 802.11ac VHT20 Mode / Band 3 / Chain 3)

#### CH Middle (IEEE 802.11ac VHT20 Mode / Band 3 / Chain 3)





#### CH High (IEEE 802.11ac VHT20 Mode / Band 3 / Chain 3)



# CH Low (IEEE 802.11ac VHT40 Mode / Band 1 / Chain 0)

# CH High (IEEE 802.11ac VHT40 Mode / Band 1 / Chain 0)





# CH Low (IEEE 802.11ac VHT40 Mode / Band 1 / Chain 1)

# CH High (IEEE 802.11ac VHT40 Mode / Band 1 / Chain 1)





# CH Low (IEEE 802.11ac VHT40 Mode / Band 1 / Chain 2)

# CH High (IEEE 802.11ac VHT40 Mode / Band 1 / Chain 2)





# CH Low (IEEE 802.11ac VHT40 Mode / Band 1 / Chain 3)

# CH High (IEEE 802.11ac VHT40 Mode / Band 1 / Chain 3)





#### CH Low (IEEE 802.11ac VHT40 Mode / Band 3 / Chain 0)

# CH High (IEEE 802.11ac VHT40 Mode / Band 3 / Chain 0)





#### CH Low (IEEE 802.11ac VHT40 Mode / Band 3 / Chain 1)

# CH High (IEEE 802.11ac VHT40 Mode / Band 3 / Chain 1)





#### CH Low (IEEE 802.11ac VHT40 Mode / Band 3 / Chain 2)

# CH High (IEEE 802.11ac VHT40 Mode / Band 3 / Chain 2)





#### CH Low (IEEE 802.11ac VHT40 Mode / Band 3 / Chain 3)

# CH High (IEEE 802.11ac VHT40 Mode / Band 3 / Chain 3)





#### CH Low (IEEE 802.11ac VHT80 Mode / Band 1 / Chain 0)

# CH Low (IEEE 802.11ac VHT80 Mode / Band 1 / Chain 1)





#### CH Low (IEEE 802.11ac VHT80 Mode / Band 1 / Chain 2)

# CH Low (IEEE 802.11ac VHT80 Mode / Band 1 / Chain 3)





#### CH Low (IEEE 802.11ac VHT80 Mode / Band 3 / Chain 0)

# CH Low (IEEE 802.11ac VHT80 Mode / Band 3 / Chain 1)





#### CH Low (IEEE 802.11ac VHT80 Mode / Band 3 / Chain 2)

# CH Low (IEEE 802.11ac VHT80 Mode / Band 3 / Chain 3)





#### CH Low (IEEE 802.11ac VHT160 Mode / Band 1 / Chain 0)

#### CH Low (IEEE 802.11ac VHT160 Mode / Band 1 / Chain 1)





# CH Low (IEEE 802.11ac VHT160 Mode / Band 1 / Chain 2)

#### CH Low (IEEE 802.11ac VHT160 Mode / Band 1 / Chain 3)





#### CH Low (IEEE 802.11ac VHT160 Mode / Band 3 / Chain 0)

#### CH Low (IEEE 802.11ac VHT160 Mode / Band 3 / Chain 1)





#### CH Low (IEEE 802.11ac VHT160 Mode / Band 3 / Chain 2)

#### CH Low (IEEE 802.11ac VHT160 Mode / Band 3 / Chain 3)



# 7.6 RADIATED EMISSION

# LIMITS

(1) According to § 15.205 (a) Except as shown 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	399.9 - 410	4.5 - 5.15
<sup>1</sup> 0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 -1710	10.6 -12.7
6.26775 - 6.26825	108 -121.94	1718.8 - 1722.2	13.25 -13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 – 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 -16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2655 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3338	36.43 - 36.5
12.57675 - 12.57725	322 -335.4	3600 - 4400	( <sup>2</sup> )
13.36 - 13.41			

#### Remark:

1.<sup>1</sup> Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.

2.<sup>2</sup> Above 38.6

(2) According to § 15.205 (b) Except as provided in paragraphs (d) and (e) of this section, the field strength of emissions appearing within these frequency bands shall not exceed the limits shown in §15.209. At frequencies equal to or less than 1000 MHz, compliance with the limits in §15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000 MHz, compliance with the emission limits in §15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in §15.35 apply to these measurements.

(3) According to § 15.209 (a) Except as provided elsewhere in this Subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (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

**Remark:** \*\*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.

- (4) According to § 15.209 (b) In the emission table above, the tighter limit applies at the band edges.
- (5) According to FCC 16-24, for transmitters operating in the 5.725-5.85 GHz band, all out-of-band emissions be limited to a level of -27 dBm/MHz at 75 MHz beyond the band edge, increasing linearly to 10 dBm/MHz at 25 MHz beyond the band edge, and from 25 MHz beyond the band edge, increasing linearly to a level of 17 dBm/MHz at the band edge. The OOBE limits in the 5 MHz closest to the band edge by allowing emissions to increase linearly to a maximum level of 27 dBm/MHz.



# TEST EQUIPMENT

#### Radiated Emission / 966Chamber\_B

Name of Equipment	Manufacture	Model	Serial Number	Calibration Due
Spectrum Analyzer	Agilent	E4446A	MY46180323	04/12/2017
EMI Test Receiver	Rohde & Schwarz	ESCI	100221	04/26/2017
Bi-log Antenna	TESEQ	CBL 6112D	35403	07/02/2017
Broad-Band Horn Antenna	Schwarzbeck	BBHA 9120 D	9120D-778	07/14/2017
Double-Ridged Waveguide Horn	ETS-LINDGREN	3117	00078733	11/25/2016
Horn Antenna	COM-POWER	AH-840	03077	12/08/2016
Pre-Amplifier	Agilent	8447D	2944A10052	07/12/2017
Pre-Amplifier	Agilent	8449B	3008A01916	07/12/2017
LOOP Antenna	COM-POWER	AL-130	121060	05/23/2017
Test S/W		E3.8152	06a	

**Remark:** Each piece of equipment is scheduled for calibration once a year.

# **TEST SETUP**

The diagram below shows the test setup that is utilized to make the measurements for emission below 1GHz.

# 9kHz ~ 30MHz



# 30MHz ~ 1GHz



The diagram below shows the test setup that is utilized to make the measurements for emission above 1GHz.



# TEST PROCEDURE

- 1. The EUT was placed on the top of a rotating table 0.8 and 1.5 meters above the ground. The table was rotated 360 degrees to determine the position of the highest radiation.
- 2. While measuring the radiated emission below 1GHz, the EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. While measuring the radiated emission above 1GHz, the EUT was set 3 meters away from the interference-receiving antenna.
- 3. The antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarization of the antenna are set to make the measurement.
- For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the table was turned from 0 degrees to 360 degrees to find the maximum reading.
- 5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- 6. If the emission level of the EUT in peak mode was 10 dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10 dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

# Remark:

- 1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 KHz for Peak detection (PK) and Quasi-peak detection (QP) at frequency below 1GHz.
- 2. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1 MHz for Peak detection and frequency above 1GHz.
- 3. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 10 Hz for Average detection (AV) at frequency above 1GHz.

# **ELERF Compliance Certification Services Inc.** FCC ID: 2AHKM-CODA4782

# TEST RESULTS

# Below 1 GHz (9kHz ~ 30MHz)

No emission found between lowest internal used/generated frequency to 30MHz.

# Below 1 GHz (30MHz ~ 1GHz)

Product Name	DOCSIS 3.1 wifi Gateway	Test By	Waternil Guan
Test Model	CODA-4782	Test Date	2016/09/07
Test Mode	Mode 1	Temp. & Humidity	28 <sup>°</sup> C, 54%

#### 966Chamber\_B at 3Meter / Horizontal

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
102.75	47.43	-15.42	32.01	43.50	-11.49	225	100	Peak
157.07	49.29	-15.83	33.46	43.50	-10.04	93	200	Peak
250.19	45.01	-12.67	32.34	46.00	-13.66	254	100	Peak
400.54	39.71	-9.11	30.60	46.00	-15.40	76	100	Peak
506.27	40.03	-8.03	32.00	46.00	-14.00	117	100	Peak
600.36	49.70	-6.78	42.92	46.00	-3.08	124	100	QP
759.44	44.08	-4.84	39.24	46.00	-6.76	98	200	Peak
937.92	42.95	-2.55	40.40	46.00	-5.60	253	100	Peak

# 966Chamber\_B at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
97.90	52.20	-16.07	36.13	43.50	-7.37	294	100	Peak
146.40	50.63	-15.19	35.44	43.50	-8.06	287	100	Peak
250.19	45.34	-12.67	32.67	46.00	-13.33	305	100	Peak
375.32	45.71	-9.66	36.05	46.00	-9.95	197	100	Peak
400.54	44.09	-9.11	34.98	46.00	-11.02	164	100	Peak
600.36	49.70	-6.78	42.92	46.00	-3.08	350	100	QP
888.45	38.98	-3.03	35.95	46.00	-10.05	172	100	Peak
937.92	43.41	-2.55	40.86	46.00	-5.14	188	100	Peak

#### Remark:

1. Quasi-peak test would be performed if the peak result were greater than the quasi-peak limit.

2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB) – PreAmp.Gain (dB)

3. Result (dBuV/m) = Reading (dBuV) + Correction Factor (dB/m)

4. Margin (dB) = Remark result (dBuV/m) - Quasi-peak limit (dBuV/m).

#### Above 1GHz

Product Name	DOCSIS 3.1 wifi Gateway	Test By	Waternil Guan
Test Model	CODA-4782	Test Date	2016/09/08
Test Mode	UNII Band 1 / IEEE 802.11a Mode TX / CH Low / Non-beamforming	Temp. & Humidity	26°C, 58%

# 966Chamber\_B at 3Meter / Horizontal

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
3600.00	50.64	0.92	51.56	74.00	-22.44	95	100	Peak
4200.00	48.10	3.53	51.63	74.00	-22.37	68	200	Peak
5350.00	44.09	6.80	50.89	74.00	-23.11	106	100	Peak
7800.00	39.50	12.73	52.23	74.00	-21.77	2	150	Peak
10356.00	30.12	16.20	46.32	54.00	-7.68	184	150	Average
10356.00	39.53	16.20	55.73	74.00	-18.27	184	150	Peak
15540.00	24.57	23.01	47.58	54.00	-6.42	58	150	Average
15540.00	36 <b>.70</b>	23.01	59.71	74.00	-14.29	58	150	Peak

# 966Chamber\_B at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2400.00	54.41	-2.24	52.17	74.00	-21.83	118	200	Peak
3455.00	52.28	0.35	52.63	74.00	-21.37	96	200	Peak
5350.00	46.10	6.80	52.90	74.00	-21.10	280	100	Peak
7740.00	37.49	12.66	50.15	74.00	-23.85	166	150	Peak
10356.00	29.98	16.20	46.18	54.00	-7.82	68	200	Average
10356.00	38.98	16.20	55.18	74.00	-18.82	68	200	Peak
15528.00	24.12	22.99	47.11	54.00	-6.89	93	250	Average
15528.00	37.47	22.99	60.46	74.00	-13.54	93	250	Peak

#### Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

2. Average test would be performed if the peak result were greater than the average limit.

- 3. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
- 4. Result = Reading + Correction Factor Margin = Result – Limit Remark Peak = Result(PK) – Limit(PK) Remark AVG = Result(AV) – Limit(AV)

Product Name	DOCSIS 3.1 wifi Gateway	Test By	Waternil Guan
Test Model	CODA-4782	Test Date	2016/09/08
Test Mode	UNII Band 1 / IEEE 802.11a Mode TX / CH Middle / Non-beamforming	Temp. & Humidity	26°C, 58%

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
4200.00	49.21	3.53	52.74	74.00	-21.26	44	100	Peak
5150.00	40.40	6.36	46.76	54.00	-7.24	318	200	Average
5150.00	49.40	6.36	55.76	74.00	-18.24	318	200	Peak
5350.00	43.82	6.80	50.62	74.00	-23.38	228	200	Peak
7800.00	37.57	12.73	50.30	74.00	-23.70	13	200	Peak
10404.00	31.21	16.33	47.54	54.00	-6.46	30	150	Average
10404.00	41.32	16.33	57.65	74.00	-16.35	30	150	Peak
15588.00	28.30	23.09	51.39	54.00	-2.61	109	100	Average
15588.00	37.66	23 <b>.0</b> 9	60.75	74.00	-13.25	109	100	Peak

# 966Chamber\_B at 3Meter / Vertical

Freq.	Reading	C.F.	Result	Limit	Margin	Azimuth	Height	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	deg	cm	
2400.00	53.82	-2.24	51.58	74.00	-22.42	144	200	Peak
5150.00	45.66	6.36	52.02	54.00	-1.98	194	200	Average
5150.00	55.54	6.36	61.90	74.00	-12.10	194	200	Peak
5350.00	45.77	6.80	52.57	74.00	-21.43	238	200	Peak
6936.00	38.93	12.25	51.18	74.00	-22.82	92	200	Peak
10392.00	35.31	16.30	51.61	54.00	-2.39	70	250	Average
10392.00	45.40	16.30	61.70	74.00	-12.30	70	250	Peak
15612.00	29.30	23.13	52.43	54.00	-1.57	116	150	Average
15612.00	39.74	23.13	62.87	74.00	-11.13	116	150	Peak

#### Remark:

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. Average test would be performed if the peak result were greater than the average limit.
- 3. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
- 4. Result = Reading + Correction Factor Margin = Result – Limit Remark Peak = Result(PK) – Limit(PK) Remark AVG = Result(AV) – Limit(AV)

Product Name	DOCSIS 3.1 wifi Gateway	Test By	Waternil Guan
Test Model	CODA-4782	Test Date	2016/09/08
Test Mode	UNII Band 1 / IEEE 802.11a Mode TX / CH High / Non-beamforming	Temp. & Humidity	26°C, 58%

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
3600.00	51.97	0.92	52.89	74.00	-21.11	92	100	Peak
5150.00	43.41	6.36	49.77	74.00	-24.23	167	100	Peak
5350.00	43.29	6.80	50.09	74.00	-23.91	334	200	Peak
7800.00	38.00	12.73	50.73	74.00	-23.27	0	150	Peak
10476.00	32.28	16.52	48.80	54.00	-5.20	157	150	Average
10476.00	41.27	16.52	57.79	74.00	-16.21	157	150	Peak
15720.00	27.41	23.32	50.73	54.00	-3.27	117	200	Average
15720.00	37.11	23.32	60.43	74.00	-13.57	117	200	Peak

# 966Chamber\_B at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2400.00	54.29	-2.24	52.05	74.00	-21.95	140	200	Peak
5150.00	45.95	6.36	52.31	74.00	-21.69	38	200	Peak
5350.00	45.49	6.80	52.29	74.00	-21.71	169	200	Peak
6660.00	37.45	11.80	49.25	74.00	-24.75	158	150	Peak
10476.00	31.59	16.52	48.11	54.00	-5.89	97	150	Average
10476.00	40.59	16.52	57.11	74.00	-16.89	97	150	Peak -
15708.00	28.00	23.30	51.30	54.00	-2.70	180	150	Average
15708.00	37.75	23.30	61.05	74.00	-12.95	180	150	Peak

#### Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

2. Average test would be performed if the peak result were greater than the average limit.

- 3. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
- 4. Result = Reading + Correction Factor Margin = Result – Limit Remark Peak = Result(PK) – Limit(PK) Remark AVG = Result(AV) – Limit(AV)

Product Name	DOCSIS 3.1 wifi Gateway	OCSIS 3.1 wifi Gateway Test By	
Test Model	CODA-4782	Test Date	2016/09/08
Test Mode	UNII Band 1 / IEEE 802.11ac VHT20 Mode TX / CH Low / Non-beamforming	Temp. & Humidity	26°C, 58%

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2400.00	51.56	-2.24	49.32	74.00	-24.68	348	200	Peak
4200.00	48.14	3.53	51.67	74.00	-22.33	49	100	Peak
5350.00	44.68	6.80	51.48	74.00	-22.52	112	100	Peak
7800.00	38.29	12.73	51.02	74.00	-22.98	359	200	Peak
10356.00	31.08	16.20	47.28	54.00	-6.72	175	100	Average
10356.00	40.07	16.20	56.27	74.00	-17.73	175	100	Peak
15540.00	25.12	23.01	48.13	54.00	-5.87	98	100	Average
15540.00	35.30	23.01	58.31	74.00	-15.69	98	100	Peak

# 966Chamber\_B at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
1200.00	57.32	-7.45	49.87	74.00	-24.13	300	200	Peak
3455.00	49.51	0.35	49.86	74.00	-24.14	123	200	Peak
5350.00	44.08	6.80	50.88	74.00	-23.12	316	100	Peak
6912 <b>.00</b>	37.98	12.21	50.19	74.00	-23.81	85	200	Peak
10368.00	29.12	16.23	45.35	54.00	-8.65	69	100	Average
10368.00	39.60	16.23	55.83	74.00	-18.17	69	100	Peak -
15552.00	25.66	23.03	48.69	54.00	-5.31	119	200	Average
15552.00	36.27	23 <b>.0</b> 3	59.30	74.00	-14.70	119	200	Peak

#### Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

2. Average test would be performed if the peak result were greater than the average limit.

- 3. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
- 4. Result = Reading + Correction Factor Margin = Result – Limit Remark Peak = Result(PK) – Limit(PK) Remark AVG = Result(AV) – Limit(AV)

Product Name	ame DOCSIS 3.1 wifi Gateway Test By		Waternil Guan
Test Model	CODA-4782	Test Date	2016/09/08
Test Mode	UNII Band 1 / IEEE 802.11ac VHT20 Mode TX / CH Middle / Non-beamforming	Temp. & Humidity	26°C, 58%

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
4980.00	45.62	5.96	51.58	74.00	-22.42	147	200	Peak
5150.00	42.32	6.36	48.68	74.00	-25.32	325	200	Peak
5350.00	42.19	6.80	48.99	74.00	-25.01	144	200	Peak
8400.00	37.70	13.07	50.77	74.00	-23.23	42	100	Peak
10404.00	29.17	16.33	45.50	54.00	-8.50	38	200	Average
10404.00	42.15	16.33	58.48	74.00	-15.52	38	200	Peak
15588.00	27.40	23.09	50.49	54.00	-3.51	158	200	Average
15588.00	40.83	23.09	63.92	74.00	-10.08	158	200	Peak

# 966Chamber\_B at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
5150.00	46.37	6.36	52.73	74.00	-21.27	53	200	Peak
5350.00	44.35	6.80	51.15	74.00	-22.85	234	200	Peak
5375.00	45.63	6.86	52.49	74.00	-21.51	312	100	Peak
7764.00	36.75	12.69	49.44	74.00	-24.56	360	200	Peak
10392.00	30.27	16.30	46.57	54.00	-7.43	65	200	Average
10392.00	43.25	16.30	59.55	74.00	-14.45	65	200	Peak -
15588.00	28.49	23.09	51.58	54.00	-2.42	117	200	Average
15588.00	43.55	23.09	66.64	74.00	-7.36	117	200	Peak

#### Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

2. Average test would be performed if the peak result were greater than the average limit.

- 3. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
- Result = Reading + Correction Factor Margin = Result – Limit Remark Peak = Result(PK) – Limit(PK) Remark AVG = Result(AV) – Limit(AV)

Product Name	DOCSIS 3.1 wifi Gateway	Test By	Waternil Guan
Test Model	CODA-4782	Test Date	2016/09/08
Test Mode	UNII Band 1 / IEEE 802.11ac VHT20 Mode TX / CH High / Non-beamforming	Temp. & Humidity	26°C, 58%

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
5150.00	42.02	6.36	48.38	74.00	-25.62	63	200	Peak
5350.00	42.13	6.80	48.93	74.00	-25.07	175	100	Peak
5430.00	43.79	6.98	50.77	74.00	-23.23	186	100	Peak
7800.00	37.42	12.73	50.15	74.00	-23.85	9	200	Peak
10488.00	29.05	16.56	45.61	54.00	-8.39	168	100	Average
10488.00	38.13	16.56	54.69	74.00	-19.31	168	100	Peak -
15708.00	27.26	23.30	50.56	54.00	-3.44	89	100	Average
15708.00	38.00	23.30	61.30	74.00	-12.70	89	100	Peak

# 966Chamber\_B at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
4050.00	46.50	3.07	49.57	74.00	-24.43	123	200	Peak
5150.00	44.91	6.36	51.27	74.00	-22.73	151	200	Peak
5350.00	44.53	6.80	51.33	74.00	-22.67	251	100	Peak
8400.00	36.53	13.07	49.60	74.00	-24.40	213	100	Peak
10476.00	30.19	16.52	46.71	54.00	-7.29	82	200	Average
10476.00	42.97	16.52	59.49	74.00	-14.51	82	200	Peak -
15720.00	27.59	23.32	50.91	54.00	-3.09	95	100	Average
15720.00	40.05	23.32	63.37	74.00	-10.63	95	100	Peak

#### Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

2. Average test would be performed if the peak result were greater than the average limit.

- 3. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
- 4. Result = Reading + Correction Factor Margin = Result – Limit Remark Peak = Result(PK) – Limit(PK) Remark AVG = Result(AV) – Limit(AV)

Product Name	DOCSIS 3.1 wifi Gateway	Test By	Waternil Guan
Test Model	CODA-4782	Test Date	2016/09/08
Test Mode	UNII Band 1 / IEEE 802.11ac VHT40 Mode TX / CH Low / Non-beamforming	Temp. & Humidity	26°C, 58%

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2422 22	50.40	<b>-</b>	40.10	74 00	25 82	222	100	Deele
2400.00	50.42	-2.24	48.18	74.00	-25.82	223	100	Реак
4200.00	46.66	3.53	50.19	74.00	-23.81	44	100	Peak
5350.00	42.41	6.80	49.21	74.00	-24.79	273	100	Peak
9684.00	37.10	14.86	51.96	74.00	-22.04	104	200	Peak
10392.00	34.86	16.30	51.16	74.00	-22.84	142	200	Peak
15564.00	25.27	23.05	48.32	54.00	-5.68	179	100	Average
15564.00	33.27	23.05	56.32	74.00	-17.68	179	100	Peak

# 966Chamber\_B at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
1195.00	56.23	-7.48	48.75	74.00	-25.25	268	200	Peak
3460.00	50.81	0.36	51.17	74.00	-22.83	90	200	Peak
5350.00	43.32	6.80	50.12	74.00	-23.88	270	200	Peak
9756.00	37.54	14.94	52.48	74.00	-21.52	243	200	Peak
10380.00	34.71	16.26	50.97	74.00	-23 <b>.0</b> 3	22	200	Peak
15564.00	26.73	23.05	49.78	54.00	-4.22	8	100	Average
15564.00	34.79	23.05	57.84	74.00	-16.16	8	100	Peak

#### Remark:

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. Average test would be performed if the peak result were greater than the average limit.
- 3. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.

4. Result = Reading + Correction Factor Margin = Result – Limit Remark Peak = Result(PK) – Limit(PK) Remark AVG = Result(AV) – Limit(AV)

Product Name	DOCSIS 3.1 wifi Gateway	Test By	Waternil Guan
Test Model	CODA-4782	Test Date	2016/09/08
Test Mode	UNII Band 1 / IEEE 802.11ac VHT40 Mode TX / CH High / Non-beamforming	Temp. & Humidity	26°C, 58%

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2400.00	52.62	-2.24	50.38	74.00	-23.62	219	100	Peak
5150.00	40.15	6.36	46.51	54.00	-7.49	322	200	Average
5150.00	49.81	6.36	56.17	74.00	-17.83	322	200	Peak
5350.00	42.14	6.80	48.94	74.00	-25.06	64	100	Peak
5430.00	45.09	6.98	52.07	74.00	-21.93	344	200	Peak
7800.00	38.02	12.73	50.75	74.00	-23.25	1	200	Peak
10464.00	27.20	16.49	43.69	54.00	-10.31	170	100	Average
10464.00	36.36	16.49	52.85	74.00	-21.15	170	100	Peak
15708.00	25.56	23.30	48.86	54.00	-5.14	85	100	Average
15708.00	34.90	23.30	58.20	74.00	-15.80	85	100	Peak

# 966Chamber\_B at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
3485.00	48.40	0.40	48.80	74.00	-25.20	162	100	Peak
5150.00	46.40	6.36	52.76	54.00	-1.24	296	100	Average
5150.00	58.55	6.36	64.91	74.00	-9.09	296	100	Peak -
5350.00	37.25	6.80	44.05	54.00	-9.95	55	200	Average
5350.00	46.21	6.80	53.01	74.00	-20.99	55	200	Peak -
6972.00	39.30	12.30	51.60	74.00	-22.40	97	100	Peak
10476.00	27.18	16.52	43.70	54.00	-10.30	90	200	Average
10476.00	36.20	16.52	52.72	74.00	-21.28	90	200	Peak
15696.00	25.77	23.28	49.05	54.00	-4.95	179	200	Average
15696.00	35.89	23.28	59.17	74.00	-14.83	179	200	Peak

#### Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

2. Average test would be performed if the peak result were greater than the average limit.

- 3. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
- Result = Reading + Correction Factor Margin = Result – Limit Remark Peak = Result(PK) – Limit(PK) Remark AVG = Result(AV) – Limit(AV)

Product Name	DOCSIS 3.1 wifi Gateway	Test By	Waternil Guan
Test Model	CODA-4782	Test Date	2016/09/08
Test Mode	UNII Band 1 / IEEE 802.11ac VHT80 Mode TX / CH Low / Non-beamforming	Temp. & Humidity	26°C, 58%

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2422 22	F1 66	<b>-</b>	40.40	74 00	<b>34 5</b> 8	21.0	100	Deele
2400.00	51.66	-2.24	49.42	74.00	-24.58	219	100	Реак
4200.00	46.69	3.53	50.22	74.00	-23.78	51	100	Peak
5350.00	42.74	6.80	49.54	74.00	-24.46	328	100	Peak
7800.00	37.46	12.73	50.19	74.00	-23.81	166	200	Peak
10416.00	34.45	16.36	50.81	74.00	-23.19	144	200	Peak
15600.00	25.82	23.11	48.93	54.00	-5.07	26	100	Average
15600.00	34.80	23.11	57.91	74.00	-16.09	26	100	Peak

# 966Chamber\_B at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
1195.00	57.47	-7.48	49.99	74.00	-24.01	49	200	Peak
2400.00	49.85	-2.24	47.61	74.00	-26.39	246	200	Peak
5350.00	44.54	6.80	51.34	74.00	-22.66	47	200	Peak
9780.00	36.82	14.97	51.79	74.00	-22.21	169	200	Peak
10464.00	36.07	16.49	52.56	74.00	-21.44	205	200	Peak
15600.00	26.13	23.11	49.24	54.00	-4.76	104	100	Average
15600.00	34.90	23.11	58.01	74.00	-15.99	104	100	Peak

#### Remark:

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. Average test would be performed if the peak result were greater than the average limit.
- 3. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.

4. Result = Reading + Correction Factor Margin = Result – Limit Remark Peak = Result(PK) – Limit(PK) Remark AVG = Result(AV) – Limit(AV)
| Product Name | DOCSIS 3.1 wifi Gateway   | Test By          | Waternil Guan |
|--------------|---|------------------|---------------|
| Test Model   | CODA-4782   | Test Date        | 2016/09/02    |
| Test Mode    | UNII Band 3 / IEEE 802.11a<br>Mode TX / CH Low /<br>Non-beamforming | Temp. & Humidity | 28°C, 54%     |

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
1010.00	60.85	-8.48	52.37	74.00	-21.63	73	100	Peak
3600.00	51.88	0.92	52.80	74.00	-21.20	88	100	Peak
5350.00	42.22	6.80	49.02	74.00	-24.98	254	200	Peak
7800.00	39.28	12.73	52.01	74.00	-21.99	80	200	Peak
11484.00	27.19	18.34	45.53	54.00	-8.47	70	100	Average
11484.00	36.95	18.34	55.29	74.00	-18.71	70	100	Peak
17232.00	27.43	26.00	53.43	54.00	-0.57	161	200	Average
17232.00	38.20	26 <b>.00</b>	64.20	74.00	-9.80	161	200	Peak

# 966Chamber\_B at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2400.00	53.43	-2.24	51.19	74.00	-22.81	129	200	Peak
4805.00	46.21	5.41	51.62	74.00	-22.38	266	200	Peak
5350.00	43.45	6.80	50.25	74.00	-23.75	163	200	Peak
7656.00	37.85	12.56	50.41	74.00	-23.59	10	200	Peak
11496.00	32.80	18.36	51.16	54.00	-2.84	60	200	Average
11496.00	43.10	18.36	61.46	74.00	-12.54	60	200	Peak -
17220.00	27.18	26.00	53.18	54.00	-0.82	110	200	Average
17220.00	38.55	26 <b>.00</b>	64.55	74.00	-9.45	110	200	Peak

#### Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

2. Average test would be performed if the peak result were greater than the average limit.

- 3. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
- 4. Result = Reading + Correction Factor Margin = Result – Limit Remark Peak = Result(PK) – Limit(PK) Remark AVG = Result(AV) – Limit(AV)

Product Name	Product Name DOCSIS 3.1 wifi Gateway Test		Waternil Guan
Test Model	CODA-4782	Test Date	2016/09/02
Test Mode	UNII Band 3 / IEEE 802.11a Mode TX / CH Middle / Non-beamforming	Temp. & Humidity	28°C, 54%

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
1200 00	60 19	-7.45	50 74	74 00	-21 26	76	1.00	Deak
1200.00 3855.00	50.84	2.19	53.03	74.00	-21.20	152	200	Peak
5350.00	43.91	6.80	50.71	74.00	-23.29	202	200	Peak
7800.00	38.45	12.73	51.18	74.00	-22.82	0	200	Peak
11568.00	28.12	18.53	46.65	54.00	-7.35	91	100	Average
11568.00	37.12	18.53	55.65	74.00	-18.35	91	100	Peak
17352.00	27.40	25.95	53.35	54.00	-0.65	144	200	Average
17352.00	40.49	25.95	66.44	74.00	-7.56	144	200	Peak

# 966Chamber\_B at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
1800.00	53.53	-4.62	48.91	74.00	-25.09	76	200	Peak
2400.00	54.85	-2.24	52.61	74.00	-21.39	136	200	Peak
5350.00	43.68	6.80	50.48	74.00	-23.52	227	200	Peak
7716.00	38.58	12.63	51.21	74.00	-22.79	60	200	Peak
11568.00	30.60	18.53	49.13	54.00	-4.87	89	200	Average
11568.00	42.08	18.53	60.61	74.00	-13.39	89	200	Peak -
17352.00	25.25	25.95	51.20	54.00	-2.80	318	100	Average
17352.00	35.32	25.95	61.27	74.00	-12.73	318	100	Peak

#### Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

2. Average test would be performed if the peak result were greater than the average limit.

- 3. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
- 4. Result = Reading + Correction Factor Margin = Result – Limit Remark Peak = Result(PK) – Limit(PK) Remark AVG = Result(AV) – Limit(AV)

Product Name	DOCSIS 3.1 wifi Gateway	Test By	Waternil Guan
Test Model	CODA-4782	Test Date	2016/09/02
Test Mode	UNII Band 3 / IEEE 802.11a Mode TX / CH High / Non-beamforming	Temp. & Humidity	28°C, 54%

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
3600.00	51.08	0.92	52.00	74.00	-22.00	91	100	Peak
3885.00	50.62	2.35	52.97	74.00	-21.03	164	200	Peak
5350.00	42.56	6.80	49.36	74.00	-24.64	180	100	Peak
7800.00	39.02	12.73	51.75	74.00	-22.25	58	200	Peak
11640.00	26.65	18.69	45.34	54.00	-8.66	49	200	Average
11640.00	37.40	18.69	56.09	74.00	-17.91	49	200	Peak -
17472.00	26.70	25.89	52.59	54.00	-1.41	122	200	Average
17472.00	37.39	25.89	63.28	74.00	-10.72	122	200	Peak

# 966Chamber\_B at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2400.00	53.36	-2.24	51.12	74.00	-22.88	133	200	Peak
4680.00	45.94	5.02	50.96	74.00	-23.04	243	200	Peak
5350.00	43.16	6.80	49.96	74.00	-24.04	298	100	Peak
7764.00	38.90	12.69	51.59	74.00	-22.41	8	200	Peak
11652.00	31.18	18.72	49.90	54.00	-4.10	126	200	Average
11652.00	42.20	18.72	6 <b>0.</b> 92	74.00	-13.08	126	200	Peak -
17472.00	23.48	25.89	49.37	54.00	-4.63	110	200	Average
17472.00	32.89	25.89	58.78	74.00	-15.22	110	200	Peak

#### Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

2. Average test would be performed if the peak result were greater than the average limit.

- 3. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
- 4. Result = Reading + Correction Factor Margin = Result – Limit Remark Peak = Result(PK) – Limit(PK) Remark AVG = Result(AV) – Limit(AV)

Product Name	oduct Name DOCSIS 3.1 wifi Gateway Test By		Waternil Guan
Test Model	CODA-4782	Test Date	2016/09/02
Test Mode	UNII Band 3 / IEEE 802.11ac VHT20 Mode TX / CH Low / Non-beamforming	Temp. & Humidity	28°C, 54%

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
3830.00	50.88	2.07	52.95	74.00	-21.05	165	200	Peak
4980.00	45.94	5.96	51.90	74.00	-22.10	170	200	Peak
5350.00	42.01	6.80	48.81	74.00	-25.19	316	200	Peak
7800.00	39.98	12.73	52.71	74.00	-21.29	354	200	Peak
11484.00	27.11	18.34	45.45	54.00	-8.55	143	100	Average
11484.00	38.49	18.34	56.83	74.00	-17.17	143	100	Peak
17232.00	27.14	26.00	53.14	54.00	-0.86	21	200	Average
17232.00	38.00	26 <b>.00</b>	64.00	74.00	-10.00	21	200	Peak

# 966Chamber\_B at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
1800.00	53.52	-4.62	48.90	74.00	-25.10	102	200	Peak
2400.00	52.90	-2.24	50.66	74.00	-23.34	161	200	Peak
5350.00	43.14	6.80	49.94	74.00	-24.06	313	200	Peak
7656.00	37.29	12.56	49.85	74.00	-24.15	З	200	Peak
11496.00	29.45	18.36	47.81	54.00	-6.19	44	200	Average
11496.00	39.55	18.36	57.91	74.00	-16.09	44	200	Peak -
17232.00	25.15	26.00	51.15	54.00	-2.85	125	100	Average
17232.00	34.50	26 <b>.00</b>	60.50	74.00	-13.50	125	100	Peak

#### Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

2. Average test would be performed if the peak result were greater than the average limit.

- 3. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
- 4. Result = Reading + Correction Factor Margin = Result – Limit Remark Peak = Result(PK) – Limit(PK) Remark AVG = Result(AV) – Limit(AV)

Product Name	DOCSIS 3.1 wifi Gateway	Test By	Waternil Guan
Test Model	CODA-4782	Test Date	2016/09/02
Test Mode	UNII Band 3 / IEEE 802.11ac VHT20 Mode TX / CH Middle / Non-beamforming	Temp. & Humidity	28°C, 54%

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2400.00	54.95	-2.24	52.71	74.00	-21.29	338	200	Peak
4985.00	45.38	5.97	51.35	74.00	-22.65	155	200	Peak
5350.00	44.03	6.80	50.83	74.00	-23.17	270	100	Peak
7800.00	39.28	12.73	52.01	74.00	-21.99	360	200	Peak
11568.00	27.02	18.53	45.55	54.00	-8.45	139	100	Average
11568.00	38.00	18.53	56.53	74.00	-17.47	139	100	Peak -
17352.00	27.36	25.95	53.31	54.00	-0.69	158	200	Average
17352.00	38.05	25.95	64.00	74.00	-10.00	158	200	Peak

# 966Chamber\_B at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
1200.00	60.33	-7.45	52.88	74.00	-21.12	192	200	Peak
2400.00	54.31	-2.24	52.07	74.00	-21.93	162	200	Peak
5350.00	44.81	6.80	51.61	74.00	-22.39	99	100	Peak
7800.00	39.69	12.73	52.42	74.00	-21.58	358	200	Peak
11580.00	26.00	18.55	44.55	54.00	-9.45	45	200	Average
11580.00	37.83	18.55	56.38	74.00	-17.62	45	200	Peak
17364.00	27.16	25.94	53.10	54.00	-0.90	108	200	Average
17364.00	38.63	25.94	64.57	74.00	-9.43	108	200	Peak

#### Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

2. Average test would be performed if the peak result were greater than the average limit.

- 3. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
- 4. Result = Reading + Correction Factor Margin = Result – Limit Remark Peak = Result(PK) – Limit(PK) Remark AVG = Result(AV) – Limit(AV)

Product Name	Product NameDOCSIS 3.1 wifi GatewayTest By		Waternil Guan
Test Model	CODA-4782	Test Date	2016/09/02
Test Mode	UNII Band 3 / IEEE 802.11ac VHT20 Mode TX / CH High / Non-beamforming	Temp. & Humidity	28°C, 54%

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2400.00	53.75	-2.24	51.51	74.00	-22.49	1	100	Peak
4980.00	47.29	5.96	53.25	74.00	-20.75	160	200	Peak
5350.00	43.12	6.80	49.92	74.00	-24.08	221	200	Peak
7800.00	38.72	12.73	51.45	74.00	-22.55	56	200	Peak
11652.00	28.02	18.72	46.74	54.00	-7.26	288	100	Average
11652.00	38.40	18.72	57.12	74.00	-16.88	288	100	Peak
17472.00	27.40	25.89	53.29	54.00	-0.71	141	200	Average
17472.00	39.25	25.89	65.14	74.00	-8.86	141	200	Peak

# 966Chamber\_B at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
1195.00	59.86	-7.48	52.38	74.00	-21.62	151	200	Peak
2400.00	53.19	-2.24	50.95	74.00	-23.05	146	200	Peak
5350.00	43.08	6.80	49.88	74.00	-24.12	277	200	Peak
7764.00	39.96	12.69	52.65	74.00	-21.35	5	200	Peak
11640.00	31.00	18.69	49.69	54.00	-4.31	46	200	Average
11640.00	41.33	18.69	60.02	74.00	-13.98	46	200	Peak -
17484.00	23.70	25.89	49.59	54.00	-4.41	66	200	Average
17484.00	33.77	25.89	59.66	74.00	-14.34	66	200	Peak

#### Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

2. Average test would be performed if the peak result were greater than the average limit.

- 3. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
- 4. Result = Reading + Correction Factor Margin = Result – Limit Remark Peak = Result(PK) – Limit(PK) Remark AVG = Result(AV) – Limit(AV)

Product Name	DOCSIS 3.1 wifi Gateway	Test By	Waternil Guan
Test Model	CODA-4782	Test Date	2016/09/07
Test Mode	UNII Band 3 / IEEE 802.11ac VHT40 Mode TX / CH Low / Non-beamforming	Temp. & Humidity	28°C, 54%

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2400.00	50.81	-2.24	48.57	74.00	-25.43	216	100	Peak
4200.00	47.16	3.53	50.69	74.00	-23.31	46	100	Peak
5350.00	43.92	6.80	50.72	74.00	-23.28	80	200	Peak
7800.00	38.54	12.73	51.27	74.00	-22.73	18	100	Peak
11508.00	24.93	18.39	43.32	54.00	-10.68	0	200	Average
11508.00	34.81	18.39	53.20	74.00	-20.80	0	200	Peak
17268.00	26.70	25.98	52.68	54.00	-1.32	68	100	Average
17268.00	36.58	25.98	62.56	74.00	-11.44	68	100	Peak

# 966Chamber\_B at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
1405.00	50.51	-6.35	44.16	74.00	-29.84	63	100	Peak
2400.00	50.40	-2.24	48.16	74.00	-25.84	266	200	Peak
5430.00	44.41	6.98	51.39	74.00	-22.61	300	100	Peak
7668.00	37.34	12.57	49.91	74.00	-24.09	272	200	Peak
11496.00	30.17	18.36	48.53	54.00	-5.47	42	200	Average
11496.00	39.90	18.36	58.26	74.00	-15.74	42	200	Peak
17280.00	24.51	25.98	50.49	54.00	-3.51	115	200	Average
17280.00	34.49	25.98	60.47	74.00	-13.53	115	200	Peak

#### Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

2. Average test would be performed if the peak result were greater than the average limit.

- 3. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
- 4. Result = Reading + Correction Factor Margin = Result – Limit Remark Peak = Result(PK) – Limit(PK) Remark AVG = Result(AV) – Limit(AV)

Product Name	DOCSIS 3.1 wifi Gateway	ifi Gateway Test By	
Test Model	CODA-4782	Test Date	2016/09/07
Test Mode	UNII Band 3 / IEEE 802.11ac VHT40 Mode TX / CH High / Non-beamforming	Temp. & Humidity	28°C, 54%

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2400.00	51.00	-2.24	48.76	74.00	-25.24	351	200	Peak
4200.00	46.97	3.53	50.50	74.00	-23.50	42	200	Peak
5355.00	44.29	6.82	51.11	74.00	-22.89	157	200	Peak
7800.00	38.26	12.73	50.99	74.00	-23.01	82	200	Peak
11604.00	27.34	18.61	45.95	54.00	-8.05	360	200	Average
11604.00	35.69	18.61	54.30	74.00	-19.70	360	200	Peak
17376.00	26.22	25.93	52.15	54.00	-1.85	147	200	Average
17376.00	34.71	25.93	60.64	74.00	-13.36	147	200	Peak

# 966Chamber\_B at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2400.00	49.29	-2.24	47.05	74.00	-26.95	104	200	Peak
4640.00	45.25	4.89	50.14	74.00	-23.86	144	200	Peak
5350.00	43.39	6.80	50.19	74.00	-23.81	166	100	Peak
7728.00	39.02	12.64	51.66	74.00	-22.34	52	200	Peak
11592.00	28.86	18.58	47.44	54.00	-6.56	122	200	Average
11592.00	36.48	18.58	55.06	74.00	-18.94	122	200	Peak -
17388.00	26.01	25.93	51.94	54.00	-2.06	145	100	Average
17388.00	36.13	25.93	62.06	74.00	-11.94	145	100	Peak

#### Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

2. Average test would be performed if the peak result were greater than the average limit.

- 3. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
- 4. Result = Reading + Correction Factor Margin = Result – Limit Remark Peak = Result(PK) – Limit(PK) Remark AVG = Result(AV) – Limit(AV)

Product Name	DOCSIS 3.1 wifi Gateway	Test By	Waternil Guan
Test Model	CODA-4782	Test Date	2016/09/07
Test Mode	UNII Band 3 / IEEE 802.11ac VHT80 Mode TX / CH Low / Non-beamforming	Temp. & Humidity	28°C, 54%

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
1195.00	53.03	-7.48	45.55	74.00	-28.45	319	100	Peak
2400.00	51.88	-2.24	49.64	74.00	-24.36	220	100	Peak
5515.00	43.94	7.17	51.11	74.00	-22.89	324	100	Peak
7800.00	38.83	12.73	51.56	74.00	-22.44	14	100	Peak
11556.00	25.21	18.50	43.71	54.00	-10.29	116	200	Average
11556.00	35.41	18.50	53.91	74.00	-20.09	116	200	Peak
17328.00	26.62	25.96	52.58	54.00	-1.42	109	200	Average
17328.00	37.36	25.96	63.32	74.00	-10.68	109	200	Peak

# 966Chamber\_B at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
1200.00	52.30	-7.45	44.85	74.00	-29.15	274	100	Peak
2400.00	49.64	-2.24	47.40	74.00	-26.60	259	200	Peak
5445.00	44.60	7.02	51.62	74.00	-22.38	144	200	Peak
11556.00	27.12	18.50	45.62	54.00	-8.38	131	200	Average
11556.00	38.08	18.50	56.58	74.00	-17.42	131	200	Peak
17304.00	26.12	25.97	52.09	54.00	-1.91	68	100	Average
17304.00	36.47	25.97	62.44	74.00	-11.56	68	100	Peak

#### Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

2. Average test would be performed if the peak result were greater than the average limit.

3. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.

4. Result = Reading + Correction Factor Margin = Result – Limit Remark Peak = Result(PK) – Limit(PK) Remark AVG = Result(AV) – Limit(AV)

Product Name	DOCSIS 3.1 wifi Gateway	Test By	Waternil Guan
Test Model	CODA-4782	Test Date	2016/09/07
Test Mode	UNII Band 1+3 / IEEE 802.11ac VHT160 Mode TX / CH Low / Non-beamforming	Temp. & Humidity	28°C, 54%

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
3850.00	49.36	2.17	51.53	74.00	-22.47	143	200	Peak
4200.00	48.15	3.53	51.68	74.00	-22.32	40	100	Peak
5350.00	42.51	6.80	49.31	74.00	-24.69	4	100	Peak
7800.00	38.06	12.73	50.79	74.00	-23.21	7	100	Peak
15636.00	24.68	23.17	47.85	54.00	-6.15	34	100	Average
15636.00	33.71	23.17	56.88	74.00	-17.12	34	100	Peak
17316.00	25.47	25.96	51.43	54.00	-2.57	91	100	Average
17316.00	34.48	25.96	60.44	74.00	-13.56	91	100	Peak

# 966Chamber\_B at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2400.00	49.38	-2.24	47.14	74.00	-26.86	124	100	Peak
3850.00	48.16	2.17	50.33	74.00	-23.67	108	200	Peak
5350.00	36.03	6.80	42.83	54.00	-11.17	333	200	Average
5350.00	46.51	6.80	53.31	74.00	-20.69	333	200	Peak
8400.00	37.02	13.07	50.09	74.00	-23.91	68	200	Peak
15624.00	23.76	23.15	46.91	54.00	-7.09	14	200	Average
15624.00	33.72	23.15	56.87	74.00	-17.13	14	200	Peak
17328.00	24.61	25.96	50.57	54.00	-3.43	186	100	Average
17328.00	33.60	25.96	59.56	74.00	-14.44	186	100	Peak

#### Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

2. Average test would be performed if the peak result were greater than the average limit.

3. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.

4. Result = Reading + Correction Factor Margin = Result – Limit Remark Peak = Result(PK) – Limit(PK) Remark AVG = Result(AV) – Limit(AV)

Product Name	DOCSIS 3.1 wifi Gateway	Test By	Waternil Guan
Test Model	CODA-4782	Test Date	2016/09/19
Test Mode	UNII Band 1 / IEEE 802.11a Mode TX / CH Low / Beamforming	Temp. & Humidity	26°C, 58%

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2400.00	54.73	-2.59	52.14	74.00	-21.86	124	150	Peak
3455.00	50.37	0.46	50.83	74.00	-23.17	131	150	Peak
5350.00	45.61	6.49	52.10	74.00	-21.90	307	200	Peak
7800.00	39.42	12.88	52.30	74.00	-21.70	24	100	Peak
10368.00	31.27	16.13	47.40	54.00	-6.60	166	150	Average
10368.00	40.26	16.13	56.39	74.00	-17.61	166	150	Peak
15552.00	26.35	23.51	49.86	54.00	-4.14	108	200	Average
15552.00	35.15	23.51	58.66	74.00	-15.34	108	200	Peak

# 966Chamber\_B at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2400.00	54.99	-2.59	52.40	74.00	-21.60	121	150	Peak
3455.00	50.84	0.46	51.30	74.00	-22.70	133	150	Peak
5350.00	45.97	6.49	52.46	74.00	-21.54	338	200	Peak
6912 <b>.00</b>	38.22	12.06	50.28	74.00	-23.72	117	150	Peak
10356.00	29.87	16.10	45.97	54.00	-8.03	144	100	Average
10356.00	37.90	16.10	54.00	74.00	-20.00	144	100	Peak -
15552.00	26.43	23.51	49.94	54.00	-4.06	205	100	Average
15552.00	35.28	23.51	58.79	74.00	-15.21	205	100	Peak

#### Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

2. Average test would be performed if the peak result were greater than the average limit.

- 3. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
- 4. Result = Reading + Correction Factor Margin = Result – Limit Remark Peak = Result(PK) – Limit(PK) Remark AVG = Result(AV) – Limit(AV)

Product Name	DOCSIS 3.1 wifi Gateway	Test By	Waternil Guan
Test Model	CODA-4782	Test Date	2016/09/19
Test Mode	UNII Band 1 / IEEE 802.11a Mode TX / CH Middle / Beamforming	Temp. & Humidity	26°C, 58%

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2400.00	55.00	-2.59	52.41	74.00	-21.59	44	150	Peak
5150.00	44.22	6.04	50.26	74.00	-23.74	52	200	Peak
5350.00	45.53	6.49	52.02	74.00	-21.98	38	150	Peak
7800.00	38.79	12.88	51.67	74.00	-22.33	40	150	Peak
10404.00	31.97	16.23	48.20	54.00	-5.80	35	150	Average
10404.00	40.90	16.23	57.13	74.00	-16.87	35	150	Peak -
15600.00	25.86	23.57	49.43	54.00	-4.57	356	150	Average
15600.00	34.69	23.57	58.26	74.00	-15.74	356	150	Peak

# 966Chamber\_B at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2400.00	55.04	-2.59	52.45	74.00	-21.55	124	200	Peak
5150.00	40.89	6.04	46.93	54.00	-7.07	219	150	Average
5150.00	49.87	6.04	55.91	74.00	-18.09	219	150	Peak
5350.00	46.22	6.49	52.71	74.00	-21.29	252	150	Peak
6936 <b>.00</b>	38.78	12.11	50.89	74.00	-23.11	108	100	Peak
10404.00	31.87	16.23	48.10	54.00	-5.90	60	250	Average
10404.00	40.84	16.23	57.07	74.00	-16.93	60	250	Peak -
15600.00	26.72	23.57	50.29	54.00	-3.71	38	150	Average
15600.00	36.45	23.57	60.02	74.00	-13.98	38	150	Peak

#### Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

2. Average test would be performed if the peak result were greater than the average limit.

3. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.

4. Result = Reading + Correction Factor Margin = Result – Limit Remark Peak = Result(PK) – Limit(PK) Remark AVG = Result(AV) – Limit(AV)

Product Name	DOCSIS 3.1 wifi Gateway	Test By	Waternil Guan
Test Model	CODA-4782	Test Date	2016/09/19
Test Mode	UNII Band 1 / IEEE 802.11a Mode TX / CH High / Beamforming	Temp. & Humidity	26°C, 58%

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
4200.00	49.54	3.31	52.85	74.00	-21.15	68	150	Peak
5150.00	43.86	6.04	49.90	74.00	-24.10	7	150	Peak
5350.00	45.12	6.49	51.61	74.00	-22.39	103	250	Peak
7800.00	38.14	12.88	51.02	74.00	-22.98	28	100	Peak
10476.00	32.90	16.42	49.32	54.00	-4.68	149	150	Average
10476.00	40.97	16.42	57.39	74.00	-16.61	149	150	Peak
15708.00	26.57	23.70	50.27	54.00	-3.73	65	150	Average
15708.00	35.01	23.70	58.71	74.00	-15.29	65	150	Peak

# 966Chamber\_B at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2400.00	55.28	-2.59	52.69	74.00	-21.31	119	150	Peak
5150.00	45.92	6.04	51.96	74.00	-22.04	176	200	Peak
5350.00	46.20	6.49	52.69	74.00	-21.31	176	200	Peak
7800.00	36.76	12.88	49.64	74.00	-24.36	94	100	Peak
10476.00	31.27	16.42	47.69	54.00	-6.31	78	250	Average
10476.00	39.29	16.42	55.71	74.00	-18.29	78	250	Peak -
15744.00	25.58	23.74	49.32	54.00	-4.68	359	250	Average
15744.00	34.54	23.74	58.28	74.00	-15.72	359	250	Peak

#### Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

2. Average test would be performed if the peak result were greater than the average limit.

- 3. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
- 4. Result = Reading + Correction Factor Margin = Result – Limit Remark Peak = Result(PK) – Limit(PK) Remark AVG = Result(AV) – Limit(AV)

Product Name	DOCSIS 3.1 wifi Gateway	Test By	Waternil Guan
Test Model	CODA-4782	Test Date	2016/09/19
Test Mode	UNII Band 1 / IEEE 802.11ac VHT20 Mode TX / CH Low / Beamforming	Temp. & Humidity	26°C, 58%

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
3600.00	51.52	0.98	52.50	74.00	-21.50	87	150	Peak
4200.00	49.40	3.31	52.71	74.00	-21.29	64	150	Peak
5350.00	44.45	6.49	50.94	74.00	-23.06	257	220	Peak
8088.00	37.94	13.13	51.07	74.00	-22.93	151	200	Peak
10356.00	31.58	16.10	47.68	54.00	-6.32	167	150	Average
10356.00	39.50	16.10	55.60	74.00	-18.40	167	150	Peak
15540.00	25.62	23.50	49.12	54.00	-4.88	360	200	Average
15540.00	34.62	23.50	58.12	74.00	-15.88	360	200	Peak

# 966Chamber\_B at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2400.00	55.19	-2.59	52.60	74.00	-21.40	128	220	Peak
3455.00	50.87	0.46	51.33	74.00	-22.67	126	150	Peak
5350.00	46.11	6.49	52.60	74.00	-21.40	232	150	Peak
6912 <b>.00</b>	39.44	12.06	51.50	74.00	-22.50	102	200	Peak
10356.00	28.81	16.10	44.91	54.00	-9.09	94	200	Average
10356.00	37.87	16.10	53.97	74.00	-20.03	94	200	Peak -
15540.00	26.17	23.50	49.67	54.00	-4.33	56	150	Average
15540.00	35.16	23.50	58.66	74.00	-15.34	56	150	Peak

#### Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

2. Average test would be performed if the peak result were greater than the average limit.

- 3. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
- 4. Result = Reading + Correction Factor Margin = Result – Limit Remark Peak = Result(PK) – Limit(PK) Remark AVG = Result(AV) – Limit(AV)

Product Name	roduct Name DOCSIS 3.1 wifi Gateway Test By		Waternil Guan
Test Model	CODA-4782	Test Date	2016/09/19
Test Mode	UNII Band 1 / IEEE 802.11ac VHT20 Mode TX / CH Middle / Beamforming	Temp. & Humidity	26°C, 58%

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
4200.00	49.35	3.31	52.66	74.00	-21.34	31	150	Peak
5150.00	44.42	6.04	50.46	74.00	-23.54	176	200	Peak
5350.00	45.08	6.49	51.57	74.00	-22.43	49	200	Peak
7800.00	37.98	12.88	50.86	74.00	-23.14	316	200	Peak
10392.00	33.27	16.20	49.47	54.00	-4.53	169	150	Average
10392.00	42.16	16.20	58.36	74.00	-15.64	169	150	Peak
15600.00	25.64	23.57	49.21	54.00	-4.79	140	150	Average
15600.00	34.47	23.57	58.04	74.00	-15.96	140	150	Peak

# 966Chamber\_B at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2400.00	55.35	-2.59	52.76	74.00	-21.24	115	200	Peak
5150.00	46.54	6.04	52.58	74.00	-21.42	36	150	Peak
5350.00	45.91	6.49	52.40	74.00	-21.60	234	250	Peak
7800.00	37.51	12.88	50.39	74.00	-23.61	112	200	Peak
10392.00	31.61	16.20	47.81	54.00	-6.19	70	200	Average
10392.00	39.66	16.20	55.86	74.00	-18.14	70	200	Peak -
15600.00	26.52	23.57	50.09	54.00	-3.91	40	100	Average
15600.00	35.23	23.57	58.80	74.00	-15.20	40	100	Peak

#### Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

2. Average test would be performed if the peak result were greater than the average limit.

- 3. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
- 4. Result = Reading + Correction Factor Margin = Result – Limit Remark Peak = Result(PK) – Limit(PK) Remark AVG = Result(AV) – Limit(AV)

Product Name	DOCSIS 3.1 wifi Gateway	Test By	Waternil Guan
Test Model	CODA-4782	Test Date	2016/09/19
Test Mode	UNII Band 1 / IEEE 802.11ac VHT20 Mode TX / CH High / Beamforming	Temp. & Humidity	26°C, 58%

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
4200.00	48.99	3.31	52.30	74.00	-21.70	52	100	Peak
5150.00	43.93	6.04	49.97	74.00	-24.03	338	250	Peak
5350.00	45.00	6.49	51.49	74.00	-22.51	236	150	Peak
7800.00	38.18	12.88	51.06	74.00	-22.94	54	150	Peak
10488.00	31.05	16.45	47.50	54.00	-6.50	178	100	Average
10488.00	39.05	16.45	55.50	74.00	-18.50	178	100	Peak
15720.00	26.72	23.71	50.43	54.00	-3.57	148	250	Average
15720.00	35.22	23.71	58.93	74.00	-15.07	148	2 <b>50</b>	Peak

# 966Chamber\_B at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2400.00	54.74	-2.59	52.15	74.00	-21.85	127	200	Peak
5150.00	46.48	6.04	52.52	74.00	-21.48	44	100	Peak
5350.00	46.07	6.49	52.56	74.00	-21.44	71	150	Peak
7212.00	37.76	12.38	50.14	74.00	-23.86	20	200	Peak
10476.00	30.87	16.42	47.29	54.00	-6.71	70	150	Average
10476.00	38.79	16.42	55.21	74.00	-18.79	70	150	Peak -
15720.00	26.69	23.71	50.40	54.00	-3.60	120	200	Average
15720.00	35.56	23.71	59.27	74.00	-14.73	120	200	Peak

#### Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

2. Average test would be performed if the peak result were greater than the average limit.

- 3. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
- 4. Result = Reading + Correction Factor Margin = Result – Limit Remark Peak = Result(PK) – Limit(PK) Remark AVG = Result(AV) – Limit(AV)

Product Name	DOCSIS 3.1 wifi Gateway	Test By	Waternil Guan
Test Model	CODA-4782	Test Date	2016/09/19
Test Mode	UNII Band 1 / IEEE 802.11ac VHT40 Mode TX / CH Low / Beamforming	Temp. & Humidity	26°C, 58%

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2400.00	55.09	-2.59	52.50	74.00	-21.50	184	150	Peak
4200.00	49.20	3.31	52.51	74.00	-21.49	51	150	Peak
5350.00	44.33	6.49	50.82	74.00	-23.18	139	250	Peak
7800.00	38.40	12.88	51.28	74.00	-22.72	33	100	Peak
10368.00	36.05	16.13	52.18	74.00	-21.82	13	100	Peak
15576.00	26.28	23.54	49.82	54.00	-4.18	244	100	Average
15576.00	35.17	23.54	58.71	74.00	-15.29	244	100	Peak

## 966Chamber\_B at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2422 22	EE 31	2 50	F0 70	74 00	21 28	107	200	Deak
2400.00	55.51	-2.59	52.72	74.00	-21.28	127	200	Peak
3460.00	51.33	0.47	51.80	14.00	-22.20	113	150	Реак
5350.00	45.85	6.49	52.34	74.00	-21.66	177	250	Peak
7800.00	38.12	12.88	51.00	74.00	-23.00	128	150	Peak
10356.00	35.94	16.10	52.04	74.00	-21.96	162	100	Peak
15576.00	25.89	23.54	49.43	54.00	-4.57	330	150	Average
15576.00	34.74	23.54	58.28	74.00	-15.72	33 <b>0</b>	150	Peak

#### Remark:

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. Average test would be performed if the peak result were greater than the average limit.
- 3. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.

4. Result = Reading + Correction Factor Margin = Result – Limit Remark Peak = Result(PK) – Limit(PK) Remark AVG = Result(AV) – Limit(AV)

Product Name	DOCSIS 3.1 wifi Gateway	Test By	Waternil Guan
Test Model	CODA-4782	Test Date	2016/09/19
Test Mode	UNII Band 1 / IEEE 802.11ac VHT40 Mode TX / CH High / Beamforming	Temp. & Humidity	26°C, 58%

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
4200.00	49.47	3.31	52.78	74.00	-21.22	56	200	Peak
5150.00	45.05	6.04	51.09	74.00	-22.91	137	100	Peak
5350.00	44.56	6.49	51.05	74.00	-22.95	244	200	Peak
7800.00	38.01	12.88	50.89	74.00	-23.11	352	150	Peak
10452.00	28.66	16.35	45.01	54.00	-8.99	155	200	Average
10452.00	37.63	16.35	53.98	74.00	-20.02	155	200	Peak
15696.00	26.50	23.68	50.18	54.00	-3.82	341	150	Average
15696.00	35.59	23.68	59.27	74.00	-14.73	341	150	Peak

# 966Chamber\_B at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2400.00	54.87	-2.59	52.28	74.00	-21.72	126	200	Peak
5150.00	42.27	6.04	48.31	54.00	-5.69	225	150	Average
5150.00	51.21	6.04	57.25	74.00	-16.75	225	150	Peak
5350.00	38.58	6.49	45.07	54.00	-8.93	331	200	Average
5350.00	47.51	6.49	54.00	74.00	-20.00	331	200	Peak
6972.00	37.63	12.18	49.81	74.00	-24.19	103	100	Peak
10440.00	27.82	16.32	44.14	54.00	-9.86	62	200	Average
10440.00	36.75	16.32	53.07	74.00	-20.93	62	200	Peak
16092.00	27.18	24.20	51.38	54.00	-2.62	73	200	Average
16092.00	36.15	24.20	60.35	74.00	-13.65	73	200	Peak

#### Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

2. Average test would be performed if the peak result were greater than the average limit.

3. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.

4. Result = Reading + Correction Factor Margin = Result – Limit Remark Peak = Result(PK) – Limit(PK) Remark AVG = Result(AV) – Limit(AV)

Product Name	DOCSIS 3.1 wifi Gateway	Test By	Waternil Guan
Test Model	CODA-4782	Test Date	2016/09/19
Test Mode	UNII Band 1 / IEEE 802.11ac VHT80 Mode TX / CH Low / Beamforming	Temp. & Humidity	26°C, 58%

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
	<b>55 03</b>		50.00	-4 -0-0	~~ ~~		4.88	<b>.</b> .
2400.00	55.27	-2.59	52.68	74.00	-21.32	167	100	Peak
4200.00	49.39	3.31	52.70	74.00	-21.30	56	150	Peak
5350.00	44.87	6.49	51.36	74.00	-22.64	322	150	Peak
7800.00	38.52	12.88	51.40	74.00	-22.60	66	200	Peak
10416.00	35.23	16.26	51.49	74.00	-22.51	106	100	Peak
15636.00	25.54	23.61	49.15	54.00	-4.85	134	200	Average
15636.00	34.16	23.61	57.77	74.00	-16.23	134	200	Peak

## 966Chamber\_B at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
0400.00	<b>54</b> 07		F0 00	74.00	04 70	407		D la
2400.00	54.87	-2.59	52.28	14.00	-21.72	127	200	Реак
3475.00	50.96	0.51	51.47	74.00	-22.53	106	150	Peak
5350.00	46.01	6.49	52.50	74.00	-21.50	192	200	Peak
7344.00	38.09	12.46	50.55	74.00	-23.45	103	250	Peak
10428.00	34.35	16.29	50.64	74.00	-23.36	164	250	Peak
15612.00	26.56	23.58	50.14	54.00	-3.86	356	150	Average
15612.00	35.32	23.58	58.90	74.00	-15.10	356	150	Peak

#### Remark:

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. Average test would be performed if the peak result were greater than the average limit.
- 3. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.

4. Result = Reading + Correction Factor Margin = Result – Limit Remark Peak = Result(PK) – Limit(PK) Remark AVG = Result(AV) – Limit(AV)

Product Name	DOCSIS 3.1 wifi Gateway	Test By	Waternil Guan
Test Model	CODA-4782	Test Date	2016/09/19
Test Mode	UNII Band 3 / IEEE 802.11a Mode TX / CH Low / Beamforming	Temp. & Humidity	26°C, 58%

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBu∀/m	Margin dB	Azimuth deg	Height cm	Remark
1010.00	61.93	-9.27	52.66	74.00	-21.34	160	100	Peak
2400.00	55.23	-2.59	52.64	74.00	-21.36	225	100	Peak
5350.00	44.63	6.49	51.12	74.00	-22.88	62	100	Peak
7800.00	39.65	12.88	52.53	74.00	-21.47	Ø	200	Peak
11484.00	29.42	18.62	48.04	54.00	-5.96	19	150	Average
11484.00	37.95	18.62	56.57	74.00	-17.43	19	150	Peak
17232.00	25.63	25.98	51.61	54.00	-2.39	159	200	Average
17232.00	39 <b>.0</b> 3	25.98	65.01	74.00	-8.99	159	200	Peak

# 966Chamber\_B at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
1010.00	61.95	-9.27	52.68	74.00	-21.32	249	100	Peak
2400.00	54.60	-2.59	52.01	74.00	-21.99	123	200	Peak
5350.00	45.11	6.49	51.60	74.00	-22.40	316	100	Peak
7656.00	38.86	12.73	51.59	74.00	-22.41	56	150	Peak
11484.00	31.66	18.62	50.28	54.00	-3.72	124	150	Average
11484.00	39.95	18.62	58.57	74.00	-15.43	124	150	Peak
17232.00	25.27	25.98	51.25	54.00	-2.75	67	250	Average
17232.00	35.78	25.98	61.76	74.00	-12.24	67	250	Peak

#### Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

2. Average test would be performed if the peak result were greater than the average limit.

3. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.

 Result = Reading + Correction Factor Margin = Result – Limit Remark Peak = Result(PK) – Limit(PK) Remark AVG = Result(AV) – Limit(AV)

Product Name	DOCSIS 3.1 wifi Gateway	Test By	Waternil Guan
Test Model	CODA-4782	Test Date	2016/09/19
Test Mode	UNII Band 3 / IEEE 802.11a Mode TX / CH Middle / Beamforming	Temp. & Humidity	26°C, 58%

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
1015.00	61.74	-9.24	52.50	74.00	-21.50	163	100	Peak
4200.00	49.25	3.31	52.56	74.00	-21.44	104	200	Peak
5460.00	45.59	6.74	52.33	74.00	-21.67	247	100	Peak
9372.00	37.48	14.14	51.62	74.00	-22.38	289	150	Peak
11580.00	29.62	18.77	48.39	54.00	-5.61	99	100	Average
11580.00	36.57	18.77	55.34	74.00	-18.66	99	100	Peak -
17352.00	26.35	25.73	52.08	54.00	-1.92	199	100	Average
17352.00	33.92	25.73	59.65	74.00	-14.35	199	100	Peak

# 966Chamber\_B at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
1015.00	61.95	-9.24	52.71	74.00	-21.29	245	100	Peak
2400.00	54.78	-2.59	52.19	74.00	-21.81	273	200	Peak
5460.00	44.83	6.74	51.57	74.00	-22.43	334	200	Peak
7716.00	38.94	12.79	51.73	74.00	-22.27	З	100	Peak
11580.00	32.30	18.77	51.07	54.00	-2.93	85	200	Average
11580.00	39.30	18.77	58.07	74.00	-15.93	85	200	Peak -
17352.00	25.78	25.73	51.51	54.00	-2.49	165	150	Average
17352.00	33.76	25.73	59.49	74.00	-14.51	165	150	Peak

#### Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

2. Average test would be performed if the peak result were greater than the average limit.

- 3. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
- Result = Reading + Correction Factor Margin = Result – Limit Remark Peak = Result(PK) – Limit(PK) Remark AVG = Result(AV) – Limit(AV)

Product Name	DOCSIS 3.1 wifi Gateway	Test By	Waternil Guan
Test Model	CODA-4782	Test Date	2016/09/19
Test Mode	UNII Band 3 / IEEE 802.11a Mode TX / CH High / Beamforming	Temp. & Humidity	26°C, 58%

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
1015.00	62.01	-9.24	52.77	74.00	-21.23	125	100	Peak
3600.00	51.57	0.98	52.55	74.00	-21.45	92	100	Peak
5460.00	44.98	6.74	51.72	74.00	-22.28	41	100	Peak
9444.00	37.31	14.23	51.54	74.00	-22.46	62	150	Peak
11640.00	29.48	18.85	48.33	54.00	-5.67	132	200	Average
11640.00	36.44	18.85	55.29	74.00	-18.71	132	200	Peak
17472.00	25.91	25.47	51.38	54.00	-2.62	135	200	Average
17472.00	36 <b>.00</b>	25.47	61.47	74.00	-12.53	135	200	Peak

# 966Chamber\_B at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
1015.00	61.97	-9.24	52.73	74.00	-21.27	240	150	Peak
2400.00	54.74	-2.59	52.15	74.00	-21.85	131	150	Peak
5460.00	45.02	6.74	51.76	74.00	-22.24	6	100	Peak
7764.00	39.00	12.85	51.85	74.00	-22.15	58	200	Peak
11640.00	31.42	18.85	50.27	54.00	-3.73	117	150	Average
11640.00	38.40	18.85	57.25	74.00	-16.75	117	150	Peak
17472.00	26.10	25.47	51.57	54.00	-2.43	72	150	Average
17472.00	35.00	25.47	60.47	74.00	-13.53	72	150	Peak

#### Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

2. Average test would be performed if the peak result were greater than the average limit.

3. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.

 Result = Reading + Correction Factor Margin = Result – Limit Remark Peak = Result(PK) – Limit(PK) Remark AVG = Result(AV) – Limit(AV)

Product Name	DOCSIS 3.1 wifi Gateway	Test By	Waternil Guan
Test Model	CODA-4782	Test Date	2016/09/19
Test Mode	UNII Band 3 / IEEE 802.11ac VHT20 Mode TX / CH Low / Beamforming	Temp. & Humidity	26°C, 58%

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
1010.00	61.75	-9.27	52.48	74.00	-21.52	216	100	Peak
2400.00	55.12	-2.59	52.53	74.00	-21.47	170	100	Peak
5460.00	44.63	6.74	51.37	74.00	-22.63	309	150	Peak
7800.00	38.14	12.88	51.02	74.00	-22.98	37	150	Peak
11484.00	28.05	18.62	46.67	54.00	-7.33	138	150	Average
11484.00	41.44	18.62	60.06	74.00	-13.94	138	150	Peak
17232.00	27.41	25.98	53.39	54.00	-0.61	206	200	Average
17232.00	42.08	25.98	68.06	74.00	-5.94	206	200	Peak

# 966Chamber\_B at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2400.00	54.98	-2.59	52.39	74.00	-21.61	122	200	Peak
4775.00	47.23	5.11	52.34	74.00	-21.66	358	100	Peak
5460.00	44.47	6.74	51.21	74.00	-22.79	73	100	Peak
7656.00	38.22	12.73	50.95	74.00	-23.05	9	200	Peak
11496.00	30.22	18.65	48.87	54.00	-5.13	92	250	Average
11496.00	44.30	18.65	62.95	74.00	-11.05	92	250	Peak -
17244.00	24.55	25.96	50.51	54.00	-3.49	29	200	Average
17244.00	37.44	25.96	63.40	74.00	-10.60	29	200	Peak

#### Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

2. Average test would be performed if the peak result were greater than the average limit.

- 3. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
- 4. Result = Reading + Correction Factor Margin = Result – Limit Remark Peak = Result(PK) – Limit(PK) Remark AVG = Result(AV) – Limit(AV)

Product Name	ne DOCSIS 3.1 wifi Gateway Test By		Waternil Guan
Test Model	CODA-4782	Test Date	2016/09/19
Test Mode	UNII Band 3 / IEEE 802.11ac VHT20 Mode TX / CH Middle / Beamforming	Temp. & Humidity	26°C, 58%

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
3600.00	51.66	0.98	52.64	74.00	-21.36	88	100	Peak
4200.00	49.47	3.31	52.78	74.00	-21.22	101	150	Peak
5460.00	44.82	6.74	51.56	74.00	-22.44	94	150	Peak
7800.00	38.26	12.88	51.14	74.00	-22.86	31	100	Peak
11568.00	26 <b>.0</b> 3	18.75	44.78	54.00	-9.22	0	200	Average
11568.00	39.82	18.75	58.57	74.00	-15.43	0	200	Peak
17352.00	27.74	25.73	53.47	54.00	-0.53	117	150	Average
17352.00	42.78	25.73	68.51	74.00	-5.49	117	150	Peak

# 966Chamber\_B at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2400.00	55.25	-2.59	52.66	74.00	-21.34	128	200	Peak
4465.00	47.97	4.27	52.24	74.00	-21.76	30	100	Peak
5460.00	45.36	6.74	52.10	74.00	-21.90	238	200	Peak
7716.00	39.36	12.79	52.15	74.00	-21.85	62	150	Peak
11580.00	28.77	18.77	47.54	54.00	-6.46	118	100	Average
11580.00	42.89	18.77	61.66	74.00	-12.34	118	100	Peak -
17352.00	23.77	25.73	49.50	54.00	-4.50	152	100	Average
17352.00	36.28	25.73	62.01	74.00	-11.99	152	100	Peak

#### Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

2. Average test would be performed if the peak result were greater than the average limit.

3. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.

4. Result = Reading + Correction Factor Margin = Result – Limit Remark Peak = Result(PK) – Limit(PK) Remark AVG = Result(AV) – Limit(AV)

Product Name	DOCSIS 3.1 wifi Gateway	Test By	Waternil Guan
Test Model	CODA-4782	Test Date	2016/09/19
Test Mode	UNII Band 3 / IEEE 802.11ac VHT20 Mode TX / CH High / Beamforming	Temp. & Humidity	26°C, 58%

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
3600.00	51.33	0.98	52.31	74.00	-21.69	96	100	Peak
4200.00	49.17	3.31	52.48	74.00	-21.52	2	150	Peak
5460.00	43.76	6.74	50.50	74.00	-23.50	341	200	Peak
7800.00	37.48	12.88	50.36	74.00	-23.64	22	150	Peak
11652.00	27.11	18.86	45.97	54.00	-8.03	134	200	Average
11652.00	37.94	18.86	56.80	74.00	-17.20	134	200	Peak
17484.00	27.80	25.44	53.24	54.00	-0.76	164	200	Average
17484.00	39.55	25.44	64.99	74.00	-9.01	164	200	Peak

# 966Chamber\_B at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2400.00	54.76	-2.59	52.17	74.00	-21.83	144	150	Peak
3600.00	50.19	0.98	51.17	74.00	-22.83	148	150	Peak
5460.00	46.08	6.74	52.82	74.00	-21.18	347	150	Peak
7764.00	39.20	12.85	52.05	74.00	-21.95	49	200	Peak
11652.00	31.44	18.86	50.30	54.00	-3.70	36	200	Average
11652.00	42.46	18.86	61.32	74.00	-12.68	36	200	Peak
17472.00	24.19	25.47	49.66	54.00	-4.34	70	200	Average
17472.00	35.28	25.47	60.75	74.00	-13.25	70	200	Peak

#### Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

2. Average test would be performed if the peak result were greater than the average limit.

- 3. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
- 4. Result = Reading + Correction Factor Margin = Result – Limit Remark Peak = Result(PK) – Limit(PK) Remark AVG = Result(AV) – Limit(AV)

Product Name	DOCSIS 3.1 wifi Gateway	Test By	Waternil Guan
Test Model	CODA-4782	Test Date	2016/09/19
Test Mode	UNII Band 3 / IEEE 802.11ac VHT40 Mode TX / CH Low / Beamforming	Temp. & Humidity	26°C, 58%

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
1010.00	61.87	-9.27	52.60	74.00	-21.40	219	100	Peak
4200.00	49.19	3.31	52.50	74.00	-21.50	54	100	Peak
5460.00	45.95	6.74	52.69	74.00	-21.31	121	100	Peak
7800.00	39.24	12.88	52.12	74.00	-21.88	359	150	Peak
11508.00	26.97	18.67	45.64	54.00	-8.36	165	150	Average
11508.00	35.92	18.67	54.59	74.00	-19.41	165	150	Peak
17232.00	26.20	25.98	52.18	54.00	-1.82	158	150	Average
17232.00	36.40	25.98	62.38	74.00	-11.62	158	150	Peak

# 966Chamber\_B at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2400.00	55.21	-2.59	52.62	74.00	-21.38	121	200	Peak
4740.00	47.26	5.02	52.28	74.00	-21.72	1	100	Peak
5460.00	46.01	6.74	52.75	74.00	-21.25	177	150	Peak
7668.00	39.13	12.74	51.87	74.00	-22.13	50	100	Peak
11496.00	28.24	18.65	46.89	54.00	-7.11	94	250	Average
11496.00	37.20	18.65	55.85	74.00	-18.15	94	250	Peak
17268.00	24.89	25.91	50.80	54.00	-3.20	180	250	Average
17268.00	33.86	25.91	59.77	74.00	-14.23	180	250	Peak

#### Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

2. Average test would be performed if the peak result were greater than the average limit.

3. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.

 Result = Reading + Correction Factor Margin = Result – Limit Remark Peak = Result(PK) – Limit(PK) Remark AVG = Result(AV) – Limit(AV)

Product Name	DOCSIS 3.1 wifi Gateway	Test By	Waternil Guan
Test Model	CODA-4782	Test Date	2016/09/19
Test Mode	UNII Band 3 / IEEE 802.11ac VHT40 Mode TX / CH High / Beamforming	Temp. & Humidity	26°C, 58%

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
1010.00	61.83	-9.27	52.56	74.00	-21.44	218	100	Peak
4200.00	49.19	3.31	52.50	74.00	-21.50	51	150	Peak
5460.00	45.24	6.74	51.98	74.00	-22.02	252	150	Peak
7800.00	39.36	12.88	52.24	74.00	-21.76	35	150	Peak
11568.00	26.72	18.75	45.47	54.00	-8.53	174	150	Average
11568.00	35.29	18.75	54.04	74.00	-19.96	174	150	Peak
17388.00	26.88	25.65	52.53	54.00	-1.47	154	150	Average
17388.00	36.23	25.65	61.88	74.00	-12.12	154	150	Peak

# 966Chamber\_B at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2400.00	54.79	-2.59	52.20	74.00	-21.80	126	150	Peak
4755.00	46.82	5.06	51.88	74.00	-22.12	146	150	Peak
5460.00	44.86	6.74	51.60	74.00	-22.40	27	150	Peak
7728.00	39.03	12.81	51.84	74.00	-22.16	75	150	Peak
11604.00	31.87	18.80	50.67	54.00	-3.33	59	200	Average
11604.00	40.80	18.80	59.60	74.00	-14.40	59	200	Peak
17388.00	24.12	25.65	49.77	54.00	-4.23	42	150	Average
17388.00	32.98	25.65	58.63	74.00	-15.37	42	150	Peak

#### Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

2. Average test would be performed if the peak result were greater than the average limit.

- 3. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
- 4. Result = Reading + Correction Factor Margin = Result – Limit Remark Peak = Result(PK) – Limit(PK) Remark AVG = Result(AV) – Limit(AV)

Product Name	DOCSIS 3.1 wifi Gateway	Test By	Waternil Guan
Test Model	CODA-4782	Test Date	2016/09/19
Test Mode	UNII Band 3 / IEEE 802.11ac VHT80 Mode TX / CH Low / Beamforming	Temp. & Humidity	26°C, 58%

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2400.00	55.27	-2.59	52.68	74.00	-21.32	343	200	Peak
4200.00	49.33	3.31	52.64	74.00	-21.36	56	150	Peak
5460.00	44.51	6.74	51.25	74.00	-22.75	327	100	Peak
7704.00	38.97	12.78	51.75	74.00	-22.25	127	200	Peak
11556.00	26.73	18.74	45.47	54.00	-8.53	355	250	Average
11556.00	35.71	18.74	54.45	74.00	-19.55	355	250	Peak
17352.00	24.95	25.73	50.68	54.00	-3.32	353	250	Average
17352.00	34.32	25.73	60.05	74.00	-13.95	353	250	Peak

# 966Chamber\_B at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2400.00	55.08	-2.59	52.49	74.00	-21.51	146	100	Peak
4725.00	47.57	4.99	52.56	74.00	-21.44	202	200	Peak
5460.00	45.27	6.74	52.01	74.00	-21.99	243	200	Peak
7704.00	38.27	12.78	51.05	74.00	-22.95	53	150	Peak
11556.00	28.15	18.74	46.89	54.00	-7.11	51	250	Average
11556.00	36.97	18.74	55.71	74.00	-18.29	51	250	Peak -
17316.00	24.53	25.80	50.33	54.00	-3.67	14	200	Average
17316.00	34.25	25.80	60.05	74.00	-13.95	14	200	Peak

#### Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

2. Average test would be performed if the peak result were greater than the average limit.

3. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.

 Result = Reading + Correction Factor Margin = Result – Limit Remark Peak = Result(PK) – Limit(PK) Remark AVG = Result(AV) – Limit(AV)

Product Name	DOCSIS 3.1 wifi Gateway	Test By	Waternil Guan
Test Model	CODA-4782	Test Date	2016/09/20
Test Mode	UNII Band 1+3 / IEEE 802.11ac VHT160 Mode TX / CH Low / Beamforming	Temp. & Humidity	26°C, 58%

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
3850.00	50.52	1.98	52.50	74.00	-21.50	44	200	Peak
4200.00	49.11	3.31	52.42	74.00	-21.58	66	100	Peak
5350.00	44.89	6.49	51.38	74.00	-22.62	68	200	Peak
11556.00	26.84	18.74	45.58	54.00	-8.42	178	150	Average
11556.00	35.84	18.74	54.58	74.00	-19.42	178	150	Peak
15636.00	24.51	23.61	48.12	54.00	-5.88	111	150	Average
15636.00	36.51	23.61	6 <b>0.</b> 12	74.00	-13.88	111	150	Peak
17328.00	25.12	25.78	50.90	54.00	-3.10	35	200	Average
17328.00	36.73	25.78	62.51	74.00	-11.49	35	200	Peak

## 966Chamber B at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
3850.00	50.44	1.98	52.42	74.00	-21.58	56	150	Peak
4500.00	44.99	4.40	49.39	74.00	-24.61	118	100	Peak
5350.00	41.30	6.49	47.79	54.00	-6.21	304	100	Average
5350.00	51.18	6.49	57.67	74.00	-16.33	304	100	Peak
11556.00	26.73	18.74	45.47	54.00	-8.53	54	200	Average
11556.00	36.42	18.74	55.16	74.00	-18.84	54	200	Peak
15636.00	25.83	23.61	49.44	54.00	-4.56	83	150	Average
15636.00	36.28	23.61	59.89	74.00	-14.11	83	150	Peak -
17328.00	25.12	25.78	50.90	54.00	-3.10	300	100	Average
17328.00	36.87	25.78	62.65	74.00	-11.35	300	100	Peak

#### Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

2. Average test would be performed if the peak result were greater than the average limit.

3. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.

4. Result = Reading + Correction Factor Margin = Result – Limit Remark Peak = Result(PK) – Limit(PK) Remark AVG = Result(AV) – Limit(AV)

# **Restricted Band Edges**



**Remark:** Result = Reading + Correction Factor Margin = Result – Limit Remark Peak = Result(PK) – Limit(PK)



**Remark:** Result = Reading + Correction Factor Margin = Result – Limit Remark AVG = Result(AV) – Limit(AV)

## Page 278 / 331







Remark AVG = Result(AV) - Limit(AV)



**Remark:** Result = Reading + Correction Factor Margin = Result – Limit Remark Peak = Result(PK) – Limit(PK)



**Remark:** Result = Reading + Correction Factor Margin = Result – Limit Remark AVG = Result(AV) – Limit(AV)







Margin = Reading + Correction Factor Margin = Result – Limit Remark AVG = Result(AV) – Limit(AV)



**Remark:** Result = Reading + Correction Factor Margin = Result – Limit Remark Peak = Result(PK) – Limit(PK)



Margin = Reading + Correction Factor Margin = Result – Limit Remark AVG = Result(AV) – Limit(AV)







Margin = Result – Limit Remark AVG = Result(AV) – Limit(AV)







**Remark:** Result = Reading + Correction Factor Margin = Result – Limit Remark AVG = Result(AV) – Limit(AV)


**Remark:** Result = Reading + Correction Factor Margin = Result – Limit Remark Peak = Result(PK) – Limit(PK)







**Remark:** Result = Reading + Correction Factor Margin = Result – Limit Remark Peak = Result(PK) – Limit(PK)











Margin = Result – Limit

Remark Peak = Result(PK) – Limit(PK)



































































**Remark:** Result = Reading + Correction Factor Margin = Result – Limit Remark Peak = Result(PK) – Limit(PK)





Margin = Result – Limit Remark AVG = Result(AV) – Limit(AV)



**Remark:** Result = Reading + Correction Factor Margin = Result – Limit Remark Peak = Result(PK) – Limit(PK)



**Remark:** Result = Reading + Correction Factor Margin = Result – Limit Remark Peak = Result(PK) – Limit(PK)

#### Beamforming



**Remark:** Result = Reading + Correction Factor Margin = Result – Limit Remark Peak = Result(PK) – Limit(PK)



**Remark:** Result = Reading + Correction Factor Margin = Result – Limit Remark AVG = Result(AV) – Limit(AV)



**Remark:** Result = Reading + Correction Factor Margin = Result – Limit Remark Peak = Result(PK) – Limit(PK)



Remark AVG = Result(AV) - Limit(AV)











**Remark:** Result = Reading + Correction Factor Margin = Result – Limit Remark Peak = Result(PK) – Limit(PK)



Hemark: Hesult = Heading + Correction Factor Margin = Result – Limit Remark AVG = Result(AV) – Limit(AV)















Margin = Result – Limit Remark AVG = Result(AV) – Limit(AV)



























**Remark:** Result = Reading + Correction Factor Margin = Result – Limit Remark Peak = Result(PK) – Limit(PK)



Margin = Result – Limit

Remark Peak = Result(PK) – Limit(PK)































































**Remark:** Result = Reading + Correction Factor Margin = Result – Limit Remark AVG = Result(AV) – Limit(AV)



**Remark:** Result = Reading + Correction Factor Margin = Result – Limit Remark Peak = Result(PK) – Limit(PK)





Margin = Result – Limit Remark AVG = Result(AV) – Limit(AV)



**Remark:** Result = Reading + Correction Factor Margin = Result – Limit Remark Peak = Result(PK) – Limit(PK)



**Remark:** Result = Reading + Correction Factor Margin = Result – Limit Remark Peak = Result(PK) – Limit(PK)

# 7.7 CONDUCTED EMISSION

### LIMITS

§ 15.207 (a) Except as shown in paragraph (b) and (c) this section, for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table, as measured using a 50  $\mu$ H/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower limit applies at the boundary between the frequency ranges.

Frequency Range	Conducted Limit (dBµv)		
(MHz)	Quasi-peak	Average	
0.15 - 0.50	66 to 56	56 to 46	
0.50 - 5.00	56	46	
5.00 - 30.0	60	50	

#### TEST EQUIPMENT

Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
L.I.S.N	Schwarzbeck	NSLK 8127	8127465	07/28/2017
L.I.S.N	Schwarzbeck	NSLK 8127	8127473	03/10/2017
EMI Test Receiver	Rohde & Schwarz	ESHS 30	838550/003	10/31/2016
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100111	06/27/2017
Test S/W	E3.815206a			

**Remark:** Each piece of equipment is scheduled for calibration once a year.

**TEST SETUP** 



## TEST PROCEDURE

The basic test procedure was in accordance with ANSI C63.10:2013.

The test procedure is performed in a  $4m \times 3m \times 2.4m$  (L×W×H) shielded room. The EUT along with its peripherals were placed on a 1.0m (W) × 1.5m (L) and 0.8m in height wooden table and the EUT was adjusted to maintain a 0.4 meter space from a vertical reference plane.

The EUT was connected to power mains through a line impedance stabilization network (LISN) which provides 50 ohm coupling impedance for measuring instrument and the chassis ground was bounded to the horizontal ground plane of shielded room. All peripherals were connected to the second LISN and the chassis ground also bounded to the horizontal ground plane of shielded room.

The EUT was located so that the distance between the boundary of the EUT and the closest surface of the LISN is 0.8 m. Where a mains flexible cord was provided by the manufacturer shall be 1 m long, or if in excess of 1 m, the excess cable was folded back and forth as far as possible so as to form a bundle not exceeding 0.4 m in length.
#### **COMPLIANCE Certification Services Inc.** FCC ID: 2AHKM-CODA4782

## TEST RESULTS

Product Name	DOCSIS 3.1 wifi Gateway	Test By	Waternil Guan
Test Model	CODA-4782	Test Date	2016/09/30
Test Mode	Mode 1	Temp. & Humidity	22°C, 62%

#### LINE



Remark:

- 1. Correction Factor = Insertion loss + Cable loss
- 2. Result level = Reading Value + Correction factor
- 3. Margin value = Result level Limit value

Product Name	DOCSIS 3.1 wifi Gateway	Test By	Waternil Guan
Test Model	CODA-4782	Test Date	2016/09/30
Test Mode	Mode 1	Temp. & Humidity	22°C, 62%

### NEUTRAL



Remark:

- 1. Correction Factor = Insertion loss + Cable loss
- 2. Result level = Reading Value + Correction factor
- 3. Margin value = Result level Limit value

# 7.8 FREQUENCY STABILITY

# LIMITS

§ 15.407 (g) manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

# TEST EQUIPMENT

Name of Equipment	Manufacturer Model		Serial Number	Calibration Due	
EXA Signal Analyzer	Agilent N9010A MY52220817		03/15/2017		
Test S/W	N/A				

**Remark:** Each piece of equipment is scheduled for calibration once a year.

# TEST SETUP



# TEST PROCEDURE

- 1. Place the EUT on the table and set it in the transmitting mode.
- 2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
- 3. Set the environment into appropriate environment.
- Set the spectrum analyzer as RBW=1kHz, VBW = RBW, Span = 200kHz, Sweep = auto.
- 5. Mark the peak frequency and measure the frequency tolerance using frequency counter function.
- 6. Repeat until all the results are investigated.

## **Compliance Certification Services Inc.** FCC ID: 2AHKM-CODA4782

## TEST RESULTS

Product Name	DOCSIS 3.1 wifi Gateway	Test By	Davis Tseng
Test Model	CODA-4782	Test Date	2016/09/22
Test Mode	TX Mode / Non-Beamforming	Temp. & Humidity	20°C, 63%

#### IEEE 802.11a Mode

U-NII Band	Channel	Channel Frequency (MHz)	Measured Frequency (MHz)	Delta Frequency (kHz)	20 ppm Limit (kHz)	Margin (kHz)
	Low	5180	5179.899720	-100.28	103.60	-3.32
Band 1	Middle	5200	5199.898990	-101.01	104.00	-2.99
	High	5240	5239.898127	-101.87	104.80	-2.93
	Low	5745	5744.888662	-111.34	114.90	-3.56
Band 3	Middle	5785	5784.888512	-111.49	115.70	-4.21
	High	5825	5824.888258	-111.74	116.50	-4.76

#### IEEE 802.11ac VHT20 Mode

U-NII Band	Channel	Channel Frequency (MHz)	Measured Frequency (MHz)	Delta Frequency (kHz)	20 ppm Limit (kHz)	Margin (kHz)
	Low	5180	5179.899614	-100.39	103.60	-3.21
Band 1	Middle	5200	5199.898881	-101.12	104.00	-2.88
	High	5240	5239.897222	-102.78	104.80	-2.02
	Low	5745	5744.888521	-111.48	114.90	-3.42
Band 3	Middle	5785	5784.888621	-111.38	115.70	-4.32
	High	5825	5824.888475	-111.53	116.50	-4.97

#### IEEE 802.11ac VHT40 Mode

U-NII Band	Channel	Channel Frequency (MHz)	Measured Frequency (MHz)	Delta Frequency (kHz)	20 ppm Limit (kHz)	Margin (kHz)
Rand 1	Low	5190	5189.898554	-101.45	103.80	-2.35
Band 1	High	5230	5229.898723	-101.28	104.60	-3.32
David 0	Low	5755	5754.888652	-111.35	115.10	-3.75
Dariu S	High	5795	5794.888258	-111.74	115.90	-4.16

### IEEE 802.11ac VHT80 Mode

U-NII Band	Channel	Channel Frequency (MHz)	Measured Frequency (MHz)	Delta Frequency (kHz)	20 ppm Limit (kHz)	Margin (kHz)
Band 1	Low	5210	5209.898354	-101.65	104.20	-2.55
Band 3	Low	5775	5774.888647	-111.35	115.50	-4.15

#### IEEE 802.11ac VHT160 Mode

U-NII Band	Channel	Channel Frequency (MHz)	Measured Frequency (MHz)	Delta Frequency (kHz)	20 ppm Limit (kHz)	Margin (kHz)
Band 1	Low	5210	5209.898663	-101.34	104.20	-2.86
Band 3	Low	5775	5774.888777	-111.22	115.50	-4.28

# **CESRF** Compliance Certification Services Inc.

FCC ID: 2AHKM-CODA4782

Product Name	DOCSIS 3.1 wifi Gateway	Test By	Davis Tseng
Test Model	CODA-4782	Test Date	2016/09/22
Test Mode	TX Mode / Beamforming	Temp. & Humidity	20°C, 63%

#### IEEE 802.11a Mode

U-NII Band	Channel	Channel Frequency (MHz)	Measured Frequency (MHz)	Delta Frequency (kHz)	20 ppm Limit (kHz)	Margin (kHz)
	Low	5180	5179.974000	-26.00	103.60	-77.60
Band 1	Middle	5200	5199.980000	-20.00	104.00	-84.00
	High	5240	5239.982000	-18.00	104.80	-86.80
	Low	5745	5744.977000	-23.00	114.90	-91.90
Band 3	Middle	5785	5784.998000	-2.00	115.70	-113.70
	High	5825	5824.975000	-25.00	116.50	-91.50

#### IEEE 802.11ac VHT20 Mode

U-NII Band	Channel	Channel Frequency (MHz)	Measured Frequency (MHz)	Delta Frequency (kHz)	20 ppm Limit (kHz)	Margin (kHz)
	Low	5180	5179.976000	-24.00	103.60	-79.60
Band 1	Middle	5200	5199.964000	-36.00	104.00	-68.00
	High	5240	5239.976000	-24.00	104.80	-80.80
	Low	5745	5744.973000	-27.00	114.90	-87.90
Band 3	Middle	5785	5784.987000	-13.00	115.70	-102.70
	High	5825	5824.966000	-34.00	116.50	-82.50

### IEEE 802.11ac VHT40 Mode

U-NII Band	Channel	Channel Frequency (MHz)	Measured Frequency (MHz)	Delta Frequency (kHz)	20 ppm Limit (kHz)	Margin (kHz)
Band 1	Low	5190	5189.979000	-21.00	103.80	-82.80
	High	5230	5229.978000	-22.00	104.60	-82.60
Band 3	Low	5755	5754.981000	-19.00	115.10	-96.10
	High	5795	5795.030000	30.00	115.90	-85.90

#### IEEE 802.11ac VHT80 Mode

U-NII Band	Channel	Channel Frequency (MHz)	Measured Frequency (MHz)	Delta Frequency (kHz)	20 ppm Limit (kHz)	Margin (kHz)
Band 1	Low	5210	5210.046000	46.00	104.20	-58.20
Band 3	Low	5775	5775.105000	105.00	115.50	-10.50

#### IEEE 802.11ac VHT160 Mode

U-NII Band	Channel	Channel Frequency (MHz)	Measured Frequency (MHz)	Delta Frequency (kHz)	20 ppm Limit (kHz)	Margin (kHz)
Band 1	Low	5210	5210.047000	47.00	104.20	-57.20
Band 3	Low	5775	5775.109000	109.00	115.50	-6.50