TEST REPORT

Report Number: R15579565-E2

Applicant	:	BECKMAN COULTER INC. 250 SOUTH KRAEMER BOULEVARD MS C1NW01 BREA, CA 92821-6232, USA
Model	:	ANATEL PAT700
FCC ID	:	2AOSQM1MINI
IC	:	23864-M1RFID23
EUT Description	:	TOC ANALYZER
Test Standard(s)	:	FCC 47 CFR PART 15 SUBPART C: 2025 RSS-210 ISSUE 11: 2024 RSS-GEN ISSUE 5 + A1 + A2: 2021

Date Of Issue:
2025-04-04

Prepared by:
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CERT #0751.06

Revision History

Rev.	Issue Date	Revisions	Revised By
V1	2025-03-07	Initial Issue	Manish Baral
V2	2025-04-04	Updated IC	Manish Baral

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: BECKMAN COULTER INC.
250 SOUTH KRAEMER BOULEVARD MS C1NW01
BREA, CA 92821-6232, USA

EUT DESCRIPTION: TOC ANALYZER

MODEL: ANATEL PAT700

SERIAL NUMBER: N/A

SAMPLE RECEIPT DATE: 2024-12-05

DATE TESTED: 2025-02-03 to 2025-02-12

APPLICABLE STANDARDS	
STANDARD	**TEST RESULTS**
FCC PART 15 SUBPART C: 2025	Complies
ISED RSS-210 Issue 11: 2024	Complies
ISED RSS-GEN Issue 5 + A1 + A2: 2021	Complies

UL LLC tested the above equipment in accordance with the requirements set forth in the above standards. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. It is the manufacturer's responsibility to assure that additional production units of this model are manufactured with identical electrical and mechanical components. All samples tested were in good operating condition throughout the entire test program. Measurement Uncertainties are published for informational purposes only and were not taken into account unless noted otherwise.

This document may not be altered or revised in any way unless done so by UL LLC and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL LLC will constitute fraud and shall nullify the document.

Approved & Released
For UL LLC By:

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Project Engineer
Consumer, Medical and IT Segment
UL LLC

Prepared By:

Manish Baral
Engineer
Consumer, Medical and IT Segment
UL LLC

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with:

- ANSI C63.10-2020
- FCC 47 CFR Part 2
- FCC 47 CFR Part 15C
- RSS-GEN Issue 5 + A1 + A2: 2021
- RSS-210 Issue 11: 2024

3. SUMMARY OF TEST RESULTS

This report contains data provided by the customer which can impact the validity of results. UL LLC is only responsible for the validity of results after the integration of the data provided by the customer. Below is a list of the data provided by the customer:

1. RFID radio similarities (see section 6.4)
2. Intended EUT orientation (see section 6.4)
3. RFID radio operational specifications (see section 6.4)

Requirement Description	Requirement Clause Number	Result	Remarks
Occupied Bandwidth	FCC §15.215 (c) RSS-Gen 6.7	Passed	None.
Fundamental Measurements.	FCC §15.225 (a-d) FCC §15.209 (d) IC RSS-210, Annex B.6 IC RSS-GEN, Section 8.9 (Transmitter)		
Tx Spurious Emissions			
Frequency Stability	FCC FCC §15.225 (e) RSS-210, Annex B.6		
AC Mains Line Conducted Emissions	FCC §15.207 IC RSS-GEN, Section 8.8		

4. FACILITIES AND ACCREDITATION

UL LLC is accredited by A2LA, Certificate Number #0751.06, for all testing performed within the scope of this report. Testing was performed at the locations noted below.

	Address	ISED CABID	ISED Company Number	FCC Registration
☒	Building 2800 Suite Perimeter Park Dr. Suite B Morrisville, NC 27560, U.S.A	US0067	27265	825374

5. DECISION RULES AND MEASUREMENT UNCERTAINTY

5.1. METROLOGICAL TRACEABILITY

All test and measuring equipment utilized to perform the tests documented in this report are calibrated on a regular basis, with a maximum time between calibrations of one year or the manufacturers' recommendation, whichever is less, and where applicable is traceable to recognized national standards.

5.2. DECISION RULES

The Decision Rule is based on Simple Acceptance in accordance with ISO Guide 98-4:2012 Clause 8.2. (Measurement uncertainty is not taken into account when stating conformity with a specified requirement.)

5.3. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

PARAMETER	U_{Lab}
Radio Frequency (Spectrum Analyzer)	419.38 Hz
Occupied Channel Bandwidth	1.22%
RF output power, conducted	1.3 dB (PK) 0.45 dB (AV)
Power Spectral Density, conducted	2.47 dB
Unwanted Emissions, conducted	1.94 dB
All emissions, radiated	6.01 dB
Conducted Emissions (0.150-30MHz) - LISN	3.40 dB
Temperature	0.57°C
Humidity	3.39%
DC Supply voltages	1.70%

Uncertainty figures are valid to a confidence level of 95%.

5.4. SAMPLE CALCULATION

RADIATED EMISSIONS

Where relevant, the following sample calculation is provided:
Field Strength (dBuV/m) = Measured Voltage (dBuV) + Antenna Factor (dB/m) + Cable Loss (dB) – Preamp Gain (dB)
36.5 dBuV + 18.7 dB/m + 0.6 dB – 26.9 dB = 28.9 dBuV/m

MAINS CONDUCTED EMISSIONS

Where relevant, the following sample calculation is provided:
Final Voltage (dBuV) = Measured Voltage (dBuV) + Cable Loss (dB) + Limiter Factor (dB) + LISN Insertion Loss.
36.5 dBuV + 0 dB +10.1 dB+ 0 dB = 46.6 dBuV

6. EQUIPMENT UNDER TEST

6.1. DESCRIPTION OF EUT

The EUT is the ANATEL PAT700 that detects the Total Organic Carbon concentration in a water sample. The EUT has an RFID radio on the accessory bottle, and bottle receptacle. There are 4 independently operated bottles. Only 1 RFID radio can read a bottle at a time, I.E the EUT cannot transmit on more than one radio simultaneously.

6.2. MAXIMUM ELECTRIC FIELD STRENGTH

The transmitter has a maximum peak radiated electric field strength as follows:

Fundamental Frequency (MHz)	E-Field (dBuV/m)
13.56	-6.31

6.3. SOFTWARE AND FIRMWARE

EUT Firmware: 1.0.3
EUT Software: 5.4.142.0 – 0.0.45

6.4. WORST-CASE CONFIGURATION AND MODE

The EUT has an independent RFID radio with 4 accessory bottles. Per client declaration, each bottle is electrically identical and operate at the same power. To find the worst-case configuration, the fundamental of each RFID radio with its associated bottle was measured and compared. It was found that bottle 4 was the worst-case. Therefore, all testing in this report was done on this RFID radio and bottle only.

Per client declaration, the EUT is only meant to operate as tabletop equipment in one orientation. Therefore, the EUT was tested in said orientation.

Per client declaration, only 1 RFID radio can read a bottle at a time, I.E, Simultaneous transmission is not supported on the EUT.

The EUT was tested while connected to AC mains and operating as intended.

6.5. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Support Equipment List				
Description	**Manufacturer**	**Model**	**Serial Number**	**FCC ID**
Flash Drive	SanDisk	Cruzer Glide 3.0 16GB	N/A	N/A
Laptop	Lenovo	T14 Gen3	PF4FKY5C	N/A

I/O CABLES

I/O Cable List						
Cable No.	**Port**	**# of Identical Ports**	**Connector Type**	**Cable Type**	**Cable Length (m)**	**Remarks**
1	Power	1	3 Pin	Shielded	<3m	N/A
2	Digital In/Out	3	5 Pin	Shielded	<3m	N/A
3	Ethernet	1	RJ45	Unshielded	<3m	N/A
4	RS-232 Data	1	RS232	Shielded	<3m	N/A
5	Printer/Cal	1	9 pin	Shielded	<3m	N/A
6	USB A	1	USB	Shielded	<3m	Populated to the flash drive

TEST SETUP

The EUT is configured to transmit at max power during the test. The accessory bottle was installed, and the radio was set to read the accessory bottle.

SETUP DIAGRAM

Please refer to R15579565-EP1 for setup diagrams

7. TEST AND MEASUREMENT EQUIPMENT

The following test and measurement equipment was utilized for the tests documented in this report:

Test Equipment Used - Radiated Disturbance Emissions Test Equipment (Morrisville – Chamber 1)

Equip. ID	Description	Manufacturer	Model Number	Last Cal.	Next Cal.
0.009-30MHz					
135144	Active Loop Antenna	ETS-Lindgren	6502	2024-10-02	2025-10-02
30-1000 MHz					
90629	Hybrid Broadband Antenna	Sunol Sciences Corp.	JB3	2024-01-30	2026-01-30
Gain-Loss Chains					
91974	Gain-loss string: 0.009-30MHz	Various	Various	2024-05-08	2025-05-08
91976	Gain-loss string: 25-1000MHz	Various	Various	2024-05-08	2025-05-08
Receiver & Software					
206496	Spectrum Analyzer	Rohde & Schwarz	ESW44	2024-08-29	2025-08-29
SOFTEMI	EMI Software	UL	Version 9.5 (18 Oct 2021)		
Additional Equipment used					
241205	Environmental Meter	Fisher Scientific	15-077-963	2023-09-05	2025-09-05
236853	AC Power Source	California Instruments	AST3001	NA	NA

Test Equipment Used - Wireless Conducted Measurement Equipment

Equipment ID	Description	Manufacturer	Model Number	Last Cal.	Next Cal.
Common Equipment					
Conducted Room 1					
90416	Spectrum Analyzer	Keysight Technologies	N9030A	2024-09-23	2025-09-23
90411	Spectrum Analyzer	Keysight Technologies	N9030A	2024-08-01	2025-08-01
207726	Temp/Humid Chamber	Thermotron	SM-32-8200	2025-01-15	2026-01-15
179892	Environmental Meter	Fisher Scientific	15-077-963	2024-08-12	2025-08-12
236852	California Instruments AC Power Source	Ametek	AST3001A1B	N/A	N/A
SOFTEMI	Antenna Port Software	UL	Version 2024.2.23	NA	NA

Test Equipment Used - Line-Conducted Emissions – Voltage (Morrisville – Conducted 1)

Equipment ID	Description	Manufacturer	Model Number	Last Cal.	Next Cal.
70374	EMI Test Receiver	ROHDE & SCHWARZ	ESCI7	2024-07-30	2025-07-30
CBL087	Coax cable, RG223, N-male to BNC-male, 20-ft.	Pasternack	PE3W06143-240	2024-04-04	2025-04-04
179892	Environmental Meter	Fisher Scientific	15-077-963	2024-08-12	2025-08-12
80391	LISN, 50-ohm/50-uH, 250uH 2-conductor, 25A	Fischer Custom Com.	FCC-LISN-50/250-25-2-01	2024-08-01	2025-08-01
91432	LISN, 50-ohm/50-uH, 2-conductor, 25A (For support gear only.)	Solar Electronics	8012-50-R-24-BNC	NA	NA
52859	Transient Limiter, 0.009-100MHz	Electro-Metrics	EM-7600	2024-04-04	2025-04-04
236852	AC Power Source	California Instruments	AST3001	NA	NA
SOFTEMI	EMI Software	UL	Version 9.5 (18 Oct 2021)		

8. OCCUPIED BANDWIDTH

LIMITS

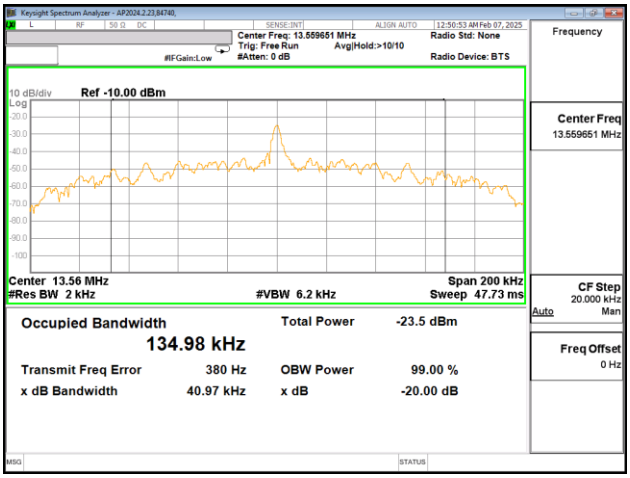
FCC §15.215 (c) Intentional radiators operating under the alternative provisions to the general emission limits, as contained in §§ 15.217 through 15.257 and in subpart E of this part, must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated.

TEST PROCEDURE

The transmitter output is connected to the spectrum analyzer. The RBW is set to 1-5% of the 20dB bandwidth. The VBW is set to 3 times the RBW. The sweep time is coupled. The spectrum analyzer internal 99% bandwidth function is utilized.

RESULTS

8.1. Tag On

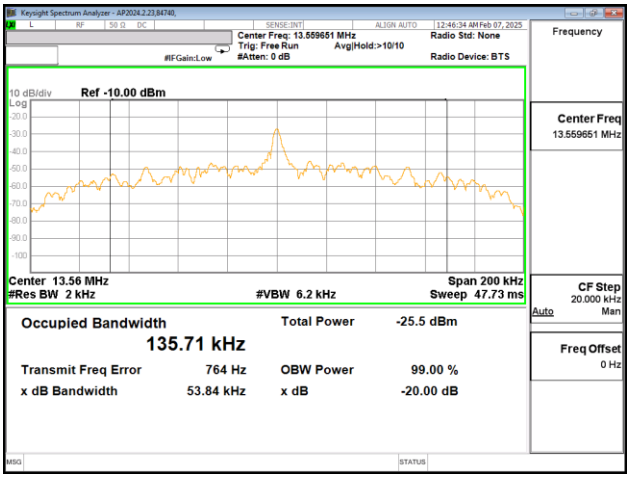


SLOT 4

Tag On

Bottle Number	Frequency (MHz)	99% Bandwidth (KHz)	20dB Bandwidth (KHz)
4	13.56	134.98	40.97

8.2. Tag Off



SLOT 4

Tag Off

Bottle Number	Frequency (MHz)	99% Bandwidth (KHz)	20dB Bandwidth (KHz)
4	13.56	135.71	53.84

9. RADIATED EMISSION TEST RESULTS

9.1. LIMITS AND PROCEDURE

LIMIT

FCC §15.225
IC RSS-210, Annex B.6
IC RSS-GEN, Section 8.9 (Transmitter)

(a) The field strength of any emissions within the band 13.553–13.567 MHz shall not exceed 15,848 microvolts/ meter at 30 meters.

(b) Within the bands 13.410–13.553 MHz and 13.567–13.710 MHz, the field strength of any emissions shall not exceed 334 microvolts/meter at 30 meters.

(c) Within the bands 13.110–13.410 MHz and 13.710–14.010 MHz the field strength of any emissions shall not exceed 106 microvolts/meter at 30 meters.

(d) The field strength of any emissions appearing outside of the 13.110– 14.010 MHz and shall not exceed the general radiated emission limits in § 15.209 as follows:
§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:

Limits for radiated disturbance of an intentional radiator		
Frequency range (MHz)	Limits (µV/m)	Measurement Distance (m)
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

** 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. §§ 15.231 and 15.241.
§15.209 (b) In the emission table above, the tighter limit applies at the band edges.

Formula for converting the filed strength from uV/m to dBuV/m is:
Limit (dBuV/m) = 20 log limit (uV/m)

In addition:
§15.209 (d) The emission limits shown the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90 kHz, 110-490 kHz and above 1000 MHz. Radiated emissions limits in these three bands are based on measurements employing an average detector.

§15.209 (d) The provisions in §§ 15.225, measuring emissions at distances other than the distances specified in the above table, determining the frequency range over which radiated emissions are to be measured, and limiting peak emissions apply to all devices operated under this part.

TEST PROCEDURE

ANSI C63.10, 2013

The EUT is an intentional radiator that incorporates a digital device, the highest fundamental frequency generated or used in the device is 13.56 MHz; therefore, the frequency range was investigated from 9kHz to the 10th harmonic of the highest fundamental frequency, or 1000 MHz, whichever is greater.

Note: For all Below 30MHz test data, all measurements were made at a test distance of 3 m. The measured data was extrapolated from the test distance (3m) to the specification distance (300 m from 9-490 kHz and 30 m from 490 kHz – 30 MHz) to clearly show the relative levels of fundamental and spurious emissions and demonstrate compliance with the requirement that the level of any spurious emissions be below the level of the intentionally transmitted signal. The extrapolation factor for the limits were 40*Log (test distance / specification distance)

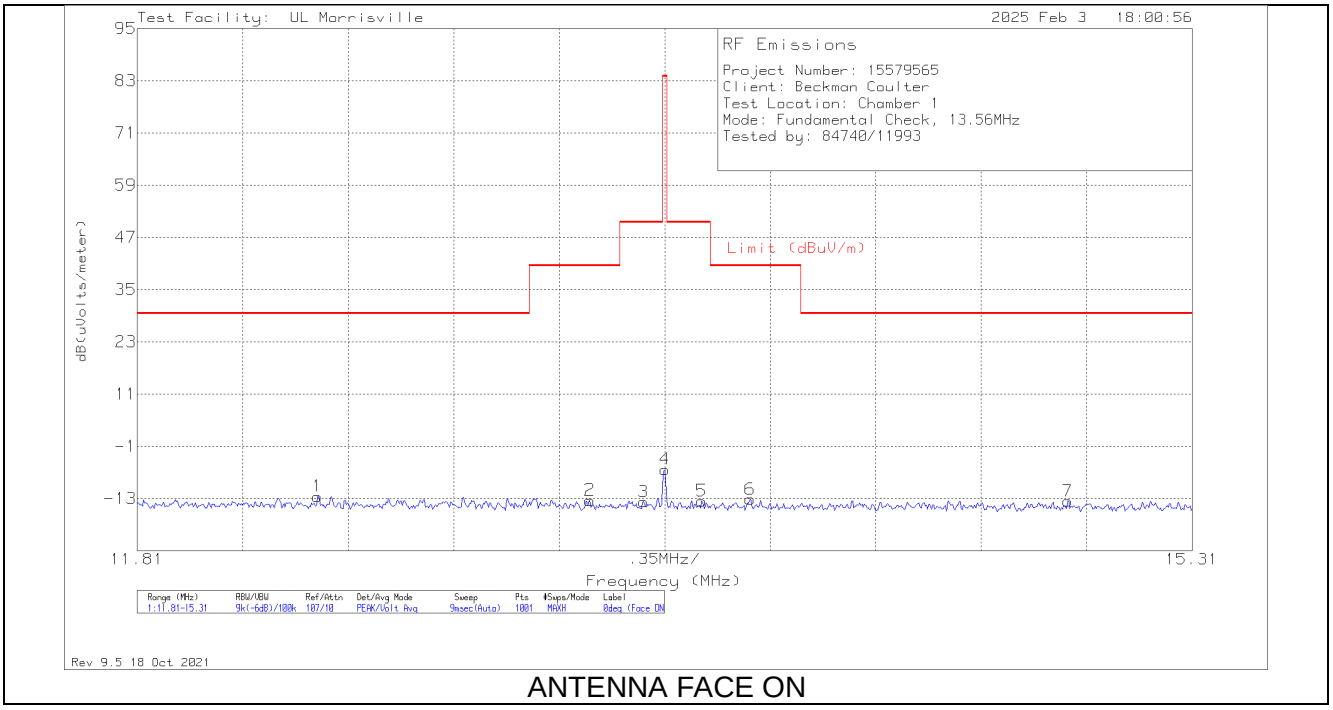
Although these tests were performed other than open area test site, adequate comparison measurements were confirmed against 30 m open are test site. Therefore sufficient tests were made to demonstrate that the alternative site produces results that correlate with the ones of tests made in an open field based on KDB 414788

RESULTS

9.2. FUNDAMENTAL AND SPURIOUS EMISSIONS (Below 30MHz)

9.2.1. Tag On

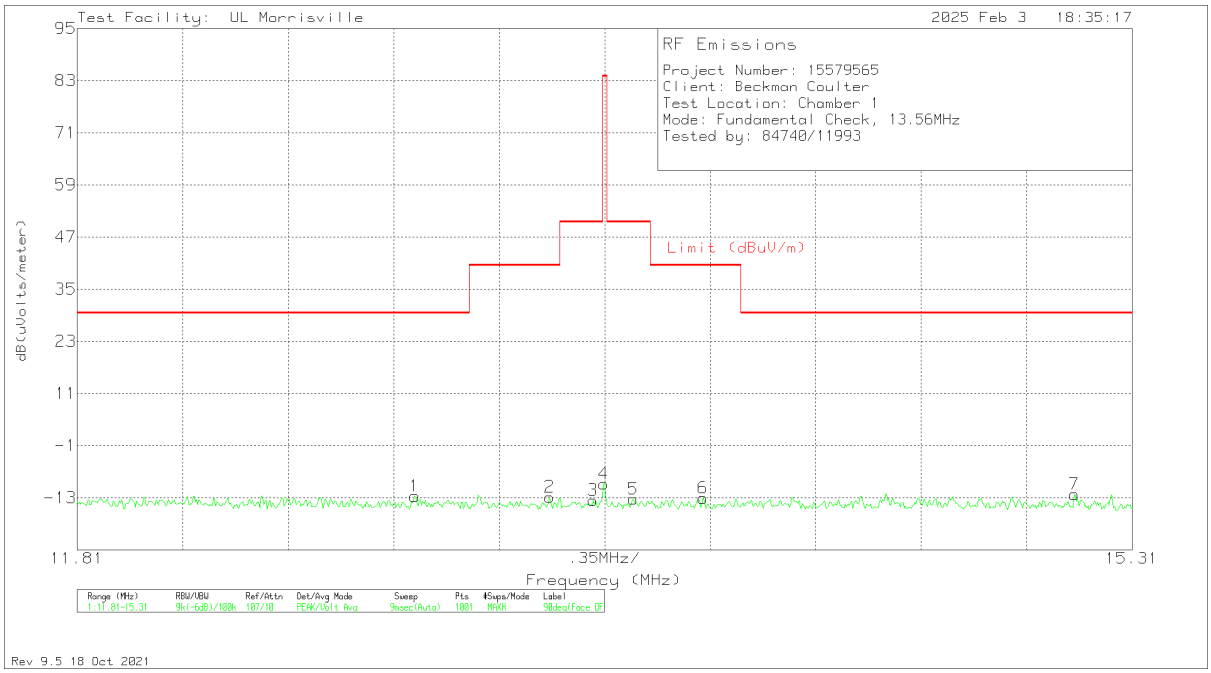
FUNDAMENTAL



ANTENNA FACE ON

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	135144 (dB/m)	Gain/Loss (dB)	Dist. Corr. Factor (dB)	Corrected Reading dB(uVolts/meter)	Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Loop Angle
1	12.4085	17.08	Pk	9.9	.5	-40	-12.52	29.5	-42.02	89	100	0 degs
2	13.3115	16.19	Pk	9.8	.6	-40	-13.41	40.5	-53.91	89	100	0 degs
3	13.49	15.85	Pk	9.8	.6	-40	-13.75	50.5	-64.25	89	100	0 degs
4	13.56	23.29	Pk	9.8	.6	-40	-6.31	84	-90.31	89	100	0 degs
5	13.6825	16.02	Pk	9.8	.6	-40	-13.58	50.5	-64.08	89	100	0 degs
6	13.8435	16.52	Pk	9.7	.6	-40	-13.18	40.5	-53.68	89	100	0 degs
7	14.897	16.19	Pk	9.6	.6	-40	-13.61	29.5	-43.11	89	100	0 degs

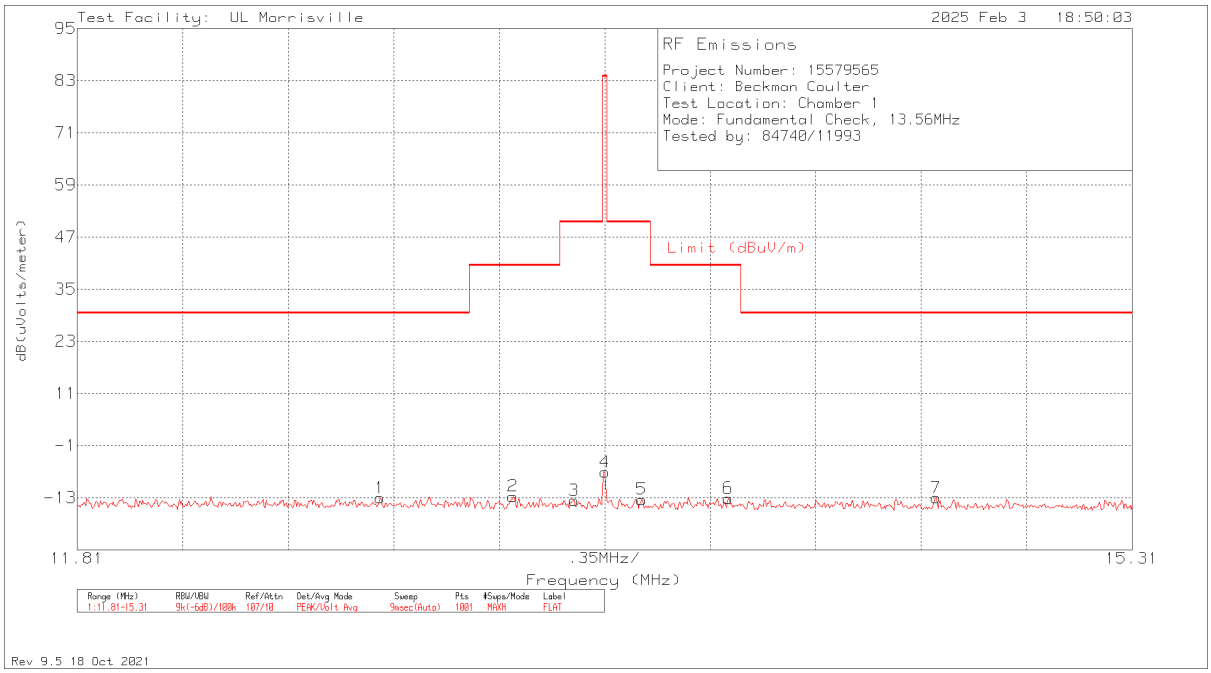
Pk - Peak detector



ANTENNA FACE OFF

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	135144 (dB/m)	Gain/Loss (dB)	Dist. Corr. Factor (dB)	Corrected Reading dB(uVolts/meter)	Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Loop Angle
1	12.93	16.95	Pk	9.8	.6	-40	-12.65	29.5	-42.15	202	100	90 degs
2	13.378	16.76	Pk	9.8	.6	-40	-12.84	40.5	-53.34	202	100	90 degs
3	13.5215	16.02	Pk	9.8	.6	-40	-13.58	50.5	-64.08	202	100	90 degs
4	13.5565	19.79	Pk	9.8	.6	-40	-9.81	84	-93.81	202	100	90 degs
5	13.6545	16.28	Pk	9.8	.6	-40	-13.32	50.5	-63.82	202	100	90 degs
6	13.8855	16.62	Pk	9.7	.6	-40	-13.08	40.5	-53.58	202	100	90 degs
7	15.1175	17.58	Pk	9.6	.6	-40	-12.22	29.5	-41.72	202	100	90 degs

Pk - Peak detector

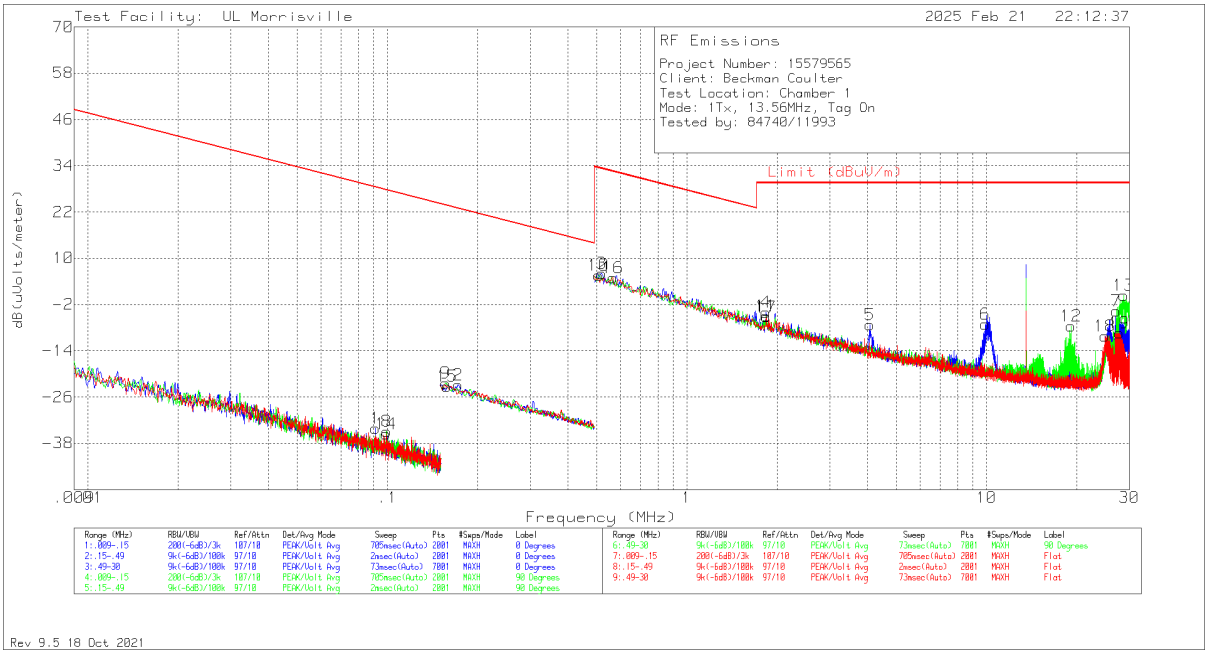


ANTENNA FACE FLAT

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	135144 (dB/m)	Gain/Loss (dB)	Dist. Corr. Factor (dB)	Corrected Reading dB(uVolts/meter)	Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Loop Angle
1	12.8145	16.48	Pk	9.9	.6	-40	-13.02	29.5	-42.52	169	100	Flat
2	13.2555	16.93	Pk	9.8	.6	-40	-12.67	40.5	-53.17	169	100	Flat
3	13.4585	15.98	Pk	9.8	.6	-40	-13.62	50.5	-64.12	169	100	Flat
4	13.56	22.48	Pk	9.8	.6	-40	-7.12	84	-91.12	169	100	Flat
5	13.6825	16.21	Pk	9.8	.6	-40	-13.39	50.5	-63.89	169	100	Flat
6	13.9695	16.58	Pk	9.7	.6	-40	-13.12	40.5	-53.62	169	100	Flat
7	14.659	16.74	Pk	9.6	.6	-40	-13.06	29.5	-42.56	169	100	Flat

Pk - Peak detector

SPURIOUS EMISSION – E FIELD

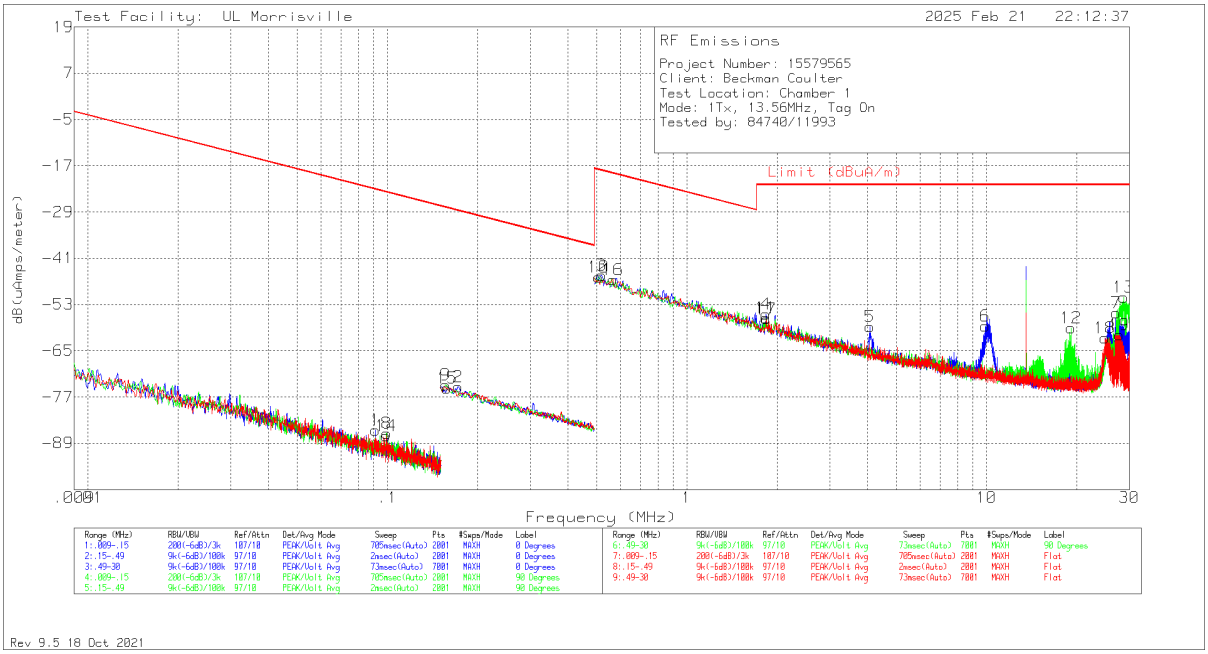


BL30MHz SPURIOUS EMISSIONS

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	135144 (dB/m)	Gain/Loss (dB)	Dist. Corr. Factor (dB)	Corrected Reading dB(uVolts/meter)	QP/AV Limit (dBuV/m)	PK Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Loop Angle
1	.09108	34.72	Pk	11.1	.1	-80	-34.08	28.42	-	-62.5	0-360	0 degs
14	.09917	33.3	Pk	11.1	.1	-80	-35.5	27.68	-	-63.18	0-360	Flat
8	.09931	33.95	Pk	11.1	.1	-80	-34.85	27.66	-	-62.51	0-360	90 degs
9	.15655	46.48	Pk	11	.1	-80	-22.42	23.71	43.71	-46.13	0-360	90 degs
15	.15833	45.74	Pk	11	.1	-80	-23.16	23.61	43.61	-46.77	0-360	Flat
2	.17227	45.99	Pk	11	.1	-80	-22.91	22.88	42.88	-45.79	0-360	0 degs
10	.50686	34.53	Pk	11	.1	-40	5.63	33.51	-	-27.88	0-360	90 degs
3	.51951	35.04	Pk	11	.1	-40	6.14	33.29	-	-27.15	0-360	0 degs
16	.56589	33.85	Pk	11	.1	-40	4.95	32.55	-	-27.6	0-360	Flat
4	1.8349	24.67	Pk	11.1	.2	-40	-4.03	29.54	-	-33.57	0-360	0 degs
11	1.8349	23.76	Pk	11.1	.2	-40	-4.94	29.54	-	-34.48	0-360	90 degs
17	1.83912	23.47	Pk	11.1	.2	-40	-5.23	29.54	-	-34.77	0-360	Flat
5	4.08203	21.42	Pk	11	.3	-40	-7.28	29.54	-	-36.82	0-360	0 degs
6	9.92119	22.25	Pk	10.2	.5	-40	-7.05	29.54	-	-36.59	0-360	0 degs
12	19.15845	22.56	Pk	9.1	.7	-40	-7.64	29.54	-	-37.18	0-360	90 degs
18	24.90275	20.86	Pk	8.2	.8	-40	-10.14	29.54	-	-39.68	0-360	Flat
7	27.16042	27.83	Pk	7.7	.8	-40	-3.67	29.54	-	-33.21	0-360	0 degs
19	27.7085	22.26	Pk	7.6	.8	-40	-9.34	29.54	-	-38.88	0-360	Flat
13	28.68661	32.25	Pk	7.4	.8	-40	.45	29.54	-	-29.09	0-360	90 degs

Pk – Peak Detector

SPURIOUS EMISSION – H FIELD



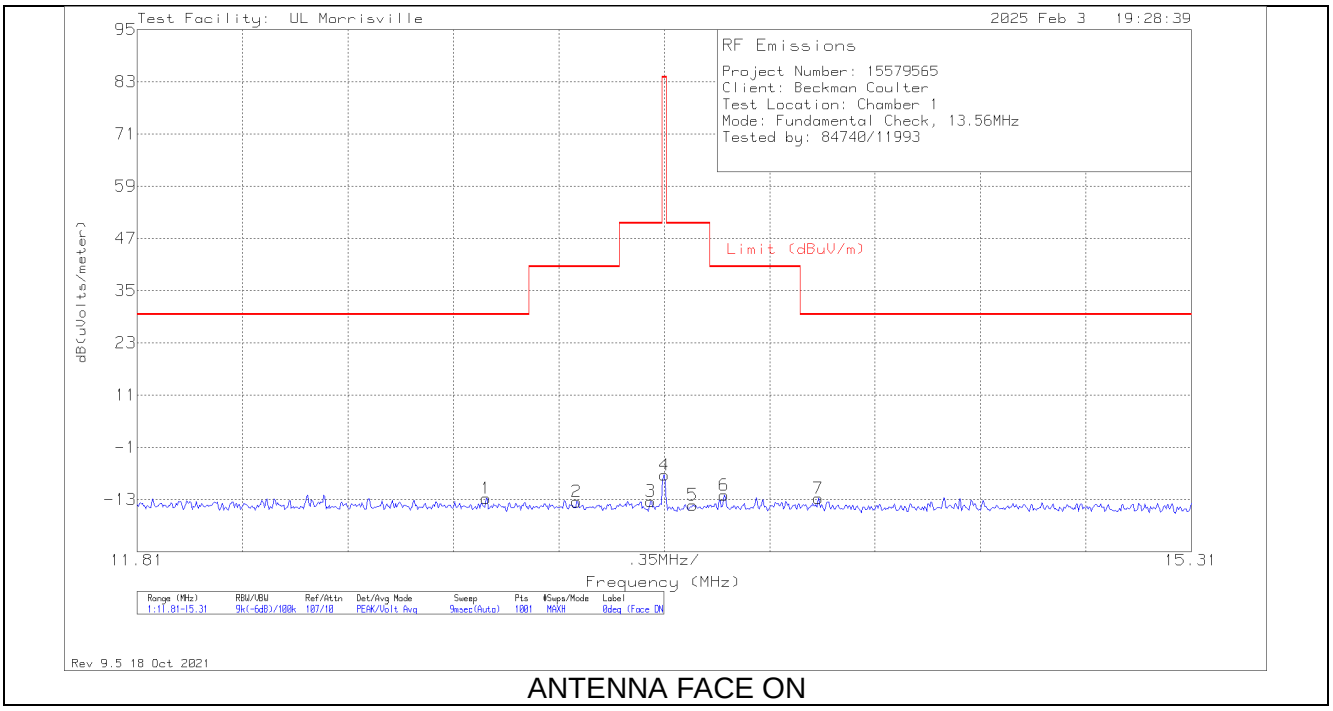
BL30MHz SPURIOUS EMISSIONS

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	135144 (dB/m)	Gain/Loss (dB)	Dist. Corr. Factor (dB)	Corrected Reading dB(uAmps/meter)	QP/AV Limit (dBuV/m)	PK Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Loop Angle
1	.09108	34.72	Pk	-40.4	.1	-80	-85.58	-23.08	-	-62.5	0-360	0 degs
14	.09917	33.3	Pk	-40.4	.1	-80	-87	-23.82	-	-63.18	0-360	Flat
8	.09931	33.95	Pk	-40.4	.1	-80	-86.35	-23.84	-	-62.51	0-360	90 degs
9	.15655	46.48	Pk	-40.5	.1	-80	-73.92	-27.79	-7.79	-46.13	0-360	90 degs
15	.15833	45.74	Pk	-40.5	.1	-80	-74.66	-27.89	-7.89	-46.77	0-360	Flat
2	.17227	45.99	Pk	-40.5	.1	-80	-74.41	-28.62	-8.62	-45.79	0-360	0 degs
10	.50686	34.53	Pk	-40.5	.1	-40	-45.87	-17.99	-	-27.88	0-360	90 degs
3	.51951	35.04	Pk	-40.5	.1	-40	-45.36	-18.21	-	-27.15	0-360	0 degs
16	.56589	33.85	Pk	-40.5	.1	-40	-46.55	-18.95	-	-27.6	0-360	Flat
4	1.8349	24.67	Pk	-40.4	.2	-40	-55.53	-21.96	-	-33.57	0-360	0 degs
11	1.8349	23.76	Pk	-40.4	.2	-40	-56.44	-21.96	-	-34.48	0-360	90 degs
17	1.83912	23.47	Pk	-40.4	.2	-40	-56.73	-21.96	-	-34.77	0-360	Flat
5	4.08203	21.42	Pk	-40.5	.3	-40	-58.78	-21.96	-	-36.82	0-360	0 degs
6	9.92119	22.25	Pk	-41.3	.5	-40	-58.55	-21.96	-	-36.59	0-360	0 degs
12	19.15845	22.56	Pk	-42.4	.7	-40	-59.14	-21.96	-	-37.18	0-360	90 degs
18	24.90275	20.86	Pk	-43.3	.8	-40	-61.64	-21.96	-	-39.68	0-360	Flat
7	27.16042	27.83	Pk	-43.8	.8	-40	-55.17	-21.96	-	-33.21	0-360	0 degs
19	27.7085	22.26	Pk	-43.9	.8	-40	-60.84	-21.96	-	-38.88	0-360	Flat
13	28.68661	32.25	Pk	-44.1	.8	-40	-51.05	-21.96	-	-29.09	0-360	90 degs

Pk – Peak Detector

9.2.2. Tag Off

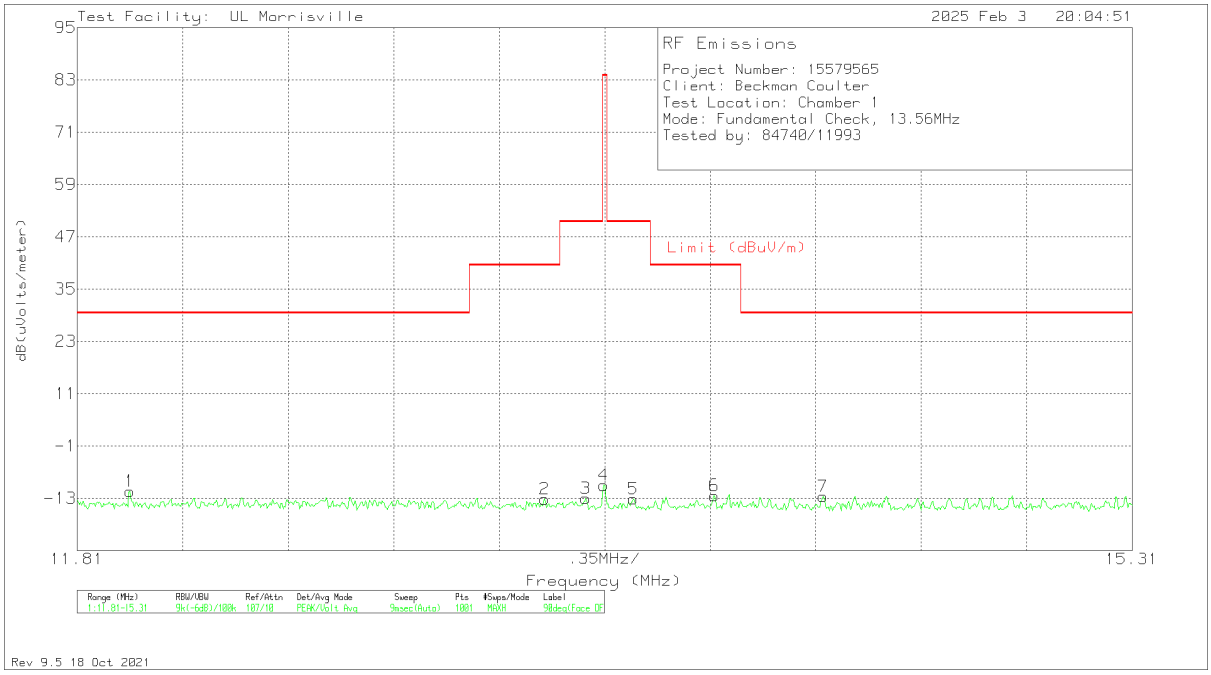
FUNDAMENTAL



ANTENNA FACE ON

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	135144 (dB/m)	Gain/Loss (dB)	Dist. Corr. Factor (dB)	Corrected Reading dB(uVolts/meter)	Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Loop Angle
1	12.9685	16.85	Pk	9.8	.6	-40	-12.75	29.5	-42.25	125	100	0 degs
2	13.2695	16.1	Pk	9.8	.6	-40	-13.5	40.5	-54	125	100	0 degs
3	13.5145	16.19	Pk	9.8	.6	-40	-13.41	50.5	-63.91	125	100	0 degs
4	13.56	22.18	Pk	9.8	.6	-40	-7.42	84	-91.42	125	100	0 degs
5	13.6545	15.31	Pk	9.8	.6	-40	-14.29	50.5	-64.79	125	100	0 degs
6	13.7595	17.67	Pk	9.7	.6	-40	-12.03	40.5	-52.53	125	100	0 degs
7	14.071	16.94	Pk	9.7	.6	-40	-12.76	29.5	-42.26	125	100	0 degs

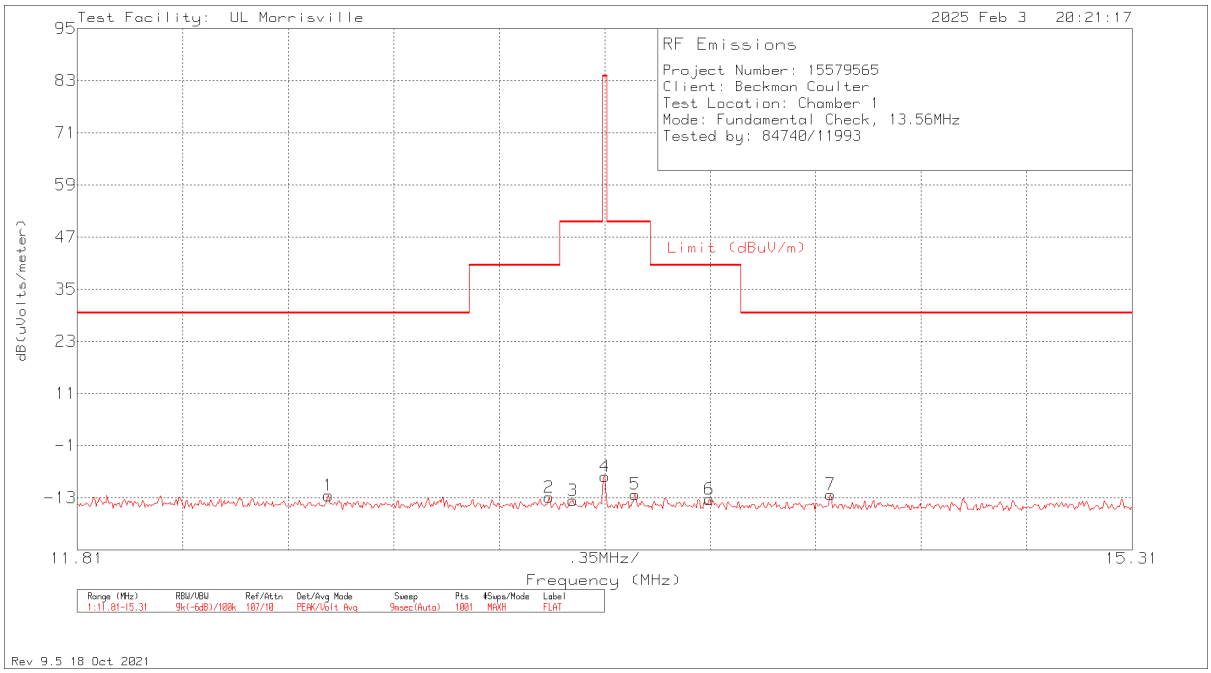
Pk - Peak detector



ANTENNA FACE OFF

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	135144 (dB/m)	Gain/Loss (dB)	Dist. Corr. Factor (dB)	Corrected Reading dB(uVolts/meter)	Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Loop Angle
1	11.985	18.08	Pk	10	.5	-40	-11.42	29.5	-40.92	203	100	90 degs
2	13.3605	16.39	Pk	9.8	.6	-40	-13.21	40.5	-53.71	203	100	90 degs
3	13.497	16.55	Pk	9.8	.6	-40	-13.05	50.5	-63.55	203	100	90 degs
4	13.5565	19.57	Pk	9.8	.6	-40	-10.03	84	-94.03	203	100	90 degs
5	13.6545	16.4	Pk	9.8	.6	-40	-13.2	50.5	-63.7	203	100	90 degs
6	13.924	17.28	Pk	9.7	.6	-40	-12.42	40.5	-52.92	203	100	90 degs
7	14.2845	17.11	Pk	9.7	.6	-40	-12.59	29.5	-42.09	203	100	90 degs

Pk - Peak detector

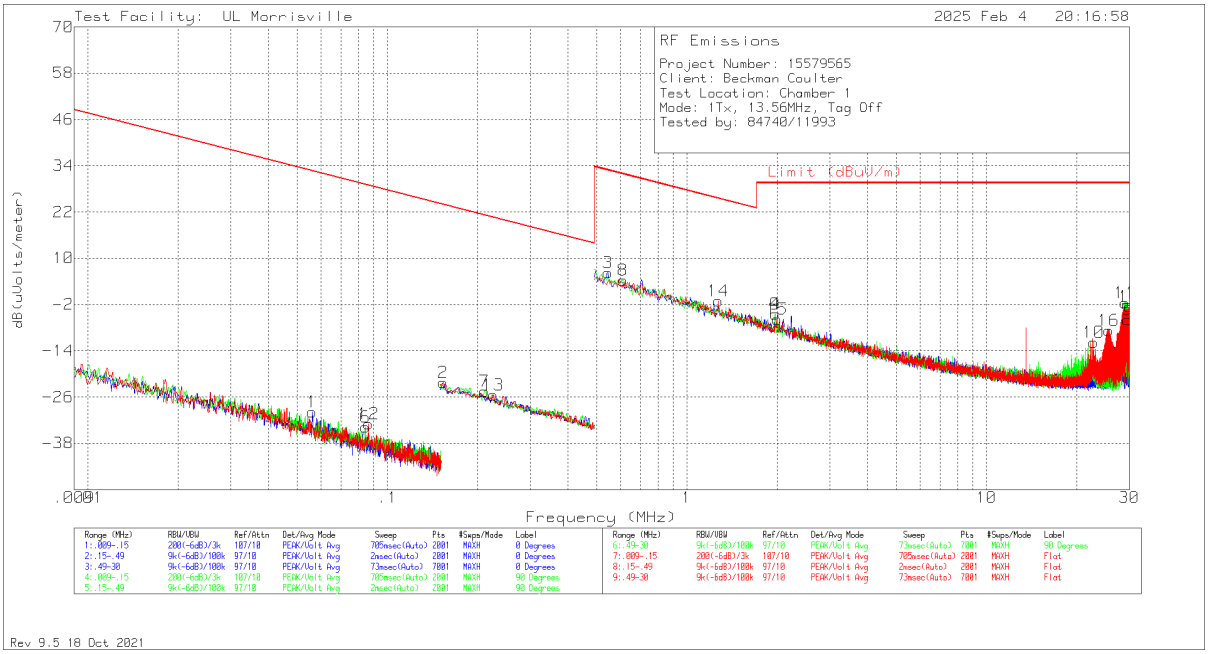


ANTENNA FACE FLAT

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	135144 (dB/m)	Gain/Loss (dB)	Dist. Corr. Factor (dB)	Corrected Reading dB(uVolts/meter)	Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Loop Angle
1	12.643	17	Pk	9.9	.6	-40	-12.5	29.5	-42	153	100	Flat
2	13.3745	16.69	Pk	9.8	.6	-40	-12.91	40.5	-53.41	153	100	Flat
3	13.455	15.97	Pk	9.8	.6	-40	-13.63	50.5	-64.13	153	100	Flat
4	13.56	21.48	Pk	9.8	.6	-40	-8.12	84	-92.12	153	100	Flat
5	13.6615	17.36	Pk	9.8	.6	-40	-12.24	50.5	-62.74	153	100	Flat
6	13.9065	16.34	Pk	9.7	.6	-40	-13.36	40.5	-53.86	153	100	Flat
7	14.309	17.44	Pk	9.7	.6	-40	-12.26	29.5	-41.76	153	100	Flat

Pk - Peak detector

SPURIOUS EMISSION – E FIELD

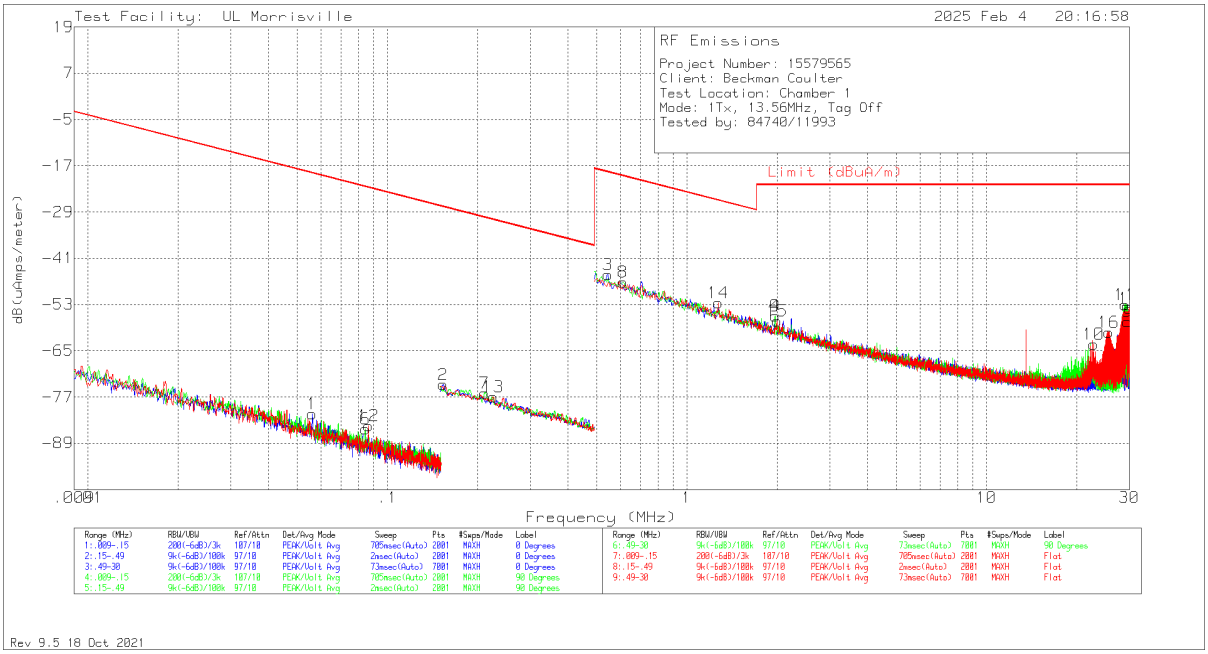


BL30MHz SPURIOUS EMISSIONS

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	135144 (dB/m)	Gain/Loss (dB)	Dist. Corr. Factor (dB)	Corrected Reading dB(uVolts/meter)	QP/AV Limit (dBuA/m)	PK Limit (dBuA/m)	Margin (dB)	Azimuth (Degs)	Loop Angle
1	.05607	38.62	Pk	11.4	.1	-80	-29.88	32.63	52.63	-62.51	0-360	0 degs
6	.08447	34.93	Pk	11.2	.1	-80	-33.77	29.07	49.07	-62.84	0-360	90 degs
12	.08653	35.69	Pk	11.2	.1	-80	-33.01	28.86	48.86	-61.87	0-360	Flat
2	.1534	46.61	Pk	11	.1	-80	-22.29	23.89	43.89	-46.18	0-360	0 degs
7	.21086	44.48	Pk	10.9	.1	-80	-24.52	21.12	41.12	-45.64	0-360	90 degs
13	.22548	43.56	Pk	10.9	.1	-80	-25.44	20.54	40.54	-45.98	0-360	Flat
3	.54481	35.09	Pk	11	.1	-40	6.19	32.88	-	-26.69	0-360	0 degs
8	.61226	33.2	Pk	11	.1	-40	4.3	31.87	-	-27.57	0-360	90 degs
14	1.26996	27.73	Pk	11	.2	-40	-1.07	25.53	-	-26.6	0-360	Flat
4	1.96982	24.21	Pk	11.1	.2	-40	-4.49	29.54	-	-34.03	0-360	0 degs
9	1.96982	24.23	Pk	11.1	.2	-40	-4.47	29.54	-	-34.01	0-360	90 degs
15	1.99933	22.89	Pk	11.1	.2	-40	-5.81	29.54	-	-35.35	0-360	Flat
10	22.81372	18.93	Pk	8.5	.8	-40	-11.77	29.54	-	-41.31	0-360	90 degs
16	25.5499	22.41	Pk	8.1	.8	-40	-8.69	29.54	-	-38.23	0-360	Flat
11	28.99016	30.35	Pk	7.3	.8	-40	-1.55	29.54	-	-31.09	0-360	90 degs
5	29.62678	25.9	Pk	7.2	.9	-40	-6	29.54	-	-35.54	0-360	0 degs
17	29.92611	29.5	Pk	7.1	.9	-40	-2.5	29.54	-	-32.04	0-360	Flat

Pk – Peak Detector

SPURIOUS EMISSION – H FIELD



BL30MHz SPURIOUS EMISSIONS

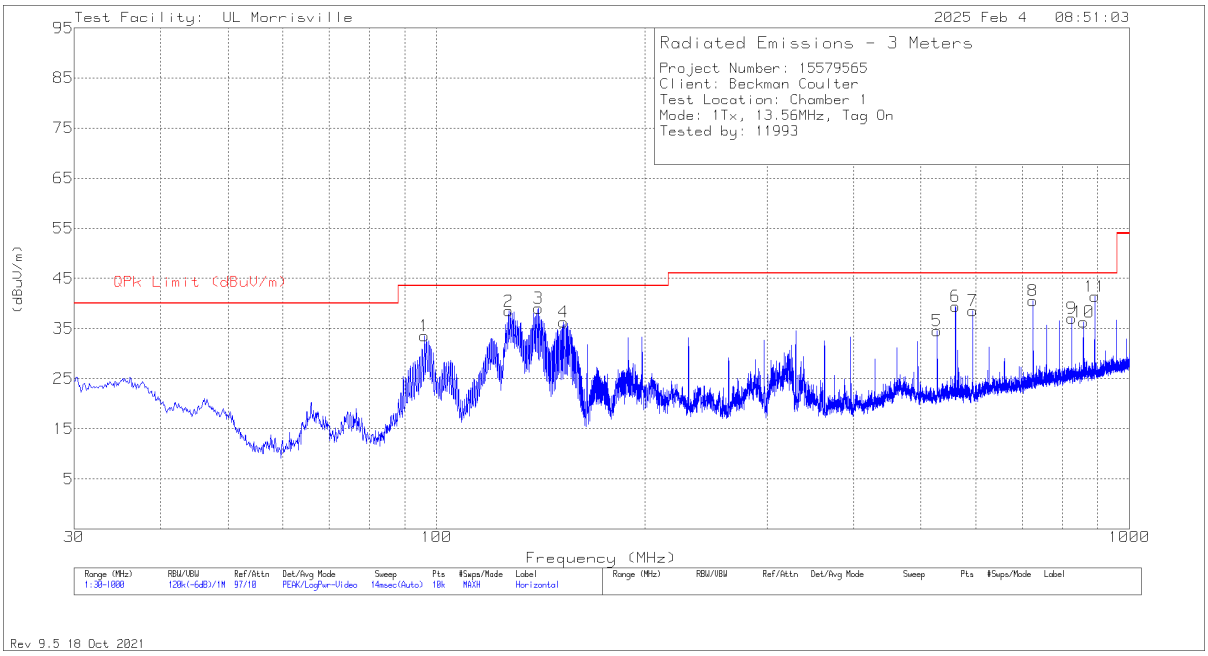
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	135144 (dB/m)	Gain/Loss (dB)	Dist. Corr. Factor (dB)	Corrected Reading dB(uAmps/meter)	QP/AV Limit (dBuA/m)	PK Limit (dBuA/m)	Margin (dB)	Azimuth (Degs)	Loop Angle
1	.05607	38.62	Pk	-40.1	.1	-80	-81.38	-18.87	1.13	-62.51	0-360	0 degs
6	.08447	34.93	Pk	-40.3	.1	-80	-85.27	-22.43	2.43	-62.84	0-360	90 degs
12	.08653	35.69	Pk	-40.3	.1	-80	-84.51	-22.64	2.64	-61.87	0-360	Flat
2	.1534	46.61	Pk	-40.5	.1	-80	-73.79	-27.61	-7.61	-46.18	0-360	0 degs
7	.21086	44.48	Pk	-40.6	.1	-80	-76.02	-30.38	-10.38	-45.64	0-360	90 degs
13	.22548	43.56	Pk	-40.6	.1	-80	-76.94	-30.96	-10.96	-45.98	0-360	Flat
3	.54481	35.09	Pk	-40.5	.1	-40	-45.31	-18.62	-	-26.69	0-360	0 degs
8	.61226	33.2	Pk	-40.5	.1	-40	-47.2	-19.63	-	-27.57	0-360	90 degs
14	1.26996	27.73	Pk	-40.5	.2	-40	-52.57	-25.97	-	-26.6	0-360	Flat
4	1.96982	24.21	Pk	-40.4	.2	-40	-55.99	-21.96	-	-34.03	0-360	0 degs
9	1.96982	24.23	Pk	-40.4	.2	-40	-55.97	-21.96	-	-34.01	0-360	90 degs
15	1.99933	22.89	Pk	-40.4	.2	-40	-57.31	-21.96	-	-35.35	0-360	Flat
10	22.81372	18.93	Pk	-43	.8	-40	-63.27	-21.96	-	-41.31	0-360	90 degs
16	25.5499	22.41	Pk	-43.4	.8	-40	-60.19	-21.96	-	-38.23	0-360	Flat
11	28.99016	30.35	Pk	-44.2	.8	-40	-53.05	-21.96	-	-31.09	0-360	90 degs
5	29.62678	25.9	Pk	-44.3	.9	-40	-57.5	-21.96	-	-35.54	0-360	0 degs
17	29.92611	29.5	Pk	-44.4	.9	-40	-54	-21.96	-	-32.04	0-360	Flat

Pk – Peak Detector

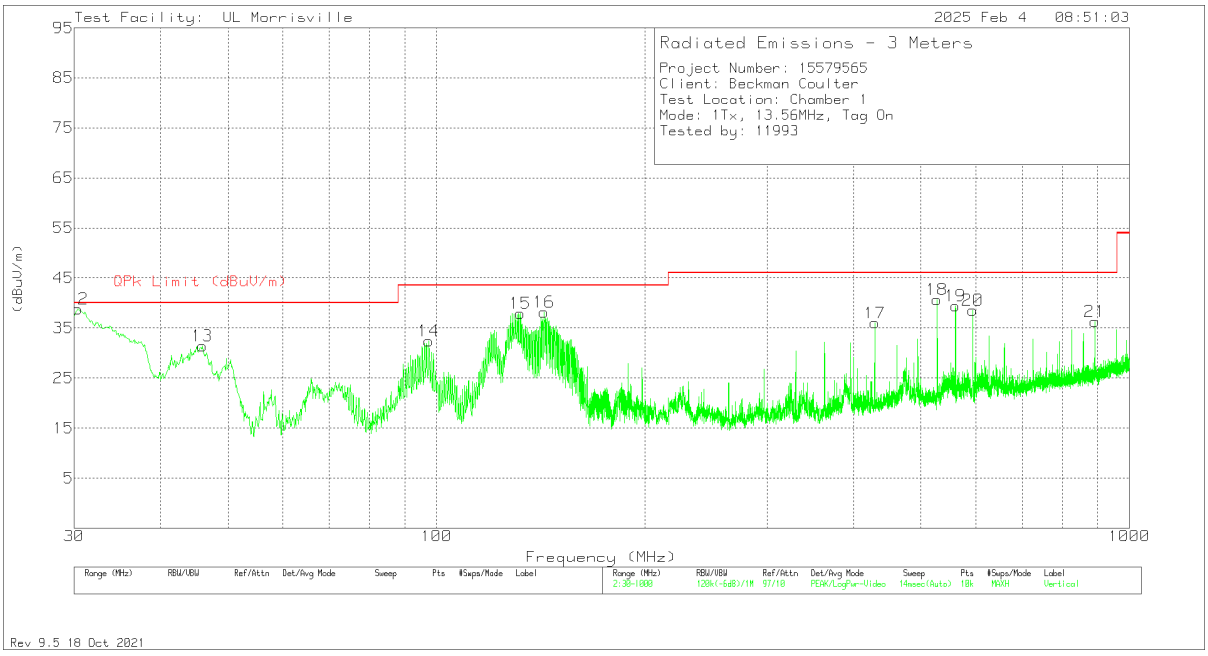
9.3. TX SPURIOUS EMISSION 30 TO 1000 MHz

9.3.1. Tag On

SPURIOUS EMISSION



HORIZONTAL



VERTICAL

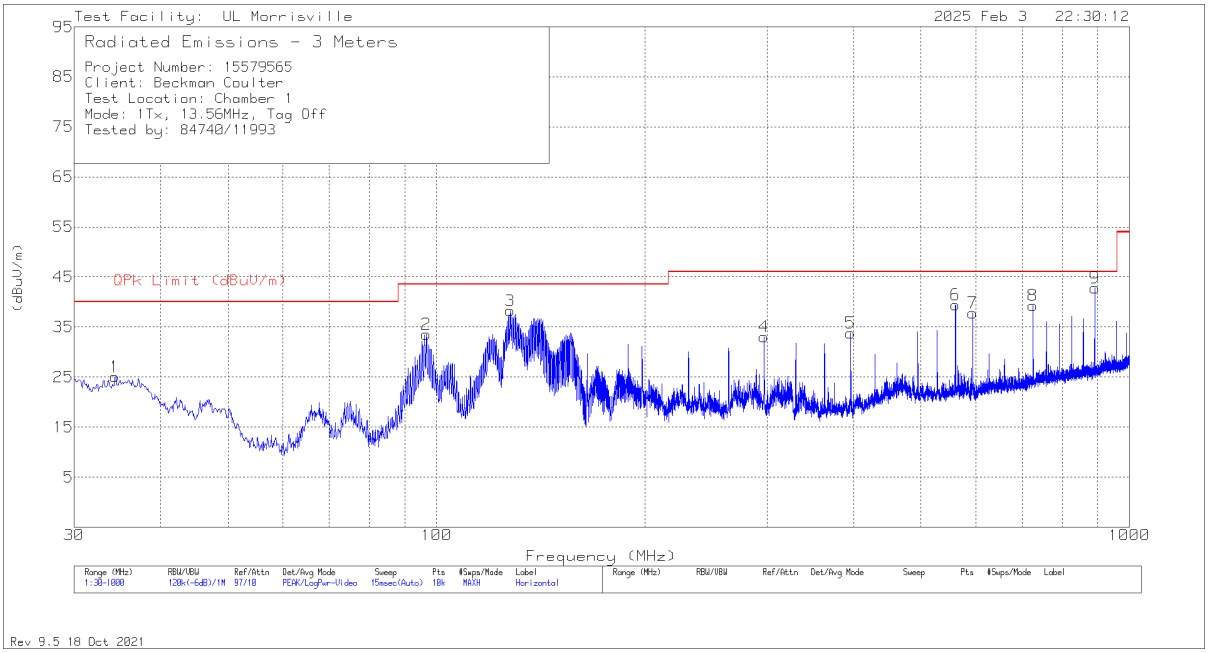
DATA

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	90629 (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
12	30.631	42.66	Qp	26.4	-31.8	37.26	40	-2.74	113	100	V
13	45.908	47.41	Pk	15.8	-31.8	31.41	40	-8.59	0-360	100	V
1	96.057	48.97	Pk	15.7	-31.1	33.57	43.52	-9.95	0-360	299	H
14	97.4635	47.47	Pk	16	-31	32.47	43.52	-11.05	0-360	100	V
2	127.1037	46.36	Qp	20.1	-30.7	35.76	43.52	-7.76	195	189	H
15	132.1132	45.05	Qp	19.9	-30.6	34.35	43.52	-9.17	286	120	V
3	140.1119	45.76	Qp	19.4	-30.8	34.36	43.52	-9.16	203	179	H
16	142.9758	47.94	Qp	19.2	-30.5	36.64	43.52	-6.88	121	100	V
4	152.414	48.54	Pk	18.7	-30.9	36.34	43.52	-7.18	0-360	200	H
17	428.961	42.69	Pk	22.5	-29.2	35.99	46.02	-10.03	0-360	100	V
5	527.998	39	Pk	24	-28.4	34.6	46.02	-11.42	0-360	100	H
18	527.9903	44.67	Pk	24	-28.4	40.27	46.02	-5.75	22	100	V
6	560.978	43.88	Pk	24.7	-29.1	39.48	46.02	-6.54	0-360	100	H
19	560.978	43.83	Pk	24.7	-29.1	39.43	46.02	-6.59	0-360	100	V
20	593.958	42.01	Pk	24.3	-27.8	38.51	46.02	-7.51	0-360	100	V
7	594.055	42.08	Pk	24.3	-27.8	38.58	46.02	-7.44	0-360	100	H
8	725.9817	40.38	Qp	26.8	-27.5	39.68	46.02	-6.34	328	100	H
9	825.012	36.57	Pk	27.9	-27.4	37.07	46.02	-8.95	0-360	100	H
10	858.089	35.53	Pk	28.1	-27.3	36.33	46.02	-9.69	0-360	100	H
11	890.9693	41.1	Qp	28.2	-27	42.3	46.02	-3.72	6	135	H
21	891.069	35.01	Pk	28.2	-26.9	36.31	46.02	-9.71	0-360	100	V

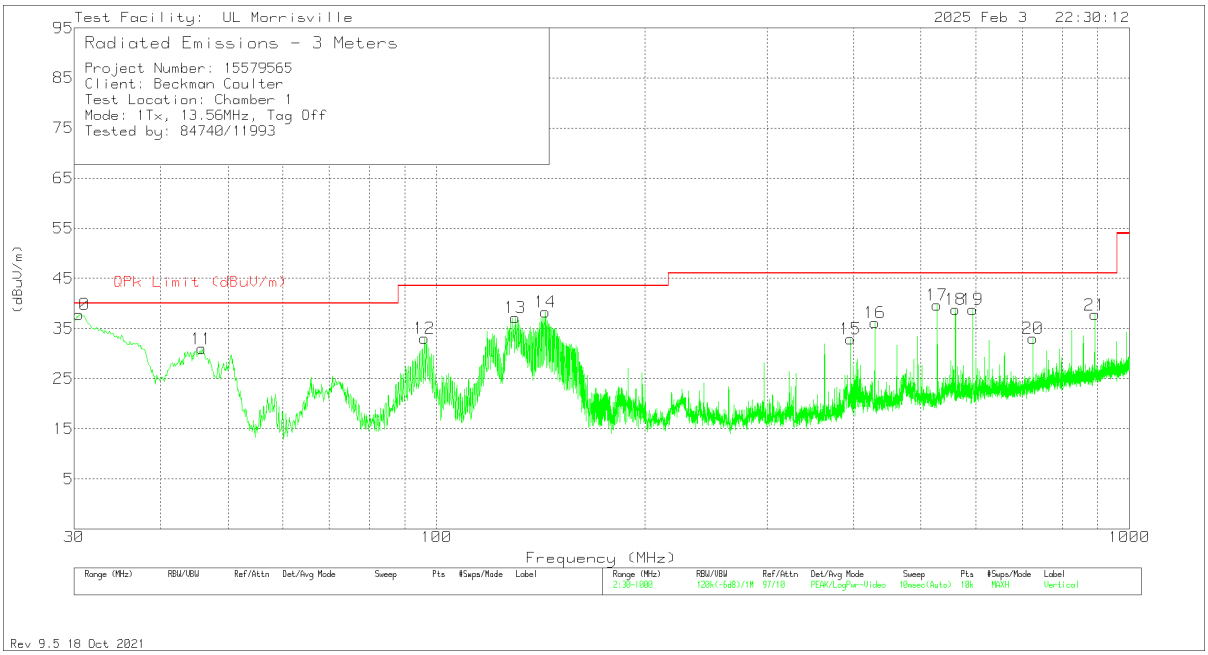
Pk - Peak detector
Qp - Quasi-Peak detector

9.3.2. Tag Off

SPURIOUS EMISSION



HORIZONTAL



VERTICAL

DATA

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	90629 (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
10	30.6034	41.86	Qp	26.4	-31.8	36.46	40	-3.54	95	101	V
1	34.365	33.19	Pk	23.8	-31.9	25.09	40	-14.91	0-360	399	H
11	45.811	46.98	Pk	15.8	-31.8	30.98	40	-9.02	0-360	100	V
12	96.057	48.42	Pk	15.7	-31.1	33.02	43.52	-10.5	0-360	100	V
2	96.736	48.72	Pk	15.8	-31	33.52	43.52	-10	0-360	300	H
3	127.7833	46.42	Qp	20.1	-31	35.52	43.52	-8	223	221	H
13	129.91	48.22	Pk	20	-31	37.22	43.52	-6.3	0-360	100	V
14	143.579	48.01	Qp	19.1	-30.6	36.51	43.52	-7.01	111	100	V
4	296.944	42.58	Pk	19.6	-29.1	33.08	46.02	-12.94	0-360	99	H
5	395.981	41.25	Pk	21.3	-28.8	33.75	46.02	-12.27	0-360	99	H
15	395.981	40.46	Pk	21.3	-28.8	32.96	46.02	-13.06	0-360	100	V
16	429.058	42.92	Pk	22.5	-29.2	36.22	46.02	-9.8	0-360	100	V
17	527.998	44.1	Pk	24	-28.4	39.7	46.02	-6.32	0-360	100	V
6	560.978	43.82	Pk	24.7	-29.1	39.42	46.02	-6.6	0-360	99	H
18	560.978	43.21	Pk	24.7	-29.1	38.81	46.02	-7.21	0-360	100	V
7	593.958	41.28	Pk	24.3	-27.8	37.78	46.02	-8.24	0-360	99	H
19	594.055	42.28	Pk	24.3	-27.8	38.78	46.02	-7.24	0-360	100	V
8	725.975	39.96	Pk	26.8	-27.5	39.26	46.02	-6.76	0-360	99	H
20	726.072	33.75	Pk	26.8	-27.5	33.05	46.02	-12.97	0-360	100	V
9	890.987	40.97	Qp	28.2	-27	42.17	46.02	-3.85	4	135	H
21	891.069	36.44	Pk	28.2	-26.9	37.74	46.02	-8.28	0-360	100	V

Pk - Peak detector
Qp - Quasi-Peak detector

10. FREQUENCY STABILITY

LIMIT

§15.225 (e) The frequency tolerance of the carrier signal shall be maintained within ±0.01% of the operating frequency, over a temperature variation of -20 degrees to +50 degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20 degrees C. For battery operated equipment, the equipment tests shall be performed using a new battery.

IC RSS-210, Annex B.6
Carrier frequency stability shall be maintained to ±0.01% (±100 ppm).

TEST PROCEDURE

ANSI C63.10-2013 Clause 6.8

RESULTS

No non-compliance noted.

10.1. WITH TAG

Reference Frequency: EUT Channel 13.56 MHz @ 20ºC Limit: ± 100 ppm = 1.356 kHz										
Power Supply	Envir. Temp	Frequency Deviation Measureed with Time Elapse								
(Vac)	(ºC)	Startup (MHz)	Delta (ppm)	@ 2 mins (MHz)	Delta (ppm)	@ 5 mins (MHz)	Delta (ppm)	@ 10 mins (MHz)	Delta (ppm)	Limit (ppm)
110.00	50	13.5595107	1.379	13.5594984	2.289	13.5594872	3.113	13.5594713	4.286	± 100
110.00	40	13.5595798	-3.719	13.5595680	-2.845	13.5595537	-1.791	13.5595376	-0.606	± 100
110.00	30	13.5596599	-9.621	13.5596550	-9.259	13.5596415	-8.265	13.5596213	-6.779	± 100
110.00	***20***	***13.5595294***	***0.000***	***13.5595292***	***0.016***	***13.5595289***	***0.037***	***13.5595284***	***0.073***	***± 100***
110.00	10	13.5596723	-10.539	13.5596699	-10.362	13.5596667	***-10.125***	13.5596652	-10.011	± 100
110.00	0	13.5596830	-11.324	13.5596828	-11.313	13.5596825	-11.289	13.5596818	-11.236	± 100
110.00	-10	13.5596675	-10.183	13.5596700	-10.365	13.5596735	-10.624	13.5596789	-11.026	± 100
110.00	-20	13.5595876	-4.294	13.5596006	-5.249	13.5596142	-6.254	13.5596362	-7.875	± 100
93.50	20	13.5595739	-3.279	13.5595654	-2.657	13.5595638	-2.537	13.5595620	-2.401	± 100
126.50	20	13.5595745	-3.324	13.5595692	-2.932	13.5595675	-2.808	13.5595659	-2.688	± 100

Tested by: 85502, 84740
Test date: 2025/02/06

10.2. WITHOUT TAG

Reference Frequency: EUT Channel 13.56 MHz @ 20ºC Limit: ± 100 ppm = 1.356 kHz										
Power Supply	Envir. Temp	Frequency Deviation Measureed with Time Elapse								
(Vac)	(ºC)	Startup (MHz)	Delta (ppm)	@ 2 mins (MHz)	Delta (ppm)	@ 5 mins (MHz)	Delta (ppm)	@ 10 mins (MHz)	Delta (ppm)	Limit (ppm)
110.00	50	13.5594304	4.142	13.5594263	4.444	13.5594180	5.058	13.5594124	5.469	± 100
110.00	40	13.5594722	1.064	13.5594687	1.317	13.5594641	1.656	13.5594572	2.165	± 100
110.00	30	13.5595009	-1.059	13.5594979	-0.831	13.5594962	-0.711	13.5594936	-0.516	± 100
110.00	***20***	***13.5594866***	***0.000***	***13.5594893***	***-0.199***	***13.5594931***	***-0.479***	***13.5594991***	***-0.922***	***± 100***
110.00	10	13.5594667	1.468	13.5594755	0.820	13.5594835	***0.231***	13.5594977	-0.821	± 100
110.00	0	13.5595378	-3.777	13.5595441	-4.243	13.5595531	-4.906	13.5595664	-5.884	± 100
110.00	-10	13.5595808	-6.945	13.5595871	-7.416	13.5595963	-8.092	13.5596110	-9.176	± 100
110.00	-20	13.5596488	-11.963	13.5596546	-12.392	13.5596630	-13.013	13.5596751	-13.906	± 100
93.50	20	13.5595935	-7.888	13.5595876	-7.448	13.5595845	-7.221	13.5595804	-6.916	± 100
126.50	20	13.5595879	-7.471	13.5595788	-6.800	13.5595763	-6.616	13.5595736	-6.419	± 100

Tested by: 105900/84740, 84740
Test date: 2025/02/06

11. AC MAINS LINE CONDUCTED EMISSIONS

LIMITS

FCC §15.207
IC RSS-GEN, Section 8.8

(a) Except as shown in paragraphs (b) and (c) of 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 50µH/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 band edges.

Frequency range (MHz)	Limits (dBµV)	
	Quasi-peak	Average
0.15 to 0.50	66 to 56	56 to 46
0.50 to 5	56	46
5 to 30	60	50
Notes: 1. The lower limit shall apply at the transition frequencies 2. The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz.		

TEST PROCEDURE

The EUT is placed on a non-conducting table 40 cm from the vertical ground plane and 80 cm above the horizontal ground plane. The EUT is configured in accordance with ANSI C63.10.

The receiver is set to a resolution bandwidth of 9 kHz. Peak detection is used unless otherwise noted as quasi-peak or average.

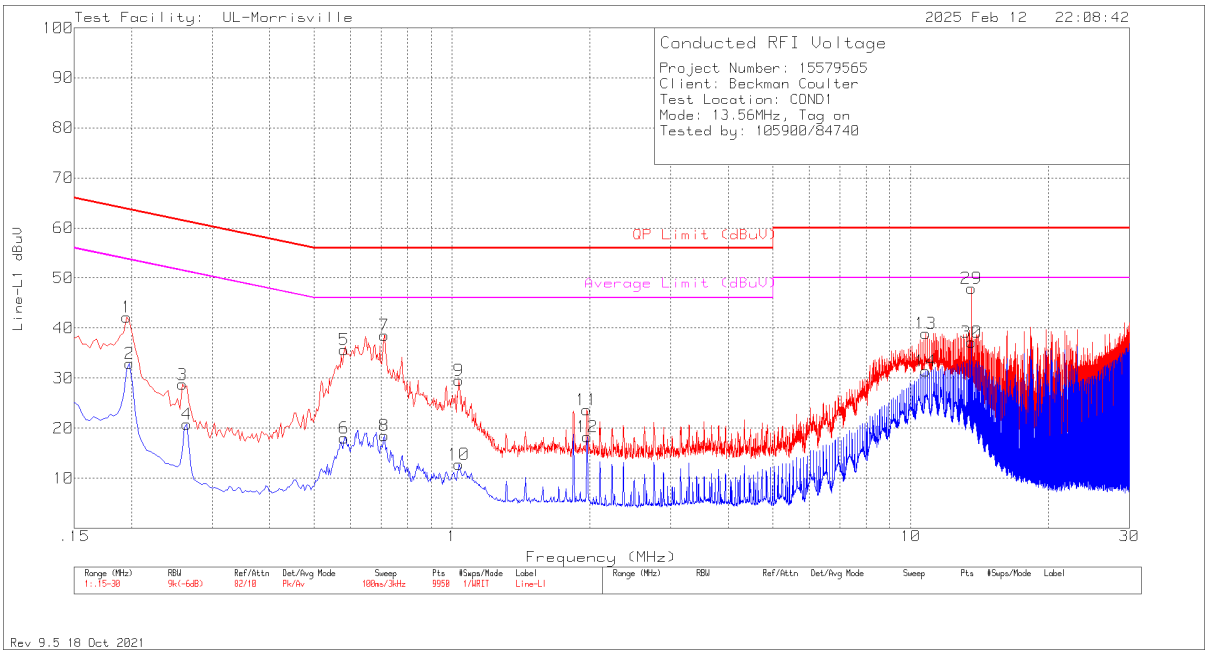
Line conducted data is recorded for both NEUTRAL and HOT lines.

RESULTS

No non-compliance noted:

11.1.1. Tag On

LINE 1 RESULTS

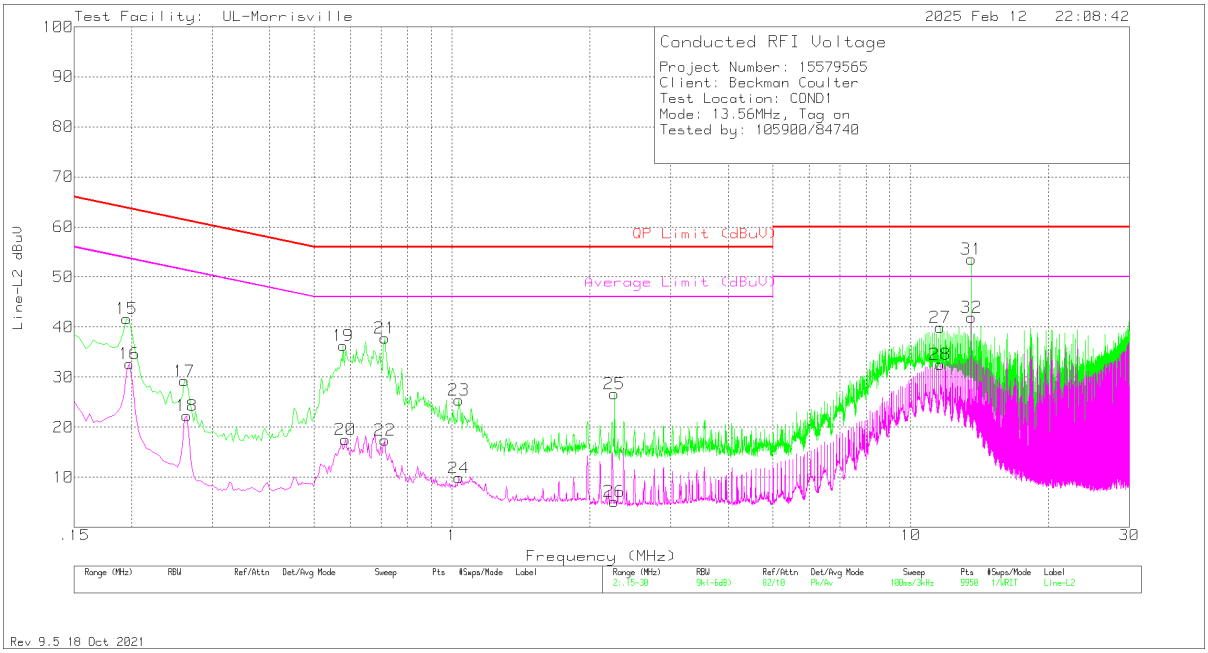


Emissions

Range 1: Line-L1 .15 - 30MHz										
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	LISN VDF (dB)	Cbl/Limiter (dB)	Corrected Reading dBuV	QP Limit (dBuV)	Margin (dB)	Average Limit (dBuV)	Margin (dB)
1	.195	32.14	Pk	.2	9.8	42.14	63.82	-21.68	-	-
2	.198	22.89	Av	.2	9.8	32.89	-	-	53.69	-20.8
3	.258	18.82	Pk	.1	9.8	28.72	61.5	-32.78	-	-
4	.264	10.92	Av	.1	9.8	20.82	-	-	51.3	-30.48
5	.582	25.85	Pk	0	9.8	35.65	56	-20.35	-	-
6	.582	8.23	Av	0	9.8	18.03	-	-	46	-27.97
7	.711	28.78	Pk	0	9.8	38.58	56	-17.42	-	-
8	.711	8.69	Av	0	9.8	18.49	-	-	46	-27.51
9	1.035	19.78	Pk	0	9.8	29.58	56	-26.42	-	-
10	1.035	2.98	Av	0	9.8	12.78	-	-	46	-33.22
11	1.968	13.82	Pk	0	9.8	23.62	56	-32.38	-	-
12	1.971	8.43	Av	0	9.8	18.23	-	-	46	-27.77
13	10.788	28.8	Pk	.1	10	38.9	60	-21.1	-	-
14	10.788	21.29	Av	.1	10	31.39	-	-	50	-18.61
29	13.56	37.8	Pk	.1	10	47.9	60	-12.1	-	-
30	13.56	27.08	Av	.1	10	37.18	-	-	50	-12.82

Pk - Peak detector
Av - Average detection

LINE 2 RESULTS



Emissions

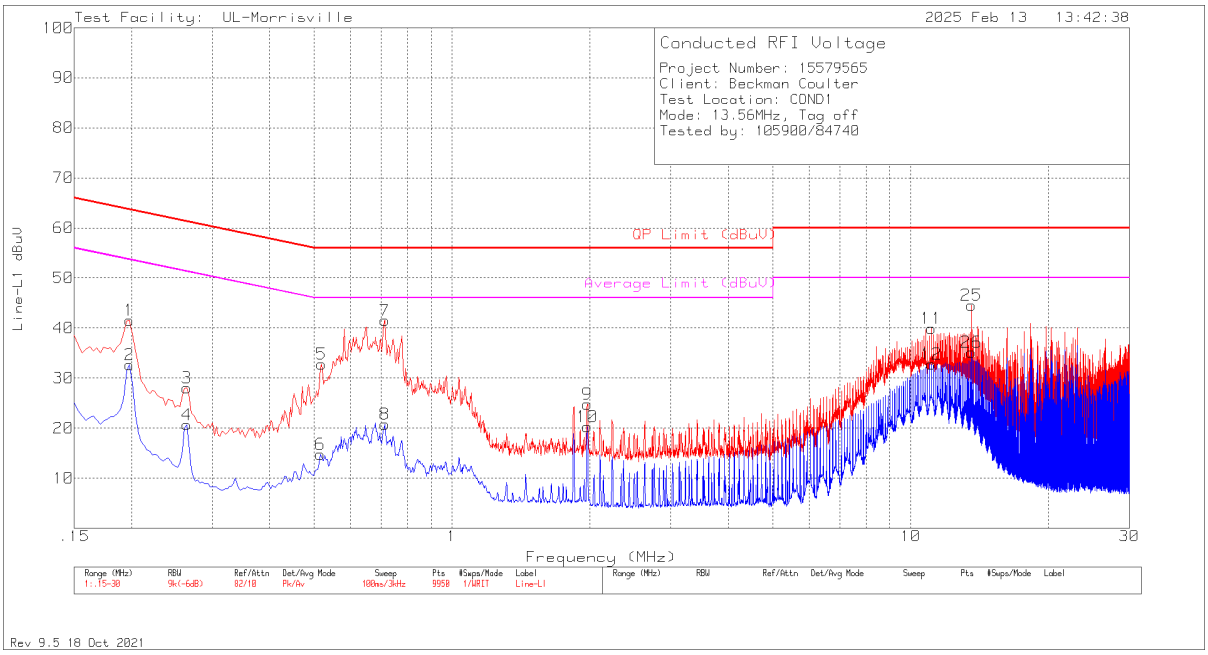
Range 2: Line-L2 .15 - 30MHz										
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	LISN VDF (dB)	Cbl/Limiter (dB)	Corrected Reading dBuV	QP Limit (dBuV)	Margin (dB)	Average Limit (dBuV)	Margin (dB)
15	.195	31.68	Pk	.2	9.8	41.68	63.82	-22.14	-	-
16	.198	22.68	Av	.2	9.8	32.68	-	-	53.69	-21.01
17	.261	19.32	Pk	.1	9.8	29.22	61.4	-32.18	-	-
18	.264	12.42	Av	.1	9.8	22.32	-	-	51.3	-28.98
19	.579	26.5	Pk	0	9.8	36.3	56	-19.7	-	-
20	.585	7.7	Av	0	9.8	17.5	-	-	46	-28.5
21	.714	28.04	Pk	0	9.8	37.84	56	-18.16	-	-
22	.714	7.62	Av	0	9.8	17.42	-	-	46	-28.58
23	1.035	15.57	Pk	0	9.8	25.37	56	-30.63	-	-
24	1.035	.02	Av	0	9.8	9.82	-	-	46	-36.18
25	2.259	16.86	Pk	0	9.8	26.66	56	-29.34	-	-
26	2.2605	-4.66	Av	0	9.8	5.14	-	-	46	-40.86
27	11.592	29.84	Pk	.1	10	39.94	60	-20.06	-	-
28	11.598	22.41	Av	.1	10	32.51	-	-	50	-17.49
32	13.56	31.83	Av	.1	10	41.93	-	-	50	-8.07
31	13.563	43.43	Pk	.1	10	53.53	60	-6.47	-	-

Pk - Peak detector

Av - Average detection

11.1.2. Tag Off

LINE 1 RESULTS

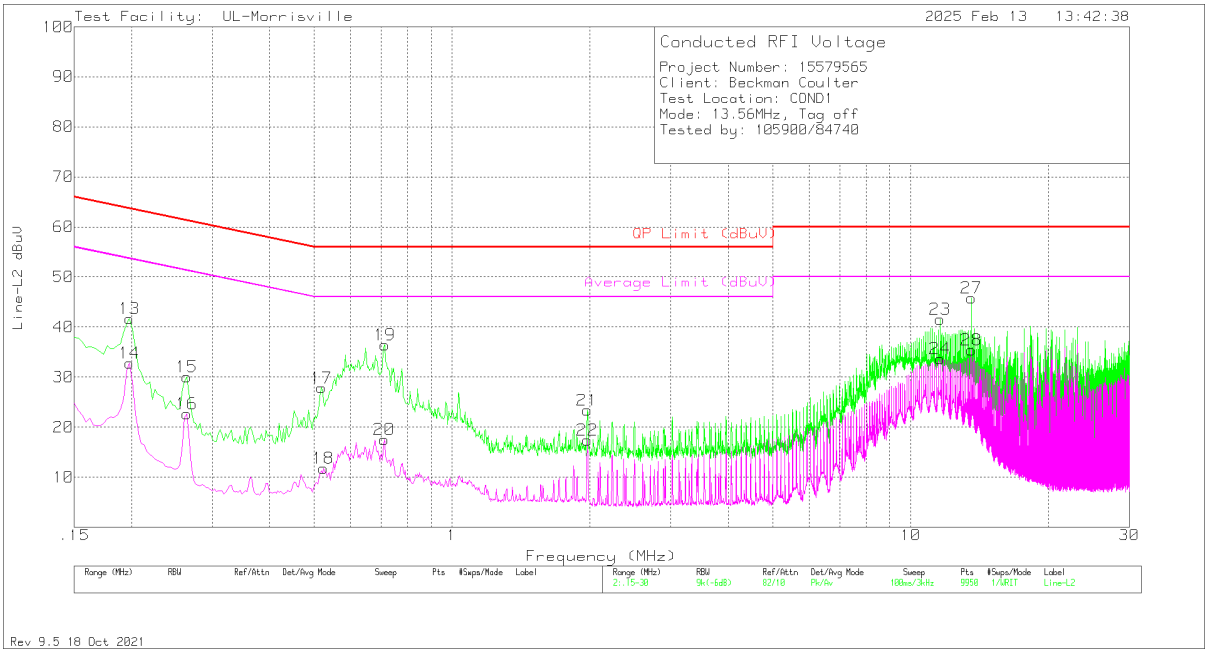


Emissions

Range 1: Line-L1 .15 - 30MHz										
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	LISN VDF (dB)	Cbl/Limiter (dB)	Corrected Reading dBuV	QP Limit (dBuV)	Margin (dB)	Average Limit (dBuV)	Margin (dB)
1	.198	31.59	Pk	.2	9.8	41.59	63.69	-22.1	-	-
2	.198	22.7	Av	.2	9.8	32.7	-	-	53.69	-20.99
3	.264	18.16	Pk	.1	9.8	28.06	61.3	-33.24	-	-
4	.264	10.8	Av	.1	9.8	20.7	-	-	51.3	-30.6
6	.516	4.96	Av	0	9.8	14.76	-	-	46	-31.24
5	.519	22.97	Pk	0	9.8	32.77	56	-23.23	-	-
7	.714	31.69	Pk	0	9.8	41.49	56	-14.51	-	-
8	.714	10.99	Av	0	9.8	20.79	-	-	46	-25.21
9	1.971	15.02	Pk	0	9.8	24.82	56	-31.18	-	-
10	1.971	10.49	Av	0	9.8	20.29	-	-	46	-25.71
11	11.1	29.81	Pk	.1	10	39.91	60	-20.09	-	-
12	11.1	22.66	Av	.1	10	32.76	-	-	50	-17.24
26	13.56	25.11	Av	.1	10	35.21	-	-	50	-14.79
25	13.563	34.49	Pk	.1	10	44.59	60	-15.41	-	-

Pk - Peak detector
Av - Average detection

LINE 2 RESULTS



Emissions

Range 2: Line-L2 .15 - 30MHz										
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	LISN VDF (dB)	Cbl/Limiter (dB)	Corrected Reading dBuV	QP Limit (dBuV)	Margin (dB)	Average Limit (dBuV)	Margin (dB)
13	.198	31.68	Pk	.2	9.8	41.68	63.69	-22.01	-	-
14	.198	22.77	Av	.2	9.8	32.77	-	-	53.69	-20.92
15	.264	20.11	Pk	.1	9.8	30.01	61.3	-31.29	-	-
16	.264	12.8	Av	.1	9.8	22.7	-	-	51.3	-28.6
17	.519	18.04	Pk	0	9.8	27.84	56	-28.16	-	-
18	.525	1.92	Av	0	9.8	11.72	-	-	46	-34.28
20	.711	7.69	Av	0	9.8	17.49	-	-	46	-28.51
19	.714	26.6	Pk	0	9.8	36.4	56	-19.6	-	-
22	1.971	7.6	Av	0	9.8	17.4	-	-	46	-28.6
21	1.974	13.55	Pk	0	9.8	23.35	56	-32.65	-	-
23	11.589	31.43	Pk	.1	10	41.53	60	-18.47	-	-
24	11.589	23.56	Av	.1	10	33.66	-	-	50	-16.34
27	13.56	35.73	Pk	.1	10	45.83	60	-14.17	-	-
28	13.56	25.33	Av	.1	10	35.43	-	-	50	-14.57

Pk - Peak detector

Av - Average detection

12. SETUP PHOTOS

Please refer to R15579565-EP1 for setup photos

END OF TEST REPORT