TEST REPORT

Report Number: R15701621-E3f

Applicant	:	HID Global Corporation 611 Center Ridge Dr Austin, TX 78753, USA
Model	:	40TCV2
FCC ID	:	JQ6-SIGNO40TCV2
IC	:	2236B-SIGNO40TCV2
EUT Description	:	Signo V2 Reader
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:
2025-07-07

Prepared by:
UL LLC
12 Laboratory Dr.
Research Triangle Park, NC 27709 U.S.A.
TEL: (919) 549-1400

ACCREDITED
CERT #0751.06

Revision History

Rev.	Issue Date	Revisions	Revised By
V1	2025-06-11	Initial Issue	Manish Baral
V2	2025-07-07	Revised Section 6.4 and Section 11 to Revised Worst-Case Exploration and report number	Chandler Stanley

TABLE OF CONTENTS

1. ATTESTATION OF TEST RESULTS

COMPANY NAME: HID Global Corporation
611 Center Ridge Dr
Austin, TX 78753, USA

EUT DESCRIPTION: Signo V2 Reader

MODEL: 40TCV2

SERIAL NUMBER: H250013339

SAMPLE RECEIPT DATE: 2025-03-10

DATE TESTED: 2025-03-20 TO 2025-05-02

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:

Mike Antola
Sr. Staff 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

Signo Reader is a smartcard reader typically installed near doorway as part of physical access system, to control access to that door. A user will approach the door and present a BLE or RFID credentials to the reader with intention of entering the door. The reader will read the credential and send its data to a connected access control panel, which determine whether or not grant the user access to the door. Optionally, a personal identification number (PIN) may also be required, in which case the user will enter the PIN on the reader's keypad.
The EUT supports the following technologies:

Wireless technologies	Frequency Band(s)	Operating mode(s)
NFC	13.56MHz	Type A 106, 212, 424 & 848 Kbps
	125KHz	4 Kbps
Bluetooth	2.4 GHz	LE 1 & 2 Mbps
Notes: 1. The EUT operated in a 1x1 SISO mode. 2. The EUT only supports 1 type(s) of NFC tag.		

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	47.69

6.3. SOFTWARE AND FIRMWARE

The EUT firmware installed during testing was 10.1
The test utility software used during testing was Rev H

6.4. WORST-CASE CONFIGURATION AND MODE

The EUT is meant to be installed and operated in one orientation; therefore, all testing was performed with the EUT in its intended orientation. The EUT is meant to be powered via an auxiliary device (access controller) that does not come with the product. Therefore, for AC Lines, the scan was run using a DC power supply as representative

The client has declared the worst-case data rate to be 106 kbit/s; therefore, all final tests were performed without a tag and with a tag inducing 106kbit/s data-rate. The EUT only supports Type A.

A terminal cable and pigtail cable were investigated and it was found that the terminal cable is worst-case; therefore, all testing was performed with the terminal cable. All testing was performed for tag on and tag off modes.

The distance between the EUT and tag was also investigated, and the worst-case condition occurs when the tag and EUT are separated by 2 cm; therefore, all final radiated testing was performed with the EUT and tag separated by 2 cm.

6.5. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Support Equipment List				
Description	**Manufacturer**	**Model**	**Serial Number**	**FCC ID**
Badge 13.56 MHz	NXP Semiconductors	NA	NA	NA

I/O CABLES

I/O Cable List						
Cable No.	**Port**	**# of Identical Ports**	**Connector Type**	**Cable Type**	**Cable Length (m)**	**Remarks**
1	Power	1	Terminal	Unshielded	<3m	Supplies Power

SETUP DIAGRAM

Please refer to 15701621-EP1f 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 4)

Equip. ID	Description	Manufacturer/Brand	Model Number	Last Cal.	Next Cal.
1-18 GHz					
89509	Double-Ridged Waveguide Horn Antenna, 1 to 18 GHz	ETS Lindgren	3117	2023-05-23	2025-05-23
Gain-Loss Chains					
207640	Gain-loss string: 1-18GHz	Various	Various	2024-05-22	2025-05-22
Receiver & Software					
197955	Spectrum Analyzer	Rohde & Schwarz	ESW44	2024-04-16	2025-04-30
SOFTEMI	EMI Software	UL	Version 9.5 (18 Oct 2021)		
Additional Equipment used					
241204	Environmental Meter	Fisher Scientific	15-077-963	2023-09-05	2025-09-05

Note* - All equipment was in calibration at the time of use.

Test Equipment Used - Wireless Conducted Measurement Equipment

Equipment ID	Description	Manufacturer	Model Number	Last Cal.	Next Cal.
Common Equipment					
Conducted Room 1					
90411	Spectrum Analyzer	Keysight Technologies	N9030A	2024-08-01	2025-08-01
179892	Environmental Meter	Fisher Scientific	15-077-963	2024-08-12	2025-08-12
211056	Real-Time Peak Power Sensor 50MHz to 8GHz	Boonton	RTP5000	2024-08-01	2025-08-01
207726	Temp/Humid Chamber	Thermotron	SM-32-8200	2025-01-15	2026-01-15
91212	True RMS Multimeter	Agilent	U1232A	2024-08-01	2025-08-01
-	DC Power Supply	Keysight Technologies	E3633A	-	-
Power Software	Boonton Power Analyzer	Boonton	Version 3.0.13.0	NA	NA
SOFTEMI	Antenna Port Software	UL	Version 2024.2.23	NA	NA

Test Equipment Used - Wireless Conducted Attenuators, Cables, and Couplers

Equipment ID	Description	Manufacturer	Model Number	Last Cal.	Next Cal.
Attenuators/Cables					
246811	SMA Coaxial 10dB Attenuator	CentricRF	C18S2-20	2024-03-07	2025-03-31
CBL105	SMA Cable	N/A	N/A	2025-03-07	2026-03-07

Note* - All equipment was in calibration at the time of use.

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	2025-04-30
CBL087	Coax cable, RG223, N-male to BNC-male, 20-ft.	Pasternack	PE3W06143-240	2025-04-17	2026-04-17
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
52859	Transient Limiter, 0.009-100MHz	Electro-Metrics	EM-7600	2024-04-04	2025-04-30
52859	Transient Limiter, 0.009-100MHz	Electro-Metrics	EM-7600	2025-04-17	2026-04-17
236852	CW-AC Power Source	Ametek	CW2501	NA	NA
SOFTEMI	EMI Software	UL	Version 9.5 (18 Oct 2021)		

8. OCCUPIED BANDWIDTH

LIMITS

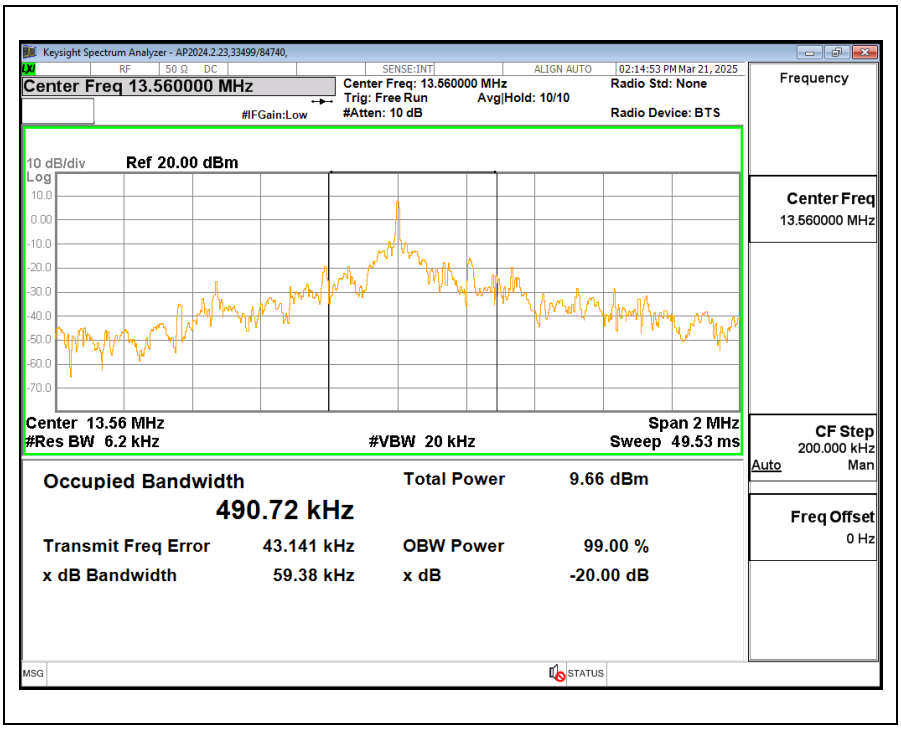
FCC §15.215 (c) Intentional radiators operating under the alternative provisions to the general emission limits, as contained in §§ 15.217 through 15.257 and in subpart E of this part, must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified 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

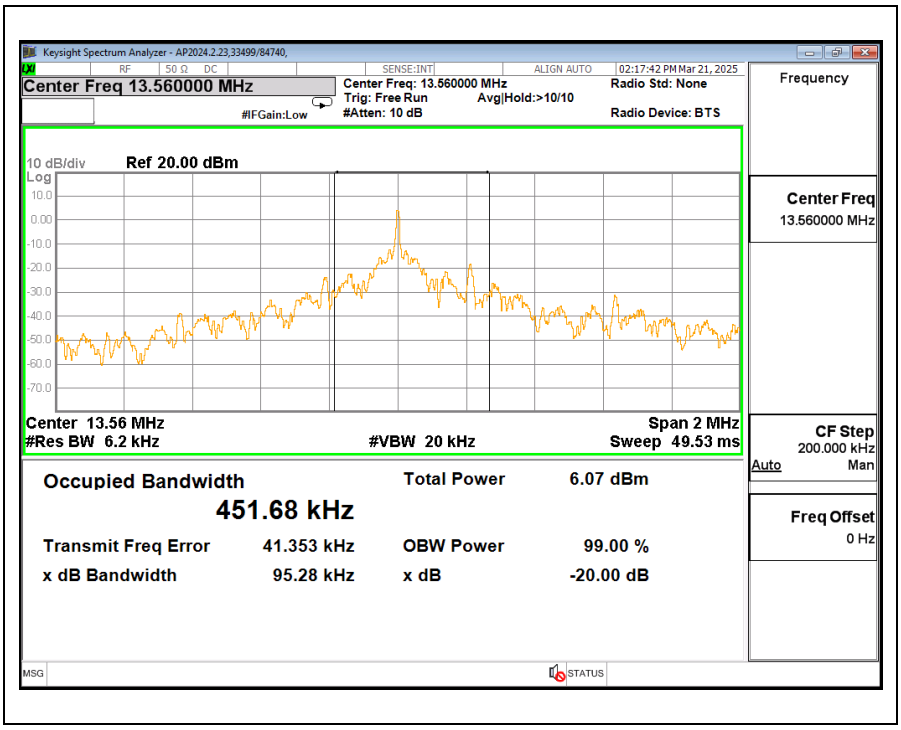
8.1. Tag On



Tag On

Frequency (MHz)	99% Bandwidth (KHz)	20dB Bandwidth (KHz)
13.56	490.72	59.38

8.2. Tag Off



Tag Off

Frequency (MHz)	99% Bandwidth (kHz)	20dB Bandwidth (kHz)
13.56	451.68	95.28

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

RSS-GEN, Section 8.9 and 8.10.

Frequency Range (MHz)	**Field Strength Limit (uA/m) at 3 m**	**Field Strength Limit (dBuA/m) at 3 m**
0.009-0.490	6.37/F(kHz) @ 300 m	-
0.490-1.705	63.7/F(kHz) @ 30 m	-
1.705 - 30	0.08 @ 30m	-
Frequency Range (MHz)	**Field Strength Limit (uV/m) at 3 m**	**Field Strength Limit (dBuV/m) at 3 m**
30 - 88	100	40
88 - 216	150	43.5
216 - 960	200	46
Above 960	500	54

** 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)

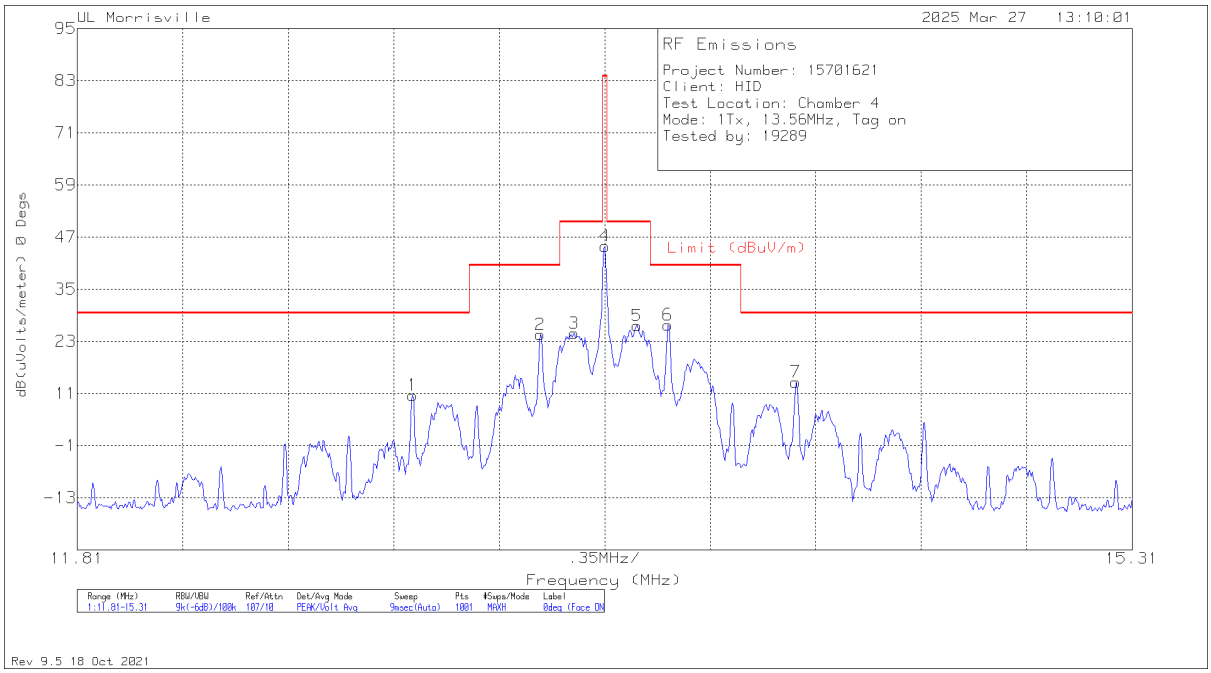
Although these tests were performed other than open area test site, adequate comparison measurements were confirmed against 30 m open are test site. Therefore sufficient tests were made to demonstrate that the alternative site produces results that correlate with the ones of tests made in an open field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

RESULTS

9.2. FUNDAMENTAL AND SPURIOUS EMISSIONS (Below 30MHz)

9.2.1. Tag On

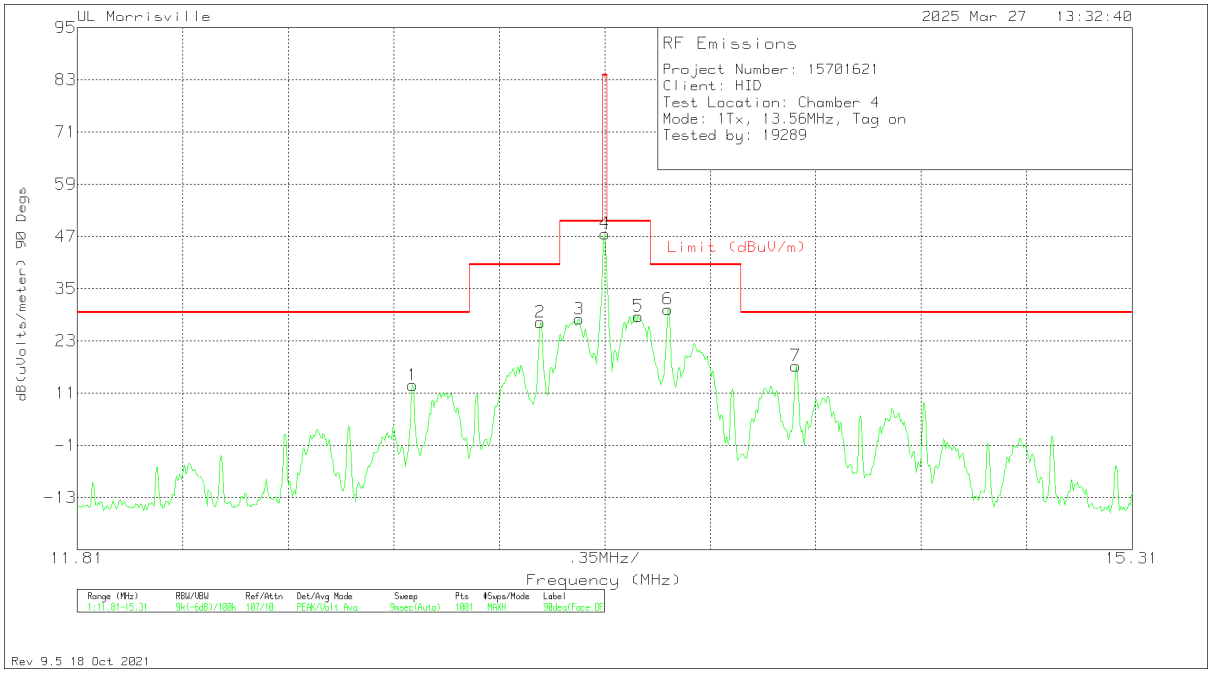
FUNDAMENTAL



ANTENNA FACE ON

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	ANT (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	12.923	39.49	Pk	10.6	.5	-40	10.59	29.5	-18.91	9	100	0 degs
2	13.3465	53.46	Pk	10.6	.5	-40	24.56	40.5	-15.94	9	100	0 degs
3	13.4585	53.74	Pk	10.6	.5	-40	24.84	50.5	-25.66	9	100	0 degs
4	13.56	73.79	Pk	10.6	.5	-40	44.89	84	-39.11	9	100	0 degs
5	13.66675	55.49	Pk	10.6	.5	-40	26.59	50.5	-23.91	9	100	0 degs
6	13.77	55.65	Pk	10.6	.5	-40	26.75	40.5	-13.75	9	100	0 degs
7	14.1935	42.5	Pk	10.6	.5	-40	13.6	29.5	-15.9	9	100	0 degs

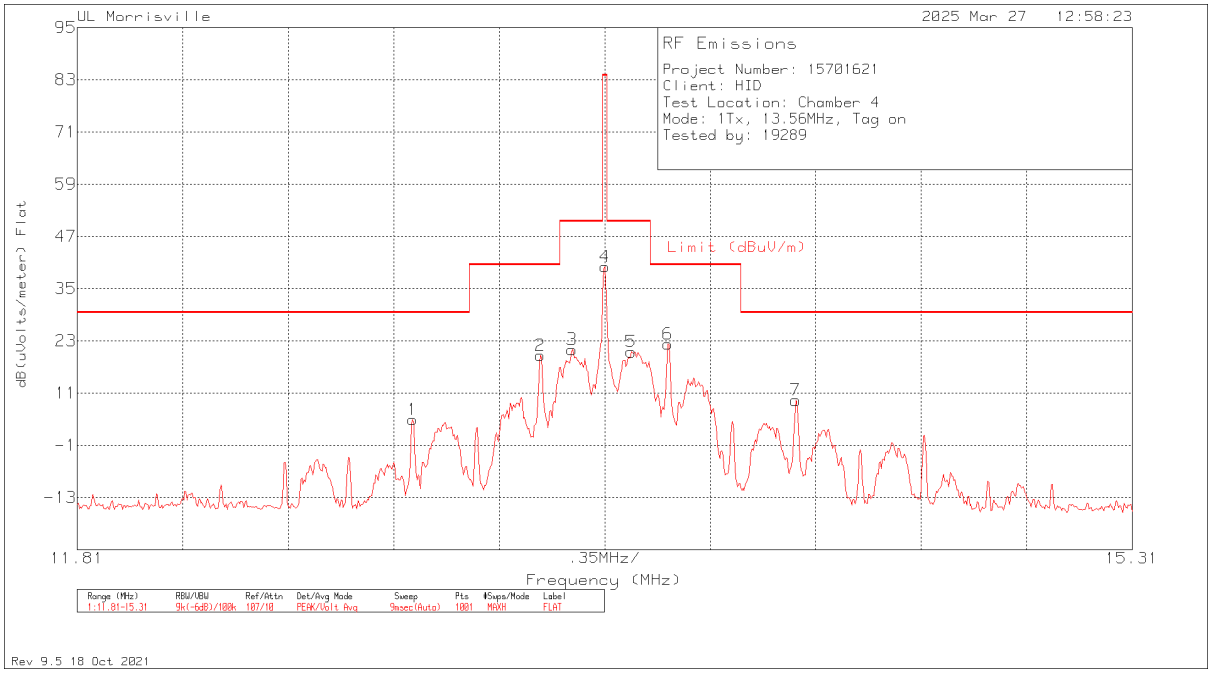
Pk - Peak detector



ANTENNA FACE OFF

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	ANT (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	12.923	41.71	Pk	10.6	.5	-40	12.81	29.5	-16.69	86	100	90 degs
2	13.3465	56.15	Pk	10.6	.5	-40	27.25	40.5	-13.25	86	100	90 degs
3	13.476	56.91	Pk	10.6	.5	-40	28.01	50.5	-22.49	86	100	90 degs
4	13.56	76.51	Pk	10.6	.5	-40	47.61	84	-36.39	86	100	90 degs
5	13.672	57.57	Pk	10.6	.5	-40	28.67	50.5	-21.83	86	100	90 degs
6	13.77	59.17	Pk	10.6	.5	-40	30.27	40.5	-10.23	86	100	90 degs
7	14.1935	46.13	Pk	10.6	.5	-40	17.23	29.5	-12.27	86	100	90 degs

Pk - Peak detector

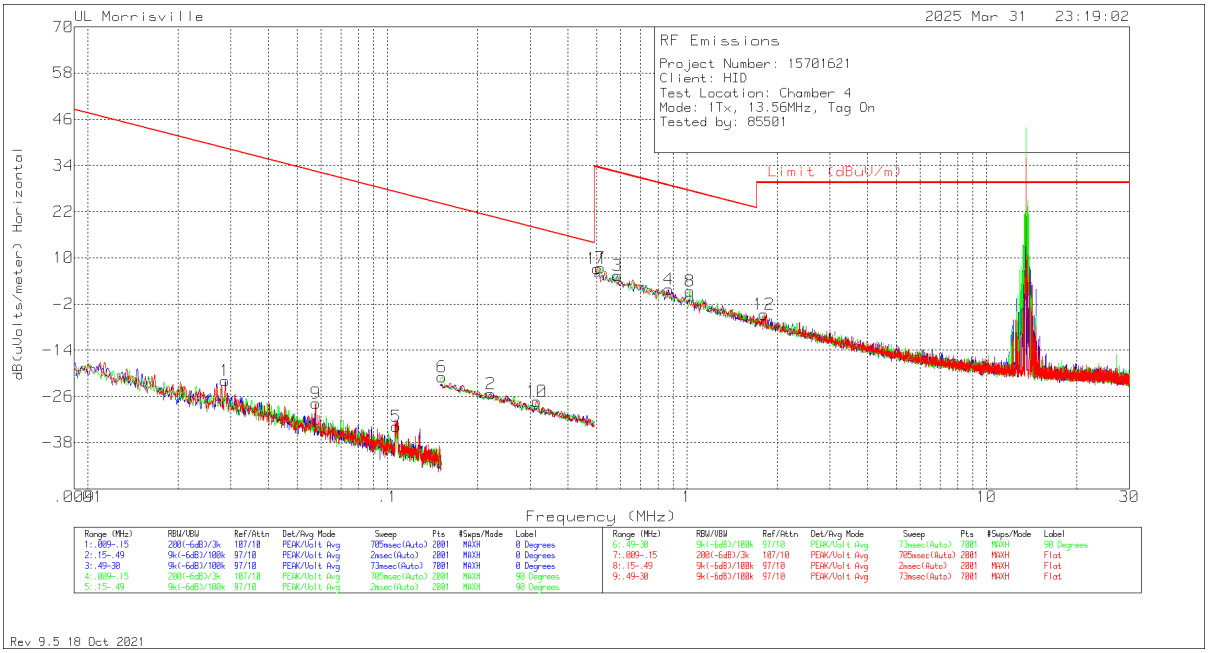


ANTENNA FACE FLAT

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	ANT (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	12.923	33.81	Pk	10.6	.5	-40	4.91	29.5	-24.59	197	100	Flat
2	13.3465	48.55	Pk	10.6	.5	-40	19.65	40.5	-20.85	197	100	Flat
3	13.4515	49.88	Pk	10.6	.5	-40	20.98	50.5	-29.52	197	100	Flat
4	13.56	68.92	Pk	10.6	.5	-40	40.02	84	-43.98	197	100	Flat
5	13.6475	49.38	Pk	10.6	.5	-40	20.48	50.5	-30.02	197	100	Flat
6	13.77	51.12	Pk	10.6	.5	-40	22.22	40.5	-18.28	197	100	Flat
7	14.1935	38.24	Pk	10.6	.5	-40	9.34	29.5	-20.16	197	100	Flat

Pk - Peak detector

SPURIOUS EMISSION – E FIELD

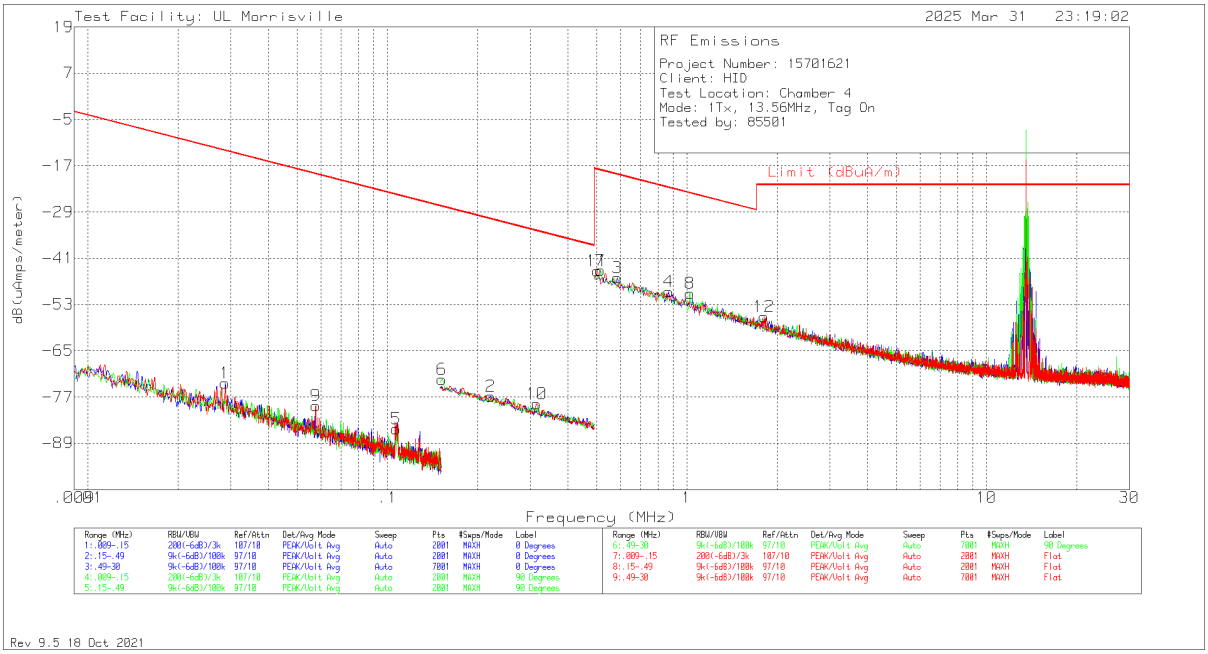


BL30MHz SPURIOUS EMISSIONS

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	ANT (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	.02874	44.75	Pk	13.2	.1	-80	-21.95	38.44	58.44	-60.39	0-360	0 degs
9	.05764	40.76	Pk	11.4	.1	-80	-27.74	32.39	52.39	-60.13	0-360	Flat
5	.10684	35.06	Pk	11.1	.1	-80	-33.74	27.03	-	-60.77	0-360	90 degs
6	.15213	47.93	Pk	11	.1	-80	-20.97	23.96	43.96	-44.93	0-360	90 degs
2	.22098	43.71	Pk	10.9	.1	-80	-25.29	20.72	40.72	-46.01	0-360	0 degs
10	.31533	41.71	Pk	10.9	.1	-80	-27.29	17.63	37.63	-44.92	0-360	Flat
11	.50265	36.09	Pk	11	.1	-40	7.19	33.58	-	-26.39	0-360	Flat
7	.5153	36.22	Pk	11	.1	-40	7.32	33.36	-	-26.04	0-360	90 degs
3	.58697	34.3	Pk	11	.1	-40	5.4	32.23	-	-26.83	0-360	0 degs
4	.86944	30.61	Pk	11	.2	-40	1.81	28.82	-	-27.01	0-360	0 degs
8	1.02543	30.18	Pk	11	.2	-40	1.38	27.39	-	-26.01	0-360	90 degs
12	1.80961	24.06	Pk	11.1	.2	-40	-4.64	29.54	-	-34.18	0-360	Flat

Pk - Peak detector

SPURIOUS EMISSION – H FIELD



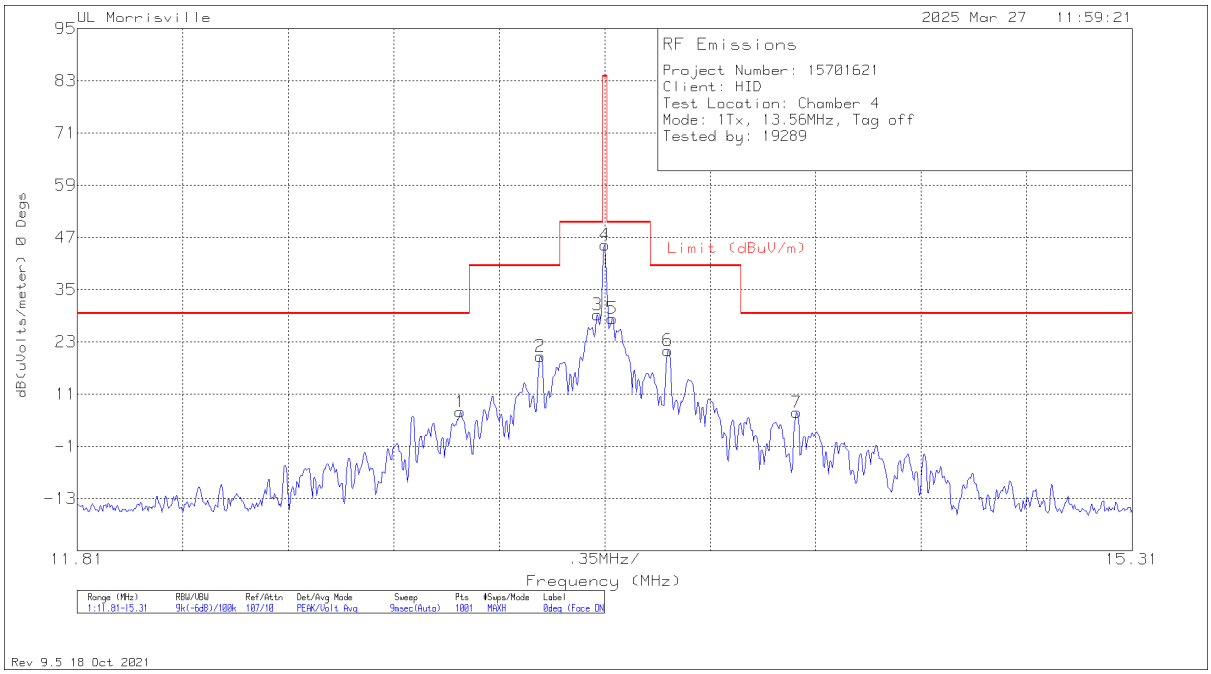
BL30MHz SPURIOUS EMISSIONS

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	ANT (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	.02874	44.75	Pk	-38.3	.1	-80	-73.45	-13.06	6.94	-60.39	0-360	0 degs
9	.05764	40.76	Pk	-40.1	.1	-80	-79.24	-19.11	0.89	-60.13	0-360	Flat
5	.10684	35.06	Pk	-40.4	.1	-80	-85.24	-24.47	-	-60.77	0-360	90 degs
6	.15213	47.93	Pk	-40.5	.1	-80	-72.47	-27.54	-7.54	-44.93	0-360	90 degs
2	.22098	43.71	Pk	-40.6	.1	-80	-76.79	-30.78	-10.78	-46.01	0-360	0 degs
10	.31533	41.71	Pk	-40.6	.1	-80	-78.79	-33.87	-13.87	-44.92	0-360	Flat
11	.50265	36.09	Pk	-40.5	.1	-40	-44.31	-17.92	-	-26.39	0-360	Flat
7	.5153	36.22	Pk	-40.5	.1	-40	-44.18	-18.14	-	-26.04	0-360	90 degs
3	.58697	34.3	Pk	-40.5	.1	-40	-46.1	-19.27	-	-26.83	0-360	0 degs
4	.86944	30.61	Pk	-40.5	.2	-40	-49.69	-22.68	-	-27.01	0-360	0 degs
8	1.02543	30.18	Pk	-40.5	.2	-40	-50.12	-24.11	-	-26.01	0-360	90 degs
12	1.80961	24.06	Pk	-40.4	.2	-40	-56.14	-21.96	-	-34.18	0-360	Flat

Pk - Peak detector

9.2.2. Tag Off

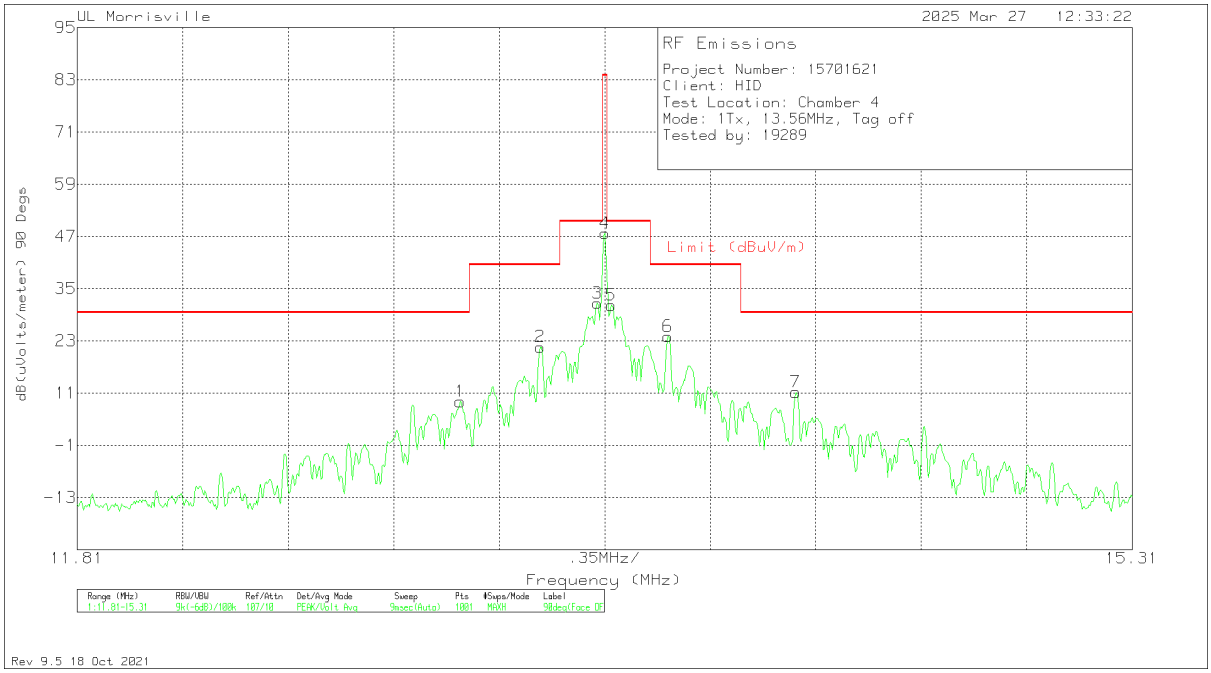
FUNDAMENTAL



ANTENNA FACE ON

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	ANT (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	13.0805	35.82	Pk	10.6	.5	-40	6.92	29.5	-22.58	353	100	0 degs
2	13.3465	48.58	Pk	10.6	.5	-40	19.68	40.5	-20.82	353	100	0 degs
3	13.5355	58.12	Pk	10.6	.5	-40	29.22	50.5	-21.28	353	100	0 degs
4	13.56	74.17	Pk	10.6	.5	-40	45.27	84	-38.73	353	100	0 degs
5	13.5845	57.26	Pk	10.6	.5	-40	28.36	50.5	-22.14	353	100	0 degs
6	13.77	49.91	Pk	10.6	.5	-40	21.01	40.5	-19.49	353	100	0 degs
7	14.197	35.66	Pk	10.6	.5	-40	6.76	29.5	-22.74	353	100	0 degs

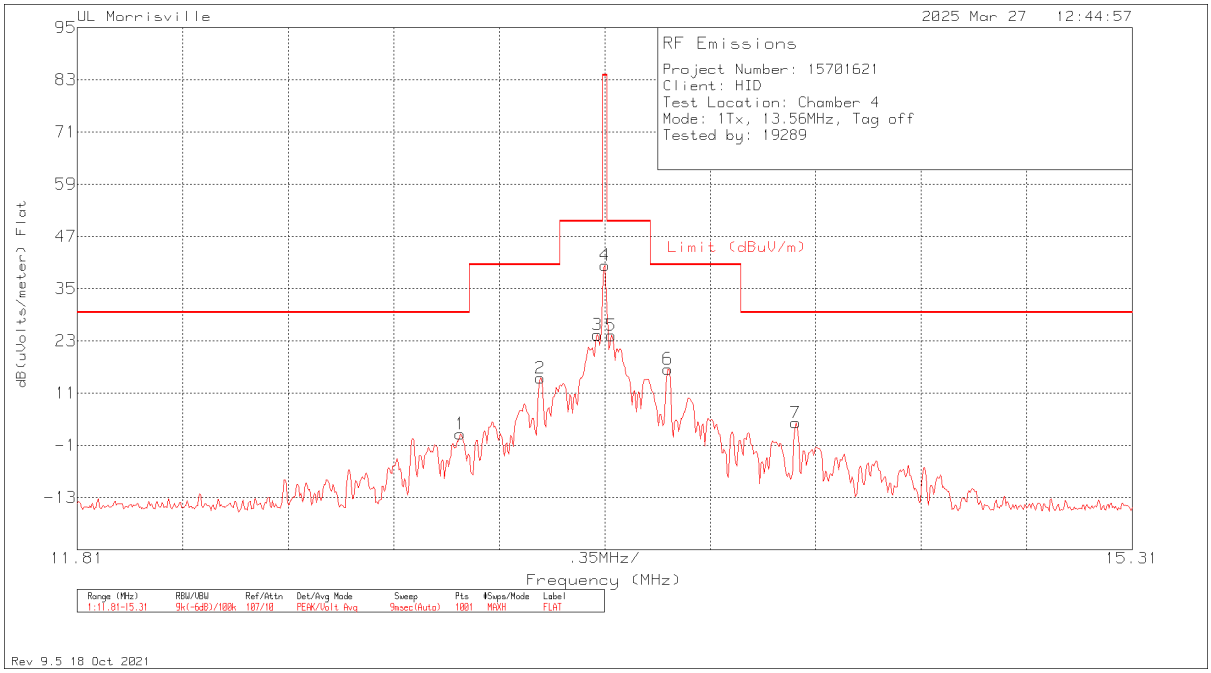
Pk - Peak detector



ANTENNA FACE OFF

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	ANT (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	13.0805	37.94	Pk	10.6	.5	-40	9.04	29.5	-20.46	76	100	90 degs
2	13.3465	50.5	Pk	10.6	.5	-40	21.6	40.5	-18.9	76	100	90 degs
3	13.5355	60.55	Pk	10.6	.5	-40	31.65	50.5	-18.85	76	100	90 degs
4	13.56	76.59	Pk	10.6	.5	-40	47.69	84	-36.31	76	100	90 degs
5	13.581	60.07	Pk	10.6	.5	-40	31.17	50.5	-19.33	76	100	90 degs
6	13.77	52.9	Pk	10.6	.5	-40	24	40.5	-16.5	76	100	90 degs
7	14.1935	40.1	Pk	10.6	.5	-40	11.2	29.5	-18.3	76	100	90 degs

Pk - Peak detector

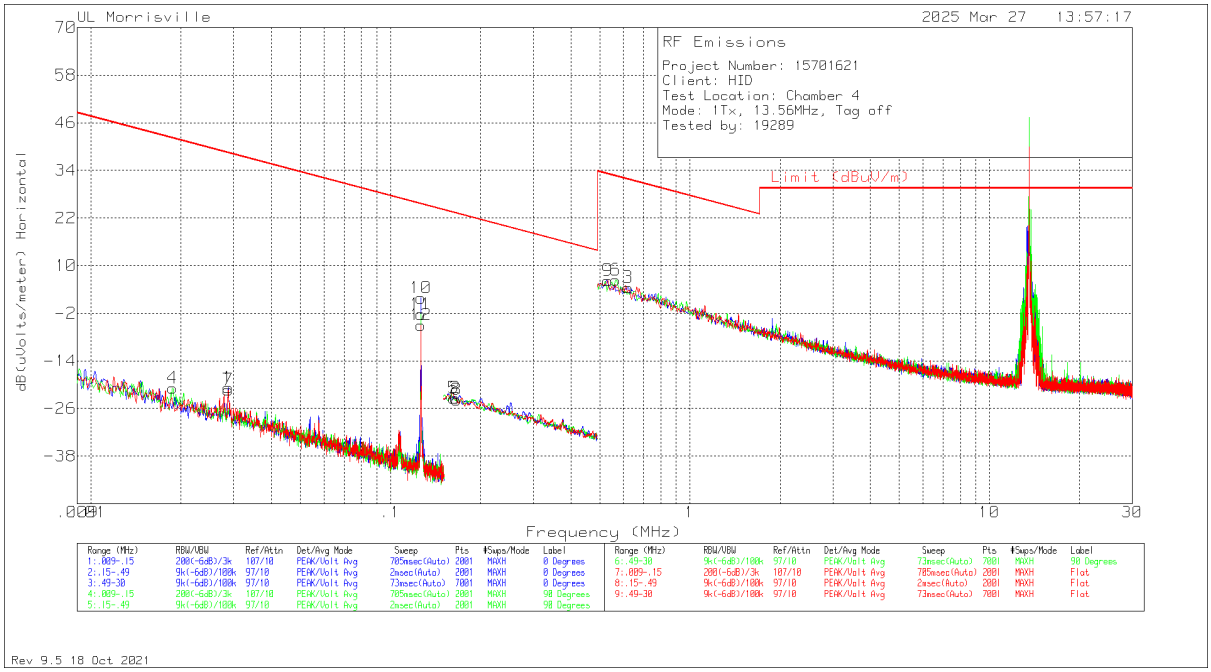


ANTENNA FACE FLAT

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	ANT (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	13.0805	30.49	Pk	10.6	.5	-40	1.59	29.5	-27.91	183	100	Flat
2	13.3465	43.35	Pk	10.6	.5	-40	14.45	40.5	-26.05	183	100	Flat
3	13.5355	53.28	Pk	10.6	.5	-40	24.38	50.5	-26.12	183	100	Flat
4	13.56	69.27	Pk	10.6	.5	-40	40.37	84	-43.63	183	100	Flat
5	13.581	53.13	Pk	10.6	.5	-40	24.23	50.5	-26.27	183	100	Flat
6	13.77	45.41	Pk	10.6	.5	-40	16.51	40.5	-23.99	183	100	Flat
7	14.1935	33.06	Pk	10.6	.5	-40	4.16	29.5	-25.34	183	100	Flat

Pk - Peak detector

SPURIOUS EMISSION – E FIELD

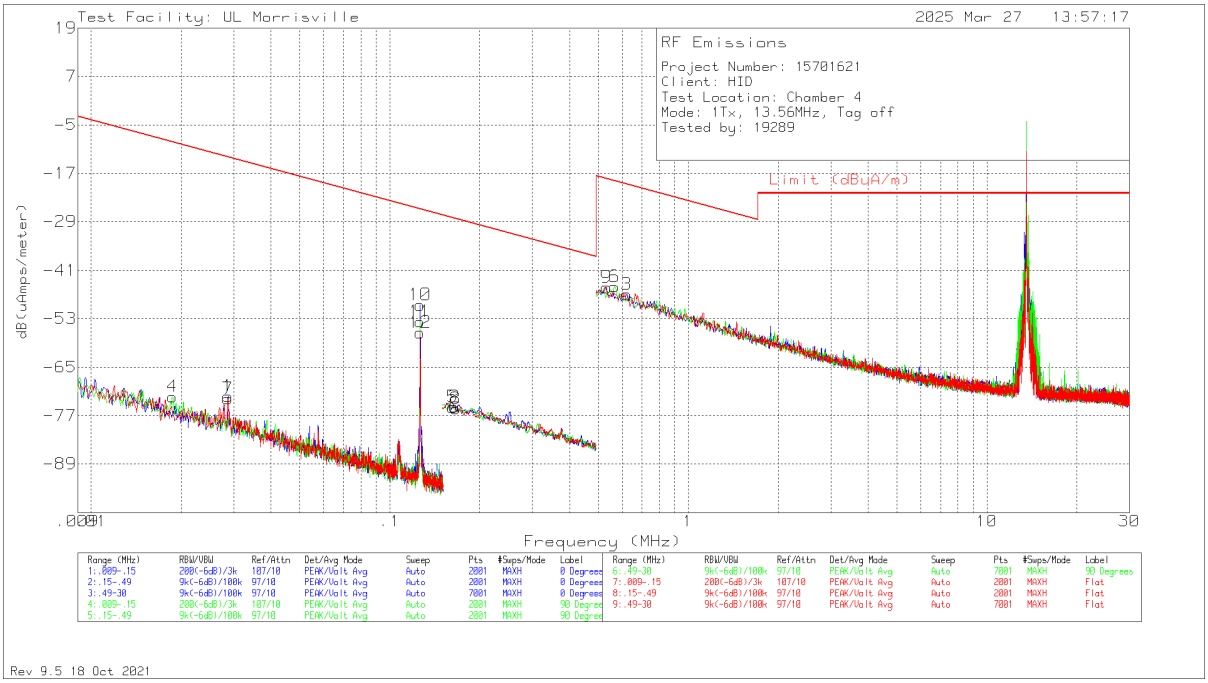


BL30MHz SPURIOUS EMISSIONS

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	ANT (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)	Loop Angle
4	.01873	44.47	Pk	14.6	.1	-80	-20.83	42.16	62.16	-62.99	90 degs
1	.02874	45.99	Pk	13.2	.1	-80	-20.71	38.44	58.44	-59.15	0 degs
7	.02874	45.37	Pk	13.2	.1	-80	-21.33	38.44	58.44	-59.77	Flat
10*	.12636	70.77	Pk	11	.1	-80	-	-	-	-	0 degs
11*	.12636	66.64	Pk	11	.1	-80	-	-	-	-	90 degs
12*	.12636	63.93	Pk	11	.1	-80	-	-	-	-	Flat
5	.16284	45.51	Pk	11	.1	-80	-23.39	23.37	43.37	-46.76	90 degs
2	.16496	45.57	Pk	11	.1	-80	-23.33	23.26	43.26	-46.59	0 degs
8	.16632	45.09	Pk	11	.1	-80	-23.81	23.19	43.19	-47	Flat
9	.53216	35.1	Pk	11	.1	-40	6.2	33.08	-	-26.88	Flat
6	.56589	35.31	Pk	11	.1	-40	6.41	32.55	-	-26.14	90 degs
3	.6207	33.4	Pk	11	.1	-40	4.5	31.75	-	-27.25	0 degs

Pk - Peak detector
*-RFID 125kHz fundamental

SPURIOUS EMISSION – H FIELD



BL30MHz SPURIOUS EMISSIONS

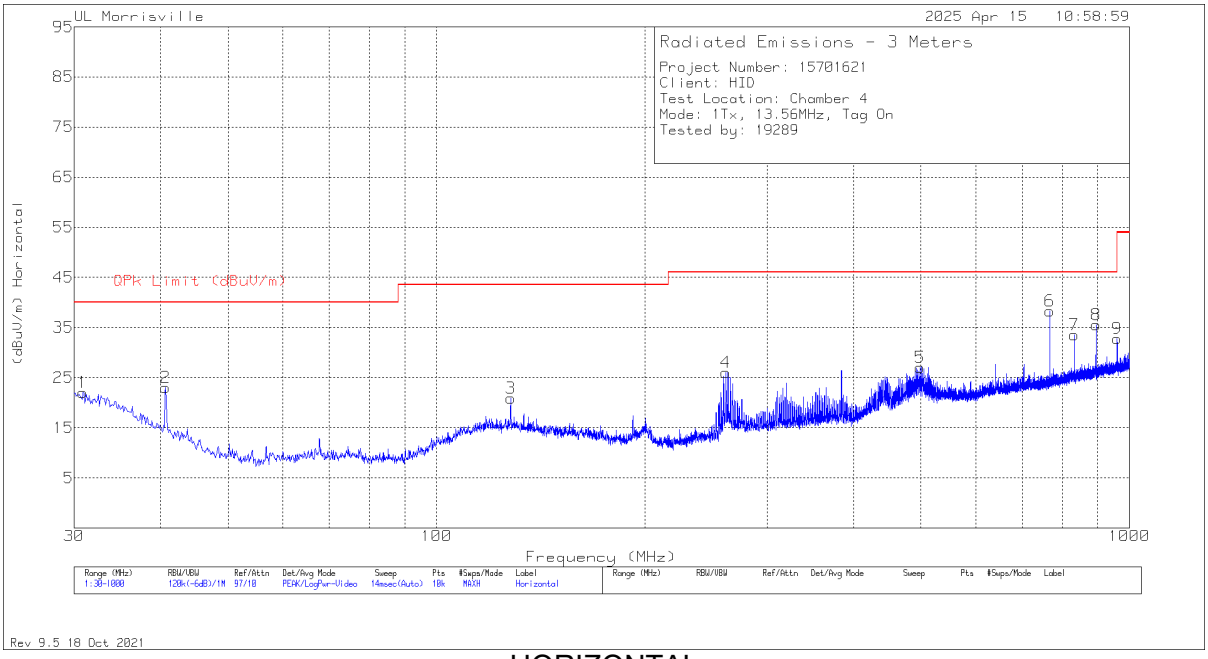
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	ANT (dB/m)	Gain/Loss (dB)	Dist. Corr. Factor (dB)	Corrected Reading dB(uAmps/meter)	QP/AV Limit (dBuA/m)	PK Limit (dBuA/m)	Margin (dB)	Azimuth (Degs)	Loop Angle
4	.01873	44.47	Pk	-36.9	.1	-80	-72.33	-9.34	10.66	-62.99	0-360	90 degs
1	.02874	45.99	Pk	-38.3	.1	-80	-72.21	-13.06	6.94	-59.15	0-360	0 degs
7	.02874	45.37	Pk	-38.3	.1	-80	-72.83	-13.06	6.94	-59.77	0-360	Flat
10*	.12636	70.77	Pk	-40.5	.1	-80	-	-	-	-	0-360	0 degs
11*	.12636	66.64	Pk	-40.5	.1	-80	-	-	-	-	0-360	90 degs
12*	.12636	63.93	Pk	-40.5	.1	-80	-	-	-	-	0-360	Flat
5	.16284	45.51	Pk	-40.5	.1	-80	-74.89	-28.13	-8.13	-46.76	0-360	90 degs
2	.16496	45.57	Pk	-40.5	.1	-80	-74.83	-28.24	-8.24	-46.59	0-360	0 degs
8	.16632	45.09	Pk	-40.5	.1	-80	-75.31	-28.31	-8.31	-47	0-360	Flat
9	.53216	35.1	Pk	-40.5	.1	-40	-45.3	-18.42	-	-26.88	0-360	Flat
6	.56589	35.31	Pk	-40.5	.1	-40	-45.09	-18.95	-	-26.14	0-360	90 degs
3	.6207	33.4	Pk	-40.5	.1	-40	-47	-19.75	-	-27.25	0-360	0 degs

Pk - Peak detector
*-RFID 125kHz fundamental

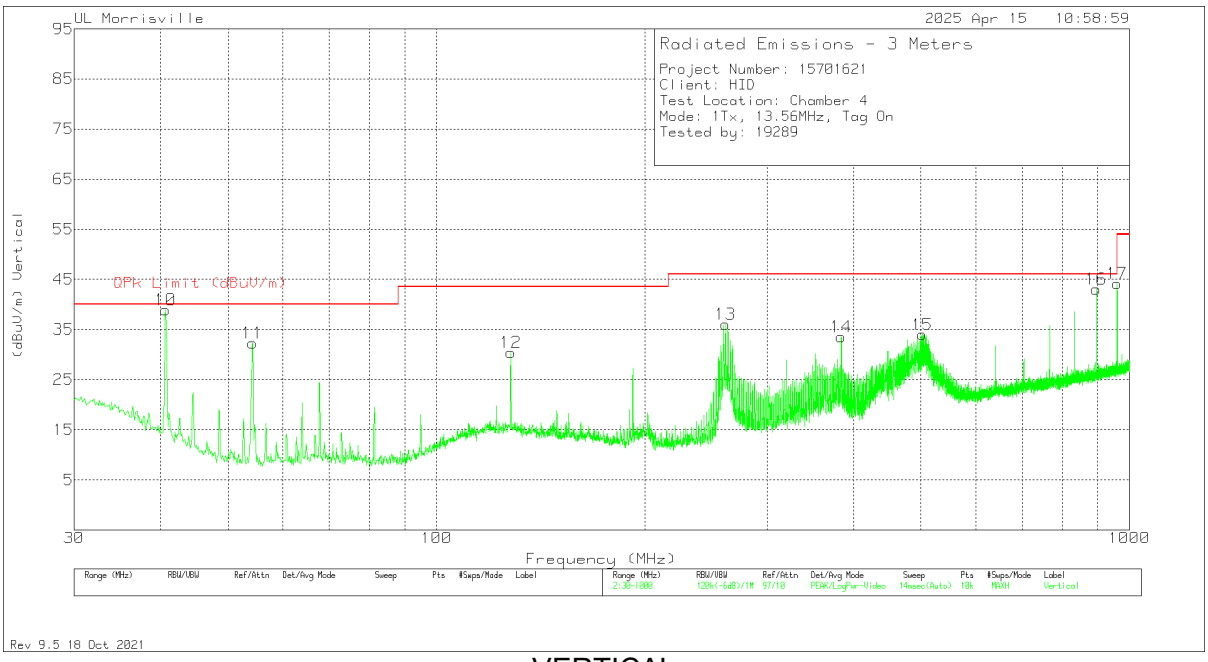
9.3. TX SPURIOUS EMISSION 30 TO 1000 MHz

9.3.1. Tag On

SPURIOUS EMISSION



HORIZONTAL



VERTICAL

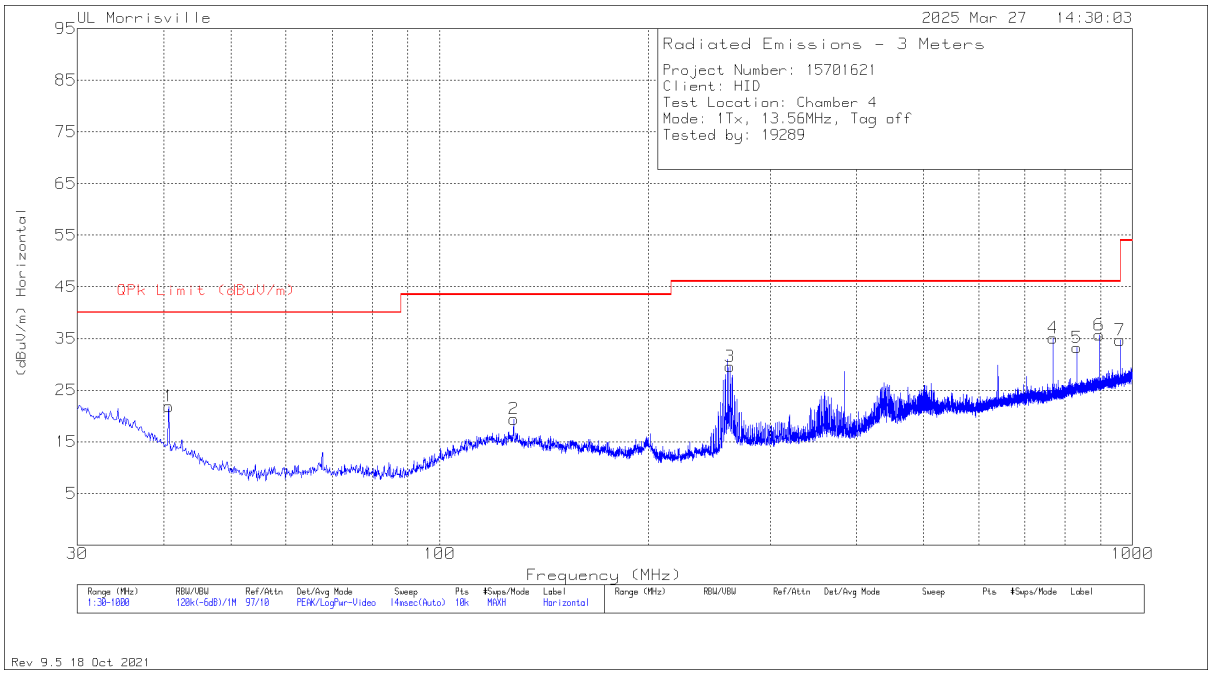
DATA

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	90628 (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	30.873	27.84	Pk	26.3	-32.1	22.04	40	-17.96	0-360	100	H
2	40.67	35.53	Pk	19.5	-32	23.03	40	-16.97	0-360	300	H
10	40.68468	49.3	Qp	19.5	-32	36.8	40	-3.2	78	102	V
11	54.25	50.69	Pk	13.5	-31.9	32.29	40	-7.71	0-360	100	V
3	127.97	32.11	Pk	20	-31.2	20.91	43.52	-22.61	0-360	100	H
12	127.97	41.6	Pk	20	-31.2	30.4	43.52	-13.12	0-360	100	V
13	261.248	48.11	Pk	18.4	-30.5	36.01	46.02	-10.01	0-360	100	V
4	261.442	38.14	Pk	18.4	-30.5	26.04	46.02	-19.98	0-360	200	H
14	383.953	42.36	Pk	21.1	-29.9	33.56	46.02	-12.46	0-360	100	V
5	498.51	32.84	Pk	23.7	-29.5	27.04	46.02	-18.98	0-360	200	H
15	502.39	39.79	Pk	23.8	-29.6	33.99	46.02	-12.03	0-360	100	V
6	767.976	39.86	Pk	26.9	-28.5	38.26	46.02	-7.76	0-360	100	H
7	831.996	33.7	Pk	27.7	-27.9	33.5	46.02	-12.52	0-360	100	H
8	896.016	34.6	Pk	28.1	-27.2	35.5	46.02	-10.52	0-360	100	H
16	895.98915	43.01	Qp	28.1	-27.2	43.91	46.02	-2.11	280	112	V
9	960.036	30.43	Pk	28.9	-26.5	32.83	53.97	-21.14	0-360	200	H
17	960.036	41.76	Pk	28.9	-26.5	44.16	53.97	-9.81	0-360	100	V

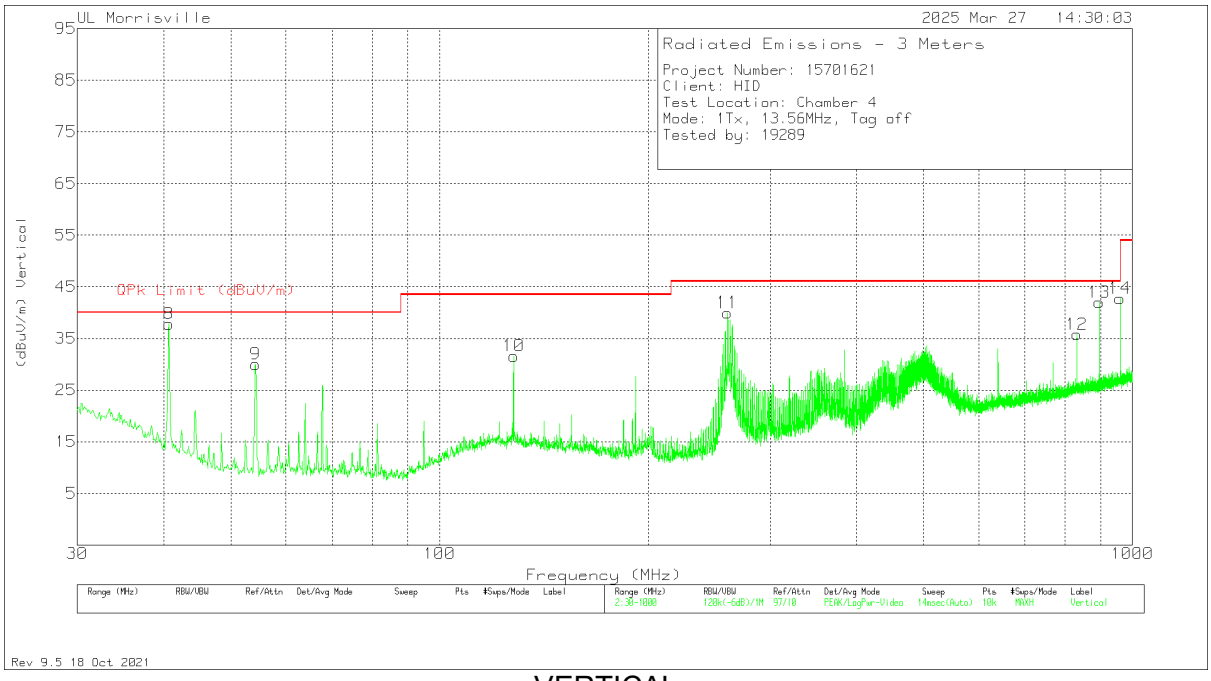
Pk - Peak detector
Qp - Quasi-Peak detector

9.3.2. Tag Off

SPURIOUS EMISSION



HORIZONTAL



VERTICAL

DATA

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	90628 (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	40.67	34.35	Pk	19.5	-32	21.85	40	-18.15	0-360	100	H
8	40.67719	49.89	Qp	19.5	-32	37.39	40	-2.61	206	102	V
9	54.25	48.41	Pk	13.5	-31.9	30.01	40	-9.99	0-360	100	V
2	127.97	30.61	Pk	20	-31.2	19.41	43.52	-24.11	0-360	200	H
10	127.97	42.79	Pk	20	-31.2	31.59	43.52	-11.93	0-360	100	V
11	260.569	52.26	Pk	18.2	-30.5	39.96	46.02	-6.06	0-360	100	V
3	262.703	41.36	Pk	18.6	-30.4	29.56	46.02	-16.46	0-360	100	H
4	767.976	36.68	Pk	26.9	-28.5	35.08	46.02	-10.94	0-360	100	H
12	831.996	35.96	Pk	27.7	-27.9	35.76	46.02	-10.26	0-360	100	V
5	832.093	33.4	Pk	27.7	-27.9	33.2	46.02	-12.82	0-360	100	H
6	896.016	34.76	Pk	28.1	-27.2	35.66	46.02	-10.36	0-360	100	H
13	895.98861	42.07	Qp	28.1	-27.2	42.97	46.02	-3.05	278	112	V
7	960.036	32.26	Pk	28.9	-26.5	34.66	53.97	-19.31	0-360	100	H
14	960.036	40.37	Pk	28.9	-26.5	42.77	53.97	-11.2	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).

Note* - The highest supported voltage the EUT can safely support is 13.2 VDC, so all testing was completed with the highest extreme supported voltage of 13.2 VDC.

TEST PROCEDURE

ANSI C63.10-2020 Clause 6.8

RESULTS

No non-compliance noted.

Nominal: 12 VDC
Low: 10.2 VDC
High: 13.2 VDC

10.1. Tag On

Reference Frequency: EUT Channel 13.56 MHz @ 20ºC Limit: ± 100 ppm = 1.356 kHz										
Power Supply	Envir. Temp	Frequency Deviation Measureed with Time Elapse								
(Vdc)	(ºC)	Startup (MHz)	Delta (ppm)	@ 2 mins (MHz)	Delta (ppm)	@ 5 mins (MHz)	Delta (ppm)	@ 10 mins (MHz)	Delta (ppm)	Limit (ppm)
12.00	50	13.5598401	1.777	13.5598369	2.013	13.5598328	2.316	13.5598300	2.522	± 100
12.00	40	13.5598347	2.176	13.5598421	1.630	13.5598403	1.763	13.5598375	1.969	± 100
12.00	30	13.5598980	-2.493	13.5598938	-2.183	13.5598867	-1.659	13.5598766	-0.914	± 100
12.00	***20***	***13.5598642***	***0.000***	***13.5598635***	***0.052***	***13.5598622***	***0.147***	***13.5598607***	***0.258***	***± 100***
12.00	10	13.5599067	-3.134	13.5599052	-3.024	13.5599034	-2.891	13.5599034	-2.891	± 100
12.00	0	13.5599118	-3.510	13.5599124	-3.555	13.5599129	-3.591	13.5599122	-3.540	± 100
12.00	-10	13.5599134	-3.628	13.5599110	-3.451	13.5599118	-3.510	13.5599118	-3.510	± 100
12.00	-20	13.5598997	-2.618	13.5599053	-3.031	13.5599066	-3.127	13.5599067	-3.134	± 100
10.20	20	13.5598610	0.236	13.5598606	0.265	13.5598598	0.324	13.5598589	0.391	± 100
13.2	20	13.5598591	0.376	13.5598588	0.398	13.5598583	0.435	13.5598587	0.406	± 100

Tested by: 85502
Test date: 2025-03-20

10.2. Tag Off

Reference Frequency: EUT Channel 13.56 MHz @ 20ºC Limit: ± 100 ppm = 1.356 kHz										
Power Supply	Envir. Temp	Frequency Deviation Measureed with Time Elapse								
(Vdc)	(ºC)	Startup (MHz)	Delta (ppm)	@ 2 mins (MHz)	Delta (ppm)	@ 5 mins (MHz)	Delta (ppm)	@ 10 mins (MHz)	Delta (ppm)	Limit (ppm)
12.00	50	13.5598299	1.067	13.5598293	1.111	13.5598286	1.163	13.5598296	1.089	± 100
12.00	40	13.5598601	-1.160	13.5598554	-0.814	13.5598499	-0.408	13.5598425	0.138	± 100
12.00	30	13.5598753	-2.281	13.5599710	-9.339	13.5598659	-1.588	13.5598597	-1.131	± 100
12.00	***20***	***13.5598444***	***0.000***	***13.5598444***	***0.001***	***13.5598443***	***0.002***	***13.5598443***	***0.004***	***± 100***
12.00	10	13.5599137	-5.113	13.5599127	-5.039	13.5599033	-4.346	13.5599057	-4.523	± 100
12.00	0	13.5599062	-4.560	13.5599063	-4.567	13.5599051	-4.479	13.5599043	-4.420	± 100
12.00	-10	13.5599110	-4.914	13.5599126	-5.032	13.5599140	-5.135	13.5599055	-4.508	± 100
12.00	-20	13.5599067	-4.597	13.5599079	-4.685	13.5599077	-4.671	13.5599067	-4.597	± 100
10.20	20	13.5598444	-0.006	13.5598444	-0.001	13.5598444	-0.001	13.5598444	-0.002	± 100
13.2	20	13.55984481	-0.032	13.55984455	-0.014	13.55984456	-0.014	13.55984458	-0.015	± 100

Tested by: 85502
Test date: 2025-03-20

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.

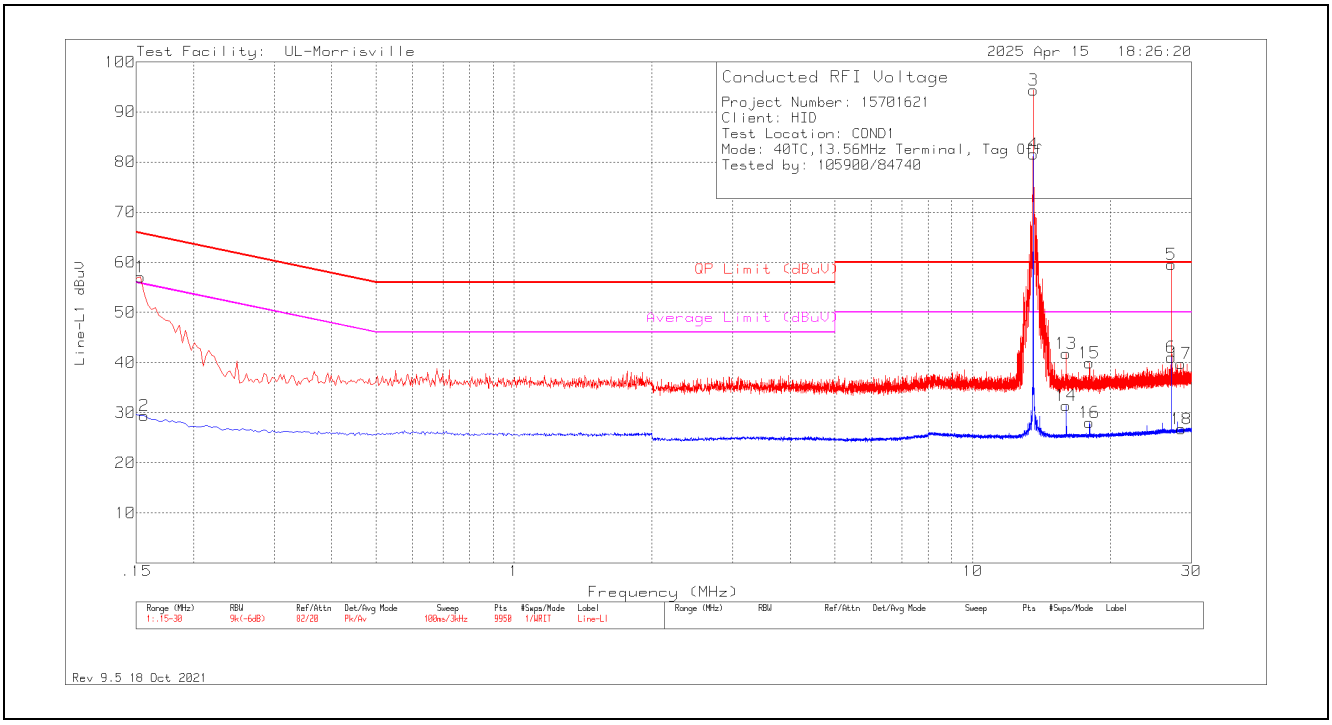
Line conducted data is recorded for both NEUTRAL and HOT lines.

RESULTS

No non-compliance noted:

11.1. AC Mains Tag Off

LINE 1 RESULTS

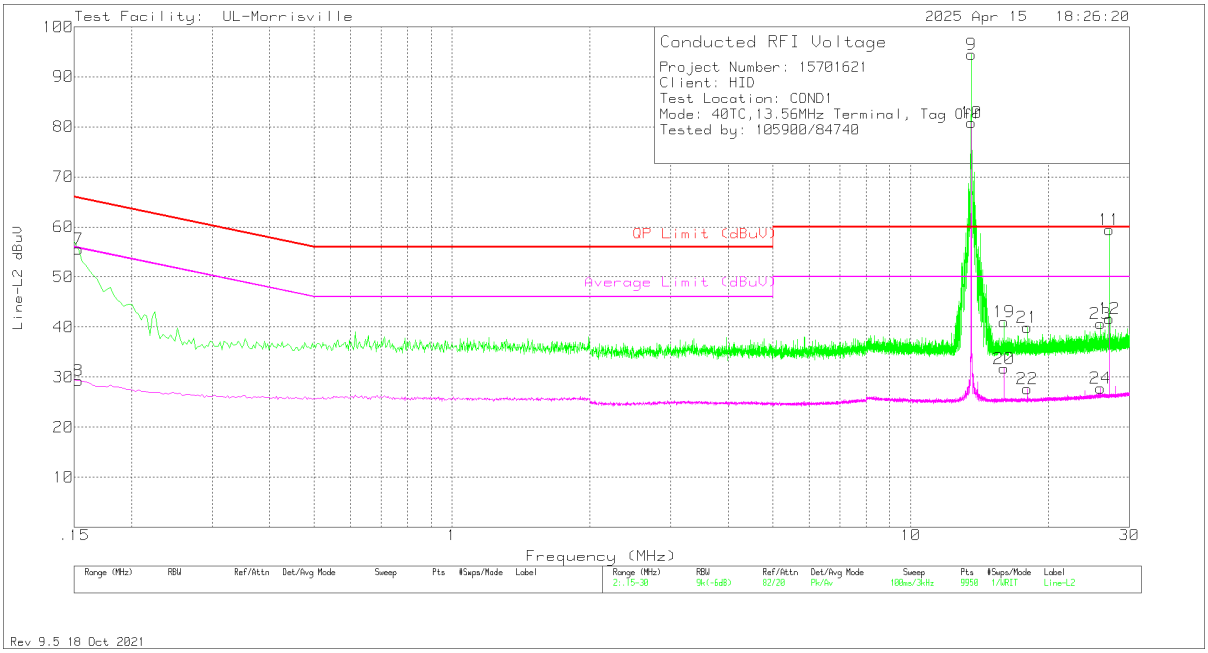


Range 1: Line-L1 .15 - 30MHz											
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	LISN VDF (dB)	171083 (dB)	Atten (dB)	Corrected Reading dBuV	QP Limit (dBuV)	Margin (dB)	Average Limit (dBuV)	Margin (dB)
1	.153	36.9	Pk	.2	0	20	57.1	65.84	-8.74	-	-
2	.156	9.26	Av	.2	0	20	29.46	-	-	55.67	-26.21
3	13.56032	71.69	Qp	.1	.3	20	92.09	**60**	**32.09**	-	-
4	13.56032	62.3	Ca	.1	.3	20	82.7	-	-	**50**	**32.7**
13	15.999	21.27	Pk	.2	.3	20	41.77	60	-18.23	-	-
14	16.002	10.9	Av	.2	.3	20	31.4	-	-	50	-18.6
15	17.982	19.4	Pk	.2	.3	20	39.9	60	-20.1	-	-
16	17.985	7.5	Av	.2	.3	20	28	-	-	50	-22
5	27.12004	35.75	Qp	.4	.4	20	56.55	60	-3.45	-	-
6	27.12	20.26	Av	.4	.4	20	41.06	-	-	50	-8.94
17	28.428	18.96	Pk	.4	.4	20	39.76	60	-20.24	-	-
18	28.503	5.92	Av	.4	.4	20	26.72	-	-	50	-23.28

Pk - Peak detector
Av - Average detection
Qp - Quasi-Peak detector
Ca - CISPR average detection

*Note: Markers 3 and 4 are the fundamentals of the device, and not spurious emissions. Section 11.3 shows compliance with an NFC/HF terminated sample.

LINE 2 RESULTS



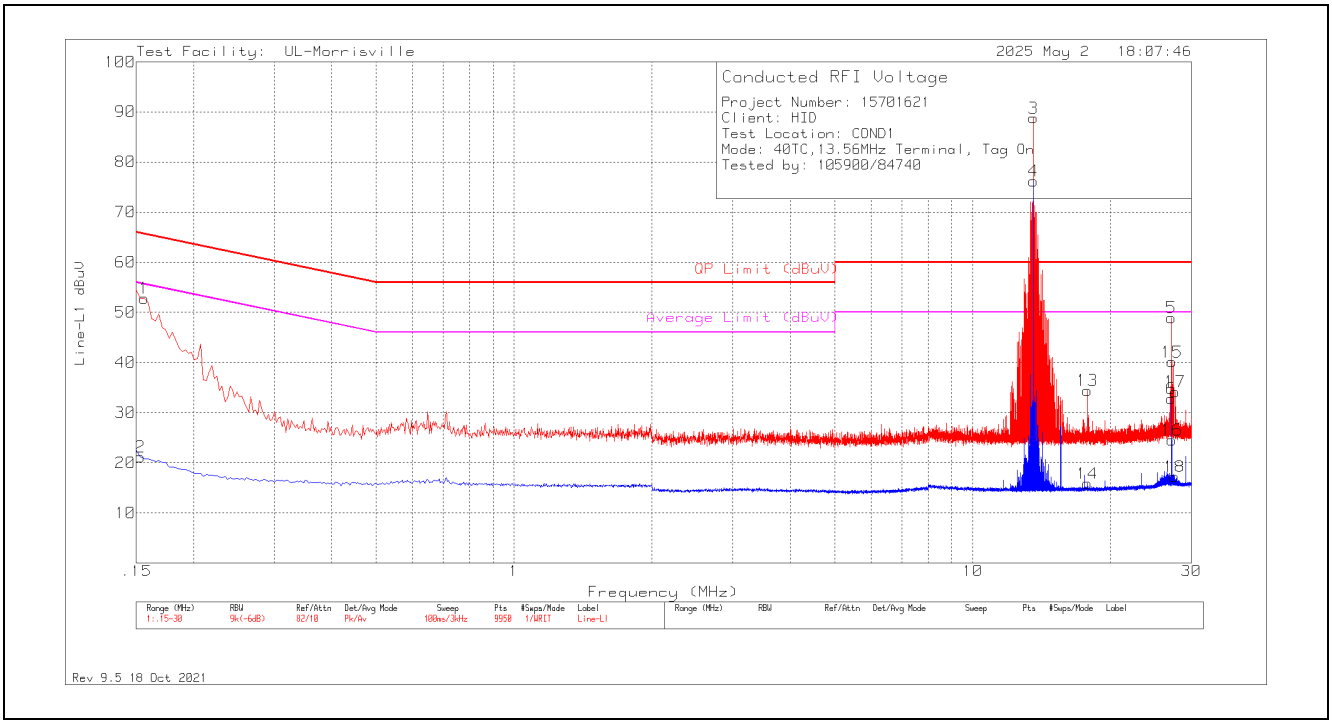
Range 2: Line-L2 .15 - 30MHz											
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	LISN VDF (dB)	171083 (dB)	Atten (dB)	Corrected Reading dBuV	QP Limit (dBuV)	Margin (dB)	Average Limit (dBuV)	Margin (dB)
7	.153	35.32	Pk	.2	0	20	55.52	65.84	-10.32	-	-
8	.153	9.13	Av	.2	0	20	29.33	-	-	55.84	-26.51
9	13.56011	71.91	Qp	.1	.3	20	92.31	60	32.31	-	-
10	13.56011	62.22	Ca	.1	.3	20	82.62	-	-	50	32.62
19	15.984	20.58	Pk	.2	.3	20	41.08	60	-18.92	-	-
20	15.987	11.22	Av	.2	.3	20	31.72	-	-	50	-18.28
22	17.973	7.16	Av	.2	.3	20	27.66	-	-	50	-22.34
21	17.976	19.41	Pk	.2	.3	20	39.91	60	-20.09	-	-
23	25.959	19.87	Pk	.4	.4	20	40.67	60	-19.33	-	-
24	25.962	6.97	Av	.4	.4	20	27.77	-	-	50	-22.23
11	27.1214	35.82	Qp	.4	.4	20	56.62	60	-3.38	-	-
12	27.12	20.91	Av	.4	.4	20	41.71	-	-	50	-8.29

Pk - Peak detector
Av - Average detection
Qp - Quasi-Peak detector
Ca - CISPR average detection

*Note: Markers 9 and 10 are the fundamentals of the device, and not spurious emissions. Section 11.3 shows compliance with an NFC/HF terminated sample.

11.2. AC Mains Tag On

LINE 1 RESULTS

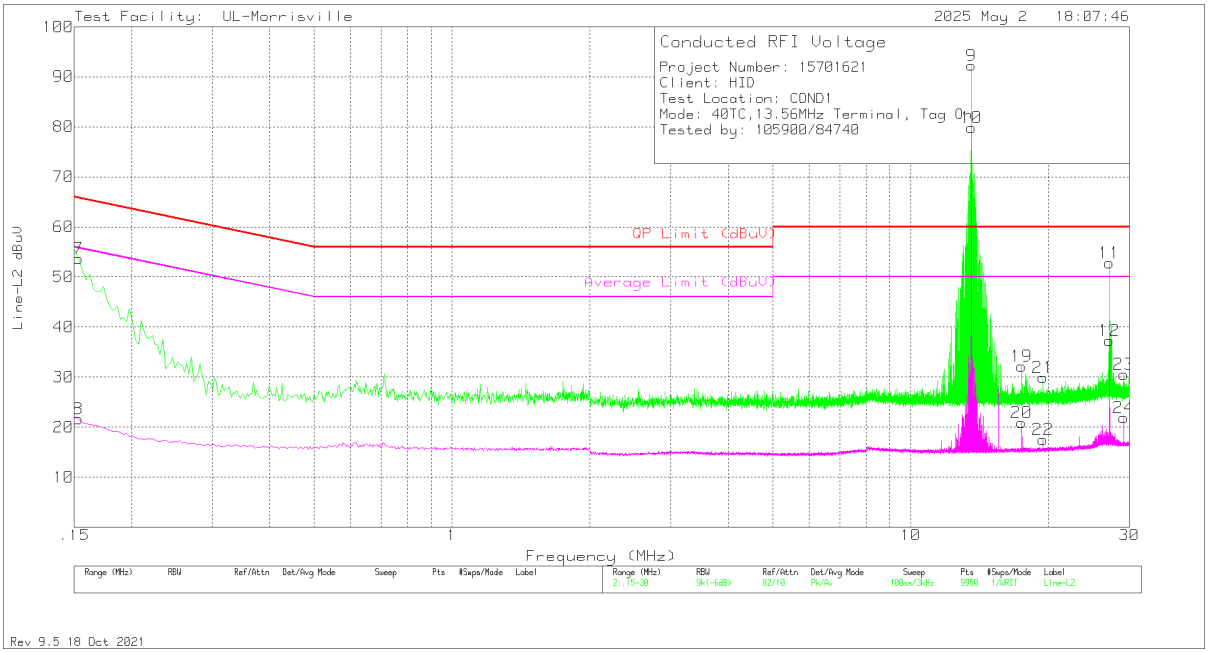


Range 1: Line-L1 .15 - 30MHz											
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	LISN VDF (dB)	cbl	Atten (dB)	Corrected Reading dBuV	QP Limit (dBuV)	Margin (dB)	Average Limit (dBuV)	Margin (dB)
2	.153	.92	Av	.2	0	20	21.12	-	-	55.84	-34.72
1	.156	32.66	Pk	.2	0	20	52.86	65.67	-12.81	-	-
3	13.56049	64.76	Qp	.1	-.3	20	84.56	**60**	**24.56**	-	-
4	13.56049	59.72	Ca	.1	-.3	20	79.52	-	-	**50**	**29.52**
13	17.799	14.48	Pk	.2	-.3	20	34.38	60	-25.62	-	-
14	17.799	-4.07	Av	.2	-.3	20	15.83	-	-	50	-34.17
5	27.117	28.94	Pk	.4	-.4	20	48.94	60	-11.06	-	-
6	27.117	12.82	Av	.4	-.4	20	32.82	-	-	50	-17.18
16	27.225	4.53	Av	.4	-.4	20	24.53	-	-	50	-25.47
15	27.237	20.11	Pk	.4	-.4	20	40.11	60	-19.89	-	-
18	27.579	-2.79	Av	.4	-.4	20	17.21	-	-	50	-32.79
17	27.651	14.13	Pk	.4	-.4	20	34.13	60	-25.87	-	-

Pk - Peak detector
Av - Average detection
Qp - Quasi-Peak detector
Ca - CISPR average detection

*Note: Markers 3 and 4 are the fundamentals of the device, and not spurious emissions. Section 11.3 shows compliance with an NFC/HF terminated sample.

LINE 2 RESULTS



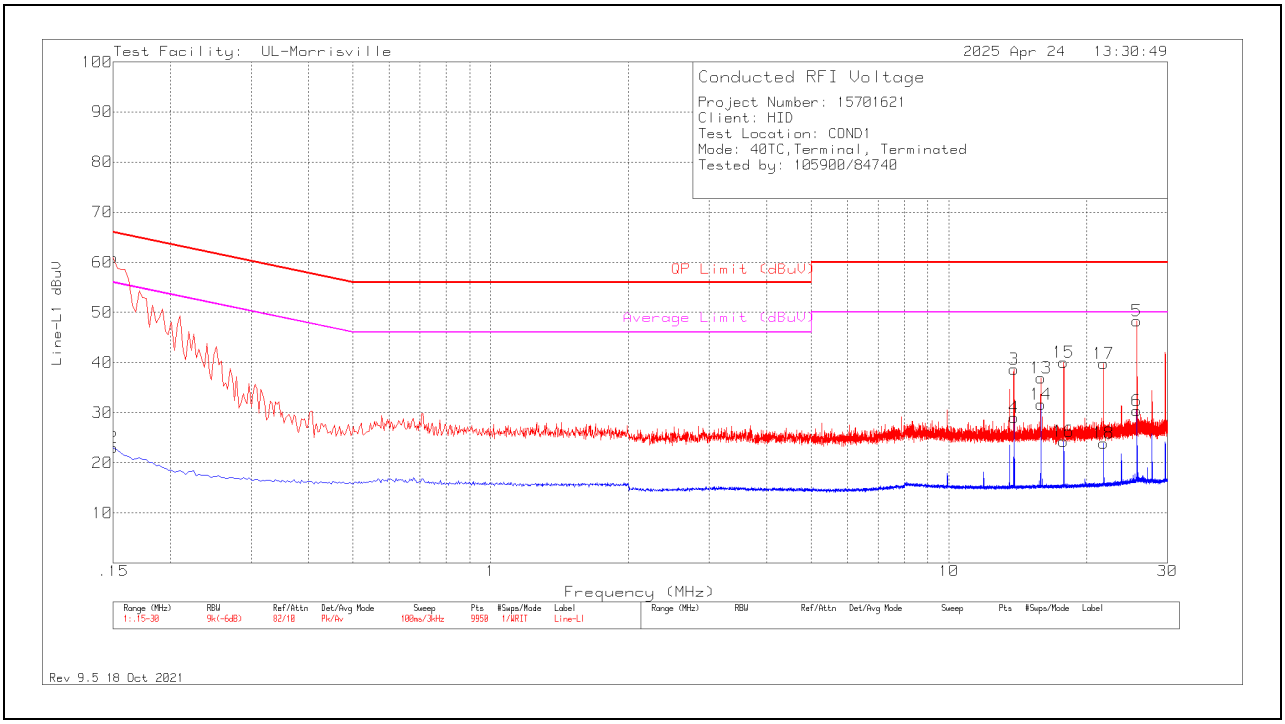
Range 2: Line-L2 .15 - 30MHz											
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	LISN VDF (dB)	171083 (dB)	Atten (dB)	Corrected Reading dBuV	QP Limit (dBuV)	Margin (dB)	Average Limit (dBuV)	Margin (dB)
7	.153	33.53	Pk	.2	0	20	53.73	65.84	-12.11	-	-
8	.153	1.42	Av	.2	0	20	21.62	-	-	55.84	-34.22
9	13.56043	65.01	Qp	.1	.3	20	85.41	60	25.41	-	-
10	13.56043	59.83	Ca	.1	.3	20	80.23	-	-	50	30.23
19	17.475	11.66	Pk	.2	.3	20	32.16	60	-27.84	-	-
20	17.475	.38	Av	.2	.3	20	20.88	-	-	50	-29.12
21	19.413	9.34	Pk	.2	.4	20	29.94	60	-30.06	-	-
22	19.425	-3.05	Av	.2	.4	20	17.55	-	-	50	-32.45
11	27.12	32.01	Pk	.4	.4	20	52.81	60	-7.19	-	-
12	27.12	16.52	Av	.4	.4	20	37.32	-	-	50	-12.68
23	29.133	9.67	Pk	.5	.4	20	30.57	60	-29.43	-	-
24	29.133	.96	Av	.5	.4	20	21.86	-	-	50	-28.14

Pk - Peak detector
Av - Average detection
Qp - Quasi-Peak detector
Ca - CISPR average detection

*Note: Markers 9 and 10 are the fundamentals of the device, and not spurious emissions. Section 11.3 shows compliance with an NFC/HF terminated sample.

11.3. Terminated Sample

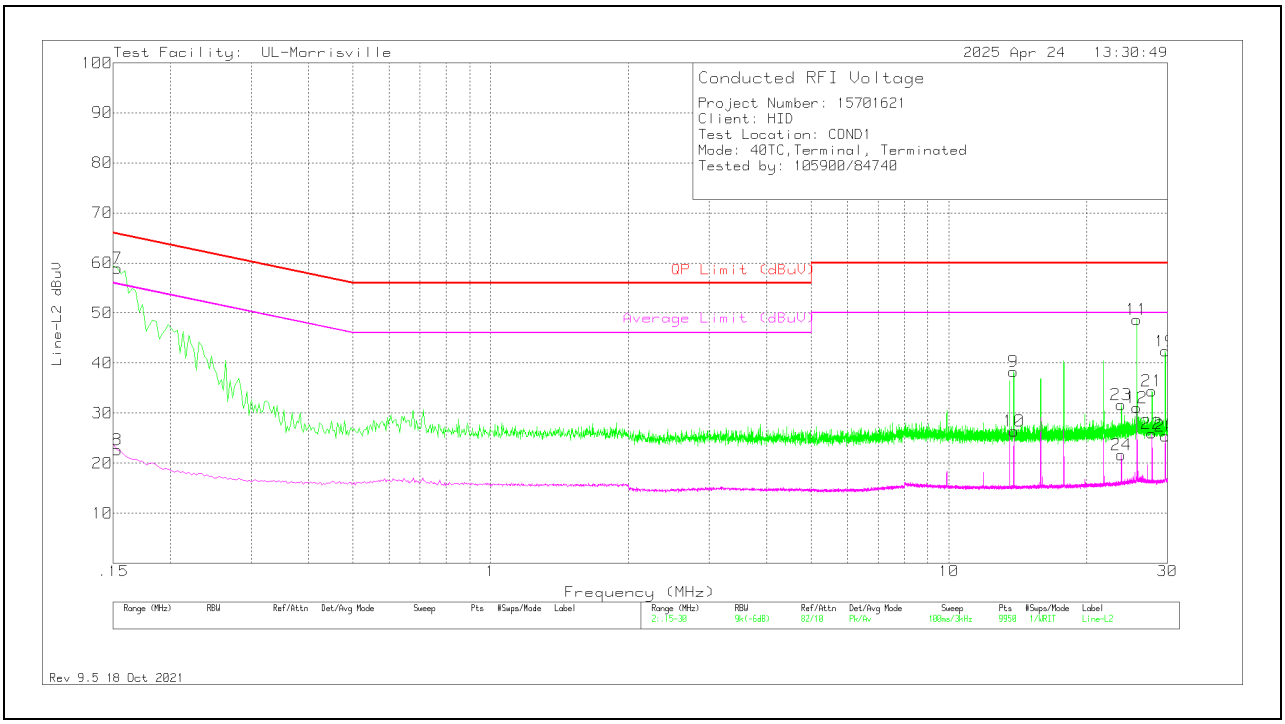
LINE 1 RESULTS



Range 1: Line-L1 .15 - 30MHz											
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	LISN VDF (dB)	171083 (dB)	Atten (dB)	Corrected Reading dBuV	QP Limit (dBuV)	Margin (dB)	Average Limit (dBuV)	Margin (dB)
1	.15011	29.54	Qp	.3	0	20	49.84	65.99	-16.15	-	-
2	.15	2.73	Av	.3	0	20	23.03	-	-	56	-32.97
3	13.86	18.28	Pk	.1	.3	20	38.68	60	-21.32	-	-
4	13.89	8.62	Av	.1	.3	20	29.02	-	-	50	-20.98
13	15.867	16.46	Pk	.2	.3	20	36.96	60	-23.04	-	-
14	15.873	11.13	Av	.2	.3	20	31.63	-	-	50	-18.37
15	17.808	19.54	Pk	.2	.3	20	40.04	60	-19.96	-	-
16	17.808	3.73	Av	.2	.3	20	24.23	-	-	50	-25.77
17	21.759	19.1	Pk	.3	.4	20	39.8	60	-20.2	-	-
18	21.768	3.2	Av	.3	.4	20	23.9	-	-	50	-26.1
6	25.713	9.59	Av	.4	.4	20	30.39	-	-	50	-19.61
5	25.722	27.53	Pk	.4	.4	20	48.33	60	-11.67	-	-

Qp - Quasi-Peak detector
Pk - Peak detector
Av - Average detection

LINE 2 RESULTS



Range 2: Line-L2 .15 - 30MHz											
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	LISN VDF (dB)	171083 (dB)	Atten (dB)	Corrected Reading dBuV	QP Limit (dBuV)	Margin (dB)	Average Limit (dBuV)	Margin (dB)
7	.153	38.78	Pk	.2	0	20	58.98	65.84	-6.86	-	-
8	.153	2.43	Av	.2	0	20	22.63	-	-	55.84	-33.21
9	13.848	17.94	Pk	.1	.3	20	38.34	60	-21.66	-	-
10	13.884	5.98	Av	.1	.3	20	26.38	-	-	50	-23.62
23	23.778	10.99	Pk	.3	.4	20	31.69	60	-28.31	-	-
24	23.799	.98	Av	.3	.4	20	21.68	-	-	50	-28.32
12	25.71	10.29	Av	.4	.4	20	31.09	-	-	50	-18.91
11	25.731	27.84	Pk	.4	.4	20	48.64	60	-11.36	-	-
21	27.759	13.62	Pk	.4	.4	20	34.42	60	-25.58	-	-
22	27.759	5.16	Av	.4	.4	20	25.96	-	-	50	-24.04
19	29.664	21.37	Pk	.5	.5	20	42.37	60	-17.63	-	-
20	29.67	4.4	Av	.5	.5	20	25.4	-	-	50	-24.6

Pk - Peak detector
Av - Average detection

12. SETUP PHOTOS

Please refer to 15701621-EP1f for setup photos

END OF TEST REPORT