

TEST REPORT

Report Number. : R15041981-E1

Applicant : Stryker Instruments
1941 Stryker Way
Portage, MI 49002, U.S.A

Model : 5400-052-000

FCC ID : Q9R-5400052000

IC : 4919A-5400052000

EUT Description : CORE 2 Console

Test Standard(s) : FCC 47 CFR PART 15 SUBPART C: 2024
ISED RSS-210 ISSUE 10: 2019
ISED RSS-GEN ISSUE 5 + A1 + A2: 2021

Date Of Issue:
2024-11-08

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REVISION HISTORY

Rev.	Issue Date	Revisions	Revised By
V1	2024-06-24	Initial Issue	Charles Moody
V2	2024-11-08	TCB Feedback: -Corrected Typos in section 9.1.2 test data. -Added Radio Off information to section 9.1.2 -Added statement to section 6.4 on Sim Tx	Noah Bennett

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: Stryker Instruments
1941 Stryker Way
Portage, MI 49002, U.S.A.

EUT DESCRIPTION: CORE 2 Console

MODEL: 5400-052-000

SERIAL NUMBER: 2321400059

SAMPLE RECEIPT DATE: 2024-04-03 to 2024-04-29

DATE TESTED: 2024-05-02 to 2024-05-30

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
FCC PART 15 SUBPART C : 2024	See Section 2
ISED RSS-210 Issue 10, Annex B: 2019	See Section 2
ISED RSS-GEN Issue 5 + A1 + A2: 2021	See Section 2

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
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2. TEST RESULTS SUMMARY

FCC Clause	ISED Clause	Requirement	Result	Comment
-	RSS-GEN 6.7	99% OBW	Reporting purposes only	ANSI C63.10 Section 6.9.3.
§15.215(c)	-	20dB BW	Reporting purposes only	ANSI C63.10 Section 6.9.2
§15.225(e)	RSS-210 Annex B.6 (b)	Frequency Stability	Complies	None
§15.225(a)	RSS-210 Annex B.6 (a)(i)	Fundamental Field Strength	Complies	None
§15.225 (b-d) §15.209	RSS-210 Annex B.6 (a) (ii-iv) RSS-GEN 8.9	Radiated Emissions	Complies	None
§15.207	RSS-Gen 8.8	AC Mains Conducted Emissions	Complies	None

This report contains data provided by the applicant 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. The following is info obtained by the customer:

1. Firmware and Software Version (section 6.3)
2. Intended Orientation of Operation (section 6.4)

3. TEST METHODOLOGY

The tests documented in this report were performed in accordance with ANSI C63.10-2020, KDB 174176, FCC 47 CFR Part 2, FCC 47 CFR Part 15, RSS-GEN Issue 5 + A1 + A2, and RSS-210 Issue 10.

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
☐	Building 12 Laboratory Dr RTP, NC 27709, U.S.A		2180C	

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)	141.2 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, Consolidated Operating Room Equipment (CORE) 2 Console, is a surgical device which is intended for use in the cutting, drilling, reaming, decorticating, shaping, and smoothing of bone, bone cement, and teeth in a variety of surgical procedures. The CORE 2 houses an RFID radio and this report covers full emissions testing from the RFID radio.

6.2. MAXIMUM ELECTRIC FIELD STRENGTH

Testing was performed at a distance of 3m. A **-40** dB Distance correction factor was applied to calculate the max E-Field reading at 30m. The transmitter has a maximum peak radiated magnetic field strength as follows:

Tag Configuration	Mode	Max Peak Radiated E-Field (dBuV/m) @ 30m
Cassette	Tag On	4.41
	Tag Off	6.47
Hand Piece	Tag On	14.88
	Tag Off	17.05

6.3. SOFTWARE AND FIRMWARE

The firmware installed on the EUT for testing is as follows: P/N 0590-090-929 V3.0.8

6.4. WORST-CASE CONFIGURATION AND MODE

The EUT has 2 tag configurations, with 2 modes each, for a total of 4 test modes. These test modes are:

Tag Configuration	Mode	Description
Cassette	Tag On	Cassette inserted and a non-RFID handpiece
	Tag Off	Cassette left out of EUT and a non-RFID handpiece
Hand Piece	Tag On	Cassette left out of EUT and "tag" portion inserted into the handpiece
	Tag Off	Cassette left out of EUT and "tag" portion removed from the hand piece

Testing was performed with the Cassette and with the Handpiece individually acting as the tag for the RFID radio. For the Cassette testing, the EUT was the CORE 2 unit itself and it was centered on the turn table for testing. Per manufacturer declaration, the CORE 2 is only intended to operate in one orthogonal orientation. Therefore, all emissions testing of the cassette was performed with the EUT in that orientation.

For the Handpiece testing, three handpiece variants (375-701-500, 375-704-500 & 375-708-500) were explored in three orthogonal orientations, X, Y and Z. Through pretesting, it was determined that the worst-case testing configuration was the **375-701-500** variant tested in the **Z** orientation. Therefore, all final testing was performed with the EUT configured in this orientation.

Note: For AC Lines testing, a board with the antenna port terminated was used.

The EUT is intended to operate with either the Cassette or Hand Piece, with no Sim Tx capabilities.

6.5. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Support Equipment List				
Description	Manufacturer	Model	Serial Number	FCC ID
Cassette	Stryker Instruments	5290-075-000	N/A	N/A
Foot Switch	Stryker Instruments	5100-008-000	232210493	N/A
Foot Switch	Stryker Instruments	5402-007-000	1825700109	N/A
Hand piece	Stryker Instruments	375-701-500	16I001574	N/A
Hand piece	Stryker Instruments	375-704-500	16L002314	N/A
Formula Resector Cutter (Hand piece tip)	Stryker Instruments	0375-562-000	LOT 23055CE2	N/A
Ethernet to fiber-optic converter	Pontis	N/A	4682203209	N/A
USB Flash Drive (with LED)	N/A	N/A	N/A	N/A
ES6 Sternum Saw	Stryker Instruments	6297-000-000	1032101213	N/A
ES6 Cord	Stryker Instruments	6292-004-000	LOT 23258	N/A
Matched Antenna Port (Dummy Load)	Stryker Instruments	Built per Stryker Document D0000288131	N/A	N/A

I/O CABLES

I/O Cable List						
Cable No.	Port	# of Identical Ports	Connector Type	Cable Type	Cable Length (m)	Remarks
0	IEC C14	1	AC Mains	Shielded	<3m	Used to connect EUT to AC Mains
1	Ethernet	1	RJ45	Unshielded	>3m	Connects to Fiber Optic Converter for Port Population
2	Foot Switch Port	2	9-Pin	Unshielded	>3m	Connects to Foot Switch for Port Population
3	Motor Port	3	16-Pin	Unshielded	>3m	Used to connect Hand Piece Assembly to EUT. *Non-RFID handpiece used for Cassette testing

TEST SETUP

The EUT is connected to all of the support equipment and left connected throughout the duration of the testing in order to populate all necessary ports. The radio was set to transmit at max power via customer firmware.

*Note: For AC Lines testing, a board with the antenna port terminated was used.

SETUP DIAGRAM

Please refer to R15041981-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 4)

Equip. ID	Description	Manufacturer/Brand	Model Number	Last Cal.	Next Cal.
	0.009-30MHz				
135144	Active Loop Antenna	ETS-Lindgren	6502	2024-01-24	2025-01-24
	30-1000 MHz				
90628	Hybrid Broadband Antenna	Sunol Sciences Corp.	JB3	2024-01-02	2026-01-02
	Gain-Loss Chains				
207638	Gain-loss string: 0.009-30MHz	Various	Various	2023-09-18	2024-09-18
207639	Gain-loss string: 25-1000MHz	Various	Various	2023-09-18	2024-09-18
	Receiver & Software				
197955	Spectrum Analyzer	Rohde & Schwarz	ESW44	2024-04-16	2025-04-16
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
212167	Wideband Radio Communications Tester	Anritsu	MT8821C	2023-06-05	2024-06-05

Test Equipment Used - Wireless Conducted Measurement Equipment

Equipment ID	Description	Manufacturer	Model Number	Last Cal.	Next Cal.
	Conducted Room 2				
90410	Spectrum Analyzer	Keysight Technologies	N9030A	2023-06-14	2024-06-14
238710	Environmental Meter	Fisher Scientific	15-077-963	2023-06-27	2024-06-27
SOFTEMI	Antenna Port Software	UL	Version 2022.8.16	NA	NA
	Cables				
CBL105	Micro-Coax UTIFLEX Cable Assembly, Low Loss	Carlisle Interconnect Technologies	UFB-197C-0-0160-300300	2024-03-01	2025-03-01

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

Equipment ID.	Description	Manufacturer	Model Number	Last Cal.	Next Cal.
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	2023-07-26	2024-06-31
80391	LISN, 50-ohm/50-uH, 250uH 2-conductor, 25A	Fischer Custom Com.	FCC-LISN-50/250-25-2-01	2023-07-31	2024-07-31
75141	EMI Test Receiver 9kHz-7GHz	Rohde & Schwarz	ESCI 7	2023-08-01	2024-08-01
52859	Transient Limiter, 0.009-100MHz	Electro-Metrics	EM-7600	2024-04-04	2025-04-04
236853	AC Power Source	California Instruments	AST3001	NA	NA
SOFTEMI	EMI Software	UL	Version 9.5 (18 Oct 2021)		
	Miscellaneous (if needed)				
84681	ANSI C63.4 1m extension cable.	UL	Per Annex B of ANSI C63.4	2024-04-04	2025-04-04

8. ANTENNA PORT TEST RESULTS

8.1. OCCUPIED BANDWIDTH AND 20dB BANDWIDTH

LIMITS

Occupied Bandwidth: None; for reporting purposes only.

RSS-Gen Issue 5+A1+A2: 2021 Section 6.7

20dB Bandwidth:

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

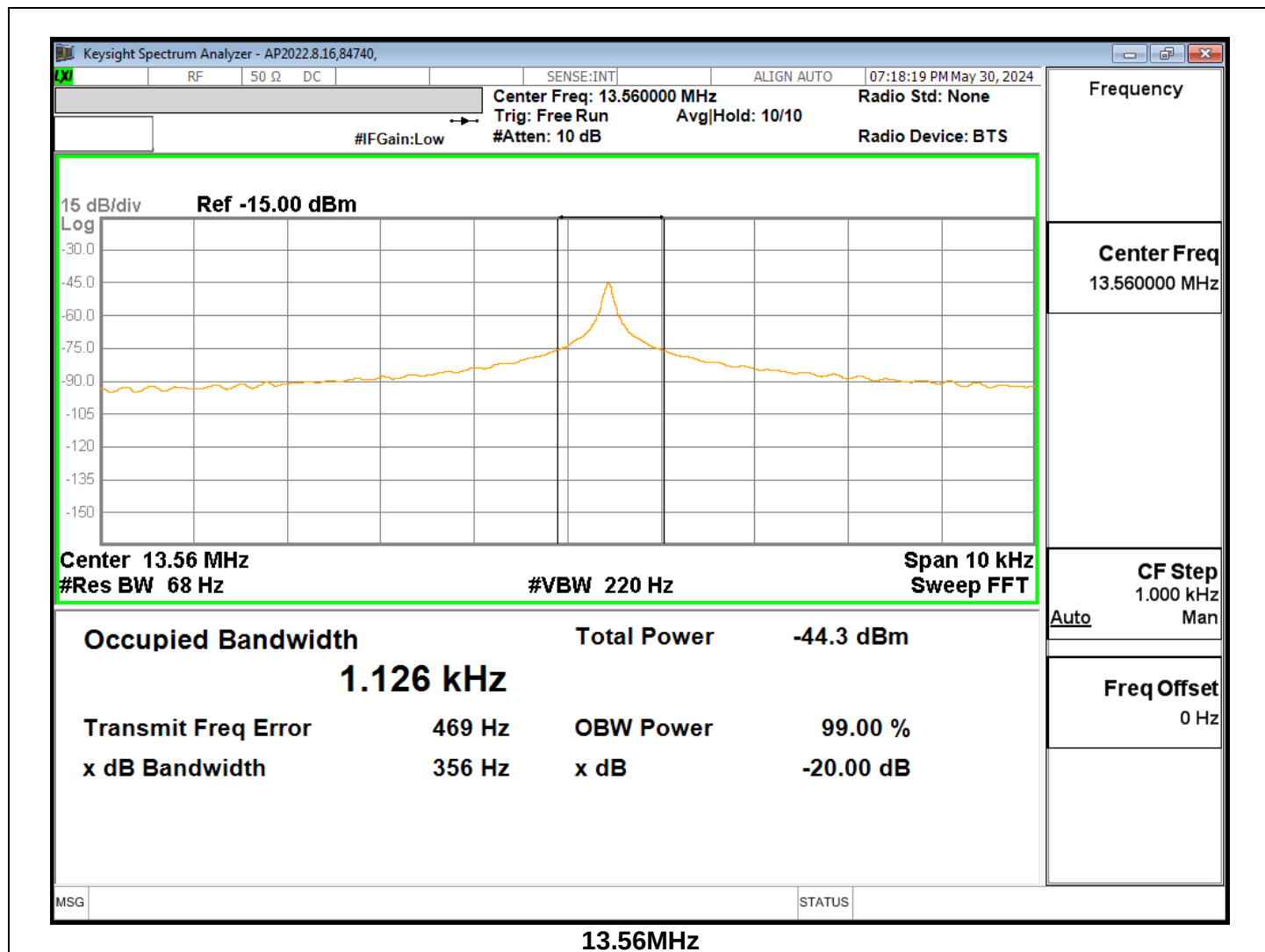
The transmitter output is connected to the spectrum analyzer. The RBW is set to 1-5% of the EBW. The VBW is set to 3 times the RBW. The sweep time is coupled. The spectrum analyzer internal 99% bandwidth function is utilized.

RESULTS

Note: Due to the CW like nature of the emission, following the C63.10 procedure of RBW: 1-5% of the EBW is unobtainable. Testing was performed by trying to get RBW/VBW as close as possible.

99% and 20dB BW

Frequency (MHz)	99% Bandwidth (KHz)	20dB Bandwidth (Hz)
13.56	1.126	356



9. RADIATED EMISSION TEST RESULTS

9.1. LIMITS AND PROCEDURE

LIMIT

§15.225

ISED RSS-210, Annex B.6

ISED 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 field strength from µV/m to dBµV/m is:

Limit (dBµV/m) = 20 log limit (µV/m)

§15.209 (d) The emission limits shown in 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.

Although these tests were performed other than open area test site, adequate comparison measurements were confirmed against 30 m open area 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

9kHz to 30MHz Spurious Emissions Note: All measurements from 9KHz to 30MHz 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 $40 \cdot \log(\text{test distance} / \text{specification distance})$.

TEST PROCEDURE

ANSI C63.10, 2020

Note: 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. C63.10:2020 Section 5.5, states that the frequency range of measurements for unlicensed wireless devices operating below 10GHz shall be measured up to the 10th harmonic of the fundamental, or up to 40GHz, whichever is lower.

$$F_c = 13.56\text{MHz} \cdot 10 = 135.6\text{MHz}.$$

Per 15.209 (f), measurements were made above the 10th harmonic in accordance with 15.33 (a) due to the incorporation of a digital device. The digital device is classified as a Class A device. Therefore, all measurements above the 10th harmonic were compared to 15.109(b) Class A limits.

Frequency of Emission (MHz)	Field Strength Limits (μV/m) @ 10m	Field Strength Limits (dBuV/m) @ 10m
30 – 88	90	39.08
88 - 216	150	43.52
216 – 960	210	46.44
Above 960	300	49.54

RESULTS

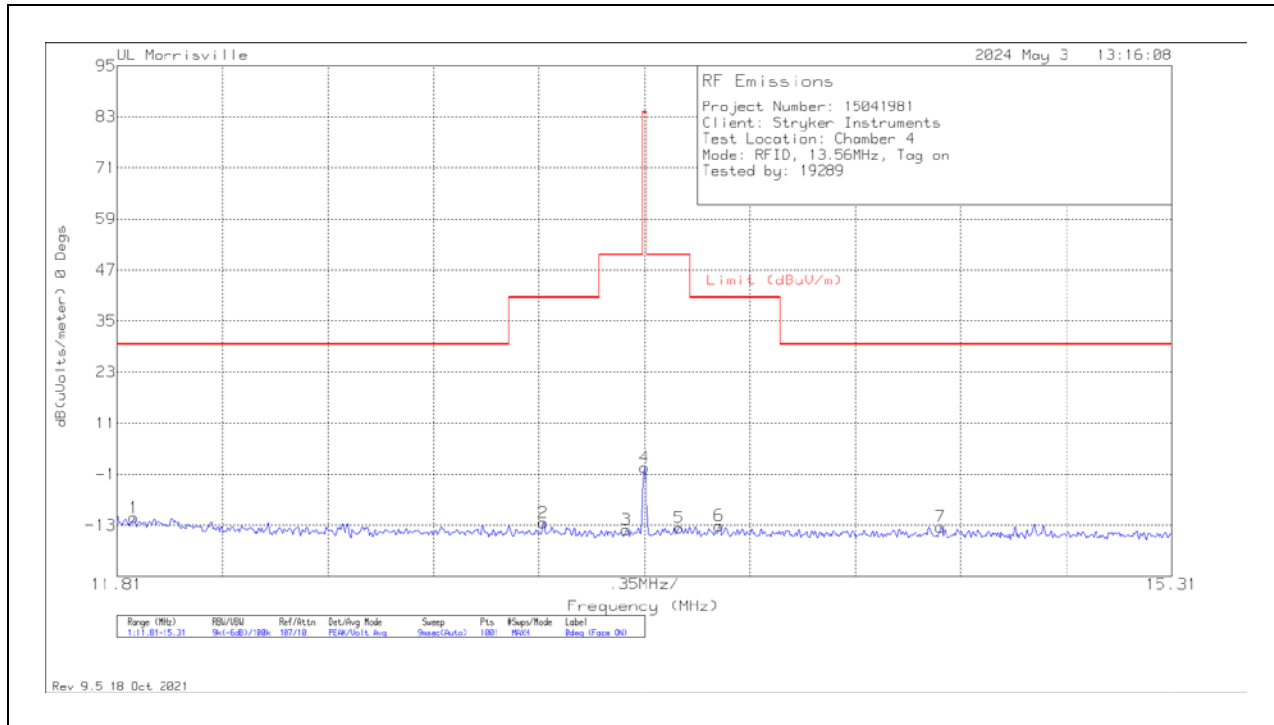
9.1. FUNDAMENTAL AND SPURIOUS EMISSIONS (0.009 - 30 MHz)

9.1.1. FUNDAMENTAL RESULTS

Note: 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 (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).

9.1.1.1. Cassette Tag On

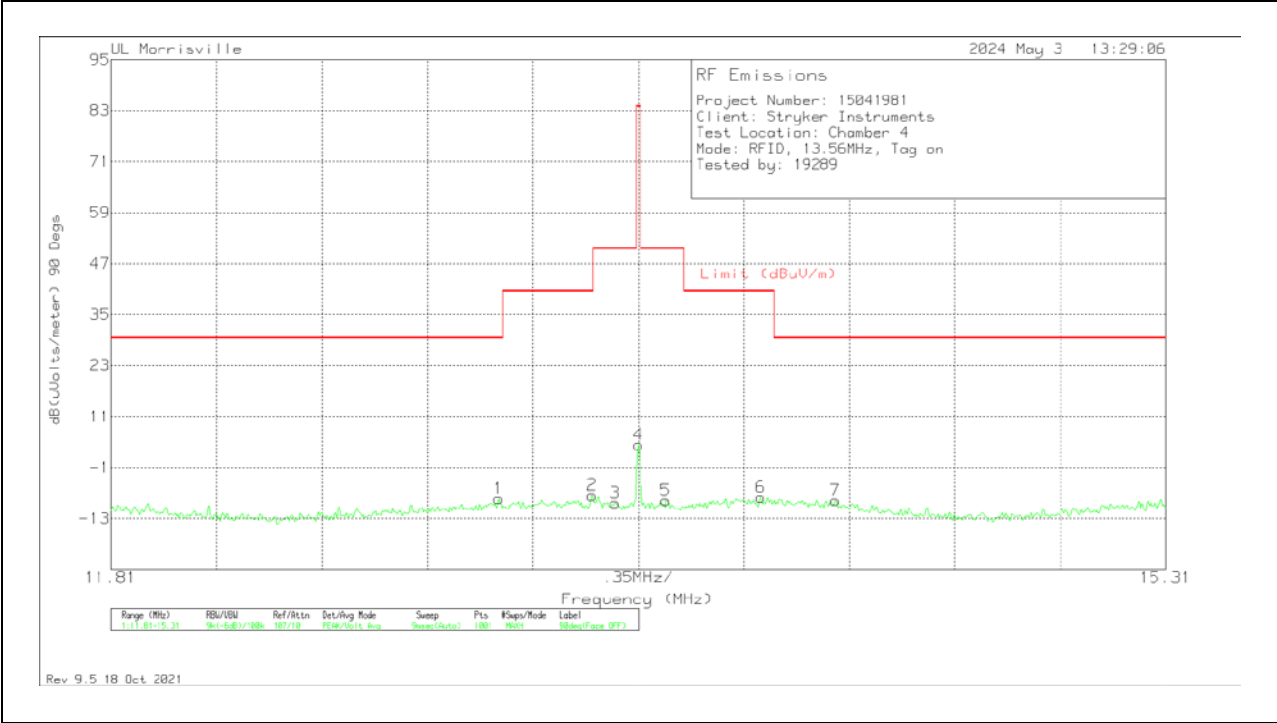
FUNDAMENTAL – Face On, 0 Deg



Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	135144 (dBuV/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	11.866	17.6	Pk	10.8	.4	-40	-11.2	29.5	-40.7	308	100	0 degs
2	13.224	16.53	Pk	10.7	.4	-40	-12.37	40.5	-52.87	308	100	0 degs
3	13.5005	14.86	Pk	10.7	.4	-40	-14.04	50.5	-64.54	308	100	0 degs
4	13.56	29.48	Pk	10.7	.4	-40	.58	84	-83.42	308	100	0 degs
5	13.6755	15.26	Pk	10.7	.4	-40	-13.64	50.5	-64.14	308	100	0 degs
6	13.8085	15.84	Pk	10.7	.4	-40	-13.06	40.5	-53.56	308	100	0 degs
7	14.5435	15.45	Pk	10.7	.5	-40	-13.35	29.5	-42.85	308	100	0 degs

Pk - Peak detector

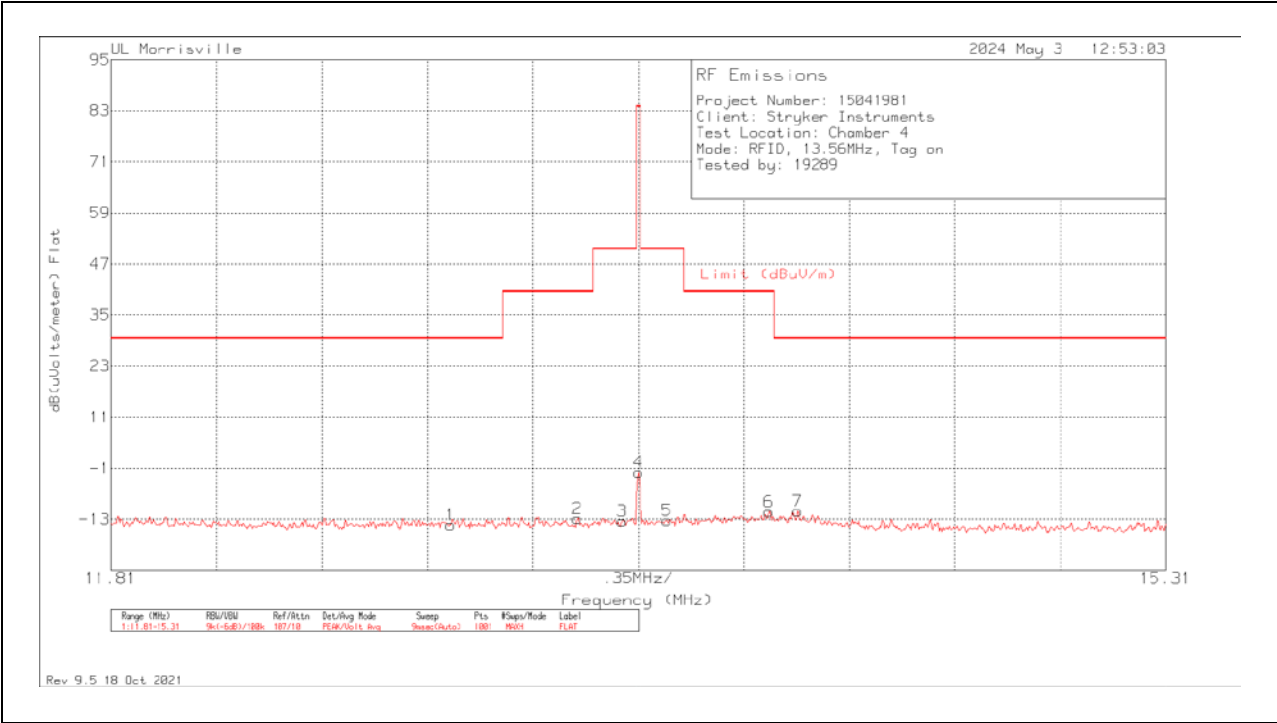
FUNDAMENTAL – Face Off, 90 Deg



Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	135144 (dBuV/m)	Gain/Loss (dB)	Dist. Corr. Factor (dB)	Corrected Reading dB(uVolts/meter)	Limit (dBuV/m)	Margin (dB)	Azimuth (Degr)	Height (cm)	Loop Angle
1	13.098	20.63	Pk	10.7	.4	-40	-8.27	29.5	-37.77	32	100	90 degs
2	13.406	21.44	Pk	10.7	.4	-40	-7.46	40.5	-47.96	32	100	90 degs
3	13.483	19.65	Pk	10.7	.4	-40	-9.25	50.5	-59.75	32	100	90 degs
4	13.56	33.31	Pk	10.7	.4	-40	4.41	84	-79.59	32	100	90 degs
5	13.651	20.24	Pk	10.7	.4	-40	-8.66	50.5	-59.16	32	100	90 degs
6	13.966	20.81	Pk	10.7	.5	-40	-7.99	40.5	-48.49	32	100	90 degs
7	14.2145	20.03	Pk	10.7	.5	-40	-8.77	29.5	-38.27	32	100	90 degs

Pk - Peak detector

FUNDAMENTAL – Horizontal, Flat

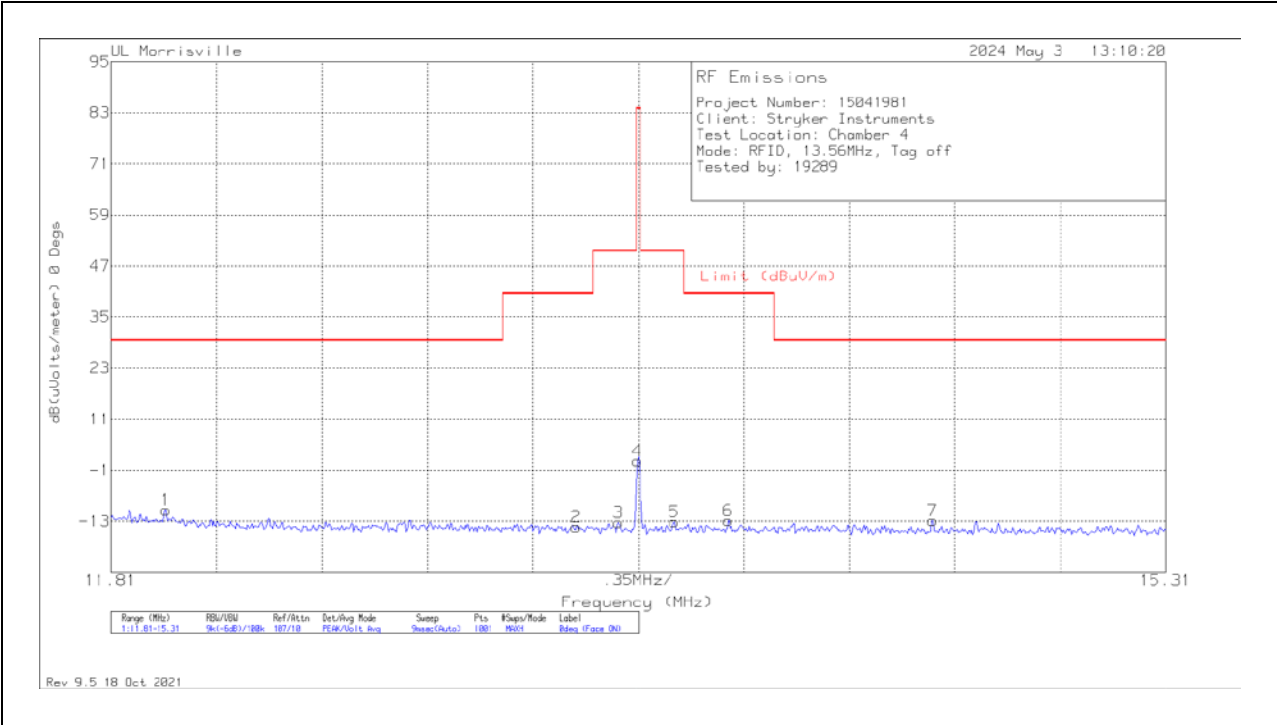


Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	135144 (dBuV/m)	Gain/Loss (dB)	Dist. Corr. Factor (dB)	Corrected Reading dB(uVolts/meter)	Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Loop Angle
1	12.937	14.62	Pk	10.7	.4	-40	-14.28	29.5	-43.78	108	100	Flat
2	13.357	16.05	Pk	10.7	.4	-40	-12.85	40.5	-53.35	108	100	Flat
3	13.5075	15.53	Pk	10.7	.4	-40	-13.37	50.5	-63.87	108	100	Flat
4	13.56	27.02	Pk	10.7	.4	-40	-1.88	84	-85.88	108	100	Flat
5	13.6545	15.68	Pk	10.7	.4	-40	-13.22	50.5	-63.72	108	100	Flat
6	13.994	17.6	Pk	10.7	.5	-40	-11.2	40.5	-51.7	108	100	Flat
7	14.0885	17.72	Pk	10.7	.5	-40	-11.08	29.5	-40.58	108	100	Flat

Pk - Peak detector

9.1.1.2. Cassette Tag Off

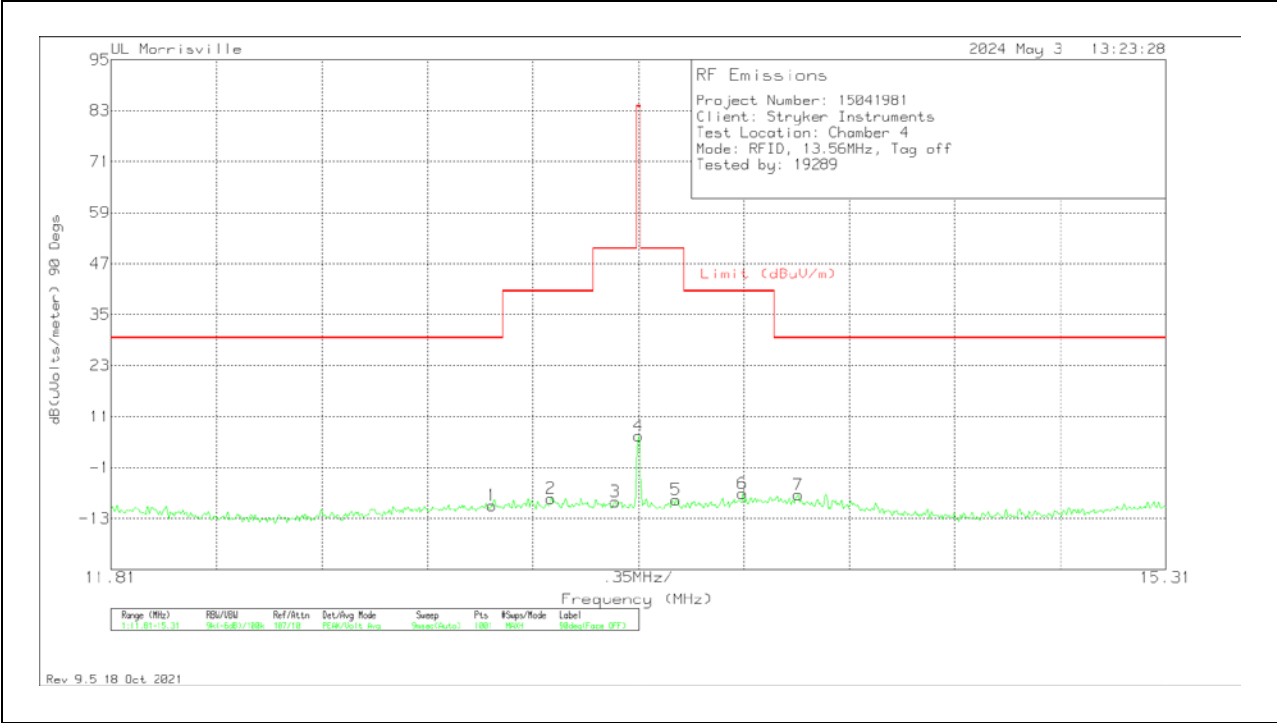
FUNDAMENTAL – Face On, 0 Deg



Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	135144 (dBuV/m)	Gain/Loss (dB)	Dist. Corr. Factor (dB)	Corrected Reading dB(uVolts/meter)	Limit (dBuV/m)	Margin (dB)	Azimuth (Dega)	Height (cm)	Loop Angle
1	11.992	18.45	Pk	10.8	.4	-40	-10.35	29.5	-39.85	308	100	0 degs
2	13.3535	14.55	Pk	10.7	.4	-40	-14.35	40.5	-54.85	308	100	0 degs
3	13.4935	15.67	Pk	10.7	.4	-40	-13.23	50.5	-63.73	308	100	0 degs
4	13.5565	30.06	Pk	10.7	.4	-40	1.16	84	-82.84	308	100	0 degs
5	13.679	15.7	Pk	10.7	.4	-40	-13.2	50.5	-63.7	308	100	0 degs
6	13.8575	16	Pk	10.7	.5	-40	-12.8	40.5	-53.3	308	100	0 degs
7	14.5365	15.93	Pk	10.7	.5	-40	-12.87	29.5	-42.37	308	100	0 degs

Pk - Peak detector

FUNDAMENTAL – Face Off, 90 Deg



Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	135144 (dBuV/m)	Gain/Loss (dB)	Dist. Corr. Factor (dB)	Corrected Reading dB(uVolts/meter)	Limit (dBuV/m)	Margin (dB)	Azimuth (Degr)	Height (cm)	Loop Angle
1	13.0735	18.94	Pk	10.7	.4	-40	-9.96	29.5	-39.46	32	100	90 degs
2	13.2695	20.63	Pk	10.7	.4	-40	-8.27	40.5	-48.77	32	100	90 degs
3	13.483	19.9	Pk	10.7	.4	-40	-9	50.5	-59.5	32	100	90 degs
4	13.56	35.37	Pk	10.7	.4	-40	6.47	84	-77.53	32	100	90 degs
5	13.686	20.37	Pk	10.7	.4	-40	-8.53	50.5	-59.03	32	100	90 degs
6	13.9065	21.75	Pk	10.7	.5	-40	-7.05	40.5	-47.55	32	100	90 degs
7	14.092	21.35	Pk	10.7	.5	-40	-7.45	29.5	-36.95	32	100	90 degs

Pk - Peak detector

FUNDAMENTAL – Horizontal, Flat

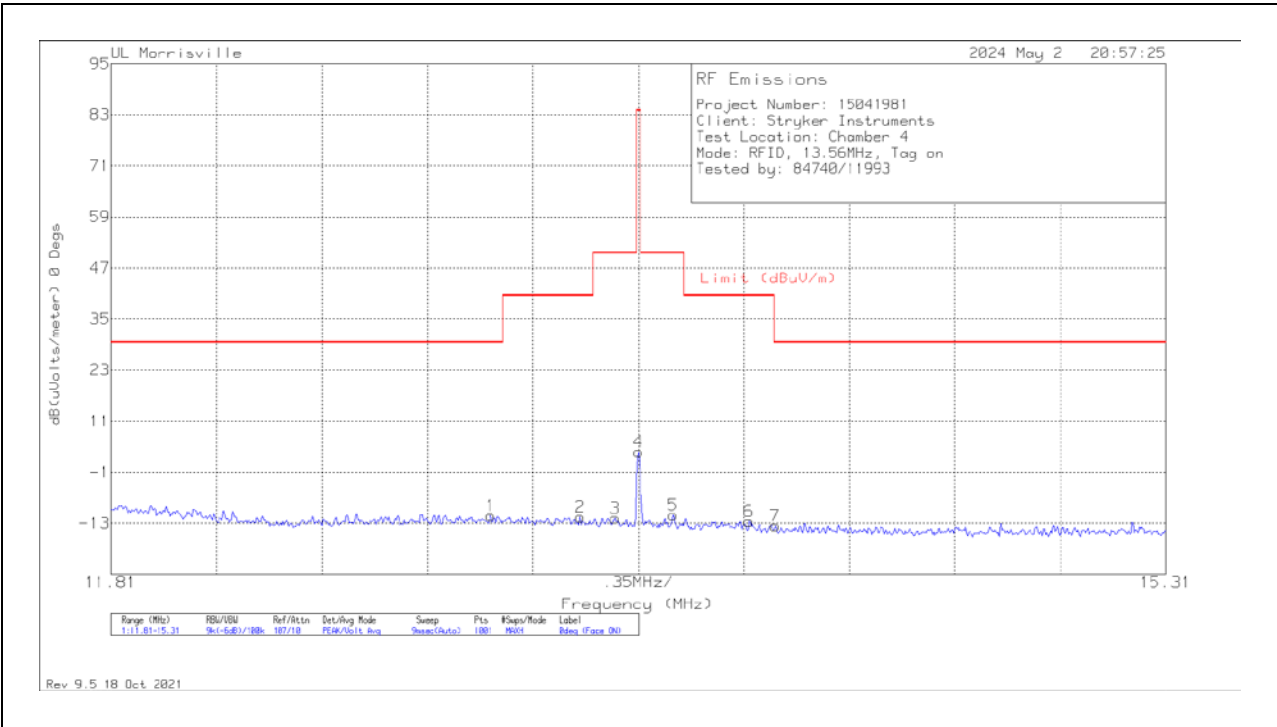


Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	135144 (dBuV/m)	Gain/Loss (dB)	Dist. Corr. Factor (dB)	Corrected Reading dB(uVolts/meter)	Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Loop Angle
1	12.902	15.92	Pk	10.7	.4	-40	-12.98	29.5	-42.48	108	100	Flat
2	13.3115	16.04	Pk	10.7	.4	-40	-12.86	40.5	-53.36	108	100	Flat
3	13.483	15.88	Pk	10.7	.4	-40	-13.02	50.5	-63.52	108	100	Flat
4	13.56	27.77	Pk	10.7	.4	-40	-1.13	84	-85.13	108	100	Flat
5	13.66325	16.71	Pk	10.7	.4	-40	-12.19	50.5	-62.69	108	100	Flat
6	13.889	17.06	Pk	10.7	.5	-40	-11.74	40.5	-52.24	108	100	Flat
7	14.2145	16.54	Pk	10.7	.5	-40	-12.26	29.5	-41.76	108	100	Flat

Pk - Peak detector

9.1.1.3. Hand Piece Tag On

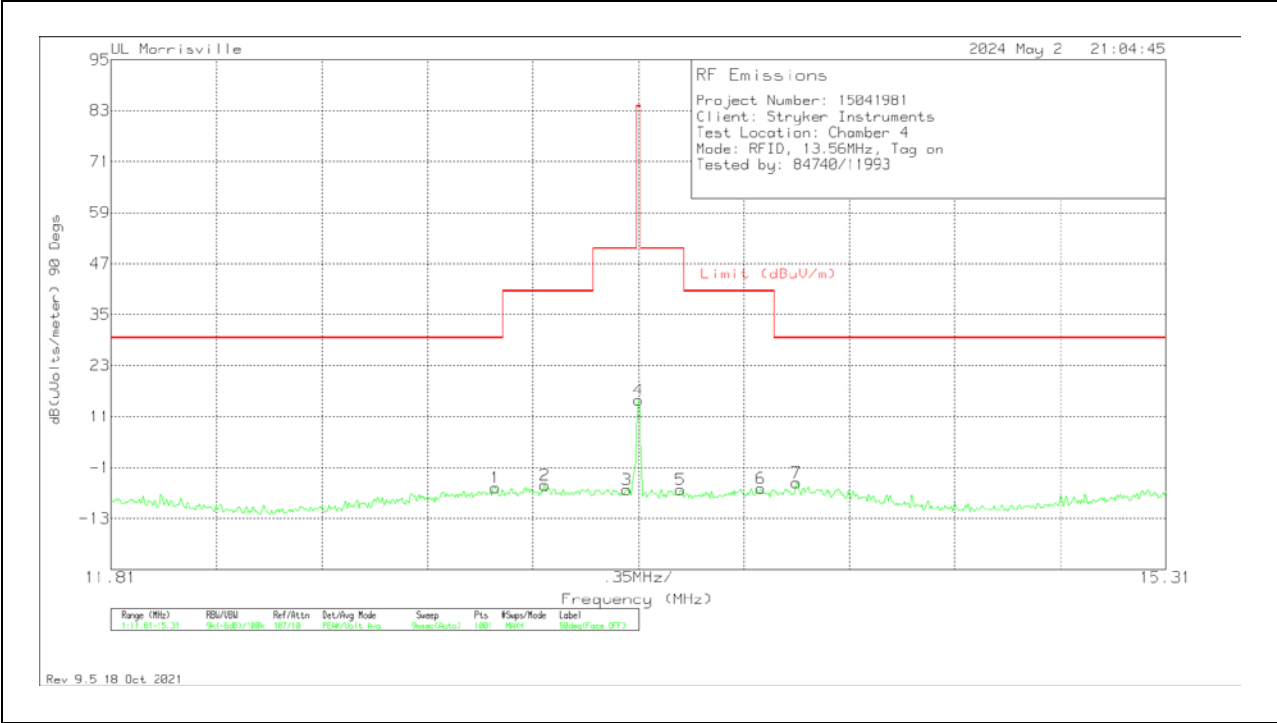
FUNDAMENTAL – Face On, 0 Deg



Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	135144 (dBuV/m)	Gain/Loss (dB)	Dist. Corr. Factor (dB)	Corrected Reading dB(uVolts/meter)	Limit (dBuV/m)	Margin (dB)	Azimuth (Dega)	Height (cm)	Loop Angle
1	13.07	17.66	Pk	10.7	.4	-40	-11.24	29.5	-40.74	71	100	0 degs
2	13.3675	17.35	Pk	10.7	.4	-40	-11.55	40.5	-52.05	71	100	0 degs
3	13.483	17.05	Pk	10.7	.4	-40	-11.85	50.5	-62.35	71	100	0 degs
4	13.56	32.75	Pk	10.7	.4	-40	3.85	84	-80.15	71	100	0 degs
5	13.6755	17.86	Pk	10.7	.4	-40	-11.04	50.5	-61.54	71	100	0 degs
6	13.9275	16.21	Pk	10.7	.5	-40	-12.59	40.5	-53.09	71	100	0 degs
7	14.015	15.16	Pk	10.7	.5	-40	-13.64	29.5	-43.14	71	100	0 degs

Pk - Peak detector

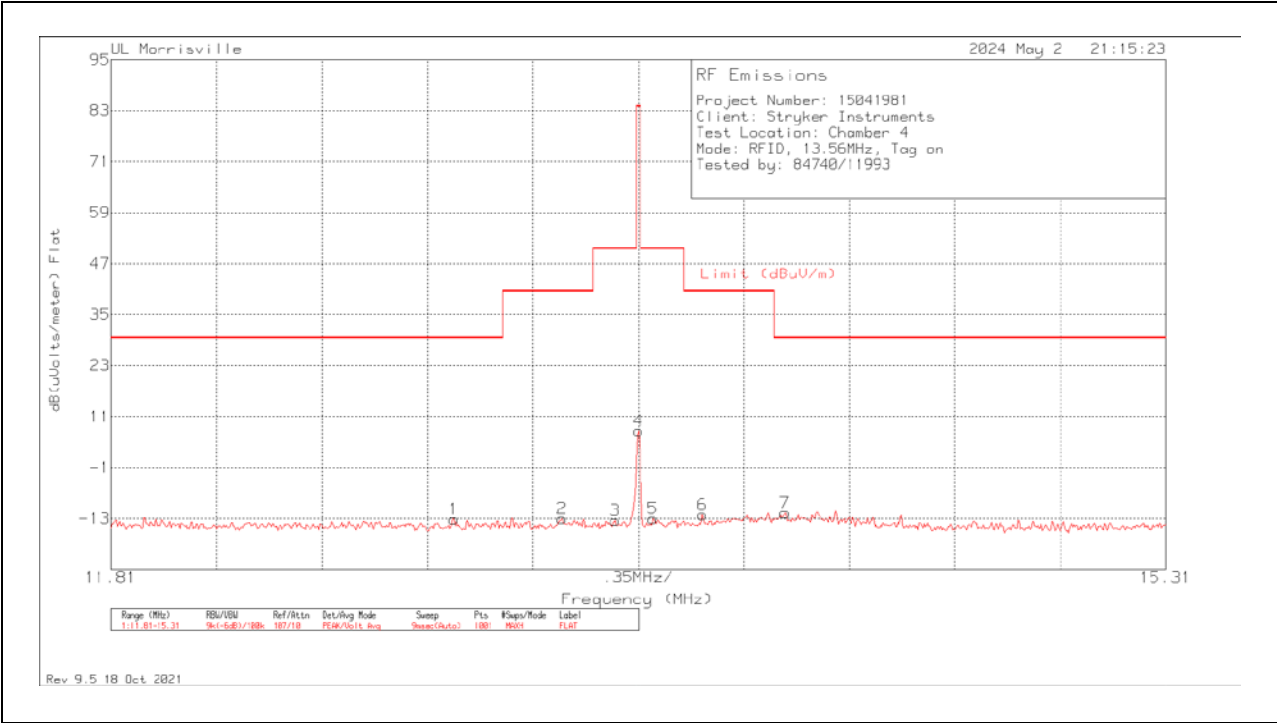
FUNDAMENTAL – Face Off, 90 Deg



Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	135144 (dBuV/m)	Gain/Loss (dB)	Dist. Corr. Factor (dB)	Corrected Reading dB(uVolts/meter)	Limit (dBuV/m)	Margin (dB)	Azimuth (Degr)	Height (cm)	Loop Angle
1	13.0875	23.19	Pk	10.7	.4	-40	-5.71	29.5	-35.21	10	100	90 degs
2	13.2485	23.66	Pk	10.7	.4	-40	-5.24	40.5	-45.74	10	100	90 degs
3	13.5215	22.76	Pk	10.7	.4	-40	-6.14	50.5	-56.64	10	100	90 degs
4	13.56	43.78	Pk	10.7	.4	-40	14.88	84	-69.12	10	100	90 degs
5	13.7	22.72	Pk	10.7	.4	-40	-6.18	50.5	-56.68	10	100	90 degs
6	13.966	22.83	Pk	10.7	.5	-40	-5.97	40.5	-46.47	10	100	90 degs
7	14.085	24.28	Pk	10.7	.5	-40	-4.52	29.5	-34.02	10	100	90 degs

Pk - Peak detector

FUNDAMENTAL – Horizontal, Flat

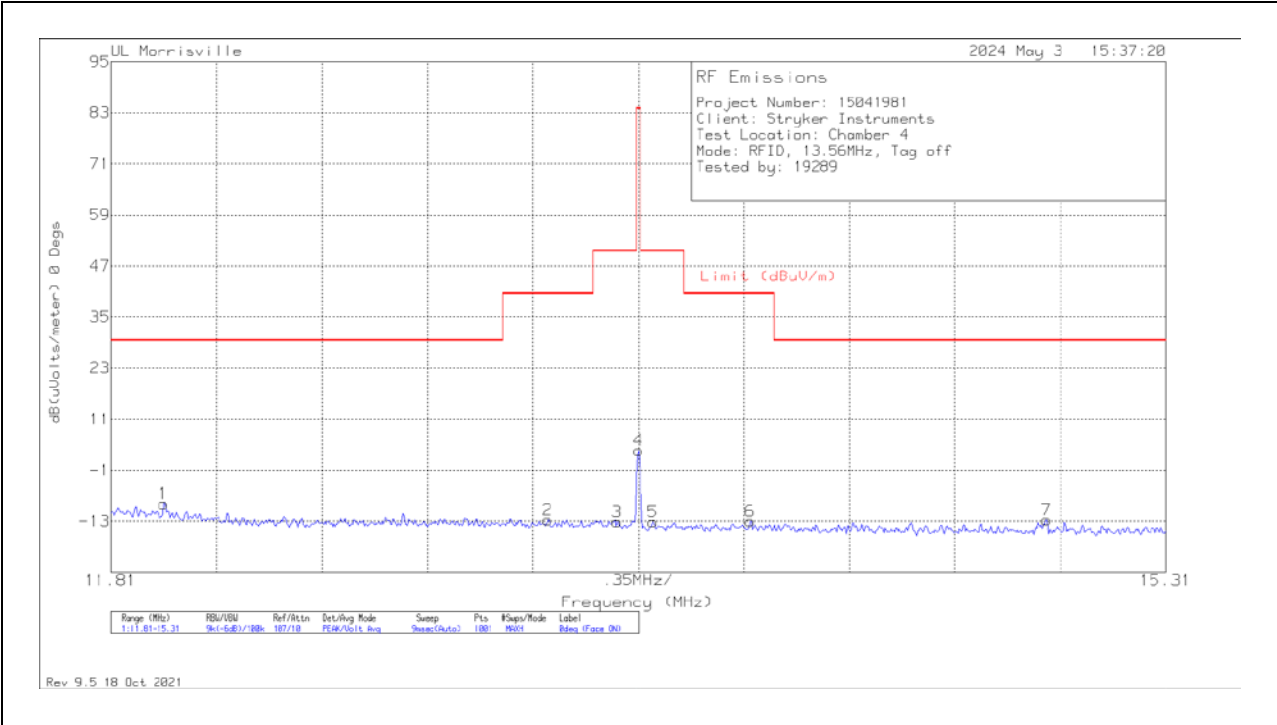


Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	135144 (dBuV/m)	Gain/Loss (dB)	Dist. Corr. Factor (dB)	Corrected Reading dB(uVolts/meter)	Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Loop Angle
1	12.9475	15.78	Pk	10.7	.4	-40	-13.12	29.5	-42.62	86	100	Flat
2	13.308	15.92	Pk	10.7	.4	-40	-12.98	40.5	-53.48	86	100	Flat
3	13.483	15.53	Pk	10.7	.4	-40	-13.37	50.5	-63.87	86	100	Flat
4	13.56	36.59	Pk	10.7	.4	-40	7.69	84	-76.31	86	100	Flat
5	13.609	15.97	Pk	10.7	.4	-40	-12.93	50.5	-63.43	86	100	Flat
6	13.7735	16.81	Pk	10.7	.4	-40	-12.09	40.5	-52.59	86	100	Flat
7	14.0465	17.15	Pk	10.7	.5	-40	-11.65	29.5	-41.15	86	100	Flat

Pk - Peak detector

9.1.1.4. Hand Piece Tag Off

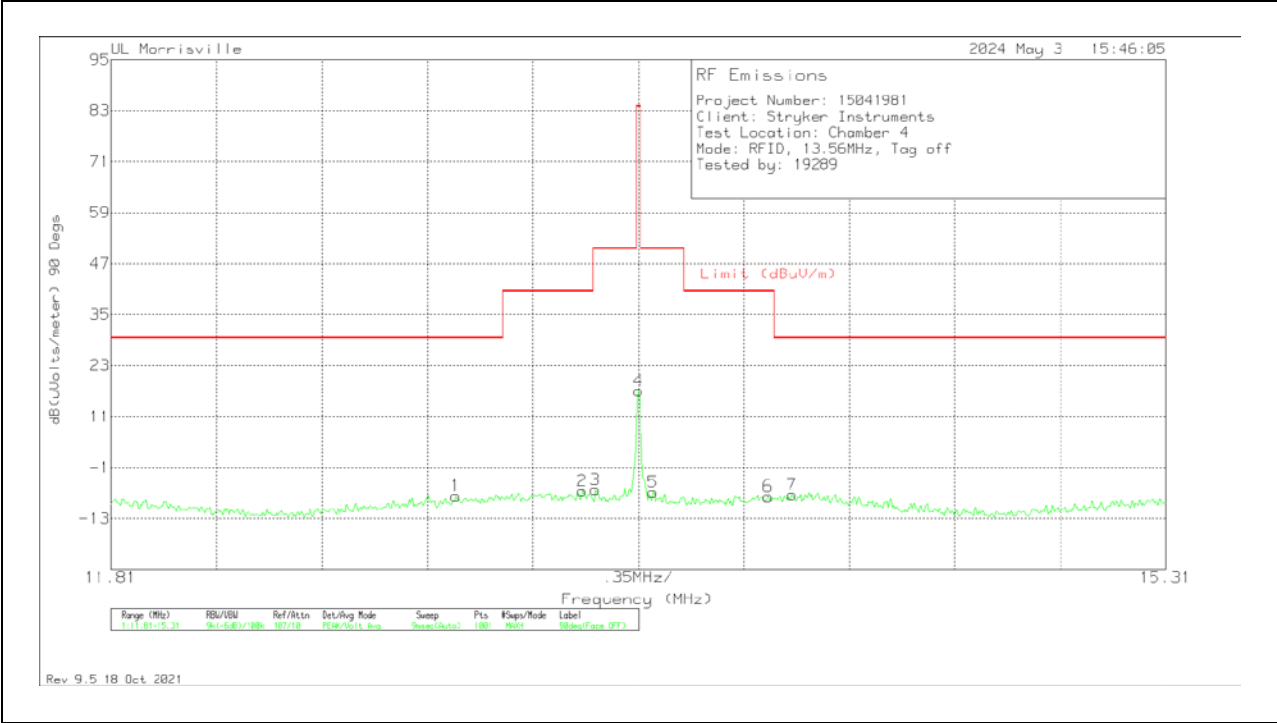
FUNDAMENTAL – Face On, 0 Deg



Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	135144 (dBuV/m)	Gain/Loss (dB)	Dist. Corr. Factor (dB)	Corrected Reading dB(uVolts/meter)	Limit (dBuV/m)	Margin (dB)	Azimuth (Dega)	Height (cm)	Loop Angle
1	11.985	19.92	Pk	10.8	.4	-40	-8.88	29.5	-38.38	352	100	0 degs
2	13.259	16.23	Pk	10.7	.4	-40	-12.67	40.5	-53.17	352	100	0 degs
3	13.49	15.7	Pk	10.7	.4	-40	-13.2	50.5	-63.7	352	100	0 degs
4	13.56	32.6	Pk	10.7	.4	-40	3.7	84	-80.3	352	100	0 degs
5	13.609	15.81	Pk	10.7	.4	-40	-13.09	50.5	-63.59	352	100	0 degs
6	13.931	15.87	Pk	10.7	.5	-40	-12.93	40.5	-53.43	352	100	0 degs
7	14.9145	16.2	Pk	10.6	.5	-40	-12.7	29.5	-42.2	352	100	0 degs

Pk - Peak detector

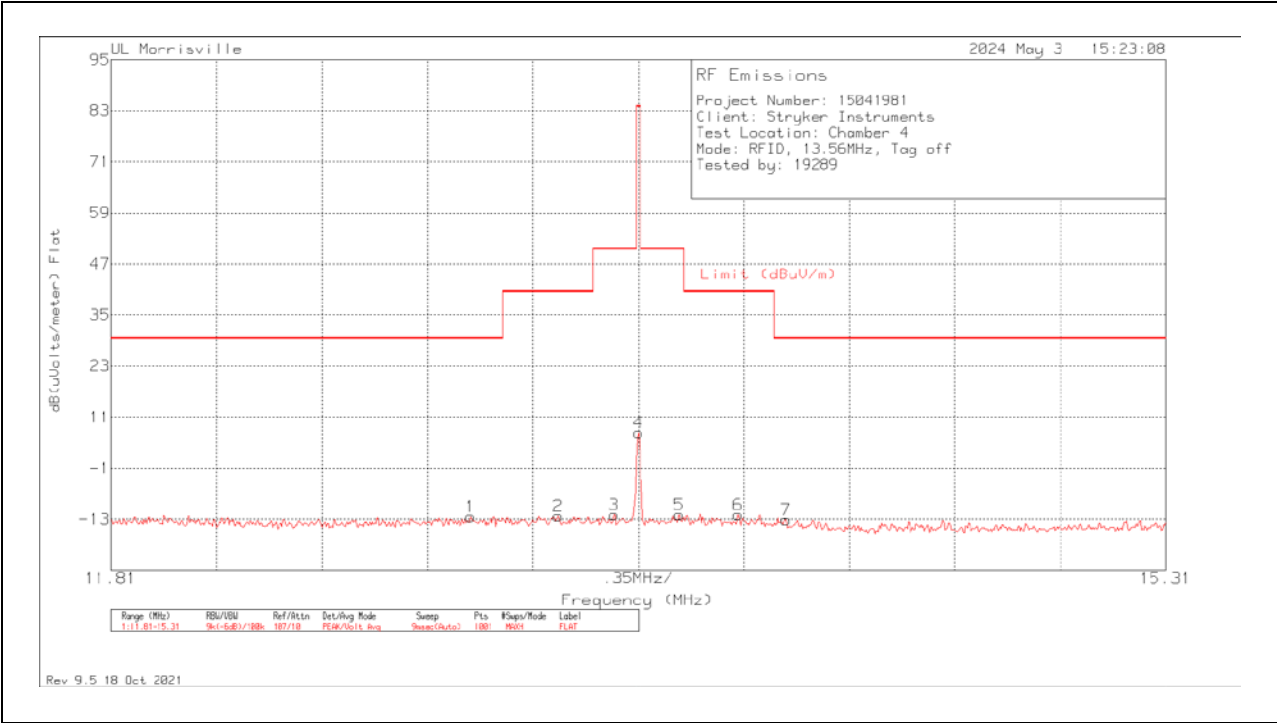
FUNDAMENTAL – Face Off, 90 Deg



Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	135144 (dBuV/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	12.9545	21.29	Pk	10.7	.4	-40	-7.61	29.5	-37.11	350	100	90 degs
2	13.3745	22.41	Pk	10.7	.4	-40	-6.49	40.5	-46.99	350	100	90 degs
3	13.4165	22.72	Pk	10.7	.4	-40	-6.18	50.5	-56.68	350	100	90 degs
4	13.56	45.95	Pk	10.7	.4	-40	17.05	84	-66.95	350	100	90 degs
5	13.609	22.16	Pk	10.7	.4	-40	-6.74	50.5	-57.24	350	100	90 degs
6	13.9905	21.04	Pk	10.7	.5	-40	-7.76	40.5	-48.26	350	100	90 degs
7	14.071	21.43	Pk	10.7	.5	-40	-7.37	29.5	-36.87	350	100	90 degs

Pk - Peak detector

FUNDAMENTAL – Horizontal, Flat

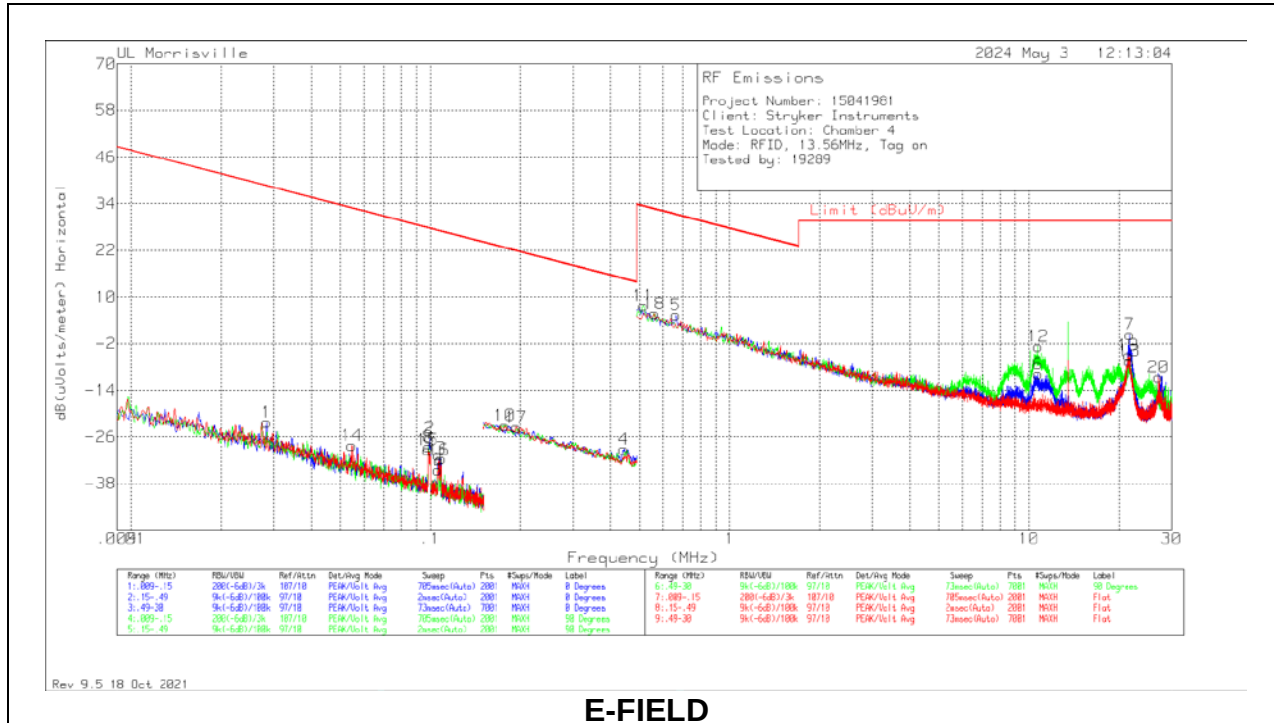


Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	135144 (dBuV/m)	Gain/Loss (dB)	Dist. Corr. Factor (dB)	Corrected Reading dB(uVolts/meter)	Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Loop Angle
1	13.0035	16.52	Pk	10.7	.4	-40	-12.38	29.5	-41.88	215	100	Flat
2	13.294	16.66	Pk	10.7	.4	-40	-12.24	40.5	-52.74	215	100	Flat
3	13.4795	17.01	Pk	10.7	.4	-40	-11.89	50.5	-62.39	215	100	Flat
4	13.56	36.28	Pk	10.7	.4	-40	7.38	84	-76.62	215	100	Flat
5	13.6965	16.91	Pk	10.7	.4	-40	-11.99	50.5	-62.49	215	100	Flat
6	13.8925	16.82	Pk	10.7	.5	-40	-11.98	40.5	-52.48	215	100	Flat
7	14.05	15.73	Pk	10.7	.5	-40	-13.07	29.5	-42.57	215	100	Flat

Pk - Peak detector

9.1.2. SPURIOUS EMISSION RESULTS 9kHz to 30MHz

9.1.2.1. Cassette Tag On

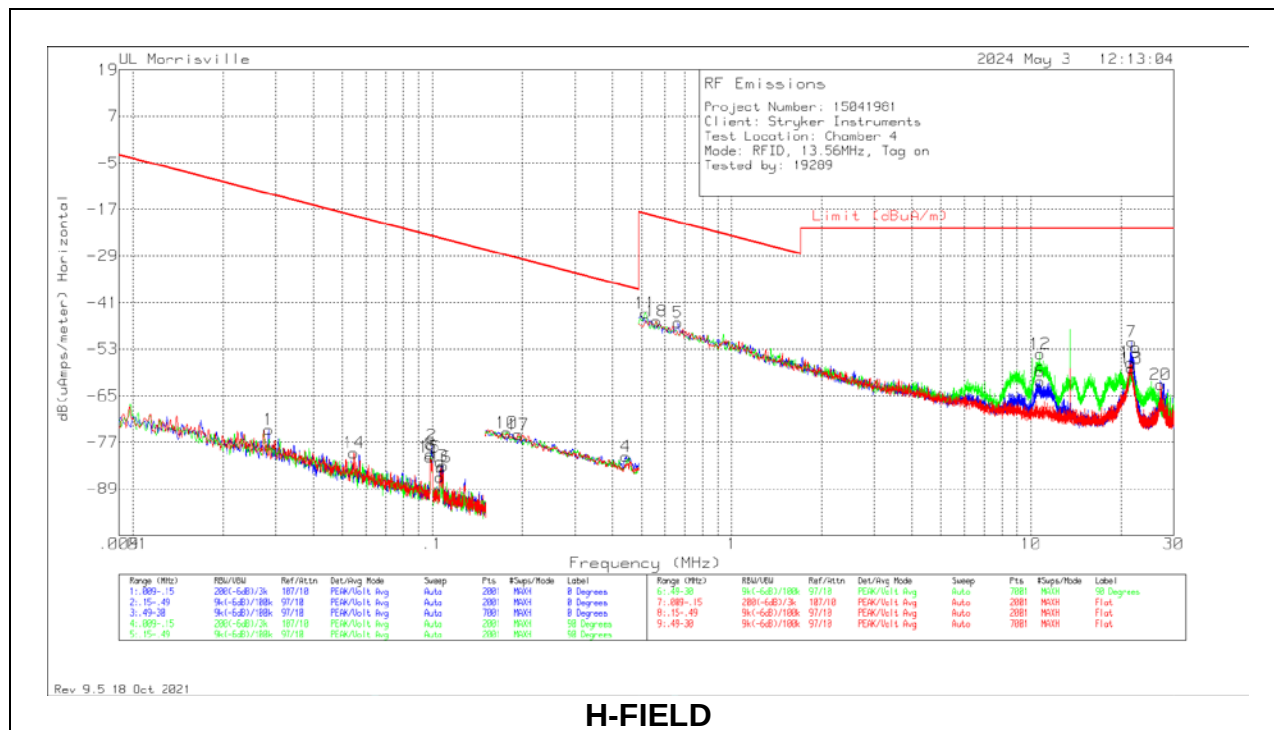


E-FIELD

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	135144 (dBuV/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	.02853	44.13	Pk	13.6	0	-80	-22.27	38.5	58.5	-60.77	0-360	0 degs
2	.09967	42.65	Pk	11.1	0	-80	-26.25	27.63	-	-53.88	0-360	0 degs
3	.10897	37.37	Pk	11.1	0	-80	-31.53	26.86	-	-58.39	0-360	0 degs
4	.44487	39.78	Pk	11	.1	-80	-29.12	14.64	34.64	-43.76	0-360	0 degs
5	.66286	34.02	Pk	11.2	.1	-40	5.32	31.18	-	-25.86	0-360	0 degs
6	10.73066	18.84	Pk	10.9	.4	-40	-9.86	29.54	-	-39.4	0-360	0 degs
7	21.69648	29.71	Pk	10	.6	-40	.31	29.54	-	-29.23	0-360	0 degs
8	.09867	40.31	Pk	11.2	0	-80	-28.49	27.72	-	-56.21	0-360	90 degs
9	.10634	34.37	Pk	11.1	0	-80	-34.53	27.07	-	-61.6	0-360	90 degs
10	.17797	45.91	Pk	11.1	0	-80	-22.99	22.6	42.6	-45.59	0-360	90 degs
11	.5153	36.56	Pk	11.1	.1	-40	7.76	33.36	-	-25.6	0-360	90 degs
12	10.72645	25.92	Pk	10.9	.4	-40	-2.78	29.54	-	-32.32	0-360	90 degs
13	21.66275	23.02	Pk	10	.6	-40	-6.38	29.54	-	-35.92	0-360	90 degs
14	.05494	40.18	Pk	11.6	0	-80	-28.22	32.81	52.81	-61.03	0-360	Flat
15	.09842	39.48	Pk	11.2	0	-80	-29.32	27.74	-	-57.06	0-360	Flat
16	.10705	37.01	Pk	11.1	0	-80	-31.89	27.01	-	-58.9	0-360	Flat
17	.19395	45.43	Pk	11.1	0	-80	-23.47	21.85	41.85	-45.32	0-360	Flat
18	.56167	34.48	Pk	11.1	.1	-40	5.68	32.61	-	-26.93	0-360	Flat
19	21.52784	24.48	Pk	10	.6	-40	-4.92	29.54	-	-34.46	0-360	Flat
20	27.16042	19.82	Pk	9	.6	-40	-10.58	29.54	-	-40.12	0-360	Flat

Pk - Peak detector

Note: A supplemental "Radio Off" scan in which customer provided software was installed to disable the RFID Transceiver on the EUT, but keep the digital components operating as intended, was performed to show that the spurious emissions at Markers **5, 11 and 18** of the above scan are EMC/Digital related, and not caused by the transceiver.

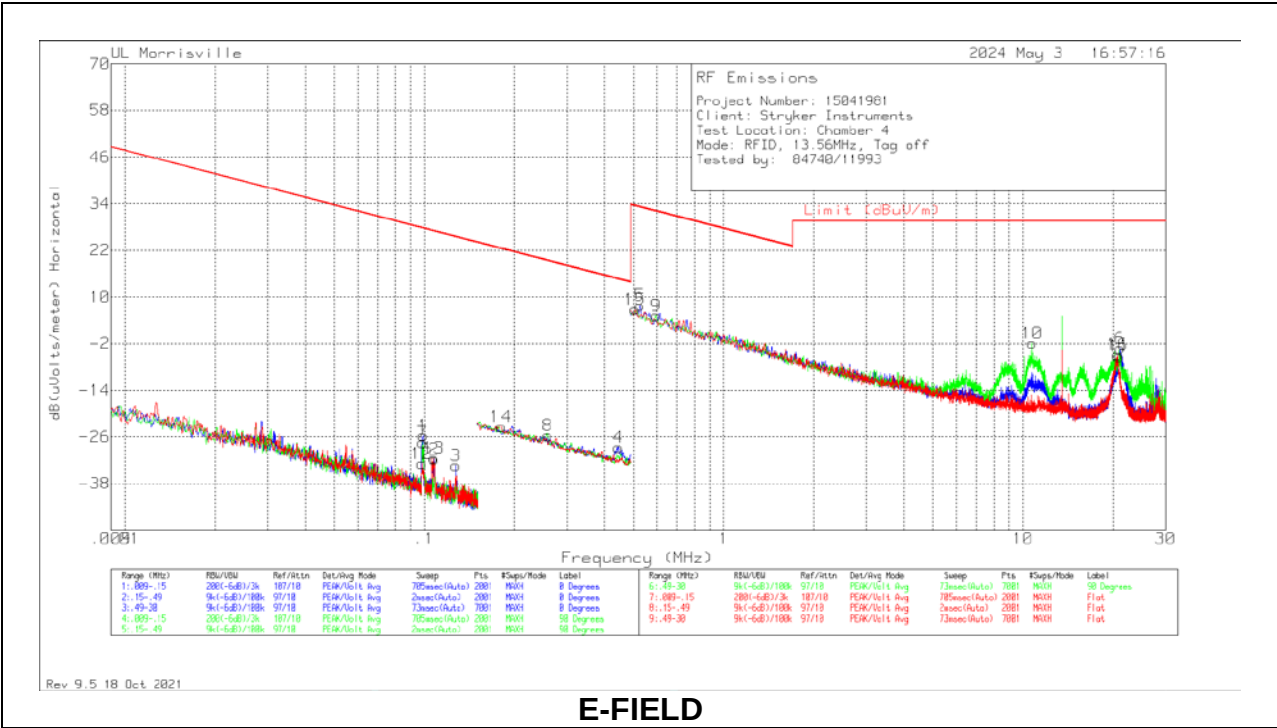


Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	135144 (dBuA/m)	Gain/Loss (dB)	Dist. Corr. Factor (dB)	Corrected Reading dB(uAmps/meter)	QP/AV Limit (dBuA/m)	PK Limit (dBuA/m)	Margin (dB)	Azimuth (Degs)	Loop Angle
1	.02853	44.13	Pk	-37.9	0	-80	-73.77	-13	7	-60.77	0-360	0 degs
2	.09967	42.65	Pk	-40.4	0	-80	-77.75	-23.87	-	-53.88	0-360	0 degs
3	.10897	37.37	Pk	-40.4	0	-80	-83.03	-24.64	-	-58.39	0-360	0 degs
4	.44487	39.78	Pk	-40.5	.1	-80	-80.62	-36.86	-16.86	-43.76	0-360	0 degs
5	.66286	34.02	Pk	-40.3	.1	-40	-46.18	-20.32	-	-25.86	0-360	0 degs
6	10.73066	18.84	PK	-40.6	.4	-40	-61.36	-21.96	-	-39.4	0-360	0 degs
7	21.69648	29.71	Pk	-41.5	.6	-40	-51.19	-21.96	-	-29.23	0-360	0 degs
8	.09867	40.31	Pk	-40.3	0	-80	-79.99	-23.78	-	-56.21	0-360	90 degs
9	.10634	34.37	Pk	-40.4	0	-80	-86.03	-24.43	-	-61.6	0-360	90 degs
10	.17797	45.91	Pk	-40.4	0	-80	-74.49	-28.9	-8.9	-45.59	0-360	90 degs
11	.5153	36.56	Pk	-40.4	.1	-40	-43.74	-18.14	-	-25.6	0-360	90 degs
12	10.72645	25.92	Pk	-40.6	.4	-40	-54.28	-21.96	-	-32.32	0-360	90 degs
13	21.66275	23.02	PK	-41.5	.6	-40	-57.88	-21.96	-	-35.92	0-360	90 degs
14	.05494	40.18	Pk	-39.9	0	-80	-79.72	-18.69	1.31	-61.03	0-360	Flat
15	.09842	39.48	Pk	-40.3	0	-80	-80.82	-23.76	-	-57.06	0-360	Flat
16	.10705	37.01	Pk	-40.4	0	-80	-83.39	-24.49	-	-58.9	0-360	Flat
17	.19395	45.43	Pk	-40.4	0	-80	-74.97	-29.65	-9.65	-45.32	0-360	Flat
18	.56167	34.48	Pk	-40.4	.1	-40	-45.82	-18.89	-	-26.93	0-360	Flat
19	21.52784	24.48	Pk	-41.5	.6	-40	-56.42	-21.96	-	-34.46	0-360	Flat
20	27.16042	19.82	PK	-42.5	.6	-40	-62.08	-21.96	-	-40.12	0-360	Flat

Pk - Peak detector

Note: A supplemental "Radio Off" scan in which customer provided software was installed to disable the RFID Transceiver on the EUT, but keep the digital components operating as intended, was performed to show that the spurious emissions at Markers **5, 11 and 18** of the above scan are EMC/Digital related, and not caused by the transceiver.

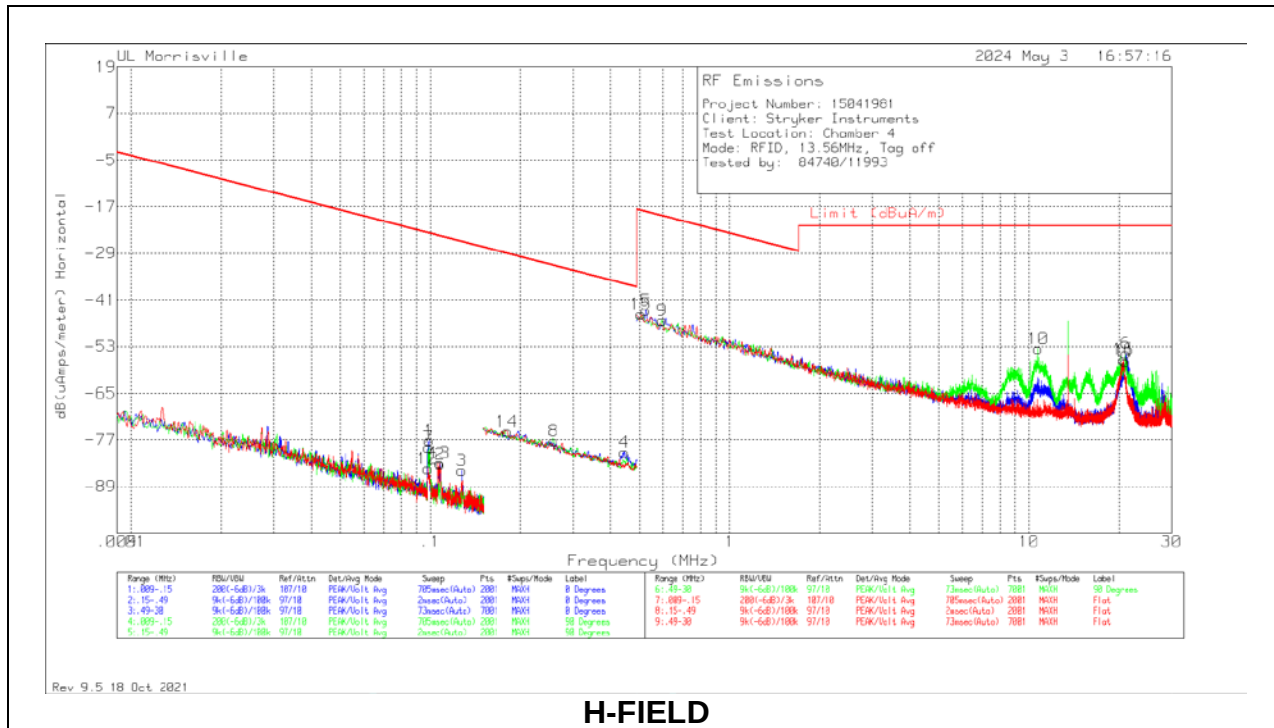
9.1.2.2. Cassette Tag Off



Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	135144 (dBuV/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	.0991	43.21	Pk	11.1	0	-80	-25.69	27.68	-	-53.37	0-360	0 degs
2	.1084	37.11	Pk	11.1	0	-80	-31.79	26.9	-	-58.69	0-360	0 degs
3	.12743	35.55	Pk	11.1	0	-80	-33.35	25.5	45.5	-58.85	0-360	0 degs
4	.44665	40.21	Pk	11	.1	-80	-28.69	14.6	34.6	-43.29	0-360	0 degs
5	.52584	36.64	Pk	11.1	.1	-40	7.84	33.19	-	-25.35	0-360	0 degs
6	21.06408	26.16	Pk	10	.6	-40	-3.24	29.54	-	-32.78	0-360	0 degs
7	.0986	41.35	Pk	11.2	0	-80	-27.45	27.73	-	-55.18	0-360	90 degs
8	.25846	43.09	Pk	11.1	.1	-80	-25.71	19.36	39.36	-45.07	0-360	90 degs
9	.5954	33.95	Pk	11.2	.1	-40	5.25	32.11	-	-26.86	0-360	90 degs
10	10.73066	26.71	Pk	10.9	.4	-40	-1.99	29.54	-	-31.53	0-360	90 degs
11	20.95868	24.18	Pk	10	.6	-40	-5.22	29.54	-	-34.76	0-360	90 degs
12	.09832	35.85	Pk	11.2	0	-80	-32.95	27.75	-	-60.7	0-360	Flat
13	.10748	37.47	Pk	11.1	0	-80	-31.43	26.98	-	-58.41	0-360	Flat
14	.18077	45.58	Pk	11.1	0	-80	-23.32	22.46	42.46	-45.78	0-360	Flat
15	.50686	35.6	Pk	11.1	.1	-40	6.8	33.51	-	-26.71	0-360	Flat
16	20.67199	24.44	Pk	10.1	.6	-40	-4.86	29.54	-	-34.4	0-360	Flat

Pk - Peak detector

Note: A supplemental "Radio Off" scan in which customer provided software was installed to disable the RFID Transceiver on the EUT, but keep the digital components operating as intended, was performed to show that the spurious emissions at Markers 5, and 15 of the above scan are EMC/Digital related, and not caused by the transceiver.

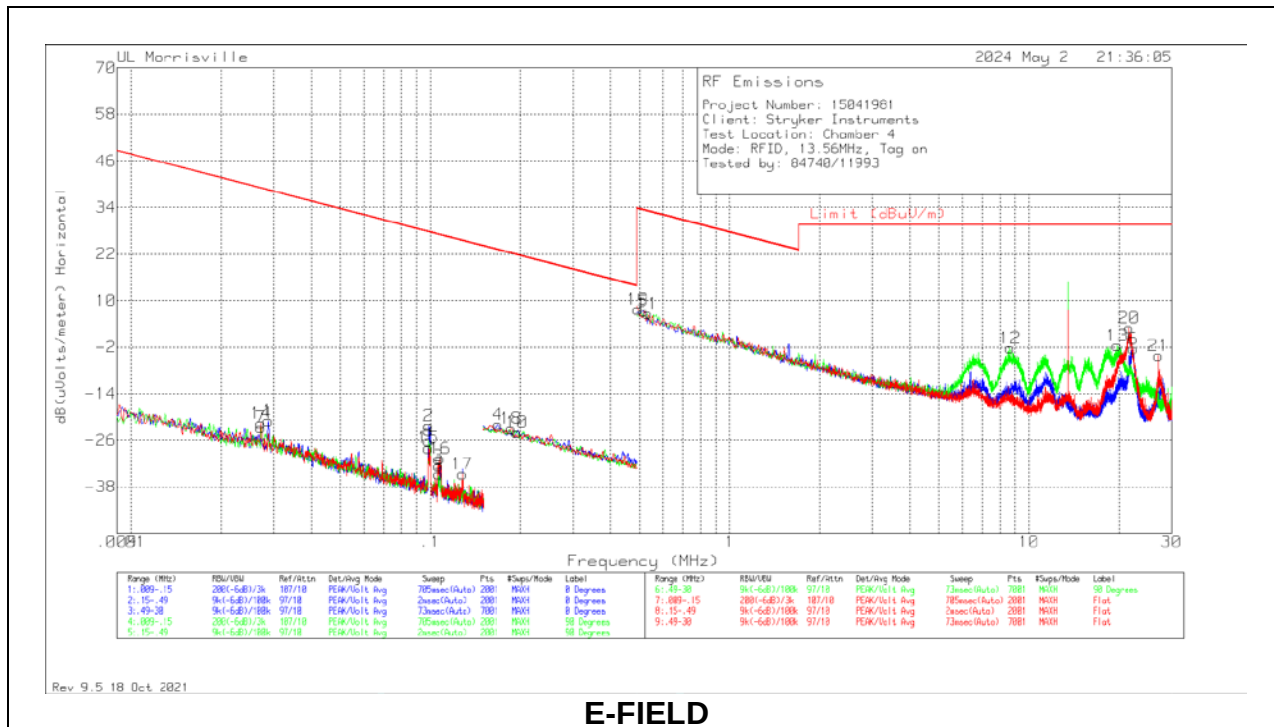


Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	135144 (dBuA/m)	Gain/Loss (dB)	Dist. Corr. Factor (dB)	Corrected Reading dB(uAmps/meter)	QP/AV Limit (dBuA/m)	PK Limit (dBuA/m)	Margin (dB)	Azimuth (Degs)	Loop Angle
1	.0991	43.21	Pk	-40.4	0	-80	-77.19	-23.82	-	-53.37	0-360	0 degs
2	.1084	37.11	Pk	-40.4	0	-80	-83.29	-24.6	-	-58.69	0-360	0 degs
3	.12743	35.55	Pk	-40.4	0	-80	-84.85	-26	-6	-58.85	0-360	0 degs
4	.44665	40.21	Pk	-40.5	.1	-80	-80.19	-36.9	-16.9	-43.29	0-360	0 degs
5	.52584	36.64	Pk	-40.4	.1	-40	-43.66	-18.31	-	-25.35	0-360	0 degs
6	21.06408	26.16	Pk	-41.5	.6	-40	-54.74	-21.96	-	-32.78	0-360	0 degs
7	.0986	41.35	Pk	-40.3	0	-80	-78.95	-23.77	-	-55.18	0-360	90 degs
8	.25846	43.09	Pk	-40.4	.1	-80	-77.21	-32.14	-12.14	-45.07	0-360	90 degs
9	.5954	33.95	Pk	-40.3	.1	-40	-46.25	-19.39	-	-26.86	0-360	90 degs
10	10.73066	26.71	Pk	-40.6	.4	-40	-53.49	-21.96	-	-31.53	0-360	90 degs
11	20.95868	24.18	Pk	-41.5	.6	-40	-56.72	-21.96	-	-34.76	0-360	90 degs
12	.09832	35.85	Pk	-40.3	0	-80	-84.45	-23.75	-	-60.7	0-360	Flat
13	.10748	37.47	Pk	-40.4	0	-80	-82.93	-24.52	-	-58.41	0-360	Flat
14	.18077	45.58	Pk	-40.4	0	-80	-74.82	-29.04	-9.04	-45.78	0-360	Flat
15	.50686	35.6	Pk	-40.4	.1	-40	-44.7	-17.99	-	-26.71	0-360	Flat
16	20.67199	24.44	Pk	-41.4	.6	-40	-56.36	-21.96	-	-34.4	0-360	Flat

Pk - Peak detector

Note: A supplemental "Radio Off" scan in which customer provided software was installed to disable the RFID Transceiver on the EUT, but keep the digital components operating as intended, was performed to show that the spurious emissions at Markers **5, and 15** of the above scan are EMC/Digital related, and not caused by the transceiver.

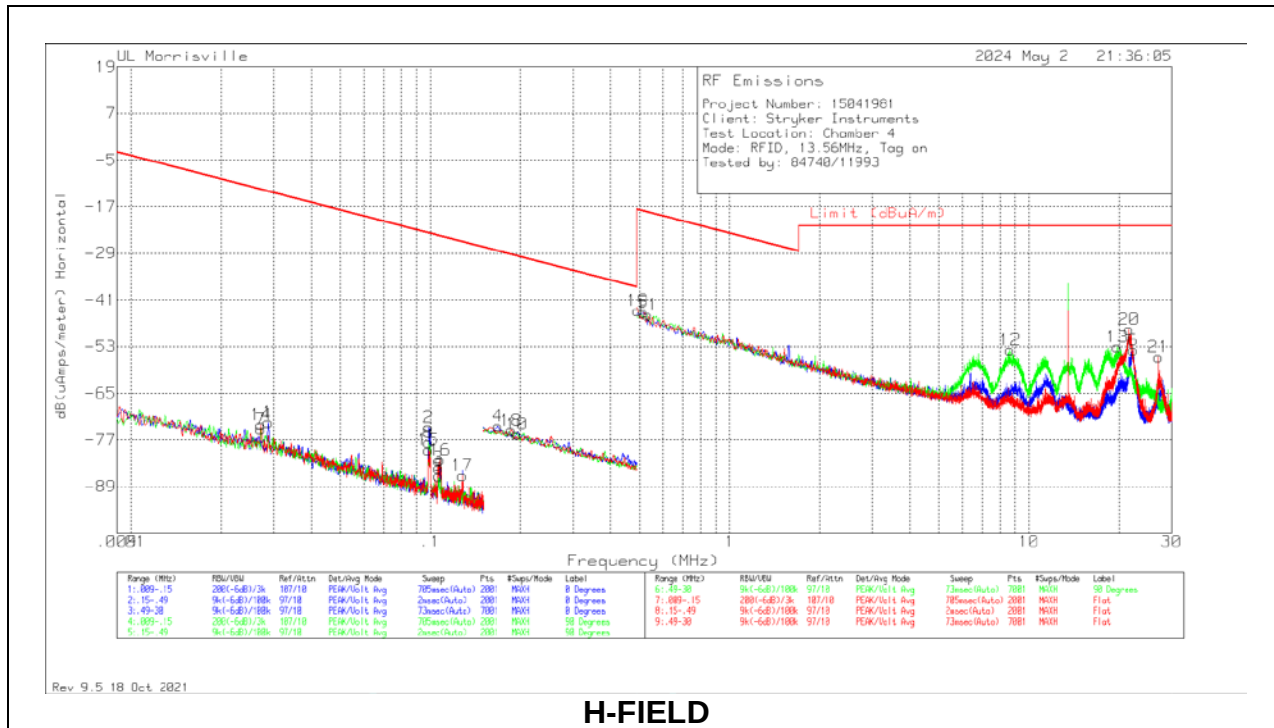
9.1.2.3. Hand Piece Tag On



Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	135144 (dBuV/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	.02881	45.43	Pk	13.6	0	-80	-20.97	38.41	58.41	-59.38	0-360	0 degs
2	.09889	46.56	Pk	11.2	0	-80	-22.24	27.7	-	-49.94	0-360	0 degs
3	.10677	36.26	Pk	11.1	0	-80	-32.64	27.04	-	-59.68	0-360	0 degs
4	.16862	46.93	Pk	11.1	0	-80	-21.97	23.07	43.07	-45.04	0-360	0 degs
5	.5153	36.07	Pk	11.1	.1	-40	7.27	33.36	-	-26.09	0-360	0 degs
6	22.32888	27.13	Pk	9.9	.6	-40	-2.37	29.54	-	-31.91	0-360	0 degs
7	.02732	43.75	Pk	13.6	0	-80	-22.65	38.88	58.88	-61.53	0-360	90 degs
8	.09882	42.66	Pk	11.2	0	-80	-26.14	27.71	-	-53.85	0-360	90 degs
9	.10663	34.17	Pk	11.1	0	-80	-34.73	27.05	-	-61.78	0-360	90 degs
10	.19437	44.96	Pk	11.1	0	-80	-23.94	21.83	41.83	-45.77	0-360	90 degs
11	.53216	35.43	Pk	11.1	.1	-40	6.63	33.08	-	-26.45	0-360	90 degs
12	8.66904	26.39	Pk	10.9	.4	-40	-2.31	29.54	-	-31.85	0-360	90 degs
13	19.76555	27.6	Pk	10.3	.5	-40	-1.6	29.54	-	-31.14	0-360	90 degs
14	.02725	44.74	Pk	13.6	0	-80	-21.66	38.9	58.9	-60.56	0-360	Flat
15	.09889	40.83	Pk	11.2	0	-80	-27.97	27.7	-	-55.67	0-360	Flat
16	.10826	38.23	Pk	11.1	0	-80	-30.67	26.92	-	-57.59	0-360	Flat
17	.12793	34.25	Pk	11.1	0	-80	-34.65	25.47	45.47	-60.12	0-360	Flat
18	.18638	45.93	Pk	11.1	0	-80	-22.97	22.2	42.2	-45.17	0-360	Flat
19	.49422	36.58	Pk	11.1	.1	-40	7.78	33.73	-	-25.95	0-360	Flat
20	21.6501	32.27	Pk	10	.6	-40	2.87	29.54	-	-26.67	0-360	Flat
21	27.12247	26.22	Pk	9	.6	-40	-4.18	29.54	-	-33.72	0-360	Flat

Pk - Peak detector

Note: A supplemental "Radio Off" scan in which customer provided software was installed to disable the RFID Transceiver on the EUT, but keep the digital components operating as intended, was performed to show that the spurious emissions of the above scan are EMC/Digital related, and not caused by the transceiver.



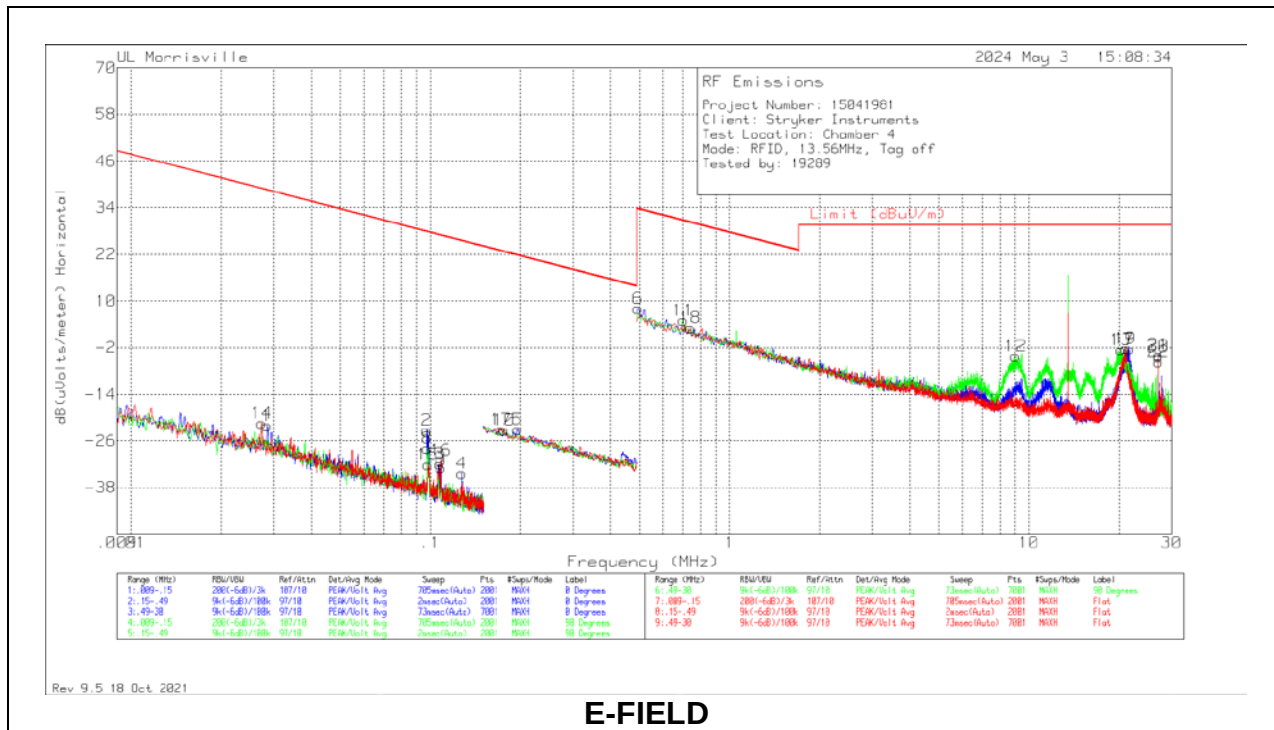
H-FIELD

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	135144 (dBuA/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	.02881	45.43	Pk	-37.9	0	-80	-72.47	-13.09	6.91	-59.38	0-360	0 degs
2	.09889	46.56	Pk	-40.3	0	-80	-73.74	-23.8	-	-49.94	0-360	0 degs
3	.10677	36.26	Pk	-40.4	0	-80	-84.14	-24.46	-	-59.68	0-360	0 degs
4	.16862	46.93	Pk	-40.4	0	-80	-73.47	-28.43	-8.43	-45.04	0-360	0 degs
5	.5153	36.07	Pk	-40.4	.1	-40	-44.23	-18.14	-	-26.09	0-360	0 degs
6	22.32888	27.13	Pk	-41.6	.6	-40	-53.87	-21.96	-	-31.91	0-360	0 degs
7	.02732	43.75	Pk	-37.9	0	-80	-74.15	-12.62	-7.38	-61.53	0-360	90 degs
8	.09882	42.66	Pk	-40.3	0	-80	-77.64	-23.79	-	-53.85	0-360	90 degs
9	.10663	34.17	Pk	-40.4	0	-80	-86.23	-24.45	-	-61.78	0-360	90 degs
10	.19437	44.96	Pk	-40.4	0	-80	-75.44	-29.67	-9.67	-45.77	0-360	90 degs
11	.53216	35.43	Pk	-40.4	.1	-40	-44.87	-18.42	-	-26.45	0-360	90 degs
12	8.66904	26.39	Pk	-40.6	.4	-40	-53.81	-21.96	-	-31.85	0-360	90 degs
13	19.76555	27.6	Pk	-41.2	.5	-40	-53.1	-21.96	-	-31.14	0-360	90 degs
14	.02725	44.74	Pk	-37.9	0	-80	-73.16	-12.6	-7.4	-60.56	0-360	Flat
15	.09889	40.83	Pk	-40.3	0	-80	-79.47	-23.8	-	-55.67	0-360	Flat
16	.10826	38.23	Pk	-40.4	0	-80	-82.17	-24.58	-	-57.59	0-360	Flat
17	.12793	34.25	Pk	-40.4	0	-80	-86.15	-26.03	-6.03	-60.12	0-360	Flat
18	.18638	45.93	Pk	-40.4	0	-80	-74.47	-29.3	-9.3	-45.17	0-360	Flat
19	.49422	36.58	Pk	-40.4	.1	-40	-43.72	-17.77	-	-25.95	0-360	Flat
20	21.6501	32.27	Pk	-41.5	.6	-40	-48.63	-21.96	-	-26.67	0-360	Flat
21	27.12247	26.22	Pk	-42.5	.6	-40	-55.68	-21.96	-	-33.72	0-360	Flat

Pk - Peak detector

Note: A supplemental "Radio Off" scan in which customer provided software was installed to disable the RFID Transceiver on the EUT, but keep the digital components operating as intended, was performed to show that the spurious emissions of the above scan are EMC/Digital related, and not caused by the transceiver.

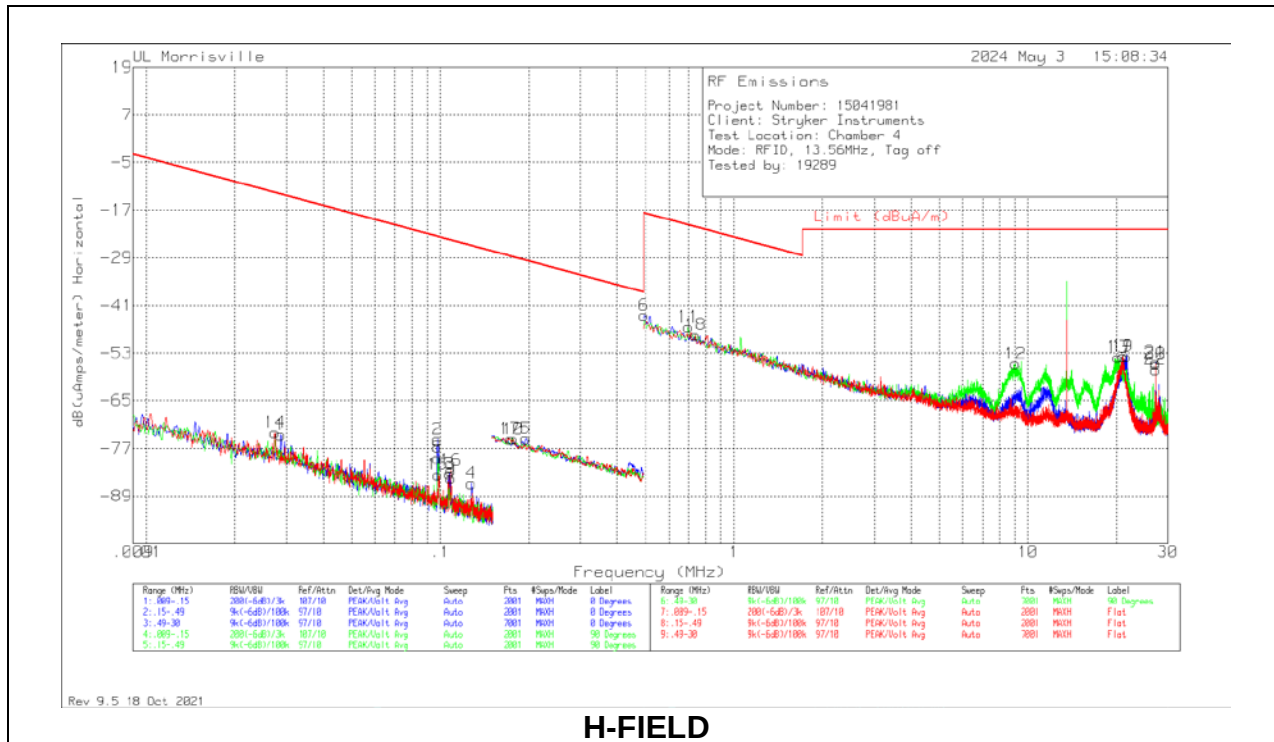
9.1.2.4. Hand Piece Tag Off



Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	135144 (dBuV/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	.02867	44.3	Pk	13.6	0	-80	-22.1	38.46	58.46	-60.56	0-360	0 degs
2	.09747	45.59	Pk	11.2	0	-80	-23.21	27.83	-	-51.04	0-360	0 degs
3	.10748	37.01	Pk	11.1	0	-80	-31.89	26.98	-	-58.87	0-360	0 degs
4	.12736	34.6	Pk	11.1	0	-80	-34.3	25.5	45.5	-59.8	0-360	0 degs
5	.19565	45.85	Pk	11.1	0	-80	-23.05	21.77	41.77	-44.82	0-360	0 degs
6	.49422	36.82	Pk	11.1	.1	-40	8.02	33.73	-	-25.71	0-360	0 degs
7	21.66275	26.98	Pk	10	.6	-40	-2.42	29.54	-	-31.96	0-360	0 degs
8	.09768	40.96	Pk	11.2	0	-80	-27.84	27.81	-	-55.65	0-360	90 degs
9	.10883	35.94	Pk	11.1	0	-80	-32.96	26.87	-	-59.83	0-360	90 degs
10	.17686	45.71	Pk	11.1	0	-80	-23.19	22.65	42.65	-45.84	0-360	90 degs
11	.7008	33.77	Pk	11.2	.1	-40	5.07	30.69	-	-25.62	0-360	90 degs
12	9.0527	24.64	Pk	10.8	.4	-40	-4.16	29.54	-	-33.7	0-360	90 degs
13	20.25882	26.66	Pk	10.2	.6	-40	-2.54	29.54	-	-32.08	0-360	90 degs
14	.02739	44.89	Pk	13.6	0	-80	-21.51	38.85	58.85	-60.36	0-360	Flat
15	.09825	36.69	Pk	11.2	0	-80	-32.11	27.76	-	-59.87	0-360	Flat
16	.1089	37.87	Pk	11.1	0	-80	-31.03	26.86	-	-57.89	0-360	Flat
17	.17261	45.77	Pk	11.1	0	-80	-23.13	22.86	42.86	-45.99	0-360	Flat
18	.73874	31.76	Pk	11.2	.1	-40	3.06	30.23	-	-27.17	0-360	Flat
19	20.99241	27.11	Pk	10	.6	-40	-2.29	29.54	-	-31.83	0-360	Flat
20	27.12247	26.14	Pk	9	.6	-40	-4.26	29.54	-	-33.8	0-360	Flat
21	27.12247	26.61	Pk	9	.6	-40	-3.79	29.54	-	-33.33	0-360	0 degs
22	27.12247	24.75	Pk	9	.6	-40	-5.65	29.54	-	-35.19	0-360	90 degs

Pk - Peak detector

Note: A supplemental "Radio Off" scan in which customer provided software was installed to disable the RFID Transceiver on the EUT, but keep the digital components operating as intended, was performed to show that the spurious emissions of the above scan are EMC/Digital related, and not caused by the transceiver.



Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	135144 (dBuA/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	.02867	44.3	Pk	-37.9	0	-80	-73.6	-13.04	6.96	-60.56	0-360	0 degs
2	.09747	45.59	Pk	-40.3	0	-80	-74.71	-23.67	-	-51.04	0-360	0 degs
3	.10748	37.01	Pk	-40.4	0	-80	-83.39	-24.52	-	-58.87	0-360	0 degs
4	.12736	34.6	Pk	-40.4	0	-80	-85.8	-26	-6	-59.8	0-360	0 degs
5	.19565	45.85	Pk	-40.4	0	-80	-74.55	-29.73	-9.73	-44.82	0-360	0 degs
6	.49422	36.82	Pk	-40.4	.1	-40	-43.48	-17.77	-	-25.71	0-360	0 degs
7	21.66275	26.98	Pk	-41.5	.6	-40	-53.92	-21.96	-	-31.96	0-360	0 degs
8	.09768	40.96	Pk	-40.3	0	-80	-79.34	-23.69	-	-55.65	0-360	90 degs
9	.10883	35.94	Pk	-40.4	0	-80	-84.46	-24.63	-	-59.83	0-360	90 degs
10	.17686	45.71	Pk	-40.4	0	-80	-74.69	-28.85	-8.85	-45.84	0-360	90 degs
11	.7008	33.77	Pk	-40.3	.1	-40	-46.43	-20.81	-	-25.62	0-360	90 degs
12	9.0527	24.64	Pk	-40.7	.4	-40	-55.66	-21.96	-	-33.7	0-360	90 degs
13	20.25882	26.66	Pk	-41.3	.6	-40	-54.04	-21.96	-	-32.08	0-360	90 degs
14	.02739	44.89	Pk	-37.9	0	-80	-73.01	-12.65	7.35	-60.36	0-360	Flat
15	.09825	36.69	Pk	-40.3	0	-80	-83.61	-23.74	-	-59.87	0-360	Flat
16	.1089	37.87	Pk	-40.4	0	-80	-82.53	-24.64	-	-57.89	0-360	Flat
17	.17261	45.77	Pk	-40.4	0	-80	-74.63	-28.64	-8.64	-45.99	0-360	Flat
18	.73874	31.76	Pk	-40.3	.1	-40	-48.44	-21.27	-	-27.17	0-360	Flat
19	20.99241	27.11	Pk	-41.5	.6	-40	-53.79	-21.96	-	-31.83	0-360	Flat
20	27.12247	26.14	Pk	-42.5	.6	-40	-55.76	-21.96	-	-33.8	0-360	Flat
21	27.12247	26.61	Pk	-42.5	.6	-40	-55.29	-21.96	-	-33.33	0-360	0 degs
22	27.12247	24.75	Pk	-42.5	.6	-40	-57.15	-21.96	-	-35.19	0-360	90 degs

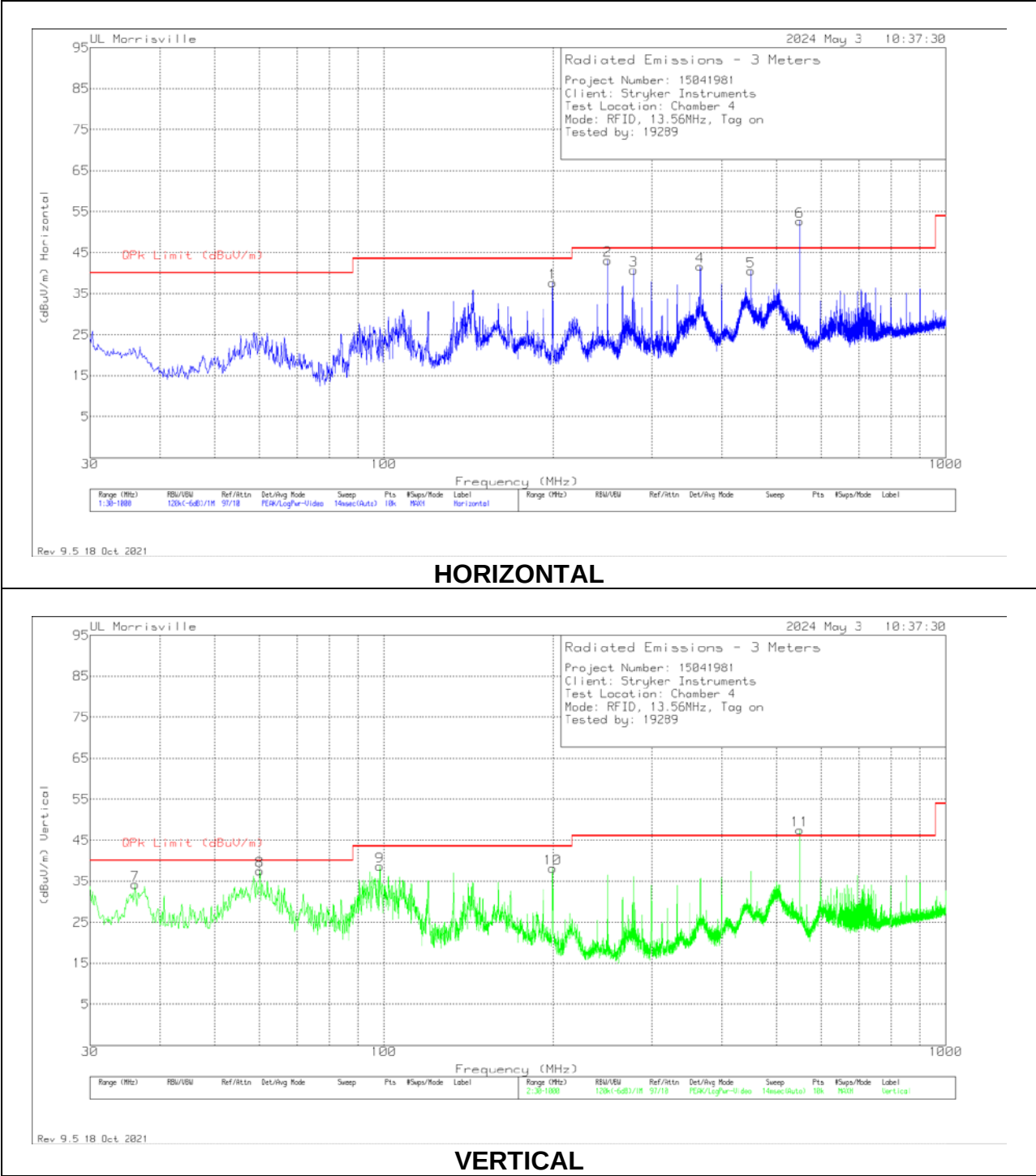
Pk - Peak detector

Note: A supplemental "Radio Off" scan in which customer provided software was installed to disable the RFID Transceiver on the EUT, but keep the digital components operating as intended, was performed to show that the spurious emissions of the above scan are EMC/Digital related, and not caused by the transceiver.

9.2. TX SPURIOUS EMISSION 30 TO 1000 MHz

9.2.1. SPURIOUS EMISSION RESULTS

9.2.1.1. Cassette Tag On

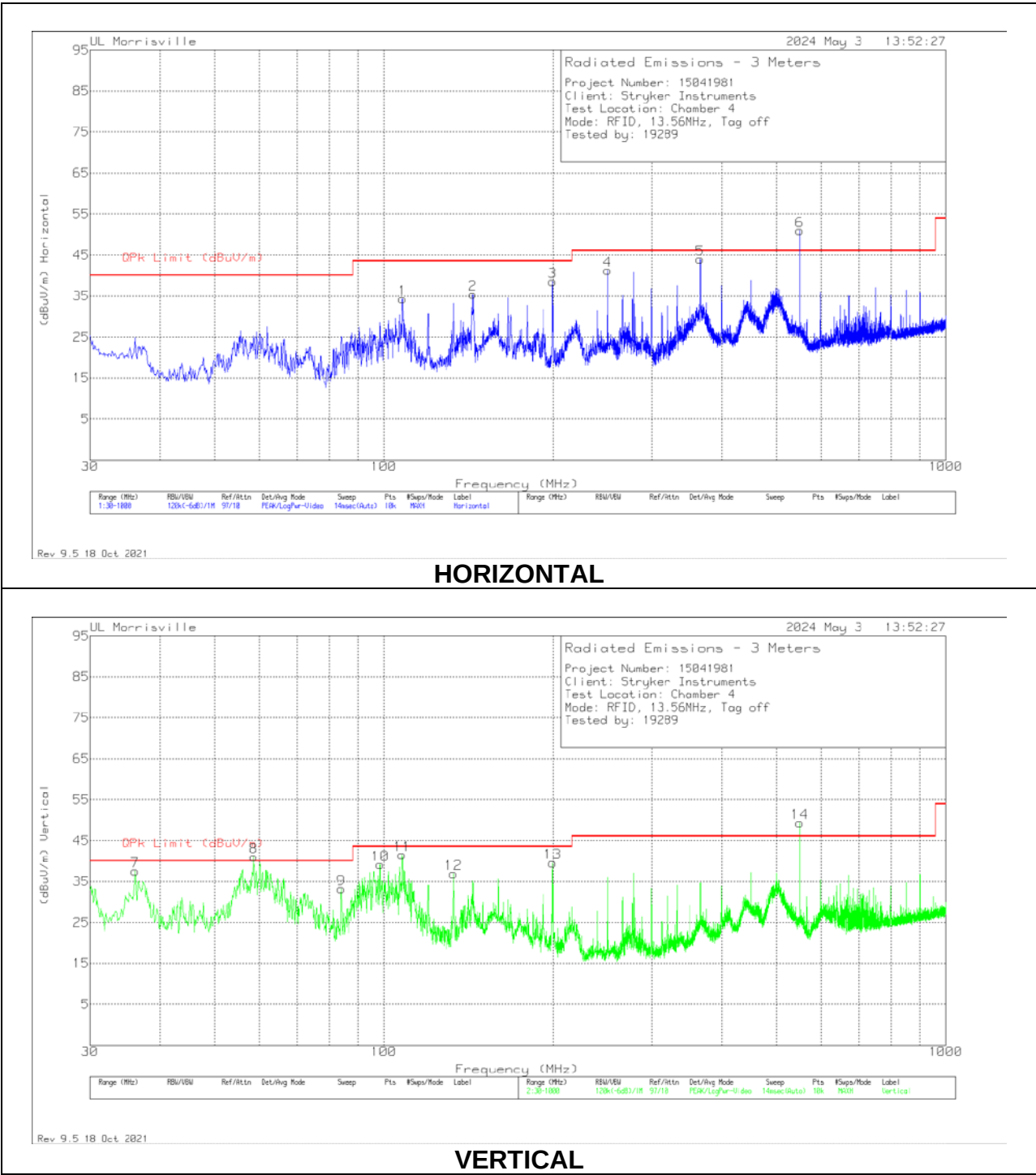


Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	90628 (dB/m)	Gain/Loss (dB)	Class A Limit Correction	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m) 15.209(a)	QPk Limit (dBuV/m) 15.109(b)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
7	36.161	42.75	Qp	22.8	-32.1	0	33.45	40	-	-6.55	352	102	V
8	60.207	52.11	Qp	13.8	-31.8	0	34.11	40	-	-5.89	279	107	V
9	98.401	52.37	Qp	16	-31.5	0	36.87	43.52	-	-6.65	13	102	V
1	199.556	49.55	Pk	18.9	-30.8	-10.5	27.15	-	43.52	-16.37	0-360	100	H
10	199.556	50.11	Pk	18.9	-30.8	-10.5	27.71	-	43.52	-15.81	0-360	100	V
2	249.996	56.15	Pk	17.5	-30.5	-10.5	32.65	-	46.44	-13.79	0-360	100	H
3	278.32	51.62	Pk	19.5	-30.4	-10.5	30.22	-	46.44	-16.22	0-360	100	H
4	365.814	50.69	Pk	21	-30	-10.5	31.19	-	46.44	-15.25	0-360	100	H
5	450.01	47.3	Pk	22.9	-29.7	-10.5	30	-	46.44	-16.44	0-360	100	H
6	550.00166	56	Qp	24.3	-29.5	-10.5	40.3	-	46.44	-6.14	208	170	H
11	550.017	52.72	Pk	24.3	-29.5	-10.5	37.02	-	46.44	-9.42	0-360	100	V

Pk - Peak detector
Qp - Quasi-Peak detector

Note – Per 15.209 (f), measurements were made above the 10th harmonic in accordance with 15.33 (a) due to the incorporation of a digital device. The digital device is classified as Class A. Therefore, all measurements above the 10th harmonic were compared to 15.109(b) Class A limits.

9.2.1.2. Cassette Tag Off



Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	90628 (dB/m)	Gain/Loss (dB)	Class A Limit Correction	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m) 15.209(a)	QPk Limit (dBuV/m) 15.109(b)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
7	36.13448	43.51	Qp	22.8	-32.1	0	34.21	40	-	-5.79	358	131	V
8	58.714	56.21	Qp	13.7	-31.8	0	38.11	40	-	-1.89	105	124	V
9	83.932	51.31	Pk	13.5	-31.6	0	33.21	40	-	-6.79	0-360	100	V
10	98.43105	51.65	Qp	16	-31.5	0	36.15	43.52	-	-7.37	305	117	V
11	107.9679	49.98	Qp	18.4	-31.4	0	36.98	43.52	-	-6.54	308	107	V
1	107.988	47.35	Pk	18.4	-31.4	0	34.35	43.52	-	-9.17	0-360	200	H
12	133.014	48.32	Pk	19.8	-31.2	0	36.92	43.52	-	-6.6	0-360	100	V
2	144.072	47.61	Pk	18.9	-31.1	-10.5	24.91	-	43.52	-18.61	0-360	100	H
3	199.556	50.47	Pk	18.9	-30.8	-10.5	28.07	-	43.52	-15.45	0-360	100	H
13	199.556	51.5	Pk	18.9	-30.8	-10.5	29.1	-	43.52	-14.42	0-360	100	V
4	249.996	54.3	Pk	17.5	-30.5	-10.5	30.8	-	46.44	-15.64	0-360	100	H
5	365.814	53.03	Pk	21	-30	-10.5	33.53	-	46.44	-12.91	0-360	100	H
6	549.99974	57.47	Qp	24.3	-29.5	-10.5	41.77	-	46.44	-4.67	346	132	H
14	550.017	54.58	Pk	24.3	-29.5	-10.5	38.88	-	46.44	-7.56	0-360	100	V

Pk - Peak detector
Qp - Quasi-Peak detector

Note – Per 15.209 (f), measurements were made above the 10th harmonic in accordance with 15.33 (a) due to the incorporation of a digital device. The digital device is classified as Class A. Therefore, all measurements above the 10th harmonic were compared to 15.109(b) Class A limits.

UL Morrisville 2024 May 2 22:12:26

Radiated Emissions - 3 Meters
Project Number: 15041981
Client: Stryker Instruments
Test Location: Chamber 4
Mode: RFID, 13.56MHz, Tag on
Tested by: 84740/11993

(dBuV/m) Horizontal

DPK Limit (dBuV/m)

Frequency (MHz)

Range (MHz)	RBW/VBW	Ref/Antn	Det/Avg Mode	Sweep	Pts	#Sps/Mode	Label
1.30-1000	120K-6dB/1M	50/10	PEN/LogFr-Videa	14sec/Auto	10K	1000	Horizontal

Rev 9.5 18 Oct 2021

HORIZONTAL

UL Morrisville 2024 May 2 22:12:26

Radiated Emissions - 3 Meters
Project Number: 15041981
Client: Stryker Instruments
Test Location: Chamber 4
Mode: RFID, 13.56MHz, Tag on
Tested by: 84740/11993

(dBuV/m) Vertical

DPK Limit (dBuV/m)

Frequency (MHz)

Range (MHz)	RBW/VBW	Ref/Antn	Det/Avg Mode	Sweep	Pts	#Sps/Mode	Label
1.30-1000	120K-6dB/1M	50/10	PEN/LogFr-Videa	14sec/Auto	10K	1000	Vertical

Rev 9.5 18 Oct 2021

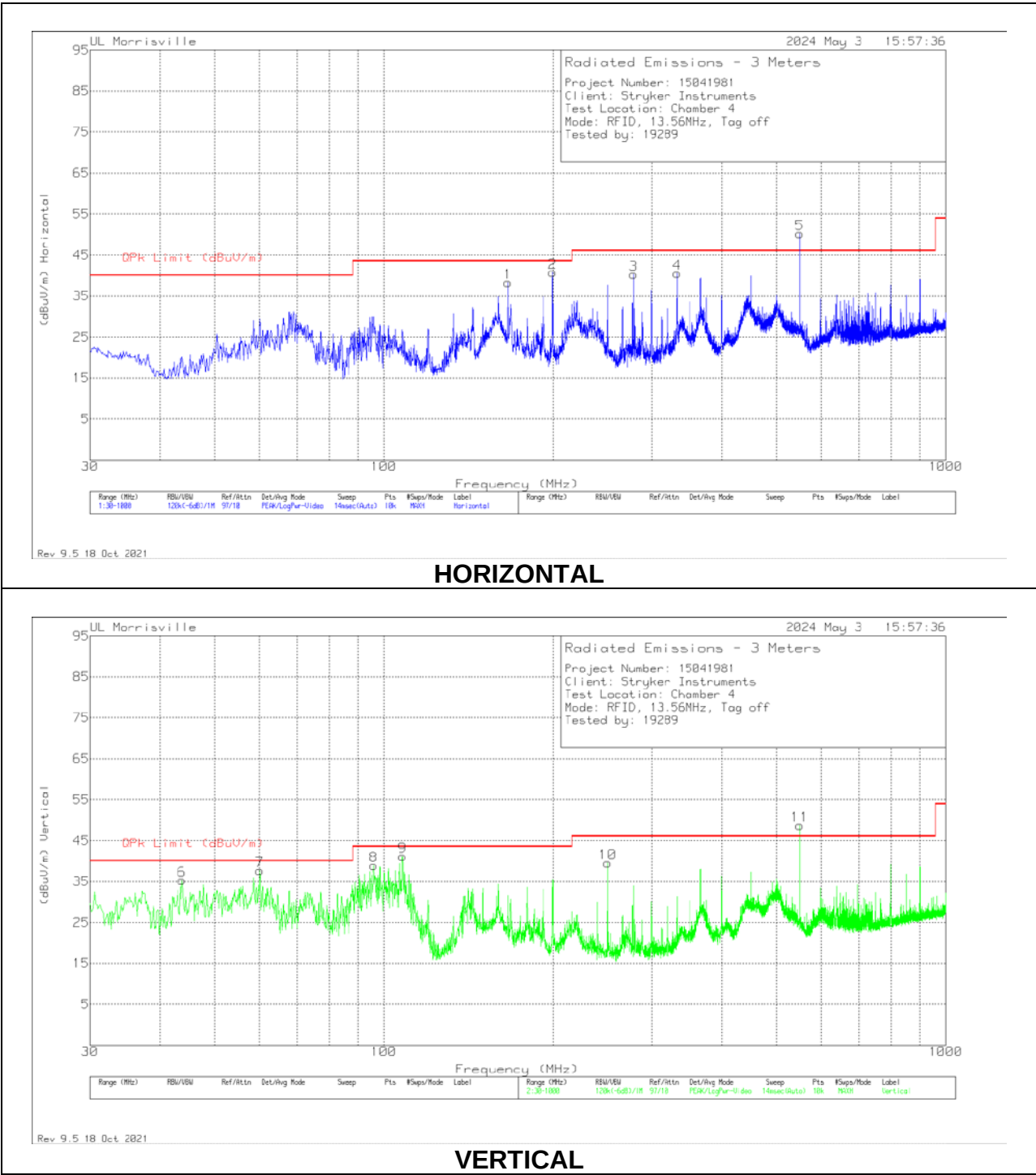
VERTICAL

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	90628 (dB/m)	Gain/Loss (dB)	Class A Limit Correction	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m) 15.209(a)	QPk Limit (dBuV/m) 15.109(b)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
9	43.8148	45.17	Qp	17.3	-32	0	30.47	40	-	-9.53	324	102	V
10	90.334	53.74	Pk	13.8	-31.5	0	36.04	43.52	-	-7.48	0-360	100	V
11	107.97348	50.16	Qp	18.4	-31.4	0	37.16	43.52	-	-6.36	316	105	V
1	144.1185	48.11	Qp	18.9	-31.1	-10.5	25.41	-	43.52	-18.11	54	225	H
12	144.072	49.56	Pk	18.9	-31.1	-10.5	26.86	-	43.52	-16.66	0-360	100	V
2	199.57902	52.7	Qp	18.9	-30.8	-10.5	30.3	-	43.52	-13.22	28	124	H
13	199.5785	46.92	Qp	18.9	-30.8	-10.5	24.52	-	43.52	-19	63	204	V
3	249.9989	55.67	Qp	17.5	-30.5	-10.5	32.17	-	46.44	-14.27	304	103	H
14	249.9946	53.18	Qp	17.5	-30.5	-10.5	29.68	-	46.44	-16.76	242	102	V
4	278.32959	52.09	Qp	19.5	-30.4	-10.5	30.69	-	46.44	-15.75	302	105	H
5	365.9158	47.4	Qp	21	-30	-10.5	27.9	-	46.44	-18.54	11	102	H
15	365.911	45.12	Pk	21	-30	-10.5	25.62	-	46.44	-20.82	0-360	100	V
6	450.0047	44.37	Qp	22.9	-29.7	-10.5	27.07	-	46.44	-19.37	156	105	H
16	449.99082	45.99	Qp	22.9	-29.7	-10.5	28.69	-	46.44	-17.75	348	174	V
7	549.99494	56.37	Qp	24.3	-29.5	-10.5	40.67	-	46.44	-5.77	203	201	H
17	549.9954	54.64	Qp	24.3	-29.5	-10.5	38.94	-	46.44	-7.5	313	102	V
8	720.155	39.77	Pk	26.5	-28.8	-10.5	26.97	-	46.44	-19.47	0-360	100	H
18	900.09	37.04	Pk	28.2	-27.3	-10.5	27.44	-	46.44	-19	0-360	100	V

Pk - Peak detector
Qp - Quasi-Peak detector

Note – Per 15.209 (f), measurements were made above the 10th harmonic in accordance with 15.33 (a) due to the incorporation of a digital device. The digital device is classified as Class A. Therefore, all measurements above the 10th harmonic were compared to 15.109(b) Class A limits.

9.2.1.4. Hand Piece Tag Off



Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	90628 (dB/m)	Gain/Loss (dB)	Class A limit correction	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m) 15.209(a)	QPk Limit (dBuV/m) 15.109(b)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
6	43.816	46.4	Qp	17.3	-32	0	31.7	40	-	-8.3	333	128	V
7	60.209	53.24	Qp	13.8	-31.8	0	35.24	40	-	-4.76	294	131	V
8	95.877	52.42	Qp	15.3	-31.5	0	36.22	43.52	-	-7.3	20	105	V
9	107.91757	50.18	Qp	18.4	-31.4	0	37.18	43.52	-	-6.34	289	107	V
1	166.285	51.01	Pk	18.3	-31	-10.5	27.81	-	43.52	-15.71	0-360	100	H
2	199.556	52.69	Pk	18.9	-30.8	-10.5	30.29	-	43.52	-13.23	0-360	100	H
10	249.996	52.48	Pk	17.5	-30.5	-10.5	28.98	-	46.44	-17.46	0-360	100	V
3	278.32	51.22	Pk	19.5	-30.4	-10.5	29.82	-	46.44	-16.62	0-360	100	H
4	332.64	50.64	Pk	20.1	-30.2	-10.5	30.04	-	46.44	-16.4	0-360	100	H
5	550.017	55.43	Pk	24.3	-29.5	-10.5	39.73	-	46.44	-6.71	0-360	100	H
11	550.017	53.96	Pk	24.3	-29.5	-10.5	38.26	-	46.44	-8.18	0-360	100	V

Pk - Peak detector
Qp - Quasi-Peak detector

Note – Per 15.209 (f), measurements were made above the 10th harmonic in accordance with 15.33 (a) due to the incorporation of a digital device. The digital device is classified as Class A. Therefore, all measurements above the 10th harmonic were compared to 15.109(b) Class A limits.

10. FREQUENCY STABILITY

LIMIT

FCC §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.

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

TEST PROCEDURE

ANSI C63.10-2020 Clause 6.8

RESULTS

No non-compliance noted.

10.1. WORST CASE

Reference Frequency: EUT Channel 13.56 MHz @ 20°C Limit: ± 100 ppm = 1.356 kHz										
Power Supply	Envir. Temp	Frequency Deviation Measured with Time Elapse								
(Vdc)	(°C)	Startup (MHz)	Delta (ppm)	@ 2 mins (MHz)	Delta (ppm)	@ 5 mins (MHz)	Delta (ppm)	@ 10 mins (MHz)	Delta (ppm)	Limit (ppm)
120.00	50	13.5604010	-0.769	13.5603987	-0.604	13.5603959	-0.390	13.5603920	-0.103	± 100
120.00	40	13.5603902	0.030	13.5603898	0.053	13.5603896	0.073	13.5603895	0.076	± 100
120.00	30	13.5603981	-0.553	13.5603981	-0.556	13.5603982	-0.561	13.5603982	-0.562	± 100
120.00	20	13.5603906	0.000	13.5603912	-0.046	13.5603921	-0.112	13.5603965	-0.439	± 100
120.00	10	13.5603996	-0.669	13.5604016	-0.813	13.5604035	-0.954	13.5604081	-1.292	± 100
120.00	0	13.5604239	-2.458	13.5604266	-2.654	13.5604302	-2.927	13.5604352	-3.295	± 100
120.00	-10	13.5604881	-7.197	13.5604882	-7.201	13.5604683	-5.731	13.5604683	-5.736	± 100
120.00	-20	13.5604888	-7.242	13.5604691	-5.792	13.5604696	-5.830	13.5604701	-5.863	± 100
102.00	20	13.5603970	-0.477	13.5603980	-0.547	13.5603988	-0.610	13.5603996	-0.664	± 100
138	20	13.5603995	-0.657	13.5603993	-0.648	13.5603991	-0.627	13.5603989	-0.619	± 100

Tested by: 104463/85502
Test date: 2024-05-09

11. AC MAINS LINE CONDUCTED EMISSIONS

LIMITS

FCC §15.207
ISED 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 50 μ 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 band edges.

Frequency range (MHz)	Limits (dB μ V)	
	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

ANSI C63.10:2020

Testing was performed on a terminated and non-terminated sample as per KDB 174176. Testing shows that emissions not related to the fundamental, are compliant when the antenna is attached, and all emissions are compliant when the antenna is terminated.

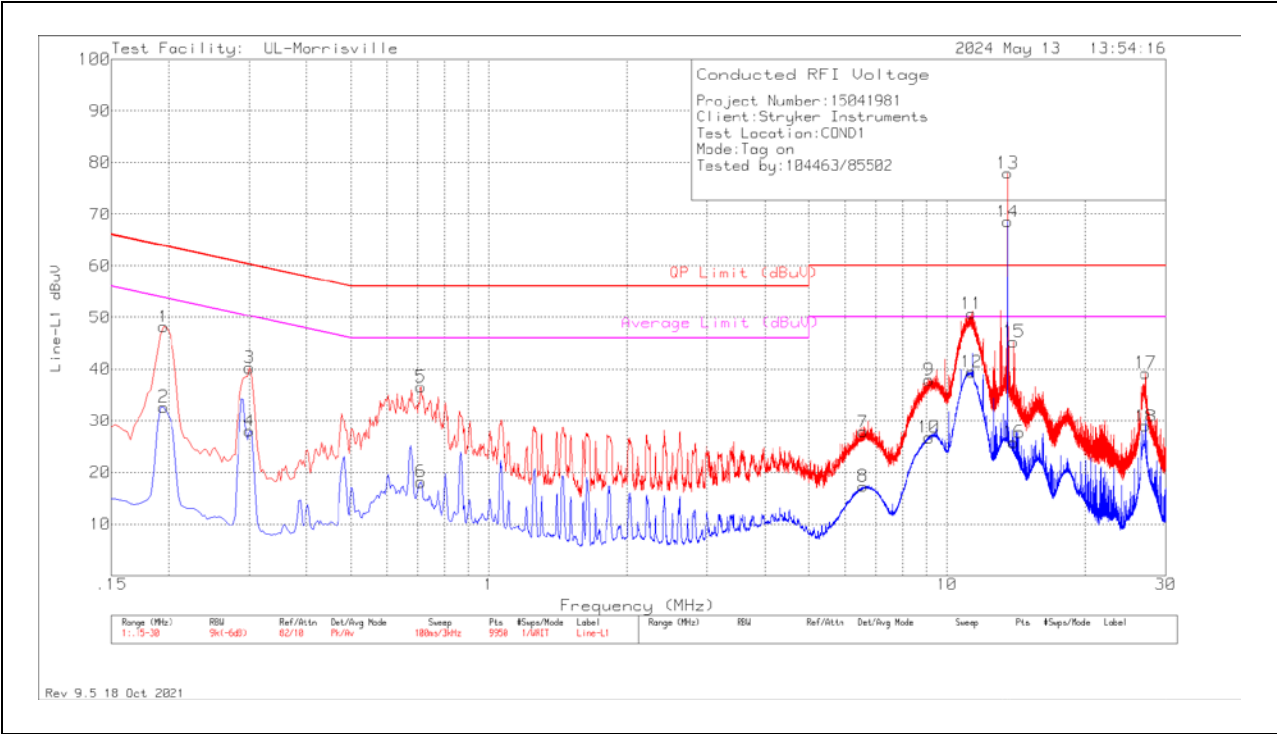
RESULTS

No non-compliance noted:

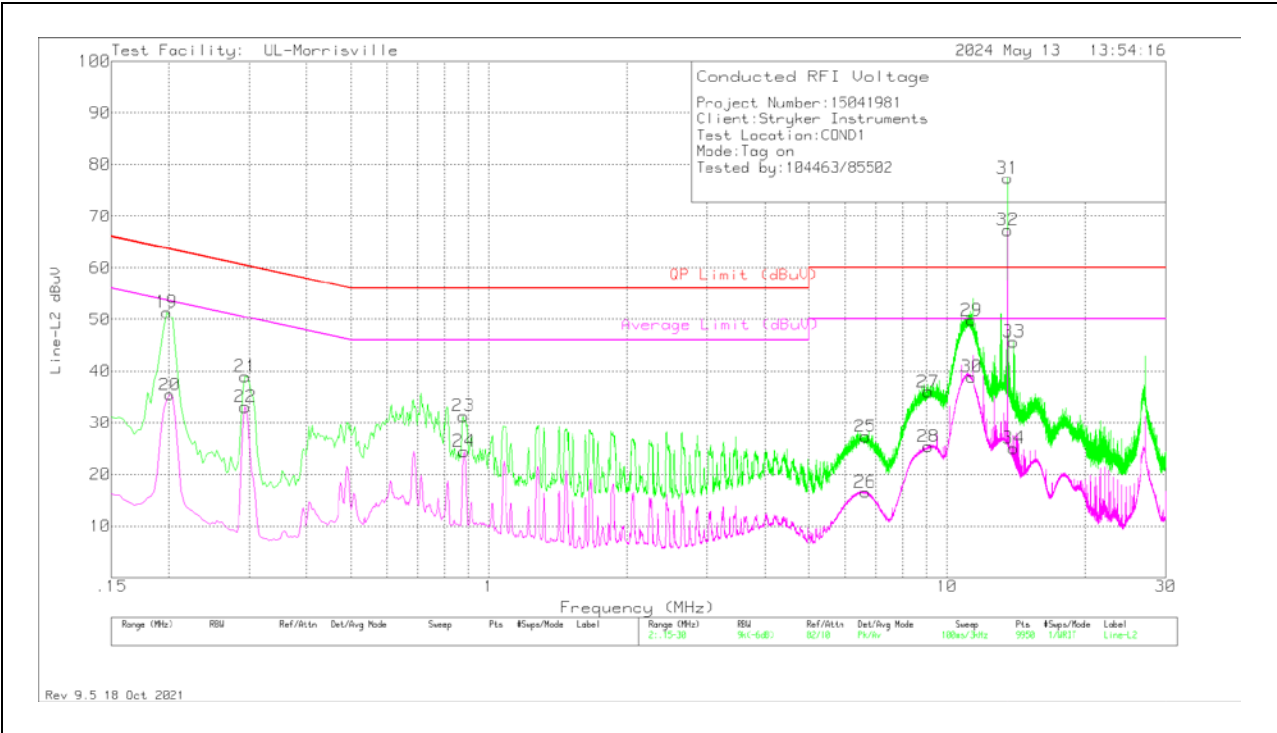
11.1. NORMAL OPERATION

11.1.1. WORST CASE

LINE 1 RESULTS



LINE 2 RESULTS



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	38.22	Pk	.2	9.8	48.22	63.82	-15.6	-	-
2	.195	22.64	Av	.2	9.8	32.64	-	-	53.82	-21.18
3	.3	30.26	Pk	.2	9.8	40.26	60.24	-19.98	-	-
4	.3	18	Av	.2	9.8	28	-	-	50.24	-22.24
5	.711	26.67	Pk	.1	9.8	36.57	56	-19.43	-	-
6	.711	8.31	Av	.1	9.8	18.21	-	-	46	-27.79
7	6.546	17.85	Pk	.1	9.9	27.85	60	-32.15	-	-
8	6.552	7.32	Av	.1	9.9	17.32	-	-	50	-32.68
9	9.123	27.83	Pk	.1	10	37.93	60	-22.07	-	-
10	9.126	16.64	Av	.1	10	26.74	-	-	50	-23.26
12	11.307	29.32	Av	.1	10	39.42	-	-	50	-10.58
11	11.31	40.66	Pk	.1	10	50.76	60	-9.24	-	-
13*	13.5608	59.16	Qp	.2	10	69.36	-	-	-	-
14*	13.561	41.95	Av	.2	10	52.15	-	-	-	-
15	13.986	35.12	Pk	.2	10	45.32	60	-14.68	-	-
16	13.986	15.61	Av	.2	10	25.81	-	-	50	-24.19
17	27.126	28.73	Pk	.3	10.2	39.23	60	-20.77	-	-
18	27.126	18.45	Av	.3	10.2	28.95	-	-	50	-21.05

Pk - Peak detector

Av - Average detection

Qp - Quasi-Peak detector

*- Fundamental

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)
19	.198	41.4	Pk	.2	9.8	51.4	63.69	-12.29	-	-
20	.201	25.41	Av	.2	9.8	35.41	-	-	53.57	-18.16
21	.294	28.97	Pk	.2	9.8	38.97	60.41	-21.44	-	-
22	.294	23.07	Av	.2	9.8	33.07	-	-	50.41	-17.34
23	.879	21.45	Pk	.1	9.8	31.35	56	-24.65	-	-
24	.882	14.6	Av	.1	9.8	24.5	-	-	46	-21.5
26	6.63	6.59	Av	.1	9.9	16.59	-	-	50	-33.41
25	6.639	17.35	Pk	.1	9.9	27.35	60	-32.65	-	-
27	9.09	25.89	Pk	.1	10	35.99	60	-24.01	-	-
28	9.099	15.33	Av	.1	10	25.43	-	-	50	-24.57
30	11.307	28.79	Av	.1	10	38.89	-	-	50	-11.11
29	11.313	39.75	Pk	.1	10	49.85	60	-10.15	-	-
31*	13.561	59.6	Qp	.2	10	69.8	-	-	-	-
32*	13.561	40.21	Av	.2	10	50.41	-	-	-	-
33	13.986	35.51	Pk	.2	10	45.71	60	-14.29	-	-
34	13.986	14.9	Av	.2	10	25.1	-	-	50	-24.9

Pk - Peak detector

Av - Average detection

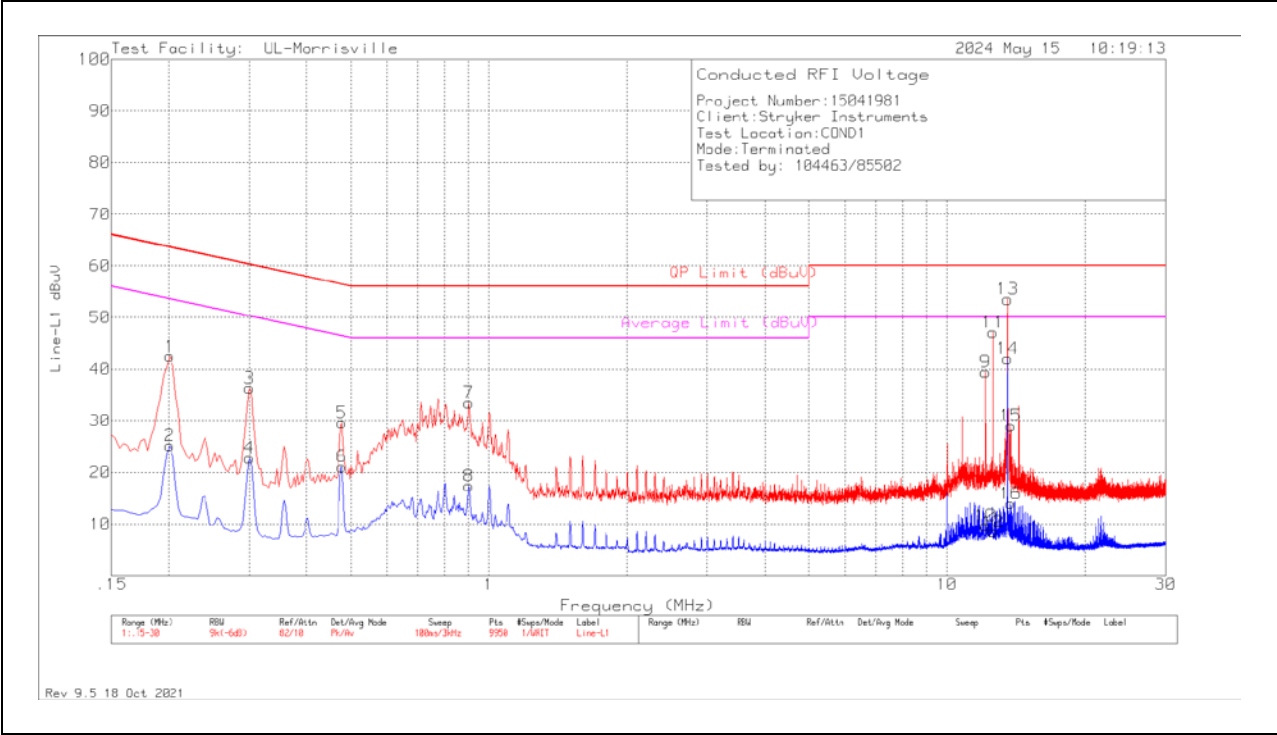
Qp - Quasi-Peak detector

*- Fundamental

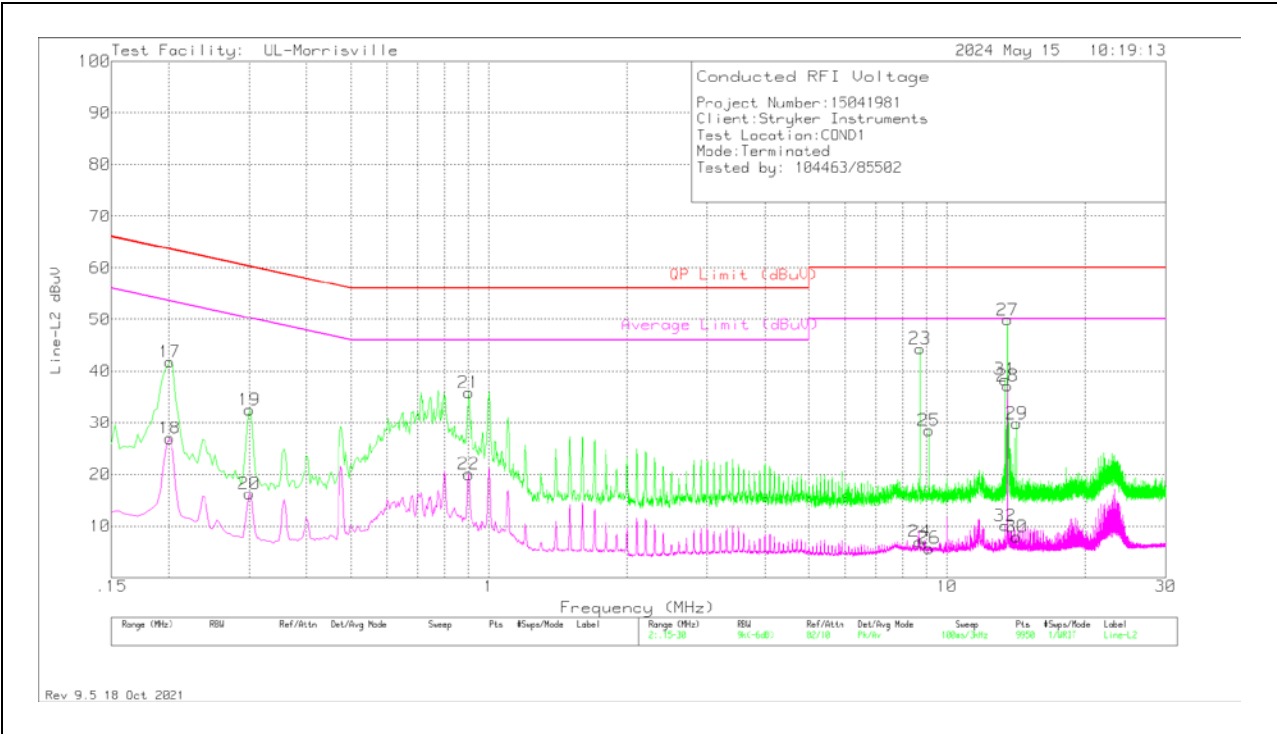
11.2. NORMAL OPERATION WITH ANTENNA PORT TERMINATED

11.2.1. WORST CASE

LINE 1 RESULTS



LINE 2 RESULTS



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	.201	32.47	Pk	.2	9.8	42.47	63.57	-21.1	-	-
2	.201	15.2	Av	.2	9.8	25.2	-	-	53.57	-28.37
3	.3	26.3	Pk	.2	9.8	36.3	60.24	-23.94	-	-
4	.3	12.8	Av	.2	9.8	22.8	-	-	50.24	-27.44
5	.477	19.69	Pk	.1	9.8	29.59	56.39	-26.8	-	-
6	.477	11.22	Av	.1	9.8	21.12	-	-	46.39	-25.27
7	.903	23.56	Pk	.1	9.8	33.46	56	-22.54	-	-
8	.903	7.49	Av	.1	9.8	17.39	-	-	46	-28.61
10	12.135	-.39	Av	.1	10	9.71	-	-	50	-40.29
9	12.141	29.34	Pk	.1	10	39.44	60	-20.56	-	-
11	12.606	37	Pk	.1	10	47.1	60	-12.9	-	-
12	12.606	-1.61	Av	.1	10	8.49	-	-	50	-41.51
13*	13.563	43.34	Pk	.2	10	53.54	60	-6.46	-	-
14*	13.563	31.83	Av	.2	10	42.03	-	-	50	-7.97
16	13.767	3.79	Av	.2	10	13.99	-	-	50	-36.01
15	13.773	18.83	Pk	.2	10	29.03	60	-30.97	-	-

Pk - Peak detector

Av - Average detection

*- Fundamental

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)
17	.201	31.77	Pk	.2	9.8	41.77	63.57	-21.8	-	-
18	.201	16.99	Av	.2	9.8	26.99	-	-	53.57	-26.58
19	.3	22.48	Pk	.2	9.8	32.48	60.24	-27.76	-	-
20	.3	6.27	Av	.2	9.8	16.27	-	-	50.24	-33.97
21	.903	25.91	Pk	.1	9.8	35.81	56	-20.19	-	-
22	.903	10.14	Av	.1	9.8	20.04	-	-	46	-25.96
24	8.721	-3.11	Av	.1	10	6.99	-	-	50	-43.01
23	8.727	34.24	Pk	.1	10	44.34	60	-15.66	-	-
25	9.12	18.4	Pk	.1	10	28.5	60	-31.5	-	-
26	9.132	-4.37	Av	.1	10	5.73	-	-	50	-44.27
31	13.389	28.21	Pk	.2	10	38.41	60	-21.59	-	-
32	13.389	-.13	Av	.2	10	10.07	-	-	50	-39.93
27*	13.557	39.71	Pk	.2	10	49.91	60	-10.09	-	-
28*	13.56	26.96	Av	.2	10	37.16	-	-	50	-12.84
29	14.19	19.55	Pk	.2	10.1	29.85	60	-30.15	-	-
30	14.202	-2.36	Av	.2	10.1	7.94	-	-	50	-42.06

Pk - Peak detector

Av - Average detection

*- Fundamental

12. SETUP PHOTOS

Please refer to R15041981-EP1 for setup photos

END OF TEST REPORT