TEST REPORT

Report Number. : NBK15794959A.V1

Applicant	:	Elkay MFG Co 1333 Butterfield Rd, Suite 200 Downers Grove, IL 60515, US
Model	:	NFC4
FCC ID	:	2AC8R-NFC4
IC	:	12430A-NFC4
EUT Description	:	Pro Filtration NFC Board
Test Standard(s)	:	47 CFR PART 15 SUBPART C RSS-210 ISSUE 11

Date Of Issue:
2025-06-12

Prepared by:
UL LLC
333 Pfingsten Road
Northbrook, IL 60062 US

CERT #0751.07

Revision History

Rev.	Issue Date	Revisions	Revised By
V1	2025-06-12	Original Issue	BM

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: **Elkay MFG Co**

EUT DESCRIPTION: Pro Filtration NFC Board

MODEL: NFC4

SERIAL NUMBER: non-serialized

SAMPLE RECEIPT DATE: 2025-04-23

DATE TESTED: 2025-04-23 to 2025-05-15

APPLICABLE STANDARDS	
STANDARD	**TEST RESULTS**
FCC PART 15 SUBPART C	Complies
ISED RSS-210 Issue 11, Annex B	Complies
ISED RSS-GEN Issue 5	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
CMIT
UL LLC

Prepared By:

Bart Mucha
Test Engineer
CMIT
UL LLC

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with ANSI C63.10-2020, FCC CFR 47 Part 2, FCC CFR 47 Part 15, RSS-GEN Issue 5 + A1+A2 and RSS-210 Issue 11.

3. FACILITIES AND ACCREDITATION

UL LLC is accredited by A2LA #0751.07 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
☒	333 Pfingsten Road Northbrook, IL 60062	US0065	2180A	152210
☒	750 Anthony Trail Northbrook, IL 60062	US0065	2180A	152210

4. DECISION RULES AND MEASUREMENT UNCERTAINTY

4.1. 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.

4.2. 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.)

4.3. MEASUREMENT UNCERTAINTY

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

PARAMETER	U_{Lab}
Worst Case Conducted Disturbance, 0.15 to 30 MHz	3.40dB
Worst Case Radiated Disturbance Loop, 9KHz to 30 MHz	2.52dB
Worst Case Radiated 30MHz-1GHz	4.88dB
Worst Case Radiated Disturbance, 30 to 1000 MHz	4.88dB
Worst Case Frequency Error with Spectrum Analyzer	141.16 Hz
Worst Case Occupied Bandwidth	0.09dB / 2.00%

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

4.4. 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

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

The EUT, Mode NFC 4 is a NFC 13.56MHz Modular Transmitter

5.2. SOFTWARE AND FIRMWARE

The test utility software used during testing was 2.10

5.3. WORST-CASE CONFIGURATION AND MODE

The modular NFC device was tested in multiple configurations and orientation to ensure that once the modular NFC device is installed in final product the risk is minimized and it will not behave in unexpected way.

Test Configuration Modes

Configuration Mode #	Configuration Description
1	Single NFC Board Configuration (short cable)
2	Dual NFC Board Configuration, upper board TX, lower board IDLE (longer Y cable used)
3	Dual NFC Board Configuration, Upper board IDLE, lower board TX (longer Y cable used)

The fundamental of the EUT was investigated under three orthogonal orientations X (Flatbed), Y (Landscape), and Z (Portrait) with and without tag. Additional configuration modes listed above were tested. The Z orientation was found to be the worst case.

30MHz-1GHz emissions were done in limited number of configurations/oreintations. The chosen configurations were based on emissions measurements below 30MHz.

For Line Conducted Emisisons Single NFC board configuration was tested with and without tag. Based on the results there was no difference in emissions therefore Dual NFC board configurations were tested without tag only.

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

5.4. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

The module was tested with Elkay simulated harness installed on playwood.

I/O CABLES

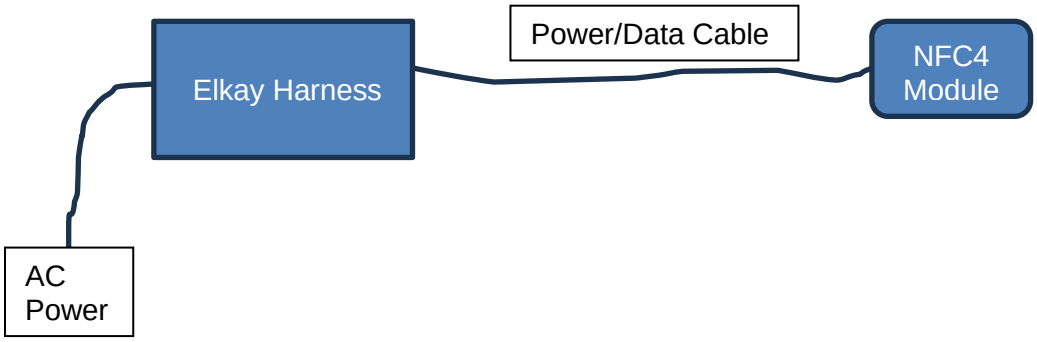
Modue was connected in sereval conifgurations. Main Harness singe module, and main harness extention - Y cable dual module configuration.

TEST SETUP

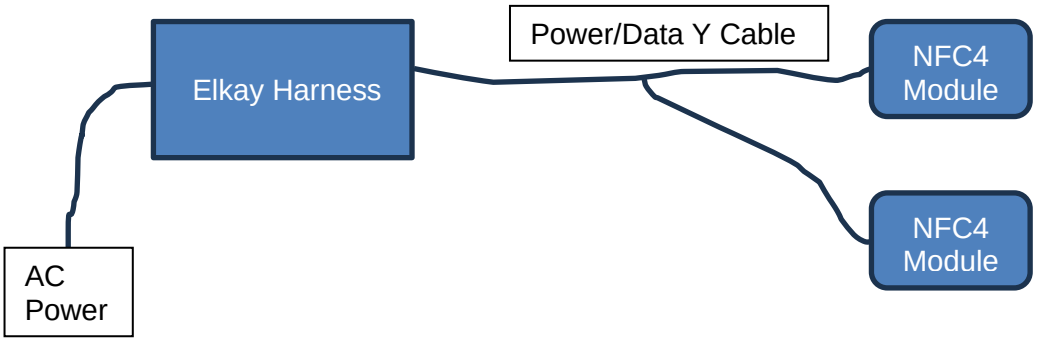
The EUT was powered and programmed to transmit continuously.

SETUP DIAGRAM

Single Module configuration



Dual Module Configuration



6. TEST AND MEASUREMENT EQUIPMENT

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

UL SOFTWARE		
Emissions Software	UL	UL EMC

Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Radiated Emissions					
EMI Receiver	Rohde & Schwarz	ESCI	54598	2024-12-09	2025-12-31
Hybrid Antenna	SunAR RF Motion	JB3	214023	2025-02-24	2026-02-28
Loop Antenna	EMCO	6502/1	19723	2024-12-11	2025-12-31
Line Conducted Emissions					
EMI Test Receiver	Rohde & Schwarz	ESR	86711	2024-12-05	2025-12-31
Transient Limiter	Electro-Metrics	EM-7600-2	19866	2024-12-05	2025-12-31
High-Pass Filter	Solar Electronics	2803-150	53775	2024-12-05	2025-12-31
LISN - L1	Solar Electronics	8602-50-TS-50-N	19808	2024-12-03	2025-12-31
LISN - L2	Solar Electronics	8602-50-TS-50-N	19806	2024-12-03	2025-12-31
Frequency Stability					
Signal Analyzer	Aglient	N9030A PXA	77811	2024-12-04	2025-12-31
Environmental Chamber	Espec	BTX-475	87492	2024-05-13	2025-05-31
Multimeter	Fluke	87V	44028	2024-12-03	2025-12-31

7. OCCUPIED BANDWIDTH

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

The transmitter output is connected to the spectrum analyzer. The BWs (RBW and VBW) are set per applicable standards.

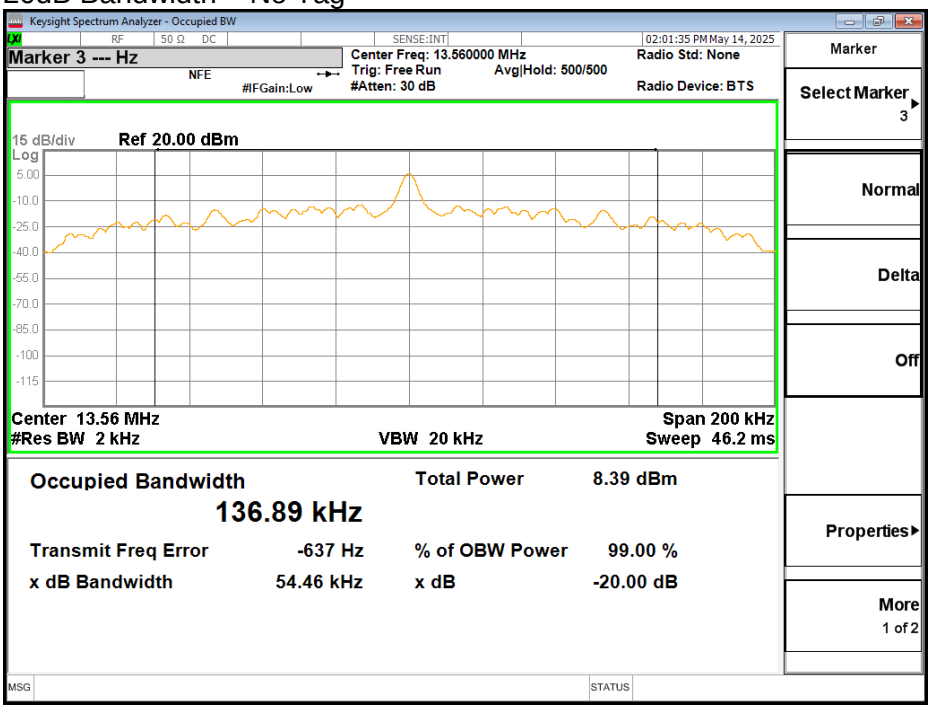
RESULTS

99% and 20dB BW

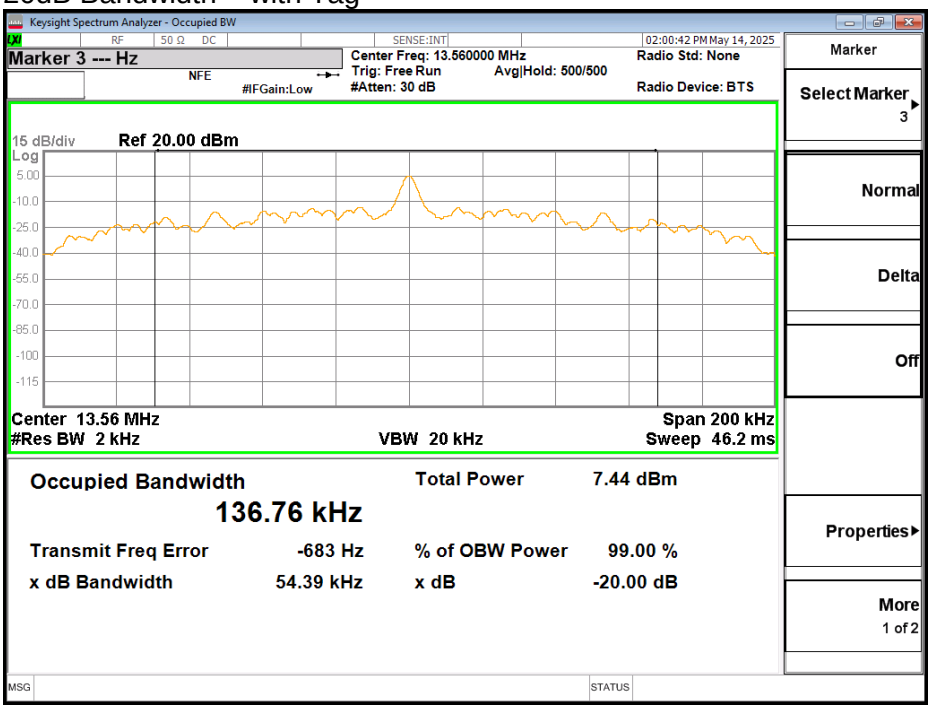
Tag/NoTag	Frequency (MHz)	99% Bandwidth (KHz)	20dB Bandwidth (KHz)
No Tag	13.56	326.04	54.44
With Tag	13.56	321.76	54.39

7.1. Bandwidth Data

20dB Bandwidth – No Tag

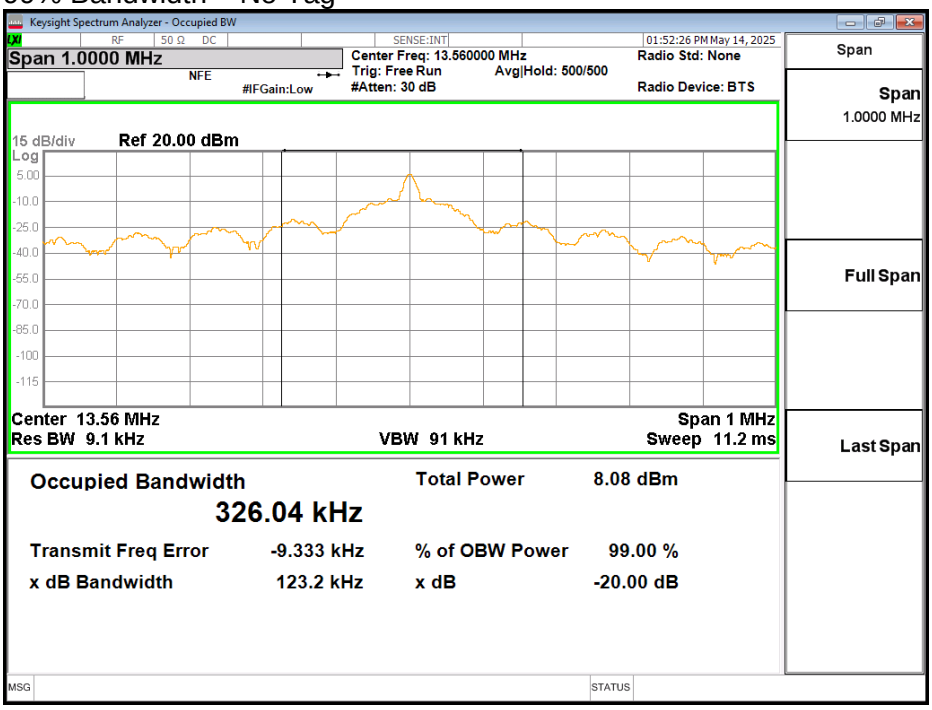


20dB Bandwidth – with Tag

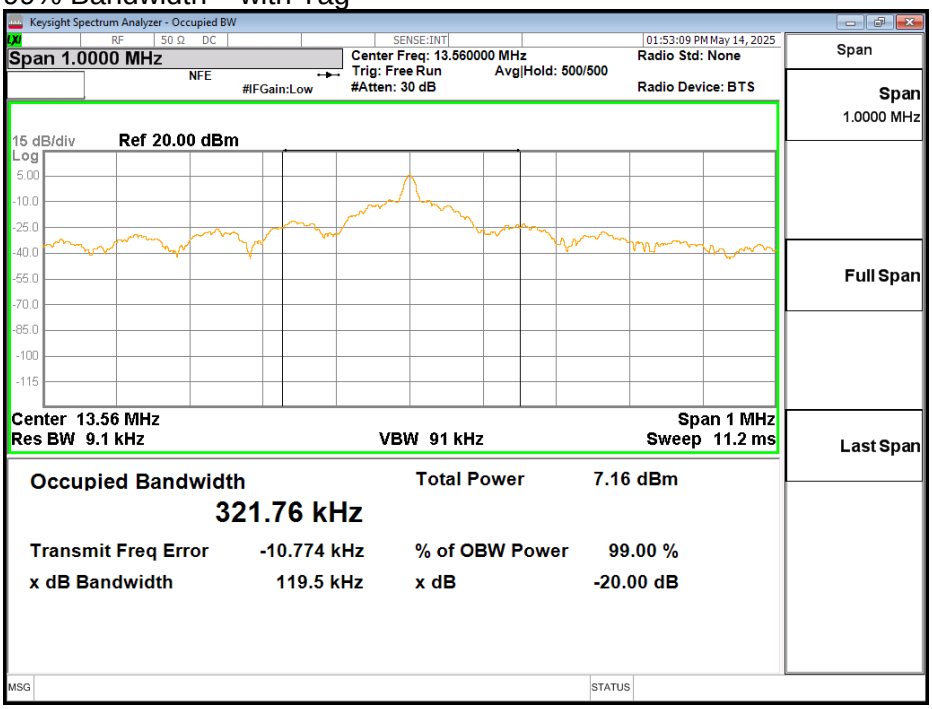


* Because of the nature of the signal, the emission BW will change with the RBW setting and therefore its not possible to set the RBW per the applicable requirement.

99% Bandwidth – No Tag



99% Bandwidth – with Tag



* Because of the nature of the signal, the emission BW will change with the RBW setting and therefore its not possible to set the RBW per the applicable requirement.

8. RADIATED EMISSION TEST RESULTS

8.1. LIMITS AND PROCEDURE

LIMIT

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

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

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

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

(d) The field strength of any emissions appearing outside of the 13.110– 14.010 MHz and shall not exceed the general radiated emission limits in § 15.209 as follows:
§15.209 (a) Except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Limits for radiated disturbance of an intentional radiator		
Frequency range (MHz)	Limits (µV/m)	Measurement Distance (m)
0.009 – 0.490	2400 / F (kHz)	300
0.490 – 1.705	24000 / F (kHz)	30
1.705 – 30.0	30	30
30 – 88	100**	3
88 - 216	150**	3
216 – 960	200**	3
Above 960	500	3

** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this part, e.g. §§ 15.231 and 15.241.
§15.209 (b) In the emission table above, the tighter limit applies at the band edges.

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

Note: The limits in CFR 47, Part 15, Subpart C, paragraph 15.209(a), are identical to those in RSS-Gen section 8.9, Table 6, since the measurements are performed in terms of magnetic field strength and converted to electric field strength levels (as report in the table) using free space impedance of 377 Ohms. For example, the measurement at frequency X kHz resulted in a level of Y dBuV/m, which is equivalent to Y-51.5 = Z dBuA/m, which has the same margin, W dB to the corresponding RSS-Gen Table 6 limit as it has to 15.209(a) limit.

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

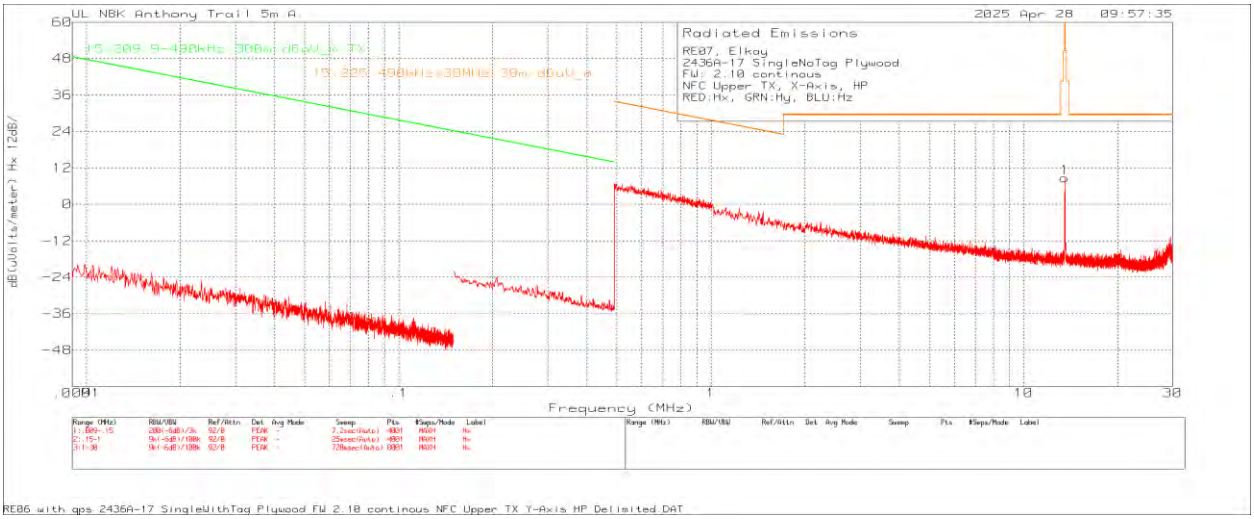
ANSI C63.10

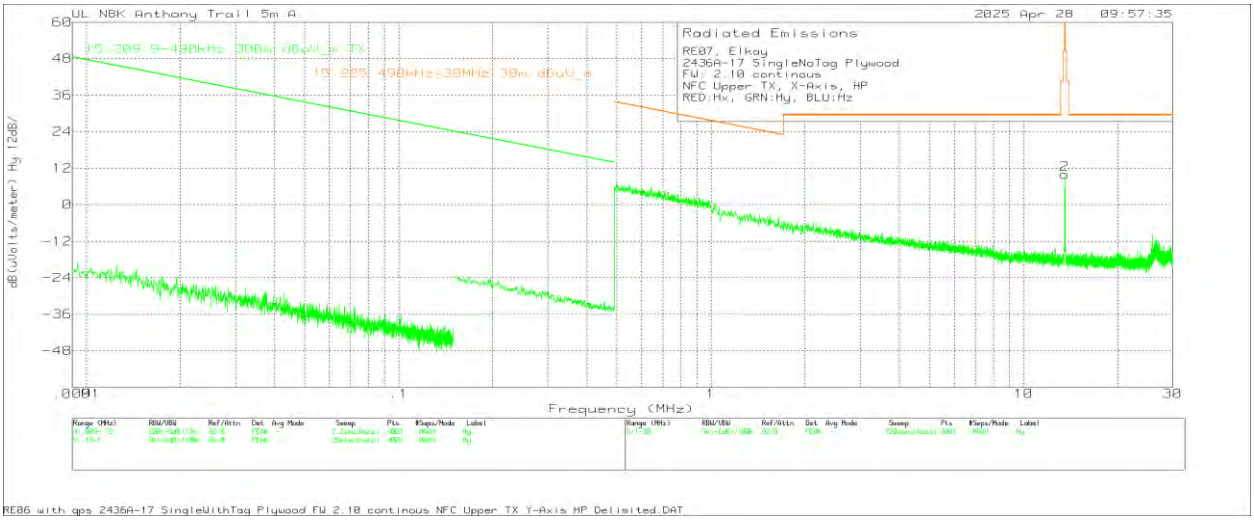
The EUT is an intentional radiator that incorporates a digital device, the highest fundamental frequency generated or used in the device is 13.56 MHz; therefore, the frequency range was investigated from 0.15 MHz to the 10th harmonic of the highest fundamental frequency, or 1000 MHz, whichever is greater.

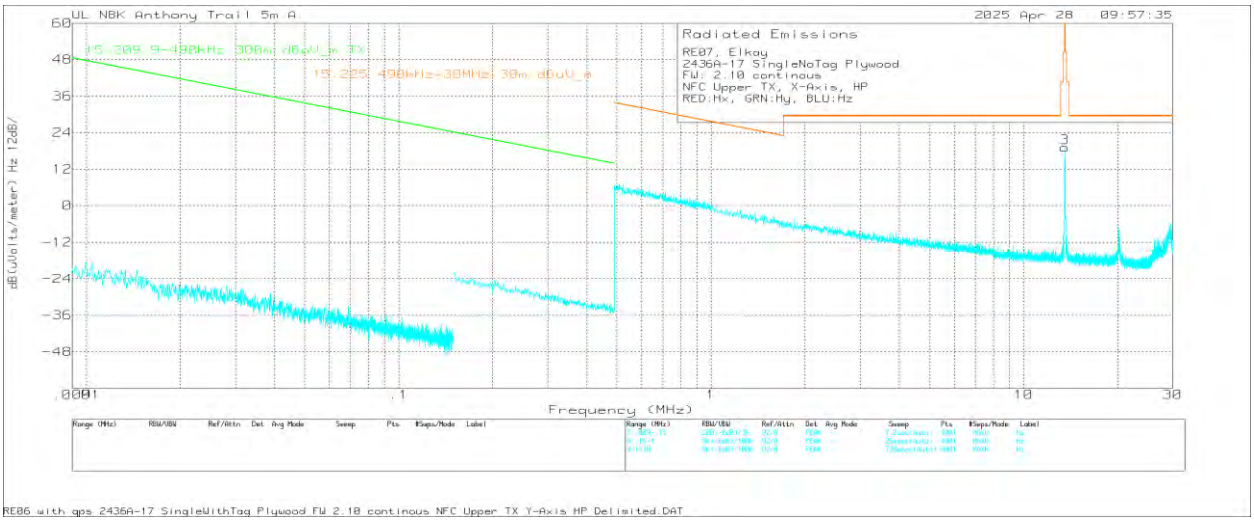
RESULTS

8.2. 9kHz – 30MHz Results

Configuration Mode 1, EUT orientation Hx, No tag present

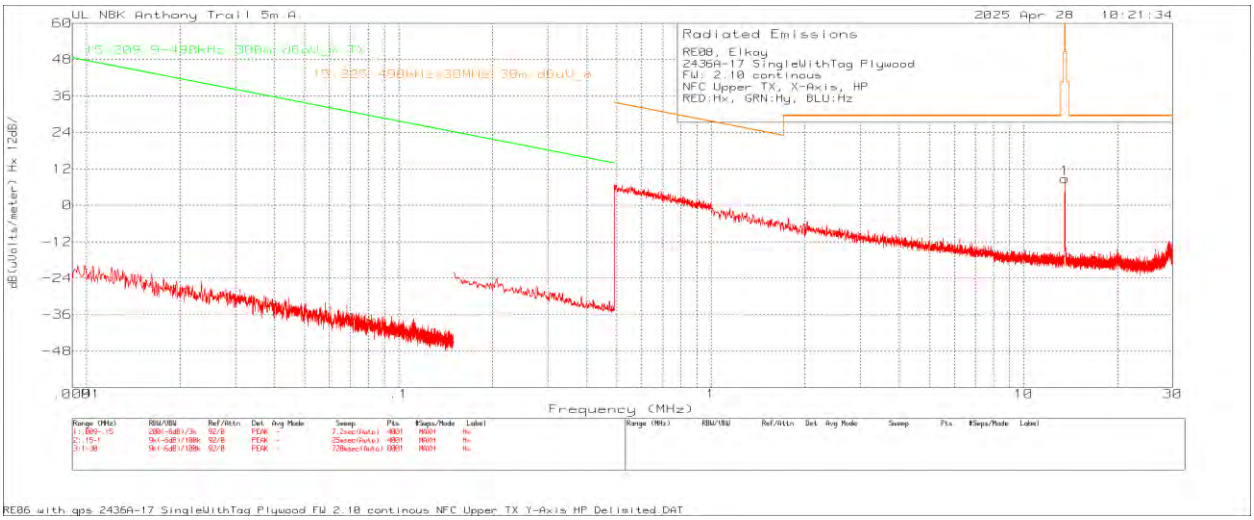


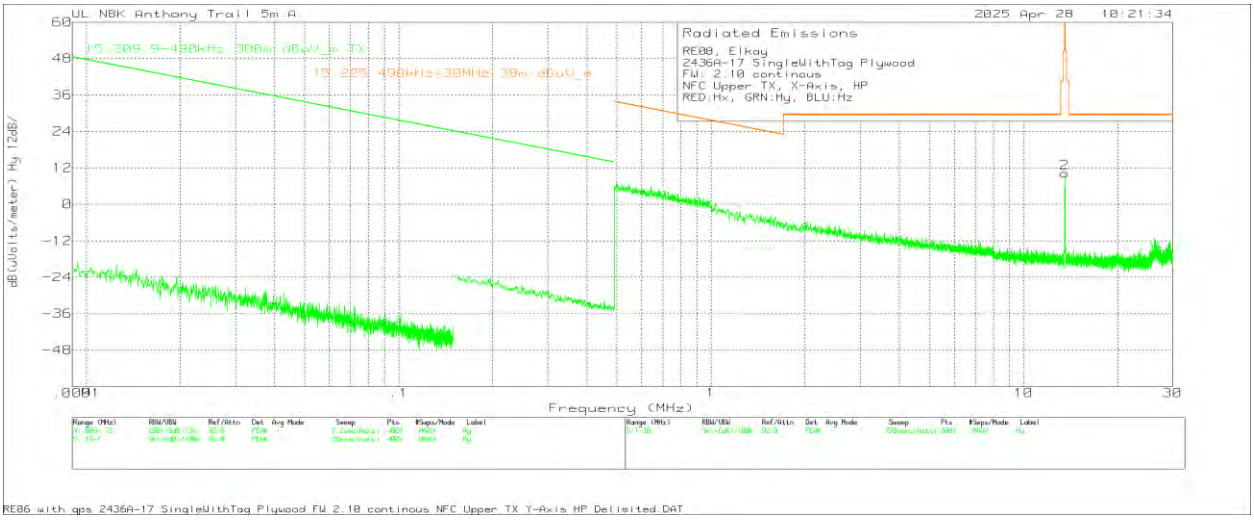


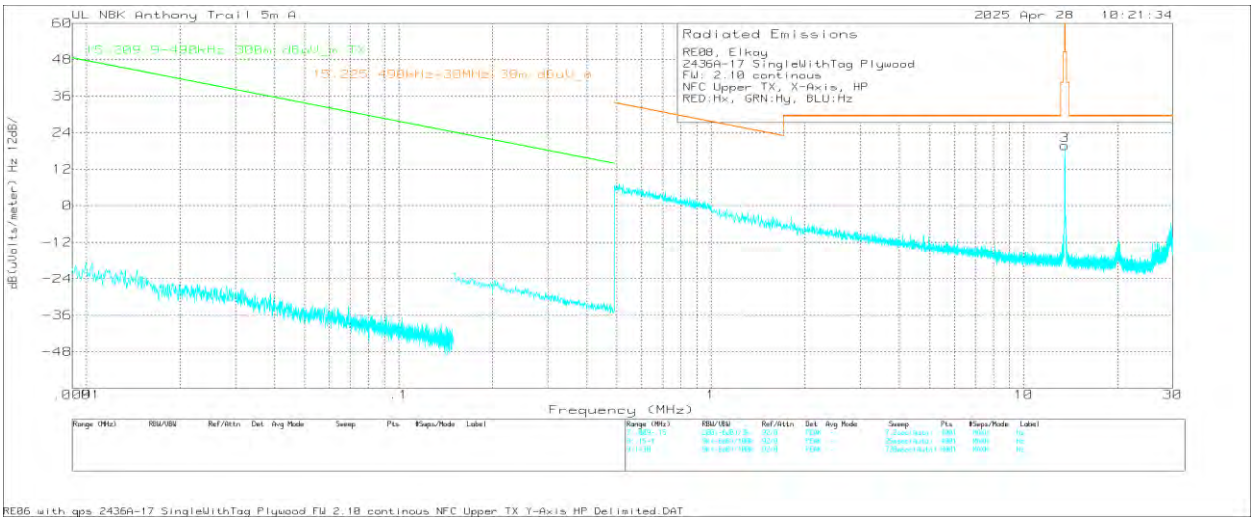


RE07,Elkay												
2436A-17 SingleNoTag Plywood												
FW: 2.10 continous												
NFC Upper TX, X-Axis, HP												
RED:Hx, GRN:Hy, BLU:Hz												
Trace Markers												
Marker No.	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	Antenna Factor dB/m	Path Factor dB	300mTo3m & 30mTo3m 9kHz-30MHz Factor dB	Level dBuV/m	Limit 15.209 9-490kHz 300m dBuV/m	Margin (dB)	Limit 15.225 490kHz-30MHz 30m dBuV/m	Margin (dB)	Azimuth [Degs]
Hx												
1	13.56063	36.86	Pk	11.4	0.4	-40	8.66	-	-	84	-75.34	0-360
Hy												
2	13.56063	38.19	Pk	11.4	0.4	-40	9.99	-	-	84	-74.01	0-360
Hz												
3	13.56063	47.32	Pk	11.4	0.4	-40	19.12	-	-	84	-64.88	0-360
Pk - Peak detector												

Configuration Mode 1, EUT orientation Hx, with tag present

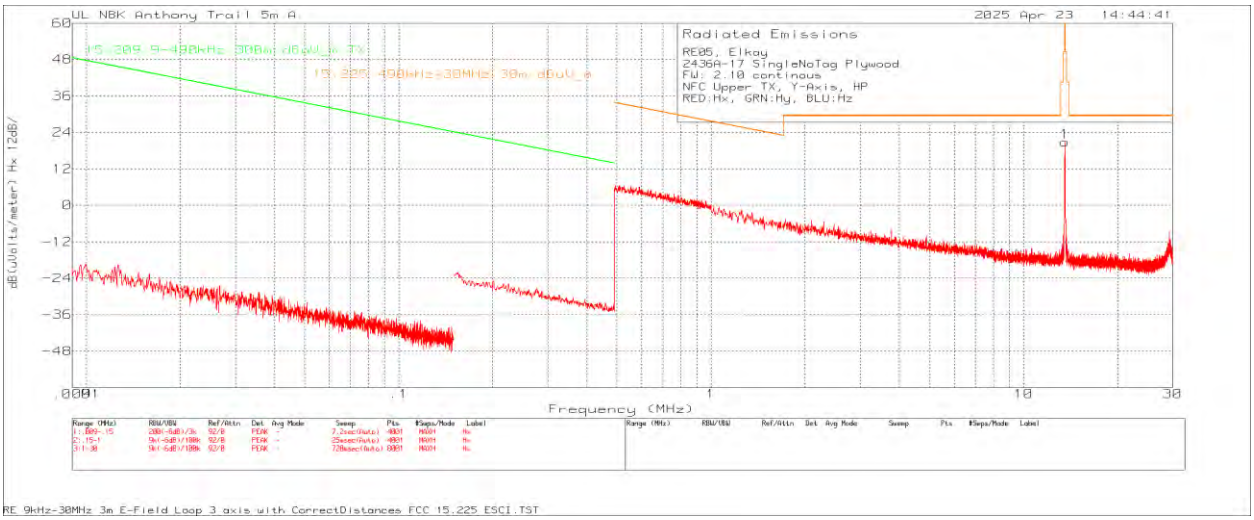


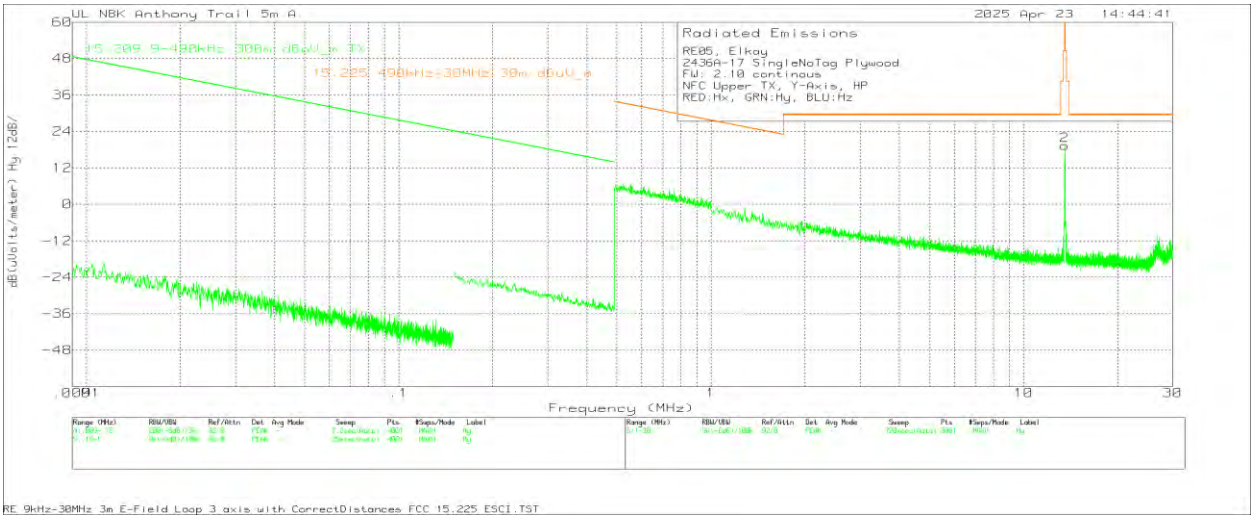


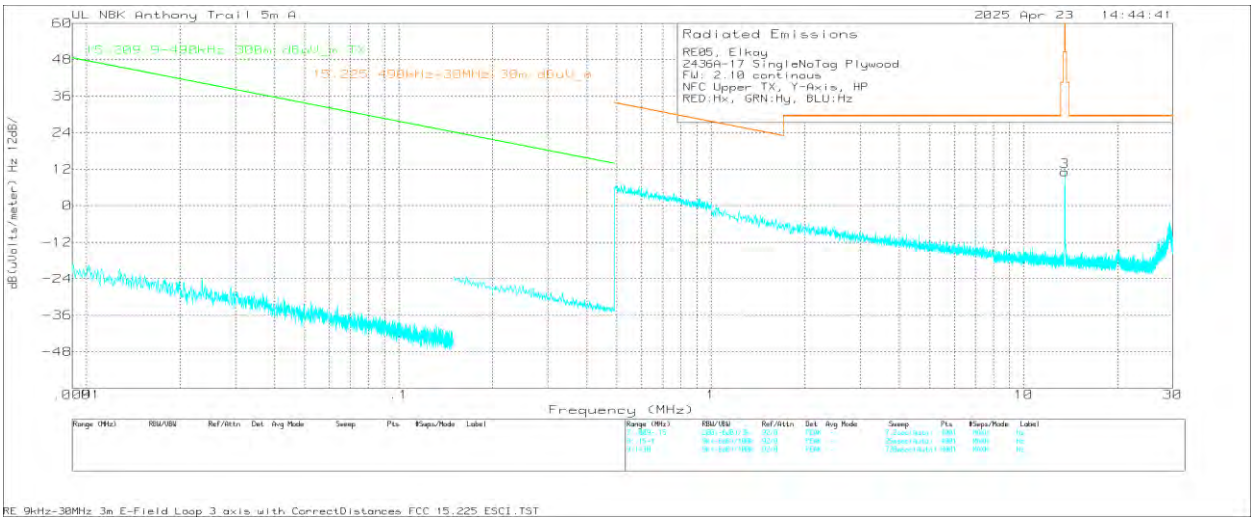


RE08,Elkay												
2436A-17 SingleWithTag Plywood												
FW: 2.10 continous												
NFC Upper TX, X-Axis, HP												
RED:Hx, GRN:Hy, BLU:Hz												
Trace Markers												
Marker No.	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	Antenna Factor dB/m	Path Factor dB	300mTo3m & 30mTo3m 9kHz-30MHz Factor dB	Level dBuV/m	Limit 15.209 9-490kHz 300m dBuV/m	Margin (dB)	Limit 15.225 490kHz-30MHz 30m dBuV/m	Margin (dB)	Azimuth [Degs]
Hx												
1	13.56063	36.96	Pk	11.4	0.4	-40	8.76	-	-	84	-75.24	0-360
Hy												
2	13.56063	38.48	Pk	11.4	0.4	-40	10.28	-	-	84	-73.72	0-360
Hz												
3	13.56063	47.98	Pk	11.4	0.4	-40	19.78	-	-	84	-64.22	0-360

Configuration Mode 1, EUT orientation Hy, no tag present

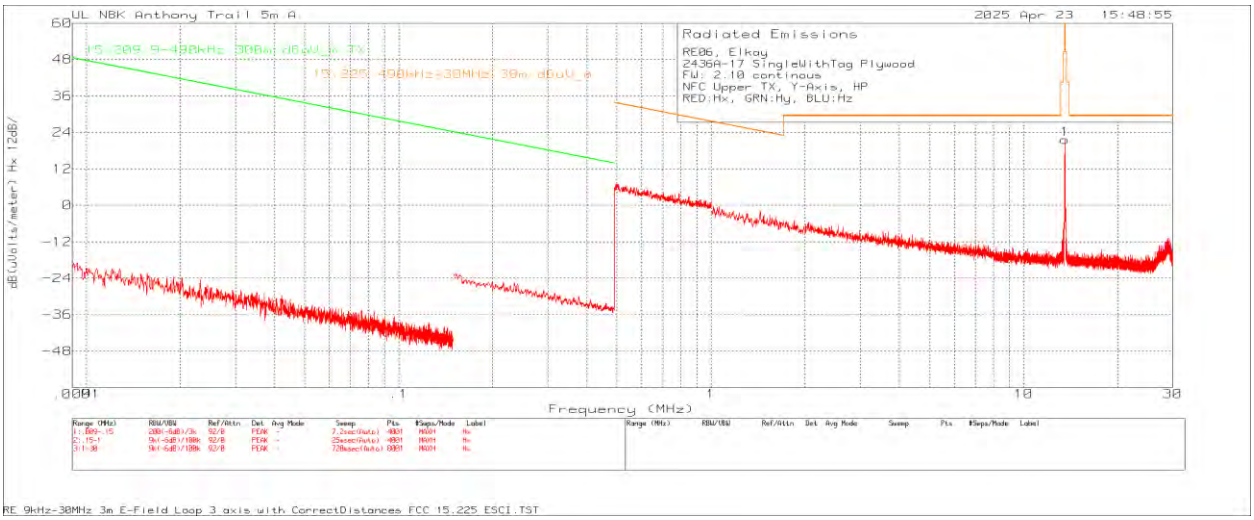


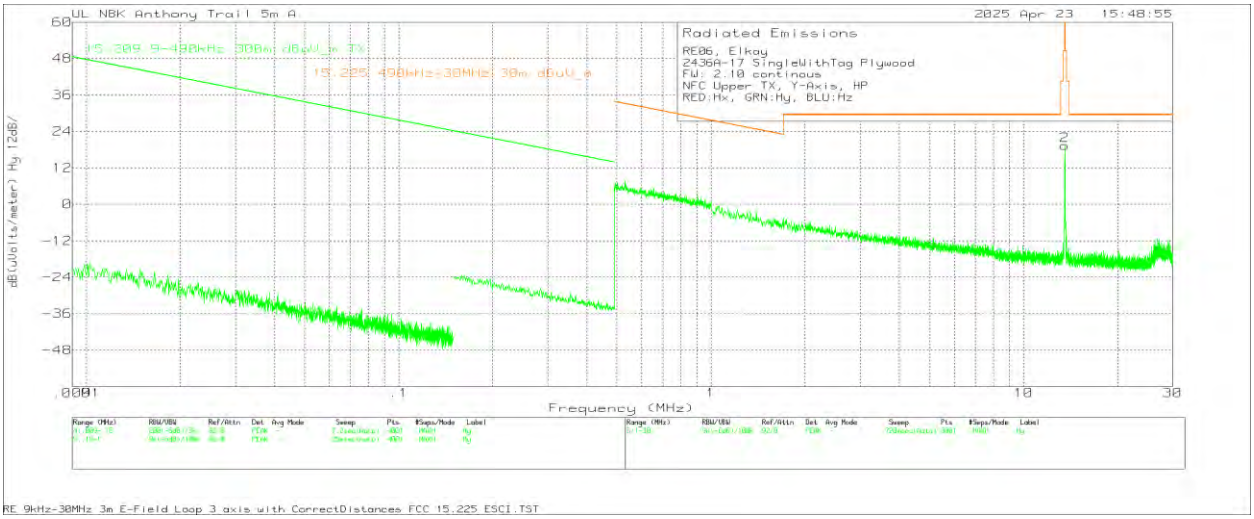


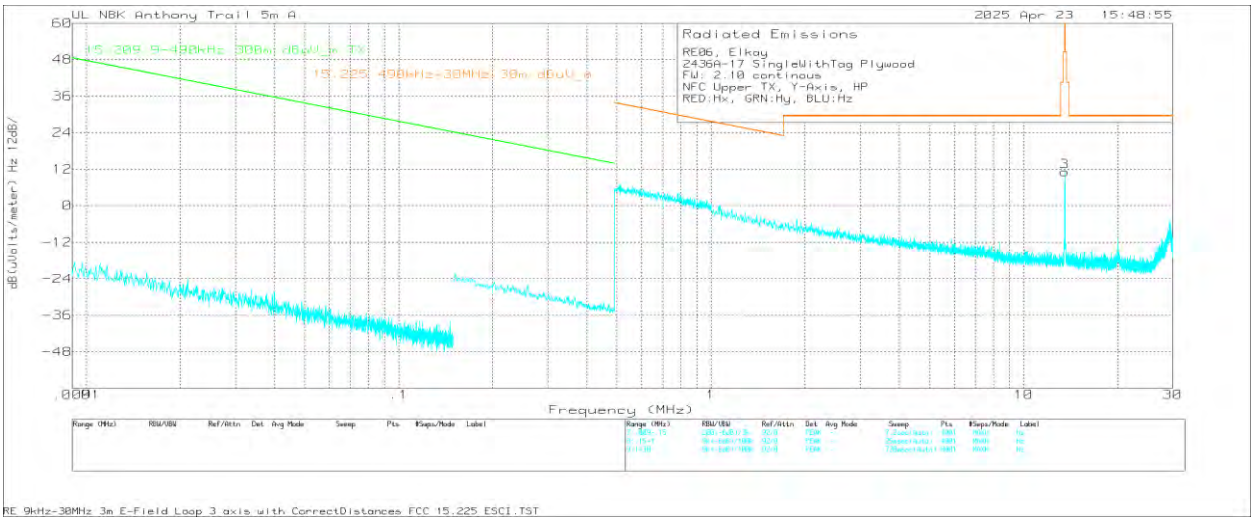


RE05,Elkay												
2436A-17 SingleNoTag Plywood												
FW: 2.10 continous												
NFC Upper TX, Y-Axis, HP												
RED:Hx, GRN:Hy, BLU:Hz												
Trace Markers												
Marker No.	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	Antenna Factor dB/m	Path Factor dB	& 30mTo3m 9kHz-30MHz	Level dBuV/m	15.209 9-490kHz 300m dBuV/m	Margin (dB)	15.225 490kHz-30MHz 30m	Margin (dB)	Azimuth [Degs]
Hx												
1	13.56063	49.06	Pk	11.4	0.4	-40	20.86	-	-	84	-63.14	0-360
Hy												
2	13.56063	47.54	Pk	11.4	0.4	-40	19.34	-	-	84	-64.66	0-360
Hz												
3	13.56063	39.37	Pk	11.4	0.4	-40	11.17	-	-	84	-72.83	0-360
Pk - Peak detector												

Configuration Mode 1, EUT orientation Hy, with tag present

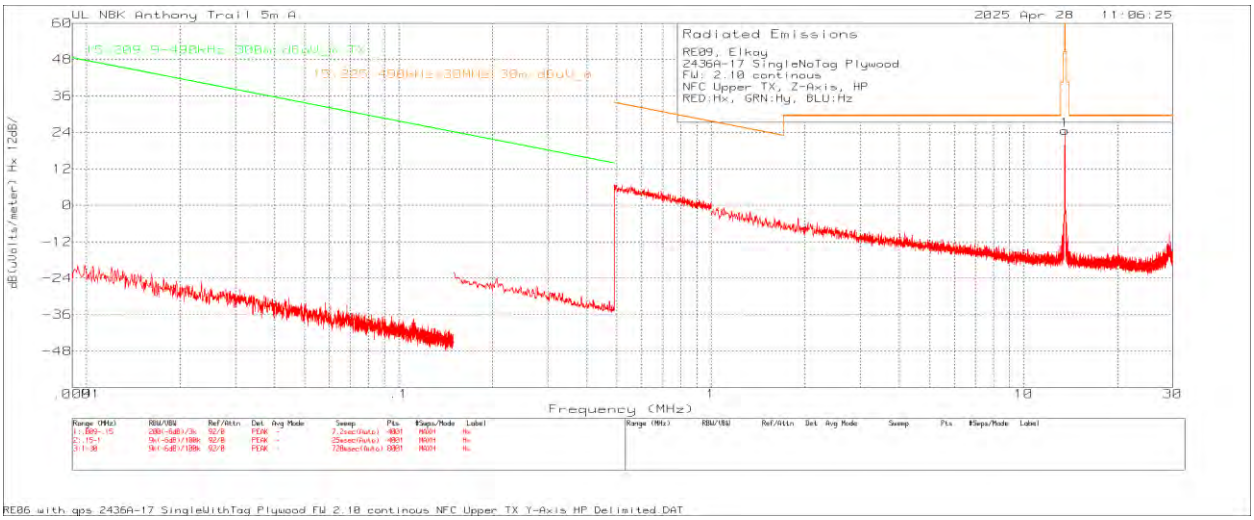


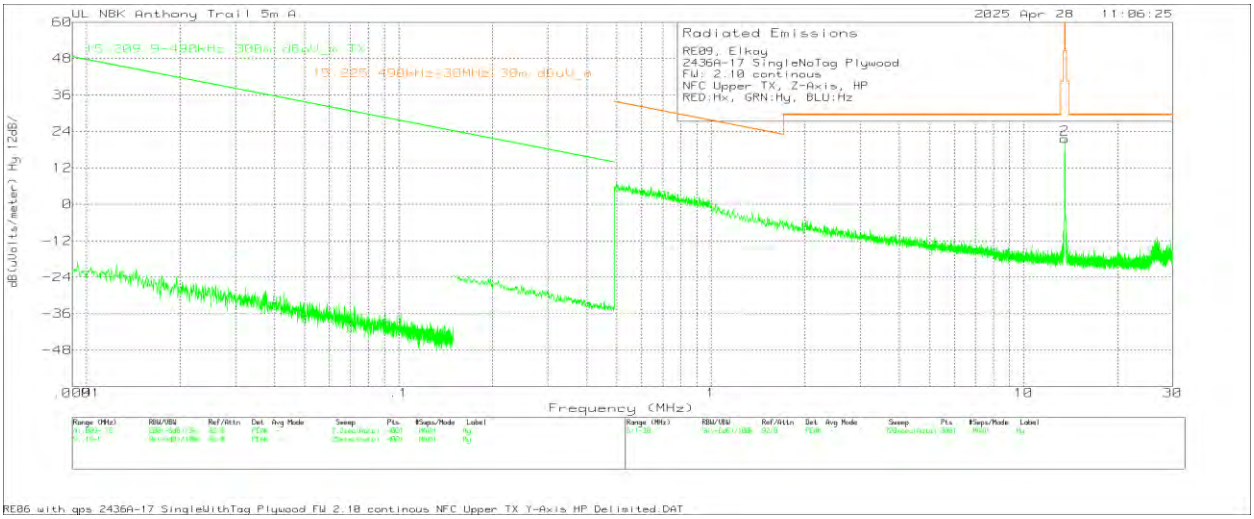


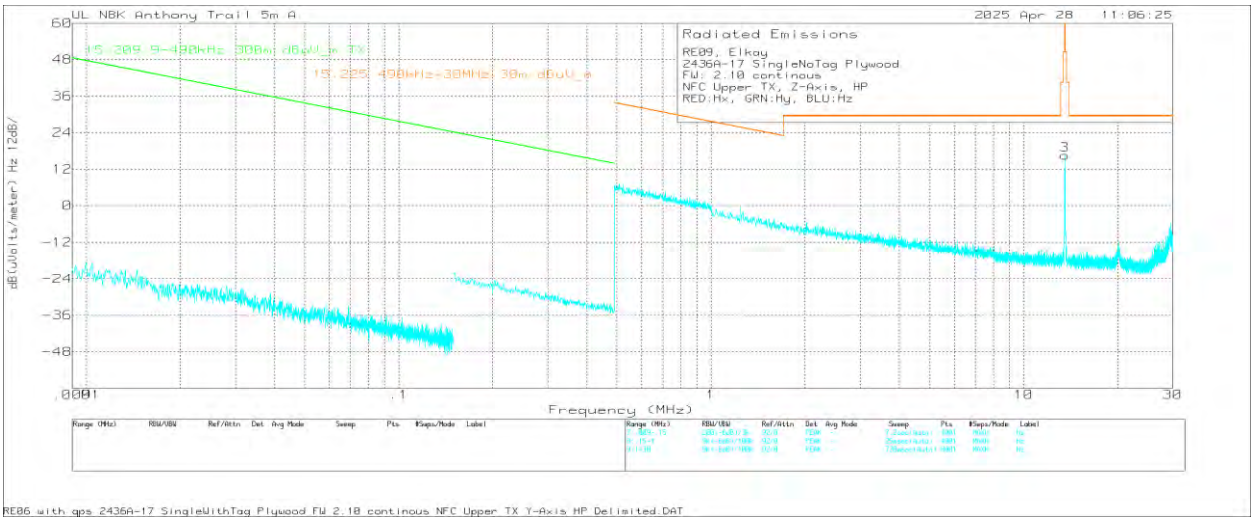


RE06,Elkay												
2436A-17 SingleWithTag Plywood												
FW: 2.10 continous												
NFC Upper TX, Y-Axis, HP												
RED:Hx, GRN:Hy, BLU:Hz												
Trace Markers												
Marker No.	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	Antenna Factor dB/m	Path Factor dB	300mTo3m & 30mTo3m 9kHz-30MHz Factor dB	Level dBuV/m	Limit 15.209 9-490kHz 300m dBuV/m	Margin (dB)	Limit 15.225 490kHz-30MHz 30m dBuV/m	Margin (dB)	Azimuth [Degs]
Hx												
1	13.56063	49.8	Pk	11.4	0.4	-40	21.6	-	-	84	-62.4	0-360
Hy												
2	13.56063	47.55	Pk	11.4	0.4	-40	19.35	-	-	84	-64.65	0-360
Hz												
3	13.56063	39.31	Pk	11.4	0.4	-40	11.11	-	-	84	-72.89	0-360
Pk - Peak detector												

Configuration Mode 1, EUT orientation Hz, No tag present

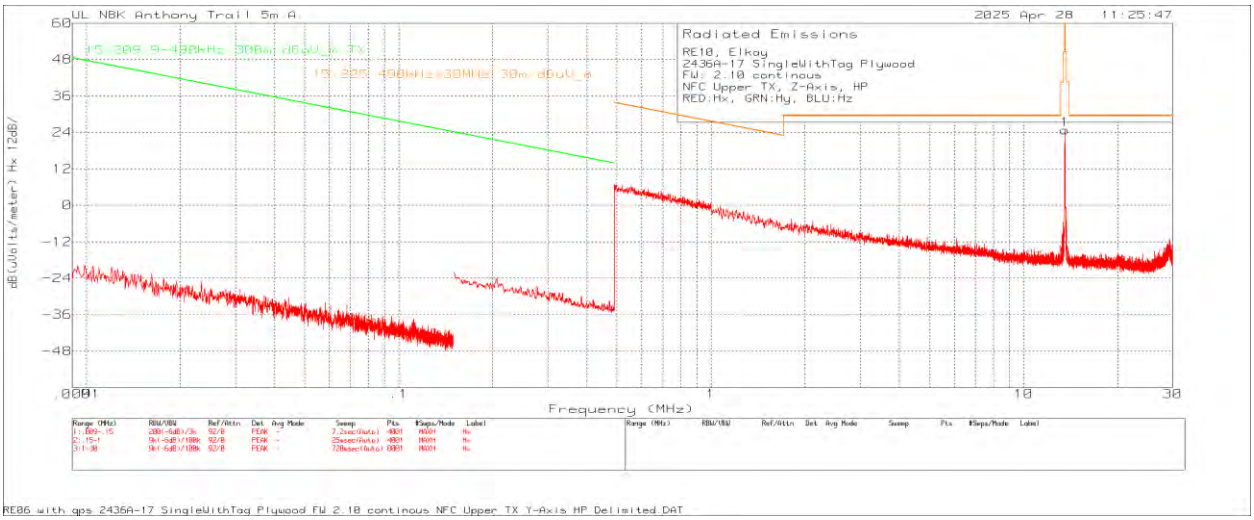


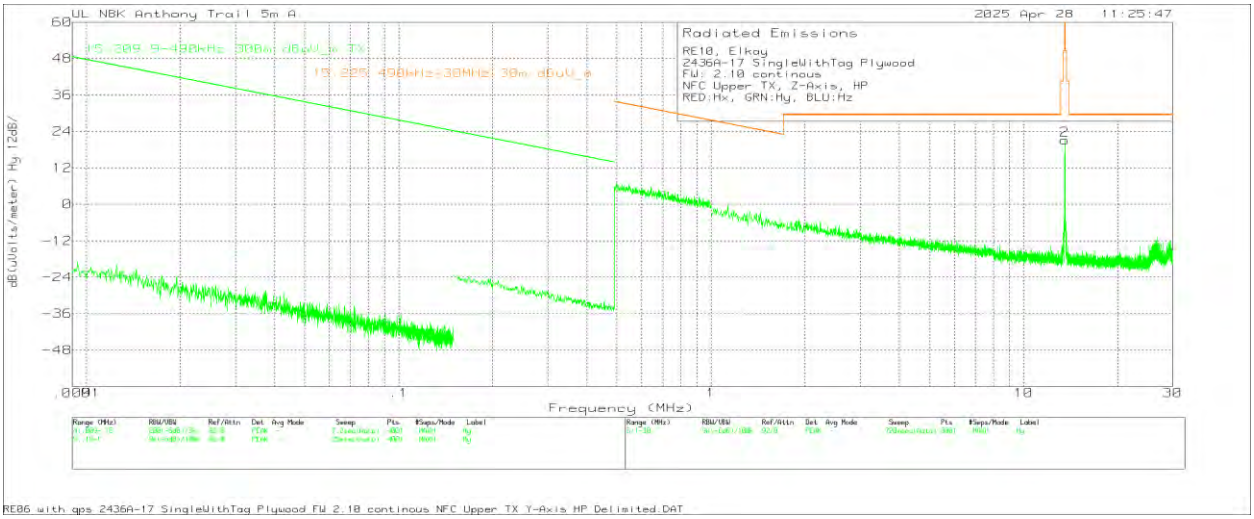


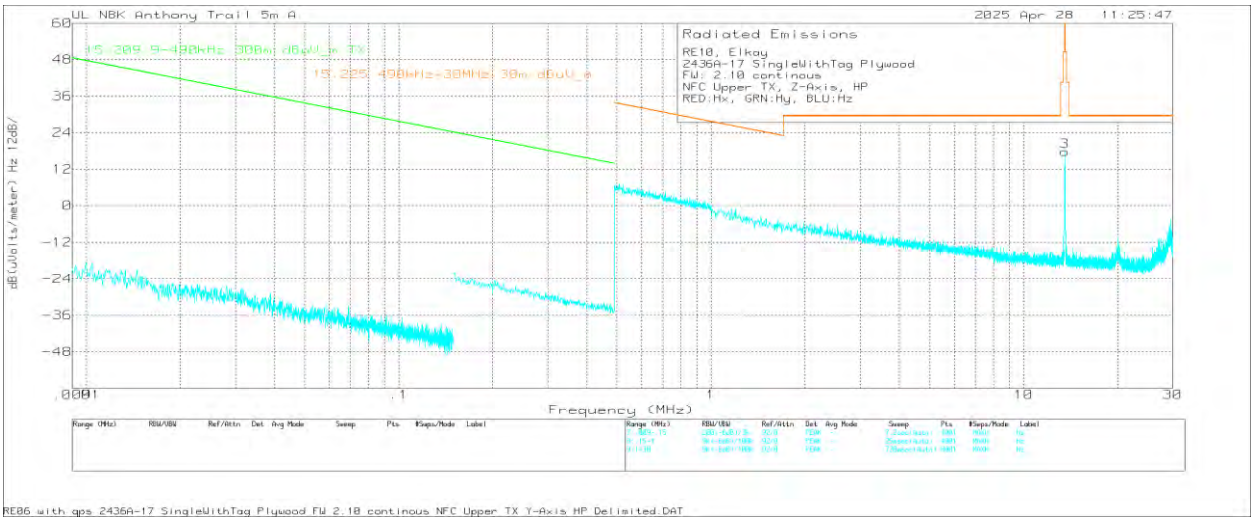


RE09,Elkay												
2436A-17 SingleNoTag Plywood												
FW: 2.10 continous												
NFC Upper TX, Z-Axis, HP												
RED:Hx, GRN:Hy, BLU:Hz												
Trace Markers												
Marker No.	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	Antenna Factor dB/m	Path Factor dB	300mTo3m & 30mTo3m 9kHz-30MHz Factor dB	Level dBuV/m	Limit 15.209 9-490kHz 300m dBuV/m	Margin (dB)	Limit 15.225 490kHz-30MHz 30m dBuV/m	Margin (dB)	Azimuth [Degs]
Hx												
1	13.56063	52.82	Pk	11.4	0.4	-40	24.62	-	-	84	-59.38	0-360
Hy												
2	13.56063	49.78	Pk	11.4	0.4	-40	21.58	-	-	84	-62.42	0-360
Hz												
3	13.56063	44.75	Pk	11.4	0.4	-40	16.55	-	-	84	-67.45	0-360
Pk - Peak detector												

Configuration Mode 1, EUT orientation Hz, with tag present

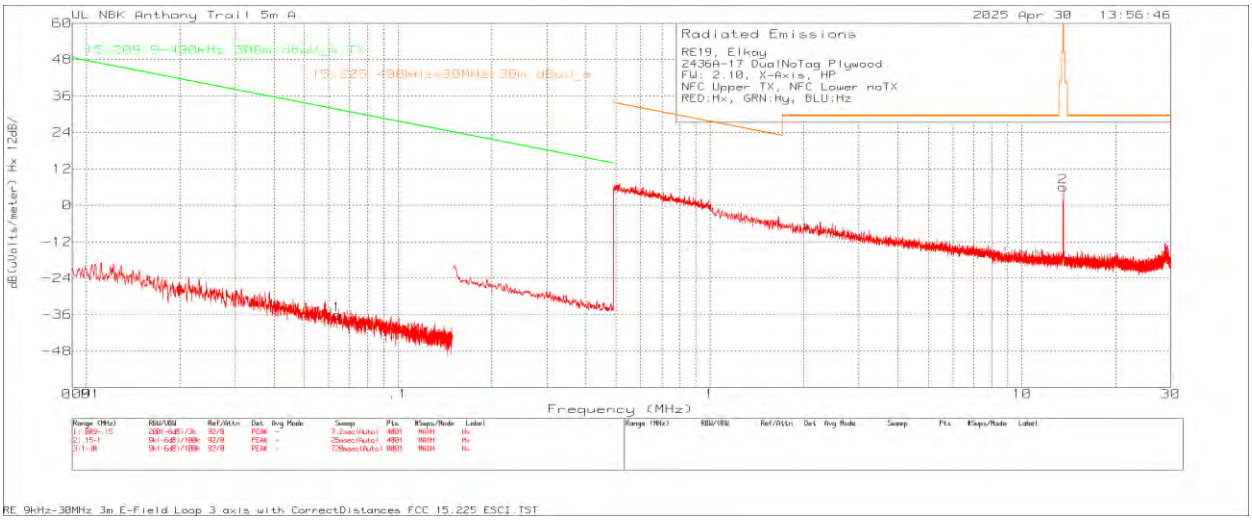


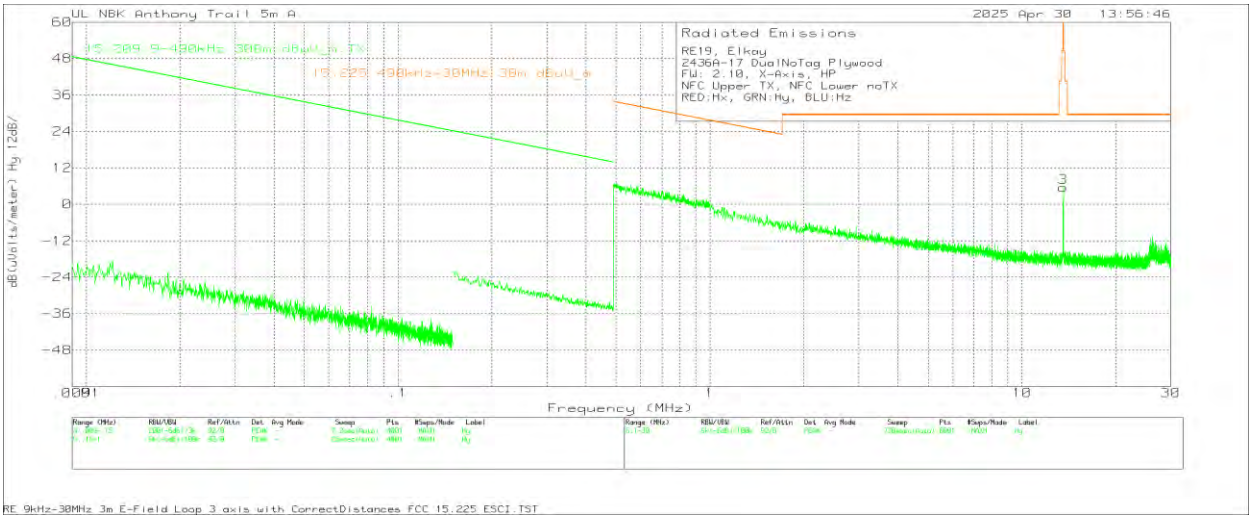


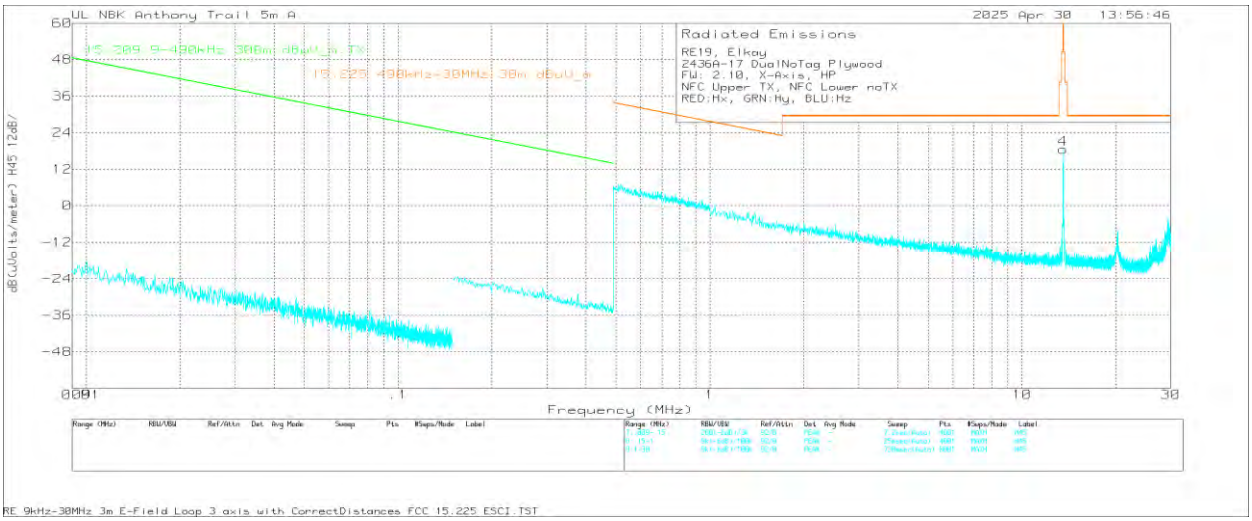


RE10,Elkay												
2436A-17 SingleWithTag Plywood												
FW: 2.10 continous												
NFC Upper TX, Z-Axis, HP												
RED:Hx, GRN:Hy, BLU:Hz												
Trace Markers												
Marker No.	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	Antenna Factor dB/m	Path Factor dB	300mTo3m & 30mTo3m 9kHz-30MHz Factor dB	Level dBuV/m	Limit 15.209 9-490kHz 300m dBuV/m	Margin (dB)	Limit 15.225 490kHz-30MHz 30m dBuV/m	Margin (dB)	Azimuth [Degs]
Hx												
1	13.56063	52.97	Pk	11.4	0.4	-40	24.77	-	-	84	-59.23	0-360
Hy												
2	13.56063	49.36	Pk	11.4	0.4	-40	21.16	-	-	84	-62.84	0-360
Hz												
3	13.56063	45.99	Pk	11.4	0.4	-40	17.79	-	-	84	-66.21	0-360

Configuration Mode 2, EUT orientation Hx, no tag present

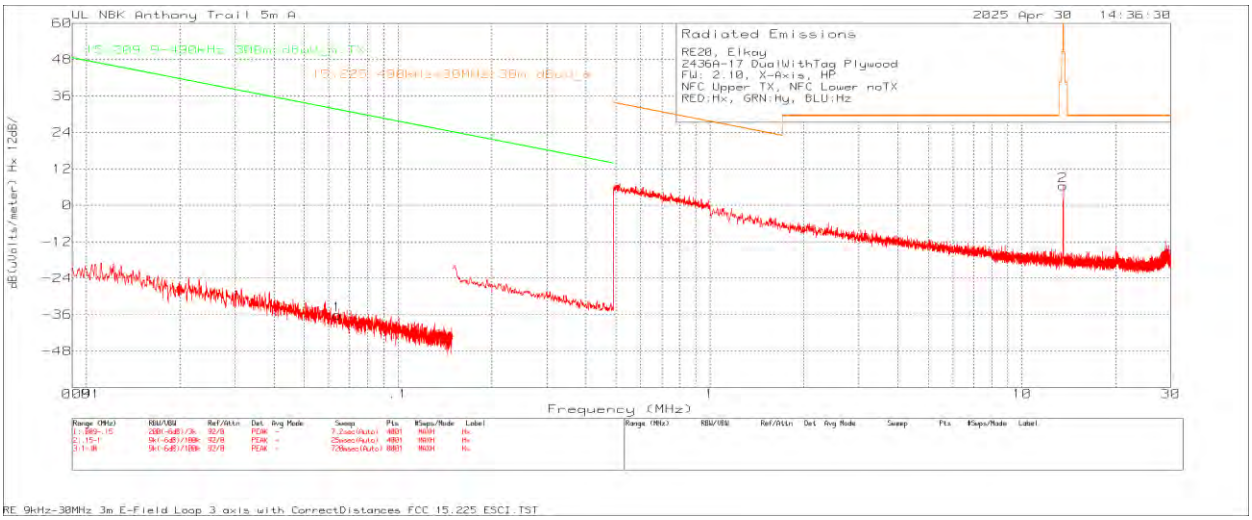


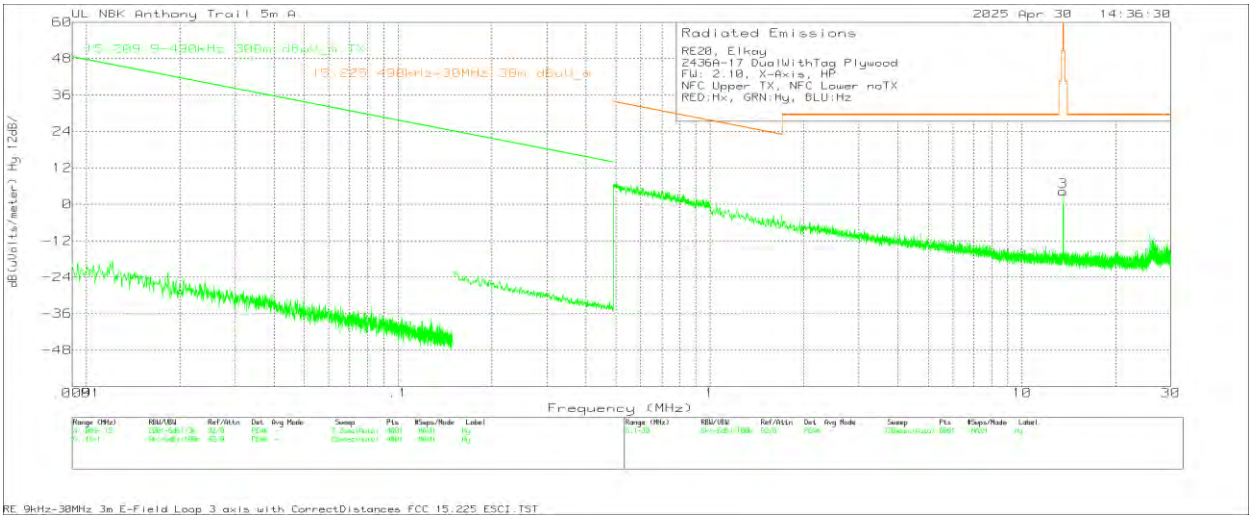


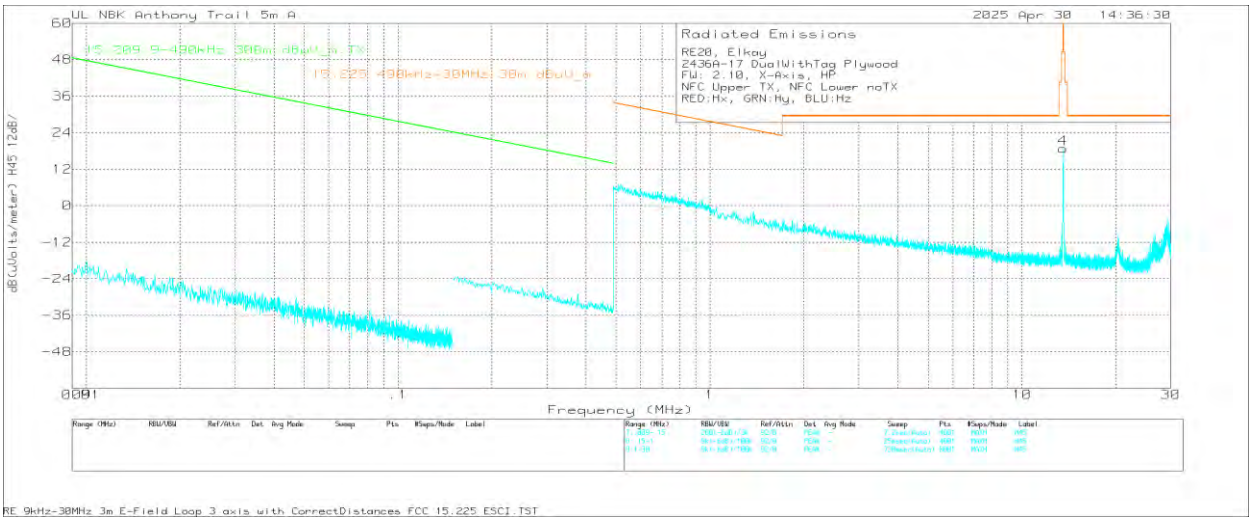


RE19,Elkay												
2436A-17 DualNoTag Plywood												
FW: 2.10, X-Axis, HP												
NFC Upper TX, NFC Lower noTX												
RED:Hx, GRN:Hy, BLU:Hz												
Trace Markers												
Marker No.	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	Antenna Factor dB/m	Path Factor dB	300mTo3m & 30mTo3m 9kHz-30MHz Factor dB	Level dBuV/m	Limit 15.209 9-490kHz 300m dBuV/m	Margin (dB)	Limit 15.225 490kHz-30MHz 30m dBuV/m	Margin (dB)	Azimuth [Degs]
Hx												
1	0.06388	30.22	Pk	13.6	0.1	-80	-36.08	31.49	-67.57	-	-	0-360
2	13.56063	34.23	Pk	11.4	0.4	-40	6.03	-	-	84	-77.97	0-360
Hy												
3	13.56063	33.78	Pk	11.4	0.4	-40	5.58	-	-	84	-78.42	0-360
Hz												
4	13.56063	46.75	Pk	11.4	0.4	-40	18.55	-	-	84	-65.45	0-360
Pk - Peak detector												

Configuration Mode 2, EUT orientation Hx, with tag present





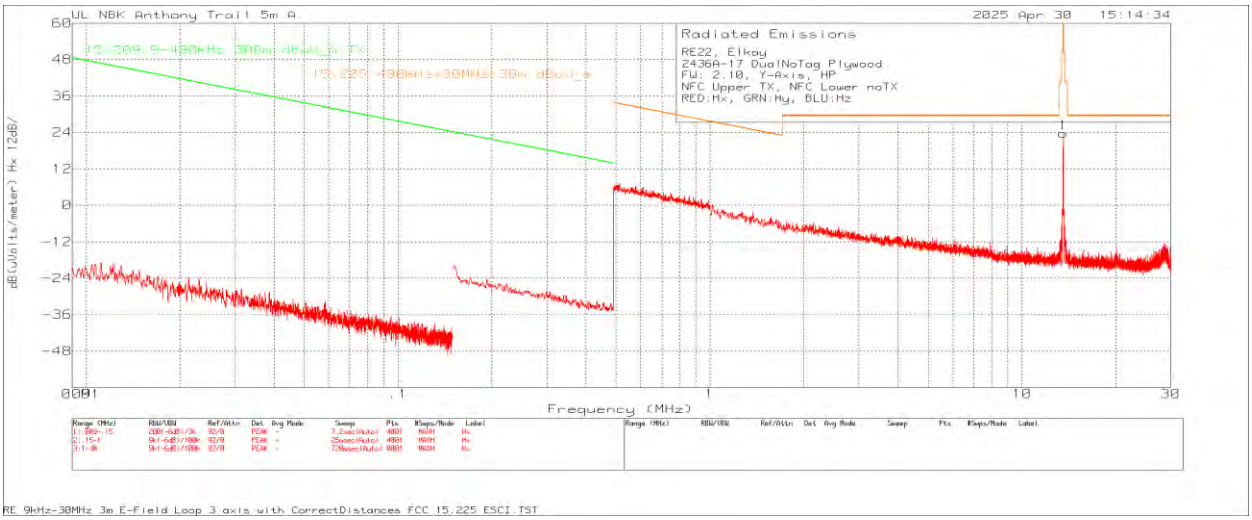


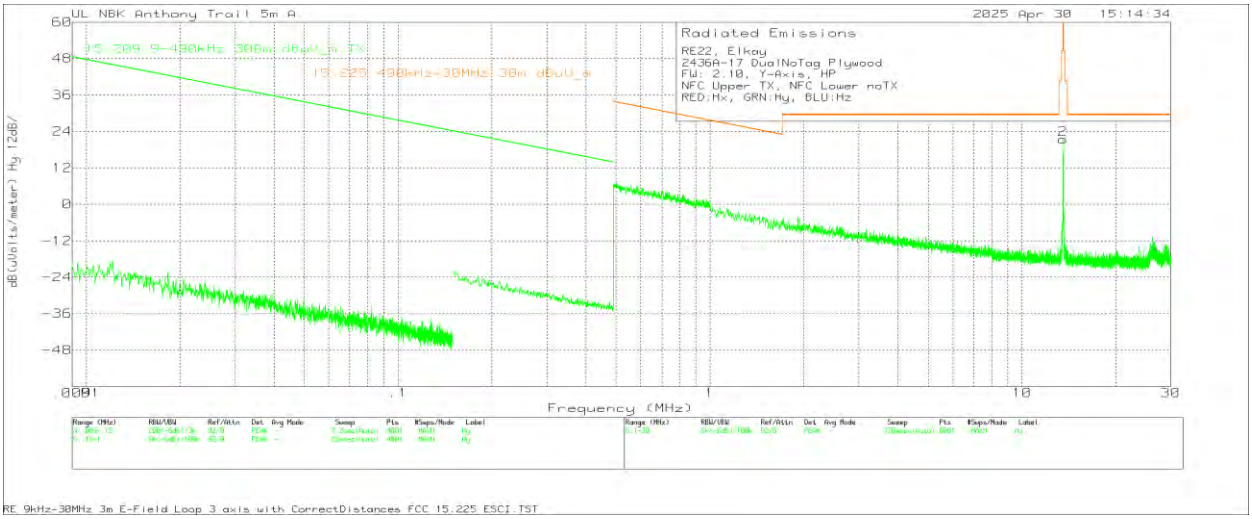
RE20,Elkay
2436A-17 DualWithTag Plywood
FW: 2.10, X-Axis, HP
NFC Upper TX, NFC Lower noTX
RED:Hx, GRN:Hy, BLU:Hz
Trace Markers

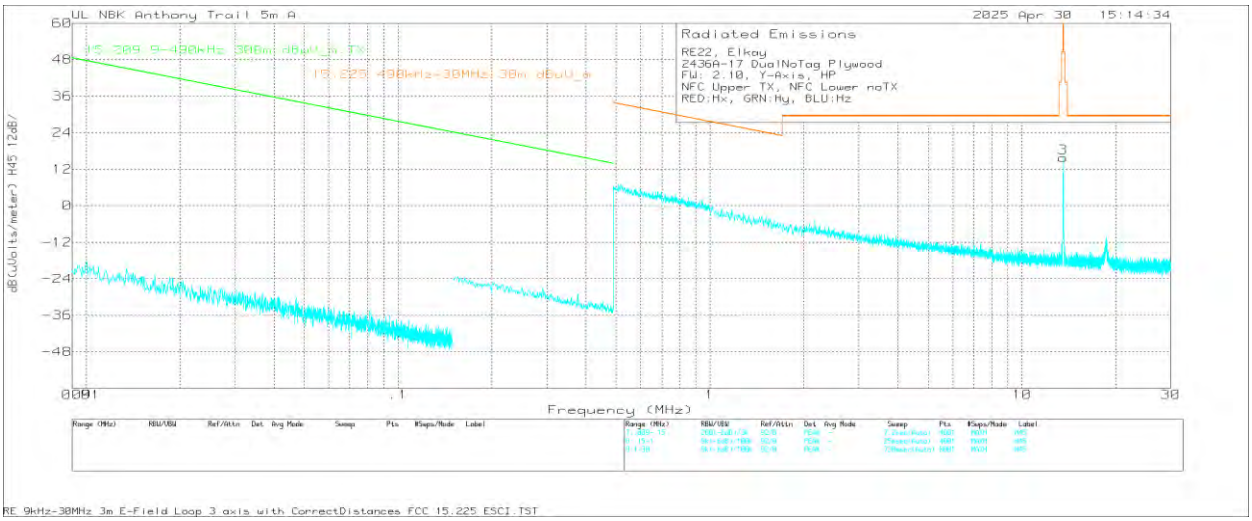
Marker No.	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	Antenna Factor dB/m	Path Factor dB	300mTo3m & 30mTo3m 9kHz-30MHz Factor dB	Level dBuV/m	Limit 15.209 9-490kHz 300m dBuV/m	Margin (dB)	Limit 15.225 490kHz-30MHz 30m dBuV/m	Margin (dB)	Azimuth [Degs]
Hx												
1	0.06388	30.22	Pk	13.6	0.1	-80	-36.08	31.49	-67.57	-	-	0-360
2	13.56063	34.66	Pk	11.4	0.4	-40	6.46	-	-	84	-77.54	0-360
Hy												
3	13.56063	32.46	Pk	11.4	0.4	-40	4.26	-	-	84	-79.74	0-360
Hz												
4	13.56063	46.97	Pk	11.4	0.4	-40	18.77	-	-	84	-65.23	0-360

Pk - Peak detector

Configuration Mode 2, EUT orientation Hy, no tag present

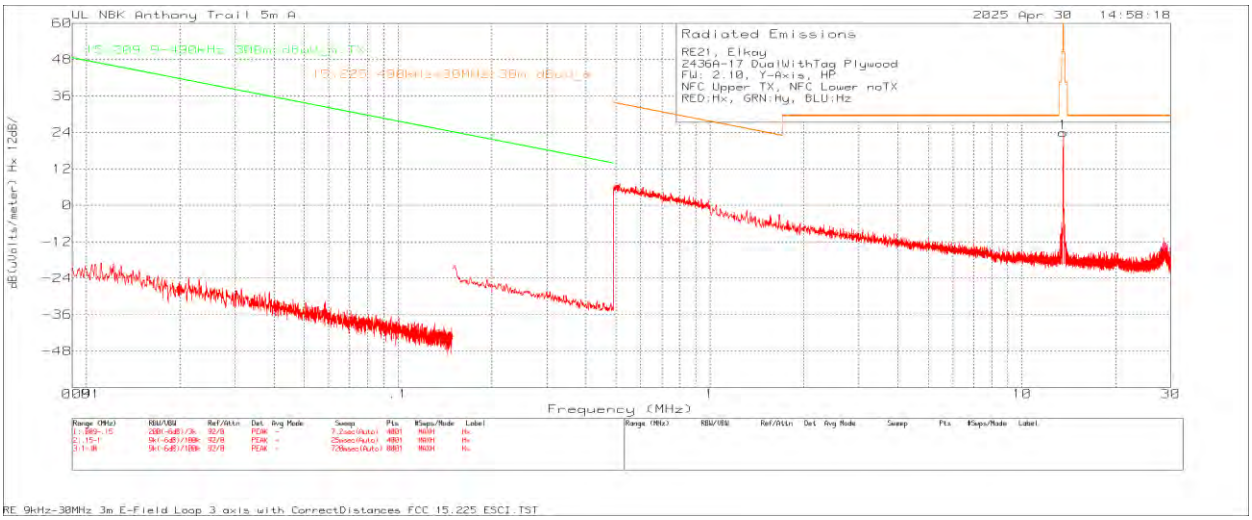


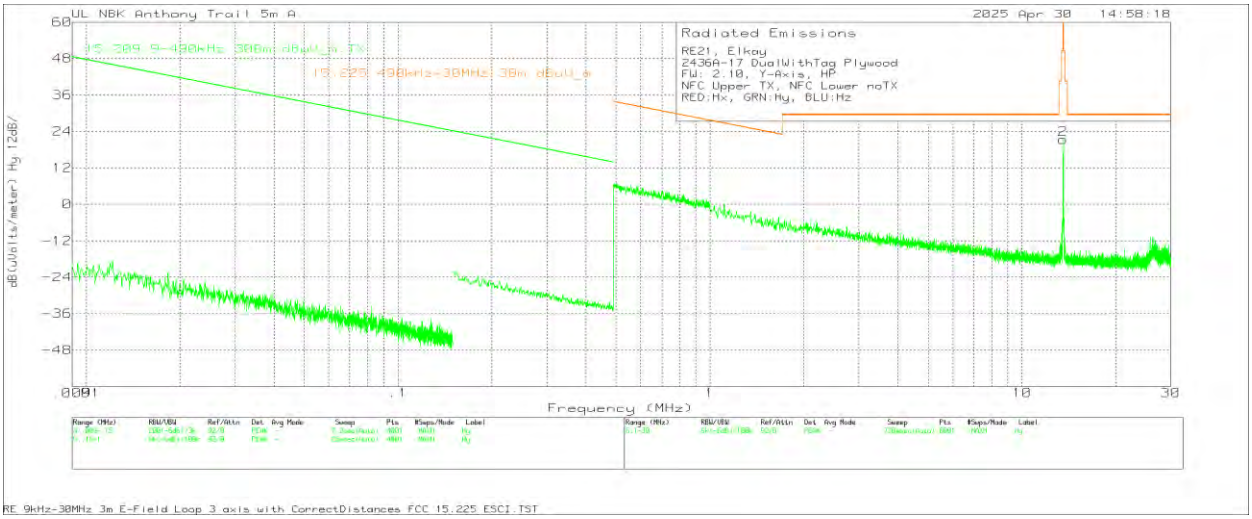


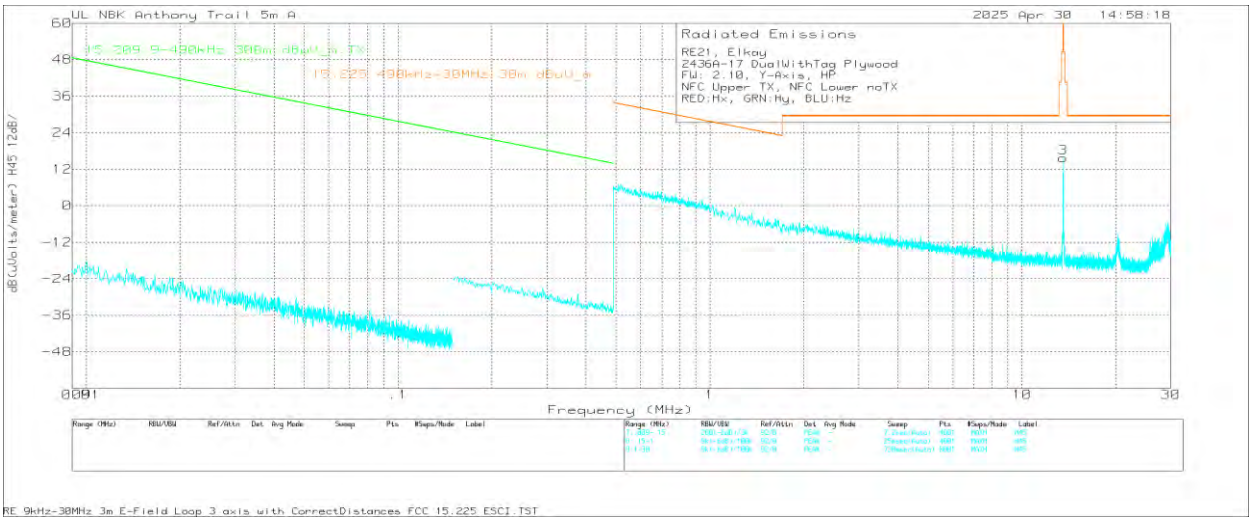


RE22,Elkay												
2436A-17 DualNoTag Plywood												
FW: 2.10, Y-Axis, HP												
NFC Upper TX, NFC Lower noTX												
RED:Hx, GRN:Hy, BLU:Hz												
Trace Markers												
Marker No.	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	Antenna Factor dB/m	Path Factor dB	300mTo3m & 30mTo3m 9kHz-30MHz Factor dB	Level dBuV/m	Limit 15.209 9-490kHz 300m dBuV/m	Margin (dB)	Limit 15.225 490kHz-30MHz 30m dBuV/m	Margin (dB)	Azimuth [Degs]
Hx												
1	13.56063	51.9	Pk	11.4	0.4	-40	23.7	-	-	84	-60.3	0-360
Hy												
2	13.56063	49.6	Pk	11.4	0.4	-40	21.4	-	-	84	-62.6	0-360
Hz												
3	13.56063	44	Pk	11.4	0.4	-40	15.8	-	-	84	-68.2	0-360
Pk - Peak detector												

Configuration Mode 2, EUT orientation Hy, with tag present

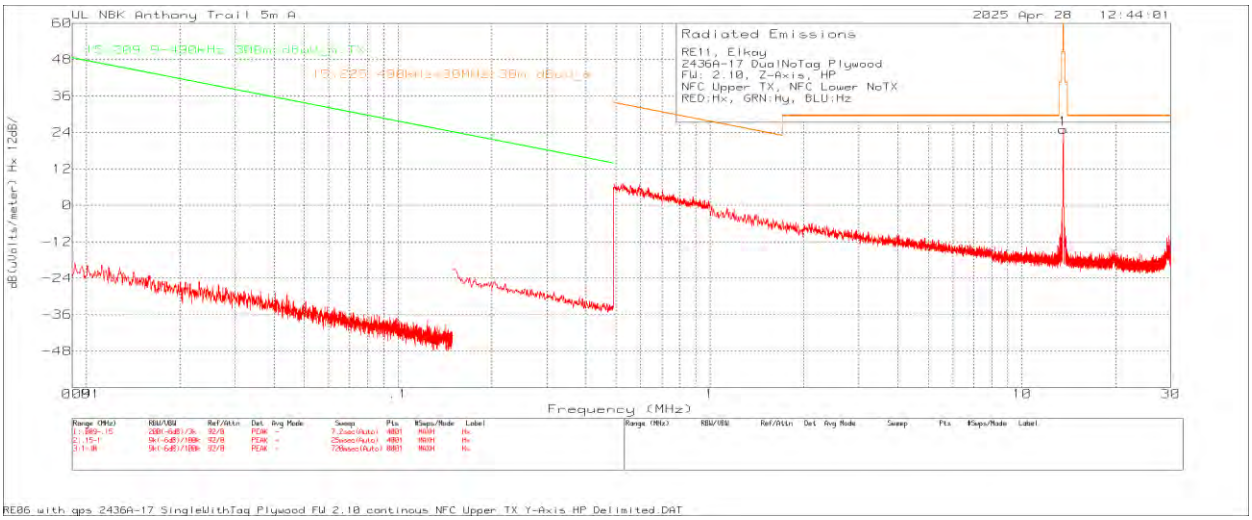


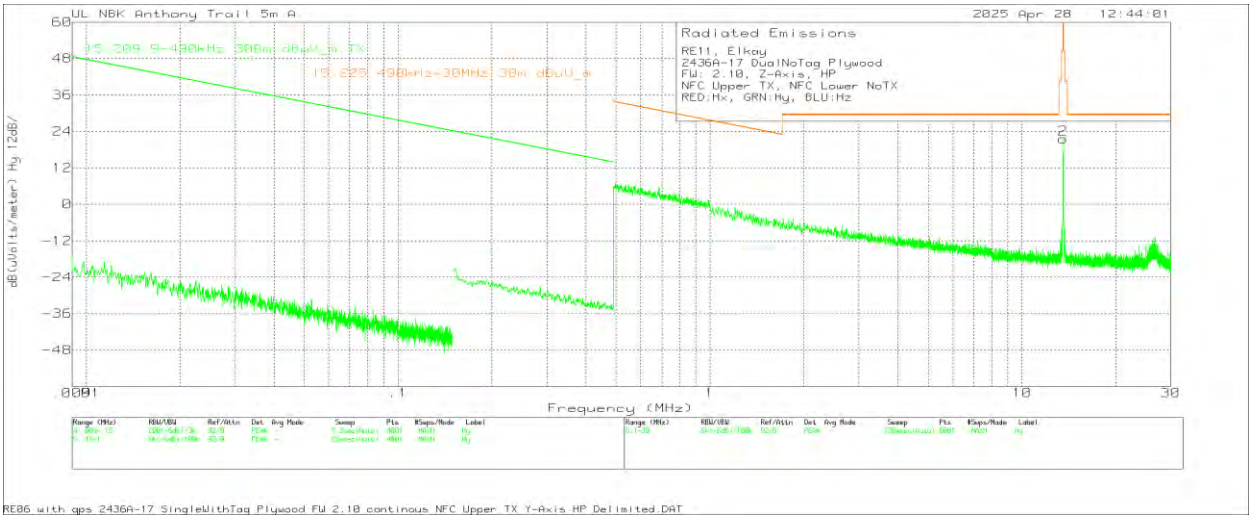


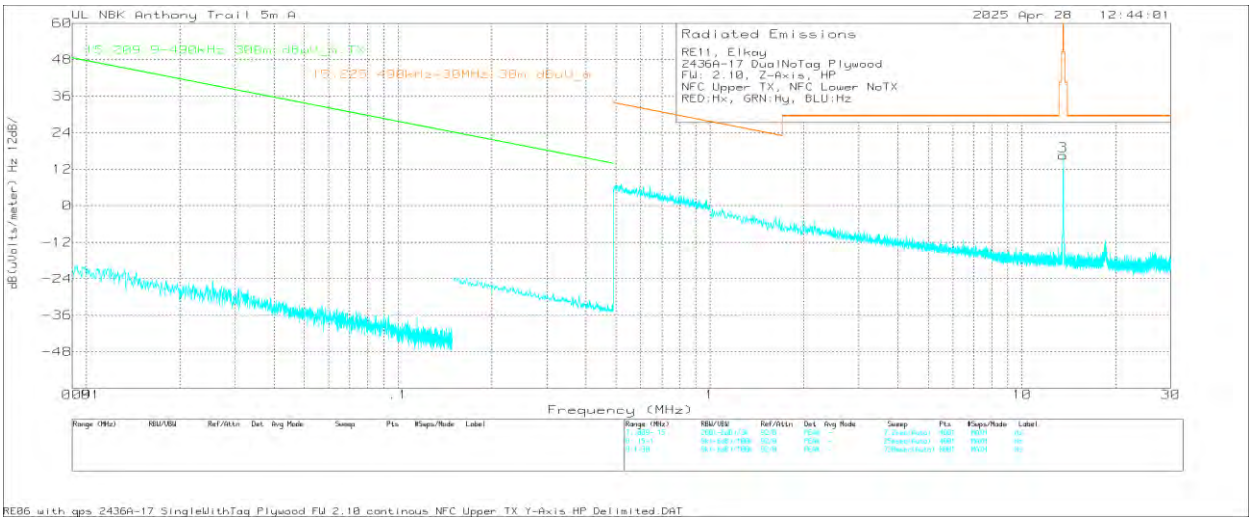


RE21,Elkay												
2436A-17 DualWithTag Plywood												
FW: 2.10, Y-Axis, HP												
NFC Upper TX, NFC Lower noTX												
RED:Hx, GRN:Hy, BLU:Hz												
Trace Markers												
Marker No.	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	Antenna Factor dB/m	Path Factor dB	300mTo3m & 30mTo3m 9kHz-30MHz Factor dB	Level dBuV/m	Limit 15.209 9-490kHz 300m dBuV/m	Margin (dB)	Limit 15.225 490kHz-30MHz 30m dBuV/m	Margin (dB)	Azimuth [Degs]
Hx												
1	13.56063	52.09	Pk	11.4	0.4	-40	23.89	-	-	84	-60.11	0-360
Hy												
2	13.56063	49.57	Pk	11.4	0.4	-40	21.37	-	-	84	-62.63	0-360
Hz												
3	13.56063	43.89	Pk	11.4	0.4	-40	15.69	-	-	84	-68.31	0-360
Pk - Peak detector												

Configuration Mode 2, EUT orientation Hz, no tag present

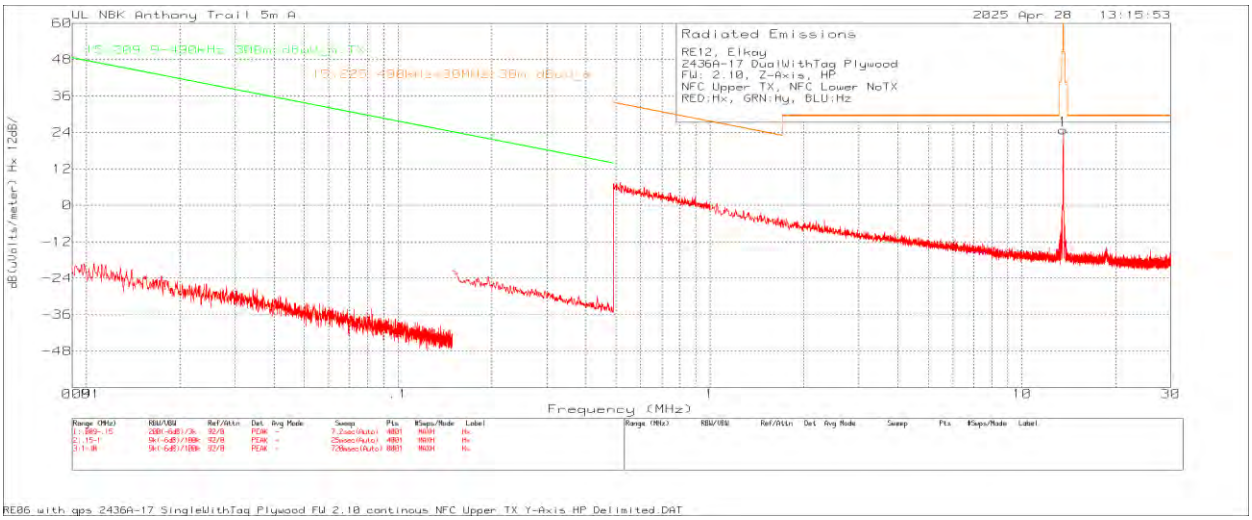


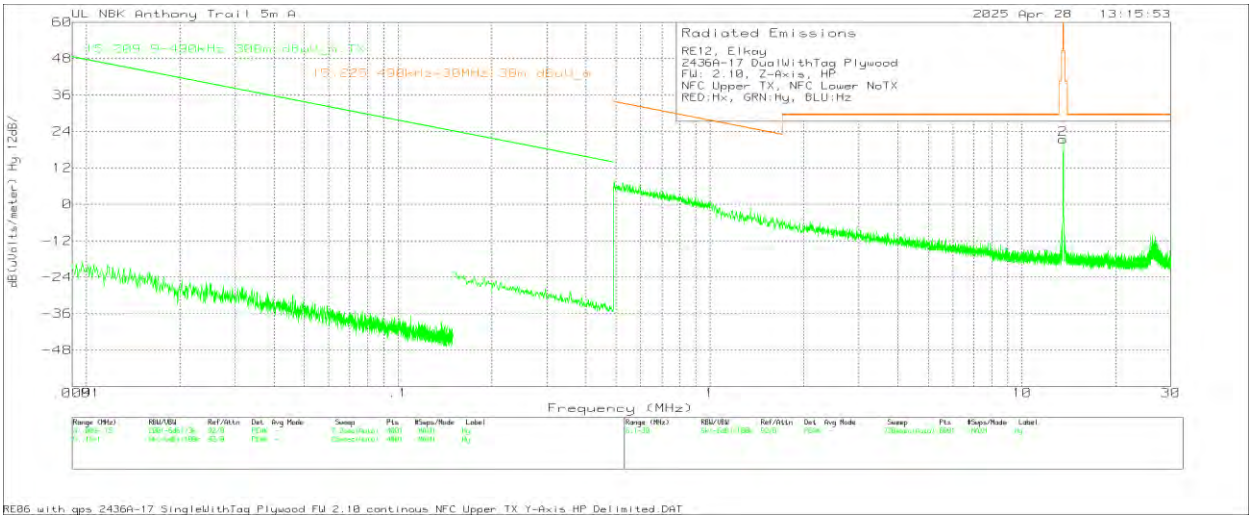


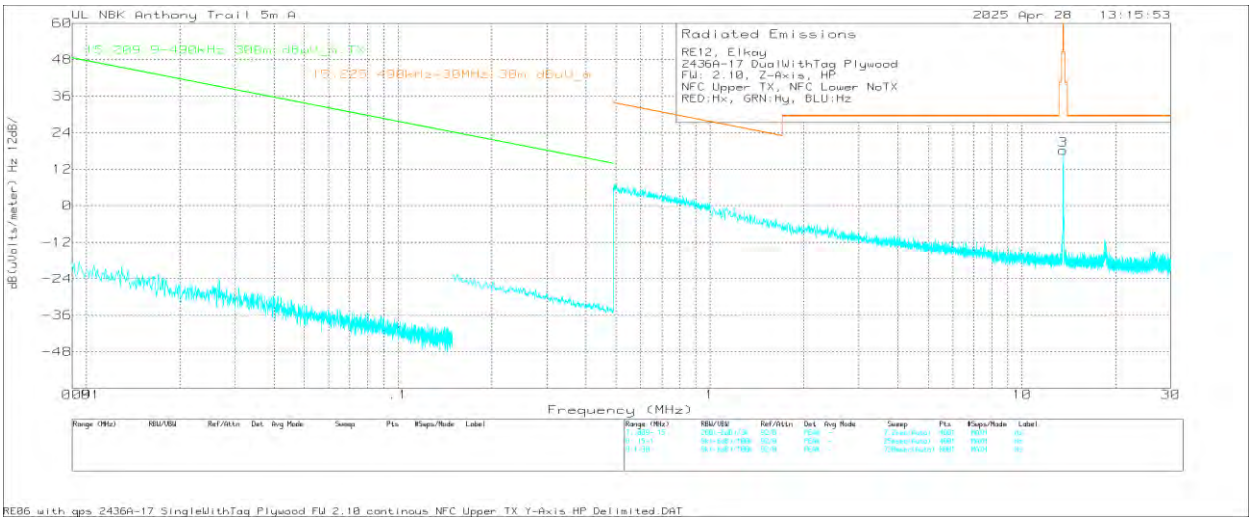


RE11,Elkay												
2436A-17 DualNoTag Plywood												
FW: 2.10, Z-Axis, HP												
NFC Upper TX, NFC Lower NoTX												
RED:Hx, GRN:Hy, BLU:Hz												
Trace Markers												
Marker No.	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	Antenna Factor dB/m	Path Factor dB	300mTo3m & 30mTo3m 9kHz-30MHz Factor dB	Level dBuV/m	Limit 15.209 9-490kHz 300m dBuV/m	Margin (dB)	Limit 15.225 490kHz-30MHz 30m dBuV/m	Margin (dB)	Azimuth [Degs]
Hx												
1	13.56063	53.22	Pk	11.4	0.4	-40	25.02	-	-	84	-58.98	0-360
Hy												
2	13.56063	49.74	Pk	11.4	0.4	-40	21.54	-	-	84	-62.46	0-360
Hz												
3	13.56063	44.7	Pk	11.4	0.4	-40	16.5	-	-	84	-67.5	0-360
Pk - Peak detector												

Configuration Mode 2, EUT orientation Hz, with tag present

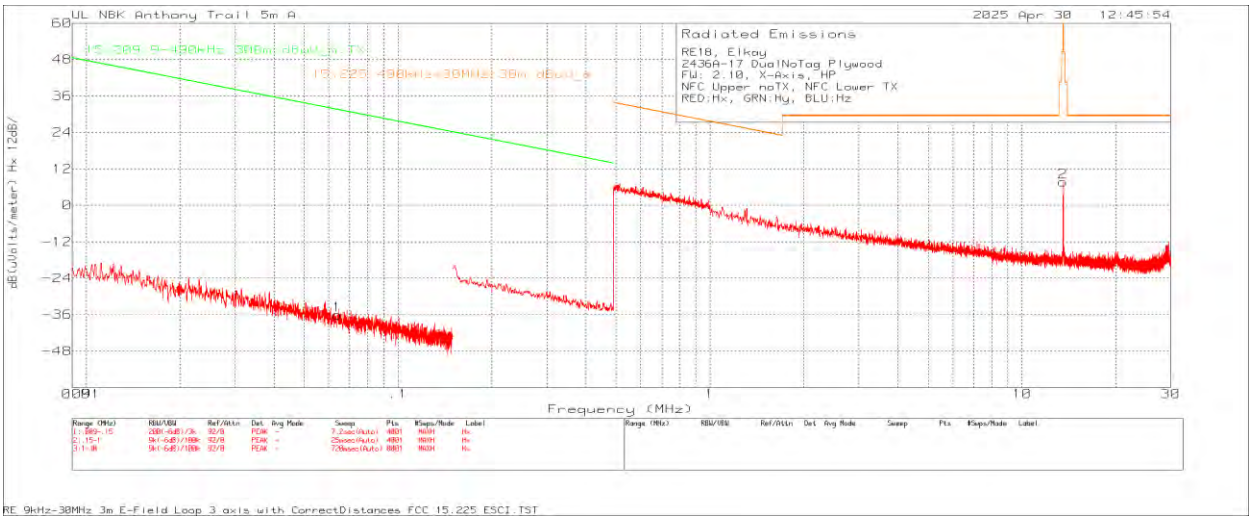


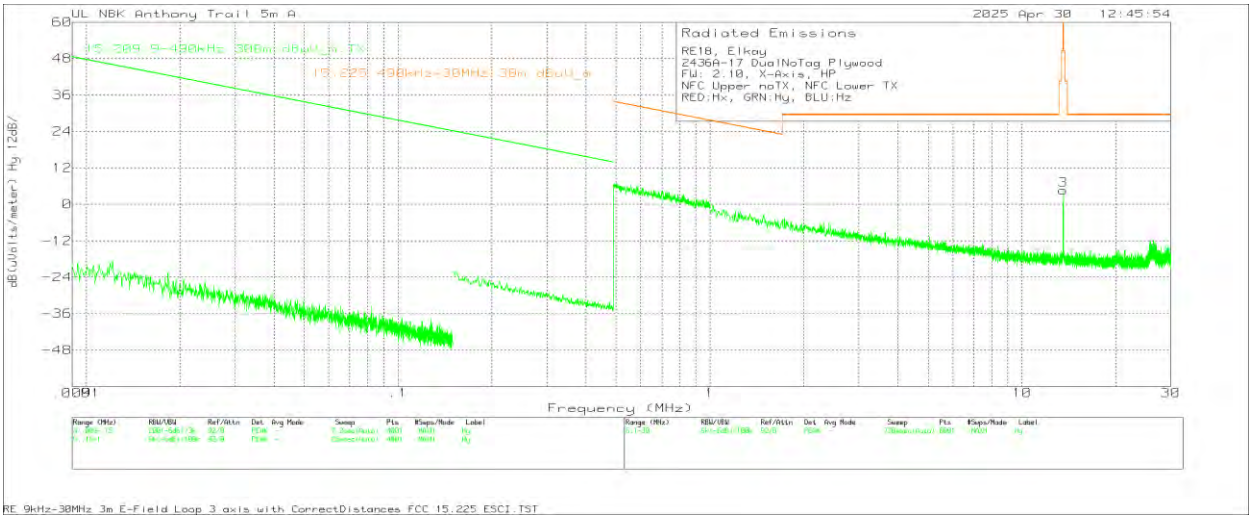


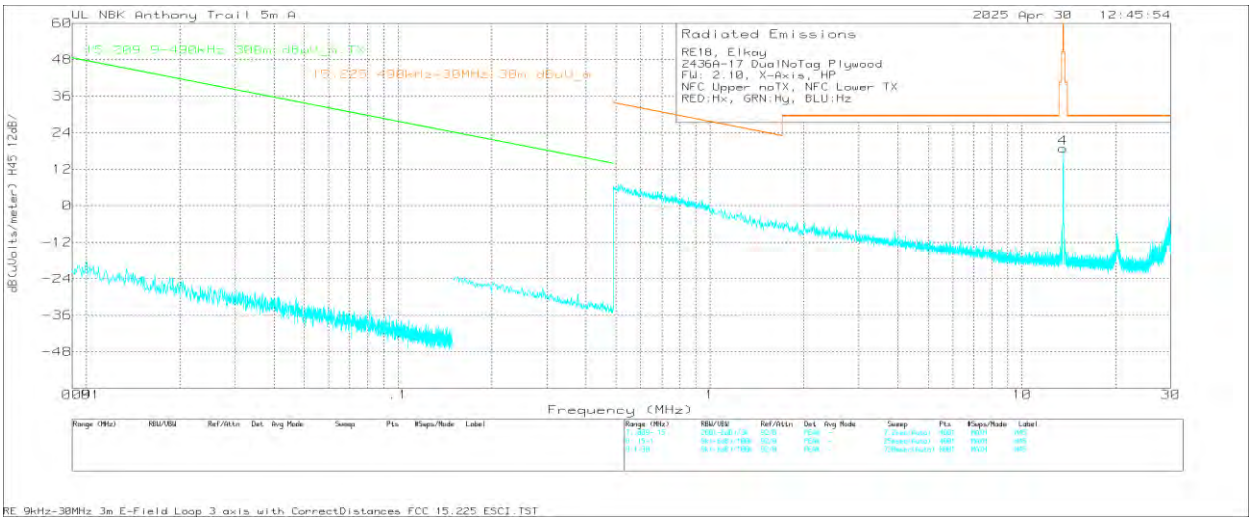


RE12,Elkay												
2436A-17 DualWithTag Plywood												
FW: 2.10, Z-Axis, HP												
NFC Upper TX, NFC Lower NoTX												
RED:Hx, GRN:Hy, BLU:Hz												
Trace Markers												
Marker No.	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	Antenna Factor dB/m	Path Factor dB	300mTo3m & 30mTo3m 9kHz-30MHz Factor dB	Level dBuV/m	Limit 15.209 9-490kHz 300m dBuV/m	Margin (dB)	Limit 15.225 490kHz-30MHz 30m dBuV/m	Margin (dB)	Azimuth [Degs]
Hx												
1	13.56063	53.02	Pk	11.4	0.4	-40	24.82	-	-	84	-59.18	0-360
Hy												
2	13.56063	49.6	Pk	11.4	0.4	-40	21.4	-	-	84	-62.6	0-360
Hz												
3	13.56063	46.43	Pk	11.4	0.4	-40	18.23	-	-	84	-65.77	0-360
Pk - Peak detector												

Configuration Mode 3, EUT orientation Hx, no tag present

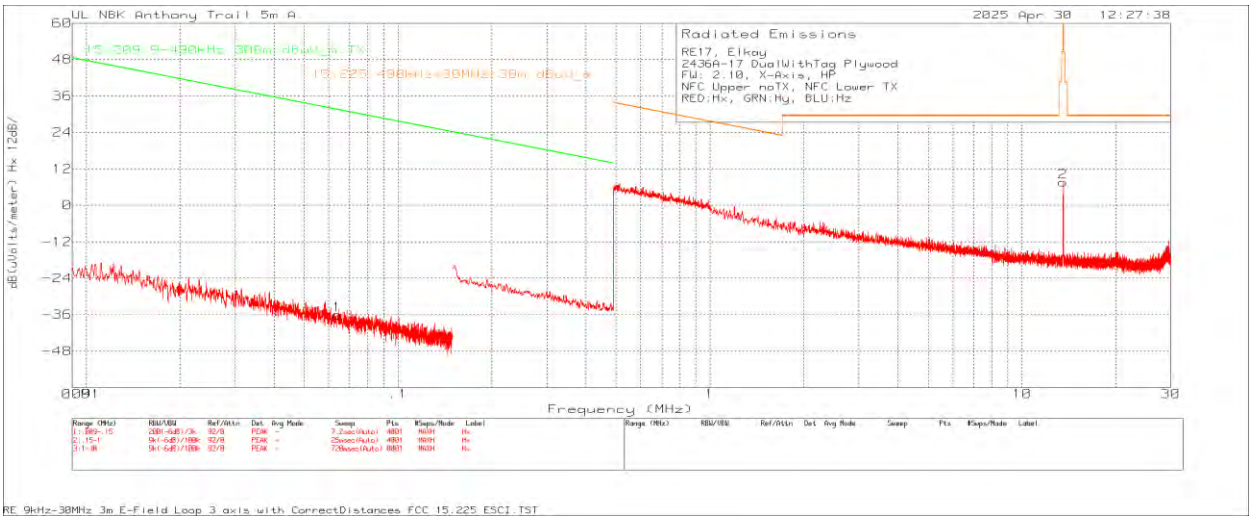


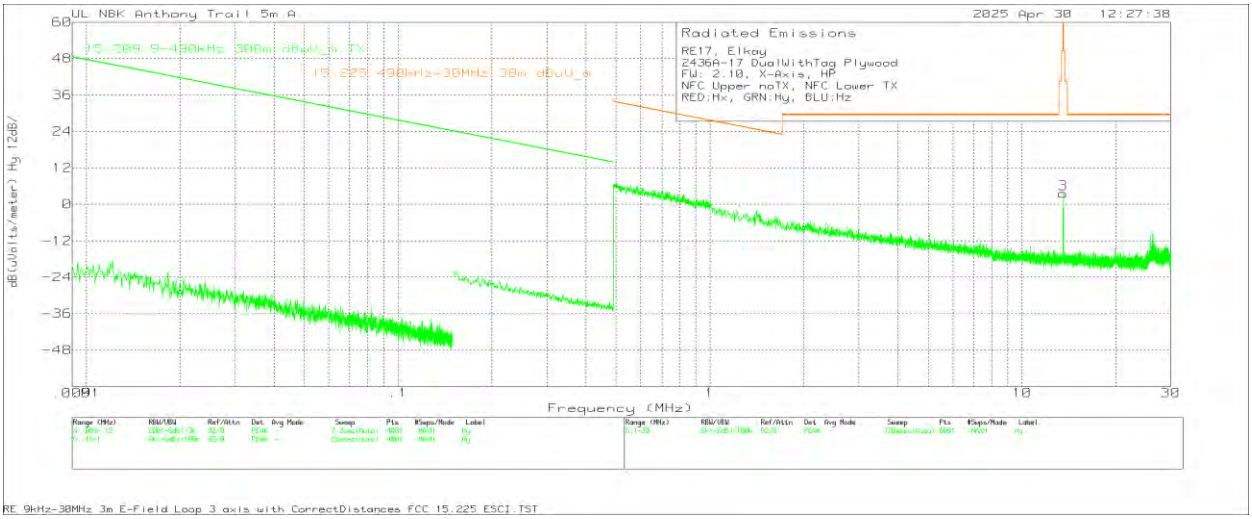


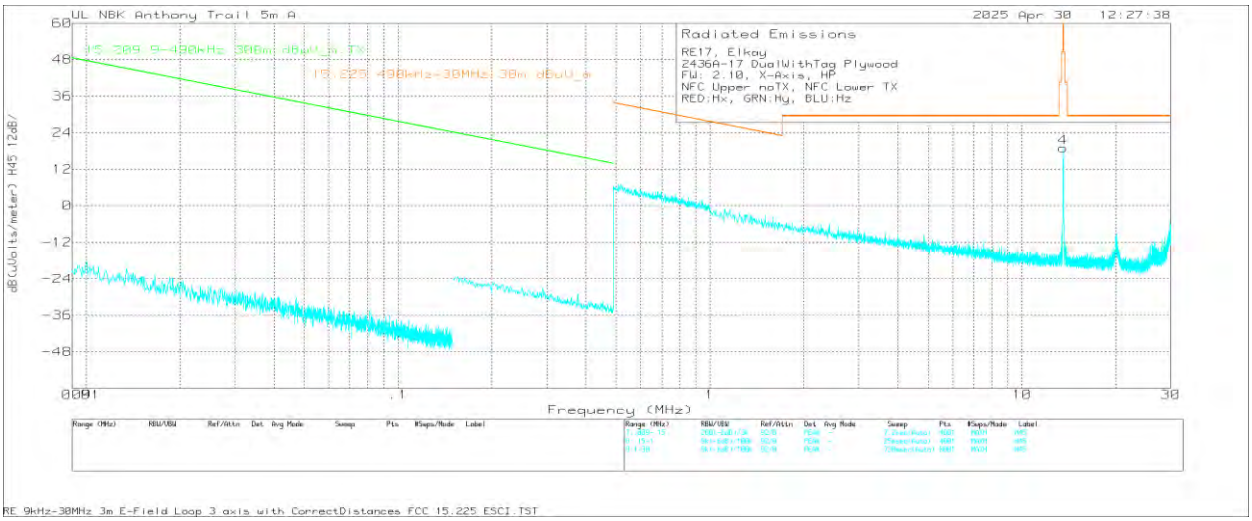


RE18,Elkay												
2436A-17 DualNoTag Plywood												
FW: 2.10, X-Axis, HP												
NFC Upper noTX, NFC Lower TX												
RED:Hx, GRN:Hy, BLU:Hz												
Trace Markers												
Marker No.	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	Antenna Factor dB/m	Path Factor dB	300mTo3m & 30mTo3m 9kHz-30MHz Factor dB	Level dBuV/m	Limit 15.209 9-490kHz 300m dBuV/m	Margin (dB)	Limit 15.225 490kHz-30MHz 30m dBuV/m	Margin (dB)	Azimuth [Degs]
Hx												
1	0.06388	30.22	Pk	13.6	0.1	-80	-36.08	31.49	-67.57	-	-	0-360
2	13.56063	35.9	Pk	11.4	0.4	-40	7.7	-	-	84	-76.3	0-360
Hy												
3	13.56063	32.85	Pk	11.4	0.4	-40	4.65	-	-	84	-79.35	0-360
Hz												
4	13.56063	47.04	Pk	11.4	0.4	-40	18.84	-	-	84	-65.16	0-360
Pk - Peak detector												

Configuration Mode 3, EUT orientation Hx, with tag present

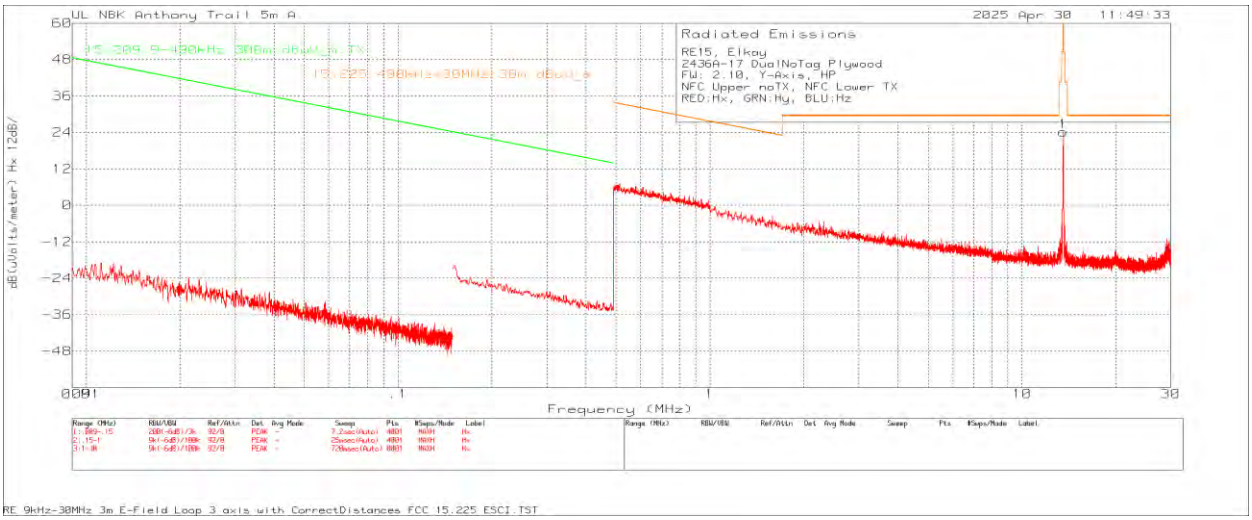


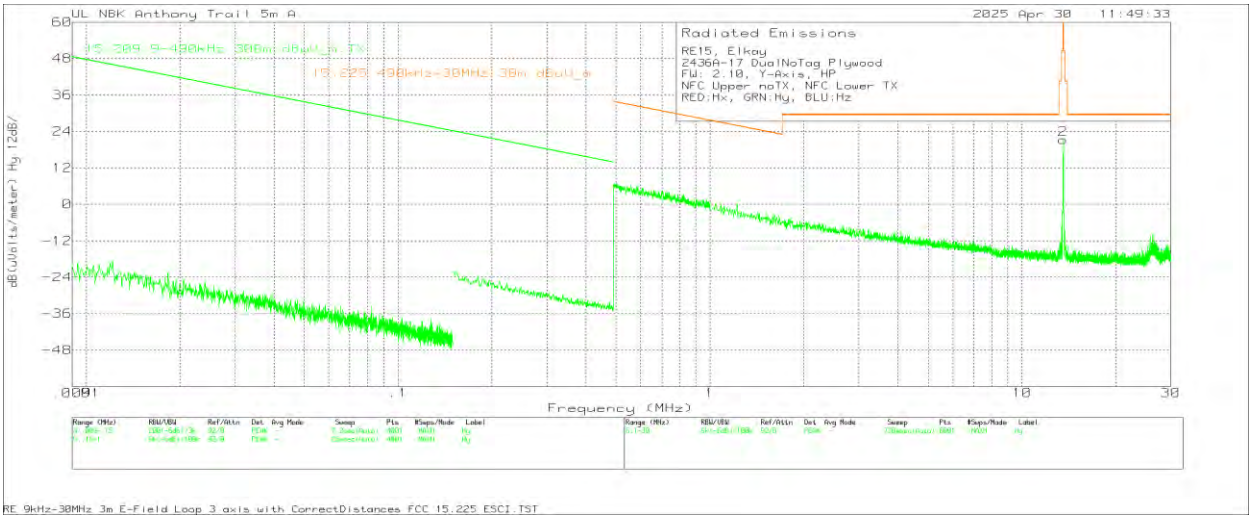


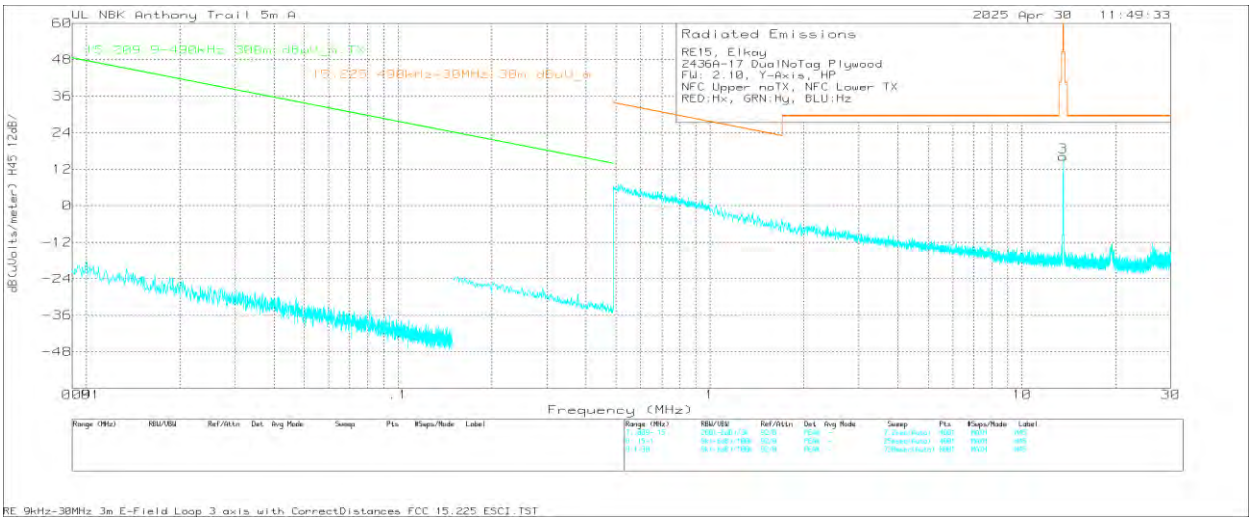


RE17,Elkay												
2436A-17 DualWithTag Plywood												
FW: 2.10, X-Axis, HP												
NFC Upper noTX, NFC Lower TX												
RED:Hx, GRN:Hy, BLU:Hz												
Trace Markers												
Marker No.	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	Antenna Factor dB/m	Path Factor dB	300mTo3m & 30mTo3m 9kHz-30MHz Factor dB	Level dBuV/m	Limit 15.209 9-490kHz 300m dBuV/m	Margin (dB)	Limit 15.225 490kHz-30MHz 30m dBuV/m	Margin (dB)	Azimuth [Degs]
Hx												
1	0.06388	30.22	Pk	13.6	0.1	-80	-36.08	31.49	-67.57	-	-	0-360
2	13.56063	35.84	Pk	11.4	0.4	-40	7.64	-	-	84	-76.36	0-360
Hy												
3	13.56063	31.75	Pk	11.4	0.4	-40	3.55	-	-	84	-80.45	0-360
Hz												
4	13.56063	47.22	Pk	11.4	0.4	-40	19.02	-	-	84	-64.98	0-360
Pk - Peak detector												

Configuration Mode 3, EUT orientation Hy, no tag present

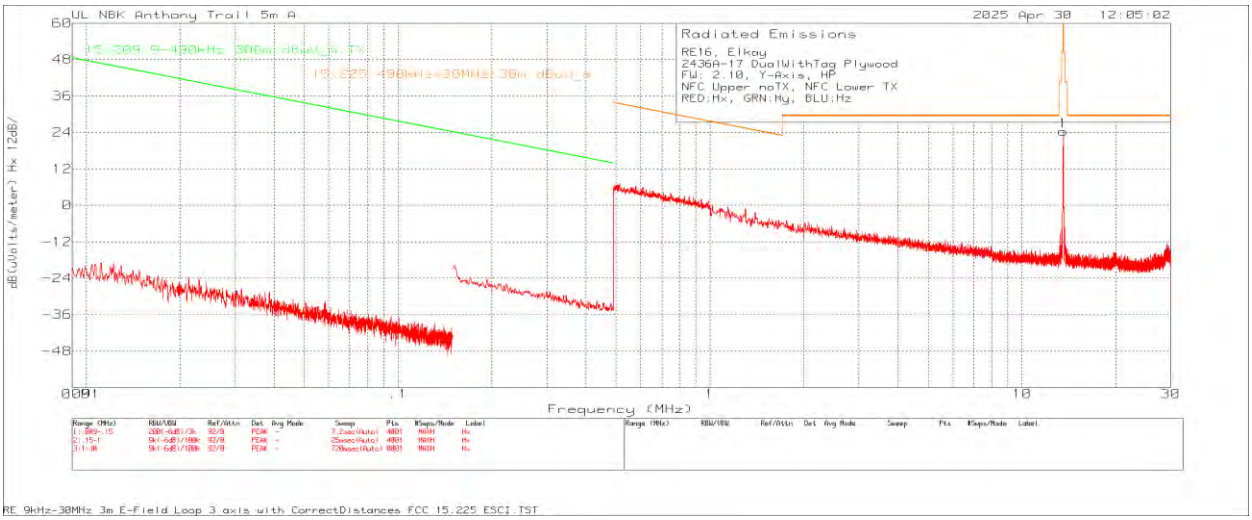


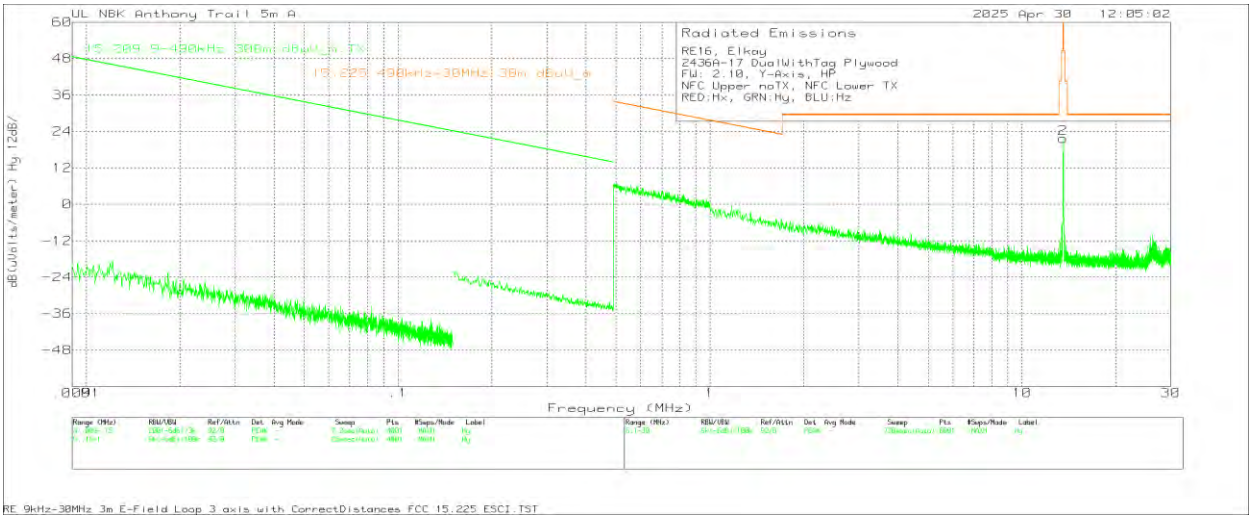


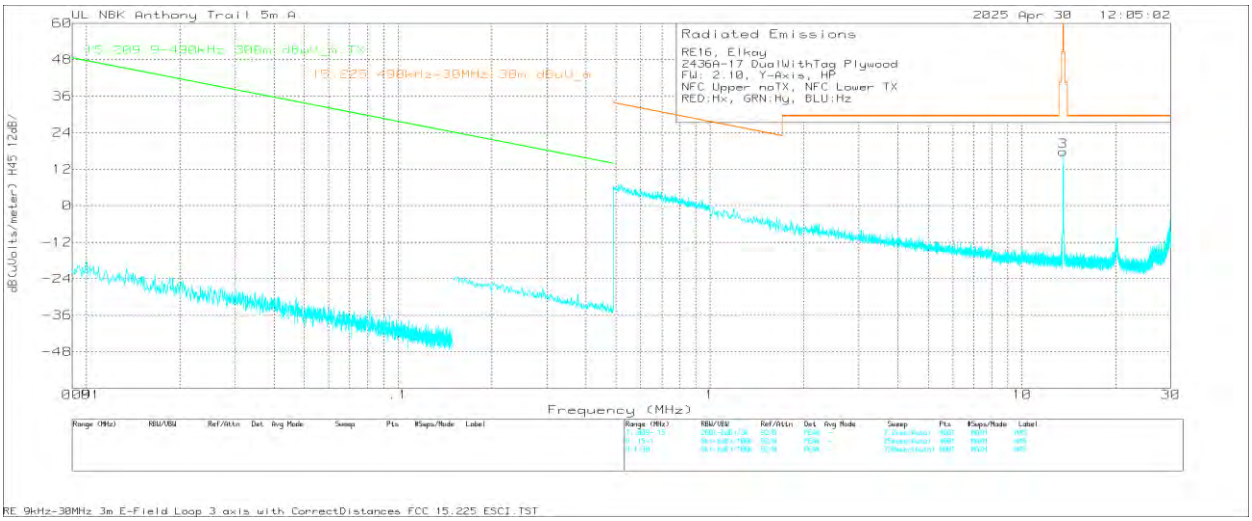


RE15,Elkay												
2436A-17 DualNoTag Plywood												
FW: 2.10, Y-Axis, HP												
NFC Upper noTX, NFC Lower TX												
RED:Hx, GRN:Hy, BLU:Hz												
Trace Markers												
Marker No.	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	Antenna Factor dB/m	Path Factor dB	300mTo3m & 30mTo3m 9kHz-30MHz Factor dB	Level dBuV/m	Limit 15.209 9-490kHz 300m dBuV/m	Margin (dB)	Limit 15.225 490kHz-30MHz 30m dBuV/m	Margin (dB)	Azimuth [Degs]
Hx												
1	13.56063	52.36	Pk	11.4	0.4	-40	24.16	-	-	84	-59.84	0-360
Hy												
2	13.56063	49.5	Pk	11.4	0.4	-40	21.3	-	-	84	-62.7	0-360
Hy												
3	13.56063	44.35	Pk	11.4	0.4	-40	16.15	-	-	84	-67.85	0-360
Pk - Peak detector												

Configuration Mode 3, EUT orientation Hy, with tag present

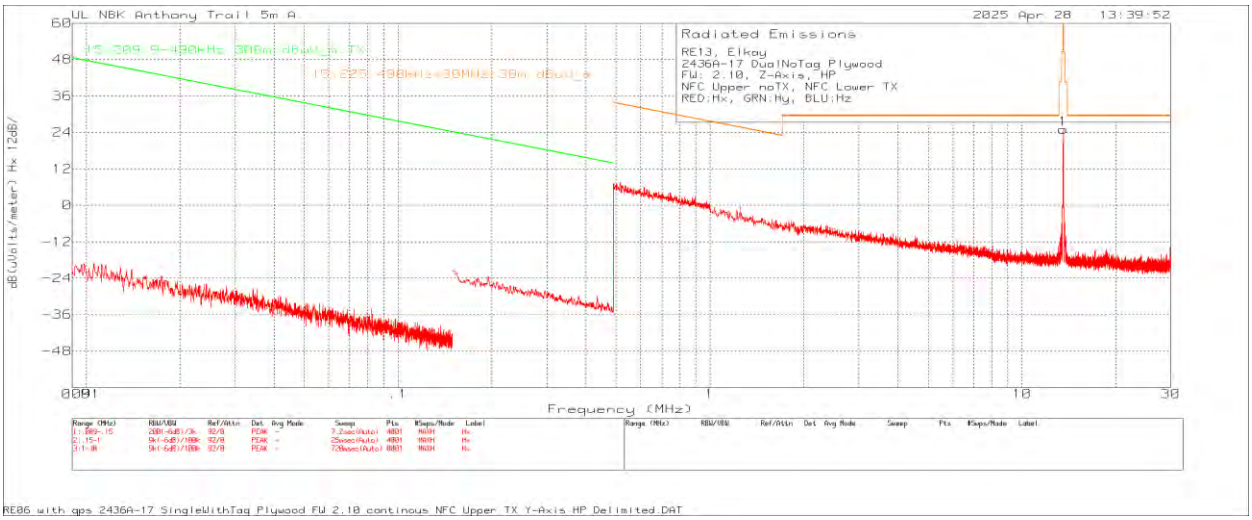


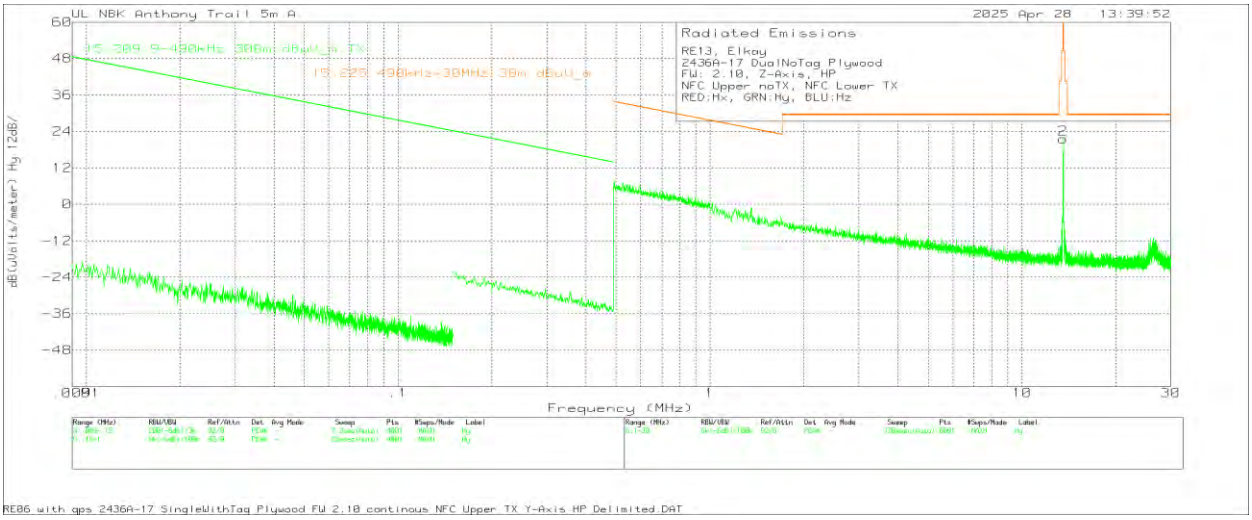


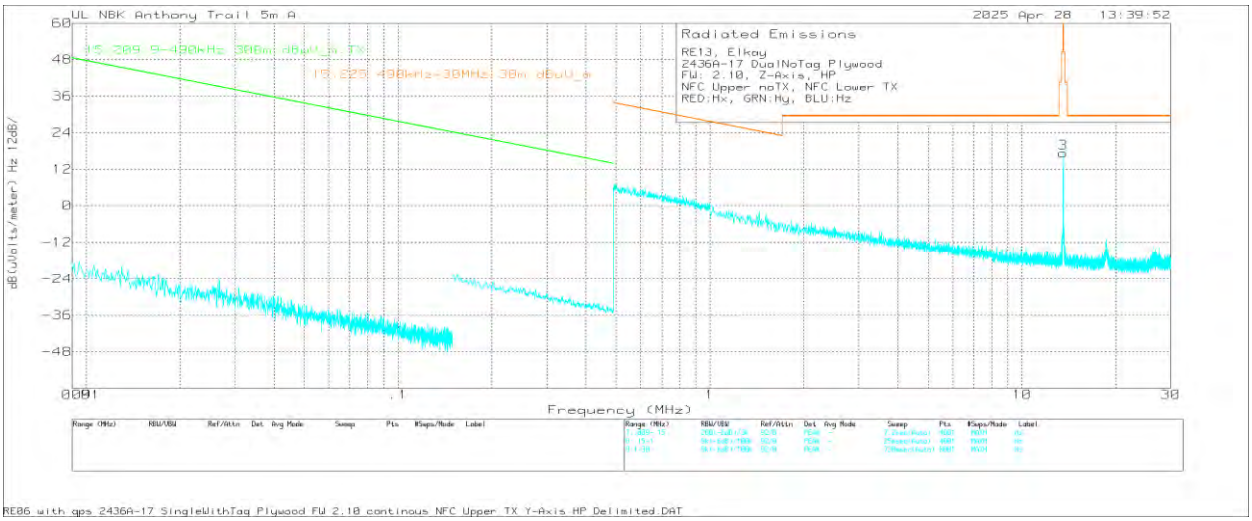


RE16,Elkay												
2436A-17 DualWithTag Plywood												
FW: 2.10, Y-Axis, HP												
NFC Upper noTX, NFC Lower TX												
RED:Hx, GRN:Hy, BLU:Hz												
Trace Markers												
Marker No.	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	Antenna Factor dB/m	Path Factor dB	300mTo3m & 30mTo3m 9kHz-30MHz Factor dB	Level dBuV/m	Limit 15.209 9-490kHz 300m dBuV/m	Margin (dB)	Limit 15.225 490kHz-30MHz 30m dBuV/m	Margin (dB)	Azimuth [Degs]
Hx												
1	13.56063	52.5	Pk	11.4	0.4	-40	24.3	-	-	84	-59.7	0-360
Hy												
2	13.56063	49.94	Pk	11.4	0.4	-40	21.74	-	-	84	-62.26	0-360
Hz												
3	13.56063	45.98	Pk	11.4	0.4	-40	17.78	-	-	84	-66.22	0-360
Pk - Peak detector												

Configuration Mode 3, EUT orientation Hz, no tag present

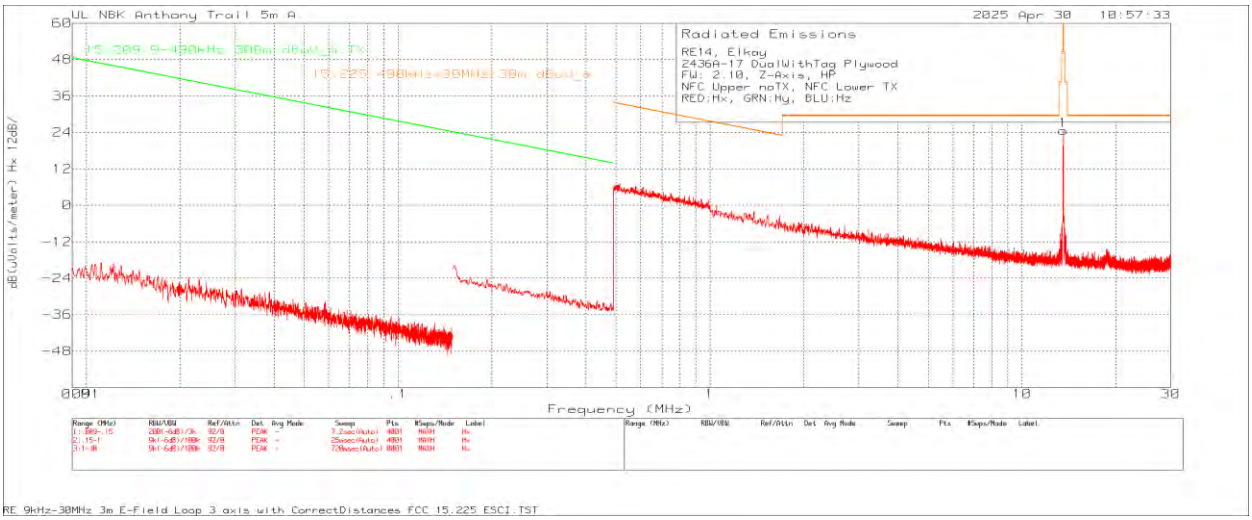


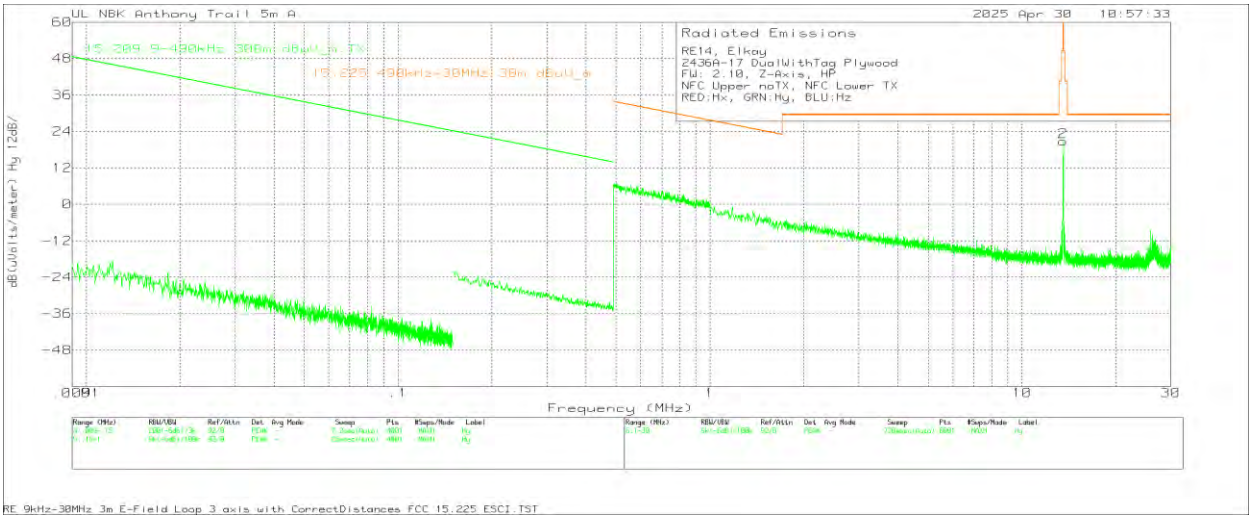


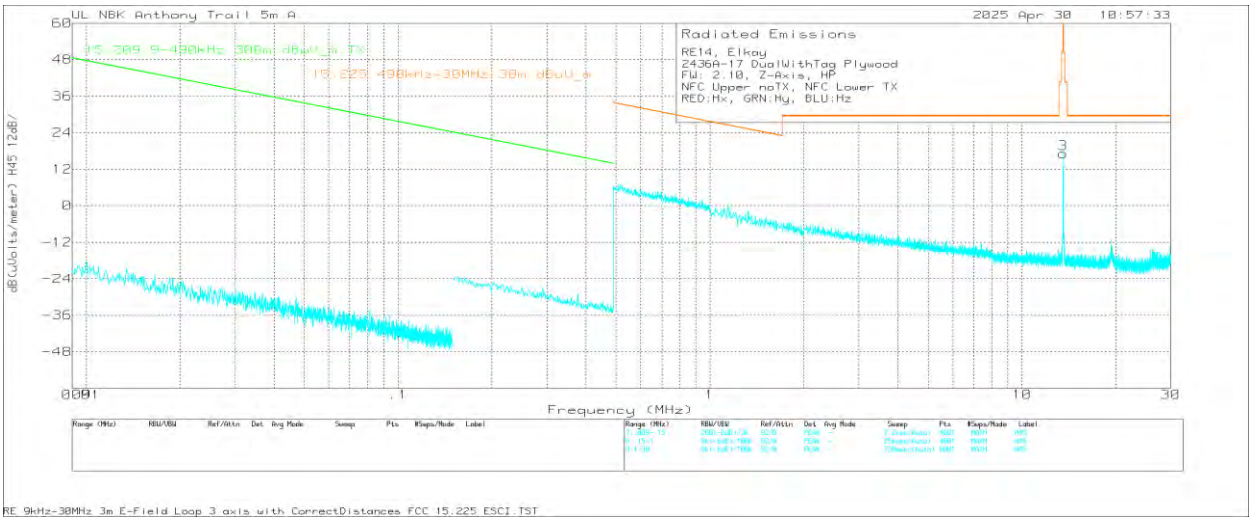


RE13,Elkay												
2436A-17 DualNoTag Plywood												
FW: 2.10, Z-Axis, HP												
NFC Upper noTX, NFC Lower TX												
RED:Hx, GRN:Hy, BLU:Hz												
Trace Markers												
Marker No.	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	Antenna Factor dB/m	Path Factor dB	300mTo3m & 30mTo3m 9kHz-30MHz Factor dB	Level dBuV/m	Limit 15.209 9-490kHz 300m dBuV/m	Margin (dB)	Limit 15.225 490kHz-30MHz 30m dBuV/m	Margin (dB)	Azimuth [Degs]
Hx												
1	13.56063	53.21	Pk	11.4	0.4	-40	25.01	-	-	84	-58.99	0-360
Hy												
2	13.56063	49.74	Pk	11.4	0.4	-40	21.54	-	-	84	-62.46	0-360
Hz												
3	13.56063	45.52	Pk	11.4	0.4	-40	17.32	-	-	84	-66.68	0-360
Pk - Peak detector												

Configuration Mode 3, EUT orientation Hz, with tag present



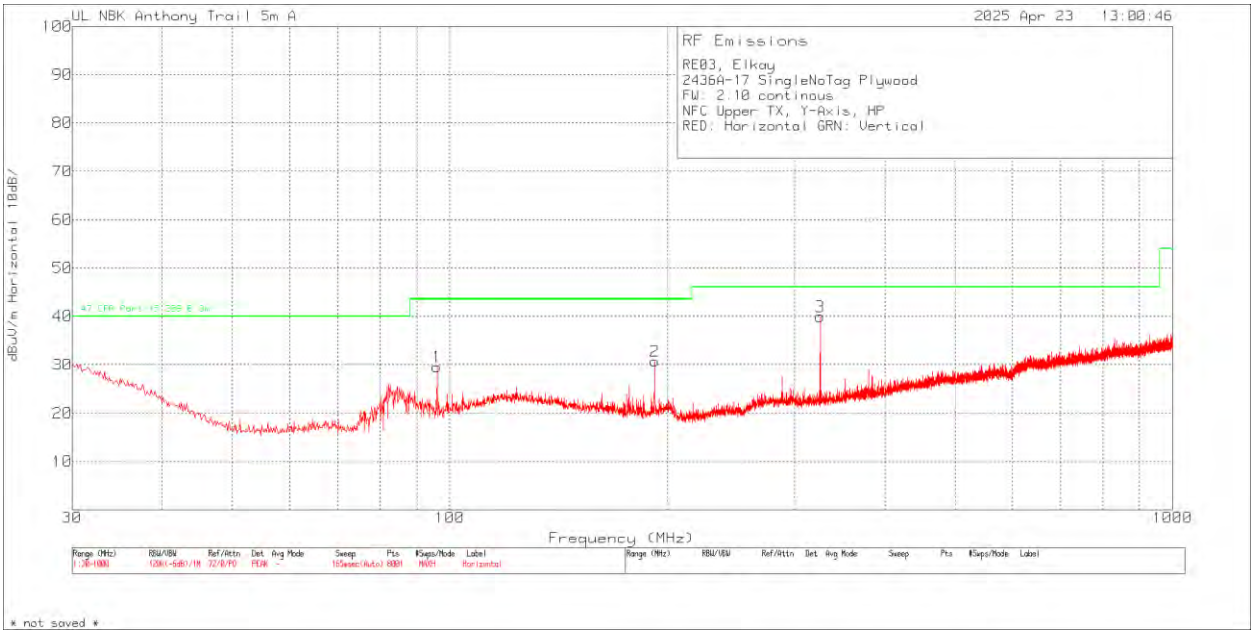


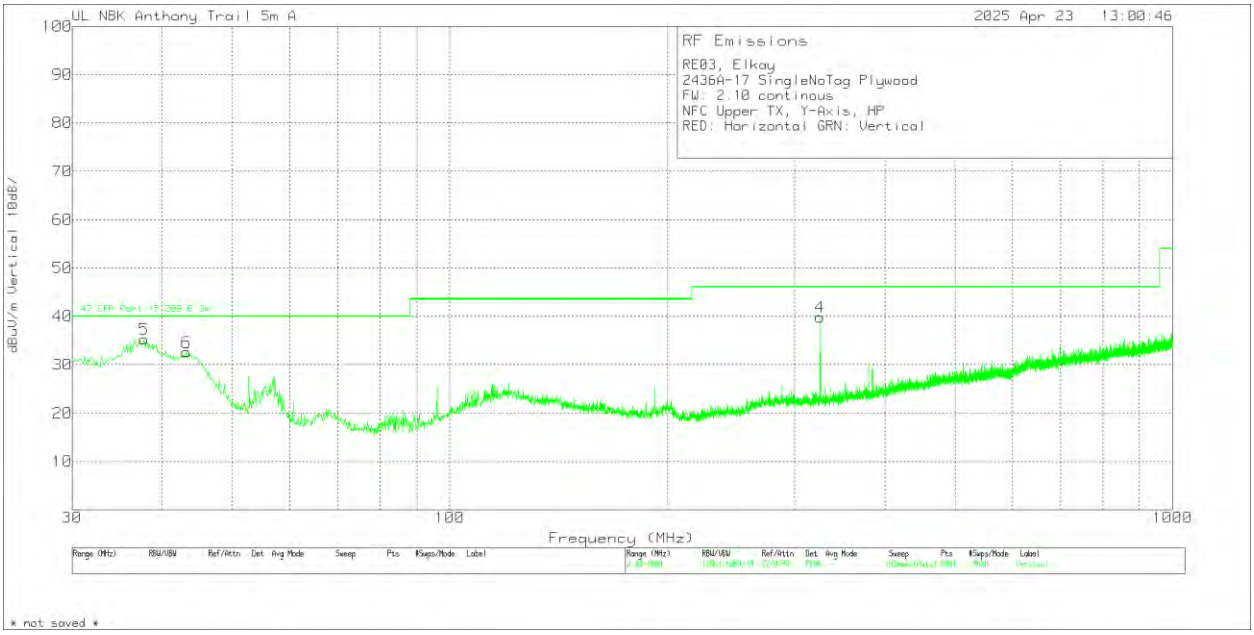


RE14,Elkay												
2436A-17 DualWithTag Plywood												
FW: 2.10, Z-Axis, HP												
NFC Upper noTX, NFC Lower TX												
RED:Hx, GRN:Hy, BLU:Hz												
Trace Markers												
Marker No.	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	Antenna Factor dB/m	Path Factor dB	300mTo3m & 30mTo3m 9kHz-30MHz Factor dB	Level dBuV/m	Limit 15.209 9-490kHz 300m dBuV/m	Margin (dB)	Limit 15.225 490kHz-30MHz 30m dBuV/m	Margin (dB)	Azimuth [Degs]
Hx												
1	13.56063	52.78	Pk	11.4	0.4	-40	24.58	-	-	84	-59.42	0-360
Hy												
2	13.56063	48.92	Pk	11.4	0.4	-40	20.72	-	-	84	-63.28	0-360
Hz												
3	13.56063	45.36	Pk	11.4	0.4	-40	17.16	-	-	84	-66.84	0-360
Pk - Peak detector												

8.3. 30MHz – 1,000MHz Results

Configuration Mode 1, EUT orientation Hy, No tag present





RE03,Elkay
2436A-17 SingleNoTag Plywood
FW: 2.10 continous
NFC Upper TX, Y-Axis, HP
RED: Horizontal GRN: Vertical
Trace Markers

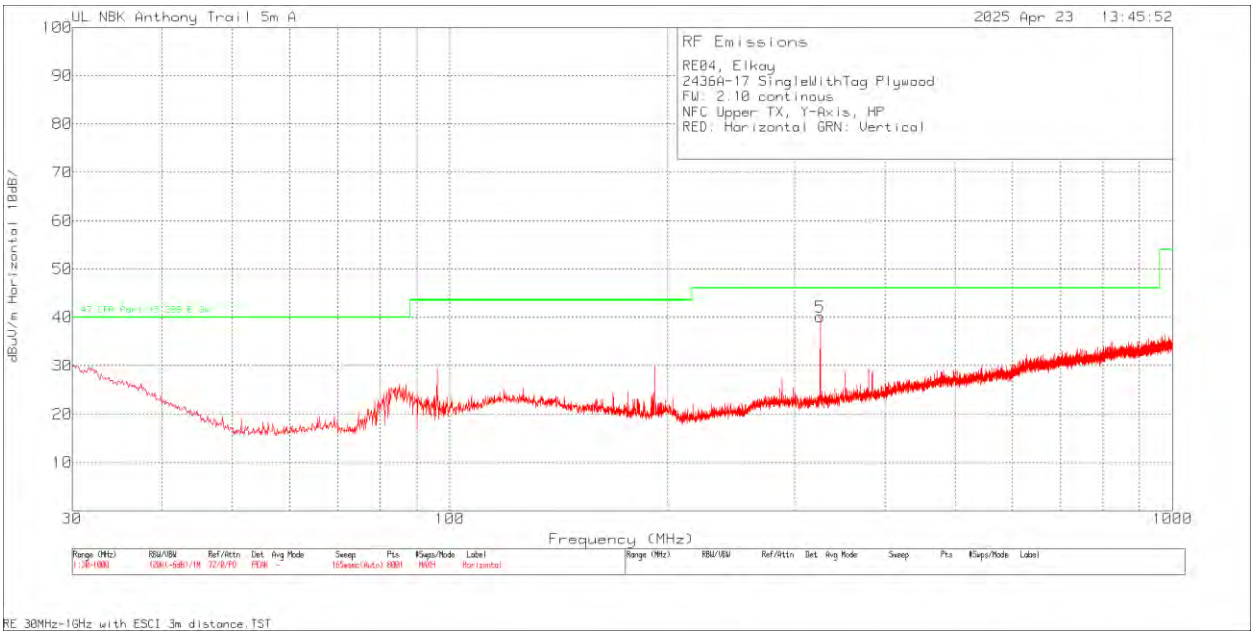
Marker No.	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	Antenna Factor dB/m	Path Factor dB	Corrected Reading dBuV/m	Limit 47 CFR Part 15.209 Class B 3m dBuV/m	Margin (dB)	Azimuth [Degs]	Height [cm]	Polarity
1	95.96	15.39	Pk	13.4	0.8	29.59	43.52	-13.93	0-360	401	H
2	191.99	14.15	Pk	15.5	1.1	30.75	43.52	-12.77	0-360	200	H
3	325.365	20.37	Pk	18.1	1.5	39.97	46.02	-6.05	0-360	102	H
4	325.365	20.24	Pk	18.1	1.5	39.84	46.02	-6.18	0-360	100	V
5	37.76	15.3	Pk	19.5	0.5	35.3	40	-4.7	0-360	100	V
6	43.21625	16.7	Pk	15.4	0.5	32.6	40	-7.4	0-360	100	V

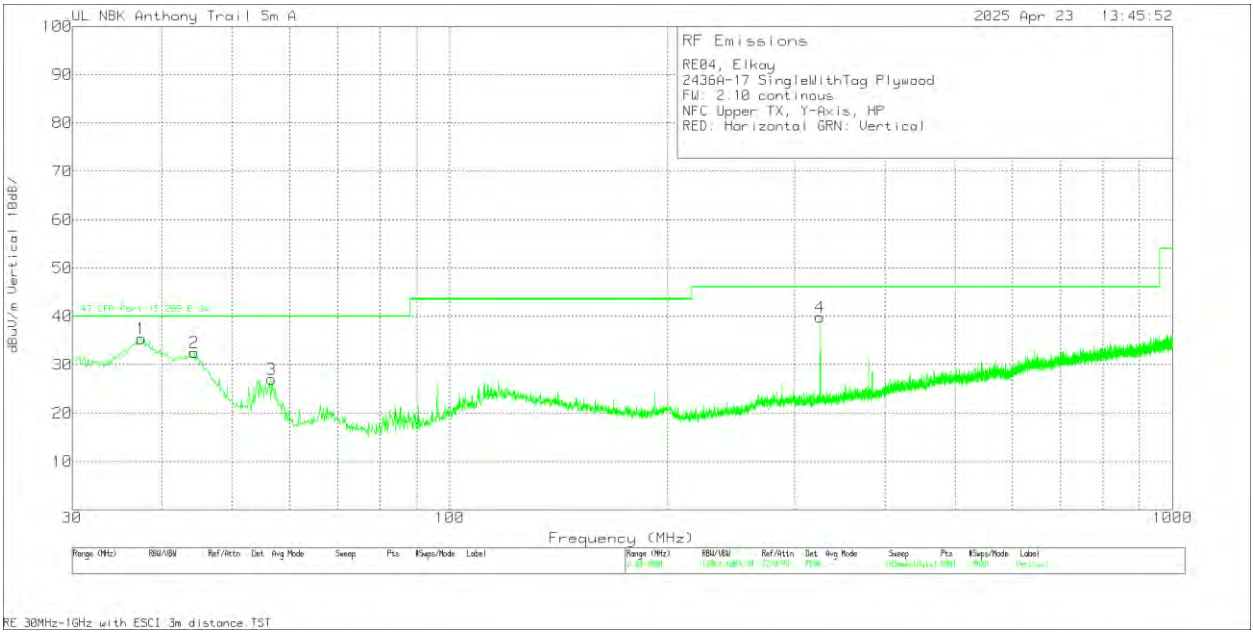
Radiated Emission Data

	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	Antenna Factor dB/m	Path Factor dB	Corrected Reading dBuV/m	Limit 47 CFR Part 15.209 Class B 3m dBuV/m	Margin (dB)	Azimuth [Degs]	Height [cm]	Polarity
	325.4323	20.57	Qp	18.1	1.5	40.17	46.02	-5.85	184	102	H
	325.436	22.07	Qp	18.1	1.5	41.67	46.02	-4.35	259	143	V
	37.76	11.47	Qp	19.5	0.5	31.47	40	-8.53	31	106	V

Pk - Peak detector
Qp - Quasi-Peak detector

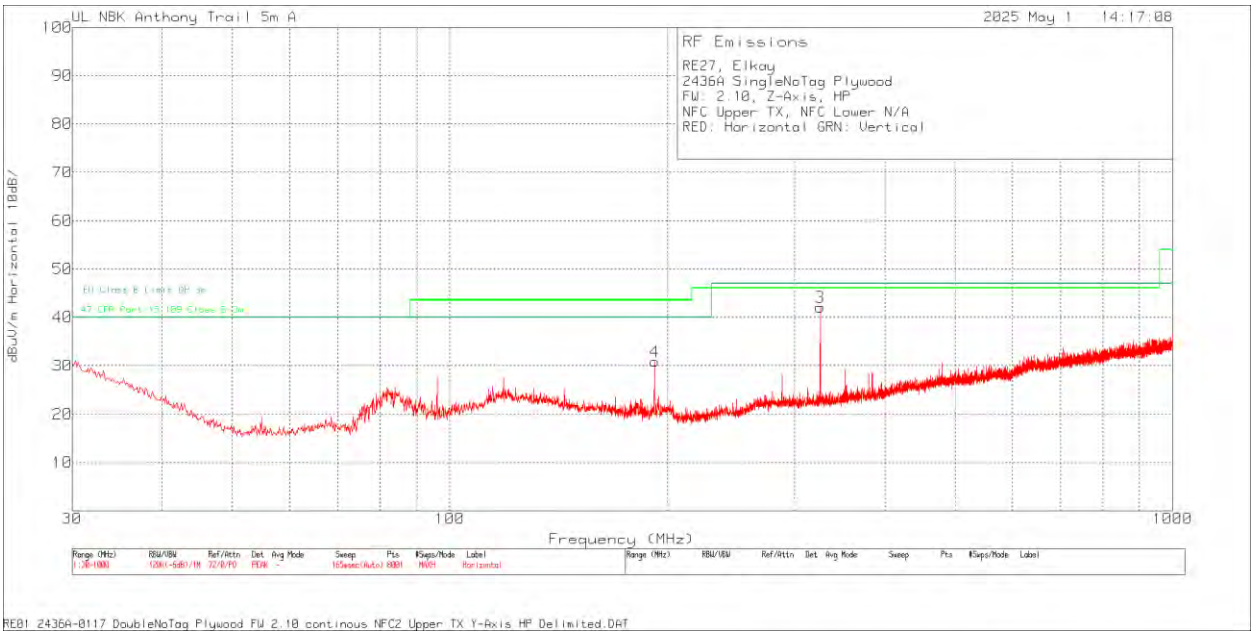
Configuration Mode 1, EUT orientation Hy, with tag present

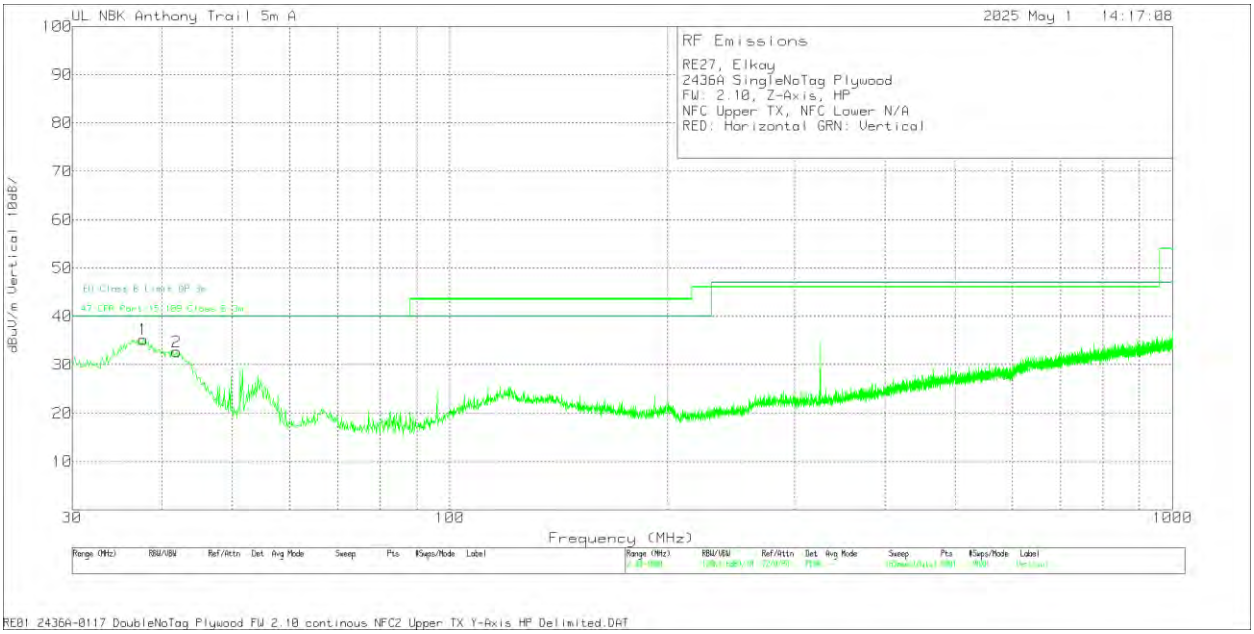




RE04,Elkay											
2436A-17 SingleWithTag Plywood											
FW: 2.10 continous											
NFC Upper TX, Y-Axis, HP											
RED: Horizontal GRN: Vertical											
Trace Markers											
Marker No.	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	Antenna Factor dB/m	Path Factor dB	Corrected Reading dBuV/m	Limit 47 CFR Part 15.209 Class B 3m dBuV/m	Margin (dB)	Azimuth [Degs]	Height [cm]	Polarity
5	325.365	20.52	Pk	18.1	1.5	40.12	46.02	-5.9	0-360	102	H
1	37.39625	15.09	Pk	19.8	0.5	35.39	40	-4.61	0-360	100	V
2	44.3075	17.34	Pk	14.7	0.5	32.54	40	-7.46	0-360	100	V
3	56.675	15.25	Pk	11.2	0.6	27.05	40	-12.95	0-360	100	V
4	325.365	20.24	Pk	18.1	1.5	39.84	46.02	-6.18	0-360	100	V
Radiated Emission Data											
	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	Antenna Factor dB/m	Path Factor dB	Corrected Reading dBuV/m	Limit 47 CFR Part 15.209 Class B 3m dBuV/m	Margin (dB)	Azimuth [Degs]	Height [cm]	Polarity
	325.4492	20.08	Qp	18.1	1.5	39.68	46.02	-6.34	93	102	H
Pk - Peak detector											
Qp - Quasi-Peak detector											

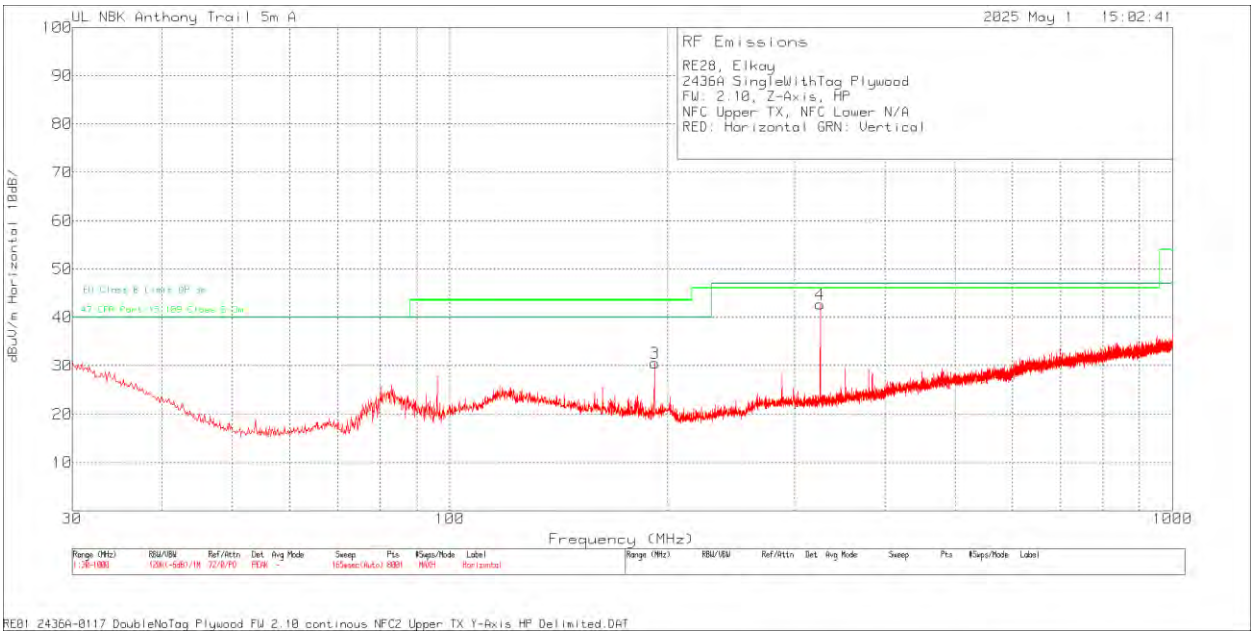
Configuration Mode 1, EUT orientation Hz, No tag present

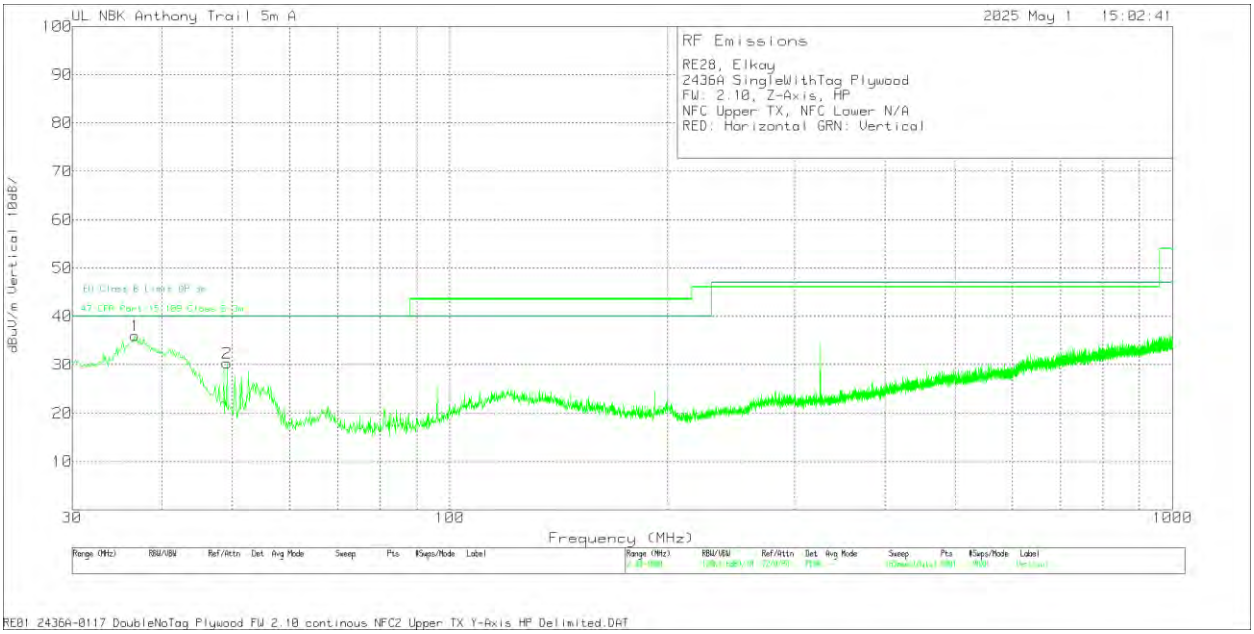




RE27,Elkay											
2436A SingleNoTag Plywood											
FW: 2.10, Z-Axis, HP											
NFC Upper TX, NFC Lower N/A											
RED: Horizontal GRN: Vertical											
Trace Markers											
Marker No.	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	Antenna Factor dB/m	Path Factor dB	Corrected Reading dBuV/m	Limit 47 CFR Part 15.209 Class B 3m dBuV/m	Margin (dB)	Azimuth [Degs]	Height [cm]	Polarity
3	325.365	22.5	Pk	18.1	1.5	42.1	46.02	-3.92	0-360	102	H
4	191.99	14.26	Pk	15.5	1.1	30.86	43.52	-12.66	0-360	200	H
1	37.63875	15.14	Pk	19.6	0.5	35.24	40	-4.76	0-360	100	V
2	41.8825	15.79	Pk	16.4	0.5	32.69	40	-7.31	0-360	100	V
Radiated Emission Data											
	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	Antenna Factor dB/m	Path Factor dB	Corrected Reading dBuV/m	Limit 47 CFR Part 15.209 Class B 3m dBuV/m	Margin (dB)	Azimuth [Degs]	Height [cm]	Polarity
	325.4385	22.83	Qp	18.1	1.5	42.43	46.02	-3.59	67	102	H
	37.6388	12.41	Qp	19.6	0.5	32.51	40	-7.49	42	100	V
Pk - Peak detector											
Qp - Quasi-Peak detector											

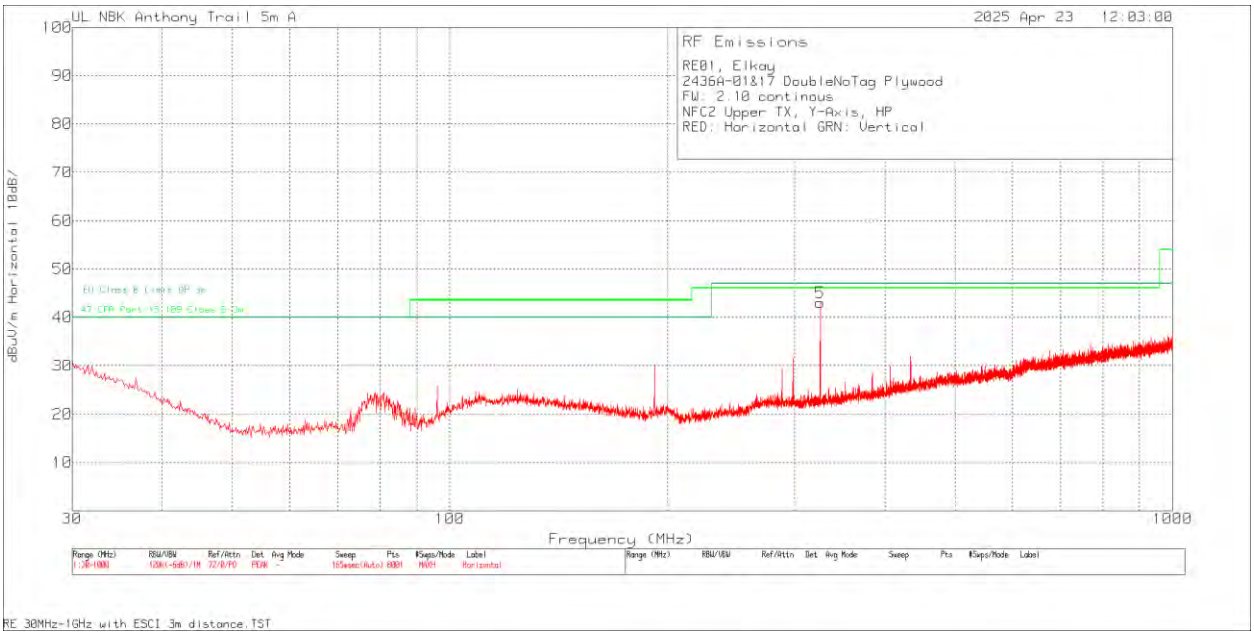
Configuration Mode 1, EUT orientation Hz, with tag present

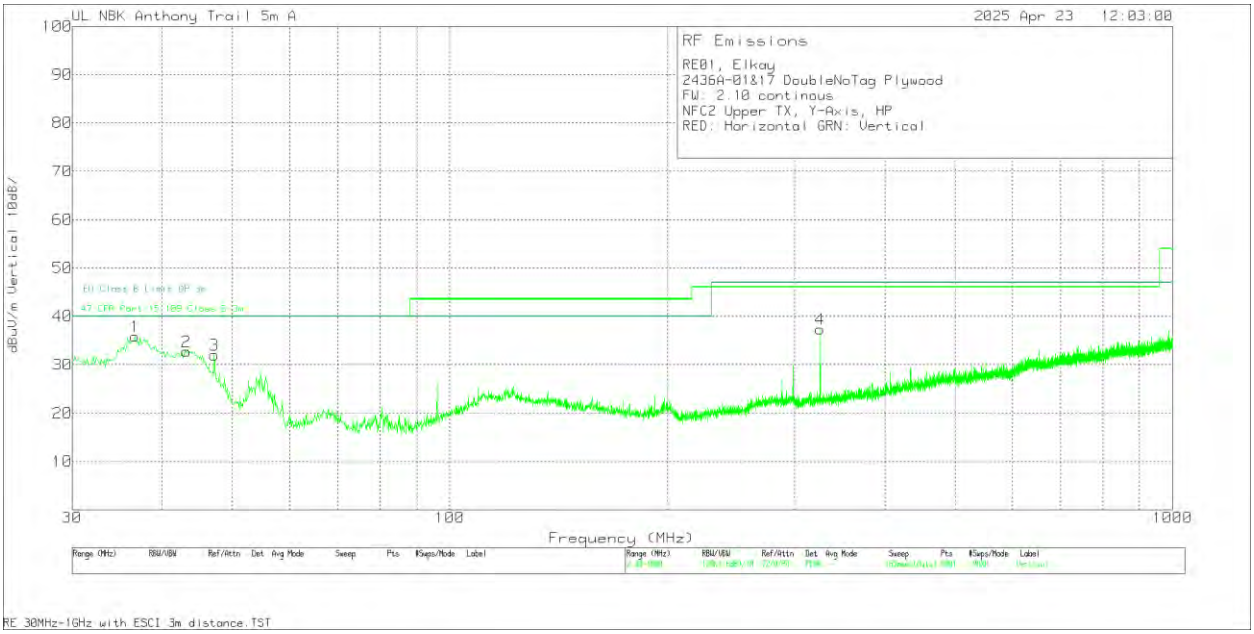




RE28,Elkay											
2436A SingleWithTag Plywood											
FW: 2.10, Z-Axis, HP											
NFC Upper TX, NFC Lower N/A											
RED: Horizontal GRN: Vertical											
Trace Markers											
Marker No.	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	Antenna Factor dB/m	Path Factor dB	Corrected Reading dBuV/m	Limit 47 CFR Part 15.209 Class B 3m dBuV/m	Margin (dB)	Azimuth [Degs]	Height [cm]	Polarity
3	191.99	13.96	Pk	15.5	1.1	30.56	43.52	-12.96	0-360	100	H
4	325.365	23.11	Pk	18.1	1.5	42.71	46.02	-3.31	0-360	100	H
1	36.66875	15.2	Pk	20.4	0.4	36	40	-4	0-360	100	V
2	49.1575	17.66	Pk	12.2	0.5	30.36	40	-9.64	0-360	100	V
Radiated Emission Data											
	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	Antenna Factor dB/m	Path Factor dB	Corrected Reading dBuV/m	Limit 47 CFR Part 15.209 Class B 3m dBuV/m	Margin (dB)	Azimuth [Degs]	Height [cm]	Polarity
	325.4272	22.74	Qp	18.1	1.5	42.34	46.02	-3.68	68	102	H
	36.6688	10.32	Qp	20.4	0.4	31.12	40	-8.88	47	106	V
Pk - Peak detector											
Qp - Quasi-Peak detector											

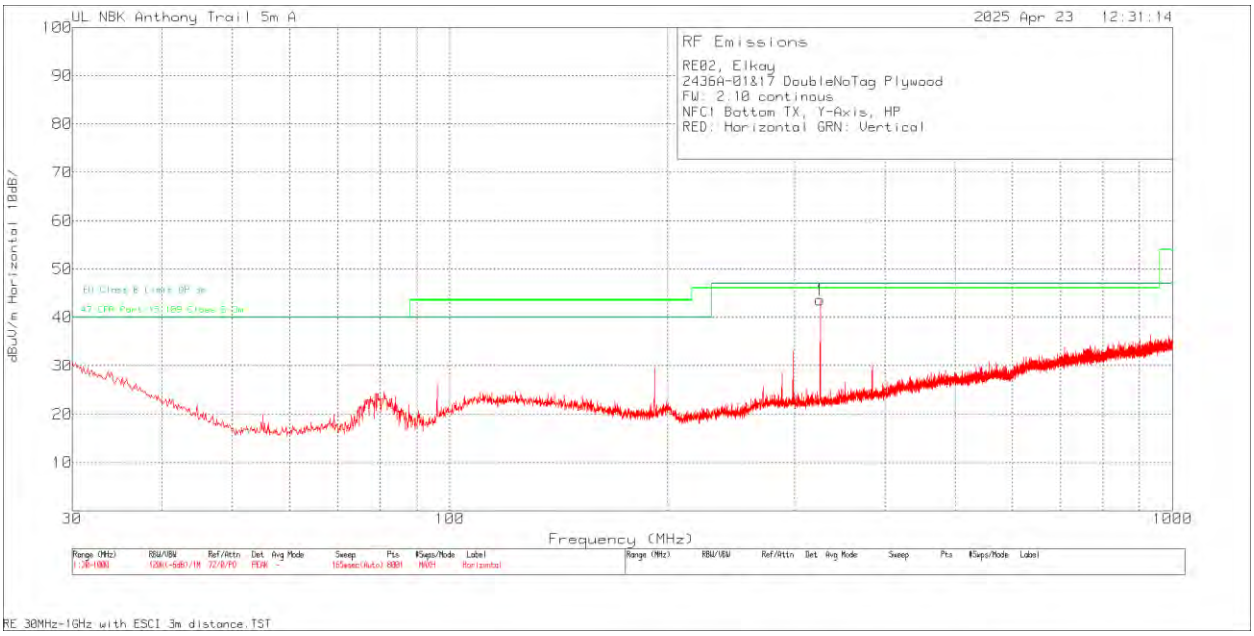
Configuration Mode 2, EUT orientation Hy, no tag present

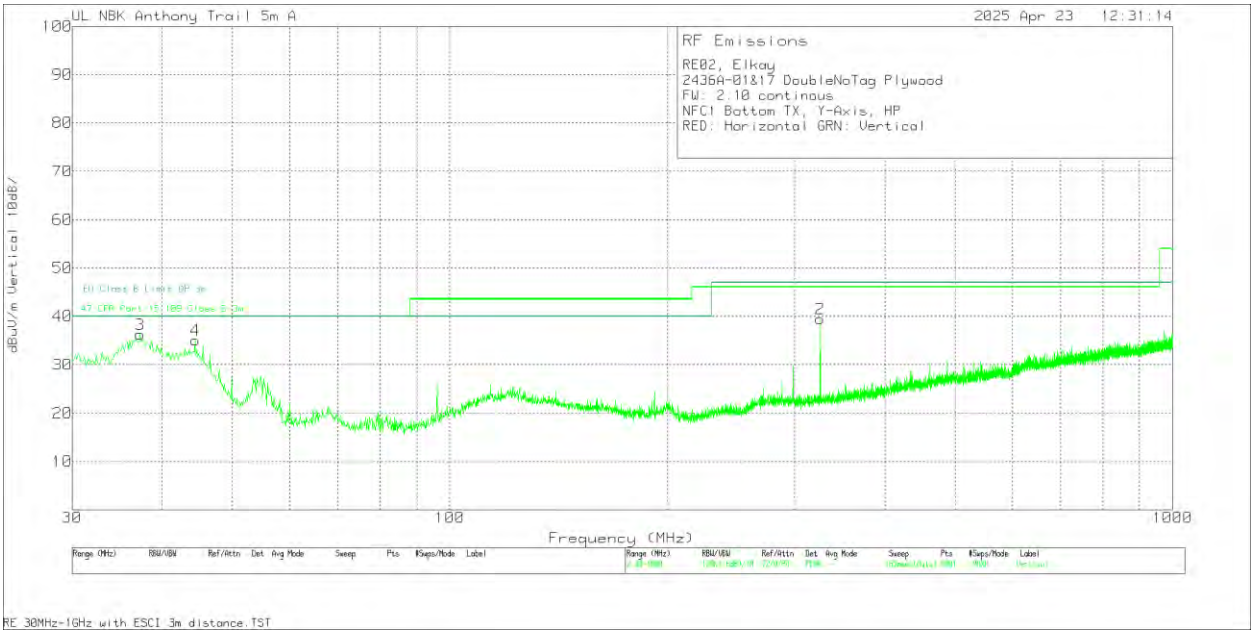




RE01,Elkay											
2436A-01&17 DoubleNoTag Plywood											
FW: 2.10 continous											
NFC2 Upper TX, Y-Axis, HP											
RED: Horizontal GRN: Vertical											
Trace Markers											
Marker No.	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	Antenna Factor dB/m	Path Factor dB	Corrected Reading dBuV/m	Limit 47 CFR Part 15.209 Class B 3m dBuV/m	Margin (dB)	Azimuth [Degs]	Height [cm]	Polarity
5	325.365	23.45	Pk	18.1	1.5	43.05	46.02	-2.97	0-360	102	H
1	36.66875	15.05	Pk	20.4	0.4	35.85	40	-4.15	0-360	100	V
2	43.21625	16.83	Pk	15.4	0.5	32.73	40	-7.27	0-360	100	V
3	47.2175	18.52	Pk	13	0.5	32.02	40	-7.98	0-360	100	V
4	325.365	17.73	Pk	18.1	1.5	37.33	46.02	-8.69	0-360	100	V
Radiated Emission Data											
	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	Antenna Factor dB/m	Path Factor dB	Corrected Reading dBuV/m	Limit 47 CFR Part 15.209 Class B 3m dBuV/m	Margin (dB)	Azimuth [Degs]	Height [cm]	Polarity
	325.4337	23.5	Qp	18.1	1.5	43.1	46.02	-2.92	168	102	H
Pk - Peak detector											
Qp - Quasi-Peak detector											

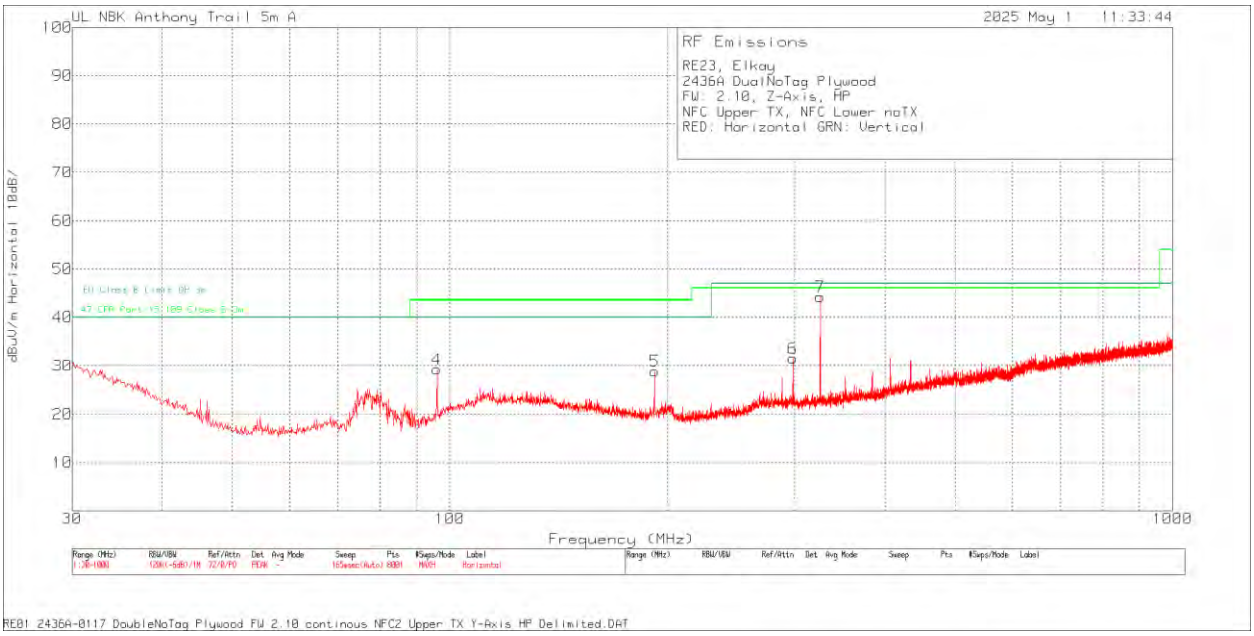
Configuration Mode 3, EUT orientation Hy, no tag present

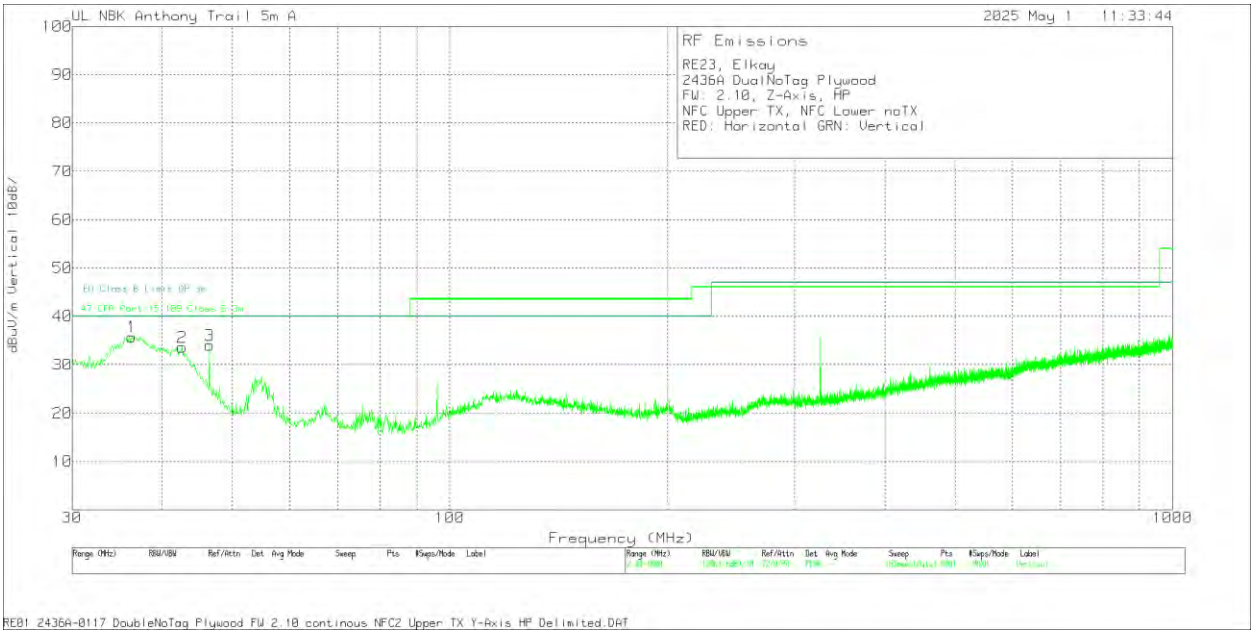




RE02,Elkay											
2436A-01&17 DoubleNoTag Plywood											
FW: 2.10 continous											
NFC1 Bottom TX, Y-Axis, HP											
RED: Horizontal GRN: Vertical											
Trace Markers											
Marker No.	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	Antenna Factor dB/m	Path Factor dB	Corrected Reading dBuV/m	Limit 47 CFR Part 15.209 Class B 3m dBuV/m	Margin (dB)	Azimuth [Degs]	Height [cm]	Polarity
1	325.365	24.02	Pk	18.1	1.5	43.62	46.02	-2.4	0-360	102	H
2	325.365	19.91	Pk	18.1	1.5	39.51	46.02	-6.51	0-360	100	V
3	37.275	15.96	Pk	19.9	0.4	36.26	40	-3.74	0-360	100	V
4	44.42875	19.98	Pk	14.6	0.5	35.08	40	-4.92	0-360	100	V
Radiated Emission Data											
	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	Antenna Factor dB/m	Path Factor dB	Corrected Reading dBuV/m	Limit 47 CFR Part 15.209 Class B 3m dBuV/m	Margin (dB)	Azimuth [Degs]	Height [cm]	Polarity
	325.4279	24.14	Qp	18.1	1.5	43.74	46.02	-2.28	152	102	H
Pk - Peak detector											
Qp - Quasi-Peak detector											

Configuration Mode 2, EUT orientation Hz, no tag present





RE23,Elkay
2436A DualNoTag Plywood
FW: 2.10, Z-Axis, HP
NFC Upper TX, NFC Lower noTX
RED: Horizontal GRN: Vertical
Trace Markers

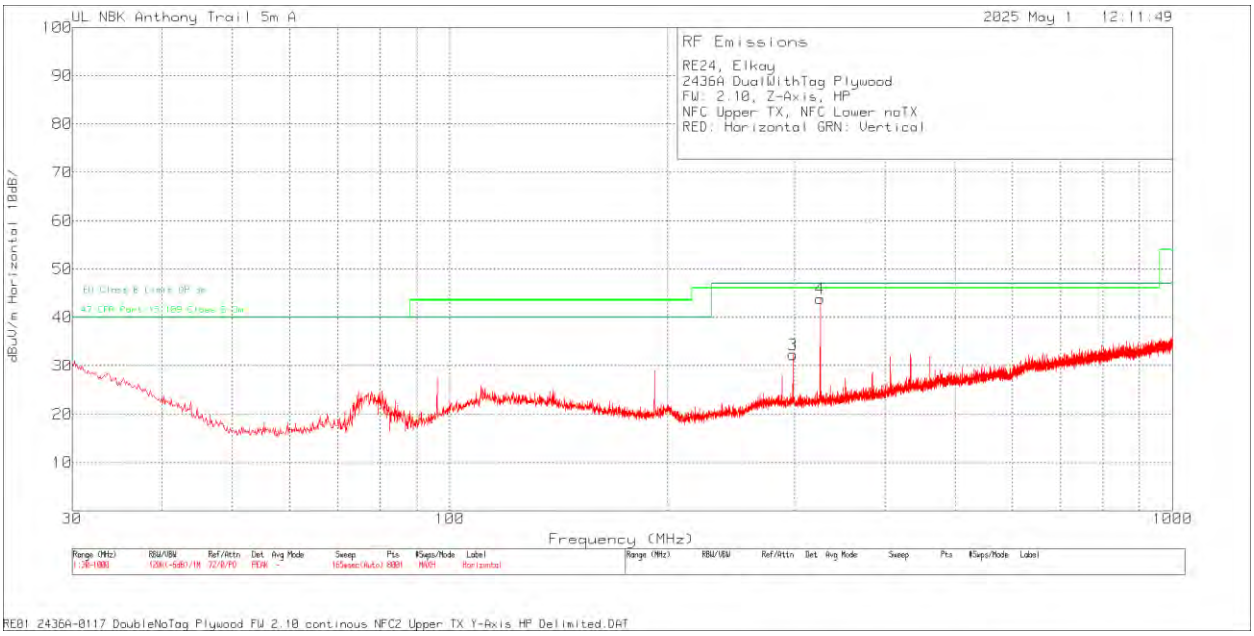
Marker No.	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	Antenna Factor dB/m	Path Factor dB	Corrected Reading dBuV/m	Limit 47 CFR Part 15.209 Class B 3m	Margin (dB)	Azimuth [Degs]	Height [cm]	Polarity
4	95.96	15.06	Pk	13.4	0.8	29.26	43.52	-14.26	0-360	200	H
5	191.99	12.29	Pk	15.5	1.1	28.89	43.52	-14.63	0-360	200	H
6	298.32625	12.65	Pk	17.5	1.4	31.55	46.02	-14.47	0-360	102	H
7	325.365	24.67	Pk	18.1	1.5	44.27	46.02	-1.75	0-360	102	H
1	36.305	14.67	Pk	20.7	0.4	35.77	40	-4.23	0-360	100	V
2	42.61	17.24	Pk	15.9	0.5	33.64	40	-6.36	0-360	100	V
3	46.49	20.15	Pk	13.4	0.5	34.05	40	-5.95	0-360	100	V

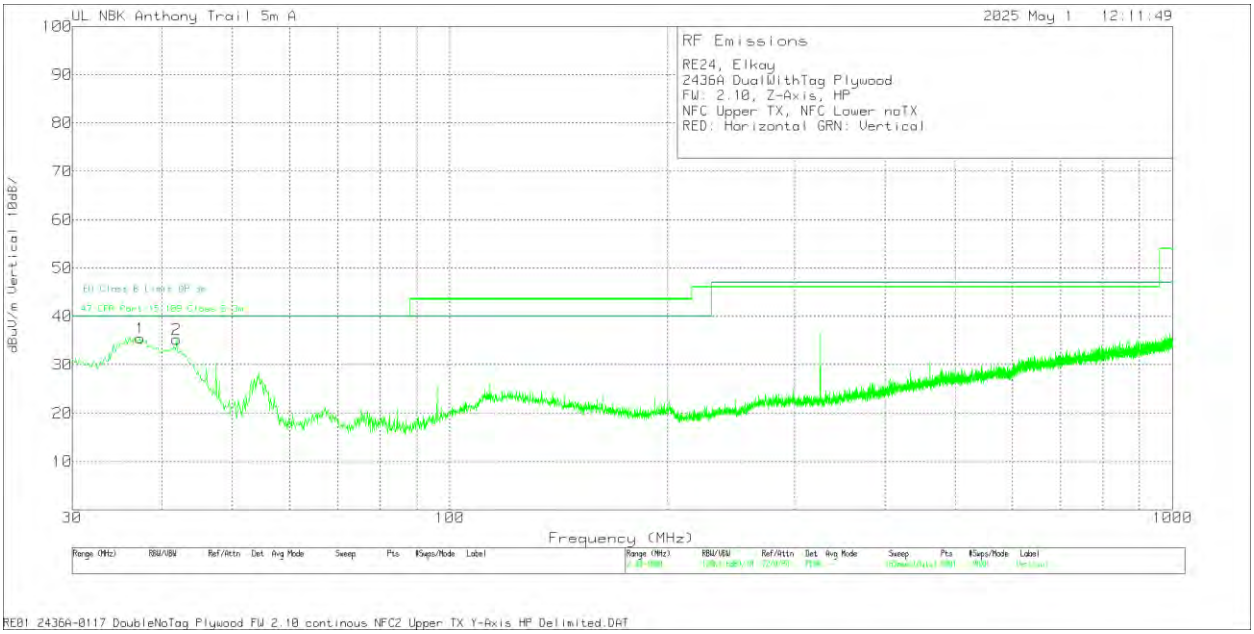
Radiated Emission Data

	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	Antenna Factor dB/m	Path Factor dB	Corrected Reading dBuV/m	Limit 47 CFR Part 15.209 Class B 3m	Margin (dB)	Azimuth [Degs]	Height [cm]	Polarity
	325.4384	24.52	Qp	18.1	1.5	44.12	46.02	-1.9	175	102	H
	36.305	12.59	Qp	20.7	0.4	33.69	40	-6.31	51	102	V

Pk - Peak detector
Qp - Quasi-Peak detector

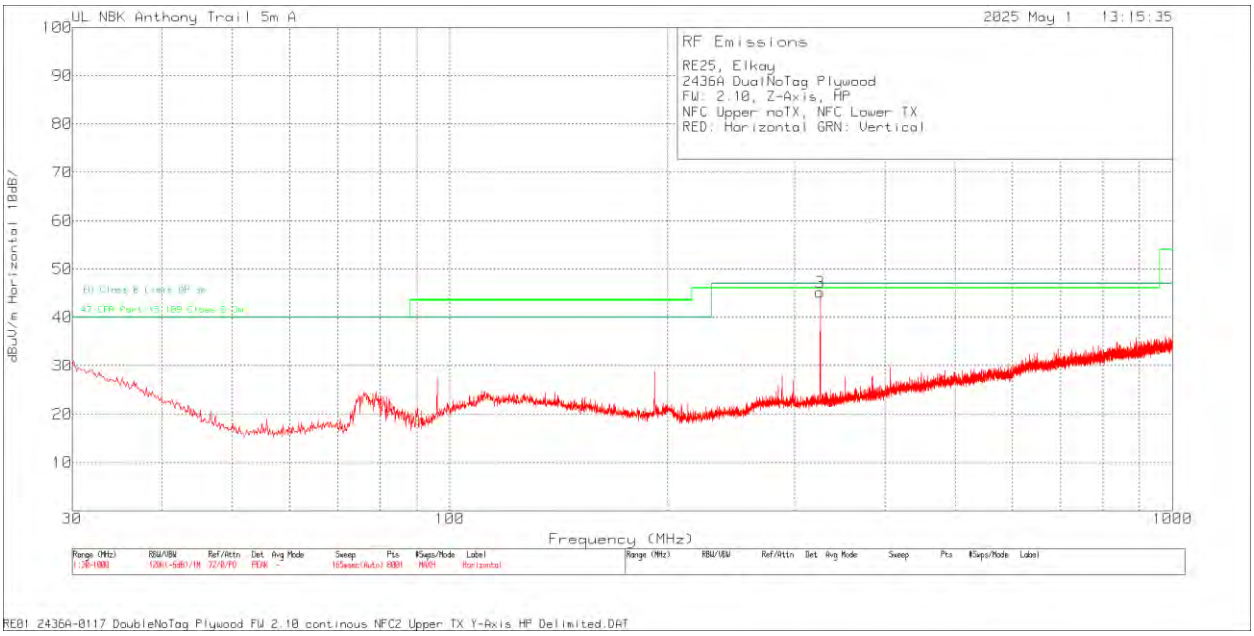
Configuration Mode 2, EUT orientation Hz, no tag present

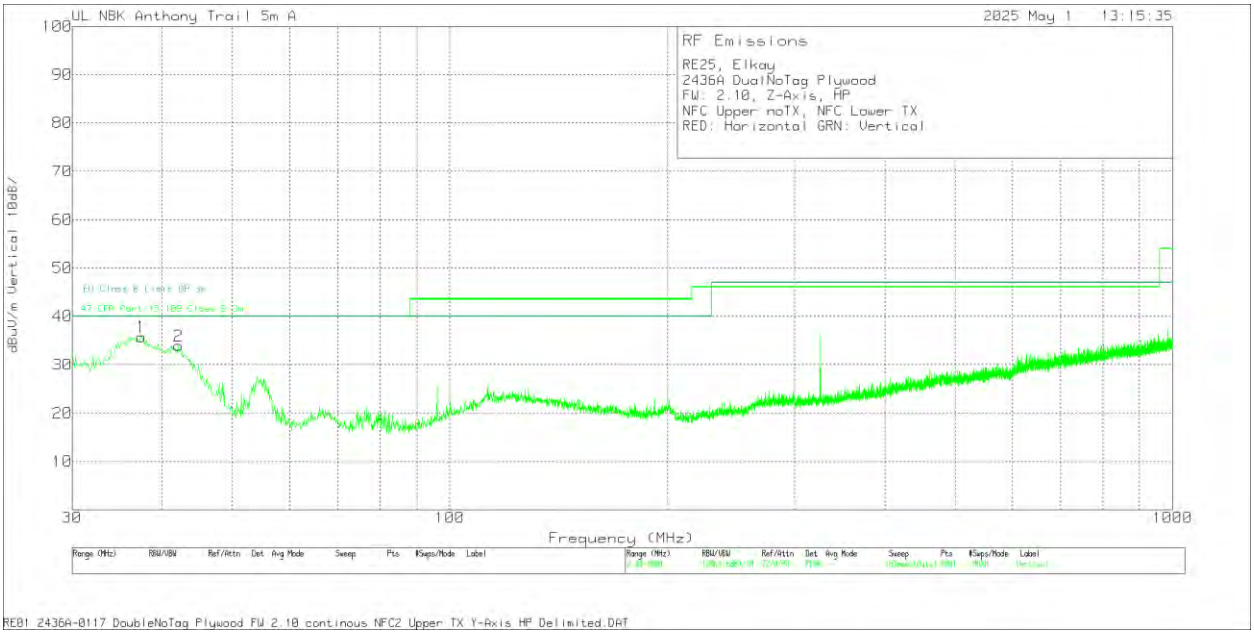




RE24,Elkay											
2436A DualWithTag Plywood											
FW: 2.10, Z-Axis, HP											
NFC Upper TX, NFC Lower noTX											
RED: Horizontal GRN: Vertical											
Trace Markers											
Marker No.	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	Antenna Factor dB/m	Path Factor dB	Corrected Reading dBuV/m	Limit 47 CFR Part 15.209 Class B 3m dBuV/m	Margin (dB)	Azimuth [Degs]	Height [cm]	Polarity
3	298.32625	13.41	Pk	17.5	1.4	32.31	46.02	-13.71	0-360	102	H
4	325.365	24.26	Pk	18.1	1.5	43.86	46.02	-2.16	0-360	102	H
1	37.275	15.18	Pk	19.9	0.4	35.48	40	-4.52	0-360	100	V
2	41.8825	18.36	Pk	16.4	0.5	35.26	40	-4.74	0-360	100	V
Radiated Emission Data											
	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	Antenna Factor dB/m	Path Factor dB	Corrected Reading dBuV/m	Limit 47 CFR Part 15.209 Class B 3m dBuV/m	Margin (dB)	Azimuth [Degs]	Height [cm]	Polarity
	325.4341	24.63	Qp	18.1	1.5	44.23	46.02	-1.79	177	102	H
	41.8825	14.08	Qp	16.4	0.5	30.98	40	-9.02	14	106	V
Pk - Peak detector											
Qp - Quasi-Peak detector											

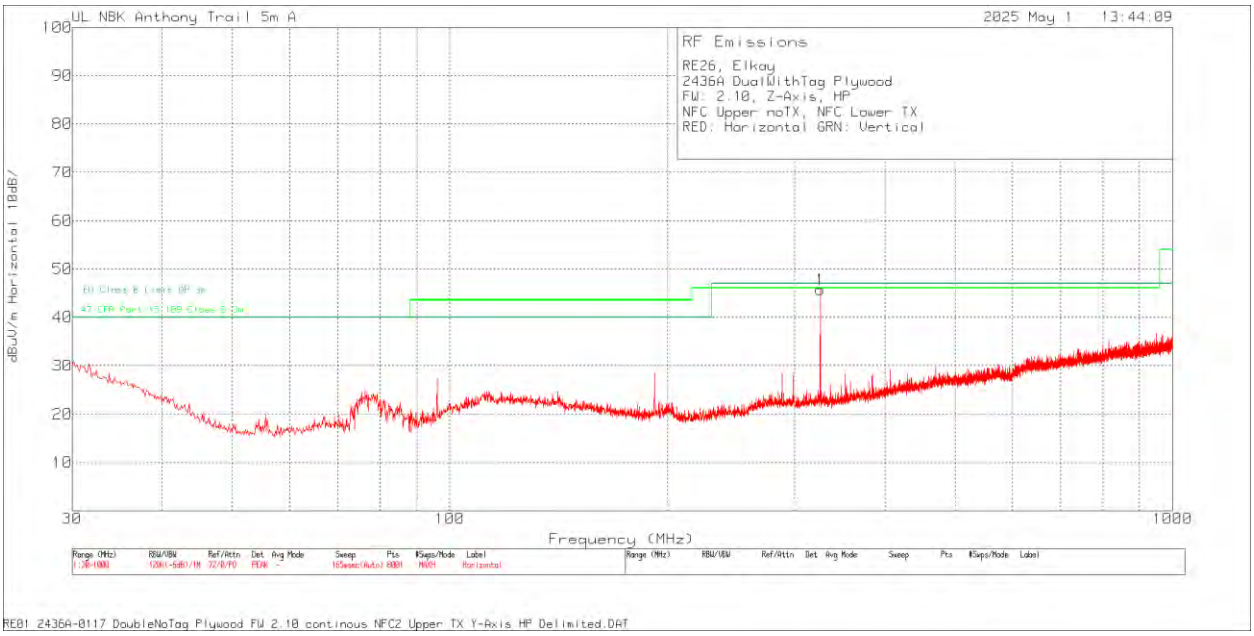
Configuration Mode 3, EUT orientation Hz, no tag present

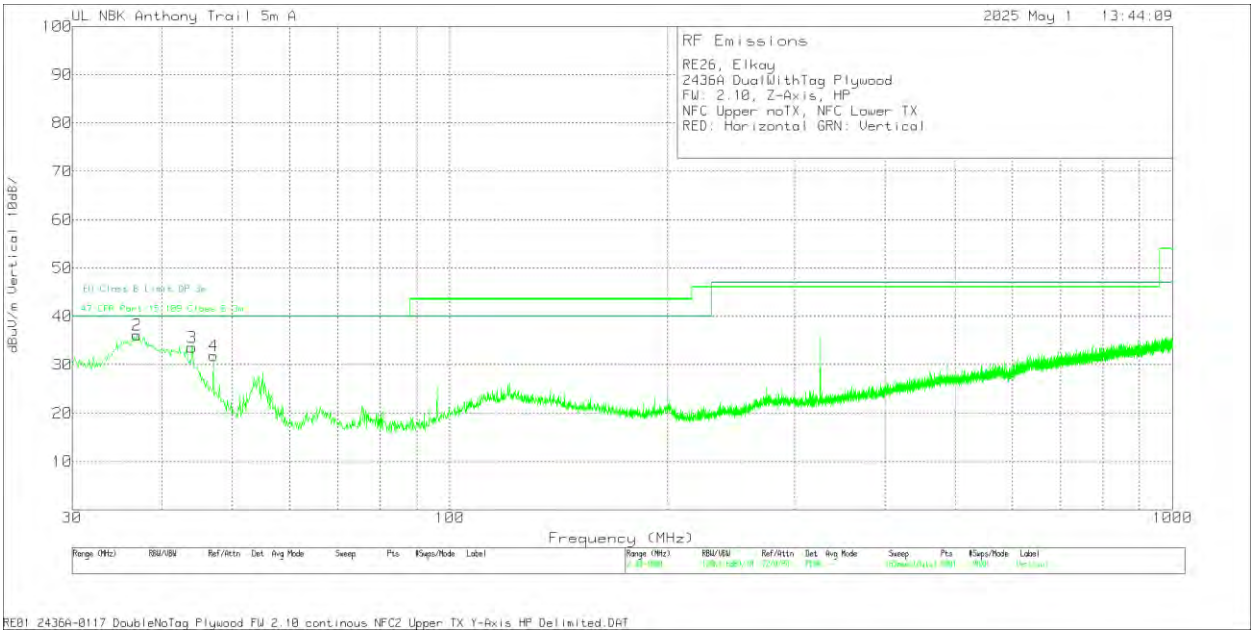




RE25,Elkay											
2436A DualNoTag Plywood											
FW: 2.10, Z-Axis, HP											
NFC Upper noTX, NFC Lower TX											
RED: Horizontal GRN: Vertical											
Trace Markers											
Marker No.	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	Antenna Factor dB/m	Path Factor dB	Corrected Reading dBuV/m	Limit 47 CFR Part 15.209 Class B 3m dBuV/m	Margin (dB)	Azimuth [Degs]	Height [cm]	Polarity
3	325.365	25.62	Pk	18.1	1.5	45.22	46.02	-0.8	0-360	102	H
1	37.39625	15.48	Pk	19.8	0.5	35.78	40	-4.22	0-360	98	V
2	42.125	17.24	Pk	16.2	0.5	33.94	40	-6.06	0-360	98	V
Radiated Emission Data											
	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	Antenna Factor dB/m	Path Factor dB	Corrected Reading dBuV/m	Limit 47 CFR Part 15.209 Class B 3m dBuV/m	Margin (dB)	Azimuth [Degs]	Height [cm]	Polarity
	325.4369	25.94	Qp	18.1	1.5	45.54	46.02	-0.48	179	102	H
	37.3963	12.87	Qp	19.8	0.5	33.17	40	-6.83	43	100	V
Pk - Peak detector											
Qp - Quasi-Peak detector											

Configuration Mode 3, EUT orientation Hz, with tag present





RE26,Elkay
2436A DualWithTag Plywood
FW: 2.10, Z-Axis, HP
NFC Upper noTX, NFC Lower TX
RED: Horizontal GRN: Vertical
Trace Markers

Marker No.	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	Antenna Factor dB/m	Path Factor dB	Corrected Reading dBuV/m	Limit 47 CFR Part 15.209 Class B 3m dBuV/m	Margin (dB)	Azimuth [Degs]	Height [cm]	Polarity
1	325.365	26.15	Pk	18.1	1.5	45.75	46.02	-0.27	0-360	100	H
2	36.91125	15.58	Pk	20.2	0.4	36.18	40	-3.82	0-360	100	V
3	43.94375	18.23	Pk	14.9	0.5	33.63	40	-6.37	0-360	200	V
4	47.09625	18.27	Pk	13.1	0.5	31.87	40	-8.13	0-360	100	V

Radiated Emission Data

	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	Antenna Factor dB/m	Path Factor dB	Corrected Reading dBuV/m	Limit 47 CFR Part 15.209 Class B 3m dBuV/m	Margin (dB)	Azimuth [Degs]	Height [cm]	Polarity
	325.4312	25.98	Qp	18.1	1.5	45.58	46.02	-0.44	172	102	H
	36.9113	13.32	Qp	20.2	0.4	33.92	40	-6.08	29	106	V

Pk - Peak detector
Qp - Quasi-Peak detector

9. FREQUENCY STABILITY

LIMIT

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

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

TEST PROCEDURE

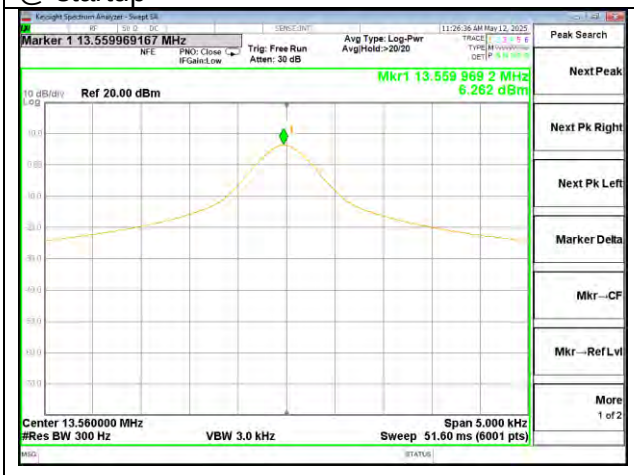
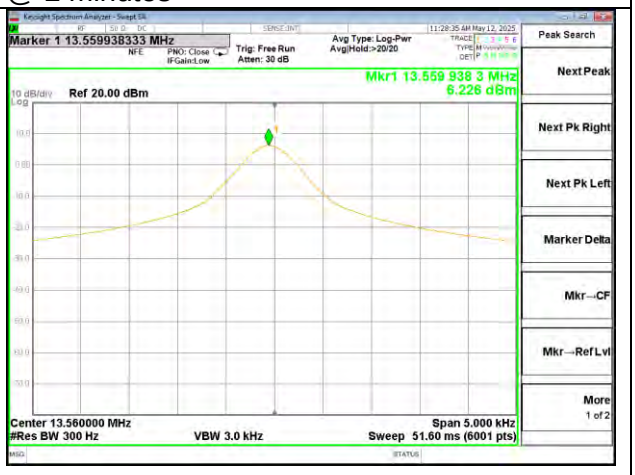
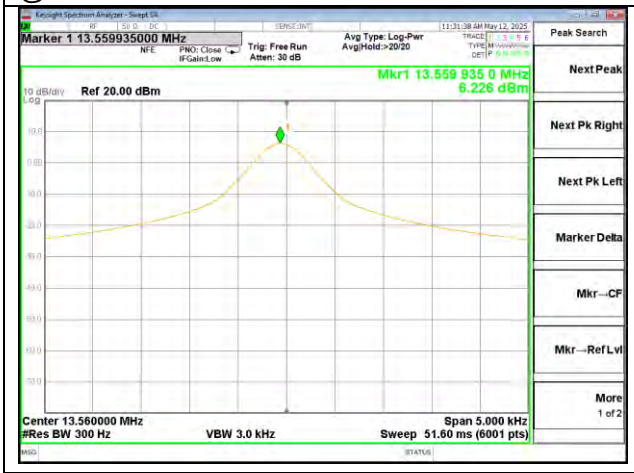
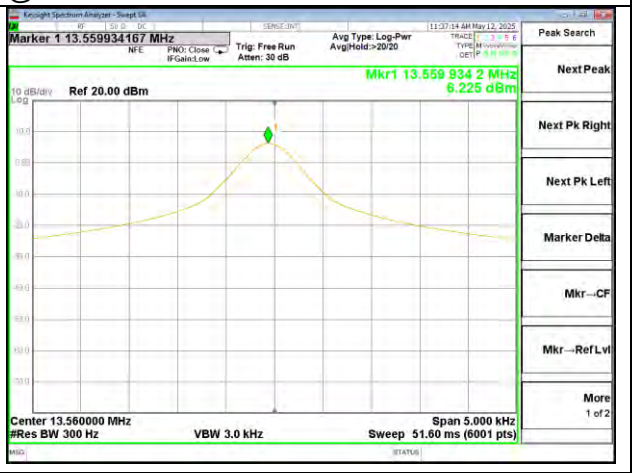
ANSI C63.10 Clause 6.8

RESULTS

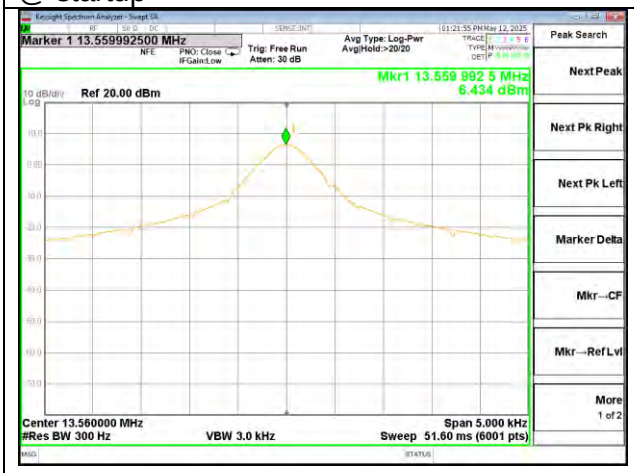
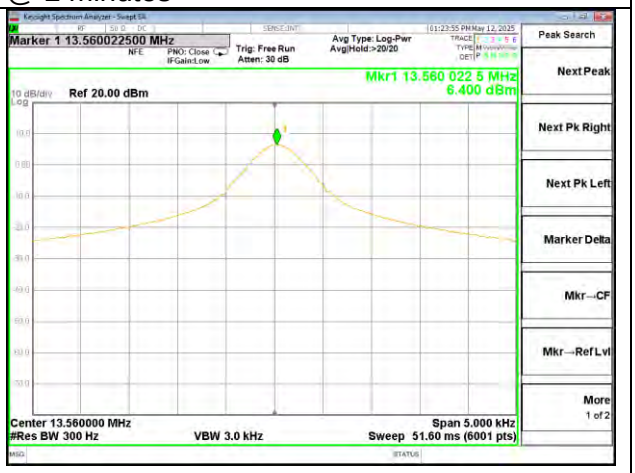
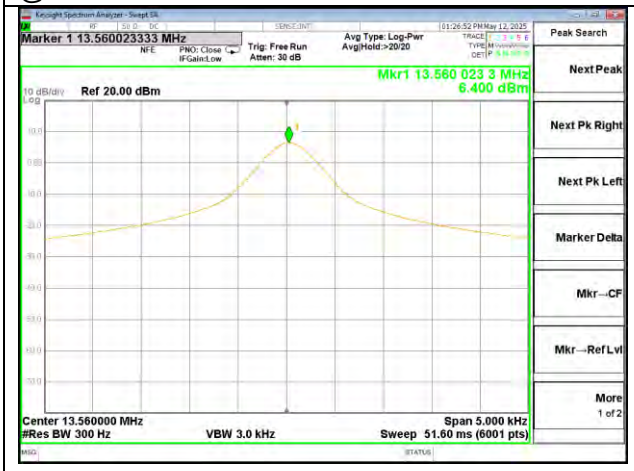
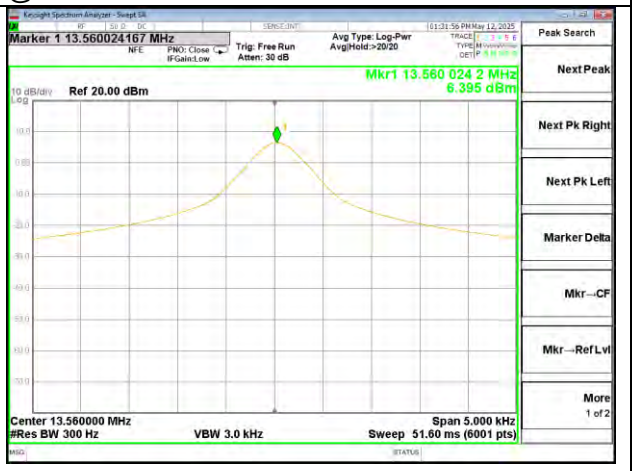
No non-compliance noted.

Reference Frequency: EUT Channel 13.56 MHz @ 20°C Limit: ± 100 ppm = 1.356 kHz										
Power Supply	Envir. Temp	Frequency Deviation Measureed with Time Elapse								
(Vac)	(ºC)	Startup (MHz)	Delta (ppm)	@ 2 mins (MHz)	Delta (ppm)	@ 5 mins (MHz)	Delta (ppm)	@ 10 mins (MHz)	Delta (ppm)	Limit (ppm)
120.00	50	13.5598783	8.975	13.5598725	9.403	13.5598750	9.218	13.5598742	9.277	± 100
120.00	40	13.5599083	6.763	13.5598858	8.422	13.5598842	8.540	13.5598833	8.606	± 100
120.00	30	13.5599417	4.299	13.5599083	6.763	13.5599042	7.065	13.5599050	7.006	± 100
120.00	***20***	***13.5599692***	2.271	***13.5599383***	4.550	***13.5599350***	4.794	***13.5599342***	4.853	***± 100***
120.00	10	13.5600042	-0.310	13.5599792	1.534	13.5599758	1.785	13.5599758	1.785	± 100
120.00	0	13.5600167	-1.232	13.5600075	-0.553	13.5600033	-0.243	13.5600042	-0.310	± 100
120.00	-10	13.5600010	-0.074	13.5600200	-1.475	13.5600192	-1.416	13.5600192	-1.416	± 100
120.00	-20	13.5599925	0.553	13.5600225	-1.659	13.5600233	-1.718	13.5600252	-1.858	± 100
102.00	20	13.5599717	2.087	13.5599367	4.668	13.5599350	4.794	13.5599342	4.853	± 100
138	20	13.5599667	2.456	13.5599367	4.668	13.5599350	4.794	13.5599342	4.853	± 100

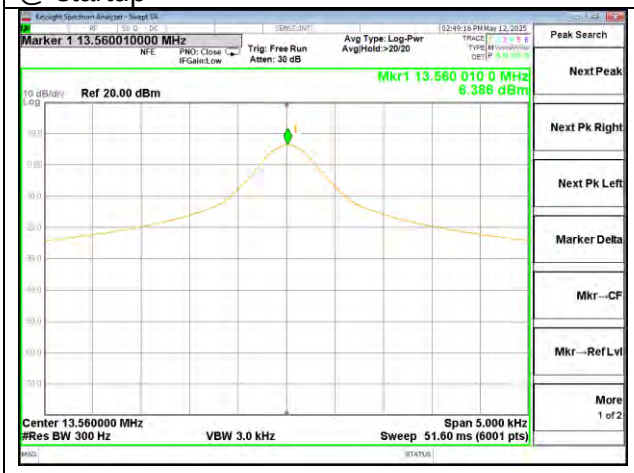
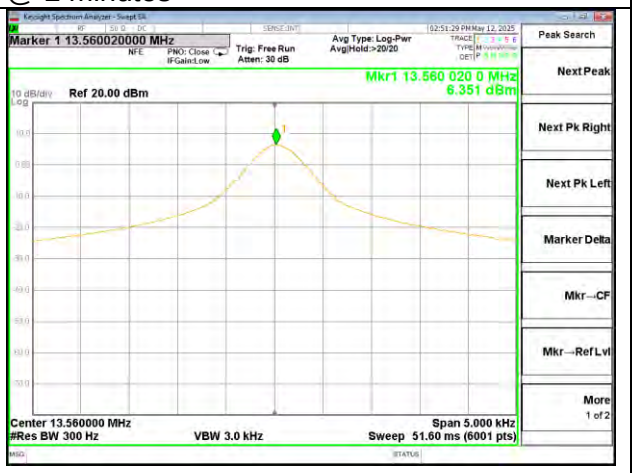
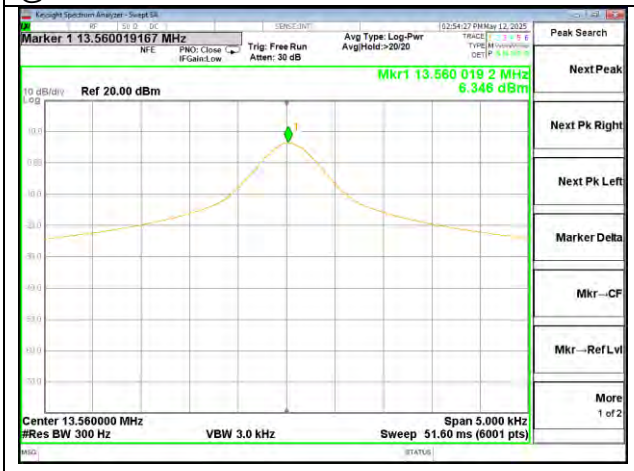
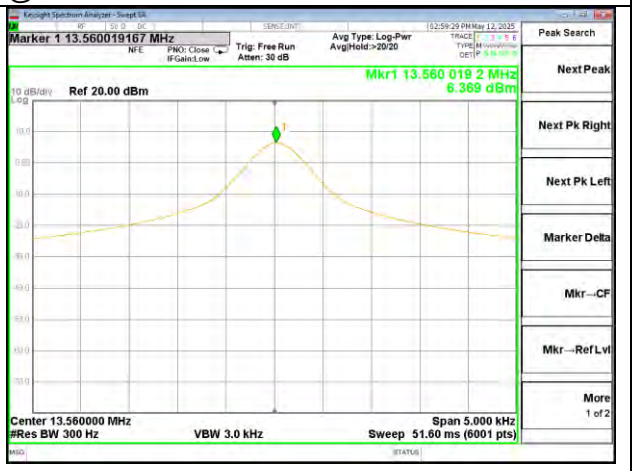
Frequency Stability Vnom Tnom

@ startup	@ 2 minutes
	
@ 5 minutes	**@ 10 minutes**
	

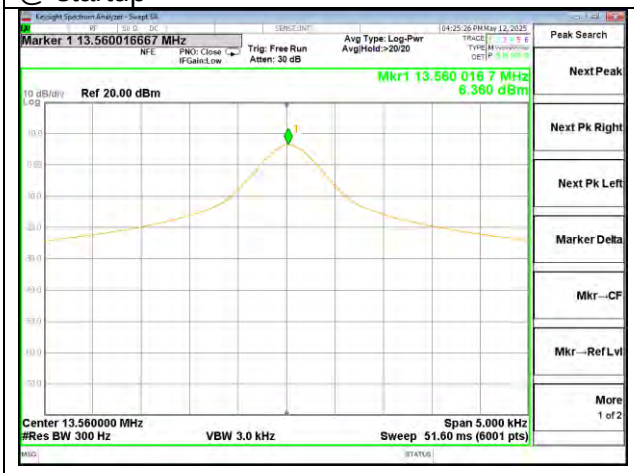
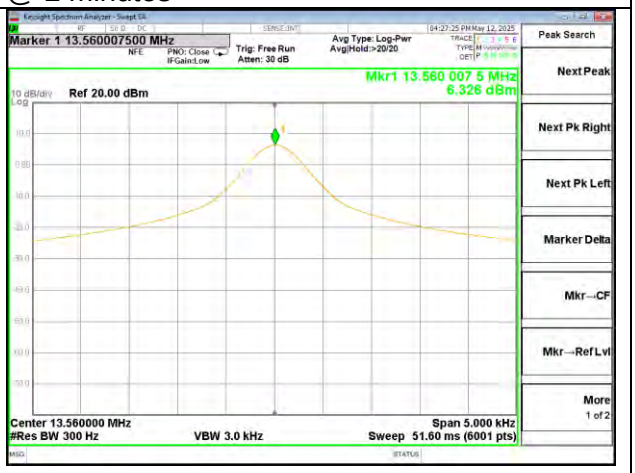
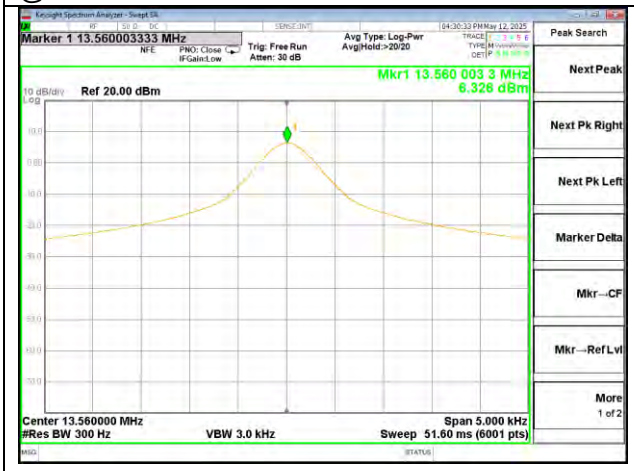
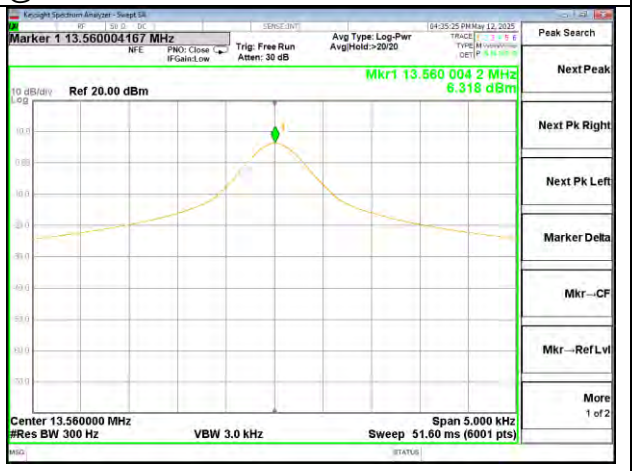
Frequency Stability Vnom T -20°C

@ startup	@ 2 minutes
	
@ 5 minutes	**@ 10 minutes**
	

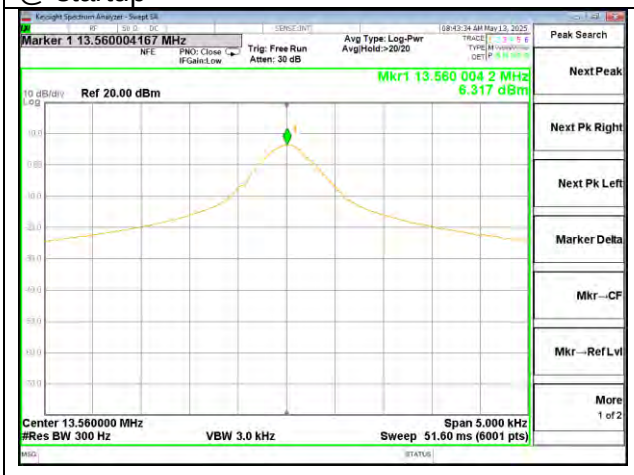
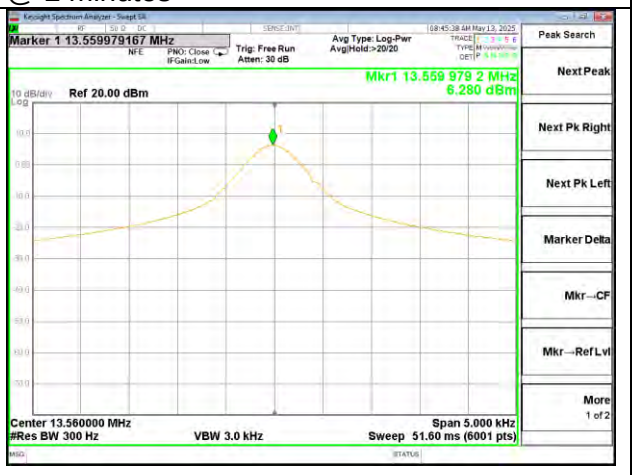
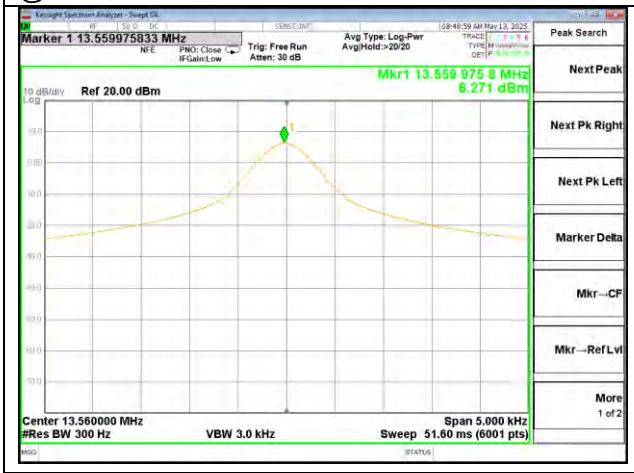
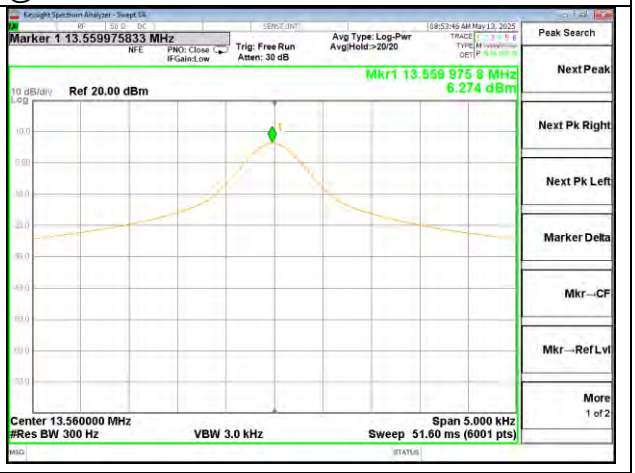
Frequency Stability Vnom T -10°C

@ startup	@ 2 minutes
	
@ 5 minutes	**@ 10 minutes**
	

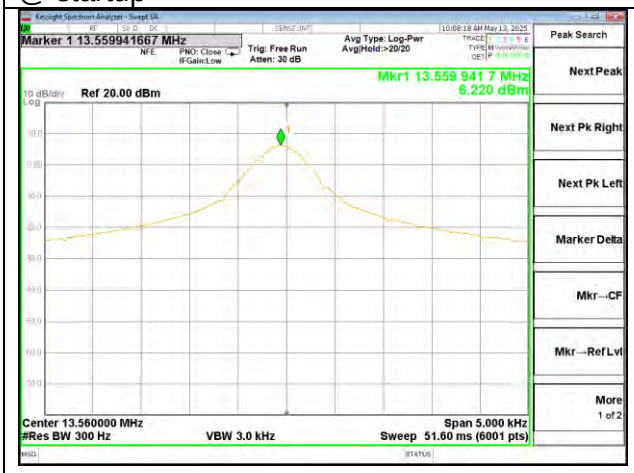
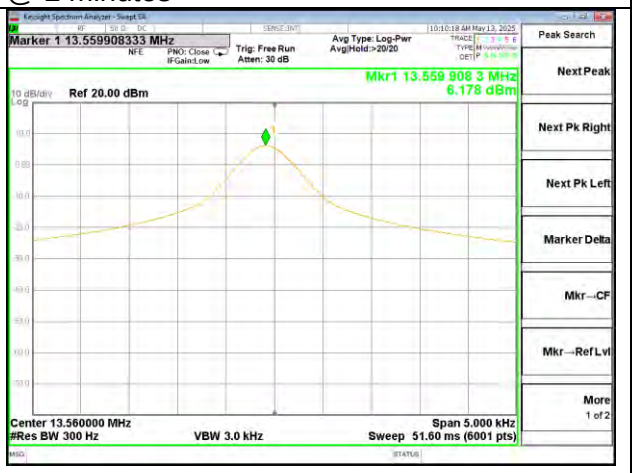
Frequency Stability Vnom T 0°C

@ startup	@ 2 minutes
	
@ 5 minutes	**@ 10 minutes**
	

Frequency Stability Vnom T 10°C

@ startup	@ 2 minutes
	
@ 5 minutes	**@ 10 minutes**
	

Frequency Stability Vnom T 30°C

@ startup	@ 2 minutes
	
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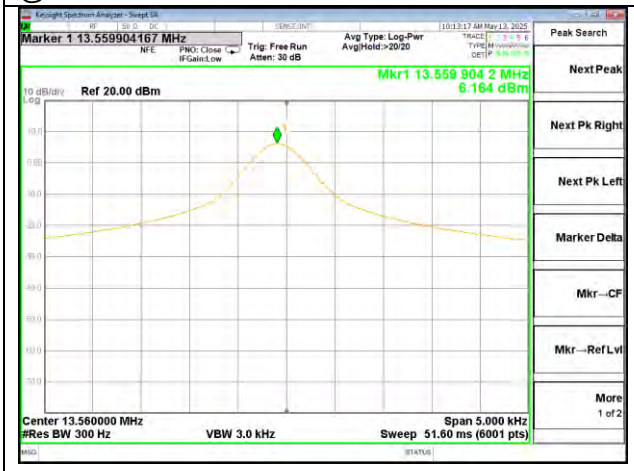
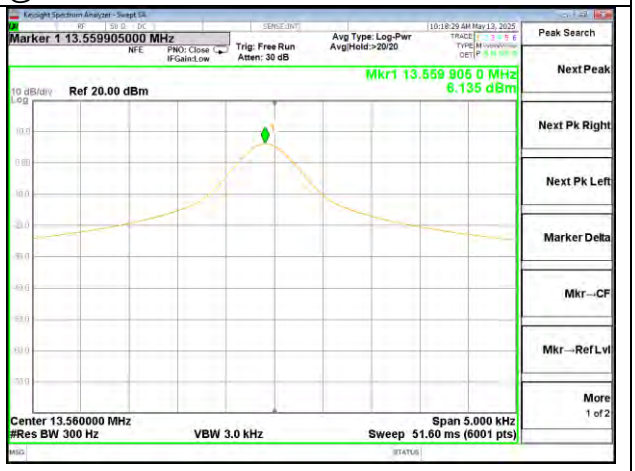
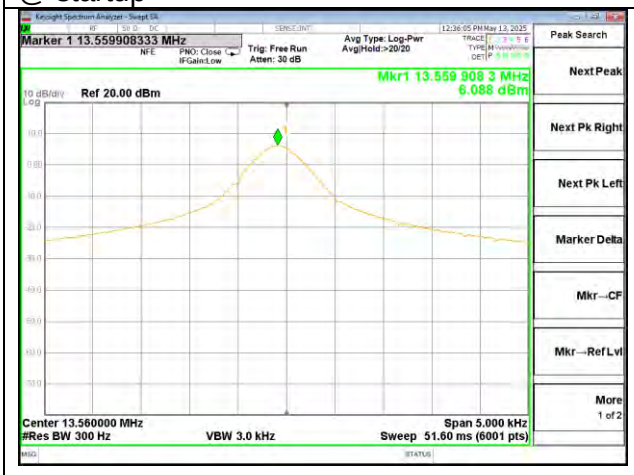
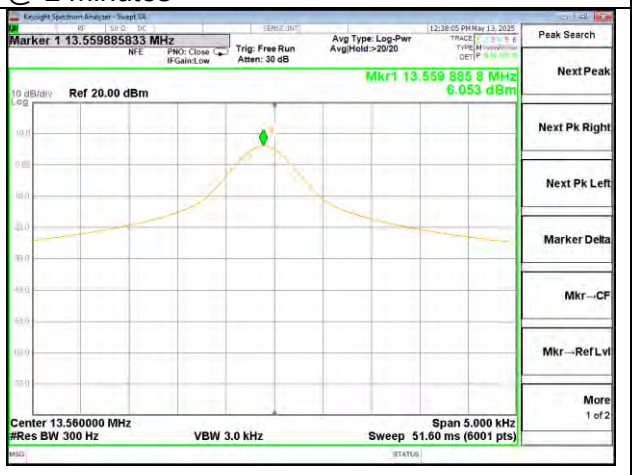
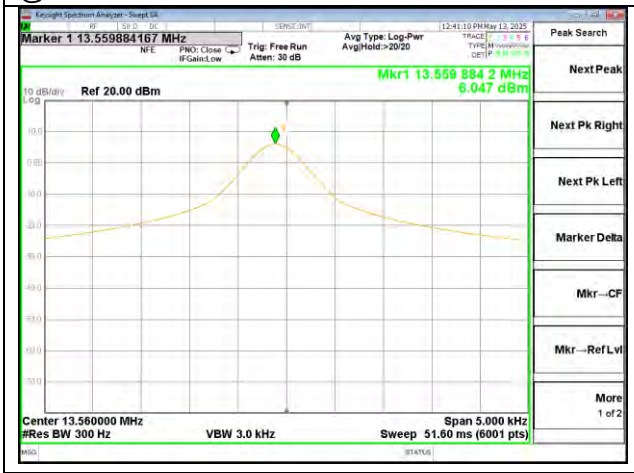
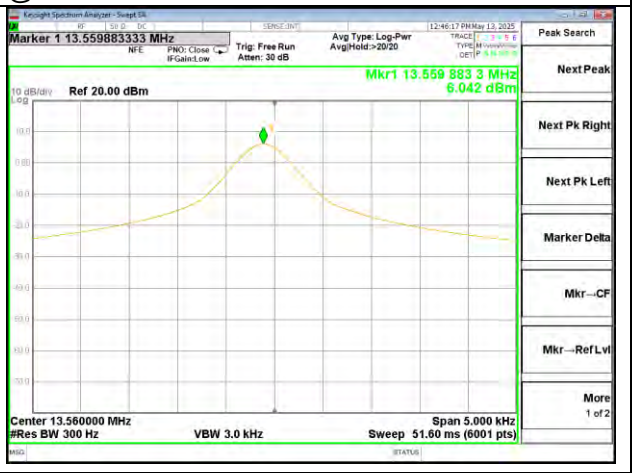
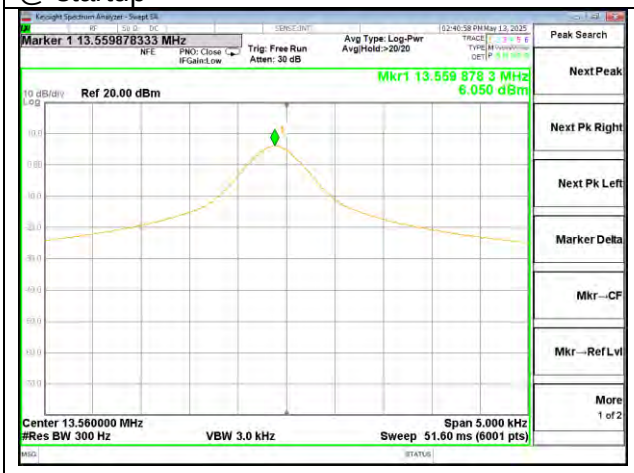
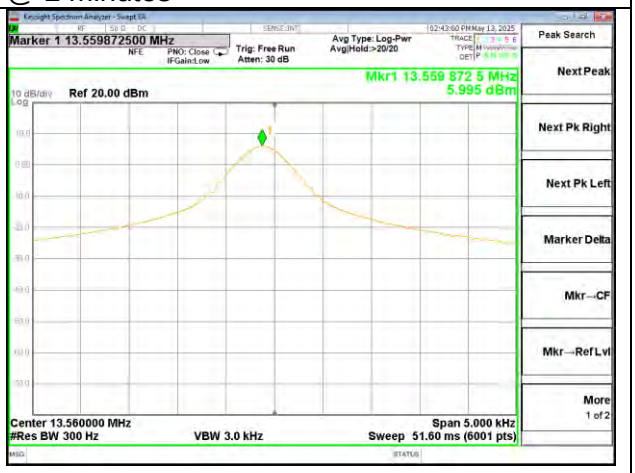
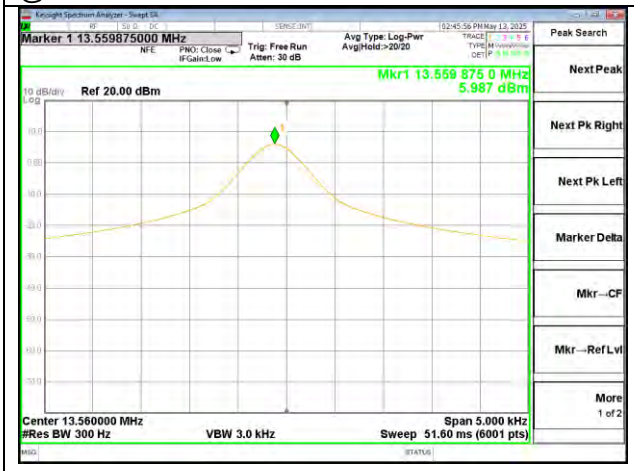
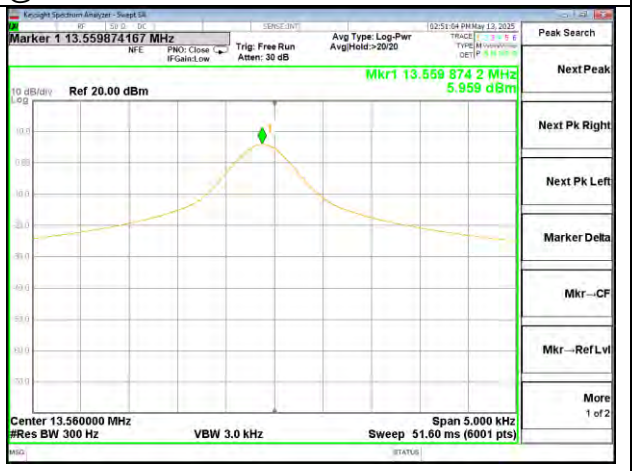
	

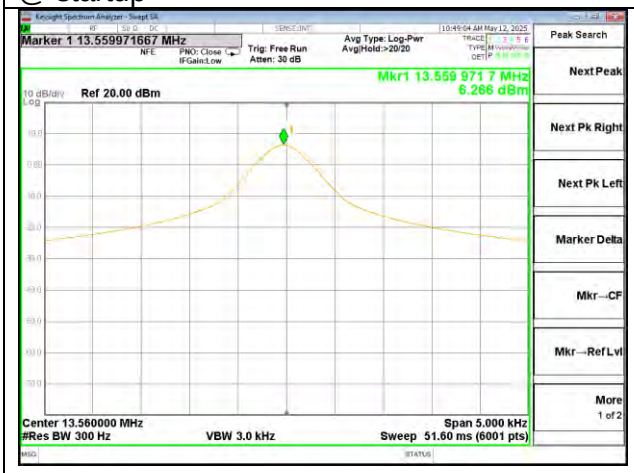
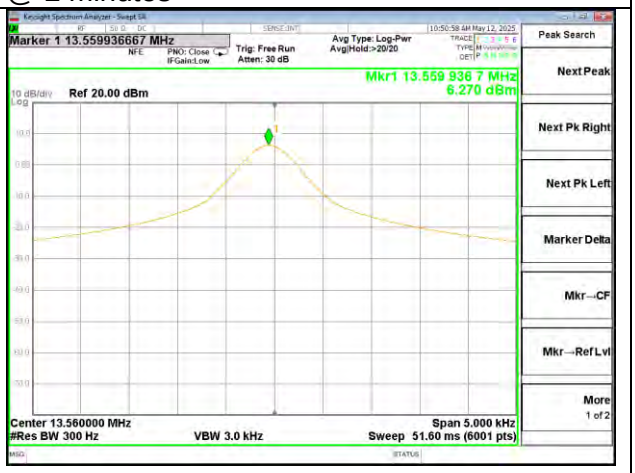
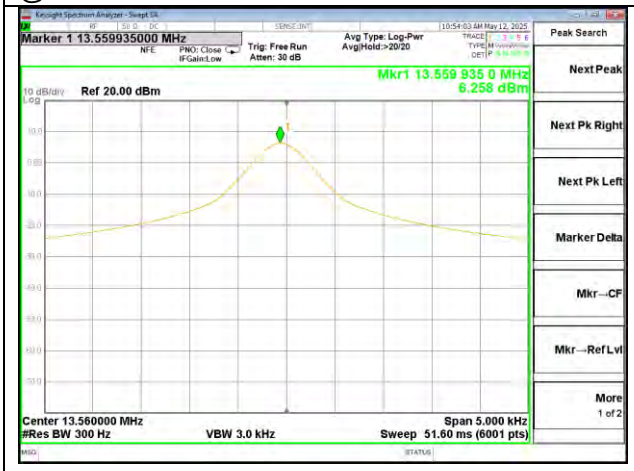
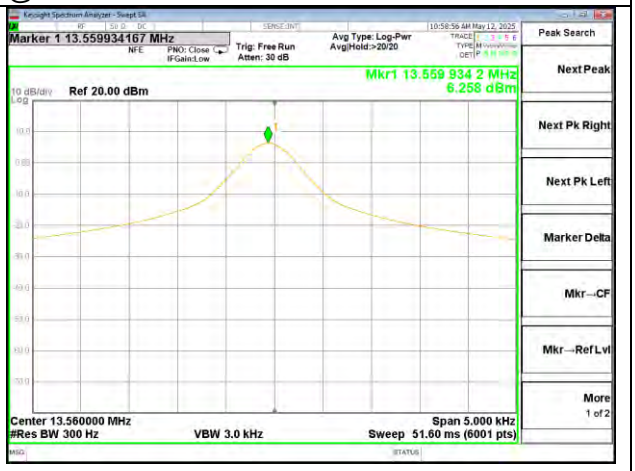
Frequency Stability Vnom T 40°C

@ startup	@ 2 minutes
	
@ 5 minutes	**@ 10 minutes**
	

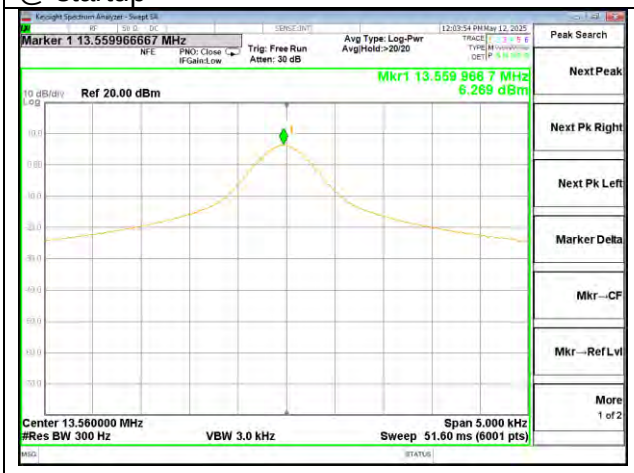
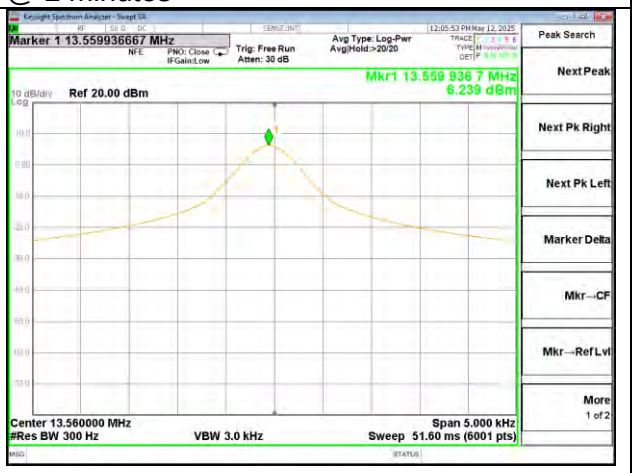
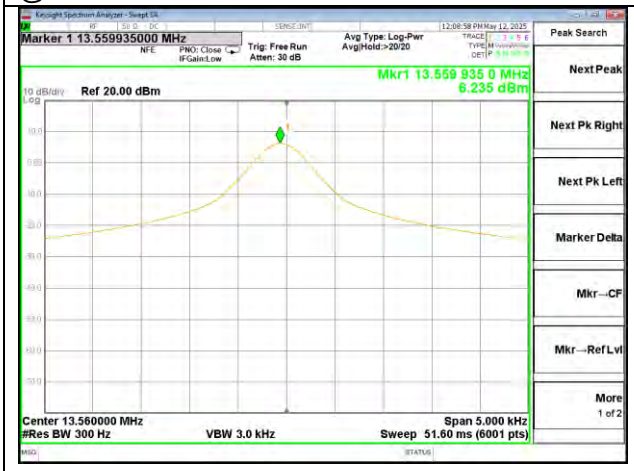
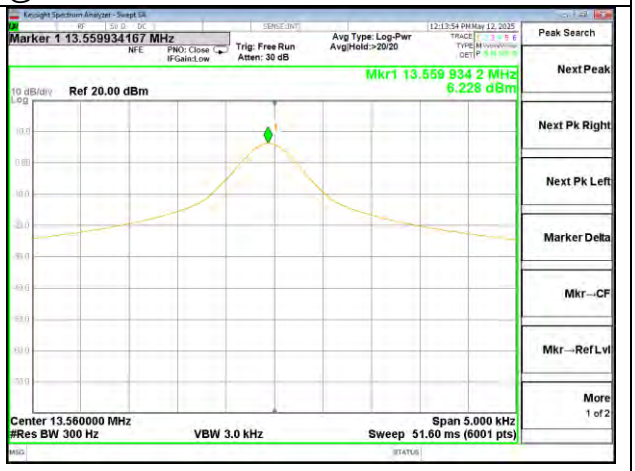
Frequency Stability Vnom T 50°C

@ startup	@ 2 minutes
	
@ 5 minutes	**@ 10 minutes**
	

Frequency Stability Vlow Tnom

@ startup	@ 2 minutes
	
@ 5 minutes	**@ 10 minutes**
	

Frequency Stability Vhigh Tnom

@ startup	@ 2 minutes
	
@ 5 minutes	**@ 10 minutes**
	

10. AC MAINS LINE CONDUCTED EMISSIONS

LIMITS

§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

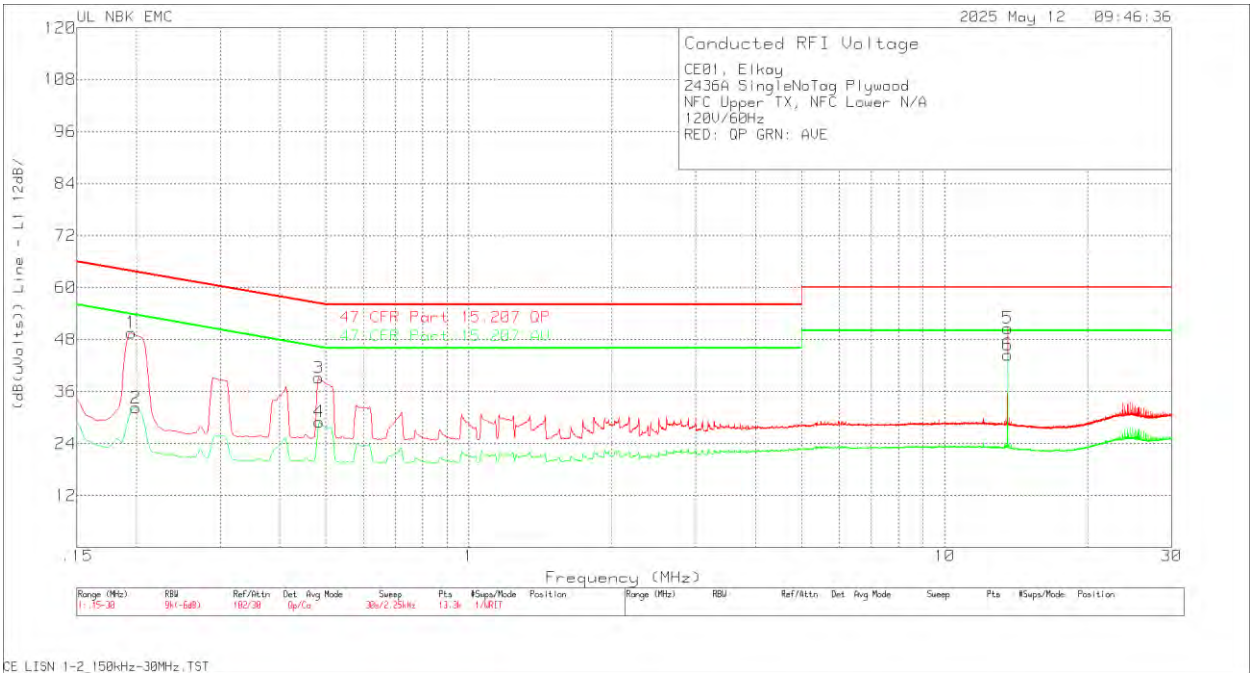
ANSI C63.10

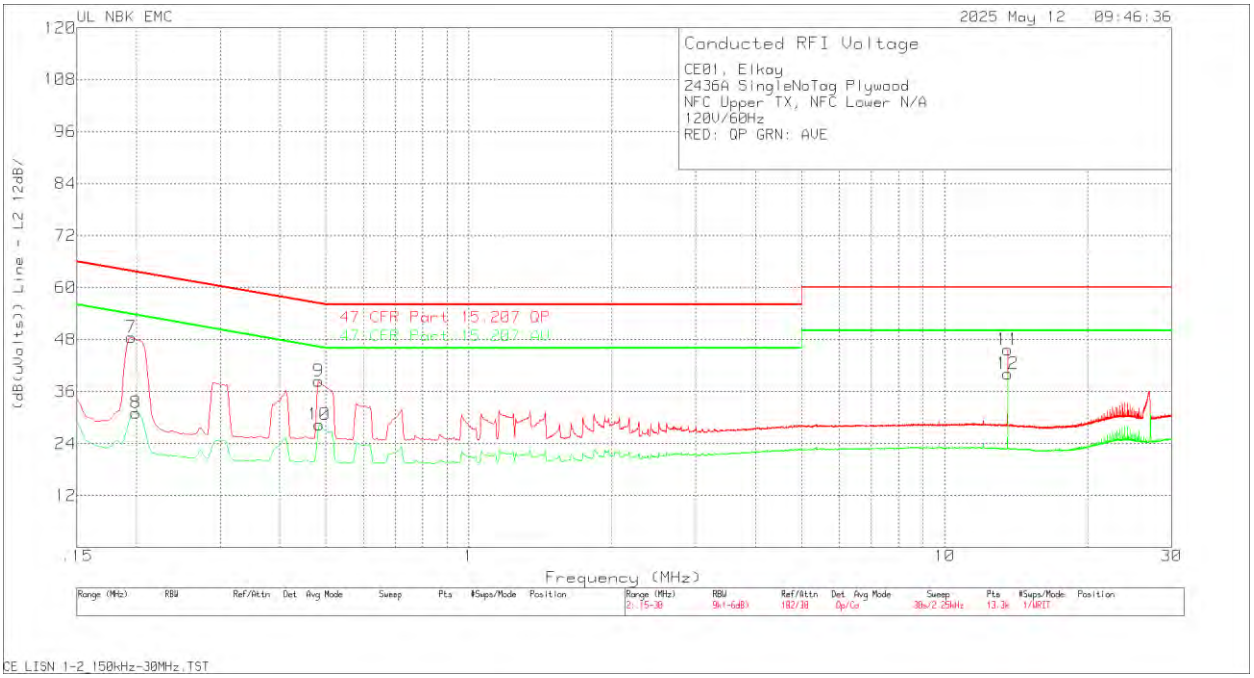
RESULTS

No non-compliance noted:

10.1. Conducted Emissions Data

Configuration Mode 1, No tag present



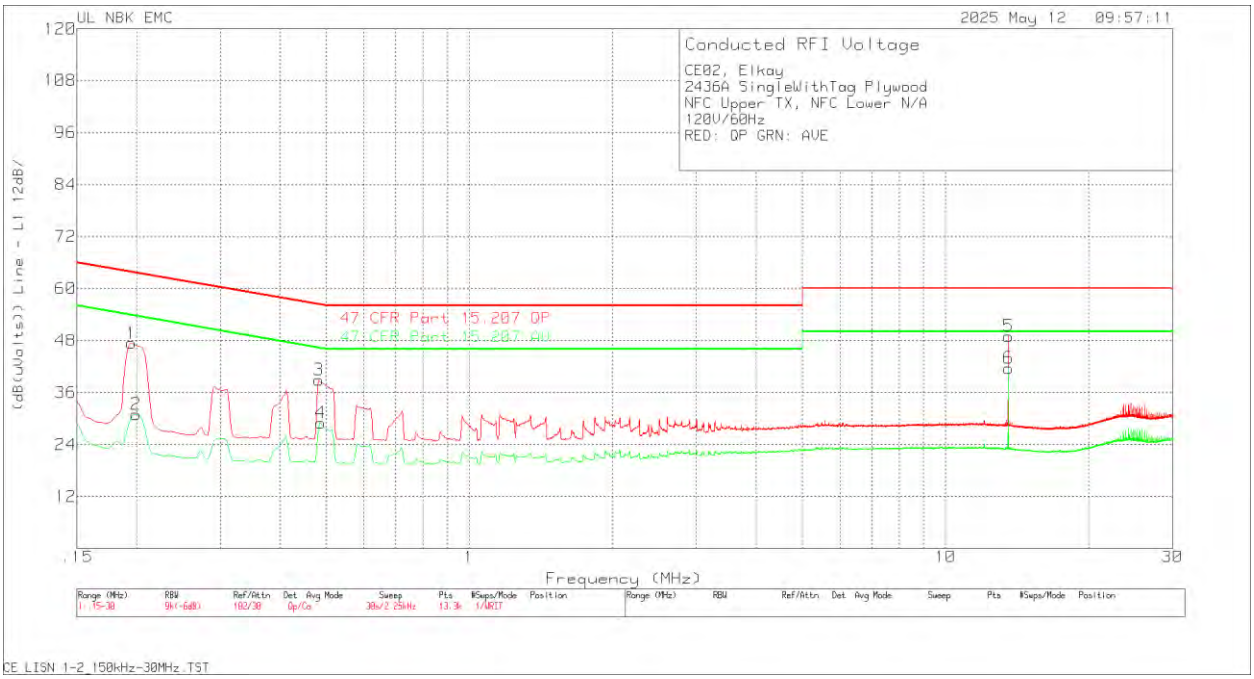


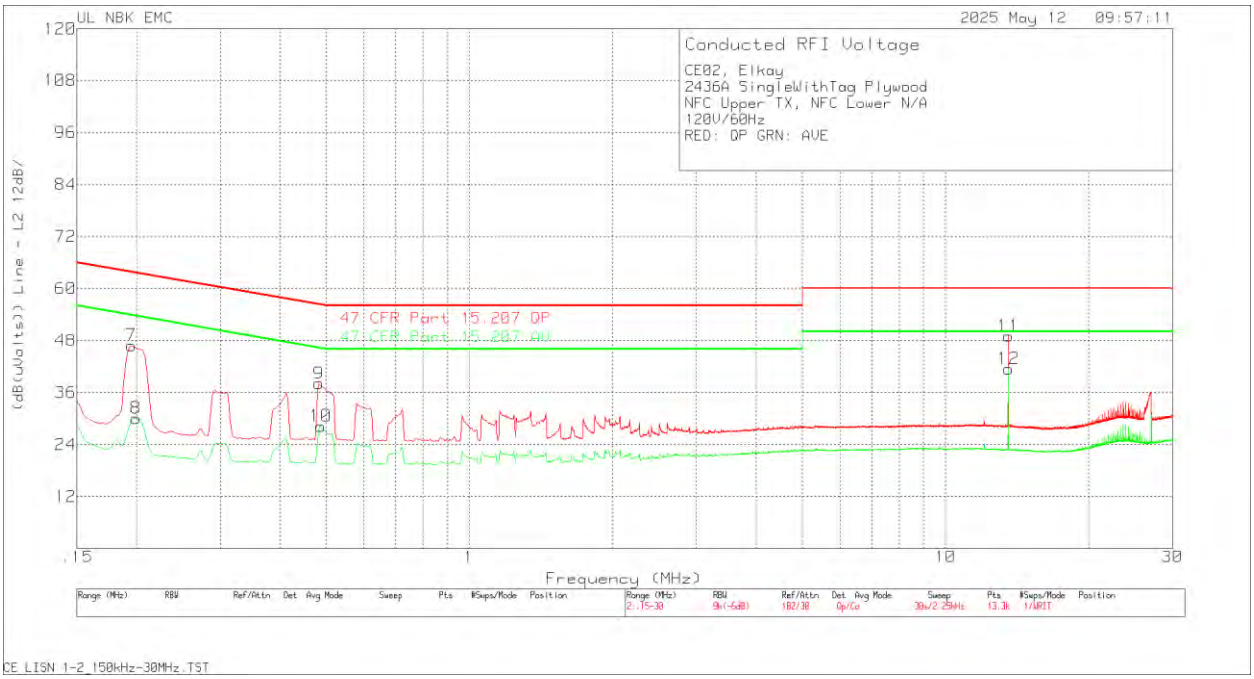
CE01,Elkay
2436A SingleNoTag Plywood
NFC Upper TX, NFC Lower N/A
120V/60Hz
RED: QP GRN: AVE
Trace Markers

Marker No.	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	LISN Factor dB	Path Factor dB	Level dBuV	Limit 47 CFR Part 15.207 QP dBuV	QP Margin (dB)	Limit 47 CFR Part 15.207 AV dBuV	Margin (dB)
Line										
1	0.195	37.84	Qp	0.1	11.6	49.54	63.82	-14.28	-	-
2	0.1995	20.61	Ca	0.1	11.5	32.21	-	-	53.63	-21.42
3	0.483	28.23	Qp	0.1	10.8	39.13	56.29	-17.16	-	-
4	0.48525	18.07	Ca	0.1	10.8	28.97	-	-	46.25	-17.28
5	13.56	39.35	Qp	0.1	11.2	50.65	60	-9.35	-	-
6	13.56	33.19	Ca	0.1	11.2	44.49	-	-	50	-5.51
Neutral										
7	0.195	37.16	Qp	0	11.4	48.56	63.82	-15.26	-	-
8	0.1995	19.71	Ca	0	11.4	31.11	-	-	53.63	-22.52
9	0.483	27.73	Qp	0	10.7	38.43	56.29	-17.86	-	-
10	0.48525	17.67	Ca	0	10.7	28.37	-	-	46.25	-17.88
11	13.56	34.51	Qp	0	11.2	45.71	60	-14.29	-	-
12	13.56	28.88	Ca	0	11.2	40.08	-	-	50	-9.92

Qp - Quasi-Peak detector
Ca - CISPR Average detection

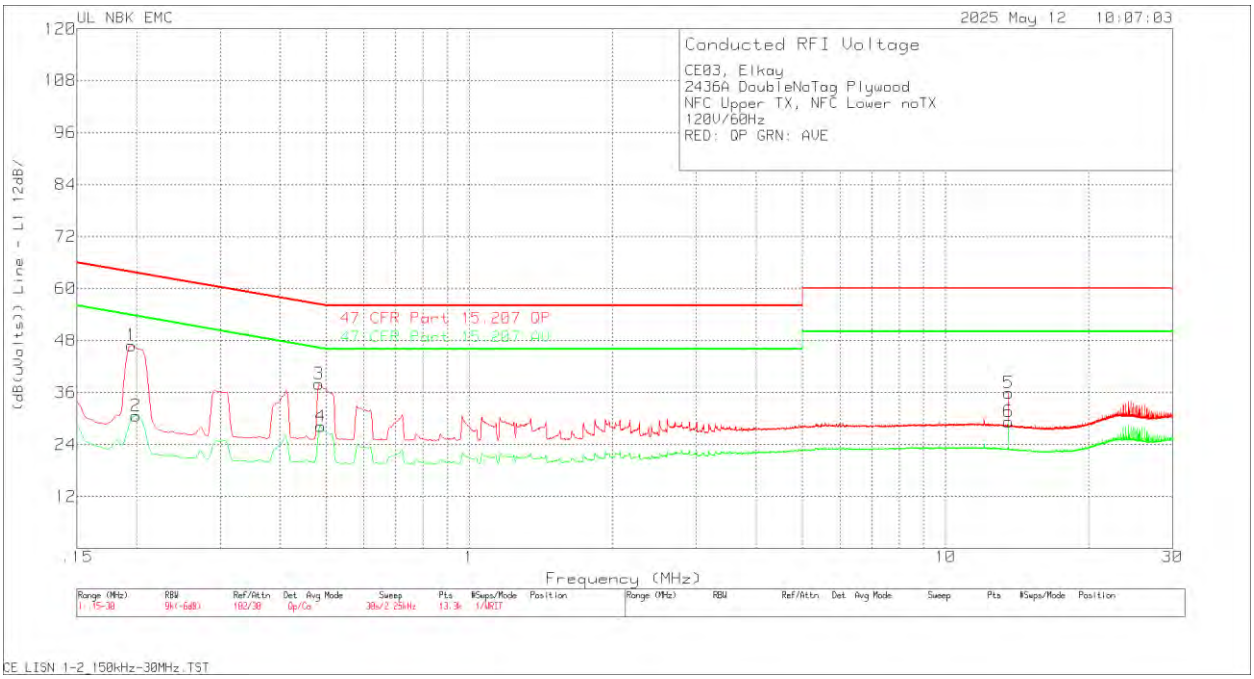
Configuration Mode 1, with tag present

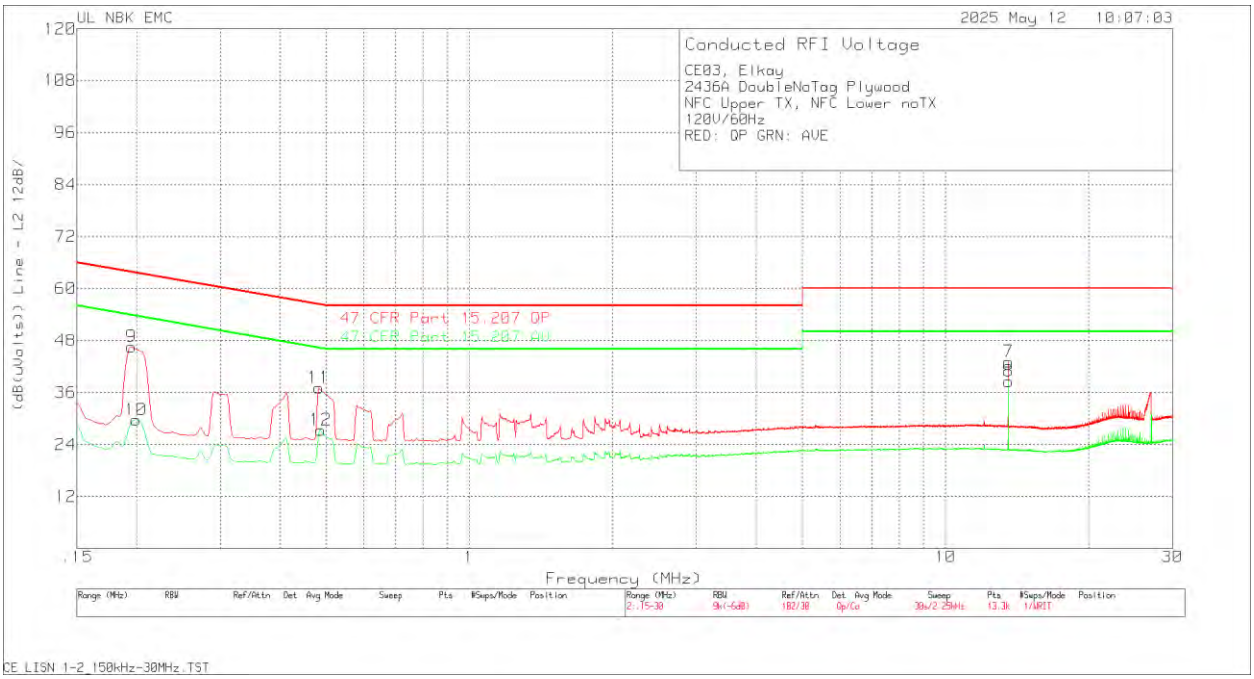




CE02,Elkay										
2436A SingleWithTag Plywood										
NFC Upper TX, NFC Lower N/A										
120V/60Hz										
RED: QP GRN: AVE										
Trace Markers										
Marker No.	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	LISN Factor dB	Path Factor dB	Level dBuV	Limit 47 CFR Part 15.207 QP dBuV	QP Margin (dB)	Limit 47 CFR Part 15.207 AV dBuV	Margin (dB)
Line										
1	0.195	35.68	Qp	0.1	11.6	47.38	63.82	-16.44	-	-
2	0.1995	19.37	Ca	0.1	11.5	30.97	-	-	53.63	-22.66
3	0.483	28.05	Qp	0.1	10.8	38.95	56.29	-17.34	-	-
4	0.4875	18.04	Ca	0.1	10.8	28.94	-	-	46.21	-17.27
5	13.56	37.64	Qp	0.1	11.2	48.94	60	-11.06	-	-
6	13.56	30.31	Ca	0.1	11.2	41.61	-	-	50	-8.39
Neutral										
7	0.195	35.44	Qp	0	11.4	46.84	63.82	-16.98	-	-
8	0.1995	18.65	Ca	0	11.4	30.05	-	-	53.63	-23.58
9	0.483	27.37	Qp	0	10.7	38.07	56.29	-18.22	-	-
10	0.4875	17.48	Ca	0	10.7	28.18	-	-	46.21	-18.03
11	13.56	37.83	Qp	0	11.2	49.03	60	-10.97	-	-
12	13.56	30.27	Ca	0	11.2	41.47	-	-	50	-8.53
Qp - Quasi-Peak detector										
Ca - CISPR Average detection										

Configuration Mode 3, No tag present



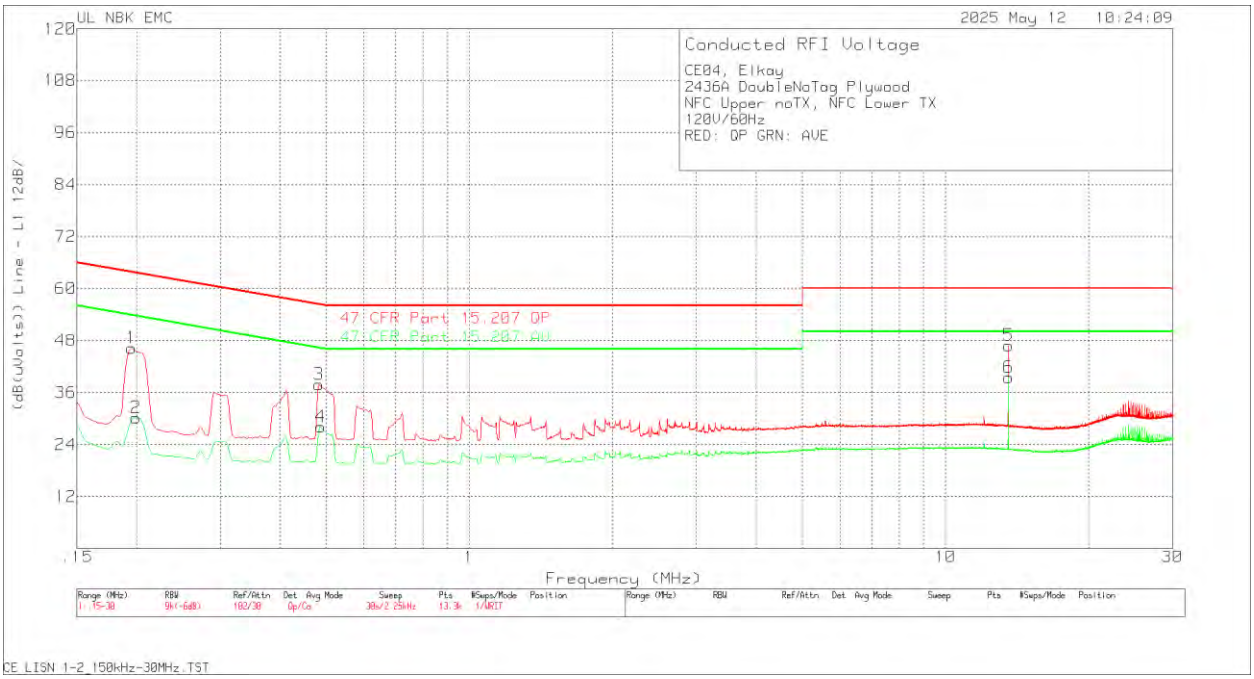


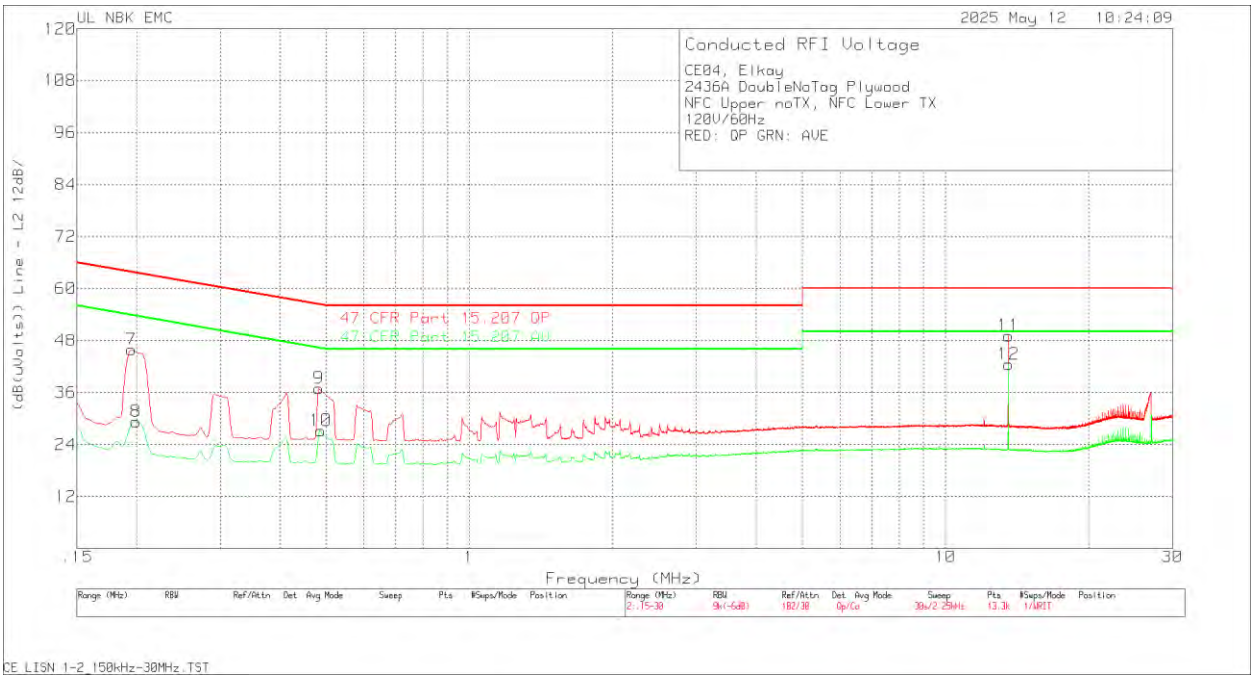
CE03,Elkay										
2436A DoubleNoTag Plywood										
NFC Upper TX, NFC Lower noTX										
120V/60Hz										
RED: QP GRN: AVE										
Trace Markers										
Marker No.	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	LISN Factor dB	Path Factor dB	Level dBuV	Limit 47 CFR Part 15.207 QP dBuV	QP Margin (dB)	Limit 47 CFR Part 15.207 AV dBuV	Margin (dB)
Line										
1	0.195	35.19	Qp	0.1	11.6	46.89	63.82	-16.93	-	-
2	0.1995	19.01	Ca	0.1	11.5	30.61	-	-	53.63	-23.02
3	0.483	27.11	Qp	0.1	10.8	38.01	56.29	-18.28	-	-
4	0.4875	17.27	Ca	0.1	10.8	28.17	-	-	46.21	-18.04
5	13.56	24.57	Qp	0.1	11.2	35.87	60	-24.13	-	-
6	13.56	17.93	Ca	0.1	11.2	29.23	-	-	50	-20.77
Neutral										
7	13.56	31.91	Qp	0	11.2	43.11	60	-16.89	-	-
8	13.56	27.39	Ca	0	11.2	38.59	-	-	50	-11.41
9	0.195	35.14	Qp	0	11.4	46.54	63.82	-17.28	-	-
10	0.1995	18.27	Ca	0	11.4	29.67	-	-	53.63	-23.96
11	0.483	26.34	Qp	0	10.7	37.04	56.29	-19.25	-	-
12	0.4875	16.59	Ca	0	10.7	27.29	-	-	46.21	-18.92
Qp - Quasi-Peak detector										
Ca - CISPR Average detection										

Configuration Mode 3, with tag present

See section 5.3

Configuration Mode 2, No tag present





CE04,Elkay										
2436A DoubleNoTag Plywood										
NFC Upper noTX, NFC Lower TX										
120V/60Hz										
RED: QP GRN: AVE										
Trace Markers										
Marker No.	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	LISN Factor dB	Path Factor dB	Level dBuV	Limit 47 CFR Part 15.207 QP dBuV	QP Margin (dB)	Limit 47 CFR Part 15.207 AV dBuV	Margin (dB)
Line										
1	0.195	34.53	Qp	0.1	11.6	46.23	63.82	-17.59	-	-
2	0.1995	18.59	Ca	0.1	11.5	30.19	-	-	53.63	-23.44
3	0.483	27	Qp	0.1	10.8	37.9	56.29	-18.39	-	-
4	0.4875	17.23	Ca	0.1	10.8	28.13	-	-	46.21	-18.08
5	13.56	35.5	Qp	0.1	11.2	46.8	60	-13.2	-	-
6	13.56	28.17	Ca	0.1	11.2	39.47	-	-	50	-10.53
Neutral										
7	0.195	34.49	Qp	0	11.4	45.89	63.82	-17.93	-	-
8	0.1995	17.89	Ca	0	11.4	29.29	-	-	53.63	-24.34
9	0.483	26.2	Qp	0	10.7	36.9	56.29	-19.39	-	-
10	0.4875	16.51	Ca	0	10.7	27.21	-	-	46.21	-19
11	13.56	37.94	Qp	0	11.2	49.14	60	-10.86	-	-
12	13.56	31.26	Ca	0	11.2	42.46	-	-	50	-7.54
Qp - Quasi-Peak detector										
Ca - CISPR Average detection										

Configuration Mode 2, with tag present

See section 5.3