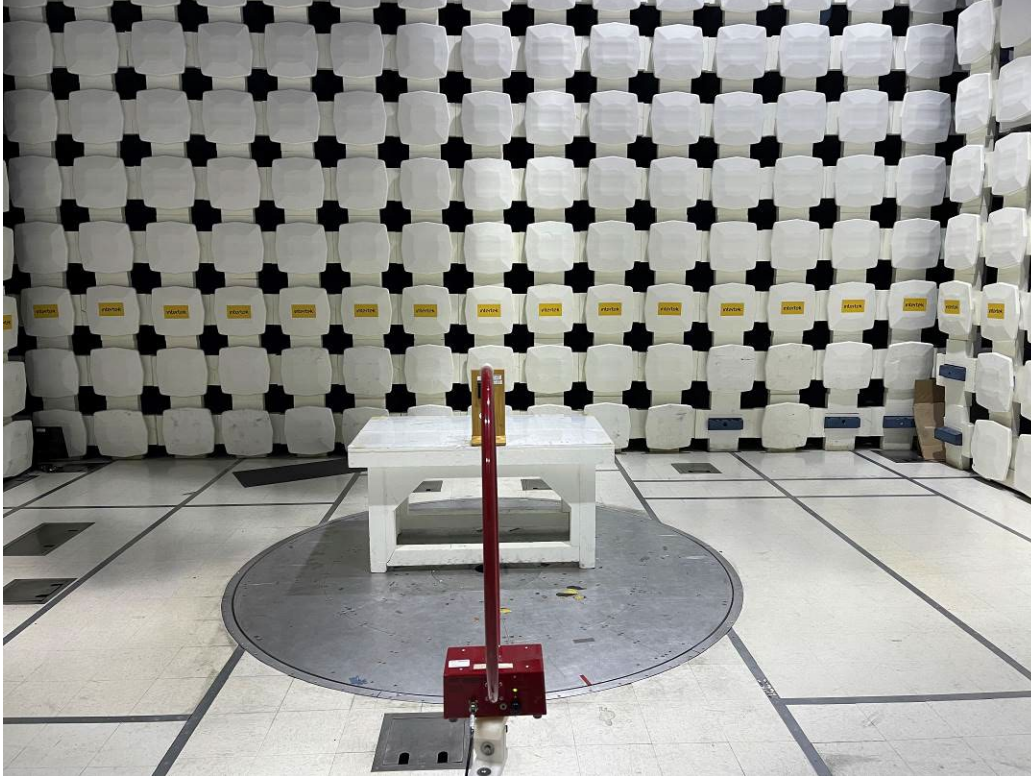
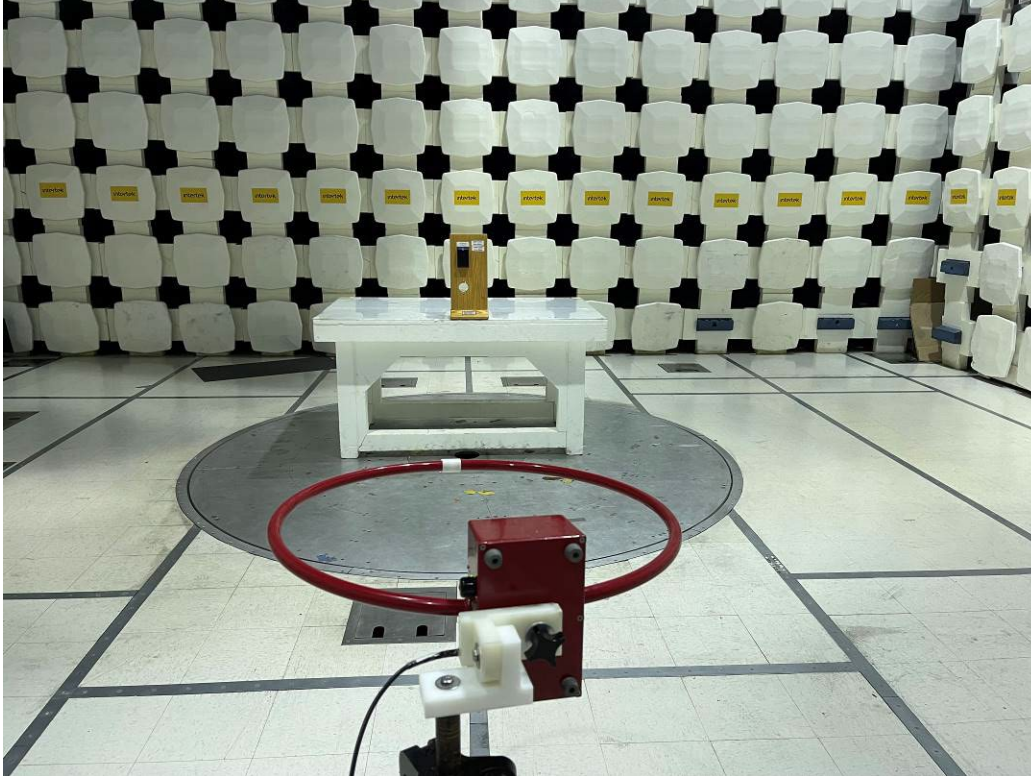


125 kHz RFID (Metal Enclosure Without Keypad), 9 kHz – 30 MHz, Antenna on Y-Axis



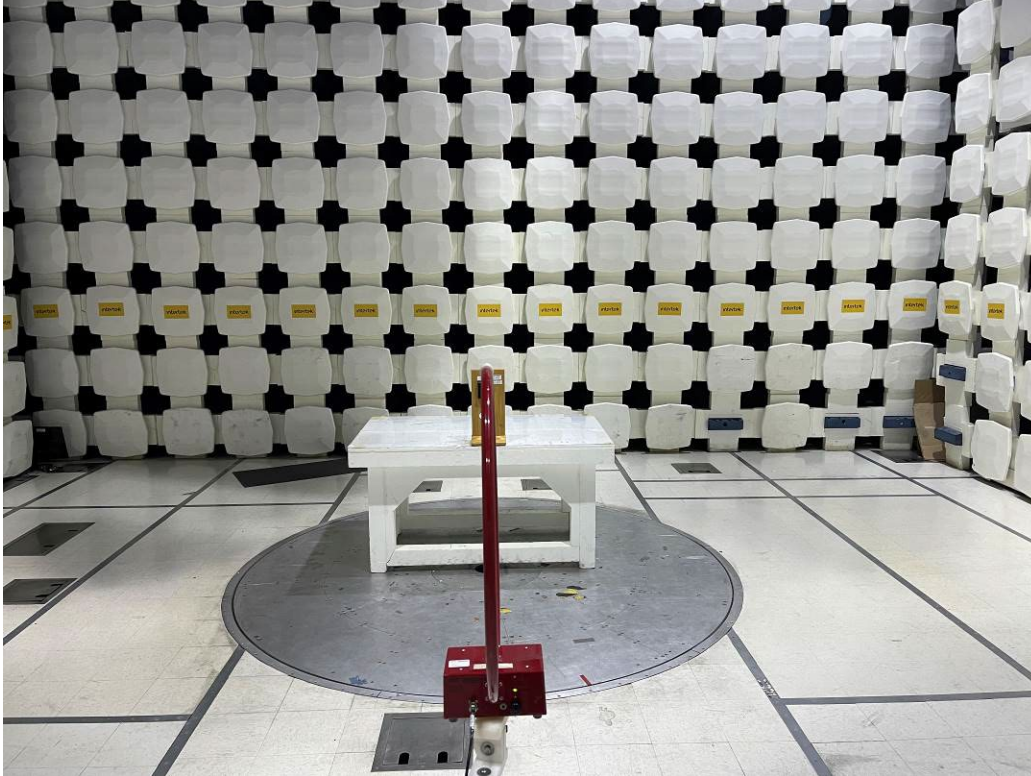
125 kHz RFID (Metal Enclosure Without Keypad), 9 kHz – 30 MHz, Antenna on Z-Axis



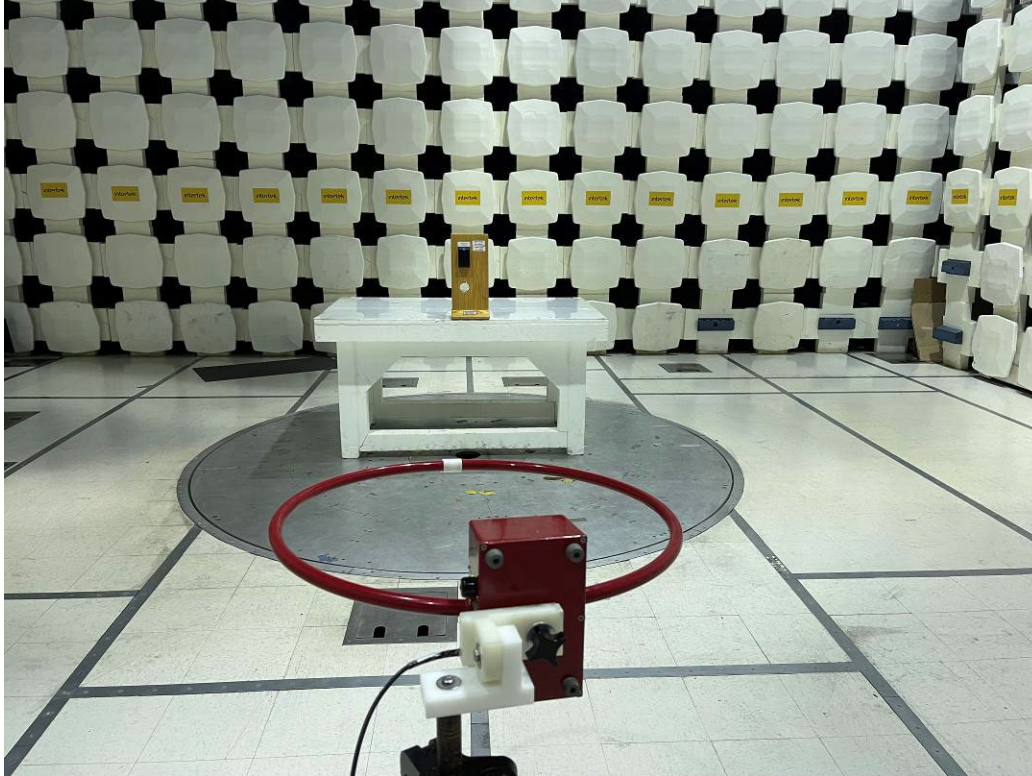
125 kHz RFID (Plastic Enclosure Without Keypad), 9 kHz – 30 MHz, Antenna on X-Axis



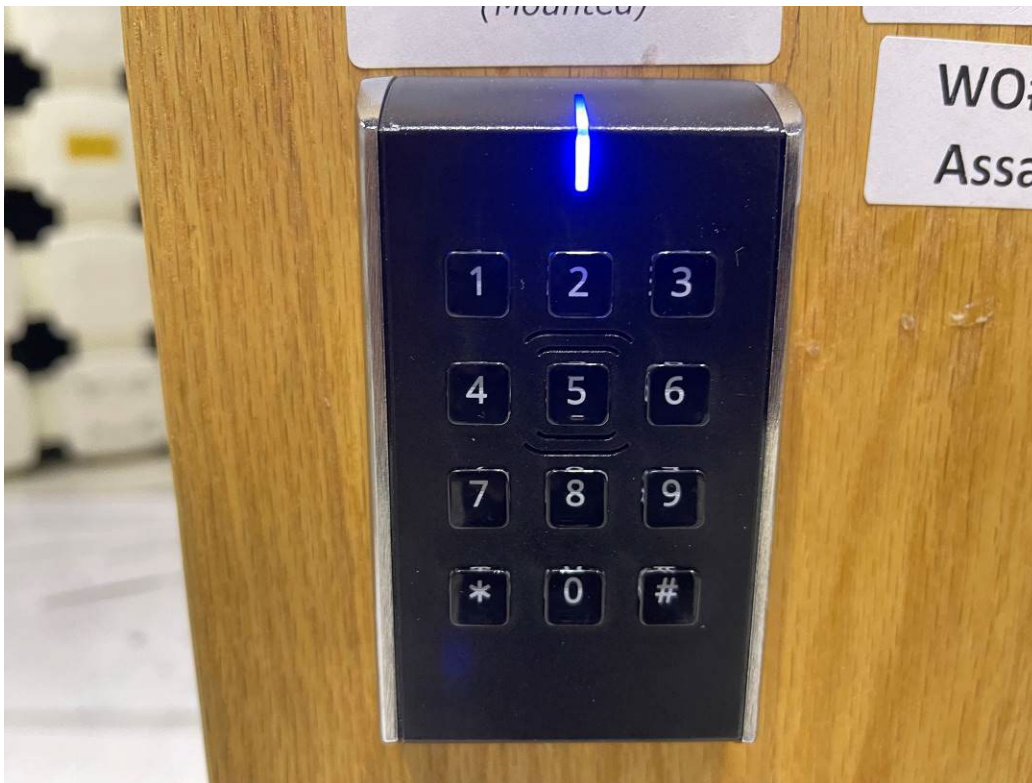
125 kHz RFID (Plastic Enclosure Without Keypad), 9 kHz – 30 MHz, Antenna on Y-Axis



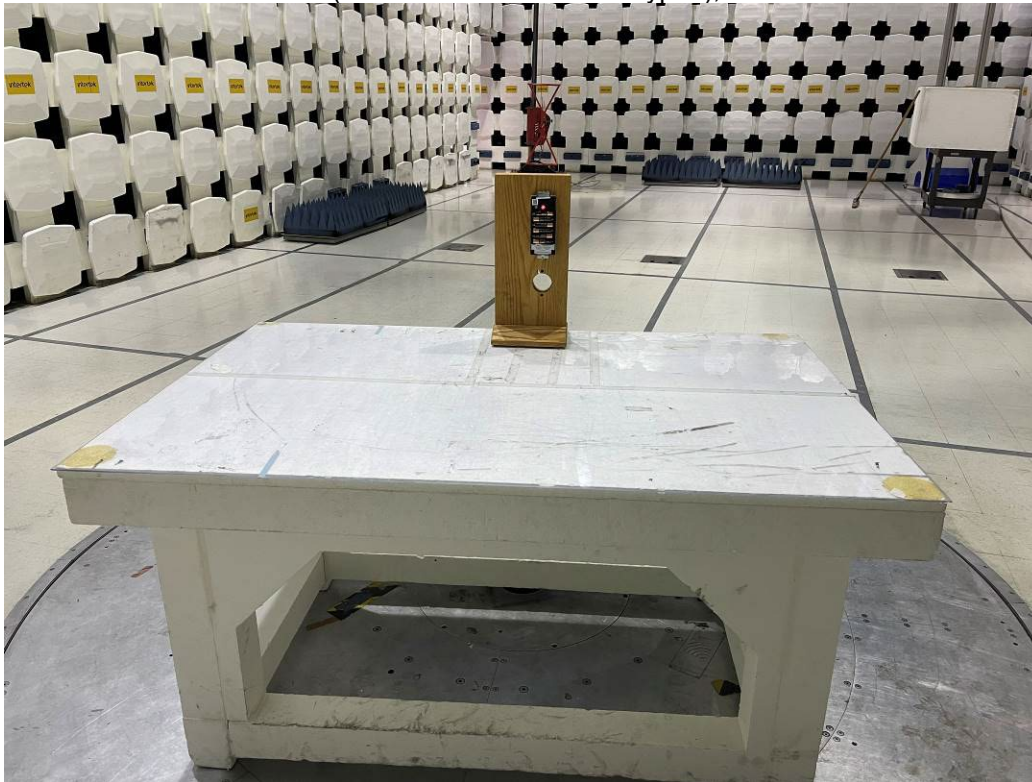
125 kHz RFID (Plastic Enclosure Without Keypad), 9 kHz – 30 MHz, Antenna on Z-Axis



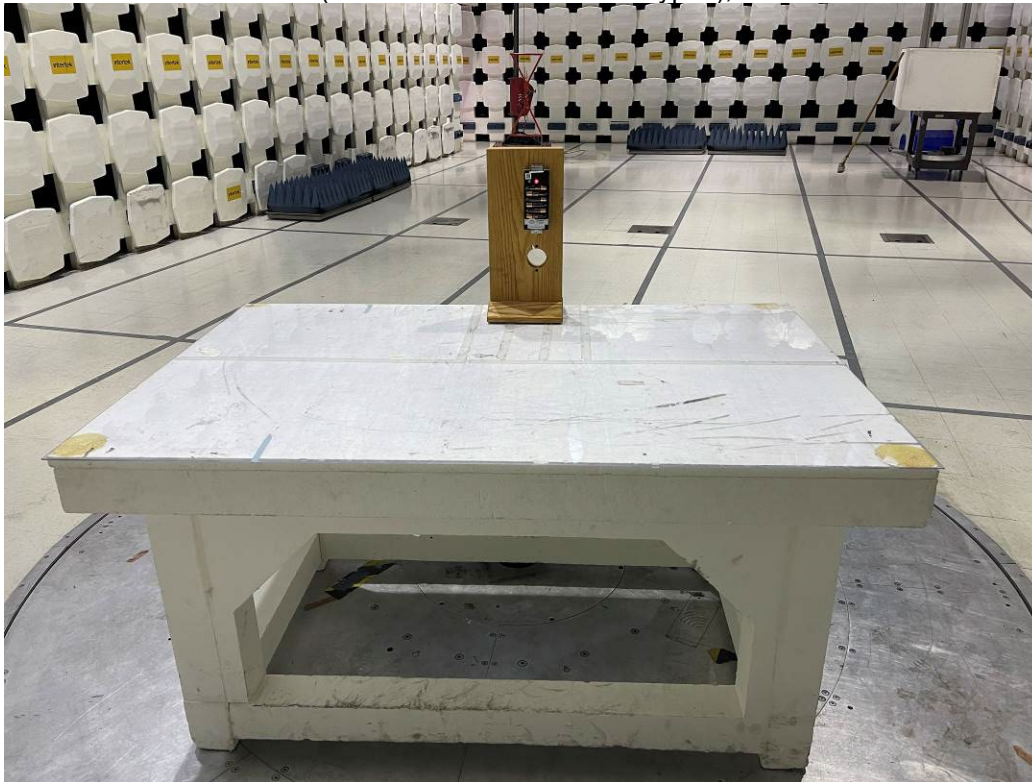
125 kHz RFID (Metal Enclosure With Keypad), 30-1000 MHz



125 kHz RFID (Plastic Enclosure With Keypad), 30-1000 MHz



125 kHz RFID (Metal Enclosure Without Keypad), 30-1000 MHz



125 kHz RFID (Plastic Enclosure Without Keypad), 30-1000 MHz

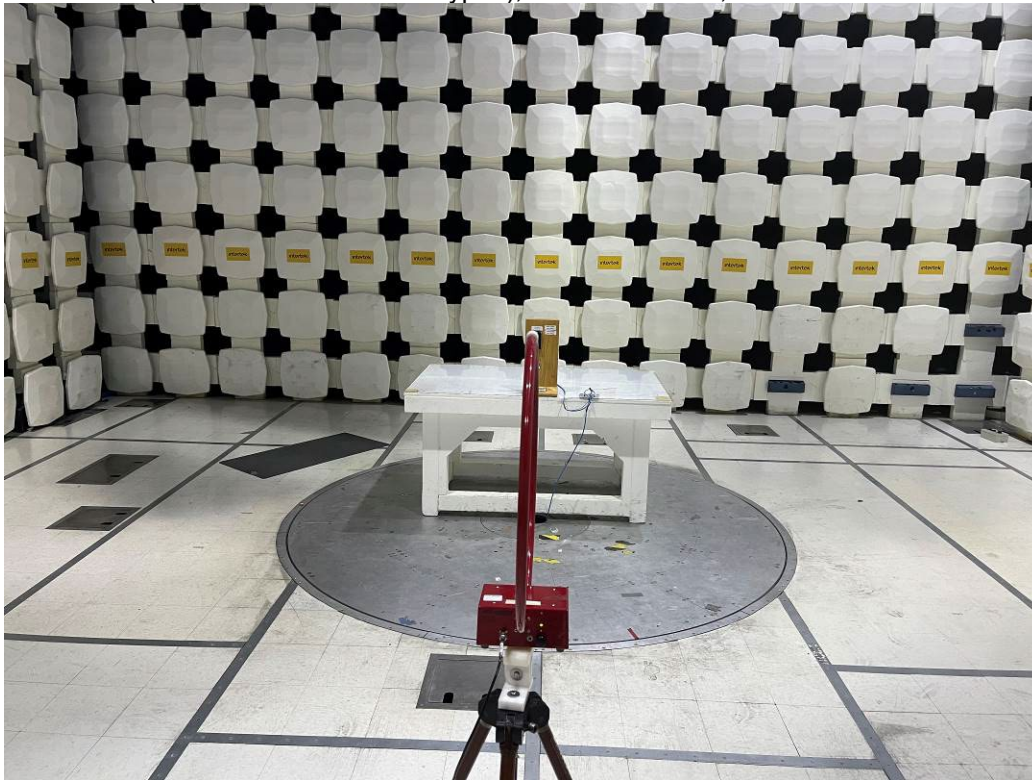


===POE Powered===

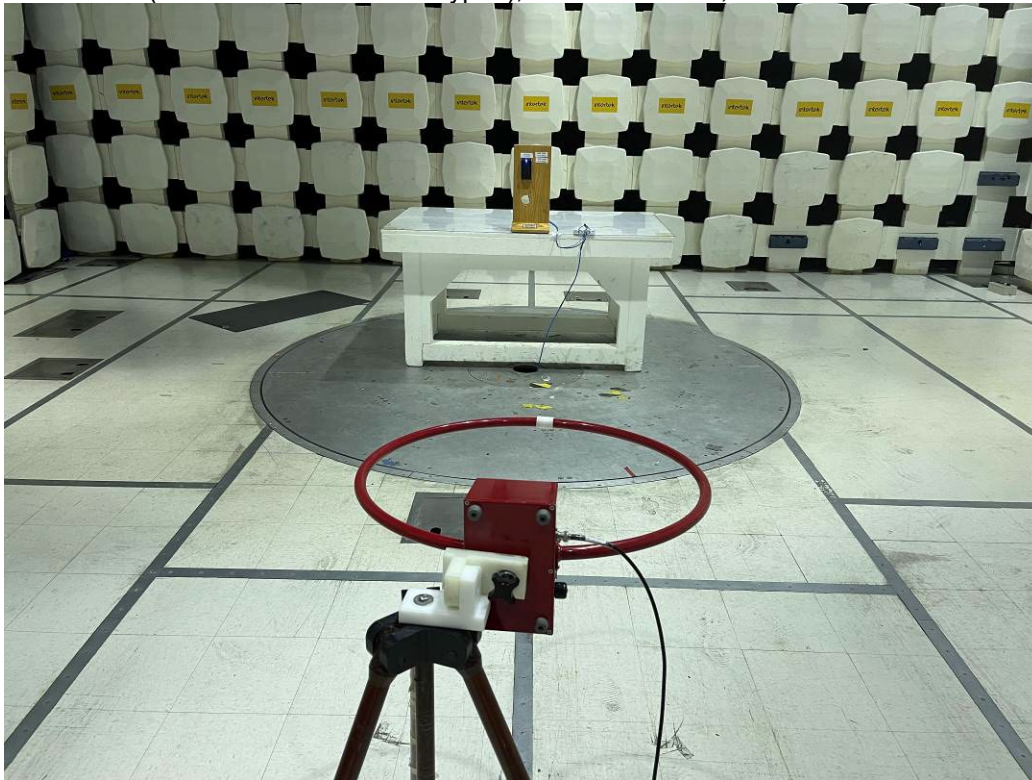
BLE (Metal Enclosure With Keypad), 9 kHz – 30 MHz, Antenna on X-Axis

Photo was not taken

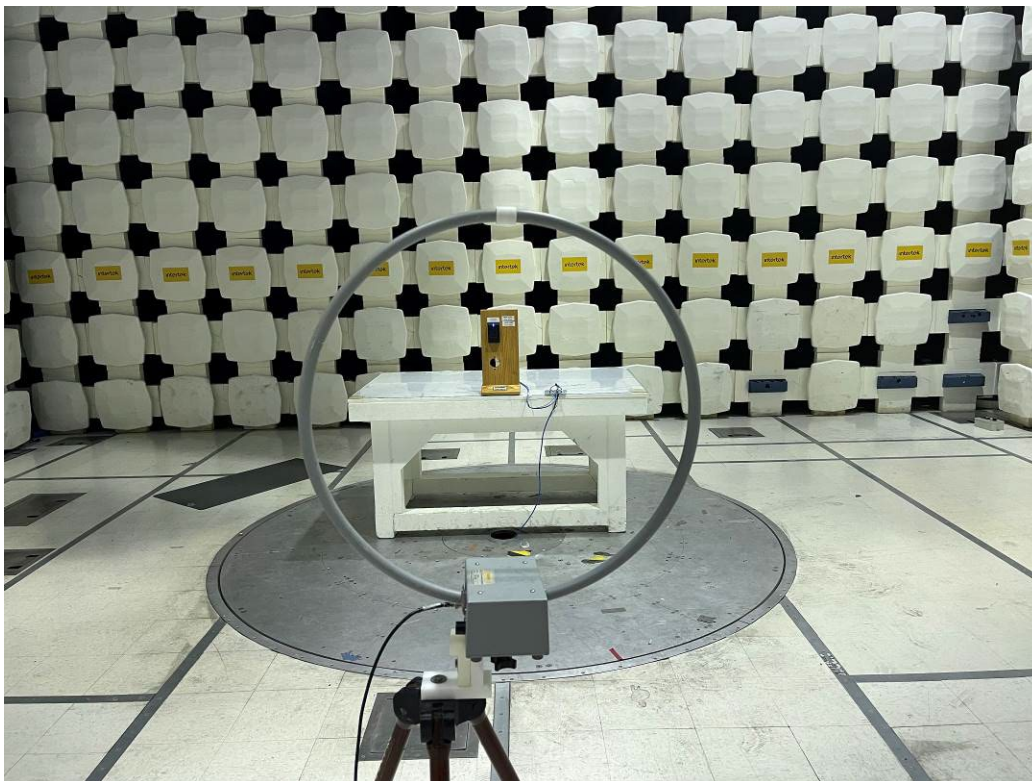
BLE (Metal Enclosure With Keypad), 9 kHz – 30 MHz, Antenna on Y-Axis



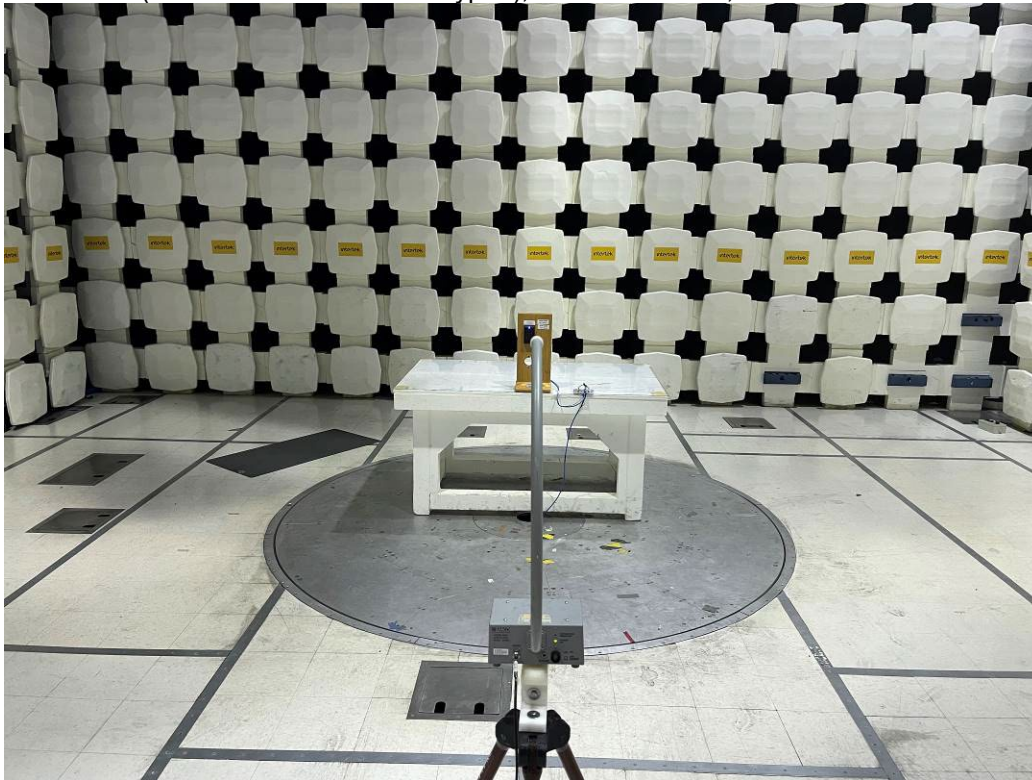
BLE (Metal Enclosure With Keypad), 9 kHz – 30 MHz, Antenna on Z-Axis



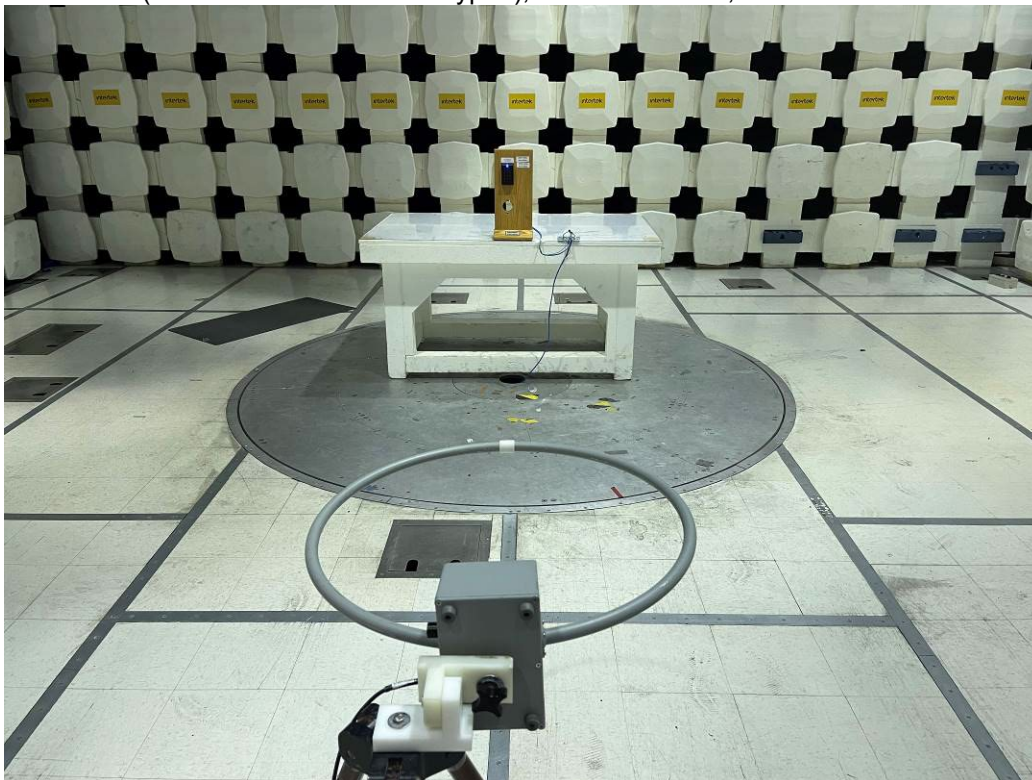
BLE (Plastic Enclosure With Keypad), 9 kHz – 30 MHz, Antenna on X-Axis



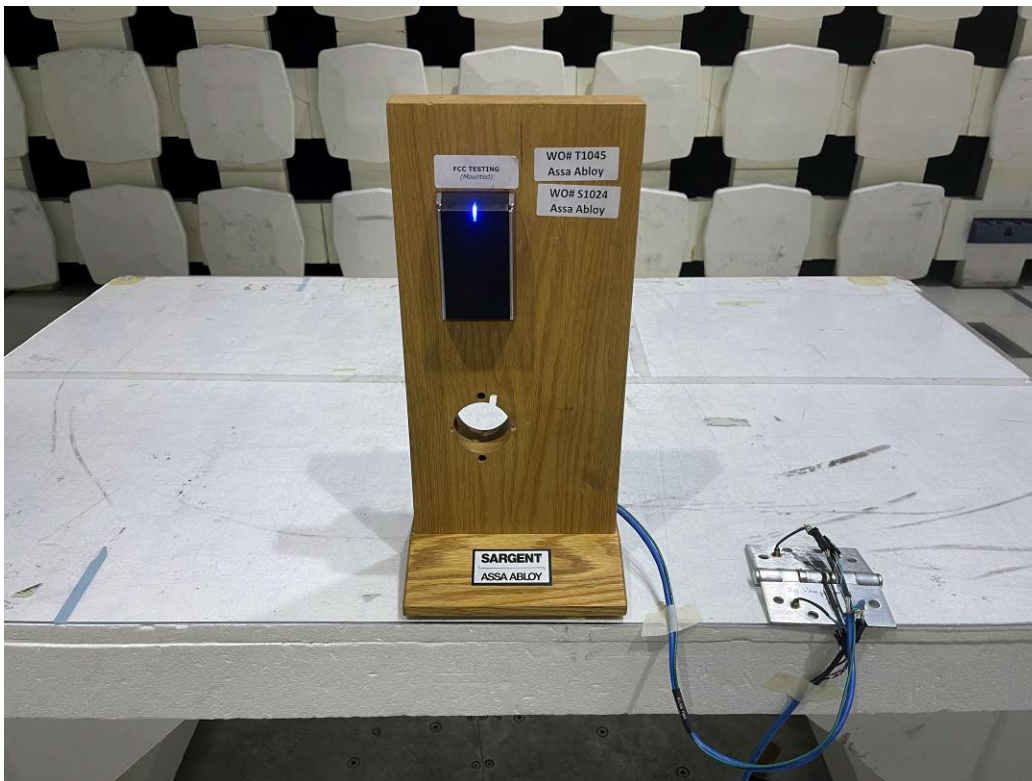
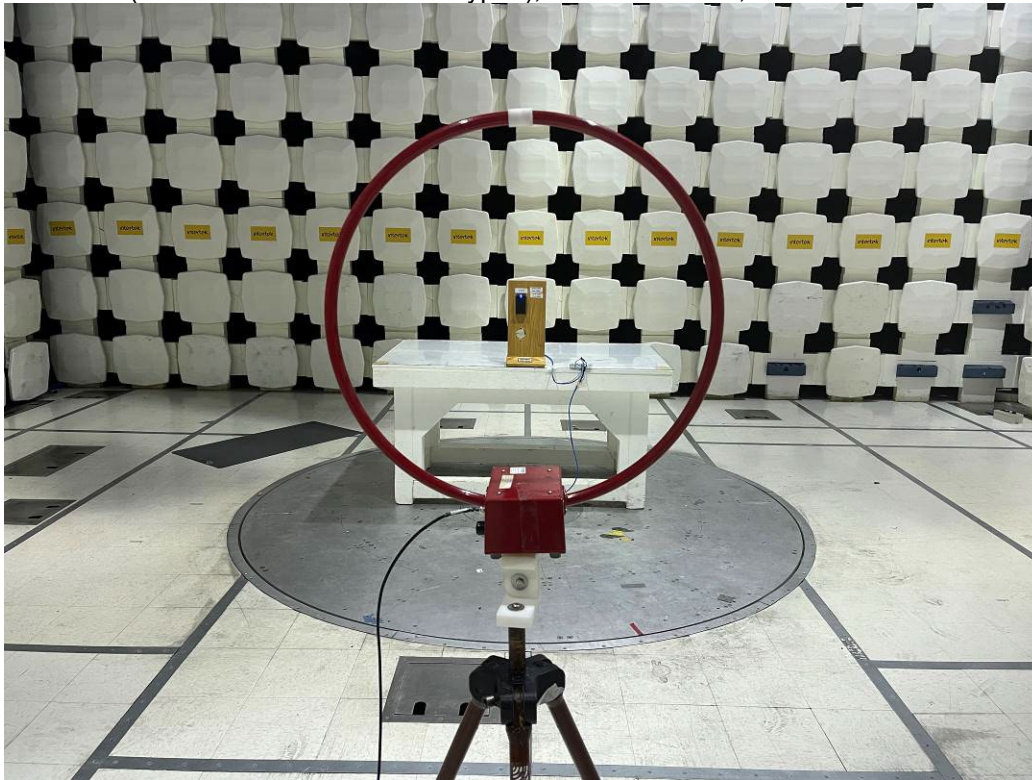
BLE (Plastic Enclosure With Keypad), 9 kHz – 30 MHz, Antenna on Y-Axis



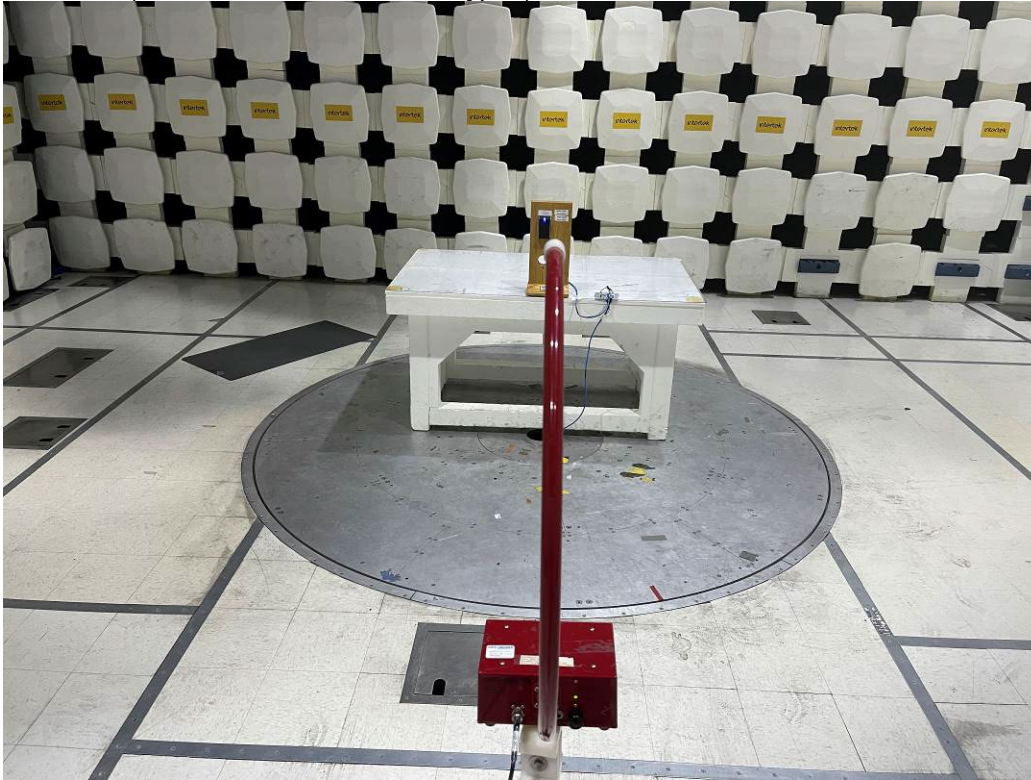
BLE (Plastic Enclosure With Keypad), 9 kHz – 30 MHz, Antenna on Z-Axis



BLE (Metal Enclosure Without Keypad), 9 kHz – 30 MHz, Antenna on X-Axis



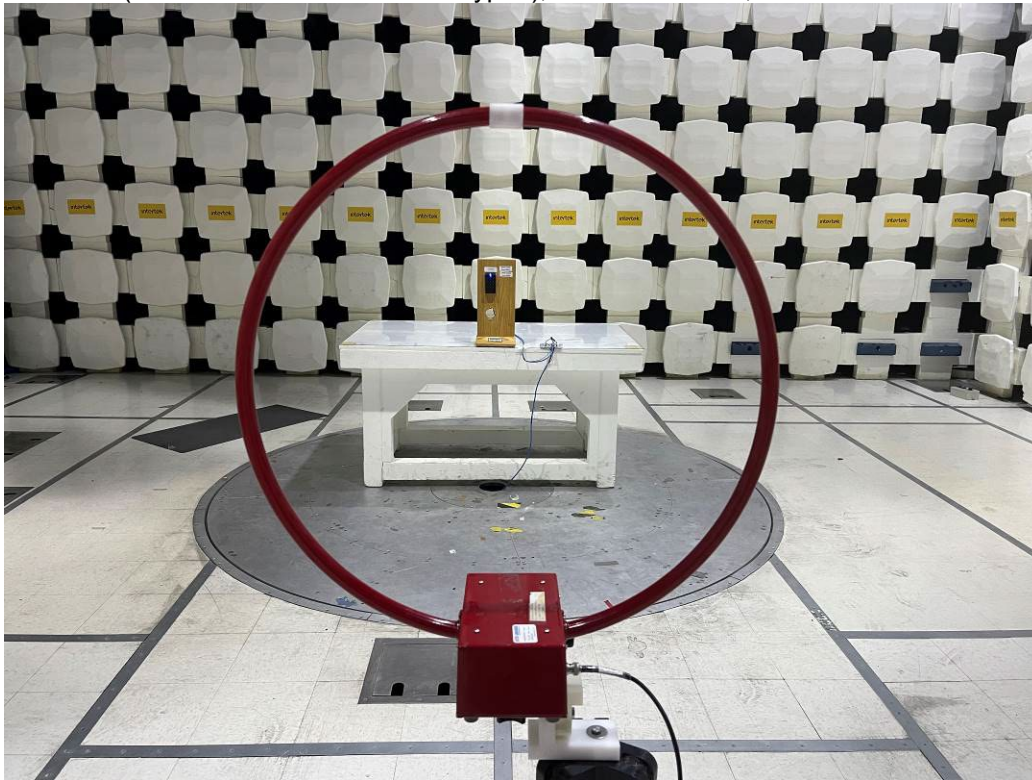
BLE (Metal Enclosure Without Keypad), 9 kHz – 30 MHz, Antenna on Y-Axis



BLE (Metal Enclosure Without Keypad), 9 kHz – 30 MHz, Antenna on Z-Axis



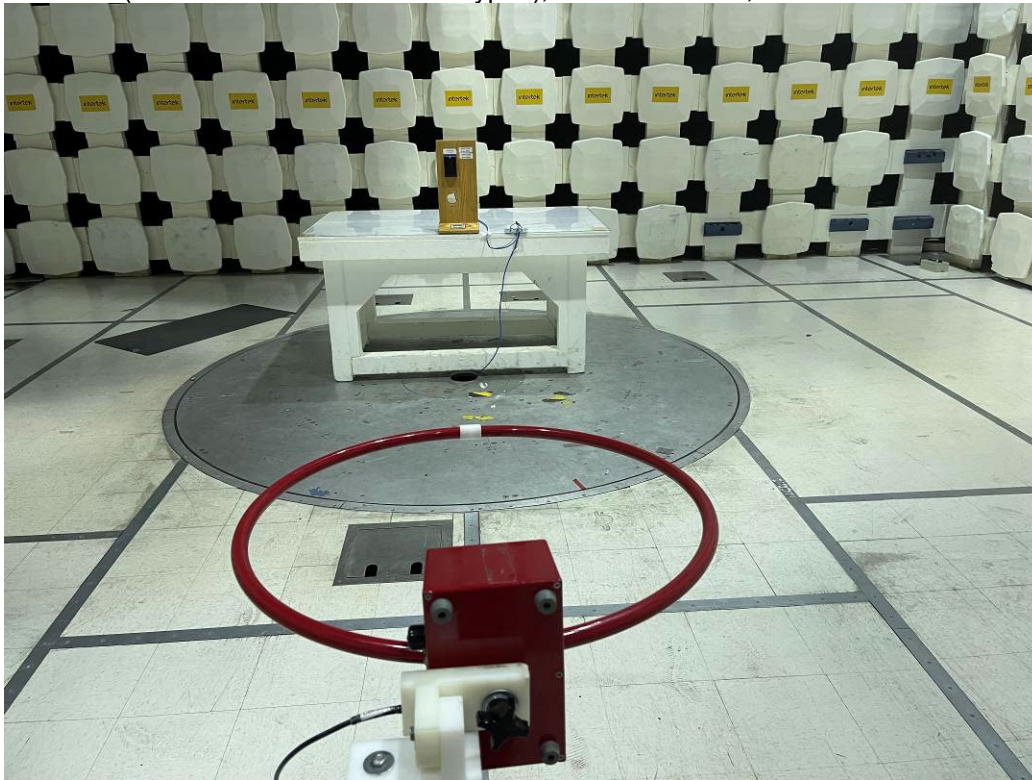
BLE (Plastic Enclosure Without Keypad), 9 kHz – 30 MHz, Antenna on X-Axis



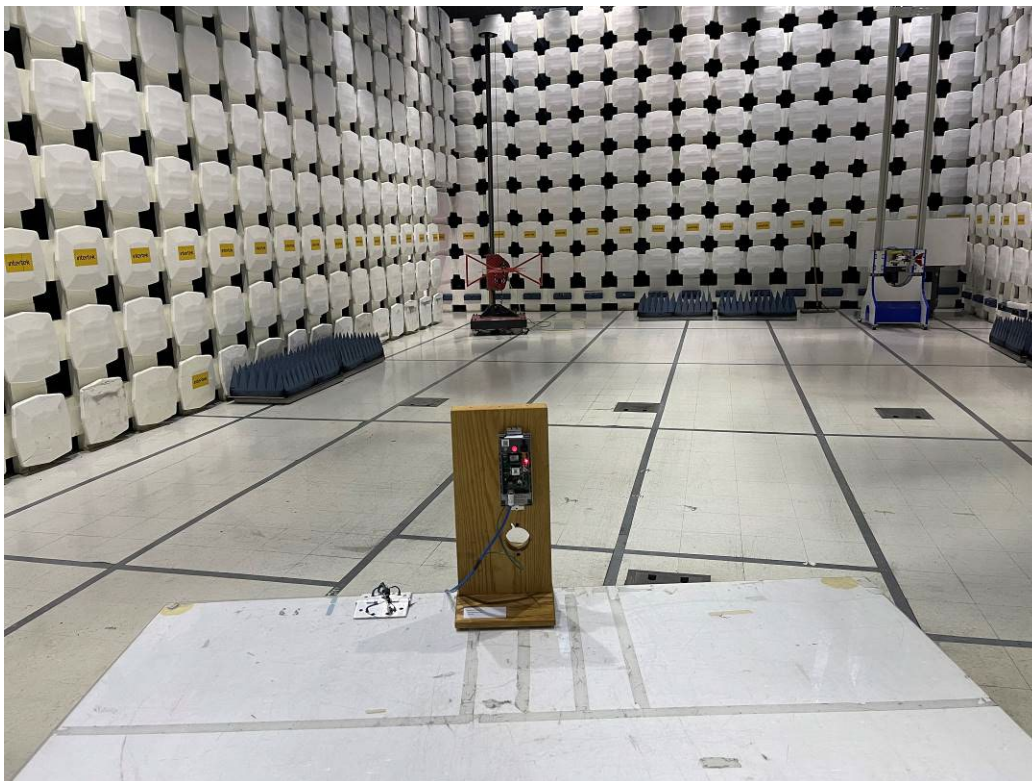
BLE (Plastic Enclosure Without Keypad), 9 kHz – 30 MHz, Antenna on Y-Axis



BLE (Plastic Enclosure Without Keypad), 9 kHz – 30 MHz, Antenna on Z-Axis



BLE (Metal Enclosure With Keypad), 30-1000 MHz



8.6 Plots/Data:

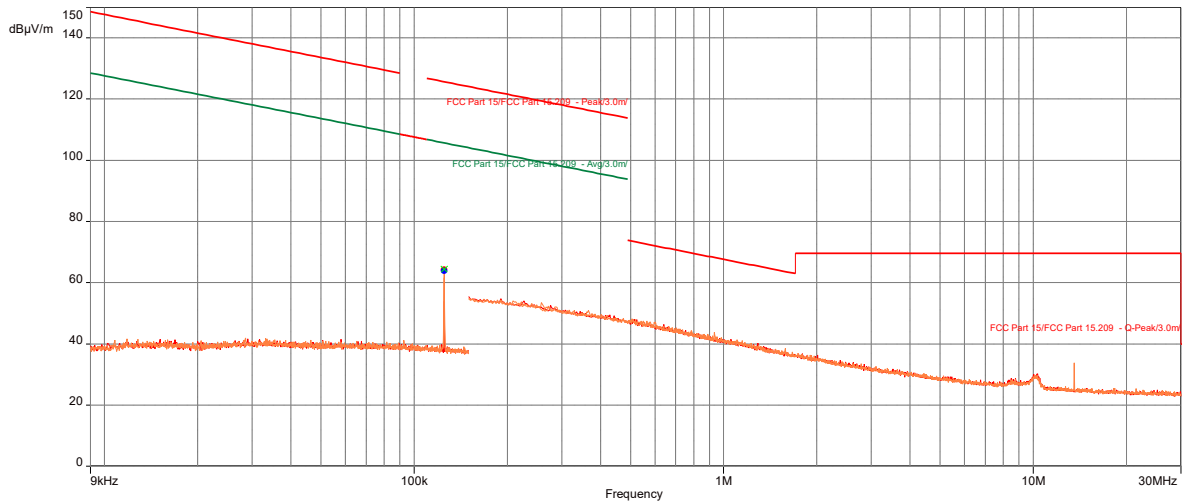
===Battery Powered===

125 kHz RFID (Plastic Enclosure, With Keypad), 9 kHz- 30 MHz, Test Distance at 3m, (X, Y, Z Polarities)

Test Information:

Date and Time	9/20/2024 12:47:48 PM
Client and Project Number	Sargent Assa Abloy
Engineer	Kouma Sinn
Temperature	24 deg C
Humidity	52 %
Atmospheric Pressure	1006 mbar
Comments	Scan 20_125kHz RFID With Modulation (Plastic Enclosure - With Keypad), RE 9kHz-30MHz Loop antenna, Electric Field, 3M Location (FCC 15.209)

Graph:



Results:

QuasiPeak (PASS) (1)

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Azimuth (°)	Pol.	RBW (Hz)	Meas.Time(s)	Correction (dB)
0.1249925	63.87	N/A	N/A	7.30	X-axis	200	0.10	11.04

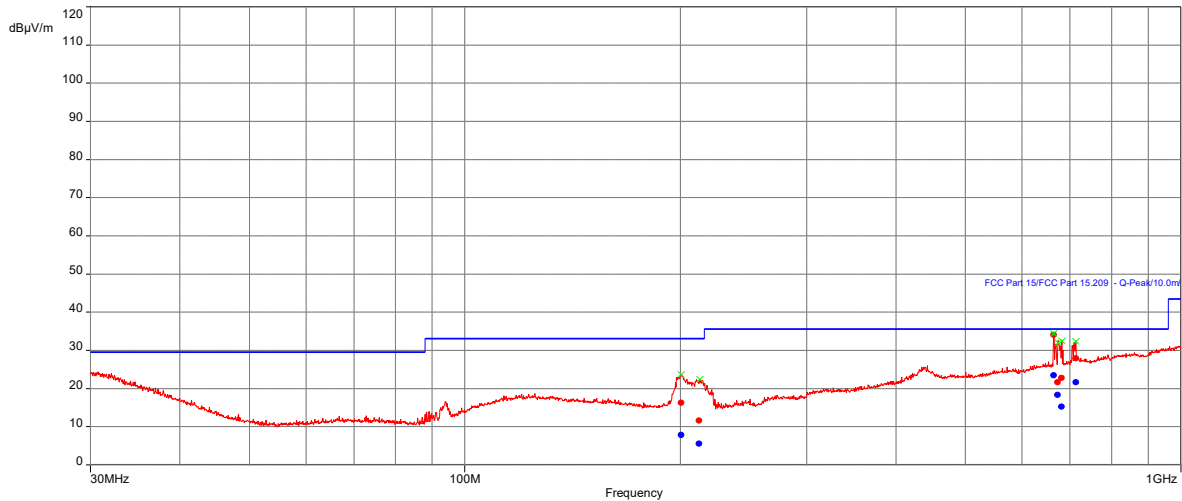
Notes: No emission was detected.

125 kHz RFID (Plastic Enclosure, With Keypad), 30-1000 MHz, Test Distance at 10m (V/H Polarities)

Test Information:

Date and Time	9/20/2024 1:33:09 PM
Client and Project Number	Sargent Assa Abloy
Engineer	Kouma Sinn
Temperature	24 deg C
Humidity	52 %
Atmospheric Pressure	1006 mbar
Comments	Scan 21_125kHz RFID With Modulation (Plastic Enclosure - With Keypad), RE 30-1000MHz

Graph:



Results:

QuasiPeak (PASS) (6)

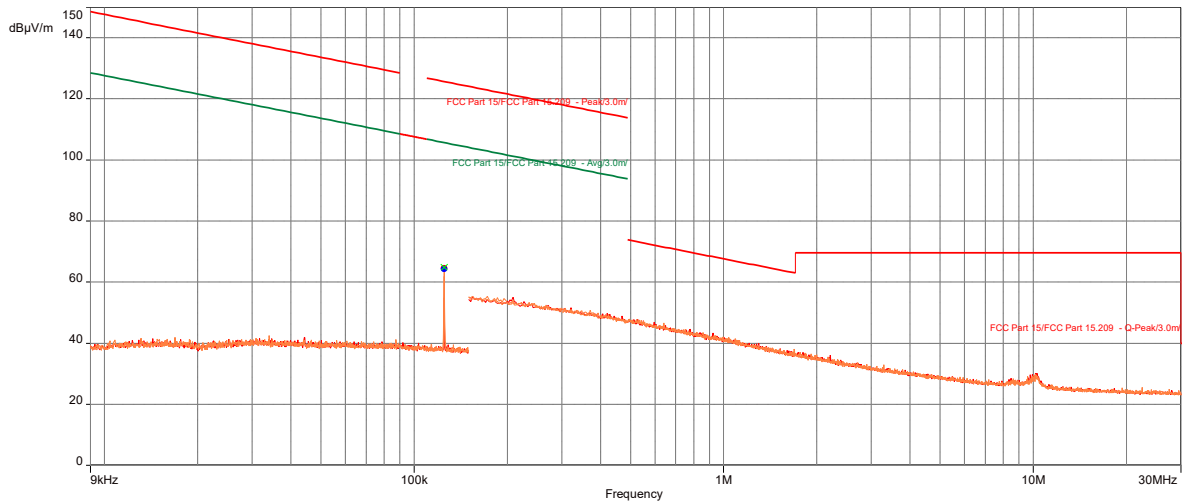
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	RBW	Meas.Time(s)	Correction (dB)
200.5726	7.85	33.06	-25.21	326.20	4.00	Vertical	120k	0.10	-19.64
212.3967	5.62	33.06	-27.44	0.00	4.00	Vertical	120k	0.10	-21.64
664.0685	23.51	35.56	-12.05	315.00	3.89	Vertical	120k	0.10	-10.49
672.9924	18.41	35.56	-17.15	174.80	4.00	Vertical	120k	0.10	-10.46
681.7306	15.31	35.56	-20.25	201.70	4.00	Vertical	120k	0.10	-10.38
713.0689	21.71	35.56	-13.85	337.30	4.00	Horizontal	120k	0.10	-9.67

125 kHz RFID (Metal Enclosure, With Keypad), 9 kHz- 30 MHz, Test Distance at 3m, (X, Y, Z Polarities)

Test Information:

Date and Time	9/20/2024 11:13:42 AM
Client and Project Number	Sargent Assa Abloy
Engineer	Kouma Sinn
Temperature	24 deg C
Humidity	52 %
Atmospheric Pressure	1006 mbar
Comments	Scan 17_125kHz RFID With Modulation (Metal Enclosure - With Keypad), RE 9kHz-30MHz Loop antenna, Electric Field, 3M Location (FCC 15.209)

Graph:



Results:

QuasiPeak (PASS) (1)

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (d)	Azimuth (°)	Pol.	RBW (Hz)	Meas.Time(s)	Correction (dB)
0.124985	64.29	N/A	N/A	0.00	X-axis	200	0.10	11.04

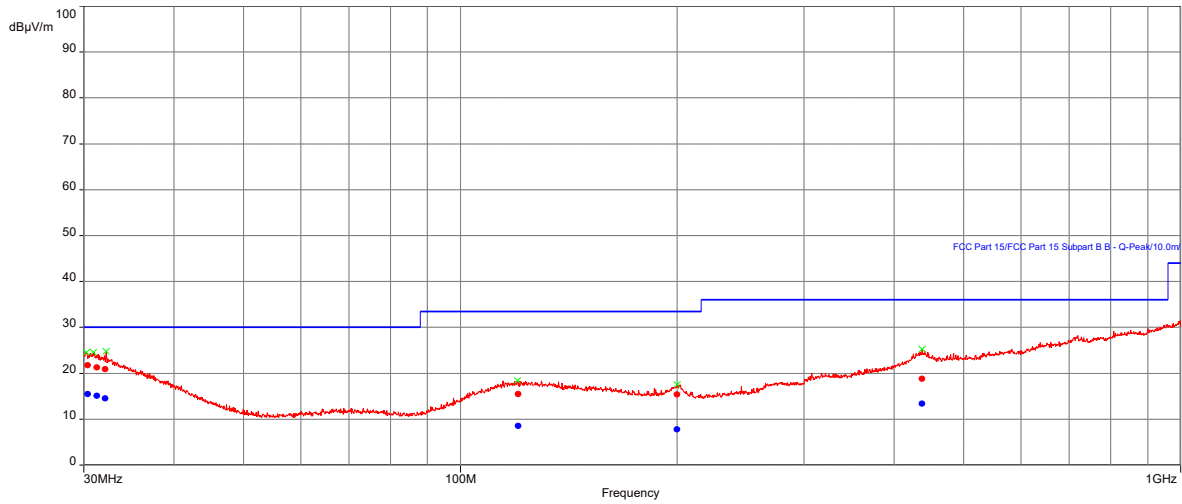
Notes: No emission was detected.

125 kHz RFID (Metal Enclosure, With Keypad), 30-1000 MHz, Test Distance at 10m, (V/H Polarities)

Test Information:

Date and Time	9/14/2024 8:36:16 AM
Client and Project Number	Sargent Assa Abloy
Engineer	Kouma Sinn
Temperature	26 deg C
Humidity	41 %
Atmospheric Pressure	1012 mbars
Comments	Scan 1: 125 kHz RFID (Metal Enclosure - With Keypad), RE 30-1000MHz

Graph:



Results:

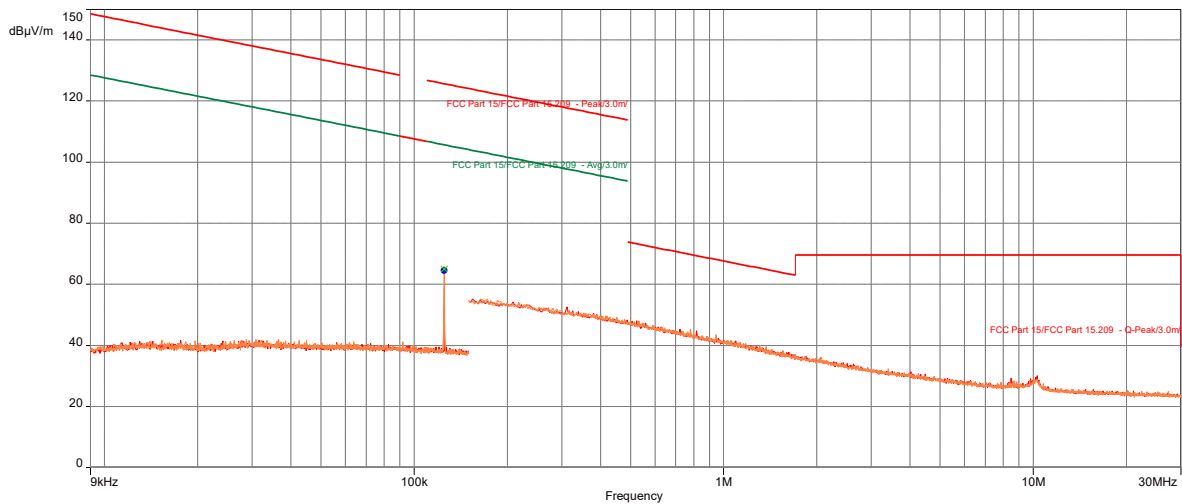
QuasiPeak (PASS) (6)

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	RBW	Meas.Time (s)	Correction (dB)
30.3823	15.54	30.00	-14.46	244.70	2.52	Horizontal	120k	0.10	-13.09
31.2802	15.16	30.00	-14.84	158.90	4.00	Vertical	120k	0.10	-13.49
32.1168	14.51	30.00	-15.49	310.30	2.83	Vertical	120k	0.10	-14.01
120.3652	8.53	33.50	-24.97	223.50	3.67	Vertical	120k	0.10	-18.95
199.8586	7.80	33.50	-25.70	196.40	4.00	Vertical	120k	0.10	-19.76
437.3899	13.43	36.00	-22.57	206.90	4.00	Vertical	120k	0.10	-14.91

125 kHz RFID (Plastic Enclosure, Without Keypad), 9 kHz- 30 MHz, Test Distance at 3m, (X, Y, Z Polarities)

Test Information:

Date and Time	9/20/2024 9:16:51 AM
Client and Project Number	Sargent Assa Abloy
Engineer	Kouma Sinn
Temperature	24 deg C
Humidity	52 %
Atmospheric Pressure	1006 mbar
Comments	Scan 14_ 125 kHz RFID With Modulation (Plastic Enclosure - Without Keypad), RE 9kHz-30MHz Loop antenna, Electric Field, 3M Location (FCC 15.209)

Graph:**Results:**

QuasiPeak (PASS) (1)

Frequency (MHz)	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Azimuth (°)	Pol.	RBW (Hz)	Meas.Time(s)	Correction (dB)
0.1250075	64.51	N/A	N/A	360.00	X-axis	200	0.10	11.04

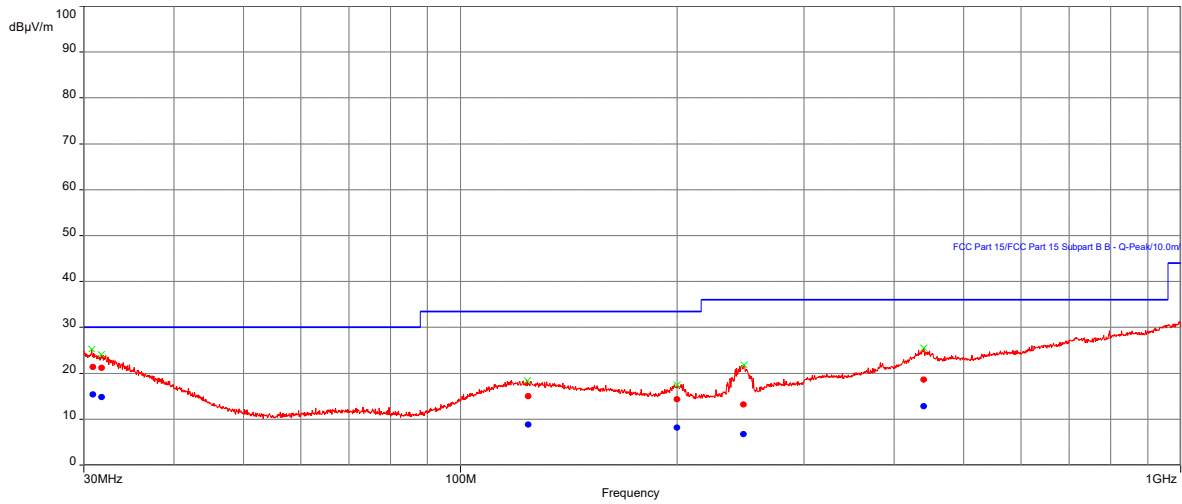
Notes: No emission was detected.

125 kHz RFID (Plastic Enclosure, Without Keypad), 30-1000 MHz, Test Distance at 10m (V/H Polarities)

Test Information:

Date and Time	9/14/2024 10:03:23 AM
Client and Project Number	Sargent Assa Abloy
Engineer	Kouma Sinn
Temperature	26 deg C
Humidity	41 %
Atmospheric Pressure	1012 mbars
Comments	Scan 3: 125 kHz RFID (Plastic Enclosure - Without Keypad), RE 30-1000MHz

Graph:



Results:

QuasiPeak (PASS) (6)

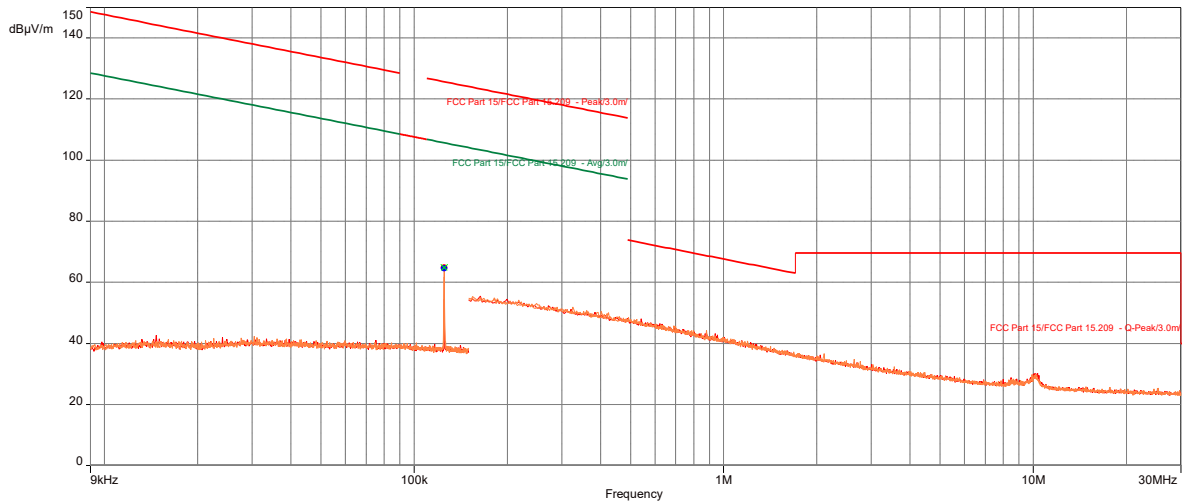
Frequency (MHz)	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	RBW	Meas.Time (s)	Correction (dB)
30.9147	15.43	30.00	-14.57	142.00	1.78	Horizontal	120k	0.10	-13.29
31.7789	14.86	30.00	-15.14	39.40	4.00	Vertical	120k	0.10	-13.78
124.2904	8.85	33.50	-24.65	142.00	4.00	Vertical	120k	0.10	-18.82
199.9841	8.19	33.50	-25.31	126.00	1.76	Vertical	120k	0.10	-19.76
247.336	6.75	36.00	-29.25	196.80	4.00	Horizontal	120k	0.10	-20.63
439.7164	12.84	36.00	-23.16	55.40	4.00	Vertical	120k	0.10	-14.84

125 kHz RFID (Metal Enclosure, Without Keypad), 9 kHz- 30 MHz, Test Distance at 3m, (X, Y, Z Polarities)

Test Information:

Date and Time	9/20/2024 10:40:45 AM
Client and Project Number	Sargent Assa Abloy
Engineer	Kouma Sinn
Temperature	24 deg C
Humidity	52 %
Atmospheric Pressure	1006 mbar
Comments	Scan 16_ 125kHz RFID With Modulation (Metal Enclosure - Without Keypad), RE 9kHz-30MHz Loop antenna, Electric Field, 3M Location (FCC 15.209)

Graph:



Results:

QuasiPeak (PASS) (1)

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Azimuth (°)	Pol.	RBW (Hz)	Meas.Time(s)	Correction (dB)
0.1249975	64.57	105.67	-41.10	0.00	X-axis	200	0.10	11.04

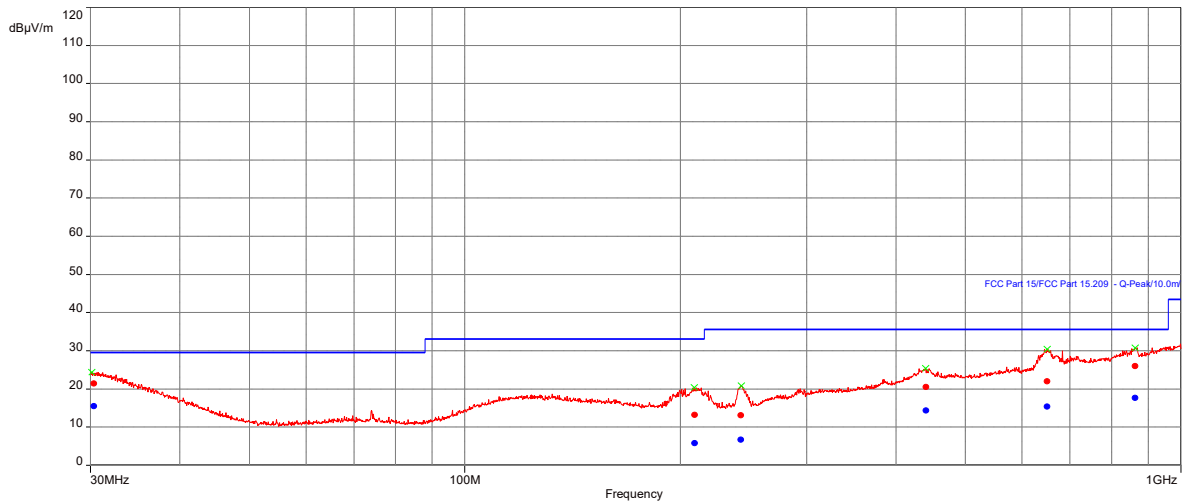
Notes: No emission was detected.

125 kHz RFID (Metal Enclosure, Without Keypad), 30-1000 MHz, Test Distance at 10m, (V/H Polarities)

Test Information:

Date and Time	9/25/2024 1:47:22 PM
Client and Project Number	Sargent Assa Abloy
Engineer	Kouma Sinn
Temperature	24 deg C
Humidity	45 %
Atmospheric Pressure	1015 mbars
Comments	Scan 26_125 kHz RFID With Modulation (Metal Enclosure - Without Keypad), RE 30-1000MHz

Graph:



Results:

QuasiPeak (PASS) (6)

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	RBW	Meas.Time (s)	Correction (dB)
30.3658	15.57	29.54	-13.97	22.90	4.00	Horizontal	120k	0.10	-13.04
209.5043	5.78	33.06	-27.28	287.80	2.22	Vertical	120k	0.10	-21.65
243.104	6.77	35.56	-28.79	39.10	1.29	Vertical	120k	0.10	-20.42
440.491	14.41	35.56	-21.15	163.50	4.00	Vertical	120k	0.10	-14.63
650.8645	15.40	35.56	-20.16	0.00	2.30	Vertical	120k	0.10	-10.55
863.1839	17.72	35.56	-17.84	104.00	2.83	Vertical	120k	0.10	-7.11

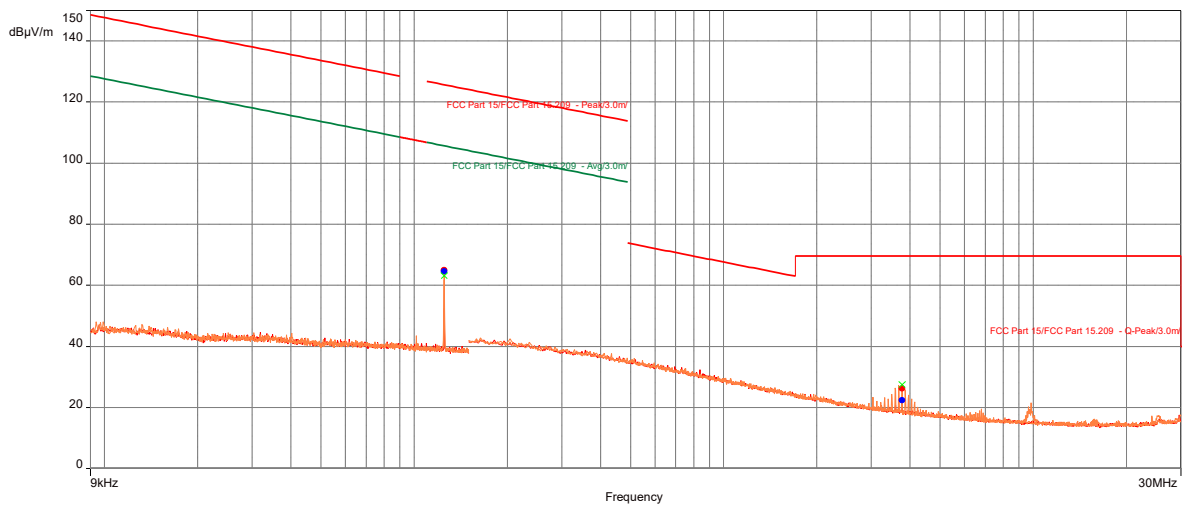
===POE Powered===

125 kHz RFID (Plastic Enclosure, With Keypad), 9 kHz- 30 MHz, Test Distance at 3m, (X, Y, Z Polarities)

Test Information:

Date and Time	11/18/2024 2:16:14 PM
Client and Project Number	Sargent Assa Abloy
Engineer	Kouma Sinn
Temperature	22 deg C
Humidity	22 %
Atmospheric Pressure	1000 mbars
Comments	Scan 55_RFID 125 kHz (Plastic With Keypad), POE Powered, RE 9 kHz-30 MHz, 3m

Graph:



Results:

QuasiPeak (PASS) (2)

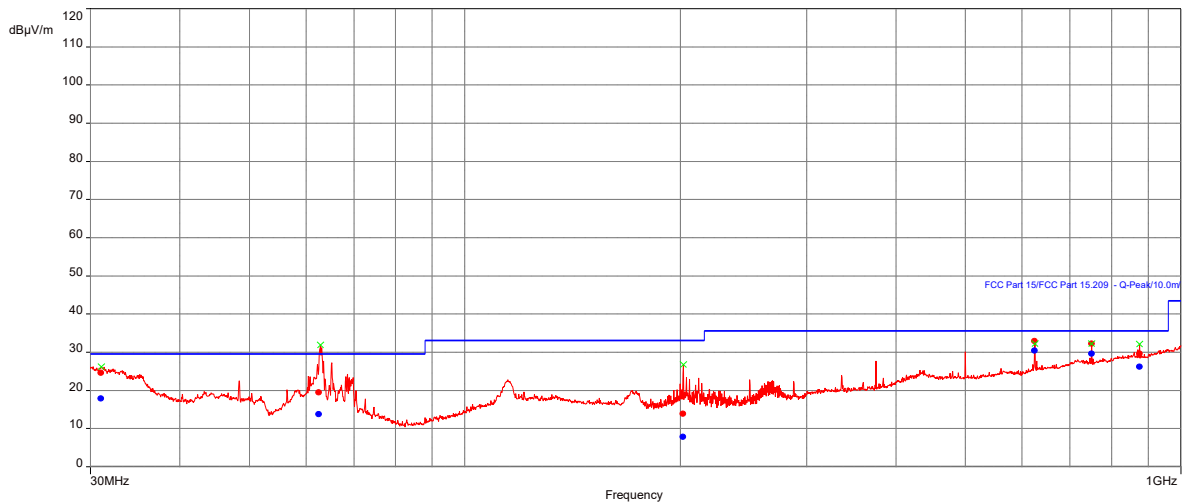
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Azimuth (°)	Pol.	RBW	Meas.Time (s)	Correction (dB)
0.1250026	64.61	N/A	N/A	7.20	Vertical	200	0.10	13.85
3.76621	22.42	69.54	-47.12	61.20	Vertical	9k	0.10	0.20

125 kHz RFID (Plastic Enclosure, With Keypad), 30-1000 MHz, Test Distance at 10m (V/H Polarities)

Test Information:

Date and Time	10/30/2024 12:21:35 PM
Client and Project Number	Sargent Assa Abloy
Engineer	Kouma Sinn
Temperature	23 deg C
Humidity	39 %
Atmospheric Pressure	1018 mbars
Comments	Scan 13_ 125 kHz RFID (Plastic- Keypad), POE Powered, RE 30-1000 MHz, 10m

Graph:



Results:

QuasiPeak (PASS) (6)

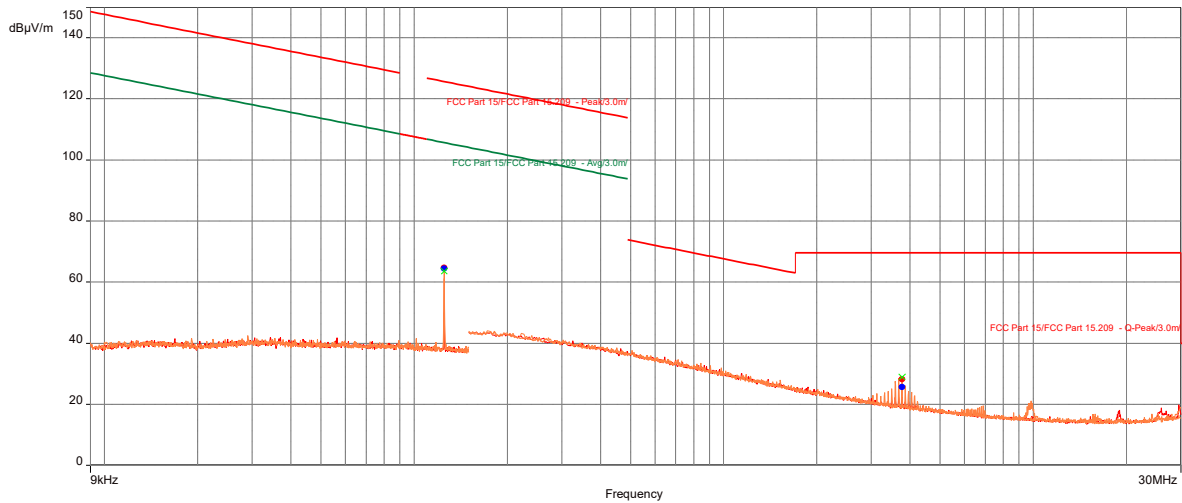
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	RBW	Meas.Time (s)	Correction (dB)
31.0426	17.94	29.54	-11.60	179.90	1.32	Vertical	120k	0.10	-13.31
62.4833	13.86	29.54	-15.68	71.70	4.00	Vertical	120k	0.10	-25.46
201.6036	7.86	33.06	-25.20	17.60	4.00	Vertical	120k	0.10	-19.86
624.999	30.47	35.56	-5.09	82.70	1.46	Horizontal	120k	0.10	-11.10
750.0045	29.65	35.56	-5.91	185.10	1.31	Horizontal	120k	0.10	-9.12
875.0144	26.19	35.56	-9.37	125.30	2.76	Horizontal	120k	0.10	-7.04

125 kHz RFID (Metal Enclosure, With Keypad), 9 kHz- 30 MHz, Test Distance at 3m, (X, Y, Z Polarities)

Test Information:

Date and Time	11/18/2024 12:26:55 PM
Client and Project Number	Sargent Assa Abloy
Engineer	Kouma Sinn
Temperature	22 deg C
Humidity	22 %
Atmospheric Pressure	1000 mbars
Comments	Scan 52_RFID 125 kHz, (Metal- With Keypad), POE Powered, RE 9 kHz-30 MHz, 3m

Graph:



Results:

QuasiPeak (PASS) (2)

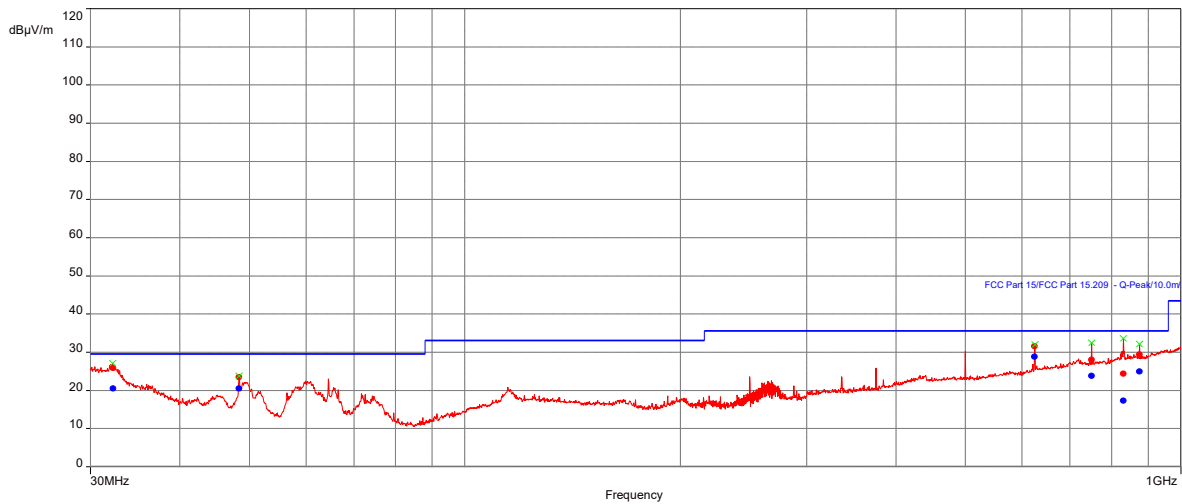
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Azimuth (°)	Pol.	RBW	Meas.Time (s)	Correction (dB)
0.1250025	64.43	N/A	N/A	360.00	Vertical	200	0.10	11.04
3.76766	25.63	69.54	-43.91	131.30	Vertical	9k	0.10	0.20

125 kHz RFID (Metal Enclosure, With Keypad), 30-1000 MHz, Test Distance at 10m, (V/H Polarities)

Test Information:

Date and Time	11/1/2024 8:51:18 AM
Client and Project Number	Sargent Assa Abloy
Engineer	Kouma Sinn
Temperature	21 C
Humidity	41 %
Atmospheric Pressure	1000 mbar
Comments	Scan 19_125kHz RFID (Metal- Keypad), POE Powered, RE 30-1000 MHz, 10m

Graph:



Results:

QuasiPeak (PASS) (6)

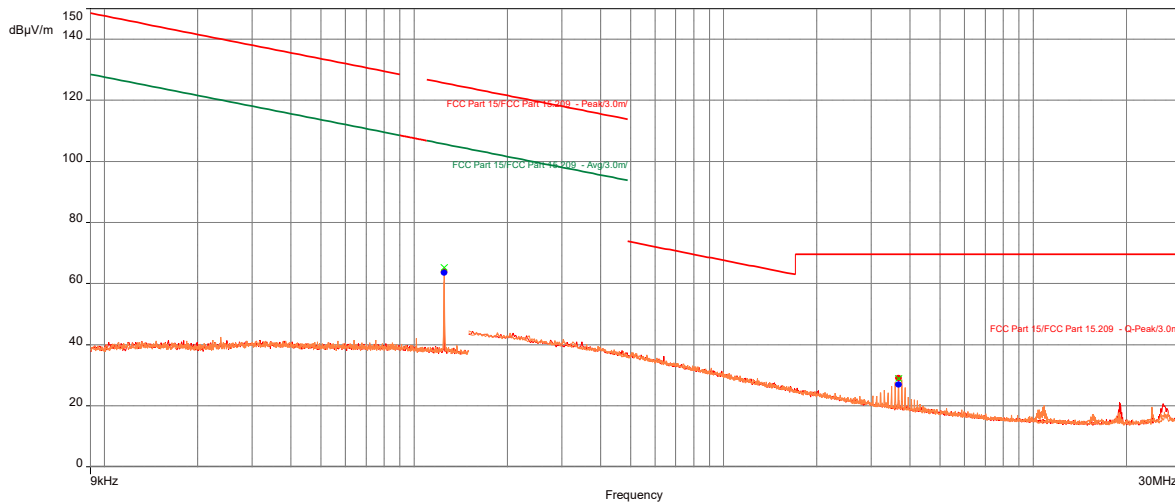
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	RBW	Meas.Time (s)	Correction (dB)
32.2619	20.55	29.54	-8.99	250.10	1.31	Vertical	120k	0.10	-14.09
48.381	20.51	29.54	-9.03	256.00	1.47	Vertical	120k	0.10	-24.83
624.999	28.89	35.56	-6.67	104.50	1.46	Horizontal	120k	0.10	-11.10
750	23.85	35.56	-11.71	196.40	4.00	Vertical	120k	0.10	-9.12
831.0332	17.39	35.56	-18.17	136.60	2.75	Vertical	120k	0.10	-7.45
875.0176	25.05	35.56	-10.51	256.20	4.00	Vertical	120k	0.10	-7.04

125 kHz RFID (Plastic Enclosure, Without Keypad), 9 kHz- 30 MHz, Test Distance at 3m, (X, Y, Z Polarities)

Test Information:

Date and Time	11/18/2024 10:31:47 AM
Client and Project Number	Sargent Assa Abloy
Engineer	Kouma Sinn
Temperature	22 deg C
Humidity	22 %
Atmospheric Pressure	1000 mbars
Comments	Scan 49_RFIID 125 kHz (Plastic- No Keypad), POE Powered, RE 9 kHz-30 MHz, 3m

Graph:



Results:

QuasiPeak (PASS) (2)

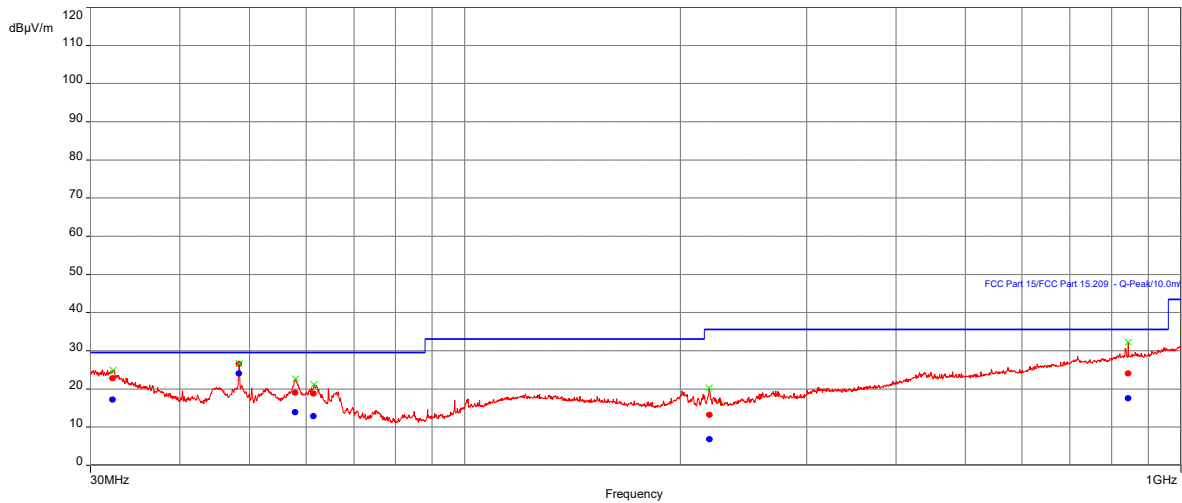
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Azimuth (°)	Pol.	RBW	Meas.Time (s)	Correction (dB)
0.1250025	63.57	N/A	N/A	7.20	Vertical	200	0.10	11.04
3.67327	27.03	69.54	-42.51	82.30	Vertical	9k	0.10	0.19

125 kHz RFID (Plastic Enclosure, Without Keypad), 30-1000 MHz, Test Distance at 10m (V/H Polarities)

Test Information:

Date and Time	10/25/2024 1:01:23 PM
Client and Project Number	Sargent Assa Abloy
Engineer	Kouma Sinn
Temperature	24 deg C
Humidity	34 %
Atmospheric Pressure	1011 mbars
Comments	Scan 8_125 kHz RFID (Plastic - No Keypad), POE Powered, RE 30-1000 MHz, 10m 64

Graph:



Results:

QuasiPeak (PASS) (6)

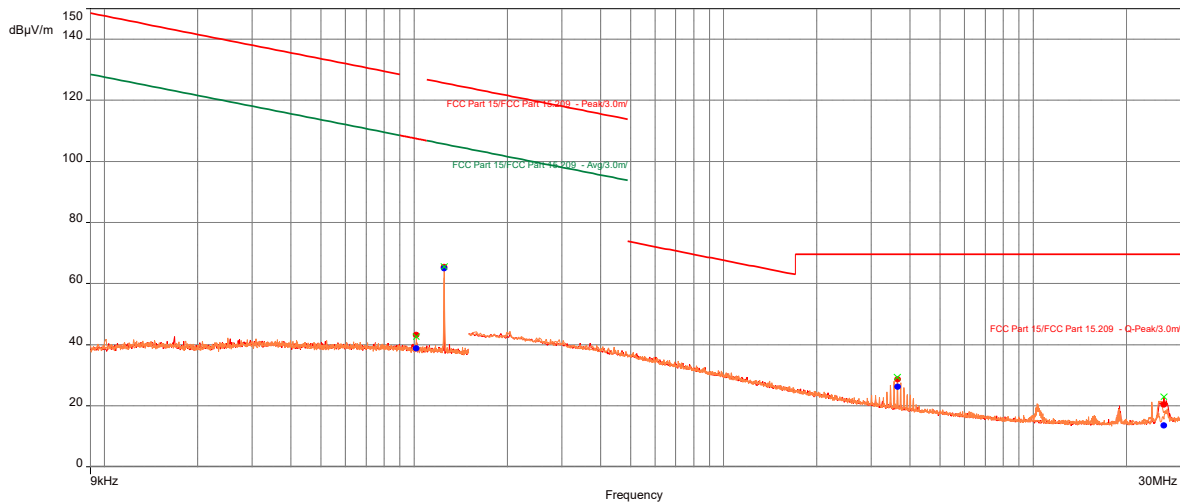
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	RBW	Meas.Time (s)	Correction (dB)
32.2246	17.19	29.54	-12.35	360.00	1.00	Vertical	120k	0.10	-14.06
48.384	24.13	29.54	-5.41	125.80	1.30	Vertical	120k	0.10	-24.83
57.9437	13.89	29.54	-15.65	287.80	4.00	Vertical	120k	0.10	-25.95
61.4971	12.92	29.54	-16.62	271.90	4.00	Vertical	120k	0.10	-25.56
219.7639	6.83	35.56	-28.73	153.20	2.46	Vertical	120k	0.10	-21.41
844.2939	17.61	35.56	-17.95	277.40	4.00	Vertical	120k	0.10	-7.34

125 kHz RFID (Metal Enclosure, Without Keypad), 9 kHz- 30 MHz, Test Distance at 3m, (X, Y, Z Polarities)

Test Information:

Date and Time	11/18/2024 8:33:44 AM
Client and Project Number	Sargent Assa Abloy
Engineer	Kouma Sinn
Temperature	22 deg C
Humidity	22 %
Atmospheric Pressure	1000 mbars
Comments	Scan 46_RFIID 125 kHz (Metal- No Keypad), POE Powered, RE 9 kHz-30 MHz, 3m

Graph:



Results:

QuasiPeak (PASS) (4)

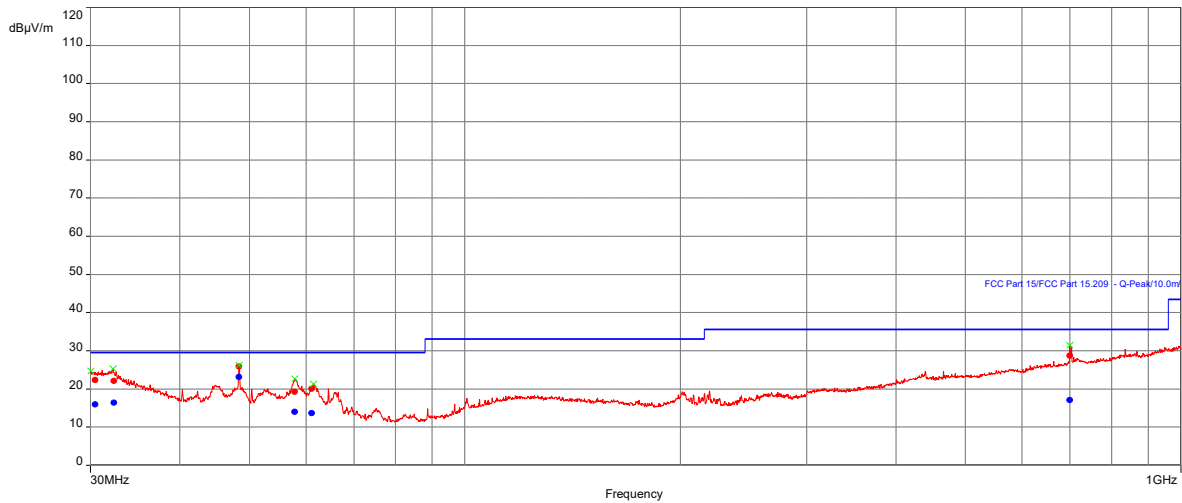
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Azimuth (°)	Pol.	RBW	Meas.Time (s)	Correction (dB)
0.1016349	38.85	107.46	-68.62	269.70	X-axis	200	0.10	11.05
0.1250174	65.06	N/A	N/A	0.00	X-axis	200	0.10	11.04
3.64839	26.29	69.54	-43.25	1.40	X-axis	9k	0.10	0.19
26.4193	13.57	69.54	-55.97	23.10	Z-axis	9k	0.10	0.45

125 kHz RFID (Metal Enclosure, Without Keypad), 30-1000 MHz, Test Distance at 10m, (V/H Polarities)

Test Information:

Date and Time	10/25/2024 2:42:49 PM
Client and Project Number	Sargent Assa Abloy
Engineer	Kouma Sinn
Temperature	24 deg C
Humidity	34 %
Atmospheric Pressure	1011 mbars
Comments	Scan 11_125 kHz RFID (Metal - No Keypad), POE Powered, RE 30-1000 MHz, 10m 64

Graph:



Results:

QuasiPeak (PASS) (6)

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Azimuth (°)	Height (m)	Pol.	RBW	Meas.Time (s)	Correction (dB)
30.4616	16.01	29.54	-13.53	60.80	4.00	Vertical	120k	0.10	-13.08
32.3757	16.41	29.54	-13.13	228.60	1.68	Vertical	120k	0.10	-14.19
48.4049	23.20	29.54	-6.34	320.90	1.39	Vertical	120k	0.10	-24.84
57.8596	14.03	29.54	-15.51	288.00	4.00	Vertical	120k	0.10	-25.95
61.1213	13.70	29.54	-15.84	347.60	1.53	Vertical	120k	0.10	-25.61
699.461	17.17	35.56	-18.39	114.60	2.90	Vertical	120k	0.10	-10.06

Product Standard: CFR47 FCC Part 15 Subpart C, Section 15.209, CFR47 FCC Part 15 Subpart B, RSS-210, ISED ICES-003				Limit applied: See Report Section 8.2 Pretest Verification w/BB source: Yes			
Test Date	Test Personnel/ Initials	Supervising Engineer/ Initials	Input Voltage	Mode	Atmospheric Data		
					Temp C°	Relative Humidity %	Atmospheric Pressure mbar
09/14/2024	Kouma Sinn <i>KPS</i>	N/A	Battery Powered	Continuous Transmitting	26	41	1012
09/20/2024	Kouma Sinn <i>KPS</i>	N/A	Battery Powered	Continuous Transmitting	24	52	1006
09/25/2024	Kouma Sinn <i>KPS</i>	N/A	Battery Powered	Continuous Transmitting	24	45	1015
10/25/2024	Kouma Sinn <i>KPS</i>	N/A	Battery Powered	Continuous Transmitting	24	34	1011
10/30/2024	Kouma Sinn <i>KPS</i>	N/A	Battery Powered	Continuous Transmitting	23	39	1018
11/01/2024	Kouma Sinn <i>KPS</i>	N/A	Battery Powered	Continuous Transmitting	21	41	1000
11/18/2024	Kouma Sinn <i>KPS</i>	N/A	Battery Powered	Continuous Transmitting	22	22	1000

Deviations, Additions, or Exclusions: None

9 AC Mains Line Conducted Emissions

9.1 Method

Tests are performed in accordance with ANSI C63.4.

TEST SITE: EMC Lab

The EMC Lab has one Semi-anechoic Chamber and one Shielded Chamber. AC Mains Power is available at 120, 230, and 277 Single Phase; 208, 400, and 480 3-Phase. Large reference ground-planes are installed in the general lab area to facilitate EMC work not requiring a shielded environment.

Measurement Uncertainty

Measurement	Frequency Range	Expanded Uncertainty (k=2)	Ucisp
AC Line Conducted Emissions	150 kHz - 30 MHz	2.8 dB	3.4 dB
Telco Port Emissions	150 kHz - 30 MHz	4.1 dB	5.0 dB
AC Line Conducted Emissions	9 kHz - 150 MHz	2.4 dB	3.4 dB

As shown in the table above our conducted emissions U_{lab} is less than the corresponding U_{CISPR} reference value in CISPR 16-4-2 Table 1, hence the compliance of the product is only based on the measured value, and no measurement uncertainty correction is required, based on CISPR 22 and CISPR 11 (for 2006 and later revisions) Clause 11.

Sample Calculations

The following is how net line-conducted readings were determined:

$$NF = RF + LF + CF + AF$$

Where NF = Net Reading in dB μ V

RF = Reading from receiver in dB μ V

LF = LISN or ISN Correction Factor in dB

CF = Cable Correction Factor in dB

AF = Attenuator Loss Factor in dB

To convert from dB μ V to μ V or mV the following was used:

$$UF = 10^{(NF / 20)} \text{ where } UF = \text{Net Reading in } \mu\text{V}$$

NF = Net Reading in dB μ V

Example:

$$NF = RF + LF + CF + AF = 28.5 + 0.2 + 0.4 + 20.0 = 49.1 \text{ dB}\mu\text{V}$$

$$UF = 10^{(49.1 \text{ dB}\mu\text{V} / 20)} = 285.1 \mu\text{V/m}$$

When BAT-EMC Emission Software is used, the "Level" includes all losses and gains and is compared directly in the "Margin" column to the "Limit". The "Correction" includes LISN Factor, Attenuator, and Cable Loss. These are already accounted for in the "Level" column.

9.2 Test Equipment Used:

Asset	Description	Manufacturer	Model	Serial	Cal Date	Cal Due
DAV009'	weather station	Davis Instruments	6351 Vantage VUE	DAV009	04/05/2024	04/05/2025
ROS012'	EPL receiver 5kHz-30MHz ID#1350.4444K10-100953-Wj	Rhode & Schwarz	EPL	100953	02/05/2024	02/05/2025
LISN53'	Single Phase LISN 20 Amp	Com Power	LI-220C	20070071	12/22/2023	12/22/2024
CBLBNC2012-2'	50 Ohm Coaxial Cable	Pomona	RG-58 C/U	CBLBNC2012-2	04/23/2024	04/23/2025
WEI31'	10 dB 18GHz 5W Attenuator	Weinschel	WA2-10-0403	WEI31	01/17/2024	01/17/2025

Software Utilized:

Name	Manufacturer	Version
BAT-EMC	Nexio	2023.0.9.3

9.3 Results:

The sample tested was found to Comply.

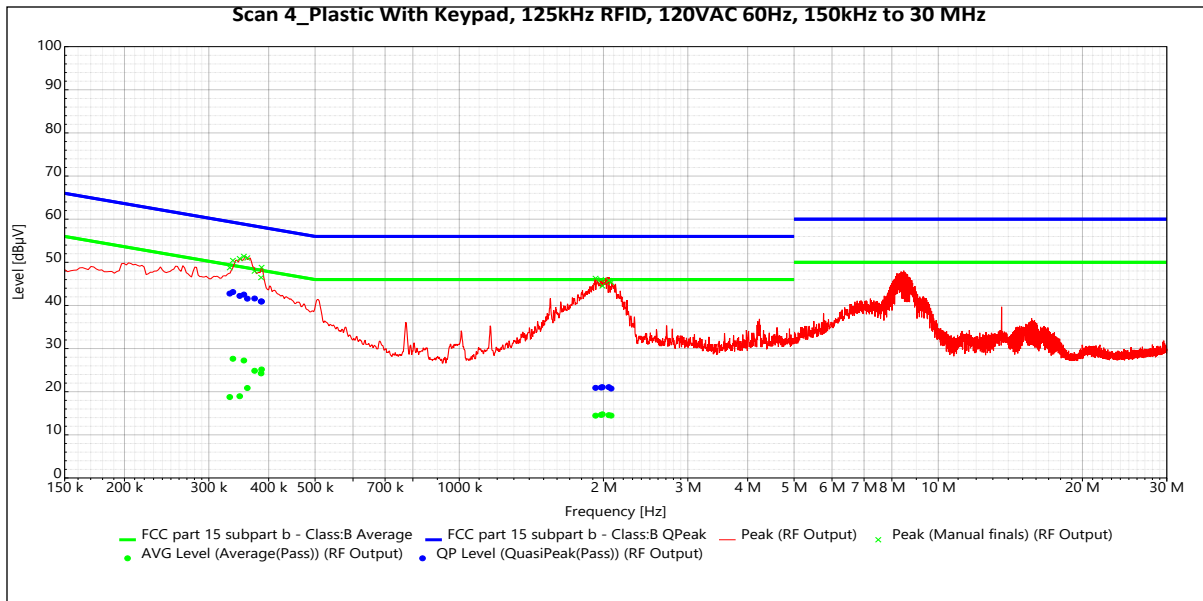
9.4 Setup Photographs:



9.5 Plots/Data:

DATE	11/22/2024
ENGINEER	Kouma Sinn
CLIENT AND PROJECT	Sargent

EUT: Line conducted emissions



Final source: Average(Pass)

Frequency	Line	Correction (dB)	AVG Level (dBµV)	AVG Limit (dBµV)	AVG Margin (dB)	RBW (Hz)	Meas.Time (s)
331.755 kHz	Neutral	9.76	18.76	49.40	-30.63	9 kHz	5
336.834 kHz	Phase 1	9.76	27.64	49.28	-21.65	9 kHz	5
348.04 kHz	Neutral	9.76	18.95	49.01	-30.06	9 kHz	5
355.062 kHz	Phase 1	9.76	27.23	48.85	-21.62	9 kHz	5
361.005 kHz	Neutral	9.76	20.85	48.69	-27.84	9 kHz	5
373.851 kHz	Phase 1	9.76	24.85	48.44	-23.59	9 kHz	5
385.755 kHz	Phase 1	9.76	24.25	48.14	-23.90	9 kHz	5
386.61 kHz	Phase 1	9.76	25.15	48.14	-22.99	9 kHz	5
1.925745 MHz	Phase 1	9.80	14.45	46.00	-31.55	9 kHz	5
1.977495 MHz	Phase 1	9.80	14.62	46.00	-31.38	9 kHz	5
1.990005 MHz	Phase 1	9.80	14.75	46.00	-31.25	9 kHz	5
2.051949 MHz	Phase 1	9.80	14.56	46.00	-31.44	9 kHz	5
2.075505 MHz	Phase 1	9.81	14.46	46.00	-31.54	9 kHz	5

Final source: QuasiPeak(Pass)

Frequency	Line	Correction (dB)	RBW (Hz)	Meas.Time (s)	QP Level (dBµV)	QP Limit (dBµV)	QP Margin (dB)
331.755 kHz	Neutral	9.76	9 kHz	5	42.75	59.40	-16.65
336.834 kHz	Phase 1	9.76	9 kHz	5	43.11	59.28	-16.18
348.04 kHz	Neutral	9.76	9 kHz	5	42.21	59.01	-16.80
355.062 kHz	Phase 1	9.76	9 kHz	5	42.52	58.85	-16.33
361.005 kHz	Neutral	9.76	9 kHz	5	41.57	58.69	-17.12
373.851 kHz	Phase 1	9.76	9 kHz	5	41.60	58.44	-16.84
385.755 kHz	Phase 1	9.76	9 kHz	5	40.92	58.14	-17.22
386.61 kHz	Phase 1	9.76	9 kHz	5	40.91	58.14	-17.24
1.925745 MHz	Phase 1	9.80	9 kHz	5	20.89	56.00	-35.11
1.977495 MHz	Phase 1	9.80	9 kHz	5	20.97	56.00	-35.03
1.990005 MHz	Phase 1	9.80	9 kHz	5	21.05	56.00	-34.96
2.051949 MHz	Phase 1	9.80	9 kHz	5	21.05	56.00	-34.95

Intertek

Report Number: 105838170BOX-001.125kHz.1

Issued: 12/16/2024
Revised: 06/23/2025

Frequency	Line	Correction (dB)	RBW (Hz)	Meas.Time (s)	QP Level (dBμV)	QP Limit (dBμV)	QP Margin (dB)
2.075505 MHz	Phase 1	9.81	9 kHz	5	20.73	56.00	-35.27

Product Standard: CFR47 FCC Part 15 Subpart B, ICES-003					Limit applied: All Class B Pretest Verification w/ signal generator: Ye		
Test Date	Test Personnel/ Initials	Supervising Engineer/ Initials	Input Voltage	Mode	Atmospheric Data		
					Temp C°	Relative Humidity %	Atmospheric Pressure mbar
11/22/2024	Kouma Sinn <i>KPS</i>	N/A	120VAC 60Hz	Continuous Transmitting	24	33	998

Deviations, Additions, or Exclusions: None

10 Revision History

Revision Level	Date	Report Number	Prepared By	Reviewed By	Notes
0	12/16/2024	105838170BOX-001.125kHz	KPS <i>KPS</i>	VFV <i>VFV</i>	Original Issue
1	06/23/2025	105838170BOX-001.125kHz.1	KPS <i>KPS</i>	VFV <i>VFV</i>	Updated RSS-210 from Issue 10 to 11 throughout the report