



### Engineering Test Report No. 2402768-02

|                      |                                                                                                                                                |                                                                            |
|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|
| Report Date          | November 26, 2025                                                                                                                              |                                                                            |
| Manufacturer Name    | Last Lock                                                                                                                                      |                                                                            |
| Manufacturer Address | 25 W Main Street, STE 550<br>Madison, WI 53703                                                                                                 |                                                                            |
| Model No.            | Smart Core – C100                                                                                                                              |                                                                            |
| Date Received        | November 13, 2025                                                                                                                              |                                                                            |
| Test Dates           | November 13, 2025 – November 21, 2025                                                                                                          |                                                                            |
| Specifications       | FCC "Code of Federal Regulations" Title 47 Part 15, Subpart C, Section 15.209<br>Innovation, Science, and Economic Development Canada, RSS-GEN |                                                                            |
| Test Facility        | Elite Electronic Engineering, Inc.<br>1516 Centre Circle,<br>Downers Grove, IL 60515                                                           | FCC Reg. Number: 269750<br>IC Reg. Number: 2987A<br>CAB Identifier: US0107 |
| Signature            | <i>Nathaniel Bouchie</i>                                                                                                                       |                                                                            |
| Tested by            | Nathaniel Bouchie                                                                                                                              |                                                                            |
| Signature            | <i>Raymond J. Klouda</i>                                                                                                                       |                                                                            |
| Approved by          | Raymond J. Klouda,<br>Registered Professional Engineer of Illinois – 44894                                                                     |                                                                            |
| PO Number            | P00080                                                                                                                                         |                                                                            |

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Elite Electronic Engineering Incorporated certifies that the information contained in this report was obtained under conditions which meet or exceed those specified in the FCC "Code of Federal Regulations" Title 47 Part 15, Subpart C, Section 15.209 and Innovation, Science, and Economic Development Canada, RSS-GEN test specifications. The data presented in this test report pertains to the EUT on the test dates specified. Any electrical or mechanical modifications made to the EUT subsequent to the specified test date will serve to invalidate the data and void this certification. This report must not be used to claim product certification, approval, or endorsement by A2LA, NIST, or any agency of the Federal Government.

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## 1. Report Revision History

| Revision | Date        | Description                                               |
|----------|-------------|-----------------------------------------------------------|
| –        | 26 NOV 2025 | Initial Release of Engineering Test Report No. 2402768-02 |

## 2. Introduction

### 2.1. Scope of Tests

This document presents the results of a series of RF emissions tests that were performed on the Last Lock Smart Core, Model C100 (hereinafter referred to as the Equipment Under Test (EUT)). The EUT was manufactured and submitted for testing by Last Lock located in Madison, WI.

### 2.2. Purpose

The test series was performed to determine if the EUTs meet the RF emission requirements of the FCC "Code of Federal Regulations" Title 47 Part 15, Subpart C, Section 15.209 for a Radio-Frequency Identification intentional radiator operating within the 125kHz band.

The test series was also performed to determine if the EUTs meet the RF emission requirements of the Innovation, Science, and Economic Development Canada Radio Standards Specification RSS-Gen and for a Radio-Frequency Identification intentional radiator operating within the 125kHz band.

Testing was performed in accordance with ANSI C63.10-2013.

### 2.3. Identification of the EUTs

The EUTs were identified as follows:

| EUT Identification                                                                              |                                                    |
|-------------------------------------------------------------------------------------------------|----------------------------------------------------|
| Product Description                                                                             | Smart Core                                         |
| Model/Part No.                                                                                  | C100                                               |
| Serial No.*                                                                                     | 109-1, 112-1, or 24-1                              |
| Size of EUT                                                                                     | 2.125 in x 1.25 in x 1.25 in                       |
| Software/Firmware Version                                                                       | 112-1 Big Firmware File                            |
| Device Type                                                                                     | Radio-Frequency Identification Transmission Device |
| Band of Operation                                                                               | 125kHz                                             |
| Antenna Type                                                                                    | Trace Antenna                                      |
| Occupied Bandwidth (99% CBW)                                                                    | 660Hz                                              |
| Note*: Three EUTs were used interchangeably due to battery constraints. All EUTs are identical. |                                                    |

The EUTs listed above were used throughout the test series.

## 3. Power Input

The EUTs were powered by 3.6VDC from internal batteries.

## 4. Grounding

The EUTs were not connected to ground.

## 5. Support Equipment

No support equipment was used during the tests.

## 6. Interconnect Leads

No interconnect leads were used during the tests.

## 7. Modifications Made to the EUTs

No modifications were made to the EUTs during the testing.

## 8. Mode of Operation

The EUTs were energized. The units were programmed to transmit in the following mode:

### 8.1. RFID @ 125kHz

This mode was achieved by holding the EUT's button down for 2 seconds, then pressing the button until the 125kHz signal could be verified on a spectrum analyzer.

## 9. Test Specifications

The tests were performed to selected portions of, and in accordance with, the test specifications.

- Federal Communications Commission "Code of Federal Regulations", Title 47, Chapter I, Subchapter A, Part 15, Subpart C
- ANSI C63.10-2013, "American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices"
- RSS-Gen Issue 5, February 2020, Amendment 2, Innovation, Science, and Economic Development Canada, "General Requirements for Compliance of Radio Apparatus"

## 10. Test Plan

No test plan was provided. Instructions were provided by personnel from Last Lock and used in conjunction with the FCC "Code of Federal Regulations" Title 47 Part 15, Subpart C, Section 15.209, Innovation, Science, and Economic Development Canada, RSS-GEN, and ANSI C63.10-2013 specifications.

## 11. Deviation, Additions to, or Exclusions from Test Specifications

There were no deviations, additions to, or exclusions from the test specifications during this test series.

## 12. Laboratory Conditions

The ambient parameters of the laboratory during testing were as follows:

| Ambient Parameters   | Value  |
|----------------------|--------|
| Temperature          | 24.2°C |
| Relative Humidity    | 22%    |
| Atmospheric Pressure | 1021mb |

## 13. Summary

The following EMC tests were performed and the results are shown below:

| Test Description            | Requirements               | Test Method         | S/N                      | Results  |
|-----------------------------|----------------------------|---------------------|--------------------------|----------|
| Occupied Bandwidth (99%)    | FCC 15.209<br>ISED RSS-GEN | ANSI<br>C63.10:2013 | 109-1, 112-1,<br>or 24-1 | Conforms |
| Duty Cycle Measurements     | FCC 15.209<br>ISED RSS-GEN | ANSI<br>C63.10:2013 | 109-1, 112-1,<br>or 24-1 | —        |
| Spurious Radiated Emissions | FCC 15.209<br>ISED RSS-GEN | ANSI<br>C63.10:2013 | 109-1, 112-1,<br>or 24-1 | Conforms |

## 14. Sample Calculations

For Radiated Emissions:

The resultant field strength (FS) is a summation in decibels (dB) of the receiver meter reading (MTR), the antenna correction factor (AF), and the cable loss factor (CF). If an external preamplifier is used, the total is reduced by its gain (-PA). If a distance correction (DC) is required, it is added to the total.

$$\text{Formula 1: FS (dB}\mu\text{V/m)} = \text{MTR (dB}\mu\text{V)} + \text{AF (dB/m)} + \text{CF (dB)} + (-\text{PA (dB)}) + \text{DC (dB)}$$

To convert the Field Strength dB $\mu$ V/m term to  $\mu$ V/m, the dB $\mu$ V/m is first divided by 20. The Base 10 AntiLog is taken of this quotient. The result is the Field Strength value in  $\mu$ V/m terms.

$$\text{Formula 2: FS (}\mu\text{V/m)} = \text{AntiLog}[(\text{FS (dB}\mu\text{V/m)})/20]$$

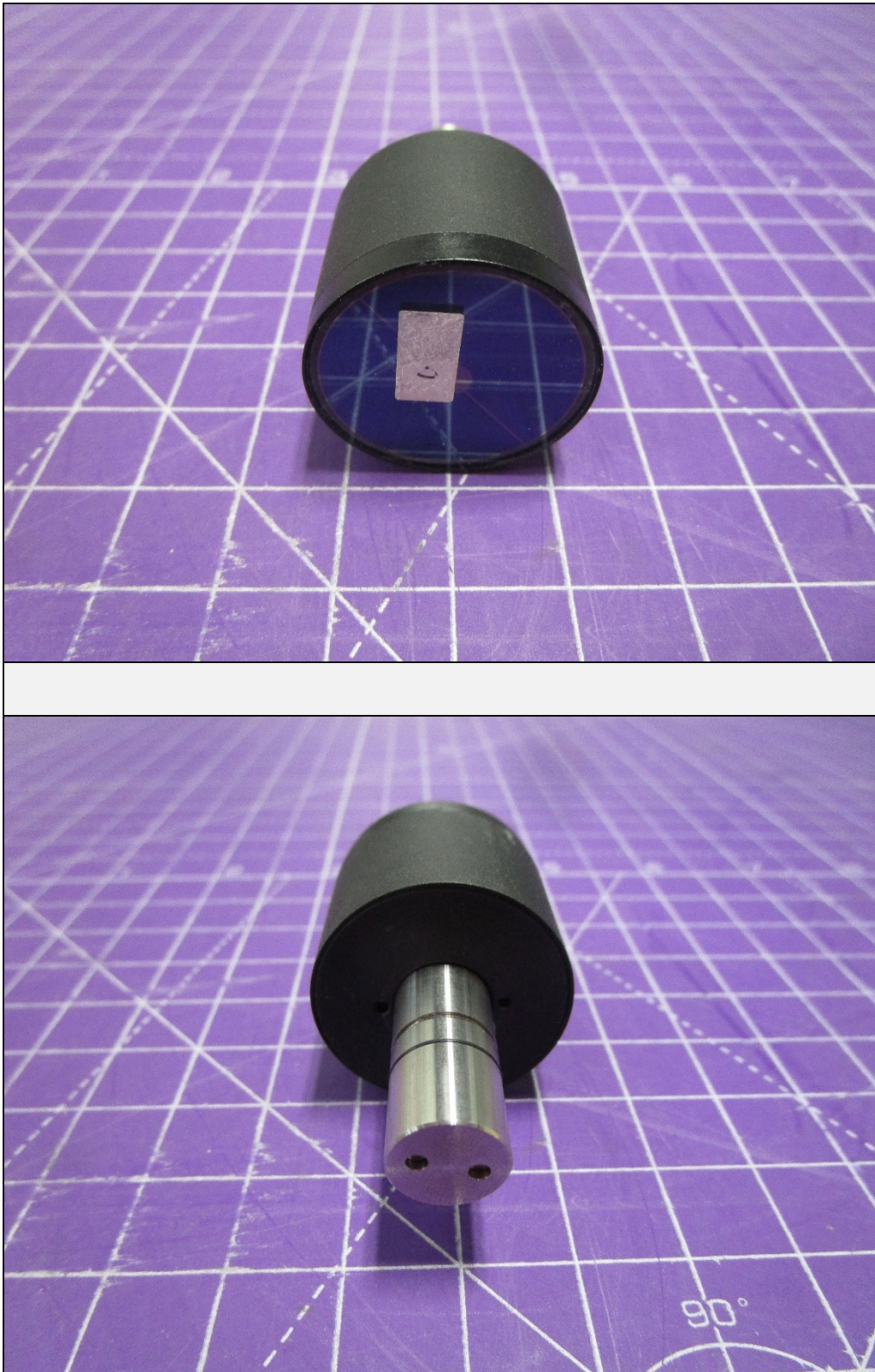
## 15. Statement of Conformity

The Last Lock Smart Core, Model No. C100 did fully conform to the selected requirements of FCC "Code of Federal Regulations" Title 47 Part 15, Subpart C, Section 15.209 and Innovation, Science, and Economic Development Canada, RSS-GEN:

## 16. Certification

Elite Electronic Engineering Incorporated certifies that the information contained in this report was obtained under conditions which meet or exceed those specified in the FCC "Code of Federal Regulations" Title 47 Part 15, Subpart C, Section 15.209 and Innovation, Science, and Economic Development Canada, RSS-GEN test specifications. The data presented in this test report pertains to the EUTs as received by the customer on the test date specified. Any electrical or mechanical modifications made to the EUTs subsequent to the specified test date will serve to invalidate the data and void this certification.

## 17. Photographs of EUT



## 18. Equipment List

| Eq ID | Equipment Description             | Manufacturer     | Model No.    | Serial No. | Frequency Range | Cal Date  | Due Date  |
|-------|-----------------------------------|------------------|--------------|------------|-----------------|-----------|-----------|
| CDM5  | Lab Computer                      | ELITE            |              | ---        | ---             | N/A       |           |
| GSE2  | SIGNAL GENERATOR (40GHZ)          | ROHDE & SCHWARZ  | SMB100A      | 183293     | 100KHZ-40GHZ    | 3/7/2025  | 3/7/2027  |
| NLP0  | TEST LOOP ANTENNA                 | GENERAL RADIO    | 1000P10      | 799        | 0.01-30MHZ      | NOTE 1    |           |
| NLS0  | 24" ACTIVE LOOP ANTENNA           | EMCO             | 6502         | 00089979   | 10KHZ-30MHZ     | 2/13/2024 | 2/13/2026 |
| PHA0  | MAGNETIC FIELD PROBE              | ELECTRO-METRICS  | EM-6882      | 134        | 22-230MHZ       | NOTE 1    |           |
| R29F  | 3M ANECHOIC CHAMBER NSA           | EMC TEST SYSTEMS | 3M ANECHOIC  |            | 30MHZ-18GHZ     | 6/1/2025  | 6/1/2027  |
| RBG4  | EMI ANALYZER                      | ROHDE & SCHWARZ  | ESW44        | 103007     | 2HZ-44GHZ       | 4/5/2025  | 4/5/2026  |
| VBV2  | COMMERCIAL RADIATED EMISSIONS.EXE | ELITE            |              | ---        | ---             | N/A       |           |
| WKA1  | SOFTWARE, UNIVERSAL RCV EMI       | ELITE            | UNIV_RCV_EMI | 1          | ---             | I/O       |           |

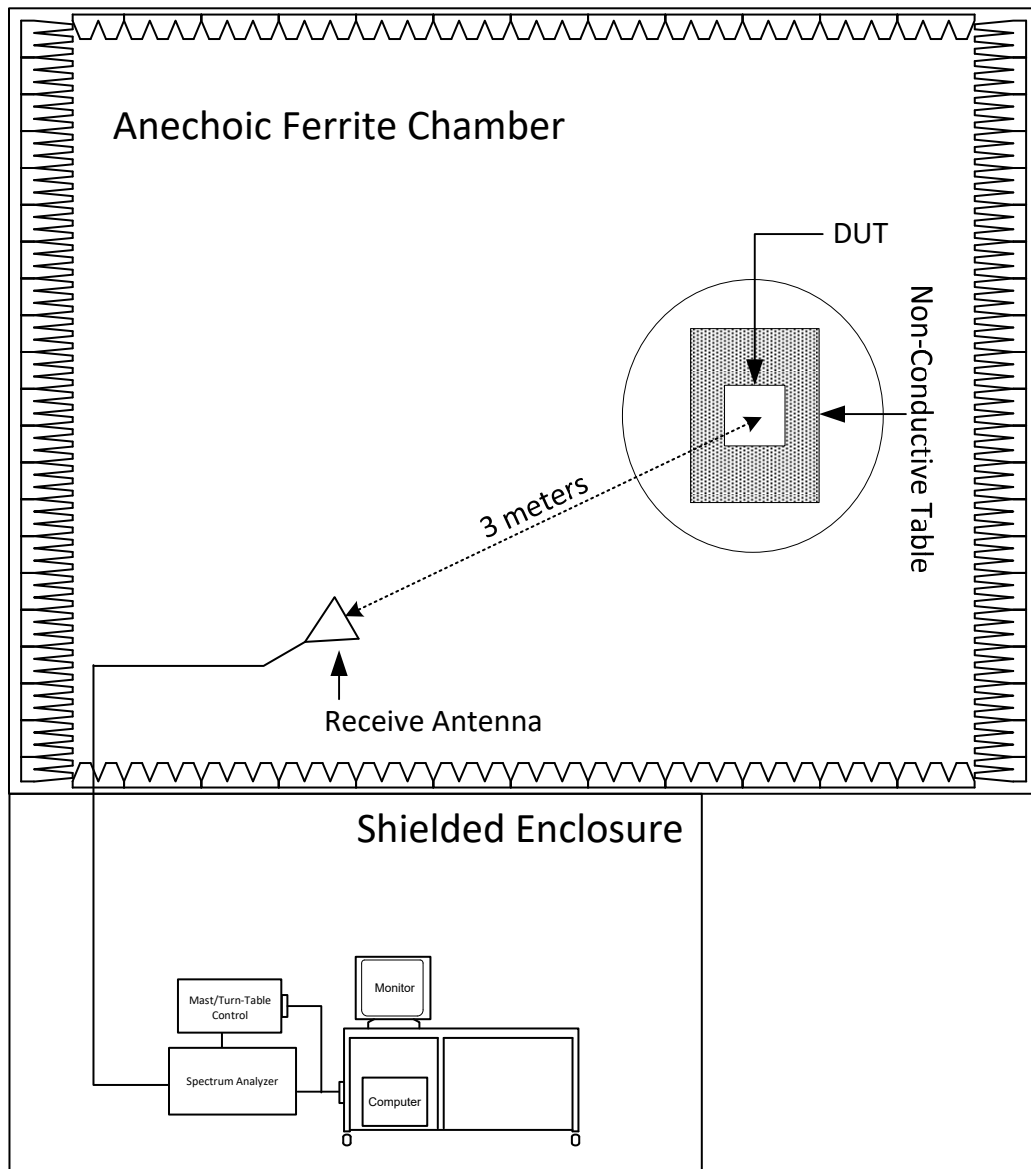
N/A: Not Applicable

I/O: Initial Only

CNR: Calibration Not Required

NOTE 1: For the purpose of this test, the equipment was calibrated over the specified frequency range, pulse rate, or modulation prior to the test or monitored by a calibrated instrument.

## 19. Block Diagram of Test Setup



Radiated Measurements Test Setup

## 20. Occupied Bandwidth (99%)

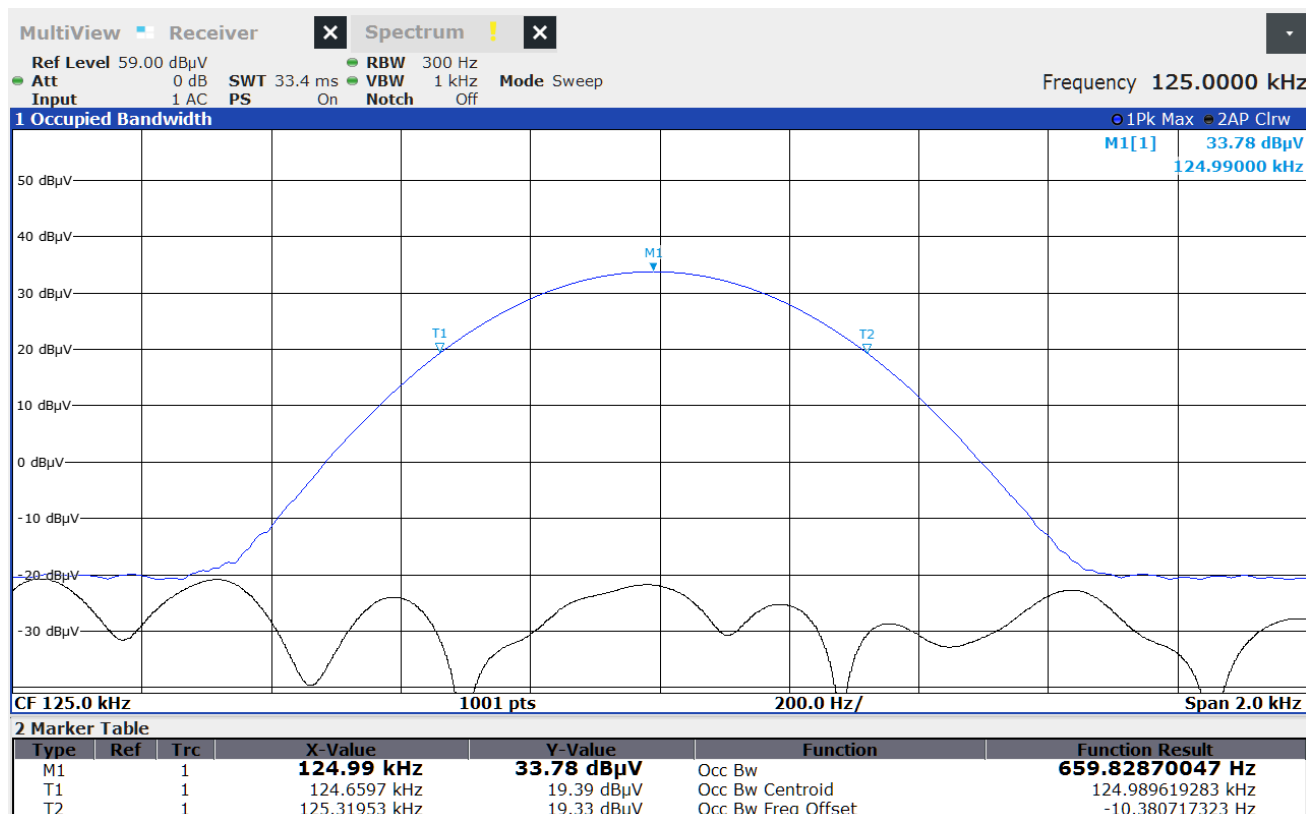
| EUT Information |                       |
|-----------------|-----------------------|
| Manufacturer    | Last Lock             |
| Product         | Smart Core            |
| Model No.       | C100                  |
| Serial No.      | 109-1, 112-1, or 24-1 |
| Mode            | RFID @ 125kHz         |

| Test Setup Details    |                       |
|-----------------------|-----------------------|
| Setup Format          | Tabletop              |
| Measurement Method    | Radiated              |
| Type of Test Site     | Semi-Anechoic Chamber |
| Test Site Used        | Room 29               |
| Type of Antennas Used | Loop Antenna          |

| Measurement Uncertainty                                                                                               |                                  |
|-----------------------------------------------------------------------------------------------------------------------|----------------------------------|
| Measurement Type                                                                                                      | Expanded Measurement Uncertainty |
| Radiated disturbance (electric field strength on an open area test site or alternative test site) (30 MHz – 1000 MHz) | 4.3                              |
| Radiated disturbance (electric field strength on an open area test site or alternative test site) (1 GHz – 6 GHz)     | 3.1                              |

| Procedure                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>The EUT was set up inside the chamber.</p> <p>The EUT was allowed to transmit continuously. The transmit channel was set to 125kHz. The resolution bandwidth (RBW) was set to 300Hz as a RBW that was 1% to 5% of the actual occupied / x dB bandwidth could not be achieved. The video bandwidth (VBW) was set 3 times greater than the RBW and the span was set large enough to capture all products of the modulation process, including the emission skirts, around the carrier frequency.</p> <p>The 'Max-Hold' function was engaged. The analyzer was allowed to scan until the envelope of the transmitter bandwidth was defined. The analyzer's display was plotted using a 'screen dump' utility.</p> |

| Test Details     |                       |
|------------------|-----------------------|
| Manufacturer     | Last Lock             |
| EUT              | Smart Core            |
| Model No.        | C100                  |
| Serial No.       | 109-1, 112-1, or 24-1 |
| Mode             | RFID @ 125kHz         |
| Frequency Tested | 125kHz                |
| Result           | OBW = 660Hz           |



## 21. Duty Cycle Measurements

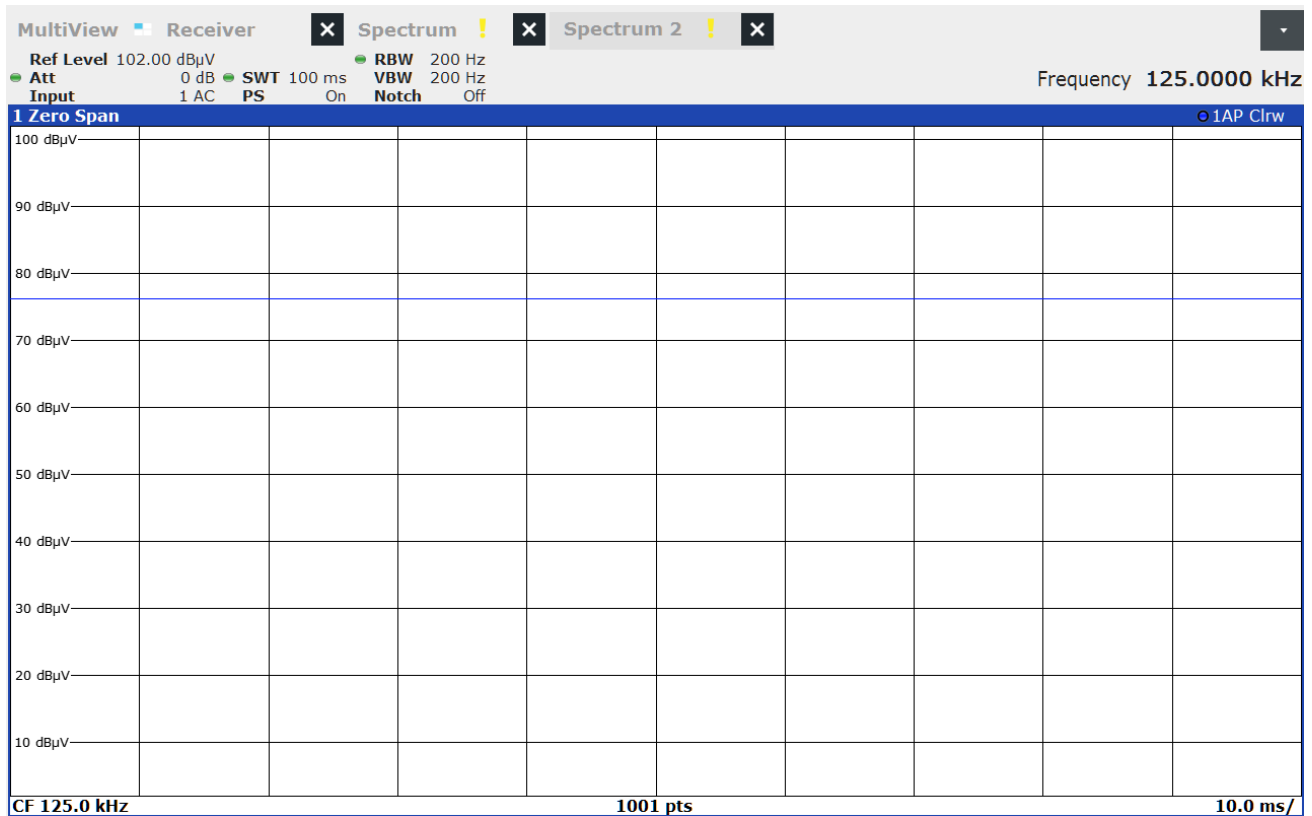
| EUT Information |                       |
|-----------------|-----------------------|
| Manufacturer    | Last Lock             |
| Product         | Smart Core            |
| Model No.       | C100                  |
| Serial No.      | 109-1, 112-1, or 24-1 |
| Mode            | RFID @ 125kHz         |

| Test Setup Details    |                       |
|-----------------------|-----------------------|
| Setup Format          | Tabletop              |
| Measurement Method    | Radiated              |
| Type of Test Site     | Semi-Anechoic Chamber |
| Type of Antennas Used | Loop Antenna          |
| Notes                 | None                  |

| Measurement Uncertainty                                                                                               |                                  |
|-----------------------------------------------------------------------------------------------------------------------|----------------------------------|
| Measurement Type                                                                                                      | Expanded Measurement Uncertainty |
| Radiated disturbance (electric field strength on an open area test site or alternative test site) (30 MHz – 1000 MHz) | 4.3                              |
| Radiated disturbance (electric field strength on an open area test site or alternative test site) (1 GHz – 6 GHz)     | 3.1                              |

| Procedure                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>The duty cycle factor is used to convert peak detected readings to average readings when pulsed modulation is employed. This factor is computed from the time domain trace of the pulse modulation signal.</p> <p>With the transmitter set up to transmit for maximum pulse density, the spectrum analyzer center frequency is set to the transmitter frequency with a zero span width and 10msec/div. The on-time and off-time are then measured. The on-time is total time signal level exceeds the 4th division. Off-time is time under for the word period.</p> <p>The duty cycle is then computed as <math>\left( \frac{\text{On Time}}{\text{Word Period}} \right)</math>, where <math>\text{Word Period} = (\text{On Time} + \text{Off Time})</math>.</p> |

| Test Details     |                       |
|------------------|-----------------------|
| Manufacturer     | Last Lock             |
| EUT              | Smart Core            |
| Model No.        | C100                  |
| Serial No.       | 109-1, 112-1, or 24-1 |
| Mode             | RFID @ 125kHz         |
| Frequency Tested | 125kHz                |
| Result           | On Time = 100ms       |



## 22. Spurious Radiated Emissions

| EUT Information |                       |
|-----------------|-----------------------|
| Manufacturer    | Last Lock             |
| Product         | Smart Core            |
| Model No.       | C100                  |
| Serial No.      | 109-1, 112-1, or 24-1 |
| Mode            | RFID @ 125kHz         |

| Test Setup Details    |                       |
|-----------------------|-----------------------|
| Setup Format          | Tabletop              |
| Type of Test Site     | Semi-Anechoic Chamber |
| Test Site Used        | Room 29               |
| Type of Antennas Used | Loop (or equivalent)  |
| Notes                 | None                  |

| Measurement Uncertainty                                                                                               |                                  |
|-----------------------------------------------------------------------------------------------------------------------|----------------------------------|
| Measurement Type                                                                                                      | Expanded Measurement Uncertainty |
| Radiated disturbance (electric field strength on an open area test site or alternative test site) (30 MHz – 1000 MHz) | 4.3                              |
| Radiated disturbance (electric field strength on an open area test site or alternative test site) (1 GHz – 6 GHz)     | 3.1                              |
| Radiated disturbance (electric field strength on an open area test site or alternative test site) (6 GHz – 18 GHz)    | 3.2                              |
| Radiated disturbance (electric field strength on an open area test site or alternative test site) (18 GHz – 26.5 GHz) | 3.3                              |
| Radiated disturbance (electric field strength on an open area test site or alternative test site) (26.5 GHz – 40 GHz) | 3.4                              |

#### Procedure

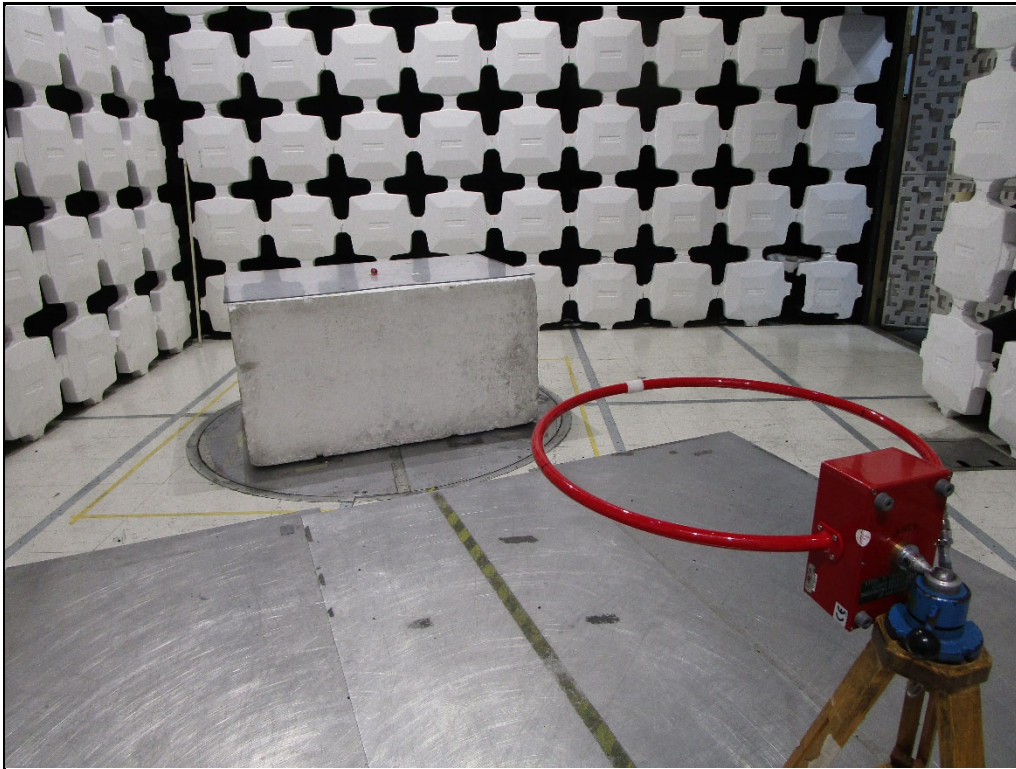
Radiated measurements were performed in a 32ft. x 20ft. x 14ft. high shielded enclosure. The shielded enclosure prevents emissions from other sources, such as radio and TV stations, from interfering with the measurements. All power lines and signal lines entering the enclosure pass through filters on the enclosure wall. The powerline filters prevent extraneous signals from entering the enclosure on these leads.

Preliminary radiated emissions tests were performed to determine the emission characteristics of the EUT. For the preliminary test, a broadband measuring antenna was positioned at a 3 meter distance from the EUT. The entire frequency range from 9kHz to 30MHz was investigated using a peak detector function.

The final open field emission tests were then manually performed over the frequency range of 9kHz to 30MHz.

1) For all harmonics, the following procedure was used:

- a) The field strength of the fundamental and all harmonics were measured using a loop antenna. The loop antenna was positioned at a 3 meter distance from the EUT. The EUT was placed on an 80cm high non-conductive stand. Peak detectors with resolution bandwidths of 200Hz for the fundamental and 9kHz for the harmonics were used on the spectrum analyzer.
- b) To ensure that maximum or worst case emission levels at the fundamental and harmonics were measured, the following steps were taken when measuring the fundamental emissions and the spurious emissions:
  - i) The EUT was rotated so that all of its sides were exposed to the receiving antenna.
  - ii) Since the measuring antenna is linearly polarized, both horizontal and vertical field components were measured.
  - iii) In instances where it was necessary to use a shortened cable between the measuring antenna and the spectrum analyzer, the measuring antenna was not raised or lowered to ensure maximized readings. Instead, the EUT was rotated through all axis to ensure the maximum readings were recorded for the EUT.
- c) All harmonics must be attenuated below the general limits specified in §15.209(a).



Test Setup for Spurious Radiated Emissions, 9kHz – 30MHz – Antenna Polarization Horizontal



Test Setup for Spurious Radiated Emissions, 9kHz – 30MHz – Antenna Polarization Vertical

| Test Details     |                       |
|------------------|-----------------------|
| Manufacturer     | Last Lock             |
| EUT              | Smart Core            |
| Model No.        | C100                  |
| Serial No.       | 109-1, 112-1, or 24-1 |
| Mode             | RFID @ 125kHz         |
| Frequency Tested | 125kHz                |

| Freq.<br>(MHz) | Ant<br>Pol | Meter<br>Reading<br>(dBuV) | Ambient | CBL<br>Fac<br>(dB) | Ant<br>Fac<br>(dB/m) | Pre<br>Amp<br>(dB) | Dist.<br>Corr.<br>(dB) | Total<br>(dBuV/m) | Total<br>(uV/m) | Limit<br>(uV/m) | Specified<br>Test<br>Distance<br>(meters) | Margin<br>(dB) |
|----------------|------------|----------------------------|---------|--------------------|----------------------|--------------------|------------------------|-------------------|-----------------|-----------------|-------------------------------------------|----------------|
| 0.125          | H          | 35.1                       |         | 0.0                | 10.3                 | 0.0                | -80.0                  | -34.5             | 0.0             | 19.2            | 300.0                                     | -60.2          |
| 0.125          | V          | 40.8                       |         | 0.0                | 10.3                 | 0.0                | -80.0                  | -28.9             | 0.0             | 19.2            | 300.0                                     | -54.6          |
| 0.250          | H          | 25.0                       | *       | 0.0                | 10.3                 | 0.0                | -80.0                  | -44.7             | 0.0             | 9.6             | 300.0                                     | -64.3          |
| 0.250          | V          | 24.5                       | *       | 0.0                | 10.3                 | 0.0                | -80.0                  | -45.2             | 0.0             | 9.6             | 300.0                                     | -64.8          |
| 0.375          | H          | 22.9                       | *       | 0.0                | 10.2                 | 0.0                | -80.0                  | -46.8             | 0.0             | 6.4             | 300.0                                     | -62.9          |
| 0.375          | V          | 22.6                       | *       | 0.0                | 10.2                 | 0.0                | -80.0                  | -47.1             | 0.0             | 6.4             | 300.0                                     | -63.3          |
| 0.500          | H          | 20.6                       | *       | 0.0                | 10.2                 | 0.0                | -40.0                  | -9.2              | 0.3             | 48.0            | 30.0                                      | -42.8          |
| 0.500          | V          | 20.2                       | *       | 0.0                | 10.2                 | 0.0                | -40.0                  | -9.6              | 0.3             | 48.0            | 30.0                                      | -43.2          |
| 0.625          | H          | 19.0                       | *       | 0.0                | 10.2                 | 0.0                | -40.0                  | -10.8             | 0.3             | 38.4            | 30.0                                      | -42.5          |
| 0.625          | V          | 18.1                       | *       | 0.0                | 10.2                 | 0.0                | -40.0                  | -11.7             | 0.3             | 38.4            | 30.0                                      | -43.4          |
| 0.750          | H          | 15.8                       | *       | 0.0                | 10.2                 | 0.0                | -40.0                  | -14.1             | 0.2             | 32.0            | 30.0                                      | -44.2          |
| 0.750          | V          | 17.5                       | *       | 0.0                | 10.2                 | 0.0                | -40.0                  | -12.3             | 0.2             | 32.0            | 30.0                                      | -42.4          |
| 0.875          | H          | 15.3                       | *       | 0.0                | 10.3                 | 0.0                | -40.0                  | -14.4             | 0.2             | 27.4            | 30.0                                      | -43.2          |
| 0.875          | V          | 15.4                       | *       | 0.0                | 10.3                 | 0.0                | -40.0                  | -14.3             | 0.2             | 27.4            | 30.0                                      | -43.1          |
| 1.000          | H          | 13.2                       | *       | 0.0                | 10.3                 | 0.0                | -40.0                  | -16.5             | 0.1             | 24.0            | 30.0                                      | -44.1          |
| 1.000          | V          | 13.3                       | *       | 0.0                | 10.3                 | 0.0                | -40.0                  | -16.4             | 0.2             | 24.0            | 30.0                                      | -44.0          |
| 1.125          | H          | 12.9                       | *       | 0.0                | 10.3                 | 0.0                | -40.0                  | -16.8             | 0.1             | 21.3            | 30.0                                      | -43.4          |
| 1.125          | V          | 11.0                       | *       | 0.0                | 10.3                 | 0.0                | -40.0                  | -18.7             | 0.1             | 21.3            | 30.0                                      | -45.3          |
| 1.250          | H          | 11.7                       | *       | 0.0                | 10.3                 | 0.0                | -40.0                  | -18.0             | 0.1             | 19.2            | 30.0                                      | -43.6          |
| 1.250          | V          | 11.4                       | *       | 0.0                | 10.3                 | 0.0                | -40.0                  | -18.3             | 0.1             | 19.2            | 30.0                                      | -43.9          |

## 23. Scope of Accreditation

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

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Email: [blugo@elitetest.com](mailto:blugo@elitetest.com)  
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Website: [www.elitetest.com](http://www.elitetest.com)

## ELECTRICAL

Valid To: June 30, 2027

Certificate Number: 1786.01

In recognition of the successful completion of the A2LA Accreditation Program evaluation process, accreditation is granted to this laboratory at the location listed above, as well as the satellite location listed below, to perform the following automotive electromagnetic compatibility and other electrical tests:

**Test Technology:****Test Method(s)<sup>1</sup>:**

***Transient Immunity***  
(Max Voltage 1500 V/Max current 1000 A)

ISO 7637-2 (including emissions); ISO 7637-3; ISO 7637-4;  
ISO 16750-2, Sections 4.6.3 and 4.6.4;  
ISO 21498-1; ISO 21498-2;  
CS.00054, Section 5.9; CS.00244 Section 5.2.15 through 5.2.21; CS.00245; CS.00246 Section 5.2.4;  
EMC-CS-2009.1 (CI220); FMC1278 (CI220, CI221, CI222);  
GMW 3097, Section 3.5; SAE J1113-11; SAE J1113-12;  
ECE Regulation 10.06 Annex 10

***Electrostatic Discharge (ESD)***  
(Up to +/-25 kV)

ISO 10605 (2001, 2008); ISO 10605;  
CS.00054, Section 5.10; CS.00244 Section 5.5;  
EMC-CS-2009.1 (CI 280); FMC1278 (CI280); SAE J1113-13;  
GMW 3097 Section 3.6

***Conducted Emissions***

CISPR 25 (2002, 2008), Sections 6.2 and 6.3;  
CISPR 25 (2016), Sections 6.3 and 6.4; CISPR 25;  
CS.00054, Sections 5.6.1 and 5.6.2;  
CS.00244 Sections 5.4.2 and 5.4.3; GMW 3097, Section 3.3.2;  
EMC-CS-2009.1 (CE 420); FMC1278 (CE420, CE421, CE 430, CE440)

(A2LA Cert. No. 1786.01) 08/14/2025



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5202 Presidents Court, Suite 220 | Frederick, MD 21703-8398 | Phone: 301 644 3248 | Fax: 240 454 9449 | [www.A2LA.org](http://www.A2LA.org)

**Test Technology:**
**Test Method(s)<sup>1</sup>:**

**Radiated Emissions Anechoic**  
(Up to 6 GHz)

CISPR 25 (2002, 2008), Section 6.4;  
CISPR 25 (2016), Section 6.5; CISPR 25;  
CS.00054, Section 5.6.3; CS.00244 Section 5.4.4;  
GMW 3097, Section 3.3.1;  
EMC-CS-2009.1 (RE 310); FMC1278 (RE310, RE320)

**Vehicle Radiated Emissions**

CISPR 12; CISPR 36; ICES-002;  
ECE Regulation 10.06 Annex 4;  
ECE Regulation 10.06 Annex 5

**Bulk Current Injection (BCI)**  
(1 to 400MHz 500mA)

ISO 11452-4; CS.00054, Section 5.8.1;  
CS.00244 Section 5.3.2;  
GMW 3097, Section 3.4.1; SAE J1113-4;  
EMC-CS-2009.1 (RI112); FMC1278 (RI112);  
ECE Regulation 10.06 Annex 9

**Radiated Immunity Anechoic**  
(Up to 6GHz and 200V/m)  
(Including Radar Pulse 600V/m)

ISO 11452-2;  
CS.00054, Section 5.8.2; CS.00244 Section 5.3.3;  
GMW 3097, Section 3.4.2;  
EMC-CS-2009.1 (RI114); FMC1278 (RI114); SAE J1113-21;  
ECE Regulation 10.06 Annex 9

**Radiated Immunity Magnetic Field**

ISO 11452-8; FMC 1278 (RI140); CS.00244 Section 5.3.4

**Radiated Immunity Reverb**  
(360MHz to 6GHz and 100V/m)

ISO/IEC 61000-4-21; GMW 3097, Section 3.4.3;  
EMC-CS-2009.1 (RI114); FMC1278 (RI114);  
ISO 11452-11

**Radiated Immunity**  
(Portable Transmitters)  
(Up to 6GHz and 20W)

ISO 11452-9;  
CS.00244 Section 5.3.5;  
EMC-CS-2009.1 (RI115); FMC1278 (RI115);  
GMW 3097, Sec 3.4.4

**Vehicle Radiated Immunity (ALSE)**

ISO 11451-2; ECE Regulation 10.06 Annex 6

**Vehicle Product Specific EMC Standards**

EN 14982; EN ISO 13309; ISO 13766; EN 50498;  
EC Regulation No. 2015/208; EN 55012

**Electrical Loads**

ISO 16750-2

**Stripline**

ISO 11452-5

**Emissions**

Radiated and Conducted  
(3m Semi-anechoic chamber,  
up to 40 GHz)

47 CFR, FCC Part 15 B (using ANSI C63.4:2014);  
47 CFR, FCC Part 18 (using FCC MP-5:1986);  
ICES-001; ICES-003; ICES-005;  
IEC/CISPR 11, Ed. 4.1 (2004-06); AS/NZS CISPR 11 (2004);  
IEC/CISPR 11 Ed 5 (2009-05) + A1 (2010);  
KN 11 (2008-5) with RRL Notice No. 2008-3 (May 20, 2008);  
CISPR 11; EN 55011; KS C 9811; CNS 13803 (1997, 2003);  
CISPR 14-1; EN 55014-1; AS/NZS CISPR 14.1;

**Test Technology:**

Radiated and Conducted (cont'd)  
(3m Semi-anechoic chamber,  
up to 40 GHz)

**Test Method(s)<sup>1</sup>:**

CISPR 16-2-1 (2008); CISPR 16-2-1; KS C 9814-1; KN 14-1;  
IEC/CISPR 22 (1997);  
EN 55022 (1998) + A1(2000);  
EN 55022 (1998) + A1(2000) + A2(2003); EN 55022 (2006);  
IEC/CISPR 22 (2008-09); AS/NZS CISPR 22 (2004);  
AS/NZS CISPR 22, 3rd Edition (2006); KN 22 (up to 6 GHz);  
CNS 13438 (up to 6 GHz); VCCI V-3 (up to 6 GHz);  
CISPR 32; EN 55032; KS C 9832; KN 32;  
ECE Regulation 10.06 Annex 7 (Broadband);  
ECE Regulation 10.06 Annex 8 (Narrowband);  
ECE Regulation 10.06 Annex 13 (Conducted);  
ECE Regulation 10.06 Annex 14 (Conducted)

Cellular Radiated Spurious Emissions

ETSI TS 151 010-1 GSM; 3GPP TS 51.010-1, Sec 12;  
ETSI TS 134 124 UMTS; 3GPP TS 34.124;  
ETSI TS 136 124 LTE; E-UTRA; 3GPP TS 36.124

Current Harmonics

IEC 61000-3-2; IEC 61000-3-12;  
EN 61000-3-2; KN 61000-3-2;  
KS C 9610-3-2; ECE Regulation 10.06 Annex 11

Flicker and Fluctuations

IEC 61000-3-3; IEC 61000-3-11;  
EN 61000-3-3; KN 61000-3-3;  
KS C 9610-3-3; ECE Regulation 10.06 Annex 12

**Immunity**

Electrostatic Discharge

IEC 61000-4-2, Ed. 1.2 (2001);  
IEC 61000-4-2 (1995) + A1(1998) + A2(2000);  
EN 61000-4-2 (1995); EN 61000-4-2 (2009-05);  
KN 61000-4-2 (2008-5);  
RRL Notice No. 2008-4 (May 20, 2008);  
IEC 61000-4-2; EN 61000-4-2; KN 61000-4-2;  
KS C 9610-4-2; IEEE C37.90.3 2001

Radiated Immunity

IEC 61000-4-3 (1995) + A1(1998) + A2(2000);  
IEC 61000-4-3, Ed. 3.0 (2006-02);  
IEC 61000-4-3, Ed. 3.2 (2010);  
KN 61000-4-3 (2008-5);  
RRL Notice No. 2008-4 (May 20, 2008);  
IEC 61000-4-3; EN 61000-4-3; KN 61000-4-3;  
KS C 9610-4-3; IEEE C37.90.2 2004

Electrical Fast Transient/Burst

IEC 61000-4-4, Ed. 2.0 (2004-07);  
IEC 61000-4-4, Ed. 2.1 (2011);  
IEC 61000-4-4 (1995) + A1(2000) + A2(2001);  
KN 61000-4-4 (2008-5);  
RRL Notice No. 2008-5 (May 20, 2008);  
IEC 61000-4-4; EN 61000-4-4; KN 61000-4-4;  
KS C 9610-4-4; ECE Regulation 10.06 Annex 15

**Test Technology:**
**Test Method(s)<sup>1</sup>:**

Surge

IEC 61000-4-5 (1995) + A1(2000);  
IEC 61000-4-5, Ed 1.1 (2005-11);  
EN 61000-4-5 (1995) + A1(2001);  
KN 61000-4-5 (2008-5);  
RRL Notice No. 2008-4 (May 20, 2008);  
IEC 61000-4-5; EN 61000-4-5; KN 61000-4-5;  
KS C 9610-4-5;  
IEEE C37.90.1 2012; IEEE STD C62.41.2 2002;  
ECE Regulation 10.06 Annex 16

Conducted Immunity

IEC 61000-4-6 (1996) + A1(2000);  
IEC 61000-4-6, Ed 2.0 (2006-05);  
IEC 61000-4-6 Ed. 3.0 (2008);  
KN 61000-4-6 (2008-5);  
RRL Notice No. 2008-4 (May 20, 2008);  
EN 61000-4-6 (1996) + A1(2001); IEC 61000-4-6;  
EN 61000-4-6; KN 61000-4-6; KS C 9610-4-6

Power Frequency Magnetic Field Immunity (*Down to 3 A/m*)

IEC 61000-4-8 (1993) + A1(2000); IEC 61000-4-8 (2009);  
EN 61000-4-8 (1994) + A1(2000);  
KN 61000-4-8 (2008-5);  
RRL Notice No. 2008-4 (May 20, 2008);  
IEC 61000-4-8; EN 61000-4-8; KN 61000-4-8; KS C 9610-4-8

Voltage Dips, Short Interrupts, and Line Voltage Variations

IEC 61000-4-11, Ed. 2 (2004-03);  
KN 61000-4-11 (2008-5);  
RRL Notice No. 2008-4 (May 20, 2008);  
IEC 61000-4-11; EN 61000-4-11; KN 61000-4-11;  
KS C 9610-4-11

Ring Wave

IEC 61000-4-12, Ed. 2 (2006-09);  
EN 61000-4-12:2006;  
IEC 61000-4-12; EN 61000-4-12; KN 61000-4-12;  
IEEE STD C62.41.2 2002

Generic and Product Specific EMC Standards

IEC/EN 61000-6-1; AS/NZS 61000-6-1; KN 61000-6-1;  
KS C 9610-6-1; IEC/EN 61000-6-2; AS/NZS 61000-6-2;  
KN 61000-6-2; KS C 9610-6-2; IEC/EN 61000-6-3;  
AS/NZS 61000-6-3; KN 61000-6-3; KS C 9610-6-3;  
IEC/EN 61000-6-4; AS/NZS 61000-6-4; KN 61000-6-4;  
KS C 9610-6-4; EN 50130-4; EN 61326-1; EN 50121-3-2;  
EN 12895; EN 50270; EN 50491-1; EN 50491-2; EN 50491-3;  
EN 55015; EN 60730-1; EN 60945; IEC 60533;  
EN 61326-2-6; EN 61800-3; IEC/CISPR 14-2; EN 55014-2;  
AS/NZS CISPR 14.2; KN 14-2; KS C 9814-2;  
IEC/CISPR 24; AS/NZS CISPR 24; EN 55024; KN 24;  
IEC/CISPR 35; AS/NZS CISPR 35; EN 55035; KN 35;  
KS C 9835; IEC 60601-1-2; JIS T0601-1-2; ANSI C63.27

**Test Technology:**
**Test Method(s)<sup>1</sup>:**
***TxRx EMC Requirements***

EN 301 489-1; EN 301 489-3; EN 301 489-9;  
EN 301 489-17; EN 301 489-19; EN 301 489-20

***European Radio Test Standards***

ETSI EN 300 086-1; ETSI EN 300 086-2;  
ETSI EN 300 113-1; ETSI EN 300 113-2;  
ETSI EN 300 220-1; ETSI EN 300 220-2;  
ETSI EN 300 220-3-1; ETSI EN 300 220-3-2;  
ETSI EN 300 330-1; ETSI EN 300 330-2;  
ETSI EN 300 440-1; ETSI EN 300 440-2;  
ETSI EN 300 422-1; ETSI EN 300 422-2;  
ETSI EN 300 328; ETSI EN 301 893;  
ETSI EN 301 511; ETSI EN 301 908-1;  
ETSI EN 908-2; ETSI EN 908-13;  
ETSI EN 303 413; ETSI EN 302 502;  
EN 303 340; EN 303 345-2; EN 303 345-3; EN 303 345-4

***Canadian Radio Tests***

RSS-102; RSS-102.NS.MEAS;  
SPR-002; RSS-111; RSS-112; RSS-117; RSS-119; RSS-123;  
RSS-125; RSS-127; RSS-130; RSS-131; RSS-132; RSS-133;  
RSS-134; RSS-135; RSS-137; RSS-139; RSS-140; RSS-141;  
RSS-142; RSS-170; RSS-181; RSS-182; RSS-192; RSS-194;  
RSS-195; RSS-196; RSS-197; RSS-198; RSS-199;  
RSS-210 (up to 40 GHz); RSS-211 (up to 40 GHz);  
RSS-213; RSS-215; RSS-216 (up to 40 GHz);  
RSS-220 (up to 40 GHz); RSS-222; RSS-236; RSS-238;  
RSS-243; RSS-244; RSS-247; RSS-248; RSS-252; RSS-287;  
RSS-288; RSS-310; RSS-GEN

***Mexico Radio Tests***

IFT-008-2015; NOM-208-SCFI-2016

***Japan Radio Tests***

Radio Law No. 131, Ordinance of MPT No. 37, 1981,  
MIC Notification No. 88:2004, Table No. 22-11;  
ARIB STD-T66, Regulation 18

***Taiwan Radio Tests***

LP-0002 (February 6, 2024)

***Australia/New Zealand Radio Tests***

AS/NZS 4268; Radiocommunications (Short Range Devices)  
Standard (2014)

***Hong Kong Radio Tests***

HKCA 1039 Issue 6; HKCA 1042; HKCA 1033 Issue 7;  
HKCA 1061; HKCA 1008; HKCA 1043; HKCA 1057;  
HKCA 1073

***Korean Radio Test Standards***

KN 301 489-1; KN 301 489-3; KN 301 489-9;  
KN 301 489-17; KN 301 489-52; KS X 3124; KS X 3125;  
KS X 3130; KS X 3126; KS X 3129

***Vietnam Radio Test Standards***

QCVN 47:2015/BTTTT; QCVN 54:2020/BTTTT;  
QCVN 55:2011/BTTTT; QCVN 65:2013/BTTTT;  
QCVN 73:2013/BTTTT; QCVN 74:2020/BTTTT;  
QCVN 112:2017/BTTTT; QCVN 117:2020/BTTTT

**Test Technology:**
**Test Method(s)<sup>1</sup>:**
***Vietnam EMC Test Standards***

QCVN 18:2014/BTTTT; QCVN 86:2019/BTTTT;  
QCVN 96:2015/BTTTT; QCVN 118:2018/BTTTT

***Unlicensed Radio Frequency Devices***  
*(3 Meter Semi-Anechoic Room)*

47 CFR FCC Part 15C, 15D, 15E, 15F, 15G, 15H  
(using ANSI C63.10:2020, ANSI C63.17:2013 and  
FCC KDB 905462 D02 (v02))

***Licensed Radio Service Equipment***

47 CFR FCC Parts 20, 22, 24, 25, 27, 30, 73, 74, 80, 87,  
90, 95, 96, 97, 101 (using ANSI/TIA-603-E,  
TIA-102.CAAA-E, ANSI C63.26:2015); ANSI/TIA-603-F

***OTA (Over the Air) Performance***

GSM, GPRS, EGPRS  
UMTS (W-CDMA)  
LTE Cat 0+, M1, NB1  
A-GNSS for UMTS/GSM, LTE  
Large Device/Laptop/Tablet Testing  
Integrated Device Testing  
WiFi 802.11 a/b/g/n/ac

CTIA Test Plan for Wireless Device Over-the-Air  
Performance (Method for Measurement for Radiated Power  
and Receiver Performance) V6.0<sup>2</sup>;  
CTIA Test Plan for RF Performance Evaluation of WiFi  
Mobile Converged Devices V4.0<sup>2</sup>
***Electrical Measurements and  
Simulation***

AC Voltage / Current  
(1mV to 5kV) 60 Hz  
(0.1V to 250V) up to 500 MHz  
(1μA to 150A) 60 Hz

FAA AC 150/5345-10;  
FAA AC 150/5345-43;  
FAA AC 150/5345-44;  
FAA AC 150/5345-46;  
FAA AC 150/5345-47;  
FAA EB 67

DC Voltage / Current  
(1mV to 15 kV) / (1μA to 10A)

Power Factor / Efficiency / Crest Factor  
(Power to 30kW)

Resistance  
(1mΩ to 4000MΩ)

Surge  
(Up to 10 kV / 5 kA) (Combination  
Wave and Ring Wave)

West Annex  
1524 Centre Circle  
Downers Grove, IL 60515

**Test Technology:**
**Test Method(s)<sup>2</sup>:**
**Transient Immunity**

ISO 7637-2 (including emissions); ISO 7637-3; ISO 7637-4;  
ISO 16750-2, Sections 4.6.3 and 4.6.4;  
ISO 21498-1; ISO 21498-2;  
CS.00054, Section 5.9; CS.00244 Section 5.2.15 through  
5.2.21; CS.00245; CS.00246 Section 5.2.4; EMC-CS-2009.1  
(CI220); FMC1278 (CI220, CI221, CI222); GMW 3097,  
Section 3.5; SAE J1113-11; SAE J1113-12;  
ECE Regulation 10.06 Annex 10

**Transverse Electromagnetic (TEM)  
Cell**

ISO 11452-3

**Emissions**

Current Harmonics

IEC 61000-3-2; IEC 61000-3-12;  
EN 61000-3-2; KN 61000-3-2;  
KS C 9610-3-2; ECE Regulation 10.06 Annex 11

Flicker and Fluctuations

IEC 61000-3-3; IEC 61000-3-11;  
EN 61000-3-3; KN 61000-3-3;  
KS C 9610-3-3; ECE Regulation 10.06 Annex 12

**Immunity**

Electrical Fast Transient/Burst

IEC 61000-4-4, Ed. 2.0 (2004-07);  
IEC 61000-4-4, Ed. 2.1 (2011);  
IEC 61000-4-4 (1995) + A1(2000) + A2(2001);  
KN 61000-4-4 (2008-5);  
RRL Notice No. 2008-5 (May 20, 2008);  
IEC 61000-4-4; EN 61000-4-4; KN 61000-4-4;  
KS C 9610-4-4; ECE Regulation 10.06 Annex 15

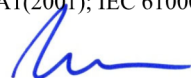
Surge

IEC 61000-4-5 (1995) + A1(2000);  
IEC 61000-4-5, Ed 1.1 (2005-11);  
EN 61000-4-5 (1995) + A1(2001);  
KN 61000-4-5 (2008-5);  
RRL Notice No. 2008-4 (May 20, 2008);  
IEC 61000-4-5; EN 61000-4-5; KN 61000-4-5;  
KS C 9610-4-5; IEEE C37.90.1 2012;  
IEEE STD C62.41.2 2002; ECE Regulation 10.06 Annex 16

Conducted Immunity

IEC 61000-4-6 (1996) + A1(2000);  
IEC 61000-4-6, Ed 2.0 (2006-05);  
IEC 61000-4-6 Ed. 3.0 (2008);  
KN 61000-4-6 (2008-5);  
RRL Notice No. 2008-4 (May 20, 2008);  
EN 61000-4-6 (1996) + A1(2001); IEC 61000-4-6;

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**Test Technology:**
**Test Method(s)<sup>2</sup>:**

Power Frequency Magnetic Field Immunity (*Down to 3 A/m*)

EN 61000-4-6; KN 61000-4-6; KS C 9610-4-6  
IEC 61000-4-8 (1993) + A1(2000); IEC 61000-4-8 (2009);  
EN 61000-4-8 (1994) + A1(2000);  
KN 61000-4-8 (2008-5);  
RRL Notice No. 2008-4 (May 20, 2008);  
IEC 61000-4-8; EN 61000-4-8; KN 61000-4-8; KS C 9610-4-8

Voltage Dips, Short Interrupts, and Line Voltage Variations

IEC 61000-4-11, Ed. 2 (2004-03);  
KN 61000-4-11 (2008-5);  
RRL Notice No. 2008-4 (May 20, 2008);  
IEC 61000-4-11; EN 61000-4-11; KN 61000-4-11;  
KS C 9610-4-11

Ring Wave

IEC 61000-4-12, Ed. 2 (2006-09);  
EN 61000-4-12:2006;  
IEC 61000-4-12; EN 61000-4-12; KN 61000-4-12;  
IEEE STD C62.41.2 2002

**Electrical Measurements and Simulation**

AC Voltage / Current  
(1mV to 5kV) 60 Hz  
(0.1V to 250V) up to 500 MHz  
(1μA to 150A) 60 Hz

FAA AC 150/5345-10;  
FAA AC 150/5345-43;  
FAA AC 150/5345-44;  
FAA AC 150/5345-46;  
FAA AC 150/5345-47;  
FAA EB 67

DC Voltage / Current  
(1mV to 15 kV) / (1μA to 10A)

Power Factor / Efficiency / Crest Factor  
(Power to 30kW)

Resistance  
(1mΩ to 4000MΩ)

Surge  
(Up to 10 kV / 5 kA) (Combination Wave and Ring Wave)

**On the following products and materials:**

Telecommunications Terminal Equipment (TTE), Radio Equipment, Network Equipment, Information Technology Equipment (ITE), Automotive Electronic Equipment, Automotive Hybrid Electronic Devices, Maritime Navigation and Radio Communication Equipment and Systems, Vehicles, Boats and Internal Combustion Engine Driven Devices, Automotive, Aviation, and General Lighting Products, Medical Electrical Equipment, Motors, Industrial, Scientific and Medical (ISM) Radio-Frequency Equipment, Household Appliances, Electric Tools, Low-voltage Switchgear and Control gear, Programmable Controllers, Electrical Equipment for Measurement, Control and Laboratory Use, Base Materials, Power and Data Transmission Cables and Connectors

<sup>1</sup> When the date, edition, version, etc. is not identified in the scope of accreditation, laboratories may use the version that immediately precedes the current version for a period of one year from the date of publication of the standard measurement method, per part C., Section 1 of A2LA R101 - General Requirements- Accreditation of Conformity Assessment Bodies.

<sup>2</sup> Accreditation to the requirements of the CTIA Certification Test Plan does not imply authorization by the CTIA Certification program. Please see the CTIA website <https://ctiacertification.org/test-labs/> for a listing of Authorized Test Labs (ATLs).

Testing Activities Performed in Support of FCC Certification in Accordance with 47 Code of Federal Regulations and FCC KDB 974614, Appendix A, Table A.1

| Rule Subpart/Technology                                                                                                       | Test Method                                            | Maximum Frequency (MHz) |
|-------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|-------------------------|
| <u>Unintentional Radiators</u><br>Part 15B                                                                                    | ANSI C63.4:2014                                        | 40000                   |
| <u>Industrial, Scientific, and Medical Equipment</u><br>Part 18                                                               | FCC MP-5 (February 1986)                               | 40000                   |
| <u>Intentional Radiators</u><br>Part 15C                                                                                      | ANSI C63.10:2013                                       | 40000                   |
| <u>Unlicensed Personal Communication Systems Devices</u><br>Part 15D                                                          | ANSI C63.17:2013                                       | 40000                   |
| <u>U-NII without DFS Intentional Radiators</u><br>Part 15E                                                                    | ANSI C63.10:2013                                       | 40000                   |
| <u>U-NII with DFS Intentional Radiators</u><br>Part 15E                                                                       | FCC KDB 905462 D02 (v02)                               | 40000                   |
| <u>UWB Intentional Radiators</u><br>Part 15F                                                                                  | ANSI C63.10:2013                                       | 40000                   |
| <u>BPL Intentional Radiators</u><br>Part 15G                                                                                  | ANSI C63.10:2013                                       | 40000                   |
| <u>White Space Device Intentional Radiators</u><br>Part 15H                                                                   | ANSI C63.10:2013                                       | 40000                   |
| <u>Commercial Mobile Services (FCC Licensed Radio Service Equipment)</u><br>Parts 22 (cellular), 24, 25 (below 3 GHz), and 27 | ANSI/TIA-603-E;<br>TIA-102.CAAA-E;<br>ANSI C63.26:2015 | 40000                   |

General Mobile Radio Services (FCC Licensed Radio Service Equipment)

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Testing Activities Performed in Support of FCC Certification in Accordance with 47 Code of Federal Regulations and FCC KDB 974614, Appendix A, Table A.1

| Rule Subpart/Technology                                                                                                                                    | Test Method                                            | Maximum Frequency (MHz) |
|------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|-------------------------|
| Parts 22 (non-cellular), 90 (below 3 GHz), 95, 97, and 101 (below 3 GHz)                                                                                   | ANSI/TIA-603-E;<br>TIA-102.CAAA-E;<br>ANSI C63.26:2015 | 40000                   |
| <u>Citizens Broadband Radio Services (FCC Licensed Radio Service Equipment)</u><br>Part 96                                                                 | ANSI/TIA-603-E;<br>TIA-102.CAAA-E;<br>ANSI C63.26:2015 | 40000                   |
| <u>Maritime and Aviation Radio Services</u><br>Parts 80 and 87                                                                                             | ANSI/TIA-603-E;<br>ANSI C63.26:2015                    | 40000                   |
| <u>Microwave and Millimeter Bands Radio Services</u><br>Parts 25, 30, 74, 90 (above 3 GHz), 97 (above 3 GHz), and 101                                      | ANSI/TIA-603-E;<br>TIA-102.CAAA-E;<br>ANSI C63.26:2015 | 40000                   |
| <u>Broadcast Radio Services</u><br>Parts 73 and 74 (below 3 GHz)                                                                                           | ANSI/TIA-603-E;<br>TIA-102.CAAA-E;<br>ANSI C63.26:2015 | 40000                   |
| <u>Signal Boosters</u><br>Part 20 (Wideband Consumer Signal Boosters, Provider-specific signal boosters, and Industrial Signal Boosters)<br>Section 90.219 | ANSI C63.26:2015                                       | 40000                   |

Accreditation does not imply acceptance to the FCC equipment authorization program. Please see the FCC website (<https://apps.fcc.gov/oetcf/eas/>) for a listing of FCC approved laboratories.



## Accredited Laboratory

A2LA has accredited

### ELITE ELECTRONIC ENGINEERING INC.

Downers Grove, IL

for technical competence in the field of

### Electrical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 *General requirements for the competence of testing and calibration laboratories*. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated April 2017).



Presented this 14<sup>th</sup> day of August 2025.



Mr. Trace McInturff, Vice President, Accreditation Services  
For the Accreditation Council  
Certificate Number 1786.01  
Valid to June 30, 2027

For the tests to which this accreditation applies, please refer to the laboratory's *Electrical Scope of Accreditation*.