

FCC and ISED Test Report

Paxton Access Ltd

Paxlock Pro 2 – Mortice Eclipse, Model: 900-735



In accordance with FCC and ISED (Module Integration as per KDB 996369)
Technology: (RFID + NFC + IEEE802.15.4; Simultaneous Transmission)

Prepared for: Paxton Access Ltd
Paxton House Home Farm Road
Brighton
BN1 9HU

FCC ID: USE 900710

IC ID: 10217A-900710

COMMERCIAL-IN-CONFIDENCE

Document 75966453-11 Issue 02

SIGNATURE

NAME	JOB TITLE	RESPONSIBLE FOR	ISSUE DATE
Steve Marshall	Senior Engineer	Authorised Signatory	10 August 2026

Signatures in this approval box have checked this document in line with the requirements of TÜV SÜD document control rules.

RESPONSIBLE FOR	NAME	DATE	SIGNATURE
Testing	Pier-Angelo Lorusso	10 August 2026	

FCC Accreditation: 492497/UK2010 Octagon House, Fareham Test Laboratory

ISED Accreditation: 12669A/UK0003 Octagon House, Fareham Test Laboratory

EXECUTIVE SUMMARY / ENGINEERING STATEMENT

The measurements shown in this report were made in accordance with the procedures described on the test pages A sample of this product was tested to demonstrate limited compliance FCC and ISED (Module Integration as per KDB 996369): FCC 47 CFR Part 15: 2024, ISED RSS-210: Issue 11 (06-2024), ISED RSS-310 Issue 5 (01 2020); ISED RSS-247: Issue 4 (07-2025) and ISED RSS-GEN: Issue 05 (2018-04) + A2 (2021-02) for the tests detailed in section 1.3. The sample tested was found to comply with the requirements defined in the applied rules.

DISCLAIMER AND COPYRIGHT



This non-binding report has been prepared by TÜV SÜD with all reasonable skill and care. The document is confidential to the potential Client and TÜV SÜD. No part of this document may be reproduced without the prior written approval of TÜV SÜD. © 2026 TÜV SÜD. This report relates only to the actual item/items tested.

ACCREDITATION

Our UKAS Accreditation does not cover opinions and interpretations and any expressed are outside the scope of our UKAS Accreditation. Results of tests not covered by our UKAS Accreditation Schedule are marked NUA (Not UKAS Accredited). Results of tests covered by our Flexible UKAS Accreditation Schedule are marked FS (Flexible Scope).

TÜV SÜD
is a trading name of TÜV SÜD Ltd
Registered in Scotland at East Kilbride,
Glasgow G75 0QF, United Kingdom
Registered number: SC215164

TÜV SÜD Ltd is a
TÜV SÜD Group Company

Phone: +44 (0) 1489 558100
Fax: +44 (0) 1489 558101
www.tuvsud.com/en

TÜV SÜD
Octagon House
Concorde Way
Fareham
Hampshire
PO15 5RL
United Kingdom



Contents

1	Report Summary	2
1.1	Report Modification Record	2
1.2	Introduction	2
1.3	Brief Summary of Results	4
1.4	Customer Supplied Form	6
1.5	Manufacturer Declared Variants	10
1.6	Product Information	11
1.7	Deviations from the Standard	11
1.8	EUT Modification Record	11
1.9	Test Location	11
2	Test Details	12
2.1	Radiated Spurious Emissions (Simultaneous Transmission)	12
3	Photographs	20
4	Measurement Uncertainty	23



1 Report Summary

1.1 Report Modification Record

Alterations and additions to this report will be issued to the holders of each copy in the form of a complete document.

Issue	Description of Change	Date of Issue
01	First version	26-Jun-2026
02	Updated Introduction (1.2) in Report Summary	10-Aug-2026

Table 1

1.2 Introduction

Applicant	Paxton Access Ltd
Manufacturer	Paxton Access Ltd
Model Number(s)	900-735
Hardware Version Identification Number (HVIN)	900-735
Serial Number(s)	9128925RD
Hardware Version(s)	z-lm02 & z-lmb1 – ppc-lm02 & ppc-lmb1
Firmware Version Identification Number (FVIN)	3.45
Number of Samples Tested	1
Test Specification/Issue/Date	FCC 47 CFR Part 15: 2024 ISED RSS-210: Issue 11 (06-2024) ISED RSS-310: Issue 5 (01-2020) ISED RSS-247: Issue 4 (07-2025) ISED RSS-GEN: Issue 5 (04-2018) + A2 (02-2021)
Order Number	241823
Date	03-June-2026
Date of Receipt of EUT	15-June-2026
Start of Test	15-June-2026
Finish of Test	18-June-2026
Name of Engineer(s)	Pier-Angelo Lorusso



Related Document(s)

ANSI C63.10-2020 +Cor.1-2023+C63.10a-2024
KDB 996369 D04 Module Integration Guide v02



1.3 Brief Summary of Results

A brief summary of the tests carried out in accordance with FCC and ISSED (Simultaneous Transmission) is shown below.

Section	Specification Clause					Test Description	Result	Comments/Base Standard
	Part 15C	RSS-210	RSS-310	RSS-247	RSS-GEN			
Configuration and Mode: IEEE 802.15.4 (2440MHz) + RFID (125kHz) + NFC (13.56MHz) SIMTX								
2.1	15.209 (a) 15.225 (d) 15.247 (d)	B.6	10.6	6.6	8.9 & 6.13	Radiated Spurious Emissions	Pass	ANSI C63.10-2020 +Cor.1-2023+C63.10a-2024 KDB 996369 D04 Module Integration Guide v02

Table 2



The following information is required for RSP-100 Form B:

Requirement	Band 1	Band 2	Band 3
RSS# and Issue #	RSS-310: Issue 5 (01-2020)	RSS-210: Issue 11 (06-2024)	RSS-247: Issue 4 (07-2025)
Frequency Minimum (MHz)	125kHz	13.56 MHz	2405 MHz
Frequency Maximum (MHz)	125kHz	13.56 MHz	2480 MHz
RF Power Minimum (W) Conducted/EIRP/ERP (Average/Peak)	N/A	N/A	N/A
RF Power Maximum (W) Conducted/EIRP/ERP (Average/Peak)	N/A	N/A	N/A
Field Strength	37.34 dBuV/m at 3m	48.08 dBuV/m at 3m	N/A due to exclusion band.
Measured Bandwidth (kHz) (99%, 26 dB, 6 dB, etc...)	N/A	N/A	N/A
Calculated BW as per TRC-43	N/A	N/A	N/A
Modulation Type	N/A	N/A	N/A
Emissions Classification	N/A	N/A	N/A
Spurious Emissions Radiated	N/A No emission measured within 10 dB.	N/A No emission measured within 10 dB.	48.12 dBuV/m at 3m at 7852 MHz. Not measured as was more than 10dB below limit.

Table 3



1.4 Customer Supplied Form

Equipment Description

Technical Description: (Please provide a brief description of the intended use of the equipment including the technologies the product supports)	The Paxlock is the battery powered smart electronic lock providing both access control and reader functions. The unit combines a 125kHz and 13.56 MHz proximity reader, a wireless bluetooth & Zigbee interface both 2.4GHz and a locking mechanism. PaxLock is a complete standalone system, there's nothing to wire together and no mains connection is required. The unit is powered by four replaceable AA batteries. The purpose of the equipment is to receive validated user input via a radio signal from a passive proximity token (card or keyfob) and then provide a digital output to the internal locking mechanism for access control. An event of this process is then transmitted to the PC through the wireless interface and stored as an archive. User's access rights are configured at the PC and the PaxLock unit is then updated as required using the same wireless method.		
Manufacturer:	Paxton Access Limited		
Product Marketing Name (PMN) or Host Marketing Name (HMN): (If Applicable; HMN is applicable for devices integrating pre-approved modules, otherwise use PMN)	900-735		
Hardware Version Identification Number (HVIN): (Formally Model Number)	900-735		
Hardware Version	z-lm02 & z-lmb1 – ppc-lm02 & ppc-lmb1		
Firmware Version Identification Number (FVIN)	3.45		
Manufacturer Declared Variants	900-710 backset) Galaxy	PaxLock Pro 2 – Latch (2-3/8"	
	900-715 Eclipse	PaxLock Pro 2 – Latch (2-3/8 backset)	
	900-720 Galaxy	PaxLock Pro 2 - Latch (2-3/4" backset)	
	900-725 backset) Eclipse	PaxLock Pro 2 - Latch (2-3/4"	
	900-730	PaxLock Pro 2 – Mortice Galaxy	
For definitions of the above terms refer to RSS-GEN Section 9.			
Radio Module used for BLE and Zigbee	Silicon Labs EFR32MG13P.		
FCC ID of the product under test – see guidance here	QOQMGM13P		
IC ID of the product under test – see guidance here	5123A-MGM13P		
Device Category	Mobile ☐	Portable ☐	Fixed ☒
Equipment is fitted with an Audio Low Pass Filter	Yes ☐	No ☒	

Table 4



Intentional Radiators

Technology	BLE 2.4GHz	Zigbee IEEE 802.15.4	RFID 13.56MHz	RFID 125kHz		
Frequency Range (MHz to MHz)	2.4 GHz (2400 MHz)	2.4 GHz (2400 MHz)	13.56MHz	0.125MHz		
Conducted Declared Output Power (dBm)	10dBm	10dBm				
Antenna Gain (dBi)	-4 dBi	-4 dBi				
Supported Bandwidth(s) (MHz) (e.g. 1 MHz, 20 MHz, 40 MHz)	40 channels of 2MHz total 80MHz bandwidth	16 Channels 11-26 5MHz each channel				
Modulation Scheme(s) (e.g. GFSK, QPSK etc)	BT LE	802.15.4	RFID	RFID		
ITU Emission Designator (see guidance here) (not mandatory for Part 15 devices)	1M00F1D	2M45G1D	5K33K1D	5K33K1D		
Bottom Frequency (MHz)	2402 MHz	2405 MHz				
Middle Frequency (MHz)	2438 MHz	2440 MHz	13.56MHz	0.125MHz		
Top Frequency (MHz)	2480 MHz	2480 MHz				

Table 5

Un-intentional Radiators

Highest frequency generated or used in the device or on which the device operates or tunes	The highest clock frequency that we generate is 38.4 Mhz **Note that the radio circuitry has a 2.4GHz oscillator in it
Lowest frequency generated or used in the device or on which the device operates or tunes	125KHz
Class A Digital Device (Use in commercial, industrial or business environment) ☐	
Class B Digital Device (Use in residential environment only) ☒	

Table 6

AC Power Source

AC supply frequency:		Hz
Voltage		V
Max current:		A
Single Phase ☐ Three Phase ☐		

Table 7



DC Power Source

Nominal voltage:		V
Extreme upper voltage:		V
Extreme lower voltage:		V
Max current:		A

Table 8

Battery Power Source

Voltage:	6	V
End-point voltage:	4.5	V (Point at which the battery will terminate)
Alkaline ☒ Leclanche ☐ Lithium ☐ Nickel Cadmium ☐ Lead Acid* ☐ *(Vehicle regulated)		
Other ☐	Please detail:	

Table 9

Charging

Can the EUT transmit whilst being charged	Yes ☐ No ☒
---	---

Table 10

Temperature

Minimum temperature:	-20°	°C
Maximum temperature:	+55°	°C

Table 11

Cable Loss

Adapter Cable Loss (Conducted sample)	0.5	dB
--	-----	----

Table 12



Antenna Characteristics

Antenna connector ☐			State impedance		Ohm
Temporary antenna connector ☐			State impedance		Ohm
Integral antenna ☒	Type:	Chip Antenna WE-MCA	Gain	-4	dBi
External antenna ☐	Type:		Gain		dBi

For external antenna only:
 Standard Antenna Jack ☐ If yes, describe how user is prohibited from changing antenna (if not professional installed):
 Equipment is only ever professionally installed ☐
 Non-standard Antenna Jack ☐
 All part 15 applications will need to show how the antenna gain was derived either from a manufacturer data sheet or a measurement. Where the gain of the antenna is inherently accounted for as a result of the measurement, such as field strength measurements on a part 15.249 or 15.231 device, so the gain does not necessarily need to be verified. However, enough information regarding the construction of the antenna shall be provided. Such information maybe photographs, length of wire antenna etc.

Table 13

Ancillaries (if applicable)

Manufacturer:		Part Number:	
Model:		Country of Origin:	

Table 14

I hereby declare that the information supplied is correct and complete.

Name: Kevin Feeney
 Position held: Compliance Engineer
 Date: 23.04.2026

1.5 Manufacturer Declared Variants

All the variants have identically the same electrical & electronic design, housed within all the products. The only variations between them, as will be explained below, is the handle shape and length of deadlatch. These minor changes will have no effect on Radio or EMC performance.

There are two main variants of the “**Paxlock Pro 2**” the “**Paxlock Pro 2 Latch**” and “**Paxlock Pro 2 Mortice**”.

The latch uses a Cylindrical Cartridge with a 60mm or 70mm backset deadlatch. The Mortice variant encompasses a Morice lock with a mortice key cylinder.

With each of the two variants we produce the products with two types of handle version, the “SQUARE” and “ROUNDED”, these are called **Galaxy** and **Eclipse**. So, we have two variants of each of the Latch and Mortice handles.

We also produce two backset lengths of the “Paxlock pro 2 Latch” as described earlier, the 60mm and 70mm. Hence, therefore we have four sales codes for the “Paxlock pro 2 Latch” as we have two backset’s and the two handle types.

The mortice has only the one lock type with the two handles variants, hence the “Paxlock pro 2 Mortice” has two sales codes.

The sales codes for the various variants are shown below.

SALES CODES	Description
900-710	Paxlock Pro 2 - Latch (2-3/8” backset) Galaxy
900-715	Paxlock Pro 2 - Latch (2-3/8” backset) Eclipse
900-720	Paxlock Pro 2 - Latch (2-3/4” backset) Galaxy
900-725	Paxlock Pro 2 - Latch (2-3/4” backset) Eclipse
900-730	Paxlock Pro 2 - Mortice Galaxy
900-735	Paxlock Pro 2 - Mortice Eclipse

All the variants have exactly the same design of electronics housed within all the products, the only variations between them, as has been explained above, is the handle type and length of deadlatch, which has no effect on EMC or Radio testing.



1.6 Product Information

1.6.1 Technical Description

The Paxlock is the battery powered smart electronic lock providing both access control and reader functions. The unit combines a 125kHz and 13.56 MHz proximity reader, a wireless Bluetooth & Zigbee interface both 2.4GHz and a locking mechanism.

PaxLock is a complete standalone system, there's nothing to wire together and no mains connection is required. The unit is powered by four replaceable AA batteries.

The purpose of the equipment is to receive validated user input via a radio signal from a passive proximity token (card or keyfob) and then provide a digital output to the internal locking mechanism for access control. An event of this process is then transmitted to the PC through the wireless interface and stored as an archive.

User's access rights are configured at the PC and the PaxLock unit is then updated as required using the same wireless method.

1.7 Deviations from the Standard

No deviations from the applicable test standard were made during testing.

1.8 EUT Modification Record

The table below details modifications made to the EUT during the test programme.

The modifications incorporated during each test are recorded on the appropriate test pages.

Modification State	Description of Modification still fitted to EUT	Modification Fitted By	Date Modification Fitted
Model: 900-720, Serial Number: 9128925RD			
0	As supplied by the customer	Not Applicable	Not Applicable

Table 15

1.9 Test Location

TÜV SÜD conducted the following tests at our Octagon House Test Laboratory.

Test Name	Name of Engineer(s)	Accreditation
Configuration and Mode: IEEE 802.15.4 (2440MHz) + RFID (125kHz) + NFC (13.56MHz) SIMTX		
Radiated Spurious Emissions (Simultaneous Transmission)	Pier-Angelo Lorusso	UKAS

Table 16

Laboratory Address: TÜV SÜD, Octagon House,
Concorde Way, Fareham, Hampshire,
PO15 5RL, United Kingdom



2 Test Details

2.1 Radiated Spurious Emissions (Simultaneous Transmission)

2.1.1 Specification Reference

FCC 47 CFR Part 15, Clauses 15.225 (a) and 15.247 (d)
ISED RSS-210, Clause B.6
ISED RSS-310, Clause 10.6
ISED RSS-247, Clause 6.6
ISED RSS-GEN, Clause 8.9 & 6.13

2.1.2 Equipment Under Test and Modification State

Model: 900-720, S/N: 9128925RD - Modification State 0

2.1.3 Date of Test

15-June-2026 to 18 June 2026

2.1.4 Test Method

IEEE 802.15.4 (2440MHz) + RFID (125kHz) + NFC (13.56MHz) SIMTX

A preliminary profile of the Radiated Spurious Emissions was obtained up to the 5th harmonic of the lowest intentional transmitter, as required by KDB 996369 D04, clause 3.2, by operating the EUT on a remotely controlled turntable within a semi-anechoic chamber. Emission measurements were performed on the worst-case modulation and channel per frequency range as shown in the original filing as per KDB 996369 D04 clause 3.4(b).

The DUT was powered with 6 VDC from the customer provided Alkaline Batteries.

The customer supplied a configured SIMTX DUT with the following Modes and Channels preset: RFID (125kHz) + NFC (13,56MHz) + IEEE802.15.4 (2440MHz).

Measurements of emissions from the EUT were obtained with the Measurement Antenna in both Horizontal and Vertical Polarisations. The profiling produced a list of the worst-case emissions together with the EUT azimuth and antenna polarisation.

This test was performed in accordance with ANSI C63.10, clause 6.3, 6.5 and 6.6.

For frequencies > 1 GHz, plots for average measurements were taken in accordance with ANSI C63.10, clause 4.1.4.2.5 to characterize the EUT. Where emissions were detected, final average measurements were taken in accordance with ANSI C63.10, clause 4.1.4.2.2, 11.11, 11.12, 12.7.2 or 12.7.3 depending on the nature of the emission measured.

The plots shown are the characterisation of the EUT. The limits on the plots represent the most stringent case for restricted bands, (74/54 dBuV/m) when compared to non-restricted band limits. The limits shown have been used as a threshold to determine where further measurements are necessary. Where results are within 10 dB of the limits shown on the plots, further investigation was carried out and reported in results tables.

The following conversion can be applied to convert from dBµV/m to µV/m:
 $10^{(\text{Field Strength in dB}\mu\text{V/m}/20)}$

2.1.5 Example Test Setup Diagram

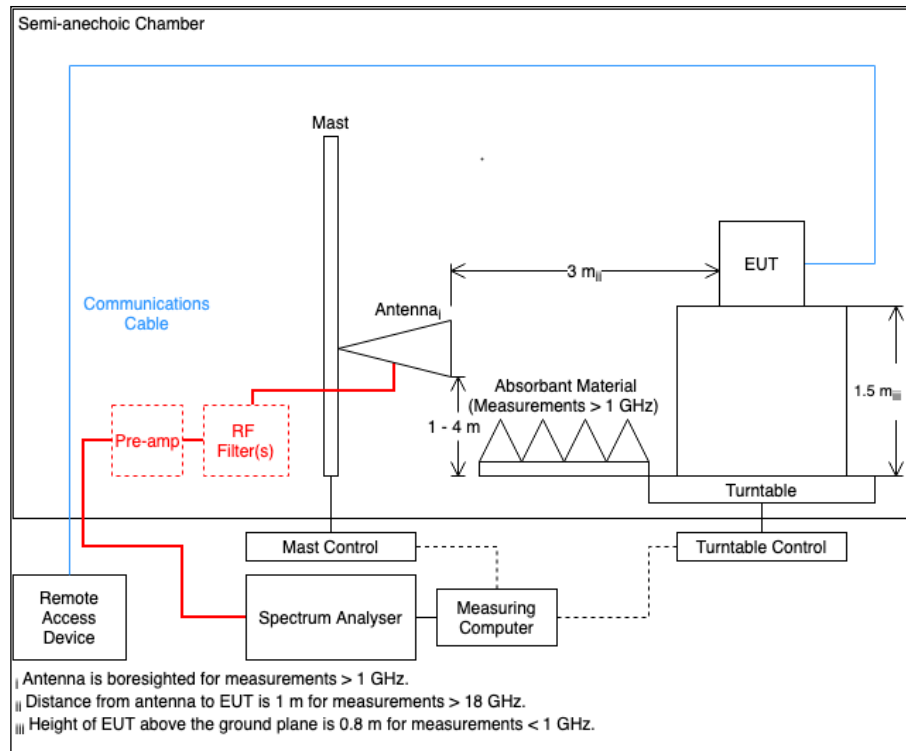


Figure 1

2.1.6 Environmental Conditions

Ambient Temperature	24.0 to 25.0 °C
Relative Humidity	48.0 to 56.0 %

2.1.7 Test Results

IEEE 802.15.4 (2440MHz) + RFID (125kHz) + NFC (13.56MHz) SIMTX

Frequency (MHz)	Level	Limit	Margin (dB)	Detector	Unit	Angle (°)	Height (cm)	Polarisation
*								

Table 17 - SimTx_RFiD__NFC_IEEE802.15.4, 125kHz_13.56MHz_2440MHz, 9 kHz to 13 GHz

*No emissions found within 10 dB of the limit.

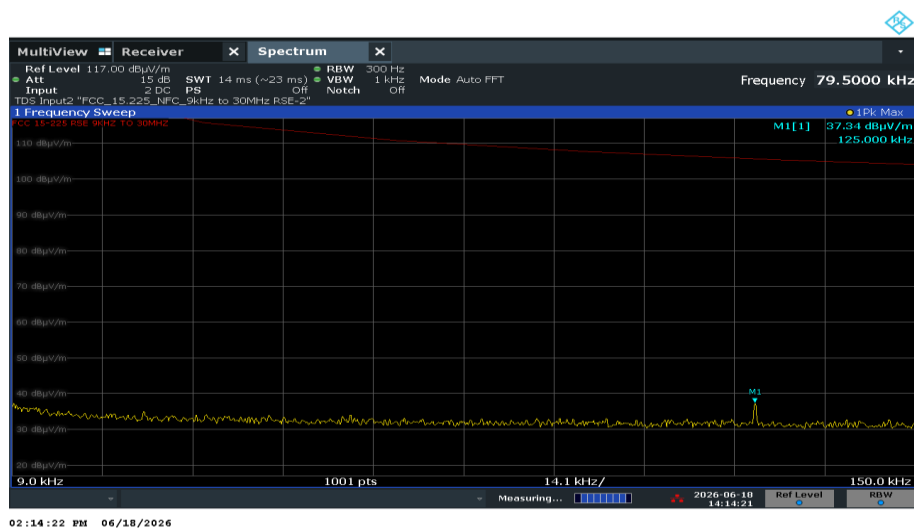


Figure 2 - SimTx_RFiD__NFC_IEEE802.15.4, 125kHz_13.56MHz_2440MHz, 9 kHz to 150 kHz, Front-On

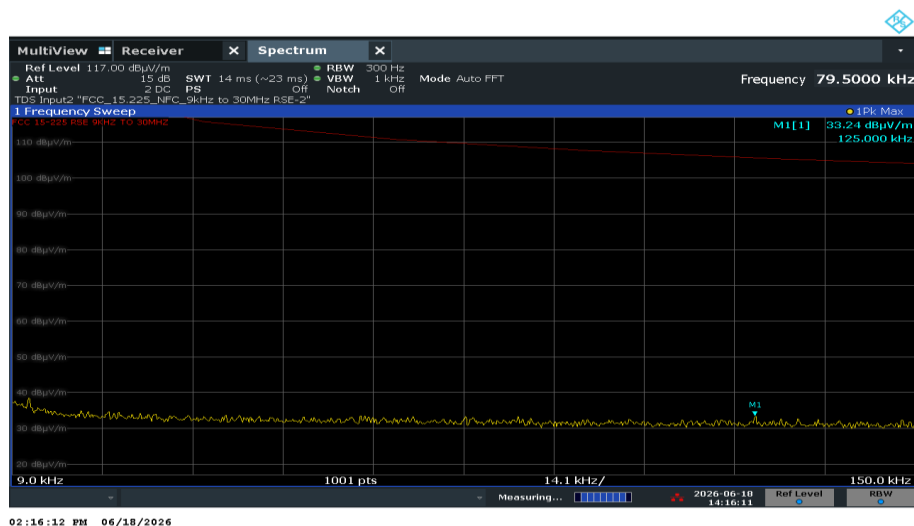


Figure 3 - SimTx_RFiD__NFC_IEEE802.15.4, 125kHz_13.56MHz_2440MHz, 9 kHz to 150 kHz, Side-On

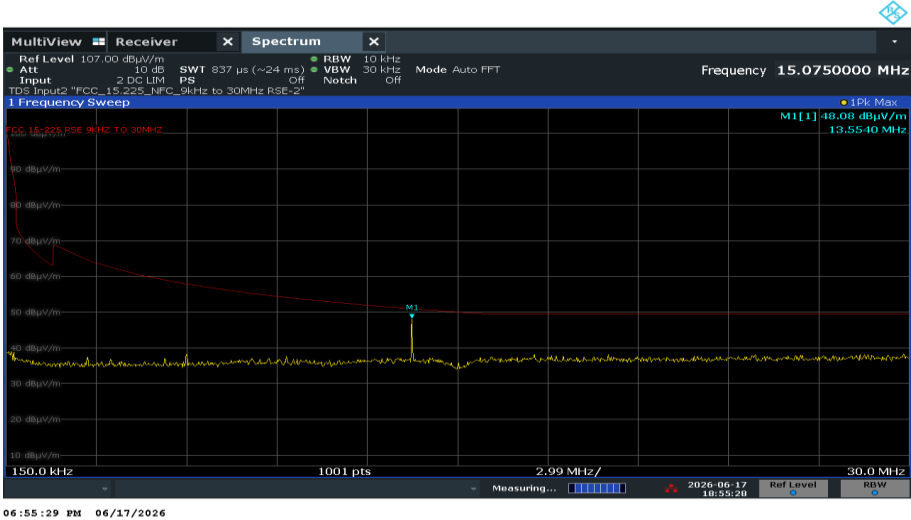


Figure 4 - SimTx_RFiD__NFC_IEEE802.15.4, 125kHz_13.56MHz_2440MHz, 150 kHz to 30 MHz, Front-On

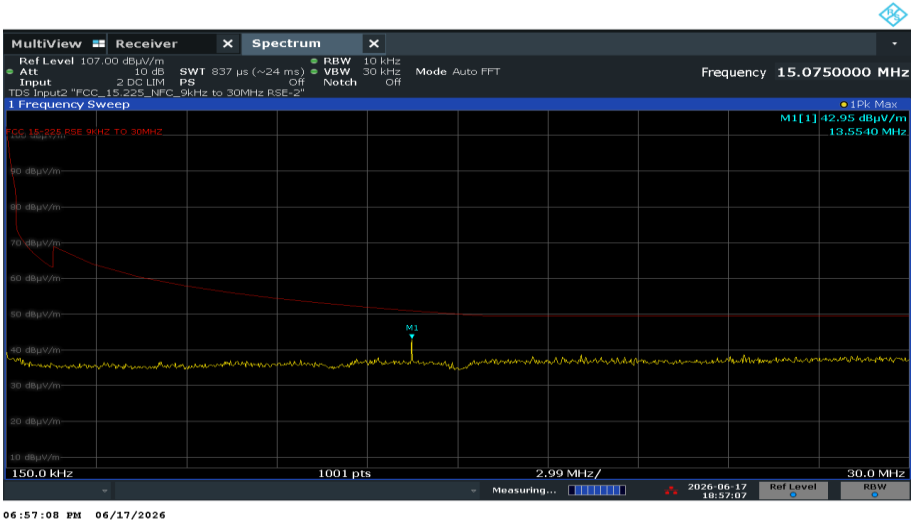


Figure 5 - SimTx_RFiD__NFC_IEEE802.15.4, 125kHz_13.56MHz_2440MHz, 150 kHz to 30 MHz, Side-On

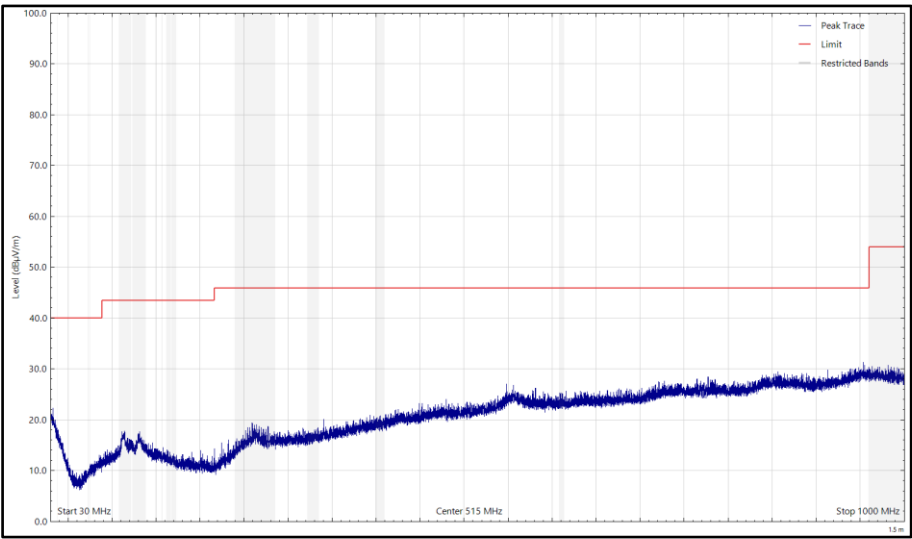


Figure 6 - SimTx_RFiD__NFC_IEEE802.15.4, 125kHz_13.56MHz_2440MHz, 30 MHz to 1 GHz, Horizontal (Peak)

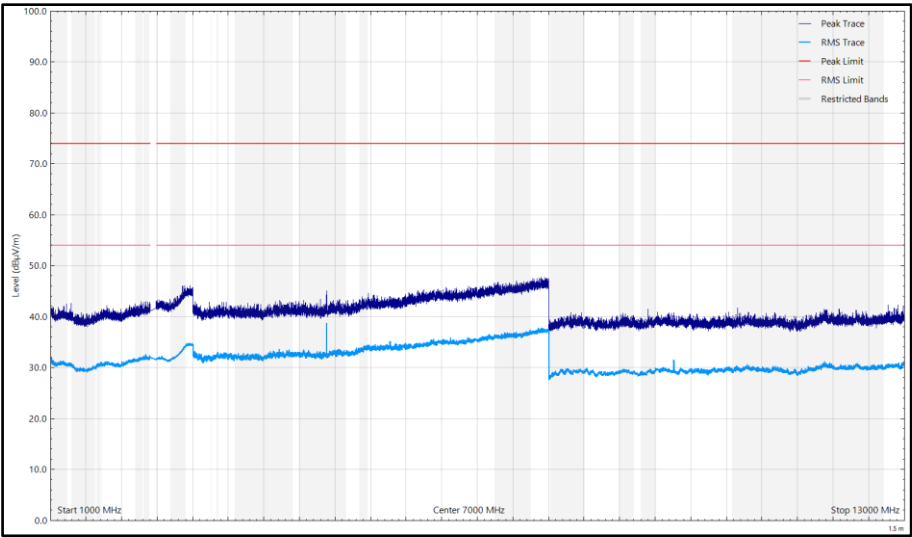


Figure 7 - SimTx_RFiD__NFC_IEEE802.15.4, 125kHz_13.56MHz_2440MHz, 1 GHz to 13 GHz, Horizontal

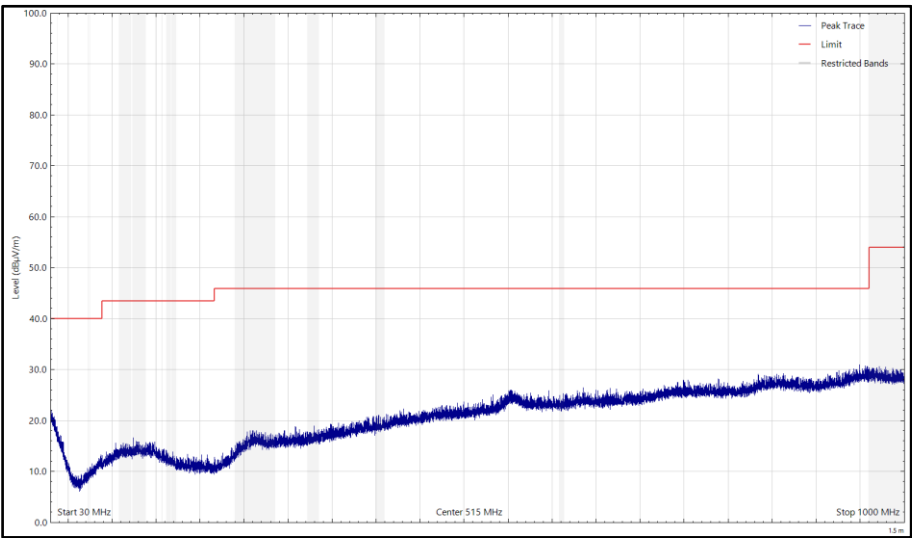


Figure 8 - SimTx_RFiD__NFC_IEEE802.15.4, 125kHz_13.56MHz_2440MHz, 30 MHz to 1 GHz, Vertical (Peak)

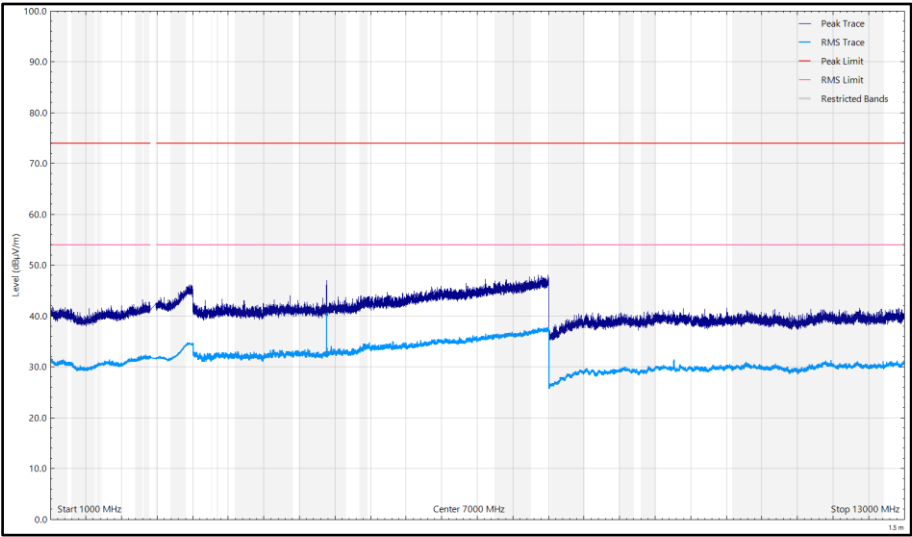


Figure 9 - SimTx_RFiD__NFC_IEEE802.15.4, 125kHz_13.56MHz_2440MHz, 1 GHz to 13 GHz, Vertical

2.1.8 Specification Limits

The least stringent limit from the applicable rule parts was used to determine compliance for Radiated Emissions testing of multiple transmission sources.

The least stringent applicable limit was:

Clause	Limit
Part 15 247 (d) / RSS-247 Clause 6.6	-20 dBc / -30 dBc
Part 15.209 (a) / RSS-GEN Clause 8.9	Peak: 74 dBµV/m at 3m, Average 54 dBµV/m at 3m (Restricted bands > 1 GHz)



Table 18

2.1.9 Test Location and Test Equipment Used

This test was carried out in RF Chamber 11.

Instrument	Manufacturer	Type No	TE No	Calibration Period (months)	Calibration Expires
Programmable Power Supply	Iso-tech	IPS 2010	2437	-	O/P Mon
True RMS Multimeter	Fluke	179	4007	12	12-Jan-2027
3m Semi-Anechoic Chamber	Rainford	RF Chamber 11	5136	36	14-Nov-2027
Mast	Maturo	TAM 4.0-P	5158	-	TU
Mast and Turntable Controller	Maturo	Maturo NCD	5159	-	TU
Turntable	Maturo	TT 15WF	5160	-	TU
Antenna (DRG, 1 GHz to 10.5 GHz)	Schwarzbeck	BBHA9120B	5215	12	05-Jul-2026
Antenna (DRG, 7.5 GHz to 18 GHz)	Schwarzbeck	HWRD750	5216	12	12-Jul-2026
Pre-Amplifier (1 GHz to 26.5 GHz)	Agilent Technologies	8449B	5445	12	10-Jul-2026
Thermo-Hygro-Barometer	PCE Instruments	PCE-THB-40	5476	12	05-Feb-2027
Cable (SMA to SMA, 1 m)	Junkosha	MWX221-01000AMSAMS/A	5515	12	21-Oct-2026
EMI Test Receiver	Rohde & Schwarz	ESW44	5527	12	14-Aug-2026
3 GHz High pass Filter	Wainwright	WHKX12-2580-3000-18000-80SS	5547	12	07-Jun-2027
7 GHz High pass Filter	Wainwright	WHKX12-5850-6800-18000-80SS	5549	12	31-Aug-2026
Antenna (Bi-Log, 30 MHz to 1 GHz)	Teseq	CBL6111D	5615	24	24-Apr-2027
2m SMA Cable	Junkosha	MWX221-02000AMSAMS/B	6926	12	09-Dec-2026
Cable Assy 8m (N to N) 18GHz	Junkosha	MWX221-08000NMSNMS/B	7051	12	05-Jun-2027
Antenna (Loop, 9 kHz to 30 MHz)	Teseq	HLA 6121	5616	24	16-Aug-2026
Power Injector	Teseq	PI 6121	5620	24	16-Aug-2026
Power Supply	Farnell	LT30/2	3422	-	TU

Table 19

TU - Traceability Unscheduled
O/P Mon – Output Monitored using calibrated equipment



3 Photographs

Equipment Under Test



Figure 10 - Test Setup – 9kHz to 30MHz Front-On



Figure 11 - Test Setup - 9kHz to 30MHz Side-On

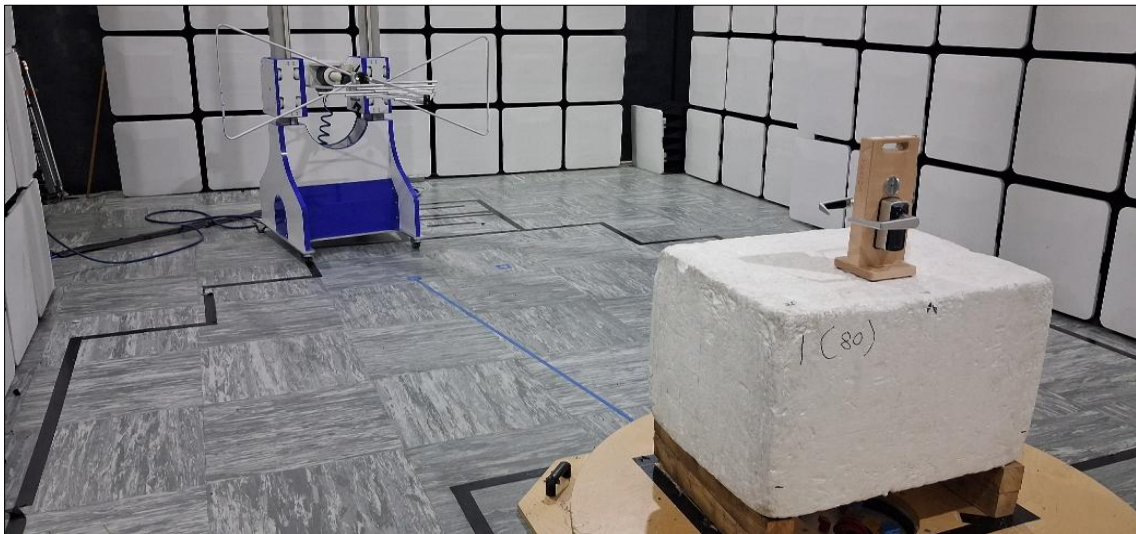


Figure 12 - Test Setup - 30 MHz to 1 GHz

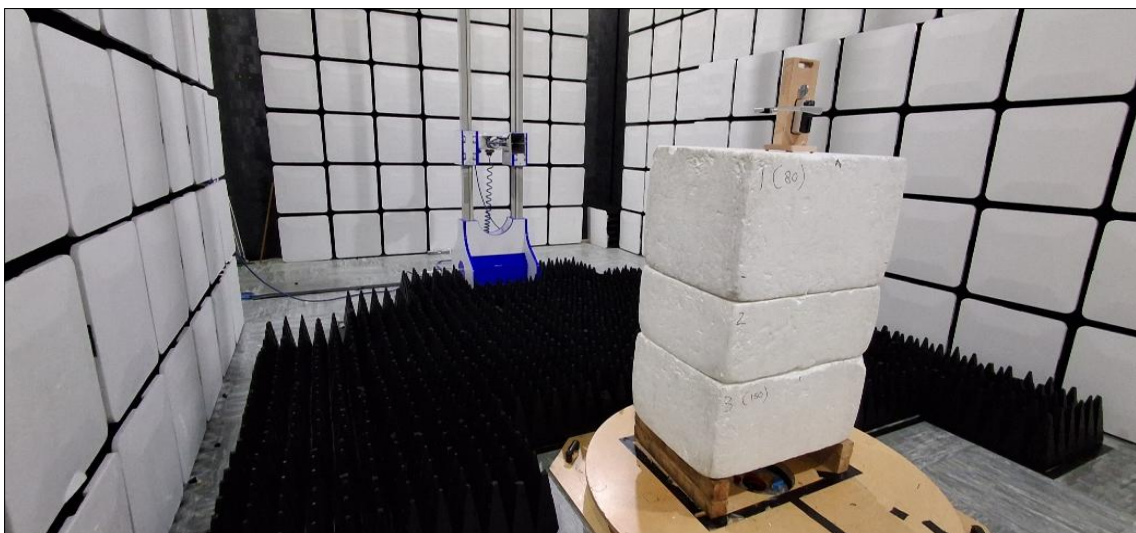


Figure 13 - Test Setup - 1 GHz to 8 GHz



Figure 14 - Test Setup - 8 GHz to 13 GHz



4 Measurement Uncertainty

For a 95% confidence level, the measurement uncertainties for defined systems are:

Test Name	Measurement Uncertainty
Radiated Spurious Emissions (Simultaneous Transmission)	9 kHz to 1 GHz: ± 5.2 dB 1 GHz to 40 GHz: ± 6.3 dB

Table 20

Measurement Uncertainty Decision Rule

Determination of conformity with the specification limits is based on the decision rule according to IEC Guide 115:2023, Clause 4.3.4 (Simple Acceptance). The measurement results are directly compared with the test limit to determine conformance with the requirements of the standard.

Risk: The uncertainty of measurement about the measured result is negligible with regard to the final pass/fail decision. The measurement result can be directly compared with the test limit to determine conformance with the requirement (compare IEC Guide 115). The level of risk to falsely accept and falsely reject items is further described in ILAC-G8.