

FCC and ISED Test Report

Manufacturer: Magicard Ltd
Model: P6360 Duo Colour Card Printer



In accordance with FCC and ISED (Module Integration as per KDB 996369)
Technology: (2.4 GHz Bluetooth Low Energy)

Prepared for: Magicard Ltd
Waverley House, Hampshire Road
Weymouth
DT4 9XD

FCC ID: XDWP63X0B IC ID: 23549-P63X0B

COMMERCIAL-IN-CONFIDENCE

Document 75965747-19 Issue 02

SIGNATURE			
NAME	JOB TITLE	RESPONSIBLE FOR	ISSUE DATE
Steve Marshall	Senior Engineer	Authorised Signatory	16 September 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	Wenceslao Acosta Carrazco	16 September 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 with FCC and ISED (Module Integration as per KDB 996369): 47 CFR Part 15C 2024, ISED RSS-247: Issue 4, ISED RSS-GEN: Issue 5 (04-2018) + A2 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. © 2025 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 Summary2**

1.1 Report Modification Record.....2

1.2 Introduction.....2

1.3 Brief Summary of Results3

1.4 Customer Supplied Form4

1.5 Product Information8

1.6 Deviations from the Standard.....8

1.7 EUT Modification Record8

1.8 Test Location8

2 **Test Details9**

2.1 Radiated Spurious Emissions9

3 **Photographs 16**

3.1 Test Setup Photographs 16

4 **Measurement Uncertainty 18**



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	14/05/26
02	Updated Model Number, HVIN and FCC and IC ID	16/09/26

Table 1

1.2 Introduction

Applicant	Magicard Ltd
Manufacturer	Magicard Ltd
Model Number(s)	P6360 Duo Colour Card Printer
Serial Number(s)	12012016.001.0_9.Y7971671
Hardware Version Identification number (HVIN)	P6360 Duo Colour Card Printer
Firmware Version Identification Number (FVIN)	0.9
Number of Samples Tested	1
Test Specification/Issue/Date	FCC 47 CFR Part 15C, 2024 ISED RSS-247, Issue 4 (2025-07) ISED RSS-GEN: Issue 5 (2018-04) + A2 (2021-02)
Order Number	15526
Date	09-September-2025
Date of Receipt of EUT	16-January-2026
Start of Test	21-January-2026
Finish of Test	21-January-2026
Name of Engineer(s)	Wenceslao Acosta Carrazco
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 ISED (Module Integration as per KDB 996369) is shown below.

Section	Specification Clause			Test Description	Result	Comments/Base Standard
	Part 15C	RSS-247	RSS-GEN			
Configuration and Mode: 2.4 GHz Bluetooth Low Energy						
2.1	15.247 (d) & 15.209	6.6	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



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)	An ID card printer for use in office environments, light commercial and industrial. The printer is optionally capable of encoding chip or rfid capable cards
Manufacturer:	Magicard Ltd.
Product Marketing Name (PMN) or Host Marketing Name (HMN) (If applicable; HMN is applicable for device integrating pre-approved modules, otherwise use PMN)	P6360-DUO-UK
Part Number:	5060589239807 (printer) + smart module (5060589239883)
Hardware Version: Identification Number (HVIN)	P6360 Duo Colour Card Printer
Hardware Version:	Rev 6
Firmware Version Identification Number (FVIN)	0.7/0.9 (used in BLE testing units)
Declared Manufacturer Variants	Magicard P6300, Uno Colour Card Printer, EU 5060589239760 Magicard P6300, Duo Colour Card Printer, EU 5060589239777 Magicard P6300, Uno Colour Card Printer, UK 5060589239791 Magicard P6300, Duo Colour Card Printer, UK 5060589239807 Magicard P6300, Uno Colour Card Printer, APAC 5060589239821 Magicard P6300, Duo Colour Card Printer, APAC 5060589239838 Magicard P6300, Uno Colour Card Printer, BNA 5060589239852 Magicard P6300, Duo Colour Card Printer, BNA 5060589239869 SMART MODULE 5060589239883 ROTATION UNIT 5060589239890 Magicard P6360, Uno Colour Card Printer, 600DPI, EU 5060589239937 Magicard P6360, Duo Colour Card Printer, 600DPI, EU 5060589239944 Magicard P6360, Uno Colour Card Printer, 600DPI, UK 5060589239951 Magicard P6360, Duo Colour Card Printer, 600DPI, UK 5060589239968 Magicard P6360, Uno Colour Card Printer, 600DPI, APAC 5060589239975 Magicard P6360, Duo Colour Card Printer, 600DPI, APAC 5060589239982 Magicard P6360, Uno Colour Card Printer, 600DPI, BNA 5060589239999 Magicard P6360, Duo Colour Card Printer, 600DPI, BNA 5065000266004 Model P6360-DUO-UK was tested as a representative worst-case scenario for the product family. The results in this test report are for this model specifically. The results from this model have been declared by the manufacturer as representative of the entire product family (manufacturer declared variants). See the model nomenclature and legend for the models in the product family below: Model Nomenclature: P6300 or P6360 followed by -UNO or -DUO; followed by -; followed by up to three characters Model Legend: P6300 = 300 DPI Printer P6360 = 600 DPI Printer UNO = Single sided printing DUO = Double sided printing Last three characters = Region it's sold (i.e. EU = Europe, UK = UK, ROW = APAC countries, BNA = Central & South America, Caribbean)



FCC ID of the product under test – see guidance here		1 approved rfid module - FCCID WP5TWN4F3 1 approved PAN9028 Wifi/BLE module - FCCID: T7V9028	
IC ID of the product under test – see guidance here		1 approved rfid module - certificate number: 17-110413 certification number: 7948A-TWN4F3 (unsure which is relevant here) 1 approved PAN9028 Wifi/BLE module - License ID : 216Q-9028	
Device Category	Mobile ☐	Portable ☐	Fixed ☒
Equipment is fitted with an Audio Low Pass Filter		Yes ☐	No ☒

Table 3

Intentional Radiators

Technology	WiFi	RFID (1)	RFID (2)	BLE		
Frequency Range (MHz to MHz)	2400 to 2483.5	13.56	13.56, 0.125	2400 to 2483.5		
Conducted Declared Output Power (dBm)	16 dBm	None declared (60.18 dBμV/m @3m)	14.1dBm	5.0 dBm		
Antenna Gain (dBi)	2.13	To be measured	Not applicable (magnetic coupler, no electromagnetic transmission)	2.13		
Supported Bandwidth(s) (MHz) (e.g. 1 MHz, 20 MHz, 40 MHz)	80	To be measured	125 kHz: 10 kHz 13.56 MHz: 1.7 MHz	1.03 (1 Mbps mode) 2.06 (2Mbps Mode) (only 1Mbps mode is used in the printer)		
Modulation Scheme(s) (e.g. GFSK, QPSK etc)	MCS	ASK	ASK	GFSK		
ITU Emission Designator (see guidance here) (not mandatory for Part 15 devices)						
Bottom Frequency (MHz)	2400			2402		
Middle Frequency (MHz)		13.56	13.56/0.125			
Top Frequency (MHz)	2483.5			2480		

Table 4

Un-intentional Radiators

Highest frequency generated or used in the device or on which the device operates or tunes	2.4 GHz
Lowest frequency generated or used in the device or on which the device operates or tunes	2.4 GHz
Class A Digital Device (Use in commercial, industrial or business environment) ☐	
Class B Digital Device (Use in residential environment only) ☐	

Table 5



AC Power Source

AC supply frequency:	60	Hz
Voltage	120	V
Max current:	5	A
Single Phase ☒ Three Phase ☐		

Table 6

DC Power Source

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

Table 7

Battery Power Source

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

Table 8

Charging

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

Table 9



Temperature

Minimum temperature:	10	°C
Maximum temperature:	30	°C

Table 10

Cable Loss

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

Table 11

Antenna Characteristics

Antenna connector ☐			State impedance		Ohm
Temporary antenna connector ☐			State impedance		Ohm
Integral antenna ☒	Type:	Chip/trace antenna	Gain	2.13 (wifi and BLE)	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 12

Ancillaries (if applicable)

Manufacturer:	CWT	Part Number:	KPN100M-VI
Model:	KPN100M-VI	Country of Origin:	China

Table 13

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

Name: Emile Campbell-Browne
Position held: Electronics Engineer
Date: 14/01/2026



1.5 Product Information

1.5.1 Technical Description

An ID card printer for use in office environments, light commercial and industrial. The printer is optionally capable of encoding chip or rfid capable cards.

1.6 Deviations from the Standard

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

1.7 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
P6360-DUO-UK, Model: P6360-DUO-UK, Serial Number: 12012016.001.0_9.Y7971671			
0	As supplied by the customer	Not Applicable	Not Applicable
1	Firmware updated to disable ethernet port, to lose the emission created by the ethernet port at 625MHz. Guided by customer over the phone.	Wenceslao Acosta Carrazco	20-January-2026

Table 14

1.8 Test Location

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

Test Name	Name of Engineer(s)	Accreditation
Configuration and Mode: 2.4 GHz Bluetooth Low Energy		
Radiated Spurious Emissions	Wenceslao Acosta Carrazco	UKAS

Table 15

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



2 Test Details

2.1 Radiated Spurious Emissions

2.1.1 Specification Reference

FCC 47 CFR Part 15C, Clause 15.247 (d) & 15.209
ISED RSS-247, Clause 6.6
ISED RSS-GEN, Clause 6.13

2.1.2 Equipment Under Test and Modification State

Model: P6360-DUO-UK, S/N: 12012016.001.0_9.Y7971671 - Modification State 1

2.1.3 Date of Test

21-January-2026

2.1.4 Test Method

2.4 GHz Bluetooth Low Energy

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).

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.

EUT was powered with 120 VAC 60Hz for the duration of the measurement.

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 dBuV/m to uV/m:
 $10^{(\text{Field Strength in dBuV/m}/20)}$

2.1.5 Example Test Setup Diagram

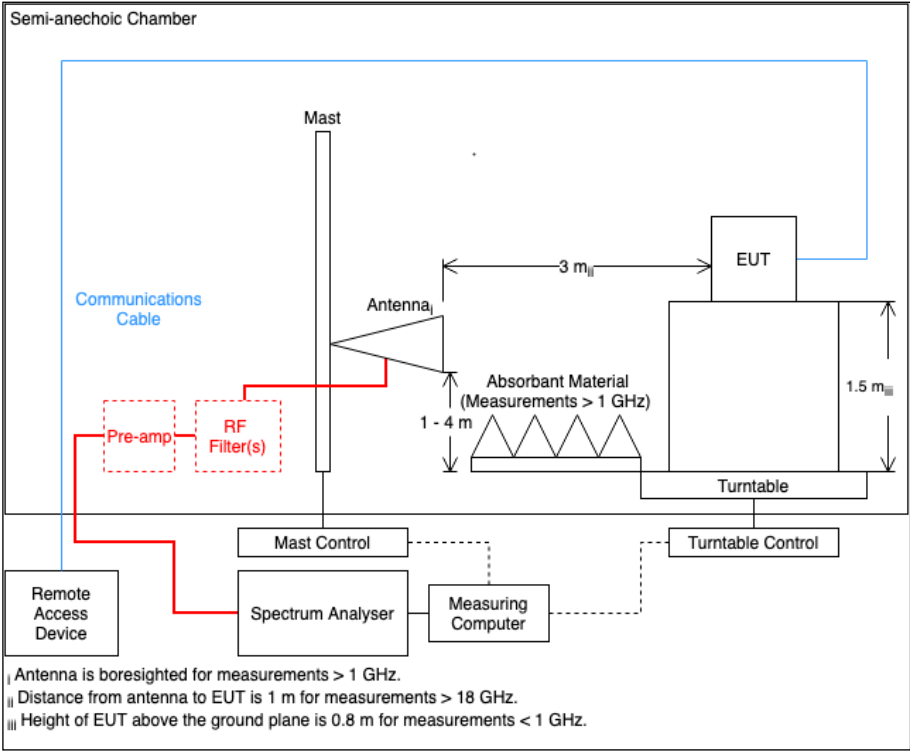


Figure 1

2.1.6 Environmental Conditions

Ambient Temperature 19.7 °C
Relative Humidity 45.3 %

2.1.7 Test Results

2.4 GHz Bluetooth Low Energy

The EUT was configured in the following mode of operation:

Technology	Frequency Band	Channel Frequency (MHz)
Bluetooth Low Energy	2400 MHz to 2483.5 MHz	2402

Table 16 – Modes of Operation

Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
164.514	29.21	43.50	-14.29	Q-Peak	251	114	Horizontal
165.126	30.04	43.50	-13.46	Q-Peak	242	135	Horizontal
169.488	29.76	43.50	-13.74	Q-Peak	250	195	Horizontal

Table 17 - BOT_LE1M_Tx, 2402 MHz, 30 MHz to 13 GHz

No other emissions found within 10 dB of the limit.

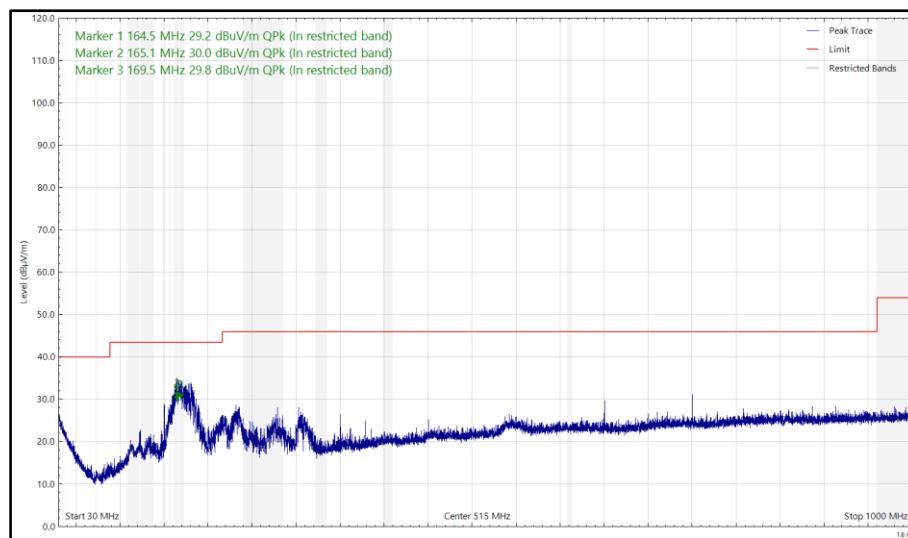


Figure 2 - BOT_LE1M_Tx, 2402 MHz, 30 MHz to 1 GHz, Horizontal (Peak)

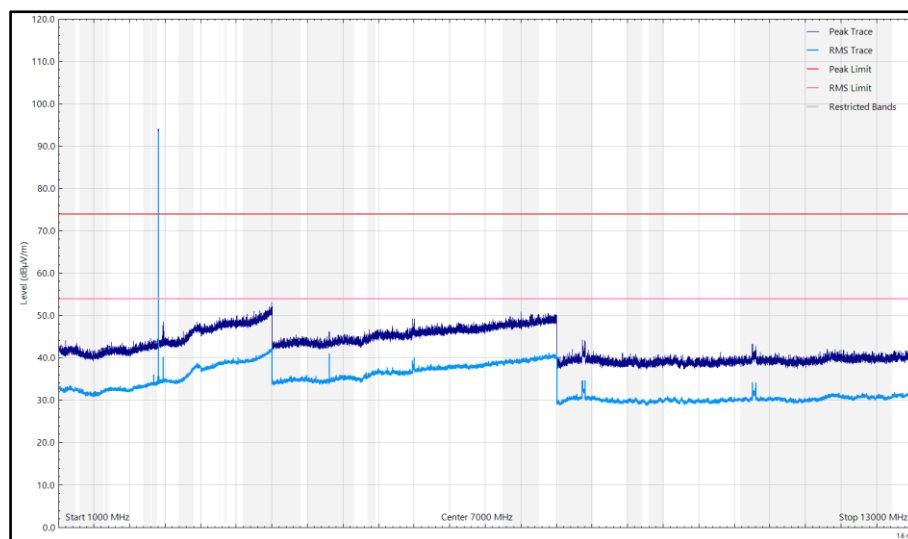


Figure 3 - BOT_LE1M_Tx, 2402 MHz, 1 GHz to 13 GHz, Horizontal

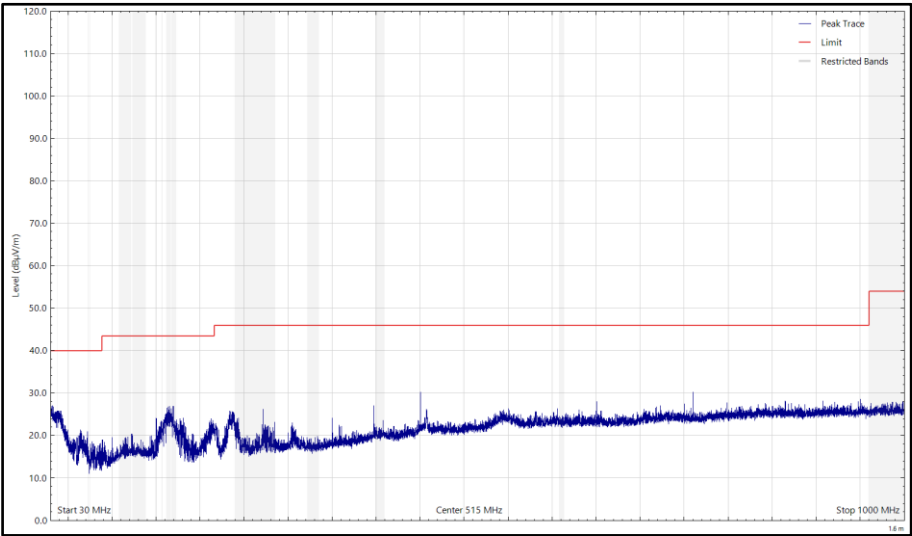


Figure 4 - BOT_LE1M_Tx, 2402 MHz, 30 MHz to 1 GHz, Vertical (Peak)

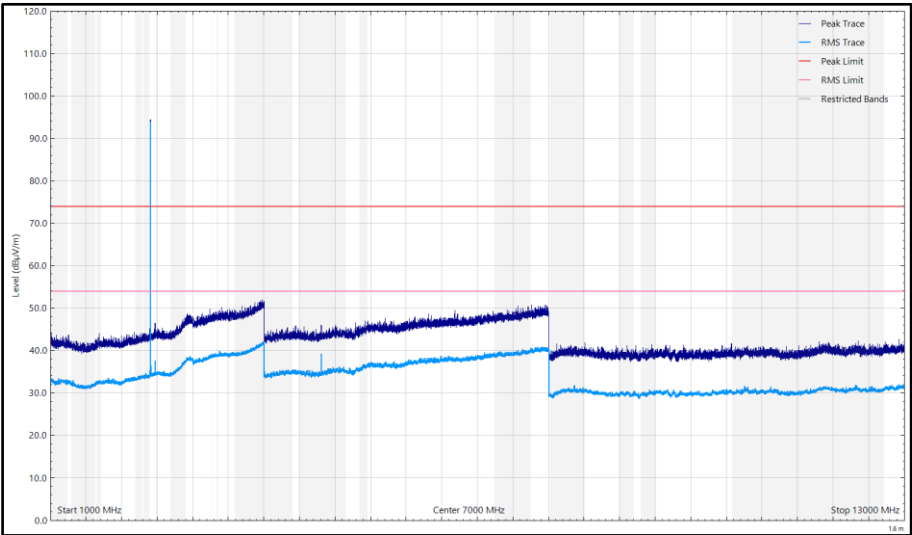


Figure 5 - BOT_LE1M_Tx, 2402 MHz, 1 GHz to 13 GHz, Vertical



FCC 47 CFR Part 15, Limit Clause 15.247 (d)

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB.

Attenuation below the general limits specified in § 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in 15.209(a)

ISED RSS-247, Limit Clause 6.6

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the RF power that is produced shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided that the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of root-mean-square averaging over a time interval, as permitted under Section 6.3.2, the attenuation required shall be 30 dB instead of 20 dB. Attenuation below the general field strength limits specified in RSS-Gen is not required.

In addition, radiated emissions which fall in the restricted bands, as defined in RSS-GEN, clause 8.10, must also comply with the radiated emission limits specified in RSS-GEN clause 8.9.



2.1.8 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
Antenna (Bilog with attenuator, 30 MHz to 3 GHz)	Schaffner	CBL6143	287	24	29-Aug-2026
Dual Power Supply Unit	Hewlett Packard	6253A	292	-	O/P Mon
Multimeter	Iso-tech	IDM101	2421	12	11-Nov-2026
Hygrometer	Rotronic	HP21	4741	12	29-May-2026
Emissions Software	TUV SUD	EmX V3.6.1	5125	-	Software
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
3 GHz High pass filter	Wainwright	WHKX12-2580-3000-18000-80SS	5220	12	04-Apr-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	5475	12	28-Aug-2026
Cable (K-Type to K-Type, 1 m)	Junkosha	MWX241-01000KMSKMS/A	5511	12	06-Jun-2026
EMI Test Receiver	Rohde & Schwarz	ESW44	5527	12	14-Aug-2026
7 GHz High pass Filter	Wainwright	WHKX12-5850-6800-18000-80SS	5550	12	30-May-2026
Pre-Amplifier (8 GHz to 18 GHz)	Wright Technologies	APS06-0061	5595	12	28-Oct-2026
Antenna (Bi-Log, 30 MHz to 1 GHz)	Teseq	CBL6111D	5615	24	24-Apr-2027
2m Coaxial Cable Assy	Junkosha	MWX221-02000AMSAMS/A	6360	12	13-May-2026
1m Coaxial Cable Assy	Junkosha	MWX221-01000AMSAMS/A	6373	12	06-Sep-2026



Cable Assy 8m (N to N) 18GHz	Junkosha	MWX221- 08000NMSNMS/B	7049	12	01-Jun-2026
---------------------------------	----------	--------------------------	------	----	-------------

Table 18

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

3 Photographs

3.1 Test Setup Photographs

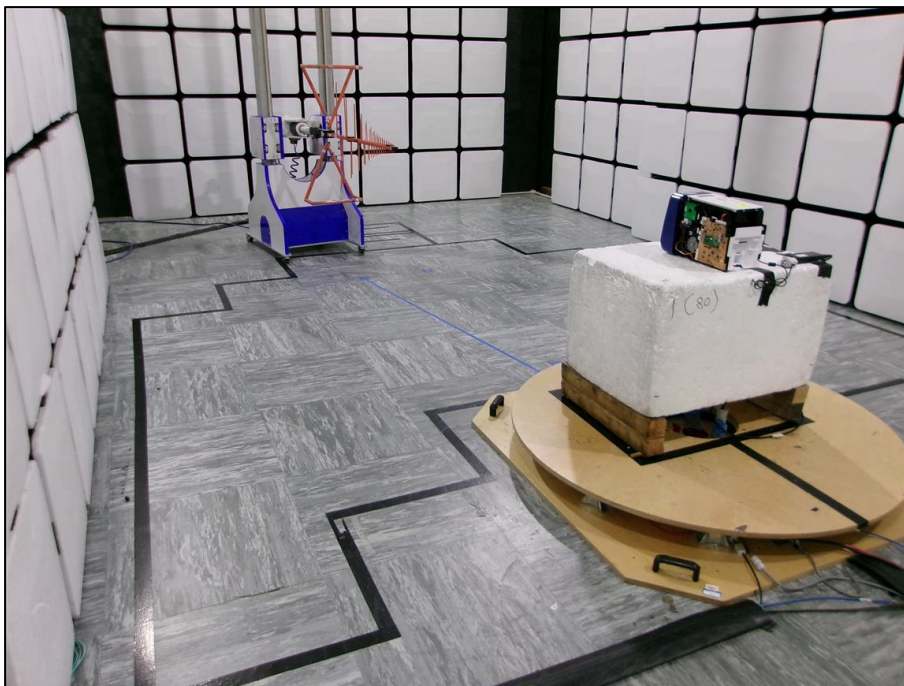


Figure 6 - Test Setup - 30 MHz to 1 GHz

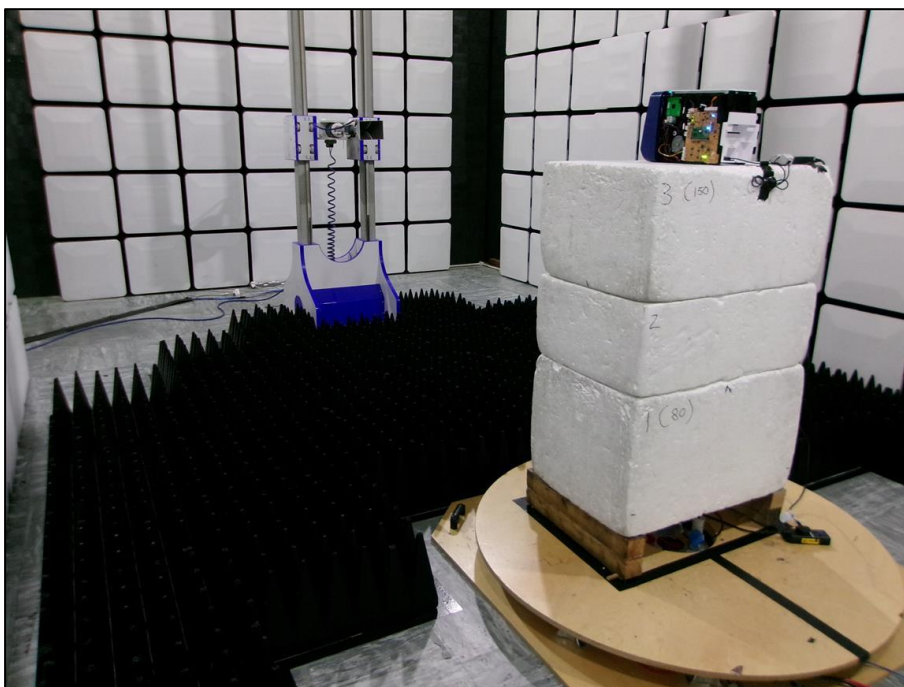


Figure 7 - Test Setup - 1 GHz to 8 GHz

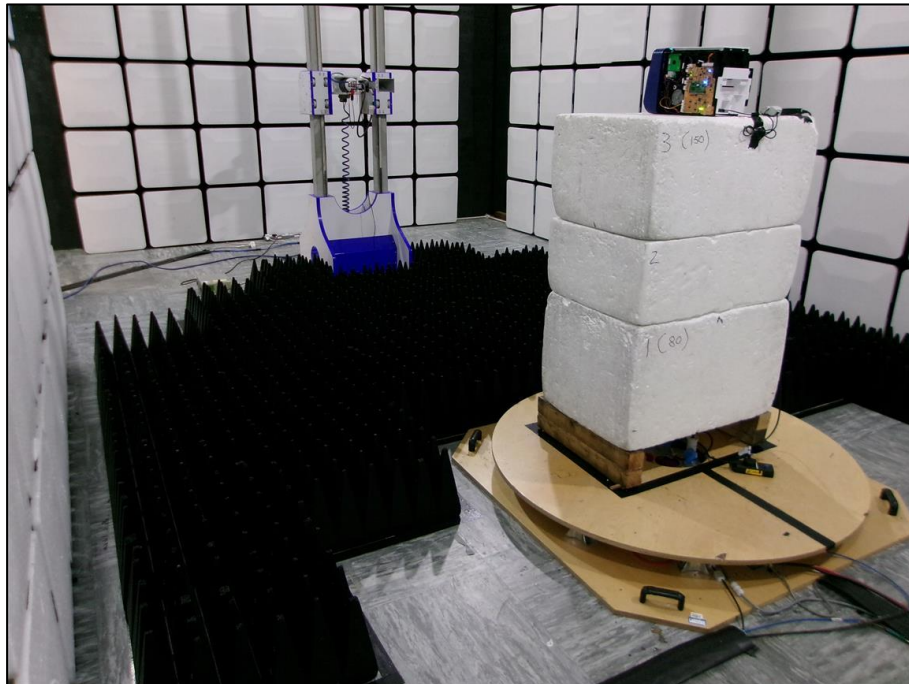


Figure 8 - Test Setup - 8 GHz to 13 GHz



4 Measurement Uncertainty

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

Test Name	Measurement Uncertainty
Radiated Spurious Emissions	30 MHz to 1 GHz: ± 5.2 dB
	1 GHz to 40 GHz: ± 6.3 dB

Table 19

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.