

Exposure Test Report

Manufacturer: Magicard Ltd
Model: P6360 Duo Colour Card Printer

In accordance with FCC CFR 47 Part 1.1310



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Prepared for: Waverley House
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Signatures in this approval box have checked this document in line with the requirements of TÜV SÜD document control rules.

FCC Accreditation
492497/UK2010 Octagon House, Fareham Test Laboratory

EXECUTIVE SUMMARY

A sample of this product was tested and found to be compliant with FCC CFR 47 Part 1.1310: 2024 at a minimum distance of 20 cm with time averaging of 6 minutes. If alternative antennas are used with greater gains, the exposure must be retested.



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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 Issue	11-Aug-2026
02	Correction of error message table 5, on page 7.	14-Aug-2026
03	IC ID updated, model name updated	19-Aug-2026

Table 1 - Report Status

1.2 Introduction

Applicant	Magicard Ltd
Manufacturer	Magicard Ltd
Model Number(s)	P6360 Duo Colour Card Printer
Serial Number(s)	2511 2025.001.0_70.Y7971671
Hardware Version(s)	P6360 Duo Colour Card Printer
Firmware Version Identification Number (FVIN)	0.7
Manufacturer Declared 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 Colour Card Printer, 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)

Number of Samples Tested	1
Test Specification/Issue/Date	FCC 47 CFR Part 1, Clause 1.1310: 2024 Radiofrequency radiation exposure limits
Order Number	15680
Date	30 Oct 2025
Date of Receipt of EUT	01-December-2025
Start of Test	02 June 2026
Finish of Test	03 June 2026
Name of Engineer(s)	Pier-Angelo Lorusso
Related Document(s)	FCC 47 CFR Part 1, Clause 1.1307(b): 2024 Requirements (human exposure to RF) OET65:97 Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields. IEEE C95.3: 2002 IEEE Recommended Practice for Measurements and Computations of Radio Frequency Electromagnetic Fields with Respect to Human Exposure to Such Fields, 100 kHz–300 GHz. KDB 447498 D04 Section 6 Evaluation guidance for Mobile Device RF Exposure conditions.



1.3 Brief Summary of Results

A brief summary of the tests carried out in accordance with FCC 47 CFR Part 1.1310 is shown below.

Section	Specification Clause	Test Description	Result	Comments/Base Standard
Configuration and Mode: NFC 13.56 MHz + RFID 125kHz + 2.4GHz WLAN TX				
2.1	1.1310 Table 1	Measurement of Electric and Magnetic field exposure	Pass	OET Bulletin 65

Table 2 - Test Summary

1.4 Product Information

1.4.1 Technical Description

The Equipment under test (EUT) was a **Magicard, Printer**, Model: P6360 Duo Colour Card Printer. The primary function of the EUT is to **print plastic ID cards**. Additionally, the EUT has functionality to **encode data onto cards**"

1.5 Deviations from the Standard

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

1.6 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
0	As supplied by the customer	Not Applicable	Not Applicable

Table 3 - EUT Modification Record



1.7 **Test Location**

TÜV SÜD conducted the following tests at our Fareham Test Laboratory.

Test Name	Name of Engineer(s)	Accreditation
Configuration and Mode: NFC 13.56 MHz + RFID 125kHz + 2.4GHz WLAN TX		
Measurement of Electric and Magnetic Field Exposure	Pier-Angelo Lorusso	UKAS

Table 4 - Test Location

Office Address:

Octagon House
Concorde Way
Segensworth North
Fareham
Hampshire
PO15 5RL
United Kingdom



2 Test Details

2.1 Measurement of Electric and Magnetic Fields

2.1.1 Specification Reference

FCC CFR 47 Part 1, Clause 1.1310, Table 1 Limits for maximum Permissible Exposure (MPE).
OET Bulletin 65, Section 3 Measuring RF Fields
IEEE C95.3, Section 6.3 Measurement procedures for external fields

2.1.2 Equipment Under Test and Modification State

Model: Printer P6360 Duo Colour Card Printer, Serial Number: 2511 2025.001.0_70.Y7971671 -
Modification State 0

2.1.3 Date of Test

02 June 2026 to 3 June 2026

2.1.4 Test Method

Instrumentation:

The specifications allow the use of either a narrowband or broadband instrument therefore a Broadband meter and probe was used with isotropic response (3-axis probe). The measurement values were recorded as average (rms).

Measurement:

Measurements of field strength to determine compliance were made, "at distances 20 cm or greater from any object." (OET Bulletin 65 Section 1).

For frequencies equal to or less than 30 MHz measurements for determining compliance with MPE limits require independent measurement of both E field and the magnetic field (H).

At frequencies below about 1 MHz, the body of the person making the measurement may become part of the antenna, and error from probe/cable pickup and instrument/body interaction may be reduced by supporting the probe and electronics on a dielectric structure made of wood, styrofoam, etc. In all cases, it is desirable to remove all unnecessary personnel from an area where a survey is being conducted in order to minimize errors due to reflection and field perturbation.

For the assessment of thermal exposure, the electromagnetic fields are time-averaged over a period of 6 minutes.

Test Setup Requirements:

The test separation distance was measured from each face of the EUT to the centre of the probe (as this is the calibration point). The EUT was mounted on an 80 cm non-metallic table or floor standing for large equipment.



2.1.5 Limits

FCC CFR 47 Part 1, Clause 1.1310, Table 1 provides electric and magnetic field MPE limits 300 kHz - 300 MHz with averaging time of 6 minutes for the assessment of thermal effects as shown in Table 6.

The EUT operates at 125 kHz, 13.56 MHz and 2.4 GHz BT/WLAN. There are no MPE limits specified for frequencies from 100 kHz to 300 kHz, therefore the limit at 300 kHz has been used to assess frequencies below 300 kHz.

The applicable MPE limits for electric and magnetic field are shown in Table 5.

The applicable most stringent reference levels for electric and magnetic field for broadband measurement of multiple frequencies at the EUT frequencies are shown in Table 6.

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(i) Limits for Occupational/Controlled Exposure				
0.3–3.0	614	1.63	*(100)	≤6
3.0–30	1842/f	4.89/f	*(900/f ²)	<6
30–300	61.4	0.163	1.0	<6
300–1,500			f/300	<6
1,500–100,000			5	<6
(ii) Limits for General Population/Uncontrolled Exposure				
0.3–1.34	614	1.63	*(100)	<30
1.34–30	824/f	2.19/f	*(180/f ²)	<30
30–300	27.5	0.073	0.2	<30
300–1,500			f/1500	<30
1,500–100,000			1.0	<30

Table 5 - Limits for Maximum Permissible Exposure (MPE) (FCC CFR 47 Part 1, Clause 1.1310, Table 1)



2.1.6 Environmental Conditions

Ambient Temperature	22.6 – 23.8 °C
Relative Humidity	48.4 – 57.2 %
WP400 (1Hz to 40kHz) Ambient Electric Field	0.495 V/m
WP400 (1Hz to 400kHz) Ambient Magnetic Field	0.0517 A/m
WPH60 (300kHz to 60MHz) Ambient Electric Field	1.481 V/m
WPH60 (300kHz to 60MHz) Ambient Magnetic Field	0.003932 A/m (converted)
WPF8 (100kHz to 8GHz) Ambient Electric Field	2.212 V/m (converted)
WPF8 (100kHz to 8GHz) Ambient Magnetic Field	0.005871 A/m

Table 6 - Environmental Conditions

2.1.7 Validation Check Result

Validation Source	125 kHz Function Generator + Amplifier	
	Electric Field V/m	Magnetic Field A/m
Source Level	19.71	1.401
Measured Level	17.96	1.214

Table 7 - Validation Check (Probe WP400 – 1Hz to 400kHz)

Validation Source	13.56 MHz Signal Generator + Loop Antenna	
	Electric Field V/m	Magnetic Field A/m
Source Level	11.2	0.0297
Measured Level	10.67	0.0283

Table 8 - Validation Check (Probe WPH60 – 300kHz to 60MHz)

Validation Source	2412 MHz Signal Generator + DRG Antenna	
	Electric Field V/m	Magnetic Field A/m
Source Level	5.573	0.0148
Measured Level	5.422	0.0144

Table 9 - Validation Check (Probe WPF8 – 100kHz to 8GHz)



2.1.8 Test Results

Measurement Result (Electric Field Time Averaged)

Field Type	Measurement Position	Frequency (MHz)	Field Strength Result (time averaged rms)	General Public MPE Limit	Occupational MPE Limit	Units	Test Separation Distance ¹ (mm)	Compliance (Yes/No)
WPF8 (100kHz to 8GHz) Electric Field	6 = Bottom	*	21.43	60.77	135.84	V/m	200	Yes
WPF8 (100kHz to 8GHz) Electric Field	1 = Front	*	0.31	n/a	n/a	V/m	200	Yes
WPF8 (100kHz to 8GHz) Electric Field	2 = Left	*	0.33	n/a	n/a	V/m	200	Yes
WPF8 (100kHz to 8GHz) Electric Field	3 = Back	*	0.27	n/a	n/a	V/m	200	Yes
WPF8 (100kHz to 8GHz) Electric Field	4 = Right	*	0.21	n/a	n/a	V/m	200	Yes
WPF8 (100kHz to 8GHz) Electric Field	5 = Top	*	0.27	n/a	n/a	V/m	200	Yes
WPF8 (100kHz to 8GHz) Electric Field	6 = Bottom	*	0.35	n/a	n/a	V/m	200	Yes

Table 10 - Electric Field (Time Averaged)

*note, the device was placed into all 3 Frequencies simultaneously as Worst-case, (125kHz, 13.56MHz & 2412MHz).

Note 1: The test separation distance is that declared by the manufacturer or the minimum distance for compliance that is ≥ 20 cm.

Measurement Result (Magnetic Field Time Averaged)

Field Type	Measurement Position	Frequency	Field Strength Result (time averaged rms)	General Public MPE Limit	Occupational MPE Limit	Units	Test Separation Distance ¹ (mm)	Compliance (Yes/No)
WP400 (1Hz to 40kHz) Magnetic Field	1 = Front	*	0.51	1.63	1.63	A/m	200	Yes
WP400 (1Hz to 40kHz) Magnetic Field	2 = Left	*	0.52	1.63	1.63	A/m	200	Yes
WP400 (1Hz to 40kHz) Magnetic Field	3 = Back	*	0.51	1.63	1.63	A/m	200	Yes
WP400 (1Hz to 40kHz) Magnetic Field	4 = Right	*	0.50	1.63	1.63	A/m	200	Yes
WP400 (1Hz to 40kHz) Magnetic Field	5 = Top	*	0.52	1.63	1.63	A/m	200	Yes
WP400 (1Hz to 40kHz) Magnetic Field	6 = Bottom	*	0.52	1.63	1.63	A/m	200	Yes



Field Type	Measurement Position	Frequency	Field Strength Result (time averaged rms)	General Public MPE Limit	Occupational MPE Limit	Units	Test Separation Distance ¹ (mm)	Compliance (Yes/No)
WPH60 (300kHz to 60MHz) Magnetic Field	1 = Front	*	0.0112	0.16	0.36	A/m	200	Yes
WPH60 (300kHz to 60MHz) Magnetic Field	2 = Left	*	0.0186	0.16	0.36	A/m	200	Yes
WPH60 (300kHz to 60MHz) Magnetic Field	3 = Back	*	0.0198	0.16	0.36	A/m	200	Yes
WPH60 (300kHz to 60MHz) Magnetic Field	4 = Right	*	0.0357	0.16	0.36	A/m	200	Yes
WPH60 (300kHz to 60MHz) Magnetic Field	5 = Top	*	0.0243	0.16	0.36	A/m	200	Yes
WPH60 (300kHz to 60MHz) Magnetic Field	6 = Bottom	*	0.0180	0.16	0.36	A/m	200	Yes
WPF8 (100kHz to 8GHz) Magnetic Field	1 = Front	*	0.000826	0.073	0.163	A/m	200	Yes
WPF8 (100kHz to 8GHz) Magnetic Field	2 = Left	*	0.000879	0.073	0.163	A/m	200	Yes
WPF8 (100kHz to 8GHz) Magnetic Field	3 = Back	*	0.000711	0.073	0.163	A/m	200	Yes
WPF8 (100kHz to 8GHz) Magnetic Field	4 = Right	*	0.000555	0.073	0.163	A/m	200	Yes
WPF8 (100kHz to 8GHz) Magnetic Field	5 = Top	*	0.000722	0.073	0.163	A/m	200	Yes
WPF8 (100kHz to 8GHz) Magnetic Field	6 = Bottom	*	0.000924	0.073	0.163	A/m	200	Yes

Table 11 - Magnetic Field (Time Averaged)

*note, the device was placed into all 3 Frequencies simultaneously as Worst-case, (125kHz, 13.56MHz & 2412MHz)

Note 1: The test separation distance is that declared by the manufacturer or the minimum distance for compliance that is ≥ 20 cm.

2.1.9 Multiple Frequency Summation

For Electric Field Strengths, the required frequency range is encompassed by the frequency range of the broadband probe used, therefore the broadband probe integrates the entire frequency range. If there was more than one frequency component to be assessed, the result is compared to the minimum (worst case) limit applicable to the frequency range under assessment where the limit is frequency dependent.

Multiple Frequency Summation Using Multiple Probes – Time Averaged Results (Thermal)

Since the required frequency range for assessment exceeds the frequency range covered by individual measurement probes for magnetic fields, multiple probes were used, and their individual results combined. The results are combined in accordance with CFR 47 1.1307 (b)(3)(ii) to determine compliance as reported in Table 12. Each broadband probe integrates the entire frequency range covered by the probe.

$$\sum_{i=1}^a \frac{P_i}{P_{th,i}} + \sum_{j=1}^b \frac{ERP_j}{ERP_{th,j}} + \sum_{k=1}^c \frac{Evaluated_k}{Exposure Limit_k} \leq 1$$

where:

a = number of fixed, mobile, or portable RF sources claiming exemption using paragraph (b)(3)(i)(B) of this section for Pth, including existing exempt transmitters and those being added.

b = number of fixed, mobile, or portable RF sources claiming exemption using paragraph (b)(3)(i)(C) of this section for Threshold ERP, including existing exempt transmitters and those being added.

c = number of existing fixed, mobile, or portable RF sources with known evaluation for the specified minimum distance including existing evaluated transmitters.

Pi = the available maximum time-averaged power or the ERP, whichever is greater, for fixed, mobile, or portable RF source i at a distance between 0.5 cm and 40 cm (inclusive).

Pth,i = the exemption threshold power (Pth) according to paragraph (b)(3)(i)(B) of this section for fixed, mobile, or portable RF source i.

ERPj = the ERP of fixed, mobile, or portable RF source j.

ERPth,j = exemption threshold ERP for fixed, mobile, or portable RF source j, at a distance of at least $\lambda/2\pi$ according to the applicable formula of paragraph (b)(3)(i)(C) of this section.

Evaluatedk = the maximum reported SAR or MPE of fixed, mobile, or portable RF source k either in the device or at the transmitter site from an existing evaluation at the location of exposure.

Exposure Limitk = either the general population/uncontrolled maximum permissible exposure (MPE) or specific absorption rate (SAR) limit for each fixed, mobile, or portable RF source k, as applicable from § 1.1310 of this chapter.



Multiple Frequency Summation Measurement Result (Time Averaged Electric Field)

For the Electric Field Summation results, please refer to Table 11 which include the results for the 3 frequencies simultaneously.

Multiple Frequency Summation Measurement Result (Time Averaged Magnetic Field)

Field Type	Measurement Position	H ₁ Field Strength Result (time average rms (H ₁ /H _{MPEL}))	H ₂ Field Strength Result (time average rms (H ₂ /H _{MPEL}))	H ₃ Field Strength Result (time average rms (H ₃ /H _{MPEL}))	Summation	Test Separation Distance ² (mm)	Result ≤1 and compliant?
Magnetic Field	1	0.313	0.070	0.011	0.394	200	Yes
Magnetic Field	2	0.319	0.116	0.012	0.447	200	Yes
Magnetic Field	3	0.313	0.124	0.010	0.447	200	Yes
Magnetic Field	4	0.307	0.223	0.008	0.538	200	Yes
Magnetic Field	5	0.319	0.152	0.010	0.481	200	Yes
Magnetic Field	6	0.319	0.113	0.013	0.445	200	Yes

Table 12 - Summation of Magnetic Field (Time Average)

2.1.10 Spatial Averaging

Spatial averaging is not mandated in FCC CFR 47 Part 1.1310 or the associated documents therefore spatial averaging was not applied, and maximum field strength levels were reported.



2.2 Test Setup Photographs

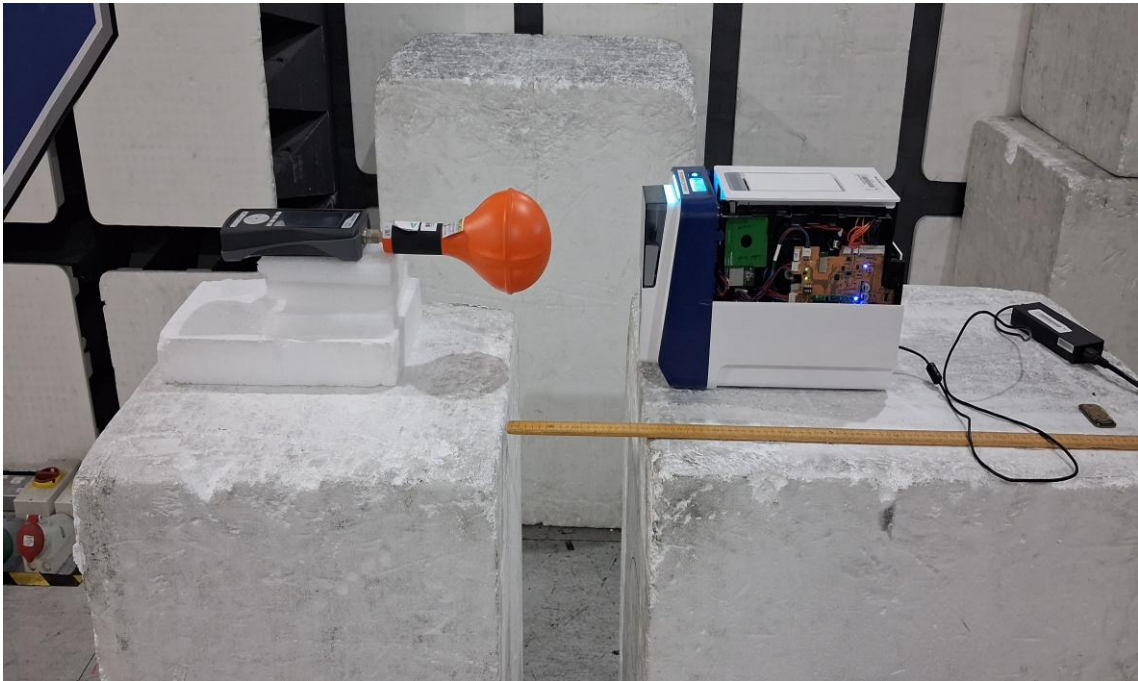


Figure 1 – Set up Front Side 1



Figure 2 – Set up Left Side 2

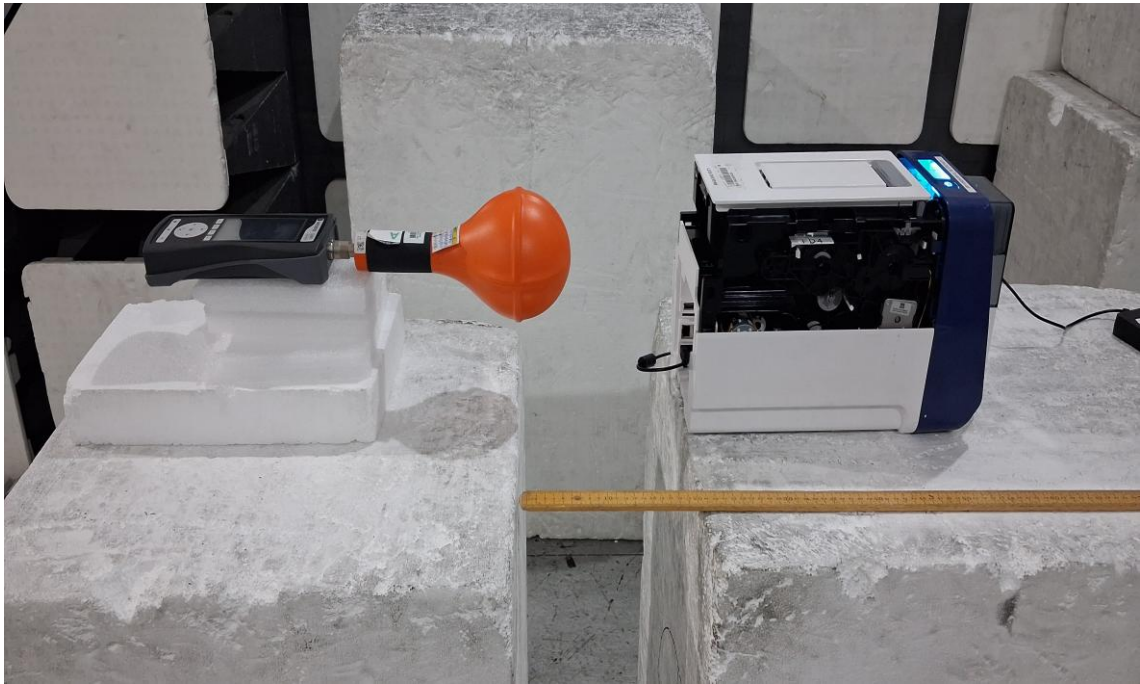


Figure 3 – Set up Back Side 3



Figure 4 – Set up Right Side 4



Figure 5 – Set up Top Side 5



Figure 6 – Set up Bottom Side 6



2.3 Test Location and Test Equipment Used

This test was carried out in Chamber 5 & 11.

Instrument	Manufacturer	Type No	TE No	Calibration Period (months)	Calibration Due
EM Field Meter	Wavecontrol	SMP2	5128	24	04 Feb 2028
Low frequency probe	Wavecontrol	WP400 Probe	5770	24	10 Feb 2028
Field Meter Probe Electric	Wavecontrol	WPF8	5771	24	11 Feb 2028
Field Meter Probe Magnetic	Wavecontrol	WPH60	5772	24	26 Feb 2028
Thermohygrometer	PCE Instruments	PCE-THB-40	5476	12	05 Feb 2027
Screened Room RF Chamber 11	Rainford	3m Semi-Anechoic Chamber	5136	36	14 Nov 2027
Screened Room EMC Chamber 5	Rainford	3m Semi-Anechoic Chamber	1545	36	23 April 2027

Table 13 - Test Equipment



2.4 Measurement Uncertainty

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

Test Name	Measurement Uncertainty
Electric Field Strength V/m (Probe WPF8)	± 2.8 dB
Electric Field Strength V/m (Probe WPF400)	± 2.08 dB
Magnetic Field Strength A/m (Probe WPF400)	± 2.04 dB
Magnetic Field Strength A/m (Probe WPF60)	± 3.22 dB

Table 14 - Measurement Uncertainty

IEEE C95.3 clause 5.2.13 requires that measurement uncertainty should be known and included in the measurement report. It does not specify a maximum measurement uncertainty but suggests that uncertainties of ± 2 dB or even greater may be acceptable if the levels are well below the limits of the MPE.

Determination of conformity with the specification limits is based on the decision rule according to IEC Guide 115:2007, Clause 4.4.3 and 4.5.1. (Procedure 2). 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.