

APPLICANT NAME & ADDRESS

Xnergy Autonomous Power Technologies Pte Ltd
988 Toa Payoh North, #06-01, Singapore 319002

PRODUCT NAME

PH Series Wireless Charger Transmitter
PH Series Wireless Charger Receiver

MODEL NUMBER(S)

TX18PH-xUyz (x, y, z can be any alphanumeric) (Transmitter)
RX4803PH-xUyz (x, y, z can be any alphanumeric) (Receiver)

TEST STANDARDS

KDB 680106 D01 Wireless Power Transfer v04

TEST LABORATORY & ADDRESS

☒ ①KT
UL INTERNATIONAL-SINGAPORE PTE LTD
20 KIAN TECK LANE
SINGAPORE 627854

☐ ②JK
UL INTERNATIONAL-SINGAPORE PTE LTD
15 JOO KOON CRESCENT
SINGAPORE 629015

SINGLAS REGISTRATION

① LA-2009-0450-E
② LA-2009-0450-E-1

FCC REGISTRATION

600804

RECEIPT OF EUTs

29 August 2025

TEST PERIOD

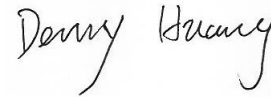
29 August 2025

PREPARED BY



Jonathan He
Senior Laboratory Technician

APPROVED BY



Denny Huang
Senior Project Engineer

This report shall not be reproduced, except in full, without the written approval from the Laboratory. The results in this report apply only to the test sample(s) specified and at the time of testing period only. The results are not to be used to indicate applicability to other similar products.

The results reported herein have been performed in accordance with the laboratory's terms of accreditation under the Singapore Accreditation Council.



TABLE OF CONTENTS

TABLE OF CONTENTS	2
RELEASE CONTROL RECORDS	3
PRODUCT DETAILS	4
EXTERNAL EUT PHOTOGRAPHS	5
INTERNAL EUT PHOTOGRAPHS	6
TEST SETUP PHOTOGRAPHS.....	7
DEVIATION FROM TEST METHOD	8
MODIFICATION OF EUT FOR COMPLIANCE.....	8
REQUIREMENT	9

RELEASE CONTROL RECORDS

For any necessary material amendments or modifications to a test report after issue, it will be made only in the form of a new revision of test report. The latest revision of test report replaces all former test reports issued. The former test reports are no longer valid.

It will be uniquely identified with a new revision number and be clearly recorded in the table below, including the change description and a reference to the original test report that it replaces.

Revision	Report Date	Description	Revised by
Ø	19 November, 2025	Initial Issue.	-
R01	24 December 2025	Addressed TCB's Comments	Jonathan He
R02	3 February 2026	Addressed FCC's Comments	Jonathan He

PRODUCT DETAILS

MANUFACTURER	Xnergy Autonomous Power Technologies Pte Ltd
PRODUCT NAME	PH Series Wireless Charger Transmitter PH Series Wireless Charger Receiver
PRODUCT DESCRIPTION	EUT is a wireless charger with Bluetooth Low Energy intended for industrial application. The EUT includes two parts: PH Series Wireless Charger Transmitter and PH Series Wireless Charger Receiver The PH Series Wireless Charger Transmitter includes two units: Transmitter Powering Unit (TPU) and Transmitter Pad (TXP) The PH Series Wireless Charger Receiver includes two units: Receiver Powering Unit (RPU) and Receiver Pad (RXP)
MODEL NUMBER(s)	TX18PH-xUyz (x, y, z can be any alphanumeric) (Transmitter) RX4803PH-xUyz (x, y, z can be any alphanumeric) (Receiver)
TEST MODEL	TX18PH-AU20 RX4803PH-AU20
SERIAL NUMBER	Transmitter: L00124A7 Receiver: L00109A7
MODEL DIFFERENCE	The last four digits xUyz denotes cable length and target market. Their electrical circuit design, layout, components used and internal wiring are identical, only the color and model name is different. For the cable length of the EUT, no impact on RF portion, please refer to the EMC test report for more evaluation. We select "TX18PH-AU20 and RX4803PH-AU20" as the representative model for RF compliance test.
RADIO TECHNOLOGY	<i>Bluetooth</i> - Low Energy
	Wireless Power Transfer, 1.5 kW
OPERATION FREQUENCY	2402 MHz ~ 2480 MHz (<i>Bluetooth</i> - Low Energy)
	79 ~ 90 kHz (Wireless Power Transfer)
RATED SUPPLY VOLTAGE / FREQUENCY / CURRENT	Transmitter: AC Single Phase 100-230 VAC, 50 / 60 Hz, 12 A max Receiver: DC 16 V
SOFTWARE VERSION	Rev A
HARDWARE VERSION	Rev A

EXTERNAL EUT PHOTOGRAPHS

Refer to Appendix I "EUT External Photographs".

INTERNAL EUT PHOTOGRAPHS

Refer to Appendix II “EUT Internal Photographs”.

TEST SETUP PHOTOGRAPHS

Refer to Appendix VII “PH Series Wireless Charger Transmitter Test Setup Photographs”.

DEVIATION FROM TEST METHOD

No deviation from standard test method

MODIFICATION OF EUT FOR COMPLIANCE

No modifications were made to the EUT

REQUIREMENT

LIMIT

According to KDB 680106 D01 Wireless Power Transfer v04:

consistent with FCC's equipment authorization RF exposure guidance, any device (both portable and mobile) operating at frequencies below 100 kHz is considered compliant for the purpose of equipment authorization when the external (unperturbed) temporal peak field strengths do not exceed the following reference levels:

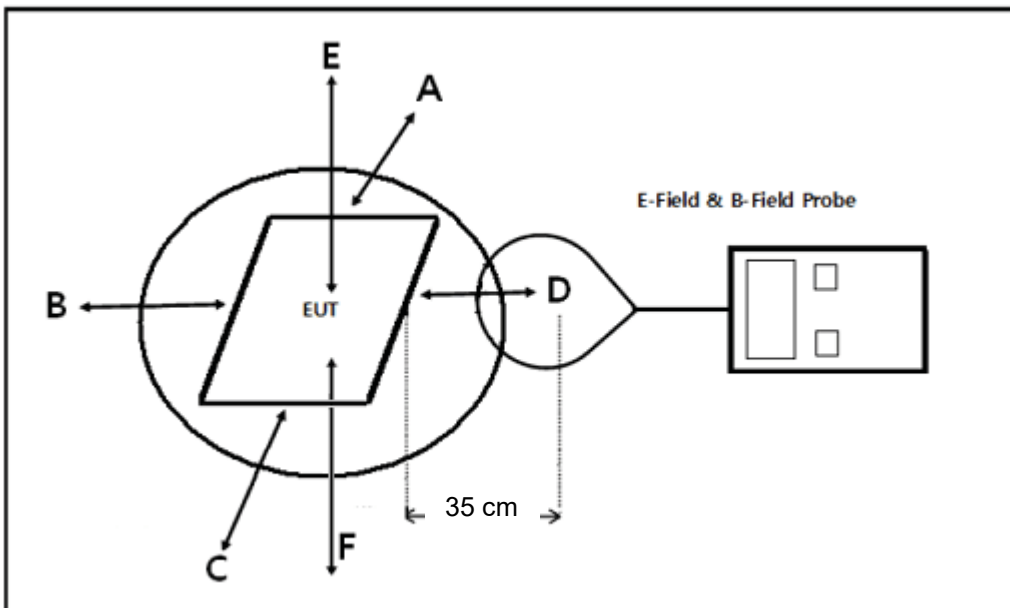
83 V/m for the electric field strength (E)

And

90 A/m for the magnetic field strength (H).

METHOD OF MEASUREMENT

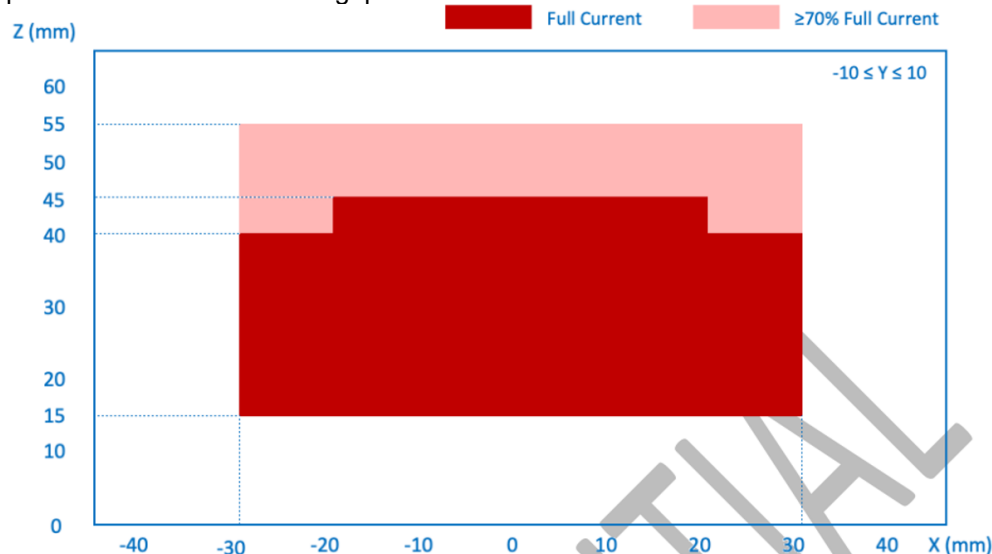
- a) The RF exposure test was performed in shielded chamber.
- b) The geometric centre of probe was placed at 35 cm test distance surrounding the device and 35 cm above the top surface.
- c) The measurement probe used to search of highest strength.
- d) The highest emission level was recorded and compared with limit as soon as measurement of each point (A, B, C, D, E) were completed.
- e) The EUT were measured according to the dictates of KDB 680106 D01 Wireless Power Transfer v04.

BLOCK DIAGRAM OF TEST SETUP

Note: As bottom point is not required to test for fixed used device, so we scanning all the surfaces and recorded the worst level in F.

EQUIPMENT APPROVAL CONSIDERATIONS

- 1) The power transfer frequency is below 1 MHz.
Yes, the EUT operated in the frequency range from 79 kHz to 90 kHz.
- 2) The output power from each transmitting element (e.g., coil) is less than or equal to 15 watts.
No; the maximum output power the equipment is 1500 watts.
- 3) A client device providing the maximum permitted load is placed in physical contact with the transmitter.
No, there is no physical contact, but a 15-55 mm air gap between the transmitter pad and receiver pad.
The EUT can operate at the maximum permitted load with 15 to 45 mm air gap, and down to 70% of maximum permitted load when the air gap is between 45-55 mm.



- 4) Only § 2.1091-Mobile exposure conditions apply.
No, the EUT is a fixed used device.
- 5) The E-field and H-field strengths, at and beyond 20 cm surrounding the device surface, are demonstrated to be less than 50% of the applicable MPE limit, per KDB 447498, Table 1. These measurements shall be taken along the principal axes of the device, with one axis oriented along the direction of the estimated maximum field strength, and for three points per axis or until a 1/d (inverse distance from the emitter structure) field strength decay is observed. Symmetry considerations may be used for test reduction purposes. The device shall be operated in documented worst-case compliance scenarios (i.e., the ones that lead to the maximum field components), and while all the radiating structures (e.g., coils or antennas) that by design can simultaneously transmit are energized at their nominal maximum power.
For H-fields strengths, yes; for E-field strengths, no.
- 6) For systems with more than one radiating structure, the conditions specified in (5) must be met when the system is fully loaded (i.e., clients absorbing maximum power available), and with all the radiating structures operating at maximum power at the same time, as per design conditions. If the design allows one or more radiating structures to be powered at a higher level while other radiating structures are not powered, then those cases must be tested as well. For instance, a device may use three RF coils powered at 5 W, or one coil powered at 15 W: in this case, both scenarios shall be tested.
Yes, the EUT has only one transmitter coil and one receiving coil.



MEASURING INSTRUMENT USED

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due. Date
Electric and Magnetic Field Analyzer	Narda	EHP-200A	180ZX00627	21 FEB, 2025	21 FEB, 2026

RESULTS

Test mode for wireless charger:

Test Mode	Description
Mode 1	Charging with full load (1.5 kW)

H-Field Strength at 35 cm from the edges surrounding the EUT (A/m)

Test Position	Air gap between the transmitter pad and receiver pad	H-Field Strength Measure Result	Test Distance	Limit
		Mode 1		
	mm	A/m	cm	(A/m)
A	45	3.37	35	90
B	45	3.76	35	90
C	45	1.76	35	90
D	45	4.47	35	90
E	45	17.45	35	90
F	45	4.88	35	90

E-Field Strength at 35 cm from the edges surrounding the EUT (V/m)

Test Position	Air gap between the transmitter pad and receiver pad	E-Field Strength Measure Result	Test Distance	Limit
		Mode 1		
	mm	V/m	cm	(V/m)
A	45	12.12	35	83
B	45	12.33	35	83
C	45	8.42	35	83
D	45	24.37	35	83
E	45	62.71	35	83
F	45	28.52	35	83

Note:

1. Pre-scan had been tested for all modes and situations, but only the worst data was recorded in the report.
2. Manufacturer declared that any person shall stay away for the EUT at least 0.6 meters during the wireless charging operation, lab perform a test distance of 0.35 meters for the worst case.
3. Pre-scan had been tested for different air gaps between the transmitter pad and receiver pad, from 15 mm to 55 mm and using 5 mm as the step, only the worst data (45 mm air gap) was recorded in the report.



END OF TEST REPORT