

SPECIFICATION FOR APPROVAL

CUSTOMER: Linkcom Neutral

MODEL NO. : RF-6108

PART NO. : ILMU05FR-6108E0A0-XX-0

MODEL NAME: 5W receiving module

REVISION: A0

DATE: 2025/12/09

APPROVED SIGNATURES		



- ☐ 聯寶電子股份有限公司
☒ 東莞聯寶光電科技有限公司
☐ 深圳聯驊電子科技有限公司
☐ LinkCom USA, Inc.
☐ 其他: _____

(Taiwan Headquarter)

5F., No.127, Ln. 235, Baoqiao Rd., Xindian Dist, New Taipei City 231 ,Taiwan(R.O.C.)

Tel: (886) 2-8919-1380

Fax: (886) 2-8919-1370

E-mail: sales@linkcom.com.tw

(China Plant)

Building 1.No.21 Huanqi Avenue, Qishi Town, Dongguan City,
Guangdong Province, China 523519

Tel: (86-769) 8678-6368

Fax: (86-769) 8678-8988

E-mail: sales@linkcom.com.tw

Model No.	RF-6108	Model Name	5W receiving module
Part No.	ILMU05FR-6108E0A0-XX-0	Size	100 ^{±0.5} mm *42.5 ^{±0.5} mm *1.5 ^{±0.2} mm

Product Specification

產品規格書

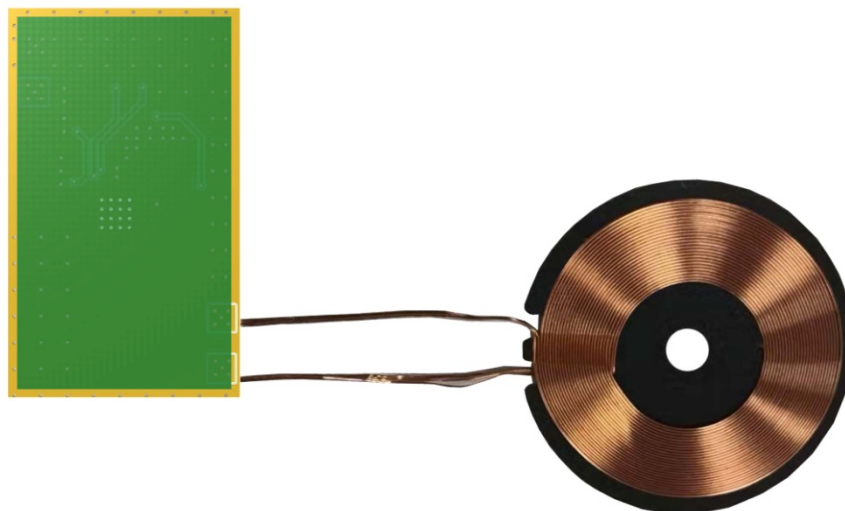
Product name/產品名稱: 5W receiver module

Model No/ 產品型號: ILMU05FR-6108E0A0-XX-0

File number /文件編號: _____

Revision/版本號: A0

Date/日期: 2025-12-09



APPROVED BY 批准	CHECKED BY 審核	DESIGNED BY 製作

Model No.	RF-6108	Model Name	5W receiving module
Part No.	ILMU05FR-6108E0A0-XX-0	Size	100 ^{±0.5} mm *42.5 ^{±0.5} mm *1.5 ^{±0.2} mm

目錄

1、Scope/概述	5
2、Product Characteristic /產品特點.....	5
3. Performance Parameter / 性能參數.....	5
4. Protection Requirements/保護要求.....	6
5. Reliability Requirements / 可靠性要求	6
6. Environment Requirement/環境要求.....	6
7. Execution Standards/執行標準	7
8. Photo of Product/產品照片	7
9、Module/模組.....	7
10、Weight /重量.....	9
11、Statement 聲明	9



Model No.	RF-6108	Model Name	5W receiving module
Part No.	ILMU05FR-6108E0A0-XX-0	Size	100 ^{±0.5} mm *42.5 ^{±0.5} mm *1.5 ^{±0.2} mm

Reversion History / 更新記錄

Revision	Date	Changes
A0	2025-12-09	初版發行

Model No.	RF-6108	Model Name	5W receiving module
Part No.	ILMU05FR-6108E0A0-XX-0	Size	100 ^{±0.5} mm *42.5 ^{±0.5} mm *1.5 ^{±0.2} mm

1、Scope/概述

This product complies with the WPC1.2.4_Qi protocol (BPP/5W) and the receiving module is compatible with versions below WPC1.2.4

本产品符合WPC1.2.4_Qi协议（BPP/5W）接收模組可兼容WPC1.2.4以下版本。

The Wireless Power supply's RX Module shall meet the ROHS requirement.

無線供電的接收模組應符合ROHS要求。

This product is only suitable for general consumer product application installation and is not suitable for any automotive or aviation product application.

本產品僅適用於一般消費性產品應用安裝，不適用任何車規航空產品應用。

2、Product Characteristic /產品特點

RF-6108 correct WPC 1.2.4 Qi Compatible medium power wireless charging receiver module: Its transmission efficiency can reach 75% ± 5%, DC5V/1.0A Maximum output power of 5 W。

RF-6108是WPC 1.2.4 Qi相容的中功率無線充電接收模块：其傳輸效率可達75%±5%，DC5V/1.0A輸出最大輸出功率5W。

It adopts intelligent identification system while its transmitter and receiver unit adopts UART (Universal asynchronous receiver/ transmitter) encrypted transmission control signal which is stipulated by WPC1.2.4 The console will process the corresponding power adjustment based on the encoding of the receiving unit. This module is compliant with the WPC1.2.4Qi protocol.

它採用智慧識別系統，並且它的發射和接收單元採用UART（通用非同步接收器/發送器）加密傳輸控制信號，這是規定的WPC1.2.4控制臺將基於接收單元編碼對應的功率調整。此模組是符合WPC1.2.4 Qi协议的产品。

3. Performance Parameter / 性能參數

3.0	Compatible transmitter/相容發射端	WPC QI_1.1~1.2.4
3.1	Input AC voltage /輸入交流電壓	6.5~15.5 VAC
3.2	Output power/輸出功率	5V/1.0A 5W Max
3.3	Power Transfer Efficiency /轉換效率	75%±5%
3.4	5W Frequency / 5W 頻率	frequency conversion 110KHz-205KHz
3.5	transmission distance/傳輸距離	3-6mm
3.6	Ripple noise/紋波及噪音	≤250mVp_p
3.7	Indicator light display/指示燈顯示	None/無

Model No.	RF-6108	Model Name	5W receiving module
Part No.	ILMU05FR-6108E0A0-XX-0	Size	100 ^{±0.5} mm *42.5 ^{±0.5} mm *1.5 ^{±0.2} mm

3.8	Operating temperature/工作溫度	0-30°C
3.9	Relative humidity/相對濕度	10%~80%
3.10	Checksum / 校驗碼	宇昊 W4 版

4. Protection Requirements/保護要求

4.1. Short Circuit Protection/短路保護

The input power shall decrease when the output is short to GND, the power supply shall not damage, and shall be self-recovery when the fault condition is removed.

當接收端輸出對地短路，應減少或停止功率輸入，使電源不至於損壞；並且在解除故障條件應時能自行恢復。

4.2. Over Current Protection/過流保護

OCP Point Limited:110%-130% auto restart

OCP 限制：110% - 130%自動重啟

The output shall hiccup when the over current applied to the output, and shall be self-recovery when the fault condition is removed.

當接收端的電流輸出超過額定值時應停止功率輸出，然後在解除故障時會自動恢復。

5. Reliability Requirements / 可靠性要求

Please refer to Link Com' s reliability standard and reliability test Report.

請參考聯寶標準《可靠性測試規範》與《可靠性測試報告》

6. Environment Requirement/環境要求

6.1 Operating Temperature and Relative Humidity / 操作溫度和相對濕度 0°C-30°C / RH40~60%

6.2 Storage Temperature and Relative Humidity / 儲存溫度和相對濕度-20°C-40°C / RH20~80%

6.2.1 Avoid direct exposure to the storage environment, and do a good temperature and humidity control, room temperature should be controlled at 5°C-25°C, relative humidity RH40~ 60%. In order to maintain good functionality of the product, please observe the following storage conditions. 儲存環境應避免產品受

陽光直接照射，並作好溫濕度管控，室溫宜控制在 5°C-25°C / RH40~60%。為使產品維持良好之功能性，請確實遵守以下保存條件

6.2.2 Keep away from high humidity, salt spray or oil spray. 儲存需避開高濕，鹽霧或油霧之環境

When storing, the storage environment temperature should be avoided too drastic, and the humidity should be avoided too high or too low. High humidity and large temperature difference tend to cause water Vapor condensation phenomenon, too low humidity easily cause the high electrostatic strength. Therefore, humidity will cause the electron ionization, and eventually cause the product functional abnormalities.

Model No.	RF-6108	Model Name	5W receiving module
Part No.	ILMU05FR-6108E0A0-XX-0	Size	100 ^{±0.5} mm *42.5 ^{±0.5} mm *1.5 ^{±0.2} mm

儲存時應避免儲存環境溫度變化過於激烈，同時避免濕度過高或過低。濕度過高和溫差過大容易導致水蒸氣零結現象，濕度過低容易導致靜電強度過高。故濕度會造成電子游離，最終導致產品功能性異常。

7. Execution Standards/執行標準

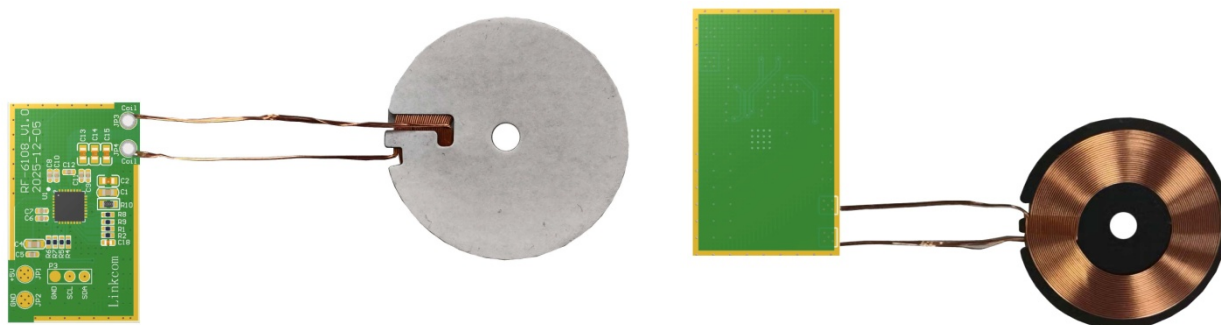
7.1. EMC Standards 電磁相容標準

55032

Note: EMI testing with enclosure and actual TX equipment required

備註：EMI 測試需帶外殼及 TX 待測物實際測試

8. Photo of Product/產品照片



9. Module/模組

Product design proposal/產品設計要求

According to the standardization of QI, Please note the following:

為了要符合Qi的標準，以下幾點需注意：

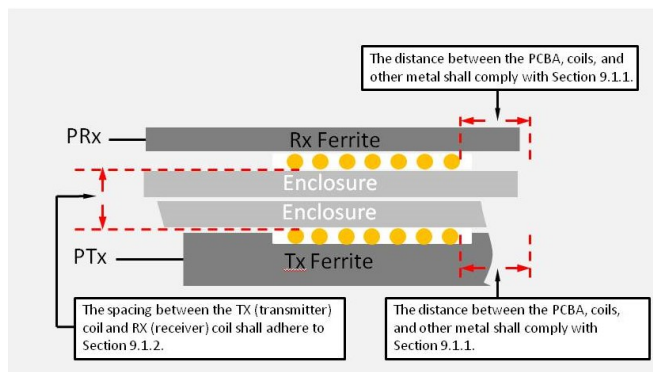
9.1.The distance between Coil with PCBA and other metal components is Min: 4.50mm.

線圈，PCBA和其他金屬部件之間的最小距離：4. 50mm.

9.2.The surface distance between Tx Coil and Rx Coil is 3.00 – 6.0mm.

輸出線圈和接收線圈之間的表面距離為3. 00 – 6. 0mm.

Model No.	RF-6108	Model Name	5W receiving module
Part No.	ILMU05FR-6108E0A0-XX-0	Size	100 ^{±0.5} mm * 42.5 ^{±0.5} mm * 1.5 ^{±0.2} mm

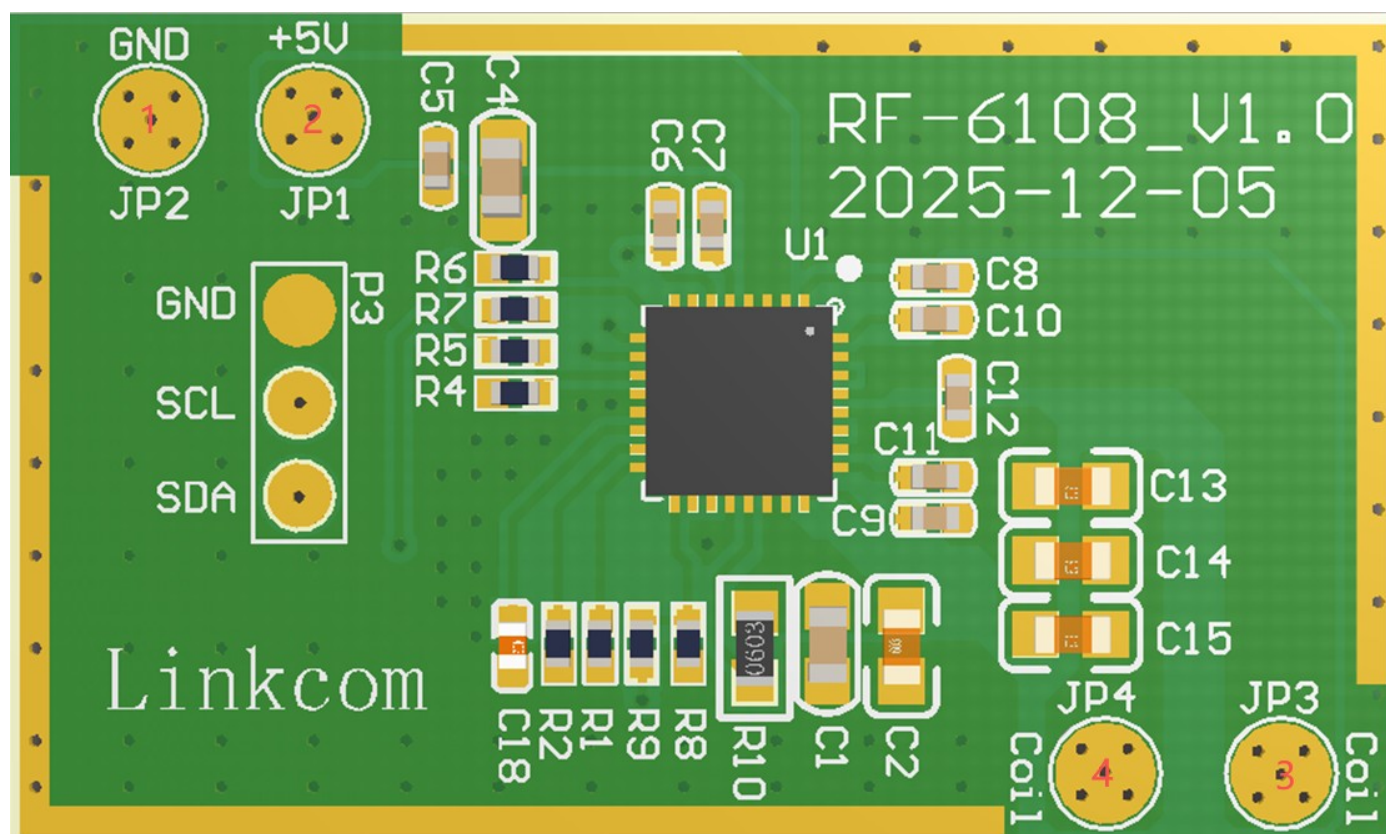


9.3. In order to pass EMI Testing, please use standards that comply with EMI and so on TX Use in conjunction with testing to avoid TX Electromagnetic interference at the end RX-EMI Certification passed

為了通過EMI測試，請使用標準符合EMI的TX配合測試使用，避免因為TX端的電磁干擾影響RX-EMI認證通過。

9.4. PCBA Port Functional Illustration/PCBA 功能說明

PCBA Size: 30^{±0.2}mm * 18^{±0.2}mm * 1.2^{±0.2}mm



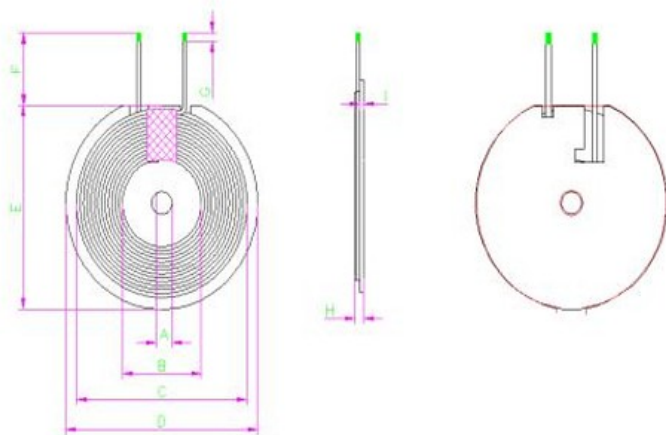
Port	Pin1	Pin2	Pin3	Pin4
Function	Out-GND	OUT +5V	Coil	Coil

Model No.	RF-6108	Model Name	5W receiving module
Part No.	ILMU05FR-6108E0A0-XX-0	Size	100 ^{±0.5} mm *42.5 ^{±0.5} mm *1.5 ^{±0.2} mm

9.5. Rx_Coil Spec: RX 線圈規範 (出線端翹起屬於正常現象, 不影響功能使用)

Coil + Shielding : $\Phi W42.5^{\pm 1.5} * T0.8^{\pm 0.2}$ mm

◆、外形尺寸



(单位: mm)

A	5.3 ±0.3
B	19.0 ±1.5
C	39.0 ±2.0
D	42.5 ±1.5
E	42.5 ±1.0
F	40.0 ±2.0
G	3.0 ±2.0
H	0.8 ±0.2
I	0.3 ±0.01(磁片厚度)

(1)线径: 0.25*4P漆包线

(2)绕线圈数:13TS

(3)起尾线是否交叉: 是

(4)线圈包4mm宽高温胶带

(5)线圈与磁片需粘贴居中

(5)磁片双面背胶

◆、电气特性:

参数	规格	测试条件	测试仪器
L0	10 ±10% μ H	100KHz/1V	■TH1816B
Q	>25 min	100KHz/1V	■TH1816B
DCR	<120 m Ω	@ 25℃	■CH-502BC

10、Weight /重量

6.0g±1g

11、Statement 聲明

All rights reserved by LinkCom Manufacturing Co., Ltd. for all of this specification for approval. About warranty, please refer to LinkCom company warranty policy.