

SPECIFICATION FOR APPROVAL

CUSTOMER: 公司中性品

MODEL NO. : U15QT-6156A1/U15QT-6156B1

PART NO. : ILMU15QT-6156A1C1-XX-1/ILMU15QT-6156B1C1-XX-1

MODEL NAME: 15W EPP wireless charger module

REVISION: A1

DATE: 2025-05-12

APPROVED SIGNATURES

--	--	--

LinkCom

- ☒ 聯寶電子股份有限公司
☐ 東莞聯寶光電科技有限公司
☐ 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.	U15QT-6156A1/U15QT-6156B1	Model Name	15W EPP wireless charger module
Part No.	ILMU15QT-6156A1C1-XX-1 ILMU15QT-6156B1C1-XX-1	Size	Ø54.24 ^{±0.3} *4.7 ^{±0.25} mm/Ø54.24 ^{±0.25} *6.58 ^{±0.25} mm

Product Specification

產品規格書

Product name/產品名稱: 15W EPP wireless charger module

Model No/ 產品型號: U15QT-6156A1/U15QT-6156B1

File number /文件編號:

Revision/版本號: A1

Date/日期: 2025-05-12

U15QT-6156A1	U15QT-6156B1
	
	

APPROVED BY 批准	CHECKED BY 審核	DESIGNED BY 製作

Model No.	U15QT-6156A1/U15QT-6156B1	Model Name	15W EPP wireless charger module
Part No.	ILMU15QT-6156A1C1-XX-1 ILMU15QT-6156B1C1-XX-1	Size	$\varnothing 54.24^{\pm 0.3} \times 4.7^{\pm 0.25} \text{ mm} / \varnothing 54.24^{\pm 0.25} \times 6.58^{\pm 0.25} \text{ mm}$

Catalog/目錄

Reversion History/更新記錄.....	4
1. Product Description/產品描述	5
2. Product Characteristic/產品特點	5
3. Performance Parameter/性能參數	6
4. Electrical Interface/電氣介面	7
5. Protection characteristic/保護特性	8
6. Environmental characteristic/環境特性	9
7. Appearance Requirements/結構與外觀要求	9
8. Execution Standards/執行標準	10
9. Module dimension/模組尺寸.....	11
10. Weight/重量	12
11. Packaging/包裝	13
12. Statement/聲明	14

Model No.	U15QT-6156A1/U15QT-6156B1	Model Name	15W EPP wireless charger module
Part No.	ILMU15QT-6156A1C1-XX-1 ILMU15QT-6156B1C1-XX-1	Size	$054.24^{\pm 0.3} \times 4.7^{\pm 0.25} \text{mm} / 054.24^{\pm 0.25} \times 6.58^{\pm 0.25} \text{mm}$

1. Product Description/產品描述

U15QT-6156A1/U15QT-6156B1 comply with EPP protocol of 15W magnetic wireless module. The product input supports USB PD/QC 9V/2.22A; 5V/3A and DC power supply 9V/2.22A. The output functions support up to 15W wireless charging. it can support 15W charging power for EPP RX device, 10W charging power for PPDE RX device, 7.5W fast charging power for Apple phones, and 5W charging for BPP RX device.

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

U15QT-6156A1/U15QT-6156B1 符合 EPP 協定的 15W 磁吸無線模組。產品輸入支援 USB PD/QC 9V/2.22A；5V/3A 和直流電源 9V/2.22A。輸出功能支援高達 15W 的無線充電。可支援對 EPP RX 設備 15W 充電功率、對 PPDE RX 設備 10W 充電功率、對蘋果手機 7.5W 快充功率、對 BPP RX 設備 5W 充電。

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

- ◆ Supports charging up to EPP 15W
最高支持到 EPP 15W 接收充電
- ◆ Support EPP15W, Samsung PPDE 10W, Apple mobile phone 7.5W
支持 EPP15W，三星 PPDE 10W，蘋果手機 7.5W
- ◆ Comply with QC2.0/3.0, PD2.0/3.0 adapter
相容 QC2.0/3.0、PD2.0/3.0 適配器

Model No.	U15QT-6156A1/U15QT-6156B1	Model Name	15W EPP wireless charger module
Part No.	ILMU15QT-6156A1C1-XX-1 ILMU15QT-6156B1C1-XX-1	Size	Ø54.24 ^{±0.3} *4.7 ^{±0.25} mm/Ø54.24 ^{±0.25} *6.58 ^{±0.25} mm

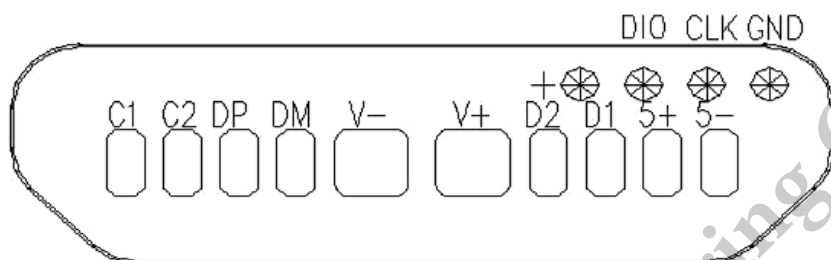
3. Performance Parameter/性能參數

Item	Parameter
Input Power/輸入功率	USB-C Mode: 9V 2.22A / 5V 3A DC Mode: 9V $\geq$ 2.22A / 5V $\geq$ 2.4A
Input Protocol/輸入協定	BC1.2/QC/PD protocol function
Output Power/輸出功率	15W Max
Standby power/待機功率	<600mW
Efficiency/效率 (Input 9V/輸入 9V)	5W : 70 $\pm$ 5% 7.5W : 80 $\pm$ 5% 10W : 80 $\pm$ 5% 15W : 80 $\pm$ 5%
Output Protocol/輸出協定	EPP 15W/PPDE 10W/Apple 7.5W/BPP 5W
Input voltage - Function output /輸入電壓-功能輸出	5V : 5W 9V : 5W、7.5W、10W、15W
Maximum charging distance/最大充電距離	4mm
Offset range /偏移範圍	$\pm$ 4mm Center Offset / $\pm$ 4mm 中心偏移
Frequency/頻率	110~205KHz
Protection/保護	OVP / UVP / OCP / OTP
FOD/異物偵測	Power Transfer FOD
Interface Power/電源介面	C1, C2, DP, DM, V+, V-
Other/其他	D1, D2, 5+, 5-, DIO, CLK
Audio noise/噪聲規格	The test distance is 30 cm < 30dB (noise spec)
Check sum/軟件版本	TBD

Model No.	U15QT-6156A1/U15QT-6156B1	Model Name	15W EPP wireless charger module
Part No.	ILMU15QT-6156A1C1-XX-1 ILMU15QT-6156B1C1-XX-1	Size	Ø54.24 ^{±0.3} *4.7 ^{±0.25} mm/Ø54.24 ^{±0.25} *6.58 ^{±0.25} mm

4. Electrical Interface/電氣介面

4.1 Input Connection Method/電源輸入接法



介面圖片 / Interface picture

引脚名称	引脚含义	Type-C 5/6 线接法	Type-C 3/4 线接法	Type-C QC 接法	DC-9V 供电接法	Type-C 全 Pin 接法
C1	PD 协议 CC1	USB CC (二选一或全选)	USB CC (二选一或全选)	NC	NC	USB CC1
C2	PD 协议 CC2			NC	NC	USB CC2
DP	QC 协议 D+	USB D+	NC	USB D+	NC	USB D+
DM	QC 协议 D-	USB D-	NC	USB D-	NC	USB D-
V-	电源输入 GND	USB GND	USB GND	USB GND	USB GND	USB GND
V+	电源输入 VPP	USB VBUS	USB VBUS	USB VBUS	USB VBUS	USB VBUS
D2	内部信号	NC	NC	NC	NC	NC
D1	指示灯控制信号	NC	NC	NC	NC	NC
5+	5V 输出 100mA	NC	NC	NC	NC	NC
5-	5V 输出 GND	NC	NC	NC	NC	NC
DIO	烧录数据脚	NC	NC	NC	NC	USB SUB1
CLK	烧录时钟脚	NC	NC	NC	NC	USB SUB2

Model No.	U15QT-6156A1/U15QT-6156B1	Model Name	15W EPP wireless charger module
Part No.	ILMU15QT-6156A1C1-XX-1 ILMU15QT-6156B1C1-XX-1	Size	$054.24^{\pm 0.3} \times 4.7^{\pm 0.25} \text{mm} / 054.24^{\pm 0.25} \times 6.58^{\pm 0.25} \text{mm}$

4.2 LED light function/LED 功能說明

User can connect a LED anode to the D1 pad. There is a 1.1K Ω resistor connect LED1 pad in TX module, and the high Voltage of this pad is 3.3V, and the low Voltage of this pad is 0V. The LED indicate as below :

使用者可以將 LED 陽極連接到 D1 焊盤。TX 模組內有一個 1.1K Ω 電阻連接 LED1 焊盤，高電壓為 3.3V，低電壓為 0V。LED 指示如下：

States	Operation
Start-up (Power on)	on then off
Stand by	off
Charging	on
Error	Blink~1Hz

5. Protection characteristic/保護特性

Input OVP Threshold /輸入過電壓保護閾值	Input 9V	Trigger: $10 \pm 0.2 \text{V}$
	Input 5V	Trigger: $6 \text{V} \pm 0.2 \text{V}$
Input UVP Threshold /輸入欠電壓保護閾值	Input 9V	Trigger: $8 \text{V} \pm 0.2 \text{V}$
	Input 5V	Trigger: $4.5 \text{V} \pm 0.2 \text{V}$
NTC OTP protection /過溫度保護	Trigger: $75^{\circ}\text{C} \pm 3^{\circ}\text{C}$	
	Recover : $45^{\circ}\text{C} \pm 3^{\circ}\text{C}$	
OCP protection /過流保護	5V 5W: $1.8 \pm 0.2 \text{A}$	
	9V 5W: $1.3 \pm 0.2 \text{A}$	
	9V 7.5W: $1.3 \pm 0.2 \text{A}$	
	9V 10W: $1.5 \pm 0.2 \text{A}$	
	9V 15W: $2.3 \pm 0.2 \text{A}$	

Model No.	U15QT-6156A1/U15QT-6156B1	Model Name	15W EPP wireless charger module
Part No.	ILMU15QT-6156A1C1-XX-1 ILMU15QT-6156B1C1-XX-1	Size	$\varnothing 54.24^{\pm 0.3} \times 4.7^{\pm 0.25} \text{ mm} / \varnothing 54.24^{\pm 0.25} \times 6.58^{\pm 0.25} \text{ mm}$

6. Environmental characteristic/環境特性

6.1 Operating Temperature and Humidity/工作溫度和濕度

Item	Requirements			
	MIN	TYP.	MAX	Units
Operating Temperature	-10	-	+40	°C
Operating Humidity	20	-	90	%RH

6.2 Store Temperature and Humidity/儲存溫度和濕度

Item	Requirements			
	MIN	TYP.	MAX	Units
Storage Temperature	-20	-	+70	°C
Storage Humidity	5	-	95	%RH

7. Appearance Requirements/結構與外觀要求

Please refer to LinkCom' s appearance inspection specification.

請參考聯寶電子外觀檢驗規範

Model No.	U15QT-6156A1/U15QT-6156B1	Model Name	15W EPP wireless charger module
Part No.	ILMU15QT-6156A1C1-XX-1 ILMU15QT-6156B1C1-XX-1	Size	$054.24^{\pm 0.3} \times 4.7^{\pm 0.25} \text{mm} / 054.24^{\pm 0.25} \times 6.58^{\pm 0.25} \text{mm}$

8. Execution Standards/執行標準

8.1 EMI Standards/電磁相容標準

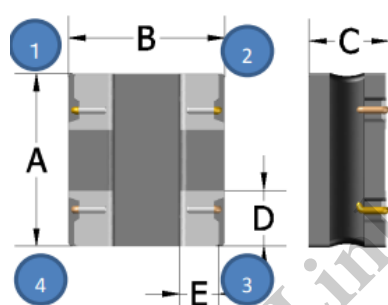
EN55032

Note: The EMI test should include the actual testing of the enclosure and RX equipment.
備註: EMI 測試需包含外殼與 RX 設備實際測試。

8.2 In order to pass the EMI test, it is recommended to add a common-mode inductor to the power source before connecting it to the module PCBA. The recommended specifications of common mode inductors are as follows, which can be adjusted according to actual conditions:

為了通過EMI測試，電源來源建議外加共模電感再連接至模組PCBA上。共模電感建議規格如下，可依實際狀況做調整：

PACKING DIMENSIONS (mm)



Marking



5045	Dimensions
A	5.0 ± 0.3
B	4.5 ± 0.3
C	2.5 Max.
D	1.6 ± 0.3
E	1.4 ± 0.3

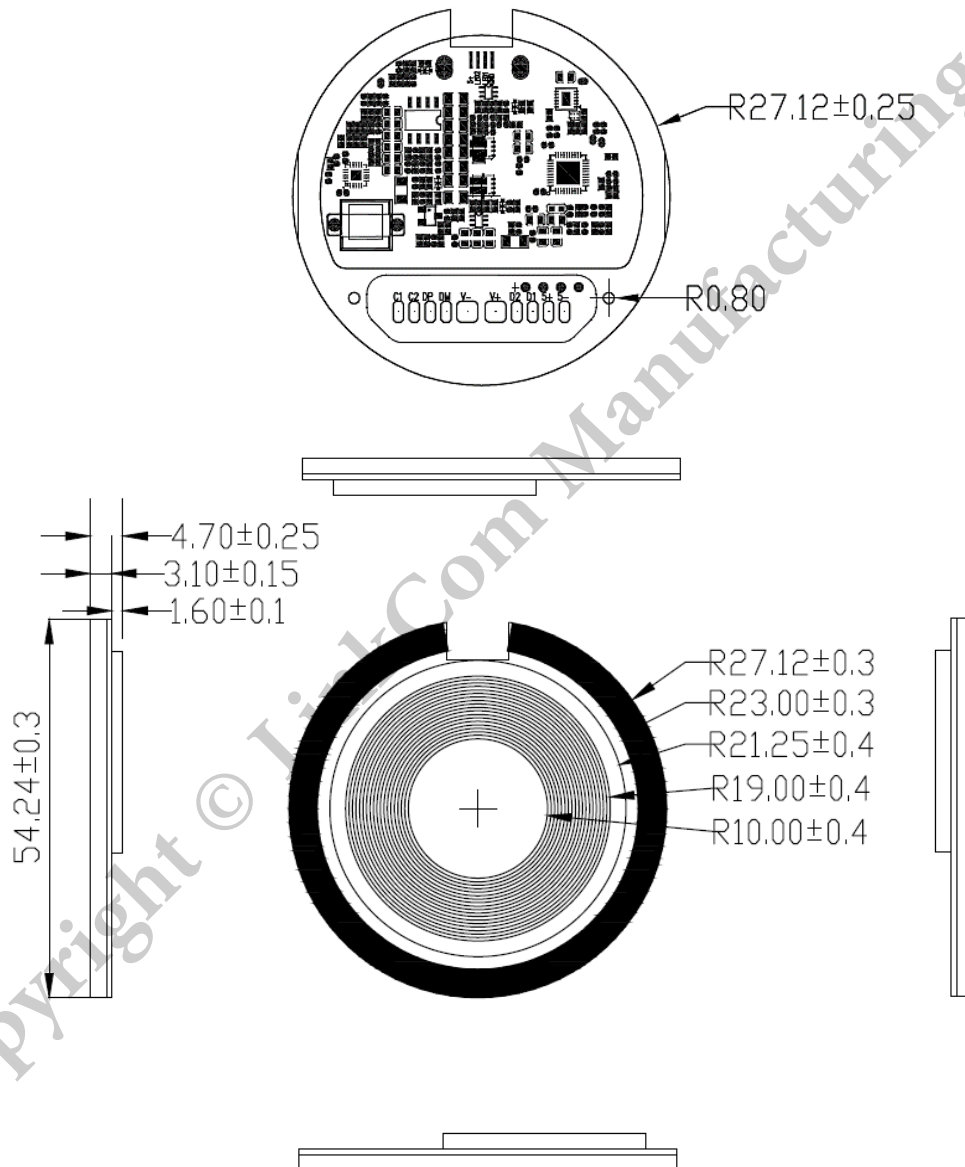
Electrical Characteristics

P/N	Z(Ω) Common Mode	DCR (Ω)	IDC (A)	Rated Voltage	Insulation Resistance	Withstand Voltage
	Impedance at 100MHz	$\pm 40\%$	Max.	Vdc (V)Typ.	IR (MΩ) Min.	Vdc (V)Typ.
PCN5045A-102	1000 Typ.	0.024	3.0	50	10	125

Model No.	U15QT-6156A1/U15QT-6156B1	Model Name	15W EPP wireless charger module
Part No.	ILMU15QT-6156A1C1-XX-1 ILMU15QT-6156B1C1-XX-1	Size	$\varnothing 54.24^{\pm 0.3} * 4.7^{\pm 0.25} \text{mm} / \varnothing 54.24^{\pm 0.25} * 6.58^{\pm 0.25} \text{mm}$

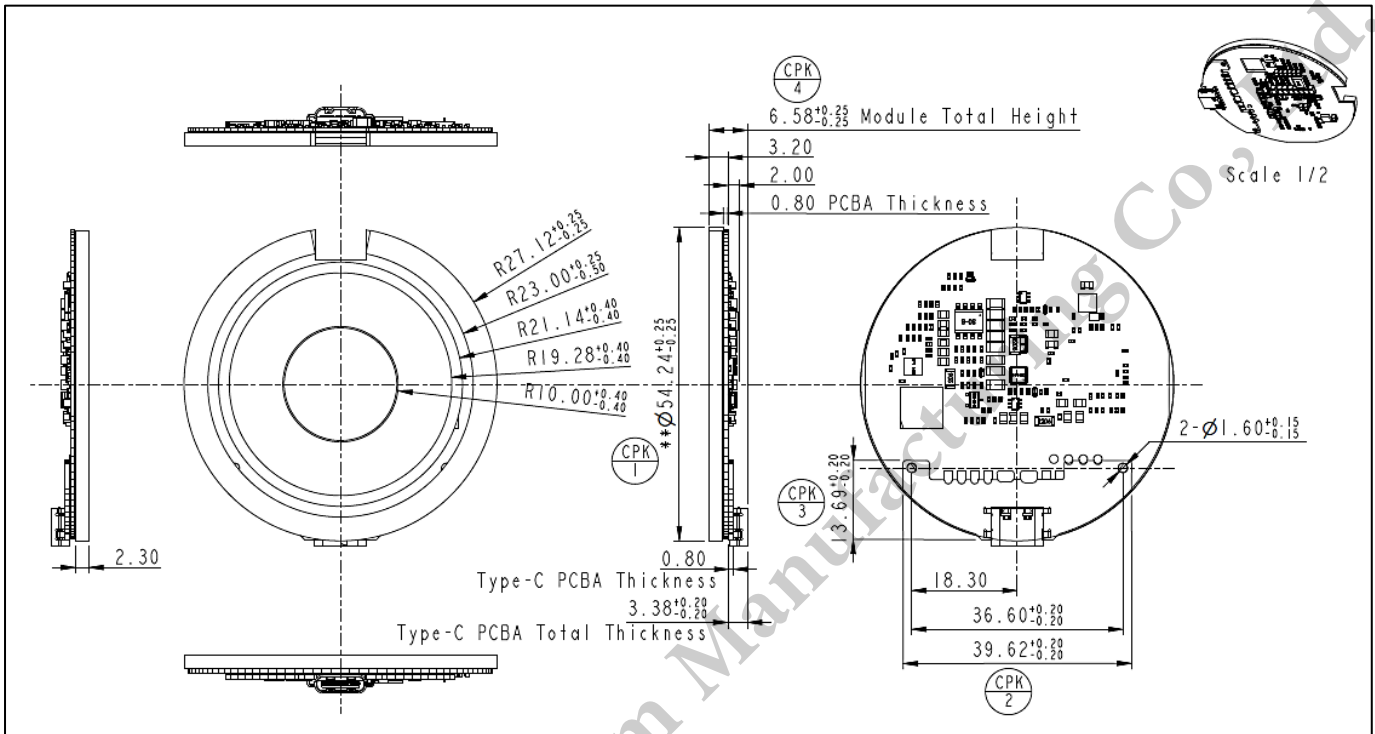
9. Module dimension/模組尺寸

9.1 U15QT-6156A1 dimension/ U15QT-6156A1 尺寸



Model No.	U15QT-6156A1/U15QT-6156B1	Model Name	15W EPP wireless charger module
Part No.	ILMU15QT-6156A1C1-XX-1 ILMU15QT-6156B1C1-XX-1	Size	$\varnothing 54.24^{+0.3}_{-0.25}$ mm/ $\varnothing 54.24^{+0.25}_{-0.25}$ mm

9.2 U15QT-6156B1 dimension/ U15QT-6156B1 尺寸



10. Weight/重量

QI2QT-6156A1 : 23.8 $\pm$ 2g

QI2QT-6156B1 : 25 $\pm$ 2g

1 Carton/1 箱: 300pcs; Net Weight/淨重: about 7.5kg; Gross Weight/毛重: about 9.4kg

Model No.	U15QT-6156A1/U15QT-6156B1	Model Name	15W EPP wireless charger module
Part No.	ILMU15QT-6156A1C1-XX-1 ILMU15QT-6156B1C1-XX-1	Size	Ø54.24 ^{±0.3} *4.7 ^{±0.25} mm/Ø54.24 ^{±0.25} *6.58 ^{±0.25} mm

11. Packaging/包裝

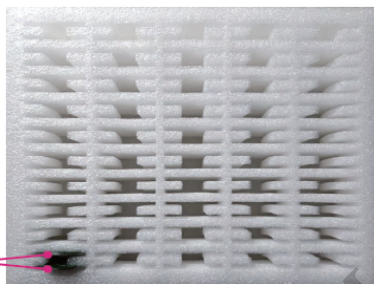
Carton Packing Method

2025.04.25

Outer Carton : 300 pcs size : W 350 x D 300 x H 240mm
(boxes) NW : kg GW : kg
Inner Carton : pcs size : W x D x H mm
(boxes) NW : kg GW : kg

天地盖: 340x280mm(2PCS/内箱)

PRODUCT



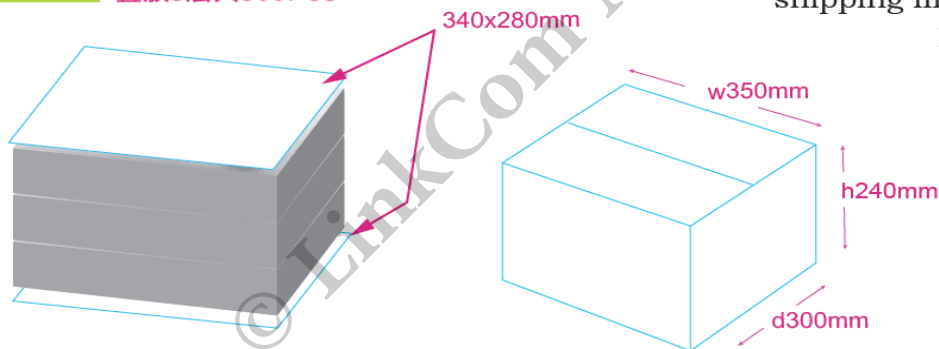
weight:

珍珠棉托盘
Size:340x280x70mm
模組插入托盤雙面對應的槽位 (如左圖示)
整個托盤共計100PCS

模組

OUTER

疊放3層共300PCS

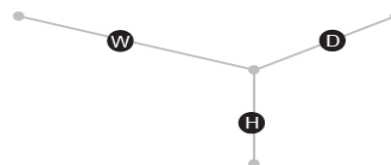


shipping mark: 4 faces
line:
pcs: 300

INNER

shipping mark: 4 faces
line:
pcs:

Inner Material:
Outer Material: A=A
Designer: Bruce
Coordinate:



Please make sure to get our approval of following issues before you start mass production of the cartons:

- printing of the shipping mark (ink color, printing date etc.)
- weight and size of the carton
- fitting between product & Inner carton, Inner carton & outer carton

Model No.	U15QT-6156A1/U15QT-6156B1	Model Name	15W EPP wireless charger module
Part No.	ILMU15QT-6156A1C1-XX-1 ILMU15QT-6156B1C1-XX-1	Size	$\varnothing 54.24^{\pm 0.3} * 4.7^{\pm 0.25} \text{ mm} / \varnothing 54.24^{\pm 0.25} * 6.58^{\pm 0.25} \text{ mm}$

12. Statement/聲明

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