

# ShenZhen LongZiXin Electronics Co.,Ltd.

## **LZX01021** Wireless Charger Transmitter Module

### **Product Overview**

The LZX01021 is a 10W power transmitter module specifically designed to meet the wireless reception requirements of the Qi standard. The module complies with WPC1.2.4 latest standard, stable performance, low standby power consumption, etc., using a unique voltage & current two-way ASK communication demodulation module.module. Support 5W, Apple 7.5W, Samsung 10W cell phone charging.

### **1 Features**

- Compatible with WPC V1.2.4 standard.
- Integrated NMOS full-bridge driver with high integration.
- Integrated internal voltage/current demodulation.
- Supports FOD foreign object detection function.
- Low static power consumption and high charging efficiency.
- Input over-voltage, over-current protection function.
- Supports DC9V or QC3.0 protocol power supply.
- With LED interface, external LED display standby mode, charging status mode, fault indication.
- Support Samsung 10W, Apple 7.5W fast charging, 5W wireless charging.

### **2 Applications**

- Qi standard Android smartphones.
- Qi standard Apple smartphones.
- Qi standard handheld devices.
- Qi-standard cell phone accessories (e.g., Bluetooth audio devices).
- Qi-standard wireless charging mobile power.

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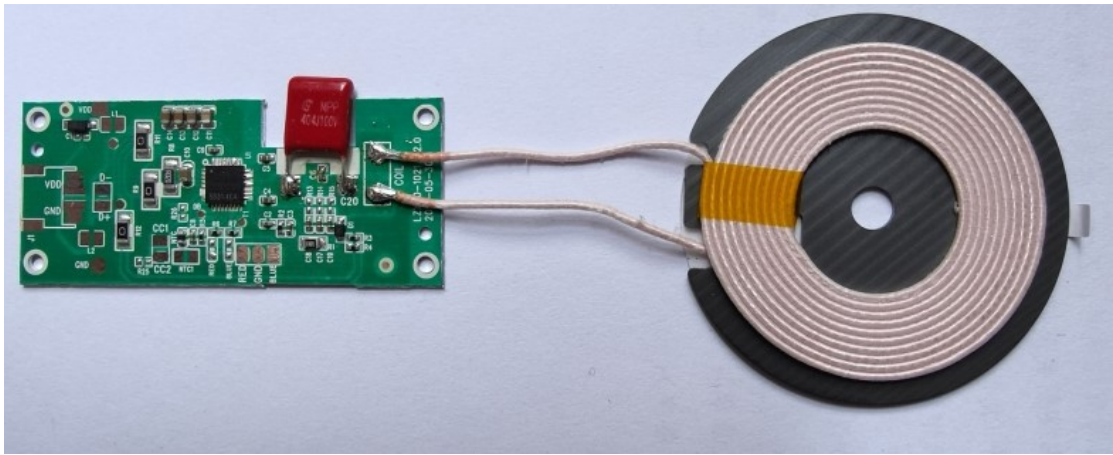
-Qi Standard Consumer Electronics.

-Qi Standard electronic tools.

-Qi standard car accessories.

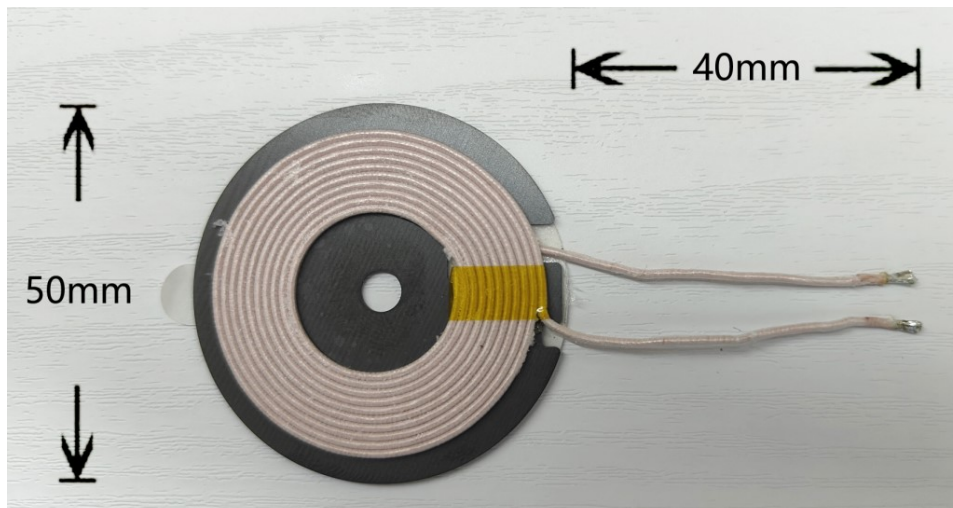
-Qi standard desktop chargers.

## 3 Module picture and interface



3.1 Line board: 55mmX28mmX1.0mm, single sided aluminum substrate;

Coil size diagram:



Coil turns: 10 coils

Coil suppliers: Dongguan Youyi Coil Electronic Technology Co.,LTD.

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3.2 Coil: Magnetic sheet diameter 50mm, with slot with sticker, 6.3uH coil, lead length 40mm.

## 4 Electrical characteristics

### 4.1 Limit parameters

Parameters	Notation	Limit value	Unit
Input Voltage Range	VIN	0 ~ 12.0	V
Operating temperature range	TA	-10 ~ 60	°C
Storage temperature range	Tstg	-20 ~ 80	°C

## 5 Functional parameters

### 5.1 Electrical parameters

Enterprise	Parameters
Supply Voltage	DC9V/2A
Firing power	10W(Max)
Frequency of emission	110K - 205KHZ
Wireless distance (between transmitter and receiver coils)	2mm ~ 6mm (Max)
Coil Type	A11
Conversion efficiency	Up to 78% (depending on receiver coupling match)
Protective function	Over-current protection, under-voltage protection, over-voltage protection, over-temperature protection
Indicator function	QI
Compatibility	Compatible with QI-compliant wireless receiver products

### 5.2 Description of working status

Operating state	Indicator status
Power-up initialization	Red and blue lights flash each other once
Standby mode	No indicator light on
State of charge	Red light always on
Fully charged	Blue light always on
Over Temperature Alarm	Red light flashing
FOD give a warning	Red and blue lights flash each other

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Note: Temperature protection is as follows.

Temperature protection is as follows: when the NTC temperature is higher than 65°C to limit the power output; when the NTC temperature is higher than 70°C, it will stop the power output (stop charging), and the indicator light will give an error message; after the temperature protection, when the NTC temperature is lower than 60°C, it will resume normal charging.