

# XKT-510

#### 一、Introduction

ElecFreaks provided XKT-510 series integrated circuit, using CMOS process Process, it has the characteristics of higher accuracy and good stability, its designed . The door for wireless induction intelligent charging, the power supply Management system. The reliability is high, Responsible for handing Department XKT-510 Radio can transfer function of system, the use of Electromagnetic energy. Transformation principle and cooperate with Receiving part of energy conversion and electricity. Real-time montoring Of the road, Responsible for the rapid charging of the battey. Intelligent Control, only with few external XKT-510 . Components can be made highly reliable wireless quick charger, Wireless power suppy.

#### 二、Characteristic

- \* Automatically adapt to the power supply voltage regulating function Make it able to work under the wide voltage all can
  - \* Automatic frequency locking
  - \* Automatic negative test load
  - \*Automatic power control
- \*High speed transmission power transmission
- \*Efficient electromagnetic energy conversion
- \*Intelligent detection system, free debugging
- \*Working voltage: DC 3~15V
- \*Working frequency: 0~5MHZ
- \*Highly integrated, only a few common peripheral components
- \*SOP-8

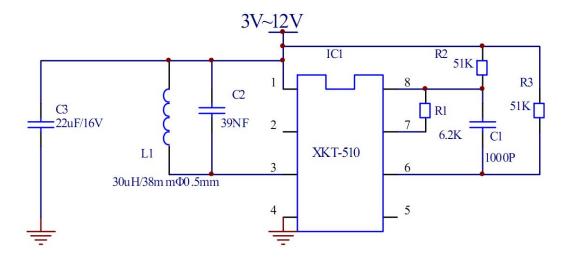
# 三、 Internal Block Diagram

| Pin No | Pin configuration |                         |  |  |  |
|--------|-------------------|-------------------------|--|--|--|
| 1      | VDD               | V+                      |  |  |  |
| 2      | NC                | NC                      |  |  |  |
| 3      | OUT               | Output                  |  |  |  |
| 4      | GND               | Ground                  |  |  |  |
| 5      | AO                | Function to adjus       |  |  |  |
| 6      | AIN               | Measured voltage switch |  |  |  |
| 7      | FIN               | The rate of detection   |  |  |  |
| 8      | NC                | NC                      |  |  |  |

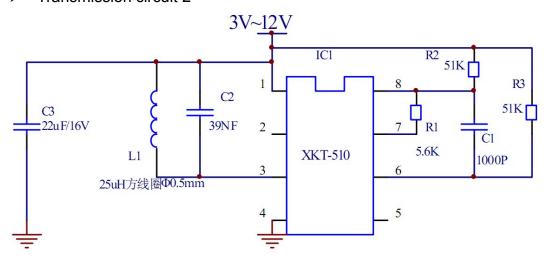
#### 四、Schematic Diagram



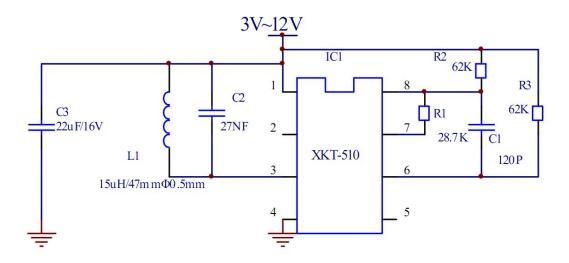
## > Transmission circuit 1



## > Transmission circuit 2

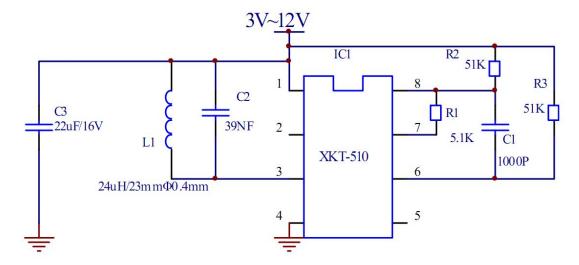


## > Transmission circuit 3

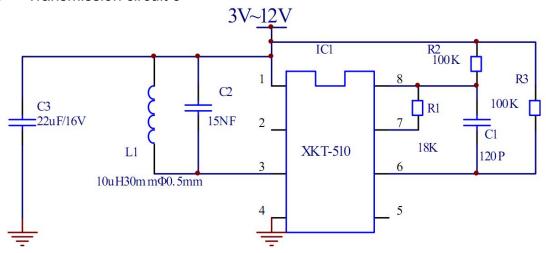




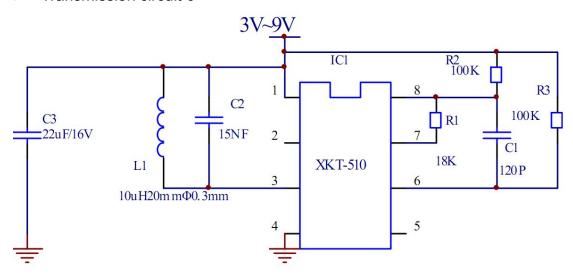
#### > Transmission circuit 4



## > Transmission circuit 5

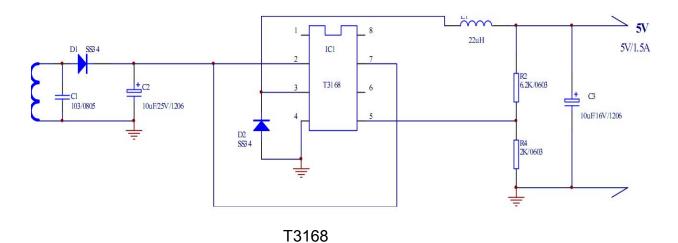


## > Transmission circuit 6





# Receiving circuit



# $\pm$ 、Typical working parameters

| SYMBOL | PARAMETER          | RATING  | Min | Тур | Max | UNIT |
|--------|--------------------|---------|-----|-----|-----|------|
| VDD    | Woring voltage     | 25℃     | 3   | 12  | 15  | V    |
| AOUT   | Output current     | VDD=12V | 100 | 500 | 800 | mA   |
| IA     | No-load current    | VDD=12V | 1   | 3   | 10  | mA   |
| M      | Induction distance |         | 1   | 5   | 200 | mm   |

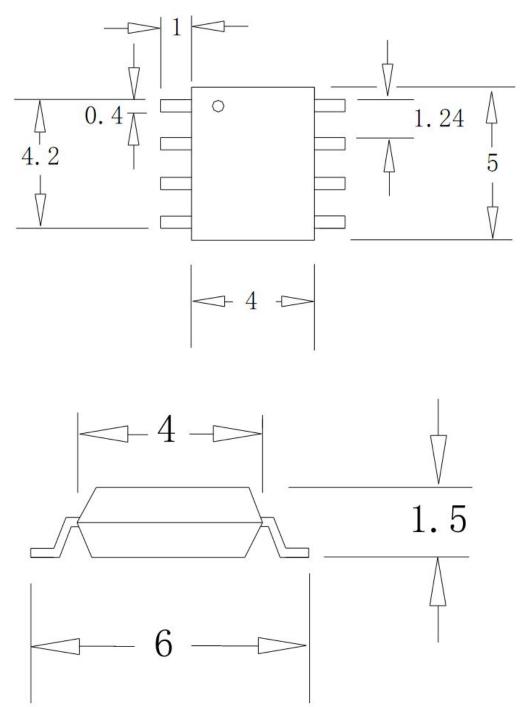
# 六 Work limit

Working temperature: -55°Cto+125°C
Storage temperature: -65°Cto+150°C

Maximum working voltage: 15VThe output drive current: 800mA



# 七、Mechanical Dimensions (mm) SOP-8



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