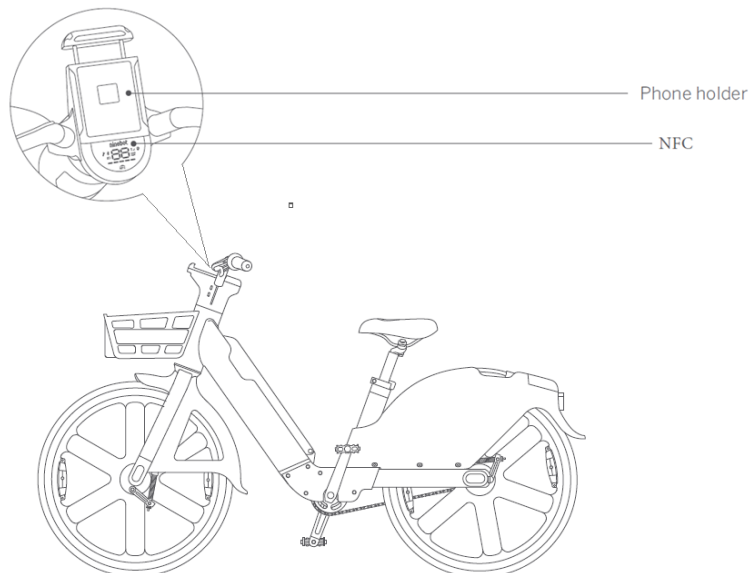


User Manual

Product Overview



Product Introduction: This product is installed in the dashboard as part of the electric assisted bicycle, See the above picture.

When the user is actually using the bicycle, this product can be used for swiping the card and charging the mobile phone, and when using time, the user will not touch the product and should keep a certain distance, at least 20cm.

I. More introduction

This product offers a configurable charging mode that supports 15W. 15W power supply meets WPC Qi standard RX. Supports foreign body detection, if there is a foreign body, as a metal conductive material, between the transmitter and the receiver, the transmitter is off. Place the mobile phone in the wireless charging tray, charge the mobile phone, and stop charging after removing the mobile phone. Magnetic card into the NFC induction area when the card operation!

II. Product parameters

Name: Vehicle-mounted 15W wireless charging seat

Model: W015CN - 01 / W015CN - 10 / W015CN - XX

Color: black

Input voltage: DC 16V~20V

Input current: 2A(Max)

Output power: 15W(Max)

III. characteristics

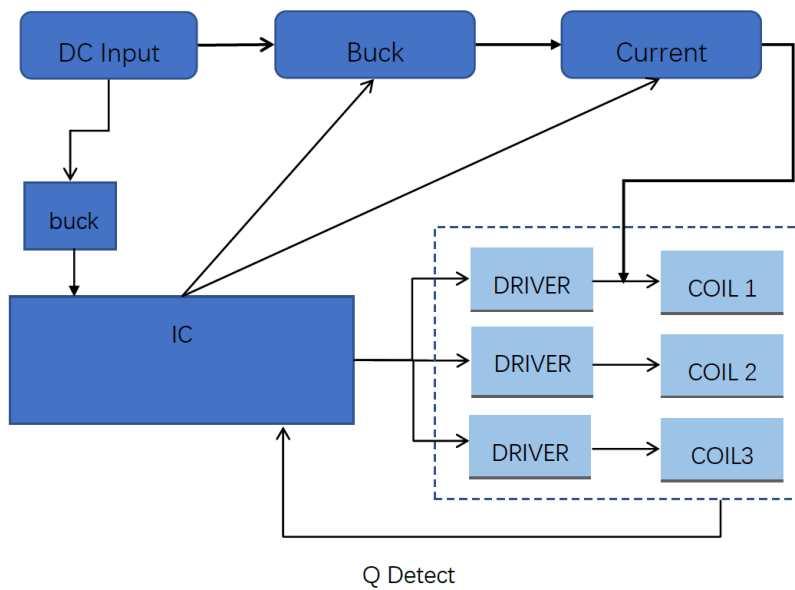
- Meet the WPC QI standard
- Support foreign body detection
- Operating temperature range: 0-35 deGC.Humidity range: 20%-80%.
- Storage temperature range: -20 -- 70 deGC.Humidity range: 5%-90%.
- RoHS compliance

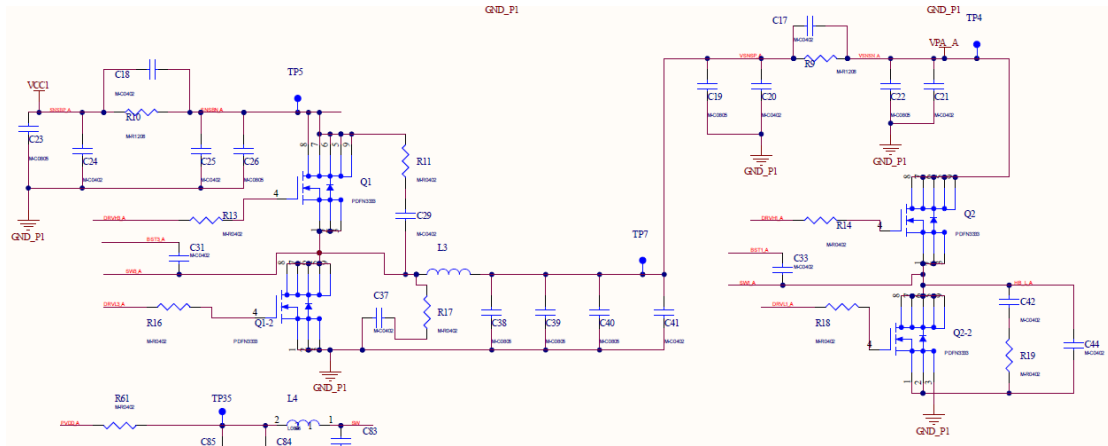
III. PRODUCT SPECIFICATIONS

Intended Use/Category	Wireless Charging
H-Field Strength	50.21 dBuA/m@3m distance
Frequency band(MHz)	110KHz-145KHz
Modulation	ASK
Antenna type	Coil Antenna
Duty cycle(%)	/

Intended Use/Category	NFC
H-Field Strength	17.41 dBuA@3m distance
Frequency band(MHz)	13.56MHz
Modulation	ASK
Antenna type	Coil Antenna
Duty cycle(%)	/

IIII. functional description





The wireless charging input terminal VCC is connected to the 18V direct current. After the voltage is lowered by the BUCK circuit constituted by MOS tube Q1(RU30J30) and L3, it works in the full bridge circuit constituted by Q2(RU30J30) and Q3(RU30J30).The IC(CPS8100) sends a drive signal to control the Q2(RU30J30) upper and Q3(RU30J30) lower tubes and Q2(RU30J30) lower tubes and Q3(RU30J30) upper tubes to conduct alternately, so that an alternating voltage is obtained on the coil!Then through the electromagnetic induction to the receiving coil to get the voltage!The IC(CPS8100) detects current through resistor R9!

NFC Product Overview

Introduction

The FM17550 is a highly integrated Transceiver IC for Contactless communication at 13.56MHz. The FM17550 Transceiver IC support Reader/Writer mode supporting ISO/IEC 14443A/B protocol.

The FM17550's internal transmitter part is able to drive a reader/writer antenna designed to communicate with ISO/IEC14443A/B cards and transponders without additional active circuitry. The receiver part provides a robust and efficient implementation of a demodulation and decoding circuitry for signals from ISO/IEC14443A/B compatible cards and transponders. The digital part handles the complete ISO/IEC 14443A/B framing and error detection. The FM17550 supports ISO/IEC14443A cards and transponders with transfer speeds from 106kbit/s to 424kbit/s in both directions. And can supports all layers of the ISO/IEC14443B reader/writer communication scheme, and provided that stardardized protocols, e.g. like ISO/IEC 14443-4 and/or ISO/IEC 14443B anticollision are correctly implemented.

Features

- **Supports ISO/IEC 14443A/M1 reader/writer mode**
- **Supports ISO/IEC 14443B reader/writer mode**
- **ISO/IEC14443A 106kbit/s and higher transfer speed at 212kbit/s and 424kbit/s**
- **Typical operating distance in reader/writer mode for communication to a ISO/IEC 14443A card up to 50mm (depending on the antenna size and tuning)**
- **Supports host interfaces**
 - ✧ SPI interface up to 10Mbit/s
 - ✧ I2C interface up to 400kbit/s in Fast Mode , and up to 3400kbit/s in High Speed Mode
 - ✧ Serial UART in different transfer speeds up to 1228.8kbit/s, framing according to the RS232 interface with voltage levels according pad voltage supply
- **Comfortable 64 byte send and receive FIFO-buffer**
- **Flexible interrupt modes**
- **Multiple low-power modes**
 - ✧ Soft power down mode
 - ✧ Hard power down mode
 - ✧ Deep power down mode (typical 1uA)
- **Low Power external Card Detect (LPCD) at Reader/writer mode**
- **Programmable timer**
- **Internal oscillator to connect 27.12MHz quartz**
- **Wide voltage supply: 2.2V ~ 3.6V**
- **Dedicated transmitter voltage supply up to 5.5V**
- **Integrated CRC Co-processor**
- **Programmable I/O pins**

IMPORTANT SAFETY INSTRUCTIONS
SAVE THESE INSTRUCTIONS

WARNING

When using this product, basic precautions should always be followed, including the following:

- Read all the instructions before using the product.
- To reduce the risk of injury, close supervision is necessary when the product is used near children.
- DO NOT put fingers or hands into the product.
- DO NOT use this product if the flexible power cord or output cable is frayed, has broken insulation, or any other signs of damage.
- DO NOT allow anyone to ride the E-bike on his/her own unless he/she understands the proper operation and safety warnings. Assist new riders until they are comfortable with the basic operation of the E-bike.

Meaning of Symbols and Marks



This product conforms to the applicable EC Directives.



WARNING-It is not permitted to dispose of this product as normal household waste. Ensure that the product is recycled in accordance with local legal requirements.

Federal Communications Commission (FCC) Compliance Statement for USA

This device complies with part 15 of the FCC rules.

Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can

be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Industry Canada (IC) Compliance Statement for Canada

This device complies with Industry Canada license-exempt RSS standard (s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

CAN ICES-3 (B)/NMB-3(B)

“Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence.

L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'encompromettre le fonctionnement.”

An Energy Technology Co.,Ltd is responsible for any changes or modifications not expressly approved by An Energy Technology Co.,Ltd. Such modifications could void the user's authority to operate the equipment.

The risk solution and full test of the EU declaration of conformity

are available at the following internet address:

<https://b2b.segway.com/>