

mophie LLC

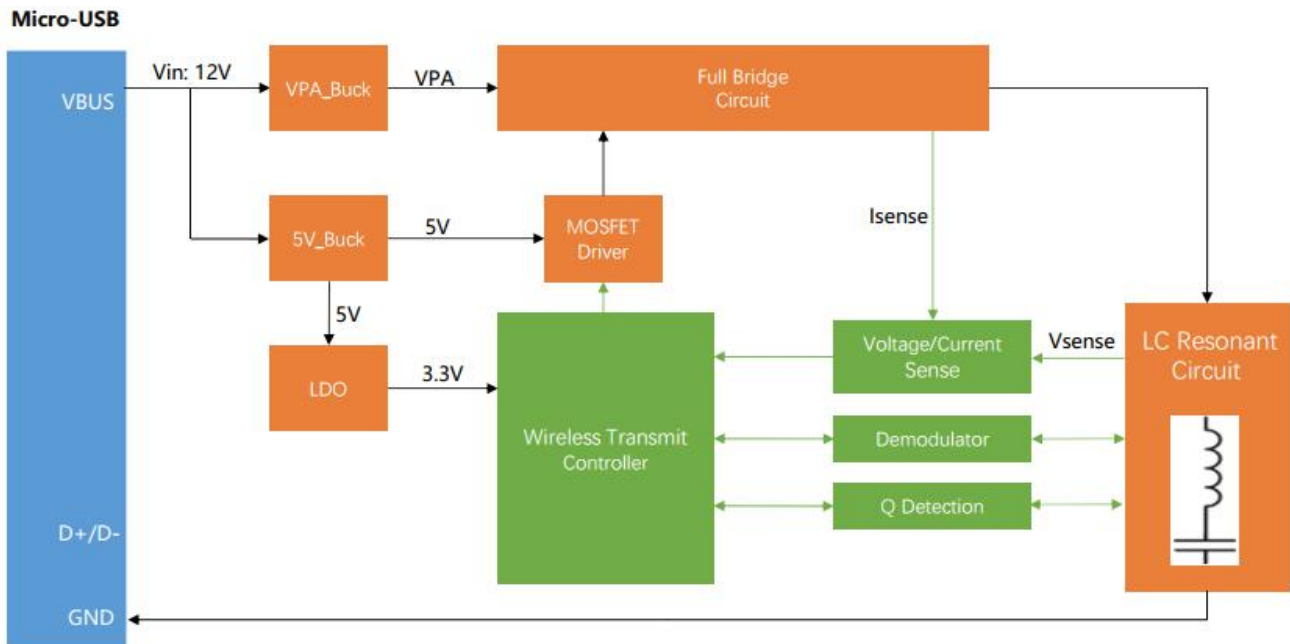
User Manual

mophie charge stream vent mount
Model:CS-WRLS-VNTMT-10W

1.Introduce

For wireless charging, the transmitter consists of one-coil module. And the transmitter activate the coil to establish communication and maintain power transfer.

2、 System Block Diagram



Micro-USB: connect to 12V/1.5A adapter via Micro-USB cable.

Voltage Sense: monitor the VPA_Buck output voltage and LC resonant voltage.

Current Sense: monitor the current flowing through the primary coil

VPA_Buck: Step-down Converter, regulate input voltage in order to supply power to Full Bridge Circuit.

5V_Buck: Step-down Converter, regulate input voltage in order to supply power to Drivers and Operation Amplifiers.

LDO: Low Dropout Regulator, regulate out voltage of step-down converter in order to supply power to Wireless Transmit Controller and its peripheral circuits.

Temperature Sense: monitor the temperature of surface interface

Demodulator: receive and detect communication signals from the power receiver

Q Detection: Q value detection is for Foreigner Object Detection(FOD).

LC Resonant Circuit: Included primary coil and resonant capacitors.

Full Bridge Circuit: convert input power from DC to AC in order to drive the primary coil and deliver power to the power receiver. The operation frequency is 127.7kHz.

Wireless Transmit Controller: Control & Communications Unit.

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.

Note: The Grantee is not responsible for any changes or modifications not expressly approved by the party responsible for compliance. such modifications could void the user's authority to operate the equipment.

The device has been evaluated to meet general RF exposure requirement.

To maintain compliance with FCC's RF exposure guidelines, the distance must be at least 20 cm between the radiator and your body, and fully supported by the operating and installation configurations of transmitter and its antenna(s).