

Wide-Input Wireless Charging Controller Module

Multi-interface wireless charging controller with 9-30 V wide-voltage I/O and USB-C / QC / PD connectivity

BOARD I/O

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USB Type-C: 5-9 V / QC / PD

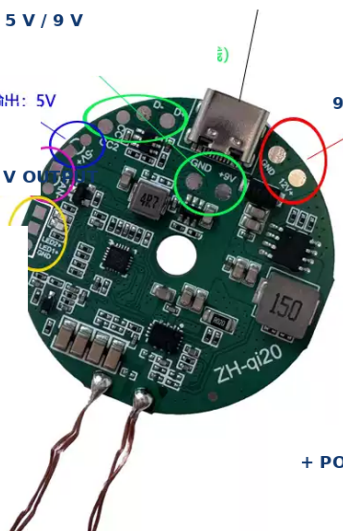
USB/PD: 5 V / 9 V

5 V OUTPUT
输出: 5V

SWITCHED 5 V OUTPUT

3 V LED

9-30 V I/O



+ POSITIVE - / GND NEGATIVE

CONTROLLER BOARD INPUT / OUTPUT

USB Type-C

5-9 V / QC / PD; input or output

USB/PD solder pads

5 V / 9 V; input or output

5 V output

Dedicated 5 V output

Switched 5 V output

5 V output available only while operating

Indicator interface

3 V common-cathode external LED

Wide-voltage pads

9-30 V; input or output

Polarity

+ = Positive; - / GND = Negative

Flexible power architecture for embedded wireless charging systems

The controller board provides multiple power connection methods, including USB Type-C, USB/PD solder pads, dedicated 5 V outputs, a 3 V external indicator-light interface, and wide-voltage 9-30 V input/output pads.

The supplied ZIP contains four product images and no webpage/HTML file. This datasheet uses only information visible in those images. No unsupported wireless power rating, protocol certification, efficiency or dimensions have been added.

1. Functional Description

This wireless charging controller module is designed for embedded charging products requiring flexible power-input and auxiliary-output options. The circular PCB provides a USB Type-C port labeled for 5-9 V / QC / PD operation, solder pads for 5 V / 9 V USB/PD wiring, dedicated 5 V outputs, a 3 V common-cathode external indicator-light connection, and separate wide-voltage pads labeled 9-30 V for input/output. The source also shows the controller operating with a smartphone and a green working-status LED.

2. Key Features

Wide-voltage interface	Dedicated pads are labeled 9-30 V input/output.
USB Type-C interface	Type-C port is labeled 5-9 V / QC / PD and can be used for input/output.
USB/PD solder connection	PCB pads are labeled 5 V / 9 V input/output and may be wired to a USB/PD cable.
Dedicated 5 V output	One PCB interface is explicitly labeled 5 V output.
Switched 5 V output	A second 5 V output is labeled as active only while the system is operating.
External indicator support	3 V common-cathode external-light interface.
Working indication	Source application image identifies the working LED as green.
Polarity marking	+ = positive; - / GND = negative.

3. Electrical Characteristics

Wide-voltage I/O	9-30 V, as labeled on the PCB source image.
USB Type-C range	5-9 V; QC / PD notation shown in source.
USB/PD solder-pad range	5 V / 9 V input/output.
Auxiliary output 1	5 V.
Auxiliary output 2	5 V, active only during operation.
Indicator interface	3 V common-cathode external LED.
Wireless charging power	TBD - not stated in the supplied images.
Input/output current	TBD.
Efficiency / frequency	TBD.

4. Interface Summary

USB Type-C	5-9 V / QC / PD; input or output.
5 V / 9 V pads	Solderable USB/PD cable interface; input or output.
9-30 V pads	Wide-voltage power interface; input or output.
5 V OUT	Dedicated 5 V output.
5 V switched OUT	Available only during active operation.
3 V LED interface	Common-cathode external indicator-light connection.
Power polarity	+ positive; - / GND negative.

5. Working-State Indication

The supplied operating image shows a smartphone charging alongside the controller PCB and identifies the board's working indicator as green. Exact LED behavior for standby, charging-complete, fault or foreign-object states is not specified and should be confirmed before controlled release.



6. Optional Charging-Pad / Cable Configuration

The source package also shows a rectangular wireless charging pad measuring approximately 15.5 cm x 8.5 cm. Its cable termination can be configured with several connection styles. The source states that positive/negative bare leads are the default, with DC plug, SM-2P terminal, DuPont leads, USB cable and USB Type-C cable available as alternatives.

CABLE OUTPUT OPTIONS

Positive/negative leads | DC plug | SM-2P terminal

DuPont leads | USB cable | USB Type-C cable

Default: positive/negative leads; contact us for other terminations.



7. Mechanical Characteristics

Controller PCB form	Circular PCB.
Controller PCB dimensions	TBD - no controlled dimensional drawing is supplied.
Optional rectangular pad	15.5 cm x 8.5 cm, as dimensioned in the supplied image.
Cable termination options	Bare +/- leads, DC plug, SM-2P, DuPont, USB, USB Type-C.
Default cable termination	Positive/negative bare leads.
Mounting method	TBD; depends on final host-product integration.

8. Typical Applications

Embedded wireless charging stations, automotive consoles and accessories, furniture-integrated chargers, desktop charging products, smart equipment, custom docking systems and other OEM products requiring flexible input-voltage and interface options.

9. Integration Considerations

The source identifies several different voltage interfaces on the same controller. These should be treated as interface-specific ratings rather than assumed to be interchangeable. Final wiring should follow the selected input path and polarity markings. If QC or PD negotiation is required, the production firmware and connector implementation should be verified for the intended power source. Auxiliary 5 V and 3 V outputs should not be loaded beyond their confirmed current ratings, which are not provided in the source images.

10. Production-Release Data Required

Before release as a controlled SiCore datasheet, confirm maximum current for each input/output path, supported QC/PD revisions, wireless charging standard and rated output power, operating frequency, efficiency, coil specification, foreign-object detection, thermal derating, overvoltage/overcurrent/short-circuit protection, exact PCB dimensions, cable lengths, optional pad electrical rating, operating/storage temperature and applicable FCC/UL/ETL/CSA or other certifications.

11. Product Classification

Primary category: Wireless Charging Controller

Product type: Wide-Input Embedded Wireless Charging Controller Module

Wide-voltage interface: 9-30 V input/output

USB-C interface: 5-9 V / QC / PD

Auxiliary outputs: 5 V + switched 5 V + 3 V indicator interface

Document status: Preliminary English datasheet derived solely from the four supplied product images. No webpage file was present in the uploaded package.