

TPS61088 QC Fast-Charge Boost Module

3.2-4.5 V battery input to negotiated 5 V / 9 V / 12 V USB output



Product Overview

A compact power-electronics module documented from the supplied archived product page. The specifications below separate confirmed ratings from operating guidance and identify the exact module variant where the source page contains multiple options.

Electrical and Mechanical Specifications

Parameter	Value
Boost controller	TPS61088
Input voltage	3.2-4.5 VDC
Typical source	Single-cell 3.7 V lithium battery
USB output modes	5 V, 9 V or 12 V through supported fast-charge negotiation
Protocols	QC2.0 / QC3.0 and USB charging identification stated by source
USB connector	Type-A output
No-load behavior	Output enable / low-power control provided on board
Board dimensions	Approximately 46 x 16 mm

Key Features

- TPS61088 high-current boost stage
- QC fast-charge negotiation
- Single-cell battery input
- Compact USB output module

Operating Notes

- The connected device selects a supported negotiated voltage.
- Use a battery and wiring capable of the high input current required by boost conversion.
- Provide cell protection and verify thermal performance.

Application and Connection Guide

APPLICATION & CONNECTION

1S LI-ION BATTERY

3.2-4.5 VDC



FAST-CHARGE DEVICE

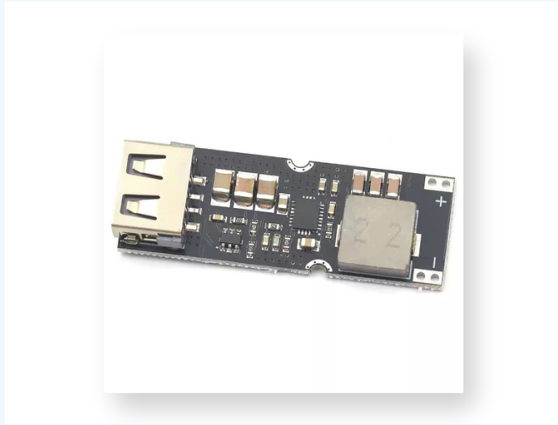
5 / 9 / 12 V

Verify polarity and configure voltage/current before connecting the load.

Connection Sequence

1. Confirm the input source is within the stated range. 2. Verify input and output polarity. 3. Configure voltage and current limits with the load disconnected. 4. Connect the load or battery. 5. Monitor temperature during initial operation.

KEY PRODUCT ADVANTAGES



1 TPS61088 high-current boost stage

2 QC fast-charge negotiation

3 Single-cell battery input

4 Compact USB output module