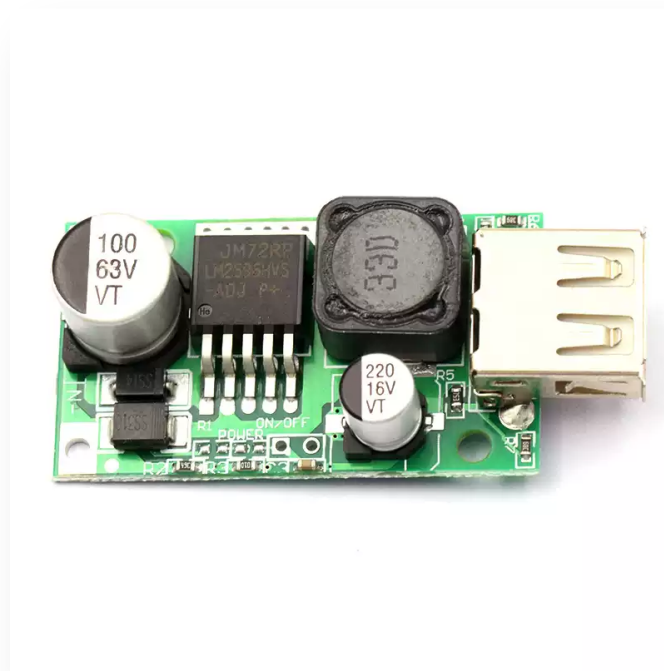


LM2596HV 5 V USB Buck Converter Module

Wide-input DC step-down board for USB-powered loads



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
Controller	LM2596HV
Topology	Non-isolated DC-DC buck converter
Input voltage	7-50 VDC; 56 V upper limit stated by source
Output voltage	Fixed 5 VDC
Maximum output current	3 A
Recommended continuous current	Up to 2.5 A
Maximum output power	15 W
Peak efficiency	Up to 92%
Quiescent current	Approximately 6 mA
Operating temperature	-40 to +85 deg C
Board dimensions	48 x 23 mm
Output connector	USB Type-A

Key Features

- 7-50 V wide DC input
- Fixed 5 V USB output
- Up to 3 A output class
- Compact 48 x 23 mm board

Operating Notes

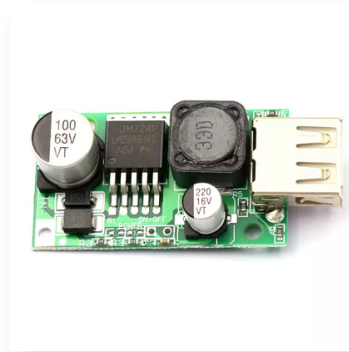
- Observe input polarity at the solder pads.
- Continuous output depends on input voltage, airflow and thermal conditions.
- Provide input protection and verify the load current before installation.

Application and Connection Guide

APPLICATION & CONNECTION

BATTERY / DC SOURCE

7-50 VDC



USB-POWERED LOAD

Regulated 5 VDC

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 **7-50 V wide DC input**
- 2 **Fixed 5 V USB output**
- 3 **Up to 3 A output class**
- 4 **Compact 48 x 23 mm board**