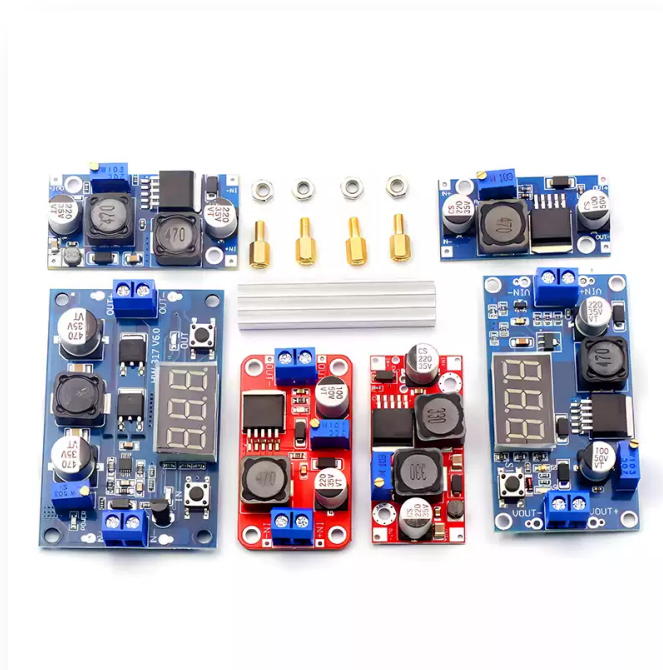


XL6009 Adjustable DC-DC Boost Converter Module

400 kHz step-up regulator with wide adjustable 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
Controller	XL6009
Conversion type	Non-isolated boost converter
Input voltage	3-32 VDC
Adjustable output	5-35 VDC
Peak input current	4 A
No-load current	18 mA at 5 V input / 8 V output
Peak efficiency	Up to 94%
Switching frequency	400 kHz
Output ripple	Approximately 50 mV
Load regulation	±0.5%
Voltage regulation	±0.5%
Industrial temperature range	-45 to +85 °C; derate above +40 °C
Board dimensions	Approximately 43 × 21 mm

Key Features

- 3-32 V wide input range
- 5-35 V adjustable boosted output
- 400 kHz switching frequency
- Up to 94% peak efficiency

Operating Notes

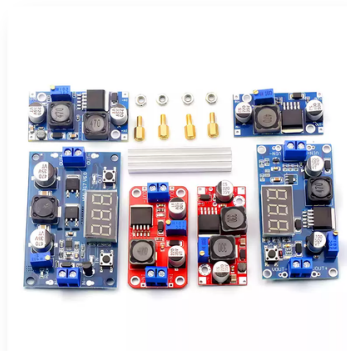
- The output must be set above the input because this is a boost converter.
- Peak current is operating-condition dependent; provide cooling and derate above +40 °C.
- Set the output voltage before connecting sensitive electronics.

Application and Connection Guide

APPLICATION & CONNECTION

LOWER DC INPUT

3-32 VDC



HIGHER-VOLTAGE LOAD

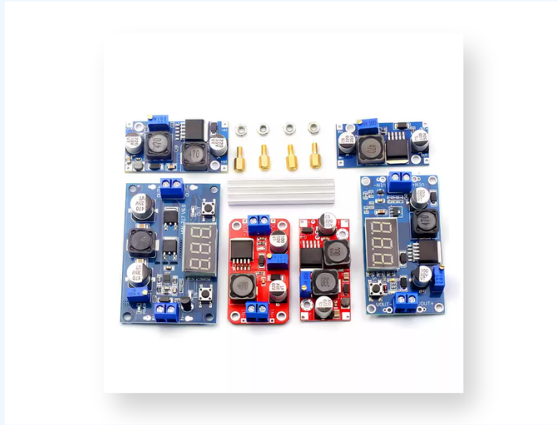
5-35 VDC

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 **3-32 V wide input range**
- 2 **5-35 V adjustable boosted output**
- 3 **400 kHz switching frequency**
- 4 **Up to 94% peak efficiency**