

# LM2596HV Buck Converter Module

## FEATURES

- LM2596HV DC-DC Buck Converter Step Down Module
- Input voltage range: DC 4V to 55V (Input voltage must be higher than the voltage output to 1.5V or more cannot be boosted.)
- Output voltage range: 1.25V to 35V DC voltage is continuously adjustable, high efficiency and maximum output current of 3A.
- Output current: Rated current 2A, maximum 3A. (Heat sink required.)
- Minimum Duty Cycle: 13%
- Switching Frequency: 150kHz
- All solid capacitors and High-Q inductors.

## APPLICATIONS

- Simple high efficiency step-down regulator
- On-card switching regulator
- Efficient Pre-Regulator for Linear Regulators

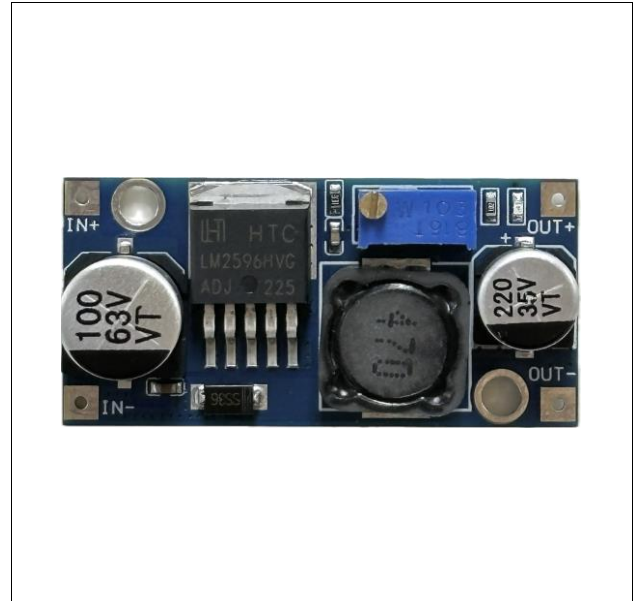
## DESCRIPTION

The LM2596HV Buck Converter Module is a non-isolated step-down DC-DC converter with non-synchronous rectification.

## APPLICATION GUIDE

The power dissipation of the LM2596HV Buck Converter Module is internally limited. Small sized PCB and thermal resistance of IC package have limited the power dissipation of the module.

Depending on the conversion condition, 3A full loading is not might possible due to the internally limited power dissipation.



## ORDERING INFORMATION

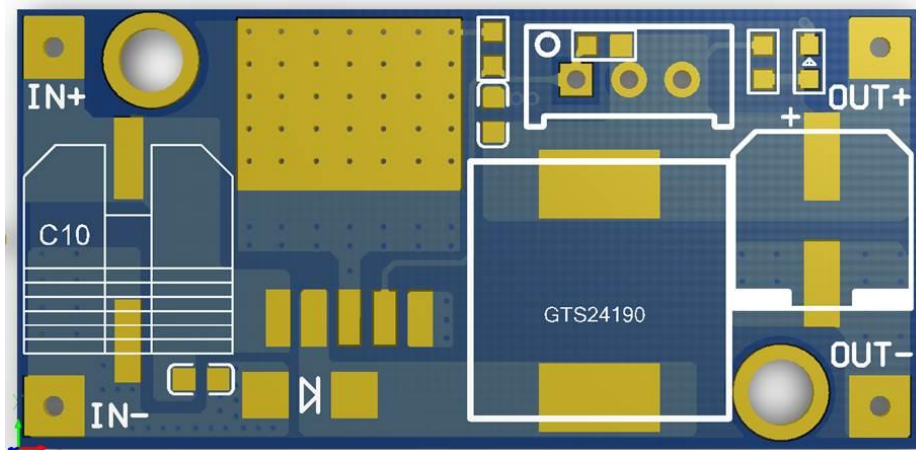
Part Number	MBC2596HV-01
Device	LM2596HV Buck Converter Module
Package	Assembled Module

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## PARTS LIST & LAYOUT

Name	Description	P/N	Qty.	Distributor
PCB	Printed Circuit Board	Lead-Free PCB	1	TAEJIN
IC	LM2596HV-ADJ, TO-263-5L	LM2596HVGR-ADJ	1	TAEJIN
Diode	Schottky Diode	SS36, 1N5822, DO-214AC	1	Generic
Capacitor	100 $\mu$ F Capacitor	100 $\mu$ F/63V Electrolytic Capacitor	1	Generic
Capacitor	220 $\mu$ F Capacitor	220 $\mu$ F/35V Electrolytic Capacitor	1	Generic
Inductor	47 $\mu$ H Inductor	3A	1	Generic
Resistor	1K $\Omega$ Resistor	1.0K $\Omega$ 5% Resistor	1	Generic
Resistor	330 $\Omega$ Resistor	330 $\Omega$ 5% Resistor	1	Generic
LED	LED for Power Indicator	3mm LED, Red	1	Generic
Capacitor	10nF Capacitor	10nF/50V Ceramic Capacitor	1	Generic
Capacitor	1 $\mu$ F Capacitor	1 $\mu$ F/50V Ceramic Capacitor	1	Generic

## SCHEMATICS



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## LAYOUT



## I/O PORT CONFIGURATION AND DESCRIPTION

Designator	Port Name	Port Description
IN+	Input Positive	Power In.
IN-	Input Negative	Ground for Power In. Connect GND for normal use.
OUT+	Output Positive	Power Out.
OUT-	Output Negative	Ground for Power Out. Connect GND for normal use.

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## REVISION NOTICE

The description in this datasheet is subject to change without any notice to describe its electrical characteristics properly.