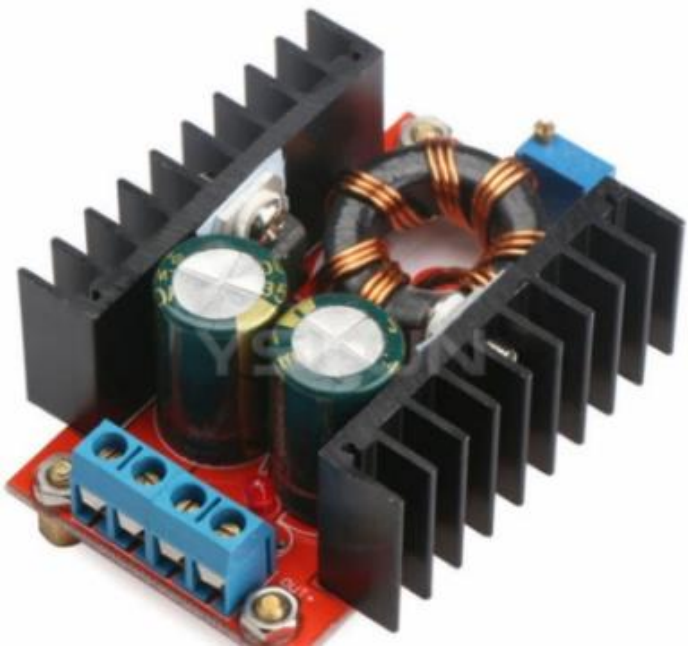
DC-DC STEP UP & STEP DOWN CONVERTORS

DC step up convertor increases the output voltage whereas DC step down convertor reduces the output voltage. Power for portable electronic devices such as smartphones, GPS navigation systems, and tablets can come from low-voltage solar panels, batteries, or ac-to-dc power supplies. Battery-powered systems often stack cells in series to achieve higher voltages, but this is not always possible due to a lack of space. Switching converters use an inductor's magnetic field to alternately store energy and release it to the load at a different voltage. With low losses they are a good choice for high efficiency. Capacitors connected to the converter's output reduce output voltage ripple. Boost, or step-up converters provide higher voltage; buck, or step-down converters provide lower output voltage.

Different types of modules available in market

1. Boost convertor



Price: Rs.280

Specifications:

Input voltage:10-32V

Output voltage: 12-35V (adjustable)

Output Current: 10A (MAX)

Input Current: 16A (MAX)

2. LM2596 DC-DC Buck Convertor Step Down Module

Price: Rs.79

From: www.robu.in

Specification:

Input voltage: 4V-35V.

Output voltage: 1.25-30V.

Output current: 3A (MAX).

3. LM2577 Booster Circuit Board

Price: Rs.110

Specification:

The input voltage: 3-32 v

Continuous adjustable output voltage: 5v-35 v

Input current: 4 a (Max), no-load 18 ma