XL6019 5A DC-DC Step Up Boost Converter Module

The XL6019 5A DC-DC Step Up Boost Converter Module is a high-performance switching regulator designed for applications requiring efficient voltage boosting. With an input range of 5V to 40V and an adjustable output of 5V to 55V, this module supports up to 5A output current, making it suitable for powering a wide range of electronics.

It is built around the XL6019 IC, offering higher efficiency and current handling compared to earlier boost modules like XL6009 or MT3608. This makes it a reliable choice for high-power DIY projects, Arduino & Raspberry Pi applications, robotics, LED lighting, battery charging systems, and portable power supplies.

Key Features

- **Wide Input Voltage: 5V – 40V DC**
- **Adjustable Output Voltage: 5V – 55V DC**
- **High Current Support: Up to 5A (continuous use recommended ≤4A)**
- **High Efficiency: Up to 94% conversion rate**
- **Compact & Reliable: Stable operation with built-in protections**
- **Upgraded Performance: More powerful than XL6009/MT3608 modules**

Technical Specifications

- **Input Voltage: 5V – 40V DC**

- **Output Voltage: 5V – 55V DC (adjustable)**
- **Output Current: Up to 5A (recommended ≤4A continuous)**
- **Output Power: Max 150W (with proper cooling)**
- **Conversion Efficiency: Up to 94%**
- **Switching Frequency: ~180 kHz**
- **Module Size: ~65mm × 36mm × 15mm**
- **Protection: Over-current, over-temperature, and short-circuit**

Applications & Use Cases

- **Arduino & Raspberry Pi regulated power boost**
- **Battery Charging Systems (Li-Ion, Lead Acid, Solar applications)**
- **LED Drivers & High-Power Lighting**
- **DIY Adjustable Power Supplies**
- **Robotics & IoT Projects**
- **Automotive & Portable Electronics**

Advantages for Makers & Engineers

- **Perfect for Arduino and Accessories projects needing higher voltages.**
- **Pairs seamlessly with Electronics Components in DIY circuits.**
- **Delivers stronger output performance than XL6009 or MT3608 modules.**

Safety & Precautions

- **Use heatsink/fan for operation above 3A.**
- **Do not exceed 40V input or 55V output to avoid damage.**
- **Adjust output voltage before connecting to sensitive devices.**
- **For continuous high power, ensure proper cooling and ventilation.**

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