

# PM-6009

6.5 to 40V INPUT Multi output DC2DC Power supply Module

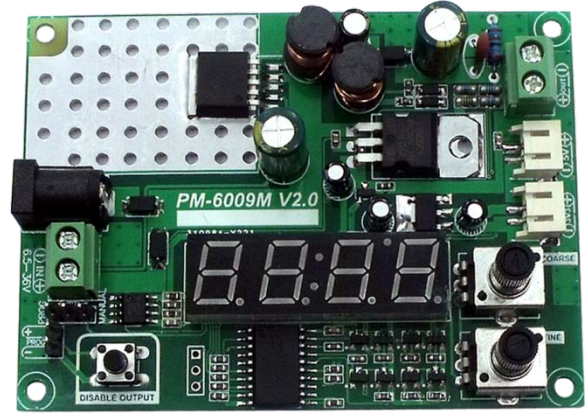
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Everything done inhouse

## Programmable DC2DC Buck-Boost Power Supply

6.5 to 40V INPUT  
0.8 to 30V OUTPUT  
High precision voltmeter  
Coarse and Fine adjustable  
3CH Output (Adjustable / 5V / 3.3V)  
SPICE circuit

0 to 3V Programmable voltate:

$$V_{out} = V_{in} * 11 (V)$$



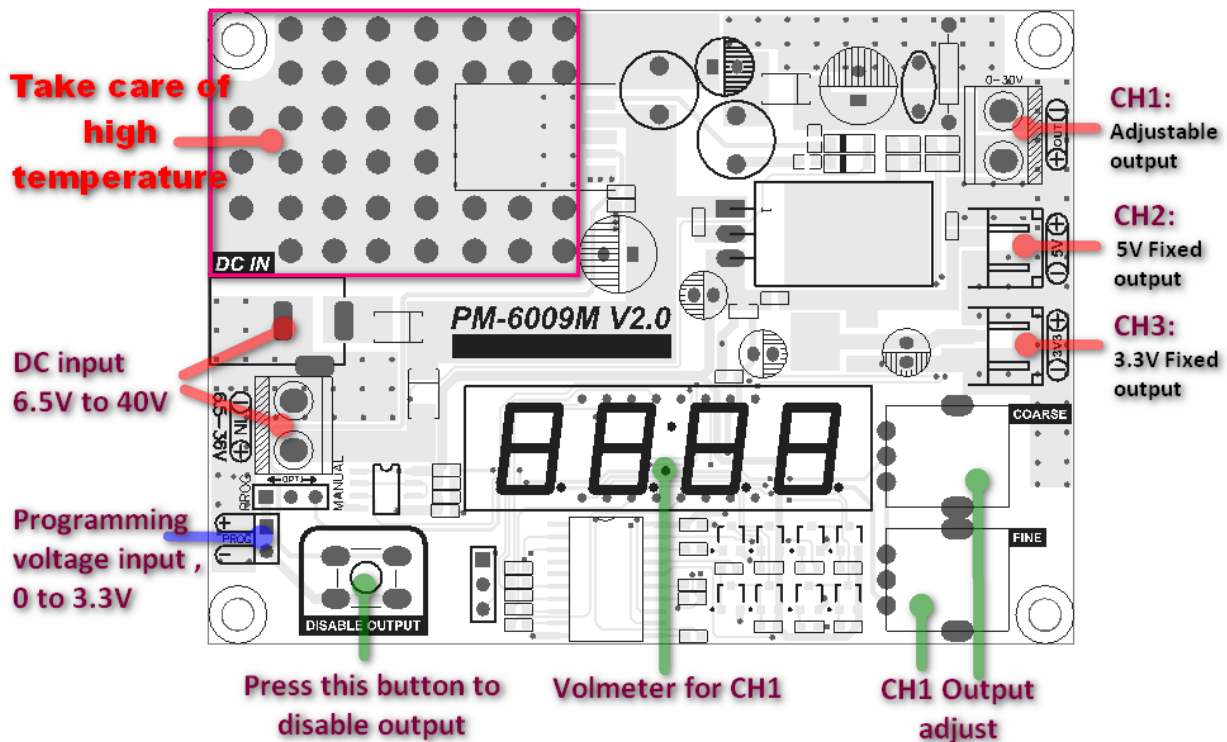
## Features & Parameters

- Adopt XLSEMI 220KHz 60V 5A Switching Current DC/DC Converter
- **3CH output:**
  - CH1: Adjustable output: 0.8 to 30V Buck/Boost (SEPIC)**
  - CH2: Fixed 5V output: 5V 500mA Output**
  - CH3: Fixed 3.3V output: 3.3V 300mA Output**
- The 5V and 3.3V output load capability is depended on the input voltage , the typical input is 12V.
- Wide 6.5V to 40V Input Voltage Range
- 0.8 to 30V Output Voltage Range
- Fixed 220KHz Switching Current
- Excellent Line and Load regulation
- Can be control by a voltage , become a programmable power supply
- Input Voltage Range: 6.5 to 40V
- Output: 1CH Adjustable OUT, 1CH 5V and 1CH 3.3V Out
- Max Switching Current(Adjustable channel): 5A
- Programmable input voltage: 0 to 3.3V
- Volt Meter tolerance: 0.5% (+-1)
- Operation Temperature: -40 to 125° C
- Storage Temperature: -65 to 165° C

### Notice:

The 5V and 3.3V output is used for small load capability which is less than 500mA, the big current consumption will impact the system's accurate and maybe damaged the module.

## Block diagram

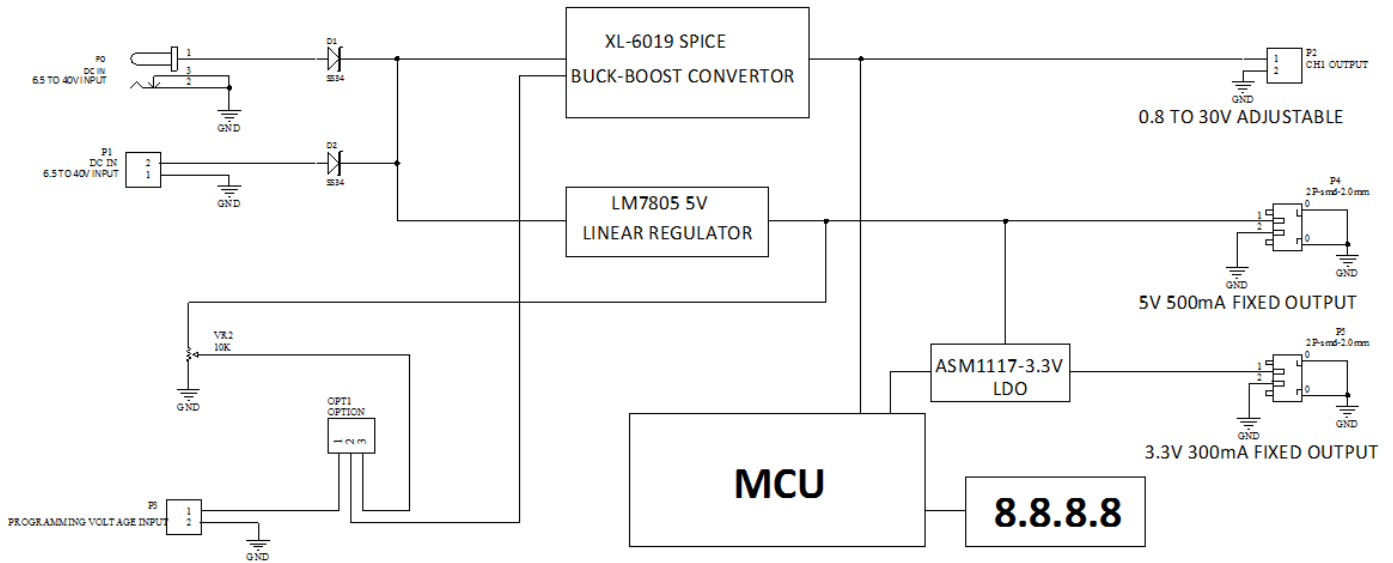


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## Schematic:

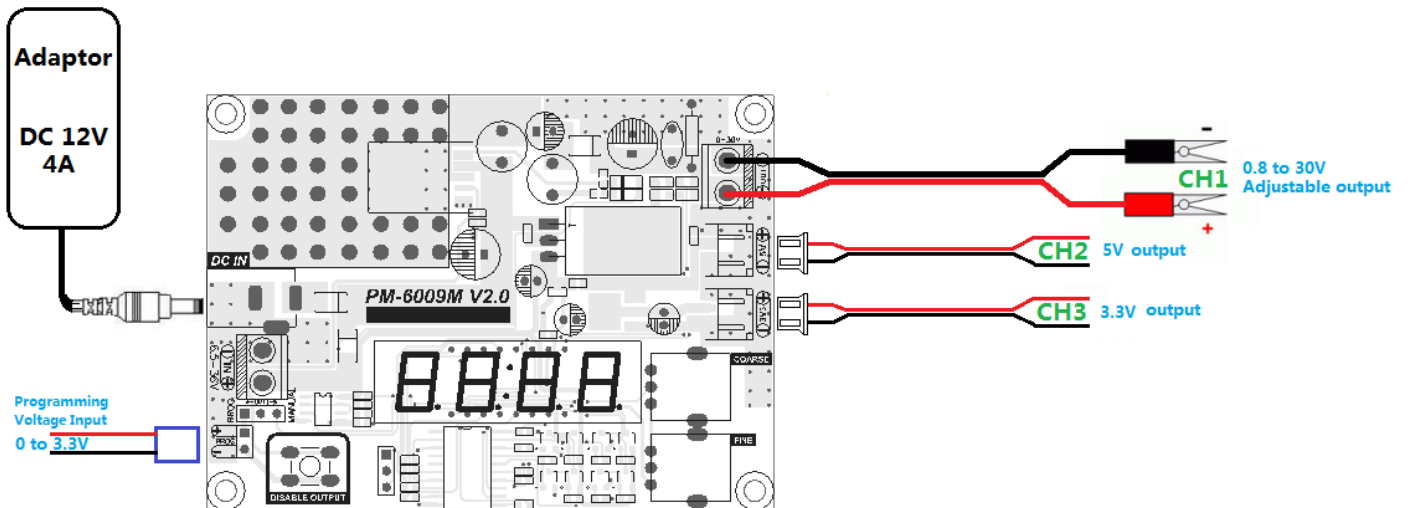


The PM-6009M support two method for CH1 adjust :

**1, Adjust by manual:** Please set **OPT1** to **MANUAL** side , then turn the VR , the output voltage will be change between 0.8 to 30V , here have two VR , one is Coarse adjust and the other one is for fine adjust.

**2, Adjust by programming:** Please set **OPT1** to **PROG** side, the output of CH1 will follow the PROG voltage , the output voltage can be calculate :  $V_{out} = V_{prog} * 11$  , and the module will be limit max output voltage within 30V, so if the  $V_{prog}$  higher than 2.7V , the output will be stay on 30V .

## Application :



## Contact us

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