

# GP-83 DC-DC Converter for Car PC



Small size, large power  
Special ATX PSU

**SERENER**  
Fan-less Solution Expert



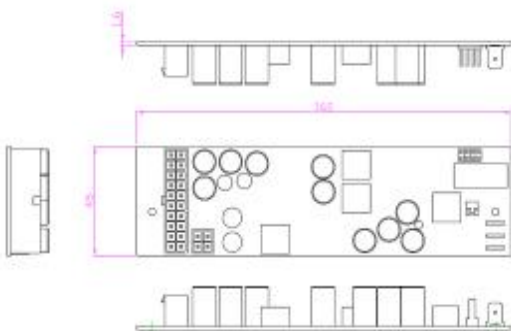
## ▶ Functions

- ▶ Select multiple modes through GP-83 LED controller or the little button on GP-83
- ▶ Control amplifier via remote ON/OFF.
- ▶ **Anti-thump** function starts PC in peace when the PC is connected to the amplifier.
- ▶ **Intelligent shutdown** function prevents 'deep discharge'
- ▶ **Ignition Timing** function prevents PC from consuming power while standby
- ▶ **HARDOFF** function secure system data by shutting down PC in sequence
- ▶ Works with all Minii-ITX mainboards
- ▶ Special input header prevents cable drop-out

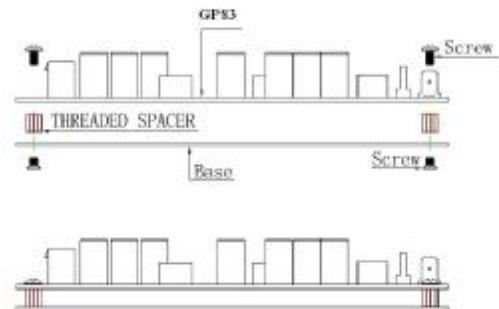
## ▶ Specification

- ▶ **Dimensions (mm):** L160 x W45 x H21
- ▶ **DC Input Voltage:** 6V ~ 32V
- ▶ **Deep-Discharge Shutdown Threshold:** 11.2 V
- ▶ **Input current limit:** 15A
- ▶ **Max Output Power:** 160W
- ▶ **Storage temperature:** -55 to 125 °C
- ▶ **MTBF:** 192,000 hrs @ 50C, 96,000 hrs @ 65C
- ▶ **Efficiency (Input 9-16V) :** above 94%
- ▶ **Output Cables:** 2 big 4pin to 2 small 4pin

## ▶ Dimensions Drawing



## ▶ Installing Drawing



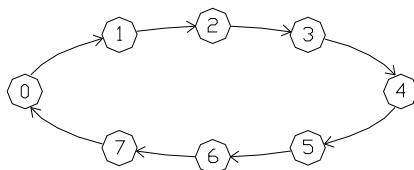
## ▶ Optional Accessories

### ▶ LED Controller

Water proof microcontroller with 3 LED indicators allows you to choose up to 8 ignition/shutdown car pc timing modes.



LED Controller



SW Modes Circuit Setting

- |       |                                |
|-------|--------------------------------|
| ○ ○ ○ | 0= (Traditional PSU Mode)      |
| ● ○ ○ | 1= 5Sec / 45Sec                |
| ● ● ○ | 2= 5Sec / 2Hour (Suggested)    |
| ● ● ● | 3= 5Sec / Never                |
| ○ ○ ● | 4= 30Sec / 2hour               |
| ○ ○ ● | 5= 30Sec / Never               |
| ● ● ● | 6= 30min / Never, (Taxi Mode)  |
| ● ● ● | 7= 3Hours / Never, (Taxi Mode) |

LED Mode Indication

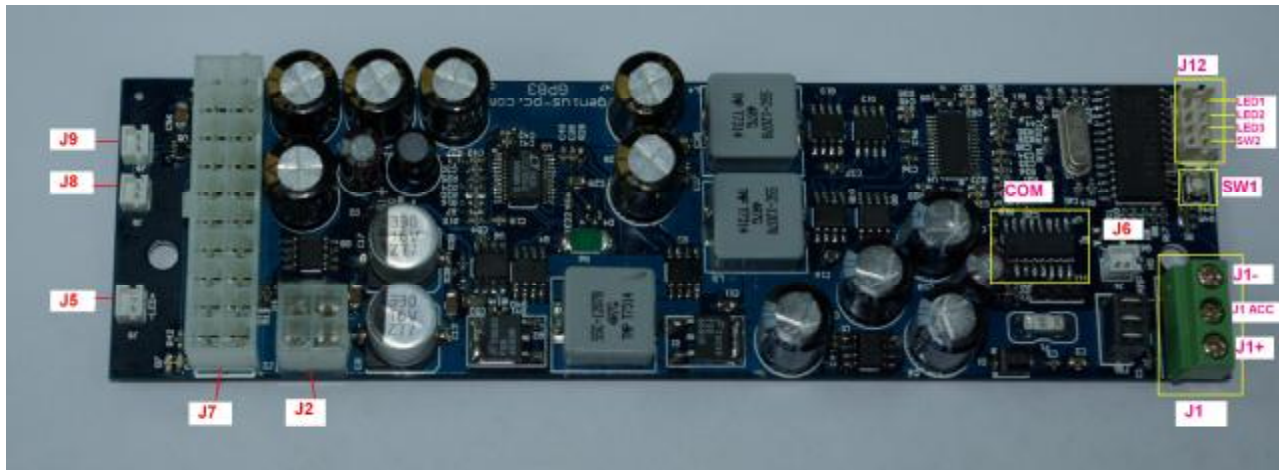
### ▶ Car PSU DC-in Header

Special DC-in header secures cable connections with screws and prevents cable from being folded or falling out. Easy to install and adjust. Standard 50cm cables.(Cable length is optional)



**GP83 & M2 -ATX Common Features**

- Wide input voltage 6~32V
  - Up to 8 modes
  - "Anti-Thump" function
  - Ignition Timing feature (ITPS)
  - Intellignet shutdown function
- Some jacks shares the same definition (Refer to picture below for jack definitions)
    - J9 - To external ON/OFF switch (optional J8 is parrallet to J9)
    - J8 - To motherboard ON/OFF switch
    - J7 - ATX power connector
    - J6 - Controls amplifier via remote ON/OFF
    - J5 - To PC Panel LED (optional)
    - J2 - Optional Pentium4 12V power



**GP-83 Enhanced Features**

GP83	M2
➤ DC-input connector (J1) is secured with screws	➤ Uses common socket which often cause connection
➤ Switch modes easily by pushing the LED controller button on the chassis panel	➤ The only way is to switch modes is to turn off system, open enclosure and reset jumper. This complication raises the rate of damage to the system
➤ LED controller indicates and displays the mode the PSU is running on	➤ Don't know what mode the PSU running on until open the enclosure and check the jumper on the PSU.
➤ Set modes without LED controller with SW1 on the PSU	➤ Not support
➤ A Com port is made on the board for mode setting upgrade (programed by special software and application).	➤ Not support
➤ Set mode timing via COM in Windows or Linux system with different display application, such as LCD display ,PC monitor, or touch panel	➤ Not support

**Standard Cables**





2pin cable x 2  
1 to J8, the other to J6



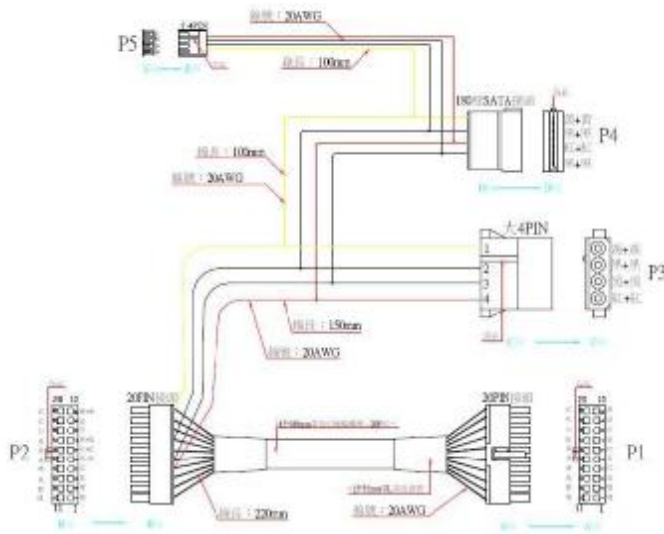
LED cable x 1  
to J 5



Square 4pin cable x 1



power on/off switch cable x 1  
to J9



CW31 x 1

Cable CW31 : 20pin - 20pin - big 4pin - sata - small 4pin

**Optional Cable**



There is no strict limit to the cables definition, but we usually do as below:

- Yellow : +
- Black: -
- White: ACC