

M2-ATX Intelligent 160 Watts Automotive ATX Power Supply

Intelligent Automotive Power Supply

Designed to provide power and to control the ON/OFF switch of a motherboard (based on ignition status), M2-ATX is a 6-24V input ATX PSU capable of surviving tough engine cranks (down to 6V) as well as transient over-voltage situations.

Multiple Shutdown Schemes

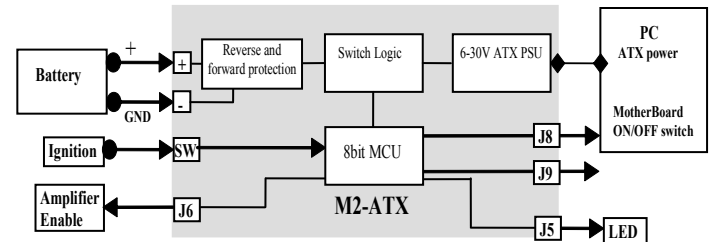
M2-ATX has 8 user selectable microcontroller driven timing modes, allowing you to choose up to 8 ignition/shutdown timing schemes. By removing all user-selectable jumpers, M2-ATX becomes a traditional PSU with no ignition control and it can be used in non-car applications.

Even if your computer is totally OFF, a PC will still consume few hundreded milliwatts, needed to monitor PC ON/OFF status. When the computer is in the suspend/sleep mode, it will consume even more power, because the RAM needs to be powered at all times. The power consumption in the suspend mode is few watts. No matter how big your battery is, it will eventually drain your battery in a matter of days.

Deep Sleep Mode

While in deep sleep mode, M2-ATX constantly monitors your car battery voltage levels, preventing deep discharge situations by automatically shutting down until battery levels reach safe levels again.

No more dead batteries, no more computer resets during engine cranks, along with multiple timing schemes, small formfactor and competitive price makes the M2-ATX the premier solution for ATX vehicle power supply solutions.



Mechanical Characteristics

- Board measurements: 1.77"x6.31"
- Height: < 1", 1U formfactor compatible
- Formfactor compatible with mini-ITX Casetronics enclosures
- Designed for the mini-box VehiclePC extruded enclosure

CPU and Board Support

- VIA X86 CPUs, PII, PIII and low po P4/AMD*
- Supports all VIA mini-ITX motherboards
- *NOTE: Check the total 12V rail power consumption

Wire harness

M2-ATX comes equipped with ATX, HDD and Floppy cable harness, jumpers, faston connectors and 2 pin cables for motherboard ON/OFF switch. Just connect it to your car / boat / RV battery and power up your PC.

OEM integration

Other timing schemes / designs are possible. OEM integration is welcome. Please send en email to m1-atx@mini-box.com with your custom requirements.

Minimum Input Operating. voltage	6V
Maximum input Operating voltage	24V (clamping will occur at 25-27V)
Deep-Discharge shutdown threshold	11.2V
Input current limit (fuse protected)	15A (15A mini-blade fuse)
Max Output Power	160 Watts
Operating temperature	-40 to +85* degrees Celsius
Storage temperature	-55 to +125 degrees Celsius
MTBF	192,000 hrs @ 50C, 96,000 hrs @65C
Efficiency (Input 9-16V)	>94%, all rails combined, 50% load.
PCB size	160x45mm
Input connectors	Faston 0.25" terminal
Output Connector	ATX Power 20 pin (Molex P/N 39-01-2200)

Output Rail	Current (Max)	Current Peak (<60 seconds)	Regulation
5V	8A	12A	1.5%
3.3V	8A	12A	1.5%
5VSB	1.5A	2A	1.5%
-12V	0.15A	0.2A	5-%
12V	8A* (see below)	9A	2%