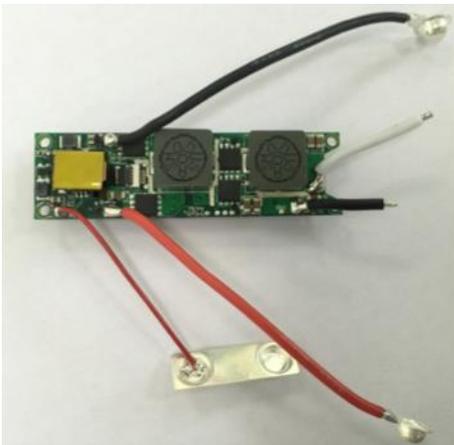


With the continuously evolving vapor industry and market, vapers are always searching for more functionality, performance, and aesthetics from their devices. We here at Asmodus, with our high-quality, high-performance and cost-effective products, are now announcing our new chipset—the GX-180-HT—designed by in-house by our own Research & Development Team.

The GX-180-HT will support:

Two (2) * 18650 Batteries
Touch Screen Functionality
Maximum Output Wattage: 180W
VW, TC, Curve, TCR, and TFR Modes
Balance Charging
System Upgradability via USB



At first the GX-180-HT may seem like your typical chipset found in the garden-variety device, but it is made with choice components and excels in certain key elements to set it apart from the competition. For starters, let's take a look at the construction and parts of the GX-180-HT.

Both sides of the chipset are moisture-proof, dust-proof, and feature non-corrosive, anti-aging protection to increase overall stability and extend the life of the chipset. The printed circuit board (PCB) also has an FR-4 grade, with a thickness of 1.6mm. In comparison with other PCB's used in other brands' chipsets, the quality on the GX-180HT will have a thicker and more durable feel.

The dual battery inductors are also specially made with quality materials featuring inner copper wiring and iron powder housings. Coupled with equally distributed balance charging via USB, the GX-180-HT has a smooth output even at the maximum 180 watts. Inductors featured on other brands' devices will not provide the same quality of performance that the GX-180-HT can achieve. Each of our specially made inductors will be branded with the Asmodus logo on it.

The wires connected to the chipset also boast a silicone exterior, with a core consisting of silver plated copper lines. With this composition, the wires are able to withstand high temperatures while maintaining a low internal resistance, reducing the gradual power loss vapers typically experience when the device is in work for an extended amount of time.

The GX-180-HT is a complete work of excellent craftsmanship, unlike any other in the electronic cigarette industry. No corners were cut in the design and manufacturing of this chip, all to ensure performance, stability, and life.

But so what? It's made with nice sounding things, is that it? Let's go into the more technical side of the GX-180-HT so you can see where it really shines.

Currently in the market there are a lot of dual battery box mods claiming to be 200W or higher, but many knowledgeable vapers know that this is not true. For example, if a vaper uses fully charged batteries with the recommended output of 30A at its peak, the combined battery voltage will drop to approximately 6.7V at their maximum current. When these values are input into the formula for Ohm's Law, you would reach $30A * 6.7V = 201W$. Your average dual battery box mod uses a chipset with one single battery inductor though, so it only achieves 90% output efficiency. Factoring this new variable into the equation, you would arrive at $30 * 6.7 * .9 = 180.9W$. With a single battery inductor at the recommended setup, a 200W box mod can only achieve 180.9W.

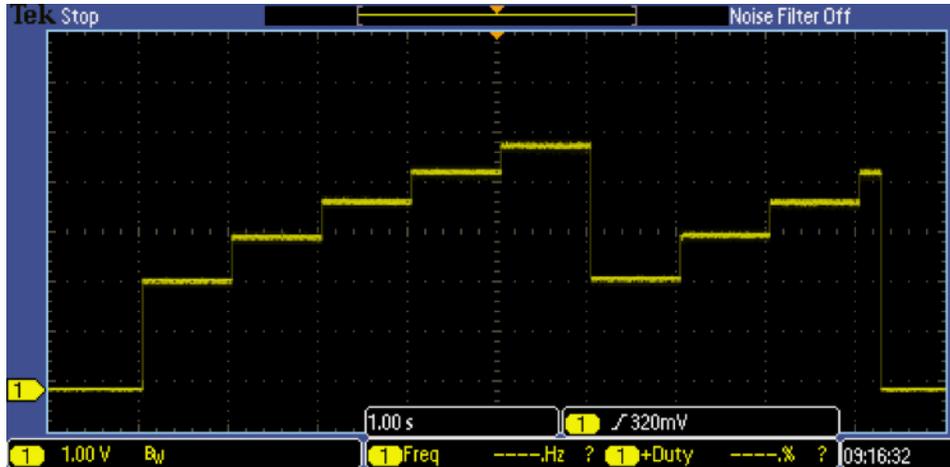
What makes Asmodus's GX-180-HT chip special is their dual battery inductors design. Combined with ceramic capacitors that can regulate temperature more efficiently, thicker PCB board, use of copper foil wiring versus conventional wire inductors, and advanced switching power supply control technology, 96% output efficiency can be achieved. Using the same amperage and voltage in the previous equation, we arrive at $30A * 6.7V * .96 = 192.96W$, which is a closer, and truer value of the supposed 200W box mod.

With the GX-180-HT performing at 96% work efficiency, the battery life is also extended, allowing for a longer vaping experience than other devices and their chips.

The GX-180-HT also brings the unique Curve Function, giving a more customized vaping experience, utilizing a time control function. Vapers can set the power and the duration of set power over the working cycle of 10 seconds. With output power backed by the advanced switching power supply technology that enables the device to reach its set power output from 0 in only 11.9ms and precise

time control, the GX-180-HT provides accurate curves every time that no other chip can do.

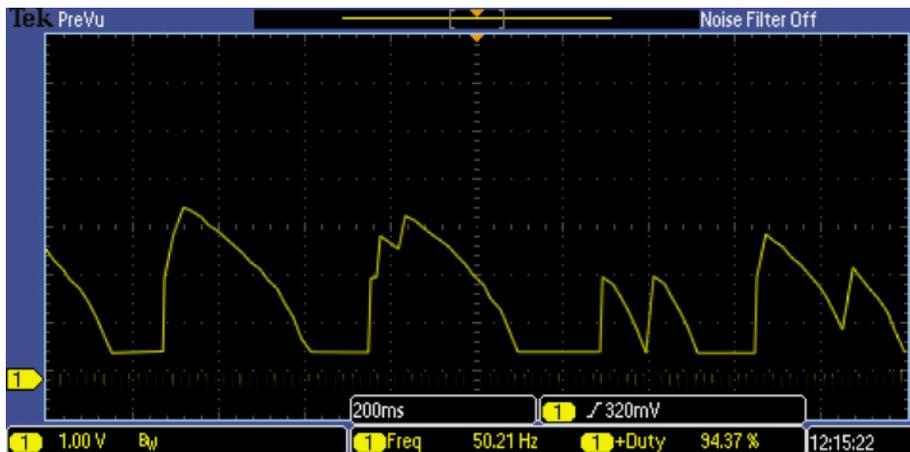
Utilizing advanced vector control algorithms to regulate the temperature, TC mode also performs much better compared to other chipsets.



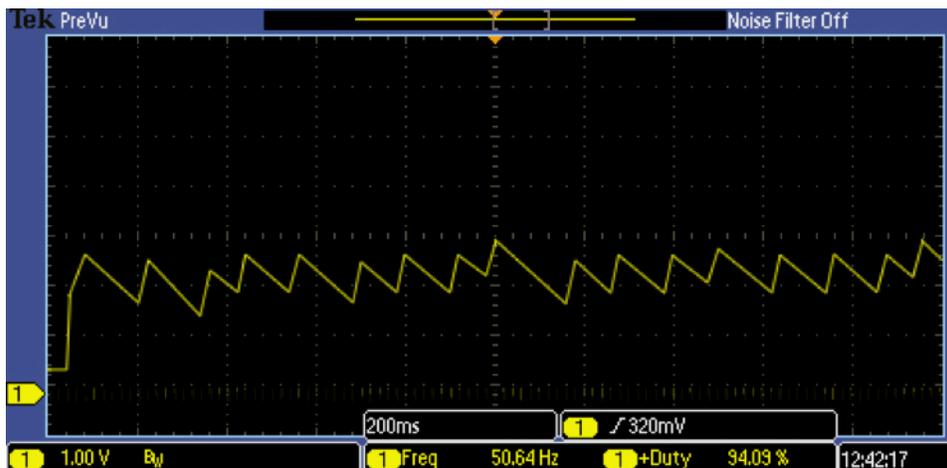
As shown in the figure above, when dry-firing, the output voltage rises in the form of jumping and climbing. When the temperature reaches its set value, a very small amount of power is output for thermal insulation to keep the temperature hovering at the correct value and prevent cotton from burning. In the figure below, you can see how at different wattages and different temperature settings, the dry cotton is in the same condition all across the board, demonstrating the consistency of the temperature algorithms. Once the GX-180-HT registers that the cotton is dry, output is instantly dropped and kept at a low level to ensure no burning occurs.

Temperature setting	100°C/212°F	150°C/300°F	200°C/450°F	250°C/500°F	300°C/572°F
Wattage					
Resistance : (N1200) 0.12Ω	Burnt level				
5W					
30W					
60W					
90W					
120W					

To further demonstrate the efficient temperature control function, another dry-firing test was performed, this time while blowing on the coils to cool them. As you can see in the graph below, once the coil has been cooled by blowing on it, the output power will increase rapidly to reach its set value and then reduce the power once it arrives. By repeating the process of blowing on the coils, you will see a similar jump in output power followed by a reduction to maintain the set temperature.



After adding e-liquid to the test cotton and coil, the temperature curve begins to take a more wave-like form, as shown below. After the initial rapid rise in temperature, the set temperature is quickly achieved and the output power reduces. When the temperature drops below average, the output power will rapidly rise again and then taper off, repeating this process in milliseconds over the course of the firing time to create a constant.



The GX-180-HT also changed up the traditional key-press mode of operation by utilizing a touch screen. Unlike other chipsets that use 2.4-inch or larger TFT-LCD screens, the Asmodus chipset opts for a smaller sized OLED screen with improved touch sensitivity, guaranteed to look sleeker and outperform other screens.

Balance charging is another one of the GX-180-HT's capabilities. Helping bring two batteries under unequal conditions to equal voltage after charging, safety is greatly improved. When two batteries are not equal, the battery with higher power will be overcharged, which can result in a fire or explosion when certain conditions are met. Vapers are familiar with this functionality with chipsets such as the DNA 200, but the rate of charging occurs very slowly. Other chipsets claim to also have a balance charging capability, but they do not function as they should;

warnings such as “If there is a 0.3V difference in battery voltage between batteries, please do not charge,” are frequently found on competitors’ devices, because due to the internal resistance of batteries, different capacities and discharge currents, overcharging can still occur.

We here at Asmodus have spent more time and resources on resolving this balance charging solution to provide more effective and secure battery charging and longevity.

And last but not least of GX-180-HT’s capabilities is its system upgradability via USB, giving vapers a platform to communicate with and keep their devices up to date at all times.

Upgrades are divided into two types: network and local. Network upgrade refers to user installed client software on the computer and then connecting to servers over the network. Local upgrades refer to the user downloading update packages from official websites and installing the package themselves. Network upgrades can sometimes fail due to an incomplete transfer of the file online, or even anti-virus software interfering with the update, corrupting the data. The GX-180-HT opts for the local upgrade so no data error occurs and vapers are able to update at their own convenience.

All of this wrapped up in one tiny package is sure provide a positive impact on the vapor industry, and is the first of many more to come from us here at Asmodus!