





# INTRODUCTION

- The HP ProBook G4 retains most of the previous models' positive features and makes slight modifications to their specifications. It is hoped that most of these would be good for the model. One modification that is most likely to prove successful is the shift towards the Kaby Lake generation of CPUs.
- It is this change that has driven the price of this model up and in my opinion, some of its higher end variants would not be able to compete in the market since the TN panels and underperforming graphics processors are affecting its performance and market reputation to some extent. These models are generally the ones with the Core i7-7500U processor.
- However, these models are still better than the previous HP 450 G3 who's Radeon R7 M340 which underperformed and underwhelmed, particularly in the graphics department.
- However, keeping in mind that HP designs this series looking towards the business sector, the HP ProBook G4 is an option that should definitely be considered.







# SUMMARY

- HP ProBook is a series that is designed primarily for business and professional uses, it is a Windows 10 laptop with a resolution of 1366x768 pixels/15.60-inch display. It is oriented towards professionals and covers their processing needs. The HP ProBook G4 boasts of a Core i3, 7th generation processor, the Intel Core i5 and 500GB of HDD storage guarantees strong performance for business use.
- The HP ProBook series is targeted towards corporate professionals. Its clean-cut style with sturdy performance comes highly recommended for professionals. The HP ProBook 450 G4 boasts of an Intel Core i5 processor with 8 GB DDR4 RAM.
- Its one Terabyte hard drive and a streamlined design with 2.0 kg total weight means that it is a highly convenient laptop for professionals on the move and with long commutes

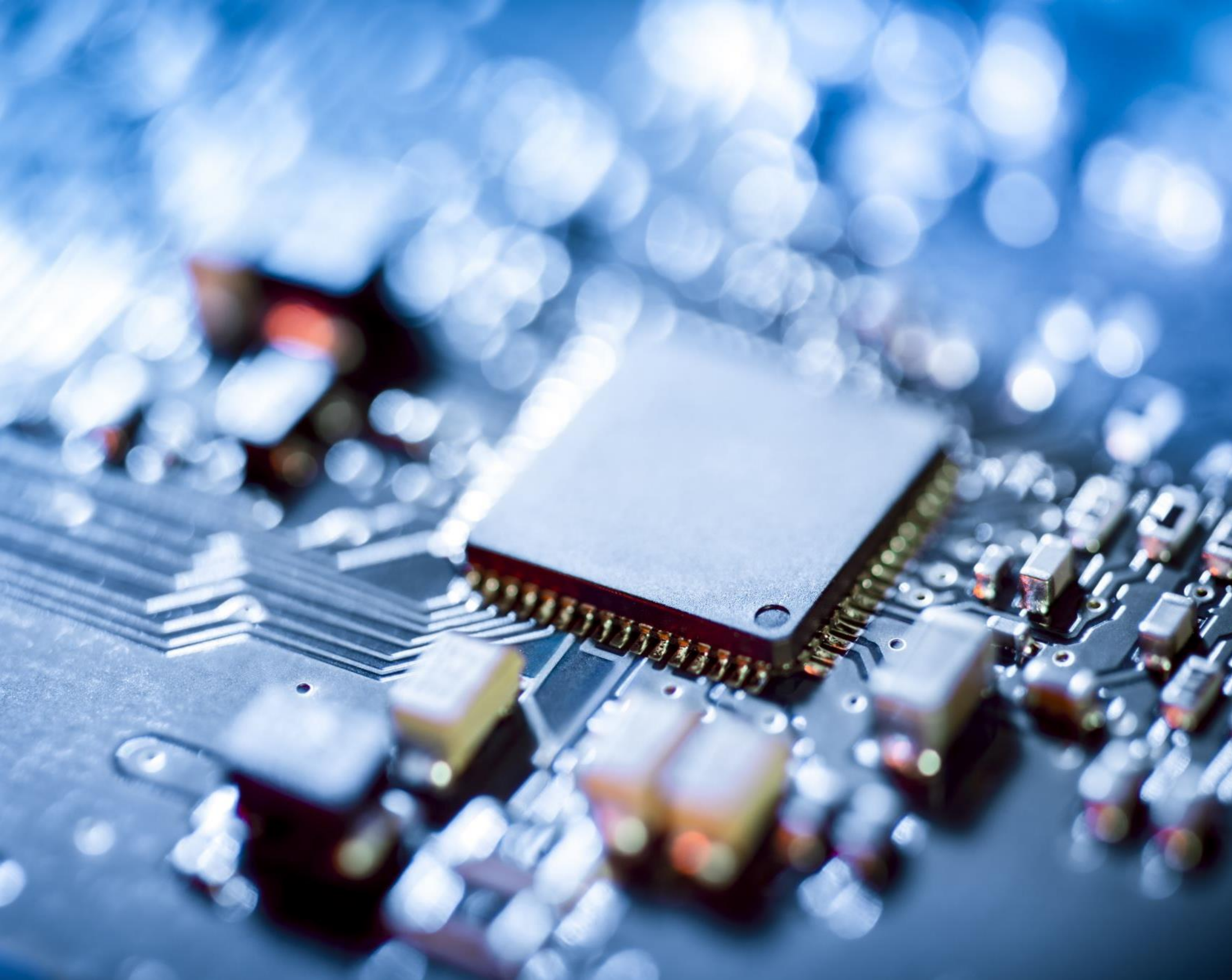


# SPECS RECAP

- The ProBook 450 features a 15.6-inch display, with an anti-glare backlit LED. The display has a screen resolution of 1366\*768 pixels. While gamers and people working in graphics may find this to be a poor resolution, it is enough for regular business users.
- The ProBook 450 has a 2 GB Nvidia GeForce 930MX graphic card. The inclusion of this graphic card has improved the display quality, making the display brighter for an enhanced viewing experience.
- The graphic card that the ProBook 450 has can support all the high-resolution games and run heavy graphic software. The output quality may not be very satisfactory for diehard graphic aficionados, but it would do for the average, less fussy user.







# PERFORMANCE

- The ProBook 450 G4 has an Intel core i5, which is a 7<sup>th</sup> generation processor with a speed of 2.5 GHz. The processor can generate a boost of up to 3.1GHz.
- It also has an 8GB DDR4 RAM, which helps to improve overall processing speed significantly.
- The storage is also good with a 500 GB hard disk drive. It runs at 7200 rpm to make this a sturdy memory offering.
- Stress tests reviews show that the system will perform over its lifetime. The stress tests are a good way to assess the effectiveness of the cooling system under heavy load.
- The system is checked at 100% CPU load for one hour to check the operating frequency of the processor.
- In the ProBook 450 G4 case, the CPU touched 3.5GHz for about a minute and then decreased to 3.0 GHz. The system did not overheat, and the cooling system maintained low temperatures.



# PORTABILITY

- This is a 2 Kg, or 4.4 lbs. machine with a 15.6-inch screen and the 48 Wh unit on the ProBook 450 G4 has been sufficient to keep the laptop for up to 12-14 hour stretches.

This is an improvement over the previous model is attributed to the new Kaby Lake Core i7 processor.

- Battery tests were performed with the Wi-fi on, battery saving features activated and screen brightness level at 120 cd/m2.





# DISPLAY

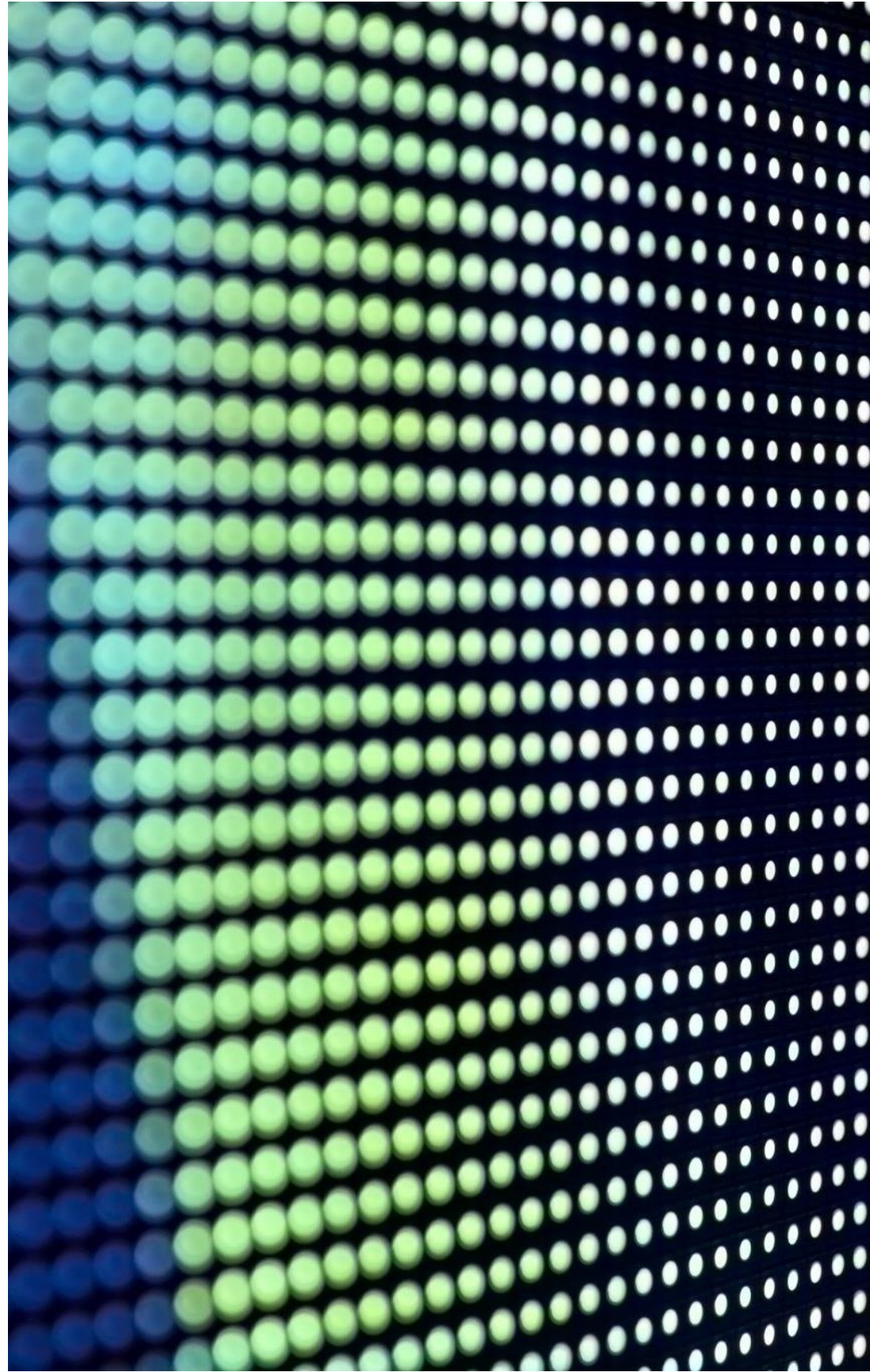
- The HP ProBook 450 G4 has changed into a hard, grey metallic look from the soft touch matte plastic finish of the previous models. This new look is slightly more difficult to grip and leaves very visible fingerprints across the metallic looking finish.
- The screen bending is still not an issue but considering the target market of business users it shouldn't be a concern. Opening and closing the laptop is a breeze because of the easy-to-use hinges. They allow single hand operation, which is a good perk.
- The base plate is also plastic and is also grey and fits into the overall laptop body without significant difference.
- The sides of the laptop are still the same as the older models. The side measures 24mm and has the usual ports, evenly distributed like in the older ProBook models.
- The sides also hold a VGA, USB 3.0, and USB-C 3.0 port as well as a SD card reader. The other side has lost a USB 3.0 port, which has been replaced by a Type C connector. It also has a 3.5mm audio jack, and a LAN Port.
- The interior of the laptop is almost unchanged from the older models, apart from the touchpad. This has transitioned into a single trackpad area with an accurate clicky feedback. The dedicated mouse buttons have been removed and the trackpad feels much bigger and better to use as compared to older HP models.
- The surface around the keyboard is also made from brushed aluminum with a concaved keyboard design for ergonomic comfort.

the keyboard seems to be similar to the previous models, but it seems to be different while actually typing on them.

- The give of the keys is lesser but the feel while typing is good once you get used to it. We would say that the keyboard is still highly comfortable.







# RESOLUTION AND GRAPHICS

- HP's ProBook 450 G4 has a CHI MEI CM15E3 TN display with 1920 x 1080 resolution, 142 ppi and 0.18 x 0.18 mm pixel pitch. The screen can be considered comparable to retina displays when viewed from a distance equal or greater than 60 cm.
- However, viewing the screen from an angle drastically reduces the viewing quality of the screen.
- Graphics are powered by Nvidia GeForce 930MX. Connectivity options include Wi-Fi 802. Bluetooth, Ethernet.



# OTHER THINGS TO CONSIDER

- Like the previous HP ProBook laptops, the 450 G4 also features all standard connectivity options. It has two 2.0 USB ports, one 3.0 USB port, and one more USB Type-C port.
- It also has an HDMI port which makes it is easier for users to connect the laptop with external devices. A combo jack for headphones or microphones is also there.
- The laptop has a 4-cell battery which has a charge life of up to 5 hours. The laptop has a 720p HD Webcam which will make it easier for video calling.
- The sound output is good and there is no distortion or warbling in the speakers in low or high frequencies



## PROS

- The laptop has a sturdy, practical and portable design with good quality input devices, multiple output ports and excellent battery life.
- This is a work horse of a laptop, it will handle routine processing well, with or without power support.
- It handles battery usage well, allowing professionals on the move a good support for their routine commute.

## CONS

- There is only one USB-A 3.0 connector, a low graphics enabled screen.
- The battery is not user accessible.
- This model is not intended for gamers or high graphics purposes and should not be used for this purpose.



# BOTTOMLINE

The HP's ProBook range has been popular for many reasons and the legacy is a difficult one to live up to. In most regards the ProBook G4 lives up to the legacy of the ProBook range while offering minor cosmetic and technological changes except for the CPU.

The upgrade to the newest Kaby Lake generation of CPUs will be more than beneficial.

So, to sum it all up, the HP ProBook 450 G4 performance delivered above expectations. The design is slightly amended, the surface is left with comparatively lesser smudges and prints but still has a good feel.

The model is not significantly improved over the previous ProBook in physical terms, but it has decreased in both weight and size over the previous model. The keyboard is the same as the previous models while the changed touchpad has been an improvement over previous generations. The touchpad experience is excellent.

What is really better is what is inside the body. With its recently added Kaby Lake Core i7-7500U processor, the HP ProBook 450 G4 gives improved processing performance and more processing performance even when on battery and off from the charger

The shift from the AMD Radeon R7 M340 to the NVIDIA GeForce 930MX is also an improvement as this allows the laptop to handle not only for multimedia processing but cope with the requirements of some light gaming as well

We can safely claim that the HP Probook 450 G4 is a laptop that is highly recommended for professionals that are looking for portable, and sleek design coupled with efficient and practical design.