

NATURAL RESOURCES

Emesent

Getac's V110 fully rugged convertible notebook helps drone autonomy and mapping developer Emesent provide mining customers with an all-inclusive solution to map uncharted territories in underground mining fields

/ Challenge /

Emesent was launched in November 2018, with a purpose to deliver revolutionary efficiency, safety and operational insights in challenging environments such as underground mines. The company's smart mobile scanning unit, Hovermap, can be mounted to a drone or handheld to provide autonomous mapping and capturing Light Detection and Ranging (LiDAR) data. To provide mining companies with a complete solution, Emesent needed to have a device that was able to withstand extreme mine conditions and to complement the Hovermap and drone. The harsh working conditions presented in underground mining meant that the device had to be rugged enough to withstand extreme environments, and be compact enough to be easily carried around.

/ Solution /

Emesent found the perfect solution in the Getac V110 convertible. The rugged device can be used as a drone control platform thanks to several features. It can easily transform between a display notebook and a tablet computer, depending on where or when it is used. Additionally, its weight of 2.1kg and dimension of 39mm, makes it compact and lightweight enough for users to carry around without much effort. The V110 is also made from high quality magnesium alloy, with an advanced rugged polymer in areas of less impact and rubberised absorption polymer at the main points of contact, making it drop-resistant. The fully rugged convertible features a hot-swappable dual battery design, allowing for uninterrupted battery life. In addition to the key features, Getac's V110 comes with a full-size waterproof membrane keyboard and red backlight, allowing users to type accurately even in the dimmest conditions. The device also features flash storage and responsive graphics, making it an excellent convertible notebook.

/ Benefit /

With Getac's V110, Emesent was able to provide mining companies with a rugged device that could complement its product operating in challenging environments. Some of the features that were especially useful were its ability to convert from a notebook to a tablet, making it easy to switch between functions on and in the field. Miners also appreciate that it can withstand drops, high dust, moisture and other extreme conditions in underground environments. The fully rugged convertible device also features a unique, hot-swappable dual battery design that allows for reliable and lasting battery life, without the need to charge in between. This makes it more convenient for a mining team that spends long hours in the fields.

/ Quote /

"Safety and operational hazards at workplaces are important factors for mining companies, and we want to supply them with a comprehensive solution that not only enables them to operate but also improves efficiency without hassle. Harsh conditions in mining meant that we needed a device that was rugged enough and able to complement our smart mobile scanning unit. That is why we selected the Getac V110. Its ability to convert from laptop to tablet provides users the flexibility of both options. We also appreciate its hot-swappable dual-battery feature that enables users to process the LiDAR data underground regardless of whether they have access to power."

Dr. Stefan Hrabar, CEO and Co-Founder of Emesent



Getac V110
Fully Rugged Convertible

/ Challenge /

Mining conditions include rocks, dust, humidity and unstable surfaces. Miners may also encounter areas that are possibly explosive and hazardous, and that is why having the ability to evaluate the danger levels of areas before actually exploring them is very important. Nowadays, when exploring new underground areas, more operators use "robots" to first assess the condition of the environment before deciding on next steps. Emesent needed a device that was able to withstand environmental challenges while being able to work seamlessly with the drone and Hovermap to fulfil the demands of data-gathering and processing in situ.

/ Solution /

Getac's V110 is a compact and lightweight convertible that can be quickly transformed from an 11.6-inch display notebook to a tablet computer. Weighing just 2.1kg and being 39mm thin, the convertible is compact and lightweight enough to be carried around without much effort – a feature that is crucial for mining teams. Built from high quality magnesium alloy, V110 is able to survive in harsh working environments thanks to advanced rugged polymer installed in areas of less impact

and rubberised absorption polymer on main points of contact.

The fully rugged convertible also features a hot-swappable dual battery design to allow for long-lasting battery life. This is especially important for miners as they would typically have to be underground around the clock and perform multiple tasks on the devices for long hours such as inspecting a stope from a safe distance and monitoring the convergence in underground areas.

The V110 can be configured with cutting-edge Intel® Core™ processors to deliver an excellent level of CPU performance. The V110 also features flash storage and responsive graphics, making it a class-leading convertible notebook. This device comes with four advanced touch modes (Touch/Rain, Glove or Pen mode, plus an optional Digitiser mode) and a hard-tip stylus that offers precision when accessing apps or taking notes. It also features a full-size waterproof membrane keyboard and red backlight to allow users to type accurately even in the dimmest conditions. Additionally, LumiBond 2.0 touchscreen technology bonds the display glass with the touch panel and LCD, creating a single pane that is more durable and readable with better contrast and crisper colours than any other rugged laptop displays.

/ Benefit /

Getac's V110 boasts a strong metal chassis. The robust convertible is specifically engineered to withstand drops, high dust, moisture and other extreme conditions, making it extremely useful for miners faced with various challenging situations. In addition to its ruggedness, the convertible feature enables users to easily switch between a notebook and a tablet on and off the field. Miners also appreciate its unique, hot-swappable dual battery design that allows for lasting battery life, making it more feasible to spend long hours in the fields.

/ About Emesent /

Emesent is a world-leader in drone autonomy, LiDAR mapping, and data analytics. Founded in 2018, Emesent has since built a reputation for delivering high-quality data capture in the mining, infrastructure, survey and mapping industries. Their flagship product, Hovermap, is a smart mobile scanning unit that combines advanced collision avoidance and autonomous flight technologies to map hazardous and GPS-denied environments. Hovermap is uniquely versatile, it can be handheld, drone-or vehicle-mounted to map challenging, inaccessible areas. With a wide range of applications, Hovermap is being used by customers around the world.

