



THE TOP 10 BENEFITS OF RUGGED MOBILE DEVICES

WHY RUGGED DEVICES PERFORM BEST IN ALL APPLICATIONS





Introduction

A rugged tablet or rugged mobile device is an industrial device that has been enhanced with protective features that allow it to perform in the most extreme or hazardous environments. These devices feature specific certifications like the MIL-STD-810G drop rating, and ingress protection (IP) designations. There are a variety of rugged tablets and rugged smartphones available, in a wide range of sizes and operating systems to suit any individual application. The following ten reasons will explain what makes a rugged mobile device the most practical choice, no matter what the environment:



Durability

Many standard touch tablets suffer from a sense of fragility, which limits their usefulness in rough or dangerous environments. Rugged tablets, however, thrive in environments where similar technology would fail. Whether being used outside in inclement weather, or on the job in industrial or construction sites, or even by rowdy school kids during recess, rugged tablets and rugged smartphones are made with tough exteriors and reinforced components that are built to withstand abuse. These IP rated devices exhibit supreme water and dust protection, while their MIL-STD-810G drop certification is proof of protection against multiple falls from up to 1.8 meters.



Portability

Rugged mobile devices range from smaller single-handed smartphones, to brawny tablets with oversized rubber shells. While rugged phones still slide easily into your front pocket, both rugged smartphones and rugged tablets are substantive, and feel hefty in your hands. You won't feel the need to be delicate with these devices, and they inspire confidence in rough conditions. Rugged smartphones and rugged tablets can also be paired with standard off the shelf mounting hardware to be installed in a vehicle, on a desktop, or mounted to a wall, making them perfect for applications such as an Uber or taxi navigation device, or for an HMI input to larger industrial machinery.

Battery Life

All battery powered rugged devices employ the use of rechargeable Lithium-ion batteries. These batteries are high-energy, lightweight, and eco-friendly compared to other battery types, like Lead-acid or Nickel-Cadmium. Rugged tablet battery capacities can reach up to 10,000 mAh, meaning you can expect all-day performance without the fear of a dead device. User adjustable settings like backlight control, vibration control, and power saving modes help to extend battery life even further. Some rugged devices offer different methods of charging, either via 5V USB connections or 12V DC barrel jacks, while other rugged devices can forgo a battery altogether, and are instead powered directly via DC input (perfect for "Always On" applications like wall-mounted control tablets).





Performance

Rugged devices have computing power provided by either quad-, octa-, or deca-core processors. This allows for heavy app usage, video processing, gaming etc. These processors are also power efficient and able to regulate lower power tasks to the background, while maintaining the performance of more power intensive information processing in the foreground. High storage capabilities allow for massive amounts of data storage, often up to 128GB of internal storage, with more storage available via SD cards and cloud storage.

Operating Systems

Android, Windows, and Linux operating systems are all available for rugged mobile devices, meaning there is plenty of variety in the user interfaces available. 90% of rugged tablets and rugged smartphones use the Android platform, but they are not inherently limited to the latest Android build or design. Many devices offer legacy platforms from Android 4.4 and up. Other rugged devices offer Windows 10 home, which gives the user both a standard mobile interface as well as the classic Windows desktop operating system. Linux operating systems are the most flexible, allowing the user access to back-end processes and endless customization.



Flexibility

Rugged tablets and smartphones can be used for many different purposes, from pleasure driven experiences like watching movies and playing games, to more serious services like mobile payment platforms, human-machine interfaces, and educational tools. With features such as RFID and NFC, rugged devices can be used as inventory tracking tools and timeclocks. With their capacitive touch screens, rugged tablets and rugged smartphones can be used with gloved hands, such as those that may be worn by a doctor or dentist. Accessories such as shoulder and hand straps allow rugged devices to be carried on-site and accessed quickly and easily, while styluses allow for quick note taking and signatures.



Touch Capability

Rugged mobile devices employ the use of PCAP touch screens, which means they offer multi-touch support, pinch and zoom, are reliable in wet conditions, work with gloved hands, are stylus compatible, and are far more durable than other forms of touch screens (such as resistive touch). PCAP touch screens are dirt and dust resistant, and offer better optical clarity than other touch screens, which means brighter, more vibrant displays.

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Cost

Rugged devices cost about the same as the high-end consumer tablets from the well know major manufacturers, but also have the reassuring benefits of added durability. For customers who plan on using their tablets for many years, the cost of a durable rugged tablet or rugged smartphone becomes substantially lower than a typical consumer device, which can be expected to be replaced, or at least serviced and maintained frequently, if used in harsh environments. The enhanced productivity of using a rugged mobile device versus other technology is another, often overlooked, cost saving aspect.

Productivity

Because rugged devices are mobile and durable, employees can take their devices confidently to job sites, share work with networked devices, and use the device as a tool rather than as a delicate utensil. Because rugged devices are much less prone to breaking, employees can avoid the downtime that comes with having a consumer tablet or smartphone sent in for repairs. Employees can feel confident in the equipment and in their ability to use it without fear of damage.

Customization

Many rugged mobile devices are highly customizable to suit the individual needs of the customer or application. Because most of these devices are industrial in nature, they are not subject to large production runs with locked down components and strict assembly lines. By working closely with the manufactures of rugged tablets and rugged smartphones, customers can make many requests and changes that amount to a personalized device and a unique computing experience. For example, it is often possible to request certain operating systems, storage amounts, or CPUs. Other optimizations include plastic colors changes and molding designs. Customers can even have personalized versions of there own homemade apps preinstalled to ensure compatibility at the factory level.



Conclusion

No matter the environment or application, a rugged mobile device can outperform, outlast, and cost less than the typical consumer device. From enhanced durability, to high-powered portable computing, a rugged mobile device is the most practical choice for people working in extreme conditions. Rugged mobile devices can help you and your business increase productivity, and decrease cost, and a rugged mobile device can be customized to no limits, or paired down to meet the most basic of needs. Ultimately, a rugged mobile device is the right choice for anyone who needs a long lasting, economic, and durable mobile computing device. To learn more about AGDisplays products and services, and to view our selection of rugged tablets and rugged smartphones, please visit our website at www.agdisplays.com.