

## FEATURE CHECKLIST

### *For Military and Tactical Operations*

*This checklist lists features of rugged devices that commonly come into play in Military and Tactical operations. It is recommended you pay special attention to these points as you research different rugged device options for your own specific applications.*



#### **MIL-STD 461F CERTIFIED**

Frontline and military computing places mobile devices straight into the heart of battle. 461F ratings cover electromagnetic emissions, allowing an electronic item to operate safely in a frontline environment without emitting signals that might compromise the security and integrity of the mission and military unit. RE102 certification, a sub-test segment within MIL STD 461F, is particularly important. This test ensures radiated emissions don't peak above a certain level, which prevents tracking by enemy combatants.



#### **HIGH ACCURACY GPS**

Real-time battlefield intelligence in an ever changing frontline or tactical situation can be the key to military success, and location data must be reliable for correct navigation. To access the most up-to-date location information, a rugged military mobile device should come equipped with an integrated GPS, with at least two meter or sub-meter accuracy. This allows uninterrupted flow of battlefield info, without having to bring in another piece of equipment. In addition, a GPS should be rugged enough to withstand battlefield conditions, and sensitive enough to pick up low-level signals in adverse conditions, like heavy cloud cover.



#### **RUGGED DROP SPECS**

Being deployed in dynamic tactical operations, all equipment used by frontline forces must be designed to handle the abuses that come with military operations. A mobile device must be able to handle the shocks and crashes from real world operations. Look for devices that test for the highest drops (4' and over), and drop certifications that test to bare concrete. These specifications are available in MIL-STD-810G ratings. In addition, devices should utilize Solid State Drives, which have no moving parts and are less susceptible to shocks.



#### **WATER/DUST PROOF (OVER IP67)**

Military operations take place all over in the world, in every imaginable environment, from the harshest deserts, to the wettest jungles. Exposed to the elements, a mobile device for battlefield operations must be completely dustproof and water submersible to prevent malfunction due to ingress. This means an ingress protection rating of at least IP65, but IP67 or higher is recommended for the toughest conditions.



#### **SUNLIGHT READABLE SCREEN**

In the heat of the action, military personnel cannot afford to be hindered by an underperforming display. The display must be viewable in both direct and indirect sunlight. True sunlight viewable screens usually have multiple layers such as anti reflective/glare and circular polarization for true sunlight readability.



## TOOL-LESS ONSITE REPAIR

As a critical piece of equipment, military mobile devices must be able to operate for the entire duration of deployment. If a mobile device does go down, getting it back up and operating is a priority. Tool-less repair capability means that the device can be restored to functionality in the field by the user, to minimize potentially dangerous downtime. Toolless access to the battery, and “hot-swappable” options also allows users to switch out a dying battery without turning the tablet off, further preventing downtime.



## RUGGED RATING: MIL-STD-810G

MIL STD 810G certifications are a must in the military space. The test protocol ensures the highest degree of reliability and ruggedness for a mobile device. MIL-STD-810G covers a broad range of requirements – operating temperatures, drops, vibration, shock, thermals, altitude, salt/fog, etc. In addition, Mobile devices can range in spec for certain sections of the MIL-STD-810G tests. For example, device operating temperature must be at a certain level to pass MIL-STD, but temperature ratings are different for each device. Therefore, it is recommended you closely review each MIL STD 810G test certification.



## NVIS CAPABILITIES

NVIS capability allows for continued operations under the cover of darkness. To maintain an advantage of stealth that low light/no light operations can give to modern military forces, the mobile device in use should also be able to be dimmed down to the point where NVIS can be utilized.



## HIGH-LEVEL SECURITY

In a security conscious environment such as the military, it is critical to keep data restricted to key authorized personnel. This can be accomplished through the use of integrated CAC card readers, which makes a device unable to be used without a CAC card first inserted. CAC is also typically a requirement in FIPS certifications, which is a set of security protocols that all government and military personnel must adhere to. An integrated biometric fingerprint reader can also be advantageous for security, as it prevents unauthorized personnel from booting up the hardware.

