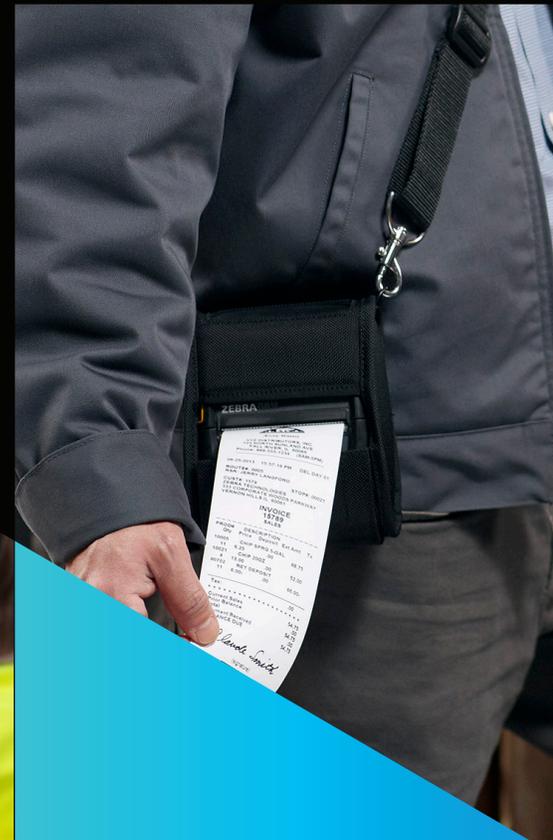




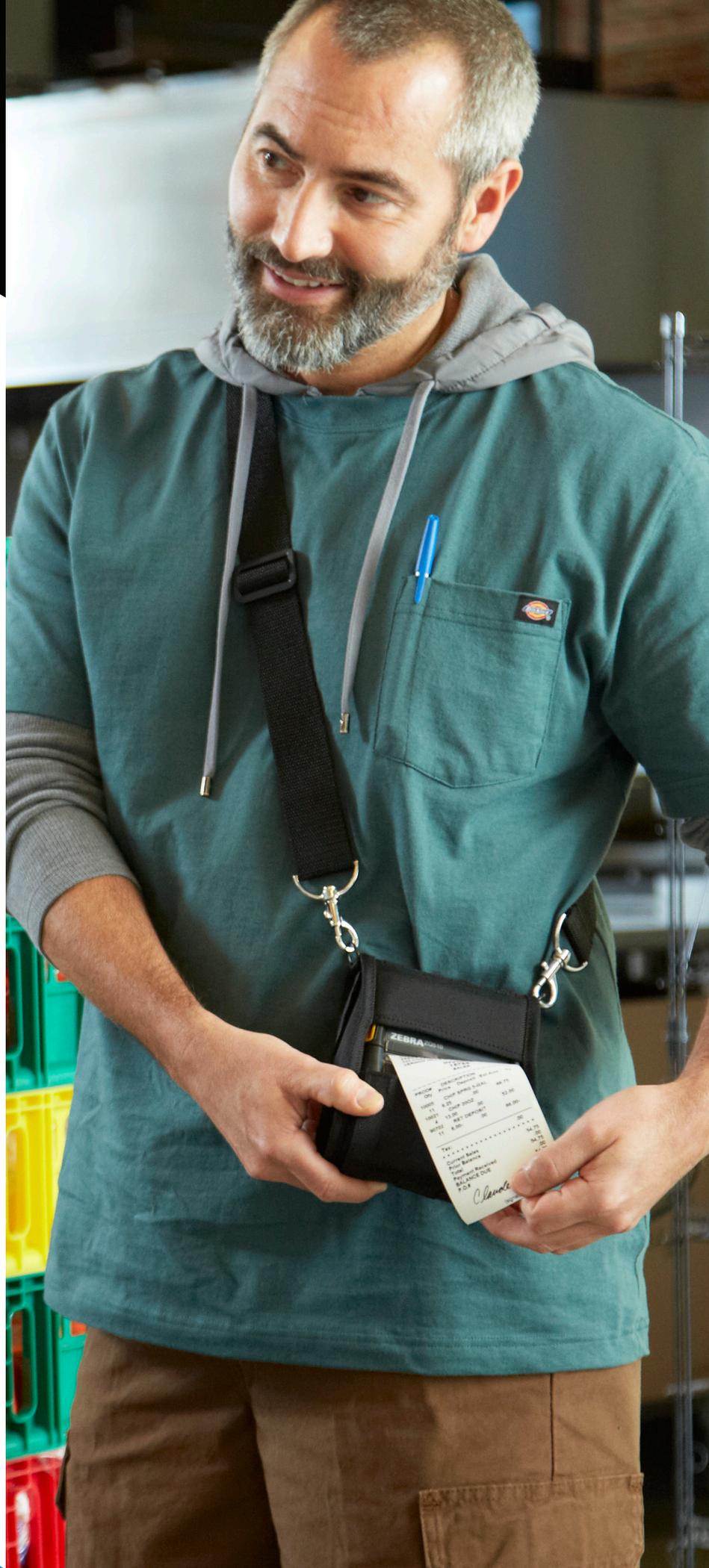
Top Ten Questions to Ask Before Purchasing Your Next Enterprise Mobile Device

White paper



Is Your Mobile Device Durable Enough to Deliver Peace of Mind?

If your company supports a mobile workforce, investing in rugged devices means you're investing in peace of mind. You can rest easy knowing that your mobile team is using the best device for the job. The good news is that investing in rugged devices not only increases your peace of mind, it also reduces your costs. Because when it comes to supporting the unique needs of mobile workers, non-ruggedized mobile devices cost your company more money in the long run. In fact, over five years, a non-ruggedized mobile device typically costs 50 percent more than a rugged enterprise-grade mobile device.



Answer These 10 Questions Before Purchasing Your Next Enterprise Mobile Device

The Aberdeen Group found that an enterprise supporting 1,000 mobile devices will likely spend \$170,000 more per year to support consumer-grade mobile devices versus enterprise-grade mobile devices.

To achieve the cost-savings and confidence offered by rugged devices, however, your company must select mobile devices that are designed with the kind of durability that holds up in real-world conditions. That's because no two mobile devices are the same – even if they meet the same industry-defined durability standards.

In many cases, a mobile device might meet the basic standards requirements but still will not hold up in the face of the environmental challenges that a mobile worker faces every single day. That's why it's important to ask some basic questions when evaluating your mobile device.

To avoid being fooled by manufacturers that meet only basic standards requirements, be sure to ask these questions before you buy:



1 What Specific Surfaces Did You Drop This Mobile Device – and How Far Did it Drop?

All drop tests are not created equally. Electronic and computing devices break much more easily when dropped directly on concrete versus being dropped on wood, carpet or plywood over concrete. They also break much more easily when dropped from greater heights. Make sure the mobile device you're considering has been repeatedly dropped from various heights on all types of surfaces – especially the most unforgiving ones like concrete.

2 How Many Times Did You Drop This Device During Testing?

When testing, many manufacturers will complete the minimum number of drops required by the industry standard. But in real-world operations, mobile devices are likely to be dropped many more times than the testing standards require. Make sure to ask the manufacturer how many times the mobile device has been dropped while tested. Remember, the more drops, the more closely the tests represent real-life scenarios.



3 Did You Drop This Mobile Device on All of its Sides?

Many manufacturers will conduct their drop tests by only dropping the mobile device on its most durable side. In reality, that device is going to be dropped on its side, its corners and on the display itself. So be sure to ask your manufacturer exactly what part of the device actually hit the floor during testing.

4 Did You Put This Mobile Device Through a Tumble Test?

Drops and tumbles affect mobile devices differently. That's why it's important to test for both. And while most mobile devices are subjected to repeated drop tests, tumble tests are not as common. Make sure to ask if the device you are considering has been tumble tested and how it fared during those tests.



Can Your Mobile Device Handle the Cold?

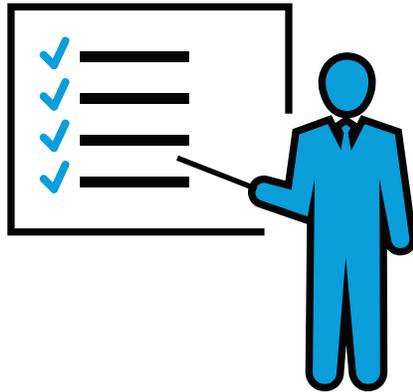
Not only do mobile devices become more brittle in extreme cold (making them more likely to crack when dropped), they can also begin to function incorrectly. For instance, a mobile printer can stop printing in cold temperatures. In mobile computers, temperature can affect both screen-refresh speed and battery life. All these operational issues can cost you money. So be sure to ask if your manufacturer has tested a device's operation both in extreme cold and heat.

5 Did You Conduct Your Testing Under Extreme Hot and Cold Temperatures?

Colder temperatures cause plastic to become more brittle – and thus more breakable. That's why it's important to ask whether drop and tumble tests were performed in a wide range of temperatures. In addition, the operation of mobile devices should be tested in all kinds of temperatures to monitor issues that could reduce the productivity of mobile workers such as screen fog.

6 Does Your Testing Emulate Real-World Conditions?

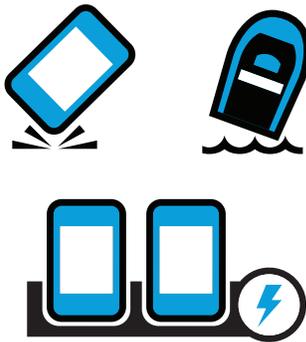
Be sure to ask if the manufacturer has tested the product based on real-world conditions. For instance, mobile devices such as printers in particular are more likely to be damaged by environmental factors such as dust and water because they must produce printed documents – and therefore have openings in the device that are more exposed to the elements. Thus water and dust testing should be conducted on the same parts of the mobile printer that are exposed when the printer is worn on a worker's belt. The durability of mechanical parts should be tested based on real-world conditions as well. For instance, a mobile printer's media cover should be opened, slammed shut, bumped and tumbled many times during testing – just as it will be in daily use – to verify the durability of the hinge, the latch and the media cover itself.



7 How Do You Define a “Passed” Test?

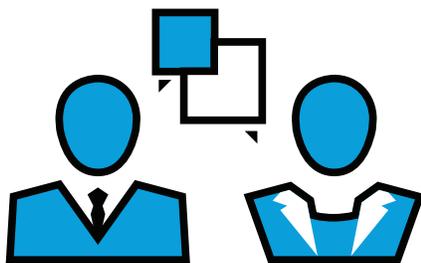
Many of the durability standards defined by the industry are flexible standards, which means that two rugged devices that both comply with a particular industry specification might exhibit very different durability in real-world usage. So don't be afraid to ask some specific questions, such as: What level of protection does your device offer against exposure to liquids or solids such as dust – and how is that protection specifically defined? For instance, for liquids, the lowest level of protection simply guards against dripping water while the highest level protects against complete device immersion.

8 How is This Device Designed Specifically for Greater Durability?



When it comes to durability, the devil is in the details. And that's why it's worth taking a good hard look at the details of a mobile device's design when buying. For instance, examine the display on the device. Is it recessed for better protection? Check out the latches. Are they plastic or a more durable material like stainless steel? Does the device have drain holes and rain gutters to keep water from draining into the electrical components or pooling on the screen? Are there separate covers for USB and charging ports that offer additional protection against dust? Are the buttons large enough to be easily operated when wearing gloves – thereby reducing the chance of the device being dropped?

9 Did You Test the Durability of the Product's Accessories?



Not all mobile device accessories and supplies are made the same either. For example, in the case of mobile printers, printed citations that are placed on cars need to be able to withstand sun, rain, humidity and other potentially damaging environmental conditions. In some cases, the mobile device you are considering can be made more durable or less durable by the accessories you use. For instance, adding an external case to the mobile device might increase its durability or the right cradle could provide additional protection by better securing the device. In contrast, durability could be lowered if the charging cradle causes too much vibration.

10 How Were Your Testing Procedures Developed?

Manufacturers that go the extra mile base their testing procedures on actual feedback from their customers – not just on laboratory-based industry standards.

Zebra's Rugged Mobile Devices: Testing at a Grade Above the Rest

Zebra's mobile devices have undergone rigorous durability testing that goes beyond basic standards requirements and simulates the real-world environment of mobile workers.



Mobile Computers

With the industry's largest portfolio of Android mobile computers and extensive line of rugged mobile tablets each optimized for real-world productivity and harsh environments. Designed specifically for the demands of your industry to endure hazardous conditions, temperature extremes, repeated drops to concrete, exposure to water and dirt. When it comes to mobility, no one can push your performance edge like Zebra.



Mobile Printers

Zebra's rugged ZQ511™ and ZQ521™ mobile printers exhibit a patented, military-grade design that provides exceptional durability and reliability in the toughest environments. These printers can withstand the drops, bangs, bumps, accidents and environmental extremes that are common in a wide range of mobile workplaces — making them ideal for on-the-go employees whose productivity depends on maximum printer functionality.



Scanners

Zebra offers a wide array of ruggedized scanners built to withstand heavy use and harsh conditions in a variety of mobile applications, including warehouses, manufacturing facilities, outdoor yards and seaports. The 3600 Ultra-Rugged Series of handheld scanners combine superior scanning performance, the highest drop, tumble and sealing specification in their class, and unrivaled manageability. Sixteen corded and cordless models are available to meet the needs of virtually any industrial scanning application.

Zebra Rugged Device Leadership Series

This white paper is one of a series examining how rugged devices help enterprise workers face the unique challenges of a mobile environment.

For more information on Zebra Technologies products or to find a supplier near you, please visit www.zebra.com



NA and Corporate Headquarters
+1 800 423 0442
inquiry4@zebra.com

Asia-Pacific Headquarters
+65 6858 0722
contact.apac@zebra.com

EMEA Headquarters
zebra.com/locations
contact.emea@zebra.com

Latin America Headquarters
+1 786 245 3934
la.contactme@zebra.com