

Rugged PCs: Providing value through reliability

A Technology Business Research Inc. study
conducted for Panasonic

April 2013



TECHNOLOGY BUSINESS RESEARCH, INC.

Rugged PCs: Providing value through reliability

The *Rugged PC Repair Rate Study* conducted by Technology Business Research Inc. on behalf of Panasonic revealed opportunity for Toughbook customers to save on warranty repairs in the initial three years of ownership with lower incidences of repairs than the rugged PC industry on parts that fail most often.



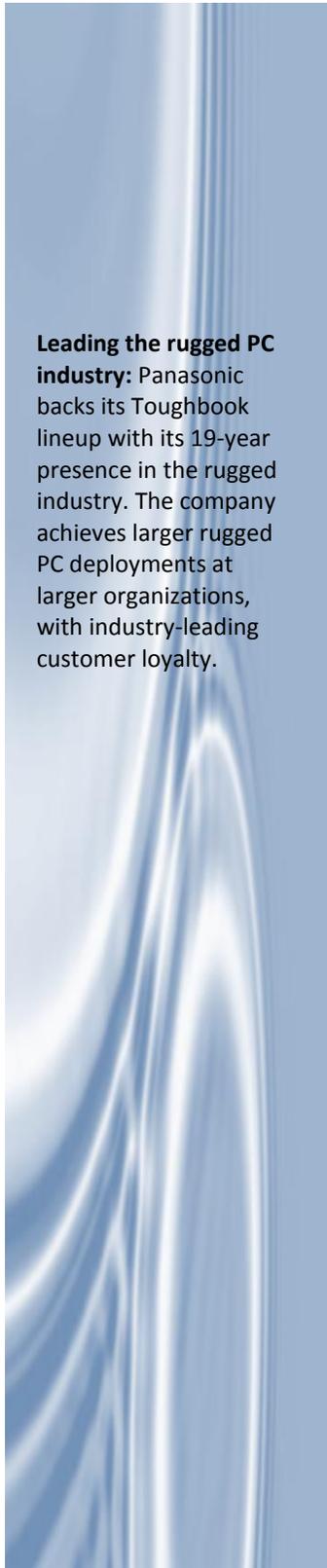
Executive Summary

People who work in demanding computing environments require PCs that can withstand elements and accidents. These customers expect their PCs to be up and running, despite the environment, and, as a result, look for a PC vendor to partner with that can meet these needs. In November 2012, TBR conducted a survey of IT professionals who oversee rugged PC support to measure repair rates, customer loyalty, warranty documentation procedures and other factors that affect customers. TBR's *Rugged PC Repair Rate Study* findings show Panasonic's Toughbook line earns strong customer perceptions in three ways: industry-leading¹ customer loyalty compared to other rugged PC brands, lower warranty repair rates against the industry in the first three years of ownership and fewer repairs on screens and drives — the most commonly reported warranty repair by respondents.

TBR research indicates Panasonic's warranty repair rates trend lower than industry rates in the first three years of ownership. Additionally, TBR research shows repair rates are even lower among customers who formally track warranty repairs; less than 1% of Toughbook PCs required warranty repairs in the first two years of ownership. Panasonic customers reported warranty screen repairs 32% less frequently than the rugged PC industry average during the first five years of ownership. Of Toughbook customers, 67% surveyed said they would definitely buy Toughbook again based on its strong repair rates, compared to a rugged PC industry average of 51%.

Since 1994, Panasonic has catered to the demanding computing environments of verticals such as manufacturing, emergency services, healthcare and public sector with its Toughbook lineup by designing and building devices with specific levels of ruggedness that meet varying customer needs and budgets. Business-rugged devices are designed for customers who need greater PC protection than standard PCs in a business environment. Semirugged systems offer added layers of protection without the extra weight of fully rugged devices including a drop rating up to 36 inches, improved outdoor visibility and port covers. Fully rugged products can withstand all weather conditions, have advanced hard drive protection, a drop rating up to 72 inches, superior outdoor visibility and reinforced port covers.

¹ Industry average is based on a combined group of respondents who own fully rugged or ruggedized PCs from one or more of the following vendors: Dell, Getac, Itronix, Motion Computing, HP, Lenovo and Panasonic.

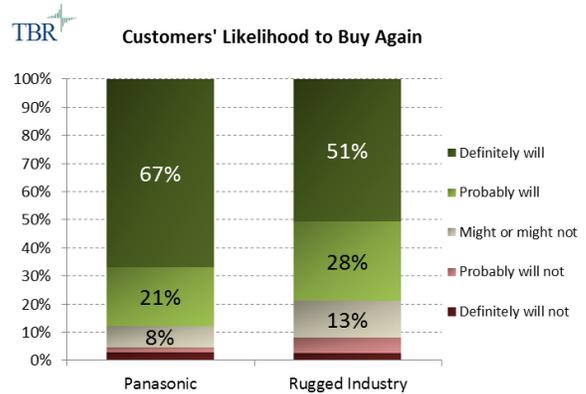


Leading the rugged PC industry: Panasonic backs its Toughbook lineup with its 19-year presence in the rugged industry. The company achieves larger rugged PC deployments at larger organizations, with industry-leading customer loyalty.

Toughbook PCs are engrained in customers' rugged business work environments

Panasonic's positioning as a leader in the rugged PC space is backed by its loyal customers with large Toughbook install bases. TBR research shows Panasonic's mean rugged PC install base per customer is nearly double the industry average, with 50 Toughbook PCs installed per customer.

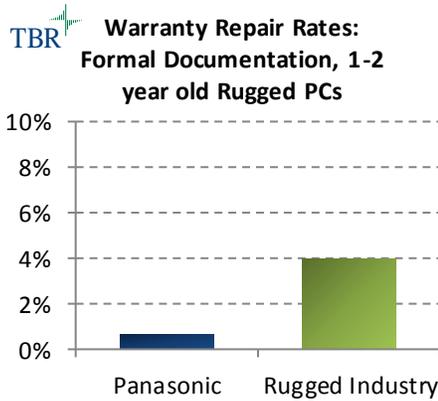
Reliability is essential to rugged PC customers who operate under more extreme environments than traditional PC users. Panasonic's Toughbook line has achieved highly loyal customers through its low warranty repair rates – providing a strong value proposition by minimizing downtime. TBR research found that 88% of Toughbook customers are highly likely to make a repeat purchase based on satisfaction with repair rates. Only 4% of Panasonic customers reported they are unlikely to make a repeat purchase.



SOURCE: TBR
Note: Rugged industry average is based on a combined group of respondents who own fully rugged or ruggedized PCs from one or more of the following vendors: Dell, Getac, Itronix, Motion Computing, HP, Lenovo and Panasonic.

Low repair rates and long product lifecycles demonstrate Toughbook reliability and cost savings

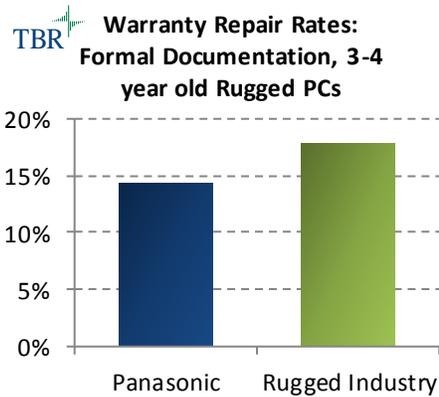
IT managers are tasked with determining the value provided by computing devices based on long-term reliability and costs, which can be a challenge without formal tracking of PC repairs and expenses. Formally tracking warranty repairs provides companies a deeper understanding of IT expenditures and potential opportunities to reduce IT costs. TBR's *Rugged PC Repair Rates Study* shows that 60% of Toughbook customers who use a formal system to track warranty repairs reported lower warranty repair rates than Toughbook customers who informally track warranty repairs.



SOURCE: TBR

provided by rugged computers.

According to TBR survey results, Panasonic Toughbook customers reported the lowest documented warranty repair rates in the first three years of ownership compared to the rugged PC industry average. Toughbook customers who track warranty repairs reported less than 1% of rugged PCs needing repair in the first two years of ownership, compared to an industry average of nearly 4% in one-



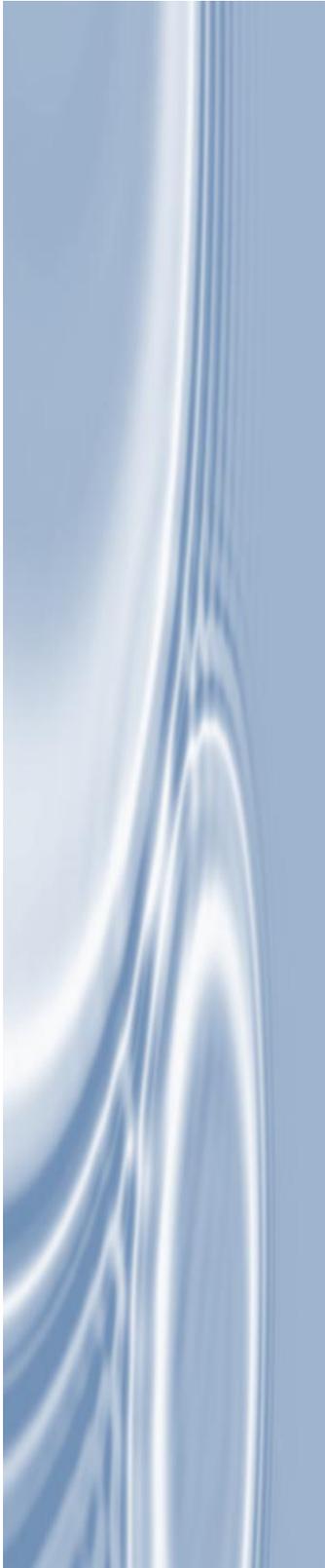
SOURCE: TBR

Toughbook customers within the one-to two-year ownership range who do not have formal warranty repair tracking systems perceive warranty repair rates of 13.9%, while customers with a formal system for tracking repairs reported only 0.6% of systems requiring warranty repair. This misperception of actual repairs emphasizes the benefits of formal tracking systems to better understand IT expenditures and cost savings

to two-year ownership range. The documented leading reliability of Panasonic Toughbook PCs also leads to longer ownership cycles for the rugged systems. This leads to a richer value equation, as customers lengthen upgrade cycles and reduce capital expenditures. In the *Rugged PC Repair Rates Study*, 24% of surveyed Panasonic customers reported owning a Toughbook up to 5-years old, compared to an industry average of 15%.

Toughbook products offer superior protection of the most vulnerable components of rugged devices

IT managers indicated that over five years of rugged PC ownership, screens and drives are the components most commonly reported for warranty repairs. As a result, screens and drives are leading to PC downtime and increased TCO more frequently than other components. According to TBR's *Rugged PC Repair Rates Study*, 29% of rugged PCs industrywide required warranty screen repairs and 21% of rugged PCs required drive repairs within the first five years of ownership. During the same period of ownership, Panasonic rugged PC respondents reported warranty screen repairs 32% less frequently than the rugged PC industry average and hard drive warranty repairs 16% less frequently



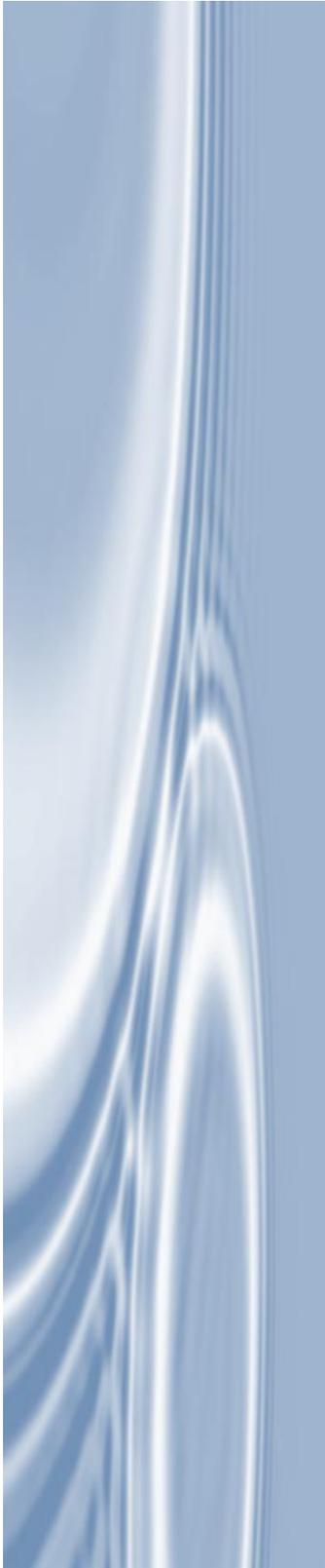
than the rugged PC industry average. Additionally, Panasonic rugged PC customers reported outer casing damage warranty repairs 19% less frequently than the rugged industry average. Toughbook devices deliver businesses value by reducing downtime and expenses through fewer repairs on components that are more likely to require repair.

Conclusion

TBR research indicates that Panasonic, as an established Rugged PC vendor, offers customers superior value through reliability, customer service and a broad portfolio of products. Toughbook devices provide businesses value through increased uptime and reduced repair expenses in comparison to traditional devices and competing rugged PC vendors. TBR research indicates Toughbook PCs have lower-than-average warranty repair rates, industry-leading customer loyalty and fewer breakdowns of core components, providing high reliability and low cost of ownership for customers. Panasonic rugged PC customers reported warranty repairs less than 20% as frequently than the rugged PC industry average in years one to two of ownership. TBR's research reiterates the importance of formally tracking warranty repairs to enhance the understanding of IT expenditures and identify potential opportunities to reduce IT costs. Toughbook customers who formally track warranty repairs reported lower repair rates than Toughbook customers who did not, reinforcing how informal tracking systems can lead to a misunderstanding of IT expenditures.

About the Study

TBR conducted the Rugged PC Repair Rates study in November, 2012. TBR conducted 170 interviews using phone and online methodology to survey IT decision makers responsible for purchasing rugged devices. The study is representative of 7,221 installed rugged PC devices from 7 vendors.



About TBR

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