



Case Study: GORE® Case Study: Acoustic Vents for 5 ATM Smartwatches

Transforming Smartwatch Standards with GORE® Acoustic Vents

? CHALLENGE

Having a 5 ATM smartwatch is one thing; **adapting your entire smartwatch portfolio to feature 5 ATM water protection** is something completely different. Yet, a Chinese manufacturer of electronic devices set this ambitious goal, and they were determined to achieve it.

Appealing to a young target group also presents challenges. Young adults watch their budget closely, so the devices must be **affordable, without missing on any functionalities**—and the manufacturer aimed to achieve that throughout the entire product range. Which brings us to the second challenge: upgrading an entire portfolio requires a partner who provides **top-notch performance, a reliable supply chain, and the ability to produce units in high volumes**. Naturally, the manufacturer turned to Gore.



“Our customer wants to adopt 5 ATM as a competitive advantage to all their current smartwatches. By that, they enable consumers, especially young people, to participate in many activities while wearing the devices.”

Carol Xue, Field Sales Associate





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SOLUTION

In addition to achieving 5 ATM water resistance, our customer emphasized the need to control the device's acoustic performance with strict requirements regarding insertion loss and **little tolerance for deviations**. Therefore, the Gore engineers introduced GORE® Acoustic Vents—a venting solution renowned for its acoustic properties that could be customized to meet their specific design requirements.

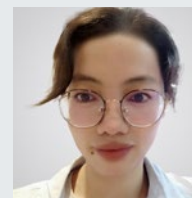
Our team also offered **on-site support**, ready to step in if any issues arose. After all, there are many factors ranging from the vent's thickness to the used compress force that influence the vents performance. It proved vital to the project's success: As our Gore engineer was standby on-site, she was able to quickly respond to issues occurring during testing and organized redesigned test samples in only two days.

The testing standards for this project were particularly high and various exposure conditions. Among all, testing for **resistance to soapy water was of key importance**: smartwatches are often worn when washing hands or showering, making it crucial for them to withstand the challenging conditions of soap-contaminated water.

THE TECHNOLOGY BEHIND THE SOLUTION: GORE® ACOUSTIC VENTS

The key to success was a customized version of our GORE® Acoustic Vents, providing both state-of-the-art protection against liquids and particles for enhanced durability and exceptional sound transmission. For specifications and more detailed information on installation, please visit: gore.com/acoustic-vents

"Our customer gained more than a good product: We not only provided our customer with customized, high-performance vents, but also shared our experiences from other successful 5ATM applications, testing criteria and proper installation."



Jenny Hong, Application Engineer



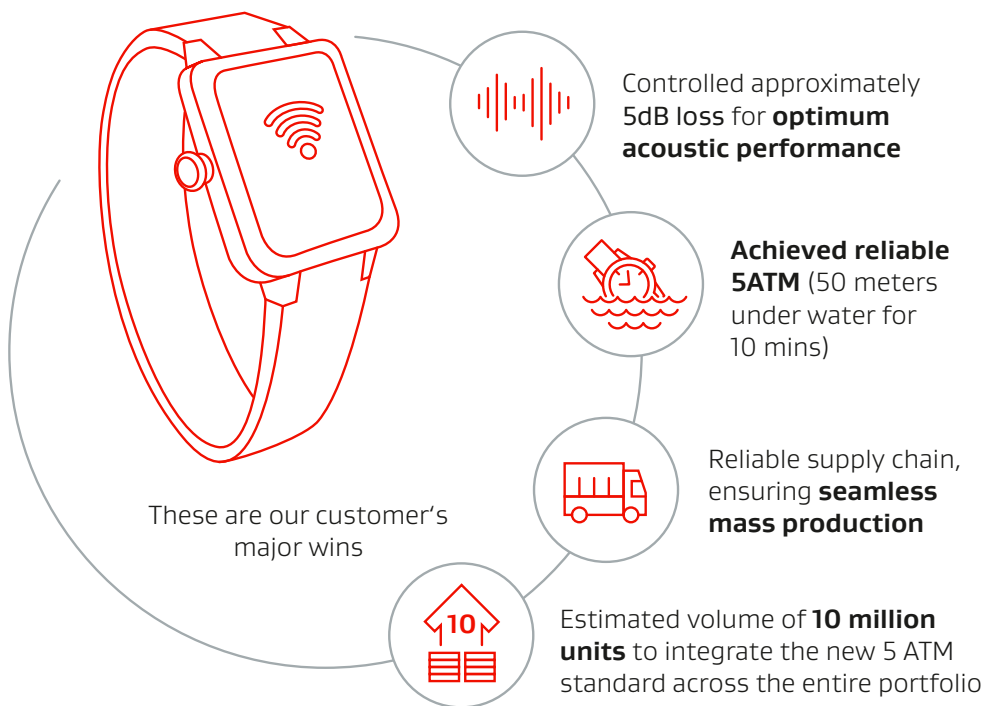
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RESULTS

With the help of Gore Mobile electronics venting technology expertise, our customer was able to upgrade their smartwatches to a 5 ATM standard, leading to satisfied customers and a competitive edge on the market. Here are further wins of the collaboration:



WANT TO KNOW MORE?

To learn more, visit our website: gore.com/portableelectronics

Or check out more of our case studies: gore.com/mestories

"This project truly underlines our strengths in reliability and quality. It also reflects our motivation to develop and innovate solutions tailored to our customers' needs."



Carol Xue, Field Sales Associate



Why Choose GORE® Portable Electronic Vents for Your Electronic Devices?

Leading OEMs have purchased over 10 billion GORE® Portable Electronic Vents because they know our products and services can help accelerate their development of innovative and differentiated devices in fast-paced, highly competitive markets.

PRODUCT AND APPLICATION LEADERSHIP

Grounded in a deep understanding of material science and acoustics, Gore can provide the optimum venting solution. We balance trade-offs between diverse problems such as adverse operating environments, immersion events and acoustic performance.

RELIABLE PERFORMANCE

To ensure products are “fit for use”, every Gore product must adhere to the highest standards of quality, performance and reliability. Through a comprehensive understanding of end-use applications and requirements, our products do what they say they will do.

FAST DEVELOPMENT

The mobile electronics industry develops and releases new products quickly. Our fast response to customer requests during the development process sets us apart. Gore supports this need for quickness with designs and prototypes to ensure engineering teams can meet their project timelines and their application requirements.

SUPPLY SECURITY

Leading OEMs specify Gore because we have consistently proven our ability to quickly ramp up to supply vents for projects of over 10 million devices per year and to continue to supply high quality products on-time without disruption.

MATERIAL SCIENCE

Gore is a global materials science company dedicated to transforming industries and improving lives. Gore develops materials with microporous structures that provide desirable attributes and performance characteristics to engineer vents and other products used in a variety of markets and industries.

GLOBAL SUPPORT

Our global teams of sales associates, application engineers, manufacturing engineers, and research personnel enable us to provide agile and robust support to customers around the world.

Interested in Testing Our Products or Talking to Our Experts?

For additional assistance, please contact a Gore representative.

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