



## Case Study: GORE® Electronic Vents for Flagship Smartphone

# Mastering Complexity in the Evolution of Smartphones



### ? CHALLENGE

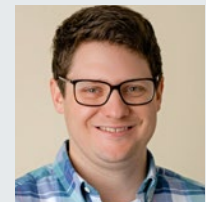
As smartphones evolve from basic communication tools to advanced entertainment devices, the complexity of their designs and functionality increases exponentially: Today's smartphones serve as digital assistants, gaming platforms, high-quality cameras, and media streaming centers, escalating the challenges manufacturers face in the fiercely competitive market. To remain at the forefront, manufacturers must find partners capable of **managing the growing complexity of their devices**. This is why a **global**

**technology leader contacted Gore** when they were developing a new model of their flagship smartphone.

When our customer first approached us, their phone's design was already advanced. Due to a **complex stack-up of different layers** within the device, our engineers had to find a solution that would meet a range of requirements: The vent should not only act as water barrier, but also **provide pressure equalization and minimize acoustic insertion loss**. Luckily, the Gore team knew exactly how to help.

"Our customer required reliable acoustic performance for their smartphone. However, it was difficult to achieve, as many factors in device assembly added variability to the acoustic system. They needed a partner who could match their pace and identify solutions as design requirements became more complex."

**Rob Furr, Application Engineer**





## Case Study: GORE® Electronic Vents for Flagship Smartphone

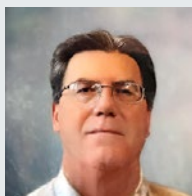
# Mastering Complexity in the Evolution of Smartphones



### SOLUTION

To develop a venting solution according to our customer's needs, the Gore team tailored an existing membrane and **leveraged their extensive testing capabilities** to make sure it provides the quality our customer aimed for. In addition, our engineers provided local support whenever needed, so that the development would meet the set schedule and mass production could start on time.

"Our engineers proposed to combine the functionalities of our acoustic and pressure vents into a new membrane, and our customer loved it! It enables them to save money and facilitate the phone's complex design."



John Ton, Field Sales Associate

As the smartphone model advanced over the years, so did our venting solutions. By **merging pressure and acoustic venting functionalities** into an innovative membrane solution, our customer was able to **streamline their manufacturing process** notably and continued to apply this efficient solution for following generations.

#### THE TECHNOLOGIES BEHIND THE SOLUTION: GORE® PRESSURE VENTS AND GORE® ACOUSTIC VENTS

Gore venting solutions excel in complexity. In this case, it was a combination of GORE® Pressure Vents and GORE® Acoustic Vents that met all of our customer's demands.

For specifications and more detailed information on installation, please visit

[gore.com/pressure-vents](https://gore.com/pressure-vents) or

[gore.com/acoustic-vents](https://gore.com/acoustic-vents).

"We support our customer's multiple development locations in various regions globally. Our ability to engage in early development and answer their questions as fast as possible is highly appreciated by the manufacturer."

John Ton,  
Field Sales  
Associate



## Case Study: GORE® Electronic Vents for Flagship Smartphone

# Mastering Complexity in the Evolution of Smartphones



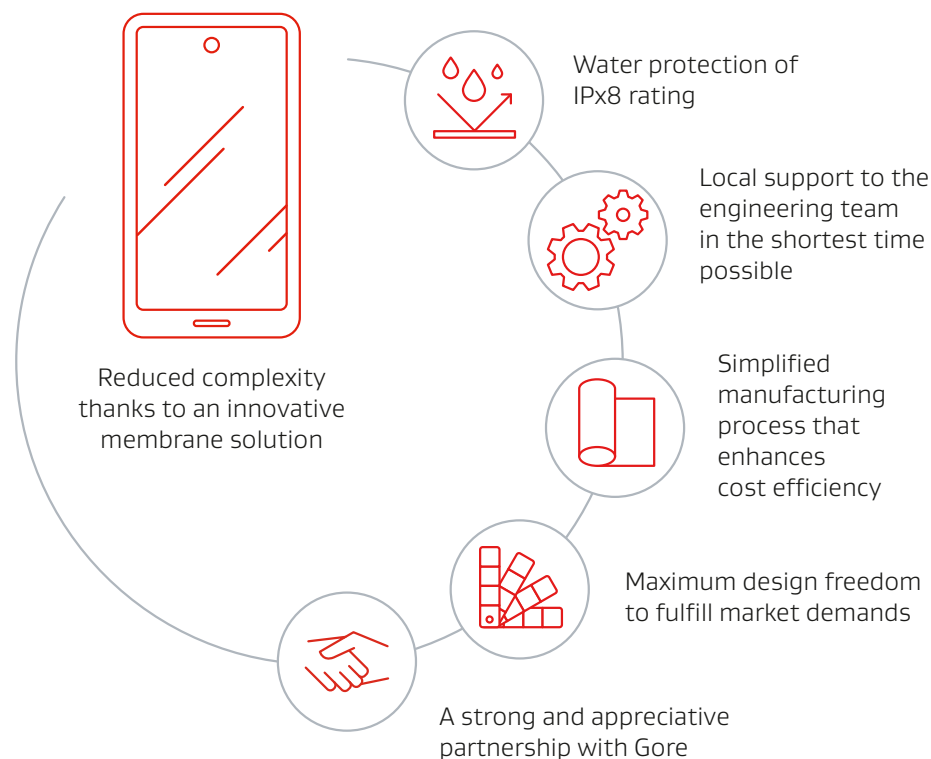
## RESULTS

What started out as a basic inquiry turned into a partnership filled with trust and commitment. For more than 7 years, we've been collaborating with our customer and providing maximum design flexibility for their design team. Here is what our customer values:

### WANT TO KNOW MORE?

To learn more, visit our website: [gore.com/portableelectronics](https://gore.com/portableelectronics)

Or check out more of our case studies: [gore.com/mestories](https://gore.com/mestories)



"It's exciting to see how the relationship with our customer develops over time. We can see how their trust grows with every project. To-day, they deeply value our expertise and support when developing new devices."

**Rob Furr, Application Engineer**



# 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.

### INTERNATIONAL CONTACTS

Australia +61 2 9473 6800  
Benelux +49 89 4612 2211  
China +86 21 5172 8299  
France +33 1 5695 6565  
Germany +49 89 4612 2211

India +91 22 6768 7000  
Italy +39 045 6209 240  
Japan +81 3 6746 2570  
Korea +82 2 393 3411  
Mexico +52 81 8288 1283

Scandinavia +46 31 706 7800  
Singapore +65 6733 2882  
South America +55 11 5502 7800  
Spain +34 93 480 6900  
Taiwan +886 2 2173 7799

United Kingdom +44 1506 460123  
USA +1 410 506 7812

### W. L. Gore & Associates, Inc.

401 Airport Road • Elkton, MD 219221 • USA  
Phone: +1 410 506 7812 (USA) • Toll free: +1 800 523 4673  
Fax: +1 410 506 8749 • Email: [portableelectronics@wlgore.com](mailto:portableelectronics@wlgore.com)  
[gore.com/portableelectronics](http://gore.com/portableelectronics)

FOR INDUSTRIAL USE ONLY. Not for use in food, drug, cosmetic or medical device manufacturing, processing, or packaging operations.

All technical information and advice given here is based on Gore's previous experiences and/or test results. Gore gives this information to the best of its knowledge, but assumes no legal responsibility. Customers are asked to check the suitability and usability in the specific application, since the performance of the product can only be judged when all necessary operating data are available. The above information is subject to change and is not to be used for specification purposes.

Gore's terms and conditions of sale apply to the sale of the products by Gore. GORE, *Together, Improving Life* and designs are trademarks of W. L. Gore & Associates.

© 2024 W. L. Gore & Associates, Inc.

**Together, improving life**

