

# Bluetooth Tags Enable Always-On Retail Experiences



**Zliide**  **Bluetooth**

BGM220 Bluetooth Module



## The Challenge

To develop a discrete, lowpower, intelligent retail tag that could bring the convenience of connectivity to improving the shopping experience.



## The Solution

Using the BGM220 Bluetooth Module to meet exacting demands for communication, power consumption, and size.



## The Result

Creating a production-level intelligent tag for retail brands to deliver engaging and actionable experiences - both online and in-store - that improves customer retention and repeat purchases.

When was the last time you had a genuinely joyful experience shopping in a department store? If you're like most shoppers, online retail has largely replaced the in-store experience for many consumer goods. Fashion retail stands as an exception to this because people like to try things on before they buy. For the most part, retailers have been pretty good at maintaining a consistent in-store experience for shoppers. But one area of improvement the founders of Zliide recognized was an opportunity for stores to catch up to their customers in their embrace of digital experiences. Founded in 2016, Zliide's vision has been to look at the shopping experience from the customers' point of view and use this perspective to elevate their experiences and inspire them to return.

To this end, they set out to develop a solution that could empower fashion retailers to provide omnichannel interactions for their customers. By bringing the best of their in-store and online experiences, they set out to connect consumers with the brands they love in a way that speaks the language of our newly, always-connected world.

## Silicon Labs BGM220

Secure Bluetooth Module for High-Volume Applications

- Ultra-Low Transmit and Receive Power
- High-Performance, Low-Power M33 Core
- Industry-Leading Energy Efficiency

They did this through the development of the Zliide Security Tag, which operates like a typical garment security tag – but that’s just the beginning. This intelligent tag allows shoppers in the store to scan one of the tags using a smartphone app and access product information, photos, and branded videos. They can also pay for the item through the app so they can check out from anywhere in the store. Users can also shop a virtual version of the stores through the app any time of day from anywhere in the world. Because every item is tagged, you know exactly what is available and what isn’t because you can interact with anything in the store.

This level of freedom, convenience, and accessibility has never been available in a retail setting. RF/AM tags have long been used for security applications just like this, but Zliide’s Intelligent Tag can communicate with the customer’s mobile device, opening up new levels of functionality and convenience.

**“One of the things that really made a difference for us was the people we met at Silicon Labs. The support we received was key, and what we’ve experienced has been far and away the best we have ever seen.”**

– Morten Møgelmoose (Co-Founder & CEO) and Nikolai Lindholm (Co-Founder & CTO)



Bringing something like this to market is not a simple task. Size, weight, power, and functionality are all paramount to making it work, and because of the volume of deployments – up to 10,000 tags in a single store – the price point had to be scalable for mass production. Another consideration is selecting the right communications protocol. Bluetooth was selected over other technologies including NFC, and RFID, because it can be architected for low-power applications. It also enables Zliide to support indoor locationing services and item finding through Angle of Arrival and Angle of Departure.

During development, Zliide had a few requirements for selecting the right silicon vendor, including demanding standards for security, energy efficiency, and the ability to perform over-the-air (OTA) updates. After a careful selection and discovery phase, Silicon Labs was selected due to a combination of our Bluetooth expertise, our experience designing energy-efficient components, and our dedicated support team.

Our [BGM220 Bluetooth Module](#) suited the Zliide Intelligent Tag wonderfully and made it possible for the company to provide extremely precise location information on how their merchandise is moving – what’s being taken off the racks and which items are going to the dressing rooms – the kind of insight that until now has not been possible.

The Intelligent Tag has helped Zliide achieve its goal of providing fashion retailers with a tool for improving the user experience across stores and connecting those interactions with the online experience.

Learn more about [BGM220](#) for your IoT devices.

Interested in learning how our retail solutions can help your business?

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