

CUSTOMER STORY

HidrateSpark



Achieving FCC Certification on a Custom Bluetooth Product

HidrateSpark created a smart water bottle that tracks hydration over time and syncs with smartphones to remind people to drink water. Their objective is to make healthy hydration habits easy and fun by coaching people on their daily water intake. Their Hydration Equation calculates daily water goals based on personal factors and activity. The HidrateSpark water bottle glows as a reminder to drink, tracks water intake and syncs activity via Bluetooth to a smartphone app.

In order to sell any wireless product it must pass FCC certifications. Hidrate was attempting to certify their own Bluetooth Low Energy (BLE) design with the FCC. After failing the initial certification tests, Hidrate was unsure of the root cause of the failure. They turned to F3 Wireless to help determine the failure mode and recommend a solution that would result in passing certification.

F3 identified the radiated emissions causing the certification failure using an RF isolation chamber and a spectrum analyzer. By helping HidrateSpark reduce the radiated noise outside of the ISM band, they were ready to re-run the test within a month. This enabled the start of mass production and bringing the product to market. The passing certification test has allowed HidrateSpark to transition to shipping the new chip-down design, saving a dollar per unit compared to the pre-certified module they were using before.

F3 Wireless has the knowledge and expertise on the certification process that we lacked as a small start-up company. Decreasing the wireless debugging period was crucial for us. Their guidance and competence was invaluable.

- Eric Pietrowicz, Software Engineer at HidrateSpark

