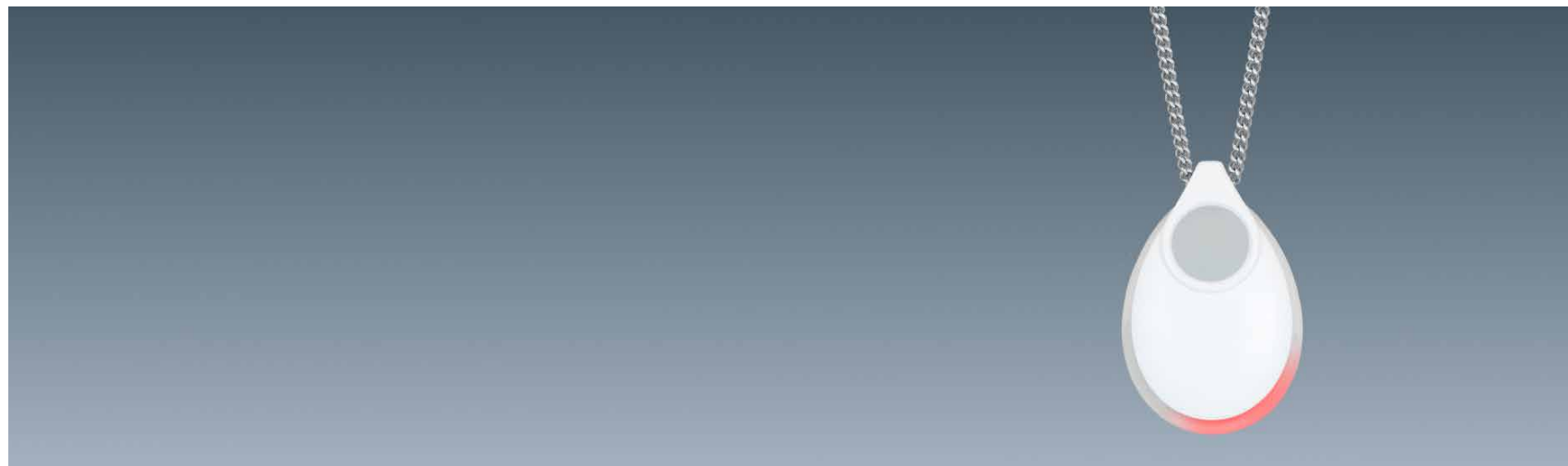




INDUSTRY:

Telecare & personal safety

CUSTOMER:

Chiptech

TECHNOLOGY:

- [STM32L4 MCU](#)
- [STM32U5 MCU](#)

Telecare system people can rely on

Around the world, people are living longer. Behind that good news is a quieter reality: many older adults want to stay in their homes, close to the people and communities they love. That trend is reshaping how health and social systems work and raising the stakes for what personal safety technology must do. When someone falls in the hallway, feels unwell, or reaches for a help button, there is no room for delay.

Telecare is the space Chiptech has chosen to own. The company makes a meaningful difference in people's lives with telecare systems that appear simple but are engineered for real-world conditions, with no margin for errors.

For more than ten years, that promise has been anchored at the silicon level with STM32 microcontrollers as a key enabler. Chiptech built its range of personal safety products around the STM32L4 family and is now migrating to STM32U5.

Early on, one of the core engineering challenges of their telecare systems was managing multiple I/O voltages inside a compact base unit while keeping designs and manufacturing practical. The STM32 architecture's ability to support mixed I/O voltages on a single microcontroller allowed Chiptech to simplify its hardware, reduce bill of materials complexity, and avoid additional components used only for voltage translation.



In telecare, every design decision has real-world consequences. With STM32, we get the sweet spot: high reliability at a price our customers can live with.

Abby Moore, CEO, Chiptech



CHALLENGE

- Enable older adults to live independently at home with highly reliable telecare, without the hefty price tag
- Manage growing regulatory complexity across the world, each with different alarm standards and stricter security requirements, such as CRA in the UE
- Ensure long-term availability of key semiconductor chips to provide certainty in product life cycle, preventing unnecessary redesign for parts changes

SOLUTION

- More than 10 years of support from the low power STM32 MCU platform
- Use STM32 memory and performance headroom to meet new EU alarm standards, so one design can serve multiple regions
- Rely on the STM32U5's security-ready features
- ST's 10 year product longevity program

IMPACT

- Deliver a mission-critical telecare system with virtually no margin for error
- Help elderly people stay in their own homes longer, close to the people and communities they love
- Enable earlier hospital discharge and reduce burden on the community care providers resourcing, by getting support and help to the individual at the right time

That, in turn, made it easier to maintain product quality and cost efficiency as the platform evolved. What ultimately mattered most, though, was reliability. Chiptech's telecare devices protect vulnerable people when it really counts, and in that mission STM32 MCUs have made a clear difference.

Beyond the main microcontroller, ST components are also embedded in Chiptech's personal help buttons, assistive technologies, GPS and mobile personal emergency response devices, and the base communicator. Chiptech is now taking its mission critical telecare systems into tougher regulatory markets such as Europe, where expectations around safety, resilience, and security are rising fast. STM32 remains at the core of that expansion.

Thanks to the memory and performance headroom of the chosen STM32, Chiptech can meet CE RED DA and CRA cybersecurity standards without hitting microcontroller limits or redesigning its hardware platform. In a nutshell, a single design

can be tweaked to serve multiple regions while keeping the user experience consistent. As security regulations tighten, Chiptech is transitioning to the STM32U5 family to gain more processing power and advanced security features. With those capabilities already on board and ready to be enabled when required, the company has a clear path to meet future compliance demands and continues to future-proof its telecare products.

For a family run company like Chiptech, a reliable semiconductor partner isn't just a supply chain convenience; it's part of the company's promise to the people who depend on their personal safety products. Stable chip sourcing keeps production running smoothly. A consistent supply of high-quality microcontrollers with a 10-year longevity guarantee from ST also makes it possible to think in decades, not just years.

When a partner like ST offers a stable roadmap and strong product availability, companies like Chiptech can invest in evolving their platforms without the fear of sudden redesigns.



ST part selection is helping us to meet stringent compliance requirements, such as the Cyber Resilience Act (CRA) in the EU.

Paul Wright, R&D Manager, Chiptech

About Chiptech

Chiptech is a privately owned company specialising in the design and manufacture of quality digital telecare and personal safety products accompanied by SmartCare software applications. Their products help people to live at home with independence for longer, while reassuring their loved ones. Founded in New Zealand in the year 2000 with employees spread across NZ, Australia, UK and Spain, Chiptech has grown into a leading provider of digital monitored personal alarms.

[Visit Chiptech's website](#)

