

ATLASense Biomed

Enabling Remote Health Monitoring with Maxim ICs



ATLASense Biomed creates small remote patient monitoring solutions. Its co-founder developed the Heartalker, the first talking heart-rate monitor.

Headquartered in Hod Hasharon, Israel, ATLASense Biomed focuses on creating cost-effective remote patient monitoring solutions for the elderly and the chronically ill. Accurate early detection of physiological deterioration and life-threatening events enables health care professionals, patients, and caregivers to save lives and reduce healthcare costs.

Challenge

- Needed underlying technology with high performance, low power, and small form factor for wearables

Solution

- Integrated Maxim ICs together with other proprietary technologies

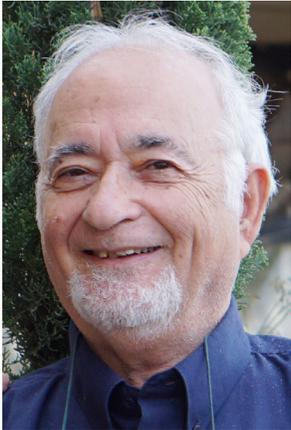
Benefits

- Met the small size requirements of wearable health monitoring platform

ATLASense Biomed's core product is its patent-pending PolyMonitor™, a compact, multi-sensor platform worn seamlessly on the patient body that detects and interprets a wide range of subtle body-generated signals together with body position parameters. The PolyMonitor leverages four decades of pioneering monitoring and miniaturization know-how from ATLASense Biomed's co-founder. Presently the smallest and most comprehensive monitor available, the PolyMonitor enables personal and clinical decision support by analyzing multiple vital signs simultaneously and detecting trends across all parameters.

Making monitoring easy is critical, starting with blood pressure and cardiorespiratory event detection without a cuff. Algorithms analyze the continuously monitored data and generate instantaneous alerts where immediate intervention is required. Built on a cloud platform with open application programming interfaces (APIs), the PolyMonitor can support third-party applications, allowing it to become the central data manager for any advanced detection device. "The future of medicine will involve no cables and be mobile," said Dan Atlas, the company's co-founder and CTO. The PolyMonitor provides at-risk individuals maximum freedom at the lowest cost from the already overburdened medical care system.

CUSTOMER SUCCESS STORY: ATLASense BIOMED



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- Dan Atlas, Co-founder and CTO, ATLASense Biomed

Challenges

To create the PolyMonitor, ATLASense Biomed needed chips, including biomedical sensors and analog ICs, that deliver high performance with a small form factor and the lowest possible current consumption. "The bottom line for us is to implement the most advanced, highest performing technology available," said Atlas.

Solution and Benefits

Atlas has a history of using Maxim ICs throughout his decades-long career in electronics and bioengineering. He is also the founder of Atlas Engineering, a company that developed the Heartalker, the first talking heart-rate monitor, as well as many other physiological monitors. All of these products used various Maxim chips.

For the PolyMonitor, it also made sense to integrate various Maxim ICs, chosen for their performance, low power consumption, and small package sizes. "I've had Maxim parts in over 300 projects conducted over 35 years," Atlas noted. "Many more Maxim chips are being integrated in our current and next-generation model."

With a solution like the PolyMonitor, a patient located thousands of miles away from a medical facility can provide a doctor with real-time health information. Besides obvious civilian applications, Atlas sees potential applications for military personnel in the field where remote monitoring for signs of distress or injury can save lives and support instant battlefield resourcing decisions.

"Maxim believes in the wearable world and is working to bring out more technology that minimizes the real estate required. The smaller the end devices are, the more comfortable and acceptable they will be to users," said Atlas. As the industry continues to develop smaller, more sophisticated wearable technologies, Atlas is excited about a future where continuous, remote health monitoring will continue to come down in cost and perhaps even be available in disposable formats.

[Learn more at www.maximintegrated.com](http://www.maximintegrated.com)