

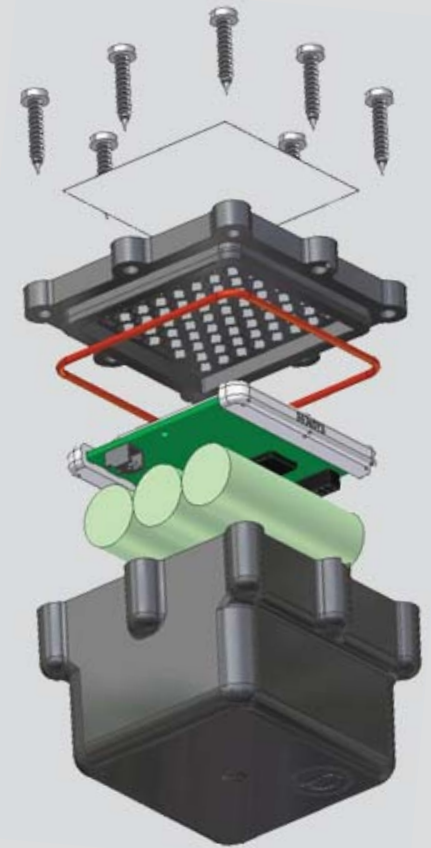
Beyond Ultra Low Power

The Science Behind Sensys Battery Life

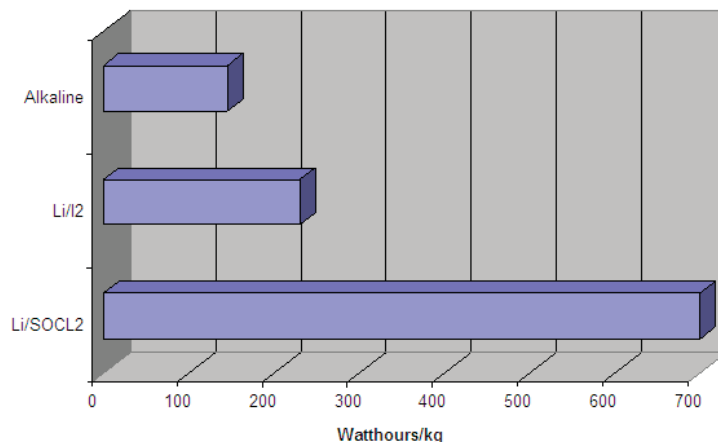
Over the last decade the growing demand for battery powered personal electronics such as cell phones, mp3 players, portable gaming systems and laptop computers has pushed the electronics industry to develop ultra low power integrated circuits. This is especially true for wireless chipsets that are now integrated into almost every portable device. Sensys Networks has leveraged these improvements with the application of its patented NanoPowerSM communication protocol and managed power circuitry. These specialized components and patented techniques enable the Sensys Networks wireless sensors to operate in standby mode 99% of the time, minimizing their power demands.

Additionally, the batteries inside the Sensys Networks wireless sensor are far more powerful than typical lithium batteries. Sensys Networks wireless sensors utilize Lithium Thionyl Chloride (LiSOCL₂) batteries with twice the power capacity of the nearest lithium alternative and 7 times the power of an alkaline battery. These hermetically sealed batteries have an operating range of -55C to +85C with leakage rates of less than 1% per year.

Combining ultra low power demand and ultra high battery capacity, Sensys Networks wireless sensors provide a useful average life of ten years¹ on the busiest roadways.



Primary Battery Specific Energy



Our sensor will not degrade with age and is designed to detect and report up to 300 million vehicles. Even on a busy freeway with 2000 vehicles per hour, 24 hours a day, 7 days a week, it will take well over 10 years to produce 300 million vehicle detections.

[1] Field validation tests conducted between 10/2005 – 4/2007