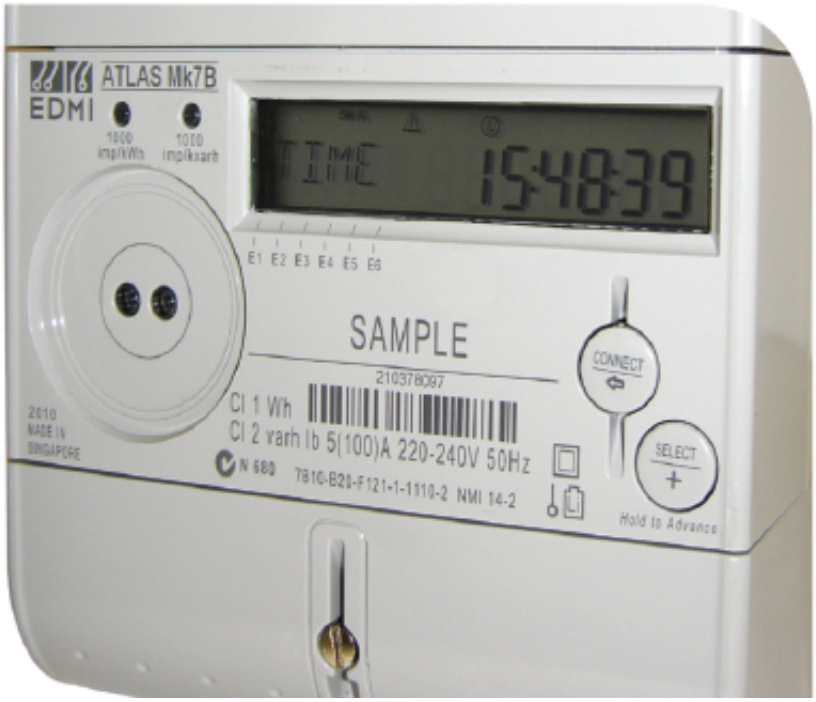
EDMI Managing Meters Better

Leading Energy Metering Manufacturer Builds Tomorrow’s Smart Grid with Sierra Wireless AirPrime Embedded Modules



EDMI Builds Tomorrow’s Smart Grid with Sierra Wireless® AirPrime® Embedded Modules

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EDMI is a global market leader in innovative energy metering products, smartmetering infrastructure and energy management systems. Headquartered inSingapore, the company serves a large and growing customer base in Europe,Asia, Australiasia, the Middle East and Africa.

Business challenge

EDMI’s energy supplier customers are investing in automated meteringinfrastructure (AMI) technologies to build a greener, “smarter” energy grid.With real-time power grid visibility all the way to the meter, utilities can optimizeenergy distribution, take action to shift demand loads and, ultimately, servemore customers more efficiently.

EDMI recognizes the potential of AMI to transform the industry and areextending the company’s leadership to emerging “smart grid” technologies. Toaccomplish this, however, EDMI must address the demanding requirements ofalways-on, industrial-grade metering communications. The company believesthat cellular connectivity can provide an ideal solution for many deployments.

“Many of our customers prefer to take advantage of existing communicationsinfrastructure managed by a cellular network operator, rather than buildingout new infrastructure themselves,” explains Graeme Lees, Chief OperatingOfficer, EDMI. “These networks have proven themselves over many years andprovide nationwide coverage in all the markets where we operate.”

Building effective cellular communications for a global customer base,however, can be challenging. Different markets use different communicationsprotocols and have unique certification requirements.

“In many ways, the hardest part of an AMI project is communications,” saysLees. “We have years of expertise building industry-leading metering systems,but we find ourselves spending much of our time focusing on communications.We need a trusted industry partner who can provide reliable, flexiblecommunications modules that can perform anywhere in the world.”

AirPrime SL6087 Embedded Wireless Module

To build state-of-the-art cellular AMI solutions for a growing internationalmarket, EDMI partners with Sierra Wireless. Most recently, the company chosethe AirPrime SL6087 EDGE module to support its new Mk7B smart singlephaseelectronic revenue meter.

EDMI is targeting the Mk7B to serve the global, low-cost and high-volumesmart residential meter market. The solution includes an integrated, modularpod-based communication system, with cellular connectivity provided bythe AirPrime module. The embedded SIM module combines a compact,ruggedized design with full AMI functionality, as well as an optional ZigBeeRF interface to connect a remote display channel. The solution allows EDMIto provide a cost-effective point-to-point wireless

connection that canbe remotely managed, upgraded and configured over the air, simplifyingmaintenance in the field.

“The AirPrime SL6087 has all the features and reliability we want, but thebiggest advantage is that it’s built for a long-term strategy,” says Lees. “Weknow we will be able to work with this module for many years to come.”

AirPrime WMP100 Embe dded Wireless Module

EDMI has also partnered with Sierra Wireless for the EWM100 AdvancedGSM/GPRS Modem for Smart Metering Applications. Built with theAirPrime WMP100, the plug-and-play modem provides an ideal “in-meter”communications platform for AMI. The solution combines industrial-gradespecifications, low power consumption and remote manageability in astandards-based package that interoperates with a wide range of metertechnologies.

In February 2011, EDMI and Sierra Wireless won the GSMA Global MobileAward for Best Mobile Innovation for Utilities at the Mobile World Congressin Barcelona for the product.

Embedded Application Framework

The Sierra Wireless AirPrime modules feature an Embedded ApplicationFramework (EAF) which includes an operating system (Open AT®) designedspecifically for machine-to-machine (M2M) communications. The EAF allowsEDMI to build application processing into the module if they choose, andto customize the modem for diverse market needs. Recently, EDMI usedthis capability to comply with a set of unique protocol specifications for acustomer in Southeast Asia.

“Smart metering projects around the world are all different, and each utilityhas specific requirements,” explains Lees. “The fact that we have the optionto add intelligence in the AirPrime module gives us a lot of flexibility.”

Results

Today, Sierra Wireless is playing an important role in helping EDMI builda new generation of innovative smart metering solutions. The AirPrimeembedded modules benefit EDMI by providing:

- Long life span, with the ability to remain online for 10 years or longer
- Industrial-grade specifications to meet extreme environmental conditions of high temperatures, shock, corrosion, vibration and humidity
- Embedded SIMs to provide a more robust and durable solution
- Simplified maintenance, with remote management and configuration over the air

Solution:

- Sierra Wireless AirPrime SL6087 embedded wireless module
- Sierra Wireless AirPrime WMP100 embedded wireless module
- Embedded Application Framework with M2M-specific Open AT OS, software libraries and integrated development environment

Key Benefits:

- Reliability and longevity
- Interoperability with carriers and markets worldwide
- Fast time-to-market