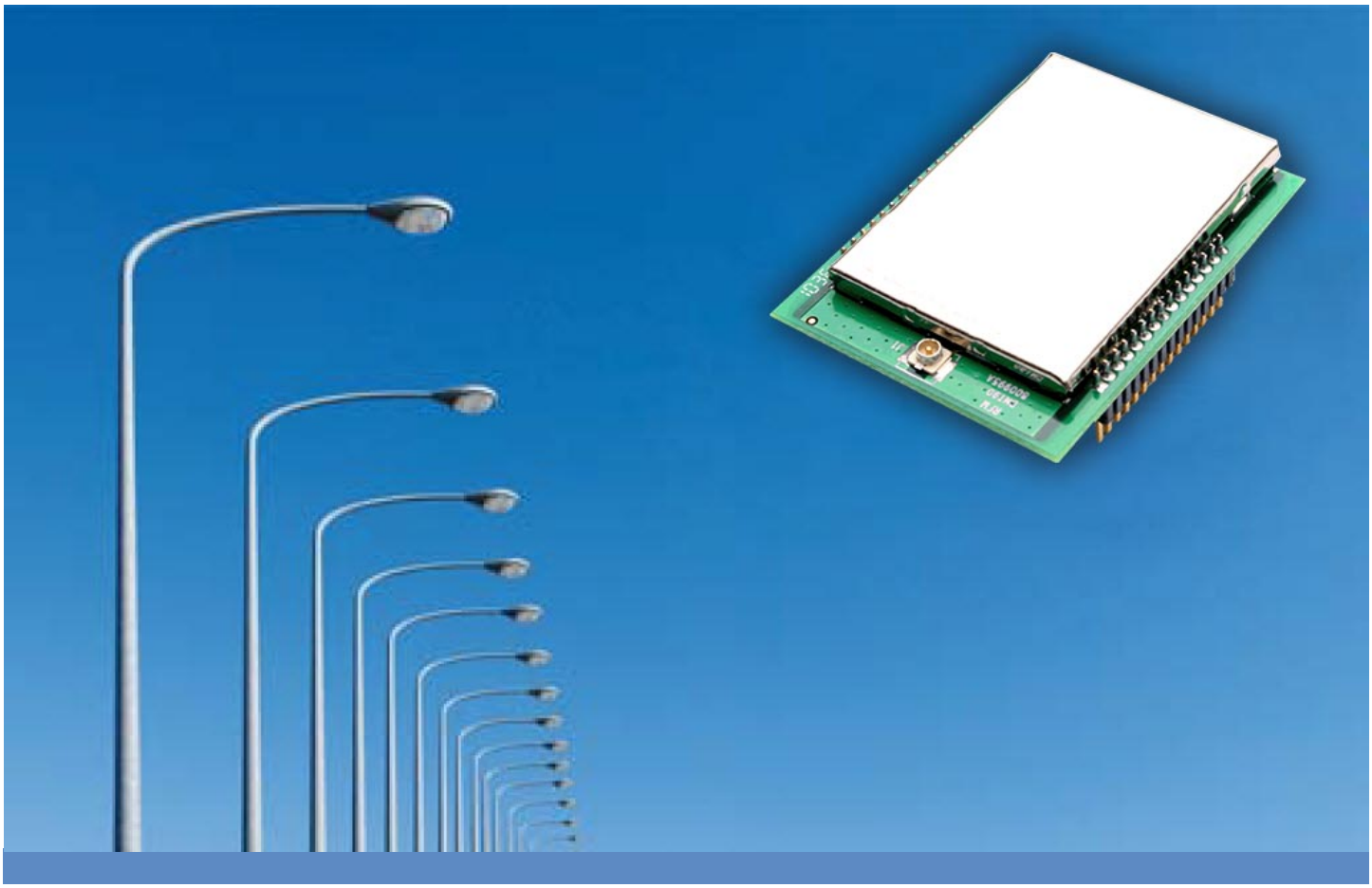

DNT90 APP FACTS

Compared to prior methods of collecting, recording and communicating information on the status and condition of street lights, wireless-enabled lighting systems continuously monitor, diagnose and then communicate data over the Internet. As a result, street lighting managers deliver improvements in maintenance productivity, asset life extension, and reduced energy consumption.

Commercial:

Remote Street Lighting Management

Murata's DNT90 is an ideal certified module that provides maintenance-free, ultra-reliable, ultra-long battery life for wireless-enable street lighting systems.

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OTHER TOP DNT90 APPLICATIONS

Monitor and control applications

Industrial automation and control applications

Applications requiring reporting of sensor data

APPLICATION OVERVIEW

Municipalities are constantly looking to save money by deploying efficient and intelligent systems to control individual street lights and manage when they should be dimmed, turned off/on and detecting failed lamps while maintaining safety and security. Such a system requires high transmission reliability, dynamic network optimization and built in path redundancy.

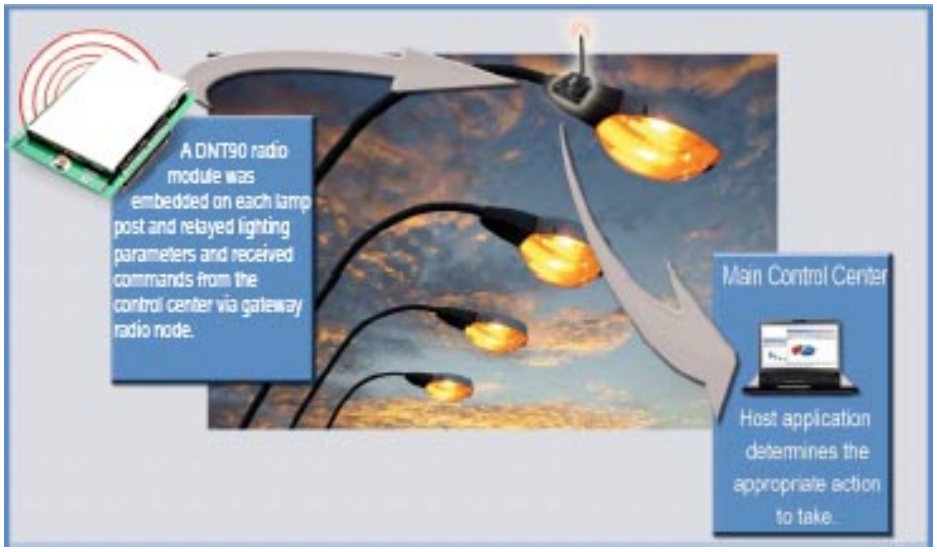
A DNT90 radio module based on time synchronized mesh technology was integrated into the circuitry at each node (lamp pole). The individual nodes monitor the lighting parameters and pass information to a gateway radio node. Each node containing DNT90 radio module also executes commands based on predetermined schedules and from commands received from the gateway such as turning the lamps on/off.

APPLICABLE PRODUCT FEATURES

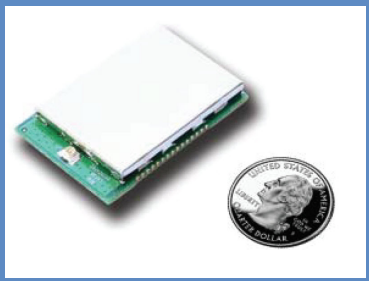
The DNT90 radio module's was the radio module of choice in this case due to it's robust network reliability, self organizing mesh networking capabilities, and easy integration with well-defined, easy-to-program interfaces.

Robust network reliability is a must-have when it comes to remote street lighting management

HOW IT WORKS



Very small footprint, the DNT90 module is about the size of a quarter



SPECIFICATIONS

Radio Characteristics:	FHSS (Frequency Hopping spread Spectrum)
Frequency:	902.76 – 927.24 MHz
Transmit Power:	40 or 158 mW
RF Data Rates:	100 kb/s
Receiver Sensitivity:	-100 dBm 10-5 BER
Data Encryptions:	AES-128
Network:	Point to Point, Point to Multipoint, Peer-to-Peer and Store & Forward Repeating
Environmental:	-40 °C to + 85 °C 10 - 90% humidity, non-condensing
Power Supply:	3.3 to 5.5 VDC
Dimensions:	1.45 x 0.98 inches (36.8 x 27.9mm) for DNT90C 1.45 x 1.04 inches (36.8 x 27.9 mm) for DNT90P
Mounting Option:	Pinned and Surface Mount Versions
RF Connection:	U.FL Coaxial (Chip Antenna version available in 2H 2012)
Input / Outputs:	4 GPIO, 3 ADC and 2 DAC outputs
Interface:	UART, SPI
Certification:	FCC and Canadian IC certified

PART NUMBERS

Part Number	Description
DNT90P	DNT90 FHSS Module - Pinned Version
DNT90C	DNT90 FHSS Module - Pinned Version
DNT90DK	DNT90P FHSS Developer's Kit

BUY YOUR DEV KIT NOW

Murata products are sold through a world-wide network of manufacturer's reps and distributors.

For more information, visit the Murata website:
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