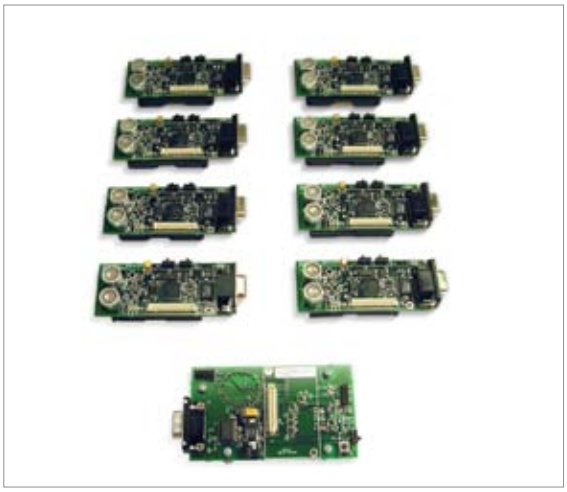
CRICKET-KIT

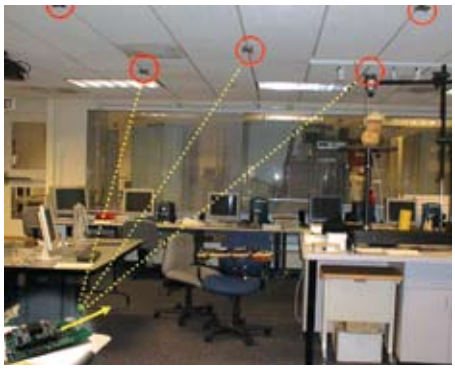
MCS MOTE DEVELOPER'S KIT



- MICA2-Based Wireless Location Development System
- Centimeter-Level Accuracy with Decentralized and Scalable Operation
- Standard 51-Pin MICA2 Interface
- TinyOS Cricket Software with Visualization Tools

Applications

- Context-Aware Mobile Navigation Devices
- Indoor Location Systems for Asset and Resource Tracking
- Ubiquitous Computing



Cricket Deployment

MCS410 SERIES

The Cricket Developer's Kit, MCS-KIT410CA, is an entry-level kit for Wireless Location System Development. It features Crossbow's MCS series Cricket Mote (MCS410CA). The MCS410CA is a location-aware version of Crossbow's popular MICA2 low-power Processor/Radio module. The MCS410CA includes all of the standard MICA2 hardware along with an ultrasound transmitter and receiver. The addition of this Ultrasound technology to existing RF devices allows the Cricket Mote to derive linear range estimates by establishing differential time of arrival between these two signals.

The MCS410CA can be configured as either a Listener or a Beacon. As a Beacon, the MCS410CA transmits concurrent RF and Ultrasound pulses that are then received by other Cricket Motes configured as Listeners. An individual Listener obtains distance estimates for a specific Beacon by running algorithms that compare RF and Ultrasound samples to establish the best correlation.

The MCS series kit has all of the components needed to develop, test and implement a wireless location system. The kit includes:

- 8 Cricket Motes (433MHz)
- 1 MIB510 Programming and Serial Interface Board with DB-9 (Male-Female) RS-232 Cable
- Cricket Support Tools CDROM, Including Hardware User's Manual and TinyOS Getting Started Guide (PDF format)

More information on Cricket can be obtained at:
http://cricket.csail.mit.edu

More information on TinyOS can be obtained at:
http://webs.cs.Berkeley.edu

Ordering Information

Model	Description
MCS-KIT410CA	MICA2 Cricket Developer's Kit - 433 MHz
MCS410CA	433 MHz Cricket Mote Platform

Document Part Number: 6020-0082-01 Rev C