# MIB510

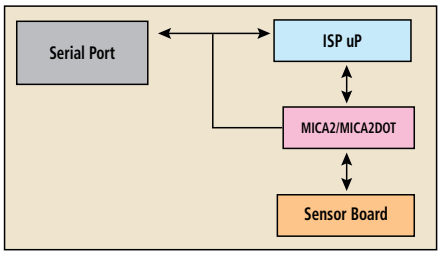
SERIAL INTERFACE BOARD

- Base Station for Wireless Sensor Networks
- Serial Port Programming for IRIS, MICAz and MICA2 Hardware Platforms
- Supports JTAG code debugging

## Applications

- Programming Interface
- RS-232 Serial Gateway
- IRIS, MICAz, MICA2 Connectivity

MIB510 with Mote and Sensor Board




MIB510 Block Diagram

## MIB510

The MIB510 allows for the aggregation of sensor network data on a PC as well as other standard computer platforms. Any IRIS/MICAz/MICA2 node can function as a base station when mated to the MIB510 serial interface board. In addition to data transfer, the MIB510 also provides an RS-232 serial programming interface.

The MIB510 has an onboard processor that programs the Mote processor/radio boards. The processor also monitors the MIB510 power voltage and disables programming if the voltage is not within the required limits. Two 51-pin Hirose connectors are available, allowing sensor boards to be attached for monitoring or code development. The MIB510 is also compatible with the Atmel JTAG pod for code development.

## Specifications

**RS-232 Interface**

- Connector: 9-pin "D"
- Baud Rates:
  - User defined (57.6k typical)
  - Programming: 115.2k (uisp controlled)

**Mote Interface**

- Connectors:
  - 51 pin (2)
- Indicators:
  - Mote LEDs: Red, Green, Yellow

**Programming Interface**

- Indicators:
  - LEDs - Power Ok (Green), Programming in Progress (Red)
- Switches:
  - On/Off switch to disable the Mote serial transmission
  - Temporary switch to reset the programming processor and Mote

**Jtag Interface**

- Connector: 10-pin male header (2)

**Power**

- 5V @ 50mA using external power supply (included with unit)
- 3.3-2.7V @ 50mA using Mote batteries

## Ordering Information

| Model | Description |
|---|---|
| MIB510 | Serial PC Interface Board |

Document Part Number: 6020-0057-03 Rev A