

IIB2400

IMOTE2 INTERFACE BOARD

- Interface Board for Imote2 Wireless Sensor Network
- JTAG Interface for Code Debugging
- USB Bus Power
- USB Port Programming for Imote2 Hardware Platform
- Dual USB Serial Ports



IIB2400CA

The interface board is designed to provide dual USB serial ports and a JTAG interface for the Imote2. The interface board can be attached directly to the Imote2 using the advanced connector set. To facilitate the debugging of advanced sensor boards a second set of pass-through connectors is provided.

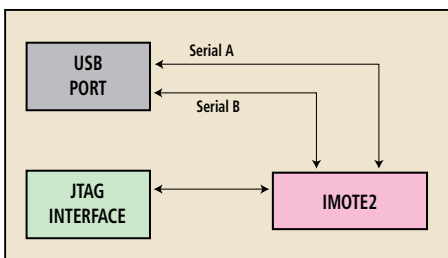
The interface board can be connected to a USB host, such as a PC, via the mini-B USB connector. A suitable mini-B to a USB cable is provided. The interface board with an attached Imote2 can also be powered using the USB connection. This power feature can be disabled using an on-board switch.

For PC USB connectivity, a driver for the on-board FTDI chipset is automatically loaded in Windows XP. For other operating systems, drivers can be downloaded from the FTDI Website <http://www.ftdichip.com>.

Communication activity is indicated by separate dual-color LEDs for each of the two serial ports (red/green for receive/transmit). The two USB serial ports are mapped to the Imote2's FF_UART and ST_UART, respectively. Standard baud rates from 110 to 921,600 bits per second are supported. Additionally, the FF_UART port supports hardware flow control via RTS/CTS signaling.

The JTAG connector provides a standard 20-pin interface that is compatible with standard adapters such as the Intel JTAG Cable (sold separately from Intel/Marvell). This allows the use of the Intel XScale Software Development Tool Suite or similar tools for SW development, debugging and reprogramming of the Imote2's FLASH memory.

The interface board can be configured for advanced use via several switches and by reprogramming the on-board CPLD.



IIB2400 Block Diagram

Ordering Information

Model	Description
IIB2400CA	Imote2 Interface Board

Interface Board	Imote2 IIB2400
Mote Connectors	2x Advanced (male/female)
USB Connector	mini-B Female
Serial Port A	Virtual UART With RTS/CTS Flow Control
Serial Port B	Virtual UART Without Hardware Flow Control
Serial Port Speed	110-921,600 Baud per Port
JTAG Port	Standard 20-pin Connector
Size	48mm x 36mm x 14mm
Weight	11g