

ITS400

IMOTE2 BASIC SENSOR BOARD

- Compatible With the Imote2 Processor/Radio Board
- Onboard 3-Axis Accelerometer, Temperature, Humidity, and Light Sensors
- 4 Channels of 12-bit Analog Input



Applications

- Wireless Sensor Networking
- Environmental Monitoring
- Asset Management (shock, temperature, humidity)
- Regulatory Compliance

ITS400

Developed by Intel Research lab and licensed to Crossbow, the ITS400 sensor board is designed to interface with the Imote2 platform. It contains a three-axis accelerometer, an advanced temperature/humidity sensor, a light sensor and a 4 channel A/D converter. The ITS400 allows stacking with other extension boards.

This versatile sensor board provides multiple sensing capabilities for the Imote2 in a wide variety of applications ranging from environmental monitoring to capturing vibration.

Specifications

Three-axis Accelerometer

- ST Micro LIS3L02DQ
- Acceleration Range, Resolution:
 - +/- 2g (12-bit)
- Communication Interfaces:
 - SPI, I2C

Temperature and Humidity Sensor

- Sensirion SHT15, 2 Channels:
 - First Channel, humidity (12-bit):
 - 10 to 90%RH @ +/-2%RH
 - 0 to 100%RH @ +/-4%RH
 - Second Channel, temperature (14-bit):
 - 0 to 40 °C @ +/-0.5 °C
 - -40 to 120 °C @ +/-2 °C

Digital Temperature Sensor

- TI TMP175 with I²C interface
- Temperature range, resolution: -25 °C to 85 °C @ +/-1.5 °C

Taos Light Sensor

- TAOS TSL2651 with I²C interface, 2 Channels:
- First Channel Sensitivity (16-bit):
 - Visible Light and IR
 - Second Channel Sensitivity (16-bit):
 - IR only

General Purpose ADC

- Maxim MAX1363 with I²C interface
- 4 channel analog (12-bit)
- Input signal range:
 - Analog 0 to 3V

Model	Description
ITS400CA	Imote2 Basic Sensor Board

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