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 LISL02DQ
- Acceleration Range, Resolution: - +/- 2g (12-bit)
- Communication Interfaces: - SPI, I2C

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

Digital Temperature Sensor
- TI TMP175 with I2C interface
- Temperature range, resolution:
  - -25 °C – 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 signals range:
  - Analog 0-3V

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