Environmental Sensor Board datasheet

Overview

The Environmental Sensor Board is a compact, low-cost device designed for monitoring environmental conditions such as temperature, humidity, and light levels. It is suitable for a variety of applications, including building automation, environmental monitoring, and scientific research.

Table of contents

- Overview
- Dimensions
- Requirements
- Sensors
  - Environmental sensors
  - Power supply
- Grove connector
- OLED display
- Texas Instruments processor
- Header pins
- I2C address reference
- Certifications

Dimensions

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Value</th>
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<tbody>
<tr>
<td>Width</td>
<td>72.8mm</td>
</tr>
<tr>
<td>Height</td>
<td>77.4mm</td>
</tr>
<tr>
<td>Depth</td>
<td>11.1mm</td>
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</table>

Requirements

- Grove-compatible sensor shield
- 5V power supply
- Texas Instruments processor

Sensors

Environmental sensors: DHT22 humidity and temperature sensor, LM35 temperature sensor, LM358 LM335 voltage reference.

Grove connection

The Environmental Sensor Board has Grove connectors for easy attachment of various sensors and modules. The board comes with a Grove header and a Grove type A male connector.

OLED display

The display provides real-time monitoring of the sensor readings and settings. It is an OLED (Organic Light Emitting Diode) display with a resolution of 128x64 pixels.

Texas Instruments processor

The processor is an MSP430F5529, a low-power microcontroller designed for energy-efficient applications. It features a 16-bit CPU, a 12-bit analog-to-digital converter (ADC), and various peripherals.

Header pins

The Environmental Sensor Board has a 1x10 pin header for easy connection to external devices. The pinout is standard for Grove headers, allowing for flexibility in the use of various modules and sensors.

I2C address reference

The I2C address of the Environmental Sensor Board is 0x28. This address is used in the I2C protocol for communication with the sensor board and other I2C-enabled devices.

Certifications

The Environmental Sensor Board has the following certifications:

- CE Marking
- RoHS Compliance

For more detailed specifications and information, please refer to the official datasheet available on Arrow's website.