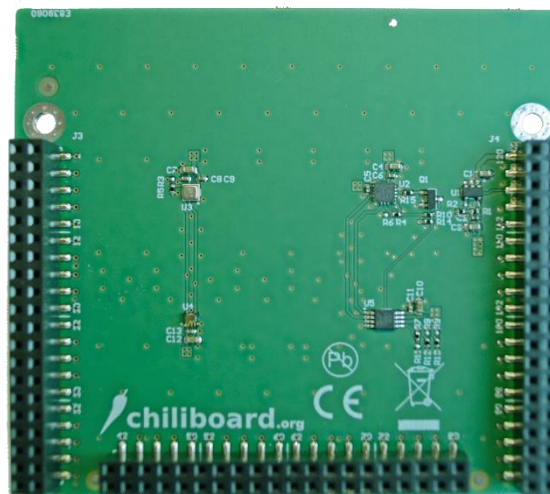


chiliboard Sensors Sandwich



V1.1
GRINN 2017

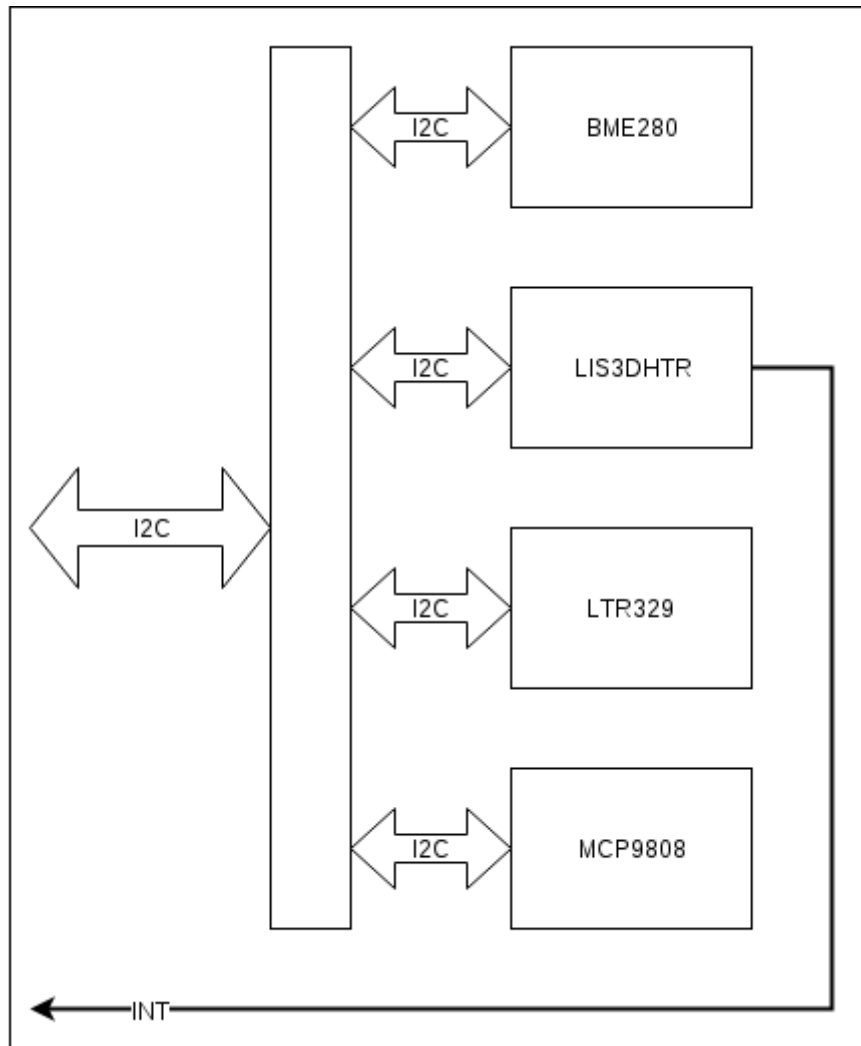
1. Features

1.1. Key features

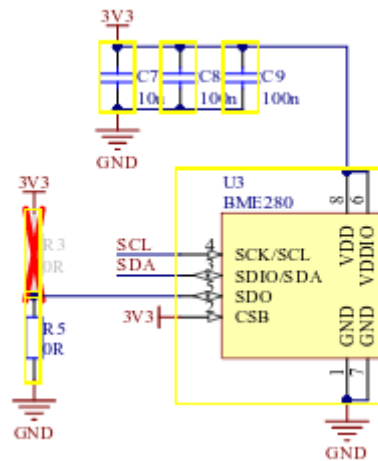
- Suitable for both: chillboard and liteboard
- Integrated environmental sensor from Bosch Sensortec BME280
 - Temperature: -40...85°C
 - Relative humidity: 0-100%
 - Pressure: 300...1100 hPa
- Light sensor from Lite-On LTR-329ALS-01
 - Close to human eye spectral response
 - Immunity to IR/UV Light Source
 - Automatically rejects 50/60 Hz lightings flicker
 - 6 dynamic range from 0.01 lux to 64k lux
 - 16-bit effective resolution
- Temperature sensor from Microchip MCP9808-E/MS
 - Accuracy $\pm 0.25^{\circ}\text{C}$ (typical) from -40°C to $+125^{\circ}\text{C}$
 - Accuracy $\pm 0.5^{\circ}\text{C}$ (maximum) from -20°C to $+100^{\circ}\text{C}$
 - 2-wire Interface: I2C/SMBus Compatible
- 3-Axes accelerometer from STMicroelectronics LIS3DHTR
 - $\pm 2\text{g}/\pm 4\text{g}/\pm 8\text{g}/\pm 16\text{g}$ dynamically selectable full scale
 - I2 C/SPI digital output interface
 - 16-bit data output
- Operating temperature range (C): -30 to 70

2. Functional Description

2.1. Block Diagram

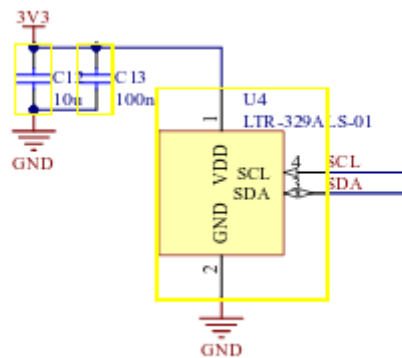


2.2. Integrated environmental sensor:



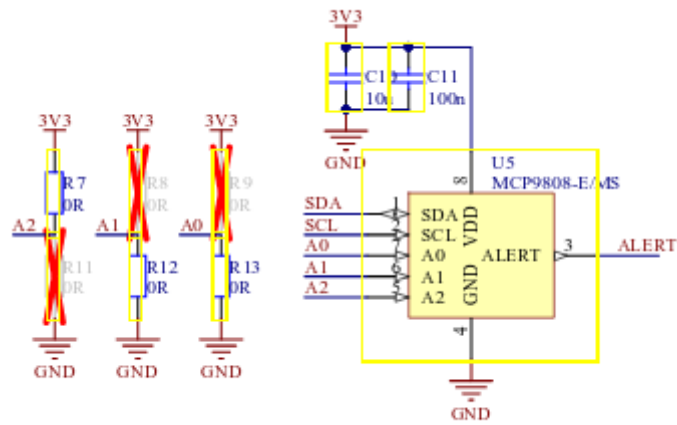
More informations about integrated environmental sensor is available on the Bosch Sensortec page:
https://www.bosch-sensortec.com/bst/products/all_products/bme280

2.3. Light sensor block



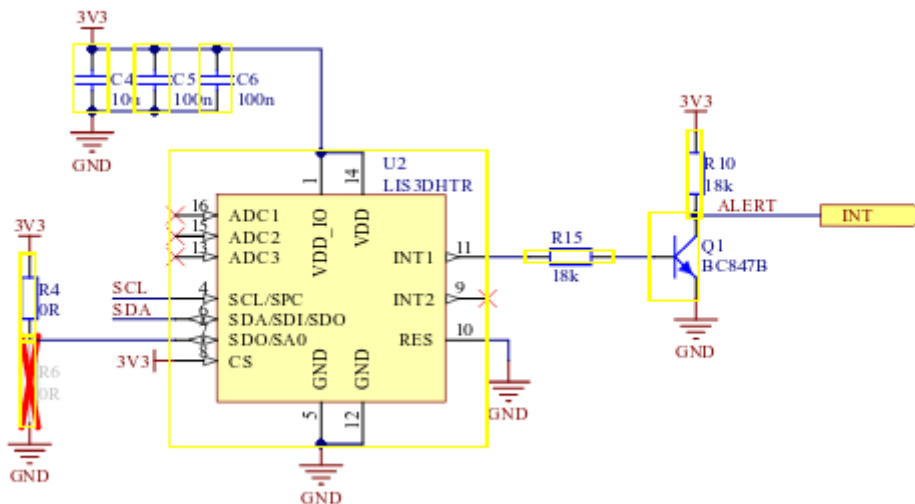
More informations about light sensor is available on the Lite-On page

2.4. Temperature sensor block



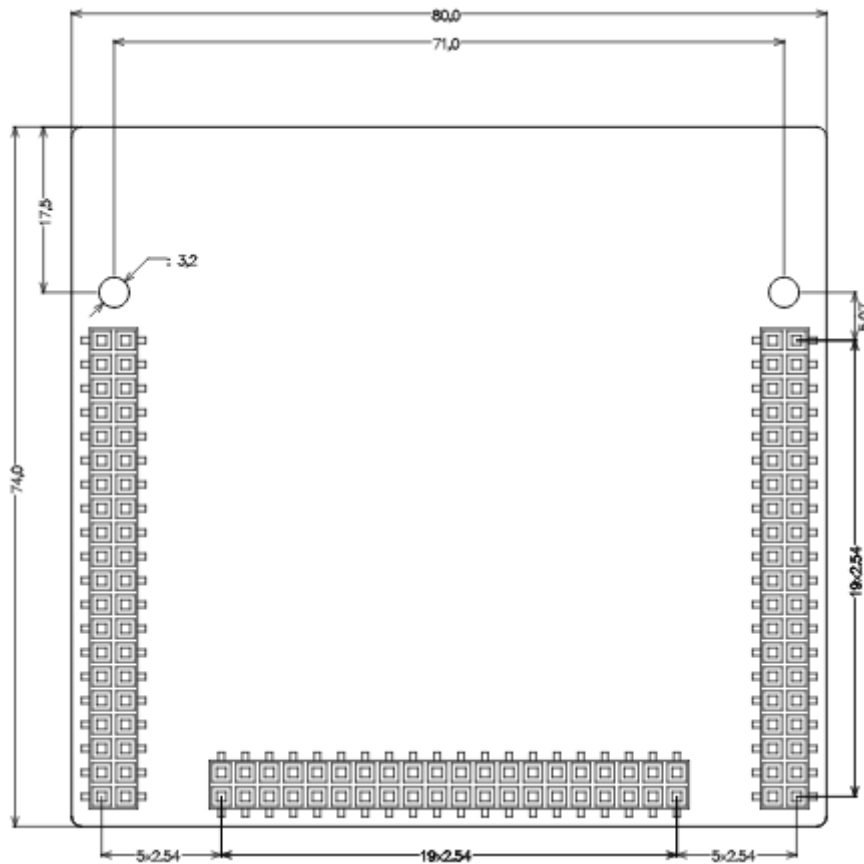
More informations about temperature sensor is available on the Microchip page:
<http://www.microchip.com/wwwproducts/en/en556182>

2.5. Axes accelerometer block



More informations about 3-axis accelerometer is available on the STMicroelectronics page:
<http://www.st.com/en/mems-and-sensors/lis3dh.html>

2.6. Dimensions



More informations about temperature sensor is available on the wiki page: <http://wiki.chilisom.grinn-global.com/>
Order number: GEB.SEN.01.01

2.7. Connectors description

Signal name	Connector	Pin	Description
I2C SCL	J1	15	I2C clock
I2C SDA	J1	18	I2C data
INT	J1	7	LIS3DHTR interrupt line

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