

SOLID Temperature Sensor

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version history

version : 20161117 V2.0 initial version of schematic and board layout
not yet for production (
Last saved date : 17 Nov 2016 15:17:04

version nov Vx.1 version without layout. no doc

As there was for SM1 also a project with almost the same name and function (but SPI interface)
this project start with version 2.0

introduction

In this folder you find information for the assemblage the humidity sensor circuit for the SOLID scientific project.

The PCB is created by the Eagle software form CADSoft (Autodesk)

This project is related to the SOLID humidity sensor.

Dimension of the board is ~ 13 x 20 mm

On the board there is a voltage regulator but normally is not used and the resistor R1 of 0 ohm has to be mounted.

In that case the max voltage is 5 V . But nominal is 3.3 V.

In case the LDO is used the max voltage is 5.5 V. But the I2C lines are still between 3.3 and 0 V.

There are no pull ups on the I2C line. Standard is 100 kHz I2C bus.

For full operation data sheet of the temperature sensor in the doc directory

The connector used is of the family micro-match 6 sockets . The corresponding wire pin

connector is 7-215083-6 (Farnell¹ order code 149068)

If only 4 wires are connected it is also possible to place the the 7-188275-4 (Farnell 3784710) , 4 pins socket . Same as used for the SiPm board.

7-215083-4 (Farnell 149032)

technical contact information:

W. Beaumont Universiteit Antwerpen

wim.beaumont@uantwerpen.be

office phone 0032 3 256 3558 , in case of no answer please drop an e-mail

Commercial contact information:

Design sources / info

- SOLID_TSENSOR_sch.pdf SOLID_HSENSOR_brd.pdf pdf files of the design.
- SOLID_TSENSOR_info.odt this file.
- SOLID_TSENSOR_info.pdf this file in pdf format
- SOLID_TSENSOR_bom.csv/ods bill of material
- directory doc : data sheet .

Addressing and programming

For production all address resistors will be placed .

In case the address line has to be 0 one has to remove the 10 K resistor on the top. (to be verified , most likely it is not needed to remove the resistor) .

In case the address line has to be 1 the 1 K resistor has to be removed.

The testpins T0 .. T2 are used in case one want to lock the ee-prom . For the usage in SOLID the ee-prom will be used as electronic identification and so will be locked.

¹ Mouser is in general cheaper in big quantities