## OVERVIEW

The iCog™ Pressure sensor uses the Freescale MPL3115A2 Precision Altimeter to measure pressure. Users should consult the relevant Freescale datasheet for more information about the sensor.

CognIoT™ iCog™ sensor boards come fitted with an 'ID-IoT' system chip. This is an EEPROM with 1kbytes of user storage (for calibration data etc.). The ID-IoT chip contains a unique 32-bit number to identify the sensor board.

Bottom View.
iCog Ps.3 Pressure Sensor
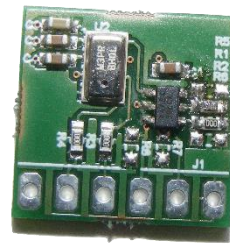
Top View.
iCog Ps.3 Pressure Sensor

## KEY FEATURES

The Sensor – MPL3115A2

- 20KPA to 110KPA
- Fully Compensated
- 24-bit equivalent ADC resulting in 0.1 metre of effective resolution
- Direct Reading
  - Pressure: 20-bit in Pascals
  - Altitude: 20-bit in metres
  - Temperature: 12-bit in °C
- Programmable Interrupts
- Embedded FIFO allows data logging

ID-IoT chip – eeprom

- Prewired for base I^{2}C address
- Configurable for different addresses
  - A0,A1 address selection may be changed
  - Allows up to 4 iCogs™ on same bus
  - See application note for details
- 1KB user data space
- 32-bit Unique ID No. (UID)
- Option to fit pull up resistors on SDA/SCL lines if required

For more information
www.CognIoT.eu
Sales@BostinTechnology.com

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SHIPPING AND ASSEMBLY

The iCog Sensors are shipped with a 6-way 0.1" header that should be soldered into the sensor board.
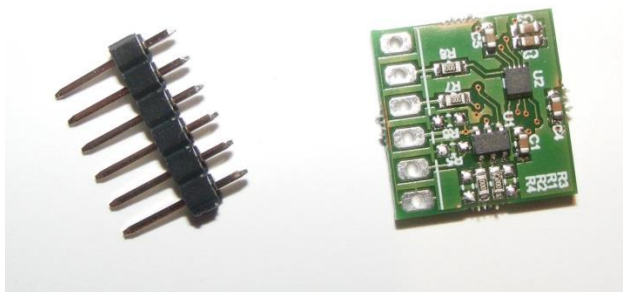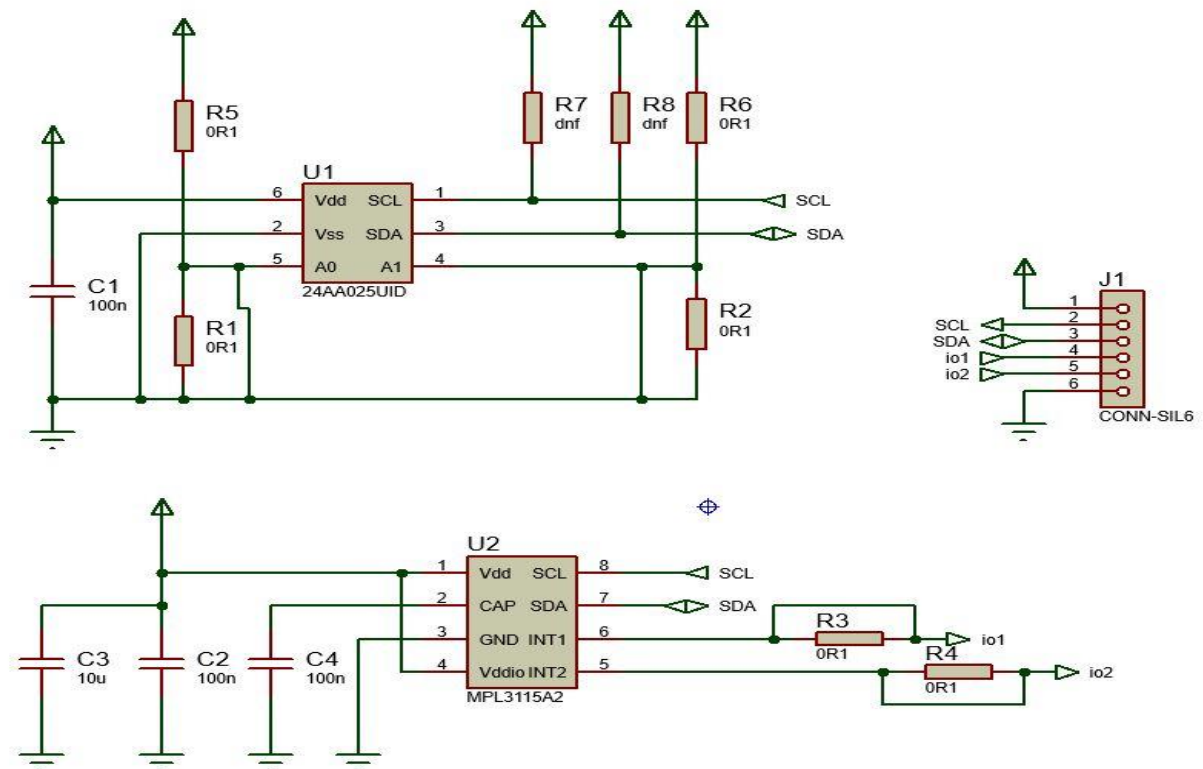

iCog and 6-way header.
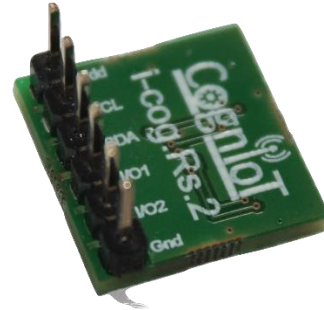
Assembled iCog sensor

DIMENSIONS

The family of iCog™ sensor boards are 15mm x 15mm

SCHEMATIC

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CONNECTOR

The CognIoT™ iCog™ sensor board is connectable via a 6-way 0.1" (2.54mm) pitch header.
Pin-out is:

    1 – Vdd (nominally 3.3V)
    2 – SCL (I2C clock)
    3 – SDA (I2C data)
    4 – IO1 – dependant on fitted sensor (see schematic)
    5 – IO2 – dependant on fitted sensor (see schematic)
    6 - GND

ORDERING INFORMATION

Part Number	Description
iCog-Ps.3	iCog Pressure Sensor

REVISION HISTORY

Version	Date	Comment
V0.1	May 2016	First version.
V1.0	Sep 2016	Cosmetic changes. Updated images

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