BMP388:

3. 3 power modes;

* Sleep mode – no measurements
* Normal mode – automated perpetual cyclic active and standby
* Forced mode – single measurement and return to sleep mode

3.2 After power up, sensor settles in sleep mode

Holding any interface pin (SDI, SDO, SCK, CSB) at logical high when Vddid is switched off can cause permanent damage

3.3 select power modes using the mode [1:0] bits in the control register “pwr\_ctrl” mode [1:0]

* 00 -> sleep mode
* 01 or 10 -> forced mode
* 11 -> normal mode

Sleep mode – (default) no measurements performed, all registers accessible

Forced mode – single measurement is performed according to measurement filter options. When measurement is finished, sensor returns to sleep mode and results are obtained from the data registers. (recommended for low sampling rate or host-based synchronisation.

5.2 7-bit address is 111011X last bit interchangeable by SDO value.

1110111 = 0x77

IIR filter to minimise short-term disturbances in output data.

IIR filter reset when a transition from sleep -> normal mode occurs

Filter selection recommendations

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Use case drone | **Mode** | **OverSampling setting** | **OSRS\_P** | **OSRS\_T** | **IIR filter Coeff** |
| Normal | Standard(High resolution) | X8 | X1 | 2 |
|  | | | | |

Recommended to burst read registers press\_xlsb to temp\_msb to ensure good data and registers not be half overwritten with new sensor reading.

Output compensation: BMP388 consist of ADC output values, due to behavioural differences, and to receive most accurate physical values, compensation formulae have to be applied to raw output values received from sensor, stored in NVM.

Resolution is the fineness of a display. Resolution expresses the number of the smallest equal pieces for display.

Oversampling options exist. Each oversampling step reduces noise and increases output resolution by one bit, stored in xlsb data register???? (ADC resolution?)