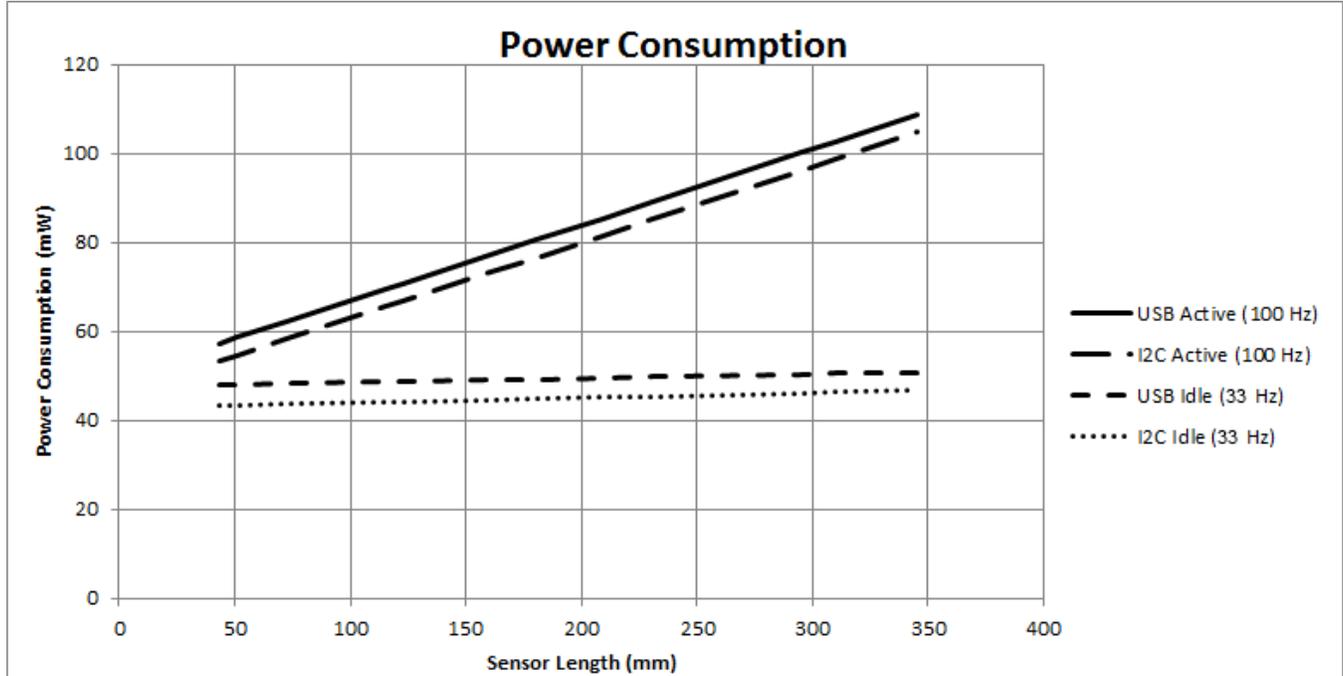# Power Consumption

Specification

The graph below shows the power consumption for various sensor lengths, in active and idle mode. In active mode, the scanning frequency is set to 100 Hz, and one object is presented in active area. In idle mode the scanning frequency is set to 33 Hz, with a clean active area. With higher scanning frequency or more detected objects, the power consumption might slightly higher than the values in the graph. The sensor will only be in active mode when a touch object is being detected or tracked.

From firmware version 1.49 and higher, sensor variants NNAMC3460PC01 and NNAMC3461PC01 are provided with Extended Range, and their power consumption increases 30% in both USB active mode and USB idle mode. The power consumption for sensor variants shorter than 237 mm is not affected by Extended Range.

Definition

The power consumption is calculated from the current consumption when supplying the sensor with 5 V.

The current consumption is, in turn, defined as the average current that goes through a sensor. This is measured from the +5V power pin and reflects how much electric energy that is consumed by the whole sensor. In real time, the current is not a stable value. Since the Touch Sensor has a low power consumption design, the processor and some peripheral circuits will switch to sleep mode during the time between two scan periods, to save power. Therefore, the current is frequently changing during run time.

According to the different working modes of the Touch Sensor, the current consumption value also changes between Active mode and Idle mode.

More Specifications

- Specifications Summary
- Touch Performance
- Power Consumption
- Environmental Requirements
- Electrical Requirements
- Optical Requirements on External Window
- Mechanical Data
- Test Specifications and Definitions

Read More

- Introduction
- Getting started with zForce AIR Touch Sensor Evaluation