Case 1: Softdevice flashed, no app flashed



per data sheet

KX022 high power mode 145 uA @2.5V

low power mode 10 uA

standby 0.9 uA

SHT3 idle state 0.2 uA (max 2 uA)

Average 2 uA while measuring w/lowest repeat.+single shot)

Case 2: Softdevice, just go to idle mode



Case 3: Softdevice, init bsp (led off), and just go to idle mode



Case 3b (one led on)

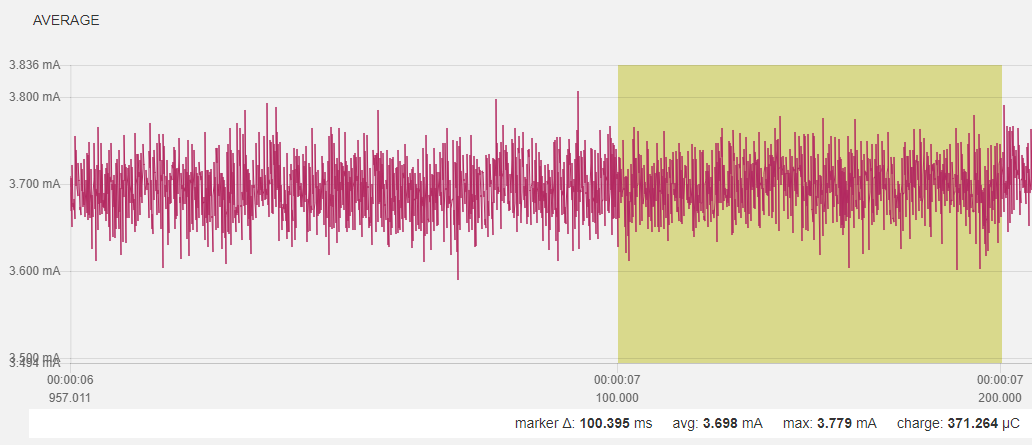


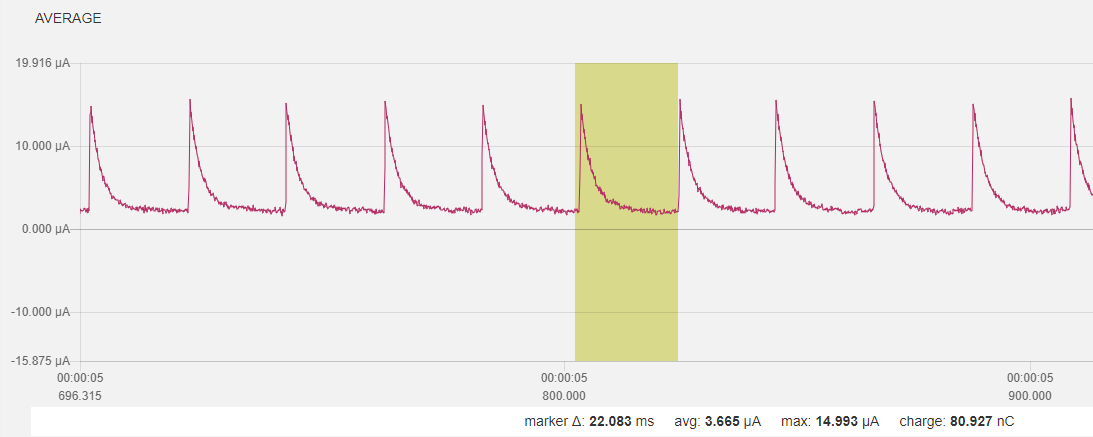
Case 4: (led off=3 + twi\_config + (both) sensor\_init)

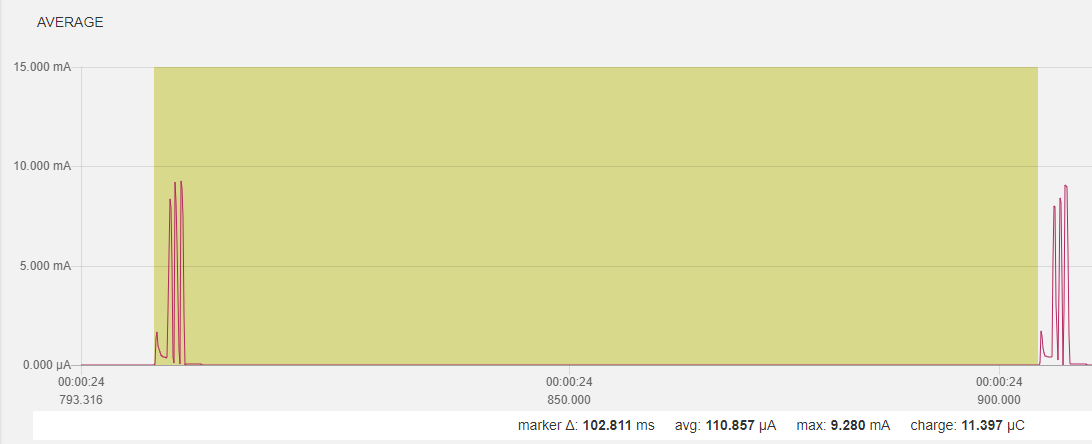


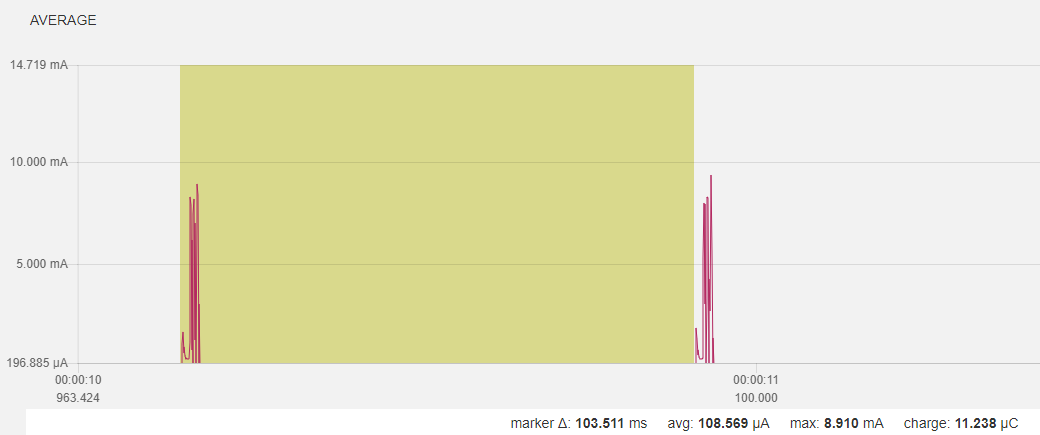
Case 4a: = 4 but no sensor\_init

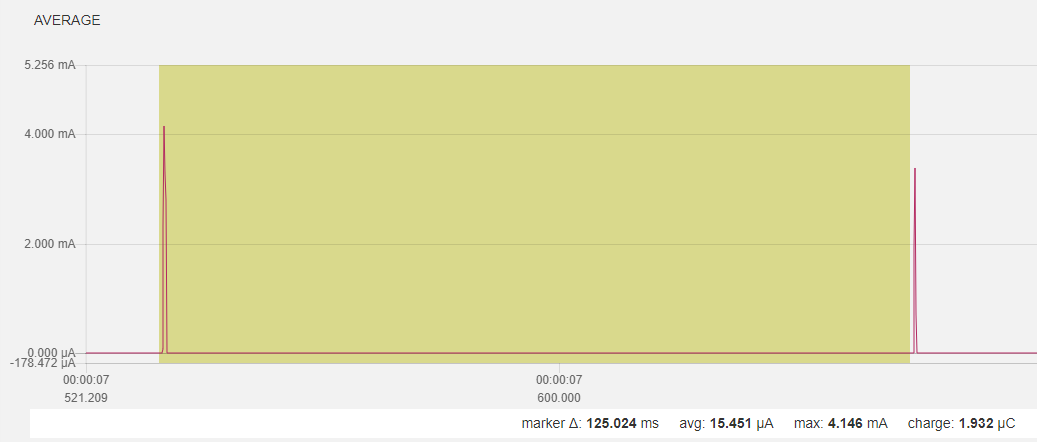


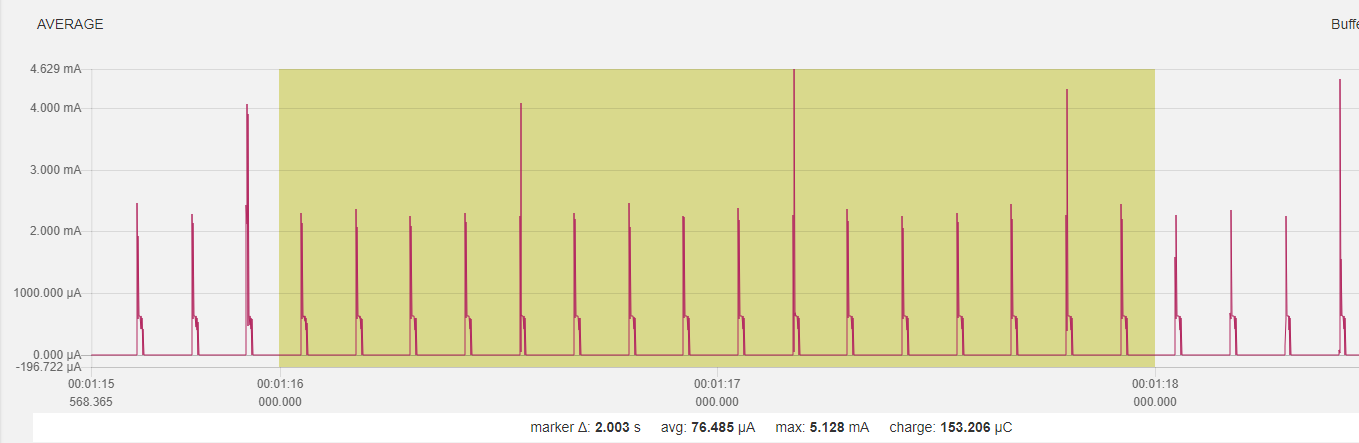
Case 4b: only kx022 init

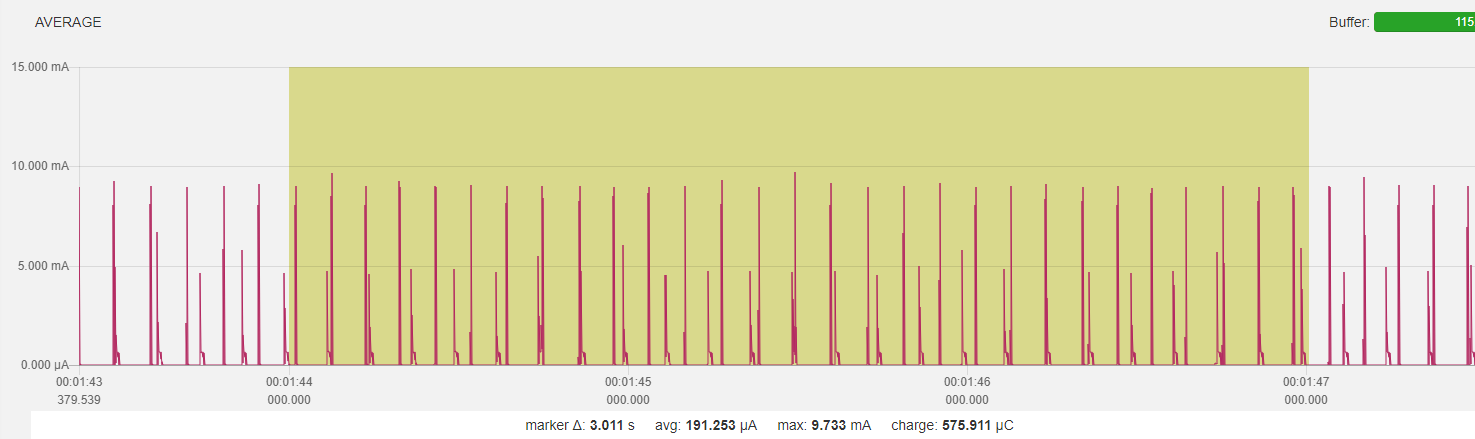
Case 4c: only SHT3 init 

Case 5 (case 4c/SHT but no KX022, no sensor data + BLE adv)  


Case 6 (case5+ saadc measurement)

Case 6a (case 6 w/o BLE init/adv)  


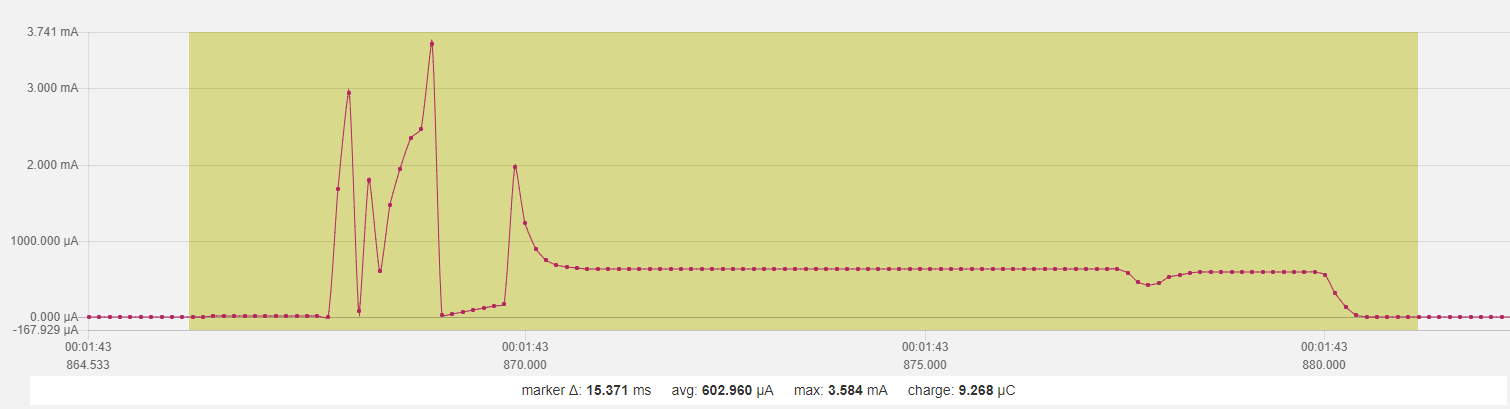
Case 7 (case 5 + SHT measurement) 

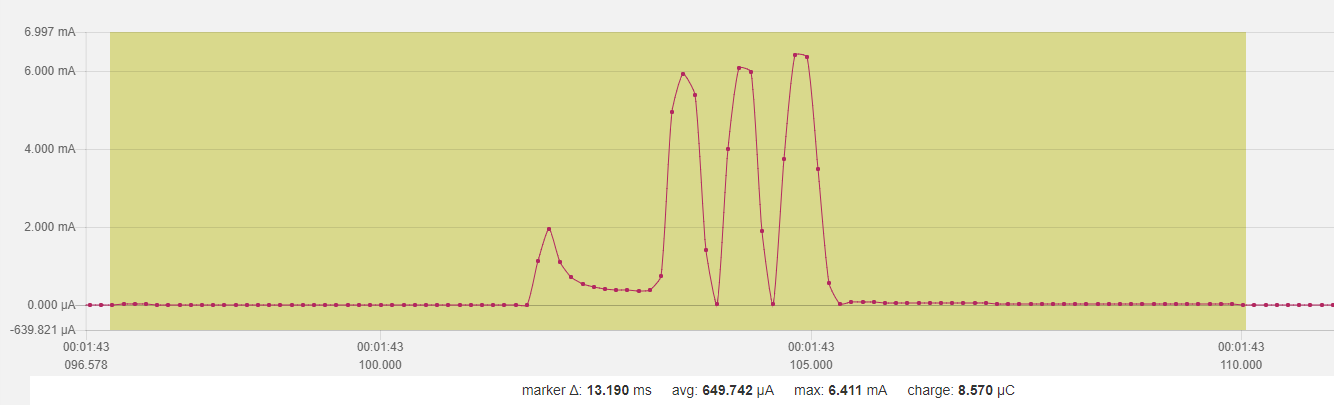
Case 8 (all but KX022 measurement, 1/8 data acquisition for SHT and SAADC)  


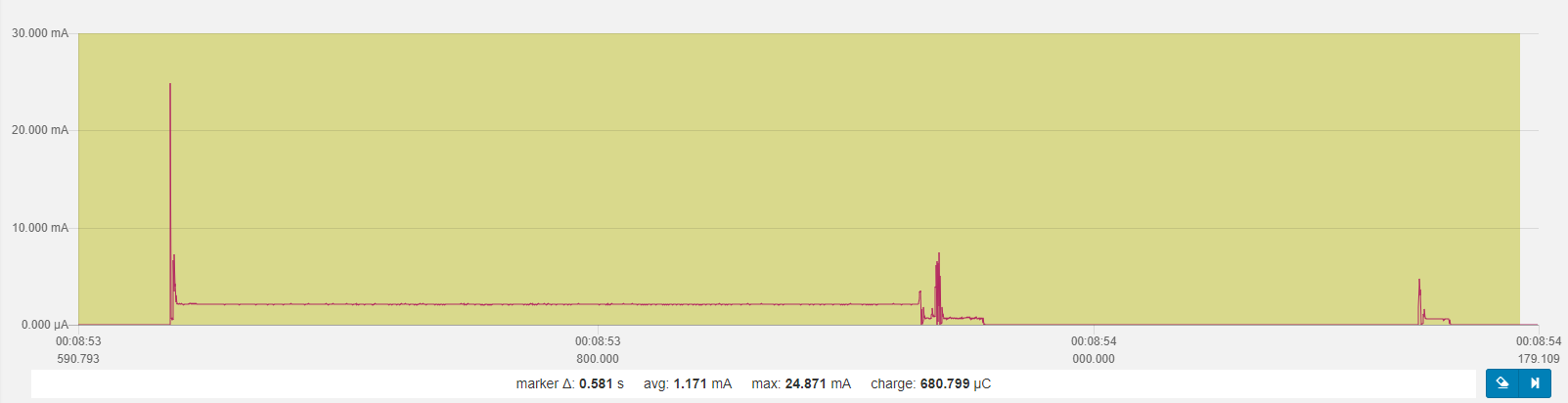
Case 8a

* reduce transmit power to 0dBm from +4dBm
* adv int to 1 sec from 1/10 sec
* SHT update int to 5 sec from 1/8 sec
* SADC update int to 10 sec from 1/8 sec



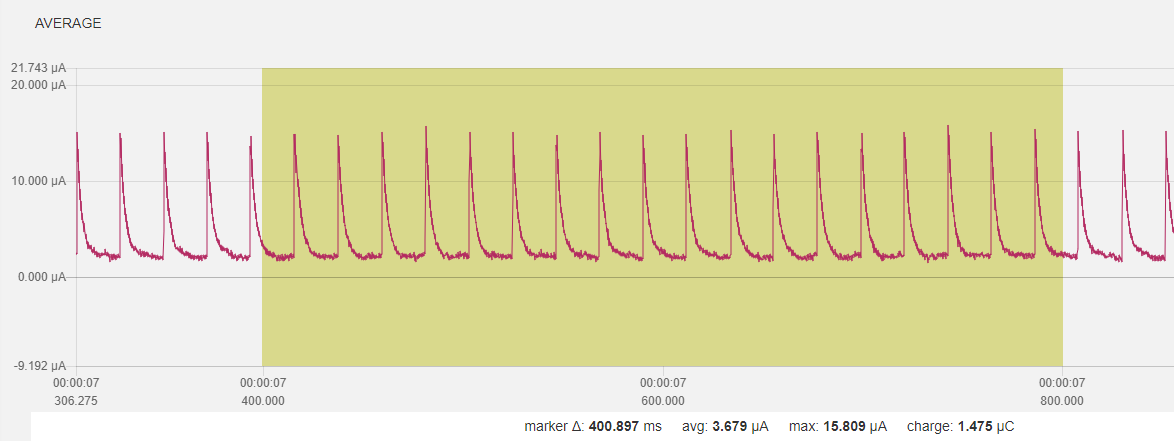
Sensor update (all 5 sec)

Adv (all 1 sec)

Startup

* Peaks
  + Power on peak
  + First adv
  + First sensor acquisition

# Part 2 – Power Optimization KX022 Accelerometer

Baseline, no BLE, no sensor init

Change to TWI without transaction manager, SHT3 init and KX022 init to standby