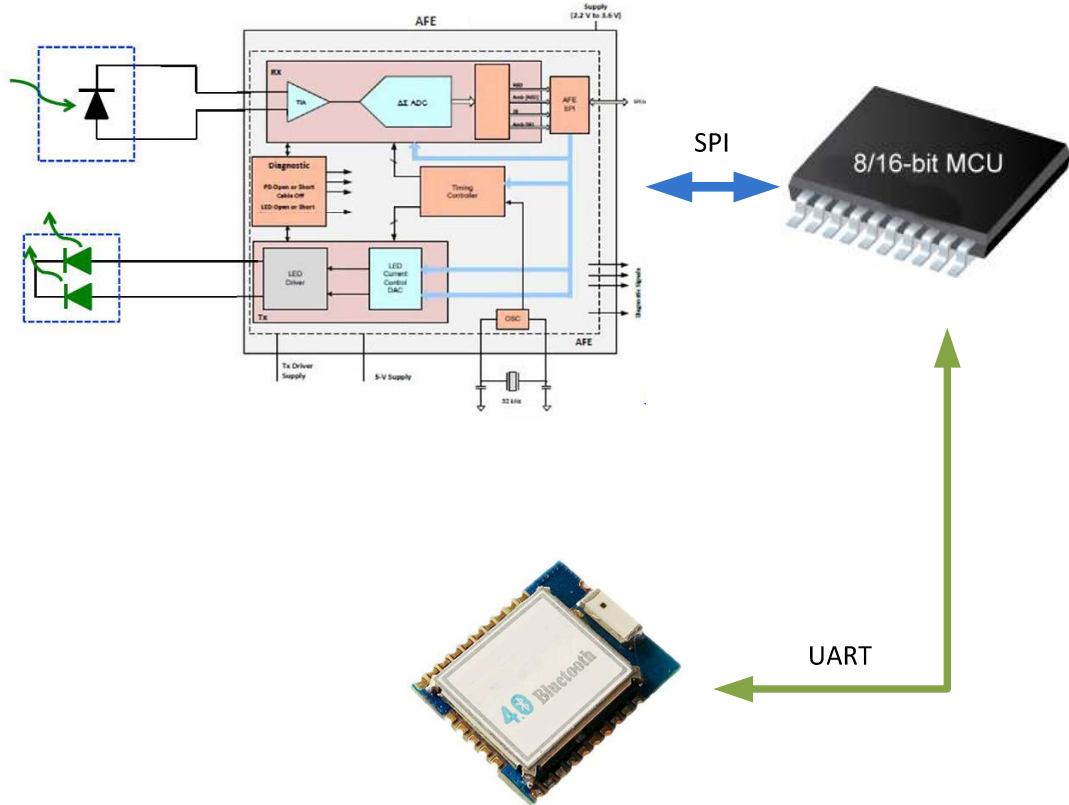


PPG Heart Rate solution for Motion

Architecture:



Strengths:

- Low power and high sensitivity.
- Low cost MCU(8-bits) can use.
- Fast response time for heart rate measuring.
- Auto-adjustment for measuring.
- Without G-sensor for motion canceling.
- UART interface : 19200.n.8.1

Parameter:

Parameter	Symbol	Descriptor	Min.	Typ.	Max.	Unit
Operation Voltage	Vcc	-	3.0	3.3	3.6	V
Operation Current	Icc	Sensor/AFE/MCU	-	5	15	mA
HR Response Time	HRtr	-	3	-	5	sec
Heart Rate Range	Rhr	-	30	-	240	Beat/m

Heart Rate offset	HRos	Static	-2	-	2	Beat/m
	HRom	Motion	-5	-	5	Beat/m
CPU clock	fclk	Full speed	-	-	1	MHz
Code size	-	MSP430G2553	-	-	4000	bytes
RAM size	-	MSP430G2553	-	-	300	bytes

Bill Of Materials

Item Quantity Reference Part

1	11	C1,C2,C3,C4,C5,C10,C11, C12,C13,C15,C16	0.1uF
2	2	C6,C9	20pF
3	2	C7,C8	2.2uF
4	1	C14	100pF
5	1	C17	220pF
6	1	D1	LED
7	2	J1,J2	HEADER 4
8	2	L1,L2	FB
9	1	R1	1K
10	1	R2	10K
11	3	R3,R4,R6	2K
12	1	R5	49.9K
13	1	U1	AFE
14	1	U3	MCU
15	1	U4	PPG Sensor
16	1	Y1	8MHz