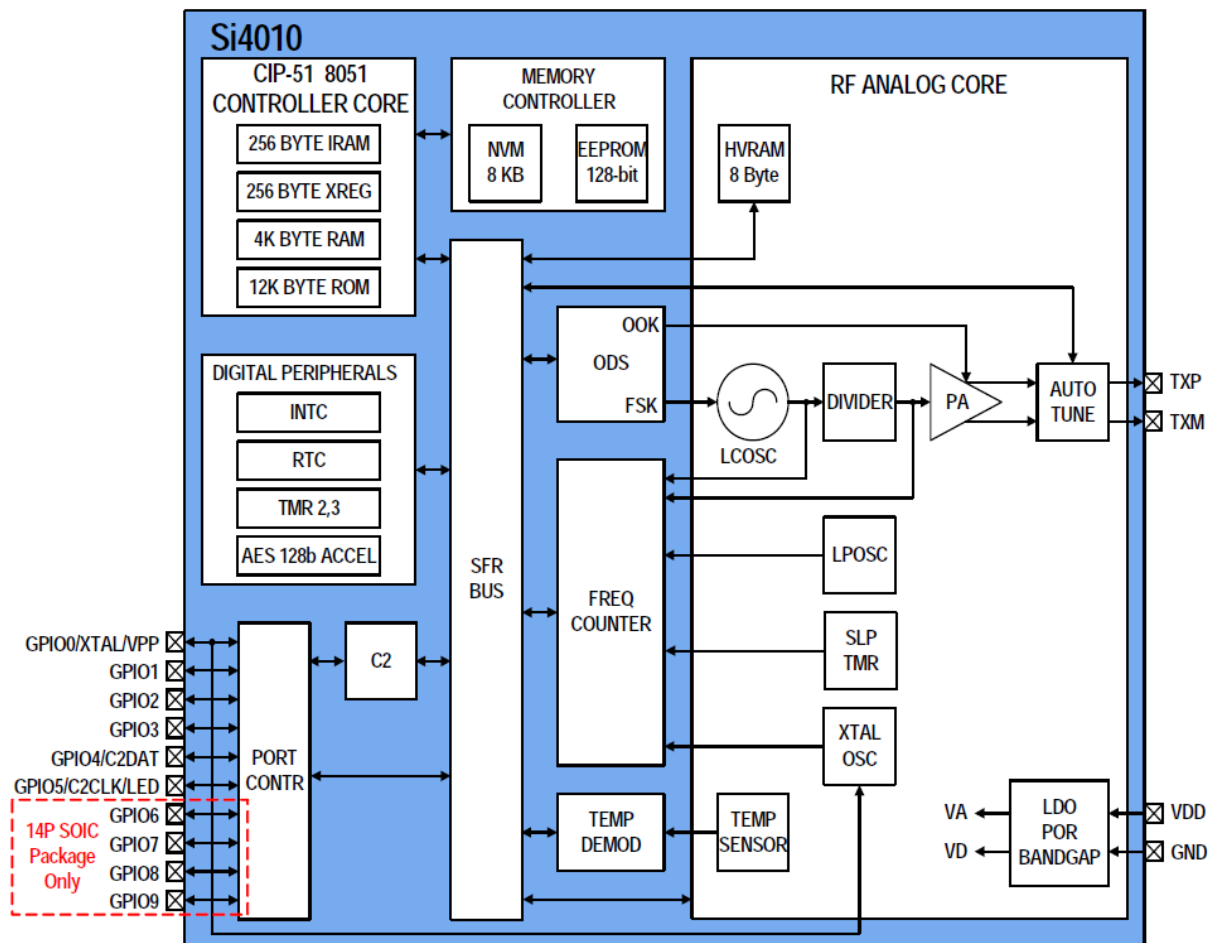


Technical Description

The transmitter is power by three 1,5V AAA (LR03) batteries.

The Circuit consists of a single processor and a few coils and capacitors for stability.

The functional block diagram for the processor.



The Datasheet for the processor can be found here:

<https://www.silabs.com/Support%20Documents/TechnicalDocs/Si4010.pdf>

RF-Transmitter:

The modulation scheme is a simple OOK. The data bit rate is 4 kbit/s (each bit having a length of 250 us). The coding scheme is Manchester so each bit consist of a high period of 125 us and a low period of 125 us. Thus the signal will always have a duty cycle of 50% (constant DC component) regardless of the data content. Data is transmitted in packets. For a more detailed description of the coding and data scheme refer to the “RF-protocol description”.

The Antenna is made up by a small current loop on the PCB board itself.