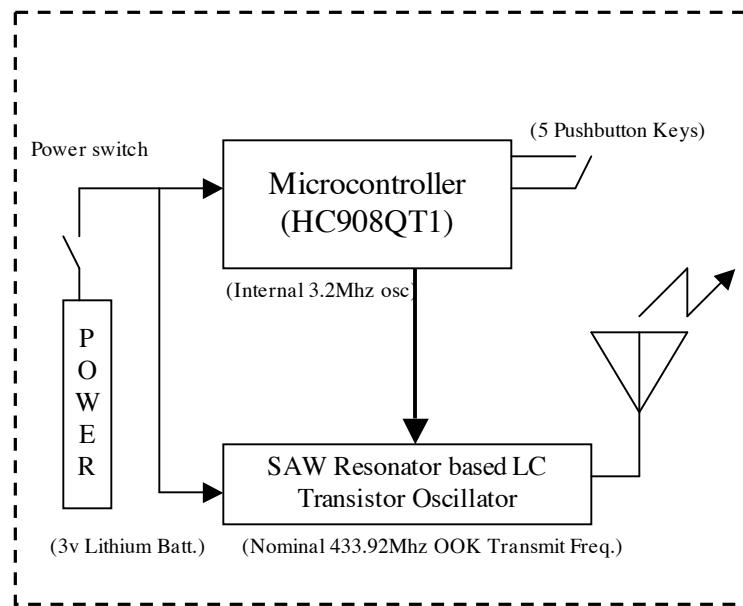
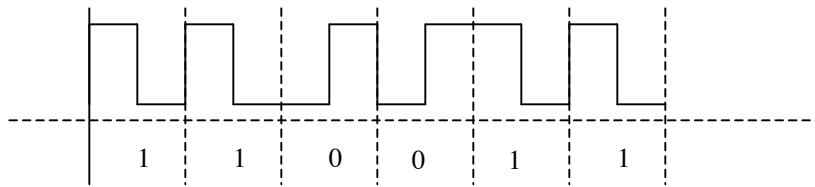


Keyfob block diagram

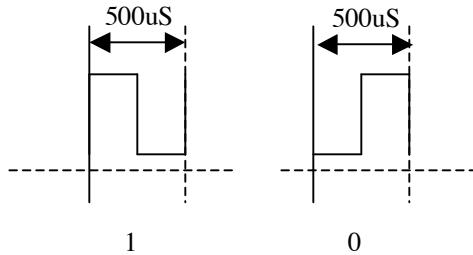


Keyfob Transmit Timing

Manchester Encoding.



The Aerolink keyfob uses Manchester Encoding to “encode” its data before transmission. For the Keyfob, the period of each bit is 500uS, with a “1” being high for the first 250uS, and then low for the next 250uS of a period. A “0” is indicated by a low for the first 250uS, followed by a high for 250uS.



A complete frame of transmitted data consists of a “Front Porch” (0.5mS high, followed by 0.5mS low, followed by 2.0ms high), Serial Number (8 bits), Command Byte (8 bits), and ending with a CRC check byte (8 bits).

Further, if the user holds a key down, it will repeat this pattern every 100ms

So, the total number of transmitted bits is $8+8+8 = 24$.

Total data period is $2.0\text{ms} (\text{Front Porch}) + 24 * 500\text{uS} = 14\text{ms}$

Total high (on) time approximately $2.5\text{ms} (\text{Front Porch}) + 24 * 250\text{uS} = 8.5\text{ms}$.