FCC ID: GCD-SA03G   OPERATIONAL DESCRIPTION
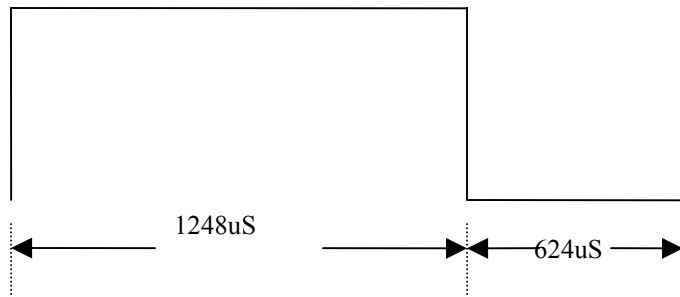

1.Operational Description

The RF section of the SA03G is based on a Melexis chip with a fixed modulus (32) PLL. Thus the 13.56 MHz Xtal is multiplied by 32 giving the 433.92 MHz carrier frequency. A balanced output is matched by a passive network that can deliver up to +2 dBm into 50 OHM. This device is followed by a passive antenna matching network. A printed antenna is situated on the PCB.

The u-Controller provides two signals. Namely a chip enable line that activates the Melexis and the PA and a data line that is used to OOK modulate both the Melexis device
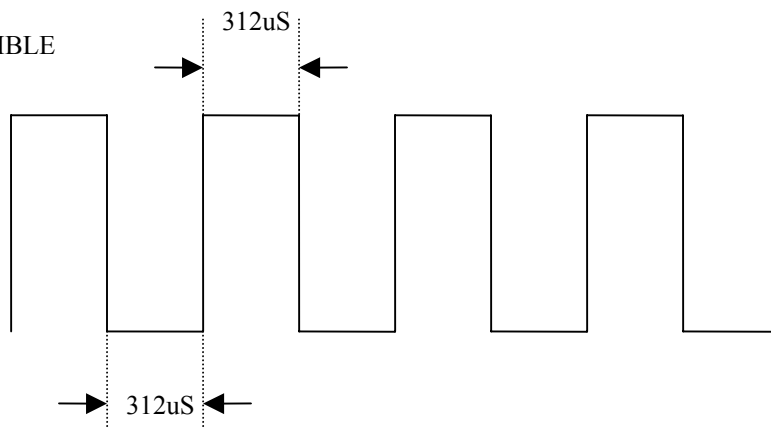
2. Timing Requirements

When the Remote Control detects activity 5 identical transmissions are sent. The time between the end of one transmission and the start of the subsequent one being random. This time interval varies between 105ms and 400 ms. However, the total TX period is always less than 1 s.
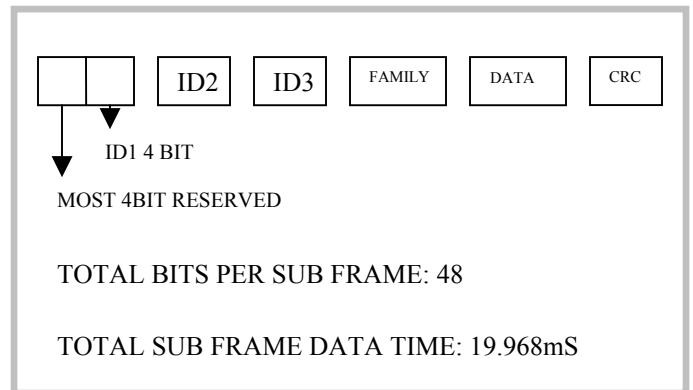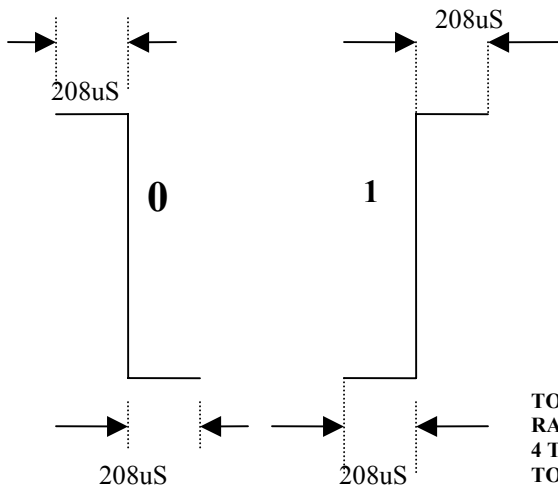
1. START BIT

1248uS

624uS

1. PREAMBLE

312uS

312uS

1. DATA

208uS

208uS

0

1

208uS

208uS

| | | ID2 | ID3 | FAMILY | DATA | CRC |

ID1 4 BIT

MOST 4BIT RESERVED

TOTAL BITS PER SUB FRAME: 48

TOTAL SUB FRAME DATA TIME: 19.968mS

TOTAL SUB FRAME TIME: 21.842Ms
RANDOM SUB FRAMES
4 TIME SLOTS
TOTAL SUB FRAMES IN SUPER FRAME: 5