3. Tx duty cycle

A Time Division Multiple Access/Time Division Duplex (TDMA/TDD) scheme is chosen for the system. There is 24 time slot. Since we are using slow RF, one slot is needed for RF PLL settling. Then we have 6 pairs of duplex channel for 6 users which can be used simultaneously.
The theoretical value of one Tx slot time is given below
From the frame structure, there are 424 bit usable data
$(424+4)$bit/1.152Mbps = 371.5uS
Where there are extra 4 bit for Tx power ramping and falling.

In handset, only one slot pair will be used. Then the Tx occupation time is 371.5uS.
In base, 6 users may use same RF channel in worse case. Then the maximum Tx time in base will be 2.229mS (371.5*6uS).

4. Security code

In this system, we use 2^{40} security code. The code is assigned sequentially by the manufacturer. Each unit (handset, base, or desktop) will be assigned a different code during production. This code is unique for each unit (handset, base, or desktop)

When user wants to register a new handset or desktop, the user must physically press the "REGISTRATION" button of the base so that the base will broadcast the registration information to all handsets/desktops. On the handset/desktop side, the user must also enter the registration mode by pressing "MENU" key followed by "Registration" key. The handset/desktop will then search any possible base unit. When the base has been searched, the handset/desktop will exchange the registration information with the base. The handset/desktop will keep the registration information of the base while the base will keep the registration information of the handset/desktop. The registration information is kept in non-volatile memory. After registration, the handset/desktop and base can recognize to each another.