

Operation Theory for the Bluetooth Carkit

The Bluetooth Carkit is made up of four parts: RF(Bluetooth) unit, Audio unit, MCU unit and PMU (Power Management Unit).

1. Bluetooth Unit transmit and receive the signal through the Antenna (PCB antenna) and the Balun Filter, and send/receive to/from Bluetooth Chipset, the flash memory saves the config data (such as the MAC address) and the device information and the paired Bluetooth phone's information, so the Bluetooth Carkit can auto pair with the used phone next time. The Frequency Bandwidth is 2.4GHz ~ 2.4835GHz.
2. Audio unit receives the signal from MIC, ADC by the codec (Bluetooth Chipset), or receive the digital data from Bluetooth, after DAC (Bluetooth Chipset) and send to Audio Amplifier to Speaker, output the sound.
3. MCU unit (Communication to Bluetooth Chipset by the UART interface) operation of the Buttons and Switches and the LEDs indication and control the display driver. One 11.0592MHz OSC supply the clock to the MCU Chipset.
4. PMU unit recharge the battery and convert the battery voltage to 3.3V and 1.8V.