

## CIRCUIT DESCRIPTION

### 1. MAIN CHIP AC6969D

#### CPU

32-bit DSP supports hardware Float Point Unit (FPU) Up to 160MHz programmable processor

64 Vectored interrupts 4 Levels interrupt priority

DSP Audio Processing SBC, AAC Audio decodes supported for BT audio mSBC voice codecs supported for BT phone

Supports MP2, MP3, WMA, APE, FLAC, AAC, MP4, M4A, WAV, AIF, AIFF audio decoding

Packet Loss Concealment (PLC) for voice processing

Acoustic echo cancellation/suppression (AEC,AES)

Single/Dual MIC Environmental Noise

Cancellation (ENC)

Multi-band DRC limiter

10-band EQ configuration for voice Effects

Audio Codec

One channels 16-bit DAC, SNR >= 95dB

One channels 16-bit ADC , SNR >= 90dB

Sampling rates of 8KHz/11.025KHz/16KHz/22.05KHz/24KHz/ 32KHz/44.1KHz/48KHz are supported

One analog MIC amplifier, build-in MIC bias generator

Supports two PDM digital MIC inputs

Two channels Mono analog MUX

Supports cap-less, single-ended, and differential mode at the DAC path

Supports 16ohm and 32ohm Speaker loading

Bluetooth

Compliant with Bluetooth (GFSK,  $\pi/4$ -DQPSK, 8DPSK) specification

Fast AGC for enhanced dynamic range

### 2.charge.

5V input to provide 400mA charging current to the lithium battery. There is a charge detection circuit to achieve charging point, indicator light long bright, charge saturation, indicator light off.

### 3 Crystal

The clock of Bluetooth chip, frequency is 24MHz, request error 10ppm

### 4.power amplifier

An audio power amplifier LTK5313, maximum power to 5W.

### 5 BT ANT

Bluetooth PCB board antenna