

Intercom Noise Reduction / Echo Cancellation Turnkey Solution

Introduction

ISD94124S is a 32-bit microcontroller embedded Arm® Cortex®-M4F with DSP extensions and Floating Point Unit which can run up to 200 MHz. It provides up to 512 KB of flash memory and up to 192 KB of SRAM. ISD94124S also has a variety of peripheral devices, such as multi-function timers, watchdog timers, RTC, PDMA, UART, SPI, I²C, PWM, GPIO, 12-bit ADC, USB1.1 device and equipped with an outstanding AI based noise reduction and echo cancellation which is an ideal algorithm for intercom communication device.

Features

- Single MIC NB/WB NR and AEC
- The NR algorithm has good adaptability to environmental variety
- A good balance between NR amount and voice quality
- Applications: Intercom doorbell/emergency call

Specifications

ISD94124S (Arm Cortex-M4, 200 MHz)

- SRAM: 192KB, Flash: 512KB
- 13-channel 12-bit SAR ADC
- USB FS1.1 compatible FS2.0
- Support DMIC/I²S/DPWM Audio Interface
- Operating range:
- Industrial-grade -40°C ~ 85°C

System Block Diagram

