

MaxxAudio NPCP215F Dragonfly™ Piezo Speaker Enhancement

Introduction

Nuvoton NPCP215F is part of Nuvoton Audio Enhancement family optimized for monitors and TV applications. NPCP215F integrates a DSP and a Class-D power amplifier with Waves® MaxxAudio-3 sound enhancement algorithms that compensate the acoustic limitations of small-dimension consumer electronics devices and speakers through psychoacoustic algorithms.

MaxxAudio-3 algorithms enable wide dynamic soundstage and full frequency range on limited audio systems. For low-frequency reproduction, MaxxBass® uses a patented psychoacoustic technique to create a perceived low bass, which can be extended up to 1.5 octaves lower than original. This technique, combined with Dragonfly™ piezo speaker, results in full and rich sounding bass tones, which was previously not possible with regular piezoelectric actuators.

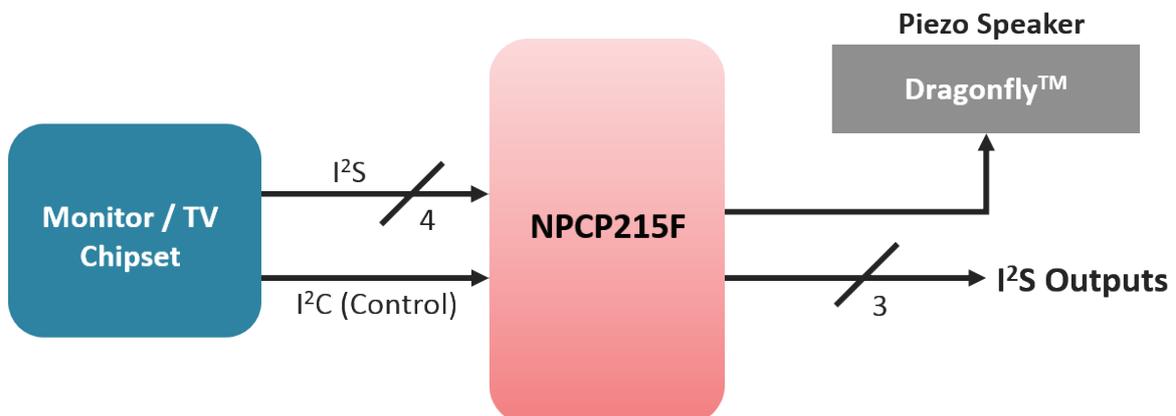
Features

- Audio input: up to four I²S or SSI inputs
- Audio output:
 - Up to three I²S or SSI outputs
 - Up to 2x20W Class-D Power output
- Various protection sensors
- 100 dB SNR
- 90% power efficiency
- 3.3V Logic Supply, 26.4V Power Supply
- 7x7 mm, QFN48 package

Highlights

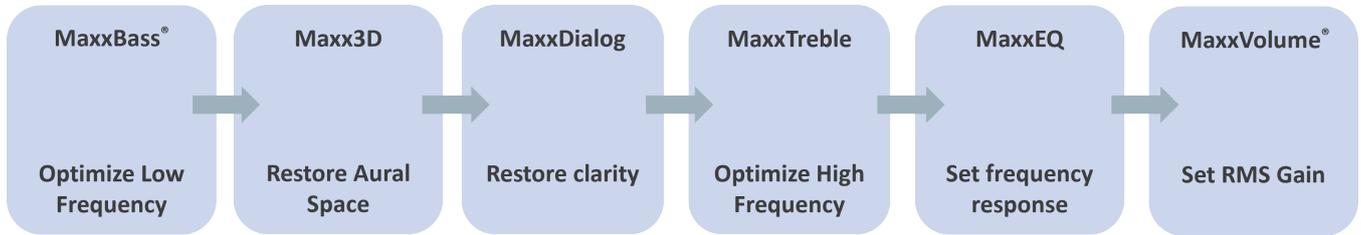
- I²C controlled
- 24-bit audio
- Audio Algorithms
 - MAXXBASS
 - MAXX3D
 - MAXXTREBLE
 - MAXXEQ
 - MAXXVOLUME
 - MAXXLEVELER
 - MAXXDIALOG

System Block Diagram



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Processing Chain Diagram



Product Roadmap

