

Q5™ Sample Rate Converter

Q5™ Overview

Q5 follows in ANAGRAM's tradition of delivering technology that creates spacious, richly detailed sound from any digital audio source. It offers significant improvement in terms of performance, flexibility, and compatibility with audio formats over previous generations and is based on a state-of-the-art asynchronous sample rate converter kernel which provides superior imaging and jitter rejection, industry leading 384kHz conversion, and SACD processing. Support for both DSD and PCM audio data formats up to 24bit / 192kHz is provided and dual 384kHz capable DACs in dual mono-mode configuration can be driven at the same time as a downsampled digital output.

Applications

- » Redbook CD players and recorders
- » High performance D/A Converters
- » Music servers

Availability

- » Hardware Modules
- » Evaluation Kits
- » Technology and Manufacturing License for OEMs

Further Information

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About ANAGRAM

ANAGRAM Technologies is a leading supplier of technology that allows OEMs to create and integrate spacious, richly detailed sound in innovative product designs based on industry-standard components and processes. It provides SoC, DSP, and FPGA platform developers with intellectual property (IP) solutions in the form of sample rate converters, sigma-delta D/A converters, digital power amplifiers, DSP audio processing algorithms, wireless digital audio subsystems, related software and development tools.

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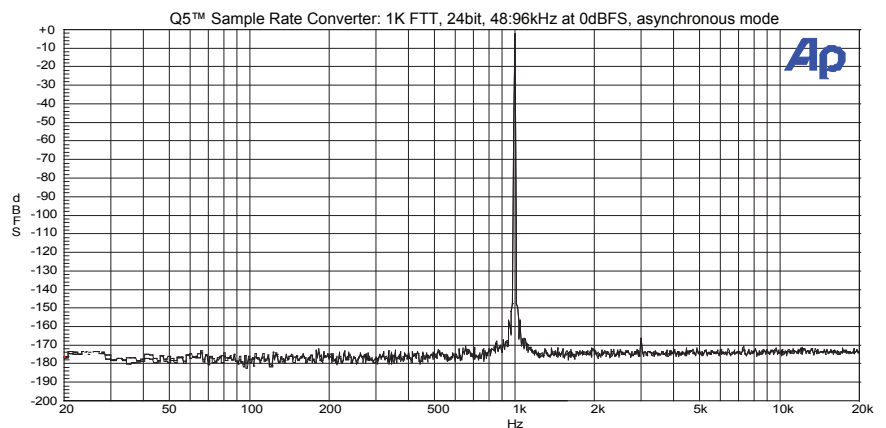
Features

- » High resolution 384kHz 2-Channel Asynchronous Sample Rate Converter integrates state-of-the-art Q5™ Upsampling technology
- » Scalable audio performance from CD, SACD to DVD-Audio
- » Processes 1bit DSD input streams for high definition audio support
- » Automatic detection of the input-to-output sampling ratio
- » Excellent jitter attenuation with high quality local clock
- » Configurable output word length reduction and mute functions
- » Upsampled digital output drives 2 DACs in dual mono-mode with additional direct-downsampled output port available for driving digital transmitter
- » Available on low-cost Blackfin DSP processor
- » Controllable via SPI command interface

Specifications

- » Total Harmonic Distortion and Noise (THD+N) at 0dBFS up to -144dB
- » Input sampling frequencies from 32kHz to 192kHz
- » Fixed output sampling frequency from selectable from 48, 96, 192 or 384kHz
- » Supports audio input and output data word lengths up to 32bits
- » Audio formats supported PCM or DSD (input only)

Performance



Typical Application

