


Audio Processor Bass/Treble 64-Pin TQFP

Manufacturer:	STMicroelectronics, Inc
Package/Case:	QFP64
Product Type:	Embedded Processors & Controllers
RoHS:	RoHS Compliant/Lead free 
Lifecycle:	Active



Images are for reference only

[Inquiry](#)

General Description

The STA309A is a single chip solution for digital audio processing and control in multi-channel applications. It provides output capabilities for DDX®. In conjunction with a DDX® power device, the STA309A provides high-quality, high-efficiency, all digital amplification. The device is extremely versatile, allowing inputs of most digital formats including 6.1/7.1-channel and 192 kHz, 24-bit DVD-audio, DSD/SACD. In 5.1 applications the additional 2 channels can be used for audio line-out or headphone drive. In speaker mode, with 8 channel outputs in parallel, the STA309A can deliver more than 1 W.

Key Features

Pre and post EQ full 8-channel input mix on all 8 channels

Bass/treble tone control

Dynamic range compression

Dual independent limiters/compressors

Individual channel and master soft/hard mute

Automode™:5-band graphic EQ32 preset EQ curves (rock, jazz, pop, etc.)Automatic volume controlled loudness5.1 to 2-channel downmixSimultaneous 5.1- and 2-channel downmix outputs3 preset volume curves2 preset anti-clipping modesPreset movie nighttime listening modePreset TV channel/commercial AGC mode5.1, 2.1 bass management configurations8 preset crossover filters

Automatic invalid input detect mute

Automatic zero-detect and invalid input mute

Advanced PopFree operation

I2S output channel mapping function

Advanced AM interference frequency switching and noise suppression modes

Channel mapping of any input to any processing/DDX® channel

Independent channel volume and DSP bypass

Selectable per-channel DDX® damped ternary or binary PWM output

DC blocking selectable high-pass filter

Variable per channel DDX® output delay control

Max power correction for lower full-power THD

192 kHz internal processing sample rate, 24-bit to 36-bit precision

Individual channel and master gain/attenuation plus channel trim (-10 dB to +10 dB)

Soft volume update

8 channels of 24-bit DDX® (direct digital amplification)

Selectable 32 kHz - 192 kHz input sample rates

100 dB of SNR and dynamic range

Digital gain/attenuation +58 dB to -100 dB in 0.5-dB steps

Up to 10 independent 32-bit user programmable biquads (EQ) per channel

6 channels of DSD/SACD input

Recommended For You

STA540

STMicroelectronics, Inc
ZIP15

STA339BWTR

STMicroelectronics, Inc
SSOP36

STA559BW

STMicroelectronics, Inc
SSOP36

STPA003OD-4WX

STMicroelectronics, Inc
144-LQFP

STA120D

STMicroelectronics, Inc
SOP28

STA308

STMicroelectronics, Inc
QFP

STA333W

STMicroelectronics, Inc
SSOP36

STA516B13TR

STMicroelectronics, Inc
HSSOP36

STABP01D

STMicroelectronics, Inc
SOP20

STA333ML

STMicroelectronics, Inc
SSOP36

STA333BW

STMicroelectronics, Inc
SSOP36

STA321

STMicroelectronics, Inc
TQFP64

STA304A

STMicroelectronics, Inc
QFP

STA333IS

STMicroelectronics, Inc
CSP-30

STABP01

STMicroelectronics, Inc
DIP