


Audio Processor Bass/Treble 64-Pin TQFP

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



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

ACS120-7ST

STMicroelectronics, Inc
TO-220

STA518

STMicroelectronics, Inc
SSOP36

ACST410-8BIR

STMicroelectronics, Inc
TO-252

ACST310-8BIR

STMicroelectronics, Inc
TO-252-3(DPAK)

E-STLC5046

STMicroelectronics, Inc
BGA

STA8089FGATR

STMicroelectronics, Inc
VFQFPN-56

STLC61255

STMicroelectronics, Inc
BGA

ACS108-6SA

STMicroelectronics, Inc
TO-92-3(StraightLead

T410-600B-TR

STMicroelectronics, Inc
TO-252

T410-600T

STMicroelectronics, Inc
TO-220

ACS302-5T3

STMicroelectronics, Inc
SO-20

BTB16-800CWRG

STMicroelectronics, Inc
TO-220

BTA16-800BWRG

STMicroelectronics, Inc
TO-220

BTB24-800BRG

STMicroelectronics, Inc
TO-220AB

TN1215-800G-TR

STMicroelectronics, Inc
TO-263