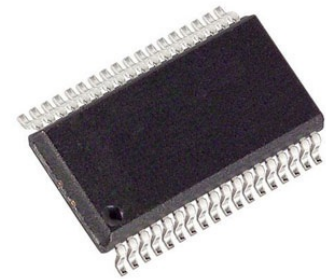


high-efficiency digital audio system

Images are for reference only

[Inquiry](#)

Manufacturer:	STMicroelectronics, Inc
Package/Case:	SSOP36
Product Type:	Embedded Processors & Controllers
Lifecycle:	Obsolete

General Description

The STA333ML is a single die embedding digital audio processing and high-efficiency power amplification, capable of operating without the aid of an external microcontroller. The STA333ML is part of the Sound Terminal® family that provides full digital audio streaming to the speakers and offers cost effectiveness, low power dissipation and sound enrichment. The STA333ML combines a unique 24-bit DDX® digital class-D ternary modulator together with an extremely low RdsON stereo power DMOS stage. The latter is capable of a total output power of 2 x 20 W with outstanding performance in terms of efficiency (>90%), THD, SNR and EMI. The microless feature allows its use in low-cost applications (cradles, digital speakers, audio terminals) where no microcontroller is needed. The serial audio data interface accepts the universally used I2S format. Basic features, such as the oversampling clock, gain, and I2S format, can be set using a minimal number of selection pins. The STA333ML is self-protected against thermal overload, overcurrent, short-circuit and overvoltage conditions. The fault condition is also signalled on an external pin (INT_LINE) for specific requirements.

Key Features

Wide supply voltage range (4.5 - 20 V)

2 x 20 W into 8 Ω at VCC= 18 V

PowerSSO-36 exposed pad package

2 channels of 24-bit DDX®

100-dB SNR and dynamic range

Selectable 32 kHz to 48 kHz input sample rates

Automatic zero-detect mute

Automatic invalid input detect mute

2-channel I2S input data interface

Selectable clock input ratio (256 or 364 * fs)

Max power correction for lower full power

96 kHz internal processing sample rate, 24-bit precision

Embedded thermal overload and short-circuit protection

Filterless configuration option

LCDs

DVDs

Cradles

Digital speakers

Wireless speaker cradles

LCDs

DVDs

Cradles

Digital speakers

Wireless speaker cradles

Recommended For You

STA540

STMicroelectronics, Inc

ZIP15

STA339BWTR

STMicroelectronics, Inc

SSOP36

STA559BW

STMicroelectronics, Inc

SSOP36

STPA003OD-4WX

STMicroelectronics, Inc
144-LQFP

STA309A13TR

STMicroelectronics, Inc
QFP64

STA120D

STMicroelectronics, Inc
SOP28

STA308

STMicroelectronics, Inc
QFP

STA333W

STMicroelectronics, Inc
SSOP36

STA516B13TR

STMicroelectronics, Inc
HSSOP36

STABP01D

STMicroelectronics, Inc
SOP20

STA333BW

STMicroelectronics, Inc
SSOP36

STA321

STMicroelectronics, Inc
TQFP64

STA304A

STMicroelectronics, Inc
QFP

STA333IS

STMicroelectronics, Inc
CSP-30

STABP01

STMicroelectronics, Inc
DIP