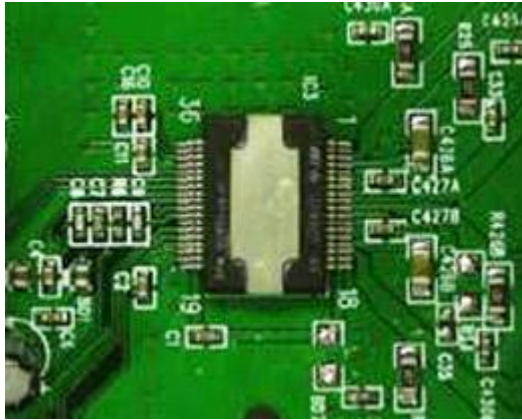# ST introduces the STA329, an easy to be managed (I2C controlled), all-in-one (processor + amplifier) Sound Terminal™

Sound Terminals™ are high performance, integrated single chips capable of digitally processing and amplifying audio signals maintaining a fully digital format from source to speaker, thus reducing the BOM, the design costs, the footprint area and at the same time improving the clarity of the sound.

Whether you are designing a high-power single channel product, a mid-power stereo application or a typical 2.1 audio system, the STA329 is definitively the most recommended choice. It has got all it takes to help you develop a quick, simple and powerful design. In a typical audio home system the audio is stored and transmitted in digital form (I2S), digitally processed, converted to pulse-width-modulated signals (PWM) and then amplified and sent to the speakers.

STA329's silicon does exactly all this thanks to its triple core:

- a powerful digital sound processor (DSP)
- a FFX™ cell ("Full Flexible Amplification" - ST proprietary technology) for digital low distortion, low noise PCM-to-PWM conversion
- the world's most efficient class D power stage

High quality audio systems with low bill-of-material costs can be done with STA329 and its full suite of audio quality enhancing features such as tone and volume control, loudness, dynamic range compression, independently programmable limiters/compressors and equalization (audio presets galore and four 28 bit user programmable biquads per channel are always available). This makes unnecessary to resort to external discrete devices to support these capabilities.

Developers will have full and intuitive control of the audio processing step thanks to a graphical development environment tool called APWorkbench.

The ever increasing demand for environment friendly products and the related energy consumption issue have been lately brought to the attention of regulatory bodies (European Code of Conduct and Energy Star Program among others) and of the consumer market. The unique FFX™ modulator of STA329 greatly increases the efficiency not only at maximum dynamic but at listening dynamic as well (that is how STA329 is being used most of the time) resulting in very little energy loss when the device is active, while when STA329 is not in function the available stand-by feature reduces to the minimum the waste of energy.

STA329 and its kindred STA328 and STA326 come in a small surface mounted package – PSO36. STA329 is pin-to-pin and is also software compatible with STA326 and STA328.

All these devices are designed to effectively work within a wide single power supply voltage range (10V - to 36V) and can provide the most requested output power configurations. This is so because STA329's power section consists of four independent half bridges that can be configured via digital control to work single-ended, bridge-tied-load (BTL) and parallel BTL (PBTL - using all of the amplifiers to drive a subwoofer). The available post-scale feature and limiter allow the designer to vary the output power of STA329 keeping the operative conditions, the external components and the speakers unchanged.

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for stmicroelectronics *manufacturer:*

Other Similar products are found below :

LD29300D2T25R M24M02-DWMN3TP/K AI-JTAGOPTO-1 BUV48A BZW04-15B LDK320AM33R SPC564A80CAL176

SPC56XVTOP-M STEVAL-ILL076V2 STEVAL-ISA175V1 STEVAL-VNH5050A STM32F207IGT7 STR91X-SK/RAI STTH12003TV1

STVNIM-EVAL M24C02-FDW6TP 417989F SG3525A ST7FLITE25F2M6 STEVAL-ILL079V1 STEVAL-ISF003V1 STL140N4F7AG

STM32F031F4P7 STM32F071CBU6 STM32F303VBT6 STM32F765ZIT6 STM32PRIM-LABUPG STM8A128-EVAL STW56N65DM2

LD29150DT18R LF50ABV P-NUCLEO-IHM002 VIPER38HDTR VIPER27LD VIPER16HN PD57070-E PD55003-E EVAL6226QR

EVAL6227PD EVAL6228QR EVALSP1340HDM EVLVIP16L-4WFL EV-VN7050AJ EV-VND5E025AK EV-VND7030AJ ANT2-
M24LR16E T1610T-8T STY60NM50 STW23N85K5 STR736FV2T6