PRODUCT INFORMATION

Vol.91

Acoustic Surround IC Developed

AViSS™ algorithm incorporated

LA2615

Overview

As the number of audio sources increases in home AV equipment such as miniature component systems, radio/cassette players, and TV sets, there are increasing demands for both virtual systems that can provide audio effects similar to those directly achievable with multiple speaker systems and surround functions that can provide increased feelings of depth and space in traditional two-speaker stereo systems.

Since the physical separation between the left and right speakers in audio products that include the speakers as integral components is quite small, earlier surround systems were only able to provide a minimal surround effect and had the problem that localization within the sound field became unclear as the volume was increased resulting in the sound seeming diffuse.

Sanyo has now developed the LA2615 acoustic surround IC that overcomes these problems. This device adopts the AViSS™ (acoustic virtual sound system) algorithm for two-channel systems. AViSS™ was developed as a new surround algorithm for two-channel systems and applies the logic Sanyo developed for the VASIL™ algorithm, which is based on audio image position processing logic for multichannel audio systems. The AViSS™ algorithm features natural tonal coloration and a wide "sweet spot," and requires only a limited amount of signal-processing capability.

The LA2615 provides stable positioning of vocalists in the audio field regardless of the volume level by adopting the AViSS™ algorithm. It can provide an expansive and natural sound field even in audio products that include the speakers as integral components. It also allows the level of the surround effect to be switched, either for standardization of end product specifications or to provide listener control of the effect.

The LA2615 also features the wide operating supply voltage range of 4.5 to 12.0 V, and thus can be used in all products that include stereo speakers, including miniature component systems, radio/cassette players, TV sets, electronic games, and personal computers.

Sanyo will be deploying the newly-developed AViSS™ algorithm in a wide variety of audio devices,

DSPs, and other products in the near future.

Features

- Incorporates the Sanyo-developed AViSS™ audio image position processing algorithm.
  - — Provides an expansive sound field without degrading the natural tonal colorings of the original audio signal.
  - — Precise apparent positioning of vocalists with no feeling of a missing center.
- A wide operating supply voltage range (4.5 to 12.0 V) allows the LA2615 to be used in a wide range of products.
- Surround effect switching function
- Low-noise low-distortion bypass mode

Specifications

Functions

- Surround signal processing
- Surround effect switching
- Surround/bypass switching
- LED driver circuit
- Recommended supply voltage (V_{CC}): 9.0 V
  - — Operating supply voltage range: 4.5 to 12.0 V
- Package: DIP-16

*: An MFP package version is planned.

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Sample Availability

The LA2615 will be available in sample quantities in October 1999 and in production quantities in December 1999.

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