

## **Epson Introduces Multilingual Text to Speech Synthesis Chip**

November 7 2005

Epson today announced availability of its multilingual text-to-speech (TTS) synthesis chip for embedded applications. The S1V30100 is a highly integrated companion chip that provides a complete decode path from text input to analog output via headphones or audio line level output signals. The chip can be easily integrated with a wide range of host devices and microcontrollers using a message protocol that runs over either a UART or an SPI link.

The S1V30100 contains Fonix DECtalk v5.0 as its TTS engine, and the chip supports five languages: US English, French, German, Castilian Spanish, and Latin American Spanish. Further languages, such as Japanese, Chinese, and Korean, are currently under development. The chip also supports G.726 ADPCM encoding and decoding for pre-recorded speech at sampling rates of 24, 32, or 40 kbits/s, and has the option to support MP3 and/or AAC decoding of music data if required.

Target applications for the S1V30100 include speech-enabled portable devices, assistive devices for speech or visually impaired users, educational toys, automotive navigation systems, etc. The on-chip A/D and D/A converters can also be accessed directly by the host processor via an I2S interface, thereby allowing general audio data to be input or output to/from the host processor system.

The key features of the S1V30100 are:

-- Multilingual, unconstrained, 5-language TTS (Fonix DECtalk(R)).



- -- G.726 ADPCM recording and playback.
- -- MP3 and AAC audio decoding.

-- On-chip mono A/D converter and stereo D/A converter (sampling frequencies up to 48 kHz, with 16-bit audio samples).

- -- Headphone and line level analogue outputs.
- -- UART or SPI Host Interface.
- -- 1.8V core operation; 3.3V I/O.
- -- 160-pin PFBGA package (10mm x 10mm).
- -- Non-volatile storage area for user dictionaries and storage of

frequently-used text/data files and/or recorded speech data.

A complete PC-based development/evaluation kit is available.

Source: Epson

Citation: Epson Introduces Multilingual Text to Speech Synthesis Chip (2005, November 7) retrieved 1 May 2024 from https://phys.org/news/2005-11-epson-multilingual-text-speech-synthesis.html

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.