EPSON

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S1V3034x Series
Evaluation Kit Start Guide

NOTICE

Table of Contents

1. Introduction

This document briefly describes the evaluation kit and provides simple operating instructions so that the customer can being using the evaluation kit immediately after purchase.

1.1 Overview of the manual

This document consists of the following sections:

The second section describes a brief overview of the S1V3034x evaluation kit.

The third section explains how to use the S1V3034x evaluation kit.

1.2 Contents of the evaluation kit

S1V3034x evaluation kit contains the following items:

Evaluation kit (S5U1V30340B1100):

(1)	NIJYO board (S1V30340 voice LSI evaluation board)	1
(2)	Host interface cable	1
(3)	Speaker cable	1
(4)	EPSON Speech IC Speech Guide Creation Tool CD-ROM (Japanese version)	2
(6)	List of contents and sheet describing voice LSI web page	1

Evaluation kit (S5U1V30340E0100):

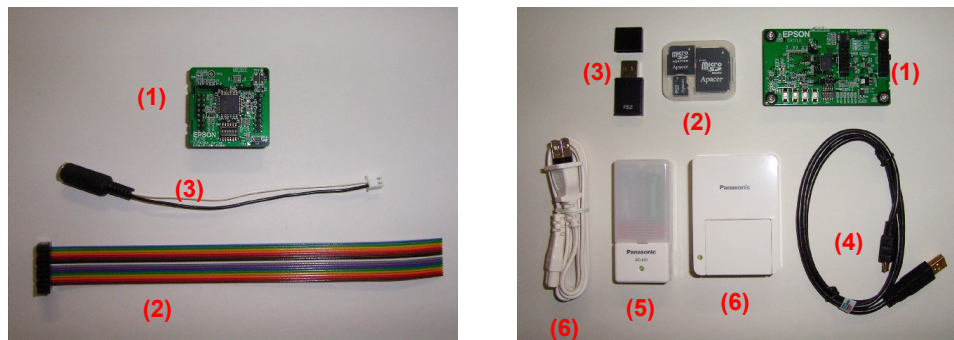|		
(1)	CASTLE board (voice LSI control host CPU board)	1
(2)	microSD card	1
(3)	USB adaptor for microSD card	1
(4)	USB cable for evaluation board power supply	1
(5)	Evaluation board power supply battery	1
(6)	Battery charger and AC cable	1
(7)	List of contents and sheet describing voice LSI web page	1

Fig. 1-1   Contents of the evaluation kit (Left: S5U1V30340B1100, Right: S5U1V30340E0100)

(The CD-ROM, list of contents, and sheet describing the voice LSI web page are not shown here.)

2. Function Overview

The S1V3034x evaluation kit comes with S1V3034x evaluation boards, power supply battery, microSD card, and other accessories. The S1V3034x evaluation board consists of the NIJYO slave board incorporating an S1V30340 voice LSI (hereafter "voice LSI") and a CASTLE master board with a host CPU for voice LSI control. These two boards are used in a stacked configuration.

The S1V3034x evaluation boards are designed for standalone operations without a PC. Fig. 2-1 shows the procedural flow when using the evaluation boards. The host CPU on the CASTLE board reads out the voice data in the microSD card on the CASTLE board, then transmits the voice data to the S1V30340 on the NIJYO board via serial I/F based on message protocol specifications. The voice data is decoded by the S1V3034x and output as audio signals via the audio amplifier. Voice data can be created on the microSD card using the EPSON Speech IC Speech Guide Creation Tool provided with this evaluation kit.

PC
Copy voice data (EOV format) created using the voice guidance creation tool to a microSD card.

S1V3034x evaluation board
This allows playback of voice data stored on the microSD card inserted into the CASTLE board.
Insert a microSD card onto which voice data has been copied into the microSD card slot on the CASTLE board.
Press SW2 on the CASTLE board to read out the microSD card voice data from the CASTLE board host CPU to the voice LSI on the NIJYO board via the SPI and to output it via an audio amplifier.
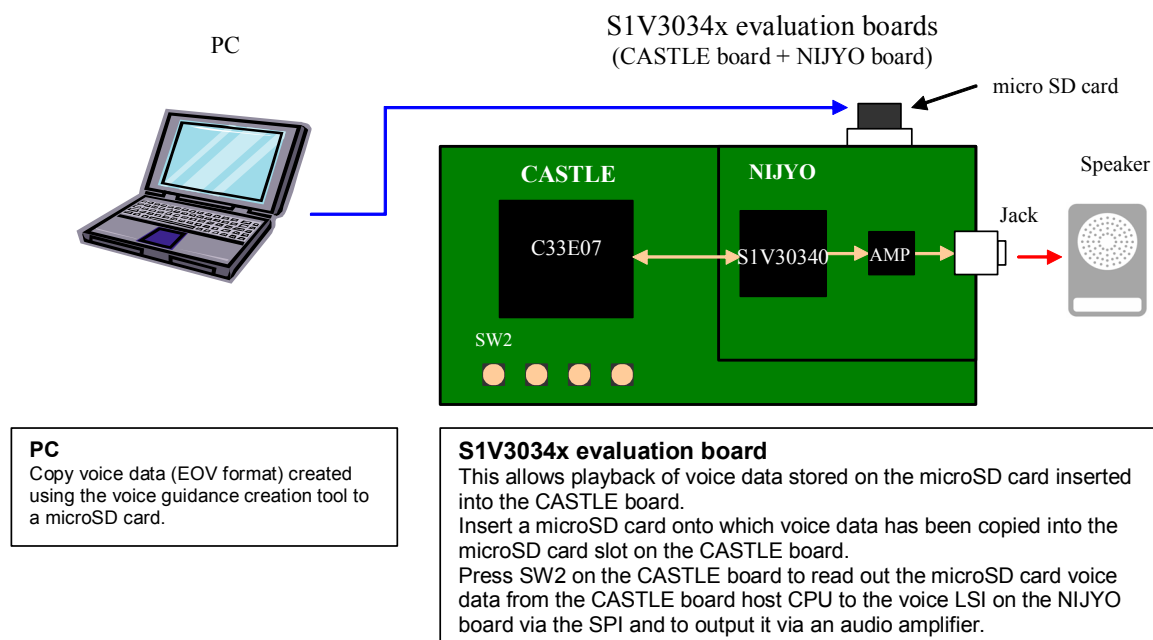
Fig. 2-1   S1V3034x evaluation system

3. Operating Method

This chapter gives a brief account of how to use this evaluation kit.

For detailed instructions for the evaluation kit, S1V3034x evaluation board function specifications, and instructions on using the EPSON Speech IC Speech Guide Creation Tool, refer to the *S1V3034x Series Evaluation Board User Guide* and *EPSON Speech IC Speech Guide Creation Tool User Guide*.

3.1   Setup procedure

The setup directions for the evaluation kit are described below.

1.   Create sample voice data in the microSD card.

2.   Connect and set up the S1V3034x evaluation boards.

3.   Insert the microSD card into the S1V3034x evaluation board and play back the voice data.

3.2   Sample voice data creation

Create sample voice data according to the procedure described below.

1.   Download S1V3034x series evaluation kit sample voice guidance creation tool (MakeSampleData.exe) from the Epson device web site "Speech & audio user's site." For details of the user's site URL, refer to the list of contents and the sheet describing voice LSI web page provided in the evaluation kit.

2.   Connect the microSD card provided in the evaluation kit to a PC USB port using the USB adaptor for microSD card also provided in the kit. Copy the downloaded tool "MakeSampleData.exe" to the micro SD card, as shown in Fig 3-1.
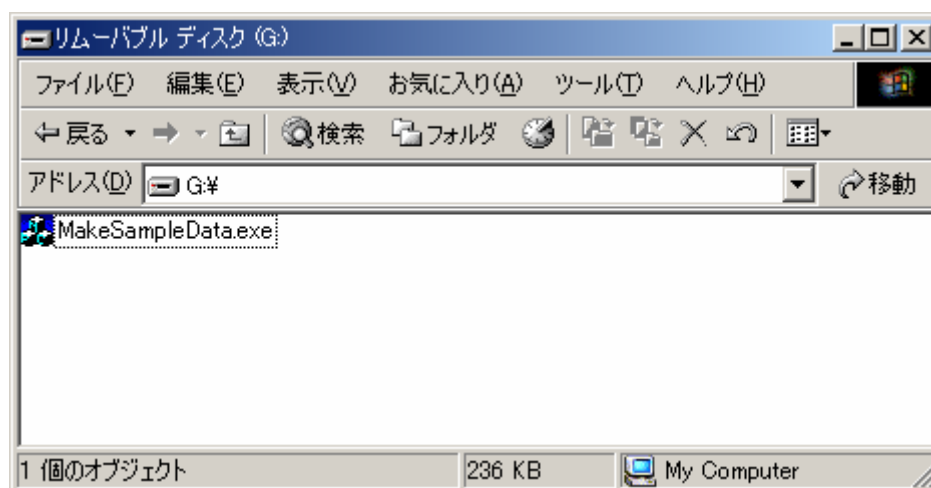

Fig. 3-1   Copying MakeSampleData.exe

3. Click MakeSampleData.exe on the microSD card. The dialog box shown in Fig. 3-2 will appear.
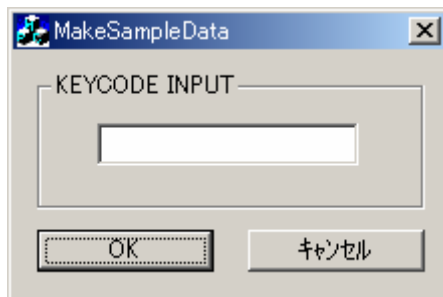
Fig. 3-2 MakeSampleData dialog box

4. Enter the "KEYCODE" provided by our company into the KEYCODE input box in the dialog box. Click the OK button. Sample voice data (jpn01.eov, eng02.eov), playlist (playlist.txt), and initial settings files (setup.ini) will be created in the root directory on the microSD card, as shown in Fig. 3-3.
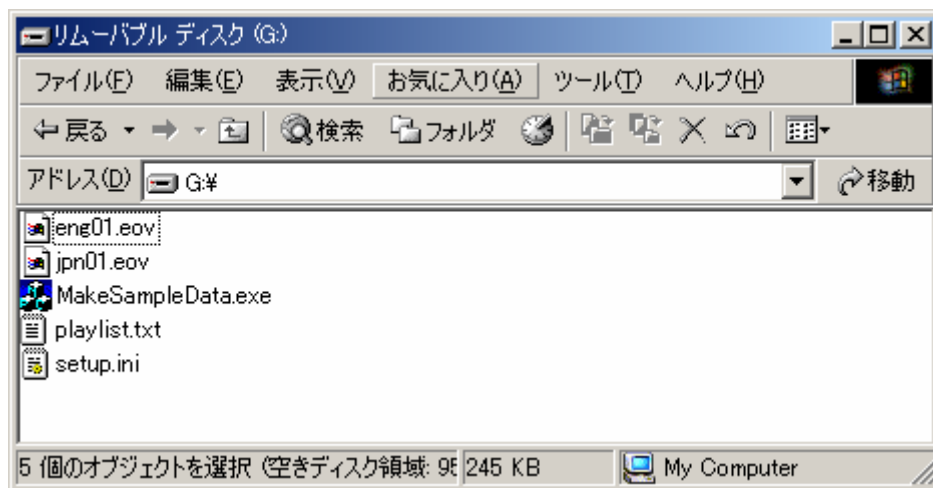
Fig. 3-3 After running MakeSampleData.exe

5. Insert the microSD card containing the sample voice data into the microSD card slot on the CASTLE board.

Note: The voice data created in this section is sample data for checking S1V3034x evaluation board operations. Evaluation board operation can also be checked using voice data created with the EPSON Speech IC Speech Guide Creation Tool. For detailed information on using the EPSON Speech IC Speech Guide Creation Tool, see the *EPSON Speech IC Speech Guide Creation Tool User Guide*.

3.3 Evaluation board setup and connection

Connect the evaluation boards as described below (See Fig. 3-4).

1. Connect the NIJYO board to the CASTLE board, making sure that the EPSON logos on the two boards face in the same direction.

2. Set the DIP switches and jumper pin on the CASTLE board and NIJYO boards as shown in Tables 3-1, 3-2, and 3-3.

3. Use the provided USB cable to connect the battery to the CASTLE board (mini-USB connector).

4. Connect your speaker to the voice output port on the NIJYO board.

Table 3-1   CASTLE board DIP switch (SW1) settings

DIP switch	Setting
SW1-1	OFF
SW1-2	OFF
SW1-3	OFF
SW1-4	ON
SW1-5	ON
SW1-6	OFF

Table 3-2   CASTLE board jumper pin (JP1) settings

Jumper pin	Setting
JP1	1 - 3pin Short 2 - 4pin Short

Table 3-3   NIJYO board DIP switch (SW1) settings

DIP switch	Setting
SW1-1	ON
SW1-2	OFF
SW1-3	ON
SW1-4	ON
SW1-5	ON
SW1-6	OFF

Fig. 3-4   Typical evaluation board connection configuration

3.4   Voice playback on evaluation board

Operate the evaluation boards as described below.
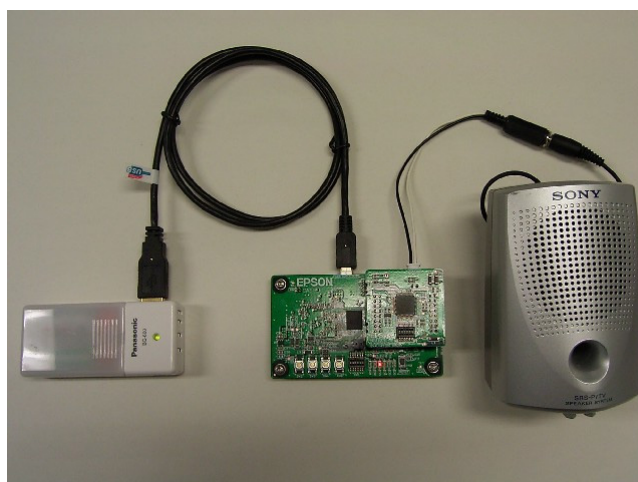
1.   Insert the microSD card containing the voice data created in Section 3.2 into the microSD card slot on the CASTLE board.

2.   Turn on power for the battery to supply power to the CASTLE board and to the NIJYO board.

3.   After power ON, wait until all LEDs on the CASTLE board blink three times.

4.   Press the SW2 (pushbutton switch) on the CASTLE board to play back the voice data.

After voice data playback starts, use pushbutton switches SW2 through SW5 for Play, Stop, Skip, and sound level adjustments, as shown in Table 3-4.

Table 3-4   Pushbutton switches

Pushbutton switch	Function	Description
SW2	Start/Stop	Press this SW to alternately toggle (function Start or Stop) voice playback. Voice playback will begin (Start) when the SW is pressed for the first time, and the voice data in the microSD card is read out from the beginning to reproduce the sound. When the SW is pressed again, playback stops (Stop) and interrupts voice data reproduction. If the SW is pressed yet again, voice data playback resumes from the point at which voice data playback was interrupted.
SW3	Skip	Pressing this SW skips playback to the next voice data file. (If you press the SW in mid-playback, playback of that file is interrupted and skips to the next voice data file.
SW4	Volume Up	Hold down this SW to gradually increase audio volume.
SW5	Volume Down	Hold down this SW to gradually decrease audio volume.

Revision History

Date	Rev.	Page	Type	Revision details	
				Details	
08/25/2008	1.00	All pages	New	Newly establilshed	

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