Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!
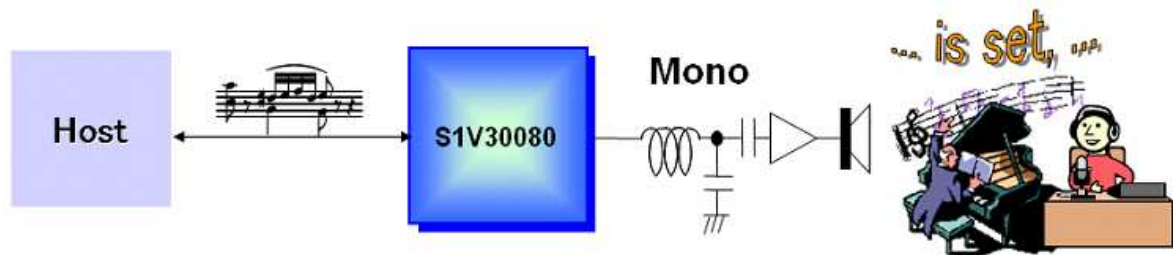
Contact us

S1V30080

♪Melody Synthesizer♪ function included Voice Guidance LSI

■ Outline

S1V30080 supports multi-channel Speech/Sound playback from integrated ROM, Moreover Melody Synthesizer function is supported which is suitable for music effect and buzzer sound by tiny data with Speech/Sound playback. Speech/Sound playback and melody synthesizer function works individually and can be mixed, of course the volume can be set individually.
The voice data creation tool for EPSON voice guidance LSI allows easy creation of high-quality voice data from text data without studio recording.
S1V30080 is controlled over the serial interface allowing control from a wide range of hosts easily from the host and also S1V30080 supports standalone mode which enable to control without CPU or without host S/W on CPU.

■ Features

- **Melody/Buzzer/Tone sound synthesizer function**
  - 5-ch Melody Sound can be created just by music note information(5 octave supported)
  - Buzzer/Tone Sound can be generated just by specifying the frequency(5ch supported)
- **Speech/Sound Playback**
  - Individual 2ch Voice ROM data can be played.(EPSON original format)
  - Sampling Frequency : 4, 8, 12 and 16 kHz
- **Sequencer function (to set delay between phrases)**
  - A maximum of 127 files can be sequenced with one configuration message (no constraints on phrase combinations)
  - Delay setting can be set between phrases:　0-1000ms (10ms step)
- **Mixing Function**
  - Synthesizer Sound and Speech/Sound Playback from ROM can be mixed(individual volume setting possible)
- **Speech/Sound ROM**
  - fs:8kHz approx 30 sec, fs:16kHz approx 15sec
- **Host Interface**
  - Synchronous serial interface (SPI, I2C) … [Command Control base]
- **Standalone mode**
  - By just specifying the ruled number, the sound can be played from ROM and Melody Synthesizer.
- **DA Converter integrated**
- **Clock(Crystal oscillation, Ceramic oscillation, Clock input**
  - fs:8kHz 8.192MHz,　fs:16kHz 16.384MHz
- **Power Supply voltage**
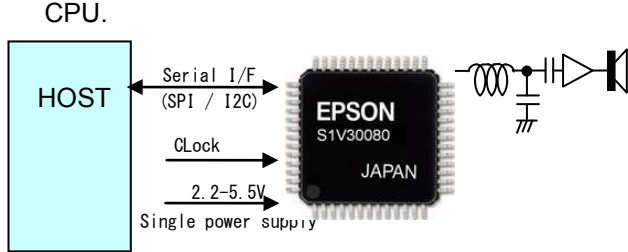 - 2.2-5.5V Single Power Supply
- **Product Configuration**

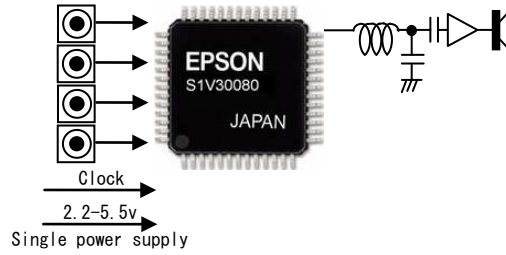| Product code	System clock source	Package
S1V30080F00**00	External clock	QFP12-48 (7mm x 7mm, 0.5mm pin pitch)
S1V30080F10**00	External clock	QFP13-52 (10mm x 10mm, 0.65mm pin pitch)
S1V30080F11**00	crystal unit	QFP13-52 (10mm x 10mm, 0.65mm pin pitch)

S1V30080

■ Standard Application System

The S1V30080 standard application system will have the following configuration. The host processor will control the S1V30080 device by commands sent via the serial interface (the message protocol).
In addition, S1V30080 supports standalone mode which enable to control without CPU or without host S/W on CPU.
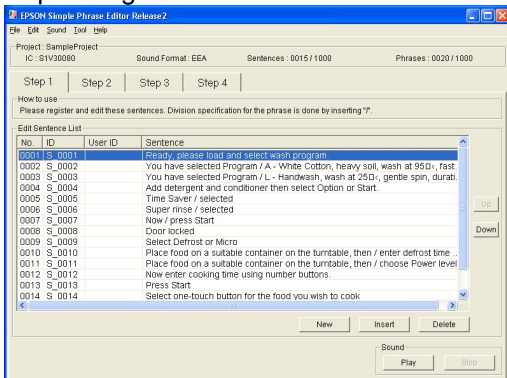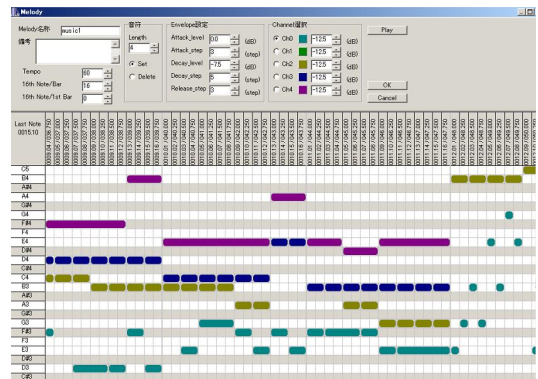

Serial Interface Mode

Standalone Mode

■ Standard Application System

- Evaluation Board
- Voice Data Creation Tool(Supported languages: English, Japanese, Korean (all female voices))
- Melody/Buzzer/Tone Synthesizer Creation Tool
- Sample Program

Voice Data Creation Tool(PC software tool)

Melody/Buzzer/Tone Synthesizer Creation Tool(PC software tool)