EVB Demo Code Reference Guide

V1.00.001

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Support Chips:
ISD9160

Support Platforms:
NuvotonPlatform_Keil

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1. Introduction

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A standard demo code will be programmed into the evaluation board (EVB) before shipping. It is for demo purpose and board function checking. User can use it to make sure the EVB functional and also know the draft performance on sound playing and recording.

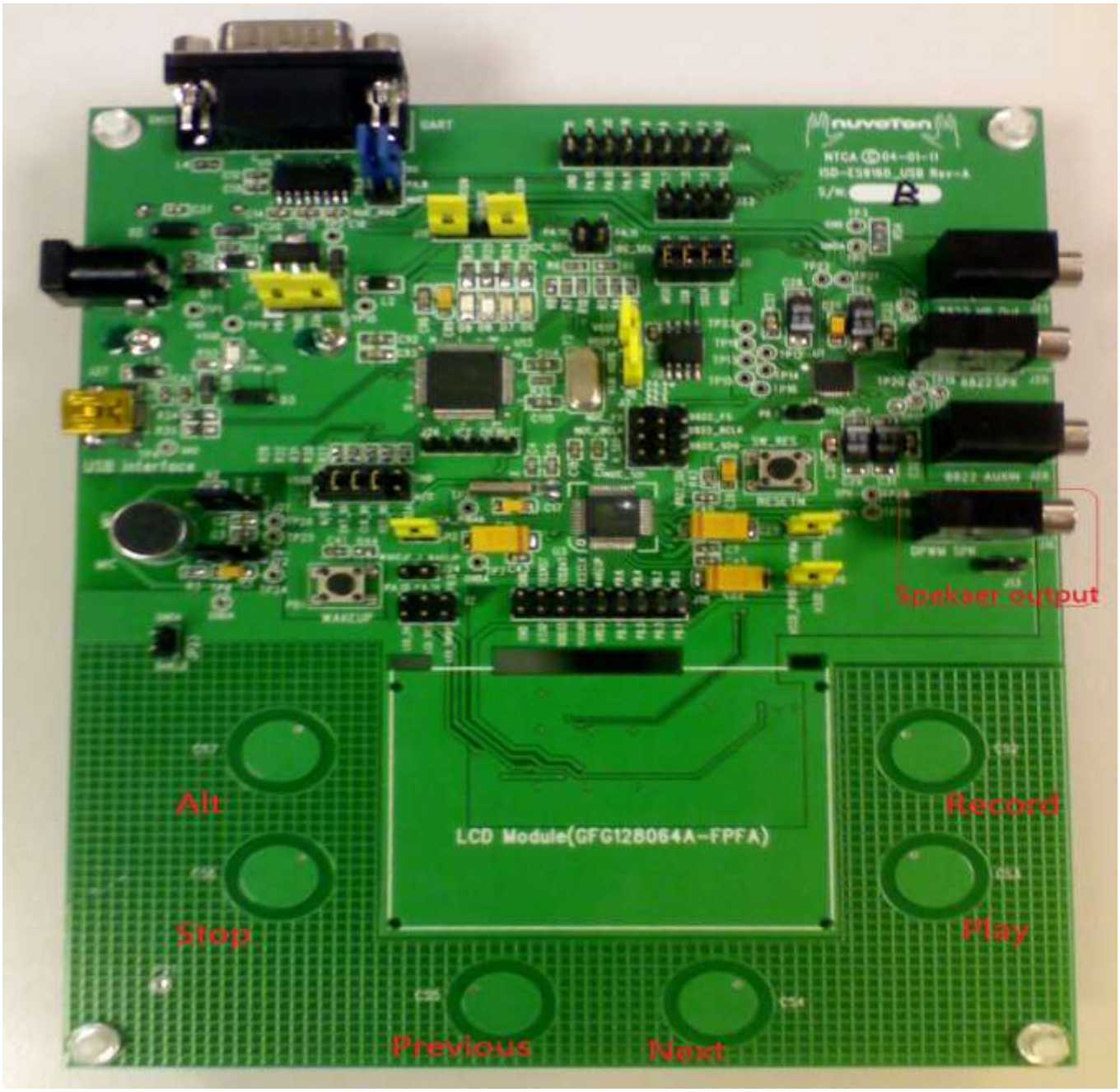
In this document, we will have operation instruction and some description for this code. Some libraries used in this code are not released and not supported by Nuvoton.

2. Operation Instruction

2.1 Install the speaker on J13 or J16

2.2 Keypad layout

There are 6 touch pads (CS2~CS7) in the bottom of the board. Demo code support touch function on these 6 pads.



2.3 Key Description

- **Record:** Record sound to SPI flash
- **Play:** Play current indexed recorded sound
- **Stop:** Stop recording or playing
- **Previous:** Play previous recorded sound or play pre-programmed sound if last played sound is pre-programmed sound.
- **Next:** Play next recorded sound or play pre-programmed sound if last played sound is pre-programmed sound.
- **Alt + Record:** Recorded sound to new position, and the index becomes to last. If SPI-flash is full, it will record to current indexed sound.
- **Alt + Play:** Play pre-programmed sound by index.

2.4 Function test

The below is the basis test for EVB. Refer to the key description (section 2.3) to make the following tests to make sure EVB OK.

- Pre-programmed sound test

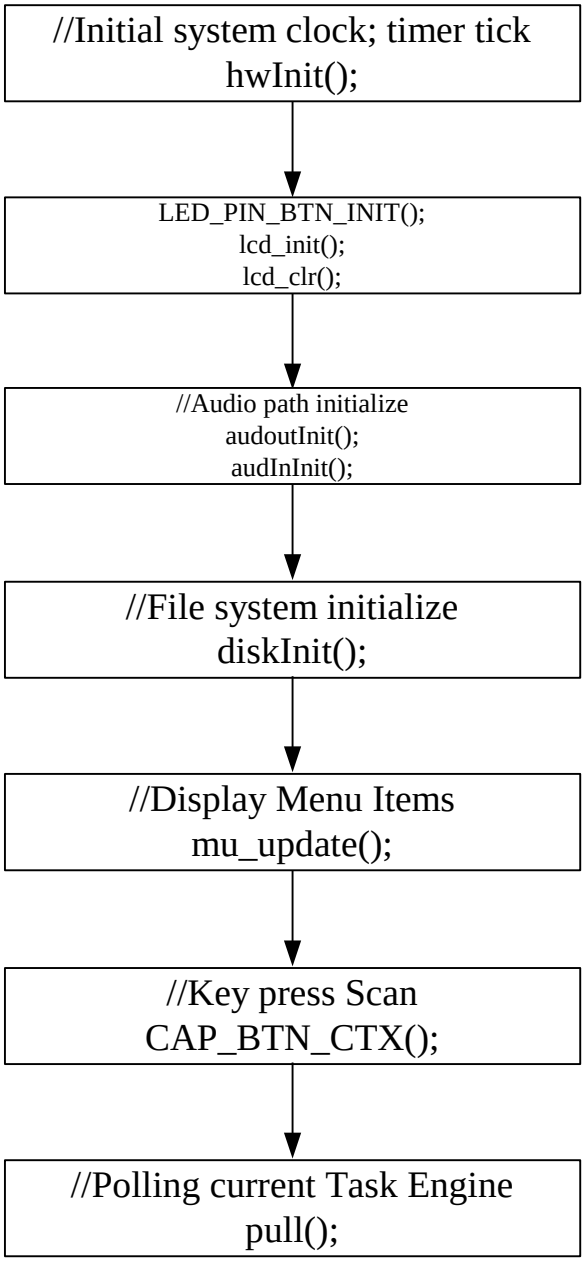
  Touch **Alt+Play**, should hear sound output from speaker.

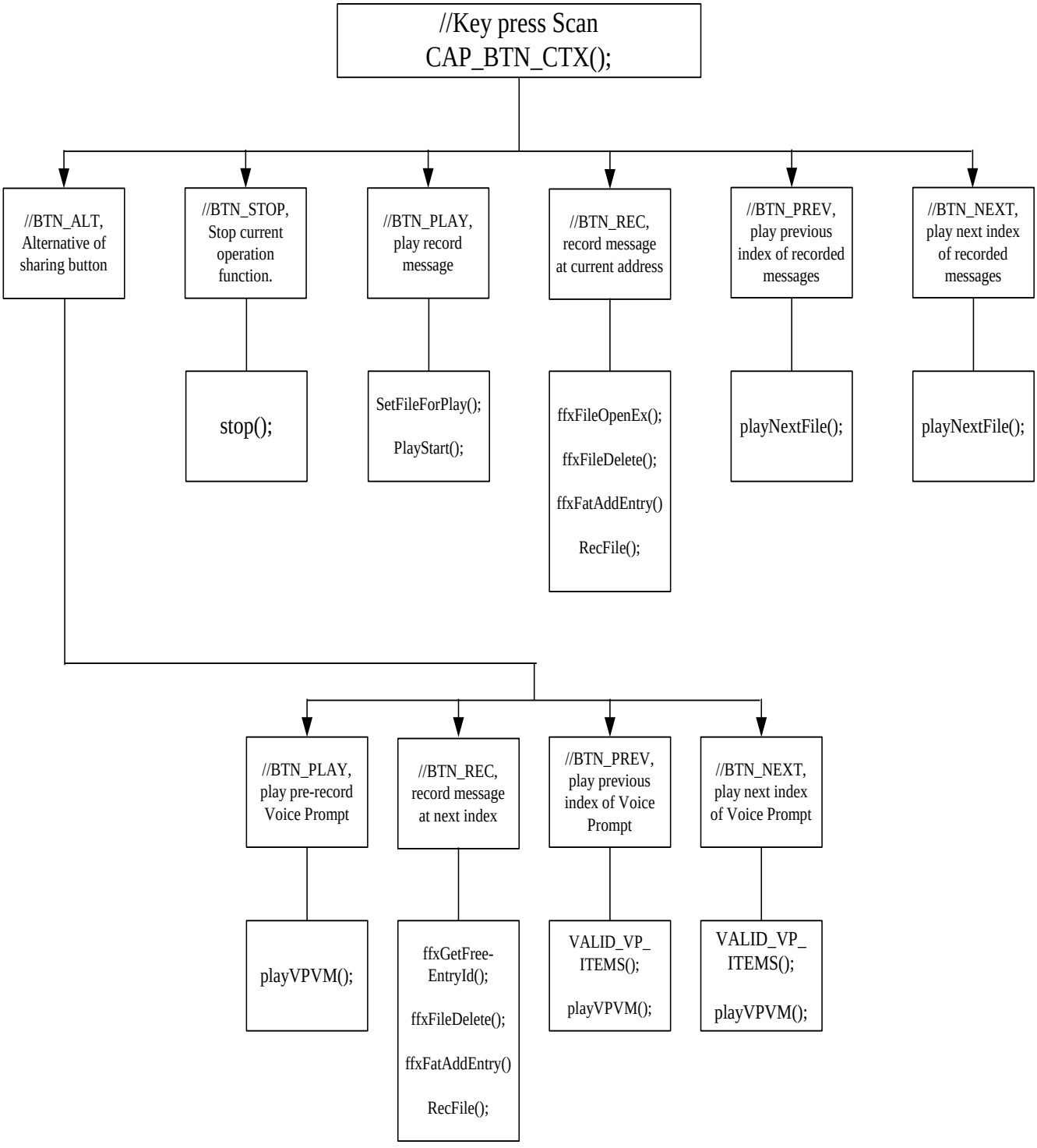
- Recording test

  Touch **Record** then say some words or sentences. Touch **Stop** to stop the recording.

  Touch **Play**, should hear recorded sound output from speaker.

3. Block Diagram




//Key press Scan
CAP_BTN_CTX();
//BTN_ALT, Alternative of sharing button
//BTN_STOP, Stop current operation function.
//BTN_PLAY, play record message
//BTN_REC, record message at current address
//BTN_PREV, play previous index of recorded messages
//BTN_NEXT, play next index of recorded messages
stop();
SetFileForPlay();
PlayStart();
ffxFileOpenEx();
ffxFileDelete();
ffxFatAddEntry()
RecFile();
playNextFile();
playNextFile();
//BTN_PLAY, play pre-record Voice Prompt
//BTN_REC, record message at next index
//BTN_PREV, play previous index of Voice Prompt
//BTN_NEXT, play next index of Voice Prompt
playVPVM();
ffxGetFree-EntryId();
ffxFileDelete();
ffxFatAddEntry()
RecFile();
VALID_VP_ITEMS();
playVPVM();
VALID_VP_ITEMS();
playVPVM();

4. Revision History

Version	Date	Description
V1.00.01	Sep. 2011	Created