

Design Advisory: No audio output on VocalFusion Stereo Dev Kit for Amazon AVS

IN THIS DOCUMENT

- ▶ Problem
 - ▶ Resolution
 - ▶ Impacted XMOS Part Numbers
-

1 Problem

A small number of customers have experienced problems with audio output and playback on the VocalFusion Stereo Dev Kit for Amazon AVS (XK-VF3500-L33-AVS).

The problem has been traced back to an I2C timing marginality issue which can result in the DAC (Digital-to-Analog convertor) on the board not being correctly configured.

2 Resolution

Customers who observe this issue are advised to update the software on the development kit to the latest release (v2.2.0rc7 or higher) which can be downloaded as a zip archive from the XMOS website.

To update the software on the development kit, follow the steps below.

1. Install XMOS xTIMEcomposer tools, v14.3.3 or later, on your PC (Windows, MAC or Linux). These are freely available to download from: <http://www.xmos.com/tools>.
Use your existing MyXMOS login or create a new account to complete this step.
2. Download the latest software for the VocalFusion Stereo Dev Kit for Amazon AVS from: <https://www.xmos.com/published/vocalfusion-stereo-avs-binary>.
A MyXMOS account is required to complete this step.
3. Connect the xTAG debug adapter supplied with the development kit. Note: the development kit may be supplied with either an xTAG2 or xTAG3 debug adapter.
 - ▶ Plug the xTAG adapter to the **XSYS DEBUG** connector on the development kit.
 - ▶ Use the supplied USB cable to connect the debug adapter to the host PC.
 - ▶ If using xTAG2, use a USB A extension cable.
 - ▶ If using xTAG3, use a USB A to microB cable.

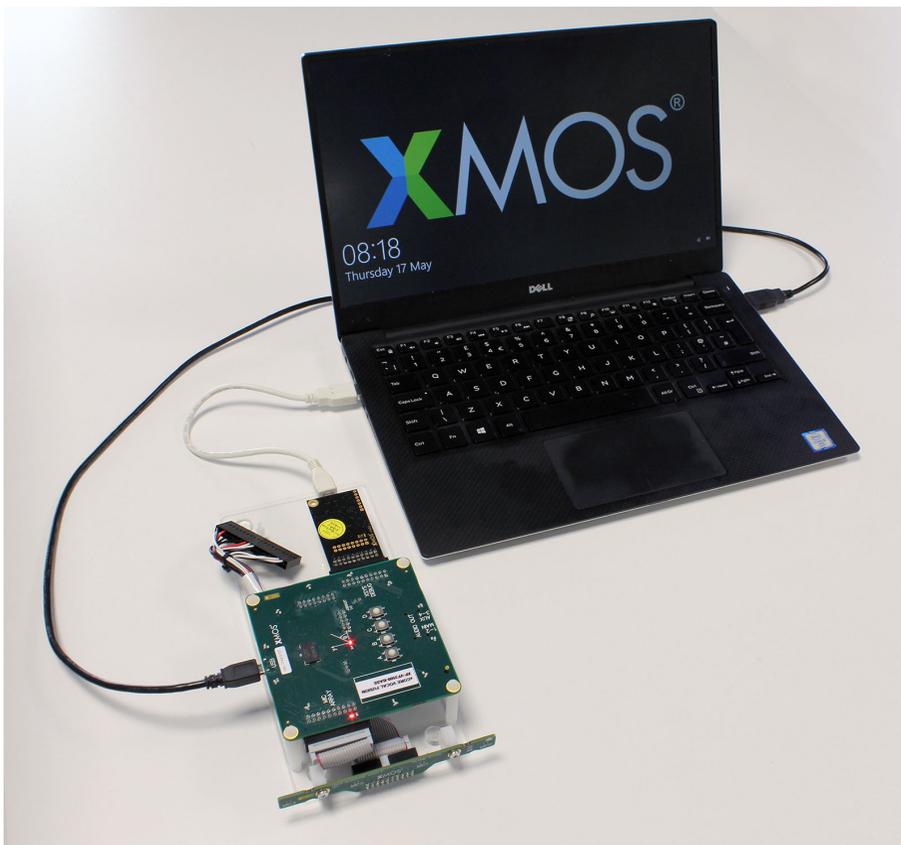


Figure 1:
Updating
software on
VocalFusion
Stereo Dev
Kit for
Amazon AVS

4. Connect the microB USB connector on the development kit to either a standalone USB power supply, or host PC, using the supplied USB A to microB cable.
5. Flash the new software on to the development kit.
 - ▶ Extract the binary image `app_vf_stere_base_i2s_master.xe` from the zip archive.

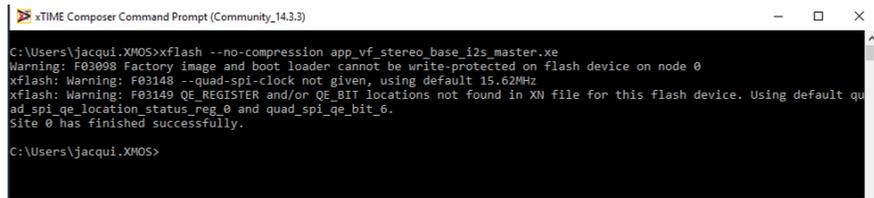
Windows users:

Open an xTIMEcomposer command prompt:

Start ► XMOS ► xCommand Prompt

Navigate to your folder containing the binary and enter:

```
xflash --no-compression app_vf_stere_base_i2s_master.xe
```



```
xTIME Composer Command Prompt (Community_14.3.3)
C:\Users\jacqui.XMOS>xflash --no-compression app_vf_stereo_base_i2s_master.xe
Warning: F03098 Factory image and boot loader cannot be write-protected on flash device on node 0
xflash: Warning: F03148 --quad-spi-clock not given, using default 15.62MHz
xflash: Warning: F03149 QE_REGISTER and/or QE_BIT locations not found in XN file for this flash device. Using default quad_spi_qe_location_status_reg_0 and quad_spi_qe_bit_6.
Site 0 has finished successfully.

C:\Users\jacqui.XMOS>
```

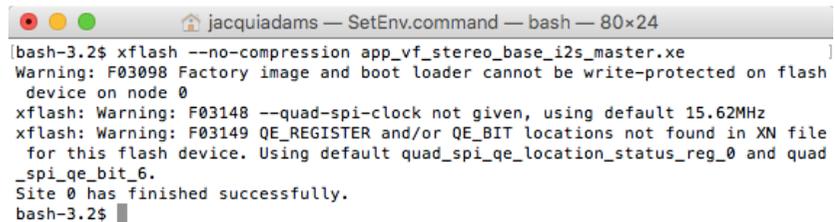
Mac users:

Open an xTIMEcomposer terminal session and run:

Finder ► Applications ► XMOS_xTIMEcomposer ► SetEnv.command

Navigate to your folder containing the binary and enter:

```
xflash --no-compression app_vf_stereo_base_i2s_master.xe
```



```
jacquiadams — SetEnv.command — bash — 80x24
bash-3.2$ xflash --no-compression app_vf_stereo_base_i2s_master.xe
Warning: F03098 Factory image and boot loader cannot be write-protected on flash
device on node 0
xflash: Warning: F03148 --quad-spi-clock not given, using default 15.62MHz
xflash: Warning: F03149 QE_REGISTER and/or QE_BIT locations not found in XN
file for this flash device. Using default quad_spi_qe_location_status_reg_0 and
quad_spi_qe_bit_6.
Site 0 has finished successfully.
bash-3.2$
```

6. Wait for the flashing process to complete. When complete the following message will be displayed:
Site 0 has finished successfully.
7. All done! You may now close the xTIMEcomposer command prompt and unplug the xTAG debug adaptor from both the PC and the evaluation kit.

3 Impacted XMOS Part Numbers

This design advisory applies to the VocalFusion Stereo Dev Kit for Amazon AVS (XK-VF3500-L33-AVS).

Impacted development kits can be identified from the date code of the XP-VF3500-BASE board: boards with a date code **1806 or earlier** are affected as they are flashed with v2.1.0 or earlier of the VocalFusion software therefore this design advisory applies.

The date code of the XP-VF3500-BASE board is shown below.

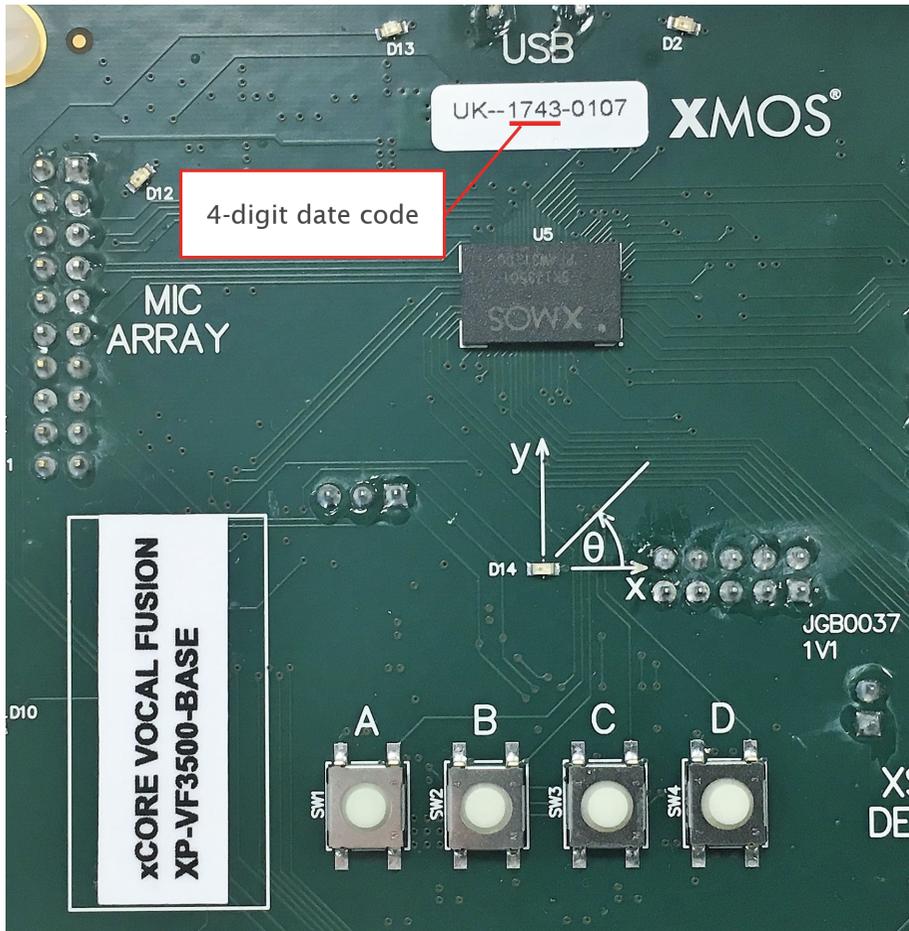


Figure 2:
Identifying
date code on
VocalFusion
Stereo Dev
Kit for
Amazon AVS



Copyright © 2018, All Rights Reserved.

Xmos Ltd. is the owner or licensee of this design, code, or Information (collectively, the "Information") and is providing it to you "AS IS" with no warranty of any kind, express or implied and shall have no liability in relation to its use. Xmos Ltd. makes no representation that the Information, or any particular implementation thereof, is or will be free from any claims of infringement and again, shall have no liability in relation to any such claims.