



OMAP-L138/C6748 Floating Point Starter Kit

SDK 1.00.00.11

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Introduction

This software release supports the following devices: OMAP-L138 and the C6748. It can be used for developing applications on the ARM core with a Linux workstation and the DSP core using a PC workstation. Users of the OMAP-L138 chip may develop for both cores, while C6748 chip users may only develop for a DSP core.

An evaluation version of the Linux Code Generation Tools have been included with this product. A production license can be obtained with purchase of a Code Composer Studio IDE product. If you already have a CCS production license, you may obtain production licensed versions of these tools from Update Adviser. UA is accessed in CCS 3.x via Help->Update Advisory->Check for Updates.

Please start with the [Getting Started Guide](#) for complete installation instructions.

Special Notes

If users are integrating DSP Link into their systems using XDC tools-based configuration (e.g. using Codec Engine), there are two additional steps required as shown below before the build configuration step is complete. These two steps prepare the dsplink.dsp and dsplink.gpp XDC packages for consumption by the XDC config tooling.

cd into the \$(DSPLINK)/dsp directory and run:

```
$(XDC_INSTALL_DIR)/xdc clean
$(XDC_INSTALL_DIR)/xdc .interfaces
```

cd into the \$(DSPLINK)/gpp directory and run:

```
$(XDC_INSTALL_DIR)/xdc clean
$(XDC_INSTALL_DIR)/xdc .interfaces
LINUX_CG_VERS
```

These two steps need to be run after executing the build configuration perl script `~/dsplink/config/bin/dsplinkcfg.pl`. For details on how to run `dsplinkcfg.pl`, please refer to DSPLINK user guide.

PSP Information and Flashing Information

http://processors.wiki.ti.com/index.php/Community_Linux_PSP_for_OMAP-L1#Building_PSP_Components

In order to re-build the CODEC Servers available in this release, the following variables must be set in Rules.make for your specific environment.

```
SDK_INSTALL_DIR           = <SDK_INSTALL_DIR>
CSTOOL_DIR                = <CROSS_COMPILER_DIR>
BIOS_INSTALL_DIR          = <BIOS_DIR>
XDC_INSTALL_DIR           = <XDC_DIR>
CODEGEN_INSTALL_DIR       = <CODEGEN_INSTALL_DIR>
```

Where:

SDK_INSTALL_DIR is the root location of the installed OMAPL138 SDK

CSTOOL_DIR is where the Code Sorcery tool chain resides (the directory above bin).

BIOS_INSTALL_DIR where DSP/BIOS has been installed

XDC_INSTALL_DIR location of XDC tools

CODEGEN_INSTALL_DIR location of c6x code generation tools (the directory above bin).

This document is divided into the following sections:

- [Documentation](#)
- [What's New](#)
- [Dependencies](#)
- [Device Support](#)
- [Validation Information](#)
- [Versioning](#)
- [Technical Support and Product Updates](#)

Documentation

- [PSP Release Notes](#) - This document describes how to install and get started with TI's Linux Platform Support Product (PSP) for the OMAP-L138 Evaluation Module (EVM).
- [Codec Engine Release Notes](#)
- [Framework Components](#)
- [XDAIS documentation](#)

What's New

This is a beta version of the OMAP-L138/C6748 Floating Point Starter Kit. Many of the components in this release are preliminary and are suitable for initial development but are not to be used in a deployed product. Please visit the software updates web site frequently to make sure you are working with the latest releases of each component.

Installation and Usage

For OMAP-L138 Users:

From the myRegistered Software *Get Updates* page, you will have the following download options:

- **OMAP_L138_1_00_00_11.bin:** This tar file is for Linux workstations. Installing this file will install the preliminary Starter Kit software for OMAP-L138 ARM-based software development, including:
 - Linux Platform Support Package (PSP) which includes board-flashing utilities running on ARM and some Linux driver examples
 - DSP/BIOS Utilities
 - Codec Engine
 - Board-Flashing Utilities running on DSP
 - DSP Link
 - EDMA Low Level Driver (LLD) running on DSP
 - Framework Components including DMAN3
 - Linux Utilities including CMEM
 - xDAIS Algorithm Package

- **OMAPL138_setupwin32_1_00_00_11.exe:** This is an installer for PC workstations and will install the Starter Kit software for OMAP-L138 DSP-based software development, including
 - DSP/BIOS Utilities, Codec Engine, Board-flashing Utilities running on DSP, DSP Link, EDMA LLD, Framework Components, Linux Utilities, and xDAIS Algorithm Package. They are the same as what is contained in the `OMAPL138_setuplinux_1_00_00_11.bin`.
 - DSP/BIOS Platform Support Package (PSP) which includes DSP/BIOS drivers and examples.
 - DSP/BIOS Real time file system

- **setupwin32_ndk-2_1_0_source.exe:** This is an installer for PC workstations and will install the Network Developers Kit (NDK) software running on the DSP core.
- **bios_setuplinux_5_41_02_14.bin/bios_setupwin32_5_41_02_14.exe:** These are the DSP/BIOS installers for Linux and PC workstations and will install the DSP/BIOS software.
- **xdctools_setuplinux_3_16_01_27.bin/ xdctools_setupwin32_3_16_01_27.exe:** These are the installers for Linux and PC workstations and will install the XDC tool. XDC tool is needed to build various software including Codec Engine, Framework Components, DSP Link etc.
- **ti_cgt_c6000_6.1.9_setup_linux_x86.bin/TI_CGT_C6000_6.1.9_setup.exe:** These are the installers for Linux and PC workstations and will install the TI code generation tools. It is needed for users to who do not have the latest code generation tools.
- **BIOSUSB_1_10_03_01_Setup.exe:** the DSP/BIOS USB Package (based on the JUNGO USB stack) provides capability to incorporate a USB host or USB device functionality for an embedded C6748/OMAPL138 platform device.

"OMAP-L138/C6748 Release Notes"

NOTE: For this release, TI recommends choosing either the ARM Linux drivers or the DSP BIOS Drivers for execution but not both at the same time.

For C6748 Users

From the myRegistered Software *Get Updates* page, you will have the following download options:

- C6748_setupwin32_1_00_00_11.exe: This is an installer for PC workstations and will install the same contents as installing OMAPL138_setupwin32_1_00_00_11.exe.
- setupwin32_ndk-2_1_0_source.exe: This is an installer for PC workstations and will install the Network Developers Kit (NDK) software running on the DSP core.
- bios_setupwin32_5_41_02_14.exe: This the installers for PC workstations and will install the DSP/BIOS software.
- xdctools_setupwin32_3_10_05_61.exe: This is the installers for PC workstations and will install the XDC tool. XDC tool is needed to build various software including Codec Engine, Framework Components etc.
- TI_CGT_C6000_6.1.9_setup.exe: This is the installers for PC workstations and will install the TI DSP code generation tools. It is needed for users to who do not already have the up-to-date code generation tools.
- BIOSUSB_1_10_03_01_Setup.exe: The DSP/BIOS USB Package (based on the Jungo USB stack) provides capability to incorporate USB host or USB device functionality for an embedded C6748/OMAPL138 platform device.

Dependencies

The only dependency at this time is for Code Composer Studio (CCS) 3.3. CCS 3.3 and a compatible emulator is needed for initial (or recovery) flashing of the initial bootloader (UBL) and U-Boot.

Device Support

This release supports the Texas Instruments OMAP-L138/C6748 devices as well as the Logic OMAP-L138 Evaluation board.

Validation Information

This release has only had Basic Functional Test (BFT) performed. A full System Test cycle has not been performed.

Versioning

This is build 1.00.00.11 of the OMAP-L138/C6748 Floating Point Starter Kit.

Technical Support and Product Updates

Please see [Installation Guide](#) installation instructions.

Additional Resources

For more information, visit [OMAP-L138/C6748 Product Information Page](#).