

OMX Media Component

Product Manual:

OMX Media Component Encoder Common Library
for Linux

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1. Overview

1.1. Overview of This Document

This document is the Product Manual of OMX Media Component Encoder Common Library for Linux. For the functional specifications of the library, see related documents [1].

1.2. Related Documents

Table 1-1 lists the related documents.

Table 1-1 List of Related Documents

No.	Document Name	Description
[1]	OMX Media Component User's Manual Encoder Common Part	The user's manual that describes functional specifications of this library.
[2]	OMX Integration Guide for Linux	OMX Integration Guide documents describe how to integrate the OMX to the system.

2. Product Specification

2.1. Basic Specification

Table 2-1 shows the basic specification of this library.

Table 2-1 Basic Specification

Item	Description
Product Number	RTM0AC0000XVCMNE20SL32C
Product Name	OMX Media Component Encoder Common Library for Linux
Software categories	Multimedia codec processing
Function	Provide OpenMAX IL 1.1.2 Core / Component API
Target CPU	ARMv7 Architecture
Target LSI	R-Car H2 / M2 / E2 Series
Language	C Language
Endian	Little endian
Supported OS	Linux 3.10
Tool chain	GCC 4.7.4 (cortexa15hf-vfp-neon-poky-linux-gnueabi) built by R-CarH2/M2 Yocto recipe package
Library Format	Dynamic Link Library
CPU load	See each OMX Media Component Product Manual.
Number of thread	See each OMX Media Component Product Manual.
Thread priority	Thread priority shall be determined in User Defined Functions part.
System Call	This library does not call system call functions directly. All OS-dependent processing shall be implemented in User Defined Functions part.

2.2. Memory Requirement

Table 2-2 shows the memory requirement of this library. The sizes in Table 2-2 do not include the memory consumption in User Defined Functions.

Table 2-2 Memory Requirement

Item	Description
Object Size	312 [Kbyte]
Stack Size	See each OMX Media Component Product Manual.
Heap Memory Size	See each OMX Media Component Product Manual.
Shared Memory Size	See each OMX Media Component Product Manual.

2.3. Reserved Words

Table 2-3 lists reserved words of this library.

Table 2-3 Reserved Words

Reserved Words	Description
OMX	The prefix word for the names of defines, functions and Macros that is defined in OpenMAX IL Specification.
OMXR	The prefix word for the names of defines and Macros in this library.
Omxr	The prefix word for the names of functions and variables in this library.

3. List of Files

Table 3-1 shows the file list of this library.

Table 3-1 File List

Directory		File name	Description
RTM0AC0000XVCMNE20SL32C		-	
+	Document	-	
	+	en	omx_users_manual_vecmn_en.pdf
			User's Manual
			RTM0AC0000XVCMNE20SL32C_ReleaseNote.txt
			Release Note
			RTM0AC0000XVCMNE20SL32E.pdf
			Product Manual(This document)
	-	Software.tar.gz	See Table 3-2

Table 3-2 Files included in Software.tar.gz

Directory		File name	Description
Software		-	
+	OMXR	-	
	+	config	omxr_config_vecmn.txt
			Configuration file
		include	OMXR_Extension_vecmn.h
			Renesas OMX Extension header
			OMXR_Extension_video.h
			Renesas OMX Extension header
		lib	-
	+	linux	-
		+	linaro_4_7_3
			libomxr_mc_vecmn.so.2.0.0
			Library for Linux
			libomxr_mc_vecmn.so.2.0.0
			Library for Linux
			libuvcs_enc.so.1.0.0
			Library for Linux
			libvcp3_mcve.so.1.0.0
			Library for Linux
	UDF_Linux	-	
	+	modules	-
		+	omxr_uvcs_udf
			Makefile.am
			Makefile for UDF sample source code
			omxr_uvcs_udf.c
			UDF sample source code
			omxr_uvcs_udf.h
			UDF sample source code
			omxr_uvcs_udf_osal.h
			UDF sample source code
			omxr_uvcs_udf_osal_linux.c
			UDF sample source code
			uvcs_ioctl.h
			UDF sample source code

4. Dependent Products

Table 4-1 lists the dependent products of this library.

Table 4-1 Dependent Products

Product Number	Product Name
RTM0AC0000XCMCTL20SL32C	OMX Media Component Common Library for Linux
RTM0AC0000UVCSCMN1SL32C	UVCS Adapted for Linux Common Engine Library

5. User Defined Functions (UDF)

This library requires User Defined Functions (UDF) to operate the function. UDF contains OS and hardware abstraction for the OMX libraries. A user of this library needs to implement UDF part to adapt the library to user's platform. UDF for this library shall have the following functions:

- Interfacing between this library and UVCS Adapted for Linux Common Engine Library (kernel module)

UDF sample source code is available in the deliverable of this library. The UDF sample source code is out of warranty. The UDF sample source code has been confirmed by using Renesas R-Car H2/M2 Linux Board Support Package and R-Car H2/M2 Series MMP Reference Library for Linux.

For the details of implementation and integration of UDF, see related document [2].

6. Installation

See related document [2].

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