



# **ITTIAM- HEAACv2ENC -UG**

---

## **User Guide**

---

Document Number	ITTIAM- HEAACv2ENC-UG
Version	1.1
Date	April 5, 2010

Ittiam Systems (P) Ltd,  
The Consulate, 1 Richmond Road,  
Bangalore 560 025, India

## Notice

This document contains information, which is the proprietary property of Ittiam Systems. This document is received in confidence and its contents cannot be disclosed or copied without the prior written consent of Ittiam Systems. Ittiam Systems retains the right to make changes to this document at any time, without notice. Ittiam Systems makes no warranty for the use of this document.

Ittiam Systems reserves the right to make changes to its products or discontinue any of its products or offerings without notice.

Ittiam warrants the performance of its products to the specifications applicable at the time of sale in accordance with Ittiam's standard warranty.

## Revision History

Version	Date	Changes
1.0	March 4, 2010	Original
1.1	April 5, 2010	Updated

Copyright © 2003-2010, Ittiam Systems (P) Ltd

# 1. Component Placement

---

Copy Ittiam's OMX IL component from the release package to OMX IL audio source directory in Android BSP installation.

```
cp -rf <rel_dir>/ittiam-sw/omxil/audenc/aac_enc_ittiam1  
<android_bsp>/25.14/mydroid/hardware/ti/omx/audio/src/openmax_il/
```

---

<sup>1</sup> Folder name depends on the release type – aac\_enc\_ittiam, heaac\_enc\_ittiam, heaacv2\_enc\_ittiam

## 2. Build instructions

---

Modify top-most level of OMX makefile for including Ittiam's OMX IL component builds.

Add the lines following the comment given below to the makefile located at

<android\_bsp>/25.14/mydroid/hardware/ti/omx/Android.mk

```
#call to audio encoder
```

```
include $(TI_OMX_AUDIO)/aac_enc_ittiam/src/Android.mk
```

```
include $(TI_OMX_AUDIO)/aac_enc_ittiam/tests/Android.mk
```

Build the file system at the top-most level.

```
cd <android_bsp>/25.141/mydroid
```

```
make
```

---

**Note** Ensure that PATH environment variable contains path for ARM tool-chain.

---

### **Build output:-**

Ittiam's OMX IL component is generated at

```
<android_bsp>/25.14/mydroid/out/target/product/zoom2/system  
/lib/libOMX.ITTIAM.AAC.encode.so2
```

Ittiam's OMX IL AAC encoder test executable is generated at

```
<android_bsp>/25.14/mydroid/out/target/product/zoom2/  
system/bin/IttiamAacEncoder_Test
```

---

<sup>1</sup> As an example, here it is given as 25.14

<sup>2</sup> Library name depends on the release type – AAC, HEAAC, HEAACV2

## 3. Execution instructions

---

### **Instructions:-**

Copy OMX IL component to target's file system at

`/system/lib/libOMX.ITTIAM.HEAACV2.encode.so`

Copy OMX IL AAC encoder test executable to target's file system at

`/system/bin/IttiamAacEncoder_Test`

Copy input test vector to target's file system as

`/system/bin/27.pcm`

### **Usage:-**

```
./IttiamAacEncoder_Test [INFILE] [OUTFILE] [MONO/STEREO]
[TESTCASE] [FRAMEMODE] [SFREQ] [BITRATE] [OBJECTTYPE] [FRAMES]
[IP_BUF] [OUT_BUF] [BITRATEMODE] [FILEFORMAT] [ROBUSTNESS]
```

### **Explanation:-**

[INFILE]	: <input.pcm>
[OUTFILE]	: <output.aac>
[MONO/STEREO]	: number of channels in the input.pcm
[TESTCASE]	: Test cases 1 to 5 1- Testing Simple Record till Predefined frames 2- Testing Stop After Record 3- Testing PAUSE & RESUME Command 4- Testing Repeated RECORD without Deleting Component 5- Testing Repeated RECORD with Deleting Component
[FRAMEMODE]	: 0 - Output buffered to give constant amount 1 - Output given after every frame encode
[SFREQ]	: Input Sampling Rate
[BITRATE]	: Average bit-rate for encoding
[OBJECTTYPE]	: 2 - (AAC-LC) mode of encoding 5 - (HEAAC) mode of encoding 29 - (HEAACv2) mode of encoding

[FRAMES] : This option is not supported  
[IP\_BUF] : Number of Input Buffers to be allocated  
[OUT\_BUF] : Number of Output Buffers to be allocated  
[BITRATEMODE] : This option is always set to 0.  
[FILEFORMAT] : 0 - RAW format;  
                  1 - ADIF format;  
                  2 - ADTS format  
[ROBUSTNESS] : Testing for robustness

**Example Command:-**

```
./IttiamAacEncoder_Test 27.pcm 27_stereo.aac STEREO 1 0 44100  
128000 2 0 1 1 0 2 1
```