
**Information technology — Coding of
audio-visual objects —**

Part 3:
Audio

**AMENDMENT 1: HD-AAC profile and MPEG
Surround signaling**

Technologies de l'information — Codage des objets audiovisuels —

Partie 3: Codage audio

AMENDEMENT 1: Profil HD-AAC et signalisation périphérique MPEG

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The main task of the joint technical committee is to prepare International Standards. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75 % of the national bodies casting a vote.

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In 1.5.2.1 (Profiles), add:

13. The **High Definition AAC (HD-AAC) Profile** contains the audio object types 2 (AAC LC) and 37 (SLS).

In 1.5.2.1 (Profiles), Table 1.3 (Audio Profiles definition), add (changes are highlighted in grey):

Object Type ID	Audio Object Type	...	High Definition AAC Profile
...			
2	AAC LC		X
...			
37	SLS		X
...			

In 1.5.2.3 (Levels within the profiles), immediately before 1.5.2.4 add:

- **Levels for the High Definition AAC Profile**

Table AMD1-1 — Level for the High Definition AAC Profile

Level	Max. channels/object	Max. sampling rate [kHz]	Max. word length [bit]
1	2	96	24

CBAC is not permitted.

In 1.5.2.4 (audioProfileLevelIndication), insert the following new entries into Table 1.14 (audioProfileLevelIndication values) and adapt the “reserved for ISO use” range accordingly (changes are highlighted in grey):

Value	Profile	Level
...		
0x3B	High Definition AAC Profile	L1
0x3C - 0x7F	reserved for ISO use	-
...		

In 1.6.2.1, replace Table 1.15 with the following table (where changes are highlighted in grey):

Table 1.15 — Syntax of AudioSpecificConfig()

Syntax	No. of bits	Mnemonic
AudioSpecificConfig ()		
{		
audioObjectType = GetAudioObjectType();		
samplingFrequencyIndex;	4	bslbf
if (samplingFrequencyIndex == 0xf) {		
samplingFrequency;	24	uimsbf
}		
channelConfiguration;	4	bslbf
sbrPresentFlag = -1;		
psPresentFlag = -1;		
mpsPresentFlag = -1;		
if (audioObjectType == 5		
audioObjectType == 29) {		
extensionAudioObjectType = 5;		
sbrPresentFlag = 1;		
if (audioObjectType == 29) {		
psPresentFlag = 1;		
}		
extensionSamplingFrequencyIndex;	4	uimsbf
if (extensionSamplingFrequencyIndex == 0xf)		
extensionSamplingFrequency;	24	uimsbf
audioObjectType = GetAudioObjectType();		
if (audioObjectType == 22)		
extensionChannelConfiguration;	4	uimsbf
}		
else {		
extensionAudioObjectType = 0;		
}		
switch (audioObjectType) {		
case 1:		
case 2:		
case 3:		
case 4:		
case 6:		
case 7:		
case 17:		
case 19:		
case 20:		
case 21:		
case 22:		
case 23:		
GASpecificConfig();		
break;		
case 8:		
CelpSpecificConfig();		
break;		
case 9:		
HvxcSpecificConfig();		
break;		
case 12:		
TTSSpecificConfig();		
break;		

Table 1.15 (continued)

Syntax	No. of bits	Mnemonic
<pre> case 13: case 14: case 15: case 16: StructuredAudioSpecificConfig(); break; case 24: ErrorResilientCelpSpecificConfig(); break; case 25: ErrorResilientHvxcSpecificConfig(); break; case 26: case 27: ParametricSpecificConfig(); break; case 28: SSCSpecificConfig(); break; case 30: mpsPresentFlag = 1; sacPayloadEmbedding; SpatialSpecificConfig(); break; case 32: case 33: case 34: MPEG_1_2_SpecificConfig(); break; case 35: DSTSpecificConfig(); break; case 36: fillBits; ALSSpecificConfig(); break; case 37: case 38: SLSSpecificConfig(); break; case 39: ELDSpecificConfig(channelConfiguration); break; case 40: case 41: SymbolicMusicSpecificConfig(); break; default: /* reserved */ } switch (audioObjectType) { </pre>	<p>1</p> <p>5</p>	<p>uimsbf</p> <p>bslbf</p>

Table 1.15 (continued)

Syntax	No. of bits	Mnemonic
<pre> case 17: case 19: case 20: case 21: case 22: case 23: case 24: case 25: case 26: case 27: case 39: epConfig; if (epConfig == 2 epConfig == 3) { ErrorProtectionSpecificConfig(); } if (epConfig == 3) { directMapping; if (! directMapping) { /* tbd */ } } } extensionIdentifier = -1; if (bits_to_decode() >= 11) { extensionIdentifier; } if (extensionIdentifier == 0x2b7) { extensionIdentifier = -1; if (extensionAudioObjectType != 5 && bits_to_decode() >= 5) { extensionAudioObjectType = GetAudioObjectType(); if (extensionAudioObjectType == 5) { sbrPresentFlag; if (sbrPresentFlag == 1) { extensionSamplingFrequencyIndex; if (extensionSamplingFrequencyIndex == 0xf) { extensionSamplingFrequency; } } } if (bits_to_decode() >= 12) { extensionIdentifier; if (extensionIdentifier == 0x548) { extensionIdentifier = -1; psPresentFlag; } } } } if (extensionAudioObjectType == 22) { sbrPresentFlag; if (sbrPresentFlag == 1) { extensionSamplingFrequencyIndex; if (extensionSamplingFrequencyIndex == 0xf) extensionSamplingFrequency; } extensionChannelConfiguration; } } </pre>	<p>2</p> <p>1</p> <p>11</p> <p>1</p> <p>4</p> <p>24</p> <p>11</p> <p>1</p> <p>1</p> <p>4</p> <p>24</p> <p>4</p>	<p>bslbf</p> <p>bslbf</p> <p>bslbf</p> <p>uimsbf</p> <p>uimsbf</p> <p>uimsbf</p> <p>bslbf</p> <p>uimsbf</p> <p>uimsbf</p> <p>uimsbf</p> <p>uimsbf</p>