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AMENDMENT 1
2004-02-01

Information technology — Generic coding of moving pictures and associated audio information —

Part 7: Advanced Audio Coding (AAC)

AMENDMENT 1: Embedding of bandwidth extension

Technologies de l'information — Codage générique des images animées et du son associé —

Partie 7: Codage du son avancé (AAC)

AMENDEMENT 1: Scellement d'extension de largeur de bande

Reference number
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Foreword

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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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Amendment 1 to ISO/IEC 13818-7:2003 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 29, *Coding of audio, picture, multimedia and hypermedia information*.

Information technology — Generic coding of moving pictures and associated audio information —

Part 7:
Advanced Audio Coding (AAC)

AMENDMENT 1: Embedding of bandwidth extension

Page 8, Clause 2

Add the following normative reference:

"ISO/IEC 14496-3:2001/Amd.1, *Information technology — Coding of audio-visual objects — Part 3: Audio — Amendment 1: Bandwidth extension*"

Page 31, subclause 6.3

Replace Table 28 with the following:

Table 28 — Syntax of extension_payload()

extension_payload(cnt)		
{		
extension_type;	**4**	**uimsbf**
switch (extension_type) {		
case EXT_DYNAMIC_RANGE:		
n = dynamic_range_info();		
return n;		
case EXT_SBR_DATA:		
return sbr_extension_data(id_aac, 0);		NOTE 1
case EXT_SBR_DATA_CRC:		
return sbr_extension_data(id_aac, 1);		NOTE 1
case EXT_FILL_DATA:		
fill_nibble; /* must be '0000' */	**4**	**uimsbf**
for (i = 0; i < cnt-1; i++)		
fill_byte[i]; /* must be '10100101' */	**8**	**uimsbf**
return cnt;		
case default:		
for (i = 0; i < 8*(cnt-1)+4; i++)		
other_bits[i];	**1**	**uimsbf**
return cnt;		
}		
}		

NOTE 1 id_aac is the id_syn_ele of the corresponding AAC element (ID_SCE or ID_CPE) or ID_SCE in case of CCE.

Page 58, subclause 8.7.3

Replace Table 41 with the following:

Table 41 — Values of the extension_type data element

Symbol	Value of extension_type	Purpose
EXT_FILL	'0000'	Bitstream filler
EXT_FILL_DATA	'0001'	Bitstream data as filler
EXT_DYNAMIC_RANGE	'1011'	Dynamic range control
EXT_SBR_DATA	'1101'	SBR enhancement
EXT_SBR_DATA_CRC	'1110'	SBR enhancement with CRC
-	all other values	reserved

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Add the following subclause after subclause 8.7.4:

8.7.5 Bandwidth Extension (SBR)

Fill elements containing an extension_payload with an extension_type of EXT_SBR_DATA or EXT_SBR_DATA_CRC are reserved for SBR enhancement data. In this case, the fill_element count field must be set equal to the total length in bytes, including the SBR enhancement data plus the extension_type field.

sbr_extension_data() and the decoding process are defined in ISO/IEC 14496-3:2001/Amd.1.

The SBR fill elements shall be handled according to ISO/IEC 14496-3:2001/Amd.1, subclause 4.5.2.8.2.2 "SBR Extension Payload for the Audio Object Types AAC main, AAC SSR, AAC LC and AAC LTP". The signaling of SBR shall be done implicitly as outlined in ISO/IEC 14496-3:2001/Amd.1, subclause 1.6.5.