

International Telecommunication Union

ITU-T

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

H.222.0

Amendment 4
(07/2016)

SERIES H: AUDIOVISUAL AND MULTIMEDIA SYSTEMS

Infrastructure of audiovisual services – Transmission
multiplexing and synchronization

Information technology – Generic coding of moving
pictures and associated audio information: Systems

**Amendment 4: New profiles and levels for
MPEG-4 audio descriptor**

Recommendation ITU-T H.222.0 (2014) –
Amendment 4

ITU-T



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**Information technology – Generic coding of moving pictures and associated
audio information: Systems**

Amendment 4

New profiles and levels for MPEG-4 audio descriptor

Summary

Amendment 4 to ITU-T H.222.0 (2014) | ISO/IEC 13818-1:2015 adds new ISO/IEC 14496-3 audio profiles and levels.

History

Edition	Recommendation	Approval	Study Group	Unique ID*
1.0	ITU-T H.222.0	1995-07-10	15	11.1002/1000/1071
1.1	ITU-T H.222.0 (1995) Amd. 1	1996-11-11	16	11.1002/1000/3834
1.2	ITU-T H.222.0 (1995) Amd. 2	1996-11-11	16	11.1002/1000/4096
1.3	ITU-T H.222.0 (1995) Technical Cor. 1	1998-02-06	16	11.1002/1000/4532
1.4	ITU-T H.222.0 (1995) Amd. 3	1998-02-06	16	11.1002/1000/4228
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2.0	ITU-T H.222.0	2000-02-17	16	11.1002/1000/5142
2.1	ITU-T H.222.0 (2000) Technical Cor. 1	2001-03-01	16	11.1002/1000/5419
2.2	ITU-T H.222.0 (2000) Technical Cor. 2	2002-03-29	16	11.1002/1000/5675
2.3	ITU-T H.222.0 (2000) Amd. 1	2002-12-14	16	11.1002/1000/6190
2.4	ITU-T H.222.0 (2000) Amd. 1/Cor. 1	2003-06-29	16	11.1002/1000/6449
2.5	ITU-T H.222.0 (2000) Amd. 2	2003-06-29	16	11.1002/1000/6363
2.6	ITU-T H.222.0 (2000) Amd. 3	2004-03-15	16	11.1002/1000/7208
2.7	ITU-T H.222.0 (2000) Technical Cor. 3	2005-01-08	16	11.1002/1000/7435
2.8	ITU-T H.222.0 (2000) Amd. 4	2005-01-08	16	11.1002/1000/7436
2.9	ITU-T H.222.0 (2000) Amd. 5	2005-01-08	16	11.1002/1000/7437
2.10	ITU-T H.222.0 (2000) Technical Cor. 4	2005-09-13	16	11.1002/1000/8560
3.0	ITU-T H.222.0	2006-05-29	16	11.1002/1000/8802
3.1	ITU-T H.222.0 (2006) Amd. 1	2007-01-13	16	11.1002/1000/9024
3.2	ITU-T H.222.0 (2006) Amd. 2	2007-08-29	16	11.1002/1000/9214
3.3	ITU-T H.222.0 (2006) Cor. 1	2008-06-13	16	11.1002/1000/9471
3.4	ITU-T H.222.0 (2006) Cor. 2	2009-03-16	16	11.1002/1000/9692
3.5	ITU-T H.222.0 (2006) Amd. 3	2009-03-16	16	11.1002/1000/9691
3.6	ITU-T H.222.0 (2006) Cor. 3	2009-12-14	16	11.1002/1000/10621
3.7	ITU-T H.222.0 (2006) Cor. 4	2009-12-14	16	11.1002/1000/10622
3.8	ITU-T H.222.0 (2006) Amd. 4	2009-12-14	16	11.1002/1000/10623
3.9	ITU-T H.222.0 (2006) Amd. 5	2011-05-14	16	11.1002/1000/11287

* To access the Recommendation, type the URL <http://handle.itu.int/> in the address field of your web browser, followed by the Recommendation's unique ID. For example, <http://handle.itu.int/11.1002/1000/11830-en>.

3.10	ITU-T H.222.0 (2006) Amd. 6	2011-05-14	16	11.1002/1000/11288
4.0	ITU-T H.222.0	2012-06-29	16	11.1002/1000/11655
4.1	ITU-T H.222.0 (2012) Amd. 1	2014-01-13	16	11.1002/1000/12054
4.2	ITU-T H.222.0 (2012) Amd. 2	2014-01-13	16	11.1002/1000/12055
4.3	ITU-T H.222.0 (2012) Amd. 3	2014-01-13	16	11.1002/1000/12056
4.4	ITU-T H.222.0 (2012) Amd. 4	2014-01-13	16	11.1002/1000/12057
4.5	ITU-T H.222.0 (2012) Amd. 5	2014-10-14	16	11.1002/1000/12306
5.0	ITU-T H.222.0	2014-10-14	16	11.1002/1000/12359
5.1	ITU-T H.222.0 (2014) Amd. 1	2015-04-29	16	11.1002/1000/12452
5.2	ITU-T H.222.0 (2014) Amd. 1 Cor. 1	2015-11-29	16	11.1002/1000/12625
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5.6	ITU-T H.222.0 (2014) Cor. 1	2016-07-14	16	11.1002/1000/12903
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5.9	ITU-T H.222.0 (2014) Amd. 6	2016-07-14	16	11.1002/1000/12902

FOREWORD

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The World Telecommunication Standardization Assembly (WTSA), which meets every four years, establishes the topics for study by the ITU-T study groups which, in turn, produce Recommendations on these topics.

The approval of ITU-T Recommendations is covered by the procedure laid down in WTSA Resolution 1.

In some areas of information technology which fall within ITU-T's purview, the necessary standards are prepared on a collaborative basis with ISO and IEC.

NOTE

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**INTERNATIONAL STANDARD
ITU-T RECOMMENDATION**

**Information technology – Generic coding of moving pictures and
associated audio information: Systems**

Amendment 4

New profile and levels for MPEG-4 audio descriptor

1) Clause 1.2.3

In clause 1.2.3, edit the entry for ISO/IEC 14496-3 to specify:

- ISO/IEC 14496-3:2009 with Amd. 4:2013, *Information technology – Coding of audio-visual objects – Part 3: Audio*.

2) Table 2-72

Replace Table 2-72 with the following:

Table 2-72 – MPEG-4_audio_profile_and_level assignment values

Value	Description
0x00-0x0E	Reserved
0x0F	No audio profile and level defined for the associated MPEG-4 audio stream
0x10	Main profile, level 1
0x11	Main profile, level 2
0x12	Main profile, level 3
0x13	Main profile, level 4
0x14-0x17	Reserved
0x18	Scalable Profile, level 1
0x19	Scalable Profile, level 2
0x1A	Scalable Profile, level 3
0x1B	Scalable Profile, level 4
0x1C-0x1F	Reserved
0x20	Speech profile, level 1
0x21	Speech profile, level 2
0x22-0x27	Reserved
0x28	Synthesis profile, level 1
0x29	Synthesis profile, level 2
0x2A	Synthesis profile, level 3
0x2B-0x2F	Reserved
0x30	High quality audio profile, level 1
0x31	High quality audio profile, level 2
0x32	High quality audio profile, level 3
0x33	High quality audio profile, level 4
0x34	High quality audio profile, level 5
0x35	High quality audio profile, level 6
0x36	High quality audio profile, level 7
0x37	High quality audio profile, level 8
0x38	Low delay audio profile, level 1
0x39	Low delay audio profile, level 2
0x3A	Low delay audio profile, level 3
0x3B	Low delay audio profile, level 4
0x3C	Low delay audio profile, level 5
0x3D	Low delay audio profile, level 6

Table 2-72 – MPEG-4_audio_profile_and_level assignment values

Value	Description
0x3E	Low delay audio profile, level 7
0x3F	Low delay audio profile, level 8
0x40	Natural audio profile, level 1
0x41	Natural audio profile, level 2
0x42	Natural audio profile, level 3
0x43	Natural audio profile, level 4
0x44-0x47	Reserved
0x48	Mobile audio internetworking profile, level 1
0x49	Mobile audio internetworking profile, level 2
0x4A	Mobile audio internetworking profile, level 3
0x4B	Mobile audio internetworking profile, level 4
0x4C	Mobile audio internetworking profile, level 5
0x4D	Mobile audio internetworking profile, level 6
0x4E-0x4F	Reserved
0x50	AAC profile, level 1
0x51	AAC profile, level 2
0x52	AAC profile, level 4
0x53	AAC profile, level 5
0x54	AAC profile, level 6
0x55	AAC profile, level 7
0x56-0x57	Reserved
0x58	High efficiency AAC profile, level 2
0x59	High efficiency AAC profile, level 3
0x5A	High efficiency AAC profile, level 4
0x5B	High efficiency AAC profile, level 5
0x5C	High efficiency AAC profile, level 6
0x5D	High efficiency AAC profile, level 7
0x5E-0x5F	Reserved
0x60	High efficiency AAC v2 profile, level 2
0x61	High efficiency AAC v2 profile, level 3
0x62	High efficiency AAC v2 profile, level 4
0x63	High efficiency AAC v2 profile, level 5
0x64	High efficiency AAC v2 profile, level 6
0x65	High efficiency AAC v2 profile, level 7
0x66-0x67	Reserved
0x68	Extended HE AAC Profile, level 1
0x69	Extended HE AAC Profile, level 2
0x6A	Extended HE AAC Profile, level 3
0x6B	Extended HE AAC Profile, level 4
0x6C	Extended HE AAC Profile, level 6
0x6D	Extended HE AAC Profile, level 7
0x6E-0x6F	reserved
0x70	Baseline USAC Profile, level 1
0x71	Baseline USAC Profile, level 2
0x72	Baseline USAC Profile, level 3
0x73	Baseline USAC Profile, level 4
0x74-0x7F	reserved
0x80	Low Delay AAC Profile, level 1

Table 2-72 – MPEG-4_audio_profile_and_level assignment values

Value	Description
0x81-0x87	reserved
0x88	Low Delay AAC v2 Profile, level 1
0x89	Low Delay AAC v2 Profile, level 2
0x8A	Low Delay AAC v2 Profile, level 3
0x8B	Low Delay AAC v2 Profile, level 4
0x8C-0x8F	reserved
0x90	High Definition AAC Profile, level 1
0x91-0x97	reserved
0x98	ALS Simple Profile, level 1
0x99-0xFE	reserved
0xFF	Audio profile and level not specified by the MPEG-4_audio_profile_and_level field in this descriptor

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