



ATSC

ADVANCED TELEVISION
SYSTEMS COMMITTEE

ATSC Standard: A/332:2024-04 Amendment No. 1, “VVC Capability Codes”

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Advanced Television Systems Committee
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Revision History

Version	Date
Amendment approved	14 February 2025

ATSC Standard: A/332:2024-04 Amendment No. 1, “VVC Capability Codes”

1. OVERVIEW

1.1 Definition

An Amendment is generated to document an enhancement, an addition or a deletion of functionality to previously agreed technical provisions in an existing ATSC document. Amendments shall be published as attachments to the original ATSC document. Distribution by ATSC of existing documents shall include any approved Amendments.

1.2 Scope

This document updates and extends the “capability codes” defined in Section 5. These capability codes are used in several ATSC standards to express one of:

- A. Required decoder features in order to decode a Service(s)
- B. Required decoder features in order to run a Broadcaster Application
- C. Decoder features
- D. Required decoder features in order to decode a Content
- E. Usable decoder features for decoding a Content

The uses within ATSC standards are:

- 1) A/331:2020
 - a) SLT.SLTCapabilities (all services – Section 6.3)
 - b) SLT.Service.SVCCapabilities (this service – Section 6.3)
 - c) HELD@requiredCapabilities (this Broadcaster Application – Section 7.1.8)
 - d) MMT DCIT
 - e) HTTP User-Agent Header Field (this device – Section 7.1.2.4)
- 2) A/332:2017 (Dec)
 - a) oma:PrivateExt.sa:Capabilities (this content – Section 5.2.2.3.3)
- 3) A/344:2020
 - a) deviceInfoProperties.deviceCapabilities (this device – Section 9.13)

1.3 Rationale for Changes

The codes are incomplete with respect to features corresponding to A/345 “VVC Video” and in need of clarification with respect to A/341 “Video – HEVC”.

1.4 Compatibility Considerations

This extends the list of codes (no deletions or changes). Existing encoders will still be conformant. Existing Receivers may receive codes that are not understood, which can indicate services, applications, and contents that cannot be presented.

2. LIST OF CHANGES

Change instructions are given below in *italics*. Unless otherwise noted, inserted text, tables, and drawings are shown in **blue**; deletions of existing text are shown in **red-strikeout**. The text “[ref]” indicates that a cross reference to a cited referenced document should be inserted.

A/344 maintains a “revision log” of its included APIs from revision to revision by listing the changes in Table 9.1. In addition, each revision includes an Annex which captures the API from the previous edition in unchanged form. By maintaining the previous API definition in the document, implementers may look at the history of each API. When this amendment is finally rolled into the main revision document, Table 9.1 will need to be updated and the original text of the API modified below may be copied into the Annex for the revision.

Add to Section 2.1, “Normative References”:

[X] ATSC: “ATSC Standard: VVC Video,” Doc. A/345:2024, Advanced Television Systems Committee, Washington, D.C., 03 April 2024.

Add new Section 2.2, “Informative References”:

The following documents contain information that may be helpful in applying this Standard.

[Y] ISO/IEC: 23090-3:2023 | Rec. ITU-T H.266 (9/2023), “Information technology — Coded representation of immersive media — Part 3: Versatile Video Coding,” Geneva, Switzerland.

Add to Section 3.3, “Acronyms and Abbreviations”:

VVC – Versatile Video Codec

Modify Table 5.12 as follows:

5 SERVICE ANNOUNCEMENT: SERVICE GUIDE

5.2 ATSC SG Data Model

5.2.2.3.3.2 Device Capabilities Syntax and Semantics

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Table 5.12 Capability Codes

capability_code	Meaning	Reference	Required	Supported
0x0000	Forbidden		n/a	n/a
Capability Category: Download Protocols				
0x0100-0x01FF	Reserved for future ATSC use.			
Capability Category: FEC Algorithms				
0x0200	AL FEC Repair-only	Section 5.3.8	X	X
0x0201	STAGGERCAST	A/331 Sections 7.1.5.1 and 7.2.3.3 [2]		X
0x0202-0x02FF	Reserved for future ATSC use.			
Capability Category: Wrapper/Archive Formats				
0x0300-0x03FF	Reserved for future ATSC use.			
Capability Category: Compression Algorithms				
0x0400-0x04FF	Reserved for future ATSC use.			
Capability Category: Media Types (RMP)				
0x0500	[Reserved for AVC standard definition video]	Section 5.3.1		
0x0501	[Reserved for AVC high definition video]	Section 5.3.1		

capability_code	Meaning	Reference	Required	Supported
0x0502	AC-3 audio	A/103 Section A.2.10 [12]		
0x0503	E-AC-3 audio	A/103 Section A.2.11 [12]		
0x0504	DTS-HD audio	A/103 Section A.2.18 [12]		
0x0505	HE AAC v2 with MPEG Surround	A/103 Section A.2.21 [12]		
0x0506	HE AAC v2 Level 6 audio	A/103 Section A.2.22 [12]		
0x0507	Frame-compatible 3D video (Side-by-Side)	A/103 Section A.2.23 [12]		
0x0508	Frame-compatible 3D video (Top-and-Bottom)	A/103 Section A.2.24 [12]		
0x0509	ATSC 3.0 HEVC Video	Section 5.3.3	X	X
0x050A	ATSC 3.0 HEVC HDR Video	Section 5.3.4	X	X
0x050B	Dolby® AC4 Audio	A/342 Part 2 [10]	X	X
0x050C	MPEG-H Audio	A/342 Part 3 [11]	X	X
0x050D	IMSC1 Text Profile	A/343 [13]	X	X
0x050E	IMSC1 Image Profile	A/343 [13]	X	X
0x050F	4K Resolution	A/341 [9]		X
0x0510	ATSC 3.0 HEVC HDR with ST 2094-10	Section 5.3.6		X
0x0511	ATSC 3.0 HEVC SDR with SL-HDR1 SEI	Section 5.3.7		X
0x0512	ATSC 3.0 SHVC Video	Section 5.3.9		X
0x0513	HFR with one temporal sub-layer	Section 5.3.10		X
0x0514	HFR with unfiltered temporal sub-layers	Section 5.3.11		X
0x0515	HFR with filtered temporal sub-layers	Section 5.3.12		X
0x0516	ATSC 3.0 Fixed/Mobile 3D HEVC	Section 5.3.13		X
0x0517	ATSC 3.0 Fixed/Mobile 3D SHVC	Section 5.3.14		X
0x0518	ATSC 3.0 Wide Color Gamut	Section 5.3.15		X
0x0519	ATSC 3.0 HD Progressive Video	Section 5.3.16		X
0x051A	ATSC 3.0 Personalization Selection	Section 5.3.17		X
0x051B	ATSC 3.0 Dialog Enhancement	Section 5.3.18		X
0x051C	ATSC 3.0 Video Descriptive Services	Section 5.3.19		X
0x051D	ATSC 3.0 SD Progressive Video	Section 5.3.20		X
0x051E	ATSC 3.0 Legacy SD Video	A/341 Section 6.2.1 [9]		X
0x051F	ATSC 3.0 Interlaced HD Video	A/341 Section 6.2.2 [9]		X
0x0520	ATSC 3.0 VVC Video	Section 5.3.21	X	X
0x0521	ATSC 3.0 VVC HDR Video	Section 5.3.22	X	X
0x0522	ATSC 3.0 VVC HDR with ST 2094-10	Section 5.3.23		X
0x0523	ATSC 3.0 VVC SDR with SL-HDR1 SEI	Section 5.3.24		X
0x0524	ATSC 3.0 Multilayer VVC Video	Section 5.3.25		X

capability_code	Meaning	Reference	Required	Supported
0x0525	ATSC 3.0 HFR VVC Video	Section 5.3.26		X
0x0526	ATSC 3.0 4K VVC Video	Section 5.3.27		X
0x0527	ATSC 3.0 3D VVC Video	Section 5.3.28		X
0x0528-0x057F	Reserved for future ATSC use.			
Capability Category: Media Types (AMP)				
0x0580	[Reserved for AVC standard definition video]	Section 5.3.1		
0x0581	[Reserved for AVC high definition video]	Section 5.3.1		
0x0582	AC-3 audio	A/103 Section A.2.10 [12]		
0x0583	E-AC-3 audio	A/103 Section A.2.11 [12]		
0x0584	DTS-HD audio	A/103 Section A.2.18 [12]		
0x0585	HE AAC v2 with MPEG Surround	A/103 Section A.2.21 [12]		
0x0586	HE AAC v2 Level 6 audio	A/103 Section A.2.22 [12]		
0x0587	Frame-compatible 3D video (Side-by-Side)	A/103 Section A.2.23 [12]		
0x0588	Frame-compatible 3D video (Top-and-Bottom)	A/103 Section A.2.24 [12]		
0x0589	ATSC 3.0 SHVC Video	Section 5.3.3	X	X
0x058A	ATSC 3.0 HEVC HDR Video	Section 5.3.4	X	X
0x058B	Dolby® AC4 Audio	A/342 Part 2 [10]	X	X
0x058C	MPEG-H Audio	A/342 Part 3 [11]	X	X
0x058D	IMSC1 Text Profile	A/343 [13]	X	X
0x058E	IMSC1 Image Profile	A/343 [13]	X	X
0x058F	4K Resolution	A/341 [9]		X
0x0590	ATSC 3.0 HEVC HDR with ST 2094-10	Section 5.3.6		X
0x0591	ATSC 3.0 HEVC SDR with SL-HDR1 SEI	Section 5.3.7		X
0x0592	ATSC 3.0 SHVC Video	Section 5.3.9		X
0x0593	HFR with one temporal sub-layer	Section 5.3.10		X
0x0594	HFR with unfiltered temporal sub-layers	Section 5.3.11		X
0x0595	HFR with filtered temporal sub-layers	Section 5.3.12		X
0x0596	ATSC 3.0 Fixed/Mobile 3D HEVC	Section 5.3.13		X
0x0597	ATSC 3.0 Fixed/Mobile 3D SHVC	Section 5.3.14		X
0x0598	ATSC 3.0 Wide Color Gamut	Section 5.3.15		X
0x0599	ATSC 3.0 HD Progressive Video	Section 5.3.16		X
0x059A	ATSC 3.0 Personalization Selection	Section 5.3.17		X
0x059B	ATSC 3.0 Dialog Enhancement	Section 5.3.18		X
0x059C	ATSC 3.0 Video Descriptive Services	Section 5.3.19		X

capability_code	Meaning	Reference	Required	Supported
0x059D	ATSC 3.0 Video Descriptive Services	Section 5.3.20		X
0x059E	ATSC 3.0 Legacy SD Video	A/341 Section 6.2.1 [9]		X
0x059F	ATSC 3.0 Interlaced HD Video	A/341 Section 6.2.2 [9]		X
0x05A0	ATSC 3.0 VVC Video	Section 5.3.21	X	X
0x05A1	ATSC 3.0 VVC HDR Video	Section 5.3.22	X	X
0x05A2	ATSC 3.0 VVC HDR with ST 2094-10	Section 5.3.23		X
0x05A3	ATSC 3.0 VVC SDR with SL-HDR1 SEI	Section 5.3.24		X
0x05A4	ATSC 3.0 Multilayer VVC Video	Section 5.3.25		X
0x05A5	ATSC 3.0 HFR VVC Video	Section 5.3.26		X
0x05A6	ATSC 3.0 4K VVC Video	Section 5.3.27		X
0x05A7	ATSC 3.0 3D VVC Video	Section 5.3.28		X
0x05A98-0x05FF	Reserved for future ATSC use.			
Capability Category: Internet Link				
0x0600	Internet link, downward rate 56,000 bps or better	A/103 Section A.2.25 [16]		
0x0601	Internet link, downward rate 512,000 bps or better	A/103 Section A.2.26 [16]		
0x0602	Internet link, downward rate 2,000,000 bps or better	A/103 Section A.2.27 [16]		
0x0603	Internet link, downward rate 10,000,000 bps or better	A/103 Section A.2.28 [16]		
0x0604-0x06FF	Reserved for future ATSC use.			
Capability Category: Interactive				
0x0700	Interactive Content Environment	A/344 [15] (all)	X	X
0x0701	WSPath/atscVid	A/344 8.2.1	X	X
0x0702	WSPath/atscAud	A/344 8.2.1	X	X
0x0703	WSPath/atscCap	A/344 8.2.1	X	X
0x0704	WSPath/atscCD	A/344 8.2.1	X	X
0x0705-0x07FF	Reserved for future ATSC use.			
Capability Category: Other				
0x0800	DRM	Section 5.3.5.1	X	X
0x0801	Companion Device	Section 5.3.5.2	X	X
0x0802-0x08FF	Reserved for future ATSC use.			
ATSC Reserved				
0x0001-0x00FF, 0x0900-0xFFFF	Reserved for future ATSC use.			
<p>Note 1 - Codes marked with an "X" in this column are those codes that have use when signaling "capabilities and capability groups required in the receiver to be able to create a meaningful presentation of the content" (as described in Section X).</p> <p>Note 2 - Codes marked with an "X" in this column are those codes that have use when signaling the capabilities of receivers to HTTP servers (A/331 X) Section 7.1.2.4) and A/344 Applications (A/344 X) Section 9.13).</p> <p>Note 3 – Required or supported without using an interactive environment; e.g., the real RMP only.</p> <p>Note 4 – Required or supported using the interactive environment; e.g., the real RMP, HTML5 media stack, etc.</p>				

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Modify Section 5.3, “Description of Code Points,” as follows:

5.3 Description of Code Points

...

5.3.3 Capability Codes 0x0509 and 0x0589: ATSC 3.0 HEVC Video

The `capability_code` values 0x0509 and 0x0589 shall represent the receiver ability (using the RMP or AMP, respectively) to decode and display or output video (including at least the base layer of HEVC scalable video) encoded using HEVC in conformance with the ATSC specification A/341 but not requiring ability to support the constraints related to HDR in A/341.

5.3.4 Capability Codes 0x050A and 0x058A: ATSC 3.0 HEVC HDR Video

The `capability_code` values 0x050A and 0x058A shall represent the receiver ability (using the RMP or AMP, respectively) to decode and display or output video encoded using HEVC in conformance with the ATSC specification A/341 including the aspects of A/341 describing HDR. That is, the receiver’s ability to decode and display or output HEVC video encoded in conformance with all constraints including constraints regarding HDR in A/341.

5.3.5 Capability Codes 0x050F and 0x058F: 4K Resolution

The `capability_code` values 0x050F and/or 0x058F shall represent the receiver ability (using RMP or AMP respectively) to decode and display or output video with spatial resolution greater than or equal to 3840×2160 (nominal), which is encoded per A/341 with spatial resolution greater than or equal to 3840×2160. Note that this represents the ability to display or output at 3840×2160, not merely the ability to decode video encoded at 3840×2160 and create a meaningful output.

5.3.6 Capability Codes 0x0510 and 0x0590: ATSC 3.0 HDR HEVC Video with ST2094-10 SEI

The `capability_code` values 0x0510 and/or 0x0590 shall represent the receiver (using the RMP or AMP respectively) ability to decode HEVC video encoded in conformance with the ATSC specification A/341 and specifically to utilize ST 2094-10 metadata. Note that this represents the ability to utilize the ST 2094-10 metadata in the decoding process, as described by the ST 2094-10 SEI messages as codified in A/341 Section 6.3.2.2.1.

5.3.7 Capability Codes 0x0511 and 0x0591: ATSC 3.0 HEVC SDR Video with SL-HDR1 SEI

The `capability_code` values 0x0511 and/or 0x0591 shall represent the receiver (using the RMP or AMP respectively) ability to decode HEVC video encoded in conformance with the ATSC specification A/341 and specifically to utilize SL-HDR1 metadata. Note that this represents the ability to utilize SL-HDR1 metadata carried in the SL-HDR Information SEI messages as codified in A/341 Sections 6.3.2.1.1 and 6.3.2.1.2.

5.3.8 Capability Code 0x0200: AL-FEC

The `capability_code` value 0x0200 shall represent the receiver ability to utilize AL-FEC data to perform error correction in conformance to the ATSC specification A/331.

5.3.9 Capability Codes 0x0512 and 0x0592: ATSC 3.0 SHVC Video

The `capability_code` values 0x0512 and 0x0592 shall represent the receiver ability, in the RMP or AMP respectively, to decode and display or output video enhanced by an SHVC enhancement layer in conformance with the ATSC specification A/341 Sections 6.3.1, 6.3.2.1, 6.3.3.3, and 6.3.4 as applied to the context determined by the other conjoined capability codes.

5.3.10 Capability Codes 0x0513 and 0x0593: HFR with One Temporal Sub-Layer

The `capability_code` values 0x0513 and/or 0x0593 shall represent the receiver ability (using RMP or AMP, respectively) to decode and display or output high frame rate (i.e., a picture rate of 100, 120/1.001, 120) video encoded using HEVC with exactly one temporal sub-layer in conformance with the ATSC specification A/341 Section 6.3.4. A code from this section shall not appear in a conjunction with any code from Section 5.3.11 or Section 5.3.12.

5.3.11 Capability Codes 0x0514 and 0x0594: HFR with Unfiltered Temporal Sub-Layers

The `capability_code` values 0x0514 and 0x0594 shall represent the receiver ability, in the RMP or AMP respectively, to decode and display or output high frame rate (i.e., a picture rate of 100, 120/1.001, 120) video using HEVC encoded with exactly two temporal sub-layers in conformance with the ATSC specification A/341 Section 6.3.4 without the temporal filtering described in A/341 Section 6.3.4.1. A code from this section shall not appear in a conjunction with any code from Section 5.3.10 or Section 5.3.12.

5.3.12 Capability Codes 0x0515 and 0x0595: HFR, Temporal Filtering

The `capability_code` values 0x0515 and 0x0595 shall represent the receiver ability, in the RMP or AMP respectively, to decode and display or output high frame rate (i.e., a picture rate of 100, 120/1.001, 120) video using HEVC encoded with exactly two temporal sub-layers and in conformance with the ATSC specification A/341 Section 6.3.4 and with temporal filtering in conformance with A/341 Section 6.3.4.1. A code from this section shall not appear in a conjunction with any code from Section 5.3.10 or Section 5.3.11.

5.3.13 Capability Codes 0x0516 and 0x0596: ATSC 3.0 Fixed/Mobile 3D HEVC

The `capability_code` values 0x0516 and 0x0596 shall represent the receiver ability, in the RMP or AMP respectively, to decode and display or output stereoscopic video using HEVC with independently encoded left and right views, subject to the constraints of ATSC specification A/341 Sections 6.2.3 and 6.3.3 as described in Annex C.

5.3.14 Capability Codes 0x0517 and 0x0597: ATSC 3.0 Fixed/Mobile 3D SHVC

The `capability_code` values 0x0517 and 0x0597 shall represent the receiver ability, in the RMP or AMP respectively, to decode and display or output stereoscopic video using HEVC having left and right views further encoded using SHVC, subject to the constraints of ATSC specification A/341 Sections 6.2.3, 6.3.1, and 6.3.3 as described in Annex C [13].

5.3.15 Capability Codes 0x0518 and 0x0598: ATSC 3.0 Wide Color Gamut

The `capability_code` values 0x0518 and 0x0598 shall represent the receiver ability, in the RMP or AMP respectively, to decode and display or output video having colors outside the ITU-R BT.709 gamut when encoded using HEVC with primaries and matrix coefficients (i.e., system colorimetry) of ITU-R BT.2020 and ITU-R BT.2100, subject to the constraints of ATSC specification A/341 Section 6.3.2.

5.3.16 Capability Codes 0x0519 and 0x0599: ATSC 3.0 HD Progressive Video

The `capability_code` values 0x0519 and 0x0599 shall represent the receiver ability, in the RMP or AMP respectively, to decode and display or output progressive video formats between 720 and 1440 lines, as constrained in Section 6.2.3 of ATSC specification A/341 in the context of the other conjoined capability codes.

5.3.17 Capability Codes 0x051A and 0x059A: Personalization Selection

The capability_code values 0x051A and 0x059A shall represent the receiver ability, in the RMP or AMP respectively, to decode and reproduce or output audio subject to a personalization selection by the user, as specified in ATSC specification A/342 Part 1, in the context of the other conjoined capability codes.

5.3.18 Capability Codes 0x051B and 0x059B: Dialog Enhancement

The capability_code values 0x051B and 0x059B, shall represent the receiver ability, in the RMP or AMP respectively, to decode and reproduce or output audio subject to a personalization control by the user to set a relative level of dialog, as specified in ATSC specification A/342 Part 1, in the context of the other conjoined capability codes.

5.3.19 Capability Codes 0x051C and 0x059C: Video Descriptive Service

The capability_code values 0x051C and 0x059C shall represent the receiver ability, in the RMP or AMP respectively, to decode and reproduce or output video descriptive services subject to a personalization control by a user, as specified in ATSC specification A/342 Part 1, in the context of the other conjoined capability codes.

5.3.20 Capability Codes 0x051D and 0x059D: ATSC 3.0 SD Progressive Video

The capability_code values 0x051D and 0x059D shall represent the receiver ability, in the RMP or AMP respectively, to decode and display or output progressive video formats having fewer than 720 lines, as constrained in Section 6.2.3. of ATSC specification A/341 in the context of the other conjoined capability codes.

5.3.21 Capability Codes 0x0520 and 0x05A0: ATSC 3.0 VVC Video

The capability_code values 0x0520 and 0x05A0 shall represent the receiver ability (using the RMP or AMP, respectively) to decode and display or output video (including at least the base layer of Multilayer VVC video) encoded using VVC in conformance with the ATSC specification A/345 [X] but not requiring ability to support the constraints related to HDR in A/345 [X].

5.3.22 Capability Codes 0x0521 and 0x05A1: ATSC 3.0 VVC HDR Video

The capability_code values 0x0521 and 0x05A1 shall represent the receiver ability (using the RMP or AMP, respectively) to decode and display or output video encoded using VVC in conformance with the ATSC specification A/345 [X] including the aspects of A/345 describing HDR. That is, the receiver’s ability to decode and display or output VVC video encoded in conformance with all constraints including constraints regarding HDR in A/345 [X].

5.3.23 Capability Codes 0x0522 and 0x05A2: ATSC 3.0 HDR VVC Video with ST2094-10 SEI

The capability_code values 0x0522 and/or 0x05A2 shall represent the receiver (using the RMP or AMP respectively) ability to decode VVC video encoded in conformance with the ATSC specification A/345 [X] and specifically to utilize ST 2094-10 metadata. Note that this represents the ability to utilize the ST 2094-10 metadata in the decoding process, as described by the ST 2094-10 SEI messages as codified in A/345 Section 5.2.6.2 [X].

5.3.24 Capability Codes 0x0523 and 0x05A3: ATSC 3.0 VVC SDR Video with SL-HDR1 SEI

The capability_code values 0x0523 and/or 0x05A3 shall represent the receiver (using the RMP or AMP respectively) ability to decode VVC video encoded in conformance with the ATSC specification A/345 [X] and specifically to utilize SL-HDR1 metadata. Note that this represents the ability to utilize SL-HDR1 metadata carried in the SL-HDR Information SEI messages as codified in A/345 Sections 5.2.5.3 and 5.3.2 [X].

5.3.25 Capability Codes 0x0524 and 0x05A4: ATSC 3.0 Multilayer VVC Video

The `capability_code` values 0x0524 and 0x05A4 shall represent the receiver ability, in the RMP or AMP respectively, to decode and display or output video enhanced by a Multilayer VVC enhancement layer in conformance with the ATSC specification A/345 Section 5.3 [X] as applied to the context determined by the other conjoined capability codes.

5.3.26 Capability Codes 0x0525 and 0x05A5: ATSC 3.0 HFR VVC Video

The `capability_code` values 0x0525 and/or 0x05A5 shall represent the receiver ability (using RMP or AMP, respectively) to decode and display or output high frame rate (i.e., a picture rate of 100, 120/1.001, 120) video encoded using VVC in conformance with the ATSC specification A/345 [X] including the aspects of A/345 describing HFR, as applied to the context determined by the other conjoined capability codes.

5.3.27 Capability Codes 0x0526 and 0x05A6: ATSC 3.0 4K VVC Video

The `capability_code` values 0x0526 and/or 0x05A6 shall represent the receiver ability (using RMP or AMP, respectively) to decode and display or output 4K video encoded using VVC in conformance with the ATSC specification A/345 [X] including the aspects of A/345 describing 4K resolution, as applied to the context determined by the other conjoined capability codes.

5.3.28 Capability Codes 0x0527 and 0x05A7: ATSC 3.0 3D VVC Video

The `capability_code` values 0x0527 and/or 0x05A7 shall represent the receiver ability (using RMP or AMP, respectively) to decode and display or output 3D video encoded using VVC in conformance with the ATSC specification A/345 Sections 5.3.1 and 5.3.3 [X], as applied to the context determined by the other conjoined capability codes.

5.3.29 Capability Category “Other” (0x08xx)

5.3.29.1 Capability Code 0x0800: DRM

The `capability_code` value 0x0800 shall represent that the Receiver supports Digital Rights Management, or that the service is encrypted and requires one. Note that this does not indicate a specific DRM system.

5.3.29.2 Capability Code 0x0801: Companion Device

The `capability_code` value 0x0801 shall represent that the Receiver supports a Companion Device as defined in A/338, or that the service requires one.

5.3.30 Capability Category String Codes (ubyte)

This section identifies string “token” codes that can be used with the `capability_string_code` ubyte value and defines the syntax of the “value” (utf8) of that token.

5.3.30.1 ubyte 0x00: Minimum HTTP Cache Size

The ubyte value 0x00 shall represent that the service or content requires, or the Receiver has, an HTTP cache size in bytes of at least the value of the token, utf8. The syntax of utf8 shall be a decimal integer that represents a minimum cache size in multiples of 100,000 bytes; e.g., “00=5” signals that 500,000 bytes in HTTP cache is needed or supported. This cache is available for any Broadcaster Application signaled in the HELD. See A/331. The cache content includes HTTP content requested by the Broadcaster Application while executing. Broadcast content is not included in this number. See Section 5.3.10.2.

5.3.30.2 ubyte 0x01: Minimum Broadcast Cache Size

The ubyte value 0x01 shall represent that the service or content requires, or the Receiver has, a broadcast cache size in bytes of at least the value of the token, utf8. The syntax of utf8 shall be a decimal integer that represents a minimum cache size in multiples of 100,000 bytes; e.g., "01=2" signals that 200,000 bytes in broadcast is needed or supported. This cache is available for any Broadcaster Application signaled in the HELD. See A/331. All other cache content associated with non-executing appContextId's can be flushed by the Receiver as needed to make up the signaled amount available to the currently executing Broadcaster Application. The cache content includes: the HELD HTMLEntryPackage, NRT content with the same appContextId, and storage of Broadcaster Application originated data.

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