Amendment 1:2015 to
SMPTE ST 2036-3:2012

SMPTE STANDARD

Ultra High Definition Television — Mapping into Single-link or Multi-link 10 Gb/s Serial Signal/Data Interface — Amendment 1

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Introduction

The purpose of this amendment is to update colorimetry values defined in the Payload ID's to correspond to the color primaries permitted by SMPTE ST 2036-1. The notes are consistent with other standards.

Approved
September 17, 2015

1 Scope

To amend SMPTE ST 2036-1 payload ID to include the two color primaries allowed for in SMPTE ST 2036-1, and to add RP 291-2 to the Bibliography.

2 Amendment to SMPTE ST 2036-3

2.1 *In Section 6.5.3 Table 4 "Payload identifier definitions for UHDTV1 video payloads on a Single-link or a Dual-link 10 Gb/s (nominal) serial digital interface", replace the contents of Byte 4 Bit 4*

~~reserved (0)~~

with:

Bits	Byte 1	Byte 2	Byte 3	Byte 4
Bit 7	1	Interlaced (0) or progressive (1) transport	Reserved (0)	Channel assignment of Octa link Ch1 (0h), Ch2 (1h), Ch3 (2h), Ch4 (3h), Ch5 (4h), Ch6 (5h), Ch7 (6h) or Ch8 (7h)
Bit 6	0	progressive (1) picture	Reserved (0)	
Bit 5	1	Reserved (0)	Reserved (0)	
Bit 4	0	Reserved (0)	10G link assignment of Single/Dual link Ch1 (0) or Ch2(1)	Colorimetry ITU –R Rec 709[1] (0h) ITU-R Rec 2020[2] (1h)
Bit 3	0	Picture rate (see Table 2 SMPTE ST 352)	Sampling structure (see Table 3 SMPTE ST 352)	Reserved (0)
Bit 2	0			Reserved(0)
Bit 1	0			Bit depth Reserved (0h), 10-bit (1h), 12-bit (2h), Reserved (3h)
Bit 0	1			

2.2 *In Section 6.5.3 "Payload ID Mapping", following paragraph 1 "… (7h) Shall Identify the eighth link." and before paragraph 2 "The bit depth of the sample quantization shall be..", add:*

The colorimetry shall be identified by Byte 4, bit 4 having the following values:

- (0h) Shall identify conventional color primaries as defined by SMPTE ST 2036-1 Table 3
- (1h) Shall identify UHDTV color primaries as defined by SMPTE ST 2036-1 Table 2

[1] ITU-R Rec 709 indicates Conventional reference primaries as defined in SMPTE ST 2036-1 Table 3.

[2] ITU-R Rec 2020 indicates UHDTV reference primaries as defined in SMPTE ST 2036-1 Table 2.

2.3 *In Section 7.5.3 Table 7 "Payload identifier definitions for UHDTV2 video payloads on a Quad-link or an Octa-link 10 Gb/s (nominal) serial digital interface", replace the contents of Byte 4 Bit 4*

~~reserved (0)~~

with:

Bits	Byte 1	Byte 2	Byte 3	Byte 4
Bit 7	1	Interlaced (0) or progressive (1) transport	Reserved	Channel assignment of Octa link Ch1 (0h), Ch2 (1h), Ch3 (2h), Ch4 (3h), Ch5 (4h), Ch6 (5h), Ch7 (6h) or Ch8 (7h)
Bit 6	0	progressive (1) picture	10G channel assignment of Quad/Octa link Ch1 (0h), Ch2(1h) Ch3 (2h), Ch4 (3h), Ch5 (4h), Ch6 (5h), Ch7 (6h) or Ch8 (7h)	
Bit 5	1	Reserved		
Bit 4	0	Reserved		Colorimetry ITU –R Rec 709[3] (0h) ITU-R Rec 2020[4] (1h)
Bit 3	0	Picture rate (see Table 2 SMPTE ST 352)	Sampling structure (see Table 3 SMPTE ST 352)	Reserved
Bit 2	0			Reserved
Bit 1	1			Bit depth Reserved (0h), 10-bit (1h), 12-bit (2h), Reserved (3h)
Bit 0	0			

2.4 *In Section 7.5.3 "Payload ID Mapping", following paragraph 1 "… (7h) Shall Identify the eighth link." and before paragraph 2 "The bit depth of the sample quantization shall be..", add:*

The colorimetry shall be identified by Byte 4, bit 4 having the following values:

- (0h) Is reserved for this standard and shall not be used.
- (1h) Shall identify UHDTV color primaries as defined by SMPTE ST 2036-1 Table 2.

[3] ITU-R Rec 709 indicates Conventional reference primaries as defined in SMPTE ST 2036-1 Table 3 not used in this standard.for UHDTV 2.

[4] ITU-R Rec 2020 indicates UHDTV reference primaries as defined in SMPTE ST 2036-1 Table 2.

2.5 Add to the Annex A Bibliography (Informative)

SMPTE RP 291-2:2013, Ancillary Data Space Use — 4:2:2 SDTV and HDTV Component Systems and 4:2:2 2048 ×1080 Production Image Formats