

**Multimedia systems and equipment – Colour measurement and management**  
**Part 2-4: Colour management – Extended-gamut YCC colour space for video applications – xvYCC**

**CORRIGENDUM 1**

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**4.4 Digital quantization methods**

*Replace the existing note after equation (7) by the following new note:*

NOTE Bit levels “from 0 to  $2^{N-8}-1$ ” and “from  $255 \times 2^{N-8}$  to  $2^N-1$ ” (0 and 255, for the case of 8-bit encoding) are used exclusively for synchronization and are not allowed for storing colour values. Levels from “ $2^{N-8}$ ” to “ $255 \times 2^{N-8}-1$ ” (from 1 to 254, for the case of 8-bit encoding) are available.

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**5.2 Transformation from xvYCC values to CIE 1931 XYZ values**

*Replace, on page 10, the inequality signs for equations (12), (13) and (14) as follows:*

From  $R', G', B' < -0,081$  to  $R', G', B' \leq -0,081$

From  $-0,081 \leq R', G', B' \leq 0,081$  to  $-0,081 < R', G', B' < 0,081$

From  $R', G', B' > 0,081$  to  $R', G', B' \geq 0,081$

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*Replace the existing Annex A, by the following new Annex A:*

**Annex A**  
(informative)

**Compression of specular components of  $Y'$  signals**

This annex describes an example method for the dynamic range compression of the specular components that are brighter than white in  $Y'$  (or Luma) signal.

In xvYCC colour encoding, linear  $R, G, B$  values after equation (8), or non-linear  $R', G', B'$  values after equations (9) to (11) are not limited between 0 and 1. After the YCC quantization (equation (14)), the value range will be limited as follows:

$Y'$  signal:  $-15/219$  to  $+238/219$  (or  $-0,068\ 493$  to  $+1,086\ 758$ )

$Cb', Cr'$  signal:  $-127/224$  to  $+126/224$  (or  $-0,566\ 964$  to  $+0,562\ 500$ )

For the surface colours,  $Y'$  signals shall be in the range of 0 and 1, while over-ranged values (greater than 1,0 or smaller than 0,0) in  $Cb'$  and  $Cr'$  are used for storing saturated colours.