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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

## UHD DISPLAY TERMINAL

## Part 1-2: Generic-Terminology

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## UHD DISPLAY TERMINAL –

### Part 1-2: Terminology

#### 1 Scope

This part of IEC XXX provides a list of the terminologies that are frequently used in describing UHD display technologies in the IEC XXX series.

#### 2 Terms and definition

For the purposes of this document, the following terms and definitions apply.

##### 2.1 General terms

###### 2.1.1 UHD definition

Definition reach 4k\*2k (3840\*2160) or higher specification.

###### 2.1.2 UHD Display, or Ultra HD Display

Equipment that can receive, process and display 4k (3840\*2160) or higher definition video signal.

###### 2.1.3 UHD TV, or Ultra HD TV

Equipment that can receive, process and display 4k (3840\*2160) or higher definition television signal.

###### 2.1.4 5K display

Equipment that can receive, process and display 5k (5120\*2160) ultra high definition video signal .

###### 2.1.5 10K display

Equipment that can receive, process and display 10k (10240\*4320) ultra high definition video signal .

###### 2.1.6 Response time

Generic term for “turn-on time” and “turn-off time”

###### 2.1.7 Rise time

Time interval at which luminance changes from 10 % to 90 % after switching organic light emitting diode display driving voltage from OFF state to ON state

###### 2.1.8 Fall time

Time interval between the instants at which the luminance is 90 % and 10 % of the level between the luminance of the ON and OFF states

#### 2.1.9 Residual image

Partial remains of an image after the content has changed; the remnant of a video image on the screen after the original image is removed electronically.

#### 2.1.10 Picture definition

The degree to which television static picture can be perceived by human eye, represent as television line.

#### 2.1.11 Dynamic definition

The degree to which television dynamic picture can be perceived by human eye, represent as television line.

#### 2.1.12 Ambient light control

A function that the luminance of television (or display) can be adjusted with the ambient light environment at the same time when sensors detected the change.

#### 2.1.13 Dynamic backlight

TV (display ) backlight variation function with the variation of image level.

A function that luminance of backlight can be adjusted with the electrical level of display image

#### 2.1.14 PPF (pixel per frame)

Pixel numbers in per frame.

#### 2.1.15 Subjective assessment

A test method according the subjective response of tester to measure UHD television(display) relevant properties.

A testing method to evaluate the performance of UHD television(display) based on personal feelings or opinions to the tested systems.

#### 2.1.16 Test fodder

Be used for UHD TV(display) subjective quality evaluation , It has special required fodder on video, images and audio in different formats, different rate.

A readily available material used for subjective assessment to evaluate the performance of UHD television(display) subjectively. It specifies different formats and bit rates of videos, images and audios

#### 2.1.17 Grading scale

Be used for the subjective assessment of UHD television (display) system smooth scales

#### 2.1.18 Colour gamut area

The set of colors producible by a color rendering device such as a display. For a three-primary display, the color gamut in chromaticity space is delimited by a triangle that is sometimes known as the RGB triangle. The area of such a triangle is called the color-gamut area, and is variously defined in this document in in CIE 1976 (u',v') space. But strictly speaking, a color gamut is a set of colors, with no size metric imposed.

#### 2.1.19 Effective area

The area audience can access the image information freely without turning his head.

#### 2.1.20 Extension area

With the ultra high definition TV (display) area enlarged, the audience gradually lost the recognition ability, the area only can be perceived.

#### 2.1.21 Sense of immediacy

Can make the audience feel they are in the real space which created by display system. Can realistic representations of what the human eye can see, give the audience the immersive feeling deeply.

## **AnnexA**

(informative)

### **Definition guideline for terms which include “sense of immediacy”**

#### **A.1 General**

The terminology in Clause 2 avoids the definition of such words as “临场感”，because defining them explicitly ends up confusing readers, as these words have multiple meanings in daily usage. Instead, a brief description on how a term which includes one of these words is defined is presented here to relieve readers' confusion by indicating the reason why the short word causes trouble.

#### **A.2 Definition guideline**

##### **A.2.1 sense of immediacy**

