For reference in TC 100/AGS Tokyo meeting

Transparent display devices
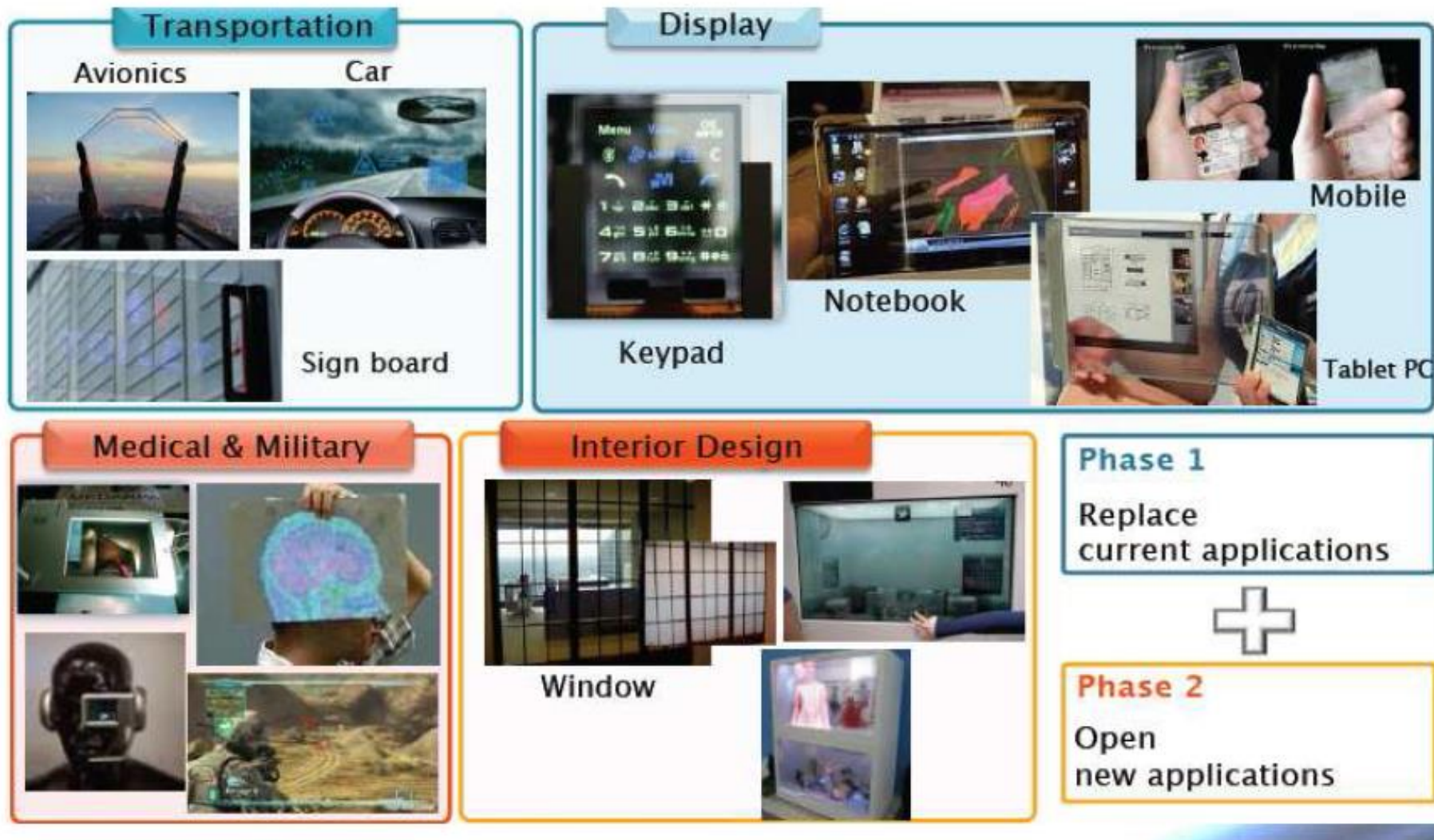
- Current activities in TC 110 -

2014-11-04
Yoshi Shibahara, Secretary of TC 110

Possible applications of transparent display devices
proposed to TC 110 by Dr. Zhigang Zhang, BOE, CN NC in 2012

Current status of the programmes

IEC 62341-6-4: Organic light emitting diode (OLED) displays - Measuring methods of transparent properties / ANW (2014-04) ➔ page 4

IEC 61747-30-5: Liquid crystal display devices – Measuring methods of transparent properties / PWI → NP (TBD in Tokyo mtg.) ➔ page 5

IEC 62341-6-4

(Scope)

This part of IEC XXXXX specifies the standard measurement conditions and measuring methods for determining the transparent properties of organic light emitting diode (OLED) display panels and modules. More specifically, this document focuses on the specific aspects of the transparent properties.
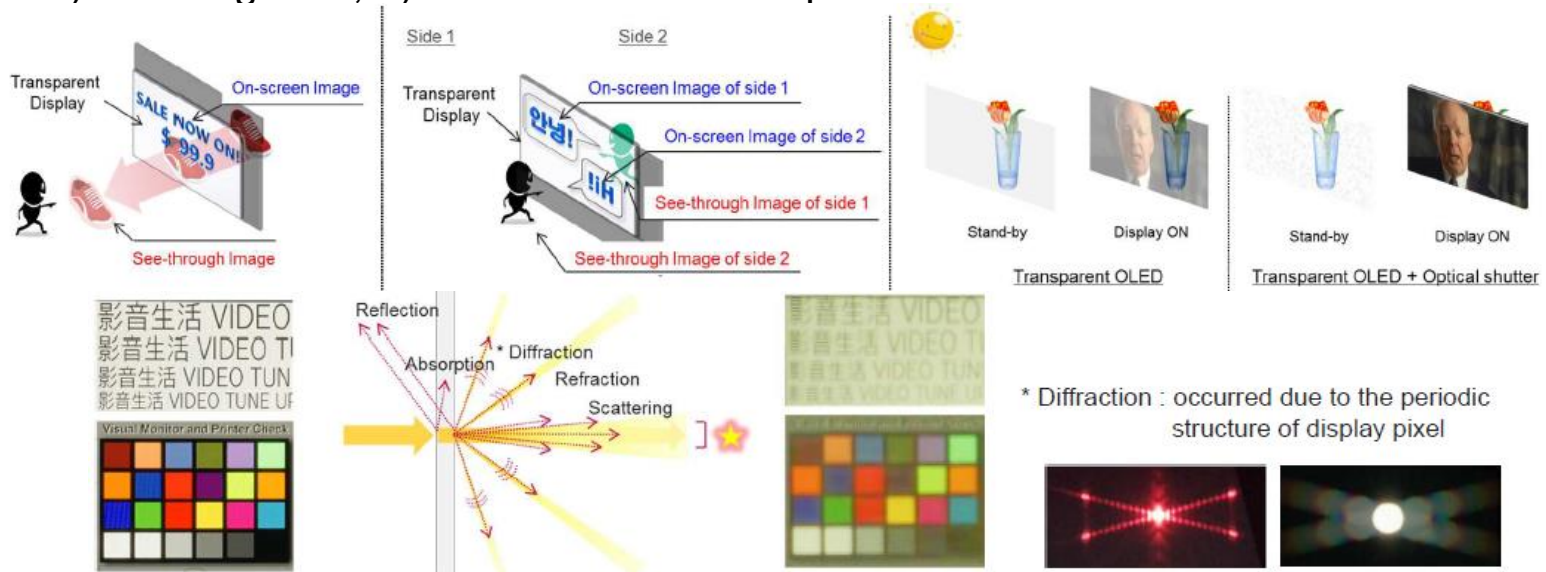
(Contents)

5.1 Measuring methods of see-through performances

1) Transmittance, 2) Transmitted haze, 3) Purity, 4) Colour / variation

5.2 Measuring methods of on-screen performances

1) Luminance, 2) Chromaticity, /uniformity, 3) Contrast, 4) Gray scale, gamma,

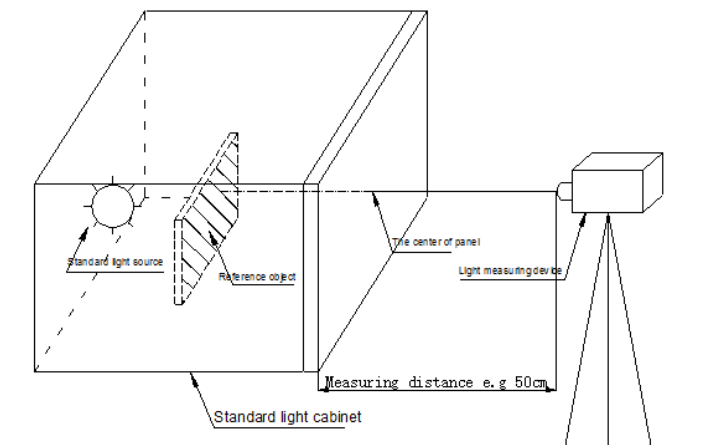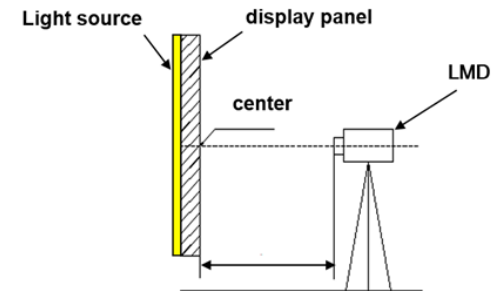5) Colour gamut, 6) Directional electro-optical characteristics

4

IEC 61747-30-5

(Scope)

This part of IEC 61747 specifies the standard measurement conditions and measuring methods for determining the display properties and transparent properties of transparent liquid crystal display devices.

(Contents)

5　Measuring methods of display properties

6　Measuring methods of transparent properties

　　6.1 Luminous transmittance and its uniformity

　　6.2 Transmitted haze

　　6.3 Clarity

　　6.4 Color shift

　　6.5 Contrast offset

　　6.6 Matrix diffraction

Light source　display panel

center　LMD

Standard light source　Reference object　The center of panel　Light measuring device

Measuring distance e.g 50cm

Standard light cabinet

Other tests stipulated in other documents of TC 110

- Optical measurements

    - Response time

    - Viewing angle / colour difference

    - etc.

- Reliability tests

    - Environmental stress / storage & operational

    - Mechanical stress

    - etc.

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