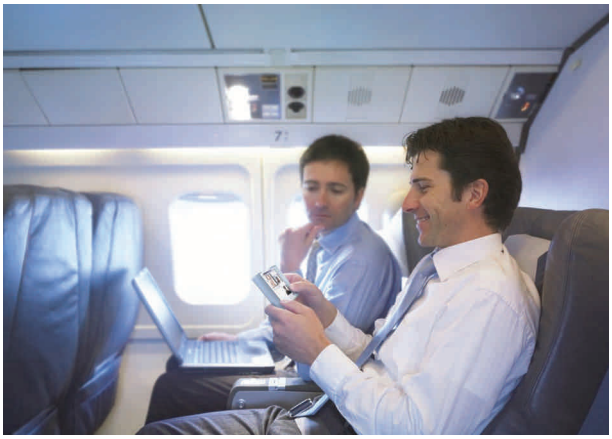
uWVA Displays

Ultra-wide viewing angles with very high image contrast

Having a mobile phone that produces images with very high contrast over a wide range of viewing angles means more than one person can view content at the same time. Better visibility at all orientations extends multimedia beyond the individual, creating a shared experience that makes content more enjoyable.

Philips offers standard-format black displays that support high-contrast images at ultra-wide viewing angles.



Mobile Display Systems

Principle of the technology

Delivering a typical viewing angle of 160º and a contrast ratio of 300:1, the Philips technology for ultra-wide viewing angle (uWVA) is designed for use with Philips AMLCD mobile displays.

uWVA displays from Philips combine the implementation of new 'vertically aligned' LC cell designs and, the use of 'multiple-domain' alignment structures. Vertical alignment sees the LC molecules aligned at right-angles to the display substrate, swinging through 90º to lie parallel to the display substrates in the presence of an electric field. This mode offers both fast switching and wide-viewing angle, with high brightness. Multi-domain alignment structures, where alignment of the LC molecules is controlled at a subpixel level, further increases viewing angles, although at some cost to overall brightness in any giving viewing direction, and eliminates image inversion.

Advantages

- Shared multimedia experiences
- Better visibility at all orientations
- Very high contrast
- Ultra-wide range of viewing angles

PHILIPS

CONTACT INFORMATION

Philips Mobile Display Systems
2/F, Philips Electronics Building
5 Science Park East Avenue
Hong Kong Science Park
Shatin, The New Territories
HONG KONG
Tel : (852) 2666 2888
Fax : (852) 2664 4183

date of release: May 2005

Published in Hong Kong
Philips confidential.