



# NEWS RELEASE

April 23, 2007

IPS Alpha Technology Ltd.

## **IPS Alpha Technology Develops IPS LC Modules for Full High-Definition TVs and Commences Commercial Production**

IPS Alpha Technology Ltd. ("IPS Alpha" / President and Director: Mr. Fumiaki Yonai) today announces it has developed the IPS LC module (the IPS $\alpha$  Panel) for 37" full high-definition Televisions [Resolution: 1,920 (horizontal) x 1,080 (vertical)] and commenced commercial production of this product in April 2007.

The desire to watch world-class events, such as the 2008 Beijing Olympic Games in high resolution combined with the expansion of digital broadcasting has seen the demand for flat-screen TVs grow rapidly. This trend led IPS Alpha in September 2006 to start the production of the IPS $\alpha$  Panels with 32", 26" and 37" models to meet the growing needs for a screen that offers clarity of viewing image when viewed from any angle. The demand for full high-definition resolutions (i.e. full HD) has become more important amid increasing demand for large screen TVs, which inspired IPS Alpha to develop the IPS $\alpha$  Panel to enable crystal clear viewing from any angle for 37" full high-definition TVs.

This new IPS $\alpha$  Panel for full high-definition TVs boasts twice the resolution of traditional hi-vision panels [Resolution: 1,366 (horizontal) x 768 (vertical)], while new technology for an LCD controller and panel features were also used to facilitate animation performance of 120Hz in full high-vision. Backlight power almost equivalent to conventional hi-vision panels and low power consumption were achieved for the IPS $\alpha$  Panel even with its higher resolution through its innovative higher transmittance design.

- Features -

[Beautiful image quality from any angle]

One of the major features of the IPS LCD is the wide viewing angle display (178 degrees both horizontally and vertically), and its stable colour tone for any viewing angle, which offers a natural image display from any position.

[Technology for Animation]

We developed the first LCD controller\* with a 2-channel low-voltage differential transmittance function in the industry, which enables the 120Hz full hi-vision module. This facilitated the super impulse display technique, which can convert a traditional 60Hz movie to 120Hz (i.e. double speed 120Hz). Additionally, in relation to high speed LCD panel processing functions, the wiring resistance was improved to 40% compared with conventional products, and the LCD response speed by 15%. The animation response speed (MRPT\*\*) up to

the 8ms level was realised because the 120Hz image interpolation and super impulse display in response to the image input at the setting side were enabled by these functions.

\* Source: Internal research

\*\* MPRT: Moving Picture Response Time

#### ■ **Outline of Specification**

Display Size: 94cm (37" type) 819.4mm x 460.9mm

Number of Pixels: 1,920 (horizontal) x 1,080 (vertical)

Pixel Pitch: 0.42675mm (horizontal) x 0.42675mm (vertical)

Number of Display Colors: 16,777,216

Luminance: 500 cd/m<sup>2</sup>

Viewing Angle: 178° horizontally and vertically

Backlight Power Consumption: 130W

Weight: 9.5Kg

#### ■ **About the IPS LCDs and IPS $\alpha$ Panels**

IPS LCD is an abbreviation of In-Plane-Switching (i.e. horizontal electric field) TFT LCD and offers a LC mode with high image quality, which facilitates the display of "beautiful pictures from any angle." The IPS method is based on the inclusion of a wide viewing angle, with a feature allowing images to appear naturally from any viewing position. In particular, we realised the IPS-Pro technology(\*) with higher image quality, transmittance up 50% and a contrast ratio three times superior to that of the early IPS method. IPS Alpha distributes panels produced using this technology as "IPS $\alpha$  Panels" worldwide.

(\*)In-Plane Switching Provectus: Provectus means "innovation" in Latin.