

IGNIS Innovation demonstrates breakthroughs in AMOLED backplane technology at FPD International 2009

AdMo™ & MaxLife™ platforms will grow the AMOLED market & reduce costs

Yokohama, Japan — 28th October, 2009 — IGNIS Innovation Inc., a world leader in the design and development of thin film transistor circuits and driver algorithms for Active Matrix Organic Light Emitting Diodes (AMOLED), will demonstrate important breakthroughs in the field of AMOLED image compensation technology at its booth (#2304) at the FPD International Exhibition in Pacifico Yokohama from 28th ~ 30th October 2009.

In partnership with Kodak Corporation (Kodak) and Prime View International, Inc. (PVI), IGNIS has developed a 5” segment of a 32” 1080p HDTV AMOLED display using industry standard amorphous silicon thin film transistors (TFT). This prototype uses IGNIS’ MaxLife™ solution, which compensates separately for both the TFT and OLED degradation using only an electrical feedback – an industry first. No unreliable optical sensors are used which have been tried unsuccessfully in the past by others. The MaxLife™ prototype has an operating device lifetime of 20 years when watching for 12hrs/day, even under the most demanding TV content conditions, including subtitles and station logos. Additionally, there is no image burn-in over this time since the MaxLife™ technology keeps differential aging to 3% or less, which is imperceptible to the human eye. The MaxLife™ prototype was built using an amorphous silicon backplane from PVI using their standard a-Si LCD mass production process while the frontplane uses Kodak’s long life and low power RGBW technology that delivers a vivid and outstanding viewing experience. The combination of both the amorphous silicon backplane together with the RGBW technology provide for the first time a reliable, low cost and truly scalable architecture that can finally push AMOLED into the mainstream class of TV sizes that consumers demand and expect.

For portable displays, IGNIS will exhibit a high resolution 2.2” QVGA (181ppi) demo of its AdMo™ (Advanced Mobile) compensation platform. In extensive in-house lifetime testing, IGNIS has demonstrated device lifetimes of over 50,000hrs, making them suitable for any mobile or handheld application, such as smartphones and A/V players. In addition, AdMo™ displays have been proven to operate over a large temperature range, from -30C to 80C, which is suitable for automotive applications. The sophisticated compensation technology is built entirely in-pixel, meaning low-cost driver ICs are used, lending itself to a simple ‘drop-in’ display that is easily swappable into devices using legacy LCDs. The AdMo™ prototype use an amorphous silicon backplane, the standard TFT of the LCD industry that has traditionally been regarded as unusable for AMOLED displays. However, through its patented technology IGNIS is able compensate for the low mobility and in-stabilities of amorphous silicon, and as a result, for no additional capital investment costs, enables the manufacture of AMOLED backplanes at existing TFT plants.

“The growth of the AMOLED industry has been constrained due to the technological hurdles associated with achieving a truly reliable, uniform and scalable TFT backplane. With our MaxLife™ & AdMo™ platforms, this is

now possible, and we expect will enable our customers, the display manufacturers, to accelerate the introduction of visually stunning and affordable AMOLED displays to the market in the very near future.” said Paul Arsenault, President and CEO of IGNIS.

“Traditional approaches to OLED compensation has been to use photodiodes, however these are both unreliable and expensive. IGNIS’ electrical feedback solution used in our MaxLife™ platform eliminates these problems and represents a major breakthrough. On the other hand, the sophistication of the AdMo™ circuit solution means that a simple driver IC can be used and this is essential for maintaining the cost saving promise of AMOLED in handhelds” added Corbin Church, Vice President. “Both demo platforms that we will be showing use an amorphous silicon backplane, which can easily scale up to Generation 10 size while enjoying high reliability and low manufacturing unit costs.”

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About IGNIS:

Established in 2000, IGNIS Innovation Inc. has become the industry’s leading independent one-stop, open-source provider for backplane and driver solutions in the growing Active Matrix Organic Light Emitting Diode (AMOLED) market. Leveraging more than 10 years of ongoing research and development, IGNIS specializes in providing our customers with proven, world class technologies in the areas of pixel circuits and driver packages for any display application.