

**Highlights from the FlexTech Alliance Sensor Workshop  
FlexTech Alliance Headquarters  
San Jose, California  
November 9 – 10, 2010**

***“How Do We Get From Today’s Flexible Electronics Technology to Tomorrow’s High Performance Sensors?”***

As smart, networked sensors become widely used in smart buildings, civil infrastructures, aircraft and other military and commercial applications, circuitry such as logic, memory, and power management become essential performance requirements.

What are the next steps for the flexible electronics industry to deliver the required higher performance functionality? How fast will current techniques advance? Is a disruptive technology called for to solve the mobility, connectivity, and manufacturing challenges of these applications?

At the FlexTech Alliance November workshop, these issues were addressed from various perspectives including system integrators and device engineers. Attendees explored the current state of the industry, where it needs to be, and how to get there by leveraging existing technologies, new technologies or combinations of both.

**Panel Discussion:  
“What If Higher Performance is Needed to Make Printed Electronics a Viable Industry?”**

The afternoon session involved an interactive exchange between attendees and a panel experts consisting of:

- Paul Semenza, Display Search
- David Allee, Flexible Display Center Arizona State University
- Yan Ye, Applied Materials AKT
- Brendan Flores, Polyera
- Ben Schlatka, MC10

The discussion began with questions about how to best retool from a traditional printing facility to printing flexible electronics. The conversation then focused on developing metrology and defectivity tools that can enable in-line and real time functional testing of thin film photovoltaics.



As a precursor to the workshop, attendees were able to take a tour of Applied Materials AKT facilities. The tour included PECVD processing equipment for large area TFT-LCD applications such as TFT-LCD television, displays and notebook computers. Tour participants were also able to see Gen 10 glass - which is larger than a single garage door and only 0.7mm thick.



*Display made using AKT ZnON semiconductor  
Courtesy of Applied Materials AKT*

## Presentation topics

Wednesday November 10, 2010	
<b>Morning General Session</b>	
Market Analysis	Paul Semenza, Display Search
<i>Positioning the Current Condition of the Technology Base that is Trying to Meet the Needs of the Marketplace</i>	Barry Ives, Lockheed Martin Advanced Technology Labs
<i>Identifying the Gaps from a Designer's Perspective</i>	David Allee, Flexible Display Center Arizona State University
<i>Current Development and Manufacturing Scale-up Efforts for High Mobility Thin Film Transistors</i>	Yan Ye, Applied Materials AKT
<i>Disruptive Technologies to Achieve Stepwise Change in Performance</i>	Brendan Flores Polyera
<i>High Performance Conformal Electronics: Technology and Applications</i>	Ben Schlatka, MC10
<b>Afternoon Panel Discussion</b>	
Panel Discussion What If Higher Performance is Needed to Make Printed Electronics a Viable Industry?	



*Organic Transistors in Display Backplanes  
Courtesy of Polyera*