

Special Report

Large Display Monitor



Intel Concentrates on RealSense

The keynotes took place on the first morning of the opening day of the symposium

and the first speaker was Brian Krzanich, CEO of Intel who spoke about the Intel RealSense technology.

He said he would cover three things - how interactions with devices have evolved - up to now it has been a two dimensional world and Intel wants to make it more interactive. He promised to show what is in the lab.

How have devices evolved over the years, he asked? This is the fiftieth birthday of Moore's Law - an astonishing period of development. Computing has become smaller, more personal and connected. Those three trends are the key drivers of this period. Computing is now at a very personal level. Krzanich showed the computing button that

he talked about at IFA called Curie, but didn't give more detail.

Displays have evolved, and our interactions with those displays have evolved from command lines to GUI data entry, but he sees current interactions as minimal. Even with a 3D display, the interaction is basically 2D.

Touch displays have changed things, and once you get used to one, you don't want to go back, but the interaction is still two dimensional. How can you make the computer see and hear more like a human, he asked? Humans always interact in 3D - even your hearing understands space and position. Devices should be able to see and hear and adding that capability should start a new phase in computing.

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for monitors up to 28", based on QDs from Nanosys.

Mitsubishi was showing a 15" 1024x768 LCD with 1000 cd/m² of brightness and using IPS technology. It also had rugged displays that can survive 6.8G of impact.

Novald did not have any specific news at the show, but this was our first chance to catch up since the takeover by Samsung, so we were able to catch up with changes. First, Gerd Günther, CEO of the company, told us that despite the takeover, there is no problem with working directly with others and the firm is working with companies including China and "other" Korean companies. The development focus is now heavily on doping and ETL layers and it is working hard to try to solve problems of temperature sensitivity to help OLED develop in automotive applications.

Ortustech had new "superfast" LCD using a new LC material (and not "IPS" we heard"). Also being discussed was new reflective LCD technology that has quite good reflectivity and reasonably saturated colours,

for a reflective display. The company calls it "color movie paper" as it can support video frame rates.

Sun Innovations was showing a 1280 x 800 transparent rear projection glass that is said to support transmission of more than 90% and more than 95% with A/R coatings. Haze level is <2%. The company also supplies the projectors which are DLP-based.

Toppan was showing how it can use copper to make touch panels for automotive applications that allow curved surfaces with high performance and high noise immunity. The touch is sensitive enough to be used underneath a thick plastic cover, even up to 2mm. You can also make Wi-Fi antennas around the edge of the display.

The **University of Saarland** was on the German pavilion and was showing its dynamic backlight driving technology for mobile applications. It has IP in analysis and is interested in licensing it to companies. It can save up to 30% of power, depending on the content being displayed. The group also has IP in the digital driving of AMOLEDs (at the

moment, most are analogue). The technique eliminates the DAC and reduces the cost of the backplane as well as increasing the possible pixel density and allowing for aging compensation. It reduces power consumption.

Last year, **VP-Dynamics** had a low-cost 28" UltraHD monitor at the show. We asked why we had never seen it on the market and were told that because there were almost no controllers available, and those that were available were expensive. This year, the company was showing a 5.5" UltraHD LCD using an RGBW pixel structure and will sample in Q3. There will be a 10.1" version too.

Videos

We have a number of video interviews on line at www.displaydaily.com with Sharp, 3M, Nanosys, Polar, Ostendo, QDvision, Jasper and Kwangwoon University. Don't miss them!

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