



MEETING NOTICE & INVITATION
Pacific Northwest Chapter • Society for Information Display

Flat-Panel Display Backplanes: Past, Present, and a Possible Future Option

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Oregon State University
School of EECS
Kelley Engineering Center Room 1126
2500 NW Monroe Ave.
Corvallis, OR 97331

Abstract

An overview of flat-panel display backplanes is offered. This involves briefly reviewing the primary past (and present) technology, amorphous hydrogenated silicon (a-Si:H) thin-film transistors (TFTs). Next, a progress report on oxide TFTs is presented. It is argued that the pace of development of oxide TFTs warrants (arguably) their classification as a present-day backplane technology. Then, the pros and cons of oxide TFTs are compared to the other important present-day backplane technology, low-temperature polysilicon (LTPS) TFTs. Finally, an assessment of the challenges and potential advantages of amorphous metal non-linear resistor (AMNR) thin-film diodes (TFDs), a possible future flat-panel display backplane option, is provided.

Speaker Biography



John F. Wager holds the Michael and Judith Gaulke Endowed Chair in the School of EECS at Oregon State University and is an IEEE and SID Fellow. He is lead author of a book entitled "Transparent Electronics." Transparent electronics technology developed in his group at OSU was licensed to Hewlett-Packard Company who has continued advanced joint-development with his group. This technology is finding emerging, high-value applications in flat-panel display thin-film transistor backplanes. His current research interests include transparent electronics, oxide electronics, metal-insulator tunneling electronics, amorphous thin film engineering, and thin-film photovoltaics.

Seminar

The Seminar is free. Please join the speaker for a no-host dinner after the seminar. Directions to the restaurant will be provided at the seminar. Non-Members are welcome. RSVP to Gary Johnson at Gary.Johnson@tek.com or (503) 627-1985. Please indicate if you plan to participate in the dinner.

The Pacific Northwest Chapter of the Society for Information Display was established for the following purposes:

- To support the activities and purposes of SID.
- To encourage and contribute to the scientific and educational advancement in the field of information display and to promote its use.
- To provide forums for the exchange and dissemination of ideas and knowledge relating to the field of information display.

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