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ADDRESSING TECHNIQUES
OF LIQUID CRYSTAL
DISPLAYS

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Addressing Techniques of
LIQUID CRYSTAL DISPLAYS

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An image is generated by the simultaneous application of scanning and data waveforms
to row and column electrodes in flat panel displays. This book is a comprehensive guide
to addressing techniques that are based on the nonlinear response of pixels in LCDs.
Addressing techniques are introduced with a strong theoretical basis and supported
by detailed analysis and examples, as well as information given on drivers to enable the
practical implementation of the techniques discussed in the book.

Key features:
• Provides an introduction to liquid crystals and some electro-optic effects
  based on the properties of liquid crystals.
• Includes recent work on Bit Slice Addressing, Multibit Slice Addressing and
  Micro Pulse Width Modulation to drive displays with short response times.
• Compares the various addressing techniques on offer, enabling designers to
  make an informed choice of an addressing technique for a specific end use.
• Presents a range of addressing techniques that are based on line-by-line
  addressing, multiline addressing and methods to display greyscales.
• Features an in-depth analysis of hybrid addressing techniques and addressing
  techniques based on wavelets.
• Covers the latest research on backlight switching to reduce power
  consumption of an LCD without any compromise on image quality, as well as
  recent developments on the cross-pair method to display greyscales.

WILEY SID Series in Display Technology
Series Editors: Anthony C. Lowe, The Lambert Consultancy, Braishfield, UK
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technology at a professional level. The broad scope of the series addresses all facets of information
displays from technical aspects through systems and prototypes to standards and ergonomics.

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