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4.1.2.1 -Si TFTs; 4.1.2.2 Poly-Si TFTs; 4.1.2.3 Crystalline silicon active matrices; 4.1.2.4 Active matrices based on two terminal devices; 4.2 Liquid Crystal Effects
4.2.1 Liquid Crystal Cells 4.2.2 Nematic Cells; 4.2.2.1 Parallel aligned layer cells; 4.2.2.2 Twisted nematic cells; 4.2.3 Polymer-dispersed Liquid Crystal (PDLC); 4.2.4 Other Liquid Crystal Effects; 4.2.5 Liquid Crystal Effects for Reflective Microdisplays; 4.2.6 Liquid Crystal Inversion; 5 Micro-electromechanical Devices; 5.1 DMD; 5.1.1 Device Operation; 5.1.2 Gray Scale; 5.1.3 Contrast and DLP Pixel Design; 5.2 Linear MEMS Arrays; 5.2.1 Grating Light Valve; 5.2.2 GEMS System; 5.3 MEMS Scanning Mirrors; 6 Filters, Integrators and Polarization Components
6.1 Factors affecting Projector Optical Performance 6.2 Component Efficiency; 6.3 Spectral Filters; 6.3.1 Fresnel Reflection at Optical Surfaces; 6.3.2 Dichroic Filters; 6.3.2.1 Dichroic filters at non-normal incidence; 6.3.2.2 Dichroic filters in polarized light; 6.3.2.3 Dichroic filters in the imaging path; 6.3.2.4 Anti-reflection coatings; 6.3.3 Absorptive Filters; 6.3.4 Electrically Tunable Color Filters; 6.3.5 Mirrors; 6.3.6 Total Internal Reflection; 6.3.6.1 TIR prisms for angular separation; 6.3.7 Filters for UV Control; 6.3.8 Filters for IR Control 6.3.9 Indium-Tin Oxide and Other Transparent Electrodes 6.4 Integrators; 6.4.1 Lenslet Integrators; 6.4.2 Rod Integrators; 6.4.3 Integrators for Projectors with Laser or LED Illumination; 6.4.4 Other Integrator Types; 6.4.5 Light Guides; 6.5 Polarization Components; 6.5.1 Absorptive Polarizers; 6.5.2 Reflective Polarizer Technology; 6.5.2.1 Brewster angle reflection; (a) Brewster plate; (b) MacNeille polarizing prisms; 6.5.2.2 Birefringent multilayer reflective polarizer; 6.5.2.3 Bertrand-Feussner prism; 6.5.2.4 Wire grid polarizers; 6.5.2.5 Other reflective polarizers
6.5.3 Polarization Conversion Systems

Sommario/riassunto

Projection is a technology for generating large, high resolution images at a price point end users can afford. This allows it to be used in a wide variety of large-screen markets such as television and cinema. In addition, there are emerging small screen markets where a pocketable miniaturized projector can display images from mobile information devices such as smart phones or portable media players. Fully revised, this second edition of Projection Displays provides up-to-date coverage of the optical and mechanical systems in electronic projection displays. It takes into accou
