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Silicon Light Machines Patents

USPTO No.

Title

US 5,808,797	Method and apparatus for modulating a light beam
US 5,841,579	Flat diffraction grating light valve
US 5,798,743	Clear-behind matrix addressing for display systems
US 5,661,592	Method of making and an apparatus for a flat diffraction grating light valve
US 5,629,801	Diffraction grating light doubling collection system
US 6,101,036	Embossed diffraction grating alone and in combination with changeable image display
US 6,130,770	Electron gun activated grating light valve
US 6,303,986	Method of and apparatus for sealing an hermetic lid to a semiconductor die
US 6,764,875	Method of and apparatus for sealing an hermetic lid to a semiconductor die
US 6,096,576	Method of producing an electrical interface to an integrated circuit device having high density I/O count
US 6,452,260 B1	Electrical interface to integrated circuit device having high density I/O count
	Stereo head mounted display using a single display device
US 6,271,808	
US 5,986,634	Display/monitor with orientation dependent rotatable image
US 5,986,634	Display/monitor with orientation dependent rotatable image Bandwidth and frame buffer size reduction in a digital pulse-width-modulated
US 5,986,634 US 6,064,404	Display/monitor with orientation dependent rotatable image Bandwidth and frame buffer size reduction in a digital pulse-width-modulated display system Display apparatus including grating light-valve array and interferometric optical
US 5,986,634 US 6,064,404 US 6,088,102	Display/monitor with orientation dependent rotatable image Bandwidth and frame buffer size reduction in a digital pulse-width-modulated display system Display apparatus including grating light-valve array and interferometric optical system
US 5,986,634 US 6,064,404 US 6,088,102 US 5,764,280	 Display/monitor with orientation dependent rotatable image Bandwidth and frame buffer size reduction in a digital pulse-width-modulated display system Display apparatus including grating light-valve array and interferometric optical system Display system including an image generator and movable scanner for same
US 5,986,634 US 6,064,404 US 6,088,102 US 5,764,280 US 5,982,553	 Display/monitor with orientation dependent rotatable image Bandwidth and frame buffer size reduction in a digital pulse-width-modulated display system Display apparatus including grating light-valve array and interferometric optical system Display system including an image generator and movable scanner for same Display device incorporating one-dimensional grating light valve array.
US 5,986,634 US 6,064,404 US 6,088,102 US 5,764,280 US 5,982,553 US 6,728,023	 Display/monitor with orientation dependent rotatable image Bandwidth and frame buffer size reduction in a digital pulse-width-modulated display system Display apparatus including grating light-valve array and interferometric optical system Display system including an image generator and movable scanner for same Display device incorporating one-dimensional grating light valve array. Optical device arrays with optimized image resolution

US 6,692,129	Display apparatus including RGB color combiner and 1D light valve relay including Schlieren filter
US 6,767,751	Integrated driver process flow
US 6,967,760	Integrated driver process flow
US 6,813,059	Reduced formation of asperities in contact micro-structures
US 6,829,092	Blazed grating light valve
US 6,896,822	Blazed grating light valve
US 6,215,579	Method and apparatus for modulating an incident light beam for forming a two- dimensional image
US 6,956,878	Method and apparatus for reducing laser speckle using polarization averaging
US 6,356,577	Method and apparatus for combining light output from multiple laser diode bars
US 6,646,778	Grating light valve with encapsulated dampening gas
US 6,466,354 B1	Method and apparatus for interferometric modulation of light
US 7,177,081	Grating Light Valve in 0 order mode with high efficiency and high contrast
US 6,497,490 B1	Laser beam attenuator and method of attenuating a laser beam
US 6,387,723	Reduced surface charging in silicon-based devices
US 6,660,552	Reduced surface charging in silicon-based devices
US 6,800,238	Method for domain patterning in low coercive field ferroelectrics
US 6,480,634 B1	Image projector including optical fiber which couples laser illumination to light modulator.
US 6,707,591	Angled illumination for a single order light modulator-based projection system
US 6,714,337	Method and device for modulating a light beam and having an improved gamma response
US 6,323,984	Method and apparatus for reducing laser speckle
US 7,053,930	Triangular bidirectional scan method for projection display
US 6,908,201	Micro-support structures
US 7,123,399	Micro-support structures
US 6,639,722	Stress tuned blazed grating light valve
US 6,991,953	Microelectronic mechanical system and methods
US 6,614,580	Modulation of light out of the focal plane in a light modulator-based projection system
US 6,747,781	Method, apparatus, and diffuser for reducing laser speckle
US 6,567,584	Illumination system for one-dimensional spatial light modulator employing multiple light sources

US 6,865,346	Fiber optic transceiver
US 6,782,205	Method and apparatus for dynamic equalization in wavelength division multiplexing
US 6,621,184	Substrate-based pendulum motor
US 6,930,364	Microelectronic mechanical system and methods
US 7,049,164	Microelectronic mechanical system and methods
US 7,183,637	Microelectronic mechanical system and methods
US 6,967,718	Method and apparatus for monitoring WDM channels and for analyzing dispersed spectrum of light
US 6,785,001	Method and apparatus for measuring wavelength jitter of light signal
US 6,587,253	Enhance thermal stability through optical segmentation
US 6,839,479	Optical switch
US 6,956,995	Optical communication arrangement
US 6,893,498	Method and apparatus for adjusting lithium oxide concentration in wafers
US 6,829,258	Rapidly tunable external cavity laser
US 6,801,354	2-D diffraction grating for substantially eliminating polarization dependent losses
US 6,958,818	Fabry-Perot interferometer including membrane supported reflector
US 6,894,822	Robust reflective surface for light modulators
US 6,806,997	Patterned diffractive light modulator ribbon for PDL reduction
US 6,661,090	Metal adhesion layer in an integrated circuit package
US 6,795,227	Method and apparatus for driving light-modulating elements
US 6,898,377	Method and apparatus for calibration of light modulating array
US 6,712,480	Controlled curvature of stressed micro-structures
US 6,877,209	Method for sealing an active area of a surface acoustic wave device on a wafer
US 7,391,973	Two-stage gain equalizer
US 6,922,273	PDL mitigation structure for diffractive MEMS and gratings
US 6,934,070	Chirped optical MEMS device
US 6,822,797	Light modulator structure for producing high-contrast operation using zero- order light
US 6,872,984	Method of sealing a hermetic lid to a semiconductor die at an angle
US 7,057,795	Micro-structure with individually addressable ribbon pairs
US 6,928,207	Apparatus for selectively blocking WDM channels
US 7,233,443	Arrangement for WDM multiplexing and demultiplexing

US 6,922,272	Method and apparatus for leveling thermal stress variations in multi-Layer MEMS devices
US 7,286,764	Grating Light Valve (GLV) based reconfigurable optical add-and-drop multiplexer
US 7,042,611	Pre-deflected bias ribbons
US 6,947,613	Wavelength signal switch and equalizer
US 7,057,819	High contrast tilting ribbon blazed grating MEMS
US 6,829,077	Diffractive light modulator with dynamically rotatable diffraction plane
US 6,987,600	Arbitrary phase profile for better equalization in DGE
US 7,068,372	A MEMS interferometer-based reconfigurable optical add-and-drop multiplexer
US 7,054,515	Diffractive light modulator-based equalizer with integrated spectral monitor
US 6,927,891	Tilt-able grating plane for improved crosstalk in 1xN blaze switches.
US 7,046,420	MEMS micro-structures and methods of making the same
US 7,027,202	Silicon substrate as a light modulator sacrificial layer
US 6,652,644	Adjusting lithium oxide concentration in wafers using a two-phase lithium-rich source
US 6,808,563	Controlled partial pressure technique for adjusting lithium oxide concentration in wafers
US 7,088,497	Optical device with polarization diversity module
US 6,922,271	Tunable phase grating with optically linearized response
US 6,777,258	Conductive etch stop for etching a sacrificial layer
US 6,846,423	Wafer level seal for non-silicon-based devices
US 7,466,022	Wafer level seal for non-silicon-based devices
US 6,804,038	Bipolar operation of light-modulating array
US 6,932,957	Method and apparatus for increasing bulk conductivity of a ferroelectric material
US 7,527,755	Method for increasing bulk conductivity of a ferroelectric material such as lithium tantalate
US 6,775,047	Adaptive bipolar operation of MEMS device
US 6,781,739	High-frequency AC drive for MEMS devices
US 6,876,475	Dual modulator wavelength-selective switch and equalizer
US 7,043,110	N-N step GLV-based 1x2 wavelength selective switch and equalizer
US 6,967,758	System and method for sub-pixel electronic alignment
US 7,045,381	Conductive etch stop for etching a sacrificial layer
US 7,106,417	Modulator tiling arrangement for lithography applications
US 6,947,199	Loosely packed two-dimensional modulator arrangement

US 7,161,518	Method and apparatus for driving two-dimensional modulator arrays
US 7,202,988	High speed diffractive light modulator
US 7,286,155	An optical engine using a one-dimensional MEMS device
US 7,218,336	Method and apparatus for driving illuminators in printing applications
US 7,248,278	High-speed laser printing using a linear diffractive MEMS spatial light modulator
US 7,027,204	High-density spatial light modulator
US 7,064,883	2D dense-packed diffractive MEMS spatial light modulator
US 7,085,059	Spatial light modulator having a mirrored substrate and method for fabricating same
US 7,277,110	Laser photothermal printer using heating to improve paper sensitivity
US 7,244,631	MEMS surface modification for passive control of charge accumulation
US 7,227,687	Complex spatial light modulator
US 7,359,106	Continuously deformable surfaces for diffractive light modulators
US 7,215,461	MEMS device having increased damping for suspended structure and method of forming the same
US 7,310,180	Displacement electrode for enhanced squeeze-film damping
US 7,573,631	Hybrid analog/digital Grating Light Valve
US 7,330,038	Interleaved triangular MEMS beams for IC probing
US 7,463,403	High impedance drive circuit for a micro-electromechanical system device
US 7,502,157	Multi-layer spatial light modulator for amplitude and phase control
US 7,529,017	Circuit and method for snapdown prevention in voltage-controlled MEMS devices
US 7,573,695	Snapdown prevention in voltage-controlled MEMS Devices



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