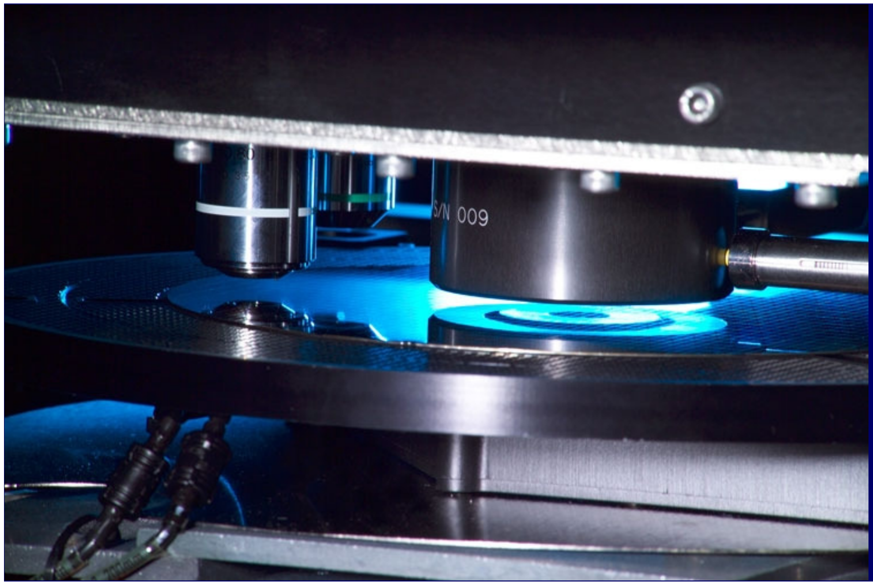


ESI Tech Tour

August 11, 2008

Positioned for Profitable Growth

better performance. **better yields.**

Safe Harbor

- *This presentation may contain forward-looking statements which are subject to a number of risks and uncertainties. Risks and uncertainties that may affect the forward-looking statements include:*
  - *The relative strength and volatility of the electronics industry – which is dependent on many factors including component prices, global economic and political stability, and overall demand for electronic devices (such as capacitors, semiconductor memory devices and advanced electronic packages) used in wireless telecommunications equipment, computers, and other consumer and automotive electronics*
  - *The ability of the company to respond promptly to customer requirements*
  - *The ability of the company to develop, manufacture and successfully deliver new products and enhancements*
  - *The ability of the company to achieve anticipated cost reductions and savings*
  - *The company's need to continue investing in research and development*
  - *The company's ability to create and sustain intellectual property protection around its products.*
- *Such risks and uncertainties are discussed in more detail in the company's annual report on From 10-K and other interim reports on Form 10-Q.*

Agenda

- Overview & Growth Strategy *(Nick Konidaris)*
- Business Group Initiatives
  - Semiconductor Product Group *(Steve Harris)*
  - Interconnect & Micro-Machining Product Group *(Jeff Albelo)*
  - Passive Components Group *(Sean Phillips)*
- Financial Execution Update *(Paul Oldham)*
- Summary/Q&A *(Nick Konidaris)*

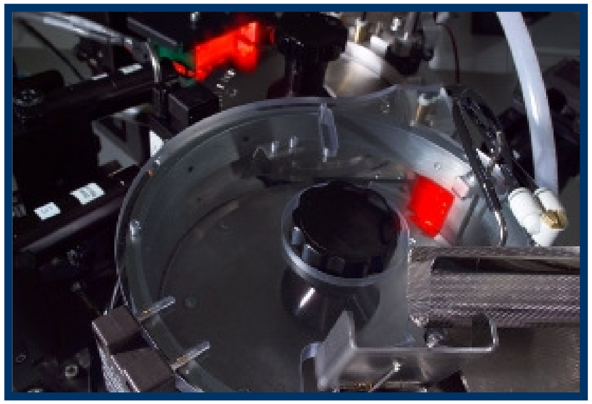
Positioned for Profitable Growth

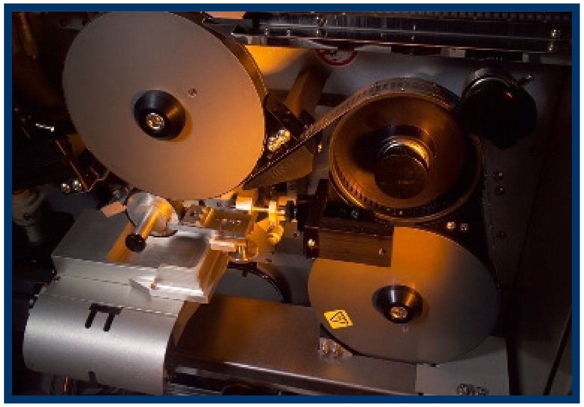
- Executing on strategy to grow faster than market
- Focusing on highly interconnected & synergistic market opportunities
- Leveraging business model to drive faster growth in earnings & cash flow

Corporate Overview

Focused on Technology Leadership

- ESI is a pioneer & premier provider of photonic-based systems for high-volume micro-engineering applications.
- The company leverages its technology leadership to enable better performance & yields for its global customers.

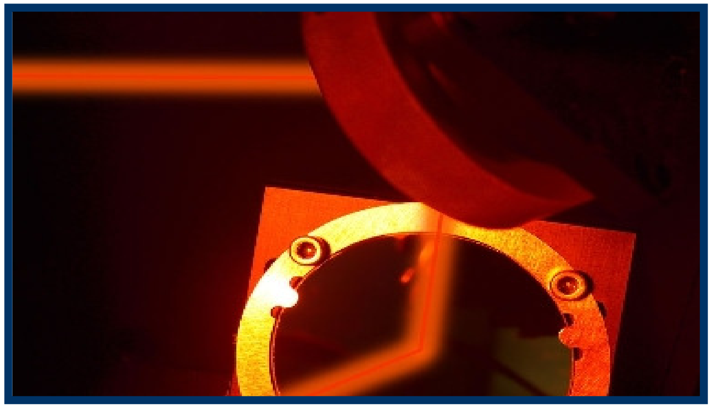




Corporate Overview

Company Overview

- Headquarters: Portland, Oregon
- Revenue: ~$250M
- Employees: ~700
- IP Position: >600 patents
- Technology: Photonic-based systems
- Markets: semiconductor, micro-machining, passive components
- 2008 Addressable Market: ~$650M
- Global Presence: Sales and support in U.S., Europe, Asia
- Financials: 18 quarters of positive EPS*, no debt



* Excluding one-time items and special charges

Global Customer Base

SAMSUNG

winbond

SAMSUNG ELECTRO-MECHANICS

PPt

Endicott Interconnect

ASE INC.

ELPIDA

NANYA

inotera memories

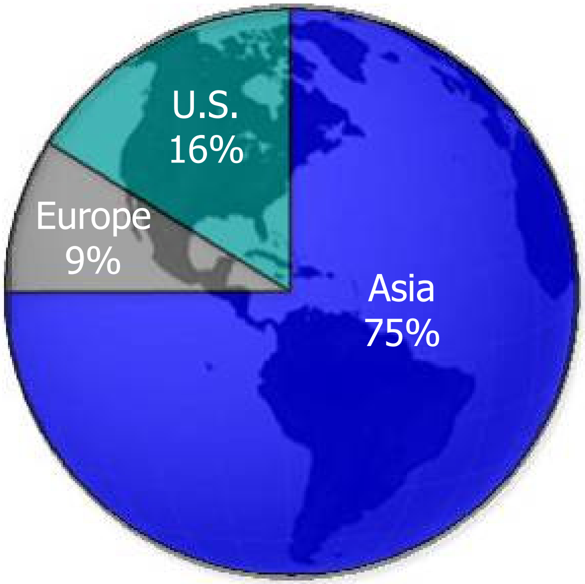
qimonda

hynix Semiconductor

BLUELIGHT 藍光

ProMOS TECHNOLOGIES

HUG@Beyond Light Resolution



Agilent Technologies

Unimicron

ThermoFisher SCIENTIFIC
The world leader in serving science

WALSIN

KYOCERA

muRata

AMOTECH CO., LTD

DELPHI

TDK

AVX

YAGEO

SAMSUNG

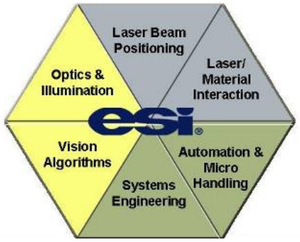
VISHAY

TAIYO YUDEN

KEMET

EPCOS

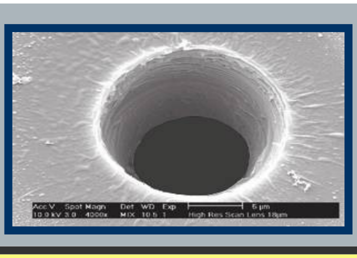
ESI Core Competencies



ESI uniquely possesses the core competencies to design, manufacture & market integrated solutions that direct & characterize photons for high-volume-manufacturing applications.

Direct Photons

- **Laser Beam Positioning**
- **Laser/Material Interaction**



Characterize Photons

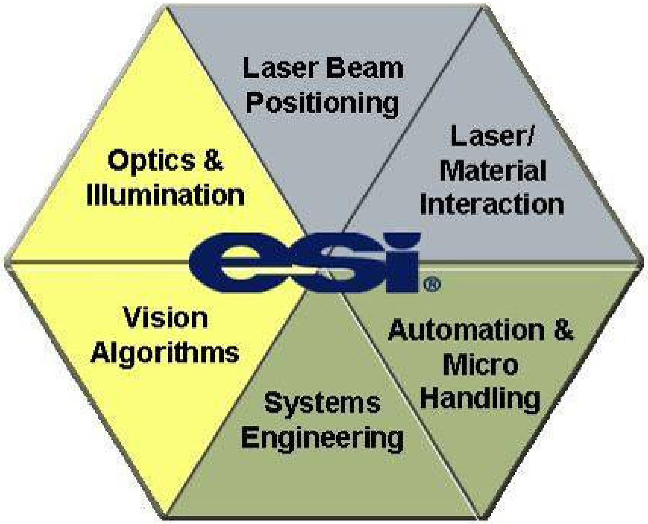
- **Optics & Illumination**
- **Vision Algorithms**

Integrate Solutions

- **Automation & Micro Handling**
- **Systems Engineering**

Leveraging Competencies Across Market Segments

- Common competencies enable ability to address multiple applications & markets
- Differentiated capability enables leadership



	Laser Beam Positioning	Laser Material Interaction	Optics & Illumination	Vision Algorithms	Automation & Material Handling	Systems Engineering
Memory Repair	√	√	√	√	√	√
TFOS	√	√	√	√		√
LED Wafer Scribing	√	√	√	√	√	√
LCD Repair	√	√	√			√
Wafer Singulation	√	√	√	√	√	√
High-Density Interconnect	√	√	√	√	√	√
Micro-Machining	√	√	√	√	√	√
Electrical Test			√	√	√	√
Optical Test			√	√	√	√

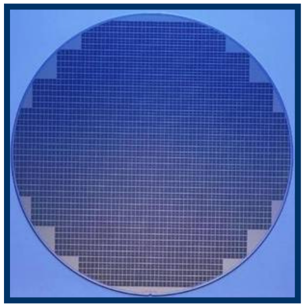
Photonics Systems Markets

- Semiconductor Products Group
  - Memory repair *(#1 Market Position)*
  - Thin film on silicon trimming (TFOS)
  - LED wafer scribing *(#1 Market Position)*
  - LCD repair *(#1 in Laser Engines)*
  - Wafer singulation *(New Entrant)*
- Interconnect & Micromachining Group
  - High-density interconnect *(#1 Position in UV)*
    - Flex Circuits
    - IC Packaging
  - Micro-Machining *(#1 in Laser Ablation)*
- Passive Components Group
  - Electrical test *(#1 Market Position)*
  - Optical test

Strong position across our addressed markets.

Miniaturization & Complexity Drive Growth

- Semiconductor Products Group (SPG)
  - Rising memory bit growth
  - Increasing wafer density
- Interconnect & Micromachining Group (IMG)
  - Smaller, more complex designs
  - Transition from traditional tools to micro-machining laser systems
- Passive Components Group (PCG)
  - Increasing functionality & miniaturization of electronic devices
  - Jump in device volume & required capacitance



Silicon Wafer

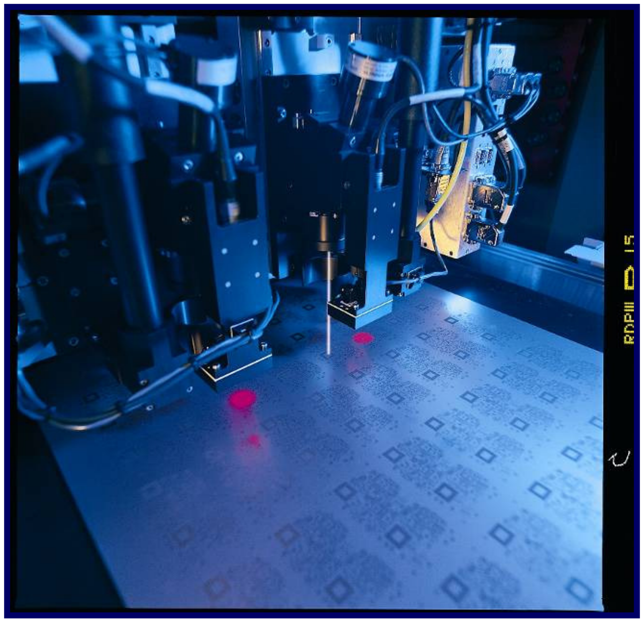
Flex Circuit

MLCCs

Photonics-Centered Growth Strategy

Leverage core competencies to be the market leader across multiple new & established markets & applications

- Grow share in established markets
  - Enhance leadership positions with advanced technologies that deliver higher performance & yields
- Expand addressable market
  - Enter into adjacent applications within existing markets
  - Extend existing applications & technology into adjacent markets



Growth Strategy Execution

- Introduced industry leading UV dual beam repair system
- Grew market share in TFOS with 1.3um patented technology
- Strong adoption of new 3550 high capacitance MLCC tester
- Penetrated new micro-machining applications on multiple materials
- Entered LED, LCD, laser ablation & wafer scribing markets through NWR acquisition
- Introduced direct sales model in Japan

Revenue by Product Group

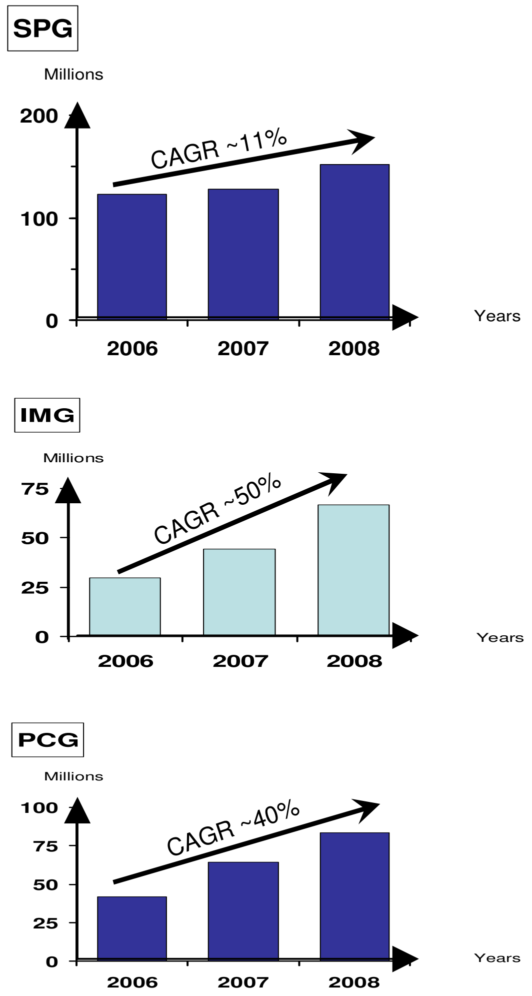
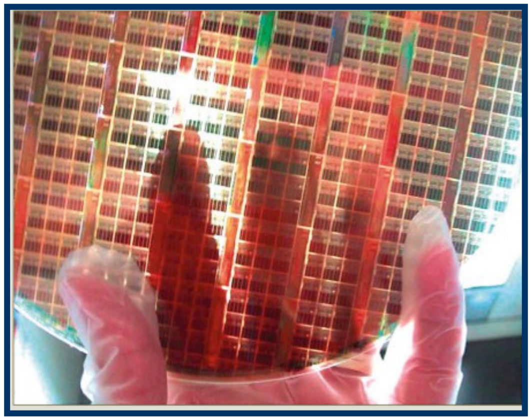


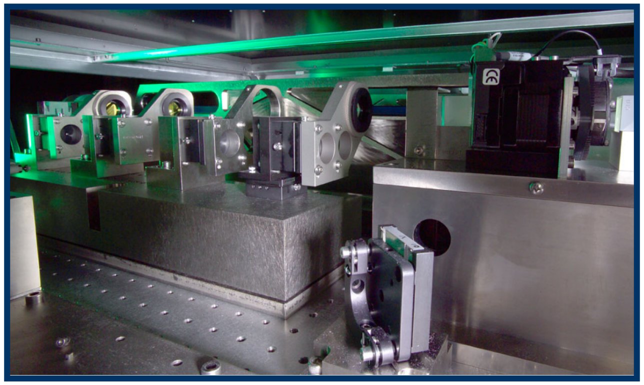
*Chart revenue calculated based on trailing four quarters at March 2008 fiscal year end, excluding June 2007

Pioneering Laser Singulation

- Cignis: ESI Wafer Singulation Solution
- Patented Picosecond, “Ultrafast” Laser
  - Fully-automated wafer scribing
  - Full-cut dicing
  - Variety of Processes
- Delivers unmatched performance for thinnest, highly-complex semiconductor devices

Typical Thin Wafer

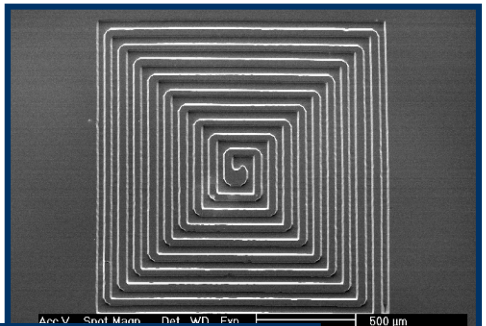




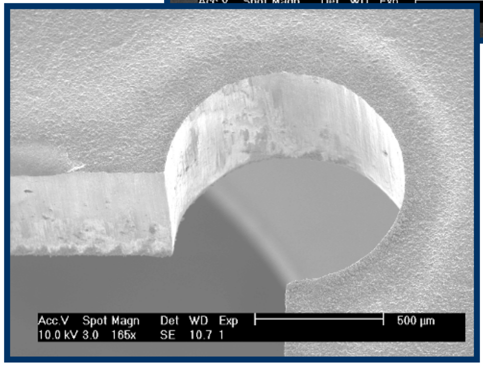
Complex Optics & Laser Beam Positioning

Breaking Ground in Micromachining

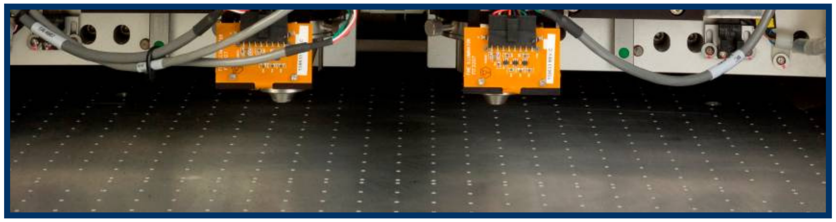
- ESI's Highly Adaptable 5800 Micromachining System
- Machines unique high-quality micro features on numerous materials
  - Semiconductors, Ceramics, Metals, Polymers, Solar Cells, Glass
- Unsurpassed ROI and Lowest CoO



Micromachined Silicon



Micromachined Ceramic

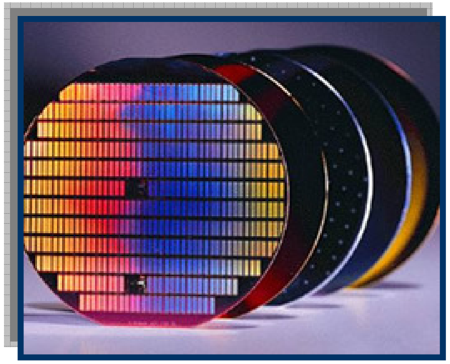


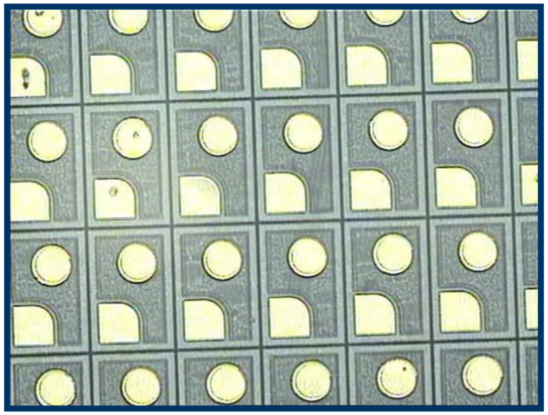
Dual Fiber Lasers

Automating LED Wafer Scribing

- ESI 2150 Automated LED Wafer Scribing System
- Industry's first Real-Time Dynamic AutoFocus Scribing Solution
  - Shorter cycle times
  - Improved scribing yield
  - Highest quality scribing

4" LED Sapphire Wafers

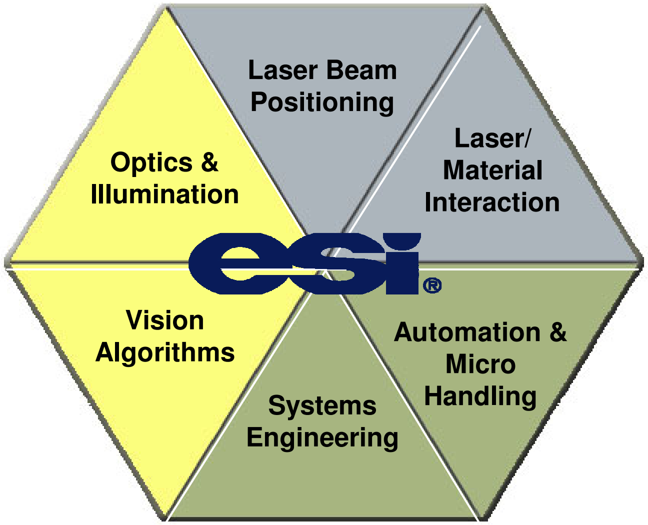




LED Wafer Scribed with 2150

Entering New Markets & Applications

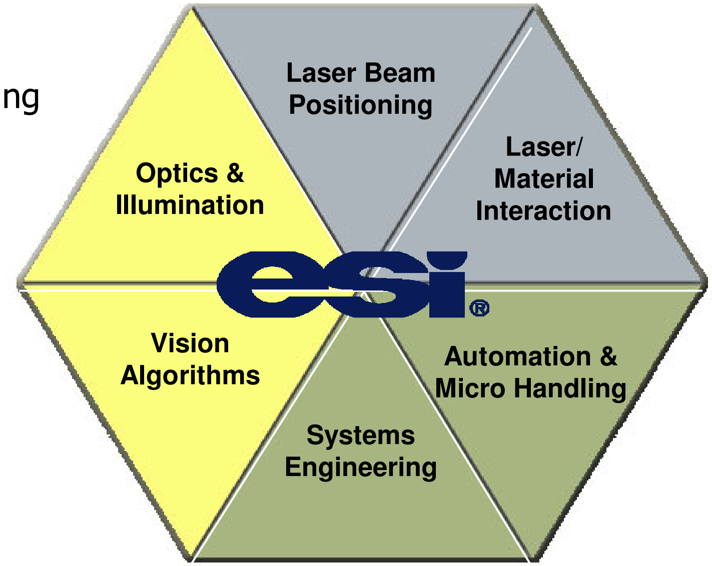
- Selection Criteria
  - Positive growth outlook
  - High synergies
  - Ability to deliver differentiated value
  - Opportunity to displace incumbent or existing technology
- Plan Execution
  - Conducting due diligence on multiple opportunities
  - Implementing product platform strategy
  - Maintaining strong balance sheet



New Market & Applications Opportunities

Semiconductors

- Image Sensor Micro-Machining
- High Efficiency Blue LED Processing
- Silicon Via Drilling
- LCD Fabrication



Laser Beam Positioning

Laser/ Material Interaction

Optics & Illumination

Vision Algorithms

Automation & Micro Handling

Systems Engineering

Micro-Electronics

- Laser Direct Ablation
- CO2 Laser Drilling
- General Purpose Micro-Machining

Energy

- Micro-Machining Solar Cells
- Micro-Machining Fuel Cells
- Solar Laser Surface Structuring

Medical

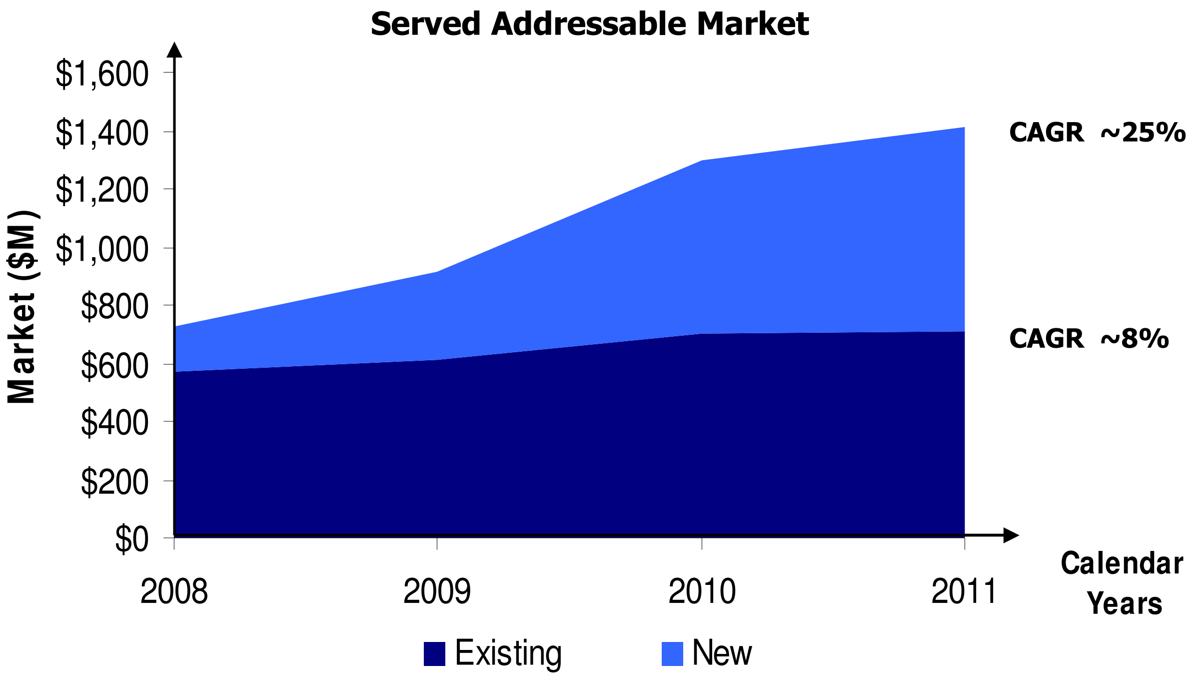
- Device Micro-Machining
- Device electronics scribing
- BioMEMS
- Optical Inspection/Metrology

Industrial/Security

- In-line monitoring
- Material processing
- Material Identification
- Optical Inspection/Metrology

Expanding Addressable Market Opportunity

- Entering adjacent markets and applications drives growth in served addressable market
- Target to double addressable market over next three years

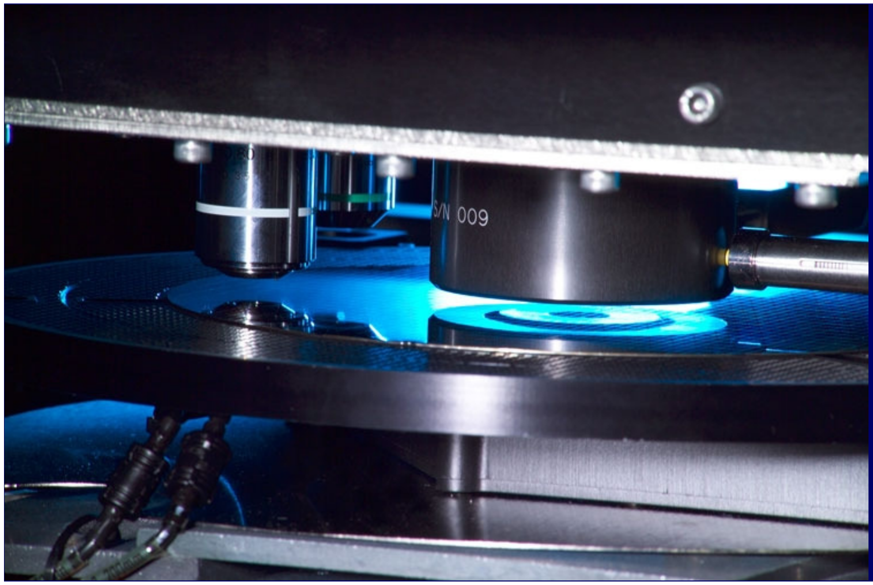


Market Environment Update

- Customers slowing spending due to memory over capacity and near-term macro-economic concerns
- Long-term growth drivers remain intact across business groups
- Current market environment validating strategy to expand beyond semiconductor memory repair

Positioned for Profitable Growth

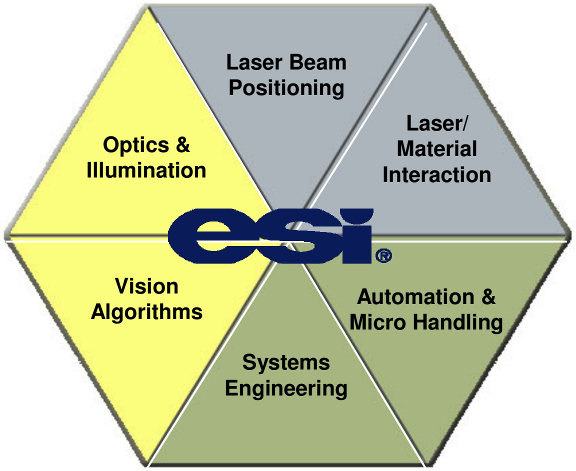
- Executing on strategy to grow faster than market
- Focusing on highly interconnected & synergistic market opportunities
- Leveraging business model to drive faster growth in earnings & cash flow



Semiconductor Product Group (SPG)

better performance. **better yields.**

Semiconductor Product Group

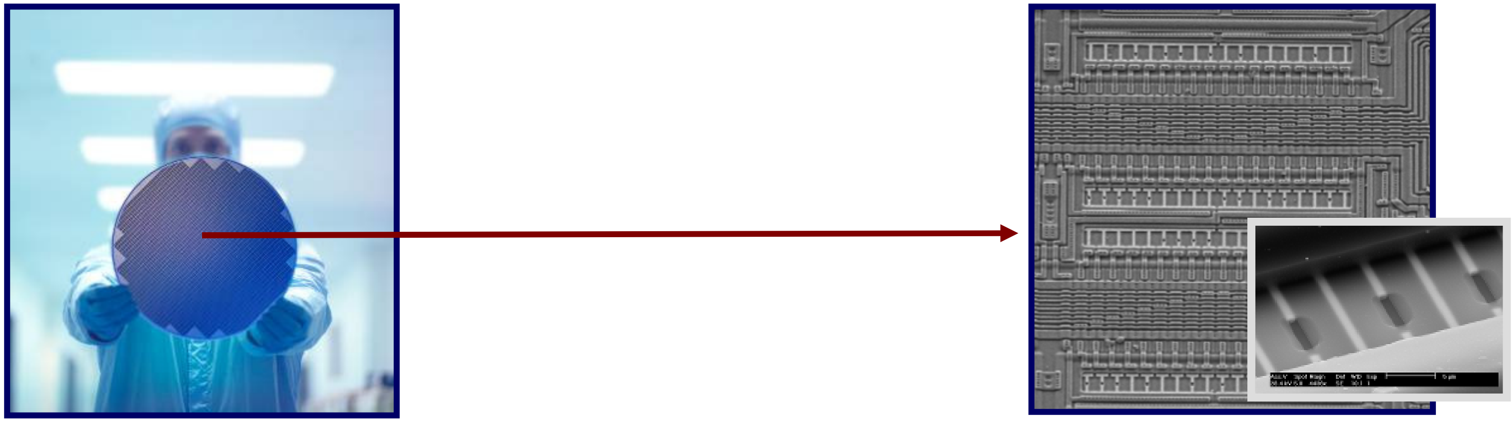


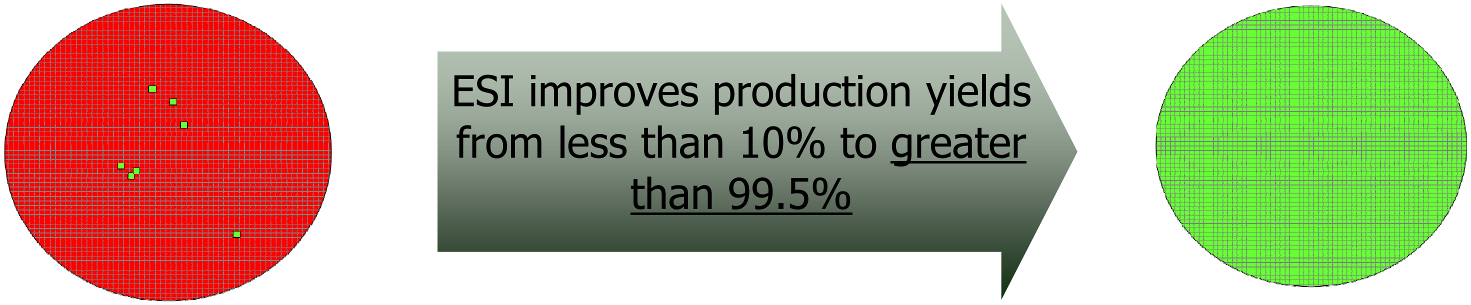
- Market leading positions
- Strong IP position – differentiated and protected technologies across core competencies
- Enabling highest industry yields, providing the greatest economic benefit to our customers
- FY '08 addressable market ~$350M
- Applications:
  - Memory Repair (#1 Market Position)
  - Thin film on silicon trimming (TFOS)
  - LED wafer scribing (#1 Market Position)
  - LCD repair (#1 in Laser Engines)
  - Wafer Singulation (New Entrant)

Memory Repair

Memory Repair

Enabling Memory Production





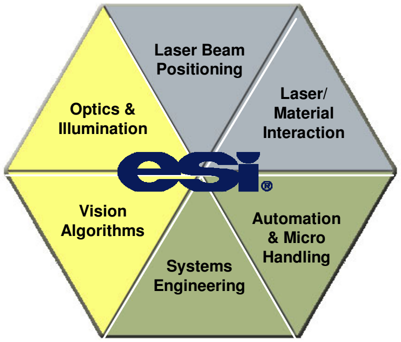
ESI improves production yields from less than 10% to <u>greater than 99.5%</u>

Memory Repair

Submicron Scale Micro-Engineering


Laser Link Width : ~0.5um

Links are 200x smaller than a Human Hair!

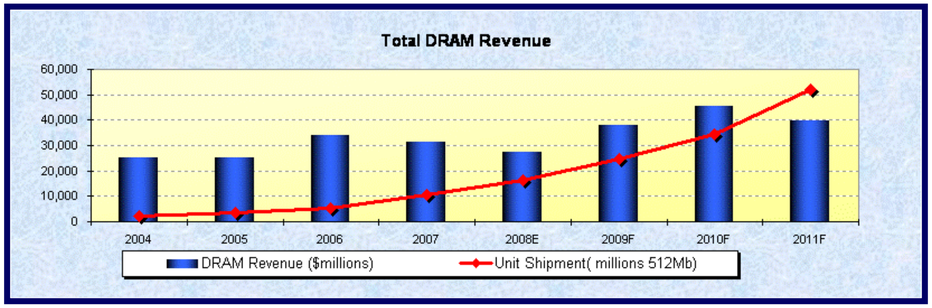


Processed at rates of >200,000 links per second!

Market Dynamics

- Memory yield improvement process on DRAM and NAND FLASH chips is essential to profitability
- We, as consumers, have an insatiable demand for Memory
  - Consumer-Driven = Intense cost pressure
  - Moore's Law driven advancements = Challenging technology drivers
- Consolidation in DRAM market offers opportunities for ESI

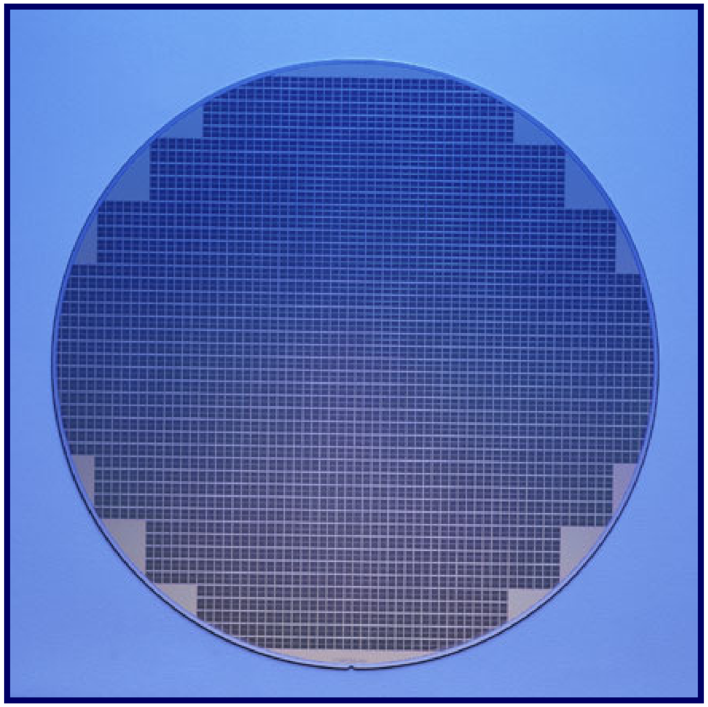
DRAM Shipments & Revenue



Source: DRAMexchange and Isuppli (revenue based)

Memory Repair

Market Outlook



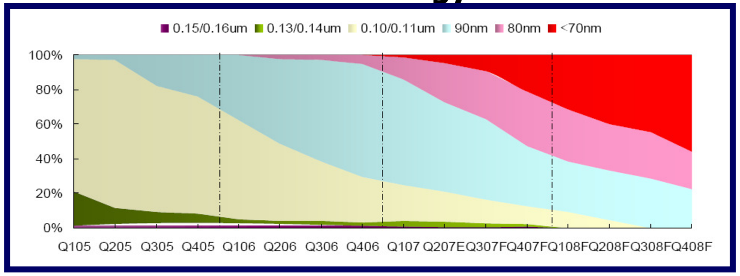
- Memory market will continue in over-capacity mode for next ~12 months
  - Capacity buys will be limited
- Downturn creates new opportunities as customers need to:
  - Lower costs to achieve profitability
    - More die per wafer
    - Die shrink (to 70nm line width)
  - Invest to differentiate and gain market share
    - Produce high value memory (e.g., Copper high-performance/low-power devices)

Memory Repair-Growth Drivers

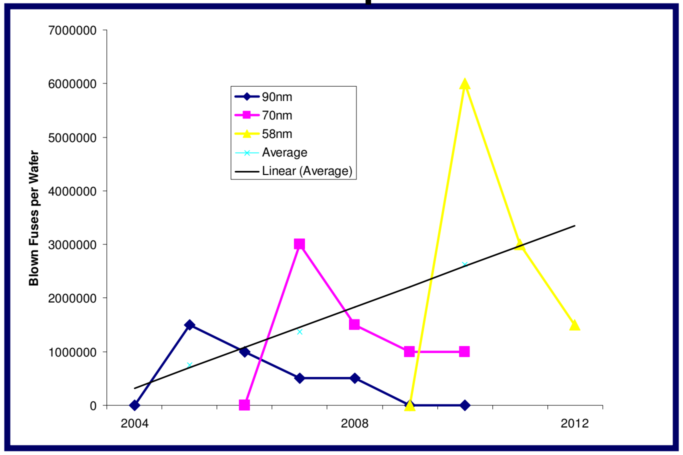
Driven by Bit Growth & Wafer Density

- Economics require that customers put more chips on a wafer
- Shrinking chip size demands smaller spots and higher accuracies
- Lower yields = more “repair” required
- Higher speed chips with Cu and Low-k materials require more complex process solutions

DRAM Technology Node



Fuses Blown per Wafer



Data : DrameXchange : July 2007 & ESI Estimates

Memory Repair-Strategy

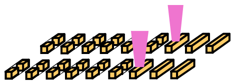
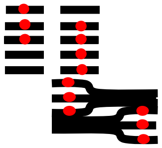
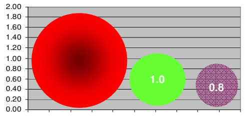
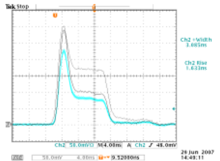
Growing Market Share Through Innovation

- Provide best CoO – leading ROI to our customers
  - Highest throughputs
  - Best Yields
- Technology leadership
  - Enabling device shrink roadmaps
  - Enabling process solutions
- Strong IP position

Production process speeds: up to 200,000 links per second!

Memory Repair

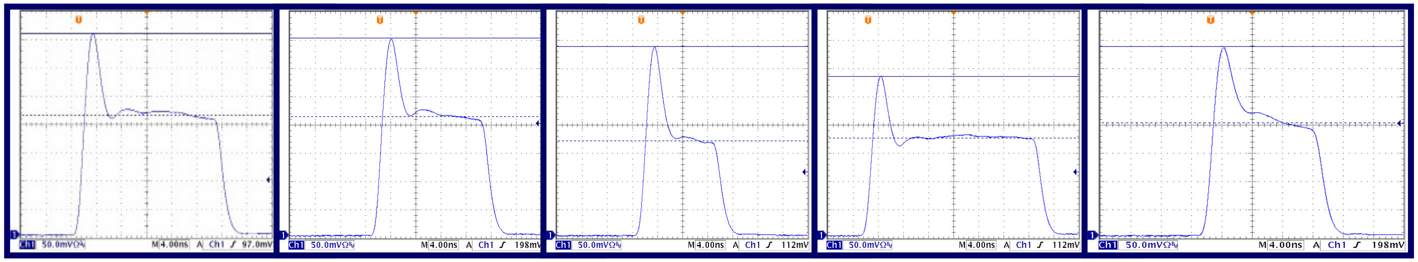
Market-Driven Innovation

Customer Requirement	ESI Developments	
Continual CoO Improvement	Dual Beam and high speed lasers	
	Optimizing throughput on new fuse layouts	
Roadmap for Smaller Geometries	Small spot size and improved accuracy	
High Yield on Complex High Performance Memories	Tailored Pulse	

Memory Repair

Process Solutions for Increasingly Complex Devices

- Customer Challenge:
  - Improving yield on advanced DRAM (Cu and Low-K Materials)
- Next Generation ESI Solution:
  - Offers ability to adjust the laser energy vs. time – “Tailoring” the laser pulse to customer’s device & process:



- Value to the Customer:
  - Incremental yield improvement
    - Conservatively: 1% yield increase = 10 extra die per wafer = $10 per wafer savings = $50,000 per month per system savings, or greater than $500,000 per year per system savings
  - Unique ability to process advanced devices

Memory Repair – Delivering to Strategy

Leading In Capability & Market Share

- Model 9850 IR Introduced July 2006 at SEMI West
  - Worlds first dual-beam memory repair system
- Model 9850 UV Introduced July 2007 at SEMI West
  - World’s first dual-beam UV system
- October 2007: 500th shipment of 98XX product line
- Market share > 70% in laser-based memory repair

9850IR

9850UV

Common Platform = Efficiency in Development

Memory Repair

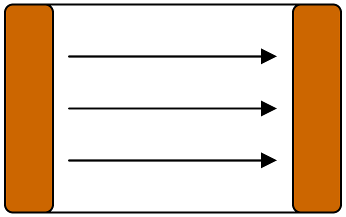
Summary

- Customers are investing in process solutions for new materials and sub 70nm capability
- ESI continues to invest and innovate
  - Enhancing our market leadership position
  - Delivering market-driven process solutions
    - Differentiated and IP protected technologies
    - Leveraged Core competencies
  - Providing best Cost of Ownership
    - Throughput and productivity
    - Highest Yields

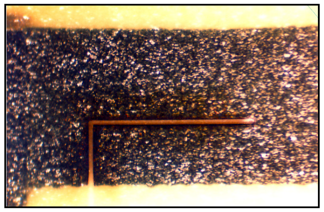
Thin-Film-on-Silicon (TFOS)

Thin-Film-on-Silicon (TFOS) Trimming

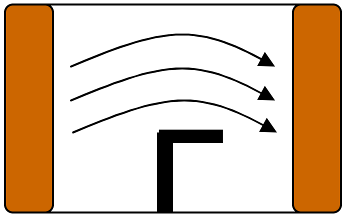
Current Flowing Through Resistor/Capacitor/Other Device



Device "trimmed" w/ Laser



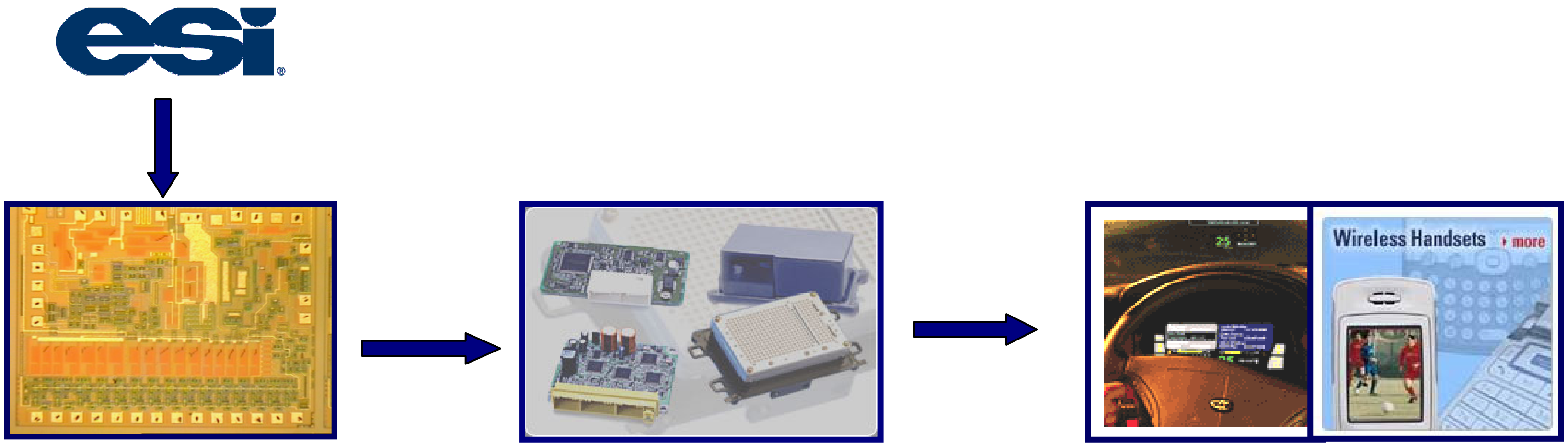
Resulting current flow is altered



- Customers "trim" or "tune" high-precision analog IC devices w/ laser
- ESI laser trimmer - 2100
  - Trims & cuts resistor or link material

Model 2100 TFOS Trimmer

Thin-Film-on Silicon



High Precision Analog IC Suppliers

Packaged Module/OEM Suppliers

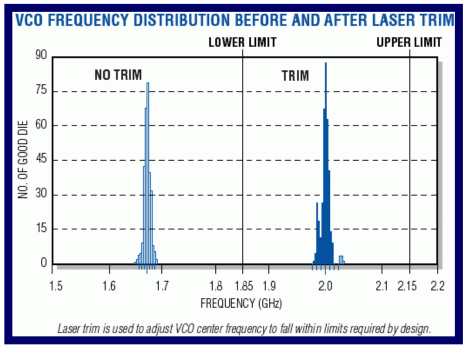
Resulting Parts sold to Automotive, Wireless, Medical, etc.

- ESI TFOS Trimmers are a necessary step in the process
  - Provide tighter tolerances
  - Enable precision applications
  - Result in higher value devices

Driven by Device Growth

- RF/Wireless devices
- Automotive
  - DC/DC Converters, Sensors
- Precision Components
  - Analog to Digital Converters (ADCs), DACs
  - High precision Op Amps
  - Test electronics

Frequency Distribution

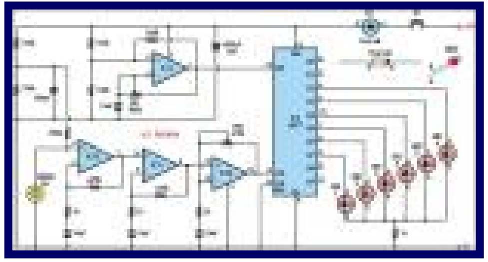


Courtesy – Maxim Integrated Products

Automotive Electronics

Courtesy – Analog Devices Inc.

Precision Component

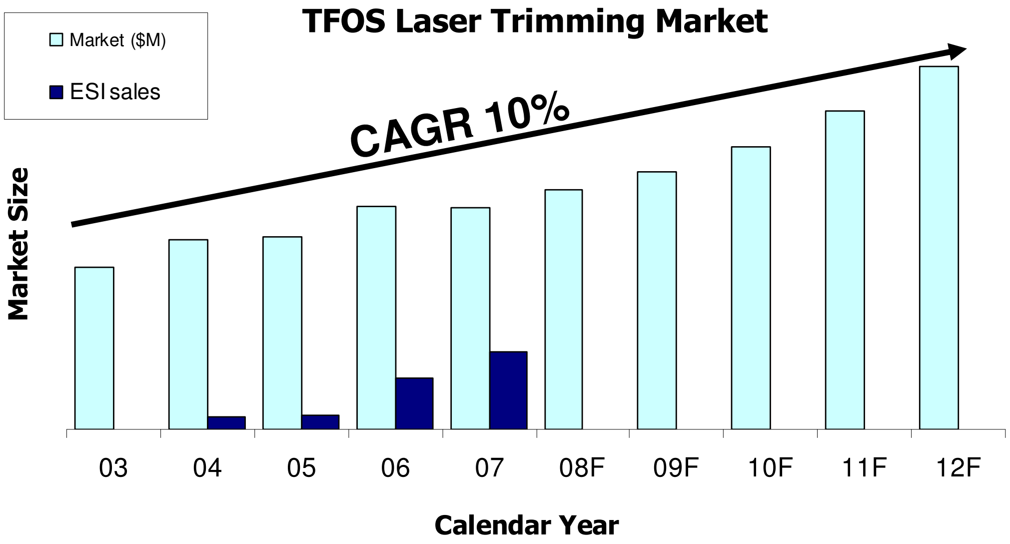


Courtesy – Denso Corp.

TFOS - Strategy

Grow Share Through Technology Leadership

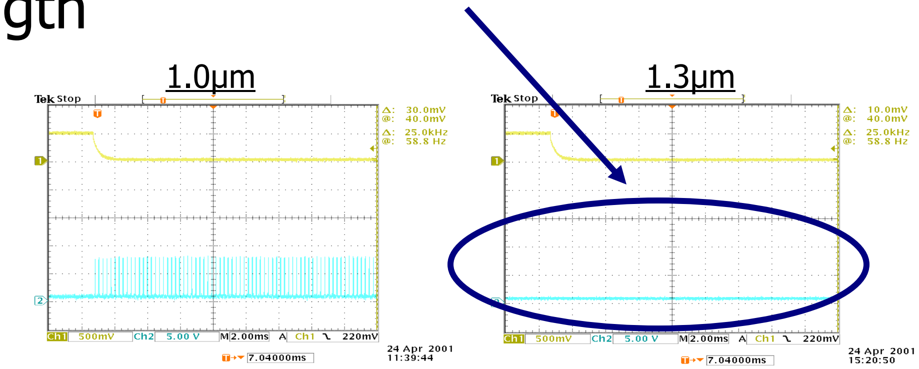
- Leveraged core competencies to expand into thin film on silicon laser trimming
  - Deliver compelling capability advantages
  - Capitalize on strong key customer relationships
- Grew share to ~30% in four years



Source: DRAMexchange and Isuppli (revenue based)

Leading Through Process Technology & Flexibility

- ESI's patented 1.3 µm wavelength process advantages
  - Higher Yields
  - Higher Throughput
- Modular Architecture: Prober & Tester Independent
  - Technology advancements
  - Integrates with leading edge testers



No Photoelectric Oscillation

US Patent #5,685,995

Summary

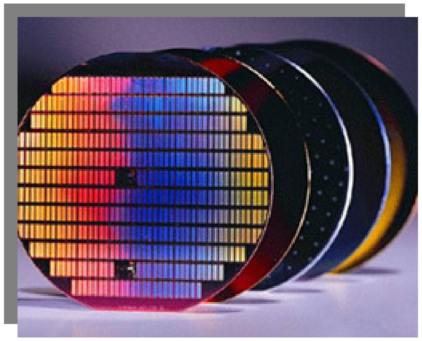
- Expanding markets
  - Wireless
  - Automotive
  - Precision components
- Growing market share through technology leadership
  - Unique architecture and patented technology

LED Scribing

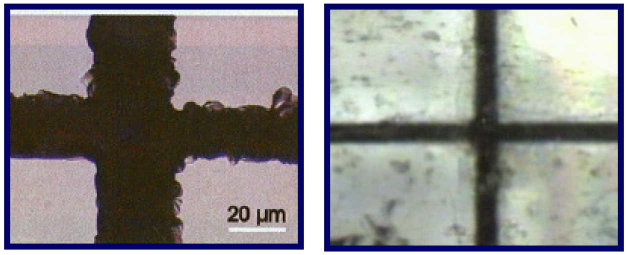
LED Scribing

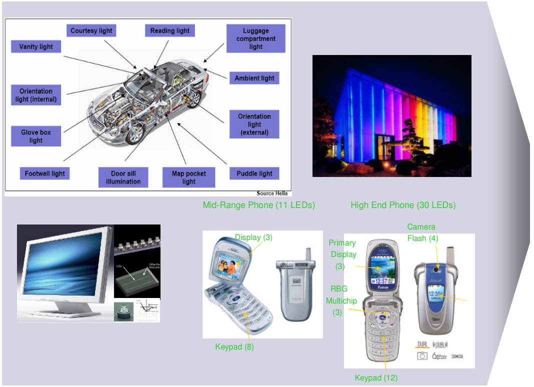
- Wafer scribing of High Brightness White/Blue LED (HB LED) substrates
- Better CoO than diamond scribe
  - Superior process results
  - Higher Throughput
  - Lower consumable costs
- Extend existing applications and technology into new markets

4" Sapphire LED wafer with up to 60,000 LED devices



Diamond vs. Laser Scribing

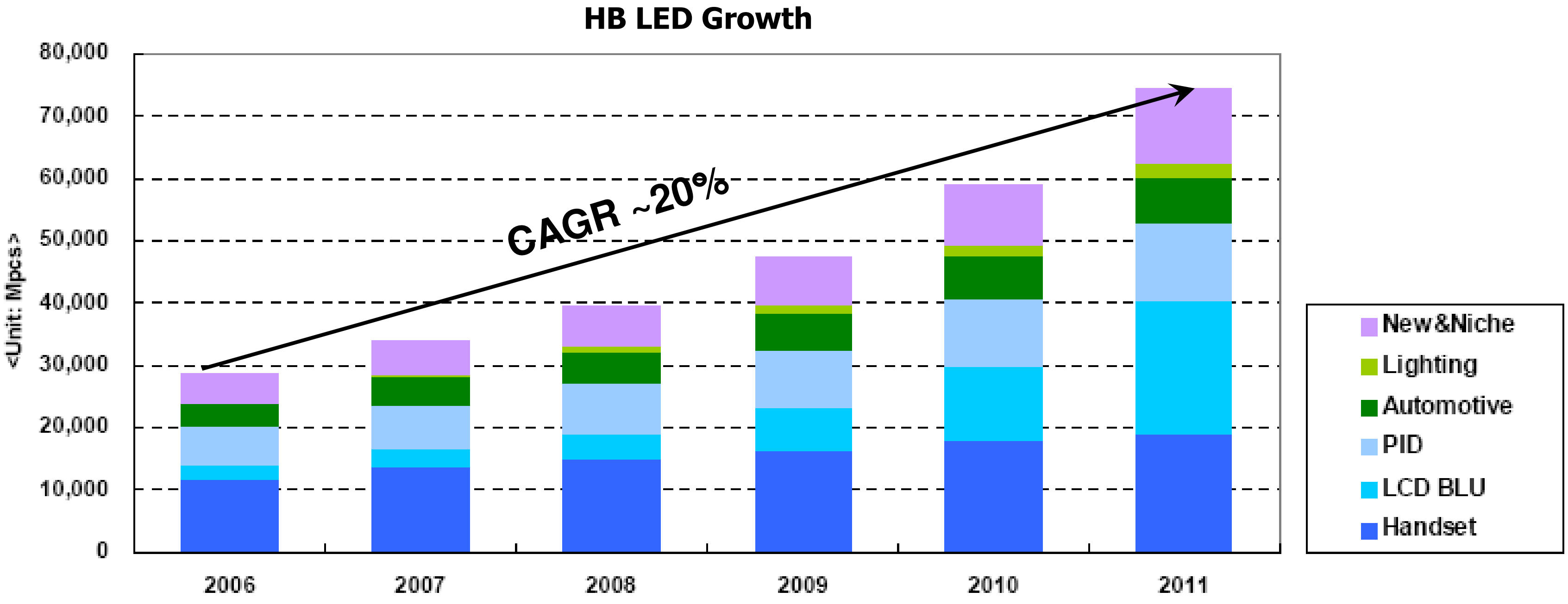




LED Scribing – Growth Drivers

Energy Efficiency Driving HB LED Market Growth

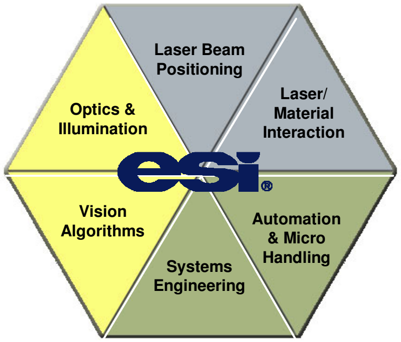
- Rapid adoption in mobile applications
- Expanding to general illumination
- Ruggedness provides unique benefits



Data from Displaybank Dec 2007.

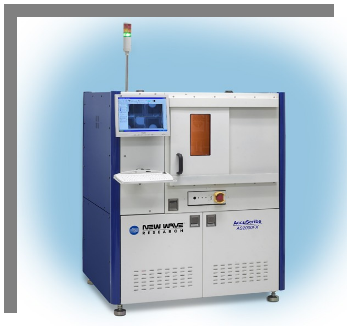
LED Scribing - Strategy

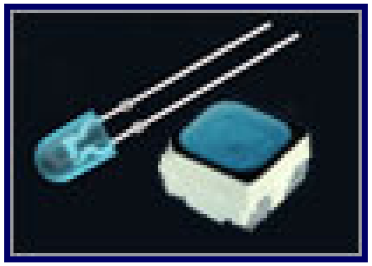
ESI Process Solutions Enable Growth



- Enhance leadership position in cost driven "Tier II" applications
- Penetrate high end "Tier I" applications
  - Throughput and CoO advantages
  - Higher quality scribing
  - Improved Wafer utilization
  - Reduced consumable costs
- Leverage platform strategy and core competencies

Automated sapphire wafer scriber





Delivering to Strategy

- Innovator and market leader in Laser LED scribing
- Introduced 2150: Automated LED laser scriber
- Market leader in Tier II >50% share
  - Very strong in China
- Next generation solution targeted at Tier I accounts

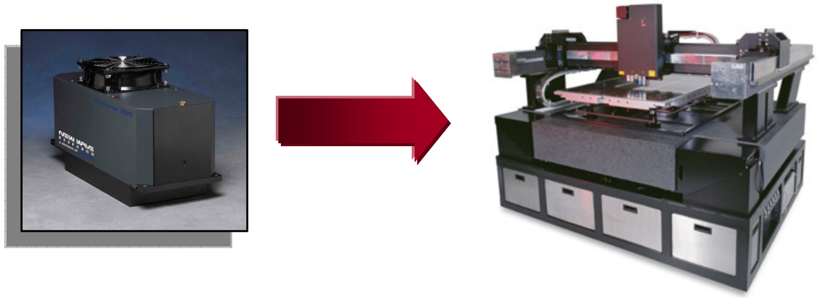
Manual Solutions

Automated Solutions

LCD Repair

LCD Repair

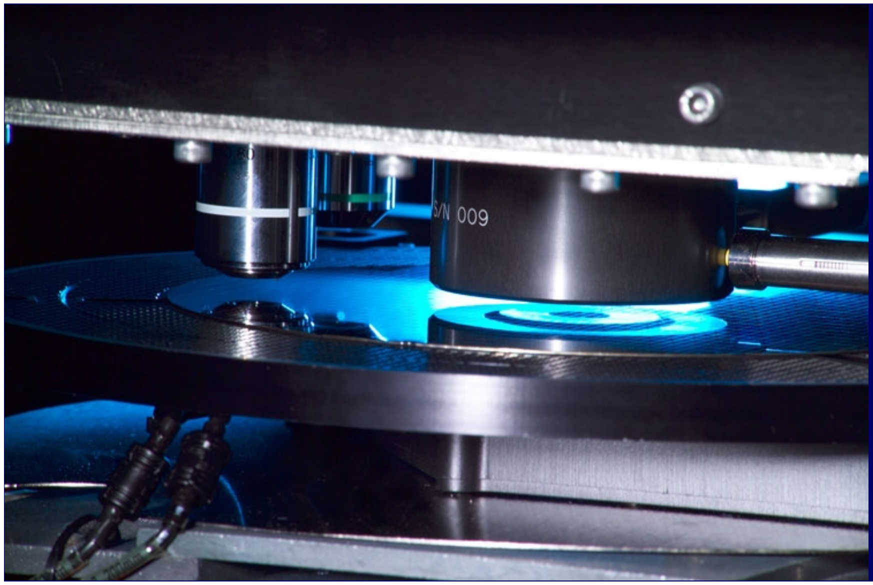
Industry-Leading Laser Repair Engines



- Laser Repair “engine”
  - Defect Removal
  - Line cutting
  - Spot welding
- FPD Market growth driven by next generation fab expansion
  - CapEx spending up 33% in 2008
  - Increased market adoption of LCDs >42” panels
  - Economies of scale with next-gen fabs
- ESI growth through customer partnering & innovation
  - Design in Wins at 2 key leading OEMs
  - Market share growth through key partnerships with Tier-I OEM and end-customers
  - Introduced Polaris 300
    - Exceptional flexibility
    - Impressive repetition rates
    - Unparalleled CoO

Semiconductor Products Group

- Growing in established markets
  - Memory Yield Improvement
- Expanding addressable market in adjacent applications
  - Thin-Film-on-Silicon Trimming
  - HB LED Scribing
  - Wafer Singulation
- Leveraging Core Competencies
  - Market leading positions
  - Strong IP position – differentiated and protected technologies across core competencies
  - Enabling highest industry yields, providing the greatest economic benefit to our customers



Interconnect & Micro-Machining Group (IMG)

better performance. **better yields.**

Interconnect and Micro Machining Group

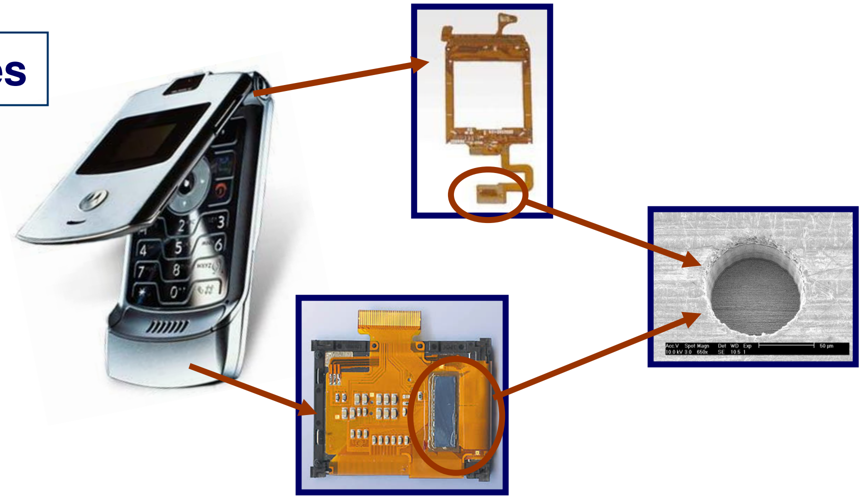
- Market leader in UV laser drills
- State-of-the-art Micro-engineering innovator
- Breadth of core competencies
  - Systems engineering
  - Materials processing
- FY ’08 addressable market ~$100M
- Applications
  - High Density Interconnect (HDI)
  - Micro-Machining

ESI Model 5330

Interconnect and Micro Machining Group

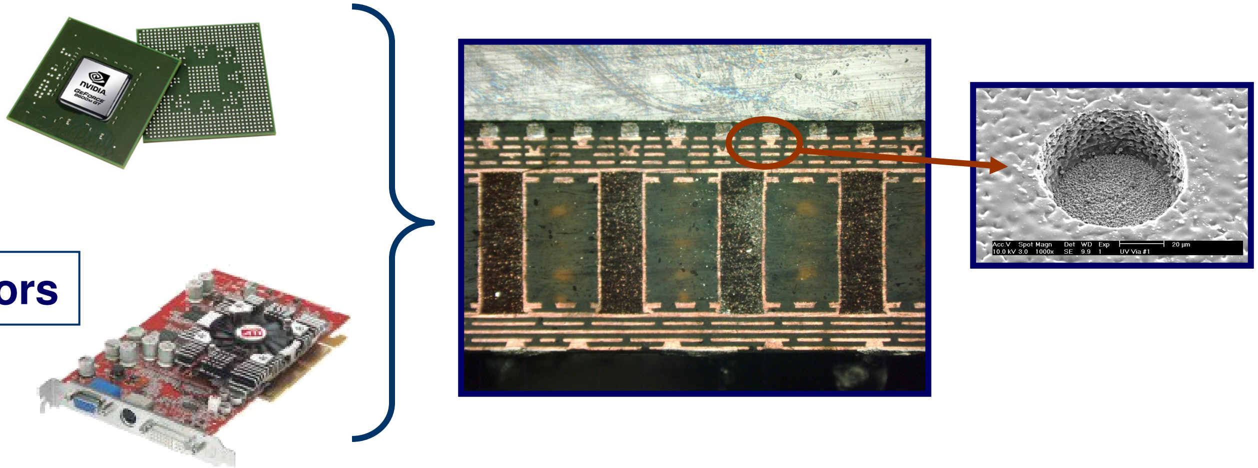
Enabling High Performance Interconnect

Mobile Phones



ESI Model 5330

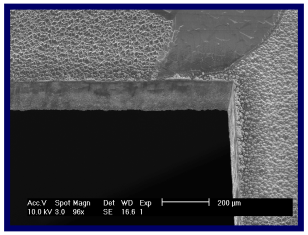
MPU and Chipsets

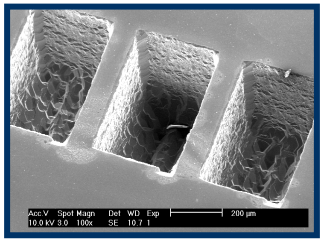


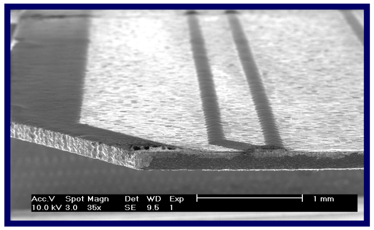
Graphics Processors

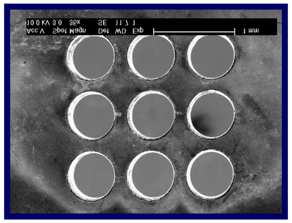
Enabling High-Precision Micro-Machining

- High-precision, photonics based materials engineering
  - Drilling, cutting, etching, dicing, scribing
- Leverages ESI’s core competencies to deliver precise form and function in diverse materials
  - Ceramics, plastics, metals, glass
- Enables custom, high value added applications







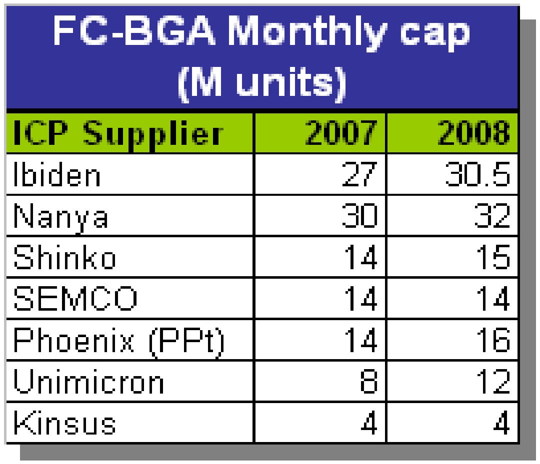


Interconnect and Micro Machining Group

Market Outlook

Interconnect

- Industry investment slow due to capacity digestion
- Supply-demand balance likely in late calendar 2008

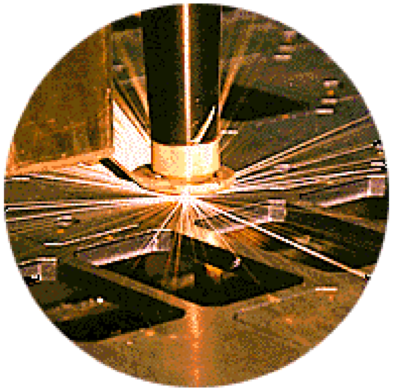


FC-BGA Monthly cap (M units)

ICP Supplier	2007	2008
Ibiden	27	30.5
Nanya	30	32
Shinko	14	15
SEMCO	14	14
Phoenix (PPt)	14	16
Unimicron	8	12
Kinsus	4	4

Micro-Machining

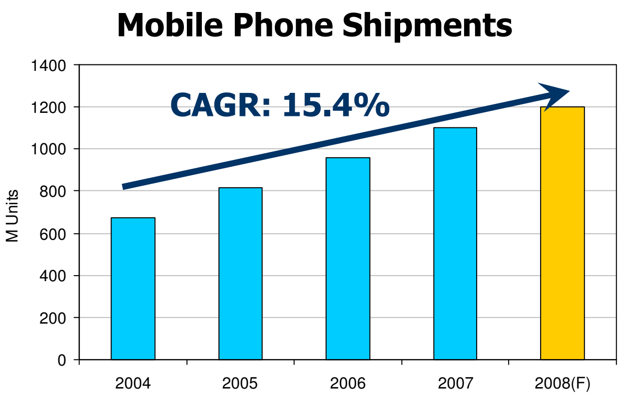
- Increasing use of lasers in machining applications
    - Extension of mechanical machining
    - Creating precision functionality

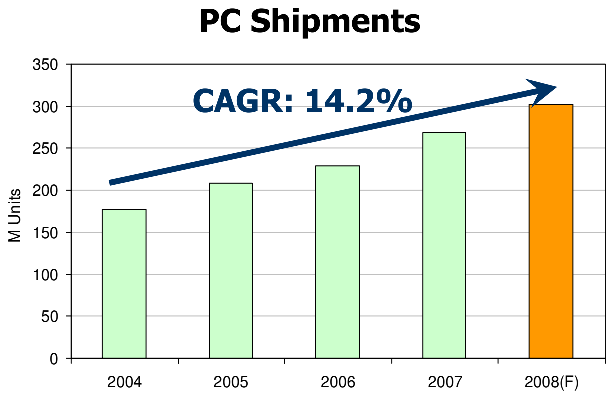


Interconnect and Micro Machining Group – Market Drivers

Driven by Smaller, More Complex Designs

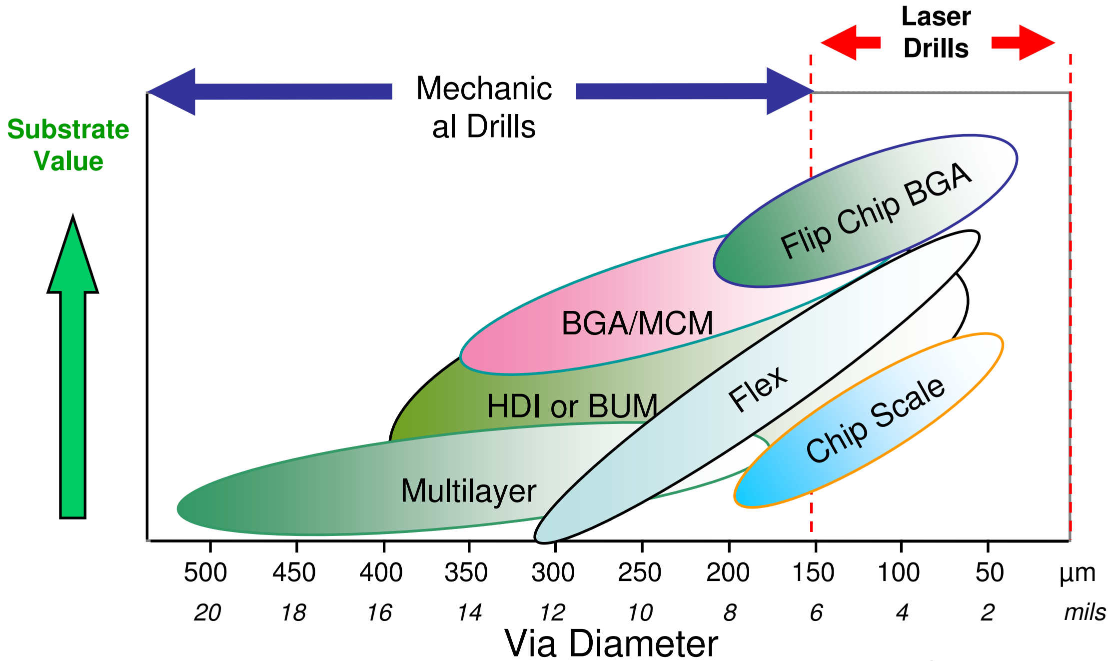
- Insatiable demand for mobile phones
- Continued growth PC shipments
- Converging functionalities





Increased Requirements for Laser-Based Tools

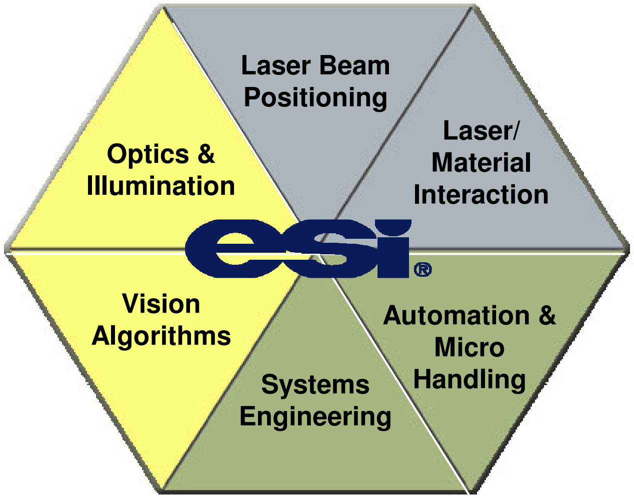
- Miniaturization and complexity driving transition from mechanical to laser processes
  - Smaller vias; higher via densities
  - New materials and interconnect structures
  - Micro engineered components



Source: Tessera

Expanding Addressable Market

- Capitalize on transitions to laser-based processes
- Expand from Flex and ICP UV drill into broader HDI Market
- Partner with key customers to develop value-add, custom, micro-machining applications
- Focus on common platforms



Interconnect and Micro Machining Group – Delivering on Strategy

Strengthening Our Portfolio

- Shipped 700th laser drill; 100 during the last 15 months
- Entered the rapidly growing machining segment
  - Introduced model 5800 high-power dual-beam system
  - Shipped multiple laser systems into new applications
- Record annual shipments and revenue

IMG Revenue

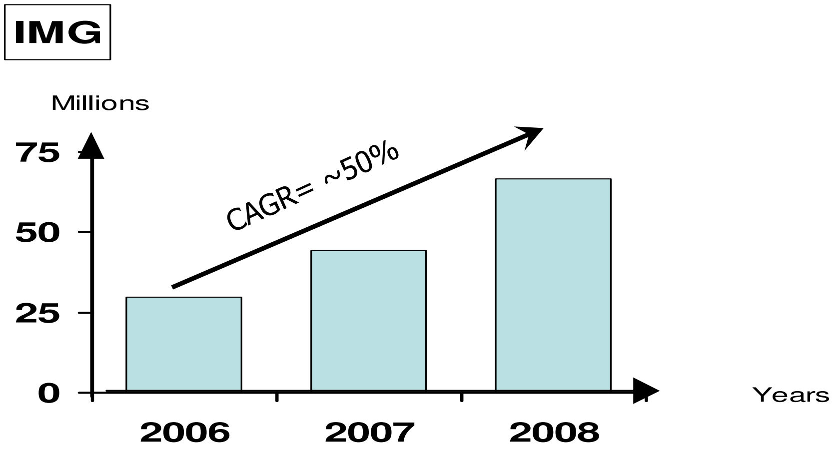
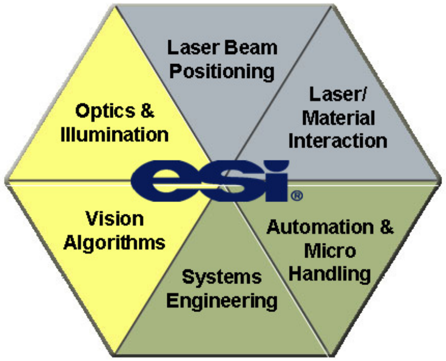
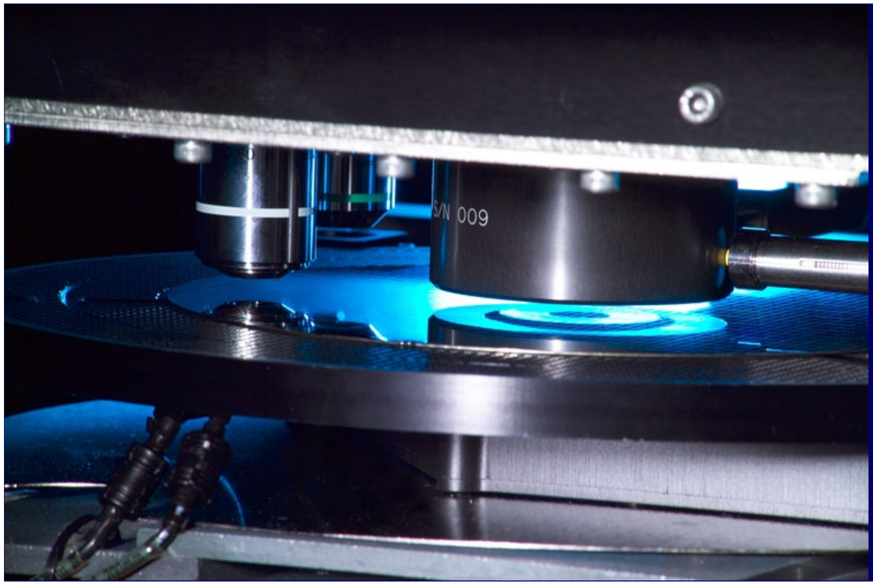


*Chart revenue calculated based on trailing four quarters at March 2008 fiscal year end, excluding June 2007

Summary: The Outlook Is Bright

- Poised to expand into broader HDI
  - Market leader in UV laser drills in ICP and Flex markets
- Developing and deploying systems in growing Micro-Machining segment
  - Unique IP-protected core competencies
  - Common Platform
- Leveraging strong customer partnerships for early design-in of disruptive technologies





Passive Components Group (PCG)

better performance. **better yields.**

Passive Components Group

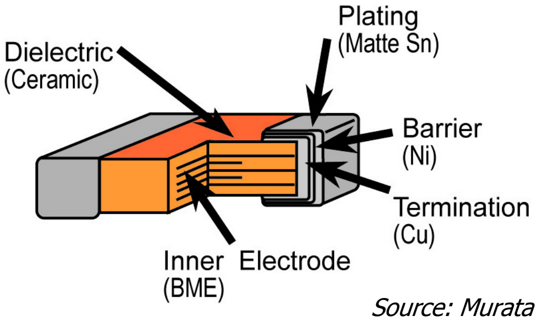
- Market leader in Electrical Test of MLCCs
- Breadth of core competencies
  - Electrical test
  - Optical inspection, Vision algorithms
  - Small parts handling, Systems Integration
- FY ’08 addressable market ~$200M
- Applications
  - Electrical Test of MLCCs (#1 Market Position)
  - Optical Inspection of MLCCs

ESI Model 3550 (Electrical-test)

ESI Model 6680 (Optical-Inspection)

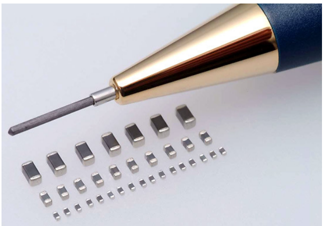
Multilevel Ceramic Capacitors (MLCCs)

- Precisely engineered multi-layer stacks of metals and ceramics



Source: Murata

- Manufactured in multiple sizes and form factors



Source: Taiyo

- Critical to the reliability and performance of electronic circuits
  - Timing
  - Filtering
  - Circuit protection
  - Surge protection

Passive Components Group

Market Outlook

MLCC Electrical Test

- Seasonal softness; capacity digestion
- Drop in Taiwanese investment after competitive hi-cap share battle with Japan
- Expect some recovery late in CY 2008

Optical Test

- Less affected than E-Test by near term market dynamics
- Inspection is largely manual and is becoming increasingly inefficient
  - Small parts
  - Labor costs (in Japan)

Driven by Increased Device Volume & Capacitance

- Increasing functionality per unit

~2,000/car

~10,000/car

- Growing computing power

~500/system

~3,000/system

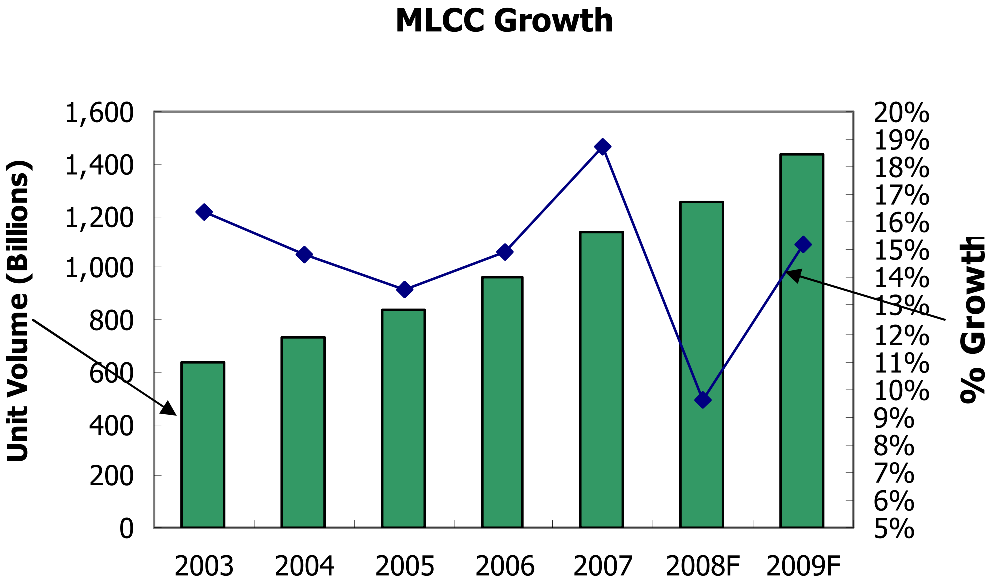
- Miniaturization and complexity

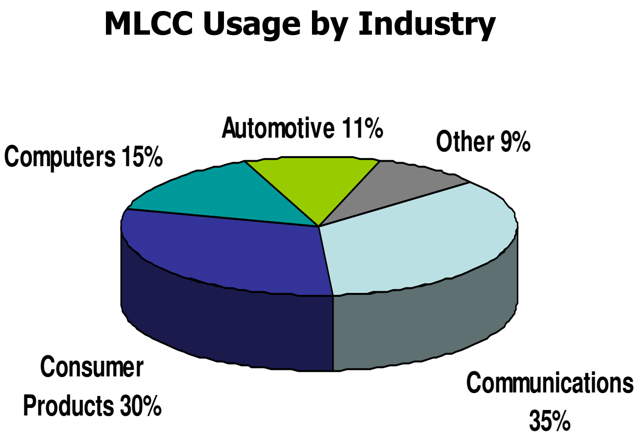
~100/PDA

~500/"phone"

Passive Components Group – Growth Drivers

MLCC Market Forecasted To Grow At >15% CAGR





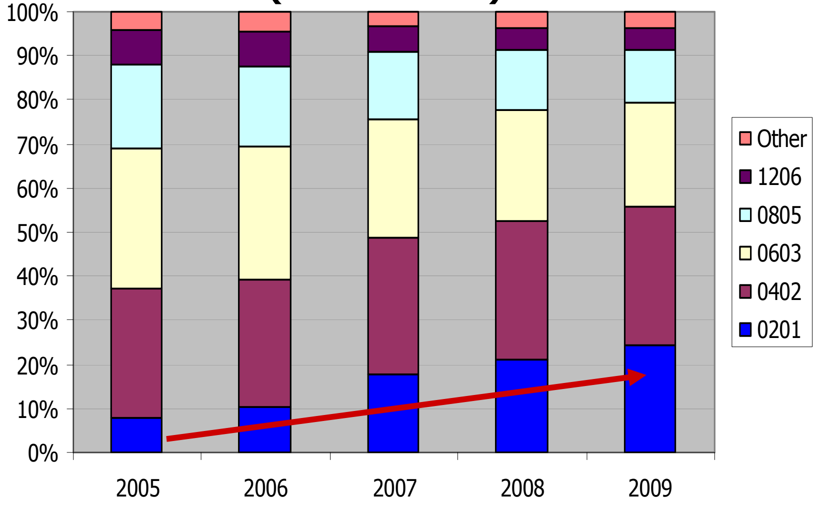
Source: Paumanok

Passive Components Group – Growth Drivers

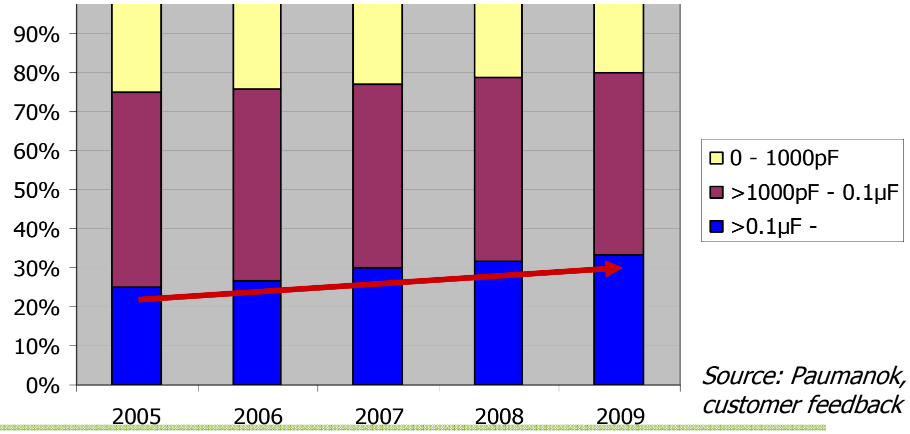
Faster Growth for Ultra-Small & High-Cap

- Miniaturization and complexity are fueling faster demand for <u>ultra-small</u> (0201) capacitors
- Increasing functionality and computing power is accelerating the need for <u>hi-cap</u> capacitors, primarily in smaller sizes

Investment in smaller chip sizes is increasing (CAGR >40%)



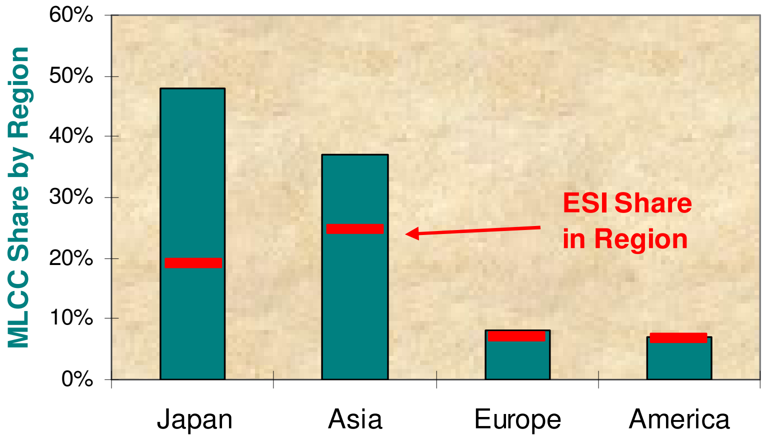
Investment in High Capacitance is increasing (CAGR >20%)



Source: Paumanok, customer feedback

Market Leadership Through Innovation

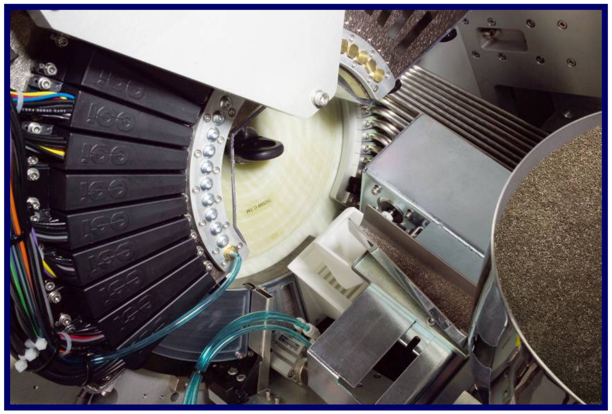
- Capitalize on the growth of hi-cap & small form factor MLCC manufacturing
  - Leverage gains in non-captive market to expand position
  - Target and penetrate the captive market, initially in Japan
- Leverage expertise in Electrical Test into Optical Inspection



Market Leadership Through Innovation

- Industry's leading hi-cap tester, with 2X better throughput
  - Unique, damage free, small parts handling
  - ESI proprietary test instrumentation
  - Strong, defensible IP position

ESI Model 3550 (Electrical-test)



IP Protected Parts Handling and Testing

Passive Components Group – Delivering on Strategy

Market Leadership Through Innovation

- Strong adoption of 35xx high capacitance MLCC Tester
  - Gained significant share in Japan, targeting the hi-cap and 0201 segments
  - Made significant inroads into key Tier-I customers
- Strongest shipments & revenue levels since 2001

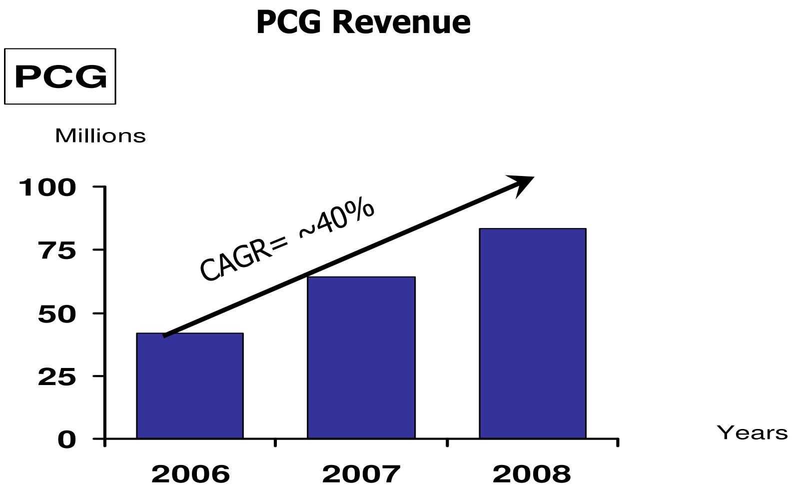
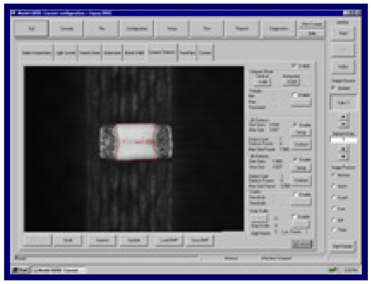


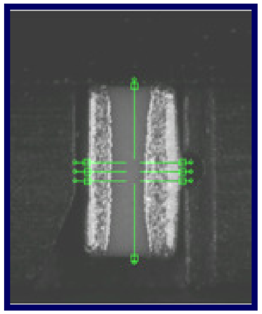
*Chart revenue calculated based on trailing four quarters at March 2008 fiscal year end, excluding June 2007

Expanding Presence in Optical Inspection

- Leverage unique IP protected core competencies from electrical test
  - Small parts handling; Automation
- Build additional differentiation by incorporating unique vision algorithms for high speed inspection
- Partner with key customers to deliver a cost effective, automated inspection solution

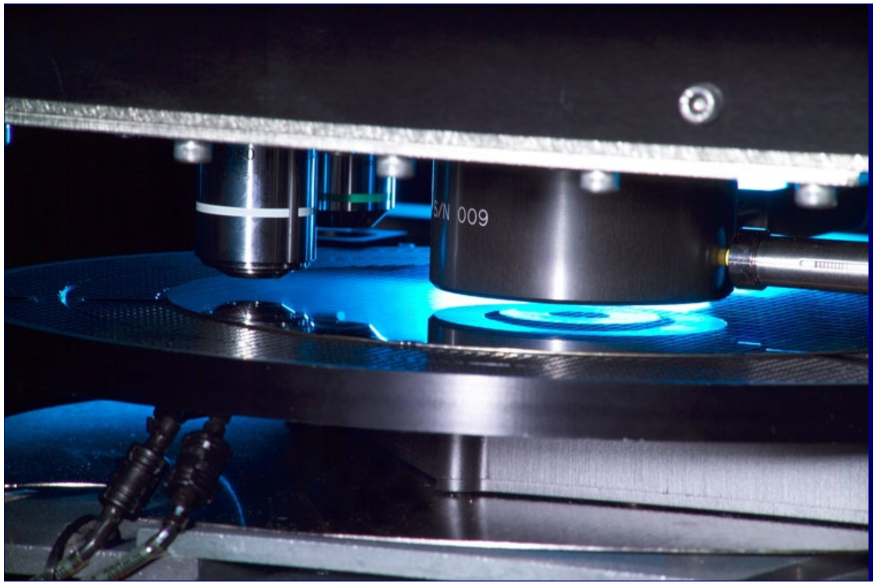
ESI Model 6680
(Optical-Inspection)





Summary

- Market Leader in Electrical Test
- Uniquely positioned to capture share during the industry’s increasing adoption of hi-cap and small form factor MLCCs
- Leveraging core competencies to develop a uniquely differentiated Optical test system to build on the success of the Electrical-test product



Financial Execution

better performance. **better yields.**

Financial Execution

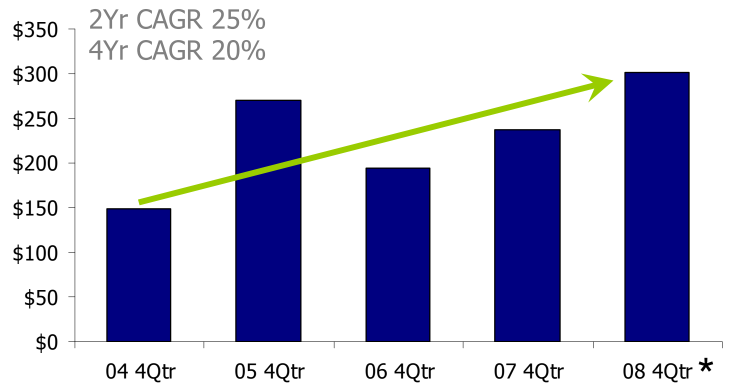
Core Financial Strategies

- Grow revenues faster than market by gaining share in existing markets and entering adjacent applications
- Focus on improving gross margins and increasing productivity to enable operating earnings consistent with operating model *(50/30/20)*
- Achieve top quartile working capital performance to drive cash flow
- Maintain strong balance sheet to provide foundation for growth and enable strategic actions

Driving Financial Performance

- Demonstrated revenue growth through the cycle
  - FY08 revenue up ~25% on a comparative basis
- Faster growth in earnings per share on revenue growth
  - FY08 10 month operating profit > 12 month prior year
- Positive earnings for 17 consecutive quarters
- Cash flow positive in all markets

Revenue



EPS

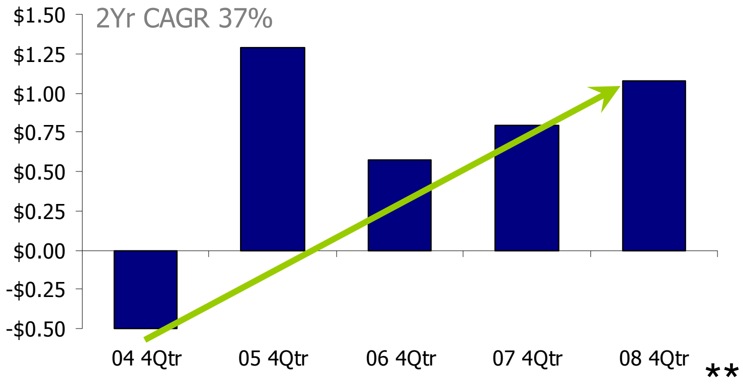
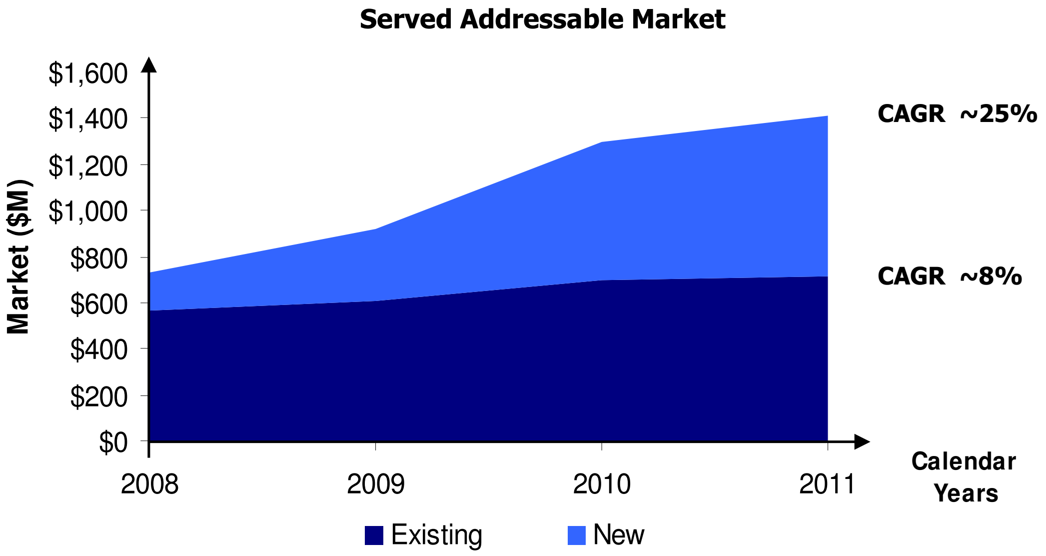


*Chart revenue calculated based on trailing four quarters at March 2008 fiscal year end, excluding June 2007

**Results before equity compensation, purchase accounting, restructuring, and one-time tax benefit.

Looking Forward, Positioned For Growth

- Growing share in established markets
- Expanding addressable market
  - New applications
  - New markets
- Flexibility to add acquisitions strategically



Financial Execution

Committed To Faster Earnings Growth

- Business model delivers profitability through the cycle
- Leverage in model delivers faster earnings growth
  - Actions taken to align cost structure
  - Gross margin improvement driven by:
    - New products
    - Cost reduction
    - Productivity improvement
    - Asian sourcing

	Target Model	
	Trough	Peak
Quarterly Net Sales	~$55M	~$90M
Gross Margin	42%	50%
Operating Expense	42%	30%
Operating Profit	0%	20%

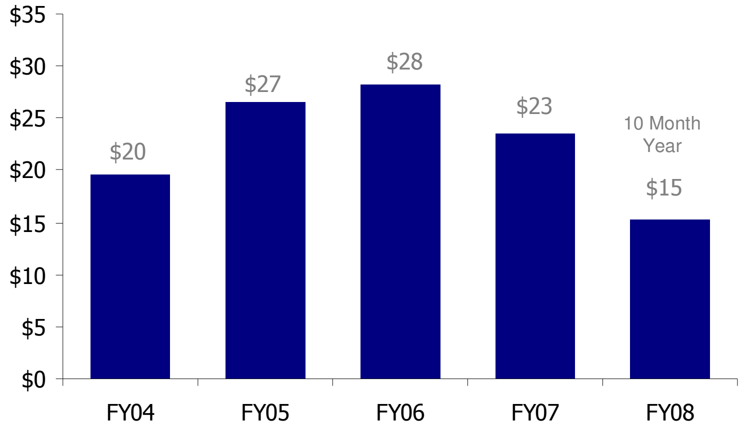
Results before equity compensation, purchase accounting, and restructuring costs.

Financial Execution

Balance Sheet Provides Solid Foundation for Growth

- Generated cash throughout the cycle
- Ending cash FY08 of $161M
  - Repurchased $50M of stock
  - Acquired NWR $36M
- Opportunity to improve working capital
  - Inventory
- Priorities for cash
  - Strategic Investments
  - Share repurchase to offset dilution

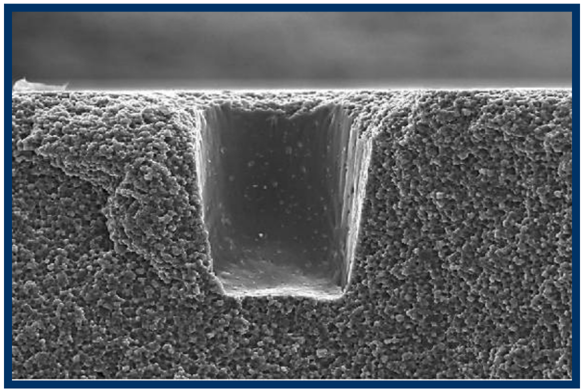
Operating Cash Flow

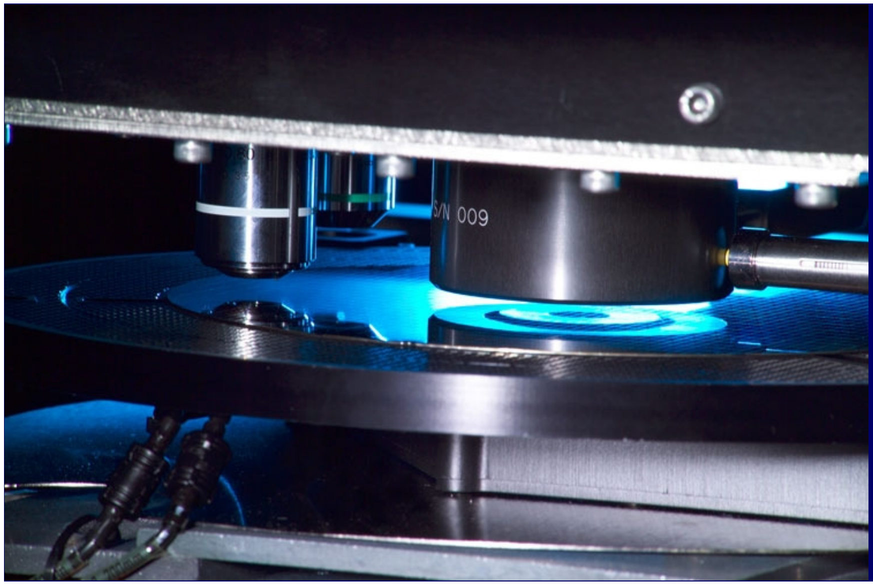


Financial Execution

Positioned for Profitable Growth

- Demonstrated growth through the cycle
- Positioned for revenue growth faster than market
  - Gain share
  - Expand addressable market
- Committed to faster growth in earnings and cash flow
- Strong balance sheet provides flexibility for strategic investments





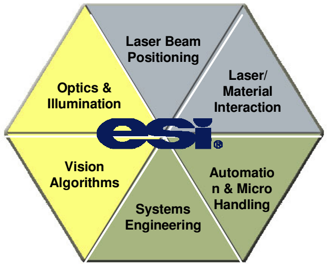
Summary

better performance. **better yields.**

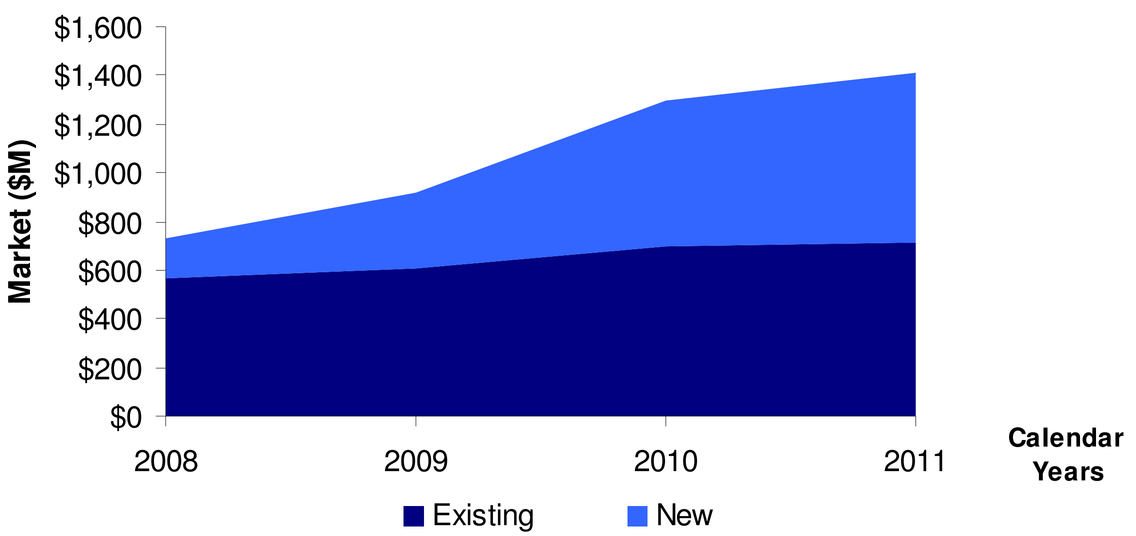
Photonics-Centered Growth Strategy

Leverage core competencies to be the market leader across multiple new & established markets & applications

- Grow share in established markets
- Expand addressable market

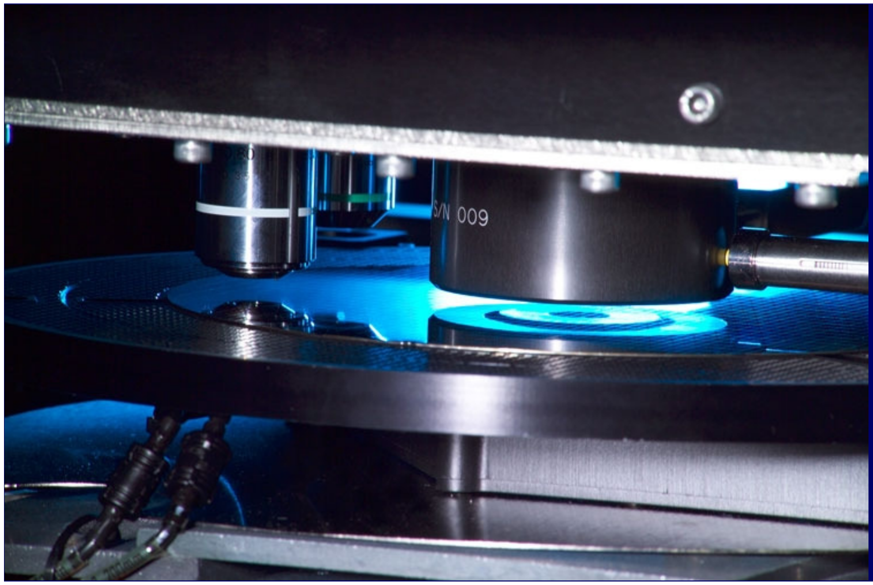


Served Addressable Market



Positioned for Profitable Growth

- Executing on strategy to grow faster than market
- Focusing on highly interconnected & synergistic market opportunities
- Leveraging business model to drive faster growth in earnings & cash flow



Questions & Answers

better performance. **better yields.**