# The Gentex Edge:

## **Robust Technology, Value-Added Features, and Execution!**



Investor Presentation November 1, 2010



## SAFE HARBOR STATEMENT

This presentation contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act, as amended, that are based on management's belief, assumptions, current expectations, estimates and projections about the global automotive industry, the economy, the ability to control and leverage fixed manufacturing overhead costs, unit shipment and net sales growth rates, the ability to control E,R&D and S,G&A expenses, gross profit margins, and the Company itself. Words like "anticipates," "believes," "confident," "estimates," "expects," "forecast," "hopes," "likely," "plans," "projects," "optimistic," and "should," and variations of such words and similar expressions identify forward-looking statements. These statements do not guarantee future performance and involve certain risks, uncertainties, and assumptions that are difficult to predict with regard to timing, expense, likelihood and degree of occurrence. These risks include, without limitation, employment and general economic conditions, worldwide automotive production, the maintenance of the Company's market share, the ability to achieve purchasing cost reductions, customer inventory management, supplier parts shortages, competitive pricing pressures, currency fluctuations, interest rates, equity prices, the financial strength/stability of the Company's customers (including their Tier 1 suppliers), supply chain disruptions, potential sale of OEM business segments or suppliers, potential additional customer (including their Tier 1 suppliers) bankruptcies, the mix of products purchased by customers, the ability to continue to make product innovations, the success of certain products (e.g. SmartBeam® and Rear Camera Display Mirror), and other risks identified in the Company's other filings with the Securities and Exchange Commission. Therefore, actual results and outcomes may materially differ from what is expressed or forecasted. Furthermore, the Company undertakes no obligation to update, amend, or clarify forward-looking statements, whether as a result of new information, future events, or otherwise.

# **COMPANY SNAPSHOT**

 3 product lines: Interior and exterior automatic-dimming rearview mirrors for automotive vehicles (approximately 97% of revenues), fire protection products for commercial applications, and dimmable aircraft windows





- 2009 CY unit shipments of approximately 11.7 million automaticdimming mirrors (approx. -19% vs. 2008)
- ~2,900 employees (~20% technical/R&D)



# AUTO-DIMMING MIRROR UNIT SHIPMENTS AND COMPANY REVENUES HISTORY

### 18% compounded annual revenue growth since 1987



Interior Mirror Units Exterior Mirror Units Total Company Revenues

Units

## AUTO-DIMMING MIRROR UNIT SHIPMENTS BY REGION



## NEW VEHICLE PROGRAMS IN 2010 CALENDAR YEAR (ANNOUNCED TO DATE)\*

BMW X1 (C), (J), (K) Daihatsu Mira Cocoa (L) Kia Forte (A), (L) Kia Morning (L) Suzuki Kizashi (D) Honda Accord Crosstour (A), (L) Acura ZDX (A), (L) Honda CR-V (A) Ford Taurus (A), (L) Cadillac CTS Sportswagon (A), (L), (M) Cadillac CTS Sedan (A), (L), (M) Cadillac CTS Coupe (A), (L), (M) Chevrolet Camaro (A), (M) Lexus LS (A), (B), (K) Lexus RX (B), (J), (K), (L) Toyota 4Runner (A), (L) Toyota Sienna (C), (J), (K) Toyota Avalon (B), (D), (E), (J), (L) Audi A1 (A), (J), (K) Audi A3 (A), (B), (J), (K) Audi A6 (A), (B), (J), (K) Audi A8 (A), (B), (J), (K)

Audi Q5 (A), (B), (J), (K) Audi R8 (A), (B), (J), (K) Audi TT (A), (B), (J), (K) Volkswagen Eos (A), (J), (K) Volkswagen Golf (A), (B), (J), (K) Volkswagen Jetta (A), (K) Volkswagen Jetta Sportswagen (A), (K) Volkswagen Passat (A), (J), (K) Volkswagen Passat CC (A), (J), (K) Volkswagen Scirocco (A), (K) Volkswagen Sharan (A), (J), (K) Volkswagen Touran (A), (J), (K) Peugeot 508 (A), (K) Ford Explorer (A) Ford Escape (B), (E), (L) Ford F-250 SuperDuty® (A), (L) Saab 9-5 (A), (J), (K) Subaru Outback (C), (L) Toyota Corolla (A), (L) Toyota Auris (A), (L) Renault Latitude (A)



24 and 28.

- A = auto-dimming interior base feature mirror
- B = auto-dimming interior mirror with compass
- C = auto-dimming interior mirror with compass display & universal garage door opener
- D = auto-dimming interior mirror with universal garage door opener
- E = auto-dimming interior mirror with Gentex's proprietary integrated, hands-free microphone
- F = auto-dimming interior mirror with compass/outside temp display & universal garage door opener
- G = auto-dimming interior mirror with rear camera display & Gentex Z-Nav compass transducer
- H = auto-dimming interior base feature mirror with Gentex Z-Nav compass transducer
- = auto-dimming interior mirror with rear camera display & Gentex microphone
- J = auto-dimming exterior mirrors
- K = auto-dimming interior mirror with SmartBeam
- = auto-dimming interior mirror with Rear Camera Display
- M = auto-dimming interior mirror with telematics

# FIRE PROTECTION PRODUCTS & DIMMABLE AIRCRAFT WINDOWS GROUPS

- Other net sales in the third quarter (Fire Protection Products and Dimmable Aircraft Windows) were \$5.4 million, a 15% increase compared with the third quarter of 2009.
- For the first nine months of 2010, Other net sales were flat at \$14.7 million.
- The Company has recently developed a series of carbon monoxide (CO) alarms.







## THIRD QUARTER AND NINE MONTH PERIODS ENDED SEPTEMBER 30, 2010 AND 2009



Third Quarters Ended 09/30

Nine Months Ended 09/30

## **HIGH GROWTH/HIGH MARGIN BUSINESS**

#### **Factors Impacting Margins:**

Positive	Negative:
*Purchasing Cost Reductions	*Annual Customer Price Reductions
*Engineering Cost Reductions (VAVE)	*Top Line Growth of <10%
*Top Line Growth of 10%+	*Supply Chain Stresses
*Manufacturing Yield Improvements	*Learning Curve: Lower Yields on New Products/Processes

#### Additional negative factors over the past several years

- 3Q 2004 4Q 2006 New Product/Processes: Introduction of SmartBeam and Microelectronics production capabilities
- 2Q 2004 1Q 2010 Production Declines: GM T800-900 (full size truck/SUV) changeover and reduction in vehicle production levels
- 1Q 2005 4Q 2006 Product Re-Design: Introduction of Bezel-Free OEC mirror to meet increased field-of-view requirements in Europe
- 3Q 2004 3Q 2006 Product Re-Design: Complete re-design of all interior mirror circuit boards to eliminate certain materials (i.e. lead)

to meet End of Life Vehicle (ELV) requirements



## GENTEX: AN INTERNATIONAL COMPANY SERVING A GLOBAL INDUSTRY

- **5 manufacturing plants** (4 automotive, 1 fire protection) **all located in Zeeland, Michigan**.
- Current estimated building capacity to manufacture approximately 15-20 million interior and nine million exterior mirror units annually (based on current mix). Production line capacity is added as required with each new model year.
- Automotive Sales/Engineering Offices in Michigan, Japan, England, France, and Sweden.
  Automotive sales, engineering, and warehouse facilities in Germany and China.



## AGGRESSIVE INVESTING FOR FUTURE GROWTH: R&D INVESTMENT THREE TIMES THE TYPICAL AUTO SUPPLIER

- Invested approximately 8% of net sales in ER&D in the 2009 calendar year.
  - Many programs will not produce revenues for another 2-3 years.
- Also investing to develop the infrastructure for our offices in Western Europe and Asia.
  - Preparing for the strong growth expected in those markets over the next 3-5 years.
- This investment is critical to support new business in those markets and to achieve future goals for growth.



## **OUR STRATEGY REMAINS THE SAME**

### **Grow Top Line**

\*New models \*Increase penetration \*Add exterior mirrors

### **Innovation**

\*First to market with new technologies

\*Improve competitive advantage through upgrading/automating manufacturing processes

### Increase Dollar Content

\*Add one or more features to interior or exterior mirrors



# WHAT MAKES GENTEX DIFFERENT FROM THE COMPETITION?

- We are a company that invents and commercializes products that consumers want
- First to introduce every new mirror-borne electronic feature to the market
- Focus on core business of auto-dimming mirrors: we spend 95+% of our time thinking about auto-dimming mirrors
- Superior products/Superior performance
  From 1993 until today, Gentex employees have earned the highest quality awards from automakers and independent sources. Awards include:



#### **General Motors**

- 2008 GM Corporation of the Year
- Supplier of the Year (13-time winner)
- Mark of Excellence

#### Chrysler

- Global Supplier Award 2003 + 2005
- Chrysler Platinum Pentastar Award
- Chrysler Gold Pentastar Award

#### Ford

- Total Quality Excellence
- Full Service Supplier Award
- Gold Star Award Quality

#### **Toyota Motor Manufacturing**

- 2007 Toyota Regional Contribution Award
- 2005 Quality Excellence Award

#### **Toyota Motor Sales**

Platinum (Top Performing) Supplier Award

#### Toyota Motor Engineering and Manufacturing North America

2008 Excellence Award in Technology - SmartBeam

#### Subaru of America, Inc.

Gold Award - Top Supplier

#### Nissan

2004 Zero Defect Award (three-time winner)

#### **Gulf States Toyota**

Extra Mile Appreciation Award

#### Hyundai/Kia

2008 Supplier of the Year

#### Honda

2007 Supplier Conference Award- Quality and Delivery

#### PACE Awards (Automotive News/Ernst & Young)

- Three-time finalist
- Six-time winner

## WHAT MAKES GENTEX DIFFERENT FROM THE COMPETITION?

### Execution, execution, execution!

Continue to innovate processes and raise the bar, increasing the technology gap between Gentex and its competitors



## ESTIMATED AUTOMATIC-DIMMING MIRROR GLOBAL MARKET SHARE: 2009 CALENDAR YEAR (Units)

#### **GENTEX CORPORATION**



# AUTO-DIMMING MIRROR MARKET – ESTIMATED POTENTIAL

- There are approximately 65 million light vehicles produced annually worldwide (19% N. America, 32% Europe, 49% Asia Pacific/Other).
- We estimate that auto-dimming mirrors may penetrate approximately 45% of that market, or approximately 30 million light vehicles, over the next two vehicle cycles (10-12 years).
- Based on average mirror content of ~\$100 per vehicle...
- = approximately \$3 Billion Market Potential

As of 09/30/10, the cumulative installed base of Gentex auto-dimming mirrors was approximately 149 million units.



- In CY2009, approximately 18%\* of all light vehicles worldwide had an interior auto-dimming mirror and approximately 6%\* had at least one exterior auto-dimming mirror.
- <u>Interior</u> mirror penetration rates\*, by market, in calendar 2009 were approximately as follows:
  - 50-55% in North America
  - 25-30% in North America Transplants
  - 20-25% in Western Europe
  - Nearly 10% in Asia Pacific/South America

<sup>\*</sup>Includes all auto-dimming mirrors manufactured by all suppliers of electrochromic mirrors.

# **FUTURE GROWTH DRIVERS**

- I. Interior and exterior auto-dimming rearview mirrors
- II. Using mirror(s) as the **platform to bring electronic features** to the vehicle
- III. Leveraging the Company's core competencies to develop other products both in- and outside the automotive industry









# POTENTIAL FEATURES FOR INCLUSION IN REARVIEW MIRRORS

### Add-In and Add-On Features

> = existing products

### Safety/Security

Interior Mirrors Indicator LEDs for Alarm System Tire Pressure Display Rear Park Assist Display Rear Camera Display Hands Free Communication Telematics Remote Keyless Entry Receiver High Beam Headlamp Assist (SmartBeam) Rain/Fog Sensing Lane Departure Warning Sign Recognition Collision Warning Pedestrian Detection Occupant Sensing

### **Exterior Mirrors**

Turn Signal IndicatorsSide Blind Zone Indicators



### Comfort/Convenience

### Interior Mirrors

Map Lights
 Digital Compass
 Exterior Temperature Display
 Trip Functions Display
 Universal Garage Door Opener



\*Advanced-feature mirrors represented about 57% of interior mirror shipments in CY2009.



## AUTO-DIMMING MIRRORS: WHY ARE THEY IMPORTANT?

- It Starts With Safety
  - Gentex auto-dimming rearview mirrors protect your vision, reduce stopping distances, and make nighttime driving safer.
  - The benefits of auto-dimming mirrors have long been recognized by the National Highway Traffic Safety Administration (NHTSA)
- More Glare, More Drivers
  - **There's more glare on today's roads** and expressways, which is exacerbated by:
    - The high-mounted headlamps of trucks and sport/utility vehicles
    - High-intensity discharge (HID) headlamps with the blueviolet hue
- Demographics: Aging driver population with eyes more susceptible to glare
- Larger exterior mirrors
- There are more vehicles on the road and we're driving more miles per person
- Social and demographic trends are working in our favor
- Conclusion: Great growth potential in our core autodimming mirror business!











# THE MIRROR IS A NATURAL LOCATION FOR ELECTRONIC INNOVATION....WHY?

- Lower system cost
- Superior performance
- Increased packaging options
- Common electronics
- Superior styling
- Located in area swept clean by wipers
- Important location for sending/receiving signals
- Quick to market
- Consistent location across vehicle platforms
- Easy to service
- Protected location





## SMARTBEAM<sup>®</sup> INTELLIGENT HIGH-BEAM HEADLAMP ASSIST SYSTEM







- SmartBeam debuted in the 2005 model year. For the 2009 calendar year, the Company shipped approximately 437,000 SmartBeam units compared with approximately 295,000 units in 2008.
- Based on CSM Worldwide's end-of-September 2010 light vehicle production forecast, the Company now expects that SmartBeam units will increase by approximately 40-45% in calendar year 2010 compared with calendar year 2009.



## SMARTBEAM<sup>®</sup> INTELLIGENT HIGH-BEAM HEADLAMP ASSIST SYSTEM





#### SmartBeam HBA – High-Beam Assist (auto high-beams)

During nighttime driving, SmartBeam High-Beam Assist (HBA) automatically turns on the high beams when no other vehicles are present. When headlamps, or tail lamps, of surrounding vehicles are detected, the system returns the headlamps to their low-beam state. When traffic clears, the high beams are turned back on in order to maximize forward lighting.

#### SmartBeam VFL – Variable Forward Lighting (extends and contracts low-beam pattern)

SmartBeam Variable Forward Lighting (VFL) also automates high- and low-beam switching. But, in addition, by communicating with the vehicle's dynamic-leveling headlamp systems, it produces "continuously variable low beams" – automatically extending and contracting the low-beam pattern. This technology provides an added level of forward lighting optimization by maximizing both the low and high beams.

#### SmartBeam DFL – Dynamic Forward Lighting (constant on high beams with block-out zones)

SmartBeam Dynamic Forward Lighting (DFL) can be used to control "constant on" high beam systems. It works in conjunction with emerging future headlamp technology to generate glare-free "block-out" zones that shield oncoming and preceding vehicles from headlamp glare. This allows light to be projected <u>around</u> the surrounding traffic, and optimizes the capabilities of the SmartBeam Intelligent Forward Lighting System.

## SMARTBEAM<sup>®</sup> INTELLIGENT HIGH-BEAM HEADLAMP ASSIST SYSTEM

### Features/Benefits

- Makes nighttime driving safer by maximizing high-beam usage
- Studies show that drivers use their high beam headlamps only 25% of the time it is appropriate to use them
  - At 50 m.p.h., you are literally outdriving the pattern of your low beam headlamps, inhibiting your ability to stop for objects in the vehicle's path
- SmartBeam automatically turns off high beams when detecting other vehicles' head- or tail lamps; turns high beams back on when those lights are not present
  - Prevents you from accidentally leaving high beams on and blinding other drivers
  - Prevents driver distraction by fading high beams in and out, which also extends bulb life and is more aesthetically pleasing





## Proprietary CMOS active-pixel image-sensor technology yields the most reliable and accurate system ever produced

- CMOS sensor not used as a camera: used as a highly sophisticated light sensor
- Patented filtering technique distinguishes street and other AC light sources from vehicle light sources (DC) to prevent unnecessary dimming
- Distinguishes between headlamps (white) and taillights (red), allowing for varied dimming thresholds

## SMARTBEAM® INTELLIGENT HIGH-BEAM HEADLAMP ASSIST SYSTEM: MARKET ACCEPTANCE



### Consumer Reports Praises Lexus RX350 for Automatic High Beams

Of all the features on the 2010 Lexus RX350, Consumer Reports gave kudos to Lexus for the vehicle's "self-dimming high beams" (otherwise known as SmartBeam<sup>®</sup> High-Beam Assist). (Consumer Reports Magazine, April 2010, page 35)



## A January 2010 study by The Planning Edge found that:

- 90% of RX350 owners find high-beam assist useful.
- 93% of RX350 owners believe high-beam assist meets or exceeds expectations.
- 91% of RX350 owners want high-beam assist on their next vehicle.
- 94% of SmartBeam owners agree that high-beam assist is the type of feature they'd expect to find on an RX350.



Base MSRP price range: \$37,625 - \$44,275

Price it CR\*

Highs Powertrain, fit and finish, ride, quietness, fuel economy, self-dimming high beams, crash-test results, reliability. Lows Lackluster handling, some controls, rear visibility

The Company has developed and is shipping a number of different displays in mirrors. The most prominent one at this time is the Rear Camera Display (RCD) Mirror.

### All vehicles have dangerous rear blind zones

Although vehicles come in a myriad of shapes and sizes, most have one thing in common -- large and dangerous rear blind zones that make it nearly impossible for drivers to see directly behind them when backing up.

### Gentex RCD Mirror introduced in 2007

In March 2007, Gentex announced the availability of its newest technology: an interior auto-dimming rearview mirror with an integrated system that displays what is directly behind the vehicle through the mirror's reflective surface when the vehicle is put in reverse.

### Why the Mirror?

Because of its relatively low cost and simple vehicle integration, the rearview mirror display is a simple, economical way for automakers to offer the feature.





## When it comes to backing up, why look anyplace else?

### Feature:

- Backup camera video display in an automatic-dimming rearview mirror
  - Transflective display: entire mirror surface is reflective unless display is illuminated
  - Display available on either right or left side
- Helps identify potential hazards in vehicle's rearward path
- Graphic overlays guide the driver with helpful information on the distance between the vehicle and object behind

### Benefits:

- Safety provides driver with view directly behind vehicle prior to backing up
- Quick-to-Market
- Easy installation
- Lower cost simple, cost-effective installation; no additional tooling cost
- Intuitive, safe display location –
  Ability to see display and rearview mirror simultaneously

### • <u>Awards:</u>

- 2008 PACE (Premier Automotive Suppliers' Contribution to Excellence) award for the Company's Rear Camera Display (RCD) Mirror
- Ford Motor Company's 2007 Recognition of Achievement Award: New Consumer-Focused Technology for the RCD Mirror







Prius

Aftermarket or dealer-installed programs

### **Rear Blind Zone Problematic On Virtually All Vehicles**

- Virtually all vehicles have rear blind zones
- Pick-ups and SUVs are the worst
- The <u>average</u> rear blind zone across all vehicles is 14 to 23 feet, depending on the height of the driver (*Consumer Reports*)
- Sedans, on <u>average</u>, have a blind zone only two feet less than SUVs; in fact, many sedans were found to have worse rearward visibility than SUVs, due to the high "beltlines" on those vehicles.





Expert • Independent • Nonprofit

ConsumerReports.org

### **Guidance**

The Company shipped approximately 270,000 RCD mirror units in CY 2008, and approximately 573,000 in CY 2009. Based on CSM Worldwide's end-of-September 2010 light vehicle production forecast, the Company now expects that RCD mirror units will approximately double in calendar year 2010 compared with calendar year 2009.

### **Consumer Research**

### The Planning Edge, Inc., 2007

- 73% prefer RCD in the mirror
- 83% want RCD on their next vehicle
- 77% agree that the rearview mirror is the natural place for a RCD

### General Motors & Virginia Tech Transportation Institute (May 2008)

- 3.5" display in an interior rearview mirror was the preferred location in a vehicle
- A rear vision display integrated within the interior rearview mirror led to the highest backup avoidance rates.

### **Legislation**

### Kids Transportation Safety Act of 2007

On February 28, 2008, President Bush signed into law **legislation making some type of type of rear backup warning device required on all vehicles.** The National Highway Traffic Safety Administration (NHTSA) is interpreting the legislation, which **may include sensors, additional mirrors, rear camera displays for backing up** (which could be in a mirror, navigation system or other multi-purpose LCD display). NHTSA's interpretation of the legislation is expected to be published for public comments in mid-November 2010, and the final interpretation is due in February 2011.



# **DIMMABLE WINDOWS FOR AIRCRAFT**

- Currently shipping dimmable windows for aircraft for Boeing 787 Dreamliner Series (in conjunction with PPG Aerospace).
- Estimated \$50 million over first five years of production (based on Boeing's production schedule at the time of the announcement in 2005); majority of revenues to Gentex.
- For each passenger aircraft, Gentex is shipping approximately 100 window sub-assemblies and the electronics to control the windows for the passenger compartment.
- Update on 787 order history is available at <u>http://active.boeing.com/commercial/orders/index.cfm</u>.
- The Company is also shipping dimmable windows for use on the passenger cabin windows of the 2010 Beechcraft King Air 350i aircraft, the first aircraft in the general and business aviation area with dimmable windows. Each aircraft has 15 windows.
- Dimmable window technology has also been shown to other aircraft manufacturers and Gentex is working with them and PPG Aerospace on potential additional programs.
- Potentially a profitable niche market for Gentex.







Boeing 787 passenger windows measure approximately 12" wide by 18" long

## POTENTIAL LONGER-TERM APPLICATIONS: COMPANY WILL INVEST IN THOSE WHERE THERE'S A STRONG BUSINESS CASE



#### - Microelectronics Products

- CMOS Imager Design
- CMOS Imager Components
- CMOS Imager Optics
- Sensing Cameras
- Video Cameras

#### - Camera Algorithm Applications

- Lane Keep Assist
- Collision Monitoring
- Driver Awareness Monitoring
- Blind Spot Detection
- Backup Obstacle Detection and Warning
- Intersection Monitoring and Safety Warning
- Fusion with GPS
- Fusion with Radar

#### - Electrochromic Technology

"Smart" Windows/ Architectural Glass

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