

## **Gentex Full Display Mirror Fact Sheet**

### **What is the Full Display Mirror (FDM)?**

The Full Display Mirror is an intelligent rear-vision system that uses a custom camera and mirror-integrated video display to optimize a vehicle's rearward view. The system captures video from the rearward-facing camera and streams it to a unique mirror-integrated LCD display that provides the driver with an unobstructed panoramic view behind the vehicle.

### **Features:**

- Bi-Modal Functionality – Can operate as a standard rearview mirror or a display to accommodate various weather conditions and usage preferences.
- Automatic Dimming – In mirror mode, the FDM operates as a standard automatic-dimming mirror that eliminates glare from the headlights of trailing vehicles.
- Custom, High-Dynamic-Range Camera – The imager allows each individual camera pixel to choose its own exposure, self-adjusting so that the brightest and darkest areas of any given scene are clear and visible.
- Multiple camera options available
- Multiple camera integration options

### **Benefits**

- Optimized Rear Vision – Provides panoramic rearward view unobstructed by passengers, luggage, headrests, etc.
- Enhanced Driving Safety – Display mode doubles the field of view compared to a standard mirror.
- Fails Safe – Should camera system become non-operational, user can switch to standard mirror mode for rear vision.
- Compliance – Fully FMVSS-111 compliant in the U.S.
- Consumer Demand – “Camera Rearview Mirror” has been one of the Top 5 Most Preferred Technologies in the J.D. Power U.S. Tech Choice Study two years in a row

### **Current Customers**

- Gentex is currently shipping FDM to General Motors/Cadillac for the CT6 sedan and XT5 crossover
- GM has announced that FDM will also be available on the new Chevy Bolt, Cadillac Escalade and CTS-V
- Gentex will begin shipping for 3 additional customers within the next 18 months
- Gentex has FDM prototype/development vehicles at every major European and Asian automaker

## **FDM Honors**

The Gentex FDM has already received numerous awards, including:

- Popular Science's Best of What's New – Automotive
- Automotive News PACE Award
- General Motors Innovation Award
- TU Automotive Awards – Finalist – Best New Active Safety Product

## **Is FDM Legal/Approved for Use?**

- In the U.S., the National Highway Traffic Safety Administration (NHTSA) has approved Gentex's FDM. NHTSA still expects vehicles to be compliant to FMVSS 111, which requires each passenger car to have an inside mirror of unit magnification. NHTSA's approval stems from the fact that even though the FDM performs additional driver-activated functions (can act as an on-demand display), this doesn't alter its basic identity as a standard FMVSS-111 compliant mirror.
- In Europe, regulations are being revised to allow cameras and monitors to replace rearview mirrors.

## **Future Features**

In the future, the FDM stands to be a module for delivering ADAS alerts and additional information related to the driving task.

- **Additional Potential FDM-integrated features:**
  - Around View Monitor
  - Rear Camera Display
  - Turn-by-Turn Navigation
  - Rearward Object Detection
  - Distance Overlays
  - Predictive Side Blind Zone Monitoring
  - ADAS Alerts (lane departure warning, traffic sign recognition, etc.)