

MARCH  
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**GENTEX**  
CORPORATION  
A Smarter Vision®



Vision matters.

VFOV  
9.2

GNTX FPS

60

HFOV  
43

## Integrated Toll Module™ (ITM™)

Tolling is an expanding multi-billion dollar industry with roughly 37 million electronic toll accounts in existence today. Currently, more than 75 percent of new car registrations are in states with toll roads, with over 50 million drivers accessing these roads each year. Responding to the increasing growth rate of toll road use, Gentex Corporation has developed a universal, vehicle-integrated toll collection technology for automotive applications.

The Gentex Integrated Toll Module™ (ITM™) is a nationwide toll collection technology for factory integration into new vehicles. The system uses a mirror-integrated multi-protocol toll transponder that provides motorists with access to any toll road throughout the U.S., as well as in parts of Canada and Mexico. The interior mirror is the optimal location for a vehicle-integrated toll transponder as it is in a clear line-of-sight to toll readers. ITM also eliminates the need to affix multiple toll tags on the windshield, which not only detracts from the vehicle's appearance but also can potentially obstruct the driver's vision.

PLAY  
VIDEO



**ITM**

### Tolling Technology

With current tolling systems, the driver must purchase a toll tag transponder, register it, have a deposit on file, receive the RFID from the toll authority, and affix it to their vehicle. This applies for each different toll road authority. The Gentex ITM brings the different toll systems together in a single hardware and software solution that provides dynamic emulation of all tolling protocols in the U.S.

ITM's multi-protocol technology was developed by TransCore, a leading supplier of tolling and traffic management solutions. Gentex and TransCore have an exclusive supply agreement that allows Gentex to integrate the technology into automobiles.

## Benefits

For drivers, it's an added layer of convenience, aesthetics, and performance. The mirror-based tolling solution gives convenient, unfettered access to the country's toll roads while eliminating toll-tag windscreen clutter and the need to manage multiple toll accounts. For automakers, ITM provides both a common location across vehicle platforms and a new vehicle-to-infrastructure feature for their customers. Automakers can also combine ITM account registration, payments and functionality settings with their existing vehicle-integrated telematics services.

## Connecting the Car to Infrastructure

In the future, Gentex believes this toll payment capability could be expanded to enable in-vehicle payment for everything from gasoline and coffee to parking meters and theme parks. ITM provides a profitable, scalable platform upon which new payment interactions can occur, and opens up the door to an increasingly connected car.

"Gentex is always interested in combining new technologies with our auto-dimming mirrors due to the ideal location of our product," said Gentex Senior Vice President and CFO, Steve Downing. "This strategic partnership with TransCore allows us to develop an all new product offering that helps automakers seamlessly integrate toll collection into the car, just like they've done with navigation systems, HomeLink®, satellite radio, and other technologies that debuted in the aftermarket."

## TransCore

A leader in the transportation industry, TransCore provides innovative, technical solutions and engineering services for applications encompassing next generation All Electronic Tolling and Traffic Management Systems. TransCore's RFID products secure access for airports, hospitals, parking garages, border patrols, trucking fleets and the rail industry. Since pioneering radio frequency identification (RFID) technology for the transportation industry, TransCore has delivered more than 71.1 million toll tags and 84,000 readers. TransCore also operates tolling customer service centers for transportation agencies throughout the U.S. and Middle East.

## About Gentex

Founded in 1974, Gentex Corporation is a supplier of automatic-dimming rearview mirrors and electronics to the automotive industry, dimmable aircraft windows for aviation markets, and fire protection products to the fire protection market. Visit the company website at [www.gentex.com](http://www.gentex.com).



Future car-to-infrastructure payment applications may include:

- ▶ Restaurants
- ▶ Gas stations
- ▶ Vehicle services (oil changes, car washes, etc.)
- ▶ Parking structures/event parking
- ▶ Parks and destinations with paid entry

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