



## New Gentex High Beam Technology: All of the Light With None of the Glare

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ZEELAND, MI--(Marketwire - Mar 8, 2012) - Gentex Corporation (NASDAQ: [GNTX](#)), the Zeeland, Michigan-based manufacturer of automatic-dimming rearview mirrors and camera-based lighting-assist systems for the global automotive industry, today announced that it is shipping its new vision-based, glare-free high-beam system for the 2012 BMW 3 Series, available throughout Europe.

Known as SmartBeam® DFL (Dynamic Forward Lighting), the system consists of a custom CMOS (complementary metal oxide semiconductor) image sensor combined with algorithmic decision-making to offer constant "on" glare-free high beams. Specifically, the system detects the presence of other headlamps and taillamps and generates dynamic "block-out" zones around vehicles that it is either trailing or moving toward. Special headlamps equipped with shutters block portions of the high beams to prevent blinding surrounding traffic while continuously optimizing forward lighting.

"SmartBeam DFL allows maximum use of the high beams in order to improve forward visibility and enhance the driver's ability to detect potential road hazards," said Mark Newton, Gentex senior vice president. "The vehicle's high beams are in a 'constant on' position, resulting in significantly better forward vision during nighttime driving."

Gentex invented the lighting-assist product category in 2001 when it announced its original SmartBeam product, which marked the first time a camera system was used to maximize forward lighting by automatically switching between high and low beams according to surrounding traffic and lighting conditions.

"SmartBeam DFL is built off our original and highly successful SmartBeam system," continued Newton. "Using a low-cost, custom image sensor design precisely for light detection, we can provide premium high-beam functionality at a reasonable price point, making it perfect for widespread adoption on high-volume vehicles like the BMW 3 Series."

Consumer demand has made SmartBeam one of Gentex's most popular features. The Company has shipped nearly 3.0 million units since 2004. Last year alone the Company saw shipments reach the 1.0 million mark, and Gentex currently expects SmartBeam unit shipments to increase by approximately 40-45 percent in calendar year 2012.

"Approximately 90 percent of the information required to drive a vehicle is obtained visually," said Newton. "Drivers inherently appreciate simple, relatively inexpensive features that enhance visibility and allow them to focus on the driving task. Automakers appreciate SmartBeam because it has a proven track record and because it's relatively easy to integrate into the vehicle."

SmartBeam is integrated into a Gentex automatic-dimming rearview mirror, and the CMOS camera and related electronics are incorporated into the mirror mount. While the mirror mount is attached to the windshield, the camera "floats" off the glass, eliminating the angle of the windshield as a variable, and the mirror assembly functions across vehicle platforms. This design also provides a multitude of upscale styling opportunities that are not available with other systems that require a separate box mounted directly to the windshield.

"Having the SmartBeam system integrated into the rearview mirror is a more elegant styling solution," said Newton. "And, because the camera is 'off glass,' it minimizes potential warranty issues stemming from windshield replacement and improperly re-installed or misaimed cameras."

Gentex auto-dimming rearview mirrors automatically sense glare from the headlamps of rearward approaching vehicles, and dim in proportion to the amount of glare detected, preserving the driver's forward vision.

SmartBeam is available on the BMW 3 Series in a special "Light and Sight" package that also comes with Xenon headlamps.

Founded in 1974, Gentex Corporation (NASDAQ: [GNTX](#)) is the leading supplier of automatic-dimming rearview mirrors and camera-based lighting assist systems to the global automotive industry. The Company also provides commercial smoke alarms and signaling devices to the North American fire protection market, as well as dimmable aircraft windows for the commercial, business and general aviation markets. Based in Zeeland, Michigan, the international Company develops, manufactures and markets interior and exterior automatic-dimming automotive rearview mirrors that utilize proprietary electrochromic technology to dim in proportion to the amount of headlight glare from trailing vehicle headlamps. More than half of the Company's interior mirrors are sold with advanced electronic features, and more than 98 percent of the Company's net sales are derived from the sale of auto-dimming mirrors to every major automaker in the world. Visit the Company's web site at [www.gentex.com](http://www.gentex.com).

Gentex currently is working to fill a significant number of manufacturing and technical positions, primarily in the electrical, software development and engineering areas. Additional information is available at <http://www.gentex.com/careers/>.

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