Building on its many years of experience with micro-display technology and lasers, Jabil has designed a laser matrix headlight demonstrator.

This new headlight architecture combines bright laser light with adaptable, glare-free projection. A key advantage of this approach: laser light achieves a higher luminance than conventional light, and thus provides better and more precise illumination of the street. At the same time, laser headlights with the matrix function can dynamically mask out specifc areas in real-time, so that despite the use of high beams, oncoming traffc and pedestrians are not blinded.
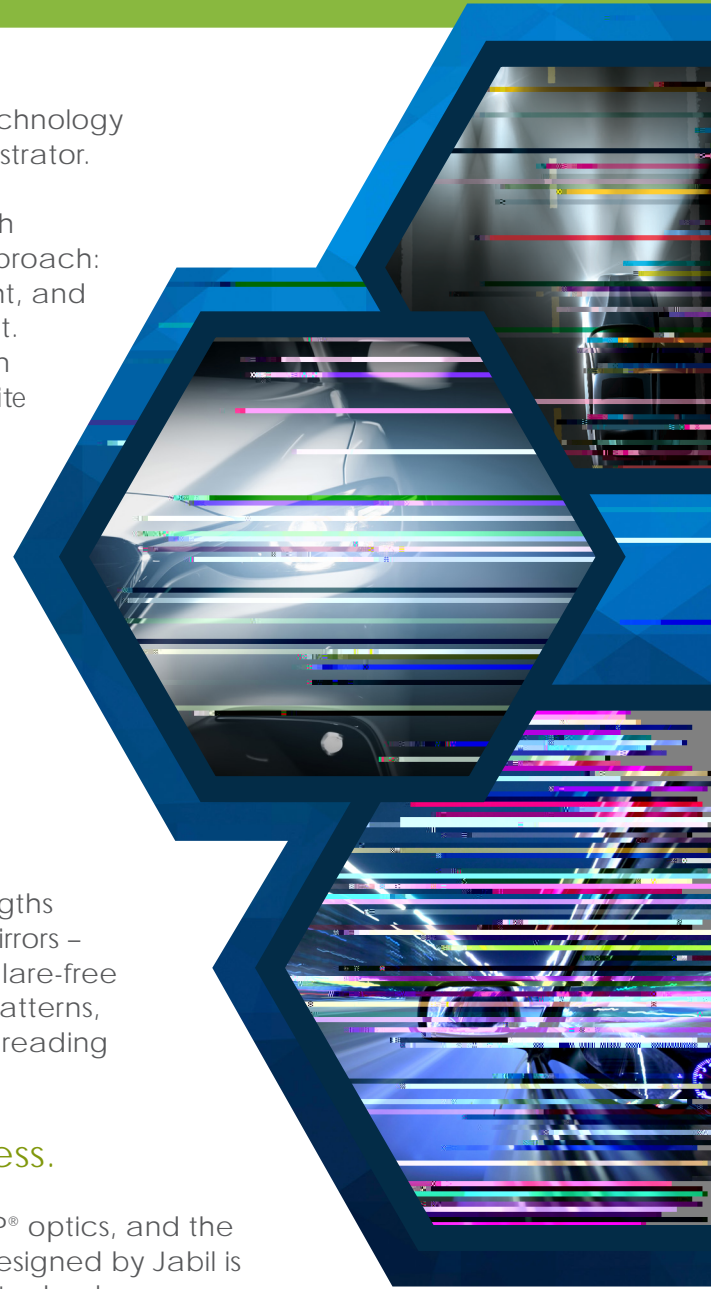
This feature is enabled by an integrated projection module based on Digital Light Processing (DLP®) technology. If the matrix headlight technology can be driven to mass production maturity, it will make nighttime driving signifcantly safer, especially in hazardous situations.

Smart headlights with matrix functionality make driving with high beams safer.

A digital micro-mirror device is at the heart of the matrix laser technology. It consists of an array of tiny mirrors with edge lengths measured in microns. DLP® technology – with 400,000 micro-mirrors – combined with laser technology will achieve a very precise, glare-free high beam. The laser projected via the DLP® chip generates patterns, parts of which can be masked out using a software algorithm reading the information initially captured by a camera.

Jabil Optics Automotive drives for your success.

Jabil has many years of proven experience in miniaturized DLP® optics, and the stability of an IP-protected architecture. The laser headlight designed by Jabil is powered by **Texas Instruments'** Digital Light Processing (DLP®) technology.