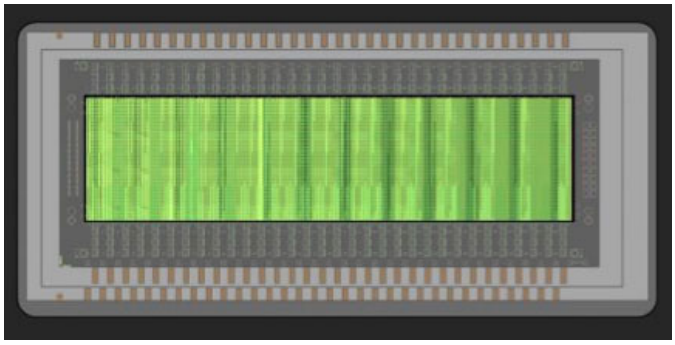
Nichia and Infineon have announced collaborative development of a high-definition light engine with more than 16,000 micro-LEDs for front light applications. In an improvement over other HD solutions, the new device will provide high resolution light for the driver's entire field of view.



Nichia Advanced R&D Center director Kanji Bando says it offers a resolution "about 180 times as high as that of comparable solutions on the road today".

HD light can be used to warn the driver of hazards by highlighting people or objects on the roadside, for it can project markings on the road. And established features such as ADB or bending lights run more precisely and smoothly.

The new HD light engine has micro-LED technology from Nichia and a new driver IC from Infineon. Infineon's Andreas Doll says their chip controls and keeps tabs on each one of the 16,000 microLEDs, and "will also significantly increase energy efficiency because it allows us to turn on only those LEDs actually needed for a light pattern".

The new HD light can also contribute to reducing design and production complexity for car manufacturers and make things easier for the driver. Left- and right-hand traffic can be easily catered for either automatically or with a few simple button pushes.

The production launch of the new HD light engine is planned for 2023.