

# The first GaN on GaN LED is now available on the market

Yole Développement

Lyon, France - [Yole Développement](#) [1] announces the new reverse costing study, SORAA: Tri-LED & Lightchip. This analysis has been developed by [System Plus Consulting](#) [2], Yole Développement's partner.

SORAA Tri LED & Lightchip analysis is a complete teardown of the LED and the package with detailed photos, material analysis, detailed structure of dies and package, manufacturing process flow, in-depth economic analysis, manufacturing cost breakdown and selling price estimation.

This reverse costing study has been conducted in order to give insight on technology data, manufacturing cost of the Light chip and the 36 Tri-LED in the MR16-50-B01-12-830-25 MR16 lamp from SORAA. The tri-LED component is a LED in GaN on GaN. The Lightchip is a silicon based wafer level packaging.

SORAA has released the first GaN on GaN LED in a 50W halogen equivalent MR16 lamp with several new features. "We estimate that SORAA design and manufacture the GaN on GaN LED and the silicon based wafer level package in their factories in California", explains Michel Allain, CEO, System Plus Consulting.

SORAA smartly used the GaN characteristics like the optical transparency and the high electrical and thermal conductivity to create a unique vertical structure for these

LEDs. The layers deposited by epitaxy are very thin. A high current density per sq cm is obtained, estimated at 120A/sq cm. The SORAA LEDs have a triangular shape to limit the internal reflection of the light and thus increase the light extraction. Each LED measure 0.07 sq mm.

An original silicon package with a multilayer mirror is used to increase the light extraction of the LED lamp.

For more information visit [www.systemplus.fr](http://www.systemplus.fr) [2] and [www.yole.fr](http://www.yole.fr) [1].

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[1] <http://www.yole.fr>

[2] <http://www.systemplus.fr>

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