New Release

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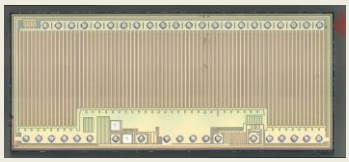
NAVITAS' NV611X SERIES GAN POWER IC STRUCTURE ANALYSIS

July 2018. LTEC Corporation released a detailed structure analysis report of the NV611X, a GAN Power IC having a 650V switch. NAVITAS is the first GaN manufacturer to introduce a GaN FET and GaN drive circuit on the same die. The NV6115 and NV6117 are the subjects of our structure analysis.

Package



NV6117
Die (Top metal)

NV6115
Die (Top metal)

Product outline

- Vdss=650V, NV6117:Rds (ON)=110mΩ (typ.), NV6115:Rds (ON)=160mΩ (typ.)

Device features

- 650V and 30V GaN lateral transistors are used
- The die is manufactured by TSMC (Taiwan Semiconductor Manufacturing Co., Ltd)
- Double superlattice layer is used for the GaN epitaxial layer.

The ninety-page report includes package image, X-ray, plan view analysis, SEM cross section, EDX material analysis and Rds (ON) measurement.

Note:

Since the epi-layer structures of the NV6115 & NV6117 are identical, the analysis data taken of both devices is as listed below.

NV6117: package image, X-ray, plan view analysis, SEM cross section of the 650V transistor, and Rds(ON) measurement.

NV6115: SEM cross section of the 30V transistors, resistors, capacitors, and TEM EDX analysis.

Contact LTEC Corporation for the current price as it decreases over time

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