



PRESS RELEASE

LETI WILL DEMO WORLD'S-FIRST 10- μ m PITCH GaN MICRODISPLAYS FOR AUGMENTED REALITY VIDEO AT DISPLAY WEEK IN LOS ANGELES

Invited Paper also Will Present Leti's Success with New Augmented Reality Technology That Reduces Pixel Pitch to Less than 5 Microns

GRENOBLE, France – May 22, 2017 – Extending its expertise in high-brightness microdisplay technology for augmented-reality and other applications, Leti will demonstrate the world's first wide video graphic array (WVGA) GaN microdisplay with 10-micron pixel pitch during Display Week in Los Angeles, May 21-26.

The 10-micron pixel pitch technology will help address the growing demand for augmented-reality glasses for consumer and professional users, head-up displays for vehicle drivers and for pico projectors and other compact projectors.

This prototype microdisplay, based on a self-emissive GaN-based technology, shows the highest resolution with smallest pixel pitch (10 μ m) ever presented. Patterning high-density microLED arrays and hybridizing them on a CMOS circuit, using Leti's micro-tube technology, enabled Leti to achieve this performance.

The demonstrator at Display Week in booth 1315 features a monochrome (blue or green) active-matrix prototype with WVGA resolution of 873 x 500 pixels.

"With this result, Leti's technology has reached an important milestone," said François Templier, project manager. "We will continue to work towards a 5-micron pixel pitch and, beyond that, on a new technology that will take GaN LED microdisplays to less than a 5-micron pixel pitch."

Leti will present that new technology at Display Week in an invited talk, "A Novel Process for Fabricating High-Resolution and Very Small Pixel-pitch GaN LED Microdisplays". The presentation at 5 p.m., May 23, will demonstrate the feasibility of LED arrays with pixel pitch as small as 3 μ m, which is a world record. These results, presented by Leti were obtained under III-V Lab collaborative workprogramme.

About Leti (France)

Leti, a technology research institute at CEA Tech, is a global leader in miniaturization technologies enabling smart, energy-efficient and secure solutions for industry. Founded in 1967, Leti pioneers micro- & nanotechnologies, tailoring differentiating applicative solutions for global companies, SMEs and startups. Leti tackles critical challenges in healthcare, energy and digital migration. From sensors to data processing and computing solutions, Leti's multidisciplinary teams deliver solid expertise, leveraging world-class pre-industrialization facilities. With a staff of more than 1,900, a portfolio of 2,700 patents, 91,500 sq. ft. of cleanroom space and a clear IP policy, the institute is based in Grenoble, France, and has offices in Silicon Valley and Tokyo. Leti has launched 60 startups and is a member of the Carnot Institutes network. This year, the institute celebrates its 50th anniversary.

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CEA Tech is the technology research branch of the French Alternative Energies and Atomic Energy Commission (CEA), a key player in innovative R&D, defence & security, nuclear energy, technological research for industry and fundamental science, identified by Thomson Reuters as the second most innovative research organization in the world. CEA Tech leverages a unique innovation-driven culture and unrivalled expertise to develop and disseminate new technologies for industry, helping to create high-end products and provide a competitive edge.



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About III-V Lab (France)

III-V Lab is an Economic Interest Grouping (“Groupement d’Intérêt Economique”) between the CEA, Thales and Nokia, dedicated to industrial research and development of optoelectronic and microelectronic components based on III-V semiconductors, and their integration with silicon circuits. Created in 2004, III-V Lab brings together 120 researchers in the Paris region and actively cooperates with CEA-LETI’s laboratories at Grenoble. III-V Lab has prototyping and production start-up resources to foster the emergence of high added-value component technologies which are then transferred to the industrial entities of the parent companies or their partners.

III-V Lab concentrates in a single entity the most advanced industrial research capabilities in the field of III-V semiconductors in Europe. www.3-5lab.fr

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