Circuits Integrated Hellas Launches Game-Changing Kythrion™ Satcom Chipset

Disruptive Chipset Platform Redefines Satellite Agility, Efficiency and Sustainability;
Enables More than 60% Reductions in Size, Weight, and Cost of Flat Panel Antennas

ATHENS, Greece – May 19, 2025 – Circuits Integrated Hellas (CIH), a pioneering innovator in advanced satellite communication (Satcom) technology, today launched Kythrion™, its revolutionary chipset platform engineered to transform the satellite communications (Satcom) landscape. Designed from the ground up to meet the extreme demands of modern aerospace, defense, and connectivity networks, Kythrion sets new benchmarks for performance, miniaturization, and sustainability in flat panel antenna (FPA) design.

Kythrion is the first integrated solution that combines transmit, receive, and antenna functionality within a proprietary 3D antenna-in-package (AiP) and system-in-package (SiP) architecture. By vertically stacking compound III-V semiconductors like gallium arsenide (GaAs) and gallium nitride (GaN) with silicon technologies, Kythrion delivers over 60% reduction in antenna size, weight, power and cost (SWaP-C), while increasing thermal performance—without the need to overhaul existing manufacturing infrastructure.

Kythrion addresses the limitations of legacy flat panel phased array antennas, which often account for up to 20% of satellite payload mass and introduce design trade-offs in size, cost, and power. By eliminating unnecessary PCB layers and consolidating RF, logic, and antenna elements in a dense 3D chip, Kythrion enables Satcom operators to do more with less—fitting more advanced sensors on Earth observation platforms, including low Earth-orbit (LEO) satellites, extending mission lifetimes, and reducing launch costs.

“There is nothing else like Kythrion on the market today,” said Paolo Fioravanti, CIH co-founder and CEO. “It’s a true game-changer—engineered to improve FPA performance; to fundamentally reshape how Satcom platforms are designed, deployed, and scaled; and to contribute to environmental change efforts by enabling better, more consistent capture and analysis of Earth observation data.”

Users of Earth observation platforms face shrinking data windows and urgent demand for real-time, high-throughput connectivity. With up to 20x bandwidth improvements and dramatic mass reduction, Kythrion empowers satellite operators to integrate more sophisticated

payloads—such as high-resolution sensors, multispectral imaging systems, or artificial intelligence (AI)-driven analytics—without requiring larger spacecraft or booster upgrades.

Kythrion also represents a breakthrough in sustainable design. By leveraging **existing semiconductor materials and infrastructure,** the platform avoids costly capital-intensive retooling and minimizes carbon-intensive manufacturing inputs. This reuse-first approach aligns with growing industry and government calls for climate-conscious innovation in space technologies.

"Kythrion is not about reinventing the wheel—it's about reengineering how we use it," said Giannis Kontogiannopoulos, CIH co-founder and CTO. "From the materials we source to the missions we enable, we're making it possible to scale Satcom capabilities sustainably, affordably, and globally. Kythrion positions CIH as a true enabler for next-gen satellite technology."

CIH is making Kythrion available as a flexible platform that supports chip sales, design-for-license engagements, or custom integration. The platform is currently undergoing packaging and stress validation, with early-stage demonstrators expected in late Q3 2025 and general availability in Q2 2026. Patent protections are in place for Kythrion's core design and packaging architecture, with additional filings in development to cover future enhancements.

CIH executives will be available to meet with attendees interested in learning more about Kythrion and its implications for the future of Satcom technology during Space Meetings Veneto, May 20-22, in Venice, Italy, in Startup Booth 7. CEO Paolo Fioravanti will also present a workshop at the conference, titled "Evolution of SATCOM and Next Hardware Leap in the Eye of a Start-Up," on Wednesday, May 21, at 10 a.m.

For more information or to schedule a meeting at the event, contact CIH: info@circuitsintegrated.com.

About Circuits Integrated Hellas

Headquartered in Athens, Greece, CIH is revolutionizing space communications with advanced semiconductor technologies, merging III-V materials and silicon in groundbreaking 3D IC stacks for flat panel antennas (FPAs). Focused on miniaturization, cost efficiency, and unparalleled performance, CIH enables next-generation satellite connectivity, powering a future where seamless global communication knows no boundaries. For more information, visit circuitsintegrated.com.