KP LABS
Mission Complete

X

SIMERA SENSE

When advanced optics meet powerful onboard processing, real insights start in orbit.

By combining HyperScape100 hyperspectral imaging with Leopard DPU, **this integrated solution enables faster, smarter, and more efficient Earth Observation** — with key data acquired, processed, and stored directly onboard the satellite.

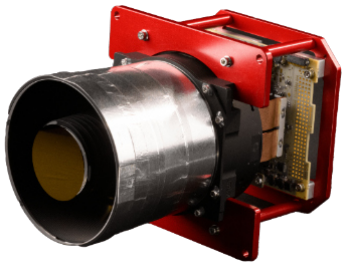
Leopard DPU

Designed for **Micro and Nano Satellites** in a compact PC-104 form factor, offering **powerful on-board data analysis** using Artificial Intelligence.

FLIGHT HERITAGE

HyperScape100

Covers the **visible and near-IR spectral range in up to 32 bands** at an unprecedented spatial resolution and form factor.



FLIGHT HERITAGE

Processor: Quad ARM Cortex-A53 + Dual Cortex-R5	**Resolution:** 4096 pixels across track
FPGA: Zynq UltraScale+ ZU6EG, ZU9EG, ZU15EG	**Spectral bands:** 32 Bands
Computer performance: Up to 3 TOPS	**GSD:** 4.75 m
Software: 64-bit Linux + AI model support (PyTorch TF, Caffe)	**Focal lenght:** 580 mm
Power consumption: 7.5-40W (load-dependent)	**Power consumption:** 7.75 W
Mass: <900 g/<1200 g (single/dual configuration)	**Mass:** 1.26kg
Volume: 90.17 × 95.86 × 50 mm/78 mm (1U single/1.5U dual configuration)	**Volume:** 98 x 98 x 176 mm (1.5U)
Storage: Up to 2×256 GiB flash + 4–16 GiB DDR4 RAM (single/dual configuration)	**Storage:** 128 GB
Interfaces: CAN, SPI, UART, RS422/485, LVDS, GTY, GTH, SpaceWire	**Interfaces:** Control - I^2C, SPI, RS-422, SpaceWire, Data - LVDS, SpaceWire