Headwall’s HyperCore™ manages the high-speed data acquisition function for airborne applications in a small and very light package.

HyperCore™ is a small and powerful storage and management system that provides true data fusion among hyperspectral sensors and a range of other instruments commonly used in airborne applications. This is especially beneficial for *unmanned aircraft systems* (UAS) used for remote sensing missions such as precision agriculture, environmental monitoring, geology, and infrastructure inspection. Combining HyperCore™ with Headwall’s Micro-Hyperspec® sensor yields a solution that is the lightest and smallest in the industry. This means more payload budget for other instruments such as LiDAR, RGB, and FODIS that can connect simultaneously to the unit. Although the HyperCore™ hardware is consistent across all applications, Headwall will customize the embedded software based on the instruments being connected. This will assure a seamlessly integrated data stream across all the instruments in the payload, saving significant time and cost during post-processing. HyperCore™ works seamlessly with standard Hyperspec® sensors having Base CameraLink or Gigabit Ethernet connectivity.

Specifications for HyperCore™ are shown below.

Specification	Value
Voltage (VDC)	10.5 - 32
Power (W)	Idle, 9.6; Maximum, 13.2
Size in mm (inches)	90 x 76 x 70 (3.5” x 3.0” x 2.8”)
Weight in kg (lb.)	0.6 (1.3 lb)
Storage Capacity	470 GB
Connections	Gigabit Ethernet (2), Base CameraLink, GPS
Operating Temp.	0° C to 50° C

Application-Specific Solutions For Critical Environments
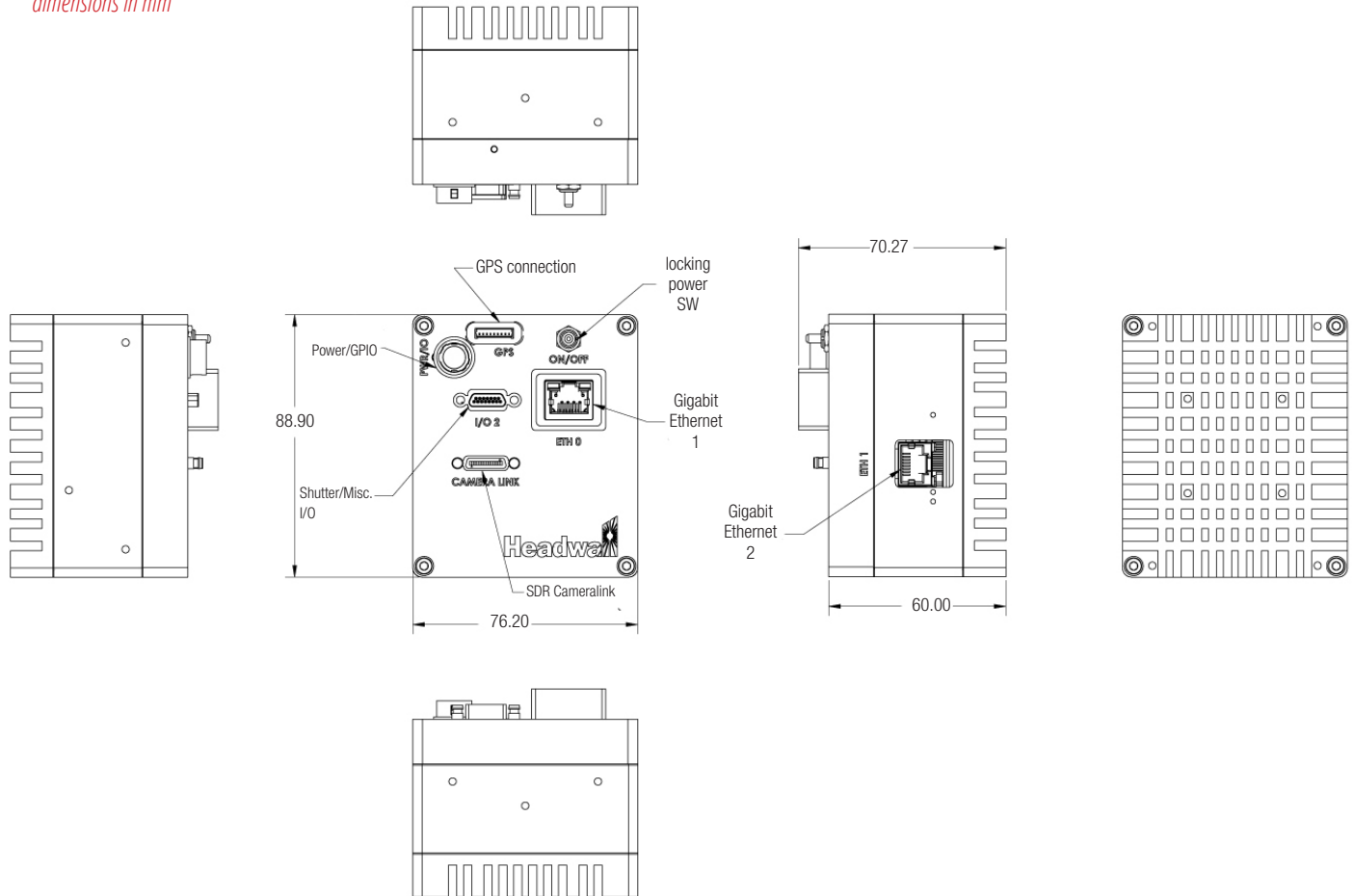
Perfect for UAS Applications

Aibotix X6

PrecisionHawk

G4 SkyCrane Multi-Rotor

HyperCore™ Data Acquisition System

dimensions in mm

GPS connection

locking power SW

Power/GPIO

GPS

OUTPUT

ON/OFF

I/O 2

ETH 0

Gigabit Ethernet 1

Shutter/Misc. I/O

CAMERA LINK

Headwall

SDR Cameralink

88.90

76.20

70.27

ETH 1

Gigabit Ethernet 2

60.00

A first-of-its-kind device, HyperCore™ provides true data fusion for airborne remote sensing missions. HyperCore connects several devices simultaneously and stores their respective data streams onboard a 470GB solid-state drive for straightforward post-flight download and management. With more focus than ever on small and light UAS platforms, HyperCore is about the size and weight of a Rubik's Cube®. This means you have payload budget for more instruments. In addition, HyperCore draws very little power (13.2W maximum). Exceptional cooling capabilities have also been designed into HyperCore. I get a trans

LiDAR

Hyperspectral

FODIS

HyperCore™
*Connects
them all!*

RGB

GPS / IMU

Thermal

About Headwall Photonics: Headwall is the leading designer and manufacturer of imaging spectrometers and spectral instrumentation for industrial, commercial, and government markets. Headwall's high performance spectrometers, spectral engines, and holographic diffraction gratings have been selected by OEM and end-user customers around the world for use in critical application environments. As a pioneer in advanced, patented optics technology, Headwall enjoys a market-leading position through the design and manufacture of spectral instrumentation that is customized for application-specific performance.

Headwall