Airborne Innovations LLC

RaptorEye III — Imaging Acquisition and Storage / General Purpose Payload Processor

Preliminary Specification

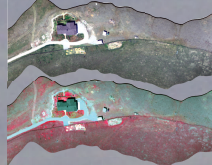FLIR Tau 640 LWIR

AI 6 Channel Multispectral Camera

GigE 29 Megapixel Camera

Hyperspectral camera

50MP Illunis Camera

Features

- **Intel Atom N2800 / N2600 Dual Core processor (1.8 / 1.6 GHz)**
- **2 / 4 GB DDR3 RAM**
- **Interfaces: GigE, USB3, 6xUSB2, 2xRS232, Trigger out, VGA out**
- **Storage: Removable MicroSATA1.8" SSD up to 1 Terabyte, external SATA connector option**
- **Dual MiniPCIe interfaces (one full size, one half size), populated for above configuration**

Advantages

- **Optional RaptorEye software suite includes acquisition software for standalone acquisition or integration with UAV flight plans (Piccolo support)**
- **Camera Support: Supported cameras include AVT/Prosilica (5,8,16,29 megapixel)**
- **Support for Imperx 29mp camera (Q1 2015)**
- **Supports Airborne Innovations' 6 channel multispectral camera with customizable filters**
- **Supports additional IR camera (FLIR Tau with 14-bit interface)**
- **Capable of supporting GigE, USB2/3, or Cameralink cameras**
- **Easily customizable housing**
- **Rapid custom configurations possible**

Specifications

- **Dimensions: 4.84"x3.23"x2.17" 123x82x55 mm**
- **Weight: 370 grams with removable 1.8" storage drive**
- **Power: 6-38V input, 15W max RMS (N2800), 13.7W max RMS (N2600)**
- **Operating Temperature: -20 to 70C**

Our latest RaptorEye III system has been designed for low cost, high performance, and low size, weight, and power. It excels as an imagery and metadata capture solution. With our optional RaptorEye capture software customizable capture solutions are possible, including 29, 50, and 70+ Megapixel global shutter aerial cameras , hyperspectral cameras such as the Resonon Pika II, multispectral cameras like our own micro OS-1000 6 channel multispectral camera (and our upcoming low cost 3 channel multispectral camera), as well as other customized solutions which have included multiple cameras, combinations of analog, digital, and 14-bit high dynamic range infrared camera solutions. The system as provided runs Linux and can run custom user applications. User interfaces are also customizable. Two internal MiniPCIe card slots can support other configurations such as extra GigE channels, dual USB3, additional USB2 ports, analog video capture, CAN bus, more GPIO, Wifi, extra SATA interfaces, more serial ports, and other possible interfaces. Cameralink devices can be supported with an external GigE to Cameralink interface. It is also possible to connect the system to ethernet radios or our own MicroraptorHD system to pass data and optionally imagery back to the base station as well as control the capture process. It is even possible to transmit imagery over low bandwidth datalinks such as Iridium satcom. We can help with custom solutions.