














 trillium

HD80

**HIGH-PERFORMANCE 8-INCH CLASS STABILIZED EO/IR
CAMERA SYSTEM FOR SMALL UNMANNED VEHICLES**

-  **MISSION PROVEN**
TRL 9 for military and commercial applications
-  **DIRECT DRIVE ARCHITECTURE**
Best-in-class robustness and stability
-  **EMBEDDED VIDEO PROCESSING**
Electronic stabilization, scene and target tracking
-  **ONBOARD GPS/INS**
Accurate real-time vehicle and target location
-  **VISIBLE AND THERMAL CAMERAS**
Day and day/night operations with a single payload
-  **ITAR FREE**
Non-controlled configurations available
-  **720P HD DIGITAL VIDEO**
Fully digital, h.264/h.265-compliant video pipeline
-  **ENVIRONMENTALLY SEALED**
Highly resistant to dust and water
-  **NVG-COMPATIBLE LASER POINTER**
830nm laser for precise and discreet pointing
-  **ETHERNET INTERFACE**
Video and gimbal control over ethernet or RS-232
-  **METADATA**
Target location, gimbal health, and more

SOFTWARE

FEATURES

- Onboard h.264/h.265 compression with adjustable bitrate
- Dynamic or static IP addressing
- 2x digital zoom
- Field upgradable software
- Onboard electronic stabilization
- Onboard scene and target tracking
- MISB-compliant output including embedded KLV metadata

GPS/INS

- IMU co-located with cameras
- Less than 1° (typical) total system accuracy, with less than 0.5° optional
- Real time geointing and geolocation
- Attitude, velocity and position computed at 200Hz
- Onboard L1/L2 GPS receiver with support for GPS, GLONASS, Galileo and BeiDou
- GPS and heading accepted over serial or Ethernet
- Optional dual GPS heading support

MECHANICAL

SPECS

- Glass and Germanium windows
- Direct drive brushless motors
- 0.02° encoder resolution
- 60Hz closed loop stabilization bandwidth
- 50µRAD - 150µRAD RMS jitter

ELECTRICAL

- Control over Ethernet or serial
- 25W average, 100W peak power consumption
- Interface connector: 51 pin micro-D connector conforming to MIL-DTL-83513
- 10V to 30V input voltage
- GPS connector: SMA
- GPS antenna: 3.3V active, L1/L2 band



HD80-MV

CAMERA CONFIGURATIONS

CONFIGURATION	WEIGHT	CAMERAS	FOV
HD80-WV-510	4.27kg	Visible 720p Global Shutter 30X Visible 720p Global Shutter Spotter	59.2-1.8° 0.4°
HD80-LV-CZ-36X	3.85kg	Visible 720p Global Shutter 36X LWIR 640 with 5X continuous zoom lens	38.9-1.5° 29°-5.9°
HD80-MV-36X	4.55kg	Visible 720p Global Shutter 36X MWIR 640 with 15X continuous zoom lens	38.9-1.5° 21.7°-1.5°
HD80-MV-600	4.9kg	Visible 720p Global Shutter 10X MWIR 640 with 20X continuous zoom lens	54°-4.9° 18.2°-0.9°