



 **trillium**

HD55

**HIGH-PERFORMANCE 5-INCH CLASS STABILIZED EO/MWIR
CAMERA SYSTEM FOR SMALL UNMANNED VEHICLES**



DIRECT DRIVE ARCHITECTURE

Best-in-class robustness and stability



EMBEDDED VIDEO PROCESSING

Electronic stabilization and scene 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

850nm laser for precise discreet pointing available



ETHERNET INTERFACE

Video and gimbal control over ethernet or RS-232



METADATA

Target location, gimbal health, and more

SOFTWARE

FEATURES

- Onboard h.264 compression with adjustable bitrate
- Onboard h.265 compression configuration dependent
- MISB-compliant output including embedded KLV metadata
- Dynamic or static IP addressing
- Field upgradeable software
- Onboard electronic stabilization
- Onboard scene tracking
- Target tracking built in. 55-MV requires external module

ELECTRICAL

- Control over Ethernet or serial
- Ethernet and analog video
- 20W average, 75W peak power consumption
- 24VDC regulated input, external regulation accepting 10V to 30V available

GPS/INS

- IMU co-located with cameras
- 1.0° (typical) total system accuracy available
- Real time geointing and geolocation
- Attitude, velocity and position computed at 200Hz
- Onboard GPS receiver
- GPS and heading accepted over serial or Ethernet
- Dual GPS heading support

- Interface connector: 37 pin Nano Bi-Lobe connector conforming to MIL-DTL-32139
- GPS connector: MMCX
- Analog video connector: MMCX
- GPS antenna: 3.3V active, L1 band

MECHANICAL

SPECS

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



HD55-MV

CAMERA CONFIGURATIONS

CONFIGURATION	WEIGHT	CAMERAS	FOV
HD55-VV	1450g	Visible Global Shutter 36X Picture-in-Picture Visible Camera (Q2)	38.9°-1.5° 13.7°-4.6°
HD55-LV-CZ-30x	1660g	Visible Global Shutter 30X LWIR 640 with 5X continuous zoom lens	59.2°-1.8° 29°-5.9°
HD55-MV	1780g	Visible Rolling Shutter 3X MWIR with 10X continuous zoom lens	13.7°-4.6° 22° - 2.2°