Arrow 600

6-inch Low-SWaP 4-Axis Stabilized Gimbal with Onboard HD Video Processing

ADSYS CONTROLS INC.

Ultra-performance precision stabilized gimbal with modular configurations for EO/LWIR/SWIR/MWIR cameras and laser payloads

The Arrow 600 4-axis gimbal architecture yields best in class pointing stability for improved image quality, longer range capability and accurate target designation.

The Arrow 600 offers large-gimbal features in a low-SWaP ruggedized solution with the ability to configure a wide array of payload options to meet varied mission needs.

KEY FEATURES

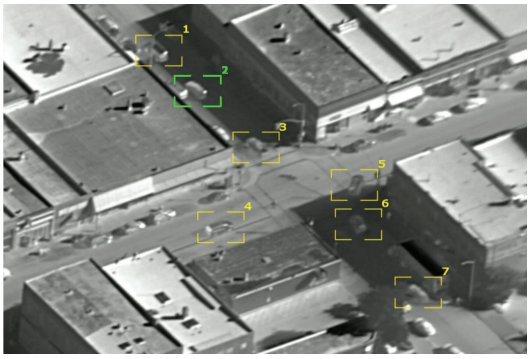
- 6" class 4-axis stabilized gimbal offers significant stability advantages over 2-axis solutions
- Fiber Optic Gyro stabilized for precision stabilization and low pointing drift
- Flexible payload configurations including HD-EO, cooled MWIR, LWIR, SWIR, LRF, Laser Designator, Laser Pointer (up to 3 payloads for cross-mission support)
- Onboard HD video processing with multi-target tracking, digital video stabilization, moving target indicators and H.264 video compression
- Optional on-board INS for target location estimation
- High-pressure wash compatible (IP66)
- Optional Anti-icing for extreme weather
- Designed for high-speed and high-altitude flight

Adsys Controls provides state-of-the-art solutions for the most challenging problems

Arrow 600

Low-SWaP HD Gimbal

The Arrow 600 Low-SWaP HD gimbal enables small UAS platform missions previously unachievable, effectively merging advanced sensor technologies and cutting-edge on-board image processing capabilities with highly stable LOS.



Size, Weight and Power

» 6.3" Diameter x 12" Tall
» 4 Kg*
» 26W Average/60W Peak Power*
» 18-30V Power Input

Pointing

» Inertially Stabilized using FOG gyros
» < 40 µrad Pointing Stability
» 20 µrad Pointing Accuracy
» Continuous pan / +70° to -90° Tilt
» 160 deg/sec Max Slew Rate
» Modes
  • Manual
  • Inertial
  • Target Track
  • Scene Lock
  • Geo-Pointing**

Inputs/Outputs

» Control I/F
  • CAN-bus, Gig-E, RS-232
» Video I/F
  • HD-SDI*
  • Camera Link*
  • LVDS*
  • HD Component
  • NTSC Video*

Video Processing

» Digital Image Stabilization
» Multi-Target Tracking **
» Moving Target Indicators**
» Metadata On-Screen Displays
» Digital Zoom
» Target of Interest Picture-in-Picture (TOI-PIP)
» Video Signal Conversion
» Split Screen Viewing**
» H.264 Video Encoding + KLV Metadata**
» H.264/MPEG-4 Encoding Bit Rate Adjustable**
» Auto Zoom
» Multi-Target Tracking with Smart Cluster Following™

Environmental

» -30° to 50°C Operational
» IP66 sealed against salt, dust, rain, fog
» High Altitude Operations (> 30k ft MSL)
» Anti-Icing**

Sensor Payloads (Configurable)

» HD Visible Camera
  • Resolution - 1920 x 1080
  • 2.3° to 63.7° Continuous Optical Zoom
» Long-wave IR
  • Resolution - 640 x 480
» Cooled MWIR
  • Resolution - 640 x 480
  • 25-100mm Continuous Optical Zoom
» SWIR
» Laser Pointer/Marker
» Laser Range Finder
» Laser Illuminator

Adsys Controls provides solutions for precision control systems, advanced electro-optical systems, laser systems, modeling and simulation, and unmanned aerial systems for military and commercial markets. From electronics design, embedded RT software, and image processing to game-changing laser and electro-optical systems for ISR&T, weapons, communication, and navigation, Adsys Controls provides state-of-the-art solutions for the most challenging problems.

* Configuration Dependent
** Optional

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