AeroVironment’s Mantis™ i45 gimbal delivers lightweight, compact and powerful visual awareness to the Puma™ AE small unmanned aircraft system (UAS) operator and supports an advanced suite of sensors, including ultra high-resolution EO and IR imagers. The Mantis i45 gimbal is backward compatible, fully waterproof and provides nighttime and low light capabilities ranging from Near-Infrared (NIR) to Long Wave Infrared (LWIR) imagery. During flight operations, the i45 gimbal provides full lower hemisphere coverage, continuous pan and is packaged to provide reliable operation in extreme environments.

**SPECIFICATIONS**

**ELECTRO/OPTICAL**
- Resolution: Dual 15 megapixel color
- FOV: 56–1.2°
- Zoom: 50x (lossless)

**LOWLIGHT**
- Resolution: 1.2 megapixel, FOV: 17°–8.4°

**THERMAL IR**
- Resolution: 640x512 pixels, FOV: 24°

**LASER ILLUMINATOR**
- Beam power: 650 MW, Wavelength: 860 NM

**VIDEO**
- Standard definition streaming, optional high definition on board

**WEIGHT**
- 850 grams

**BALL DIAMETER**
- 4.2 inches

**OPERATING TEMPERATURE**
- -20C–50C

**WEATHERIZATION**
- All environment (waterproof)

**PAN**
- 360 rotation, continuous

**TILT**
- +30 to -90 degrees

**KEY FEATURES**
- Daylight, low light, and thermal imaging
- Dual 15 megapixel high resolution color cameras (wide and narrow views)
- LWIR camera
- 1.2 MP low light camera
- High-power 860 nm laser illuminator
- Optional on-board storage for HD video and high resolution stills
- HD video over Ethernet
- Dedicated on-board image processor
- All environment, ruggedized, waterproof design
- Backward compatible with Puma AE UAS