



AV's Mantis™ i45 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 high resolution EO/IR imagers and laser illuminator. All environment rated, Mantis i45 is fully waterproof and provides day, low-light and nighttime capabilities ranging from Near-Infrared (NIR) to Long Wave Infrared (LWIR) imaging. During flight operations, the i45 gimbal provides full lower hemisphere coverage, continuous pan and is packaged to provide reliable operations in extreme environments.

SPECIFICATIONS

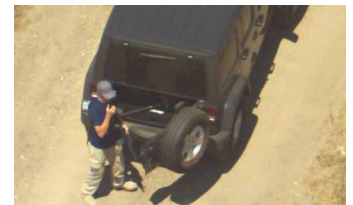
ELECTRO/OPTICAL (EO)	Resolution: Dual 15 MP color HFOV: 56° to 1.2° Zoom: 6 Levels; 50x
THERMAL IR	Resolution: 640x512 px HFOV: 21.4° to 10.8° Zoom: 3 Levels; 2x
LOW LIGHT (LL)	Resolution: 1.2 MP HFOV: 10.7° to 4.7° Zoom: 3 Levels; 4.6x
LASER ILLUMINATOR	Beam power: 500 mW Wavelength: 860 nm Class: 4 laser
VIDEO	SD @30 fps
WEIGHT	31.4 oz (890 g)
BALL DIAMETER	4.2 in (10.7 cm)
OPERATING TEMPERATURE	-29 to 50 °C
WEATHERIZATION	All environment (waterproof)
PAN	360° rotation, continuous
TILT	-90° to +30°

KEY FEATURES

- » Daylight, low-light, and thermal imaging
- » Dual 15 MP high-resolution color cameras (wide and narrow views)
- » Low-light and LWIR cameras
- » Dedicated onboard image processor
- » Compatible with Crystals™ GCS and Puma™ 2 AE or newer UAS



Electro/optical extreme wide-view



Electro/optical extreme narrow-view



Downlink imagery from thermal IR



Downlink imagery from low-light camera

