



MANTIS™ IMAGING PAYLOAD SENSORS

AeroVironment's suite of micro-gimbals delivers lightweight, compact visual awareness solutions designed to satisfy demanding requirements for Intelligence, Surveillance, and Reconnaissance (ISR) operations. Combining high-resolution EO/IR sensors with multiple zoom levels and laser illuminator on select models, the Mantis line of compact payloads are designed to provide application flexibility and deliver superior imagery in any operational environment.

Superior Image Quality, Dynamic Applications

MANTIS™

SPECIFICATIONS

MANTIS™ i22



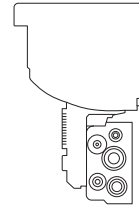
MANTIS™ i23



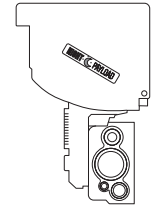
MANTIS™ i23 D



MANTIS™ i45



MANTIS™ i45 N



| | | | | | |
|----------------------|----------|--------|--------|--------------------|--------------------|
| COMPATIBILITY | Wasp® AE | Raven® | Raven® | Puma™ AE, Puma™ LE | Puma™ AE, Puma™ LE |
|----------------------|----------|--------|--------|--------------------|--------------------|

PHYSICAL

| | | | | | |
|----------------------|----------------|-----------------|-----------------|------------------|------------------|
| WEIGHT | 7.7 oz (217 g) | 13.6 oz (385 g) | 13.4 oz (380 g) | 31.4 oz (890 g) | 32 oz (905 g) |
| BALL DIAMETER | 2 in (5.1 cm) | 3.1 in (7.9 cm) | 3.15 in (8 cm) | 4.2 in (10.7 cm) | 4.2 in (10.7 cm) |

ENVIRONMENT

| | | | | | |
|------------------------------|------------------------------|-----------------|-----------------|------------------------------|------------------------------|
| OPERATING TEMPERATURE | -29 to 54 °C | -29 to 49 °C | -29 to 50 °C | -29 to 50 °C | -29 to 50 °C |
| WEATHERIZATION | All environment (waterproof) | Water resistant | Water resistant | All environment (waterproof) | All environment (waterproof) |

SENSORS

| | | | | | |
|-----------------------------|--|--|--|--|--|
| ELECTRO/OPTICAL (EO) | Resolution: 5 MP HFOV: 31.5° to 6.7° Zoom: 4 levels; 4.8x | Resolution: 5 MP HFOV: 31.5° to 6.7° Zoom: 4 levels; 4.8x | Resolution: Dual 18 MP HFOV: 53.1° to 2.4° Zoom: 6 levels; 24x | Resolution: Dual 15 MP HFOV: 56° to 1.2° Zoom: 6 levels; 50x | -- |
| THERMAL IR | Resolution: 640x512 px HFOV: 31.9° to 14.1° Zoom: 3 levels; 2.3x | Resolution: 640x512 px HFOV: 31.5° to 14.1° Zoom: 3 levels; 2.3x | -- | Resolution: 640x512 px HFOV: 21.4° to 10.8° Zoom: 3 levels; 2x | Resolution: 640x512 px HFOV: 40° to 5.3° Zoom: 6 levels; 7.6x |
| LOW LIGHT (LL) | -- | -- | -- | Resolution: 1.2 MP HFOV: 10.7° to 4.7° Zoom: 3 levels; 4.6x | Resolution: 5 MP Monochrome HFOV: 17.8° to 2.3° Zoom: 6 levels; 7.6x |
| LASER ILLUMINATOR | -- | Yes | -- | Yes | Yes |

ROTATION LIMITS

| | | | | | |
|-------------|-------------|--------------------------|--------------------------|--------------------------|--------------------------|
| PAN | +/- 120 | 360 rotation, continuous | 360 rotation, continuous | 360 rotation, continuous | 360 rotation, continuous |
| TILT | -95° to +5° | -95° to +10° | -90° to +30° | -90° to +30° | -90° to +30° |

INTERFACE

| | | | | | |
|----------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| CONTROL | High speed serial | High speed serial | High speed serial | High speed serial | High speed serial |
| VIDEO | SD @ 30 fps | SD @ 30 fps | SD @ 30 fps | SD @ 30 fps | SD @ 30 fps |