

Fully integrated TI & TV cameras, LRF and sensor wiper



Gyro stabilised for high performance land and maritime applications



Rugged design and construction for 24hr operation



Mamba



Gyro-stabilised gimbal pod

Mamba is a high performance, compact, dual axis platform. It is particularly well suited for Land and Naval applications including manned and unmanned vehicles/vessels and also compound/vessel security.

The rugged but sleek form, along with its simple mounting interfaces, makes Mamba ideal for deployment and operation in the harshest environments, and has an integrated wiper for wet weather conditions.

Its small size also makes it the perfect gimbal for discreet base surveillance monitoring and situational awareness.

- Cooled 3-5µm thermal camera or uncooled 17-25µm
- Daylight TV colour zoom camera
- 360° x n continuous rotation
- Gyro-stabilised
- Compact design & rugged build

Compact, high performance gimbal for land or maritime based surveillance applications



Mamba		Commercial	Military
General			
Platform Mass	31kg (39kg with armour)		
Payload Mass	-		
Stabilisation option	Yes		
Mechanical			
Azimuth			
Rotation	360° x n		
Elevation			
Rotation - End stops*	-30° to +90°		
Rotation - Software*	-70° to +70° (without Armour)	-20° to +60° (with Armour)	
Performance			
Gearbox Ratio	-		
Max Speed	100° / s		
Min Speed	0.0175° / s		
Encoder Accuracy	0.045° / 0.8mRad		
Repeatability	0.02°		
Resolution	0.0014°		
Electrical			
Power Supply	18-32V DC (Mil Std 1275D)		
Communications	RS422		
Power Consumption peak (24V with payload)	500W		
Power - Rest (24V)	800mA @ 24V @ 25° C (Base) 600mA @ 24V @ 25° C (Base)		
Power - Heaters (24V)	Software controlled heating system		
Environmental**			
Operating Temperature	0° C to +40° C	-40° C to +55° C	
Storage Temperature	-40° C to +70° C		
IP Rating	Platform - IP65	Sensor Housing - IP67	
Snow/Ice	-		
Vibration	-		
Shock	-		
Solar Radiation	-		
Humidity	-		
Salt Fog	-		
EMC	-		

*Dependent on payload

**All Chess products are designed to meet the highest industry standards. For more detailed information on environmental qualifications please contact our sales team.

Piranha TV



Identification
Recognition
Detection

Man: 1.8 x 0.5m
Vehicle: 2.3m²

Mamba Cooled Optics Pack

Piranha TV	
Type	CCD TV
TV Lines	550
Pixels	760 x 574
Zoom	Continuous 36x Optical 12x Digital (432x Total)
Fields of View	57.8° to 1.7°
Focus	Auto, one push auto, infinity and manual

Laser Range Finder (Optional)

Range	50m to 20km
Resolution	±5m
Eyesafe	Yes, Class 1

Cooled IR Thermal Imager

Type	Cooled 3rd generation FPA
Spectral Band	3.7-4.8µm
Pixels	640 x 512
Zoom	4x Digital
Fields of View	Selectable between NFOV and WFOV
NFOV (HxV)	2.8° x 2.2°
WFOV (HxV)	8.4° x 6.6°
Image Processing	Contrast enhancement, AGC

Mamba Uncooled Optics Pack

Piranha TV	
Type	CCD TV
TV Lines	550
Pixels	760 x 574
Zoom	Continuous 36x Optical 12x Digital (432x Total)
Fields of View	57.8° to 1.7°
Focus	Auto, one push auto, infinity and manual

Laser Range Finder (Optional)

Range	2 to 3km
Resolution	1m
Eyesafe	Yes, Class 1

Uncooled IR Thermal Imager

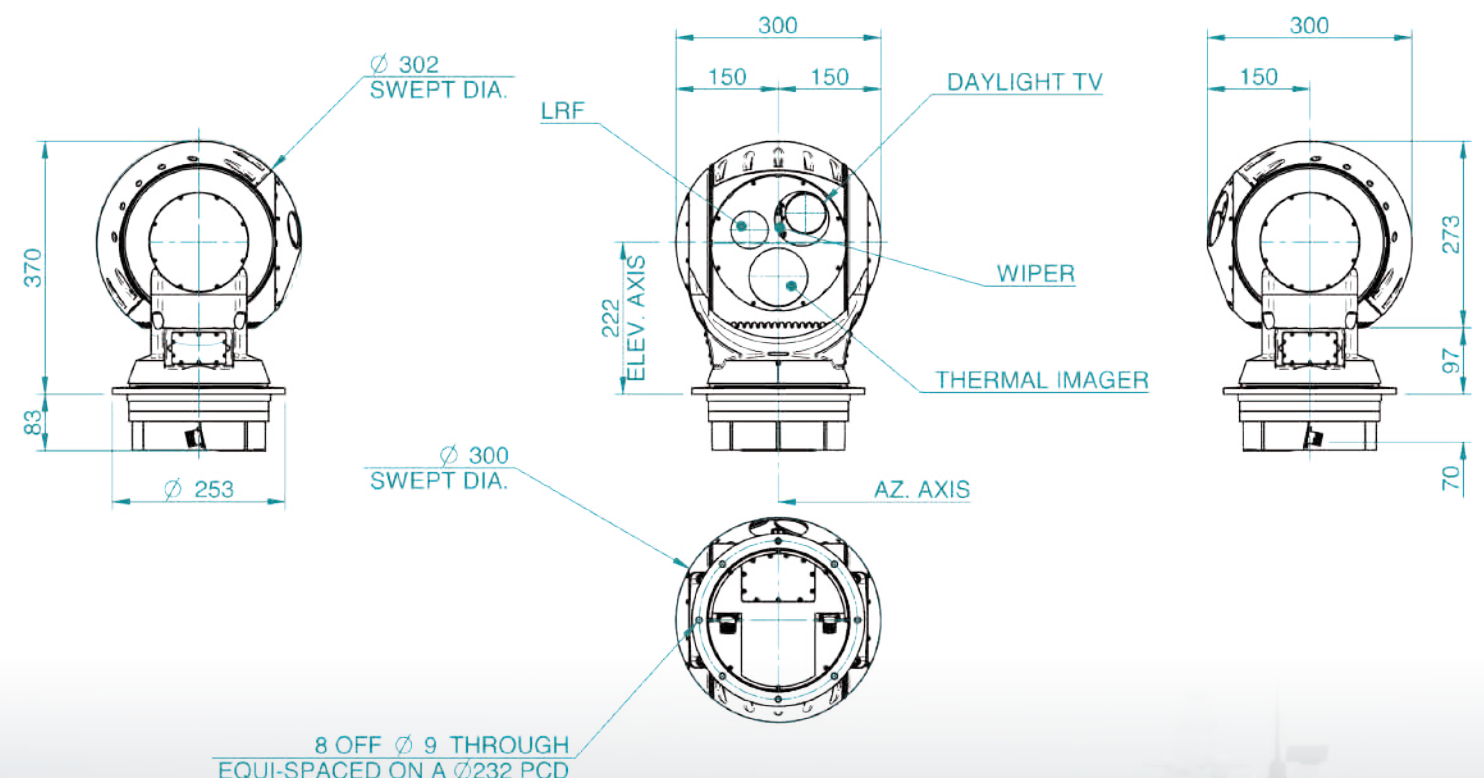
Spectral Band	17µ	25µ
Focal Length	75	
F Number	1	
Field of View	8.3° x 6.2°	12.2° x 9.1°

Cooled IR Camera



Identification
Recognition
Detection

Man: 1.8 x 0.5m
Vehicle: 2.3m²



8 OFF Ø 9 THROUGH
EQUI-SPACED ON A Ø232 PCD

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