Pan & Tilt Technical Specifications

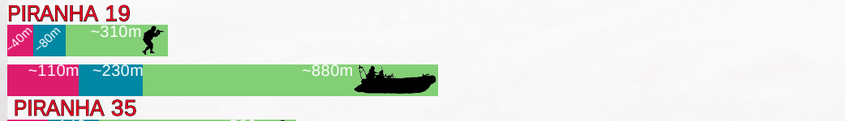
Viper		
Payload Mass	10Kg	
Azimuth	Rotation	Continuous N x 360°
	Slewing Speed	Max 30°/s
	Pointing Accuracy	0.25°
Elevation	Rotation	+/-90°
	Slewing Speed	Max 30°/s
	Pointing Accuracy	0.25°

Cobra		
Payload Mass	Max 25Kg (15Kg single side)	
Azimuth	Rotation	Continuous N x 360°
	Slewing Speed	Min 0.055°/s Max 42°/s
	Pointing Accuracy	0.07°
Elevation	Rotation	±65° (Mechanical)
	Slewing Speed	Min 0.02°/s Max 48°/s
	Pointing Accuracy	0.07°

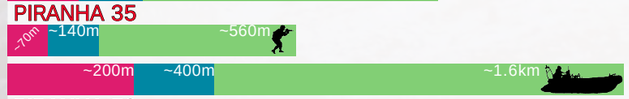
Python		
Payload Mass	15Kg	
Azimuth	Rotation	Continuous N x 360°
	Slewing Speed	Min 0.055°/s Max 42°/s
	Pointing Accuracy	0.07°
Elevation	Rotation	+85° -45° (Mechanical)
	Slewing Speed	Min 0.05°/sec Max 35°/sec
	Pointing Accuracy	0.07°

Thermal Image Camera Range Tables

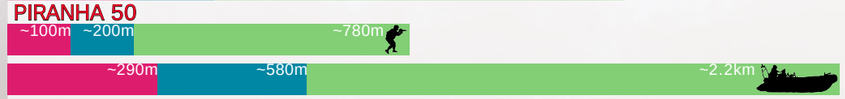
PIRANHA 19



PIRANHA 35



PIRANHA 50



IDENTIFICATION
RECOGNITION
DETECTION

Man: 1.8m x 0.5m
Object: 2.3m^2

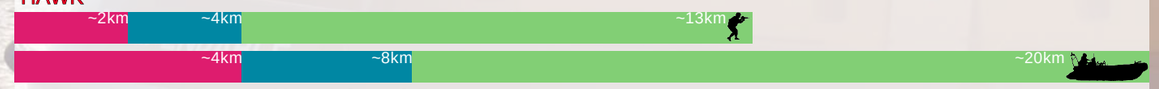
ARBEL WIDE FOV 45MM

ARBEL NARROW FOV 135MM

RECOGNITION: 25µ
DETECTION: 25µ
RECOGNITION: 17µ
DETECTION: 17µ

Man: 1.8m x 0.5m
Object: 2.3m^2

HAWK



IDENTIFICATION
RECOGNITION
DETECTION

Man: 1.8m x 0.5m
Object: 2.3m^2

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CHESS DYNAMICS

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CHESS DYNAMICS

Viper [Land & vehicle pan & tilt shown with integrated TV camera, thermal imager and optional Laser Range Finder & Target Designator]

Python [marine Pan & Tilt shown with optional gyro-stabilisation and multi-sensor pack for all Coastal and Maritime Applications]

Cobra [marine Pan & Tilt with optional gyro-stabilisation, integrated TV camera and thermal imager for all Coastal and Maritime Applications]

CS^3 Systems

Applications:

- Navigation In Total Darkness
  Clearly see other shipping traffic, channel markers, exposed landforms or floating debris
- Day Time Navigation
  See through the glare of sunrise or sunset to avoid possible obstacles
- Short/Long Range Threat Detection
  See approaching vessels at sea or in port without alerting the target
- Improved Onboard Security & Safety
  Provide protection of assets onboard, the fleet itself or passengers and crew
- Man Overboard Searches
  Quickly identify and locate endangered persons, and provide immediate assistance
- Anti-Piracy/Asset Protection
  Identify radar "blips" on the horizon in realtime to assess possible dangers before its too late

Configurable Security Surveillance Systems (CS^3) can be fully integrated with sensors for:

- Land
  Flexible and economical fixed and portable surveillance solutions
- Maritime
  Full gyro-stabilised installations for commercial ships, oilrig, and port patrol vessels
- Vehicles
  Rugged long lasting performance for situational awareness and surveillance

Pan & Tilt Mount + Daylight Camera + Thermal Imager + Laser Range Finder + Control Unit & Monitors

Viper

Python

Cobra

Piranha 36

Piranha LRTV

Piranha 50

Piranha 35

Piranha 19

Arbel
8-14 Uncooled

Hawk
3.7-5 Cooled

LP16

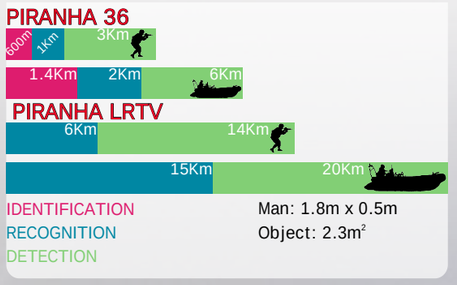
LP17

CELT-2

HCU
Hand Control Unit

DCC
Desktop Control Console

OCC
Operator Control Console



	Zoom	HFOV	Sensitivity
Piranha 36	36x	57.8° to 1.7°	1.00 lux @ 30 IRE 0.1 lux Night Mode
Piranha LRTV	140x	0.22° to 25°	0.3 lux

	Format	Wavelength	FOV
Piranha 19	384 x 288	7.5 - 13.5 µm	36° x 27°
Piranha 35			20° x 15°
Piranha 50			14° x 11°
Arbel	640 x 480	8 - 14 µm	Wide: 14.3°x 10.725° Narrow: 4.6° x 3.45°
Hawk	640 x 512	3.7 - 5 µm	Wide: 24° x 19.2° Narrow: 1.8° x 1.44°

	Laser Type	Range	Measuring Rate
Zeiss LP16	1.54 µm*	80 - 20,000m	Fast: 1 measurement/sec for 6 pulses Standard: 1 measurement/6 sec
Zeiss LP17	1.54 µm*	100 - 20,000m	2Hz
CELT-2	1.54 µm*	100 - 19,995m	1Hz

*Eye safety: Class 1 (IEC 60825-1)

	Screen	Control	Data
HCU	5.4" Colour LCD	Twin Mini Joysticks 10 Function Buttons	RS422
DCC	Range Available	Joystick & Configurable Function Buttons	RS422
OCC	17" Button Operated Colour LCD	Ruggedised Joystick & Integrated Keyboad/Mouse	RS422

- Robust design & build
- Fast & precise pointing accuracy
- East to install mounting fixture
- Modular payload brackets (sensor change in <10mins)
- Lightweight
- Optional gyro-stabilisation available for Python & Cobra platforms for steady imagery

(See back page for technical specifications)

- Full range of cost effective daylight TV camera solutions
- Piranha 36 provides tried & tested surveillance in extreme environments
- Long range TV options available depending on requirements
- Rugged nature of camera housing is ideal for outdoor applications
- Optional Piranha Wiper integration

- High performance, low cost thermal imagers to meet every requirement
- Optional wiper integration
- Simple mounting interface to allow fast & easy serviceability
- Auto focus & high sensitivity
- Optical zoom options upto 13.3x

(Full range table details on back page)

- Compact, lightweight and high performance
- Eye safe Class 1 (IEC 60825-1)
- Ideally suited for outdoor environments without loss of performance

- Range of control I/Fs to suit any application
- Concise & easy to use button layout
- Ergonomically designed for comfortable use over long periods of time
- Provides full control of sensor platform with real-time visual feedback
- User configurable