



RUGGED DESIGN



0 °C TO +35 °C AMBIENT



INTUITIVE CONTROL SOFTWARE



GRAPHICAL CHECKLIST



FULL AUTONOMY CAPABLE



SWARMING CAPABILITY



AI UPGRADE OPTION

APPLICATIONS

RECONNAISSANCE

PORT PROTECTION

MARINE VESSEL PROTECTION

DISASTER RESPONSE & COORDINATION

COVERT OPS & INTEL GATHERING

BOSCAROL GROUP

TIMTEC
TIMTEC DEFENSE

BUSINESS DEVELOPMENT
products, development, cooperation

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RAS-HA
X25

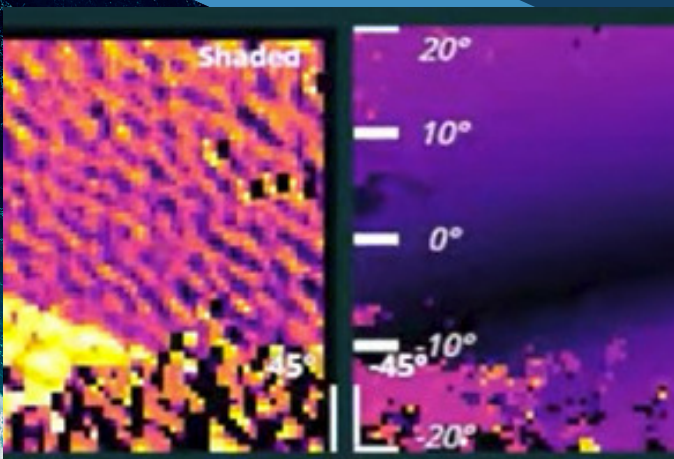
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**BIOMIMETIC AUTONOMOUS
UNDERWATER VEHICLE**

RAS-HA-X25

An advanced AUV designed for underwater intelligence, surveillance, and reconnaissance (ISR), with the capability to carry additional payloads for enhanced mission versatility

Real-time
3D point cloud



Initially developed
under EDA SABUVIS II
program

RAS-HA-X25

PHYSICAL SPECIFICATIONS	
Length	1400 mm
Width	1495 mm
Height	218 mm
Weight in air (W/O batt)	24,7 kg
Construction	PE, Acrylonitrile butadiene styrene
Battery connector	XT90
PERFORMANCE	
Maximum rated depth	100 m / 330 ft
Maximum forward speed	1,5 m/s
Thruster configuration	2x vectored, 4x vertical
Forward bollard thrust (20V)	26 kg
Vertical bollard thrust (20V)	23,5 kg
CAMERA	
Resolution	1080p
Field of view	110° horizontaly
Tilt range	+/- 90°
IMAGING SONAR SPECS	
Depth Rating	300 m
Materials	Polyurethane, Stailess steel 316
MULTIBEAM IMAGING SONAR	
Operating Frequency	400 kHz (>30 m), 700 kHz (<30 m)
Number of Beams	256
Beam Separation	0.47°
Range Resolution	8 mm
Angular Resolution	1.5°/2.5°
Maximum Range	200 m @ 400 kHz, 30 m @ 700 kHz
Minimum Range	0.2 m
Maximum Update Rate	25 Hz
Vertical View Angle	20°
Horizontal View Angle	90° @ 400 kHz, 120° @ 700 kHz

NATO INTEROPERABILITY	
JANUS	Interoperable
GUWMANET	Interoperable
ACOUSTIC / PERFORMANCE	
Transducer frequency	1.2 MHz - Navigation
2.4 MHz - Inspection	
Transducer beam angle	0.6° horizontal, 2.4° vertical - Navigation
0.4° horizontal, 1.1° vertical - Inspection	
Ping rate 5Hz - Navigation	
20 Hz - Inspection	
Sensor assist Integrated AHRS / IMU	
Range 15 m - Navigation	
4 m - Inspection	
Latency 200 ms	
Resolution 4 mm - Navigation	
1.5 mm - Inspection	
Electrical / Interface	
Input voltage 10-30 Vdc	
Power consumption 20 W	
Power-on current surge 60 W	
Physical interface 3m cable with interface module 6 wires (Power / Ethernet)	
Communication Ethernet (10/100/1000 Base-T)	
Approvals	
CE certificate	
RoHS compliant	

DVL	
Maximum Depth Rating	300 m
Device Diameter	108 mm
Weight in Air	550 g
Weight in Water	135 g
Maximum Operating Height (above target plane)	25 to 50 m
Maximum Operating Speed	5 kts
Number of velocity sensors	3
Sensor down angle from horizontal	70°
Angular Operating Envelope, Degrees off vertical	0° to 20°
Ping Frequency	675 kHz
Ping Repetition Rate	5 to 20 Hz
Supply Voltage	10V to 30V DC
Typical Power (averaged over 1 second)	2.75 W
V-in Current, Peak (largest current spike during operation irrespective of voltage)	0.5 amp
Ethernet Support	10/100 Mbps

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RAS-HA-X25 [X25#A010 / 2025-03]

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