



MODEL	 M20	 M10
PHYSICAL		
Dimension (LxWxH)	1180x700x390 mm	950x500x350 mm
Weight	12.8KG (without battery)	6Kg (without battery)
Payload	mini Single-frequency Echo Sounder (default), plus ADCP, Sub-bottom Profiler, Side Scan Sonar, Multi-beam Echo Sounder, etc.	mini Single-frequency Echo Sounder (default) only
Material	Nano carbon fiber polymer composite	
IP Rating	IP67	
Wind-wave Resistance	Gentle breeze, smooth wavelet	
Telecom Interface	Nano SIM card slot available	
Remote control operating distance	2KM	
System Assembly	Modular, plug-in	
ELECTRICAL		
Video Communication	4G telecom & network bridge	
Motor Engine	High-efficiency culvert long-life brushless motor	
Motor Power	Typical 850W each	
Battery	Portable and detachable high-performance ternary Lithium battery, 33V, 45000mAh	
Endurance	5.5 hrs @2m/s	7 hrs @2m/s
	single battery, long-life option available)	
PERFORMANCE		
Propulsion	Electric drive	
Cruise Speed	7m/s max.	
Steering Mode	Steering engine free, differential steering, reversible	
Default Echo Sounder	Built in, highly integrated with transducer, fully automatic operation after power connection. Operating frequency 200kHz, beam angle 5°, sounding angle 0.15-100m (upgradeable).	
Optional Echo Sounder	Operating frequency - high frequency≥200kHz, low frequency≤20kHz; beam angle – high frequency≤5°, low frequency≤20° ; sounding angle – high frequency 0.15-300m, low frequency 0.5-600m	N/A
POSITIONING		
GNSS Antenna	Dual antenna, pre-installed in front and rear individually	
GNSS Constellation	1598 channels, support GPS, Glonass, Galileo, Beidou-2, Beidou-3, Beidou-PPP, IRNSS, QZSS, SBAS, L-band, etc.	
Single-point Positioning Accuracy	H ≤ 1.5m, V ≤ 2.5m	
Beidou-PPP Accuracy	< 10cm, optional	
RTK Accuracy	H:±(8+106 xD)mmV:±(15+106xD)mmD-Baseline length (Unit: mm)	
IMU Onboard	Supports GNSS-inertial, 1PPS, IMU refresh rate 200Hz max.	
IMU Performance	Heading accuracy 0.15°@1m baseline, orientation accuracy 0.25°@1m baseline	

Note: all information above is subject to change without any prior notice.

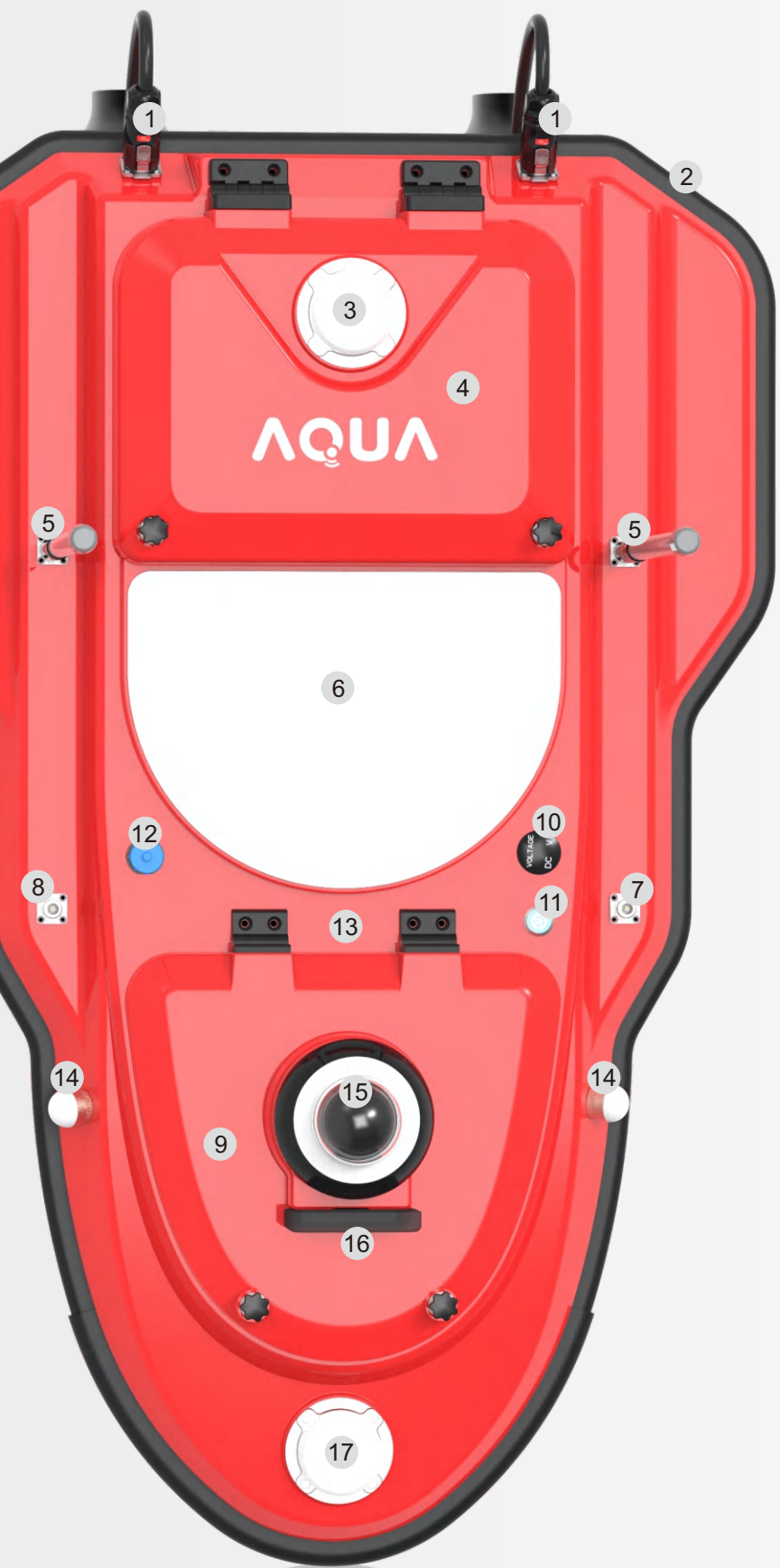
AQUA

M20/M10

Built for Marine Unmanned



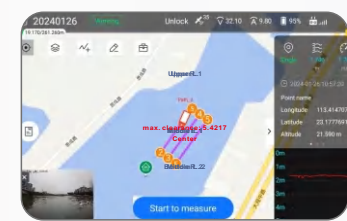
ILLUSTRATION



- 1 **Dual Ducted Propeller**
double propulsion system for powerful cruise
- 2 **Double-decker Trimaran**
smart structural design for reliable and stable cruise
- 3 **Rear GNSS Antenna**
works with inbuilt GNSS for precise positioning
- 4 **Auto-pilot System**
excels in unmanned operation
- 5 **Network Bridge Antenna Port**
talks with remote controller to transfer data
- 6 **Specialized Moon Pool**
ready to fit a variety of payloads like ADCP, multi-beam
- 7 **4G Telecom Antenna Port**
equipped for RTK corrections and vessel remote control
- 8 **Radio Datalink Antenna Port**
communicates with base station for RTK corrections
- 9 **Battery Compartment**
endurance around 5 hours in auto-pilot mode
- 10 **Power Display Panel**
for direct voltage value reading
- 11 **Device Power Switch**
one-key quick start
- 12 **Recharge Port**
standalone or direct onboard charging, optional
- 13 **Mini Echo Sounder F18S**
single frequency, built in as default
- 14 **Double-sided Guide Light**
blinks in green against mission safety
- 15 **World-famous 360° Camera**
provides pano view during missions
- 16 **Millimeter Microwave Radar**
designed for obstacle avoidance
- 17 **Front GNSS Antenna**
provides stable heading info for auto-pilot
- 18 **Remote Control Unit**
mission planning and control all in one



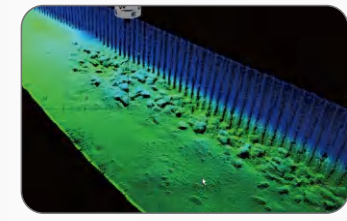
SOFTWARE



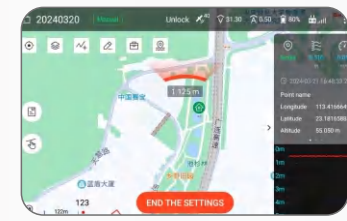
Auto-pilot



Satellite Map



Multi-beam Mapping



Obstacle Detection

APPLICATIONS



Dredging Works



Underwater Bathymetry



River Measurement



Hydrology Investigation

CONFIGURATION

USV hull	x1
inbuilt echo sounder mini	x1
integrated microwave radar	x1
integrated 360° camera	x1
integrated GNSS antenna	x2
network bridge antenna	x2
4G telecom antenna	x1
radio datalink antenna	x1
battery charger	x1
remote controller	x1
remote controller charger	x1
transport case	x1
software dongle	x1

Note: just take M20 for example above.



PAYLOADS

