

USS Inception

Mark I

Specifications

The Unmanned Survey Solutions' (USS) Inception class unmanned survey vessel (USV) has been developed to address a gap in the shallow water sector. This hydrographic survey vessel is composed of tough aluminium hulls, weed cutting propellers and provides bathymetric surveys in areas where access for a traditional survey vessel is not possible, such as quarry lakes, lagoons, mining ponds and other similar bodies of shallow water zones.

Specifications

Length	1.40 metres
Width	1.32 metres
Height	0.53 metres (bottom of hull to top of bridge)
Weight	Each hull 15kg, Combined weight with bridge 37kg (+ batteries)
Hull Type	Twin hull
Hull Composition	Aluminium
Propulsion	X2 DC brushed thrusters, voltage 12V
Propellers	Weed resistant power props
Power	Optional 12V DC lead acid, lithium, or nickel metal batteries
Speed	Survey speed ~2.5 knots
Endurance	Up to 4 hours from a full battery charge
Range	In excess of 750m
Payload	Optional payloads Including SBES, MBES & Water Quality
Draft	Dependant on payload, ~0.2 metres
Launch / Recovery	Portable by 2 persons, launch & recovery from slipway, jetty or river edge

Optional Payload: Single Beam Echo Sounder



CEESCOPE-USV™

The complete data solution for USVs.

CEESCOPE-USV™ is a unique single or dual frequency hydrographic surveying system with GNSS positioning, echo sounding, data recording and data telemetry in a single compact package for use on remotely-operated or autonomous survey boats.



CEESCOPE-USV™

USV (remote) echo
sounder module



CEE Link™

Shore (base)
telemetry
module



Features

High power Ethernet network radio, Internal Battery, Internal data logger for stand alone operation, Waterproof case and LCD Touch screen.

Echo Sounder

Integrated GNSS receiver

20 Hz ping rate for high quality survey results

Dual frequency capability

High definition echogram

Precise 1PPS time-tagged data

Telemetry Link

Interference free operation

Auto-Link operation

Long range, up to 1km

Antenna flexibility

High Bandwidth

Additional

Optional GNSS Solutions Inc. NovAtel, Crescent, Trimble & Hemisphere

Optional Airmar Passive Transducer Solutions Inc. 200kHz frequency, with 3° or 9° beamwidth; or combined dual frequency 200kHz, 8° beamwidth and 33kHz, 25° beamwidth.

RTK positioning capability with internal 400—470 MHz radio modem