



DT102xi

445-106 MARCH 2018-REVISED FEBRUARY 2021

**IMAGENEX MODEL DT102xi
180° MULTIBEAM PROFILING SONAR
with Optional Internally Integrated
Motion Reference Unit
& Sound Velocity Sensor**



The new DT102xi 180° Multibeam Profiling Sonar (i.e. Multibeam Echo Sounder) is a single instrument integrating the sonar, motion reference unit (MRU), and sound velocity sensor into one sleek and compact unit. The DT102xi requires only one cable for operating all three sensors and is a portable solution for any survey. Compatible with the DT100 SIR (Sensor Interface Relay) power supply/timing box, simply connecting a dual antenna GNSS/GPS receiver is all that is required to perform bathymetric surveys.

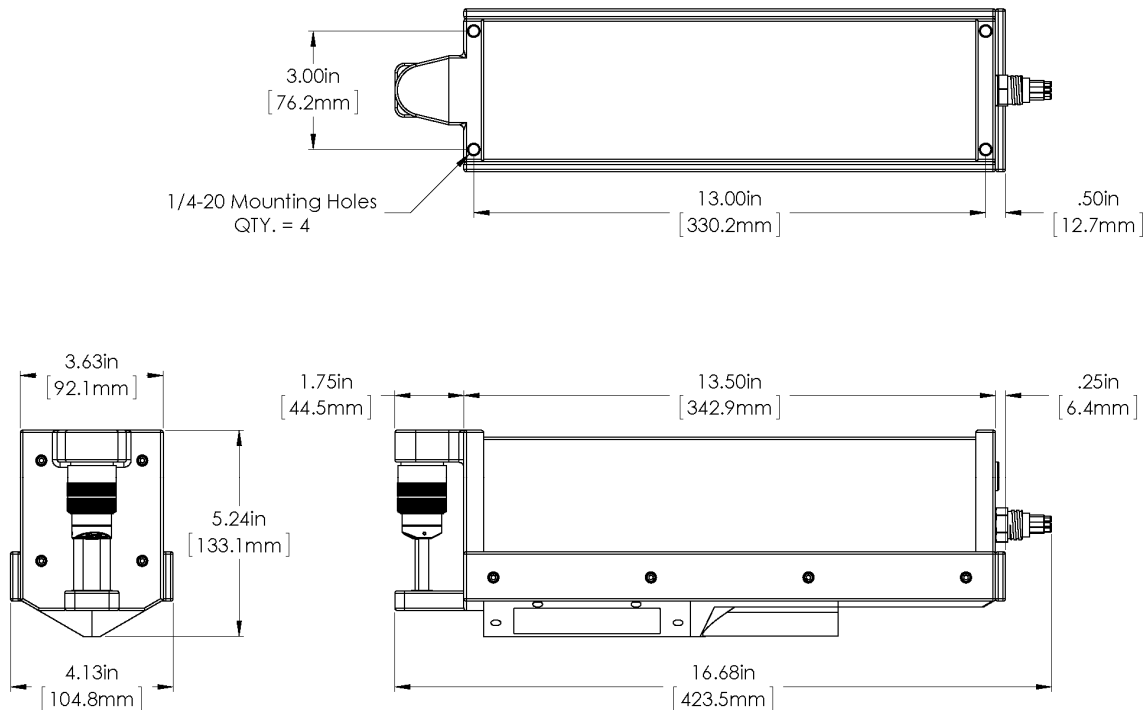
Patent Pending

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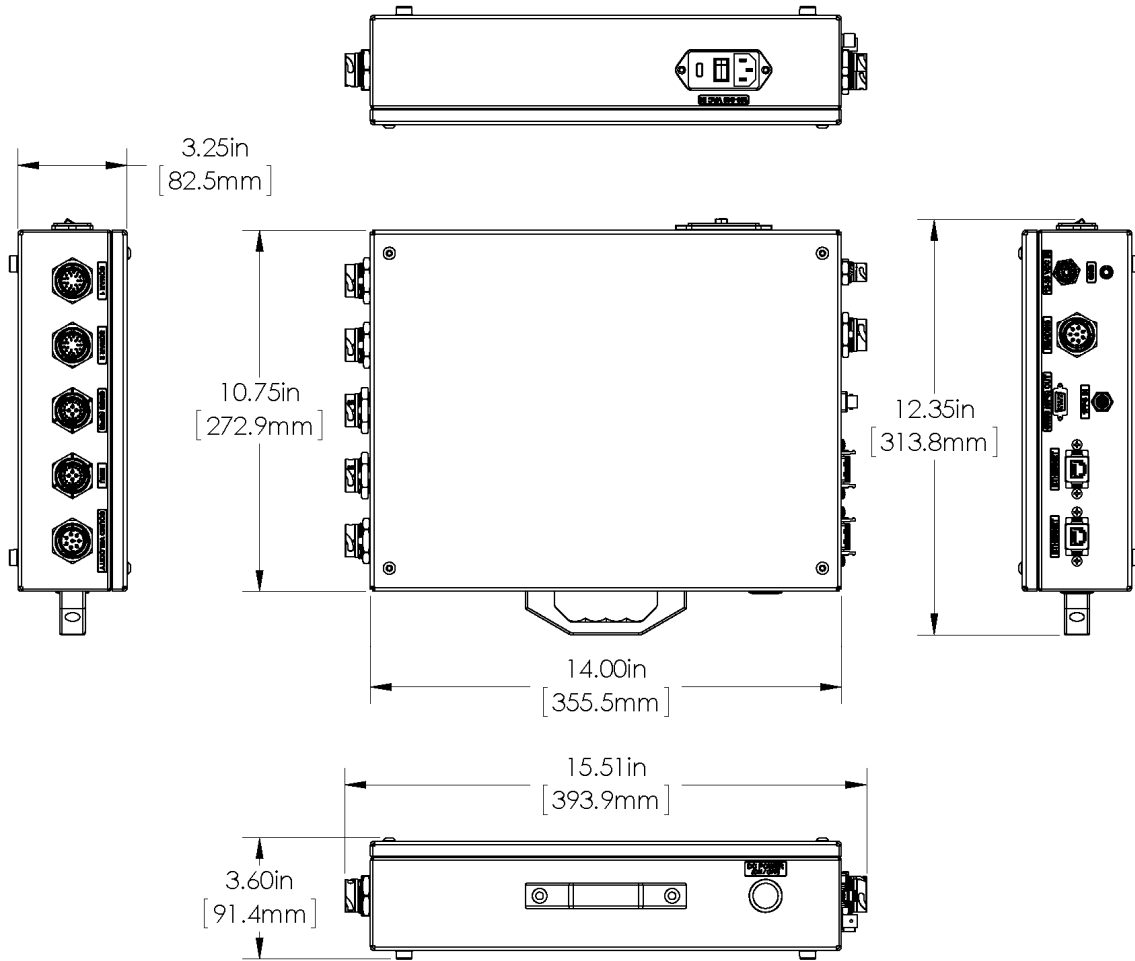
HARDWARE SPECIFICATIONS:	
FREQUENCY	675 kHz
SWATH WIDTH (nominal beam geometry)	Transmit: 180° x 3° Receive: 180° x 3°
EFFECTIVE BEAM WIDTHS	Narrow: 0.75° Medium: 1.5° Wide: 3°
NUMBER OF BEAMS	Default: 720 Selectable: 360, 180
RANGE RESOLUTION: SCREEN OUTPUT	0.1% of range 0.01% of range
RANGE	Max. 80 m (263') slant range
MIN. DETECTABLE RANGE	0.5 m (1.6') below transducer
MOTION REFERENCE UNIT Pitch and Roll Accuracy: Heave:	Internally mounted OEM version 0.04° 5 cm or 5% (whichever is greater)
SOUND VELOCITY SENSOR	Internally mounted OEM version of AML Micro•X 1400 m/s to 1600 m/s +/- 0.025 m/s
MAX. OPERATING DEPTH (Submersion depth)	300 m (984') Contact Imagenex if a greater depth rating is required
INTERFACE TO PC	Ethernet (100 Mbps) using TCP/IP
MAX. CABLE LENGTH	100 m (328') on CAT5-e, longer cable runs possible with additional hardware
CONNECTOR	Underwater wet-mateable 8 conductor
POWER SUPPLY (sonar head only)	22 - 50 VDC at less than 20 Watts
DIMENSIONS	424 mm (16.68") L x 133 mm (5.24") H x 105 mm (4.13") W
WEIGHT: In Air	~4.7 kg (~10.3 lbs)
In Water	~0.8 kg (~1.8 lbs)
MATERIALS	316 Stainless Steel, PVC, Stainless Steel connector
POWER SUPPLY/ TIMING BOX: DT100 Sensor Interface Relay (DT100 SIR)	2 port Ethernet switch (DT102xi PC and Survey PC) Interfaces to: DT102xi GNSS (GPS) Gyro / Heading Sensor 100 – 240 VAC or 12 – 36 VDC input range Dimensions: 394 mm (15.5") x 314 mm (12.4") x 92 mm (3.6")
MAX. PING RATE	20 Hz

SOFTWARE SPECIFICATIONS:	DT102.exe
WINDOWS™ OPERATING SYSTEM	Windows™ XP, Vista, 7, 8, 10
DISPLAY MODES	Sector, Linear, Perspective, Profile, Beam Test
PERSISTENCE (TRAIL)	1 – 300 seconds
RANGE SCALES	5 m, 10 m, 20 m, 30 m, 40 m, 50 m, 60 m, 80 m, 100 m
SECTOR SIZES	180°
FILE FORMAT: RAW DATA PROFILE POINT	(filename).D1R (filename).D1P
RECOMMENDED MINIMUM COMPUTER REQUIREMENTS:	2 GHz Pentium 4 256 MB RAM 20 GB Hard Disk 1024 x 768 screen resolution



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ORDERING INFORMATION:		
300 m UNIT	Standard	838-000-102
Sensor Interface Relay box (DT100 SIR)	Standard	837-000-007
IP Address*	Option	-020

*Note: Standard IP Address is 192.168.0.2
 A different IP Address may be specified upon ordering.

Product and company names listed are trademarks or trade names of their respective companies.

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