IMAGENEX MODEL 837AXi
"Delta T" 6000 m 165 kHz
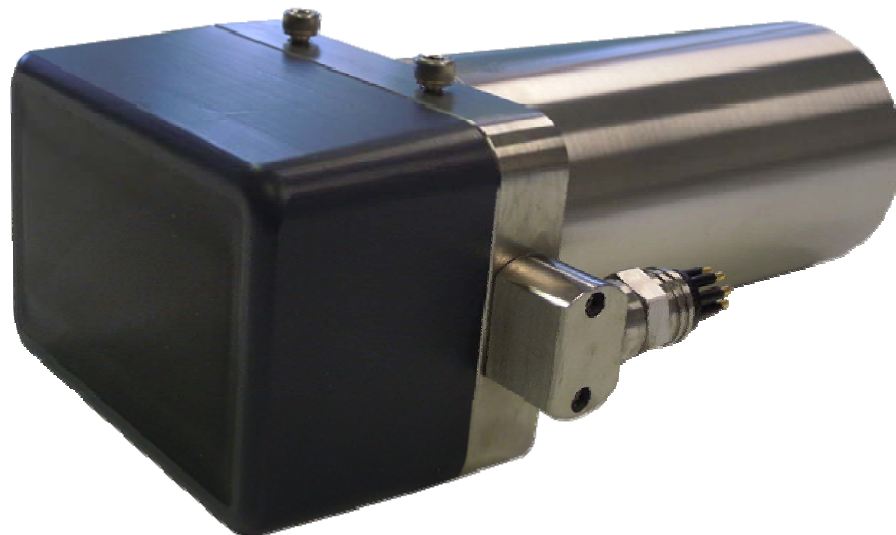# OBSTACLE AVOIDANCE MULTIBEAM SONAR

APPLICATIONS:

- ROV, AUV, & UUV
- Offshore Oil & Gas
- Sunken Timber Recovery
- Diving Support
- Surveying
- Search & Recovery
- Inspection
- Underwater Archaeology
- Scientific Research
- Harbour Surveillance

FEATURES:

- Reprogrammable IP address
- High speed
- High performance
- Lower cost
- Low power
- Simple set-up and installation
- Ethernet
- 5 m to 300 m range scales
- Integrated Video Capture and Display
- Built in GPS Track Plotter

The Imagenex Model 837AXi "Delta T" is a multiple receiver sonar system designed to provide high-speed imaging with all the advantages of underwater sonar. Innovative digital signal processing is used to optimize data usage from all channels to achieve the best possible resolution at every point in the field of view. Recent advances in computing power have made it possible to transfer and process this data at resolutions equal to computer monitor resolution, and with image frame rates of better than 20 frames per second!

The Delta T system has been designed from the ground up with the most advanced, high accuracy, low power electronic components available to provide breakthroughs in system power consumption, package size, and price. This advanced electronics package has built in flexibility and programmability to accommodate a wide range of transducer arrays. Thus, the Delta T is the first in a family of new technology products which will have imaging and profiling capabilities to suit your underwater application. Imagenex sonars: advancing underwater imaging capability for the everyday user.
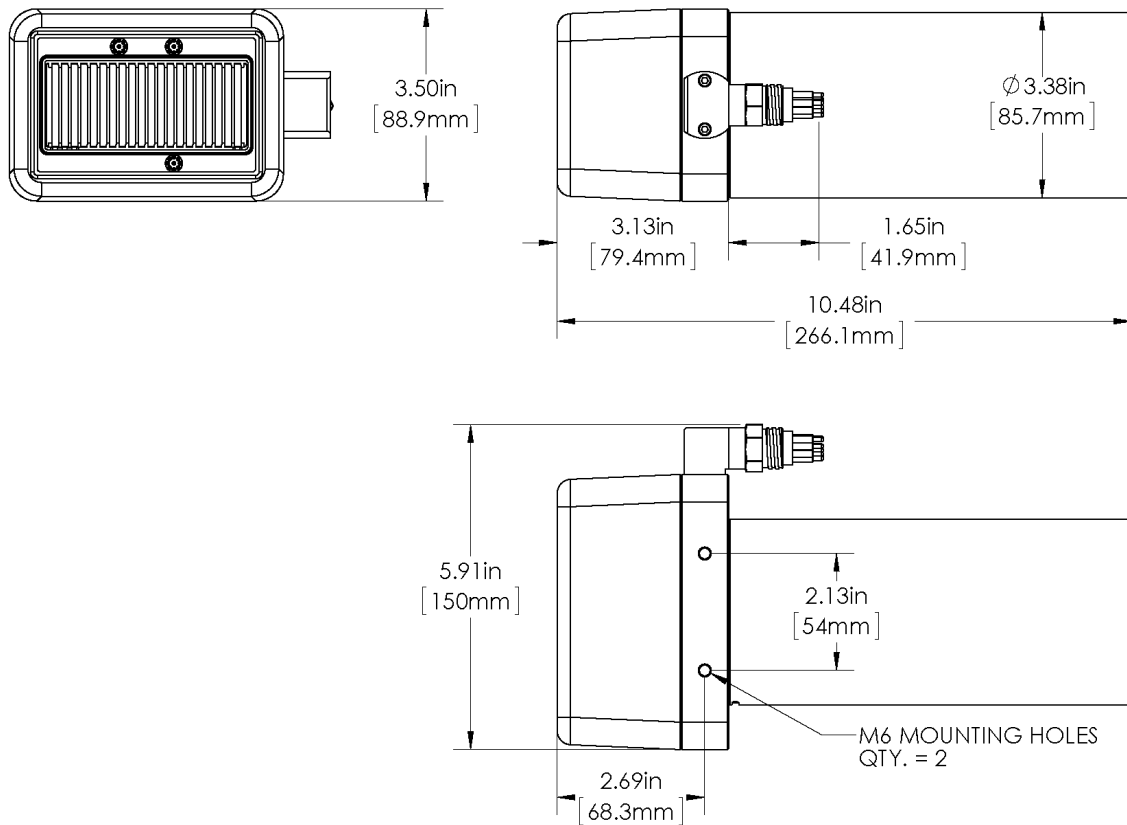

Patent Pending

TAE KWANG ELECTRONICS CORPORATION
5TH FLR., K-BLDG., 3, SANGAM-RO 41-GIL,
GANGDONG-GU, SEOUL 05307, KOREA

(T) PHONE : 02 479 2703
(F) FAX   : 02 479 2705
(E) e-mail   : taekwang@tkec.co.kr
(W) http://www.tkec.co.kr

HARDWARE SPECIFICATIONS:	
FREQUENCY	165 kHz
TRANSDUCER BEAM WIDTH (nominal)	Receive: 120° x 10° Transmit: 120° x 10°
EFFECTIVE HORIZONTAL BEAM WIDTH	3°, 1.5°, 0.75°
BEAMS*	120, 240, 480

RANGE RESOLUTION:
    SCREEN
    OUTPUT
	
	0.2% of range
	0.02% of range

MIN. DETECTABLE RANGE	0.5 m
MAX. OPERATING DEPTH	6000 m
FRAME RATE	Up to 20 fps
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	Side mounted right angle, 8 conductor, wet mateable (Subconn MCBH8M-Ti)
POWER SUPPLY	22 – 50 VDC at less than 10 Watts
DIMENSIONS	See drawing
WEIGHT: In Air	~12.1 lbs (5.5 kg)
In Water	~6.7 lbs (3.1 kg)
MATERIALS	6AL4V Titanium, Epoxy, PVC, Titanium connector

*Data is acquired at full resolution every shot: processing the data for screen display on a PC can slow the system at highest number of beams. 120 beam mode is recommended for real time data acquisition. The data can then be played back at highest resolution (480 beam).

SOFTWARE SPECIFICATIONS:	DeltaT_Xi.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, 150 m, 200 m, 250 m, 300 m
SECTOR SIZES	30°, 60°, 90°, 120°

FILE FORMAT:
    RAW DATA
    PROFILE POINT
    BEAM DATA
	
	(filename).IGX
	(filename).83P
	(filename).83B

RECOMMENDED MINIMUM COMPUTER REQUIREMENTS:	2 GHz Pentium 4 256 MB RAM 20 GB Hard Disk 1024 x 768 screen resolution

3.50in
[88.9mm]

∅ 3.38in
[85.7mm]

3.13in
[79.4mm]

1.65in
[41.9mm]

10.48in
[266.1mm]

5.91in
[150mm]

2.13in
[54mm]

M6 MOUNTING HOLES
QTY. = 2

2.69in
[68.3mm]

ORDERING INFORMATION:		
6000 m UNIT	Standard	837A-000-472
Straight Connector	Option	-009
IP Address*	Option	-020
External Trigger	Option (included)	-023

*Note: Standard IP Address is 192.168.0.2
         A different IP Address may be specified upon ordering.
         IP Address can be reprogrammed in the field.