



Roper Resources

Providing Remotely Operated Equipment for use in Hostile Environments

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REDEFINING IMAGE CLARITY

The Imagenex 881A Digital Multi-Frequency Scanning Sonar



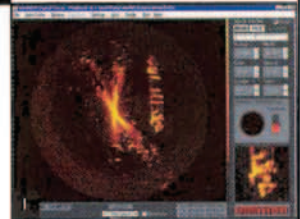
3M Sector Scan of Acoustic Sign at 1MHz. Inset: Photo of Acoustic Sign

Now with Multi-Frequency Sonar, operators can generate highly detailed full scale images with just one unit.

The 881A is a programmable multi frequency digital imaging sonar that you can operate using default frequency settings or customize the configurations for your own situation. High performance, lower cost, low power and simple setup and installation, make this sonar perfect for the largest ROV's to the smallest inspection ROV's, plus AUV or UUV applications.

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At **IMAGENEX**, we think no Sonar feature is more important than **image clarity**. Our design team helped pioneer modern imaging sonar technology, and we continue to lead the way, pushing the **performance** boundaries of our high resolution sonar units. With continuous technological advancements, software and hardware **compatibility**, **portability** and overall ease of use, **IMAGENEX** sonar systems set the industry **standard** as the most **specified** sonar systems **world wide**.



- 1) 50M Scan of Ship
- 2) Laptop
- 3) 4 Conductor Shielded Cable

IMAGENEX MODEL 881A TECHNICAL SPECIFICATIONS

APPLICATIONS

- ROV, AUV and UUV
- OFFSHORE OIL & GAS
- SUNKEN TIMBER RECOVERY
- PROFILING
- DIVING SUPPORT
- SURVEYING
- SEARCH & RECOVERY
- INSPECTION
- UNDERWATER ARCHAEOLOGY
- SCIENTIFIC RESEARCH

The 881A incorporates latest technological advances allowing multi-frequency capabilities from one compact digital sonar head.

Imagenex Windows™95, 98, NT compatible software controls, displays, and records data from the Model 881A Digital Sonar Head.

SPECIFICATIONS

FREQUENCY: Tunable. Three default settings of 310 kHz, 675 kHz or 1 MHz. Other frequencies can be selected through programmable software configurations.

BEAM WIDTH: 310 kHz 4° x 40°, 675 kHz 1.8° x 20° or 1 MHz 0.9° x 10°

TRANSDUCER: Fluid filled protective transducer housing. 360° continuous rotation. Polar mode, sector mode, single side sidescan mode.

POWER SUPPLY: 20 - 36 VDC at less than 5 watts.

INTERFACE: RS-485 at 115.2 K baud or optional RS-232 (addresses up to 16 units on one cable, programmable head ID's 1-16 held in NVRAM)

CABLE LENGTH: 1000m on typical twisted shielded pair

OPERATING DEPTH: 1000M and 3000M available

MATERIALS: 1000M - 6061-T6 Aluminum, Polyurethane, 3000M - Titanium, Polyurethane, 300 series stainless steel.

CONNECTOR: Side mounted four conductor wet mateable connector. Optional right angle or end mount connector.

DIMENSIONS: 79.4mm (3 1/8 in) diameter x 181 mm (7 1/8 in) length for both depth ratings.

WEIGHT: 1000M unit 3.3lbs. (1.5kg) in air. 1.3lbs. (0.6kg) in water
3000M unit 4.4lbs. (2kg) in air. 2.4 lbs. (1.1kg) in water



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IMAGENEX MODEL 881A DIGITAL MULTI-FREQUENCY IMAGING SONAR

APPLICATIONS:

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

FEATURES:

- Programmable
- Multi-frequency
- High performance
- Lower cost
- Low power
- Simple set-up and installation
- Digital telemetry
- 1 to 200 m operation
- Compact size
- Communication format available to user

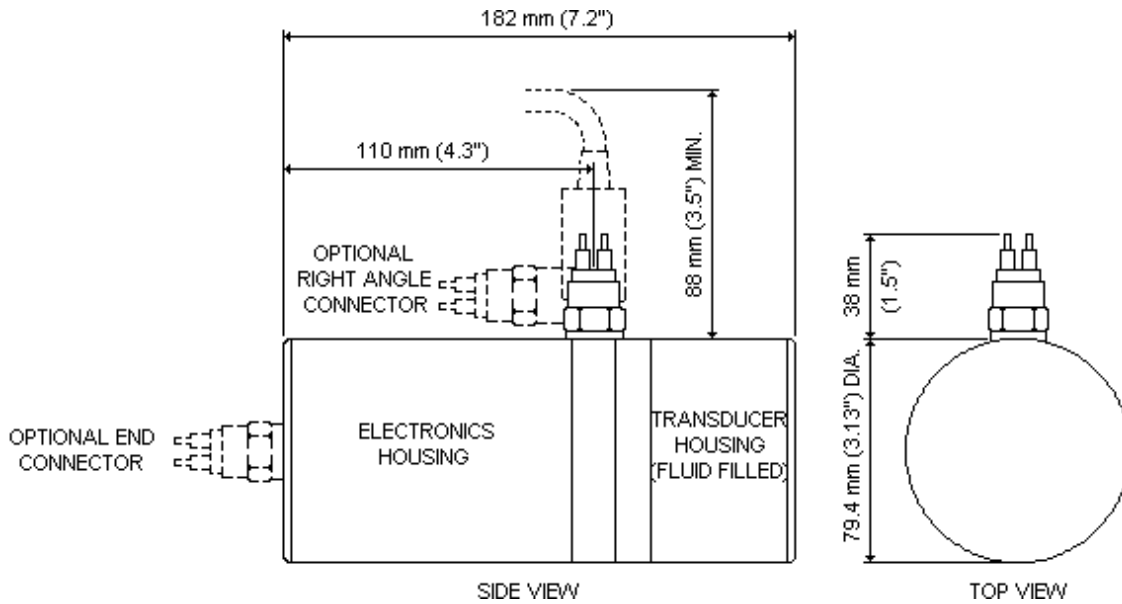
Now with Multi-frequency Sonar, operators can generate highly detailed full-scale images with just one unit. The 881A is a programmable multi-frequency digital imaging sonar that you can operate using default frequency settings or customize the configurations for your own situation. High performance, lower cost, low power and simple set-up and installation, make this sonar perfect for the largest ROV's to the smallest inspection ROV's, plus AUV or UUV applications.



HARDWARE SPECIFICATIONS:	
FREQUENCY	310 kHz, 675 kHz, or 1 MHz (default settings) -Other frequencies can be selected through programmable software configurations (Tunable from 280 kHz to 1.1 MHz in 5 kHz steps)
TRANSDUCER	Imaging type, fluid compensated
TRANSDUCER BEAM WIDTH	310 kHz: 4° x 40° 675 kHz: 1.8° x 20° 1 MHz: 0.9° x 10°
RANGE RESOLUTION	1 m – 4 m: 2 mm (0.08") 5 m & up: 10 mm (0.4")
MIN. DETECTABLE RANGE	150 mm (6")
MAX. OPERATING DEPTH	1000 m and 3000 m available
MAX. CABLE LENGTH	1000 m on typical twisted shielded pair (RS-485)
INTERFACE	RS-485 serial interface @ 115.2 kbps (or optional RS-232)
CONNECTOR	Side mounted, four conductor, wet mateable (Impulse MCBH-4-MP-SS) Optional right angle or end mount connector
POWER SUPPLY	20 – 36 VDC at less than 5 Watts
DIMENSIONS (for both depth ratings)	79.4 mm (3.125") diameter x 182 mm (7.125") length
WEIGHT: In Air	1000 m unit: 1.5 kg (3.3 lbs) 3000 m unit: 2 kg (4.4 lbs)
In Water	1000 m unit: 0.6 kg (1.3 lbs) 3000 m unit: 1.1 kg (2.4 lbs)
MATERIALS	1000 m unit: 6061-T6 Aluminum & Polyurethane 3000 m unit: Titanium, Polyurethane & 300 series stainless steel
FINISH	Hard Anodize

SOFTWARE SPECIFICATIONS:	Win881A.exe
WINDOWS™ OPERATING SYSTEM	Windows™ 95, 98, Me, NT*, 2000*, XP*
MODES	Sector, Polar and Side Scan
RANGE SCALES	1 m, 2 m, 3 m, 4 m, 5 m, 10 m, 20 m, 30 m, 40 m, 50 m, 60 m, 80 m, 100 m, 150 m, 200 m
TRAIN ANGLES	0° – 357°, 3° increments
SECTOR SIZE: SECTOR MODE POLAR MODE	0° – 180°, 3° increments 0° – 357°, 3° increments, or Continuous rotation
STEP SIZES	Slow (0.3°), Medium (0.6°), Fast (0.9°), Faster (1.2°), Fastest (2.4°)
GRID TYPES	Polar and rectangular
FILE FORMAT	(filename).81a
RECOMMENDED MINIMUM COMPUTER REQUIREMENTS:	100 MHz Pentium 16 MB RAM 1 GB Hard Disk 800 x 600 x 256 colour graphics

* Requires Win881A.exe v2.00 or higher (Free upgrade available for older versions – Contact Imagenex)



ORDERING INFORMATION:		
1000 m UNIT	Standard	881-000-400
3000 m UNIT	Standard	881-000-401
RS-232	Option	-006
End mount connector	Option	-009
Right angle connector	Option	-010
Interface source code in "C" (TEST881A.C)	Option	-018

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