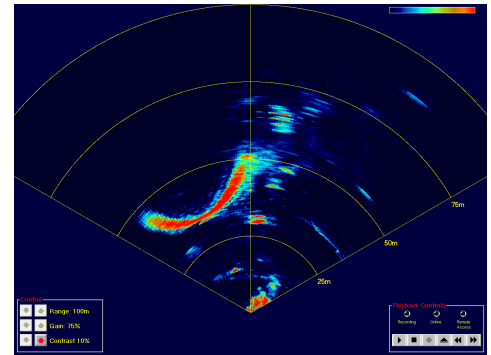
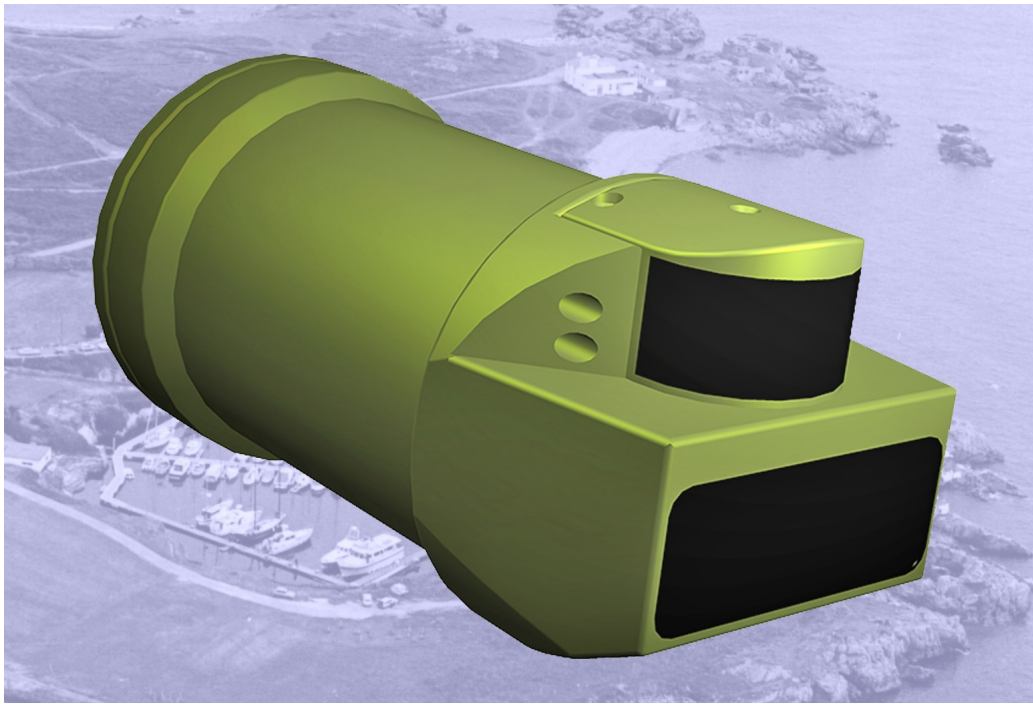
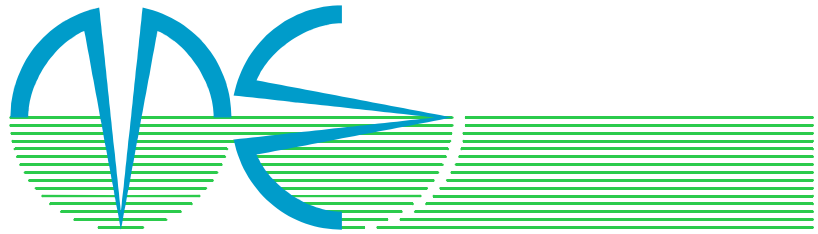
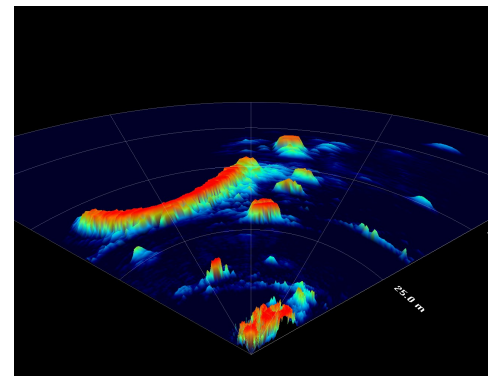


Dolphin Real Time Sonar

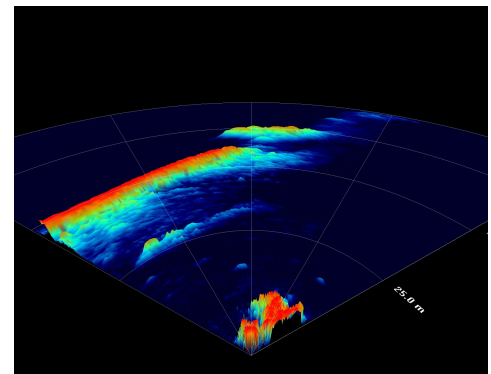
Model 3001



Data View



Perspective View



Perspective View

The Dolphin Real Time Sonar Model 3001 is the latest innovation from the company that is dedicated to providing quality products at an affordable price.

The Dolphin 3001 is a high frequency, high resolution electronically scanned sonar particularly suitable for pilotage, navigation and search operations.

The underwater housing is suitable for mounting on anything from a small Remotely Operated Vehicle to a large surface vessel. The surface display is generated by a P.C. running the "Windows" operating system. The umbilical cable requirement is for either a single twisted pair or a coaxial cable to handle the data telemetry. At the surface the sonar telemetry is connected to a small USB Interface Unit which is self-powered from the P.C. Power to the sonar is supplied either from the vehicle or via an additional two power cores through the umbilical.

The system software provided has facilities for data logging of the raw data to hard disk at full resolution for post analysis as well as a suite of on-screen measurement tools. The "Windows" interface significantly reduces the time taken to learn the system, minimising training requirements.

FEATURES INCLUDE

- Real Time continuous scanning over a 120° sector at 30 frames per second (USB 2.0)
- 1024 x 768 pixels with 256 colours
- Raw data logging to mass storage
- Multiple cursors for accurate on screen measurement
- Rugged compact underwater unit
- 500m depth rating as standard
- 3000m version for deep water
- "Windows" 2000, XP software
- Pseudo-Perspective Display



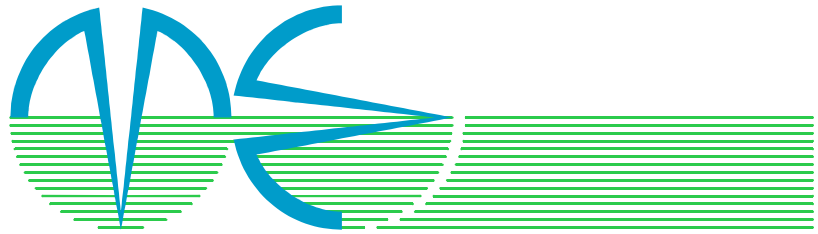
USB Interface Box



Marine Electronics Ltd.,
Unit 10,
Barras Lane Industrial Estate,
Vale, Guernsey, C.I.
GY6 8EQ
Tel: +44 (0)1481 253181
Fax: +44 (0)1481 253182
Email: sales@marine-electronics.co.uk
Web: www.marine-electronics.co.uk

Dolphin Real Time Sonar

Model 3001



The resolution and update speed of the Dolphin Real Time Sonar sets a new performance benchmark for imaging sonar systems.

The compact underwater unit weighs only 2.5kg in water allowing the system to be fitted to the smallest Remote Vehicles. The underwater package has a standard eight pin connector, two pins are used for data and two for 24v d.c. power. Additional pins provide for external synchronisation with other acoustic equipment. For example, a Marine Electronics high resolution altimeter can be integrated into the system so that the altimeter does not cause acoustic interference with the sonar.

At the surface the sonar output is connected to a small USB interface unit. The USB unit contains the data acquisition hardware to convert the pseudo-video telemetry uplink into a high speed digital data stream.

The system software may be run on virtually any modern "Windows" P.C. provided that the system has support for at least one USB port. By using optimised display techniques the high speed real time display is generated at up to 30 frames per second.

The 4° angular resolution and 35mm range resolution combine to produce startlingly clear images to rival the best of the mechanically scanned systems but with a huge speed advantage.

Raw data may be logged automatically (at programmed intervals), or on demand, to hard disk for post analysis of survey results. Images may be incorporated into reports or pasted into other "Windows" applications.

Electronically Scanning Sonar Specifications

<i>Operating Frequency:</i>	250kHz
<i>Range Settings:</i>	5m to 200m in 10m steps
<i>Range Resolution:</i>	>35mm
<i>Sector Scanned:</i>	120°
<i>Angular Resolution:</i>	4°
<i>Horizontal Beamwidth:</i>	Receive: 4° (+/-3dB points) Transmit: 120°
<i>Vertical Beamwidth:</i>	Receive: 16° Transmit: 12°
<i>Update Rate (120° Sector):</i>	10m range, 30 frame/sec 20m range, 28 frame/sec 50m range, 14 frame/sec 100m range, 7 frame/sec
<i>Data Logging:</i>	Auto at variable frame rate Manual, key press on demand
<i>Transmit Pulse Length:</i>	30µsec to 1msec
<i>Transmit Power:</i>	Variable
<i>Telemetry Link:</i>	RS232 or RS485 (19200 baud half duplex)

Underwater Unit Properties

<i>Dimensions:</i>	Diameter: 133mm Height: 248mm
<i>Weight:</i>	500m version: 3.5 kg in air; 2.5 kg in water 3000m version: 8.0 kg in air; 5.6 kg in water
<i>Materials:</i>	Hard Anodised Aluminium 316 Stainless Steel (3000m option)
<i>Power Supply:</i>	24V DC at 1A max.
<i>Temperature:</i>	Operating: 0 to +40°C Storage: -20 to +60°C
<i>Operating Depth:</i>	500m optional 3000m (316 Stainless Steel)
<i>Underwater Connector:</i>	Burton 1508
<i>Data Transmission:</i>	Fibre Optic Video Multiplexer Coax Shielded Twisted Pair

USB Interface Unit

<i>Dimensions:</i>	Width: 110mm Depth: 165mm Height: 35mm
<i>Protocol:</i>	USB2.0 and USB1.1
<i>Power Supply:</i>	+5V DC at 200mA typical (self-powered from USB port)
<i>Input Data Format:</i>	Video (+/-1V peak)



Marine Electronics Ltd.,
Unit 10,
Barras Lane Industrial Estate,
Vale, Guernsey, C.I.
GY6 8EQ
Tel: +44 (0)1481 253181
Fax: +44 (0)1481 253182
Email: sales@marine-electronics.co.uk
Web: www.marine-electronics.co.uk