Product

Catalogue

2011

light years ahead

wireless internet
high power wifi systems

⧫ BOATraNET
next generation navigation
new for 2011

on board PCs
Aqua marine PCs

AIS Class A & B
smartertrack ais products

electronic navigation
smarterchart plotters
electronic compasses
and pc software

DIGITAL®
YACHT

TEL 01179 554474 www.digitalyacht.co.uk

2011 Product Catalogue

Welcome to Digital Yacht's 2011 product line up. We are a UK based manufacturer of specialist marine electronics including GPS, chart plotters, AIS transponders and receivers, marine PCs, electronic compasses and high power WiFi – and we've a full on development program with a host of innovative products rolling out for the future.

Whilst a young and fast growing company, Digital Yacht's management team have over 100 years combined experience in sophisticated marine communications and navigation and we aim to design products to integrate with existing systems to maximise your capabilities whilst afloat. We have an extensive network of overseas offices and all our products come with a global two year guarantee. We pride ourselves on having one of the best technical support systems in the industry with a knowledgeable and helpful team to help with any installation issues.

Digital Deep Sea offers a range of products for the commercial market with systems for naval, fishing, commercial and workboat applications. Feel free to click on www.digitalyacht.co.uk, call up or see us at one of the many boat shows we'll be at during 2011.

Safe Boating!

Nick Heyes
Founder & Managing Director

Introduction To Marine PC Systems

DIGITAL YACHT

What Makes A Good Marine PC?

With an ever increasing range of marine PC navigation, communication and weather systems now available to the leisure sailor, along with the demand for internet access, entertainment and the "floating office" many boaters are seriously considering fitting an onboard PC system, if they haven't already done so. And as PCs get smaller and more portable, they seem to be an ideal and practical solution. But if you're thinking of joining the ranks of the floating PC users can you just go down to your local Dixons or Comet and pick up a cheap laptop or compact desktop system and expect it to operate reliably under the sort of conditions you experience at sea? Here at DigitalYacht we offer a range of marinised PCs, but why should you pay the additional cost for such a setup when the High Street offers such a wide range of systems, many of which at first glance would appear to be ideal to your needs?

THE PROBLEMS

Let's consider the kind of problems a PC has to deal with on board a small yacht or powerboat and how a professional, marinised PC system deals with them:

- **Damp, salty air** - making the PC waterproof may seem to be the solution, but this will create it's own problems - to make a PC waterproof it will have to be fully sealed, which will create thermal problems. PCs get very hot and need good ventilation and airflow to keep the components cool, this is why most computers have internal fans. As a matter of fact, getting soaked is generally not an issue - most vessels have a location which is dry enough for a PC. Over the past 5-6 years we have seen very few cases of acute water ingress on standard PCs which have failed. In general it's long term chronic exposure to the damp atmosphere that ultimately causes failure.

Compact commercial case with rugged front panel

Ventilation holes required for cooling but filters added for models with a fanned processor

- **Pitching, rolling and pounding -** you can't just plonk your laptop or desktop PC and monitor onto the chart table and expect it to stay there, it needs to be mounted securely to a horizontal or vertical bulkhead. Most off-the-shelf PCs don't include hard mounting points like this. Even if it's securely strapped in place, when you're falling off waves or beating to windward, everything on the boat is being exposed to surprisingly high G force loads.

Mounting brackets to screw unit down to horizontal or vertical bulkhead

All cables secured with cable ties

- **Vibration -** Long term stress fatigue. The continuous vibration and pounding will kill a normal desktop PC long before corrosion does. Hard disk drives and graphics cards are the most common points of failure.

Solid state hard drive - no moving parts to break or skip

Industrial shock mounts fitted to conventional hard drives

- **Power Supply -** small boats have a 12v or 24v DC system. The majority of PCs are designed for mains operation - even laptops usually can't be charged directly from the boat's supply. Inverters are inefficient and another system to go wrong.

- **Noisy, fluctuating voltages -** When batteries are low and the engine is started, "brownouts" - voltages less than 10v are not uncommon. When the engine is running the voltage can rise to 14.5v or more and this can damage "12v" PCs. Electrical noise from other equipment or the alternator can cause problems too.

The latest DC to DC power adaptors avoid the use of inverters and mains voltages. Developed for commercial trucks, they are over 95% efficient and have high input ranges 6v to 32v for reliable 12v or 24v operation.

- **Limited battery capacity -** Let's face it, when batteries were first fitted to yachts there wasn't the kind of demand on them that we see now. Chartplotters, radars, VHF radios, instruments, televisions are all common sights on modern yachts and there's only so much you can squeeze out of a battery. Sailboat owners constantly worry about power consumption and normal PCs consume a **LOT** of power. More Processing Power = More Electrical Power

The Digital Yacht Aqua PC is fanless with an Intel Atom N270 processor and consumes just 1.5A

The top of the range AquaPro has a solid state hard drive, Intel Core i3 processor with integral graphics for 3D charting and still only consumes 3.5A

OTHER THINGS TO CONSIDER

- **Confined space for electronics -** Space is always at a premium on most boats. Unless a manufacturer states their PC can be mounted in an enclosed space, assume that good air circulation is necessary to avoid over-heating. Don't ever cover up ventilation holes in the PC case under the mistaken impression that you're "waterproofing" your PC. You also need to allow room to access connections at the rear of the PC or enough spare cable to remove the PC without pulling cables out. A remote power switch and USB socket is useful if the PC is going to be mounted in a difficult to access location.

There are a lot of really compact PCs available on the market, but actually the smallest PC may not be the best long term investment as you need to consider upgradability and compatability.

- **Interfacing -** NMEA0183 is the most common form of interface on board modern boats. It's a serial interface and will work with the RS232 (COM) Serial Ports found on older PCs, but these are becoming less common on newer PCs. It's very useful if your Marine PC has some COM ports but if not, NMEA to USB interfaces are available - make sure that compatible drivers exist for the version of Windows you are running. NMEA2000 is the latest interfacing standard and is based on the CAN Bus technology found in cars. To interface with NMEA 2000 systems you will need a PC with an NMEA2000 interface built-in or one of the USB to NMEA 2000 Gateway devices that are now available. More reason not to go for the smallest PC you can afford.

- **Equipment has to work reliably -** If you're going to switch to a PC based navigation system then you're going to want it to be reliable - the last thing you need is for the system to pack up at a critical moment. Dedicated marine electronics manufacturers spend a huge amount of resources making their equipment rugged and reliable because they know how demanding the marine environment is. Having said that, modern PCs are much more reliable than they were five or six years ago. Aside from the hardware issues we've already looked at, three other factors significantly affect reliability, and it's basically the same issues that you usually run up against with your PC at home:

Operating System: We recommend Windows 7 (32 bit)

Drivers: always ensure devices are properly installed and have the latest drivers

Software: Avoid installing / uninstalling lots of different software and if possible avoid having an internet connection on your navigation PC - if you're using your boat PC for navigation, use an old laptop or cheap Netbook for surfing the internet, playing games, etc.

To summarise - **get everything working and then don't change anything!**

CONCLUSION

We firmly believe that PCs have a place on board today's leisure boats, there's some great marine software on the market and an increasing range of hardware specifically designed for integration with onboard computers. They offer greater flexibility and upgradeability than dedicated marine electronic equipment, but if you want to go down this path, our advice is that you invest in a DigitalYacht professional marinised PC system.

Marine PC Systems

DIGITALYACHT AQUA STANDARD PC

Compact 12v Marine PC

Aqua PC is designed as a general purpose, great value on board PC. With the latest ultra low power, fanless, Intel Atom N270 processor (2.5W) the complete Aqua PC system typically consumes just 20W but provides all of the performance needed to run navigation software, e-mail, surf the web, etc. All Aqua PCs can be connected directly to the boat's 12v or 24v DC supply with no inverter and all models can be switched on/off either from the front panel switch or from a remote push button switch (not supplied).   Can be supplied with optional built-in Hi-Power Wi-Fi adaptor or built-in NMEA 2000 Gateway.

KEY FEATURES
- 12/24v DC, ultra rugged, fanless marine PC
- Compact - measures just 30 x 27 x 7cm!
- Easy mounting and installation
- Fitted with CD/DVD RW
- Supplied with Windows 7 (on UK versions) - Linux version also available
- 2 x NMEA Ports and 3 x USB Ports
- Intel Atom N270 processor for low power consumption and fast computing
- 160GB hard drive fitted in Anti-Vibration mount

DIGITALYACHT AQUAPRO PC

Compact 12v Marine Navigation PC

AquaPro is designed specifically for high speed, demanding 3D charting and bathymetric applications such as MaxSea TimeZero (Explorer and Navigator versions). It uses an Intel i3-530 processor and 4GB RAM for exceptional performance. It's supplied with Windows 7 (64 bit) as standard and can also be fitted with an internal 4 port isolated NMEA interface with built in multiplexing functions, allowing complex NMEA systems to be integrated into the PC. A 64GB solid state hard drive is supplied as standard.

KEY FEATURES
- 64GB solid state hard drive, 4GB RAM
- Latest Intel i3-530 processor for exceptionally fast processing speeds
- Optimised to run the latest, graphics-intensive marine navigation software systems
- 10 x USB Ports

ALL AQUA PCs SUPPLIED WITH
0.75m power/IO cable, bulkhead and desktop mounting brackets, SmarterTrack Lite software, driver CD. Aqua Nav PC also includes a navigation IO cable and GPS smart antenna

DIGITALYACHT AQUAMEDIA PC

Compact 12v Marine MediaCentre PC

AquaMedia is optimised as a powerful Media Centre PC. Featuring the latest low power Intel Atom 330 dual core processor the complete system typically consumes just 35W while giving the performance you need for a full function HD Media Centre PC.

KEY FEATURES
- 250GB hard drive, 4GB of RAM
- BluRay drive
- True HD 1080P movie playback
- Digital TV tuner
- 8 USB ports

DIGITALYACHT AQUANAV PC

Compact 12v Marine Navigation PC

AquaNav is optimised as a powerful marine navigation PC. Standard interfaces include three USB ports and a VGA and DVI port allowing the system to drive up to two compatible LCD monitors. It is supplied ready preconfigured and interfaced so the GPS and AIS work straight out of the box.

KEY FEATURES
- Super fast 64GB solid state hard drive, 2GB of RAM
- Two NMEA ports
- Inbuilt dual channel AIS receiver
- Dedicated GPS Antenna
- CD/DVD RW drive

DIGITALYACHT T112

12in Marine Touchscreen Monitor

A compact, slimline 12v DC LCD touch screen with VGA, DVI and composite video input. Touch screen operation requires USB connection to the PC.

KEY FEATURES
- 1024 x 768 pixel resolution
- High brightness, ultra-wide viewing angle
- Plug and play compatibility
- Advanced on screen display controls
- Extra on-screen buttons to enable easy power control of the CPU, CPU restart and audio silencing
- Panel, wall and desktop mount options

SUPPLIED WITH
Flush mount kit and software

DIGITALYACHT KEYBOARDS

KB05 - Great compact USB keyboard that doesn't take up too much chart table space. Inbuilt 2 port USB hub, great for connecting dongles or memory sticks where getting access to the PC may be difficult.

KB55 - Wireless keyboard with inbuilt trackball, ideal for use in rougher seas where you can brace yourself against a bulkhead and hold the keyboard in your hands, operating the trackball with your thumb.

DIGITALYACHT USB TO NMEA

USB To NMEA Adaptor

Bi-directional NMEA to USB Adaptor which converts NMEA 0183 data used by many marine systems into a USB format that can be plugged into most modern computers. It supports traditional 4800 baud data or the higher speed 38400 baud rate used by AIS systems.

KEY FEATURES
- Plug and play connection to most PCs, Macs and Linux computers
- Bidirectional data conversion
- Inbuilt data indicator lights
- Multiple adaptors can be used with the computer
- Supports 4800 or 38400 baud rate

SUPPLIED WITH
1.8m cable, driver CD, SmarterTrack Lite AIS software

DIGITAL YACHT

DIGITALYACHT GPS105

12 Channel WAAS/EGNOS GPS

Marine GPS antenna with IP X7 waterproof, anti-UV and chemically stabilised plastic housing. This general purpose, high sensitivity GPS, will operate from either a 12v or 24v DC supply and has an industry standard NMEA0183 data output.

Ideal for use with DSC radios, radar, chart plotters or any other marine devices that require GPS data, a simple 4 wire power and data connection and zero configuration, make this an easy and reliable GPS to install and use.

The rugged, waterproof housing features an integral 1in 14TPI industry standard thread mount so it is compatible with standard marine mounting accessories and can be mounted outside on a rail, radar arch or other suitable location.

KEY FEATURES
• 12 parallel tracking channels
• Fast Time To First Fix
• WAAS compliant with EGNOS support
• Low power consumption < 150mA
• On-board rechargeable battery
• Interference filter for radar and VHF channels
• NMEA 0183 v2.20 output, 4,800 baud
• GGA, GSA, GSV and RMC sentence output
• Real-Time Clock and control parameters memory for fast satellite acquisition during power-up
• Automatic cold start without user reset

SUPPLIED WITH
Integral 1in 14TPI threaded base and 10m cable

DIGITALYACHT HSC100

Compass Sensor

Accurate compass heading data remains a fundamental parameter for marine navigation and the HSC100 uses fluxgate technology to deliver heading data for on board systems. Typical applications include enabling course up and true motion type displays on chart plotters, radar overlay onto electronic charts and stabilisation of radars when used for MARPA/ARPA target tracking. Integrated instrument systems can also benefit from having compass information to calculate real time tidal set and drift when interfaced with a log and GPS.

Most low cost heading sensors only output data at 1Hz (once per second) but the HSC100 outputs at 10Hz which is required for MARPA target tracking and accurate radar overlays.

The HSC100 is waterproof (IPx7) so can be mounted externally on steel hulled vessels. It also features an automatic calibration routine to compensate for the effects of nearby magnetic influences. This involves turning the boat through 1.5 circles at a constant angular velocity whilst in calibration mode. Once completed, typical accuracies are within 0.5º.

HSC100

NEW FOR **2011**

KEY FEATURES
• High Speed (10hz) NMEA electronic fluxgate compass sensor
• Ideal for use with radar overlay and MARPA target tracking systems
• Industry standard NMEA 0183 "HDG" output
• Gimballed to 45º
• 12/24v DC operation with minimal power consumption
• Waterproof to IPx7 and suitable for external mounting on steel hulled vessels
• Automatic calibration routine and manual compass offset feature
• Additional AD10 heading output for interface to Furuno systems
• LED Status Indicator

SUPPLIED WITH
15m Cable and manual

DIGITALYACHT SMARTERTRACK

Navigation Software

Ideal for anyone with a dedicated chartplotter using Navionics Gold, Platinum or Platinum+ chart cartridges or is new to electronic charting and wants simple to use PC navigation software with excellent AIS support.

SmarterTrack turns your Windows XP/Vista/7 PC into a navigation tool that overlays your position and AIS targets onto the chart. AIS features include colour coded targets, user selectable target labelling, fully configurable CPA and TCPA alarms, visual indication of CPA, AIS targets drawn to scale and more. Programming routes, checking tides, depths or nav-aids on the chart and a host of other navigation tasks can be performed simply and effortlessly.

KEY FEATURES
• NEW FEATURES FOR 2011 - NMEA2000 support, customisable instrument displays and weather overlays (GRIB files)
• Displays all NMEA instrument data
• All route and waypoint data can be transferred to your dedicated chart plotter
• Tidal height and tidal flow data
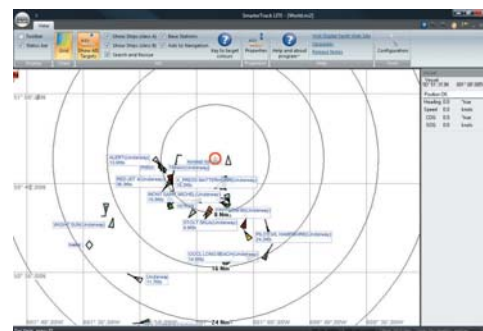• Full set of configurable alarms

HOT PRODUCT

SUPPLIED WITH
Navionics USB cartridge reader, installation CD-ROM and manual

DIGITALYACHT SMARTERTRACK LITE

PC AIS Display Software

A simple but effective graphical AIS display program for any PC running Windows XP/Vista/7. AIS data is meaningless unless it shows where the targets are in the real world relative to your vessel. SmarterTrack LITE does this by plotting all surrounding AIS targets on a world map or, as you zoom in, on a radar type screen with variable range rings. Features include colour coded targets, user selectable target labelling, target course lines and fast AIS information recovery, making it the ideal introduction to AIS software.

KEY FEATURES
• Graphical AIS display software plots all detected AIS targets on world map
• Automatically switches to AIS "Radar" type display as you zoom in
• Colour coded AIS Targets with course lines
• Each AIS target shown with user selectable label
• Can be upgraded to full SmarterTrack package

SUPPLIED WITH
Installation CD-ROM and manual

DIGITAL YACHT

Intranet & Wireless Servers

DIGITALYACHT BOATRANET

Wireless Navigation Server

BOATraNET... the world's first wireless navigation server for boats!

BOATraNET integrates with the boat's navigation system via NMEA0183 or NMEA2000 and creates a dynamic website for the boat that can be accessed even at sea without an internet connection.

It creates a wireless network that works with iPhones, iPads, iPod Touch, Android Devices, Smart Phones, Laptops, Windows, LINUX and Mac OS X PCs - in fact any wireless enabled device with a HTML5 compliant browser. No special apps or difficult setup are required, simply connect to the **BOATraNET** WiFi hot spot and start browsing!

It also incorporates a Navionics based chart plotter, that displays the boat, next waypoint and other data on a clear and simple Navionics chart background.

But it's not limited to just navigation - photos, documents, music etc can also be stored using a USB memory stick which then is available to all connected devices. Compatible with the high power WL500 system, local users of BoatraNet can connect to marina hot spots to get internet access. What's more, **BOATraNET** also automatically shares the internet connection, giving all wireless devices on the boat to access the internet!

NEW FOR 2011

HOT PRODUCT

KEY FEATURES
- 10-32v DC, less than 2A consumption
- Intel Atom D410 processor, 1Gb RAM
- LINUX Server OS
- Fully HTML5 compliant
- Optional NMEA2000 Gateway
- Apache Web Server
- 802.11n Wireless LAN
- Two NMEA0183 Ports

SUPPLIED WITH
0.75m Power/IO cable, Mounting brackets, Wifi Antenna and User Manual

DIGITALYACHT WLN10

Wireless NMEA Server

This innovative and cost effective wireless device creates its own 802.11b+g wireless access point which any other wireless device can connect to, such as a Smart Phone, Netbook or Laptop. Connect it to any device or system that has an NMEA0183 output and it'll automatically read the data and transmit it wirelessly to another wireless device. The NMEA 0183 data is transferred using TCP/IP protocol to a suitably compatible application on the wireless device.

A number of Marine Navigation software packages support TCP/IP data transfer including:

- SeaPro (PC)
- Rose Point Coastal Explorer (PC)
- MacENC (Macs)
- iNavX (iPhone/iPad)

If you are connecting the WLN10 to an AIS receiver or transponder, then Digital Yacht's free iAIS app is downloadable from the Apple App Store, which will display an AIS radar type picture on your Apple device.

NEW FOR 2011

HOT PRODUCT

KEY FEATURES
- Wireless NMEA Data server
- Easy to install IP54 black box solution
- Reads NMEA 0183 data and transmits it wirelessly over 802.11b+g
- Can be fitted to any AIS unit, Instrument System or other device with an NMEA 0183 output
- Creates an 802.11b+g wireless access point and then transmits data via TCP/IP link
- Fully compatible with popular iNavX navigation application for Apple mobile devices
- Free iAIS App for iPhone, iTouch or iPad

SUPPLIED WITH
1m Power/Data cable, Wifi Antenna, iAIS app (from Apple App Store), software CD and User Manual

Wi-Fi Access Systems & Boosters

DIGITAL YACHT

DIGITALYACHT WL400

High Power Wi-Fi System

This compact, all-in-one system connects to your PC via USB using a plug 'n' play driver disk supplied for Windows XP/Vista/7, Mac OS X 10.3 (and higher) and LINUX* operating systems. It supports 802.11b/g protocols as well as WEP and WPA encryption. Even if you already have Wi-Fi access you will still want to take advantage of the superior range and speed that this system can offer you.

Wi-Fi range depends on many factors but we have seen ranges of up to 3-4 miles with this low cost system, so if you plan to access the internet whilst on board, the WL400 could be the solution for you!

KEY FEATURES
• Ideal for semi-permanent installation
• Simple Plug and Play USB connection
• All in one 200mW Wi-Fi modem and high gain 12dBm
  omnidirectional antenna
• Industry standard 1in x 14 TPI thread mount
• Integrated 5m USB cable - can be extended with optional
  5m USB Active Extender
• USB Bus Powered
*The WL400 has not been tested with all LINUX distributions, but all of the latest
  Debian-based distributions should include these drivers*

SUPPLIED WITH
5m USB cable, Driver CD

DIGITALYACHT WL500

High Power Wi-Fi System

The WL500 allows boat owners to connect to Wi-Fi hot spots. With internet connectivity on board you can download the latest weather or chart updates as well as having a mobile office on board. The system has a compact 12v DC below deck 500mW booster/modem and an external 0.9m hi-gain antenna.

The WL500 modem connects to the PC via a regular USB connection with a plug 'n' play driver disk supplied for Windows XP/Vista/7, Mac OS X 10.3 (and higher) and LINUX* operating systems. It supports 802.11b/g protocols as well as WEP and WPA encryption.

Even if you already have Wi-Fi access you will still want to take advantage of the superior range and speed that this system will offer. Wi-Fi range depends on many factors, we've seen ranges of up to 4-6 miles with this low cost system.

KEY FEATURES
• Ideal for permanent installations and new builds
• Simple plug and play USB connection
• Windows XP/Vista/7 compatible
• Mac OS X and LINUX* compatible
• 500mW Wi-Fi modem and high gain (12dBm)
  omni-directional antenna
• Industry standard 1in x 14 TPI thread mount
• Supplied with 10m of low loss LMR400 coax cable
• 2m USB cable can be extended with optional 5m
  USB active extender
• Modem requires connection to 12v supply
*The WL500 has not been tested with all LINUX distributions, but all of the latest
  Debian-based distributions should include these drivers*

SUPPLIED WITH
WiFi modem, antenna with 10m cable, 2m USB cable, Driver CD, User Manual

Find out more...

Why Fit a WiFi Booster?
Most harbours and ports now offer Wi-Fi as part of their facilities, but if they're using a standard wireless router and antenna, the range is typically less than 100m outdoors and if you're using the internal Wi-Fi adaptor typically used on a laptop, you'll be lucky to find the signal at the end of the dock!

While you can't improve their transmission power, you can do something about your Wi-Fi reception quality by fitting a high power system or booster.

DIGITALYACHT WL50

Wi-Fi Booster

Compact all-in-one system with a 30mW modem built in to a 0.6m high gain antenna which should boost your Wi-Fi range to over 0.5 miles in perfect conditions.

Designed for quick and easy installation using four suction cups, the WL50 is an ideal temporary mount solution for boats, caravans, RVs etc. With simple Plug & Play connection, it comes with all software and drivers for Windows XP, Vista, Mac OS X 10.3+ and LINUX.*

KEY FEATURES
• Ideal solution for temporary installation
• Simple Plug and Play USB connection
• 30mW Wi-Fi modem and high gain
  (8dBm) omni-directional antenna
• 4 x suction cup mount
• USB bus powered
• Windows XP/Vista/7 compatible
• Mac OS X and LINUX* compatible
*The WL50 has not been tested with all LINUX distributions, but all of
the latest Debian-based distributions should include these drivers*

SUPPLIED WITH
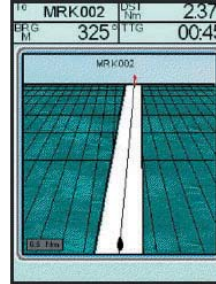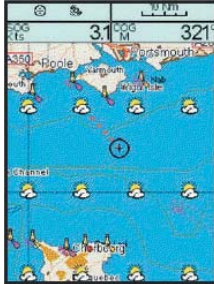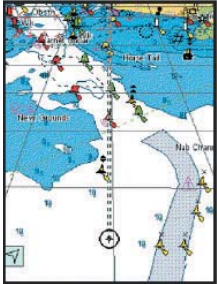Mounting Suction Cups, Mounting brackets, 5m USB cable, Driver CD

DIGITALYACHT SMARTERCHART 500 AIS COMBO

5in Colour Chartplotter With AIS

The SmarterChart 500 AIS Combo is the world's first 5in chart plotter to feature an inbuilt AIS receiver, plotting your position on the electronic chart and also overlaying all AIS targets typically within 20 miles of your boat. Featuring a 5in sunlight viewable display, the AIS Combo is fully compatible with C-Map MAX charts, providing unprecedented value and detail. As the AIS receiver is inbuilt you don't have to worry about integrating a separate receiver unit, simply connect to a suitable antenna or splitter and you're ready to go!

The SC500 is compatible with C-Map's PC Planner - plan your routes on your PC at home and transfer the data to the SC500 via a C-Map user card. The C-Forecast feature adds a 4 day forecast of detailed global weather data including temperature, swell, visibility, wind and general conditions. This data can be viewed on PC, then saved onto a C-Map user card and transferred to the SC500 so that weather data can be overlaid onto the chart.

KEY FEATURES
- Ultra fast chart redraw, pan and zooming
- High sensitivity, dual channel AIS receiver - BNC connector for antenna
- 50 channel internal GPS (external GPS option)
- IP56 rated 320 x 240 sunlight viewable display
- Worldwide built-in electronic charts showing C-Map detail down to a level of two nautical miles

- Compatible with C-Map PC Planner and User Cards
- PC Planner C-Forecast compatible
- Can be connected to 12v or 24v DC supply
- Flush, bracket and helm pod mounting options
- Requires connection to existing VHF/AIS antenna or suitable splitter (available as optional accessories)

SUPPLIED WITH
Mounting brackets, 1m power/data cable, sun cover, fuse holder and user manual

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DIGITALYACHT AISnet

Internet Base Station

Dual channel AIS base station receiver for home or office use. AISnet features an ethernet socket so that you can connect it to your broadband router and send AIS data to an online AIS tracking service.

There are now a number of websites which allow users to check the position and identity of AIS equipped vessels. If you are close to the coast and want to contribute your data to one of these sites, simply register with the company and they will give you an IP address and port number.

It takes seconds to configure AISnet with the setup program supplied. You can also view the data locally on your PC using the included SmarterTrack Lite software - simply connect AISnet to your PC via USB.

KEY FEATURES
- Simple "fit and forget" black box solution
- Integrated ethernet network controller for supplying AIS data to AIS websites
- High performance dual channel AIS receiver
- Simple configuration via free setup program
- Simple plug and play connection to a PC via USB
- Requires VHF antenna, dedicated AIS antenna or splitter (optional accessories)

SUPPLIED WITH
UK/Euro/US mains adaptor, 1m USB Cable, AIS Lite & Setup software on CD and User Manual

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DIGITALYACHT iAIS

Wireless Tri-Output AIS Receiver

The world's first AIS receiver that links wirelessly with the latest iPhone, iPad and iTouch devices. Consisting of a high performance dual channel AIS receiver and an integrated 802.11b+g wireless access point, the iAIS brings AIS data to a whole new generation of mobile devices. iAIS also multiplexes any other NMEA data available - GPS, depth, speed and wind etc. All of this data is combined with the AIS data into a single wireless feed, that becomes available to any compatible application. By using the boat's own GPS, even an iPod Touch or iPad that does not have an internal GPS can now be used for navigation and superior performance will also be seen on an iPhone, which some users have complained suffers from jitter or poor lock-on with its internal GPS.

The iAIS also has an NMEA0183 and USB interface so that you can output data to a PC or a dedicated plotter. The free iAIS app is available from the App Store and is a simple AIS display program. For more advanced use, DigitalYacht recommends the iNavX app (www.inavx.com). Compatible with Navionics charts, iNavX provides a complete set of navigation functions that turns your Apple device into a full function chartplotter with waypoints, route and tidal data and GRIB weather data overlay.

KEY FEATURES
- Simple "fit and forget" black box solution
- Tri-output - WiFi, NMEA 0183 and USB
- Multiplexed NMEA input for wireless NMEA feed of instrument and GPS data
- Integrated 802.11b+g wireless access point

- Free iAIS App for iPhone, iTouch or iPad
- Fully compatible with iNavX navigation application for Apple mobile devices
- Requires VHF antenna, dedicated AIS antenna or splitter (optional accessories)

SUPPLIED WITH
Mounting brackets, 1m Power/Data cable, 1m USB Cable, iAIS app (from Apple App Store), software CD and User Manual

AIS Systems

DIGITAL YACHT

DIGITALYACHT AIS100/AIS100USB

AIS Receiver

These value priced, entry level AIS receivers are Digital Yacht's most cost effective solution for adding AIS to your boat. Available with NMEA0183 (AIS100) or USB (AIS100USB) outputs, both models feature the same dual channel receiver as the AIS200 range, but without the multiplexer. Nevertheless, there is no compromise on performance and the AIS100 will outperform all other, inferior, single channel receivers. For use with existing AIS compatible chart plotters, such as the latest Garmin, Raymarine, Navico, Standard Horizon and Furuno units. Connected to an existing VHF antenna via a splitter or to a dedicated AIS antenna, you can receive all AIS targets typically within 20 miles of your boat.

NEW FOR 2011

KEY FEATURES
- Low cost entry level AIS receiver
- High performance dual-channel AIS receiver for use with existing plotter and radar systems
- **AIS100** - NMEA0183 output
- **AIS100USB** - USB Output
- Requires VHF antenna, dedicated AIS antenna (optional accessory) or splitter
- Easy to install IP54 black box solution

SUPPLIED WITH
Integral mounting brackets, 0.75m power/data cable, AIS Lite software on CD and User Manual

DIGITALYACHT AIS200N2

Tri-Output AIS Receiver

The first AIS receiver with Tri-Output capability, the AIS200N2 is ideal for complex NMEA2000 installations where multiple units require AIS data. Providing traditional NMEA0183, USB (for PC) and NMEA2000 data connections, it also features a multiplexer so that traditional NMEA0183 format data such as depth, position, speed and wind can be converted to NMEA2000 within the unit.

The NMEA 2000 data standard offers faster, more complex networking capabilities and cross platform compatibility with a universal plug 'n' play type cabling system. The unit has a true, dual channel parallel receiver, using digital processing for the best possible target acquisition. Uses standard Windows XP/Vista/7 inbuilt drivers and also compatible with Mac OS X and all LINUX Kernels since V2.4.20.

NEW FOR 2011

KEY FEATURES
- Tri-Output; NMEA2000, NMEA0183 and USB PC
- High performance dual channel AIS receiver for use with existing plotter and radar systems
- Rugged IPX5 aluminium housing
- USB Interface for simple plug and play connection to a PC
- High speed NMEA output (38,400 baud)
- Requires VHF antenna, dedicated AIS antenna (optional accessory) or splitter
- Multiplexed NMEA input for single NMEA GPS+AIS data output on all three ports
- Simple "fit and forget" black box solution

SUPPLIED WITH
Mounting brackets, 1m Power/Data cable, 1m USB Cable, 0.5m NMEA2000 cable, AIS Lite software on CD and User Manual

DIGITALYACHT AIS200PRO

AIS Receivers

Great entry-level AIS receiver for use with PC navigation software and chartplotters, such as the latest Garmin, Raymarine, Navico, Standard Horizon and Furuno units. Simple plug and play USB connection to a PC. Uses standard drivers built-in to Windows XP/Vista/7 and is also compatible with Mac OS X and all LINUX Kernels since V2.4.20. The AIS200Pro also features NMEA0183 input and output allowing you to supply AIS data to a dedicated chartplotter for larger installations. Connect the NMEA (4800 baud) output of your GPS to the AIS200PRO and it will automatically multiplex the slower GPS data with the high speed AIS data and transmit everything on the high speed NMEA output (38,400 baud) - perfect for connection to a chart plotter with only one NMEA input.

KEY FEATURES
- High performance dual channel AIS receiver for use with existing plotter and radar systems
- Rugged IPX5 aluminium housing
- USB Interface for simple Plug and Play connection to a PC
- High Speed NMEA output (38,400 baud)
- Requires VHF antenna, dedicated AIS antenna (optional accessory) or splitter
- Multiplexed NMEA input for single NMEA GPS+AIS data output at 38,400 baud
- Simple "fit and forget" black box solution

SUPPLIED WITH
Mounting brackets, 1m Power/Data cable, 1m USB Cable, AIS Lite software on CD and User Manual

DIGITALYACHT AIT1000

Black Box AIS Class B Transponder

An ultra-slim Class B AIS Transponder with dual NMEA and USB connections, the AIT1000 is an ideal solution for all light marine vessels up to 300 tons. Configuration of your vessel's fixed data is made easy with the Windows proAIS software supplied with the AIT1000. The unit can be connected to a PC running suitable navigation software or a chartplotter and it will receive data from all AIS targets within range as well as transmitting your own AIS data, so other AIS equipped vessels know where you are.

Offering simple plug and play USB connection to a PC using standard Windows XP/Vista/7 drivers, the AIT1000 is also compatible with Mac OS X and all LINUX Kernels since V2.4.20. **NOTE** - proAIS programming software requires Windows XP/Vista/7 PC for programming.

The AIT1000 outputs AIS and GPS data together on both the USB and NMEA ports, making it perfect for use with a chartplotter that only has one NMEA input.

HOT PRODUCT

KEY FEATURES
- High-performance Class B AIS Transponder
- Remote silence button option
- Built-in GPS receiver (ideal as a backup GPS)
- Plug and Play USB interface to a PC
- High Speed NMEA output (38,400 baud)
- Comes complete with low profile GPS antenna
- Requires VHF antenna or dedicated AIS antenna (optional accessory)

SUPPLIED WITH
Mounting brackets, 0.75m Power/Data cable, 0.75m USB cable, GPS Antenna with 7.5m cable, ProAIS software on CD

DIGITALYACHT ANT200

AIS Smart Antenna Receiver

Perfect "all in one" AIS Smart Antenna solution for small boats, particularly RIBs, sports boats and small yachts where dry space to mount black box AIS units is limited. Simply connect 12v or 24v power and the ANT200 will start transmitting data on all AIS targets within range of your boat, typically 10-15nm. Ideal for use with AIS compatible chart plotters, such as the latest Garmin, Raymarine, Navico, Standard Horizon and Furuno units.

Connect your NMEA0183 (4800 baud) GPS output to the ANT200 and it will automatically multiplex (merge) the slower GPS data with the high speed AIS data and transmit everything on one high speed NMEA output (38,400 baud) - perfect for connection to a chart plotter with only one NMEA input.

HOT PRODUCT

KEY FEATURES
- World's first AIS smart antenna
- Simple to install "all in one" solution
- High performance dual channel AIS receiver for use with chartplotter and radar systems
- Multiplexed NMEA input for single NMEA GPS
- High speed (38,400 baud) NMEA output of both GPS and AIS data to chartplotter, radar etc
- Integral 1in x 14 TPI thread for standard VHF mounts

SUPPLIED WITH
15m Power/Data cable, AIS Lite software, User Manual

DIGITALYACHT SPL250

AIS Antenna Splitter

Removes the need for a separate VHF antenna for an AIS transponder and allows a single antenna to be shared with a VHF radio. This is the only VHF antenna splitter suitable for use with two transmitting devices. Compatible with all Class B AIS transponders and AIS receivers.

KEY FEATURES
- Saves installation time and cost
- Guarantees priority to VHF voice and DSC radio operation even if the splitter power supply fails
- Additional output for FM radio antenna connection

SUPPLIED WITH
RF leads for connection with AIS transponder, VHF radio and a power lead

DIGITALYACHT AA10

AIS VHF Whip Antenna

A 47cm whip antenna which is ideal if you want a dedicated AIS antenna instead of using your current VHF antenna with a splitter. It is supplied with 10m cable and fitted with a neat fast fit coupler, which allows the cable to be routed without having to cut off and reconnect the plug.

It fits standard 1in deck and rail mounts meaning it is easy to fit on the boat in the most convenient location.

NEW FOR 2011

KEY FEATURES
- Integral 1in 14TPI industry standard VHF mount
- Miniature FME connector (with BNC adaptor) for easier routing of the cable through the boat
- Can be used as an emergency backup VHF antenna

DIGITALYACHT HA156

AIS VHF Stub Antenna

Compact, ultra lightweight 0.2m antenna ideal for use with all DigitalYacht AIS receivers and transponders. Optimised for AIS use, it doubles as an emergency VHF antenna in case of damage to the mast.

Important Note: The 20m cable fitted to this antenna acts as a tuned ground plane and should not be shortened or lengthened.

KEY FEATURES
- Tuned for optimum gain and performance at AIS frequencies
- Unobtrusive design for mounting at deck level
- 20m of RG58 coax cable
- Can be used as emergency backup VHF aerial
- Bayonet (BNC) fitting for quick connection

Find out more...

AIS Comparison
All Digital Yacht AIS receivers feature a dual channel design for the best possible target acquisition capability.

FEATURE	AIS100	AIS200PRO	AIS200N2K	ANT200	iAIS	AIS NET
FEATURES	Value priced AIS receiver with NMEA 0183 38400 baud industry standard output	Offers all the AIS functionality of the AIS100 plus NMEA input multiplex cabability and a PC USB output.	Offers AIS functionality plus NMEA 0183 to N2K multiplex facility, N2K output and PC USB connection	World's first self contained AIS "Smart" antenna with NMEA 0183 38400 baud output and NMEA input multiplex capability	Combination AIS receiver and NMEA multiplexer for iPhone/iPad products with wifi and traditional data outputs	Shore side network receiver for use as AIS feed to internet tracking sites and other network applications
DUAL CHANNEL RECEIVER	●	●	●	●	●	●
RECEIVER FREQUENCY	161.975 MHZ 162.025 MHZ	161.975 MHZ 162.025 MHZ	161.975 MHZ 162.025 MHZ	161.975 MHZ 162.025 MHZ	161.975 MHZ 162.025 MHZ	161.975 MHZ 162.025 MHZ
RECEIVER SENSITIVITY	<-107dBm at 20% PER	<-107dBm at 20% PER	<-107dBm at 20% PER	<-107dBm at 20% PER	<-107dBm at 20% PER	<-107dBm at 20% PER
MOUNTING	Bulkhead	Bulkhead	Bulkhead	1" X 14 TPI standard mnt	Bulkhead	Wall/Bulkhead
NMEA 0183 38400 BAUD OUTPUT	●	●	●	●	●	
USB PC CONNECTION		●	●		●	●
NMEA 2000 OUTPUT			●			
ETHERNET OUTPUT VIA RJ45						●
WIFI OUTPUT					●	
WIFI RANGE TYP					30-100m max	
NUMBER OF CONCURRENT WIFI USERS					1	
NMEA INPUT 4800 BAUD (for multiplex capability)		●	●	●		●
SMARTERTRACK LITE PC SOFTWARE INC	●	●	●	●	●	●
POWER REQUIREMENT	12/24V	12/24V	12/24V	12/24V	12/24V	12/24V DC. AC 110/220 V ADAPTOR SUPPLIED
POWER DRAW (TYPICAL MAX 12V)	90mA	90mA	150mA	90mA	300mA	250mA
VHF ANTENNA REQUIRED (or compatible AIS-VHF splitter)	●	●	●	●	●	●
PROTECTION	IPX5	IPX5	IPX5	IPX7	IPX5	IPX0
ANTENNA CONNECTION	BNC (F)	BNC (F)	BNC (F)	N/A	BNC (F)	BNC (F)
DIMENSIONS	75x105x32mm (HxWxD)	150x150x38mm (HxWxD)	250x150x38mm (HxWxD)	180x100mm (HxDia)	150x150x38mm (HxWxD)	150x244x61mm (HxWxD)

Find out more...

What's The Difference Between Class A and Class B AIS?
AIS is an internationally recognised automated tracking system for use on ships and by VTS operators. Data such as name, call sign, MMSI, position, course and speed is automatically exchanged with other users and the information can be displayed on a dedicated screen or overlaid onto an electronic charting system.

The International Maritime Organization's SOLAS Convention requires international voyaging ships with gross tonnage (GT) of 300 or more tons and all passenger ships regardless of size to be fitted with a Class A AIS system. In 2007 the Class B standard was introduced which enabled a new generation of low cost AIS transceivers to be fitted to vessels which are not mandated to carry Class A AIS. The systems are inter-operable.

Class A Requirements
Class A transponders operate using Self Organised Time Division Multiple-Access (SOTDMA). They must have an integrated display, transmit at 12W, be able to interface with multiple ship systems and offer a sophisticated selection of features and functions. Default transmit rate is every few seconds, dependent upon the vessel speed.

Class B Requirements
Class B transponders operate using Carrier Sense Time Division Multiple Access (CSTDMA). Class B units transmit at 2W and are not required to have an integrated display. Class B units can be connected to separate displays where the AIS data is listed or overlayed on electronic charts. The default transmit rate is normally every 30 seconds. The Class B standard requires an integrated GPS and certain LED indicators.

Benefits Of Class A Over Class B
Larger pleasure boats and smaller commercial boats that are not mandated to carry Class A transponders can still benefit from choosing a Class A unit over Class B. With more powerful transmissions, higher transmission rates, guaranteed transmission slots, additional data (destination, ETA, number of people on board) and a dedicated display and alarm system, the benefits of Class A can now be gained without paying an exorbitant price premium.

Commercial AIS Systems

DIGITAL YACHT

DIGITAL DEEP SEA

Introduction To Digital Deep Sea

Digital Deep Sea is Digital Yacht's sister division that designs and manufactures products to meet the needs of the fishing, workboat, naval, deep sea, superyacht and commercial sectors. Digital Deep Sea systems are designed for demanding professional conditions and minimum in service costs, offering great performance and terrific value for the professional mariner.

DIGITAL DEEP SEA CLA1000

Class A AIS Transponder

A Class A AIS transponder is a mandatory fit on all commercial vessels over 300 tons and is also required on many smaller passenger carrying vessels. The CLA1000 meets all the global approvals and can consequently be fitted on any IMO vessel. It provides an automatic transmission of the vessel's own position, speed and heading to other AIS equipped vessels within VHF range.

It features a large LCD display which lists all AIS targets within range and can also provide a graphical target plot. The CLA1000 provides alarms for Closest Point of Approach (CPA) and Time to Closest Point of Approach (TCPA) for any potential targets on a collision course. Measuring just 195mm x 105mm, the CLA1000 is currently one of the world's smallest Class A AIS systems available.

It also incorporates a universal pilot plug which allows quick and easy connection of a PC running electronic chart plotting software, allowing GPS and AIS data to be overlaid onto the chart. Digital Deep Sea have developed their own range of PC programs and accessory cables which allow quick and easy programming of static data into the transponder without the use of the dedicated display.

KEY FEATURES
- Fully approved and MED Wheel Marked Class A AIS transponder
- Full Class A functionality with dedicated controller
- Ultra compact design with 240x128 pixel backlit LCD display
- Automatic transmission of vessel's own position, identity, speed and heading toother AIS equipped vessels within VHF range
- Easy soft key and rotary encoder operation
- Positively identify other AIS targets with name, call sign and MMSI data
- See an overlay of targets on a graphical plot

NEW FOR 2011

HOT PRODUCT

- Automatically calculate closest point of approach (CPA) and time to closest point of approach (TCPA)
- Pilot plug for PC connections
- Remote break out box for interfacing with ext alarms, ECS and ECDIS systems
- Inbuilt GPS with GPS antenna supplied

SUPPLIED WITH
PC tracking software, GPS antenna. VHF antenna required (optional accessory)

DIGITAL DEEP SEA ARX100

Class B AIS Receiver

Suitable for non-SOLAS mandate vessels, the ARX100 offers exceptional sensitivity and target acquisition capability. With USB and NMEA output, it can be integrated with compatible chartplotter, radar and PC systems and AIS data overlaid onto the chart. Connect the NMEA0183 (4800 baud) output of your GPS to the ARX100 and it will automatically multiplex (merge) the slower GPS data with the high speed AIS data and transmit everything on one high speed NMEA output, ideal for systems with limited available NMEA inputs.

KEY FEATURES
- NMEA0183 (38400 baud) output
- USB PC connection
- 4800 baud NMEA GPS input
- Multiplexes GPS and AIS input
- Requires suitable VHF antenna

NEW FOR 2011

SUPPLIED WITH
Mounting brackets, 1m Power/Data cable, 1m USB Cable, AIS Lite software, User Manual

DIGITAL DEEP SEA PILOT PLUG CABLE

Class A PC Pilot Plug USB Connection Cable

The Digital Deep Sea Pilot Plug Cable allows Commercial Pilots etc to connect their laptop PC to a Class A Transponder via its Pilot Plug. This cable also allows some Class A transponder models to be configured with the static AIS data and / or mandatory voyage data that must be programmed in before starting a passage.

KEY FEATURES
- Low cost simple solution
- 1.8m cable
- Bidirectional data connection
- Confirms to the IMO SN/Circ.227
- Fully NMEA 0183 compatible (differential RS422)
- Built-in indicator lights flash to show data is being received and transmitted
- Easy plug and play connection to most computers (Windows/Mac/LINUX)

NEW FOR 2011

SUPPLIED WITH
1.8m Cable, Driver CD with SmarterTrack Lite AIS software, User Manual

DIGITAL DEEP SEA CLB1000

Class B AIS Transponder

Featuring dual NMEA and USB connections, remote silence button option, four status LEDs and rugged vibration-proof mounting brackets the CLB1000 is an ideal AIS transponder solution for all light marine vessels up to 300 tons. When connected to an existing VHF antenna via a splitter or dedicated AIS antenna the CLB1000 will transmit your vessel's position so that other AIS equipped vessels know where you are as well as receive all AIS targets within range of your boat.

Configuration of your vessel's fixed data - MMSI, call sign, boat name, dimensions etc is made easy with the included Windows compatible proAIS software. The unit can be connected to a PC running suitable navigation software or a dedicated chart plotter. With simple plug and play USB connection to a PC, it uses standard drivers built-in to Windows XP/Vista/7 and is automatically mapped to an available "virtual" com port, which your PC software can read. Also compatible with Mac OS X and all LINUX Kernels since V2.4.20.

NEW FOR 2011

The CLB1000 automatically outputs AIS and GPS data together on both the USB and NMEA ports, plus it will also retransmit (multiplex) any valid NMEA0183 data that it receives on its NMEA input.

KEY FEATURES
- High-performance Clas B AIS Transponder sends and receives AIS data
- Easy to install black box solution
- Ideal for use with existing plotter and radar systems
- Built-in GPS receiver (ideal also as a backup GPS)
- USB Interface for simple plug and play connection to a PC
- High speed 38,400baud NMEA output compatible with industry standard plotters
- Remote silence function
- Supplied with user programming software *(Except US where dealer programming required)*
- Requires VHF antenna, dedicated AIS antenna (optional accessory) or splitter

SUPPLIED WITH
Mounting brackets, 0.75m Power/Data cable, 0.75m USB cable, Low Profile GPS Antenna with 7.5m cable, AIS software and User Manual

DIGITAL® YACHT

UK Head Office

Marine House
City Business Park
Easton Rd, Bristol.BS5 0SP

tel (+44) 01179 554474

email sales@digitalyacht.co.uk

www.digitalyacht.co.uk

Digital Yacht sell products through a
network of specialist dealers, resellers
and distributors on a global basis. We
also have our own offices as below.
Visit our website for details of a dealer
near you.

Overseas offices:

FRANCE OFFICE tel + 33 1 70 70 79 55

SPAIN OFFICE tel + 34 971 57 55 69

US OFFICE tel +1 978 277 1234

CHINA OFFICE tel +86 21 65870030

NZ OFFICE tel + 64 9 525 7344

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