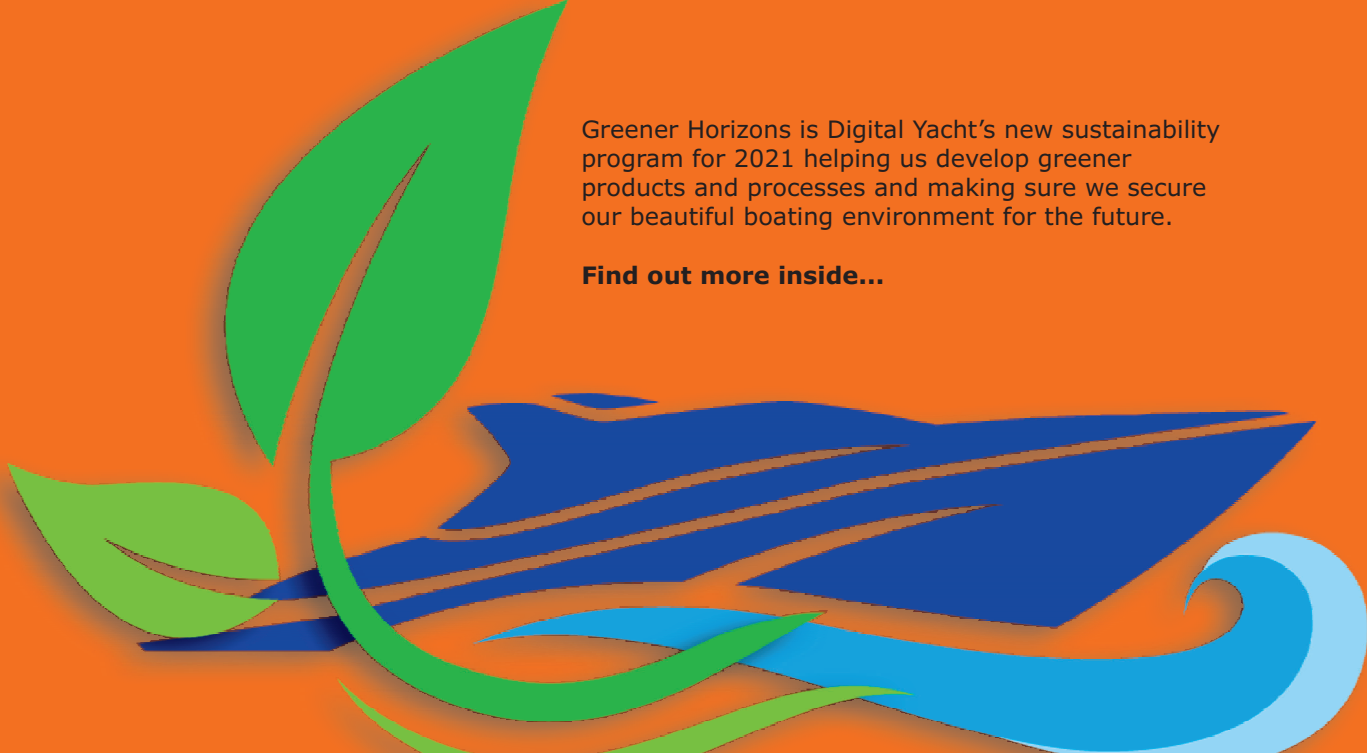




Follow our newsfeed at www.digitalyacht.net

Company News

GREENER HORIZONS



Greener Horizons is Digital Yacht's new sustainability program for 2021 helping us develop greener products and processes and making sure we secure our beautiful boating environment for the future.

Find out more inside...

DIGITAL UPDATE

March 2021

Greener Horizons! Driving our sustainability efforts for 2021

Ofcom EMC Compliance! Is your AIS safe?

AIS Applications! Take a look at some novel AIS technology projects

AIS MOB100! Ultra compact AIS MOB SART for lifevest or pocket installation

4G Connect Pro! Frequently asked questions & accessories

Stay Safe! We're Open & Working Safely Despite The Covid Pandemic



Greener Horizons

Driving our sustainability efforts

Green Projects From Digital Yacht



Dear Partner,

Greener Horizons is Digital Yacht's new sustainability initiative. Our aim is to minimise our carbon footprint in everything we do and each month we'll share some of our ideas and projects. We've already moved to eradicate plastics in our packaging and we're now recycling any incoming plastic packaging. All our product packaging is now from 100% recycled board.



**100% Recycled Board
For All Our Product Packaging**

We're also investing in electric vans. Our Bristol facility has expanded recently and added new remote warehouse space so we've regular trips between the locations. We're now using Renault's new Kango E-Van. It's refined and quiet and gives us over 100 mile range between charges. Our Farleigh Court R&D facility now has charge points installed and there's momentum in the whole business park with 4 of the 12 businesses now equipped with electric cars.



New Kango Van Offers Over 100 Miles Range

Charge point technology is also interesting - it was surprisingly difficult to find a qualified electrician to complete what should be a simple installation. Turns out there's a lot of safety technology and new regulations built into the point which of course can be linked to the cloud to allow efficient charging during economy periods.

We can definitely see e-boating becoming a reality and next month we'll look at our CTO's (Paul Sumpner) new hybrid narrow boat project. Hopefully, our Greener Horizons' projects will act as catalysts for all our future thinking. Good Boating!

Changes to the Wireless Telegraphy Act to Comply with Guidelines on EMF Exposure

If you have a UK Ship's Radio Licence then you may have received an email from Ofcom recently regarding new compliance rules on EMF (electromagnetic field) exposure. The International Commission for Non-Ionising Radiation Protection (ICNIRP) aims to protect people and the environment against adverse effects of non-ionizing radiation - that includes signals from radio transmitters. Some Digital Yacht products especially AIS transponders fall into this category so you may find this article helpful and we hope it alleviates any concerns you may have. From the 18th of May 2021, boat owners may have to assess the safety of their radio transmissions. The new proposed conditions only apply to wireless equipment that can transmit at power levels above 10 Watts EIRP (or 6.1 Watts ERP). Licence holders will be given a grace period of at least 6 months to comply. The good news is that Class B & Class B+ AIS products only transmit with a 2 and 5W power output so don't require an assessment.

**Units like our
CLA2000 Class A AIS
with 12.5W transmission
power are safe and comply
shows the Ofcom calculator**



For those transmitters that transmit above this level (this could include VHF and Class A AIS), the installation will need to be assessed to ensure compliance with the new Ofcom requirements. Ofcom have provided a calculator (spreadsheet) to assist in calculating the Electromagnetic Field (EMF) of an installation.

The calculation is straight forward - you just need to enter your transmitting frequency (156MHz for marine VHF and 162MHz for AIS) and your transmitter power (12.5W for a Class A AIS)

The calculator will then give you the safe distance from the antenna which for a Class A AIS works out as 1.13m. This distance is further mitigated by the duty cycle of the transmission which is just a fraction of a second for an AIS transmission so the reality is a human can stand adjacent to an AIS antenna without issue.



AIS Applications

Interesting AIS projects

AIS For Construction Barges & Helicopters - And the NavLink App

Most of the latest search and rescue (SAR) helicopters are now equipped with an AIS transponder and our NavLINK iOS app presents them beautifully as a miniature helicopter icon, overlaid onto the detailed UKHO charting.

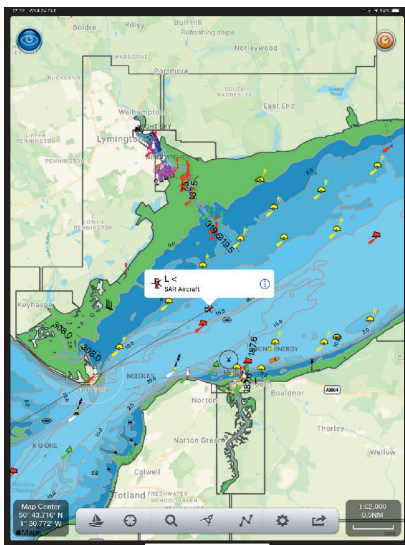


The screen shot below shows a live image from the Solent in February 2021. At first, it seems unreal as you see an AIS target moving fast across the screen but if you're the casualty it must be a reassuring sight to see help on its way!

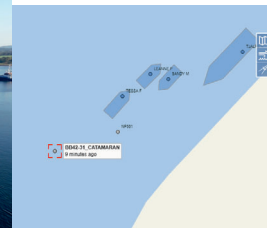
Just like any target, the icon can be tapped to bring up more data. All Digital Yacht products correctly decode specialist AIS targets like SAR helicopters, AtoNs and AIS MOB/SARTs etc



NavLink is our popular iOS charting and navigation app. It can interface with any of our wireless navigation gateways and AIS devices for realtime AIS overlays and brilliant target visualisation with colour coded icons and vessel scaling. We've just released a new version which now supports tides and tidal currents with a low cost in app purchase. Find it on the App Store



This is another great AIS application – helping improve boating and maritime safety with a joined up autonomous system for air and sea rescue. Digital Yacht also supply AIS receivers such as our AIS100 and AISNET series for receive only AIS data in aviation applications. Surveillance and border control authorities often want an AIS data layer on their application and the exceptional receiver processing power and speed of these devices helps with the large number of targets received in an airborne environment with a large line of sight reception area.



Another interesting application for Digital Yacht AIS systems is for tracking, identifying and locating heavy lifting barges. These floating platforms are towed into place with tugs but then often stay at anchor as an independent platform. There's no requirement for them to be equipped with a Class A AIS like our CLA2000 but operators often want the security of an AIS location for operations and safety.

Fagioli are leaders in maritime specialized hauling, heavy lifting and hoisting activities and in the execution of complex activities or projects like the salvage of the wrecked cruise ship Costa Concordia. They're currently involved in the Storstrom Bridge project in Denmark and wanted an AIS for two heavy lift barges. Our simple iAISTX unit was utilised as it's very cost effective and if personnel on the platform wanted AIS information on other vessels, they could utilise a mobile phone or tablet with an app as a display.

The barges can now be viewed online too through sites like MarineTraffic and AIS Live. Another successful Digital Yacht solution

Personal AIS MOB SART



Digital Yacht have teamed up with SIMY to create a super compact AIS MOB Beacon (personal SART). SIMY is a division of leading space company Syrlinks (designers of the Rosetta probe). The new MOB100 measures just 115 x 40 x 22mm and weights just 95g. It's design allows for manual activation or you can attach it to an automatic inflation life jacket allowing it to automatically activate when the life-vest inflates. It's available direct at under £200 with special voucher code SHOWX10. Find out more [HERE](#)

**USE
SHOWX10
VOUCHER CODE**



4G Connect Pro

Great Value Coastal Internet Access

Frequently asked questions about 4G Connect Pro

Our 4G Connect Pro is proving super popular with more and more boaters wanting reliable, fast internet access. It's a 4G based cellular system so is designed for coastal access with typical maximum 20NM offshore coverage. It uses MIMO technology with dual external antennas to deliver range and speed. The internal modem unit creates a wifi point inside the boat for mobile devices like phones, tablets and PCs to connect to.

What's In The Box?

The 4G Connect Pro includes the modem unit (your SIM card also plugs in here), DC power lead (12v), dual external antennas with mounting bases and 2 x 7m LMR200 coax cable assemblies with connectors fitted. Basically this is a turn key package.

Can I extend the antenna cables?

We recommend trying to mount the below deck modem unit within 7m of the antennas. This should allow mounting on a stern pole, flybridge arch or 1st set of spreaders on most installations.

If the installation requires that cabling be longer, we offer 10 and 20m options. The supplied 7m cables can't be lengthened as different, LMR400 cable assemblies are required. These are thick cable (10mm) so are supplied with thin pigtailed for the modem terminations.

How do I connect?

The 4G Connect unit creates a wifi hotspot within your boat. You can use any mobile device to configure the 4G Connect initial settings (eg wireless password and APN name for the SIM card if required). Once configured, you don't really need to visit the 4G Connect user interface other than for diagnostics. Devices simply log onto its wifi point using your access name and password and they are connected.

What SIM card should I use?

4G Connect is unlocked so you can use any SIM card. It's best to get a SIM card from a top level (Tier 1) provider - eg Vodafone, EE, Three etc. Virtual Providers may not have the premium connectivity that a Tier 1 provider can provide. Also buy a service from a local provider so you are not "roaming." Even if there's no extra cost for roaming, local SIMs will always provide better service and access. Finally, buy the correct plan - you need a DATA service not phone calls! In practice, we've generally found Vodafone the best for maritime coverage with a range of lower frequencies in their network which provide better "at sea" penetration.

How about 5G?

4G Connect is an LTE device so will work with 2G/3G and 4G signals. It will drop to 3G connectivity automatically if no 4G coverage is available. 5G is basically for very short range, high density applications like in dense city centres or buildings. It's not so applicable for the maritime environment where you will be at some distance from the 5G hub. 4G will continue to be the solution here but 5G will provide a lot of the 4G back haul connectivity on the network side of things so will help improve overall performance.

Can I wire to a Smart TV or other device?

4G Connect features a LAN port which can be connected to devices like IP cameras and Smart TVs. If you have multiple devices you can connect to a multiport switch and interlink multiple devices.

How do I add hi-power WiFi to the system?

4G Connect also features a WAN port which allows it to connect to another internet "source." It can connect direct to our WL510 hi power wifi solution for access to shore-side wifi networks. 4G Connect can then switch between wifi and cellular access.



Can I fit the antennas to standard 1" mounts?



The antennas supplied with the 4G Connect Pro utilise a 1.25" commercial grade fitting. Our N280S adaptor allows them to be fitted to the smaller 1" x 14TPI fittings available for VHF and GPS antennas. We can provide these as a no cost option rather than the standard deck bases if required.

Can I extend the internal wifi coverage?

The internal wifi antenna is a high gain 5dBi type and will typically footprint a GRP boat up to 60ft. It is detachable so could be remotely mounted for better signal coverage. For larger vessels, you can also use simple 3rd party wifi extenders (either wired to the LAN port) or the wifi meshing type.



www.digitalyachtamerica.com

www.digitalyacht.de

www.digitalyacht.es

www.digitalyacht.fr

www.digitalyacht.co.uk

www.digitalyacht.eu.com

www.digitalyacht.ca

www.digitalyacht.lat



**Our blog with latest tech news,
product information and industry ideas...**

Take a look at the contents section of our newsfeed site below. Find up to date app interfacing ideas, connection data and schedules for our products with 3rd party systems and industry ideas. It's a great resource and available now for FREE!

www.digitalyacht.net

Follow us:



Digital Yacht



@DigitalYacht



Digital Yacht Limited



digitalyacht

TEL +44 1179 55 44 74 US +1 978 277 1234 EU +33 170 70 92 50