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Digital Yacht Applications Guide



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- Marine PCs and Apps
- Entertainment
- Safety

Here's a quick overview of our latest products. Digital Yacht systems add features, functionality and value to any marine navigation system. Welcome to new thinking in marine electronics for 2016...



NEXT GENERATION NAVIGATION SOLUTIONS

All prices in US\$ **January 2016** Digital Yacht America LLC Tel 978 277 1234 www.digitalyachtamerica.com

AIS Systems

DIGITAL

Wake up your chart plotter with Digital Yacht AIS Receivers & Class A/B Transponders for every application

Digital Yacht have the most extensive range of AIS products from any manufacturer with AIS receivers and Class A/B transponders available together with a full line up of accessories such as alarms, antennas and splitters.

With AIS you'll bring your plotter and navigation systems to life with a dynamic overlay of AIS targets and a clear indication of their identity and heading. The system provides a step change in navigational situation awareness, security and a great basis for social boating to identify your friends and fellow boaters. Use our SmarterTrack PC navigation software for great real time navigation displays or the NavLink range of iOS apps.

All our products utilise the most sophisticated dual channel technology for unrivalled target acquisition capability and with HF AIS satellite tracking embedded software on the Class B products, they are future proofed for advanced ocean satellite tracking. Choose the ultimate AIT3000 for wireless, NMEA, NMEA 2000 and USB connectivity with a built in ZeroLoss splitter for the fastest, easiest and best way to upgrade your navigation with Digital Yacht AIS.

See also the AIS LifeGuard AIS SART alarm - a valuable accessory for use with AIS PLBs and SARTS. Ask our AIS experts about the best antennas or accessory for your installation and visit our daily newsfeed at www.digitalyacht.net for useful tech tips.

Part Number	Description	SRP US\$
ZDIGAIS100	AIS100 AIS RECEIVER (NMEA OUT)	239.95
ZDIGAIS100USB	AIS100 AIS USB RECEIVER	239.95
ZDIGAIS100P	AIS100 PRO AIS RECEIVER (USB AND NMEA OUTPUTS)	279.95
ZDIGANT200	ANT200 SMART AIS ANTENNA	349.95
ZDIGUAIS	uAIS SMART AIS ANTENNA WITH USB POWER/DATA CONNECTION	349.95
ZDIGIAIS	iAIS WIRELESS AIS RECEIVER (FOR iPHONE, iTOUCH and iPAD)	549.95
ZDIGAISNODE	AISnode NMEA 2000 AIS RECEIVER	399.95
ZDIGAISNET	AISNET NETWORK AIS BASE STATION RECEIVER	499.95
ZDIGAISNET2	AISNET+ NETWORK AIS BASE STATION RECEIVER WITH OPEN VPN	1495.00
ZDIGAIT1500	AIT1500 CLASS B TRANSPONDER WITH INT GPS ANT (NMEA 0183)	649.95
ZDIGAIT1500N2K	AIT1500 CLASS B TRANSPONDER WITH INT GPS ANT (NMEA 2000)	699.95
ZDIGAIT2000	AIT2000 CLASS B TRANSPONDER (SUPPLIED WITH GPS ANTENNA)	729.95
ZDIGAIT3000	AIT3000 CLASS B TRANSPONDER WITH SPLITTER AND WIFI	1395.00
ZDIGAITBUN1	AIT2000 PLUS GV30 BUNDLE (COMBO VHF-GPS ANTENNA)	849.95
ZDIGSPL2000	SPL2000 VHF ANTENNA SPLITTER FOR VHF/AIS OPERATION FROM 1 ANTENNA	369.95
ZDIGAISLG	AIS LIFE GUARD MOB/SART ALARM	249.95
ZDIGGV30	GV30 COMBO AIS-GPS ANTENNA	160.00



Watch your navigation system wake up with Digital Yacht AIS products



AIT2000 Class B AIS Transponder



Digital Deep Sea CLA1000 Class A AIS Transponder



AISNET AIS Receiver Base Station

www.digitalyachtamerica.com

AIS100 Receiver Series

uAIS Sensor

iAIS for tablets







AIT1500 Class B AIS Transponder



AIT3000 Class B AIS Transponder





Next generation navigation with precision positioning from the GPS150 DualNav GPS-GLONASS sensor

Positioning is a navigation fundamental and the GPS150 DualNav[™] positioning sensor combines a super accurate 50 channel GPS with GLONASS, the Russian funded satellite positioning system that is now on line and providing an excellent back up or alternative to GPS. This "smart" sensor will automatically switch between the systems or the user can manually select the most appropriate for their activity. In DualNav mode, a sophisticated algorithm combines GPS and GLONASS data to offer sub 1m accuracy.

The GPS150 will also be able to utilise the European funded Galileo positioning system when it comes on line (IOC – Initial Operation Capability in 2018). The implementation of GLONASS as an additional satellite positioning system is probably the biggest step change in maritime navigation since GPS was fully augmented back in the mid 90's.

Digital Yacht's GPS150 utilises the industry standard NMEA data format allowing older chart plotters as well as current generation products to take advantage of this new technology. The GPS150 also allows the user to select a variety of different NMEA baud rates (4800, 38400 and 115200) to allow interfacing with legacy and current systems. It also supports a new TurboNav[™] mode which will appeal to racing yachtsmen and performance users where GPS/GLONASS data is output at 10Hz (10 x faster update than normal) and with an interface speed of 115200 baud which is 24 x the speed of normal NMEA data. This massively improves slow speed navigation data as well as providing the best course and speed data in a dynamic situation.

The GPS150 houses all the electronics in its compact 75mm antenna and has a single multi core cable for power and data.

Power consumption is just 30mA at 12V. It can be used as a simple positioning sensor for plotter or VHF DSC systems as well as a precision, high speed sensor for performance sailing/superyachts. Setup is easy with a block of simple internal switches, setting the characteristics of the unit. This allows the device to be programmed in the field without specialist software or programming tools.

The GPS150 can also connect to the WLN10 wireless interface to allow data to be sent to mobile devices such as iPhones, iPads and Tablets. There is also a USB version for PC and MAC users (ZDIGGPS150USB)

Part Number	Description	SRP US\$
ZDIGHSC100	HSC100 FLUXGATE COMPASS SENSOR WITH NMEA OUTPUT	369.95
ZDIGHSC100T	HSC100T FLUXGATE COMPASS SENSOR WITH NMEA OUTPUT (ROT version)	369.95
ZDIGHSC200	HSC200 FLUXGATE COMPASS SENSOR WITH NMEA 2000 OUTPUT	449.95
ZDIGGPS150	GPS150 DUALNAV GPS/GLONASS SENSOR	189.95
ZDIGGPS150USB	GPS150 DUALNAV GPS/GLONASS SENSOR (USB VERSION)	259.95





HSC100 Typical System







"Integrate the GPS150 with your chart plotter or your tablet/iPad via the WLN10HS NMEA-WiFi server"

www.digitalyachtamerica.com

GPS150USB For PC/MAC Navigation GPS150 Easy DIP Switch Configuration







Wireless Navigation

Integrate smart devices like iPads and tablets into your boat's navigation system with Digital Yacht

We're all familiar with dedicated electronic chart plotters for navigation afloat. Since the introduction of GPS about 25 years ago, dedicated marine plotters have become the back bone of modern electronic navigation systems. But whilst smaller 4" and 5" plotters have tumbled in price, larger 8"-15" devices remain stubbornly expensive. The cost of the electronic cartography can also be high and you'll often be hooked into a closed or proprietary "eco" system for accessories, upgrades or extra features.

Consumer devices like the iPad do offer an alternative and with iPad sales now over 300 million units to date, they bring an economy of scale but also, importantly, a network of software developers making niche apps – many of which can be useful for marine utilisation.

The core iPad hardware revolves around a high resolution 7.9", 9.7" or 12.9" touch screen display. With screen resolutions now at 2732 x 2048 pixels for the latest iPad Pro, it outpaces dedicated products by a mile yet costs a lot less. They also feature wireless interfaces to allow integration with other on board devices and systems and with internet connectivity, they can bring a host of "cloud" data to your boat – from the latest weather reports to charts updates or crowd sourced data.

Whilst an iPad isn't waterproof, there's a variety of protective cases now available and of course 12v chargers, adaptors and mounting options.

At Digital Yacht, we firmly believe there's a place for consumer devices integrated into a boat's system and we have a wide range of wireless hardware and applications that make this a reality. We're determined to offer better value in boating and electronic navigation, safety, communication and entertainment afloat and the iPad revolution is a big step forward here. Our wireless servers are also compatible with Android and PC systems so you can utilise them with the latest slates from Microsoft too. Welcome to next generation navigation from Digital Yacht.

Part Number	Description	SRP US\$
ZDIGWLN10	WLN10 NMEA TO WiFi ADAPTOR	299.95
ZDIGWLN10HS	WLN10HS NMEA TO WiFi ADAPTOR (38400 baud)	299.95
ZDIGWLN20	WLN20 AQUAWEAR SERVR WITH WRIST CASE	349.95
ZDIGAQWC	AQUAWEAR ADDITIONAL WRIST CASE	39.95
ZDIGWLN2NET	NAVLINK NMEA 2000 TO WiFi SERVER	549.95
ZDIGWLN2NETPL	NAVLINK PLUS NMEA 2000 TO WIFI SERVER WITH USB INTERFACE	599.95
ZIDIGIK	iKOMMUNICATE NMEA 0183/2000 TO SIGNAL K GATEWAY	299.95
ZDIGUSBNMEA	NMEA-USB ADAPTOR	59.95
ZDIGMUX100	MUX100 DUAL CHANNEL NMEA MULTIPLEXER	165.00
ZDIGNTN10	NTN10 NMEA TO ETHERNET ADAPTOR	350.00
-		



"Choose the NavLink iOS app for realtime navigation with detailed charts, AIS overlays and compatability with Digital Yacht wireless NMEA servers"

"AISView for Android brings live AIS from your boat's system to an Android tablet of phone. Compatible with any Digital Yacht NMEA to WiFi server"





"PilotLink portable NMEA to wireless server for Class A AIS systems - plug 'n play navigation for pilots and commercial users"

WLN10 Series NMEA to WiFi Servers





NavLink



SonarServer Navionics Sonar Charts Live



find out more at www.sonarserver.com



High power, long range WiFi for your boat offers speedy and affordable internet access afloat

More and more boaters want access to the internet afloat. Marinas and ports as well as a large number of cafes, hotels, restaurants and service providers offer wi-fi connectivity but you may just miss that vital connection if you're moored or anchored away from the dock – especially if you're below decks about to enjoy a movie or catch up on email. The WL70 can offer connections up to about $\frac{1}{2}$ mile/1km depending upon conditions.

It has a very high performance 1.25m 15dBm antenna to suck in the weakest of signals and the internal low noise, high sensitivity modem connects to the PC via simple plug 'n play USB interface. It fits a standard 1" mount (not supplied) so can be permanently mounted or even taken out into the cockpit when moored and temporarily installed.

The more sophisticated WL510 is a two part hi power wifi access system comprising high gain external antenna and below deck modem and amplifier.

With the range offered by the WL510 (up to 7NM depending upon conditions), you're not limited to local access points either and many users take advantage of free wifi from cafes, bars and other sites even when a few miles offshore.

Most importantly, it utilises a network connection so can connect direct to the iNavConnect and iNavHub routers so the connection can be shared by PCs, tablets, iPads and other devices like smart TVs

Coming Soon - New iKConnect router!



iKConnect is a new super-compact wifi router for use with all our wifi systems including the USB WL70. It's DC powered and easy to fit and will also work with our new iKommunicate gateway. Available Q1 2016, keep an eye on www.digitalyacht.net for more information

Description	SRP US\$
WL70 WiFi ACCESS SYSTEM (USB)	199.95
WL70 PLUS WIFI ROUTER BUNDLE	449.90
WL510 HI POWER WIFI ACCESS SYSTEM (NETWORK CONNECTION) WITH 10M CABLE	769.95
WL510 HI POWER WIFI ACCESS SYSTEM (NETWORK CONNECTION) WITH 20M CABLE	919.95
WL500-510 UPGRADE KIT	499.95
IK CONNECT ROUTER	249.95
iNAVConnect WIFI ROUTER	249.95
iNAVHub NMEA SERVER AND WIFI ROUTER	499.95
	WL70 WiFi ACCESS SYSTEM (USB) WL70 PLUS WIFI ROUTER BUNDLE WL510 HI POWER WiFi ACCESS SYSTEM (NETWORK CONNECTION) WITH 10M CABLE WL510 HI POWER WiFi ACCESS SYSTEM (NETWORK CONNECTION) WITH 20M CABLE WL500-510 UPGRADE KIT iK CONNECT ROUTER iNAVConnect WIFI ROUTER

WI510 Hi Power WiFi Access System (Up to 7NM)



WL510 & iNavConnect Router Typical System





"The combination of the WL510 plus iNavHub allows the wifi connection to be shared by multiple users on PCs, iPads and tablets by creating a local boat wifi network. NMEA data can also be connected so the same network can be used for navigation and internet"



"With the WL70 you can utilise windows connection sharing on your laptop or PC which will act as a wifi router allowing other mobile users with iPads and tablets to share the connection"

www.digitalyachtamerica.com

iNavConnect Router





Marine PCs & Applications

Utilise a PC for navigation, communication and entertainment - smart solutions from Digital Yacht

Thinking about adding a PC to your boat? Digital Yacht's new Aqua Compact Pro PC really does fit in the palm of your hand! Space is always at a premium on board and despite its slimline $11.5 \times 11 \times 5$ cm dimensions, the Aqua PC packs in a powerful 5th generation Intel Core i3 processor with exceptional graphics performance for the latest 3D charting and HD navigation programs. It's the perfect partner for applications like Maxsea TimeZero – even with radar and 3D overlays.

So why a PC on board? The number one, compelling reason to add a PC to your boat's navigation and communication system is amazing value. There's no doubt that a dedicated chart plotter is ideal for use at the helm where it needs to be waterproof and compact. But below decks, a PC can offer big screen performance at a very attractive price compared to a dedicated large screen multi-function display. Of course, a PC and chart plotting software can also be your only electronic navigation device, just integrated to the GPS and instruments via a simple NMEA interface.

A PC also offers more powerful functionality than a dedicated MFD with the ability to install software for lots of applications from navigation to entertainment, email communications, weather and internet connectivity. PCs are also up-dateable as new applications become available.

Any why not a laptop? They are simply not designed for the hostile marine environment and consume large amounts of power. It's a much neater solution to have a dedicated PC and dedicated display both in terms of functionality and reliability. However, if you're chartering a boat, a laptop may been the answer and our SmarterTrack Express Pack with software and an advanced DualNav plug 'n play positioning sensor makes portable navigation easy.

And for a display, there are lots of LCD monitors to choose from. With some simple engineering, you can install a monitor to swivel between chart table and saloon so it can become an entertainment as well as a navigation device.

Part Number	Description	SRP US\$
ZDIGAQUAD	AQUA ADAPT PC SYSTEM (i3/8GB/64GB)	1495.00
ZDIGAQCP	AQUA COMPACT PRO PC	1295.00
ZDIGSTPCN	SMARTERTRACK 2016 PC NAVIGATOR SOFTWARE	299.95
ZDIGSTPCE	SMARTERTRACK 2016 EXPRESS PACK NAV S/W WITH DUALNAV USB SENSOR	499.95
ZDIGUSBNMEA	NMEA-USB ADAPTOR	59.95
ZDIGMUX100	MUX100 DUAL CHANNEL NMEA MULTIPLEXER	165.00



"Aqua Adapt Marine PC - totally solid state with powerful Intel i3 processor and solid state hard drive with no fan ideal for commercial and work boat applications"



"SmarterTrack navigation software utilises Navionic's charting so you can share charts on PC and chart plotter"

"The Aqua Compact Pro utilises the latest 5th generation Intel i3 processor for super fast charting redraws of 3D mapping"



USB-NMEA Cable For easy PC connectivity





NavLink

SmarterTrack Express Pack DualNav USB GPS & Nav Application



MUX100 NMEA Multiplexer





AIS SART and AIS LifeGuard - the AIS man over board alarm for use with popular AIS PLBs

Digital Yacht has launched a potentially life-saving product called AIS LifeGuard. Each crew member needs to be carrying a personal AIS device – like the ones made by companies such as Ocean Signal, Easy, Kannad and McMurdo. Just connect the AIS LifeGuard to an on board AIS transponder or AIS receiver and you have a fully operational AIS SART man overboard system. The AIS Life Guard detects both message 1 and message 14 (these are reserved for AIS SART messaging). As soon as an AIS SART transmission is detected the AIS Life Guard will sound an internal 95db alarm and also display a red warning light. So within seconds the helmsman will be aware if a member of the crew or passenger has fallen overboard.

The AIS Life Guard is compatible with all Digital Yacht receivers and transponders and the new generation of AIS SARTS that have recently been approved for global use by the IMO.

The S1000 is an approved IMO AIS SART, suitable for vessel and liferaft deployment. It forms a vital part of mandated on board safety equipment for commercial users and leisure offshore boaters.

Description	SRP US\$
DIGITAL DEEP SEA CLA1000 CLASS A AIS TRANSPONDER	2799.95
DIGITAL DEEP SEA PILOTLINK CLASS A WIRELESS INTERFACE	319.95
DIGITAL DEEP SEA PILOT PLUG AND USB CABLE FOR CLASS A AIS TRANSPONDERS	160.00
DIGITAL DEEP SEA 10M PILOT PLUG EXTENSION CABLE	140.00
DIGITAL DEEP SEA S1000 SMART AIS SART	695.00
AIS LIFE GUARD MOB/SART ALARM	249.95
	DIGITAL DEEP SEA CLA1000 CLASS A AIS TRANSPONDER DIGITAL DEEP SEA PILOTLINK CLASS A WIRELESS INTERFACE DIGITAL DEEP SEA PILOT PLUG AND USB CABLE FOR CLASS A AIS TRANSPONDERS DIGITAL DEEP SEA 10M PILOT PLUG EXTENSION CABLE DIGITAL DEEP SEA 51000 SMART AIS SART



"AIS LifeGuard connects to your on board AIS system via a simple NMEA connection and alerts you when an AIS MOB SART signal is detected"





On Board Entertainment with the DTV100



TV not included

Part Number	Description	SRP US\$
ZDIGDTV100	DTV100 HD TV MARINE ANTENNA SYSTEM	199.95
ZDIGDTVDA	DTV100 OPTIONAL DUAL OUT TV AMPLIFIER	69.95

DIGITAL YACHT APPLICATIONS GUIDE January 2016

The new DTV100 HD TV antenna from Digital Yacht allows you to access the latest generation of digital "over the air" TV services on board. With a super sensitive design and hi gain amplifier, it sucks in even the weakest of signals. It's omnidirectional too so there's no complicated aligning plus it will provide a feed for a FM stereo radio.

TV on board is a new "must have" especially with a big choice of free to air channels for all elements of entertainment, news, weather and sport. This low cost antenna opens a new market for reliable marina and anchorage reception without the expense of stabilised satellite based systems.

- Very high performance omni directional marine TV antenna with global reception capability of latest DVB/HDTV signals
- TV and FM radio outlet on below deck mounted amplifier with -7dB to +29dB gain
- Pole or standard 1" adaptor mounting ability
- Just 280mm diameter supplied with 10m/33ft coax
- Optional dual TV outlet amplifier



Coming Soon - iKommunicate

NMEA to Signal K Gateway & Server



At Digital Yacht we love to be on the leading edge of marine electronics technology and when we see an exciting development we want to be the first to let you know.

Things are changing in the world of marine electronic interfacing and connectivity to start enabling the internet of things afloat with the introduction of a new open source platform called Signal K. It's been developing quietly over the past few years by a group of enthusiastic and very bright developers and boaters and is now ready for wide scale implementation. The name comes from the original Signal K (kilo) flag which indicates "I want to communicate"!

Signal K aims to be the next generation solution for marine data exchange. It is intended to be used not only for communication between instruments and sensors on board a single vessel, but also to allow for sharing of data between multiple boats, aids to navigation, ports, marinas, etc. It is designed to be easily implemented by web and mobile applications and to connect boats and ships to the Internet of Things Afloat. Digital Yacht have produced a white paper to help interested parties learn more about Signal K and applications. You can download a copy from www.digitalyacht.net

Many of you will be familiar with NMEA data standards which have been prevelant over the past 30 years. While reliable and proven, they are slow and also expensive to develop for as there are legal, certification and documentation costs. These standards were developed when the instruments on the average boat were much simpler and less capable. Today's world is a lot more connected and there are huge benefits of tablet, PC and smartphone integration for data displays, applications, sharing and control. However, we don't see the NMEA standard disappearing over night but equally a new format is needed for the next advance in applications. In fact, the combination of NMEA and Signal K on board is the best technical opportunity.

For Signal K to start making headway, existing instruments need to become Signal K ready. After all, you don't want to change all your existing electronics to enable the connected boat. We also think that, in the future, new systems will start including a Signal K interface but that doesn't stop you implementing and benefiting from the new technology today.

iKommunicate from Digital Yacht is a new gateway interface that translates NMEA 0183 and NMEA 2000 data to the new Signal K format allowing the current generation of marine electronics to take advantage of the Signal K platform. It converts any existing NMEA data you have on board from your GPS, instruments, engine, AIS etc. to the Signal K format. This fast growing "next generation navigation" and data-sharing platform enables the connected boat - welcome to the "Internet of Things" afloat with iKommunicate!

The Signal K platform is exciting and can make a step change to the boating community. However, like any new early market protocol, it needs a catalyst of users to seed the interest for developers. Digital Yacht used a successful Kickstarter campaign to gather early adopters and iKommunicate will be coming to the marine market in Q1 2016

Thank you to those that backed and welcome to a new era in marine electronics interfacing.

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