



4G Xtream

Product Introduction

4G Xtream Professional Internet Access & NMEA 2000 Data Solution

June 2021 Digital Yacht US

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4G Xtream

Part Number: ZDIG4GX-US

UPC:703791696277

SRP \$1599.95

Introduction

4G⁺Xtream



Dear Partner

4G Xtream is our latest, premium LTE (cellular) internet access product. It ships as a complete package with dual external antennas, deck mounting hardware and cabling. Alternative antenna mounts are available as options.

Using MIMO technology and two external wide band LTE antennas, it offers fast connectivity at up to 300 MBs (network dependent). It has a built in dual band wifi router supporting multiple connections, dual SIM slots (with auto fail over if required), built in GPS (for IOT and tracking applications) as well as an NMEA 2000 interface for navigation and instrument data connectivity and wireless interfacing. There's also a Bluetooth interface for future connectivity applications.

It will sit alongside our existing 4G Connect Pro as a premium product and is ideal for use on large yacht, workboats, tugs and commercial ships where reliable, low cost coastal internet and in port connectivity is required.

The Digital Yacht team
www.digitalyachtamerica.com



Key Features

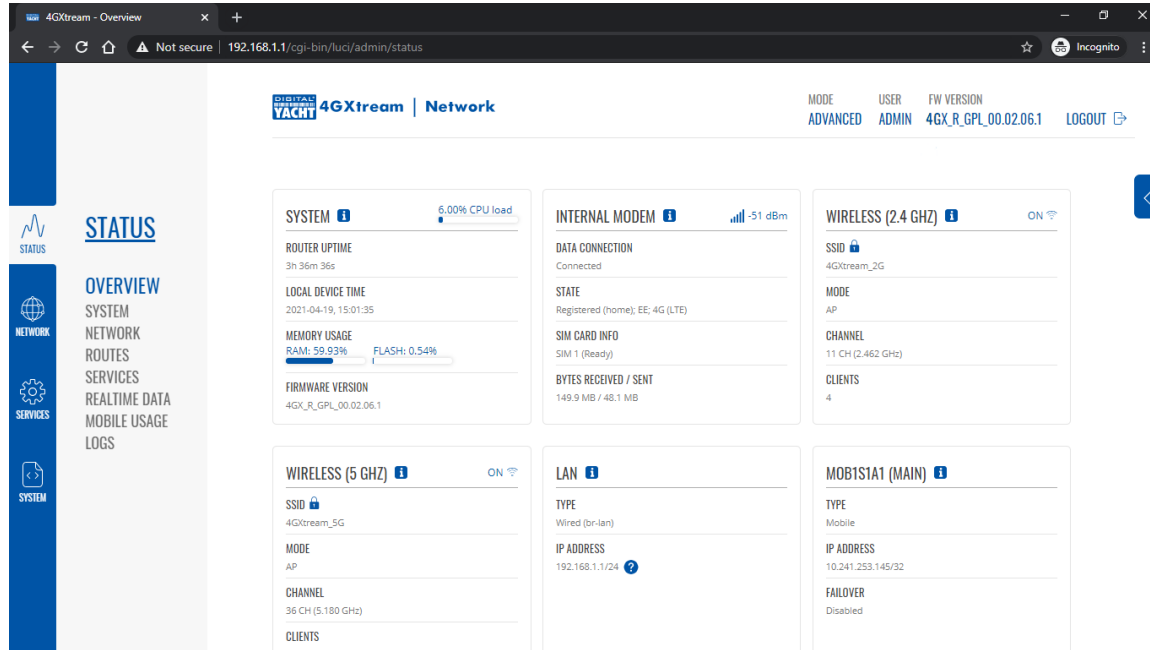
4G⁺Xtream



- Latest Cat 6 LTE MIMO technology with range up to 25NM offshore (network dependent)
- Dual SIM slots with auto fail over or manual selection
- Two external, high gain, wide bandwidth antennas
- Dual band integrated wifi router (2.4 & 5 GHz) – independently configurable
- Built in NMEA 2000 interface to transmit NMEA 2000 data over the wireless and wired network to compatible apps
- Built in GPS with external patch antenna for IOT and tracking applications
- Built in Bluetooth with antenna for future applications
- 3 x LAN ports
- 1 x WAN port for additional internet connectivity – eg: WL510 high power wifi system
- Digital input/output connectivity for IOT/control applications (Available Q4 2021)
- SMS addressable

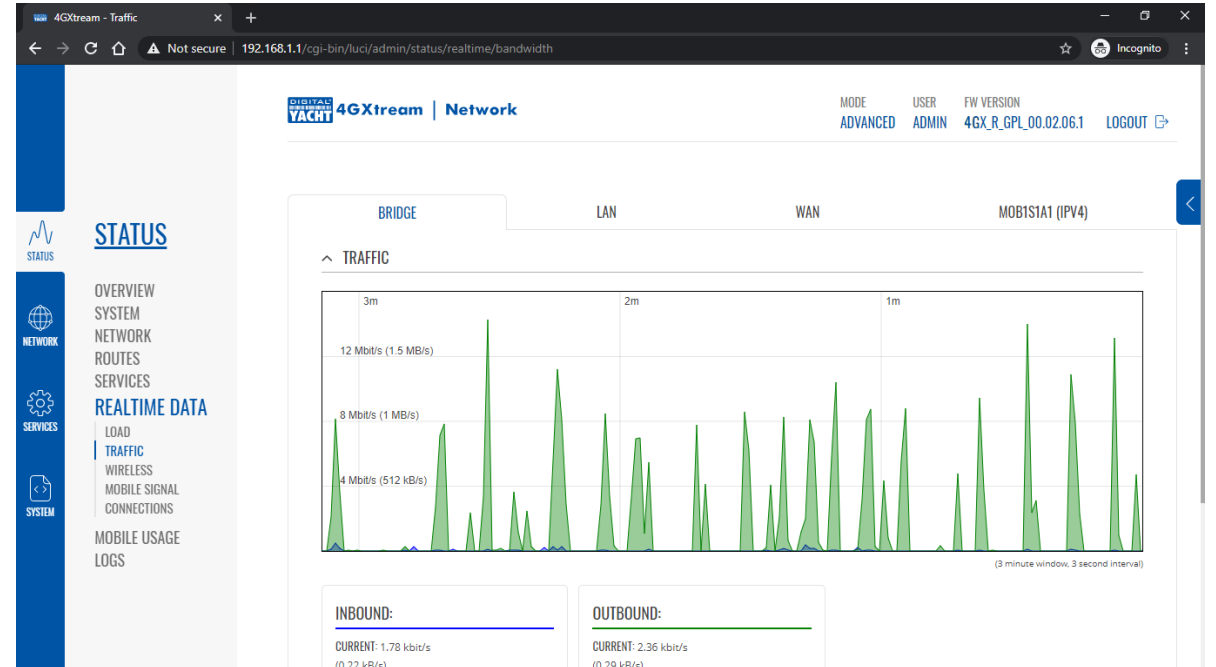
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DEEP SEA**

User Interface

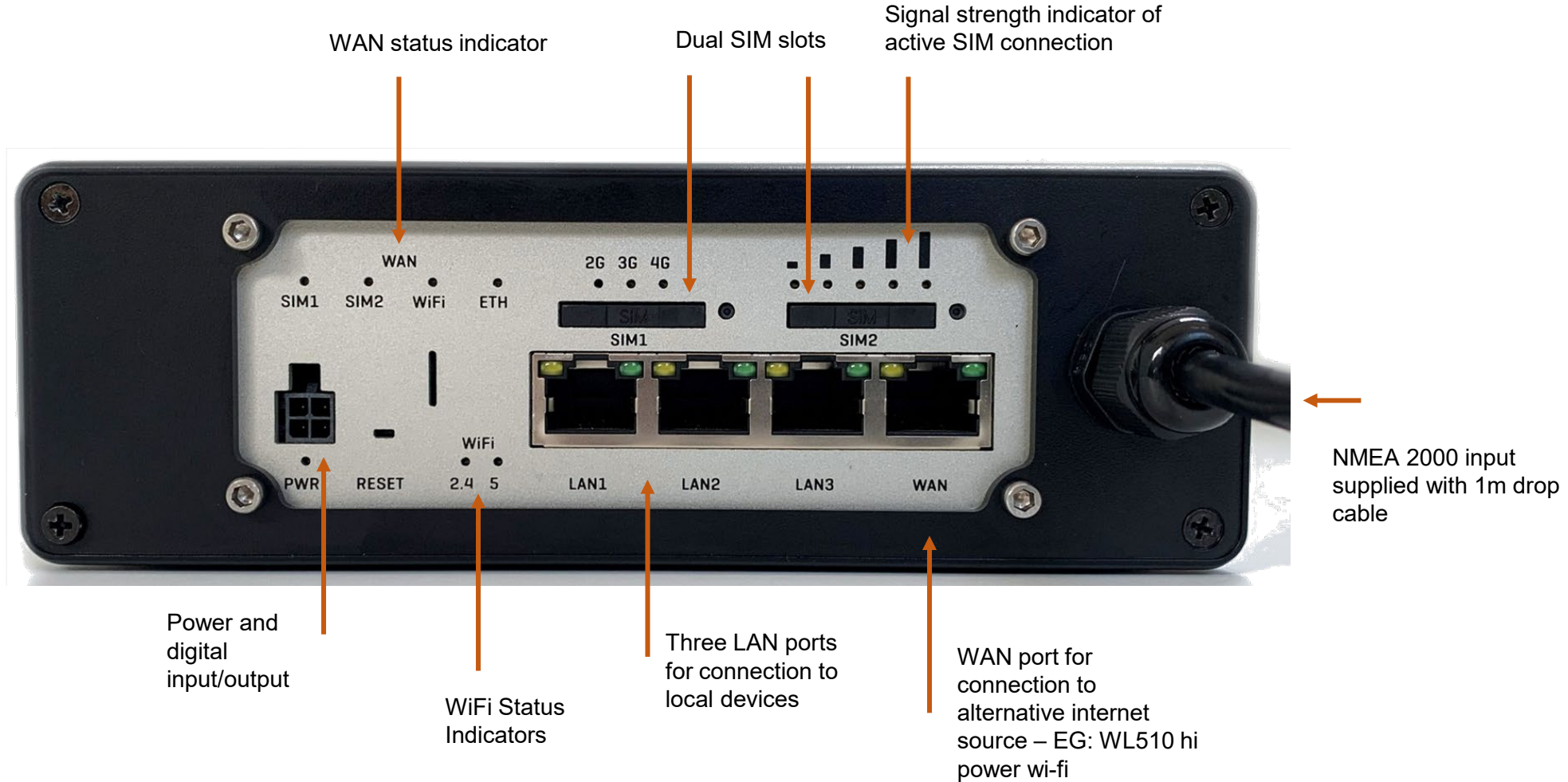


Once set up, there should be no requirement to login other than for diagnostics and configuration. Users simply access the internet through the wifi connection just as they would in the home or office

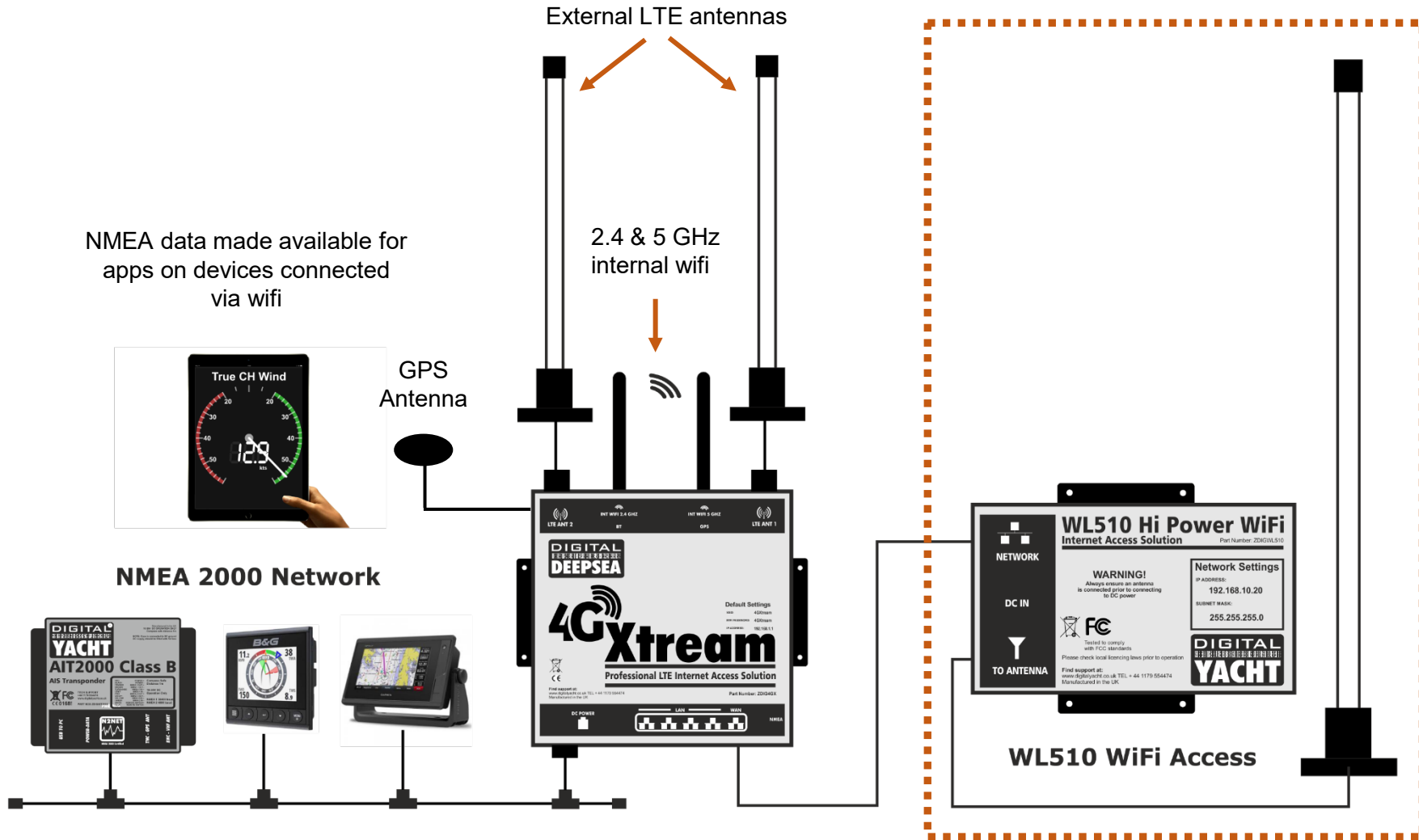
Accessing 4G Xtream functionality is via an easy web interface. Any locally connected device can simply enter the IP address to the password protected interface to set up functions, view traffic and logs and configure wifi.



Rear Panel Connections



System Interconnection



NMEA data made available for apps on devices connected via wifi



GPS Antenna

External LTE antennas

2.4 & 5 GHz internal wifi

NMEA 2000 Network



NMEA navigation and instrumentation data connected via built in interface to allow iPad and tablet app connectivity

4G Xtream features independent dual band (2.4 & 5GHz) wifi for interconnection to mobile devices. This also provides the connectivity for NMEA data so apps on mobile devices can utilise the boats navigation and instrumentation data.

For external hi-power wifi (to access shoreside hotspots) our WL510 is recommended which connects to the WAN port. 4G Xtream can then act as a router for this connection and allow the user to switch from wifi to LTE.

Optional WL510 connects via WAN interface



How about 5G?

5G is now becoming well developed. 5G is basically about short range, very fast communications. Its applications are in dense population, urban areas with very fast downloads. Some of the bands allocated to this are in the 3.4-3.6 GHz and even 24-52 GHz frequency range so ultra high frequencies which have very short range. For the maritime and coastal market, this isn't ideal so we'll find that 4G continues to be prevalent. That said, 5G will be used for a lot of 4G internet back haul so it will improve traditional 4G LTE infrastructure too. 4G LTE technology continues to be the best option for maritime internet access. 4G Xtream can, of course, support additional internet sources through its WAN port

Can I view my NMEA 2000 navigation data remotely?

4G Xtream has a built in NMEA 2000 interface which allows NMEA 2000 data to be utilised by apps on mobile devices connected to the system. GPS, AIS and instrument data is streamed from the boat's system across the wifi network. The simplest method of viewing this data remotely would be to set up a VPN (Virtual Private Network) which effectively builds a data "tunnel" from one network (say on the shore) to another (eg: on the boat). 4G Xtream supports VPNs and this technology is well proven but requires specialist 3rd party IP network knowledge to implement. 4G Xtream also supports MQTT for IOT applications and ZeroTier for remote access and we expect to see 3rd party marine applications develop for these platforms. 4G Xtream also supports text message polling of GPS data and alerts through its internal GPS function.

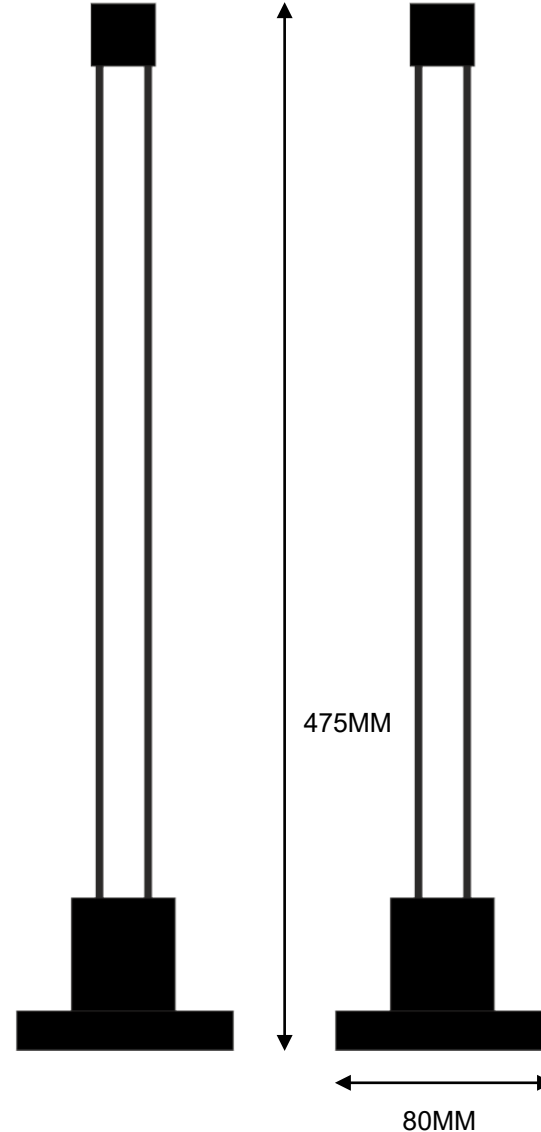
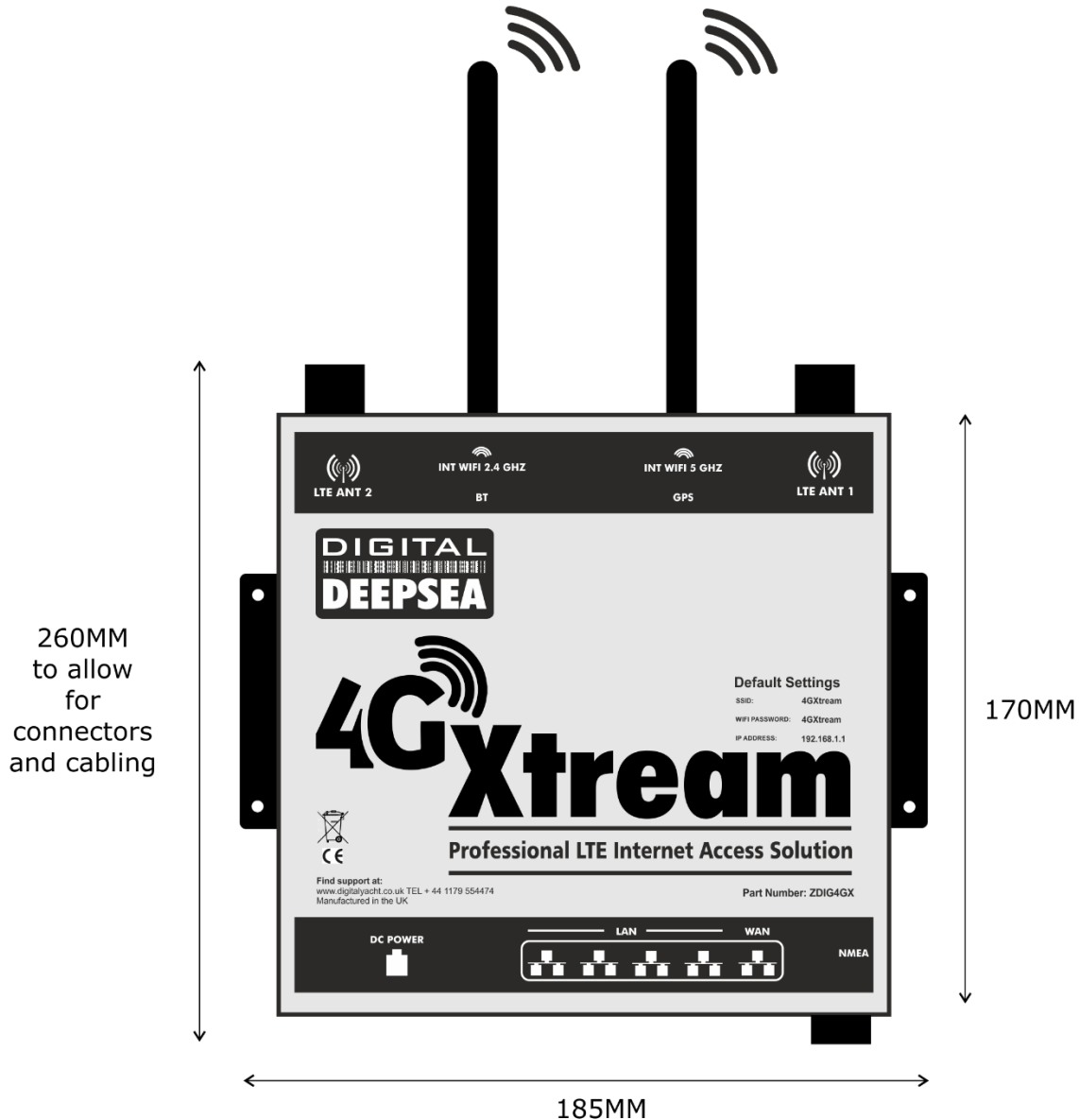
Where should the external antennas be mounted?

4G Xtream ships with dual external antennas. They should be mounted at least 50 cm apart for optimum performance. While height is advantageous, consideration should also be given to cable runs. The standard cables (LMR200) are 7m in length and should not be extended. Typical mounting locations would be the 1st set of spreaders on a sailboat, radar arch or stern pole/solar panel platform. Optional 10 and 20m assemblies are available and these use LMR400 specialist coax for minimum losses.

Can I use the internal wifi network to connect to shore side wifi?

Yes this is possible. One wifi network can be used to access a shoreside hotspot (2.4GHz) and the 5GHz network bridged to provide local access however this isn't recommended or supported. We recommend the use of our WL510 connected to the WAN port if long range wifi hotspot access is required

Physical Dimensions



What's in the box:

- 1 x 4G Xtream Modem Unit with integrated NMEA 2000 cable
- 1 x DC Power/IO cable
- 2 x External antennas
- 2 x E179F antenna bases
- 2 x 7m LMR200 antenna cables (N male to N male)
- 2 x Internal wifi antennas
- 1 x Internal GPS antenna
- 1 x Bluetooth antenna

Options:

- 1" antenna adaptors and range of mounts
- 10 & 20m LMR400 antenna cable packs
- AC 110/220v power adaptor
- NMEA 0183 variant (factory change)
- Digital I/O interface cable (Q3 2021)



4GConnect v 4GX Comparison

Feature	4G Connect Pro	4G Xtream
4G Modem Specification	MIMO technology Cat 4 Modem. Single Core Atheros 400MHz Processor 64MB RAM. Up to 150 MB/s	MIMO technology Cat 6 Modem Quad Core ARM Cortex A7 717 MHz Processor 256 MB RAM. Up to 300 MB/s
4G Antennas	Dual external wide band high gain MIMO supplied with 7m cables and mounting bases. (10 & 20m options available)	Dual external wide band high gain MIMO supplied with 7m cables and mounting bases. (10 & 20m options available)
Internal WiFi	Single band 2.4GHz 802.11b/g/n Maximum 50 connections Single antenna	Dual band independent 2.4 & 5 GHz 802.11 b/g/n/ac Maximum 150 connections Dual antennas
SIM Slots	1	2
GPS	NO	YES
BlueTooth LE	NO	YES
NMEA interfacing	Optional with LANLink N2K external interface or iKommunicate	Built in certified NMEA 2000 interface for NMEA 2000 data distribution over wifi

Ordering Information

Part Number	Regions	Details
ZDIG4GX-US UPC 703791696277 (Ships with dual external antennas and 7m cable kit)	N America	4G (LTE-FDD): B2, B4, B5, B7, B12, B13, B25, B26, B29, B30, B66 3G: B2, B4, B5 SRP \$1599.95
ZDIG4GX UPC 703791696260 (Ships with dual external antennas and 7m cable kit)	Europe, Middle East, Africa, APAC (excluding Japan & China), Malaysia, Brazil and Australasia	4G (LTE-FDD): B1, B3, B5, B7, B8, B20, B28, B32 4G (LTE-TDD): B38, B40, B41 3G: B1, B3, B5, B8 SRP \$1599.95
Note the use of regional modems is for optimum performance in specific regions.		
ZDIG4G10MX	10M CABLE KIT 4G XTREAM	\$275
ZDIG4G20MX	20M CABLE KIT 4G XTREAM	\$399
Shipping Weight & Dimensions	3.8kg/8.4lb 68 x 26 x 11 cm	

4GConnect to 4GX Upgrade Pack

4G Connect Pro and 4G Xstream will continue as current products. For existing 4G Connect Pro users who want the additional features of the 4G Xstream, a “trade in-trade up” package is available. The existing 4G Connect Pro antennas and cabling can be utilised and the upgrade pack ships with adaptors to allow the existing cabling to connect to the 4G Xstream. Principle advantages of the 4G Xstream are:

- Dual SIM connectivity
- Faster Cat 6 modem and wifi router – Note often the network operator will be the limiting factor in internet download speeds not the 4G Connect or 4G Xstream
- Dual band 2.4/5GHz independent wifi networks
- NMEA 2000 interface for navigation data
- Integrated GPS for future tracking/IOT applications
- Multi 3 port LAN switch/hub built in

The 4G Connect Modem unit requires returning to the factory at some stage and the upgrade cost is \$880 (45% discount on new product)