

NEXUS-BASE NEXUS System

Integrated DSC/VHF Radio & AIS Class B Transceiver



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NEXUS-Base is a full function Class D DSC/VHF radio and integrated high powered AIS Class B transceiver within a single fully ruggedized box that incorporates a full colour high visibility display and intuitive user interface (not available on the headless edition) that makes using NEXUS's extensive range of functionality simplicity itself.

Quality engineered for total dependability in even the harshest environments, in the addition to the usual functionality expected of high-end DSC/VHF radios, NEXUS delivers a range of unique functionality specifically designed around the requirement's of mariners. These include, streamlined VHF radio operation, the ability to stream high quality AIS information simultaneously to all your navigation devices, innovative

MOB & PLB alert and track functionality, and an APP (CONNECT-Nexus) that enables your smart phone or smart watch to wirelessly connect and become a full function remote PTT Command mic.

- Fully certified Class D DSC/VHF Radio, with fully integrated high powered (5W SO) AIS Class B transceiver. Only one VHF antenna required.
- Seamless, hassle free multi-device wireless (Wi-Fi and Bluetooth) and wired connectivity options in addition to standard NMEA2000 & NMEA0183 interfacing.
- Completely water and weatherproof suitable for permanent external installation – ruggedized against shock, vibration and extreme temperatures.
- CONNECT App that converts any smart phone or wearable into a full function VHF/DSC command mic with wireless connection to NEXUS.
- MOB alert and track system that enables wearables, mobile phones and NEXUS-Handhelds to become active MOB tags.



NEXUS-Connect

NEXUS-Connect is an application that enables remote devices such as any mobile phone, wearable or MFD to become a full function wireless command mic with full control of the radio.

Customisation

NEXUS is highly customisable, enabling OEMs to create their own highly unique product that is seamlessly integrated into their product line. Customisation and integration possibilities are limitless but include.

- Rebranding and certification with different colours, UI and mechanical design.
- Integrating existing command-mics to a 'headless' variant of NEXUS.
- Integrating CONNECT engine within existing Nav-Apps and MFD's to enable in nav-app VHF radio coms and control.

Physical Specification - Base Unit

Dimensions	W249mm, H84mm, D162mm
Weight	700-800g

General

RF Frequency range TX	156.025–161.425 MHz
RX	156.300–161.925 MHz
DSC	156.525 MHz
AIS 1, 2	161.975, 162.025 MHz
Usable channels	INT, USA, CAN, ATIS

Electrical

Power supply	9.6 – 31.2 V DC
Operating temperature range	–25°C to +68°C
Antenna impedance	50 Ω
Transmitter Output power	VHF: 25 W, 1 W AIS: 5 W
Usable channels	INT, USA, CAN, ATIS

Audio

Audio output power - Internal Speaker	5 W producing 81 dB @ 1 m
External speaker	15 W

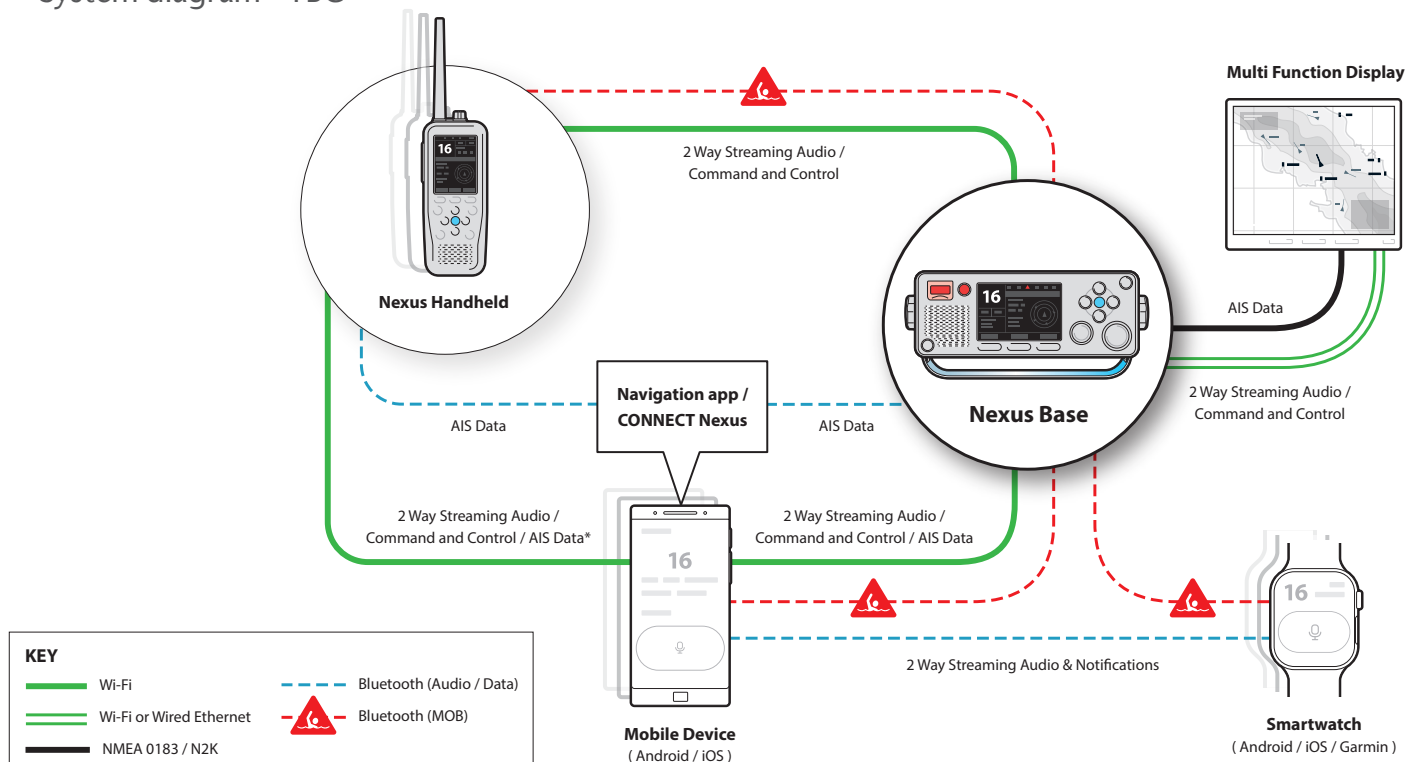
Connectivity

Wireless LAN standard	IEEE802.11 b/g/n
Authentication and Encryption	WEP (64/128 bit), WPA-PSK (TKIP), WPA2-PSK (AES)
Bluetooth	4.2 Classic and Low Energy (BLE)

Certifications

AIS Class B SOTDMA	IEC 62287-2:2017
DSC / VHF	EN 301 025 v2.2.1 & IEC 62238
NMEA	IEC 61162-1 & IEC 61162-3
Environmental	IEC 60945 "Exposed" + IEC 60529 IP66

System diagram - TBC



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Contact us now for your OEM requirements:

SRT Marine Systems plc
Wireless House
Westfield Industrial Estate
Midsomer Norton
Bath BA3 4BS, UK

T +44 (0) 1761 409 500
F +44 (0) 1761 410 093
E info@srt-marine.com
W srt-marine.com



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