

NEXUS-BASE NEXUS System

Integrated DSC/VHF Radio & AIS Class B Transceiver

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

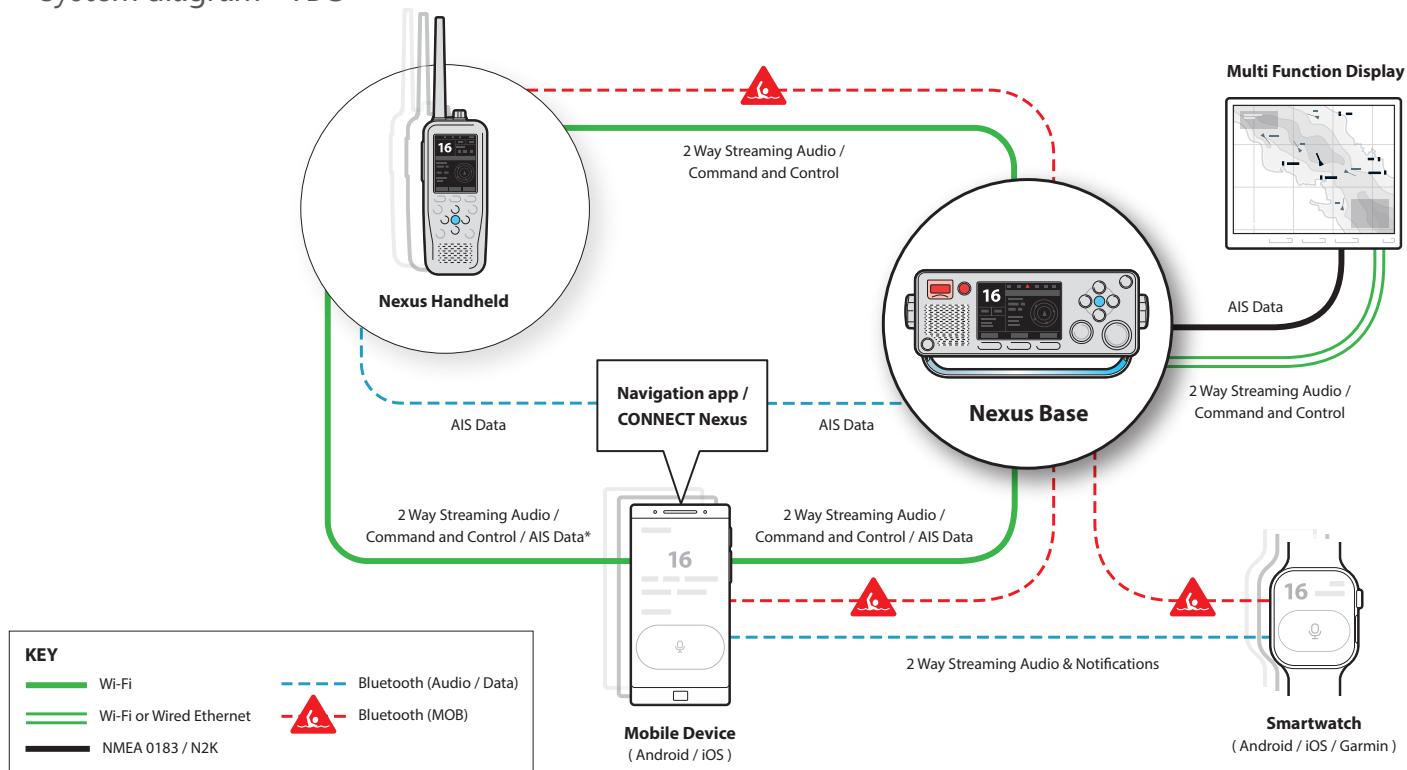
General

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, 1W AIS: 5 W
Usable channels	INT, USA, CAN, ATIS

System diagram - TBC



* AIS data is only sent from Nexus Handheld to a mobile device when the Nexus Base is not present.

SRT enhances maritime domain awareness by developing and manufacturing tracking technology and system solutions for individual vessel owners, port authorities, maritime infrastructure owners, coast guards and national security agencies around the globe. Applications include the tracking of commercial and leisure vessels; sustainable fishery; anti-collision; search and rescue; waterway management, port and coast security; pollution management and environmental management.

Audio

Audio output power - Internal Speaker	5 W producing 81 dB @ 1m
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 301025 v2.2.1 & IEC 62238
NMEA	IEC 61162-1 & IEC 61162-3
Environmental	IEC 60945 "Exposed" + IEC 60529 IP66

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