Nexis XS1

Item # NEX-UNT-03

At the core of every iVolve® deployment, the Nexis is used to establish a stable, site-wide mesh network and interface to on-board machine systems.

The Nexis platform is a heavily ruggedized, industrial processing module with a variety of peripheral interfaces (Ethernet, RS232, CAN), integrated GNSS receiver and wireless mesh networking capabilities.

NEXIS XS1. BUILT FOR TOUGH ENVIRONMENTS.

FEATURES

- Up to two Wireless LAN radios supporting 802.11abgn (2.4GHz and 5GHz) with antenna diversity and up to 300Mw transmit power. 3G/GSM support is available as an option. The radio module is field upgradeable to provide a minimal cost upgrade path as technologies change
- Full support for all WLAN (WEP and WPA) security algorithms ensure the highest levels of security are available
- Powerful packet level firewall supporting NAT/ PAT, packet inspection, and dynamic control via one of the available Digital Inputs
- Support for iVolve FMS modules providing production, maintenance and asset management, and proximity detection solutions.
- The platform also supports IP-based GPS corrections (with priority delivery via native mesh support) or other RF-based corrections (e.g/ via VHF/UHF radio) to achieve accuracies as tight as 20mm
- Interfaces with other industrial devices via RS232, RS485, Ethernet, Digital I/O and CAN Bus. External I/O modules are also supported

KEY FUNCTIONS

- Wireless mesh router and WI-FI compliant access point
- Interface to on board machine systems (such as TPMS, VIMS, HIMS, tachometer/hour meters)
- Hardware platform for iVolve FMS
- Provides onboard business logic for peer-to-peer applications

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HARDWARE SPECIFICATIONS

- Memory : 128BM RAM, 512MB Flash
- Ethernet : 2 x 10/100/1000Mbps MDI/MDI-X auto-sensing
- 3G/LTE card is Cinterion PLS62 or PLS63 (one or the other)
- Communications Ports : 2 x RS-232/RS485, DI/O, CAN BUS
- GNSS (GPS, GLONASS) : 72 Channel u-blox concurrent M8 engine GPS/QZSS L1 C/A, GLONASS L10F, BeiDou B1, SBAS L1 C/A: WAAS, EGNOS, MSAS
- Power Input : 5 to 36V DC (6W RMS)
- Dimensions : 230x112x50mm
- Weight : 950g
- Accelerometer: 3 Axis Accelerometer / Tilt-sensor

WIRELESS

- 2 radio support
- Modular, high power WLAN radio

	Min	Max
2.4GHz		
802.11b/g	20dBm	26dBm
802.11n	19dBm	26dBm
5GHz		
802.11a	19dBm	24dBm
802.11n	17dBm	24dBm

- Full 802.11a/b/g/n compatibility
- Transmit Power:
- Operating Modes:
    - Router (client)
    - Access Point
    - Mesh Access Point

	Min	Max
2.4GHz		
802.11b/g	-97dBm	-84dBm
802.11n	-97dBm	-76dBm
5GHz		
802.11a	-96dBm	-91dBm
802.11n	-97dBm	-76dBm

    - Bridge (backbone)
- Receiver Sensitivity:

ENVIRONMENTAL

- Temperature -30^0 C to 65^0 C
- Humidity 10-90% non-condensing
- IP65

APPROVALS AND CERTIFICATIONS

- WiFi Certified Radio module
- Approved Radio Module:
    - FCC Part 15.247
    - RSS-210 (Canada)
    - EN 300.328 (Europe)
    - ARIB-STD 33 (Japan)
    - ARIB-STD 66 (Japan)
- AS 3548 (Australia)

NETWORK SERVICES

- DNS
- DHCP client and server
- VPN client and server
- NTP client and/or server
- RS232 to Ethernet capabilities

MANAGEMENT

- Autonomous operation – no central server required
- HTTP/HTTPS web-based monitoring and configuration
- iControl ® software for real-time monitoring
- Configuration backup and restore
- SNMP, V1, V2C, V3

SECURITY

- WEP, WPA (TKIP), WPA2/802.11i (AES/CCM), 902.1x
- ESSID Suppression
- MAC address list filtering
- Integrated Firewall, NAT/PAT

  VPN support – IP Security

WARRANTY

- One (1) year return to supplier

OPTIONS AND ACCESSORIES

- Vehicle Monitoring Systems interface
- Proximity Detection System
- 6Db Mobile Omni-directional Antenna
- Magnetic mount kit
- Additional antennas as per site requirements
- Lighting protector
- 2 or 3 way splitter

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Important Safety and Compliance Information

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Note: The Grantee is not responsible for any changes or modifications not expressly approved by the party responsible for compliance. Such modifications could void the user's authority to operate the equipment.

Mobile Type
The device has been evaluated to meet general RF exposure requirement. To maintain compliance with FCC's RF exposure guidelines, the distance must be at least 20cm between the radiator and your body, and fully supported by the operating and installation.

Warning
This item contains nickel (metallic), a chemical known to the state of California to cause cancer, birth defects, or other reproductive harm. For more information, go to www.p65warnings.ca.gov

IC Warning
This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

1. This device may not cause interference.
2. This device must accept any interference, including interference that may cause undesired operation of the device.

Cet appareil contient des émetteurs/récepteurs exempts de licence qui sont conformes aux normes CNR exemptes de licence d'Innovation, Sciences et Développement économique Canada. Son fonctionnement est assujetti aux deux conditions suivantes:

1. Cet appareil ne doit pas causer d'interférences.
2. Cet appareil doit accepter toute interférence, y compris celles qui peuvent entraîner un fonctionnement indésirable de l'appareil.

The device has been evaluated to meet general RF exposure requirement. To maintain compliance with RSS-102 — Radio Frequency (RF) Exposure guidelines, this equipment should be installed and operated with a minimum distance of 20cm between the radiator and your body.

Le dispositif de a été évalué à répondre général rf exposition exigence.pour maintenir la conformité avec les directives d'exposition du RSS-102-Radio Fréquence (RF). ce matériel doit être installé et exploité à une distance minimale de 20 cm entre le radiateur et votre corps.