

v100NX Ka XCVR

ALL NEW KA-KU DUAL BAND
GEO/MEO/LEO 1m Maritime VSAT Terminal



FEATURES

2.5GHZ WIDE KA-BAND SUPPORT

The v100NX Ka XCVR has a full range-optimized reflector and radome supporting high speed Ka-band services, which covers the entire commercial Ka 2.5GHz wide frequency band range.

The v100NX Ka XCVR supports dual-polarization and can transmit and receive both LHCP and RHCP of Ka-band circular polarization.

EMBEDDED DUAL ANTENNA MEDIATOR

Intellian's new ACU fully supports dual antenna operation without additional complexity and components such as a separate mediator and RF splitters. Streamlined configuration of the dual antenna operation is done via AptusNX.

STANDARDIZED MODULAR COMPONENTS ACROSS NX SERIES

Modular components are used throughout the NX range, such as dynamically braked motors with integrated encoders, and a Main Control Unit. The sharing of common modules across Intellian's NX antenna series reduces the number of spare parts by more than 30%.

HIGH POWER UPGRADABLE

The v100NX Ka XCVR terminal use an integral unit of multi-band BUC and LNB arranged in a 4.5W Transceiver. The system with transceiver can use dual polarization for both Tx and Rx with several possible topologies.

The v100NX Ka XCVR can be easily upgraded with the 9W High Power transceiver. There is no need to replace the ACU and no additional components are required. Simply and easy upgrade 9W transceiver to benefit high throughput service.

NEW APTUSNX

AptusNX, Intellian's all new integrated M&C platform, provides a responsive user interface to manage antenna systems. It also has an intelligent diagnosis function for accurate and enhanced antenna monitoring, and provides detailed reports and measurement for convenient maintenance.

SINGLE COAXIAL CABLE

The v100NX Ka XCVR combines Tx, Rx, and DC power in a single cable solution, enabling faster installation and reduced costs. Dynamic Motor Brakes eliminate the requirement of shipping brackets, and the Dome-On external RF cable connection on the base allows faster and easier installation without removing the radome.

v100NX Ka XCVR XCVR

TECHNICAL SPECIFICATIONS

ABOVE DECK UNIT

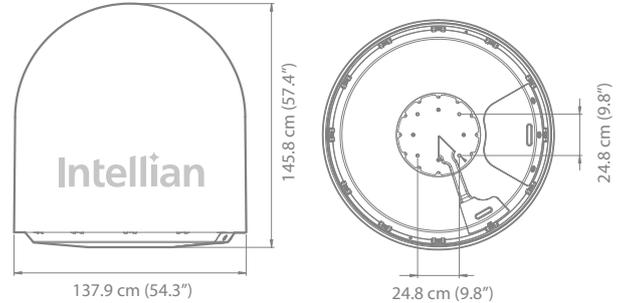
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|------------------------|---|
| Radome Height | 145.8 cm / 57.4" |
| Radome Diameter | 137.9 cm / 54.3" |
| Reflector Diameter | 105 cm / 41.3" |
| Weight | 110 Kg / 242.5 lbs |
| Azimuth Range | Unlimited |
| Elevation Range | -20° to 115° |
| Cross-level Range | ± 37° |
| Stabilization Accuracy | 0.2° peak mispointing @ max ship motion condition |
| Motor Brake System | Dynamic Brake System |
| Tx Frequency | 27.5 ~30.0 GHz Ka-band |
| Tx Gain | 48.0 dBi @ 29.0GHz (excl. radome) |
| Rx Frequency | 19.2 ~ 20.2 GHz Ka-Band |
| Rx Gain | 44.3 dBi @ 19.0Ghz (excl. radome) |
| G/T | > 19.6dB/K @ 19.0 GHz (Clear Sky, 30° Elevation) |
| XCVR Power | 4.5W / 9W |
| Polarization | Dual Circular Polarization RHCP, LHCP (independent to Rx/Tx) |
| Antenna Cable | Single 50-ohm Coax Cable for Rx, Tx, FSK, Reference and Power from ACU to ADU |

ANTENNA CONTROL UNIT

| | |
|-----------------------|--|
| Dimensions (WxDxH) | 43.1cm x 35cm x 4.4cm / 17" x 13.8" x 1.7" |
| Weight | 5.2 kg / 11.5 lbs |
| Display | OLED Display |
| Gyrocompass Interface | NMEA2000, NMEA0183 |
| Mediator Interface | Yes |
| Modem Interface | Ethernet port / RS-232C,-422C / I/O Console |
| Modem Protocol | iDirect, Comtech, SatLink, Hughes, GILAT, Newtec |
| Wi-Fi Operation | Yes (w/ Wi-Fi dongle) |
| Management Port | Yes |
| Intellian LAN Port | Yes |
| Power Requirement | 100 ~240 VAC, 50~60Hz, 4A |

SYSTEM DIMENSION

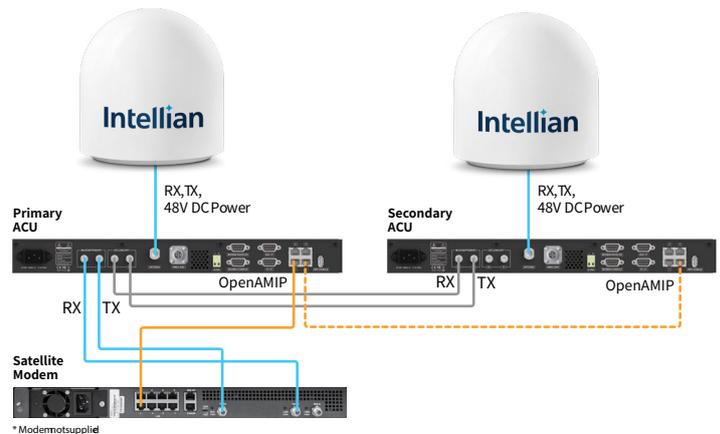
ADU



SYSTEM DIAGRAM



SYSTEM DIAGRAM (DUAL ANTENNA)



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