Intellian

v 8 5 N X

85CM Ku-Ka CONVERTIBLE
Maritime VSAT Antenna System

FEATURES

FUTURE-PROOF SYSTEM

The world's first 85cm Ku- to Ka-band convertible antenna, the v85NX can be converted by simply changing the RF Assembly and Feed while still using the dual-band optimized reflector and radome, and is capable of supporting full 2.5GHz Wide Ka-band networks.

ENHANCED APTUSNX

AptusNX can be operated by simply plugging a laptop into the ACU without any need to download extra software. The AptusNX software presents an installation wizard with a step-by-step commissioning guide to more easily complete setup, and with enhanced diagnostic capabilities the AptusNX can send an alert to the operator when preventative maintenance is required.

CONTROLLED COSTS WITH MODULARIZED COMPONENTS

With the modular component design, the number of spare parts is reduced by more than 30%. It now only has 13 common spare parts that can fix most potential problems. Thus, its reliability is improved, its maintenance is simpler, and the total cost of ownership for the system is lowered.

INDUSTRY BEST RF PERFORMANCE

Intellian's highly efficient RF design delivers the best performance compared to other sub-1m class systems, enabling higher data rates and global operation. The compact 85cm antenna's smaller footprint allows installation on smaller vessels and gives them access to 1-meter designed networks. It also has several different BUC power options available up to 25W that give it a wider operational range.

SIMPLIFIED INSTALLATION

Combining Tx, Rx and DC power into one coaxial cable solution with an external dome-on connection enables faster and reduced costs of installation. Combined with dynamic motor braking, it also eliminates the need to remove the radome during installation.

EMBEDDED DUAL ANTENNA MEDIATOR

Intellian's new ACU fully supports dual antenna operation without additional hardware such as a separate mediator, RF splitters and cables. Eliminate loss of signal due to blockage by using dual antenna systems.

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TECHNICAL SPECIFICATIONS

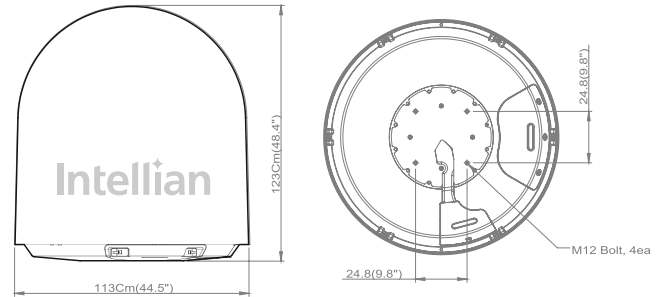### ABOVE DECK UNIT

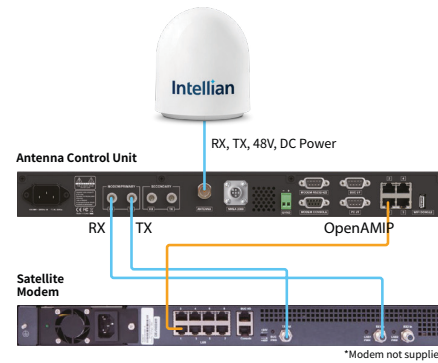|	
Radome Height	123 cm / 48.4"
Radome Diameter	113cm / 44.5"
Empty Dome Weight	25 kg / 55.1 lbs
Reflector Diameter	85 cm / 33.5"
ADU Weight	96 kg / 211.6 lbs
Platform	3-axis / Azimuth, Elevation, Cross-level
Azimuth Range	Unlimited
Elevation Range	-20° to 115°
Cross-level Range	± 37°
Stabilization Accuracy	0.2° peak miss-pointing @max ship motion condition
Motor Brake System	Dynamic Brake System
Tx Frequency	13.75 ~ 14.5 GHz Ku-band
Tx Gain	40.7 dBi @ 14.25 GHz (excl. radome)
Rx Frequency	10.7 ~ 12.75 GHz Ku-band
Rx Gain	38.9 dBi @ 11.7 GHz (excl. radome)
G/T	18.3 dB/K @ 12.75 GHz (clear Sky, 30° Elevation)
BUC Power	8W, 16W, 25W (Optional)
LNB	Intellian PLL LNB
Polarization	Linear, Cross & Co-pol
Antenna Cable	Single 50 ohm Coax Cable for Rx, Tx, FSK, Reference and Power from ACU to CDU

ANTENNA CONTROL UNIT

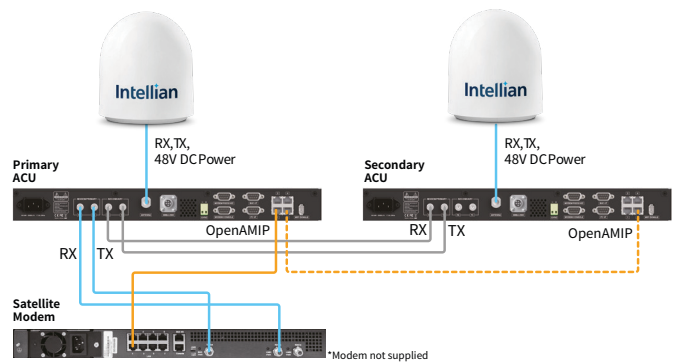|	
Dimensions (WxDxH)	43.1 cm x 35.0 cm x 4.4 cm / 17" x 13.8" x 1.7"
Weight	5.2 kg / 11.5 lbs
Display	256x64 Graphic OLED
Gyrocompass Interface	NMEA 2000, NMEA 0183
Mediator Interface	Yes (Emebeded in ACU, Primary / Secondary control on AptusNX)
Modem Interface	Ethernet port / RS-232C, -422C / I/O Console
Modem Protocol	iDirect, Comtech, SatLink, Hughes, GILAT, Newtec
Remote Management	Yes
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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