

Intellian® v80G

3-axis Ku-band Marine Communication VSAT Antenna System



Intellian® v80G is the latest solution from the global leader in marine satellite antennas solutions. The 83cm Ku-band dish size is the smallest antenna that works without the need for a spread spectrum satellite network transmission. This provides a compact system in a TDMA or SCPC transmission format.

The higher-gain performance design enables the antenna to operate on the fringes of the signal footprint with superior operation.

The all new Antenna Control Unit (ACU) supports Wi-Fi connectivity for a simple remote PC connection. If the ACU is installed at a great distance from the antenna, then the built-in Bluetooth connection module can enable a PC connection right alongside the dome.

The v80G operates with just two cables to the antenna, combining TX signals and 8W BUC power in one cable and the RX signal in the second cable.



Gyro-Free Satellite Search Capability

Intellian's new generation Gyro-free satellite search function enables the v80G to acquire and lock onto a satellite without requiring a separate input from a ship's gyro-compass. If a heading device is available, it can be connected via an NMEA interface.

DVB-S2 and Narrowband Carrier Decoding

The v80G is capable of decoding DVB-S/DVB-S2 and narrow-band carriers simultaneously.

Combined BUC Power and TX Signal

The v80G offers a single cable solution that supplies 48V DC power and TX signal together from its control unit via one RF cable. Intellian makes it simpler to install or retrofit.

Wide Elevation Angle

The v80G's wide-look angle pedestal is designed for extremely low or high latitude areas, such as the Scandinavian Peninsula or the Equatorial regions. Empower your vessel with the ability to travel far and wide, without the worry of signal loss.

Remote Management Solution

The v80G can be accessed, monitored, and controlled from any location in the world. Additionally, hundreds of routine maintenance activities can be automated. These functions include operating firmware upgrades, tracking parameters resets, and system diagnosis including the event history logging feature.

Save Installation and Maintenance Time

The simplified design of v80G allows users to install and setup the system without the need for a skilled engineer. Likewise, the v80G's firmware can be updated with an external USB drive, or by WiFi connection.

Wi-Fi and Bluetooth Connectivity

Connect to the ACU via Wi-Fi and antenna via Bluetooth for complete control and monitoring wherever you are on a vessel.

Modem Formats

The v80G supports a number of open standards enabling satellite network connectivity.

Dual Dome Matching Solution

The v80G provides a matching dome to the Intellian i9 TVRO antenna system.

Intellian®

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Technical Specifications

Product Model	Specifications
Intellian v80G	3-axis Ku-band Marine Communication Antenna System
Radome & Antenna	
Radome (D x H)	113 cm x 121 cm / 44.5" x 47.5"
Dish Diameter	83 cm / 32.7"
Weight	90.3 kg (199 lbs) (variable w/ RF components)
Stabilized Pedestal Assembly	
Pedestal Type	3-axis / Azimuth, Elevation, Cross-level
Azimuth Range	Unlimited
Elevation Range	-10° to +110°
Cross-level Range	±30°
Stabilization Accuracy	0.2° peak mis-pointing @ max ship motion condition
Max Ship's Motion	
Roll / Pitch / Yaw	±25° roll, ±15° pitch, ±8° yaw @ 6 sec period
Turning Rate	Up to 12°/sec & 5°/sec ²
Reflector & Feed Assembly	
TX Frequency	13.75 ~ 14.5 GHz Ku-band
TX Gain	39.6 dBi
RX Frequency	10.95 ~ 12.75 GHz Ku-band
RX Gain	38.3 dBi
Cross-Pol Isolation	> 35 dB at beam center
Polarized Feed	Cross-pol and Co-pol as standard
LNB Pol Control	Automatic LNB-pol angle control

Bluetooth Connection Module	
Version	1.2
Class	1
Maximum Permitted Power	18 dBm
Range	~ 100 meters

ACU Specifications

Rack Mount Antenna Control Unit	
Display	2 line 40 character graphic VFD module
Key	20 push keys
Serial Interface	RS-232C (19200 bps 8, N, 1)
Modem Interface	Ethernet port / RS-232C / Console
Remote Access	TCP/IP, Wi-Fi (Range: ~ 120 meters)
Input Power	100~240 V AC, 50~60 Hz (max 350 W including 8 W BUC power)
Gyrocompass Interface	NMEA 2000 / 0183
GPS	NMEA in / NMEA out
Antenna Output Power	27 V DC (max 150 W) through RX RF Cable
8W BUC Output Power	48 V DC (max 350 W) through TX RF Cable

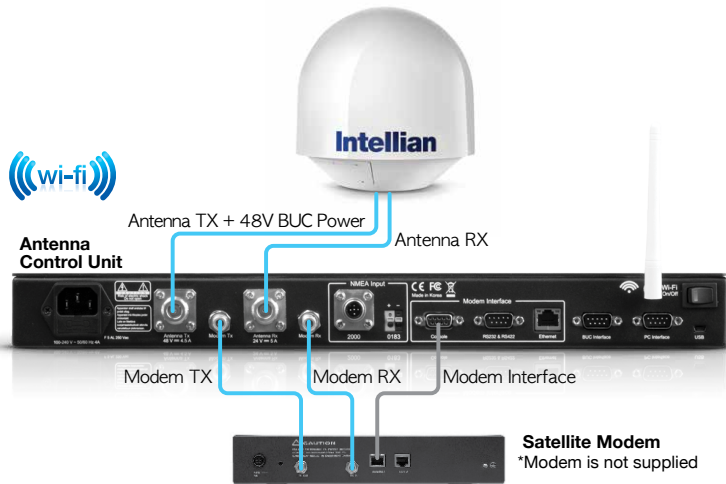
ACU (Antenna Control Unit) Key Features

Firmware updates can easily and reliably be made through the ACU utilizing Intellian's custom updating software.

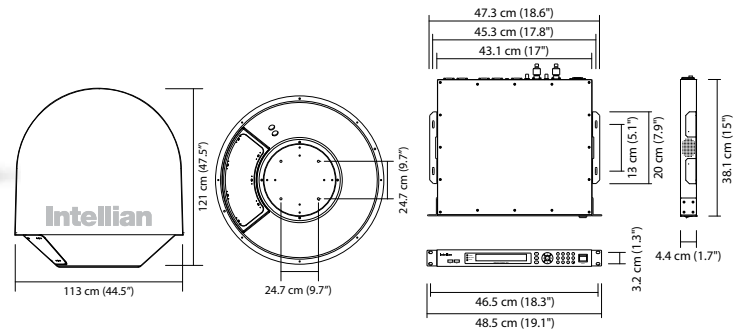
Wi-Fi equipped ACU provides convenient connection to the ACU for setup and system monitoring.

TCP/IP supports a wide range of modem interface formats (including Ethernet, console, RS232).

Basic Configuration



Antenna Housing and ACU Dimensions



ISO 9001, 14001 Certified

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