

# Intellian® v110

**Marine Stabilized Ku-band Communication Antenna System with 3-axis and 105cm Dish Diameter**

**Intellian® v110** is a 1.05m Ku-band maritime VSAT communication antenna system that supports SCPC, TDMA, Spread Spectrum or Carrier-in-Carrier and is suitable for high-speed Internet, email, file transfer, video conference, VOIP, VPNs and database backup. With its 3-axis stabilized platform and advanced shock-resistant and vibration damping design, the v110 is capable of withstanding the most demanding sea conditions to provide “Always on” and “High-quality” broadband communications on all types of vessels.

The v110 offers superior RF performance with its simple yet sophisticated design that reduces installation time and total cost of ownership. Equipped with Remote IP access function, the v110 can be accessed, monitored and controlled from anywhere and anytime to ensure cost-effective technical supports without having an engineer come on board. The v110 is available in both cross-pol and co-pol feeds and supports multi-band LNB and the option of 2W-40W BUC.



## Gyro-free Satellite Search Capability

Intellian's new generation Gyro-free satellite search function enables the v110 to acquire and lock onto the satellite without requiring a separate input from the ship's gyro-compass.

## Superior RF Performance

Major RF components are designed and manufactured by Intellian's solid in-house engineering to achieve superior antenna gain and xpol isolation recognized among the best performances in the industry.

## Wide Elevation Range

The wide elevation range from  $-15^{\circ}$  to  $120^{\circ}$  enables the v110 to have seamless signal reception while the vessel is traveling near the Equator or Polar Regions.

## Remote Management Solution

The v110 can be accessed, monitored, and controlled from any location in the world. Furthermore, hundreds of routine maintenance activities can be automated. These solutions include operating firmware upgrades, tracking parameters resets and system diagnosis.

## Save Installation and Maintenance Time

Simple design allows users to install and setup the system without the need for a skilled engineer. The v110 provides the utmost in reliability resulting in time and cost savings in maintenance.

## Open Platform Compatibility

The v110 is fully integrated with ABS (Automatic Beam Switching) function with leading service providers who use the embedded OpenAMIP protocol of the iDirect platform and v110 is also compatible with various platforms such as Hughes, Comtech, SatLink and more.

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## 105cm Ku-band 3-axis Marine Satellite Antenna Systems

### Technical Specification

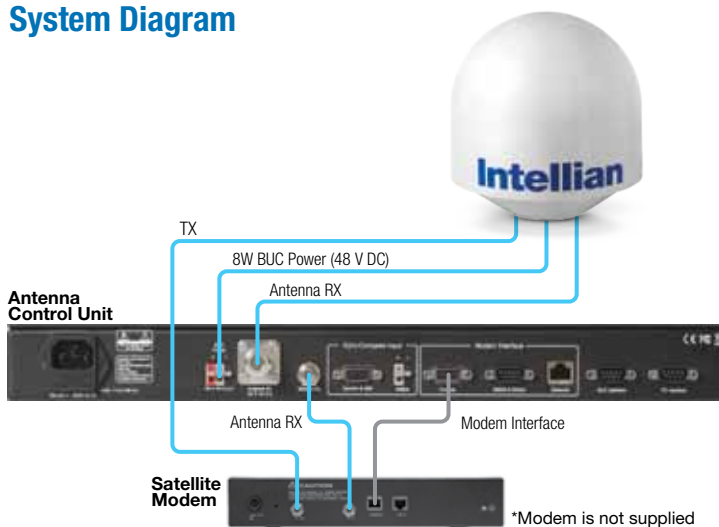
Product Model	Specifications
Intellian v110	3-axis Marine Stabilized Ku-band Communication Antenna System
<b>Radome &amp; Antenna</b>	
Radome (D x H)	147.4 x 152.3 cm / 58" x 60"
Dish Diameter	105.0 cm / 41.3"
Weight	139.5 kg / 307.5 lbs (variable w/ RF components)
<b>Stabilized Pedestal Assembly</b>	
Pedestal Type	3-axis / Azimuth, Elevation, Cross-level
Azimuth Range	Unlimited
Elevation Range	-15° to +120°
Cross-level Range	Up to ±37°
Stabilization Accuracy	0.2° peak mis-pointing @ max ship motion condition
<b>Max Ship's Motion</b>	
Roll / Pitch / Yaw	±25° roll, ±15° pitch, ±8° yaw @ 6 sec period
Turning Rate	Up to 12°/sec & 5°/sec²
<b>Reflector &amp; Feed Assembly</b>	
TX Frequency	13.75 ~ 14.5 GHz Ku-band
TX Gain	41.7 dB @ Mid band
RX Frequency	10.95 ~ 12.75 GHz Ku-band
RX Gain	39.8 dB @ Mid band
Polarized Feed	Cross-pol only, Cross-pol and Co-pol
LNB Pol Control	Automatic LNB-pol angle control

<b>Rack Mount Antenna Control Unit</b>	
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 / I/O ports
Remote Access	TCP/IP
Input Power	100~240 V AC, 50~60 Hz (max 350 W including 8 W BUC power)
Gyrocompass Interface	NMEA / Synchro
GPS	NMEA in / NMEA out

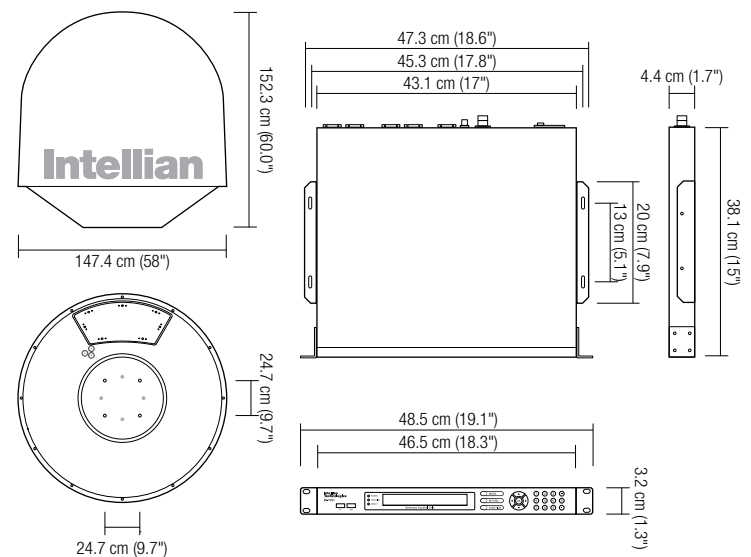
### Key Features

Gyro-free Operation	Without requiring heading device input Quick setup to reduce installation time
Remote Access	Built-in web interface, Remote firmware upgrade
Customized Satellite Library	Additional satellite information setting not required for installation
Automatic Diagnosis	Encoder, Motor, Tilt/Gyro sensor, LNB pol control, LNB, Antenna & ACU power, Modem connection, I/F
DC Power Separation	Rotary joint - TX and RX IF signal Slip ring - Antenna power and 8W BUC power

### System Diagram



### Antenna Dimensions



# Intellian®

ISO 9001 Certified  
For more info, visit [intelliantech.com](http://intelliantech.com)

**Americas**  
Intellian Technologies USA, Inc.  
9004 Research Drive  
Irvine, CA 92618, USA  
Tel +1-949-727-4498  
Toll Free +1-888-201-9223  
Fax +1-949-271-4183  
Email [info@intelliantech.com](mailto:info@intelliantech.com)

**Europe**  
Intellian B.V.  
Bristolstraat 1, 3047AB  
Rotterdam, Netherlands  
Tel +31-1-0820-8655  
Fax +31-1-0820-8656  
Email [info@intelliantech.com](mailto:info@intelliantech.com)

**MEA & APAC**  
Intellian Technologies, Inc.  
2F Dongik Bldg., 98 Nonhyun-dong,  
Kangnam-gu, Seoul 135-010, Korea  
Tel +82-2-511-2244  
Fax +82-2-511-2235  
Email [info@intelliantech.com](mailto:info@intelliantech.com)