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[intelliantech.com/sattv](http://intelliantech.com/sattv)

3-axis TVRO Brochure 2017 0519\_HQ1000



**Intellian**

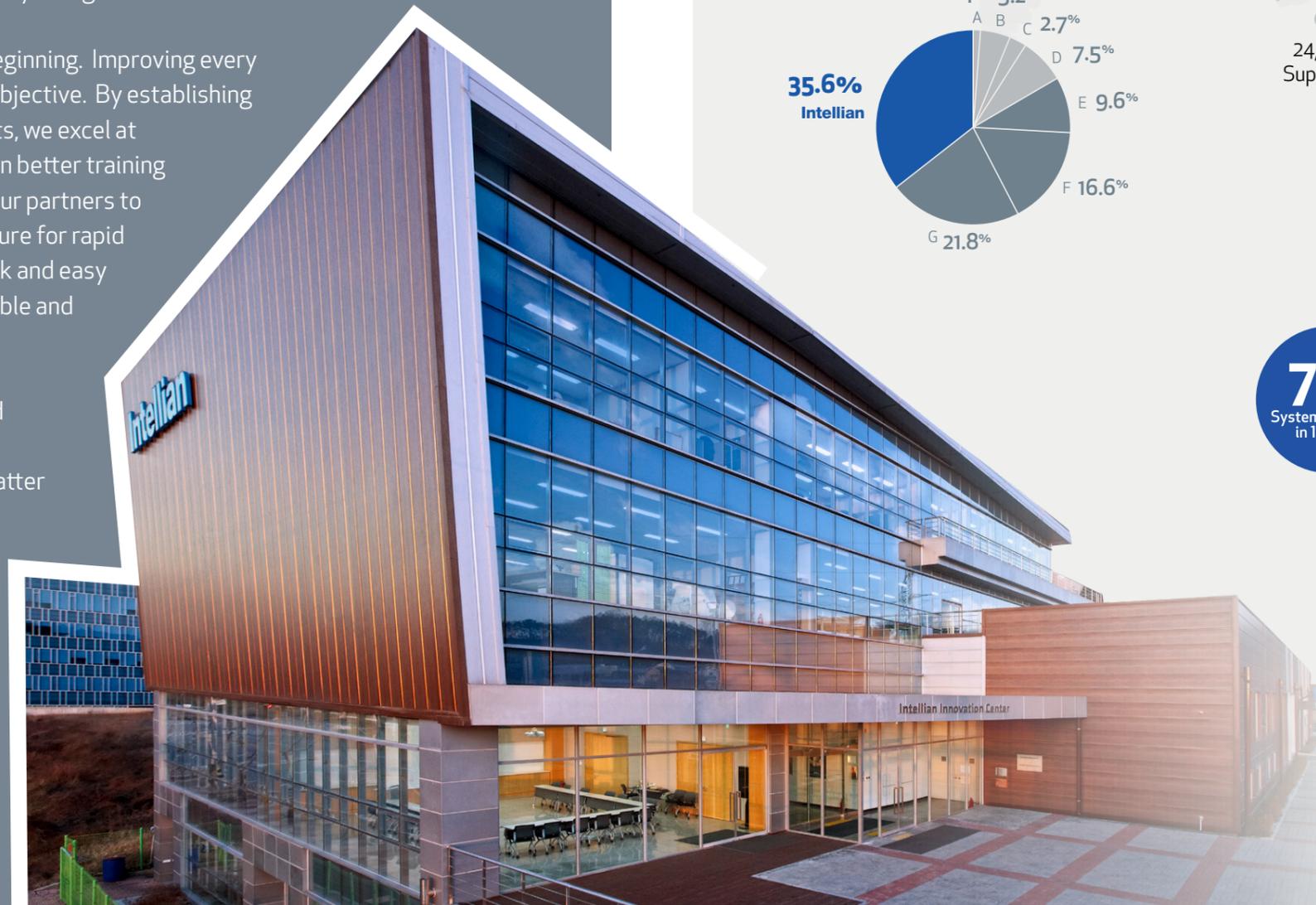
# Leading the Evolution of Mobility Communications

Constant, high-speed, global connectivity is an engine for economic growth, for corporate efficiency, and for industrial evolution. Adapting is no longer a choice, but a requirement for survival in the Digital Age.

The only choice is how you experience your journey to digital transformation.

At Intellian, innovative technology is only the beginning. Improving every aspect of the customer experience is our core objective. By establishing a robust global presence across three continents, we excel at supporting the markets we serve. By investing in better training and remote support capabilities, we empower our partners to exceed expectations. By creating an infrastructure for rapid global delivery of products streamlined for quick and easy installation, we have become the most dependable and proactive business enabler in the industry.

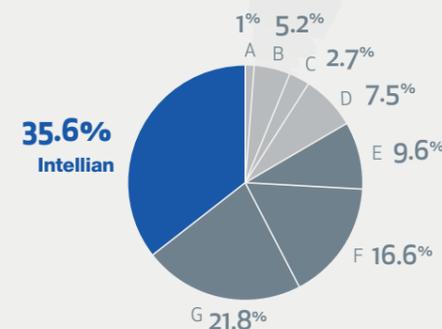
Intellian leads in evolving the entire process and experience by which our partners increase the profitability of each and every ship at sea, no matter the challenges.



# About Intellian



## Global Leader in Stabilized Antenna Technology



## World Class Customer Experience



24/7 Global Support Desk



Industry Defying 3 Year Global Warranty



Advanced Remote Management, Control and Support Capability

## Invested in Innovation to Drive Industry Growth



70k Systems Shipped in 10 Years



10% Top Line Revenue Invested in R&D



30% 5-Year CAGR

**KOSDAQ**

Publicly Listed Company:  
IPO October, 2016

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# Proven Reliability for Uninterrupted Entertainment

Intellian makes the world's most versatile 2-axis and 3-axis marine satellite TV antennas. Ranging in size from 33cm to 2.4 meters, these antennas provide reliable TV reception for craft as small as 10 meters all the way up to the largest of commercial ships. More importantly perhaps, only Intellian offers exclusive – and patented – technologies that make watching satellite TV onboard easier and more enjoyable than you might imagine.



# 3-axis Marine Stabilized TV Antenna System For Ku-band Broadcast Satellites



Intellian's t-Series deliver outstanding global performance, seamless integration with any pre-existing configuration, while providing unmatched value at an outstanding price.

# Regional Flexibility

## Intellian offers two solutions for your regional requirements.

Intellian's t-Series antenna systems have been newly upgraded to streamline the installation process and deliver seamless integration with any pre-existing cabling or onboard distribution system. Delivering industry-leading signal performance, wider coverage areas, and superior remote maintenance and support capabilities, Intellian's t-Series systems combine universal compatibility with unmatched ease-of-use and reliability. The W versions incorporate the WorldView LNB along with an embedded QSM module for intelligent distribution of TV signals.

The Q versions include the Intelligent Signal Distribution module, with a dedicated European region linear LNB for a more cost effective solution for vessels remaining in the European region.



t80W / t80Q



t100W / t100Q



t110W / t110Q



t130W / t130Q



## Intelligent Signal Distribution

The t-Series systems now feature an embedded Quattro Switching Module, which intelligently distributes different tone signals to the correct ports on any legacy multiswitches installed throughout the ship. No need for reconfiguring anything below deck apart from the ACU.

\* QSM embedded in t-Series except t80W & t80Q

**Intellian**

## s-Series

### For the Ultimate DirecTV HD Experience

The s-Series marine satellite TV systems enable simultaneous reception from all three DIRECTV satellites providing HDTV reception and DVR compatibility for a truly "just like home" experience. Additionally, everyone aboard the vessel can watch different channels on multiple receivers at the same time.

### s-Series Key Features



#### The Ultimate in Simultaneous Reception

Intellian's WorldView Trio LNB™ with its triple feed horn provides simultaneous reception of DIRECTV US satellites: two HD DIRECTV Ka-band (99°W/103°W) satellites and one DIRECTV Ku-band (101°W) satellite. In addition, the WorldView LNB receives Ku-band TV service around the globe providing a complete HD entertainment experience at sea, including DVR capability.



#### Matching Dome Solution

The s100HD's radome matches the styling of Intellian's v100 and GX100 VSAT antennas, making a perfect solution for larger yachts or whenever there is an emphasis on symmetrical design. The v100 and GX100 are the most popular VSAT antennas on the market today, making them perfect match for those who also need voice and high-speed data services.



#### Global Satellite Library

Intellian ACUs come pre-programmed with all the important satellite details for the world's major satellite TV providers. Moving from one region to another is as simple as a few button taps on your Smartphone or Tablet. The WorldView LNB module automatically tunes to the corresponding local frequency wherever you are.



#### Multi-Switch Module Included

Intellian s100HD WorldView™ comes with an Intellian 19" rack mount Multi-Switch module that allows you to seamlessly connect various types of satellite receivers. The built-in SWM capability simplifies installation by supporting single wire installation to multiple TV receivers, eliminating the need for additional hardware and cable runs.

## s100HD

### 1m Maritime Antenna for HD DIRECTV and Global TV Reception

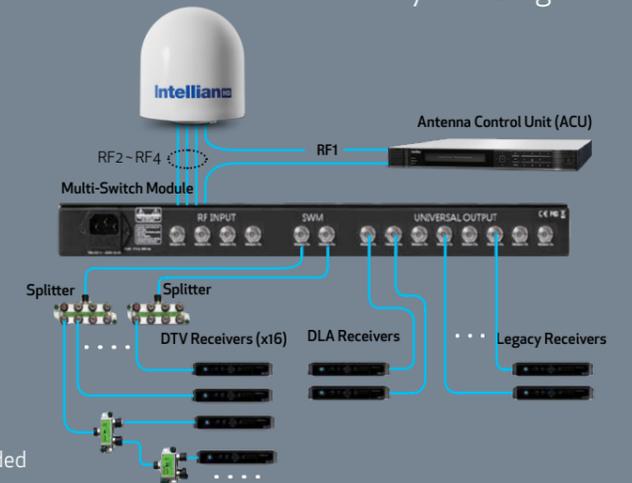
3 DIRECTV Satellites and all Ku-band Satellite Reception



- Exceptional 1m Performance
- The Ultimate in Simultaneous Reception

- Global Satellite Library
- Matching Dome Solution
- Multi-Switch Module Included
- Aptus Mobile

### System Diagram



PHYSICAL	ENVIRONMENTAL	PERFORMANCE
<b>Radome Height :</b> 151.4 cm / 59.64"	<b>Operating Temp. Range :</b> -25°C to +55°C / -13°F to +131°F	<b>Reception Frequency :</b> Ku-band: 10.7–12.75 GHz Ka-band: 18.3–18.8 / 19.7–20.2 GHz
<b>Radome Diameter :</b> 138 cm / 54.33"	<b>Storage Temp. Range :</b> -40°C to +80°C / -40°F to +176°F	<b>Polarization :</b> Ku-band: Linear / Circular Switchable Ka-band: Circular
<b>Reflector Diameter :</b> 109 cm / 42.9"	<b>Water Ingress :</b> IPX6	<b>Minimum EIRP :</b> Ku-band: 42 dBW / Ka-band: 45 dBW
<b>Weight :</b> 100 kg / 220 lbs	<b>Approvals :</b> CE / FCC	<b>Azimuth Range :</b> 680°
		<b>Elevation Range :</b> -15° to +120°
		<b>Cross Level Range :</b> ±37°
		<b>Ship's Motion::</b> Roll ±25°, Pitch ±15°, Yaw ±8° @ 6 sec period
		<b>Turn Rate :</b> Up to 12°/sec and 5°/sec²
		<b>Stabilization Accuracy:</b> 0.2° max in presence of specified ship motions

## Matching Dome Solution

### 1m Radome solution based on the GX100 Radome

Ultimate solutions for combining satellite communications and entertainment with perfect matching design for yachts.

- VSAT: v100 /GX100
- TVRO: t100W / s100HD
- FBB: FB250 with 1m Radome / FB500 with 1m Radome

### TVRO Matching Dome Solution



s100HD



t100W

# t-Series WorldView Versions

## 3-axis WorldView antennas for Global operation

Ideal for larger offshore vessels, megayachts and commercial ships, Intellian's WorldView™ enabled t-Series antennas feature ground-breaking 3-axis stabilized design for all regions around the globe.

### W version Key Features



#### Worldwide satellite TV reception

W-version Antenna systems are equipped with Intellian's patented WorldView Technology offer TV reception anywhere in the world without having to touch the antenna. Moving from one region to another requires a few simple key strokes or button taps on your Smartphone or Tablet. Just select the desired provider from the pre-installed Global Satellite Library.



#### iSD Intelligent Signal Distribution

Intellian 3-axis TV antenna systems now feature an embedded Quattro Switching Module, which intelligently distributes different tone signals to the correct ports on any legacy multiswitches installed throughout the ship. No need for reconfiguring anything below deck apart from the ACU.



#### Global Satellite Library

Intellian ACUs come pre-programmed with all the important satellite details for the world's major satellite TV providers. Moving from one region to another is as simple as a few button taps on your Smartphone or Tablet. The WorldView LNB module automatically tunes to the corresponding local frequency wherever you are.



#### Simple & Easy Installation

From common-sense packaging and pre-slung lifting straps to Aptus and the Global Satellite Library, installing an Intellian antenna is quick and easy on any vessel. A simple and elegant mechanical design eliminates the need to remove the radome at any point during installation, as all bolts and connectors can be accessed through the hatch. An Intellian antenna allows you to go from in the box to live TV in no time.

## Technical Specification

	PHYSICAL	ENVIRONMENTAL	PERFORMANCE	
 <b>t80W</b> Model Number: T3-91AW2	<b>Radome Height :</b> 120.5cm / 47.4"	<b>Operating Temp. Range :</b> -25°C to +55°C / -13°F to +131°F	<b>Reception Frequency :</b> Ku-band (10.7~12.75GHz) <b>Polarization :</b> Circular / Linear auto-switchable <b>Minimum EIRP :</b> 44dBW <b>Azimuth Range :</b> 680° <b>Elevation Range ::</b> -15° to 110° <b>Cross Level Range ::</b> ±30° <b>Ship's Motion::</b> Roll ±25°, Pitch ±15°, Yaw ±8° @ 6 sec period <b>Turn Rate :</b> Up to 12°/sec and 5°/sec <sup>2</sup> <b>RF Output :</b> Dual / Quad Output	
	<b>Radome Diameter :</b> 113cm / 44.5"	<b>Storage Temp. Range :</b> -40°C to +80°C / -40°F to +176°F	<b>Water Ingress :</b> IPX6	
	<b>Reflector Diameter :</b> 85cm / 33.5"	<b>Water Ingress :</b> IPX6		
	<b>Weight :</b> 82.2kg / 181.2lbs	<b>Approvals :</b> CE / FCC		
 <b>t100W</b> Model Number: T3-101AWS3	<b>Radome Height :</b> 151.4cm / 59.63"	<b>Operating Temp. Range :</b> -25°C to +55°C / -13°F to +131°F	<b>Reception Frequency :</b> Ku-band (10.7~12.75GHz) <b>Polarization :</b> Circular / Linear auto-switchable <b>Minimum EIRP :</b> 42dBW <b>Azimuth Range :</b> 680° <b>Elevation Range ::</b> -15° to 120° <b>Cross Level Range ::</b> ±30° <b>Ship's Motion::</b> Roll ±25°, Pitch ±15°, Yaw ±8° @ 6 sec period <b>Turn Rate :</b> Up to 12°/sec and 5°/sec <sup>2</sup> <b>RF Output :</b> Dual / Quad Output	
	<b>Radome Diameter :</b> 138cm / 54.33"	<b>Storage Temp. Range :</b> -40°C to +80°C / -40°F to +176°F	<b>Water Ingress :</b> IPX6	
	<b>Reflector Diameter :</b> 105cm / 41.3"	<b>Water Ingress :</b> IPX6		
	<b>Weight :</b> 93.9kg / 207lbs	<b>Approvals :</b> CE / FCC		
 <b>t110W</b> Model Number: T3-111AWS	<b>Radome Height :</b> 142cm / 55.9"	<b>Operating Temp. Range :</b> -25°C to +55°C / -13°F to +131°F	<b>Reception Frequency :</b> Ku-band (10.7~12.75GHz) <b>Polarization :</b> Circular / Linear auto-switchable <b>Minimum EIRP :</b> 42dBW <b>Azimuth Range :</b> 680° <b>Elevation Range ::</b> -15° to 120° <b>Cross Level Range ::</b> ±30° <b>Ship's Motion::</b> Roll ±25°, Pitch ±15°, Yaw ±8° @ 6 sec period <b>Turn Rate :</b> Up to 12°/sec and 5°/sec <sup>2</sup> <b>RF Output :</b> Dual / Quad Output	
	<b>Radome Diameter :</b> 133cm / 52.4"	<b>Storage Temp. Range :</b> -40°C to +80°C / -40°F to +176°F	<b>Water Ingress :</b> IPX6	
	<b>Reflector Diameter :</b> 105cm / 41.3"	<b>Water Ingress :</b> IPX6		
	<b>Weight :</b> 91kg / 201lbs	<b>Approvals :</b> CE / FCC		
 <b>t130W</b> Model Number: T3-131AWS	<b>Radome Height :</b> 168.4cm / 66.3"	<b>Operating Temp. Range :</b> -25°C to +55°C / -13°F to +131°F	<b>Reception Frequency :</b> Ku-band (10.7~12.75GHz) <b>Polarization :</b> Circular / Linear auto-switchable <b>Minimum EIRP :</b> 40dBW <b>Azimuth Range :</b> 680° <b>Elevation Range ::</b> -15° to 120° <b>Cross Level Range ::</b> ±30° <b>Ship's Motion::</b> Roll ±25°, Pitch ±15°, Yaw ±8° @ 6 sec period <b>Turn Rate :</b> Up to 12°/sec and 5°/sec <sup>2</sup> <b>RF Output :</b> Dual / Quad Output	
	<b>Radome Diameter :</b> 165.2cm / 65"	<b>Storage Temp. Range :</b> -40°C to +80°C / -40°F to +176°F	<b>Water Ingress :</b> IPX6	
	<b>Reflector Diameter :</b> 125cm / 49.2"	<b>Water Ingress :</b> IPX6		
	<b>Weight :</b> 117kg / 258lbs	<b>Approvals :</b> CE / FCC		
 <b>t240CK</b> Model Number: T3-246AC	<b>Radome Height :</b> 352cm / 139"	<b>Operating Temp. Range :</b> -25°C to +55°C / -13°F to +131°F	<b>Reception Frequency :</b> C-band: 3.4~4.2GHz / Ku-band: 10.7~12.75GHz <b>Polarization :</b> C-band: Linear Ku-band: Linear & Circular (Auto Switchable) <b>Minimum EIRP :</b> C-band: 31dBW / Ku-band: 35dBW <b>Azimuth Range :</b> Unlimited <b>Elevation Range ::</b> -15° to 120° <b>Cross Level Range ::</b> ±30° <b>Ship's Motion::</b> Roll ±25°, Pitch ±15°, Yaw ±8° @ 6 sec period <b>Turn Rate :</b> Up to 12°/sec and 5°/sec <sup>2</sup> <b>RF Output :</b> Dual / Quad Output	
	<b>Radome Diameter :</b> 330cm / 130"	<b>Storage Temp. Range :</b> -40°C to +80°C / -40°F to +176°F	<b>Water Ingress :</b> IPX6	
	<b>Reflector Diameter :</b> 240cm / 94"	<b>Water Ingress :</b> IPX6		
	<b>Weight :</b> 630kg / 1,389lbs	<b>Approvals :</b> CE / FCC		

# t-Series Q Versions

## 3-axis Optimized antennas for the European Region

Ideal for larger offshore vessels, mega yachts and commercial ships, Intellian serves European customers with Fit and Affordable products.

### Q version Key Features



#### Quick & Easy system upgrade

New t-Series enables to upgrade the systems quickly and easily saving both time and cost. Pre-installed Quattro Switching Module is available in both Quattro mode and Quad mode without the need to replace cables and distribution equipment



#### iSD Intelligent Signal Distribution

Intellian 3-axis TV antenna systems now feature an embedded Quattro Switching Module, which intelligently distributes different tone signals to the correct ports on any legacy multiswitches installed throughout the ship. No need for reconfiguring anything below deck apart from the ACU.



#### Flexible and simple upgrade

For vessels that may require global TV coverage in the future, an upgrade kit is available to convert to a WorldView LNB Model.



#### The solution for older system replacement

Simply replace any legacy system with a t-Series and have it work seamlessly with whatever below deck distribution configuration is already in place.

## Technical Specification

	PHYSICAL	ENVIRONMENTAL	PERFORMANCE
 <b>t80Q</b> Model Number: T3-91AQ	<b>Radome Height :</b> 120.5cm / 47.4"	<b>Operating Temp. Range :</b> -25°C to +55°C / -13°F to +131°F	<b>Reception Frequency :</b> Ku-band (10.7–12.75GHz) <b>Polarization :</b> Linear <b>Minimum EIRP :</b> 44dBW <b>Azimuth Range :</b> 680° <b>Elevation Range ::</b> -15° to 110° <b>Cross Level Range ::</b> ±30° <b>Ship's Motion::</b> Roll ±25°, Pitch ±15°, Yaw ±8° @ 6 sec period <b>Turn Rate :</b> Up to 12°/sec and 5°/sec <sup>2</sup> <b>RF Output :</b> Quad Output
	<b>Radome Diameter :</b> 113cm / 44.5"	<b>Storage Temp. Range :</b> -40°C to +80°C / -40°F to +176°F	<b>Water Ingress :</b> IPX6
	<b>Reflector Diameter :</b> 85cm / 33.5"	<b>Approvals :</b> CE / FCC	
 <b>t100Q</b> Model Number: T3-101AQS3	<b>Radome Height :</b> 151.4cm / 59.63"	<b>Operating Temp. Range :</b> -25°C to +55°C / -13°F to +131°F	<b>Reception Frequency :</b> Ku-band (10.7–12.75GHz) <b>Polarization :</b> Linear <b>Minimum EIRP :</b> 42dBW <b>Azimuth Range :</b> 680° <b>Elevation Range ::</b> -15° to 120° <b>Cross Level Range ::</b> ±30° <b>Ship's Motion::</b> Roll ±25°, Pitch ±15°, Yaw ±8° @ 6 sec period <b>Turn Rate :</b> Up to 12°/sec and 5°/sec <sup>2</sup> <b>RF Output :</b> Quad Output
	<b>Radome Diameter :</b> 138cm / 54.33"	<b>Storage Temp. Range :</b> -40°C to +80°C / -40°F to +176°F	<b>Water Ingress :</b> IPX6
	<b>Reflector Diameter :</b> 105cm / 41.3"	<b>Approvals :</b> CE / FCC	
 <b>t110Q</b> Model Number: T3-111AQS	<b>Radome Height :</b> 142cm / 55.9"	<b>Operating Temp. Range :</b> -25°C to +55°C / -13°F to +131°F	<b>Reception Frequency :</b> Ku-band (10.7–12.75GHz) <b>Polarization :</b> Linear <b>Minimum EIRP :</b> 42dBW <b>Azimuth Range :</b> 680° <b>Elevation Range ::</b> -15° to 120° <b>Cross Level Range ::</b> ±30° <b>Ship's Motion::</b> Roll ±25°, Pitch ±15°, Yaw ±8° @ 6 sec period <b>Turn Rate :</b> Up to 12°/sec and 5°/sec <sup>2</sup> <b>RF Output :</b> Quad Output
	<b>Radome Diameter :</b> 133cm / 52.4"	<b>Storage Temp. Range :</b> -40°C to +80°C / -40°F to +176°F	<b>Water Ingress :</b> IPX6
	<b>Reflector Diameter :</b> 105cm / 41.3"	<b>Approvals :</b> CE / FCC	
 <b>t130Q</b> Model Number: T3-131AQS	<b>Radome Height :</b> 168.4cm / 66.3"	<b>Operating Temp. Range :</b> -25°C to +55°C / -13°F to +131°F	<b>Reception Frequency :</b> Ku-band (10.7–12.75GHz) <b>Polarization :</b> Linear <b>Minimum EIRP :</b> 40dBW <b>Azimuth Range :</b> 680° <b>Elevation Range ::</b> -15° to 120° <b>Cross Level Range ::</b> ±30° <b>Ship's Motion::</b> Roll ±25°, Pitch ±15°, Yaw ±8° @ 6 sec period <b>Turn Rate :</b> Up to 12°/sec and 5°/sec <sup>2</sup> <b>RF Output :</b> Quad Output
	<b>Radome Diameter :</b> 165.2cm / 65"	<b>Storage Temp. Range :</b> -40°C to +80°C / -40°F to +176°F	<b>Water Ingress :</b> IPX6
	<b>Reflector Diameter :</b> 125cm / 49.2"	<b>Approvals :</b> CE / FCC	

# Aptus - Remote Management



Intellian's Aptus software is compatible with all Intellian VSAT and TVRO antennas and can be connected via the onboard network or direct to the ACU by serial, USB, or Wi-Fi (mobile app) through a simple one-click installation. Straightforward remote IP connection and set-up, coupled with antenna status reporting helps increase the performance of the antenna as well as debug the system.

The user interface displays a simple to understand dashboard that allows logging, recording and fine-tuning of the antenna for optimum performance. Through logging the antenna's parameters, the user and integrator can monitor the system and see performance data in real-time.

Aptus features a dashboard with three main views to monitor and control the antenna. The views provide varying levels of information, such as antenna position, set-up data including sensor inputs, satellite information including tracking frequency and LNB setting, graphs illustrating the signal, heading and elevation angles, and a monitor listing all data that is being received by the ACU.

When installing an Intellian antenna, Aptus can also help with the initial set-up and automatically sets the appropriate Bow, Cross Level and Elevation offsets, saving time during the installation.

- TVRO & VSAT Antennas
- Software & Integration
- Stand-alone, Web & SDK
- Supporting PC & Mobile Devices
- Back-up & Restore
- Antenna Debugging
- Auto Diagnostic Function
- Antenna Status Monitoring
- Spectrum Analyzer
- Serial Connection
- Remote IP Connection Over SSL
- Graphic Antenna Position & Status

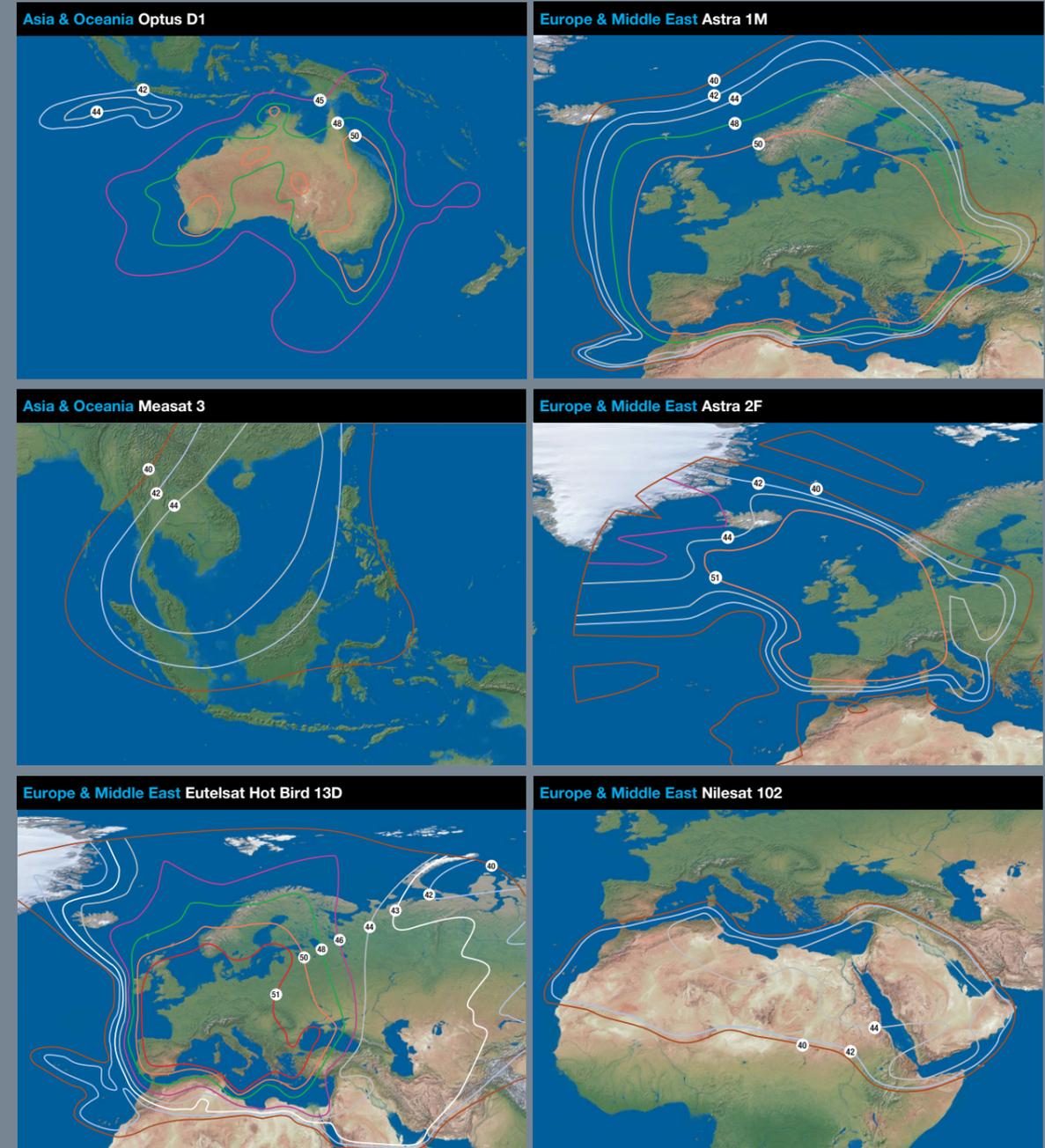


## Industry Defying 3 Year Global Warranty

Industry leading 3-year parts and workmanship guarantee with a 2-year labor warranty for all antenna systems, ensuring peace of mind with your hardware investment.

# Coverage Map

KEY	Reflector Diameter	Product	EIRP
	125cm (49.2")	t130W / t130Q	40 dBW
	105cm (41.3")	t100 / t110W / t100Q / t110Q / s100HD	42 dBW
	85cm (33.5")	t80W / t80Q	44 dBW



**Note** The coverage maps are intended for information purposes only. The actual coverage and minimum EIRP level can be variable upon weather conditions. Intellian makes no warranties as to the coverage area in this document and the information can be changed without notice.