

Intellian v100GX

1m Ku-band to Ka-band GX convertible
Communication Antenna System



Simple conversion from Ku-band to GX

The v100GX can be easily and quickly converted from a Ku-band system to a Ka-band GX system with an integrated RF module consisting of the BUC and LNB. The BUC and LNB assembly is attached to the rear side of the reflector in a simple process, with no need to balance the system after the conversion. The Ku-band feed can be easily and swiftly replaced with the Ka-band feed which is included in the GX Conversion kit.

Ku and Ka-band optimized reflector

The v100GX is designed and engineered to operate on Ku and Ka-bands while maximizing the RF performance on both bands. The reflector of the v100GX is capable of receiving on either Ku or Ka-bands, eliminating the need to replace the reflector when switching between bands.

Frequency tuned radome

To ensure efficient operations for both Ku-band VSAT and Ka-band the radome performance is maximized with an optimized radome design that enhances both the Ka-band and Ku-band system performance.

Patented Intellian Global PLL LNB

The v100GX is equipped with Intellian's patent pending Global PLL LNB as standard. Intellian's new Global PLL LNB presents the world's first Ku-band LNB module capable of receiving a full range of operating frequencies from any VSAT satellite around the globe. This unique and innovative capability of remotely changing the frequencies of the LNB makes the v100GX by far the only system that is ready for Global Ku-band VSAT service to date.

Auto beam switching (ABS) available

The v100GX supports ABS via Open AMIP protocol of iDirect and the ROSS Open Antenna Management (ROAM) protocol of Comtech making phone calls, texting SMS messages just like on shore.

Gyro-Free satellite search capability

Intellian's new generation Gyro-free satellite search function enables the v100GX to acquire and lock onto the satellite without requiring a separate input from the ship's gyrocompass.

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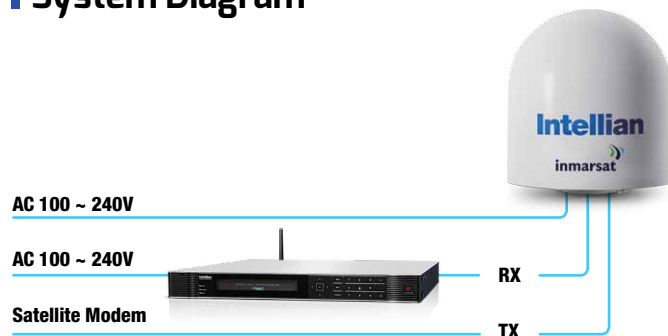
Intellian v100GX

Defining a new standard
prepared for the future

Technical Specifications

Physical	
Radome Height	151.4cm / 59.63"
Radome Diameter	138.0cm / 54.33"
Reflector Diameter	103cm / 41"
Weight	Approx. 128kg / 282lbs
Stabilized Pedestal Assembly	
Platform	3-axis : Azimuth, Elevation, Cross-level
Azimuth Range	Unlimited
Elevation Range	-20° to +115°
Cross-level Range	Up to ±37°
Motor Brake System	Elevation, Cross-level
Reflector & Feed Assembly	
TX Frequency	13.75~14.5GHz (Ku-band)
TX Gain	41.6dBi @ Mid band
RX Frequency	10.7~12.75GHz (Ku-Band)
RX Gain	39.4dBi @ Mid band
G/T	> 19.6 db/K (Clear Sky, 30° Elevation)
BUC Power	8W, 16W (optional)
LNB	Intellian PLL LNB
Polarization	Linear, Cross-pol and Co-pol
Antenna Control Unit	
Dimensions (WxDxH)	43.1cm x 38.1cm x 4.4cm / 17" x 15" x 1.7"
Weight	3.5kg / 7.7lbs
Display	2 line 40 character graphic VFD module
Ship's Gyrocompass Interface	NMEA 2000 / NMEA 0183
Modem Interface	Ethernet port / RS-232C / I/O
Modem Protocol	iDirect, Comtech, SatLink, Hughes, GILAT
Remote Management	Yes
Wi-Fi Operation	Yes
Management Port	Ethernet / USB / Serial
Power Requirement	100~240V AC, 50~60Hz, 1A

System Diagram



Intellian v100GX is a 1 meter Ku-band to Ka-band GX convertible maritime stabilized antenna, and ready-to-use system for the super-fast, Global Xpress™ (GX) Ka-band broadband service from Inmarsat.

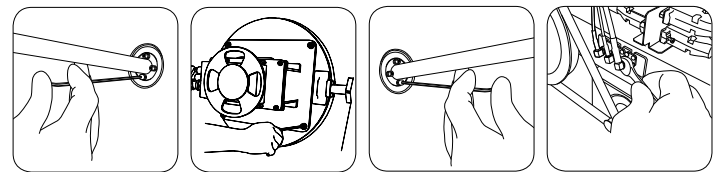
The v100GX offers a robust, affordable, plug and play conversion kit to enable a smooth upgrade path from Ku to GX service in as little as 10 minutes without requiring a factory trained technician.

The v100GX's high-gain, highly efficient reflector and tuned radome ensure the best service quality available when configured for Ku or Ka-band GX operation. In addition, the v100GX supports low elevation angle (-20°) capability to guarantee reliable connection at extremely high latitude.

The v100GX's seamless end-to-end solution is to offer hassle-free installation, operation, and maintenance. The v100GX interfaces with Aptus, Intellian's graphic-based antenna remote control software. The Aptus Software Development Kit (SDK), allows a NOC or service center to integrate antenna monitoring and control into an existing network management system in an easier, more user-friendly, and convenient manner.

The v100GX is available in 2 models that support 8W and 16W BUC sizes. All models are built with Co-pol and Cross-pol feed and come equipped with Intellian's Global PLL LNB as standard.

4 step Conversion



1. Remove the Ku-band feed by removing 4 bolts.
2. Remove the Ku-band BUC/LNB assembly by taking 4 bolts out and attach the Ka-band BUC/LNB assembly by inserting 4 bolts.
3. Attach the Ka-band feed by inserting 4 bolts.
4. Use the common connector both for Ku-band BUC/LNB assembly and Ka-band BUC/LNB assembly.

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