

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.

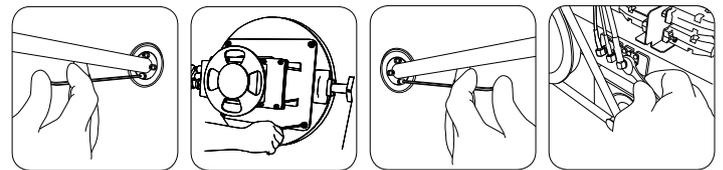
The v100GX offers a robust, affordable, plug and play conversion kit to enable a smooth upgrade path from Ku to GX service in as little as 10 minutes without requiring a factory trained technician.

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.

Intellian

Global HQ
Innovation Center / Factory
Intellian Technologies, Inc.
T +82 31 379 1000
F +82 31 377 6185

APAC
Seoul Office
Intellian Technologies, Inc.
T +82 2 511 2244
F +82 2 511 2235

Americas
Irvine Office
Intellian Technologies USA, Inc.
T +1 949 727 4498
F +1 949 271 4183
Toll Free +1 888-201-9223

EMEA
Rotterdam Office
Intellian B.V.
T +31 1 0820 8655
F +31 1 0820 8656