Inmarsat Global Xpress

JUE-100GX

- High-speed ship-to-shore data communication environment
- Combines GX and FB for continuous stability and high-speed
- Upload more data with standard 5W and optional 10W BUC upgrade
- Ensured coverage with expandable dual antenna interswitch

Category

>500 GT

3.000 GT - 10.000 GT

Over 10.000 GT

Workboats

Deepsea

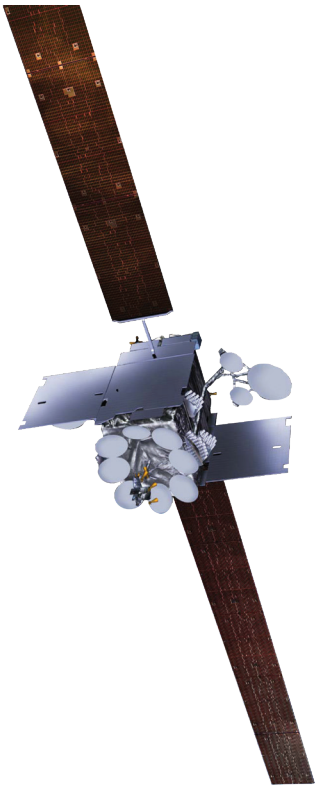
jrc-world.com

Features

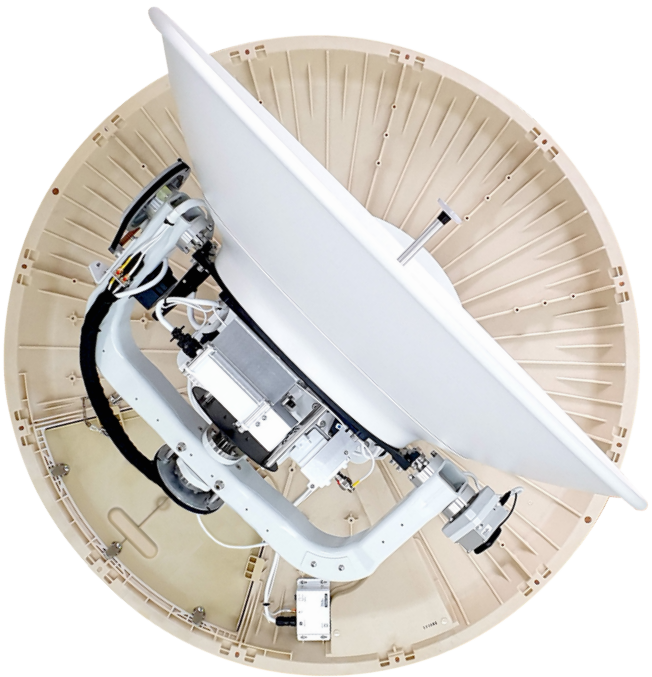
JRC translates their unique Japanese mindset of service and hospitality in many ways, one of which is in how we develop our quality products ensuring total value for users. The product needs to function as a reliable solution, or serve a specific purpose for our customers. And this is exactly how we started development of our new JUE-100GX Inmarsat Global Xpress 1m antenna model. Diverse and flexible, applicable and relevant to different markets on various types of large vessels. The JUE-100GX can be widely used for remote vessel monitoring, optimized route selection by Weather Routing, reduced fuel consumption, and can be complimented with JRC's maritime benefit package.

High speed

JRC is one of the world's longest-established companies in the field of marine electronics, and a pioneer in global mobile L-band satellite communications as Inmarsat's longest-serving manufacturing partner. From the beginnings of the maritime satellite communications era JRC has invested heavily in research and development year-on-year. With our new design of JUE-100GX Ka-band terminal and antenna delivering high-speed ship-to-shore data, JRC continues to offer a creative solution to the maritime industry while also serving the next smart shipping era.



Inmarsat Fleet Xpress is a system that combines the GX (Ka-band) and the FB (L-band). The GX and FB switches automatically depending on the weather and provides users with high-speed and stable communication at all times.
The GX provides high-speed communication during fine weather, and the FB provides limited-speed but stable communication on rain fading.

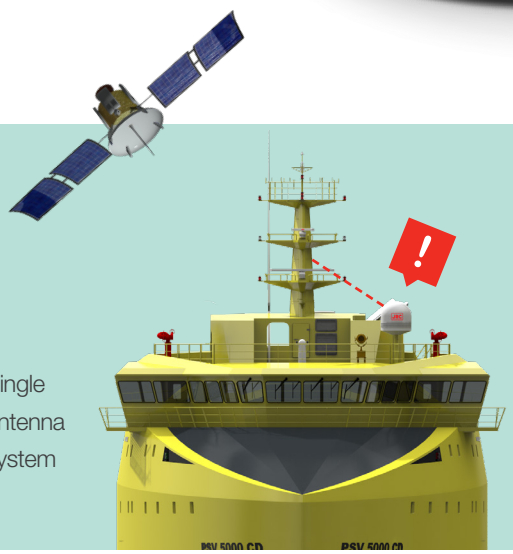


Upgradable BUC

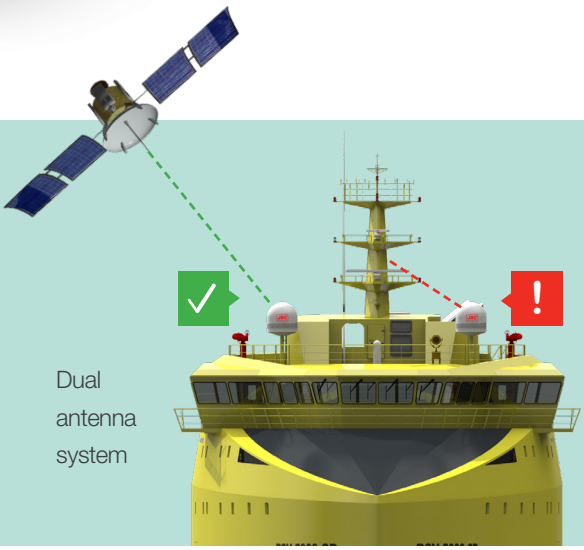
High-capacity data uploading is possible as the JUE-100GX can easily be upgraded with high throughput service by selecting 10W High Power Block Up Converter (BUC) system as an option at purchasing instead of the standard 5W. It uses the same antenna size, there is no need to replace the Below Deck Terminal (BDT) and no additional components are required.

Dual antenna

Take your operational efficiency to the next level by optionally extending the system with an additional antenna. Providing unsurpassed reliability, even with antenna blockage due to the hull structure (mast, funnel), users will experience good connectivity thanks to the automatic interswitching possibility.



Single antenna system



Dual antenna system

Below Deck Terminal (BDT)
The all-new BDT has a build-in GX modem, power supply, 4-port switch, antenna controller and antenna selector. This 19 “1U size BDT can be easy to install in the FX rack, reducing installation time and costs.

Antenna Control Unit (ACU)
ACU is a device (option) required when operating with a dual antenna system. Like the BDT, it can be easily installed on the FX rack.

Remote assistance

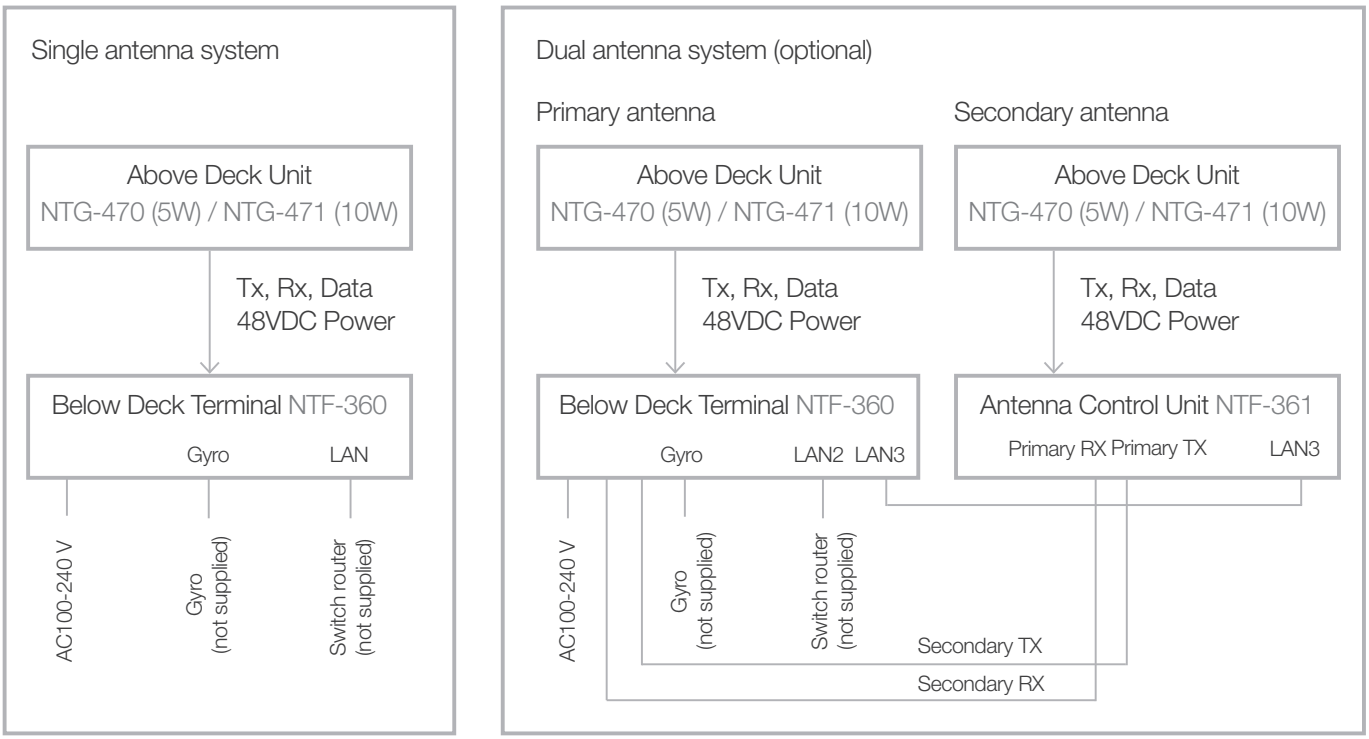
JRC provides a responsive web interface to monitor, manage and control the antenna system from shore via satellite connection. The installation wizard automates this functions for system configuration so that operators are minimally involved in system installation and operation, including automatic cable loss compensation, line-up test and auto diagnostics. Maintenance operation such as software updates and alarm pack acquisition can now be performed without a service engineer visiting the ship. This way users are ensured of remote assistance when required and limit their operation downtime.

One-stop service contract

JRC offers separately a one-stop service contract including airtime contract, terminal installation and onboard LAN design and construction for satellite communication. Customers do not have to make separate arrangements and can just simply choose the best suited contract plan combined with the latest terminal while saving expenditure.

System diagram

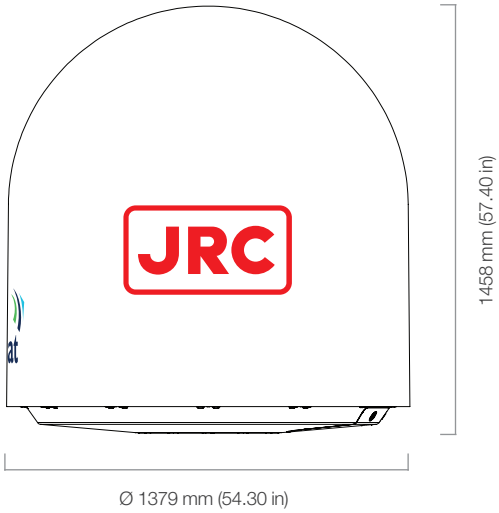
The JUE-100GX integrates RF and power cables into one coaxial cable. A single cable carries Tx, Rx, DC power, data and reference signals between the antenna and the BDT.

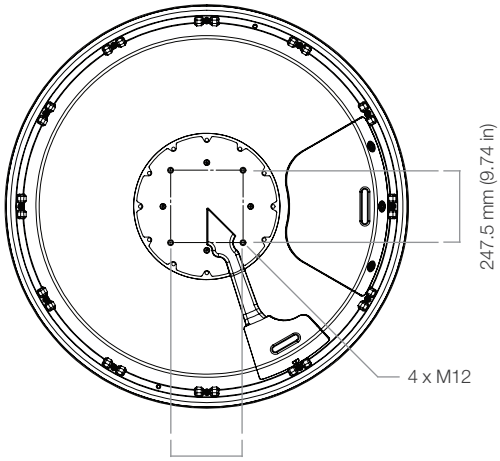


Tech Specs

Above Deck Unit (ADU) RoHS

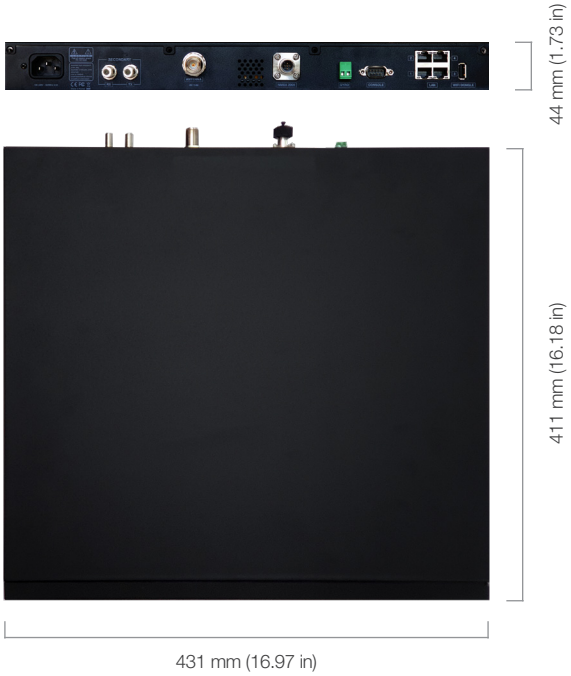
NTG-470 / NTG-471 Weight including radome 113 kg (249.12 lbs)





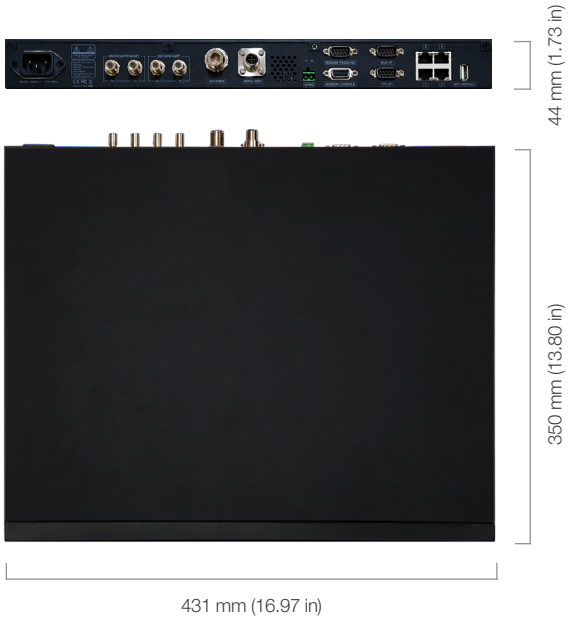
Below Deck Terminal (BDT) RoHS

NTF-360 Weight 5.7 kg (12.57 lbs)



Antenna Control Unit (ACU) RoHS

NTF-361 Weight 5.2 kg (11.46 lbs)



Specifications |

Above Deck Unit (ADU)	
Axis configuration	3 axes: Azimuth axis, Elevation axis, Cross-level axis
Azimuth angular range	Unlimited
Elevation angular range	-20° – +115°
Cross-level angular range	± 37° or less
Pointing stability accuracy	Error 0.2 ° or less, under maximum shaking conditions
Upset condition	Roll: ± 25° / 6sec, Pitch: ± 15°/ 6sec, Yaw: ± 8°/ 6sec, Turn: 12°/sec and 5°/sec2 or less
Receive (Rx)	Frequency: 19.2 GHz-20.2 GHz Ka band, Gain: 44 dBi @ 19.7 GHz (including radome loss)
Transmission (Tx)	Frequency: 29 GHz-30 GHz Ka band, Gain: 47.7 dBi @ 29.5 GHz (including radome loss)
Onboard equipment IFL interface	One 50Ω-N female connector, TX / RX: 10 MHz, 50 MHz, 400 MHz, 433 MHz L-band IF frequency (950 MHz -2150 MHz), DC voltage BUC & pedestal (LNB)
Reception performance index (G / T)[1]	20.1 dB / K (@ 19.7 GHz, including radome loss)
Polarization	Circular polarization (Rx: LHCP, Tx: RHCP)
BUC	5 W (standard), 10 W (optional)
BDT-ADU connection cable[2]	One 50 Ω coaxial cable Rx signal, Tx signal, FSK signal, reference signal, power supply
Input power	48 V DC (up to 300 W) with one RF cable

Below Deck Terminal (BDT)	
Display	256x64 Graphic OLED
LED	Displays 3 LEDs Power, Tracking and Error
USB port	2 ports (front panel) 1 port (rear panel, Wi-Fi dongle)
Gyro compass interface	CAN, NMEA 0183 (recommended)
Serial interface	RS-232C for console (57600bps 8, N, 1)
Ethernet port	RJ 45 (4 ports each), TCP / IP connection
Secondary ACU interface	Built in BDT
Input power	100– 240 V AC, 50– 60 Hz, 3 A

Secondary Antenna Control Unit (ACU / dual antenna system)[3]	
Display	256x64 Graphic OLED
LED	Displays 3 LEDs Power, Tracking and Error
USB port	2 ports (front panel) 1 port (rear panel, Wi-Fi dongle)
Gyro compass interface	CAN, NMEA 0183 (recommended)
GPS interface	NMEA
Serial interface	RS-232C (57600 bps 8, N, 1)
Ethernet port	RJ 45 (4 ports each), TCP / IP connection
Input power	100– 240 V AC, 50 – 60 Hz, 3 A

[1] Depending on reception conditions with an elevation angle of 30 ° or more | [2] Antenna cable | [3] Option

In the box

- Above Deck Unit (ADU) 5W NTG-470
- Below Deck Terminal (BDT) NTF-360
- Operation manual 7ZPSC0693

Optional

- Above Deck Unit (ADU) 10W NTG-471
- Antenna Control Unit (ACU) NTF-361

www.jrc-world.com

Centers of Excellence

JRC (Japan Radio Co.,Ltd)
1-7-32 Tatsumi, Koto-ku
Tokyo 135-0053
Japan
+81 3 5534 7800

JRC Shanghai Co.,Ltd.
Floor 9-A Building C2
Shanghai International Trade Center
1599 New Jinqiao Road
Pudong, Shanghai, China 201206
+86 21 2024 0607

JRC/ProNav AS
Hovlandsveien 52
4374 Egersund
Norway
+47 5146 4300

JRC/Alphatron Marine B.V.
Schaardijk 23
3063 NH Rotterdam
The Netherlands
+31 10 453 4000

JRC South East Asia
59 S, Tuas South Avenue
Ho Lee Industrial Development
637418 Singapore
Singapore
+65 6863 0335

JRC Americas
1205 Butler Road
TX 77573 Houston
United States of America
+1 281 271 4600