



ALPHATRON |  
Marine



# Global Xpress

Ultrafast data with world's smallest antenna

[jrceurope.com/gx](http://jrceurope.com/gx)

# Omotenashi to our customers

The Japanese concept of Omotenashi comes from the heart. JRC translates this unique Japanese mindset of service and hospitality in many ways, one of which is in how we develop products ensuring total value for users. The product needs to function as a solution, or serve a specific purpose for our customers. And this is exactly how we started development of our new JUE-60GX Inmarsat Global Xpress communications product: diverse and flexible, applicable and relevant to different markets on different types of vessels, working hard in the background offering greatly enhanced levels of communications speed, quality and service to users, without them even noticing. But still retaining our enviable reputation for manufacturing quality, product reliability and customer support.

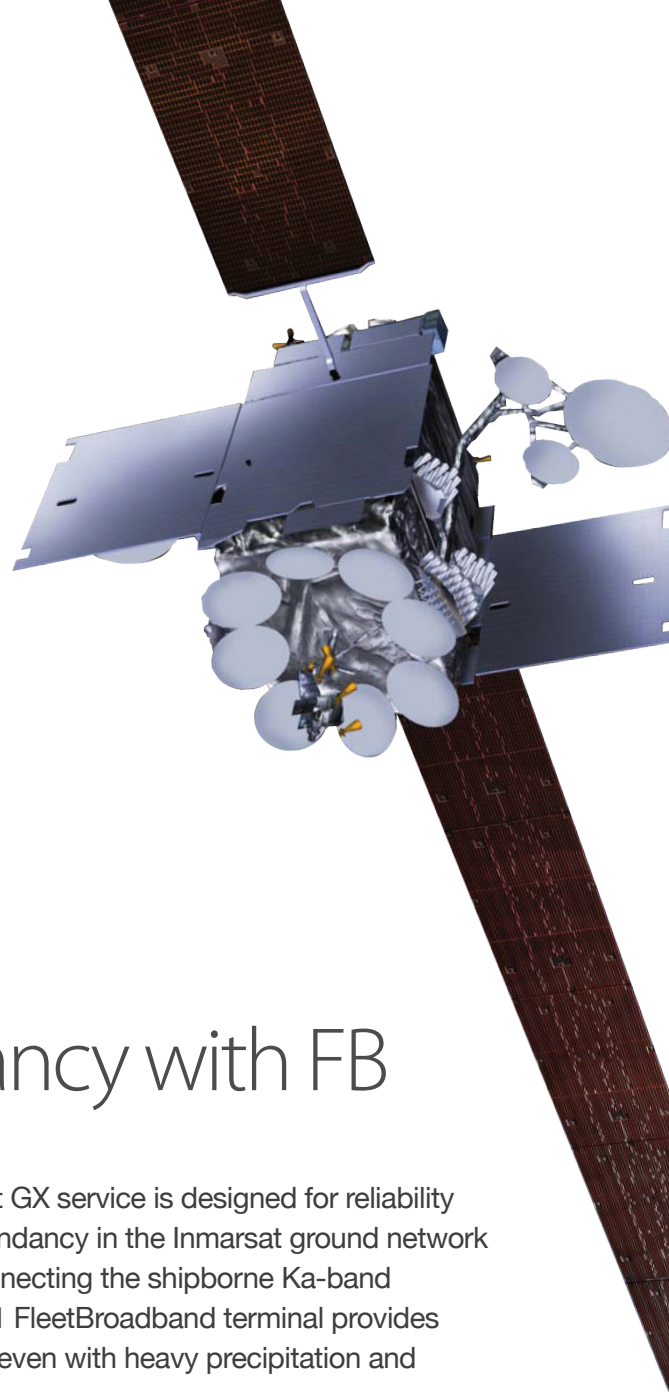
## A rich history

Established in 1915, JRC has built and maintained a hard-earned reputation in the marine business for reliable and innovative engineering backed up by an extensive global customer support network. Our products are valued in the market because they provide modern affordable services which work dependably. JRC's engineering standards are matched by the rigour of our Quality Assurance process, our brand and our reputation are critical to our continued success.



# Global Xpress, Fast, Faster, Fastest

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. This investment will continue so as to offer creative solutions to the marine industry, through a new design of compact JUE-60GX Ka-band terminal and antenna delivering enhanced connectivity in response to user demands.




## Redundancy with FB

Inmarsat's new ultrafast GX service is designed for reliability as well as speed. Redundancy in the Inmarsat ground network combined with interconnecting the shipborne Ka-band terminal with a JUE-501 FleetBroadband terminal provides unsurpassed reliability, even with heavy precipitation and antenna blockage\*.

\*Note: existing JUE-501 can be used as part of the GX package, but cannot be used separately unless disconnected from the GX terminal. Redundancy only applies in the overlap regions between GX I-5 satellites and FB I-4 satellites. Data transmission speed through the JUE-501 will be at normal FB rates.





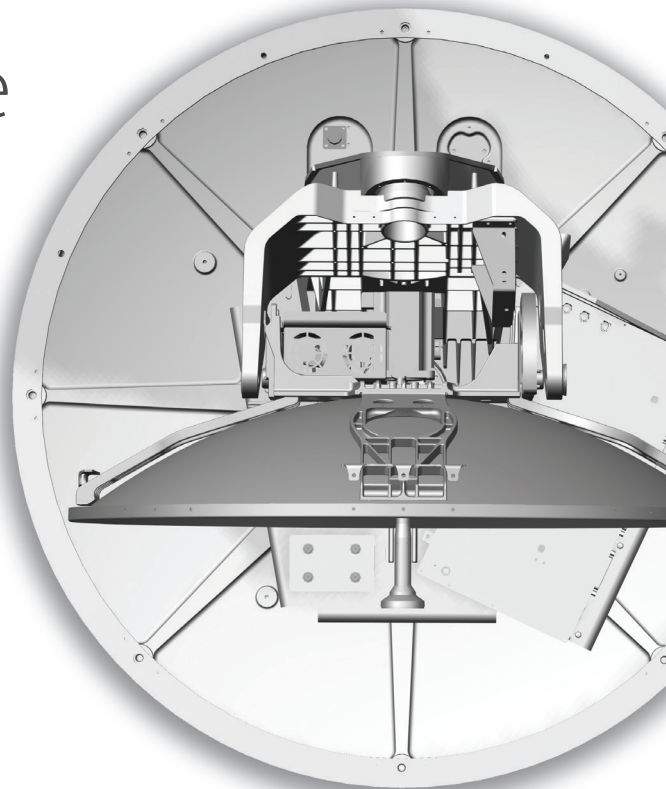
## Unique antenna design, Small, Lightweight, Durable

The design of a lightweight but ultra strong radome for the Ka-band environment has been a particular challenge. JRC engineers used a 3 layer sandwich Fibre Reinforced Plastic (FRP) with a special resin-honeycomb structure for the core of just a few millimeters. The honeycomb structure gives the radome high strength and is extremely lightweight. The radome is dipped in a bath of resin and shaped in an oven, so as to achieve a curved structure without excessive mechanical force or heating.

Installation is quick and easy. With such a lightweight antenna the vessel's downtime is minimal, no crane necessary for installation, and the onboard setup will be just as simple as it is today for FleetBroadband.

## Keeping, a high balance

Our experience and expertise gained through JRC's rich heritage of delivering successful Inmarsat products served us well in the design of our new, highly stable antenna. By keeping as much weight on and around the base plate, the antenna center of gravity remains low which greatly assists in stable communications under harsh operating conditions.



# Available, in two versions

JRC will have the JUE-60GX Global Xpress solution available in two versions where the core module (made by iDirect) is placed either below deck or above deck. The Industrial Core Module (ICM) version has the module built into the antenna, whereas the Standard Core Module (SCM) has the module located in the terminal.

ICM



Single coax (TX/RX)  
Cable up to 200m

SCM



Dual coax (TX & RX)  
Cable up to 65m

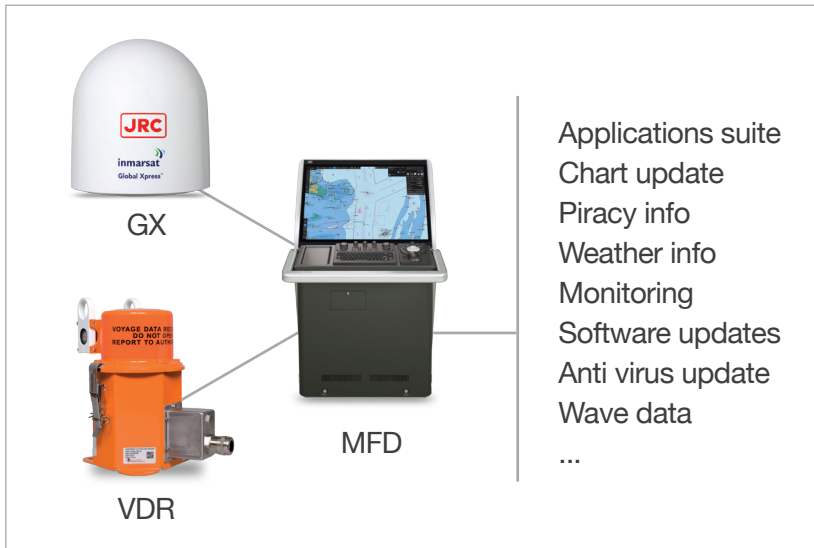


## Fit, and forget

JRC designed the terminal to be flexible for both the ICM and SCM versions. The JRC original design terminal uses web-based operation similar to our FleetBroadband solution, and is designed to be mounted in a 19-inch (communication) rack. As a standard feature, the JRC Global Xpress solution supports our proprietary Remote Maintenance System (RMS), one of the core elements of JRC's customer operations support philosophy.



# Seamless integration



Dedicated high speed communications together with JRC newest generation onboard navigation equipment provides for seamless integration of support and applications, superfast and anywhere between 70 degrees North and South. Functions for captain and officers are directly accessible from our Multi Function Display (MFD).

## GX and JRC, in the cloud

JRC is developing its first and very own 'shared space' for our users, aimed at economy, safety and welfare. Global Xpress will be a central part of our jMarine Cloud™ service to enable advanced applications. When a reliable data communication system is installed, the crew benefits but the ship-owner is the real winner. Real time data makes it possible to plan routes more effectively, avoid bad weather and schedule arrival time more accurately, saving valuable fuel. It can also ensure that the onboard charts are kept up to date in real time.



With secure connections the ship-owner can even keep accurate track of his fleet's movements and fuel consumption and advise the captain where necessary in order to save cost, improve safety of the ship and care of cargo and crew. Onboard equipment can monitor installed devices remotely, prevent faults and advise possible maintenance issues so as to be ready at the quay with the correct spares for the ship's arrival in port. Crew applications with high-speed connectivity for relaxation and for communications with friends and family are available through GX. All from the cloud.

# Tech Specs

Antenna RoHS

NTG-428/429 Weight 44/48 kg (SCM/ICM)



Downlink freq 19.2 to 20.2 GHz  
 Uplink freq 29 to 30 GHz  
 ICM: module iDirect (NTG-249)  
 Block up convertor 5W  
 Elevation range -20 to 115°  
 Azimuth range 360°  
 Temperature: -25° to 55°C

Terminal RoHS

NTF-329/330 Weight 8/7 kg (SCM/ICM)



Ethernet IEEE802.3, 100Mbit/s  
 2x NSD LAN + 1x JRC LAN  
 SCM: module iDirect (NTG-329)  
 GPS/gyro input (IEC61162-1/2)  
 Suitable for 19-inch rack  
 Temperature: -15° to 55°C  
 Power 100V to 240V AC (300VA)

## In the box

## Cables

## Option

Antenna  
 Terminal

Version	Coax	TX/RX
SCM	5D	TX up to 50m RX up to 35m
	10D	TX 50 to 65m RX 35 to 65m
ICM	5D	Up to 200m

Network Service Device (NSD)  
 Radome heater (for ice class)

All over the world,  
close to the customer

## JRC/Alphatron Marine

Schaardijk 23 (harbor 115)

3063 NH Rotterdam

The Netherlands

T +31 10 453 4000

F +31 10 453 4010

[jrceurope.com/gx](http://jrceurope.com/gx)

## Centers of Excellence

Houston, Rotterdam, Singapore, Tokyo