



SATELLITE IT UP!



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ADAPTIVE SATELLITE CONNECTIVITY AT SEA

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IEC TELECOM – 25 YEARS EXPERTISE IN SATCOM SOLUTIONS

For more than 25 years now, IEC Telecom Group has been supplying high quality satellite-based technology, providing clients with efficient end-to-end voice and data services, when and where it matters most.

IEC Telecom Group is one of the leading global providers of network management communication solutions. We offer a comprehensive suite of industry-standard and customised products, and value-added services, enabling a complete end-to-end solution for our customers. We believe our integrated approach of in-house design and engineering expertise provides a unique competitive advantage.

TURNKEY SOLUTIONS TO MEET THE MOST CHALLENGING CONSTRAINTS

IEC Telecom Group has significant experience in serving many different industries (Shipping, Offshore, Fishing, Leisure) and offers a wide range of customised and industry-standard solutions.

We deliver systems and managed communication services anywhere in the world, under any condition. From secure military applications to wireless networks and broadcast origination centres, our worldwide team gets the job done.

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ADAPTIVE SATELLITE SOLUTIONS FOR DIGITAL SHIPS

IEC Telecom brings the experience and flexibility required to fulfil critical communication needs for all business models. We provide a full maritime service and solution portfolio for all segments: bulk carriers, container ships, cargo, tankers, FPSOs, fishing vessels, cruise ships, yachting and leisure.

NETWORK FLEXIBILITY

Our comprehensive VSAT portfolio enables us to meet all the needs and budgets of our clients. From deep sea fishing and big bulk carriers to leisure boats, from low-speed data to high throughput connections, you can choose from a broad range of packages, services and equipment to fit your needs. Our extensive global coverage in Ku, Ka, and L bands covers worldwide shipping routes and also comes with regional options.

COMMUNICATION BUDGET CONTROL

With competitive pricing on prepaid to unlimited options, control your network and optimise your traffic with OneGate, and always keep your consumption under control and budget on the line. Real-time analysis and reporting, and onboard resource management can optimise your business and your costs while preventing long stays at docks. Maximise your onboard revenues with value-added services that can generate additional revenues.

CREW WELFARE

Improve your passenger and crew wellbeing onboard by giving them access to a high quality voice and data connection. Voice, emails, infotaining, web browsing, crew training or telemedicine are just a few examples of services easily deployed onboard and are accessible on their own private devices on a dedicated channel.

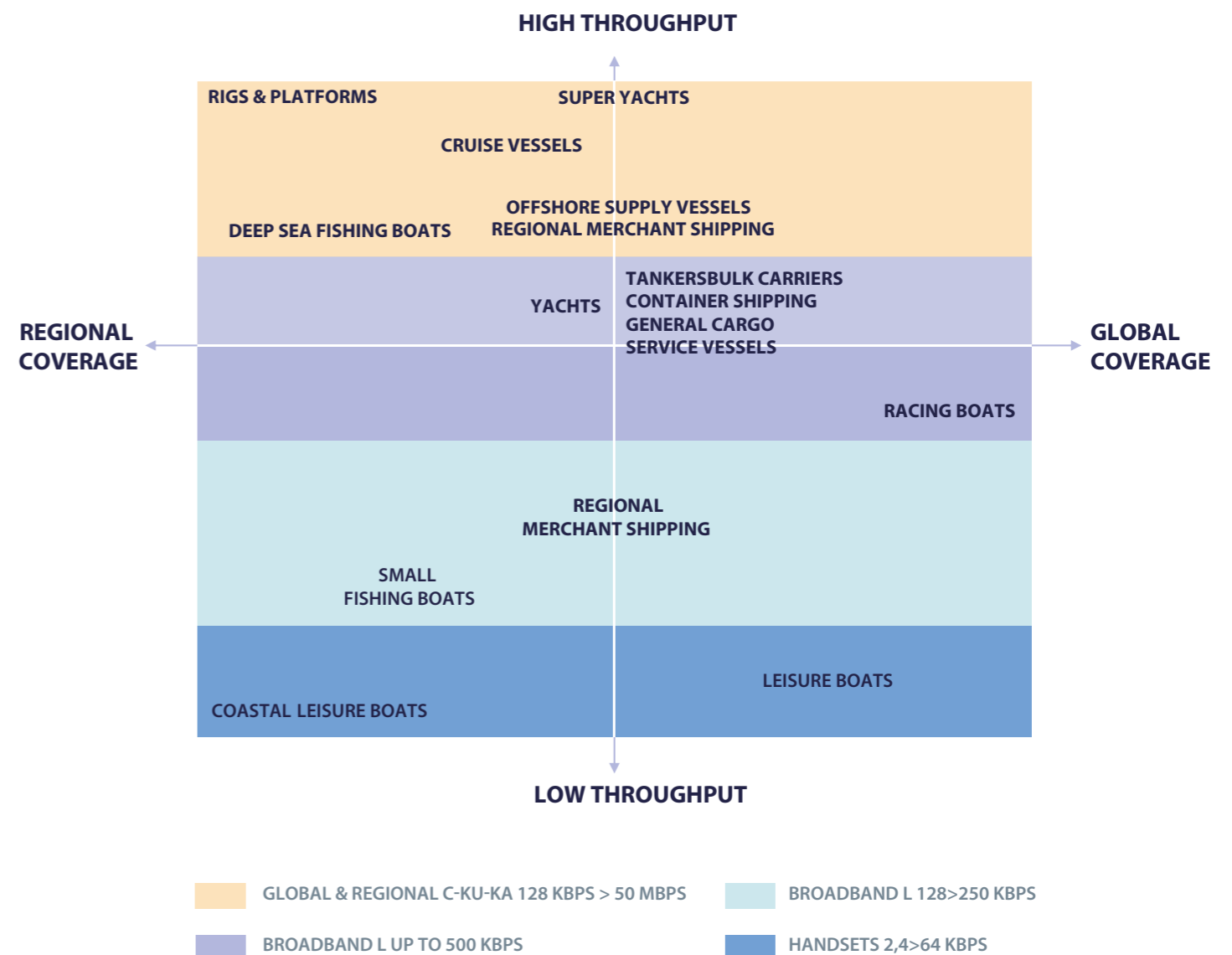
REMOTE MANAGEMENT & SUPPORT

Manage your allocation of crew credits while keeping a tight control over your accounts and get advanced online reporting on your network usage. Benefit from permanent access to your Vessel Management System with high throughput connections and regular updates on your vessel status with 24/7 monitoring.

WHAT TYPE OF MANAGED COMMUNICATION DO YOU NEED?

What are your requirements for broadband connectivity? What services would you like to have onboard? What level of control do you want from onshore?

Let us evaluate your needs and design the perfect tailored solution to ensure you make the best critical business decision.



IEC TELECOM

MARITIME SOLUTIONS



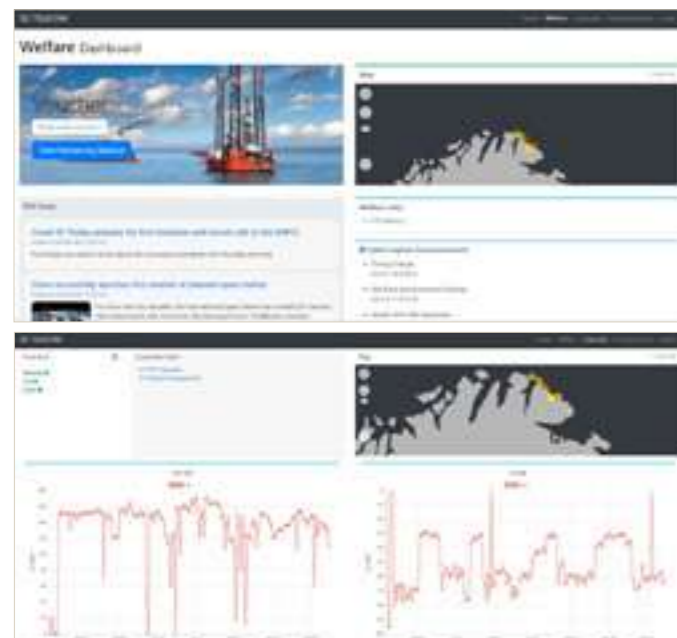
ONEGATE

360° NETWORK MANAGEMENT SOLUTION

Agile, lightweight, and easy to install, OneGate is a future-ready network management solution designed to operate in dual GSM/satcom mode. Designed with a customisable dashboard, OneGate allows to remotely manage the traffic, issue crew/guest vouchers, alter access levels as well as add, update or upgrade new applications. In addition, this system comes with an inbuilt Wi-Fi controller and superior cyber security toolkit. Lastly, it optimises the default bandwidth while automatically routing data over the least-cost network available, thus, delivering the best user experience at an optimal fee.

LOCAL DASHBOARD

- Protected access to the corporate dashboard
- Voucher monitoring
- Full visibility over WAN links data and bandwidth usage
- Access to the hotspot management portal
- Signal strength monitoring and tracking
- Internal announcement feature
- RSS feed from major news networks (Optional)



CREW/GUEST VOUCHERS

- Managed locally or via IEC Telecom customer support
- The captive portal intercepts users on the crew network and requests authentication
- Data distributed via in-built Wi-Fi router, enabling remote teams to stay connected via personal devices

WAN OPTIMISATION

- TCP compression and redundancy elimination
- TCP Acceleration
- Avoids unnecessary retransmissions
- Maximum line speed
- Link bonding and balancing

FILTRATION AND USAGE CONTROL

- Two-stage filtration possible, onshore and offshore
- Application identification and categories classification (WhatsApp, etc.)
- Advanced usage reports to provide full visibility of the network traffic

INTEGRATED LTE FAILOVER

- Integrated LTE modem to reduce costs
- Seamless failover between LTE and satellite links

CYBER SECURITY

- Two levels of cyber security: at the gateway and remote
- Advanced intrusion detection and gateway antivirus on board
- Endpoint security with remote configuration
- Advanced filters designed per WAN link (VSAT, L-Band, LTE) as required
- Full vulnerability monitoring from central shore dashboard

ADD-ONS

The functionality of OneGate can be further expanded with a wide range of IEC Telecom applications geared to operate in a low-bandwidth environment.

ONETeam
powered by DigiGone
Optimised application for videoconferencing

ONEAssist
powered by DigiGone
Remote maintenance delivered over hands-free handset

ONEMonitor
powered by DigiGone
Video surveillance software with advanced remote access

ONEHealth
powered by DigiGone
Portable digital telemedicine kit

OPTISOFT DASHBOARD
Virtual portal for network management and apps administration

ONEMailLite
Cost-effective email service for small vessels

ONECover
Cutting-edge antivirus solution for remote networks

ONEMailPro
Email service for vessels with multiple users

ONEShare
Bi-directional file-transfer service for sea-shore data replication

OPTIVIEW: END-USER PORTAL

- Full visibility over WAN links
- Advanced filtration management
- History of bandwidth usage
- Usage details report
- Credit limit management
- Voucher monitoring
- Tracking & signal monitoring



THURAYA ORION EDGE V

VSAT-LIKE EXPERIENCE OVER COMPACT MSS TERMINAL WITH A DUAL SATCOM/GSM MODE

Large vessels across the globe rapidly adopt new ways of digitalisation, introduced by VSAT communications. Small vessels have no room or space for costly satellite set-up. IEC Telecom challenges those limitations with its state-of-the-art Orion Edge V solution, offering a VSAT-like experience over compact hardware.

KEY FEATURES

- Bandwidth optimisation up to 2Mbps user experience
- Optimised applications (emails, video-conferencing, video surveillance and automated file transfer)
- Crew-welfare programs (crew calling and data access)
- Full visibility from shore (GPS tracking, usage control, and more)

SATCOM HARDWARE

- Thuraya Orion IP MSS terminal for data services
- Thuraya MarineStar circuit switch terminal for voice services

ONEGATE COMPACT

- TCP acceleration and compression for enhanced end-user experience
- Local dashboard to give full visibility to captain and crew

- Hosting optimised apps to give more efficiency to captain and ease of support
- User control based on flexible voucher system and advanced UTM security
- Light-weight, mobile and compact racks

CONSUMPTION CONTROL

- Non-critical usage can easily monopolise a link and weaken the security of the network, compromising its ability to serve its original purpose
- Orion Edge V supports filtration capabilities that enable HQ to restrict usage of dedicated links in order to ensure the availability of bandwidth for priority communication

CREW WELFARE

- Providing crew with the means to connect with friends and family through VoIP calls and social media platforms enhances productivity and morale

- Consumption-control via vouchers/scratch cards distributed among crew members
- Variable limit on number of simultaneous users through the day (office versus non-office hours)

SAVING COSTS

- The value-added services provided by Orion Edge V (filtration, TCP acceleration and bandwidth optimisation) enable both crew and vessel owner to use satcom resources more efficiently, which leads to significant cost optimisation
- Dual mode enables vessels to save on communication using GSM link when navigating close to the shore and seamlessly switching to satcom link in open waters with least cost routing
- Orion Edge V comes with flexible plans, enabling service suspension within a short notice period

MARINESTAR E-LITE

MOST AFFORDABLE MARITIME VOICE & EMAIL SOLUTION

Availability of an onboard voice service has become as essential as having life jackets or a first-aid kit. And as digitalisation spreads across the shipping industry, having access to email services is gaining equal importance in order to receive navigation updates, port notifications, and operational instructions.

MarineStar E-Lite provides voice and data connectivity in a package optimised for smaller vessels. Voice services are delivered over Thuraya's MarineStar terminal while email provision comes via IEC Telecom's OneMailLite application.

SATCOM PACKAGE

MarineStar E-Lite blends robust design with unprecedented functionality to provide flawless voice communications, enabling constant tracking and monitoring over Thuraya's expansive satellite network that covers the world's busiest sea routes. This compact terminal offers separate billing for corporate and crew communications, enabling welfare programmes even for small vessels. It's the number one alternative to radio and GSM.

- Quick and easy to install terminal
- Circuit-switched voice
- SMS
- Flexible crew calling plans
- GmPRS (externally via serial interface)
- OTA (over-the-air) programming capability
- Versatile interface functions
- Radio silence capability
- SOS alert
- Push notifications for weather, news and other alerts
- Fish catch reporting capability
- Geofencing capability
- Advanced 2-way vessel tracking with application and monitoring

EMAIL MANAGEMENT

Shoreside management – shoreside dashboard allows email management to help control costs and restrict unnecessary emails from getting through to the vessel

Simple email management – provides up to two email addresses per vessel with simple management via any web-enabled device, including read, forward, reply, attachments, and filing

Maximum efficiency over expensive circuits – files compressed up to 95%, thereby directly saving on airtime costs

Encrypted and secure – multiple virus scanners and spam filters to ensure the mail received is safe and relevant. OneMailLite keeps user data secure and compliant with data protection legislation

Simple installation – OneMailLite does not require a lengthy and complicated set up process. The application allows users to access emails straight away, saving time and resources

Restarts from point-of-interruption – resumes data transfer from point-of-interruption if there is a break in communications. OneMailLite has the ability to work offline and only connect for the time needed to send and receive data

Alerts & reporting – provision to set up alerts and reports to help manage vessels, including delivery, email and communication reports

Fleetwide management control – remote management and configuration of vessels from a single shoreside dashboard

Mail flow filtering – ability to whitelist or blacklist email addresses and manage mail flow to vessels

MINIMUM SYSTEM REQUIREMENTS

Please ensure that the PC you wish to install the OneMailLite software on has at least the below specifications:

- Microsoft Windows 7 SP1
- Microsoft .NET Framework v4.6.2
- 1GHz processor
- 1GB RAM
- 5GB free disk space

OPERATING SYSTEM REQUIREMENTS

The OneMailLite client requires that Microsoft .Net Framework version 4.6.2 is installed.

If this version of .NET is not installed on the machine intended to run OneMailLite, please ensure that you select it from the Additional Items section at the bottom of the Downloads page.

PLEASE NOTE: While Microsoft .Net Framework version 4.6.2 is compatible with most modern versions of the Windows operating system, there are some operating systems that it is not compatible with.

A full list of compatible operating systems can be found on the Microsoft download center. If you have any queries regarding your system suitability, please contact our Support Centre prior to installation.



INMARSAT FLEET XPRESS

DELIVERING GREATER BANDWIDTH, SEAMLESS MOBILITY AND OUTSTANDING RELIABILITY WHEREVER YOU OPERATE IN THE WORLD

Every Fleet Xpress solution uses both a **Global Xpress Ka-band** and a **FleetBroadband L-band** terminal, delivering high data speeds in a reliable and fully integrated turnkey solution.

Run your business more efficiently with a scalable, high performance, plug-and-play service:

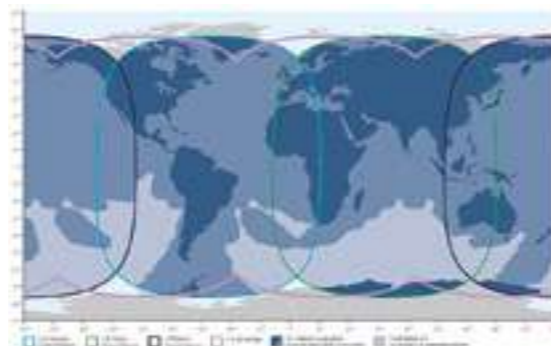
- High-speed broadband for internet access
- Affordable voice calls and strong data connection
- Fully managed services
- Multiple voice options for crew and operations
- 24/7 online support, remotely and physically onboard by certified engineers
- A variety of flexible data plans

A FULLY MANAGED AND RELIABLE SERVICE

- Onboard terminals automatically connect to each GX beam as part of the Fleet Xpress fully managed service, ensuring our clients a **continuous and seamless service**.
- The proven reliability of the FleetBroadband secures the **high-speed network connection redundancy** in the event of terminal failure, shadow, or if the FX is out of coverage.
- Remote fault and configuration management of the remote terminal over a dedicated management network.

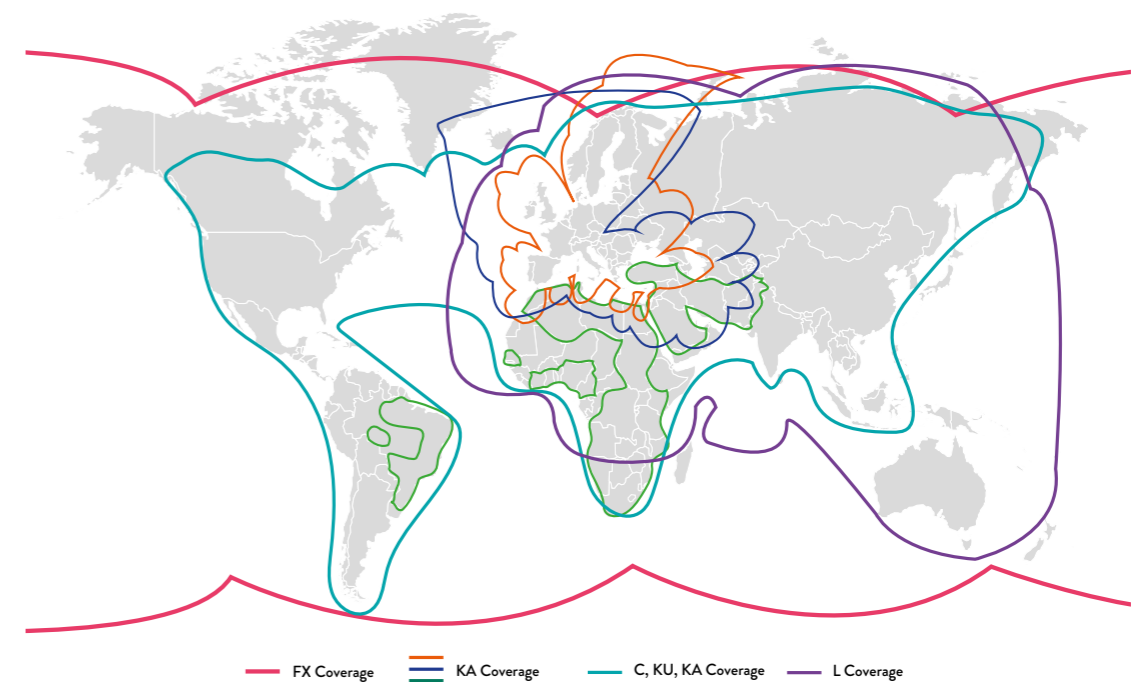
With permanent and unlimited access to the Vessel IP network, maritime companies can **implement Vessel Management Software** with advanced features. It also brings secured access to all required information onboard and the possibility to **implement new generation applications**:

- Real-time video and audio streaming
- VoIP support and managed VoIP service
- Video teleconferencing
- Branch office applications (eg VPN access, SAP, Citrix, email)
- Real-time interactive collaboration
- High-speed file transfer (FTP)
- Video surveillance
- Telemedicine



REGIONAL KA-KU HIGH THROUGHPUT SATELLITE CONNECTIVITY

Our ADAPTIVE Regional & other Global KU- KA and C services are a result of our experience in building "tailormade" and "haute couture" solutions with multi-band VSAT services, backed by our expert customer support network.



Our regional Ka & Ku-band VSAT portfolio comprises Telenor **THOR 7** & iDirect, providing coverage throughout the Nordic region, Europe and the Middle East.

THOR 7 utilises relatively small spot beams, providing unprecedented high-power performance for maritime applications.

- High throughput Ka-band satellite
- Wide range of cost-effective broadband services on 60cm and 1m antennas
- Service profiles up to 24/6 Mbps
- For use on ferries, cruise, regional shipping, superyachts & fishing vessels

Ka Global Coverage



Ku Atlantic Coverage



IEC TELECOM
VALUE ADDED SERVICES



OPTIACCESS

THE COMPLETE DATA COMPRESSION & EMAILING SOFTWARE

OptiACCESS is a data compression and emailing software that allows you to access the best web services anywhere: Emailing, Web Browsing, Weather, Social Media & Blogging. With OptiACCESS, you can take what you regularly do online a step further and make the internet work for you in a smart way. OptiACCESS provides you with a four-fold access advantage: First, you can easily connect to the internet only for the time you really require to send and receive data. Second, OptiACCESS enables web pages to load 3 to 5 times faster. Third, in case you get disconnected, OptiACCESS resumes the data transfer exactly where it was stopped. Finally, with integrated applications and compatibility with the equipment of all major satellite operators, OptiACCESS is the best choice for internet access.



MANAGE YOUR EMAILS

OptiACCESS is quick and easy to set up, allowing you access to your emails right away. Single email address per business unit (vessel/ camp/ remote office, etc.) with simple management, via any web-enabled device,

including read, forward, reply, attachments and filing. With OptiACCESS, you can connect to the internet for only the time required to send and receive data. Moreover, in case you get disconnected, OptiACCESS resumes data transfer from the exact point of interruption.



CHOOSE WHAT YOU RECEIVE

OptiACCESS «BigMail» prompts you with the subject and email size so you can decide whether (and when) you want to download a large file from someone. Moreover, OptiACCESS helps you to manage your mail flow with the ability to whitelist or blacklist certain email addresses. Our systems come with multiple virus scanners and spam filters to provide safe and relevant mails to you while ensuring compliance with data protection legislations.

SAVE UP TO 95% ON YOUR BILLS

OPTIACCESS ONLY GENERATES AN AVERAGE OF 5% OF THE DATA CREATED BY A STANDARD EMAILING SOFTWARE



STAY CONNECTED EVERYWHERE

OptiACCESS makes web browsing easy with XWeb (optional). This web portal blocks ads, compresses texts and images, and deletes all wallpapers (too data consuming).

Browse web pages that load 3 to 5 times faster! Share your experiences on social media and Sailblog (optional) directly with OptiACCESS. A shortcut allows you to set up your accounts and post compressed images and texts via email.



LEVEL UP WITH OPTIMIZER

For your L-band connections, improve OptiACCESS performance with the Optimizer.

Easily connect your devices to the Optimizer (computers, smartphones, tablets, etc.) using WiFi or cellular data (3G/4G/LTE). The Optimizer works with OptiACCESS to ease access to your emails, web, weather files; social media platforms, and even automatically sends your GPS position to be geolocated.

A powerful firewall blocks all undesired connections to avoid unexpected data consumptions, leaving you the ability to configure your network's access to your preferred devices.



SECURITY

Malware Detection, Virus Scans, and Spam Filters
OptiAccess servers scan every message for viruses and SPAM, blocking them before they enter your satellite communications system to save airtime and keep your machines clean. OptiACCESS also has full DES/PGP encryption for optimum security.



COMPATIBILITY

Compatible with:

- Windows
- iOS
- Android

Works with equipment of all major satellite operators:

- Inmarsat
- GlobalStar
- Iridium®
- Telenor
- Thuraya

OPTISIM

AN EXCLUSIVE CLOUD-BASED SIM CARDS & LINES MANAGER

OptiSIM is a web-based solution which provides, via a secured (SSL) access, the ability for IEC Telecom customers to manage and monitor all their satellite lines (SIM cards, VSAT links or devices), call details and invoices, enabling an extensive follow-up of prepaid and postpaid accounts.

PROVISIONING

ACCOUNT MANAGEMENT & FOLLOW-UP

BILLING & INVOICING



ONE UNIQUE TOOL TO MANAGE ALL YOUR PROVISIONING NEEDS IN REAL-TIME

OptiSIM allows any customer, once identified, to access its satellite-based lines and place orders to:

- Handle the SIM card or line activation
- Add credit to the prepaid lines
- Manage postpaid subscriptions (change plan: upgrade or downgrade, deactivation, suspension)

All customers' orders are stored and executed within the predefined SLA.



EXTENSIVE FOLLOW- UP OF YOUR TRAFFIC AND ACTIVITY

OptiSIM has been designed to provide a complete overview of telecommunications activities in the deployed fleet. Including information such as:

- Calls/ data session, date and location for all devices
- Volume usage (voice/data usage in MB, in minutes or in USD)
- Perform specific requests for traffic report
- Rename and edit account devices (SIM cards or lines) to make invoicing clearer when customers manage multiple accounts or lines
- Create consumption alerts and receive notifications when the threshold is exceeded (in MB, minutes or USD)

Example: create a low balance or expiration alert and receive a notification when a SIM card needs to be recharged. For postpaid, set up a high usage alert

- Follow-up specific fleets (eg. SCAP)



EASY BILLING AND INVOICING MANAGEMENT

OptiSIM collates and aggregates all call details and automatically stores and delivers monthly invoices in PDF and/or Excel formats. For billing purposes, customers can use OptiSIM to:

- Manage their invoice currency (€, USD, AED, SGD, NOK, ZKT, SEK, DKK) – Multi-currency tool
- Consult and export past invoices when needed (unlimited invoice history)
- Consult all SIM details for all usage types (ahead of invoice creation)



EXTENDED ACTIVITY REPORTING TO ADAPT/ ADJUST YOUR OPTIONS

OptiSIM enables users to make specific requests to the database. These requests can be based on various criteria such as:

- Date
- Network
- Call type (voice or data)

Therefore, customers can get a complete snapshot of all their SIM cards or lines activity for a specific period of time (per day, month or year).

EASY & EFFICIENT ACCOUNT MANAGEMENT TOOL:

access your data 24/7 wherever you are.

TRAFFIC MONITORING:

complete logs details for both prepaid and postpaid accounts.

USAGE & REPORTING:

access and download account and billing history.

PREPAID ACCOUNT:

order, activate and recharge. Check account balances and call details.

CONSUMPTION LIMITS & ALERTS:

set specific limits for a device(s) or groups of postpaid SIM cards and receive email notifications when the limit is reached.



OPTISOFT

APPLICATION SUITE OPTIMISED FOR THE MARITIME SECTOR

Digitalisation redefines the way the maritime sector functions. To gain a competitive edge, vessel owners need to stay in touch with the crew, be able to remotely update onboard software while complying with IMO standards for cyber security, and still keep operational costs at an optimum level. OptiSoft checks all these marks in one go and is affordable for all vessel types.

OptiSoft is a comprehensive application suite by IEC Telecom, offering a wide range of communication services optimised for the maritime sector. It provides a set of solutions for cost-effective communication and data exchange, including email management and data transfer applications. OptiSoft also helps vessel owners to comply with IMO regulations by offering antivirus services as well as applications that support remote configuration and vessel administration.

OPTISOFT DASHBOARD

Virtual portal for network management and apps administration



ONEMailLite
Cost-effective email service for small vessels



ONECover
Cutting-edge antivirus solution for remote networks



ONEMailPro
Email service for vessels with multiple users



ONEShare
Bi-directional file-transfer service for sea-shore data replication

ONEMailLite

OneMailLite has been specifically designed for use on small vessels, enabling efficient and secure email service with minimal bandwidth requirements. Typically used by customers with no more than one email address per vessel, OneMailLite allows for simple email management, both onboard and remotely. The app features include:

- Maximum efficiency over expensive circuits at optimal cost
- Encryption & security
- Restarting from point of interruption
- Alerts & reporting
- Fleetwide management control

ONEMailPro

OneMailPro is an email management application intended for a corporate network with multiple users. Specifically designed for the maritime sector, OneMailPro is delivered as a secure, stable, cloud-based service for essential business communications. The app features include:

- Web dashboard
- Vessel tracking
- Restarting from point of interruption
- Financial control
- Selectable mail flow option
- One-click pre-configured install

ONECover

Any deficiencies in anti-viral software and security systems could render a vessel 'unseaworthy'. Hacking or the introduction of malware could be a result of failures in software maintenance or user permissions. OneCover is an anti-virus solution that is optimised for low bandwidth and designed to protect the vessel whilst minimising the

impact on communication networks. The app features include:

- Live, daily or weekly automatic updates
- Remote fleet management
- World class protection
- Threat reporting
- Advanced memory scanner
- Remote automated log retrieval

ONEShare

OneShare enables synchronisation of the file registry between ship and shore, operating akin to file-exchange servers used on land. This cloud-based service provides IT managers with a gateway to configure, monitor, and execute simultaneous file transfer tasks from a central location without the need for crew intervention. As a result, OneShare enables vessel owners to improve operational efficiency and lower costs. The app features include:

- Optimised data replication
- Central control and management from shore
- Synchronised files and folders
- Cloud-based configuration
- Comprehensive audit and reporting

OptiSoft Dashboard

OptiSoft Dashboard is a web portal, enabling the management of all apps included in the suite via one cloud-based system. This service enables vessel owners to:

- Organise the fleet per ship or vessel group
- Create one-step silent installs for onboard software deployment
- Set rules, alerts and reports at both the vessel and group level

ENHANCE YOUR VSAT EXPERIENCE

SERVICE OVERVIEW

Ensure operational continuity when the VSAT link is down. Our new service will keep your key business applications fully operational even over L-band, offering a competitive advantage to your fleet and boosting your CSR programme with a reliable crew welfare programme.

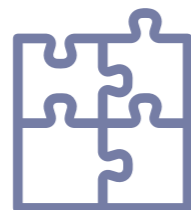
Optimise your expenses with remote support. Benefit from a wide range of services that support remote access

and troubleshooting. Let your journey continue! Avoid unnecessary port entries that result in excessive fuel consumption and cause delays in schedule.

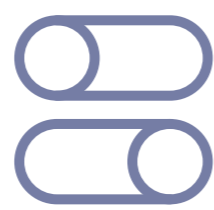
Lastly, enable digitalisation even over back-up via our portfolio of smart applications optimised for the low bandwidth environment.



No bill shocks



One box – multiple virtual machines



Advanced filtration



Full control of your satellite links



Business apps fully operational over back up



Unbeatable commercial offer

REACH OUT FOR A CUSTOMISED OFFER!

HARDWARE OVERVIEW



- 2 lines in 1 terminal for corporate calls and crew welfare
- Enables circuit-switched voice, SMS, GmPRS, and tracking
- Emergency calls and notification capability
- Ideal back-up alternative to VHF and GSM



- Reliable broadband connectivity at sea with standard IP at 444 kbps for fast and secure communications
- Robust, compact, adaptable and easy to install
- Autonomous beam handover
- Wi-Fi access point



- Reliable network with flexible VAS
- Robust, compact, adaptable and easy to install
- Multi-layer cyber security
- Automated failover to 4G with least cost routing
- Offers visibility and control over remote network assets via a digital dashboard

ADD-ON SERVICES

LOCAL DASHBOARD

- Protected access to the corporate dashboard
- Voucher monitoring
- Full visibility over WAN link data and bandwidth usage
- Access to the hotspot management portal
- Signal strength monitoring and tracking
- Internal announcement feature
- RSS feed from major news networks (optional)

CREW/GUEST VOUCHERS

- Managed locally or via IEC Telecom customer support
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- Data distributed via in-built Wi-Fi router, enabling remote teams to stay connected via personal devices
- WAN optimisation
- TCP compression and redundancy elimination
- TCP acceleration
- Avoids unnecessary retransmissions
- Maximum line speed
- Link bonding and balancing

**LEVEL UP YOUR
CONNECTIVITY
WITH OUR VALUE ADDED
SERVICES**



FILTRATION AND USAGE CONTROL

- Two-stage filtration possible, onshore and offshore
- Application identification and categories classification (WhatsApp, etc.)
- Advanced usage reports to provide full visibility of the network traffic
- Integrated LTE failover
- Integrated LTE modem to reduce costs
- Seamless failover between LTE and satellite links

CYBER SECURITY

- Two levels of cyber security, at the gateway and remote
- Advanced intrusion detection and gateway antivirus onboard

- End-point security with remote configuration
- Advanced filters designed per WAN link (VSAT, L-Band, LTE) as required
- Full vulnerability monitoring from central shore dashboard

OPTIVIEW: END-USER PORTAL

- Full visibility over WAN links
- Advanced filtration management
- History of bandwidth usage
- Usage details report
- Credit limit management
- Voucher monitoring
- Tracking & signal monitoring

ADD-ONS: APPLICATIONS



REMOTE MAINTENANCE

OneAssist is a secure, hands-free solution for remote maintenance, designed to operate in ultra-low bandwidth environments.

Enable onsite trouble shooting and live streaming even when VSAT is down.



MESSAGING & VIDEOCONFERENCING

OneTeam offers connectivity for work teams even when a VSAT link is unavailable and ensures the uninterrupted flow of operations.



VIDEO SURVEILLANCE

OneMonitor is a software-controlled CCTV system, which can be remotely controlled and accessed via a managed bandwidth communication dashboard.

Continuously monitor your assets and team members in real-time regardless of VSAT availability.



DIGITAL MEDICINE SOLUTION

With multi-party video calling and a user-friendly dashboard, OneHealth delivers the most appropriate and cost-effective healthcare on board.

In case of emergency, avail your crew with reliable medical assistance over L-band.



EMAIL MANAGEMENT FOR A SINGLE SUBSCRIPTION

OneMailLite has been specifically designed for use on smaller vessels, enabling efficient and secure email service with minimal bandwidth requirements. OneMail allows for simple email management, both onboard and remotely.



FILE EXCHANGE SERVICE

OneShare enables bi-directional (sea-to-shore & shore-to-sea) synchronisation of files and folders.

OneShare can be set up for automated file transfers (applicable to regular reports) and decreasing bandwidth consumption by the email service.



EMAIL MANAGEMENT FOR MULTIPLE SUBSCRIPTIONS

OneMailPro is delivered as a secure, stable, cloud-based service which enables essential business communications in an optimised manner. The web dashboard allows for the remote configuration and administration of email services for multiple users.



CUTTING-EDGE ANTIVIRUS SOLUTION

OneCover is optimised for the maritime market and designed to protect the vessel whilst minimising the impact on low bandwidth networks. OneCover utilises the industry leading, well-respected, end-point antivirus solution from ESET.

**BUSINESS CONTINUITY OVER BACK UP!
WIDE RANGE OF APPS OPTIMISED FOR ULTRA
LOW BANDWIDTH ENVIRONMENT**

OPTIVIEW

AN ONLINE DASHBOARD TO GIVE YOU FULL VISIBILITY

FULL VISIBILITY OF YOUR SATCOM LINKS

IEC Telecom is committed to providing its customers with full visibility of their satcom assets. Whether it is an L-Band SIM card or a VSAT link, you can get subscription information and monitor the current status of the link. Get even more from your OptiVIEW dashboard when using IEC Telecom's OneGate box such as the current GPS location, the path of the vessel, and more value-added services.

HISTORY OF BANDWIDTH USAGE

Get a detailed bandwidth usage graph per network in order to get better insights about what is happening on-site or onboard the vessel. This will offer a depth of understanding about the total bandwidth usage as well as its distribution between corporate and welfare consumption.

ADVANCED FILTRATION MANAGEMENT

IEC Telecom OptiVIEW provides fleet managers with

the possibility to control filters remotely and disable any specific profile with immediate effect. Based on the situation or consumption level, the IT/fleet manager can decide to apply a more restrictive profile at any given time or provide access to a larger number of categories to ease the restrictions.

USAGE DETAILS REPORT

IEC Telecom OptiVIEW dashboard can provide complete consumption details based on visited websites and applications as well as the blocked requests on-site and onboard. This full visibility can help the IT/fleet manager to better understand crew needs and adjust the filtration levels.

CREDIT LIMIT MANAGEMENT

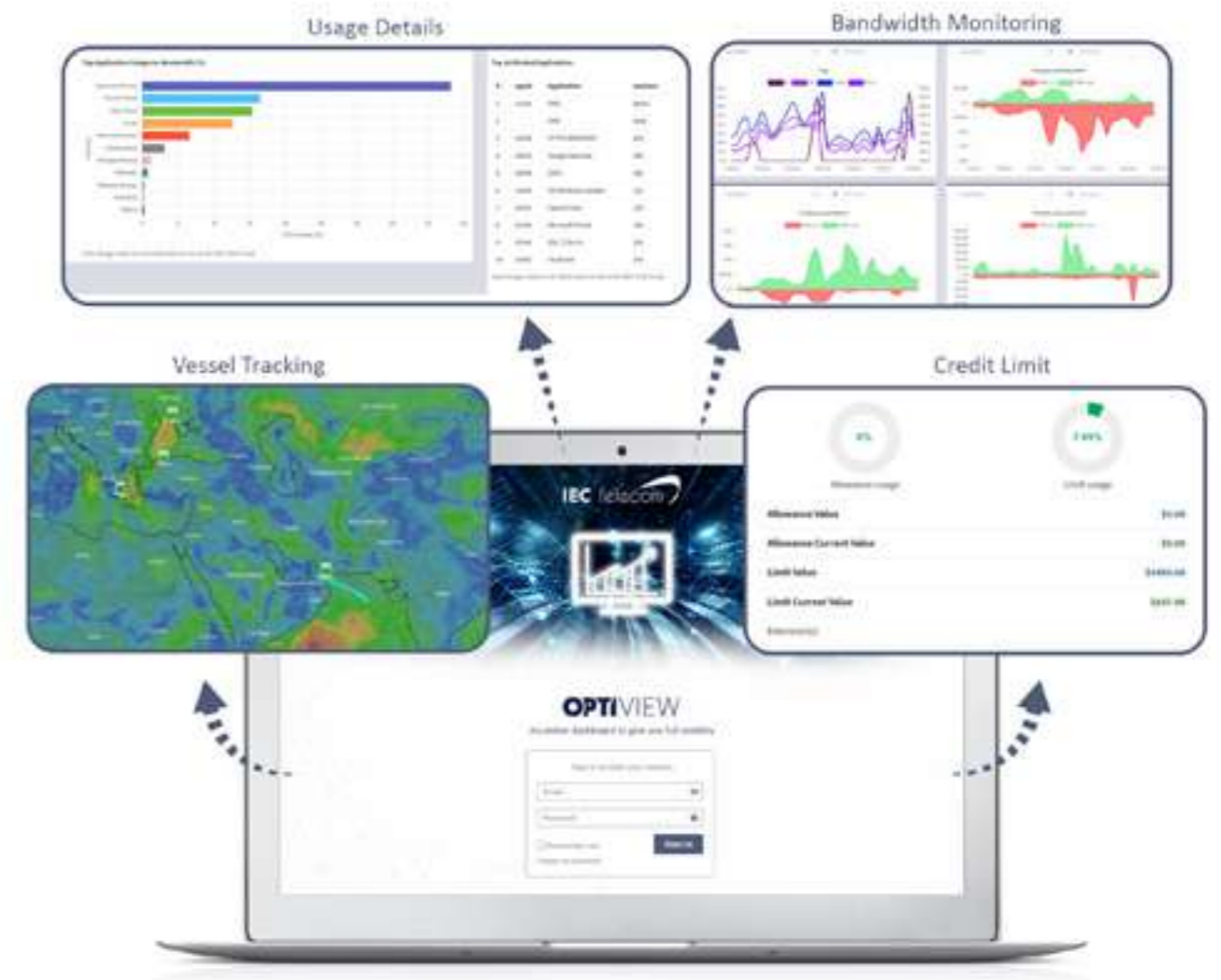
Whether it is for the L-Band terminal or VoIP service, IEC Telecom OptiVIEW gives you the opportunity to monitor the usage over critical lines and set notifications for data consumption. You can even configure a specific threshold or credit limit that will result in the suspension of the line as soon as the limit is reached.

VOUCHERS MONITORING

IEC Telecom OptiVIEW provides the IT/fleet manager with full visibility over the vouchers being used onboard. Once the voucher connects for the first time, all the statistics such as the validity, the data consumption, and remaining data bundle per user will be visible to the IT manager to enable proper forecasting of usage and vouchers provisioning.

WEATHER & SIGNAL MONITORING

IEC Telecom OptiVIEW offers the possibility to access detailed weather conditions based on the location of the VSAT being used as well as the signal levels of the used antennas. This will provide a better view and help forecast any future degradation of service. The signal level history is a very good tool to monitor past degradation and help schedule maintenance windows in order to enhance the end-user experience.



OPTICONNECT

DIGITALISATION FOR LOW BANDWIDTH ENVIRONMENTS

Digitalisation empowers remote communities and offers access to new communication technologies in areas with no/limited GSM coverage. Remote field teams are assured of connectivity even in low bandwidth environments and can easily access data services in a user-friendly virtual environment. Not only does this increase operational efficiency, digitalisation also optimises capital investment in hardware and saves the cost and complex logistics involved to send technicians to far-flung sites.

Powered by DigiGone, OptiConnect applications have been especially designed to operate in a low bandwidth environment. This incredible set of solutions is optimised for remote communities, including hands-free and multi-party videoconferencing, live technical assistance, large file exchanges, and advanced surveillance.

OptiConnect enables cost-effective connectivity no matter how remote the region may be.



ONETeam
powered by DigiGone

Optimised application
for videoconferencing



ONEMonitor
powered by DigiGone

Video surveillance software
with advanced remote access



ONEAssist
powered by DigiGone

Remote maintenance delivered
over hands-free handset



ONEHealth
powered by DigiGone

Portable digital telemedicine kit



ONETeam

OneTeam users can simultaneously communicate with real-time voice, text, video, and data transfers to make critical business decisions and stay in touch with their friends and families. With live remote technical support, OneTeam delivers the most comprehensive communications solution for teams no matter where they operate. The app features include:

- Optimised videoconferencing and file exchanges, enabling remote teams to fix a problem/apply an update without the need to send a technician onsite
- Advanced visibility for experts from HQ and vendors to examine the issue first-hand via a real-time video stream
- Bandwidth control functionality



ONEMonitor

OneMonitor is a software-controlled CCTV system that operates on managed bandwidth communication solutions and is easily accessible on a laptop, smartphone or tablet. The app's consumption rate ranges from as low as 6Kbps up to 500Kbps.

The app features include:

- Ability to remotely monitor assets in real-time, simultaneously and securely
- AES 256-bit encrypted transmissions
- Enhanced operational efficiency for remote assets, field personnel, and revenue
- Remote access to recorded data to support forensic investigations and incident reviews
- Alarm triggers upon contact or video motion



ONEAssist

OneAssist enables virtual assistance to remote units and extends the complete knowledge resources of the organisation to the field in real-time. With a secure voice-controlled headset, field personnel can stay in touch with HQ, share snapshots of ongoing onsite issues, and receive live technical assistance from the shore expert even in low bandwidth and hard to reach environments. Specially designed for remote collaboration, OneAssist is perfect for IoT data visualisation, guided workflow, document navigation, and remote mentor video calling. The app features include:

- Video and audio teleconferences
- IM and file transfers
- Secure communications



ONEHealth

OneHealth is the definitive telemedicine care system that brings real-time decision support to the field. Whether medical staff operates onboard a vessel, on an onshore platform, or as part of a humanitarian mission in an area with limited to no GSM coverage, OneHealth provides reliable connectivity for critical communications over a user-friendly dashboard. The app features include:

- AES 256-bit encrypted transmissions
- Multi-party video, voice, text and file transfer
- Secondary private channel video collaboration
- Live medical device data streaming
- Remote control

GLOBAL 24/7 TECHNICAL SUPPORT

A DEDICATED TEAM TO ASSIST YOU ANYTIME

5 DEDICATED CHANNELS OF SUPPORT

IEC Telecom is committed to providing customers not only with voice and data satellite connectivity, but also with tailored services that ensure optimum use and control over their communications.

Our support team is dedicated to offering the best possible customer service that ensures the highest satisfaction levels.

- TECHNICAL SUPPORT
- EQUIPMENT QUERIES
- AIRTIME QUERIES
- ACTIVATION/DE-ACTIVATION/ SUSPENSION/ BARRING REQUESTS
- PLANNED MAINTENANCE QUERIES
- UNPLANNED OUTAGE QUERIES

Our 24/7 support team can assist you in different areas across the globe in many languages.

With five channels of technical support, you're guaranteed bespoke customer service to best suit your business needs.



EMAIL SUPPORT

STANDARD EMAIL SUPPORT – support-global@iec-telecom.com

Available from 9am to 6pm (CET time), Monday to Friday.

When you send an email to the above address, a ticket is automatically created and updated.

Your Account Manager is automatically added to the request when you write from your corporate email address.

PREMIUM EMAIL SUPPORT – upon request and accreditation

A new email raises a ticket and updates are added to it automatically when you write in from your corporate email address.

Automatic reminders are also generated. Notifications are sent to all the involved parties as per the SLA contract.



GLOBAL 24/7 HOTLINE

Upon emergency and customer accreditation, you can call your Account Manager to find out more about this service.

Middle East: +971 (0)4 55 86 497

Europe: +33 (0) 1 70363232



IEC WHATSAPP BUSINESS

No matter where you do business, you can request technical advice or solve signal problems via the interactive chat. This channel is a useful and cost-effective way to get qualified help regardless of your deployed condition or location.

WhatsApp Number: +971 50 242 42 38



ONLINE TICKETING

You can access this channel via the Technical Support page on the IEC Telecom website or follow directly at ticketing.iec-telecom.com.

TRY OUT OUR TICKETING

- **Standard SLA***: Customer tickets are processed between 9am to 6pm (CET time), Monday to Friday.
- **Premium SLA**: Tickets are processed 24/7 for all customers under this specific contract - ask for it!

*Service Level Agreement



DOWNLOAD CENTER

You can access a wide library of resources, including installation manuals, user guides, software updates, and more. All resources are conveniently stored at an online Download Center, accessible via the IEC Telecom website.





INTERACTIVE SOFTWARE FOR HIGH PRECISION IMAGE AND VIDEO CLIP TRANSFER

Designed to offer optimised decision-making support even in the most challenging environmental conditions, ASIGN is a multi-faceted interactive suite of visual content applications. Users can quickly select the areas of interest from an image preview or video clip storyboard, and ASIGN ensures the transfer of the selected data in high resolution over low bandwidth cellular and satellite communication networks.

ASIGN content is seamlessly processed and transferred using AnsuR's proprietary GR4-COMS communication protocols to a dedicated ASIGN server. Decision-makers are able to access and interact with the centrally stored visual information from ASIGN Online, a cloud-based smart information management platform.

KEY FEATURES

- Tracking: time/distance
- Adding text notes
- Customised reports & forms
- Geo-alerts: safe zones/danger zones sent from the online platform to PRO app users
- GIS mapping
- Links: temporary access for non-ASIGN users to enable crowdsourcing of data
- Computer vision/detection: identification of objects by categories/ customised parameters
- Content grouping & filtering with the possibility to manage access levels

SOLUTION: MORE THAN COMPRESSION: COMMUNICATION

Original image

Without AnsuR (Compression)

with AnsuR

→

More than just compression:

- First send a preview
- Select what is important

Push / pull in full quality
Get 100% precision
At 1% of cost

ASIGN consists of a web-based server, storing transferred data, and specialised mobile applications, designed to facilitate efficient exchange of the visual content between remote teams and the head office.

ASIGN SERVER

The ASIGN Server holds all the information sent from the field. Initially, all transferred files are compressed to 0.1-1% of the full resolution. Upon review, ASIGN Online users may pull the regions of interest in full resolution.

ASIGN Online allows for the filtering of incoming data by several parameters such as location, time, mission, user, type of observation, category and critical status. Computer Vision can help recognise features that the system is trained for such as faces, cars, and license plates.

ASIGN Online allows for assessment form creation to enable efficient paperless reporting onsite. Forms are created and managed via ASIGN Online Server and can be further shared with non-ASIGN users.

ASIGN Servers can be cloud-based or on premises, according to the customer requirements. Regardless of the set-up, all communication remains fully secured with end-to-end encryption over the highly robust GR4-COMS protocol.

HOME DASHBOARD



TRACKING



ASIGN MOBILE APPLICATIONS:



ASIGN PRO is the professional smartphone tool, available in iOS and Android operating systems. Capture photos and video clips plus:

- add text notes, priorities and captions
- use computer vision for auto feature detection
- live import to transfer pictures directly into ASIGN
- track users based on time/distance(time/distance)



UAV-ASIGN is a smartphone application that enables drone operators to share real-time high resolution geo-tagged images and videos. Highlights:

- includes many of the ASIGN PRO features
- supports live streaming with cellular and high-throughput satcom connections
- optimised for use with DJI drones
- other drones may be supported

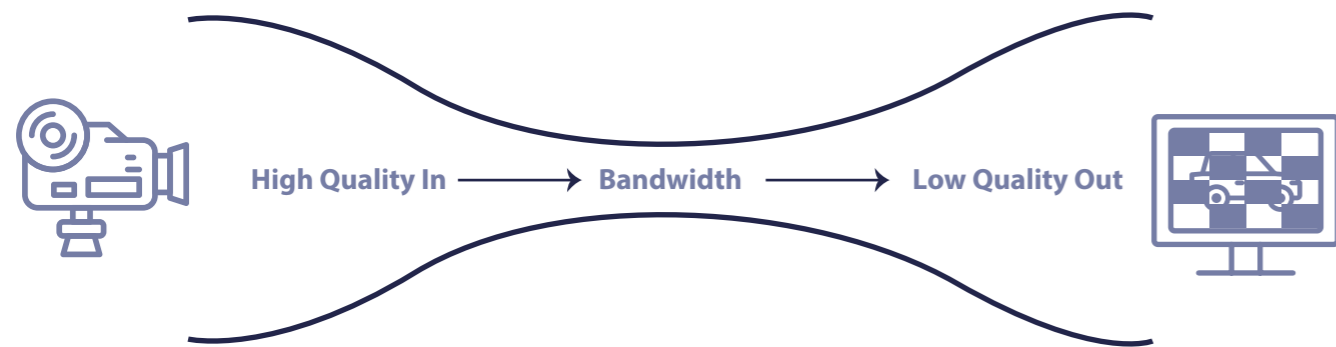




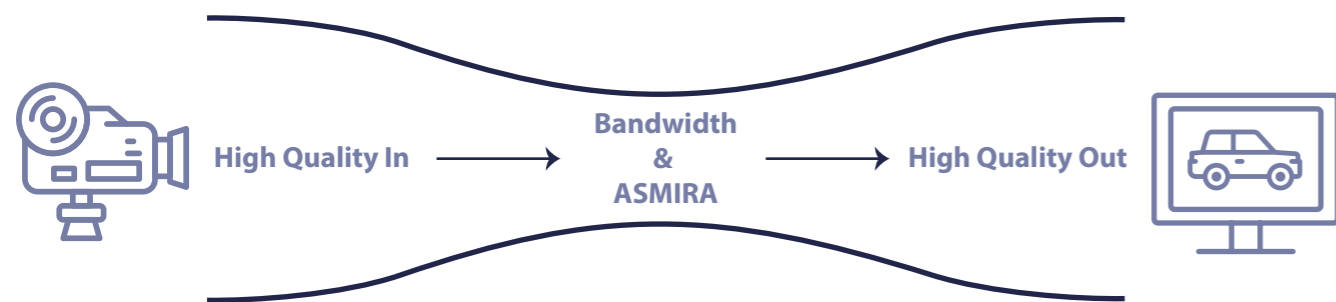
HIGH PRECISION VIDEO STREAMING AT LOW DATA RATES

The sharing of real-time, high quality video information captured from high precision cameras or sensors in remote locations is often limited due to challenging connectivity environments.

Degraded cellular, or low varying bandwidth contended networks lack the available capacity to support effective transfer. SATCOM is often too expensive, too slow or requires costly dedicated codec hardware.



ASMIRA is a software-only solution, designed to enable efficient video transfer over low data rates. With the flexibility to optimise parameters such as bit rate, frame rate, and resolution, ASMIRA delivers HD quality video at <200kbps and SD video rates as low as 50kbps, which can be easily shared with decision-makers. ASMIRA also enables the effective use of HTS connectivity.



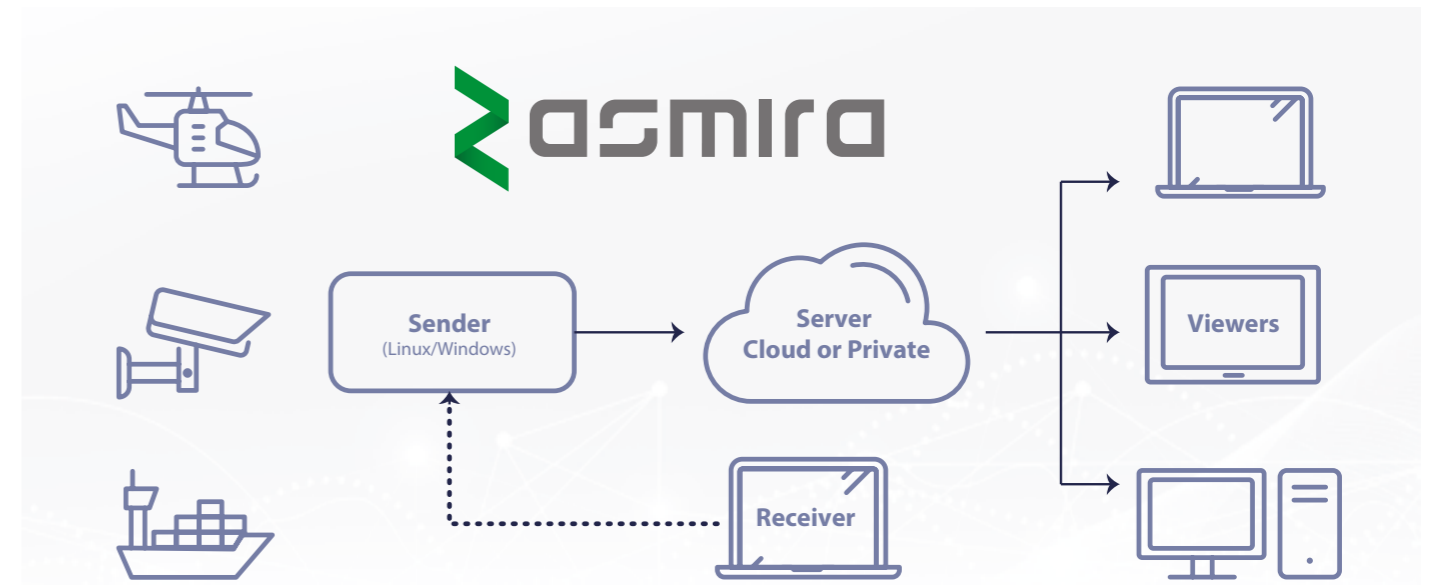
Deployed as an embedded or PC-hosted solution, ASMIRA consists of three core software components and a server instance.

► **ASMIRA SENDER** – hosted on a laptop, PC, or embedded compute capability or terminal, the Sender software accepts and compresses the digital video input from compatible cameras or sensors. Available on Windows or Linux OS, the Sender software connects to the connectivity hardware.

► **ASMIRA RECEIVER** – the trained operator uses the Receiver software to optimise the source video. By selecting the maximum bit rate for video encoding, the operator ensures the efficient use of the available bandwidth while adjusting the frame rate, and video resolution delivers the highest quality video streaming over that connection. Receiver software is available for Windows and Mac OS.

► **ASMIRA VIEWERS** – provides multiple secondary viewing access to the optimised video feed. Available for laptops, PC, smartphones and tablets and accessed via the internet and dedicated apps, ASMIRA Viewers facilitates the easy sharing of video content to decision-makers and interested parties globally.

► **ASMIRA SERVER INSTANCE** – hosted on a private or public network with a fixed global IP address, the Server is the connection point for all ASMIRA nodes.



ASMIRA is perfect for crisis situations as well as remote operations onboard vessels, aircraft, and drones, where connectivity challenges are significant, and offers much more than compression. From the optimised video feed, the Receiver operator can select real-time content of critical importance, focusing capacity on regions of interest (RoI), which can then be viewed in the highest precision of the source camera and shared.



IMO 2021 COMPLIANCE

CYBER GUIDELINES

IEC Telecom offers a comprehensive portfolio of cyber security solutions that are specifically engineered for the maritime environment to reduce the exposure to risk as well as protect vessels and their crew from all manner of external threats. Prioritise your company's readiness for cyber security measures and ensure compliance with the IMO 2021 regulations with our state-of-the-art security solutions.

1. Identify

Define personnel roles and responsibilities for cyber risk management and identify the systems, assets, data and capabilities that, when disrupted, pose risks to ship operations.

2. Protect

Implement risk control processes and measures, and contingency planning to protect against a cyber-event and ensure continuity of shipping operations.

IEC Telecom OneGate Advanced UTM Protection
IEC Telecom OneGate Advanced Usage Monitoring
OneMail - Free Phishing Penetration Test

3. Detect

Develop and implement activities necessary to detect a cyber-event in a timely manner.

OneMail-Antivirus, ATP, Spam Management, Anti-Phishing,
OneCover, End Points AntiVirus Solution
IEC Telecom OneGate UTM Protection Reports, OptiView

4. Respond

Develop and implement activities and plans to provide resilience and to restore systems necessary for shipping operations or services impaired due to a cyber-event.

OneGate Advanced UTM
OneCover
OneMail-Archiving

5. Recover

Identify measures to back-up and restore cyber systems necessary for shipping operations impacted by a cyber-event.

OneShare, OneMail - Archiving,
OptiView Backup

MANAGED SERVICES

As a globally trusted satellite partner, IEC Telecom offers an unparalleled level of transparency and flexibility for a complete satellite communications lifecycle alongside innovative and custom-designed solutions for customers across all sectors. We consistently provide a high level of personal service by working closely with suppliers at the local level and are able to support your critical operations with our rapid logistics.

Our cost-saving approaches and unique network of technologies ensure secure and flexible network management with specific modules and applications. You can easily create a custom solution and access our onsite surveys, testing, and analysis as per your evolving satellite communication needs. Connect alternative solutions such as WiMax, 3G/4G, Wi-Fi, and more with your satellite network, and activate SIM cards and lines as required.

IEC Telecom's flexible engineering consulting guarantees performance and service (SLA). Alongside comprehensive scheduled maintenance plans, easily upgrade or downgrade your service with commercial assistance and, if required, quickly coordinate follow-ups with a dedicated project manager for your specific needs.

KEY FEATURES



Pre-sales Analysis: Choose or create a custom solution for your evolving satellite communication requirements. Access onsite surveys, testing, and analysis as per your location constraints, and evaluate any potential integration of legacy networks and systems.



Constant Monitoring and Assistance: Detect any issues in your connections with constant link monitoring. Ensure the continuity of critical applications and connectivity with a back-up solution to automatically take over the primary link in the event of a failure.



Comprehensive Maintenance: Prevent potential issues with scheduled visits, on-demand assistance, and a maintenance plan. Ensure optimal system performance with onsite installation, mainly for VSAT, and technical maintenance for deployed hardware.



LOGISTICS, TRAINING & MAINTENANCE

IEC Telecom is committed to keeping customer needs at the forefront in the provision of the most relevant solutions, services, and support. We listen and understand. These are the cornerstones of our approach.

IEC Telecom services are delivered anywhere in the world, under all conditions. From secure military applications to wireless networks, the worldwide team gets the job done. The team supports customers with technical training on the deployment of hardware, network connections, and IEC Telecom value-added services.

OUR MAINTENANCE SERVICES INCLUDE:

- Equipment repair or replacement
- Modifications and reconfigurations
- Corrective maintenance (remote or onsite interventions if needed)
- Spares provisioning
- Preventive and/or scheduled maintenance
- Configuration control
- Testing tools

KEY FEATURES

Logistics Management: Benefit from a global logistics and delivery network even in the most remote areas or when faced with last-minute crises. Access products quickly and efficiently enabled by IEC Telecom's strong relationships with major delivery operators.

Training: Avail bespoke training sessions for specific projects and complex set-ups, particularly VSAT deployment projects. Enable your operational team to become autonomous with round-the-clock support from our global technical team.

Maintenance: Keep critical satellite-based communications systems fully operational at all times with equipment repair and replacement support, remote and onsite maintenance, and more.

WORLDWIDE LOGISTICS FROM IEC TELECOM

Benefit from a global logistics and delivery network even in the most remote areas or when faced with last-minute crises. Access products quickly and efficiently enabled by IEC Telecom's strong relationships with major delivery operators.

#satelliteitup #satelliteitup #

#satelliteitup

#satelliteitup #satelli

IEC TELECOM

SATCOM PRODUCTS



THURAYA VSAT+



UNPARALLELED VSAT SERVICE WITH QUASI-GLOBAL COVERAGE AND FLEXIBLE REGIONAL TARIFF PLANS

SERVICE OVERVIEW

Thuraya VSAT+ is a comprehensive communications solution for corporate and crew management needs with a quasi-global coverage. It is applicable to all vessel types and suitable for varied maritime budget requirements. Equipped with value-added services from IEC Telecom, the new offering provides superior communication capabilities while keeping your satcom costs at bay. Thuraya VSAT+ merges Ku and L-Band services, first, to secure high bandwidth, and second, to serve as resilient backup.

Thuraya VSAT+ caters to the rising demands for higher bandwidth requirements in the maritime industry. The service enables crew and officials to be on par with onshore connectivity and stay in touch with ports, ground crew, family and friends with optimized voice, narrowband, broadband data and onboard management systems.

Thuraya VSAT+ is a secure integrated maritime service with increased bandwidth capabilities. Easy installation and troubleshooting at any time is another advantage for VSAT+ users.

With current efficient cost-cutting solution, Thuraya VSAT+ users are capable of a strong maritime alliance. Developed alongside renowned maritime manufacturers and service providers, Thuraya VSAT+ is a robust system that ensures operational excellence. Its various components include VSAT terminals, Thuraya's L-band network via Thuraya Orion IP, Thuraya's VoIP service, iDirect modem, and a wide choice of value-added services. The platform features a fallback on Thuraya's L-band network, via the Orion IP.

FLEXIBLE REGIONAL TARIFF PLANS

IEC Telecom offers various packages for all vessel types with no yearly lock-in commitment. With a fixed-pricing model, it eliminates billing complexities and presents an attractive cost-saving option.

IEC Telecom enhances Thuraya VSAT+ with an onboard or centralised voucher management system for control and optimisation of corporate and crew welfare communication. In addition, customers get access to advanced reporting tools and 24/7 technical support.

WHY THURAYA VSAT+?

Thuraya VSAT+ empowers marine crew and officers to seamlessly use one service for multiple vessel applications, thereby facilitating all-round maritime efficiency. These applications include:

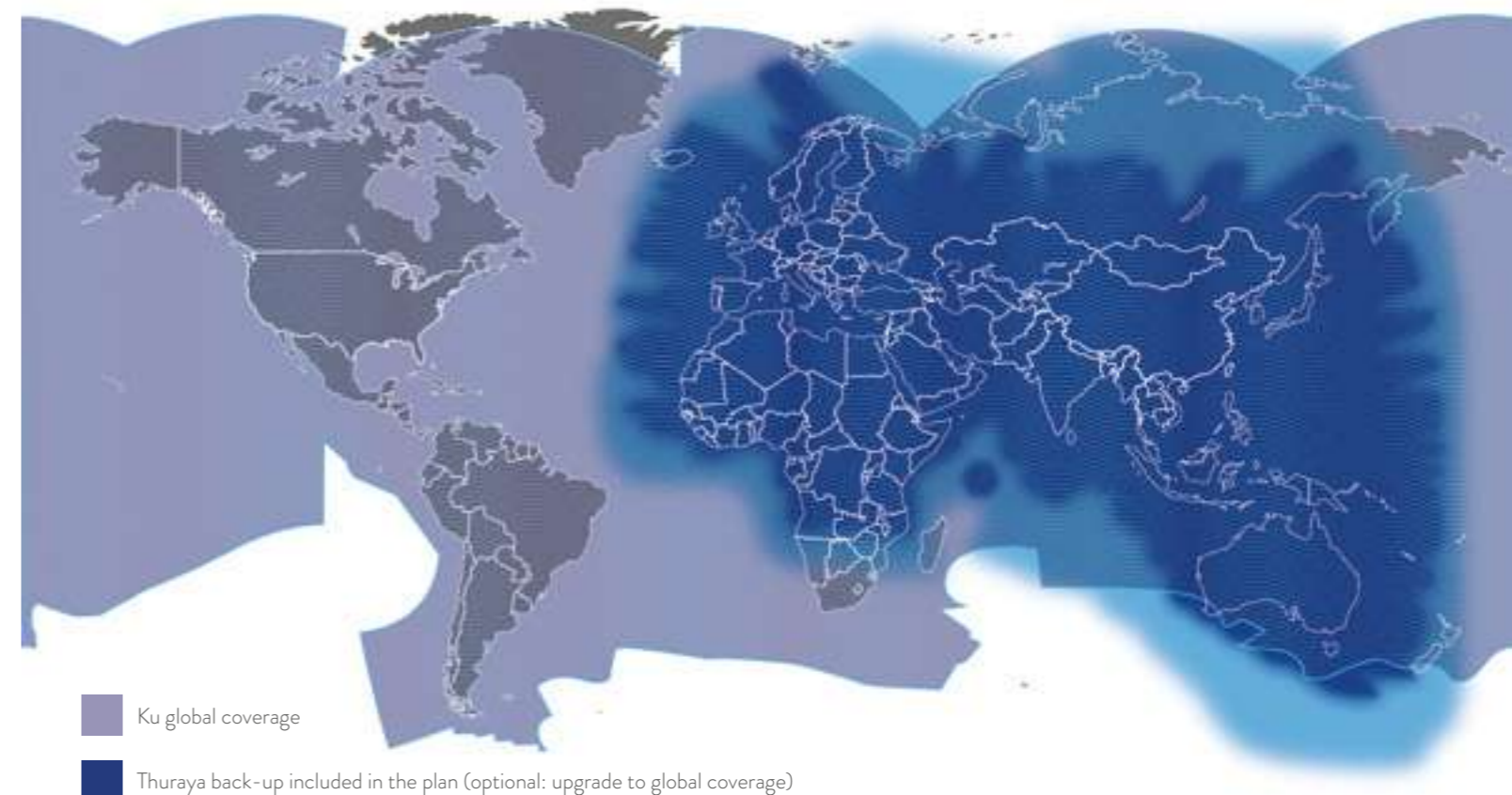
- Office-at-sea
- Crew welfare
- Vessel databases
- Cargo manifest
- Crew training
- Maintenance reports
- Chart and software updates
- Task assignment (particularly for oil and gas technical drawings/ instructions)
- Cargo conditions reporting (particularly for chilled goods)

POSSIBLE HARDWARE OPTIONS

- Intellian 100
- Cobham 900
- Epak DSi9 KU

GO EVEN FURTHER WITH VAS FROM IEC TELECOM

- Automatic fail-over between Ku and L-bands
- Onboard or centralised voucher management system
- Advanced online reporting
- Filtration and usage control
- QoS



COBHAM SAILOR 100 GX

KA-BAND MARITIME SYSTEM FOR INMARSAT GLOBAL XPRESS

The SAILOR 100 GX is a robust, 3-axis marine stabilised antenna system designed specifically for the Inmarsat Global Xpress satellite network. It ensures high-speed maritime broadband access wherever you are at sea, enables you to use business critical applications, and provides communication services to the crew. SAILOR 100 GX features advanced Tracking Receiver technology that enables the verification of the right satellite in less than a second. This unique feature ensures quick satellite acquisition at start-up and re-acquisition of the satellite in case of temporary blockage, after bad weather or poor signal strength.

Easy to install and set up, it can be commissioned even by a non-specialist technician. SAILOR 100 GX ships with the original SAILOR GX Modem Unit (GMU), which works directly with SAILOR 500/250 FleetBroadband to form the cornerstone of the Inmarsat Fleet Xpress service.

SYSTEM SPECIFICATIONS

- Frequency band Ka-Band (Inmarsat GX)
- Reflector size: 103 cm
- Type approvals Inmarsat
- Certification Compliant with CE (Maritime), ETSI, FCC
- System power supply range 100-240 VAC, 50-60 Hz
- Total system power consumption 175W typical, 370W peak
- Vibration, operational Sine: EN60945 (8.7.2), DNV A, MIL-STD-167-1 (5.1.3.3.5). Random: Maritime
- Vibration, survival Sine: EN60945 (8.7.2) dwell, MIL-STD-167-1 (5.1.3.3.5) dwell. EN60721-3-6 6M3
- Shock MIL-STD-810F 516.5 (Proc. II)
- Temperature (ambient) Operational: -25°C to 55°C
- Storage: -40°C to 85°C

FREQUENCY BAND

- Rx 19.2 to 20.2 GHz

- Tx 29.0 to 30.0 GHz

ANTENNA CABLE

- ACU to ADU cable Single 50 Ω coax for Rx, Tx and power

ABOVE DECK UNIT (ADU)

- Antenna type, pedestal 3-axis stabilised tracking antenna with integrated GNSS (GPS, GLONASS, Beidou)
- Antenna type, reflector system Reflector/sub-reflector, ring focus
- Transmit Gain 47.5 dBi typ. @ 29.5 GHz (excl. radome)
- Receive Gain 44.0 dBi typ. @ 19.7 GHz (excl. radome)
- System G/T 20.1 dB/K typ. @ 19.7 GHz, at ≥10° elevation and clear sky (incl. radome)
- BUC output power 5 W GX BUC
- EIRP ≥53.5 dBW (incl. radome) MAX. 36.0 dBW/40KHz
- LNB GX Ka single band LNB

ANTENNA CONTROL UNIT (ACU)

- Dimensions, Rack Mount
 - 1U 19" ACU
 - HxWxD: 48 x 33 x 4.4 cm
- Weight, Rack Mount 4.5 kg
- Humidity EN60945 Protected, 95% (non-condensing)
- Protection class: IP30

GX MODEM UNIT (GMU)

- GMU Dimensions
 - 1U 19" Rack Mount
 - HxWxD: 48 x 33 x 4.4 cm
- Weight, Rack Mount 3.5 kg.
- Humidity EN60945 Protected, 95% (non-condensing)
- Protection class: IP30
- Compass safe distance: 0.4m / 16" to EN60945
- Modem type: SAILOR Global Xpress Modem



INTELLIAN GX 100

FLEET XPRESS MARITIME TERMINAL

Intellian and Inmarsat have partnered to deliver a high-speed connectivity solution as easy to adopt as Fleet Broadband. Easy, standardised equipment. Single global network. Intuitive User Interface. The Intellian GX100 features a built in GX modem for simplified installation and reduced overall space requirements. WiFi enabled for wireless management via Intellian's Aptus PC or Mobile remote management application. Built in 8-Port Ethernet Switch provides VLAN capability, all in a single, 19" rack type 1U case. Integrated AC Power Supply (no additional components needed) and front panel touch display with easy navigation buttons. All Intellian systems feature an Intellian LAN function, enabling all onboard devices to be easily networked out of the box with no additional hardware. For the ultimate in service reliability, or for out of band management solutions, the GX Series easily integrates with Intellian's FBB Sailor250 or 500 terminals



KEY FEATURES

- Maritime Connectivity Made Simple
- All in One Below Deck Terminal
- Enterprise Enabling Speed
- Industry-leading Standards Compliance
- From In Port to Online in 4 Hours
- One Touch Commissioning
- FBB 250/500 Compatibility
- Uninterrupted Global Coverage

DIMENSIONS

- Radome Height: 151cm
- Radome Diameter: 138cm
- Reflector Diameter: 103cm
- Weight: Approx. 128kg

STABILISED PEDESTAL ASSEMBLY

- Platform 3-axis : Azimuth, Elevation, Cross-level

- Azimuth Range: Unlimited
- Elevation Range: -20° to +115°
- Cross-level Range: Up to ±37°
- Stabilisation Accuracy: 0.2° max in presence of specified ship motions
- Motor Brake System Elevation, Cross-Level
- Power Requirement: 100~240V AC, 50~60Hz, 4A

REFLECTOR & FEED ASSEMBLY

- TX Frequency: 29.00~30GHz Ka-band
- TX Gain: 47.7 dBi @ 29.5GHz (with Radome)
- RX Frequency 19.2~20.2GHz Ka-band
- RX Gain: 43.7 dBi @ 19.7GHz (with Radome)
- G/T: 20.1 dB/K (Typ.)
- BUC: 5W Ka-band BUC
- LNB: Ka-band LNB (L.O. 18.25GHz)

- Polarization: Circular, Tx:RHCP / Rx: LHCP

BELOW DECK TERMINAL

- Dimensions: 43.1 x 44.1 x 4.4 cm
- Weight: 4 kg
- Display: 2 line 40 characters graphic VFD module
- Ship's Gyrocompass Interface: NMEA 2000 / NMEA 0183
- Modem: Integrated Global Express core module
- Remote Management
- WiFi Operation
- Management Port (Ethernet/ USB/ Serial)
- Power Requirement: 100~240V AC, 50~60Hz, 1A



INTELLIAN V60

KU-BAND MARITIME VSAT ANTENNA



The Intellian v60 is a 60 cm Ku-Band maritime VSAT antenna system ideal for smaller vessels with space constraints. Thanks to its 3-axis stabilisation platform, the v60 offers superior tracking performance and can be configured for broadband, SCPC or hybrid satellite networks. It provides always-on, uncompromised performance with the highest quality and reliability, providing a continuous connection at sea. The v60 is the ultimate choice for mariners who are seeking a commercial grade broadband experience with a compact, robust and cost-effective solution. The v60 is suitable for high-speed Internet, weather and chart updates, email, file and image transfer, video conference, VoIP, VPNs and database backup.

The v60 incorporates Intellian's patented Global PLL LNBS supporting an unlimited number of LO frequencies, both cross-pol and co-pol feeds and offers BUC options from 4W to 16W. This is an ideal system for vessels that require a small mounting footprint, as well as simple installation, ease of operation and reliable remote maintenance accessibility.

DIMENSIONS

- Radome Height: 84.5 cm
- Radome Diameter: 78 cm
- Reflector Diameter: 60 cm
- Weight: 59.5 kg Variable w/ RF components

STABILISED PEDESTAL ASSEMBLY

- Platform 3-axis: Azimuth, Elevation, Cross-level
- Azimuth Range: Unlimited
- Elevation Range: -10° to +100°
- Cross-level Range: Up to 30°

- Power Requirement: 100~240V AC, 50~60Hz, 4A

REFLECTOR & FEED ASSEMBLY

- TT X Frequency: 13.75 ~ 14.5 GHz Ku-band
- TX Gain: 37 dBi @ Mid band
- RX Frequency: 10.95 ~ 12.75 GHz Ku-band
- RX Gain: 35.6 dBi @ Mid band
- G/T: 15.0 dB/K (Clear Sky, 30° Elevation)
- BUC: 4W, 8W, 16W (Optional)
- LNB: Intellian Global PLL LNB's
- Polarization: Circular, Cross-pol and Co-pol as standard

BELOW DECK TERMINAL

- Dimensions: 43.1 x 38.1 x 4.4 cm
- Weight: 5.2 kg
- Display: 2 line 40 characters graphic VFD module
- Ship's Gyrocompass Interface NMEA / Synchro
- Modem: Ethernet port / RS-232C / I / O ports
- Remote Management
- WiFi
- Power Requirement: 100~240V AC, 50~60Hz, 4A

INTELLIAN V65

KU TO KA-BAND CONVERTIBLE ANTENNA



The Intellian v65 is capable of top RF performance in either Ku-Band or Ka-Band. The v65's high efficiency reflector and feed design deliver improved gain performance for increased fidelity of service and improved overall link margin. Live network shows that the v65 offers an average of 1,2 dB/k improvement in G/T over any other system in its class and can achieve download speeds up to 1000 Mbps over high throughput satellites. The v65 can support automated commissioning once it has been properly integrated with a given network.

Using one of Intellian's signature onboard conversion kits, users can swap out key RF components in as little as 10 minutes to move from one frequency to another, delivering maximum performance in any geography and ensuring a futureproof communications solution for end-users all over the world.

DIMENSIONS

- Radome Height: 104 cm
- Radome Diameter: 90 cm
- Reflector Diameter: 65 cm
- Weight: 60 kg Variable w/ RF components

STABILISED PEDESTAL ASSEMBLY

- Platform 3-axis: Azimuth, Elevation, Cross-level
- Azimuth Range: Unlimited
- Elevation Range: -20° to +115°
- Cross-level Range: Up to 37°

- Power Requirement: 100~240V AC, 50~60Hz, 4A

REFLECTOR & FEED ASSEMBLY

- TT X Frequency: 13.75 ~ 14.5 GHz Ku-band
- TX Gain: 37.7 dBi @ Mid band
- RX Frequency: 10.7 ~ 12.75 GHz Ku-band
- RX Gain: 36.3 dBi @ Mid band
- G/T: 15.7 dB/K (Clear Sky, 30° Elevation)
- BUC: 8W EXT (Optional 8W, 16W)
- LNB: Intellian PLL LNB
- Polarization: Linear, Cross-pol only

BELOW DECK TERMINAL

- Dimensions: 43.1 x 38.1 x 4.4 cm
- Weight: 3.5 kg
- Display: 2 line 40 characters graphic VFD module
- Ship's Gyrocompass Interface: NMEA0183 / NMEA2000
- Modem: Ethernet port / RS-232C / I / O ports
- Remote Management
- WiFi
- Power Requirement: 100~240V AC, 50~60Hz, 4A



INTELLIAN V85NX

**FUTURE-PROOF
READY FOR HIGHER SPEEDS**

The v85NX, a Ku to Ka Band antenna, can be converted by simply changing the RF assembly and feed while still using the dual-band optimised reflector and radome, and can support full 2,5 Ghz Wide Ka-Band networks. The compact 85 cm antenna's smaller footprint allows installation on smaller vessels and gives them access to 1-metre designed networks. Combining Tx, Rx and DC power into one coaxial cable solution with an external dome-on connection enables faster and reduced costs of installation for the v85NX. It also eliminates the need to remove the radome during installation.

Users can operate AptusNX by simply plugging a laptop into the ACU, without any need to download extra software. The AptusNX presents an installation wizard with a step-by-step commissioning guide to more easily complete setup, and with enhanced diagnostic capabilities, the AptusNX can send an alert to the operator when preventative maintenance is required.



DIMENSIONS

- Radome Height: 123 cm
- Radome Diameter: 113 cm
- Reflector Diameter: 85 cm
- Weight: 96kg

STABILISED PEDESTAL ASSEMBLY

- Platform 3-axis: Azimuth, Elevation, Cross-level
- Azimuth Range: Unlimited
- Elevation Range: -20° to +115°
- Cross-level Range: Up to 37°
- Stabilization Accuracy: 0.2° peak mis-pointing @ max ship motion condition
- Motor Brake System: Dynamic braking

REFLECTOR & FEED ASSEMBLY

- TT X Frequency: 13.75 ~ 14.5 GHz Ku-band
- TX Gain: 40.7dBi 14.25 GHz (excl. radome)
- RX Frequency: 10.7 ~ 12.75 GHz Ku-band
- RX Gain: 38.9 dBi 11.7 GHz (excl. radome)
- G/T: 18.3dB / K @12.75 GHz (Clear Sky, 30° Elevation)
- BUC: 8W, 16W, 25W (Optional)
- LNB: Intellian PLL LNB
- Polarization: Linear, Cross-pol

BELOW DECK TERMINAL

- Dimensions: 43.1 x 35.0 x 4.4 cm
- Weight: 5.2 kg

- Display: 256 x 64 Graphic OLED
- Ship's Gyrocompass Interface: NMEA2000 / NMEA0183
- Modem: Yes (Embedded in ACU, Primary / Secondary control on AptusNX)
- Ethernet port / RS-232C, -422C / I / O Console)
- Remote Management
- WiFi Operation (WiFi dongle)
- Power Requirement: 100~240V AC, 50~60Hz, 4A

INTELLIAN V100

**KU-BAND MARITIME STABILISED ANTENNA
EASILY CONVERTIBLE TO KA-BAND SERVICE**

The v100 is designed and engineered to operate on Ku and Ka-bands while maximizing the RF performance on both bands. Thanks to its high-gain, precision carbon fiber reflector, it ensures the best service quality available when configured for Ku or Ka-band operation, allowing for greater throughput and reduced operational costs. The v100 can be easily and quickly converted from a Ku-band system to a Ka-band system in under 10 minutes without removing the radome.

To keep the process simple, all RF components are mounted on a single chassis to form an integrated RF module consisting of the BUC and Intellian Global PLL LNB. By unfastening only four bolts, the whole module can be detached and removed from the radome through the access hatch. The new BUC & LNB module fits into the same space on the antenna with no need to rebalance the system after conversion. Next, the Ku-band feed is easily replaced with the Ka-band feed to complete the process. The antenna can easily be remote managed and configured using Aptus Web Wi-Fi.



DIMENSIONS

- Radome Height: 151.4 cm
- Radome Diameter: 138 cm
- Reflector Diameter: 103 cm
- Weight: Approx. 128 kg

STABILISED 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
- Azimuth, Elevation, Cross Level

REFLECTOR & FEED ASSEMBLY

- TT X Frequency: 13.75 ~ 14.5 GHz Ku-band
- TX Gain: 41.6 dBi @ mid band
- RX Frequency: 10.7 ~ 12.75 GHz Ku-band
- RX Gain: 39.4 dBi @ mid band
- G/T: > 19.6 dB/K (Clear Sky, 30° Elevation)
- BUC: 8W, 16W (Optional)
- LNB: Intellian PLL LNB
- Polarization: Cross-pol and Co-pol

BELOW DECK TERMINAL

- Dimensions 43.1 x 38.1 x 4.4 cm
- Weight: 3.5 kg
- Display 2 line 40 characters graphic VFD module

- Ship's Gyrocompass Interface: NMEA / NMEA 2000
- Modem: Ethernet port / RS-232C / I / O ports
- iDirect, Comtech, SatLink, Hughes, GILAT
- Ethernet port / RS-232C, -422C / I / O Console)
- Remote Management
- WiFi
- Power Requirement: 100~240V AC, 50~60Hz, 4A



INMARSAT FLEETBROADBAND SAILOR 500



THE LATEST-GENERATION MARITIME COMMUNICATION SYSTEM

The SAILOR 500 FleetBroadband is designed for vessels and platforms with demanding requirements for connectivity. It meets with the critical need for voice and data access of maritime and offshore professionals. It provides extensive functionalities, including access to bandwidth-hungry IP applications, broadband Internet/Intranet, e-mail, secure VPN and 9 simultaneous voice lines.

SAILOR 500 FleetBroadband is easy to deploy and connect and provides an intuitive user-interface through a 2.2" TFT colour screen.

This is the most ideal solution to get access to a state-of-art maritime communication system.

SPECIFICATIONS

- Below-deck Unit (BDU) Dimensions: 273 x 264.5 x 42.5 mm
- BDU weight: 2.5 kg
- Above-Deck Unit Dimensions (Antenna): 687 x 797.5 mm
- Antenna Weight: 23 kg
- User interfaces: DC heavy duty power input connector with Remote on/off and locking mechanism; status LEDs
- Standard IP:
 - Send up to 432 kbps over a shared channel
 - Receive up to 432 kbps over a shared channel

- Streaming IP: Guaranteed Quality of Service: 8, 16, 32, 64, 128, 176 or 256 kbps
- SMS 160 characters supported
- Voice: 4 kbps, 3.1 kHz audio
- Fax
- Wind: 100 knots
- Protection class:
 - IP31 (BDU)
 - IPX6 (ADU)

INTERFACES

- 4 x Ethernet LAN users ports with PoE
- 2 x RJ-11 phone 2-wire connectors

- 1 x ISDN port
- 5 I/O connectors

INCLUDED IN THE PACK

- SAILOR 500 FleetBroadband Above Deck Unit
- SAILOR 500 FleetBroadband Below Deck Unit
- Sailor IP handset with Cradle
- Cabling: antenna cable (30 m)
- DC power Cable
- Manual and driver on CD-ROM

INMARSAT FLEETBROADBAND SAILOR 250



THE EASY WAY TO COMMUNICATE AT SEA

The SAILOR 250 FleetBroadband is designed for small to medium size vessels and platforms with demanding requirements for connectivity. It meets with the critical need for voice and data access of maritime and offshore professionals.

Well suited for harsh maritime environments, it delivers simultaneous voice and data to multiple users onboard and enables users to run online operational systems such as remote monitoring.

With data speeds up to 284 kbps and a simple antenna to install, the SAILOR 250 is the perfect balance between performance and price.

SPECIFICATIONS

- Below-deck Unit (BDU) Dimensions: 273 x 264.5 x 42.5 mm
- BDU weight: 2.5 kg
- Above-Deck Unit Dimensions (Antenna): 275.6 wide x 329.2 mm high
- Antenna Weight: 4.2 kg
- User interfaces: DC heavy duty power input connector with remote on/off and locking mechanism; status LEDs
- Standard IP:
 - Send up to 284 kbps over a shared channel
 - Receive up to 284 kbps over a shared channel

- Streaming IP: Guaranteed Quality of Service: 8, 16, 32, 64 or 128 kbps
- SMS 160 characters supported
- Voice: 4 kbps, 3.1 kHz audio
- Fax
- Wind: 100 knots
- Protection class:
 - IP31 (BDU)
 - IPX6 (ADU)

INTERFACES

- 4 x Ethernet LAN users ports with PoE
- 2 x RJ-11 phone 2-wire connectors
- 5 I/O connectors

INCLUDED IN THE PACK

- SAILOR 250 FleetBroadband Above Deck Unit
- SAILOR 250 FleetBroadband Below Deck Unit
- Sailor IP handset with Cradle
- Cabling: antenna cable (25 m)
- DC power Cable
- User and installation manuals



INMARSAT FLEET ONE

MARITIME COMMUNICATION SYSTEM DESIGNED FOR SMALL AND MEDIUM VESSELS

Fleet One is the latest Inmarsat innovation, designed to provide reliable and secure telecommunications at sea. The new service has been designed to meet the particular communications needs of leisure mariners, day boaters and sport and coastal fisherman, providing uninterrupted, near-shore voice and data connectivity. Fleet One provides a very cost-effective and competitive pricing for users to: access Internet, write emails and make phone calls when cellular network is not available or unstable. Fleet One has a standard 'plug and play' Ethernet connection to a computer and can support multiple smart phones, tablets and computer via an optional WiFi router. Easy to install and maintain, the Fleet One enables users to connect all around the world at sea, avoiding roaming charges and unforeseen bills.

DESCRIPTION

- Inmarsat Fleet One type approval
- Compliant to R&TIE, IEC 60945: 2000
- Certification mark: FCC, CE, IC
- Green passport
- BDU - ADU RF Cabling max loss
- 12 dB at 1.6GHz and 4 ohm DC loop resistance

SERVICE

- Voice: 4 kbps AMBE+2
- Standard IP: Up to 150 kbps
- SMS Up to 160 characters (3G standard)

ROUTER FUNCTIONS

- Single user router Mode (Modem Modem): NAT disabled, with option to enable/ disable DHCP
- Multi-User Router Mode: NAT enabled, with option to enable/ disable DHCP

INTERFACES

- 1 x Ethernet port (RJ45 with PoE)
- 1 x Standard phone port (RJ11)
- Primary handset connector (RJ-45)
- GPS output connector (NMEA-0183)

- Antenna Connector: BDU: TNC female
ADU: N-type female
- SIM Card Slot
- Status indicator LEDs(4)
- Power On/Off switch
- DC Power Input socket

POWER SUPPLY

- DC input (isolated): +10.8V to +31.2V
- Power (max): 100W including antenna

PHYSICAL DATA

- Dimension:
 - BDU: 278 x 264 x 41 mm
 - ADU: 275.6 x 291.9 mm
- Weight:
 - BDU: 2 kg
 - ADU: 3.9 kg

ENVIRONMENTAL CONDITIONS

- BDU
- Operating temperature: -25 to +55°C
 - Storage temperature: -40 to +80°C
 - Operating humidity: 95% non-condensing at +40°C

- Protection class: IP44
ADU

- Operating temperature: -25 to +55°C
- Storage temperature: -40 to +80°C
- Operating humidity: 95% non-condensing at +40°C
- Ingress protection: IP56

PRIMARY HANDSET

- Display: 50mm, 220 x 176 pixel TFT, 65K Colour LCD
- Dimension: 142 x 56 x 22 mm
- Weight: 390 g
- Protection class: IP66
- Operational Temperature: -20 to +55°C
- Storage Temperature: -30 to +70°C
- Feature highlights:
 - Configuration setting
 - Phone book access
 - Call log function
 - SMS Messaging
 - 5-way menu navigation switch for user friendly menu operation
 - Hands-free operation via plug-in headset

OPTIMIZER

SATELLITE WIFI HOTSPOT AND FIREWALL



RedPort Optimizer broadcasts your satellite data feed as a WiFi hotspot, lets you easily access email, web, weather and social media services, and even tracks your location. It eliminates the problems associated with USB cables, and boasts a firewall that eliminates all unnecessary computer traffic, giving you access to the maximum throughput of your satellite phone data service and secure telecommunications at sea.

Optimizer prevents surprise airtime bills caused by unmonitored and unwanted background computer traffic such as operating system and other software updates. It works with compatible software services running on a laptop, tablet or smartphone.

KEY FEATURES

- Satellite – turns any IP-based satellite data signal into a WiFi Hotspot
- Firewall – stops all unwanted data traffic, saving time and money
- WiFi Hotspot – makes set-up and use with compatible computers and tablets easy
- GSM support – plug in a compatible GSM USB-modem when you have GSM access to keep all the speed and convenience benefits of Optimizer, wherever you are.

SERVICES

- Optimizer works with compatible software services running on a laptop, tablet or smartphone to provide:
- Email – accelerate email service up to 20 times, saving up to 85% on satellite airtime
 - Web – access compressed web pages an average of 3-5 times faster than normal

- GRIB Weather – get free GRIB files via email from online services
- Mobile Weather – see local forecasts based on your location using your iOS or Android device
- Tracking – automatically sends your phone or terminal's built-in GPS data to a compatible tracking service
- Blogging Service – get a free Sailblogs Premium Basic account with a compatible service.

COMPATIBLE OPERATING SYSTEMS

- Windows 7 and newer, both 32 and 64-bit versions
- Apple Macintosh
- Apple iOS devices (iPhone, iPad & iPod Touch)

COMPATIBLE SATELLITE EQUIPMENT

Works with all standard satellite equipment including:

- Inmarsat IsatPhone Pro; IsatPhone 2; BGAN; Fleet One; FleetBroadband
- Iridium 9555; Extreme*; OpenPort*; 9500*, 9505*, 9505a*
- Globalstar GSP-1700; GSP-1600*, GSP-2900*
- Thuraya USB and IP

** Some Equipment Requires Compatible Serial-USB cable (not included). GPS Tracking service requires current Inmarsat or Iridium OpenPort* hardware.*

LARS THRANE

LT-3100S GMDSS SYSTEM



THE FIRST TERMINAL FOR TRULY GLOBAL GMDSS SERVICE

Especially designed for the demanding and rough environment at sea, the LT-3100S GMDSS System is equipped with services such as Distress Alert, Safety Voice, and Maritime Safety Information (MSI). It can be used as the primary communications product onboard all IMO vessels.

Requiring no yearly maintenance thanks to a built-in webserver, LT-3100S provides voice, data, SMS, and vessel tracking. The coaxial cable offers freedom to mount the antenna up to 500m apart. With a high-performance GNSS/GPS receiver, SSAS and LRIT functionalities, BAM and ECDIS interfaces, LT-3100S is the perfect communications system at sea.

LT-3100S is powered by Iridium®, the only satcom network with pole-to-pole coverage. In the capacity of Iridium® partner, IEC Telecom delivers high-end satcom services to its customers all over the globe since 2013.

CHARACTERISTICS

- Weight
 - Control Unit: 658 g
 - Antenna Unit: 687 g
 - Handset: 290 g
- Dimensions
 - Control Unit: 224.0 x 120.0 x 70.0 mm
 - Antenna Unit: 151.1 x 149.5 mm
 - Handset: 208.8 x 52.8 x 38.2 mm
- Operational temperature (°C)
 - Control Unit and Handset: -15°C to +55°C
 - Antenna Unit: -40°C to +55°C
- IP Rating
 - Control Unit and Handset: IP32
 - Antenna Unit: IP67
- High-performance GNSS/GPS receiver
- Distress Alert & Safety Voice
- Maritime Safety Information (MSI)
- Ship Security Alert System (SSAS)
- Support for external alarm panels
- Support for GMDSS printer
- Support for Bridge Alert Management (BAM)
- Long Range Identification and Tracking (LRIT)

IN THE BOX

- LT-3110S Control Unit
- LT-3120 Handset
- LT-3121 Cradle
- LT-3130 Antenna Unit
- Bracket Mount, Control Unit
- Power Cable, 3m
- Stainless steel A4 screws for mounting
- User & Installation Manual
- Unit Test Sheets

LARS THRANE

LT-4100



DEPENDABLE VOICE & DATA OVER IRIDIUM CERTUS® 100

Designed for the rough environment at sea, the LT-4100 Satellite Communications System is the first Iridium Certus® 100 terminal. LT-4100 offers the professional market (racing, fishing, and workboats) voice and data capabilities with 100% global coverage provided by the Iridium® network. Also suitable for the leisure market, it operates between a broad temperature range and can easily be adapted as the primary communications product onboard vessels, ship to shore as well as ship to ship.

The single cable solution connects the control and antenna units, and the coaxial cable offers freedom to mount the antenna up to 500m apart. With a high-performance GNSS/GPS receiver and a large 4.3" TFT display, the LT-4100 is the perfect communications system at sea.

KEY FEATURES

- Coaxial Cable (up to 500 m)
- 2 x Voice Channels
- Large 4.3" TFT display
- Voice prompt audio feedback
- Web server for configuration and maintenance
- Support for external SIP PABX and SIP handsets (up to 8)
- POTS through Analogue Telephone Adaptors (ATA)
- Firewall and user authentication
- Prepared for Iridium Certus® GMDSS

CHARACTERISTICS

- Weight
 - Control Unit: 0.67 kg
 - Antenna Unit: 1.39 kg
 - Handset: 0.30 kg

- Dimensions
 - Control Unit: 224.0 x 120.0 x 70.0 mm
 - Antenna Unit: 182.0 x 162.0 mm
 - Handset: 208.8 x 52.8 x 38.2 mm
- Operational temperature (°C)
 - Control Unit and Handset: -15°C to +55°C
 - Antenna Unit: -40°C to +55°C
- IP Rating
 - Control Unit and Handset: IP32
 - Antenna Unit: IP67
- IP Data: 22 kbps (up) / 88 kbps (down)
- Interfaces
 - Control Unit: Ethernet, Auxiliary, DC Input, Chassis Ground, Antenna Unit (N conn.), Handset, Bluetooth, SIM Card
 - Antenna Unit: Control Unit (N conn.)

- Input Power
 - Control Unit: 12 – 24 VDC
- Power Consumption
 - Operating: 41 W
 - Standby: 21 W
 - Sleep: 0.1 W

IN THE BOX

- LT-4110 Control Unit
- LT-3120 Handset
- LT-3121 Cradle
- LT-4130 Antenna Unit
- Bracket Mount, Control Unit
- Power Cable, 3m
- User & Installation Manual

THURAYA ORION IP



A MARITIME-SPECIFIC BROADBAND FOR AN ENHANCED EXPERIENCE AT SEA

Enjoy an enhanced experience at sea with the Thuraya Orion IP, a broadband terminal that has been specially designed for harsh maritime environments. This high quality and affordable broadband comes with a fantastic integration of a satellite network and software packages while keeping in mind the communication needs of both business and crew.

With data connectivity rates up to 444 kbps, Thuraya Orion IP helps to maximise operational effectiveness while minimising operational expenditures. You can assign capacity where and when it is needed for a virtually congestion-free service even at the world's busiest ports and shipping lanes. Moreover, you can benefit from flexible and competitive rates as well as post-paid plans for unlimited, low usage or VSAT back-up options.

Whether you're a merchant maritime, fishing, government, or leisure user, Thuraya Orion IP provides coverage across approximately 60 percent of the world's maritime routes to keep you connected at all times.

CHARACTERISTICS

- Data rate(s): Up to 444 kbps (Standard IP); 16, 32, 64, 128, 256 or 384 kbps (Streaming IP)
- Dimensions of Above Decks Unit (ADU): 277 x 391 mm
- Weight of ADU: 3.2 kg
- Ethernet: Four PoE ports, supplying 15W each to four PoE compliant devices
- Autonomous beam handover: Yes
- Wi-Fi Access Point: Yes
- Input Voltage: 10-31 volts DC; 70W max (7A max)
- Coaxial cable loss: 10dB max

PRODUCT APPLICATIONS

- Email
- Video conferencing
- Database replication
- VOIP
- Electronic chart updates
- Weather forecasts
- Anti-virus updates
- Remote IT Support
- Vessel Tracking
- Condition-based monitoring
- Crew welfare

KEY FEATURES

- Reliable broadband connectivity at sea
- Standard IP at 444 kbps for fast and secure communications
- Flexible and competitive pricing plans
- Network can assign capacity where and when it is needed
- Robust, compact, and adaptable
- Easy to install for merchant maritime, fishing, government, and leisure users
- Capacity to bundle with VSAT operators
- Maximise operational functionality as per custom requirements

THURAYA SEASTAR



THE ONE-STOP VOICE AND DATA TERMINAL

Thuraya SeaStar is a circuit-switched voice terminal that meets the needs of the modern fishing market. Conforming to IEC Telecom 60945 requirements, Thuraya SeaStar offers voice, SMS, Data and tracking, on an easy and intuitive interface.

Users can make satellite voice calls to normal PSTN phones, mobile phones and other satellite phones through the Thuraya satellite network. Thuraya SeaStar can also have a standard analogue phone plugged into it as an extension.

Thuraya SeaStar is ideal for smaller and regional owner operator fishing vessels. It also satisfies the operational and crew welfare requirements of larger vessels. Thuraya SeaStar offers an effective solution for catch reporting, and an accessible emergency calls and notification capability. Thuraya SeaStar offers unrivaled functionality and unprecedented levels of value.

CHARACTERISTICS

- SMS: up to 160 characters
- GmPRS: 60 kbps /15 kbps(Download/ Upload)
- GPS Specifications:
 - Number of tracking channels : 20
 - GPS Position Accuracy : <10m
- Antenna Unit (ADU)
 - Operating temperature: -25 to +55°C
 - Storage temperature: -40 to +80°C
- Base Terminal (BDU):
 - Operating temperature : -15 to +55°C
 - Storage temperature: -20 to +70°C

- System:
 - Power Supply: 10.8 to 31.2V
 - Standby/Working average power consumption: 10W/16W
 - Operating Humidity: up to 95% at 40°C
- Dimensions:
 - Base terminal: 210 x 205 x 85 mm
 - Activate antenna: 164 x 170 mm
 - SAT and GPS cable: 25m
- Weight:
 - Base terminal: 1.2 kg
 - Activate antenna: 1.1 kg
 - Antenna Mounting Kit: 0.5 kg

- SAT Feeder line: 0.67 kg
- GPS Feeder line: 0.67 kg

EXTERNAL INTERFACES

- Mini USB port
- Alert button
- External speaker connection
- RJ 45 Lan port

INCLUDED IN THE PACK

- Antenna
- Terminal
- Cables: 25 m
- Mounting Kit



THALES VESSELINK 700™

A TRULY ADAPTABLE GLOBAL COMMUNICATIONS SOLUTION FOR CRITICAL MARINE OPERATIONS

Thales VesseLINK 700™ operates using Iridium Certus® broadband services. This gives you critical global communications coverage for marine operations. Thales VesseLINK 700™ provides highly reliable mobile and essential voice, text and web communications whenever and wherever you are at-sea. Whether you operate a large fleet or a single vessel, this commercialized, military-grade solution is designed to meet your unique challenges through a simple, adaptable, and robust design.

Thales VesseLINK 700™ comes with an intuitive, user-friendly interface and can be quickly integrated into existing vessels or new fleets. It also includes built-in upgradeability to extend the life of your investment and ensure peak speed and performance.

TERMINAL SPECIFICATIONS

- Size: 30.5 x 22.9 x 7.6 cm
- Weight: 3.4 kg
- Power: 12 VDC input, 11 A max (7 A avg.), includes powering of external VesseLINK High-Gain Antennae
- Standard Data Rate: Up to 700 kbps (down), up to 352 kbps (up)
- Streaming IP: Up to 256 kbps
- Connectors front:
 - RJ-45 LAN (3) Class 2 PoE
 - RJ-45 WAN (1) for cellular connection
 - RJ-14 POTS
- Connectors Rear:
 - DC power input (10-32V) MIL-STD-

1275D, + 12V regulated

- GPIO (RS-232, + 12V out, DISTRESS, Radio Gateway, GPIO)
- TNC Connector, RF connection to Antennae
- WiFi reverse SMA
- SIM slot
- Mechanical Vibration and Shock: MIL-STD-81 DG, Test Method 514.6, Proc. I, Category 20, Annex D MIL-STD-81 DG, Test Method 516.6, Proc. IV
- 3 high quality voice lines
- Location tracking
- 4G LTE ready, softphone application for iOS and Android
- Multiple users capability

ANTENNA SPECIFICATIONS

- High-gain, electronic phased array antenna to enable the fastest upload and download speeds that cover any vessel communication needs from safety services to operational reporting and logging
- Dimensions: 35.6 cm dia. x 22.9 cm h
- Weight: 3.2 kg
- Power: Directly powered by the terminal at 24 VDC
- Operating temperature: -30 ° to +55 ° C
- Mechanical Vibration and Shock: IEC 60945, Section 8.7.1 and 8.7.2 MIL-STD-81 DG, Test Method 516.6, Proc. IV
- Salt-Fog/ Corrosion Standard: IEC 60945, Section 8.8



THALES VESSELINK 200™

DEPENDABLE SATCOM SERVICE TO POWER CORE VOICE & DATA REQUIREMENTS OF YOUR VESSEL

Thales VesseLINK 200™ provides dependable satcom service at 176 Kbps to power core voice and data requirements across ships or fleets of any size.

Thales VesseLINK 200™ is powered by Iridium Certus®, the only satcom broadband network with pole-to-pole coverage. In the capacity of Iridium® partner, IEC Telecom delivers high-end satcom services to its customers all over the globe since 2013. In addition, we offer a range of value-added services to ensure the best user experience and enable higher operational efficiency for your fleet.

TERMINAL SPECIFICATIONS

- Weight: 3.4 kg
- Dimensions: 5.8 x 30.5 x 22.9 cm
- Power Options
 - 10 – 32 V DC
 - AC/DC Supply with 12 V DC
- IP Rating: IP31
- Front Connectors
 - RJ-45 LAN (3) Class 2 PoE
 - RJ-45 WAN (1)
 - RJ-14 POTS
 - VSAT and IP
- Rear Connectors
 - DC Power Input (10 – 32 V) MIL-STD-1275D

• DC Power Input (+12 V Regulated)

- GPIO
 - RS-232
 - +12 V Out
 - Emergency
 - Radio Gateway
 - Discrete I/O
- TNC – RF Connection to Antenna
- WiFi – Reverse SMA
- SIM Card Slot
- Mechanical Vibration and Shock
 - MIL-STD-810G w/Change 1
 - Test Method 514.7
 - Category 4

ANTENNA SPECIFICATIONS

- Stable omni-directional antenna that enables the fastest upload and download speeds for safety, tracking, and location services.
- Weight: 0.7 kg
 - Dimensions: 12.5 x 17 cm
 - Power: 24 V DC (directly by the terminal)
 - IP Rating: IP67
 - Operational Temperature (Antenna): -40°C to +55°C
 - Mechanical Vibration and Shock
 - MIL-STD-810G w/Change 1
 - Test Method 514.7
 - Category 4



IRIDIUM GO!®

YOUR SMARTPHONE CONNECTED ANYTIME ANYWHERE!

Iridium GO!® creates the first ever reliable global connection for voice and data communications on your smartphone or up to 5 mobile devices.

No roaming charges. Just connect yourself, whenever you need, with the device you rely on everyday.

Iridium GO!® dramatically extends the capabilities of any smartphone, laptop or tablet by creating a satellite-backed WiFi hotspot anywhere on the planet.

Simply flip up the integrated antenna and the battery-powered unit connects quickly and automatically to the Iridium® LEO (Low Earth Orbit) satellite constellation.

FEATURES

- Connect through Iridium® Apps available for iPhone and Android smartphones
- Initiate voice call
- Send Twitter posts
- Set up WiFi data call
- Activate Emergency SOS
- Draft and view emails offline
- Configure email size to reduce connection time
- Queue-up emails to be sent up to 15x faster than web-based services
- Retrieve emails from external accounts
- Block pop ups, remove ads and background images

- Compress web pages for download speeds of 3 - 5 x faster than uncompressed pages

CHARACTERISTICS

- Dimensions: 11.43 x 8.3 x 3.2 cm
- Durability Specifications:
 - Military-grade ruggedness (MILSTD810F)
 - Protection class: IP65
- Easy to Use:
 - Stable, lay-flat design
 - Flip up antenna
 - Built-in menu/status display
- Flexible:
 - WiFi device ready

- App API for developers
- Robust accessory platform

INCLUDED IN THE PACK

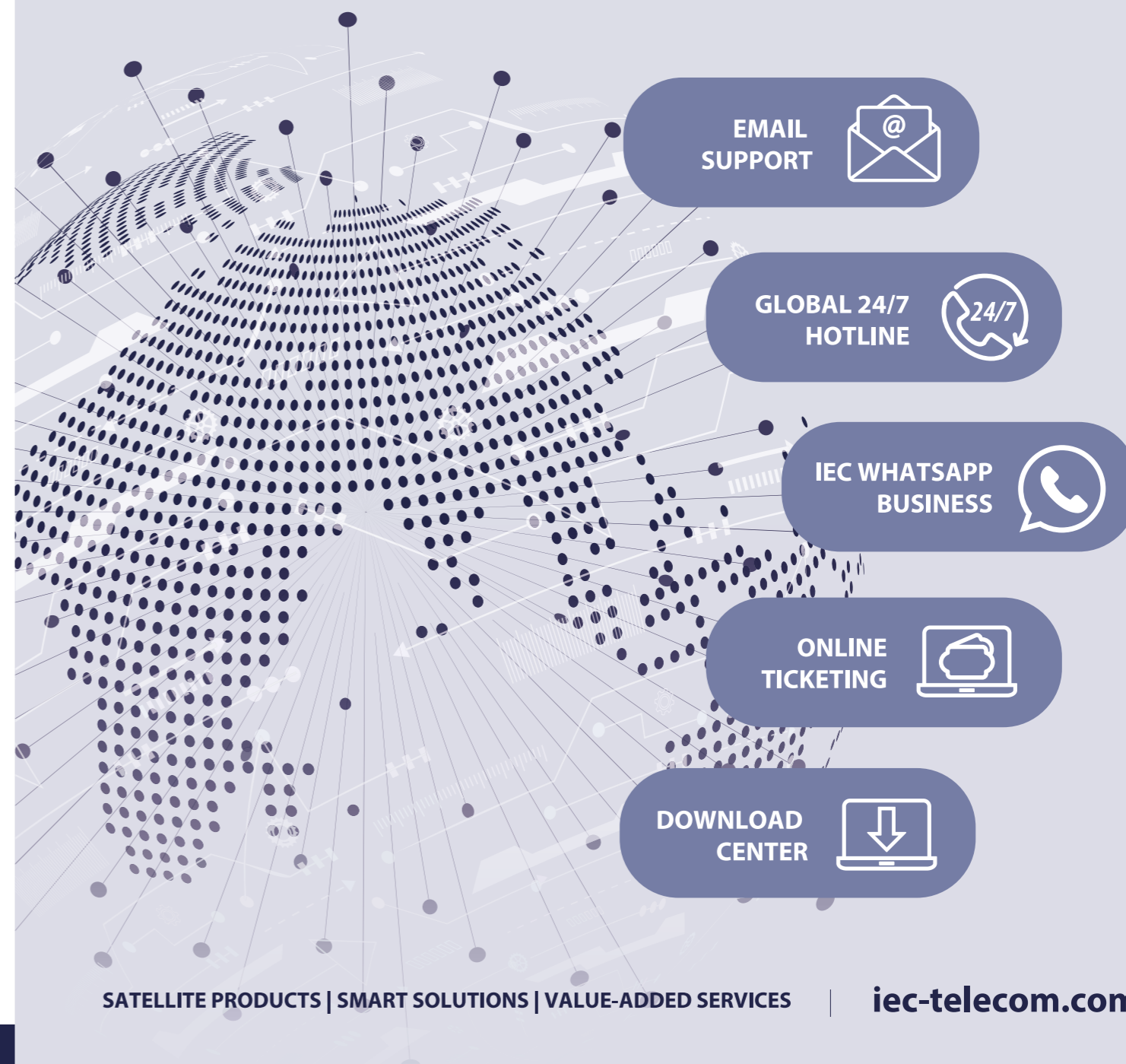
- Battery
- Universal AC Travel Charger
- USB Charging/Data Cable
- Four International Adapters
- DC Adapter (Car Charger)
- Protective Cover
- User Manual
- Legal Information Booklet
- GEOS Emergency Service Brochure



GLOBAL 24/7 TECHNICAL SUPPORT

FIVE DEDICATED CHANNELS OF SUPPORT

Our team is committed to maximizing the benefits of smart satcom solutions for customer operations and translating them into increased efficiency, enhanced security, and future-proof technology





IRIDIUM 9555



THE SMALLEST AND MOST POWERFUL IRIDIUM PHONE

Iridium 9555 provides reliable connectivity from anywhere and can handle any environment. Iridium 9555 is ruggedly built and presents a more hand-friendly form and aerodynamic features such as an internally stowed antenna.

It incorporates innovations such as integrated speakerphone, improved SMS and email messaging capabilities and an upgraded Mini-USB data port. It continues the evolution of satellite phones, making communication more efficient and effective for users.

Iridium 9555 features an intuitive user interface – making reliable communication more efficient than ever. It has been made so easy that users can start making calls right out of the box, skipping the traditional learning curve.

SPECIFICATIONS

- Dimensions: 143 x 55 x 30 mm
- Weight: 266 g
- Battery Stand by Time: Up to 30 hours
- Battery Talk Time: Up to 4 hours
- Data: Up to 13 kbps
- Voice: 2.4 kbps
- Integrated speakerphone
- Headset and hand-free capability
- 200 characters illuminated graphic display
- Volume, Signal and battery strength meters

- Illuminated weather-resistant keypad
- Integrated speakerphone
- Quick-connect to Iridium voicemail
- Two-way SMS and short email capability
- Pre-programmable International Access Code (00 or +)
- Mailbox for voice, numeric and text messages
- Selectable ring and alert tones (8 choices)

INTERFACES

- USB interface
- Mini USB data port

INCLUDED IN THE PACK

- Iridium 9555 handheld
- AC charger
- International plug kit
- DC travel charger
- USB data cable
- Auxiliary antenna adapter
- 5' External auxiliary antenna
- Hands-free headset
- Leather case
- Quick start guide, user guide on CD

IRIDIUM EXTREME®



MORE FEATURES THAN ANY OTHER HANDSET

Iridium Extreme® is engineered with more features than ever before and with more accessories than any other satellite phone on the market. Providing continuous connectivity all around the world, it provides users with many advanced features: customisable GPS and location-based services, online tracking, emergency SOS notification, etc.

The new phone looks more like a walkie-talkie. It's rated IP65 as it is dust and splash proof. The keys on the phone are all large and backlit, so the phone is easily operable anywhere, even with thick gloves on. Combined with a rubber grip on the outside edges, the phone is very accessible, no matter what situation you're in. If you won't have access to a charging port during your trip, you can either buy another Iridium Extreme® battery or simply get an external battery to double or triple the standby time. In the end, satellite phones should be used for calling and emergency services, for which the Iridium Extreme® is currently the best.

SPECIFICATIONS

- Dimensions: 140 x 60 x 27 mm
- Weight: 247 g
- Battery life Standby time: Up to 30 hours
- Battery life Talk Time: Up to 4 hours
- Display: 200 characters illuminated graphic display
- Volume, signal and battery strength meters
- Integrated speakerphone
- Quick-connect to Iridium voicemail
- Two-way SMS and short email capability
- Pre-programmable International Access code (00 or +)
- Mailbox for voice, numeric and text messages

- Military-grade ruggedness
- Ingress Protection: IP65
- Call history retains received, missed and dialed calls
- User-configurable call timers to manage costs
- Keypad lock and PIN lock for additional security

INCLUDED IN THE PACK

- Iridium Extreme® handheld
- Travel charger with international adapters
- Car Charger
- USB Data Cable
- Hand-free earpiece with microphone
- 2 accessory adapters (necessary to charge the handheld and connect the antennas and accessories via USB Cable)
- Magnetic vehicle mount antenna with cable
- Leather case
- User Manual, Quick Start guide, CDROM with software



INMARSAT ISATPHONE 2

STAY CONNECTED IN THE MOST EXTREME AND REMOTE LOCATIONS

The IsatPhone 2 is designed to operate even in the most extreme conditions.

And with a faster network registration (under 45 sec), an unrivalled battery life offering 8 hours talk time and 160 hours of standby time, users can always depend on the IsatPhone2. It provides excellent voice clarity, call stability and an easy-to-use interface with a large high visibility screen. Thanks to the GPS location services, position can be sent by text message in case of emergency.

IsatPhone 2 is a tough phone for a tough world. The robust handset has been engineered to cope with anything that nature can throw at it.

Together, IsatPhone 2's design and capabilities – including safety features – make it ideal for the most demanding of users.



THURAYA XT-LITE

RELIABLE. SIMPLE. AFFORDABLE.

THE WORLD'S BEST-VALUE SATELLITE PHONE

While the days of bulky satellite equipment are long behind us, Thuraya XT-Lite is an exceptional product in the increasingly mobile satellite communications market. It is not just easy-to-use, light-weight, and technologically advanced, it is also lighter on the wallet and the best-value choice for your organization's annual budget.

Designed for cost-conscious users, Thuraya XT-Lite offers uninterrupted secure connectivity even in the most remote areas of the world. With Thuraya's unparalleled satellite network, you can enjoy crystal clear communications and access reliable data connections at the most cost-effective and unbeatable value, exceeding any other product in the satellite communications market.

Thuraya XT-Lite comes with an advanced omni-directional antenna to provide seamless walk-and-talk functionality for calls-on-the-go. You can even receive call notifications when the antenna is stowed away, thus, truly being connected at all times. Moreover, the long-lasting battery ensures that you're not constantly looking to recharge your phone. Benefit from up to 80 hours of stand-by time, and 6 hours of talk time. The additional solar charger further enhances your communication experience while being environmentally responsible.

Equipped with value-added services by IEC Telecom, Thuraya XT-Lite is easy to use with features that help you utilise intuitive applications such as the address book, alarms, calculator, call logs, conference calls, stopwatch & more.

Using the satellite mode, you can send SMS and make phone calls even when there is no terrestrial network available – across 160 countries in Europe, Africa, Asia, and Australia. Stay connected wherever and whenever you need with Thuraya XT-Lite



ALL THE FEATURES YOU NEED

- Dependable connectivity
- High voice quality
- Voicemail, text and email messaging
- Extended battery capacity
- Assistance button – sends GPS location data and text to pre-set emergency number
- Tracking – sends location information
- Bluetooth for hands-free use
- Incoming call alerts with antenna stowed
- Ergonomic and ruggedised handset

CHARACTERISTICS

- Dimensions: 169 x 52 x 29 mm (without antenna) 169 x 75 x 29 mm (with antenna)
- Weight: 318 g, including battery
- Display: high contrast colour screen
- Battery life Talk Time: 8 hours
- Battery life Standby Time: 160 hours
- Voice: 2.4kbps voice codec
- SMS: 160 characters supported
- GPS Location Data: view position and send as text/email
- Ingress Protection: IP65 / IK04
- Bluetooth 2.0 supported

INTERFACES

- Bluetooth 2.0
- Micro USB
- Audio Socket
- Antenna Port

INCLUDED IN THE PACK

- IsatPhone 2 Handset
- Battery
- Chargers
- Main universal AC charger (4 adaptors)
- Car charger 10-30V
- Micro USB cable
- Wired hand free headset
- Quick start guide (8 languages)
- Support USB memory driver
- Holster

CHARACTERISTICS

- Dimensions: 128 x 53 x 27 mm
- Weight: 186 g
- Services: Satellite calls and SMS
- Network Frequency: L-Band
- Battery life: Up to 6 hours (talk time) and up to 80 hours (stand-by time)
- Network Features: Call barring, call diverting, conference calls, call waiting, closed user groups, and voice mail
- Value-added Features: Address book, Alarms, Calendar, Calculator, Stopwatch, World time, and more

EXTERNAL INTERFACES

- USB Data Cable (UDC) with USB connector
- Ear Jack (2.5 mm)
- DC Power

INCLUDED IN THE PACK

- Thuraya XT-Lite satellite phone
- Battery
- Universal travel charger
- USD data cable
- User guide

OPTIONAL ACCESSORIES

- Car charger
- Solar charger
- Indoor Repeaters
- Earphones
- Spare batteries
- Spare travel chargers (with EU/UK/ CHN/ AUS plugs)
- Spare data cables



THURAYA XT-PRO

ONE OF THE WORLD'S MOST ADVANCED SATELLITE PHONES

Designed for professional users, Thuraya XT-Pro is one of the most advanced satellite phones which is ruggedised and equipped with long battery life, ensuring connectivity no matter where you go.

Thuraya XT-Pro is the first satellite phone with built-in GPS, BeiDou and Glonass capability for highest flexibility in all regions. It has a large display and comes with hardened Gorilla glass for harsh environments.

Using Thuraya XT-Pro, you can make phone calls, send messages in satellite mode and also use a satellite data connection to send and receive emails or browse the web with a connected laptop or PC. For emergencies, it has a dedicated SOS button with advanced navigation and tracking features.

No matter where you are within Thuraya's extensive coverage area or how remote your location, Thuraya XT-Pro keeps you connected.

CHARACTERISTICS

- Dimensions: 128 x 53 x 27 mm
- Weight: 212 g
- Call and messaging services: Satellite calls, SMS, SMS to email, fax
- Data services:
 - GmPRS: Up to 60/15 kbps (down/up)
 - Circuit-switched 9.6 kbps
- Battery life - Talk time: Up to 9 hours
- Battery life - Stand-by Time: Up to 100 hours
- Global Navigation Satellite System (GNSS):
 - GPS
 - BeiDou
 - Glonass

- Display: 2.4" toughened Gorilla glass outdoor display
- Ingress Protection: Jet water resistant, dust resistant, shock proof (IP55/IK05)
- 13 languages supported

EXTERNAL INTERFACES

- Micro USB charger
- UDC jack for data transmission
- Earphone connector (3.5mm)
- Antenna connector for docking units

INCLUDED IN THE PACK

- Thuraya XT-PRO satellite phone
- Battery
- Universal travel charger

- Car charger
- USB data cable
- Support CD
- User guide

OPTIONAL ACCESSORIES

- Car charger
- Solar chargers
- Fixed Docking Units
- Indoor Repeaters
- Spare batteries
- Spare travel chargers (with EU/UK/CHN/AUS plugs)
- Spare USB data cables

THURAYA X5-TOUCH

THE FIRST ANDROID SATELLITE & GSM PHONE

Thuraya X5-Touch is the world's first Android™ based satellite & GSM phone offering unparalleled flexibility. It runs on the Android™ operating system and has a 5.2" full HD touchscreen for users, who frequently move in and out of terrestrial coverage.

Thuraya X5-Touch provides you with an uninterrupted network connection in any environment. It further bridges the gap between terrestrial and satellite communications through its full dual mode, and provides you the ability to have satellite and GSM smartphone modes "always on" simultaneously. It incorporates two nano SIM-card slots to easily switch between modes.

Its GmPRS is up to 60/15 kbps (download/upload). The first satellite phone, which runs on the Android™ platform from Google, has a dedicated SOS button, which is easy to use in times of distress. The phone provides WiFi, Bluetooth and NFC connections. Now, you can stay in touch with only one smartphone.

10 REASONS WHY

1. State-of-the-art network coverage: Terrestrial coverage across a range of market sectors, including remote areas.
2. Dual mode capability: 'Always on' SAT and GSM networks for a truly dual experience.
3. Advanced navigation capability: Ability to send current location details to pre-defined numbers based on pre-set time intervals, distance travelled, or movement between pre-set geofences.
4. Dedicated SOS button: Dedicated SOS button even when phone is switched off.
5. Fully rugged phone: Most rugged phone in the industry with IP67 standard and MIL 810 G/F compliance.
6. Powerful battery: Most powerful battery with a standby time of up to 100 hours.
7. Cutting-edge antenna: Omni-directional antenna that's designed to ensure enhanced mobility.
8. Fully customisable apps: Easily personalised phone experience with pre-loaded apps on the Google platform as well as access to apps from Google Play.

9. Inbuilt phone sensors: Sensors include gyroscope, accelerometer & geomagnetic, ALPS, and digital pressure.
10. Active noise cancelling: Multi-microphone active noise cancelling for crystal clear communications.

SPECIFICATIONS

- SIM cards
 - Satellite: 1 SAT SIM slot (nano-SIM)
 - GSM: 1 GSM SIM slot (nano-SIM)
- Data services
 - Satellite: GmPRS: Up to 60/15 kbps (download/upload) | Circuit switched: 9.6 kbps
 - LTE: Up to 300/150 mbps (download/upload)
- Dimensions (phone body) 145 x 78 x 24 mm
- Weight: 262 g
- Operating System Android Nougat (7.1.2)
- Processor Qualcomm Snapdragon 625, 2 GHz octa-core
- Battery 3800 mAh battery which

- provides up to 11 hours' talk time and up to 100 hours' standby time
- Global Navigation Satellite System (GNSS) GPS, BeiDou, Glonass
- Display 5.2" full HD LCD touchscreen (1920 x 1080) with Corning Gorilla® glass (capacitive display works also with gloves and in wet conditions)
- Ingress protection: Water resistant, dust resistant (IP67), Complies with MIL-Standard 810 G/F (shock, vibration, extreme temperature)
- Camera Rear camera:
 - 8MP with flash
 - Front camera: 2MP
- Memory
 - 16 GB eMMC memory
 - 2 GB RAM
 - Expandable memory up to 32 GB via microSD (optional)
- Other networks: Bluetooth 4.1, A2DP, LE; NFC; FM radio; WiFi 802.11 a/b/g/n/ac, WiFi direct, WiFi Hotspot

SATELLITE MODEMS



	THALES VESSELINK 700™	THALES VESSELINK 200™	THURAYA ORION IP
NETWORK/COVERAGE	Iridium®	Iridium®	THURAYA*
MANUFACTURER	Iridium®	Iridium®	Hughes
DIAMETER ANTENNA	356 x 229 mm	125 x 170 mm	277 x 391 mm
SIZE BDU	305 x 229 x 76 mm	305 x 229 x 58 mm	281 x 233 x 46 mm
WEIGHT ANTENNA	3.2 kg	0.7 kg	3.2 kg
WEIGHT BD	3.4 kg	3.4 kg	2.2 kg
STANDARD IP - INTERNET SPEED	352 kbps / 700 kbps Up & Down	176 kbps Up & Down	444 kbps Up & Down
STREAMING IP	Up to 256 kbps	✗	16,32,64,128, 256 or 384 kbps
WI-FI	✓	✓	✓
VOICE	✓	✓	✗
SMS	✗	✗	✗
FAX	✗	✗	✗
DATA INTERFACE	4 Ethernet ports	3 Ethernet ports	4 Ethernet ports
ISDN	✗	✗	✗
INGRESS PROTECTION	IP66 (Antenna) IP31 (BDU)	IP67 (Antenna) IP31 (BDU)	IP56 (Antenna) IP31 (BDU)

	SAILOR 500	SAILOR 250	FLEET ONE	THURAYA SEASTAR
NETWORK/COVERAGE	inmarsat	inmarsat	inmarsat	THURAYA*
MANUFACTURER	Cobham Satcom	Cobham Satcom	Cobham Satcom	Thuraya
DIAMETER ANTENNA	797.5 x 687 mm	330 x 276 mm	275.6 x 292 mm	164 x 170 mm
SIZE BDU	366.5 x 264.5 x 42.5 mm	366.5 x 264.5 x 42.5 mm	278 x 264 x 41 mm	210 x 205 x 85 mm
WEIGHT ANTENNA	23 kg	3.9 kg	3.9 kg	1.1 kg
WEIGHT BD	2.5 kg	2.5 kg	2 kg	1.2 kg
STANDARD IP - INTERNET SPEED	432 kbps Up & Down	284 kbps Up & Down	100 kbps Up & Down	60 Kbps/ 15Kbps Up & Down
STREAMING IP	8,16,32,64,128, or 256 kbps	8,16,32,64 or 128 kbps	✗	✗
WI-FI	✗	✗	✗	✗
VOICE	✓ 9 lines simultaneously	✓ 6 lines simultaneously	✓	✓
SMS	✓	✓	✓	✓
FAX	✓	✓	✗	✗
DATA INTERFACE	4 Ethernet ports	4 Ethernet ports	1 Ethernet port	1 Ethernet port
ISDN	✗	✓	✗	✗
INGRESS PROTECTION	IPX6 (Antenna) IP31 (BDU)	IPX6 (Antenna) IP31 (BDU)	IP56 (Antenna) IP44 (BDU)	IP66 (Antenna) IP32 (BDU)

SATELLITE HOTSPOTS

SATELLITE HANDSETS



	IRIDIUM GO!®	THURAYA SATSLEEVE HOTSPOT
NETWORK/COVERAGE	iridium	THURAYA
SIZE	114 x 83 x 32 mm	142 x 69 x 38 mm
WEIGHT	305 g	290 g
ANTENNA	Integrated	Integrated
BATTERY DURATION	5.5 hours in talk time - 15 hours in stand by	3 hours in talk time - 70 hours in stand by
INGRESS PROTECTION RATE	IP65	Not rated
MOBILITY	**	***
TRACKING/LOCATION-BASED SERVICES	✓	✗
SOS BUTTON	✓	✓
SMS	✓	✓
DATA SPEED	Up to 9.6 kbps	Download up to 60 kbps Upload up to 15 kbps (GmPRS)
VOICE CAPABILITIES	Yes from Iridium GO!® iOS or Android app	Yes from Thuraya SatSleeve iOS or Android app (via bluetooth)
WIFI CAPABILITIES	Yes - Up to 30 m radius area	Yes - Up to 30 m radius area
MULTI-USER ENVIRONMENT	Data: Up to 5 simultaneous connections Voice: 1 user	Only 1 user
CONTRACT TYPE	Prepaid & Postpaid	Prepaid & Postpaid



	IRIDIUM Extreme®	IRIDIUM 9555	INMARSAT ISAPHONE 2	THURAYA X5-Touch	THURAYA XT-PRO	THURAYA XT-LITE
NETWORK/COVERAGE	iridium	iridium	inmarsat	THURAYA	THURAYA	THURAYA
SIZE	140 x 60 x 27 mm	143 x 55 x 30 mm	169 x 75 x 29 mm	145 x 78 x 24 mm	128 x 53 x 27 mm	128 x 53 x 26.5 mm
WEIGHT	247 g	266 g	316 g	262 g	212 g	186 g
BATTERY LIFE - TALK TIME	Up to 4 hours	Up to 3 hours	Up to 8 hours	Up to 11 hours	Up to 9 hours	Up to 6 hours
BATTERY LIFE - STAND BY	Up to 30 hours	Up to 30 hours	Up to 160 hours	Up to 100 hours		Up to 80 hours
DISPLAY	Glare resistant LCD display	Glare resistant LCD display	Glare resistant LCD display	Gorilla glass LCD display	Glare resistant Color display	Standard Color display
ANTENNA DESIGN	Retractable Omni-directional antenna	Retractable Omni-directional antenna	Fold-out directional antenna	Omni-directional antenna	Retractable Omni-directional antenna	Retractable Omni-directional antenna
INGRESS PROTECTION	IP65	IP55	IP65	IP67	IP55	IP54
INCOMING CALLS	Incoming call alert if antenna stowed or deployed					
SMS	✓	✓	✓	✓	✓	✓
DATA	Up to 9.6 kbps	Up to 9.6 kbps	2.4 kbps	GmPRS: Up to 60 kbps/15 kbps Data: 9.6 kbps		✗
LOCATION-BASED SERVICES	Share location via SMS, SBD Programmable SOS button	✗	Tracking button Programmable tracking assistance button Share location via SMS	GPS systems: GPS, BeiDou, or Glonass Thuraya SOS Button		Send GPS position function
BLUETOOTH	✗	✗	✓	✓	✗	✗
LANGUAGES SUPPORTED	21	21	8	16	13	13
DOCKING UNITS AVAILABLE	Fixed Vehicular Maritime		Fixed Vehicular Maritime	✗	Fixed	No
CONTRACT TYPE	Prepaid & Postpaid					
CHECK YOUR BALANCE	Send empty SMS to 2888	Send empty SMS to 2888	Dial *106#	Dial 150		

