

KVH<sup>®</sup>

# TracPhone<sup>®</sup> V7

What broadband at sea was meant to be.<sup>SM</sup>



KVH<sup>®</sup> INDUSTRIES  
**MINI-VSAT**  
BROADBAND<sup>™</sup>



## **KVH TracPhone V7 – A powerful solution for broadband connections that leaves all other satellite services in its wake!**

*Go out to sea but never be out of touch thanks to the revolutionary new TracPhone V7 with mini-VSAT Broadband service, the newest, most affordable option in marine communications and the ideal way for you, your passengers, and your crew to stay connected with the same high-quality broadband data connections you use onshore.*

### **Powerful technology from the industry leaders**

The result of a collaboration between two leaders in the satellite communications industry, the KVH TracPhone V7 with mini-VSAT Broadband service is a powerful and affordable new communications solution for mariners. The first fully integrated maritime VSAT system, it works seamlessly by combining cutting edge, spread spectrum technology from ViaSat and rugged, fully stabilized antenna technology from KVH Industries. Together, they make the small size and reasonable cost possible. The result? Broadband at sea the way it should be, and only available from KVH Industries!

Enjoy high-quality, consistent, always-on broadband data connections, multiple voice lines, and reasonable service costs thanks to mini-VSAT Broadband's modern spread spectrum satellite technology. This powerful new service is available via the rugged 24" (60 cm) KVH TracPhone V7 antenna. A fraction of the size of standard 1-meter VSAT systems, the TracPhone V7 and its fully integrated below-decks modem and control unit offer easy connections to shipboard networks, fully stabilized tracking, a remarkable reduction in the cost of hardware and installation, and all with no compromise in performance!

*In fact, when it comes to service, the TracPhone V7 and mini-VSAT Broadband outperform existing services in every way!*

Operating through dedicated hubs and using high-capacity Ku-band satellites, mini-VSAT Broadband takes marine Internet connections out of the realm of dial-up services and creates a "cable modem" experience at sea with reliable data rates as fast as 512 Kbps for ship-to-shore transmissions and as fast as 2 Mbps for shore-to-ship downloads. Plus, mini-VSAT Broadband's transmission technology offers great coverage, outstanding network traffic management, and consistent performance. The result? You get exactly what you expect with regard to service speeds, reliability, and unlimited access,\* all for much less than what you are used to paying.

\*Upload speeds may vary by region; contact your KVH distributor/dealer for more details. Subject to KVH's Fair Access Policy; see KVH Airtime Services End User Agreement for details at [www.kvh.com](http://www.kvh.com)

**ViaSat**

**KVHI**

**TracPhone V7 with mini-VSAT Broadband.**



# Out at sea, along the coast, in the harbor, and always in touch

Make expensive installations, unwieldy hardware, and inconsistent data rates a thing of the past. Choose KVH TracPhone V7 with mini-VSAT Broadband service and rely on broadband at sea the way it was meant to be!

## New groundbreaking spread spectrum satellite communications technology:

- Fastest data rates available
- Seamless regional roaming
- Ideal for heavy data use

*Enjoy always-on high-speed Internet, e-mail, multiple lines for voice service, and more!*

## 85% smaller by volume and 75% lighter than standard VSAT antennas:

- Easier and less expensive to install and maintain
- Built to military standards to survive the harsh marine environment
- Dynamic, gyro-stabilized tracking and military-grade modem for outstanding performance

*Rugged maritime communications you can count on....and afford!*

## Fully integrated system for a great user experience:

- Outstanding coverage including a majority of the leisure cruising areas with totally seamless roaming
- Flexible rate plans to meet your unique needs
- Easy, 1-call activation process
- Powerful onboard networking via an integrated Ethernet hub

*An end-to-end solution for hardware, service, and support with KVH as your single point of contact.*

**...what broadband at sea was meant to be!**



Courtesy of Couach Yachts



Courtesy of U.S. Navy

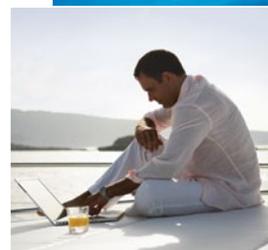
*" Everything has worked as advertised; it does exactly what the package said it would do. "*

*Capt. Daniel John Leonard,  
140' Amels yacht*



*" The speed of an Internet connection is very impressive. Also, the clarity of the voice connection is very good. "*

*Todd Tally,  
Atlantic Marine Electronics*



Courtesy of Princess Yachts Int'l plc, UK

*" I've been running boats for 22 years, and have used VSAT systems before, but this one is the best! "*

*Captain Bernhard Friedrich,  
130' Westport yacht*

Courtesy of Viking Yachts



# Introducing mini-VSAT Broadband – the evolution of broadband at sea

By choosing the new mini-VSAT Broadband service, you equip your vessel with high-quality VSAT service delivered by advanced “spread spectrum” technology previously only available to corporate jets and the military. The spread spectrum approach offers more affordable, “always-on” service and makes the use of our 24" (60 cm) TracPhone V7 a reality. More importantly, mini-VSAT Broadband ensures that you get the service and speed you expect, with data rates as fast as 512 Kbps for uploads and 2 Mbps for downloads.

Best of all, the service offers the flexibility to choose the data rates and cost structure that make the most sense for you, your needs, and your budget – select an always-on, fixed rate plan and enjoy the convenience of a steady monthly communications cost or choose an open-rate plan that offers tremendous flexibility as you only pay for what you use.

## mini-VSAT Broadband lets you enjoy a “cable modem” experience at sea

You need a powerful, reliable connection while at sea, whether to stay in touch with the office, manage your business, or allow guests and crew to stay in touch with loved ones at home. You can rely on TracPhone V7 and mini-VSAT Broadband to keep you connected via:

- E-mail
- Video conferencing
- Internet browsing
- Weather and chart updates
- Dedicated crew calling\*
- Multiple voice lines
- Instant messaging
- Access corporate networks (VPNs)
- Data transfers
- GSM cell phones\*

## Huge savings with the fastest data rates

The mini-VSAT Broadband service packages offer huge cost savings for heavy data users compared to the Inmarsat service, currently the most widely used high-speed data solution for commercial and leisure vessels. With faster data rates and per-mega-byte costs up to 90% lower than Inmarsat, the new TracPhone V7 and mini-VSAT Broadband service is the ideal solution when you know you need heavy-duty Internet access at sea.



\*Requires optional equipment. See your authorized KVH dealer for details.



Courtesy of Princess Yachts Int'l plc, UK



Courtesy of Couach Yachts

# And you thought a VSAT antenna had to be big? Not anymore!

Thanks to the TracPhone V7, say goodbye to the days when a crane was necessary to install a marine satellite communications system or the ship's superstructure had to be reinforced to hold the massive antenna! Utilizing mini-VSAT Broadband's spread spectrum broadcast technology, the TracPhone V7 is a far more user- and vessel-friendly antenna:

- More than 85% smaller by volume and 75% lighter than 1-meter VSAT antennas
- Fully stabilized tracking
- Rugged, commercial-grade design that is tested under vibration and high/low temperature extremes prior to shipment
- Automatic, stabilized, GPS-enabled skew control that adjusts dynamically to the boat's movement and changes in geographic region
- Does not require connection to the ship's gyro-compass
- Proven design, built by KVH Industries – manufacturer of more than 150,000 mobile satellite systems fielded worldwide

The TracPhone V7 is a powerful and robust system that provides rock-steady connections and withstands even the harshest conditions at sea, all while being a snap to install and use.



The end-to-end integration of the TracPhone V7 system includes

the below-decks control unit and groundbreaking modem. Sleek, rack-mountable, and rugged, they house a powerful set of processors that offer user-friendly operation and make the speed and reliability of mini-VSAT Broadband's spread spectrum communications a reality. Simply connect your ship's network to the TracPhone V7's integrated Ethernet router and every computer on board is seamlessly linked to the Internet and the rest of your digital world.



## Optimized voice service with crystal-clear connections

Need to talk to someone at the office or call home to hear a familiar voice? The TracPhone V7 offers a fully integrated voice service optimized for satellite communications and mobile use. Enjoy benefits like crystal-clear reception, up to two simultaneous voice lines, voice preemption (so data transmissions won't interrupt your telephone calls), ring forwarding, voice-mail forwarding to your computer, and far lower bandwidth requirements than conventional satellite-based solutions.



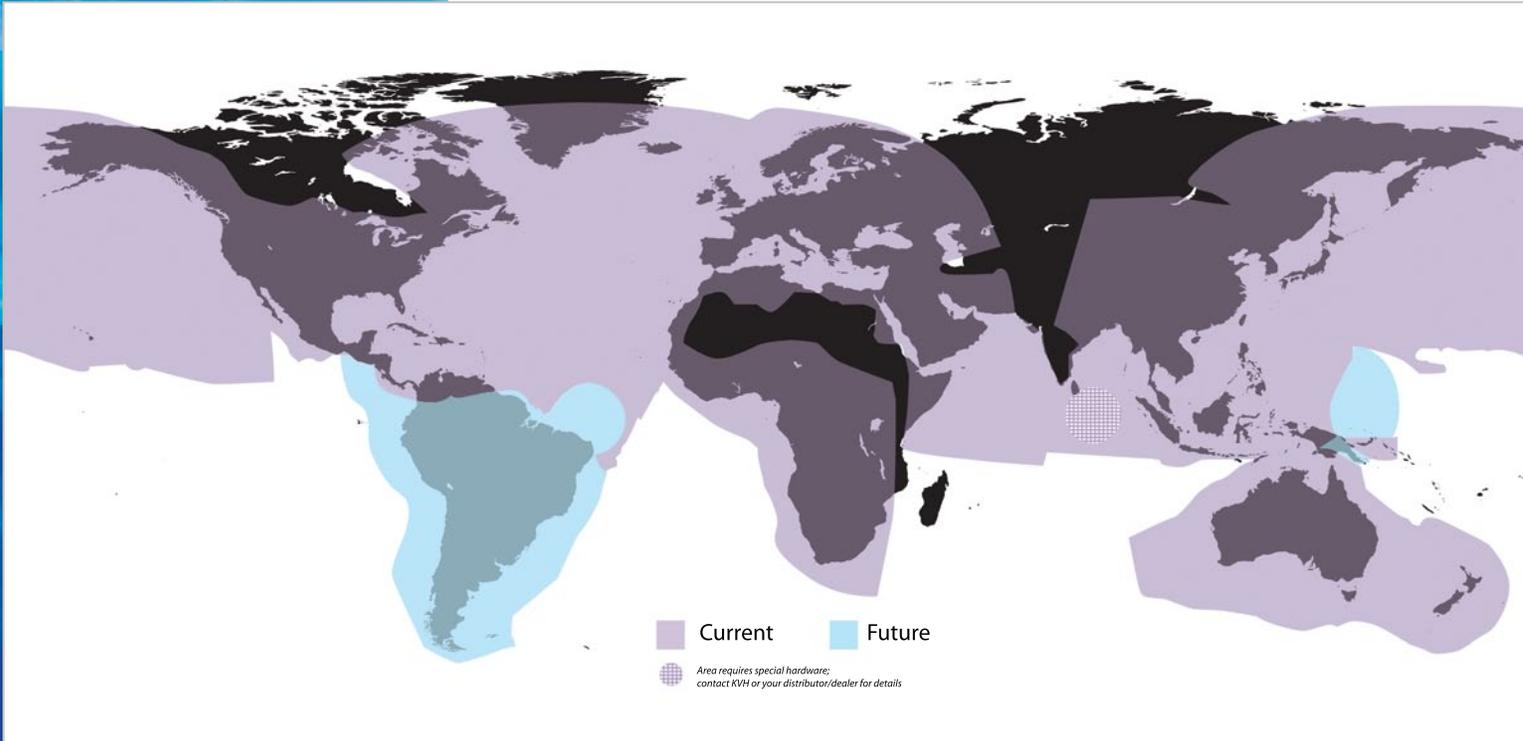
Courtesy of U.S. Navy

Courtesy of U.S. Navy



## mini-VSAT Broadband Coverage

Now, you can rely on the TracPhone V7 and mini-VSAT Broadband service to keep you online and in touch while you're underway. The TracPhone V7 offers a tremendous coverage area with high-speed, reliable Internet and voice connections throughout. Plus, only the TracPhone V7 with mini-VSAT Broadband service offers totally seamless roaming when moving from one satellite to another.



## Seamless Regional Roaming

To make it even easier and more affordable for you, the TracPhone V7 antenna and modem reconfigure themselves automatically and select the correct satellite when you travel from region to region thanks to the system's integrated GPS and automatic skew control. Plus, mini-VSAT Broadband's frequencies and transmission protocols are identical wherever you travel. You will never again have to suffer through costly and time-consuming visits by a technician simply because you've cruised to a new locale. How much easier can it be?



Courtesy of Drettman GmbH

# Choose the best solution for broadband at sea

	TracPhone V7	1-meter VSAT	Inmarsat	
			Fleet F77	FleetBroadband
Fully Integrated Hardware & Service Solution	✓		✓ *	✓ **
Small Antenna & Dome	✓			✓
Low-cost Hardware	✓		✓	✓
Broadband Data Rates	✓	✓		✓
Always-on, Fixed Rate Subscription Plan	✓	✓		
Per-Megabyte Subscription Plan	✓		✓	✓
Easy to Install	✓		✓	✓
Suitable for Boats as Small as 50 Feet	✓			✓
Seamless Roaming	✓		✓	✓
Automatic Switching Between Satellites	✓		✓	✓
Single Point of Contact for Sales, Activation & Support	✓		✓ *	✓ **

\*When using KVH TracPhone F77 and Inmarsat Airtime by KVH.

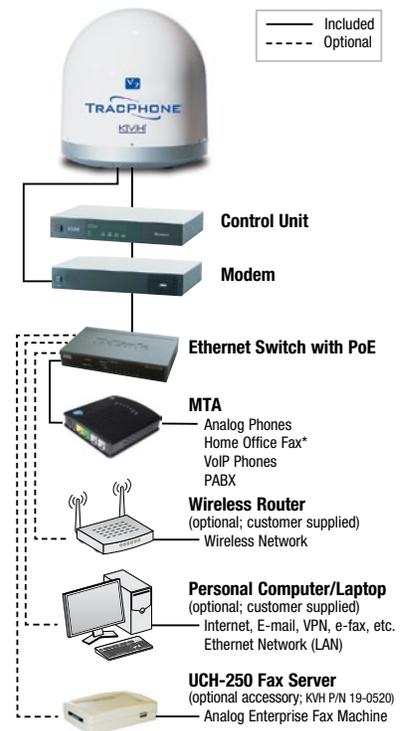
\*\*When using KVH TracPhone FB150, FB250, or FB500 and Inmarsat Airtime by KVH.

## Technical Specifications

TracPhone V7 Antenna Unit	
Meets Inmarsat operational, survival, and shock specifications.	
RX/TX Frequency Band	11.70 to 12.75 GHz/14.00 to 14.50 GHz
Antenna Element	Gain (RX-band, min): 35.6 dBi
BUC Output Power	4 Watt
Outside Dimensions	27.4" H x 26.2" D (69.5 cm H x 66.5 cm D)
Elevation Range	5° to 80°
Azimuth Range	720° rotation
Weight	60 lbs (27.2 kg)
Temperature	Operational: -15°F to 130°F (-25°C to 55°C); Survival: -30°F to 160°F (-35°C to 70°C)
Humidity	IEC 60945; 104°F (40°C), 95% Humidity
Rain	Precipitation rate of 100L/min, w/wind speeds up to 100 knots
CE Certification	Complies with the specifications of EC directive 1999/5/EC Radio & Telecommunications Terminal Equipment (R&TTE), per compliance with EC directive 2006/95/EC, EMC directive 2004/108/EC and IEC 301-427
TracPhone V7 Control Unit (CU) and Modem	
Dimensions (CU & Modem)	3U, 18.9" (48 cm) rack mountable with optional mounting provisions
Weight (CU & Modem)	8.2 kg
Temperature	Operational: 32°F to 130°F (0°C to 55°C); Survival: -30°F to 160°F (-35°C to 70°C)
Humidity	IEC 60945; Up to 95% (non-condensing)
Certification	Complies with the specifications of EC directive 1999/5/EC Radio & Telecommunications Terminal Equipment (R&TTE), per compliance with EC directive 2006/95/EC, EMC directive 2004/108/EC and IEC 301-427
Input Power	Modem: 90-240 VAC, 50-60 Hz auto switching, 3 A max Control Unit/Antenna: 90-240 VAC, 50-60 Hz, 2 A max
Data Outputs	Ethernet: IEEE 802.3 10BASE-T/100BASE-TX, 100 Mbit/s
IP Routing	TCP/IP Routing and Network Address Translation for the Maritime LAN segment; DHCP support
TracPhone V7 Ethernet Switch with PoE	
Dimensions	6.7" W x 1.2" H x 3.9" D (17 cm W x 2.8 cm H x 10 cm D)
Weight	0.86 lbs (0.39 kg)
Standards	IEEE: 802.3 Ethernet, 802.3u, 802.3x Flow Control, 802.3af (Power over Data Pairs)
Ports	8-Port Desktop Switch with 4 PoE Ports, up to 15.4 watts max per port, for ports 1-4 only
Warranty Information	KVH offers a comprehensive <b>2-year parts, 1-year onboard labor warranty</b> for the TracPhone V7, which is supported by KVH's worldwide Certified Support Network.***

\*\*\*Restrictions apply. Visit [www.kvh.com/warranty](http://www.kvh.com/warranty) for details. Meets FCC and CE requirements.

## System Diagram



\* Faxing over Internet Protocol can be unreliable at times, therefore KVH highly recommends that those customers who demand an enterprise-grade fax solution should take advantage of our optional accessory – the UCH-250 Fax Server.

### System available in two configurations:

- Complete TracPhone V7 System with rack-mountable ACU and Modem, or
- Complete TracPhone V7 System with case-mount ACU and Modem

See your KVH Dealer for pricing and details.



## Unsurpassed Warranty and Technical Support

Wherever you travel, you will receive outstanding support and service through KVH's certified quality, product, and customer support programs. This includes KVH's 24/7 online web support system; a responsive international KVH support team; authorized dealers around the globe; the exclusive KVH Certified Support Network (CSN), and KVH's 2-year parts/1-year limited onboard labor warranty.

For added convenience, every TracPhone V7 also includes a Remote Service and Support Module. With the owner's permission, this module enables a KVH technical support specialist to access the TracPhone V7's diagnostics tools from a remote location. KVH's fully staffed technical support call center uses these connections to provide faster, easier troubleshooting, systems support, and updates if necessary.

## KVH – leader in mobile solutions

KVH is the world's leading provider of mobile satellite communications and television antenna systems and has been serving the marine industry since 1982. With in-motion tracking systems and rugged designs ideal for virtually any vessel type and size, KVH's fully stabilized antennas offer unmatched performance during all sea and weather conditions.

Plus, KVH's commitment to quality and reliability is unmatched – KVH antenna systems undergo the most stringent quality checks in the industry, including accelerated life cycle testing, military specification environmental tests, shock and vibration testing to Inmarsat specifications, and in-depth functional evaluations prior to delivery.

The results speak for themselves. With more than 150,000 mobile satellite antennas fielded worldwide, KVH has supplied more in-motion satellite telecommunications and TV systems for mobile applications than any other manufacturer. We are an eight-time recipient of the National Marine Electronics Association's Industry Award for Marine Communications and winner of Europe's DAME Award for Marine Electronics. Tens of thousands of commercial and leisure mariners, along with the U.S. Coast Guard and allied naval vessels around the globe rely on KVH's rugged satellite systems for their connections to shore, their offices, their families, and the world around them. When you choose KVH, you choose the best!

## An end-to-end solution for hardware, service, and support

The TracPhone V7 with mini-VSAT Broadband is the first fully integrated marine VSAT communications system, offering an end-to-end design with tightly coordinated hardware, airtime service, and support. With KVH as your single point of contact, you'll always know who to call for easy system and airtime service activation as well as comprehensive customer support with a global network of highly trained marine electronics specialists. From installation to activation to customer support, you can rest assured that your investment is backed by a qualified, easy-to-reach support team.



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