



KVH ONE®

SYSTEM SPECIFICATIONS

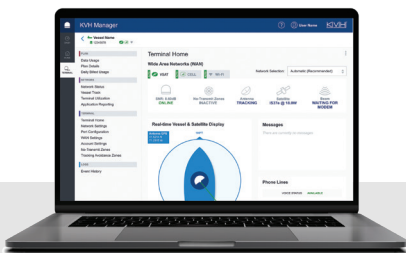


TracNet™ H30

Hybrid VSAT, Cellular, and Wi-Fi for Mission-critical Connectivity in an Ultra-compact Terminal

Ensure your special ops, border security, and patrol vessels and vehicles remain connected at all times and on the move with the ultra-compact TracNet H30 and KVH ONE hybrid network. The 37 cm commercial-grade TracNet H30 offers unmatched communications with integrated satellite, cellular, and Wi-Fi networks managed by intelligent, automatic switching. Offering DC and AC power options, single-cable installation, a commercial-grade rotary joint for continuous azimuth rotation, and digital IMUs and advanced motor controllers, the TracNet H30 is designed for rapid deployment, superior tracking in rough seas, at high speeds, and over rugged terrain. Low latency and data speeds as fast as 6 Mbps/2 Mbps (down/up) make it ideal for streaming video, biometric data, and encrypted messaging protocols such as CENTRIXS.

- ① High-speed VSAT service (as fast as 6/2 Mbps down/up) via KVH's global, layered Ku-band HTS network, offering 294 million sq. km (113+ million sq. miles) of coverage
- ② Ultra-high efficiency antenna using KVH's RingFire™ design and groundbreaking dielectric rod feed for excellent reception even in bad weather
- ③ High-performance tracking with 2-axis pedestal design, stabilized skew, dual digital IMUs, and advanced motor controllers
- ④ Terrestrial Communications Module supporting integrated high-power cellular antennas with service in 150+ countries plus built-in high-gain Wi-Fi antennas for seamless switching to shore-based Wi-Fi networks
- ⑤ Commercial-grade rotary joint and single cable design for easy installation and uninterrupted azimuth rotation and tracking



Belowdeck Units

KVH's streamlined belowdeck units are at the heart of every TracNet terminal. These tools create confidence through all-in-one system control and network management.



TracNet Hub 10-30V DC-powered with built-in Wi-Fi router, user-supplied SIM slot, ethernet ports and VoIP line. Shelf or bulkhead-mount.



TracNet Hub+ AC-powered with touchscreen interface, user-supplied SIM slot, built-in Wi-Fi router, ethernet ports and two VoIP lines. Rack-mount.



TracNet H30 Hybrid Connectivity System

System Specifications

Service	
Network	KVH Ku-band global HTS network; regional cellular services in 150+ countries; available shore-based Wi-Fi networks
Antenna Type	Ku-band
Service Coverage Area	Seamless worldwide regions
Maximum Speed Download/Upload¹	as fast as 6 Mbps/2 Mbps (down/up)
Above-decks Equipment	
Antenna Dish Diameter	36.8 cm (14.5")
Antenna Unit Dimensions/Weight	39.4 cm D x 44.7 cm H (15.5" D x 17.6" H)/ 11.1 kg (24.6 lbs)
Elevation/Azimuth Range	7.7° to 75°/Unlimited rotation
Temperature	Operating: -30°C to 55°C (-22°F to 131°F); Survival: -35°C to 70°C (-31°F to 158°F)
Humidity/Salt Fog	IEC 60945; 40°C (104°F), 95% Humidity (non-condensing)
Rain	Precipitation rate of 1.7mm/min, w/wind speeds up to 100 knots
Antenna Unit Power	DC, provided by the TracNet Hub or Hub+
Hub to Antenna Unit Connection	Single coaxial cable, see kvh.com/tracnetcables or contact KVH Technical Support for detailed specifications
Below-decks Equipment – TracNet Hub+²	
Dimensions	48.3 cm l x 30.7 cm w x 4.5 cm h (19" x 12.1" x 1.75"); will fit in 1U slot
Weight	3.7 kg (8.3 lbs)
Temperature	Operating: -25°C to 55°C (5°F to 131°F); Survival: -15°C to 70°C (5°F to 158°F)
Heading Input	NMEA 2000, NMEA 0183 magnetic or true heading
Input Power	100-240 VAC, 50-60 Hz auto switching, 250W max
Data Interfaces	4 Ethernet: IEEE 1000BASE-T 2 USB 3.0 Ports
Voice Interfaces	2 RJ11 ports supporting single line VoIP service
Below-decks Equipment – TracNet Hub	
Dimensions	23.6 cm x 20.5 cm x 4.4 cm (9.34" x 8.05" x 1.73")
Weight	1.4 kg (3 lbs)
Temperature	Operating: -15°C to 55°C (5°F to 131°F); Survival: -25°C to 70°C (5°F to 158°F)
Heading Input	NMEA 2000, NMEA 0183 magnetic or true heading
Input Power	10-30 VDC, 125W max
Data Interfaces	4 Ethernet: Gigabit 1000BASE-T IEEE 802.3; 2.4/5GHz IEEE 802.11ac/a/b/g/n 2x2 MIMO Wi-Fi; 1 USB 3.0 Ports
Voice Interfaces	1 RJ11 port for VoIP services

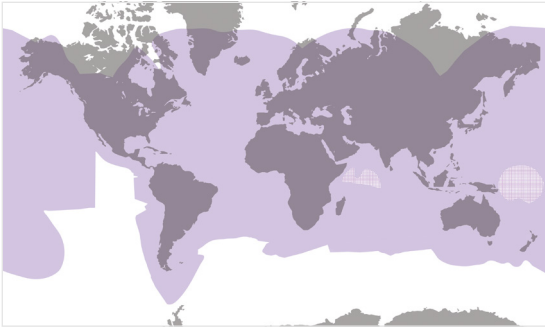
System Options		
KVH OneCare™ Support Program	Available; see kvh.com/onecare for details	
Iridium Certus® Optional Backup	Available; see “Optional Backup” on kvh.com/H30 for details	
Terrestrial Communications Module – Cellular Specifications		
Band Support		
Regions	Global, except China	
5G	Standards	3GPP Release 15 NSA/SA operation, Sub-6 GHz
	MIMO	DL: Up to 4 x 4 MIMO UL: Up to 2 x 2 MIMO
LTE (4G)	Standards	DL Cat 20; UL Cat 18 LTE-FDD, LTE-TDD & LTE-LAA
	MIMO	DL: Up to 4 x 4 MIMO
UMTS (3G)	WCDMA	
Data Rates (max) ²		
5G	5G NR SA Sub-6Ghz	DL 4.2 Gbps; UL 450 Mbps
	5G NR NSA Sub-6Ghz	DL 5.0 Gbps; UL 600 Mbps
LTE	LTE-A	DL 2.0 Gbps; UL 200 Mbps
UMTS	WCDMA	DL 42 Mbps; UL 5.76 Mbps
Terrestrial Communications Module – Wi-Fi Specifications		
Wi-Fi Standards	IEEE 802.11ac/a/b/g/n	
Band Support	2.4 Ghz / 5 Ghz	
Data Rate (max) ³	802.11b: 11Mbps	
	802.11a/g: 54Mbps	
	802.11n: 300Mbps	
	802.11ac: 867Mbps	
MIMO	Up to 2 x 2 MIMO	
Security	WPA2, WPA3	
Complete System		
Certification	Complies with the essential requirements of Radio Equipment Directive 2014/53/EU, which includes the safety objectives set out in EN62368-1 and in EMC directive EN60945 NMEA 2000 Certified RoHS & REACH	
System Warranty ³	Comprehensive 2-year parts, 2-year labor warranty supported by KVH's worldwide Certified Support Network (CSN) ; extended warranty up to 5 years available	
Part Number	01-0432-11	

Meets **CE** requirements. Exceeds Inmarsat operational, survival, and shock specifications.

¹ Published data speeds are maximum speeds and may vary in different regions and under different conditions.

² Data rates theoretical only and actual value depends on network conditions. Data rates limited by 1 Gbps Ethernet LAN interface.

³ Unless subject to in-country regulations. Restrictions apply. Visit [kvh.com/warranty](#) for details.



KVH Global, Layered Ku-band HTS Network Coverage

The map depicts KVH's expectations for the HTS network's coverage for the TracNet H30; actual coverage and availability may vary. Data rates may also vary in different regions. Go to [www.kvh.com/tracnetmaps](#) to view our global coverage maps for TracNet H30.

Ku-band Coverage

TracNet H30 has a 2-axis stabilized antenna pedestal design that does not provide coverage in areas where the satellite is directly overhead.