

# ViaSat-2 fixed broadband terminals

The ViaSat-2 fixed broadband terminal delivers higher speeds and wide-reaching Wi-Fi over previous Viasat terminals. The ViaSat-2 satellite system also expands the broadband services across North America, Central America, the Caribbean and a portion of northern South America. With millions of terminals shipped and an expanding market, Viasat has proven market leadership in Ka-band performance, cost, and capacity for broadband services.

## High-performance, cost-efficient internet access

ViaSat-2 is the world's highest capacity Ka-band satellite and delivers high-speed internet services using these terminals that include an attractive indoor unit (IDU) and an unobtrusive outdoor unit (ODU) to enable fast web browsing, video streaming, file sharing, and bandwidth-intensive internet applications.

The fixed broadband terminal for ViaSat-2 systems offers several models differing primarily in the option of built-in Wi-Fi and Voice over IP (VoIP). The new terminal builds on the success of the ViaSat-1 fixed terminals, offering higher data speeds. The higher end model has integrated 802.11 ac Wi-Fi in addition to legacy 802.11 b/g/n Wi-Fi, consumer and SME router capabilities, and built-in VoIP adapter (RJ-11 interface). These terminals are capable of delivering downstream rates of up to 100 Mbps and upstream rates of up to 20 Mbps. The network operator can define varying classes of service using provisioning tools to configure the terminal for specific downstream and upstream speeds.

This terminal includes an embedded acceleration client for a faster, more responsive user experience, and network integration via a standard Ethernet connection. The ODU includes a satellite reflector, feed, transmit and receive electronics, a mounting kit, and is available with either pole-mount or universal wall mount.

Incorporating advanced new technologies, the highly integrated terminals set a new standard for performance and reliability. High-volume production ensures flexible product delivery schedules and the lowest possible volume pricing.

## Easy Installation and Operation

Designed for quick and reliable professional installation, this terminal is part of a complete system that also includes an innovative Satellite Access Node (SAN) and Network Management Systems (NMS) that facilitate subscriber management with features such as automated service provisioning, diagnostics, and customer support.



OUTDOOR UNIT

## Terminal at-a-glance

- › Always-on high-speed connectivity
- › Sophisticated quality of service (QoS)
- › Built-in Wi-Fi
- › Built-in TCP and web acceleration
- › Built-in security against theft-of-service and theft-of-subscriber
- › Gigabit Ethernet CPE interface
- › Web GUI local management and TR-069 based remote management and control
- › Adaptive Coding and Modulation (ACM) on the forward link—optimized network capacity
- › Automatic power control and ACM on the return link—high availability during fades

## Applications

- › High-speed internet access
- › Video and Voice-over-IP
- › High-speed file transfer
- › Email
- › Web browsing
- › Streaming video
- › Internet of Things



INDOOR UNIT

# ViaSat-2 fixed broadband terminals

## Indoor unit (IDU) specifications

### USER SPEEDS

<b>Forward channel</b>	Configurable up to 100 Mbps accelerated TCP
<b>Return channel</b>	Configurable up to 20 Mbps accelerated TCP

### MANAGEMENT

Web GUI local management and TR-069 and SNMP-based remote management and control

### NETWORKING

<b>IP internetworking</b>	<ul style="list-style-type: none"><li>Transparent TCP and HTTP acceleration</li><li>Packet classification and filtering</li><li>Per-flow queuing</li></ul>
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### POWER SUPPLY

100 to 240 VAC; 50 to 60 Hz

### INDOOR ENVIRONMENT

<b>Operational</b>	0° to +40° C
<b>Storage</b>	-35° to +65° C
<b>Humidity</b>	0 to 95% (non-condensing)
<b>Altitude</b>	3000 m
<b>Shock and vibration</b>	Per ISTA, July 2000, procedure 3A

### REGULATORY

<b>Safety</b>	cULus, NOM
<b>EMC</b>	FCC 47 CFR Part 15 Class B, ICES-003 Class B
<b>RoHS</b>	Compliant to RoHS directive 2011/65/EU
<b>REACH</b>	Compliant to REACH directive
<b>Wi-Fi</b>	FCC 47 CFR Part 15.247/15.407, RSS-102/247/GEN

### INTERFACES

<b>Ethernet (Qty 2)</b>	IEEE 802.3, 10/100/1000 BASE-T, RJ-45 connector
<b>Wi-Fi</b>	802.11 ac/b/g/n 3x3 Dual Band Dual Concurrent MU-MIMO Wave 2
<b>VoIP</b>	RJ-11
<b>Expansion (Qty 2)</b>	USB 3.0, type A connector, for charging & factory use

## Outdoor unit (ODU) specifications

### POLARIZATION

<b>Standard</b>	Circular, cross-polarized, with remote switching
<b>Mounting</b>	Available pole mount or universal mount

### FORWARD CHANNEL

<b>Input frequency</b>	17.7 to 20.2 GHz
<b>Nominal G/T</b>	18.5 dB/K
<b>Symbol rate</b>	56 to 464 MSym/sec

### RETURN CHANNEL

<b>Output frequency</b>	27.5 to 30.0 GHz
<b>Symbol rate</b>	5, 10, 20, 40, 80, 160, 320 MSym/sec

### OUTDOOR ENVIRONMENT

<b>Power</b>	Supplied by IDU on IFL coax
<b>Operational</b>	-40° to +47° C
<b>Non-operational</b>	-50° to +85° C
<b>Humidity</b>	0 to 100% (condensing)
<b>Rain</b>	<100 mm/h
<b>Wind</b>	45 mph; 72 km/h

### REGULATORY

<b>Safety</b>	ULus, CE, CB scheme
<b>EMC</b>	FCC 47 CFR 15B, 25.138, 25.202, ETSI 301 459, CE
<b>RoHS</b>	Compliant to RoHS directive 2011/65/EU
<b>REACH</b>	Compliant to REACH directive

### PHYSICAL CHARACTERISTICS

<b>Reflector size</b>	77 × 72 cm
<b>Weight</b>	30 lb; 13.6 kg (with transceiver & universal mount)

### INTER-FACILITY LINK (IFL) CABLE

<b>Type</b>	RG-6, 75 Ohm SCC
<b>Connector</b>	F (male)
<b>Length (max.)</b>	50 m

## Ordering information

<b>Viasat Wi-Fi Gateway IDU</b>	RG1100N-0XX
<b>Viasat Gateway IDU (no Wi-Fi)</b>	RG4100N-0XX
<b>Standard Antenna</b>	1182925
<b>ODU</b>	Order# PAB2000-A001 Model RTM21ABVN-XXX

### Global headquarters

6155 El Camino Real, Carlsbad, CA 92009-1699, USA

### Sales

TEL 888 842 7281 (US Toll Free)  
EMAIL insidesales@viasat.com

