

Residential broadband terminals for ViaSat-2

Fast, proven internet access over satellite

The ViaSat-2 Residential Broadband Terminal delivers higher speeds and whole home Wi-Fi. 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 to consumers using the new Viasat Residential Terminals. These terminals include an attractive indoor unit (IDU) and an unobtrusive outdoor unit (ODU) that enable fast web browsing, video streaming, file sharing, and bandwidth-intensive internet applications.

The Residential 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 Residential 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). The new residential terminals are capable of delivering downstream rates of up to 100Mbps 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.

Viasat Residential Broadband Terminals include an embedded acceleration client for a faster, more responsive user experience, and the units integrate seamlessly into any home-based network 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

The compact residential terminal was designed for quick and reliable professional installation.

The terminals are 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.



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



Viasat residential broadband terminals

Indoor unit (IDU) specifications

USER SPEEDS

Forward channel	Configurable up to 100 Mbps accelerated TCP
Return channel	Configurable up to 20 Mbps accelerated TCP

MANAGEMENT

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

NETWORKING

IP internetworking	<ul style="list-style-type: none">Transparent TCP and HTTP accelerationPacket classification and filteringPer-flow queuing
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POWER SUPPLY

100 to 240 VAC; 50 to 60 Hz

INDOOR ENVIRONMENT

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

REGULATORY

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

INTERFACES

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

Outdoor unit (ODU) specifications

POLARIZATION

Standard	Circular, cross-polarized, with remote switching
Mounting	Available pole mount or universal mount

FORWARD CHANNEL

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

RETURN CHANNEL

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

OUTDOOR ENVIRONMENT

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

REGULATORY

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

PHYSICAL CHARACTERISTICS

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

INTER-FACILITY LINK (IFL) CABLE

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

Ordering information

Viasat WiFi Home Gateway IDU	RG1100N-0XX
Viasat Home Gateway IDU (no WiFi)	RG4100N-0XX
Standard Antenna	1182925
pTRIA	Order# PAB2000-A001 Model RTM21ABVN-XXX

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