



The ViaSat broadband system delivers a quantum leap in affordable internet access via satellite. These next-generation satellite terminals integrate with the world's highest capacity Ka-band satellites. With more than 2 million terminals shipped, ViaSat has proven market leadership in Ka-band performance, cost, and capacity for broadband services.

### HIGH-PERFORMANCE, COST-EFFICIENT INTERNET ACCESS

Only ViaSat Ka-band innovations enable the world's highest capacity Ka-band satellites to deliver the best broadband internet speeds around the world. The ViaSat Residential 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.

Two terminal models are available. The Residential Broadband Terminal 1240 builds on the success of the ViaSat SurfBeam 2 Residential Terminal, offering higher speeds, four Gigabit Ethernet ports, integrated 802.11b/g/n Wi-Fi, consumer and SME router capabilities, and built-in VoIP adapter (RJ-11 interface). It is capable of delivering downstream rates up to 60 Mbps and upstream rates up to 20 Mbps, and the network operator can define varying classes of service using provisioning tools to configure the terminal for lower 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 and 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 Modem Termination System (SMTS) gateway 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 rate adaptation 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

### RESIDENTIAL BROADBAND INDOOR UNITS



## INDOOR UNIT (IDU) SPECIFICATIONS

### FORWARD CHANNEL

#### Modulation/Coding

- » **32-APSK Rate** 3/4, 4/5, 5/6, 8/9, 9/10 (1240 only)
- » **16-APSK Rate** 2/3, 3/4, 4/5, 5/6, 8/9
- » **8PSK Rate** 3/5, 2/3, 3/4, 5/6
- » **QPSK Rate** 1/3, 2/5, 1/2, 3/5, 2/3, 3/4, 4/5, 5/6
- » Adaptive Coding and Modulation

**Symbol Rate** 10 to 52 MSym/sec

### RETURN CHANNEL

#### Modulation/Coding

- » **8PSK Rate** 7/12, 2/3, 3/4
- » **QPSK Rate** 3/8, 1/2, 5/8, 3/4
- » **BPSK Rate** 1/2
- » Automatic power control and rate adaptation

**Symbol Rate** 625, 1250, 2500, 5000 and 10000 kSym/sec

### USER SPEEDS

#### Residential Broadband Terminal 1240

- » **Forward Channel** Configurable up to 60 Mbps accelerated TCP
- » **Return Channel** Configurable up to 20 Mbps accelerated TCP

#### SurfBeam 2

- » **Forward Channel** Operator configurable up to 40 Mbps
- » **Return Channel** Operator configurable up to 10 Mbps

### MANAGEMENT

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

### NETWORKING

#### IP Internetworking

- » Transparent TCP and HTTP acceleration
- » Packet classification and filtering
- » Per-flow queuing

### 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, CE, CB scheme
<b>EMC</b>	FCC 47 CFR 15B class B, ICES-003, AS/NZS CISPR 22, CE
<b>RoHS</b>	Compliant to RoHS directive 2011/65/EU
<b>REACH</b>	Compliant to REACH directive

### INTERFACES

#### Residential Broadband Terminal 1240

- » **CPE (x4)** IEEE 802.3, 10/100/1000 BASE-T, RJ-45 connector
- » **Wi-Fi** 802.11b/g/n
- » **VoIP** RJ-11
- » **Expansion** USB 3.0

#### SurfBeam 2

- » **CPE (x1)** IEEE 802.3, 10/100/1000 BASE-T, RJ-45 connector
- » **Expansion** USB 2.0, type A connector

## OUTDOOR UNIT (ODU) SPECIFICATIONS

<b>Input Frequency</b>	18.3 to 20.2 GHz
<b>Output Frequency</b>	28.1 to 30.0 GHz
<b>Nominal EIRP</b>	48.4 dBW
<b>Nominal G/T</b>	18.5 dB/K
<b>Polarization</b>	
» <b>Standard</b>	Circular, cross-polarized, with remote switching
» <b>Optional</b>	Circular, fixed co-polarized, Arabsat 5C frequency plan
<b>Mounting</b>	Available pole mount or universal mount

### OUTDOOR ENVIRONMENT

<b>Power</b>	Supplied by IDU on IFL coax
<b>Ambient Temperature</b>	-40° to +55° C (up to +80° C survival)
<b>Humidity</b>	0 to 100% (condensing)
<b>Rain</b>	<100 mm/h
<b>Wind</b>	45 mph

### REGULATORY

<b>Safety</b>	cULus, 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 2002/95/EC
<b>REACH</b>	Compliant to REACH directive

### PHYSICAL CHARACTERISTICS

<b>Reflector Size</b>	77 x 72 cm
<b>Weight</b>	30 lb; 13.6 kg (with transceiver and universal wall mount)

### INTER-FACILITY LINK (IFL) CABLE

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

### ORDERING INFORMATION

<b>ViaSat RBT 1240 IDU</b>	RM5110N
<b>SurfBeam 2 IDU</b>	RM4100N
<b>Standard Antenna</b>	1182925
<b>European Antenna</b>	1201831 or 1201832
<b>TRIA</b>	X01012000A001S or X01012000A003S



## CONTACT

### SALES

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