Residential Broadband Terminals
Fast, Proven Internet Access Over Satellite

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.
Residential Broadband Terminals

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
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, CE, CB scheme
RoHS Compliant to RoHS directive 2011/65/EC
REACH 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

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

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

REGULATORY
Safety cULus, CE, CB scheme
RoHS Compliant to RoHS directive 2011/65/EC
REACH Compliant to REACH directive

PHYSICAL CHARACTERISTICS
Reflector Size 77 x 72 cm
Weight 30 lb; 13.6 kg (with transceiver and universal wall mount)

INTER-FACILITY LINK (IFL) CABLE
Type RG-6, 75 Ohm
Connector F (male)
Length (Maximum) 50 m

ORDERING INFORMATION
Viasat RBT 1240 IDU RM5111N
SurfBeam 2 IDU RM4100N
Standard Antenna 1182925
European Antenna 1201831 or 1201832
TRIA X01012000A001S or X01012000A003S

CONTACT
SALES TEL 888 842 7281 (US Toll Free) EMAIL insidesales@viasat.com WEB www.viasat.com/products/terminals

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