ViaSat-1 fixed broadband terminals

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. ViaSat-1 fixed broadband 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.

This terminal builds on the success of the Viasat SurfBeam 2 Terminal, offering higher speeds, four Gigabit Ethernet ports, integrated 802.11b/g/n Wi-Fi, 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.

The terminal includes an embedded acceleration client for a faster, more responsive user experience, and the units integrate 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.

Easy installation and operation

This terminal was designed for quick and reliable professional installation, and is 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.
Indoor unit (IDU) specifications

**FORWARD CHANNEL**
- **Modulation**: 32-APSK, 16-APSK, 8PSK, QPSK
- **Symbol rate**: 10 to 52 MSym/SEC

**RETURN CHANNEL**
- **Modulation**: 8PSK, QPSK, BPSK
- **Symbol rate**: 625, 1250, 2500, 5000 and 10000 kSym/sec

**USER SPEEDS**
- Fixed 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

**INDOOR ENVIRONMENT**
- **Temperature**: 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
- **Power requirements**: 100 to 240 VAC, 50 to 60 Hz

**REGULATORY**
- **Safety**: cULus, CE, CB scheme
- **EMC**: FCC 47 CFR 15B class B, ICES-003, AS/NZS CISPR 22, CE
- **RoHS**: Compliant to RoHS directive 2011/65/EU
- **Altitude**: Compliant to REACH directive

**INTERFACES**
- Fixed Broadband Terminal 1240
  - **Ethernet (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, type A connector
- SurfBeam 2
  - **Ethernet (x1)**: IEEE 802.3, 10/100/1000 BASE-T, RJ-45 connector
  - **Expansion**: USB 2.0, type A connector

Outdoor unit (ODU) specifications

**POLARIZATION**
- **Standard**: Circular, cross-polarized, with remote switching
- **Optional**: Circular, fixed co-polarized, Arabsat 5C frequency plan

**FORWARD CHANNEL**
- **Input frequency**: 18.3 to 20.2 GHz
- **Nominal G/T**: 18.5 dB/K

**RETURN CHANNEL**
- **Output frequency**: 28.1 to 30.0 GHz
- **Nominal EIRP**: 48.4 dBWi

**PHYSICAL CHARACTERISTICS**
- **Reflector size**: 77 × 72 cm
- **Weight**: 30 lb; 13.6 kg (with transceiver and universal wall mount)
- **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 REACH directive

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

**ORDERING INFORMATION**
- Broadband Terminal 1240 IDU: RM5111N
- SurfBeam 2 IDU: RM4100N
- Standard Antenna: 1182925
- European Antenna: 1201831 or 1201832
- TRIA: X01012000A001S or X01012000A003S

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

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

Copyright © 2020 Viasat, Inc. All rights reserved. Viasat and the Viasat logo are registered trademarks of Viasat, Inc. All other product or company names mentioned are used for identification purposes only and may be trademarks of their respective owners. Specifications and product availability are subject to change without notice.

1249915-200930-VS1-003