**Viasat**

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. The enterprise terminal combines scalability, management, and enterprise networking into a single platform that delivers extraordinary throughput, efficiency, flexibility, and affordability.

## HIGH-PERFORMANCE, HIGH-THROUGHPUT, AND A WIDE RANGE OF ENTERPRISE APPLICATIONS

The high-performance Enterprise Broadband Terminals have bandwidth to spare and a rich set of enterprise networking features that deliver the performance required by the most demanding enterprise applications. Whether connecting a small remote office, mission-critical remote industrial rig, or large warehouse with multiple complex networks, the Enterprise terminal accomplishes the mission.

Performance starts with raw speed and the terminal delivers, with downstream rates to 60 Mbps and upstream rates up to 20 Mbps. Constant Bit Rate (CBR) and Committed Information Rate (CIR) can be configured on an individual terminal basis. Application-based traffic prioritization supports demanding services such as high-quality Voice-over-IP (VoIP) and high-speed video conferencing.

The terminals adapt seamlessly to Layer 2 or Layer 3 networks, including the ability to deliver end-to-end Ethernet services. Embedded acceleration works with the gateway servers for a more responsive user experience. File sharing and web-based application performance is comparable to terrestrial services. A gigabit Ethernet connection allows seamless integration into any enterprise network.

## EASY INSTALLATION, FLEXIBLE CONFIGURATION, AND PROVEN OPERATION

Installation is designed to be quick, simple, and reliable.

The complete system includes the terminal, an innovative Satellite Modem Termination System (SMTS) gateway, Network Management Systems (NMS), and a robust set of Virtual Network Operator (VNO) features. Features such as automated service provisioning, diagnostics, customer support, and hierarchical views enable the subscriber, partner, and reseller to have easy and flexible access with a high-quality level of network management.

## TERMINAL AT-A-GLANCE

### Features and Benefits

» High-speed 2-way performance up to 60 Mbps downstream and 20 Mbps upstream
» Can be configured to operate as a Layer 2 or Layer 3 network device for total enterprise networking flexibility
» Sophisticated Quality of Service (QoS), including CBR, CIR, and traffic prioritization
» Built-in TCP and web acceleration
» Remote monitoring and control tools support Virtual Network Operator (VNO) requirements
» Adaptive coding and modulation (ACM) on the forward link optimizes network capacity and availability
» Automatic power control and rate adaptation on the return link provides high availability during fades
» High-quality 1 RU metal chassis designed for the desktop with an optional rack mount kit
» Multiple Outdoor Unit (ODU) configuration options to meet strict performance and link availability requirements

### Applications

» High-speed internet access
» Private network access with full Ethernet capabilities
» High-quality Voice-over-IP (VoIP)
» High-speed video conferencing
» Multicast media and content delivery
» Remote office connectivity—extending the corporate network
» Remote communications for industry, government, and disaster recovery
» Business continuity

## INDOOR UNIT (IDU) SPECIFICATIONS

### FORWARD CHANNEL

**Modulation/Coding**
- » **32-APSK Rate**   3/4, 4/5, 5/6, 8/9, 9/10 (2240 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**   0.625, 1.25, 2.5, 5, 10, and 20 MSym/s

### USER SPEEDS

**Enterprise Broadband Terminal 2240**
- » **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 50 Mbps
- » **Return Channel**   Operator configurable up to 20 Mbps

### MANAGEMENT

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

### NETWORKING

**IP Internetworking**
- » Per flow queuing
- » Layer 2 mode
  - ‣ Transparent bi-directional TCP and HTTP acceleration
  - ‣ 802.1p packet classification and priority filtering
  - ‣ Private IP network addressing
  - ‣ Transparent support for 802.1q VLANs tagging
- » Layer 3 mode
  - ‣ Transparent TCP and HTTP acceleration
  - ‣ DSCP packet classification and filtering

### 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, procedure 3A, 2008 |

### 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 |
| **REACH** | Compliant to REACH directive |

### INTERFACES

**Enterprise Broadband Terminal 2240**
- » **CPE**   (x4) IEEE 802.3, 10/100/1000 BASE-T, RJ-45 connector
- » **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

### CHARACTERISTICS

| Antenna | 120 cm | | 180 cm | |
|---|---|---|---|---|
| **eTRIA** | 4W | 6W | 4W | 6W |
| **EIRP (Nominal @ 29.75 GHz)** | 53.4 dBW | 55.6 dBW | 57.2 dBW | 59.4 dBW |
| **G/T (Nominal @ 19.95 GHz)** | 23.0 dB/K | | 26.2 dB/K | |
| **Polarization** | Circular, cross-polarized, or co-polarized, with remote switching option | | | |
| **Weight** | 67.0 lb; 30.4 kg | | 268.0 lb; 121.6 kg | |
| **Mast Size** | 3.0 in O.D.; 76.2 mm | | 5.56 in O.D.; 141 mm | |

### OUTDOOR ENVIRONMENT

| | |
|---|---|
| **Power** | Supplied by IDU on IFL coax, 24 to 50 VDC |
| **Ambient Temperature** | -40° to +60° C (up to +85° C storage) |
| **Humidity** | 0 to 100% (condensing) |
| **Rain** | <100 mm/h |
| **Wind** | 50 mph |

### REGULATORY

| | |
|---|---|
| **Safety** | cULus, CE, CB scheme |
| **EMC** | FCC 47 CFR Part 15 Subpart B, 25.138, 25.202, ETSI 301 459, CE |
| **RoHS** | Compliant to RoHS directive 2002/95/EC |
| **REACH** | Compliant to REACH directive |

### INTER-FACILITY LINK (IFL) CABLE

| | |
|---|---|
| **Type** | RG-6, 75 Ohm |
| **Connector** | F (male) |
| **Length (Maximum)** | 60 m |

### ORDERING INFORMATION

| | |
|---|---|
| **Viasat EBT 2240 IDU** | EM5100N/EM5102N |
| **SurfBeam 2 IDU** | EM4100N |
| **120 cm Antenna** | 1182214 (1182215 & 1182216) |
| **180 cm Antenna** | 1182217 (1182218, 1182219, 1184572) |
| **4W TRIA** | X01012000A002S |
| **6W TRIA** | X01012006A002S |

## CONTACT

**SALES**
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