

# UBS 2424-4H

## UNIVERSAL BROADBAND SERVER

Advancing Technologies for Broadband Service Providers • The UTStarcom Universal Broadband Server (UBS) is an environmentally hardened, fully sealed, line-powered DSL access multiplexors (DSLAM) that provides up to 6Mbps DSL service. The UBS provides the critical features and carrier class reliability require service providers in order to offer ADSL and other ultra-broadband services to customers who are currently served from Digital Loop Carriers (DLCs) or are located further than 12,000 feet from a Central Office (CO).



- **24 PORTS STANDARDS COMPLIANT ADSL WITH INTEGRATED POTS SPLITTERS**
- **LINE-POWERED – REQUIRES NO AC POWER OR BATTERY BACKUP**
- **DEPLOYABLE ANYWHERE— UNDERGROUND, POLE MOUNTED, OR PEDESTAL**
- **T1-IMA OR T1-UNI BACKHAUL OVER STANDARDS-COMPLIANT HDSL2 OR HDSL4**
- **REPLACEABLE LIGHTNING PROTECTION**
- **REMOTELY PROVISIONED AND MANAGED THROUGH CLI, TELNET, SNMP, OR UBSVIEW**
- **ROADMAP SUPPORTS “TRIPLE PLAY” (VOICE, VIDEO AND DATA) STRATEGY**
- **HARDENED AND SEALED PER GR-487 AND GR-950**

### TECHNOLOGY ENABLERS

The UBS from UTStarcom is a self-contained, line-powered DSL access node (DSLAM) which enables service providers to overcome current technical and economic barriers to universal profitable broadband deployment. For the first time, service providers can now cost effectively reach subscribers beyond 80,000 feet with full 6Mbps ADSL services.

Because it is line-powered, the UBS does not possess the same inherent physical restrictions associated with other costlier remote DSLAMs and mini-RAMs. While remote DSLAMs and mini-RAMs require expensive local power and battery backup in the CO or Remote Terminal (RT) cabinet, the UBS receives power through the HDSL2 or HDSL4 backhaul connection, enabling it to be located anywhere in the network — even in the passive cross-connect cabinets at the Serving Area Interface (SAI).

Since the UBS is watertight and environmentally hardened, service providers can deploy it anywhere: in or on unconditioned cabinets or pedestals, mounted on poles, or buried underground. The product can even be submerged in water for flooded man hole or hand hole applications.

Each UBS contains 24 standards-compliant ADSL modems to provide high speed service to subscribers. Traffic from all 24 subscribers is aggregated within the UBS and backhauled to the service provider’s ATM network using either T1-UNI or T1-IMA technology over one or more HDSL2 or HDSL4 uplink circuits.

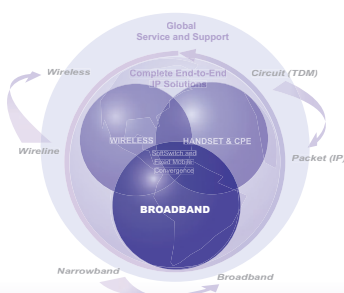
The fully standards-compliant UBS is interoperable with all industry standard equipment, including any standard ADSL CPE and any HDSL2 or HDSL4 (backhaul) transport system.

### INSTALLATION

UBS systems are available with either 20 ft. pre-terminated cable stubs, or optional integrated connector chamber. This provides maximum flexibility for easy installation.

### MANAGEMENT

The system can be managed from anywhere in the network using an in-band management channel (PVC) within the backhaul circuit. The UBS supports SNMP and CLI management interfaces. UTStarcom offers UBSView— Element Management System (EMS), providing full management capability to all UBS devices in the customers’ network. UBSView also provides a mediation layer to the Operational Support System (OSS) that manages the network elements end-to-end.



# Technical Specifications

## LINE POWER

Each UBS requires a minimum of three backhaul pairs to provide the system with power. This can be accomplished using a combination of HDSL2 (or HDSL4) pairs and supplemental Express Power pairs. On longer backhaul circuits, additional power pairs may be required (up to twelve ports total including the HDSL pairs) to compensate for power loss and optional midspan repeaters.

## PHYSICAL

Dimensions: 18.9" x 14.25" x 5"  
Weight: 40 lbs (18kg)

## ENVIRONMENT

Operating Temperature: -40C to +75C (-40F to +167F)  
Humidity: 0% to 100%  
Altitude: No restrictions

## POWER

- 175 VDC Line power per ANSIT1.418 and EN 60950

## POTS/ADSL CABLING

- 20'(6m) cable or Integrated splice case options
- 50 pair CUPIC double-armor
- Pre-terminated w/3M 4005-DPM/TR supermate modules (MS2)

## HDSL2/HDSL4 AND EXPRESS POWER CABLING

- 25 pair CUPIC double-armor
- Pre-terminated w/3M 4005-DPM/TR supermate modules (MS2)

## ADSL PORT SPECIFICATIONS

- 24 ATU-C ports per UBS
- ADSL asymmetrical maximum rates  
8 Mbps downstream, 1 Mbps upstream
- Modulation Supported  
G.992.1 (full rate DMT)  
G.992.2 (G.Lite)  
ANSIT1.413

## STANDARDS BASED HDSL2 OR HDSL4 TRANSPORT

## NETWORK INTERFACES

- Software Selectable for T1 IMA or T1 UNI
- Software Selectable for HDSL2 or HDSL4 interfaces

## LINE SHARING

- Simultaneous POTS and ADSL per ANSIT1.413
- Pairs sharing both data and power per HDSL2 and HDSL4 standards

## ATM QUALITY OF SERVICE

- Service categories:  
UBR, UBR+, VBR-rt, VBR-nrt, CBR
- Traffic Management functions:  
CAC, UPC, Traffic Shaping, Cell Tagging, Selective Cell discarding  
Frame discard, Oversubscription

## REGULATORY AND SAFETY APPROVALS

- NEBS Level 3 (GR-63-CORE + GR-1089-CORE)
- FCC Part 15 Class A
- GR-487-CORE
- GR-950-CORE (as applicable)

## NETWORK MANAGEMENT

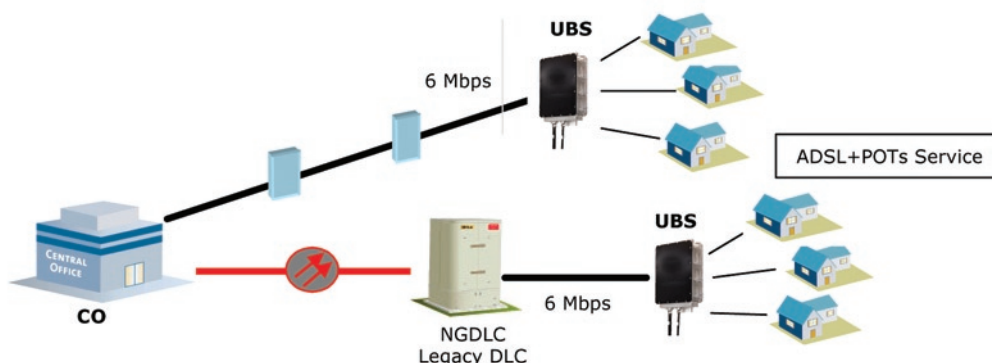
- SNMP, MIBII, ADSL MIBs per RFC 2662, HDSL MIBs per RFC 3276, ATM MIBs per RFC 2515
- CLI- Help driven Command Line Interface
- Support for full FCAPS functionality

## ORDERING INFORMATION

Model# UBS-2424-4H

Description

4HDSL2/4 uplink T1-UNI/IMA, 20ft. stub



Please note the information contained herein is for informational purposes only. Technical claims listed depend on a series of technical assumptions. Your experience with these products may differ if you operate the products in an environment, which is different from the technical assumptions. UTStarcom reserves the right to modify these specifications without prior notice. UTStarcom makes no warranties, express or implied, on the information contained in this document.

## UTStarcom, Inc. USA

1275 Harbor Bay Parkway  
Alameda, CA 94502 USA  
Tel: 510-864-8800  
Fax: 510-864-8802

[www.utstar.com](http://www.utstar.com)

## About UTStarcom, Inc.

UTStarcom is a global leader in IP-based, end-to-end networking solutions and international service and support. The company sells its broadband, wireless, and handset solutions to operators in both emerging and established telecommunications markets around the world. UTStarcom enables its customers to rapidly deploy revenue-generating access services using their existing infrastructure, while providing a migration path to cost-efficient, end-to-end IP networks. Founded in 1991 and headquartered in Alameda, California, the company has research and design operations in the United States, China, Korea and India. UTStarcom is a FORTUNE 1000 company. For more information about UTStarcom, visit the company's Web site at [www.utstar.com](http://www.utstar.com)

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