

## VDSL2 >> DSLAM >> U3024B



### Overview

Ubiquoss 3024B 시스템은 광 가입자 망 및 이더넷 기반 네트워크의 가입자 집선 구간에 적용되어 물리적 계층에서 100M 급 VDSL2 서비스를 제공하는 고성능의 스위치 기능을 포함한 VDSL2 집선장치 입니다. Ubiquoss 3024B 시스템은 국사 및 아파트 MDF 실 또는 옥외용 함체에 위치하여 트래픽을 집선, 상위 가입자 집선스위치로 전달하며, 이와 반대의 역할을 담당합니다.

Ubiquoss 3024B 시스템은 VDSL2 모뎀을 통하여 가입자 단말과 연결되며, 고속 및 다양한 Layer2 이더넷 스위칭 기능을 통하여 소형 및 중형 네트워크에 적용이 가능합니다. 또한, 하드웨어 기반으로 제공되는 IGMP(Internet Group Management Protocol) snooping 같은 멀티캐스트기능은 IP-TV 등의 실시간 Streaming 서비스를 제공하여 차세대 멀티미디어응용서비스를 효율적으로 제공할 수 있게 합니다.

Ubiquoss 3024B 시스템은 대역폭 관리 기능과 QoS(Quality-of-Service) 기능을 지원하여 기업 및 서비스 제공자에게 응용 서비스 또는 SLA(Service Level Agreement)에 따라서 차별화된 TPS 서비스를 제공할 수 있습니다.

Ubiquoss 3024B 시스템은 VDSL(Very high-data rate Digital Subscriber Line) 기술을 적용하며, 첨단 DMT 방식의 VDSL2 서비스 인터페이스를 구현하여 100/100Mbps 대칭 상/하향 전송 속도를 보장합니다.

Ubiquoss 3024B 시스템은 Layer2 스위치의 기능을 가진 IP-VDSL 로써 VLAN, Rate limit, 포트 트렁킹, 포트 미러링, IGMP Snooping, 패킷 필터링 등의 기능을 지원합니다.

### Features

- IKANOS CO5 100/100 + Broadcom BCM5651 based system
- Outdoor type: U3024BO, 24 fixed VDSL2 ports
- Support VDSL2 standards & band plans ( 8a/b/c/d, 12a/b, 17a, 30a)
- Layer 2+/Layer 3 aware switch
- Included Splitter & over-voltage protection circuits
- Total 4-port Gigabit Ethernet uplinks
  - 2 port fixed 10/100/1000Base-T optional uplink module supports
  - 2 additional ports
- External alarms & external FAN control interfaces
- Suitable 19" rack mountable size

### Types of DSLAMS

Model	Type	Interface	Deployment
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U3024BO	Outdoor	<ul style="list-style-type: none"> <li>• 24-port VDSL2 Line Interface</li> <li>• 2-port 10/100/1000Base-TX Uplink (Option)                             <ul style="list-style-type: none"> <li>- 2-port 100Base-FX(MMF/SMF)</li> <li>- 2-port 1000Base-X(SFP)</li> </ul> </li> </ul>	Telegraph Pole
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## Specification

<b>Item</b>	<b>U3024BO</b>
Picture	
<b>System Specification</b>	
System Architecture	Outdoor type VDSL2 DSLAM -1 AC - 24-port VDSL2 - Splitter for 24 subscribers(Modular, Hot-swap) - 1 FAN slot - 1 Uplink slot(Hot-swap)
CPU	32KB I-cache/D-Cache memory
Memory	128MB Main Memory 32MB Flash Memory 2MB Boot Memory
Physical Dimension	19" Rack Mountable 482.6 * 250 * 66mm(W*H*D) Max. 6Kg
<b>Environment Conditions</b>	
Input Power & Frequency	AC: 110-220VAC/50-60Hz
Power Consumption	Max. 80W
Operating Temperature	-20 °C ~ 60 °C
Operating Humidity	10 ~ 90%
Storage Temperature	-20 °C ~ 70 °C
<b>Media Interface</b>	
Interface Type	Uplink (Max. 4 ports) - Default: 2-port 10/100/1000Base-TX - Expansion: 2-port 1000Base-X(SFP)/100Base-FX, 10/100/1000Base-TX Downlink - Fixed 28 VDSL2 ports(8-ports/Module)
Management	100Base-TX(RJ-45)
Console	RS-232C Serial Port(RJ-45)
<b>Performance</b>	
Switching Fabric	12.8Gbps non-blocking
Throughput	9.5Mbps wire-speed L2 Switching
<b>Capacity</b>	
MAC Address	16K MAC Management
VLAN	256 VLANs
Filtering	Access/Security Control filters
<b>VDSL2 Specification</b>	
VDSL2 Standard	Fully compliant with VDSL2 standard Supports standard profiles(8a/b/c/d, 12/1/b, 17a, 30a) Line Coding: DMT Symmetric 4K FFT/IFFT engine Backward compatibility to VDSL1 specification 64/65 and HDLC support including EFM pre-emption

	<p>Multimode support(VDSL2, VDSL1, ADSL2+, ADSL)  UPBO(Upstream Power Back-Off)  HAM band rejection control  Rate Adaptive @ 64kbps step  Latency Path(Fast Path, Interleave Path)  INP for Slow channel</p>
<b>Services and Features</b>	
L2 Functions	<p>VLAN: 256  Multi VLAN  Link Aggregation  STP, PVST(per VLAN STP)  Jumbo Frame Packet Support  Port Trunking  DHCP Relay</p>
Multicasting Protocol	<p>IGMP v2.0  IGMP snooping(IGMP Fast-leave, IGMP reports suppression)  IGMP Proxy  No. of IGMP Group: 250</p>
QoS	<p>802.1p  8 Queues  Layer 1 ~ 4 based packet classification  DSCP &amp; CoS field Marking/Remarking  4 Queue per port  SPQ WRR  WFQ or DWRR</p>
Bandwidth Management	<p>Hardware based Symmetric and Asymmetric Bandwidth Management</p>
Security	<p>System access control by Packet Filtering  - MAC Filtering, NetBEUI, NetBIOS, NBT Filtering, DHCP Filtering  Subscriber Traffic control by ACLs(Access Control Lists)  TCP Sync Attack protection  TCP Port Scan Attack protection  Broadcast storming prevention  MAC flood guard  ARP spoofing</p>
Management	<p>CLI, Telnet, TFTP, RMON, SNMP I/II, Sys log, EMS, Port Mirroring</p>
OA&M	<p>Supports power saving mode-Reduced power consumption  Remote modem reset and remote Firmware download  Loop-back function through EOC  Provides Inventory records of modem including manufacturer, barcode, F/W version, model name. etc.  Remote collection and reference of statistics on modem  Checking-up for VDSL line status(Link speed, SNR, Link status, profile etc)  Detection of modem power status: ON/OFF</p>
<b>Standards</b>	
IEEE Standards	<p>802.1D Spanning Tree Protocol  802.1p Priority Control  802.1Q VLAN  802.3ad Link Aggregation  802.3u 100Base-X Fast Ethernet  802.3x Flow Control</p>
IETF Standards	<p>RFC 1112 IGMP  RFC 2131 DHCP  RFC 2236 IGMP v2</p>
Management Standards & MIB	<p>RFC 783 TFTP  RFC 854 Telnet  RFC 1157 SNMP vI  RFC 1213 MIB-II  RFC 1493 Bridge-MIB  RFC 1757 RMON-MIB</p>

	RFC 1902 SNMP v2 RFC 1907 SNMP-MIB
<b>Software</b>	
Security	Packet Filtering, Access List, VLAN
User Access Control	MAC Address filtering, Client number limit
IP Management	DHCP Server, DHCP Relay, DHCP Option 82(Circuit-ID, Remote-ID), DHCP Filtering
Transmission Mode	Half-Duplex and Full-Duplex
Switching	Store and forwarding
Management	CLI, ftp, Telnet, SNMP, RMON