

DSM2000 DSLAM 120 PORTS

ADSL, ADSL2, ADSL2+, ADSL2++

Key features

- IP DSLAM 3U/2U size
- 24 ports ADSL modular cards stackable to 192 ports
- **DSM2120** 3U-120 ports max
- 2 Ethernet uplink Combo:
 - 10/100/1000BaseT
 - SFP slots for 1000SX/LX
- Double power supply (48VDC)
- Wide Temperature range -40 to +65°C with System overheating protection
- High reliability and easy maintenance. Hot swappable.

ADSL modulation

- ADSL, ADSL2, ADSL2+, (downstream 24Mbps or bounding at 48Mbps)
- ADSL2++ annex M (upstream at 3Mbps)
- ADSL Annex A on PSTN Annex B on demand for ISDN
- Re-ADSL G.992.5

Ethernet Switch

- Level 2 Switch
- Per port VLAN IEEE 802.1q, 4094 VLAN ID, stacked VLAN
- VLAN GARP/GVRP
- Full et Half Duplex, auto

IEEE protocols

- 802.3x Flow Control
- 802.1p QoS
- 802.1d/w Spanning Tree, RSTP
- 802.3ad Link aggregation
- ACL filter.

Remote Client

- DHCP relay, agent option82
- Throughput Control (nx32kbps) 32kbps step.

Video / IP-TV

- IGMP Snooping 256 groups, IGMP proxy for IP multicasting, dynamic and static configuration
- 8 VC ATM per ADSL circuit
- RFC2684—MPoA LLC/VCMUX
- VPN-pass-through
- RFC 2516 PPPoE

Management

- WEB : HTTP,
- Telnet, SSH, CLI (V24)
- SNMP V1/V2c
- Backup/Update FTP-TFTP



Integrate solution for Internet , VoIP, IP-TV Internet Service Providers, hotels, hospitalities and Campus

New generation IP DSLAM **DSM2000 series** is designed to provide rich video contents, DSL, POTS and VOIP service over traditional copper wire infrastructure.

The **DSM2000** is robust equipment; it is uses by Telco in street cabinet to distribute Internet, voice and IP TV in low density area.

Very flexible and easy to manage, with the possibility to stack 192 channels on IP address, **DSM2000** are installed in large hotels or hospitals or campuses to deploy Internet or triple play .

The CXR's **DSM2000** contains up to 5 cards of 24 ADSL2+ circuits to deliver high speed data service over twisted copper pairs using industry standard Discrete Multitone (DMT) line coding technology. It complies with full-rate ADSL in accordance with ANSI T1.413 Issue 2, ITU-T G.992.1 (G.dmt), ITU-T G.992.2 (G.lite), ITU-T G992.3 (ADSL2) and ITU-T G.992.5 (G.ADSL2+) standards.

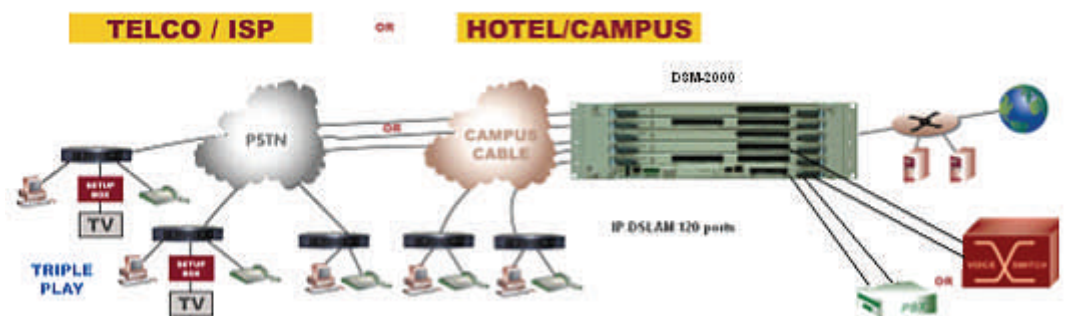
DSM2000 products greatly expand broadband capabilities in access network, enhancing the foundation for emerging services. With simple in-service upgrades,



service providers obtain the capacity and Quality Of Services (QoS) to support larger populations of narrowband and broadband users. It also provides the single IP centralized management agent that include fault, performance, configuration, security management and remote upgrade feature. User can also configure it easily by rich user interface such as CLI, Telnet, SSH, SNMP and web browser.

CXR suggest to use our ADSL client router/modem with Annex M and plus

- AD-RT-TTX :** One Ethernet
- AD-RT-4TTX :** 4 Ethernet
- AD-RT-4TTX-WF-bg:** 4 Eth and 1 Wifi b/g
- AD-RT-4TTX-WF-bg-2FS:** 4 Eth , Wifi b/g and 2 analog phone set input for VoIP .



POTS ADSL

- 24 ports Splitter include Annex A or B on demand
- 2 IDC50 Male per card

IP DSLAM for Internet/
VoIP/IPTV



DSM-CA-IDC-PANRJ45

ADSL2+

Ethernet Switch on
ADSL

IEEE protocols



IP DSLAM SPECIFICATIONS DSM 2000

ADSL/ ADSL2+ circuits

- ADSL G.dmt (ITU-T G.992.1)
Downstream : 32 kbps to 8 Mbps
Upstream : 32 kbps to 800 kbps
- ADSL G.lite (ITU-T G.992.2)
Downstream : 32 kbps to 1,5 Mbps
Upstream : 32 kbps to 512 Mbps
- ADSL2 (ITU-T G.992.3)
- ADSL2+ (ITU-T G.992.5)
Downstream: 32 kbps to 25 Mbps
Upstream: 32 kbps to 1 Mbps
- ADSL2++ data rates Annex M
Downstream: 32 kbps to 20 Mbps
Upstream: 32 kbps to 3 Mbps
- Function OAM en according to ITU-T G.997.1
ANSI.413 version 2
- Line loop back and diagnostic

Splitter (24 circuits)

- Annex A
- PSTN network or analog modems.

Uplink Interface

- 2 ports Ethernet 10/100/1000BaseT
- 2 slots SFP for fiber optic 1000SX and LX
- Only one port available in the same time.
- Suppliant IEEE802.3 Ethernet, IEEE802.3u Fast Ethernet, IEEE802.3ab and .3z Gigabit Ethernet

Level 2 switch functionality

- **Switch capacity IEEE:** 802.3x flow control, 802.1d/w STP/RSTP, 802.3ad aggregation ADSL link.
- **VLAN :** IEEE802.1p/q support 4094 VLAN ID, stacked VLAN, VLAN per port and tag VLAN
- **Multicasting**
IGMP snooping V1 V2, 256 groups and 256 copy simultaneous, IGMP proxy, dynamic and static configuration
- **QoS :** IEEE802.1p base COS, 4 priority output queues, RFC 2475 DiffServ/TOS
- **DHCP :** DHCP Relay and relay agent option 82
- **Security :** ACL , Packet policy control
- **Rate Limitation :** from 64K to maximum, 64K step.

Ordering information :

DSM2120	3U/19inch chassis + Fan + AlimDC 48V (5 slots capacity 24p each).
DSM-ADSL24	24 ports ADSL board.
DSM-CPU-2TGTX-SFP	CPU board—2 combo Giga Ethernet + console cable RJ45-DB9 RS232
DSM-PAN	Cover for empty slot.
DSM-CA-IDC-NU-5	Line card cable 25 pairs IDC 50 pin, long 5 meters (10 and 60 m available)
DSM-CA-IDC-PANRJ45 SFP	Line card cable 25 pairs IDC 50 pin, to 1U RJ45 24 ports panel. Long 2 meters
	SFP-GSX-MM-LC Multimode 550M, 850nm
	SFP-GLX-SM10-LC singlemode 10km, 1310nm
	SFP-GLX-SM40-LC singlemode 40km, 1310nm
	SFP-GLX-SM80-LC singlemode 80km, 1550nm
ACDC-48VDC-5A	External Power supply Adapter AC (110-230VAC) vers DC 48V , 5A (190*93*65mm)

Internetworking :

- 8 VC ATM per ADSL port
- RFC2684 MPoA LLC/VCMUX.
- RFC2516—8 PPPoE per ADSL port
- VPN pass-through.
- RFC 1757 RMON MIB, group 1,2,3,9

Management :

- RS232 and Ethernet
- CLI mode
- Telnet, SSH, Web HTTP
- SNMP V1/V2c
- Support OAM management
- SNTp
- Remote software upgrade
- Remote file backup and restore.
- NVM/EMS for multiple nodes management based on SNMP (optional)

Interfaces

- RJ45 RS232 for console
- 1 management port RJ45 10/100BaseT
- 2 RJ45 (10/100/1000 BaseT) + 2 SFP slots
- IDC50 for DSL port and splitter port
- ACO/RST for alarm cut off and system reset

Operating Requirement

- Temperature : -40 °C ~ +65 °C
- Humidity : 10~90% (non-condensing)
- EMC/ESD Certification : CE and FCC Part15 Class A
- Safety Certification : CE and EN60950

Dimension and Power requirements :

- Dimension (LxPxH) :
- DSM2120 : 482 x 256 x 133 mm, 3U 19", 10kg
- Power supply (-42~56 VDC) 230W
- Dual A+B -48V DC power input terminal
- Four housekeeping inputs and one alarm contact closure output.

Certification:

- ITU-T K.20
- ETSI 300-019, 300-386
- EN60950
- Conform to CE requirements



CXR Anderson Jacobson
Rue de l'Ornette
28410 Abondant - France

T +33 (0) 237 62 87 90
F +33 (0) 237 62 88 01
email: contact@cxr.com

The information contained in this document are provided without warranty and do not constitute a contractual document. In order to improve its products, CXR reserves its right to modify, without notice, any part of this document and the specification it contains