

# DSF2048 IP-DSLAM

## 48 PORTS ADSL/2/2+/2++

### Key features

- IP DSLAM 1,5U size 19"
- 48 ports ADSL fixed
- 2 Ethernet uplink combo 10/100/1000BaseT and SFP slots for 1000Base-SX/LX
- AC or dual DC 48volt power s.
- -10/65 °C temperature range.
- Overheating protection

### ADSL modulation

- ADSL, ADSL2, ADSL2+ (down-stream 24Mbps)
- Line bounding up to 48Mbps
- ADSL2++ annex M (up-stream 3Mbps)
- ADSL Annex A on PSTN network or campus
- ADSL Annex B on demand
- Re-ADSL G.992.5

### Ethernet Switch

- Level 2 Switch
- Per port VLAN IEEE 802.1q, 4094 VLAN ID, stacked VLAN
- VLAN map per PVID ATM
- Full et Half Duplex, auto

### IEEE protocols

- 802.3x Flow Control
- 802.1p QoS
- 802.1w 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 and 256 copies, 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

### POTS ADSL

- 48 ports Splitter include
- 4 Telco50F

Integrate solution for Internet, VoIP, IP-TV distribution in hotels, hospitalities, campuses or for ISP.



The CXR's IP DSLAM **DSx2000 series** is designed to provide rich video contents, DSL, POTS and VOIP service over traditional copper wire infrastructure. These types of services will be supported on NGN architecture simultaneously.

The CXR's **DFS2048** is middle range device against the DSF2012/24L the entry device 12 or 24 ADSL2+ ports and the DSM2000 is a modular system 3U 120 ports. The DSM10000 is a large 1200 ports with 10GE uplink.

**DFS2048** is able to deliver high speed data service over twisted copper pairs in ADSL/2/2+ 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.

**DSF2048** products are use in hotels, hospitalities, university's campuses, base of life in oil plan.... to deploy over telephone line the internet access, the IP-TV and the

voice as analogue or ToIP.

The IP-DSLAM can be used in bridge mode in a LAN as a long distance switch, or as a DSLAM with all support necessary for ISP's infrastructure. The DSF2048 support Annex M permit the upstream flow at 3,3Mbps.

Access and bandwidth per user, QoS per service based on ATM-PVID network can be managed locally or over Internet uplink from a service provider with Radius server. Local administrator can configure it easily over rich user interface such as CLI, Telnet, SSH, SNMP and web browser.

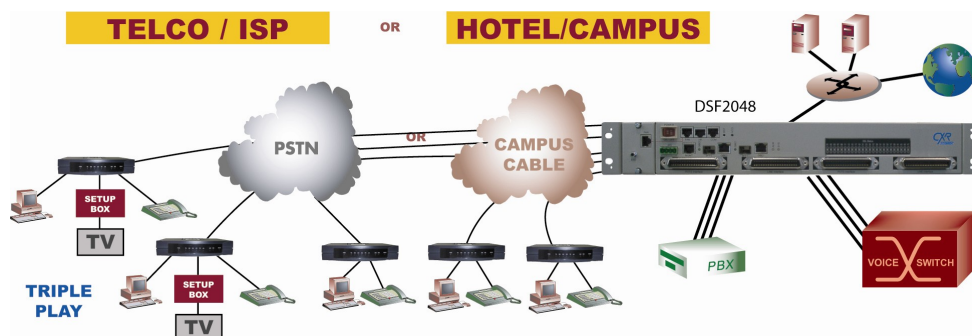
CXR suggest to use our ADSL client router/modem with Annex M and plus

**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



IP DSLAM for Internet/  
VoIP/IPTV



ADSL2+

Ethernet Switch on  
ADSL

IEEE protocols



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## IP DSLAM SPECIFICATIONS DSF2024/48

In-

### 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 48 circuits

- Annex A, or B on demand
- PSTN network or analog modems.

### Uplink Interface

- 2 Combo ports copper/fiber:
  - 2 ports Ethernet 10/100/1000BaseT
  - 2 slots SFP for optical 1000SX/LX
- Suppliant IEEE802.3 Ethernet, IEEE802.3u  
FastEthernet, IEEE802.3ab and .3z Gigabit  
Ethernet

### Level 2 switch functionality

- **Switch capacity IEEE** : 802.3x flow control,  
802.1d /w STP/RSTP , IEEE802.3ad aggrega-  
tion ADSL link or uplink.
- **VLAN** : IEEE802.1p/q support 4094 VLAN ID,  
stacked VLAN, VLAN per port and tag VLAN  
GARP/GVRP, Mapping of VLAN in ATM VPID
- **Multicasting**  
IGMP snooping V1 V2, 256 groups and 256  
copies copies 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 32K to maximum, 32K  
step.

### Ordering information :

<b>DSF2048-AC</b>	1,5U system 48 ports ADSL/2/2++, w PSTN splitter, fan, AC power supply
<b>DSF2048-DC</b>	1,5U system 48 ports ADSL/2/2++, w PSTN splitter, fan, dual DC48v power supply
<b>CA-TELC050RJ21M/NU-x</b>	Cable Telco50/RJ21-M to 25 pair of bare copper, distance x m
<b>CA-TELC050RJ21M/RJ45-x</b>	Cable Telco50/RJ21-M to 25 RJ45, distance x m
<b>SFP</b>	SFP-GSX-MM-LC Multimode 550M, 850nm SFP-GLX-SM10-LC single mode 10km, 1310nm SFP-GLX-SM40-LC single mode 40km, 1310nm SFP-GLX-SM80-LC single mode 80km, 1550nm

### ternetworking :

- 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 , Web HTTP , SSH
- 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
- Telco50-RJ21F for DSL and splitter ports
- ACO/RST for alarm cut off and system reset

### Operating Requirement

- Temperature : -10°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) :
  - DSF2024: 482 x 265 x 66 mm, 1.5U 19", 4.2kg
  - DSF2048: 482 x 265 x 66 mm, 1.5U 19", 4.4kg
- Power supply AC 100-240V or  
Dual A+B, -36 to -60Vdc power input  
60W or 96W
- Four housekeeping inputs and one alarm con-  
tact closure output.

### Certification:

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

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