

# R1-AD Smart ADSL2+ IP DSLAM



R1-AD48A

## Product Overview

R1-AD series is an ADSL2+ pizza-box type IP DSLAM designed for use in cabinets, vaults or buildings outside of the Central Office that demands a high performance in compact footprint. Available in two port configurations and associated variations in support of last mile loop conditions, R1-AD series has four products: 24 port model with POTS splitters integrated in Annex A (R1-AD24A) and Annex B (R1-AD24B) or a 48 port box (R1-AD48) without splitters in Annex A (R1-AD48A) and Annex B (R1-AD48B). All R1-AD series products are offered in compact, one rack unit entity that is ideal for a variety of applications and service needs. Also the full front access features of R1-AD product give a favor or easy installation and management.

Designed on standards compliant DMT ADSL2+, the R1-AD series delivers up to 24 Mbps downstream bandwidth over Cat.3, UTP copper phone lines. With growing demand for broadcast and on demand video services along with high speed Internet access, the availability of ADSL2+ enables service providers to offer enough bandwidth while enjoying extended rates and reach over ADSL.

R1-AD series offers a wide range of uplink interfaces to choose from, which are supported on IP backbone networks. Dual port Gigabit Ethernet interfaces like 1000BaseT/SX/LX, an EPON and Gigabit Ethernet interface and two 100 Base-FX/TX uplinks are offered. This versatile uplink options allow service providers to use the R1-AD series for high-speed data only with lower speed uplinks, or for video triple play services with the larger capacity uplinks, or capacity scaling in the future.

For video triple play services, R1-AD series has the IP functionalities built-in to support broadcast and VoD service such as IGMP V2 snooping, 802.1q QoS/VLAN tagging and 802.1p CoS.

The compact design of the unit can be used in either 19" rack with selection of AC or DC power. As it is a self-contained unit, with ventilation on both sides, the R1-AD series is easy to install and can be mounted with very limited space utilization in a cabinet or building.

R1-AD series products also support backward ADSL technology compatibility.

## Key Features

### Platform for deployment everywhere within network

- Compact form factor of 1RU height and 240mm depth
- Full front access for installation, configuration & management
- Temperature hardened version in plan

### Provides standard compliant high speed ADSL

- Maximum downstream data rates up to 24 Mbps
- Compliant with ANSI T1.413 issue2, ITU-T G.992.1, G.992.2, G.992.3, G.992.4, G.992.5, G.994.1
- Operable over UTP, CPEV, TIV, SH and Interphone Cable

### Advanced port control features

- Per port enable/disable, per port maximum connection rate setting
- Packet forwarding enable/disable function between lines
- Per port IP / MAC filtering

### Robust QoS and IGMP snooping support for efficient multicast video and voice over packet delivery

### Wide choice of uplink options for various network environment

- Gigabit Ethernet or Gigabit EPON for fiber backhaul network

### Scalable role out configurations from 24 port box to mid-capacity cascading through Gigabit Copper connection

### Remote upgrade, provisioning and management capabilities through TFTP, FTP, CLI, SNMP, RMON, Telnet or ViewlinX™, EMS

## Specifications

### INTERFACES

- R1-AD24A/R1-AD24B : 24 port ADSL2+ DSLAM with RJ21 connectors
- R1-AD48A/R1-AD48B : 48 port ADSL2+ DSLAM with RJ21 connectors
- Uplink: SFP gigabit Ethernet supporting fiber, RJ45 gigabit Ethernet supporting copper, SC gigabit EPON supporting fiber.

### ADSL Standard

- Modulation/Demodulation: Discrete Multi-Tone(DMT)
- ANSI T1.413 issue2, ITU-T G.992.1/G.992.2/G.992.3/G.992.4 /G.992.5 Annex A & Annex B, ITU-TG.994.1, ATM Forum TM4.1

### LAYER 2+ FUNCTIONALITY

- IEEE 802.1p/q
- VLAN, VLAN/VCC mapping, DHCP option 82, IGMP snooping

### MANAGEMENT FUNCTIONALITY

- SNMP v1 and v2c, RMON 4 Groups
- Telnet, FTP, TFTP
- SSH2, Radius authentication, TACTACS+ for login access control (Contact for availability)

### PHYSICAL SPECIFICATIONS

- R1-AD (W × H × D) : 440mm(17.3 inch) × 44mm(1.73 inch, 1 RU) × 240mm(9.45 inch)
- Power : 100 to 240 VAC (auto-ranging), 50 to 60 Hz for AC  
-48 VDC for DC
- Full front access
- Weight : TBD
- Slot configuration : 1 expansion slot

### ENVIRONMENTAL & REGULATORY COMPLIANCE

- Operating Temperature (Commercial Version) 0 °C ~ 50 °C
- Operating Relative Humidity: 10 ~ 95% @40 °C, Non-condensing
- MIC, VCCI, CE, UL, FCC Part 15, FCC Part 68 (All planned)

## Product Ordering

### R1-AD

- R1-AD24A/24B : 24 ports ADSL2+ DSLAM with 1 option slot & embedded splitter, Annex A/Annex B
- R1-AD48A/48B : 48 ports ADSL2+ DSLAM with 1 option slot, Annex A/Annex B
- DC version is also available. Contact CORECESS sales representative for ordering info.

### Expansion modules for R1-AD

- OPT-N2CS : 2 port modular SFP 1000Base-FX and RJ45 10/100/1000Base-T gigabit Ethernet combo module
- OPT-N1ES1CS : 1 port 1000Base-PX/10 SC gigabit EPON and 1 port modular SFP 1000Base-FX and RJ45 10/100/1000Base-T gigabit Ethernet combo module

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