

**Please read this  
document carefully  
before installation!**

**ADSL Loop Extender Power Supply  
AEP-RACK-L & AEP-C2PL  
Installation Manual**

**Version: 7.0**

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## **Preface**

This manual provides information on how to use the product. To make the best use of the product, read this manual thoroughly before use and keep this manual handy for ease of reference.

- The contents of this document may be updated in the future, without prior notice.
- This booklet was created with thorough attention to the content. If, however, you have a question, spot an error, or find a description lacking, please refer to the end of this booklet for information on how to contact us.
- All brand names and trademarks are the property of their respective owners.

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# 1. General Description

**ADSL Loop Extender** can extend the coverage of ADSL access. It will provide systems with higher performance-to-cost ratio, improve the equipment utilization rate and optimize the network. This product will allow you to double the number of subscribers that you can reach while offering more consistent high bandwidth services to your existing customers.

**ADSL Loop Extender** is an active element installed in the outside loop plant. It operates as an amplifier and equalizes the signal. Generally, it is span-powered. You can use the ADSL Loop Extender Power Supply to provide the span-power.

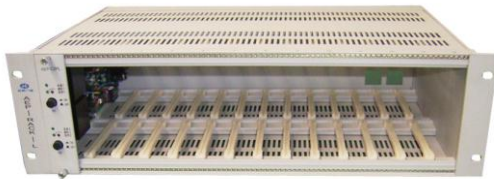


Figure 1 AEP-RACK-L and the power card AEP-C2PL

- AEP-RACK-L is a rack for AEP-C2PL embedded. One rack can be inserted into 14 cards.
- AEP-C2PL is two outlets power supply for line power supply ADSL Loop Extender AER800-xPL. Each outlet can supply for one port line power Extender. No additional copper pairs are required to supply power.

## Benefits

- Economize the copper pairs for no additional pairs are needed for power.
- Centralize and regularize power supply, make the CO clean



- Comprehensive over-voltage protection.
- Easy to install, deploy and maintain

## 2. Technical Specifications

**Table 1 –Technical Specifications of AEP-RACK-L& AEP-C2PL**

Operating Environment	Temperature	-10°C ~ +45°C
	Relative Humidity	5% ~ 95% (Non-condensing)
Input Voltage	DC -48V ( -36V ~ -72V )	
Output Voltage	DC 155V per port	
Output Current	Less than 50mA	
Dimension of RACK	485 mm ( L ) ×310mm ( W ) ×133mm ( H )	

## 3. Physical Structure

- **AEP-RACK-L**



Figure 2 The back panel of AEP-RACK-L

In figure 2, you can input DC48V through the 2×3 cords “DC48V-I”. The “DC48V-II” is only used in testing in the factory. At the middle of the 2×3 cords, there is a 2-core ground terminal. Cooper-core wire with no less



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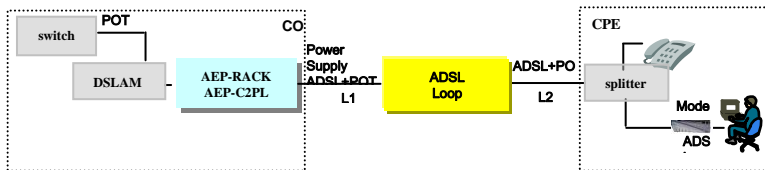
than 2.5mm<sup>2</sup> section is required as ground wire. When the card is AEP-C2PL, you can get 2x155V from “A2B2” and “A4B4” outlet, supply power for the signal line power Extender.



Figure 3 The panel of AEP-C2PL

In figure 4, “POWER” indicates the status of the equipment. After power supply connected, press the button “K”, and the corresponding “POWER” indicator should be on. Flashing indicator indicates short circuits or over-current alarm condition. “OFF-HOOK” is on indicates the telephone is picking, the light will be on. “Sequence” is on indicates that line sequence inputted incorrectly, please exchange “A1” and “B1” or “A3” and “B3” line sequence, to input correctly, the light will be off.

## 4. Application



**Figure 4 AEP-C2PL Application Diagram**

L1: The signal twist pair connecting power supply to Extender

L2: The signal twist pair connecting ADSL Loop Extender to Modem.

**Note: Signal line power supply Extender with remote power supply AEP-C2PL from central office, no additional copper pair required to power the Extender.**

## 5. Installation Procedure

### 1. Unpack

Unpack equipment carefully; check the completeness against the purchase order.

Notify the supplier if any item are missing.

**Note:** Save packing material. All equipment returned must be packed in the original packing material.

Inspect equipment for shipping damage, including bent or loose hardware, and broken connectors.

If equipment was damaged in transit, contact the supplier.

### 2. Install the power supply

**Attention: ADSL Loop Extender's power supply should NOT be turned on until the Extender installation is finished.** When the power supply wire is active, wires carry DC 155V. Do not touch wire A and wire B simultaneously, or allow wires to contact anything!

(1) Fix the AEP-RACK-L in the 19' cabinet and ground the AEP-RACK-L.

**Attention: Cooper-core wire with no less than 2.5mm<sup>2</sup> section is required as ground wire. One end of the wire should be connected to the ground terminal**

**of the AEP-RACK-L, the other end of the wire should be connected to a good ground point.**

(2) Insert Power Supply card AEP-C2PL into AEP-RACK-L.

(3) Connect the power supply cable

No additional copper pair is required for power. Choose the signal line from the DSLAM/Switch, connect it to the “A1B1” or “A3B3” terminal of AEP-C2PL. Choose the signal line linked to the extender; connect it to “A2B2” or “A4B4” terminal of AEP-C2PL.

**Table 2 the Description of the buttons, indicators and outlets**

Buttons, Indicators and Outlets			description
J	K1	A1B1	The first signal line input, connect the twist pair from DSLAM.
		A2B2	The first signal and Power supply output, connect the twist pair to Extender.
	K2	A1B1	The second signal line input, connect the twist pair from DSLAM.
		A2B2	The second signal and Power supply output, connect the twist pair to Extender.
Power			Power indicator.
OFF-HOOK			The status of telephone indicator.
Sequence			The signal line sequence inputted indicator.

Note: 1. In this table, the “J” indicates any of the outlet “J1 ~ J14” “POWER” indicators should be on. Flashing indicator indicates short circuits or over-current alarm condition.

**Attention: Do not connect the cable linked to the Extender to the “A1B1” or**



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**“A3B3” terminal, and do not connect the cable of the DSLAM /Switch to the “A2B2” or “A4B4” terminal, or else, the equipment would be damaged.**

(4) Connect power cord(do not apply power yet)

Connect the DC48V power source to the RACK with good connection. Please connect the cord according to the sign of polarization.

**Attention: ADSL Loop Extender’s power supply should NOT be turned on until the Loop Extender installation is finished.**

## 6. Troubleshooting

**Table 3 AEP-C2PL Troubleshooting**

<b>Problem Description</b>	<b>Possible Reason</b>	<b>Suggested Resolution</b>
“Power” is off	Power cord is not correctly connected.	Check power cord connection.
	Power switch is not open	Press the power switch
“sequence” is on	The line sequence connected incorrectly	Exchange line sequence of “A1B1” or “A3B3”.
Output is OK but ADSL extender does not work.	Signal cable connection is error or short	Please refer to the installation manual of ADSL Loop Extender.