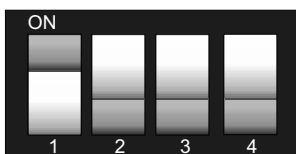


Cabling Requirements

Connection Type	Cable Requirements	Maximum Length
Ethernet Port (RJ-45)	<ul style="list-style-type: none"> • 100 Mbps: Cat 5 UTP • 10 Mbps: Cat 3-4 UTP 	100 meters max for MUX or HUB to endpoint
VDSL Port (RJ-11)	<ul style="list-style-type: none"> • 24-26 Gauge phone wiring • Do not recommend 28 or above Gauge 	<ul style="list-style-type: none"> • 5M/5M: 1.9km • 15M/15M: 1.3km • 25M/M: 800m

DIP switch configuration

This is a quick overview on how to use the SP3501AM with DIP switch configuration. For default configuration, it is set on auto select speed. Reminder that before selecting the data speed, the power must be turned off for safety purposes .



PIN-4 **ON**: To set the data speed to 5Mbps

PIN-3 **ON**: To set the data speed to 15Mbps

PIN-2 **ON**: To set the data speed to 25Mbps

PIN-1 **ON**: To set the data speed to Auto speed

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[Symptom]: VDSL Link cannot be established.

• Causes: VDSL auto speed failure. Otherwise the phone cable length is over specification limit of 1.9km or not a 24 gauge phone wire with twist pair

• Solution:

1. Please check phone cable must be 24-gauge with twist pair and without rust, and the length is not over 1.9km.
2. Phone wire must be connected between SP3501AM and SP3501AS prior to powering on of devices.

[Symptom]: VDSL always link on 5M/5M speed mode at short phone cable.

• Causes: VDSL auto speed is not functioning.

• Solution: Turn the power off and reconnect the cables between both devices. The devices will run auto speed function when it powers back on.

Note:

1. Don't switch on or off all pins as it will make the VDSL modem functionless.
2. Before selecting the data speed, the power must be turned off for safety purposes.

Troubleshooting

[Symptom]: Power indicator does not light up (Green).

- Causes: Defective external power supply.
- Solution: Check the power plug by attaching with a functioning one. Check the power cord with other devices. If both tests fail, have the power supply replaced by qualified distributor.

[Symptom]: Link indicator does not light up (Green).

- Causes: Network interface, network cable or switch port may be faulty.
- Solution:
 1. Power off and reconnect the VDSL modem.
 2. Verify attached network devices are powered on.
 3. Verify the cables are connected properly on both ends.
 4. Verify the proper cable is used and the distant does not exceed the specified limit.
 5. Phone wire must be connected between SP3501AM and SP3501AS prior to powering on of devices.
 6. Replace the defective cable or modem if necessary.

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[Symptom]: VDSL Link cannot be established.

• Causes: VDSL auto speed failure. Otherwise the phone cable length is over specification limit of 1.9km or not a 24 gauge phone wire with twist pair

• Solution:

1. Please check phone cable must be 24-gauge with twist pair and without rust, and the length is not over 1.9km.
2. Phone wire must be connected between SP3501AM and SP3501AS prior to powering on of devices.

[Symptom]: VDSL always link on 5M/5M speed mode at short phone cable.

• Causes: VDSL auto speed is not functioning.

• Solution: Turn the power off and reconnect the cables between both devices. The devices will run auto speed function when it powers back on.

Micronet
Making Communication Easier



Quick Installation Guide

VDSL CO/CPE Modem

Model No.: SP3501AM/SP3501AS



P/N: 2300-0539

Web: www.micronet.com.tw

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Introduction

Micronet SP3501AM / SP3501AS delivers cost-effective and high-performance broadband access to multiunit building environments, such as enterprise, campus, hospital, hotel, and telecom. With QAM-based 4-band VDSL technology, the VDSL solution dramatically extends Ethernet and supports 5M/15M/25Mbps symmetrical bandwidth over existing telephone-grade wiring up to 1.9/1.3/0.8KM.

Package Contents

Prior to the installation of the device, please verify the following items are in the package:

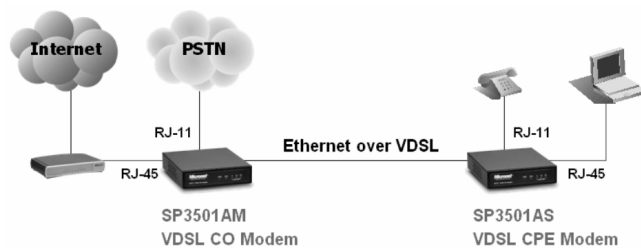
- VDSL Modem
 - SP3501AM VDSL CO Modem
 - SP3501AS VDSL CPE Modem
- Quick Installation Guide
- Manual CD
- RJ-11 Cable
- RJ-45 Cable
- Power Adapter

1

Hardware Installation

Installation Requirements

- Power requirements: DC 5V/1A or above
- The Modem should be located in a cool dry place with at least 10cm of space at the front and back for ventilation.
- Place the Modem out of direct sunlight, and away from heat sources or areas with a high amount of electromagnetic



Step 1: Connecting the Modem

- The Modem provides a single Ethernet port, which support connection through Ethernet operation.
- Network devices attached to the Ethernet port must support auto-negotiation or 10Base-T OR 100Base-TX. Otherwise, the network device must always operate at half duplex.
- The RJ-11 Line port is used to connect to the wall RJ-11 modular socket (outlet), which is used to connect both master and slave modem (Point to point solution)
- The RJ-11 Phone port of the Modem can be connected to a telephone for users sharing the single telephone wire for making calls and accessing the internet simultaneously.

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Tour of the System

SP3501AM/SP3501AS front view



SP3501AM/SP3501AS rear view



Modem Rear Connectors

Connectors	Description
Line(RJ-11)	Connecting to the VDSL Modem via a RJ-11 cable
Phone(RJ-11)	Connecting to the telephone, Fax or ISDN modem
Ethernet(RJ-45)	Connecting to an Ethernet network device
FG	Frame Ground

LED definition

LED	Status	Operation
PWR (Power LED)	Steady Green	Device is powering on or reset OK
ETH (Ethernet LED)	Steady Green	Lights up steadily to show good linkage
	Flashing Green	Flashing to show data transmission
5/15/25 LINE SPD (VDSL LED)	Steady Green	Lights up steadily to show good linkage at 5M/15M/25Mbps

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Step 2: Connecting the RJ-11/RJ-45 Ports

- The Modem's RJ-11 ports are easy-to-use and do not require installation of additional wiring. Every RJ-11 modular phone jack in the home can become a port on the LAN.
- Networking devices can be installed on a single telephone wire that can span within 1.9km or 800m (depend on speed) between the two farthest points.
- SP3501AM/AS Modem has embedded Splitter between every VDSL side (Line) and POTS (Phone) side. It permits user to deliver broadband service on the same lines as Plain Old Telephone Service (POTS), PBX, ISDN traffic and VDSL Signal.
- When inserting a RJ-11 plug, be sure the tab on the plug clicks into position to ensure that it is properly seated.
- Do not plug a RJ-11 phone jack connector into the Ethernet port (RJ-45 port). This may damage the modem. Instead, use only twisted-pair cables with RJ-45 connectors that conform to Ethernet standard.

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