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Chapter 1 Introduction of product

1.1 Summary

TCL A1100E ADSL Modem is a perfect modem with router function and an Ethernet port. It can provide you with quick Internet surfing service. This model suits for not only individual users, but also multi-users in offices of small or middle scale.

This model adopts multimode ADSL technology to improve the transmission rate (Max download rate: 24Mbps) on a common copper wire. support the newest multimode ADSL/ADSL2+ technology, The rate is 100 times than normal 56K analog modem. Moreover, it can contact to your computer and intranet by a 10/100M ethernet port.

1.2 Features and compatibility

- Several ADSL technology compatible completely, including G.dmt, G.lite and ANSI T1.413 issue 2, and the like. In accordance with most terminal contact standards.
- Support the newest ADSL/ADSL2+ technology, support AnnexA、AnnexL、AnnexM
- To support full-rate transmission, Max. Download/upload rate: 24Mbps/2Mbps
- To support several communication protocols, bridge mode and Router mode. To support RFC1483 Bridge, RFC 1483 Router, IP over ATM (RFC 1577), PPPoA (RFC2364), PPPoE (RFC 2516).
- Factory default: 7 groups of VPI/VCI
- Net protect function: NAT, IP filtering and firewall.
- To offer net setting by DHCP, support two intranet subnets.
- MDI, MDI-X auto compatible for Ethernet ports
- Perfect and friend WEB setting interface
- To support RIP, allow to exchange routing information on TCP/IP Internet.
- Flash memory function, to upgrade its software online.

- 4 status LED used for monitoring the misarrange and the working status

1.3 Accessories

- ADSL Modem 1unit
- Power Adaptor 1unit
- Telephone line with RJ-11 2pcs
- Ethernet line with RJ-45 1pc
- User manual 1pc
- Splitter 1unit
- Guarantee 1pc
- Warrant 1pc

Please check out the accessories, if any lack or damage to them, please contact the local distributors.

1.4 LED description

A1100E ADSL Modem has 4 pcs of Status LED, by which you can inspect the performance:

LED	Colour	Status description
POWER	Red	On: Power on Off: Power off
ADSL	Green	On: Effective ADSL connect to Internet Off: MODEM does not startup completely Sparkling: Startup MODEM, but no effective ADSL connect to Internet
DATA	Green	Sparkling: Data transmission on Internet
LAN	Green	Sparkling: Data transmission on Intranet Off: Intranet not connect On: Intranet connect

1.5 Backboard Description

The Backboard includes: power Jack, RJ-45, ADSL line port, and reset button, their descriptions as below:

Ports	Descriptions
LINE	Connect to the modem port of the splitter by the attached line
LAN	Connect to the netcard port of your computer by the attached Ethernet line
RESET	Back to factory default: firstly turn off the power of modem; then pressing the reset button till turning on the power of modem and waiting for 7 seconds; finally waiting for about 2 minutes, the startup is completed. Note: Don't shut off the power before the startup is completed.
PWR	Power port; connect to the attached power adaptor.

Chapter 2. Hardware Installation

2.1 Preparation

Please do the below preparation before hardware installation:

- Please sign an agreement with the local ISP/NSP operators, who can provide you with Internet service and help you install the ADSL Modem.
- Mandatory accessories: 10/100Base-T Ethernet Card
- Mandatory accessories: RJ-45 Ethernet line (attached)
- Mandatory accessories: RJ-11 telephone line (attached)
- Mandatory accessories: Power adaptor (attached)
- Mandatory accessories: Splitter (attached)

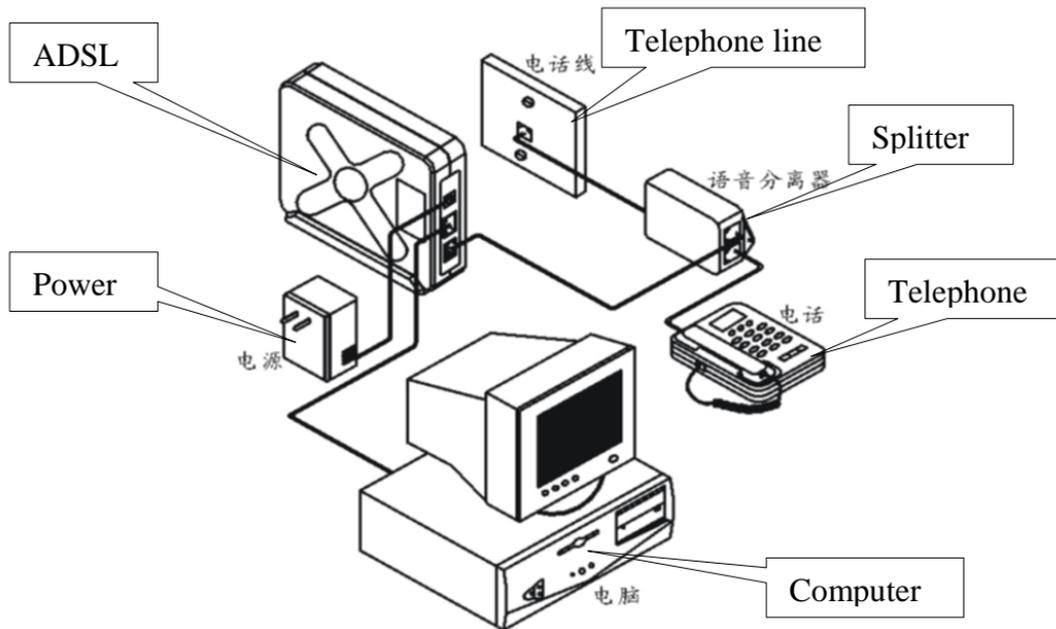
2.2 Hardware installation

Please install the hardware according to the below steps:

1. Connect LAN port of the modem to Netcard port of your computer by the attached Ethernet line.
2. Connect Line port of the modem to modem port of the splitter by the attached telephone line.
3. Connect RJ-11 port of your telephone to phone port of the splitter by the other attached telephone line.
4. Connect to Line port of the splitter with outside telephone line.
5. Insert the power plug into the port marked “PWR” on the backboard of the modem, then connect the power adaptor to the power, installation finished after its autoinspction is normal.

Caution: Please assure you connect to the power plug of the modem, and then connect the power adaptor to the power.

2.3 Hardware connection drawing



Chapter 3. Quick Setting

This modem has 7 groups of default PVC under bridge mode. If your PVC does not fall into this range, please add a new group of VPI/VCI on the “Quick setting” interface. You can also add a new one on the “Advanced setting” interface. If your PVC does fall into this range, but the mode is different, please click “Edit” button on the “Advanced setting” interface, but don't change the PVC value when you edit the mode.

3.1 Preparation for Quick Setting

Please acquaint yourself with the below contents before you set the modem:

1. The default intranet IP of the modem: **192.168.1.1**, User name: **admin**, Password: **admin**.
2. Assure that the netcard driver program and TCP/IP protocol are installed correctly.
The gateway: 192.168.1.1, IP: 192.168.1.x (1<x<255), assure that your computer has the same intranet subnet with your modem.

You must obtain the connect mode and the relevant parameters from your ISP operators. You can find more information regarding the connect mode and parameters in Chapter 4.2.

3.2 Quick Setting under various protocols

3.2.1 PPPoE.

Preparation:

- IP address auto obtaining or appoint an IP address in the same subnet as the modem
- DNS provided by your ISP operator, or auto obtaining
- VPI/VCI Provided by your ISP operator

- Account User and passard provided by your ISP operator

Procedures:

- 1.Open Explorer and type 192.168.1.1 in the website address bar, then type user name (admin), and password (admin), enter Quick Setting Interface of the modem.
- 2.Type VPI/VCI, then click “next”

The screenshot shows the 'Quick Setup' page of the TCL Communication ADSL MOEM interface. The page has a light blue header with the 'TCL COMMUNICATION' logo on the left and 'ADSL MOEM' on the right. A vertical navigation menu on the left side includes 'Quick Setup' (highlighted), 'Device Info', 'Advanced Setup', 'Diagnostics', 'Management', and 'Technology Support'. The main content area is titled 'Quick Setup' and contains the following text: 'This Quick Setup will guide you through the steps necessary to configure your DSL Router.' Below this is the 'ATM PVC Configuration' section, which includes a checkbox for 'DSL Auto-connect' (checked) and a note: 'The Virtual Path Identifier (VPI) and Virtual Channel Identifier (VCI) are needed for setting up the ATM PVC. Do not change VPI and VCI numbers unless your ISP instructs you otherwise.' There are two input fields: 'VPI: [0-255]' with the value '0' and 'VCI: [32-65536]' with the value '0'. A 'Next' button is located at the bottom right of the main content area.

3. Select PPPoE, and then click “next”

TCL COMMUNICATION ADSL MOEDM

Quick Setup
Device Info
Advanced Setup
Diagnostics
Management
Technology Support

Connection Type

Select the type of network protocol and encapsulation mode over the ATM PVC that your ISP has instructed you to use. Note that 802.1Q VLAN tagging is only available for PPPoE, MER, and Bridging.

- PPP over ATM (PPPoA)
- PPP over Ethernet (PPPoE)
- MAC Encapsulation Routing (MER)
- IP over ATM (IPoA)
- Bridging

Encapsulation Mode

4.Type user name and password, then click “next”

TCL COMMUNICATION ADSL MOEDM

Quick Setup
Device Info
Advanced Setup
Diagnostics
Management
Technology Support

PPP Username and Password

PPP usually requires that you have a user name and password to establish your connection. In the boxes below, enter the user name and password that your ISP has provided to you.

PPP Username:

PPP Password:

PPPoE Service Name:

Authentication Method:

Dial on demand (with idle timeout timer)

PPP IP extension

Use Static IP Address

5.Show setting information, if ok, click “save”.

Quick Setup	WAN Setup - Summary Make sure that the settings below match the settings provided by your ISP. <table border="1"><tr><td>VPI / VCI:</td><td>0 / 36</td></tr><tr><td>Connection Type:</td><td>PPPoE</td></tr><tr><td>Service Name:</td><td>pppoe_0_36_1</td></tr><tr><td>Service Category:</td><td>UGR</td></tr><tr><td>IP Address:</td><td>Automatically Assigned</td></tr><tr><td>Service State:</td><td>Enabled</td></tr><tr><td>NAT:</td><td>Enabled</td></tr><tr><td>Firewall:</td><td>Enabled</td></tr><tr><td>IGMP Multicast:</td><td>Disabled</td></tr><tr><td>Quality Of Service:</td><td>Disabled</td></tr></table> <p>Click "Save/Reboot" to save these settings and reboot router. Click "Back" to make any modifications. NOTE: The configuration process takes about 1 minute to complete and your DSL Router will reboot.</p> <p><input type="button" value="Back"/> <input type="button" value="Save/Reboot"/></p>	VPI / VCI:	0 / 36	Connection Type:	PPPoE	Service Name:	pppoe_0_36_1	Service Category:	UGR	IP Address:	Automatically Assigned	Service State:	Enabled	NAT:	Enabled	Firewall:	Enabled	IGMP Multicast:	Disabled	Quality Of Service:	Disabled
VPI / VCI:		0 / 36																			
Connection Type:		PPPoE																			
Service Name:		pppoe_0_36_1																			
Service Category:		UGR																			
IP Address:		Automatically Assigned																			
Service State:	Enabled																				
NAT:	Enabled																				
Firewall:	Enabled																				
IGMP Multicast:	Disabled																				
Quality Of Service:	Disabled																				
Device Info																					
Advanced Setup																					
Diagnostics																					
Management																					
Technology Support																					

6. Show the page you just setted, please check out the input data, if everything is ok, and click "finish"

TCL COMMUNICATION ADSL MOEDM

Wide Area Network (WAN) Setup

Choose Add, Edit, or Remove to configure WAN interfaces.
Choose Save/Reboot to apply the changes and reboot the system.

VPI/VCI	Con. ID	Category	Service	Interface	Protocol	Igrp	QoS	State	Remove	Edit
1/39	1	UBR	mer_1_39	nas_1_39	MER	Disabled	Disabled	Enabled	<input type="checkbox"/>	Edit
0/32	1	UBR	br_0_32	nas_0_32	Bridge	N/A	Disabled	Enabled	<input type="checkbox"/>	Edit
0/35	1	UBR	br_0_35	nas_0_35	bridge	N/A	Disabled	Enabled	<input type="checkbox"/>	Edit
0/100	1	UBR	br_0_100	nas_0_100	bridge	N/A	Disabled	Enabled	<input type="checkbox"/>	Edit
5/35	1	UBR	br_5_35	nas_5_35	bridge	N/A	Disabled	Enabled	<input type="checkbox"/>	Edit
0/35	1	UBR	br_0_35	nas_0_35	bridge	N/A	Disabled	Enabled	<input type="checkbox"/>	Edit
0/01	1	UBR	br_0_01	nas_0_01	bridge	N/A	Disabled	Enabled	<input type="checkbox"/>	Edit
0/36	1	UBR	pppoe_0_36_1	ppp_0_36_1	PPPoE	Disabled	Disabled	Enabled	<input type="checkbox"/>	Edit

Remove Save/Reboot

7. Modem will reboot, after that it will open automatically the page, which show you with system status of the modem. Two minutes later, the dial-up will finish, the relevant information will be shown as the below picture.

TCL COMMUNICATION ADSL MOEDM

Quick Setup	Device Info
Device Info	
Summary	
WAN	Board ID: 962308-2H-0M
Statistics	Software Version: 3.03.07.A29801941.0301
Route	Workloader (FTE) Version: 1.0.37-0.8
ADP	
TRIP	
Advanced Setup	This information reflects the current status of your DSL connection.
Diagnostics	Line Rate - Upstream (Kbps):
Management	Line Rate - Downstream (Kbps):
Technology Support	LAN IP Address: 192.168.1.1
	Default Gateway: 192.168.1.1
	Primary DNS Server: 192.168.1.1
	Secondary DNS Server: 192.168.1.1

3.2.2 Bridging

Preparation:

- IP Address auto obtaining or appoint an IP address in the same subnet as the modem
- DNS provided by your ISP operator, or auto obtaining
- VPI/VCI Provided by your ISP operator
- Account User and passard provided by your ISP operator

Procedures:

- 1.Open Explorer and type 192.168.1.1 in the website address bar, then type user name (admin), and password (admin), enter Quick Setting Interface of the modem.
- 2.Type VPI/VCI, then click “next”

TCL COMMUNICATION ADSL MOEDM

Quick Setup
 Device Info
 Advanced Setup
 Diagnostics
 Management
 Technology Support

Quick Setup

This Quick Setup will guide you through the steps necessary to configure your DSL Router.

ATM PVC Configuration

Select the check box below to enable DSL Auto-connect process.

DSL Auto-connect

The Virtual Path Identifier (VPI) and Virtual Channel Identifier (VCI) are needed for setting up the ATM PVC. Do not change VPI and VCI numbers unless your ISP instructs you otherwise.

VPI: [0-255]

VCI: [32-65535]

3. Select “Bridging”, click “next” .

TCL COMMUNICATION ADSL MOEDM

Quick Setup
 Device Info
 Advanced Setup
 Diagnostics
 Management
 Technology Support

Connection Type

Select the type of network protocol and encapsulation mode over the ATM PVC that your ISP has instructed you to use. Note that 802.1q VLAN tagging is only available for PPPoE, MBR and Bridging.

PPP over ATM (PPPoA)
 PPP over Ethernet (PPPoE)
 MAC Encapsulation Routing (MER)
 IP over ATM (IPoA)
 Bridging

Encapsulation Mode

4. Show setting information, if ok, click “save”.

The screenshot shows a web interface for configuring a TCL communication device. The header includes the logo 'TCL COMMUNICATION' and 'ADSL MOEDM'. A left sidebar contains navigation links: Quick Setup, Device Info, Advanced Setup, Diagnostics, Management, and Technology Support. The main content area is titled 'WAN Setup - Summary' and contains a table of configuration parameters. Below the table, there is a note about saving settings and rebooting the router, and two buttons: 'Back' and 'Save/Reboot'.

WAN Setup - Summary	
Make sure that the settings below match the settings provided by your ISP.	
VPI / VC1:	0 / 35
Connection Type:	Bridge
Service Name:	br_0_35
Service Category:	UBR
IP Address:	Not Applicable
Service State:	Enabled
NAT:	Disabled
Firewall:	Disabled
IGMP Multicast:	Not Applicable
Quality Of Service:	Disabled

Click "Save/Reboot" to save these settings and reboot router. Click "Back" to make any modifications.
NOTE: The configuration process takes about 1 minute to complete and your DSL Router will reboot.

5. Show the page you just setted, please check out the input data, if everything is ok, and then click “finish” to restart the modem.

TCL COMMUNICATION ADSL MOEDM

- Dial's Setup
- Device Info
- Advanced Setup
- WAN
- LAN
- Security
- Routing
- DNS
- DSL
- Diagnostics
- Management
- Technology Support

Wide Area Network (WAN) Setup

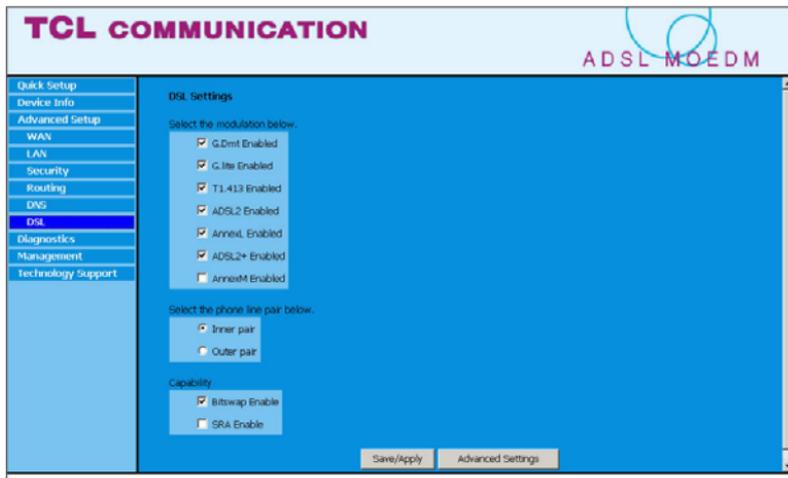
Choose Add, Edit, or Remove to configure WAN interfaces.
Choose Save/Reboot to apply the changes and reboot the system.

VPI/VCI	Con. ID	Category	Service	Interface	Protocol	Icmp	QoS	State	Remove	Edit
1/39	1	UBR	mer_1_39	nas_1_39	MER	Disabled	Disabled	Enabled	<input type="checkbox"/>	Edit
0/32	1	UBR	br_0_32	nas_0_32	bridge	N/A	Disabled	Enabled	<input type="checkbox"/>	Edit
0/100	1	UBR	br_0_100	nas_0_100	bridge	N/A	Disabled	Enabled	<input type="checkbox"/>	Edit
5/35	1	UBR	br_5_35	nas_5_35	bridge	N/A	Disabled	Enabled	<input type="checkbox"/>	Edit
6/25	1	UBR	br_6_25	nas_6_25	bridge	N/A	Disabled	Enabled	<input type="checkbox"/>	Edit
6/61	1	UBR	br_6_61	nas_6_61	bridge	N/A	Disabled	Enabled	<input type="checkbox"/>	Edit

6. Install the dial-up software in your computer, and enter the account and the password provided by ISP, then go to Internet via dial-up mode.

3.3 Using ADSL2/2+

1. This product support the newest ADSL2/2+ technology, if you want to use ADSL2/ADSL2+, please set the interface under “DSL” menu of advanced setup as below.



2. Mark ADSL2 or ADSL2+ with “√”, your Modem can support ADSL2/2+ after clicking the “apply” button.

Appendix A Questions and answers

The appendix lists down the questions and answers you perhaps meet when you install and use the modem.

Questions	Recommended Solutions
LED	
Turn on the power, but the power LED off	Assure that the power adaptor is the attached one and the connection is well.
Connect the telephone line; The time of ADSL LED sparkling is more than 5 minutes.	In fact LED should be on after it sparkles for about 2 minutes. If not, please assure that the telephone line is the attached one, and the RJ-11 connect is well
Connect the Ethernet line, LAN LED off	Assure that the Ethernet line connecting is well, not loosen.
Dialup software faults	
If the dialup window shows “Begin Negotiation” , then waiting..., at last pop-up a bar “time out”	It indicates that the network does not connect. The reason is that the Ethernet line or telephone line does not connect well. Please check out the connection and retry it.

<p>If the dialup window shows that “Begin Negotiation” , then show “Authenticating” , at last shows “ Authentication Failed”</p>	<p>The user name or password is wrong</p>
<p>Others</p>	
<p>Your computer always breaks down</p>	<p>Perhaps it causes by the quality of netcard or its bad compatibility. Especially 10M netcard with dated ISA bus. Please adopt the 10M/100M Ethernet card.</p>
<p>ADSL modem always breaks down</p>	<p>There is a broadcast storm in your intranet, please find out the reason of broadcast storm, such as “shock wave” virus or loop intranet.</p>
<p>Dialup software can't be installed</p>	<p>Check out if there is virus or some software conflicts, uninstall redundant dialup softwares; install the correct one, such as ENTERNET, RASPPPoE, and WINPPPOE. (XP can directly build up DSL connect). Perhaps there is damage to TCP/IP protocols, please reinstall the protocols.</p>