56K V.90 V.92 Modem

Conexant SC56D

User's Guide

FCC Requirements

This equipment complies with Part 68 of the FCC Rules. On the bottom of this equipment is a label that contains, among other information, the FCC Registration Number and Ringer Equivalence Number (REN) for this equipment. IF REQUESTED. THIS INFORMATION MUST BE GIVEN TO THE TELEPHONE COMPANY.

The REN is useful to determine the quantity of devices you may connect to your telephone line and still have these entire devices ring when your telephone number is called In most. But not all areas the sum of the REN's of all devices connected to one line should not exceed five (5.0). To be certain of the number of devices you may connect to your line. As determined by the REN. You should contact your local telephone company to determine the maximum REN of the area you are calling from. If your telephone equipment causes harm to the telephone network. The Telephone Company may discontinue your service temporally. If possible, they will notify you in advance. But if the advanced notice is failed, you will be notified as soon as possible. You will be informed of your right to file a complaint with the FCC.

Your telephone company may change in its facilities, equipment, operations or procedures that could affect the proper functions of your equipment. If this occurs, you will be notified in advance to give you an opportunity to maintain uninterrupted telephone service.

If you experience trouble with this telephone equipment, please contact the following address and phone number for information on obtaining service or repairs. The Telephone Company may ask you to disconnect this equipment from the network until the problem is solved or until that the equipment is not detected malfunctioning. This equipment may not be used on coin service provided by the Telephone Company. Connection to party lines is subject to state Tariffs.

Federal Communications Commission

Radio Frequency Interference Statement.

Note: This equipment has been tested and found to comply with the limitation for a lass B digital device pursuant to Part 15 of the FCC Rules. These restrictions are designed to provide reasonable protection against harmful interference when the equipment is operated in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instruction manual may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If the equipment does cause harmful interference to radio or television reception, which can be determine by tuning the equipment off and on, the user is suggested to try to correct the interference by one or more of the following measures:

-Reorient or relocate the receiving antenna.

-Increase the distance between the equipment and receiver.

-Connect the equipment into an outlet on a circuit different from that to which the receiver is connected. Consult the dealer or an experienced radio TV technician for help.

Notices:

- (1) The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
- (2) Shielded interface cables and AC power cord if any must be used in order to comply with the emission limits.

Notices to Australian users:

The modem card must only be used in a data terminal equipment (DTE) e.g. computer, that has a screw down cover (lid). As unsafe voltages (TNV) exist on the modem card, disconnect the modem card from the telephone line while the cover (lid) of the DTE (computer) is removed.

Installation of the modem card in a DTE (computer) which does not require a tool to open the cover (lid) will render the permit void.

Disconnect the telephone line before opening the cover (lid) of the DTE (computer). Do not connect the customer equipment to the telephone line while the cover (lid) of the DTE (computer) is open.

WARNING ONLY CONNECT EQUIPMENT WITH A TELECOMMUNICATIONS COMPLIANCE LABEL

WARNING FOR SAFETY REASONS, ONLY CONNECT EQUIPMENT WITH A TELECOMMUNICATIOS COMPLIANCE LABEL. THIS INCLUDES CUSTOMER EQUIPMENT PREVIOUSLY LABELLED PERMITTED OR CERTIFIED.

Modems connected to the Australian telecommunications network must be marked in accordance with the Labeling Notice. This modem has been specifically configured to ensure compliance with the ACA Standards. Do not adjust your modem or software outside the values indicated as below. To do so would result in your modem being operated in a non-compliant manner.

Modem Commands:

Command	Default	Permissible Range
ATA	-	Do not use
ATB	B0	Do not set to B1
AT&G	&G0	&G2
AT&P	&P0	&P1
ATSn	see table be	low

Call Attempts/Retries:

Applications software shall be configured so that no more than 3 attempts are made to establish a connection to a given number (Note: if the modem can detect service tones, up to10 attempts can be made). If the call sequence is unsuccessful, there shall be a delay of at least 30 minutes before attempting to call the number again.

Failure to set the modem and any application software used with the modem, to the values shown as above will result in the modem being operated in a non-compliant manner. Consequently, this would be in violation of the Labeling Notice for this equipment, and the Telecommunications ACT 1997 prescribes penalties for the connection of non-compliant equipment.

Table of Contents

Chapter 1 Introduction	5
1.1 Introduction	5
Chapter 2 Specifications	6
Chapter 3 Hardware Installation	7
Chapter 4 Software Installation	8
4.1 Windows 98	
4.2 Windows ME	
4.3 Windows 2000	
4.4 Windows XP	
Chapter 5 Diagnostics	23
5.1 Windows 98/ME	
5.2 Windows 2000	
5.3 Windows XP	

Chapter 1 Introduction

1.1 Introduction

Thank you for selecting the 56K V.90, V.92 modem with *Conexant SC56D* chipset manufactured. This modem with *Conexant SC56D* chipset is a hardware modem. Besides, it has the advantages of high quality, high reliability, more compact and low cost. This modem with *Conexant SC56D* chipset is compatible with current Windows 98, ME, 2000, XP operation systems because of its independent OS. Moreover, it follows the V.90, V.92 standard, so you can surf the Internet at 56K speed, but it depends on the condition of the telephone line and the ISP you connected to. We truly hope that our series products with *Conexant SC56D* chipset can meet your needs.

1.2 What's in the Package

- 56K V.90, V.92 Modem with Conexant SC56D Chipset
- CD-ROM (Comprises Application Software, Modem Drivers and User's Guide)
- Quick Guide for Installing Modem Drivers
- Phone Cord
- RS-232
- Power Adapter

Chapter 2 Specifications

Specifications:	
Chip Set	Conexant SC56D
Line Connection	PSTN, 2 wires
Data Transmission	BELL 103 and 212A ITU-T V.21 (300 bps) ITU-T V.22 (1200 bps) ITU-T V.23 (1200/75 bps) ITU-T V.23 bis (2400 bps) ITU-T V.32 (9600/4800 bps) ITU-T V.32 bis (14400/7200/1200 bps) ITU-T V.34 bis (33600/28800 bps) ITU-T V.90 and K56 flex
ITU-T V.92	Quick connect Theory of Operation Modem on-hold PCM Upstream
Fax Transmission	Send/Receive G3 Fax ITU-T V.27ter (2400 bps) ITU-T V.29 (9600 bps) ITU-T V.17 (14400 bps) MNP 2 4/V42 LAPM
Data Compression	MND 5 (V 42 kis)
	MINP 5/ V.42 DIS
Command Set	EIA/IIA 5/8 Class 1 & Class 2 & 1.31 Class 1.0
Communication Model	Asynchronous
DTE Speed (MAX)	115200kbps
Transmit Level	$-11dB \pm 1dB$ (FCC) ; $-13dB \pm 2dB$ (CTR21)
Flow Control	XON/XOFF, RTS/CTS
Dialing Mode	Tone /pulse
Auto Dial & Auto Answer	YES
Programmable Volume Control	YES
Noted Features	Speed Buffering Auto Format/Speed sensing Auto Retrain
Data Interface	RS-232C
Telephone Interface	PSTN Line through RJ-11
PTT	FCC Part68 Class B; CTR21
Full duplex speaker phone	YES
Safety	FCC Part15 Class B; CE
Escape code	TIES
OS	Windows 98/ME/2000/XP

Chapter 3 Hardware Installation

- 1. Plug the RS-232C cable supplied into the socket on the back of the modem marked RS-232. Plug other end of the RS-232C cable into the computer COM port.
- 2. Unplug the telephone from the wall socket, then plug the telephone into the socket on the back of the modem marked PHONE.
- 3. Plug the telephone cord supplied into the socket on the back of the modem marked LINE.
- 4. Plug the other end of the cord into the wall socket.
- 5. Plug the power adapter supplied into the socket on the back of the modem marked Power.



Chapter 4 Software Installation

Power on your computer and modem and start Windows 98/ME.Windows 98/ME will detect the modem automatically.

4.1 Windows 98

1. Please insert the driver CD supplied when Windows detects the modem, then click **Next** to search for the driver.



 What do you want Windows to do? Search for the best driver for your device. (Recommended). Display a list of all the drivers in a specific location, so you can select the driver you want.
< Back Next > Cancel

2. Select the **Search for the best driver for your device. [Recommended]** and click **Next** to continue.

3. Select the **Specify a location E:\Driver** (E is the label of CD-ROM drive), and click **Next** to start the search.

Add New Hardware Wizard	
	Windows will search for new drivers in its driver database on your hard drive, and in any of the following selected locations. Click Next to start the search.
	< <u>B</u> ack Next > Cancel

 Windows has found the driver for the Conexant SC56D External PnP,V.92,V.90, Voice, Speakerphone, click Next to start the installation.

Add New Hardware Wiz	ard
	Windows driver file search for the device: Conexant SC56D External PnP, V.92,V.90,Voice,Speakerphone Windows is now ready to install the best driver for this device. Click Back to select a different driver, or click Next to continue. Location of driver: E:\DRIVER\SCDSVS.INF
	< <u>B</u> ack Next>

5. If the file "SCDsvs.cat" cannot be found, please use **Browse** to choose a location **E:\Driver** (E is the label of CD-ROM drive).

Insert Di	sk	×
_	The file 'SCDsvs.cat' on (Unknown) cannot be found. Setup had trouble copying a file. Click OK to try copying the file again. If this message	OK Cancel
	reappears, quit Setup and then try running Setup again.	<u>S</u> kip File
	Copy files from:	<u>D</u> etails
	E:\Driver	Browse

6. This installation has been done; click **Finish**.



4.2 Windows ME

1. Please insert the driver CD supplied when Windows detects the modem, then select the **Specify the location of the driver [Advanced]**click **Next** to search for the driver.

Add New Hardware Wizard	
Add New Hardware Wiz	windows has found the following new hardware: Conexant FM-56SA-SCD V.92,V.90 Modem Windows can automatically search for and install software that supports your hardware. If your hardware came with installation media, insert it now and click Next. What would you like to do? Automatic search for a better driver (Recommended) Specify the location of the driver (Advanced)
	< Back Next > Cancel

Select Search for the best driver for your device[Recommended],Please select the Specify a location E:\Driver(E is the label of CD-ROM drive).Then click Next to continue.

Add New Hardware Wizard	
	 Windows will search for new drivers in its driver database on your hard drive, and in any of the following selected Search for the best driver for your device. (Recommended). Removable Media (Floppy, CD-ROM) ✓ Specify a Jocation: E:\Driver Display a list of all the drivers in a specific location, so you can select the driver you want.
	< <u>B</u> ack Next > Cancel

3. Windows has found the driver for the Conexant SC56D External PnP,V.92,V.90, Voice,

Speakerphone, click Next to continue.

Add New Hardware Wizard	
	Windows driver file search for the device:
	Conexant SC56D External PnP, V.92,V.90,Voice,Speakerphone
	Windows is now ready to install the best driver for this device. Click Back to select a different driver, or click Next to continue.
🏽 🇞 🌧 🛛	Location of driver:
	< Back Next > Cancel

4. Click **Finish**.



4.3 Windows 2000

1. Windows will detect the modem automatically; please insert the driver CD supplied and clicks Next.



2. Search for a suitable driver for my device [recommended], and then click Next.

Found New Hardware Wizard		
Install Hardware Device Drivers A device driver is a software program that enables a hardware device to work with an operating system.		
This wizard will complete the installation for this device:		
Conexant FM-56SA-SCD V.92		
A device driver is a software program that makes a hardware device work. Windows needs driver files for your new device. To locate driver files and complete the installation click Next.		
What do you want the wizard to do?		
 Search for a suitable driver for my device (recommended) 		
 Display a list of the known drivers for this device so that I can choose a specific driver 		
< Back Next > Cancel		

3. Select **Specify a location**, then click **Next**.

Found New Hardware Wizard		
Locate Driver Files Where do you want Windows to search for driver files?		
Search for driver files for the following hardware device:		
Conexant FM-56SA-SCD V.92		
The wizard searches for suitable drivers in its driver database on your computer and in any of the following optional search locations that you specify.		
To start the search, click Next. If you are searching on a floppy disk or CD-ROM drive, insert the floppy disk or CD before clicking Next.		
Optional search locations:		
Floppy disk drives		
CD-ROM drives		
Specify a location		
Microsoft Windows Update		
< Back Next > Cancel		

4. Please type **E:\Driver** or use **Browse** ...to find the driver directly; then click **OK** (E is the label of CD-ROM drive).

Found Nev	v Hardware Wizard		×
2	Insert the manufacturer's installation disk into the drive selected, and then click OK.	OK Canc	el
	Copy manufacturer's files from: E:\Driver	Browse	e

5. Windows will found a driver for this device, then click Next.

Found New Hardware Wizard
Driver Files Search Results The wizard has finished searching for driver files for your hardware device.
The wizard found a driver for the following device:
Conexant FM-56SA-SCD V.92
Windows found a driver for this device. To install the driver Windows found, click Next.
e:\driver\scdsvs.inf
< Back Next > Cancel

6. Click **Yes** to continue.



7. Click **Finish** to end this install procedure.

Found New Hardware Wizard	
	Completing the Found New Hardware WizardImage: Conexant SC56D External PnP, V.92,V.90,Voice,SpeakerphoneImage: Visit of the software for this device.Image: Visit of the software for this device.To close this wizard, click Finish.
	K Back Finish Cancel

4.4 Windows XP

 Restart the computer after connecting the modem to PC. When Windows detects the modem, the wizard will help you to install the new device. Select "Install from a list or specific location [Advanced]". Then click Next.

Found New Hardware Wizard				
	Welcome to the Found New Hardware Wizard			
	This wizard helps you install software for:			
	Conexant FM-56SA-SCD V.92			
	If your hardware came with an installation CD or floppy disk, insert it now.			
	What do you want the wizard to do?			
	 Install the software automatically (Recommended) Install from a list or specific location (Advanced) 			
	Click Next to continue.			
	< Back Next > Cancel			

2. Indicating the path: H:\Driver and then click Next. (H is the label of CD-ROM drive)

Found New Hardware Wizard
Please choose your search and installation options.
 Search for the best driver in these locations.
Use the check boxes below to limit or expand the default search, which includes local paths and removable media. The best driver found will be installed.
Search removable media (floppy, CD-ROM)
Include this location in the search:
H:\Driver Browse
O Don't search. I will choose the driver to install.
Choose this option to select the device driver from a list. Windows does not guarantee that the driver you choose will be the best match for your hardware.
< Back Next > Cancel

3. Click "Continue Anyway".

Hardwa	re Installation
1	The software you are installing for this hardware: Conexant SC56D External PnP, V.92,V.90,Voice,Speakerphone has not passed Windows Logo testing to verify its compatibility with Windows XP. (Tell me why this testing is important.) Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the hardware vendor for software that has passed Windows Logo testing.
	Continue Anyway STOP Installation

4. Click "Finish"



Chapter 5 Diagnostics

5.1 Windows 98/ME

 Move your cursor as following sequence Start \ Settings \ Control Panel and click Control Panel. Then double-click on the Modems icon.



2. To test the modem by clicking on the **Diagnostics** tab. Then select the **COM Port** that the modem is setting and click on the **More Info** ...button to start the test.

Modems Pr	operti	ies ?	×
General	Diagno	ostics	
Ż	Wind alread	lows detected the following ports, and has dy installed the following devices:	
Port		Installed	
🧶 СОМ 🖓 СОМ	1	Conexant SC56D External PnP, V.92,V.9 No Modem Installed.	
<u>D</u> r	iver	<u>M</u> ore Info <u>H</u> elp	
		OK Cancel	

3. If your modem is responding to AT commands and functioning correctly, it means that your modem is working properly. Click **OK** to end this procedure.

М	ore Info					
	– Port Informati	on				
	Port:	COM1				
	Interrupt:	4				
	Address:	3F8				
	UART:	NS 16550AN				
	Highest Sp	eed : 115K Baud				
	Identifier: SERENUM\RSS0303					
	Command	d Response				
	ATI1	255				
	ATI2					
	ATIA	AUF3_V1.088-V90_P21_F5H EM EESA Smooth (92.%) (90 Medem 200				
	AT15	PM-363A-3mart v.32 & v.30 Modem 200 B5				
	ATI6	BCV56DPF-PLL L8571A Bey 30.03/34.00				
	ATI7	OK				
	AT+FCLA.	0,1,1.0,2,8,10				
	,					
		ОК				

5.2 Windows 2000

 Move your cursor as following sequence Start \ Settings \ Control Panel and click Control Panel. Then double-click on the Phone and Modem Options icon.

🗟 Control Panel									
File Edit View Favorites Too	ls Help								
📙 🖨 Back 👻 🤿 👻 🔂 🔯 Search	Folders	🔇 History 🛛	° ¶S X ¤	n 🏢 -					
Address 🐼 Control Panel						▼ 🖗 Go			
	Accessibility Options	Add/Remove Hardware	Add/Remove Programs	Administrative Tools	Date/Time	Display			
Phone and Modem Options Configures your telephone dialing rules and modem properties	Fax	Folder Options	Fonts	Game Controllers	Internet Options	Keyboard			
Windows Update Windows 2000 Support	Ø			ų					
	Mouse	Network and Dial-up Co	Phone and Modem Options	Power Options	Printers	Regional Options			
	Scanners and Cameras	Scheduled Tasks	Sounds and Multimedia	System	Users and Passwords				
, Configures your telephone dialing rules ar	Configures your telephone dialing rules and modem properties								

2. Click **Modems** tab and select **Conexant SC56D External PnP,V.92,V.90,Voice Speakerphone** modem then click **Properties**.



3. Click **Diagnostics** tab, then click **Query Modem**.

Conexant SC56D External PnP, V.92,V.90,Voice,Spea <mark>?</mark> 🗙
General Diagnostics Advanced
Modem Information
Field Value
Hardware ID SERENUM\RSS0303
Command Response
I
Query Modem
Cogging View log View log
OK Cancel

4. If your modem is responding to AT commands and functioning correctly, it means that your modem is working properly. Click **OK**.

Conexant SC56D	External PnP, V.92,V.90,Voice,Spea ? ×
General Diagno	tion
Field N Hardware ID	Value SERENUM\RSS0303
Command	Besponse
ATQ0V1E0 AT+GMM AT+FCLASS=? AT#CLS=?	OK +GMM: V90∥ 0,1,1.0,2,8,10 COMMAND NOT SUPPORTED ▼
	Query Modern
Logging Append to I	Log View log
	OK Cancel

5.3 Windows XP

 Move your cursor as following sequence Start \ Settings \ Control Panel and click Control Panel. Then double-click on the Phone and Modem Options icon.

🕑 Control Panel								. 🗗 🔀
File Edit View Favorites Tools	Help							1
🕞 Back 🔹 🌍 👻 🏂 🔎 Se	arch 😥 Folders	•						
Address 🚱 Control Panel							*	🔁 Go
See Also	Accessibility Add	d Hardware	Add or Remov	Administrative Tools	Date and Time	Display	Folder Options	
 Windows Update Help and Support 	Fonts C Power Options Pr	Game controllers	Internet Options	Keyboard	Mouse	Network Connections Sounds and Audio Devices	Phone and Modem Options Speech	
	System Ta S	askbar and tart Menu	User Accounts	Canto do				

2. Click Modems tab and select Conexant SC56D External PnP,V.92,V.90 ... then click Properties.

Phone and Modem Options	?	×
Dialing Rules Modems Advanced		
The following modems are installed:		
Modem Attached To		
Conexant SC56D External PnP, V.92,V.90, COM1		
Add Remove Proper	ties [Ş
OK Cancel A	pply	

lagnostics tab, then click Query Modelli
Conexant SC56D External PnP, V.92,V.90,Voice,Spea 🕜
General Modem Diagnostics Advanced Driver Power Manageme
Modem Information
Field Value
Hardware ID SERENUM\RSS0303
Command Response
Query Modem
Logging Append to Log

ΟK

Cancel

3. Click **Diagnostics** tab, then click **Query Modem**

4. If your modem is responding to AT commands and functioning correctly, it means that your modem is working properly. Click **OK**

Conexant SC56D External PnP, V.92,V.90,Voice,Spea ? 🔀
General Modem Diagnostics Advanced Driver Power Management
Modem Information
Field Value
Hardware ID SERENUM\RSS0303
ATQ0V1E0 Success
AT+GMM +GMM: V9000 AT+FCLASS=? 0,1,1.0,2,8,10
AT#CLS=? COMMAND NOT SUPPORTED
Query Modem
Logging
Append to Log View log
OK Cancel