# **TFM-PCIV92A**

56K (V.92) High Speed Internal PCI Data/Fax/Voice Modem

# **User's Guide**





#### **TABLE OF CONTENT**

1. Contents of Package1				
2. Comprehensive Modem Installation Instructions				
2.1	Modem Installation 1			
2.2	Hardware Installation1			
2.3	System Setup3			
2.3.1	Setup Instructions for Windows 98 3			
2.3.2	Uninstall Modem from Windows 98 4			
2.3.3	Setup Instructions for Windows Me 5			
2.3.4	Uninstall Modem from Windows Me 6			
2.3.5	Setup Instructions for Windows 2000 7			
2.3.6	Uninstall Modem from Windows 2000 9			
2.3.7	Setup Instructions for Windows XP 10			
2.3.8	Uninstall Modem from Windows XP 12			
2.4	Testing your modem13			
2.5	Install Communication Software13			
3. Troubleshooting14				
Appendix 1	: Modem Specifications16			
Appendix 2	AT Command Set17			

Appendix 3:	S-Register Summary22
Appendix 4:	Result Codes Summary25
Appendix 5:	Government Compliance27

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#### Section 1 Contents of Package

- One V.92/V.90 PCI bus window modem
- One telephone cable
- One CD-ROM disk comprises Communication software, Modem Driver & User's Manual
- Quick installation guide

Please contact the place of purchase if any of the above listed items are missing.

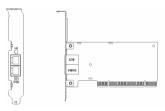
#### Section 2 Comprehensive Modem Installation Instructions

#### Section 2.1 Modem Installation

This section will provide instructions for the installation of your modem. There are hardware installation and system setup two parts for the modem. The modem hardware must be installed into the computer correctly before you start the system setup.

#### Section 2.2 Hardware Installation

Please refer to Fig. 2 - 1 and proceed to following steps for how to insert your modern into the computer and connect telephone wire and audio accessories.



#### Figure 2-1 Internal modem figure

- 1. Turn off and unplug your computer from the AC outlet.
- 2. Unplug any peripheral devices (keyboard, monitor, etc.) from your computer to avoid the risk of electric shock.
- 3. Take the cover off your computer, review computer's manual if you need further instructions.
- 4. Find an empty PCI slot.
- 5. Unscrew the PCI slot bracket and save the screw, then remove the bracket.
- 6. Plug the modem into the PCI slot carefully until the modem is properly seated.

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- 7. Fasten the modem bracket firmly with the screw saved in step 5.
- 8. Reassemble your computer cover and re-plug cables for peripheral.
- 9. Plug one end of telephone cord into the "LINE" jack at the modem's bracket. Plug another end of the telephone cord into the telephone wall jack
- 10. Some models may comprise a phone jack for an optional telephone. If you wish to use a phone through the same telephone wall jack when the modem is not in use, plug the telephone cord of the phone into "PHONE" jack at the modem's bracket now. Lift the handset and listen for a dial tone to check for a properly connection.
- 11. Plug the power cord into the computer and turn the computer on.
- 12. Up to now, the hardware installation has been finished. If you have not encountered any problems, you can go to Section 2.3 System Setup. If you are having problems, see Section 3 Troubleshooting.

**NOTE**: The telephone wall jack you use must be for an ANALOG phone line (the type found in most homes). Many offices are equipped with digital phone lines. Please be sure you know which type of line you have. The modem will be damaged if you use a digital phone line.

#### Section 2.3 System Setup

#### Section 2.3.1 Setup instructions for Windows 98

**STEP 1.** After you complete the modem hardware installation and turn on your PC, Windows system will automatically detect your new added devices. Windows system will prompt you with an Add New Hardware Wizard.



Then click on Cancel.

STEP 2. Insert the Modem Driver CD-ROM disk attached with your modem into the CD-ROM drive device, Then run <CD-ROM letter>:\drivers\Win98\Setup.exe as shown in figure.

Run	?×
2	Type the name of a program, folder, document, or Internet resource, and Windows will open it for you.
<u>O</u> pen:	F:\Drivers\Win98\Setup.exe
	Cancel Browse



STEP 3. And then, a prompt screen will ask you to ensure to install the modem driver.



Then click OK.

The setup utility will copy the needed files into windows system.

**STEP 4.** If there is no error message while the system is installing, your modem has been set up properly and functionally.

#### Section 2.3.2 Uninstall Modem from Windows 98

STEP 1. Open Control Panel window, then click Add/Remove Programs icon.



STEP 2. Choose Agere Systems PCI Soft Modem device in stall/Uninstall tab, then click on Add/Remove....

#### Add/Remove...



STEP 3. Click Yes to ensure to remove Agere Systems PCI Soft Modem device and its drivers.



**STEP 4.** Click **Yes** to restart your computer for all of the changes to take effect.



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#### Section 2.3.3 Setup instructions for Windows Me

**STEP 1.** After you complete the modem hardware installation and turn on your PC, Windows system will automatically detect and install your new added devices. Windows system will prompt you with an Add New Hardware Wizard.



Click on Cancel.

STEP 2. Insert the Modem Driver CD-ROM disk attached with your modem into the CD-ROM drive device, then run <CD-ROM letter>:\drivers\WinMe\SETUP.EXE to upgrade the modem driver as shown in figure.



Then click on OK.

STEP 3. And then, a prompt screen will ask you to ensure to install the modem driver.



Then click OK.

The setup utility will copy the needed files into windows system.

**STEP 4.** If there is no error message while the system is installing, your modem has been set up properly and functionally.

#### Section 2.3.4 Uninstall Modem from Windows Me

STEP 1. Open Control Panel window, then click on Add/Remove Programs icon.



STEP 2. Choose Agere Systems PCI Soft Modern device in Install/Uninstall tab, then click on



- STEP 3. Click Yes to ensure to remove Agere Systems PCI Soft Modem device and its drivers.
  - Moning!
- STEP 4. Click Yes to restart your computer for all of the changes to take effect.



#### Section 2.3.5 Setup instructions for Windows 2000

**STEP 1.** After you complete the modern hardware installation and turn on your PC, Windows system will automatically detect your new added devices. Windows system will prompt you with an Add New Hardware Wizard.



Click on Cancel.

STEP 2. Insert the Modem Driver CD-ROM disk attached with your modem into the CD-ROM drive device,

then run <CD-ROM letter>:\drivers\Win2K&XP\Setup.exe as shown in figure.



Then click on OK.

STEP 3. And then, a prompt screen will ask you to ensure to install the modem driver.



Then click on OK.

The setup utility will copy the needed files into windows system.

STEP 4. The prompt screens will be warning you that the digital signature of programs have not found as



Please always click on Yes.

**STEP 5.** If there is no error message while the system is installing, your modem has been set up properly and functionally.

#### Section 2.3.6 Uninstall Modem from Windows 2000

STEP 1. Open Control Panel window and choose Add/Remove Programs icon.



STEP 2. Select Agere Systems PCI Soft Modem device in Change or Remove Programs tab, then click

#### on Change/Remove.



STEP 3. Click Yes to ensure to remove Agere Systems PCI Soft Modem device and its drivers.



STEP 4. Click Yes to restart your computer for all of the changes to take effect.



#### Section 2.3.7 Setup instructions for Windows XP

STEP 1. After you complete the modem hardware installation and turn on your PC, Windows system will automatically detect and install your new added devices. Windows system will prompt you with an Add New Hardware Wizard.



Click on Cancel.

STEP 2. Insert the Modem Driver CD-ROM disk attached with your modem into the CD-ROM drive device, Then run <CD-ROM letter>:\Drivers\Win2K&XP\SETUP.EXE to upgrade the modem driver as shown in figure.



STEP 3. And then, a prompt screen will ask you to ensure to install the modem driver.



Then click OK.

The setup utility will copy the needed files into windows system.

**STEP 4.** The prompt screens will be warning you that the digital signature of programs have not found as shown in figure.



Please always click on Yes.

**STEP 5.** If there is no error message while the system is installing, your modem has been set up properly and functionally.

#### Section 2.3.8 Uninstall Modem from Windows XP

STEP 1. Open Control Panel window, then click on Add or Remove Programs icon.



STEP 2. Choose Agere Systems PCI Soft Modem device in Change or Remove Programs tab, then

click on Change/Remove.



STEP 3. Click Yes to ensure to remove Agere Systems PCI Soft Modem device and its drivers.



STEP 4. Click Yes to restart your computer for all of the changes to take effect.



#### Section 2.4 Testing Your Modem

Before you set up your software, start with a quick test to check that your modem is working. Once you have determined that your modem is setup properly, go on to **Section 2.5 Install Communication Software** to install your communications software. If you are having problems, see **Section 3 Troubleshooting**.

Click on **Start** and point to **Setting**. Then click on **Control Panel**. When the **Control Panel** window opens. Scroll down to the **Modem** icon and double click on it. Click on the **Diagnostics** tab and highlight the COM port for your modem. Then click on **More Info**, your computer will automatically communicate with your new modem using AT commands and receiving responses from your modem. A list of response means the modem is setup properly.

#### Section 2.5 Install Communication Software

You can install the communication software from the CD-ROM disc attached with your new modern. Please consult the software manual in the CD-ROM disc for the detail of software installation.

You do not have to use the communication software attached with your new modem. The modem was designed for and tested using a wide range of communications software packages. Many communication applications identify the modem automatically and configure themselves for the correct operating settings. Some of the communication applications will ask you to select the type of modem you are using. Select a **Generic Fax class 1 modem** will let you use basic communication and fax functions.

#### Section 3 Troubleshooting

Your modem is designed to provide reliable and trouble-free functionality, however, should you experience any difficulty, the information contained in this section will assist you in determining and resolving the source of the problem.

### Problem: Modem does not respond to AT commands

#### Possible solutions:

 Make sure the modem is not configured with a conflicting COM port and IRQ setting. Make sure the communication software is configured with the correct COM and IRQ settings (the same COM port and IRQ as the modem). Your communications software will not be able to send or receive any data if it is not configured to match the COM port and IRQ settings for the modem.

DOS based communication program is not working with this modem neither can you operate the modem in MS-DOS prompt screen.

2. Make sure the modem is properly initialized using the driver software. The software may improperly Initialize your modem because you have selected an incorrect modem type. You may also be prompted to enter an initialization string by the software. Use AT&F as your initialization string.

#### Problem: Modem dials but does not connect

#### Possible solutions:

- 1. Be sure the IRQ setting is identical on the modem and the software.
- 2. Make sure that the phone line is working properly. A noisy line will prevent proper modem operation.

#### Problem: Modem makes a connection but no data appears on screen Possible solutions:

- Make sure all communication parameters (baud rate, data, stop, and parity bits) are properly configured and are identical on both sides. Be certain hardware flow control (RTS/CTS - default) is enabled in both the modem and the communication software.
- 2. Press the ENTER key several times. The remote system may be waiting to receive your data before it begins.
- 3. Make sure the correct terminal emulation mode is being used in the software (refer to software manual).

#### Problem: Modem displays errors while on-line with a remote modem

#### Possible solutions:

- 1. Make sure Call Waiting is turned off.
- 2. Make sure RTS/CTS hardware flow control is enabled (do not use XON/XOFF software flow control when transferring binary files).

3. Make sure the data speed is not faster than your computer capability. Operating too many applications at the same time may cause communication problem. Close unnecessary application in your system.

#### Problem: Modem exhibits poor voice recording or playback

#### Possible solutions:

- 1. Make sure the correct modem type is selected in the Voice/FAX software. Volume adjustment is available in control panel.
- Make sure your computer is fast enough to handle voice operations (38.4 Kbps). Voice operations are CPU intensive and require a better CPU sharing when running under Windows.

#### Problem: No dial tone

#### Possible solutions:

- 1. Ensure that the telephone cord it securely connected at both modem and wall outlet.
- Unplug the telephone cord from the computer and connect it directly to a telephone from the wall outlet. Check for a dial tone. If there is none, the problem is in the telephone cord or system. Call your telephone service provider.
- Double-check your country setting. Different country setting will cause different modem performance. Please select the correct country as you located.
- 4. Check modem performance with a direct line from your telephone company. Some PBXs may cause the telephone line condition change and affect modem performance.

#### Problem: The modem does not answer incoming calls

#### Possible solutions:

- 1. Ensure that the automatic answer parameter is set to one of the enabled options, using the ATS0 command (ATS0=1 to answer after one ring, and so on).
- 2. Ensure that no other devices, such as fax or answering machines, are answering calls before the modem does.

If you cannot resolve your situation after reading this section, contact your dealer or vendor for assistance.

#### Appendix 1 Modem Specifications

Modulation standards: V.92, V.90, V.34, V.32bis, V.32, V.29, V.27ter, V.22bis, V.23, V.22, V.21, V.17,

	Bell212/103
Compression	: V.44, V.42bis, MNP Class 5
Error Correction	: V.42, MNP Class 2-4
Host Interface	: PCI bus
FAX Group	: Group III
FAX Command	: EIA/TIA 578 class 1

#### Appendix 2 AT command set

#### Executing commands

Your modem is in Command Mode upon power-on and is ready to receive and execute AT commands. The modem remains in Command Mode until it makes a connection with a remote modem. Commands may be sent to the modem from an attached terminal or a PC running a communication program. This modem is designed to operate at common DTE speeds ranging from 115.2 Kbps to 300 bps. All commands and data must be issued to the modem using one of the valid DTE speeds.

#### AT commands and format

All commands must begin with the AT prefix, followed by the command letter and ended with the ENTER key. All default settings are printed in bold text. Spaces are allowed in the command string to increase command line readability but are ignored by the modem during command execution. All commands may be typed in either upper or lower case, but not mixed. A command issued without any parameters is considered as specifying the same command with a parameter of "0".

Example: ATL [ENTER]

This command causes your modem to lower its speaker volume.

#### AT Command Summary

AT		Command prefix	
A/		Repeat last command	
А		Answer	
B0		Select V.22/V.21	
B1		Select B212A/B103	
B15		Select V.21 when the modem is at 300 BPS	
B16		Select Bell 103J when the modem is at 300 BPS	
D		Dial	
	0 - 9	Dialing digits	
	ABCD*#	Tone dial characters	
	L	Redial last number	
	Р	Pulse dial	
	т	Tone dial	
	V	The modem switches to speakerphone mode and dials the number	
	R	The modem goes into answer mode directly after finish dialing	
	S=n	Dial stored telephone number n	
	W	Wait for dial tone	

#### AT

,	Pause the time specified in S-register S8
!	Flash hook
@	Wait for quiet answer
^	Disable data calling tone transmission
\$	Bong tone detection
;	Return to command mode
E0	Disables echo
E1	Enables echo
H0	Hang up the telephone line
H1	Pick up the telephone line
10	Reports modem identify string and driver version number
11	Calculate ROM checksum and report it to DTE
12	Verifies ROM checksum and report OK or ERROR
13	Report modem identify string and driver version number
14	Report firmware version for datapump
15	Report the board/firmware ID, country ID and subsystem vendor ID
19	Report country ID
111	Report connection information
L0	Low speaker volume
L1	Low speaker volume
L2	Medium speaker volume
L3	High speaker volume
MO	Speaker always off
M1	Speaker on until carrier present
M2	Speaker always on
M3	Speaker off during dialing; speaker on until carrier present
N0	Handshake only at the communication standard specified by S37 and
	ATB command
N1	Begin the handshake at the communication standard specified by s37 and ATB,
	and fallback to lower speed may occur
O0	Return to data mode
01	Retrain and return to data mode
O3	Rate re-negotiation and return to data mode
Р	Select pulse dialing
Q0	Enables result code
Q1	Disables result code
Sn	Select S-register n; refer to S-register summary for the details

**Command prefix** 

S Vite 1.0 factors Aragister runner for the Stagister summary for the datails Sole	AT	Command prefix	AT	Command prefix
Image: Probability Image: Probability Image: Probability Image: Probability   Image: Probability Reports Diff connect speed result code, stable prototol result code Reports Diff connect speed result code, stable prototol result code Reports Diff connect speed result code, stable prototol result code Reports Diff connect speed result code, stable prototol result code Reports Diff connect speed result code, stable prototol result code Reports Diff connect speed result code, stable prototol result code Reports Diff connect speed result code, stable prototol result code Reports Diff connect speed result code, stable prototol result code Reports Diff connect speed result code, stable prototol result code Reports Diff connect speed result code, stable prototol result code Reports Diff connect speed result code, stable prototol result code Report Report speed result code (reports speed result code, stable prototol result code Report Report speed result code, report speed result code, stable prototol result code Report Report speed result code, report speed result code, report speed result code, report speed result code, result code of r, 10 and above; stable dia tone advectore Report Report speed result code, r	Sn=x	Write x to S-register n; refer to S-register summary for the details	&Q6	Same as &Q0
V0 Choose runs is not services from result code Second V2 control testing in SS   V0 Reports DTE connect sequel result code, stable protocol result codes SO DSR Jwysort SS   V0 Reports DTE connect sequel result code, stable protocol result codes SO DSR Jwysort SS   V0 Reports DTE connect sequel result code, stable protocol result codes SO DSR Jwysort SS   V0 Reports DTE connect sequel result code, stable protocol result codes SO DSR Jwysort SS   V0 Reader secult code 0-4; disables dial tone and busy tone detection SO Inditates local diagli loopticak(RJ)   V1 Inditates result code 0-6; 0 and above; disables dial tone and busy tone detection SO Inditates local diagli loopticak(RD)   V1 Inditates result code 0-6; 0 and above; disables dial tone detection and disables busy SO SO SO   V1 Inditates result code 0-6; 0 and above; disables dial tone detection and disables busy SO SO SO   V1 Readies result code 0-6; 0 and above; disables dial tone detection and disables busy SO SO SO   V1 Readies result code 0-6; 0 and above; disables dial tone detection and disables busy SO SO SO   V2 Readies result code 0-7; 0 and above; disables dial tone detection and disables dial conderetion SO SO SO SO	Sn?	Read from S-register n; refer to S-register summary for the details	&Q8	Select MNP error control mode. If fail to connect, the modem will fallback according to
V1 Roke without grade manufacient is due manufacient is du	т	Select tone dialing		current setting in S36
NV Reports DTE connect speed result code, snake protocol result codes 610 SR No only during handshaking and when cartier is loot.   NV Reports DTE connect speed result code, enable protocol result codes 611 Imates test in progress.   NV Enables result code 0-4; sinable dail tone and buy tone detection 611 Imates test in progress.   NV Enables result code 0-5; 10 and above; enables dail tone detection and sizables buy. 618 Imates test individual probability.   NV Enables result code 0-5; 10 and above; enables dail tone detection and sizables buy. 618 Imates test individual probability.   NV Enables result code 0-5; 10 and above; enables dail tone detection and sizables buy. 618 Non-active profile.   NV Results code 0-5; 10 and above; enables dail tone detection and enables buy. 620 Non-active profile.   NV Results code 0-5; 10 and above; enables dail tone detection and enables buy. 620 Non-active profile.   NV Results code 0-5; 10 and above; enables dail tone detection and enables buy. 620 Non-active profile.   Code detection Results code 0-5; 10 and above; enables dail tone detection 620 Non-active profile.   Code detection Results code 0-5; 10 and above; enables dail tone detection 620 Non-active profile.   Code detection Code date: date: date: date: date: date: date: date: date	V0	Choose numeric form result code	&Q9	Select V42 or MNP error control mode. If fails to establish, the modem will fallback
Min Reports DTE connect speed result code, enable protocol result codes AS1 DFR On unduring handshaking and when carrier is lost   Min Reports DTE connect speed result code, enable protocol result codes AS1 Timinates test in progress   Min Enables result code 0-4; disable at all to read housy tone detection AS1 Initiates focal adaptic probability.   Min Enables result code 0-6; 01 and above; enables dial tone detection and disables busy tone detection AS1 Minitates focal dial topoback.   Min Enables result code 0-6; 7, 10 and above; enables dial tone detection and disables busy tone detection Minitates Minitates for dial topoback.   Min Enables result code 0-6; 7, 10 and above; enables dial tone adtestotion and disables busy tone detection Minitates Minitates   Min Enables result code 0-7; 10 and above; enables dial tope adtestotion Minitates Minitates   Min Interstates test profile Minitates Minitates   Min Interstates Minitates Minitates<	V1	Choose verbose form result code		according to current setting in S36
W2   Reports DC connect speed result code, namble protocol result code   ATD   Terminates less in progress     M3   Enables result code 0-4, disables data tone and busy tone detection   ATD   Initiates local digital loopack (LAL).     M3   Enables result code 0-4, disables data tone and busy tone detection   ATD   Initiates local digital loopack (DAL).     M3   Enables result code 0-5, 10 and above; enables data tone detection and disables busy tone detection   ATD   Initiates local digital loopack (DAL).     M3   Enables result code 0-5, 10 and above; enables data tone detection and disables busy tone detection   ATD   Initiates local digital loopack (DAL).     M3   Enables result code 0-5, 10 and above; enables data tone detection and disables busy tone detection   ATD   Initiates local and protocol result water profile     M4   Bables result code 0-5, 10 and above; enables data tone detection and disables busy tone detection   ATD   Initiates local and protocol result water profile     M4   Brables result code 0-5, 10 and above; enables data connection   KB   Verv under in blackdat     M4   Brables result code 1, 40 digits to location (n(0.3), 207, 1Ve)   Digits to location (n(0.3), 207, 1Ve)     M4   Brables result code 1, 40 digits to location (n(0.3), 207, 1Ve)   Digits to location (n(0.3), 207, 1Ve)     M4	WO	Reports DTE connect speed result code, disable protocol result codes	&S0	DSR always ON
X0   Enables result code 0.4,1 disables dial tone and busy tone detection   AT   Initiates local analogy loopback(LAL)     X1   Enables result code 0.4,1 and above; disables dial tone and busy tone detection   ATC   Initiates local analogy loopback(LAL)     X2   Enables result code 0.4,1 and above; disables dial tone detection and disables busy tone detection   W   We wanter profile into user profile and stored tetephone number     X2   Enables result code 0.5,7 1.0 and above; disables dial tone detection and enables busy tone detection   W   We wanter profile into user profile and stored tetephone number     X2   Enables result code 0.7, 10 and above; enables dial tone detection and enables busy tone detection   %B   Verw number in blacklist     X3   Enables result code 0.7, 10 and above; enables dial tone detection   %B   Verw number in blacklist     X4   Enables result code 0.7, 10 and above; enables dial tone detection   %B   Verw number in blacklist     X4   Enables result code 0.7, 10 and above; enables dial tone detection   %B   Verw number in blacklist     X4   Enables result code 0.7, 10 and above; enables dial tone detection   %B   Verw number in blacklist     X4   Enables failut code 0.7   Mode switches from data mode to command mode when an ON40-OFF transition of prove 0.7   Verw number in blacklist <t< th=""><th>W1</th><th>Reports DTE connect speed result code, enable protocol result codes</th><th>&amp;S1</th><th>DSR ON only during handshaking and when carrier is lost</th></t<>	W1	Reports DTE connect speed result code, enable protocol result codes	&S1	DSR ON only during handshaking and when carrier is lost
X1   Enables result code 0-5, 10 and above; enables dial tone detection and disables busy   & Table   Initiates local digital loopback(RDL)     X2   Enables result code 0-5, 710 and above; enables dial tone detection and enables busy   & We wardtre profile into user profile     X3   Enables result code 0-7, 10 and above; enables dial tone detection and enables busy   & We wardtre profile into user profile     X4   Enables result code 0-7, 10 and above; enables dial tone detection   & We wardtre profile into user profile     X4   Enables result code 0-7, 10 and above; enables dial tone detection   & We wardtre profile into user profile     X4   Enables result code 0-7, 10 and above; enables dial tone detection   & We wardtre profile into user profile     X5   Reset nodem and recalls user profile   % We wardtre profile into user profile     X6   O Sea coording to carrier status;   & We wardtre profile and af land forward     X60   Ignores carrier status;   & We wardtre profile and fail forward     X61   Ignores carrier status;   & We wardter profile and af land fail forward     X62   Ignores carrier status;   & We wardter profile and fail forward     X63   Ignores carrier status;   & We wardter profile and fail forward     X64   Mooden switches for fat anode in command mode and NA-0-OF transition	W2	Reports DCE connect speed result code, enable protocol result codes	&T0	Terminates test in progress
X2 Enables result code 0.6, 10 and above; enables dial tone detection and disables busy tone detection KT Militates remote digital loopdack(RDL)   K3 Enables result code 0.7, 10 and above; enables dial tone detection and enables busy tone detection K2 Scress active profile and stored telephone number   K4 Enables result code 0.7, 10 and above; enables dial tone and busy tone detection K8 Verw number in blacklist   K4 Enables result code 0.7, 10 and above; enables dial tone and busy tone detection K8 Verw number in blacklist   K4 Enables result code 0.7, 10 and above; enables dial tone and busy tone detection K8 Verw number in blacklist   K4 Enables result code 0.7, 10 and above; enables dial tone and busy tone detection K8 Verw number in blacklist   K4 Easter coding to carrier status K8 Verw number in blacklist   K4 Modem switches form data mode to command mode when an ON-to-OFF transition of DFR occurs Verw number Pables fallback, and fall forward   K4 Modem switches form data mode to command mode when an ON-to-OFF transition of DFR occurs Verw number Verw number   K4 Modem switches form data mode to command mode when an ON-to-OFF transition of DFR occurs Verw number Verw number   K4 Modem switches form data mode to command mode when an ON-to-OFF transition of DFR occurs Verw number Verw number	X0	Enables result code 0-4; disables dial tone and busy tone detection	&T1	Initiates local analog loopback(LAL)
ione detection &V W=w = drive profile stored user profile and stored telephone number   X1 Enables result code 0-5,7,10 and above; disbles dial tone and enables busy &V Stores = drive profile into user profile   X1 Enables result code 0-7, 10 and above; anables dial tone and busy tone detection %I Stores = drive number (up to 40 digits) to location n(0-3)/// Ve/0   X2 Reset modem and recalls user profile %I Image: Stores = drive number (up to 40 digits) to location n(0-3)// Ve/0   X2 Reset modem and recalls user profile %I Image: Stores = drive number (up to 40 digits) to location n(0-3)// Ve/0   X2 Reset modem and recall user profile %I Image: Stores = drive number (up to 40 digits) to location n(0-3)// Ve/0   X3 Ignores carrier status %I Image: Stores = drive number (up to 40 digits) to location n(0-3)// Ve/0   X4 Reset modem and recall user profile %I Image: Stores = drive number (up to 40 digits) to location n(0-3)// Ve/0   X4 Ignores carrier status %I Image: Stores = drive number (up to 40 digits) to location n(0-3)// Ve/0   X5 Ignores carrier status %I Image: Stores = drive number (up to 40 digits) to location n(0-3)// Ve/0   X5 Ignores carrier status %I Image: Stores = drive number (up to 40 digits) to location n(0-3)// Ve/0   X6 Modem switches OFF in modem g	X1	Enables result code 0-5,10 and above; disables dial tone and busy tone detection	&ТЗ	Initiates local digital loopback
X3 Enables result code 0-5,7,10 and above; disables dial tone detection and enables basys tone detection X4 Stores stellephone number x(up to 40 digits) to location n(0-3),001 V80   X4 Enables result code 0-7,10 and above; enables dial tone and busy tone detection %80 Vew number nuber x(up to 40 digits) to location n(0-3),001 V80   X4 Enset moder and recalls user profile %00 Disables data compression   X60 Ignores DTR %10 Disables fallback, disables fall forward   X00 Ignores DTR %10 Enables data compression   X01 Moden switches form data mode to command mode when an ON-to-OFF transition of DTR cocurs %10 Enables data fall forward   X01 Ignores DTF, the modem goes on-hook and disables ~100 Enables data fall forward   X02 When DTR switches OFF, the modem goes on-hook and disables ~100 V90 of sables fallback, disables fall forward   X03 Reset modern and recall user profile when DTR switches OFF n = 0 V90 of sables fall forward   X03 Reset modern and recall user profile when DTR switches OFF n = 0 V90 of sables fall forward   X04 Isable stard tone n = 0 V90 disabled   X03 Reset modern and recall user profile when DTR switches OFF n = 0 V90 disabled   X04 Isable Stard tone n = 0 V90 disabl	X2	Enables result code 0-6, 10 and above; enables dial tone detection and disables busy	&Т6	Initiates remote digital loopback(RDL)
tone detection   & Zn=xx   Stores telephone number x(up to 40 digits) to location n(0-3)807 1000     X4   Enables result code 0-7, 10 and above; enables dial tone and busy tone detection   %B   View number in blacklist     Z   Reset modem and recalls user profile   %CD   Disables data compression     & Go gnores carrier status; CD always ON   %CD   Disables failback and fail forward     & Go set according to carrier status   %ED   Disables failback and fail forward     & Modem switches form data mode to command mode when an ON-to-OFF transition of   %ED   Disables failback and fail forward     & Ignores carrier status   %ED   Disables failback and fail forward   %ED     DTR cocurs   CO   Disables failback and fail forward   %ED     D Rocours   CO   Disables failback and fail forward     auto-answer   -QO   Disables failback and fail forward     & KD   Reset modem and recall user profile when DTR switches OFF   n = 0   V/20 disable     & KD   Disables guard tone   -1   Auto rate     & KD   Disables failback and fail forward   n = 1   Auto rate     & KD   Disables failback and fail forward   n = 0   V/20 disablef		tone detection	&V	View active profile, stored user profile and stored telephone number
X4   Enables result code 0-7, 10 and above; enables dial tone and busy tone detection   %B   View number in blacklist     Z   Reset modem and recalls user profile   %C0   Disables data compression     &C0   Ignores carrier status; CD always ON   %C0   Disables data compression     &C1   Enables data compression   %C0   Disables data compression     &C0   Disables data compression   %C0   Disables data compression     &C0   Stables failback, and fail forward   %C0   Disables failback, disables fail forward     &C0   Wein witches form data mode to command mode when an ON-to-OFF transition of DTR occurs   %C1   Enables failback, disables fail forward     DTR occurs   C0   Disables calling tone   C1   Enables failback and fail forward     &C0   View number in blacklist   mail   Mcdem and recall user profile when DTR switches OFF   mail     &C1   Reset modem and recall user profile when DTR switches OFF   mail   -V90em   Control V.90 disabled     &C2   Isables failback and fail forward   mail   mail   Autor rate     &C2   Isables failback and fail forward   mail   mail   Autor calling tone     &C2   <	Х3	Enables result code 0-5,7,10 and above; disables dial tone detection and enables busy	&W	Stores active profile into user profile
ZReset modem and recalls user profileNoSite is a compression8C0Igores carrier status; CD always ON%C1 $E \rightarrow is cate compression8C1CD set according to carrier status; CD always ON%C1E \rightarrow is cate compression8C0Igores DTGarace status; CD always ON%E1E \rightarrow is cate compression8C1Gordes writches from data mode to command mode when an ON-to-OFF transition of%E2E \rightarrow is cath compression8C2Wend DTR switches OFF, the modem goes on-hook and disables-C1E \rightarrow is cath compression8C3Reset modem and recall user profile when DTR switches OFF-C1E \rightarrow is cath compression8C4Ladatory defaultsn = 0V = 0 disable?8C5Ladatory defaultsn = 1A \cup a \rightarrow is cath compression8C6Isables guard tonen = 32000 BPS8C6Isables for Account of the controln = 43000 BPS8C6Isables for controln = 732000 BPS8C6Select 3 pps pulse dial with 33%/67% makebreak ration = 830000 BPS8C6Select 10 pps pulse dial with 33%/67% makebreak ration = 937333 BPS8C6Select 10 pps pulse dial with 33%/67% makebreak ration = 140000 BPS8C6Select 10 pps pulse dial with 33%/67% makebreak ration = 140000 BPS8C6Select 10 pps pulse dial with 33%/67% makebreak ration = 140000 BPS8C6Select 10 pps pulse dial with 33%/67% makebreak ration = 140000 BPS8C6$		tone detection	&Zn=x	Stores telephone number x(up to 40 digits) to location n(0-3).1301 V.90
8C0   Ignores carrier status; CD always ON   %C1   Enables data compression     8C1   CD set according to carrier status   %C0   Disables fallback, disables fall forward     8D0   Ignores DTR   Modem switches from data mode to command mode when an ON-to-OFF transition of DTR occurs   %C1   Enables fallback, disables fall forward     8D2   When DTR switches OFF, the modem goes on-hook and disables   ~C0   Disables ralling tone     atto-answer   -V00 m   Control V90 downstream speed     AD3   Reset modem and recall user profile when DTR switches OFF   n = 0   V90 disabled     AG4   Load factory defaults   n = 1   4uto rate     AG5   Load factory defaults   n = 1   4uto rate     AG6   Disables guard tone   n = 2   29333 BPS     AG4   Enables 1600 Hz guard tone   n = 6   3330 BPS     AG4   Enables 1600 Hz guard tone   n = 6   3333 BPS     AG4   Enables 1600 Hz guard tone   n = 6   3333 BPS     AG6   Biables 1600 Az guard tone   n = 6   3333 BPS     AG5   Enables 1600 Hz guard tone control   n = 6   3333 BPS     AG4   Enable	X4	Enables result code 0-7, 10 and above; enables dial tone and busy tone detection	%B	View number in blacklist
&C1CD set according to carrier status%E0Disales failback and fail forward&D0Ignores DTRIgnores DTRFailback, disables fail forward&D1Moden switches form data mode to command mode when an ON-to-OFF transition of DTR occurs <b>%E2E</b> lableck and fail forward&D2When DTR switches OFF, the modem goes on-hook and disables auto-answer-C0 <b>DD</b> auto-answer-V90-nControl V-90 downstream speed&D3Reset modem and recall user profile when DTR switches OFFn = 1 <b>VV</b> & Load factory dealutsn = 12000 BPS2000 BPS&G0 <b>Disables guard tone</b> n = 329333 BPS&G1Enables 1500 Hz guard tonen = 532000 BPS&K3Enables 1500 Hz guard tonen = 532030 BPS&K4Enables CTS/RTS hardware flow controln = 633333 BPS&K4Enables CTS/RTS hardware flow controln = 734666 BPS&K4Enables CTS/RTS hardware flow controln = 830000 BPS&K4Enables CTS/RTS hardware flow controln = 830000 BPS&K4Enables CTS/RTS hardware flow controln = 937333 BPS&K4Select 10 ps pulse dial with 33%/67% make	Z	Reset modem and recalls user profile	%C0	Disables data compression
8D0   Ignores DTR   %E1   Examples of all borward     8D1   Modern switches from data mode to command mode when an ON-to-OFF transition of DTR occurs   %E2   Examples of all forward     DTR occurs   -C0   Disabes calling tone     auto-answer   -C0   No downstriean speed     AD2   Reset modern and recall user profile when DTR switches OFF   n = 0   V90 disable     & Reset modern and recall user profile when DTR switches OFF   n = 0   V90 disable     & L03 factory defaults   n = 1   Atto rate     & L04 factory defaults   n = 1   V90 disable     & Reset modern and recall user profile when DTR switches OFF   n = 0   V90 disable     & L04 factory defaults   n = 1   Atto rate     & L04 factory defaults   n = 1   V90 disable     & Enables 550 Hz guard tone   n = 2   2000 BPS     & Enables 160w control   n = 4   30666 BPS     & Enables 160w control   n = 6   3333 BPS     & Enables S0N/XOFF software flow control   n = 6   3333 BPS     & Enables X0N/XOFF software flow control   n = 7   34666 BPS     & Enables S0N puble dial with 33%/67% make/break ratio   n = 9	&C0	Ignores carrier status; CD always ON	%C1	Enables data compression
AD1   Modem switches from data mode to command mode when an ON-to-OFF transition of DTR occurs   Model Subscription     AD2   When DTR switches OFF, the modem goes on-hook and disables   -C1   Subscription     AD2   When DTR switches OFF, the modem goes on-hook and disables   -C1   Subscription     AD3   Reset modem and recall user profile when DTR switches OFF   -N0   Number Subscription   -V00     FA   Load totry defaults   -N1   -N1   -N1   -N1     FA   Load totry defaults   -N1   -N1   -N1   -N1   -N1     FA   Load totry defaults   -N1	&C1	CD set according to carrier status	%E0	Disables fallback and fall forward
DR ocursDR ocur	&D0	Ignores DTR	%E1	Enables fallback, disables fall forward
&D2   When DTR switches OFF, the modem goes on-hook and disables   -C1   E-Jacaling to ne     auto-answer   -V90=n   C   Colored calling to ne     &D3   Reset modem and recall user profile when DTR switches OFF   n = 0   V.90 disabled     &F   Load factory defaults   n = 1   Auto rate     &G60   Disables guard tone   n = 2   28000 BPS     &G21   Enables 550 Hz guard tone   n = 3   29333 BPS     &G42   Enables flow control   n = 4   30666 BPS     &G43   Enables CSN/RTS hardware flow control   n = 6   33333 BPS     &G44   Enables XDN/XOFF software flow control   n = 6   33333 BPS     &G44   Enables XDN/XOFF software flow control   n = 9   37333 BPS     &G44   Enables XDN/XOFF software flow control   n = 9   37333 BPS     &G45   Select 10 pps pulse dial with 39%/61% make/break ratio   n = 10   3666 BPS     &G40   Select 20 pps pulse dial with 39%/61% make/break ratio   n = 10   37333 BPS     &G40   Select 20 pps pulse dial with 39%/61% make/break ratio   n = 11   40000 BPS     &G40   Select 20 pps pulse dial with 39%/61% ma	&D1	Modem switches from data mode to command mode when an ON-to-OFF transition of	%E2	Enables fallback and fall forward
auto-answer-V90=nControl V-90 downstream speed&D3Reset modem and recall user profile when DTR switches OFFn = 0V.90 disabled&FLoad factory defaultsn = 1Auto rate&G0Disables guard tonen = 228000 BPS&G1Enables 550 Hz guard tonen = 329333 BPS&G2Enables 1800 Hz guard tonen = 430666 BPS&K3Enables flow controln = 532000 BPS&K4Enables CS/RTS hardware flow controln = 633333 BPS&K4Enables XON/XOFF software flow controln = 734666 BPS&K4Enables XON/XOFF software flow controln = 836000 BPS&K4Enables CS/RTS hardware flow controln = 836000 BPS&K4Enables CS/RTS hardware flow controln = 1038666 BPS&K4Enables CS/RTS hardware flow controln = 836000 BPS&K5Select 10 pps pulse dial with 33%/67% make/break ration = 1038666 BPS&F1Select 20 pps pulse dial with 33%/67% make/break ration = 1140000 BPS&F2Select 20 pps pulse dial with 33%/67% make/break ration = 1141333 BPS&F2Select 20 pps pulse dial with 33%/67% make/break ration = 1141333 BPS&F2Select 20 pps pulse dial with 33%/67% make/break ration = 1141333 BPS&F2Select 20 pps pulse dial with 33%/67% make/break ration = 1241333 BPS&F3Select 20 pps pulse dial with 33%/67% make/break ration = 1241333 BPS<		DTR occurs	-C0	Disables calling tone
&D3Reset modem and recall user profile when DTR switches OFFn = 0V.90 disabled&FLoad factory defaultsn = 1Auto rate&G0Disables guard tonen = 228000 BPS&G1Enables 550 Hz guard tonen = 329333 BPS&G2Enables 1800 Hz guard tonen = 430666 BPS&K0Disables flow controln = 633333 BPS&K1Enables CTS/RTS hardware flow controln = 633333 BPS&K4Enables XON/XOFF software flow controln = 734666 BPS&K4Select asyncronous buffer moden = 830000 BPS&F0Select 10 pps pulse dial with 39%/61% make/break ration = 1036666 BPS&P1Select 20 pps pulse dial with 33%/67% make/break ration = 1140000 BPS&P2Select 20 pps pulse dial with 33%/67% make/break ration = 114333 BPS&P2Select 20 pps pulse dial with 33%/67% make/break ration = 1143000 BPS&P2Select 20 pps pulse dial with 33%/67% make/break ration = 1143000 BPS&P2Select 20 pps pulse dial with 33%/67% make/break ration = 1143000 BPS&P3Select 20 pps pulse dial with 33%/67% make/break ration = 1143030 BPS&P3Select 30 pps pulse dial with 33%/67% make/break ration = 124333 BPS&P3Select 30 pps pulse dial with 33%/67% make/break ration = 124333 BPS&P3Select 30 pps pulse dial with 33%/67% make/break ration = 124333 BPS&P3Select 30 pps pul	&D2	When DTR switches OFF , the modem goes on-hook and disables	-C1	Enables 1300 Hz calling tone
&FLoad factory defaultsn = 1Autor ate&G0Disables guard tonen = 228000 BPS&G1Enables 550 Hz guard tonen = 329333 BPS&G2Enables 1800 Hz guard tonen = 430666 BPS&K0Disables flow controln = 63333 BPS&K1Enables CTS/RTS hardware flow controln = 633333 BPS&K4Enables XON/XOFF software flow controln = 734666 BPS&K4Select asyncronous buffer moden = 836000 BPS&F0Select 10 pps pulse dial with 33%/67% make/break ration = 1037333 BPS&F1Select 20 pps pulse dial with 33%/67% make/break ration = 1140000 BPS&F2Select 20 pps pulse dial with 33%/67% make/break ration = 1140000 BPS&F2Select 20 pps pulse dial with 33%/67% make/break ration = 1140000 BPS&F2Select 20 pps pulse dial with 33%/67% make/break ration = 1140000 BPS&F2Select 30 pps pulse dial with 33%/67% make/break ration = 1140000 BPS&F2Select 30 pps pulse dial with 33%/67% make/break ration = 1140000 BPS&F2Select 30 pps pulse dial with 33%/67% make/break ration = 1241333 BPS&F3Select 30 pps pulse dial with 33%/67% make/break ration = 1241333 BPS&F3Select 30 pps pulse dial with 33%/67% make/break ration = 1241333 BPS&F3Select 30 pps pulse dial with 33%/67% make/break ration = 1241333 BPS <tr <td="">Select 30 pps pulse dial wit</tr>		auto-answer	-V90=n	Control V.90 downstream speed
&G0Disables <th></th> <th></th> <th>n =</th> <th>0 V.90 disabled</th>			n =	0 V.90 disabled
&G1Enables 550 Hz guard tonen = 329333 BPS&G2Enables 1800 Hz guard tonen = 430666 BPS&K3Disables flow controln = 532000 BPS&K4Enables CTS/RTS hardware flow controln = 633333 BPS&K4Enables XON/XOFF software flow controln = 734666 BPS&M0Select asyncronous buffer moden = 836000 BPS&F0Select 10 pps pulse dial with 39%/61% make/break ration = 937333 BPS&P1Select 10 pps pulse dial with 33%/67% make/break ration = 1038666 BPS&P2Select 20 pps pulse dial with 33%/67% make/break ration = 1140000 BPS&Q0Select asynchronous buffer moden = 1241333 BPS	&F	Load factory defaults	n =	
&G2Enables 1800 Hz guard tonen = 430666 BPS&K0Disables flow controln = 532000 BPS&K3Enables CTS/RTS hardware flow controln = 633333 BPS&K4Enables XON/XOFF software flow controln = 734666 BPS&M0Select asyncronous buffer moden = 836000 BPS&P1Select 10 pps pulse dial with 33%/67% make/break ration = 937333 BPS&P2Select 20 pps pulse dial with 33%/67% make/break ration = 1038666 BPS&Q0Select 30 pps pulse dial with 33%/67% make/break ration = 1140000 BPS&Q1Select 30 pps pulse dial with 33%/67% make/break ration = 1241333 BPS		-		
KK0Disables flow controln = 532000 BPSKK3Enables CTS/RTS hardware flow controln = 633333 BPSKK4Enables XON/XOFF software flow controln = 734666 BPSKM0Select asyncronous buffer moden = 836000 BPSKP1Select 10 pps pulse dial with 33%/67% make/break ration = 937333 BPSKP2Select 20 pps pulse dial with 33%/67% make/break ration = 1038666 BPSKP3Select 20 pps pulse dial with 33%/67% make/break ration = 1140000 BPSKP4Select 20 pps pulse dial with 33%/67% make/break ration = 114133 BPSKP5Select 20 pps pulse dial with 33%/67% make/break ration = 124133 BPS		-	n =	
&K3Enables CTS/RTS hardware flow controln = 63333 BPS&K4Enables XON/XOFF software flow controln = 734666 BPS&M0Select asyncronous buffer moden = 836000 BPS&P0Select 10 pps pulse dial with 39%/61% make/break ration = 93733 BPS&P1Select 10 pps pulse dial with 33%/67% make/break ration = 1038666 BPS&P2Select 20 pps pulse dial with 33%/67% make/break ration = 114000 BPS&P3Select 30 pps pulse dial with 33%/67% make/break ration = 124133 BPS				
&K4Enables XON/XOFF software flow controln = 734666 BPS&M0Select asyncronous buffer moden = 836000 BPS&P0Select 10 pps pulse dial with 39%/61% make/break ration = 937333 BPS&P1Select 10 pps pulse dial with 33%/67% make/break ration = 1038666 BPS&P2Select 20 pps pulse dial with 33%/67% make/break ration = 114000 BPS&Q0Select asynchronous buffer moden = 1241333 BPS				
&M0Select asyncronous buffer moden = 836000 BPS&P0Select 10 pps pulse dial with 39%/61% make/break ration = 937333 BPS&P1Select 10 pps pulse dial with 33%/67% make/break ration = 1038666 BPS&P2Select 20 pps pulse dial with 33%/67% make/break ration = 1140000 BPS&Q0Select asynchronous buffer moden = 1241333 BPS				
&P0Select 10 pps pulse dial with 39%/61% make/break ration = 937333 BPS&P1Select 10 pps pulse dial with 33%/67% make/break ration = 1038666 BPS&P2Select 20 pps pulse dial with 33%/67% make/break ration = 1140000 BPS&Q0Select asynchronous buffer moden = 1241333 BPS				
&P1Select 10 pps pulse dial with 33%/67% make/break ration = 1038666 BPS&P2Select 20 pps pulse dial with 33%/67% make/break ration = 1140000 BPS&Q0Select asynchronous buffer moden = 1241333 BPS		-		
&P2Select 20 pps pulse dial with 33%/67% make/break ration = 1140000 BPS&Q0Select asynchronous buffer moden = 1241333 BPS				
&Q0Select asynchronous buffer moden = 1241333 BPS				
p = 12 AGRE DDS				
	&Q5	Select Error control mode	n =	

AT	Command prefix	Appendix 3	S-Register Summary
n	= 14 44000 BPS	Register	Function Default Range Units
n	= 15 45333 BPS	S0*	No. of rings to start auto-answer 0 0-255 ring
n	= 16 46666 BPS	S1*	Ring count 0 0-255 ring
n	= 17 48000 BPS	S2*	Escape character 43 0-255 ASCII
n	= 18	S3	Carriage return character 13 0-127 ASCII
n	= 19 50666 BPS	S4	Line feed character 10 0-127 ASCII
n	= 20 52000 BPS	S5	Backspace character 8 0-32,127 ASCII
n	= 21 53333 BPS	S6*	Wait before dialing 2 2-65 second
-V90?	Reports current V.90 setting	S7*	Wait for carrier 50 1-255 second
\A0	Set maximum MNP block size to 64 characters	S8*	Pause time for dial modifier, 2 0-65 second
\A1	Set maximum MNP block size to 128 characters	S10*	Lost carrier hang up delay 20 1-254 0.1sec
\A2	Set maximum MNP block size to 192 characters	S11*	DTMF dialing speed 95 50-150 msec
\A3	Set maximum MNP block size to 256 characters	S12*	Escape guard time 50 0-255 20 mse
\Bn	Transmit break in n*100ms (n = 0-9)	S14*	Bit-mapped register - 0-255 -
\G0	Disables XON/XOFF flow control between local and remote modems		Bit 0,1,2 Reserved
\G1	Enables XON/XOFF flow control between local and remote modems		Bit 3 = 0 V0 is selected
\J0	Disables DTE speed adjust		= 1 V1 is selected
\J1	Enables DTE speed adjust		Bit 4,5 Reserved
\Kn	Set break control (n=0-5, default is 5).		Bit 6 = 0 10 PPS pulse dialing(&P0, &P1)
\N0	Select normal mode		= 1 20 PPS pulse dialing(&P2)
\N1	Select normal mode		Bit 7 Reserved
\N2	Select MNP reliable mode	S21*	Bit-mapped register - 0-255 -
\N3	Select V.42 auto-reliable mode		Bit0,1,2 Reserved
\N4	Select V.42 reliable mode		Bit 4-3 = 00 &D0 is selected
\Q0	Disables flow control		= 01 &D1 is selected
\Q1	Enables XON/XOFF software flow control		= 10 &D2 is selected
\Q2	Enables CTS hardware flow control		= 11 &D3 is selected
\Q3	Enables CTS/RTS hardware flow control		Bit 5 = 0 &C0 is selected
\Tn	Set inactivity timer in minutes(n=0-255, default is 0)		= 1 &C1 is selected
\V0	Disables protocol result code appended to DCE speed		Bit 6,7 Reserved
\V1	Enables protocol result code appended to DCE speed	S22*	Bit-mapped register - 0-255 -
\X0	Process XON/XOFF character as flow control character only		Bit 0,1,2,3 Reserved
\X1	Process XON/XOFF character as flow control character and pass through to local DTE		Bit 6-4 = 000 X0 is selected
	or remote modem		= 001 Reserved
es:			= 010 Reserved
default setting	g of commands is in <b>bold Italic text</b> format.		= 011 Reserved
			= 100 X1 is selected

Register	Function Defaul	t Range Units		Register	Function	Default Range	Units
	= 101 X2 is selected				= 1	Auto rate	
	= 110 X3 is selected				= 2	32K BPS	
	= 111 X4 is selected				= 3	34K BPS	
	Bit 7 = 0 33/67 M/B ratio is s	selected(&P1, &P2)			= 4	36K BPS	
	= 1 39/61 M/B ratio is s	elected(&P0)			= 5	38K BPS	
S28*	Control V.34 modulation 1	0-1 -			= 6	40K BPS	
	= 0 Disables V.34 modu	ulation			= 7	42K BPS	
	= 1 Enables V.34 mode	ulation			= 8	44K BPS	
S30*	Inactivity timer 0	0-255 minute			= 9	46K BPS	
S32*	Synthetic ring volume 10	0-255 -			= 10	48K BPS	
S33*	Synthetic ring frequency 0	0-5 -			= 11	50K BPS	
S35*	Data calling tone 0	0-1			= 12	52K BPS	
	= 0 Disables data calli	ing			= 13	54K BPS	
	= 1 Enables data calling	g			= 14	56K BPS	
S37*	Maximum line speed attempted 0	0-19 -		S48*	Error control feature	7 7,128	-
	= 0 Auto rate				= 7	Negotiation enabled	
	= 1 Reserved				= 128	Negotiation disabled	
	= 2 1200/75 bps			S89*	Sleep mode timer	10 0,5-65	second
	= 3 300 BPS			S108 *	Network codec type	7 7,22,33	-
	= 4 Reserved				= 7	Specified by central site mode	
	= 5 1200 BPS				= 22	u-law	
	= 6 2400 BPS					A-law	
	= 7 4800 BPS			Notes : The value of	of the S-registers marke	ed with (*) were saved in NVRAM	
	= 8 7200 BPS						
	= 9 9600 BPS						
	= 10 12000 BPS						
	= 11 14400 BPS						
	= 12 16800 BPS						
	= 13 19200 BPS						
	= 14 21600 BPS						
	= 15 24000 BPS						
	= 16 26400 BPS						
	= 17 28800 BPS						
	= 18 31200 BPS						
	= 19 33600 BPS						
S38*	K56flex downstream rate 1	0-14 -					
	= 0 Disables K56flex						
	- 23 -		Rev.1.00.2.1.34			- 24 -	Rev.1.00.2

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#### Appendix 4 Result Codes Summary

opendix 4 Result (	Codes Summary	Verbose Code Numeric Code
Verbose Code	Numeric Code	CONNECT 38000 EC* 73
OK	0	CONNECT 38400 EC* 28
CONNECT	1	CONNECT 38666 EC* 106
RING	2	CONNECT 40000 EC* 74
NO CARRIER	3	CONNECT 41333 EC* 107
ERROR	4	CONNECT 42000 EC* 75
CONNECT 1200 EC*	5	CONNECT 42666 EC* 108
NO DIAL TONE	6	CONNECT 44000 EC* 76
BUSY	7	CONNECT 45333 EC* 109
NO ANSWER	8	CONNECT 46000 EC* 77
DELAYED	88	CONNECT 46666 EC* 110
BLACKLISTED	89	CONNECT 48000 EC* 78
BLACKLIST FULL	90	CONNECT 49333 EC* 111
CONNECT 300 EC*	40	CONNECT 50000 EC* 79
CONNECT 2400 EC*	10	CONNECT 50666 EC* 112
CONNECT 4800 EC*	11	CONNECT 52000 EC* 80
CONNECT 7200 EC*	24	CONNECT 53333 EC* 113
CONNECT 9600 EC*	12	CONNECT 54000 EC* 81
CONNECT 12000 EC*	25	CONNECT 54666 EC* 114
CONNECT 14400 EC*	13	CONNECT 56000 EC* 82
CONNECT 16800 EC*	86	CONNECT 57600 EC* 18
CONNECT 19200 EC*	14	CONNECT 115200 EC* 87
CONNECT 21600 EC*	55	Note:
CONNECT 24000 EC*	56	* EC only appear when the extended result codes configuration option is enabled. EC is
CONNECT 26400 EC*	57	replaced by one of the following symbols, depending upon the error control method used:
CONNECT 28000 EC*	100	V.42bis - V.42 error control and V.42bis data compression.
CONNECT 28800 EC*	58	V.42 - V.42 error control only.
CONNECT 29333 EC*	101	MNP5 - MNP class 4 error control and MNP class 5 data compression.
CONNECT 30666 EC*	102	MNP4 - MNP class 4 error control only.
CONNECT 31200 EC*	59	NoEC - No error control protocol.
CONNECT 32000 EC*	70	
CONNECT 33333 EC*	103	
CONNECT 33600 EC*	60	
CONNECT 34000 EC*	71	
CONNECT 34666 EC*	104	
CONNECT 36000 EC*	72	
CONNECT 37333 EC*	105	

#### Appendix 5 Government compliance notices

#### FCC compliance

This equipment complies with Part 68 of the FCC Rules. On this equipment is a label that contains, among other information, the FCC registration number and Ringer Equivalence Number (REN) for this equipment. You must, upon request, provide this information to your telephone company.

If your telephone equipment causes harm to the telephone network, the Telephone Company may discontinue your service temporarily. If possible, they will notify in advance. But, if advance notice isn't practical, 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 make changes in its facilities, equipment, operations, or procedures that could affect proper operation of your equipment. If they do, you will be notified in advance to give you an opportunity to maintain uninterrupted telephone service.

The FCC prohibits this equipment to be connected to party lines or coin-telephone service.

In the event that this equipment should fail to operate properly, disconnect the equipment from the phone line to determine if it is causing the problem. If the problem is with the equipment, discontinue use and contact your dealer or vendor.

#### FCC Class B statement

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

Reorient or relocate the receiving antenna.

Increase the separation between the equipment and the 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.

Notice: 1) Shielded cables, if any, must be used in order to comply with the emission limits. 2) Any change or modification not expressly approved by the Grantee of the equipment

authorization could void the user s authority to operate the equipment.

Rev.1.00.2.1.34

#### **DOC compliance information**

NOTICE: The Canadian Department of Communications label identifies certified equipment. This certification means that the equipment meets certain telecommunications network protective, operational and safety requirements. The Department does not guarantee the equipment will operate to the user's satisfaction. Before installing this equipment, users ensure that it is permissible to be connected to the facilities of the local Telecommunications Company. The equipment must also be installed using an acceptable method of connection. The customer should be aware that compliance with the above conditions might not prevent degradation of service in some situations.

Repairs to certified equipment should be made by an authorized Canadian maintenance facility designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

Users should ensure for their own protection that the electrical ground connections of the power utility, telephone lines and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

CAUTION: Users should not attempt to make such connections themselves, but should contact the appropriate electric inspection authority, or electrician, as appropriate.

NOTICE: The Load Number (LN) assigned to each terminal device denotes the percentage of the total load to be connected to a telephone loop which is used by the device, to prevent overloading. The termination on a loop may consist of any combination of devices subject only to the requirement that the sum of the Load Numbers of all the devices does not exceed 100.

#### European CTR 21 compliance

The equipment has been approved in accordance with Council Decision 98/482/EC for pan-European single terminal connection to the public switched telephone network (PSTN). However, due to differences between the individual PSTNs provided in different countries, the approval does not, of itself, give an unconditional assurance of successful operation on every PSTN network termination point. In the event of problem, you should contact your equipment supplier in the first instance.

Note: The manufacturer should ensure that the vendor and user of the equipment is clearly informed of the above information by means of package and /or user manuals of the forms of user instructions.

- 28 -

# **Limited Warranty**

TRENDware warrants its products against defects in material and workmanship, under normal use and service, for the following lengths of time from the date of purchase.

TFM-PCIV92A - 3 Years Warranty

If a product does not operate as warranted above during the applicable warranty period, TRENDware shall, at its option and expense, repair the defective product or part, deliver to customer an equivalent product or part to replace the defective item, or refund to customer the purchase price paid for the defective product. All products that are replaced will become the property of TRENDware. Replacement products may be new or reconditioned.

TRENDware shall not be responsible for any software, firmware, information, or memory data of customer contained in, stored on, or integrated with any products returned to TRENDware pursuant to any warranty.

There are no user serviceable parts inside the product. Do not remove or attempt to service the product by any unauthorized service center. This warranty is voided if (i) the product has been modified or repaired by any unauthorized service center, (ii) the product was subject to accident, abuse, or improper use (iii) the product was subject to conditions more severe than those specified in the manual.

Warranty service may be obtained by contacting TRENDware office within the applicable warranty period for a Return Material Authorization (RMA) number, accompanied by a copy of the dated proof of the purchase. Products returned to TRENDware must be pre-authorized by TRENDware with RMA number marked on the outside of the package, and sent prepaid, insured and packaged appropriately for safe shipment.

WARRANTIES EXCLUSIVE: IF THE TRENDWARE PRODUCT DOES NOT OPERATE AS WARRANTED ABOVE, THE CUSTOMER'S SOLE REMEDY SHALL BE, AT TRENDWARE'S OPTION, REPAIR OR REPLACEMENT. THE FOREGOING WARRANTIES AND REMEDIES ARE EXCLUSIVE AND ARE IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, EITHER IN FACT OR BY OPERATION OF LAW, STATUTORY OR OTHERWISE, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. TRENDWARE NEITHER ASSUMES NOR AUTHORIZES ANY OTHER PERSON TO ASSUME FOR IT ANY OTHER LIABILITY IN CONNECTION WITH THE SALE, INSTALLATION MAINTENANCE OR USE OF TRENDWARE'S PRODUCTS.

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**Governing Law**: This Limited Warranty shall be governed by the laws of the state of California.

## **Technical Support**

You can find the most recent driver/firmware/software and user documentations on the **TRENDware website**. **TRENDware** provides **FREE technical support** for all customers for the duration of the warranty period on this product.

TRENDware Technical Support Tel: +1-310-891-1100 Fax: +1-310-8911111

E-mail: support@trendware.com www.TRENDnet.com



# **Product Warranty Registration**

Please take a moment to register your product online. Go to TRENDware's website at http://www.TRENDNET.com

> **TRENDware International, Inc.** 3135 Kashiwa Street Torrance, CA 90505

http://www.TRENDNET.com

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