CardBus 10/100 TX M56

HYNEP61056

USER GUIDE

standards. Records maintained by Hypertec continue to reflect that units being produced under this Declaration of Conformity, within the variation that can be expected due to quantity production and tested on a statistical basis, continue to comply with the applicable technical standards.

The CardBus Modem 56k Card complies with Part 68 of the FCC rules.

FCC rules permit this device to be directly connected to the telephone network, using a standardised jack.

Do not use this equipment on a party line or coin line.

Malfunctioning equipment may damage the telephone network. If this device is not functioning properly, disconnect it until the problem has been determined and the device has been repaired. Otherwise, the telephone company may temporarily disconnect service.

CardBus 56k Modem repair can only be performed by Hypertec. It is the responsibility of the user to report the need for any service of the device to Hypertec or to one of our authorised agents.

If you encounter any problems with your telephone after installing any new device, disconnect it from the telephone line to see if the device is the source of the problem.

The telephone company may change its technical operations and procedures. If such changes affect the compatibility or use of the device, the telephone company is required to provide adequate notice of the changes.

European Community (EC) Electromagnetic Compatibility Directive.

This equipment has been tested and found to comply with the protections requirements of European Emission Standard EN55022 and the Generic European Immunity Standard EN50082-1. This equipment is designed to operate in a domestic environment and as such is tested to the EN55022 ITE domestic emissions limit. The domestic immunity standard EN50082-1 calls for the following basic standards:

(a) IEC 801-2 Electrostatic Discharge
(b) IEC 801-3 RF Immunity
(c) IEC 801-4 Transient Burst

What to do if interference occurs

Warning: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of Subpart B of the FCC Rules. These limits 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. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.
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:

      RE-orient or relocate the receiving antenna.
      Increase the separation between the equipment and receiver.
      Relocate the CardBus 56k Modem away from the receiving antenna and / or equipment.
      Plug the CardBus 56k modem into a different outlet so that the CardBus 56k Modem and the receiving equipment are on different electrical circuits.

If none of these actions resolve the problem, consult your distributor or an experienced radio / television technician for additional suggestions.

Repeat Calling

The host computer software must not initiate repeat call attempts within intervals shorter than thirty (30) seconds. The user should ensure that the software is set correctly.

PC Card standard compatibility and Plug and Play features are assured with full support of all major operating systems. Compatibility with all major Network Operating Systems is guaranteed by Silicom's wide range of thoroughly tested NOS drivers. The Data/Fax Modem is installed as a COM port and runs an extended AT command set, enabling it to work with all major Fax/Modem software.

The video-ready interface supplied by the CardBus 10/100 TX M56 provides videoconferencing capability using traditional POTS lines.

The Hypertec CardBus 10/100 TX M56 Card is compliant with the OnNow Network Device Class Power Management Specification, the PCI Power Management Interface, and the ACPI Specification. The Hypertec CardBus 10/100 TX M56 Card supports all PC 97 Design Guide and the PC 98 Draft Design Guide network device class requirements.

56Kbps Technology

The Hypertec CardBus 10/100 TX M56 Card uses K56flex× and V.90 modem technologies to reach speeds of up to 56Kbps over standard phone lines. This, together with downstream speeds of up to 56Kbps provided by the user's Internet Service Provider (ISP) results in dramatically faster delivery of Internet information.

The higher speeds are achieved by using only one digital-to-analog line conversion in the connection between the user and the Internet Service Provider. This requires the ISP to have a direct digital connection, and the modems at both ends must be compatible. Using V.90 and K56flex× technologies, data is downloaded from the server at speeds of up to 56Kbps, while data sent upstream by the user travels at the standard V.34 maximum rate of 33.6Kbps.

- Automatic sensing and switching between 10 Mbps or 100 Mbps operation
- Full Duplex. Independent receive and transmit circuits allow full duplex operation at both 10 Mbps and 100 Mbps, allows for maximum throughput of 200 Mbps
- A single RJ-45 female connector supports both 10 Mbps and 100 Mbps operation
- Platform independent. Supports all type II CardBus PC Card compliant PCs
- Easy installation and configuration
- Wide Network Operating Systems support (Including Windows 98, Windows 95, Windows NT, Novell NetWare and more)
- Problem-free upgrade from 10 Mbps to 100 Mbps networks
- Simultaneous Data/Fax Modem and Ethernet / Fast Ethernet LAN operation
- Compliant with Advanced Configuration and Power Interface ACPI
- Supports modem speeds of up to 56Kbps
- International country support - Certified and approved for use in many countries
- Supports V.90, K56flex*, V.34, V.32 terbo, V.32bis, V.22bis, V.22A/B, V.23, V.21, Bell 212A and 103J data transmission
- Video-ready modem interface (VRM) V.80.
- Flash software upgradeable to future ITU 56K standards
- Supports CCITT V.17, V.29, V.27ter and V.21 ch 2 send and receive fax transmission (Class 1 & 2)
- Increased modem throughput with V.42bis and MNP5 data compression
- Error detection and correction using V.42 LAPM and MNP 2-4 protocol
- Fax/Modem installed as a COM port, runs extended AT command set
- Automatic Modem sleep mode for longer PC battery life
- 16550 UART
- Card and Socket Services support
- Direct Enablers to reduce memory requirements included
- Advanced Wizard Utility for easy, straightforward installation

Static Electricity Warning

Static electricity is accumulated naturally in the human body, and can be discharged through electrical components by touching them. This shock can potentially cause permanent internal damage to the component.

When installing the adapter, please observe the following precautions:

Discharge yourself before commencing by touching a grounded metal appliance, such as the metal frame of a computer - while it is tuned off, but still plugged into the wall socket.

Hold the adapter or any other boards by their edges only. Never touch any exposed pins on the adapter.

If possible, install the adapter as soon as you remove it from its anti-static bag, without putting it down. If you must put it down, place it on the anti-static bag in which it was packed.

Do not place the adapter on any metal surface.

Installation Procedures

To install the WMPC56 PC Card follow the instructions on the Online User Guide. To do so, install the Online User Guide.
1. Start Windows.
2. Insert the WMPC56 distribution diskette into the PC diskette drive.
3. From the TaskBar click Start and then click Run
4. Type A:\SETUP and click OK.
5.   Follow the Help utility's on-screen instructions for the setup process.

The Drivers for the card come on a single disc, and for Windows 95 there are two different drivers available. For users of WIN95B (Osr2) then use the drivers in A:\WIN95b otherwise use the drivers in WIN95a.

SPECIFICATIONS

Interface Standards:
32-bit CardBus PC Card, 3.3V

PC Card Software Support:
Card and Socket Services
Direct Enablers

Weight:
92 gr., 3.3 oz (including the media unit)

PC Card Size:
Length – 3.37" (85 mm)
Width - 2.13" (54 mm)
Thickness - 0.197" (5 mm)

Power Consumption:
100BaseTx + Modem active – 450mA @ 3.3V (1.49W)
100BaseTx + Modem sleep – 290mA @ 3.3V (0.96W)
10BaseT + Modem active – 400mA @ 3.3V (1.32W)
10BaseT + Modem sleep – 250mA @ 3.3V (0.83W)

Operating Temperature:
0!-50!C

Operating Humidity:
0% - 90% non-condensing

Certifications:
FCC Part 15, Subpart B class B
FCC Part 68
CE
Various European PTT's

Fax Rates:
CCITT V.17 (14,400 bps)
CCITT V.29 (9,600 bps)
CCITT V.27ter (4,800 bps)
CCITT V.21 channel 2 (300 bps)

Video-ready modem interface (VRM):
CCITT V.80

Data Compression:
CCITT V.42bis (up to 4:1 compression ratio)
MNP5 (up to 2:1 compression ratio)

Error Correction:
CCITT V.42 LAPM
MNP 2-4

16550 UART:
Enhanced UART interface provides buffering of data. This feature is essential in providing
reliable high speed communication, when used in multitasking environments such as
Windows or OS/2.

Data Command Set:
Fully AT command compatible

Fax Command Set:
CCITT Group 3
Class 1 (EIA-578)
Class 2 (EIA-592)

Diagnostics:
Power-on self test

Communication Software:
Runs all popular software (including remote LAN access)

Connector:
RJ-11C, female

. NDIS3 MiniPort driver for Windows 95
. County change utility program for various countries

Ethernet Media Connections:
Unshielded RJ-45 female connector

Product Warranty

Hypertec Limited warrants the hardware components of the product to be in good working order for the life of the product from the date of purchase of the product from Hypertec or an authorised Hypertec dealer. Should the hardware components of the product fail to be in good working order at any time, Hypertec will, at its option, repair or replace the product.

Repair parts and replacement products will be furnished on an exchange basis, and will be either reconditioned or new. All replaced parts will become the property of Hypertec.

This warranty applies only to the original registered end user purchaser of the product and does not include service to repair damage resulting from accident, disaster, misuse, abuse or non-Hypertec modification of the product.

Additional components installed by the dealer or end user are not covered by this warranty. Apart from the above, no warranty is expressed or implied, including warranty of merchantability or warranty of fitness for use for a particular purpose.

The liability of Hypertec is limited to the repair or replacement of the product with a functionally equivalent or better product. Hypertec is not liable for any accidental, general, special, exemplary or consequential damages resulting from any product failure, even if Hypertec has been advised of the possibility of such damages.

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