HP Internet Advisor
Mainframe Features

HP Internet Advisor
J2300C, J3446C, J3754C
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Internationally:
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On the Web:
http://www.hp.com/go/internetadvisor

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Hewlett-Packard Sales Offices
Safety Information

Before you use this instrument, be sure to pay special attention to the "Safety" and "Warning" sections in this Manual. Failure to comply with the precautions or with specific warnings in this book violates safety standards of design, manufacture, and intended use of this instrument. Hewlett-Packard Company assumes no liability for the customer's failure to comply with these requirements.

**Electric Shock Hazard.** Do not remove the system covers. To avoid electric shock, use only the supplied power cords and connect only to properly grounded (3-pin) wall outlets.

**Explosion Hazard.** Do not operate in the presence of flammable gases.

**Fire Hazard.** For continued protection against fire hazard replace only with fuse of same type and rating.

**Hazardous Material.** Should the LCD be damaged the liquid crystal material can leak. Avoid all contact with this material, especially swallowing. Use soap and water to thoroughly wash all skin and clothing contaminated with the liquid crystal material.

**Cleaning.** To clean the instrument, use a damp cloth moistened with a mild solution of soap and water. *Do not* use harsh chemicals. *Do not* let water get into the instrument.

**Product Damage.** Do not use this product when:

- the product shows visible damage,
- fails to perform,
- has been stored in unfavorable conditions, or
- has been subject to severe transport stresses.

Make the product inoperative and secure it against any unintended operation. Contact your nearest Hewlett-Packard Sales office for assistance.
Warning Symbols Used in This Book

Instruction book symbol - the product will be marked with this symbol when it is necessary for the user to refer to the instruction book in order to protect against damage.

A product marked with this symbol indicates it is a laser product. When necessary, this symbol will be included in the instruction book for the user to refer to in order to protect against personal injury and/or correct product handling.

Indicates potential for electrical shock.

WARNING
An operating procedure, practice, etc. that, if not correctly followed could result in personal injury or loss of life.

CAUTION
An operating procedure, practice, etc., that if not strictly observed, could result in damage to, or destruction of, equipment or software.

Product Information

This is an Installation Category II product.

This is a Pollution degree 2 product.
Conventions Used in this Book

This manual uses the following conventions:

- Keys on the keyboard such as PgDn, ↑, ↓, Enter or F1 (function key #1) are printed in the bold as you see here.
- Text that should be typed is printed in characters such as: a:\install

**NOTE**
An operating procedure, practice, or information of importance, separated from normal text.
Operating Restrictions

The following warnings and operating information are shown in French (on the left side) with the English translation (on the right side).

**MISE ENGARDE**
Cet appareil répond aux normes de la «Classe de sécurité I» et est muni d'un fil de mise à la terre pour votre protection.

**WARNING**
This product is a Safety Class I instrument with a protective earth terminal.

**MISE ENGARDE**
Pour prévenir les risques de choc électrique, la broche de mise à la terre du cordon d'alimentation ne doit pas être désactivée.

**WARNING**
For protection from electric shock hazard, power cord ground must not be defeated.

**Restrictions d'utilisation**
L'utilisateur se doit d'observer les mesures de précaution énumérées ci-dessous pour toutes les phases d'utilisation, de service et de réparation de cet appareil. Le fait de ne pas s'y conformer équivaut à ne pas respecter les mises en gardes spécifiques contenues dans ce manuel et constitue une violation des normes de sécurité relatives à la conception, la fabrication et l'utilisation prévue de cet appareil. La société Hewlett-Packard n'assume aucune responsabilité envers un client qui manquerait de se conformer à ces exigences.

**Operating Restrictions**
The following general safety precautions must be observed during all phases of operation, service, and repair of this instrument. Failure to comply with these precautions with specific warnings in this manual violate safety standards of design, manufacture, and intended use of this instrument.

**Mise à la terre**
Afin de minimiser les risques de choc électrique, le chAssis et le cabinet de l'appareil doivent être mis à la terre. L'appareil est équipé d'un cordon d'alimentation muni d'une fiche homologuée à trois lames, compatible c.a. La prise murale et la prise femelle de la rallonge électrique doivent respecter les normes de sécurité de la «Commission électrotechnique internationale» (IEC).

**Grounding**
To minimize shock hazard, the instrument chassis and cabinet must be connected to an electrical ground. The instrument is equipped with a three-conductor AC power cable compatible with an approved three-contact electrical outlet. The power jack and mating plug of the power cord must meet International Electrotechnical Commission (IEC) safety standards.
Environnement

Ne faites pas fonctionner cet appareil en présence de gaz inflammables ou de vapeurs dangereuses. L'utilisation de n'importe quel appareil électrique dans ces conditions constitue un risque élevé pour votre sécurité.

Service et ajustement

Des «tensions dangereuses» résident dans cet appareil. Par conséquent, le service et l'ajustement doivent être effectués uniquement par une personne qualifiée.

Ne remplacez pas de composantes lorsque le cordon d'alimentation est sous tension. Il pourrait y avoir présence de «tensions dangereuses» même lorsque l'appareil est déconnecté.

Ne faites pas de service interne ou d'ajustement sauf en présence d'une autre personne, capable de prodiguer les premiers soins et de pratiquer la réanimation.

Matière dangereuse

Si l'affichage LCD est endommagé, la matière constituant les cristaux liquides peut se répandre. Eviter tout contact avec cette matière, et en particulier ne pas l' avaler. Utiliser de l'eau et du savon pour nettoyer soigneusement la peau et les vêtements qui auraient été contaminés par la matière constituant les cristaux liquides.

Service non autorisé

L'installation de pièces étrangères, ou toute modification apportée à l'appareil sans le consentement de Hewlett-Packard est formellement interdit. Le fait de procéder à de tels modifications sans autorisation pourrait entraîner l'annulation de la garantie de l'appareil ou de tout contrat de service.

Pour un service et des réparations autorisées, retournez l'appareil à un point de vente et service Hewlett-Packard.

Environment

Do not operate the instrument in the presence of flammable gases or fumes. Operation of any electrical instrument in such an environment constitutes a definite safety hazard.

Service and Adjustment

Dangerous voltages exist within this instrument. Service and adjustment of this instrument is to be performed only by trained service personnel.

Do not replace components with the power cable connected. Dangerous voltages may be present even when the power cable is disconnected.

Do not perform internal servicing or adjustment unless another person, capable of rendering first aid and resuscitation is present.

Hazardous Material

Should the LCD be damaged the liquid crystal material can leak. Avoid all contact with this material, especially swallowing. Use soap and water to thoroughly wash all skin and clothing contaminated with the liquid crystal material.

Unauthorized Service

The installation of substitute parts or the installation of any instrument modification not authorized by Hewlett-Packard is specifically forbidden. The performance of such unauthorized service can negate the instrument warranty or any maintenance agreements.

Return the instrument to a Hewlett-Packard Sales and Service Office for authorized service and repair.
New editions are complete revisions of this book. Update packages may contain new or additional material and be released between editions. See the date of the current edition on the back cover of this book.

First Edition ........ June 1997    5966-5340
Third Edition .... January 1998     5967-1449
Mainframe Features Overview
Introduction to HP Internet Advisor

The HP J2300C, J3446C, and J3754C Internet Advisor Family of Products is designed for testing your network needs in combination with available WAN, LAN, ISDN, and ATM Interface Modules or Undercradles. Features are integrated through software.

The Advisor Family of Products lets you look at decoded protocol information as it is traveling across a network which lets you identify network problems quickly.

The HP Internet Advisor systems consist of various combinations of Mainframes, Interface Modules, Undercradles, and Software to help you:
- Connect
- Capture
- Comprehend.
This manual provides information about hardware and operating system software features of the J2300C, J3446C, and J3754C HP Internet Advisor Family of Products. This guide was created so you can look in one place to find information about these features. Your literature package will include at least one “technology related” User’s Guide for information relating to LAN, WAN or ATM applications.

If you have specific Microsoft® Windows® 95 questions, refer to Introducing Microsoft Windows 95, which is included with your HP Internet Advisor literature package.
Table 1-1: HP J2300C, J3446C, and J3754C Mainframes and supported Undercradles

<table>
<thead>
<tr>
<th>Undercradles</th>
<th>J2300C</th>
<th>J3446C</th>
<th>J3754C</th>
</tr>
</thead>
<tbody>
<tr>
<td>J2295A</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>J2306A</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Eth LAN</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>J2306B</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Eth LAN</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>J2307A</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Token Ring LAN</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>J2309A</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Eth/TR LAN</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>J2309B</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Eth/TR LAN</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>J2524A</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>FDDI</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>J2527A</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TIMS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*J2900A High Speed Acquisition</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>J3444A</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Fast Eth</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E4594A</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>TELCO</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E6323A</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>E1 TELCO</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

X = Supported Now

NOTE: * A J2900A High Speed Acquisition Undercradle will accept any ATM Interface Module. See Table 1-3.

Any HP E4594A Telco Undercradle without an E4594A Serial number label that includes the phrase "INT 15," must be modified at your nearest HP Service Center in order to operate correctly with the HP J2300C Internet Advisor.
Table 1-2: HP J2300C Mainframe and supported Interface Modules

<table>
<thead>
<tr>
<th>Mainframe</th>
<th>J2300C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>WAN</td>
</tr>
<tr>
<td>Interface Modules</td>
<td></td>
</tr>
<tr>
<td>J2293B PRI-E1</td>
<td>X</td>
</tr>
<tr>
<td>J2294B PRI-E1</td>
<td>X</td>
</tr>
<tr>
<td>J2294C PRI-E1</td>
<td>X</td>
</tr>
<tr>
<td>J2296B PRI-E1</td>
<td>X</td>
</tr>
<tr>
<td>J2297B PRI-E1</td>
<td>X</td>
</tr>
<tr>
<td>J2298B PRI-T1</td>
<td>X</td>
</tr>
<tr>
<td>J2299B PRI-T1</td>
<td>X</td>
</tr>
<tr>
<td>J2904A ISDN BRI S/T</td>
<td>X</td>
</tr>
<tr>
<td>J2904B ISDN BRI S/T</td>
<td>X</td>
</tr>
<tr>
<td>J2905B ISDN BRI S/T &amp; U</td>
<td>X</td>
</tr>
<tr>
<td>J2908A DDS 4-Wire</td>
<td>X</td>
</tr>
<tr>
<td>J2909A ATM DS-3</td>
<td>X</td>
</tr>
<tr>
<td>J2911A ATM J2</td>
<td>X</td>
</tr>
<tr>
<td>J2912A ATM OC-3</td>
<td>X</td>
</tr>
<tr>
<td>J2913A ATM-UTP</td>
<td>X</td>
</tr>
<tr>
<td>J3759A ATM DS3/E3</td>
<td>X</td>
</tr>
<tr>
<td>J3762A ATM HSSI</td>
<td>X</td>
</tr>
</tbody>
</table>

NOTE:
* Original T1 and E1 Interface Modules can also be used with the J2300C.
** Test Advisor Series Interface Modules are not compatible with HP Internet Advisor.
Table 1-3: HP J3446C Mainframe and supported Interface Modules

<table>
<thead>
<tr>
<th>Mainframe</th>
<th>J3446C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fast Ethernet LAN</td>
</tr>
<tr>
<td>Interface Module</td>
<td></td>
</tr>
<tr>
<td>HP J3447A 100BaseFX</td>
<td>X</td>
</tr>
</tbody>
</table>

X = Supported Now
### Table 1-4: Interface Modules for use with a HP J2900A High Speed Acquisition Undercradle

<table>
<thead>
<tr>
<th>Mainframes</th>
<th>J2300C (WAN)</th>
<th>J3446C (Fast Ethernet LAN)</th>
<th>J3754C (pcAdvisor)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Interface Modules</strong></td>
<td>With J2900A Undercradle</td>
<td>With J2900A Undercradle</td>
<td>With J2900A Undercradle</td>
</tr>
<tr>
<td><em>J2293B PRI-E1</em></td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
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<td>X</td>
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<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td><em>J2909A ATM DS-3</em></td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td><em>J2911A ATM J2</em></td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td><em>J2912A ATM OC-3</em></td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td><em>J2913A ATM-UTP</em></td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td><em>J3759A ATM DS3/E3</em></td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td><em>J3762A ATM HSSI</em></td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

* = Supported Now

**NOTE:**
*You can use these T1 or E1 Interface Modules in the undercradle for ATM measurements only (these Interface Modules are not presently supported in the undercradle for other testing applications).*

**Test Advisor Series Interface Modules are not compatible with HP Internet Advisor.**
### Table 1-5: Interface Modules for use with a HP J3444A Undercradle

<table>
<thead>
<tr>
<th>Mainframe</th>
<th>J2300C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interface Modules</td>
<td></td>
</tr>
<tr>
<td>Media Independent Interface</td>
<td>X</td>
</tr>
<tr>
<td>J3445A Fiber Interface</td>
<td>X</td>
</tr>
</tbody>
</table>

X =Supported Now

### Table 1-6: External Pod for use with a HP J2300C Mainframes

<table>
<thead>
<tr>
<th>Mainframes</th>
<th>J2300C</th>
</tr>
</thead>
<tbody>
<tr>
<td>External Pod</td>
<td></td>
</tr>
<tr>
<td>HP 18294A X.21 VF Pod</td>
<td>X</td>
</tr>
</tbody>
</table>

X =Supported Now
Hardware & Operating System Features
Mainframe Specifications

The HP J2300C, J3446C, and J3754C Internet Advisor Family of Products have an Intel Pentium P5 Chip, a 133 MHz processor, 32 Mbytes of PC memory, a 1.44 MB flexible disk drive, and a 3 gigabyte hard drive. In addition, each Mainframe has a PC Card Type III slot, serial port, parallel port, external monitor port, microphone input jack, and an external audio output jack. The Mainframes have available options of: a 33.6 Kbps Modem PC Card and/or a 10/100 Mbps Ethernet PC Card.

There are two speakers in the Mainframes for sound output. Volume control is included in the software. External speakers or a headset may be plugged into the jack labeled, “PHONES”.

The following table shows additional features available with the various Mainframes.

Table 2-1: Additional Features

<table>
<thead>
<tr>
<th>Feature</th>
<th>J2300C</th>
<th>J3446C</th>
</tr>
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<tbody>
<tr>
<td>Telephone handset</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>RS-232</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>RS-449</td>
<td>X</td>
<td></td>
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<tr>
<td>V.35</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Ethernet AUI</td>
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<tr>
<td>Fast Ethernet MII</td>
<td></td>
<td>X</td>
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<tr>
<td>100Base-TX/10Base-T</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethernet connectors</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2-2
Apply Power to the Advisor

Connect the AC power cable (either 115V or 230V) as shown below. The mainframe automatically determines whether the power connection is 115V or 230V. To start the mainframe, turn the power on. The ON-OFF power switch is located on the left side adjacent the power cable connector.

Figure 2-1: Mainframe AC Power Connection

If the Mainframe will not power-up, check the following:

- Power cable connections are good
- AC power is available at the outlet
- Examine the fuse

CAUTION

The Mainframe comes with a three-conductor power cable that grounds the Advisor when it is connected to an appropriate power outlet. Do not operate without ground protection.
Starting Applications from Windows 95

The first time you start the Mainframe with software installed, Microsoft Corporation requires you provide some information to complete the configuration of your instrument. There are dialog boxes which prompt you for information. You can accept the default selection by pressing ENTER.

All of your applications can be started from Windows 95. Windows 95 offers a convenient and centralized access point for the HP Internet Advisor software, as well as other applications you may want to install. To start an application, select the Start button to display the Start menu or press either of the Microsoft "flag" keyboard keys.

![Start Button](image)

**Figure 2-2: Location of Start button**
Starting Applications with the Alternate Boot Process

The HP Internet Advisor Family of Products let you use an alternate boot process from Windows 95 MS-DOS Compatibility Mode (MS-DOS mode). If you mainly use the HP Internet Advisor LAN or the WAN High Speed Toolkit and you don’t use Windows 95 frequently, you can activate this option to set MS-DOS mode as your default operating system. The MS-DOS mode Startup Menu gives you direct access to these applications.

To start the Alternate Boot Process select:
| Start | Utilities | Activate Alternate Boot Process |

![Figure 2-3: Alternate Boot Process](image)

The next dialog screen confirms you want to continue with the alternate boot.

![Figure 2-4: Re-boot dialog box](image)
Hardware & Operating System Features
Starting Applications with the Alternate Boot Process

MS-DOS mode Startup Menu

Your choices from this point are:

Internet Advisor WAN (This takes you to a WAN sub-menu)
Internet Advisor LAN (This takes you to a LAN sub-menu.)
Windows 95 (This reboots the computer to Windows 95 and makes it your default operating system.)
Command Prompt
Set Menu Default(s) (A feature intended for LAN remote users but may be used for starting specific LAN applications.)

You are prompted to make a numeric choice then press ENTER.

When you cycle the power, the HP Internet Advisor will boot to the MS-DOS mode Startup Menu. To return to the Windows 95 Start menu, select Windows 95 in this menu.

If you choose Command Prompt, you will be at the prompt for MS-DOS mode. To return to the MS-DOS mode Startup Menu, press CTRL, ALT, DELETE (to reboot computer) or cycle power to your HP Internet Advisor.

NOTE

Remote users please refer to the HP Internet Advisor LAN - PC Remote User's Guide for the process of rebooting from the master machine while still maintaining your remote connections. For users exiting from a LAN Application (other than Remote), you may be at the prompt for MS-DOS mode. To return to the MS-DOS mode Startup Menu, press CTRL, ALT, DELETE (to reboot computer) or cycle power to your HP Internet Advisor.
Setting the Time and Date

The time and date features are used for many of the applications and reports generated by the HP Internet Advisor Family of Products. It is important to set your local time and date when you receive your HP Internet Advisor. Setting the time and date also updates system configuration files. The time and date are maintained even when power to the HP Internet Advisor is off.

There are several methods for setting the time and date using Microsoft® Windows® 95.

To set the time and date
select: | Start | Settings | Control Panel |

Figure 2-5: Control Panel

From the Control Panel, double-click on the Date/Time icon. This brings up the Date/Time Properties. From this screen, you can change the date and time as needed.

Figure 2-6: Date/Time Properties
The Keyboard and Button Mouse

The keyboard includes 88 keys with the integrated Button Mouse Joystick. See the following figure. The left and right mouse keys are located below the space bar on the chassis of the Internet Advisor Family of Products. The Button Mouse responds quickly to pressure and the cursor will move in the direction and with the desired speed equal to pressure applied to the Button Mouse.

The keyboard has three extra keys - two Windows 95 keys and one application key. The two Windows 95 keys will automatically bring up the Start Menu and the application key responds the same as pressing the right mouse key on any selected area of focus. There are 12 function keys.

The HP Internet Advisor Family of Products ship with a Microsoft Serial Mouse (part number 1150-1894) that may be used instead of the Button Mouse.

NOTE

If you need to replace the Keyboard-Button Cover (the Button Mouse cover) of your keyboard, please call the U.S.A. Technical Response Center at 1-800-698-0061. The replacement part number is 4320-0445.
Control characters are available. To use the control characters, hold down the 
CTRL key and press the control character you want. The control characters and 
their corresponding keys are shown in the following figure.

Figure 2-7: HP Internet Advisor Family of Products Keyboard
By pressing the **Num Lock** key, you can use the numeric keypad. The following figure shows the numeric keypad locations and numeric equivalents.

![Numeric Keypad Diagram](image)

**Figure 2-8: Numeric Keypad**

**Keyboard Operation LEDs**

Located above the keyboard is a group of five LEDs that show keyboard functions when they are active. These are:

- Power On
- Caps Lock
- Num Lock
- Scroll Lock
- Hard Disk
The Display

The standard display for the HP J2300C Mainframe is a 26.5 cm diagonal (10.4 inch) passive DSTN color LCD VGA. Also available is Option 221 for J2300C which is a 26.5 cm diagonal (10.4 inch) active matrix TFT color SVGA display.

The standard display for the HP J3446C and J3754C Mainframes is a 26.5 cm diagonal (10.4 inch) active matrix TFT color SVGA display.

There is a contrast control thumb-wheel adjustment located on the left side of the passive color LCD VGA display.

If you have an Active SVGA display, then the external monitor display is SVGA resolution 800x600.

If you have a passive VGA color display, then the external monitor display is VGA resolution 640x480.

Connecting an External Display Monitor

You can connect an external display monitor to the HP Internet Advisor Family of Products. Several external display monitors are available from Hewlett-Packard.
To connect an External Monitor Display:

1. Set the HP Internet Advisor power switch to OFF.

2. Connect the monitor cable to the EXT MONITOR connector on the Mainframe. When you power-on the Mainframe it automatically detects if an external display is attached.

Set VGA Display Mode

You can select the MS-DOS VGA display mode of your Advisor. The choices are: Disable VGA Expansion Mode or Enable VGA Expansion Mode.

Figure 2-10: Select VGA Display Mode
Modem Selection

You may select either the MHZ Modem or the TDK Modem for HP Toolkit applications by selecting: Utilities | Select Modem for HP Toolkit Remote.

Figure 2-11: Modem Selection

The default modem is the TDK Modem.
When you make the selection of "Copy HP Demo Icons to the Desktop," the program will copy the HP Demo Icons to your Desktop. These icons offer you quick access to some specific tests.

You may also create your own "Shortcut" icons for any object, including files, folders, disk drives, other computers, or printers. Please refer to *Introducing Microsoft Windows 95*, (included with your HP Internet Advisor literature package) for more information on "Shortcut" icons.

To activate the HP Demo Icons select:
1. Start
2. Utilities
3. Copy HP Demo Icons to the Desktop

![Figure 2-12: HP Demo Icons](image)

If you want to remove the demo icons from your desktop, highlight them either one by one or all of them and press the DEL key.
Connecting a Printer

The mainframe is shipped with printer output routed to the PARALLEL PORT connector on the side panel. See Figure 2-13.

A printer can be connected to the mainframe so that you can print files, help topics, and measurements results.

Figure 2-13: Printer Connection
Selecting a Printer for Windows 95 applications

The Advisor’s default printer selection is No Printer. If you want to use a printer with your Advisor, you must select the printer driver and output port.

To select a printer:

From the Windows 95 desktop, select: | Start | Settings | Control Panel | then double-click the Printers icon.

![Printers icon](image)

**Figure 2-14: Printers icon**

Double-click on the Add Printer icon. Use the Add Printer Wizard window to select the printer driver and port you want to use.

![Add Printer Wizard](image)

**Figure 2-15: Add Printer Wizard**
Hardware Features

Figures 3-1 and 3-2 show the locations of the various connectors and plug-in features of the HP J2300C Internet Advisor.

**Figure 3-1: Left side of HP J2300C Internet Advisor**

The left side of the HP Internet Advisor contains the following:

A. On-Off Switch  
B. Power cable receptacle  
C. Two RS-232/V.24 connectors  
D. External Interface connector  
E. Parallel Port  
F. External Monitor  
G. Serial Port  
H. Headphones  
I. Microphone
Figure 3-2: Right side of the HP J2300C Internet Advisor

The right side of the HP Internet Advisor contains the following:

A. 3-1/2 inch high density flexible disk drive
B. Dual PC Card slots
C. RS-449 connector
D. Handset connector
E. V.35 connector
F. Module Release Latch for Interface Modules
G. Interface Module slot
Standard Connectors

The HP J2300C Internet Advisor comes with standard connectors for:

- RS-232C/V.24
- RS-449
- V.35

For pin assignments please see Appendix E.
Figure 4-1 and Figure 4-2 show the locations of the various connectors and plug-in features of the HP J3446C Internet Advisor.

**Figure 4-1: Left side of the HP J3446C Internet Advisor**

A. On-Off Switch  
B. Power Cord receptacle  
C. Ethernet (AUI)  
D. Fast Ethernet (MII)  
E. Parallel Port  
F. External Monitor  
G. Serial Port  
H. Headphones  
I. Microphone
Figure 4-2: Right Side of the HP J3446C Internet Advisor

The right side of the HP Internet Advisor J3446C contains the following:

A. 3 1/2 inch high density flexible disk drive
B. PC Card Slot
C. 100Base-TX/10Base-T Ethernet connector
D. Interface Module slot
E. Module Release Latch for Interface Modules

There are Interface Modules available for use with the HP Internet Advisor J3446C. See Chapter 1, page 1-5 to 1-10 for Interface Module configurations with Mainframes and Undercradles.
Top Panel Label

Shown below is the Top Panel Label and removable LED Label for the J3446C.

![Top Panel Label and Removable LED Label](image)

**Figure 4-3: J3446C Top Panel Label**
Standard Connectors

The HP J3446C Internet Advisor comes with standard connectors for:

- AUI - 100Base-T
- MII - 100Base-T
- MDI - 100Base-TX/10 BASE-T

For pin assignments please see Appendix E.
Hardware Features

Figures 5-1 and 5-2 show the locations of the various connectors and plug-in features of the HP J3754C pcAdvisor.

Figure 5-1: Left side of HP J3754C pcAdvisor

The left side of the HP pcAdvisor contains the following:

A. On-Off Switch
B. Power cable receptacle
C. Parallel Port
D. External Monitor
E. Serial Port
F. Headphones
G. Microphone
Figure 5-2: Right side of the HP J3754C pcAdvisor

The right side of the HP pcAdvisor contains the following:

A. 3-1/2 inch high density flexible disk drive
B. Dual PC Card slots
Shown below is the Top Panel Label for the J3754C.

Figure 5-3: J3754C Top Panel Label
Interface Modules
There are several Interface Modules and one Filler Panel available for use with the HP Internet Advisor. The Filler Panel acts as a cover for the Interface Module slot when no Interface Module is installed.

See Chapter 1, page 1-5 to 1-10 for Interface Module configurations with the Internet Advisor and Undercradles.

**Install into a Mainframe**

**CAUTION**

The HP Internet Advisor must have the power turned off whenever you are installing or removing any HP Interface Module.

**To install an Interface Module or Filler Panel:**

1. Make sure the Module Release Latch is in the Install/Remove Position.

2. Slide the Interface Module or Filler Panel into the opening of the HP Internet Advisor.

3. Push it firmly into place until it is seated and the Module Release Latch moves to the Locked Position (however, the Module Release Latch doesn’t move when you install a Filler Panel). You will need to push the Module Release Latch with your thumb to get the latch into its locked position.
Remove from a Mainframe

To remove an Interface Module or Filler Panel:

1. Depress the left end of the Module Release Latch (labeled “PUSH TO UNLOCK,”) then slide the latch toward the left (Install/Remove Position).

2. Pull the Interface Module or Filler Panel out of the HP Internet Advisor.

Figure 6-1: Install or Remove an Interface Module from J2300C
**Interface Modules**

**Interface Modules and Filler Panel**

**Figure 6-2:** Install or Remove an Interface Module from J3446C

**Figure 6-3:** Install or Remove Filler Panel

Pull knob goes toward outside of HP Internet Advisor
Install or Remove from an Undercradle

To install an Interface Module into an undercradle:

1. Slide the module into the opening of the undercradle.
2. Push it into place until it is seated. See the following figure for more details.

To remove an Interface Module from an undercradle:

1. Slide the Module Release Latch towards the left.
2. Pull the Interface Module out of the undercradle.

Figure 6-4: Install or Remove Interface Module - Undercradle
Interface Modules

Interface Modules and Filler Panel
Undercradles
Undercradles
Miscellaneous Bag of Parts

Miscellaneous Bag of Parts

Included with each HP Internet Advisor and Undercradle order is a small plastic bag which includes the following:

- 4 rubber feet
- 4 Torx screws (for the Undercradle)
- 2 Torx screws (not needed for HP J2300C and J3446C)
- 1 Right side endcap expander
- 1 Torx wrench
- 1 Small flat endcap
- 1 connector board
- 2 Grounding Strips (not needed for HP J2300C and J3446C)

Installation instructions for these parts are explained throughout this chapter. Some of these parts may or may not be included with your order depending on your particular configuration. Also, some of these parts may not be used with your instrument.

NOTE

Any HP E4594A Telco Undercradle without the new E4594A Serial number label that includes the phrase “INT 15,” must be modified at your nearest HP Service Center in order to operate correctly with the HP J2300C and J3446C Internet Advisor.
Attaching the Undercradle

You can add an Undercradle to your HP Internet Advisor that lets you perform various functions including LAN, TIMS, FDDI, or ATM testing.

To attach an Undercradle to your HP Internet Advisor:

CAUTION

Turn off and disconnect the HP Internet Advisor from the power source.

1. If the metal plate (on the bottom of the Internet Advisor) is covering the opening for the Undercradle to attach to, then remove the two screws from the metal plate. Use the wrench provided in the miscellaneous parts kit (or a T10 Torx screwdriver) to remove the screws.
2. Slide the metal plate over to the next set of drilled holes in the metal plate and reattach it (with the same screws you removed in the previous step). This will leave an opening for your connector board to be installed into. After installing the screws, they should be flush with the metal plate. See the following figure.

Figure 7-1: Location of metal plate and screws
3. Insert the connector board into the slot uncovered by the metal plate.

4. Make sure all four silver tabs on the top of the Undercradle are pulled out.

5. Place the HP Internet Advisor on top of the Undercradle, matching the connector on the bottom of the HP Internet Advisor to the connector on the top of the Undercradle.

6. Push in the four silver tabs, locking the Undercradle to the HP Internet Advisor.

Figure 7-2: Location of silver tabs
CAUTION

Removing the Undercradle

1. Turn off power and unplug the HP Internet Advisor.

2. Pull out the four silver tabs on the front and the back of the Undercradle.

3. Lift the HP Internet Advisor away from the Undercradle.

CAUTION

The HP Internet Advisor must have the power turned off whenever you are installing or removing any HP Undercradle.
The Empty Undercradle HP J2295A

The empty Undercradle (J2295A) is available which lets you add one or two of your own ISA compatible printed circuit cards to customize your HP Internet Advisor.

WARNING

Be sure the HP Internet Advisor is turned off and disconnected from any power source before you begin any assembly or disassembly procedures.

Left Side of Undercradle

The Undercradle left side is the plastic piece with indented slots. Note the top of the left side has open slots, and the bottom has rubber foot indentations.

Figure 7-3: Left Side of Undercradle

Right Side of Undercradle

The Undercradle right side is the plastic piece with two large cutouts. Note the top of the left side has open slots, and the bottom has rubber foot indentations.

Figure 7-4: Right Side of Undercradle
Right Side Endcap Expander

The Undercradle right side endcap expander is the plastic insert that goes into the right side if you are using full-length printed circuit cards.

Figure 7-5: Right Side Endcap Expander

Right Side Flat Endcap

The Undercradle right side flat endcap is the flat piece of metal that goes into the right side if you are using smaller size printed circuit cards.

Figure 7-6: Right Side Flat Endcap
Undercradle Bottom

The Undercradle bottom is the metal part with four metal standoffs that hold the connector board. Note the front of the Undercradle bottom is the curved edge nearest to the standoffs.

![Undercradle Bottom](image)

Figure 7-7: Undercradle Bottom

Undercradle Top

The Undercradle top is the metal part with a slot and four silver tabs. Note this slot goes over the connector board which attaches to the HP Internet Advisor.

![Undercradle Top](image)

Figure 7-8: Undercradle Top
Undercradles
The Empty Undercradle HP J2295A

Connector Board

The connector board is where the printed circuit cards connect. It pushes on and off the standoffs in the Undercradle bottom.

Figure 7-9: Connector Board

Silver Tabs

The four silver tabs connect the Undercradle to the HP Internet Advisor.
Taking the Undercradle Apart

WARNING
Be sure the HP Internet Advisor is turned off and disconnected from any power source before you begin any assembly or disassembly procedures.

1. Remove the Undercradle from the HP Internet Advisor if it is attached. (See previous sections.)

2. Turn the Undercradle upside down, with the four black feet facing up.

3. Carefully remove the four black rubber feet using a small flat screwdriver or some implement to pull them out of their seating.

4. Remove the four screws using a #10 Torx driver.

5. Turn the Undercradle over.

6. Remove the eight screws (four flat-head and four pan-head) from the top of the Undercradle.

7. Slide the two plastic endcaps off both sides, and lift off the top of the Undercradle.

Installing printed circuit cards

You can install up to two printed circuit cards in the Undercradle. They can be full-length or smaller. If you are using full-length cards, you will need to use the endcap expander. If you are installing smaller cards or only one card, you can use the flat endcap.

CAUTION
Be sure to follow Electro-Static Discharge (ESD) procedures when handling any cards.
With the Undercradle disassembled:

1. Gently lift each corner of the connector board to disconnect it from the standoffs.

2. Turn the connector board over and fasten the card(s) in the slots provided.

3. Press the connector board onto the standoffs. The cards should be underneath the connector board as you secure it.

---

**Putting the Undercradle Back Together**

1. Place the top back on the Undercradle, aligning the slot in the top with the HP Internet Advisor connector. Fasten with the four flat-head screws.

2. On the side nearest to the HP Internet Advisor connector, slide the left side piece into place and secure it with four pan-head screws (two on the top and two on the bottom). If you are only installing one printed circuit card, you need to insert the small flat endcap in the left side piece before you put it on the Undercradle.

3. If you are installing full-length printed circuit cards in the Undercradle, you need to insert the endcap expander into the right side before you place it on the Undercradle. If you are installing smaller printed circuit cards, you will need to insert the flat metal endcap in the right side before you place it on the Undercradle.

4. Slide the Undercradle right side piece into place and secure it with four pan-head screws (two on the top and two on the bottom).

5. Turn the Undercradle over and replace the four black rubber feet into the foot indentions.
Figure 7-10: The Assembled Undercradle
Undercradles
The Empty Undercradle HP J2295A
Modem & Ethernet PC Cards
Introduction

The Personal Computer Memory Card International Association (PCMCIA) has created a standard for credit card size devices with memory, mass storage, and I/O functionality. The standard makes compatibility possible by defining mechanical, electrical, and software requirements.

The purpose of the PC Card slots are to increase the flexibility in the Personal Computer section of the instrument. The primary use of this flexibility is for enhanced I/O capability with the HP Internet Advisor's software. This includes functions such as a modem, a LAN interface, and a CD-ROM Drive.

While integrated I/O is the primary focus for the PC Card slot, it can also serve other purposes. Other PC Card solutions include removable mass storage, speech, paging, encryption, global positioning, and even additional protocol testing.

Compatibility

The HP Internet Advisor conforms to PC Card specification 2.10. Each slot is capable of receiving one Type I or Type II card. A single Type III or larger card may be inserted into the bottom slot only. The following kinds of cards are compatible with the HP Internet Advisor:

- ATA Drive
- Audio
- Ethernet/Modem Combo
- Fax/Modem
- Network Interface
- SCSI Host Adapter
- CD ROM
PC Card General Tips

- Make sure the PC Card slot is active by selecting: Start | Settings | Control Panel and then double-click on the PC Card (PCMCIA) Wizard. If the slots are active you’ll see the PC Card (PCMCIA) Properties window. If the slot is not active, you’ll see the PCMCIA Welcome window. At the welcome window, press ENTER to continue, press ENTER to accept default PC Card drivers, then press ENTER to close the PC Card Wizard.

- Make sure the PC Card is plugged in all the way by listening for a beep. If you do not hear a beep, the card may be upside down.

- Do not load the card vendor’s socket or card services software into HP Internet Advisor LAN or HP ToolKit WAN.

NOTE

The configuration will be different in some ways for the HP Internet Advisor WAN software versus the HP Internet Advisor LAN software. Refer to your HP Internet Advisor WAN - High Speed Toolkit User’s Guide (under Configuring a Slave) for configuring HP Internet Advisor software for WAN PC Card Operation.

Refer to either the HP Internet Advisor LAN - PC Remote User’s Guide or HP Internet Advisor - Remote for Unix®, for configuring LAN Remote PC Card operations.
Insertion and removal of the PC Card

The PC Card slots are located on the right side of the HP Internet Advisor, below the flexible disc drive as shown in the following figure.

![PC CARD SLOTS RELEASE BUTTONS](image)

Figure 8-1: Location of PC Card Slots

Installing a PC Card

All PC Cards are keyed for correct installation. The card's label will typically face up or will explain which side is up. Slide the PC Card in the PC Card slot until you feel some resistance. Then push firmly, but gently, to ensure a good connection. Never attempt to force the card into position. When using Windows 95, you should hear an audible double-beep tone within five seconds, confirming that the system recognizes a PC Card has been inserted.

NOTE

When using the alternate boot selection, which operates in MS-DOS mode, install your PC Card before you apply power to the HP Internet Advisor.
Process to remove a PC Card

In Windows 95, select the PCMCIA icon (located in the Notification area near the clock), then highlight and click the Stop PCMCIA card description. This brings up a message box telling you that you may now safely remove the PCMCIA device.

![Stop PCMCIA Card Description]

Another method to remove the PC Card is to exit your current applications, shut down Windows 95, and then remove the PC Card.

The PC Card is removed from the slot by simply pushing in the release button and pulling the card out.

Figure 8-2: Remove PC Card

When using the alternate boot selection, which operates in MS-DOS mode, turn the power off to the HP Internet Advisor before removing your PC Card.

System Identification of PC Card

Besides hearing an audible beep, indicating insertion and removal of cards, you can verify that the PC system has properly identified the card in Windows 95 by checking the system properties of the PC Card.
Properties of a PC Card operating with Windows 95

From Windows 95, the system properties of PC Cards can be verified. Select: Start \ Settings \ Control Panel \ System. From the Systems Properties window, select: Device Manager, select your PC Card device category and then double-click on PC Card description. This process brings up the PC Card Properties screen. From this screen, you may check General or Resources for your PC Card.

![System Properties Window](image)

Figure 8-3: System Properties

Installing Modem or Ethernet PC Card Drivers

If you are using a supported Modem or NIC PC Card, the drivers for these devices are installed on your Internet Advisor. If you are using an "unsupported" device, the following describes the process to install any necessary drivers.
1. The first time Windows 95 locates your “unsupported” PC Card, it must install the drivers for that card. Follow the instructions as directed from the following screens.

Examples of the following screens will be shown. Select OK to continue.

![New Hardware Found](image1)

![Install From Disk](image2)

**Figure 8-4: New Hardware Found**
Software Configuration

Windows 95 with a PC Card

- If a PC Card uses an interrupt, Windows 95 will assign interrupt 11 to the card if it is available. If this interrupt is not available, Windows 95 will assign the next available interrupt.

- If a PC Card uses I/O Addresses, Windows 95 will dynamically allocate the next free range to the card. If the PC Card is a modem card, Windows 95 must select an I/O Addresses range of COM 1, COM 2, COM 3, or COM 4. Generally, Windows 95 will use COM 2. A Network PC Card will normally default to 130-13F.

- In Windows 95 environment, PC Card Modems are generally located at I/O address 02F8-02FF(COM2), with interrupt=11.

- ATA disks use available I/O space and reserve no interrupt.
Windows 95 MS-DOS Compatibility Mode with a PC Card

The only PC Cards supported in HP Toolkit are: U.S. Robotics Megahertz PC Card Modem (model XJ4336) and TDK Systems PC Card Modem (model DF2814CX).

The default modem for Mainframes is the TDK Modem. If you want to change the default modem for HP Toolkit, select from the Start Menu: Utilities | Select Modem for HP Toolkit Remote.

A point enabler is used to activate each modem for use with the HP Toolkit Remote package. Both modems are set for I/O space COM4, Interrupt 11, and memory region CC000-CCFFF.

The only PC Card supported for the HP Internet Advisor LAN is Xircom CE3 10/100 Ethernet PC Card. To use this PC Card, a separate LAN Remote package must be properly installed.
In Windows 95 MS-DOS Compatibility Mode, you may need to reference the following tables, which list the interrupt structure and I/O space of the HP Internet Advisor:

### Table 8-1: Interrupts

<table>
<thead>
<tr>
<th>PC Functions</th>
<th>Interrupt</th>
<th>Analyzer Functions</th>
<th>Interrupt</th>
</tr>
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<tbody>
<tr>
<td>Keyboard Controller</td>
<td>1</td>
<td>LAN Advisor Undercradle</td>
<td>10</td>
</tr>
<tr>
<td>Programmable Interrupt Controller</td>
<td>2</td>
<td>FDDI Advisor Undercradle</td>
<td>plug &amp; play</td>
</tr>
<tr>
<td>COM 1</td>
<td>4</td>
<td>High Speed Acquisition Undercradle</td>
<td>none</td>
</tr>
<tr>
<td>Sound Hardware</td>
<td>5</td>
<td>TIMS Undercradle</td>
<td>15</td>
</tr>
<tr>
<td>Flexible Disk Controller</td>
<td>6</td>
<td>T1 Telco Undercradle</td>
<td>15</td>
</tr>
<tr>
<td>LPT1/Parallel</td>
<td>7</td>
<td>E1 Telco Undercradles</td>
<td>15</td>
</tr>
<tr>
<td>Real Time Clock</td>
<td>8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Button Mouse</td>
<td>12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Numeric Data Processor</td>
<td>13</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hard Disk Controller</td>
<td>14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Available to PC Card in Internet Advisor WAN</td>
<td>9,10,11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Available to Undercradle in Internet Advisor WAN</td>
<td>9,10,11,15</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 8-2: I/O Address Space

<table>
<thead>
<tr>
<th>I/O Address</th>
<th>System/Analyzer Function</th>
<th>I/O Address</th>
<th>System/Analyzer Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>000-00F</td>
<td>DMA Controller Register</td>
<td>300-301</td>
<td>Sound H/W</td>
</tr>
<tr>
<td>020-021</td>
<td>PIC #1</td>
<td>320-32F</td>
<td>WAN Low Speed Hardware</td>
</tr>
<tr>
<td>040-043</td>
<td>Prog. Interval Timer Reg</td>
<td>330-331</td>
<td>T1 Telco Undercradle</td>
</tr>
<tr>
<td>060-</td>
<td>Keyboard Controller</td>
<td>330-33F</td>
<td>TIMS Undercradle</td>
</tr>
<tr>
<td>061-</td>
<td>System Speakers</td>
<td>376-377</td>
<td>IDE</td>
</tr>
<tr>
<td>064-</td>
<td>Keyboard Controller</td>
<td>378-37F</td>
<td>LPT1/Parallel</td>
</tr>
<tr>
<td>070-</td>
<td>RTC Index &amp; NMI Mask</td>
<td>388-38B</td>
<td>Sound H/W</td>
</tr>
<tr>
<td>071</td>
<td>RTC Data Port</td>
<td>3B0-3BB</td>
<td>Video Registers</td>
</tr>
<tr>
<td>080-09F</td>
<td>DMA Page Register</td>
<td>3C0-3DF</td>
<td>Video Registers</td>
</tr>
<tr>
<td>0A0-0A1</td>
<td>PIC #2</td>
<td>3E0-3E1</td>
<td>PC Card Controller</td>
</tr>
<tr>
<td>0C0-0DF</td>
<td>DMA Controller Register</td>
<td>3E8-3EF</td>
<td>COM3</td>
</tr>
<tr>
<td>0F0-0FF</td>
<td>Numeric Data Processor</td>
<td>3F0-3F7</td>
<td>Flexible Disk Controller, Primary</td>
</tr>
<tr>
<td>110-12F</td>
<td>ATM Analyzer in Undercradle</td>
<td>3F8-3FF</td>
<td>COM1</td>
</tr>
<tr>
<td>150-16F</td>
<td>WAN/ATM Analyzer Hardware</td>
<td>B2-B3</td>
<td>Power Management</td>
</tr>
<tr>
<td>170-177</td>
<td>IDE</td>
<td>CF8-CFF</td>
<td>Chipset Configuration</td>
</tr>
<tr>
<td>1F0-1F</td>
<td>IDE</td>
<td>C2F0</td>
<td>LAN Hardware</td>
</tr>
<tr>
<td>200</td>
<td>Sound H/W</td>
<td>D2F0</td>
<td>LAN Hardware</td>
</tr>
<tr>
<td>220-22F</td>
<td>Sound H/W</td>
<td>E2F0</td>
<td>LAN Hardware</td>
</tr>
<tr>
<td>2E8-2EF</td>
<td>COM4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2F0-2F1</td>
<td>LAN Analyzer Hardware</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2F8-2FF</td>
<td>COM2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Modem PC Cards

Initializing the modem for Internet Advisors with factory installed software:
If your HP Internet Advisor software was installed at the factory, you do not need
to setup the modem in Windows 95. However, you will need to set your Dialing
Preferences for your modem to operate properly.

• Set these preferences from the Start menu by selecting: Settings | Control
  Panel | Modems.
• Under General Modems Properties, select Dialing Properties. This opens
  another folder called, My Locations. The default area code from the factory
  is set at area code 719 and country USA. Change these and any other
  settings to meet your requirements.

NOTE
The modem requires an analog phone line and is not compatible with typical
digital PBX systems.

The modem can be connected to a standard telephone line through an RJ-11 phone
jack.

Transmission rates for the modem are up to 33.6 kbps (14.4 kbps for fax). The
modem and fax operate with standard AT commands.

The modem is compatible with many commercially available software
applications. Check the vendor’s specifications to see if a particular application is
compatible with the modem's capabilities.

NOTE
Be sure to choose a country using the country selection with your international
TDK Modem, the same selection will apply for any MS-DOS mode program that
uses a modem. See the following section titled, “TDKModem PC Card
Documentation” for more details.
Modem & Ethernet PC Cards

Modem PC Card setup in HP Toolkit

You can use the PC Card Modem for remote control of the HP Toolkit WAN. To do so, you must configure the HP Internet Advisor software for COM port 4 and Interrupt 11. The master controller configuration menu (shown in Figure 8-5) is reached by selecting the Remote Control option in the Toolkit Main Group.

The slave configuration menu (shown in Figure 8-6) is reached by pressing F4 (Slave Setup) softkey from within the Toolkit Main Group. Changing one configuration automatically changes the other. The exact settings should be as shown in the following figures.

Figure 8-5: Remote Configuration screen

The COMM 4 I/O Base address of 2E8 Hex has a decimal equivalent of 744.
Figure 8-6: Slave setup

The other settings in the menus depend on the type of modem. However, it is recommended that you leave AutoAnswer ON when modifying the slave setup. This lets the instrument be remotely captured in an unattended setting.
10/100 Ethernet PC Card Adapter

The HP Internet Advisor LAN can function as a station on the network using the 10/100-Ready Ethernet PC Card Adapter for 10Base-T or 100Base-TX networks. This card is primarily used as the network connection when operating the analyzer remotely. It can also be used as a standard network interface for any other operation using the DOS platform such as file transfer and electronic mail.

Refer to either the *HP Internet Advisor LAN - PC Remote User's Guide* or *HP Internet Advisor - Remote for Unix®,* for more information on configuring LAN Remote PC Card operations.

**NOTE**

When performing a warm boot (Ctrl-Alt-Delete) of the system with the Xircom CE3 10/100 Ready CreditCard Ethernet Adapter inserted into the PC Card slot, the system may "lock up" Windows 95. We recommend a power-down of the system to restore functionality. From a cold boot (i.e.: from a powered-down status), the presence of the Xircom adapter in either of the PC Card slots will have no adverse effect and the system will power up and perform normally.
10/100 Ethernet PC Card Documentation

The 10/100 Ethernet PC Card documentation files can be located by selecting:

| Start | Programs | Xircom Online Documentation |

From this point, you can select either the Quick Install Guide or the User’s Guide.

Figure 8-7: The 10/100 Ethernet PC Card documentation files

Activate the w.e.t. support which installs Adobe Acrobat. This enables you to view the 10/100 Ethernet PC Card documentation files using Adobe Acrobat Reader.
TDKModem PC Card Documentation

The TDKModem PC Card documentation files can be located by selecting:

Start | Programs | TDK GLOBAL CLASS | TDK On-line Manual

From this point, you can select either the Country Selector or the On-line Manual.

Figure 8-8: The TDKModem PC Card documentation files

NOTE

Activate the w.e.t. support which installs Adobe Acrobat. This enables you to view the TDKModem PC Card documentation files using Adobe Acrobat Reader.

Refer to the TeleAdapt, Inc. selection card for information concerning available international telephone adaptors. When you have made a country selection with your TDK Modem, the same selection will apply for any MS-DOS mode program that uses a modem. See the following figure.
Modem & Ethernet PC Cards
10/100 Ethernet PC Card Adapter
HP Internet Advisor Family of Products Software

The HP Internet Advisor Family of Products are shipped software installed on the hard drive. Also included with each order is the HP Internet Advisor Literature package which includes backup software and Windows 95 software.

- The HP Internet Advisor Family of Products are not compatible with any disk compression packages. Likewise, do not use disk compression on flexible disks in any unit.

- If you run the Windows 95 program Scantest, it will give you an error message stating there are file names longer than 66 characters. Ignore the error message and continue with the Scandisk program.

- Please see the HP Software License Agreement.
Specifications
## Physical Characteristics

### Weight:

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>J2300C Mainframe</td>
<td>6.45 kg (14.2 lbs)</td>
</tr>
<tr>
<td>J3446C Mainframe</td>
<td>6.81 kg (15 lbs)</td>
</tr>
<tr>
<td>J3754C Mainframe</td>
<td>5.90 kg (13 lbs)</td>
</tr>
<tr>
<td>J2295A Undercradle</td>
<td>1.04 kg (2.3 lbs)</td>
</tr>
<tr>
<td>J2306B Undercradle</td>
<td>1.40 kg (3.1 lbs)</td>
</tr>
<tr>
<td>J2307A Undercradle</td>
<td>1.40 kg (3.1 lbs)</td>
</tr>
<tr>
<td>J2309B Undercradle</td>
<td>1.40 kg (3.1 lbs)</td>
</tr>
<tr>
<td>J2524A Undercradle</td>
<td>2.0 kg (4.4 lbs)</td>
</tr>
<tr>
<td>J2527A Undercradle</td>
<td>1.49 kg (3.3 lbs)</td>
</tr>
<tr>
<td>J2900A Undercradle</td>
<td>2.0 kg (4.4 lbs)</td>
</tr>
<tr>
<td>J3444A Undercradle</td>
<td>2.08 kg (4.6 lbs)</td>
</tr>
<tr>
<td>E4594A Undercradle</td>
<td>1.97 kg (4.35 lbs)</td>
</tr>
</tbody>
</table>

### Dimensions:

<table>
<thead>
<tr>
<th>Component</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>J2300C, J3446C, J3754C Mainframe</td>
<td>10.16H x 31.43W x 31.75D cm</td>
</tr>
<tr>
<td></td>
<td>(4.0H x 12.375W x 12.5D inches)</td>
</tr>
<tr>
<td>Undercradles (exceptions noted)</td>
<td>3.7 cm (1.5 inches) height for undercradle</td>
</tr>
<tr>
<td>J3444A Undercradle</td>
<td>4.76 cm (1.875 inches) height for undercradle</td>
</tr>
<tr>
<td>J2527A TIMS Undercradle</td>
<td>4.76 cm (1.875 inches) height for undercradle</td>
</tr>
<tr>
<td>E4594A TELCO Undercradle</td>
<td>5.72 cm (2.25 inches) height for undercradle</td>
</tr>
</tbody>
</table>
Display:

The standard display for the HP J2300C Internet Advisor is a 26.5 am diagonal (10.4 inch) passive DSTN color LCD VGA. Also available is Option 221 for J2300C which is a 26.5 am diagonal (10.4 inch) active matrix TFT color SVGA display.

The standard display for the HP J3446C and J3754C Advisor is a 26.5 am diagonal (10.4 inch) active matrix TFT color SVGA display.
Specifications

Operating Conditions

Operating Conditions

Temperature:
- Operating: +5°C to +40°C (+41°F to +104°F)
- Non-operating: -25°C to +60°C (-13°F to +140°F)

Humidity:
- Operating: 20% to 80% relative humidity non-condensing to 40°C
- Storage: 10% to 90% relative humidity to 60°C

Altitude:
- Operation: 4,575 meters (15,000 feet)
- Storage: 15,250 meters (50,000 feet)

Power Requirements:
- External: 100 to 240 VAC
  50 to 60 Hz, 110 Watts max.
Safety Conditions

This instrument is designed for indoor use.

Safety Class I

For continued protection from electrical shock, power cord ground must not be defeated.

Product Damage. Do not use this product when the product:

- shows visible damage,
- fails to perform,
- has been stored in unfavorable conditions, or
- has been subject to severe transport stresses.

If any of the above statements are met, make the product inoperative and secure it against any unintended operation. Please contact the U.S.A. Technical Response Center at 1-800-698-0061 for assistance.

Additional Help

If you have questions, concerns or need more information, call or contact us:

In the U.S.A.:
U.S.A. Technical Response Center - 1-800-698-0061
by FAX - 303-754-4802

Internationally:
by calling your local HP Sales Office

On the Web:
http://www.hp.com/go/internetadvisor
C

Windows 95 Operating System
Windows 95 Operating System

Operating System

The HP Internet Advisor Family of Products use the Microsoft® Windows® 95 operating system. Windows 95 can operate in either Graphical User Interface (GUI) mode or Windows 95 MS-DOS Compatibility Mode (MS-DOS mode).

The HP Internet Advisor uses GUI mode to run all of its applications except HP Toolkit and HP Internet Advisor LAN which run in MS-DOS mode.

HP Toolkit (HP Internet Advisor WAN)

HP Toolkit (HP Internet Advisor WAN) operates in MS-DOS mode, but can be started from the Windows 95 Start menu. When a HP Toolkit application is selected from the Start menu, you are warned that the system will be switched to MS-DOS mode. After you acknowledge this, the system unloads the GUI portion of Windows 95, enters MS-DOS mode and starts HP Toolkit. When you exit the Toolkit (F10) the system reloads the GUI portion of Windows 95. While in Toolkit, you can go to the command prompt using the F1 key.

HP Internet Advisor LAN

The HP Internet Advisor LAN operates in MS-DOS mode. The HP Internet Advisor LAN cannot be run in Enhanced Mode; therefore, a different set of system files must be used to start the HP Internet Advisor LAN application.

When a HP Internet Advisor LAN application is selected from the Start menu, you are warned the system will be switched to MS-DOS mode. After you acknowledge this, the system goes to the Windows 95 command line prompt. The system files needed to run HP Internet Advisor LAN under MS-DOS mode are copied over the existing system files and then the system is restarted. This sequence take you to MS-DOS mode, restores the system files used to start Windows 95, and then starts the HP Internet Advisor LAN. When you exit HP Internet Advisor LAN, the system is restarted and returns to Windows 95.
Installing Windows 95 Applications

There are two copies of the Config.sys and Autoexec.bat files which are used to start Windows 95. One copy of each file is located in the root directory of drive C: and the other copies are located in C:\Boot_src\Default.

In the process of installing other Windows 95 applications or software, if you need to make changes to either the Autoexec.bat or Config.sys files of Windows 95, you will need to make the same changes to the copies of these files in the Default directory for your Internet Advisor to operate properly.

If you need to edit either of these files, follow this process to keep the two sets of files in synch. If the file sets get out of synch, prior changes may be lost when you run a MS-DOS mode application and then return to Windows 95.

The following process will guide you through the necessary steps to update the Autoexec.bat, Config.sys and Default directory files.
Select the My Computer icon which opens to this window.

Double-click on Advisor (C:). This opens up a view of your C: drive.

![My Computer window]

Figure C-1: View of C: drive

To edit either your Autoexec.bat or Config.sys for Windows 95, select: | Start | Programs | Accessories | Notepad |.

![Opening Notepad]

Figure C-2: Opening Notepad
Drag and Copy (using the left mouse button) either your Autoexec.bat or Config.sys to the Notepad. Make your edits, save the edited file and exit Notepad.

![Image of Notepad with Autoexec.bat file]

**Figure C-3: Making edits in Notepad**

From Advisor (C:), double-click on Boot_src and double-click on Default to open window.

![Image of Boot_src and Default windows]

**Figure C-4: Opening Boot_src and Default**
From Advisor (C:) copy the edited Autoexec.bat or Config.sys to C:\Boot_src\Default by selecting the file you want to copy. Use File menu and select Copy (to copy the file) to the clipboard.

**Figure C-5: Copy file to clipboard**

To make your backup copy of the edited file, highlight C:\Boot_src\Default, highlight the file you want to replace (Autoexec.bat or Config.sys), then select Paste. This places the edited Autoexec.bat or Config.sys file in the default file.

**Figure C-6: Paste file in Default**
This last step brings up a Confirm File Replace screen. If this is the file you want to replace, click Yes. You have now edited either your Autoexec.bat or Config.sys for Windows 95 and saved a backup copy of the file into C:\Boot\src\Default. To activate these changes, you need to Shut Down Windows 95 and cycle the power off and then back on.

![Confirm File Replace Screen]

Figure C-7: Confirm File Replace
Windows 95 Operating System
Operating System
PC Card Modem
Overview of the Modem AT Command Set

The standard AT Command Set is used by DTE's to communicate with modems. A typical command string begins with the ASCII "A" and "T" or "a" and "t." The modem uses these first two characters to determine the data rate, number of bits, and type of parity which the DTE is employing in its communication. The modem then buffers the commands string in its RAM (memory) until a carriage return, [CR], is transmitted. Once the [CR] is received, the modem begins to execute, in order, all of the commands in the string. The number of characters in this string should not exceed 40. If the modem encounters an illegal command, a command that cannot be executed, or more than 40 characters, it immediately aborts the execution of the command string and issues an ERROR message to the DTE. If the command string is correct, the modem executes all commands and sends an OK message to the DTE.

Many of the commands require a numeric parameter. If this parameter is missing, the modem automatically assumes that the parameter is 0, if appropriate. If the parameter exceeds the expected values, the modem either aborts and issues an ERROR or it extracts the modulus from the parameter based on the greatest expected value. (For example; if n is expected to be 0,1,2,3, then n=5 will be treated as n=5Mod4=1.) This response varies from modem to modem.

Modems are always in one of two modes of operation. The modem enters into Data Mode once a connection has been established with a remote modem. In Data Mode, any data transmitted from the DTE to the modem is modulated and transmitted to the remote modem; and, similarly, any data that the modem transmits to the DTE has been received from the remote modem and demodulated. The modem can be in Data Mode only when the modem has established a communications link with a remote modem. The only exception to this is during diagnostic tests. At all other times, the modem is in Command Mode. When in Command Mode, the modem responds to AT commands issued from the DTE.

While in Data Mode, if it is necessary to issue commands to the modem without severing the communications link to the remote modem, an escape sequence may be issued from the DTE to the modem. The escape sequence consists of three escape characters followed by an AT command. If the modem uses a Hayes command set, the escape sequence must have a guard time before and after the
three escape characters. The escape character is defined by register S2 (default is "+", ASCII 043) and the guard time is defined by register S12 (default is 1 second, 50 x 0.02s). The default escape sequence is:

\[(1s)+++ (1s) AT...\]

Once the modem has been shifted into Command Mode during a data link, the modem can be returned to Data Mode with the O command.

---

**PC Card Modem AT Commands and Descriptions**

The modem AT commands and descriptions are located in directory:
\[c:/mhz\]

The modem AT commands/descriptions text file is located at:
\[c:mhz\:\text{\textbackslash}rck-336.txt\]
Use the Notepad program to view or print this file.
PC Card Modem
Breakout Box, LEDs & Connectors
RS-232/V.24 Breakout Box and System LEDs

The Internet Advisor gives you breakout box and jumpering capabilities for RS-232/V.24 circuits. Figure E-1 shows the breakout box and its associated connections. Note that the large black arrows point to the RS-232/V.24 test connectors on the side of the Internet Advisor. The rearward connector is the preferred test input for most tests. The forward connector should only be used when signals need to be isolated by the rocker switches or cross-connected by way of the switch jacks and jumper leads.

Figure E-1: RS-232/V.24 Breakout Box and System LEDs

All 25 leads are accessible for jumpering on either side of the breakout switches (the lateral switch bank numbered 1 through 25.) If you want to monitor or simulate on auxiliary data channels or to observe control signals other than RTS, CTS, DTR, DSR and CD, you can perform the appropriate transpositions by opening the corresponding switches and jumpering between the appropriate leads. To do so, connect the circuit under test to the Internet Advisor through the forward RS-232 test connector and perform the necessary transpositions over the lateral switch bank.
The vertical switch bank provides hardware isolation of incoming or outgoing data and control signals for special purpose testing. An example would be using the Internet Advisor to supply terminal generated control signals without conflicting with existing data signals. In this case, you would want to open the DTE switch to isolate the circuit being tested from the internal data transmitter.

**NOTE**

Pin 1 of the RS-232 test port is Frame Ground or Protective Ground. It is connected to the case of the Internet Advisor and, through the third wire of the power cable, to Ground. If you have a data circuit that requires isolation of Frame Ground, use the forward RS-232 test port and open switch 1 on the lateral switch bank.

Pin 7 of the rearward RS-232 test port is Signal Ground, and it is isolated from Frame Ground by 100 KOhms to minimize ground-loop problems.

In monitor mode, the inputs to all V-Series signal receivers represent only 1/5 of a standard load, minimizing circuit loading effects. In Simulating and BERT testing modes, the transmitters are configured with normal source impedance.

**Mark/Space Indicator**

You can use the Mark/Space Indicator to test the state of any circuit on an RS-232/V.24 interface. The Mark/Space Indicator has two test jacks, which are connected together electrically. To do this, simply jumper from any test jack on either of the lateral or vertical switch banks to either of the Mark/Space Indicator jacks and observe the results. If the incoming signal is more positive than +3.0 volts, the Space LED lights. If the incoming signal is more negative than -3.0 volts, the Mark LED lights. If the Mark and the Space LEDs both light up, the incoming signal is actively changing states. This is normal for data and clock signals, but indicates a problem for control signals.

**NOTE**

EIA-232D (Formerly RS-232C) specifications consider interface signals in the range of -3.0 to +3.0 volts to be indeterminate (or not valid) Consistent with this recommendation, the Mark/Space Indicator treats signals in this range as “not present” and gives no indication.
Source Voltage

You can hard-wire any signal or control line as On or Off by jumpering it to the Source jacks. The rearward three jacks are connected together electrically and supply -12 volts through a 1 KOhm resistor. The forward three jacks are connected together electrically and supply +12 volts through a 1 KOhm resistor. If you connect a signal or control line to the -12 volts supply it creates a Mark or Off state and if you connect it to the +12 volts supply it creates a Space or On state.

Active Interface LEDs

The following is a list of the five LEDs that indicate which interface is currently configured:

- RS-232/V.24
- V.35
- RS-449
- Interface Module
- External Interface

CAUTION

Do not connect more than one Internet Advisor port at a time. The V.35, RS-449, RS-232, and External ports are not independent of one another. Connecting more than one port at a time can cause unreliable results.
Lead Status LEDs

On the right side, rearward of the keyboard, are ten pairs of LEDs that show a real-time indication of lead status for all of the interfaces. These LEDs also indicate data, clock and control information for the V-Series interfaces. The following list provides information on the meaning of the lighted LEDs:

- **Left column, Red** Mark State for Data, Off State for Control Signals.
- **Right column, Green** Space State for Data, On State for Control Signals.
- **Both LEDs lighted** Active signal toggling.
- **Neither LED lighted** No signal present.

When the selected interface is RS-232/V.24, the left column LEDs light when the signal level is more negative than -3.6 volts and the right column LEDs light when the signal level is more positive than +3.6 volts. This is a safety margin of 20% above EIA-232D minimum signal requirements of -3.0 and -3.6 volts. If the circuit under test is lighting the proper Internet Advisor LEDs, then there is enough signal present to allow any EIA-232D/RS-232 conforming device to receive the data and control signals. If the circuit under test cannot light these LEDs, the signal levels are too low for reliable reception.

For the Interface Modules, the left column shows the state of the Equipment (or user) signal and the right column shows the state of the Line (or central office) signal. Alarm and Error indications cause their respective red LEDs to light. The green Signal LEDs light if a signal is present. If there is no signal present, the topmost red LED lights to indicate a loss of signal.

These LEDs can provide a visual indication as to whether a V-Series device is physically DTE or DCE. First connect the Internet Advisor to the device under test and configure it for the Monitor mode. If either the DTE/SD Mark or Space LED lights, the device under test is DTE. If the DCE/RD Mark or Space LED lights, the device under test is DCE. If the Internet Advisor is to Simulate a device under test, it must complement the device’s physical characteristic. If the device is DTE, the Internet Advisor must be DCE and vice versa.
V-Series Interfaces

The V-Series Interfaces are the RS-232, RS-449, and V.35 interfaces. The following signals are analyzed on the V-Series Interfaces:

Table E-1: V-Series Functions

<table>
<thead>
<tr>
<th>Function</th>
<th>RS-232</th>
<th>V.35</th>
<th>RS-449</th>
</tr>
</thead>
<tbody>
<tr>
<td>Send Data</td>
<td>DTE</td>
<td>SD</td>
<td>SD</td>
</tr>
<tr>
<td>Receive Data</td>
<td>DCE</td>
<td>RD</td>
<td>RD</td>
</tr>
<tr>
<td>DTE/Send Timing (DCE)</td>
<td>TC</td>
<td>SCT</td>
<td>ST</td>
</tr>
<tr>
<td>DCE/Receive Timing (DCE)</td>
<td>RC</td>
<td>SCR</td>
<td>RT</td>
</tr>
<tr>
<td>DTE/Send Timing (DTE)</td>
<td>ETC</td>
<td>SCE</td>
<td>TT</td>
</tr>
<tr>
<td>Request to Send</td>
<td>RTS</td>
<td>RS</td>
<td>RS</td>
</tr>
<tr>
<td>Clear to Send</td>
<td>CTS</td>
<td>CS</td>
<td>CS</td>
</tr>
<tr>
<td>Data Terminal Ready</td>
<td>DTR</td>
<td>DTR</td>
<td>TR</td>
</tr>
<tr>
<td>Data Set/Mode Ready</td>
<td>DSR</td>
<td>DSR</td>
<td>DM</td>
</tr>
<tr>
<td>Carrier Detect/Rec. Ready</td>
<td>CD</td>
<td>CD</td>
<td>RR</td>
</tr>
</tbody>
</table>

Table E-2: V-Series Functions for High Speed External Pods Only

<table>
<thead>
<tr>
<th>Function</th>
<th>RS-232</th>
<th>V.35</th>
<th>RS-449</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local Loopback (Drv)</td>
<td></td>
<td>LLB</td>
<td>LLB</td>
</tr>
<tr>
<td>Remote Loopback (Drv)</td>
<td></td>
<td>RLB</td>
<td>RLB</td>
</tr>
<tr>
<td>Test Mode (Mon)</td>
<td></td>
<td>TM</td>
<td>TM</td>
</tr>
</tbody>
</table>
Figure E-2: RS-232C Interface Connector Pins Assignment

Table E-3: RS-232C Interface Connector Pins Assignment

<table>
<thead>
<tr>
<th>PIN</th>
<th>CCITT CIRCUIT</th>
<th>CIRCUIT FUNCTION</th>
<th>PIN</th>
<th>CCITT CIRCUIT</th>
<th>CIRCUIT FUNCTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>101</td>
<td>Protective Ground</td>
<td>14</td>
<td>118</td>
<td>Secondary Transmitted Data</td>
</tr>
<tr>
<td>2</td>
<td>103</td>
<td>Transmitted Data</td>
<td>15</td>
<td>114</td>
<td>Transmission Signal Element Timing (DCE Source)</td>
</tr>
<tr>
<td>3</td>
<td>104</td>
<td>Received Data</td>
<td>16</td>
<td>119</td>
<td>Secondary Received Data</td>
</tr>
<tr>
<td>4</td>
<td>105</td>
<td>Request to Send</td>
<td>17</td>
<td>115</td>
<td>Receiver Signal Element Timing (DCE Source)</td>
</tr>
<tr>
<td>5</td>
<td>106</td>
<td>Clear to Send</td>
<td>18</td>
<td></td>
<td>Unassigned</td>
</tr>
<tr>
<td>6</td>
<td>107</td>
<td>Data Set Ready</td>
<td>19</td>
<td>120</td>
<td>Secondary Request to Send</td>
</tr>
<tr>
<td>7</td>
<td>102</td>
<td>Signal Ground (common return)</td>
<td>20</td>
<td>108.2</td>
<td>Data Terminal Ready</td>
</tr>
<tr>
<td>8</td>
<td>109</td>
<td>Received Line Signal Detector</td>
<td>21</td>
<td>110</td>
<td>Signal Quality Detector</td>
</tr>
<tr>
<td>9</td>
<td></td>
<td>(Reserved for Data Set Testing)</td>
<td>22</td>
<td>125</td>
<td>Ring Indicator</td>
</tr>
<tr>
<td>10</td>
<td></td>
<td>(Reserved for Data Set Testing)</td>
<td>23</td>
<td>111/112</td>
<td>Data Signal Rate Selector (DTE Source)</td>
</tr>
<tr>
<td>11</td>
<td></td>
<td>Unassigned</td>
<td>24</td>
<td>113</td>
<td>Transmit Signal Element Timing (DTE Source)</td>
</tr>
<tr>
<td>12</td>
<td>122</td>
<td>Secondary Received Line Signal Detector</td>
<td>25</td>
<td></td>
<td>Unassigned</td>
</tr>
<tr>
<td>13</td>
<td>121</td>
<td>Secondary Clear to Send</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
RS-449

Figure E-3: RS-449 Interface Connector Pins Assignment

Table E-4: RS-449 Interface Connector Pins Assignment

<table>
<thead>
<tr>
<th>PIN</th>
<th>CIRCUIT NAME</th>
<th>PIN</th>
<th>CIRCUIT NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Shield</td>
<td>20</td>
<td>Receive Common</td>
</tr>
<tr>
<td>2</td>
<td>Send Timing</td>
<td>21</td>
<td>Spare</td>
</tr>
<tr>
<td>3</td>
<td>Spare</td>
<td>22</td>
<td>Send Data</td>
</tr>
<tr>
<td>4</td>
<td>Send Data</td>
<td>23</td>
<td>Send Timing</td>
</tr>
<tr>
<td>5</td>
<td>Send Timing</td>
<td>24</td>
<td>Receive Data</td>
</tr>
<tr>
<td>6</td>
<td>Receive Data</td>
<td>25</td>
<td>Request to Send</td>
</tr>
<tr>
<td>7</td>
<td>Request to Send</td>
<td>26</td>
<td>Receive Timing</td>
</tr>
<tr>
<td>8</td>
<td>Receive Timing</td>
<td>27</td>
<td>Clear to Send</td>
</tr>
<tr>
<td>9</td>
<td>Clear to Send</td>
<td>28</td>
<td>Terminal in Service</td>
</tr>
<tr>
<td>10</td>
<td>Local Loopback</td>
<td>29</td>
<td>Data Mode</td>
</tr>
<tr>
<td>11</td>
<td>Data Mode</td>
<td>30</td>
<td>Terminal Ready</td>
</tr>
<tr>
<td>12</td>
<td>Terminal Ready</td>
<td>31</td>
<td>Receiver Ready</td>
</tr>
<tr>
<td>13</td>
<td>Receiver Ready</td>
<td>32</td>
<td>Select Standby</td>
</tr>
<tr>
<td>14</td>
<td>Remote Loopback</td>
<td>33</td>
<td>Signal Quality</td>
</tr>
<tr>
<td>15</td>
<td>Incoming Call</td>
<td>34</td>
<td>New Signal</td>
</tr>
<tr>
<td>16</td>
<td>Select Frequency/Signal Rate Selector</td>
<td>35</td>
<td>Terminal Timing</td>
</tr>
<tr>
<td>17</td>
<td>Terminal Timing</td>
<td>36</td>
<td>Standby Indicator</td>
</tr>
<tr>
<td>18</td>
<td>Test Mode</td>
<td>37</td>
<td>Send Common</td>
</tr>
<tr>
<td>19</td>
<td>Signal Ground</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Figure E-4: V.35 Interface Connector Pins Assignment

Table E-5: V.35 Interface Connector Pins Assignment

<table>
<thead>
<tr>
<th>PIN</th>
<th>CIRCUIT NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Chassis Ground</td>
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<tr>
<td>B</td>
<td>Signal Ground</td>
</tr>
<tr>
<td>C</td>
<td>Request to Send</td>
</tr>
<tr>
<td>D</td>
<td>Clear to Send</td>
</tr>
<tr>
<td>E</td>
<td>Data Set Ready</td>
</tr>
<tr>
<td>F</td>
<td>Receive Line Signal Detect</td>
</tr>
<tr>
<td>P</td>
<td>Transmit Data (A)</td>
</tr>
<tr>
<td>R</td>
<td>Received Data (A)</td>
</tr>
<tr>
<td>S</td>
<td>Transmit Data (B)</td>
</tr>
<tr>
<td>T</td>
<td>Received Data (B)</td>
</tr>
<tr>
<td>U</td>
<td>Terminal Timing (A)</td>
</tr>
<tr>
<td>V</td>
<td>Receive Timing (A)</td>
</tr>
<tr>
<td>W</td>
<td>Terminal Timing (B)</td>
</tr>
<tr>
<td>X</td>
<td>Receive Timing (A)</td>
</tr>
<tr>
<td>Y</td>
<td>Transmit Timing (A)</td>
</tr>
<tr>
<td>AA</td>
<td>Transmit Timing (B)</td>
</tr>
</tbody>
</table>
## Interface Pin-Out Comparison

### Table E-6: Interface Pin-Out Comparison

<table>
<thead>
<tr>
<th></th>
<th>RS-232C/CCITT V.24</th>
<th>CCITT V.35</th>
<th>RS-449</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>25 Pin</td>
<td>34 Pin</td>
<td>37 Pin</td>
</tr>
<tr>
<td>1-Protective Ground</td>
<td>A-Protective Ground</td>
<td>1-Shield</td>
<td>37-Send Common</td>
</tr>
<tr>
<td>2-Transmitted Data</td>
<td>P-Transmit Data (A)</td>
<td>4-Send Data (A)</td>
<td>22-Send Data (B)</td>
</tr>
<tr>
<td>3-Received Data</td>
<td>R-Received Data (A)</td>
<td>6-Received Data (A)</td>
<td>24-Received Data (B)</td>
</tr>
<tr>
<td>4-Request to Send</td>
<td>C-Request to Send</td>
<td>7-Request to Send (A)</td>
<td>25-Request to Send (B)</td>
</tr>
<tr>
<td>5-Clear to Send</td>
<td>D-Clear to Send</td>
<td>9-Clear to Send (A)</td>
<td>27-Clear to Send (B)</td>
</tr>
<tr>
<td>6-Data Set Ready</td>
<td>E-Data Set Ready</td>
<td>11-Data Mode (A)</td>
<td>29-Data Mode (B)</td>
</tr>
<tr>
<td>7-Signal Ground</td>
<td>B-Signal Ground</td>
<td>19-Signal Ground</td>
<td></td>
</tr>
<tr>
<td>8-Carrier Detect</td>
<td>F-Receive Line Signal Detect</td>
<td>13-Receiver Ready (A)</td>
<td>31-Receiver Ready (B)</td>
</tr>
<tr>
<td>9-Reserved for Testing</td>
<td>m-Reserved for DSU Testing</td>
<td></td>
<td>20-Receive Common</td>
</tr>
<tr>
<td>10-Reserved for Testing</td>
<td></td>
<td>10-Local Loop (A)</td>
<td>14-Remote Loop (B)</td>
</tr>
<tr>
<td>11-Unassigned</td>
<td></td>
<td>3-SPARE</td>
<td>21-SPARE</td>
</tr>
<tr>
<td>12-Sec. Carrier Detect</td>
<td></td>
<td>32-Select Standby</td>
<td></td>
</tr>
<tr>
<td>13-Sec. Clear to Send</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14-Sec. Transmitted Data</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15-Transmit Clock (DCE Source)</td>
<td>Y-TX Signal Element Timing</td>
<td>5-Send Timing (A)</td>
<td>DCE Source</td>
</tr>
<tr>
<td></td>
<td>o-TX Signal Element Timing</td>
<td>DCE Source</td>
<td></td>
</tr>
</tbody>
</table>

E-10
## RS-232C/CCITT V.24

<table>
<thead>
<tr>
<th>16–Sec. Received Data</th>
<th>17–Receive Clock</th>
<th>18–Unassigned</th>
<th>19–Sec. Request to Send</th>
<th>20–Data Terminal Ready</th>
<th>21–Signal Quality Detector</th>
<th>22–Ring Indicator</th>
<th>23–Data Signal Rate Selector</th>
<th>24–Transmit Clock (DTE Source)</th>
<th>25–Busy</th>
</tr>
</thead>
<tbody>
<tr>
<td>25 Pin</td>
<td>34 Pin</td>
<td>37 Pin</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## CCITT V.35

<table>
<thead>
<tr>
<th>V–RX Signal Element</th>
<th>X–RX Signal Element</th>
<th>8–Receive Timing (A)</th>
<th>18–Test Mode (A)</th>
<th>28–Term in Service (A)</th>
<th>34–New Signal</th>
</tr>
</thead>
</table>

## RS-449

<table>
<thead>
<tr>
<th>12–Terminal Ready (A)</th>
<th>30–Terminal Ready (B)</th>
<th>33–Signal Quality (A)</th>
<th>15–Incoming Call (A)</th>
<th>16–Signaling Rate Selector (A)</th>
<th>17–Terminal Timing (A)</th>
<th>35–Terminal Timing (B)</th>
<th>36–Stand by Indicator</th>
</tr>
</thead>
</table>
AUI - 100Base-T

Figure E-5: AUI - 100Base-T Connector

Table E-7: AUI -100Base-T Pins Assignment

<table>
<thead>
<tr>
<th>PIN</th>
<th>CIRCUIT NAME</th>
<th>USE</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>DO-A</td>
<td>Data Out circuit A</td>
</tr>
<tr>
<td>10</td>
<td>DO-B</td>
<td>Data Out circuit B</td>
</tr>
<tr>
<td>11</td>
<td>DO-S</td>
<td>Data Out circuit Shield</td>
</tr>
<tr>
<td>5</td>
<td>DI-A</td>
<td>Data In circuit A</td>
</tr>
<tr>
<td>12</td>
<td>DI-B</td>
<td>Data in circuit B</td>
</tr>
<tr>
<td>4</td>
<td>DI-S</td>
<td>Data In circuit Shield</td>
</tr>
<tr>
<td>7</td>
<td>CO-A</td>
<td>Control Out circuit A</td>
</tr>
<tr>
<td>15</td>
<td>CO-B</td>
<td>Control Out circuit B</td>
</tr>
<tr>
<td>8</td>
<td>CO-S</td>
<td>Control Out circuit Shield</td>
</tr>
<tr>
<td>2</td>
<td>CI-A</td>
<td>Control in circuit A</td>
</tr>
<tr>
<td>9</td>
<td>CI-B</td>
<td>Control in circuit B</td>
</tr>
<tr>
<td>1</td>
<td>CI-S</td>
<td>Control In circuit Shield</td>
</tr>
<tr>
<td>6</td>
<td>VC</td>
<td>Voltage Common</td>
</tr>
<tr>
<td>13</td>
<td>VP</td>
<td>Voltage Plus</td>
</tr>
<tr>
<td>14</td>
<td>VS</td>
<td>Voltage Shield</td>
</tr>
<tr>
<td>SHELL</td>
<td>PG</td>
<td>Protection Ground (Conductive Shell)</td>
</tr>
</tbody>
</table>
MII - 100Base-T

Figure 8-9: MII - 100Base-T Connector Pin Assignment

Table E-8: MII - 100Base-T Connector Pin Assignment

<table>
<thead>
<tr>
<th>PIN</th>
<th>CIRCUIT NAME</th>
<th>PIN</th>
<th>CIRCUIT NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>+5 V</td>
<td>21</td>
<td>+5 V</td>
</tr>
<tr>
<td>2</td>
<td>MDIO</td>
<td>22</td>
<td>COMMON</td>
</tr>
<tr>
<td>3</td>
<td>MDC</td>
<td>23</td>
<td>COMMON</td>
</tr>
<tr>
<td>4</td>
<td>RXD&lt;3&gt;</td>
<td>24</td>
<td>COMMON</td>
</tr>
<tr>
<td>5</td>
<td>RXD&lt;2&gt;</td>
<td>25</td>
<td>COMMON</td>
</tr>
<tr>
<td>6</td>
<td>RXD&lt;1&gt;</td>
<td>26</td>
<td>COMMON</td>
</tr>
<tr>
<td>7</td>
<td>RXD&lt;0&gt;</td>
<td>27</td>
<td>COMMON</td>
</tr>
<tr>
<td>8</td>
<td>RX_DV</td>
<td>28</td>
<td>COMMON</td>
</tr>
<tr>
<td>9</td>
<td>RX_CLK</td>
<td>29</td>
<td>COMMON</td>
</tr>
<tr>
<td>10</td>
<td>RX_ER</td>
<td>30</td>
<td>COMMON</td>
</tr>
<tr>
<td>11</td>
<td>TX_ER</td>
<td>31</td>
<td>COMMON</td>
</tr>
<tr>
<td>12</td>
<td>TX_CLK</td>
<td>32</td>
<td>COMMON</td>
</tr>
<tr>
<td>13</td>
<td>TX_EN</td>
<td>33</td>
<td>COMMON</td>
</tr>
<tr>
<td>14</td>
<td>TXD&lt;0&gt;</td>
<td>34</td>
<td>COMMON</td>
</tr>
<tr>
<td>15</td>
<td>TXD&lt;1&gt;</td>
<td>35</td>
<td>COMMON</td>
</tr>
<tr>
<td>16</td>
<td>TXD&lt;2&gt;</td>
<td>36</td>
<td>COMMON</td>
</tr>
<tr>
<td>17</td>
<td>TXD&lt;3&gt;</td>
<td>37</td>
<td>COMMON</td>
</tr>
<tr>
<td>18</td>
<td>COL</td>
<td>38</td>
<td>COMMON</td>
</tr>
<tr>
<td>19</td>
<td>CRS</td>
<td>39</td>
<td>COMMON</td>
</tr>
<tr>
<td>20</td>
<td>+5 V</td>
<td>40</td>
<td>+5 V</td>
</tr>
</tbody>
</table>
MDI - 100Base-TX

Figure E-6: MDI - 100Base-TX Connector

Table E-9: MDI - 100Base-TX Pin Assignment

<table>
<thead>
<tr>
<th>PIN</th>
<th>CIRCUIT NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>TX_D1+</td>
</tr>
<tr>
<td>2</td>
<td>TX_D1-</td>
</tr>
<tr>
<td>3</td>
<td>RX_D2+</td>
</tr>
<tr>
<td>4</td>
<td>BI_D3+</td>
</tr>
<tr>
<td>5</td>
<td>BI_D3-</td>
</tr>
<tr>
<td>6</td>
<td>RX_D2-</td>
</tr>
<tr>
<td>7</td>
<td>BI_D4+</td>
</tr>
<tr>
<td>8</td>
<td>BI_D4-</td>
</tr>
</tbody>
</table>
Figure E-7: MDI - 100Base-TX Crossover function
Breakout Box, LEDs & Connectors
MDI - 100Base-TX
Declarations of Conformity
Declarations of Conformity  
J2294C CEPT-E1 DB9 & RJ45

## Declaration of Conformity

**Manufacturer's Name:** Hewlett-Packard Co.

**Manufacturer's Address:** Network Systems Test Division  
5070 Centennial Boulevard  
Colorado Springs, Colorado 80919

declares that the product

**Product Name:** Internet Advisor - CEPT-E1 DB9 & RJ45  
120 Ohm Balanced Module

**Model Number(s):** J2294C

**Product Option(s):** 1A3, 8ZE

conforms to the following Product Specifications:

**Safety:**  
EN 61010-1:1993 / IEC 1010-1:1990 + A1

**EMC:**  
EN 55011:1991 / CISPR 11:1990 (Group 1, Class A)  
EN 50082-1:1992  
IEC 801-2:1991 4 kV CD, 8 kV AD  
IEC 801-3:1994 3 V/m  
IEC 801-4:1988 0.5 kV Signal Lines, 1 kV Power Lines  
EN 61000-3-2:1995 / IEC 1000-3-2:1995 + A1  
EN 61000-3-3:1995 / IEC 1000-3-3:1994

**Supplementary Information:**


1The product was tested in a typical configuration.

Colorado Springs, CO  4 December 1997  

[Signature]  

Greg Schifman, Quality Manager  
(acting)

European Contact: Your local Hewlett-Packard Sales and Service Office or Hewlett-Packard GmbH, Department ZG / Standards, Europe, Hermann-Joseph-Strasse 130, D-71034 Boeblingen, Germany (FAX +49-7031-14-3143)

---

Figure F-1: J2294C CEPT-E1 DB9 & RJ45
J2300C Internet Advisor WAN

<table>
<thead>
<tr>
<th>DECLARATION OF CONFORMITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>according to ISO/IEC Guide 22 and EN 45014</td>
</tr>
</tbody>
</table>

**Manufacturer's Name:** Hewlett-Packard Co.

**Manufacturer's Address:**
Network Systems Test Division
5070 Centennial Boulevard
Colorado Springs, Colorado 80919

declares that the product

**Product Name:** Internet Advisor WAN

**Model Number(s):** J2300C

**Product Option(s):** 001, 002, 005, 1A3, 220, 221

conforms to the following Product Specifications:

**Safety:**
EN 61010-1:1993 / IEC 1010-1:1990 + A1

**EMC:**
- EN 55011:1991 / CISPR 11:1990 (Group 1, Class A) 1
- EN 55082-1:1992
  - IEC 801-2:1991 4 kV CD, 8 kV AD
  - IEC 801-3:1984 3 V/m
  - IEC 801-4:1988 0.5 kV Signal Lines, 1 kV Power Lines
- EN 61000-3-2:1995 / IEC 1000-3-2:1995 + A1
- EN 61000-3-3:1995 / IEC 1000-3-3:1994

**Supplementary Information:**


1The product was tested in a typical configuration.

Colorado Springs, CO 12 December 1997

JIM LEAFORD
Quality Manager
(acting)

European Contact: Your local Hewlett-Packard Sales and Service Office or Hewlett-Packard GmbH, Department 206 / Standards Europe, Herrnbecher Strasse 130, D-71034 Boeblingen, Germany (FAX +49-7031-14-3143)

Figure F-2: J2300C Internet Advisor WAN
# Declarations of Conformity

**J2306B/J2309B Ether/Ether/TR Interface for Internet Advisor**

## DECLARATION OF CONFORMITY

according to ISO/IEC Guide 22 and EN 45014

<table>
<thead>
<tr>
<th>Manufacturer's Name:</th>
<th>Hewlett-Packard Co.</th>
</tr>
</thead>
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<tr>
<td>Manufacturer's Address:</td>
<td>Colorado Communications Operation 5070 Centennial Boulevard Colorado Springs, Colorado 80919</td>
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</tbody>
</table>

declares that the product

- **Product Name:** Ethernet and Ethernet/Token Ring Undercradles for WAN Internet Advisors
- **Model Number(s):** J2306B, J2309B
- **Product Option(s):** None

conforms to the following Product Specifications:

- **Safety:** EN 61010-1:1993 / IEC 1010-1:1990 + A1
- **EMC:**
  - EN 55011:1991 / CISPR 11:1990 (Group 1, Class A) ¹
  - EN 50082-1:1992
  - IEC 801-2:1991 4 kV CD, 8 kV AD
  - IEC 801-3:1984 3 V/m
  - IEC 801-4:1988 0.5 kV Signal Lines, 1 kV Power Lines

**Supplementary Information:**


¹The product was tested in a typical configuration.

Colorado Springs, CO 12 November 1996  
Rick Pearson / Quality Manager (acting)

European Contact: Your local Hewlett-Packard Sales and Service Office or Hewlett-Packard GmbH, Department ZQ / Standards Europe, Herrenberger Straße 130, D-71034 Boeblingen, Germany (FAX +49-7031-14-3143)

---

**Figure F-3:** J2306B/J2309B Ether/Ether/TR Interface for Internet Advisor
J2307A LAN Token Ring Undercradle

DECLARATION OF CONFORMITY
according to ISO/IEC Guide 22 and EN 45014

Manufacturer's Name: Hewlett-Packard Co.
Manufacturer's Address: Network Systems Test Division
5070 Centennial Boulevard
Colorado Springs, Colorado 80919

declares that the product

Product Name: Internet Advisor LAN -
Token Ring undercradle

Model Number(s): J2307A

Product Option(s): 1A3, 8ZE

conforms to the following Product Specifications:

Safety:
EN 61010-1:1993 / IEC 1010-1:1990 + A1

EMC:
EN 55011:1991 / CISPR 11:1990 (Group 1, Class A) ¹
EN 55022-1:1992
IEC 801-2:1991 4 kV CD, 8 kV AD
IEC 801-3:1984 3 V/m
IEC 801-4:1988 0.5 kV Signal Lines, 1 kV Power Lines
EN 61000-3-2:1995 / IEC 1000-3-2:1995 + A1
EN 61000-3-3:1995 / IEC 1000-3-3:1994

Supplementary Information:


¹The product was tested in a typical configuration.

Colorado Springs, CO 22 December 1997 Greg Schiffman / Quality Manager (acting)

European Contact: Your local Hewlett-Packard Sales and Service Office or Hewlett-Packard GmbH, Department ZQ

Standards Europe, Herrenberger Strasse 130, D-71034 Boeblingen, Germany (FAX +49-7031-14-3143)

Figure F-4: J2307A LAN Token Ring Undercradle
Declarations of Conformity
J2524A FDDI Interface for LAN Internet Advisor

## J2524A FDDI Interface for LAN Internet Advisor

### DECLARATION OF CONFORMITY

<table>
<thead>
<tr>
<th>Manufacturer's Name:</th>
<th>Hewlett-Packard Co.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturer's Address:</td>
<td>Colorado Communications Operation 5070 Centennial Boulevard Colorado Springs, Colorado 80919</td>
</tr>
</tbody>
</table>

declares that the product

<table>
<thead>
<tr>
<th>Product Name:</th>
<th>FDDI Interface undercradle for WAN and LAN Internet Advisors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model Number(s):</td>
<td>J2524A</td>
</tr>
<tr>
<td>Product Option(s):</td>
<td>None</td>
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</tbody>
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conforms to the following Product Specifications:

<table>
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<tr>
<th>Safety:</th>
<th>EN 61010-1:1993 / IEC 1010-1:1990 + A1</th>
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</thead>
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<tr>
<td>EMC:</td>
<td>EN 55011:1991 / CISPR 11:1990 (Group 1, Class A) ¹</td>
</tr>
<tr>
<td></td>
<td>EN 50082-1:1992</td>
</tr>
<tr>
<td></td>
<td>IEC 801-2:1991 4 kV CD, 8 kV AD</td>
</tr>
<tr>
<td></td>
<td>IEC 801-3:1984 3 kV</td>
</tr>
<tr>
<td></td>
<td>IEC 60611-4-1:1986 0.5 kV Signal Lines, 1 kV Power Lines</td>
</tr>
</tbody>
</table>

Supplementary Information:


¹The product was tested in a typical configuration.

Colorado Springs, CO 12 November 1996

Rick Pearson / Quality Manager
(acting)

European Contact: Your local Hewlett-Packard Sales and Service Office or Hewlett-Packard GmbH, Department ZQ / Standards Europe, Herrenberger Strasse 130, D-71034 Boeblingen, Germany (FAX +49-7031-14-3143)

---

Figure F-5: J2524A FDDI Interface for LAN Internet Advisor

---

F-6
J2527A TIMS Undercradle for Internet Advisor

<table>
<thead>
<tr>
<th>DECLARATION OF CONFORMITY</th>
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<td><strong>Manufacturer's Name:</strong></td>
<td>Hewlett-Packard Co.</td>
</tr>
<tr>
<td><strong>Manufacturer's Address:</strong></td>
<td>Colorado Communications Operation 5070 Centennial Boulevard Colorado Springs, Colorado 80919</td>
</tr>
</tbody>
</table>

**declares that the product**

**Product Name:** TIMS undercradle for WAN and LAN Internet Advisors

**Model Number(s):** J2527A

**Product Option(s):** Opt. 001

conforms to the following Product Specifications:

- **Safety:** EN 61010-1:1993 / IEC 1010-1:1990 + A1
- **EMC:**
  - EN 55011:1991 / CISPR 11:1990 (Group 1, Class A) *1
  - EN 50082-1:1992
  - IEC 801-2:1991 4 kV CD, 8 kV AD
  - IEC 801-3:1984 3 V/m
  - IEC 801-4:1988 0.5 kV Signal Lines, 1 kV Power Lines

**Supplementary Information:**


*1The product was tested in a typical configuration.

COLORADO SPRINGS, CO 12 NOVEMBER 1996

Rick Pearson / Quality Manager (acting)

European Contact: Your local Hewlett-Packard Sales and Service Office or Hewlett-Packard GmbH, Department ZQ / Standards Europe, Hannenberger Straase 130, D-71034 Boeblingen, Germany (FAX +49-7031-143143)

---

Figure F-6: J2527A TIMS Undercradle for Internet Advisor
DECLARATION OF CONFORMITY

Manufacturer's Name: Hewlett-Packard Co.
Manufacturer's Address: Colorado Communications Operation
                       5070 Centennial Boulevard
                       Colorado Springs, Colorado 80919

declares that the product

Product Name: High Speed Acquisition System
Undercradle for Internet Advisor

Model Number(s): J2900A
Product Option(s): None

conforms to the following Product Specifications:

Safety: EN 61010-1:1993 / IEC 1010-1:1990 + A1

EMC: EN 55011:1991 / CISPR 11:1990 (Group 1, Class A)
      EN 55082-1:1992
      IEC 801-2:1991 4 kV CD, 8 kV AD
      IEC 801-3:1984 3 V/m
      IEC 801-4:1988 0.5 kV Signal Lines, 1 kV Power Lines

Supplementary Information:

The product herewith complies with the requirements of the Low Voltage Directive
73/23/EEC and the EMC Directive 89/336/EEC and carries the CE marking
accordingly.

"The product was tested in typical configurations.

Colorado Springs, CO 28 October 1996

Rick Pearson / Quality Manager
(acting)

European Contact: Your local Hewlett-Packard Sales and Service Office or Hewlett-Packard GmbH, Department ZQ / Standards Europe, Herrenberger Strasse 130, D-71034 Boeblingen, Germany (FAX +49-7031-14-3143)

Figure F-7: J2900A High Speed Acquisition System
# J2904A ISDN BRI Module

| Manufacturer's Name: | Hewlett-Packard Co. |
| Manufacturer's Address: | Colorado Communications Operation, 5070 Centennial Boulevard, Colorado Springs, Colorado 80919 |
| Declares that the product | ISDN Basic Rate Interface module for Internet Advisor series |
| Model Number(s): | J2904A |
| Product Option(s): | None |

**DECLARATION OF CONFORMITY**

According to IEC/ISO Guide 22 and EN 45014

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<th>Product Specifications:</th>
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<tr>
<td>Safety: EN 61010-1:1993 / IEC 1010-1:1990 + A1</td>
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<td>EMC: EN 55011:1991 / CISPR 11:1990 (Group 1, Class A)¹</td>
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<td>EN 50082-1:1992</td>
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<tr>
<td>IEC 801-2:1991  4 kV CD, 8 kV AD</td>
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<tr>
<td>IEC 801-3:1984  3 V/m</td>
</tr>
<tr>
<td>IEC 801-4:1988  0.5 kV Signal Lines, 1 kV Power Lines</td>
</tr>
</tbody>
</table>

**Supplementary Information:**


¹The product was tested in a typical configuration.

Colorado Springs, CO 12 November 1996

Rick Pearson / Quality Manager (acting)

European Contact: Your local Hewlett-Packard Sales and Service Office or Hewlett-Packard GmbH, Department ZQ / Standards Europe, Herrenberger Strasse 130, D-71034 Boeblingen, Germany (FAX +49-7031-14-3143)

---

Figure F-8: J2904A ISDN BRI Module
Declarations of Conformity
J2904B,J2293,94,96,97,98,99,99B ISDN Modules

J2904B,J2293,94,96,97,98,99B ISDN Modules

DECLARATION OF CONFORMITY
according to ISO/IEC Guide 22 and EN 45014

| Manufacturer's Name:                      | Hewlett-Packard Co.         |
| Manufacturer's Address:                  | Colorado Communications Operation  
                                          5070 Centennial Boulevard  
                                          Colorado Springs, Colorado 80919 |

declares that the product

Product Name: ISDN analyzer modules for Internet Advisor

Model Number(s): J2904B, J2293B, J2294B, J2296B, J2297B, J2298B, J2299B

Product Option(s): All

conforms to the following Product Specifications:

Safety: EN 61010-1:1993 / IEC 1010-1:1990 + A1

EMC: EN 55011:1991 / CISPR 11:1990 (Group 1, Class A) 1
      EN 50082-1:1992
      IEC 801-2:1991  4 kV CD, 8 kV AD
      IEC 801-3:1984  3 V/m
      IEC 801-4:1988  0.5 kV Signal Lines, 1 kV Power Lines

Supplementary Information:


1The product was tested in a typical configuration.

Colorado Springs, CO  16 September 1996  Rick Pearson / Quality Manager (acting)

European Contact: Your local Hewlett-Packard Sales and Service Office or Hewlett-Packard GmbH, Department 2G / Standards Europe, Herrenberger Strasse 130, D-71034 Boeblingen, Germany (FAX +49-7031-14-3143)

Figure F-9: J2904B,J2293,94,96,97,98,99B ISDN Modules
J2905B ISDN BRI U Interface Module

DEPARTMENT OF CONFORMANCE

Manufacturer’s Name: Hewlett-Packard Co.
Manufacturer’s Address: Communications Meas Division - Colorado
5070 Centennial Boulevard
Colorado Springs, Colorado 80919

declares that the product

Product Name: Dual U-Interface (2B1Q) Module
for Internet Advisor ISDN analyzer

Model Number(s): J2905B
Product Option(s): None

conforms to the following Product Specifications:

Safety: EN 61010-1:1993 / IEC 1010-1:1990 + A1
EMC: EN 55011:1991 / CISPR 11:1990 (Group 1, Class A) ¹
EN 50082-1:1992
IEC 801-2:1991 4 kV CD, 8 kV AD
IEC 801-3:1984 3 V/m
IEC 801-4:1988 0.5 kV Signal Lines, 1 kV Power Lines

Supplementary Information:


¹The product was tested in a typical configuration.

Colorado Springs, CO 20 December 1996

[Signature]
Rick Pearson / Quality Manager
(acting)

European Contact: Your local Hewlett-Packard Sales and Service Office or Hewlett-Packard GmbH, Department ZG
Standards Europe, Hackerstrasse 130, D-71034 Boeblingen, Germany (FAX +49-7031-19-3143)

Figure F-10: J2905B ISDN BRI U Interface Module
J2908A DDS 4-Wire Interface Module

DEALERATION OF CONFORMITY
according to IS0/IEC Guide 22 and EN 45014

Manufacturer's Name: Hewlett-Packard Co.
Manufacturer's Address: Colorado Communications Operation
5070 Centennial Boulevard
Colorado Springs, Colorado 80919

declares that the product

Product Name: DDS 4-Wire Interface module for
Internet Advisor series

Model Number(s): J2908A
Product Option(s): None

conforms to the following Product Specifications:

Safety:    EN 61010-1:1993 / IEC 1010-1:1990 + A1
EMC:      EN 55011:1991 / CISPR 11:1990 (Group 1, Class A)
          EN 50082-1:1992
          IEC 801-2:1991  4 kV CD, 8 kV AD
          IEC 801-3:1984  3 V/m
          IEC 801-4:1988  0.5 kV Signal Lines, 1 kV Power Lines

Supplementary Information:

The product herewith complies with the requirements of the Low Voltage Directive
73/23/EEC and the EMC Directive 89/336/EEC and carries the CE marking
accordingly.

*The product was tested in a typical configuration.

Colorado Springs, CO 12 November 1996

Rick Pearson / Quality Manager
(acting)

European Contact: Your local Hewlett-Packard Sales and Service Office or Hewlett-Packard GmbH, Department ZQ / Standards Europe, Herrenberger Strasse 130, D-71034 Boeblingen, Germany (FAX +49-7031-14-3143)

Figure F-11: J2908A DDS 4-Wire Interface Module
### J2909A ATM Advisor Series

#### DECLARATION OF CONFORMITY

<table>
<thead>
<tr>
<th>Manufacturer's Name:</th>
<th>Hewlett-Packard Co.</th>
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<tbody>
<tr>
<td>Manufacturer's Address:</td>
<td>Colorado Communications Operation</td>
</tr>
<tr>
<td></td>
<td>5070 Centennial Boulevard</td>
</tr>
<tr>
<td></td>
<td>Colorado Springs, Colorado 80919</td>
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declares that the product

<table>
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<tr>
<th>Product Name:</th>
<th>DS-3/E3 Interface module for Internet Advisor ATM series</th>
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<tbody>
<tr>
<td>Model Number(s):</td>
<td>J2909A</td>
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<tr>
<td>Product Option(s):</td>
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</table>

conforms to the following Product Specifications:

- **Safety:** EN 61010-1:1993 / IEC 1010-1:1990 + A1
- **EMC:**
  - EN 55011:1991 / CISPR 11:1990 (Group 1, Class A) ¹
  - EN 50082-1:1992
  - IEC 801-2:1991 4 kV CD, 8 kV AD
  - IEC 801-3:1984 3 V/m
  - IEC 801-4:1988 0.5 kV Signal Lines, 1 kV Power Lines

**Supplementary Information:**


¹The product was tested in a typical configuration.

---

Colorado Springs, CO 12 November 1996

Rick Pearson / Quality Manager (acting)

---

European Contact: Your local Hewlett-Packard Sales and Service Office or Hewlett-Packard GmbH, Department 20 / Standards Europe, Hermesberger Strasse 130, D-71034 Boeblingen, Germany (FAX +49-7031-14-3143)

---

Figure F-12: J2909A ATM Advisor Series
J2912A Internet Advisor ATM Series

DECLARATION OF CONFORMITY

according to ISO/IEC Guide 22 and EN 46014

Manufacturer's Name: Hewlett-Packard Co.
Manufacturer's Address: Colorado Communications Operation
5070 Centennial Boulevard
Colorado Springs, Colorado 80919

declares that the product

Product Name: OC-3c/STM-1 analyzer module
for Internet Advisor ATM

Model Number(s): J2912A
Product Option(s): All

conforms to the following Product Specifications:

Safety: EN 61010-1:1993 / IEC 1010-1:1990 + A1

EMC: EN 55011:1991 / CISPR 11:1990 (Group 1, Class A) ¹
EN 50082-1:1992
IEC 801-2:1991 4 kV CD, 8 kV AD
IEC 801-3:1994 3 V/m
IEC 801-4:1988 0.5 kV Signal Lines, 1 kV Power Lines

Supplementary Information:


¹The product was tested in a typical configuration.

Colorado Springs, CO 18 September 1996 Rick Pearson/Quality Manager
(acting)

European Contact: Your local Hewlett-Packard Sales and Service Office or Hewlett-Packard GmbH, Department ZQ 1 Standards Europe, Herrenberger Strasse 130, D-71034 Boeblingen, Germany (FAX: +49-7031-14-3143)

Figure F-13: J2912A ATM Advisor Series
J2913A Internet Advisor ATM 155-UTP Module

### DECLARATION OF CONFORMITY

according to ISO/IEC Guide 22 and EN 45014

<table>
<thead>
<tr>
<th>Manufacturer's Name:</th>
<th>Hewlett-Packard Co.</th>
</tr>
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<tbody>
<tr>
<td>Manufacturer's Address:</td>
<td>Communications Media Division - Colorado 5070 Centennial Boulevard Colorado Springs, Colorado 80919</td>
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declares that the product

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conforms to the following Product Specifications:

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<td>EN 50082-1:1992</td>
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<tr>
<td></td>
<td>IEC 801-2:1991 4 kV CD, 8 kV AD</td>
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<td></td>
<td>IEC 801-3:1984 3 V/m</td>
</tr>
<tr>
<td></td>
<td>IEC 801-4:1988 0.5 kV Signal Lines, 1 kV Power Lines</td>
</tr>
</tbody>
</table>

Supplementary Information:


¹The product was tested in a typical configuration.

Colorado Springs, CO 8 September 1997

Greg Schiffman (Quality Manager (acting))

European Contact: Your local Hewlett-Packard Sales and Service Office or Hewlett-Packard GmbH, Department ZZ / Standards Europe, Herrnberger Strasse 130, D-71034 Boeblingen, Germany (FAX +49-7031-14-3143)

---

Figure F-14: J2913A ATM 155-UTP Module
## Declarations of Conformity

### J3444A Fast Ethernet LAN Analyzer

#### DECLARATION OF CONFORMITY

**according to ISO/IEC Guide 22 and EN 45014**

<table>
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<tr>
<th>Manufacturer's Name:</th>
<th>Hewlett-Packard Co.</th>
</tr>
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<tbody>
<tr>
<td>Manufacturer's Address:</td>
<td>Colorado Communications Operation 5070 Centennial Boulevard Colorado Springs, Colorado 80919</td>
</tr>
</tbody>
</table>

declares that the product

**Product Name:** Fast Ethernet LAN analyzer for Internet Advisor

**Model Number(s):** J3444A

**Product Option(s):** None

conforms to the following Product Specifications:

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<tr>
<th>Safety:</th>
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<td>EMC:</td>
<td>EN 55011:1991 / CISPR 11:1990 (Group 1, Class A) 1 EN 50082-1:1992</td>
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<tr>
<td>IEC 801-2:1991</td>
<td>4 kV CD, 8 kV AD</td>
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<tr>
<td>IEC 801-3:1984</td>
<td>3 V/m</td>
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<tr>
<td>IEC 801-4:1988</td>
<td>0.5 kV Signal Lines, 1 kV Power Lines</td>
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</tbody>
</table>

**Supplementary Information:**


1 The product was tested in a typical configuration.

Colorado Springs, CO 15 August 1996  

[Signature]

Andy Ouderkirk / Quality Manager

---

**Figure F-15: J3444A Fast Ethernet LAN Analyzer for HP Internet Advisor**

F-16
Declarations of Conformity
J3445A 100 Base-FX Interface Module

DECLARATION OF CONFORMITY
according to ISO/IEC Guide 22 and EN 45011

Manufacturer's Name: Hewlett-Packard Co.
Manufacturer's Address: Colorado Communications Operation
5070 Centennial Boulevard
Colorado Springs, Colorado 80919

declares that the product

Product Name: 100 Base-FX Interface Module
for Internet Advisor LAN analyzer
Model Number(s): J3445A
Product Option(s): None

conforms to the following Product Specifications:
Safety: EN 61010-1:1993 / IEC 1010-1:1990 + A1
EMC: EN 55011:1991 / CISPR 11:1990 (Group 1, Class A) ¹
EN 50082-1:1992
IEC 801-2:1991 4 kV CD, 8 kV AD
IEC 801-3:1984 3 V/m
IEC 801-4:1988 0.5 kV Signal Lines, 1 kV Power Lines

Supplementary Information:
The product herewith complies with the requirements of the Low Voltage Directive
73/23/EEC and the EMC Directive 89/336/EEC and carries the CE marking
accordingly.

¹The product was tested in a typical configuration.

Colorado Springs, CO 16 October 1996

Greg Schiffman, Quality Manager
(acting)

European Contact: Your local Hewlett-Packard Sales and Service Office or Hewlett-Packard GmbH, Department ZQ / Standards Europe, Herrenbergerstrasse 130, D-71034 Boeblingen, Germany (FAX +49-7031-14-3143)

Figure F-16: J3445A 100 Base-FX Interface Module for HP Internet Advisor
Declarations of Conformity
J3446C and J3447A Internet Advisor WAN

DECLARATION OF CONFORMITY
according to ISO/IEC Guide 22 and EN 45014

Manufacturer's Name: Hewlett-Packard Co.

Manufacturer's Address: Network Systems Test Division
5070 Centennial Boulevard
Colorado Springs, Colorado 80919

declares that the product

Product Name: Internet Advisor LAN - Fast Ethernet
Model Number(s): J3446C, J3447A
Product Option(s): 001, 005 (these affect J3446C only)

conforms to the following Product Specifications:

Safety: EN 61010-1:1993 / IEC 1010-1:1990 + A1

EMC:
EN 60801-1:1991 / CISPR 11:1998 (Group 1, Class A)
IEC 801-2:1991 4 kV CD, 8 kV AD
IEC 801-3:1984 3 V/m
IEC 801-4:1988 0.5 kV Signal Lines, 1 kV Power Lines
EN 61000-3-2:1995 / IEC 1000-3-2:1995 + A1
EN 61000-3-3:1995 / IEC 1000-3-3:1994

Supplementary Information:

1 The product was tested in a typical configuration.

Colorado Springs, CO 12 December 1997

[Signature]
Jim Lestford / Quality Manager (acting)

European Contact: Your local Hewlett-Packard Sales and Service Office or Hewlett-Packard GmbH, Department ZQ / Standards Europe, Herrenberger Strasse 130, D-71034 Boeblingen, Germany (FAX +49-7031-14-3143)

Figure F-17: J3446C and J3447A Internet Advisor WAN
Declarations of Conformity
J3754C Internet Advisor - pcAdvisor

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<th>DECLARATION OF CONFORMITY</th>
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<td>Hewlett-Packard Co.</td>
</tr>
<tr>
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<td>Network Systems Test Division</td>
</tr>
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</tr>
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<td>EN 50082-1:1992</td>
</tr>
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<td></td>
<td>IEC 801-2:1991 4 kV CD, 8 kV AD</td>
</tr>
<tr>
<td></td>
<td>IEC 801-3:1884 3 V/m</td>
</tr>
<tr>
<td></td>
<td>IEC 801-4:1988 0.5 kV Signal Lines, 1 kV Power Lines</td>
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<td>EN 61000-3-2:1995 / IEC 1000-3-2:1995 + A1</td>
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<tr>
<td>Colorado Springs, CO 5 December 1997</td>
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<tr>
<td>Greg Schiffman / Quality Manager (acting)</td>
<td></td>
</tr>
</tbody>
</table>

European Contact: Your local Hewlett-Packard Sales and Service Office or Hewlett-Packard GmbH, Department ZQ/Standards Europe, Herrenberger Strasse 130, D-71034 Boeblingen, Germany (FAX +49-7031-14-3143)

Figure F-18: J3754C Internet Advisor - pcAdvisor
**DECLARATION OF CONFORMITY**

according to ISO/IEC Guide 22 and EN 45014

<table>
<thead>
<tr>
<th>Manufacturer's Name:</th>
<th>Hewlett-Packard Co.</th>
</tr>
</thead>
</table>
| Manufacturer's Address: | Network Systems Test Division  
5070 Centennial Boulevard  
Colorado Springs, Colorado 80919 |
| declares that the product | DS3 / E3 Cells and Frames Module for  
Internet Advisor ATM |
| Product Name: | DS3 / E3 Cells and Frames Module for  
Internet Advisor ATM |
| Model Number(s): | HP J3759A |
| Product Option(s): | All |

conforms to the following Product Specifications:

**Safety:**  
EN 61010-1:1993 / IEC 1010-1:1990 + A1 + A2

**EMC:**  
EN 55011:1991 / CISPR 11:1990 (Group 1, Class A)  
EN 50082-1:1992  
IEC 801-2:1991  
IEC 801-3:1984  
IEC 801-4:1988  
4 kV CD, 8 kV AD  
3 V/m  
0.5 kV Signal Lines, 1 kV Power Lines

**Supplementary Information:**


*The product was tested in a typical configuration.*

Colorado Springs, CO 02 July 1998  
Stephen Hale / Quality Manager

---

**Figure F-19:** J3759A DS3/E3 Cells and Frames Module for  
Internet Advisor ATM

---

F-20
# Declarations of Conformity

## J3762A HSSI Module for Internet Advisor ATM

## Declaration of Conformity

<table>
<thead>
<tr>
<th>Manufacturer’s Name:</th>
<th>Hewlett-Packard Co.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturer’s Address:</td>
<td>Network Systems Test Division 5070 Centennial Boulevard Colorado Springs, Colorado 80919</td>
</tr>
</tbody>
</table>

declares that the product

<table>
<thead>
<tr>
<th>Product Name:</th>
<th>HSSI Module for Internet Advisor ATM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model Number(s):</td>
<td>HP J3762A</td>
</tr>
<tr>
<td>Product Option(s):</td>
<td>All</td>
</tr>
</tbody>
</table>

conforms to the following Product Specifications:

### Safety:

- EN 61010-1:1993 / IEC 1010-1:1990 + A1 + A2

### EMC:

- EN 55011:1991 / CISPR 11:1990 (Group 1, Class A) !
- EN 50082-1:1992
- IEC 801-2:1991 4 kV CD, 8 kV AD
- IEC 801-3:1984 3 V/m
- IEC 801-4:1988 0.5 kV Signal Lines, 1 kV Power Lines

**Supplementary Information:**


!The product was tested in a typical configuration.

Colorado Springs, CO  02 July 1998

Stephen Hale / Quality Manager

---

**Figure F-20:** J3762A HSSI Module for Internet Advisor ATM
Declarations of Conformity
J3762A HSSI Module for Internet Advisor ATM
For information regarding your nearest Sales Office, reference the world wide web at:

http://www.tmo.hp.com/tmo/contacts/English/index.html
Hewlett-Packard Sales Offices
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