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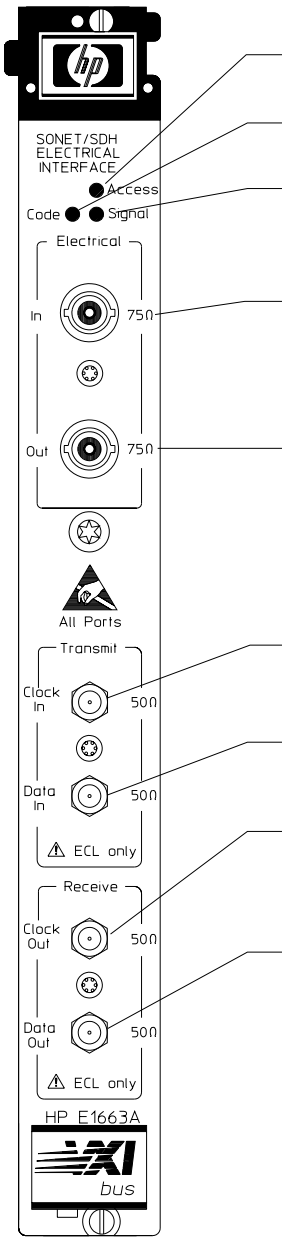
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Find the *Keysight / Agilent E1663A* at our website: ***Click HERE***



INDICATORS

ACCESS
This LED indicates the Electrical Interface is being accessed over the VXIbus backplane.

CODE
This LED is not used in the HP Broadband Series Test System.

SIGNAL
This LED indicates the presence of a signal at the input to the receiver.

LINE CONNECTORS

ELECTRICAL IN
This BNC connector provides a 75 Ω unbalanced data input interface which accepts incoming data for the receiver. The input data rate is 155.52 Mb/s, and the maximum input amplitude is 0.5 V_{pk}. The connector has open and short circuit protection and will withstand a maximum input of ±5 V.

ELECTRICAL OUT
This BNC connector provides a 75 Ω unbalanced data output interface for outgoing coded data. The maximum output amplitude of the CMI coded signal is 0.5 V. The connector has open and short circuit protection and will withstand a maximum input of ±5 V.

INTERMODULE CONNECTORS

TRANSMIT CLOCK IN
This SMA connector accepts the clock input from the HP E1697A. It is an ECL input, and is terminated in 50 Ω to –2 V dc (nominal).

TRANSMIT DATA IN
This SMA connector accepts data, in the binary NRZ format, from the HP E1697A. It is an ECL input, and is terminated in 50 Ω to –2 V dc (nominal).

RECEIVE CLOCK OUT
This SMA connector provides an output for the recovered clock signal for routing to the HP E1697A. It is a low-impedance output giving nominal ECL levels, and requires a 50 Ω to –2 V dc termination.

RECEIVE DATA OUT
This SMA connector provides an output for data, in the binary NRZ format, from the receiver for routing to the HP E1697A. It is a low-impedance output giving nominal ECL levels, and requires a 50 Ω to –2 V dc termination.

E1663A

SONET/SDH Electrical Line Interface Module Installation Guide

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Step 1 - Determine the Module Position

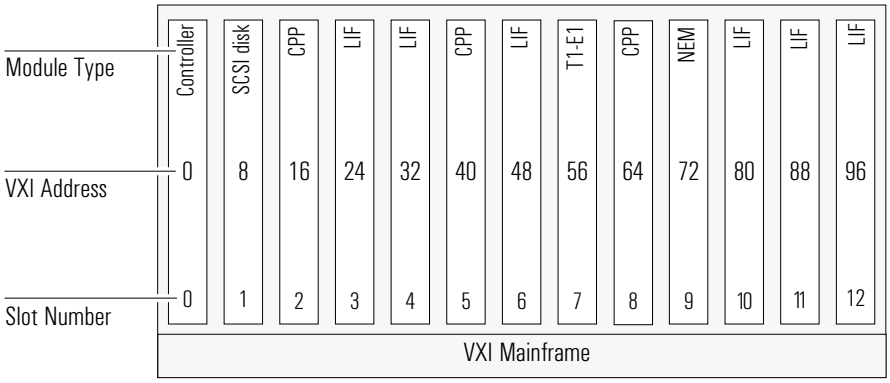
CAUTION

Before installing (or removing) VXI modules, properly shut down HP-UX and power off the mainframe. Refer to the ***System Installation and Startup Guide*** (E4200-92003) for more detail.

Modules must be located in a particular order in relation to each other in the VXI mainframe. The module's slot position is used to determine the logical address setting. General positioning guidelines:

- The controller must be positioned in slot 0.
- Although the SCSI disk module can be positioned in any slot, position it in the slot immediately next to the controller to avoid having the SCSI cable cut across other modules.
- Each CPP module must be positioned to the left of the line interface module(s) with which it will be used. Ensure that there are no empty slots between the CPP and the line interface modules operating with it.
- A maximum of six line interface modules can be positioned consecutively when used with a CPP.
- CPP modules cannot operate as standalone devices. Ensure that there are no empty slots immediately to the right of a CPP module.
- Cover unused slots with blank filler plates.

Example



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Step 2 - Set the Logical Address

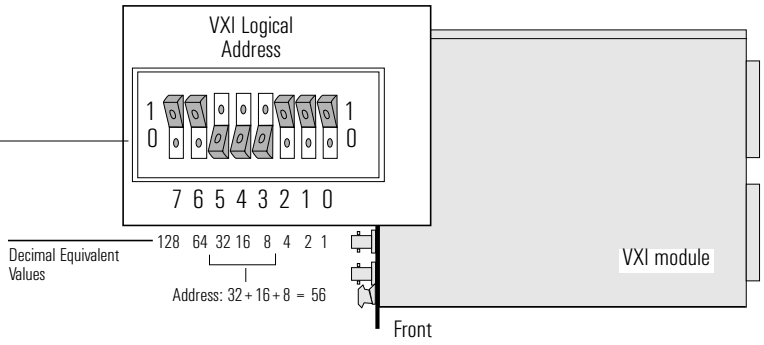
CAUTION

Take the necessary anti-static precautions to avoid electrostatic discharge (ESD) while handling modules. Failure to do so could cause serious damage. The backplane connectors are susceptible to ESD before installation, and the module front panel connectors can be susceptible both before and after installation.

Each module pre-installed in the VXI mainframe at the factory has been preset with the correct logical address depending on its slot position. You only need to set the logical addresses on additional modules you purchase or when you re-position modules in the mainframe.

Logical address 0 is reserved for the controller. Each module installed in the mainframe must have a unique logical address.

Set the logical address to 8 x the module's slot number. The logical address is the sum of the decimal equivalent values of the switches in the closed (1) position.



Some modules have Board Configuration and Servant Area DIP switches. These DIP switches have been preset at the factory and must not be changed. Operation of the module is unpredictable if the factory settings are changed.

Step 3 - Install the Module

CAUTION

If you store modules outside of the mainframe for an extended length of time, place them in the original packaging (or equivalent packaging providing ESD protection). Use faceplate panels to protect unused slots from dust.

The modules fit tightly into the VXI mainframe. You should install the leftmost module first, then proceed in order from left to right. Securely install and fasten each module before installing the next one directly to the right.

1. Place the module's card edges into the top and bottom module guides at the front of the mainframe chassis.
2. Slide the module in until it contacts the backplane, then *push firmly* to mate the connectors solidly with the backplane.
3. When the module is seated solidly against the backplane, secure the module's front panel to the mainframe chassis using the mounting screws on the top and bottom of the module's front panel.

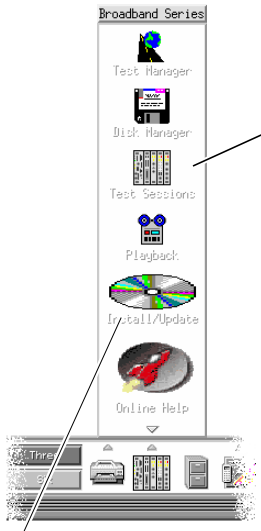
To Remove a Module

Remove the rightmost module first; then proceed in order for each module, from right to left.

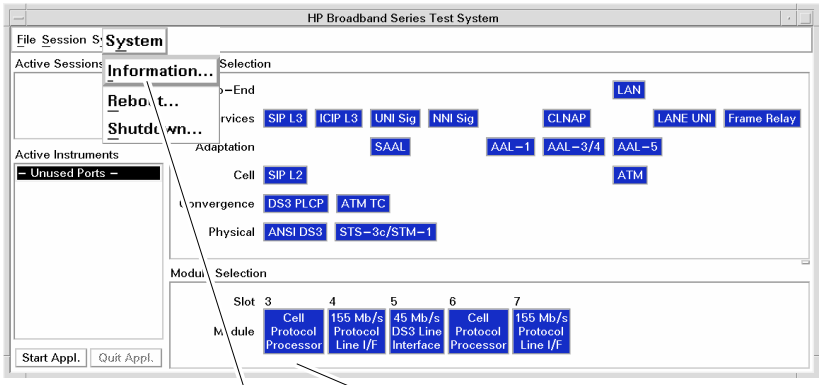
1. Unscrew the top and bottom mounting screws on the front panel.
2. Press up on the top handle (HP logo) while pressing down on the bottom handle (VXIbus logo) to release the module from the backplane connectors. Pull the module from the mainframe.

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Step 4 - Verify Correct Module Installation



(1) Power on the unit, log in, and start the Broadband Series Test System. Refer to the *System Installation and Startup Guide* (E4200-92003) for more detail.



(2) On the Test Session Manager, check that all modules installed in the mainframe are displayed and can be selected.

(3) Install the module software and online help (online help files can only be installed on V743 series systems. For V/382 series systems, refer to the CD tray card for instructions to view online help on a Windows-based PC).

(4) Run a self test on the installed module to ensure that the firmware version is compatible with the base system software and that the logical address is correct.

If the installed module is not displayed or you cannot select it on the Test Session Manager:

- Check that the module is correctly installed and positioned relative to other modules in the mainframe.
- Check that the logical address on each module is unique.
- A module displayed in red indicates that the firmware may be older or newer than that used with the installed base software. The module may also be an older incompatible model.
- A module that is greyed out indicates that it is not compatible with a module in that test instrument.
- Try re-installing the software for that module.

Where to go from here...

Once you have correctly installed the module, software, and online help files:

1 Select *Product Guides* from the *Help* menu on the Test Session Manager.
2 Click on the desired product User's Guide or Programmer's Guide.

Online user's guides contain:

- instructions to connect to the System Under Test (SUT), and available configuration modes
- instructions to configure the module
- operational instructions and examples
- specifications (and connector pinouts if applicable)
- an introduction to the product and features
- communications standards

All of the BSTS guides are sorted by product number in the *Product Guides* library. You can view the selected guide online or print the guide.

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Certification

Hewlett-Packard Company certifies that this product met its published specifications at the time of shipment from the factory. Hewlett-Packard further certifies that its calibration measurements are traceable to the United States National Institute of Standards and Technology (formerly National Bureau of Standards), to the extent allowed by that organization's calibration facility, and to the calibration facilities of other International Standards Organization members.

Warranty

This Hewlett-Packard (HP) product is warranted against defects in materials and workmanship for a period of three years from date of shipment. Duration and conditions of warranty from this product may be superceded when the product is integrated into (becomes part of) other HP products. During warranty period, Hewlett-Packard Company will, at its option, either repair or replace products which prove to be defective.

For warranty service or repair, this product must be returned to a service facility designated by HP. Buyer shall prepay shipping charged to HP and HP shall pay shipping taxes for products returned to HP from another country.

HP warrants that its software and firmware designated by HP for use with a product will execute its programming instructions when properly installed on that product. HP does not warrant that the operation of the product, software, or firmware will be uninterrupted or error free.

Limitation of Warranty

The foregoing warranty shall not apply to defects resulting from improper or inadequate maintenance by Buyer, Buyer-supplied products or interfacing, unauthorized modification or misuse, operation outside of the environmental specifications for the products, or improper site preparation or maintenance.

The design and implementation of any circuit on this product is the sole responsibility of the Buyer. HP does not warrant the Buyer's circuitry or malfunctions of HP products that result from the Buyer's circuitry. In addition, HP does not warrant any damage that occurs as a result of the Buyer's circuit or any other defects that result from Buyer-supplied products.

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Notice for European Community

This product complies with the requirements of the EMC Directive 89/336/EEC and of the Low Voltage Directive 73/23/EEC.

CE

Herstellerbescheinigung

Hiermit wird bescheinigt, dass dieses Gerät/System in Übereinstimmung mit den Bestimmungen von Postverfügung 1046/1984 funkenstört ist. Der Deutschen Bundespost wurde das Inverkehrbringen dieses Gerätes/Systems angezeigt und die Berechtigung zur Überprüfung der Serie auf Einhaltung der Bestimmungen eingeräumt.

Zusatzinformation für Mess- und Testgeräte

Werden Mess- und Testgeräte mit ungeschirmten Kabeln und/oder in offenen Messaufbauten verwendet, so ist vom Betreiber sicherzustellen, dass die Funk-Enstörbestimmungen unter Betriebsbedingungen an seiner Grundstücksgrenze eingehalten werden.

Manufacturer's Declaration

This is to certify that this equipment meets the radio frequency interference requirements of Directive FTZ 1046/1984. The German Bundespost has been notified that this equipment was put into circulation and has been granted the right to check the product type for compliance with these requirements.

Additional Information for Test and Measurement Equipment

If test and measurement equipment is operated with unscreened cables and/or used for measurements on open setups, the user has to ensure that under operating conditions the Radio Interference Limits are still met at the border of the user's premises.

Warnings

The following general safety precautions must be observed during all phases of operation, service, and repair of this product. Failure to comply with these precautions or with specific warnings elsewhere in this manual violates safety standards of design, manufacture, and intended use of the product. Hewlett-Packard Company assumes no liability for the customer's failure to comply with these requirements.

Ground the Equipment: For safety Class 1 equipment (equipment having a protective earth terminal), an uninterruptible safety earth ground must be provided from the mains power source to the product input wiring terminals or supplied power cable.

DO NOT operate the product in an explosive atmosphere or in the presence of flammable gasses or fumes. This product is designed for indoor use only.

DO NOT look directly into laser outputs.

DO NOT use repaired fuses or short-circuited fuseholders: For continued protection against fire, replace the line fuse(s) only with fuse(s) of the same voltage and current rating and type.

Keep away from live circuits: Operating personnel must not remove equipment covers or shields. Procedures involving the removal of covers and shields are for use by service-trained personnel only. Under certain conditions, dangerous voltages may exist even with the equipment switched off. To avoid dangerous electrical shock, DO NOT perform procedures involving cover or shield removal unless you are qualified to do so.

DO NOT operate damaged equipment: Whenever it is possible that the safety protection features built into this product have been impaired, either through physical damage, excessive moisture, or any other reason, REMOVE POWER and do not use the product until safe operation can be verified by service-trained personnel. If necessary, return the product to Hewlett-Packard Sales and Service Office for service and repair to ensure the safety features are maintained.

DO NOT substitute parts or modify equipment: Because of the danger of introducing additional hazards, do not install substitute parts or perform any unauthorized modification to the product. Return the product to a Hewlett-Packard Sales and Service Office for service and repair to ensure features are maintained.

Safety Symbols



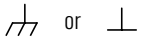
Instruction manual symbol affixed to product. Indicates that the user must refer to the manual for specific Warning or Caution information to avoid personal injury, or damage to the product.



Functional Earth Terminal: A terminal by which electrical connection is made directly to a point of a measuring or control circuit or to a screening part and which is intended to be earthed for any functional purpose other than safety.



Protective Conductor Terminal: A ground point that—for safety reasons—connects the equipment's conductive parts to an external protective earthing system.



or

Frame or chassis ground terminal—typically connects to the equipment's metal frame.



Alternating current (ac).



Direct current (dc).



Indicates hazardous voltages.



Laser radiation when turned on.



Indicates that antistatic precautions should be taken.

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Avertissement
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.

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

Restrictions d'utilisation: L' utilisateur se doit d'jobserver 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 sociéte Hewlett-Packard n'assume aucune responsabilité envers un client qui manquerait de se conformer à ces exigences.

Mise à la terre: Afin de minimiser les risques de choc électrique, le châssis et le cabinet de l' appareil doivent être mise à la terre. L' appareil est équipé d'un cordon d'alimentation muni d'une fiche homologuée à trois lames, compatible. La prise murale et la prise femelle de la rallonge électrique doivent respecter les normes de sécurité de la "Commision électrotechnique internationale" (IEC).

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. Ce produit est conçu pour l' intérieur seulement.

Ne pas regardez directement dans la sortie du laser.

Service et ajustement: Des "tensions dangereuses" résident dans cet appareil. Par conséquent, le service et l'ajustement doivent étre effectué uniquement par une personne qualifiée.

Ne pas remplacer de composants lorsque le cordon d'alimentation est sous tension. Il pourrait y avoir présence de "tension dangereuses" même lorsque l'appareil est déconnecté.

Ne pas utiliser l' appareil endomagé: Chaque fois que la sécurité intrinseque du produit est affécteé, que se soit suite à un choc, par de l' humidité excessif ou pour toute autre raison, couper le courant et ne pas utiliser l' appareil jusqu 'a ce qu 'il soit vérifier par un personnel des services competents.

Si nécéssaire, retourner le produit au service après veute Hewlett-Packard pour réparation afin de s'assurer de la sécurité et du bon fonctionnement du produit.

Service non autorisé: L' installation de pièces étrangéres, ou touts moduification 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.

Symboles des sécurité



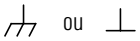
Attention (voir documents d'accompagnement).



Borne de terre fonctionnelle: Borne par laquelle un branchement électrique est effectué directement àun circuit de mesure ou de commande, ou à un organe de blindage, qui est destinée àêtre mise àla terre toute fin fonctionnelle autre que la s curité.



Borne de terre de protection: Borne qui est connectée àdes pièces conductrices d'un appareil à des fins de sécurité et qui est destinée àêtre connectée un système extérieur de mise àla terre de protection. Pour se préserver contre les choc électriques en cas de faute, toujours s'assurer que l'appareil est bien raccordé à une prise de terre en utilisant le cordon d'alimentation triconducteur.



Borne de masse, châssis.



Courant alternatif.

Courant continu.



Risque de choc électriques.



Radiation de laser si active.



Signale que des précautions antistatique doivent être prises.

WARNING
Attire l' attention sur une procédure, une pratique, ou des conditions qui peuvent entraîner des blessures corporelles ou la mort.

CAUTION
Attire l'attention sur une procédure, une pratique, ou des conditions qui peuvent endommager l'é quipement.

Product Support

Call your local HP representative or:
Telephone: 1-800-661-3868 (In North America)
Fax: 403-430-2601
Telephone: 403-430-2770 (Outside North America)
Email: support@idacom.hp.com

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