

ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

Artisan Technology Group
(217) 352-9330 | sales@artisantg.com | artisantg.com

Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

Custom engineering
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

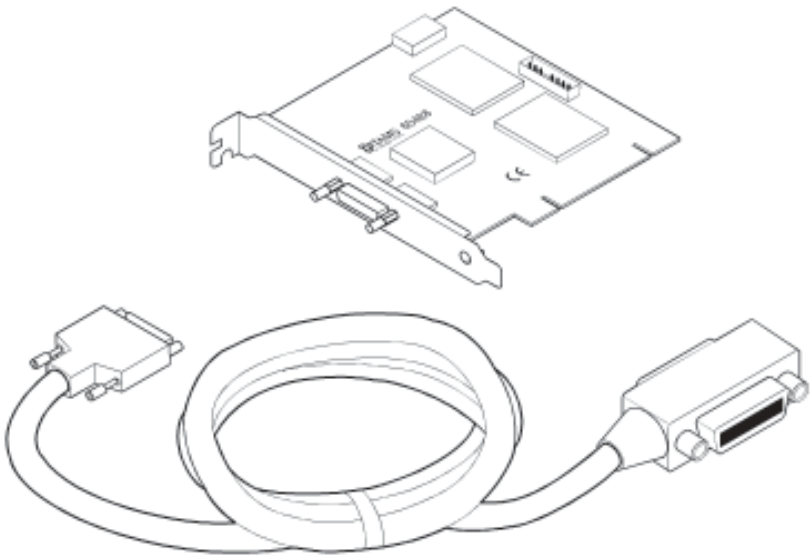
Expert team | Trust guarantee | 100% satisfaction

All trademarks, brand names, and brands appearing herein are the property of their respective owners.

Find the *TAMS 60488* at our website: ***Click HERE***

TAMS
Test & Measurement Systems Inc.

TAMS 60488
HP-IB Card for Windows



Installation & Operation

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

TAMS 60488 HP-IB Interface
Installation & Operation

Test & Measurement Systems Inc.
750 14th Street SW
Loveland, Colorado 80537
USA

Telephone (970) 669 6553
Fax (970) 669 3090
Web Site www.tamsinc.com

Copyright © Test & Measurement Systems Inc. 1997 - 2003

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Contents

Introduction 4

Unpacking Your Product 5

Hardware Warranty 6

Handling Interfaces – Some Words of Caution 7

Installing the HP-IB Interface 8

Connecting the Cables 9

Before You Continue 10

Installing the Software on Windows NT 4.0 10

Installing the Software on Windows 2000 11

Installing the Software on Windows XP 13

Configuring the Card in Windows NT 4.0/2000/XP 17

Selecting Other Parameters 20

Using the Interface with HP or TransEra BASIC 22

Using the Interface with HP VEE 22

Appendix A: Software License Agreement 23

Warranty Information 25

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Introduction

The TAMS 60488 HP-IB Interface is intended to add IEEE-488 capabilities to any computer with a PCI bus.

The TAMS card takes full advantage of the PCI bus performance and delivers the highest possible level of throughput.

The TAMS 60488 Interface supports both the 3.3v and 5v PCI specifications as a universal card.

Thanks to HP's software architecture and the design of the TAMS driver, once the driver is loaded (which is done once at installation) the TAMS card can be used in any application without requiring more computer overhead or any changes to code developed for HP's HP-IB cards.

Whether you are using HP-VEE, BASIC for Windows, or programming in C with the SICL library, your code will now run at full performance without modification.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Unpacking Your Product

When you open your TAMS 60488 HP-IB Card shipment, examine its contents. Do not remove the HP-IB card from its protective bag yet. Make sure your shipment contains the following items.

488-66501	60488 HP-IB Card
60488-90006	Installation & Operation Instructions for Windows
4001	Product Registration Card
60488-0100	Driver CD

Please complete the Registration card and return it to TAMS.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Hardware Warranty

All TAMS products use the highest quality components and are assembled to the highest specifications. Should a defect exist, or a failure occur, we apologize. Any defective unit will be repaired or replaced immediately.

Please follow the instructions below for service response.

- In the US please return it to TAMS. Please call or Fax for return instructions.
- Internationally, please contact the local distributor for return instructions.

Any customer may contact TAMS, or return products directly to TAMS, but for customers outside the US, this may cause a delay, which could be avoided by working with the local distributor.

The complete hardware warranty information is on the inside of the back cover.

For software warranty information see the Software License in Appendix A.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Handling Interfaces- Some Words of Caution

You should note the following guidelines to avoid equipment damage when handling any interface cards.

- Make sure the computer's power is turned OFF and the power cord is removed from the AC power outlet, before removing or installing interfaces.

Caution Plugging or unplugging an interface with the power on can damage the interface and the computer.

- Most interfaces contain components that are sensitive to damage from electrostatic discharge. Use protective measures including anti-static workstation and personal grounding devices, if possible. When installing an interface, do not leave the interface exposed longer than necessary.

Caution Whenever you remove, install, or handle an interface, hold it by its support bracket and side edges only. Do not touch its electrical components or traces.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Installing the HP-IB Interface

Refer to the Owner's Guide of your computer for instructions on opening your computer and installing PCI boards.

Follow the instructions being careful to handle the interface board only by its edges. After the board has been plugged in and the retaining screw installed the computer should be reassembled.

Depending on the computer, it may be advisable to connect the small Cannon connector of the required HP-IB cable to the interface card prior to fully seating the PCI board. Reassemble the computer. Ensure that the thumbscrews and the small connector are tight for a good connection.



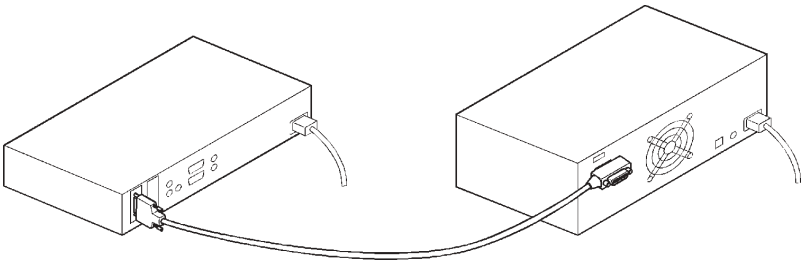
HP-IB cable required with TAMS60488

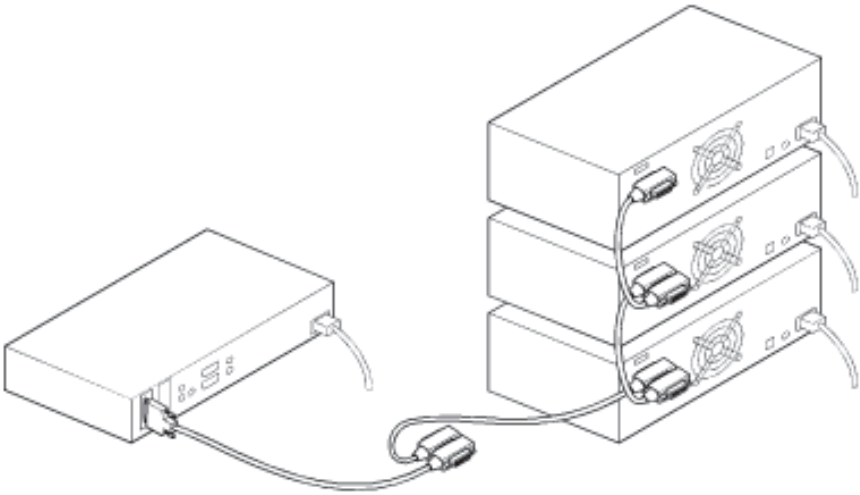
Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Connecting the HP-IB Cable

The IEEE 488 specification is for a daisy chain configuration, and so the standard connector on the cable supplied can be attached directly to any HP-IB device or to any device in a chain of HP-IB devices.

The following illustrations show correct connections.





Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Before You Continue

You are now ready to install the software that came with the HP-IB card. You will need to be logged in as a user with administrative privileges in order to install the driver software.

Note: Before installation of the drivers for the TAMS HP-IB card, the HP/Agilent I/O Libraries software must be already installed on your system.

Installing the Software on Windows NT 4.0

After booting and logging in to Windows NT 4.0, insert the TAMS 60488 Drivers CD. If the SICL libraries were installed in a directory other than the one chosen by default, make sure that you know their location, as you may need this information when you run the Setup utility.

Run the setup.exe utility from the drivers CD that is found in the directory that corresponds to Windows NT 4.0. This can be done by double-clicking on the setup.exe file on the CD, or by accessing the add/remove programs utility from the Control Panel.

Follow the directions in this utility, making sure that the location of the SICL libraries is correct. Reboot your system when directed to do so. The card will not be ready for use until it has been configured.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Installing the Software on Windows 2000

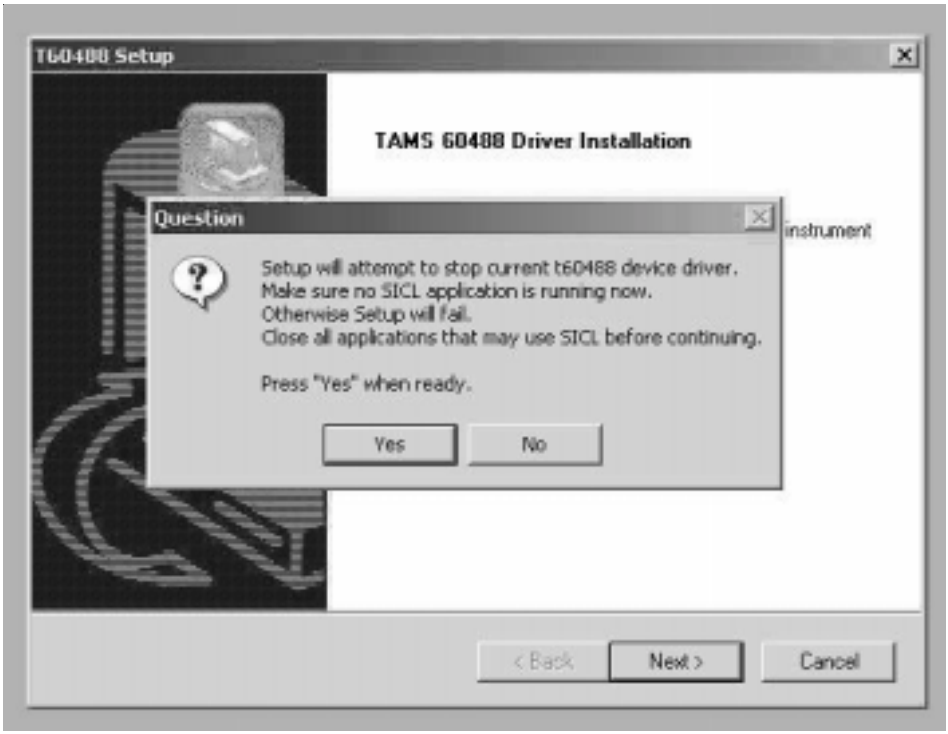
After installing the card and booting for the first time the Windows 2000 plug and play manager will detect the new hardware (TAMS HP-IB card), the screen looks like this:



Click on cancel.

Now go to your floppy or CD that came with the card and look for the file setup.exe that corresponds to Windows 2000. Execute it and follow the instructions on the screen.

You may or may not get the following message:



Click on Yes and/or Next and continue with the instructions on the screen.

Finally the installation program will ask you to reboot your PC. Please go ahead and do so.

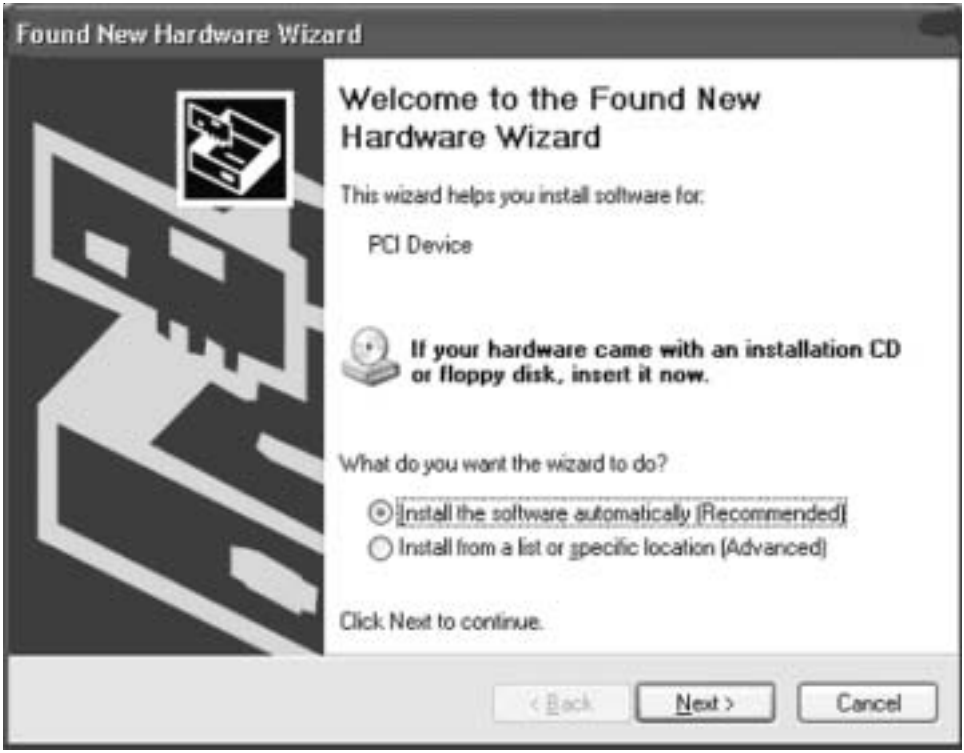
After reboot your TAMS 60488 HP-IB card should be ready to be configured. Now, please follow the instructions in next section titled:

Configuring the Card for Windows NT4.0/2000/XP.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Installing the Software on Windows XP

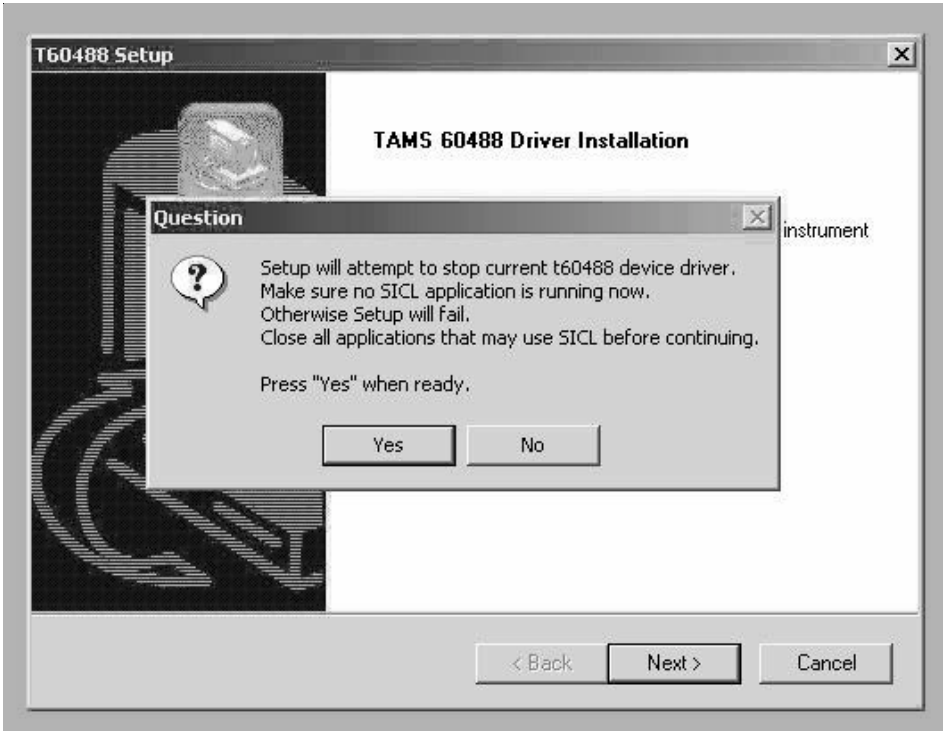
After installing the card and booting for the first time the Windows XP plug and play manager will detect the new hardware (TAMS HP-IB card), the screen looks like this:



Click on Cancel

Now go to your floppy or CD that came with the card and look for the file setup.exe that corresponds to Windows XP. Execute it and follow the instructions on the screen.

You may or may not get the following message:



Click on Yes and/or Next and continue with the instructions on the screen.

Finally the installation program will ask you to reboot your PC. Please go ahead and do so.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

After rebooting you will be prompted with the following screen:



Click on Next

Finally you will get a screen that looks like this:



Click on Finish.

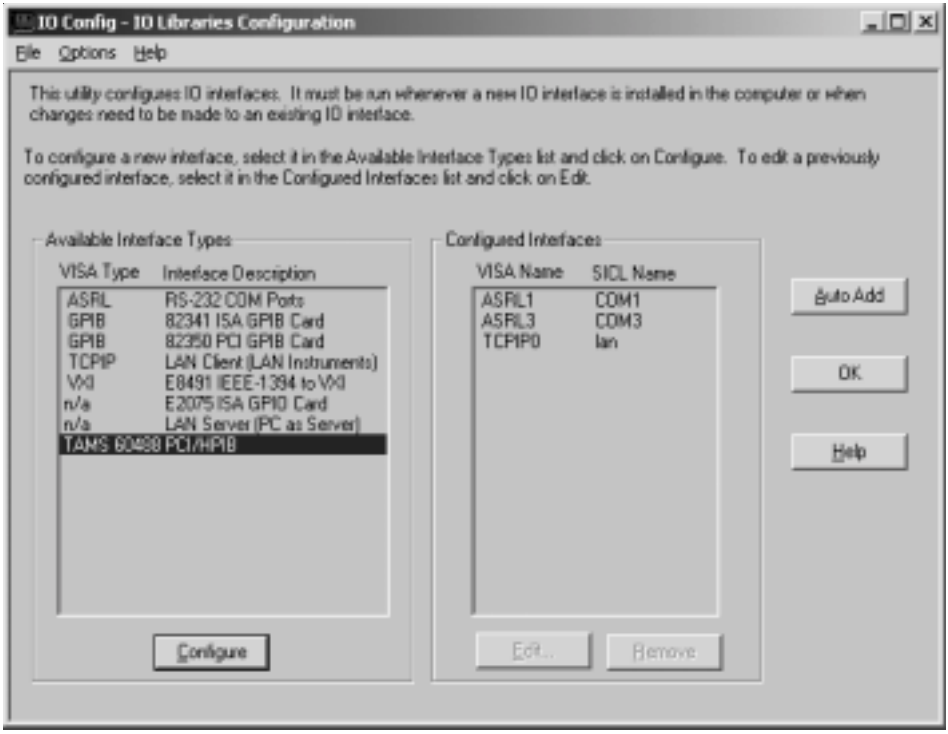
After this your TAMS 60488 HP-IB card should be ready to be configured. Please follow the instructions in the next section.

Configuring the Card for Windows NT4.0/2000/XP

Configure the interface by executing the IO Config program, which will now be located in the SICL/bin subdirectory. You should also have a shortcut under Start-> Programs-> Agilent IO Libraries

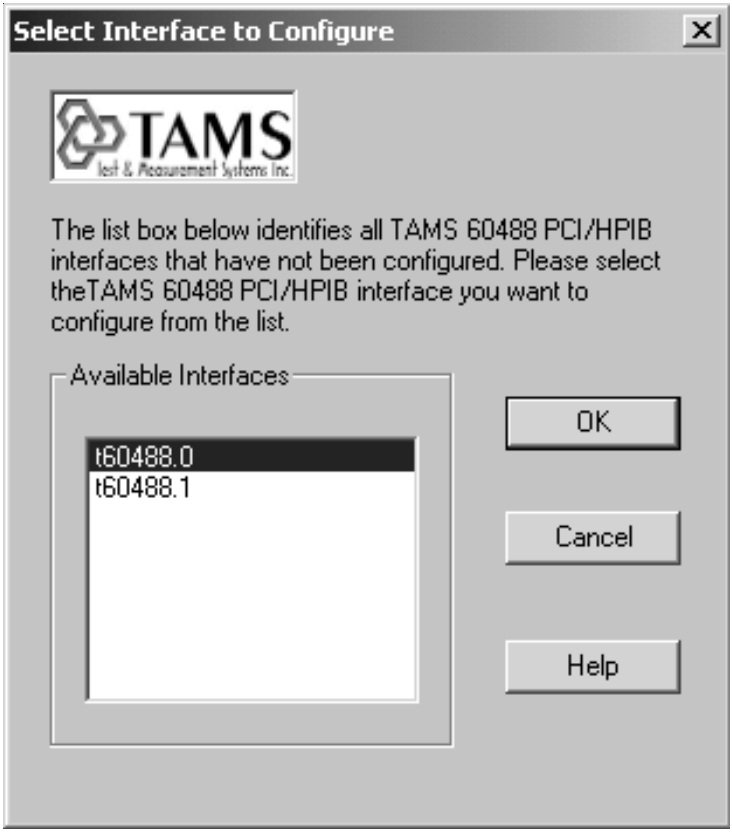
Note: If the Agilent IO Libraries were installed using the default values the SICL\bin subdirectory will be found here:
Window NT: C:\SICLNT\bin or C:\SICL\bin\
Windows 2000/XP: C:\Program Files\Agilent\IO Libraries\bin\

Upon execution, the IO Config program will present a window like this:



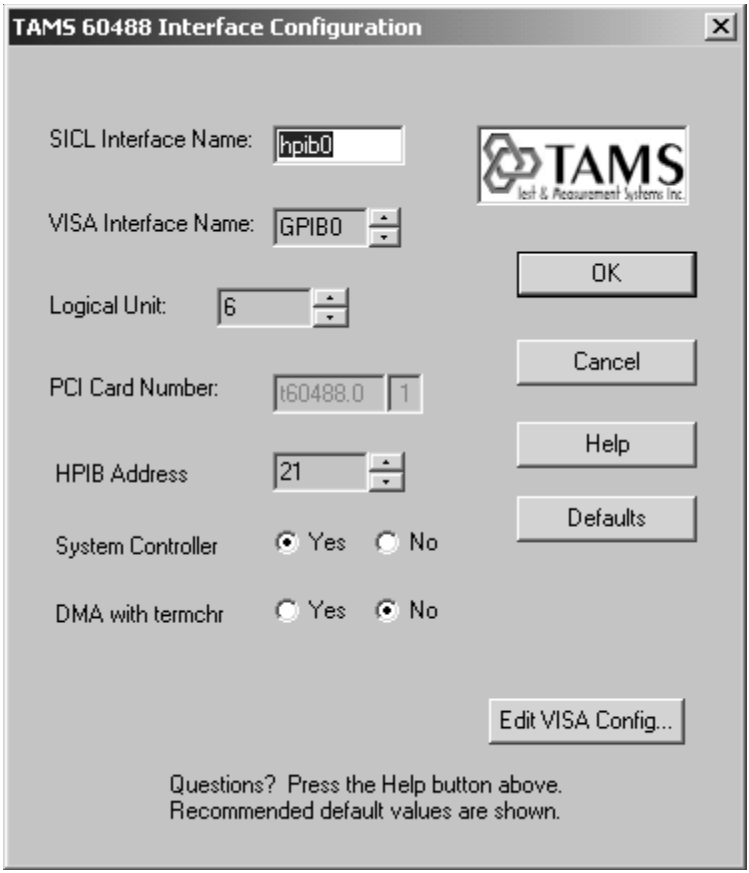
Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

To configure your 60488 interface, please highlight the TAMS 60488 PCI/HPIB entry under Available Interface Types and double click on it or click on Configure. If you have more than one card in your system the following window will appear (if you have one card only please continue to the next step):



Select the 60488 card you wish to configure (if you have one card only, you will not need to select any card, the system will do it automatically for you). Click on OK. Now the following window will appear:

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



In this window you will select all of the configurable parameters for the card. Typically you may want to modify the Logical Unit number, and possibly the SICL Interface Name. It has been customary to assign the Logical Unit number 7 to the first HP-IB interface in a system, but this is optional.

Note: The entry named “PCI Card Number” in NOT the PCI slot. This number will be chosen by the driver and can not be changed. If you have more than one 60488 interface installed, the card in the lowest numbered PCI slot would be t60488.01, the second 60488 interface would be t60488.12, etc.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Selecting Other Parameters:

The HPIB Address, which by default is set to 21, is the bus address you wish the interface to have at system power up.

System Controller should typically be left as yes, unless this interface will be controlled by another System Controller attached to the same bus.

DMA with termchr refers to a DMA performance enhancement feature provided by the controlling IC that is part of this interface.

This feature typically provides faster DMA throughput because the chip itself can be instructed to cause and EOI signal when the programmed termchr appears on the data lines.

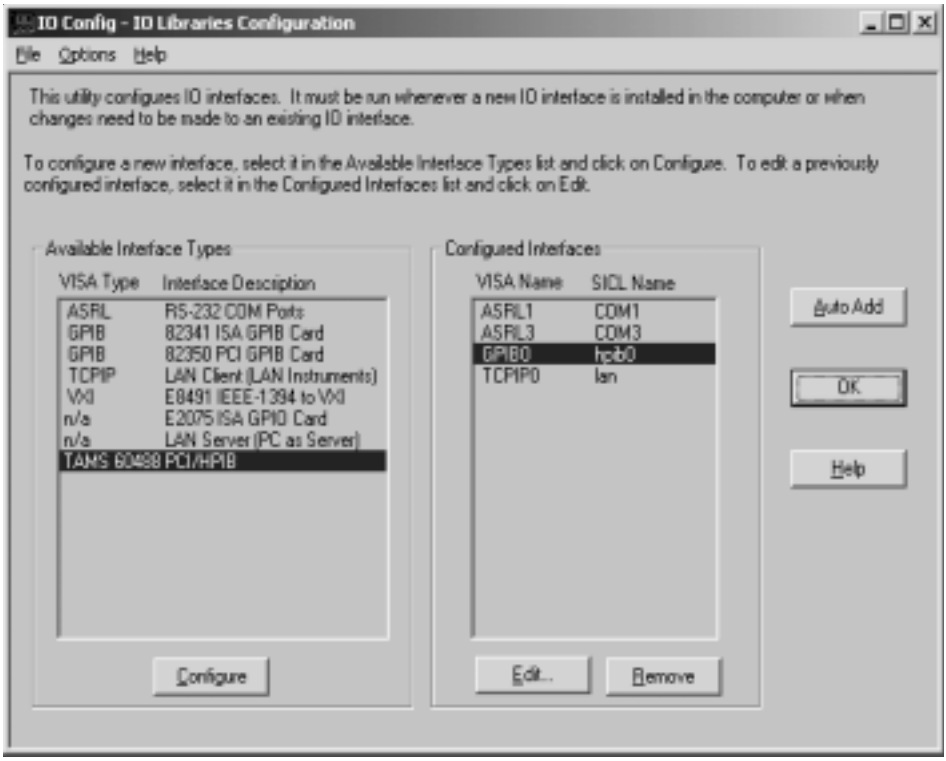
We suggest you leave this as yes, for speed. This feature can be turned off if necessary.

The rare case where this is necessary is where the application program would generate an error because it is expecting the terminating character and cannot respond to EOI.

Additional information on these functions is provided through the HELP button.

When you are finished setting the configurable parameter, click OK. You will then see your interface listed on the screen, such as:

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



Now, click OK. You will get a window like this:



Please click on OK but do not reboot your system as this message is intended for ISA cards not PCI cards

Using the Interface with HP or TransEra BASIC

Load the SICL version of the GPIB/HPIB driver with your desired options, e.g.:

LOAD BIN “GPIBS;DEV hpib7 ISC 7” (for TransEra BASIC)

LOAD BIN “HPIBS;DEV hpib7 ISC 7” (for HP BASIC)

Using the Interface with HP VEE

Configure at least one instrument, using the Logical Unit number assigned to the TAMS 60488 card as the prefix, and then perform I/O as usual. The refresh button will not report that the card is present: this is normal and does not indicate malfunction.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

APPENDIX A

Software License Agreement

Please carefully read this License Agreement before installing the software. Rights in the software are offered only on the condition that the Customer agrees to all terms and conditions of the License Agreement. If you do not agree to the terms of the License Agreement, you may return the unopened software package and the hardware for a full refund.

In return for the payment of fee TAMS grants the Customer a license to use the software, until terminated subject to the following

Customer may use the software on any one computer.
Customer may not reverse assemble or decompile the software.
Customer may make copies for archival purposes.
Customer has no other rights to copy.
All copies of the software must bear the copyright notice(s) contained on the original.

OWNERSHIP: Customer agrees that they do not have any title or ownership of the software, other than ownership of the physical media. Customer acknowledges and agrees that the software is copyrighted and protected under the copyright laws.

Customer Acknowledges and agrees that the software may have been developed by a third party software supplier named in the copyright notice(s) included with the software, who shall be authorized to hold Customer responsible for any copyright infringement or violation of this License Agreement.

TRANSFER OF RIGHTS IN SOFTWARE: Customer may transfer rights in the software to a third party only as part of the transfer of all their rights and only if Customer obtains the prior agreement of the third party to be bound buy the terms of this License Agreement.

Upon such transfer, Customer agrees that their rights in the software are terminated and that they will either destroy their copies and adaptations or they will deliver them to the third party.

Transfer to a US government department or agency or to a prime or lower tier contractor in connection with a US government contract shall be made only upon their prior written agreement to terms required by TAMS.

SUBLICENSING AND DISTRIBUTION: Customer may not subliscence the software or distribute copies or adaptations of the software to the public in physical media or by telecommunications without the prior written consent of TAMS

TERMINATION: TAMS May terminate this software license for failure to comply with any of these terms provided TAMS has requested Customer to cure the failure and Customer has failed to do so within thirty (30) days of such notice.

UPDATES AND UPGRADES: Customer agrees that the software does not include updates and upgrades which may be available from TAMS under a separate support agreement.

EXPORT CLAUSE: Customer agrees not to export or re-export the software or any copy or adaptation in violation of the US Export Administration regulations or other applicable regulations.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

LIMITED WARRANTY

TAMS warrants for a period of 90 days from the date of purchase that the software product will execute it's programming instructions when properly installed on the computer or workstation with a supported version of the Operating System. TAMS does not warrant that the operation of the software will be uninterrupted or error free. In the event that this software product fails to execute it's programming instructions during this warranty period , Customer's remedy shall be to return the CD media to TAMS for replacement. Should TAMS be unable to replace the media within a reasonable amount of time, Customer's alternate remedy shall be a refund of the purchase price upon return of the entire product and all copies.

TAMS warrants the media upon which the product is recorded top be free from defects in materials and workmanship under normal use for a period of 90 days from the date of purchase. In the event any media prove to be defective during the warranty period, Customer's remedy shall be to return the media to TAMS for replacement. Should Tams be unable to replace the media within a reasonable amount of time, Customer's alternate remedy shall be a refund of the purchase price upon return of the entire product and all copies.

NOTICE OF WARRANTY CLAIMS Customer must notify TAMS in writing of any warranty claim within the warranty period.

LIMITATION OF WARRANTY: TAMS makes no other express warranty, whether written or oral , with respect to this product. Any implied warranty of merchantability or fitness is limited to the 90-day duration of this written warranty. Some sates or provinces do not allow limitations on how long an implied warranty lasts, so the above limitation or exclusion may not apply to you.

This warranty gives specific legal rights, and you may also have other rights which vary from state to state, province to province or country to country.

EXCLUSIVE REMEDIES : The remedies provided above are Customer's sole and exclusive remedies. In no event shall TAMS be liable for any direct, indirect special, incidental, or consequential damages (including lost profit) whether based on warranty, contract, tort or any other legal theory. Some states provinces or countries do not allow the exclusion or limitation of incidental or consequential damages, so the limitation or exclusion may not apply to you.

WARRANTY SERVICE: Warranty service may be obtained directly from TAMS or from any of it's Distributors.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Warranty Information

ONE YEAR LIMITED WARRANTY

Test & Measurement Systems, Inc. warrants to the purchaser that the Interface card will be free of all defects in material and/or workmanship for one year from the date of shipment to the customer.

In the event of malfunction or failure attributable directly to faulty material and/or workmanship, TAMS will at it's option, repair or replace the defective product or components, to whatever extent it shall deem necessary to restore the product or component, to proper operating condition. TAMS may at its option repair or replace, a defective unit with a new or refurbished unit.

The customer shall be solely responsible for the failure of any TAMS product, resulting from accident abuse, or misapplication of the product, and TAMS assumes no liability as a consequence of such events under the terms of this warranty.

While TAMS has made every effort to provide clear and accurate technical information about the application of this product, TAMS assumes no liability for any events arising out of the use of this technical information.

This Warranty gives you specific legal rights and you may also have other rights which vary from state to state, and from country to country.

This Warranty is in Lieu of all other express warranties which now or hereafter might otherwise arise with respect to this product. ANY AND ALL IMPLIED WARRANTIES OF MERCHANT ABILITY AND FITNESS FOR PARTICULAR USE, SHALL HAVE NO GREATER DURATION THAN THE PERIOD FOR THE EXPRESS WRITTEN WARRANTY APPLICABLE TO THIS PRODUCT AS SHOWN ABOVE, AND SHALL TERMINATE AUTOMATICALLY AT THE EXPIRATION OF SUCH PERIOD.

(Some states and countries do not allow limitations on how long an implied warranty lasts, so this limitation may not apply to you) No action shall be brought for breach of any implied or express warranty after one year subsequent to the expiration of the period of the express written warranty.

Incidental and consequential damages caused by malfunction, defect, or otherwise and with respect to breach of any express or implied warranty, are not the responsibility of TAMS, and to the extent permitted by law, are hereby excluded both for property and to the extent not unconscionable, for personal injury damage. (Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.)

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

TAMS 60488 HP-IB Card for
Windows NT 4.0/2000/XP
Printed in USA E3.1.03
Part #60488-90006

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

Artisan Scientific Corporation dba Artisan Technology Group is not an affiliate, representative, or authorized distributor for any manufacturer listed herein.

We're here to make your life easier. How can we help you today?

(217) 352-9330 | sales@artisantg.com | artisantg.com

ARTISAN® TECHNOLOGY GROUP