Help Note

Publication Number 10472-92001
December 2000

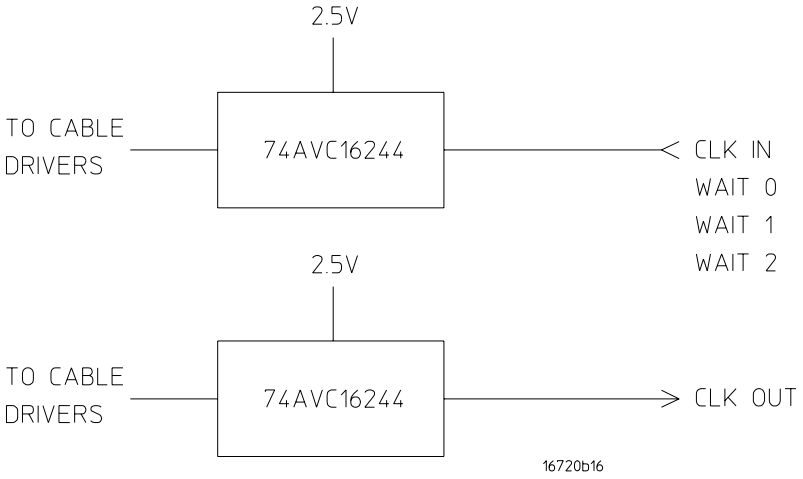
Selecting the Correct Probe Pod

Selecting the Correct Probe Pod

The following equivalent circuit information is provided to help you select the appropriate clock and data pods for your application.

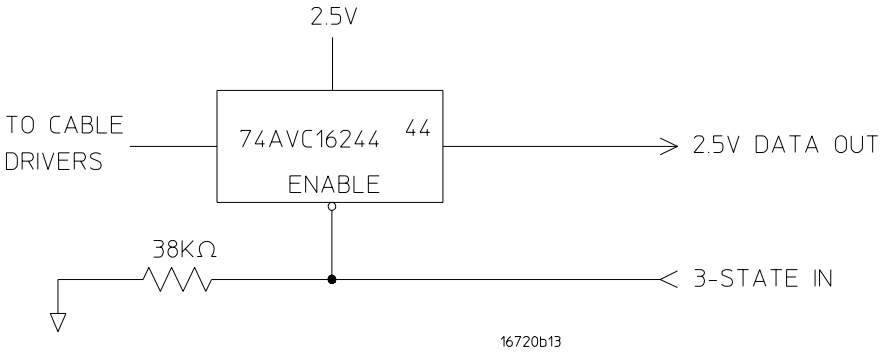
NOTE: For more information about probe pods see the online help system provided with your module.

10472A 2.5 V Clock Pod.



Clock output type:	74AVC16244
Clock output rate:	200 MHz maximum
Clock out delay:	approximately 8 ns total in 14 steps
Clock input type:	74AVC16244 (3.6 V maximum)
Clock input rate:	DC to 200 MHz
Pattern input rate:	74AVC16244 (3.6 V maximum; no connect=logic 0)
Clock in to clock out:	approximately 30 ns
Pattern in to recognition:	approximately 15 ns + 1 clock period
Recommended lead set:	10498A

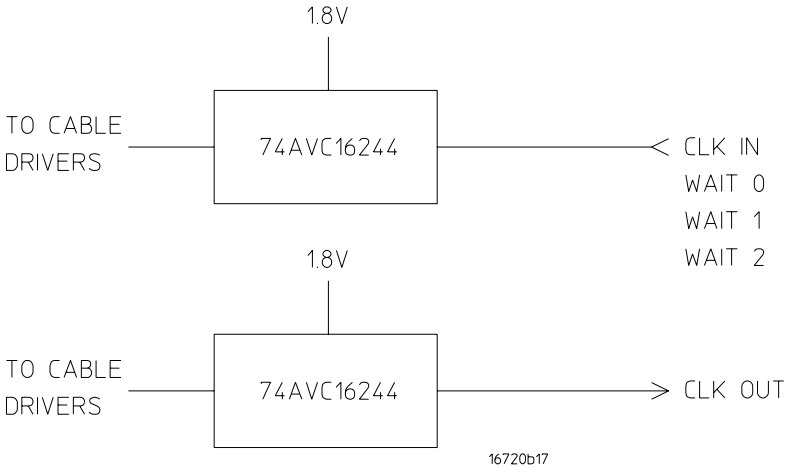
10473A 3-State 2.5 V Data Pod.



Output type:	74AVC16244
3-state enable:	negative true; no connect=enabled
Maximum clock:	300 MHz
Skew:	Typical less than 1 ns, worst case 2 ns
Recommended lead set:	10498A

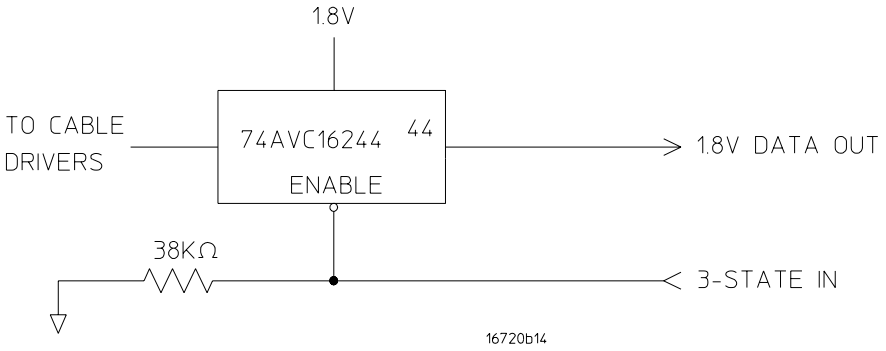
NOTE: You will notice by looking at the pod label, there are two pin 7's. One is a 3-state output and the other is not. By looping the non 3-state output back into the 3-state enable line, the channel can be used as a 3-state enable.

10475A 1.8 V Clock Pod.



Clock output type:	74AVC16244
Clock output rate:	200 MHz maximum
Clock out delay:	approximately 8 ns total in 14 steps
Clock input type:	74AVC16244 (3.6 V maximum)
Clock input rate:	DC to 200 MHz
Pattern input rate:	74AVC16244 (3.6 V maximum; no connect=logic 0)
Clock in to clock out:	approximately 30 ns
Pattern in to recognition:	approximately 15 ns + 1 clock period
Recommended lead set:	10498A

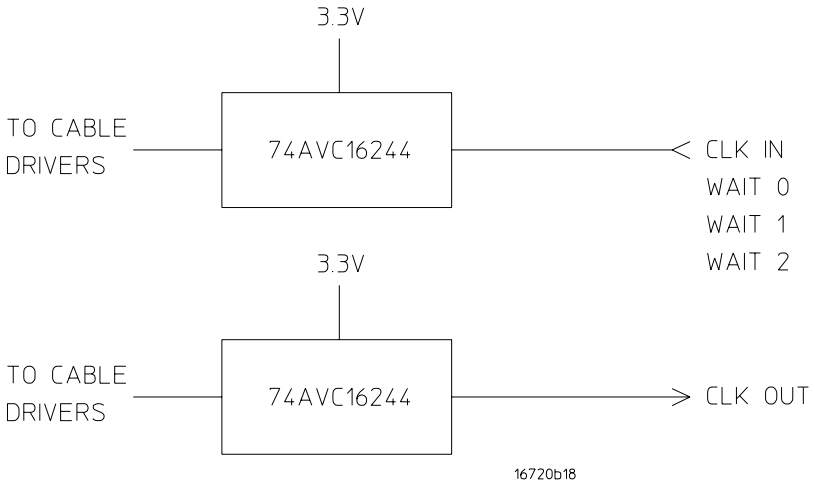
10476A 3-State 1.8 V Data Pod.



Output type:	74AVC16244
3-state enable:	negative true; no connect=enabled
Maximum clock:	300 MHz
Skew:	Typical less than 1.5 ns, worst case 2.5 ns
Recommended lead set:	10498A

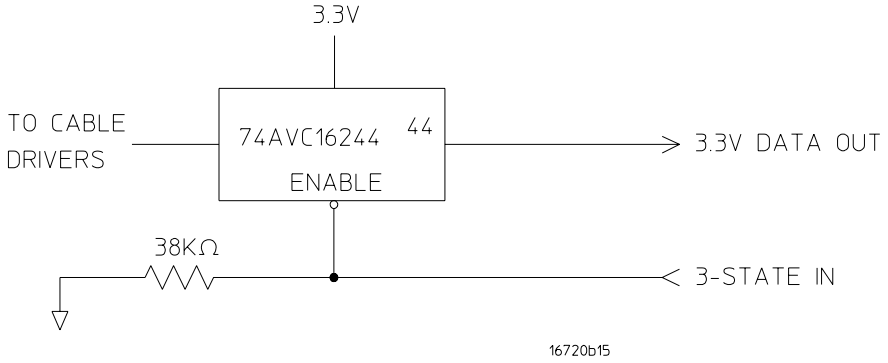
NOTE: You will notice by looking at the pod label, there are two pin 7's. One is a 3-state output and the other is not. By looping the non 3-state output back into the 3-state enable line, the channel can be used as a 3-state enable.

10477A 3.3 V Clock Pod.



Clock output type:	74AVC16244
Clock output rate:	200 MHz maximum
Clock out delay:	approximately 8 ns total in 14 steps
Clock input type:	74AVC16244 (3.6 V maximum)
Clock input rate:	DC to 200 MHz
Pattern input rate:	74AVC16244 (3.6 V maximum; no connect=logic 0)
Clock in to clock out:	approximately 30 ns
Pattern in to recognition:	approximately 15 ns + 1 clock period
Recommended lead set:	10498A

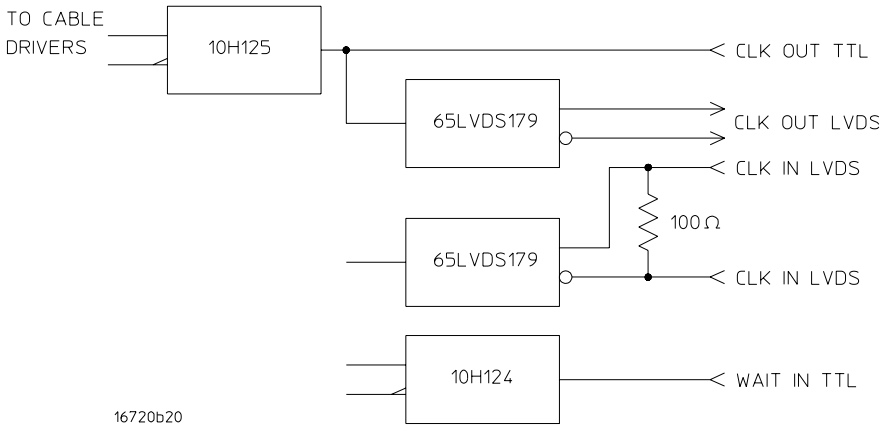
10483A 3-State 3.3 V Data Pod.



Output type:	74AVC16244
3-state enable:	negative true; no connect=enabled
Maximum clock:	300 MHz
Skew:	Typical less than 1 ns, worst case 2 ns
Recommended lead set:	10498A

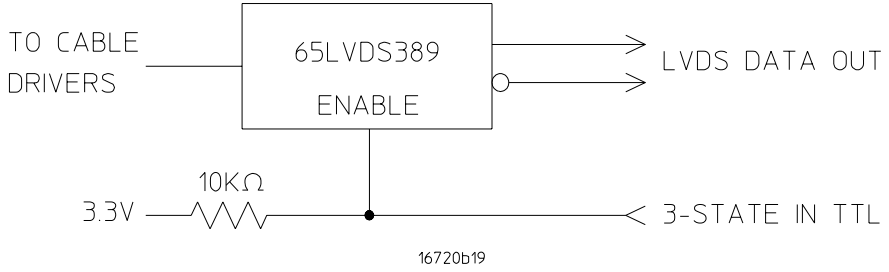
NOTE: You will notice by looking at the pod label, there are two pin 7's. One is a 3-state output and the other is not. By looping the non 3-state output back into the 3-state enable line, the channel can be used as a 3-state enable.

E8140A LVDS Clock Pod.



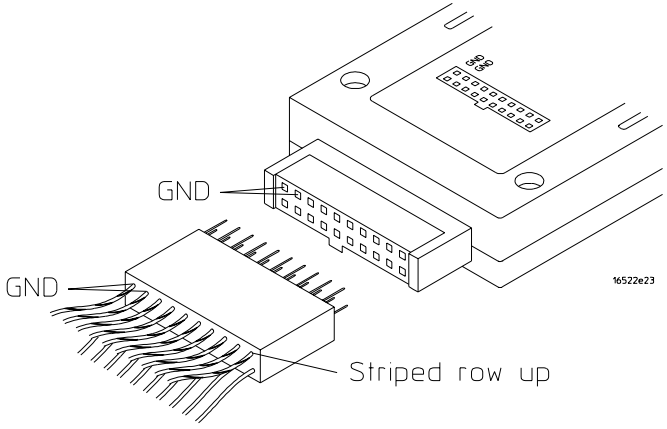
Clock output type:	65LVDS179 (LVDS) and 10H125 (TTL)
Clock output rate:	200 MHz maximum (LVDS and TTL)
Clock out delay:	approximately 8 ns total in 14 steps
Clock input type:	65LVDS179 (LVDS with 100 ohm)
Clock input rate:	DC to 150 MHz (LVDS)
Pattern input rate:	10H124 (TTL) (no connect=logic 1)
Clock in to clock out:	approximately 30 ns
Pattern in to recognition:	approximately 15 ns + 1 clock period
Recommended lead set:	10498A

E8141A LVDS Data Pod.



Output type:	65LVDS389 (LVDS data lines) 10H125 (TTL non-3-state channel 7)
3-state enable:	positive true TTL; no connect=enabled
Maximum clock:	300 MHz
Skew:	Typical less than 1 ns, worst case 2 ns
Recommended lead set:	E8142A

NOTE: You will notice by looking at the pod label, there are two pin 7's. One is a 3-state output and the other is not. By looping the non 3-state output back into the 3-state enable line, the channel can be used as a 3-state enable..



NOTE: The LVDS Data Pod must be connected to the leads in such a way that the striped row of cables faces up.

Restricted Rights Legend

Use, duplication, or disclosure by the U.S. Government is subject to restrictions as set forth in subparagraph (C) (1) (ii) of the Rights in Technical Data and Computer Software Clause at DFARS 252.227-7013.

Agilent Technologies Inc.
3000 Hanover Street
Palo Alto, California 94304
U.S.A.

Rights for non-DOD U.S. Government Departments and Agencies are set forth in FAR 52.227-19(c) (1,2).

Document Warranty

The information contained in this document is subject to change without notice.

Agilent Technologies Inc. makes no warranty of any kind with regard to this material, including, but not limited to, the implied warranties of merchantability or fitness for a particular purpose. Agilent Technologies Inc. shall not be liable for errors contained herein or for damages in connection with the furnishings, performance, or use of this material.

Safety

This apparatus has been designed and tested in accordance with IEC Publication 348, Safety Requirements for Measuring Apparatus, and has been supplied in a safe condition. This is a Safety Class I instrument (provided with terminal for protective earthing). Before applying power, verify that the correct safety precautions are taken (see the following warnings). In addition, note the external markings on the instrument that are described under "Safety Symbols."

Warning

- Service instructions are for trained service personnel. To avoid dangerous electric shock, do not perform any service unless qualified to do so. Do not attempt internal service or adjustment unless another person, capable of rendering first aid and resuscitation, is present.
- Whenever it is likely that the ground protection is impaired, you must make the instrument inoperative and secure it against any unintended operation.
- Do not operate the instrument in the presence of flammable gasses or fumes. Operation of any electrical instrument in such an environment constitutes a definite safety hazard.
- Do not install substitute parts or perform any unauthorized modification to the instrument.

Safety Symbols

Instruction manual symbol: the product is marked with this symbol when it is necessary for you to refer to the instruction manual in order to protect against damage to the product

Hazardous voltage symbol
.

Earth terminal symbol: Used to indicate a circuit common connected to grounded chassis.

WARNING

The Warning sign denotes a hazard. It calls attention to a procedure, practice, or the like, which, if not correctly performed or adhered to, could result in personal injury. Do not proceed beyond a Warning sign until the indicated conditions are fully understood and met.

CAUTION

The Caution sign denotes a hazard. It calls attention to an operating procedure, practice, or the like, which, if not correctly performed or adhered to, could result in damage to or destruction of part or all of the product. Do not proceed beyond a Caution symbol until the indicated conditions are fully understood or met.

Agilent Technologies Inc.
P.O. Box 2197
1900 Garden of the Gods Road
Colorado Springs, CO 80901-2197, U.S.A.

Product Warranty

This Agilent Technologies Inc. system product is warranted against defects in material and workmanship for a period of one year from date of purchase. During the warranty period, Agilent Technologies Inc. will, at its option, either repair or replace products that prove to be defective.

Products must be returned to a service facility designated by Agilent.

For products returned to Agilent Technologies Inc. for warranty service, the Buyer shall prepay shipping charges to Agilent Technologies Inc. and Agilent Technologies Inc. shall pay shipping charges to return the product to the Buyer. However, the Buyer shall pay all shipping charges, duties, and taxes for products returned to Agilent Technologies Inc. from another country.

Agilent Technologies Inc. warrants that its software and firmware designated by Agilent Technologies Inc. for use with an instrument will execute its programming instructions when properly installed on that instrument. Agilent Technologies Inc. does not warrant that the operation of the instrument 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 the Buyer, Buyer-supplied software or interfacing, unauthorized modification or misuse, operation outside of the environmental specifications for the product, or improper site preparation or maintenance.

No other warranty is expressed or implied. Agilent Technologies Inc. specifically disclaims the implied warranties of merchantability or fitness for a particular purpose.

Exclusive Remedies

The remedies provided herein are the buyer's sole and exclusive remedies. Agilent Technologies Inc. shall not be liable for any direct, indirect, special, incidental, or consequential damages, whether based on contract, tort, or any other legal theory.

Assistance

Product maintenance agreements and other customer assistance agreements are available for Agilent Technologies Inc. products.

For any assistance, contact your nearest Agilent Technologies Inc. Sales Office.

Certification

Agilent Technologies Inc. certifies that this product met its published specifications at the time of shipment from the factory. Agilent Technologies Inc. further certifies that its calibration measurements are traceable to the United States National Institute of Standards and Technology, to the extent allowed by the Institute's calibration facility, and to the calibration facilities of other International Standards Organization members.

About this edition

This is *Agilent Selecting the Correct Probe Pod Help Note*

Publication number
10472-92001, December 2000

Print History as follows:
10472-92000, October 2000
Printed in USA.

New editions are complete revisions of the manual. Many product updates do not require manual changes and manual corrections may done without accompanying product changes. Therefore, do not expect a one-to-one correspondence between product updates and manual updates.

Agilent Part Number 10472-92001